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WATER YEAR 2018

VOLUME 61

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OFFICE OF WATER MANAGEMENT AND HYDROLOGY

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Thailand

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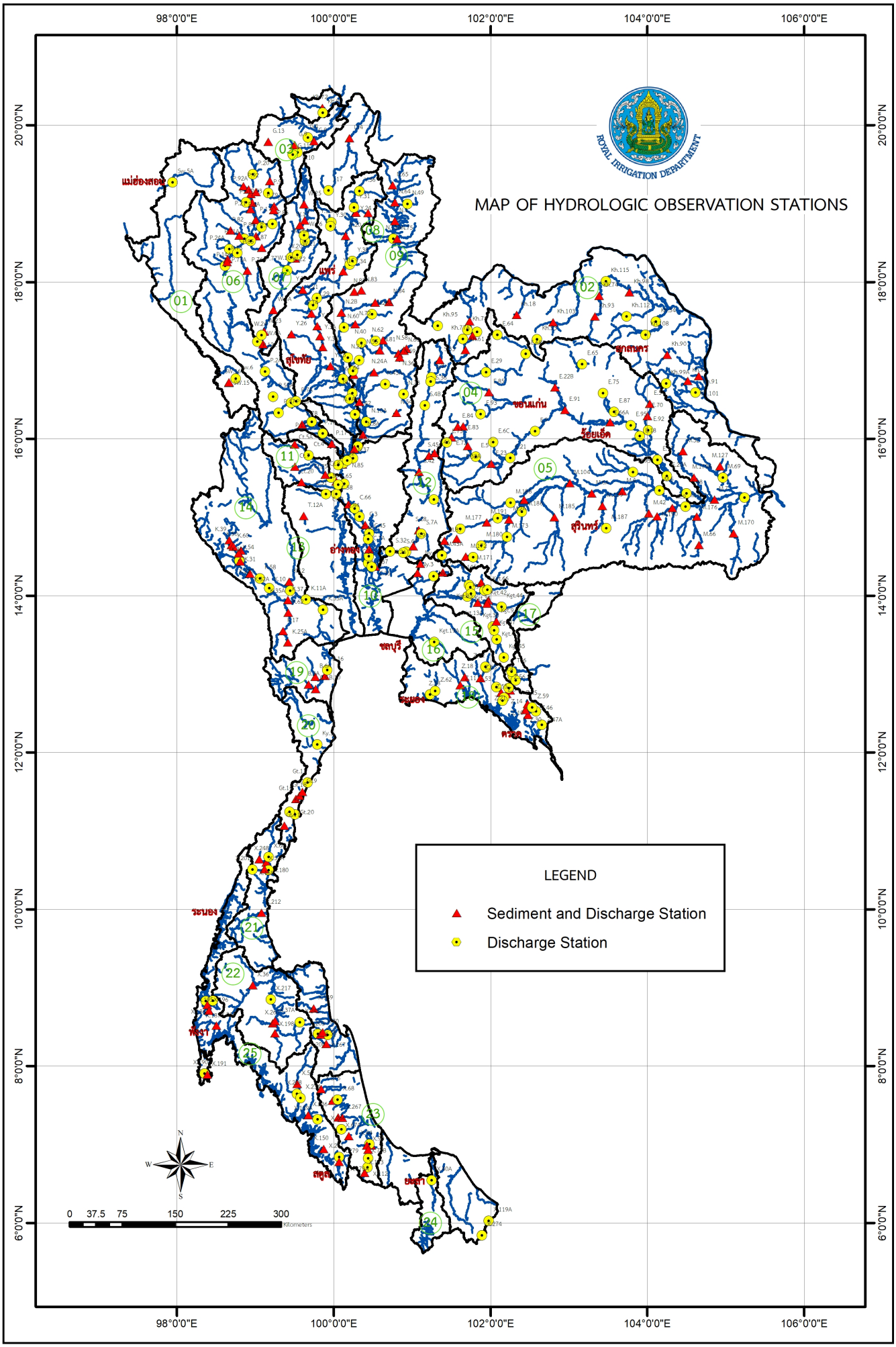
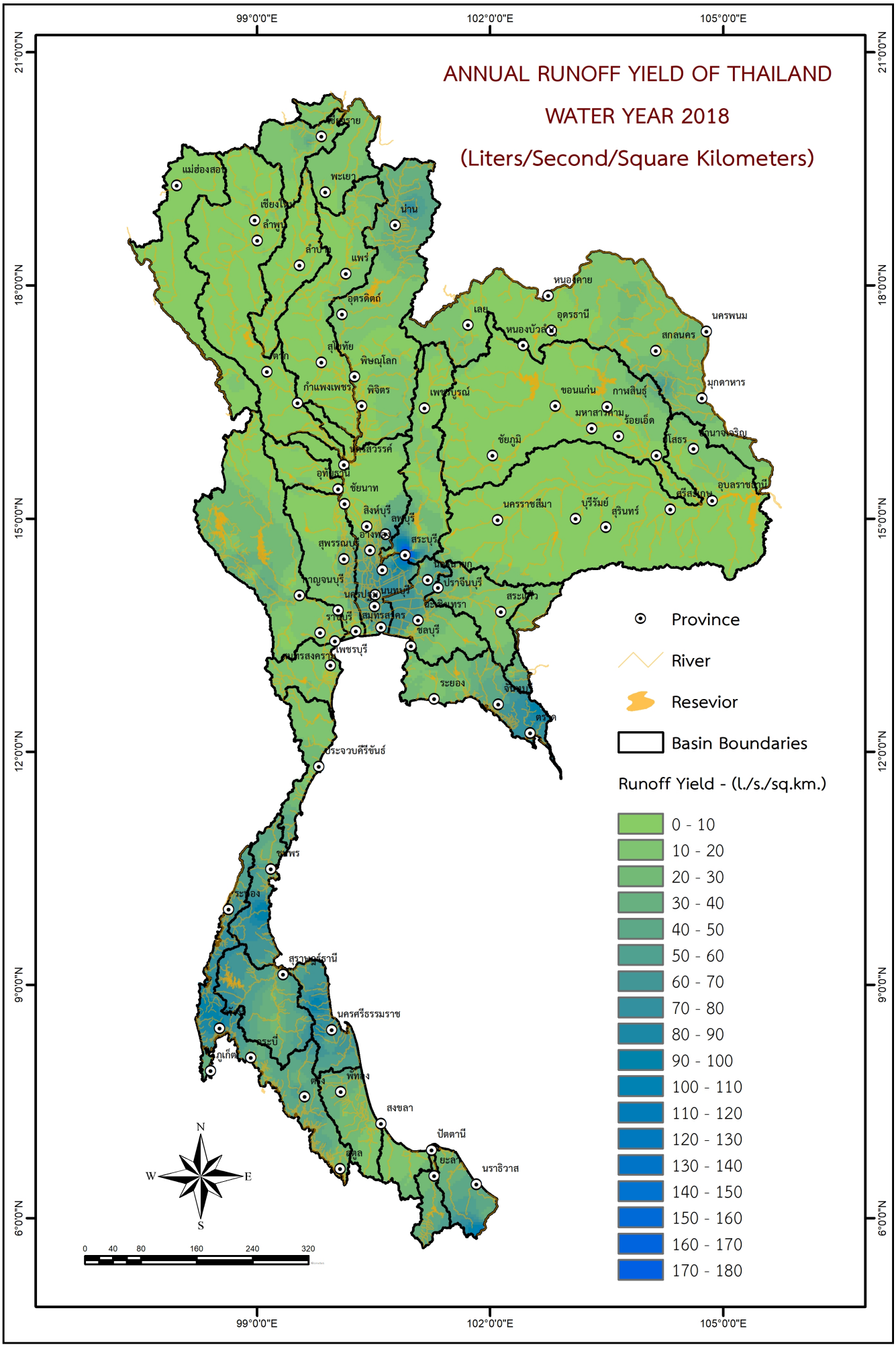

MAP OF HYDROLOGIC OBSERVATION STATIONS
ROYAL IRRIGATION DEPARTMENT
LEGEND
Sediment and Discharge Station
Discharge Station
98°0'0"E
100°0'0"E
102°0'0"E
104°0'0"E
106°0'0"E
20°0'0"N
18°0'0"N
16°0'0"N
14°0'0"N
12°0'0"N
10°0'0"N
8°0'0"N
6°0'0"N
แม่ฮ่องสอน
แพร่
สุโขทัย
อุบลราชธานี
ขอนแก่น
ชัยภูมิ
สุรินทร์
อ่างทอง
ชลบุรี
ระยอง
ตราด
ระนอง
พังงา
สตูล
ยะลา
0 37.5 75 150 225 300
Kilometers


ANNUAL RUNOFF YIELD OF THAILAND
WATER YEAR 2018
(Liters/Second/Square Kilometers)
99°0'0"E
102°0'0"E
105°0'0"E
21°0'0"N
18°0'0"N
15°0'0"N
12°0'0"N
9°0'0"N
6°0'0"N
แม่ฮ่องสอน
เชียงใหม่
ลำพูน
ลำปาง
พะเยา
น่าน
แพร่
อุตรดิตถ์
เชียงราย
ตาก
สุโขทัย
พิษณุโลก
กำแพงเพชร
พิจิตร
เพชรบูรณ์
หนองคาย
เลย
อุดรธานี
หนองบัวลำภู
นครพนม
สกลนคร
มุกดาหาร
ขอนแก่น
กาฬสินธุ์
มหาสารคาม
ร้อยเอ็ด
ชัยภูมิ
ยโสธร
อุบลราชธานี
ศรีสะเกษ
นครราชสีมา
บุรีรัมย์
สุรินทร์
นครสวรรค์
อุทัยธานี
ชัยนาท
สิงห์บุรี
ลพบุรี
อ่างทอง
สระบุรี
สุพรรณบุรี
กาญจนบุรี
ปราจีนบุรี
สระแก้ว
ราชบุรี
สมุทรสาคร
ชลบุรี
เพชรบุรี
สมุทรสงคราม
ระยอง
ตราด
ประจวบคีรีขันธ์
ชุมพร
ระนอง
สุราษฎร์ธานี
นครศรีธรรมราช
กระบี่
ภูเก็ต
พัทลุง
สงขลา
ปัตตานี
ยะลา
นราธิวาส
Province
River
Resevior
Basin Boundaries
Runoff Yield - (l./s./sq.km.)
0 - 10
10 - 20
20 - 30
30 - 40
40 - 50
50 - 60
60 - 70
70 - 80
80 - 90
90 - 100
100 - 110
110 - 120
120 - 130
130 - 140
140 - 150
150 - 160
160 - 170
170 - 180
N
S
W
E
0 40 80 160 240 320

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TAPI RIVER BASIN

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164	X.195	Tapi River at Ban Tha Pho, Nakhon Si Thammarat	901
165	X.198	Khlong Sin Pun at Ban Bang Rup, Surat Thani	902
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171	X.113	Khlong La Pang at Ban Thung Prap, Songkhla	908
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HYDROLOGICAL YEAR BOOK PUBLICATION

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Introduction

Great Attempt has been made all along to expedite the engineering processing of the stream flow data to be ready for publication, and to translate the publication plan into implementation. Efforts from various working units as well as personnel concerned pulled together to drive this work into reality. Publication of stream flow data has begun since 1966. The first yearbook publication came out as Volume 8 for the 1965 water year. It presents records of stage and discharge of 113 gauging stations in 59 streams.

Definition of terms and abbreviations

Table for converting Metric Units to English Units is on page XXX Terms related to stream flow and other hydrologic data, as used in this report, are defined as follows:

CMS-day is the volume of water represented by a flow of 1 cubic meter per second for 24 hours. It is equivalent to 86,400 cubic meters, 0.0864 million cubic meter, or 3,050,784 cubic feet, or 70.07 acre-feet, and represents a runoff of 86.4 millimeters from 1 square kilometer.

Control designates of feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural constriction of the channel, an artificial structure, or a uniform cross section over a long reach of the channel.

Cubic meter per second (cms.) is the rate of stream discharge expressed in volume per a unit of time, One cubic meter per second is the rate of discharge representing a volume of 1 cubic meter passing a given point during 1 second.

Discharge is the volume of water (or more broadly, total fluids), that passes a given point within a given period of time.

Mean discharge is the arithmetic average of individual daily mean discharge during a specific period.

Momentary peak discharge is the peak discharge at a particular instant of time, at least once a year.

Drainage area of a stream at a specified location is that area, measured in a horizontal plane, enclosed by a topographic divide from which direct surface runoff from rainfall would normally drains by gravity into the stream above the specified point. Figures of drainage area given herein are determined from Royal Thai Survey Department AMS map with scale of 1 to 50,000, unless otherwise noted. They include all closed basins, or noncontributing areas, with in the area unless otherwise noted.

Gage height (G.H.) is the water surface elevation above some arbitrary gage datum to which, in most cases, referred the Mean Sea Level (M.S.L.) Ko Lak datum, otherwise the arbitrary assumed datum (A.D.) being used.

Gauging station is a particular site on a stream, canal, lake, or reservoir where systematic observations of gage height or discharge are obtained. The term "Staff gauging station" is applied only those gauging stations where only a gage height record is observed at an installed staff gage. If a water stage recorder is also installed, such a gauging station is referred as recording gauging station. In case of discharge measurements being practiced, it is referred as stream flow calibration or rating station.

Million cubic meter (mcm.) is the volume of water expressed in millions of cubic meter.

One million cubic meter is the quantity of water required to cover 1 square kilometer to a depth of 1 meter and is equivalent to 811 acre-feet, or 408.6 cfs.-day, or 264.2 million gallons.

Runoff in mcm. shows the volume of approximately effective runoff from rainfall, passing a given point for a given period of time.

Annual runoff is the volume of approximately effective runoff from rainfall accumulated during the water year.

Stage-discharge relation is the relation between gage height and the volume of water per unit of time, flowing in a channel.

Rating tables giving the discharge for any gage height are prepared from stage-discharge relation curves or rating curves.

Water year is the 12-month period, April 1 through March 31, related to annual cycle of river flow during which the river begins to rise, reaching its flood stage and subsiding toward its cyclic minimum

The water year is designated by the calendar year in which it begins and which includes 3 of 12 months. Thus, the year began April 1, 1969 is called the “1969 water year”.

Order of listing of gauging data

In this format, gauging data are listed according to their code running number order. It has been found more convenient in locating the required data when the list is arranged in such manner. The station code name contains the letters standing for river name and number in running order according to the age of the station installed in that river. The station code, for example, for the Chao Phraya River at Wat Tha Hat installed in 1905 is C. 1, which is the first stream flow rating station ever built in this river.

Series of yearbook publications

The yearbook series in which the stream flow data had been published was issued as follows :

Volume	Water Years	No. of station – years	Date of Issuance
1	1912 – 1937	112	September 1976
2	1938 – 1947	103	September 1976
3	1948 – 1953	146	September 1976
4	1954 – 1956	178	September 1976
5	1957 – 1959	203	May 1974
6	1960 – 1962	213	October 1973
7	1963 – 1964	182	July 1969
8	1965	113	May 1967
9	1966	129	June 1975
10	1967	172	September 1976
11	1968	187	September 1976
12	1969	182	March 1979
13	1970	182	March 1979
14	1971	182	June 1979
15	1972	184	October 1979
16	1973	187	January 1980
17	1974	191	March 1980
18	1975	182	August 1980
19	1976	184	November 1980
20	1977	192	February 1981
21	1978	210	May 1982
22	1979	237	July 1981
23	1980	231	August 1982
24	1981	213	November 1983
25	1982	224	June 1986
26	1983	235	October 1986
27	1984	242	February 1988
28	1985	232	January 1989
29	1986	245	June 1989
30	1987	271	July 1990
31	1988	267	February 1990
32	1989	224	July 1991
33	1990	225	July 1992

Volume	Water Years	No. of station – years	Date of Issuance
34	1991	227	July 1993
35	1992	220	May 1994
36	1993	228	April 1995
37	1994	224	August 1996
38	1995	232	July 1997
39	1996	244	August 1998
40	1997	269	August 1999
41	1998	258	August 2000
42	1999	291	August 2001
43	2000	316	September 2002
44	2001	330	September 2003
45	2002	316	October 2004
46	2003	334	October 2005
47	2004	338	November 2006
48	2005	340	December 2007
49	2006	362	February 2009
50	2007	361	May 2010
51	2008	372	February 2011
52	2009	368	December 2012
53	2010	347	February 2013
54	2011	360	April 2013
55	2012	348	October 2013
56	2013	369	October 2014
57	2014	359	October 2015
58	2015	351	October 2017
59	2016	356	May 2018
60	2017	361	May 2019
61	2018	367	May 2020

The preparation of the manuscripts of the further Volume is in progress. It is expected that they would be issued in serial order in the very near future.

STANDARD OF STREAMFLOW DATA PROCUREMENT

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Network design

The location of stream gauging stations is primarily based upon the urgent need at various dam sites which is accessible. By the time of expansion of the network at later date, the area or basin of "blind spot" is put at first priority backing up by the following conditions:

(a) Accessibility.

(b) Geographical location.

(c) Mean annual rainfall.

(d) Vegetation cover determined from Army Map Service topographic map with 1:50,000 or 1:250,000 scale.

(e) Basin soil type.

(f) Type of surface rock.

Field work

The minimum standard of basic hydrologic data for observations and measurements are equal to those recommended in the United Nations ECAFE Flood Control series No.6.

Water stage data are obtained by staff gage and by water stage recorder. Normally a vertical section staff gage is installed for manual observation with usual frequency of reading varies from 1 to 5 times of equal interval during the daytime. At some specific station where stream flow measurement camps are situated, the reading of water stage by night is also made, in addition, usually 1 to 3 times of equal interval. The standard bench mark is also established near the gage site. The 1.00 - m standard enameled staff gage section with 1 cm graduation are used with zero reading, in most cases, referred to Mean Sea Level (M.S.L.) Ko Lak datum, otherwise the assumed datum begin used. Few wire - weight gages are also adopted on highway bridges.

In some mountainous headwater area as well as in the estuary, additional installation of water stage recorder is made. A continuous record of water stage is obtained at such station. The German A. Ott type X has so for been adopted as our standard equipment. Some pneumatic recorder is also being used. Weekly visit to the gage for inspection and changing chart paper by the crew or gage observer is under practice.

At the stream flow gauging station, flow measurement by a current meter is periodically performed so that the calibration of stream section related to flow can be made through the development of stage - flow relationship or simply called " rating curve ". Two types of the stream flow gauging station are under operation: with and without crew camp. Those without crew camp are under moving team and are capable for flow measurements of several stations. Those with crew camp are subject to less accessibility.

At station operated by a moving crew, at least twice a month during the monsoon period and once a month during the low flow period are expected for flow rating performance. The moving crew frequently fails to reach the stations while at their crest stages because of road damage and time available. At station with crew camp, daily rating performance may be expected, at least once whenever change of stage per day is over 30 centimeters. Fixed boat by cable way across the river is one of typical means of flow measurement by current meter for medium river, 100 m wide. Flow wider river, the boat is fixed in position by anchors.

The river cross section is requested to be made simultaneously during flow velocity measurement, so that shifting of the section could be determined. This request is lawful because there had been in the older day fashion of using cross section made during dry season for discharge computation.

The German A. Ott current meter has so far been adopted as standard equipment. The multiple - point method has been used as velocity measurement practice. At present the two - point method is carefully practiced.

Office data processing

The standard techniques used overseas are adopted in processing the data. In fact the standard methods of U.S. Geological Survey and U.S. Department of Agriculture (for small streams) are adopted as general basis.

Development of rating curve - Yearly mean rating curve is generally used as a tool in determining the daily flow. Periodically developed rating is frequently used when dictated by the conditions, so that the shifting control could be eliminated or reduced. Zero flow elevation of the rating section is determined by trial and error method with logarithmic plotting of the rating curve. Extension of the logarithmic rating line is frequently used to determine the channel flow at the over bank flow stage. The over bank flow is assessed by either direct velocity measurement or slope - area method whenever applicable.

Determination of daily mean flow - Application of the adjusted daily mean gage height to rating table gives the corresponding daily mean discharge from which the monthly and the yearly mean discharges are computed. Shifting adjustment for observed gage height is made when necessary. Shifting design is made basing on flood stages and times, if any. Other adjustments such as back water, rise and fall of flood, etc., which necessitate the use of other parametric factors, are also made, if any.

At some gauging stations where rises and falls of floods are immediate, hourly basis of gage height application to the rating curve is used to determine daily mean discharge.

At stations where rises and falls of streams are gentle, gage height data are usually obtained by manual reading.

It has been found that application of 1 to 5 times average reading (for daytime) gives an error of daily mean flow not more than 15% for mountainous streams, less than 10% for larger valley streams and not more than 5% for lower deltaic streams. Most of mountainous and valley streams are under recording operation, only deltaic streams that daytime reading are still used.

The daily mean gage heights are obtained by arithmetic mean of the observed data available. Adjusted gage heights due to shifting, which are applicable to rating curve for daily mean flow computation, are practically made.

It is noted that the daily mean flow are mostly subject to upstream diversion. Headwater utilization of water by people diversions and state-owned diversions are expected in many river basins in this country. Consequently, the virgin flow is hardly determined. Daily mean values may be replaced by the monthly mean in the case of flow measured at tail waters of existing reservoirs.

Time basis used for daily mean flow is from midnight to midnight.

Review of procedure for stream flow data processing.

Following are steps used for review the overall data before finalizing the process:

1) Checking of gage height data which are obtained either from staff gage or from water stage recorder, for the following cases:

a) Representability of daytime observation for the daily mean value, if the data are from staff gage reading.

b) Discrepancies of recording charts, if any.

c) Desirability of hourly-basis process for daily mean flow.

d) Datum's of gage observation and of the rating curve used.

e) Location of gage from which data are taken and location of gage at which the rating curve is developed.

2) Checking of availability and goodness of field measurement notes.

3) Checking of differential magnitude of gage height during discharge measurement as to which arithmetic average or weighted average is desirable.

4) Checking stability of rating curve used.

5) Review of shifting control sample and design shifting, if any.

6) Adjustment of backwater, flood wave, etc., by rate of change of falls as index, if any.

7) Overall review of daily mean flow data as an end product.

8) Checking consistency of runoff volume among those observed at the upstream and downstream stations, taking into account intervening diversions of flow, if any.

Classification of stream flow data

The station description states the degree of accuracy of the records. "Excellent" indicates that, in general, the error in the daily records is believed to be less than 5 percent; "good", less than 10 percent; 'fair", less than 15 percent; "poor", probably more than 15 percent.

Future plan for computerization

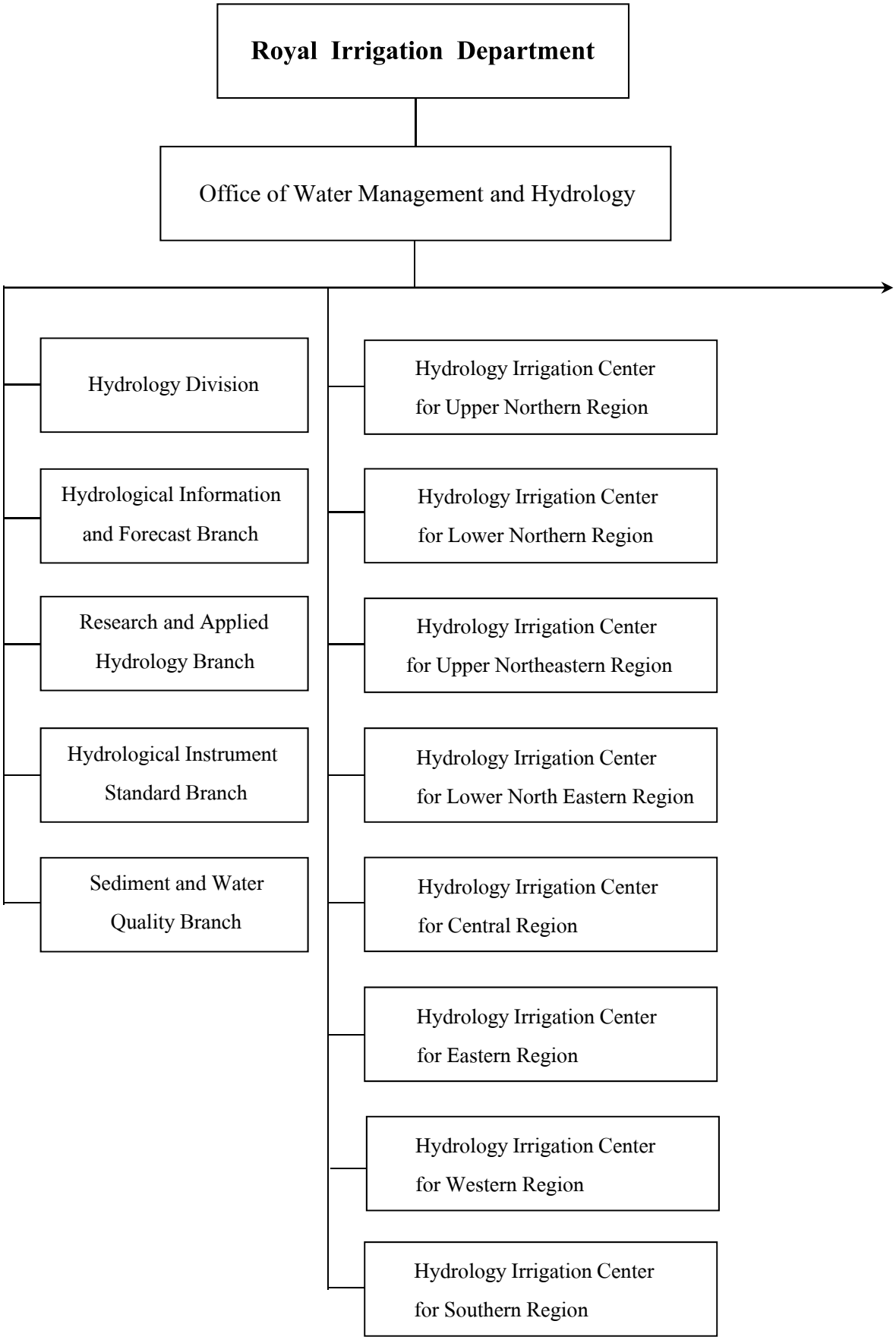
The Royal Irrigation Department (RID) has developed data system which include computerization of storage, Processing and retrieval of rainfall data since 1969. During the stream flow data system was being developed at RID in 1976, the National Economic and Social Development Board has made in agreement with the Asian Institute of Technology (AIT) to study on "Development of Water Resources Information System for Thailand". In the Contract AIT will recommend a standardized procedure to various agencies for collecting and recording hydrometeorological and hydrological data and develop a computer based data storage and retrieval system to process, store, analyze and publish the data furnished by various agencies involved in data collection.

The Water Resources Information System for Thailand (WRIST) package has been designed to provide permanent computer media storage of hydrometeorological and hydrological data in such a form that it can be readily added, to, altered or deleted and also called for analysis and presentation as required. The Indexed Sequential Method has been used for mass storage of the data and the processing and storing system have been designed taking into consideration the data processing schemes followed by the agencies, the probable frequency of retrieval expected and also the order or grouping of data elements differently for different agencies so that the system is best suited and efficient in operation for the current requirements and anticipated uses by the agencies in Thailand. The system will process and store data agency wise. The system is also designed to allow for the inclusion of additional data types if the need arise in the future. IBM 370/145 Computer facility at the AIT Bangkok will be used to develop the WRIST package. Operating programs will be written in ANS COBOL language independent of machine hardware to facilitate machine to machine transferability of the package for medium scale computers. The system has the data retrieval facility in the form of monthly and yearly publication agency wise; row data and analysis data either in the form of computer printouts or in the direct accessible forms like cards of tapes controlled by basin, Sub-basin, region, station and data type. Data stored can also be available in the form of punched cards or punched card image on magnetic tapes so that they can be accessed by FORTRAN programs.

Organization

Stream flow data presented herein are from the hydrologic network operating by the Hydrology Division of the Royal Irrigation Department (RID). Field data collection and office data processing as well as yearbook publication are hydrologic activities undertaken by the Division.

The organization structure of the Division is diagrammatically shown below :-


Royal Irrigation Department
Office of Water Management and Hydrology
Hydrology Division
Hydrological Information and Forecast Branch
Research and Applied Hydrology Branch
Hydrological Instrument Standard Branch
Sediment and Water Quality Branch
Hydrology Irrigation Center for Upper Northern Region
Hydrology Irrigation Center for Lower Northern Region
Hydrology Irrigation Center for Upper Northeastern Region
Hydrology Irrigation Center for Lower North Eastern Region
Hydrology Irrigation Center for Central Region
Hydrology Irrigation Center for Eastern Region
Hydrology Irrigation Center for Western Region
Hydrology Irrigation Center for Southern Region

PARTICIPATION IN STREAM GAUGING WORKS

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Among 22 water related government agencies, several of them operate stream flow gauging works according to their own purposes. In early 1949 the Hydrology Section was established in the Survey Division of the Royal Irrigation Department. The Section is responsible for its activity in hydrology as prerequisite for water resources development. The activity includes:

(1) Procurement of basic hydrologic data including precipitation, stream flow, sediment, evaporation, etc.

(2) Analyses and research to produce the facts governing the behavior of water, their occurrences, circulation and distribution in its varied forms, their properties and their interaction with other allied factors.

(3) Application to water resources development and management, utilizing basic data and the facts disclosed by analyses and research.

Just one year after the beginning of water storage work, in 1953 there were only 49 discharge stations and 114 stage stations as operated by the Hydrology Section. In February 1975 the Section was separated from the Survey Division and was raised the status to be the Hydrology Division of the Royal Irrigation Department. The present network of stream gauging works contains 221 discharge stations of which 147 are currently operated and 74 are previously calibrated with continuous stage observation while 145 were abandoned, and 315 stage station are currently operated while 232 were abandoned.

After the onset of the Lower Mekong River Basin Development Scheme, the Hydrology Section was also established in the Investigation and Planning Division of the National Energy Administration which is a representative agency of Thai Government in the Lower Mekong Committee. During the period of November 1958 – Mary 1962, seven hydrologic stations were installed and operated by the Harza Engineering Company contracted by the Agency for International Development of the united States Government. At present the NEA operates about 90 discharge stations and 140 stage stations. A series of yearbooks has also been published.

The third agency which operates the stream gauging works is the Hydrometeorology Division of the Meteorological Department. With the technical and financial support from the World Meteorological Organization, this agency began the stream gauging works in 1967. Up till now, about 11 discharge stations and 32 stage stations are under operation. The stream gauging data are also included in their yearbook.

The last agency which operates the stream gauging works for the planning purpose is the Electricity Generating Authority of Thailand. They began to operate 15 discharge stations and 4 stage stations in 1971.

In addition, there are other agencies operating the stream gauging works for their own purposes such as watershed management and conservation program of the Royal Forestry Department. The Port Authority of Thailand carries on discharge measurement along the estuary of the Chao Phraya River for studying the sedimentation in the vicinity of the service area.

UNITS OF MEASURE AND CONVERSION FACTORS

The following factors may be used to convert the metric and Thai unit published here in to the English units.

Multiply metric or Thai units	By	To obtain English Unit
	Length	
millimeters (mm.)	.03973	inches (in)
meters (m.)	39.73	inches (in)
	3.2808	feet (ft)
	1.0936	yards (yd)
	.1988	rods
kilometers (km)	.6214	miles (mi)
	Area	
square meters (m^2)	10.76	square feet (ft^2)
	1.196	square yards (yd^2)
	2.47×10^{-4}	acres
rai (1,600 m^2 - Thai)	.3952	acres
hectares (ha)	2.4709	acres
square hectometers (hm^2)	2.4709	acres
square kilometers (km^2)	247.1	acres
	.3861	square miles (mi^2)
	Volume	
liters (l)	.2642	gallons (gal)
Cubic decimeters (dm^3)	.2642	gallons (gal)
	.03531	cubic feet (ft^3)
cubic meters (m^3)	264.2	gallons (gal)
	2.642×10^{-4}	million gallons (10^6 gal)
	35.31	cubic feet (ft^3)
	4.086×10^{-4}	cfs - day (ft^3 / s - day)
	8.11×10^{-4}	acre - feet (acre - ft)
cubic hectometers (hm^3)	264.2	million gallons (10^6 gal)
	408.6	cfs - day (ft^3 / s - day)
	811	acre - feet (acre - ft)
million cubic meters (mcm)	811	acre - feet (acre - ft)
cubic kilometers (km^3)	811×10^3	acre - feet (acre - ft)

Multiply metric or Thai units	By	To obtain English Unit
	Flow	
liters per second (1/s)	.03531	cubic feet per second (ft^3 / s)
	15.85	gallons per minute (gpm)
cubic decimeters per second (dm^3 / s)	.03531	cubic feet per second (ft^3 / s)
	15.85	gallons per minute (gpm)
	22.82×10^{-3}	million gallons per day (mgd)
cubic meters per second (m^3 / s)	35.31	cubic feet per second (ft^3 / s)
	15,850	gallons per minute (gpm)
	22.82	million gallons per day (mgd)

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Stream Gauging Data

Water Year 2018

WATER YEAR : 2018

SALAWIN RIVER BASIN

Nam Mae Pai at Ban Tha Pong Daeng , Mae Hong Son (Sw.5A)

Lat 19 - 16 - 06 N Long 97 - 56 - 55 E

Location : on left bank at Ban Tha Pong Daeng.

	Ban Tha Pong Daeng	**Amphoe** Mueang	**Changwat** Mae Hong Son
Drainge Area	4,470 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+175.757 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank near the station office.		**Elevation** +187.423 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic mean of 3 readings		
Period of Available Gage Records	1980 to date		
Rating Operation			
Period of Rating	1984 to date		
Rated by Flot	-		
Rated by Current Meter	1984 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 24 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

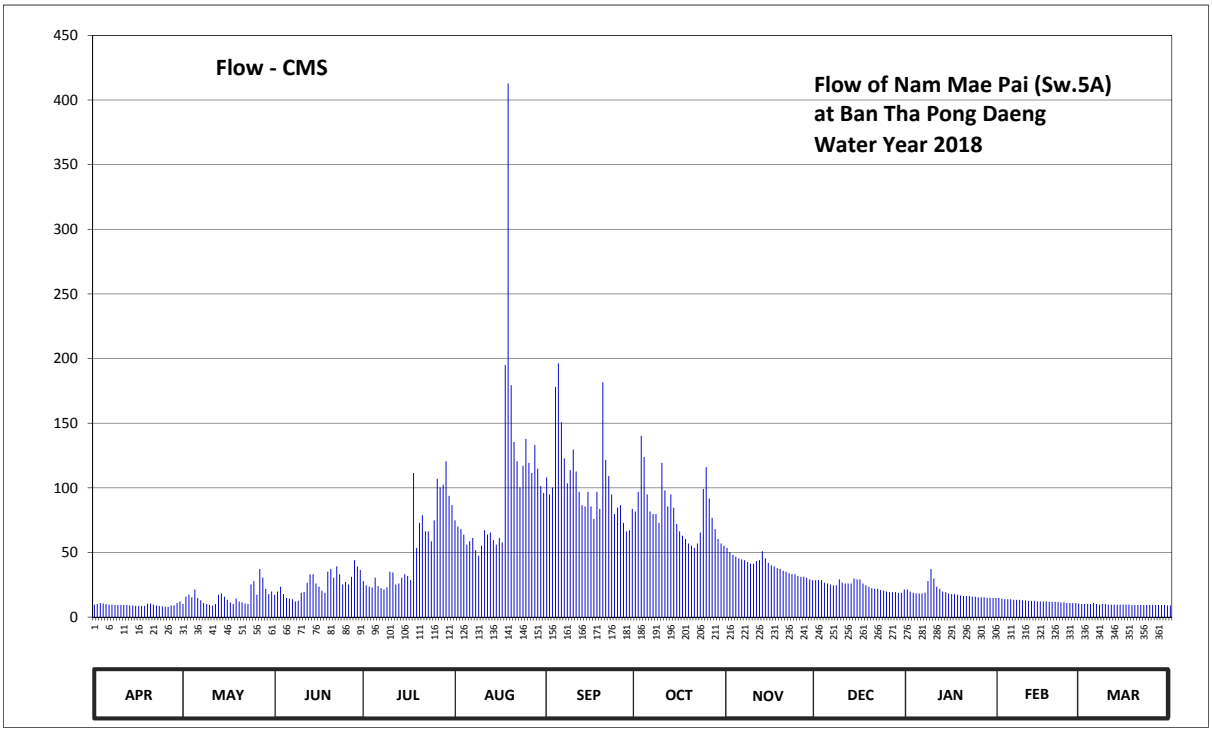
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	175.40	175.41	175.57	175.76	176.37	176.69	176.44	176.13	175.77	175.65	175.52	175.41	
2	175.41	175.54	175.62	175.71	176.32	176.57	176.59	176.09	175.77	175.62	175.51	175.41	
3	175.43	175.57	175.69	175.69	176.30	176.62	176.97	176.06	175.77	175.60	175.50	175.41	
4	175.42	175.53	175.58	175.68	176.25	177.29	176.83	176.04	175.74	175.59	175.50	175.41	
5	175.41	175.65	175.52	175.80	176.16	177.44	176.57	176.02	175.73	175.59	175.50	175.43	
6	175.40	175.52	175.51	175.70	176.19	177.06	176.44	176.01	175.72	175.59	175.49	175.41	
7	175.40	175.48	175.50	175.67	176.22	176.82	176.42	176.00	175.71	175.60	175.49	175.40	
8	175.39	175.43	175.46	175.65	176.11	176.65	176.42	175.98	175.71	175.76	175.49	175.41	
9	175.39	175.41	175.47	175.68	176.05	176.74	176.35	175.96	175.78	175.90	175.48	175.41	
10	175.39	175.39	175.60	175.87	176.15	176.88	176.79	175.96	175.74	175.79	175.48	175.40	
11	175.39	175.38	175.61	175.86	176.29	176.73	176.60	175.99	175.73	175.69	175.47	175.40	
12	175.39	175.41	175.74	175.72	176.25	176.59	176.48	176.00	175.73	175.66	175.47	175.40	
13	175.38	175.57	175.84	175.73	176.27	176.49	176.57	176.10	175.73	175.62	175.47	175.40	
14	175.38	175.59	175.84	175.80	176.20	176.48	176.47	176.02	175.79	175.61	175.46	175.40	
15	175.37	175.54	175.73	175.84	176.16	176.59	176.34	175.97	175.78	175.59	175.46	175.40	
16	175.37	175.49	175.69	175.82	176.22	176.48	176.28	175.94	175.78	175.58	175.46	175.40	
17	175.37	175.44	175.63	175.77	176.18	176.38	176.24	175.93	175.73	175.58	175.46	175.40	
18	175.37	175.41	175.60	176.72	177.43	176.59	176.21	175.91	175.71	175.57	175.45	175.39	
19	175.42	175.51	175.87	176.13	179.07	176.46	176.17	175.90	175.69	175.56	175.45	175.39	
20	175.42	175.46	175.90	176.35	177.30	177.32	176.15	175.88	175.67	175.55	175.45	175.39	
21	175.40	175.44	175.80	176.41	176.93	176.81	176.13	175.87	175.66	175.55	175.45	175.39	
22	175.38	175.42	175.93	176.28	176.80	176.70	176.17	175.85	175.66	175.55	175.44	175.39	
23	175.37	175.41	175.84	176.28	176.62	176.57	176.27	175.84	175.64	175.54	175.44	175.39	
24	175.36	175.72	175.72	176.19	176.77	176.42	176.61	175.84	175.63	175.54	175.43	175.39	
25	175.35	175.76	175.75	176.37	176.95	176.47	176.76	175.82	175.62	175.53	175.43	175.39	
26	175.35	175.57	175.72	176.68	176.79	176.49	176.54	175.81	175.61	175.53	175.43	175.39	
27	175.38	175.90	175.81	176.62	176.72	176.35	176.39	175.81	175.61	175.53	175.43	175.39	
28	175.38	175.80	176.00	176.64	176.91	176.28	176.30	175.80	175.61	175.52	175.42	175.39	
29	175.43	175.66	175.93	176.80	176.75	176.29	176.21	175.78	175.60	175.52		175.39	
30	175.46	175.58	175.89	176.56	176.63	176.46	176.17	175.77	175.60	175.52		175.38	
31		175.62		176.49	176.58		176.15		175.65	175.52		175.38	
Mean	175.39	175.54	175.71	176.07	176.58	176.66	176.42	175.94	175.70	175.60	175.47	175.40	
Max	175.46	175.90	176.00	176.80	179.07	177.44	176.97	176.13	175.79	175.90	175.52	175.43	179.07
Min	175.35	175.38	175.46	175.65	176.05	176.28	176.13	175.77	175.60	175.52	175.42	175.38	175.35

Annual Max Momentary Gage Height 179.66 m. (MSL.) , at 04.00 Hours , on Aug 19 , 2018

Zero Gage at Bottom Elevation 175.76 m. (MSL.) , River Bed 174.74 m. (MSL.)

Left Bank Elevation 183.88 m. (MSL.) ,

Right Bank Elevation 181.49 m. (MSL.) , Drainage Are 4,470 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	9.70	10.11	17.30	27.90	74.89	108.08	81.72	53.55	28.55	21.40	14.80	10.11		
2	10.11	15.80	19.84	24.65	70.04	94.88	96.96	50.30	28.55	19.84	14.30	10.11		
3	10.93	17.30	23.48	23.48	68.10	100.24	140.19	48.20	28.55	18.80	13.80	10.11		
4	10.52	15.30	17.80	22.96	63.80	178.15	123.95	46.80	26.60	18.30	13.80	10.11		
5	10.11	21.40	14.80	30.50	56.10	196.32	94.88	45.40	25.95	18.30	13.80	10.93		
6	9.70	14.80	14.30	24.00	58.65	150.78	81.72	44.70	25.30	18.30	13.39	10.11		
7	9.70	12.98	13.80	22.44	61.22	122.80	79.76	44.00	24.65	18.80	13.39	9.70		
8	9.34	10.93	12.16	21.40	51.85	103.60	79.76	42.64	24.65	27.90	13.39	10.11		
9	9.34	10.11	12.57	22.96	47.50	113.72	72.95	41.28	29.20	37.20	12.98	10.11		
10	9.34	9.34	18.80	35.19	55.25	129.70	119.37	41.28	26.60	29.85	12.98	9.70		
11	9.34	8.98	19.32	34.52	67.24	112.59	98.00	43.32	25.95	23.48	12.57	9.70		
12	9.34	10.11	26.60	25.30	63.80	96.96	85.64	44.00	25.95	21.92	12.57	9.70		
13	8.98	17.30	33.18	25.95	65.52	86.62	94.88	51.00	25.95	19.84	12.57	9.70		
14	8.98	18.30	33.18	30.50	59.50	85.64	84.66	45.40	29.85	19.32	12.16	9.70		
15	8.62	15.80	25.95	33.18	56.10	96.96	71.98	41.96	29.20	18.30	12.16	9.70		
16	8.62	13.39	23.48	31.84	61.22	85.64	66.38	39.92	29.20	17.80	12.16	9.70		
17	8.62	11.34	20.36	28.55	57.80	75.86	62.94	39.24	25.95	17.80	12.16	9.70		
18	8.62	10.11	18.80	111.46	195.09	96.96	60.36	37.88	24.65	17.30	11.75	9.34		
19	10.52	14.30	35.19	53.55	412.80	83.68	56.95	37.20	23.48	16.80	11.75	9.34		
20	10.52	12.16	37.20	72.95	179.35	181.76	55.25	35.86	22.44	16.30	11.75	9.34		
21	9.70	11.34	30.50	78.78	135.51	121.65	53.55	35.19	21.92	16.30	11.75	9.34		
22	8.98	10.52	39.24	66.38	120.50	109.20	56.95	33.85	21.92	16.30	11.34	9.34		
23	8.62	10.11	33.18	66.38	100.24	94.88	65.52	33.18	20.88	15.80	11.34	9.34		
24	8.26	25.30	25.30	58.65	117.11	79.76	99.12	33.18	20.36	15.80	10.93	9.34		
25	7.90	27.90	27.25	74.89	137.85	84.66	115.98	31.84	19.84	15.30	10.93	9.34		
26	7.90	17.30	25.30	106.96	119.37	86.62	91.76	31.17	19.32	15.30	10.93	9.34		
27	8.98	37.20	31.17	100.24	111.46	72.95	76.83	31.17	19.32	15.30	10.93	9.34		
28	8.98	30.50	44.00	102.48	133.17	66.38	68.10	30.50	19.32	14.80	10.52	9.34		
29	10.93	21.92	39.24	120.50	114.85	67.24	60.36	29.20	18.80	14.80		9.34		
30	12.16	17.80	36.53	93.84	101.36	83.68	56.95	28.55	18.80	14.80		8.98		
31		19.84		86.62	95.92		55.25		21.40	14.80		8.98		
Total	283.36	499.59	769.82	1659.00	3113.16	3167.96	2508.67	1191.76	753.10	586.85	346.90	299.04	15179.21	CMSDAY
Mean	9.45	16.12	25.66	53.52	100.42	105.60	80.92	39.73	24.29	18.93	12.39	9.65	41.59	CMS
Max	12.16	37.20	44.00	120.50	412.80	196.32	140.19	53.55	29.85	37.20	14.80	10.93	412.80	CMS
Min	7.90	8.98	12.16	21.40	47.50	66.38	53.55	28.55	18.80	14.80	10.52	8.98	7.90	CMS
Runoff	24.48	43.16	66.51	143.34	268.98	273.71	216.75	102.97	65.07	50.70	29.97	25.84	1311.48	MCM

Momentary Peak 495.40 CMS. at 179.66 m. (MSL.) at 04.00 Hours , on Aug 19 , 2018

Runoff Yield 9.30 Liters/Second/Square KM. Momentary Peak Yield 110.83 Liters/Second/Square KM.

WATER YEAR : 2018

SALAWIN RIVER BASIN

Huai Mae Lamao at Ban Mae Lamao , Tak (Sw.6)

Lat 16 - 45 - 36 N Long 98 - 45 - 16 E

Location : on left bank downstream from the bridge on highway.

Ban Mae Lamao **Amphoe** Mae Sot **Changwat** Tak

Drainge Area	1,009 sq.km.
Type of Gage	Staff gage.
Zero Gage at Bottom	+268.470 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	About 6.25 meters from the automatic gage buiding. **Elevation** +278.846 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic mean of 5 readings
Period of Available Gage Records	1971 to date
Rating Operation	
Period of Rating	1971 to date
Rated by Flot	-
Rated by Current Meter	1971 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. Stage-discharge relation defined by 14 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

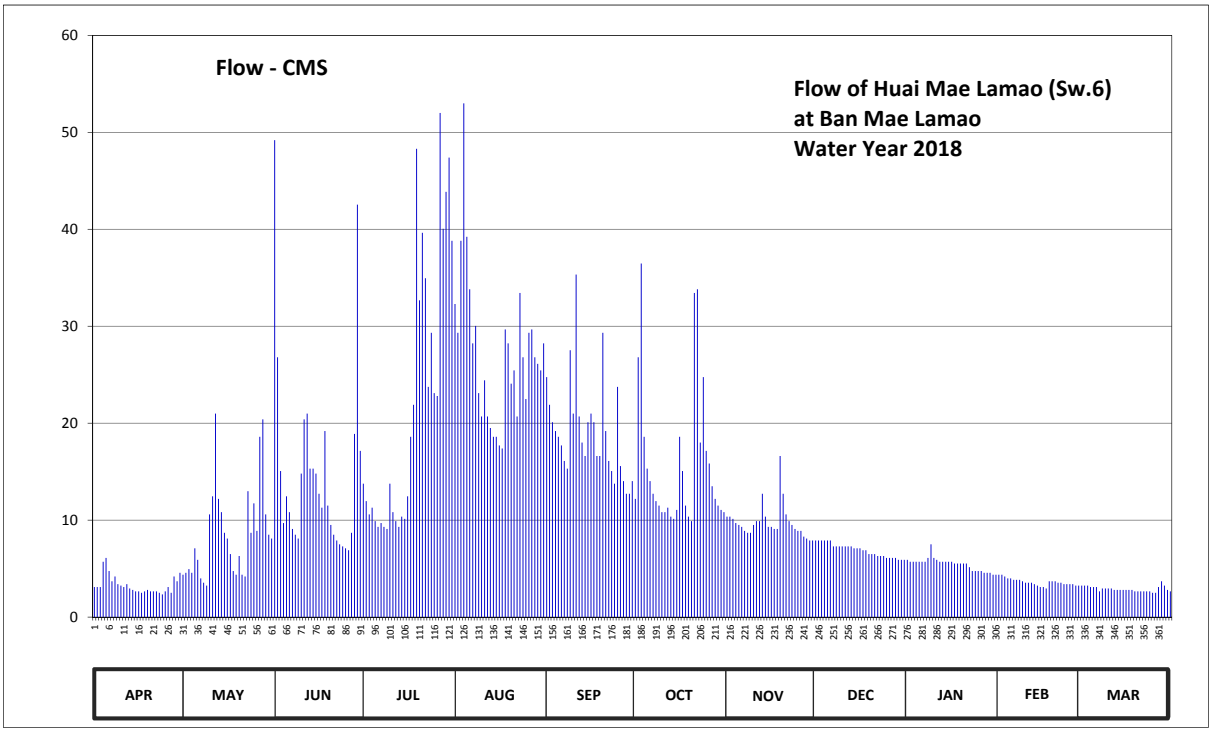
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	268.64	268.72	270.16	269.16	269.75	269.54	269.10	269.02	268.90	268.80	268.72	268.65	
2	268.64	268.73	269.60	269.09	269.67	269.45	269.60	269.02	268.90	268.79	268.72	268.65	
3	268.64	268.75	269.21	269.03	269.92	269.39	269.86	269.01	268.90	268.79	268.71	268.65	
4	268.79	268.73	268.99	269.06	270.24	269.36	269.34	268.99	268.90	268.79	268.70	268.64	
5	268.81	268.86	269.11	269.00	269.93	269.34	269.22	268.98	268.90	268.79	268.70	268.64	
6	268.74	268.80	269.04	268.97	269.79	269.31	269.17	268.97	268.90	268.79	268.69	268.64	
7	268.68	268.70	268.96	268.99	269.64	269.25	269.12	268.95	268.87	268.79	268.69	268.61	
8	268.71	268.67	268.93	268.97	269.69	269.22	269.09	268.94	268.87	268.81	268.69	268.63	
9	268.66	268.65	268.91	268.96	269.49	269.62	269.07	268.94	268.87	268.88	268.68	268.63	
10	268.65	269.03	269.20	269.16	269.41	269.42	269.04	268.98	268.87	268.81	268.67	268.63	
11	268.64	269.11	269.40	269.04	269.53	269.83	269.04	269.00	268.87	268.80	268.67	268.63	
12	268.66	269.42	269.42	269.00	269.41	269.41	269.06	269.00	268.87	268.79	268.67	268.62	
13	268.63	269.10	269.22	268.97	269.37	269.32	269.02	269.12	268.87	268.79	268.66	268.62	
14	268.62	269.04	269.22	269.02	269.34	269.27	269.01	269.02	268.86	268.79	268.65	268.62	
15	268.61	268.94	269.20	269.01	269.34	269.39	269.05	268.97	268.86	268.79	268.64	268.62	
16	268.61	268.91	269.12	269.11	269.31	269.42	269.34	268.97	268.86	268.79	268.64	268.62	
17	268.60	268.83	269.06	269.34	269.30	269.39	269.21	268.96	268.85	268.78	268.63	268.62	
18	268.61	268.74	269.36	269.45	269.68	269.27	269.07	268.96	268.85	268.78	268.68	268.62	
19	268.62	268.72	269.07	270.14	269.64	269.27	269.02	269.27	268.83	268.78	268.68	268.61	
20	268.61	268.82	268.98	269.76	269.52	269.67	269.00	269.12	268.83	268.78	268.68	268.61	
21	268.61	268.72	268.93	269.94	269.56	269.36	269.78	269.03	268.83	268.78	268.67	268.61	
22	268.61	268.71	268.90	269.82	269.41	269.25	269.79	269.00	268.82	268.76	268.67	268.61	
23	268.60	269.13	268.88	269.51	269.78	269.21	269.32	268.98	268.82	268.74	268.66	268.61	
24	268.59	268.94	268.87	269.67	269.60	269.16	269.54	268.96	268.82	268.74	268.66	268.61	
25	268.61	269.08	268.86	269.49	269.47	269.51	269.29	268.95	268.81	268.74	268.66	268.60	
26	268.64	268.95	268.85	269.48	269.67	269.23	269.24	268.95	268.81	268.74	268.66	268.60	
27	268.60	269.34	268.94	270.22	269.68	269.17	269.15	268.92	268.81	268.73	268.65	268.64	
28	268.71	269.40	269.35	269.95	269.60	269.12	269.10	268.91	268.81	268.73	268.65	268.68	
29	268.68	269.03	270.01	270.04	269.58	269.12	269.07	268.90	268.80	268.73		268.65	
30	268.73	268.93	269.29	270.12	269.56	269.17	269.05	268.90	268.80	268.72		268.62	
31		268.91		269.92	269.64		269.04		268.80	268.72		268.61	
Mean	268.65	268.92	269.17	269.40	269.60	269.35	269.22	268.99	268.85	268.78	268.67	268.63	
Max	268.81	269.42	270.16	270.22	270.24	269.83	269.86	269.27	268.90	268.88	268.72	268.68	270.24
Min	268.59	268.65	268.85	268.96	269.30	269.12	269.00	268.90	268.80	268.72	268.63	268.60	268.59

Annual Max Momentary Gage Height 270.77 m. (MSL.) , at 15.00 Hours , on Jul 27, 2018

Zero Gage at Bottom Elevation 268.47 m. (MSL.) , River Bed 268.42 m. (MSL.)

Left Bank Elevation 280.48 m. (MSL.) ,

Right Bank Elevation 280.77 m. (MSL.) , Drainage Are 1,009 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	3.10	4.38	49.20	13.76	32.30	24.76	12.20	10.36	7.90	5.90	4.38	3.25		
2	3.10	4.57	26.80	11.97	29.32	21.90	26.80	10.36	7.90	5.71	4.38	3.25		
3	3.10	4.95	15.06	10.59	38.82	20.10	36.48	10.13	7.90	5.71	4.19	3.25		
4	5.71	4.57	9.70	11.28	53.00	19.20	18.60	9.70	7.90	5.71	4.00	3.10		
5	6.10	7.10	12.46	9.90	39.23	18.60	15.32	9.50	7.90	5.71	4.00	3.10		
6	4.76	5.90	10.82	9.30	33.82	17.70	14.02	9.30	7.90	5.71	3.85	3.10		
7	3.70	4.00	9.10	9.70	28.24	16.10	12.72	8.90	7.30	5.71	3.85	2.65		
8	4.19	3.55	8.50	9.30	30.04	15.32	11.97	8.70	7.30	6.10	3.85	2.95		
9	3.40	3.25	8.10	9.10	23.10	27.52	11.51	8.70	7.30	7.50	3.70	2.95		
10	3.25	10.59	14.80	13.76	20.70	21.00	10.82	9.50	7.30	6.10	3.55	2.95		
11	3.10	12.46	20.40	10.82	24.42	35.34	10.82	9.90	7.30	5.90	3.55	2.95		
12	3.40	21.00	21.00	9.90	20.70	20.70	11.28	9.90	7.30	5.71	3.55	2.80		
13	2.95	12.20	15.32	9.30	19.50	18.00	10.36	12.72	7.30	5.71	3.40	2.80		
14	2.80	10.82	15.32	10.36	18.60	16.62	10.13	10.36	7.10	5.71	3.25	2.80		
15	2.65	8.70	14.80	10.13	18.60	20.10	11.05	9.30	7.10	5.71	3.10	2.80		
16	2.65	8.10	12.72	12.46	17.70	21.00	18.60	9.30	7.10	5.71	3.10	2.80		
17	2.50	6.50	11.28	18.60	17.40	20.10	15.06	9.10	6.90	5.52	2.95	2.80		
18	2.65	4.76	19.20	21.90	29.68	16.62	11.51	9.10	6.90	5.52	3.70	2.80		
19	2.80	4.38	11.51	48.30	28.24	16.62	10.36	16.62	6.50	5.52	3.70	2.65		
20	2.65	6.30	9.50	32.68	24.08	29.32	9.90	12.72	6.50	5.52	3.70	2.65		
21	2.65	4.38	8.50	39.64	25.44	19.20	33.44	10.59	6.50	5.52	3.55	2.65		
22	2.65	4.19	7.90	34.96	20.70	16.10	33.82	9.90	6.30	5.14	3.55	2.65		
23	2.50	12.98	7.50	23.74	33.44	15.06	18.00	9.50	6.30	4.76	3.40	2.65		
24	2.35	8.70	7.30	29.32	26.80	13.76	24.76	9.10	6.30	4.76	3.40	2.65		
25	2.65	11.74	7.10	23.10	22.50	23.74	17.14	8.90	6.10	4.76	3.40	2.50		
26	3.10	8.90	6.90	22.80	29.32	15.58	15.84	8.90	6.10	4.76	3.40	2.50		
27	2.50	18.60	8.70	52.00	29.68	14.02	13.50	8.30	6.10	4.57	3.25	3.10		
28	4.19	20.40	18.90	40.05	26.80	12.72	12.20	8.10	6.10	4.57	3.25	3.70		
29	3.70	10.59	42.54	43.86	26.12	12.72	11.51	7.90	5.90	4.57		3.25		
30	4.57	8.50	17.14	47.40	25.44	14.02	11.05	7.90	5.90	4.38		2.80		
31		8.10		38.82	28.24		10.82		5.90	4.38		2.65		
Total	99.42	265.16	448.07	688.80	841.97	573.54	491.59	293.26	214.10	168.56	100.95	89.50	4274.92	CMSDAY
Mean	3.31	8.55	14.94	22.22	27.16	19.12	15.86	9.78	6.91	5.44	3.61	2.89	11.71	CMS
Max	6.10	21.00	49.20	52.00	53.00	35.34	36.48	16.62	7.90	7.50	4.38	3.70	53.00	CMS
Min	2.35	3.25	6.90	9.10	17.40	12.72	9.90	7.90	5.90	4.38	2.95	2.50	2.35	CMS
Runoff	8.59	22.91	38.71	59.51	72.75	49.55	42.47	25.34	18.50	14.56	8.72	7.73	369.35	MCM

Momentary Peak 83.90 CMS. at 270.77 m. (MSL.) at 15.00 Hours , on Jul 27 , 2018

Runoff Yield 11.61 Liters/Second/Square KM. Momentary Peak Yield 83.15 Liters/Second/Square KM.

WATER YEAR : 2018

KHONG RIVER BASIN

Huai Mong at Ban Na Ang , Udon Thani (Kh.18)

Lat 17 - 34 - 41 N Long 102 - 20 - 22 E

Location : on right bank between Phu Pha Dang and Phu Phan about 2 kilometers from Ban Na Ang.

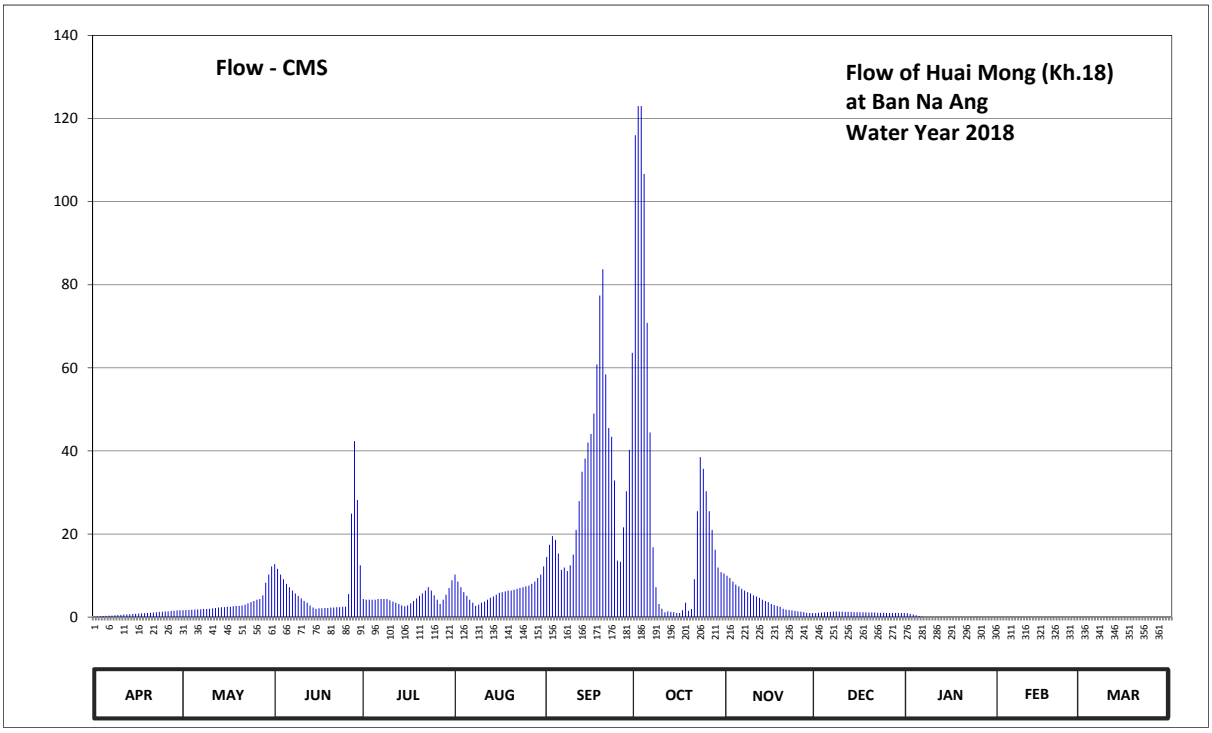
Ban Na Ang **Amphoe** Ban Phu **Changwat** Udon Thani

Drainge Area	1,309 sq.km.
Type of Gage	Water - stage recorder.
Zero Gage at Bottom	+183.400 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On right bank at the automatic gage building. **Elevation** +189.872 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	1957 to date
Rating Operation	
Period of Rating	1957 - 1959 , 1965 - 1966 , 1974 - 1980 , 1997 to date
Rated by Flot	-
Rated by Current Meter	1957 - 1959 , 1965 - 1966 , 1974 - 1980 , 1997 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	Overbank flow starts at elevation +188.560 m.(MSL.), and is including overbank flow.
General Description	Records fair. Stage-discharge relation defined by 15 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	185.42	185.73	186.37	185.99	186.28	186.43	189.07	186.27	185.59	185.59	184.82	184.58	
2	185.43	185.74	186.33	185.98	186.22	186.53	189.21	186.25	185.61	185.55	184.81	184.57	
3	185.44	185.74	186.28	185.98	186.16	186.60	189.21	186.22	185.62	185.52	184.80	184.56	
4	185.45	185.75	186.24	185.98	186.10	186.57	188.87	186.19	185.63	185.49	184.80	184.55	
5	185.46	185.76	186.20	185.98	186.04	186.46	188.07	186.17	185.64	185.45	184.79	184.54	
6	185.47	185.77	186.16	185.99	185.98	186.32	187.37	186.14	185.65	185.42	184.78	184.53	
7	185.48	185.78	186.12	185.99	185.93	186.34	186.51	186.12	185.67	185.39	184.77	184.52	
8	185.49	185.79	186.08	185.99	185.87	186.31	186.16	186.10	185.67	185.35	184.76	184.50	
9	185.50	185.79	186.04	185.99	185.90	186.36	185.91	186.08	185.66	185.32	184.75	184.48	
10	185.51	185.80	186.00	185.97	185.93	186.45	185.80	186.05	185.66	185.29	184.74	184.46	
11	185.52	185.81	185.96	185.95	185.95	186.65	185.63	186.03	185.65	185.25	184.73	184.44	
12	185.53	185.82	185.93	185.93	185.98	186.88	185.68	186.01	185.65	185.22	184.72	184.42	
13	185.54	185.83	185.88	185.91	186.01	187.10	185.65	185.98	185.65	185.19	184.71	184.40	
14	185.55	185.84	185.83	185.88	186.03	187.19	185.64	185.96	185.64	185.16	184.70	184.39	
15	185.56	185.84	185.80	185.86	186.06	187.30	185.60	185.94	185.64	185.12	184.70	184.38	
16	185.57	185.85	185.81	185.88	186.09	187.36	185.60	185.91	185.63	185.09	184.69	184.38	
17	185.58	185.85	185.81	185.92	186.10	187.50	185.73	185.89	185.63	185.04	184.68	184.37	
18	185.59	185.86	185.82	185.96	186.11	187.82	185.93	185.87	185.63	185.00	184.67	184.37	
19	185.60	185.87	185.82	186.00	186.12	188.22	185.70	185.85	185.62	184.95	184.66	184.36	
20	185.61	185.87	185.83	186.04	186.12	188.36	185.79	185.80	185.62	184.91	184.65	184.36	
21	185.62	185.88	185.83	186.08	186.13	187.76	186.24	185.76	185.62	184.88	184.64	184.35	
22	185.63	185.90	185.84	186.12	186.14	187.40	186.80	185.74	185.61	184.85	184.63	184.35	
23	185.65	185.92	185.84	186.16	186.15	187.34	187.20	185.72	185.61	184.83	184.62	184.34	
24	185.66	185.94	185.85	186.12	186.16	187.04	187.12	185.70	185.61	184.83	184.61	184.34	
25	185.67	185.96	185.85	186.05	186.17	186.40	186.96	185.68	185.60	184.83	184.60	184.33	
26	185.68	185.98	186.07	185.98	186.18	186.39	186.80	185.66	185.60	184.83	184.59	184.33	
27	185.70	185.99	186.78	185.91	186.20	186.67	186.65	185.64	185.60	184.83	184.58	184.32	
28	185.71	186.05	187.31	185.98	186.22	186.96	186.49	185.61	185.60	184.82	184.58	184.32	
29	185.72	186.21	186.89	186.06	186.25	187.25	186.34	185.60	185.60	184.82		184.32	
30	185.73	186.28	186.36	186.15	186.28	187.89	186.30	185.59	185.60	184.82		184.31	
31		186.35		186.23	186.35		186.29		185.60	184.82		184.31	
Mean	185.57	185.89	186.10	186.00	186.10	187.00	186.66	185.92	185.63	185.11	184.70	184.41	
Max	185.73	186.35	187.31	186.23	186.35	188.36	189.21	186.27	185.67	185.59	184.82	184.58	189.21
Min	185.42	185.73	185.80	185.86	185.87	186.31	185.60	185.59	185.59	184.82	184.58	184.31	184.31

Annual Max Momentary Gage Height	189.27	m. (MSL.) ,	at 06.00 Hours , on Oct 4 , 2018		
Zero Gage at Bottom Elevation	183.40	m. (MSL.) ,	River Bed	183.90	m. (MSL.)
Left Bank Elevation	188.55	m. (MSL.) ,			
Right Bank Elevation	188.56	m. (MSL.) ,	Drainage Are	1,309	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.10	1.65	12.76	4.35	10.24	14.47	116.00	9.96	0.95	0.95	0.00	0.00		
2	0.15	1.70	11.64	4.20	8.56	17.40	123.00	9.40	1.05	0.75	0.00	0.00		
3	0.20	1.70	10.24	4.20	7.20	19.50	123.00	8.56	1.10	0.60	0.00	0.00		
4	0.25	1.75	9.12	4.20	6.00	18.60	106.65	7.80	1.15	0.45	0.00	0.00		
5	0.30	1.80	8.00	4.20	5.10	15.34	70.80	7.40	1.20	0.25	0.00	0.00		
6	0.35	1.85	7.20	4.35	4.20	11.36	44.45	6.80	1.25	0.10	0.00	0.00		
7	0.40	1.90	6.40	4.35	3.45	11.92	16.80	6.40	1.35	0.00	0.00	0.00		
8	0.45	1.95	5.70	4.35	2.70	11.08	7.20	6.00	1.35	0.00	0.00	0.00		
9	0.50	1.95	5.10	4.35	3.00	12.48	3.15	5.70	1.30	0.00	0.00	0.00		
10	0.55	2.00	4.50	4.05	3.45	15.05	2.00	5.25	1.30	0.00	0.00	0.00		
11	0.60	2.10	3.90	3.75	3.75	21.00	1.15	4.95	1.25	0.00	0.00	0.00		
12	0.65	2.20	3.45	3.45	4.20	27.90	1.40	4.65	1.25	0.00	0.00	0.00		
13	0.70	2.30	2.80	3.15	4.65	35.00	1.25	4.20	1.25	0.00	0.00	0.00		
14	0.75	2.40	2.30	2.80	4.95	38.15	1.20	3.90	1.20	0.00	0.00	0.00		
15	0.80	2.40	2.00	2.60	5.40	42.00	1.00	3.60	1.20	0.00	0.00	0.00		
16	0.85	2.50	2.10	2.80	5.85	44.10	1.00	3.15	1.15	0.00	0.00	0.00		
17	0.90	2.50	2.10	3.30	6.00	49.00	1.65	2.90	1.15	0.00	0.00	0.00		
18	0.95	2.60	2.20	3.90	6.20	60.80	3.45	2.70	1.15	0.00	0.00	0.00		
19	1.00	2.70	2.20	4.50	6.40	77.40	1.50	2.50	1.10	0.00	0.00	0.00		
20	1.05	2.70	2.30	5.10	6.40	83.70	1.95	2.00	1.10	0.00	0.00	0.00		
21	1.10	2.80	2.30	5.70	6.60	58.40	9.12	1.80	1.10	0.00	0.00	0.00		
22	1.15	3.00	2.40	6.40	6.80	45.50	25.50	1.70	1.05	0.00	0.00	0.00		
23	1.25	3.30	2.40	7.20	7.00	43.40	38.50	1.60	1.05	0.00	0.00	0.00		
24	1.30	3.60	2.50	6.40	7.20	32.90	35.70	1.50	1.05	0.00	0.00	0.00		
25	1.35	3.90	2.50	5.25	7.40	13.60	30.30	1.40	1.00	0.00	0.00	0.00		
26	1.40	4.20	5.55	4.20	7.60	13.32	25.50	1.30	1.00	0.00	0.00	0.00		
27	1.50	4.35	24.90	3.15	8.00	21.60	21.00	1.20	1.00	0.00	0.00	0.00		
28	1.55	5.25	42.35	4.20	8.56	30.30	16.21	1.05	1.00	0.00	0.00	0.00		
29	1.60	8.28	28.20	5.40	9.40	40.25	11.92	1.00	1.00	0.00		0.00		
30	1.65	10.24	12.48	7.00	10.24	63.60	10.80	0.95	1.00	0.00		0.00		
31		12.20		8.84	12.20		10.52		1.00	0.00		0.00		
Total	25.35	103.77	231.59	141.69	198.70	989.12	863.67	121.32	35.05	3.10	0.00	0.00	2713.36	CMSDAY
Mean	0.85	3.35	7.72	4.57	6.41	32.97	27.86	4.04	1.13	0.10	0.00	0.00	7.43	CMS
Max	1.65	12.20	42.35	8.84	12.20	83.70	123.00	9.96	1.35	0.95	0.00	0.00	123.00	CMS
Min	0.10	1.65	2.00	2.60	2.70	11.08	1.00	0.95	0.95	0.00	0.00	0.00	0.00	CMS
Runoff	2.19	8.97	20.01	12.24	17.17	85.46	74.62	10.48	3.03	0.27	0.00	0.00	234.43	MCM

Momentary Peak 126.00 CMS. at 189.27 m. (MSL.) at 06.00 Hours , on Oct 4 , 2018

Runoff Yield 5.68 Liters/Second/Square KM. Momentary Peak Yield 96.26 Liters/Second/Square KM.

WATER YEAR : 2018

KHONG RIVER BASIN

Loei River at Ban Na Lak , Loei (Kh.28A)

Lat 17 - 18 - 32 N Long 101 - 46 - 25 E

Location : on right bank at the bridge of Wang Saphung - Loei Highway.

	Ban Na Lak	**Amphoe** Wang Saphung	**Changwat** Loei
Drainge Area	1,271 sq.km.		
Type of Gage	Water - stage recorder.		
Zero Gage at Bottom	+238.400 m. (MSL.)		
Bench Mark	B.M.- Highways Dept.		
Location BM	On right bank upstream at the footpath of the bridge.		**Elevation** +253.724 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	1994 to date		
Rating Operation			
Period of Rating	1994 to date		
Rated by Flot	-		
Rated by Current Meter	1994 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 25 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

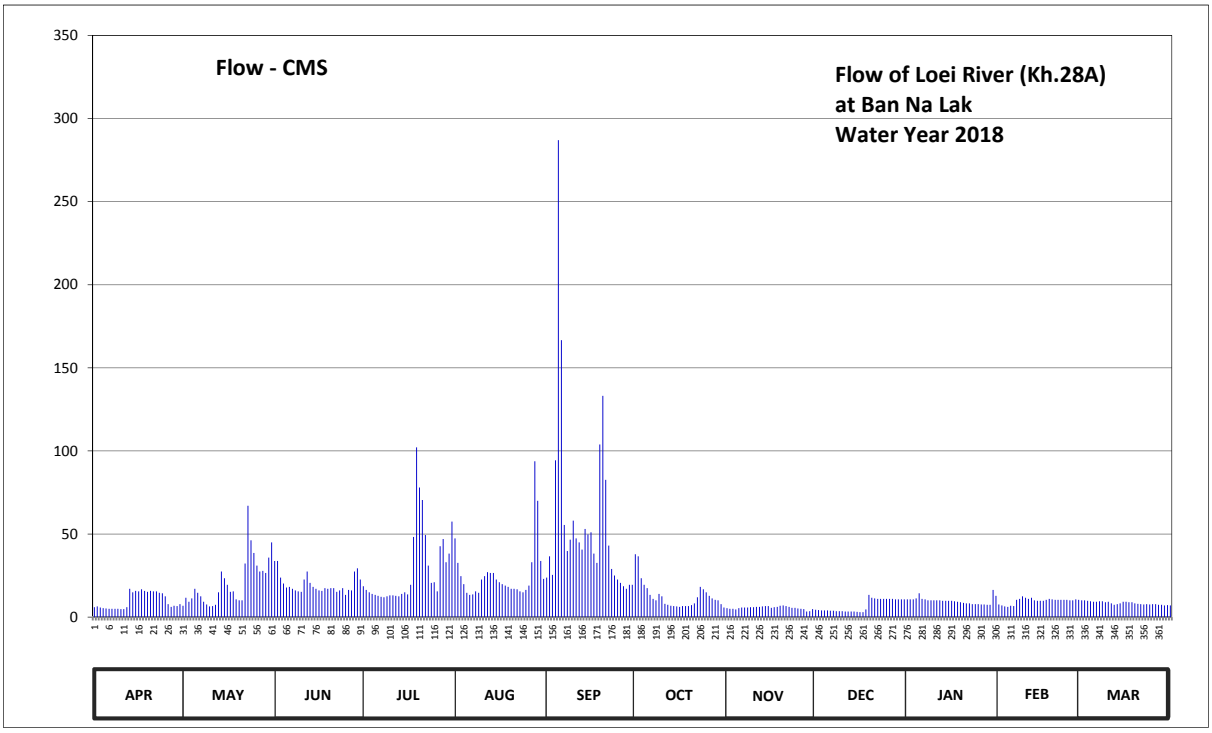
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	239.60	239.64	240.42	240.04	240.76	240.17	240.52	239.57	239.52	239.79	239.68	239.77	
2	239.62	239.82	240.42	239.98	240.39	240.49	240.49	239.55	239.51	239.79	239.65	239.77	
3	239.59	239.74	240.17	239.93	240.19	240.21	240.16	239.55	239.50	239.79	239.62	239.76	
4	239.57	239.81	240.08	239.90	240.07	241.72	240.06	239.53	239.50	239.81	239.61	239.75	
5	239.56	240.00	240.02	239.88	239.92	244.25	240.01	239.57	239.50	239.91	239.64	239.74	
6	239.55	239.92	240.03	239.86	239.88	242.82	239.88	239.59	239.49	239.80	239.63	239.74	
7	239.55	239.85	240.00	239.84	239.89	240.96	239.80	239.59	239.49	239.79	239.78	239.75	
8	239.55	239.74	239.97	239.83	239.95	240.57	239.77	239.59	239.48	239.77	239.80	239.75	
9	239.55	239.68	239.95	239.85	239.92	240.74	239.90	239.60	239.48	239.77	239.85	239.73	
10	239.54	239.62	239.94	239.87	240.14	241.02	239.85	239.60	239.48	239.77	239.82	239.74	
11	239.54	239.63	240.14	239.87	240.19	240.76	239.70	239.61	239.47	239.77	239.80	239.71	
12	239.60	239.67	240.26	239.86	240.25	240.70	239.67	239.61	239.47	239.77	239.82	239.67	
13	240.00	239.93	240.09	239.85	240.24	240.59	239.64	239.62	239.47	239.76	239.77	239.69	
14	239.93	240.26	240.03	239.90	240.24	240.90	239.63	239.63	239.47	239.76	239.76	239.71	
15	239.96	240.16	240.00	239.93	240.14	240.82	239.62	239.63	239.46	239.76	239.76	239.74	
16	239.95	240.06	239.97	239.89	240.10	240.85	239.61	239.58	239.45	239.76	239.76	239.74	
17	239.99	239.94	239.96	240.06	240.07	240.53	239.63	239.60	239.45	239.75	239.78	239.73	
18	239.96	239.95	240.01	240.78	240.05	240.39	239.63	239.61	239.53	239.74	239.80	239.73	
19	239.94	239.79	240.00	241.86	240.03	241.89	239.63	239.64	239.88	239.73	239.79	239.71	
20	239.96	239.77	240.01	241.42	240.00	242.35	239.66	239.65	239.82	239.72	239.78	239.70	
21	239.95	239.77	240.01	241.27	240.00	241.51	239.71	239.63	239.81	239.71	239.78	239.69	
22	239.95	240.38	239.94	240.81	239.99	240.65	239.83	239.61	239.80	239.71	239.78	239.68	
23	239.92	241.20	239.97	240.35	239.95	240.30	240.03	239.58	239.80	239.69	239.78	239.69	
24	239.91	240.73	240.01	240.09	239.93	240.20	239.99	239.58	239.80	239.69	239.78	239.68	
25	239.85	240.54	239.88	240.10	239.98	240.14	239.93	239.56	239.80	239.69	239.77	239.69	
26	239.69	240.35	239.98	239.95	240.05	240.09	239.86	239.55	239.80	239.68	239.77	239.69	
27	239.61	240.26	239.97	240.64	240.40	240.04	239.81	239.54	239.80	239.68	239.79	239.67	
28	239.64	240.27	240.26	240.75	241.71	240.00	239.78	239.47	239.79	239.67	239.78	239.67	
29	239.63	240.24	240.31	240.40	241.26	240.06	239.77	239.48	239.79	239.67		239.65	
30	239.69	240.47	240.14	240.53	240.42	240.06	239.69	239.54	239.79	239.98		239.66	
31		240.70		241.01	240.15		239.59		239.79	239.86		239.65	
Mean	239.74	240.06	240.06	240.27	240.20	240.86	239.83	239.58	239.62	239.76	239.75	239.71	
Max	240.00	241.20	240.42	241.86	241.71	244.25	240.52	239.65	239.88	239.98	239.85	239.77	244.25
Min	239.54	239.62	239.88	239.83	239.88	240.00	239.59	239.47	239.45	239.67	239.61	239.65	239.45

Annual Max Momentary Gage Height 244.52 m. (MSL.) , at 15.00 Hours , on Sep 5 , 2018

Zero Gage at Bottom Elevation 238.40 m. (MSL.) , River Bed 237.60 m. (MSL.)

Left Bank Elevation 247.23 m. (MSL.) ,

Right Bank Elevation 247.39 m. (MSL.) , Drainage Are 1,271 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	6.00	6.80	33.80	18.60	47.40	23.80	37.80	5.40	4.40	10.70	7.60	10.10		
2	6.40	11.60	33.80	16.40	32.60	36.60	36.60	5.00	4.20	10.70	7.00	10.10		
3	5.80	9.20	23.80	14.90	24.60	25.40	23.40	5.00	4.00	10.70	6.40	9.80		
4	5.40	11.30	20.20	14.00	19.80	94.32	19.40	4.60	4.00	11.30	6.20	9.50		
5	5.20	17.00	17.80	13.40	14.60	287.00	17.40	5.40	4.00	14.30	6.80	9.20		
6	5.00	14.60	18.20	12.80	13.40	166.68	13.40	5.80	3.80	11.00	6.60	9.20		
7	5.00	12.50	17.00	12.20	13.70	55.40	11.00	5.80	3.80	10.70	10.40	9.50		
8	5.00	9.20	16.10	11.90	15.50	39.80	10.10	5.80	3.60	10.10	11.00	9.50		
9	5.00	7.60	15.50	12.50	14.60	46.60	14.00	6.00	3.60	10.10	12.50	8.90		
10	4.80	6.40	15.20	13.10	22.60	58.00	12.50	6.00	3.60	10.10	11.60	9.20		
11	4.80	6.60	22.60	13.10	24.60	47.40	8.00	6.20	3.40	10.10	11.00	8.30		
12	6.00	7.40	27.40	12.80	27.00	45.00	7.40	6.20	3.40	10.10	11.60	7.40		
13	17.00	14.90	20.60	12.50	26.60	40.60	6.80	6.40	3.40	9.80	10.10	7.80		
14	14.90	27.40	18.20	14.00	26.60	53.00	6.60	6.60	3.40	9.80	9.80	8.30		
15	15.80	23.40	17.00	14.90	22.60	49.80	6.40	6.60	3.20	9.80	9.80	9.20		
16	15.50	19.40	16.10	13.70	21.00	51.00	6.20	5.60	3.00	9.80	9.80	9.20		
17	16.70	15.20	15.80	19.40	19.80	38.20	6.60	6.00	3.00	9.50	10.40	8.90		
18	15.80	15.50	17.40	48.20	19.00	32.60	6.60	6.20	4.60	9.20	11.00	8.90		
19	15.20	10.70	17.00	102.16	18.20	103.84	6.60	6.80	13.40	8.90	10.70	8.30		
20	15.80	10.10	17.40	78.00	17.00	133.10	7.20	7.00	11.60	8.60	10.40	8.00		
21	15.50	10.10	17.40	70.50	17.00	82.56	8.30	6.60	11.30	8.30	10.40	7.80		
22	15.50	32.20	15.20	49.40	16.70	43.00	11.90	6.20	11.00	8.30	10.40	7.60		
23	14.60	67.00	16.10	31.00	15.50	29.00	18.20	5.60	11.00	7.80	10.40	7.80		
24	14.30	46.20	17.40	20.60	14.90	25.00	16.70	5.60	11.00	7.80	10.40	7.60		
25	12.50	38.60	13.40	21.00	16.40	22.60	14.90	5.20	11.00	7.80	10.10	7.80		
26	7.80	31.00	16.40	15.50	19.00	20.60	12.80	5.00	11.00	7.60	10.10	7.80		
27	6.20	27.40	16.10	42.60	33.00	18.60	11.30	4.80	11.00	7.60	10.70	7.40		
28	6.80	27.80	27.40	47.00	93.76	17.00	10.40	3.40	10.70	7.40	10.40	7.40		
29	6.60	26.60	29.40	33.00	70.00	19.40	10.10	3.60	10.70	7.40		7.00		
30	7.80	35.80	22.60	38.20	33.80	19.40	7.80	4.80	10.70	16.40		7.20		
31		45.00		57.50	23.00		5.80		10.70	12.80		7.00		
Total	298.70	644.50	592.30	894.86	794.26	1725.30	392.20	169.20	211.50	304.50	273.60	261.70	6562.62	CMSDAY
Mean	9.96	20.79	19.74	28.87	25.62	57.51	12.65	5.64	6.82	9.82	9.77	8.44	17.98	CMS
Max	17.00	67.00	33.80	102.16	93.76	287.00	37.80	7.00	13.40	16.40	12.50	10.10	287.00	CMS
Min	4.80	6.40	13.40	11.90	13.40	17.00	5.80	3.40	3.00	7.40	6.20	7.00	3.00	CMS
Runoff	25.81	55.68	51.17	77.32	68.62	149.07	33.89	14.62	18.27	26.31	23.64	22.61	567.01	MCM

Momentary Peak 311.84 CMS. at 244.52 m. (MSL.) at 15.00 Hours , on Sep 5 , 2018

Runoff Yield 14.15 Liters/Second/Square KM. Momentary Peak Yield 245.35 Liters/Second/Square KM.

WATER YEAR : 2018

KHONG RIVER BASIN

Huai Luang at Ban Nong Wua So , Udon Thani (Kh.53)

Lat 17 - 15 - 51 N Long 102 - 35 - 47 E

Location : on right bank at the bridge of Udon Thani - Nong Bua Lamphu Highway at guidepost 26.5

Ban Nong Wua So **Amphoe** Nong Wua So **Changwat** Udon Thani

Drainge Area	421 sq.km.
Type of Gage	Water - stage recorder.
Zero Gage at Bottom	+201.300 m. (MSL.)
Bench Mark	B.M.- H.D.
Location BM	On right bank downstream side at the footpath of the bridge. **Elevation** +206.018 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	1970 to date
Rating Operation	
Period of Rating	1975 - 1986 , 1997 to date
Rated by Flot	-
Rated by Current Meter	1975 - 1986 , 1997 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. Flow regulated by Huai Luang barrage. Stage-discharge relation defined by 14 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

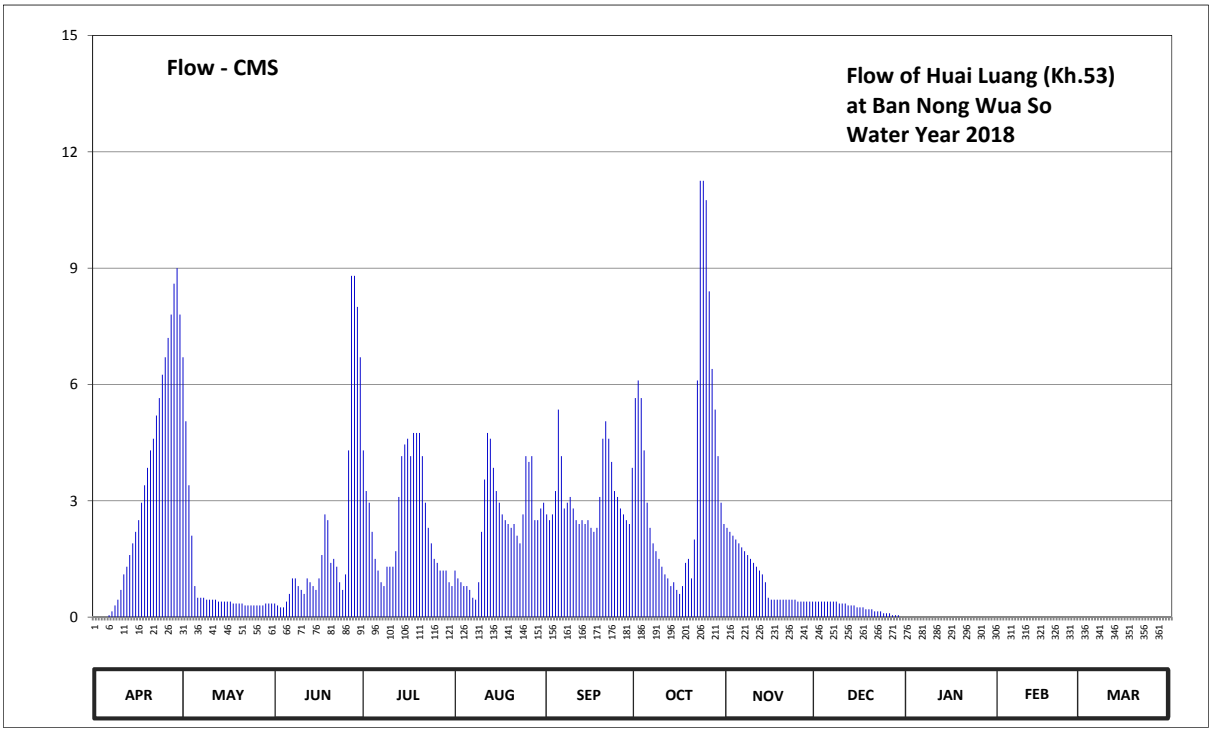
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	203.87	204.58	204.07	204.42	204.17	204.31	204.51	204.28	204.08	204.00	203.86	203.81	
2	203.89	204.47	204.06	204.35	204.15	204.30	204.54	204.27	204.08	204.00	203.86	203.80	
3	203.91	204.36	204.05	204.33	204.14	204.31	204.51	204.26	204.08	203.99	203.86	203.80	
4	203.94	204.26	204.05	204.27	204.13	204.35	204.42	204.25	204.08	203.98	203.85	203.79	
5	203.98	204.13	204.08	204.20	204.13	204.49	204.33	204.24	204.08	203.98	203.85	203.79	
6	204.01	204.10	204.11	204.17	204.12	204.41	204.28	204.23	204.08	203.97	203.85	203.78	
7	204.03	204.10	204.15	204.14	204.10	204.32	204.24	204.22	204.08	203.96	203.84	203.78	
8	204.06	204.10	204.15	204.13	204.09	204.33	204.22	204.21	204.08	203.95	203.84	203.77	
9	204.09	204.09	204.13	204.18	204.14	204.34	204.20	204.20	204.07	203.95	203.84	203.77	
10	204.12	204.09	204.12	204.18	204.27	204.32	204.18	204.19	204.07	203.94	203.84	203.76	
11	204.16	204.09	204.11	204.18	204.37	204.30	204.16	204.18	204.07	203.94	203.83	203.75	
12	204.18	204.09	204.15	204.22	204.45	204.29	204.15	204.17	204.06	203.93	203.83	203.74	
13	204.21	204.08	204.14	204.34	204.44	204.30	204.13	204.16	204.06	203.93	203.83	203.73	
14	204.24	204.08	204.13	204.41	204.39	204.29	204.14	204.14	204.06	203.92	203.83	203.72	
15	204.27	204.08	204.12	204.43	204.35	204.30	204.12	204.10	204.05	203.92	203.82	203.72	
16	204.30	204.08	204.15	204.44	204.33	204.28	204.11	204.09	204.05	203.91	203.82	203.71	
17	204.33	204.08	204.21	204.41	204.31	204.27	204.13	204.09	204.05	203.91	203.82	203.71	
18	204.36	204.07	204.31	204.45	204.30	204.28	204.19	204.09	204.04	203.90	203.82	203.70	
19	204.39	204.07	204.30	204.45	204.29	204.34	204.20	204.09	204.04	203.90	203.81	203.69	
20	204.42	204.07	204.19	204.45	204.28	204.44	204.15	204.09	204.04	203.89	203.81	203.69	
21	204.44	204.07	204.20	204.41	204.29	204.47	204.25	204.09	204.03	203.89	203.81	203.68	
22	204.48	204.06	204.18	204.33	204.26	204.44	204.54	204.09	204.03	203.88	203.81	203.67	
23	204.51	204.06	204.14	204.28	204.24	204.40	204.79	204.09	204.03	203.88	203.81	203.67	
24	204.55	204.06	204.12	204.24	204.31	204.35	204.79	204.09	204.02	203.87	203.81	203.66	
25	204.58	204.06	204.16	204.20	204.41	204.34	204.77	204.08	204.02	203.87	203.81	203.66	
26	204.61	204.06	204.42	204.19	204.40	204.32	204.67	204.08	204.02	203.87	203.81	203.65	
27	204.64	204.06	204.69	204.17	204.41	204.31	204.56	204.08	204.01	203.87	203.81	203.65	
28	204.68	204.06	204.69	204.17	204.30	204.30	204.49	204.08	204.01	203.86	203.81	203.64	
29	204.70	204.07	204.65	204.17	204.30	204.29	204.41	204.08	204.01	203.86		203.64	
30	204.64	204.07	204.58	204.14	204.32	204.39	204.33	204.08	204.00	203.86		203.63	
31		204.07		204.13	204.33		204.29		204.00	203.86		203.63	
Mean	204.29	204.12	204.22	204.28	204.27	204.34	204.35	204.15	204.05	203.92	203.83	203.72	
Max	204.70	204.58	204.69	204.45	204.45	204.49	204.79	204.28	204.08	204.00	203.86	203.81	204.79
Min	203.87	204.06	204.05	204.13	204.09	204.27	204.11	204.08	204.00	203.86	203.81	203.63	203.63

Annual Max Momentary Gage Height 204.81 m. (MSL.) , at 11.00 Hours , on Oct 23 , 2018

Zero Gage at Bottom Elevation 201.30 m. (MSL.) , River Bed 203.30 m. (MSL.)

Left Bank Elevation 206.37 m. (MSL.) ,

Right Bank Elevation 205.91 m. (MSL.) , Drainage Are 421 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	6.70	0.35	4.30	1.20	2.65	5.65	2.30	0.40	0.00	0.00	0.00		
2	0.00	5.05	0.30	3.25	1.00	2.50	6.10	2.20	0.40	0.00	0.00	0.00		
3	0.00	3.40	0.25	2.95	0.90	2.65	5.65	2.10	0.40	0.00	0.00	0.00		
4	0.00	2.10	0.25	2.20	0.80	3.25	4.30	2.00	0.40	0.00	0.00	0.00		
5	0.00	0.80	0.40	1.50	0.80	5.35	2.95	1.90	0.40	0.00	0.00	0.00		
6	0.05	0.50	0.60	1.20	0.70	4.15	2.30	1.80	0.40	0.00	0.00	0.00		
7	0.15	0.50	1.00	0.90	0.50	2.80	1.90	1.70	0.40	0.00	0.00	0.00		
8	0.30	0.50	1.00	0.80	0.45	2.95	1.70	1.60	0.40	0.00	0.00	0.00		
9	0.45	0.45	0.80	1.30	0.90	3.10	1.50	1.50	0.35	0.00	0.00	0.00		
10	0.70	0.45	0.70	1.30	2.20	2.80	1.30	1.40	0.35	0.00	0.00	0.00		
11	1.10	0.45	0.60	1.30	3.55	2.50	1.10	1.30	0.35	0.00	0.00	0.00		
12	1.30	0.45	1.00	1.70	4.75	2.40	1.00	1.20	0.30	0.00	0.00	0.00		
13	1.60	0.40	0.90	3.10	4.60	2.50	0.80	1.10	0.30	0.00	0.00	0.00		
14	1.90	0.40	0.80	4.15	3.85	2.40	0.90	0.90	0.30	0.00	0.00	0.00		
15	2.20	0.40	0.70	4.45	3.25	2.50	0.70	0.50	0.25	0.00	0.00	0.00		
16	2.50	0.40	1.00	4.60	2.95	2.30	0.60	0.45	0.25	0.00	0.00	0.00		
17	2.95	0.40	1.60	4.15	2.65	2.20	0.80	0.45	0.25	0.00	0.00	0.00		
18	3.40	0.35	2.65	4.75	2.50	2.30	1.40	0.45	0.20	0.00	0.00	0.00		
19	3.85	0.35	2.50	4.75	2.40	3.10	1.50	0.45	0.20	0.00	0.00	0.00		
20	4.30	0.35	1.40	4.75	2.30	4.60	1.00	0.45	0.20	0.00	0.00	0.00		
21	4.60	0.35	1.50	4.15	2.40	5.05	2.00	0.45	0.15	0.00	0.00	0.00		
22	5.20	0.30	1.30	2.95	2.10	4.60	6.10	0.45	0.15	0.00	0.00	0.00		
23	5.65	0.30	0.90	2.30	1.90	4.00	11.25	0.45	0.15	0.00	0.00	0.00		
24	6.25	0.30	0.70	1.90	2.65	3.25	11.25	0.45	0.10	0.00	0.00	0.00		
25	6.70	0.30	1.10	1.50	4.15	3.10	10.75	0.40	0.10	0.00	0.00	0.00		
26	7.20	0.30	4.30	1.40	4.00	2.80	8.40	0.40	0.10	0.00	0.00	0.00		
27	7.80	0.30	8.80	1.20	4.15	2.65	6.40	0.40	0.05	0.00	0.00	0.00		
28	8.60	0.30	8.80	1.20	2.50	2.50	5.35	0.40	0.05	0.00	0.00	0.00		
29	9.00	0.35	8.00	1.20	2.50	2.40	4.15	0.40	0.05	0.00		0.00		
30	7.80	0.35	6.70	0.90	2.80	3.85	2.95	0.40	0.00	0.00		0.00		
31		0.35		0.80	2.95		2.40		0.00	0.00		0.00		
Total	95.55	27.90	60.90	76.90	74.35	93.20	114.15	29.95	7.40	0.00	0.00	0.00	580.30	CMSDAY
Mean	3.19	0.90	2.03	2.48	2.40	3.11	3.68	1.00	0.24	0.00	0.00	0.00	1.59	CMS
Max	9.00	6.70	8.80	4.75	4.75	5.35	11.25	2.30	0.40	0.00	0.00	0.00	11.25	CMS
Min	0.00	0.30	0.25	0.80	0.45	2.20	0.60	0.40	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	8.26	2.41	5.26	6.64	6.42	8.05	9.86	2.59	0.64	0.00	0.00	0.00	50.14	MCM

Momentary Peak 11.75 CMS. at 204.81 m. (MSL.) at 11.00 Hours , on Oct 23 , 2018

Runoff Yield 3.78 Liters/Second/Square KM. Momentary Peak Yield 27.91 Liters/Second/Square KM.

WATER YEAR : 2018

KHONG RIVER BASIN

Nam Un at Ban Na Wa , Nakhon Phanom (Kh.54)

Lat 17 - 29 - 33 N Long 104 - 06 - 50 E

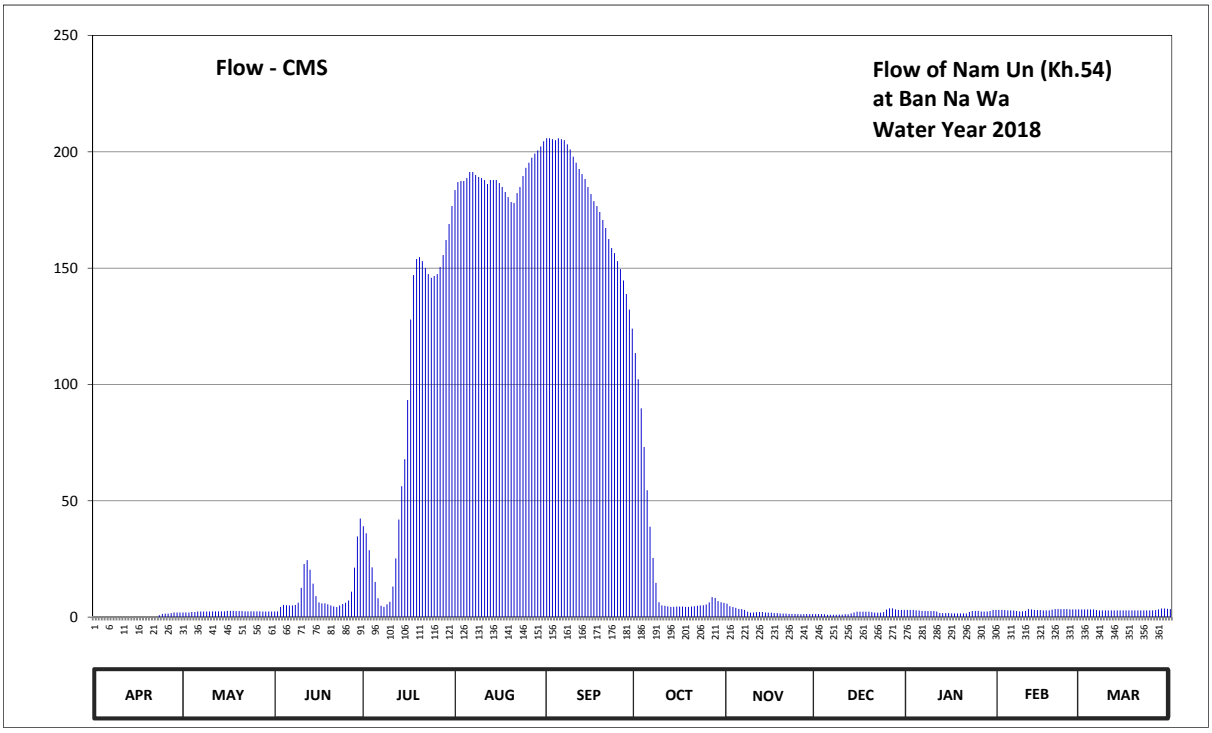
Location : on left bank at Ban Na Wa.

	Ban Na Wa	**Amphoe** Na Wa	**Changwat** Nakhon Phanom
Drainge Area	3,123 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+136.200 m. (MSL.)		
Bench Mark	B.M.- H.D.		
Location BM	On left bank at the footpath of the bridge.		**Elevation** +149.635 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic mean of 3 readings		
Period of Available Gage Records	1970 to date		
Rating Operation			
Period of Rating	1970 to date		
Rated by Flot	-		
Rated by Current Meter	1970 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 24 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	139.08	140.50	140.54	142.64	146.85	147.36	145.14	140.88	140.43	140.61	140.61	140.63	
2	139.08	140.50	140.55	142.50	146.93	147.36	144.82	140.77	140.43	140.61	140.61	140.63	
3	139.08	140.50	140.74	142.17	146.94	147.35	144.43	140.73	140.43	140.61	140.60	140.63	
4	139.05	140.52	140.82	141.80	146.94	147.34	143.90	140.70	140.42	140.59	140.59	140.63	
5	139.05	140.52	140.81	141.45	146.97	147.36	143.26	140.65	140.40	140.58	140.59	140.63	
6	139.03	140.54	140.80	141.06	147.03	147.35	142.63	140.64	140.40	140.57	140.58	140.60	
7	139.02	140.54	140.80	140.79	147.03	147.34	142.02	140.61	140.40	140.57	140.56	140.59	
8	139.02	140.54	140.82	140.74	147.00	147.30	141.43	140.53	140.40	140.56	140.55	140.59	
9	139.02	140.54	140.92	140.85	146.98	147.25	140.94	140.49	140.41	140.56	140.55	140.59	
10	139.02	140.54	141.31	140.96	146.97	147.18	140.80	140.50	140.41	140.56	140.57	140.59	
11	139.02	140.55	141.88	141.34	146.95	147.12	140.79	140.51	140.42	140.54	140.64	140.59	
12	139.05	140.55	141.97	142.01	146.91	147.06	140.76	140.52	140.42	140.48	140.63	140.59	
13	139.10	140.55	141.74	142.77	146.95	147.01	140.74	140.52	140.46	140.47	140.61	140.59	
14	139.18	140.55	141.41	143.32	146.95	146.96	140.74	140.50	140.50	140.47	140.60	140.59	
15	139.27	140.55	141.11	143.72	146.95	146.88	140.75	140.49	140.53	140.47	140.60	140.59	
16	139.34	140.57	140.93	144.54	146.92	146.81	140.75	140.49	140.53	140.46	140.59	140.59	
17	139.42	140.57	140.89	145.51	146.88	146.74	140.75	140.47	140.53	140.46	140.59	140.59	
18	139.60	140.57	140.89	146.00	146.83	146.69	140.74	140.47	140.53	140.46	140.59	140.59	
19	139.73	140.56	140.85	146.16	146.78	146.63	140.74	140.46	140.53	140.46	140.62	140.59	
20	139.83	140.56	140.80	146.18	146.73	146.55	140.75	140.45	140.51	140.46	140.64	140.59	
21	140.03	140.56	140.76	146.14	146.72	146.47	140.77	140.45	140.49	140.46	140.64	140.59	
22	140.23	140.55	140.73	146.07	146.82	146.36	140.79	140.44	140.49	140.52	140.64	140.59	
23	140.38	140.55	140.80	146.01	146.88	146.27	140.80	140.44	140.49	140.56	140.64	140.59	
24	140.44	140.55	140.86	145.97	146.99	146.22	140.81	140.44	140.51	140.57	140.64	140.59	
25	140.45	140.55	140.92	145.99	147.07	146.14	140.84	140.43	140.62	140.57	140.63	140.59	
26	140.45	140.55	141.01	146.01	147.12	146.06	140.93	140.42	140.68	140.54	140.63	140.60	
27	140.47	140.55	141.22	146.08	147.17	145.94	141.09	140.42	140.68	140.54	140.63	140.63	
28	140.50	140.54	141.79	146.20	147.21	145.79	141.07	140.43	140.63	140.54	140.63	140.67	
29	140.50	140.54	142.44	146.35	147.24	145.62	140.99	140.43	140.61	140.56		140.67	
30	140.50	140.54	142.79	146.51	147.28	145.41	140.94	140.43	140.61	140.61		140.66	
31		140.54		146.69	147.33		140.91		140.61	140.61		140.64	
Mean	139.60	140.54	141.13	144.02	146.98	146.73	141.51	140.52	140.50	140.54	140.61	140.61	
Max	140.50	140.57	142.79	146.69	147.33	147.36	145.14	140.88	140.68	140.61	140.64	140.67	147.36
Min	139.02	140.50	140.54	140.74	146.72	145.41	140.74	140.42	140.40	140.46	140.55	140.59	139.02

Annual Max Momentary Gage Height	147.37	m. (MSL.) ,	at 18.00 Hours , on Sep 1 , 2018		
Zero Gage at Bottom Elevation	136.20	m. (MSL.) ,	River Bed	138.55	m. (MSL.)
Left Bank Elevation	148.88	m. (MSL.) ,			
Right Bank Elevation	147.67	m. (MSL.) ,	Drainage Are	3,123	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	2.00	2.40	39.08	183.55	205.84	113.46	5.80	1.30	3.10	3.10	3.30		
2	0.00	2.00	2.50	36.00	186.99	205.84	102.24	4.70	1.30	3.10	3.10	3.30		
3	0.00	2.00	4.40	28.74	187.42	205.40	89.76	4.30	1.30	3.10	3.00	3.30		
4	0.00	2.20	5.20	21.40	187.42	204.96	73.10	4.00	1.20	2.90	2.90	3.30		
5	0.00	2.20	5.10	15.10	188.71	205.84	54.54	3.50	1.00	2.80	2.90	3.30		
6	0.00	2.40	5.00	8.08	191.32	205.40	38.86	3.40	1.00	2.70	2.80	3.00		
7	0.00	2.40	5.00	4.90	191.32	204.96	25.44	3.10	1.00	2.70	2.60	2.90		
8	0.00	2.40	5.20	4.40	190.00	203.20	14.74	2.30	1.00	2.60	2.50	2.90		
9	0.00	2.40	6.20	5.50	189.14	201.00	6.40	1.90	1.10	2.60	2.50	2.90		
10	0.00	2.40	12.58	6.60	188.71	197.92	5.00	2.00	1.10	2.60	2.70	2.90		
11	0.00	2.50	22.84	13.12	187.85	195.28	4.90	2.10	1.20	2.40	3.40	2.90		
12	0.00	2.50	24.46	25.22	186.13	192.64	4.60	2.20	1.20	1.80	3.30	2.90		
13	0.00	2.50	20.32	41.94	187.85	190.44	4.40	2.20	1.60	1.70	3.10	2.90		
14	0.00	2.50	14.38	56.28	187.85	188.28	4.40	2.00	2.00	1.70	3.00	2.90		
15	0.00	2.50	8.98	67.88	187.85	184.84	4.50	1.90	2.30	1.70	3.00	2.90		
16	0.00	2.70	6.30	93.28	186.56	181.83	4.50	1.90	2.30	1.60	2.90	2.90		
17	0.00	2.70	5.90	127.89	184.84	178.82	4.50	1.70	2.30	1.60	2.90	2.90		
18	0.00	2.70	5.90	147.00	182.69	176.67	4.40	1.70	2.30	1.60	2.90	2.90		
19	0.00	2.60	5.50	153.88	180.54	174.09	4.40	1.60	2.30	1.60	3.20	2.90		
20	0.00	2.60	5.00	154.74	178.39	170.65	4.50	1.50	2.10	1.60	3.40	2.90		
21	0.00	2.60	4.60	153.02	177.96	167.21	4.70	1.50	1.90	1.60	3.40	2.90		
22	0.00	2.50	4.30	150.01	182.26	162.48	4.90	1.40	1.90	2.20	3.40	2.90		
23	0.80	2.50	5.00	147.43	184.84	158.61	5.00	1.40	1.90	2.60	3.40	2.90		
24	1.40	2.50	5.60	145.83	189.57	156.46	5.10	1.40	2.10	2.70	3.40	2.90		
25	1.50	2.50	6.20	146.61	193.08	153.02	5.40	1.30	3.20	2.70	3.30	2.90		
26	1.50	2.50	7.18	147.43	195.28	149.58	6.30	1.20	3.80	2.40	3.30	3.00		
27	1.70	2.50	10.96	150.44	197.48	144.66	8.62	1.20	3.80	2.40	3.30	3.30		
28	2.00	2.40	21.22	155.60	199.24	138.81	8.26	1.30	3.30	2.40	3.30	3.70		
29	2.00	2.40	34.68	162.05	200.56	132.18	6.90	1.30	3.10	2.60		3.70		
30	2.00	2.40	42.38	168.93	202.32	123.99	6.40	1.30	3.10	3.10		3.60		
31		2.40		176.67	204.52		6.10		3.10	3.10		3.40		
Total	12.90	75.40	315.28	2755.05	5862.24	5360.90	636.32	67.10	62.10	73.30	86.00	95.30	15401.89	CMSDAY
Mean	0.43	2.43	10.51	88.87	189.10	178.70	20.53	2.24	2.00	2.36	3.07	3.07	42.20	CMS
Max	2.00	2.70	42.38	176.67	204.52	205.84	113.46	5.80	3.80	3.10	3.40	3.70	205.84	CMS
Min	0.00	2.00	2.40	4.40	177.96	123.99	4.40	1.20	1.00	1.60	2.50	2.90	0.00	CMS
Runoff	1.11	6.51	27.24	238.04	506.50	463.18	54.98	5.80	5.37	6.33	7.43	8.23	1330.72	MCM

Momentary Peak 206.28 CMS. at 147.37 m. (MSL.) at 18.00 Hours , on Sep 1 , 2018

Runoff Yield 13.51 Liters/Second/Square KM. Momentary Peak Yield 66.05 Liters/Second/Square KM.

WATER YEAR : 2018

KHONG RIVER BASIN

Loei River at Ban Fak Loei , Loei (Kh.58A)

Lat 17 - 29 - 36 N Long 101 - 44 - 17 E

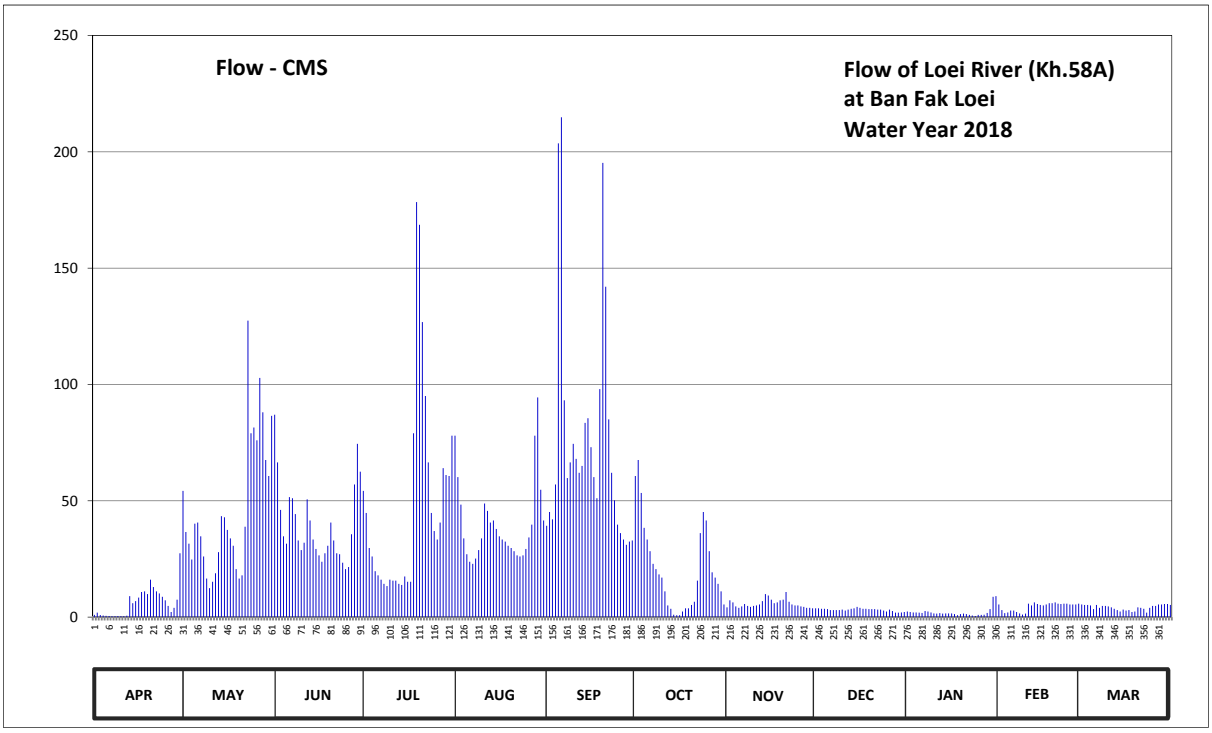
Location : on left bank at the bridge on road.

	Ban Fak Loei	**Amphoe** Mueang	**Changwat** Loei
Drainge Area	3,093 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+228.900 m. (MSL.)		
Bench Mark	B.M.- H.D.		
Location BM	On left bank upstream side at the abutment of the bridge.		**Elevation** +240.499 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	1979 to date		
Rating Operation			
Period of Rating	1990 to date		
Rated by Flot	-		
Rated by Current Meter	1990 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 44 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	229.99	231.43	232.10	231.43	231.92	231.10	231.57	230.21	230.19	230.12	230.27	230.27	
2	230.09	231.04	231.69	231.22	231.56	231.23	231.71	230.34	230.19	230.11	230.15	230.26	
3	229.98	230.93	231.25	230.89	231.30	231.16	231.41	230.31	230.18	230.10	230.07	230.26	
4	229.94	230.78	231.00	230.81	230.98	231.49	231.08	230.23	230.18	230.10	230.10	230.25	
5	229.91	231.12	230.93	230.67	230.83	233.88	230.97	230.20	230.17	230.09	230.14	230.17	
6	229.88	231.13	231.37	230.63	230.76	234.04	230.86	230.23	230.15	230.08	230.14	230.26	
7	229.87	231.00	231.36	230.59	230.74	232.22	230.74	230.28	230.15	230.13	230.11	230.20	
8	229.86	230.81	231.21	230.55	230.79	231.55	230.69	230.24	230.15	230.12	230.06	230.24	
9	229.88	230.60	230.96	230.53	230.87	231.69	230.64	230.22	230.15	230.10	230.01	230.24	
10	229.87	230.51	230.87	230.59	230.98	231.85	230.61	230.24	230.16	230.06	230.05	230.23	
11	229.86	230.57	230.94	230.58	231.31	231.72	230.47	230.25	230.14	230.05	230.29	230.21	
12	229.92	230.65	231.35	230.58	231.24	231.60	230.25	230.27	230.16	230.07	230.25	230.18	
13	230.40	230.85	231.15	230.55	231.13	231.66	230.18	230.33	230.18	230.05	230.31	230.15	
14	230.30	231.19	230.97	230.54	231.15	232.03	230.00	230.43	230.19	230.06	230.28	230.12	
15	230.33	231.18	230.88	230.62	231.07	232.07	229.97	230.41	230.22	230.06	230.26	230.16	
16	230.38	231.06	230.82	230.57	231.00	231.82	229.97	230.35	230.20	230.06	230.25	230.14	
17	230.46	230.98	230.76	230.57	230.97	231.56	230.12	230.30	230.18	230.03	230.27	230.15	
18	230.47	230.91	230.84	231.94	230.95	231.36	230.19	230.31	230.18	229.97	230.30	230.11	
19	230.43	230.69	230.91	233.52	230.91	232.30	230.19	230.34	230.17	230.03	230.30	230.12	
20	230.59	230.60	231.13	233.38	230.89	233.76	230.26	230.35	230.17	230.05	230.31	230.21	
21	230.52	230.63	230.96	232.78	230.86	233.00	230.32	230.46	230.17	230.03	230.29	230.20	
22	230.47	231.09	230.84	232.25	230.82	232.06	230.58	230.32	230.16	229.99	230.28	230.18	
23	230.44	232.79	230.83	231.69	230.81	231.60	231.03	230.27	230.16	229.94	230.29	230.09	
24	230.39	231.94	230.75	231.22	230.82	231.34	231.23	230.25	230.14	229.90	230.29	230.20	
25	230.34	231.99	230.69	231.05	230.88	231.11	231.15	230.25	230.12	229.99	230.27	230.24	
26	230.24	231.88	230.71	230.97	230.99	231.03	230.86	230.23	230.16	229.99	230.27	230.24	
27	230.11	232.38	231.02	231.13	231.11	230.97	230.66	230.22	230.13	230.00	230.27	230.27	
28	230.20	232.12	231.49	231.64	231.92	230.92	230.61	230.20	230.09	230.08	230.29	230.27	
29	230.35	231.71	231.85	231.58	232.24	230.95	230.55	230.20	230.09	230.17		230.28	
30	230.84	231.57	231.61	231.57	231.44	230.96	230.47	230.19	230.10	230.39		230.28	
31		232.09		231.92	231.15		230.27		230.11	230.40		230.26	
Mean	230.21	231.23	231.11	231.24	231.11	231.80	230.63	230.28	230.16	230.07	230.22	230.21	
Max	230.84	232.79	232.10	233.52	232.24	234.04	231.71	230.46	230.22	230.40	230.31	230.28	234.04
Min	229.86	230.51	230.69	230.53	230.74	230.92	229.97	230.19	230.09	229.90	230.01	230.09	229.86

Annual Max Momentary Gage Height	234.69	m. (MSL.) ,	at 02.00 Hours , on Sep 6 , 2018		
Zero Gage at Bottom Elevation	228.90	m. (MSL.) ,	River Bed	229.34	m. (MSL.)
Left Bank Elevation	240.55	m. (MSL.) ,			
Right Bank Elevation	240.46	m. (MSL.) ,	Drainage Are	3,093	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.95	54.27	87.00	54.27	78.00	39.27	60.64	4.20	3.80	2.40	5.40	5.40		
2	1.90	36.55	66.50	44.73	60.18	45.18	67.50	7.20	3.80	2.20	3.00	5.20		
3	0.90	31.55	46.09	29.73	48.36	42.00	53.36	6.30	3.60	2.00	1.70	5.20		
4	0.70	24.73	34.73	26.09	33.82	57.00	38.36	4.60	3.60	2.00	2.00	5.00		
5	0.55	40.18	31.55	19.73	27.00	203.60	33.36	4.00	3.40	1.90	2.80	3.40		
6	0.45	40.64	51.55	17.91	23.82	214.80	28.36	4.60	3.00	1.80	2.80	5.20		
7	0.43	34.73	51.09	16.09	22.91	93.20	22.91	5.60	3.00	2.60	2.20	4.00		
8	0.40	26.09	44.27	14.27	25.18	59.73	20.64	4.80	3.00	2.40	1.60	4.80		
9	0.45	16.55	32.91	13.36	28.82	66.50	18.36	4.40	3.00	2.00	1.10	4.80		
10	0.43	12.46	28.82	16.09	33.82	74.50	17.00	4.80	3.20	1.60	1.50	4.60		
11	0.40	15.18	32.00	15.64	48.82	68.00	11.10	5.00	2.80	1.50	5.80	4.20		
12	0.60	18.82	50.64	15.64	45.64	62.00	5.00	5.40	3.20	1.70	5.00	3.60		
13	9.00	27.91	41.55	14.27	40.64	65.00	3.60	6.90	3.60	1.50	6.30	3.00		
14	6.00	43.36	33.36	13.82	41.55	83.50	1.00	9.90	3.80	1.60	5.60	2.40		
15	6.90	42.91	29.27	17.46	37.91	85.50	0.85	9.30	4.40	1.60	5.20	3.20		
16	8.40	37.45	26.55	15.18	34.73	73.00	0.85	7.50	4.00	1.60	5.00	2.80		
17	10.80	33.82	23.82	15.18	33.36	60.18	2.40	6.00	3.60	1.30	5.40	3.00		
18	11.10	30.64	27.46	79.00	32.45	51.09	3.80	6.30	3.60	0.85	6.00	2.20		
19	9.90	20.64	30.64	178.40	30.64	98.00	3.80	7.20	3.40	1.30	6.00	2.40		
20	16.09	16.55	40.64	168.60	29.73	195.20	5.20	7.50	3.40	1.50	6.30	4.20		
21	12.91	17.91	32.91	126.80	28.36	142.00	6.60	10.80	3.40	1.30	5.80	4.00		
22	11.10	38.82	27.46	95.00	26.55	85.00	15.64	6.60	3.20	0.95	5.60	3.60		
23	10.20	127.40	27.00	66.50	26.09	62.00	36.09	5.40	3.20	0.70	5.80	1.90		
24	8.70	79.00	23.36	44.73	26.55	50.18	45.18	5.00	2.80	0.50	5.80	4.00		
25	7.20	81.50	20.64	37.00	29.27	39.73	41.55	5.00	2.40	0.95	5.40	4.80		
26	4.80	76.00	21.55	33.36	34.27	36.09	28.36	4.60	3.20	0.95	5.40	4.80		
27	2.20	102.80	35.64	40.64	39.73	33.36	19.27	4.40	2.60	1.00	5.40	5.40		
28	4.00	88.00	57.00	64.00	78.00	31.09	17.00	4.00	1.90	1.80	5.80	5.40		
29	7.50	67.50	74.50	61.09	94.40	32.45	14.27	4.00	1.90	3.40		5.60		
30	27.46	60.64	62.50	60.64	54.73	32.91	11.10	3.80	2.00	8.70		5.60		
31		86.50		78.00	41.55		5.40		2.20	9.00		5.20		
Total	182.42	1431.10	1193.00	1493.22	1236.88	2282.06	638.55	175.10	98.00	64.60	125.70	128.90	9049.53	CMSDAY
Mean	6.08	46.16	39.77	48.17	39.90	76.07	20.60	5.84	3.16	2.08	4.49	4.16	24.79	CMS
Max	27.46	127.40	87.00	178.40	94.40	214.80	67.50	10.80	4.40	9.00	6.30	5.60	214.80	CMS
Min	0.40	12.46	20.64	13.36	22.91	31.09	0.85	3.80	1.90	0.50	1.10	1.90	0.40	CMS
Runoff	15.76	123.65	103.08	129.01	106.87	197.17	55.17	15.13	8.47	5.58	10.86	11.14	781.88	MCM

Momentary Peak 270.10 CMS. at 234.69 m. (MSL.) at 02.00 Hours , on Sep 6 , 2018

Runoff Yield 8.02 Liters/Second/Square KM. Momentary Peak Yield 87.33 Liters/Second/Square KM.

WATER YEAR : 2018

KHONG RIVER BASIN

Loei River at Ban Keng Bong , Loei (Kh.61)

Lat 17 - 07 - 44 N Long 101 - 40 - 56 E

Location : on right bank at the bridge of Amphoe Wang Saphung - Ban Nong Khan Road.

	Ban Keng Bong	**Amphoe** Phu Luang	**Changwat** Loei
Drainge Area	549 sq.km.		
Type of Gage	Water - stage recorder.		
Zero Gage at Bottom	+258.400 m. (MSL.)		
Bench Mark	B.M.- Highways Dept.		
Location BM	On right bank downstream side at the footpath of the bridge.		**Elevation** +271.976 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	1982 to date		
Rating Operation			
Period of Rating	1993 to date		
Rated by Flot	-		
Rated by Current Meter	1993 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 25 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

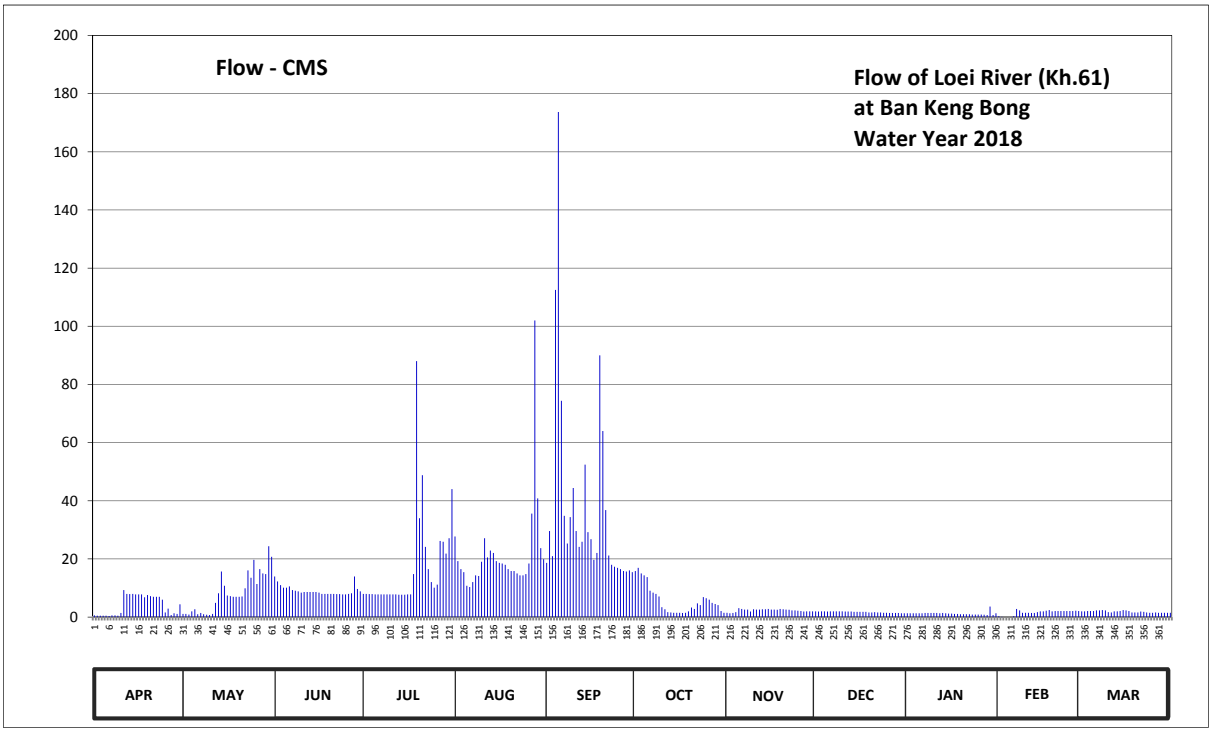
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	258.76	258.81	259.78	259.50	260.39	260.00	259.87	258.85	258.90	258.83	258.73	258.90	
2	258.75	258.81	259.70	259.50	260.03	260.44	259.92	258.83	258.89	258.83	258.71	258.90	
3	258.75	258.79	259.64	259.49	259.90	260.11	259.83	258.84	258.90	258.83	258.70	258.91	
4	258.75	258.90	259.60	259.49	259.85	262.33	259.80	258.87	258.90	258.83	258.69	258.91	
5	258.75	258.97	259.60	259.48	259.63	263.31	259.77	259.01	258.89	258.83	258.69	258.91	
6	258.74	258.80	259.62	259.48	259.61	261.56	259.55	258.98	258.90	258.83	258.73	258.93	
7	258.76	258.84	259.56	259.48	259.69	260.57	259.52	258.96	258.90	258.84	258.98	258.93	
8	258.76	258.80	259.55	259.48	259.80	260.31	259.50	258.96	258.90	258.84	258.93	258.94	
9	258.75	258.78	259.54	259.48	259.79	260.56	259.41	258.89	258.90	258.84	258.85	258.93	
10	258.84	258.77	259.52	259.48	260.02	260.81	259.04	258.97	258.90	258.84	258.85	258.87	
11	259.56	258.81	259.53	259.48	260.37	260.44	258.97	258.96	258.89	258.84	258.85	258.86	
12	259.50	259.19	259.53	259.48	260.09	260.26	258.87	258.96	258.89	258.83	258.84	258.90	
13	259.49	259.51	259.53	259.47	260.20	260.33	258.86	258.97	258.89	258.84	258.84	258.90	
14	259.50	259.86	259.53	259.47	260.16	261.01	258.85	258.97	258.88	258.83	258.87	258.91	
15	259.48	259.63	259.53	259.47	260.03	260.43	258.85	258.98	258.88	258.82	258.90	258.94	
16	259.48	259.44	259.52	259.48	260.00	260.36	258.85	258.96	258.88	258.82	258.90	258.93	
17	259.48	259.42	259.50	259.48	259.99	260.05	258.84	258.96	258.88	258.81	258.92	258.91	
18	259.38	259.40	259.50	259.82	259.97	260.16	258.85	258.95	258.88	258.81	258.94	258.86	
19	259.46	259.40	259.50	261.84	259.90	261.88	258.90	258.98	258.86	258.80	258.90	258.86	
20	259.42	259.40	259.50	260.55	259.87	261.30	259.03	258.97	258.86	258.80	258.91	258.86	
21	259.40	259.41	259.50	260.92	259.87	260.62	258.98	258.96	258.87	258.80	258.91	258.89	
22	259.40	259.59	259.49	260.26	259.83	260.12	259.17	258.95	258.86	258.80	258.91	258.88	
23	259.40	259.88	259.49	259.90	259.80	259.97	259.11	258.93	258.86	258.79	258.91	258.86	
24	259.30	259.76	259.48	259.69	259.80	259.94	259.39	258.93	258.85	258.79	258.91	258.85	
25	258.86	260.05	259.48	259.60	259.82	259.92	259.35	258.92	258.85	258.79	258.91	258.85	
26	258.99	259.66	259.50	259.65	259.99	259.90	259.30	258.91	258.84	258.79	258.91	258.86	
27	258.77	259.90	259.51	260.34	260.59	259.87	259.19	258.89	258.84	258.78	258.92	258.85	
28	258.83	259.83	259.78	260.33	262.12	259.86	259.15	258.90	258.84	258.77	258.91	258.85	
29	258.81	259.82	259.58	260.15	260.72	259.88	259.11	258.90	258.84	259.06		258.85	
30	259.14	260.27	259.54	260.37	260.24	259.85	258.91	258.90	258.83	258.77		258.85	
31		260.10		260.80	260.06		258.85		258.83	258.83		258.85	
Mean	259.11	259.37	259.55	259.85	260.07	260.54	259.21	258.93	258.87	258.82	258.86	258.89	
Max	259.56	260.27	259.78	261.84	262.12	263.31	259.92	259.01	258.90	259.06	258.98	258.94	263.31
Min	258.74	258.77	259.48	259.47	259.61	259.85	258.84	258.83	258.83	258.77	258.69	258.85	258.69

Annual Max Momentary Gage Height 264.26 m. (MSL.) , at 23.00 Hours , on Sep 4 , 2018

Zero Gage at Bottom Elevation 258.40 m. (MSL.) , River Bed 257.93 m. (MSL.)

Left Bank Elevation 271.88 m. (MSL.) ,

Right Bank Elevation 266.85 m. (MSL.) , Drainage Are 549 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.60	1.10	13.95	8.00	27.70	18.63	15.86	1.50	2.00	1.30	0.30	2.00		
2	0.50	1.10	12.25	8.00	19.26	29.60	16.93	1.30	1.90	1.30	0.10	2.00		
3	0.50	0.90	10.98	7.90	16.50	20.96	15.01	1.40	2.00	1.30	0.00	2.10		
4	0.50	2.00	10.13	7.90	15.44	112.50	14.38	1.70	2.00	1.30	0.00	2.10		
5	0.50	2.70	10.13	7.80	10.76	173.70	13.74	3.10	1.90	1.30	0.00	2.10		
6	0.40	1.00	10.55	7.80	10.34	74.40	9.06	2.80	2.00	1.30	0.30	2.30		
7	0.60	1.40	9.28	7.80	12.04	34.80	8.43	2.60	2.00	1.40	2.80	2.30		
8	0.60	1.00	9.06	7.80	14.38	25.30	8.00	2.60	2.00	1.40	2.30	2.40		
9	0.50	0.80	8.85	7.80	14.16	34.40	7.10	1.90	2.00	1.40	1.50	2.30		
10	1.40	0.70	8.43	7.80	19.05	44.40	3.40	2.70	2.00	1.40	1.50	1.70		
11	9.28	1.10	8.64	7.80	27.10	29.60	2.70	2.60	1.90	1.40	1.50	1.60		
12	8.00	4.90	8.64	7.80	20.54	24.15	1.70	2.60	1.90	1.30	1.40	2.00		
13	7.90	8.21	8.64	7.70	22.88	25.90	1.60	2.70	1.90	1.40	1.40	2.00		
14	8.00	15.65	8.64	7.70	22.03	52.40	1.50	2.70	1.80	1.30	1.70	2.10		
15	7.80	10.76	8.64	7.70	19.26	29.20	1.50	2.80	1.80	1.20	2.00	2.40		
16	7.80	7.40	8.43	7.80	18.63	26.80	1.50	2.60	1.80	1.20	2.00	2.30		
17	7.80	7.20	8.00	7.80	18.41	19.69	1.40	2.60	1.80	1.10	2.20	2.10		
18	6.80	7.00	8.00	14.80	17.99	22.03	1.50	2.50	1.80	1.10	2.40	1.60		
19	7.60	7.00	8.00	88.00	16.50	90.00	2.00	2.80	1.60	1.00	2.00	1.60		
20	7.20	7.00	8.00	34.00	15.86	64.00	3.30	2.70	1.60	1.00	2.10	1.60		
21	7.00	7.10	8.00	48.80	15.86	36.80	2.80	2.60	1.70	1.00	2.10	1.90		
22	7.00	9.91	7.90	24.15	15.01	21.18	4.70	2.50	1.60	1.00	2.10	1.80		
23	7.00	16.08	7.90	16.50	14.38	17.99	4.10	2.30	1.60	0.90	2.10	1.60		
24	6.00	13.53	7.80	12.04	14.38	17.35	6.90	2.30	1.50	0.90	2.10	1.50		
25	1.60	19.69	7.80	10.13	14.80	16.93	6.50	2.20	1.50	0.90	2.10	1.50		
26	2.90	11.40	8.00	11.19	18.41	16.50	6.00	2.10	1.40	0.90	2.10	1.60		
27	0.70	16.50	8.21	26.20	35.60	15.86	4.90	1.90	1.40	0.80	2.20	1.50		
28	1.30	15.01	13.95	25.90	102.00	15.65	4.50	2.00	1.40	0.70	2.10	1.50		
29	1.10	14.80	9.70	21.81	40.80	16.08	4.10	2.00	1.40	3.60		1.50		
30	4.40	24.36	8.85	27.10	23.73	15.44	2.10	2.00	1.30	0.70		1.50		
31		20.75		44.00	19.90		1.50		1.30	1.30		1.50		
Total	123.28	258.05	275.35	537.52	673.70	1142.24	178.71	70.10	53.80	38.10	44.40	58.00	3453.25	CMSDAY
Mean	4.11	8.32	9.18	17.34	21.73	38.07	5.76	2.34	1.74	1.23	1.59	1.87	9.46	CMS
Max	9.28	24.36	13.95	88.00	102.00	173.70	16.93	3.10	2.00	3.60	2.80	2.40	173.70	CMS
Min	0.40	0.70	7.80	7.70	10.34	15.44	1.40	1.30	1.30	0.70	0.00	1.50	0.00	CMS
Runoff	10.65	22.30	23.79	46.44	58.21	98.69	15.44	6.06	4.65	3.29	3.84	5.01	298.36	MCM

Momentary Peak 275.40 CMS. at 264.26 m. (MSL.) at 23.00 Hours , on Sep 4 , 2018

Runoff Yield 17.23 Liters/Second/Square KM. Momentary Peak Yield 501.64 Liters/Second/Square KM.

WATER YEAR : 2018

KHONG RIVER BASIN

Nam Mae Kham at Ban Mae Kham Lak Chet , Chiang Rai (Kh.72)

Lat 20 - 13 - 01 N Long 99 - 51 - 38 E

Location : on right bank at the bridge of Mae Chan - Mae Sai Highway from Tambon Mae Kham.

Ban Mae Kham Lak Chet **Amphoe** Mae Chan **Changwat** Chiang Rai

Drainge Area	667 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+393.400 m. (MSL.)
Bench Mark	B.M.- H.D.
Location BM	On right bank about 20 meters from the top staff gage. **Elevation** +399.176 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	1982 to date
Rating Operation	
Period of Rating	1993 to date
Rated by Flot	-
Rated by Current Meter	1993 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Flow effected by the bridge of Chiang Rai - Mae Sai Highway construction. Stage-discharge relation defined by 40 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

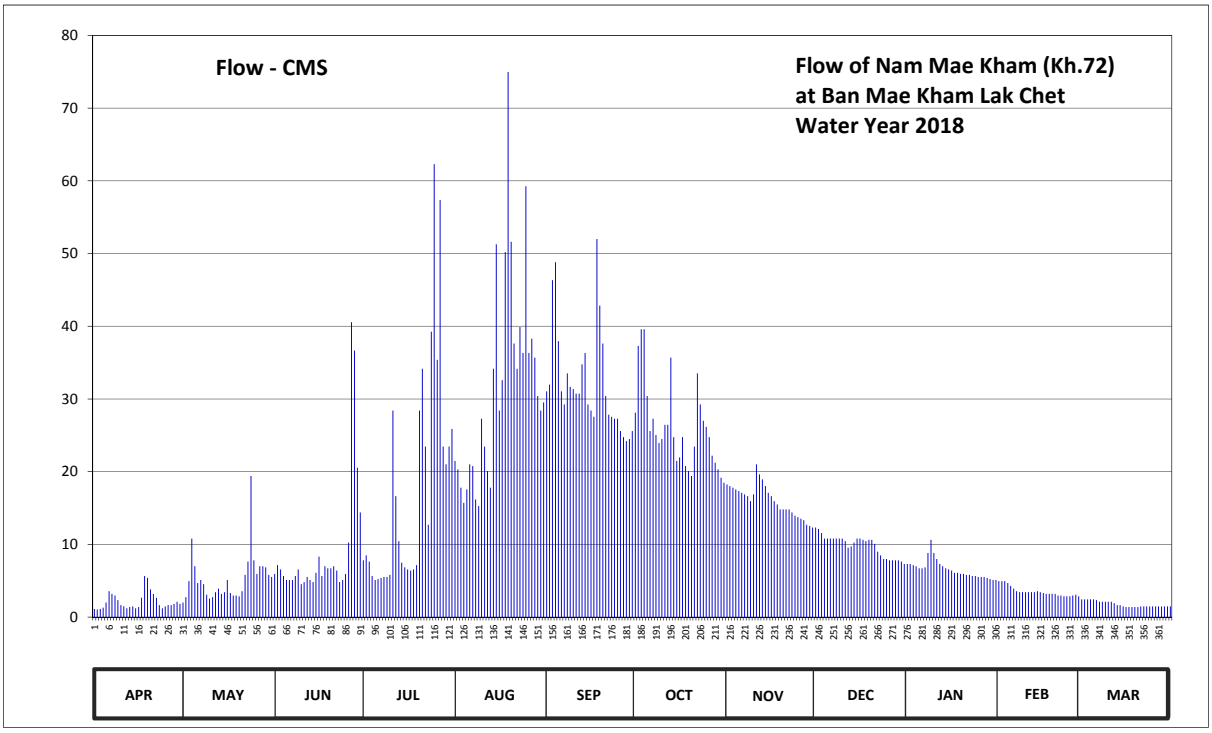
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	393.69	393.79	394.11	394.23	394.89	395.24	395.14	394.75	394.48	394.20	394.04	393.83	
2	393.68	393.86	394.19	394.27	394.84	395.27	395.44	394.74	394.47	394.20	394.04	393.83	
3	393.69	394.04	394.15	394.22	394.73	395.71	395.51	394.73	394.44	394.19	394.04	393.83	
4	393.71	394.40	394.09	394.09	394.64	395.78	395.51	394.72	394.40	394.18	394.02	393.83	
5	393.79	394.18	394.05	394.05	394.72	395.46	395.22	394.71	394.40	394.16	393.99	393.83	
6	393.93	394.02	394.05	394.06	394.87	395.24	395.05	394.70	394.40	394.16	393.96	393.82	
7	393.90	394.05	394.05	394.07	394.86	395.18	395.11	394.69	394.40	394.17	393.93	393.80	
8	393.88	394.01	394.09	394.08	394.66	395.32	395.03	394.68	394.40	394.29	393.92	393.80	
9	393.82	393.89	394.15	394.08	394.62	395.26	394.99	394.65	394.40	394.39	393.92	393.80	
10	393.75	393.84	394.01	394.10	395.11	395.25	395.01	394.69	394.40	394.29	393.92	393.80	
11	393.73	393.86	394.03	395.15	394.97	395.23	395.08	394.87	394.38	394.24	393.92	393.80	
12	393.70	393.92	394.08	394.68	394.83	395.23	395.08	394.81	394.33	394.20	393.92	393.78	
13	393.72	393.96	394.05	394.38	394.73	395.36	395.39	394.78	394.34	394.18	393.92	393.75	
14	393.73	393.90	394.03	394.21	395.34	395.41	395.02	394.74	394.37	394.16	393.93	393.75	
15	393.70	393.92	394.12	394.17	395.85	395.18	394.89	394.70	394.40	394.15	393.92	393.73	
16	393.72	394.05	394.26	394.15	395.15	395.15	394.91	394.68	394.40	394.14	393.91	393.72	
17	393.85	393.91	394.09	394.14	395.29	395.12	395.02	394.65	394.39	394.12	393.90	393.72	
18	394.09	393.88	394.18	394.15	395.82	395.87	394.86	394.63	394.38	394.12	393.90	393.72	
19	394.07	393.88	394.16	394.19	396.48	395.61	394.83	394.60	394.39	394.11	393.90	393.72	
20	393.95	393.87	394.16	395.15	395.86	395.45	394.80	394.60	394.39	394.11	393.90	393.72	
21	393.90	393.93	394.18	395.34	395.45	395.22	394.97	394.60	394.36	394.10	393.88	393.73	
22	393.85	394.10	394.14	394.97	395.34	395.13	395.32	394.60	394.30	394.10	393.88	393.73	
23	393.75	394.22	394.03	394.50	395.52	395.12	395.18	394.58	394.27	394.09	393.87	393.73	
24	393.70	394.80	394.05	395.50	395.41	395.11	395.10	394.56	394.24	394.09	393.87	393.73	
25	393.73	394.23	394.11	396.15	396.07	395.11	395.07	394.55	394.24	394.08	393.87	393.73	
26	393.75	394.11	394.37	395.38	395.41	395.05	395.02	394.54	394.23	394.08	393.88	393.73	
27	393.75	394.18	395.54	396.02	395.47	395.02	394.92	394.53	394.23	394.08	393.89	393.73	
28	393.77	394.18	395.42	394.97	395.39	395.00	394.88	394.50	394.23	394.07	393.87	393.73	
29	393.80	394.17	394.85	394.87	395.22	395.01	394.84	394.49	394.23	394.06		393.73	
30	393.77	394.10	394.58	394.97	395.15	395.05	394.79	394.48	394.22	394.05		393.73	
31		394.08		395.06	395.19		394.76		394.20	394.05		393.73	
Mean	393.80	394.04	394.25	394.62	395.22	395.27	395.06	394.65	394.35	394.15	393.93	393.76	
Max	394.09	394.80	395.54	396.15	396.48	395.87	395.51	394.87	394.48	394.39	394.04	393.83	396.48
Min	393.68	393.79	394.01	394.05	394.62	395.00	394.76	394.48	394.20	394.05	393.87	393.72	393.68

Annual Max Momentary Gage Height 397.35 m. (MSL.) , at 07.00 Hours , on Aug 19 , 2018

Zero Gage at Bottom Elevation 393.40 m. (MSL.) , River Bed 393.00 m. (MSL.)

Left Bank Elevation 399.79 m. (MSL.) ,

Right Bank Elevation 399.73 m. (MSL.) , Drainage Are 667 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.13	2.01	5.95	7.81	21.47	31.04	28.12	18.25	12.32	7.30	4.96	2.43		
2	1.06	2.76	7.15	8.49	20.32	31.97	37.30	18.02	12.13	7.30	4.96	2.43		
3	1.13	4.96	6.55	7.64	17.79	46.35	39.58	17.79	11.56	7.15	4.96	2.43		
4	1.29	10.80	5.66	5.66	15.72	48.80	39.58	17.56	10.80	7.00	4.68	2.43		
5	2.01	7.00	5.10	5.10	17.56	37.95	30.42	17.33	10.80	6.70	4.28	2.43		
6	3.56	4.68	5.10	5.24	21.01	31.04	25.60	17.10	10.80	6.70	3.92	2.32		
7	3.20	5.10	5.10	5.38	20.78	29.24	27.28	16.87	10.80	6.85	3.56	2.10		
8	2.98	4.54	5.66	5.52	16.18	33.52	25.04	16.64	10.80	8.83	3.44	2.10		
9	2.32	3.09	6.55	5.52	15.26	31.66	23.95	15.95	10.80	10.62	3.44	2.10		
10	1.65	2.54	4.54	5.80	27.28	31.35	24.48	16.87	10.80	8.83	3.44	2.10		
11	1.47	2.76	4.82	28.40	23.45	30.73	26.44	21.01	10.44	7.98	3.44	2.10		
12	1.20	3.44	5.52	16.64	20.09	30.73	26.44	19.63	9.54	7.30	3.44	1.92		
13	1.38	3.92	5.10	10.44	17.79	34.76	35.69	18.94	9.72	7.00	3.44	1.65		
14	1.47	3.20	4.82	7.47	34.14	36.33	24.76	18.02	10.26	6.70	3.56	1.65		
15	1.20	3.44	6.10	6.85	51.28	29.24	21.47	17.10	10.80	6.55	3.44	1.47		
16	1.38	5.10	8.32	6.55	28.40	28.40	21.95	16.64	10.80	6.40	3.32	1.38		
17	2.65	3.32	5.66	6.40	32.59	27.56	24.76	15.95	10.62	6.10	3.20	1.38		
18	5.66	2.98	7.00	6.55	50.21	51.99	20.78	15.49	10.44	6.10	3.20	1.38		
19	5.38	2.98	6.70	7.15	74.96	42.85	20.09	14.80	10.62	5.95	3.20	1.38		
20	3.80	2.87	6.70	28.40	51.63	37.63	19.40	14.80	10.62	5.95	3.20	1.38		
21	3.20	3.56	7.00	34.14	37.63	30.42	23.45	14.80	10.08	5.80	2.98	1.47		
22	2.65	5.80	6.40	23.45	34.14	27.84	33.52	14.80	9.00	5.80	2.98	1.47		
23	1.65	7.64	4.82	12.70	39.90	27.56	29.24	14.38	8.49	5.66	2.87	1.47		
24	1.20	19.40	5.10	39.25	36.33	27.28	27.00	13.96	7.98	5.66	2.87	1.47		
25	1.47	7.81	5.95	62.30	59.26	27.28	26.16	13.75	7.98	5.52	2.87	1.47		
26	1.65	5.95	10.26	35.38	36.33	25.60	24.76	13.54	7.81	5.52	2.98	1.47		
27	1.65	7.00	40.55	57.36	38.28	24.76	22.20	13.33	7.81	5.52	3.09	1.47		
28	1.83	7.00	36.65	23.45	35.69	24.20	21.24	12.70	7.81	5.38	2.87	1.47		
29	2.10	6.85	20.55	21.01	30.42	24.48	20.32	12.51	7.81	5.24		1.47		
30	1.83	5.80	14.38	23.45	28.40	25.60	19.17	12.32	7.64	5.10		1.47		
31		5.52		25.88	29.52		18.48		7.30	5.10		1.47		
Total	65.15	163.82	269.76	545.38	983.81	968.16	808.67	480.85	305.18	203.61	98.59	54.73	4947.71	CMSDAY
Mean	2.17	5.28	8.99	17.59	31.74	32.27	26.09	16.03	9.84	6.57	3.52	1.77	13.56	CMS
Max	5.66	19.40	40.55	62.30	74.96	51.99	39.58	21.01	12.32	10.62	4.96	2.43	74.96	CMS
Min	1.06	2.01	4.54	5.10	15.26	24.20	18.48	12.32	7.30	5.10	2.87	1.38	1.06	CMS
Runoff	5.63	14.15	23.31	47.12	85.00	83.65	69.87	41.55	26.37	17.59	8.52	4.73	427.48	MCM

Momentary Peak 110.95 CMS. at 397.35 m. (MSL.) at 07.00 Hours , on Aug 19 , 2018

Runoff Yield 20.32 Liters/Second/Square KM. Momentary Peak Yield 166.34 Liters/Second/Square KM.

WATER YEAR : 2018

KHONG RIVER BASIN

Songkhram River at Ban Tha Huai Lua , Sakon Nakhon (Kh.74)

Lat 17 - 49 - 07 N Long 103 - 23 - 16 E

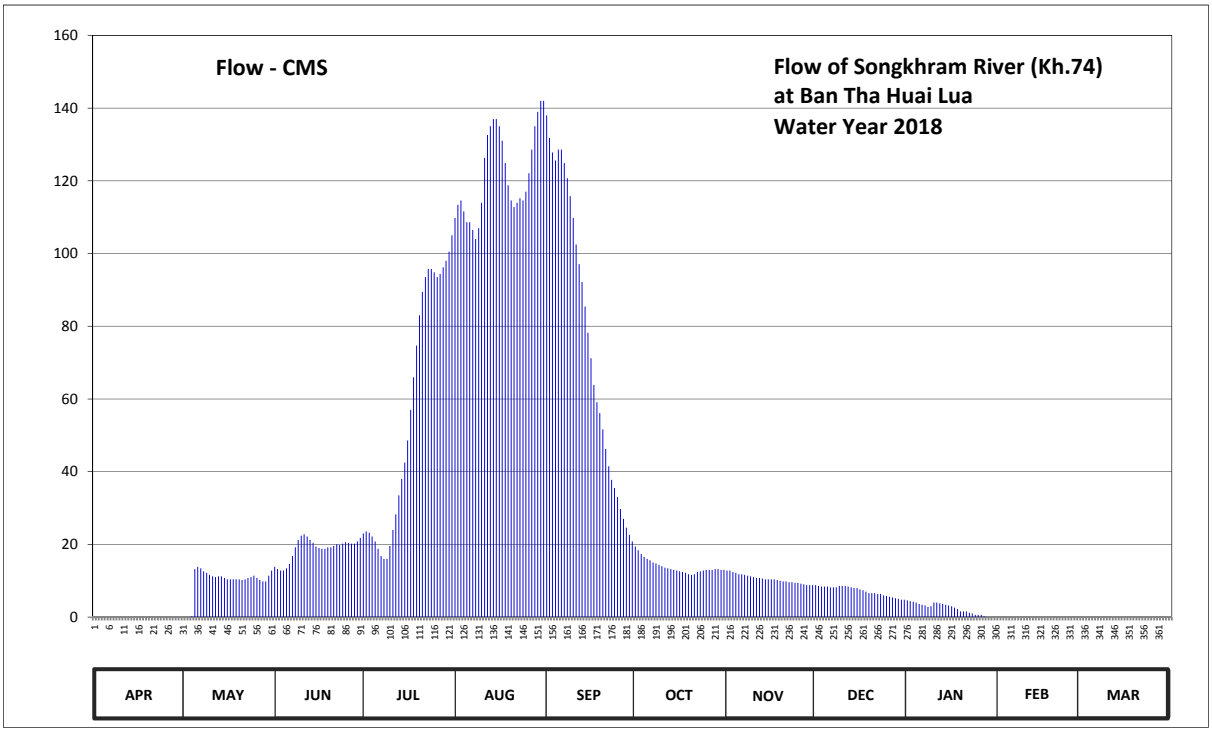
Location : on left bank at Ban Tha Huai Lua.

	Ban Tha Huai Lua	**Amphoe** Ban Muang	**Changwat** Sakon Nakhon
Drainge Area	2,199 sq.km.		
Type of Gage	Water - stage recorder.		
Zero Gage at Bottom	+145.300 m. (MSL.)		
Bench Mark	B.M.- Highways Dept.		
Location BM	On left bank at the abutment of the bridge.		**Elevation** +157.031 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	1983 to date		
Rating Operation			
Period of Rating	1984 to date		
Rated by Flot	-		
Rated by Current Meter	1984 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 24 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	149.35	149.33	150.29	150.75	153.43	153.83	150.57	150.24	150.04	149.83	149.54	149.36	
2	149.34	149.34	150.26	150.78	153.49	153.76	150.52	150.24	150.03	149.82	149.53	149.36	
3	149.33	149.34	150.24	150.76	153.51	153.71	150.47	150.22	150.02	149.81	149.52	149.35	
4	149.32	149.61	150.24	150.71	153.46	153.68	150.43	150.21	150.02	149.80	149.51	149.36	
5	149.31	150.26	150.27	150.64	153.41	153.72	150.40	150.19	150.02	149.78	149.50	149.35	
6	149.32	150.29	150.33	150.54	153.41	153.72	150.38	150.19	150.01	149.77	149.48	149.35	
7	149.35	150.27	150.44	150.44	153.37	153.67	150.35	150.18	150.01	149.76	149.47	149.34	
8	149.35	150.23	150.56	150.40	153.32	153.61	150.34	150.17	150.01	149.74	149.45	149.33	
9	149.34	150.21	150.66	150.40	153.38	153.53	150.32	150.16	150.03	149.75	149.44	149.32	
10	149.34	150.18	150.72	150.58	153.50	153.43	150.30	150.15	150.03	149.80	149.43	149.31	
11	149.34	150.16	150.74	150.80	153.69	153.29	150.28	150.14	150.03	149.80	149.43	149.30	
12	149.33	150.15	150.71	151.01	153.77	153.18	150.27	150.14	150.02	149.79	149.43	149.29	
13	149.33	150.16	150.66	151.22	153.80	153.07	150.26	150.13	150.01	149.78	149.42	149.27	
14	149.33	150.16	150.62	151.40	153.82	152.91	150.25	150.12	150.00	149.77	149.41	149.27	
15	149.32	150.14	150.57	151.58	153.82	152.72	150.24	150.12	150.00	149.76	149.40	149.26	
16	149.32	150.12	150.55	151.82	153.80	152.52	150.23	150.12	149.98	149.75	149.38	149.25	
17	149.32	150.12	150.54	152.10	153.75	152.31	150.22	150.12	149.97	149.73	149.36	149.25	
18	149.33	150.12	150.54	152.37	153.67	152.17	150.21	150.11	149.95	149.71	149.39	149.24	
19	149.33	150.12	150.56	152.62	153.58	152.07	150.19	150.10	149.93	149.68	149.38	149.23	
20	149.33	150.12	150.56	152.85	153.51	151.92	150.18	150.09	149.93	149.68	149.37	149.22	
21	149.33	150.11	150.58	153.01	153.48	151.73	150.19	150.09	149.93	149.68	149.37	149.20	
22	149.32	150.12	150.60	153.10	153.50	151.54	150.22	150.08	149.92	149.66	149.36	149.20	
23	149.32	150.14	150.59	153.15	153.52	151.39	150.23	150.08	149.92	149.65	149.35	149.18	
24	149.32	150.15	150.61	153.15	153.51	151.30	150.24	150.07	149.90	149.63	149.34	149.18	
25	149.31	150.17	150.63	153.13	153.55	151.20	150.25	150.07	149.89	149.63	149.34	149.17	
26	149.31	150.14	150.62	153.10	153.63	151.07	150.25	150.06	149.88	149.63	149.35	149.16	
27	149.32	150.11	150.61	153.12	153.72	150.95	150.25	150.05	149.87	149.61	149.36	149.15	
28	149.31	150.09	150.61	153.16	153.80	150.83	150.26	150.04	149.86	149.60	149.36	149.15	
29	149.31	150.09	150.64	153.20	153.84	150.73	150.26	150.04	149.85	149.58		149.15	
30	149.31	150.17	150.69	153.25	153.87	150.64	150.25	150.04	149.84	149.57		149.14	
31		150.24		153.34	153.87		150.25		149.84	149.55		149.13	
Mean	149.33	150.06	150.54	151.89	153.61	152.47	150.29	150.13	149.96	149.71	149.42	149.25	
Max	149.35	150.29	150.74	153.34	153.87	153.83	150.57	150.24	150.04	149.83	149.54	149.36	153.87
Min	149.31	149.33	150.24	150.40	153.32	150.64	150.18	150.04	149.84	149.55	149.34	149.13	149.13

Annual Max Momentary Gage Height	153.87	m. (MSL.) ,	at 07.00 Hours , on Aug 30 , 2018		
Zero Gage at Bottom Elevation	145.30	m. (MSL.) ,	River Bed	145.21	m. (MSL.)
Left Bank Elevation	156.30	m. (MSL.) ,			
Right Bank Elevation	156.29	m. (MSL.) ,	Drainage Are	2,199	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	13.80	23.00	109.80	138.00	19.40	12.80	8.80	4.60	0.00	0.00		
2	0.00	0.00	13.20	23.60	113.40	131.80	18.40	12.80	8.60	4.40	0.00	0.00		
3	0.00	0.00	12.80	23.20	114.60	127.80	17.40	12.40	8.40	4.20	0.00	0.00		
4	0.00	0.20	12.80	22.20	111.60	125.60	16.60	12.20	8.40	4.00	0.00	0.00		
5	0.00	13.20	13.40	20.80	108.60	128.60	16.00	11.80	8.40	3.60	0.00	0.00		
6	0.00	13.80	14.60	18.80	108.60	128.60	15.60	11.80	8.20	3.40	0.00	0.00		
7	0.00	13.40	16.80	16.80	106.50	124.90	15.00	11.60	8.20	3.20	0.00	0.00		
8	0.00	12.60	19.20	16.00	104.00	120.70	14.80	11.40	8.20	2.80	0.00	0.00		
9	0.00	12.20	21.20	16.00	107.00	115.80	14.40	11.20	8.60	3.00	0.00	0.00		
10	0.00	11.60	22.40	19.60	114.00	109.80	14.00	11.00	8.60	4.00	0.00	0.00		
11	0.00	11.20	22.80	24.00	126.30	102.50	13.60	10.80	8.60	4.00	0.00	0.00		
12	0.00	11.00	22.20	28.25	132.60	97.10	13.40	10.80	8.40	3.80	0.00	0.00		
13	0.00	11.20	21.20	33.50	135.00	92.15	13.20	10.60	8.20	3.60	0.00	0.00		
14	0.00	11.20	20.40	38.00	137.00	85.40	13.00	10.40	8.00	3.40	0.00	0.00		
15	0.00	10.80	19.40	42.50	137.00	78.20	12.80	10.40	8.00	3.20	0.00	0.00		
16	0.00	10.40	19.00	48.60	135.00	71.20	12.60	10.40	7.60	3.00	0.00	0.00		
17	0.00	10.40	18.80	57.00	131.00	63.85	12.40	10.40	7.40	2.60	0.00	0.00		
18	0.00	10.40	18.80	65.95	124.90	59.10	12.20	10.20	7.00	2.20	0.00	0.00		
19	0.00	10.40	19.20	74.70	118.80	56.10	11.80	10.00	6.60	1.60	0.00	0.00		
20	0.00	10.40	19.20	83.00	114.60	51.60	11.60	9.80	6.60	1.60	0.00	0.00		
21	0.00	10.20	19.60	89.45	112.80	46.25	11.80	9.80	6.60	1.60	0.00	0.00		
22	0.00	10.40	20.00	93.50	114.00	41.50	12.40	9.60	6.40	1.20	0.00	0.00		
23	0.00	10.80	19.80	95.75	115.20	37.75	12.60	9.60	6.40	1.00	0.00	0.00		
24	0.00	11.00	20.20	95.75	114.60	35.50	12.80	9.40	6.00	0.60	0.00	0.00		
25	0.00	11.40	20.60	94.85	117.00	33.00	13.00	9.40	5.80	0.60	0.00	0.00		
26	0.00	10.80	20.40	93.50	122.10	29.75	13.00	9.20	5.60	0.60	0.00	0.00		
27	0.00	10.20	20.20	94.40	128.60	27.00	13.00	9.00	5.40	0.20	0.00	0.00		
28	0.00	9.80	20.20	96.20	135.00	24.60	13.20	8.80	5.20	0.00	0.00	0.00		
29	0.00	9.80	20.80	98.00	139.00	22.60	13.20	8.80	5.00	0.00		0.00		
30	0.00	11.40	21.80	100.50	142.00	20.80	13.00	8.80	4.80	0.00		0.00		
31		12.80		105.00	142.00		13.00		4.80	0.00		0.00		
Total	0.00	303.00	564.80	1752.40	3772.60	2327.55	429.20	315.20	222.80	72.00	0.00	0.00	9759.55	CMSDAY
Mean	0.00	9.77	18.83	56.53	121.70	77.58	13.85	10.51	7.19	2.32	0.00	0.00	26.74	CMS
Max	0.00	13.80	22.80	105.00	142.00	138.00	19.40	12.80	8.80	4.60	0.00	0.00	142.00	CMS
Min	0.00	0.00	12.80	16.00	104.00	20.80	11.60	8.80	4.80	0.00	0.00	0.00	0.00	CMS
Runoff	0.00	26.18	48.80	151.41	325.95	201.10	37.08	27.23	19.25	6.22	0.00	0.00	843.23	MCM

Momentary Peak 142.00 CMS. at 153.87 m. (MSL.) at 07.00 Hours , on Aug 30 , 2018

Runoff Yield 12.16 Liters/Second/Square KM. Momentary Peak Yield 64.57 Liters/Second/Square KM.

WATER YEAR : 2018

KHONG RIVER BASIN

Nam Thop at Ban Kok So , Loei (Kh.77A)

Lat 17 - 15 - 46 N Long 101 - 39 - 28 E

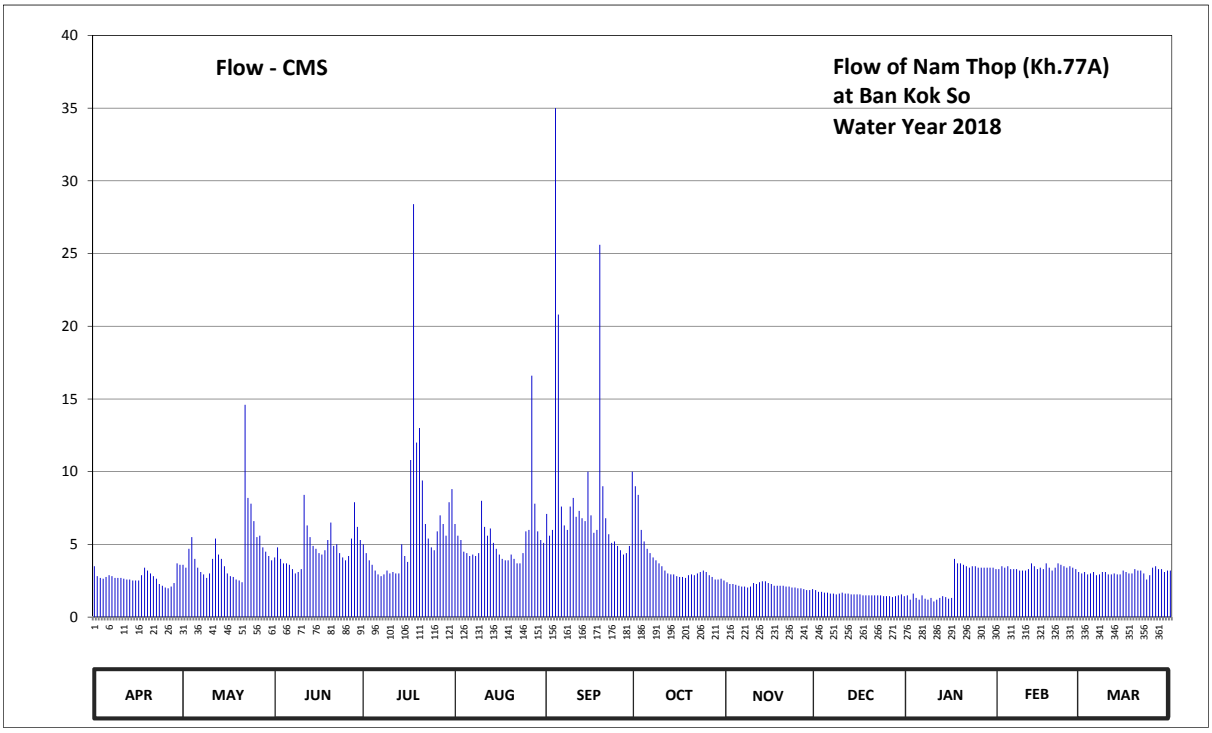
Location : on left bank at Ban Kok So.

	Ban Kok So	**Amphoe** Wang Saphung	**Changwat** Loei
Drainge Area	156 sq.km.		
Type of Gage	Water - stage recorder.		
Zero Gage at Bottom	+261.000 m. (MSL.)		
Bench Mark	B.M.- Highways Dept.		
Location BM	On right bank at the abutment of the bridge.		**Elevation** +268.630 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	1983 to date		
Rating Operation			
Period of Rating	1984 to date		
Rated by Flot	-		
Rated by Current Meter	1984 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. The cataract situated downstream from the gage site.		
	Stage-discharge relation defined by 25 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	261.55	261.56	261.61	261.70	261.84	261.91	262.05	261.40	261.31	261.25	261.53	261.50	
2	261.47	261.54	261.68	261.64	261.76	261.76	262.02	261.38	261.29	261.20	261.55	261.51	
3	261.45	261.67	261.60	261.59	261.73	261.80	261.80	261.38	261.29	261.27	261.54	261.49	
4	261.44	261.75	261.57	261.56	261.65	262.90	261.72	261.37	261.28	261.22	261.55	261.50	
5	261.46	261.60	261.57	261.52	261.64	262.56	261.67	261.36	261.28	261.20	261.53	261.51	
6	261.48	261.54	261.56	261.49	261.62	261.96	261.64	261.35	261.27	261.25	261.53	261.48	
7	261.47	261.51	261.53	261.47	261.63	261.83	261.61	261.35	261.27	261.21	261.53	261.49	
8	261.45	261.49	261.50	261.49	261.62	261.80	261.59	261.34	261.26	261.20	261.52	261.51	
9	261.45	261.45	261.51	261.52	261.64	261.96	261.57	261.35	261.27	261.22	261.52	261.51	
10	261.45	261.50	261.53	261.50	262.00	262.01	261.55	261.39	261.28	261.18	261.52	261.49	
11	261.44	261.60	262.02	261.51	261.82	261.89	261.52	261.38	261.27	261.20	261.53	261.49	
12	261.43	261.74	261.83	261.50	261.76	261.93	261.50	261.40	261.27	261.22	261.57	261.50	
13	261.43	261.63	261.75	261.50	261.81	261.88	261.49	261.41	261.26	261.24	261.55	261.49	
14	261.42	261.60	261.69	261.70	261.71	261.86	261.49	261.41	261.26	261.23	261.53	261.49	
15	261.42	261.55	261.67	261.62	261.67	262.10	261.47	261.39	261.26	261.21	261.54	261.52	
16	261.42	261.50	261.64	261.58	261.63	261.90	261.46	261.38	261.26	261.22	261.53	261.51	
17	261.48	261.47	261.63	262.14	261.60	261.78	261.46	261.36	261.25	261.60	261.57	261.50	
18	261.54	261.46	261.66	262.76	261.59	261.80	261.45	261.36	261.25	261.57	261.54	261.50	
19	261.52	261.43	261.73	262.20	261.59	262.69	261.48	261.36	261.25	261.57	261.52	261.53	
20	261.50	261.42	261.85	262.25	261.63	262.05	261.49	261.36	261.25	261.56	261.54	261.52	
21	261.47	261.40	261.69	262.07	261.60	261.88	261.48	261.35	261.25	261.55	261.57	261.52	
22	261.44	262.33	261.70	261.84	261.57	261.77	261.50	261.35	261.25	261.54	261.56	261.50	
23	261.38	262.01	261.64	261.74	261.57	261.71	261.51	261.34	261.25	261.55	261.55	261.43	
24	261.36	261.98	261.61	261.68	261.64	261.72	261.52	261.34	261.24	261.55	261.54	261.48	
25	261.34	261.86	261.59	261.66	261.79	261.69	261.51	261.33	261.24	261.54	261.55	261.54	
26	261.33	261.75	261.62	261.79	261.80	261.66	261.48	261.33	261.24	261.54	261.54	261.55	
27	261.35	261.76	261.74	261.90	262.42	261.63	261.46	261.32	261.23	261.54	261.53	261.53	
28	261.39	261.68	261.99	261.84	261.98	261.64	261.43	261.31	261.24	261.54	261.51	261.53	
29	261.57	261.65	261.82	261.76	261.79	261.69	261.43	261.31	261.25	261.54		261.51	
30	261.56	261.62	261.73	261.99	261.73	262.10	261.44	261.32	261.26	261.54		261.52	
31		261.59		262.04	261.71		261.42		261.24	261.53		261.52	
Mean	261.45	261.63	261.68	261.76	261.73	261.93	261.56	261.36	261.26	261.38	261.54	261.51	
Max	261.57	262.33	262.02	262.76	262.42	262.90	262.05	261.41	261.31	261.60	261.57	261.55	262.90
Min	261.33	261.40	261.50	261.47	261.57	261.63	261.42	261.31	261.23	261.18	261.51	261.43	261.18

Annual Max Momentary Gage Height	263.68	m. (MSL.) ,	at 01.00 Hours , on Sep 19 , 2018		
Zero Gage at Bottom Elevation	261.00	m. (MSL.) ,	River Bed	260.70	m. (MSL.)
Left Bank Elevation	268.67	m. (MSL.) ,			
Right Bank Elevation	268.65	m. (MSL.) ,	Drainage Are	156	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	3.50	3.60	4.10	5.00	6.40	7.10	9.00	2.40	1.86	1.50	3.30	3.00		
2	2.82	3.40	4.80	4.40	5.60	5.60	8.40	2.28	1.74	1.20	3.50	3.10		
3	2.70	4.70	4.00	3.90	5.30	6.00	6.00	2.28	1.74	1.62	3.40	2.94		
4	2.64	5.50	3.70	3.60	4.50	35.00	5.20	2.22	1.68	1.32	3.50	3.00		
5	2.76	4.00	3.70	3.20	4.40	20.80	4.70	2.16	1.68	1.20	3.30	3.10		
6	2.88	3.40	3.60	2.94	4.20	7.60	4.40	2.10	1.62	1.50	3.30	2.88		
7	2.82	3.10	3.30	2.82	4.30	6.30	4.10	2.10	1.62	1.26	3.30	2.94		
8	2.70	2.94	3.00	2.94	4.20	6.00	3.90	2.04	1.56	1.20	3.20	3.10		
9	2.70	2.70	3.10	3.20	4.40	7.60	3.70	2.10	1.62	1.32	3.20	3.10		
10	2.70	3.00	3.30	3.00	8.00	8.20	3.50	2.34	1.68	1.08	3.20	2.94		
11	2.64	4.00	8.40	3.10	6.20	6.90	3.20	2.28	1.62	1.20	3.30	2.94		
12	2.58	5.40	6.30	3.00	5.60	7.30	3.00	2.40	1.62	1.32	3.70	3.00		
13	2.58	4.30	5.50	3.00	6.10	6.80	2.94	2.46	1.56	1.44	3.50	2.94		
14	2.52	4.00	4.90	5.00	5.10	6.60	2.94	2.46	1.56	1.38	3.30	2.94		
15	2.52	3.50	4.70	4.20	4.70	10.00	2.82	2.34	1.56	1.26	3.40	3.20		
16	2.52	3.00	4.40	3.80	4.30	7.00	2.76	2.28	1.56	1.32	3.30	3.10		
17	2.88	2.82	4.30	10.80	4.00	5.80	2.76	2.16	1.50	4.00	3.70	3.00		
18	3.40	2.76	4.60	28.40	3.90	6.00	2.70	2.16	1.50	3.70	3.40	3.00		
19	3.20	2.58	5.30	12.00	3.90	25.60	2.88	2.16	1.50	3.70	3.20	3.30		
20	3.00	2.52	6.50	13.00	4.30	9.00	2.94	2.16	1.50	3.60	3.40	3.20		
21	2.82	2.40	4.90	9.40	4.00	6.80	2.88	2.10	1.50	3.50	3.70	3.20		
22	2.64	14.60	5.00	6.40	3.70	5.70	3.00	2.10	1.50	3.40	3.60	3.00		
23	2.28	8.20	4.40	5.40	3.70	5.10	3.10	2.04	1.50	3.50	3.50	2.58		
24	2.16	7.80	4.10	4.80	4.40	5.20	3.20	2.04	1.44	3.50	3.40	2.88		
25	2.04	6.60	3.90	4.60	5.90	4.90	3.10	1.98	1.44	3.40	3.50	3.40		
26	1.98	5.50	4.20	5.90	6.00	4.60	2.88	1.98	1.44	3.40	3.40	3.50		
27	2.10	5.60	5.40	7.00	16.60	4.30	2.76	1.92	1.38	3.40	3.30	3.30		
28	2.34	4.80	7.90	6.40	7.80	4.40	2.58	1.86	1.44	3.40	3.10	3.30		
29	3.70	4.50	6.20	5.60	5.90	4.90	2.58	1.86	1.50	3.40		3.10		
30	3.60	4.20	5.30	7.90	5.30	10.00	2.64	1.92	1.56	3.40		3.20		
31		3.90		8.80	5.10		2.52		1.44	3.30		3.20		
Total	81.72	139.32	142.80	193.50	167.80	257.10	113.08	64.68	48.42	73.72	94.90	95.38	1472.42	CMSDAY
Mean	2.72	4.49	4.76	6.24	5.41	8.57	3.65	2.16	1.56	2.38	3.39	3.08	4.03	CMS
Max	3.70	14.60	8.40	28.40	16.60	35.00	9.00	2.46	1.86	4.00	3.70	3.50	35.00	CMS
Min	1.98	2.40	3.00	2.82	3.70	4.30	2.52	1.86	1.38	1.08	3.10	2.58	1.08	CMS
Runoff	7.06	12.04	12.34	16.72	14.50	22.21	9.77	5.59	4.18	6.37	8.20	8.24	127.22	MCM

Momentary Peak 93.00 CMS. at 263.68 m. (MSL.) at 01.00 Hours , on Sep 19 , 2018

Runoff Yield 25.86 Liters/Second/Square KM. Momentary Peak Yield 596.15 Liters/Second/Square KM.

WATER YEAR : 2018

KHONG RIVER BASIN

Huai Nam Huai at Ban Nam Huai , Loei (Kh.78)

Lat 17 - 23 - 00 N Long 101 - 42 - 40 E

Location : on left bank at the bridge of Amphoe Wang Saphung - Amphoe Mueang Highway.

	Ban Nam Huai	**Amphoe** Mueang	**Changwat** Loei
Drainge Area	219 sq.km.		
Type of Gage	Water - stage recorder.		
Zero Gage at Bottom	+246.200 m. (MSL.)		
Bench Mark	B.M.- Highways Dept.		
Location BM	On left bank downstream side at the footpath of the bridge.	**Elevation** +256.495 m. (MSL.)	
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	1983 to date		
Rating Operation			
Period of Rating	1993 to date		
Rated by Flot	-		
Rated by Current Meter	1993 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. The concrete weir situated about 700 meters downstream from the gage site. Stage-discharge relation defined by 25 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

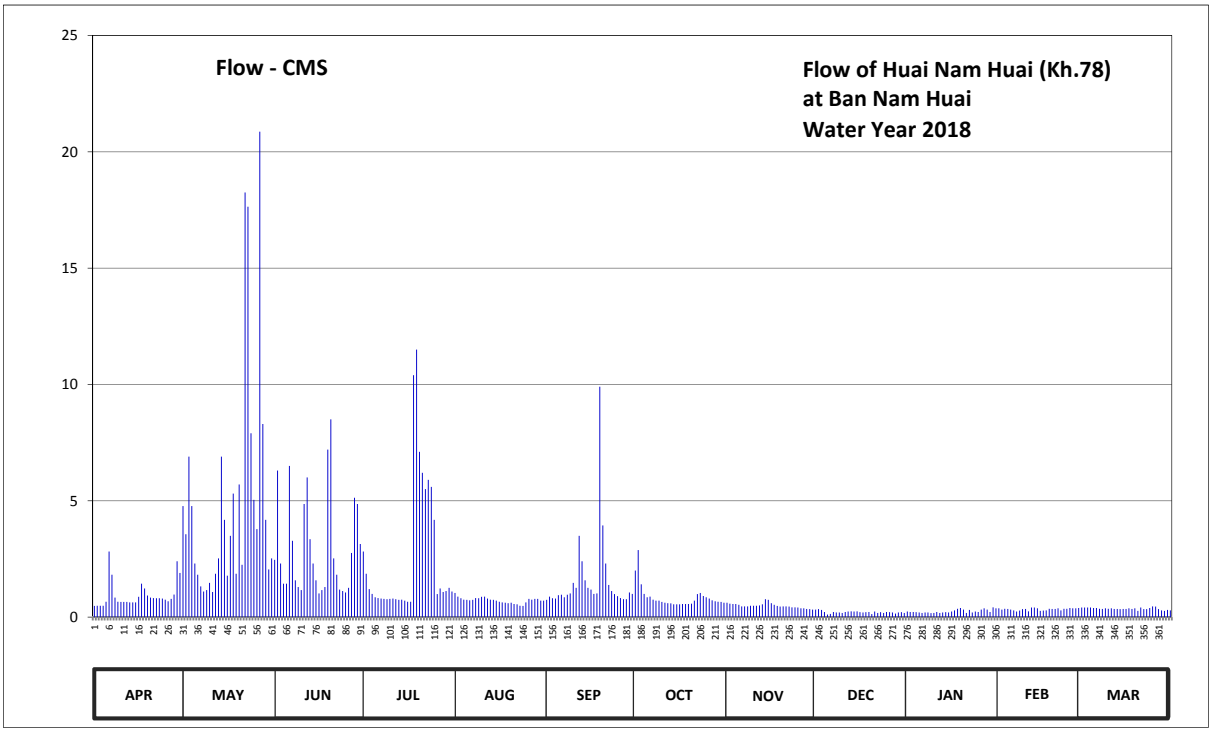
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	247.64	248.73	248.41	248.47	248.02	247.82	248.32	247.74	247.53	247.47	247.57	247.59	
2	247.65	248.58	248.89	248.29	247.92	247.92	248.48	247.71	247.54	247.46	247.53	247.59	
3	247.65	248.95	248.38	248.10	247.87	247.87	248.17	247.70	247.52	247.46	247.56	247.59	
4	247.65	248.73	248.18	248.00	247.83	247.86	248.00	247.70	247.46	247.45	247.55	247.59	
5	247.77	248.38	248.18	247.90	247.82	247.96	247.90	247.68	247.38	247.44	247.53	247.58	
6	248.47	248.28	248.91	247.88	247.81	247.97	247.92	247.63	247.40	247.43	247.51	247.58	
7	248.28	248.14	248.54	247.86	247.82	247.90	247.83	247.63	247.46	247.44	247.47	247.56	
8	247.89	248.05	248.22	247.85	247.88	247.97	247.80	247.63	247.44	247.44	247.50	247.55	
9	247.77	248.08	248.13	247.84	247.87	248.01	247.80	247.65	247.44	247.42	247.54	247.57	
10	247.76	248.19	248.08	247.85	247.91	248.19	247.76	247.65	247.43	247.43	247.55	247.56	
11	247.76	248.04	248.74	247.86	247.92	248.12	247.74	247.65	247.46	247.46	247.48	247.57	
12	247.76	248.29	248.86	247.84	247.86	248.57	247.73	247.66	247.47	247.43	247.59	247.55	
13	247.75	248.42	248.55	247.82	247.83	248.40	247.72	247.69	247.48	247.44	247.59	247.55	
14	247.75	248.95	248.38	247.83	247.82	248.22	247.69	247.84	247.47	247.45	247.57	247.54	
15	247.75	248.66	248.22	247.80	247.80	248.12	247.69	247.82	247.48	247.44	247.49	247.55	
16	247.91	248.27	248.01	247.77	247.77	248.09	247.69	247.73	247.45	247.47	247.50	247.55	
17	248.18	248.57	248.08	247.77	247.75	248.00	247.70	247.68	247.44	247.51	247.51	247.57	
18	248.11	248.79	248.13	249.30	247.74	248.01	247.70	247.64	247.45	247.56	247.56	247.55	
19	247.95	248.29	248.98	249.41	247.73	249.25	247.70	247.62	247.46	247.58	247.55	247.57	
20	247.89	248.83	249.11	248.97	247.74	248.63	247.71	247.63	247.39	247.53	247.55	247.49	
21	247.88	248.37	248.42	248.88	247.70	248.38	247.80	247.63	247.47	247.43	247.57	247.59	
22	247.87	250.02	248.28	248.81	247.69	248.16	247.99	247.62	247.43	247.52	247.51	247.54	
23	247.87	249.97	248.09	248.85	247.65	248.06	248.02	247.60	247.45	247.44	247.56	247.54	
24	247.86	249.05	248.06	248.82	247.64	247.99	247.94	247.60	247.43	247.47	247.56	247.58	
25	247.83	248.76	248.03	248.66	247.75	247.93	247.90	247.59	247.46	247.46	247.58	247.63	
26	247.78	248.61	248.12	247.99	247.85	247.88	247.86	247.57	247.45	247.53	247.57	247.62	
27	247.85	250.23	248.46	248.11	247.83	247.84	247.81	247.57	247.44	247.57	247.57	247.54	
28	247.98	249.09	248.77	248.04	247.85	247.84	247.78	247.55	247.41	247.53	247.58	247.51	
29	248.40	248.66	248.74	248.06	247.85	248.03	247.77	247.54	247.44	247.46		247.49	
30	248.30	248.33	248.52	248.12	247.80	248.00	247.76	247.53	247.45	247.60		247.52	
31		248.42		248.05	247.80		247.74		247.43	247.57		247.51	
Mean	247.90	248.67	248.42	248.22	247.81	248.10	247.85	247.65	247.45	247.48	247.54	247.56	
Max	248.47	250.23	249.11	249.41	248.02	249.25	248.48	247.84	247.54	247.60	247.59	247.63	250.23
Min	247.64	248.04	248.01	247.77	247.64	247.82	247.69	247.53	247.38	247.42	247.47	247.49	247.38

Annual Max Momentary Gage Height 251.00 m. (MSL.) , at 07.00 Hours , on May 27 , 2018

Zero Gage at Bottom Elevation 246.20 m. (MSL.) , River Bed 247.27 m. (MSL.)

Left Bank Elevation 255.68 m. (MSL.) ,

Right Bank Elevation 254.25 m. (MSL.) , Drainage Are 219 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.48	4.77	2.46	2.82	1.04	0.74	2.00	0.62	0.32	0.24	0.38	0.41		
2	0.49	3.56	6.30	1.86	0.88	0.88	2.88	0.58	0.34	0.22	0.32	0.41		
3	0.49	6.90	2.30	1.20	0.81	0.81	1.41	0.56	0.31	0.22	0.36	0.41		
4	0.49	4.77	1.44	1.00	0.75	0.80	1.00	0.56	0.22	0.21	0.35	0.41		
5	0.66	2.30	1.44	0.85	0.74	0.94	0.85	0.53	0.11	0.20	0.32	0.39		
6	2.82	1.82	6.50	0.82	0.72	0.96	0.88	0.46	0.14	0.18	0.29	0.39		
7	1.82	1.32	3.28	0.80	0.74	0.85	0.75	0.46	0.22	0.20	0.24	0.36		
8	0.84	1.10	1.58	0.78	0.82	0.96	0.71	0.46	0.20	0.20	0.28	0.35		
9	0.66	1.16	1.29	0.77	0.81	1.02	0.71	0.49	0.20	0.17	0.34	0.38		
10	0.65	1.47	1.16	0.78	0.87	1.47	0.65	0.49	0.18	0.18	0.35	0.36		
11	0.65	1.08	4.86	0.80	0.88	1.26	0.62	0.49	0.22	0.22	0.25	0.38		
12	0.65	1.86	6.00	0.77	0.80	3.49	0.60	0.50	0.24	0.18	0.41	0.35		
13	0.63	2.52	3.35	0.74	0.75	2.40	0.59	0.55	0.25	0.20	0.41	0.35		
14	0.63	6.90	2.30	0.75	0.74	1.58	0.55	0.77	0.24	0.21	0.38	0.34		
15	0.63	4.18	1.58	0.71	0.71	1.26	0.55	0.74	0.25	0.20	0.27	0.35		
16	0.87	1.78	1.02	0.66	0.66	1.18	0.55	0.60	0.21	0.24	0.28	0.35		
17	1.44	3.49	1.16	0.66	0.63	1.00	0.56	0.53	0.20	0.29	0.29	0.38		
18	1.23	5.31	1.29	10.40	0.62	1.02	0.56	0.48	0.21	0.36	0.36	0.35		
19	0.93	1.86	7.20	11.50	0.60	9.90	0.56	0.45	0.22	0.39	0.35	0.38		
20	0.84	5.70	8.50	7.10	0.62	3.94	0.58	0.46	0.13	0.32	0.35	0.27		
21	0.82	2.25	2.52	6.20	0.56	2.30	0.71	0.46	0.24	0.18	0.38	0.41		
22	0.81	18.25	1.82	5.50	0.55	1.38	0.99	0.45	0.18	0.31	0.29	0.34		
23	0.81	17.64	1.18	5.90	0.49	1.12	1.04	0.42	0.21	0.20	0.36	0.34		
24	0.80	7.90	1.12	5.60	0.48	0.99	0.91	0.42	0.18	0.24	0.36	0.39		
25	0.75	5.04	1.06	4.18	0.63	0.90	0.85	0.41	0.22	0.22	0.39	0.46		
26	0.68	3.78	1.26	0.99	0.78	0.82	0.80	0.38	0.21	0.32	0.38	0.45		
27	0.78	20.86	2.76	1.23	0.75	0.77	0.72	0.38	0.20	0.38	0.38	0.34		
28	0.97	8.30	5.13	1.08	0.78	0.77	0.68	0.35	0.15	0.32	0.39	0.29		
29	2.40	4.18	4.86	1.12	0.78	1.06	0.66	0.34	0.20	0.22		0.27		
30	1.90	2.05	3.14	1.26	0.71	1.00	0.65	0.32	0.21	0.42		0.31		
31		2.52		1.10	0.71		0.62		0.18	0.38		0.29		
Total	28.62	156.62	89.86	79.93	22.41	47.57	26.19	14.71	6.59	7.82	9.51	11.26	501.09	CMSDAY
Mean	0.95	5.05	3.00	2.58	0.72	1.59	0.84	0.49	0.21	0.25	0.34	0.36	1.37	CMS
Max	2.82	20.86	8.50	11.50	1.04	9.90	2.88	0.77	0.34	0.42	0.41	0.46	20.86	CMS
Min	0.48	1.08	1.02	0.66	0.48	0.74	0.55	0.32	0.11	0.17	0.24	0.27	0.11	CMS
Runoff	2.47	13.53	7.76	6.91	1.94	4.11	2.26	1.27	0.57	0.68	0.82	0.97	43.29	MCM

Momentary Peak 32.00 CMS. at 251.00 m. (MSL.) at 07.00 Hours , on May 27 , 2018

Runoff Yield 6.27 Liters/Second/Square KM. Momentary Peak Yield 146.12 Liters/Second/Square KM.

WATER YEAR : 2018

KHONG RIVER BASIN

Nam Mae Chan at Ban Hua Saphan , Chiang Rai (Kh.89)

Lat 20 - 09 - 25 N Long 99 - 51 - 45 E

Location : on right bank at the bridge of Mae Chan - Mae Sai Highway from Tambon Pa Sang.

Ban Hua Saphan **Amphoe** Mae Chan **Changwat** Chiang Rai

Drainge Area	248 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+406.385 m. (MSL.)
Bench Mark	B.M.- Temporary.
Location BM	On right bank at the footpath of the bridge. **Elevation** +408.840 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	1993 to date
Rating Operation	
Period of Rating	1993 to date
Rated by Flot	-
Rated by Current Meter	1993 to date
Stability of Channel Regimes	Fairly stable because of backwater effect.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. The local weir situated about 300 meters downstream from the gage site. Stage-discharge relation defined by 39 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

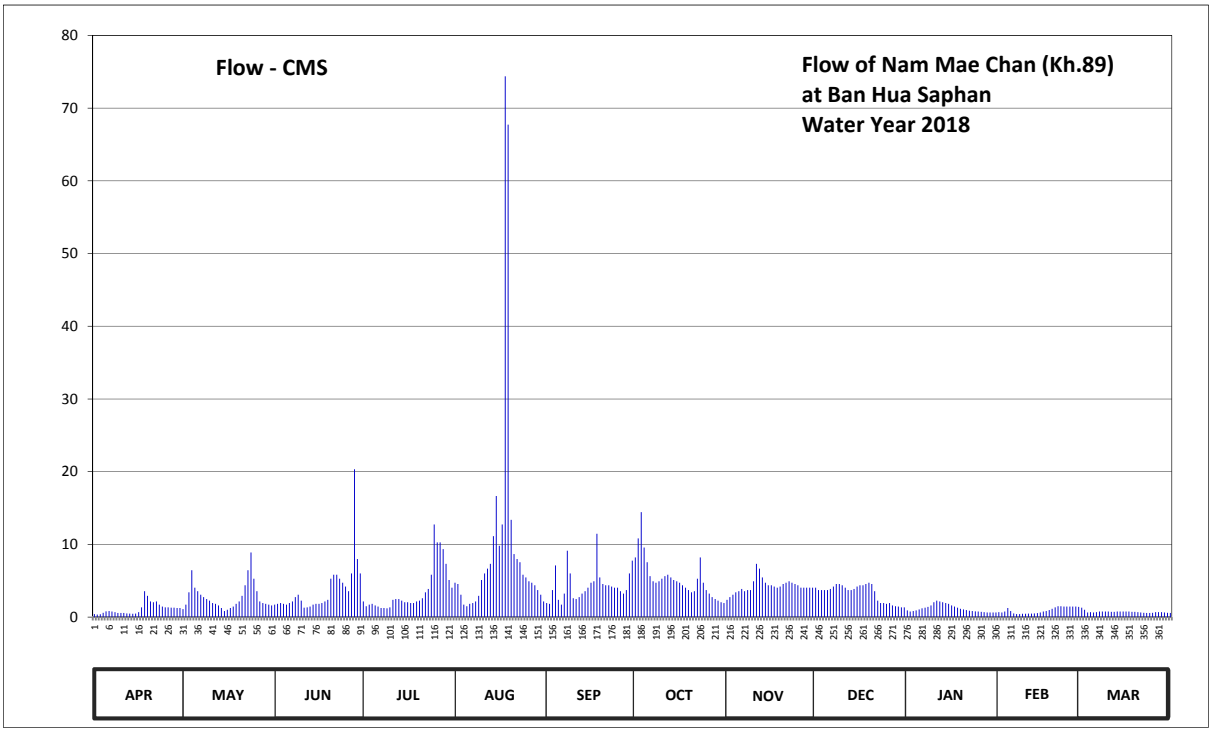
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	406.64	406.82	406.92	406.96	407.13	406.94	407.30	406.98	407.09	406.78	406.72	406.86	
2	406.62	406.92	406.93	406.90	407.12	406.93	407.41	407.01	407.07	406.74	406.71	406.80	
3	406.63	407.05	406.94	406.92	407.03	407.07	407.52	407.03	407.07	406.76	406.74	406.71	
4	406.70	407.22	406.93	406.93	406.92	407.25	407.36	407.05	407.07	406.78	406.85	406.72	
5	406.75	407.09	406.92	406.91	406.90	406.98	407.27	407.06	407.07	406.81	406.76	406.71	
6	406.76	407.06	406.94	406.89	406.93	406.92	407.18	407.08	407.08	406.84	406.67	406.72	
7	406.74	407.03	406.96	406.85	406.94	407.04	407.14	407.06	407.10	406.86	406.64	406.74	
8	406.72	407.01	407.01	406.85	406.96	407.34	407.13	407.07	407.12	406.88	406.64	406.74	
9	406.69	406.99	407.03	406.84	407.02	407.20	407.14	407.07	407.12	406.91	406.65	406.74	
10	406.69	406.97	406.97	406.87	407.15	407.00	407.16	407.14	407.11	406.95	406.65	406.74	
11	406.69	406.94	406.86	406.98	407.20	406.99	407.18	407.26	407.09	406.97	406.66	406.73	
12	406.67	406.93	406.87	406.99	407.23	407.01	407.19	407.23	407.07	406.96	406.66	406.73	
13	406.66	406.91	406.89	406.99	407.26	407.04	407.17	407.17	407.07	406.95	406.67	406.74	
14	406.65	406.85	406.92	406.97	407.42	407.06	407.15	407.13	407.08	406.94	406.68	406.74	
15	406.66	406.76	406.93	406.95	407.58	407.09	407.14	407.11	407.10	406.93	406.71	406.74	
16	406.72	406.80	406.93	406.95	407.37	407.13	407.13	407.11	407.11	406.91	406.74	406.74	
17	406.87	406.85	406.94	406.94	407.47	407.14	407.11	407.10	407.11	406.89	406.76	406.74	
18	407.06	406.89	406.96	406.94	408.52	407.43	407.09	407.09	407.12	406.86	406.79	406.73	
19	407.02	406.93	406.98	406.96	408.43	407.17	407.07	407.10	407.13	406.83	406.83	406.73	
20	406.96	406.96	407.16	406.97	407.49	407.12	407.05	407.12	407.12	406.81	406.87	406.72	
21	406.95	407.02	407.19	407.00	407.32	407.11	407.06	407.13	407.06	406.79	406.90	406.71	
22	406.96	407.11	407.19	407.05	407.29	407.11	407.16	407.14	406.97	406.77	406.90	406.70	
23	406.92	407.22	407.16	407.08	407.27	407.10	407.30	407.13	406.94	406.76	406.89	406.69	
24	406.89	407.33	407.13	407.19	407.19	407.09	407.13	407.12	406.94	406.75	406.89	406.69	
25	406.87	407.16	407.10	407.47	407.17	407.09	407.07	407.11	406.93	406.74	406.89	406.70	
26	406.87	407.06	407.06	407.39	407.14	407.06	407.04	407.09	406.94	406.73	406.89	406.72	
27	406.86	406.96	407.20	407.39	407.13	407.04	407.01	407.09	406.91	406.72	406.89	406.72	
28	406.86	406.94	407.67	407.35	407.11	407.07	406.99	407.09	406.90	406.71	406.88	406.72	
29	406.85	406.93	407.29	407.26	407.07	407.20	406.97	407.09	406.89	406.71		406.71	
30	406.85	406.92	407.20	407.15	407.03	407.28	406.95	407.09	406.87	406.71		406.70	
31		406.91		407.09	406.96		406.94		406.87	406.71		406.69	
Mean	406.79	406.99	407.04	407.03	407.25	407.10	407.15	407.10	407.04	406.82	406.77	406.73	
Max	407.06	407.33	407.67	407.47	408.52	407.43	407.52	407.26	407.13	406.97	406.90	406.86	408.52
Min	406.62	406.76	406.86	406.84	406.90	406.92	406.94	406.98	406.87	406.71	406.64	406.69	406.62

Annual Max Momentary Gage Height 409.24 m. (MSL.) , at 15.00 Hours , on Aug 18 , 2018

Zero Gage at Bottom Elevation 406.39 m. (MSL.) , River Bed 406.04 m. (MSL.)

Left Bank Elevation 411.66 m. (MSL.) ,

Right Bank Elevation 411.70 m. (MSL.) , Drainage Are 248 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.42	1.10	1.72	2.16	4.74	1.94	8.20	2.38	4.04	0.92	0.68	1.30		
2	0.36	1.72	1.83	1.50	4.56	1.83	10.82	2.76	3.72	0.76	0.64	1.00		
3	0.39	3.40	1.94	1.72	3.08	3.72	14.44	3.08	3.72	0.84	0.76	0.64		
4	0.60	6.44	1.83	1.83	1.72	7.10	9.58	3.40	3.72	0.92	1.25	0.68		
5	0.80	4.04	1.72	1.61	1.50	2.38	7.54	3.56	3.72	1.05	0.84	0.64		
6	0.84	3.56	1.94	1.45	1.83	1.72	5.64	3.88	3.88	1.20	0.51	0.68		
7	0.76	3.08	2.16	1.25	1.94	3.24	4.92	3.56	4.20	1.30	0.42	0.76		
8	0.68	2.76	2.76	1.25	2.16	9.12	4.74	3.72	4.56	1.40	0.42	0.76		
9	0.57	2.49	3.08	1.20	2.92	6.00	4.92	3.72	4.56	1.61	0.45	0.76		
10	0.57	2.27	2.27	1.35	5.10	2.60	5.28	4.92	4.38	2.05	0.45	0.76		
11	0.57	1.94	1.30	2.38	6.00	2.49	5.64	7.32	4.04	2.27	0.48	0.72		
12	0.51	1.83	1.35	2.49	6.66	2.76	5.82	6.66	3.72	2.16	0.48	0.72		
13	0.48	1.61	1.45	2.49	7.32	3.24	5.46	5.46	3.72	2.05	0.51	0.76		
14	0.45	1.25	1.72	2.27	11.14	3.56	5.10	4.74	3.88	1.94	0.54	0.76		
15	0.48	0.84	1.83	2.05	16.66	4.04	4.92	4.38	4.20	1.83	0.64	0.76		
16	0.68	1.00	1.83	2.05	9.81	4.74	4.74	4.38	4.38	1.61	0.76	0.76		
17	1.35	1.25	1.94	1.94	12.74	4.92	4.38	4.20	4.38	1.45	0.84	0.76		
18	3.56	1.45	2.16	1.94	74.38	11.46	4.04	4.04	4.56	1.30	0.96	0.72		
19	2.92	1.83	2.38	2.16	67.72	5.46	3.72	4.20	4.74	1.15	1.15	0.72		
20	2.16	2.16	5.28	2.27	13.38	4.56	3.40	4.56	4.56	1.05	1.35	0.68		
21	2.05	2.92	5.82	2.60	8.66	4.38	3.56	4.74	3.56	0.96	1.50	0.64		
22	2.16	4.38	5.82	3.40	7.98	4.38	5.28	4.92	2.27	0.88	1.50	0.60		
23	1.72	6.44	5.28	3.88	7.54	4.20	8.20	4.74	1.94	0.84	1.45	0.57		
24	1.45	8.89	4.74	5.82	5.82	4.04	4.74	4.56	1.94	0.80	1.45	0.57		
25	1.35	5.28	4.20	12.74	5.46	4.04	3.72	4.38	1.83	0.76	1.45	0.60		
26	1.35	3.56	3.56	10.27	4.92	3.56	3.24	4.04	1.94	0.72	1.45	0.68		
27	1.30	2.16	6.00	10.27	4.74	3.24	2.76	4.04	1.61	0.68	1.45	0.68		
28	1.30	1.94	20.34	9.35	4.38	3.72	2.49	4.04	1.50	0.64	1.40	0.68		
29	1.25	1.83	7.98	7.32	3.72	6.00	2.27	4.04	1.45	0.64		0.64		
30	1.25	1.72	6.00	5.10	3.08	7.76	2.05	4.04	1.35	0.64		0.60		
31		1.61		4.04	2.16		1.94		1.35	0.64		0.57		
Total	34.33	86.75	112.23	112.15	313.82	132.20	163.55	128.46	103.42	37.06	25.78	22.17	1271.92	CMSDAY
Mean	1.14	2.80	3.74	3.62	10.12	4.41	5.28	4.28	3.34	1.20	0.92	0.72	3.48	CMS
Max	3.56	8.89	20.34	12.74	74.38	11.46	14.44	7.32	4.74	2.27	1.50	1.30	74.38	CMS
Min	0.36	0.84	1.30	1.20	1.50	1.72	1.94	2.38	1.35	0.64	0.42	0.57	0.36	CMS
Runoff	2.97	7.50	9.70	9.69	27.11	11.42	14.13	11.10	8.94	3.20	2.23	1.92	109.89	MCM

Momentary Peak 134.20 CMS. at 409.24 m. (MSL.) at 15.00 Hours , on Aug 18 , 2018

Runoff Yield 14.05 Liters/Second/Square KM. Momentary Peak Yield 541.13 Liters/Second/Square KM.

WATER YEAR : 2018

KHONG RIVER BASIN

Lam Nam Phung at Ban Tong Khop , Sakon Nakhon (Kh.90)

Lat 17 - 04 - 05 N Long 104 - 15 - 32 E

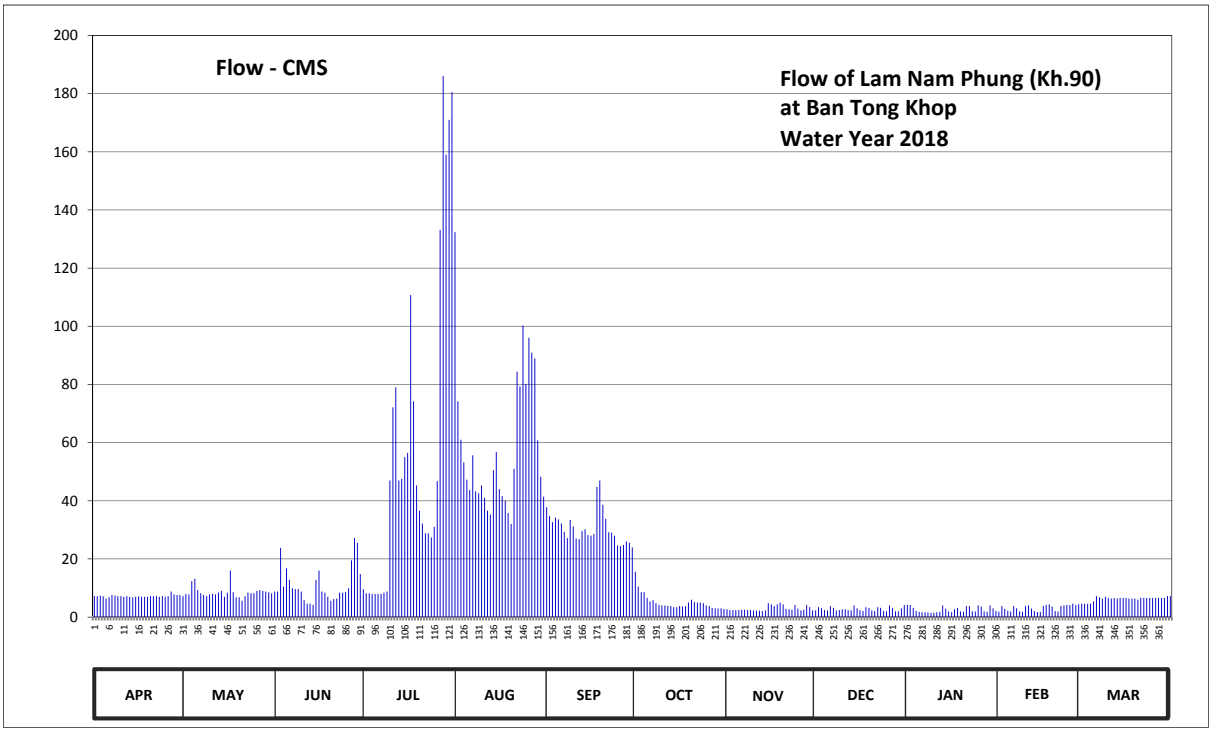
Location : on right bank at the bridge on highway.

	Ban Tong Khop	**Amphoe** Khok Si Suphan	**Changwat** Sakon Nakhon
Drainge Area	861 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+158.000 m. (MSL.)		
Bench Mark	B.M.- Highways Dept.		
Location BM	On right bank at the footpath of the bridge.		**Elevation** +167.908 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00 , 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic mean of 3 readings		
Period of Available Gage Records	1996 to date		
Rating Operation			
Period of Rating	1996 to date		
Rated by Flot	-		
Rated by Current Meter	1996 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	Overbank flow starts at elevation +162.70 m.(MSL.), and is including overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 33 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	160.71	160.71	160.79	160.82	164.91	161.84	160.99	160.47	160.43	160.56	160.37	160.58	
2	160.71	160.75	160.79	160.76	163.24	161.69	160.85	160.44	160.52	160.56	160.54	160.58	
3	160.72	160.74	161.14	160.76	162.79	161.58	160.78	160.44	160.50	160.51	160.48	160.58	
4	160.71	160.91	160.85	160.75	162.50	161.66	160.78	160.44	160.44	160.41	160.42	160.58	
5	160.67	160.93	161.01	160.75	162.27	161.63	160.68	160.44	160.43	160.36	160.38	160.62	
6	160.69	160.81	160.92	160.75	162.13	161.56	160.62	160.45	160.54	160.34	160.54	160.71	
7	160.73	160.76	160.83	160.75	162.59	161.42	160.64	160.45	160.51	160.33	160.50	160.69	
8	160.72	160.73	160.82	160.77	162.11	161.31	160.59	160.44	160.43	160.32	160.39	160.67	
9	160.71	160.71	160.82	160.79	162.08	161.62	160.56	160.44	160.44	160.30	160.36	160.70	
10	160.71	160.74	160.79	162.26	162.19	161.51	160.55	160.43	160.47	160.30	160.54	160.68	
11	160.70	160.75	160.64	163.17	162.00	161.30	160.55	160.42	160.47	160.33	160.55	160.67	
12	160.71	160.74	160.58	163.40	161.78	161.29	160.54	160.42	160.44	160.36	160.49	160.68	
13	160.70	160.77	160.58	162.26	161.71	161.43	160.54	160.41	160.43	160.55	160.41	160.67	
14	160.69	160.80	160.56	162.28	162.40	161.46	160.52	160.43	160.55	160.49	160.35	160.68	
15	160.70	160.70	160.92	162.57	162.63	161.36	160.52	160.59	160.50	160.38	160.36	160.68	
16	160.71	160.77	161.00	162.62	162.14	161.35	160.54	160.57	160.44	160.34	160.54	160.68	
17	160.70	161.00	160.79	164.34	162.03	161.38	160.53	160.54	160.41	160.47	160.56	160.67	
18	160.70	160.78	160.77	163.24	161.95	162.17	160.54	160.57	160.52	160.51	160.57	160.67	
19	160.70	160.69	160.70	162.19	161.74	162.26	160.60	160.60	160.51	160.40	160.53	160.67	
20	160.71	160.69	160.63	161.78	161.55	161.88	160.65	160.57	160.43	160.37	160.41	160.65	
21	160.71	160.63	160.66	161.56	162.42	161.64	160.61	160.48	160.41	160.54	160.38	160.68	
22	160.71	160.71	160.67	161.39	163.58	161.41	160.60	160.47	160.52	160.54	160.54	160.68	
23	160.70	160.77	160.77	161.39	163.41	161.40	160.60	160.45	160.51	160.40	160.55	160.68	
24	160.71	160.76	160.77	161.32	164.05	161.35	160.59	160.56	160.41	160.38	160.56	160.68	
25	160.70	160.76	160.78	161.50	163.44	161.18	160.55	160.49	160.39	160.55	160.56	160.68	
26	160.71	160.80	160.83	162.25	163.93	161.17	160.54	160.43	160.55	160.53	160.58	160.68	
27	160.79	160.81	161.05	164.93	163.78	161.19	160.51	160.45	160.51	160.40	160.56	160.68	
28	160.74	160.80	161.31	166.26	163.72	161.25	160.50	160.56	160.39	160.36	160.57	160.68	
29	160.73	160.79	161.23	165.60	162.78	161.23	160.49	160.52	160.39	160.55		160.68	
30	160.73	160.78	160.97	165.90	162.31	161.15	160.50	160.43	160.50	160.50		160.71	
31		160.76		166.13	162.02		160.48		160.56	160.41		160.71	
Mean	160.71	160.77	160.83	162.43	162.65	161.49	160.60	160.48	160.47	160.43	160.49	160.67	
Max	160.79	161.00	161.31	166.26	164.91	162.26	160.99	160.60	160.56	160.56	160.58	160.71	166.26
Min	160.67	160.63	160.56	160.75	161.55	161.15	160.48	160.41	160.39	160.30	160.35	160.58	160.30

Annual Max Momentary Gage Height	166.40	m. (MSL.) ,	at 11.00 Hours , on Jul 28 , 2018		
Zero Gage at Bottom Elevation	158.00	m. (MSL.) ,	River Bed	157.75	m. (MSL.)
Left Bank Elevation	162.69	m. (MSL.) ,			
Right Bank Elevation	163.60	m. (MSL.) ,	Drainage Are	861	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	7.20	7.20	8.80	9.60	132.38	37.80	15.60	2.70	2.30	4.20	1.85	4.60		
2	7.20	8.00	8.80	8.20	74.20	34.80	10.50	2.40	3.40	4.20	3.80	4.60		
3	7.40	7.80	23.80	8.20	61.03	32.60	8.60	2.40	3.00	3.20	2.80	4.60		
4	7.20	12.40	10.50	8.00	53.20	34.20	8.60	2.40	2.40	2.10	2.20	4.60		
5	6.40	13.20	16.70	8.00	47.25	33.60	6.60	2.40	2.30	1.80	1.90	5.40		
6	6.80	9.30	12.80	8.00	43.75	32.20	5.40	2.50	3.80	1.70	3.80	7.20		
7	7.60	8.20	9.90	8.00	55.63	29.40	5.80	2.50	3.20	1.65	3.00	6.80		
8	7.40	7.60	9.60	8.40	43.25	27.20	4.80	2.40	2.30	1.60	1.95	6.40		
9	7.20	7.20	9.60	8.80	42.60	33.40	4.20	2.40	2.40	1.50	1.80	7.00		
10	7.20	7.80	8.80	47.00	45.25	31.20	4.00	2.30	2.70	1.50	3.80	6.60		
11	7.00	8.00	5.80	72.10	41.00	27.00	4.00	2.20	2.70	1.65	4.00	6.40		
12	7.20	7.80	4.60	79.00	36.60	26.80	3.80	2.20	2.40	1.80	2.90	6.60		
13	7.00	8.40	4.60	47.00	35.20	29.60	3.80	2.10	2.30	4.00	2.10	6.40		
14	6.80	9.00	4.20	47.50	50.50	30.20	3.40	2.30	4.00	2.90	1.75	6.60		
15	7.00	7.00	12.80	55.09	56.71	28.20	3.40	4.80	3.00	1.90	1.80	6.60		
16	7.20	8.40	16.00	56.44	44.00	28.00	3.80	4.40	2.40	1.70	3.80	6.60		
17	7.00	16.00	8.80	110.72	41.60	28.60	3.60	3.80	2.10	2.70	4.20	6.40		
18	7.00	8.60	8.40	74.20	40.00	44.75	3.80	4.40	3.40	3.20	4.40	6.40		
19	7.00	6.80	7.00	45.25	35.80	47.00	5.00	5.00	3.20	2.00	3.60	6.40		
20	7.20	6.80	5.60	36.60	32.00	38.60	6.00	4.40	2.30	1.85	2.10	6.00		
21	7.20	5.60	6.20	32.20	51.04	33.80	5.20	2.80	2.10	3.80	1.90	6.60		
22	7.20	7.20	6.40	28.80	84.40	29.20	5.00	2.70	3.40	3.80	3.80	6.60		
23	7.00	8.40	8.40	28.80	79.30	29.00	5.00	2.50	3.20	2.00	4.00	6.60		
24	7.20	8.20	8.40	27.40	100.25	28.00	4.80	4.20	2.10	1.90	4.20	6.60		
25	7.00	8.20	8.60	31.00	80.20	24.60	4.00	2.90	1.95	4.00	4.20	6.60		
26	7.20	9.00	9.90	46.75	96.05	24.40	3.80	2.30	4.00	3.60	4.60	6.60		
27	8.80	9.30	19.50	133.14	90.94	24.80	3.20	2.50	3.20	2.00	4.20	6.60		
28	7.80	9.00	27.20	186.05	88.96	26.00	3.00	4.20	1.95	1.80	4.40	6.60		
29	7.60	8.80	25.60	159.00	60.76	25.60	2.90	3.40	1.95	4.00		6.60		
30	7.60	8.60	14.80	171.00	48.25	24.00	3.00	2.30	3.00	3.00		7.20		
31		8.20		180.53	41.40		2.80		4.20	2.10		7.20		
Total	216.60	266.00	332.10	1770.77	1833.50	924.55	157.40	89.80	86.65	79.15	88.85	196.00	6041.37	CMSDAY
Mean	7.22	8.58	11.07	57.12	59.15	30.82	5.08	2.99	2.80	2.55	3.17	6.32	16.55	CMS
Max	8.80	16.00	27.20	186.05	132.38	47.00	15.60	5.00	4.20	4.20	4.60	7.20	186.05	CMS
Min	6.40	5.60	4.20	8.00	32.00	24.00	2.80	2.10	1.95	1.50	1.75	4.60	1.50	CMS
Runoff	18.71	22.98	28.69	152.99	158.41	79.88	13.60	7.76	7.49	6.84	7.68	16.93	521.97	MCM

Momentary Peak 192.00 CMS. at 166.40 m. (MSL.) at 11.00 Hours , on Jul 28 , 2018

Runoff Yield 19.22 Liters/Second/Square KM. Momentary Peak Yield 223.00 Liters/Second/Square KM.

WATER YEAR : 2018

KHONG RIVER BASIN

Huai Chanot at Ban Don Sawan , Nakhon Phanom (Kh.91)

Lat 16 - 47 - 48 N Long 104 - 39 - 45 E

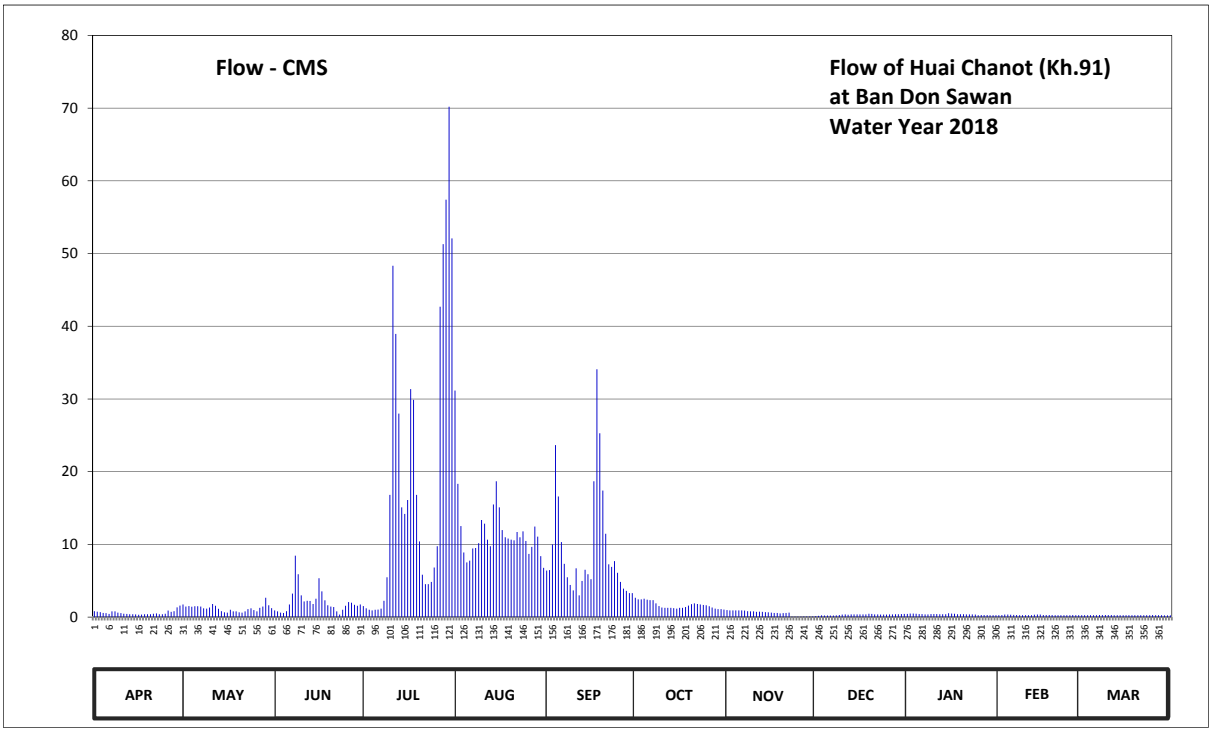
Location : on left bank at the bridge on highway.

	Ban Don Sawan	**Amphoe** That Phanom	**Changwat** Nakhon Phanom
Drainge Area	172 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+149.000 m. (MSL.)		
Bench Mark	B.M.- Highways Dept.		
Location BM	On left bank at the footpath of the bridge.		**Elevation** +159.228 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00 , 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic mean of 3 readings		
Period of Available Gage Records	1996 to date		
Rating Operation			
Period of Rating	1996 to date		
Rated by Flot	-		
Rated by Current Meter	1996 to date		
Stability of Channel Regimes	Fairly stable because of backwater effect.		
Overbank Flow Conditions	Overbank flow starts at elevation +153.150 m.(MSL.) and is including overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 41 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	150.42	150.68	150.45	150.62	153.65	151.50	150.89	150.46	150.51	151.34	150.96	151.00	
2	150.40	150.60	150.41	150.53	152.96	151.51	150.84	150.45	150.66	151.38	151.08	151.00	
3	150.38	150.62	150.36	150.47	152.37	152.06	150.84	150.45	150.85	151.39	151.19	151.00	
4	150.35	150.59	150.35	150.45	151.90	153.27	150.86	150.45	150.84	151.36	151.20	151.00	
5	150.34	150.61	150.42	150.47	151.68	152.80	150.83	150.45	150.84	151.32	151.15	151.00	
6	150.31	150.61	150.68	150.48	151.72	152.10	150.82	150.45	150.84	151.32	151.10	151.00	
7	150.41	150.60	150.99	150.52	151.99	151.65	150.82	150.44	150.84	151.25	151.05	151.02	
8	150.41	150.53	151.83	150.80	152.00	151.35	150.72	150.42	150.91	151.25	151.00	151.02	
9	150.36	150.52	151.42	151.35	152.08	151.18	150.62	150.41	151.03	151.32	151.00	151.02	
10	150.34	150.56	150.95	152.82	152.47	151.06	150.56	150.41	151.21	151.32	151.00	151.03	
11	150.32	150.70	150.78	154.43	152.41	151.55	150.55	150.39	151.24	151.31	151.00	151.04	
12	150.31	150.63	150.80	154.02	152.14	150.95	150.55	150.40	151.14	151.30	151.01	151.00	
13	150.30	150.51	150.79	153.50	152.03	151.27	150.55	150.39	151.23	151.28	151.13	151.00	
14	150.30	150.42	150.70	152.65	152.69	151.52	150.54	150.38	151.25	151.30	151.18	151.00	
15	150.29	150.37	150.86	152.56	152.99	151.42	150.52	150.37	151.25	151.41	151.17	151.00	
16	150.26	150.36	151.33	152.75	152.65	151.31	150.55	150.36	151.25	151.38	151.06	151.00	
17	150.28	150.47	151.04	153.66	152.30	152.99	150.55	150.35	151.25	151.35	151.05	151.00	
18	150.30	150.41	150.81	153.59	152.18	153.79	150.58	150.35	151.26	151.29	151.05	151.00	
19	150.30	150.41	150.65	152.82	152.16	153.36	150.64	150.33	151.36	151.28	151.05	151.00	
20	150.30	150.37	150.60	152.11	152.14	152.88	150.69	150.34	151.34	151.27	151.00	151.00	
21	150.32	150.36	150.58	151.41	152.13	152.24	150.72	150.35	151.25	151.26	151.00	151.00	
22	150.33	150.41	150.41	151.20	152.27	151.64	150.70	150.36	151.25	151.25	151.00	151.00	
23	150.30	150.50	150.27	151.20	152.18	151.58	150.68	150.30	151.22	151.25	151.00	151.00	
24	150.30	150.53	150.47	151.25	152.28	151.71	150.66	150.30	151.22	151.19	151.00	151.00	
25	150.32	150.46	150.63	151.57	152.12	151.45	150.65	150.30	151.22	150.97	151.01	151.03	
26	150.44	150.41	150.76	152.03	151.87	151.25	150.61	150.31	151.24	151.05	151.05	151.00	
27	150.39	150.55	150.74	154.19	152.02	151.10	150.56	150.35	151.25	151.05	151.01	151.00	
28	150.42	150.60	150.67	154.55	152.36	151.05	150.52	150.38	151.27	151.05	151.00	150.96	
29	150.57	150.89	150.63	154.76	152.19	151.00	150.50	150.38	151.28	151.00		150.93	
30	150.64	150.65	150.68	155.13	151.82	151.00	150.50	150.37	151.31	150.96		150.93	
31		150.54		154.58	151.56		150.48		151.33	150.97		150.93	
Mean	150.36	150.53	150.74	152.34	152.24	151.78	150.65	150.38	151.13	151.24	151.05	151.00	
Max	150.64	150.89	151.83	155.13	153.65	153.79	150.89	150.46	151.36	151.41	151.20	151.04	155.13
Min	150.26	150.36	150.27	150.45	151.56	150.95	150.48	150.30	150.51	150.96	150.96	150.93	150.26

Annual Max Momentary Gage Height	155.20	m. (MSL.) ,	at 17.00 Hours , on Jul 30, 2018		
Zero Gage at Bottom Elevation	149.00	m. (MSL.) ,	River Bed	150.29	m. (MSL.)
Left Bank Elevation	153.14	m. (MSL.) ,			
Right Bank Elevation	157.51	m. (MSL.) ,	Drainage Are	172	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.82	1.73	0.93	1.52	31.15	6.40	2.66	0.96	0.12	0.44	0.26	0.27		
2	0.75	1.45	0.79	1.21	18.32	6.46	2.43	0.93	0.17	0.48	0.29	0.27		
3	0.68	1.52	0.61	1.00	12.53	9.99	2.43	0.93	0.23	0.49	0.35	0.27		
4	0.58	1.42	0.58	0.93	8.88	23.66	2.52	0.93	0.22	0.46	0.35	0.27		
5	0.54	1.49	0.82	1.00	7.52	16.60	2.39	0.93	0.22	0.42	0.33	0.27		
6	0.44	1.49	1.73	1.03	7.76	10.32	2.34	0.93	0.22	0.42	0.30	0.27		
7	0.79	1.45	3.24	1.17	9.44	7.33	2.34	0.89	0.22	0.38	0.29	0.28		
8	0.79	1.21	8.45	2.25	9.50	5.47	1.89	0.82	0.24	0.38	0.27	0.28		
9	0.61	1.17	5.90	5.47	10.16	4.42	1.52	0.79	0.28	0.42	0.27	0.28		
10	0.54	1.31	3.00	16.80	13.35	3.67	1.31	0.79	0.36	0.42	0.27	0.28		
11	0.47	1.80	2.16	48.32	12.86	6.71	1.28	0.72	0.37	0.41	0.27	0.28		
12	0.44	1.56	2.25	38.94	10.65	3.00	1.28	0.75	0.32	0.40	0.27	0.27		
13	0.40	1.14	2.21	28.00	9.75	4.97	1.28	0.72	0.37	0.39	0.32	0.27		
14	0.40	0.82	1.80	15.10	15.50	6.52	1.24	0.68	0.38	0.40	0.34	0.27		
15	0.38	0.65	2.52	14.20	18.68	5.90	1.17	0.65	0.38	0.53	0.34	0.27		
16	0.32	0.61	5.35	16.10	15.10	5.22	1.28	0.61	0.38	0.48	0.29	0.27		
17	0.36	1.00	3.55	31.36	11.96	18.68	1.28	0.58	0.38	0.45	0.29	0.27		
18	0.40	0.79	2.30	29.89	10.98	34.09	1.38	0.58	0.38	0.40	0.29	0.27		
19	0.40	0.79	1.63	16.80	10.81	25.28	1.59	0.51	0.46	0.39	0.29	0.27		
20	0.40	0.65	1.45	10.40	10.65	17.40	1.77	0.54	0.44	0.39	0.27	0.27		
21	0.47	0.61	1.38	5.84	10.57	11.47	1.89	0.58	0.38	0.38	0.27	0.27		
22	0.51	0.79	0.79	4.54	11.71	7.27	1.80	0.61	0.38	0.38	0.27	0.27		
23	0.40	1.10	0.34	4.54	10.98	6.90	1.73	0.06	0.36	0.38	0.27	0.27		
24	0.40	1.21	1.00	4.85	11.80	7.70	1.66	0.06	0.36	0.35	0.27	0.27		
25	0.47	0.96	1.56	6.83	10.48	6.09	1.63	0.06	0.36	0.26	0.27	0.28		
26	0.89	0.79	2.07	9.75	8.69	4.85	1.49	0.06	0.37	0.29	0.29	0.27		
27	0.72	1.28	1.98	42.68	9.66	3.92	1.31	0.08	0.38	0.29	0.27	0.27		
28	0.82	1.45	1.70	51.30	12.45	3.61	1.17	0.08	0.39	0.29	0.27	0.26		
29	1.35	2.66	1.56	57.40	11.06	3.30	1.10	0.08	0.39	0.27		0.25		
30	1.59	1.63	1.73	70.20	8.38	3.30	1.10	0.08	0.41	0.26		0.25		
31		1.24		52.08	6.77		1.03		0.43	0.26		0.25		
Total	18.13	37.77	65.38	591.50	368.10	280.50	51.29	16.99	10.35	11.96	8.13	8.36	1468.46	CMSDAY
Mean	0.60	1.22	2.18	19.08	11.87	9.35	1.65	0.57	0.33	0.39	0.29	0.27	4.02	CMS
Max	1.59	2.66	8.45	70.20	31.15	34.09	2.66	0.96	0.46	0.53	0.35	0.28	70.20	CMS
Min	0.32	0.61	0.34	0.93	6.77	3.00	1.03	0.06	0.12	0.26	0.26	0.25	0.06	CMS
Runoff	1.57	3.26	5.65	51.11	31.80	24.24	4.43	1.47	0.89	1.03	0.70	0.72	126.87	MCM

Momentary Peak 73.00 CMS. at 155.20 m. (MSL.) at 17.00 Hours , on Jul 30 , 2018

Runoff Yield 23.39 Liters/Second/Square KM. Momentary Peak Yield 424.42 Liters/Second/Square KM.

WATER YEAR : 2018

KHONG RIVER BASIN

Huai Bang Sai at Ban Kan Luang Dong , Muk Dahan (Kh.92)

Lat 16 - 44 - 06 N Long 104 - 31 - 23 E

Location : on left bank at the bridge on highway.

Ban Kan Luang Dong **Amphoe** Dong Luang **Changwat** Muk Dahan

Drainge Area	1,119 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+148.100 m. (MSL.)
Bench Mark	B.M.- Highways Dept.
Location BM	On left bank at the footpath of the bridge. **Elevation** +159.233 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00 , 12.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic mean of 3 readings
Period of Available Gage Records	1996 to date
Rating Operation	
Period of Rating	1996 to date
Rated by Flot	-
Rated by Current Meter	1996 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	Overbank flow starts at elevation +154.630 m.(MSL.) and is including overbank flow.
General Description	Records fair. The local weir situated downstream from the gage site. Stage-discharge relation defined by 30 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

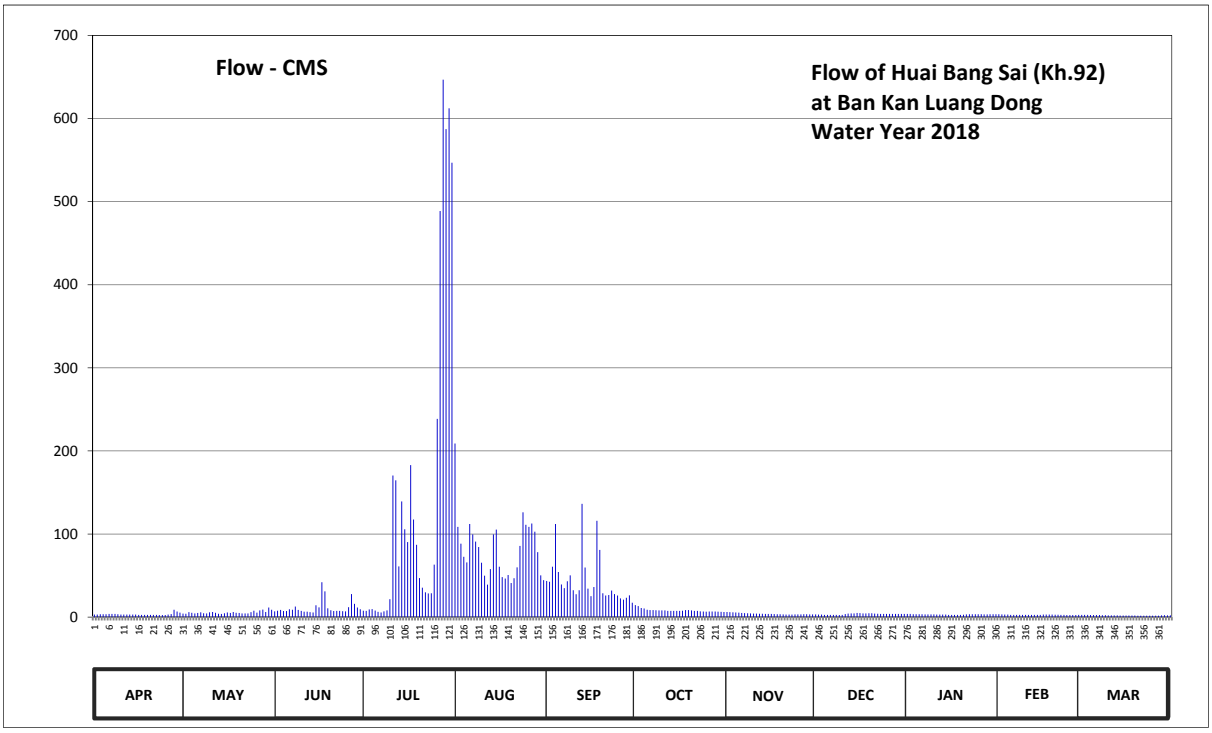
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	148.80	148.96	149.24	149.31	154.12	150.89	149.81	149.16	148.83	148.90	148.84	148.73	
2	148.80	148.93	149.31	149.29	152.45	150.86	149.74	149.14	148.80	148.90	148.82	148.73	
3	148.85	149.15	149.42	149.48	152.03	151.38	149.60	149.12	148.80	148.85	148.80	148.73	
4	148.85	149.06	149.28	149.51	151.67	152.52	149.56	149.11	148.75	148.85	148.80	148.70	
5	148.85	149.00	149.28	149.33	151.52	151.20	149.43	149.08	148.75	148.85	148.75	148.70	
6	148.90	149.04	149.50	149.19	152.52	150.76	149.40	149.05	148.73	148.85	148.75	148.70	
7	148.90	149.13	149.44	149.11	152.26	150.62	149.40	149.03	148.73	148.83	148.75	148.70	
8	148.90	149.02	149.71	149.25	152.08	150.88	149.38	149.02	148.73	148.83	148.75	148.68	
9	148.85	149.00	149.41	149.35	151.94	151.09	149.35	149.00	148.70	148.83	148.75	148.68	
10	148.80	149.13	149.29	150.12	151.51	150.54	149.35	148.95	148.75	148.83	148.73	148.65	
11	148.80	149.17	149.21	153.55	151.08	150.36	149.35	148.95	148.88	148.80	148.73	148.65	
12	148.80	149.06	149.20	153.46	150.75	150.54	149.30	148.93	148.96	148.80	148.73	148.65	
13	148.80	148.94	149.14	151.39	151.30	152.97	149.30	148.93	148.99	148.80	148.75	148.65	
14	148.80	148.90	149.10	153.02	152.26	151.35	149.30	148.90	148.99	148.80	148.75	148.63	
15	148.80	149.01	149.80	152.39	152.38	150.60	149.30	148.90	149.04	148.75	148.75	148.63	
16	148.75	149.11	149.65	152.07	151.38	150.27	149.30	148.90	149.03	148.75	148.80	148.63	
17	148.75	149.04	150.84	153.74	151.03	150.66	149.32	148.89	149.00	148.75	148.80	148.63	
18	148.75	149.17	150.50	152.62	150.98	152.59	149.40	148.85	149.00	148.75	148.80	148.63	
19	148.75	149.07	149.57	152.00	151.10	151.86	149.40	148.85	149.01	148.73	148.80	148.63	
20	148.73	149.05	149.37	151.00	150.81	150.41	149.35	148.83	149.02	148.76	148.78	148.60	
21	148.73	149.00	149.28	150.64	150.99	150.30	149.30	148.80	148.97	148.82	148.78	148.60	
22	148.73	149.00	149.30	150.45	151.36	150.32	149.30	148.80	148.92	148.86	148.75	148.60	
23	148.70	149.00	149.30	150.40	151.97	150.53	149.25	148.80	148.90	148.85	148.75	148.60	
24	148.70	149.14	149.26	150.41	152.78	150.37	149.22	148.81	148.90	148.85	148.70	148.60	
25	148.71	149.32	149.24	151.45	152.50	150.30	149.20	148.82	148.90	148.85	148.70	148.60	
26	148.80	149.08	149.66	154.52	152.45	150.16	149.22	148.83	148.90	148.85	148.70	148.60	
27	148.88	149.35	150.37	157.17	152.53	150.10	149.23	148.84	148.90	148.83	148.70	148.60	
28	149.43	149.46	149.89	158.28	152.33	150.19	149.22	148.85	148.90	148.83	148.73	148.65	
29	149.22	149.17	149.64	157.89	151.80	150.31	149.21	148.83	148.90	148.85		148.69	
30	149.08	149.63	149.49	158.06	151.09	149.95	149.19	148.83	148.90	148.85		148.65	
31		149.43		157.61	150.92		149.17		148.90	148.85		148.65	
Mean	148.84	149.11	149.52	152.13	151.80	150.83	149.35	148.93	148.89	148.82	148.76	148.65	
Max	149.43	149.63	150.84	158.28	154.12	152.97	149.81	149.16	149.04	148.90	148.84	148.73	158.28
Min	148.70	148.90	149.10	149.11	150.75	149.95	149.17	148.80	148.70	148.73	148.70	148.60	148.60

Annual Max Momentary Gage Height 158.35 m. (MSL.) , at 09.00 Hours , on Jul 28 , 2018

Zero Gage at Bottom Elevation 148.10 m. (MSL.) , River Bed 148.00 m. (MSL.)

Left Bank Elevation 154.62 m. (MSL.) ,

Right Bank Elevation 159.32 m. (MSL.) , Drainage Are 1,119 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	3.10	4.22	6.90	7.60	208.88	43.48	14.40	6.10	3.31	3.80	3.38	2.61		
2	3.10	4.01	7.60	7.40	108.60	42.52	13.18	5.90	3.10	3.80	3.24	2.61		
3	3.45	6.00	8.70	9.30	88.44	60.68	11.00	5.70	3.10	3.45	3.10	2.61		
4	3.45	5.10	7.30	9.65	72.48	112.08	10.40	5.60	2.75	3.45	3.10	2.40		
5	3.45	4.50	7.30	7.80	65.88	54.20	8.80	5.30	2.75	3.45	2.75	2.40		
6	3.80	4.90	9.50	6.40	112.08	39.32	8.50	5.00	2.61	3.45	2.75	2.40		
7	3.80	5.80	8.90	5.60	99.48	34.84	8.50	4.80	2.61	3.31	2.75	2.40		
8	3.80	4.70	12.67	7.00	90.84	43.16	8.30	4.70	2.61	3.31	2.75	2.26		
9	3.45	4.50	8.60	8.00	84.36	50.24	8.00	4.50	2.40	3.31	2.75	2.26		
10	3.10	5.80	7.40	21.50	65.44	32.28	8.00	4.15	2.75	3.31	2.61	2.05		
11	3.10	6.20	6.60	170.30	49.88	27.50	8.00	4.15	3.66	3.10	2.61	2.05		
12	3.10	5.10	6.50	164.68	39.00	32.28	7.50	4.01	4.22	3.10	2.61	2.05		
13	3.10	4.08	5.90	61.04	57.80	136.38	7.50	4.01	4.43	3.10	2.75	2.05		
14	3.10	3.80	5.50	139.16	99.48	59.60	7.50	3.80	4.43	3.10	2.75	1.91		
15	3.10	4.60	14.20	105.72	105.24	34.20	7.50	3.80	4.90	2.75	2.75	1.91		
16	2.75	5.60	11.75	90.36	60.68	25.25	7.50	3.80	4.80	2.75	3.10	1.91		
17	2.75	4.90	41.88	182.84	48.08	36.12	7.70	3.73	4.50	2.75	3.10	1.91		
18	2.75	6.20	31.00	117.48	46.36	115.86	8.50	3.45	4.50	2.75	3.10	1.91		
19	2.75	5.20	10.55	87.00	50.60	80.84	8.50	3.45	4.60	2.61	3.10	1.91		
20	2.61	5.00	8.20	47.00	40.92	28.75	8.00	3.31	4.70	2.82	2.96	1.70		
21	2.61	4.50	7.30	35.48	46.68	26.00	7.50	3.10	4.29	3.24	2.96	1.70		
22	2.61	4.50	7.50	29.75	59.96	26.50	7.50	3.10	3.94	3.52	2.75	1.70		
23	2.40	4.50	7.50	28.50	85.68	31.96	7.00	3.10	3.80	3.45	2.75	1.70		
24	2.40	5.90	7.10	28.75	126.12	27.75	6.70	3.17	3.80	3.45	2.40	1.70		
25	2.47	7.70	6.90	63.20	111.00	26.00	6.50	3.24	3.80	3.45	2.40	1.70		
26	3.10	5.30	11.90	238.56	108.60	22.50	6.70	3.31	3.80	3.45	2.40	1.70		
27	3.66	8.00	27.75	488.76	112.62	21.00	6.80	3.38	3.80	3.31	2.40	1.70		
28	8.80	9.10	16.00	646.68	102.84	23.25	6.70	3.45	3.80	3.31	2.61	2.05		
29	6.70	6.20	11.60	587.16	78.20	26.25	6.60	3.31	3.80	3.45		2.33		
30	5.30	11.45	9.40	612.36	50.24	17.35	6.40	3.31	3.80	3.45		2.05		
31		8.80		546.84	44.44		6.20		3.80	3.45		2.05		
Total	103.66	176.16	339.90	4561.87	2520.90	1338.14	251.88	121.73	115.16	101.00	78.68	63.69	9772.77	CMSDAY
Mean	3.46	5.68	11.33	147.16	81.32	44.60	8.13	4.06	3.71	3.26	2.81	2.05	26.77	CMS
Max	8.80	11.45	41.88	646.68	208.88	136.38	14.40	6.10	4.90	3.80	3.38	2.61	646.68	CMS
Min	2.40	3.80	5.50	5.60	39.00	17.35	6.20	3.10	2.40	2.61	2.40	1.70	1.70	CMS
Runoff	8.96	15.22	29.37	394.15	217.81	115.62	21.76	10.52	9.95	8.73	6.80	5.50	844.37	MCM

Momentary Peak 657.60 CMS. at 158.35 m. (MSL.) at 09.00 Hours , on Jul 28 , 2018

Runoff Yield 23.93 Liters/Second/Square KM. Momentary Peak Yield 587.67 Liters/Second/Square KM.

WATER YEAR : 2018

KHONG RIVER BASIN

Songkhram River at Ban Khok Kham Lai, Udon Thani (Kh.93)

Lat 17 - 33 - 22 N Long 103 - 20 - 20 E

Location : on left bank at the bridge of Amphoe Ban Duang - Amphoe Sawang Daen Din Highway.

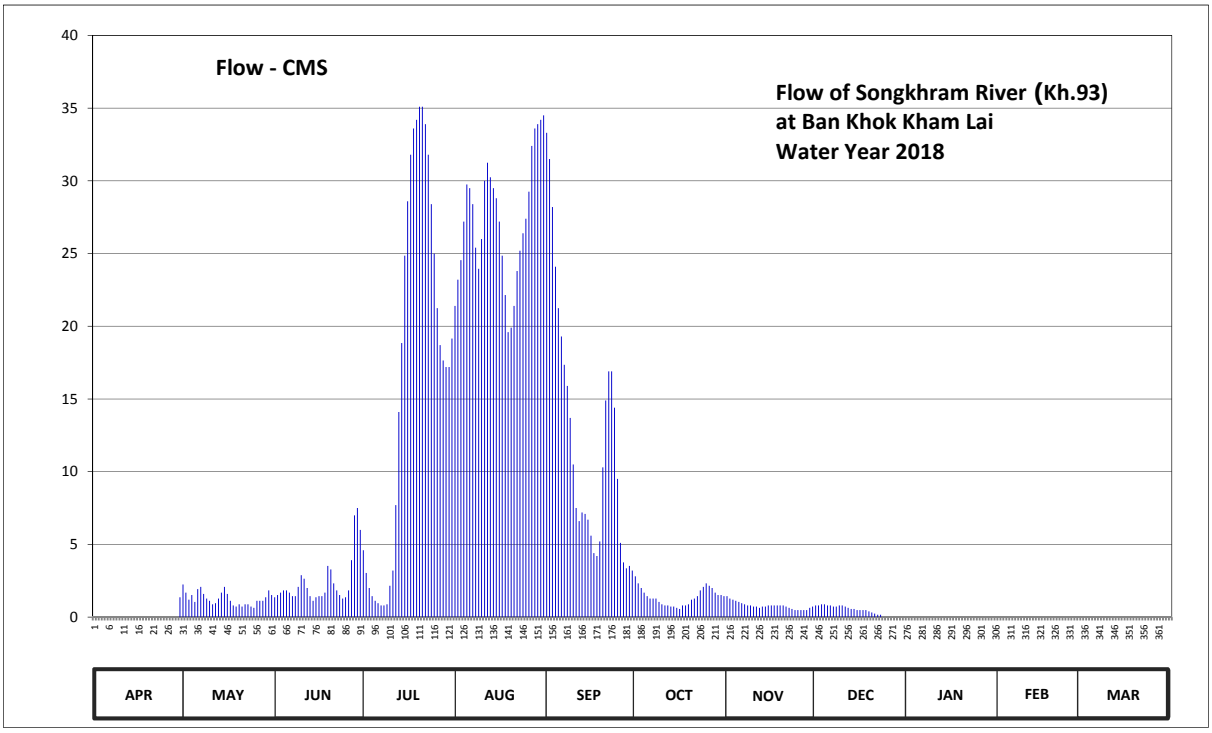
Ban Khok Kham Lai **Amphoe** Ban Dung **Changwat** Udon Thani

Drainge Area	760 sq.km.
Type of Gage	Water - stage recorder.
Zero Gage at Bottom	+153.100 m. (MSL.)
Bench Mark	B.M.- Highways Dept.
Location BM	On left bank downstream side at the footpath of the bridge. **Elevation** +161.354 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	1997 to date
Rating Operation	
Period of Rating	1997 to date
Rated by Flot	-
Rated by Current Meter	1997 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	Overbank flow starts at elevation +157.120 m.(MSL.), records are channel flow only.
General Description	Records fair. The weir situated downstream from the gage site. Stage-discharge relation defined by 15 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	154.70	155.28	155.17	155.56	157.06	157.66	155.35	155.18	155.10	154.95	154.76	154.59	
2	154.70	155.21	155.19	155.38	157.18	157.60	155.29	155.16	155.10	154.92	154.75	154.59	
3	154.69	155.15	155.21	155.25	157.27	157.46	155.25	155.15	155.11	154.89	154.74	154.59	
4	154.69	155.19	155.23	155.18	157.41	157.24	155.21	155.14	155.11	154.88	154.73	154.58	
5	154.68	155.13	155.23	155.14	157.53	157.05	155.18	155.13	155.10	154.86	154.72	154.57	
6	154.67	155.24	155.21	155.12	157.52	156.92	155.16	155.12	155.10	154.85	154.71	154.57	
7	154.68	155.26	155.18	155.10	157.47	156.79	155.16	155.11	155.09	154.84	154.69	154.56	
8	154.68	155.20	155.18	155.10	157.32	156.69	155.16	155.10	155.09	154.83	154.68	154.55	
9	154.67	155.16	155.26	155.11	157.23	156.47	155.13	155.10	155.10	154.82	154.67	154.54	
10	154.67	155.14	155.36	155.27	157.35	156.15	155.11	155.09	155.10	154.81	154.66	154.53	
11	154.66	155.11	155.33	155.40	157.54	155.85	155.10	155.09	155.09	154.80	154.65	154.53	
12	154.65	155.12	155.25	155.87	157.59	155.76	155.10	155.08	155.08	154.79	154.64	154.52	
13	154.64	155.16	155.18	156.51	157.55	155.82	155.09	155.09	155.07	154.79	154.64	154.51	
14	154.64	155.21	155.14	156.89	157.52	155.81	155.09	155.09	155.07	154.78	154.63	154.51	
15	154.63	155.26	155.17	157.29	157.49	155.77	155.08	155.10	155.06	154.77	154.62	154.50	
16	154.63	155.20	155.18	157.48	157.41	155.66	155.07	155.10	155.06	154.79	154.61	154.49	
17	154.66	155.14	155.18	157.61	157.29	155.54	155.10	155.10	155.06	154.80	154.63	154.49	
18	154.66	155.10	155.21	157.67	157.11	155.52	155.10	155.10	155.06	154.81	154.64	154.49	
19	154.67	155.09	155.44	157.69	156.94	155.62	155.11	155.10	155.05	154.82	154.64	154.48	
20	154.67	155.11	155.41	157.72	156.96	156.13	155.15	155.10	155.04	154.83	154.64	154.48	
21	154.66	155.09	155.29	157.72	157.06	156.59	155.16	155.09	155.03	154.83	154.63	154.47	
22	154.66	155.11	155.23	157.68	157.22	156.76	155.18	155.08	155.02	154.83	154.63	154.47	
23	154.65	155.11	155.19	157.61	157.31	156.76	155.23	155.07	155.02	154.83	154.62	154.46	
24	154.65	155.09	155.16	157.47	157.37	156.54	155.26	155.06	155.00	154.82	154.61	154.45	
25	154.64	155.08	155.17	157.30	157.42	156.05	155.29	155.06	154.99	154.82	154.61	154.44	
26	154.68	155.14	155.23	157.05	157.51	155.61	155.27	155.06	154.99	154.81	154.61	154.44	
27	154.68	155.14	155.49	156.88	157.63	155.47	155.25	155.06	154.98	154.80	154.61	154.44	
28	154.68	155.14	155.80	156.81	157.67	155.42	155.21	155.06	154.97	154.80	154.60	154.43	
29	154.69	155.17	155.85	156.78	157.68	155.44	155.19	155.08	154.97	154.79		154.43	
30	155.17	155.23	155.70	156.78	157.69	155.40	155.19	155.09	154.96	154.78		154.42	
31		155.19		156.91	157.70		155.18		154.96	154.78		154.42	
Mean	154.68	155.16	155.29	156.49	157.39	156.25	155.17	155.10	155.05	154.82	154.66	154.50	
Max	155.17	155.28	155.85	157.72	157.70	157.66	155.35	155.18	155.11	154.95	154.76	154.59	157.72
Min	154.63	155.08	155.14	155.10	156.94	155.40	155.07	155.06	154.96	154.77	154.60	154.42	154.42

Annual Max Momentary Gage Height	157.73	m. (MSL.) ,	at 18.00 Hours , on Jul 20 , 2018		
Zero Gage at Bottom Elevation	153.10	m. (MSL.) ,	River Bed	152.44	m. (MSL.)
Left Bank Elevation	157.77	m. (MSL.) ,			
Right Bank Elevation	157.11	m. (MSL.) ,	Drainage Are	760	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	2.24	1.36	4.60	21.40	33.30	2.80	1.44	0.80	0.00	0.00	0.00		
2	0.00	1.68	1.52	3.04	23.20	31.50	2.32	1.28	0.80	0.00	0.00	0.00		
3	0.00	1.20	1.68	2.00	24.55	28.20	2.00	1.20	0.88	0.00	0.00	0.00		
4	0.00	1.52	1.84	1.44	27.20	24.10	1.68	1.12	0.88	0.00	0.00	0.00		
5	0.00	1.04	1.84	1.12	29.75	21.25	1.44	1.04	0.80	0.00	0.00	0.00		
6	0.00	1.92	1.68	0.96	29.50	19.30	1.28	0.96	0.80	0.00	0.00	0.00		
7	0.00	2.08	1.44	0.80	28.40	17.35	1.28	0.88	0.72	0.00	0.00	0.00		
8	0.00	1.60	1.44	0.80	25.40	15.90	1.28	0.80	0.72	0.00	0.00	0.00		
9	0.00	1.28	2.08	0.88	23.95	13.70	1.04	0.80	0.80	0.00	0.00	0.00		
10	0.00	1.12	2.88	2.16	26.00	10.50	0.88	0.72	0.80	0.00	0.00	0.00		
11	0.00	0.88	2.64	3.20	30.00	7.50	0.80	0.72	0.72	0.00	0.00	0.00		
12	0.00	0.96	2.00	7.70	31.25	6.60	0.80	0.64	0.64	0.00	0.00	0.00		
13	0.00	1.28	1.44	14.10	30.25	7.20	0.72	0.72	0.56	0.00	0.00	0.00		
14	0.00	1.68	1.12	18.85	29.50	7.10	0.72	0.72	0.56	0.00	0.00	0.00		
15	0.00	2.08	1.36	24.85	28.80	6.70	0.64	0.80	0.48	0.00	0.00	0.00		
16	0.00	1.60	1.44	28.60	27.20	5.60	0.56	0.80	0.48	0.00	0.00	0.00		
17	0.00	1.12	1.44	31.80	24.85	4.40	0.80	0.80	0.48	0.00	0.00	0.00		
18	0.00	0.80	1.68	33.60	22.15	4.20	0.80	0.80	0.48	0.00	0.00	0.00		
19	0.00	0.72	3.52	34.20	19.60	5.20	0.88	0.80	0.40	0.00	0.00	0.00		
20	0.00	0.88	3.28	35.10	19.90	10.30	1.20	0.80	0.32	0.00	0.00	0.00		
21	0.00	0.72	2.32	35.10	21.40	14.90	1.28	0.72	0.24	0.00	0.00	0.00		
22	0.00	0.88	1.84	33.90	23.80	16.90	1.44	0.64	0.16	0.00	0.00	0.00		
23	0.00	0.88	1.52	31.80	25.20	16.90	1.84	0.56	0.16	0.00	0.00	0.00		
24	0.00	0.72	1.28	28.40	26.40	14.40	2.08	0.48	0.00	0.00	0.00	0.00		
25	0.00	0.64	1.36	25.00	27.40	9.50	2.32	0.48	0.00	0.00	0.00	0.00		
26	0.00	1.12	1.84	21.25	29.25	5.10	2.16	0.48	0.00	0.00	0.00	0.00		
27	0.00	1.12	3.92	18.70	32.40	3.76	2.00	0.48	0.00	0.00	0.00	0.00		
28	0.00	1.12	7.00	17.65	33.60	3.36	1.68	0.48	0.00	0.00	0.00	0.00		
29	0.00	1.36	7.50	17.20	33.90	3.52	1.52	0.64	0.00	0.00		0.00		
30	1.36	1.84	6.00	17.20	34.20	3.20	1.52	0.72	0.00	0.00		0.00		
31		1.52		19.15	34.50		1.44		0.00	0.00		0.00		
Total	1.36	39.60	72.26	515.15	844.90	371.44	43.20	23.52	13.68	0.00	0.00	0.00	1925.11	CMSDAY
Mean	0.05	1.28	2.41	16.62	27.25	12.38	1.39	0.78	0.44	0.00	0.00	0.00	5.27	CMS
Max	1.36	2.24	7.50	35.10	34.50	33.30	2.80	1.44	0.88	0.00	0.00	0.00	35.10	CMS
Min	0.00	0.64	1.12	0.80	19.60	3.20	0.56	0.48	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	0.12	3.42	6.24	44.51	73.00	32.09	3.73	2.03	1.18	0.00	0.00	0.00	166.33	MCM

Momentary Peak 35.40 CMS. at 157.73 m. (MSL.) at 18.00 Hours , on Jul 20 , 2018

Runoff Yield 6.94 Liters/Second/Square KM. Momentary Peak Yield 46.58 Liters/Second/Square KM.

WATER YEAR : 2018

KHONG RIVER BASIN

Nam San at Ban Kaeng Hai , Loei (Kh.95)

Lat 17 - 26 - 20 N Long 101 - 19 - 50 E

Location : on left bank at the bridge of Amphoe Phu Rua - Amphoe Dan Sai Highway.

	Ban Kaeng Hai	**Amphoe** Phu Rua	**Changwat** Loei
Drainge Area	352 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+593.900 m. (MSL.)		
Bench Mark	B.M.- Highways Dept.		
Location BM	On left bank upstream side at the footpath of the bridge.		**Elevation** +605.713 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic mean of 3 readings		
Period of Available Gage Records	1998 to date		
Rating Operation			
Period of Rating	1998 to date		
Rated by Flot	-		
Rated by Current Meter	1999 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 24 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

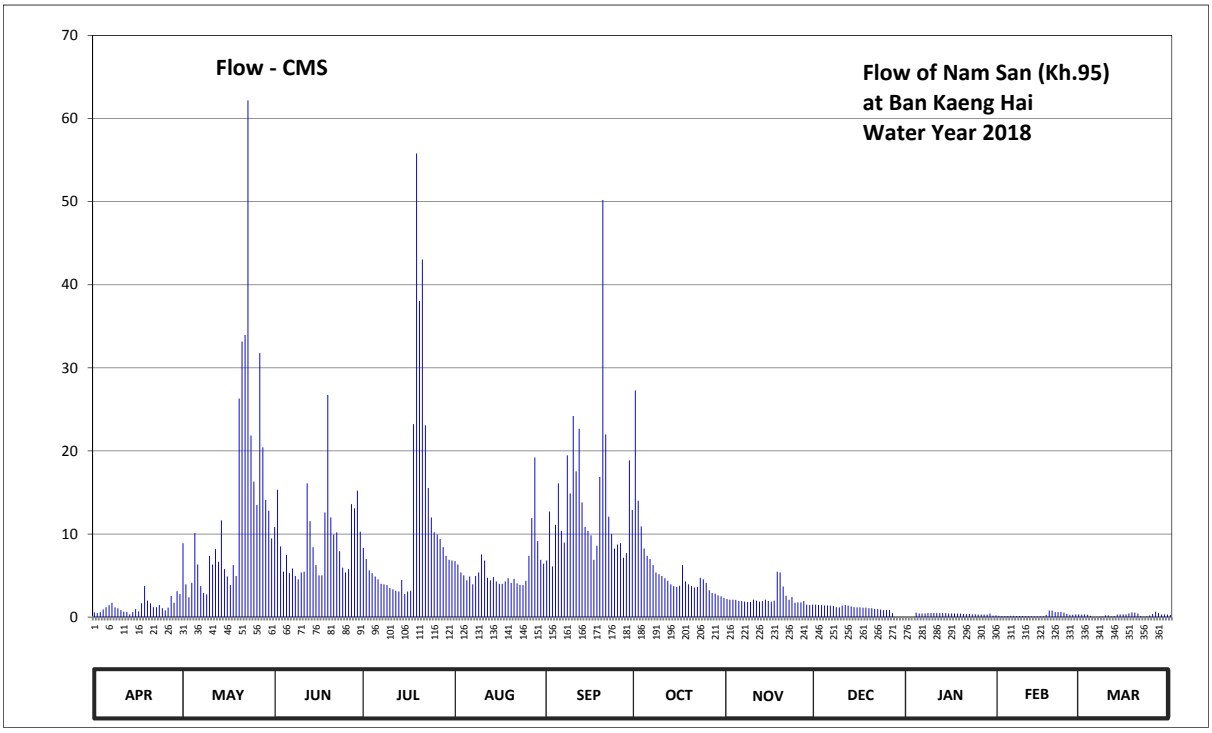
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	595.89	597.45	597.67	597.38	597.18	597.19	599.07	596.42	596.20	595.52	595.73	595.80	
2	595.86	596.79	598.12	597.21	597.13	597.87	598.00	596.40	596.19	595.52	595.72	595.81	
3	595.90	596.47	597.40	597.04	597.01	597.10	597.68	596.40	596.18	595.60	595.71	595.79	
4	596.01	596.82	597.02	597.00	596.96	597.70	597.37	596.39	596.17	595.88	595.72	595.73	
5	596.10	597.59	597.27	596.94	596.87	598.19	597.26	596.35	596.17	595.85	595.73	595.64	
6	596.18	597.13	597.00	596.89	596.94	597.62	597.21	596.34	596.16	595.85	595.73	595.64	
7	596.28	596.75	597.07	596.80	596.79	597.46	597.12	596.32	596.15	595.85	595.72	595.66	
8	596.09	596.60	596.95	596.79	596.95	598.48	597.01	596.31	596.10	595.86	595.72	595.67	
9	596.05	596.56	596.89	596.77	597.01	598.08	596.98	596.31	596.09	595.86	595.72	595.76	
10	595.98	597.26	597.01	596.71	597.28	598.85	596.95	596.40	596.16	595.86	595.71	595.76	
11	595.92	597.13	597.02	596.68	597.19	598.32	596.91	596.36	596.19	595.86	595.71	595.70	
12	595.91	597.36	598.19	596.65	596.92	598.74	596.86	596.32	596.16	595.86	595.70	595.72	
13	595.81	597.17	597.75	596.63	596.87	597.98	596.79	596.34	596.13	595.86	595.69	595.80	
14	595.90	597.76	597.39	596.88	596.93	597.67	596.75	596.40	596.10	595.86	595.69	595.81	
15	596.02	597.06	597.12	596.57	596.85	597.62	596.73	596.35	596.09	595.85	595.70	595.81	
16	595.93	596.94	596.96	596.63	596.80	597.56	596.76	596.32	596.09	595.85	595.71	595.81	
17	596.26	596.77	596.96	596.65	596.80	597.20	597.12	596.36	596.08	595.85	595.78	595.85	
18	596.75	597.12	597.86	598.78	596.85	597.41	596.85	597.02	596.08	595.84	595.96	595.89	
19	596.36	596.95	599.03	600.74	596.91	598.26	596.79	597.01	596.06	595.84	595.96	595.88	
20	596.25	599.00	597.80	599.79	596.82	600.46	596.75	596.74	596.06	595.83	595.90	595.84	
21	596.10	599.48	597.57	600.08	596.90	598.69	596.72	596.52	596.03	595.82	595.90	595.72	
22	596.10	599.53	597.60	598.77	596.81	597.81	596.73	596.39	596.02	595.82	595.91	595.65	
23	596.19	601.06	597.33	598.14	596.78	597.58	596.92	596.48	596.00	595.81	595.88	595.69	
24	596.06	598.68	597.08	597.80	596.77	597.37	596.89	596.28	595.98	595.81	595.83	595.75	
25	595.97	598.21	597.01	597.60	596.86	597.43	596.82	596.29	595.98	595.80	595.79	595.82	
26	596.08	597.95	597.06	597.57	597.26	597.45	596.66	596.29	595.98	595.80	595.79	595.92	
27	596.51	599.39	597.96	597.51	597.79	597.23	596.60	596.34	595.86	595.80	595.81	595.86	
28	596.28	598.56	597.91	597.39	598.46	597.30	596.58	596.20	595.44	595.80	595.81	595.80	
29	596.64	598.01	598.11	597.26	597.48	598.43	596.53	596.19	595.58	595.84		595.81	
30	596.57	597.88	597.61	597.20	597.20	597.89	596.50	596.20	595.55	595.74		595.80	
31		597.52		597.19	597.14		596.45		595.52	595.76		595.78	
Mean	596.13	597.71	597.46	597.49	597.05	597.90	596.98	596.40	596.02	595.80	595.78	595.77	
Max	596.75	601.06	599.03	600.74	598.46	600.46	599.07	597.02	596.20	595.88	595.96	595.92	601.06
Min	595.81	596.47	596.89	596.57	596.77	597.10	596.45	596.19	595.44	595.52	595.69	595.64	595.44

Annual Max Momentary Gage Height 602.20 m. (MSL.) , at 10.00 Hours , on May 23 , 2018

Zero Gage at Bottom Elevation 593.90 m. (MSL.) , River Bed 594.88 m. (MSL.)

Left Bank Elevation 604.66 m. (MSL.) ,

Right Bank Elevation 604.69 m. (MSL.) , Drainage Are 352 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.57	8.90	10.83	8.34	6.74	6.82	27.28	2.18	1.50	0.00	0.16	0.30		
2	0.48	3.95	15.32	6.98	6.34	12.70	14.00	2.10	1.47	0.00	0.14	0.33		
3	0.60	2.38	8.50	5.62	5.38	6.10	10.92	2.10	1.44	0.00	0.12	0.28		
4	0.93	4.12	5.46	5.30	5.02	11.10	8.26	2.07	1.41	0.54	0.14	0.16		
5	1.20	10.11	7.46	4.88	4.42	16.09	7.38	1.95	1.41	0.45	0.16	0.04		
6	1.44	6.34	5.30	4.54	4.88	10.38	6.98	1.92	1.38	0.45	0.16	0.04		
7	1.74	3.73	5.86	4.00	3.95	8.98	6.26	1.86	1.35	0.45	0.14	0.06		
8	1.17	2.90	4.95	3.95	4.95	19.46	5.38	1.83	1.20	0.48	0.14	0.07		
9	1.05	2.74	4.54	3.84	5.38	14.88	5.16	1.83	1.17	0.48	0.14	0.22		
10	0.84	7.38	5.38	3.51	7.54	24.20	4.95	2.10	1.38	0.48	0.12	0.22		
11	0.66	6.34	5.46	3.34	6.82	17.54	4.67	1.98	1.47	0.48	0.12	0.10		
12	0.63	8.18	16.09	3.18	4.74	22.66	4.36	1.86	1.38	0.48	0.10	0.14		
13	0.33	6.66	11.55	3.07	4.42	13.80	3.95	1.92	1.29	0.48	0.09	0.30		
14	0.60	11.64	8.42	4.48	4.81	10.83	3.73	2.10	1.20	0.48	0.09	0.33		
15	0.96	5.78	6.26	2.78	4.30	10.38	3.62	1.95	1.17	0.45	0.10	0.33		
16	0.69	4.88	5.02	3.07	4.00	9.84	3.78	1.86	1.17	0.45	0.12	0.33		
17	1.68	3.84	5.02	3.18	4.00	6.90	6.26	1.98	1.14	0.45	0.26	0.45		
18	3.73	6.26	12.60	23.22	4.30	8.58	4.30	5.46	1.14	0.42	0.78	0.57		
19	1.98	4.95	26.72	55.80	4.67	16.86	3.95	5.38	1.08	0.42	0.78	0.54		
20	1.65	26.30	12.00	38.04	4.12	50.20	3.73	3.67	1.08	0.39	0.60	0.42		
21	1.20	33.16	9.93	43.04	4.60	21.98	3.56	2.58	0.99	0.36	0.60	0.14		
22	1.20	33.95	10.20	23.08	4.06	12.10	3.62	2.07	0.96	0.36	0.63	0.05		
23	1.47	62.20	7.94	15.54	3.89	10.02	4.74	2.42	0.90	0.33	0.54	0.09		
24	1.08	21.86	5.94	12.00	3.84	8.26	4.54	1.74	0.84	0.33	0.39	0.20		
25	0.81	16.31	5.38	10.20	4.36	8.74	4.12	1.77	0.84	0.30	0.28	0.36		
26	1.14	13.50	5.78	9.93	7.38	8.90	3.23	1.77	0.84	0.30	0.28	0.66		
27	2.54	31.76	13.60	9.39	11.91	7.14	2.90	1.92	0.48	0.30	0.33	0.48		
28	1.74	20.42	13.10	8.42	19.22	7.70	2.82	1.50	0.00	0.30	0.33	0.30		
29	3.12	14.11	15.21	7.38	9.14	18.86	2.62	1.47	0.00	0.42		0.33		
30	2.78	12.80	10.29	6.90	6.90	12.90	2.50	1.50	0.00	0.18		0.30		
31		9.48		6.82	6.42		2.30		0.00	0.22		0.26		
Total	40.01	406.93	280.11	343.82	182.50	414.90	175.87	66.84	31.68	11.23	7.84	8.40	1970.13	CMSDAY
Mean	1.33	13.13	9.34	11.09	5.89	13.83	5.67	2.23	1.02	0.36	0.28	0.27	5.40	CMS
Max	3.73	62.20	26.72	55.80	19.22	50.20	27.28	5.46	1.50	0.54	0.78	0.66	62.20	CMS
Min	0.33	2.38	4.54	2.78	3.84	6.10	2.30	1.47	0.00	0.00	0.09	0.04	0.00	CMS
Runoff	3.46	35.16	24.20	29.71	15.77	35.85	15.20	5.77	2.74	0.97	0.68	0.73	170.22	MCM

Momentary Peak 89.50 CMS. at 602.20 m. (MSL.) at 10.00 Hours , on May 23 , 2018

Runoff Yield 15.33 Liters/Second/Square KM. Momentary Peak Yield 254.26 Liters/Second/Square KM.

WATER YEAR : 2018

KHONG RIVER BASIN

Songkhram River at Ban Tha Kok Daeng , Bueng Kan (Kh.98)

Lat 17 - 51 - 04 N Long 103 - 46 - 52 E

Location : on right bank at the bridge.

	Ban Tha Kok Daeng	**Amphoe** Se Ka	**Changwat** Bueng Kan
Drainge Area	5,089 sq.km.		
Type of Gage	Water - stage recorder.		
Zero Gage at Bottom	+136.000 m. (MSL.)		
Bench Mark	B.M.- Highways Dept.		
Location BM	On right bank at the abutment of the bridge.		**Elevation** +153.927 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	1998 to date		
Rating Operation			
Period of Rating	1998 to date		
Rated by Flot	-		
Rated by Current Meter	1998 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 24 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

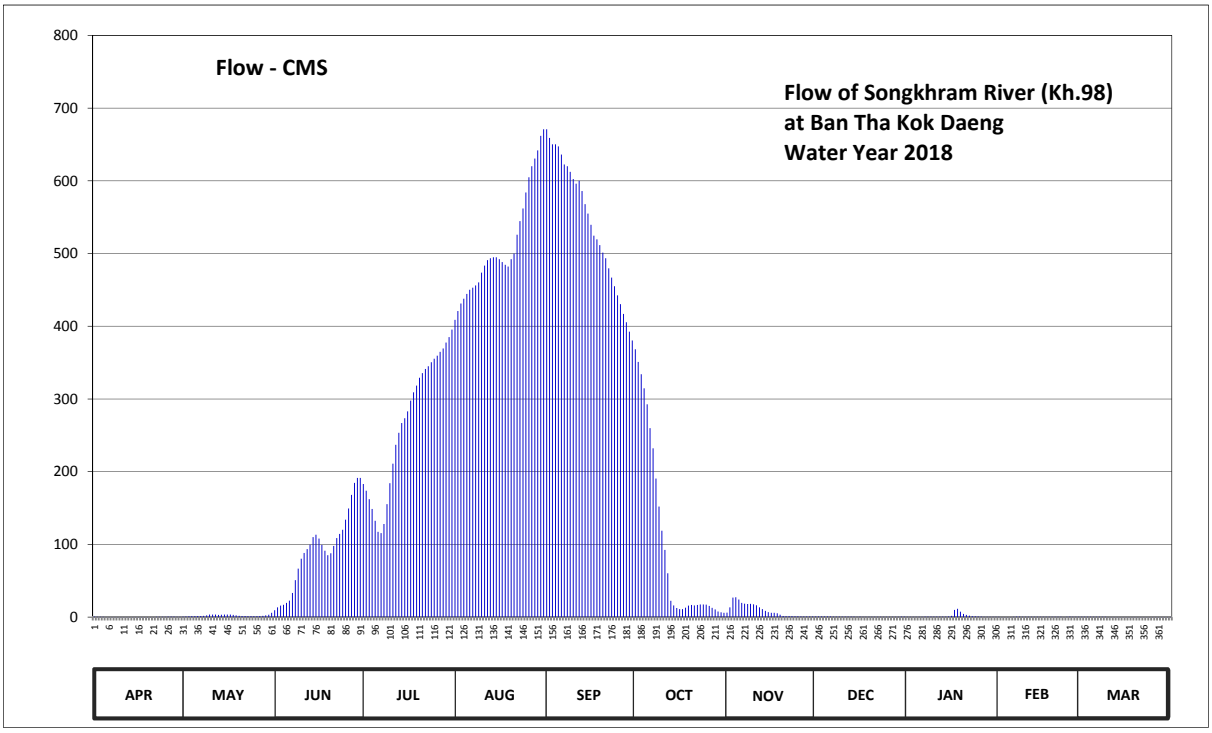
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	137.55	137.57	138.57	143.70	148.49	150.26	147.84	138.36	137.65	137.54	137.46	137.52	
2	137.53	137.66	138.77	143.47	148.65	150.22	147.53	138.77	137.65	137.54	137.45	137.52	
3	137.53	137.73	138.89	143.18	148.77	150.19	147.21	139.33	137.65	137.53	137.44	137.53	
4	137.51	137.77	138.95	142.83	148.84	150.19	146.82	139.34	137.64	137.53	137.45	137.53	
5	137.44	137.82	139.08	142.39	148.91	150.18	146.34	139.24	137.63	137.53	137.45	137.52	
6	137.40	137.87	139.19	141.98	148.97	150.14	145.61	139.08	137.62	137.53	137.47	137.50	
7	137.40	137.90	139.54	141.93	149.00	150.09	144.93	139.02	137.61	137.56	137.55	137.49	
8	137.40	137.94	140.08	142.27	149.03	150.08	143.89	139.00	137.61	137.59	137.55	137.49	
9	137.38	138.03	140.55	143.01	149.07	150.05	142.92	139.01	137.61	137.61	137.51	137.48	
10	137.38	138.14	140.95	143.73	149.19	150.01	142.02	138.98	137.59	137.60	137.49	137.45	
11	137.40	138.15	141.17	144.40	149.27	149.98	141.29	138.91	137.59	137.60	137.48	137.43	
12	137.44	138.16	141.32	145.05	149.33	150.00	140.36	138.77	137.58	137.59	137.48	137.43	
13	137.44	138.11	141.49	145.46	149.35	149.93	139.18	138.65	137.57	137.60	137.47	137.41	
14	137.44	138.12	141.78	145.77	149.36	149.84	138.90	138.53	137.55	137.58	137.46	137.38	
15	137.44	138.16	141.87	145.92	149.36	149.77	138.73	138.42	137.54	137.67	137.50	137.38	
16	137.44	138.15	141.72	146.13	149.34	149.68	138.65	138.35	137.55	137.96	137.52	137.38	
17	137.38	138.14	141.48	146.45	149.31	149.59	138.65	138.35	137.52	138.59	137.53	137.38	
18	137.40	138.11	141.26	146.70	149.28	149.55	138.75	138.29	137.51	138.67	137.53	137.40	
19	137.43	138.03	141.09	146.90	149.26	149.49	138.89	138.12	137.51	138.46	137.54	137.42	
20	137.43	137.95	141.16	147.12	149.34	149.41	138.94	137.89	137.51	138.23	137.51	137.45	
21	137.45	137.90	141.44	147.24	149.40	149.35	138.90	137.80	137.50	138.11	137.48	137.45	
22	137.47	137.84	141.74	147.35	149.60	149.24	138.93	137.80	137.50	137.97	137.48	137.45	
23	137.49	137.83	141.90	147.42	149.71	149.13	138.97	137.77	137.50	137.82	137.45	137.44	
24	137.52	137.81	142.06	147.52	149.81	149.02	138.97	137.74	137.49	137.72	137.52	137.43	
25	137.54	137.83	142.43	147.61	149.92	148.89	138.96	137.71	137.49	137.64	137.55	137.42	
26	137.55	137.83	142.85	147.69	150.02	148.76	138.87	137.67	137.49	137.57	137.53	137.41	
27	137.55	137.84	143.33	147.78	150.08	148.60	138.74	137.65	137.49	137.53	137.53	137.40	
28	137.55	137.92	143.74	147.86	150.12	148.44	138.63	137.65	137.47	137.53	137.52	137.42	
29	137.53	138.03	143.91	148.00	150.16	148.25	138.48	137.65	137.50	137.50		137.41	
30	137.53	138.12	143.91	148.13	150.23	148.05	138.40	137.65	137.55	137.49		137.41	
31		138.34		148.29	150.26		138.35		137.55	137.48		137.38	
Mean	137.46	137.96	141.21	145.59	149.40	149.55	141.09	138.38	137.56	137.74	137.50	137.44	
Max	137.55	138.34	143.91	148.29	150.26	150.26	147.84	139.34	137.65	138.67	137.55	137.53	150.26
Min	137.38	137.57	138.57	141.93	148.49	148.05	138.35	137.65	137.47	137.48	137.44	137.38	137.38

Annual Max Momentary Gage Height 150.27 m. (MSL.) , at 01.00 Hours , on Sep 1 , 2018

Zero Gage at Bottom Elevation 136.00 m. (MSL.) , River Bed 136.62 m. (MSL.)

Left Bank Elevation 152.37 m. (MSL.) ,

Right Bank Elevation 153.13 m. (MSL.) , Drainage Are 5,089 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.55	0.61	9.40	183.00	408.92	671.00	368.32	6.08	0.85	0.52	0.32	0.46		
2	0.49	0.88	13.40	173.80	421.00	659.00	351.02	13.40	0.85	0.52	0.30	0.46		
3	0.49	1.09	15.80	162.20	431.30	650.20	333.92	26.90	0.85	0.49	0.28	0.49		
4	0.43	1.21	17.00	148.71	437.80	650.20	314.72	27.20	0.82	0.49	0.30	0.49		
5	0.28	1.36	19.60	132.43	444.45	647.40	292.64	24.20	0.79	0.49	0.30	0.46		
6	0.20	1.51	22.70	117.28	450.15	636.20	259.84	19.60	0.76	0.49	0.34	0.40		
7	0.20	1.60	33.20	115.48	453.00	622.50	232.20	18.40	0.73	0.58	0.55	0.38		
8	0.20	1.76	50.72	127.99	456.15	620.00	190.60	18.00	0.73	0.67	0.55	0.38		
9	0.16	2.30	66.70	155.40	460.35	612.50	152.04	18.20	0.73	0.73	0.43	0.36		
10	0.16	3.40	80.30	184.20	473.85	602.50	118.74	17.60	0.67	0.70	0.38	0.30		
11	0.20	3.50	88.12	211.00	483.40	596.00	92.44	16.20	0.67	0.70	0.36	0.26		
12	0.28	3.60	93.52	237.00	490.90	600.00	60.24	13.40	0.64	0.67	0.36	0.26		
13	0.28	3.10	99.64	253.40	493.50	586.00	22.40	11.00	0.61	0.70	0.34	0.22		
14	0.28	3.20	110.08	266.88	494.80	568.00	16.00	8.60	0.55	0.64	0.32	0.16		
15	0.28	3.60	113.32	273.48	494.80	554.90	12.60	6.88	0.52	0.91	0.40	0.16		
16	0.28	3.50	107.92	282.98	492.20	539.60	11.00	5.95	0.55	1.84	0.46	0.16		
17	0.16	3.40	99.28	297.70	488.30	524.70	11.00	5.95	0.46	9.80	0.49	0.16		
18	0.20	3.10	91.36	309.20	484.60	519.50	13.00	5.17	0.43	11.40	0.49	0.20		
19	0.26	2.30	85.24	318.40	482.20	511.70	15.80	3.20	0.43	7.44	0.52	0.24		
20	0.26	1.80	87.76	329.24	492.20	501.30	16.80	1.57	0.43	4.39	0.43	0.30		
21	0.30	1.60	97.84	335.48	500.00	493.50	16.00	1.30	0.40	3.10	0.36	0.30		
22	0.34	1.42	108.64	341.30	526.00	479.80	16.60	1.30	0.40	1.88	0.36	0.30		
23	0.38	1.39	114.40	345.08	544.70	466.95	17.40	1.21	0.40	1.36	0.30	0.28		
24	0.46	1.33	120.22	350.48	562.00	455.10	17.40	1.12	0.38	1.06	0.46	0.26		
25	0.52	1.39	133.91	355.34	584.00	442.55	17.20	1.03	0.38	0.82	0.55	0.24		
26	0.55	1.39	149.45	359.66	605.00	430.40	15.40	0.91	0.38	0.61	0.49	0.22		
27	0.55	1.42	168.20	364.84	620.00	417.00	12.80	0.85	0.38	0.49	0.49	0.20		
28	0.55	1.68	184.60	369.48	630.60	405.52	10.60	0.85	0.34	0.49	0.46	0.24		
29	0.49	2.30	191.40	377.60	641.80	392.60	7.72	0.85	0.40	0.40		0.22		
30	0.49	3.20	191.40	385.14	662.00	380.50	6.60	0.85	0.55	0.38		0.22		
31		5.82		395.32	671.00		5.95		0.55	0.36		0.16		
Total	10.27	69.76	2765.12	8259.49	15880.97	16237.12	3028.99	277.77	17.63	55.12	11.39	8.94	46622.57	CMSDAY
Mean	0.34	2.25	92.17	266.44	512.29	541.24	97.71	9.26	0.57	1.78	0.41	0.29	127.73	CMS
Max	0.55	5.82	191.40	395.32	671.00	671.00	368.32	27.20	0.85	11.40	0.55	0.49	671.00	CMS
Min	0.16	0.61	9.40	115.48	408.92	380.50	5.95	0.85	0.34	0.36	0.28	0.16	0.16	CMS
Runoff	0.89	6.03	238.91	713.62	1372.12	1402.89	261.70	24.00	1.52	4.76	0.98	0.77	4028.19	MCM

Momentary Peak 674.00 CMS. at 150.27 m. (MSL.) at 01.00 Hours , on Sep 1 , 2018

Runoff Yield 25.10 Liters/Second/Square KM. Momentary Peak Yield 132.44 Liters/Second/Square KM.

WATER YEAR : 2018

KHONG RIVER BASIN

Huai Bang Sai at Ban Kaeng Nang , Mukdahan (Kh.99A)

Lat 16 - 42 - 05 N Long 104 - 14 - 46 E

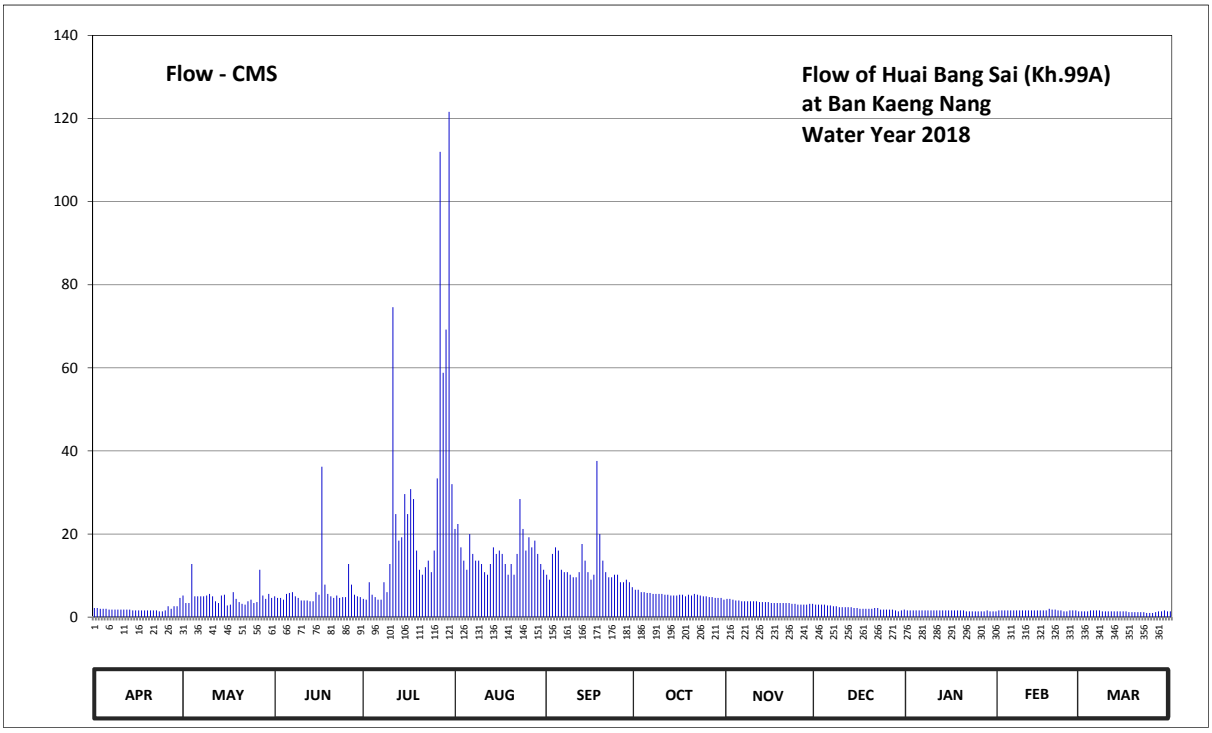
Location : on right bank at Ban Kaeng Nang

	Ban Kaeng Nang	**Amphoe** Dong Luang	**Changwat** Mukdahan
Drainge Area	115 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+254.300 m. (MSL.)		
Bench Mark	B.M.- H.D.		
Location BM	On right bank near the gage site.		**Elevation** +259.628 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic mean of 3 readings.		
Period of Available Gage Records	2005 to date		
Rating Operation			
Period of Rating	2005 to date		
Rated by Flot	-		
Rated by Current Meter	2005 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 26 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	256.61	256.76	256.75	256.72	257.01	256.87	256.81	256.72	256.65	256.58	256.58	256.57	
2	256.61	256.67	256.73	256.71	257.02	256.85	256.81	256.72	256.65	256.58	256.58	256.57	
3	256.60	256.67	256.73	256.84	256.96	256.94	256.80	256.71	256.65	256.58	256.58	256.57	
4	256.60	256.91	256.71	256.77	256.92	256.96	256.80	256.70	256.65	256.58	256.58	256.58	
5	256.60	256.75	256.78	256.74	256.89	256.95	256.79	256.70	256.64	256.58	256.58	256.58	
6	256.59	256.75	256.79	256.71	257.00	256.89	256.79	256.69	256.64	256.58	256.58	256.58	
7	256.59	256.75	256.80	256.71	256.94	256.88	256.78	256.69	256.63	256.58	256.58	256.58	
8	256.59	256.75	256.75	256.84	256.92	256.88	256.78	256.69	256.63	256.58	256.58	256.57	
9	256.59	256.76	256.73	256.80	256.92	256.87	256.78	256.69	256.62	256.58	256.58	256.57	
10	256.59	256.78	256.70	256.91	256.91	256.86	256.78	256.69	256.62	256.58	256.58	256.57	
11	256.59	256.75	256.70	257.37	256.88	256.86	256.77	256.69	256.62	256.58	256.58	256.57	
12	256.59	256.69	256.70	257.04	256.87	256.88	256.77	256.68	256.62	256.58	256.58	256.57	
13	256.59	256.67	256.69	256.98	256.91	256.97	256.76	256.68	256.62	256.58	256.58	256.57	
14	256.58	256.76	256.69	256.99	256.96	256.92	256.76	256.68	256.61	256.58	256.58	256.57	
15	256.58	256.77	256.80	257.08	256.94	256.88	256.76	256.68	256.61	256.58	256.58	256.57	
16	256.58	256.64	256.77	257.04	256.95	256.85	256.77	256.67	256.60	256.58	256.58	256.57	
17	256.58	256.65	257.13	257.09	256.94	256.87	256.77	256.67	256.60	256.58	256.58	256.56	
18	256.58	256.80	256.83	257.07	256.91	257.14	256.75	256.67	256.60	256.58	256.60	256.56	
19	256.58	256.72	256.78	256.95	256.87	257.00	256.77	256.67	256.60	256.58	256.59	256.56	
20	256.58	256.68	256.75	256.89	256.91	256.92	256.76	256.67	256.60	256.58	256.59	256.56	
21	256.58	256.66	256.73	256.87	256.87	256.88	256.78	256.67	256.61	256.57	256.58	256.56	
22	256.58	256.65	256.76	256.90	256.94	256.86	256.77	256.67	256.61	256.57	256.58	256.56	
23	256.57	256.69	256.73	256.92	257.07	256.86	256.76	256.66	256.59	256.57	256.57	256.55	
24	256.57	256.71	256.74	256.88	257.01	256.87	256.75	256.66	256.59	256.57	256.57	256.55	
25	256.58	256.67	256.74	256.95	256.95	256.87	256.75	256.65	256.59	256.57	256.58	256.55	
26	256.63	256.68	256.91	257.11	256.99	256.84	256.74	256.65	256.59	256.57	256.58	256.56	
27	256.60	256.89	256.83	257.55	256.96	256.84	256.74	256.65	256.59	256.57	256.58	256.57	
28	256.63	256.76	256.77	257.28	256.98	256.85	256.73	256.65	256.58	256.58	256.57	256.57	
29	256.63	256.72	256.75	257.34	256.94	256.84	256.73	256.66	256.57	256.57		256.58	
30	256.73	256.78	256.74	257.59	256.91	256.82	256.73	256.66	256.58	256.57		256.57	
31		256.73		257.10	256.89		256.71		256.59	256.57		256.57	
Mean	256.60	256.73	256.77	256.99	256.94	256.89	256.77	256.68	256.61	256.58	256.58	256.57	
Max	256.73	256.91	257.13	257.59	257.07	257.14	256.81	256.72	256.65	256.58	256.60	256.58	257.59
Min	256.57	256.64	256.69	256.71	256.87	256.82	256.71	256.65	256.57	256.57	256.57	256.55	256.55

Annual Max Momentary Gage Height	257.78	m. (MSL.) ,	at 09.00 Hours , on Jul 30 , 2018		
Zero Gage at Bottom Elevation	254.30	m. (MSL.) ,	River Bed	255.20	m. (MSL.)
Left Bank Elevation	261.87	m. (MSL.) ,			
Right Bank Elevation	259.85	m. (MSL.) ,	Drainage Are	115	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.20	5.20	5.00	4.40	21.20	10.20	6.60	4.40	3.00	1.60	1.60	1.40		
2	2.20	3.40	4.60	4.20	22.40	9.00	6.60	4.40	3.00	1.60	1.60	1.40		
3	2.00	3.40	4.60	8.40	16.80	15.20	6.00	4.20	3.00	1.60	1.60	1.40		
4	2.00	12.80	4.20	5.40	13.60	16.80	6.00	4.00	3.00	1.60	1.60	1.60		
5	2.00	5.00	5.60	4.80	11.40	16.00	5.80	4.00	2.80	1.60	1.60	1.60		
6	1.80	5.00	5.80	4.20	20.00	11.40	5.80	3.80	2.80	1.60	1.60	1.60		
7	1.80	5.00	6.00	4.20	15.20	10.80	5.60	3.80	2.60	1.60	1.60	1.60		
8	1.80	5.00	5.00	8.40	13.60	10.80	5.60	3.80	2.60	1.60	1.60	1.40		
9	1.80	5.20	4.60	6.00	13.60	10.20	5.60	3.80	2.40	1.60	1.60	1.40		
10	1.80	5.60	4.00	12.80	12.80	9.60	5.60	3.80	2.40	1.60	1.60	1.40		
11	1.80	5.00	4.00	74.60	10.80	9.60	5.40	3.80	2.40	1.60	1.60	1.40		
12	1.80	3.80	4.00	24.80	10.20	10.80	5.40	3.60	2.40	1.60	1.60	1.40		
13	1.80	3.40	3.80	18.40	12.80	17.60	5.20	3.60	2.40	1.60	1.60	1.40		
14	1.60	5.20	3.80	19.20	16.80	13.60	5.20	3.60	2.20	1.60	1.60	1.40		
15	1.60	5.40	6.00	29.60	15.20	10.80	5.20	3.60	2.20	1.60	1.60	1.40		
16	1.60	2.80	5.40	24.80	16.00	9.00	5.40	3.40	2.00	1.60	1.60	1.40		
17	1.60	3.00	36.20	30.80	15.20	10.20	5.40	3.40	2.00	1.60	1.60	1.20		
18	1.60	6.00	7.80	28.40	12.80	37.60	5.00	3.40	2.00	1.60	2.00	1.20		
19	1.60	4.40	5.60	16.00	10.20	20.00	5.40	3.40	2.00	1.60	1.80	1.20		
20	1.60	3.60	5.00	11.40	12.80	13.60	5.20	3.40	2.00	1.60	1.80	1.20		
21	1.60	3.20	4.60	10.20	10.20	10.80	5.60	3.40	2.20	1.40	1.60	1.20		
22	1.60	3.00	5.20	12.00	15.20	9.60	5.40	3.40	2.20	1.40	1.60	1.20		
23	1.40	3.80	4.60	13.60	28.40	9.60	5.20	3.20	1.80	1.40	1.40	1.00		
24	1.40	4.20	4.80	10.80	21.20	10.20	5.00	3.20	1.80	1.40	1.40	1.00		
25	1.60	3.40	4.80	16.00	16.00	10.20	5.00	3.00	1.80	1.40	1.60	1.00		
26	2.60	3.60	12.80	33.40	19.20	8.40	4.80	3.00	1.80	1.40	1.60	1.20		
27	2.00	11.40	7.80	112.00	16.80	8.40	4.80	3.00	1.80	1.40	1.60	1.40		
28	2.60	5.20	5.40	58.80	18.40	9.00	4.60	3.00	1.60	1.60	1.40	1.40		
29	2.60	4.40	5.00	69.20	15.20	8.40	4.60	3.20	1.40	1.40		1.60		
30	4.60	5.60	4.80	121.60	12.80	7.20	4.60	3.20	1.60	1.40		1.40		
31		4.60		32.00	11.40		4.20		1.80	1.40		1.40		
Total	58.00	150.60	190.80	830.40	478.20	364.60	165.80	106.80	69.00	47.60	45.00	41.80	2548.60	CMSDAY
Mean	1.93	4.86	6.36	26.79	15.43	12.15	5.35	3.56	2.23	1.54	1.61	1.35	6.98	CMS
Max	4.60	12.80	36.20	121.60	28.40	37.60	6.60	4.40	3.00	1.60	2.00	1.60	121.60	CMS
Min	1.40	2.80	3.80	4.20	10.20	7.20	4.20	3.00	1.40	1.40	1.40	1.00	1.00	CMS
Runoff	5.01	13.01	16.49	71.75	41.32	31.50	14.33	9.23	5.96	4.11	3.89	3.61	220.20	MCM

Momentary Peak 170.80 CMS. at 257.78 m. (MSL.) at 09.00 Hours , on Jul 30 , 2018

Runoff Yield 60.72 Liters/Second/Square KM. Momentary Peak Yield 1485.22 Liters/Second/Square KM.

WATER YEAR : 2018

KHONG RIVER BASIN

Huai Muk at Ban Kaen Tao , Mukdahan (Kh.101)

Lat 16 - 35 - 07 N Long 104 - 37 - 13 E

Location : on right bank at the bridge of Amphoe Dong Luang - Muk Dahan Highway.

Ban Kaen Tao **Amphoe** Mueang **Changwat** Mukdahan

Drainge Area	414 sq.km.
Type of Gage	Water - stage recorder.
Zero Gage at Bottom	+136.900 m. (MSL.)
Bench Mark	B.M.- Highways Dept.
Location BM	On right bank about 1 meter from the top staff gage. **Elevation** +146.237 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings.
Period of Available Gage Records	1999 to date
Rating Operation	
Period of Rating	1999 to date
Rated by Flot	-
Rated by Current Meter	1999 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	Overbank flow starts at elevation +142.760 m.(MSL.) and is including overbank flow.
General Description	Records fair. Stage-discharge relation defined by 23 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

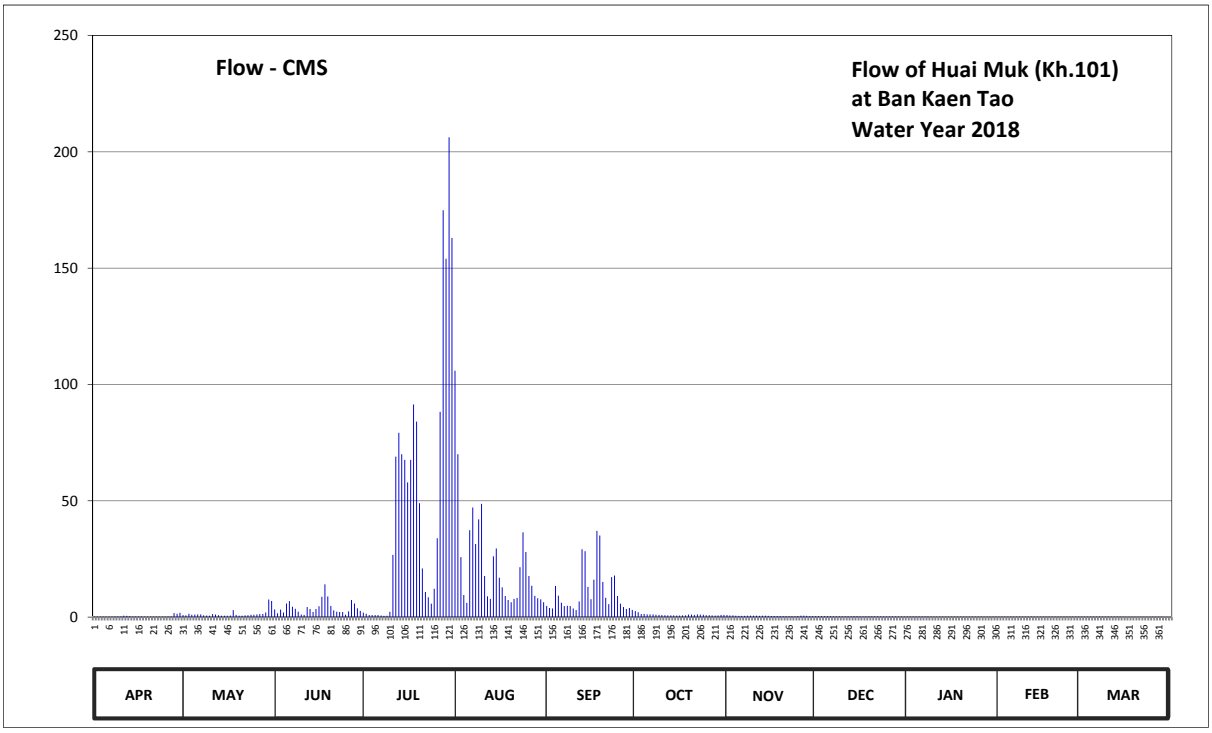
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	137.71	138.04	138.63	138.36	143.91	138.88	138.52	138.04	137.82	137.74	137.69	137.69	
2	137.71	137.96	138.29	138.21	143.34	138.74	138.40	137.99	137.81	137.73	137.69	137.69	
3	137.70	138.22	138.62	138.03	141.15	138.70	138.16	137.96	137.80	137.73	137.69	137.69	
4	137.70	138.07	138.38	138.04	139.56	140.04	138.19	137.91	137.80	137.73	137.69	137.69	
5	137.70	138.10	139.05	138.03	139.09	139.53	138.11	137.87	137.79	137.73	137.71	137.69	
6	137.70	138.13	139.20	138.03	142.05	139.10	138.12	137.87	137.79	137.72	137.71	137.69	
7	137.70	138.11	138.83	137.95	142.65	138.87	138.11	137.88	137.78	137.72	137.71	137.69	
8	137.72	137.99	138.68	137.86	141.62	138.90	138.07	137.89	137.78	137.72	137.71	137.68	
9	137.72	137.95	138.45	137.91	142.36	138.87	138.06	137.90	137.78	137.71	137.70	137.68	
10	137.73	137.92	138.09	138.44	142.72	138.70	138.02	137.92	137.77	137.71	137.70	137.68	
11	137.91	138.16	138.06	141.23	140.47	138.59	138.00	137.89	137.77	137.71	137.70	137.67	
12	137.86	138.09	138.80	143.32	139.49	139.18	137.98	137.86	137.77	137.71	137.70	137.67	
13	137.79	138.00	138.67	143.52	139.33	141.43	137.98	137.90	137.77	137.71	137.70	137.67	
14	137.75	137.91	138.43	143.34	141.18	141.36	137.96	137.90	137.80	137.70	137.70	137.67	
15	137.74	137.91	138.67	143.29	141.46	140.00	137.95	137.86	137.79	137.70	137.70	137.66	
16	137.72	137.91	138.86	143.03	140.39	139.31	137.93	137.85	137.77	137.70	137.70	137.66	
17	137.72	137.94	139.46	143.29	139.97	140.31	137.96	137.84	137.75	137.70	137.70	137.65	
18	137.70	138.59	140.11	143.72	139.51	142.03	137.96	137.84	137.77	137.70	137.71	137.65	
19	137.70	138.06	139.48	143.60	139.26	141.90	138.10	137.83	137.77	137.70	137.71	137.64	
20	137.70	137.91	138.88	142.73	139.13	140.21	138.10	137.82	137.76	137.70	137.71	137.64	
21	137.70	137.91	138.56	140.74	139.33	139.40	138.05	137.82	137.76	137.70	137.70	137.64	
22	137.70	137.97	138.46	139.72	139.39	139.01	138.12	137.81	137.76	137.70	137.70	137.64	
23	137.70	138.01	138.43	139.43	140.79	140.42	138.10	137.79	137.75	137.69	137.70	137.63	
24	137.70	138.07	138.43	139.04	141.99	140.49	138.07	137.77	137.75	137.69	137.70	137.63	
25	137.70	138.08	138.07	139.90	141.33	139.51	138.00	137.83	137.75	137.69	137.70	137.63	
26	137.73	138.13	138.50	141.82	140.47	139.04	138.00	137.91	137.75	137.69	137.70	137.62	
27	137.74	138.16	139.26	143.67	140.05	138.81	137.96	137.90	137.75	137.69	137.70	137.62	
28	138.31	138.18	139.05	144.47	139.52	138.67	137.94	137.86	137.75	137.69	137.70	137.61	
29	138.22	138.38	138.71	144.34	139.37	138.74	137.97	137.82	137.75	137.69		137.59	
30	138.34	139.29	138.53	144.64	139.30	138.60	138.05	137.82	137.75	137.69		137.59	
31		139.21		144.40	139.13		138.05		137.75	137.69		137.58	
Mean	137.78	138.14	138.72	141.10	140.62	139.58	138.06	137.87	137.77	137.71	137.70	137.65	
Max	138.34	139.29	140.11	144.64	143.91	142.03	138.52	138.04	137.82	137.74	137.71	137.69	144.64
Min	137.70	137.91	138.06	137.86	139.09	138.59	137.93	137.77	137.75	137.69	137.69	137.58	137.58

Annual Max Momentary Gage Height 144.75 m. (MSL.) , at 15.00 Hours , on Jul 30 , 2018

Zero Gage at Bottom Elevation 136.90 m. (MSL.) , River Bed 136.39 m. (MSL.)

Left Bank Elevation 142.90 m. (MSL.) ,

Right Bank Elevation 142.75 m. (MSL.) , Drainage Are 414 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.22	0.92	3.28	1.94	105.90	4.78	2.62	0.92	0.44	0.28	0.19	0.19		
2	0.22	0.72	1.67	1.43	70.00	3.94	2.10	0.78	0.42	0.26	0.19	0.19		
3	0.20	1.46	3.22	0.89	25.80	3.70	1.28	0.72	0.40	0.26	0.19	0.19		
4	0.20	1.01	2.02	0.92	9.48	13.40	1.37	0.62	0.40	0.26	0.19	0.19		
5	0.20	1.10	5.85	0.89	6.13	9.24	1.13	0.54	0.38	0.26	0.22	0.19		
6	0.20	1.19	6.90	0.89	37.35	6.20	1.16	0.54	0.38	0.24	0.22	0.19		
7	0.20	1.13	4.48	0.70	47.10	4.72	1.13	0.56	0.36	0.24	0.22	0.19		
8	0.24	0.78	3.58	0.52	31.44	4.90	1.01	0.58	0.36	0.24	0.22	0.18		
9	0.24	0.70	2.30	0.62	42.00	4.72	0.98	0.60	0.36	0.22	0.20	0.18		
10	0.26	0.64	1.07	2.26	48.68	3.70	0.86	0.64	0.34	0.22	0.20	0.18		
11	0.62	1.28	0.98	26.76	17.70	3.04	0.80	0.58	0.34	0.22	0.20	0.17		
12	0.52	1.07	4.30	69.00	8.93	6.76	0.76	0.52	0.34	0.22	0.20	0.17		
13	0.38	0.80	3.52	79.20	7.81	29.16	0.76	0.60	0.34	0.22	0.20	0.17		
14	0.30	0.62	2.22	70.00	26.16	28.32	0.72	0.60	0.40	0.20	0.20	0.17		
15	0.28	0.62	3.52	67.60	29.52	13.00	0.70	0.52	0.38	0.20	0.20	0.16		
16	0.24	0.62	4.66	57.90	16.90	7.67	0.66	0.50	0.34	0.20	0.20	0.16		
17	0.24	0.68	8.72	67.60	12.76	16.10	0.72	0.48	0.30	0.20	0.20	0.15		
18	0.20	3.04	14.10	91.40	9.08	37.05	0.72	0.48	0.34	0.20	0.22	0.15		
19	0.20	0.98	8.86	84.00	7.32	35.10	1.10	0.46	0.34	0.20	0.22	0.14		
20	0.20	0.62	4.78	48.97	6.41	15.10	1.10	0.44	0.32	0.20	0.22	0.14		
21	0.20	0.62	2.86	20.88	7.81	8.30	0.95	0.44	0.32	0.20	0.20	0.14		
22	0.20	0.74	2.34	10.76	8.23	5.57	1.16	0.42	0.32	0.20	0.20	0.14		
23	0.20	0.83	2.22	8.51	21.48	17.20	1.10	0.38	0.30	0.19	0.20	0.13		
24	0.20	1.01	2.22	5.78	36.45	17.90	1.01	0.34	0.30	0.19	0.20	0.13		
25	0.20	1.04	1.01	12.20	27.96	9.08	0.80	0.46	0.30	0.19	0.20	0.13		
26	0.26	1.19	2.50	33.90	17.70	5.78	0.80	0.62	0.30	0.19	0.20	0.12		
27	0.28	1.28	7.32	88.20	13.50	4.36	0.72	0.60	0.30	0.19	0.20	0.12		
28	1.74	1.34	5.85	174.90	9.16	3.52	0.68	0.52	0.30	0.19	0.20	0.11		
29	1.46	2.02	3.76	154.00	8.09	3.94	0.74	0.44	0.30	0.19		0.09		
30	1.86	7.53	2.68	206.20	7.60	3.10	0.95	0.44	0.30	0.19		0.09		
31		6.97		163.00	6.41		0.95		0.30	0.19		0.08		
Total	11.96	44.55	122.79	1551.82	730.86	329.35	31.54	16.34	10.62	6.65	5.70	4.73	2866.91	CMSDAY
Mean	0.40	1.44	4.09	50.06	23.58	10.98	1.02	0.54	0.34	0.21	0.20	0.15	7.85	CMS
Max	1.86	7.53	14.10	206.20	105.90	37.05	2.62	0.92	0.44	0.28	0.22	0.19	206.20	CMS
Min	0.20	0.62	0.98	0.52	6.13	3.04	0.66	0.34	0.30	0.19	0.19	0.08	0.08	CMS
Runoff	1.03	3.85	10.61	134.08	63.15	28.46	2.73	1.41	0.92	0.57	0.49	0.41	247.70	MCM

Momentary Peak 231.50 CMS. at 144.75 m. (MSL.) at 15.00 Hours , on Jul 30 , 2018

Runoff Yield 18.97 Liters/Second/Square KM. Momentary Peak Yield 559.18 Liters/Second/Square KM.

WATER YEAR : 2018

KHONG RIVER BASIN

Huai Luang at Ban Non Toom , Udon Thani (Kh.103)

Lat 17 - 28 - 56 N Long 102 - 47 - 49 E

Location : on right bank at the bridge on highway.

	Ban Non Toom	**Amphoe** Mueang	**Changwat** Udon Thani
Drainge Area	1,235 sq.km.		
Type of Gage	Water - stage recorder.		
Zero Gage at Bottom	+166.500 m. (MSL.)		
Bench Mark	B.M.- Highways Dept.		
Location BM	On right bank downstream side at the footpath of the bridge.		**Elevation** +172.486 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings.		
Period of Available Gage Records	2004 to date		
Rating Operation			
Period of Rating	2004 to date		
Rated by Flot	-		
Rated by Current Meter	2004 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 37 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

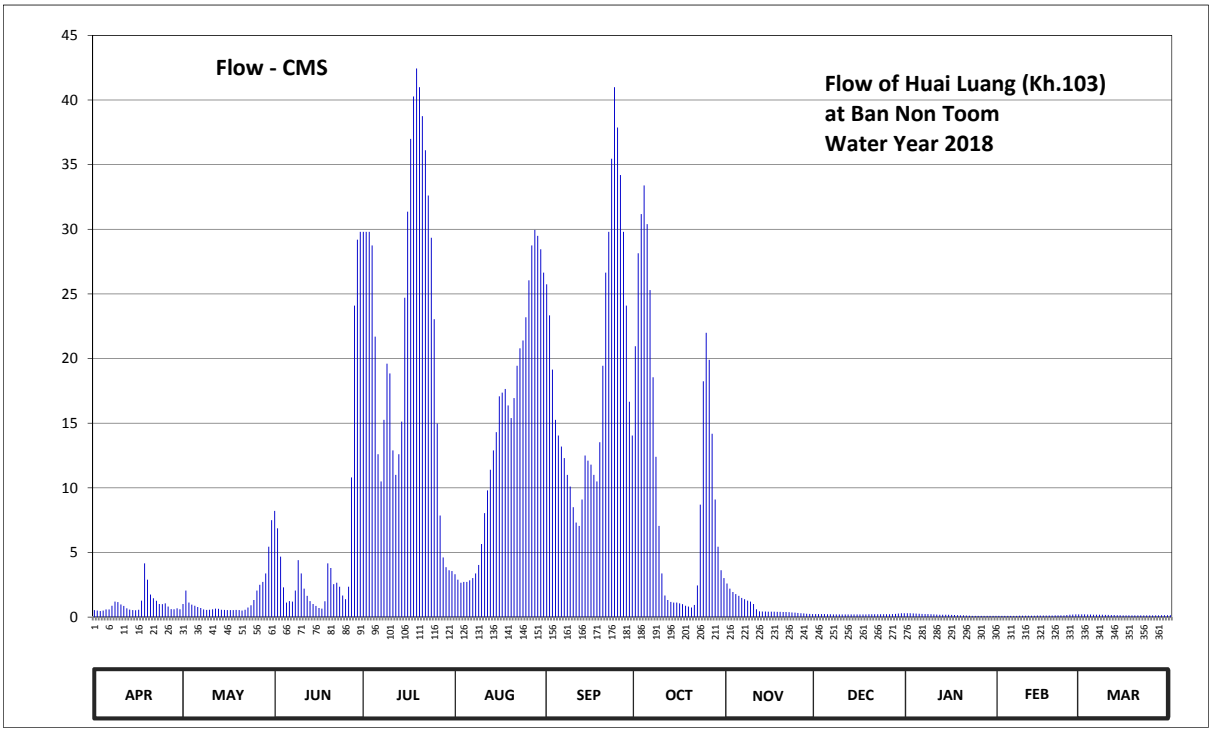
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	167.14	167.41	168.68	170.32	168.02	170.05	169.73	167.90	166.84	166.90	166.70	166.81	
2	167.11	167.79	168.53	170.32	167.95	169.89	170.21	167.82	166.84	166.89	166.70	166.81	
3	167.07	167.46	168.24	170.32	167.91	169.61	170.41	167.76	166.83	166.88	166.70	166.80	
4	167.11	167.38	167.84	170.25	167.92	169.34	170.53	167.72	166.83	166.87	166.70	166.80	
5	167.19	167.34	167.46	169.78	167.92	169.25	170.36	167.68	166.82	166.86	166.70	166.79	
6	167.19	167.29	167.52	169.12	167.94	169.18	170.02	167.63	166.82	166.85	166.70	166.79	
7	167.34	167.25	167.50	168.91	167.97	169.09	169.57	167.59	166.81	166.84	166.70	166.78	
8	167.50	167.19	167.79	169.34	168.03	168.96	169.10	167.54	166.81	166.83	166.71	166.78	
9	167.48	167.15	168.20	169.64	168.14	168.87	168.55	167.50	166.81	166.82	166.71	166.77	
10	167.39	167.17	168.03	169.59	168.38	168.71	168.03	167.41	166.81	166.81	166.71	166.77	
11	167.33	167.20	167.82	169.15	168.66	168.58	167.69	167.20	166.81	166.80	166.71	166.76	
12	167.24	167.23	167.68	168.96	168.84	168.55	167.56	167.04	166.81	166.79	166.71	166.76	
13	167.18	167.22	167.52	169.12	169.00	168.77	167.49	167.03	166.81	166.79	166.71	166.75	
14	167.14	167.17	167.41	169.33	169.15	169.11	167.46	167.03	166.81	166.78	166.72	166.75	
15	167.13	167.15	167.33	169.98	169.27	169.07	167.46	167.02	166.81	166.78	166.72	166.74	
16	167.17	167.14	167.25	170.42	169.47	169.04	167.43	167.02	166.81	166.77	166.72	166.74	
17	167.54	167.14	167.23	170.70	169.49	168.96	167.40	167.02	166.81	166.76	166.72	166.73	
18	168.16	167.14	167.51	170.83	169.51	168.91	167.34	167.01	166.81	166.75	166.72	166.73	
19	167.95	167.15	168.16	170.89	169.42	169.21	167.31	167.01	166.82	166.74	166.72	166.73	
20	167.71	167.14	168.10	170.85	169.35	169.63	167.27	167.00	166.82	166.73	166.73	166.73	
21	167.62	167.11	167.89	170.78	169.46	170.11	167.37	167.00	166.82	166.72	166.73	166.73	
22	167.53	167.17	167.91	170.66	169.63	170.32	167.87	166.98	166.82	166.71	166.73	166.73	
23	167.41	167.27	167.85	170.49	169.72	170.63	168.73	166.96	166.82	166.70	166.74	166.73	
24	167.40	167.36	167.69	170.29	169.76	170.85	169.55	166.94	166.82	166.70	166.76	166.74	
25	167.43	167.56	167.59	169.87	169.88	170.74	169.80	166.92	166.82	166.70	166.78	166.74	
26	167.31	167.79	167.85	169.32	170.07	170.57	169.66	166.90	166.82	166.70	166.80	166.74	
27	167.21	167.88	168.94	168.64	170.25	170.32	169.26	166.88	166.83	166.70	166.81	166.74	
28	167.20	167.92	169.94	168.23	170.33	169.94	168.77	166.86	166.85	166.70	166.81	166.75	
29	167.24	168.03	170.28	168.11	170.30	169.44	168.35	166.85	166.87	166.70		166.75	
30	167.20	168.35	170.32	168.07	170.23	169.25	168.07	166.84	166.89	166.70		166.75	
31		168.60		168.06	170.11		167.97		166.90	166.70		166.75	
Mean	167.35	167.42	168.07	169.69	169.10	169.50	168.59	167.20	166.83	166.77	166.73	166.76	
Max	168.16	168.60	170.32	170.89	170.33	170.85	170.53	167.90	166.90	166.90	166.81	166.81	170.89
Min	167.07	167.11	167.23	168.06	167.91	168.55	167.27	166.84	166.81	166.70	166.70	166.73	166.70

Annual Max Momentary Gage Height 170.90 m. (MSL.) , at 05.00 Hours , on Jul 19 , 2018

Zero Gage at Bottom Elevation 166.50 m. (MSL.) , River Bed 166.50 m. (MSL.)

Left Bank Elevation 172.65 m. (MSL.) ,

Right Bank Elevation 172.20 m. (MSL.) , Drainage Are 1,235 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.54	1.02	8.22	29.80	3.32	25.75	20.95	2.60	0.24	0.30	0.10	0.21		
2	0.51	2.06	6.87	29.80	2.90	23.35	28.15	2.20	0.24	0.29	0.10	0.21		
3	0.47	1.12	4.68	29.80	2.66	19.15	31.18	1.94	0.23	0.28	0.10	0.20		
4	0.51	0.96	2.30	28.75	2.72	15.26	33.40	1.78	0.23	0.27	0.10	0.20		
5	0.59	0.88	1.12	21.70	2.72	14.05	30.40	1.64	0.22	0.26	0.10	0.19		
6	0.59	0.78	1.24	12.60	2.84	13.20	25.30	1.49	0.22	0.25	0.10	0.19		
7	0.88	0.70	1.20	10.50	3.02	12.30	18.55	1.38	0.21	0.24	0.10	0.18		
8	1.20	0.59	2.06	15.26	3.38	11.00	12.40	1.28	0.21	0.23	0.11	0.18		
9	1.16	0.55	4.40	19.60	4.04	10.10	7.05	1.20	0.21	0.22	0.11	0.17		
10	0.98	0.57	3.38	18.85	5.66	8.50	3.38	1.02	0.21	0.21	0.11	0.17		
11	0.86	0.60	2.20	12.90	8.04	7.32	1.67	0.60	0.21	0.20	0.11	0.16		
12	0.68	0.66	1.64	11.00	9.80	7.05	1.32	0.44	0.21	0.19	0.11	0.16		
13	0.58	0.64	1.24	12.60	11.40	9.10	1.18	0.43	0.21	0.19	0.11	0.15		
14	0.54	0.57	1.02	15.12	12.90	12.50	1.12	0.43	0.21	0.18	0.12	0.15		
15	0.53	0.55	0.86	24.70	14.31	12.10	1.12	0.42	0.21	0.18	0.12	0.14		
16	0.57	0.54	0.70	31.36	17.08	11.80	1.06	0.42	0.21	0.17	0.12	0.14		
17	1.28	0.54	0.66	37.00	17.36	11.00	1.00	0.42	0.21	0.16	0.12	0.13		
18	4.16	0.54	1.22	40.28	17.65	10.50	0.88	0.41	0.21	0.15	0.12	0.13		
19	2.90	0.55	4.16	42.44	16.38	13.53	0.82	0.41	0.22	0.14	0.12	0.13		
20	1.74	0.54	3.80	41.00	15.40	19.45	0.74	0.40	0.22	0.13	0.13	0.13		
21	1.46	0.51	2.55	38.76	16.94	26.65	0.94	0.40	0.22	0.12	0.13	0.13		
22	1.26	0.57	2.66	36.12	19.45	29.80	2.45	0.38	0.22	0.11	0.13	0.13		
23	1.02	0.74	2.35	32.62	20.80	35.46	8.70	0.36	0.22	0.10	0.14	0.13		
24	1.00	0.92	1.67	29.35	21.40	41.00	18.25	0.34	0.22	0.10	0.16	0.14		
25	1.06	1.32	1.38	23.05	23.20	37.88	22.00	0.32	0.22	0.10	0.18	0.14		
26	0.82	2.06	2.35	14.98	26.05	34.20	19.90	0.30	0.22	0.10	0.20	0.14		
27	0.62	2.50	10.80	7.86	28.75	29.80	14.18	0.28	0.23	0.10	0.21	0.14		
28	0.60	2.72	24.10	4.61	29.95	24.10	9.10	0.26	0.25	0.10	0.21	0.15		
29	0.68	3.38	29.20	3.86	29.50	16.66	5.45	0.25	0.27	0.10		0.15		
30	0.60	5.45	29.80	3.62	28.45	14.05	3.62	0.24	0.29	0.10		0.15		
31		7.50		3.56	26.65		3.02		0.30	0.10		0.15		
Total	30.39	42.63	159.83	683.45	444.72	556.61	329.28	24.04	7.00	5.37	3.57	4.87	2291.76	CMSDAY
Mean	1.01	1.38	5.33	22.05	14.35	18.55	10.62	0.80	0.23	0.17	0.13	0.16	6.28	CMS
Max	4.16	7.50	29.80	42.44	29.95	41.00	33.40	2.60	0.30	0.30	0.21	0.21	42.44	CMS
Min	0.47	0.51	0.66	3.56	2.66	7.05	0.74	0.24	0.21	0.10	0.10	0.13	0.10	CMS
Runoff	2.63	3.68	13.81	59.05	38.42	48.09	28.45	2.08	0.60	0.46	0.31	0.42	198.01	MCM

Momentary Peak 42.80 CMS. at 170.90 m. (MSL.) at 05.00 Hours , on Jul 19 , 2018

Runoff Yield 5.08 Liters/Second/Square KM. Momentary Peak Yield 34.66 Liters/Second/Square KM.

WATER YEAR : 2018

KHONG RIVER BASIN

Nam Puan at Ban Pa Noi , Loei (Kh.105)

Lat 17 - 21 - 43 N Long 101 - 49 - 46 E

Location : on right bank at the bridge on highway.

	Ban Pa Noi	**Amphoe** Wang Saphung	**Changwat** Loei
Drainge Area	948 sq.km.		
Type of Gage	Water - stage recorder.		
Zero Gage at Bottom	+247.500 m. (MSL.)		
Bench Mark	B.M.- Highways Dept.		
Location BM	On right bank at the footpath of the bridge.		**Elevation** +258.341 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings.		
Period of Available Gage Records	2006 to date		
Rating Operation			
Period of Rating	2006 to date		
Rated by Flot	-		
Rated by Current Meter	2006 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 9 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

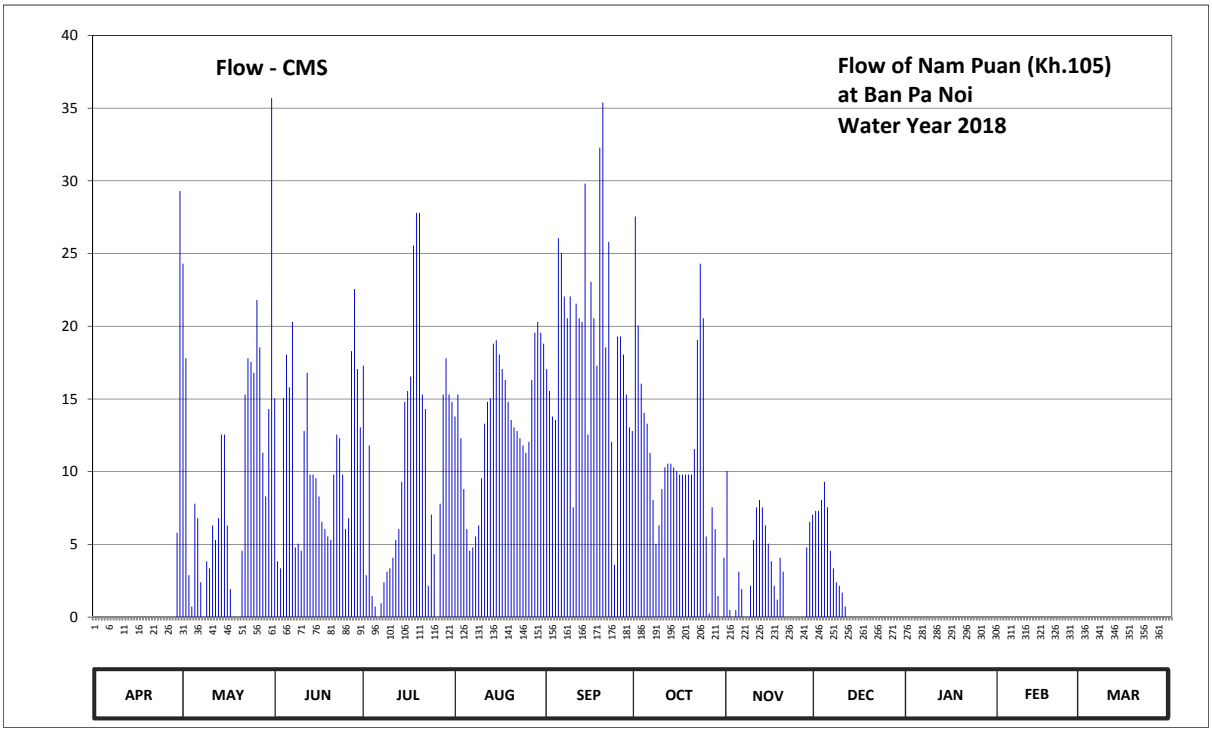
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	250.56	251.78	251.41	251.50	251.36	251.49	251.91	251.21	251.10	250.32	249.90	249.79	
2	250.51	251.52	250.96	250.92	251.42	251.43	251.61	250.82	251.10	250.31	249.86	249.80	
3	250.48	250.92	250.94	251.28	251.30	251.36	251.45	250.72	251.13	250.29	249.84	249.81	
4	250.49	250.83	251.41	250.86	251.16	251.35	251.37	250.82	251.18	250.27	249.82	249.83	
5	250.49	251.12	251.53	250.83	251.05	251.85	251.34	250.93	251.11	250.25	249.80	249.83	
6	250.48	251.08	251.44	250.77	250.99	251.81	251.26	250.88	250.99	250.23	249.79	249.84	
7	250.46	250.90	251.62	250.84	251.00	251.69	251.13	250.71	250.94	250.21	249.78	249.85	
8	250.37	250.80	251.00	250.90	251.03	251.63	251.01	250.72	250.90	250.20	249.78	249.85	
9	250.15	250.96	251.01	250.93	251.06	251.69	251.06	250.89	250.89	250.19	249.77	249.84	
10	250.21	250.94	250.99	250.94	251.19	251.11	251.16	251.02	250.87	250.18	249.76	249.82	
11	250.24	251.06	251.32	250.97	251.34	251.67	251.22	251.11	250.83	250.17	249.75	249.79	
12	250.24	251.02	251.48	251.02	251.40	251.63	251.23	251.13	250.80	250.16	249.75	249.77	
13	250.24	251.08	251.20	251.05	251.41	251.62	251.23	251.11	250.78	250.16	249.75	249.75	
14	250.23	251.31	251.20	251.18	251.56	252.00	251.22	251.06	250.76	250.15	249.74	249.72	
15	250.23	251.31	251.19	251.40	251.57	251.31	251.21	251.01	250.73	250.14	249.74	249.71	
16	250.24	251.06	251.14	251.43	251.53	251.73	251.20	250.96	250.69	250.13	249.73	249.71	
17	250.27	250.88	251.07	251.47	251.49	251.63	251.20	250.89	250.64	250.12	249.73	249.70	
18	250.38	250.75	251.05	251.83	251.46	251.50	251.20	250.85	250.58	250.10	249.75	249.70	
19	250.48	250.72	251.03	251.92	251.40	252.08	251.20	250.97	250.54	250.09	249.75	249.71	
20	250.54	250.74	251.02	251.92	251.35	252.18	251.20	250.93	250.50	250.08	249.74	249.71	
21	250.76	250.99	251.20	251.42	251.33	251.55	251.27	250.75	250.47	250.06	249.73	249.71	
22	250.69	251.42	251.31	251.38	251.32	251.84	251.57	250.79	250.44	250.05	249.73	249.70	
23	250.66	251.52	251.30	250.89	251.30	251.29	251.78	250.75	250.42	250.04	249.73	249.70	
24	250.57	251.51	251.20	251.09	251.28	250.95	251.63	250.56	250.41	250.03	249.73	249.71	
25	250.54	251.48	251.05	250.98	251.26	251.58	251.03	250.33	250.40	250.02	249.72	249.74	
26	250.49	251.68	251.08	250.79	251.29	251.58	250.81	250.17	250.39	250.00	249.72	249.74	
27	250.49	251.55	251.54	251.12	251.46	251.53	251.11	250.28	250.37	249.98	249.76	249.74	
28	250.62	251.26	251.71	251.42	251.59	251.42	251.05	251.00	250.35	249.97	249.77	249.77	
29	251.04	251.14	251.49	251.52	251.62	251.33	250.86	251.07	250.34	249.94		249.76	
30	251.98	251.38	251.33	251.42	251.59	251.32	250.78	251.09	250.34	249.93		249.75	
31		252.19		251.40	251.56		250.97		250.34	249.92		249.74	
Mean	250.50	251.19	251.24	251.21	251.34	251.57	251.23	250.85	250.69	250.12	249.76	249.76	
Max	251.98	252.19	251.71	251.92	251.62	252.18	251.91	251.21	251.18	250.32	249.90	249.85	252.19
Min	250.15	250.72	250.94	250.77	250.99	250.95	250.78	250.17	250.34	249.92	249.72	249.70	249.70

Annual Max Momentary Gage Height 252.74 m. (MSL.) , at 04.00 Hours , on May 31 , 2018

Zero Gage at Bottom Elevation 247.50 m. (MSL.) , River Bed 247.70 m. (MSL.)

Left Bank Elevation 258.30 m. (MSL.) ,

Right Bank Elevation 257.67 m. (MSL.) , Drainage Are 948 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	24.30	15.05	17.30	13.80	17.05	27.55	10.05	7.30	0.00	0.00	0.00		
2	0.00	17.80	3.84	2.88	15.30	15.55	20.05	0.48	7.30	0.00	0.00	0.00		
3	0.00	2.88	3.36	11.80	12.30	13.80	16.05	0.00	8.05	0.00	0.00	0.00		
4	0.00	0.72	15.05	1.44	8.80	13.55	14.05	0.48	9.30	0.00	0.00	0.00		
5	0.00	7.80	18.05	0.72	6.05	26.05	13.30	3.12	7.55	0.00	0.00	0.00		
6	0.00	6.80	15.80	0.00	4.56	25.05	11.30	1.92	4.56	0.00	0.00	0.00		
7	0.00	2.40	20.30	0.96	4.80	22.05	8.05	0.00	3.36	0.00	0.00	0.00		
8	0.00	0.00	4.80	2.40	5.55	20.55	5.05	0.00	2.40	0.00	0.00	0.00		
9	0.00	3.84	5.05	3.12	6.30	22.05	6.30	2.16	2.16	0.00	0.00	0.00		
10	0.00	3.36	4.56	3.36	9.55	7.55	8.80	5.30	1.68	0.00	0.00	0.00		
11	0.00	6.30	12.80	4.08	13.30	21.55	10.30	7.55	0.72	0.00	0.00	0.00		
12	0.00	5.30	16.80	5.30	14.80	20.55	10.55	8.05	0.00	0.00	0.00	0.00		
13	0.00	6.80	9.80	6.05	15.05	20.30	10.55	7.55	0.00	0.00	0.00	0.00		
14	0.00	12.55	9.80	9.30	18.80	29.80	10.30	6.30	0.00	0.00	0.00	0.00		
15	0.00	12.55	9.55	14.80	19.05	12.55	10.05	5.05	0.00	0.00	0.00	0.00		
16	0.00	6.30	8.30	15.55	18.05	23.05	9.80	3.84	0.00	0.00	0.00	0.00		
17	0.00	1.92	6.55	16.55	17.05	20.55	9.80	2.16	0.00	0.00	0.00	0.00		
18	0.00	0.00	6.05	25.55	16.30	17.30	9.80	1.20	0.00	0.00	0.00	0.00		
19	0.00	0.00	5.55	27.80	14.80	32.28	9.80	4.08	0.00	0.00	0.00	0.00		
20	0.00	0.00	5.30	27.80	13.55	35.38	9.80	3.12	0.00	0.00	0.00	0.00		
21	0.00	4.56	9.80	15.30	13.05	18.55	11.55	0.00	0.00	0.00	0.00	0.00		
22	0.00	15.30	12.55	14.30	12.80	25.80	19.05	0.00	0.00	0.00	0.00	0.00		
23	0.00	17.80	12.30	2.16	12.30	12.05	24.30	0.00	0.00	0.00	0.00	0.00		
24	0.00	17.55	9.80	7.05	11.80	3.60	20.55	0.00	0.00	0.00	0.00	0.00		
25	0.00	16.80	6.05	4.32	11.30	19.30	5.55	0.00	0.00	0.00	0.00	0.00		
26	0.00	21.80	6.80	0.00	12.05	19.30	0.24	0.00	0.00	0.00	0.00	0.00		
27	0.00	18.55	18.30	7.80	16.30	18.05	7.55	0.00	0.00	0.00	0.00	0.00		
28	0.00	11.30	22.55	15.30	19.55	15.30	6.05	4.80	0.00	0.00	0.00	0.00		
29	5.80	8.30	17.05	17.80	20.30	13.05	1.44	6.55	0.00	0.00		0.00		
30	29.30	14.30	13.05	15.30	19.55	12.80	0.00	7.05	0.00	0.00		0.00		
31		35.69		14.80	18.80		4.08		0.00	0.00		0.00		
Total	35.10	303.57	324.61	310.89	415.56	574.36	331.61	90.81	54.38	0.00	0.00	0.00	2440.89	CMSDAY
Mean	1.17	9.79	10.82	10.03	13.41	19.15	10.70	3.03	1.75	0.00	0.00	0.00	6.69	CMS
Max	29.30	35.69	22.55	27.80	20.30	35.38	27.55	10.05	9.30	0.00	0.00	0.00	35.69	CMS
Min	0.00	0.00	3.36	0.00	4.56	3.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	3.03	26.23	28.05	26.86	35.90	49.62	28.65	7.85	4.70	0.00	0.00	0.00	210.89	MCM

Momentary Peak 56.60 CMS. at 252.74 m. (MSL.) at 04.00 Hours , on May 31 , 2018

Runoff Yield 7.05 Liters/Second/Square KM. Momentary Peak Yield 59.70 Liters/Second/Square KM.

WATER YEAR : 2018

KHONG RIVER BASIN

Nam Un at Ban Prong Yai , Sakon Nakhon (Kh.108)

Lat 17 - 19 - 22 N Long 103 - 58 - 45 E

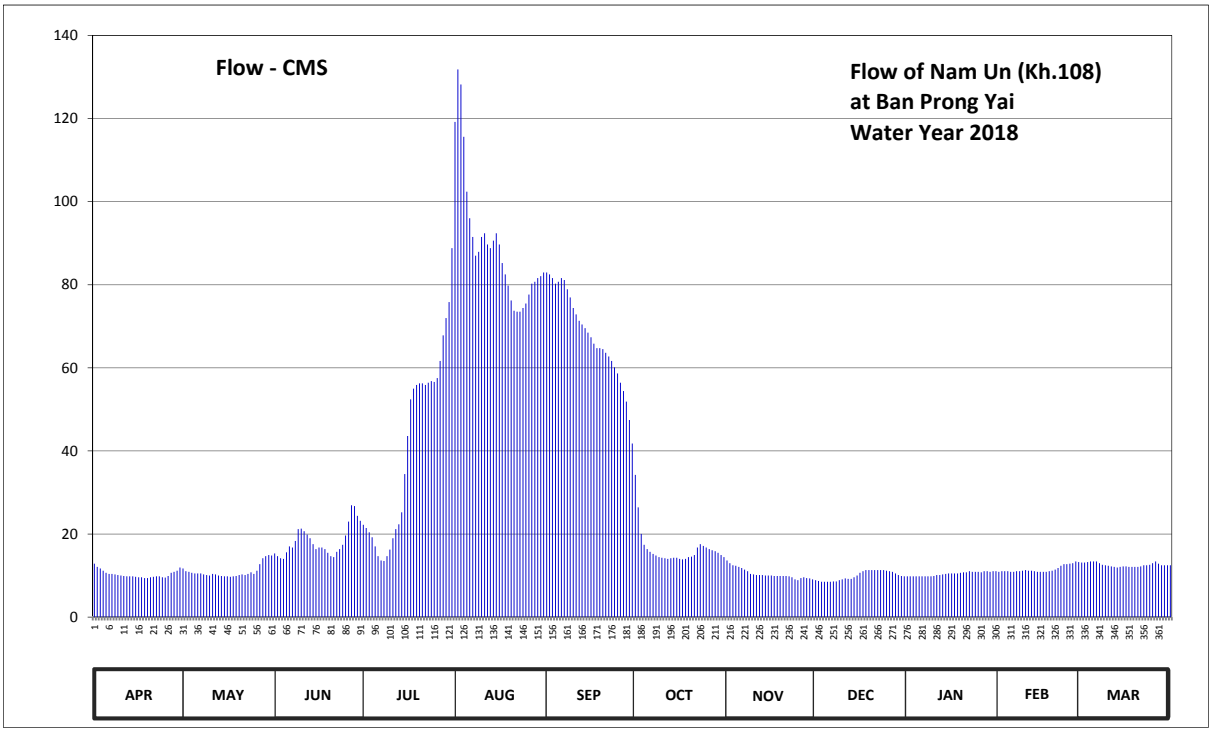
Location : on right bank Ban Prong Yai.

	Ban Prong Yai	**Amphoe** Phanna Nikhom	**Changwat** Sakon Nakhon
Drainge Area	2,160 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+150.000 m. (MSL.)		
Bench Mark	B.M.- H.D.		
Location BM	On right bank at the automatic gage building.		**Elevation** +158.093 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic mean of 3 readings.		
Period of Available Gage Records	2013 to date		
Rating Operation			
Period of Rating	2013 to date		
Rated by Flot	-		
Rated by Current Meter	2013 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	Overbank flow starts at elevation +149.630 m.(MSL.) and is including overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 16 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	153.22	153.13	153.41	153.94	157.24	156.91	154.65	153.28	152.89	152.98	153.07	153.24	
2	153.16	153.08	153.36	153.88	157.31	156.90	154.20	153.23	152.87	152.98	153.08	153.24	
3	153.13	153.07	153.32	153.80	157.29	156.88	153.77	153.19	152.85	152.98	153.08	153.25	
4	153.09	153.05	153.31	153.71	157.22	156.85	153.57	153.18	152.85	152.98	153.08	153.26	
5	153.05	153.04	153.43	153.54	157.14	156.86	153.49	153.16	152.85	152.98	153.07	153.26	
6	153.03	153.04	153.54	153.36	157.10	156.88	153.44	153.14	152.85	152.98	153.07	153.26	
7	153.03	153.04	153.52	153.28	157.05	156.87	153.40	153.11	152.86	152.98	153.08	153.23	
8	153.02	153.02	153.64	153.27	157.00	156.82	153.37	153.08	152.86	152.98	153.08	153.20	
9	153.01	153.01	153.86	153.36	157.01	156.77	153.34	153.03	152.89	152.98	153.09	153.19	
10	153.00	153.00	153.87	153.48	157.05	156.70	153.33	153.02	152.91	152.99	153.10	153.18	
11	152.99	153.03	153.82	153.69	157.06	156.63	153.32	153.01	152.93	153.01	153.09	153.17	
12	152.98	153.02	153.76	153.86	157.03	156.56	153.31	153.01	152.92	153.01	153.09	153.16	
13	152.98	153.00	153.69	153.95	157.02	156.52	153.32	153.01	152.92	153.02	153.08	153.15	
14	152.98	152.99	153.58	154.13	157.04	156.48	153.33	153.00	152.96	153.03	153.07	153.16	
15	152.97	152.98	153.49	154.66	157.06	156.43	153.33	153.00	153.00	153.04	153.07	153.17	
16	152.96	152.98	153.52	155.16	157.03	156.38	153.31	153.00	153.05	153.04	153.07	153.17	
17	152.96	152.97	153.52	155.64	156.96	156.31	153.30	152.99	153.08	153.04	153.07	153.16	
18	152.94	152.98	153.49	155.78	156.90	156.26	153.31	152.99	153.10	153.04	153.08	153.16	
19	152.94	152.99	153.42	155.83	156.84	156.26	153.34	152.99	153.10	153.05	153.09	153.16	
20	152.96	153.01	153.36	155.85	156.75	156.25	153.35	152.99	153.10	153.06	153.11	153.16	
21	152.97	153.02	153.34	155.85	156.67	156.21	153.38	152.99	153.10	153.06	153.14	153.17	
22	152.98	153.01	153.44	155.83	156.66	156.17	153.52	152.98	153.10	153.08	153.18	153.19	
23	152.98	153.03	153.49	155.86	156.66	156.12	153.58	152.96	153.10	153.07	153.21	153.19	
24	152.96	153.06	153.57	155.88	156.70	156.05	153.55	152.91	153.10	153.07	153.21	153.20	
25	152.95	153.03	153.74	155.87	156.73	155.98	153.52	152.89	153.09	153.07	153.22	153.23	
26	152.99	153.09	154.00	155.92	156.79	155.86	153.49	152.94	153.08	153.06	153.23	153.26	
27	153.05	153.21	154.23	156.12	156.85	155.75	153.47	152.96	153.07	153.08	153.26	153.22	
28	153.07	153.32	154.22	156.40	156.86	155.61	153.45	152.94	153.04	153.08	153.25	153.19	
29	153.09	153.36	154.08	156.59	156.88	155.37	153.42	152.93	153.01	153.07		153.19	
30	153.15	153.38	154.01	156.74	156.89	155.06	153.38	152.91	152.99	153.08		153.19	
31		153.37		157.02	156.91		153.34		152.98	153.08		153.19	
Mean	153.02	153.07	153.63	154.91	156.96	156.36	153.48	153.03	152.98	153.03	153.12	153.20	
Max	153.22	153.38	154.23	157.02	157.31	156.91	154.65	153.28	153.10	153.08	153.26	153.26	157.31
Min	152.94	152.97	153.31	153.27	156.66	155.06	153.30	152.89	152.85	152.98	153.07	153.15	152.85

Annual Max Momentary Gage Height	157.32	m. (MSL.) ,	at 18.00 Hours , on Aug 2 , 2018		
Zero Gage at Bottom Elevation	150.00	m. (MSL.) ,	River Bed	150.060	m. (MSL.)
Left Bank Elevation	149.62	m. (MSL.) ,			
Right Bank Elevation	151.42	m. (MSL.) ,	Drainage Are	2,160	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	12.86	11.69	15.33	22.22	119.20	82.95	34.25	13.64	8.90	9.80	10.91	13.12		
2	12.08	11.04	14.68	21.44	131.80	82.50	26.40	12.99	8.70	9.80	11.04	13.12		
3	11.69	10.91	14.16	20.40	128.20	81.60	20.01	12.47	8.50	9.80	11.04	13.25		
4	11.17	10.65	14.03	19.23	115.60	80.25	17.41	12.34	8.50	9.80	11.04	13.38		
5	10.65	10.52	15.59	17.02	102.40	80.70	16.37	12.08	8.50	9.80	10.91	13.38		
6	10.39	10.52	17.02	14.68	96.00	81.60	15.72	11.82	8.50	9.80	10.91	13.38		
7	10.39	10.52	16.76	13.64	91.50	81.15	15.20	11.43	8.60	9.80	11.04	12.99		
8	10.26	10.26	18.32	13.51	87.00	78.90	14.81	11.04	8.60	9.80	11.04	12.60		
9	10.13	10.13	21.18	14.68	87.90	76.92	14.42	10.39	8.90	9.80	11.17	12.47		
10	10.00	10.00	21.31	16.24	91.50	74.40	14.29	10.26	9.10	9.90	11.30	12.34		
11	9.90	10.39	20.66	18.97	92.40	72.86	14.16	10.13	9.30	10.13	11.17	12.21		
12	9.80	10.26	19.88	21.18	89.70	71.32	14.03	10.13	9.20	10.13	11.17	12.08		
13	9.80	10.00	18.97	22.35	88.80	70.44	14.16	10.13	9.20	10.26	11.04	11.95		
14	9.80	9.90	17.54	25.21	90.60	69.56	14.29	10.00	9.60	10.39	10.91	12.08		
15	9.70	9.80	16.37	34.43	92.40	68.46	14.29	10.00	10.00	10.52	10.91	12.21		
16	9.60	9.80	16.76	43.60	89.70	67.36	14.03	10.00	10.65	10.52	10.91	12.21		
17	9.60	9.70	16.76	52.40	85.20	65.82	13.90	9.90	11.04	10.52	10.91	12.08		
18	9.40	9.80	16.37	54.97	82.50	64.72	14.03	9.90	11.30	10.52	11.04	12.08		
19	9.40	9.90	15.46	55.88	79.80	64.72	14.42	9.90	11.30	10.65	11.17	12.08		
20	9.60	10.13	14.68	56.25	76.20	64.50	14.55	9.90	11.30	10.78	11.43	12.08		
21	9.70	10.26	14.42	56.25	73.74	63.62	14.94	9.90	11.30	10.78	11.82	12.21		
22	9.80	10.13	15.72	55.88	73.52	62.74	16.76	9.80	11.30	11.04	12.34	12.47		
23	9.80	10.39	16.37	56.43	73.52	61.64	17.54	9.60	11.30	10.91	12.73	12.47		
24	9.60	10.78	17.41	56.80	74.40	60.10	17.15	9.10	11.30	10.91	12.73	12.60		
25	9.50	10.39	19.62	56.62	75.48	58.63	16.76	8.90	11.17	10.91	12.86	12.99		
26	9.90	11.17	23.00	57.53	77.64	56.43	16.37	9.40	11.04	10.78	12.99	13.38		
27	10.65	12.73	26.91	61.64	80.25	54.42	16.11	9.60	10.91	11.04	13.38	12.86		
28	10.91	14.16	26.74	67.80	80.70	51.85	15.85	9.40	10.52	11.04	13.25	12.47		
29	11.17	14.68	24.36	71.98	81.60	47.45	15.46	9.30	10.13	10.91		12.47		
30	11.95	14.94	23.17	75.84	82.05	41.77	14.94	9.10	9.90	11.04		12.47		
31		14.81		88.80	82.95		14.42		9.80	11.04		12.47		
Total	309.20	340.36	549.55	1263.87	2774.25	2039.38	507.04	312.55	308.36	322.92	323.16	389.95	9440.59	CMSDAY
Mean	10.31	10.98	18.32	40.77	89.49	67.98	16.36	10.42	9.95	10.42	11.54	12.58	25.86	CMS
Max	12.86	14.94	26.91	88.80	131.80	82.95	34.25	13.64	11.30	11.04	13.38	13.38	131.80	CMS
Min	9.40	9.70	14.03	13.51	73.52	41.77	13.90	8.90	8.50	9.80	10.91	11.95	8.50	CMS
Runoff	26.71	29.41	47.48	109.20	239.70	176.20	43.81	27.00	26.64	27.90	27.92	33.69	815.67	MCM

Momentary Peak 133.60 CMS. at 157.32 m. (MSL.) at 18.00 Hours , on Aug 2 , 2018

Runoff Yield 11.97 Liters/Second/Square KM. Momentary Peak Yield 61.85 Liters/Second/Square KM.

WATER YEAR : 2018

KHONG RIVER BASIN

Nam Yam at Ban Pho Chai , Sakon Nakhon (Kh.112)

Lat 17 - 35 - 59 N Long 103 - 58 - 51 E

Location : on left bank Ban Pho Chai.

Ban Pho Chai **Amphoe** Akat Amnuai **Changwat** Sakon Nakhon

Drainge Area	1,448 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+141.000 m. (MSL.)
Bench Mark	B.M.- H.D.
Location BM	On left bank at the automatic gage building. **Elevation** +149.186 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic mean of 3 readings.
Period of Available Gage Records	2013 to date
Rating Operation	
Period of Rating	2013 to date
Rated by Flot	-
Rated by Current Meter	2013 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. Stage-discharge relation defined by 14 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

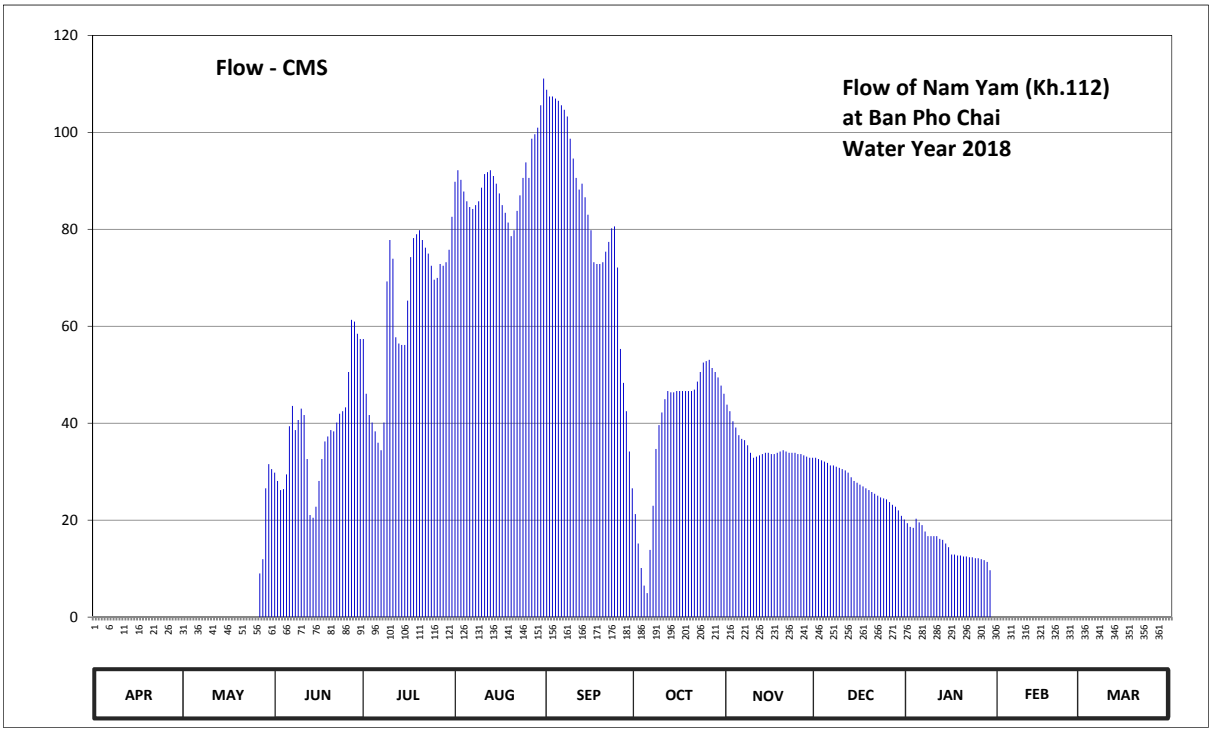
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	145.25	145.15	145.99	147.01	147.87	148.30	145.54	146.53	146.11	145.44	144.74	144.25	
2	145.24	145.16	145.90	146.61	147.93	148.27	145.22	146.48	146.10	145.40	144.74	144.13	
3	145.23	145.17	145.80	146.45	147.88	148.27	144.92	146.40	146.09	145.39	144.74	144.07	
4	145.21	145.18	145.81	146.39	147.82	148.26	144.59	146.35	146.08	145.49	144.73	144.05	
5	145.20	145.19	145.97	146.32	147.77	148.25	144.45	146.29	146.07	145.45	144.73	144.04	
6	145.19	145.21	146.36	146.23	147.74	148.23	145.15	146.26	146.05	145.42	144.72	144.03	
7	145.18	145.22	146.52	146.17	147.73	148.21	145.63	146.25	146.05	145.35	144.70	144.02	
8	145.17	145.21	146.33	146.39	147.75	148.18	146.18	146.21	146.04	145.30	144.66	144.01	
9	145.16	145.21	146.41	147.34	147.77	148.08	146.37	146.15	146.03	145.30	144.60	144.00	
10	145.15	145.22	146.50	147.57	147.84	147.99	146.47	146.11	146.02	145.30	144.57	144.00	
11	145.14	145.23	146.45	147.47	147.91	147.89	146.57	146.12	146.01	145.30	144.52	143.98	
12	145.13	145.24	146.10	147.02	147.92	147.83	146.63	146.13	145.99	145.27	144.46	143.95	
13	145.10	145.27	145.53	146.98	147.93	147.86	146.62	146.14	145.94	145.26	144.44	143.92	
14	145.09	145.32	145.50	146.97	147.90	147.79	146.62	146.15	145.90	145.22	144.43	143.90	
15	145.07	145.37	145.62	146.97	147.86	147.70	146.63	146.15	145.88	145.18	144.41	143.89	
16	145.07	145.39	145.90	147.23	147.81	147.62	146.63	146.14	145.86	145.10	144.40	143.87	
17	145.06	145.41	146.10	147.48	147.75	147.45	146.63	146.14	145.84	145.10	144.40	143.84	
18	145.06	145.42	146.24	147.58	147.71	147.44	146.63	146.15	145.82	145.09	144.39	143.82	
19	145.07	145.42	146.28	147.60	147.66	147.44	146.63	146.16	145.80	145.09	144.37	143.82	
20	145.11	145.46	146.33	147.62	147.59	147.45	146.63	146.17	145.78	145.08	144.35	143.82	
21	145.10	145.44	146.32	147.57	147.62	147.51	146.64	146.16	145.76	145.08	144.34	143.82	
22	145.10	145.22	146.39	147.53	147.72	147.56	146.70	146.15	145.74	145.07	144.33	143.81	
23	145.09	145.01	146.46	147.50	147.80	147.63	146.77	146.15	145.72	145.07	144.32	143.81	
24	145.09	144.90	146.48	147.43	147.89	147.64	146.84	146.15	145.71	145.06	144.31	143.80	
25	145.08	144.79	146.51	147.35	147.97	147.42	146.85	146.14	145.70	145.06	144.30	143.80	
26	145.06	144.77	146.77	147.36	147.89	146.94	146.86	146.14	145.67	145.05	144.29	143.79	
27	145.06	144.82	147.12	147.44	148.08	146.69	146.80	146.13	145.64	145.04	144.28	143.79	
28	145.05	145.05	147.11	147.43	148.10	146.48	146.77	146.12	145.62	145.02	144.27	143.77	
29	145.12	145.82	147.04	147.45	148.13	146.16	146.73	146.11	145.58	144.88		143.76	
30	145.14	146.06	147.01	147.52	148.23	145.82	146.67	146.11	145.52	144.80		143.75	
31		146.02		147.69	148.35		146.61		145.48	144.76		143.75	
Mean	145.13	145.27	146.30	147.15	147.87	147.61	146.29	146.19	145.86	145.17	144.48	143.91	
Max	145.25	146.06	147.12	147.69	148.35	148.30	146.86	146.53	146.11	145.49	144.74	144.25	148.35
Min	145.05	144.77	145.50	146.17	147.59	145.82	144.45	146.11	145.48	144.76	144.27	143.75	143.75

Annual Max Momentary Gage Height 148.37 m. (MSL.) , at 18.00 Hours , on Aug 31 , 2018

Zero Gage at Bottom Elevation 141.00 m. (MSL.) , River Bed 140.17 m. (MSL.)

Left Bank Elevation 149.62 m. (MSL.) ,

Right Bank Elevation 151.42 m. (MSL.) , Drainage Are 1,448 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	29.81	57.36	89.80	108.80	21.26	43.84	32.86	19.36	0.00	0.00		
2	0.00	0.00	28.10	46.08	92.20	107.42	15.18	42.48	32.60	18.60	0.00	0.00		
3	0.00	0.00	26.20	41.70	90.20	107.42	10.12	40.40	32.34	18.41	0.00	0.00		
4	0.00	0.00	26.39	40.14	87.80	106.96	6.49	39.10	32.08	20.31	0.00	0.00		
5	0.00	0.00	29.43	38.32	85.80	106.50	4.95	37.54	31.82	19.55	0.00	0.00		
6	0.00	0.00	39.36	35.98	84.60	105.58	13.85	36.76	31.30	18.98	0.00	0.00		
7	0.00	0.00	43.56	34.42	84.20	104.66	22.97	36.50	31.30	17.65	0.00	0.00		
8	0.00	0.00	38.58	40.14	85.00	103.28	34.68	35.46	31.04	16.70	0.00	0.00		
9	0.00	0.00	40.66	69.24	85.80	98.68	39.62	33.90	30.78	16.70	0.00	0.00		
10	0.00	0.00	43.00	77.80	88.60	94.60	42.22	32.86	30.52	16.70	0.00	0.00		
11	0.00	0.00	41.70	73.92	91.40	90.60	44.96	33.12	30.26	16.70	0.00	0.00		
12	0.00	0.00	32.60	57.72	91.80	88.20	46.64	33.38	29.81	16.13	0.00	0.00		
13	0.00	0.00	21.07	56.44	92.20	89.40	46.36	33.64	28.86	15.94	0.00	0.00		
14	0.00	0.00	20.50	56.16	91.00	86.60	46.36	33.90	28.10	15.18	0.00	0.00		
15	0.00	0.00	22.78	56.16	89.40	83.00	46.64	33.90	27.72	14.42	0.00	0.00		
16	0.00	0.00	28.10	65.28	87.40	79.80	46.64	33.64	27.34	12.90	0.00	0.00		
17	0.00	0.00	32.60	74.28	85.00	73.20	46.64	33.64	26.96	12.90	0.00	0.00		
18	0.00	0.00	36.24	78.20	83.40	72.84	46.64	33.90	26.58	12.71	0.00	0.00		
19	0.00	0.00	37.28	79.00	81.40	72.84	46.64	34.16	26.20	12.71	0.00	0.00		
20	0.00	0.00	38.58	79.80	78.60	73.20	46.64	34.42	25.82	12.52	0.00	0.00		
21	0.00	0.00	38.32	77.80	79.80	75.40	46.92	34.16	25.44	12.52	0.00	0.00		
22	0.00	0.00	40.14	76.20	83.80	77.40	48.60	33.90	25.06	12.33	0.00	0.00		
23	0.00	0.00	41.96	75.00	87.00	80.20	50.56	33.90	24.68	12.33	0.00	0.00		
24	0.00	0.00	42.48	72.48	90.60	80.60	52.52	33.90	24.49	12.14	0.00	0.00		
25	0.00	0.00	43.28	69.60	93.80	72.12	52.80	33.64	24.30	12.14	0.00	0.00		
26	0.00	0.00	50.56	69.96	90.60	55.32	53.08	33.64	23.73	11.95	0.00	0.00		
27	0.00	9.02	61.32	72.84	98.68	48.32	51.40	33.38	23.16	11.76	0.00	0.00		
28	0.00	11.95	60.96	72.48	99.60	42.48	50.56	33.12	22.78	11.38	0.00	0.00		
29	0.00	26.58	58.44	73.20	100.98	34.16	49.44	32.86	22.02	9.68		0.00		
30	0.00	31.56	57.36	75.80	105.58	26.58	47.76	32.86	20.88	0.00		0.00		
31		30.52		82.60	111.10		46.08		20.12	0.00		0.00		
Total	0.00	109.63	1151.36	1976.10	2787.14	2446.16	1225.22	1051.90	850.95	431.30	0.00	0.00	12029.76	CMSDAY
Mean	0.00	3.54	38.38	63.75	89.91	81.54	39.52	35.06	27.45	13.91	0.00	0.00	32.96	CMS
Max	0.00	31.56	61.32	82.60	111.10	108.80	53.08	43.84	32.86	20.31	0.00	0.00	111.10	CMS
Min	0.00	0.00	20.50	34.42	78.60	26.58	4.95	32.86	20.12	0.00	0.00	0.00	0.00	CMS
Runoff	0.00	9.47	99.48	170.74	240.81	211.35	105.86	90.88	73.52	37.26	0.00	0.00	1039.37	MCM

Momentary Peak 112.02 CMS. at 148.37 m. (MSL.) at 18.00 Hours , on Aug 31 , 2018

Runoff Yield 22.76 Liters/Second/Square KM. Momentary Peak Yield 77.36 Liters/Second/Square KM.

WATER YEAR : 2018

KHONG RIVER BASIN

Songkhram River at Ban Lao Sombun , Sakon Nakhon (Kh.115)

Lat 18 - 00 - 20 N Long 103 - 28 - 20 E

Location : on right bank Ban Lao Sombun.

	Ban Lao Sombun	**Amphoe** Ban Muang	**Changwat** Sakon Nakhon
Drainge Area	2,852 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+143.000 m. (MSL.)		
Bench Mark	B.M.- H.D.		
Location BM	On right bank at the automatic gage building.		**Elevation** +156.671 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic mean of 3 readings.		
Period of Available Gage Records	2013 to date		
Rating Operation			
Period of Rating	2013 to date		
Rated by Flot	-		
Rated by Current Meter	2013 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 21 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

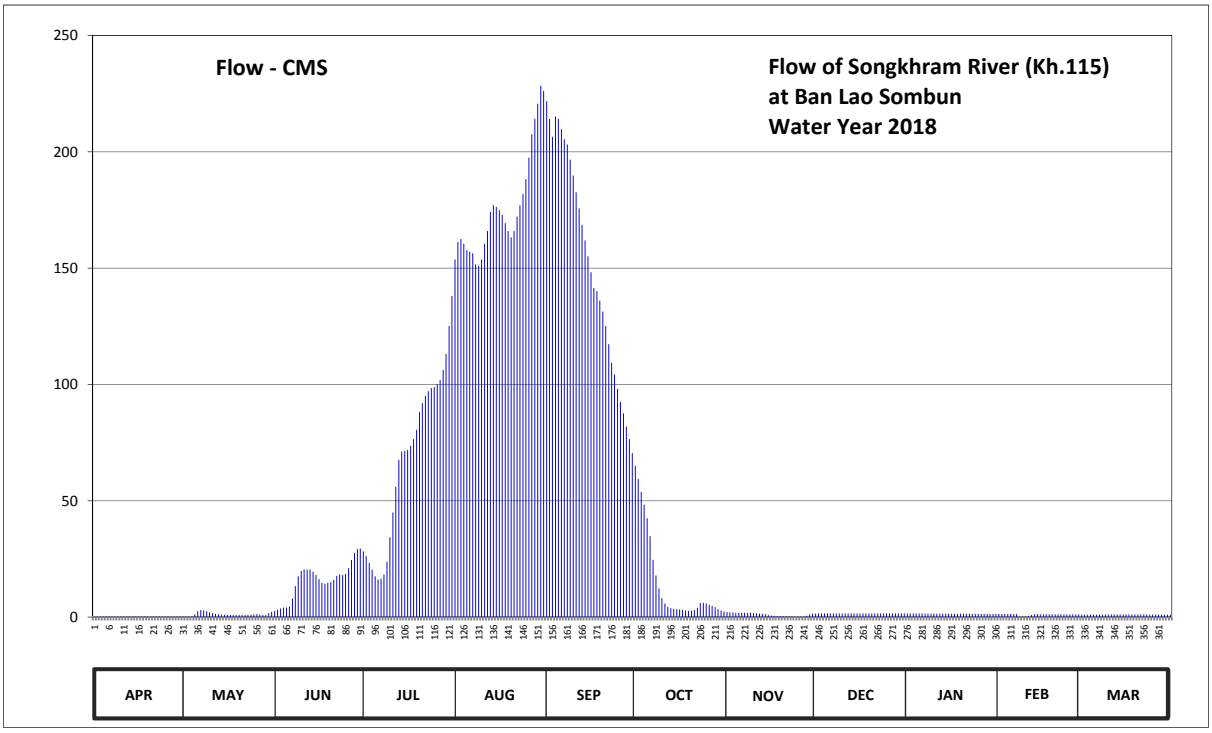
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	143.18	143.19	144.19	148.57	153.76	154.58	151.28	144.00	143.78	143.78	143.72	143.62	
2	143.18	143.19	144.35	148.38	153.87	154.51	150.96	143.96	143.78	143.78	143.72	143.62	
3	143.18	143.19	144.54	148.12	153.89	154.44	150.61	143.92	143.78	143.78	143.72	143.61	
4	143.19	143.25	144.67	147.72	153.86	154.52	150.24	143.88	143.78	143.78	143.72	143.61	
5	143.19	143.63	144.70	147.26	153.82	154.51	149.79	143.87	143.78	143.78	143.72	143.61	
6	143.20	144.14	144.86	147.01	153.81	154.47	149.15	143.87	143.78	143.78	143.72	143.60	
7	143.20	144.30	145.59	147.07	153.80	154.43	148.24	143.87	143.78	143.77	143.68	143.61	
8	143.20	144.24	146.56	147.38	153.73	154.41	147.32	143.87	143.78	143.76	143.22	143.62	
9	143.20	144.12	147.26	148.16	153.72	154.34	146.40	143.87	143.78	143.75	143.20	143.63	
10	143.20	143.95	147.63	149.11	153.76	154.26	145.62	143.83	143.78	143.75	143.24	143.61	
11	143.20	143.86	147.75	150.00	153.86	154.17	145.17	143.81	143.78	143.74	143.39	143.64	
12	143.20	143.70	147.74	150.75	153.94	154.08	144.80	143.77	143.78	143.74	143.54	143.64	
13	143.20	143.65	147.75	151.42	154.06	153.98	144.60	143.73	143.78	143.74	143.67	143.64	
14	143.20	143.61	147.59	151.60	154.10	153.88	144.46	143.67	143.78	143.74	143.68	143.64	
15	143.21	143.60	147.35	151.61	154.09	153.78	144.42	143.57	143.78	143.74	143.67	143.64	
16	143.22	143.59	147.05	151.63	154.07	153.68	144.37	143.47	143.78	143.74	143.66	143.63	
17	143.22	143.56	146.78	151.71	154.04	153.58	144.29	143.42	143.78	143.74	143.66	143.63	
18	143.21	143.53	146.73	151.84	153.99	153.56	144.23	143.37	143.78	143.74	143.66	143.63	
19	143.21	143.53	146.79	152.02	153.94	153.50	144.21	143.36	143.78	143.74	143.65	143.63	
20	143.21	143.54	146.84	152.31	153.90	153.41	144.21	143.34	143.78	143.74	143.64	143.63	
21	143.20	143.55	147.00	152.46	153.94	153.29	144.29	143.31	143.78	143.73	143.63	143.63	
22	143.20	143.56	147.29	152.56	154.03	153.14	144.65	143.27	143.78	143.73	143.63	143.63	
23	143.20	143.57	147.39	152.62	154.10	152.98	145.21	143.25	143.78	143.72	143.63	143.62	
24	143.20	143.59	147.35	152.66	154.16	152.83	145.22	143.23	143.78	143.72	143.63	143.62	
25	143.20	143.64	147.43	152.67	154.24	152.65	145.17	143.23	143.78	143.71	143.63	143.62	
26	143.19	143.69	147.84	152.71	154.35	152.48	145.07	143.22	143.78	143.72	143.63	143.62	
27	143.19	143.62	148.23	152.76	154.45	152.29	144.94	143.23	143.78	143.72	143.63	143.62	
28	143.19	143.55	148.51	152.89	154.51	152.07	144.74	143.41	143.78	143.72	143.63	143.61	
29	143.19	143.55	148.66	153.06	154.57	151.84	144.46	143.65	143.78	143.72		143.60	
30	143.19	143.84	148.68	153.29	154.64	151.57	144.22	143.77	143.78	143.72		143.59	
31		144.03		153.53	154.62		144.07		143.78	143.72		143.58	
Mean	143.20	143.66	146.84	150.80	154.05	153.57	146.01	143.60	143.78	143.74	143.60	143.62	
Max	143.22	144.30	148.68	153.53	154.64	154.58	151.28	144.00	143.78	143.78	143.72	143.64	154.64
Min	143.18	143.19	144.19	147.01	153.72	151.57	144.07	143.22	143.78	143.71	143.20	143.58	143.18

Annual Max Momentary Gage Height 154.64 m. (MSL.) , at 05.00 Hours , on Aug 30 , 2018

Zero Gage at Bottom Elevation 143.00 m. (MSL.) , River Bed 143.06 m. (MSL.)

Left Bank Elevation 155.85 m. (MSL.) ,

Right Bank Elevation 155.42 m. (MSL.) , Drainage Are 2,852 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.18	0.19	2.71	28.27	153.68	221.80	65.04	2.18	1.56	1.56	1.40	1.12		
2	0.18	0.19	3.16	26.18	161.16	214.10	59.36	2.07	1.56	1.56	1.40	1.12		
3	0.18	0.19	3.69	23.32	162.52	206.40	53.76	1.96	1.56	1.56	1.40	1.09		
4	0.19	0.25	4.06	20.32	160.48	215.20	48.36	1.84	1.56	1.56	1.40	1.09		
5	0.19	1.14	4.14	17.56	157.76	214.10	42.48	1.82	1.56	1.56	1.40	1.09		
6	0.20	2.57	4.59	16.06	157.08	209.70	34.80	1.82	1.56	1.56	1.40	1.06		
7	0.20	3.02	7.95	16.42	156.40	205.30	24.64	1.82	1.56	1.54	1.28	1.09		
8	0.20	2.85	13.36	18.28	151.64	203.10	17.92	1.82	1.56	1.51	0.22	1.12		
9	0.20	2.52	17.56	23.76	150.96	196.60	12.40	1.82	1.56	1.48	0.20	1.14		
10	0.20	2.04	19.78	34.32	153.68	189.80	8.10	1.70	1.56	1.48	0.24	1.09		
11	0.20	1.79	20.50	45.00	160.48	182.60	5.85	1.65	1.56	1.45	0.48	1.17		
12	0.20	1.34	20.44	56.00	165.92	175.60	4.42	1.54	1.56	1.45	0.89	1.17		
13	0.20	1.20	20.50	67.56	174.20	168.64	3.86	1.42	1.56	1.45	1.26	1.17		
14	0.20	1.09	19.54	71.20	177.00	161.84	3.47	1.26	1.56	1.45	1.28	1.17		
15	0.21	1.06	18.10	71.42	176.30	155.04	3.36	0.98	1.56	1.45	1.26	1.17		
16	0.22	1.03	16.30	71.86	174.90	148.24	3.22	0.70	1.56	1.45	1.23	1.14		
17	0.22	0.95	14.68	73.62	172.80	141.44	2.99	0.56	1.56	1.45	1.23	1.14		
18	0.21	0.86	14.38	76.48	169.32	140.08	2.82	0.44	1.56	1.45	1.23	1.14		
19	0.21	0.86	14.74	80.52	165.92	136.00	2.77	0.42	1.56	1.45	1.20	1.14		
20	0.21	0.89	15.04	88.06	163.20	131.32	2.77	0.38	1.56	1.45	1.17	1.14		
21	0.20	0.92	16.00	91.96	165.92	125.08	2.99	0.32	1.56	1.42	1.14	1.14		
22	0.20	0.95	17.74	95.04	172.10	117.28	4.00	0.27	1.56	1.42	1.14	1.14		
23	0.20	0.98	18.34	97.08	177.00	109.32	6.05	0.25	1.56	1.40	1.14	1.12		
24	0.20	1.03	18.10	98.44	181.80	104.22	6.10	0.23	1.56	1.40	1.14	1.12		
25	0.20	1.17	18.58	98.78	188.20	98.10	5.85	0.23	1.56	1.37	1.14	1.12		
26	0.19	1.31	21.04	100.14	197.50	92.48	5.35	0.22	1.56	1.40	1.14	1.12		
27	0.19	1.12	24.53	101.84	207.50	87.54	4.82	0.23	1.56	1.40	1.14	1.12		
28	0.19	0.92	27.61	106.26	214.10	81.82	4.25	0.53	1.56	1.40	1.14	1.09		
29	0.19	0.92	29.26	113.12	220.70	76.48	3.47	1.20	1.56	1.40		1.06		
30	0.19	1.73	29.48	125.08	228.40	70.54	2.80	1.54	1.56	1.40		1.03		
31		2.26		138.04	226.20		2.38		1.56	1.40		1.00		
Total	5.95	39.34	475.90	2091.99	5444.82	4579.76	450.45	33.22	48.36	45.28	30.69	34.62	13280.38	CMSDAY
Mean	0.20	1.27	15.86	67.48	175.64	152.66	14.53	1.11	1.56	1.46	1.10	1.12	36.38	CMS
Max	0.22	3.02	29.48	138.04	228.40	221.80	65.04	2.18	1.56	1.56	1.40	1.17	228.40	CMS
Min	0.18	0.19	2.71	16.06	150.96	70.54	2.38	0.22	1.56	1.37	0.20	1.00	0.18	CMS
Runoff	0.51	3.40	41.12	180.75	470.43	395.69	38.92	2.87	4.18	3.91	2.65	2.99	1147.42	MCM

Momentary Peak 228.40 CMS. at 154.64 m. (MSL.) at 05.00 Hours , on Aug 30 , 2018

Runoff Yield 12.76 Liters/Second/Square KM. Momentary Peak Yield 80.08 Liters/Second/Square KM.

WATER YEAR : 2018

NAM MAE ING RIVER BASIN

Nam Mae Ing at Ban Nam Ing , Chiang Rai (I.14)

Lat 19 - 49 - 56 N Long 100 - 12 - 15 E

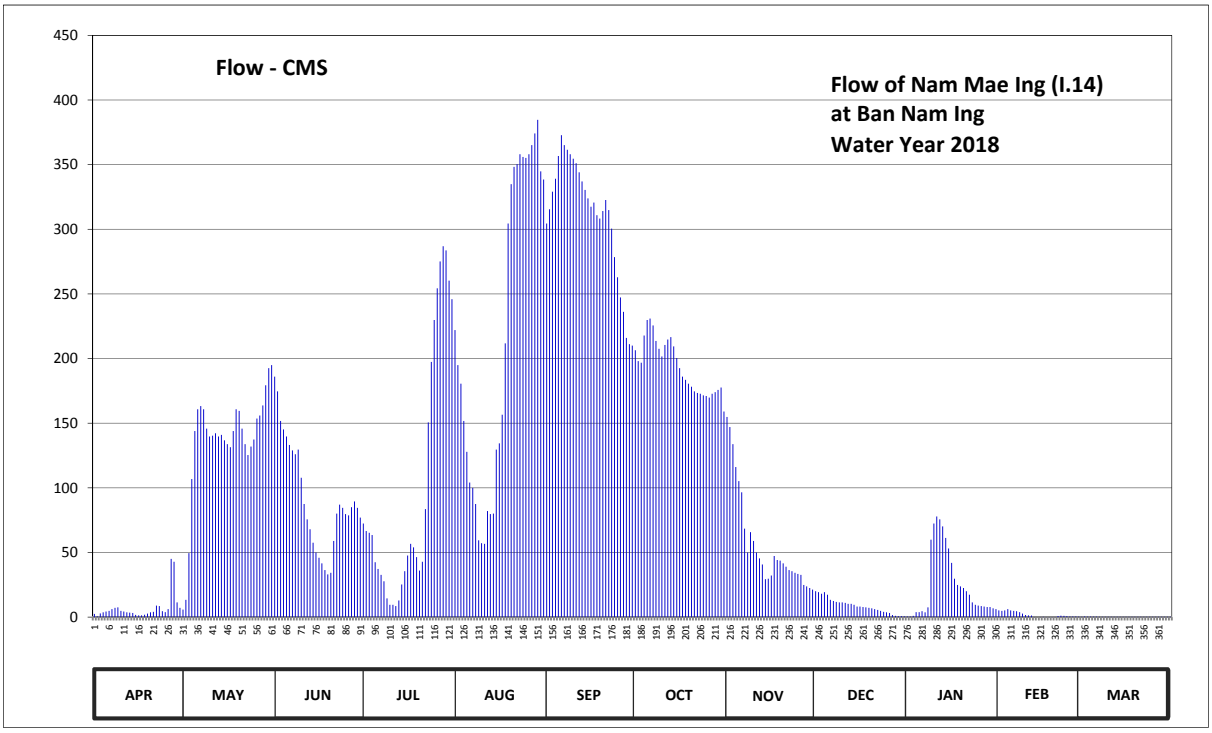
Location : on right bank at the bridge on the road about 2 kilometers from Amphoe Khun Tan.

	Ban Nam Ing	**Amphoe** Khun Tan	**Changwat** Chiang Rai
Drainge Area	6,266 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+351.430 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank downstream side at the approach of the bridge.	**Elevation** +361.805 m. (MSL.)	
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic mean of 3 readings		
Period of Available Gage Records	1993 to date		
Rating Operation			
Period of Rating	1993 to date		
Rated by Flot	-		
Rated by Current Meter	1993 to date		
Stability of Channel Regimes	Fairly stable because of backwater effect.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Flow effected by the local weir about 100 meters downstream from the gage site. Stage-discharge relation defined by 34 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	352.07	352.22	355.85	353.81	356.45	357.73	356.19	355.33	352.60	351.90	352.20	352.23	
2	351.91	352.43	355.66	353.68	356.00	357.90	356.05	355.20	352.58	351.89	352.18	352.63	
3	352.09	353.30	355.28	353.65	355.76	358.11	356.03	354.98	352.55	351.95	352.20	352.46	
4	352.13	354.51	355.17	353.61	355.28	358.26	356.38	354.68	352.58	352.14	352.23	352.47	
5	352.16	355.15	355.08	353.14	354.88	358.51	356.58	354.48	352.53	352.14	352.20	352.44	
6	352.18	355.43	354.97	353.02	354.46	358.74	356.60	354.31	352.43	352.17	352.18	352.43	
7	352.23	355.47	354.90	352.91	354.38	358.63	356.51	353.72	352.41	352.13	352.17	352.39	
8	352.26	355.43	354.85	352.79	354.13	358.58	356.31	353.31	352.39	352.27	352.14	352.36	
9	352.27	355.18	354.91	352.46	353.52	358.53	356.21	353.66	352.38	353.53	352.08	352.34	
10	352.18	355.08	354.53	352.33	353.47	358.48	356.11	353.51	352.38	353.81	352.01	352.33	
11	352.16	355.09	354.13	352.33	353.46	358.43	356.26	353.31	352.37	353.93	351.99	352.31	
12	352.13	355.12	353.88	352.30	354.02	358.33	356.33	353.21	352.35	353.88	351.98	352.28	
13	352.12	355.08	353.71	352.42	353.97	358.23	356.36	353.10	352.35	353.76	351.79	352.25	
14	352.11	355.10	353.48	352.73	353.98	358.13	356.24	352.83	352.33	353.56	351.75	352.25	
15	352.02	355.03	353.31	352.98	354.91	358.03	356.09	352.84	352.29	353.38	351.78	352.28	
16	352.00	354.98	353.22	353.26	354.99	357.93	355.96	352.90	352.29	353.13	351.83	352.29	
17	351.99	354.94	353.12	353.46	355.36	357.98	355.85	353.25	352.28	352.84	351.81	352.31	
18	352.03	355.15	353.00	353.40	356.28	357.83	355.81	353.18	352.27	352.72	351.79	352.33	
19	352.08	355.43	352.92	353.23	357.73	357.79	355.76	353.17	352.26	352.69	351.77	352.33	
20	352.13	355.41	352.95	352.99	358.20	357.88	355.72	353.12	352.25	352.66	351.77	352.33	
21	352.15	355.18	353.51	353.15	358.39	358.01	355.66	353.06	352.23	352.60	351.94	352.25	
22	352.31	354.98	353.98	354.05	358.42	357.89	355.64	353.00	352.21	352.53	351.97	352.27	
23	352.30	354.84	354.12	355.26	358.53	357.67	355.63	352.98	352.18	352.38	351.95	352.30	
24	352.17	354.95	354.07	356.04	358.50	357.33	355.61	352.95	352.15	352.33	351.93	352.31	
25	352.14	355.04	353.97	356.58	358.49	357.09	355.60	352.93	352.13	352.31	351.89	352.31	
26	352.23	355.31	353.95	356.96	358.53	356.85	355.58	352.91	352.11	352.30	351.90	352.29	
27	353.20	355.35	354.08	357.28	358.63	356.68	355.63	352.72	352.01	352.29	351.89	352.28	
28	353.15	355.48	354.17	357.46	358.76	356.35	355.65	352.69	351.95	352.28	351.88	352.28	
29	352.38	355.74	354.07	357.41	358.91	356.27	355.68	352.66	351.93	352.28		352.29	
30	352.26	355.96	353.91	357.05	358.34	356.25	355.71	352.63	351.92	352.25		352.31	
31		356.00		356.83	358.25		355.40		351.91	352.23		352.33	
Mean	352.22	354.98	354.16	354.15	356.29	357.81	355.97	353.42	352.28	352.65	351.97	352.33	
Max	353.20	356.00	355.85	357.46	358.91	358.74	356.60	355.33	352.60	353.93	352.23	352.63	358.91
Min	351.91	352.22	352.92	352.30	353.46	356.25	355.40	352.63	351.91	351.89	351.75	352.23	351.75

Annual Max Momentary Gage Height	358.98	m. (MSL.) ,	at 15.00 Hours , on Aug 29 , 2018		
Zero Gage at Bottom Elevation	351.43	m. (MSL.) ,	River Bed	350.93	m. (MSL.)
Left Bank Elevation	362.11	m. (MSL.) ,			
Right Bank Elevation	362.07	m. (MSL.) ,	Drainage Are	6,266	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.52	5.86	186.00	72.45	222.00	304.45	206.40	154.80	20.10	0.50	5.20	0.22		
2	0.59	13.30	174.60	66.60	195.00	315.50	198.00	147.00	19.30	0.46	4.76	0.53		
3	2.84	49.50	151.80	65.25	180.60	329.15	196.80	133.80	18.10	0.95	5.20	0.36		
4	3.66	106.78	145.20	63.45	151.80	339.20	217.80	116.10	19.30	3.88	6.19	0.37		
5	4.32	144.00	139.80	42.42	127.80	356.70	229.80	105.20	17.30	3.88	5.20	0.34		
6	4.76	160.80	133.20	37.26	104.15	372.80	231.00	96.50	13.30	4.54	4.76	0.33		
7	6.19	163.20	129.00	32.62	100.00	365.10	225.60	68.40	12.50	3.66	4.54	0.30		
8	7.18	160.80	126.00	27.70	87.50	361.60	213.60	49.95	11.74	7.51	3.88	0.28		
9	7.51	145.80	129.60	14.50	59.40	358.10	207.60	65.70	11.38	59.85	2.68	0.27		
10	4.76	139.80	107.83	9.58	57.15	354.60	201.60	58.95	11.38	72.45	1.56	0.27		
11	4.32	140.40	87.50	9.58	56.70	351.10	210.60	49.95	11.02	77.85	1.31	0.26		
12	3.66	142.20	75.60	8.50	82.00	344.10	214.80	45.45	10.30	75.60	1.22	0.24		
13	3.44	139.80	67.95	12.90	79.65	337.10	216.60	40.70	10.30	70.20	0.09	0.23		
14	3.22	141.00	57.60	25.30	80.10	330.45	209.40	29.33	9.58	61.20	0.05	0.23		
15	1.72	136.80	49.95	35.56	129.60	323.95	200.40	29.74	8.17	53.10	0.08	0.24		
16	1.40	133.80	45.90	47.70	134.40	317.45	192.60	32.20	8.17	41.99	0.22	0.25		
17	1.31	131.40	41.56	56.70	156.60	320.70	186.00	47.25	7.84	29.74	0.14	0.26		
18	1.88	144.00	36.40	54.00	211.80	310.95	183.60	44.14	7.51	24.90	0.09	0.27		
19	2.68	160.80	33.04	46.35	304.45	308.35	180.60	43.71	7.18	23.70	0.07	0.27		
20	3.66	159.60	34.30	35.98	335.00	314.20	178.20	41.56	6.85	22.50	0.07	0.27		
21	4.10	145.80	58.95	42.85	348.30	322.65	174.60	38.98	6.19	20.10	0.86	0.23		
22	8.86	133.80	80.10	83.50	350.40	314.85	173.40	36.40	5.53	17.30	1.13	0.24		
23	8.50	125.40	87.00	150.60	358.10	300.55	172.80	35.56	4.76	11.38	0.95	0.25		
24	4.54	132.00	84.50	197.40	356.00	278.45	171.60	34.30	4.10	9.58	0.77	0.26		
25	3.88	137.40	79.65	229.80	355.30	262.85	171.00	33.46	3.66	8.86	0.46	0.26		
26	6.19	153.60	78.75	254.40	358.10	247.25	169.80	32.62	3.22	8.50	0.50	0.25		
27	45.00	156.00	85.00	275.20	365.10	236.20	172.80	24.90	1.56	8.17	0.46	0.24		
28	42.85	163.80	89.50	286.90	374.20	216.00	174.00	23.70	0.95	7.84	0.42	0.24		
29	11.38	179.40	84.50	283.65	384.70	211.20	175.80	22.50	0.77	7.84		0.25		
30	7.18	192.60	76.95	260.25	344.80	210.00	177.60	21.30	0.68	6.85		0.26		
31		195.00		245.95	338.50		159.00		0.59	6.19		0.27		
Total	214.10	4234.44	2757.73	3074.90	6789.20	9315.55	5993.40	1704.15	273.33	751.07	52.86	8.54	35169.27	CMSDAY
Mean	7.14	136.59	91.92	99.19	219.01	310.52	193.34	56.81	8.82	24.23	1.89	0.28	96.35	CMS
Max	45.00	195.00	186.00	286.90	384.70	372.80	231.00	154.80	20.10	77.85	6.19	0.53	384.70	CMS
Min	0.59	5.86	33.04	8.50	56.70	210.00	159.00	21.30	0.59	0.46	0.05	0.22	0.05	CMS
Runoff	18.50	365.86	238.27	265.67	586.59	804.86	517.83	147.24	23.62	64.89	4.57	0.74	3038.62	MCM

Momentary Peak 389.60 CMS. at 358.98 m. (MSL.) at 15.00 Hours , on Aug 29 , 2018

Runoff Yield 15.38 Liters/Second/Square KM. Momentary Peak Yield 62.18 Liters/Second/Square KM.

WATER YEAR : 2018

NAM MAE ING RIVER BASIN

Nam Mae Ing at Ban Jae Dee Ngam , Phayao (I.17)

Lat 19 - 10 - 11 N Long 99 - 56 - 13 E

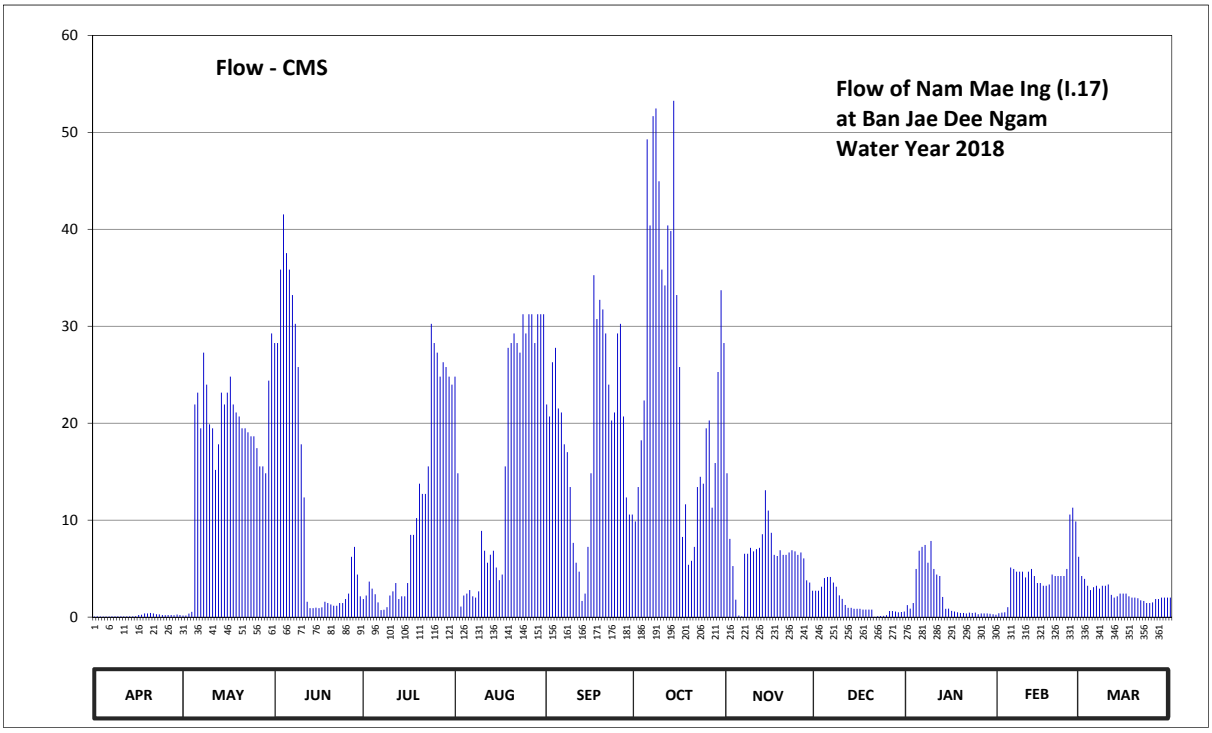
Location : on left bank at Ban Jae Dee Ngam.

	Ban Jae Dee Ngam	**Amphoe** Mueang	**Changwat** Phayao
Drainge Area	1,167 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+386.266 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank about 10 meters from the top staff gage.		**Elevation** +390.690 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic mean of 3 readings		
Period of Available Gage Records	2003 to date		
Rating Operation			
Period of Rating	2003 to date		
Rated by Flot	-		
Rated by Current Meter	2003 to date		
Stability of Channel Regimes	Fairly Stable because of backwater effect.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 19 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	386.51	386.77	388.27	387.31	388.20	388.13	387.81	387.95	386.39	387.22	386.90	387.52	
2	386.55	386.77	388.27	387.36	387.95	388.10	387.91	387.73	386.39	387.11	386.93	387.50	
3	386.54	386.88	388.42	387.48	387.19	388.23	388.04	387.59	386.43	387.25	386.95	387.45	
4	386.51	386.97	388.52	387.43	387.36	388.26	388.14	387.30	386.51	387.57	387.17	387.42	
5	386.51	388.13	388.45	387.38	387.39	388.12	388.64	386.76	386.52	387.67	387.58	387.44	
6	386.53	388.16	388.42	387.26	387.42	388.11	388.50	386.60	386.52	387.69	387.57	387.45	
7	386.61	388.07	388.37	387.05	387.35	388.03	388.67	386.72	386.47	387.70	387.55	387.43	
8	386.60	388.25	388.31	387.06	387.33	388.01	388.68	386.72	386.43	387.61	387.55	387.45	
9	386.59	388.18	388.22	387.17	387.41	387.91	388.58	386.77	386.33	387.72	387.55	387.45	
10	386.59	388.08	388.03	387.36	387.77	387.71	388.42	386.74	386.28	387.57	387.51	387.46	
11	386.59	388.07	387.88	387.41	387.67	387.61	388.39	386.76	386.17	387.53	387.55	387.37	
12	386.61	387.96	387.27	387.47	387.61	387.55	388.50	386.77	386.11	387.52	387.57	387.33	
13	386.61	388.03	387.13	387.31	387.65	387.28	388.49	386.87	386.11	387.34	387.52	387.35	
14	386.61	388.16	387.13	387.35	387.67	387.39	388.69	387.12	386.09	387.10	387.47	387.39	
15	386.63	388.13	387.15	387.35	387.58	387.69	388.37	387.01	386.09	387.11	387.47	387.39	
16	386.81	388.16	387.13	387.47	387.49	387.95	388.22	386.88	386.09	387.02	387.45	387.39	
17	386.82	388.20	387.16	387.75	387.53	388.41	387.74	386.71	386.07	386.99	387.45	387.35	
18	386.89	388.13	387.27	387.75	387.97	388.32	387.86	386.70	386.07	386.95	387.46	387.33	
19	386.89	388.11	387.25	387.82	388.26	388.36	387.60	386.75	386.07	386.91	387.53	387.33	
20	386.91	388.10	387.23	387.92	388.27	388.34	387.62	386.71	386.07	386.91	387.52	387.32	
21	386.89	388.07	387.21	387.89	388.29	388.29	387.69	386.71	386.20	386.89	387.52	387.29	
22	386.85	388.07	387.21	387.89	388.27	388.18	387.91	386.73	386.65	386.93	387.52	387.28	
23	386.84	388.06	387.25	387.97	388.25	388.09	387.94	386.75	386.71	386.91	387.52	387.25	
24	386.81	388.05	387.25	388.31	388.33	388.11	387.92	386.74	386.73	386.93	387.57	387.25	
25	386.80	388.05	387.31	388.27	388.29	388.29	388.07	386.71	386.79	386.85	387.83	387.26	
26	386.81	388.02	387.39	388.25	388.33	388.31	388.09	386.73	387.01	386.89	387.85	387.31	
27	386.81	387.97	387.64	388.20	388.33	388.10	387.85	386.68	387.01	386.89	387.81	387.31	
28	386.80	387.97	387.69	388.23	388.27	387.88	387.98	386.49	386.99	386.89	387.64	387.33	
29	386.83	387.95	387.53	388.22	388.33	387.83	388.21	386.47	386.95	386.87		387.33	
30	386.81	388.19	387.35	388.20	388.33	387.83	388.38	386.39	386.96	386.85		387.33	
31		388.29		388.18	388.33		388.27		386.99	386.82		387.33	
Mean	386.71	387.94	387.66	387.68	387.88	388.01	388.17	386.85	386.46	387.17	387.48	387.37	
Max	386.91	388.29	388.52	388.31	388.33	388.41	388.69	387.95	387.01	387.72	387.85	387.52	388.69
Min	386.51	386.77	387.13	387.05	387.19	387.28	387.60	386.39	386.07	386.82	386.90	387.25	386.07

Annual Max Momentary Gage Height	388.82	m. (MSL.) ,	at 12.00 Hours , on Oct 14, 2018		
Zero Gage at Bottom Elevation	386.27	m. (MSL.) ,	River Bed	384.48	m. (MSL.)
Left Bank Elevation	390.57	m. (MSL.) ,			
Right Bank Elevation	390.58	m. (MSL.) ,	Drainage Are	1,167	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.07	0.17	28.27	1.87	24.80	21.93	9.86	14.83	2.72	1.24	0.40	4.24		
2	0.08	0.17	28.27	2.22	14.83	20.70	13.41	8.07	2.72	0.88	0.46	3.95		
3	0.07	0.36	35.84	3.66	1.08	26.29	18.24	5.26	3.13	1.45	0.50	3.23		
4	0.07	0.54	41.54	2.94	2.22	27.77	22.34	1.80	4.02	4.97	1.03	2.79		
5	0.07	21.93	37.55	2.36	2.43	21.52	49.28	0.16	4.14	6.84	5.11	3.08		
6	0.07	23.16	35.84	1.52	2.79	21.11	40.40	0.08	4.14	7.25	4.97	3.23		
7	0.08	19.47	33.22	0.73	2.15	17.83	51.67	6.54	3.57	7.45	4.68	2.94		
8	0.08	27.28	30.25	0.75	2.01	17.01	52.46	6.54	3.13	5.61	4.68	3.23		
9	0.08	23.98	25.79	1.03	2.65	13.41	44.96	7.14	2.24	7.86	4.68	3.23		
10	0.08	19.88	17.83	2.22	8.89	7.66	35.84	6.78	1.88	4.97	4.10	3.37		
11	0.08	19.47	12.34	2.65	6.84	5.61	34.21	7.02	1.25	4.39	4.68	2.29		
12	0.08	15.18	1.59	3.52	5.61	4.68	40.40	7.14	0.95	4.24	4.97	2.01		
13	0.08	17.83	0.93	1.87	6.43	1.66	39.83	8.55	0.95	2.08	4.24	2.15		
14	0.08	23.16	0.93	2.15	6.84	2.43	53.26	13.08	0.86	0.85	3.52	2.43		
15	0.09	21.93	0.98	2.15	5.11	7.25	33.22	10.99	0.86	0.88	3.52	2.43		
16	0.22	23.16	0.93	3.52	3.81	14.83	25.79	8.70	0.86	0.65	3.23	2.43		
17	0.24	24.80	1.00	8.48	4.39	35.27	8.27	6.42	0.78	0.58	3.23	2.15		
18	0.38	21.93	1.59	8.48	15.54	30.74	11.63	6.30	0.78	0.50	3.37	2.01		
19	0.38	21.11	1.45	10.21	27.77	32.72	5.40	6.90	0.78	0.42	4.39	2.01		
20	0.42	20.70	1.31	13.76	28.27	31.73	5.81	6.42	0.78	0.42	4.24	1.94		
21	0.38	19.47	1.17	12.70	29.26	29.26	7.25	6.42	0.04	0.38	4.24	1.73		
22	0.30	19.47	1.17	12.70	28.27	23.98	13.41	6.66	0.09	0.46	4.24	1.66		
23	0.28	19.06	1.45	15.54	27.28	20.29	14.47	6.90	0.11	0.42	4.24	1.45		
24	0.22	18.65	1.45	30.25	31.24	21.11	13.76	6.78	0.13	0.46	4.97	1.45		
25	0.20	18.65	1.87	28.27	29.26	29.26	19.47	6.42	0.19	0.30	10.57	1.52		
26	0.22	17.42	2.43	27.28	31.24	30.25	20.29	6.66	0.63	0.38	11.28	1.87		
27	0.22	15.54	6.22	24.80	31.24	20.70	11.28	6.06	0.63	0.38	9.86	1.87		
28	0.20	15.54	7.25	26.29	28.27	12.34	15.89	3.79	0.58	0.38	6.22	2.01		
29	0.26	14.83	4.39	25.79	31.24	10.57	25.29	3.57	0.50	0.34		2.01		
30	0.22	24.39	2.15	24.80	31.24	10.57	33.71	2.72	0.52	0.30		2.01		
31		29.26		23.98	31.24		28.27		0.58	0.24		2.01		
Total	5.30	558.49	367.00	328.49	504.24	570.48	799.37	194.70	44.54	67.57	125.62	74.73	3640.53	CMSDAY
Mean	0.18	18.02	12.23	10.60	16.27	19.02	25.79	6.49	1.44	2.18	4.49	2.41	9.97	CMS
Max	0.42	29.26	41.54	30.25	31.24	35.27	53.26	14.83	4.14	7.86	11.28	4.24	53.26	CMS
Min	0.07	0.17	0.93	0.73	1.08	1.66	5.40	0.08	0.04	0.24	0.40	1.45	0.04	CMS
Runoff	0.46	48.25	31.71	28.38	43.57	49.29	69.07	16.82	3.85	5.84	10.85	6.46	314.54	MCM

Momentary Peak 64.05 CMS. at 388.82 m. (MSL.) at 12.00 Hours , on Oct 14 , 2018

Runoff Yield 8.55 Liters/Second/Square KM. Momentary Peak Yield 54.88 Liters/Second/Square KM.

WATER YEAR : 2018

NAM MAE KOK RIVER BASIN

Nam Mae Kon at Ban Pang Rim Kon , Chiang Rai (G.4)

Lat 19 - 50 - 23 N Long 99 - 40 - 27 E

Location : on left bank at Ban Pang Rim Kon.

	Ban Pang Rim Kon	**Amphoe** Mueang	**Changwat** Chiang Rai
Drainge Area	49 sq.km.		
Type of Gage	Staff gage.		
Zero Gage at Bottom	+461.700 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank about 66.50 meters from the top staff gage.		**Elevation** +465.100 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 3 readings		
Period of Available Gage Records	1983 to date		
Rating Operation			
Period of Rating	2000 to date		
Rated by Flot	-		
Rated by Current Meter	2000 to date		
Stability of Channel Regimes	Fairly stable because of backwater effect.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 31 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

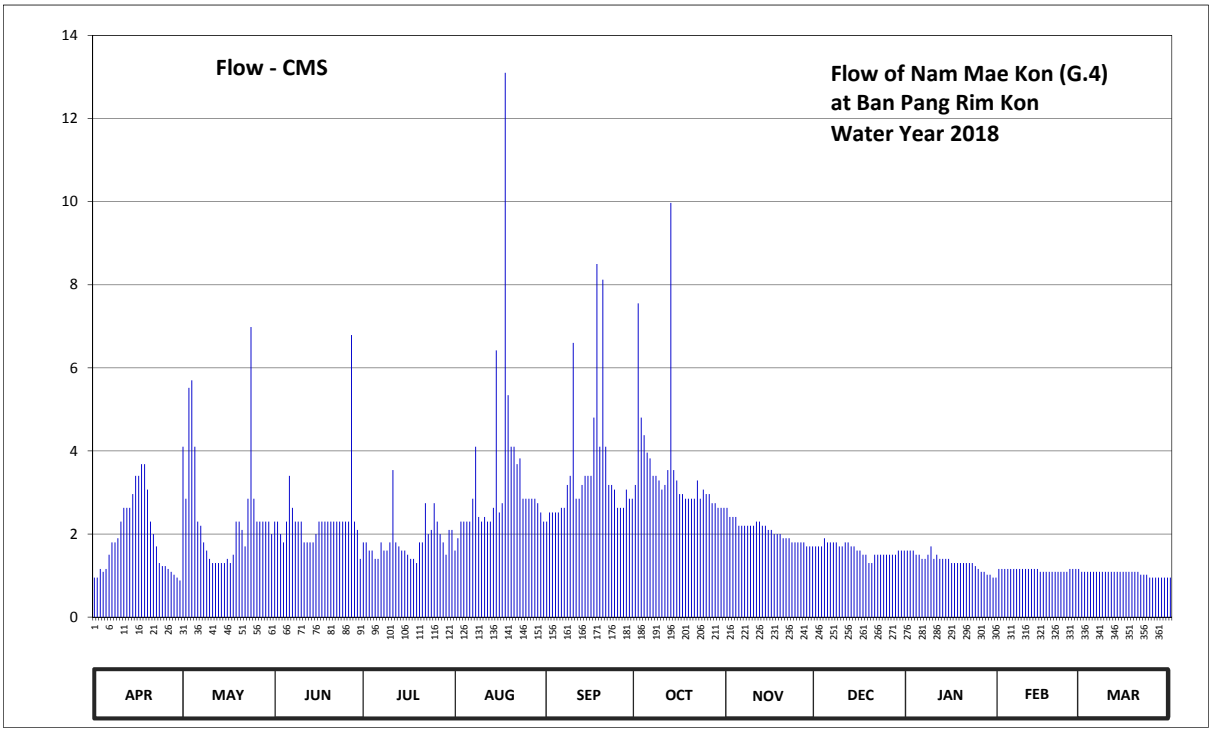
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	462.85	463.15	463.00	462.95	462.93	463.00	463.08	463.03	462.94	462.93	462.88	462.87	
2	462.85	463.05	463.00	462.95	462.96	463.02	463.35	463.01	462.94	462.93	462.88	462.87	
3	462.88	463.24	462.97	462.93	463.00	463.02	463.20	463.01	462.94	462.93	462.88	462.87	
4	462.87	463.25	462.95	462.93	463.00	463.02	463.17	463.01	462.96	462.92	462.88	462.87	
5	462.88	463.15	463.00	462.91	463.00	463.02	463.14	462.99	462.95	462.92	462.88	462.87	
6	462.92	463.00	463.10	462.91	463.00	463.03	463.13	462.99	462.95	462.91	462.88	462.87	
7	462.95	462.99	463.03	462.95	463.05	463.03	463.10	462.99	462.95	462.91	462.88	462.87	
8	462.95	462.95	463.00	462.93	463.15	463.08	463.10	462.99	462.95	462.92	462.88	462.87	
9	462.96	462.93	463.00	462.93	463.01	463.10	463.09	462.99	462.94	462.94	462.88	462.87	
10	463.00	462.91	463.00	462.95	463.00	463.30	463.07	462.99	462.94	462.91	462.88	462.87	
11	463.03	462.90	462.95	463.11	463.01	463.05	463.08	463.00	462.95	462.92	462.88	462.87	
12	463.03	462.90	462.95	462.95	463.00	463.05	463.11	463.00	462.95	462.91	462.88	462.87	
13	463.03	462.90	462.95	462.94	463.00	463.08	463.47	462.99	462.94	462.91	462.88	462.87	
14	463.06	462.90	462.95	462.93	463.03	463.10	463.11	462.99	462.94	462.91	462.88	462.87	
15	463.10	462.90	462.97	462.93	463.29	463.10	463.09	462.98	462.93	462.91	462.87	462.87	
16	463.10	462.91	463.00	462.92	463.02	463.10	463.06	462.98	462.93	462.90	462.87	462.87	
17	463.12	462.90	463.00	462.91	463.04	463.20	463.06	462.97	462.92	462.90	462.87	462.87	
18	463.12	462.92	463.00	462.91	463.60	463.40	463.05	462.97	462.92	462.90	462.87	462.87	
19	463.07	463.00	463.00	462.90	463.23	463.15	463.05	462.97	462.90	462.90	462.87	462.87	
20	463.00	463.00	463.00	462.95	463.15	463.38	463.05	462.96	462.90	462.90	462.87	462.87	
21	462.97	462.98	463.00	462.95	463.15	463.15	463.05	462.96	462.92	462.90	462.87	462.86	
22	462.94	462.94	463.00	463.04	463.12	463.08	463.09	462.96	462.92	462.90	462.87	462.86	
23	462.90	463.05	463.00	462.97	463.13	463.08	463.05	462.95	462.92	462.90	462.87	462.86	
24	462.89	463.32	463.00	462.98	463.05	463.07	463.07	462.95	462.92	462.89	462.87	462.85	
25	462.89	463.05	463.00	463.04	463.05	463.03	463.06	462.95	462.92	462.88	462.88	462.85	
26	462.88	463.00	463.00	463.00	463.05	463.03	463.06	462.95	462.92	462.87	462.88	462.85	
27	462.87	463.00	463.31	462.97	463.05	463.03	463.04	462.95	462.92	462.87	462.88	462.85	
28	462.86	463.00	463.00	462.95	463.05	463.07	463.04	462.94	462.92	462.86	462.88	462.85	
29	462.85	463.00	462.98	462.92	463.04	463.05	463.03	462.94	462.93	462.86		462.85	
30	462.84	463.00	462.91	462.98	463.02	463.05	463.03	462.94	462.93	462.85		462.85	
31		462.97		462.98	463.00		463.03		462.93	462.85		462.85	
Mean	462.96	463.01	463.00	462.95	463.07	463.10	463.10	462.98	462.93	462.90	462.88	462.86	
Max	463.12	463.32	463.31	463.11	463.60	463.40	463.47	463.03	462.96	462.94	462.88	462.87	463.60
Min	462.84	462.90	462.91	462.90	462.93	463.00	463.03	462.94	462.90	462.85	462.87	462.85	462.84

Annual Max Momentary Gage Height 463.80 m. (MSL.) , at 18.00 Hours , on Aug 15 , 2018

Zero Gage at Bottom Elevation 461.70 m. (MSL.) , River Bed 462.59 m. (MSL.)

Left Bank Elevation 465.77 m. (MSL.) ,

Right Bank Elevation 465.77 m. (MSL.) , Drainage Are 49 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.95	4.10	2.30	1.80	1.60	2.30	3.18	2.63	1.70	1.60	1.16	1.09		
2	0.95	2.85	2.30	1.80	1.90	2.52	7.55	2.41	1.70	1.60	1.16	1.09		
3	1.16	5.52	2.00	1.60	2.30	2.52	4.80	2.41	1.70	1.60	1.16	1.09		
4	1.09	5.70	1.80	1.60	2.30	2.52	4.38	2.41	1.90	1.50	1.16	1.09		
5	1.16	4.10	2.30	1.40	2.30	2.52	3.96	2.20	1.80	1.50	1.16	1.09		
6	1.50	2.30	3.40	1.40	2.30	2.63	3.82	2.20	1.80	1.40	1.16	1.09		
7	1.80	2.20	2.63	1.80	2.85	2.63	3.40	2.20	1.80	1.40	1.16	1.09		
8	1.80	1.80	2.30	1.60	4.10	3.18	3.40	2.20	1.80	1.50	1.16	1.09		
9	1.90	1.60	2.30	1.60	2.41	3.40	3.29	2.20	1.70	1.70	1.16	1.09		
10	2.30	1.40	2.30	1.80	2.30	6.60	3.07	2.20	1.70	1.40	1.16	1.09		
11	2.63	1.30	1.80	3.54	2.41	2.85	3.18	2.30	1.80	1.50	1.16	1.09		
12	2.63	1.30	1.80	1.80	2.30	2.85	3.54	2.30	1.80	1.40	1.16	1.09		
13	2.63	1.30	1.80	1.70	2.30	3.18	9.97	2.20	1.70	1.40	1.16	1.09		
14	2.96	1.30	1.80	1.60	2.63	3.40	3.54	2.20	1.70	1.40	1.16	1.09		
15	3.40	1.30	2.00	1.60	6.42	3.40	3.29	2.10	1.60	1.40	1.09	1.09		
16	3.40	1.40	2.30	1.50	2.52	3.40	2.96	2.10	1.60	1.30	1.09	1.09		
17	3.68	1.30	2.30	1.40	2.74	4.80	2.96	2.00	1.50	1.30	1.09	1.09		
18	3.68	1.50	2.30	1.40	13.10	8.50	2.85	2.00	1.50	1.30	1.09	1.09		
19	3.07	2.30	2.30	1.30	5.34	4.10	2.85	2.00	1.30	1.30	1.09	1.09		
20	2.30	2.30	2.30	1.80	4.10	8.12	2.85	1.90	1.30	1.30	1.09	1.09		
21	2.00	2.10	2.30	1.80	4.10	4.10	2.85	1.90	1.50	1.30	1.09	1.02		
22	1.70	1.70	2.30	2.74	3.68	3.18	3.29	1.90	1.50	1.30	1.09	1.02		
23	1.30	2.85	2.30	2.00	3.82	3.18	2.85	1.80	1.50	1.30	1.09	1.02		
24	1.23	6.98	2.30	2.10	2.85	3.07	3.07	1.80	1.50	1.23	1.09	0.95		
25	1.23	2.85	2.30	2.74	2.85	2.63	2.96	1.80	1.50	1.16	1.16	0.95		
26	1.16	2.30	2.30	2.30	2.85	2.63	2.96	1.80	1.50	1.09	1.16	0.95		
27	1.09	2.30	6.79	2.00	2.85	2.63	2.74	1.80	1.50	1.09	1.16	0.95		
28	1.02	2.30	2.30	1.80	2.85	3.07	2.74	1.70	1.50	1.02	1.16	0.95		
29	0.95	2.30	2.10	1.50	2.74	2.85	2.63	1.70	1.60	1.02		0.95		
30	0.88	2.30	1.40	2.10	2.52	2.85	2.63	1.70	1.60	0.95		0.95		
31		2.00		2.10	2.30		2.63		1.60	0.95		0.95		
Total	57.55	76.85	70.72	57.22	101.63	105.61	110.19	62.06	50.20	41.21	31.78	32.46	797.48	CMSDAY
Mean	1.92	2.48	2.36	1.85	3.28	3.52	3.55	2.07	1.62	1.33	1.14	1.05	2.18	CMS
Max	3.68	6.98	6.79	3.54	13.10	8.50	9.97	2.63	1.90	1.70	1.16	1.09	13.10	CMS
Min	0.88	1.30	1.40	1.30	1.60	2.30	2.63	1.70	1.30	0.95	1.09	0.95	0.88	CMS
Runoff	4.97	6.64	6.11	4.94	8.78	9.12	9.52	5.36	4.34	3.56	2.75	2.80	68.90	MCM

Momentary Peak 18.80 CMS. at 463.80 m. (MSL.) at 18.00 Hours , on Aug 15, 2018

Runoff Yield 44.59 Liters/Second/Square KM. Momentary Peak Yield 383.67 Liters/Second/Square KM.

WATER YEAR : 2018

NAM MAE KOK RIVER BASIN

Nam Mae Lao at Ban Ton Yang , Chiang Rai (G.8)

Lat 19 - 47 - 32 N Long 99 - 45 - 11 E

Location : on left bank at the bridge of Chiang Rai - Phayao Highway, Tambon Bua Sali.

Ban Ton Yang **Amphoe** Mae Lao **Changwat** Chiang Rai

Drainge Area	2,909 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+405.100 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank about 8 meters from the top staff gage. **Elevation** +410.832 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	1994 to date
Rating Operation	
Period of Rating	1994 to date
Rated by Flot	-
Rated by Current Meter	1994 to date
Stability of Channel Regimes	Fairly stable because of backwater effect.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. Mae Lao weir situated about 10 kilometers above gage site. Stage-discharge relation defined by 42 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

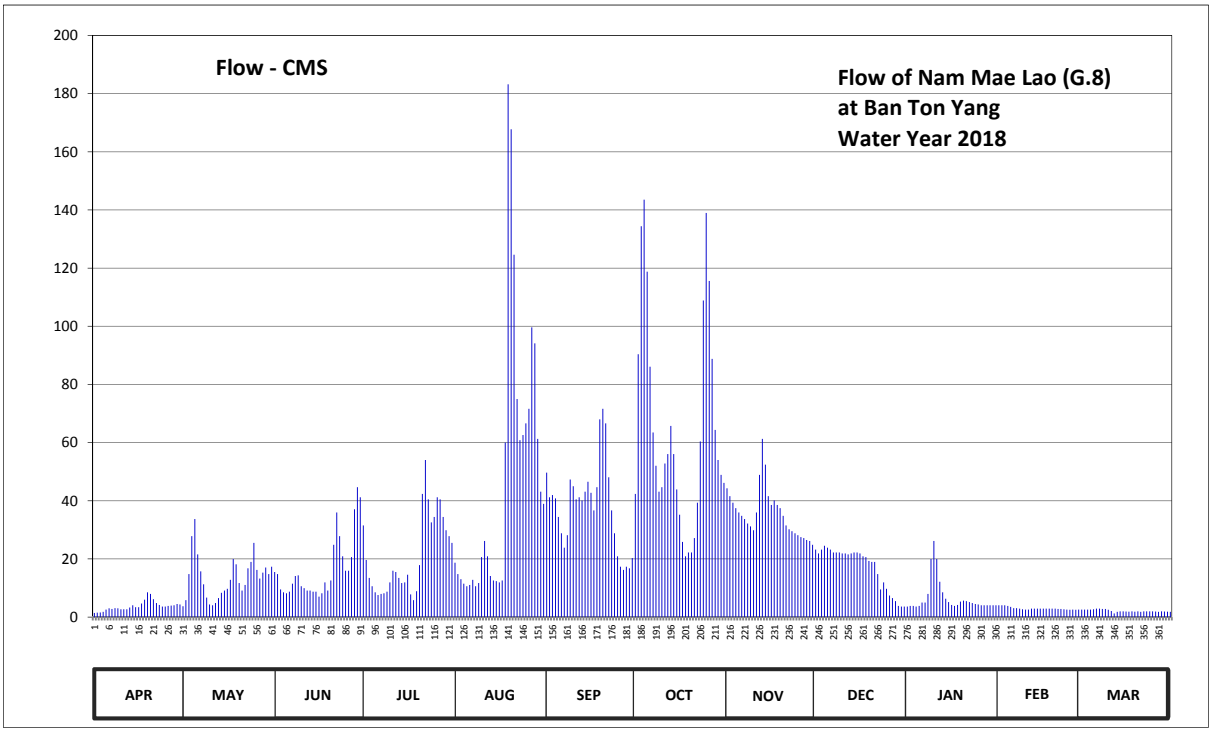
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	404.80	405.06	405.67	406.18	405.79	406.66	406.47	406.52	405.93	405.05	405.09	404.95	
2	404.82	405.20	405.64	405.82	405.64	406.44	407.54	406.45	405.89	405.07	405.09	404.95	
3	404.83	405.64	405.40	405.58	405.56	406.46	408.27	406.39	405.93	405.07	405.09	404.95	
4	404.86	406.07	405.35	405.45	405.49	406.43	408.41	406.34	405.97	405.05	405.07	404.95	
5	404.95	406.24	405.33	405.35	405.45	406.26	408.03	406.30	405.95	405.07	405.04	404.96	
6	404.99	405.88	405.36	405.30	405.47	406.10	407.46	406.27	405.93	405.15	405.00	404.98	
7	404.97	405.68	405.49	405.32	405.55	405.95	406.99	406.24	405.90	405.15	405.00	404.98	
8	405.00	405.48	405.61	405.33	405.45	406.08	406.72	406.20	405.90	405.32	404.98	404.97	
9	404.99	405.25	405.62	405.36	405.50	406.60	406.49	406.17	405.90	405.83	404.96	404.97	
10	404.96	405.11	405.45	405.51	405.85	406.54	406.53	406.13	405.89	406.02	404.95	404.94	
11	404.96	405.09	405.42	405.69	406.02	406.42	406.74	406.30	405.89	405.83	404.95	404.90	
12	404.96	405.14	405.38	405.67	405.86	406.44	406.82	406.64	405.88	405.52	404.98	404.95	
13	405.02	405.24	405.38	405.58	405.61	406.41	407.04	406.94	405.89	405.35	404.98	405.06	
14	405.09	405.34	405.36	405.50	405.54	406.49	406.82	406.73	405.90	405.23	404.98	405.09	
15	405.03	405.38	405.36	405.51	405.53	406.58	406.51	406.45	405.90	405.16	404.98	405.09	
16	405.03	405.41	405.27	405.63	405.51	406.48	406.28	406.37	405.89	405.10	404.98	405.08	
17	405.13	405.55	405.33	405.31	405.54	406.32	406.01	406.41	405.86	405.07	404.98	405.07	
18	405.21	405.83	405.51	405.20	406.91	406.53	405.86	406.37	405.85	405.10	404.98	405.09	
19	405.35	405.77	405.38	405.37	408.98	407.09	405.90	406.34	405.81	405.17	404.98	405.07	
20	405.32	405.50	405.54	405.76	408.77	407.17	405.90	406.27	405.80	405.19	404.98	405.09	
21	405.22	405.38	405.98	406.47	408.12	407.06	406.05	406.18	405.80	405.18	404.97	405.06	
22	405.14	405.47	406.30	406.77	407.24	406.62	406.39	406.14	405.64	405.16	404.97	405.09	
23	405.10	405.72	406.07	406.42	406.93	406.32	406.92	406.12	405.40	405.14	404.96	405.09	
24	405.05	405.80	405.86	406.21	406.97	406.10	407.87	406.10	405.51	405.12	404.95	405.09	
25	405.05	406.00	405.69	406.26	407.06	405.86	408.34	406.08	405.41	405.11	404.94	405.09	
26	405.07	405.70	405.69	406.44	407.17	405.74	407.98	406.06	405.29	405.09	404.95	405.08	
27	405.08	405.57	405.85	406.42	407.71	405.70	407.51	406.05	405.24	405.09	404.94	405.06	
28	405.09	405.66	406.33	406.26	407.61	405.74	407.01	406.03	405.18	405.09	404.95	405.09	
29	405.12	405.73	406.53	406.13	406.94	405.72	406.77	406.02	405.07	405.09		405.08	
30	405.11	405.64	406.44	406.07	406.49	405.84	406.64	405.98	405.05	405.09		405.07	
31		405.74		406.00	406.38		406.57		405.05	405.09		405.06	
Mean	405.04	405.56	405.65	405.80	406.41	406.34	406.93	406.29	405.69	405.22	404.99	405.03	
Max	405.35	406.24	406.53	406.77	408.98	407.17	408.41	406.94	405.97	406.02	405.09	405.09	408.98
Min	404.80	405.06	405.27	405.20	405.45	405.70	405.86	405.98	405.05	405.05	404.94	404.90	404.80

Annual Max Momentary Gage Height 409.15 m. (MSL.) , at 19.00 Hours , on Aug 19 , 2018

Zero Gage at Bottom Elevation 405.10 m. (MSL.) , River Bed 404.03 m. (MSL.)

Left Bank Elevation 410.61 m. (MSL.) ,

Right Bank Elevation 410.59 m. (MSL.) , Drainage Are 2,909 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.40	3.76	15.51	31.53	18.72	49.67	42.36	44.26	23.19	3.65	4.09	2.60		
2	1.54	5.80	14.82	19.64	14.82	41.22	90.39	41.60	21.88	3.87	4.09	2.60		
3	1.61	14.82	9.50	13.46	13.02	41.98	134.38	39.33	23.19	3.87	4.09	2.60		
4	1.82	27.85	8.55	10.60	11.48	40.84	143.55	37.45	24.51	3.65	3.87	2.60		
5	2.60	33.70	8.17	8.55	10.60	34.45	118.75	35.95	23.85	3.87	3.54	2.70		
6	3.00	21.56	8.74	7.60	11.04	28.85	86.11	34.83	23.19	5.00	3.10	2.90		
7	2.80	15.74	11.48	7.98	12.80	23.85	63.47	33.70	22.20	5.00	3.10	2.90		
8	3.10	11.26	14.13	8.17	10.60	28.18	52.04	32.20	22.20	7.98	2.90	2.80		
9	3.00	6.70	14.36	8.74	11.70	47.30	43.12	31.20	22.20	19.96	2.70	2.80		
10	2.70	4.36	10.60	11.92	20.60	45.02	44.64	29.86	21.88	26.17	2.60	2.50		
11	2.70	4.09	9.94	15.97	26.17	40.46	52.83	35.95	21.88	19.96	2.60	2.10		
12	2.70	4.84	9.12	15.51	20.92	41.22	56.07	48.88	21.56	12.14	2.90	1.25		
13	3.32	6.52	9.12	13.46	14.13	40.08	65.72	61.29	21.88	8.55	2.90	1.80		
14	4.09	8.36	8.74	11.70	12.58	43.12	56.07	52.44	22.20	6.34	2.90	1.95		
15	3.43	9.12	8.74	11.92	12.36	46.54	43.88	41.60	22.20	5.16	2.90	1.95		
16	3.43	9.72	7.06	14.59	11.92	42.74	35.20	38.58	21.88	4.20	2.90	1.90		
17	4.68	12.80	8.17	7.79	12.58	36.70	25.84	40.08	20.92	3.87	2.90	1.85		
18	5.98	19.96	11.92	5.80	59.99	44.64	20.92	38.58	20.60	4.20	2.90	1.95		
19	8.55	18.16	9.12	8.93	183.21	68.00	22.20	37.45	19.32	5.32	2.90	1.85		
20	7.98	11.70	12.58	17.88	167.73	71.64	22.20	34.83	19.00	5.64	2.90	1.95		
21	6.16	9.12	24.84	42.36	124.60	66.63	27.18	31.53	19.00	5.48	2.80	1.80		
22	4.84	11.04	35.95	54.02	74.98	48.09	39.33	30.19	14.82	5.16	2.80	1.95		
23	4.20	16.76	27.85	40.46	60.86	36.70	60.42	29.52	9.50	4.84	2.70	1.95		
24	3.65	19.00	20.92	32.58	62.60	28.85	108.87	28.85	11.92	4.52	2.60	1.95		
25	3.65	25.50	15.97	34.45	66.63	20.92	138.97	28.18	9.72	4.36	2.50	1.95		
26	3.87	16.20	15.97	41.22	71.64	17.32	115.58	27.51	7.42	4.09	2.60	1.90		
27	3.98	13.24	20.60	40.46	99.65	16.20	88.79	27.18	6.52	4.09	2.50	1.80		
28	4.09	15.28	37.08	34.45	94.15	17.32	64.36	26.51	5.48	4.09	2.60	1.95		
29	4.52	17.04	44.64	29.86	61.29	16.76	54.02	26.17	3.87	4.09		1.90		
30	4.36	14.82	41.22	27.85	43.12	20.28	48.88	24.84	3.65	4.09		1.85		
31		17.32		25.50	38.95		46.16		3.65	4.09		1.80		
Total	113.75	426.14	495.41	654.95	1455.44	1145.57	2012.30	1070.54	535.28	207.30	83.88	66.35	8266.91	CMSDAY
Mean	3.79	13.75	16.51	21.13	46.95	38.19	64.91	35.68	17.27	6.69	3.00	2.14	22.65	CMS
Max	8.55	33.70	44.64	54.02	183.21	71.64	143.55	61.29	24.51	26.17	4.09	2.90	183.21	CMS
Min	1.40	3.76	7.06	5.80	10.60	16.20	20.92	24.84	3.65	3.65	2.50	1.25	1.25	CMS
Runoff	9.83	36.82	42.80	56.59	125.75	98.98	173.86	92.49	46.25	17.91	7.25	5.73	714.26	MCM

Momentary Peak 196.17 CMS. at 409.15 m. (MSL.) at 19.00 Hours , on Aug 19 , 2018

Runoff Yield 7.79 Liters/Second/Square KM. Momentary Peak Yield 67.44 Liters/Second/Square KM.

WATER YEAR : 2018

NAM MAE KOK RIVER BASIN

Nam Mae Suai at Ban Kariang Thung Phrao , Chiang Rai (G.9)

Lat 19 - 44 - 51 N Long 99 - 30 - 27 E

Location : on right bank at the bridge on road.

	Ban Kariang Thung Phrao	**Amphoe** Mae Suai	**Changwat** Chiang Rai
Drainge Area	386 sq.km.		
Type of Gage	Water - stage recorder.		
Zero Gage at Bottom	+514.656 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank about 20 meters from the top staff gage.		**Elevation** +522.091 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	1998 to date		
Rating Operation			
Period of Rating	1998 to date		
Rated by Flot	-		
Rated by Current Meter	1998 to date		
Stability of Channel Regimes	Fairly stable because of backwater effect.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 32 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

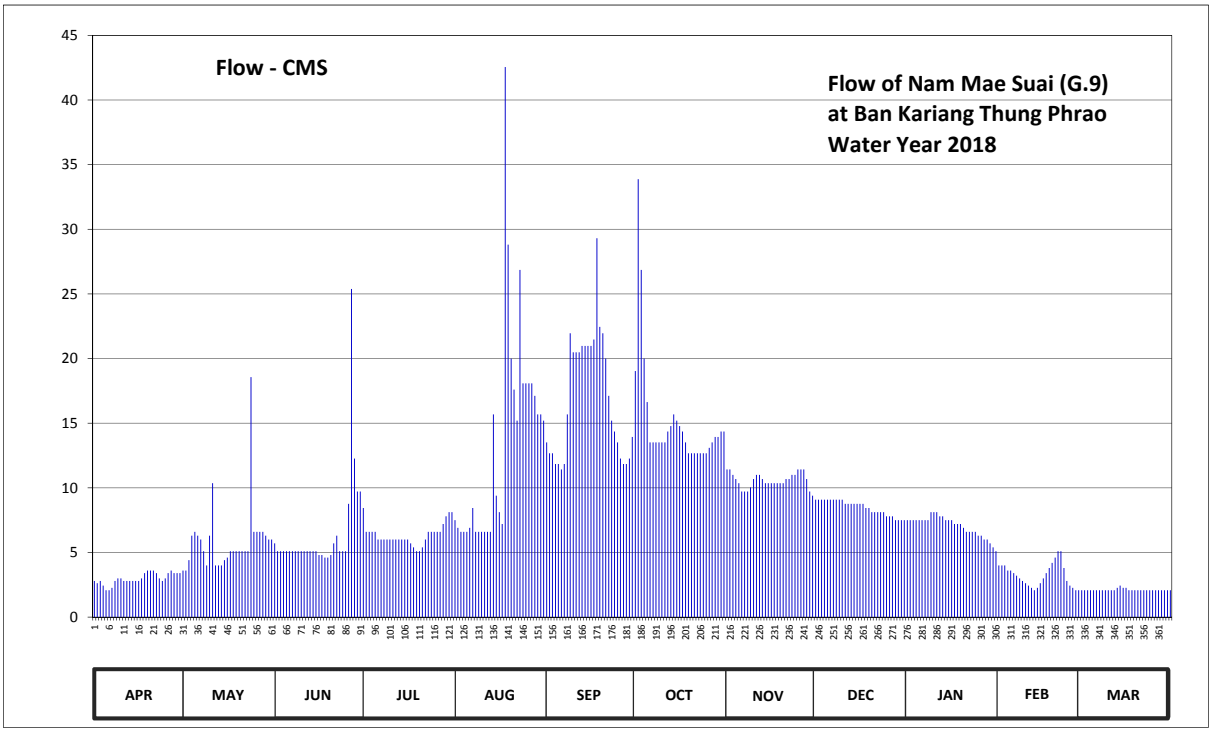
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	515.50	515.54	515.63	515.72	515.69	515.86	515.98	515.81	515.74	515.69	515.56	515.46	
2	515.49	515.54	515.61	515.66	515.67	515.84	516.28	515.81	515.74	515.69	515.56	515.46	
3	515.50	515.58	515.61	515.66	515.66	515.84	516.14	515.80	515.74	515.69	515.56	515.46	
4	515.48	515.65	515.61	515.66	515.66	515.82	516.00	515.79	515.74	515.69	515.54	515.46	
5	515.46	515.66	515.61	515.66	515.66	515.82	515.93	515.78	515.74	515.69	515.54	515.46	
6	515.46	515.65	515.61	515.64	515.67	515.81	515.86	515.76	515.74	515.69	515.53	515.46	
7	515.47	515.64	515.61	515.64	515.72	515.82	515.86	515.76	515.74	515.69	515.52	515.46	
8	515.50	515.61	515.61	515.64	515.66	515.91	515.86	515.76	515.74	515.69	515.51	515.46	
9	515.51	515.56	515.61	515.64	515.66	516.04	515.86	515.77	515.74	515.71	515.50	515.46	
10	515.51	515.65	515.61	515.64	515.66	516.01	515.86	515.79	515.74	515.71	515.49	515.46	
11	515.50	515.78	515.61	515.64	515.66	516.01	515.86	515.80	515.73	515.71	515.48	515.46	
12	515.50	515.56	515.61	515.64	515.66	516.01	515.88	515.80	515.73	515.70	515.47	515.46	
13	515.50	515.56	515.61	515.64	515.66	516.02	515.89	515.79	515.73	515.70	515.46	515.47	
14	515.50	515.56	515.61	515.64	515.91	516.02	515.91	515.78	515.73	515.69	515.47	515.48	
15	515.50	515.58	515.61	515.64	515.75	516.02	515.90	515.78	515.73	515.69	515.49	515.47	
16	515.50	515.59	515.60	515.64	515.71	516.02	515.89	515.78	515.73	515.69	515.51	515.47	
17	515.51	515.61	515.60	515.63	515.68	516.03	515.88	515.78	515.73	515.68	515.53	515.46	
18	515.53	515.61	515.59	515.62	516.45	516.19	515.86	515.78	515.72	515.68	515.55	515.46	
19	515.54	515.61	515.59	515.61	516.18	516.05	515.84	515.78	515.72	515.68	515.57	515.46	
20	515.54	515.61	515.60	515.61	516.00	516.04	515.84	515.78	515.71	515.67	515.59	515.46	
21	515.54	515.61	515.63	515.62	515.95	516.00	515.84	515.79	515.71	515.66	515.61	515.46	
22	515.53	515.61	515.65	515.64	515.90	515.94	515.84	515.79	515.71	515.66	515.61	515.46	
23	515.51	515.61	515.61	515.66	516.14	515.90	515.84	515.80	515.71	515.66	515.55	515.46	
24	515.50	515.97	515.61	515.66	515.96	515.88	515.84	515.80	515.71	515.66	515.50	515.46	
25	515.51	515.66	515.61	515.66	515.96	515.86	515.84	515.81	515.70	515.65	515.48	515.46	
26	515.53	515.66	515.73	515.66	515.96	515.83	515.85	515.81	515.70	515.65	515.47	515.46	
27	515.54	515.66	516.11	515.66	515.96	515.82	515.86	515.81	515.70	515.64	515.46	515.46	
28	515.53	515.66	515.83	515.68	515.94	515.82	515.87	515.79	515.69	515.64	515.46	515.46	
29	515.53	515.65	515.76	515.70	515.91	515.83	515.87	515.76	515.69	515.63		515.46	
30	515.53	515.64	515.76	515.71	515.91	515.87	515.88	515.75	515.69	515.62		515.46	
31		515.64		515.71	515.90		515.88		515.69	515.61		515.46	
Mean	515.51	515.63	515.65	515.65	515.83	515.93	515.90	515.79	515.72	515.67	515.52	515.46	
Max	515.54	515.97	516.11	515.72	516.45	516.19	516.28	515.81	515.74	515.71	515.61	515.48	516.45
Min	515.46	515.54	515.59	515.61	515.66	515.81	515.84	515.75	515.69	515.61	515.46	515.46	515.46

Annual Max Momentary Gage Height 517.24 m. (MSL.) , at 08.00 Hours , on Aug 18 , 2018

Zero Gage at Bottom Elevation 514.66 m. (MSL.) , River Bed 515.00 m. (MSL.)

Left Bank Elevation 521.61 m. (MSL.) ,

Right Bank Elevation 521.61 m. (MSL.) , Drainage Are 386 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.80	3.60	5.70	8.44	7.50	13.52	19.04	11.42	9.08	7.50	4.00	2.08		
2	2.62	3.60	5.10	6.60	6.90	12.68	33.88	11.42	9.08	7.50	4.00	2.08		
3	2.80	4.40	5.10	6.60	6.60	12.68	26.86	11.00	9.08	7.50	4.00	2.08		
4	2.44	6.30	5.10	6.60	6.60	11.84	20.00	10.68	9.08	7.50	3.60	2.08		
5	2.08	6.60	5.10	6.60	6.60	11.84	16.64	10.36	9.08	7.50	3.60	2.08		
6	2.08	6.30	5.10	6.00	6.90	11.42	13.52	9.72	9.08	7.50	3.40	2.08		
7	2.26	6.00	5.10	6.00	8.44	11.84	13.52	9.72	9.08	7.50	3.20	2.08		
8	2.80	5.10	5.10	6.00	6.60	15.68	13.52	9.72	9.08	7.50	3.00	2.08		
9	3.00	4.00	5.10	6.00	6.60	21.96	13.52	10.04	9.08	8.12	2.80	2.08		
10	3.00	6.30	5.10	6.00	6.60	20.49	13.52	10.68	9.08	8.12	2.62	2.08		
11	2.80	10.36	5.10	6.00	6.60	20.49	13.52	11.00	8.76	8.12	2.44	2.08		
12	2.80	4.00	5.10	6.00	6.60	20.49	14.36	11.00	8.76	7.80	2.26	2.08		
13	2.80	4.00	5.10	6.00	6.60	20.98	14.78	10.68	8.76	7.80	2.08	2.26		
14	2.80	4.00	5.10	6.00	15.68	20.98	15.68	10.36	8.76	7.50	2.26	2.44		
15	2.80	4.40	5.10	6.00	9.40	20.98	15.20	10.36	8.76	7.50	2.62	2.26		
16	2.80	4.60	4.80	6.00	8.12	20.98	14.78	10.36	8.76	7.50	3.00	2.26		
17	3.00	5.10	4.80	5.70	7.20	21.47	14.36	10.36	8.76	7.20	3.40	2.08		
18	3.40	5.10	4.60	5.40	42.55	29.31	13.52	10.36	8.44	7.20	3.80	2.08		
19	3.60	5.10	4.60	5.10	28.82	22.45	12.68	10.36	8.44	7.20	4.20	2.08		
20	3.60	5.10	4.80	5.10	20.00	21.96	12.68	10.36	8.12	6.90	4.60	2.08		
21	3.60	5.10	5.70	5.40	17.60	20.00	12.68	10.68	8.12	6.60	5.10	2.08		
22	3.40	5.10	6.30	6.00	15.20	17.12	12.68	10.68	8.12	6.60	5.10	2.08		
23	3.00	5.10	5.10	6.60	26.86	15.20	12.68	11.00	8.12	6.60	3.80	2.08		
24	2.80	18.56	5.10	6.60	18.08	14.36	12.68	11.00	8.12	6.60	2.80	2.08		
25	3.00	6.60	5.10	6.60	18.08	13.52	12.68	11.42	7.80	6.30	2.44	2.08		
26	3.40	6.60	8.76	6.60	18.08	12.26	13.10	11.42	7.80	6.30	2.26	2.08		
27	3.60	6.60	25.39	6.60	18.08	11.84	13.52	11.42	7.80	6.00	2.08	2.08		
28	3.40	6.60	12.26	7.20	17.12	11.84	13.94	10.68	7.50	6.00	2.08	2.08		
29	3.40	6.30	9.72	7.80	15.68	12.26	13.94	9.72	7.50	5.70		2.08		
30	3.40	6.00	9.72	8.12	15.68	13.94	14.36	9.40	7.50	5.40		2.08		
31		6.00		8.12	15.20		14.36		7.50	5.10		2.08		
Total	89.28	182.52	193.85	197.78	416.57	506.38	472.20	317.38	263.00	218.16	90.54	65.38	3013.04	CMSDAY
Mean	2.98	5.89	6.46	6.38	13.44	16.88	15.23	10.58	8.48	7.04	3.23	2.11	8.25	CMS
Max	3.60	18.56	25.39	8.44	42.55	29.31	33.88	11.42	9.08	8.12	5.10	2.44	42.55	CMS
Min	2.08	3.60	4.60	5.10	6.60	11.42	12.68	9.40	7.50	5.10	2.08	2.08	2.08	CMS
Runoff	7.71	15.77	16.75	17.09	35.99	43.75	40.80	27.42	22.72	18.85	7.82	5.65	260.33	MCM

Momentary Peak 84.68 CMS. at 517.24 m. (MSL.) at 08.00 Hours , on Aug 18 , 2018

Runoff Yield 21.39 Liters/Second/Square KM. Momentary Peak Yield 219.38 Liters/Second/Square KM.

WATER YEAR : 2018

NAM MAE KOK RIVER BASIN

Nam Mae Lao at Ban Nong Phum , Chiang Rai (G.10)

Lat 19 - 39 - 21 N Long 99 - 32 - 50 E

Location : on right bank at Ban Nong Phum.

	Ban Nong Phum	**Amphoe** Mae Suai	**Changwat** Chiang Rai
Drainge Area	2,614 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+433.473 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank at the abutment of the bridge.		**Elevation** +439.133 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	2003 to date		
Rating Operation			
Period of Rating	2003 to date		
Rated by Flot	-		
Rated by Current Meter	2003 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 38 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

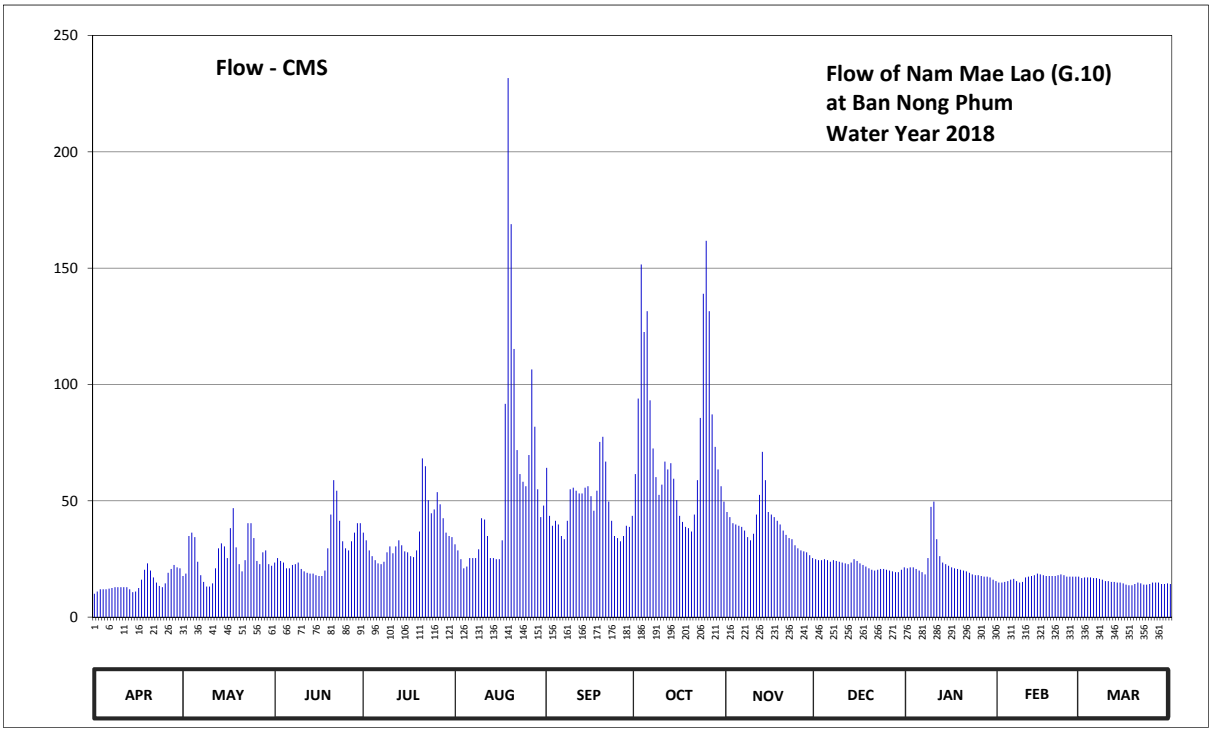
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	433.53	433.80	433.97	434.27	434.16	434.75	434.71	434.44	434.01	433.90	433.71	433.77	
2	433.57	433.83	434.02	434.20	434.10	434.41	435.16	434.40	434.00	433.91	433.71	433.78	
3	433.61	434.24	433.99	434.10	434.01	434.33	435.87	434.35	434.00	433.91	433.72	433.78	
4	433.61	434.27	433.97	434.04	433.90	434.37	435.52	434.34	434.01	433.89	433.73	433.78	
5	433.61	434.23	433.90	434.00	433.92	434.34	435.63	434.33	434.00	433.87	433.75	433.77	
6	433.62	433.98	433.90	433.96	434.02	434.24	435.15	434.32	433.98	433.85	433.76	433.77	
7	433.63	433.81	433.94	433.95	434.02	434.21	434.87	434.29	434.00	433.82	433.73	433.76	
8	433.64	433.72	433.95	433.98	434.02	434.37	434.69	434.23	433.99	434.02	433.71	433.75	
9	433.64	433.65	433.97	434.08	434.11	434.61	434.57	434.20	433.98	434.48	433.72	433.73	
10	433.64	433.65	433.89	434.14	434.39	434.62	434.64	434.26	433.97	434.52	433.78	433.73	
11	433.64	433.70	433.86	434.07	434.38	434.60	434.79	434.42	433.96	434.21	433.79	433.72	
12	433.64	433.90	433.84	434.14	434.24	434.58	434.74	434.57	433.95	434.04	433.80	433.72	
13	433.61	434.12	433.83	434.20	434.02	434.58	434.78	434.85	433.97	433.97	433.81	433.71	
14	433.56	434.17	433.83	434.15	434.02	434.62	434.68	434.67	434.01	433.95	433.83	433.71	
15	433.57	434.14	433.81	434.09	434.01	434.63	434.53	434.44	433.99	433.93	433.82	433.70	
16	433.63	434.02	433.80	434.08	434.01	434.56	434.41	434.42	433.96	433.91	433.81	433.68	
17	433.75	434.31	433.80	434.04	434.20	434.45	434.36	434.40	433.94	433.90	433.80	433.67	
18	433.88	434.47	433.87	434.03	435.13	434.60	434.32	434.37	433.92	433.89	433.80	433.67	
19	433.96	434.13	434.12	434.10	436.74	434.91	434.31	434.34	433.90	433.88	433.80	433.69	
20	433.87	433.95	434.42	434.28	436.07	434.94	434.28	434.29	433.88	433.87	433.80	433.71	
21	433.78	433.86	434.67	434.81	435.43	434.79	434.42	434.25	433.87	433.86	433.81	433.70	
22	433.71	434.00	434.60	434.76	434.86	434.52	434.67	434.22	433.88	433.84	433.82	433.68	
23	433.66	434.35	434.37	434.53	434.71	434.37	435.05	434.21	433.89	433.82	433.81	433.68	
24	433.64	434.35	434.19	434.43	434.66	434.24	435.72	434.15	433.89	433.81	433.79	433.69	
25	433.70	434.22	434.12	434.46	434.63	434.22	435.99	434.12	433.88	433.81	433.79	433.71	
26	433.84	433.99	434.10	434.59	434.83	434.19	435.63	434.10	433.87	433.80	433.79	433.71	
27	433.89	433.95	434.19	434.50	435.32	434.24	435.07	434.09	433.86	433.79	433.79	433.71	
28	433.94	434.08	434.27	434.39	435.00	434.33	434.88	434.08	433.85	433.79	433.79	433.69	
29	433.91	434.10	434.35	434.27	434.61	434.32	434.74	434.05	433.85	433.78		433.69	
30	433.90	433.95	434.35	434.24	434.40	434.41	434.63	434.02	433.88	433.75		433.70	
31		433.93		434.23	434.49		434.52		433.91	433.73		433.69	
Mean	433.71	434.03	434.06	434.23	434.53	434.48	434.88	434.31	433.94	433.92	433.78	433.72	
Max	433.96	434.47	434.67	434.81	436.74	434.94	435.99	434.85	434.01	434.52	433.83	433.78	436.74
Min	433.53	433.65	433.80	433.95	433.90	434.19	434.28	434.02	433.85	433.73	433.71	433.67	433.53

Annual Max Momentary Gage Height 437.00 m. (MSL.) , at 09.00 Hours , on Aug 19 , 2018

Zero Gage at Bottom Elevation 433.47 m. (MSL.) , River Bed 432.24 m. (MSL.)

Left Bank Elevation 438.91 m. (MSL.) ,

Right Bank Elevation 438.92 m. (MSL.) , Drainage Are 2,614 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	10.02	17.70	23.45	36.29	31.28	64.15	61.47	45.20	24.92	21.00	14.82	16.74		
2	10.98	18.69	25.34	33.00	28.70	43.55	93.96	43.00	24.50	21.35	14.82	17.06		
3	11.98	34.88	24.15	28.70	24.92	39.29	151.55	40.35	24.50	21.35	15.14	17.06		
4	11.98	36.29	23.45	26.18	21.00	41.41	122.52	39.82	24.92	20.67	15.46	17.06		
5	11.98	34.41	21.00	24.50	21.70	39.82	131.49	39.29	24.50	20.01	16.10	16.74		
6	12.26	23.80	21.00	23.10	25.34	34.88	93.20	38.76	23.80	19.35	16.42	16.74		
7	12.54	18.03	22.40	22.75	25.34	33.47	72.47	37.23	24.50	18.36	15.46	16.42		
8	12.82	15.14	22.75	23.80	25.34	41.41	60.15	34.41	24.15	25.34	14.82	16.10		
9	12.82	13.10	23.45	27.86	29.13	54.95	52.56	33.00	23.80	47.40	15.14	15.46		
10	12.82	13.10	20.67	30.42	42.47	55.60	56.90	35.82	23.45	49.66	17.06	15.46		
11	12.82	14.50	19.68	27.44	41.94	54.30	66.83	44.10	23.10	33.47	17.38	15.14		
12	12.82	21.00	19.02	30.42	34.88	53.14	63.48	52.56	22.75	26.18	17.70	15.14		
13	11.98	29.56	18.69	33.00	25.34	53.14	66.16	71.05	23.45	23.45	18.03	14.82		
14	10.74	31.71	18.69	30.85	25.34	55.60	59.50	58.85	24.92	22.75	18.69	14.82		
15	10.98	30.42	18.03	28.28	24.92	56.25	50.24	45.20	24.15	22.05	18.36	14.50		
16	12.54	25.34	17.70	27.86	24.92	51.98	43.55	44.10	23.10	21.35	18.03	13.94		
17	16.10	38.23	17.70	26.18	33.00	45.75	40.88	43.00	22.40	21.00	17.70	13.66		
18	20.34	46.85	20.01	25.76	91.68	54.30	38.76	41.41	21.70	20.67	17.70	13.66		
19	23.10	29.99	29.56	28.70	231.65	75.32	38.23	39.82	21.00	20.34	17.70	14.22		
20	20.01	22.75	44.10	36.76	168.87	77.48	36.76	37.23	20.34	20.01	17.70	14.82		
21	17.06	19.68	58.85	68.21	115.23	66.83	44.10	35.35	20.01	19.68	18.03	14.50		
22	14.82	24.50	54.30	64.82	71.76	49.66	58.85	33.94	20.34	19.02	18.36	13.94		
23	13.38	40.35	41.41	50.24	61.47	41.41	85.60	33.47	20.67	18.36	18.03	13.94		
24	12.82	40.35	32.57	44.65	58.20	34.88	138.96	30.85	20.67	18.03	17.38	14.22		
25	14.50	33.94	29.56	46.30	56.25	33.94	161.75	29.56	20.34	18.03	17.38	14.82		
26	19.02	24.15	28.70	53.72	69.63	32.57	131.49	28.70	20.01	17.70	17.38	14.82		
27	20.67	22.75	32.57	48.50	106.48	34.88	87.12	28.28	19.68	17.38	17.38	14.82		
28	22.40	27.86	36.29	42.47	81.80	39.29	73.18	27.86	19.35	17.38	17.38	14.22		
29	21.35	28.70	40.35	36.29	54.95	38.76	63.48	26.60	19.35	17.06		14.22		
30	21.00	22.75	40.35	34.88	43.00	43.55	56.25	25.34	20.34	16.10		14.50		
31		22.05		34.41	47.95		49.66		21.35	15.46		14.22		
Total	448.65	822.57	845.79	1096.34	1744.48	1441.56	2351.10	1164.15	692.06	689.96	475.55	467.78	12239.99	CMSDAY
Mean	14.95	26.53	28.19	35.37	56.27	48.05	75.84	38.80	22.32	22.26	16.98	15.09	33.53	CMS
Max	23.10	46.85	58.85	68.21	231.65	77.48	161.75	71.05	24.92	49.66	18.69	17.06	231.65	CMS
Min	10.02	13.10	17.70	22.75	21.00	32.57	36.76	25.34	19.35	15.46	14.82	13.66	10.02	CMS
Runoff	38.76	71.07	73.08	94.72	150.72	124.55	203.14	100.58	59.79	59.61	41.09	40.42	1057.54	MCM

Momentary Peak 257.00 CMS. at 437.00 m. (MSL.) at 09.00 Hours , on Aug 19 , 2018

Runoff Yield 12.83 Liters/Second/Square KM. Momentary Peak Yield 98.32 Liters/Second/Square KM.

WATER YEAR : 2018

NAM MAE KOK RIVER BASIN

Nam Mae Lao at Ban Don Salee , Chiang Rai (G.11)

Lat 19 - 37 - 14 N Long 99 - 28 - 50 E

Location : on left bank at Ban Salee.

	Ban Don Salee	**Amphoe** Mae Suai	**Changwat** Chiang Rai
Drainge Area	1,918 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+462.835 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	Near the gage site.		**Elevation** +468.695 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	2004 to date		
Rating Operation			
Period of Rating	2004 to date		
Rated by Flot	-		
Rated by Current Meter	2004 to date		
Stability of Channel Regimes	Fairly stable because of backwater effect.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 35 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

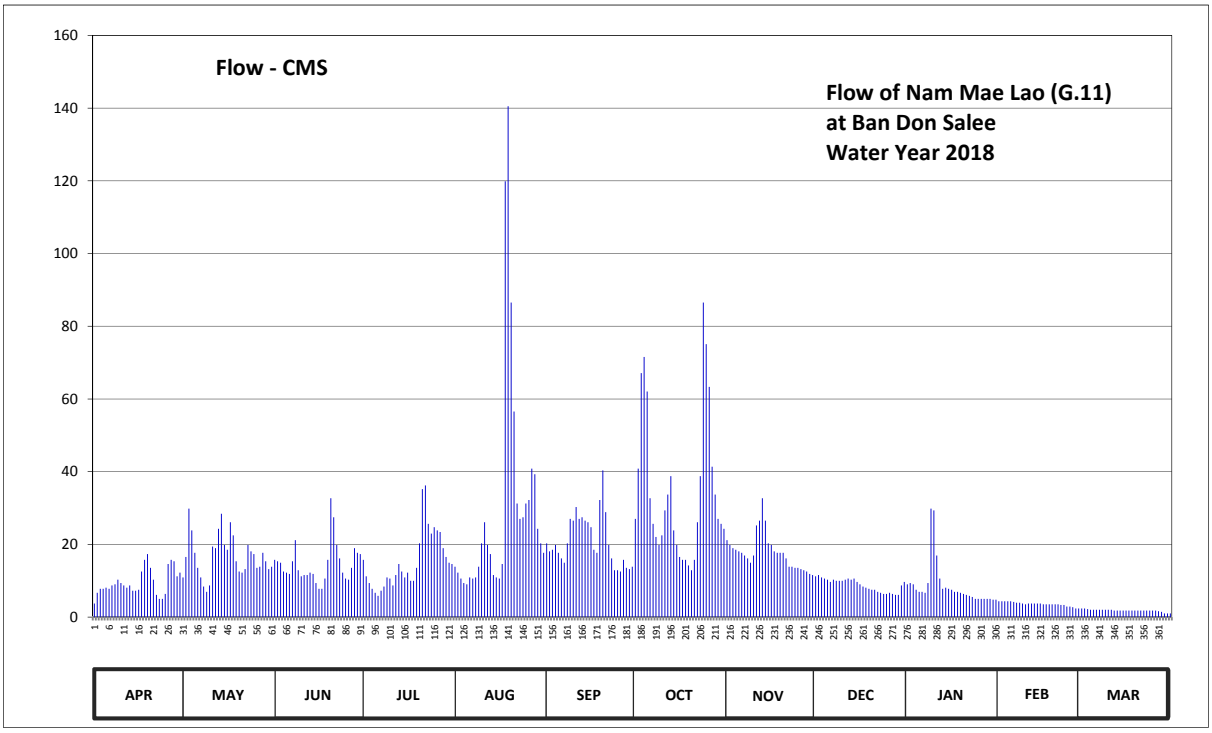
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	462.94	463.20	463.34	463.34	463.29	463.45	463.60	463.47	463.21	463.14	462.97	462.87	
2	463.06	463.36	463.33	463.21	463.24	463.40	463.88	463.44	463.22	463.15	462.97	462.87	
3	463.10	463.66	463.32	463.15	463.19	463.41	464.32	463.42	463.20	463.14	462.97	462.86	
4	463.10	463.53	463.25	463.10	463.15	463.44	464.39	463.41	463.19	463.09	462.97	462.85	
5	463.11	463.39	463.24	463.06	463.14	463.39	464.24	463.40	463.18	463.07	462.97	462.85	
6	463.10	463.28	463.23	463.03	463.20	463.35	463.72	463.39	463.16	463.07	462.96	462.85	
7	463.13	463.20	463.33	463.08	463.19	463.32	463.57	463.37	463.18	463.06	462.95	462.85	
8	463.14	463.12	463.47	463.12	463.20	463.45	463.49	463.35	463.17	463.15	462.95	462.85	
9	463.18	463.07	463.26	463.20	463.29	463.60	463.44	463.32	463.17	463.66	462.94	462.85	
10	463.15	463.13	463.21	463.19	463.45	463.59	463.50	463.37	463.17	463.65	462.93	462.85	
11	463.13	463.43	463.22	463.13	463.58	463.67	463.65	463.56	463.18	463.37	462.94	462.85	
12	463.11	463.42	463.22	463.22	463.44	463.60	463.74	463.59	463.19	463.19	462.94	462.84	
13	463.13	463.54	463.24	463.31	463.38	463.61	463.84	463.72	463.18	463.10	462.94	462.84	
14	463.08	463.63	463.23	463.25	463.22	463.59	463.53	463.59	463.19	463.11	462.94	462.84	
15	463.08	463.44	463.15	463.20	463.20	463.58	463.44	463.45	463.16	463.10	462.94	462.84	
16	463.09	463.41	463.10	463.24	463.19	463.55	463.36	463.44	463.14	463.09	462.93	462.84	
17	463.25	463.58	463.10	463.17	463.31	463.41	463.34	463.40	463.12	463.07	462.93	462.84	
18	463.34	463.50	463.19	463.17	465.01	463.39	463.34	463.39	463.11	463.07	462.93	462.84	
19	463.38	463.33	463.34	463.28	465.25	463.71	463.30	463.39	463.10	463.06	462.93	462.84	
20	463.28	463.25	463.72	463.45	464.60	463.87	463.26	463.39	463.09	463.05	462.93	462.84	
21	463.18	463.24	463.61	463.77	464.15	463.64	463.34	463.35	463.09	463.04	462.93	462.84	
22	463.04	463.27	463.44	463.79	463.69	463.44	463.58	463.29	463.07	463.03	462.92	462.84	
23	463.00	463.44	463.35	463.57	463.60	463.35	463.84	463.29	463.06	463.02	462.92	462.84	
24	463.00	463.40	463.24	463.51	463.61	463.26	464.60	463.28	463.05	463.00	462.90	462.84	
25	463.05	463.38	463.19	463.55	463.69	463.26	464.44	463.28	463.05	463.00	462.90	462.84	
26	463.31	463.28	463.18	463.53	463.71	463.25	464.26	463.27	463.06	463.00	462.89	462.84	
27	463.34	463.29	463.28	463.52	463.88	463.34	463.89	463.26	463.05	463.00	462.87	462.83	
28	463.33	463.39	463.42	463.42	463.85	463.28	463.74	463.25	463.04	463.00	462.87	462.82	
29	463.21	463.33	463.39	463.36	463.54	463.27	463.60	463.23	463.04	463.00		462.79	
30	463.24	463.27	463.38	463.32	463.45	463.29	463.57	463.22	463.13	462.99		462.79	
31		463.29		463.31	463.39		463.54		463.16	462.99		462.79	
Mean	463.15	463.36	463.30	463.31	463.58	463.46	463.72	463.39	463.13	463.11	462.93	462.84	
Max	463.38	463.66	463.72	463.79	465.25	463.87	464.60	463.72	463.22	463.66	462.97	462.87	465.25
Min	462.94	463.07	463.10	463.03	463.14	463.25	463.26	463.22	463.04	462.99	462.87	462.79	462.79

Annual Max Momentary Gage Height 465.56 m. (MSL.) , at 06.00 Hours , on Aug 19 , 2018

Zero Gage at Bottom Elevation 462.84 m. (MSL.) , River Bed 461.94 m. (MSL.)

Left Bank Elevation 468.84 m. (MSL.) ,

Right Bank Elevation 468.90 m. (MSL.) , Drainage Are 1,918 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	3.74	10.90	15.76	15.76	13.87	20.30	27.00	21.18	11.23	9.04	4.37	2.36		
2	6.68	16.54	15.37	11.23	12.22	18.10	40.86	19.86	11.56	9.35	4.37	2.36		
3	7.80	29.82	14.98	9.35	10.59	18.54	67.12	18.98	10.90	9.04	4.37	2.18		
4	7.80	23.85	12.55	7.80	9.35	19.86	71.57	18.54	10.59	7.52	4.37	2.00		
5	8.11	17.71	12.22	6.68	9.04	17.71	62.04	18.10	10.28	6.96	4.37	2.00		
6	7.80	13.54	11.89	5.84	10.90	16.15	32.70	17.71	9.66	6.96	4.16	2.00		
7	8.73	10.90	15.37	7.24	10.59	14.98	25.65	16.93	10.28	6.68	3.95	2.00		
8	9.04	8.42	21.18	8.42	10.90	20.30	22.06	16.15	9.97	9.35	3.95	2.00		
9	10.28	6.96	12.88	10.90	13.87	27.00	19.86	14.98	9.97	29.82	3.74	2.00		
10	9.35	8.73	11.23	10.59	20.30	26.55	22.50	16.93	9.97	29.35	3.53	2.00		
11	8.73	19.42	11.56	8.73	26.10	30.29	29.35	25.20	10.28	16.93	3.74	2.00		
12	8.11	18.98	11.56	11.56	19.86	27.00	33.70	26.55	10.59	10.59	3.74	1.82		
13	8.73	24.30	12.22	14.59	17.32	27.47	38.78	32.70	10.28	7.80	3.74	1.82		
14	7.24	28.41	11.89	12.55	11.56	26.55	23.85	26.55	10.59	8.11	3.74	1.82		
15	7.24	19.86	9.35	10.90	10.90	26.10	19.86	20.30	9.66	7.80	3.74	1.82		
16	7.52	18.54	7.80	12.22	10.59	24.75	16.54	19.86	9.04	7.52	3.53	1.82		
17	12.55	26.10	7.80	9.97	14.59	18.54	15.76	18.10	8.42	6.96	3.53	1.82		
18	15.76	22.50	10.59	9.97	119.86	17.71	15.76	17.71	8.11	6.96	3.53	1.82		
19	17.32	15.37	15.76	13.54	140.52	32.20	14.20	17.71	7.80	6.68	3.53	1.82		
20	13.54	12.55	32.70	20.30	86.50	40.34	12.88	17.71	7.52	6.40	3.53	1.82		
21	10.28	12.22	27.47	35.20	56.55	28.88	15.76	16.15	7.52	6.12	3.53	1.82		
22	6.12	13.21	19.86	36.20	31.23	19.86	26.10	13.87	6.96	5.84	3.32	1.82		
23	5.00	19.86	16.15	25.65	27.00	16.15	38.78	13.87	6.68	5.56	3.32	1.82		
24	5.00	18.10	12.22	22.95	27.47	12.88	86.50	13.54	6.40	5.00	2.90	1.82		
25	6.40	17.32	10.59	24.75	31.23	12.88	75.06	13.54	6.40	5.00	2.90	1.82		
26	14.59	13.54	10.28	23.85	32.20	12.55	63.31	13.21	6.68	5.00	2.72	1.82		
27	15.76	13.87	13.54	23.40	40.86	15.76	41.38	12.88	6.40	5.00	2.36	1.64		
28	15.37	17.71	18.98	18.98	39.30	13.54	33.70	12.55	6.12	5.00	2.36	1.46		
29	11.23	15.37	17.71	16.54	24.30	13.21	27.00	11.89	6.12	5.00		1.00		
30	12.22	13.21	17.32	14.98	20.30	13.87	25.65	11.56	8.73	4.79		1.00		
31		13.87		14.59	17.71		24.30		9.66	4.79		1.00		
Total	288.04	521.68	438.78	475.23	927.58	630.02	1069.58	534.81	274.37	266.92	100.94	56.30	5584.25	CMSDAY
Mean	9.60	16.83	14.63	15.33	29.92	21.00	34.50	17.83	8.85	8.61	3.61	1.82	15.30	CMS
Max	17.32	29.82	32.70	36.20	140.52	40.34	86.50	32.70	11.56	29.82	4.37	2.36	140.52	CMS
Min	3.74	6.96	7.80	5.84	9.04	12.55	12.88	11.56	6.12	4.79	2.36	1.00	1.00	CMS
Runoff	24.89	45.07	37.91	41.06	80.14	54.43	92.41	46.21	23.71	23.06	8.72	4.86	482.48	MCM

Momentary Peak 167.50 CMS. at 465.56 m. (MSL.) at 06.00 Hours , on Aug 19 , 2018

Runoff Yield 7.98 Liters/Second/Square KM. Momentary Peak Yield 87.33 Liters/Second/Square KM.

WATER YEAR : 2018

NAM MAE KOK RIVER BASIN

Nam Fang at Ban Mae Kha , Chiang Mai (G.13)

Lat 19 - 47 - 18 N Long 99 - 09 - 59 E

Location : on left bank at Ban Mae Kha.

Ban Mae Kha **Amphoe** Chai Prakarn **Changwat** Chiang Mai

Drainge Area	551 sq.km.
Type of Gage	Staff gage.
Zero Gage at Bottom	+481.270 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	Near the gage site. **Elevation** +484.908 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic mean of 3 readings
Period of Available Gage Records	2017 to date
Rating Operation	
Period of Rating	2017 to date
Rated by Flot	-
Rated by Current Meter	2017 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. Stage-discharge relation defined by 11 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

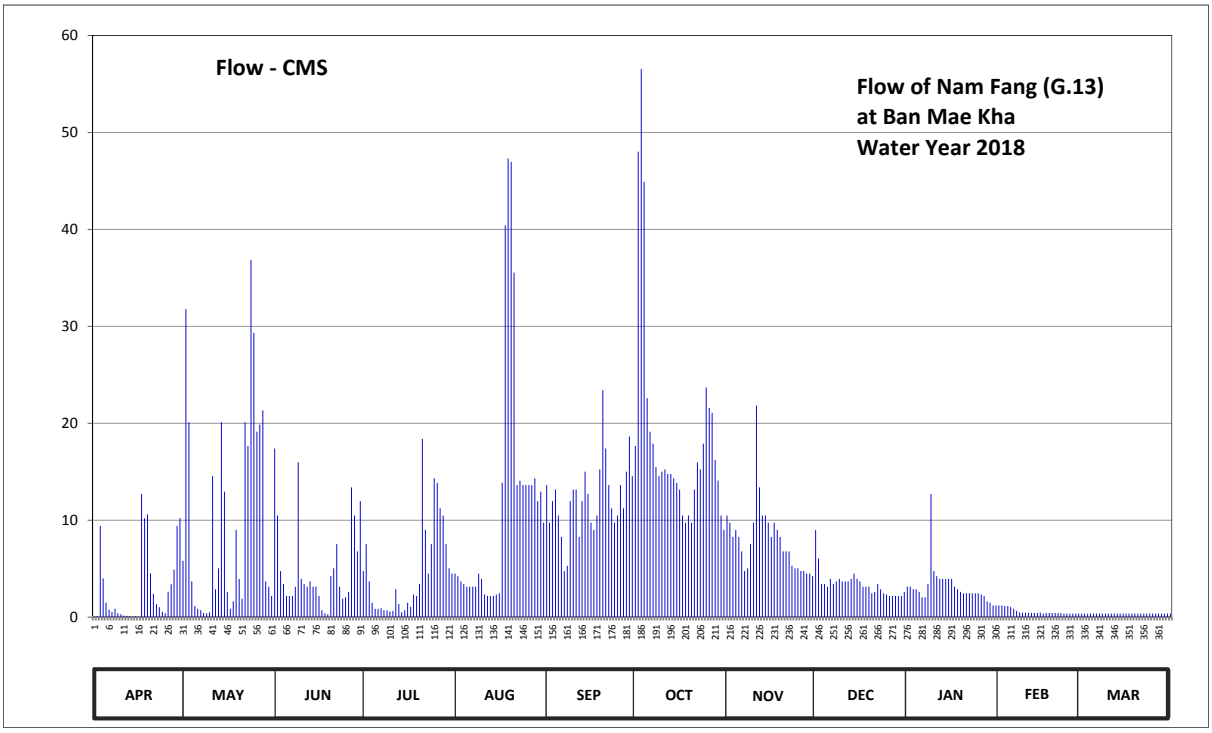
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	481.81	482.45	483.00	482.68	482.67	482.84	483.01	482.77	482.75	482.62	482.50	482.27	
2	481.84	483.53	482.77	482.73	482.66	482.76	484.02	482.76	482.71	482.62	482.50	482.27	
3	482.64	483.11	482.68	482.64	482.64	482.79	484.26	482.74	482.63	482.61	482.49	482.27	
4	482.33	482.64	482.63	482.52	482.63	482.82	483.93	482.75	482.63	482.61	482.49	482.27	
5	482.10	482.49	482.57	482.45	482.62	482.77	483.21	482.74	482.62	482.60	482.48	482.27	
6	482.01	482.45	482.57	482.45	482.62	482.74	483.07	482.72	482.65	482.56	482.45	482.27	
7	481.97	482.43	482.57	482.46	482.62	482.68	483.02	482.68	482.63	482.56	482.42	482.27	
8	482.02	482.32	482.62	482.43	482.62	482.70	482.92	482.69	482.64	482.63	482.39	482.27	
9	481.94	482.29	482.94	482.43	482.67	482.79	482.88	482.73	482.65	482.80	482.36	482.27	
10	481.92	482.40	482.65	482.41	482.65	482.82	482.90	482.76	482.64	482.68	482.35	482.27	
11	481.87	482.88	482.63	482.42	482.58	482.82	482.91	483.18	482.64	482.66	482.34	482.27	
12	481.85	482.61	482.62	482.61	482.57	482.74	482.89	482.83	482.64	482.65	482.33	482.27	
13	481.84	482.69	482.64	482.51	482.57	482.79	482.89	482.77	482.65	482.65	482.32	482.27	
14	481.81	483.11	482.62	482.40	482.57	482.90	482.87	482.77	482.67	482.65	482.32	482.27	
15	481.83	482.81	482.62	482.43	482.58	482.80	482.85	482.76	482.65	482.65	482.37	482.27	
16	481.76	482.60	482.57	482.52	482.59	482.76	482.82	482.74	482.64	482.65	482.27	482.27	
17	482.80	482.45	482.43	482.48	482.85	482.75	482.77	482.76	482.62	482.62	482.32	482.27	
18	482.68	482.53	482.29	482.58	483.80	482.77	482.76	482.75	482.62	482.61	482.32	482.27	
19	482.70	482.75	482.20	482.57	484.00	482.91	482.77	482.74	482.62	482.60	482.32	482.27	
20	482.37	482.65	482.66	482.63	483.99	483.24	482.76	482.72	482.59	482.59	482.32	482.27	
21	482.19	482.55	482.69	483.04	483.65	483.00	482.82	482.72	482.60	482.59	482.32	482.27	
22	482.08	483.11	482.73	482.75	482.84	482.84	482.94	482.72	482.63	482.59	482.31	482.27	
23	482.04	483.01	482.62	482.67	482.86	482.78	482.91	482.70	482.61	482.59	482.27	482.27	
24	481.97	483.69	482.55	482.73	482.84	482.76	483.02	482.69	482.59	482.59	482.27	482.27	
25	481.94	483.45	482.56	482.87	482.84	482.77	483.25	482.69	482.58	482.59	482.27	482.27	
26	482.21	483.07	482.60	482.85	482.84	482.84	483.17	482.68	482.57	482.58	482.27	482.27	
27	482.28	483.10	482.83	482.78	482.84	482.78	483.15	482.68	482.57	482.57	482.27	482.27	
28	482.40	483.16	482.77	482.77	482.87	482.90	482.95	482.67	482.57	482.53	482.27	482.27	
29	482.64	482.64	482.72	482.73	482.79	483.05	482.86	482.67	482.57	482.52		482.27	
30	482.68	482.62	482.79	482.69	482.81	482.88	482.77	482.66	482.57	482.50		482.27	
31		482.57		482.67	482.76		482.75		482.60	482.50		482.27	
Mean	482.15	482.78	482.64	482.61	482.85	482.83	483.04	482.74	482.62	482.61	482.35	482.27	
Max	482.80	483.69	483.00	483.04	484.00	483.24	484.26	483.18	482.75	482.80	482.50	482.27	484.26
Min	481.76	482.29	482.20	482.40	482.57	482.68	482.75	482.66	482.57	482.50	482.27	482.27	481.76

Annual Max Momentary Gage Height 484.32 m. (MSL.) , at 06.00 Hours , on Oct 3 , 2018

Zero Gage at Bottom Elevation 481.27 m. (MSL.) , River Bed 481.45 m. (MSL.)

Left Bank Elevation 485.81 m. (MSL.) ,

Right Bank Elevation 485.54 m. (MSL.) , Drainage Are 551 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.07	5.80	17.40	4.76	4.49	13.62	17.65	10.48	9.00	3.14	1.20	0.37		
2	0.11	31.77	10.48	7.52	4.22	9.74	48.01	9.74	6.04	3.14	1.20	0.37		
3	9.40	20.10	4.76	3.68	3.68	11.96	56.53	8.26	3.41	2.87	1.13	0.37		
4	3.99	3.68	3.41	1.48	3.41	13.16	44.89	9.00	3.41	2.87	1.13	0.37		
5	1.50	1.13	2.18	0.85	3.14	10.48	22.58	8.26	3.14	2.60	1.06	0.37		
6	0.78	0.85	2.18	0.85	3.14	8.26	19.12	6.78	3.95	2.04	0.85	0.37		
7	0.55	0.71	2.18	0.92	3.14	4.76	17.89	4.76	3.41	2.04	0.64	0.37		
8	0.86	0.42	3.14	0.71	3.14	5.30	15.48	5.03	3.68	3.41	0.49	0.37		
9	0.40	0.39	15.96	0.71	4.49	11.96	14.54	7.52	3.95	12.70	0.46	0.37		
10	0.30	0.50	3.95	0.57	3.95	13.16	15.00	9.74	3.68	4.76	0.45	0.37		
11	0.16	14.54	3.41	0.64	2.32	13.16	15.24	21.81	3.68	4.22	0.44	0.37		
12	0.13	2.87	3.14	2.87	2.18	8.26	14.77	13.39	3.68	3.95	0.43	0.37		
13	0.11	5.03	3.68	1.34	2.18	11.96	14.77	10.48	3.95	3.95	0.42	0.37		
14	0.07	20.10	3.14	0.50	2.18	15.00	14.31	10.48	4.49	3.95	0.42	0.37		
15	0.10	12.93	3.14	0.71	2.32	12.70	13.85	9.74	3.95	3.95	0.47	0.37		
16	0.03	2.60	2.18	1.48	2.46	9.74	13.16	8.26	3.68	3.95	0.37	0.37		
17	12.70	0.85	0.71	1.06	13.85	9.00	10.48	9.74	3.14	3.14	0.42	0.37		
18	10.20	1.62	0.39	2.32	40.40	10.48	9.74	9.00	3.14	2.87	0.42	0.37		
19	10.60	9.00	0.30	2.18	47.30	15.24	10.48	8.26	3.14	2.60	0.42	0.37		
20	4.51	3.95	4.22	3.41	46.96	23.40	9.74	6.78	2.46	2.46	0.42	0.37		
21	2.40	1.90	5.03	18.38	35.53	17.40	13.16	6.78	2.60	2.46	0.42	0.37		
22	1.34	20.10	7.52	9.00	13.62	13.62	15.96	6.78	3.41	2.46	0.41	0.37		
23	1.02	17.65	3.14	4.49	14.08	11.22	15.24	5.30	2.87	2.46	0.37	0.37		
24	0.55	36.83	1.90	7.52	13.62	9.74	17.89	5.03	2.46	2.46	0.37	0.37		
25	0.40	29.33	2.04	14.31	13.62	10.48	23.68	5.03	2.32	2.46	0.37	0.37		
26	2.61	19.12	2.60	13.85	13.62	13.62	21.57	4.76	2.18	2.32	0.37	0.37		
27	3.38	19.85	13.39	11.22	13.62	11.22	21.08	4.76	2.18	2.18	0.37	0.37		
28	4.90	21.32	10.48	10.48	14.31	15.00	16.20	4.49	2.18	1.62	0.37	0.37		
29	9.40	3.68	6.78	7.52	11.96	18.63	14.08	4.49	2.18	1.48		0.37		
30	10.20	3.14	11.96	5.03	12.93	14.54	10.48	4.22	2.18	1.20		0.37		
31		2.18		4.49	9.74		9.00		2.60	1.20		0.37		
Total	92.77	313.94	154.79	144.85	365.60	366.81	576.57	239.15	106.14	96.91	15.89	11.47	2484.89	CMSDAY
Mean	3.09	10.13	5.16	4.67	11.79	12.23	18.60	7.97	3.42	3.13	0.57	0.37	6.81	CMS
Max	12.70	36.83	17.40	18.38	47.30	23.40	56.53	21.81	9.00	12.70	1.20	0.37	56.53	CMS
Min	0.03	0.39	0.30	0.50	2.18	4.76	9.00	4.22	2.18	1.20	0.37	0.37	0.03	CMS
Runoff	8.02	27.12	13.37	12.52	31.59	31.69	49.82	20.66	9.17	8.37	1.37	0.99	214.69	MCM

Momentary Peak 58.66 CMS. at 484.32 m. (MSL.) at 06.00 Hours , on Oct 3 , 2018

Runoff Yield 12.36 Liters/Second/Square KM. Momentary Peak Yield 106.46 Liters/Second/Square KM.

WATER YEAR : 2018

CHI RIVER BASIN

Chi River at Ban Non Puai , Chaiyaphum (E.5)

Lat 15 - 46 - 08 N Long 101 - 49 - 01 E

Location : on left bank near Ban Non Puai about 30 meters downstream from Ban Tango.

Ban Non Puai **Amphoe** Ban Khwao **Changwat** Chaiyaphum

Drainge Area	4,207 sq.km.
Type of Gage	Water - stage recorder.
Zero Gage at Bottom	+186.100 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	In front of the station office. **Elevation** +196.750 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	1958 to date
Rating Operation	
Period of Rating	1967 - 1971 , 1973, 1979, 1982 to date
Rated by Flot	-
Rated by Current Meter	1967 - 1971 , 1973, 1979, 1982 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. The local weir situated about 100 meters downstream from the gage site. Stage-discharge relation defined by 19 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

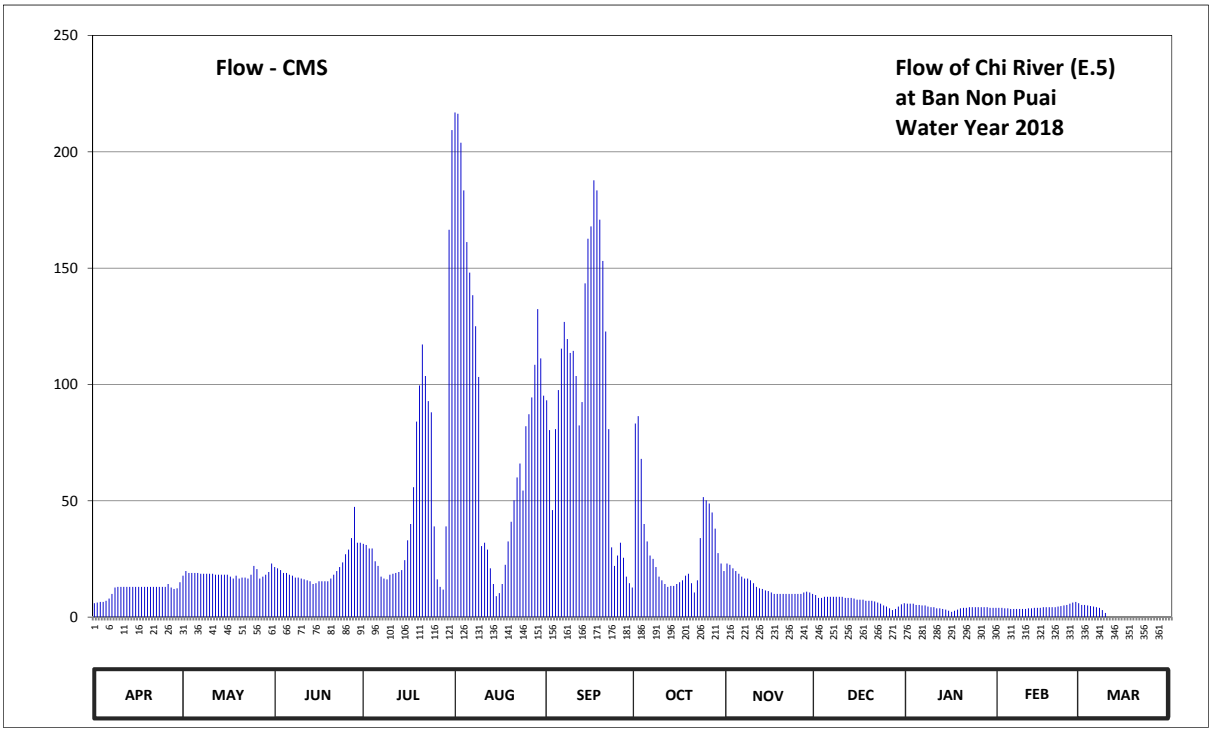
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	190.24	190.62	190.71	190.91	194.22	191.63	191.38	190.74	190.38	190.23	190.16	190.21	
2	190.25	190.67	190.70	190.90	194.21	191.31	191.46	190.73	190.33	190.23	190.16	190.21	
3	190.26	190.65	190.68	190.87	193.98	191.10	191.24	190.70	190.33	190.23	190.15	190.20	
4	190.26	190.65	190.65	190.87	193.60	191.32	191.04	190.67	190.35	190.21	190.15	190.19	
5	190.28	190.65	190.65	190.76	193.15	191.74	190.93	190.64	190.35	190.21	190.14	190.18	
6	190.32	190.65	190.63	190.72	192.87	192.16	190.81	190.61	190.35	190.20	190.14	190.17	
7	190.40	190.64	190.62	190.61	192.66	192.41	190.78	190.59	190.35	190.20	190.14	190.16	
8	190.49	190.64	190.60	190.59	192.37	192.25	190.71	190.59	190.35	190.18	190.14	190.12	
9	190.50	190.64	190.60	190.58	191.88	192.12	190.61	190.57	190.35	190.17	190.14	190.07	
10	190.50	190.64	190.59	190.63	190.89	192.14	190.57	190.54	190.35	190.17	190.14	189.94	
11	190.50	190.64	190.58	190.64	190.92	191.89	190.53	190.50	190.33	190.15	190.15	189.80	
12	190.50	190.63	190.57	190.65	190.86	191.36	190.50	190.48	190.33	190.15	190.15	189.74	
13	190.50	190.63	190.56	190.66	190.70	191.61	190.51	190.47	190.33	190.14	190.16	189.75	
14	190.50	190.63	190.53	190.68	190.53	192.77	190.51	190.45	190.32	190.13	190.16	189.75	
15	190.50	190.63	190.54	190.77	190.36	193.18	190.53	190.44	190.30	190.11	190.16	189.74	
16	190.50	190.63	190.56	190.94	190.41	193.29	190.55	190.42	190.30	190.09	190.17	189.74	
17	190.50	190.61	190.56	191.04	190.53	193.68	190.57	190.40	190.30	190.11	190.17	189.73	
18	190.50	190.59	190.56	191.17	190.73	193.60	190.62	190.40	190.28	190.13	190.17	189.74	
19	190.50	190.62	190.56	191.40	190.93	193.35	190.64	190.40	190.28	190.15	190.17	189.75	
20	190.50	190.59	190.59	191.79	191.05	192.98	190.54	190.40	190.28	190.16	190.17	189.74	
21	190.50	190.60	190.63	192.20	191.13	192.32	190.42	190.40	190.27	190.16	190.18	189.72	
22	190.50	190.60	190.67	191.89	191.20	191.32	190.57	190.40	190.25	190.17	190.19	189.75	
23	190.50	190.59	190.71	191.62	191.23	190.88	190.96	190.40	190.23	190.17	190.20	189.76	
24	190.50	190.63	190.75	191.50	191.16	190.72	191.14	190.40	190.20	190.17	190.21	189.79	
25	190.50	190.72	190.82	191.03	191.35	190.81	191.13	190.40	190.18	190.17	190.23	189.81	
26	190.53	190.69	190.86	190.58	191.48	190.92	191.12	190.40	190.15	190.17	190.25	189.86	
27	190.49	190.59	190.96	190.50	191.66	190.79	191.09	190.42	190.12	190.17	190.26	189.88	
28	190.47	190.61	191.11	190.46	192.01	190.61	191.02	190.43	190.14	190.17	190.24	189.90	
29	190.48	190.63	190.92	191.03	192.53	190.54	190.83	190.42	190.18	190.16		189.92	
30	190.55	190.66	190.92	193.26	192.07	190.49	190.74	190.40	190.22	190.16		189.90	
31		190.74		194.08	191.68		190.67		190.24	190.16		189.90	
Mean	190.45	190.64	190.68	191.14	191.75	191.84	190.80	190.49	190.28	190.17	190.17	189.91	
Max	190.55	190.74	191.11	194.08	194.22	193.68	191.46	190.74	190.38	190.23	190.26	190.21	194.22
Min	190.24	190.59	190.53	190.46	190.36	190.49	190.42	190.40	190.12	190.09	190.14	189.72	189.72

Annual Max Momentary Gage Height 194.27 m. (MSL.) , at 06.00 Hours, on Aug 2, 2018

Zero Gage at Bottom Elevation 186.10 m. (MSL.) , River Bed 185.59 m. (MSL.)

Left Bank Elevation 197.09 m. (MSL.) ,

Right Bank Elevation 197.68 m. (MSL.) , Drainage Are 4,207 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	6.00	17.80	21.50	31.50	216.88	93.20	83.20	23.00	9.50	5.75	4.00	5.25		
2	6.25	19.80	21.00	31.00	216.34	80.40	86.40	22.50	8.25	5.75	4.00	5.25		
3	6.50	19.00	20.20	29.50	203.92	46.00	68.00	21.00	8.25	5.75	3.75	5.00		
4	6.50	19.00	19.00	29.50	183.40	80.80	40.00	19.80	8.75	5.25	3.75	4.75		
5	7.00	19.00	19.00	24.00	161.20	97.60	32.50	18.60	8.75	5.25	3.50	4.50		
6	8.00	19.00	18.20	22.00	148.02	115.36	26.50	17.40	8.75	5.00	3.50	4.25		
7	10.00	18.60	17.80	17.40	138.36	126.86	25.00	16.60	8.75	5.00	3.50	4.00		
8	12.70	18.60	17.00	16.60	125.02	119.50	21.50	16.60	8.75	4.50	3.50	3.00		
9	13.00	18.60	17.00	16.20	103.20	113.52	17.40	15.80	8.75	4.25	3.50	1.75		
10	13.00	18.60	16.60	18.20	30.50	114.44	15.80	14.60	8.75	4.25	3.50	0.00		
11	13.00	18.60	16.20	18.60	32.00	103.60	14.20	13.00	8.25	3.75	3.75	0.00		
12	13.00	18.20	15.80	19.00	29.00	82.40	13.00	12.40	8.25	3.75	3.75	0.00		
13	13.00	18.20	15.40	19.40	21.00	92.40	13.40	12.10	8.25	3.50	4.00	0.00		
14	13.00	18.20	14.20	20.20	14.20	143.42	13.40	11.50	8.00	3.25	4.00	0.00		
15	13.00	18.20	14.60	24.50	9.00	162.64	14.20	11.20	7.50	2.75	4.00	0.00		
16	13.00	18.20	15.40	33.00	10.30	167.92	15.00	10.60	7.50	2.25	4.25	0.00		
17	13.00	17.40	15.40	40.00	14.20	187.72	15.80	10.00	7.50	2.75	4.25	0.00		
18	13.00	16.60	15.40	55.80	22.50	183.40	17.80	10.00	7.00	3.25	4.25	0.00		
19	13.00	17.80	15.40	84.00	32.50	170.80	18.60	10.00	7.00	3.75	4.25	0.00		
20	13.00	16.60	16.60	99.60	41.00	153.08	14.60	10.00	7.00	4.00	4.25	0.00		
21	13.00	17.00	18.20	117.20	50.20	122.72	10.60	10.00	6.75	4.00	4.50	0.00		
22	13.00	17.00	19.80	103.60	60.00	80.80	15.80	10.00	6.25	4.25	4.75	0.00		
23	13.00	16.60	21.50	92.80	66.00	30.00	34.00	10.00	5.75	4.25	5.00	0.00		
24	13.00	18.20	23.50	88.00	54.40	22.00	51.60	10.00	5.00	4.25	5.25	0.00		
25	13.00	22.00	27.00	39.00	82.00	26.50	50.20	10.00	4.50	4.25	5.75	0.00		
26	14.20	20.60	29.00	16.20	87.20	32.00	48.80	10.00	3.75	4.25	6.25	0.00		
27	12.70	16.60	34.00	13.00	94.40	25.50	45.00	10.60	3.00	4.25	6.50	0.00		
28	12.10	17.40	47.40	11.80	108.46	17.40	38.00	10.90	3.50	4.25	6.00	0.00		
29	12.40	18.20	32.00	39.00	132.38	14.60	27.50	10.60	4.50	4.00		0.00		
30	15.00	19.40	32.00	166.48	111.22	12.70	23.00	10.00	5.50	4.00		0.00		
31		23.00		209.32	95.20		19.80		6.00	4.00		0.00		
Total	350.35	572.00	626.10	1546.40	2694.00	2819.28	930.60	398.80	218.00	129.50	121.25	37.75	10444.03	CMSDAY
Mean	11.68	18.45	20.87	49.88	86.90	93.98	30.02	13.29	7.03	4.18	4.33	1.22	28.61	CMS
Max	15.00	23.00	47.40	209.32	216.88	187.72	86.40	23.00	9.50	5.75	6.50	5.25	216.88	CMS
Min	6.00	16.60	14.20	11.80	9.00	12.70	10.60	10.00	3.00	2.25	3.50	0.00	0.00	CMS
Runoff	30.27	49.42	54.10	133.61	232.76	243.59	80.40	34.46	18.84	11.19	10.48	3.26	902.36	MCM

Momentary Peak 219.58 CMS, at 194.27 m. (MSL.), at 06.00 Hours, on Aug 2, 2018

Runoff Yield 6.80 Liters/Second/Square KM. Momentary Peak Yield 52.19 Liters/Second/Square KM.

WATER YEAR : 2018

CHI RIVER BASIN

Lam Pa Thao at Ban Tat Ton , Chaiyaphum (E.6C)

Lat 15 - 57 - 43 N Long 102 - 02 - 00 E

Location : on right bank about 5 kilometers upstream from E.6A station at Ban Tat Ton.

Ban Tat Ton **Amphoe** Mueang **Changwat** Chaiyaphum

Drainge Area	378 sq.km.
Type of Gage	Water - stage recorder.
Zero Gage at Bottom	+192.700 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	About 2 meters from the sling pole. **Elevation** +198.412 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	1973 to date
Rating Operation	
Period of Rating	1973 to date
Rated by Flot	-
Rated by Current Meter	1973 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. Lam Pa Thao Dam situated about 2 kilometers upstream from the gage site. Stage-discharge relation defined by 20 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

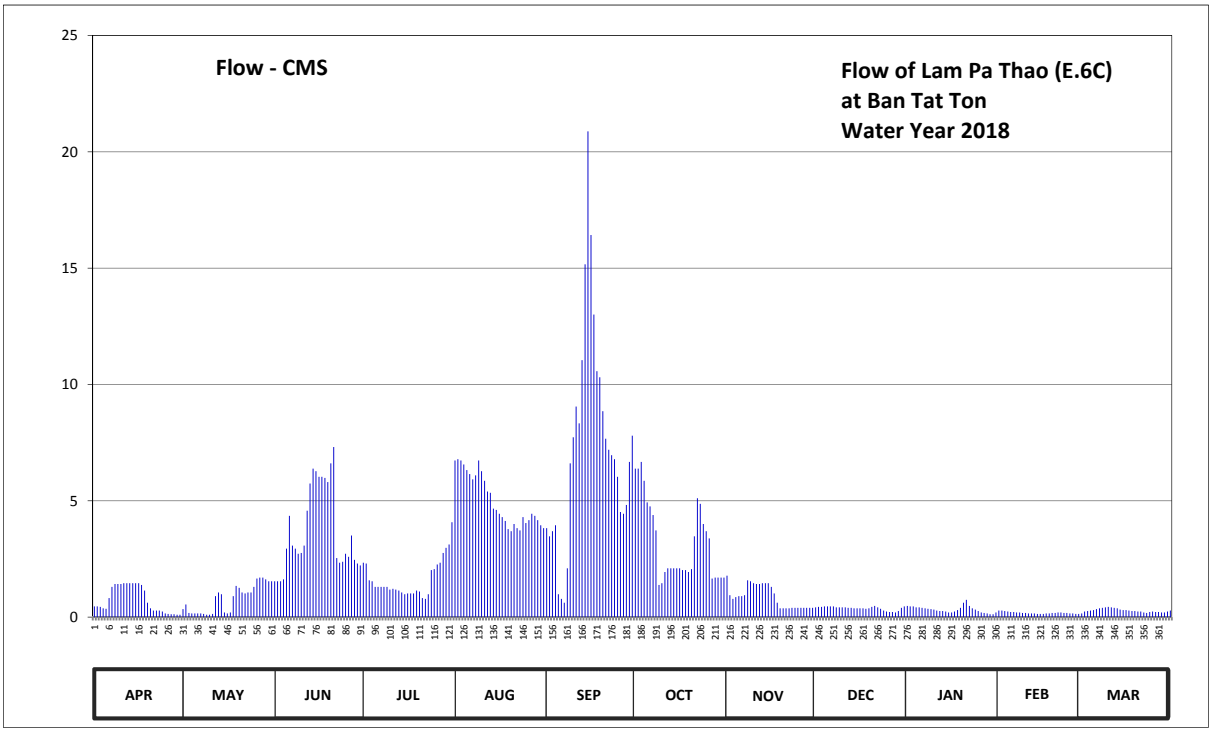
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	192.98	192.92	193.26	193.46	194.35	193.80	194.29	193.32	192.96	192.99	192.89	192.83	
2	192.98	193.01	193.26	193.45	194.36	193.72	194.29	193.11	192.97	192.98	192.89	192.87	
3	192.97	192.84	193.26	193.27	194.35	193.77	194.34	193.07	192.97	192.98	192.88	192.88	
4	192.94	192.83	193.28	193.26	194.32	193.83	194.20	193.09	192.98	192.96	192.87	192.89	
5	192.93	192.83	193.60	193.20	194.28	193.12	194.04	193.10	192.98	192.96	192.86	192.90	
6	193.08	192.83	193.92	193.20	194.25	193.07	194.01	193.10	192.98	192.95	192.86	192.92	
7	193.20	192.83	193.63	193.20	194.21	193.03	193.93	193.11	192.98	192.94	192.85	192.94	
8	193.23	192.82	193.60	193.20	194.24	193.40	193.78	193.27	192.96	192.93	192.85	192.95	
9	193.23	192.80	193.55	193.20	194.35	194.33	193.22	193.26	192.96	192.92	192.84	192.96	
10	193.23	192.80	193.56	193.17	194.27	194.52	193.24	193.24	192.96	192.91	192.84	192.97	
11	193.24	192.82	193.63	193.18	194.20	194.72	193.36	193.23	192.96	192.89	192.83	192.96	
12	193.24	193.10	193.97	193.17	194.12	194.61	193.40	193.23	192.95	192.88	192.83	192.95	
13	193.24	193.14	194.18	193.16	194.11	195.02	193.40	193.24	192.95	192.88	192.83	192.94	
14	193.24	193.12	194.29	193.14	193.99	195.59	193.40	193.24	192.94	192.87	192.82	192.91	
15	193.24	192.85	194.27	193.12	193.98	196.24	193.40	193.24	192.94	192.85	192.82	192.90	
16	193.24	192.83	194.23	193.13	193.94	195.74	193.40	193.20	192.94	192.85	192.82	192.90	
17	193.22	192.85	194.23	193.13	193.91	195.30	193.38	193.13	192.94	192.87	192.83	192.89	
18	193.16	193.10	194.22	193.13	193.87	194.95	193.38	193.03	192.93	192.90	192.83	192.88	
19	193.03	193.21	194.19	193.16	193.79	194.91	193.36	192.94	192.94	192.95	192.84	192.88	
20	192.94	193.19	194.33	193.15	193.77	194.69	193.39	192.94	192.97	193.03	192.84	192.87	
21	192.89	193.14	194.45	193.08	193.84	194.51	193.72	192.94	192.99	193.06	192.85	192.87	
22	192.89	193.13	193.51	193.07	193.80	194.43	194.07	192.94	192.96	192.99	192.85	192.85	
23	192.89	193.14	193.46	193.12	193.78	194.39	194.03	192.95	192.93	192.94	192.84	192.84	
24	192.87	193.14	193.47	193.38	193.91	194.36	193.84	192.95	192.89	192.91	192.84	192.86	
25	192.83	193.20	193.55	193.39	193.85	194.23	193.77	192.95	192.87	192.88	192.83	192.87	
26	192.82	193.29	193.52	193.44	193.88	193.96	193.70	192.95	192.86	192.85	192.83	192.86	
27	192.81	193.30	193.73	193.46	193.94	193.94	193.29	192.95	192.86	192.84	192.82	192.86	
28	192.81	193.30	193.49	193.56	193.92	194.02	193.30	192.95	192.85	192.83	192.82	192.85	
29	192.80	193.28	193.45	193.61	193.88	194.34	193.30	192.95	192.88	192.81		192.85	
30	192.80	193.26	193.43	193.64	193.83	194.53	193.30	192.95	192.95	192.81		192.87	
31		193.26		193.86	193.80		193.30		192.98	192.85		192.89	
Mean	193.03	193.04	193.75	193.28	194.04	194.37	193.64	193.09	192.94	192.91	192.84	192.89	
Max	193.24	193.30	194.45	193.86	194.36	196.24	194.34	193.32	192.99	193.06	192.89	192.97	196.24
Min	192.80	192.80	193.26	193.07	193.77	193.03	193.22	192.94	192.85	192.81	192.82	192.83	192.80

Annual Max Momentary Gage Height 196.45 m. (MSL.) , at 06.00 Hours, on Sep 15, 2018

Zero Gage at Bottom Elevation 192.70 m. (MSL.) , River Bed 192.41 m. (MSL.)

Left Bank Elevation 197.77 m. (MSL.) ,

Right Bank Elevation 198.38 m. (MSL.) , Drainage Are 378 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.46	0.34	1.54	2.34	6.73	3.82	6.38	1.78	0.42	0.48	0.28	0.16		
2	0.46	0.54	1.54	2.30	6.79	3.47	6.38	0.94	0.44	0.46	0.28	0.24		
3	0.44	0.18	1.54	1.58	6.73	3.69	6.67	0.78	0.44	0.46	0.26	0.26		
4	0.38	0.16	1.62	1.54	6.56	3.95	5.86	0.86	0.46	0.42	0.24	0.28		
5	0.36	0.16	2.94	1.30	6.32	0.98	4.93	0.90	0.46	0.42	0.22	0.30		
6	0.82	0.16	4.35	1.30	6.15	0.78	4.76	0.90	0.46	0.40	0.22	0.34		
7	1.30	0.16	3.07	1.30	5.92	0.62	4.39	0.94	0.46	0.38	0.20	0.38		
8	1.42	0.14	2.94	1.30	6.09	2.10	3.73	1.58	0.42	0.36	0.20	0.40		
9	1.42	0.10	2.72	1.30	6.73	6.61	1.38	1.54	0.42	0.34	0.18	0.42		
10	1.42	0.10	2.76	1.18	6.27	7.73	1.46	1.46	0.42	0.32	0.18	0.44		
11	1.46	0.14	3.07	1.22	5.86	9.05	1.94	1.42	0.42	0.28	0.16	0.42		
12	1.46	0.90	4.57	1.18	5.40	8.33	2.10	1.42	0.40	0.26	0.16	0.40		
13	1.46	1.06	5.74	1.14	5.34	11.04	2.10	1.46	0.40	0.26	0.16	0.38		
14	1.46	0.98	6.38	1.06	4.66	15.16	2.10	1.46	0.38	0.24	0.14	0.32		
15	1.46	0.20	6.27	0.98	4.61	20.88	2.10	1.46	0.38	0.20	0.14	0.30		
16	1.46	0.16	6.03	1.02	4.44	16.42	2.10	1.30	0.38	0.20	0.14	0.30		
17	1.38	0.20	6.03	1.02	4.30	13.00	2.02	1.02	0.38	0.24	0.16	0.28		
18	1.14	0.90	5.98	1.02	4.13	10.57	2.02	0.62	0.36	0.30	0.16	0.26		
19	0.62	1.34	5.80	1.14	3.78	10.31	1.94	0.38	0.38	0.40	0.18	0.26		
20	0.38	1.26	6.61	1.10	3.69	8.85	2.06	0.38	0.44	0.62	0.18	0.24		
21	0.28	1.06	7.31	0.82	4.00	7.67	3.47	0.38	0.48	0.74	0.20	0.24		
22	0.28	1.02	2.54	0.78	3.82	7.19	5.11	0.38	0.42	0.48	0.20	0.20		
23	0.28	1.06	2.34	0.98	3.73	6.96	4.87	0.40	0.36	0.38	0.18	0.18		
24	0.24	1.06	2.38	2.02	4.30	6.79	4.00	0.40	0.28	0.32	0.18	0.22		
25	0.16	1.30	2.72	2.06	4.04	6.03	3.69	0.40	0.24	0.26	0.16	0.24		
26	0.14	1.66	2.59	2.26	4.17	4.52	3.38	0.40	0.22	0.20	0.16	0.22		
27	0.12	1.70	3.51	2.34	4.44	4.44	1.66	0.40	0.22	0.18	0.14	0.22		
28	0.12	1.70	2.46	2.76	4.35	4.82	1.70	0.40	0.20	0.16	0.14	0.20		
29	0.10	1.62	2.30	2.98	4.17	6.67	1.70	0.40	0.26	0.12		0.20		
30	0.10	1.54	2.22	3.12	3.95	7.80	1.70	0.40	0.40	0.12		0.24		
31		1.54		4.08	3.82		1.70		0.46	0.20		0.28		
Total	22.58	24.44	111.87	50.52	155.29	220.25	99.40	26.56	11.86	10.20	5.20	8.82	746.99	CMSDAY
Mean	0.75	0.79	3.73	1.63	5.01	7.34	3.21	0.89	0.38	0.33	0.19	0.28	2.05	CMS
Max	1.46	1.70	7.31	4.08	6.79	20.88	6.67	1.78	0.48	0.74	0.28	0.44	20.88	CMS
Min	0.10	0.10	1.54	0.78	3.69	0.62	1.38	0.38	0.20	0.12	0.14	0.16	0.10	CMS
Runoff	1.95	2.11	9.67	4.36	13.42	19.03	8.59	2.29	1.02	0.88	0.45	0.76	64.54	MCM

Momentary Peak 22.88 CMS, at 196.45 m. (MSL.), at 06.00 Hours, on Sep 15, 2018

Runoff Yield 5.41 Liters/Second/Square KM. Momentary Peak Yield 60.53 Liters/Second/Square KM.

WATER YEAR : 2018

CHI RIVER BASIN

Chi River at Ban Chot , Khon Kaen (E.9)

Lat 16 - 05 - 44 N Long 102 - 34 - 25 E

Location : on left bank about 80 meters downstream from the bridge on highway.

Ban Chot **Amphoe** Manchakhiri **Changwat** Khon Kaen

Drainge Area	10,878 sq.km.
Type of Gage	Water - stage recorder.
Zero Gage at Bottom	+151.100 m. (MSL.)
Bench Mark	B.M.- H.D.
Location BM	On left bank about 25 meters from the top staff gage. **Elevation** +167.014 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	1958 to date
Rating Operation	
Period of Rating	1967 - 1973, 1986 - 1987, 1992 to date
Rated by Flot	-
Rated by Current Meter	1967 - 1980, 1983 - 1987, 1992 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. Stage-discharge relation defined by 25 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

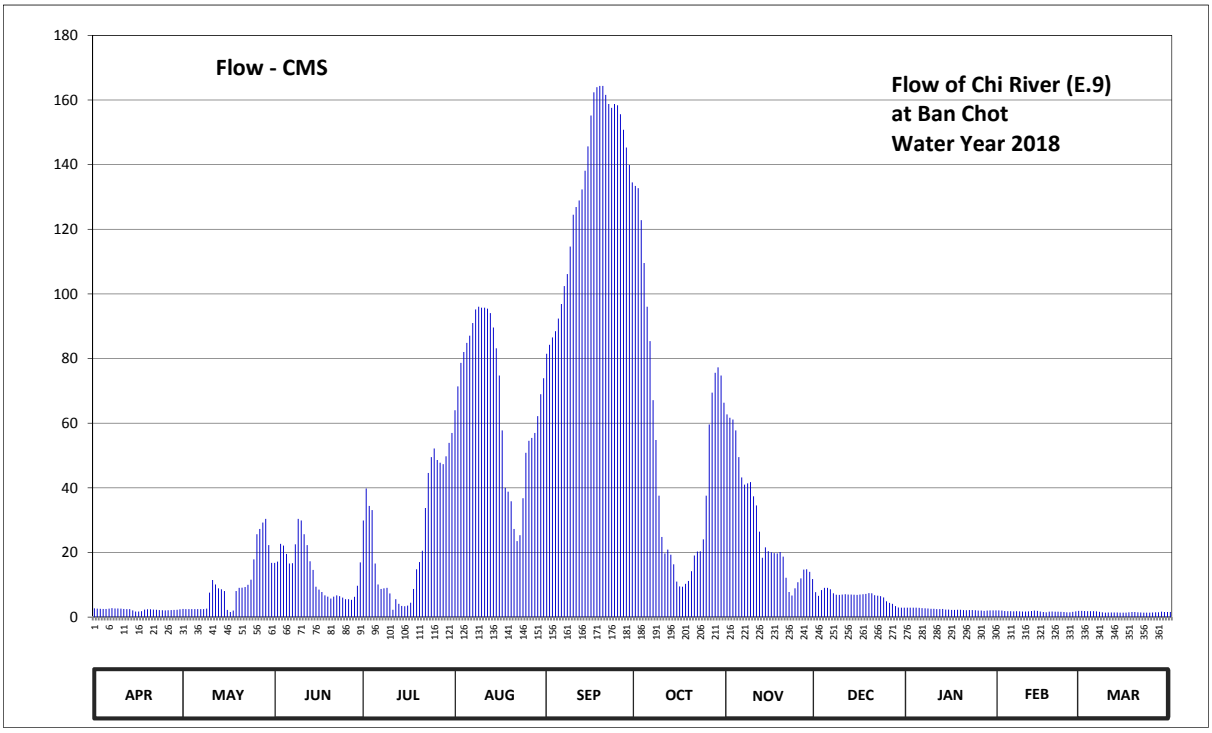
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	152.31	152.27	154.15	155.12	156.77	157.41	159.04	156.72	153.14	152.34	152.19	152.17	
2	152.29	152.26	154.18	155.69	157.05	157.51	159.02	156.68	152.96	152.34	152.18	152.16	
3	152.28	152.26	154.62	155.40	157.31	157.59	158.73	156.66	153.24	152.34	152.16	152.15	
4	152.27	152.26	154.58	155.32	157.43	157.66	158.34	156.53	153.35	152.34	152.15	152.15	
5	152.27	152.26	154.38	154.13	157.53	157.80	157.93	156.16	153.35	152.33	152.15	152.15	
6	152.29	152.26	154.13	153.51	157.61	157.96	157.55	155.86	153.28	152.32	152.14	152.14	
7	152.32	152.26	154.14	153.30	157.75	158.13	156.89	155.75	153.09	152.31	152.15	152.11	
8	152.30	152.26	154.61	153.33	157.90	158.24	156.40	155.77	153.02	152.30	152.14	152.09	
9	152.30	152.29	155.15	153.35	157.93	158.49	155.58	155.79	153.01	152.28	152.13	152.07	
10	152.29	153.12	155.12	153.08	157.92	158.78	154.77	155.57	153.03	152.28	152.13	152.08	
11	152.27	153.65	154.83	152.23	157.92	158.85	154.39	155.41	153.04	152.26	152.14	152.08	
12	152.26	153.51	154.59	152.79	157.91	158.91	154.49	154.89	153.03	152.26	152.16	152.08	
13	152.26	153.33	154.19	152.55	157.86	159.01	154.36	154.28	153.03	152.27	152.18	152.08	
14	152.19	153.28	153.96	152.44	157.70	159.17	154.11	154.54	153.02	152.24	152.17	152.07	
15	152.13	153.20	153.41	152.42	157.47	159.38	153.60	154.45	153.01	152.24	152.13	152.07	
16	152.13	152.22	153.27	152.46	157.17	159.63	153.42	154.42	153.03	152.22	152.10	152.07	
17	152.15	152.10	153.15	152.61	156.53	159.81	153.41	154.40	153.04	152.22	152.09	152.09	
18	152.24	152.18	152.99	153.30	155.70	159.85	153.53	154.39	153.06	152.23	152.12	152.10	
19	152.25	153.20	152.92	153.98	155.64	159.86	153.62	154.43	153.10	152.23	152.13	152.10	
20	152.25	153.35	152.82	154.17	155.49	159.86	153.92	154.31	153.09	152.21	152.12	152.09	
21	152.24	153.36	152.92	154.46	154.95	159.79	154.34	153.72	153.00	152.20	152.12	152.08	
22	152.23	153.39	152.99	155.36	154.68	159.72	154.44	153.15	152.97	152.21	152.11	152.07	
23	152.21	153.50	152.95	155.93	154.81	159.69	154.45	152.98	152.95	152.21	152.10	152.07	
24	152.20	153.66	152.87	156.16	155.54	159.72	154.72	153.33	152.88	152.20	152.09	152.07	
25	152.19	154.24	152.79	156.28	156.22	159.71	155.58	153.58	152.68	152.18	152.09	152.08	
26	152.20	154.83	152.79	156.12	156.39	159.64	156.60	153.70	152.60	152.18	152.11	152.09	
27	152.21	154.95	152.76	156.08	156.43	159.52	156.98	153.97	152.55	152.17	152.14	152.09	
28	152.22	155.08	152.91	156.06	156.50	159.37	157.20	153.98	152.43	152.18	152.17	152.12	
29	152.23	155.15	153.45	156.17	156.70	159.22	157.26	153.90	152.35	152.19		152.10	
30	152.25	154.59	154.16	156.36	156.96	159.07	157.17	153.68	152.34	152.19		152.10	
31		154.15		156.50	157.14		156.86		152.34	152.19		152.10	
Mean	152.24	153.24	153.73	154.41	156.80	158.98	155.76	154.77	152.94	152.25	152.14	152.10	
Max	152.32	155.15	155.15	156.50	157.93	159.86	159.04	156.72	153.35	152.34	152.19	152.17	159.86
Min	152.13	152.10	152.76	152.23	154.68	157.41	153.41	152.98	152.34	152.17	152.09	152.07	152.07

Annual Max Momentary Gage Height 159.88 m. (MSL.) , at 01.00 Hours, on Sep 20, 2018

Zero Gage at Bottom Elevation 151.10 m. (MSL.) , River Bed 149.02 m. (MSL.)

Left Bank Elevation 164.11 m. (MSL.) ,

Right Bank Elevation 161.74 m. (MSL.) , Drainage Are 10,878 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.74	2.51	16.80	29.92	64.02	81.48	133.44	62.72	7.70	2.90	2.06	1.95		
2	2.62	2.46	17.16	39.80	71.40	84.28	132.72	61.68	6.56	2.90	2.01	1.90		
3	2.57	2.46	22.68	34.40	78.68	86.52	122.82	61.16	8.34	2.90	1.90	1.84		
4	2.51	2.46	22.12	33.12	82.04	88.48	109.56	57.78	9.04	2.90	1.84	1.84		
5	2.51	2.46	19.56	16.56	84.84	92.40	96.04	49.52	9.04	2.85	1.84	1.84		
6	2.62	2.46	16.56	10.10	87.08	96.88	85.40	43.20	8.59	2.79	1.78	1.78		
7	2.79	2.46	16.68	8.72	91.00	102.42	67.14	41.00	7.38	2.74	1.84	1.62		
8	2.68	2.46	22.54	8.91	95.20	106.16	54.80	41.40	6.93	2.68	1.78	1.50		
9	2.68	2.62	30.40	9.04	96.04	114.66	37.60	41.80	6.86	2.57	1.73	1.39		
10	2.62	7.57	29.92	7.31	95.76	124.52	24.78	37.40	6.99	2.57	1.73	1.45		
11	2.51	11.50	25.62	2.29	95.76	126.90	19.68	34.56	7.06	2.46	1.78	1.45		
12	2.46	10.10	22.26	5.54	95.48	128.94	20.88	26.46	6.99	2.46	1.90	1.45		
13	2.46	8.91	17.28	4.10	94.08	132.36	19.32	18.36	6.99	2.51	2.01	1.45		
14	2.06	8.59	14.60	3.46	89.60	138.12	16.32	21.56	6.93	2.34	1.95	1.39		
15	1.73	8.08	9.42	3.35	83.16	145.68	11.00	20.40	6.86	2.34	1.73	1.39		
16	1.73	2.23	8.53	3.58	74.76	155.20	9.49	20.04	6.99	2.23	1.56	1.39		
17	1.84	1.56	7.76	4.46	57.78	162.40	9.42	19.80	7.06	2.23	1.50	1.50		
18	2.34	2.01	6.74	8.72	40.00	164.00	10.30	19.68	7.18	2.29	1.67	1.56		
19	2.40	8.08	6.32	14.80	38.80	164.40	11.20	20.16	7.44	2.29	1.73	1.56		
20	2.40	9.04	5.72	17.04	35.84	164.40	14.20	18.72	7.38	2.18	1.67	1.50		
21	2.34	9.10	6.32	20.52	27.30	161.60	19.08	12.20	6.80	2.12	1.67	1.45		
22	2.29	9.30	6.74	33.76	23.52	158.80	20.28	7.76	6.62	2.18	1.62	1.39		
23	2.18	10.00	6.50	44.60	25.34	157.60	20.40	6.68	6.50	2.18	1.56	1.39		
24	2.12	11.60	6.02	49.52	36.80	158.80	24.08	8.91	6.08	2.12	1.50	1.39		
25	2.06	17.88	5.54	52.16	50.84	158.40	37.60	10.80	4.88	2.01	1.50	1.45		
26	2.12	25.62	5.54	48.64	54.58	155.60	59.60	12.00	4.40	2.01	1.62	1.50		
27	2.18	27.30	5.36	47.76	55.46	150.80	69.48	14.70	4.10	1.95	1.78	1.50		
28	2.23	29.28	6.26	47.32	57.00	145.32	75.60	14.80	3.41	2.01	1.95	1.67		
29	2.29	30.40	9.68	49.74	62.20	139.92	77.28	14.00	2.96	2.06		1.56		
30	2.40	22.26	16.92	53.92	68.96	134.52	74.76	11.80	2.90	2.06		1.56		
31		16.80		57.00	73.92		66.36		2.90	2.06		1.56		
Total	70.48	309.56	413.55	770.16	2087.24	3981.56	1550.63	831.05	199.86	73.89	49.21	48.17	10385.36	CMSDAY
Mean	2.35	9.99	13.79	24.84	67.33	132.72	50.02	27.70	6.45	2.38	1.76	1.55	28.45	CMS
Max	2.79	30.40	30.40	57.00	96.04	164.40	133.44	62.72	9.04	2.90	2.06	1.95	164.40	CMS
Min	1.73	1.56	5.36	2.29	23.52	81.48	9.42	6.68	2.90	1.95	1.50	1.39	1.39	CMS
Runoff	6.09	26.75	35.73	66.54	180.34	344.01	133.97	71.80	17.27	6.38	4.25	4.16	897.30	MCM

Momentary Peak 165.20 CMS, at 159.88 m. (MSL.), at 01.00 Hours, on Sep 20, 2018

Runoff Yield 2.62 Liters/Second/Square KM. Momentary Peak Yield 15.19 Liters/Second/Square KM.

WATER YEAR : 2018

CHI RIVER BASIN

Chi River at Ban Tha Sa Baeng , Roi Et (E.18)

Lat 16 - 01 - 59 N Long 103 - 54 - 41 E

Location : on right bank at Ban Tha Sa Bang.

Ban Tha Sa Baeng **Amphoe** Thung Khao Luang **Changwat** Roi Et

Drainge Area	41,187 sq.km.
Type of Gage	Water - stage recorder.
Zero Gage at Bottom	+122.200 m. (MSL.)
Bench Mark	B.M.- H.D.
Location BM	On right bank at the abutment of the bridge. **Elevation** +132.496 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	1954 to date
Rating Operation	
Period of Rating	1974 to date
Rated by Flot	-
Rated by Current Meter	1974 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. Stage-discharge relation defined by 33 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

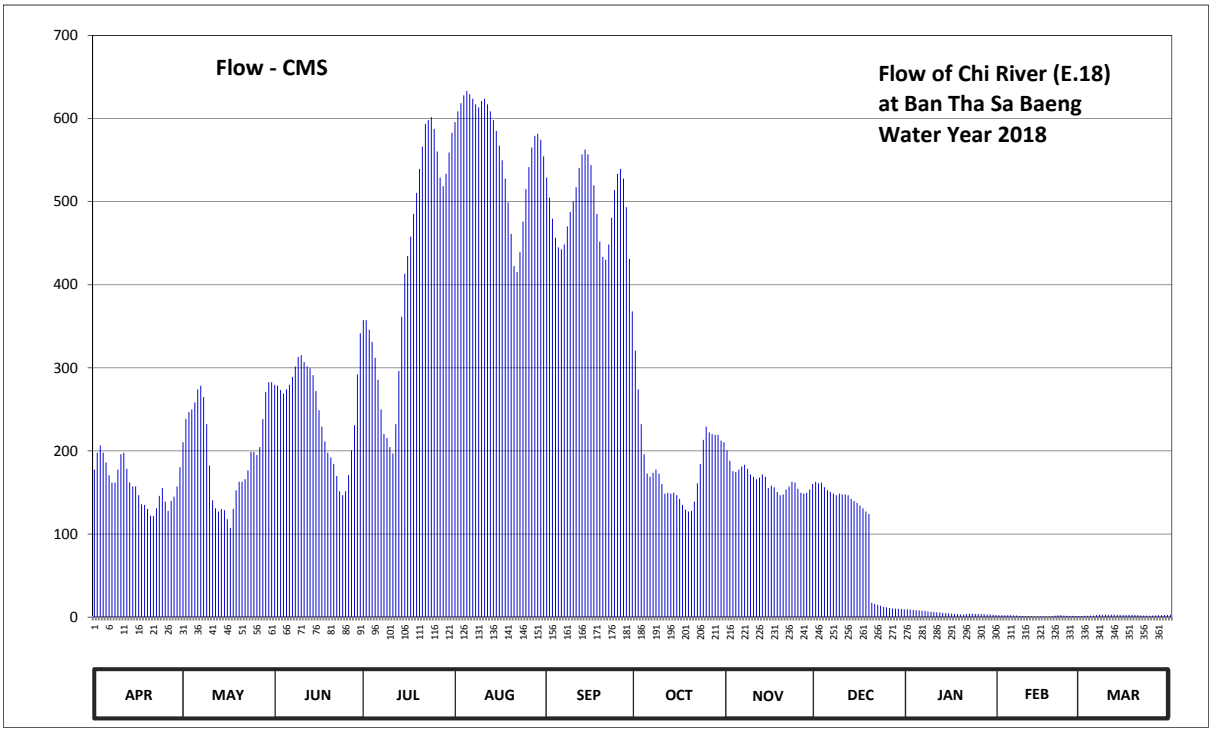
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	125.56	125.90	126.57	127.31	129.43	128.86	126.96	125.80	125.41	124.53	123.07	122.85	
2	125.77	126.18	126.56	127.31	129.54	128.65	126.52	125.67	125.39	124.49	123.08	122.89	
3	125.86	126.26	126.51	127.20	129.62	128.43	126.12	125.54	125.40	124.45	123.07	122.92	
4	125.77	126.29	126.47	127.06	129.69	128.23	125.75	125.53	125.34	124.39	123.07	122.95	
5	125.65	126.37	126.52	126.88	129.73	128.13	125.51	125.56	125.30	124.34	123.07	122.99	
6	125.49	126.52	126.57	126.63	129.70	128.11	125.47	125.60	125.28	124.29	123.04	123.11	
7	125.40	126.56	126.66	126.29	129.66	128.16	125.52	125.62	125.26	124.21	122.98	123.22	
8	125.40	126.43	126.78	126.00	129.61	128.35	125.56	125.57	125.24	124.12	122.90	123.21	
9	125.56	126.12	126.89	125.95	129.58	128.50	125.51	125.50	125.26	124.06	122.82	123.23	
10	125.75	125.61	126.91	125.84	129.64	128.61	125.38	125.47	125.25	124.00	122.79	123.21	
11	125.77	125.17	126.83	125.76	129.66	128.76	125.26	125.44	125.25	123.94	122.77	123.22	
12	125.57	125.05	126.78	126.12	129.61	128.96	125.27	125.46	125.24	123.87	122.74	123.20	
13	125.40	125.00	126.76	126.73	129.54	129.10	125.26	125.50	125.19	123.78	122.69	123.18	
14	125.35	125.04	126.68	127.35	129.45	129.15	125.27	125.47	125.16	123.71	122.71	123.17	
15	125.35	125.02	126.50	127.84	129.34	129.10	125.24	125.33	125.13	123.62	122.72	123.17	
16	125.24	124.87	126.28	128.04	129.19	128.99	125.19	125.36	125.09	123.55	122.67	123.16	
17	125.11	124.72	126.09	128.24	129.04	128.78	125.10	125.34	125.05	123.48	122.66	123.17	
18	125.10	125.04	125.91	128.48	128.85	128.48	125.03	125.28	125.00	123.37	122.68	123.15	
19	125.04	125.30	125.77	128.70	128.60	128.19	125.00	125.24	124.96	123.30	122.77	123.15	
20	124.93	125.41	125.71	128.95	128.27	128.03	125.01	125.25	124.92	123.29	122.95	123.12	
21	124.92	125.41	125.63	129.18	127.93	128.00	125.15	125.31	124.89	123.40	123.04	123.04	
22	125.05	125.44	125.48	129.41	127.86	128.16	125.39	125.35	124.86	123.49	123.08	122.99	
23	125.23	125.55	125.29	129.45	128.08	128.44	125.63	125.41	124.83	123.51	122.96	122.97	
24	125.33	125.78	125.24	129.48	128.40	128.73	125.93	125.40	124.80	123.45	122.90	122.95	
25	125.15	125.78	125.29	129.36	128.74	128.90	126.09	125.32	124.77	123.43	122.90	122.97	
26	125.01	125.74	125.49	129.13	128.97	128.95	126.02	125.27	124.73	123.40	122.87	123.01	
27	125.16	125.84	125.80	128.86	129.17	128.85	126.00	125.26	124.70	123.37	122.81	123.06	
28	125.22	126.18	126.11	128.77	129.29	128.55	125.99	125.27	124.67	123.33	122.82	123.08	
29	125.35	126.49	126.69	128.90	129.31	128.01	125.99	125.31	124.64	123.30		123.11	
30	125.59	126.60	127.16	129.12	129.25	127.41	125.92	125.38	124.60	123.22		123.13	
31		126.60		129.32	129.08		125.90		124.57	123.11		123.20	
Mean	125.37	125.75	126.26	127.86	129.16	128.52	125.61	125.43	125.04	123.74	122.88	123.09	
Max	125.86	126.60	127.16	129.48	129.73	129.15	126.96	125.80	125.41	124.53	123.08	123.23	129.73
Min	124.92	124.72	125.24	125.76	127.86	127.41	125.00	125.24	124.57	123.11	122.66	122.85	122.66

Annual Max Momentary Gage Height 129.73 m. (MSL.) , at 12.00 Hours, on Aug 5, 2018

Zero Gage at Bottom Elevation 122.20 m. (MSL.) , River Bed 120.46 m. (MSL.)

Left Bank Elevation 133.46 m. (MSL.) ,

Right Bank Elevation 130.29 m. (MSL.) , Drainage Are 41,187 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	177.52	210.50	279.47	357.37	595.74	528.90	320.53	200.80	162.97	9.21	2.28	1.40		
2	197.89	238.42	278.42	357.37	608.72	504.75	274.21	188.19	161.05	8.94	2.32	1.56		
3	206.62	246.84	273.16	345.79	618.50	479.45	232.11	175.58	162.00	8.70	2.28	1.68		
4	197.89	250.00	268.95	331.05	627.95	456.45	195.95	174.61	156.30	8.34	2.28	1.80		
5	186.25	258.42	274.21	312.11	633.35	444.95	172.67	177.52	152.50	8.04	2.28	1.96		
6	170.73	274.21	279.47	285.79	629.30	442.65	168.79	181.40	150.60	7.74	2.16	2.44		
7	162.00	278.42	288.95	250.00	623.90	448.40	173.64	183.34	148.70	7.26	1.92	2.88		
8	162.00	264.74	301.58	220.20	617.15	470.25	177.52	178.49	146.80	6.72	1.60	2.84		
9	177.52	232.11	313.16	215.35	613.44	487.50	172.67	171.70	148.70	6.36	1.28	2.92		
10	195.95	182.37	315.26	204.68	621.20	500.15	160.10	168.79	147.75	6.00	1.16	2.84		
11	197.89	140.60	306.84	196.92	623.90	517.40	148.70	165.88	147.75	5.76	1.08	2.88		
12	178.49	131.00	301.58	232.11	617.15	540.40	149.65	167.82	146.80	5.48	0.96	2.80		
13	162.00	127.00	299.47	296.32	608.72	556.80	148.70	171.70	142.20	5.12	0.76	2.72		
14	157.25	130.20	291.05	361.58	598.10	562.70	149.65	168.79	139.80	4.84	0.84	2.68		
15	157.25	128.60	272.11	413.16	585.12	556.80	146.80	155.35	137.40	4.48	0.88	2.68		
16	146.80	117.90	248.95	434.60	567.42	543.85	142.20	158.20	134.20	4.20	0.68	2.64		
17	135.80	107.40	229.02	457.60	549.72	519.70	135.00	156.30	131.00	3.92	0.64	2.68		
18	135.00	130.20	211.47	485.20	527.75	485.20	129.40	150.60	127.00	3.48	0.72	2.60		
19	130.20	152.50	197.89	510.50	499.00	451.85	127.00	146.80	124.20	3.20	1.08	2.60		
20	122.10	162.97	192.07	539.25	461.05	433.45	127.80	147.75	17.20	3.16	1.80	2.48		
21	121.40	162.97	184.31	566.24	422.63	430.00	139.00	153.45	16.00	3.60	2.16	2.16		
22	131.00	165.88	169.76	593.38	415.26	448.40	161.05	157.25	14.80	3.96	2.32	1.96		
23	145.85	176.55	151.55	598.10	439.20	480.60	184.31	162.97	13.60	4.04	1.84	1.88		
24	155.35	198.86	146.80	601.64	476.00	513.95	213.41	162.00	12.40	3.80	1.60	1.80		
25	139.00	198.86	151.55	587.48	515.10	533.50	229.02	154.40	11.80	3.72	1.60	1.88		
26	127.80	194.98	170.73	560.34	541.55	539.25	222.16	149.65	11.00	3.60	1.48	2.04		
27	139.80	204.68	200.80	528.90	565.06	527.75	220.20	148.70	10.40	3.48	1.24	2.24		
28	144.90	238.42	231.05	518.55	579.22	493.25	219.23	149.65	10.19	3.32	1.28	2.32		
29	157.25	271.05	292.11	533.50	581.58	431.15	219.23	153.45	9.98	3.20		2.44		
30	180.43	282.63	341.58	559.16	574.50	367.90	212.44	160.10	9.70	2.88		2.52		
31		282.63		582.76	554.44		210.50		9.49	2.44		2.80		
Total	4799.93	6141.91	7463.32	13037.00	17491.72	14697.35	5683.64	4941.23	2914.28	158.99	42.52	73.12	77445.01	CMSDAY
Mean	160.00	198.13	248.78	420.55	564.25	489.91	183.34	164.71	94.01	5.13	1.52	2.36	212.18	CMS
Max	206.62	282.63	341.58	601.64	633.35	562.70	320.53	200.80	162.97	9.21	2.32	2.92	633.35	CMS
Min	121.40	107.40	146.80	196.92	415.26	367.90	127.00	146.80	9.49	2.44	0.64	1.40	0.64	CMS
Runoff	414.71	530.66	644.83	1126.40	1511.28	1269.85	491.07	426.92	251.79	13.74	3.67	6.32	6691.25	MCM

Momentary Peak 633.35 CMS, at 129.73 m. (MSL.), at 12.00 Hours, on Aug 5, 2018

Runoff Yield 5.15 Liters/Second/Square KM. Momentary Peak Yield 15.38 Liters/Second/Square KM.

WATER YEAR : 2018

CHI RIVER BASIN

Chi River at Ban Maha Chana Chai , Yasothon (E.20A)

Lat 15 - 31 - 22 N Long 104 - 15 - 13 E

Location : on right bank about 800 meters upstream from E.20 station.

Ban Maha Chana Chai **Amphoe** Maha Chana Chai **Changwat** Yasothon

Drainge Area	47,800 sq.km.
Type of Gage	Water - stage recorder.
Zero Gage at Bottom	+112.000 m. (MSL.)
Bench Mark	B.M.- H.D.
Location BM	On right bank at the abutment of the bridge. **Elevation** +126.619 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	1973 to date
Rating Operation	
Period of Rating	1974 to date
Rated by Flot	-
Rated by Current Meter	1974 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	Overbank flow starts at elevation +119.400 m.(MSL.) and is including overbank flow.
General Description	Records fair. Tat Noi barrage situated downstream from the gage site. Stage-discharge relation defined by 20 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

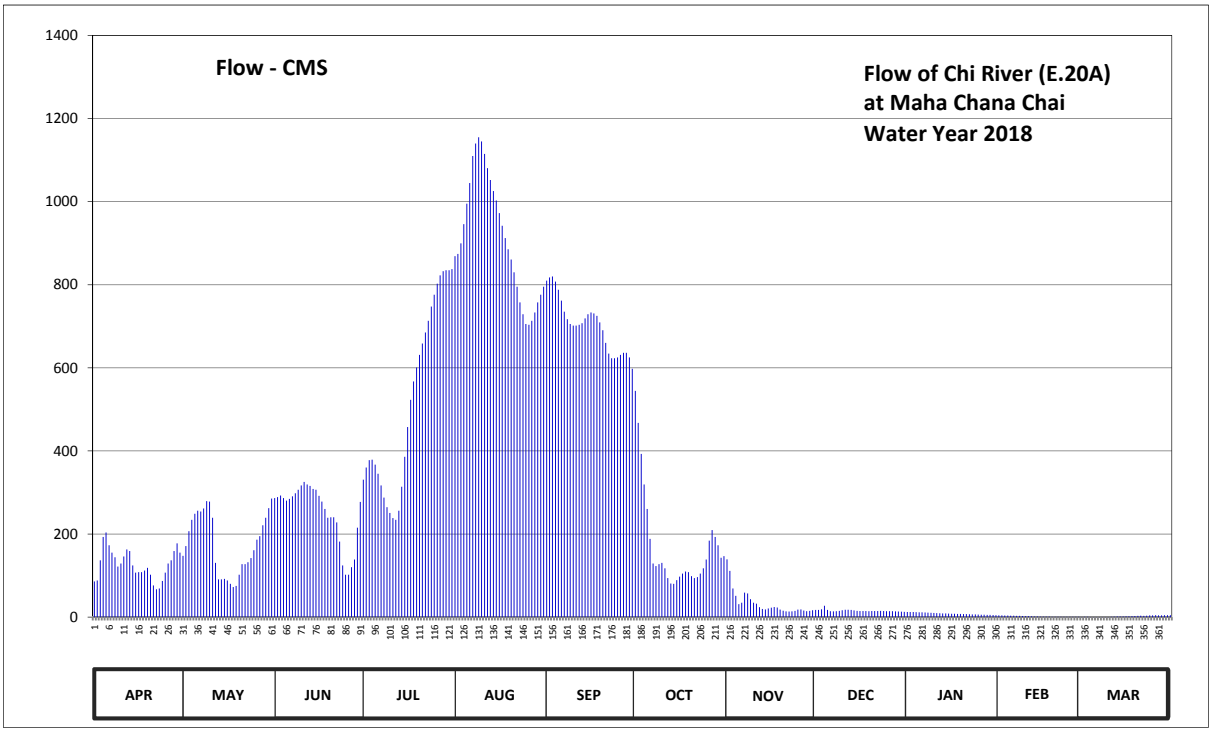
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	116.11	116.57	117.50	117.92	121.37	121.14	119.66	116.73	116.06	115.83	114.84	114.20	
2	116.13	116.69	117.52	118.18	121.39	121.17	119.09	116.64	116.06	115.83	114.81	114.21	
3	116.51	116.84	117.56	118.33	121.48	121.18	118.46	116.46	116.10	115.81	114.79	114.22	
4	116.79	117.00	117.50	118.34	121.61	121.13	117.81	116.37	116.22	115.78	114.76	114.19	
5	116.83	117.14	117.44	118.24	121.74	121.05	117.25	116.25	116.06	115.76	114.73	114.14	
6	116.70	117.21	117.48	118.05	121.87	120.93	116.77	116.28	115.94	115.74	114.70	114.14	
7	116.61	117.19	117.54	117.79	122.01	120.80	116.46	116.41	115.91	115.70	114.67	114.16	
8	116.55	117.26	117.61	117.51	122.07	120.71	116.42	116.40	115.95	115.66	114.64	114.19	
9	116.41	117.43	117.69	117.29	122.10	120.65	116.45	116.33	116.00	115.62	114.60	114.18	
10	116.46	117.42	117.79	117.16	122.08	120.63	116.47	116.28	116.04	115.59	114.56	114.17	
11	116.56	117.05	117.87	117.04	122.02	120.63	116.38	116.26	116.07	115.56	114.51	114.21	
12	116.65	116.47	117.81	117.00	121.95	120.64	116.19	116.18	116.07	115.51	114.47	114.29	
13	116.63	116.16	117.78	117.21	121.89	120.66	116.05	116.11	116.06	115.48	114.43	114.38	
14	116.43	116.16	117.71	117.76	121.82	120.72	116.04	116.09	116.03	115.45	114.39	114.41	
15	116.30	116.17	117.69	118.40	121.76	120.77	116.14	116.13	116.00	115.42	114.36	114.43	
16	116.31	116.13	117.55	119.01	121.68	120.79	116.22	116.16	115.97	115.40	114.34	114.44	
17	116.31	116.04	117.42	119.52	121.60	120.78	116.28	116.19	115.97	115.37	114.32	114.45	
18	116.34	115.93	117.25	119.81	121.52	120.75	116.32	116.17	115.97	115.34	114.30	114.50	
19	116.39	115.97	117.05	120.03	121.43	120.67	116.31	116.08	115.96	115.32	114.28	114.58	
20	116.26	116.26	117.06	120.22	121.34	120.57	116.23	116.01	115.97	115.29	114.25	114.65	
21	115.99	116.45	117.06	120.39	121.22	120.40	116.19	115.93	115.97	115.25	114.23	114.70	
22	115.85	116.45	116.94	120.54	121.08	120.24	116.21	115.89	115.98	115.21	114.24	114.67	
23	115.88	116.48	116.74	120.69	120.91	120.17	116.28	115.93	115.99	115.17	114.24	114.71	
24	116.12	116.54	116.43	120.86	120.77	120.17	116.38	115.99	115.98	115.14	114.25	114.83	
25	116.30	116.64	116.26	121.00	120.65	120.18	116.52	116.08	115.96	115.11	114.24	114.85	
26	116.46	116.76	116.26	121.11	120.64	120.22	116.75	116.09	115.95	115.07	114.23	114.90	
27	116.51	116.80	116.40	121.19	120.69	120.25	116.85	116.02	115.94	115.03	114.22	114.84	
28	116.63	116.89	116.52	121.23	120.79	120.25	116.79	115.94	115.92	115.00	114.21	114.85	
29	116.72	117.05	116.87	121.24	120.91	120.18	116.70	115.99	115.89	114.97		114.86	
30	116.61	117.27	117.41	121.24	121.00	120.01	116.74	116.04	115.87	114.94		114.86	
31		117.49		121.25	121.08		116.75		115.84	114.90		114.86	
Mean	116.41	116.71	117.26	119.21	121.43	120.61	116.75	116.18	115.99	115.40	114.45	114.49	
Max	116.83	117.49	117.87	121.25	122.10	121.18	119.66	116.73	116.22	115.83	114.84	114.90	122.10
Min	115.85	115.93	116.26	117.00	120.64	120.01	116.04	115.89	115.84	114.90	114.21	114.14	114.14

Annual Max Momentary Gage Height 122.11 m. (MSL.) , at 03.00 Hours, on Aug 9, 2018

Zero Gage at Bottom Elevation 112.00 m. (MSL.) , River Bed 110.10 m. (MSL.)

Left Bank Elevation 119.39 m. (MSL.) ,

Right Bank Elevation 121.03 m. (MSL.) , Drainage Are 47,800 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	86.00	147.60	286.50	330.60	868.90	810.00	544.32	139.10	17.40	12.45	4.28	0.50		
2	88.00	171.00	288.60	360.06	874.30	817.50	467.52	111.20	17.40	12.45	4.07	0.55		
3	136.80	206.60	292.80	377.61	899.40	820.00	392.82	69.00	19.00	12.15	3.93	0.60		
4	192.80	234.00	286.50	378.78	945.80	807.50	319.05	51.00	27.40	11.80	3.72	0.45		
5	203.70	248.70	280.20	367.08	995.20	788.00	260.25	31.00	17.40	11.60	3.51	0.20		
6	173.00	256.05	284.40	344.85	1044.60	761.65	188.40	34.60	14.10	11.40	3.30	0.20		
7	155.00	253.95	290.70	316.95	1110.00	735.00	129.00	59.00	13.65	11.00	3.12	0.30		
8	144.00	261.30	298.05	287.55	1140.00	717.00	123.00	57.00	14.25	10.60	2.94	0.45		
9	121.50	279.15	306.45	264.45	1155.00	705.50	127.50	43.00	15.00	10.20	2.70	0.40		
10	129.00	278.10	316.95	250.80	1145.00	701.70	130.50	34.60	16.60	9.91	2.46	0.35		
11	145.80	239.25	325.35	238.20	1115.00	701.70	117.40	32.20	17.80	9.64	2.16	0.55		
12	163.00	130.50	319.05	234.00	1080.50	703.60	94.00	23.80	17.80	9.19	1.92	0.95		
13	159.00	91.00	315.90	256.05	1052.20	707.40	81.00	19.60	17.40	8.92	1.68	1.40		
14	124.50	91.00	308.55	313.80	1025.60	719.00	80.20	18.60	16.20	8.65	1.45	1.56		
15	107.00	92.00	306.45	385.80	1002.80	729.00	89.00	20.80	15.00	8.38	1.30	1.68		
16	108.30	88.00	291.75	457.28	972.40	733.00	97.40	22.60	14.55	8.20	1.20	1.74		
17	108.30	80.20	278.10	523.04	942.00	731.00	104.60	24.40	14.55	7.99	1.10	1.80		
18	112.20	72.28	260.25	567.12	912.40	725.00	109.60	23.20	14.55	7.78	1.00	2.10		
19	118.70	74.98	239.25	600.80	885.40	709.30	108.30	18.20	14.40	7.64	0.90	2.58		
20	102.20	102.20	240.30	631.20	860.80	690.60	98.60	15.40	14.55	7.43	0.75	3.00		
21	76.33	127.50	240.30	658.40	830.00	660.00	94.00	13.95	14.55	7.15	0.65	3.30		
22	66.88	127.50	228.00	685.20	795.20	634.40	96.20	13.35	14.70	6.87	0.70	3.12		
23	68.90	132.00	181.80	713.10	757.55	623.20	104.60	13.95	14.85	6.59	0.70	3.37		
24	87.00	142.20	124.50	747.30	729.00	623.20	117.40	14.85	14.70	6.38	0.75	4.21		
25	107.00	161.00	102.20	776.00	705.50	624.80	138.60	18.20	14.40	6.17	0.70	4.35		
26	129.00	186.20	102.20	802.50	703.60	631.20	184.00	18.60	14.25	5.89	0.65	4.70		
27	136.80	195.00	120.00	822.50	713.10	636.00	209.50	15.80	14.10	5.61	0.60	4.28		
28	159.00	221.10	138.60	832.50	733.00	636.00	192.80	14.10	13.80	5.40	0.55	4.35		
29	177.40	239.25	215.30	835.00	757.55	624.80	173.00	14.85	13.35	5.19		4.42		
30	155.00	262.35	277.05	835.00	776.00	597.60	142.80	16.60	13.05	4.98		4.42		
31		285.45		837.50	795.20		146.50		12.60	4.70		4.42		
Total	3842.11	5477.41	7546.05	16031.02	28323.00	21104.65	5261.86	1002.55	483.35	262.31	52.79	66.30	89453.40	CMSDAY
Mean	128.07	176.69	251.54	517.13	913.65	703.49	169.74	33.42	15.59	8.46	1.89	2.14	245.08	CMS
Max	203.70	285.45	325.35	837.50	1155.00	820.00	544.32	139.10	27.40	12.45	4.28	4.70	1155.00	CMS
Min	66.88	72.28	102.20	234.00	703.60	597.60	80.20	13.35	12.60	4.70	0.55	0.20	0.20	CMS
Runoff	331.96	473.25	651.98	1385.08	2447.11	1823.44	454.62	86.62	41.76	22.66	4.56	5.73	7728.77	MCM

Momentary Peak 1160.00 CMS, at 122.11 m. (MSL.), at 03.00 Hours, on Aug 9, 2018

Runoff Yield 5.13 Liters/Second/Square KM. Momentary Peak Yield 24.27 Liters/Second/Square KM.

WATER YEAR : 2018

CHI RIVER BASIN

Chi River at Ban Kaeng Ko , Chaiyaphum (E.21)

Lat 15 - 45 - 07 N Long 102 - 15 - 25 E

Location : on left bank about 75 meters upstream from the bridge on highway.

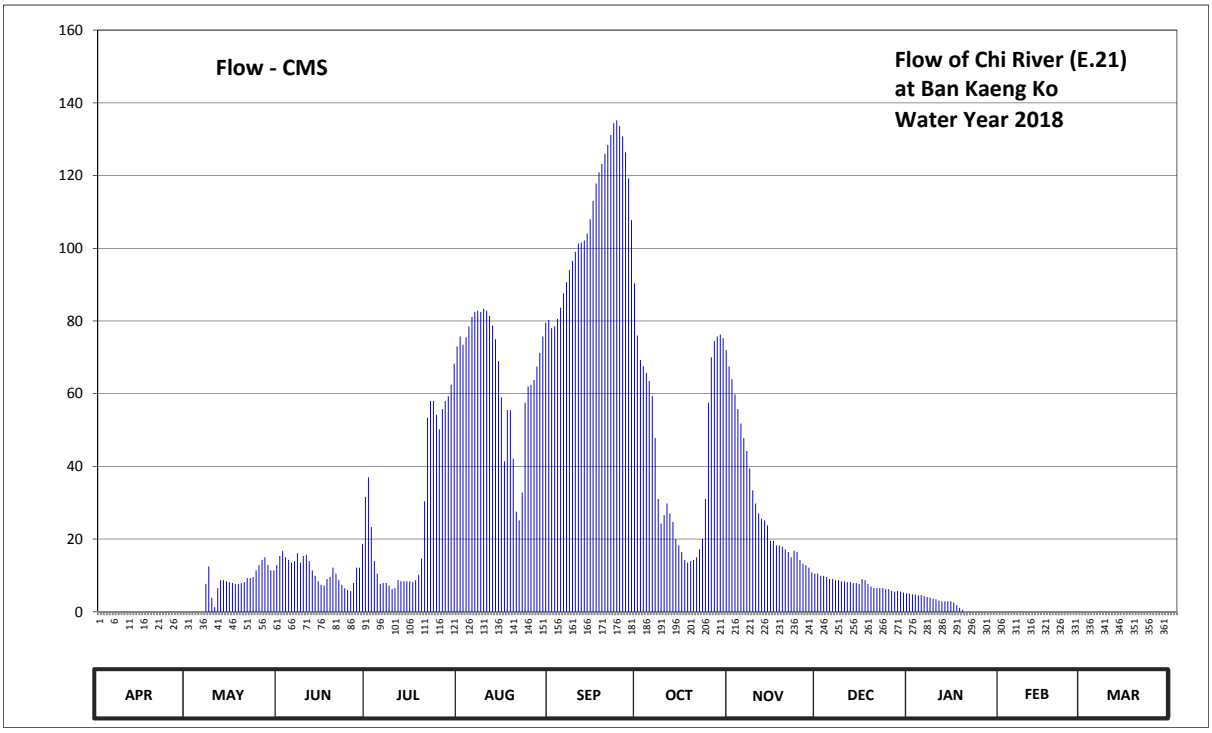
Ban Kaeng Ko **Amphoe** Mueang **Changwat** Chaiyaphum

Drainge Area	8,777 sq.km.
Type of Gage	Water - stage recorder.
Zero Gage at Bottom	+163.000 m. (MSL.)
Bench Mark	B.M.- H.D.
Location BM	In front of the automatic gage buiding. **Elevation** +177.414 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	1955 - 1957 , 1967 to date
Rating Operation	
Period of Rating	1968 - 1971 , 1973 - 1974 , 1982 to date
Rated by Flot	-
Rated by Current Meter	1968 - 1971 , 1973 - 1974 , 1982 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. The rubber weir situated about 2 kilometers downstream from the gage site. Stage-discharge relation defined by 17 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	166.53	166.47	167.81	168.25	169.33	169.42	169.07	168.86	167.65	167.45	166.53	165.84	
2	166.54	166.48	167.85	168.00	169.24	169.44	169.00	168.69	167.65	167.45	166.49	165.86	
3	166.55	166.48	167.80	167.77	169.32	169.52	168.93	168.53	167.64	167.44	166.44	165.88	
4	166.56	166.49	167.78	167.67	169.44	169.63	168.84	168.46	167.62	167.44	166.40	165.89	
5	166.57	166.50	167.76	167.57	169.54	169.77	168.67	168.41	167.62	167.43	166.36	165.91	
6	166.58	166.86	167.77	167.58	169.59	169.88	168.41	168.36	167.61	167.42	166.34	165.92	
7	166.58	167.57	167.83	167.58	169.60	170.00	168.15	168.29	167.61	167.41	166.31	165.92	
8	166.55	167.73	167.76	167.55	169.59	170.09	168.02	168.19	167.60	167.40	166.28	165.93	
9	166.55	167.41	167.81	167.51	169.62	170.18	168.07	168.13	167.60	167.39	166.22	165.93	
10	166.55	167.27	167.82	167.52	169.60	170.26	168.13	168.08	167.59	167.37	166.17	165.94	
11	166.55	167.52	167.77	167.61	169.55	170.27	168.08	168.05	167.59	167.36	166.13	165.95	
12	166.55	167.61	167.70	167.60	169.45	170.29	168.03	168.04	167.58	167.36	166.11	165.95	
13	166.53	167.61	167.65	167.60	169.30	170.36	167.93	168.01	167.58	167.36	166.08	165.95	
14	166.52	167.60	167.60	167.60	169.06	170.50	167.89	167.92	167.57	167.36	166.06	165.96	
15	166.51	167.59	167.56	167.60	168.66	170.68	167.84	167.92	167.62	167.34	166.03	165.96	
16	166.50	167.58	167.55	167.59	168.32	170.85	167.78	167.89	167.61	167.30	166.01	165.97	
17	166.50	167.57	167.62	167.61	168.52	170.96	167.76	167.89	167.57	167.26	165.99	165.97	
18	166.51	167.57	167.64	167.66	168.52	171.03	167.77	167.88	167.54	167.23	165.98	165.97	
19	166.51	167.58	167.72	167.79	168.33	171.10	167.78	167.86	167.52	167.20	165.97	165.97	
20	166.52	167.59	167.67	168.14	168.09	171.16	167.80	167.84	167.52	167.17	165.96	165.98	
21	166.50	167.63	167.61	168.48	168.04	171.23	167.86	167.80	167.52	167.13	165.95	165.98	
22	166.49	167.63	167.56	168.62	168.18	171.31	167.93	167.85	167.52	167.09	165.93	165.98	
23	166.48	167.64	167.52	168.62	168.60	171.33	168.15	167.84	167.51	167.04	165.91	165.99	
24	166.47	167.70	167.50	168.49	168.78	171.29	168.60	167.78	167.51	166.99	165.89	165.99	
25	166.45	167.74	167.49	168.44	168.80	171.22	169.10	167.75	167.49	166.93	165.86	165.99	
26	166.43	167.78	167.58	168.53	168.85	171.11	169.28	167.74	167.48	166.87	165.82	165.99	
27	166.45	167.80	167.72	168.62	169.00	170.90	169.33	167.72	167.49	166.80	165.81	165.99	
28	166.46	167.74	167.72	168.67	169.15	170.49	169.35	167.68	167.48	166.75	165.81	165.99	
29	166.46	167.70	167.90	168.80	169.33	169.87	169.31	167.67	167.47	166.70		165.99	
30	166.46	167.70	168.16	169.03	169.48	169.34	169.18	167.67	167.46	166.65		165.99	
31		167.74		169.22	169.51		169.00		167.46	166.59		165.99	
Mean	166.51	167.42	167.71	168.04	169.04	170.45	168.42	168.03	167.56	167.18	166.10	165.95	
Max	166.58	167.80	168.16	169.22	169.62	171.33	169.35	168.86	167.65	167.45	166.53	165.99	171.33
Min	166.43	166.47	167.49	167.51	168.04	169.34	167.76	167.67	167.46	166.59	165.81	165.84	165.81

Annual Max Momentary Gage Height	171.36	m. (MSL.) ,	at 06.00 Hours, on Sep 23, 2018		
Zero Gage at Bottom Elevation	163.00	m. (MSL.) ,	River Bed	163.33	m. (MSL.)
Left Bank Elevation	175.08	m. (MSL.) ,			
Right Bank Elevation	176.75	m. (MSL.) ,	Drainage Are	8,777	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	15.36	37.00	75.75	78.00	69.25	64.00	9.90	4.80	0.00	0.00		
2	0.00	0.00	16.80	23.30	73.50	78.50	67.50	59.75	9.90	4.80	0.00	0.00		
3	0.00	0.00	15.00	13.92	75.50	80.56	65.75	55.75	9.60	4.56	0.00	0.00		
4	0.00	0.00	14.28	10.50	78.50	83.64	63.50	51.80	9.00	4.56	0.00	0.00		
5	0.00	0.00	13.56	7.68	81.12	87.56	59.25	47.80	9.00	4.32	0.00	0.00		
6	0.00	0.00	13.92	7.92	82.52	90.64	47.80	44.20	8.70	4.08	0.00	0.00		
7	0.00	7.68	16.08	7.92	82.80	94.00	31.00	39.40	8.70	3.84	0.00	0.00		
8	0.00	12.48	13.56	7.20	82.52	96.52	24.24	33.40	8.40	3.60	0.00	0.00		
9	0.00	3.84	15.36	6.24	83.36	99.04	26.59	29.80	8.40	3.42	0.00	0.00		
10	0.00	1.26	15.72	6.48	82.80	101.28	29.80	27.06	8.16	3.06	0.00	0.00		
11	0.00	6.48	13.92	8.70	81.40	101.56	27.06	25.65	8.16	2.88	0.00	0.00		
12	0.00	8.70	11.40	8.40	78.75	102.12	24.71	25.18	7.92	2.88	0.00	0.00		
13	0.00	8.70	9.90	8.40	75.00	104.08	20.01	23.77	7.92	2.88	0.00	0.00		
14	0.00	8.40	8.40	8.40	69.00	108.00	18.24	19.54	7.68	2.88	0.00	0.00		
15	0.00	8.16	7.44	8.40	59.00	113.04	16.44	19.54	9.00	2.52	0.00	0.00		
16	0.00	7.92	7.20	8.16	41.40	117.80	14.28	18.24	8.70	1.80	0.00	0.00		
17	0.00	7.68	9.00	8.70	55.50	120.88	13.56	18.24	7.68	1.08	0.00	0.00		
18	0.00	7.68	9.60	10.20	55.50	123.20	13.92	17.88	6.96	0.54	0.00	0.00		
19	0.00	7.92	12.12	14.64	42.10	126.00	14.28	17.16	6.48	0.00	0.00	0.00		
20	0.00	8.16	10.50	30.40	27.53	128.40	15.00	16.44	6.48	0.00	0.00	0.00		
21	0.00	9.30	8.70	53.40	25.18	131.20	17.16	15.00	6.48	0.00	0.00	0.00		
22	0.00	9.30	7.44	58.00	32.80	134.40	20.01	16.80	6.48	0.00	0.00	0.00		
23	0.00	9.60	6.48	58.00	57.50	135.20	31.00	16.44	6.24	0.00	0.00	0.00		
24	0.00	11.40	6.00	54.20	62.00	133.60	57.50	14.28	6.24	0.00	0.00	0.00		
25	0.00	12.84	5.76	50.20	62.50	130.80	70.00	13.20	5.76	0.00	0.00	0.00		
26	0.00	14.28	7.92	55.75	63.75	126.40	74.50	12.84	5.52	0.00	0.00	0.00		
27	0.00	15.00	12.12	58.00	67.50	119.20	75.75	12.12	5.76	0.00	0.00	0.00		
28	0.00	12.84	12.12	59.25	71.25	107.72	76.25	10.80	5.52	0.00	0.00	0.00		
29	0.00	11.40	18.60	62.50	75.75	90.36	75.25	10.50	5.28	0.00		0.00		
30	0.00	11.40	31.60	68.25	79.50	76.00	72.00	10.50	5.04	0.00		0.00		
31		12.84		73.00	80.28		67.50		5.04	0.00		0.00		
Total	0.00	235.26	365.86	893.11	2061.56	3219.70	1299.10	787.08	230.10	58.50	0.00	0.00	9150.27	CMSDAY
Mean	0.00	7.59	12.20	28.81	66.50	107.32	41.91	26.24	7.42	1.89	0.00	0.00	25.07	CMS
Max	0.00	15.00	31.60	73.00	83.36	135.20	76.25	64.00	9.90	4.80	0.00	0.00	135.20	CMS
Min	0.00	0.00	5.76	6.24	25.18	76.00	13.56	10.50	5.04	0.00	0.00	0.00	0.00	CMS
Runoff	0.00	20.33	31.61	77.16	178.12	278.18	112.24	68.00	19.88	5.05	0.00	0.00	790.58	MCM

Momentary Peak 136.40 CMS, at 171.36 m. (MSL.), at 06.00 Hours, on Sep 23, 2018

Runoff Yield 2.86 Liters/Second/Square KM. Momentary Peak Yield 15.54 Liters/Second/Square KM.

WATER YEAR : 2018

CHI RIVER BASIN

Lam Nam Phong at Ban Tha Mao , Khon Kaen (E.22B)

Lat 16 - 39 - 13 N Long 102 - 49 - 39 E

Location : on right bank at Ban Tha Mao.

Ban Tha Mao **Amphoe** Nam Phong **Changwat** Khon Kaen

Drainge Area	13,638 sq.km.
Type of Gage	Water - stage recorder.
Zero Gage at Bottom	+150.900 m. (MSL.)
Bench Mark	B.M.- Highways Dept.
Location BM	On left bank at the footpath of the bridge. **Elevation** +163.911 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	1965 to date
Rating Operation	
Period of Rating	1966 - 1972 , 1982 - 1987 , 1992 to date
Rated by Flot	-
Rated by Current Meter	1966 - 1972 , 1982 - 1987 , 1992 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. Flow regulated by Ubonrat Dam about 35 kilometers above gage site and Nong Wai weir situated about 5 kilometers above gage site. Stage-discharge relation defined by 21 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

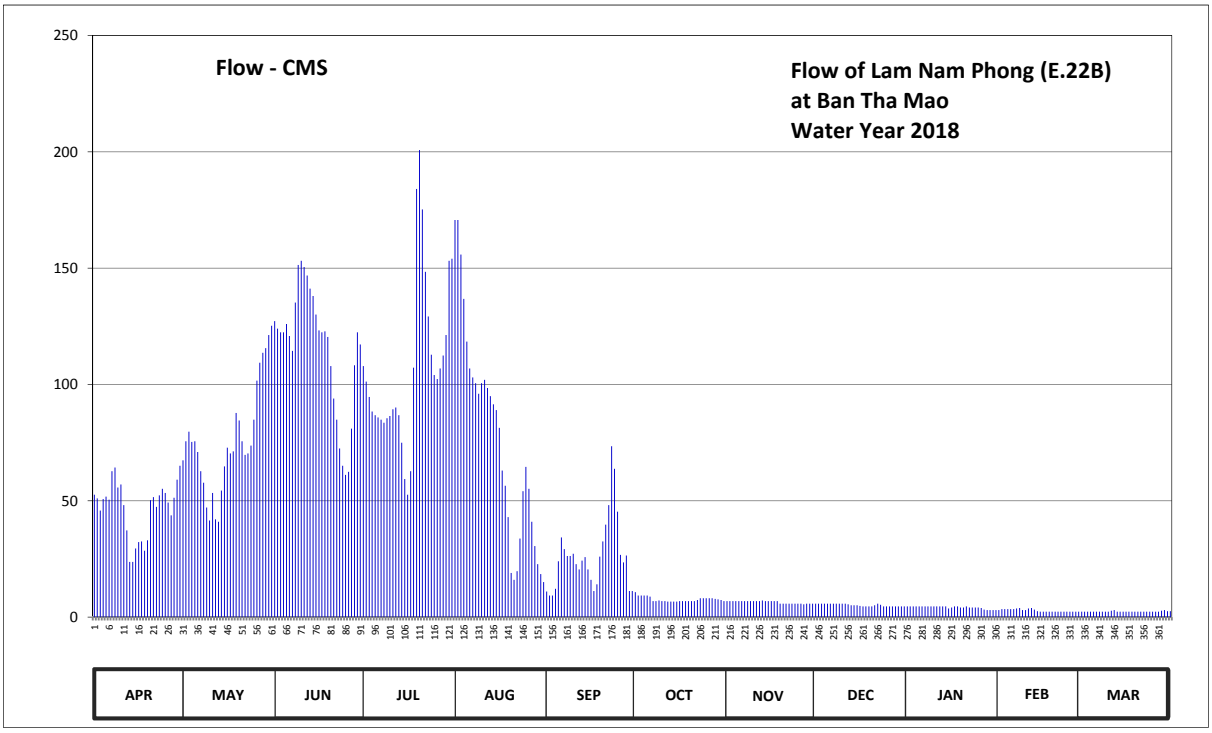
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	153.33	153.90	155.63	155.14	156.66	151.67	151.66	151.50	151.45	151.40	151.33	151.30	
2	153.27	154.18	155.55	154.95	156.66	151.60	151.60	151.50	151.45	151.40	151.35	151.30	
3	153.07	154.31	155.51	154.76	156.33	151.60	151.60	151.50	151.45	151.40	151.35	151.30	
4	153.26	154.17	155.51	154.58	155.87	151.72	151.60	151.50	151.45	151.40	151.35	151.30	
5	153.30	154.18	155.60	154.53	155.41	152.20	151.60	151.50	151.45	151.40	151.35	151.30	
6	153.25	154.03	155.47	154.50	155.11	152.61	151.58	151.50	151.45	151.40	151.35	151.30	
7	153.72	153.72	155.31	154.47	155.00	152.41	151.50	151.50	151.45	151.40	151.36	151.30	
8	153.78	153.53	155.83	154.43	154.93	152.29	151.50	151.50	151.45	151.40	151.37	151.30	
9	153.45	153.12	156.23	154.49	154.80	152.29	151.51	151.50	151.45	151.40	151.33	151.30	
10	153.50	152.90	156.27	154.52	154.93	152.33	151.50	151.50	151.45	151.40	151.33	151.30	
11	153.16	153.36	156.21	154.61	154.97	152.15	151.50	151.50	151.45	151.40	151.36	151.32	
12	152.73	152.92	156.12	154.63	154.87	152.06	151.49	151.50	151.44	151.40	151.37	151.33	
13	152.19	152.88	155.98	154.53	154.77	152.21	151.49	151.51	151.42	151.40	151.34	151.30	
14	152.19	153.40	155.90	154.16	154.67	152.27	151.49	151.50	151.42	151.40	151.31	151.30	
15	152.42	153.80	155.70	153.59	154.60	152.06	151.49	151.50	151.42	151.36	151.30	151.30	
16	152.53	154.09	155.53	153.33	154.36	151.88	151.50	151.50	151.41	151.38	151.30	151.30	
17	152.54	154.01	155.51	153.72	153.73	151.68	151.50	151.50	151.40	151.40	151.30	151.30	
18	152.38	154.04	155.52	155.12	153.48	151.80	151.50	151.50	151.40	151.40	151.30	151.30	
19	152.56	154.56	155.46	156.94	152.96	152.28	151.50	151.45	151.40	151.38	151.30	151.30	
20	153.24	154.46	155.14	157.25	152.00	152.54	151.50	151.45	151.40	151.38	151.30	151.30	
21	153.29	154.18	154.74	156.76	151.88	152.83	151.50	151.45	151.42	151.40	151.30	151.30	
22	153.13	153.99	154.47	156.16	152.03	153.16	151.52	151.45	151.45	151.38	151.30	151.30	
23	153.32	154.01	154.08	155.68	152.59	154.11	151.55	151.45	151.43	151.38	151.30	151.30	
24	153.43	154.12	153.81	155.27	153.39	153.76	151.55	151.45	151.40	151.38	151.30	151.30	
25	153.36	154.47	153.66	155.03	153.79	153.05	151.55	151.45	151.40	151.38	151.30	151.30	
26	153.20	154.96	153.71	154.98	153.43	152.31	151.55	151.45	151.40	151.37	151.30	151.30	
27	152.99	155.18	154.35	155.11	152.88	152.18	151.55	151.44	151.40	151.34	151.30	151.30	
28	153.28	155.29	155.15	155.26	152.46	152.30	151.54	151.45	151.40	151.33	151.30	151.32	
29	153.58	155.34	155.51	155.48	152.15	151.68	151.53	151.45	151.40	151.33		151.33	
30	153.81	155.48	155.38	156.27	151.98	151.68	151.52	151.45	151.40	151.33		151.31	
31		155.58		156.29	151.84		151.50		151.40	151.33		151.31	
Mean	153.11	154.13	155.29	155.05	154.02	152.29	151.53	151.48	151.42	151.38	151.32	151.30	
Max	153.81	155.58	156.27	157.25	156.66	154.11	151.66	151.51	151.45	151.40	151.37	151.33	157.25
Min	152.19	152.88	153.66	153.33	151.84	151.60	151.49	151.44	151.40	151.33	151.30	151.30	151.30

Annual Max Momentary Gage Height 157.40 m. (MSL.) , at 06.00 Hours, on Jul 20, 2018

Zero Gage at Bottom Elevation 150.90 m. (MSL.) , River Bed 150.42 m. (MSL.)

Left Bank Elevation 163.63 m. (MSL.) ,

Right Bank Elevation 163.13 m. (MSL.) , Drainage Are 13,638 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	52.58	67.40	127.20	107.90	170.70	10.98	10.74	6.90	5.75	4.60	2.99	2.30		
2	51.02	75.58	124.00	101.25	170.70	9.30	9.30	6.90	5.75	4.60	3.45	2.30		
3	45.82	79.72	122.40	94.60	155.85	9.30	9.30	6.90	5.75	4.60	3.45	2.30		
4	50.76	75.27	122.40	88.36	136.80	12.18	9.30	6.90	5.75	4.60	3.45	2.30		
5	51.80	75.58	126.00	86.76	118.40	24.00	9.30	6.90	5.75	4.60	3.45	2.30		
6	50.50	70.93	120.80	85.80	106.85	34.25	8.82	6.90	5.75	4.60	3.45	2.30		
7	62.72	62.72	114.40	84.84	103.00	29.25	6.90	6.90	5.75	4.60	3.68	2.30		
8	64.28	57.78	135.20	83.56	100.55	26.25	6.90	6.90	5.75	4.60	3.91	2.30		
9	55.70	47.12	151.35	85.48	96.00	26.25	7.14	6.90	5.75	4.60	2.99	2.30		
10	57.00	41.50	153.15	86.44	100.55	27.25	6.90	6.90	5.75	4.60	2.99	2.30		
11	48.16	53.36	150.45	89.35	101.95	22.75	6.90	6.90	5.75	4.60	3.68	2.76		
12	37.25	42.00	146.80	90.05	98.45	20.50	6.67	6.90	5.52	4.60	3.91	2.99		
13	23.75	41.00	141.20	86.76	94.95	24.25	6.67	7.14	5.06	4.60	3.22	2.30		
14	23.75	54.40	138.00	74.96	91.45	25.75	6.67	6.90	5.06	4.60	2.53	2.30		
15	29.50	64.80	130.00	59.34	89.00	20.50	6.67	6.90	5.06	3.68	2.30	2.30		
16	32.25	72.79	123.20	52.58	81.32	16.02	6.90	6.90	4.83	4.14	2.30	2.30		
17	32.50	70.31	122.40	62.72	62.98	11.22	6.90	6.90	4.60	4.60	2.30	2.30		
18	28.50	71.24	122.80	107.20	56.48	14.10	6.90	6.90	4.60	4.60	2.30	2.30		
19	33.00	87.72	120.40	184.00	43.00	26.00	6.90	5.75	4.60	4.14	2.30	2.30		
20	50.24	84.52	107.90	200.75	19.00	32.50	6.90	5.75	4.60	4.14	2.30	2.30		
21	51.54	75.58	93.90	175.20	16.02	39.75	6.90	5.75	5.06	4.60	2.30	2.30		
22	47.38	69.74	84.84	148.40	19.75	48.16	7.38	5.75	5.75	4.14	2.30	2.30		
23	52.32	70.31	72.48	129.20	33.75	73.41	8.10	5.75	5.29	4.14	2.30	2.30		
24	55.18	73.72	65.06	112.80	54.14	63.76	8.10	5.75	4.60	4.14	2.30	2.30		
25	53.36	84.84	61.16	104.05	64.54	45.30	8.10	5.75	4.60	4.14	2.30	2.30		
26	49.20	101.60	62.46	102.30	55.18	26.75	8.10	5.75	4.60	3.91	2.30	2.30		
27	43.75	109.30	81.00	106.85	41.00	23.50	8.10	5.52	4.60	3.22	2.30	2.30		
28	51.28	113.60	108.25	112.40	30.50	26.50	7.86	5.75	4.60	2.99	2.30	2.76		
29	59.08	115.60	122.40	121.20	22.75	11.22	7.62	5.75	4.60	2.99		2.99		
30	65.06	121.20	117.20	153.15	18.50	11.22	7.38	5.75	4.60	2.99		2.53		
31		125.20		154.05	15.06		6.90		4.60	2.99		2.53		
Total	1409.23	2356.43	3468.80	3332.30	2369.17	792.17	237.22	193.21	160.08	129.95	79.35	74.06	14601.97	CMSDAY
Mean	46.97	76.01	115.63	107.49	76.42	26.41	7.65	6.44	5.16	4.19	2.83	2.39	40.01	CMS
Max	65.06	125.20	153.15	200.75	170.70	73.41	10.74	7.14	5.75	4.60	3.91	2.99	200.75	CMS
Min	23.75	41.00	61.16	52.58	15.06	9.30	6.67	5.52	4.60	2.99	2.30	2.30	2.30	CMS
Runoff	121.76	203.60	299.70	287.91	204.70	68.44	20.50	16.69	13.83	11.23	6.86	6.40	1261.61	MCM

Momentary Peak 209.00 CMS, at 157.40 m. (MSL.), at 06.00 Hours, on Jul 20, 2018

Runoff Yield 2.93 Liters/Second/Square KM. Momentary Peak Yield 15.32 Liters/Second/Square KM.

WATER YEAR : 2018

CHI RIVER BASIN

Chi River at Ban Khai , Chaiyaphum (E.23)

Lat 15 - 40 - 49 N Long 102 - 00 - 46 E

Location : on left bank at the bridge on highway.

	Ban Khai	**Amphoe** Mueang	**Changwat** Chaiyaphum
Drainge Area	6,282 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+176.200 m. (MSL.)		
Bench Mark	B.M.- H.D.		
Location BM	On left bank about 20 meters from the automatic gage building.	**Elevation** +185.546 m. (MSL.)	
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	1954 - 1956 , 1967 to date		
Rating Operation			
Period of Rating	1968 - 1974 , 1982 to date		
Rated by Flot	-		
Rated by Current Meter	1968 - 1974 , 1982 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. The local weir situated about 50 meters downstream from the gage site. Stage-discharge relation defined by 18 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

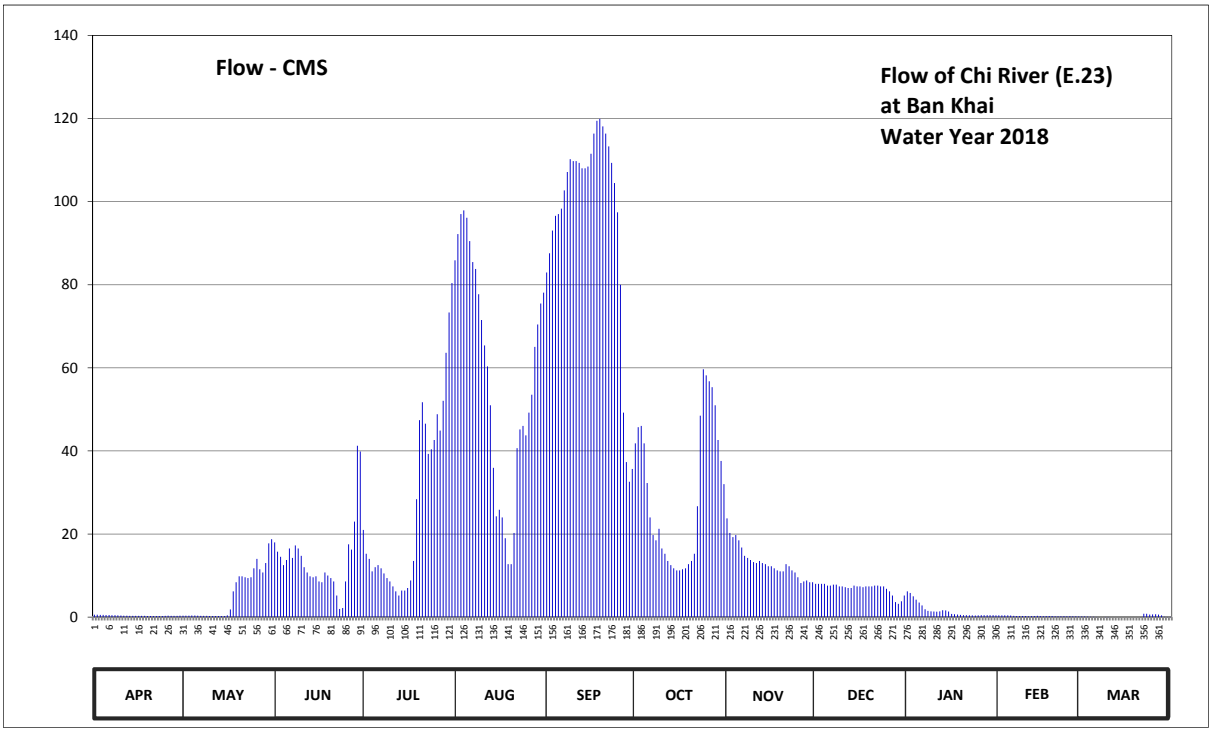
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	179.43	179.29	180.62	180.74	182.74	182.67	181.50	180.85	180.20	180.11	179.36	179.14	
2	179.43	179.29	180.53	180.51	182.89	182.78	181.64	180.71	180.20	180.09	179.36	179.14	
3	179.42	179.30	180.48	180.46	183.00	182.91	181.65	180.67	180.20	180.05	179.34	179.10	
4	179.41	179.31	180.40	180.34	183.02	182.99	181.50	180.69	180.20	180.01	179.34	179.06	
5	179.40	179.31	180.45	180.38	182.98	183.00	181.16	180.64	180.18	179.95	179.31	179.07	
6	179.39	179.30	180.56	180.40	182.85	183.03	180.86	180.57	180.18	179.88	179.28	179.04	
7	179.38	179.28	180.47	180.37	182.73	183.13	180.69	180.49	180.19	179.78	179.24	179.00	
8	179.38	179.27	180.59	180.32	182.69	183.23	180.64	180.47	180.19	179.70	179.24	179.01	
9	179.35	179.26	180.56	180.27	182.54	183.30	180.75	180.45	180.17	179.68	179.25	179.02	
10	179.32	179.25	180.49	180.23	182.37	183.29	180.56	180.43	180.17	179.67	179.23	179.02	
11	179.30	179.24	180.38	180.17	182.20	183.29	180.51	180.42	180.16	179.66	179.19	179.01	
12	179.29	179.24	180.33	180.11	182.06	183.28	180.44	180.44	180.15	179.68	179.22	179.00	
13	179.28	179.23	180.29	180.06	181.80	183.25	180.40	180.42	180.15	179.73	179.24	178.95	
14	179.27	179.23	180.28	180.12	181.29	183.25	180.37	180.41	180.18	179.72	179.28	178.83	
15	179.27	179.23	180.29	180.12	180.87	183.26	180.35	180.39	180.17	179.67	179.25	178.81	
16	179.27	179.35	180.23	180.15	180.93	183.33	180.35	180.39	180.17	179.51	179.22	178.80	
17	179.27	179.77	180.22	180.24	180.86	183.44	180.36	180.37	180.16	179.47	179.23	178.70	
18	179.26	180.11	180.33	180.44	180.66	183.51	180.37	180.35	180.17	179.45	179.25	178.44	
19	179.25	180.22	180.30	181.02	180.41	183.52	180.41	180.34	180.17	179.41	179.23	178.36	
20	179.25	180.29	180.27	181.70	180.41	183.48	180.44	180.34	180.17	179.38	179.18	178.42	
21	179.25	180.29	180.23	181.82	180.71	183.44	180.51	180.41	180.18	179.37	179.18	178.84	
22	179.24	180.28	180.06	181.67	181.46	183.37	180.96	180.39	180.18	179.35	179.19	179.52	
23	179.24	180.27	179.79	181.41	181.62	183.28	181.73	180.35	180.17	179.34	179.21	179.52	
24	179.24	180.28	179.82	181.45	181.65	183.17	182.04	180.33	180.17	179.32	179.20	179.45	
25	179.28	180.37	180.23	181.53	181.57	183.01	182.00	180.28	180.14	179.34	179.21	179.46	
26	179.30	180.46	180.60	181.74	181.75	182.60	181.96	180.21	180.11	179.37	179.18	179.47	
27	179.28	180.36	180.55	181.61	181.87	181.75	181.92	180.23	180.06	179.38	179.18	179.45	
28	179.27	180.33	180.82	181.83	182.19	181.34	181.80	180.24	179.96	179.37	179.15	179.34	
29	179.28	180.42	181.48	182.15	182.34	181.17	181.53	180.22	179.92	179.37		179.09	
30	179.29	180.61	181.43	182.42	182.48	181.28	181.35	180.22	179.98	179.38		179.03	
31		180.65		182.61	182.55		181.15		180.06	179.36		179.02	
Mean	179.31	179.78	180.44	180.92	181.92	182.95	181.03	180.42	180.14	179.60	179.24	179.04	
Max	179.43	180.65	181.48	182.61	183.02	183.52	182.04	180.85	180.20	180.11	179.36	179.52	183.52
Min	179.24	179.23	179.79	180.06	180.41	181.17	180.35	180.21	179.92	179.32	179.15	178.36	178.36

Annual Max Momentary Gage Height 183.53 m. (MSL.) , at 06.00 Hours, on Sep 19, 2018

Zero Gage at Bottom Elevation 176.20 m. (MSL.) , River Bed 176.95 m. (MSL.)

Left Bank Elevation 185.25 m. (MSL.) ,

Right Bank Elevation 186.21 m. (MSL.) , Drainage Are 6,282 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.58	0.34	18.00	21.00	85.88	82.94	41.80	23.75	8.00	6.20	0.44	0.14		
2	0.58	0.34	15.75	15.25	92.18	87.56	45.72	20.25	8.00	5.80	0.44	0.14		
3	0.55	0.35	14.50	14.00	97.00	93.04	46.00	19.25	8.00	5.00	0.41	0.10		
4	0.53	0.37	12.50	11.00	97.88	96.56	41.80	19.75	8.00	4.20	0.41	0.06		
5	0.50	0.37	13.75	12.00	96.12	97.00	32.28	18.50	7.60	3.50	0.37	0.07		
6	0.49	0.35	16.50	12.50	90.50	98.32	24.00	16.75	7.60	2.80	0.32	0.04		
7	0.47	0.32	14.25	11.75	85.46	102.72	19.75	14.75	7.80	1.90	0.26	0.00		
8	0.47	0.31	17.25	10.50	83.78	107.12	18.50	14.25	7.80	1.50	0.26	0.01		
9	0.43	0.29	16.50	9.40	77.72	110.20	21.25	13.75	7.40	1.40	0.28	0.02		
10	0.38	0.28	14.75	8.60	71.52	109.76	16.50	13.25	7.40	1.35	0.25	0.02		
11	0.35	0.26	12.00	7.40	65.40	109.76	15.25	13.00	7.20	1.30	0.19	0.01		
12	0.34	0.26	10.75	6.20	60.36	109.32	13.50	13.50	7.00	1.40	0.23	0.00		
13	0.32	0.25	9.80	5.20	51.00	108.00	12.50	13.00	7.00	1.65	0.26	0.00		
14	0.31	0.25	9.60	6.40	35.92	108.00	11.75	12.75	7.60	1.60	0.32	0.00		
15	0.31	0.25	9.80	6.40	24.25	108.44	11.25	12.25	7.40	1.35	0.28	0.00		
16	0.31	0.43	8.60	7.00	25.84	111.52	11.25	12.25	7.40	0.78	0.23	0.00		
17	0.31	1.85	8.40	8.80	24.00	116.36	11.50	11.75	7.20	0.68	0.25	0.00		
18	0.29	6.20	10.75	13.50	19.00	119.46	11.75	11.25	7.40	0.63	0.28	0.00		
19	0.28	8.40	10.00	28.36	12.75	119.92	12.75	11.00	7.40	0.53	0.25	0.00		
20	0.28	9.80	9.40	47.40	12.75	118.12	13.50	11.00	7.40	0.47	0.18	0.00		
21	0.28	9.80	8.60	51.72	20.25	116.36	15.25	12.75	7.60	0.46	0.18	0.00		
22	0.26	9.60	5.20	46.56	40.68	113.28	26.68	12.25	7.60	0.43	0.19	0.80		
23	0.26	9.40	1.95	39.28	45.16	109.32	48.48	11.25	7.40	0.41	0.22	0.80		
24	0.26	9.60	2.20	40.40	46.00	104.48	59.64	10.75	7.40	0.38	0.20	0.63		
25	0.32	11.75	8.60	42.64	43.76	97.44	58.20	9.60	6.80	0.41	0.22	0.65		
26	0.35	14.00	17.50	48.84	49.20	80.00	56.76	8.20	6.20	0.46	0.18	0.68		
27	0.32	11.50	16.25	44.88	53.52	49.20	55.32	8.60	5.20	0.47	0.18	0.63		
28	0.31	10.75	23.00	52.08	65.04	37.32	51.00	8.80	3.60	0.46	0.15	0.41		
29	0.32	13.00	41.24	63.60	70.44	32.56	42.64	8.40	3.20	0.46		0.09		
30	0.34	17.75	39.84	73.32	75.48	35.64	37.60	8.40	3.80	0.47		0.03		
31		18.75		80.42	78.10		32.00		5.20	0.44		0.02		
Total	11.10	167.17	417.23	846.40	1796.94	2889.72	916.17	395.00	214.60	48.89	7.43	5.35	7716.00	CMSDAY
Mean	0.37	5.39	13.91	27.30	57.97	96.32	29.55	13.17	6.92	1.58	0.27	0.17	21.14	CMS
Max	0.58	18.75	41.24	80.42	97.88	119.92	59.64	23.75	8.00	6.20	0.44	0.80	119.92	CMS
Min	0.26	0.25	1.95	5.20	12.75	32.56	11.25	8.20	3.20	0.38	0.15	0.00	0.00	CMS
Runoff	0.96	14.44	36.05	73.13	155.26	249.67	79.16	34.13	18.54	4.22	0.64	0.46	666.66	MCM

Momentary Peak 120.38 CMS, at 183.53 m. (MSL.), at 06.00 Hours, on Sep 19, 2018

Runoff Yield 3.37 Liters/Second/Square KM. Momentary Peak Yield 19.16 Liters/Second/Square KM.

WATER YEAR : 2018

CHI RIVER BASIN

Lam Nam Phong at Ban Pha Nok Khao , Loei (E.29)

Lat 16 - 50 - 44 N Long 101 - 56 - 54 E

Location : on left bank in the vicinity of the forestry office about 400 meters from the bridge on highway.

Ban Pha Nok Khao **Amphoe** Phu Kradung **Changwat** Loei

Drainge Area	949 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+225.000 m. (MSL.)
Bench Mark	B.M.- H.D.
Location BM	In front of the automatic gage buiding. **Elevation** +236.945 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	1956 - 1958 , 1967 to date
Rating Operation	
Period of Rating	1978 to date
Rated by Flot	-
Rated by Current Meter	1978 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. Flow effected by Ubonrat Dam. Stage-discharge relation defined by 31 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

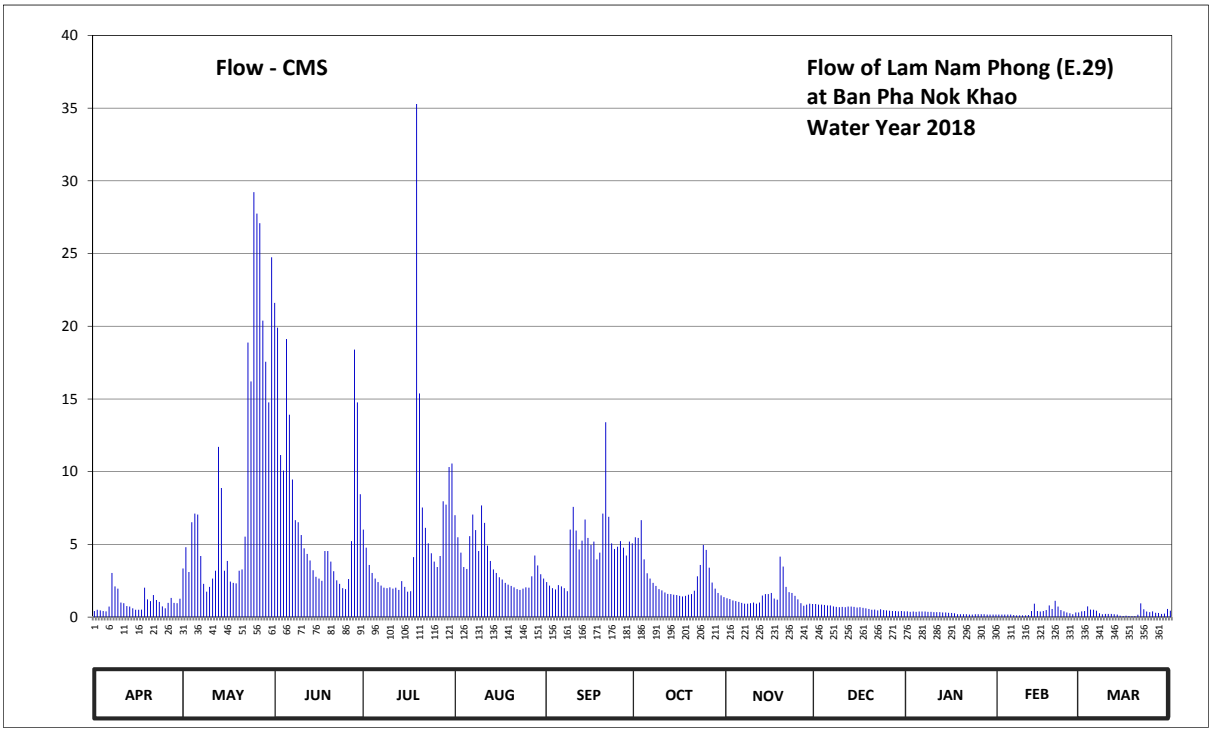
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	225.81	226.98	230.72	227.69	227.95	226.67	227.55	226.25	226.05	225.80	225.69	225.80	
2	225.85	227.37	230.45	227.36	227.55	226.59	227.54	226.22	226.03	225.78	225.69	225.81	
3	225.83	226.90	228.82	227.05	227.27	226.53	227.86	226.17	226.03	225.79	225.69	225.97	
4	225.81	227.82	228.60	226.88	227.01	226.50	227.15	226.15	226.02	225.78	225.69	225.86	
5	225.80	227.98	230.32	226.75	226.97	226.60	226.87	226.12	226.00	225.79	225.69	225.85	
6	225.96	227.96	229.37	226.67	227.57	226.57	226.75	226.09	226.00	225.79	225.67	225.82	
7	226.88	227.21	228.47	226.59	227.96	226.53	226.65	226.06	225.97	225.79	225.66	225.73	
8	226.57	226.63	227.86	226.54	227.68	226.46	226.58	226.06	225.95	225.78	225.66	225.70	
9	226.52	226.45	227.82	226.53	227.30	227.69	226.51	226.08	225.94	225.78	225.66	225.71	
10	226.10	226.56	227.59	226.55	228.10	228.08	226.48	226.10	225.95	225.77	225.66	225.71	
11	226.08	226.75	227.35	226.52	227.81	227.67	226.43	226.06	225.94	225.77	225.67	225.71	
12	225.98	226.93	227.25	226.54	227.40	227.33	226.40	226.10	225.96	225.77	225.81	225.70	
13	225.96	228.94	227.13	226.49	227.12	227.49	226.39	226.34	225.96	225.76	226.06	225.69	
14	225.90	228.35	226.94	226.69	226.96	227.87	226.37	226.39	225.95	225.76	225.81	225.65	
15	225.85	226.93	226.79	226.56	226.88	227.54	226.36	226.39	225.93	225.75	225.79	225.64	
16	225.85	227.12	226.75	226.45	226.78	227.41	226.33	226.42	225.94	225.74	225.81	225.65	
17	225.86	226.68	226.70	226.46	226.73	227.47	226.31	226.24	225.92	225.73	225.84	225.64	
18	226.54	226.65	227.30	227.19	226.65	227.15	226.33	226.20	225.90	225.70	226.00	225.63	
19	226.21	226.64	227.30	232.06	226.61	227.27	226.37	227.20	225.88	225.70	225.88	225.63	
20	226.15	226.93	227.11	229.65	226.58	227.98	226.39	227.02	225.85	225.70	226.16	225.68	
21	226.36	226.96	226.92	228.07	226.55	229.27	226.47	226.56	225.86	225.70	225.96	226.07	
22	226.19	227.56	226.71	227.72	226.51	227.92	226.80	226.44	225.83	225.69	225.84	225.87	
23	226.12	230.28	226.63	227.44	226.49	227.44	227.05	226.42	225.87	225.69	225.80	225.79	
24	225.97	229.81	226.53	227.26	226.52	227.34	227.41	226.33	225.84	225.70	225.76	225.77	
25	225.90	231.64	226.51	227.11	226.55	227.38	227.32	226.21	225.83	225.70	225.73	225.80	
26	226.09	231.51	226.74	227.01	226.54	227.48	227.00	226.08	225.82	225.70	225.70	225.75	
27	226.26	231.45	227.48	227.21	226.80	227.36	226.66	225.99	225.81	225.70	225.76	225.74	
28	226.09	230.53	230.20	228.16	227.22	227.22	226.52	226.03	225.81	225.69	225.76	225.71	
29	226.08	230.06	229.53	228.11	227.04	227.47	226.42	226.06	225.80	225.69		225.72	
30	226.23	229.53	228.26	228.65	226.85	227.44	226.35	226.05	225.81	225.69		225.88	
31		231.20		228.70	226.75		226.29		225.80	225.69		225.82	
Mean	226.09	228.20	227.87	227.38	227.05	227.32	226.71	226.26	225.91	225.74	225.78	225.76	
Max	226.88	231.64	230.72	232.06	228.10	229.27	227.86	227.20	226.05	225.80	226.16	226.07	232.06
Min	225.80	226.45	226.51	226.45	226.49	226.46	226.29	225.99	225.80	225.69	225.66	225.63	225.63

Annual Max Momentary Gage Height 233.15 m. (MSL.) , at 15.00 Hours, on May 25, 2018

Zero Gage at Bottom Elevation 225.00 m. (MSL.) , River Bed 225.38 m. (MSL.)

Left Bank Elevation 237.75 m. (MSL.) ,

Right Bank Elevation 237.91 m. (MSL.) , Drainage Are 949 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.42	3.34	21.61	6.02	7.01	2.41	5.49	1.30	0.90	0.40	0.18	0.40		
2	0.50	4.81	19.90	4.77	5.49	2.17	5.45	1.24	0.86	0.36	0.18	0.42		
3	0.46	3.10	11.14	3.59	4.43	1.99	6.67	1.14	0.86	0.38	0.18	0.74		
4	0.42	6.52	10.08	3.04	3.44	1.90	3.97	1.10	0.84	0.36	0.18	0.52		
5	0.40	7.12	19.12	2.65	3.31	2.20	3.01	1.04	0.80	0.38	0.18	0.50		
6	0.72	7.05	13.92	2.41	5.57	2.11	2.65	0.98	0.80	0.38	0.14	0.44		
7	3.04	4.20	9.46	2.17	7.05	1.99	2.35	0.92	0.74	0.38	0.12	0.26		
8	2.11	2.29	6.67	2.02	5.98	1.78	2.14	0.92	0.70	0.36	0.12	0.20		
9	1.96	1.75	6.52	1.99	4.54	6.02	1.93	0.96	0.68	0.36	0.12	0.22		
10	1.00	2.08	5.64	2.05	7.68	7.58	1.84	1.00	0.70	0.34	0.12	0.22		
11	0.96	2.65	4.73	1.96	6.48	5.95	1.69	0.92	0.68	0.34	0.14	0.22		
12	0.76	3.19	4.35	2.02	4.92	4.65	1.60	1.00	0.72	0.34	0.42	0.20		
13	0.72	11.71	3.89	1.87	3.86	5.26	1.58	1.48	0.72	0.32	0.92	0.18		
14	0.60	8.88	3.22	2.47	3.28	6.71	1.54	1.58	0.70	0.32	0.42	0.10		
15	0.50	3.19	2.77	2.08	3.04	5.45	1.52	1.58	0.66	0.30	0.38	0.08		
16	0.50	3.86	2.65	1.75	2.74	4.96	1.46	1.66	0.68	0.28	0.42	0.10		
17	0.52	2.44	2.50	1.78	2.59	5.19	1.42	1.28	0.64	0.26	0.48	0.08		
18	2.02	2.35	4.54	4.12	2.35	3.97	1.46	1.20	0.60	0.20	0.80	0.06		
19	1.22	2.32	4.54	35.28	2.23	4.43	1.54	4.16	0.56	0.20	0.56	0.06		
20	1.10	3.19	3.82	15.38	2.14	7.12	1.58	3.48	0.50	0.20	1.12	0.16		
21	1.52	3.28	3.16	7.54	2.05	13.40	1.81	2.08	0.52	0.20	0.72	0.94		
22	1.18	5.53	2.53	6.14	1.93	6.90	2.80	1.72	0.46	0.18	0.48	0.54		
23	1.04	18.88	2.29	5.07	1.87	5.07	3.59	1.66	0.54	0.18	0.40	0.38		
24	0.74	16.21	1.99	4.39	1.96	4.69	4.96	1.46	0.48	0.20	0.32	0.34		
25	0.60	29.22	1.93	3.82	2.05	4.84	4.62	1.22	0.46	0.20	0.26	0.40		
26	0.98	27.75	2.62	3.44	2.02	5.22	3.40	0.96	0.44	0.20	0.20	0.30		
27	1.32	27.09	5.22	4.20	2.80	4.77	2.38	0.78	0.42	0.20	0.32	0.28		
28	0.98	20.39	18.40	7.97	4.24	4.24	1.96	0.86	0.42	0.18	0.32	0.22		
29	0.96	17.56	14.76	7.73	3.55	5.19	1.66	0.92	0.40	0.18		0.24		
30	1.26	14.76	8.45	10.32	2.95	5.07	1.50	0.90	0.42	0.18		0.56		
31		24.74		10.56	2.65		1.38		0.40	0.18		0.44		
Total	30.51	291.45	222.42	170.60	116.20	143.23	80.95	41.50	19.30	8.54	10.20	9.80	1144.70	CMSDAY
Mean	1.02	9.40	7.41	5.50	3.75	4.77	2.61	1.38	0.62	0.28	0.36	0.32	3.14	CMS
Max	3.04	29.22	21.61	35.28	7.68	13.40	6.67	4.16	0.90	0.40	1.12	0.94	35.28	CMS
Min	0.40	1.75	1.93	1.75	1.87	1.78	1.38	0.78	0.40	0.18	0.12	0.06	0.06	CMS
Runoff	2.64	25.18	19.22	14.74	10.04	12.38	6.99	3.59	1.67	0.74	0.88	0.85	98.90	MCM

Momentary Peak 66.50 CMS, at 233.15 m. (MSL.), at 15.00 Hours, on May 25, 2018

Runoff Yield 3.30 Liters/Second/Square KM. Momentary Peak Yield 70.07 Liters/Second/Square KM.

WATER YEAR : 2018

CHI RIVER BASIN

Chi River at Ban Nong O , Chaiyaphum (E.32A)

Lat 15 - 54 - 41 N Long 101 - 42 - 42 E

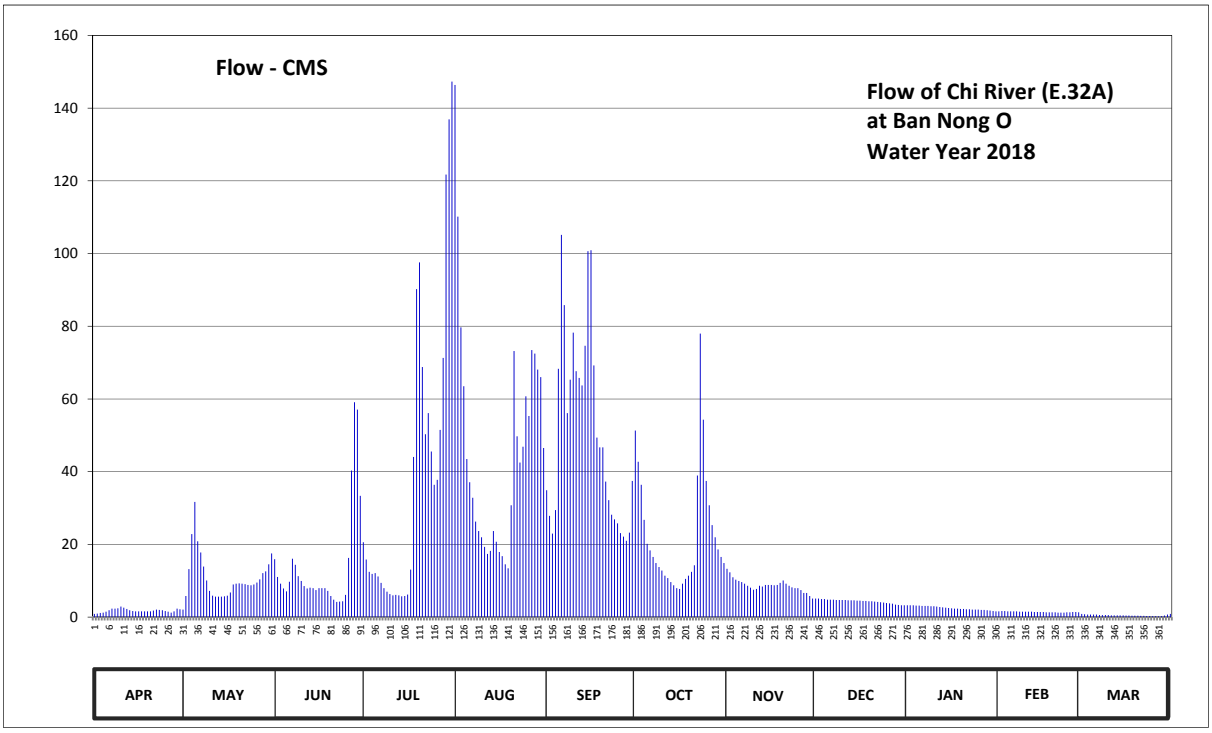
Location : on right bank about 500 meters north of Ban Nong O from about 600 meters upstream from E.32 gaging station.

	Ban Nong O	**Amphoe** Ban Khwao	**Changwat** Chaiyaphum
Drainge Area	2,906 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+198.000 m. (MSL.)		
Bench Mark	B.M.- H.D.		
Location BM	On right bank at the measuring line.		**Elevation** +211.424 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	1966 to date		
Rating Operation			
Period of Rating	1968 to date		
Rated by Flot	-		
Rated by Current Meter	1968 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow		
General Description	Records fair. Stage-discharge relation defined by 20 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	198.44	198.57	199.87	200.22	205.69	201.14	202.04	199.65	198.90	198.70	198.52	198.44	
2	198.45	198.98	199.46	199.86	204.47	200.71	201.59	199.57	198.90	198.70	198.53	198.43	
3	198.47	199.64	199.29	199.58	203.32	200.39	201.23	199.45	198.89	198.70	198.53	198.42	
4	198.48	200.38	199.17	199.53	202.63	200.81	200.64	199.39	198.89	198.69	198.52	198.42	
5	198.51	200.95	199.10	199.55	201.63	202.84	200.19	199.36	198.87	198.69	198.52	198.42	
6	198.55	200.24	199.34	199.47	201.27	204.29	200.06	199.33	198.87	198.68	198.52	198.42	
7	198.60	200.02	199.88	199.31	201.02	203.57	199.92	199.29	198.87	198.68	198.52	198.41	
8	198.60	199.70	199.74	199.18	200.61	202.28	199.78	199.24	198.86	198.68	198.51	198.41	
9	198.61	199.37	199.48	199.09	200.44	202.71	199.69	199.19	198.86	198.67	198.51	198.41	
10	198.66	199.11	199.36	199.03	200.32	203.26	199.61	199.14	198.86	198.67	198.51	198.41	
11	198.63	198.99	199.23	199.00	200.13	202.81	199.49	199.16	198.86	198.66	198.51	198.40	
12	198.59	198.96	199.17	199.01	199.99	202.73	199.43	199.24	198.85	198.65	198.51	198.40	
13	198.55	198.96	199.19	199.00	200.05	202.64	199.33	199.22	198.85	198.64	198.50	198.40	
14	198.53	198.96	199.18	198.97	200.44	203.11	199.25	199.26	198.85	198.63	198.50	198.40	
15	198.52	198.97	199.13	198.98	200.23	204.13	199.18	199.26	198.84	198.62	198.50	198.40	
16	198.52	198.99	199.18	199.02	200.03	204.14	199.16	199.26	198.84	198.61	198.50	198.39	
17	198.52	199.07	199.18	199.63	199.94	202.88	199.29	199.25	198.83	198.60	198.49	198.39	
18	198.52	199.27	199.18	201.66	199.75	201.94	199.41	199.26	198.83	198.60	198.49	198.38	
19	198.52	199.29	199.11	203.74	199.66	201.80	199.49	199.31	198.82	198.59	198.49	198.38	
20	198.52	199.30	198.98	204.02	200.89	201.80	199.58	199.37	198.82	198.59	198.49	198.38	
21	198.54	199.29	198.87	202.86	203.05	201.28	199.73	199.29	198.81	198.58	198.48	198.37	
22	198.57	199.28	198.80	201.99	201.96	200.98	201.38	199.24	198.80	198.58	198.48	198.37	
23	198.56	199.26	198.81	202.28	201.58	200.73	203.25	199.20	198.79	198.57	198.48	198.36	
24	198.55	199.25	198.82	201.74	201.81	200.65	202.19	199.18	198.78	198.57	198.49	198.36	
25	198.53	199.27	199.01	201.23	202.51	200.58	201.29	199.18	198.77	198.57	198.49	198.35	
26	198.51	199.32	199.90	201.31	202.24	200.40	200.89	199.13	198.76	198.56	198.50	198.35	
27	198.48	199.40	201.46	202.05	203.06	200.33	200.55	199.06	198.75	198.56	198.50	198.34	
28	198.52	199.55	202.43	202.97	203.02	200.25	200.32	199.06	198.72	198.55	198.49	198.35	
29	198.60	199.59	202.33	204.87	202.83	200.41	200.08	198.98	198.71	198.54		198.39	
30	198.58	199.75	201.05	205.38	202.74	201.29	199.92	198.90	198.70	198.53		198.42	
31		200.00		205.72	201.79		199.78		198.70	198.52		198.44	
Mean	198.54	199.41	199.59	200.98	201.58	201.90	200.25	199.25	198.82	198.62	198.50	198.39	
Max	198.66	200.95	202.43	205.72	205.69	204.29	203.25	199.65	198.90	198.70	198.53	198.44	205.72
Min	198.44	198.57	198.80	198.97	199.66	200.25	199.16	198.90	198.70	198.52	198.48	198.34	198.34

Annual Max Momentary Gage Height	206.05	m. (MSL.) ,	at 06.00 Hours, on Aug 1, 2018		
Zero Gage at Bottom Elevation	198.00	m. (MSL.) ,	River Bed	196.88	m. (MSL.)
Left Bank Elevation	210.01	m. (MSL.) ,			
Right Bank Elevation	211.42	m. (MSL.) ,	Drainage Are	2,906	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.87	2.06	15.94	20.58	146.39	34.88	51.30	13.30	5.08	3.25	1.60	0.87		
2	0.96	5.82	11.06	15.82	110.16	27.86	42.71	12.34	5.08	3.25	1.69	0.78		
3	1.14	13.18	9.19	12.46	79.68	22.96	36.41	10.95	4.99	3.25	1.69	0.68		
4	1.23	22.82	7.87	11.86	63.49	29.46	26.74	10.29	4.99	3.16	1.60	0.68		
5	1.51	31.70	7.10	12.10	43.47	68.32	20.16	9.96	4.81	3.16	1.60	0.68		
6	1.88	20.86	9.74	11.17	37.09	105.12	18.34	9.63	4.81	3.07	1.60	0.68		
7	2.33	17.78	16.06	9.41	32.84	85.82	16.54	9.19	4.81	3.07	1.60	0.59		
8	2.33	13.90	14.38	7.98	26.26	56.10	14.86	8.64	4.72	3.07	1.51	0.59		
9	2.43	10.07	11.28	6.99	23.66	65.33	13.78	8.09	4.72	2.98	1.51	0.59		
10	2.88	7.21	9.96	6.33	21.98	78.24	12.82	7.54	4.72	2.98	1.51	0.59		
11	2.61	5.91	8.53	6.00	19.32	67.63	11.39	7.76	4.72	2.88	1.51	0.50		
12	2.24	5.63	7.87	6.11	17.38	65.79	10.73	8.64	4.63	2.79	1.51	0.50		
13	1.88	5.63	8.09	6.00	18.20	63.72	9.63	8.42	4.63	2.70	1.42	0.50		
14	1.69	5.63	7.98	5.73	23.66	74.64	8.75	8.86	4.63	2.61	1.42	0.50		
15	1.60	5.73	7.43	5.82	20.72	100.64	7.98	8.86	4.53	2.52	1.42	0.50		
16	1.60	5.91	7.98	6.22	17.92	100.92	7.76	8.86	4.53	2.43	1.42	0.45		
17	1.60	6.77	7.98	13.06	16.78	69.24	9.19	8.75	4.44	2.33	1.33	0.45		
18	1.60	8.97	7.98	44.04	14.50	49.36	10.51	8.86	4.44	2.33	1.33	0.40		
19	1.60	9.19	7.21	90.24	13.42	46.70	11.39	9.41	4.35	2.24	1.33	0.40		
20	1.60	9.30	5.82	97.56	30.74	46.70	12.46	10.07	4.35	2.24	1.33	0.40		
21	1.78	9.19	4.81	68.78	73.20	37.26	14.26	9.19	4.26	2.15	1.23	0.35		
22	2.06	9.08	4.17	50.31	49.74	32.18	38.96	8.64	4.17	2.15	1.23	0.35		
23	1.97	8.86	4.26	56.10	42.52	28.18	78.00	8.20	4.08	2.06	1.23	0.30		
24	1.88	8.75	4.35	45.56	46.89	26.90	54.30	7.98	3.98	2.06	1.33	0.30		
25	1.69	8.97	6.11	36.41	60.73	25.78	37.43	7.98	3.89	2.06	1.33	0.25		
26	1.51	9.52	16.30	37.77	55.30	23.10	30.74	7.43	3.80	1.97	1.42	0.25		
27	1.23	10.40	40.32	51.50	73.44	22.12	25.30	6.66	3.71	1.97	1.42	0.20		
28	1.60	12.10	59.10	71.31	72.48	21.00	21.98	6.66	3.43	1.88	1.33	0.25		
29	2.33	12.58	57.10	121.73	68.09	23.24	18.62	5.82	3.34	1.78		0.45		
30	2.15	14.50	33.35	136.90	66.02	37.43	16.54	5.08	3.25	1.69		0.68		
31		17.50		147.32	46.51		14.86		3.25	1.60		0.87		
Total	53.78	335.52	419.32	1219.17	1432.58	1536.62	704.44	262.06	135.14	77.68	40.45	15.58	6232.34	CMSDAY
Mean	1.79	10.82	13.98	39.33	46.21	51.22	22.72	8.74	4.36	2.51	1.44	0.50	17.07	CMS
Max	2.88	31.70	59.10	147.32	146.39	105.12	78.00	13.30	5.08	3.25	1.69	0.87	147.32	CMS
Min	0.87	2.06	4.17	5.73	13.42	21.00	7.76	5.08	3.25	1.60	1.23	0.20	0.20	CMS
Runoff	4.65	28.99	36.23	105.34	123.77	132.76	60.86	22.64	11.68	6.71	3.49	1.35	538.47	MCM

Momentary Peak 157.60 CMS, at 206.05 m. (MSL.), at 06.00 Hours, on Aug 1, 2018

Runoff Yield 5.88 Liters/Second/Square KM. Momentary Peak Yield 54.23 Liters/Second/Square KM.

WATER YEAR : 2018

CHI RIVER BASIN

Nam Yang at Ban Kaeng Yao , Kalasin (E.54)

Lat 16 - 26 - 28 N Long 104 - 02 - 05 E

Location : on right bank at Ban Kaeng Yao about 2 kilometers downstream from proposed of USBR Damsite.

Ban Kaeng Yao **Amphoe** Kuchinarai **Changwat** Kalasin

Drainge Area	1,548 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+138.300 m. (MSL.)
Bench Mark	B.M.- H.D.
Location BM	On right bank at the abutment of the bridge. **Elevation** +149.988 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	1969 to date
Rating Operation	
Period of Rating	1969 - 1977 , 1983 to date
Rated by Flot	-
Rated by Current Meter	1969 - 1977 , 1983 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	Overbank flow starts at elevation +145.520 m.(MSL.), records are channel flow only.
General Description	Records fair. The weir situated about 100 meters downstream from the gage site. Stage-discharge relation defined by 16 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

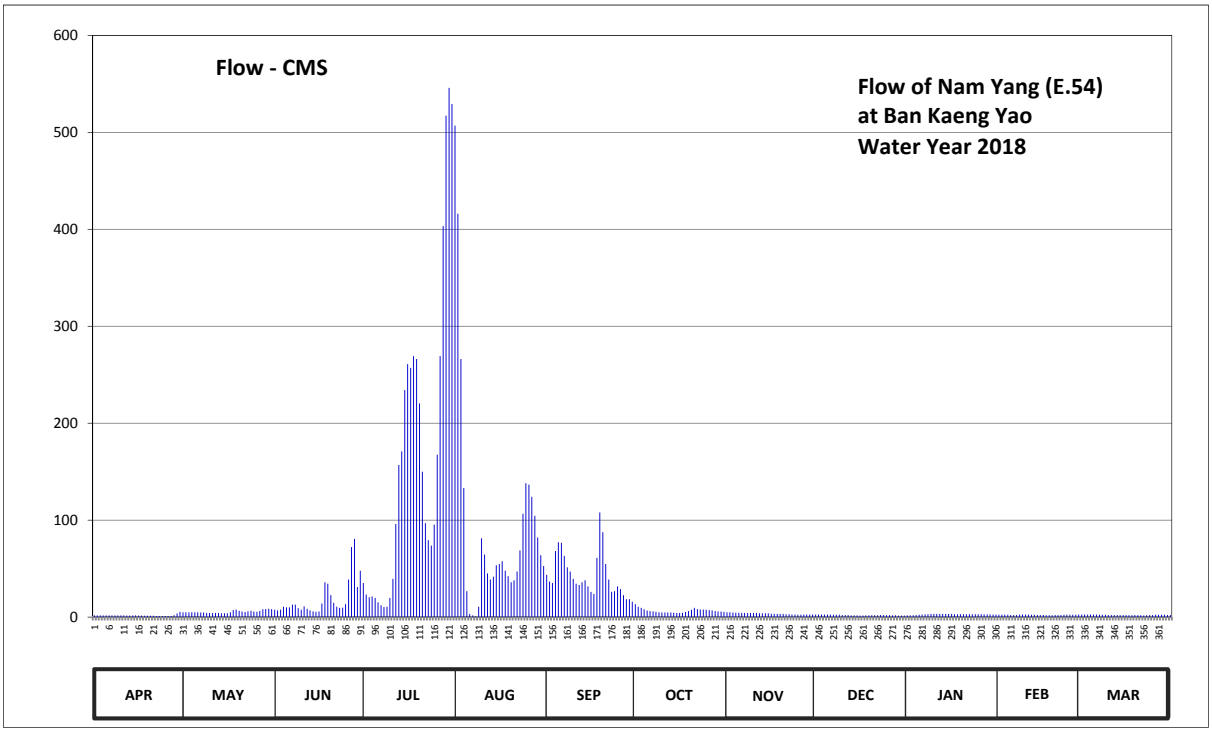
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	140.24	140.38	140.48	140.96	146.97	141.08	140.64	140.38	140.28	140.24	140.27	140.28	
2	140.24	140.38	140.46	140.79	146.00	140.98	140.59	140.38	140.29	140.24	140.27	140.28	
3	140.24	140.38	140.49	140.75	144.16	140.96	140.55	140.37	140.28	140.25	140.27	140.28	
4	140.24	140.38	140.59	140.76	142.36	141.43	140.50	140.36	140.28	140.26	140.27	140.28	
5	140.24	140.38	140.57	140.74	140.84	141.56	140.45	140.36	140.28	140.27	140.26	140.28	
6	140.24	140.38	140.57	140.67	140.31	141.55	140.43	140.35	140.28	140.28	140.26	140.28	
7	140.24	140.37	140.63	140.62	140.24	141.36	140.42	140.35	140.27	140.29	140.26	140.27	
8	140.24	140.37	140.63	140.58	140.16	141.19	140.40	140.35	140.27	140.30	140.28	140.27	
9	140.24	140.35	140.54	140.59	140.59	141.13	140.38	140.35	140.27	140.31	140.28	140.27	
10	140.24	140.35	140.48	140.74	141.62	141.02	140.37	140.35	140.26	140.31	140.28	140.26	
11	140.24	140.35	140.60	141.02	141.38	140.95	140.37	140.35	140.26	140.31	140.28	140.26	
12	140.23	140.35	140.52	141.83	141.10	140.93	140.37	140.34	140.26	140.31	140.27	140.26	
13	140.23	140.35	140.46	142.70	141.01	140.97	140.37	140.34	140.24	140.31	140.27	140.26	
14	140.23	140.34	140.42	142.90	141.05	141.00	140.36	140.34	140.24	140.31	140.26	140.26	
15	140.24	140.34	140.40	143.74	141.22	140.91	140.35	140.34	140.24	140.31	140.26	140.26	
16	140.23	140.34	140.41	144.09	141.24	140.83	140.35	140.32	140.23	140.31	140.26	140.26	
17	140.23	140.38	140.65	144.04	141.28	140.80	140.36	140.31	140.23	140.30	140.25	140.25	
18	140.22	140.47	140.97	144.20	141.14	141.33	140.39	140.31	140.24	140.30	140.25	140.25	
19	140.22	140.49	140.95	144.16	141.06	142.00	140.43	140.31	140.24	140.30	140.25	140.26	
20	140.22	140.44	140.78	143.56	140.97	141.71	140.48	140.31	140.25	140.30	140.26	140.26	
21	140.22	140.41	140.66	142.60	141.00	141.24	140.55	140.30	140.25	140.30	140.26	140.25	
22	140.21	140.39	140.59	141.84	141.13	141.01	140.51	140.30	140.25	140.30	140.26	140.24	
23	140.21	140.42	140.55	141.59	141.44	140.83	140.49	140.28	140.26	140.30	140.27	140.25	
24	140.21	140.44	140.56	141.51	141.98	140.84	140.49	140.28	140.26	140.30	140.27	140.26	
25	140.21	140.41	140.64	141.82	142.43	140.91	140.48	140.27	140.25	140.30	140.27	140.26	
26	140.21	140.40	141.01	142.85	142.41	140.87	140.47	140.27	140.25	140.30	140.27	140.27	
27	140.21	140.44	141.49	144.20	142.23	140.78	140.46	140.28	140.24	140.29	140.27	140.27	
28	140.25	140.50	141.61	145.86	141.95	140.72	140.43	140.28	140.24	140.29	140.28	140.27	
29	140.33	140.51	140.90	147.06	141.63	140.72	140.41	140.28	140.23	140.29		140.27	
30	140.40	140.52	141.14	147.30	141.37	140.68	140.41	140.28	140.23	140.28		140.26	
31		140.51		147.16	141.21		140.40		140.23	140.28		140.26	
Mean	140.24	140.40	140.69	142.68	141.73	141.08	140.44	140.32	140.25	140.29	140.27	140.26	
Max	140.40	140.52	141.61	147.30	146.97	142.00	140.64	140.38	140.29	140.31	140.28	140.28	147.30
Min	140.21	140.34	140.40	140.58	140.16	140.68	140.35	140.27	140.23	140.24	140.25	140.24	140.16

Annual Max Momentary Gage Height 147.37 m. (MSL.) , at 06.00 Hours, on Jul 30, 2018

Zero Gage at Bottom Elevation 138.30 m. (MSL.) , River Bed 138.70 m. (MSL.)

Left Bank Elevation 145.51 m. (MSL.) ,

Right Bank Elevation 146.97 m. (MSL.) , Drainage Are 1,548 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.80	5.00	7.50	35.20	507.00	43.60	13.40	5.00	2.60	1.80	2.40	2.60		
2	1.80	5.00	7.00	23.30	416.00	36.60	10.70	5.00	2.80	1.80	2.40	2.60		
3	1.80	5.00	7.75	20.50	266.16	35.20	9.50	4.75	2.60	2.00	2.40	2.60		
4	1.80	5.00	10.70	21.20	133.20	68.10	8.00	4.50	2.60	2.20	2.40	2.60		
5	1.80	5.00	10.10	19.80	26.80	77.20	6.75	4.50	2.60	2.40	2.20	2.60		
6	1.80	5.00	10.10	15.20	3.25	76.50	6.25	4.25	2.60	2.60	2.20	2.60		
7	1.80	4.75	12.80	12.20	1.80	63.20	6.00	4.25	2.40	2.80	2.20	2.40		
8	1.80	4.75	12.80	10.40	0.60	51.30	5.50	4.25	2.40	3.00	2.60	2.40		
9	1.80	4.25	9.20	10.70	10.70	47.10	5.00	4.25	2.40	3.25	2.60	2.40		
10	1.80	4.25	7.50	19.80	81.40	39.40	4.75	4.25	2.20	3.25	2.60	2.20		
11	1.80	4.25	11.00	39.40	64.60	34.50	4.75	4.25	2.20	3.25	2.60	2.20		
12	1.60	4.25	8.60	96.10	45.00	33.10	4.75	4.00	2.20	3.25	2.40	2.20		
13	1.60	4.25	7.00	157.00	38.70	35.90	4.75	4.00	1.80	3.25	2.40	2.20		
14	1.60	4.00	6.00	171.00	41.50	38.00	4.50	4.00	1.80	3.25	2.20	2.20		
15	1.80	4.00	5.50	234.24	53.40	31.70	4.25	4.00	1.80	3.25	2.20	2.20		
16	1.60	4.00	5.75	260.84	54.80	26.10	4.25	3.50	1.60	3.25	2.20	2.20		
17	1.60	5.00	14.00	257.04	57.60	24.00	4.50	3.25	1.60	3.00	2.00	2.00		
18	1.40	7.25	35.90	269.20	47.80	61.10	5.25	3.25	1.80	3.00	2.00	2.00		
19	1.40	7.75	34.50	266.16	42.20	108.00	6.25	3.25	1.80	3.00	2.00	2.20		
20	1.40	6.50	22.60	220.56	35.90	87.70	7.50	3.25	2.00	3.00	2.20	2.20		
21	1.40	5.75	14.60	150.00	38.00	54.80	9.50	3.00	2.00	3.00	2.20	2.00		
22	1.20	5.25	10.70	96.80	47.10	38.70	8.30	3.00	2.00	3.00	2.20	1.80		
23	1.20	6.00	9.50	79.30	68.80	26.10	7.75	2.60	2.20	3.00	2.40	2.00		
24	1.20	6.50	9.80	73.70	106.60	26.80	7.75	2.60	2.20	3.00	2.40	2.20		
25	1.20	5.75	13.40	95.40	138.10	31.70	7.50	2.40	2.00	3.00	2.40	2.20		
26	1.20	5.50	38.70	167.50	136.70	28.90	7.25	2.40	2.00	3.00	2.40	2.40		
27	1.20	6.50	72.30	269.20	124.10	22.60	7.00	2.60	1.80	2.80	2.40	2.40		
28	2.00	8.00	80.70	403.40	104.50	18.40	6.25	2.60	1.80	2.80	2.60	2.40		
29	3.75	8.30	31.00	517.20	82.10	18.40	5.75	2.60	1.60	2.80		2.40		
30	5.50	8.60	47.80	546.00	63.90	15.80	5.75	2.60	1.60	2.60		2.20		
31		8.30		529.20	52.70		5.50		1.60	2.60		2.20		
Total	53.65	173.70	574.80	5087.54	2891.01	1300.50	204.90	108.15	64.60	88.20	65.20	70.80	10683.05	CMSDAY
Mean	1.79	5.60	19.16	164.11	93.26	43.35	6.61	3.60	2.08	2.85	2.33	2.28	29.27	CMS
Max	5.50	8.60	80.70	546.00	507.00	108.00	13.40	5.00	2.80	3.25	2.60	2.60	546.00	CMS
Min	1.20	4.00	5.50	10.40	0.60	15.80	4.25	2.40	1.60	1.80	2.00	1.80	0.60	CMS
Runoff	4.64	15.01	49.66	439.56	249.78	112.36	17.70	9.34	5.58	7.62	5.63	6.12	923.02	MCM

Momentary Peak 554.40 CMS, at 147.37 m. (MSL.), at 06.00 Hours, on Jul 30, 2018

Runoff Yield 18.91 Liters/Second/Square KM. Momentary Peak Yield 358.14 Liters/Second/Square KM.

WATER YEAR : 2018

CHI RIVER BASIN

Lam Phaniang at Ban Na Klang , Nong Bua Lamphu (E.64)

Lat 17 - 19 - 16 N Long 102 - 05 - 32 E

Location : on right bank at the bridge of Udon Thani - Loei Highway.

Ban Na Klang **Amphoe** Na Wang **Changwat** Nong Bua Lamphu

Drainge Area	362 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+254.500 m. (MSL.)
Bench Mark	B.M.- Highways Dept.
Location BM	On right bank downstream side at the footpath of the bridge. **Elevation** +261.680 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic mean of 3 readings
Period of Available Gage Records	1979 to date
Rating Operation	
Period of Rating	1979 - 1980 , 1997 to date
Rated by Flot	-
Rated by Current Meter	1979 - 1980 , 1997 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. The concrete weir situated downstream from the gage site. Stage-discharge relation defined by 6 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

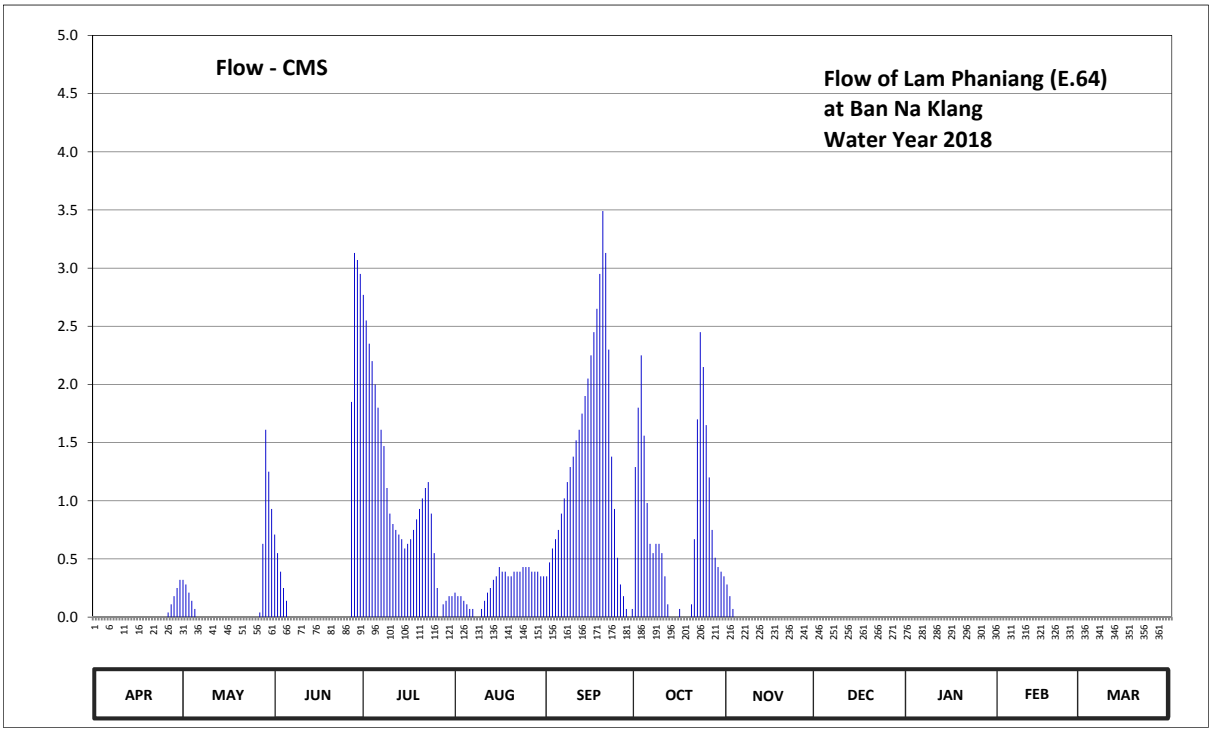
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	256.91	257.39	257.49	257.92	257.36	257.40	257.62	257.38	256.94	256.81	256.86	256.89	
2	256.92	257.38	257.45	257.88	257.35	257.43	257.73	257.35	256.94	256.81	256.86	256.88	
3	256.94	257.36	257.41	257.84	257.35	257.46	257.82	257.32	256.93	256.82	256.86	256.88	
4	256.95	257.34	257.37	257.81	257.34	257.48	257.68	257.30	256.93	256.82	256.86	256.87	
5	256.97	257.32	257.34	257.77	257.33	257.50	257.55	257.27	256.92	256.82	256.86	256.87	
6	256.98	257.30	257.30	257.73	257.32	257.53	257.47	257.25	256.91	256.83	256.86	256.86	
7	257.00	257.27	257.26	257.69	257.32	257.56	257.45	257.23	256.90	256.83	256.86	256.85	
8	257.01	257.25	257.22	257.66	257.30	257.59	257.47	257.21	256.88	256.84	256.86	256.84	
9	257.03	257.23	257.19	257.58	257.30	257.62	257.47	257.19	256.88	256.84	256.87	256.83	
10	257.04	257.20	257.15	257.53	257.32	257.64	257.45	257.17	256.88	256.84	256.87	256.82	
11	257.06	257.18	257.11	257.51	257.34	257.67	257.40	257.14	256.88	256.85	256.87	256.81	
12	257.07	257.16	257.08	257.50	257.36	257.69	257.33	257.12	256.87	256.85	256.87	256.81	
13	257.09	257.14	257.04	257.49	257.37	257.72	257.27	257.10	256.87	256.86	256.87	256.80	
14	257.10	257.12	257.00	257.48	257.39	257.75	257.27	257.08	256.87	256.86	256.87	256.79	
15	257.12	257.10	256.98	257.46	257.40	257.78	257.30	257.05	256.86	256.87	256.87	256.78	
16	257.13	257.08	256.97	257.47	257.42	257.82	257.32	257.03	256.86	256.87	256.88	256.78	
17	257.15	257.06	256.97	257.48	257.41	257.86	257.29	257.01	256.86	256.88	256.88	256.77	
18	257.15	257.04	256.96	257.50	257.41	257.90	257.26	256.99	256.85	256.88	256.88	256.76	
19	257.18	257.02	256.95	257.52	257.40	257.95	257.27	256.97	256.85	256.89	256.88	256.75	
20	257.19	257.00	256.94	257.54	257.40	258.04	257.33	256.94	256.85	256.89	256.88	256.74	
21	257.21	256.98	256.93	257.56	257.41	257.98	257.48	256.94	256.84	256.90	256.88	256.74	
22	257.23	256.98	256.92	257.58	257.41	257.83	257.71	256.94	256.84	256.90	256.89	256.73	
23	257.24	256.98	256.91	257.59	257.41	257.64	257.86	256.94	256.84	256.90	256.89	256.73	
24	257.26	256.99	256.91	257.53	257.42	257.54	257.80	256.94	256.83	256.89	256.89	256.73	
25	257.28	256.99	256.90	257.45	257.42	257.44	257.70	256.95	256.83	256.89	256.89	256.71	
26	257.31	257.14	257.13	257.37	257.42	257.38	257.60	256.95	256.83	256.88	256.89	256.70	
27	257.33	257.31	257.74	257.30	257.41	257.35	257.50	256.95	256.82	256.88	256.89	256.68	
28	257.35	257.47	257.98	257.33	257.41	257.32	257.44	256.95	256.82	256.87	256.89	256.68	
29	257.37	257.69	257.97	257.34	257.41	257.30	257.42	256.95	256.82	256.87		256.68	
30	257.39	257.61	257.95	257.35	257.40	257.32	257.41	256.94	256.81	256.86		256.68	
31		257.54		257.35	257.40		257.40		256.81	256.86		256.68	
Mean	257.13	257.21	257.22	257.55	257.38	257.62	257.49	257.08	256.87	256.86	256.87	256.78	
Max	257.39	257.69	257.98	257.92	257.42	258.04	257.86	257.38	256.94	256.90	256.89	256.89	258.04
Min	256.91	256.98	256.90	257.30	257.30	257.30	257.26	256.94	256.81	256.81	256.86	256.68	256.68

Annual Max Momentary Gage Height 258.05 m. (MSL.) , at 06.00 Hours, on Sep 20, 2018

Zero Gage at Bottom Elevation 254.50 m. (MSL.) , River Bed 254.40 m. (MSL.)

Left Bank Elevation 258.81 m. (MSL.) ,

Right Bank Elevation 259.20 m. (MSL.) , Drainage Are 362 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.32	0.71	2.77	0.21	0.35	1.29	0.28	0.00	0.00	0.00	0.00		
2	0.00	0.28	0.55	2.55	0.18	0.47	1.80	0.18	0.00	0.00	0.00	0.00		
3	0.00	0.21	0.39	2.35	0.18	0.59	2.25	0.07	0.00	0.00	0.00	0.00		
4	0.00	0.14	0.25	2.20	0.14	0.67	1.56	0.00	0.00	0.00	0.00	0.00		
5	0.00	0.07	0.14	2.00	0.11	0.75	0.98	0.00	0.00	0.00	0.00	0.00		
6	0.00	0.00	0.00	1.80	0.07	0.89	0.63	0.00	0.00	0.00	0.00	0.00		
7	0.00	0.00	0.00	1.61	0.07	1.02	0.55	0.00	0.00	0.00	0.00	0.00		
8	0.00	0.00	0.00	1.47	0.00	1.16	0.63	0.00	0.00	0.00	0.00	0.00		
9	0.00	0.00	0.00	1.11	0.00	1.29	0.63	0.00	0.00	0.00	0.00	0.00		
10	0.00	0.00	0.00	0.89	0.07	1.38	0.55	0.00	0.00	0.00	0.00	0.00		
11	0.00	0.00	0.00	0.80	0.14	1.52	0.35	0.00	0.00	0.00	0.00	0.00		
12	0.00	0.00	0.00	0.75	0.21	1.61	0.11	0.00	0.00	0.00	0.00	0.00		
13	0.00	0.00	0.00	0.71	0.25	1.75	0.00	0.00	0.00	0.00	0.00	0.00		
14	0.00	0.00	0.00	0.67	0.32	1.90	0.00	0.00	0.00	0.00	0.00	0.00		
15	0.00	0.00	0.00	0.59	0.35	2.05	0.00	0.00	0.00	0.00	0.00	0.00		
16	0.00	0.00	0.00	0.63	0.43	2.25	0.07	0.00	0.00	0.00	0.00	0.00		
17	0.00	0.00	0.00	0.67	0.39	2.45	0.00	0.00	0.00	0.00	0.00	0.00		
18	0.00	0.00	0.00	0.75	0.39	2.65	0.00	0.00	0.00	0.00	0.00	0.00		
19	0.00	0.00	0.00	0.84	0.35	2.95	0.00	0.00	0.00	0.00	0.00	0.00		
20	0.00	0.00	0.00	0.93	0.35	3.49	0.11	0.00	0.00	0.00	0.00	0.00		
21	0.00	0.00	0.00	1.02	0.39	3.13	0.67	0.00	0.00	0.00	0.00	0.00		
22	0.00	0.00	0.00	1.11	0.39	2.30	1.70	0.00	0.00	0.00	0.00	0.00		
23	0.00	0.00	0.00	1.16	0.39	1.38	2.45	0.00	0.00	0.00	0.00	0.00		
24	0.00	0.00	0.00	0.89	0.43	0.93	2.15	0.00	0.00	0.00	0.00	0.00		
25	0.00	0.00	0.00	0.55	0.43	0.51	1.65	0.00	0.00	0.00	0.00	0.00		
26	0.04	0.00	0.00	0.25	0.43	0.28	1.20	0.00	0.00	0.00	0.00	0.00		
27	0.11	0.04	1.85	0.00	0.39	0.18	0.75	0.00	0.00	0.00	0.00	0.00		
28	0.18	0.63	3.13	0.11	0.39	0.07	0.51	0.00	0.00	0.00	0.00	0.00		
29	0.25	1.61	3.07	0.14	0.39	0.00	0.43	0.00	0.00	0.00		0.00		
30	0.32	1.25	2.95	0.18	0.35	0.07	0.39	0.00	0.00	0.00		0.00		
31		0.93		0.18	0.35		0.35		0.00	0.00		0.00		
Total	0.90	5.48	13.04	31.68	8.54	40.04	23.76	0.53	0.00	0.00	0.00	0.00	123.97	CMSDAY
Mean	0.03	0.18	0.43	1.02	0.28	1.33	0.77	0.02	0.00	0.00	0.00	0.00	0.34	CMS
Max	0.32	1.61	3.13	2.77	0.43	3.49	2.45	0.28	0.00	0.00	0.00	0.00	3.49	CMS
Min	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	0.08	0.47	1.13	2.74	0.74	3.46	2.05	0.05	0.00	0.00	0.00	0.00	10.71	MCM

Momentary Peak 3.55 CMS, at 258.05 m. (MSL.), at 06.00 Hours, on Sep 20, 2018

Runoff Yield 0.94 Liters/Second/Square KM. Momentary Peak Yield 9.81 Liters/Second/Square KM.

WATER YEAR : 2018

CHI RIVER BASIN

Lam Pao at Ban Tha Hai, Udon Thani (E.65)

Lat 16 - 57 - 02 N Long 103 - 10 - 16 E

Location : on left bank at the bridge on highway.

	Ban Tha Hai	**Amphoe** Si That	**Changwat** Udon Thani
Drainge Area	2,149 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+158.990 m. (MSL.)		
Bench Mark	B.M.- H.D.		
Location BM	On left bank at the abutment of the bridge.		**Elevation** +169.494 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic mean of 3 readings		
Period of Available Gage Records	1983 to date.		
Rating Operation			
Period of Rating	1983 to date.		
Rated by Flot	-		
Rated by Current Meter	1983 to date.		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Flow effected by Lam Pao Dam.		
	Stage-discharge relation defined by 13 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

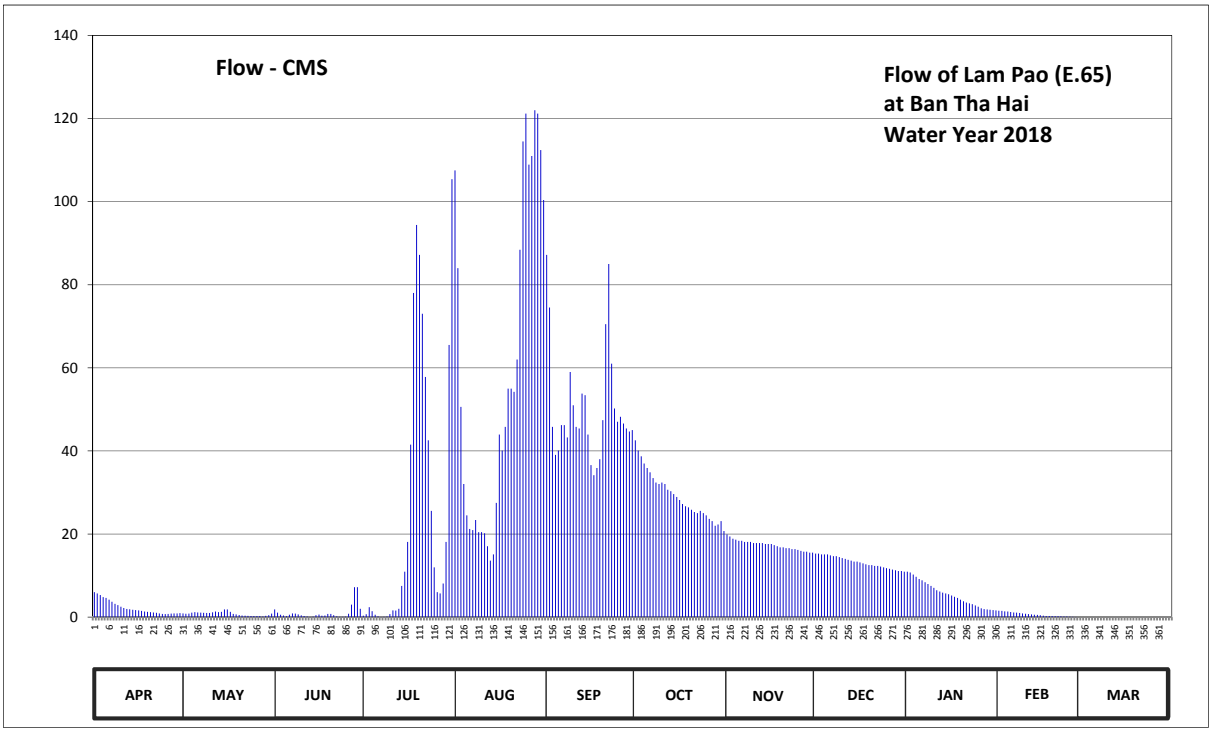
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	162.00	161.16	161.53	160.92	164.75	164.42	163.43	162.72	162.53	162.31	161.42	160.59	
2	161.97	161.12	161.23	161.08	164.36	164.17	163.36	162.70	162.53	162.30	161.39	160.57	
3	161.93	161.14	161.03	161.64	163.64	163.52	163.32	162.68	162.52	162.27	161.36	160.55	
4	161.88	161.23	160.95	161.37	163.13	163.33	163.27	162.67	162.52	162.24	161.33	160.54	
5	161.86	161.27	160.82	161.03	162.89	163.36	163.24	162.66	162.52	162.21	161.29	160.52	
6	161.82	161.25	161.03	160.78	162.77	163.53	163.21	162.66	162.51	162.19	161.25	160.51	
7	161.77	161.23	161.15	160.65	162.76	163.53	163.17	162.65	162.50	162.16	161.23	160.48	
8	161.72	161.21	161.14	160.67	162.85	163.45	163.14	162.65	162.50	162.13	161.19	160.47	
9	161.69	161.19	161.06	160.76	162.74	163.85	163.13	162.65	162.49	162.10	161.15	160.45	
10	161.65	161.19	160.96	161.09	162.74	163.65	163.14	162.64	162.48	162.07	161.12	160.44	
11	161.62	161.26	160.88	161.44	162.73	163.52	163.13	162.64	162.47	162.03	161.09	160.42	
12	161.59	161.34	160.74	161.43	162.61	163.51	163.09	162.64	162.46	162.01	161.06	160.40	
13	161.56	161.27	160.63	161.60	162.45	163.72	163.08	162.64	162.45	161.99	161.03	160.38	
14	161.51	161.31	160.70	162.10	162.52	163.71	163.06	162.63	162.44	161.97	161.01	160.36	
15	161.48	161.53	160.97	162.31	163.00	163.47	163.04	162.63	162.44	161.95	160.98	160.34	
16	161.44	161.53	161.04	162.65	163.47	163.26	163.02	162.63	162.43	161.92	160.92	160.32	
17	161.39	161.30	160.93	163.40	163.36	163.19	162.99	162.62	162.42	161.89	160.88	160.30	
18	161.34	161.10	160.95	164.24	163.52	163.24	162.97	162.61	162.41	161.86	160.87	160.28	
19	161.31	161.06	161.10	164.54	163.75	163.30	162.96	162.60	162.40	161.82	160.85	160.27	
20	161.28	161.00	161.10	164.42	163.75	163.56	162.94	162.60	162.40	161.78	160.83	160.26	
21	161.25	160.95	160.97	164.14	163.73	164.09	162.92	162.59	162.39	161.75	160.82	160.25	
22	161.21	160.92	160.78	163.82	163.92	164.38	162.91	162.59	162.39	161.73	160.79	160.25	
23	161.15	160.89	160.69	163.43	164.44	163.90	162.93	162.58	162.38	161.71	160.77	160.25	
24	161.10	160.86	160.69	162.93	164.85	163.63	162.91	162.58	162.37	161.68	160.75	160.24	
25	161.09	160.85	160.73	162.37	164.94	163.55	162.89	162.57	162.36	161.65	160.72	160.24	
26	161.11	160.87	161.12	162.00	164.77	163.58	162.86	162.56	162.35	161.61	160.68	160.24	
27	161.14	160.85	161.70	161.97	164.80	163.54	162.84	162.55	162.34	161.57	160.64	160.24	
28	161.15	160.74	162.08	162.14	164.95	163.51	162.80	162.55	162.33	161.53	160.61	160.23	
29	161.16	160.90	162.08	162.65	164.94	163.49	162.81	162.54	162.32	161.50		160.23	
30	161.18	160.97	161.60	163.99	164.82	163.50	162.84	162.54	162.32	161.47		160.23	
31		161.13		164.72	164.64		162.75		162.31	161.44		160.23	
Mean	161.48	161.12	161.08	162.33	163.70	163.62	163.04	162.62	162.43	161.90	161.00	160.36	
Max	162.00	161.53	162.08	164.72	164.95	164.42	163.43	162.72	162.53	162.31	161.42	160.59	164.95
Min	161.09	160.74	160.63	160.65	162.45	163.19	162.75	162.54	162.31	161.44	160.61	160.23	160.23

Annual Max Momentary Gage Height 165.01 m. (MSL.) , at 06.00 Hours, on Aug 25, 2018

Zero Gage at Bottom Elevation 158.99 m. (MSL.) , River Bed 159.89 m. (MSL.)

Left Bank Elevation 169.48 m. (MSL.) ,

Right Bank Elevation 169.47 m. (MSL.) , Drainage Are 2,149 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	6.00	0.90	1.83	0.34	107.50	87.20	42.55	19.92	15.30	10.93	1.55	0.00		
2	5.70	0.80	1.08	0.70	84.00	74.50	40.10	19.40	15.30	10.75	1.48	0.00		
3	5.30	0.85	0.58	2.40	50.60	45.80	38.70	18.88	15.08	10.23	1.40	0.00		
4	4.80	1.08	0.40	1.43	32.05	39.05	36.95	18.62	15.08	9.70	1.33	0.00		
5	4.60	1.18	0.22	0.58	24.48	40.10	35.90	18.36	15.08	9.18	1.23	0.00		
6	4.20	1.13	0.58	0.18	21.22	46.20	34.85	18.36	14.87	8.85	1.13	0.00		
7	3.70	1.08	0.88	0.05	20.96	46.20	33.45	18.10	14.65	8.40	1.08	0.00		
8	3.20	1.03	0.85	0.07	23.38	43.25	32.40	18.10	14.65	7.95	0.98	0.00		
9	2.90	0.98	0.65	0.16	20.44	59.00	32.05	18.10	14.44	7.50	0.88	0.00		
10	2.50	0.98	0.42	0.73	20.44	51.00	32.40	17.84	14.22	7.05	0.80	0.00		
11	2.20	1.15	0.28	1.60	20.18	45.80	32.05	17.84	14.01	6.45	0.73	0.00		
12	1.98	1.35	0.14	1.58	17.06	45.40	30.65	17.84	13.79	6.15	0.65	0.00		
13	1.90	1.18	0.03	2.00	13.58	53.80	30.30	17.84	13.58	5.90	0.58	0.00		
14	1.78	1.28	0.10	7.50	15.08	53.40	29.60	17.58	13.36	5.70	0.53	0.00		
15	1.70	1.83	0.44	10.93	27.50	43.95	28.90	17.58	13.36	5.50	0.46	0.00		
16	1.60	1.83	0.60	18.10	43.95	36.60	28.20	17.58	13.15	5.20	0.34	0.00		
17	1.48	1.25	0.36	41.50	40.10	34.15	27.23	17.32	12.93	4.90	0.28	0.00		
18	1.35	0.75	0.40	78.00	45.80	35.90	26.68	17.06	12.72	4.60	0.27	0.00		
19	1.28	0.65	0.75	94.40	55.00	38.00	26.40	16.80	12.50	4.20	0.25	0.00		
20	1.20	0.50	0.75	87.20	55.00	47.40	25.85	16.80	12.50	3.80	0.23	0.00		
21	1.13	0.40	0.44	73.00	54.20	70.50	25.30	16.59	12.33	3.50	0.22	0.00		
22	1.03	0.34	0.18	57.80	62.00	85.00	25.03	16.59	12.33	3.30	0.19	0.00		
23	0.88	0.29	0.09	42.55	88.40	61.00	25.58	16.37	12.15	3.10	0.17	0.00		
24	0.75	0.26	0.09	25.58	114.50	50.20	25.03	16.37	11.98	2.80	0.15	0.00		
25	0.73	0.25	0.13	11.98	121.20	47.00	24.48	16.16	11.80	2.50	0.12	0.00		
26	0.78	0.27	0.80	6.00	108.90	48.20	23.65	15.94	11.63	2.10	0.08	0.00		
27	0.85	0.25	3.00	5.70	111.00	46.60	23.10	15.73	11.45	1.93	0.04	0.00		
28	0.88	0.14	7.20	8.10	122.00	45.40	22.00	15.73	11.28	1.83	0.01	0.00		
29	0.90	0.30	7.20	18.10	121.20	44.65	22.28	15.51	11.10	1.75		0.00		
30	0.95	0.44	2.00	65.50	112.40	45.00	23.10	15.51	11.10	1.68		0.00		
31		0.83		105.40	100.40		20.70		10.93	1.60		0.00		
Total	68.25	25.55	32.47	769.16	1854.52	1510.25	905.46	520.42	408.65	169.03	17.16	0.00	6280.92	CMSDAY
Mean	2.27	0.82	1.08	24.81	59.82	50.34	29.21	17.35	13.18	5.45	0.61	0.00	17.21	CMS
Max	6.00	1.83	7.20	105.40	122.00	87.20	42.55	19.92	15.30	10.93	1.55	0.00	122.00	CMS
Min	0.73	0.14	0.03	0.05	13.58	34.15	20.70	15.51	10.93	1.60	0.01	0.00	0.00	CMS
Runoff	5.90	2.21	2.81	66.46	160.23	130.49	78.23	44.96	35.31	14.60	1.48	0.00	542.67	MCM

Momentary Peak 126.80 CMS, at 165.01 m. (MSL.), at 06.00 Hours, on Aug 25, 2018

Runoff Yield 8.01 Liters/Second/Square KM. Momentary Peak Yield 59.00 Liters/Second/Square KM.

WATER YEAR : 2018

CHI RIVER BASIN

Chi River at Ban Muang Lat , Roi Et (E.66A)

Lat 16 - 12 - 08 N Long 103 - 31 - 41 E

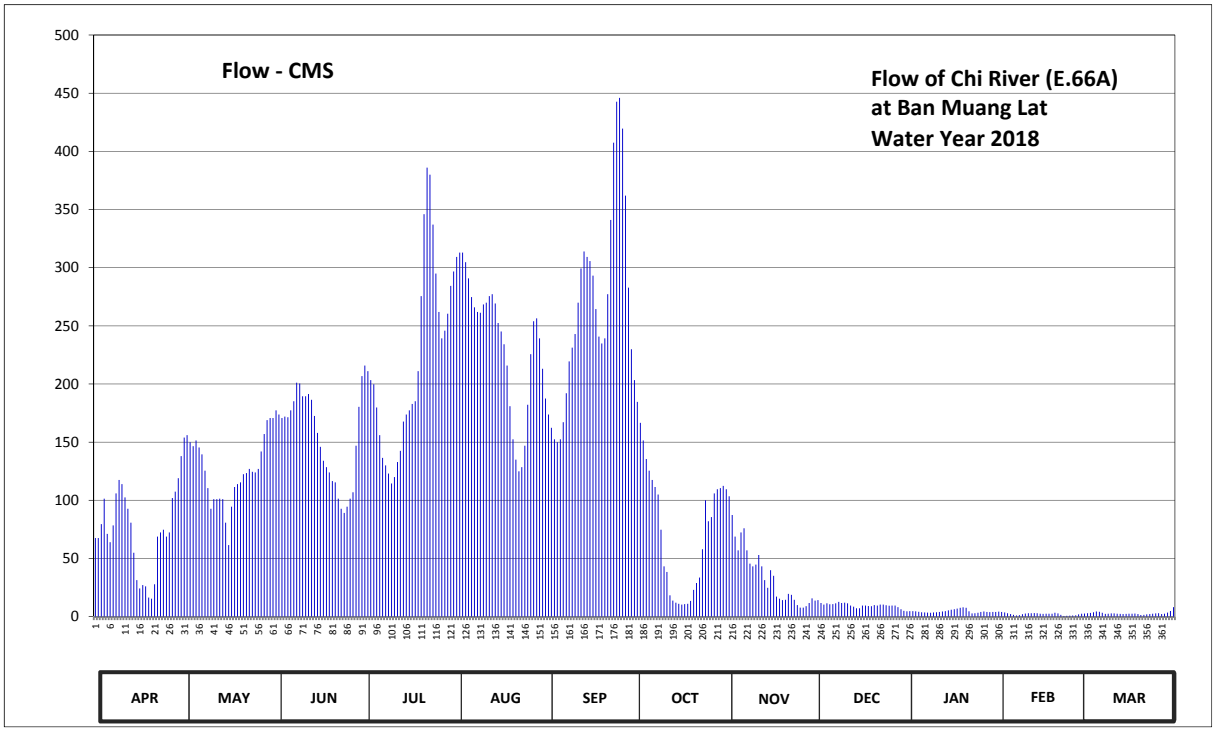
Location : on right bank at the bridge.

	Ban Muang Lat	**Amphoe** Chang Han	**Changwat** Roi Et
Drainge Area	31,879 sq.km.		
Type of Gage	Water - stage recorder.		
Zero Gage at Bottom	+126.900 m. (MSL.)		
Bench Mark	B.M.- Highways Dept.		
Location BM	On right bank at the abutment of the bridge.		**Elevation** +143.406 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	1999 to date		
Rating Operation			
Period of Rating	1999 to date		
Rated by Flot	-		
Rated by Current Meter	1999 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 21 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	131.18	132.48	132.89	133.47	134.67	132.83	133.01	131.47	130.43	129.97	129.91	129.77	
2	131.18	132.52	132.83	133.40	134.71	132.64	132.71	131.33	130.33	129.97	129.86	129.79	
3	131.28	132.40	132.78	133.29	134.71	132.45	132.43	131.19	130.27	129.96	129.80	129.82	
4	131.43	132.33	132.80	133.24	134.62	132.40	132.11	131.09	130.32	129.92	129.73	129.88	
5	131.21	132.43	132.79	132.93	134.46	132.45	131.91	131.22	130.28	129.88	129.66	129.95	
6	131.15	132.31	132.89	132.52	134.26	132.72	131.75	131.25	130.29	129.86	129.60	129.92	
7	131.27	132.19	133.02	132.13	134.15	133.13	131.63	131.09	130.32	129.85	129.63	129.83	
8	131.52	131.91	133.26	132.00	134.10	133.52	131.50	130.97	130.37	129.84	129.71	129.74	
9	131.75	131.61	133.25	131.86	134.09	133.69	131.24	130.94	130.33	129.86	129.77	129.76	
10	131.68	131.36	133.09	131.69	134.18	133.85	130.94	130.96	130.34	129.88	129.79	129.78	
11	131.45	131.42	133.09	131.80	134.20	134.20	130.88	131.05	130.32	129.91	129.80	129.78	
12	131.36	131.42	133.12	132.06	134.27	134.56	130.56	130.94	130.23	129.94	129.81	129.76	
13	131.29	131.43	133.04	132.25	134.29	134.72	130.41	130.79	130.18	129.98	129.79	129.74	
14	131.07	131.42	132.81	132.73	134.19	134.67	130.34	130.68	130.11	130.02	129.75	129.73	
15	130.79	131.29	132.56	132.83	133.98	134.63	130.30	130.90	130.11	130.05	129.74	129.74	
16	130.67	131.13	132.32	132.89	133.88	134.49	130.27	130.84	130.23	130.07	129.75	129.75	
17	130.72	131.37	132.08	132.98	133.73	134.13	130.29	130.53	130.23	130.10	129.75	129.76	
18	130.70	131.63	131.97	133.02	133.47	133.82	130.30	130.48	130.21	130.13	129.76	129.77	
19	130.51	131.68	131.88	133.40	132.95	133.74	130.40	130.43	130.20	130.15	129.84	129.72	
20	130.48	131.71	131.73	134.27	132.45	133.80	130.65	130.44	130.25	130.13	129.78	129.65	
21	130.73	131.85	131.71	135.04	132.10	134.29	130.75	130.59	130.23	129.96	129.66	129.66	
22	131.19	131.87	131.43	135.44	131.90	134.99	130.82	130.57	130.27	129.78	129.56	129.70	
23	131.22	131.94	131.36	135.38	131.97	135.65	131.10	130.44	130.27	129.79	129.58	129.72	
24	131.24	131.89	131.34	134.95	132.34	135.97	131.40	130.25	130.24	129.84	129.59	129.76	
25	131.19	131.88	131.37	134.51	132.97	136.00	131.30	130.14	130.22	129.91	129.60	129.78	
26	131.22	131.94	131.43	134.10	133.61	135.76	131.32	130.14	130.23	129.95	129.62	129.79	
27	131.44	132.24	131.54	133.80	134.00	135.20	131.52	130.20	130.23	129.90	129.70	129.73	
28	131.55	132.54	132.34	133.89	134.03	134.36	131.59	130.33	130.16	129.89	129.76	129.75	
29	131.78	132.75	132.94	134.08	133.80	133.67	131.61	130.49	130.07	129.90		129.85	
30	132.16	132.78	133.34	134.38	133.43	133.29	131.65	130.41	130.00	129.91		129.99	
31		132.78		134.53	133.06		131.59		129.96	129.93		130.16	
Mean	131.21	131.95	132.43	133.38	133.70	134.05	131.23	130.74	130.23	129.94	129.72	129.79	
Max	132.16	132.78	133.34	135.44	134.71	136.00	133.01	131.47	130.43	130.15	129.91	130.16	136.00
Min	130.48	131.13	131.34	131.69	131.90	132.40	130.27	130.14	129.96	129.78	129.56	129.65	129.56

Annual Max Momentary Gage Height	136.05	m. (MSL.) ,	at 03.00 Hours, on Sep 25, 2018		
Zero Gage at Bottom Elevation	126.90	m. (MSL.) ,	River Bed	126.92	m. (MSL.)
Left Bank Elevation	137.85	m. (MSL.) ,			
Right Bank Elevation	140.48	m. (MSL.) ,	Drainage Are	31,879	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	67.60	154.00	177.40	215.90	309.30	173.80	184.60	103.50	14.25	4.70	4.10	2.70		
2	67.60	156.00	173.80	211.00	313.00	162.40	166.60	87.40	11.75	4.70	3.60	2.90		
3	79.60	150.00	170.80	203.30	313.00	152.50	151.50	68.80	10.40	4.60	3.00	3.20		
4	101.50	146.50	172.00	199.80	304.80	150.00	135.50	57.00	11.50	4.20	2.30	3.80		
5	71.20	151.50	171.40	179.80	290.80	152.50	125.50	72.40	10.60	3.80	1.60	4.50		
6	64.00	145.50	177.40	156.00	274.80	167.20	117.50	76.00	10.80	3.60	1.00	4.20		
7	78.40	139.50	185.20	136.50	266.00	192.10	111.50	57.00	11.50	3.50	1.30	3.30		
8	106.00	125.50	201.20	130.00	262.00	219.40	105.00	45.60	12.75	3.40	2.10	2.40		
9	117.50	110.50	200.50	123.00	261.20	231.30	74.80	43.20	11.75	3.60	2.70	2.60		
10	114.00	92.80	189.40	114.50	268.40	242.95	43.20	44.80	12.00	3.80	2.90	2.80		
11	102.50	101.00	189.40	120.00	270.00	270.00	38.40	53.00	11.50	4.10	3.00	2.80		
12	92.80	101.00	191.40	133.00	275.60	299.40	18.40	43.20	9.60	4.40	3.10	2.60		
13	80.80	101.50	186.40	142.50	277.20	314.00	13.75	31.40	8.60	4.80	2.90	2.40		
14	55.00	101.00	172.60	167.80	269.20	309.30	12.00	24.80	7.20	5.40	2.50	2.30		
15	31.40	80.80	158.00	173.80	252.52	305.70	11.00	40.00	7.20	6.00	2.40	2.40		
16	24.20	61.60	146.00	177.40	245.14	293.20	10.40	35.20	9.60	6.40	2.50	2.50		
17	27.20	94.60	134.00	182.80	234.19	264.40	10.80	17.20	9.60	7.00	2.50	2.60		
18	26.00	111.50	128.50	185.20	215.90	240.76	11.00	15.50	9.20	7.60	2.60	2.70		
19	16.40	114.00	124.00	211.00	181.00	234.92	13.50	14.25	9.00	8.00	3.40	2.20		
20	15.50	115.50	116.50	275.60	152.50	239.30	23.00	14.50	10.00	7.60	2.80	1.50		
21	27.80	122.50	115.50	346.00	135.00	277.20	29.00	19.60	9.60	4.60	1.60	1.60		
22	68.80	123.50	101.50	386.00	125.00	341.00	33.60	18.80	10.40	2.80	0.60	2.00		
23	72.40	127.00	92.80	380.00	128.50	407.50	58.00	14.50	10.40	2.90	0.80	2.20		
24	74.80	124.50	89.20	337.00	147.00	442.70	100.00	10.00	9.80	3.40	0.90	2.60		
25	68.80	124.00	94.60	294.90	182.20	446.00	82.00	7.80	9.40	4.10	1.00	2.80		
26	72.40	127.00	101.50	262.00	225.70	419.60	85.60	7.80	9.60	4.50	1.20	2.90		
27	102.00	142.00	107.00	239.30	254.00	362.00	106.00	9.00	9.60	4.00	2.00	2.30		
28	107.50	157.00	147.00	245.87	256.40	282.80	109.50	11.75	8.20	3.90	2.60	2.50		
29	119.00	169.00	180.40	260.40	239.30	229.90	110.50	15.75	6.40	4.00		3.50		
30	138.00	170.80	206.80	284.40	213.10	203.30	112.50	13.75	5.00	4.10		4.90		
31		170.80		296.70	187.60		109.50		4.60	4.30		8.20		
Total	2190.70	3912.40	4602.20	6771.47	7330.35	8027.13	2314.15	1073.50	301.80	143.80	63.00	91.90	36822.40	CMSDAY
Mean	73.02	126.21	153.41	218.43	236.46	267.57	74.65	35.78	9.74	4.64	2.25	2.96	100.88	CMS
Max	138.00	170.80	206.80	386.00	313.00	446.00	184.60	103.50	14.25	8.00	4.10	8.20	446.00	CMS
Min	15.50	61.60	89.20	114.50	125.00	150.00	10.40	7.80	4.60	2.80	0.60	1.50	0.60	CMS
Runoff	189.28	338.03	397.63	585.06	633.34	693.54	199.94	92.75	26.08	12.42	5.44	7.94	3181.46	MCM

Momentary Peak 452.00 CMS, at 136.05 m. (MSL.), at 03.00 Hours, on Sep 25, 2018

Runoff Yield 3.16 Liters/Second/Square KM. Momentary Peak Yield 14.18 Liters/Second/Square KM.

WATER YEAR : 2018

CHI RIVER BASIN

Lam Phaniang at Ban Khong Po , Nong Bua Lamphu (E.68A)

Lat 17 - 04 - 47 N Long 102 - 27 - 11 E

Location : on left bank at the bridge of Nong Bua Lamphu - Amphoe Non Sang Highway.

Ban Khong Po **Amphoe** Mueang **Changwat** Nong Bua Lamphu

Drainge Area	1,364 sq.km.
Type of Gage	Water - stage recorder.
Zero Gage at Bottom	+194.700 m. (MSL.)
Bench Mark	B.M.- Highways Dept.
Location BM	On left bank downstream site at the footpath of the bridge. **Elevation** +201.740 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	1997 to date
Rating Operation	
Period of Rating	1997 to date
Rated by Flot	-
Rated by Current Meter	1997 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	Overbank flow starts at elevation +198.470 m.(MSL.), and is including overbank flow.
General Description	Records fair. The concrete weir situated downstream from the gage site. Stage-discharge relation defined by 11 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

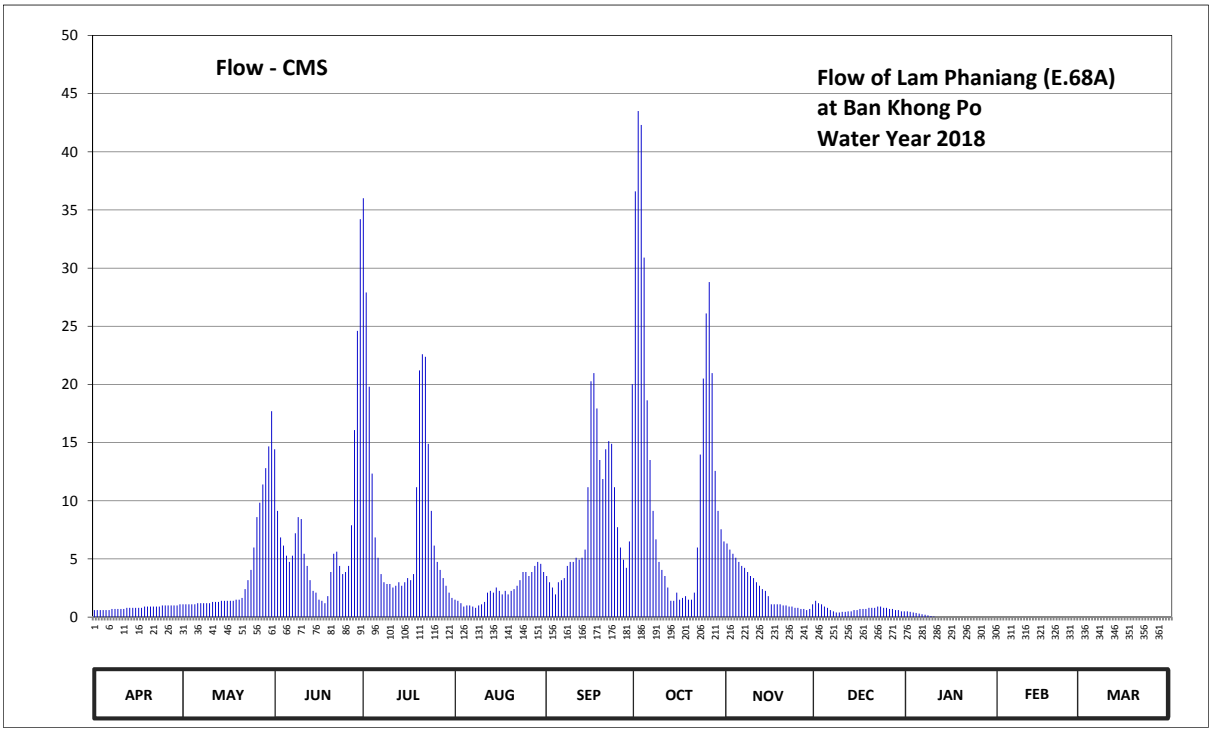
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	196.81	196.86	197.59	198.40	196.90	197.03	198.42	197.19	196.89	196.80	196.50	196.40	
2	196.81	196.86	197.35	198.13	196.89	197.00	198.65	197.16	196.87	196.79	196.49	196.39	
3	196.81	196.86	197.22	197.82	196.87	196.97	198.61	197.14	196.86	196.78	196.49	196.38	
4	196.81	196.86	197.18	197.50	196.84	196.93	198.23	197.12	196.84	196.77	196.48	196.36	
5	196.81	196.86	197.13	197.22	196.85	197.00	197.77	197.10	196.83	196.76	196.48	196.35	
6	196.81	196.87	197.10	197.12	196.85	197.01	197.55	197.08	196.81	196.75	196.47	196.34	
7	196.82	196.87	197.13	197.04	196.84	197.02	197.35	197.07	196.80	196.74	196.47	196.33	
8	196.82	196.87	197.24	197.00	196.83	197.08	197.21	197.05	196.78	196.73	196.46	196.32	
9	196.82	196.87	197.32	196.99	196.85	197.10	197.10	197.03	196.78	196.72	196.46	196.31	
10	196.82	196.87	197.31	196.99	196.86	197.10	197.06	197.02	196.79	196.71	196.46	196.30	
11	196.82	196.88	197.14	196.97	196.88	197.12	197.03	197.00	196.79	196.70	196.45	196.29	
12	196.83	196.88	197.08	196.98	196.94	197.11	196.97	196.98	196.80	196.69	196.45	196.28	
13	196.83	196.88	197.01	197.00	196.95	197.12	196.89	196.96	196.80	196.68	196.44	196.28	
14	196.83	196.89	196.95	196.98	196.94	197.16	196.89	196.95	196.81	196.67	196.44	196.27	
15	196.83	196.89	196.94	197.00	196.97	197.45	196.94	196.92	196.81	196.66	196.43	196.27	
16	196.83	196.89	196.90	197.02	196.95	197.84	196.90	196.86	196.82	196.65	196.43	196.27	
17	196.83	196.89	196.89	197.01	196.93	197.87	196.91	196.86	196.82	196.64	196.42	196.26	
18	196.84	196.89	196.87	197.04	196.95	197.74	196.92	196.86	196.82	196.63	196.42	196.26	
19	196.84	196.90	196.92	197.45	196.93	197.55	196.90	196.86	196.83	196.62	196.42	196.25	
20	196.84	196.90	197.05	197.88	196.95	197.48	196.90	196.85	196.83	196.61	196.41	196.25	
21	196.84	196.91	197.14	197.94	196.96	197.59	196.94	196.85	196.83	196.60	196.41	196.24	
22	196.84	196.96	197.15	197.93	196.98	197.62	197.17	196.84	196.84	196.59	196.41	196.24	
23	196.84	197.01	197.08	197.61	197.01	197.61	197.57	196.84	196.84	196.58	196.41	196.23	
24	196.85	197.06	197.04	197.35	197.05	197.45	197.85	196.83	196.83	196.57	196.41	196.23	
25	196.85	197.17	197.05	197.18	197.05	197.27	198.07	196.83	196.83	196.56	196.41	196.22	
26	196.85	197.32	197.08	197.10	197.03	197.17	198.16	196.82	196.82	196.55	196.40	196.22	
27	196.85	197.39	197.28	197.06	197.05	197.11	197.87	196.82	196.82	196.54	196.40	196.22	
28	196.85	197.46	197.66	197.02	197.08	197.07	197.51	196.81	196.81	196.53	196.40	196.21	
29	196.85	197.52	198.02	196.98	197.10	197.20	197.35	196.82	196.81	196.52		196.21	
30	196.86	197.60	198.34	196.94	197.09	197.83	197.26	196.86	196.80	196.51		196.20	
31		197.73		196.91	197.05		197.20		196.80	196.50		196.20	
Mean	196.83	197.02	197.21	197.28	196.95	197.29	197.42	196.95	196.82	196.65	196.44	196.28	
Max	196.86	197.73	198.34	198.40	197.10	197.87	198.65	197.19	196.89	196.80	196.50	196.40	198.65
Min	196.81	196.86	196.87	196.91	196.83	196.93	196.89	196.81	196.78	196.50	196.40	196.20	196.20

Annual Max Momentary Gage Height 198.69 m. (MSL.) , at 04.00 Hours, on Oct 3, 2018

Zero Gage at Bottom Elevation 194.70 m. (MSL.) , River Bed 193.10 m. (MSL.)

Left Bank Elevation 198.46 m. (MSL.) ,

Right Bank Elevation 199.26 m. (MSL.) , Drainage Are 1,364 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.60	1.10	14.43	36.00	1.50	3.53	36.60	6.33	1.40	0.50	0.00	0.00		
2	0.60	1.10	9.13	27.90	1.40	3.00	43.50	5.80	1.20	0.45	0.00	0.00		
3	0.60	1.10	6.85	19.80	1.20	2.55	42.30	5.45	1.10	0.40	0.00	0.00		
4	0.60	1.10	6.15	12.33	0.90	1.95	30.90	5.10	0.90	0.35	0.00	0.00		
5	0.60	1.10	5.28	6.85	1.00	3.00	18.63	4.75	0.80	0.30	0.00	0.00		
6	0.60	1.20	4.75	5.10	1.00	3.18	13.50	4.40	0.60	0.25	0.00	0.00		
7	0.70	1.20	5.28	3.70	0.90	3.35	9.13	4.23	0.50	0.20	0.00	0.00		
8	0.70	1.20	7.20	3.00	0.80	4.40	6.68	3.88	0.40	0.15	0.00	0.00		
9	0.70	1.20	8.60	2.85	1.00	4.75	4.75	3.53	0.40	0.10	0.00	0.00		
10	0.70	1.20	8.43	2.85	1.10	4.75	4.05	3.35	0.45	0.05	0.00	0.00		
11	0.70	1.30	5.45	2.55	1.30	5.10	3.53	3.00	0.45	0.00	0.00	0.00		
12	0.80	1.30	4.40	2.70	2.10	4.93	2.55	2.70	0.50	0.00	0.00	0.00		
13	0.80	1.30	3.18	3.00	2.25	5.10	1.40	2.40	0.50	0.00	0.00	0.00		
14	0.80	1.40	2.25	2.70	2.10	5.80	1.40	2.25	0.60	0.00	0.00	0.00		
15	0.80	1.40	2.10	3.00	2.55	11.17	2.10	1.80	0.60	0.00	0.00	0.00		
16	0.80	1.40	1.50	3.35	2.25	20.27	1.50	1.10	0.70	0.00	0.00	0.00		
17	0.80	1.40	1.40	3.18	1.95	20.97	1.65	1.10	0.70	0.00	0.00	0.00		
18	0.90	1.40	1.20	3.70	2.25	17.93	1.80	1.10	0.70	0.00	0.00	0.00		
19	0.90	1.50	1.80	11.17	1.95	13.50	1.50	1.10	0.80	0.00	0.00	0.00		
20	0.90	1.50	3.88	21.20	2.25	11.87	1.50	1.00	0.80	0.00	0.00	0.00		
21	0.90	1.65	5.45	22.60	2.40	14.43	2.10	1.00	0.80	0.00	0.00	0.00		
22	0.90	2.40	5.63	22.37	2.70	15.13	5.98	0.90	0.90	0.00	0.00	0.00		
23	0.90	3.18	4.40	14.90	3.18	14.90	13.97	0.90	0.90	0.00	0.00	0.00		
24	1.00	4.05	3.70	9.13	3.88	11.17	20.50	0.80	0.80	0.00	0.00	0.00		
25	1.00	5.98	3.88	6.15	3.88	7.73	26.10	0.80	0.80	0.00	0.00	0.00		
26	1.00	8.60	4.40	4.75	3.53	5.98	28.80	0.70	0.70	0.00	0.00	0.00		
27	1.00	9.83	7.90	4.05	3.88	4.93	20.97	0.70	0.70	0.00	0.00	0.00		
28	1.00	11.40	16.07	3.35	4.40	4.23	12.57	0.60	0.60	0.00	0.00	0.00		
29	1.00	12.80	24.60	2.70	4.75	6.50	9.13	0.70	0.60	0.00		0.00		
30	1.10	14.67	34.20	2.10	4.58	20.03	7.55	1.10	0.50	0.00		0.00		
31		17.70		1.65	3.88		6.50		0.50	0.00		0.00		
Total	24.40	117.66	213.49	270.68	72.81	256.13	383.14	72.57	21.90	2.75	0.00	0.00	1435.53	CMSDAY
Mean	0.81	3.80	7.12	8.73	2.35	8.54	12.36	2.42	0.71	0.09	0.00	0.00	3.93	CMS
Max	1.10	17.70	34.20	36.00	4.75	20.97	43.50	6.33	1.40	0.50	0.00	0.00	43.50	CMS
Min	0.60	1.10	1.20	1.65	0.80	1.95	1.40	0.60	0.40	0.00	0.00	0.00	0.00	CMS
Runoff	2.11	10.17	18.45	23.39	6.29	22.13	33.10	6.27	1.89	0.24	0.00	0.00	124.03	MCM

Momentary Peak 44.70 CMS, at 198.69 m. (MSL.), at 04.00 Hours, on Oct 3, 2018

Runoff Yield 2.88 Liters/Second/Square KM. Momentary Peak Yield 32.77 Liters/Second/Square KM.

WATER YEAR : 2018

CHI RIVER BASIN

Lam Nam Yang at Ban Kut Kwang , Roi Et (E.70)

Lat 16 - 17 - 14 N Long 104 - 00 - 34 E

Location : on right bank at the bridge on highway.

Ban Kut Kwang **Amphoe** Phon Thong **Changwat** Roi Et

Drainge Area	2,647 sq.km.
Type of Gage	Water - stage recorder.
Zero Gage at Bottom	+131.100 m. (MSL.)
Bench Mark	B.M.- Highways Dept.
Location BM	On right bank at the abutment of the bridge. **Elevation** +144.037 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	1983 to date
Rating Operation	
Period of Rating	1984 to date
Rated by Flot	-
Rated by Current Meter	1984 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	Overbank flow starts at elevation +139.840 m.(MSL.), and is including overbank flow.
General Description	Records fair. Stage-discharge relation defined by 18 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

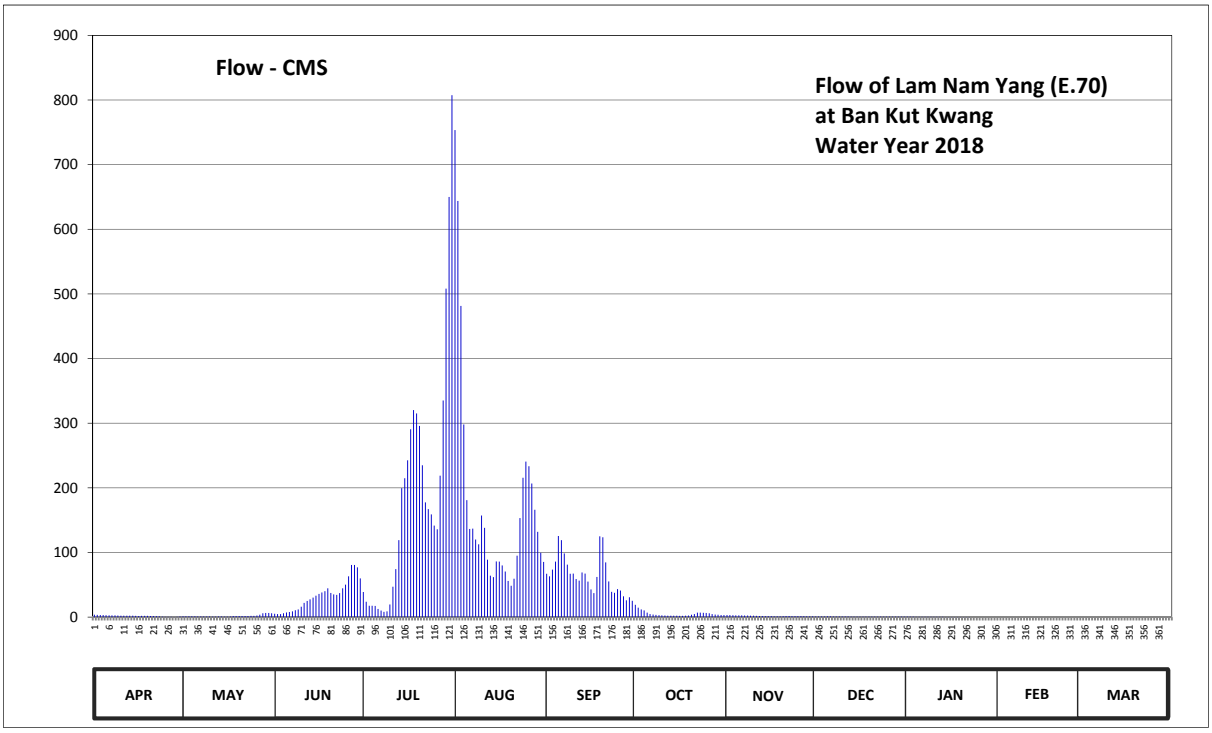
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	132.08	131.83	132.16	133.46	140.94	134.25	132.78	132.03	131.80	131.77	131.70	131.64	
2	132.04	131.83	132.14	132.96	140.62	134.15	132.60	132.02	131.80	131.77	131.69	131.64	
3	132.01	131.83	132.13	132.72	139.94	134.41	132.49	132.00	131.80	131.77	131.69	131.64	
4	132.01	131.82	132.19	132.72	138.38	134.71	132.42	131.98	131.80	131.76	131.69	131.64	
5	131.99	131.82	132.26	132.71	136.57	135.55	132.25	131.97	131.81	131.76	131.68	131.64	
6	131.98	131.80	132.30	132.52	135.77	135.42	132.14	131.96	131.81	131.76	131.68	131.64	
7	131.96	131.80	132.34	132.41	135.78	135.01	132.09	131.94	131.80	131.75	131.68	131.63	
8	131.97	131.79	132.43	132.31	135.44	134.60	132.05	131.94	131.79	131.75	131.69	131.63	
9	131.95	131.79	132.49	132.35	135.29	134.25	132.00	131.93	131.79	131.75	131.69	131.63	
10	131.91	131.79	132.66	132.80	136.16	134.26	131.96	131.92	131.79	131.74	131.69	131.63	
11	131.92	131.78	132.90	133.71	135.80	134.05	131.94	131.90	131.79	131.74	131.69	131.62	
12	131.91	131.78	133.00	134.43	134.78	133.98	131.93	131.88	131.79	131.74	131.68	131.62	
13	131.91	131.79	133.08	135.42	134.18	134.30	131.92	131.86	131.78	131.74	131.68	131.62	
14	131.91	131.79	133.17	136.89	134.12	134.26	131.92	131.85	131.78	131.73	131.69	131.60	
15	131.90	131.77	133.27	137.14	134.72	133.94	131.91	131.84	131.78	131.73	131.70	131.60	
16	131.88	131.77	133.36	137.57	134.71	133.58	131.90	131.84	131.78	131.73	131.70	131.59	
17	131.89	131.80	133.44	138.28	134.57	133.40	131.89	131.83	131.78	131.72	131.70	131.59	
18	131.90	131.86	133.50	138.68	134.34	134.13	131.91	131.83	131.77	131.72	131.71	131.57	
19	131.89	131.88	133.63	138.61	133.97	135.54	131.95	131.82	131.77	131.72	131.71	131.57	
20	131.88	131.86	133.41	138.35	133.75	135.51	132.06	131.85	131.77	131.72	131.70	131.57	
21	131.86	131.87	133.34	137.45	134.06	134.68	132.13	131.86	131.78	131.72	131.70	131.56	
22	131.85	131.87	133.31	136.51	134.93	133.95	132.24	131.86	131.78	131.72	131.70	131.54	
23	131.82	131.88	133.40	136.33	136.09	133.47	132.24	131.85	131.78	131.71	131.69	131.53	
24	131.78	131.89	133.63	136.19	137.15	133.42	132.23	131.85	131.78	131.71	131.68	131.52	
25	131.75	131.90	133.80	135.87	137.54	133.60	132.22	131.84	131.77	131.71	131.68	131.50	
26	131.76	131.94	134.15	135.76	137.43	133.53	132.19	131.84	131.77	131.70	131.67	131.49	
27	131.74	132.06	134.59	137.20	137.01	133.24	132.14	131.84	131.77	131.70	131.66	131.47	
28	131.73	132.19	134.59	138.88	136.31	133.03	132.09	131.83	131.77	131.70	131.64	131.46	
29	131.74	132.22	134.50	140.08	135.68	133.19	132.06	131.83	131.77	131.70		131.45	
30	131.80	132.22	134.07	140.64	135.03	133.01	132.03	131.83	131.77	131.70		131.45	
31		132.20		141.06	134.70		132.01		131.77	131.70		131.45	
Mean	131.89	131.88	133.17	135.87	135.99	134.15	132.12	131.89	131.78	131.73	131.69	131.57	
Max	132.08	132.22	134.59	141.06	140.94	135.55	132.78	132.03	131.81	131.77	131.71	131.64	141.06
Min	131.73	131.77	132.13	132.31	133.75	133.01	131.89	131.82	131.77	131.70	131.64	131.45	131.45

Annual Max Momentary Gage Height 141.09 m. (MSL.) , at 18.00 Hours, on Jul 31, 2018

Zero Gage at Bottom Elevation 131.10 m. (MSL.) , River Bed 130.67 m. (MSL.)

Left Bank Elevation 140.84 m. (MSL.) ,

Right Bank Elevation 139.83 m. (MSL.) , Drainage Are 2,647 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	3.80	1.30	5.20	38.80	753.60	67.00	19.00	3.30	1.00	0.70	0.00	0.00		
2	3.40	1.30	4.80	23.80	644.00	63.00	14.50	3.20	1.00	0.70	0.00	0.00		
3	3.10	1.30	4.60	17.50	481.60	73.40	11.80	3.00	1.00	0.70	0.00	0.00		
4	3.10	1.20	5.80	17.50	298.12	85.82	10.40	2.80	1.00	0.60	0.00	0.00		
5	2.90	1.20	7.20	17.25	181.06	125.50	7.00	2.70	1.10	0.60	0.00	0.00		
6	2.80	1.00	8.00	12.50	136.50	119.00	4.80	2.60	1.10	0.60	0.00	0.00		
7	2.60	1.00	8.80	10.20	137.00	98.50	3.90	2.40	1.00	0.50	0.00	0.00		
8	2.70	0.90	10.60	8.20	120.00	81.20	3.50	2.40	0.90	0.50	0.00	0.00		
9	2.50	0.90	11.80	9.00	112.50	67.00	3.00	2.30	0.90	0.50	0.00	0.00		
10	2.10	0.90	16.00	19.50	157.28	67.40	2.60	2.20	0.90	0.40	0.00	0.00		
11	2.20	0.80	22.00	47.14	138.00	59.00	2.40	2.00	0.90	0.40	0.00	0.00		
12	2.10	0.80	25.00	74.20	88.76	56.32	2.30	1.80	0.90	0.40	0.00	0.00		
13	2.10	0.90	27.40	119.00	64.20	69.00	2.20	1.60	0.80	0.40	0.00	0.00		
14	2.10	0.90	30.10	199.62	61.80	67.40	2.20	1.50	0.80	0.30	0.00	0.00		
15	2.00	0.70	33.10	214.96	86.24	54.96	2.10	1.40	0.80	0.30	0.00	0.00		
16	1.80	0.70	35.80	242.48	85.82	42.72	2.00	1.40	0.80	0.30	0.00	0.00		
17	1.90	1.00	38.20	290.72	79.94	37.00	1.90	1.30	0.80	0.20	0.00	0.00		
18	2.00	1.60	40.00	320.32	70.60	62.20	2.10	1.30	0.70	0.20	0.10	0.00		
19	1.90	1.80	44.42	315.14	55.98	125.00	2.50	1.20	0.70	0.20	0.10	0.00		
20	1.80	1.60	37.30	295.90	48.50	123.50	3.60	1.50	0.70	0.20	0.00	0.00		
21	1.60	1.70	35.20	234.80	59.40	84.56	4.60	1.60	0.80	0.20	0.00	0.00		
22	1.50	1.70	34.30	177.58	95.06	55.30	6.80	1.60	0.80	0.20	0.00	0.00		
23	1.20	1.80	37.00	167.14	153.22	39.10	6.80	1.50	0.80	0.10	0.00	0.00		
24	0.80	1.90	44.42	159.02	215.60	37.60	6.60	1.50	0.80	0.10	0.00	0.00		
25	0.50	2.00	50.20	141.50	240.56	43.40	6.40	1.40	0.70	0.10	0.00	0.00		
26	0.60	2.40	63.00	136.00	233.52	41.02	5.80	1.40	0.70	0.00	0.00	0.00		
27	0.40	3.60	80.78	218.80	206.64	32.20	4.80	1.40	0.70	0.00	0.00	0.00		
28	0.30	5.80	80.78	335.12	165.98	25.90	3.90	1.30	0.70	0.00	0.00	0.00		
29	0.40	6.40	77.00	508.20	132.00	30.70	3.60	1.30	0.70	0.00		0.00		
30	1.00	6.40	59.80	650.00	99.50	25.30	3.30	1.30	0.70	0.00		0.00		
31		6.00		807.60	85.40		3.10		0.70	0.00		0.00		
Total	57.20	61.50	978.60	5829.49	5488.38	1960.00	159.50	56.20	25.90	9.40	0.20	0.00	14626.37	CMSDAY
Mean	1.91	1.98	32.62	188.05	177.04	65.33	5.15	1.87	0.84	0.30	0.01	0.00	40.07	CMS
Max	3.80	6.40	80.78	807.60	753.60	125.50	19.00	3.30	1.10	0.70	0.10	0.00	807.60	CMS
Min	0.30	0.70	4.60	8.20	48.50	25.30	1.90	1.20	0.70	0.00	0.00	0.00	0.00	CMS
Runoff	4.94	5.31	84.55	503.67	474.20	169.34	13.78	4.86	2.24	0.81	0.02	0.00	1263.72	MCM

Momentary Peak 821.40 CMS, at 141.09 m. (MSL.), at 18.00 Hours, on Jul 31, 2018

Runoff Yield 15.14 Liters/Second/Square KM. Momentary Peak Yield 310.31 Liters/Second/Square KM.

WATER YEAR : 2018

CHI RIVER BASIN

Lam Chiang at Ban Chiang , Chaiyaphum (E.72)

Lat 16 - 01 - 26 N Long 101 - 30 - 12 E

Location : on left bank at Ban Chiang School.

Ban Chiang **Amphoe** Phak Di Chumphon **Changwat** Chaiyaphum

Drainge Area	323 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+234.100 m. (MSL.)
Bench Mark	B.M.- Highways Dept.
Location BM	On left bank downstream at the footpath of the bridge. **Elevation** +243.534 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic mean of 3 readings
Period of Available Gage Records	1984 to date
Rating Operation	
Period of Rating	1987 to date
Rated by Flot	-
Rated by Current Meter	1987 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. Stage-discharge relation defined by 18 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

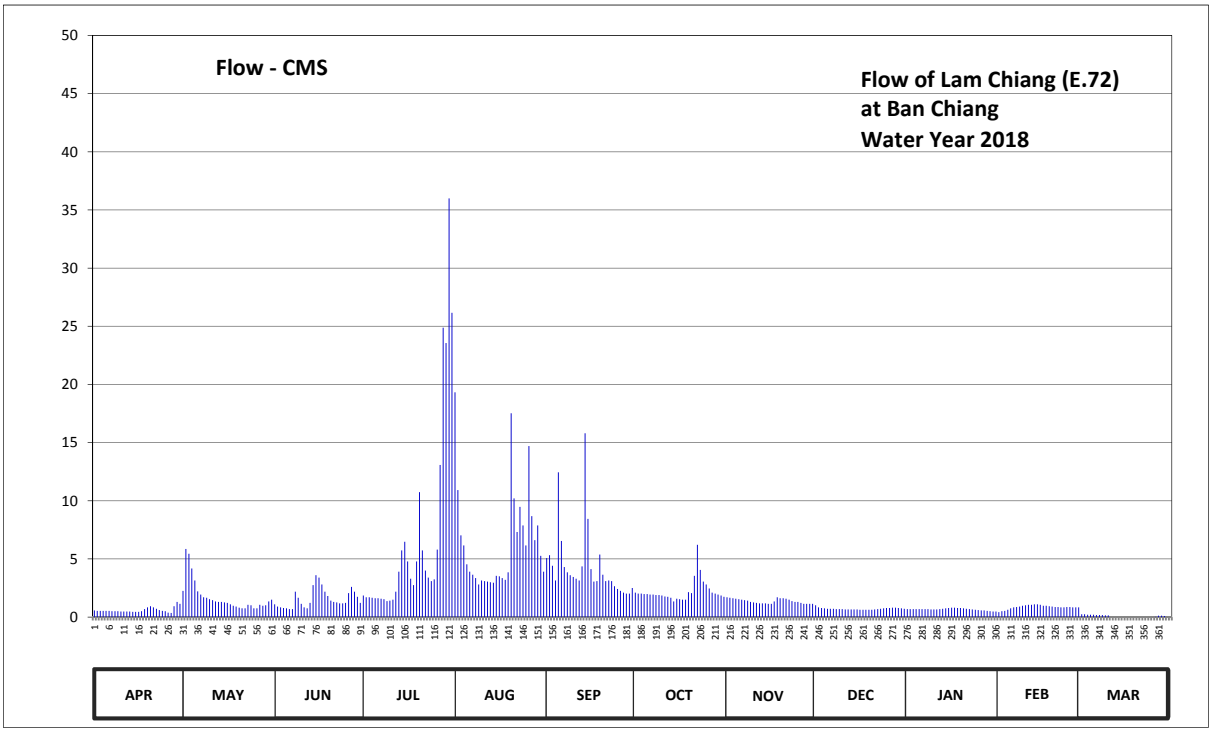
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	234.79	235.24	234.95	235.14	237.41	235.78	235.20	235.10	234.93	234.83	234.74	234.68	
2	234.78	235.91	234.90	235.10	236.58	235.82	235.18	235.09	234.88	234.83	234.77	234.68	
3	234.78	235.84	234.88	235.10	236.09	235.67	235.18	235.08	234.86	234.83	234.78	234.67	
4	234.78	235.63	234.86	235.09	235.96	235.43	235.17	235.07	234.85	234.83	234.81	234.67	
5	234.78	235.43	234.85	235.08	235.69	236.75	235.17	235.06	234.84	234.83	234.85	234.67	
6	234.78	235.23	234.83	235.08	235.58	236.02	235.16	235.05	234.84	234.83	234.88	234.66	
7	234.77	235.16	234.83	235.07	235.53	235.65	235.16	235.04	234.84	234.83	234.89	234.66	
8	234.77	235.10	235.22	235.06	235.47	235.57	235.15	235.03	234.83	234.83	234.90	234.66	
9	234.77	235.09	235.09	235.02	235.36	235.52	235.15	235.00	234.83	234.82	234.92	234.65	
10	234.76	235.06	234.96	235.03	235.43	235.49	235.14	234.99	234.83	234.82	234.93	234.65	
11	234.76	235.04	234.88	235.05	235.42	235.46	235.12	234.98	234.82	234.82	234.94	234.50	
12	234.76	235.01	234.85	235.22	235.41	235.43	235.11	234.97	234.82	234.83	234.94	234.50	
13	234.76	235.00	234.98	235.58	235.40	235.66	235.09	234.97	234.82	234.84	234.95	234.56	
14	234.75	235.00	235.35	235.89	235.39	237.10	235.01	234.97	234.82	234.85	234.95	234.59	
15	234.75	234.99	235.52	236.01	235.51	236.28	235.07	234.96	234.82	234.86	234.94	234.59	
16	234.75	234.98	235.48	235.73	235.50	235.62	235.06	234.96	234.81	234.87	234.92	234.59	
17	234.77	234.95	235.36	235.46	235.47	235.41	235.05	235.01	234.81	234.87	234.92	234.58	
18	234.83	234.92	235.22	235.35	235.44	235.42	235.05	235.10	234.81	234.86	234.91	234.58	
19	234.88	234.90	235.13	235.73	235.57	235.83	235.21	235.08	234.81	234.86	234.90	234.58	
20	234.91	234.87	235.03	236.56	237.26	235.53	235.19	235.08	234.81	234.85	234.89	234.57	
21	234.88	234.85	235.00	235.89	236.50	235.42	235.51	235.07	234.82	234.84	234.89	234.57	
22	234.84	234.85	234.99	235.60	236.13	235.43	235.97	235.05	234.83	234.83	234.88	234.57	
23	234.80	234.94	234.97	235.48	236.41	235.42	235.61	235.02	234.84	234.82	234.88	234.58	
24	234.78	234.93	234.97	235.42	236.21	235.33	235.41	235.00	234.85	234.81	234.89	234.59	
25	234.77	234.85	234.98	235.45	235.96	235.28	235.36	235.00	234.86	234.80	234.89	234.60	
26	234.73	234.85	235.19	235.90	236.99	235.24	235.29	234.98	234.86	234.79	234.88	234.61	
27	234.72	234.94	235.32	236.82	236.31	235.20	235.20	234.96	234.87	234.79	234.88	234.64	
28	234.91	234.92	235.22	237.83	236.03	235.18	235.18	234.96	234.87	234.78	234.88	234.64	
29	235.00	234.93	235.11	237.74	236.21	235.18	235.16	234.96	234.86	234.77		234.63	
30	234.96	235.01	234.98	238.43	235.81	235.30	235.14	234.96	234.85	234.76		234.60	
31		235.05		237.91	235.58		235.11		234.84	234.76		234.60	
Mean	234.80	235.08	235.06	235.80	235.92	235.61	235.21	235.02	234.84	234.82	234.89	234.61	
Max	235.00	235.91	235.52	238.43	237.41	237.10	235.97	235.10	234.93	234.87	234.95	234.68	238.43
Min	234.72	234.85	234.83	235.02	235.36	235.18	235.01	234.96	234.81	234.76	234.74	234.50	234.50

Annual Max Momentary Gage Height 238.65 m. (MSL.) , at 06.00 Hours, on Jul 30, 2018

Zero Gage at Bottom Elevation 234.10 m. (MSL.) , River Bed 233.90 m. (MSL.)

Left Bank Elevation 243.31 m. (MSL.) ,

Right Bank Elevation 238.80 m. (MSL.) , Drainage Are 323 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.57	2.26	1.10	1.86	19.32	5.08	2.10	1.70	1.02	0.69	0.42	0.24		
2	0.54	5.86	0.90	1.70	10.92	5.32	2.02	1.66	0.84	0.69	0.51	0.24		
3	0.54	5.44	0.84	1.70	7.03	4.42	2.02	1.62	0.78	0.69	0.54	0.21		
4	0.54	4.18	0.78	1.66	6.16	3.15	1.98	1.58	0.75	0.69	0.63	0.21		
5	0.54	3.15	0.75	1.62	4.54	12.45	1.98	1.54	0.72	0.69	0.75	0.21		
6	0.54	2.22	0.69	1.62	3.90	6.54	1.94	1.50	0.72	0.69	0.84	0.18		
7	0.51	1.94	0.69	1.58	3.65	4.30	1.94	1.46	0.72	0.69	0.87	0.18		
8	0.51	1.70	2.18	1.54	3.35	3.85	1.90	1.42	0.69	0.69	0.90	0.18		
9	0.51	1.66	1.66	1.38	2.80	3.60	1.90	1.30	0.69	0.66	0.98	0.15		
10	0.48	1.54	1.14	1.42	3.15	3.45	1.86	1.26	0.69	0.66	1.02	0.15		
11	0.48	1.46	0.84	1.50	3.10	3.30	1.78	1.22	0.66	0.66	1.06	0.00		
12	0.48	1.34	0.75	2.18	3.05	3.15	1.74	1.18	0.66	0.69	1.06	0.00		
13	0.48	1.30	1.22	3.90	3.00	4.36	1.66	1.18	0.66	0.72	1.10	0.00		
14	0.45	1.30	2.75	5.74	2.95	15.80	1.34	1.18	0.66	0.75	1.10	0.00		
15	0.45	1.26	3.60	6.47	3.55	8.44	1.58	1.14	0.66	0.78	1.06	0.00		
16	0.45	1.22	3.40	4.78	3.50	4.12	1.54	1.14	0.63	0.81	0.98	0.00		
17	0.51	1.10	2.80	3.30	3.35	3.05	1.50	1.34	0.63	0.81	0.98	0.00		
18	0.69	0.98	2.18	2.75	3.20	3.10	1.50	1.70	0.63	0.78	0.94	0.00		
19	0.84	0.90	1.82	4.78	3.85	5.38	2.14	1.62	0.63	0.78	0.90	0.00		
20	0.94	0.81	1.42	10.74	17.52	3.65	2.06	1.62	0.63	0.75	0.87	0.00		
21	0.84	0.75	1.30	5.74	10.20	3.10	3.55	1.58	0.66	0.72	0.87	0.00		
22	0.72	0.75	1.26	4.00	7.31	3.15	6.22	1.50	0.69	0.69	0.84	0.00		
23	0.60	1.06	1.18	3.40	9.48	3.10	4.06	1.38	0.72	0.66	0.84	0.00		
24	0.54	1.02	1.18	3.10	7.88	2.65	3.05	1.30	0.75	0.63	0.87	0.00		
25	0.51	0.75	1.22	3.25	6.16	2.42	2.80	1.30	0.78	0.60	0.87	0.00		
26	0.39	0.75	2.06	5.80	14.70	2.26	2.46	1.22	0.78	0.57	0.84	0.03		
27	0.36	1.06	2.60	13.08	8.68	2.10	2.10	1.14	0.81	0.57	0.84	0.12		
28	0.94	0.98	2.18	24.88	6.61	2.02	2.02	1.14	0.81	0.54	0.84	0.12		
29	1.30	1.02	1.74	23.56	7.88	2.02	1.94	1.14	0.78	0.51		0.09		
30	1.14	1.34	1.22	35.99	5.26	2.50	1.86	1.14	0.75	0.48		0.00		
31		1.50		26.16	3.90		1.74		0.72	0.48		0.00		
Total	18.39	52.60	47.45	211.18	199.95	131.83	68.28	41.20	22.32	20.82	24.32	2.31	840.65	CMSDAY
Mean	0.61	1.70	1.58	6.81	6.45	4.39	2.20	1.37	0.72	0.67	0.87	0.07	2.30	CMS
Max	1.30	5.86	3.60	35.99	19.32	15.80	6.22	1.70	1.02	0.81	1.10	0.24	35.99	CMS
Min	0.36	0.75	0.69	1.38	2.80	2.02	1.34	1.14	0.63	0.48	0.42	0.00	0.00	CMS
Runoff	1.59	4.54	4.10	18.25	17.28	11.39	5.90	3.56	1.93	1.80	2.10	0.20	72.63	MCM

Momentary Peak 41.20 CMS, at 238.65 m. (MSL.), at 06.00 Hours, on Jul 30, 2018

Runoff Yield 7.13 Liters/Second/Square KM. Momentary Peak Yield 127.55 Liters/Second/Square KM.

WATER YEAR : 2018

CHI RIVER BASIN

Lam Chao at Ban Wang Taku , Chaiyaphum (E.73)

Lat 15 - 56 - 59 N Long 101 - 26 - 44 E

Location : on left bank at Ban Wang Taku, Tambon Ban Chiang.

Ban Wang Taku **Amphoe** Phak Di Chumphon **Changwat** Chaiyaphum

Drainge Area	251 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+247.200 m. (MSL.)
Bench Mark	B.M.- H.D.
Location BM	On left bank about 2 meters from the top staff gage. **Elevation** +254.832 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic mean of 3 readings
Period of Available Gage Records	1984 to date
Rating Operation	
Period of Rating	1987 to date
Rated by Flot	-
Rated by Current Meter	1987 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. The local weir situated about 4 kilometers downstream from the gage site. Stage-discharge relation defined by 11 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

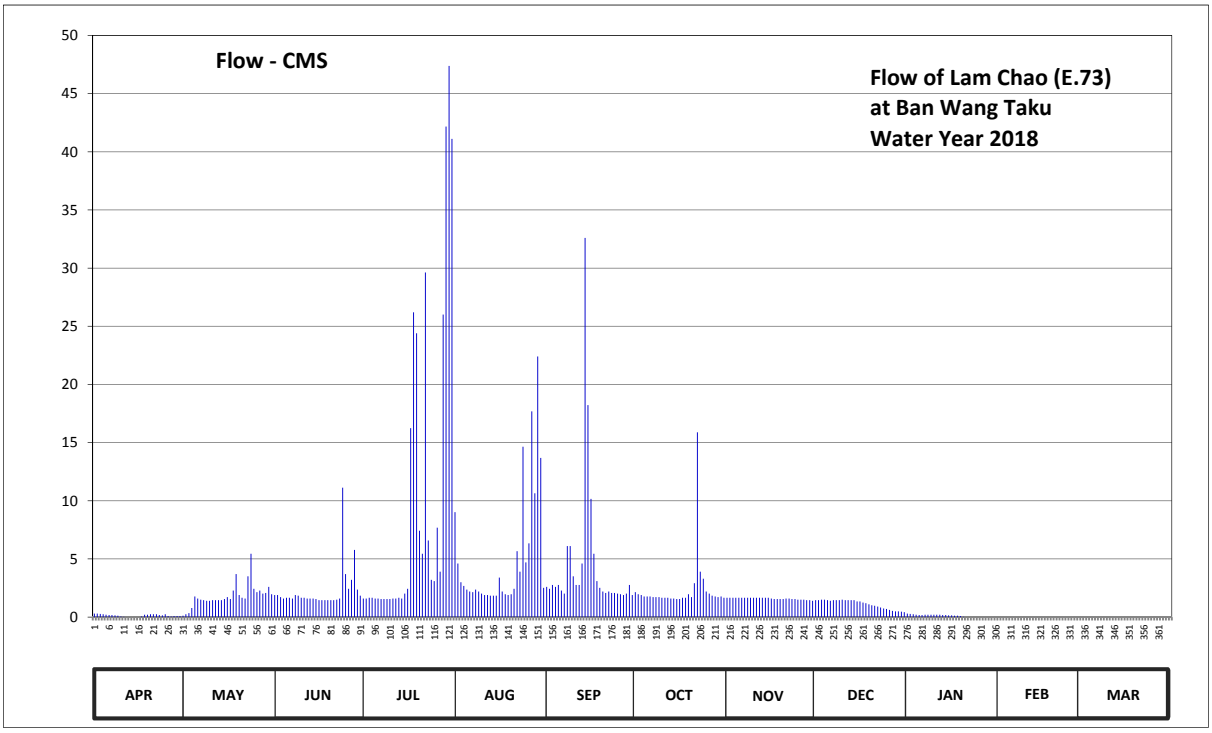
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	249.30	249.24	249.65	249.60	250.33	249.75	249.69	249.61	249.57	249.30	249.13	248.94	
2	249.30	249.28	249.65	249.60	249.96	249.73	249.66	249.61	249.57	249.29	249.12	248.93	
3	249.29	249.31	249.62	249.61	249.80	249.77	249.65	249.61	249.58	249.28	249.11	248.91	
4	249.28	249.42	249.60	249.61	249.76	249.75	249.63	249.61	249.58	249.27	249.11	248.90	
5	249.27	249.63	249.61	249.60	249.72	249.77	249.63	249.61	249.57	249.26	249.09	248.90	
6	249.26	249.60	249.61	249.60	249.70	249.71	249.63	249.61	249.56	249.26	249.08	248.88	
7	249.26	249.58	249.60	249.59	249.69	249.67	249.62	249.61	249.57	249.27	249.07	248.87	
8	249.25	249.57	249.65	249.59	249.72	250.10	249.62	249.61	249.57	249.27	249.07	248.86	
9	249.24	249.56	249.64	249.59	249.70	250.10	249.62	249.61	249.57	249.27	249.06	248.85	
10	249.22	249.56	249.61	249.59	249.67	249.85	249.61	249.61	249.58	249.27	249.05	248.85	
11	249.21	249.57	249.61	249.60	249.65	249.77	249.61	249.61	249.57	249.27	249.04	248.83	
12	249.20	249.57	249.60	249.60	249.65	249.77	249.61	249.61	249.57	249.27	249.04	248.82	
13	249.20	249.57	249.60	249.61	249.64	249.96	249.60	249.61	249.57	249.26	249.03	248.82	
14	249.20	249.57	249.60	249.60	249.64	251.56	249.60	249.61	249.57	249.26	249.02	248.80	
15	249.20	249.59	249.59	249.67	249.64	250.89	249.59	249.61	249.55	249.25	249.01	248.78	
16	249.20	249.62	249.57	249.73	249.84	250.41	249.59	249.60	249.55	249.25	249.00	248.77	
17	249.22	249.59	249.57	250.78	249.70	250.04	249.61	249.59	249.53	249.24	248.99	248.76	
18	249.27	249.71	249.57	251.29	249.66	249.81	249.61	249.59	249.52	249.24	249.01	248.76	
19	249.27	249.87	249.57	251.20	249.65	249.74	249.66	249.59	249.50	249.23	249.00	248.77	
20	249.28	249.65	249.57	250.21	249.66	249.70	249.62	249.59	249.48	249.21	249.00	248.76	
21	249.28	249.61	249.57	250.04	249.73	249.68	249.79	249.60	249.47	249.20	248.99	248.75	
22	249.28	249.60	249.58	251.44	250.06	249.70	250.76	249.60	249.45	249.20	248.98	248.75	
23	249.26	249.85	249.60	250.14	249.89	249.68	249.89	249.59	249.43	249.19	248.97	248.74	
24	249.25	250.04	250.47	249.82	250.69	249.68	249.83	249.59	249.41	249.17	248.96	248.74	
25	249.28	249.73	249.87	249.81	249.97	249.67	249.70	249.58	249.40	249.17	248.95	248.73	
26	249.23	249.69	249.73	250.23	250.12	249.66	249.67	249.58	249.38	249.17	248.95	248.73	
27	249.22	249.71	249.82	249.89	250.86	249.65	249.64	249.58	249.36	249.15	248.94	248.72	
28	249.23	249.67	250.07	251.28	250.44	249.67	249.63	249.57	249.35	249.15	248.94	248.71	
29	249.23	249.68	249.72	251.92	251.10	249.77	249.62	249.57	249.35	249.15		248.70	
30	249.23	249.75	249.64	252.11	250.63	249.65	249.63	249.56	249.34	249.14		248.69	
31		249.66		251.88	249.74		249.61		249.33	249.13		248.69	
Mean	249.25	249.61	249.67	250.19	249.94	249.89	249.68	249.60	249.50	249.23	249.03	248.80	
Max	249.30	250.04	250.47	252.11	251.10	251.56	250.76	249.61	249.58	249.30	249.13	248.94	252.11
Min	249.20	249.24	249.57	249.59	249.64	249.65	249.59	249.56	249.33	249.13	248.94	248.69	248.69

Annual Max Momentary Gage Height 252.40 m. (MSL.) , at 10.00 Hours, on Jul 22, 2018

Zero Gage at Bottom Elevation 247.20 m. (MSL.) , River Bed 245.82 m. (MSL.)

Left Bank Elevation 254.53 m. (MSL.) ,

Right Bank Elevation 254.14 m. (MSL.) , Drainage Are 251 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.30	0.12	1.90	1.60	9.02	2.60	2.14	1.66	1.45	0.30	0.00	0.00		
2	0.30	0.24	1.90	1.60	4.60	2.44	1.96	1.66	1.45	0.27	0.00	0.00		
3	0.27	0.34	1.72	1.66	3.00	2.76	1.90	1.66	1.50	0.24	0.00	0.00		
4	0.24	0.78	1.60	1.66	2.68	2.60	1.78	1.66	1.50	0.21	0.00	0.00		
5	0.21	1.78	1.66	1.60	2.36	2.76	1.78	1.66	1.45	0.18	0.00	0.00		
6	0.18	1.60	1.66	1.60	2.20	2.28	1.78	1.66	1.40	0.18	0.00	0.00		
7	0.18	1.50	1.60	1.55	2.14	2.02	1.72	1.66	1.45	0.21	0.00	0.00		
8	0.15	1.45	1.90	1.55	2.36	6.10	1.72	1.66	1.45	0.21	0.00	0.00		
9	0.12	1.40	1.84	1.55	2.20	6.10	1.72	1.66	1.45	0.21	0.00	0.00		
10	0.06	1.40	1.66	1.55	2.02	3.50	1.66	1.66	1.50	0.21	0.00	0.00		
11	0.03	1.45	1.66	1.60	1.90	2.76	1.66	1.66	1.45	0.21	0.00	0.00		
12	0.00	1.45	1.60	1.60	1.90	2.76	1.66	1.66	1.45	0.21	0.00	0.00		
13	0.00	1.45	1.60	1.66	1.84	4.60	1.60	1.66	1.45	0.18	0.00	0.00		
14	0.00	1.45	1.60	1.60	1.84	32.60	1.60	1.66	1.45	0.18	0.00	0.00		
15	0.00	1.55	1.55	2.02	1.84	18.22	1.55	1.66	1.35	0.15	0.00	0.00		
16	0.00	1.72	1.45	2.44	3.40	10.16	1.55	1.60	1.35	0.15	0.00	0.00		
17	0.06	1.55	1.45	16.24	2.20	5.44	1.66	1.55	1.25	0.12	0.00	0.00		
18	0.21	2.28	1.45	26.20	1.96	3.10	1.66	1.55	1.20	0.12	0.00	0.00		
19	0.21	3.70	1.45	24.40	1.90	2.52	1.96	1.55	1.10	0.09	0.00	0.00		
20	0.24	1.90	1.45	7.43	1.96	2.20	1.72	1.55	1.02	0.03	0.00	0.00		
21	0.24	1.66	1.45	5.44	2.44	2.08	2.92	1.60	0.98	0.00	0.00	0.00		
22	0.24	1.60	1.50	29.62	5.66	2.20	15.88	1.60	0.90	0.00	0.00	0.00		
23	0.18	3.50	1.60	6.58	3.90	2.08	3.90	1.55	0.82	0.00	0.00	0.00		
24	0.15	5.44	11.12	3.20	14.64	2.08	3.30	1.55	0.74	0.00	0.00	0.00		
25	0.24	2.44	3.70	3.10	4.70	2.02	2.20	1.50	0.70	0.00	0.00	0.00		
26	0.09	2.14	2.44	7.69	6.34	1.96	2.02	1.50	0.62	0.00	0.00	0.00		
27	0.06	2.28	3.20	3.90	17.68	1.90	1.84	1.50	0.54	0.00	0.00	0.00		
28	0.09	2.02	5.77	26.00	10.64	2.02	1.78	1.45	0.50	0.00	0.00	0.00		
29	0.09	2.08	2.36	42.17	22.40	2.76	1.72	1.45	0.50	0.00		0.00		
30	0.09	2.60	1.84	47.38	13.68	1.90	1.78	1.40	0.46	0.00		0.00		
31		1.96		41.11	2.52		1.66		0.42	0.00		0.00		
Total	4.23	56.83	67.68	317.30	157.92	138.52	73.78	47.80	34.85	3.66	0.00	0.00	902.57	CMSDAY
Mean	0.14	1.83	2.26	10.24	5.09	4.62	2.38	1.59	1.12	0.12	0.00	0.00	2.47	CMS
Max	0.30	5.44	11.12	47.38	22.40	32.60	15.88	1.66	1.50	0.30	0.00	0.00	47.38	CMS
Min	0.00	0.12	1.45	1.55	1.84	1.90	1.55	1.40	0.42	0.00	0.00	0.00	0.00	CMS
Runoff	0.37	4.91	5.85	27.41	13.64	11.97	6.37	4.13	3.01	0.32	0.00	0.00	77.98	MCM

Momentary Peak 55.50 CMS, at 252.40 m. (MSL.), at 10.00 Hours, on Jul 22, 2018

Runoff Yield 9.85 Liters/Second/Square KM. Momentary Peak Yield 221.12 Liters/Second/Square KM.

WATER YEAR : 2018

CHI RIVER BASIN

Lam Pao at Ban Nong Muang , Kalasin (E.75)

Lat 16 - 34 - 36 N Long 103 - 26 - 35 E

Location : on left bank about 3 kilometers downstream from Lam Pao Damsite.

	Ban Nong Muang	**Amphoe** Mueang	**Changwat** Kalasin
Drainge Area	6,013 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+137.000 m. (MSL.)		
Bench Mark	B.M.- H.D.		
Location BM	On left bank in front of gage observer's house.		**Elevation** +149.762 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic mean of 3 readings		
Period of Available Gage Records	1987 to date		
Rating Operation			
Period of Rating	1987 to date		
Rated by Flot	-		
Rated by Current Meter	1987 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Flow regulated by Lam Pao Dam.		
	Stage-discharge relation defined by 18 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

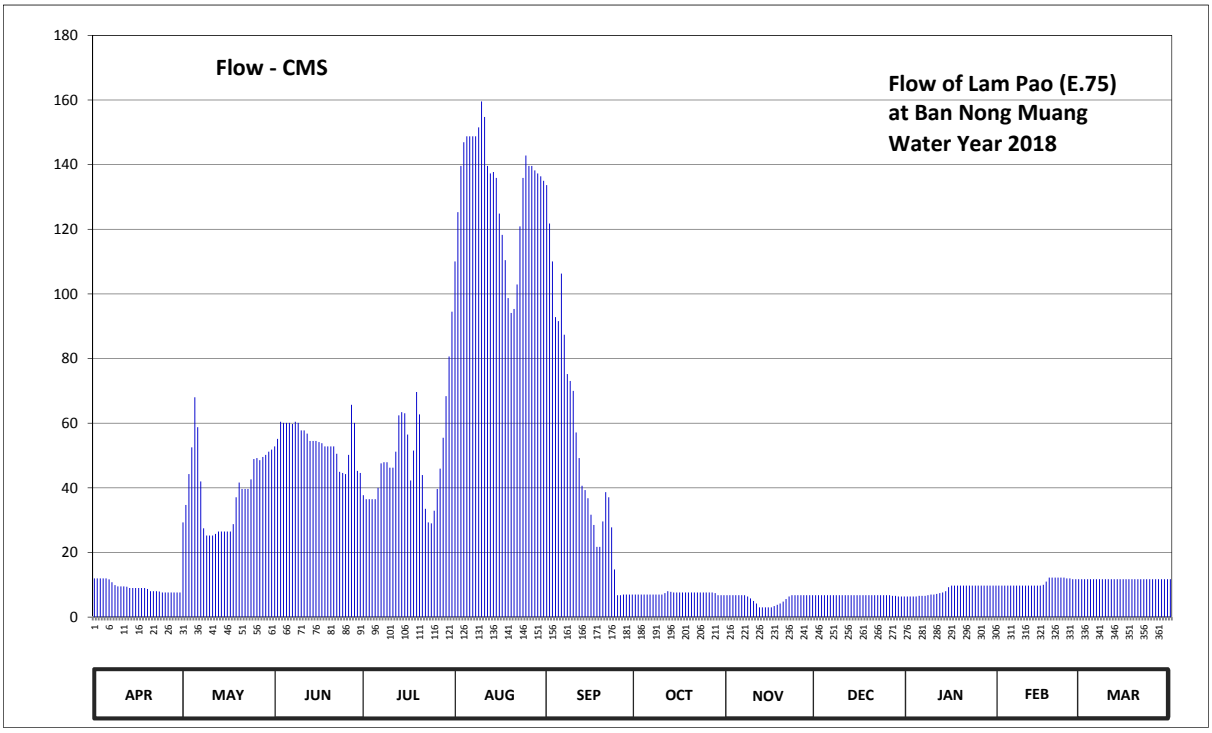
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	139.00	138.71	139.45	138.99	140.93	141.47	137.80	137.79	137.79	137.77	137.93	138.01	
2	139.00	138.89	139.52	138.95	141.28	141.20	137.80	137.79	137.79	137.77	137.93	138.01	
3	139.00	139.19	139.68	138.95	141.60	140.93	137.80	137.79	137.79	137.77	137.93	138.01	
4	139.00	139.44	139.67	138.95	141.76	140.52	137.80	137.79	137.79	137.77	137.93	138.01	
5	139.00	139.91	139.67	138.95	141.80	140.49	137.80	137.79	137.79	137.78	137.93	138.01	
6	138.97	139.63	139.67	139.06	141.80	140.84	137.80	137.79	137.79	137.78	137.93	138.01	
7	138.88	139.12	139.66	139.29	141.80	140.39	137.80	137.79	137.79	137.78	137.93	138.01	
8	138.79	138.64	139.68	139.30	141.80	140.10	137.80	137.77	137.79	137.79	137.93	138.01	
9	138.75	138.55	139.67	139.30	141.86	140.05	137.80	137.74	137.79	137.80	137.93	138.01	
10	138.75	138.55	139.60	139.25	142.03	139.97	137.80	137.70	137.79	137.80	137.93	138.01	
11	138.75	138.55	139.60	139.25	141.93	139.58	137.82	137.66	137.79	137.81	137.93	138.01	
12	138.74	138.57	139.57	139.40	141.60	139.34	137.85	137.60	137.79	137.82	137.93	138.01	
13	138.70	138.60	139.50	139.74	141.55	139.08	137.84	137.60	137.79	137.83	137.93	138.01	
14	138.70	138.60	139.50	139.77	141.56	139.04	137.83	137.60	137.79	137.85	137.93	138.01	
15	138.70	138.60	139.50	139.76	141.52	138.96	137.83	137.60	137.79	137.91	137.93	138.01	
16	138.70	138.60	139.49	139.56	141.27	138.79	137.83	137.60	137.79	137.93	137.94	138.01	
17	138.70	138.60	139.48	139.13	141.12	138.68	137.83	137.62	137.79	137.93	137.98	138.01	
18	138.70	138.69	139.45	139.41	140.94	138.41	137.83	137.64	137.79	137.93	138.03	138.01	
19	138.67	138.97	139.45	139.96	140.66	138.41	137.83	137.66	137.79	137.93	138.03	138.01	
20	138.60	139.11	139.45	139.75	140.55	138.72	137.83	137.69	137.79	137.93	138.03	138.01	
21	138.60	139.05	139.45	139.18	140.58	139.02	137.83	137.73	137.79	137.93	138.03	138.01	
22	138.60	139.05	139.38	138.85	140.76	138.97	137.83	137.77	137.79	137.93	138.03	138.01	
23	138.59	139.05	139.21	138.71	141.18	138.65	137.83	137.79	137.79	137.93	138.03	138.01	
24	138.55	139.14	139.20	138.70	141.52	138.13	137.83	137.79	137.79	137.93	138.02	138.01	
25	138.55	139.33	139.19	138.83	141.67	137.79	137.83	137.79	137.79	137.93	138.02	138.01	
26	138.55	139.34	139.37	139.05	141.60	137.79	137.83	137.79	137.79	137.93	138.01	138.01	
27	138.55	139.32	139.84	139.24	141.60	137.80	137.83	137.79	137.78	137.93	138.01	138.01	
28	138.55	139.35	139.67	139.53	141.57	137.80	137.82	137.79	137.78	137.93	138.01	138.01	
29	138.55	139.37	139.22	139.92	141.55	137.80	137.79	137.79	137.77	137.93		138.01	
30	138.55	139.40	139.20	140.23	141.53	137.80	137.79	137.79	137.77	137.93		138.01	
31		139.42		140.56	141.50		137.79		137.77	137.93		138.01	
Mean	138.72	139.01	139.50	139.34	141.43	139.22	137.82	137.73	137.79	137.87	137.97	138.01	
Max	139.00	139.91	139.84	140.56	142.03	141.47	137.85	137.79	137.79	137.93	138.03	138.01	142.03
Min	138.55	138.55	139.19	138.70	140.55	137.79	137.79	137.60	137.77	137.77	137.93	138.01	137.60

Annual Max Momentary Gage Height 142.10 m. (MSL.) , at 05.00 Hours, on Aug 11, 2018

Zero Gage at Bottom Elevation 137.00 m. (MSL.) , River Bed 137.29 m. (MSL.)

Left Bank Elevation 150.22 m. (MSL.) ,

Right Bank Elevation 149.96 m. (MSL.) , Drainage Are 6,013 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	12.00	29.30	52.85	37.70	110.06	133.68	7.00	6.80	6.80	6.40	9.75	11.75		
2	12.00	34.70	55.16	36.50	125.32	121.80	7.00	6.80	6.80	6.40	9.75	11.75		
3	12.00	44.27	60.44	36.50	139.60	110.06	7.00	6.80	6.80	6.40	9.75	11.75		
4	12.00	52.52	60.11	36.50	146.96	92.84	7.00	6.80	6.80	6.40	9.75	11.75		
5	12.00	68.03	60.11	36.50	148.80	91.58	7.00	6.80	6.80	6.60	9.75	11.75		
6	11.70	58.79	60.11	39.98	148.80	106.28	7.00	6.80	6.80	6.60	9.75	11.75		
7	10.80	41.96	59.78	47.57	148.80	87.38	7.00	6.80	6.80	6.60	9.75	11.75		
8	9.90	27.50	60.44	47.90	148.80	75.20	7.00	6.40	6.80	6.80	9.75	11.75		
9	9.50	25.25	60.11	47.90	151.56	73.10	7.00	5.80	6.80	7.00	9.75	11.75		
10	9.50	25.25	57.80	46.25	159.56	70.01	7.00	5.00	6.80	7.00	9.75	11.75		
11	9.50	25.25	57.80	46.25	154.78	57.14	7.40	4.20	6.80	7.20	9.75	11.75		
12	9.40	25.75	56.81	51.20	139.60	49.22	8.00	3.00	6.80	7.40	9.75	11.75		
13	9.00	26.50	54.50	62.42	137.30	40.64	7.80	3.00	6.80	7.60	9.75	11.75		
14	9.00	26.50	54.50	63.41	137.76	39.32	7.60	3.00	6.80	8.00	9.75	11.75		
15	9.00	26.50	54.50	63.08	135.92	36.80	7.60	3.00	6.80	9.25	9.75	11.75		
16	9.00	26.50	54.17	56.48	124.88	31.70	7.60	3.00	6.80	9.75	10.00	11.75		
17	9.00	26.50	53.84	42.29	118.28	28.50	7.60	3.40	6.80	9.75	11.00	11.75		
18	9.00	28.75	52.85	51.53	110.48	21.75	7.60	3.80	6.80	9.75	12.25	11.75		
19	8.70	37.10	52.85	69.68	98.72	21.75	7.60	4.20	6.80	9.75	12.25	11.75		
20	8.00	41.63	52.85	62.75	94.10	29.60	7.60	4.80	6.80	9.75	12.25	11.75		
21	8.00	39.65	52.85	43.94	95.36	38.66	7.60	5.60	6.80	9.75	12.25	11.75		
22	8.00	39.65	50.54	33.50	102.92	37.10	7.60	6.40	6.80	9.75	12.25	11.75		
23	7.92	39.65	44.93	29.30	120.92	27.75	7.60	6.80	6.80	9.75	12.25	11.75		
24	7.60	42.62	44.60	29.00	135.92	14.75	7.60	6.80	6.80	9.75	12.00	11.75		
25	7.60	48.89	44.27	32.90	142.82	6.80	7.60	6.80	6.80	9.75	12.00	11.75		
26	7.60	49.22	50.21	39.65	139.60	6.80	7.60	6.80	6.80	9.75	11.75	11.75		
27	7.60	48.56	65.72	45.92	139.60	7.00	7.60	6.80	6.60	9.75	11.75	11.75		
28	7.60	49.55	60.11	55.49	138.22	7.00	7.40	6.80	6.60	9.75	11.75	11.75		
29	7.60	50.21	45.26	68.36	137.30	7.00	6.80	6.80	6.40	9.75		11.75		
30	7.60	51.20	44.60	80.66	136.38	7.00	6.80	6.80	6.40	9.75		11.75		
31		51.86		94.52	135.00		6.80		6.40	9.75		11.75		
Total	278.12	1209.61	1634.67	1535.63	4104.12	1478.21	227.40	166.60	209.20	261.65	300.00	364.25	11769.46	CMSDAY
Mean	9.27	39.02	54.49	49.54	132.39	49.27	7.34	5.55	6.75	8.44	10.71	11.75	32.25	CMS
Max	12.00	68.03	65.72	94.52	159.56	133.68	8.00	6.80	6.80	9.75	12.25	11.75	159.56	CMS
Min	7.60	25.25	44.27	29.00	94.10	6.80	6.80	3.00	6.40	6.40	9.75	11.75	3.00	CMS
Runoff	24.03	104.51	141.24	132.68	354.60	127.72	19.65	14.39	18.07	22.61	25.92	31.47	1016.88	MCM

Momentary Peak 163.20 CMS, at 142.10 m. (MSL.), at 05.00 Hours, on Aug 11, 2018

Runoff Yield 5.36 Liters/Second/Square KM. Momentary Peak Yield 27.14 Liters/Second/Square KM.

WATER YEAR : 2018

CHI RIVER BASIN

Lam Saphung at Ban Na Charoen , Chaiyaphum (E.83)

Lat 16 - 09 - 21 N Long 101 - 39 - 13 E

Location : on left bank at Ban Na Charoen.

	Ban Na Charoen	**Amphoe** Nong Bua Daeng	**Changwat** Chaiyaphum
Drainge Area	744 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+222.700 m. (MSL.)		
Bench Mark	B.M.- Highways Dept.		
Location BM	On left bank downstream at the footpath of the bridge.		**Elevation** +236.237 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic mean of 3 readings		
Period of Available Gage Records	2004 to date		
Rating Operation			
Period of Rating	2004 to date		
Rated by Flot	-		
Rated by Current Meter	2004 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 17 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

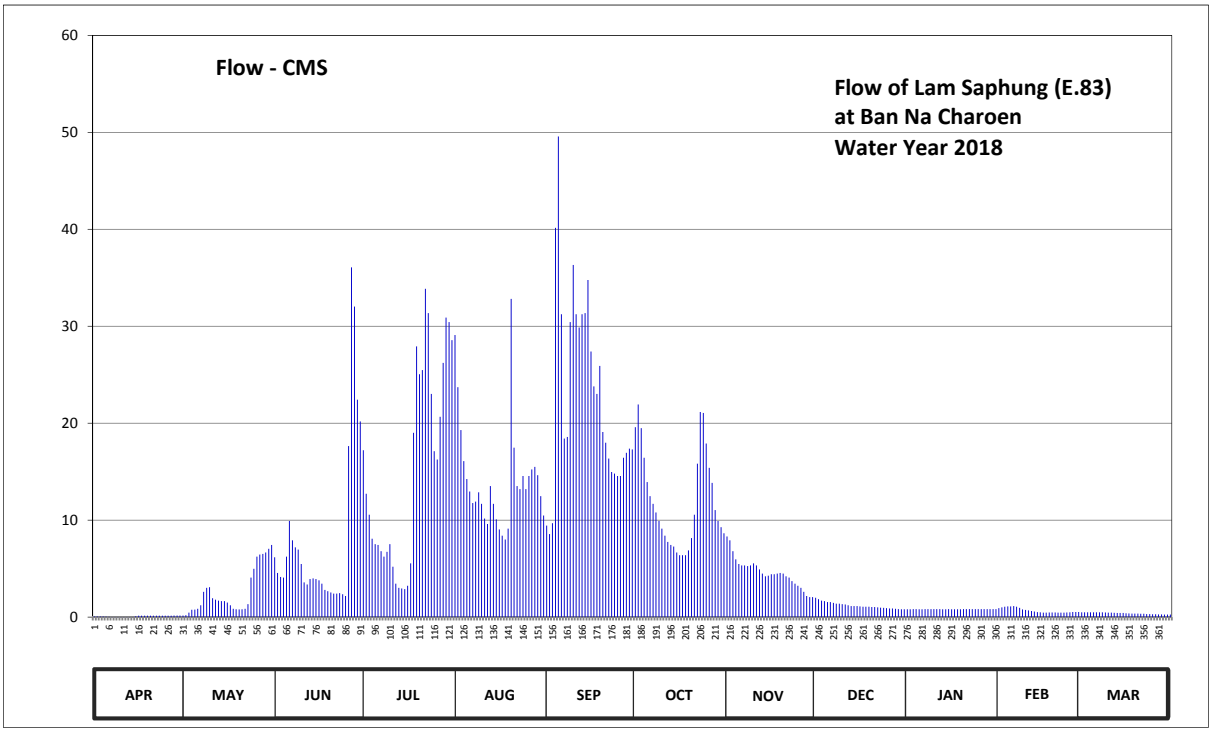
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	223.09	223.21	224.91	226.28	227.48	225.33	226.55	225.19	224.30	224.00	224.04	223.63	
2	223.09	223.24	224.68	225.74	226.97	225.22	226.79	225.14	224.27	224.00	224.07	223.63	
3	223.08	223.57	224.62	225.47	226.52	225.36	226.54	225.00	224.24	224.01	224.09	223.62	
4	223.08	223.94	224.61	225.16	226.15	228.43	226.19	224.88	224.23	224.01	224.10	223.62	
5	223.06	223.96	224.92	225.09	225.93	229.16	225.89	224.81	224.21	224.00	224.10	223.62	
6	223.04	224.02	225.39	225.08	225.77	227.67	225.71	224.79	224.21	224.00	224.11	223.61	
7	223.03	224.13	225.14	225.00	225.62	226.42	225.61	224.79	224.19	224.01	224.09	223.61	
8	223.03	224.40	225.05	224.92	225.64	226.44	225.50	224.78	224.17	224.01	224.05	223.61	
9	223.02	224.46	225.02	224.99	225.76	227.60	225.39	224.79	224.17	224.01	223.99	223.60	
10	223.02	224.47	224.81	225.09	225.61	228.11	225.29	224.82	224.16	224.01	223.93	223.58	
11	223.01	224.29	224.54	224.77	225.42	227.67	225.20	224.79	224.15	224.01	223.86	223.57	
12	223.01	224.26	224.51	224.52	225.35	227.55	225.12	224.73	224.13	224.01	223.79	223.56	
13	223.01	224.24	224.59	224.46	225.84	227.67	225.08	224.67	224.11	224.00	223.72	223.54	
14	223.01	224.23	224.60	224.45	225.61	227.68	225.06	224.63	224.11	224.00	223.64	223.54	
15	223.10	224.23	224.59	224.44	225.41	227.98	224.98	224.64	224.11	224.01	223.62	223.52	
16	223.18	224.20	224.57	224.49	225.28	227.32	224.94	224.66	224.10	224.00	223.58	223.50	
17	223.18	224.13	224.52	224.82	225.20	226.98	224.94	224.66	224.09	224.00	223.57	223.48	
18	223.18	224.02	224.43	226.49	225.15	226.90	224.94	224.67	224.09	224.00	223.59	223.46	
19	223.18	224.00	224.41	227.37	225.29	227.18	225.01	224.68	224.09	224.00	223.59	223.45	
20	223.19	223.99	224.39	227.10	227.81	226.50	225.17	224.67	224.08	224.01	223.59	223.45	
21	223.19	224.00	224.37	227.14	226.31	226.37	225.47	224.63	224.08	224.01	223.57	223.42	
22	223.19	224.02	224.37	227.90	225.84	226.18	226.12	224.61	224.07	224.01	223.57	223.42	
23	223.19	224.16	224.38	227.68	225.80	226.02	226.71	224.56	224.06	224.01	223.57	223.39	
24	223.19	224.61	224.36	226.90	225.97	226.00	226.70	224.52	224.05	224.01	223.59	223.39	
25	223.19	224.74	224.33	226.27	225.80	225.97	226.36	224.49	224.04	224.01	223.63	223.37	
26	223.19	224.92	226.33	226.17	225.97	225.97	226.07	224.46	224.03	224.01	223.65	223.36	
27	223.19	224.95	228.09	226.66	226.05	226.19	225.88	224.40	224.03	224.01	223.65	223.35	
28	223.20	224.96	227.74	227.21	226.08	226.25	225.53	224.33	224.02	224.01	223.65	223.35	
29	223.20	224.98	226.84	227.64	225.98	226.30	225.39	224.31	224.01	224.01		223.34	
30	223.20	225.03	226.61	227.60	225.71	226.29	225.31	224.31	224.00	224.01		223.33	
31		225.08		227.43	225.46		225.23		224.00	224.01		223.33	
Mean	223.12	224.27	225.06	225.95	225.90	226.82	225.63	224.68	224.12	224.01	223.79	223.49	
Max	223.20	225.08	228.09	227.90	227.81	229.16	226.79	225.19	224.30	224.01	224.11	223.63	229.16
Min	223.01	223.21	224.33	224.44	225.15	225.22	224.94	224.31	224.00	224.00	223.57	223.33	223.01

Annual Max Momentary Gage Height 229.45 m. (MSL.) , at 06.00 Hours, on Sep 5, 2018

Zero Gage at Bottom Elevation 222.70 m. (MSL.) , River Bed 223.05 m. (MSL.)

Left Bank Elevation 232.70 m. (MSL.) ,

Right Bank Elevation 232.26 m. (MSL.) , Drainage Are 744 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.07	0.17	6.17	17.21	29.09	9.44	19.59	8.32	2.00	0.80	0.92	0.50		
2	0.07	0.19	4.56	12.72	23.71	8.56	21.94	7.92	1.85	0.80	1.01	0.50		
3	0.06	0.46	4.14	10.56	19.30	9.68	19.49	6.80	1.70	0.83	1.07	0.50		
4	0.06	0.75	4.07	8.08	16.09	40.16	16.43	5.96	1.65	0.83	1.10	0.50		
5	0.05	0.77	6.24	7.52	14.24	49.58	13.92	5.47	1.55	0.80	1.10	0.50		
6	0.03	0.86	9.92	7.44	12.96	31.24	12.48	5.33	1.55	0.80	1.14	0.49		
7	0.02	1.22	7.92	6.80	11.76	18.41	11.68	5.33	1.46	0.83	1.07	0.49		
8	0.02	2.60	7.20	6.24	11.92	18.58	10.80	5.26	1.38	0.83	0.95	0.49		
9	0.02	3.02	6.96	6.73	12.88	30.44	9.92	5.33	1.38	0.83	0.79	0.48		
10	0.02	3.09	5.47	7.52	11.68	36.32	9.12	5.54	1.34	0.83	0.74	0.46		
11	0.01	1.95	3.58	5.19	10.16	31.24	8.40	5.33	1.30	0.83	0.69	0.46		
12	0.01	1.80	3.37	3.44	9.60	29.87	7.76	4.91	1.22	0.83	0.63	0.45		
13	0.01	1.70	3.93	3.02	13.52	31.24	7.44	4.49	1.14	0.80	0.58	0.43		
14	0.01	1.65	4.00	2.95	11.68	31.35	7.28	4.21	1.14	0.80	0.51	0.43		
15	0.08	1.65	3.93	2.88	10.08	34.77	6.66	4.28	1.14	0.83	0.50	0.42		
16	0.14	1.50	3.79	3.23	9.04	27.39	6.38	4.42	1.10	0.80	0.46	0.40		
17	0.14	1.22	3.44	5.54	8.40	23.80	6.38	4.42	1.07	0.80	0.46	0.38		
18	0.14	0.86	2.81	19.01	8.00	23.02	6.38	4.49	1.07	0.80	0.47	0.37		
19	0.14	0.80	2.67	27.92	9.12	25.91	6.88	4.56	1.07	0.80	0.47	0.36		
20	0.15	0.79	2.54	25.06	32.83	19.10	8.16	4.49	1.04	0.83	0.47	0.36		
21	0.15	0.80	2.42	25.48	17.47	17.98	10.56	4.21	1.04	0.83	0.46	0.34		
22	0.15	0.86	2.42	33.86	13.52	16.35	15.83	4.07	1.01	0.83	0.46	0.34		
23	0.15	1.34	2.48	31.35	13.20	14.97	21.16	3.72	0.98	0.83	0.46	0.31		
24	0.15	4.07	2.36	23.02	14.56	14.80	21.06	3.44	0.95	0.83	0.47	0.31		
25	0.15	4.98	2.18	17.12	13.20	14.56	17.90	3.23	0.92	0.83	0.50	0.30		
26	0.15	6.24	17.64	16.26	14.56	14.56	15.40	3.02	0.89	0.83	0.52	0.29		
27	0.15	6.45	36.08	20.67	15.23	16.43	13.84	2.60	0.89	0.83	0.52	0.28		
28	0.16	6.52	32.04	26.23	15.49	16.95	11.04	2.18	0.86	0.83	0.52	0.28		
29	0.16	6.66	22.43	30.90	14.64	17.38	9.92	2.06	0.83	0.83		0.27		
30	0.16	7.04	20.18	30.44	12.48	17.29	9.28	2.06	0.80	0.83		0.26		
31		7.44		28.56	10.48		8.64		0.80	0.83		0.26		
Total	2.78	79.45	236.94	472.95	440.89	691.37	371.72	137.45	37.12	25.43	19.04	12.21	2527.35	CMSDAY
Mean	0.09	2.56	7.90	15.26	14.22	23.05	11.99	4.58	1.20	0.82	0.68	0.39	6.92	CMS
Max	0.16	7.44	36.08	33.86	32.83	49.58	21.94	8.32	2.00	0.83	1.14	0.50	49.58	CMS
Min	0.01	0.17	2.18	2.88	8.00	8.56	6.38	2.06	0.80	0.80	0.46	0.26	0.01	CMS
Runoff	0.24	6.86	20.47	40.86	38.09	59.73	32.12	11.88	3.21	2.20	1.65	1.05	218.36	MCM

Momentary Peak 53.35 CMS, at 229.45 m. (MSL.), at 06.00 Hours, on Sep 5, 2018

Runoff Yield 9.31 Liters/Second/Square KM. Momentary Peak Yield 71.71 Liters/Second/Square KM.

WATER YEAR : 2018

CHI RIVER BASIN

Chi River at Ban Nang Dad Khok , Chaiyaphum (E.84)

Lat 16 - 09 - 08 N Long 101 - 35 - 07 E

Location : on left bank at Ban Nang Dad Khok.

	Ban Nang Dad Khok	**Amphoe** Nong Bua Daeng	**Changwat** Chaiyaphum
Drainge Area	508 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+237.600 m. (MSL.)		
Bench Mark	B.M.- Highways Dept.		
Location BM	On left bank downstream at the footpath of the bridge.	**Elevation** +246.755 m. (MSL.)	
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic mean of 3 readings		
Period of Available Gage Records	2004 to date		
Rating Operation			
Period of Rating	2004 to date		
Rated by Flot	-		
Rated by Current Meter	2004 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 19 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

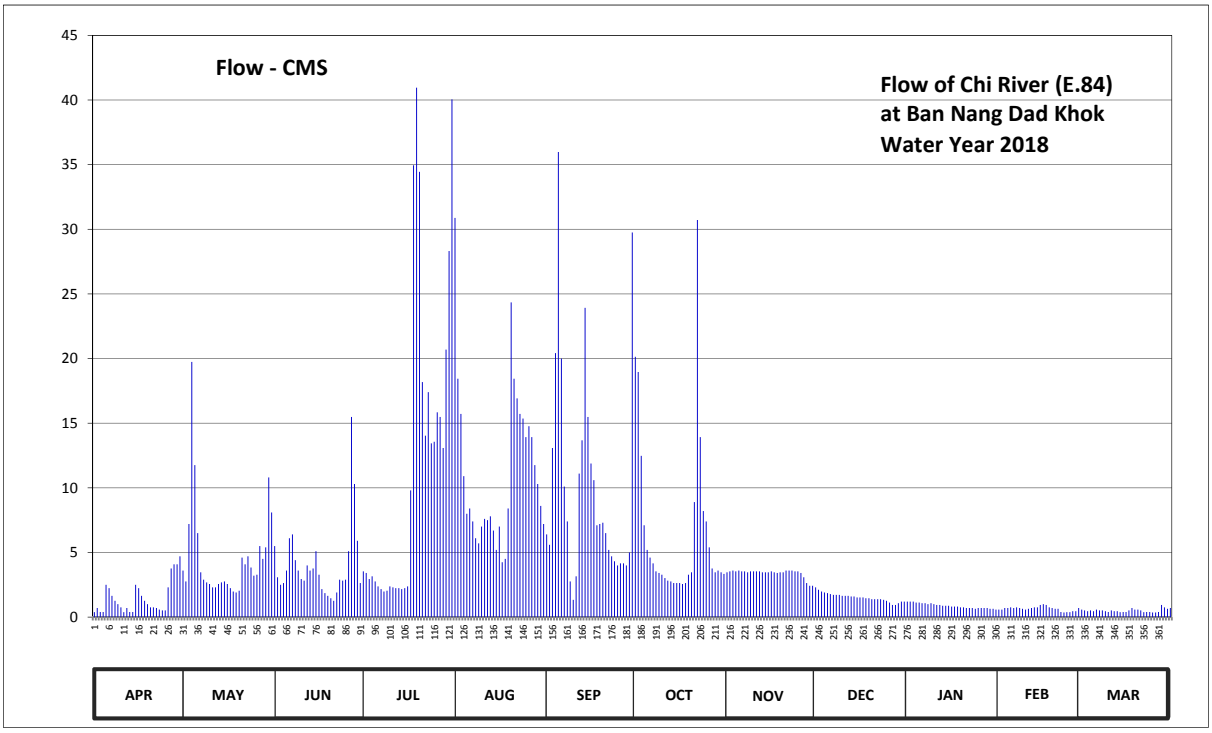
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	239.49	240.00	240.21	239.99	242.23	240.30	241.51	239.98	239.80	239.63	239.53	239.53	
2	239.55	239.87	239.92	239.97	241.38	240.22	241.42	239.99	239.77	239.63	239.53	239.52	
3	239.50	240.38	239.83	239.90	241.16	240.94	240.89	240.00	239.75	239.63	239.55	239.51	
4	239.50	241.48	239.85	239.93	240.75	241.53	240.37	239.99	239.74	239.62	239.55	239.52	
5	239.83	240.83	240.00	239.87	240.46	242.54	240.18	240.00	239.73	239.62	239.56	239.51	
6	239.79	240.31	240.27	239.81	240.50	241.50	240.12	239.99	239.72	239.61	239.55	239.53	
7	239.70	239.98	240.30	239.78	240.40	240.67	240.07	239.99	239.71	239.61	239.56	239.52	
8	239.64	239.89	240.10	239.75	240.27	240.40	239.99	239.98	239.71	239.60	239.55	239.52	
9	239.60	239.86	240.00	239.76	240.23	239.87	239.97	239.99	239.71	239.61	239.54	239.51	
10	239.56	239.84	239.90	239.81	240.36	239.65	239.95	239.99	239.70	239.60	239.53	239.50	
11	239.49	239.80	239.88	239.80	240.42	239.93	239.91	239.99	239.70	239.59	239.54	239.52	
12	239.55	239.80	240.05	239.79	240.41	240.77	239.88	239.99	239.70	239.59	239.55	239.51	
13	239.50	239.84	240.00	239.79	240.44	240.99	239.87	239.98	239.69	239.58	239.56	239.51	
14	239.50	239.86	240.02	239.78	240.33	241.78	239.85	239.98	239.69	239.58	239.56	239.49	
15	239.83	239.87	240.17	239.79	240.18	241.14	239.85	239.98	239.68	239.58	239.59	239.50	
16	239.79	239.84	239.95	239.81	240.36	240.84	239.85	239.99	239.68	239.57	239.60	239.50	
17	239.70	239.79	239.78	240.64	240.08	240.72	239.84	239.98	239.68	239.57	239.59	239.52	
18	239.64	239.75	239.73	242.48	240.11	240.37	239.85	239.97	239.67	239.57	239.56	239.55	
19	239.60	239.74	239.70	242.82	240.50	240.38	239.95	239.98	239.67	239.56	239.55	239.53	
20	239.56	239.76	239.67	242.45	241.81	240.39	239.98	239.98	239.66	239.56	239.54	239.53	
21	239.56	240.12	239.64	241.36	241.38	240.31	240.55	240.00	239.66	239.55	239.54	239.52	
22	239.55	240.06	239.74	241.02	241.26	240.18	242.22	240.00	239.66	239.55	239.50	239.49	
23	239.53	240.13	239.89	241.30	241.16	240.13	241.01	240.00	239.66	239.55	239.48	239.50	
24	239.52	240.03	239.88	240.97	241.13	240.09	240.48	239.99	239.65	239.54	239.49	239.50	
25	239.52	239.94	239.89	240.98	241.01	240.05	240.40	239.99	239.64	239.55	239.49	239.48	
26	239.80	239.95	240.17	241.17	241.08	240.07	240.20	239.97	239.62	239.55	239.51	239.48	
27	240.02	240.21	241.14	241.14	241.01	240.07	240.02	239.92	239.59	239.55	239.51	239.50	
28	240.06	240.11	240.69	240.94	240.83	240.05	239.98	239.85	239.59	239.55	239.55	239.59	
29	240.06	240.20	240.25	241.55	240.69	240.16	240.00	239.82	239.61	239.54		239.56	
30	240.13	240.74	239.85	242.07	240.52	242.16	239.98	239.82	239.63	239.54		239.54	
31		240.47		242.77	240.38		239.96		239.63	239.53		239.55	
Mean	239.67	240.08	240.02	240.68	240.74	240.61	240.26	239.97	239.68	239.58	239.54	239.52	
Max	240.13	241.48	241.14	242.82	242.23	242.54	242.22	240.00	239.80	239.63	239.60	239.59	242.82
Min	239.49	239.74	239.64	239.75	240.08	239.65	239.84	239.82	239.59	239.53	239.48	239.48	239.48

Annual Max Momentary Gage Height 243.00 m. (MSL.) , at 18.00 Hours, on Sep 5, 2018

Zero Gage at Bottom Elevation 237.60 m. (MSL.) , River Bed 238.30 m. (MSL.)

Left Bank Elevation 243.79 m. (MSL.) ,

Right Bank Elevation 243.80 m. (MSL.) , Drainage Are 508 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.38	3.60	5.50	3.54	30.88	6.40	20.14	3.47	2.30	1.20	0.58	0.58		
2	0.70	2.76	3.08	3.41	18.44	5.60	18.96	3.54	2.11	1.20	0.58	0.52		
3	0.40	7.20	2.50	2.95	15.72	13.08	12.48	3.60	1.98	1.20	0.70	0.46		
4	0.40	19.74	2.63	3.15	10.90	20.42	7.10	3.54	1.91	1.13	0.70	0.52		
5	2.50	11.76	3.60	2.76	8.00	35.98	5.20	3.60	1.85	1.13	0.76	0.46		
6	2.24	6.50	6.10	2.37	8.40	20.00	4.60	3.54	1.78	1.07	0.70	0.58		
7	1.65	3.47	6.40	2.17	7.40	10.10	4.16	3.54	1.72	1.07	0.76	0.52		
8	1.26	2.89	4.40	1.98	6.10	7.40	3.54	3.47	1.72	1.00	0.70	0.52		
9	1.00	2.69	3.60	2.04	5.70	2.76	3.41	3.54	1.72	1.07	0.64	0.46		
10	0.76	2.56	2.95	2.37	7.00	1.33	3.28	3.54	1.65	1.00	0.58	0.40		
11	0.38	2.30	2.82	2.30	7.60	3.15	3.02	3.54	1.65	0.94	0.64	0.52		
12	0.70	2.30	4.00	2.24	7.50	11.10	2.82	3.54	1.65	0.94	0.70	0.46		
13	0.40	2.56	3.60	2.24	7.80	13.68	2.76	3.47	1.59	0.88	0.76	0.46		
14	0.40	2.69	3.76	2.17	6.70	23.92	2.63	3.47	1.59	0.88	0.76	0.38		
15	2.50	2.76	5.10	2.24	5.20	15.48	2.63	3.47	1.52	0.88	0.94	0.40		
16	2.24	2.56	3.28	2.37	7.00	11.88	2.63	3.54	1.52	0.82	1.00	0.40		
17	1.65	2.24	2.17	9.80	4.24	10.60	2.56	3.47	1.52	0.82	0.94	0.52		
18	1.26	1.98	1.85	34.96	4.50	7.10	2.63	3.41	1.46	0.82	0.76	0.70		
19	1.00	1.91	1.65	40.96	8.40	7.20	3.28	3.47	1.46	0.76	0.70	0.58		
20	0.76	2.04	1.46	34.45	24.35	7.30	3.47	3.47	1.39	0.76	0.64	0.58		
21	0.76	4.60	1.26	18.18	18.44	6.50	8.90	3.60	1.39	0.70	0.64	0.52		
22	0.70	4.08	1.91	14.04	16.92	5.20	30.72	3.60	1.39	0.70	0.40	0.38		
23	0.58	4.70	2.89	17.40	15.72	4.70	13.92	3.60	1.39	0.70	0.36	0.40		
24	0.52	3.84	2.82	13.44	15.36	4.32	8.20	3.54	1.33	0.64	0.38	0.40		
25	0.52	3.21	2.89	13.56	13.92	4.00	7.40	3.54	1.26	0.70	0.38	0.36		
26	2.30	3.28	5.10	15.84	14.76	4.16	5.40	3.41	1.13	0.70	0.46	0.36		
27	3.76	5.50	15.48	15.48	13.92	4.16	3.76	3.08	0.94	0.70	0.46	0.40		
28	4.08	4.50	10.30	13.08	11.76	4.00	3.47	2.63	0.94	0.70	0.70	0.94		
29	4.08	5.40	5.90	20.70	10.30	5.00	3.60	2.43	1.07	0.64		0.76		
30	4.70	10.80	2.63	28.32	8.60	29.76	3.47	2.43	1.20	0.64		0.64		
31		8.10		40.06	7.20		3.34		1.20	0.58		0.70		
Total	44.58	144.52	121.63	370.57	348.73	306.28	203.48	102.09	47.33	26.97	18.32	15.88	1750.38	CMSDAY
Mean	1.49	4.66	4.05	11.95	11.25	10.21	6.56	3.40	1.53	0.87	0.65	0.51	4.80	CMS
Max	4.70	19.74	15.48	40.96	30.88	35.98	30.72	3.60	2.30	1.20	1.00	0.94	40.96	CMS
Min	0.38	1.91	1.26	1.98	4.24	1.33	2.56	2.43	0.94	0.58	0.36	0.36	0.36	CMS
Runoff	3.85	12.49	10.51	32.02	30.13	26.46	17.58	8.82	4.09	2.33	1.58	1.37	151.23	MCM

Momentary Peak 44.20 CMS, at 243.00 m. (MSL.), at 18.00 Hours, on Sep 5, 2018

Runoff Yield 9.44 Liters/Second/Square KM. Momentary Peak Yield 87.01 Liters/Second/Square KM.

WATER YEAR : 2018

CHI RIVER BASIN

Lam Nam Choen at Ban Non Han , Khon Kaen (E.85)

Lat 16 - 35 - 28 N Long 101 - 59 - 02 E

Location : on left bank at Ban Non Han.

	Ban Non Han	**Amphoe** Chum Pae	**Changwat** Khon Kaen
Drainge Area	1,218 sq.km.		
Type of Gage	Water - stage recorder.		
Zero Gage at Bottom	+224.800 m. (MSL.)		
Bench Mark	B.M.- Highways Dept.		
Location BM	On left bank downstream at the footpath of the bridge.		**Elevation** +235.165 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	2004 to date		
Rating Operation			
Period of Rating	2004 to date		
Rated by Flot	-		
Rated by Current Meter	2004 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 20 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

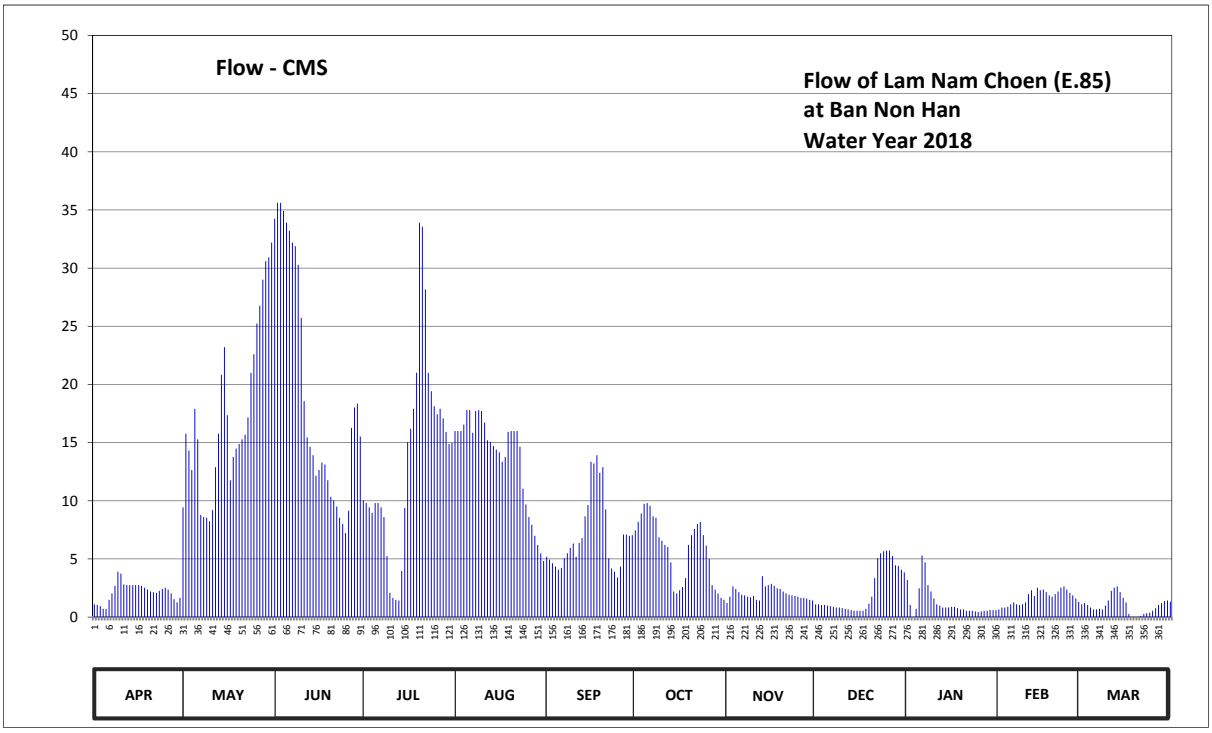
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	226.40	227.84	229.66	227.94	228.70	227.13	227.51	226.42	226.40	226.78	226.32	226.40	
2	226.39	228.67	229.70	227.90	228.70	227.09	227.63	226.52	226.40	226.39	226.35	226.42	
3	226.37	228.49	229.70	227.84	228.70	227.04	227.75	226.68	226.39	226.17	226.35	226.39	
4	226.33	228.28	229.68	227.76	228.76	226.99	227.89	226.64	226.39	226.33	226.36	226.35	
5	226.33	228.91	229.65	227.90	228.90	226.94	227.90	226.59	226.38	226.65	226.40	226.32	
6	226.47	228.61	229.63	227.90	228.90	226.97	227.86	226.55	226.37	227.15	226.43	226.32	
7	226.57	227.73	229.60	227.84	228.68	227.11	227.71	226.54	226.36	227.05	226.40	226.33	
8	226.69	227.70	229.59	227.70	228.89	227.18	227.69	226.52	226.35	226.70	226.39	226.32	
9	226.91	227.69	229.54	227.14	228.90	227.26	227.41	226.51	226.35	226.60	226.40	226.38	
10	226.88	227.64	229.38	226.58	228.89	227.32	227.36	226.53	226.34	226.49	226.43	226.46	
11	226.71	227.80	228.97	226.50	228.78	227.13	227.30	226.47	226.33	226.40	226.56	226.61	
12	226.70	228.31	228.63	226.47	228.60	227.33	227.27	226.46	226.32	226.38	226.62	226.66	
13	226.70	228.67	228.53	226.46	228.58	227.40	227.05	226.84	226.31	226.35	226.53	226.68	
14	226.70	229.14	228.44	226.92	228.54	227.71	226.60	226.68	226.30	226.35	226.66	226.59	
15	226.70	229.27	228.22	227.83	228.50	227.87	226.57	226.70	226.30	226.35	226.62	226.50	
16	226.70	228.85	228.28	228.58	228.47	228.37	226.62	226.72	226.30	226.36	226.63	226.43	
17	226.69	228.17	228.36	228.72	228.37	228.35	226.67	226.69	226.30	226.36	226.59	226.25	
18	226.66	228.42	228.34	228.91	228.42	228.44	226.81	226.65	226.33	226.34	226.54	226.12	
19	226.63	228.51	228.17	229.15	228.69	228.25	227.30	226.64	226.41	226.32	226.52	226.16	
20	226.60	228.56	227.99	229.65	228.70	228.31	227.44	226.60	226.52	226.32	226.56	226.19	
21	226.59	228.61	227.94	229.64	228.70	227.81	227.53	226.57	226.81	226.30	226.60	226.22	
22	226.58	228.66	227.85	229.47	228.70	227.11	227.60	226.55	227.11	226.30	226.66	226.25	
23	226.61	228.83	227.69	229.15	228.53	226.96	227.63	226.54	227.18	226.30	226.68	226.26	
24	226.64	229.15	227.60	229.04	228.08	226.91	227.44	226.53	227.21	226.29	226.63	226.27	
25	226.66	229.24	227.47	228.93	227.88	226.82	227.29	226.52	227.22	226.28	226.58	226.30	
26	226.63	229.36	227.79	228.86	227.70	226.99	227.10	226.50	227.22	226.29	226.54	226.34	
27	226.57	229.42	228.73	228.91	227.59	227.45	226.70	226.50	227.14	226.30	226.49	226.39	
28	226.48	229.50	228.92	228.82	227.43	227.45	226.63	226.49	227.01	226.30	226.44	226.42	
29	226.43	229.55	228.95	228.69	227.30	227.43	226.57	226.47	227.00	226.31		226.45	
30	226.50	229.56	228.64	228.56	227.18	227.44	226.50	226.46	226.94	226.31		226.46	
31		229.60		228.57	227.07		226.47		226.90	226.31		226.44	
Mean	226.59	228.67	228.72	228.20	228.38	227.42	227.22	226.57	226.61	226.42	226.51	226.38	
Max	226.91	229.60	229.70	229.65	228.90	228.44	227.90	226.84	227.22	227.15	226.68	226.68	229.70
Min	226.33	227.64	227.47	226.46	227.07	226.82	226.47	226.42	226.30	226.17	226.32	226.12	226.12

Annual Max Momentary Gage Height 229.70 m. (MSL.) , at 05.00 Hours, on Jun 2, 2018

Zero Gage at Bottom Elevation 224.80 m. (MSL.) , River Bed 225.73 m. (MSL.)

Left Bank Elevation 233.89 m. (MSL.) ,

Right Bank Elevation 232.62 m. (MSL.) , Drainage Are 1,218 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.10	9.44	34.24	10.04	16.00	5.18	7.46	1.21	1.10	3.19	0.66	1.10		
2	1.05	15.76	35.60	9.80	16.00	4.94	8.18	1.76	1.10	1.05	0.83	1.21		
3	0.94	14.32	35.60	9.44	16.00	4.64	8.90	2.64	1.05	0.00	0.83	1.05		
4	0.72	12.64	34.92	8.96	16.54	4.35	9.74	2.42	1.05	0.72	0.88	0.83		
5	0.72	17.91	33.90	9.80	17.80	4.07	9.80	2.15	0.99	2.48	1.10	0.66		
6	1.49	15.28	33.22	9.80	17.80	4.24	9.56	1.93	0.94	5.30	1.27	0.66		
7	2.04	8.78	32.20	9.44	15.84	5.06	8.66	1.87	0.88	4.70	1.10	0.72		
8	2.70	8.60	31.88	8.60	17.71	5.48	8.54	1.76	0.83	2.75	1.05	0.66		
9	3.91	8.54	30.28	5.24	17.80	5.96	6.86	1.71	0.83	2.20	1.10	0.99		
10	3.74	8.24	25.72	2.09	17.71	6.32	6.56	1.82	0.77	1.60	1.27	1.43		
11	2.81	9.20	18.57	1.65	16.72	5.18	6.20	1.49	0.72	1.10	1.98	2.26		
12	2.75	12.88	15.44	1.49	15.20	6.38	6.02	1.43	0.66	0.99	2.31	2.53		
13	2.75	15.76	14.64	1.43	15.04	6.80	4.70	3.52	0.61	0.83	1.82	2.64		
14	2.75	20.84	13.92	3.96	14.72	8.66	2.20	2.64	0.55	0.83	2.53	2.15		
15	2.75	23.20	12.16	9.38	14.40	9.62	2.04	2.75	0.55	0.83	2.31	1.65		
16	2.75	17.35	12.64	15.04	14.16	13.36	2.31	2.86	0.55	0.88	2.37	1.27		
17	2.70	11.76	13.28	16.18	13.36	13.20	2.59	2.70	0.55	0.88	2.15	0.28		
18	2.53	13.76	13.12	17.91	13.76	13.92	3.36	2.48	0.72	0.77	1.87	0.00		
19	2.37	14.48	11.76	21.00	15.92	12.40	6.20	2.42	1.16	0.66	1.76	0.00		
20	2.20	14.88	10.34	33.90	16.00	12.88	7.04	2.20	1.76	0.66	1.98	0.00		
21	2.15	15.28	10.04	33.56	16.00	9.26	7.58	2.04	3.36	0.55	2.20	0.11		
22	2.09	15.68	9.50	28.16	16.00	5.06	8.00	1.93	5.06	0.55	2.53	0.28		
23	2.26	17.17	8.54	21.00	14.64	4.18	8.18	1.87	5.48	0.55	2.64	0.33		
24	2.42	21.00	8.00	19.42	11.04	3.91	7.04	1.82	5.66	0.50	2.37	0.39		
25	2.53	22.60	7.22	18.13	9.68	3.41	6.14	1.76	5.72	0.44	2.09	0.55		
26	2.37	25.24	9.14	17.44	8.60	4.35	5.00	1.65	5.72	0.50	1.87	0.77		
27	2.04	26.76	16.27	17.91	7.94	7.10	2.75	1.65	5.24	0.55	1.60	1.05		
28	1.54	29.00	18.02	17.08	6.98	7.10	2.37	1.60	4.46	0.55	1.32	1.21		
29	1.27	30.60	18.35	15.92	6.20	6.98	2.04	1.49	4.40	0.61		1.38		
30	1.65	30.92	15.52	14.88	5.48	7.04	1.65	1.43	4.07	0.61		1.43		
31		32.20		14.96	4.82		1.49		3.85	0.61		1.32		
Total	65.09	540.07	584.03	423.61	425.86	211.03	179.16	61.00	70.39	38.44	47.79	30.91	2677.38	CMSDAY
Mean	2.17	17.42	19.47	13.66	13.74	7.03	5.78	2.03	2.27	1.24	1.71	1.00	7.34	CMS
Max	3.91	32.20	35.60	33.90	17.80	13.92	9.80	3.52	5.72	5.30	2.64	2.64	35.60	CMS
Min	0.72	8.24	7.22	1.43	4.82	3.41	1.49	1.21	0.55	0.00	0.66	0.00	0.00	CMS
Runoff	5.62	46.66	50.46	36.60	36.79	18.23	15.48	5.27	6.08	3.32	4.13	2.67	231.33	MCM

Momentary Peak 35.60 CMS, at 229.70 m. (MSL.), at 05.00 Hours, on Jun 2, 2018

Runoff Yield 6.02 Liters/Second/Square KM. Momentary Peak Yield 29.23 Liters/Second/Square KM.

WATER YEAR : 2018

CHI RIVER BASIN

Lam Pao at Ban Wang Hin , Kalasin (E.87)

Lat 16 - 20 - 26 N Long 103 - 34 - 36 E

Location : on left bank at Ban Wang Hin.

	Ban Wang Hin	**Amphoe** Kamalasai	**Changwat** Kalasin
Drainge Area	7,068 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+128.900 m. (MSL.)		
Bench Mark	B.M.- Highways Dept.		
Location BM	On left bank downstream at the footpath of the bridge.		**Elevation** +140.068 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic mean of 3 readings		
Period of Available Gage Records	2004 to date		
Rating Operation			
Period of Rating	2004 to date		
Rated by Flot	-		
Rated by Current Meter	2004 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 20 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

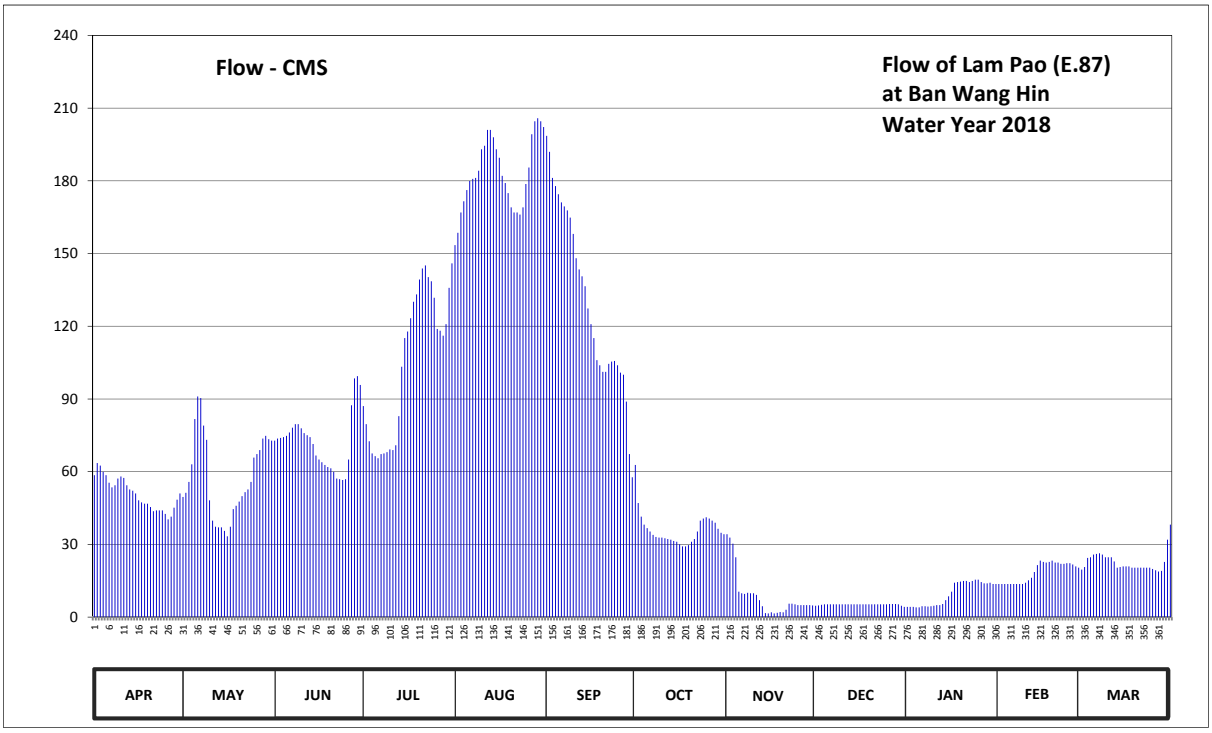
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	132.27	131.95	132.78	133.27	135.25	136.26	132.42	131.40	130.21	130.18	130.64	130.87	
2	132.45	132.01	132.81	133.02	135.37	136.14	131.86	131.35	130.22	130.18	130.64	130.91	
3	132.41	132.17	132.82	132.77	135.57	135.91	131.66	131.26	130.24	130.18	130.64	131.05	
4	132.32	132.43	132.83	132.59	135.68	135.83	131.54	131.06	130.25	130.17	130.64	131.06	
5	132.27	133.09	132.85	132.55	135.79	135.75	131.49	130.52	130.25	130.17	130.64	131.10	
6	132.16	133.40	132.90	132.52	135.88	135.67	131.44	130.49	130.25	130.20	130.64	131.11	
7	132.09	133.38	132.97	132.58	135.90	135.63	131.39	130.48	130.25	130.20	130.64	131.12	
8	132.12	133.00	133.02	132.59	135.91	135.59	131.36	130.50	130.25	130.19	130.64	131.10	
9	132.22	132.79	133.02	132.61	135.98	135.52	131.35	130.49	130.25	130.20	130.64	131.06	
10	132.25	131.90	132.96	132.65	136.16	135.36	131.35	130.49	130.25	130.21	130.66	131.06	
11	132.23	131.60	132.89	132.64	136.19	135.12	131.34	130.46	130.25	130.23	130.70	131.06	
12	132.12	131.51	132.86	132.71	136.30	135.01	131.33	130.35	130.25	130.23	130.74	131.00	
13	132.06	131.50	132.83	133.13	136.30	134.93	131.32	130.20	130.25	130.26	130.83	130.90	
14	132.04	131.50	132.73	133.81	136.25	134.81	131.30	130.01	130.25	130.35	130.94	130.91	
15	132.00	131.45	132.56	134.18	136.16	134.54	131.29	130.00	130.25	130.43	131.01	130.92	
16	131.90	131.37	132.50	134.26	136.09	134.35	131.25	130.03	130.25	130.52	130.99	130.92	
17	131.87	131.51	132.46	134.42	135.93	134.18	131.22	130.00	130.25	130.66	130.98	130.92	
18	131.85	131.77	132.42	134.62	135.86	133.90	131.22	130.02	130.25	130.67	130.99	130.90	
19	131.85	131.82	132.39	134.71	135.76	133.83	131.24	130.04	130.25	130.68	131.01	130.90	
20	131.80	131.88	132.37	134.89	135.62	133.74	131.29	130.03	130.25	130.69	130.98	130.90	
21	131.74	131.96	132.32	135.02	135.57	133.74	131.33	130.10	130.25	130.69	130.98	130.90	
22	131.75	132.02	132.22	135.05	135.57	133.85	131.44	130.27	130.25	130.67	130.96	130.90	
23	131.75	132.06	132.21	134.92	135.55	133.88	131.60	130.27	130.25	130.69	130.96	130.90	
24	131.75	132.17	132.20	134.87	135.62	133.89	131.63	130.25	130.25	130.71	130.97	130.90	
25	131.70	132.53	132.21	134.67	135.85	133.83	131.65	130.23	130.25	130.71	130.97	130.88	
26	131.62	132.58	132.50	134.29	136.01	133.73	131.63	130.23	130.26	130.67	130.95	130.86	
27	131.66	132.64	133.28	134.27	136.27	133.70	131.60	130.23	130.26	130.65	130.92	130.84	
28	131.79	132.81	133.65	134.21	136.36	133.33	131.57	130.23	130.26	130.65	130.90	130.85	
29	131.91	132.85	133.68	134.35	136.38	132.58	131.48	130.23	130.25	130.66		130.99	
30	132.00	132.80	133.56	134.79	136.36	132.24	131.42	130.22	130.21	130.64		131.32	
31		132.78		135.07	136.32		131.40		130.18	130.64		131.54	
Mean	132.00	132.23	132.76	133.81	135.93	134.56	131.46	130.38	130.24	130.45	130.83	130.99	
Max	132.45	133.40	133.68	135.07	136.38	136.26	132.42	131.40	130.26	130.71	131.01	131.54	136.38
Min	131.62	131.37	132.20	132.52	135.25	132.24	131.22	130.00	130.18	130.17	130.64	130.84	130.00

Annual Max Momentary Gage Height 136.39 m. (MSL.) , at 03.00 Hours, on Aug 29, 2018

Zero Gage at Bottom Elevation 128.90 m. (MSL.) , River Bed 129.20 m. (MSL.)

Left Bank Elevation 137.40 m. (MSL.) ,

Right Bank Elevation 139.35 m. (MSL.) , Drainage Are 7,068 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	58.56	49.60	72.84	87.10	153.50	198.60	62.76	34.20	4.65	4.20	13.64	19.62		
2	63.60	51.28	73.68	79.60	158.54	192.00	47.08	32.80	4.80	4.20	13.64	20.66		
3	62.48	55.76	73.96	72.56	166.94	181.22	41.48	30.28	5.10	4.20	13.64	24.40		
4	59.96	63.04	74.24	67.52	171.56	177.86	38.12	24.68	5.25	4.05	13.64	24.68		
5	58.56	81.70	74.80	66.40	176.18	174.50	36.72	10.52	5.25	4.05	13.64	25.80		
6	55.48	91.00	76.20	65.56	179.96	171.14	35.32	9.80	5.25	4.50	13.64	26.08		
7	53.52	90.40	78.16	67.24	180.80	169.46	33.92	9.60	5.25	4.50	13.64	26.36		
8	54.36	79.00	79.60	67.52	181.22	167.78	33.08	10.00	5.25	4.35	13.64	25.80		
9	57.16	73.12	79.60	68.08	184.16	164.84	32.80	9.80	5.25	4.50	13.64	24.68		
10	58.00	48.20	77.88	69.20	193.00	158.12	32.80	9.80	5.25	4.65	14.16	24.68		
11	57.44	39.80	75.92	68.92	194.50	148.04	32.52	9.20	5.25	4.95	15.20	24.68		
12	54.36	37.28	75.08	70.88	201.00	143.42	32.24	7.00	5.25	4.95	16.24	23.00		
13	52.68	37.00	74.24	82.90	201.00	140.62	31.96	4.50	5.25	5.40	18.58	20.40		
14	52.12	37.00	71.44	103.30	198.00	136.54	31.40	1.65	5.25	7.00	21.44	20.66		
15	51.00	35.60	66.68	115.12	193.00	127.36	31.12	1.50	5.25	8.60	23.28	20.92		
16	48.20	33.36	65.00	117.84	189.50	120.90	30.00	1.95	5.25	10.52	22.74	20.92		
17	47.36	37.28	63.88	123.28	182.06	115.12	29.16	1.50	5.25	14.16	22.48	20.92		
18	46.80	44.56	62.76	130.08	179.12	106.00	29.16	1.80	5.25	14.42	22.74	20.40		
19	46.80	45.96	61.92	133.14	174.92	103.90	29.72	2.10	5.25	14.68	23.28	20.40		
20	45.40	47.64	61.36	139.26	169.04	101.20	31.12	1.95	5.25	14.94	22.48	20.40		
21	43.72	49.88	59.96	143.84	166.94	101.20	32.24	3.00	5.25	14.94	22.48	20.40		
22	44.00	51.56	57.16	145.10	166.94	104.50	35.32	5.55	5.25	14.42	21.96	20.40		
23	44.00	52.68	56.88	140.28	166.10	105.40	39.80	5.55	5.25	14.94	21.96	20.40		
24	44.00	55.76	56.60	138.58	169.04	105.70	40.64	5.25	5.25	15.46	22.22	20.40		
25	42.60	65.84	56.88	131.78	178.70	103.90	41.20	4.95	5.25	15.46	22.22	19.88		
26	40.36	67.24	65.00	118.86	185.50	100.90	40.64	4.95	5.40	14.42	21.70	19.36		
27	41.48	68.92	87.40	118.18	199.20	100.00	39.80	4.95	5.40	13.90	20.92	18.84		
28	45.12	73.68	98.50	116.14	204.60	88.90	38.96	4.95	5.40	13.90	20.40	19.10		
29	48.48	74.80	99.40	120.90	205.80	67.24	36.44	4.95	5.25	14.16		22.74		
30	51.00	73.40	95.80	135.86	204.60	57.72	34.76	4.80	4.65	13.64		31.96		
31		72.84		145.94	202.20		34.20		4.20	13.64		38.12		
Total	1528.60	1785.18	2172.82	3250.96	5677.62	3934.08	1116.48	263.53	160.35	301.70	519.24	707.06	21417.62	CMSDAY
Mean	50.95	57.59	72.43	104.87	183.15	131.14	36.02	8.78	5.17	9.73	18.54	22.81	58.68	CMS
Max	63.60	91.00	99.40	145.94	205.80	198.60	62.76	34.20	5.40	15.46	23.28	38.12	205.80	CMS
Min	40.36	33.36	56.60	65.56	153.50	57.72	29.16	1.50	4.20	4.05	13.64	18.84	1.50	CMS
Runoff	132.07	154.24	187.73	280.88	490.55	339.90	96.46	22.77	13.85	26.07	44.86	61.09	1850.48	MCM

Momentary Peak 206.40 CMS, at 136.39 m. (MSL.), at 03.00 Hours, on Aug 29, 2018

Runoff Yield 8.30 Liters/Second/Square KM. Momentary Peak Yield 29.20 Liters/Second/Square KM.

WATER YEAR : 2018

CHI RIVER BASIN

Chi River at Ban Don Khanuan , Maha Sarakham (E.91)

Lat 16 - 21 - 58 N Long 102 - 56 - 59 E

Location : on left bank at Ban Don Khanuan.

	Ban Don Khanuan	**Amphoe** Kosum Phisai	**Changwat** Maha Sarakham
Drainge Area	29,265 sq.km.		
Type of Gage	Water - stage recorder.		
Zero Gage at Bottom	+138.000 m. (MSL.)		
Bench Mark	B.M.- H.D.		
Location BM	On left bank at the abutment of the bridge.		**Elevation** +151.082 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	2005 to date		
Rating Operation			
Period of Rating	2005 to date		
Rated by Flot	-		
Rated by Current Meter	2005 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 26 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

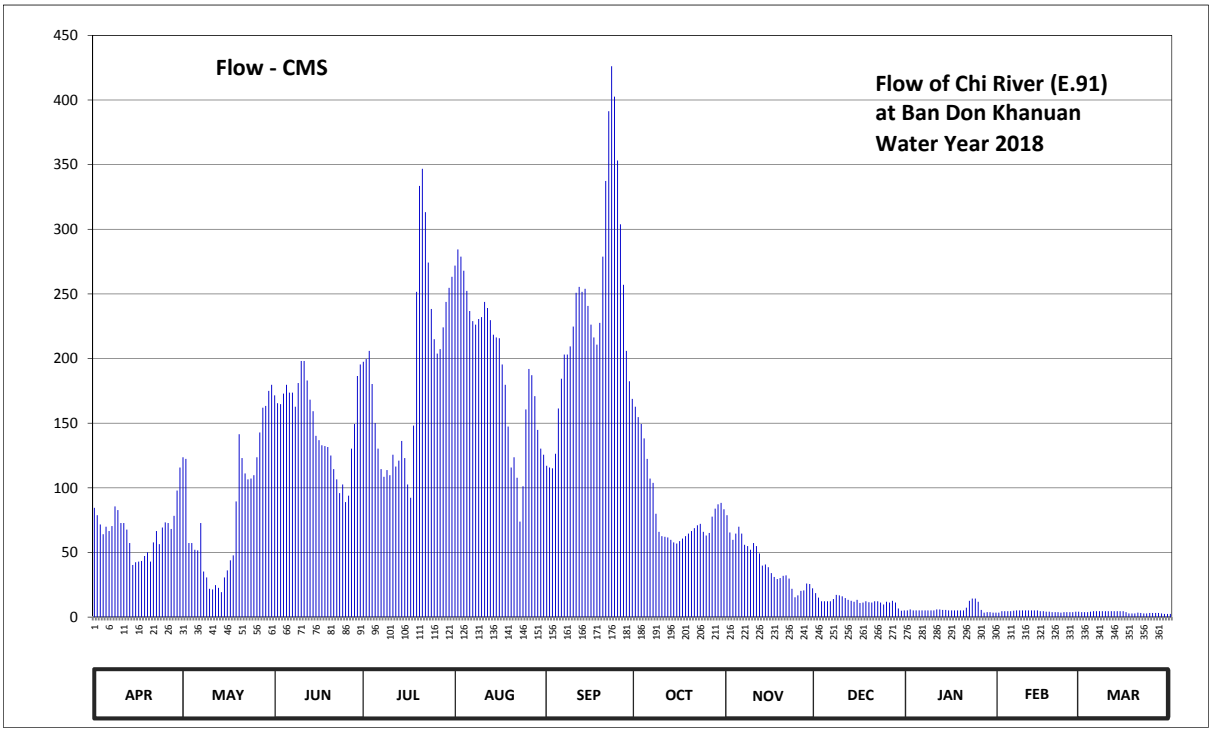
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	141.33	141.95	142.67	143.05	144.05	141.85	142.54	141.23	139.93	139.55	139.50	139.51	
2	141.23	141.93	142.58	143.08	144.21	141.83	142.42	140.99	139.83	139.57	139.53	139.51	
3	141.10	140.82	142.57	143.17	144.14	141.82	142.34	140.87	139.75	139.55	139.53	139.51	
4	140.96	140.82	142.69	142.80	144.00	141.99	142.17	140.97	139.75	139.55	139.53	139.52	
5	141.07	140.71	142.79	142.35	143.80	142.52	141.93	141.07	139.75	139.55	139.53	139.53	
6	141.01	140.70	142.70	142.05	143.60	142.86	141.70	140.97	139.75	139.55	139.54	139.53	
7	141.08	141.12	142.70	141.81	143.50	143.13	141.65	140.79	139.80	139.55	139.55	139.53	
8	141.35	140.34	142.54	141.72	143.46	143.13	141.25	140.77	139.89	139.55	139.55	139.53	
9	141.30	140.23	142.81	141.80	143.52	143.22	141.00	140.71	139.88	139.55	139.55	139.53	
10	141.12	140.02	143.06	141.74	143.54	143.44	140.93	140.82	139.86	139.55	139.55	139.53	
11	141.12	140.01	143.06	141.98	143.69	143.78	140.92	140.77	139.82	139.57	139.55	139.53	
12	141.03	140.09	142.84	141.84	143.63	143.84	140.91	140.65	139.78	139.57	139.55	139.53	
13	140.82	140.04	142.62	141.91	143.51	143.79	140.87	140.45	139.76	139.56	139.55	139.53	
14	140.46	139.95	142.49	142.14	143.35	143.82	140.83	140.47	139.74	139.56	139.55	139.53	
15	140.51	140.23	142.20	141.94	143.32	143.65	140.81	140.42	139.78	139.55	139.53	139.53	
16	140.52	140.36	142.15	141.63	143.31	143.46	140.85	140.31	139.71	139.55	139.53	139.51	
17	140.53	140.54	142.09	141.47	143.02	143.32	140.89	140.24	139.72	139.55	139.52	139.48	
18	140.61	140.62	142.08	142.32	142.79	143.24	140.93	140.20	139.75	139.55	139.52	139.48	
19	140.67	141.42	142.07	143.79	142.31	143.48	140.97	140.22	139.73	139.55	139.51	139.48	
20	140.52	142.22	141.97	144.84	141.83	144.14	141.01	140.26	139.72	139.55	139.51	139.50	
21	140.83	141.94	141.81	145.01	141.95	144.89	141.05	140.27	139.75	139.61	139.51	139.49	
22	141.01	141.76	141.69	144.58	141.71	145.56	141.09	140.21	139.75	139.76	139.50	139.48	
23	140.80	141.69	141.53	144.08	141.14	145.99	141.11	140.02	139.72	139.81	139.51	139.48	
24	141.06	141.70	141.63	143.62	141.61	145.70	141.00	139.84	139.68	139.81	139.51	139.49	
25	141.13	141.74	141.41	143.30	142.51	145.09	140.94	139.88	139.74	139.74	139.51	139.49	
26	141.12	141.95	141.50	143.14	142.97	144.46	140.98	139.98	139.72	139.56	139.51	139.49	
27	141.04	142.24	142.05	143.19	142.90	143.86	141.21	139.99	139.76	139.50	139.52	139.49	
28	141.22	142.53	142.34	143.43	142.66	143.17	141.32	140.12	139.72	139.51	139.52	139.48	
29	141.56	142.55	142.89	143.69	142.27	142.83	141.38	140.11	139.59	139.51		139.47	
30	141.83	142.72	143.02	143.83	142.05	142.63	141.40	140.03	139.54	139.50		139.47	
31		142.79		143.94	141.98		141.31		139.55	139.50		139.47	
Mean	141.00	141.22	142.35	142.88	142.98	143.55	141.28	140.45	139.75	139.58	139.53	139.50	
Max	141.83	142.79	143.06	145.01	144.21	145.99	142.54	141.23	139.93	139.81	139.55	139.53	145.99
Min	140.46	139.95	141.41	141.47	141.14	141.82	140.81	139.84	139.54	139.50	139.50	139.47	139.47

Annual Max Momentary Gage Height 146.00 m. (MSL.) , at 06.00 Hours, on Sep 23, 2018

Zero Gage at Bottom Elevation 138.00 m. (MSL.) , River Bed 138.17 m. (MSL.)

Left Bank Elevation 152.11 m. (MSL.) ,

Right Bank Elevation 148.68 m. (MSL.) , Drainage Are 29,265 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	84.48	123.70	171.56	197.50	271.90	117.10	162.72	78.88	18.55	5.25	3.50	3.85		
2	78.88	122.38	165.44	199.60	284.38	115.78	154.72	65.52	15.05	5.95	4.55	3.85		
3	71.60	57.36	164.76	205.90	278.92	115.12	149.44	59.76	12.25	5.25	4.55	3.85		
4	64.08	57.36	172.92	180.40	268.00	126.34	138.22	64.56	12.25	5.25	4.55	4.20		
5	69.92	52.08	179.72	150.10	252.40	161.36	122.38	69.92	12.25	5.25	4.55	4.55		
6	66.56	51.60	173.60	130.30	236.80	184.48	107.20	64.56	12.25	5.25	4.90	4.55		
7	70.48	72.72	173.60	114.46	229.00	203.10	103.90	55.92	14.00	5.25	5.25	4.55		
8	85.60	35.28	162.72	108.52	226.20	203.10	80.00	54.96	17.15	5.25	5.25	4.55		
9	82.80	30.66	181.08	113.80	230.56	209.40	66.00	52.08	16.80	5.25	5.25	4.55		
10	72.72	21.84	198.20	109.84	232.12	224.80	62.64	57.36	16.10	5.25	5.25	4.55		
11	72.72	21.42	198.20	125.68	243.82	250.84	62.16	54.96	14.70	5.95	5.25	4.55		
12	67.68	24.78	183.12	116.44	239.14	255.52	61.68	49.20	13.30	5.95	5.25	4.55		
13	57.36	22.68	168.16	121.06	229.78	251.62	59.76	39.90	12.60	5.60	5.25	4.55		
14	40.32	19.25	159.34	136.24	218.50	253.96	57.84	40.74	11.90	5.60	5.25	4.55		
15	42.48	30.66	140.20	123.04	216.40	240.70	56.88	38.64	13.30	5.25	4.55	4.55		
16	42.96	36.12	136.90	102.58	215.70	226.20	58.80	34.02	10.85	5.25	4.55	3.85		
17	43.44	43.92	132.94	92.32	195.40	216.40	60.72	31.08	11.20	5.25	4.20	2.80		
18	47.28	47.76	132.28	148.12	179.72	210.80	62.64	29.40	12.25	5.25	4.20	2.80		
19	50.16	89.52	131.62	251.62	147.46	227.60	64.56	30.24	11.55	5.25	3.85	2.80		
20	42.96	141.52	125.02	333.52	115.78	278.92	66.56	31.92	11.20	5.25	3.85	3.50		
21	57.84	123.04	114.46	346.81	123.70	337.42	68.80	32.34	12.25	7.35	3.85	3.15		
22	66.56	111.16	106.54	313.24	107.86	391.36	71.04	29.82	12.25	12.60	3.50	2.80		
23	56.40	106.54	95.98	274.24	73.84	426.19	72.16	21.84	11.20	14.35	3.85	2.80		
24	69.36	107.20	102.58	238.36	101.26	402.70	66.00	15.40	9.80	14.35	3.85	3.15		
25	73.28	109.84	88.96	215.00	160.68	353.29	63.12	16.80	11.90	11.90	3.85	3.15		
26	72.72	123.70	94.00	203.80	191.96	303.88	65.04	20.30	11.20	5.60	3.85	3.15		
27	68.24	142.84	130.30	207.30	187.20	257.08	77.76	20.65	12.60	3.50	4.20	3.15		
28	78.32	162.04	149.44	224.10	170.88	205.90	83.92	26.04	11.20	3.85	4.20	2.80		
29	97.96	163.40	186.52	243.82	144.82	182.44	87.28	25.62	6.65	3.85		2.45		
30	115.78	174.96	195.40	254.74	130.30	168.84	88.40	22.26	4.90	3.50		2.45		
31		179.72		263.32	125.68		83.36		5.25	3.50		2.45		
Total	2010.94	2607.05	4515.56	5845.77	6030.16	7102.24	2585.70	1234.69	378.70	192.15	124.95	113.05	32740.96	CMSDAY
Mean	67.03	84.10	150.52	188.57	194.52	236.74	83.41	41.16	12.22	6.20	4.46	3.65	89.70	CMS
Max	115.78	179.72	198.20	346.81	284.38	426.19	162.72	78.88	18.55	14.35	5.25	4.55	426.19	CMS
Min	40.32	19.25	88.96	92.32	73.84	115.12	56.88	15.40	4.90	3.50	3.50	2.45	2.45	CMS
Runoff	173.75	225.25	390.14	505.07	521.01	613.63	223.40	106.68	32.72	16.60	10.80	9.77	2828.82	MCM

Momentary Peak 427.00 CMS, at 146.00 m. (MSL.), at 06.00 Hours, on Sep 23, 2018

Runoff Yield 3.07 Liters/Second/Square KM. Momentary Peak Yield 14.59 Liters/Second/Square KM.

WATER YEAR : 2018

CHI RIVER BASIN

Lam Nam Yang at Ban Tha Ngam , Roi Et (E.92)

Lat 16 - 06 - 34 N Long 104 - 00 - 40 E

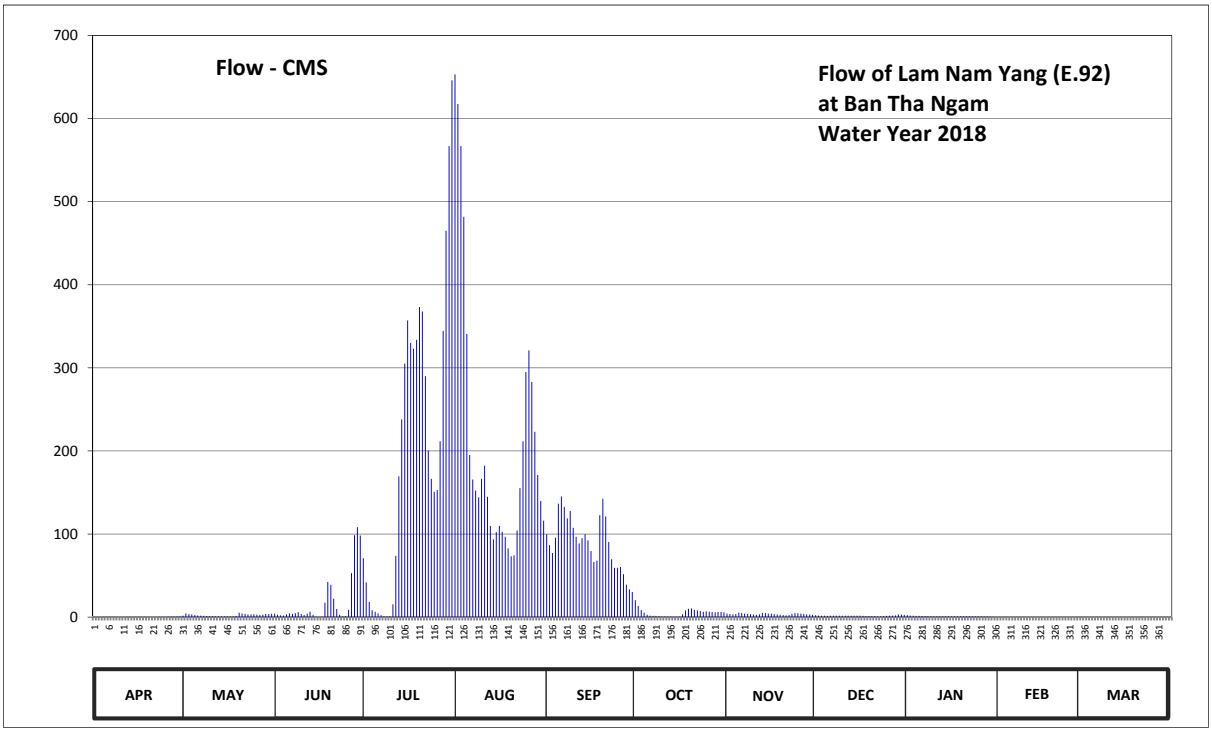
Location : on right bank at the bridge.

	Ban Tha Ngam	**Amphoe** Selaphum	**Changwat** Roi Et
Drainge Area	3,359 sq.km.		
Type of Gage	Water - stage recorder.		
Zero Gage at Bottom	+124.500 m. (MSL.)		
Bench Mark	B.M.- Highways Dept.		
Location BM	On right bank at the footpath of the bridge.		**Elevation** +136.964 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	2007 to date		
Rating Operation			
Period of Rating	2007 to date		
Rated by Flot	-		
Rated by Current Meter	2007 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	Overbank flow starts at elevation +133.470 m.(MSL.), records are channel flow only.		
General Description	Records good. Stage-discharge relation defined by 22 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	126.65	127.36	127.61	130.84	135.63	131.62	128.84	127.63	127.42	127.42	126.18	125.51	
2	126.65	127.64	127.49	129.78	135.48	131.28	128.39	127.57	127.39	127.39	126.12	125.49	
3	126.65	127.57	127.41	128.70	135.26	131.03	128.03	127.53	127.36	127.36	126.07	125.45	
4	126.63	127.52	127.38	128.02	134.88	131.51	127.73	127.57	127.33	127.32	126.03	125.44	
5	126.61	127.44	127.53	127.84	134.16	132.39	127.48	127.73	127.32	127.30	126.00	125.48	
6	126.60	127.37	127.64	127.65	133.20	132.55	127.33	127.69	127.33	127.27	125.97	125.51	
7	126.59	127.34	127.58	127.43	132.88	132.32	127.31	127.63	127.33	127.24	125.94	125.52	
8	126.60	127.31	127.67	127.19	132.67	132.07	127.30	127.59	127.33	127.20	125.90	125.50	
9	126.58	127.28	127.79	126.99	132.53	132.23	127.22	127.55	127.34	127.20	125.87	125.46	
10	126.57	127.24	127.59	127.22	132.89	131.81	127.01	127.51	127.33	127.19	125.86	125.43	
11	126.57	127.22	127.44	128.52	133.08	131.54	126.97	127.47	127.34	127.17	125.85	125.40	
12	126.59	127.18	127.63	130.93	132.54	131.33	126.93	127.53	127.34	127.15	125.83	125.36	
13	126.59	127.18	127.85	132.93	131.87	131.50	126.88	127.71	127.34	127.14	125.80	125.32	
14	126.59	127.16	127.46	133.54	131.46	131.62	126.82	127.69	127.34	127.14	125.77	125.30	
15	126.59	127.12	126.93	133.96	131.68	131.43	126.77	127.63	127.34	127.19	125.74	125.29	
16	126.59	127.09	126.72	134.25	131.87	131.09	126.89	127.63	127.34	127.19	125.72	125.26	
17	126.60	127.05	126.78	134.10	131.69	130.70	127.54	127.57	127.31	127.19	125.70	125.21	
18	126.60	127.09	128.65	134.06	131.54	130.75	128.01	127.52	127.28	127.19	125.70	125.17	
19	126.58	127.25	129.81	134.12	131.18	132.14	128.14	127.48	127.25	127.19	125.69	125.12	
20	126.58	127.72	129.66	134.34	130.91	132.50	128.17	127.44	127.23	127.19	125.70	125.09	
21	126.58	127.65	128.94	134.31	130.95	132.11	128.05	127.41	127.21	127.19	125.71	125.08	
22	126.58	127.58	128.13	133.87	131.73	131.38	128.00	127.44	127.18	127.18	125.70	125.07	
23	126.59	127.53	127.48	133.25	132.72	130.80	127.93	127.58	127.17	127.18	125.69	125.07	
24	126.63	127.53	127.12	132.89	133.35	130.47	127.84	127.68	127.22	127.18	125.68	125.07	
25	126.73	127.54	127.23	132.65	133.90	130.47	127.89	127.67	127.29	127.18	125.64	125.07	
26	126.83	127.51	128.04	132.68	134.05	130.51	127.86	127.62	127.34	127.12	125.59	125.07	
27	126.90	127.45	130.23	133.35	133.83	130.18	127.81	127.58	127.35	127.05	125.55	125.07	
28	126.95	127.49	131.59	134.18	133.44	129.67	127.78	127.53	127.37	126.97	125.53	125.07	
29	127.01	127.58	131.83	134.80	132.95	129.43	127.81	127.50	127.52	126.87		125.07	
30	127.06	127.57	131.58	135.26	132.45	129.30	127.81	127.49	127.50	126.69		125.07	
31		127.60		135.60	132.02		127.78		127.46	126.25		125.07	
Mean	126.66	127.39	128.23	131.78	132.86	131.26	127.62	127.57	127.33	127.14	125.80	125.26	
Max	127.06	127.72	131.83	135.60	135.63	132.55	128.84	127.73	127.52	127.42	126.18	125.52	135.63
Min	126.57	127.05	126.72	126.99	130.91	129.30	126.77	127.41	127.17	126.25	125.53	125.07	125.07

Annual Max Momentary Gage Height	135.67	m. (MSL.) ,	at 02.00 Hours, on Aug 1, 2018		
Zero Gage at Bottom Elevation	124.50	m. (MSL.) ,	River Bed	124.73	m. (MSL.)
Left Bank Elevation	133.46	m. (MSL.) ,			
Right Bank Elevation	135.69	m. (MSL.) ,	Drainage Are	3,359	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.15	1.80	4.10	70.88	653.20	99.80	20.44	4.30	2.20	2.20	0.00	0.00		
2	0.15	4.40	2.90	41.72	617.40	86.64	13.46	3.70	1.95	1.95	0.00	0.00		
3	0.15	3.70	2.10	18.20	566.80	77.14	8.42	3.30	1.80	1.80	0.00	0.00		
4	0.13	3.20	1.90	8.28	481.80	95.40	5.30	3.70	1.65	1.60	0.00	0.00		
5	0.11	2.40	3.30	6.40	340.80	136.45	2.80	5.30	1.60	1.50	0.00	0.00		
6	0.10	1.85	4.40	4.50	195.00	145.25	1.65	4.90	1.65	1.37	0.00	0.00		
7	0.09	1.70	3.80	2.30	165.60	132.60	1.55	4.30	1.65	1.23	0.00	0.00		
8	0.10	1.55	4.70	1.03	152.20	118.85	1.50	3.90	1.65	1.05	0.00	0.00		
9	0.08	1.41	5.90	0.69	144.15	127.65	1.14	3.50	1.70	1.05	0.00	0.00		
10	0.07	1.23	3.90	1.14	166.30	107.40	0.73	3.10	1.65	1.03	0.00	0.00		
11	0.07	1.14	2.40	15.32	182.20	96.60	0.66	2.70	1.70	1.00	0.00	0.00		
12	0.09	1.02	4.30	73.76	144.70	88.54	0.59	3.30	1.70	0.97	0.00	0.00		
13	0.09	1.02	6.50	169.40	109.80	95.00	0.51	5.10	1.70	0.95	0.00	0.00		
14	0.09	0.98	2.60	238.00	93.48	99.80	0.40	4.90	1.70	0.95	0.00	0.00		
15	0.09	0.91	0.59	305.20	102.20	92.34	0.32	4.30	1.70	1.03	0.00	0.00		
16	0.09	0.86	0.23	357.00	109.80	79.42	0.52	4.30	1.70	1.03	0.00	0.00		
17	0.10	0.80	0.34	330.00	102.60	66.40	3.40	3.70	1.55	1.03	0.00	0.00		
18	0.10	0.86	17.40	322.80	96.60	68.00	8.14	3.20	1.41	1.03	0.00	0.00		
19	0.08	1.28	42.44	333.60	82.84	122.70	9.96	2.80	1.28	1.03	0.00	0.00		
20	0.08	5.20	38.84	373.20	73.12	142.50	10.38	2.40	1.19	1.03	0.00	0.00		
21	0.08	4.50	22.04	367.80	74.40	121.05	8.70	2.10	1.10	1.03	0.00	0.00		
22	0.08	3.80	9.82	289.90	104.20	90.44	8.00	2.40	1.02	1.02	0.00	0.00		
23	0.09	3.30	2.80	200.50	155.20	69.60	7.30	3.80	1.00	1.02	0.00	0.00		
24	0.13	3.30	0.91	166.30	211.50	59.22	6.40	4.80	1.14	1.02	0.00	0.00		
25	0.25	3.40	1.19	151.00	295.00	59.22	6.90	4.70	1.46	1.02	0.00	0.00		
26	0.42	3.10	8.56	152.80	321.00	60.32	6.60	4.20	1.70	0.91	0.00	0.00		
27	0.54	2.50	52.98	211.50	283.10	51.68	6.10	3.80	1.75	0.80	0.00	0.00		
28	0.63	2.90	98.60	344.40	223.00	39.08	5.80	3.30	1.85	0.66	0.00	0.00		
29	0.73	3.80	108.20	465.00	171.00	33.32	6.10	3.00	3.20	0.49		0.00		
30	0.81	3.70	98.20	566.80	139.75	30.20	6.10	2.90	3.00	0.19		0.00		
31		4.00		646.00	116.10		5.80		2.60	0.00		0.00		
Total	5.77	75.61	555.94	6235.42	6674.84	2692.61	165.67	111.70	52.95	32.99	0.00	0.00	16603.50	CMSDAY
Mean	0.19	2.44	18.53	201.14	215.32	89.75	5.34	3.72	1.71	1.06	0.00	0.00	45.49	CMS
Max	0.81	5.20	108.20	646.00	653.20	145.25	20.44	5.30	3.20	2.20	0.00	0.00	653.20	CMS
Min	0.07	0.80	0.23	0.69	73.12	30.20	0.32	2.10	1.00	0.00	0.00	0.00	0.00	CMS
Runoff	0.50	6.53	48.03	538.74	576.71	232.64	14.31	9.65	4.57	2.85	0.00	0.00	1434.54	MCM

Momentary Peak 662.80 CMS, at 135.67 m. (MSL.), at 02.00 Hours, on Aug 1, 2018

Runoff Yield 13.54 Liters/Second/Square KM. Momentary Peak Yield 197.32 Liters/Second/Square KM.

WATER YEAR : 2018

CHI RIVER BASIN

Lam Nam Phrom at Ban Yang , Chaiyaphum (E.93)

Lat 16 - 18 - 53 N Long 101 - 52 - 31 E

Location : on right bank at the bridge.

Ban Yang **Amphoe** Kaset Sombun **Changwat** Chaiyaphum

Drainge Area	17 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+227.000 m. (MSL.)
Bench Mark	B.M.- Highways Dept.
Location BM	On right bank at the footpath of the bridge. **Elevation** +238.034 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic mean of 3 readings
Period of Available Gage Records	2010 to date
Rating Operation	
Period of Rating	2018 to date
Rated by Flot	-
Rated by Current Meter	2018 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. Stage-discharge relation defined by 9 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

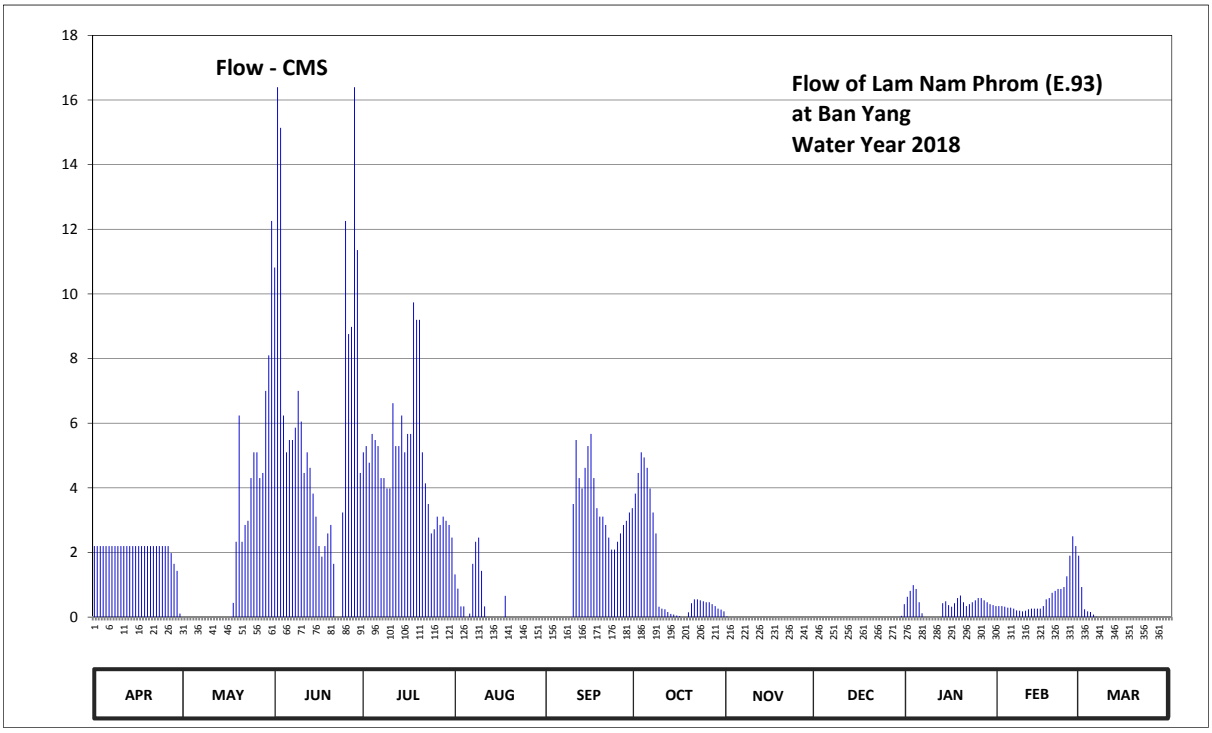
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	228.10	227.85	228.56	228.30	228.02	227.37	228.22	227.92	227.20	228.22	228.13	228.28	
2	228.10	227.85	228.72	228.31	227.98	227.35	228.26	227.82	227.20	228.26	228.13	228.09	
3	228.10	227.88	228.69	228.28	227.93	227.32	228.30	227.71	227.20	228.29	228.12	228.05	
4	228.10	227.71	228.36	228.33	227.93	227.38	228.29	227.58	227.20	228.27	228.11	228.04	
5	228.10	227.70	228.30	228.32	227.88	227.49	228.27	227.52	227.20	228.17	228.11	227.98	
6	228.10	227.71	228.32	228.31	227.91	227.60	228.23	227.49	227.19	228.01	228.10	227.91	
7	228.10	227.80	228.32	228.25	228.05	227.64	228.18	227.44	227.18	227.81	228.07	227.90	
8	228.10	227.80	228.34	228.25	228.11	227.67	228.13	227.40	227.18	227.74	228.06	227.80	
9	228.10	227.80	228.40	228.23	228.12	227.80	228.12	227.39	227.21	227.70	228.05	227.61	
10	228.10	227.80	228.35	228.23	228.03	228.20	228.10	227.37	227.32	227.69	228.06	227.45	
11	228.10	227.75	228.26	228.38	227.93	228.32	228.09	227.35	227.43	227.70	228.09	227.32	
12	228.10	227.75	228.30	228.31	227.82	228.25	228.04	227.32	227.51	227.90	228.10	227.24	
13	228.10	227.70	228.27	228.31	227.72	228.23	228.00	227.30	227.53	228.16	228.10	227.14	
14	228.10	227.69	228.22	228.36	227.58	228.27	227.98	227.27	227.49	228.18	228.10	227.10	
15	228.10	227.62	228.17	228.30	227.47	228.31	227.95	227.23	227.43	228.14	228.10	227.08	
16	228.10	227.79	228.10	228.33	227.43	228.33	227.93	227.23	227.38	228.12	228.13	227.06	
17	228.10	227.81	228.07	228.33	227.47	228.25	227.89	227.22	227.37	228.16	228.20	227.06	
18	228.10	227.94	228.10	228.52	227.96	228.19	227.88	227.20	227.35	228.21	228.21	227.08	
19	228.10	228.11	228.13	228.50	227.82	228.17	228.03	227.20	227.35	228.23	228.25	227.10	
20	228.10	228.36	228.15	228.50	227.61	228.17	228.16	227.21	227.35	228.17	228.26	227.10	
21	228.10	228.11	228.05	228.30	227.74	228.15	228.20	227.23	227.35	228.13	228.27	227.09	
22	228.10	228.15	227.77	228.24	227.81	228.12	228.20	227.25	227.34	228.15	228.27	227.06	
23	228.10	228.16	227.69	228.20	227.72	228.09	228.19	227.25	227.33	228.17	228.28	227.05	
24	228.10	228.25	228.18	228.13	227.62	228.09	228.18	227.27	227.33	228.19	228.33	227.04	
25	228.10	228.30	228.61	228.14	227.52	228.11	228.17	227.29	227.32	228.21	228.40	227.06	
26	228.10	228.30	228.48	228.17	227.49	228.13	228.17	227.30	227.26	228.21	228.42	227.09	
27	228.08	228.25	228.49	228.15	227.42	228.15	228.15	227.29	227.37	228.19	228.41	227.11	
28	228.05	228.26	228.72	228.17	227.40	228.16	228.13	227.27	227.47	228.17	228.40	227.13	
29	228.03	228.40	228.58	228.16	227.40	228.18	228.10	227.27	227.64	228.15		227.14	
30	227.91	228.45	228.26	228.15	227.40	228.19	228.08	227.25	227.94	228.14		227.16	
31		228.61		228.12	227.41		228.05		228.15	228.13		227.17	
Mean	228.09	227.99	228.30	228.28	227.73	227.99	228.12	227.36	227.38	228.10	228.19	227.37	
Max	228.10	228.61	228.72	228.52	228.12	228.33	228.30	227.92	228.15	228.29	228.42	228.28	228.72
Min	227.91	227.62	227.69	228.12	227.40	227.32	227.88	227.20	227.18	227.69	228.05	227.04	227.04

Annual Max Momentary Gage Height 228.75 m. (MSL.) , at 05.00 Hours, on Jun 3, 2018

Zero Gage at Bottom Elevation 227.00 m. (MSL.) , River Bed 225.87 m. (MSL.)

Left Bank Elevation 232.65 m. (MSL.) ,

Right Bank Elevation 231.14 m. (MSL.) , Drainage Are 17 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.20	0.00	10.82	5.10	1.32	0.00	3.82	0.02	0.00	0.63	0.34	0.93		
2	2.20	0.00	16.40	5.29	0.88	0.00	4.46	0.00	0.00	0.81	0.34	0.24		
3	2.20	0.00	15.14	4.78	0.33	0.00	5.10	0.00	0.00	0.99	0.32	0.18		
4	2.20	0.00	6.24	5.67	0.33	0.00	4.94	0.00	0.00	0.87	0.29	0.16		
5	2.20	0.00	5.10	5.48	0.00	0.00	4.62	0.00	0.00	0.46	0.29	0.08		
6	2.20	0.00	5.48	5.29	0.11	0.00	3.98	0.00	0.00	0.12	0.26	0.01		
7	2.20	0.00	5.48	4.30	1.65	0.00	3.24	0.00	0.00	0.00	0.21	0.00		
8	2.20	0.00	5.86	4.30	2.33	0.00	2.59	0.00	0.00	0.00	0.20	0.00		
9	2.20	0.00	7.00	3.98	2.46	0.00	0.32	0.00	0.00	0.00	0.18	0.00		
10	2.20	0.00	6.05	3.98	1.43	3.50	0.26	0.00	0.00	0.00	0.20	0.00		
11	2.20	0.00	4.46	6.62	0.33	5.48	0.24	0.00	0.00	0.00	0.24	0.00		
12	2.20	0.00	5.10	5.29	0.00	4.30	0.16	0.00	0.00	0.00	0.26	0.00		
13	2.20	0.00	4.62	5.29	0.00	3.98	0.10	0.00	0.00	0.43	0.26	0.00		
14	2.20	0.00	3.82	6.24	0.00	4.62	0.08	0.00	0.00	0.49	0.26	0.00		
15	2.20	0.00	3.11	5.10	0.00	5.29	0.05	0.00	0.00	0.37	0.26	0.00		
16	2.20	0.00	2.20	5.67	0.00	5.67	0.03	0.00	0.00	0.32	0.34	0.00		
17	2.20	0.00	1.87	5.67	0.00	4.30	0.00	0.00	0.00	0.43	0.55	0.00		
18	2.20	0.44	2.20	9.74	0.66	3.37	0.00	0.00	0.00	0.59	0.59	0.00		
19	2.20	2.33	2.59	9.20	0.00	3.11	0.15	0.00	0.00	0.67	0.75	0.00		
20	2.20	6.24	2.85	9.20	0.00	3.11	0.43	0.00	0.00	0.46	0.81	0.00		
21	2.20	2.33	1.65	5.10	0.00	2.85	0.55	0.00	0.00	0.34	0.87	0.00		
22	2.20	2.85	0.00	4.14	0.00	2.46	0.55	0.00	0.00	0.40	0.87	0.00		
23	2.20	2.98	0.00	3.50	0.00	2.09	0.52	0.00	0.00	0.46	0.93	0.00		
24	2.20	4.30	3.24	2.59	0.00	2.09	0.49	0.00	0.00	0.52	1.26	0.00		
25	2.20	5.10	12.26	2.72	0.00	2.33	0.46	0.00	0.00	0.59	1.90	0.00		
26	2.20	5.10	8.76	3.11	0.00	2.59	0.46	0.00	0.00	0.59	2.50	0.00		
27	1.98	4.30	8.98	2.85	0.00	2.85	0.40	0.00	0.00	0.52	2.20	0.00		
28	1.65	4.46	16.40	3.11	0.00	2.98	0.34	0.00	0.00	0.46	1.90	0.00		
29	1.43	7.00	11.36	2.98	0.00	3.24	0.26	0.00	0.00	0.40		0.00		
30	0.11	8.10	4.46	2.85	0.00	3.37	0.23	0.00	0.04	0.37		0.00		
31		12.26		2.46	0.00		0.18		0.40	0.34		0.00		
Total	62.37	67.79	183.50	151.60	11.83	73.58	39.01	0.02	0.44	12.63	19.38	1.60	623.75	CMSDAY
Mean	2.08	2.19	6.12	4.89	0.38	2.45	1.26	0.00	0.01	0.41	0.69	0.05	1.71	CMS
Max	2.20	12.26	16.40	9.74	2.46	5.67	5.10	0.02	0.40	0.99	2.50	0.93	16.40	CMS
Min	0.11	0.00	0.00	2.46	0.00	0.00	0.00	0.00	0.00	0.00	0.18	0.00	0.00	CMS
Runoff	5.39	5.86	15.85	13.10	1.02	6.36	3.37	0.00	0.04	1.09	1.67	0.14	53.89	MCM

Momentary Peak 17.75 CMS, at 228.75 m. (MSL.), at 05.00 Hours, on Jun 3, 2018

Runoff Yield 100.52 Liters/Second/Square KM. Momentary Peak Yield 1044.12 Liters/Second/Square KM.

WATER YEAR : 2018

CHI RIVER BASIN

Chi River at Roi Et Barrage , Roi Et (E.95)

Lat 16 - 10 - 26 N Long 103 - 47 - 27 E

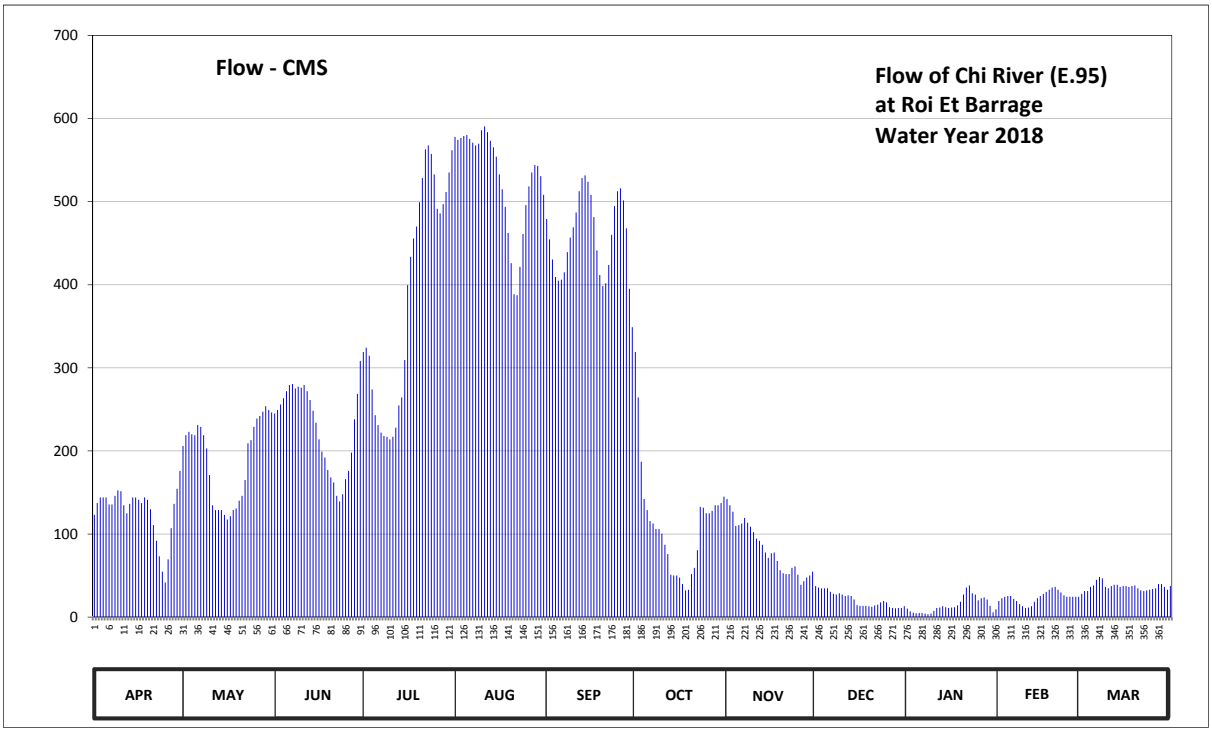
Location : on right bank at Wang Yang Barrage.

	Ban -	**Amphoe** Chiang Khwan	**Changwat** Roi Et
Drainge Area	40,781 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+124.000 m. (MSL.)		
Bench Mark	B.M.- H.D.		
Location BM	On right bank near the relate.		**Elevation** +134.953 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic mean of 3 readings		
Period of Available Gage Records	2013 to date		
Rating Operation			
Period of Rating	2013 to date		
Rated by Flot	-		
Rated by Current Meter	2013 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 21 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	125.78	126.63	127.02	127.71	130.05	129.17	127.71	125.98	124.85	124.48	124.64	124.74	
2	125.93	126.76	127.06	127.76	130.02	128.95	127.20	125.90	124.83	124.40	124.68	124.78	
3	126.00	126.80	127.12	127.67	130.04	128.73	126.44	125.82	124.82	124.36	124.70	124.78	
4	126.00	126.77	127.19	127.29	130.06	128.54	125.98	125.64	124.82	124.34	124.71	124.84	
5	126.00	126.76	127.27	127.00	130.07	128.50	125.84	125.65	124.82	124.35	124.71	124.86	
6	125.91	126.88	127.34	126.88	130.03	128.51	125.70	125.67	124.77	124.35	124.67	124.94	
7	125.91	126.86	127.35	126.79	129.99	128.59	125.67	125.74	124.74	124.33	124.64	124.98	
8	126.02	126.76	127.30	126.75	129.96	128.81	125.60	125.68	124.73	124.31	124.59	124.96	
9	126.09	126.60	127.32	126.74	129.98	128.97	125.60	125.63	124.75	124.33	124.54	124.84	
10	126.08	126.28	127.31	126.71	130.12	129.08	125.54	125.56	124.73	124.41	124.50	124.82	
11	125.90	125.90	127.34	126.74	130.16	129.24	125.40	125.48	124.71	124.50	124.51	124.85	
12	125.80	125.84	127.27	126.85	130.10	129.47	125.28	125.45	124.72	124.51	124.54	124.87	
13	125.92	125.84	127.17	127.11	130.01	129.61	125.01	125.40	124.71	124.54	124.63	124.87	
14	126.00	125.84	127.05	127.20	129.94	129.64	125.00	125.30	124.66	124.52	124.68	124.84	
15	126.00	125.78	126.91	127.62	129.84	129.57	125.00	125.23	124.57	124.50	124.71	124.85	
16	125.97	125.72	126.71	128.45	129.65	129.43	124.97	125.29	124.55	124.51	124.74	124.85	
17	125.93	125.76	126.56	128.76	129.49	129.19	124.88	125.30	124.55	124.52	124.77	124.84	
18	126.00	125.84	126.49	128.96	129.30	128.83	124.79	125.19	124.55	124.56	124.80	124.85	
19	125.97	125.86	126.34	129.09	129.02	128.56	124.80	125.07	124.54	124.63	124.83	124.86	
20	125.85	125.96	126.25	129.35	128.69	128.44	125.02	125.03	124.53	124.73	124.84	124.82	
21	125.65	126.02	126.19	129.61	128.35	128.47	125.10	125.02	124.56	124.83	124.80	124.79	
22	125.45	126.22	126.02	129.92	128.34	128.67	125.33	125.02	124.58	124.86	124.76	124.78	
23	125.25	126.66	125.95	129.96	128.65	129.00	125.88	125.10	124.62	124.75	124.72	124.79	
24	125.05	126.70	126.04	129.87	129.01	129.31	125.87	125.12	124.64	124.73	124.70	124.80	
25	124.90	126.86	126.23	129.65	129.32	129.47	125.80	125.01	124.62	124.65	124.70	124.81	
26	125.21	126.96	126.33	129.28	129.52	129.50	125.80	124.87	124.52	124.68	124.70	124.82	
27	125.61	126.99	126.55	129.23	129.67	129.37	125.83	124.92	124.50	124.69	124.70	124.88	
28	125.92	127.04	126.95	129.33	129.75	129.07	125.90	124.97	124.49	124.66	124.70	124.88	
29	126.11	127.10	127.24	129.46	129.74	128.41	125.90	125.00	124.50	124.55		124.84	
30	126.33	127.06	127.61	129.67	129.63	127.99	125.93	125.05	124.50	124.37		124.80	
31		127.03		129.91	129.43		126.01		124.54	124.46		124.85	
Mean	125.82	126.45	126.85	128.30	129.61	128.97	125.64	125.34	124.65	124.53	124.69	124.84	
Max	126.33	127.10	127.61	129.96	130.16	129.64	127.71	125.98	124.85	124.86	124.84	124.98	130.16
Min	124.90	125.72	125.95	126.71	128.34	127.99	124.79	124.87	124.49	124.31	124.50	124.74	124.31

Annual Max Momentary Gage Height	130.17	m. (MSL.) ,	at 01.00 Hours, on Aug 11, 2018		
Zero Gage at Bottom Elevation	124.00	m. (MSL.) ,	River Bed	123.38	m. (MSL.)
Left Bank Elevation	133.52	m. (MSL.) ,			
Right Bank Elevation	134.09	m. (MSL.) ,	Drainage Are	40,781	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	123.10	206.00	245.14	318.97	577.80	479.04	318.97	142.10	37.25	10.20	19.40	27.90		
2	137.35	219.00	249.42	324.32	574.32	454.50	264.40	134.50	35.55	7.00	22.80	31.30		
3	144.00	223.00	255.84	314.69	576.64	430.30	187.00	126.90	34.70	5.40	24.50	31.30		
4	144.00	220.00	263.33	274.03	578.96	409.40	142.10	109.80	34.70	4.60	25.35	36.40		
5	144.00	219.00	271.89	243.00	580.12	405.00	128.80	110.75	34.70	5.00	25.35	38.10		
6	135.45	231.00	279.38	231.00	575.48	406.10	115.50	112.65	30.45	5.00	21.95	44.90		
7	135.45	229.00	280.45	222.00	570.88	414.90	112.65	119.30	27.90	4.20	19.40	48.30		
8	145.90	219.00	275.10	218.00	567.52	439.10	106.00	113.60	27.05	3.40	15.50	46.60		
9	152.55	203.00	277.24	217.00	569.76	456.70	106.00	108.85	28.75	4.20	13.00	36.40		
10	151.60	171.00	276.17	214.00	585.92	468.96	100.30	102.20	27.05	7.40	11.00	34.70		
11	134.50	134.50	279.38	217.00	590.56	486.88	87.00	94.60	25.35	11.00	11.50	37.25		
12	125.00	128.80	271.89	228.00	583.60	512.64	75.90	91.75	26.20	11.50	13.00	38.95		
13	136.40	128.80	261.19	254.77	573.16	528.32	50.93	87.00	25.35	13.00	18.55	38.95		
14	144.00	128.80	248.35	264.40	565.28	531.68	50.00	77.75	21.10	12.00	22.80	36.40		
15	144.00	123.10	234.00	309.34	554.08	523.84	50.00	71.28	14.50	11.00	25.35	37.25		
16	141.15	117.40	214.00	399.50	532.80	508.16	47.45	76.83	13.50	11.50	27.90	37.25		
17	137.35	121.20	199.00	433.60	514.88	481.28	39.80	77.75	13.50	12.00	30.45	36.40		
18	144.00	128.80	192.00	455.60	493.60	441.30	32.15	67.58	13.50	14.00	33.00	37.25		
19	141.15	130.70	177.00	470.08	462.24	411.60	33.00	56.48	13.00	18.55	35.55	38.10		
20	129.75	140.20	168.00	499.20	425.90	398.40	51.85	52.78	12.50	27.05	36.40	34.70		
21	110.75	145.90	162.05	528.32	388.50	401.70	59.25	51.85	14.00	35.55	33.00	32.15		
22	91.75	165.00	145.90	563.04	387.40	423.70	80.53	51.85	15.00	38.10	29.60	31.30		
23	73.13	209.00	139.25	567.52	421.50	460.00	132.60	59.25	17.70	28.75	26.20	32.15		
24	54.63	213.00	147.80	557.44	461.12	494.72	131.65	61.10	19.40	27.05	24.50	33.00		
25	41.50	229.00	166.00	532.80	495.84	512.64	125.00	50.93	17.70	20.25	24.50	33.85		
26	69.43	239.00	176.00	491.36	518.24	516.00	125.00	38.95	12.00	22.80	24.50	34.70		
27	106.95	242.00	198.00	485.76	535.04	501.44	127.85	43.20	11.00	23.65	24.50	39.80		
28	136.40	247.28	238.00	496.96	544.00	467.84	134.50	47.45	10.60	21.10	24.50	39.80		
29	154.45	253.70	268.68	511.52	542.88	395.10	134.50	50.00	11.00	13.50		36.40		
30	176.00	249.42	308.27	535.04	530.56	348.93	137.35	54.63	11.00	5.80		33.00		
31		246.21		561.92	508.16		144.95		13.00	9.40		37.25		
Total	3805.69	5861.81	6868.72	11940.18	16386.74	13710.17	3432.98	2443.66	649.00	443.95	664.05	1131.80	67338.75	CMSDAY
Mean	126.86	189.09	228.96	385.17	528.60	457.01	110.74	81.46	20.94	14.32	23.72	36.51	184.49	CMS
Max	176.00	253.70	308.27	567.52	590.56	531.68	318.97	142.10	37.25	38.10	36.40	48.30	590.56	CMS
Min	41.50	117.40	139.25	214.00	387.40	348.93	32.15	38.95	10.60	3.40	11.00	27.90	3.40	CMS
Runoff	328.81	506.46	593.46	1031.63	1415.81	1184.56	296.61	211.13	56.07	38.36	57.37	97.79	5818.07	MCM

Momentary Peak 591.72 CMS, at 130.17 m. (MSL.), at 01.00 Hours, on Aug 11, 2018

Runoff Yield 4.52 Liters/Second/Square KM. Momentary Peak Yield 14.51 Liters/Second/Square KM.

WATER YEAR : 2018

CHI RIVER BASIN

Chi River at Yasothon-Phanom Prai Barrage , Yasothon (E.97)

Lat 15 - 43 - 56 N Long 104 - 07 - 56 E

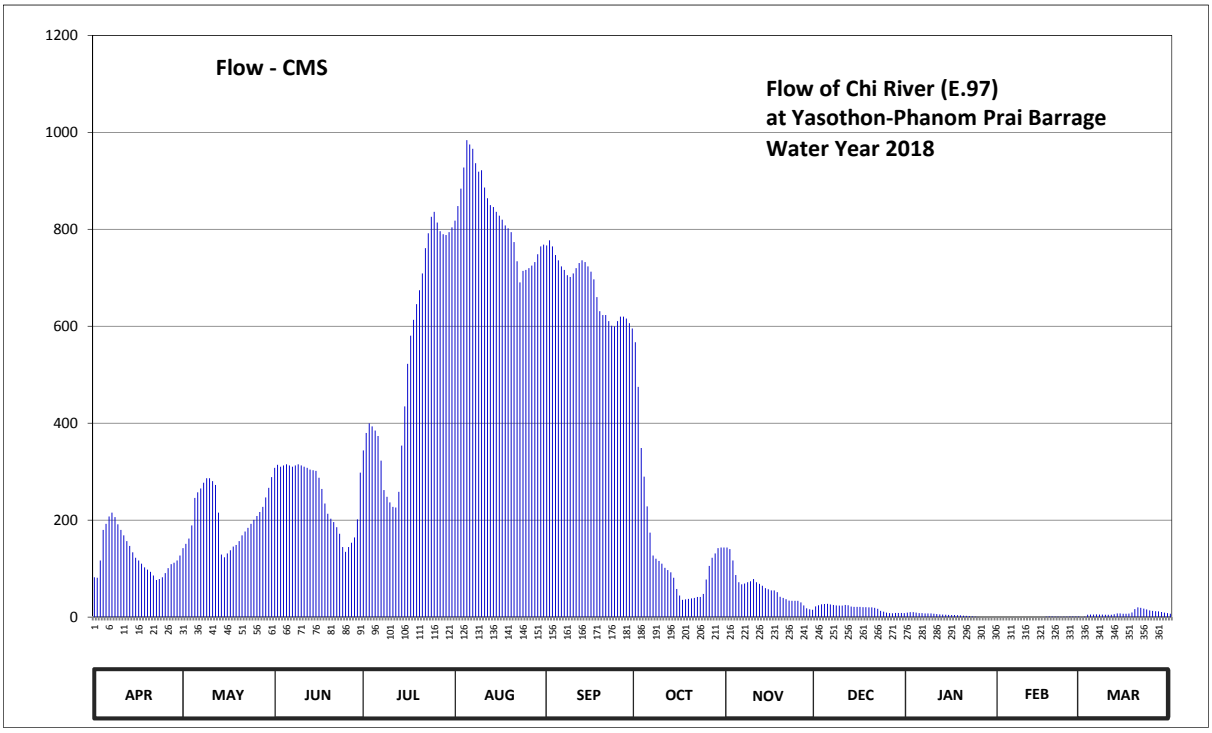
Location : on right bank at Yasothon-Phanon Prai Barrage.

	Ban -	**Amphoe**	Kham Khuean Kaeo	**Changwat**	Yasothon
Drainge Area	46,766 sq.km.				
Type of Gage	Staff gage				
Zero Gage at Bottom	+113.000 m. (MSL.)				
Bench Mark	B.M.- H.D.				
Location BM	On right bank at the automatic gage building.			**Elevation**	+127.055 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.				
Basis of Mean Daily Gage Height	Arithmetic mean of 3 readings				
Period of Available Gage Records	2013 to date				
Rating Operation					
Period of Rating	2013 to date				
Rated by Flot	-				
Rated by Current Meter	2013 to date				
Stability of Channel Regimes	Fairly stable.				
Overbank Flow Conditions	No overbank flow.				
General Description	Records fair. Stage-discharge relation defined by 20 discharge measurements made in 2018.				

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	118.52	119.14	120.58	120.87	124.14	123.87	122.61	119.15	117.55	117.17	115.97	116.62	
2	118.51	119.22	120.63	121.16	124.29	123.93	121.92	119.12	117.61	117.21	115.77	116.69	
3	118.89	119.32	120.60	121.32	124.46	123.86	120.91	118.89	117.65	117.21	115.51	116.99	
4	119.48	119.56	120.62	121.27	124.64	123.76	120.43	118.57	117.66	117.17	115.35	117.01	
5	119.59	120.05	120.64	121.20	124.83	123.70	119.90	118.41	117.67	117.14	115.24	117.02	
6	119.72	120.15	120.62	121.11	124.80	123.63	119.43	118.36	117.64	117.14	115.23	117.03	
7	119.79	120.22	120.60	120.70	124.77	123.59	119.00	118.38	117.62	117.12	115.26	117.02	
8	119.71	120.32	120.62	120.19	124.67	123.53	118.93	118.41	117.60	117.12	115.27	117.02	
9	119.58	120.40	120.64	120.07	124.61	123.51	118.88	118.43	117.59	117.12	115.27	117.00	
10	119.48	120.40	120.62	119.97	124.62	123.55	118.82	118.48	117.59	117.10	115.27	117.00	
11	119.38	120.35	120.60	119.89	124.47	123.61	118.73	118.41	117.62	117.07	115.26	116.99	
12	119.27	120.28	120.58	119.88	124.37	123.67	118.68	118.37	117.61	117.03	115.29	117.04	
13	119.18	119.79	120.55	120.16	124.30	123.70	118.63	118.32	117.54	117.01	115.33	117.12	
14	119.06	119.02	120.54	120.95	124.28	123.68	118.51	118.26	117.53	117.00	115.45	117.12	
15	118.95	118.96	120.53	121.60	124.23	123.63	118.24	118.23	117.53	116.98	115.65	117.10	
16	118.89	119.04	120.41	122.28	124.19	123.57	118.01	118.20	117.53	116.97	116.20	117.10	
17	118.82	119.10	120.21	122.71	124.15	123.48	117.83	118.20	117.51	116.96	116.70	117.11	
18	118.74	119.17	119.95	122.95	124.09	123.25	117.85	118.14	117.51	116.94	116.73	117.18	
19	118.69	119.20	119.77	123.16	124.06	123.07	117.87	117.96	117.50	116.93	116.72	117.41	
20	118.64	119.27	119.68	123.34	124.02	123.02	117.89	117.91	117.50	116.89	116.70	117.50	
21	118.56	119.38	119.62	123.55	123.91	123.02	117.91	117.86	117.48	116.85	116.70	117.48	
22	118.46	119.45	119.53	123.84	123.69	122.93	117.95	117.80	117.43	116.81	116.68	117.44	
23	118.48	119.52	119.41	124.01	123.44	122.86	117.95	117.79	117.29	116.76	116.69	117.39	
24	118.52	119.59	119.16	124.18	123.58	122.85	118.08	117.79	117.24	116.71	116.71	117.33	
25	118.61	119.66	119.07	124.23	123.59	122.93	118.47	117.79	117.17	116.62	116.73	117.29	
26	118.72	119.73	119.16	124.12	123.61	123.00	118.77	117.73	117.14	116.53	116.74	117.27	
27	118.81	119.80	119.24	124.03	123.64	123.00	118.95	117.60	117.13	116.45	116.73	117.26	
28	118.84	119.89	119.34	124.00	123.68	122.97	119.04	117.45	117.15	116.38	116.72	117.22	
29	118.89	120.06	119.67	123.99	123.77	122.90	119.14	117.40	117.15	116.31		117.17	
30	119.00	120.23	120.50	124.02	123.86	122.82	119.15	117.37	117.15	116.21		117.14	
31		120.42		124.07	123.88		119.15		117.14	116.08		117.09	
Mean	118.99	119.70	120.12	122.22	124.15	123.36	118.96	118.16	117.45	116.87	116.00	117.13	
Max	119.79	120.42	120.64	124.23	124.83	123.93	122.61	119.15	117.67	117.21	116.74	117.50	124.83
Min	118.46	118.96	119.07	119.88	123.44	122.82	117.83	117.37	117.13	116.08	115.23	116.62	115.23

Annual Max Momentary Gage Height	124.90	m. (MSL.) ,	at 13.00 Hours, on Aug 5, 2018		
Zero Gage at Bottom Elevation	113.00	m. (MSL.) ,	River Bed	112.05	m. (MSL.)
Left Bank Elevation	126.80	m. (MSL.) ,			
Right Bank Elevation	126.83	m. (MSL.) ,	Drainage Are	46,766	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	82.20	142.40	307.92	343.88	818.00	766.60	566.96	143.50	22.00	9.10	0.00	0.20		
2	81.27	151.20	314.12	379.84	848.00	777.40	474.92	140.20	24.50	10.30	0.00	0.90		
3	116.73	162.20	310.40	399.68	883.80	764.80	348.84	116.73	26.50	10.30	0.00	4.80		
4	179.80	188.96	312.88	393.48	927.60	746.80	289.88	86.87	27.00	9.10	0.00	5.20		
5	192.44	245.80	315.36	384.80	984.00	736.00	228.40	71.93	27.50	8.20	0.00	5.40		
6	207.52	257.40	312.88	373.64	975.00	723.40	174.30	67.80	26.00	8.20	0.00	5.60		
7	215.64	265.52	310.40	322.80	966.00	716.20	127.00	69.40	25.00	7.60	0.00	5.40		
8	206.36	277.12	312.88	262.04	936.30	705.40	120.47	71.93	24.00	7.60	0.00	5.40		
9	191.28	286.40	315.36	248.12	918.90	701.80	115.80	73.80	23.60	7.60	0.00	5.00		
10	179.80	286.40	312.88	236.52	921.80	709.00	110.20	78.47	23.60	7.00	0.00	5.00		
11	168.80	280.60	310.40	227.24	886.10	719.80	101.80	71.93	25.00	6.40	0.00	4.80		
12	156.70	272.48	307.92	226.08	864.00	730.60	97.13	68.60	24.50	5.60	0.00	5.80		
13	146.80	215.64	304.20	258.56	850.00	736.00	92.47	64.60	21.60	5.20	0.00	7.60		
14	133.60	129.20	302.96	353.80	846.00	732.40	81.27	59.80	21.20	5.00	0.00	7.60		
15	122.33	123.27	301.72	434.60	836.00	723.40	58.20	57.40	21.20	4.60	0.00	7.00		
16	116.73	131.40	287.56	522.52	828.00	712.60	44.50	55.00	21.20	4.40	0.00	7.00		
17	110.20	138.00	264.36	580.56	820.00	696.80	35.50	55.00	20.40	4.20	1.00	7.30		
18	102.73	145.70	234.20	613.20	808.00	660.00	36.50	51.40	20.40	3.80	1.30	9.40		
19	98.07	149.00	213.32	645.60	802.00	631.20	37.50	42.00	20.00	3.60	1.20	16.40		
20	93.40	156.70	202.88	674.40	794.00	623.20	38.50	39.50	20.00	2.90	1.00	20.00		
21	85.93	168.80	195.92	709.00	773.80	623.20	39.50	37.00	19.20	2.50	1.00	19.20		
22	76.60	176.50	185.48	761.20	734.20	610.48	41.50	34.00	17.20	2.10	0.80	17.60		
23	78.47	184.32	172.10	792.00	690.40	600.96	41.50	33.50	12.70	1.60	0.90	15.70		
24	82.20	192.44	144.60	826.00	714.40	599.60	48.00	33.50	11.20	1.10	1.10	13.90		
25	90.60	200.56	134.70	836.00	716.20	610.48	77.53	33.50	9.10	0.20	1.30	12.70		
26	100.87	208.68	144.60	814.00	719.80	620.00	105.53	30.50	8.20	0.00	1.40	12.10		
27	109.27	216.80	153.40	796.00	725.20	620.00	122.33	24.00	7.90	0.00	1.30	11.80		
28	112.07	227.24	164.40	790.00	732.40	615.92	131.40	18.00	8.50	0.00	1.20	10.60		
29	116.73	246.96	201.72	788.20	748.60	606.40	142.40	16.00	8.50	0.00		9.10		
30	127.00	266.68	298.00	794.00	764.80	595.52	143.50	15.10	8.50	0.00		8.20		
31		288.72		804.00	768.40		143.50		8.20	0.00		6.80		
Total	3882.14	6383.09	7649.52	16591.76	25601.70	20415.96	4216.83	1760.96	584.40	138.20	13.50	273.50	87511.56	CMSDAY
Mean	129.40	205.91	254.98	535.22	825.86	680.53	136.03	58.70	18.85	4.46	0.48	8.82	239.76	CMS
Max	215.64	288.72	315.36	836.00	984.00	777.40	566.96	143.50	27.50	10.30	1.40	20.00	984.00	CMS
Min	76.60	123.27	134.70	226.08	690.40	595.52	35.50	15.10	7.90	0.00	0.00	0.20	0.00	CMS
Runoff	335.42	551.50	660.92	1433.53	2211.99	1763.94	364.33	152.15	50.49	11.94	1.17	23.63	7561.00	MCM

Momentary Peak 1005.00 CMS, at 124.90 m. (MSL.), at 13.00 Hours, on Aug 5, 2018

Runoff Yield 5.13 Liters/Second/Square KM. Momentary Peak Yield 21.49 Liters/Second/Square KM.

WATER YEAR : 2018

CHI RIVER BASIN

Chi River at That Noi Barrage , Ubon Ratchathani (E.98)

Lat 15 - 18 - 40 N Long 104 - 27 - 24 E

Location : on right bank at That Noi Barrage.

	Ban -	**Amphoe** Khueang Nai	**Changwat** Ubon Ratchathani
Drainge Area	48,254 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+107.000 m. (MSL.)		
Bench Mark	B.M.- H.D.		
Location BM	On right bank at the automatic gage building.		**Elevation** +118.863 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic mean of 3 readings		
Period of Available Gage Records	2013 to date		
Rating Operation			
Period of Rating	2013 to date		
Rated by Flot	-		
Rated by Current Meter	2013 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	Overbank flow starts at elevation +113.980 m.(MSL.), and is including overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 25 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

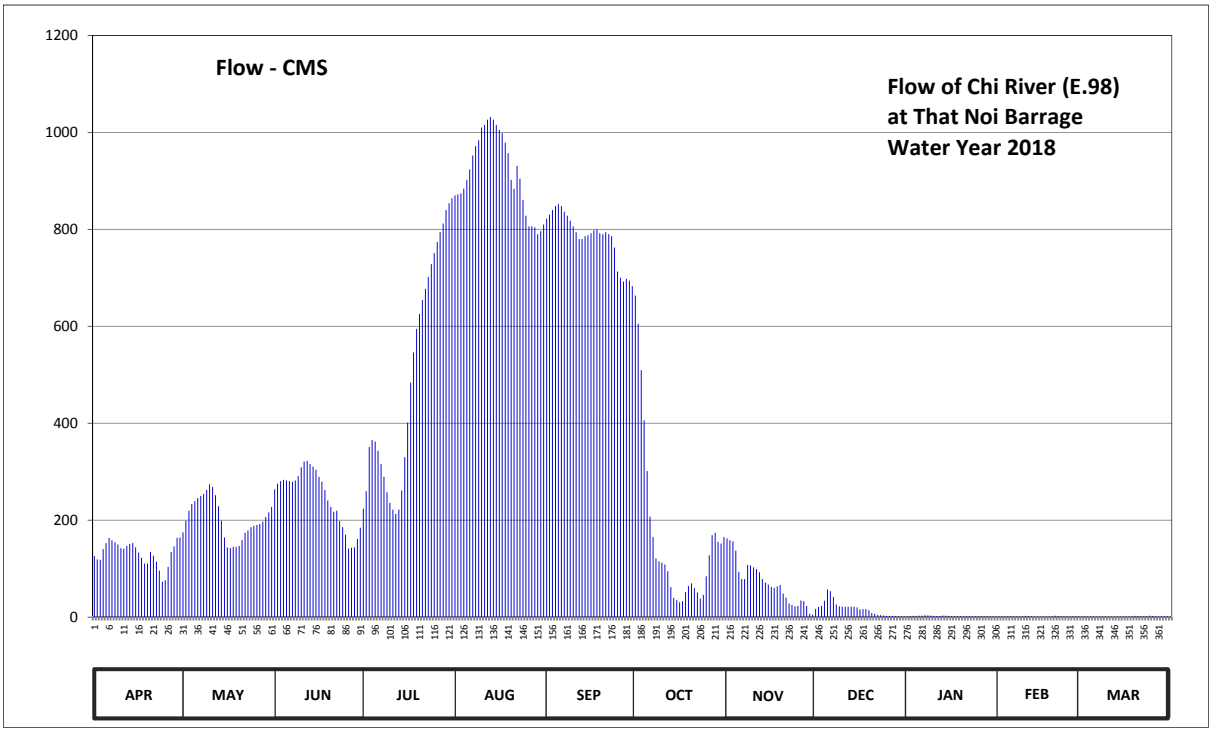
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	111.30	111.81	112.62	112.29	116.20	115.96	115.14	111.68	109.84	109.19	109.17	109.14	
2	111.23	112.06	112.71	112.59	116.21	116.00	114.83	111.64	109.92	109.22	109.16	109.16	
3	111.22	112.25	112.75	113.29	116.22	116.05	114.29	111.62	109.96	109.27	109.16	109.13	
4	111.45	112.37	112.77	113.39	116.27	116.09	113.66	111.42	110.16	109.27	109.16	109.13	
5	111.58	112.42	112.76	113.37	116.35	116.11	112.91	110.96	110.50	109.29	109.15	109.12	
6	111.69	112.47	112.75	113.23	116.44	116.09	112.14	110.78	110.45	109.31	109.15	109.10	
7	111.64	112.51	112.74	113.02	116.56	116.03	111.71	110.78	110.28	109.40	109.13	109.10	
8	111.60	112.54	112.76	112.82	116.64	115.99	111.25	111.11	110.02	109.37	109.12	109.13	
9	111.55	112.61	112.83	112.57	116.69	115.94	111.19	111.10	109.95	109.33	109.15	109.12	
10	111.47	112.70	112.97	112.39	116.80	115.88	111.16	111.06	109.93	109.27	109.27	109.11	
11	111.46	112.66	113.06	112.27	116.82	115.82	111.12	111.02	109.93	109.22	109.22	109.11	
12	111.52	112.52	113.07	112.19	116.86	115.75	110.97	110.95	109.93	109.24	109.16	109.11	
13	111.56	112.33	113.02	112.27	116.88	115.75	110.57	110.78	109.93	109.34	109.14	109.14	
14	111.58	112.06	112.98	112.60	116.86	115.78	110.25	110.69	109.93	109.29	109.11	109.14	
15	111.49	111.70	112.93	113.13	116.82	115.79	110.18	110.64	109.90	109.26	109.11	109.10	
16	111.38	111.49	112.82	113.63	116.78	115.81	110.11	110.57	109.82	109.19	109.12	109.13	
17	111.26	111.47	112.74	114.14	116.75	115.84	110.15	110.55	109.83	109.18	109.13	109.12	
18	111.14	111.50	112.61	114.50	116.67	115.85	110.42	110.59	109.83	109.18	109.14	109.17	
19	111.14	111.50	112.43	114.77	116.58	115.81	110.60	110.63	109.79	109.18	109.17	109.27	
20	111.39	111.52	112.32	114.94	116.35	115.80	110.67	110.38	109.61	109.16	109.30	109.22	
21	111.31	111.65	112.23	115.09	116.27	115.82	110.54	110.26	109.56	109.18	109.22	109.18	
22	111.18	111.80	112.25	115.21	116.47	115.80	110.41	110.06	109.47	109.19	109.16	109.15	
23	110.99	111.85	112.05	115.34	116.36	115.78	110.23	110.00	109.39	109.20	109.17	109.18	
24	110.71	111.92	111.92	115.48	116.15	115.66	110.34	109.95	109.32	109.21	109.14	109.30	
25	110.75	111.95	111.76	115.60	115.99	115.40	110.85	109.96	109.26	109.21	109.13	109.23	
26	111.07	111.97	111.46	115.72	115.88	115.33	111.32	110.17	109.26	109.20	109.16	109.16	
27	111.39	111.99	111.48	115.82	115.88	115.29	111.75	110.15	109.25	109.19	109.21	109.13	
28	111.51	112.04	111.49	115.91	115.87	115.32	111.80	109.96	109.23	109.19	109.16	109.15	
29	111.69	112.13	111.67	116.05	115.80	115.30	111.61	109.56	109.19	109.17		109.18	
30	111.70	112.22	111.91	116.12	115.83	115.24	111.57	109.49	109.19	109.17		109.15	
31		112.32		116.17	115.90		111.71		109.17	109.17		109.13	
Mean	111.36	112.08	112.46	114.06	116.39	115.77	111.47	110.62	109.74	109.23	109.16	109.15	
Max	111.70	112.70	113.07	116.17	116.88	116.11	115.14	111.68	110.50	109.40	109.30	109.30	116.88
Min	110.71	111.47	111.46	112.19	115.80	115.24	110.11	109.49	109.17	109.16	109.11	109.10	109.10

Annual Max Momentary Gage Height 116.89 m. (MSL.) , at 01.00 Hours, on Aug 13, 2018

Zero Gage at Bottom Elevation 107.00 m. (MSL.) , River Bed 105.84 m. (MSL.)

Left Bank Elevation 116.98 m. (MSL.) ,

Right Bank Elevation 113.97 m. (MSL.) , Drainage Are 48,254 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	125.80	174.76	263.60	223.90	870.00	822.00	663.60	162.28	17.00	1.90	1.70	1.40		
2	119.08	199.00	275.30	259.80	872.00	830.00	605.40	158.44	21.00	2.20	1.60	1.60		
3	118.12	219.50	280.50	350.70	874.00	840.00	509.30	156.52	23.00	2.70	1.60	1.30		
4	140.20	233.40	283.10	365.50	884.00	848.00	406.00	137.32	33.60	2.70	1.60	1.30		
5	152.68	239.40	281.80	362.50	902.00	852.00	301.30	93.40	57.00	2.90	1.50	1.20		
6	163.24	245.40	280.50	342.90	923.60	848.00	207.40	78.40	53.50	3.10	1.50	1.00		
7	158.44	250.20	279.20	315.60	952.40	836.00	165.16	78.40	41.60	4.00	1.30	1.00		
8	154.60	253.80	281.80	289.60	971.60	828.00	121.00	107.56	26.00	3.70	1.20	1.30		
9	149.80	262.30	290.90	257.40	983.60	818.00	115.24	106.60	22.50	3.30	1.50	1.20		
10	142.12	274.00	309.10	235.80	1010.00	806.00	112.36	102.76	21.50	2.70	2.70	1.10		
11	141.16	268.80	320.80	221.70	1015.40	794.00	108.52	98.92	21.50	2.20	2.20	1.10		
12	146.92	251.40	322.10	212.90	1026.20	780.00	94.30	92.50	21.50	2.40	1.60	1.10		
13	150.76	228.60	315.60	221.70	1031.60	780.00	61.90	78.40	21.50	3.40	1.40	1.40		
14	152.68	199.00	310.40	261.00	1026.20	786.00	39.50	71.20	21.50	2.90	1.10	1.40		
15	144.04	164.20	303.90	329.90	1015.40	788.00	34.80	67.20	20.00	2.60	1.10	1.00		
16	133.48	144.04	289.60	401.50	1005.20	792.00	30.60	61.90	16.00	1.90	1.20	1.30		
17	121.96	142.12	279.20	483.80	998.00	798.00	33.00	60.50	16.50	1.80	1.30	1.20		
18	110.44	145.00	262.30	546.00	978.80	800.00	51.40	63.30	16.50	1.80	1.40	1.70		
19	110.44	145.00	240.60	594.60	957.20	792.00	64.00	66.40	14.60	1.80	1.70	2.70		
20	134.44	146.92	227.40	625.60	902.00	790.00	69.60	48.60	8.30	1.60	3.00	2.20		
21	126.76	159.40	217.30	654.10	884.00	794.00	59.80	40.20	6.80	1.80	2.20	1.80		
22	114.28	173.80	219.50	676.90	930.80	790.00	50.70	28.00	4.70	1.90	1.60	1.50		
23	96.10	178.60	198.00	701.60	904.40	786.00	38.10	25.00	3.90	2.00	1.70	1.80		
24	72.80	185.32	185.32	728.20	860.00	762.40	45.80	22.50	3.20	2.10	1.40	3.00		
25	76.00	188.20	169.96	751.00	828.00	713.00	84.00	23.00	2.60	2.10	1.30	2.30		
26	103.72	190.12	141.16	774.00	806.00	699.70	127.72	34.20	2.60	2.00	1.60	1.60		
27	134.44	192.04	143.08	794.00	806.00	692.10	169.00	33.00	2.50	1.90	2.10	1.30		
28	145.96	197.00	144.04	812.00	804.00	697.80	173.80	23.00	2.30	1.90	1.60	1.50		
29	163.24	206.30	161.32	840.00	790.00	694.00	155.56	6.80	1.90	1.70		1.80		
30	164.20	216.20	184.36	854.00	796.00	682.60	151.72	4.90	1.90	1.70		1.50		
31		227.40		864.00	810.00		165.16		1.70	1.70		1.30		
Total	3967.90	6301.22	7461.74	15352.20	28418.40	23539.60	5015.74	2131.20	528.70	72.40	45.70	46.90	92881.70	CMSDAY
Mean	132.26	203.27	248.72	495.23	916.72	784.65	161.80	71.04	17.05	2.34	1.63	1.51	254.47	CMS
Max	164.20	274.00	322.10	864.00	1031.60	852.00	663.60	162.28	57.00	4.00	3.00	3.00	1031.60	CMS
Min	72.80	142.12	141.16	212.90	790.00	682.60	30.60	4.90	1.70	1.60	1.10	1.00	1.00	CMS
Runoff	342.83	544.43	644.69	1326.43	2455.35	2033.82	433.36	184.14	45.68	6.26	3.95	4.05	8024.98	MCM

Momentary Peak 1034.30 CMS, at 116.89 m. (MSL.), at 01.00 Hours, on Aug 13, 2018

Runoff Yield 5.27 Liters/Second/Square KM. Momentary Peak Yield 21.43 Liters/Second/Square KM.

WATER YEAR : 2018

MUN RIVER BASIN

Mun River at Ban Dan Taka, Nakhon Ratchasima (M.2A)

Lat 14 - 57 - 57 N Long 102 - 14 - 38 E

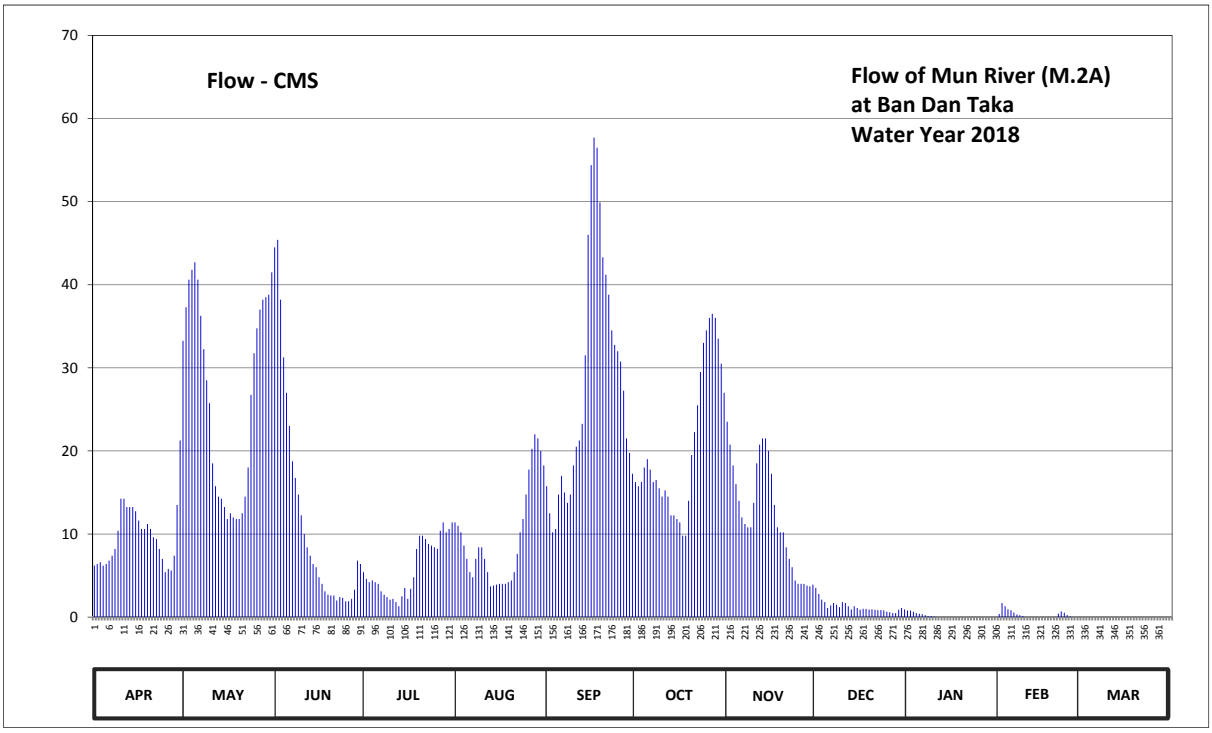
Location : on left bank at Ban Dan Taka.

	Ban Dan Taka	**Amphoe**	Chaloem Phra Kiat	**Changwat**	Nakhon Ratchasima
Drainge Area	4,724 sq.km.				
Type of Gage	Water - stage recorder				
Zero Gage at Bottom	+161.000 m. (MSL.)				
Bench Mark	B.M.-H.D.				
Location BM	On left bank downstream at the footpath.			**Elevation**	+169.284 m. (MSL.)
Gage Reading Frequency	Recording				
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings				
Period of Available Gage Records	2001 to date				
Rating Operation					
Period of Rating	2001 to date				
Rated by Flot	-				
Rated by Current Meter	2001 to date				
Stability of Channel Regimes	Stable.				
Overbank Flow Conditions	No overbank flow.				
General Description	Records good. Stage-discharge relation defined by 27 discharge measurements made in 2018.				

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	162.61	163.75	164.15	162.57	162.87	163.05	163.07	163.36	162.45	162.11	161.95	161.63	
2	162.62	163.91	164.18	162.53	162.85	162.92	163.05	163.25	162.38	162.11	162.27	161.62	
3	162.63	164.02	163.94	162.51	162.81	162.81	163.07	163.15	162.31	162.05	162.23	161.61	
4	162.61	164.06	163.67	162.52	162.73	162.83	163.14	163.06	162.28	161.99	162.18	161.60	
5	162.62	164.09	163.50	162.51	162.65	163.01	163.18	162.98	162.21	161.96	162.13	161.60	
6	162.64	164.02	163.34	162.50	162.57	163.10	163.13	162.90	162.24	161.94	162.02	161.59	
7	162.67	163.87	163.17	162.41	162.54	163.02	163.07	162.86	162.27	161.89	161.92	161.58	
8	162.71	163.71	163.09	162.37	162.65	162.97	163.08	162.84	162.25	161.85	161.89	161.55	
9	162.82	163.56	163.01	162.34	162.72	163.01	163.04	162.84	162.22	161.85	161.85	161.54	
10	162.99	163.45	162.91	162.31	162.72	163.15	163.00	162.97	162.28	161.83	161.80	161.53	
11	162.99	163.16	162.80	162.32	162.65	163.24	163.03	163.16	162.27	161.80	161.77	161.53	
12	162.95	163.05	162.72	162.28	162.57	163.27	163.00	163.25	162.23	161.78	161.76	161.52	
13	162.95	163.00	162.67	162.23	162.47	163.35	162.91	163.28	162.17	161.76	161.72	161.52	
14	162.95	162.99	162.62	162.35	162.48	163.68	162.91	163.28	162.23	161.71	161.67	161.51	
15	162.93	162.95	162.60	162.45	162.49	164.20	162.89	163.22	162.21	161.69	161.64	161.51	
16	162.88	162.89	162.54	162.32	162.50	164.48	162.87	163.11	162.16	161.65	161.64	161.50	
17	162.83	162.92	162.50	162.44	162.50	164.59	162.79	162.96	162.20	161.61	161.63	161.50	
18	162.83	162.90	162.41	162.54	162.50	164.55	162.79	162.84	162.19	161.61	161.63	161.49	
19	162.86	162.89	162.37	162.71	162.51	164.33	162.98	162.81	162.16	161.61	161.63	161.48	
20	162.83	162.89	162.36	162.79	162.52	164.11	163.20	162.81	162.18	161.61	161.71	161.47	
21	162.78	162.92	162.36	162.79	162.57	164.04	163.31	162.72	162.15	161.61	161.97	161.47	
22	162.77	163.00	162.30	162.77	162.68	163.96	163.44	162.65	162.14	161.59	162.08	161.47	
23	162.71	163.14	162.34	162.74	162.81	163.80	163.60	162.60	162.14	161.55	162.01	161.47	
24	162.65	163.49	162.33	162.73	162.89	163.73	163.74	162.52	162.12	161.55	161.90	161.47	
25	162.57	163.69	162.29	162.72	163.01	163.70	163.80	162.50	162.06	161.56	161.83	161.46	
26	162.59	163.81	162.29	162.71	163.13	163.65	163.86	162.50	162.03	161.56	161.75	161.46	
27	162.58	163.90	162.32	162.82	163.23	163.51	163.88	162.50	161.99	161.55	161.69	161.46	
28	162.67	163.94	162.43	162.87	163.30	163.28	163.86	162.48	161.99	161.55	161.66	161.46	
29	162.96	163.95	162.64	162.81	163.28	163.21	163.76	162.47	162.15	161.55		161.53	
30	163.27	163.96	162.62	162.83	163.22	163.11	163.64	162.49	162.21	161.55		161.79	
31		164.05		162.87	163.15		163.50		162.17	161.54		161.66	
Mean	162.78	163.48	162.82	162.57	162.76	163.52	163.24	162.88	162.19	161.73	161.85	161.53	
Max	163.27	164.09	164.18	162.87	163.30	164.59	163.88	163.36	162.45	162.11	162.27	161.79	164.59
Min	162.57	162.89	162.29	162.23	162.47	162.81	162.79	162.47	161.99	161.54	161.63	161.46	161.46

Annual Max Momentary Gage Height	164.62	m. (MSL.) ,	at 06.00 Hours , on Sep 18 , 2018		
Zero Gage at Bottom Elevation	161.00	m. (MSL.) ,	River Bed	159.22	m. (MSL.)
Left Bank Elevation	169.01	m. (MSL.) ,			
Right Bank Elevation	169.03	m. (MSL.) ,	Drainage Are	4,724	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	6.20	33.25	44.50	5.40	11.40	15.75	16.25	23.50	3.50	0.78	0.38	0.00		
2	6.40	37.30	45.40	4.60	11.00	12.50	15.75	20.75	2.80	0.78	1.70	0.00		
3	6.60	40.60	38.20	4.20	10.20	10.20	16.25	18.25	2.10	0.63	1.30	0.00		
4	6.20	41.80	31.25	4.40	8.60	10.60	18.00	16.00	1.80	0.48	0.95	0.00		
5	6.40	42.70	27.00	4.20	7.00	14.75	19.00	14.00	1.10	0.40	0.83	0.00		
6	6.80	40.60	23.00	4.00	5.40	17.00	17.75	12.00	1.40	0.35	0.55	0.00		
7	7.40	36.25	18.75	3.10	4.80	15.00	16.25	11.20	1.70	0.23	0.30	0.00		
8	8.20	32.25	16.75	2.70	7.00	13.75	16.50	10.80	1.50	0.13	0.23	0.00		
9	10.40	28.50	14.75	2.40	8.40	14.75	15.50	10.80	1.20	0.13	0.13	0.00		
10	14.25	25.75	12.25	2.10	8.40	18.25	14.50	13.75	1.80	0.08	0.00	0.00		
11	14.25	18.50	10.00	2.20	7.00	20.50	15.25	18.50	1.70	0.00	0.00	0.00		
12	13.25	15.75	8.40	1.80	5.40	21.25	14.50	20.75	1.30	0.00	0.00	0.00		
13	13.25	14.50	7.40	1.30	3.70	23.25	12.25	21.50	0.93	0.00	0.00	0.00		
14	13.25	14.25	6.40	2.50	3.80	31.50	12.25	21.50	1.30	0.00	0.00	0.00		
15	12.75	13.25	6.00	3.50	3.90	46.00	11.80	20.00	1.10	0.00	0.00	0.00		
16	11.60	11.80	4.80	2.20	4.00	54.40	11.40	17.25	0.90	0.00	0.00	0.00		
17	10.60	12.50	4.00	3.40	4.00	57.70	9.80	13.50	1.00	0.00	0.00	0.00		
18	10.60	12.00	3.10	4.80	4.00	56.50	9.80	10.80	0.98	0.00	0.00	0.00		
19	11.20	11.80	2.70	8.20	4.20	49.90	14.00	10.20	0.90	0.00	0.00	0.00		
20	10.60	11.80	2.60	9.80	4.40	43.30	19.50	10.20	0.95	0.00	0.00	0.00		
21	9.60	12.50	2.60	9.80	5.40	41.20	22.25	8.40	0.88	0.00	0.43	0.00		
22	9.40	14.50	2.00	9.40	7.60	38.80	25.50	7.00	0.85	0.00	0.70	0.00		
23	8.20	18.00	2.40	8.80	10.20	34.50	29.50	6.00	0.85	0.00	0.53	0.00		
24	7.00	26.75	2.30	8.60	11.80	32.75	33.00	4.40	0.80	0.00	0.25	0.00		
25	5.40	31.75	1.90	8.40	14.75	32.00	34.50	4.00	0.65	0.00	0.08	0.00		
26	5.80	34.75	1.90	8.20	17.75	30.75	36.00	4.00	0.58	0.00	0.00	0.00		
27	5.60	37.00	2.20	10.40	20.25	27.25	36.50	4.00	0.48	0.00	0.00	0.00		
28	7.40	38.20	3.30	11.40	22.00	21.50	36.00	3.80	0.48	0.00	0.00	0.00		
29	13.50	38.50	6.80	10.20	21.50	19.75	33.50	3.70	0.88	0.00		0.00		
30	21.25	38.80	6.40	10.60	20.00	17.25	30.50	3.90	1.10	0.00		0.00		
31		41.50		11.40	18.25		27.00		0.93	0.00		0.00		
Total	293.35	827.40	359.05	184.00	296.10	842.60	640.55	364.45	38.44	3.99	8.36	0.00	3858.29	CMSDAY
Mean	9.78	26.69	11.97	5.94	9.55	28.09	20.66	12.15	1.24	0.13	0.30	0.00	10.57	CMS
Max	21.25	42.70	45.40	11.40	22.00	57.70	36.50	23.50	3.50	0.78	1.70	0.00	57.70	CMS
Min	5.40	11.80	1.90	1.30	3.70	10.20	9.80	3.70	0.48	0.00	0.00	0.00	0.00	CMS
Runoff	25.35	71.49	31.02	15.90	25.58	72.80	55.34	31.49	3.32	0.34	0.72	0.00	333.36	MCM

Momentary Peak 58.60 CMS. at 164.62 m. (MSL.) at 06.00 Hours , on Sep 18 , 2018

Runoff Yield 2.24 Liters/Second/Square KM. Momentary Peak Yield 12.40 Liters/Second/Square KM.

WATER YEAR : 2018

MUN RIVER BASIN

Mun River at Ban Phong Sawai, Surin (M.4)

Lat 15 - 19 - 30 N Long 103 - 40 - 59 E

Location : on left bank at the bridge on highway.

Ban Phong Sawai **Amphoe** Tha Tum **Changwat** Surin

Drainge Area	34,654 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+117.000 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	Near the gage site. **Elevation** +128.995 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	1996-1997, 2005 to date
Rating Operation	
Period of Rating	1996-1997, 2005 to date
Rated by Flot	-
Rated by Current Meter	1996-1997, 2005 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Stage-discharge relation defined by 27 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

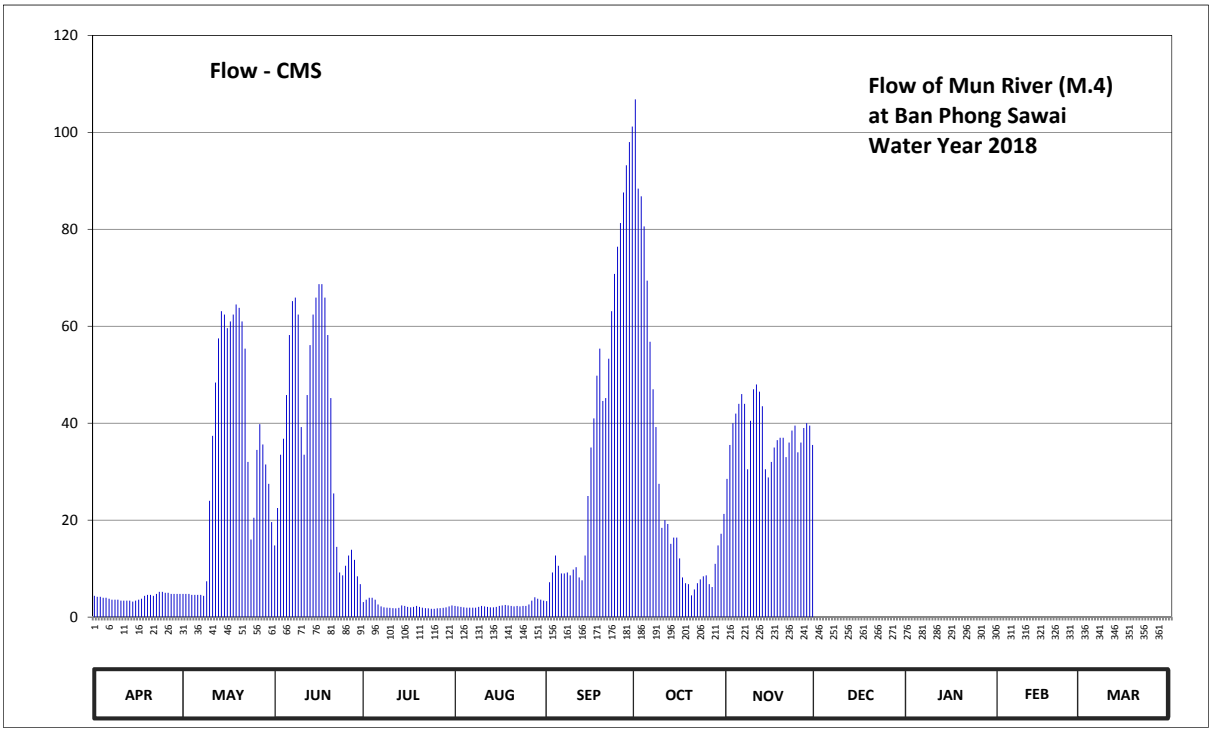
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	117.42	117.44	117.86	117.51	117.43	117.53	119.31	118.75	118.90	118.69	118.40	118.12	
2	117.41	117.44	118.05	117.56	117.42	117.56	119.08	118.91	118.89	118.68	118.39	118.11	
3	117.41	117.44	118.27	117.60	117.41	117.66	119.06	119.00	118.90	118.67	118.38	118.10	
4	117.40	117.43	118.33	117.60	117.40	117.79	118.98	119.04	118.91	118.66	118.37	118.10	
5	117.40	117.43	118.48	117.56	117.39	117.72	118.82	119.08	118.91	118.64	118.36	118.09	
6	117.39	117.43	118.66	117.46	117.39	117.65	118.64	119.12	118.91	118.63	118.35	118.08	
7	117.38	117.43	118.76	117.42	117.39	117.65	118.50	119.08	118.89	118.62	118.33	118.08	
8	117.38	117.42	118.77	117.40	117.39	117.66	118.37	118.81	118.89	118.62	118.32	118.07	
9	117.38	117.57	118.72	117.39	117.41	117.63	118.15	119.01	118.90	118.60	118.31	118.05	
10	117.37	118.08	118.37	117.38	117.43	117.69	117.96	119.14	118.88	118.59	118.31	118.04	
11	117.37	118.34	118.27	117.37	117.42	117.71	118.00	119.16	118.87	118.58	118.31	118.03	
12	117.37	118.52	118.48	117.36	117.41	117.61	117.98	119.13	118.88	118.58	118.30	118.01	
13	117.37	118.65	118.63	117.38	117.40	117.58	117.87	119.07	118.86	118.57	118.28	117.99	
14	117.36	118.73	118.72	117.44	117.40	117.79	117.91	118.81	118.86	118.56	118.27	117.97	
15	117.37	118.72	118.77	117.43	117.41	118.10	117.91	118.76	118.84	118.55	118.26	117.97	
16	117.38	118.68	118.81	117.41	117.43	118.30	117.77	118.84	118.84	118.54	118.25	117.97	
17	117.39	118.70	118.81	117.40	117.44	118.40	117.61	118.90	118.83	118.54	118.24	117.95	
18	117.42	118.72	118.77	117.41	117.45	118.54	117.55	118.93	118.81	118.53	118.23	117.93	
19	117.43	118.75	118.66	117.43	117.44	118.62	117.54	118.94	118.80	118.50	118.22	117.90	
20	117.43	118.74	118.47	117.41	117.43	118.46	117.65	118.94	118.79	118.49	118.22	117.89	
21	117.42	118.70	118.11	117.39	117.42	118.47	117.77	118.86	118.78	118.50	118.21	117.86	
22	117.44	118.62	117.85	117.37	117.43	118.59	117.85	118.92	118.78	118.49	118.20	117.84	
23	117.46	118.24	117.66	117.36	117.42	118.73	117.89	118.97	118.78	118.46	118.18	117.83	
24	117.46	117.90	117.63	117.34	117.43	118.84	117.92	118.99	118.76	118.46	118.18	117.83	
25	117.45	118.01	117.72	117.34	117.43	118.92	117.93	118.88	118.75	118.46	118.18	117.81	
26	117.45	118.29	117.79	117.36	117.46	118.99	117.84	118.92	118.74	118.46	118.16	117.80	
27	117.44	118.38	117.83	117.37	117.54	119.07	117.81	118.98	118.73	118.45	118.15	117.79	
28	117.44	118.31	117.76	117.38	117.61	119.14	118.05	119.00	118.73	118.45	118.14	117.77	
29	117.44	118.23	117.62	117.40	117.58	119.20	118.24	118.99	118.72	118.44		117.76	
30	117.44	118.15	117.54	117.42	117.56	119.24	118.36	118.91	118.71	118.43		117.76	
31		117.99		117.44	117.54		118.51		118.71	118.42		117.76	
Mean	117.41	118.14	118.27	117.42	117.44	118.23	118.16	118.96	118.82	118.54	118.27	117.94	
Max	117.46	118.75	118.81	117.60	117.61	119.24	119.31	119.16	118.91	118.69	118.40	118.12	119.31
Min	117.36	117.42	117.54	117.34	117.39	117.53	117.54	118.75	118.71	118.42	118.14	117.76	117.34

Annual Max Momentary Gage Height 119.33 m. (MSL.) , at 06.00 Hours , on Oct 1 , 2018

Zero Gage at Bottom Elevation 117.00 m. (MSL.) , River Bed 116.22 m. (MSL.)

Left Bank Elevation 128.76 m. (MSL.) ,

Right Bank Elevation 129.26 m. (MSL.) , Drainage Are 34,654 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	4.40	4.80	14.80	3.10	2.30	3.30	106.80	28.50	0.00	0.00	0.00	0.00		
2	4.20	4.80	22.50	3.60	2.20	7.20	88.40	35.50	0.00	0.00	0.00	0.00		
3	4.20	4.80	33.50	4.00	2.10	9.20	86.80	40.00	0.00	0.00	0.00	0.00		
4	4.00	4.60	36.80	4.00	2.00	12.70	80.60	42.00	0.00	0.00	0.00	0.00		
5	4.00	4.60	45.80	3.60	1.95	10.60	69.40	44.00	0.00	0.00	0.00	0.00		
6	3.80	4.60	58.20	2.60	1.95	9.00	56.80	46.00	0.00	0.00	0.00	0.00		
7	3.60	4.60	65.20	2.20	1.95	9.00	47.00	44.00	0.00	0.00	0.00	0.00		
8	3.60	4.40	65.90	2.00	1.95	9.20	39.20	30.50	0.00	0.00	0.00	0.00		
9	3.60	7.40	62.40	1.95	2.10	8.60	27.50	40.50	0.00	0.00	0.00	0.00		
10	3.40	24.00	39.20	1.90	2.30	9.80	18.40	47.00	0.00	0.00	0.00	0.00		
11	3.40	37.40	33.50	1.85	2.20	10.30	20.00	48.00	0.00	0.00	0.00	0.00		
12	3.40	48.40	45.80	1.80	2.10	8.20	19.20	46.50	0.00	0.00	0.00	0.00		
13	3.40	57.50	56.10	1.90	2.00	7.60	15.10	43.50	0.00	0.00	0.00	0.00		
14	3.20	63.10	62.40	2.40	2.00	12.70	16.40	30.50	0.00	0.00	0.00	0.00		
15	3.40	62.40	65.90	2.30	2.10	25.00	16.40	28.80	0.00	0.00	0.00	0.00		
16	3.60	59.60	68.70	2.10	2.30	35.00	12.10	32.00	0.00	0.00	0.00	0.00		
17	3.80	61.00	68.70	2.00	2.40	41.00	8.20	35.00	0.00	0.00	0.00	0.00		
18	4.40	62.40	65.90	2.10	2.50	49.80	7.00	36.50	0.00	0.00	0.00	0.00		
19	4.60	64.50	58.20	2.30	2.40	55.40	6.80	37.00	0.00	0.00	0.00	0.00		
20	4.60	63.80	45.20	2.10	2.30	44.60	4.50	37.00	0.00	0.00	0.00	0.00		
21	4.40	61.00	25.50	1.95	2.20	45.20	5.70	33.00	0.00	0.00	0.00	0.00		
22	4.80	55.40	14.50	1.85	2.30	53.30	7.00	36.00	0.00	0.00	0.00	0.00		
23	5.20	32.00	9.20	1.80	2.20	63.10	7.80	38.50	0.00	0.00	0.00	0.00		
24	5.20	16.00	8.60	1.70	2.30	70.80	8.40	39.50	0.00	0.00	0.00	0.00		
25	5.00	20.50	10.60	1.70	2.30	76.40	8.60	34.00	0.00	0.00	0.00	0.00		
26	5.00	34.50	12.70	1.80	2.60	81.30	6.80	36.00	0.00	0.00	0.00	0.00		
27	4.80	39.80	13.90	1.85	3.40	87.60	6.20	39.00	0.00	0.00	0.00	0.00		
28	4.80	35.60	11.80	1.90	4.10	93.20	11.00	40.00	0.00	0.00	0.00	0.00		
29	4.80	31.50	8.40	2.00	3.80	98.00	14.80	39.50	0.00	0.00		0.00		
30	4.80	27.50	6.80	2.20	3.60	101.20	17.20	35.50	0.00	0.00		0.00		
31		19.60		2.40	3.40		21.30		0.00	0.00		0.00		
Total	125.40	1022.10	1136.70	70.95	75.30	1148.30	861.40	1143.80	0.00	0.00	0.00	0.00	5583.95	CMSDAY
Mean	4.18	32.97	37.89	2.29	2.43	38.28	27.79	38.13	0.00	0.00	0.00	0.00	15.30	CMS
Max	5.20	64.50	68.70	4.00	4.10	101.20	106.80	48.00	0.00	0.00	0.00	0.00	106.80	CMS
Min	3.20	4.40	6.80	1.70	1.95	3.30	4.50	28.50	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	10.83	88.31	98.21	6.13	6.51	99.21	74.42	98.82	0.00	0.00	0.00	0.00	482.45	MCM

Momentary Peak 108.40 CMS. at 119.33 m. (MSL.) at 06.00 Hours , on Oct 1 , 2018

Runoff Yield 0.44 Liters/Second/Square KM. Momentary Peak Yield 3.13 Liters/Second/Square KM.

WATER YEAR : 2018

MUN RIVER BASIN

Mun River at Ban Mueang Kong, Si Sa Ket (M.5)

Lat 15 - 20 - 16 N Long 104 - 09 - 21 E

Location : on left bank infront of Amphoe Rasi Salai Office.

Ban Mueang Kong **Amphoe** Rasi Salai **Changwat** Si Sa Ket

Drainge Area	45,295 sq.km.
Type of Gage	Staff gage.
Zero Gage at Bottom	+110.000 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank downstream side at the footpath of the bridge. **Elevation** +124.814 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic mean of 5 readings
Period of Available Gage Records	1995 to date
Rating Operation	
Period of Rating	1972 to date
Rated by Flot	-
Rated by Current Meter	1972 to date
Stability of Channel Regimes	Fairly stable because of backwater effect.
Overbank Flow Conditions	No overbank flow.
General Description	Records very good. Flow effected by Rasi Salai barrage about 10 kilometers above gage site. Stage-discharge relation defined by 45 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

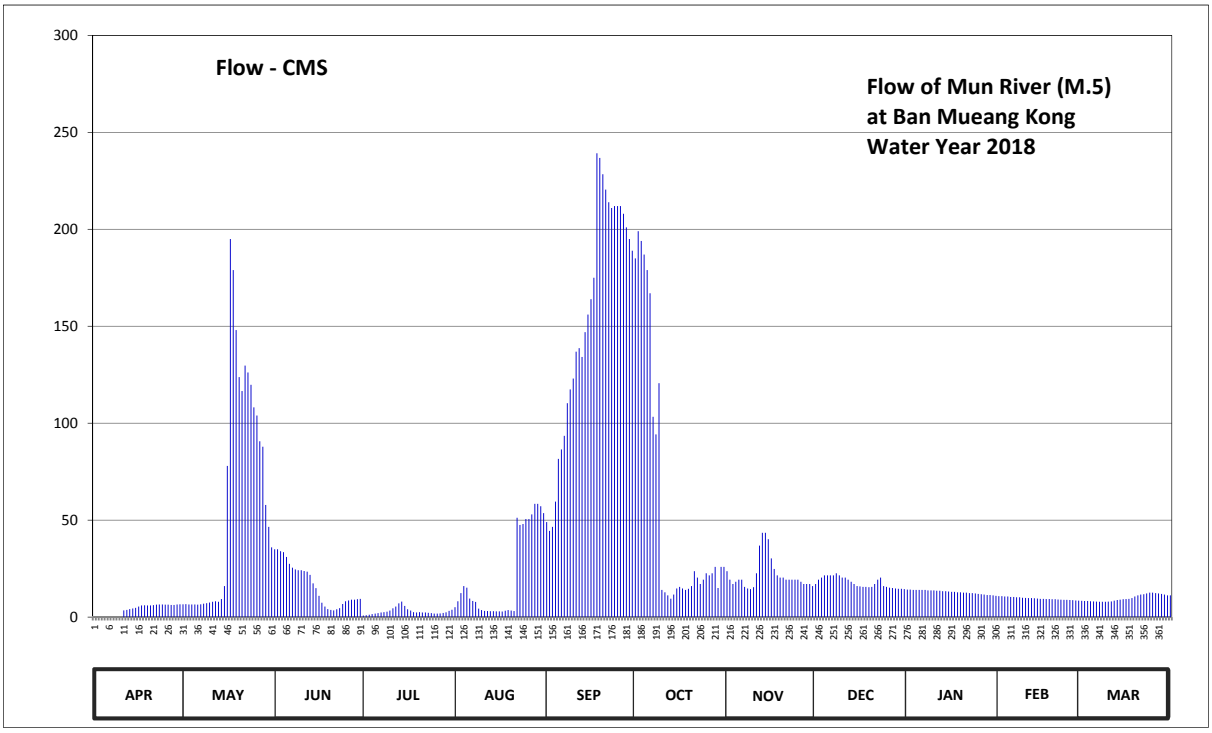
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	111.10	111.66	110.60	110.03	111.51	110.88	112.60	112.37	112.31	112.21	112.04	111.84	
2	111.10	111.67	110.60	110.17	111.82	110.79	112.74	112.33	112.33	112.21	112.04	111.83	
3	111.10	111.65	110.58	110.31	112.12	110.83	112.69	112.31	112.34	112.20	112.03	111.83	
4	111.10	111.65	110.57	110.48	112.30	111.06	112.62	112.32	112.35	112.20	112.03	111.82	
5	111.09	111.65	110.52	110.57	112.26	111.38	112.54	112.33	112.35	112.20	112.02	111.81	
6	111.10	111.64	110.45	110.66	111.96	111.45	112.42	112.33	112.35	112.20	112.02	111.80	
7	111.10	111.66	110.41	110.75	111.83	111.55	111.69	112.28	112.35	112.20	112.01	111.79	
8	111.08	111.69	110.39	110.83	111.78	111.79	111.56	112.24	112.36	112.19	112.01	111.79	
9	111.09	111.72	110.38	110.91	111.37	111.88	111.92	112.22	112.35	112.19	112.00	111.79	
10	111.09	111.75	110.38	111.09	111.17	111.95	112.20	112.27	112.34	112.19	111.99	111.80	
11	111.13	111.79	110.37	111.40	111.05	112.11	112.14	112.36	112.34	112.18	111.98	111.81	
12	111.21	111.82	110.36	111.54	111.01	112.13	112.06	112.43	112.33	112.18	111.98	111.85	
13	111.30	111.79	110.32	111.71	110.98	112.08	111.95	112.45	112.32	112.17	111.97	111.88	
14	111.38	111.93	110.21	111.80	110.97	112.22	112.08	112.45	112.31	112.17	111.96	111.90	
15	111.45	112.30	110.13	111.58	110.96	112.31	112.24	112.44	112.30	112.16	111.94	111.92	
16	111.54	112.54	110.00	111.28	110.96	112.39	112.28	112.41	112.29	112.15	111.94	111.93	
17	111.60	112.70	109.82	111.09	110.93	112.50	112.24	112.38	112.28	112.15	111.93	111.94	
18	111.61	112.54	109.72	110.83	111.06	113.11	112.20	112.35	112.28	112.14	111.93	111.98	
19	111.60	112.23	109.61	110.76	111.18	113.09	112.23	112.34	112.27	112.14	111.92	112.03	
20	111.60	111.96	109.57	110.83	111.09	113.02	112.30	112.34	112.28	112.13	111.92	112.06	
21	111.62	111.87	109.55	110.76	111.02	112.95	112.37	112.33	112.31	112.13	111.91	112.08	
22	111.64	112.03	109.60	110.76	110.92	112.89	112.34	112.33	112.33	112.12	111.90	112.09	
23	111.65	111.99	109.66	110.72	110.85	112.86	112.31	112.33	112.34	112.12	111.89	112.11	
24	111.65	111.91	109.79	110.64	110.86	112.87	112.33	112.33	112.30	112.11	111.89	112.13	
25	111.64	111.76	109.86	110.56	110.91	112.87	112.36	112.33	112.28	112.10	111.88	112.13	
26	111.64	111.70	109.88	110.58	110.91	112.87	112.35	112.32	112.26	112.09	111.87	112.12	
27	111.63	111.51	109.90	110.60	110.95	112.83	112.36	112.31	112.25	112.08	111.86	112.11	
28	111.63	111.47	109.90	110.68	111.04	112.76	112.39	112.31	112.24	112.07	111.85	112.10	
29	111.65	111.03	109.91	110.80	111.04	112.70	112.25	112.31	112.23	112.07		112.08	
30	111.66	110.83	109.92	111.03	111.02	112.64	112.39	112.30	112.23	112.06		112.06	
31		110.62		111.22	110.96		112.39		112.22	112.05		112.06	
Mean	111.39	111.78	110.10	110.87	111.25	112.23	112.28	112.34	112.30	112.15	111.95	111.95	
Max	111.66	112.70	110.60	111.80	112.30	113.11	112.74	112.45	112.36	112.21	112.04	112.13	113.11
Min	111.08	110.62	109.55	110.03	110.85	110.79	111.56	112.22	112.22	112.05	111.85	111.79	109.55

Annual Max Momentary Gage Height 113.13 m. (MSL.) , at 18.00 Hours , on Sep 18 , 2018

Zero Gage at Bottom Elevation 110.00 m. (MSL.) , River Bed 108.79 m. (MSL.)

Left Bank Elevation 124.55 m. (MSL.) ,

Right Bank Elevation 122.65 m. (MSL.) , Drainage Are 45,295 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	6.60	35.00	0.83	5.10	49.00	185.00	23.70	17.10	14.20	10.80	8.40		
2	0.00	6.70	35.00	0.97	8.20	44.50	199.00	19.30	19.30	14.20	10.80	8.30		
3	0.00	6.50	34.00	1.22	12.40	46.50	194.00	17.10	20.40	14.00	10.60	8.30		
4	0.00	6.50	33.50	1.56	16.00	59.60	187.00	18.20	21.50	14.00	10.60	8.20		
5	0.00	6.50	31.00	1.81	15.20	81.60	179.00	19.30	21.50	14.00	10.40	8.10		
6	0.00	6.40	27.50	2.08	9.60	86.50	167.00	19.30	21.50	14.00	10.40	8.00		
7	0.00	6.60	25.50	2.35	8.30	93.50	103.30	15.60	21.50	14.00	10.20	7.90		
8	0.00	6.90	24.60	2.59	7.80	110.30	94.20	14.80	22.60	13.80	10.20	7.90		
9	0.00	7.20	24.20	2.83	4.38	117.40	120.60	14.40	21.50	13.80	10.00	7.90		
10	0.00	7.50	24.20	3.37	3.61	123.00	14.00	15.40	20.40	13.80	9.90	8.00		
11	3.49	7.90	23.80	4.50	3.25	136.90	12.80	22.60	20.40	13.60	9.80	8.10		
12	3.74	8.20	23.40	5.40	3.13	138.70	11.20	36.90	19.30	13.60	9.80	8.50		
13	4.10	7.90	21.80	7.10	3.04	134.20	9.50	43.50	18.20	13.40	9.70	8.80		
14	4.42	9.30	17.40	8.00	3.01	147.00	11.60	43.50	17.10	13.40	9.60	9.00		
15	4.75	16.00	14.90	5.80	2.98	156.00	14.80	40.20	16.00	13.20	9.40	9.20		
16	5.40	78.00	11.00	4.02	2.98	164.00	15.60	30.30	15.80	13.00	9.40	9.30		
17	6.00	195.00	7.40	3.37	2.89	175.00	14.80	24.80	15.60	13.00	9.30	9.40		
18	6.10	179.00	5.40	2.59	3.28	239.20	14.00	21.50	15.60	12.80	9.30	9.80		
19	6.00	148.00	4.10	2.38	3.64	236.80	14.60	20.40	15.40	12.80	9.20	10.60		
20	6.00	123.80	3.70	2.59	3.37	228.40	16.00	20.40	15.60	12.60	9.20	11.20		
21	6.20	116.60	3.50	2.38	3.16	220.50	23.70	19.30	17.10	12.60	9.10	11.60		
22	6.40	129.70	4.00	2.38	51.20	214.00	20.40	19.30	19.30	12.40	9.00	11.80		
23	6.50	126.20	4.60	2.26	47.50	211.00	17.10	19.30	20.40	12.40	8.90	12.20		
24	6.50	119.80	6.80	2.02	48.00	212.00	19.30	19.30	16.00	12.20	8.90	12.60		
25	6.40	108.20	8.20	1.78	50.60	212.00	22.60	19.30	15.60	12.00	8.80	12.60		
26	6.40	104.00	8.60	1.84	50.60	212.00	21.50	18.20	15.20	11.80	8.70	12.40		
27	6.30	90.70	9.00	1.90	53.00	208.00	22.60	17.10	15.00	11.60	8.60	12.20		
28	6.30	87.90	9.00	2.14	58.40	201.00	25.90	17.10	14.80	11.40	8.50	12.00		
29	6.50	57.80	9.20	2.50	58.40	195.00	15.00	17.10	14.60	11.40		11.60		
30	6.60	46.50	9.40	3.19	57.20	189.00	25.90	16.00	14.60	11.20		11.20		
31		36.00		3.78	53.60		25.90		14.40	11.00		11.20		
Total	114.10	1863.90	499.70	91.53	653.82	4642.60	1817.90	663.20	553.30	401.20	269.10	306.30	11876.65	CMSDAY
Mean	3.80	60.13	16.66	2.95	21.09	154.75	58.64	22.11	17.85	12.94	9.61	9.88	32.54	CMS
Max	6.60	195.00	35.00	8.00	58.40	239.20	199.00	43.50	22.60	14.20	10.80	12.60	239.20	CMS
Min	0.00	6.40	3.50	0.83	2.89	44.50	9.50	14.40	14.40	11.00	8.50	7.90	0.00	CMS
Runoff	9.86	161.04	43.17	7.91	56.49	401.12	157.07	57.30	47.81	34.66	23.25	26.46	1026.14	MCM

Momentary Peak 241.60 CMS. at 113.13 m. (MSL.) at 18.00 Hours , on Sep 18 , 2018

Runoff Yield 0.72 Liters/Second/Square KM. Momentary Peak Yield 5.33 Liters/Second/Square KM.

WATER YEAR : 2018

MUN RIVER BASIN

Mun River at Ban Satuk, Buri Ram (M.6A)

Lat 15 - 17 - 53 N Long 103 - 17 - 46 E

Location : on right bank at Satuk.

	Ban Satuk	**Amphoe** Satuk	**Changwat** Buri Ram
Drainge Area	28,458 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+123.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank at the footpath of the bridge.		**Elevation** +133.541 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	1964 to date		
Rating Operation			
Period of Rating	1976 to date		
Rated by Flot	-		
Rated by Current Meter	1976 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Ban Hua Saphan weir situated about 30 Kilometers above gage site and Non Kho weir situated about 10 kilometers downstream from the gage sit. Stage-discharge relation defined by 22 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

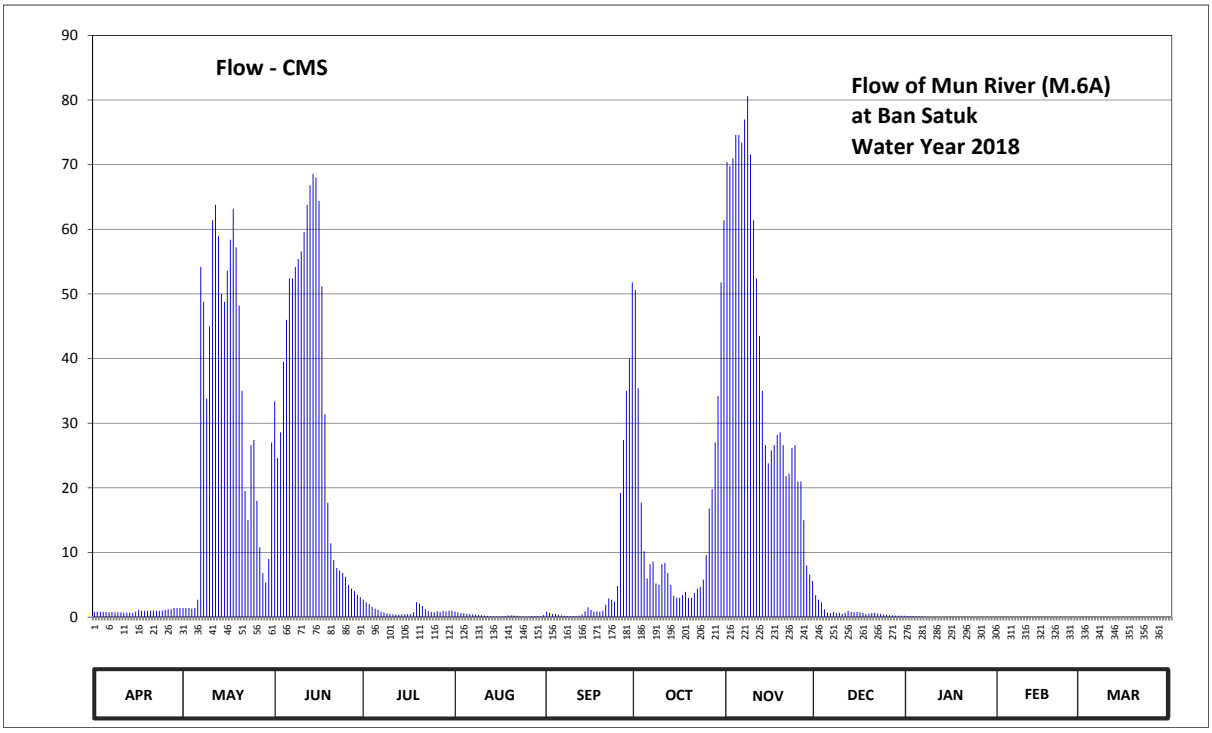
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	123.27	123.34	124.61	123.47	123.27	123.27	124.96	125.29	123.54	123.07	122.94	122.95	
2	123.27	123.34	124.39	123.43	123.25	123.23	124.66	125.28	123.47	123.06	122.94	122.94	
3	123.27	123.34	124.49	123.40	123.23	123.19	124.19	125.30	123.43	123.06	122.95	122.94	
4	123.26	123.33	124.75	123.36	123.22	123.19	123.94	125.36	123.32	123.05	122.95	122.95	
5	123.26	123.34	124.88	123.33	123.20	123.15	123.75	125.36	123.24	123.04	122.95	122.95	
6	123.25	123.47	124.99	123.31	123.19	123.11	123.86	125.34	123.23	123.04	122.95	122.95	
7	123.26	125.02	124.99	123.27	123.18	123.08	123.88	125.40	123.26	123.03	122.94	122.95	
8	123.25	124.93	125.02	123.25	123.17	123.07	123.71	125.46	123.23	123.02	122.94	122.95	
9	123.25	124.62	125.04	123.22	123.14	123.06	123.70	125.31	123.24	123.00	122.94	122.95	
10	123.25	124.86	125.06	123.20	123.12	123.07	123.86	125.14	123.20	123.00	122.94	122.94	
11	123.24	125.14	125.11	123.18	123.10	123.06	123.87	124.99	123.24	123.00	122.93	122.94	
12	123.24	125.18	125.18	123.16	123.08	123.09	123.79	124.83	123.30	123.00	122.94	122.94	
13	123.24	125.10	125.23	123.15	123.06	123.17	123.70	124.65	123.26	123.00	122.95	122.94	
14	123.23	124.95	125.26	123.17	123.05	123.28	123.53	124.44	123.26	123.00	122.96	122.94	
15	123.27	124.93	125.25	123.18	123.04	123.35	123.50	124.37	123.26	123.00	122.97	122.94	
16	123.31	125.01	125.19	123.18	123.04	123.31	123.50	124.42	123.25	123.00	122.97	122.94	
17	123.30	125.09	124.97	123.19	123.04	123.27	123.54	124.44	123.23	123.00	122.97	122.93	
18	123.30	125.17	124.56	123.25	123.07	123.28	123.59	124.48	123.20	123.00	122.97	122.93	
19	123.30	125.07	124.19	123.43	123.11	123.27	123.50	124.49	123.21	123.00	122.97	122.93	
20	123.30	124.92	123.98	123.41	123.11	123.30	123.50	124.44	123.23	123.00	122.96	122.93	
21	123.30	124.65	123.89	123.37	123.10	123.39	123.57	124.32	123.23	122.99	122.96	122.93	
22	123.30	124.25	123.83	123.32	123.08	123.49	123.64	124.33	123.21	122.99	122.96	122.93	
23	123.30	124.10	123.81	123.29	123.05	123.47	123.67	124.43	123.19	122.98	122.96	122.93	
24	123.30	124.44	123.79	123.26	123.04	123.44	123.74	124.44	123.16	122.97	122.96	122.93	
25	123.31	124.46	123.76	123.25	123.03	123.68	123.92	124.30	123.14	122.96	122.95	122.93	
26	123.32	124.20	123.70	123.28	123.04	124.24	124.16	124.30	123.12	122.95	122.95	122.92	
27	123.32	123.96	123.64	123.26	123.07	124.46	124.26	124.10	123.11	122.95	122.95	122.92	
28	123.34	123.79	123.60	123.29	123.06	124.65	124.45	123.85	123.10	122.94	122.95	122.92	
29	123.34	123.72	123.55	123.28	123.06	124.76	124.63	123.78	123.09	122.94		122.92	
30	123.34	123.90	123.51	123.30	123.06	124.98	124.98	123.73	123.09	122.94		122.92	
31		124.45		123.30	123.13		125.14		123.09	122.94		122.92	
Mean	123.28	124.39	124.47	123.28	123.11	123.48	123.96	124.68	123.23	123.00	122.95	122.94	
Max	123.34	125.18	125.26	123.47	123.27	124.98	125.14	125.46	123.54	123.07	122.97	122.95	125.46
Min	123.23	123.33	123.51	123.15	123.03	123.06	123.50	123.73	123.09	122.94	122.93	122.92	122.92

Annual Max Momentary Gage Height 125.49 m. (MSL.) , at 22.00 Hours , on Sep 7 , 2018

Zero Gage at Bottom Elevation 123.00 m. (MSL.) , River Bed 121.11 m. (MSL.)

Left Bank Elevation 131.76 m. (MSL.) ,

Right Bank Elevation 132.11 m. (MSL.) , Drainage Are 28,458 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.85	1.40	33.40	2.70	0.85	0.85	50.60	70.40	3.40	0.18	0.00	0.00		
2	0.85	1.40	24.60	2.30	0.75	0.65	35.40	69.80	2.70	0.15	0.00	0.00		
3	0.85	1.40	28.60	2.00	0.65	0.48	17.70	71.00	2.30	0.15	0.00	0.00		
4	0.80	1.30	39.50	1.60	0.60	0.48	10.20	74.60	1.20	0.13	0.00	0.00		
5	0.80	1.40	46.00	1.30	0.50	0.38	6.00	74.60	0.70	0.10	0.00	0.00		
6	0.75	2.70	52.40	1.10	0.48	0.28	8.20	73.40	0.65	0.10	0.00	0.00		
7	0.80	54.20	52.40	0.85	0.45	0.20	8.60	77.00	0.80	0.08	0.00	0.00		
8	0.75	48.80	54.20	0.75	0.43	0.18	5.20	80.60	0.65	0.05	0.00	0.00		
9	0.75	33.80	55.40	0.60	0.35	0.15	5.00	71.60	0.70	0.00	0.00	0.00		
10	0.75	45.00	56.60	0.50	0.30	0.18	8.20	61.40	0.50	0.00	0.00	0.00		
11	0.70	61.40	59.60	0.45	0.25	0.15	8.40	52.40	0.70	0.00	0.00	0.00		
12	0.70	63.80	63.80	0.40	0.20	0.23	6.80	43.50	1.00	0.00	0.00	0.00		
13	0.70	59.00	66.80	0.38	0.15	0.43	5.00	35.00	0.80	0.00	0.00	0.00		
14	0.65	50.00	68.60	0.43	0.13	0.90	3.30	26.60	0.80	0.00	0.00	0.00		
15	0.85	48.80	68.00	0.45	0.10	1.50	3.00	23.80	0.80	0.00	0.00	0.00		
16	1.10	53.60	64.40	0.45	0.10	1.10	3.00	25.80	0.75	0.00	0.00	0.00		
17	1.00	58.40	51.20	0.48	0.10	0.85	3.40	26.60	0.65	0.00	0.00	0.00		
18	1.00	63.20	31.40	0.75	0.18	0.90	3.90	28.20	0.50	0.00	0.00	0.00		
19	1.00	57.20	17.70	2.30	0.28	0.85	3.00	28.60	0.55	0.00	0.00	0.00		
20	1.00	48.20	11.40	2.10	0.28	1.00	3.00	26.60	0.65	0.00	0.00	0.00		
21	1.00	35.00	8.80	1.70	0.25	1.90	3.70	21.80	0.65	0.00	0.00	0.00		
22	1.00	19.50	7.60	1.20	0.20	2.90	4.40	22.20	0.55	0.00	0.00	0.00		
23	1.00	15.00	7.20	0.95	0.13	2.70	4.70	26.20	0.48	0.00	0.00	0.00		
24	1.00	26.60	6.80	0.80	0.10	2.40	5.80	26.60	0.40	0.00	0.00	0.00		
25	1.10	27.40	6.20	0.75	0.08	4.80	9.60	21.00	0.35	0.00	0.00	0.00		
26	1.20	18.00	5.00	0.90	0.10	19.20	16.80	21.00	0.30	0.00	0.00	0.00		
27	1.20	10.80	4.40	0.80	0.18	27.40	19.80	15.00	0.28	0.00	0.00	0.00		
28	1.40	6.80	4.00	0.95	0.15	35.00	27.00	8.00	0.25	0.00	0.00	0.00		
29	1.40	5.40	3.50	0.90	0.15	40.00	34.20	6.60	0.23	0.00		0.00		
30	1.40	9.00	3.10	1.00	0.15	51.80	51.80	5.60	0.23	0.00		0.00		
31		27.00		1.00	0.33		61.40		0.23	0.00		0.00		
Total	28.35	955.50	1002.60	32.84	8.95	199.84	437.10	1215.50	24.75	0.94	0.00	0.00	3906.37	CMSDAY
Mean	0.94	30.82	33.42	1.06	0.29	6.66	14.10	40.52	0.80	0.03	0.00	0.00	10.70	CMS
Max	1.40	63.80	68.60	2.70	0.85	51.80	61.40	80.60	3.40	0.18	0.00	0.00	80.60	CMS
Min	0.65	1.30	3.10	0.38	0.08	0.15	3.00	5.60	0.23	0.00	0.00	0.00	0.00	CMS
Runoff	2.45	82.56	86.62	2.84	0.77	17.27	37.77	105.02	2.14	0.08	0.00	0.00	337.51	MCM

Momentary Peak 82.40 CMS. at 125.49 m. (MSL.) at 22.00 Hours , on Sep 7 , 2018

Runoff Yield 0.38 Liters/Second/Square KM. Momentary Peak Yield 2.90 Liters/Second/Square KM.

WATER YEAR : 2018

MUN RIVER BASIN

Mun River at Ban Chumchondeengam, Ubon Ratchathani (M.7)

Lat 15 - 13 - 15 N Long 104 - 51 - 41 E

Location : on left bank at Seri Prachathipatai Bridge.

Ban Chumchondeengam **Amphoe** Warin Chamrap **Changwat** Ubon Ratchathani

Drainge Area	107,345 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+105.000 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank at the abutment of 200 years Krung Ratanakosin **Elevation** +121.152 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	1944 to date
Rating Operation	
Period of Rating	1956 - 1958, 1964 - 1981, 1983 to date
Rated by Flot	-
Rated by Current Meter	1956 - 1958, 1964 - 1981, 1983 to date
Stability of Channel Regimes	Stable because of backwater effect.
Overbank Flow Conditions	No overbank flow.
General Description	Records very good. Pak Mun barrage situated about 90 kilometers downstream from the gage site. Stage-discharge relation defined by 91 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

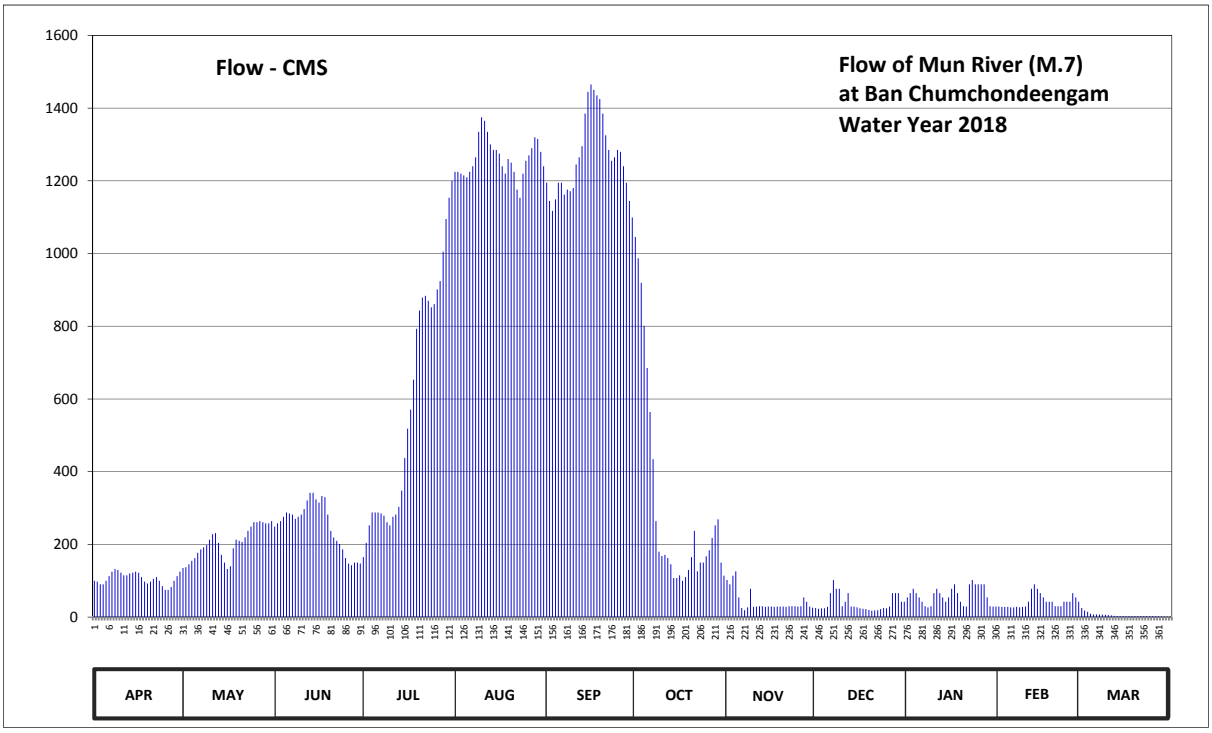
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	106.94	107.08	107.48	107.20	109.98	109.92	109.59	107.56	107.45	107.52	107.49	107.45	
2	106.93	107.09	107.51	107.33	109.98	109.81	109.46	107.55	107.43	107.53	107.48	107.36	
3	106.90	107.12	107.53	107.49	109.97	109.75	109.31	107.57	107.44	107.54	107.48	107.29	
4	106.90	107.16	107.57	107.61	109.96	109.82	109.04	107.58	107.44	107.53	107.48	107.16	
5	106.94	107.19	107.61	107.61	109.95	109.92	108.75	107.52	107.48	107.52	107.47	107.05	
6	106.99	107.24	107.60	107.61	109.98	109.92	108.44	107.45	107.53	107.51	107.47	107.03	
7	107.04	107.27	107.59	107.60	110.01	109.85	108.07	107.38	107.56	107.50	107.48	107.02	
8	107.07	107.29	107.55	107.58	110.06	109.88	107.53	107.47	107.54	107.47	107.47	107.01	
9	107.06	107.31	107.57	107.52	110.20	109.87	107.25	107.54	107.54	107.50	107.48	106.96	
10	107.03	107.36	107.59	107.49	110.28	109.89	107.21	107.48	107.50	107.53	107.49	106.87	
11	107.00	107.41	107.64	107.57	110.26	110.02	107.22	107.49	107.51	107.54	107.51	106.77	
12	107.00	107.42	107.72	107.59	110.20	110.06	107.19	107.50	107.53	107.53	107.54	106.67	
13	107.02	107.33	107.79	107.66	110.13	110.12	107.12	107.50	107.49	107.52	107.55	106.60	
14	107.03	107.22	107.79	107.81	110.10	110.30	106.97	107.48	107.49	107.51	107.54	106.57	
15	107.04	107.14	107.73	108.08	110.10	110.42	106.97	107.49	107.47	107.52	107.53	106.58	
16	107.03	107.07	107.70	108.31	110.08	110.46	107.00	107.49	107.44	107.54	107.52	106.58	
17	106.98	107.10	107.76	108.46	110.01	110.43	106.94	107.48	107.43	107.55	107.51	106.58	
18	106.93	107.28	107.75	108.67	109.97	110.40	106.98	107.49	107.42	107.53	107.51	106.56	
19	106.91	107.36	107.59	109.02	110.05	110.38	107.06	107.49	107.39	107.51	107.51	106.55	
20	106.93	107.35	107.44	109.14	110.03	110.30	107.20	107.49	107.35	107.50	107.50	106.54	
21	106.96	107.34	107.38	109.22	109.98	110.18	107.44	107.48	107.37	107.49	107.50	106.54	
22	106.98	107.38	107.35	109.23	109.88	110.10	107.58	107.50	107.38	107.55	107.50	106.54	
23	106.94	107.44	107.32	109.20	109.83	110.04	107.60	107.50	107.42	107.56	107.51	106.55	
24	106.88	107.48	107.27	109.16	109.97	110.06	107.60	107.50	107.45	107.55	107.51	106.56	
25	106.84	107.52	107.19	109.18	110.04	110.10	107.61	107.49	107.44	107.55	107.51	106.54	
26	106.84	107.52	107.13	109.27	110.07	110.09	107.62	107.50	107.49	107.55	107.53	106.52	
27	106.87	107.53	107.11	109.32	110.11	110.01	107.64	107.52	107.53	107.55	107.52	106.50	
28	106.94	107.52	107.14	109.50	110.17	109.92	107.66	107.51	107.53	107.52	107.51	106.48	
29	106.99	107.51	107.14	109.70	110.16	109.81	107.67	107.49	107.53	107.50		106.45	
30	107.04	107.51	107.13	109.83	110.09	109.71	107.60	107.46	107.51	107.49		106.44	
31		107.53		109.93	110.01		107.57		107.51	107.49		106.42	
Mean	106.96	107.32	107.49	108.42	110.05	110.05	107.71	107.50	107.47	107.52	107.50	106.73	
Max	107.07	107.53	107.79	109.93	110.28	110.46	109.59	107.58	107.56	107.56	107.55	107.45	110.46
Min	106.84	107.07	107.11	107.20	109.83	109.71	106.94	107.38	107.35	107.47	107.47	106.42	106.42

Annual Max Momentary Gage Height 110.46 m. (MSL.) , at 05.00 Hours , on Sep 16 , 2018

Zero Gage at Bottom Elevation 105.00 m. (MSL.) , River Bed 100.57 m. (MSL.)

Left Bank Elevation 120.53 m. (MSL.) ,

Right Bank Elevation 117.48 m. (MSL.) , Drainage Are 107,345 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	100.00	135.00	249.00	165.00	1225.00	1195.00	1045.50	102.00	25.00	54.00	29.00	25.00		
2	97.50	137.50	258.00	204.00	1225.00	1144.50	987.00	90.00	23.00	66.00	28.00	18.00		
3	90.00	145.00	264.00	252.00	1220.00	1117.50	919.50	114.00	24.00	78.00	28.00	14.50		
4	90.00	155.00	276.00	288.00	1215.00	1149.00	801.00	126.00	24.00	66.00	28.00	9.20		
5	100.00	162.50	288.00	288.00	1210.00	1195.00	685.00	54.00	28.00	54.00	27.00	7.50		
6	112.50	177.00	285.00	288.00	1225.00	1195.00	564.00	25.00	66.00	42.00	27.00	7.30		
7	125.00	186.00	282.00	285.00	1240.00	1162.50	434.50	19.00	102.00	30.00	28.00	7.20		
8	132.50	192.00	270.00	279.00	1265.00	1176.00	264.00	27.00	78.00	27.00	27.00	7.10		
9	130.00	198.00	276.00	261.00	1335.00	1171.50	180.00	78.00	78.00	30.00	28.00	6.60		
10	122.50	213.00	282.00	252.00	1375.00	1180.50	168.00	28.00	30.00	66.00	29.00	5.70		
11	115.00	228.00	297.00	276.00	1365.00	1245.00	171.00	29.00	42.00	78.00	42.00	4.70		
12	115.00	231.00	321.00	282.00	1335.00	1265.00	162.50	30.00	66.00	66.00	78.00	3.70		
13	120.00	204.00	342.00	303.00	1300.00	1295.00	145.00	30.00	29.00	54.00	90.00	3.00		
14	122.50	171.00	342.00	348.00	1285.00	1385.00	107.50	28.00	29.00	42.00	78.00	2.70		
15	125.00	150.00	324.00	438.00	1285.00	1445.00	107.50	29.00	27.00	54.00	66.00	2.80		
16	122.50	132.50	315.00	518.50	1275.00	1465.00	115.00	29.00	24.00	78.00	54.00	2.80		
17	110.00	140.00	333.00	571.00	1240.00	1450.00	100.00	28.00	23.00	90.00	42.00	2.80		
18	97.50	189.00	330.00	653.00	1220.00	1435.00	110.00	29.00	22.00	66.00	42.00	2.60		
19	92.50	213.00	282.00	793.00	1260.00	1425.00	130.00	29.00	19.50	42.00	42.00	2.50		
20	97.50	210.00	237.00	843.00	1250.00	1385.00	165.00	29.00	17.50	30.00	30.00	2.40		
21	105.00	207.00	219.00	879.00	1225.00	1325.00	237.00	28.00	18.50	29.00	30.00	2.40		
22	110.00	219.00	210.00	883.50	1176.00	1285.00	126.00	30.00	19.00	90.00	30.00	2.40		
23	100.00	237.00	201.00	870.00	1153.50	1255.00	150.00	30.00	22.00	102.00	42.00	2.50		
24	85.00	249.00	186.00	852.00	1220.00	1265.00	150.00	30.00	25.00	90.00	42.00	2.60		
25	75.00	261.00	162.50	861.00	1255.00	1285.00	167.00	29.00	24.00	90.00	42.00	2.40		
26	75.00	261.00	147.50	901.50	1270.00	1280.00	184.00	30.00	29.00	90.00	66.00	2.20		
27	82.50	264.00	142.50	924.00	1290.00	1240.00	218.00	54.00	66.00	90.00	54.00	2.00		
28	100.00	261.00	150.00	1005.00	1320.00	1195.00	252.00	42.00	66.00	54.00	42.00	1.80		
29	112.50	258.00	150.00	1095.00	1315.00	1144.50	269.00	29.00	66.00	30.00		1.50		
30	125.00	258.00	147.50	1153.50	1280.00	1099.50	150.00	26.00	42.00	29.00		1.40		
31		264.00		1200.00	1240.00		114.00		42.00	29.00		1.20		
Total	3187.50	6308.50	7569.00	18212.00	39094.50	37855.50	9379.00	1281.00	1196.50	1836.00	1191.00	160.50	127271.00	CMSDAY
Mean	106.25	203.50	252.30	587.48	1261.11	1261.85	302.55	42.70	38.60	59.23	42.54	5.18	348.69	CMS
Max	132.50	264.00	342.00	1200.00	1375.00	1465.00	1045.50	126.00	102.00	102.00	90.00	25.00	1465.00	CMS
Min	75.00	132.50	142.50	165.00	1153.50	1099.50	100.00	19.00	17.50	27.00	27.00	1.20	1.20	CMS
Runoff	275.40	545.05	653.96	1573.52	3377.76	3270.72	810.35	110.68	103.38	158.63	102.90	13.87	10996.21	MCM

Momentary Peak 1465.00 CMS. at 110.46 m. (MSL.) at 05.00 Hours , on Sep 16 , 2018

Runoff Yield 3.25 Liters/Second/Square KM. Momentary Peak Yield 13.65 Liters/Second/Square KM.

WATER YEAR : 2018

MUN RIVER BASIN

Mun River at Ban Pho Tak, Ubon Ratchathani (M.11B)

Lat 15 - 15 - 11 N Long 105 - 13 - 53 E

Location : on right bank at the bridge on road.

Ban Pho Tak **Amphoe** Phibul Mangsahan **Changwat** Ubon Ratchathani

Drainge Area	115,687 sq.km.
Type of Gage	Water - stage recorder.
Zero Gage at Bottom	+104.00 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On right bank at the footpath of the bridge. **Elevation** +113.192 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	2009 to date
Rating Operation	
Period of Rating	2009 to date
Rated by Flot	-
Rated by Current Meter	2009 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records very good. Stage-discharge relation defined by 36 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

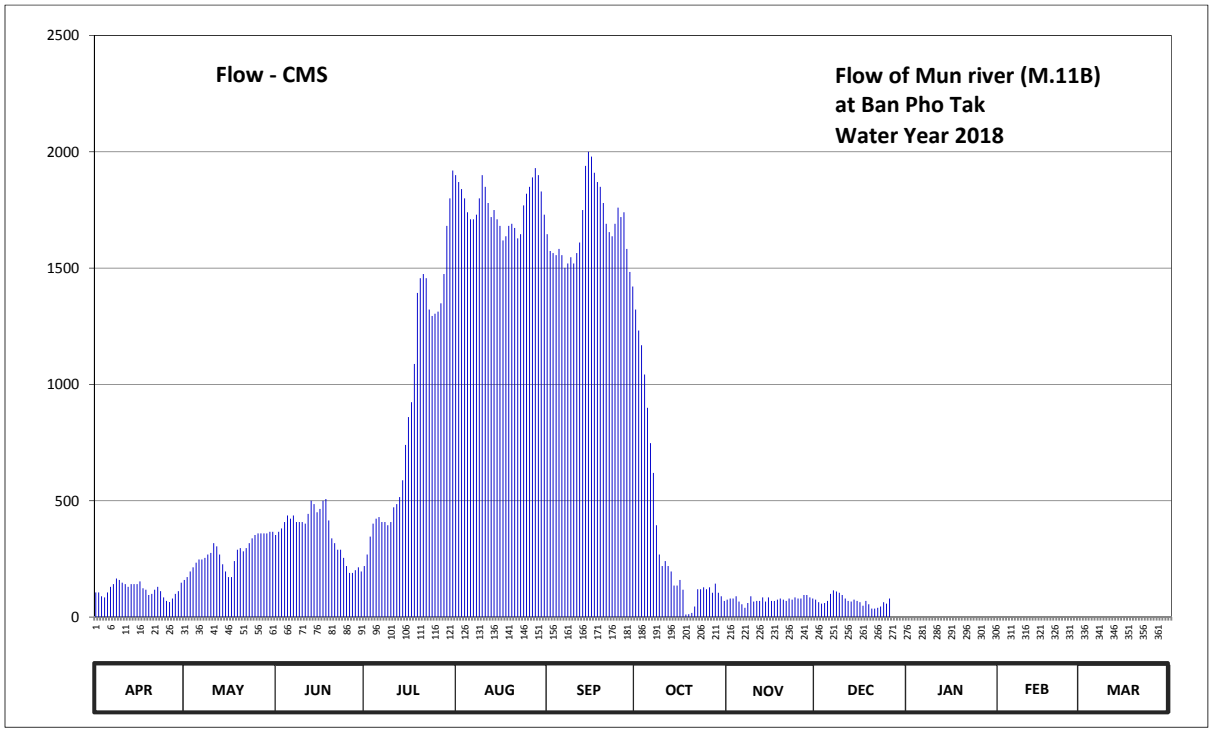
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	106.71	106.80	107.09	106.90	108.90	108.64	108.28	107.31	107.31	107.36	107.33	107.29	
2	106.71	106.82	107.11	106.97	108.87	108.56	108.18	107.32	107.28	107.35	107.30	107.18	
3	106.68	106.86	107.13	107.08	108.84	108.55	108.11	107.32	107.26	107.35	107.30	107.10	
4	106.67	106.89	107.17	107.16	108.80	108.54	107.97	107.34	107.27	107.37	107.31	106.98	
5	106.71	106.92	107.21	107.19	108.74	108.57	107.80	107.29	107.30	107.36	107.31	106.90	
6	106.75	106.94	107.19	107.20	108.71	108.54	107.61	107.25	107.36	107.33	107.30	106.87	
7	106.77	106.94	107.21	107.17	108.71	108.48	107.45	107.20	107.39	107.33	107.31	106.85	
8	106.81	106.95	107.17	107.17	108.73	108.50	107.15	107.27	107.38	107.30	107.31	106.84	
9	106.80	106.97	107.17	107.15	108.80	108.53	106.97	107.34	107.37	107.31	107.31	106.78	
10	106.78	106.98	107.17	107.17	108.90	108.50	106.90	107.29	107.35	107.36	107.32	106.69	
11	106.77	107.04	107.16	107.26	108.85	108.55	106.93	107.30	107.32	107.36	107.33	106.58	
12	106.75	107.02	107.22	107.28	108.78	108.60	106.90	107.30	107.30	107.37	107.35	106.51	
13	106.77	106.97	107.30	107.32	108.72	108.75	106.86	107.33	107.29	107.35	107.37	106.46	
14	106.77	106.91	107.28	107.41	108.75	108.94	106.76	107.29	107.31	107.35	107.37	106.42	
15	106.77	106.86	107.23	107.60	108.71	109.00	106.76	107.33	107.30	107.35	107.35	106.41	
16	106.79	106.82	107.25	107.75	108.68	108.98	106.80	107.30	107.28	107.37	107.35	106.41	
17	106.74	106.82	107.30	107.83	108.61	108.91	106.73	107.30	107.23	107.37	107.35	106.40	
18	106.73	106.93	107.31	108.02	108.63	108.87	106.75	107.31	107.30	107.36	107.35	106.40	
19	106.69	107.00	107.18	108.36	108.68	108.85	106.82	107.32	107.25	107.35	107.33	106.39	
20	106.70	107.01	107.07	108.43	108.69	108.78	106.95	107.31	107.17	107.35	107.33	106.39	
21	106.73	106.99	107.04	108.45	108.67	108.69	107.22	107.30	107.17	107.31	107.33	106.38	
22	106.75	107.01	107.00	108.43	108.62	108.65	107.40	107.32	107.20	107.31	107.33	106.38	
23	106.72	107.04	107.00	108.28	108.64	108.63	107.40	107.31	107.22	107.39	107.33	106.39	
24	106.67	107.07	106.95	108.25	108.77	108.69	107.41	107.33	107.28	107.39	107.33	106.40	
25	106.64	107.09	106.90	108.26	108.82	108.76	107.40	107.32	107.26	107.39	107.34	106.39	
26	106.63	107.10	106.85	108.27	108.85	108.72	107.41	107.32	107.32	107.37	107.35	106.37	
27	106.66	107.10	106.85	108.31	108.89	108.74	107.37	107.35	107.36	107.37	107.36	106.35	
28	106.70	107.10	106.87	108.45	108.93	108.57	107.43	107.35	107.35	107.35	107.36	106.34	
29	106.72	107.10	106.89	108.68	108.90	108.46	107.37	107.33	107.36	107.35		106.30	
30	106.78	107.11	106.86	108.80	108.83	108.39	107.34	107.32	107.35	107.32		106.29	
31		107.11		108.92	108.73		107.30		107.35	107.32		106.25	
Mean	106.73	106.98	107.10	107.79	108.77	108.66	107.28	107.31	107.30	107.35	107.33	106.57	
Max	106.81	107.11	107.31	108.92	108.93	109.00	108.28	107.35	107.39	107.39	107.37	107.29	109.00
Min	106.63	106.80	106.85	106.90	108.61	108.39	106.73	107.20	107.17	107.30	107.30	106.25	106.25

Annual Max Momentary Gage Height 109.01 m. (MSL.) , at 06.00 Hours , on Sep 15, 2018

Zero Gage at Bottom Elevation 104.00 m. (MSL.) , River Bed 103.10 m. (MSL.)

Left Bank Elevation 112.95 m. (MSL.) ,

Right Bank Elevation 112.62 m. (MSL.) , Drainage Are 115,687 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	106.00	160.00	353.00	220.00	1900.00	1646.00	1322.00	75.00	75.00	0.00	0.00	0.00		
2	106.00	172.00	367.00	269.00	1870.00	1574.00	1232.00	80.00	64.00	0.00	0.00	0.00		
3	90.00	196.00	381.00	346.00	1840.00	1565.00	1169.00	80.00	58.00	0.00	0.00	0.00		
4	85.00	214.00	409.00	402.00	1800.00	1556.00	1043.00	90.00	61.00	0.00	0.00	0.00		
5	106.00	234.00	437.00	423.00	1740.00	1583.00	900.00	67.00	70.00	0.00	0.00	0.00		
6	130.00	248.00	423.00	430.00	1710.00	1556.00	748.00	55.00	100.00	0.00	0.00	0.00		
7	142.00	248.00	437.00	409.00	1710.00	1502.00	620.00	40.00	115.00	0.00	0.00	0.00		
8	166.00	255.00	409.00	409.00	1730.00	1520.00	395.00	61.00	110.00	0.00	0.00	0.00		
9	160.00	269.00	409.00	395.00	1800.00	1547.00	269.00	90.00	105.00	0.00	0.00	0.00		
10	148.00	276.00	409.00	409.00	1900.00	1520.00	220.00	67.00	95.00	0.00	0.00	0.00		
11	142.00	318.00	402.00	472.00	1850.00	1565.00	241.00	70.00	80.00	0.00	0.00	0.00		
12	130.00	304.00	444.00	486.00	1780.00	1610.00	220.00	70.00	70.00	0.00	0.00	0.00		
13	142.00	269.00	500.00	516.00	1720.00	1750.00	196.00	85.00	67.00	0.00	0.00	0.00		
14	142.00	227.00	486.00	588.00	1750.00	1940.00	136.00	67.00	75.00	0.00	0.00	0.00		
15	142.00	196.00	451.00	740.00	1710.00	2000.00	136.00	85.00	70.00	0.00	0.00	0.00		
16	154.00	172.00	465.00	860.00	1682.00	1980.00	160.00	70.00	64.00	0.00	0.00	0.00		
17	124.00	172.00	500.00	924.00	1619.00	1910.00	118.00	70.00	49.00	0.00	0.00	0.00		
18	118.00	241.00	508.00	1088.00	1637.00	1870.00	11.00	75.00	70.00	0.00	0.00	0.00		
19	95.00	290.00	416.00	1394.00	1682.00	1850.00	12.80	80.00	55.00	0.00	0.00	0.00		
20	100.00	297.00	339.00	1457.00	1691.00	1780.00	18.00	75.00	37.00	0.00	0.00	0.00		
21	118.00	283.00	318.00	1475.00	1673.00	1691.00	46.00	70.00	37.00	0.00	0.00	0.00		
22	130.00	297.00	290.00	1457.00	1628.00	1655.00	120.00	80.00	40.00	0.00	0.00	0.00		
23	112.00	318.00	290.00	1322.00	1646.00	1637.00	120.00	75.00	46.00	0.00	0.00	0.00		
24	85.00	339.00	255.00	1295.00	1770.00	1691.00	128.00	85.00	64.00	0.00	0.00	0.00		
25	70.00	353.00	220.00	1304.00	1820.00	1760.00	120.00	80.00	58.00	0.00	0.00	0.00		
26	65.00	360.00	190.00	1313.00	1850.00	1720.00	128.00	80.00	80.00	0.00	0.00	0.00		
27	80.00	360.00	190.00	1349.00	1890.00	1740.00	105.00	95.00	0.00	0.00	0.00	0.00		
28	100.00	360.00	202.00	1475.00	1930.00	1583.00	144.00	95.00	0.00	0.00	0.00	0.00		
29	112.00	360.00	214.00	1682.00	1900.00	1484.00	105.00	85.00	0.00	0.00		0.00		
30	148.00	367.00	196.00	1800.00	1830.00	1421.00	90.00	80.00	0.00	0.00		0.00		
31		367.00		1920.00	1730.00		70.00		0.00	0.00		0.00		
Total	3548.00	8522.00	10910.00	28629.00	54788.00	50206.00	10342.80	2277.00	1815.00	0.00	0.00	0.00	171037.80	CMSDAY
Mean	118.27	274.90	363.67	923.52	1767.35	1673.53	333.64	75.90	58.55	0.00	0.00	0.00	468.60	CMS
Max	166.00	367.00	508.00	1920.00	1930.00	2000.00	1322.00	95.00	115.00	0.00	0.00	0.00	2000.00	CMS
Min	65.00	160.00	190.00	220.00	1619.00	1421.00	11.00	40.00	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	306.55	736.30	942.62	2473.55	4733.68	4337.80	893.62	196.73	156.82	0.00	0.00	0.00	14777.67	MCM

Momentary Peak 2010.00 CMS. at 109.01 m. (MSL.) at 06.00 Hours , on Sep 15, 2018

Runoff Yield 4.05 Liters/Second/Square KM. Momentary Peak Yield 17.37 Liters/Second/Square KM.

WATER YEAR : 2018

MUN RIVER BASIN

Lam Se Bai at Ban Chiang Pheng, Yasothon (M.32)

Lat 15 - 50 - 18 N Long 104 - 27 - 35 E

Location : on right bank at Phawaphutanon bridge.

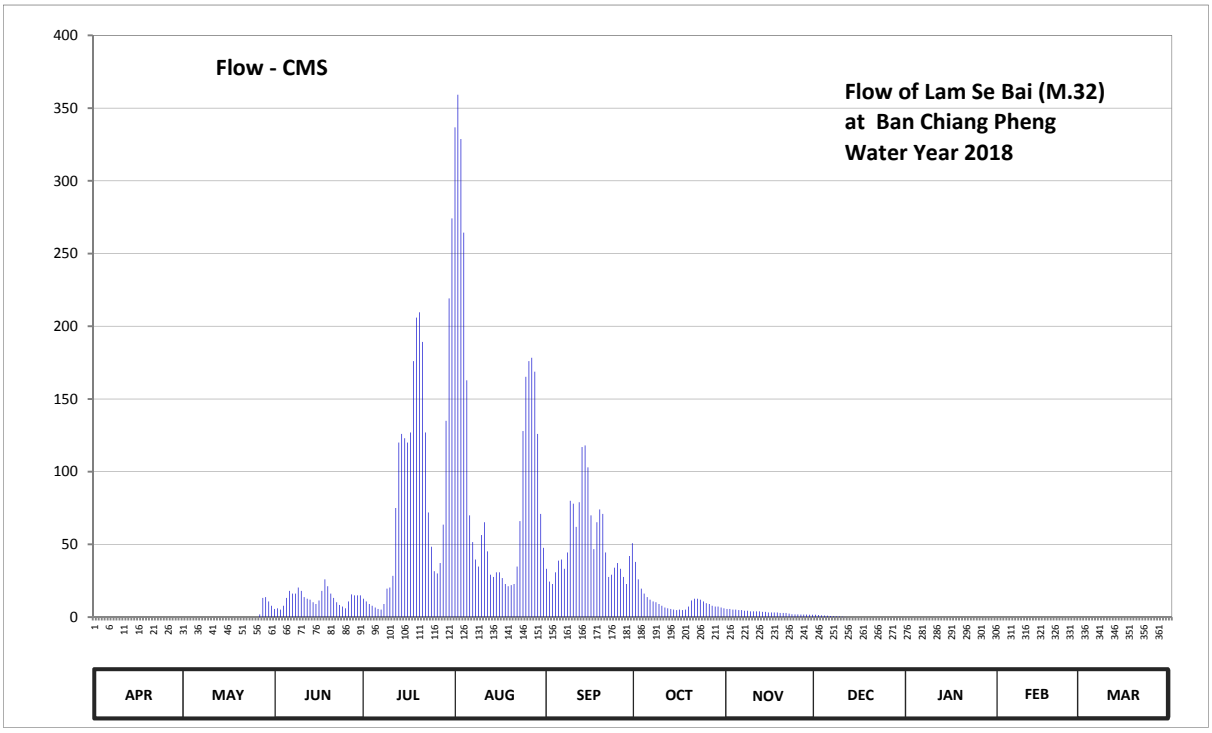
Ban Chiang Pheng **Amphoe** Pa Tiu **Changwat** Yasothon

Drainge Area	1,654 sq.km.
Type of Gage	Water - stage recorder.
Zero Gage at Bottom	+120.300 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On right bank at the automatic gage building. **Elevation** +130.837 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings
Period of Available Gage Records	1968 - 1974, 1997 to date
Rating Operation	
Period of Rating	1968 - 1974, 1997 to date
Rated by Flot	-
Rated by Current Meter	1968 - 1974, 1997 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. The concrete weir situated about 3 kilometers downstream from the gage site. Stage-discharge relation defined by 32 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	120.78	121.47	124.29	124.41	127.33	124.69	124.75	124.29	124.16	123.50	122.00	121.34	
2	120.78	121.81	124.30	124.38	127.47	124.58	124.60	124.29	124.14	123.49	121.95	121.27	
3	120.77	122.00	124.28	124.35	127.28	124.56	124.52	124.28	124.12	123.46	121.91	121.19	
4	120.77	122.09	124.33	124.33	126.86	124.66	124.47	124.28	124.11	123.43	121.88	121.12	
5	120.76	122.20	124.42	124.31	126.04	124.76	124.43	124.27	124.10	123.37	121.84	121.05	
6	120.76	122.29	124.50	124.29	125.14	124.77	124.40	124.27	124.08	123.31	121.80	120.98	
7	120.76	122.40	124.47	124.28	124.92	124.69	124.38	124.26	124.07	123.28	121.76	120.89	
8	120.76	122.51	124.47	124.35	124.77	124.83	124.37	124.26	124.05	123.26	121.71	120.80	
9	120.75	122.60	124.53	124.52	124.71	125.24	124.35	124.25	124.04	123.20	121.62	120.71	
10	120.75	122.68	124.50	124.53	124.98	125.22	124.33	124.25	124.03	123.14	121.52	120.62	
11	120.76	122.72	124.43	124.63	125.09	125.05	124.31	124.25	124.01	123.09	121.41	120.53	
12	120.80	122.74	124.41	125.19	124.84	125.23	124.30	124.25	123.98	123.04	121.35	120.44	
13	120.85	122.76	124.40	125.64	124.64	125.61	124.29	124.24	123.96	123.01	121.29	120.36	
14	120.90	122.76	124.37	125.70	124.62	125.62	124.28	124.24	123.93	122.97	121.25	120.26	
15	120.93	122.74	124.35	125.67	124.66	125.47	124.27	124.23	123.90	122.88	121.24	120.17	
16	120.94	122.68	124.39	125.64	124.66	125.14	124.28	124.23	123.87	122.82	121.24	120.07	
17	120.93	122.62	124.50	125.71	124.61	124.86	124.27	124.23	123.84	122.78	121.23	119.97	
18	120.93	122.57	124.60	126.15	124.56	125.09	124.28	124.23	123.81	122.74	121.22	119.88	
19	120.92	122.52	124.54	126.40	124.54	125.18	124.32	124.22	123.78	122.72	121.18	119.82	
20	120.91	122.46	124.47	126.43	124.55	125.15	124.39	124.22	123.76	122.68	121.40	120.00	
21	120.91	122.43	124.42	126.26	124.56	124.83	124.41	124.22	123.74	122.63	121.75	120.36	
22	120.93	122.38	124.37	125.71	124.71	124.62	124.41	124.21	123.72	122.56	121.72	120.91	
23	120.97	122.35	124.34	125.16	125.10	124.64	124.40	124.20	123.69	122.50	121.66	121.09	
24	121.02	122.59	124.32	124.88	125.72	124.70	124.38	124.19	123.68	122.44	121.62	120.99	
25	121.07	123.44	124.30	124.67	126.06	124.74	124.36	124.19	123.65	122.38	121.57	120.86	
26	121.12	123.87	124.38	124.65	126.15	124.69	124.35	124.18	123.63	122.29	121.50	120.72	
27	121.16	124.19	124.46	124.74	126.17	124.62	124.33	124.17	123.61	122.22	121.45	120.54	
28	121.21	124.42	124.45	125.07	126.09	124.56	124.32	124.17	123.59	122.17	121.40	120.46	
29	121.25	124.43	124.45	125.79	125.70	124.80	124.32	124.16	123.57	122.12		120.40	
30	121.32	124.38	124.45	126.51	125.15	124.91	124.31	124.16	123.55	122.07		120.32	
31		124.33		126.93	124.87		124.30		123.52	122.04		120.25	
Mean	120.92	122.82	124.42	125.20	125.37	124.92	124.37	124.23	123.86	122.83	121.55	120.59	
Max	121.32	124.43	124.60	126.93	127.47	125.62	124.75	124.29	124.16	123.50	122.00	121.34	127.47
Min	120.75	121.47	124.28	124.28	124.54	124.56	124.27	124.16	123.52	122.04	121.18	119.82	119.82

Annual Max Momentary Gage Height	127.50	m. (MSL.) ,	at 03.00 Hours , on Aug 2 , 2018		
Zero Gage at Bottom Elevation	120.30	m. (MSL.) ,	River Bed	118.77	m. (MSL)
Left Bank Elevation	130.60	m. (MSL.) ,			
Right Bank Elevation	130.56	m. (MSL.) ,	Drainage Are	1,654	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	5.60	12.60	336.80	33.20	38.00	5.60	1.60	0.00	0.00	0.00		
2	0.00	0.00	6.00	10.80	359.20	24.40	26.00	5.60	1.40	0.00	0.00	0.00		
3	0.00	0.00	5.20	9.00	328.80	22.80	19.60	5.20	1.20	0.00	0.00	0.00		
4	0.00	0.00	7.80	7.80	264.40	30.80	16.20	5.20	1.10	0.00	0.00	0.00		
5	0.00	0.00	13.20	6.60	162.80	38.80	13.80	4.80	1.00	0.00	0.00	0.00		
6	0.00	0.00	18.00	5.60	70.00	39.60	12.00	4.80	0.80	0.00	0.00	0.00		
7	0.00	0.00	16.20	5.20	51.60	33.20	10.80	4.40	0.70	0.00	0.00	0.00		
8	0.00	0.00	16.20	9.00	39.60	44.40	10.20	4.40	0.50	0.00	0.00	0.00		
9	0.00	0.00	20.40	19.60	34.80	80.00	9.00	4.00	0.40	0.00	0.00	0.00		
10	0.00	0.00	18.00	20.40	56.40	78.00	7.80	4.00	0.30	0.00	0.00	0.00		
11	0.00	0.00	13.80	28.40	65.20	62.00	6.60	4.00	0.10	0.00	0.00	0.00		
12	0.00	0.00	12.60	75.00	45.20	79.00	6.00	4.00	0.00	0.00	0.00	0.00		
13	0.00	0.00	12.00	120.00	29.20	117.00	5.60	3.60	0.00	0.00	0.00	0.00		
14	0.00	0.00	10.20	126.00	27.60	118.00	5.20	3.60	0.00	0.00	0.00	0.00		
15	0.00	0.00	9.00	123.00	30.80	103.00	4.80	3.20	0.00	0.00	0.00	0.00		
16	0.00	0.00	11.40	120.00	30.80	70.00	5.20	3.20	0.00	0.00	0.00	0.00		
17	0.00	0.00	18.00	127.00	26.80	46.80	4.80	3.20	0.00	0.00	0.00	0.00		
18	0.00	0.00	26.00	176.00	22.80	65.20	5.20	3.20	0.00	0.00	0.00	0.00		
19	0.00	0.00	21.20	206.00	21.20	74.00	7.20	2.80	0.00	0.00	0.00	0.00		
20	0.00	0.00	16.20	209.60	22.00	71.00	11.40	2.80	0.00	0.00	0.00	0.00		
21	0.00	0.00	13.20	189.20	22.80	44.40	12.60	2.80	0.00	0.00	0.00	0.00		
22	0.00	0.00	10.20	127.00	34.80	27.60	12.60	2.40	0.00	0.00	0.00	0.00		
23	0.00	0.00	8.40	72.00	66.00	29.20	12.00	2.00	0.00	0.00	0.00	0.00		
24	0.00	0.00	7.20	48.40	128.00	34.00	10.80	1.90	0.00	0.00	0.00	0.00		
25	0.00	0.00	6.00	31.60	165.20	37.20	9.60	1.90	0.00	0.00	0.00	0.00		
26	0.00	0.00	10.80	30.00	176.00	33.20	9.00	1.80	0.00	0.00	0.00	0.00		
27	0.00	1.90	15.60	37.20	178.40	27.60	7.80	1.70	0.00	0.00	0.00	0.00		
28	0.00	13.20	15.00	63.60	168.80	22.80	7.20	1.70	0.00	0.00	0.00	0.00		
29	0.00	13.80	15.00	135.00	126.00	42.00	7.20	1.60	0.00	0.00		0.00		
30	0.00	10.80	15.00	219.20	71.00	50.80	6.60	1.60	0.00	0.00		0.00		
31		7.80		274.20	47.60		6.00		0.00	0.00		0.00		
Total	0.00	47.50	393.40	2645.00	3210.60	1580.00	326.80	101.00	9.10	0.00	0.00	0.00	8313.40	CMSDAY
Mean	0.00	1.53	13.11	85.32	103.57	52.67	10.54	3.37	0.29	0.00	0.00	0.00	22.78	CMS
Max	0.00	13.80	26.00	274.20	359.20	118.00	38.00	5.60	1.60	0.00	0.00	0.00	359.20	CMS
Min	0.00	0.00	5.20	5.20	21.20	22.80	4.80	1.60	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	0.00	4.10	33.99	228.53	277.40	136.51	28.24	8.73	0.79	0.00	0.00	0.00	718.28	MCM

Momentary Peak 364.00 CMS. at 127.50 m. (MSL.) at 03.00 Hours , on Aug 2 , 2018

Runoff Yield 13.77 Liters/Second/Square KM. Momentary Peak Yield 220.07 Liters/Second/Square KM.

WATER YEAR : 2018

MUN RIVER BASIN

Huai Thap Than at Ban Huai Thap Than, Si Sa Ket (M.42)

Lat 15 - 02 - 48 N Long 104 - 01 - 31 E

Location : on right bank at the bridge on highway.

Ban Huai Thap Than **Amphoe** Huai Thap Thun **Changwat** Si Sa Ket

Drainge Area	2,832 sq.km.
Type of Gage	Water - stage recorder.
Zero Gage at Bottom	118.900 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On right bank at the footpath of the bridge. **Elevation** +130.445 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	1972 to date
Rating Operation	
Period of Rating	1972 - 1981, 1987 to date
Rated by Flot	-
Rated by Current Meter	1972 - 1981, 1987 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Flow effected by the local weir about 800 meters downstream from the gage site. Stage-discharge relation defined by 27 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

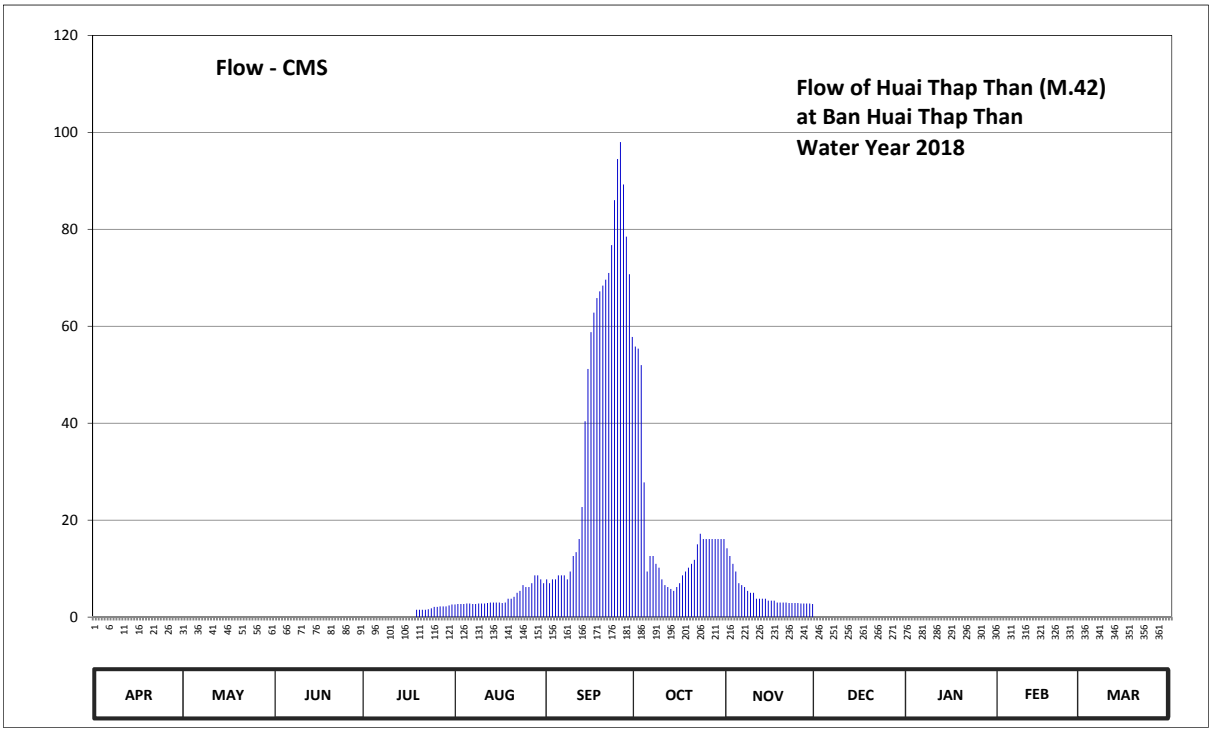
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	122.99	122.93	122.91	122.99	123.16	123.31	124.19	123.39	123.17	123.04	122.88	122.70	
2	122.99	122.94	122.91	122.99	123.17	123.30	124.17	123.37	123.18	123.03	122.87	122.70	
3	122.98	122.94	122.94	122.99	123.17	123.31	124.00	123.35	123.18	123.02	122.87	122.69	
4	122.98	122.94	123.00	123.00	123.17	123.31	123.51	123.33	123.18	123.02	122.86	122.68	
5	122.99	122.94	123.02	123.00	123.18	123.32	123.33	123.30	123.18	123.01	122.86	122.68	
6	123.00	122.95	123.02	123.00	123.18	123.32	123.37	123.29	123.18	123.01	122.85	122.67	
7	122.99	122.95	123.02	123.00	123.17	123.32	123.37	123.28	123.18	123.00	122.85	122.66	
8	122.99	122.95	123.01	122.99	123.17	123.31	123.35	123.26	123.17	123.00	122.84	122.65	
9	122.98	122.94	123.01	122.98	123.18	123.33	123.34	123.25	123.17	122.99	122.84	122.64	
10	122.98	122.91	123.00	122.99	123.18	123.37	123.31	123.25	123.16	122.99	122.83	122.63	
11	122.98	122.92	122.99	122.99	123.18	123.38	123.29	123.22	123.16	122.98	122.82	122.62	
12	122.98	122.92	122.99	123.00	123.19	123.41	123.28	123.22	123.15	122.98	122.82	122.61	
13	122.98	122.92	123.00	123.01	123.20	123.47	123.27	123.22	123.14	122.97	122.81	122.60	
14	122.98	122.92	123.01	123.02	123.20	123.58	123.26	123.22	123.14	122.97	122.80	122.59	
15	122.98	122.92	123.02	123.02	123.20	123.96	123.28	123.21	123.13	122.96	122.80	122.58	
16	122.97	122.91	123.01	123.03	123.20	124.34	123.30	123.21	123.12	122.96	122.79	122.58	
17	122.97	122.90	123.01	123.04	123.19	124.54	123.32	123.21	123.11	122.95	122.78	122.57	
18	122.98	122.91	123.01	123.04	123.20	124.69	123.33	123.20	123.10	122.94	122.78	122.56	
19	122.98	122.90	123.01	123.05	123.22	124.76	123.34	123.20	123.10	122.94	122.77	122.56	
20	122.98	122.90	123.00	123.05	123.22	124.82	123.35	123.20	123.10	122.93	122.77	122.55	
21	122.98	122.91	123.00	123.05	123.23	124.88	123.36	123.20	123.09	122.93	122.76	122.54	
22	122.98	122.91	122.99	123.05	123.25	124.94	123.40	123.19	123.09	122.92	122.75	122.53	
23	122.97	122.91	122.99	123.06	123.26	125.17	123.42	123.19	123.09	122.92	122.74	122.52	
24	122.97	122.92	122.99	123.08	123.29	125.54	123.41	123.19	123.08	122.91	122.74	122.51	
25	122.95	122.92	122.98	123.11	123.28	125.79	123.41	123.19	123.08	122.91	122.73	122.51	
26	122.90	122.92	122.98	123.11	123.28	125.86	123.41	123.18	123.07	122.90	122.72	122.50	
27	122.94	122.92	122.98	123.12	123.30	125.67	123.41	123.18	123.07	122.90	122.72	122.49	
28	122.94	122.91	122.98	123.12	123.32	125.24	123.41	123.18	123.06	122.90	122.71	122.49	
29	122.94	122.91	122.99	123.12	123.32	124.93	123.41	123.18	123.06	122.90		122.48	
30	122.93	122.91	122.99	123.14	123.31	124.29	123.41	123.17	123.05	122.89		122.48	
31		122.91		123.16	123.30		123.41		123.04	122.89		122.47	
Mean	122.97	122.92	122.99	123.04	123.22	124.22	123.43	123.23	123.12	122.96	122.80	122.58	
Max	123.00	122.95	123.02	123.16	123.32	125.86	124.19	123.39	123.18	123.04	122.88	122.70	125.86
Min	122.90	122.90	122.91	122.98	123.16	123.30	123.26	123.17	123.04	122.89	122.71	122.47	122.47

Annual Max Momentary Gage Height 125.87 m. (MSL.) , at 05.00 Hours , on Sep 26 , 2018

Zero Gage at Bottom Elevation 118.90 m. (MSL.) , River Bed 117.94 m. (MSL.)

Left Bank Elevation 130.27 m. (MSL.) ,

Right Bank Elevation 130.27 m. (MSL.) , Drainage Are 2,832 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	0.00	0.00	2.60	7.80	55.80	14.20	0.00	0.00	0.00	0.00		
2	0.00	0.00	0.00	0.00	2.70	7.00	55.40	12.60	0.00	0.00	0.00	0.00		
3	0.00	0.00	0.00	0.00	2.70	7.80	52.00	11.00	0.00	0.00	0.00	0.00		
4	0.00	0.00	0.00	0.00	2.70	7.80	27.80	9.40	0.00	0.00	0.00	0.00		
5	0.00	0.00	0.00	0.00	2.80	8.60	9.40	7.00	0.00	0.00	0.00	0.00		
6	0.00	0.00	0.00	0.00	2.80	8.60	12.60	6.60	0.00	0.00	0.00	0.00		
7	0.00	0.00	0.00	0.00	2.70	8.60	12.60	6.20	0.00	0.00	0.00	0.00		
8	0.00	0.00	0.00	0.00	2.70	7.80	11.00	5.40	0.00	0.00	0.00	0.00		
9	0.00	0.00	0.00	0.00	2.80	9.40	10.20	5.00	0.00	0.00	0.00	0.00		
10	0.00	0.00	0.00	0.00	2.80	12.60	7.80	5.00	0.00	0.00	0.00	0.00		
11	0.00	0.00	0.00	0.00	2.80	13.40	6.60	3.80	0.00	0.00	0.00	0.00		
12	0.00	0.00	0.00	0.00	2.90	16.10	6.20	3.80	0.00	0.00	0.00	0.00		
13	0.00	0.00	0.00	0.00	3.00	22.70	5.80	3.80	0.00	0.00	0.00	0.00		
14	0.00	0.00	0.00	0.00	3.00	40.40	5.40	3.80	0.00	0.00	0.00	0.00		
15	0.00	0.00	0.00	0.00	3.00	51.20	6.20	3.40	0.00	0.00	0.00	0.00		
16	0.00	0.00	0.00	0.00	3.00	58.80	7.00	3.40	0.00	0.00	0.00	0.00		
17	0.00	0.00	0.00	0.00	2.90	62.80	8.60	3.40	0.00	0.00	0.00	0.00		
18	0.00	0.00	0.00	0.00	3.00	65.80	9.40	3.00	0.00	0.00	0.00	0.00		
19	0.00	0.00	0.00	1.50	3.80	67.20	10.20	3.00	0.00	0.00	0.00	0.00		
20	0.00	0.00	0.00	1.50	3.80	68.40	11.00	3.00	0.00	0.00	0.00	0.00		
21	0.00	0.00	0.00	1.50	4.20	69.60	11.80	3.00	0.00	0.00	0.00	0.00		
22	0.00	0.00	0.00	1.50	5.00	71.00	15.00	2.90	0.00	0.00	0.00	0.00		
23	0.00	0.00	0.00	1.60	5.40	76.75	17.20	2.90	0.00	0.00	0.00	0.00		
24	0.00	0.00	0.00	1.80	6.60	86.00	16.10	2.90	0.00	0.00	0.00	0.00		
25	0.00	0.00	0.00	2.10	6.20	94.50	16.10	2.90	0.00	0.00	0.00	0.00		
26	0.00	0.00	0.00	2.10	6.20	98.00	16.10	2.80	0.00	0.00	0.00	0.00		
27	0.00	0.00	0.00	2.20	7.00	89.25	16.10	2.80	0.00	0.00	0.00	0.00		
28	0.00	0.00	0.00	2.20	8.60	78.50	16.10	2.80	0.00	0.00	0.00	0.00		
29	0.00	0.00	0.00	2.20	8.60	70.75	16.10	2.80	0.00	0.00		0.00		
30	0.00	0.00	0.00	2.40	7.80	57.80	16.10	2.70	0.00	0.00		0.00		
31		0.00		2.60	7.00		16.10		0.00	0.00		0.00		
Total	0.00	0.00	0.00	25.20	131.10	1344.95	503.80	145.30	0.00	0.00	0.00	0.00	2150.35	CMSDAY
Mean	0.00	0.00	0.00	0.81	4.23	44.83	16.25	4.84	0.00	0.00	0.00	0.00	5.89	CMS
Max	0.00	0.00	0.00	2.60	8.60	98.00	55.80	14.20	0.00	0.00	0.00	0.00	98.00	CMS
Min	0.00	0.00	0.00	0.00	2.60	7.00	5.40	2.70	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	0.00	0.00	0.00	2.18	11.33	116.20	43.53	12.55	0.00	0.00	0.00	0.00	185.79	MCM

Momentary Peak 98.50 CMS. at 125.87 m. (MSL.) at 05.00 Hours , on Sep 26 , 2018

Runoff Yield 2.08 Liters/Second/Square KM. Momentary Peak Yield 34.78 Liters/Second/Square KM.

WATER YEAR : 2018

MUN RIVER BASIN

Lam Takhong at Ban Tha Maprang, Nakhon Ratchasima (M.43A)

Lat 14 - 30 - 43 N Long 101 - 22 - 49 E

Location : on left bank about 2 kilometers downstream from M.43

Ban Tha Maprang **Amphoe** Pak Chong **Changwat** Nakhon Ratchasima

Drainge Area	153 sq.km.
Type of Gage	Water - stage recorder.
Zero Gage at Bottom	+371.700 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank downstream at the footpath of the bridge. **Elevation** +378.675 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	1989 to date
Rating Operation	
Period of Rating	1989 to date
Rated by Flot	-
Rated by Current Meter	1989 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. The weir situated above gage site. Stage-discharge relation defined by 46 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

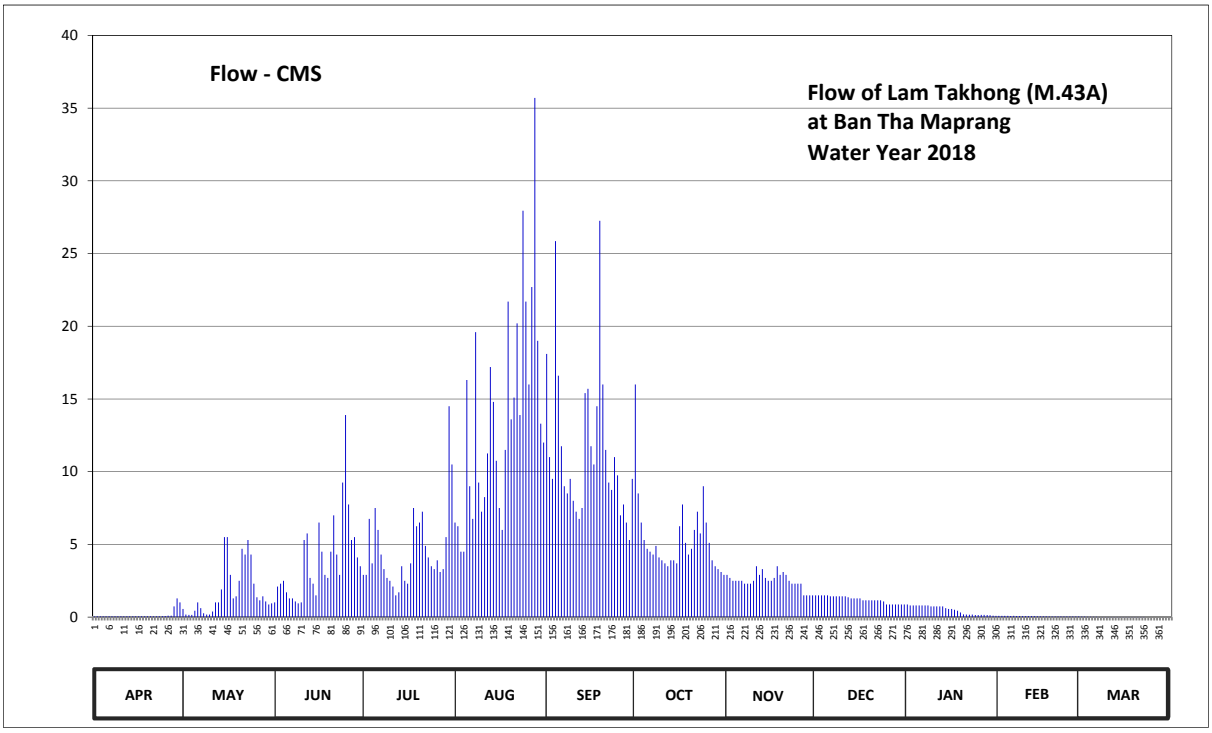
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	372.28	372.56	372.63	372.77	372.94	373.37	373.30	372.77	372.70	372.61	372.38	372.24	
2	372.30	372.48	372.73	372.77	372.93	373.12	373.02	372.76	372.70	372.60	372.38	372.22	
3	372.30	372.45	372.74	372.95	372.85	373.06	372.94	372.75	372.70	372.60	372.37	372.20	
4	372.30	372.45	372.75	372.81	372.85	373.61	372.89	372.75	372.70	372.60	372.37	372.18	
5	372.30	372.54	372.71	372.98	373.31	373.32	372.86	372.75	372.70	372.60	372.36	372.18	
6	372.30	372.63	372.67	372.92	373.04	373.15	372.85	372.75	372.69	372.60	372.38	372.18	
7	372.30	372.57	372.67	372.84	372.95	373.04	372.84	372.74	372.69	372.60	372.36	372.17	
8	372.30	372.51	372.64	372.79	373.42	373.02	372.87	372.74	372.69	372.60	372.35	372.17	
9	372.30	372.48	372.62	372.76	373.05	373.06	372.83	372.74	372.69	372.59	372.33	372.16	
10	372.30	372.48	372.63	372.75	372.97	373.00	372.82	372.75	372.69	372.59	372.33	372.15	
11	372.30	372.53	372.89	372.73	373.01	372.97	372.81	372.80	372.69	372.59	372.32	372.15	
12	372.30	372.63	372.91	372.70	373.13	372.95	372.80	372.77	372.68	372.59	372.32	372.15	
13	372.30	372.63	372.76	372.71	373.34	372.98	372.82	372.79	372.67	372.59	372.32	372.15	
14	372.30	372.72	372.74	372.80	373.26	373.28	372.82	372.76	372.67	372.57	372.30	372.15	
15	372.30	372.90	372.70	372.75	373.11	373.29	372.81	372.75	372.67	372.56	372.29	372.15	
16	372.30	372.90	372.94	372.74	372.98	373.15	372.93	372.75	372.67	372.56	372.29	372.15	
17	372.30	372.77	372.85	372.81	372.92	373.10	372.99	372.76	372.65	372.55	372.29	372.15	
18	372.30	372.67	372.77	372.98	373.14	373.25	372.88	372.80	372.65	372.54	372.28	372.15	
19	372.30	372.69	372.76	372.93	373.49	373.65	372.84	372.77	372.65	372.52	372.28	372.15	
20	372.30	372.75	372.85	372.94	373.22	373.30	372.86	372.78	372.65	372.49	372.25	372.14	
21	372.30	372.86	372.96	372.97	373.27	373.14	372.92	372.77	372.65	372.47	372.25	372.13	
22	372.30	372.84	372.84	372.87	373.44	373.05	372.97	372.75	372.65	372.46	372.26	372.13	
23	372.30	372.89	372.77	372.83	373.23	373.03	372.91	372.74	372.65	372.47	372.26	372.10	
24	372.32	372.84	373.05	372.80	373.67	373.12	373.04	372.74	372.64	372.44	372.26	372.09	
25	372.36	372.74	373.23	372.79	373.49	373.07	372.94	372.74	372.61	372.44	372.26	372.08	
26	372.39	372.68	372.99	372.82	373.30	372.96	372.88	372.74	372.61	372.45	372.26	372.08	
27	372.39	372.65	372.89	372.78	373.52	372.99	372.82	372.70	372.61	372.45	372.25	372.08	
28	372.59	372.69	372.90	372.79	373.86	372.94	372.80	372.70	372.61	372.44	372.25	372.08	
29	372.67	372.64	372.83	372.90	373.40	372.89	372.79	372.70	372.61	372.43		372.08	
30	372.63	372.61	372.80	373.25	373.21	373.06	372.78	372.70	372.61	372.39		372.08	
31		372.62		373.10	373.16		372.77		372.61	372.38		372.07	
Mean	372.34	372.66	372.81	372.85	373.21	373.13	372.88	372.75	372.66	372.53	372.31	372.14	
Max	372.67	372.90	373.23	373.25	373.86	373.65	373.30	372.80	372.70	372.61	372.38	372.24	373.86
Min	372.28	372.45	372.62	372.70	372.85	372.89	372.77	372.70	372.61	372.38	372.25	372.07	372.07

Annual Max Momentary Gage Height 374.57 m. (MSL.) , at 08.00 Hours , on Aug 5 , 2018

Zero Gage at Bottom Elevation 371.70 m. (MSL.) , River Bed 371.85 m. (MSL.)

Left Bank Elevation 378.36 m. (MSL.) ,

Right Bank Elevation 378.33 m. (MSL.) , Drainage Are 153 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.04	0.56	1.01	2.90	6.50	18.10	16.00	2.90	1.50	0.87	0.09	0.03		
2	0.05	0.18	2.10	2.90	6.25	11.00	8.50	2.70	1.50	0.80	0.09	0.03		
3	0.05	0.15	2.30	6.75	4.50	9.50	6.50	2.50	1.50	0.80	0.09	0.02		
4	0.05	0.15	2.50	3.70	4.50	25.85	5.30	2.50	1.50	0.80	0.09	0.02		
5	0.05	0.44	1.70	7.50	16.30	16.60	4.70	2.50	1.50	0.80	0.08	0.02		
6	0.05	1.01	1.29	6.00	9.00	11.75	4.50	2.50	1.43	0.80	0.09	0.02		
7	0.05	0.62	1.29	4.30	6.75	9.00	4.30	2.30	1.43	0.80	0.08	0.01		
8	0.05	0.26	1.08	3.30	19.60	8.50	4.90	2.30	1.43	0.80	0.08	0.01		
9	0.05	0.18	0.94	2.70	9.25	9.50	4.10	2.30	1.43	0.74	0.07	0.01		
10	0.05	0.18	1.01	2.50	7.25	8.00	3.90	2.50	1.43	0.74	0.07	0.01		
11	0.05	0.38	5.30	2.10	8.25	7.25	3.70	3.50	1.43	0.74	0.06	0.01		
12	0.05	1.01	5.75	1.50	11.25	6.75	3.50	2.90	1.36	0.74	0.06	0.01		
13	0.05	1.01	2.70	1.70	17.20	7.50	3.90	3.30	1.29	0.74	0.06	0.01		
14	0.05	1.90	2.30	3.50	14.80	15.40	3.90	2.70	1.29	0.62	0.05	0.01		
15	0.05	5.50	1.50	2.50	10.75	15.70	3.70	2.50	1.29	0.56	0.05	0.01		
16	0.05	5.50	6.50	2.30	7.50	11.75	6.25	2.50	1.29	0.56	0.05	0.01		
17	0.05	2.90	4.50	3.70	6.00	10.50	7.75	2.70	1.15	0.50	0.05	0.01		
18	0.05	1.29	2.90	7.50	11.50	14.50	5.10	3.50	1.15	0.44	0.04	0.01		
19	0.05	1.43	2.70	6.25	21.70	27.25	4.30	2.90	1.15	0.32	0.04	0.01		
20	0.05	2.50	4.50	6.50	13.60	16.00	4.70	3.10	1.15	0.19	0.04	0.01		
21	0.05	4.70	7.00	7.25	15.10	11.50	6.00	2.90	1.15	0.17	0.04	0.01		
22	0.05	4.30	4.30	4.90	20.20	9.25	7.25	2.50	1.15	0.16	0.04	0.01		
23	0.05	5.30	2.90	4.10	13.90	8.75	5.75	2.30	1.15	0.17	0.04	0.00		
24	0.06	4.30	9.25	3.50	27.95	11.00	9.00	2.30	1.08	0.14	0.04	0.00		
25	0.08	2.30	13.90	3.30	21.70	9.75	6.50	2.30	0.87	0.14	0.04	0.00		
26	0.10	1.36	7.75	3.90	16.00	7.00	5.10	2.30	0.87	0.15	0.04	0.00		
27	0.10	1.15	5.30	3.10	22.70	7.75	3.90	1.50	0.87	0.15	0.04	0.00		
28	0.74	1.43	5.50	3.30	35.70	6.50	3.50	1.50	0.87	0.14	0.04	0.00		
29	1.29	1.08	4.10	5.50	19.00	5.30	3.30	1.50	0.87	0.13		0.00		
30	1.01	0.87	3.50	14.50	13.30	9.50	3.10	1.50	0.87	0.10		0.00		
31		0.94		10.50	12.00		2.90		0.87	0.09		0.00		
Total	4.52	54.88	117.37	143.95	430.00	346.70	165.80	75.20	37.82	14.90	1.65	0.30	1393.09	CMSDAY
Mean	0.15	1.77	3.91	4.64	13.87	11.56	5.35	2.51	1.22	0.48	0.06	0.01	3.82	CMS
Max	1.29	5.50	13.90	14.50	35.70	27.25	16.00	3.50	1.50	0.87	0.09	0.03	35.70	CMS
Min	0.04	0.15	0.94	1.50	4.50	5.30	2.90	1.50	0.87	0.09	0.04	0.00	0.00	CMS
Runoff	0.39	4.74	10.14	12.44	37.15	29.95	14.33	6.50	3.27	1.29	0.14	0.03	120.36	MCM

Momentary Peak 82.30 CMS. at 374.57 m. (MSL.) at 08.00 Hours , on Aug 5 , 2018

Runoff Yield 24.95 Liters/Second/Square KM. Momentary Peak Yield 537.91 Liters/Second/Square KM.

WATER YEAR : 2018

MUN RIVER BASIN

Huai Khayung at Ban Wang Chom Pu, Si Sa Ket (M.66)

Lat 14 - 38 - 27 N Long 104 - 39 - 50 E

Location : on right bank about 50 meters upstream from the bridge of Kantharalak - Det Udom Road.

Ban Wang Chom Pu **Amphoe** Kantharalak **Changwat** Si Sa Ket

Drainge Area	562 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+143.900 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	At the automatic gage building. **Elevation** +153.718 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00 ,09.00, 12.00,15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings
Period of Available Gage Records	1965 to date
Rating Operation	
Period of Rating	1965 - 1968, 1972 - 1981, 1987 to date
Rated by Flot	-
Rated by Current Meter	1965 - 1968, 1972 - 1981, 1987 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Stage-discharge relation defined by 33 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

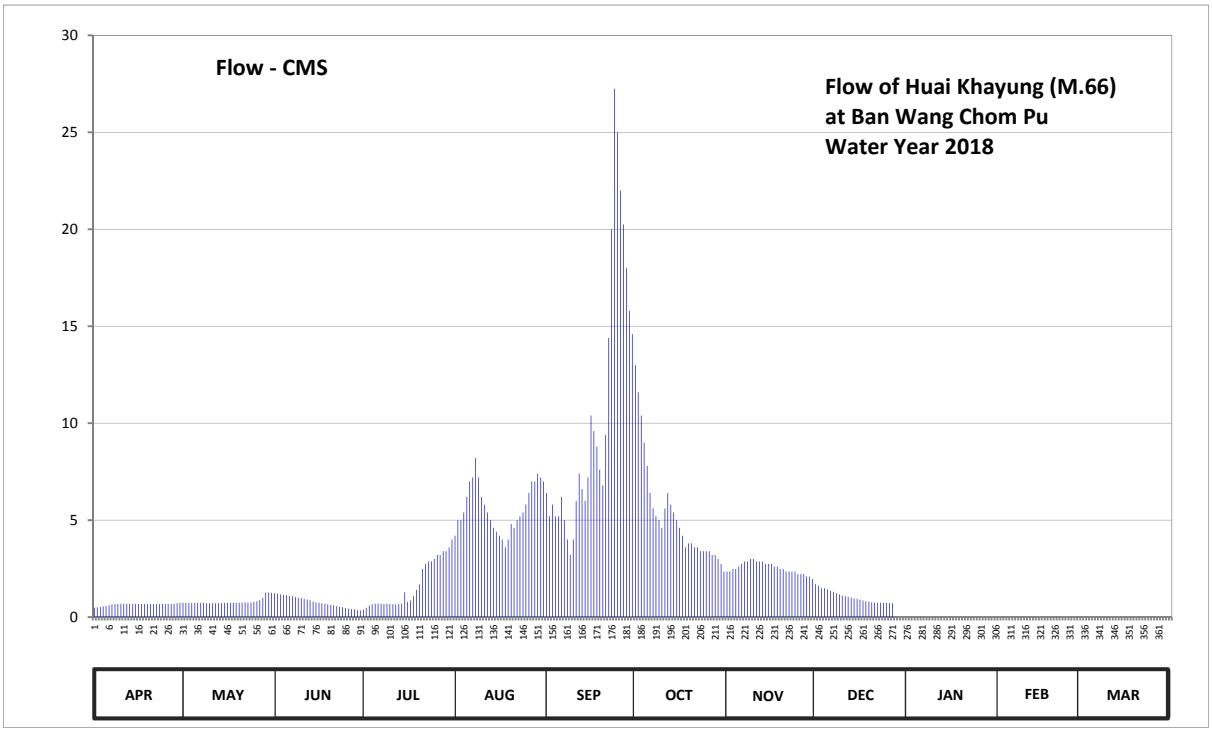
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	142.29	142.54	143.04	142.19	143.66	143.77	144.10	143.55	143.50	142.50	142.23	142.21	
2	142.31	142.54	143.01	142.28	143.70	143.71	144.03	143.55	143.42	142.49	142.23	142.21	
3	142.33	142.54	142.97	142.39	143.70	143.74	143.97	143.56	143.29	142.48	142.24	142.22	
4	142.35	142.53	142.95	142.47	143.72	143.71	143.90	143.56	143.29	142.47	142.24	142.22	
5	142.37	142.53	142.92	142.49	143.76	143.71	143.84	143.57	143.23	142.46	142.25	142.22	
6	142.41	142.53	142.89	142.50	143.80	143.76	143.77	143.58	143.16	142.45	142.25	142.23	
7	142.45	142.53	142.87	142.50	143.81	143.70	143.73	143.59	143.10	142.44	142.25	142.23	
8	142.47	142.53	142.83	142.48	143.86	143.65	143.71	143.59	143.03	142.43	142.24	142.24	
9	142.48	142.52	142.80	142.49	143.81	143.61	143.70	143.60	142.97	142.42	142.24	142.24	
10	142.49	142.52	142.78	142.48	143.76	143.65	143.68	143.60	142.91	142.41	142.24	142.24	
11	142.49	142.52	142.74	142.47	143.74	143.75	143.73	143.59	142.89	142.40	142.24	142.25	
12	142.49	142.52	142.71	142.45	143.72	143.82	143.77	143.59	142.85	142.39	142.23	142.25	
13	142.49	142.52	142.67	142.47	143.70	143.78	143.74	143.59	142.81	142.38	142.23	142.26	
14	142.48	142.53	142.61	142.50	143.68	143.75	143.72	143.58	142.77	142.37	142.23	142.26	
15	142.48	142.53	142.57	143.08	143.67	143.81	143.70	143.58	142.74	142.36	142.23	142.26	
16	142.48	142.53	142.54	142.58	143.66	143.97	143.68	143.58	142.70	142.35	142.23	142.27	
17	142.48	142.54	142.52	142.66	143.65	143.93	143.66	143.57	142.66	142.34	142.23	142.27	
18	142.48	142.54	142.49	142.88	143.63	143.89	143.63	143.57	142.62	142.33	142.22	142.28	
19	142.48	142.54	142.46	143.20	143.65	143.83	143.64	143.56	142.59	142.32	142.22	142.28	
20	142.48	142.54	142.43	143.48	143.69	143.79	143.64	143.56	142.56	142.31	142.22	142.29	
21	142.47	142.55	142.40	143.56	143.68	143.92	143.63	143.55	142.55	142.30	142.22	142.29	
22	142.47	142.55	142.37	143.58	143.70	144.17	143.63	143.55	142.54	142.29	142.21	142.29	
23	142.47	142.55	142.33	143.59	143.71	144.42	143.62	143.55	142.54	142.28	142.21	142.29	
24	142.47	142.56	142.31	143.59	143.72	144.71	143.62	143.55	142.54	142.28	142.21	142.28	
25	142.48	142.59	142.27	143.60	143.74	144.62	143.62	143.54	142.53	142.27	142.21	142.28	
26	142.48	142.62	142.24	143.61	143.77	144.50	143.62	143.54	142.53	142.27	142.21	142.28	
27	142.48	142.67	142.21	143.61	143.80	144.43	143.61	143.54	142.52	142.26	142.20	142.28	
28	142.49	142.79	142.20	143.62	143.80	144.34	143.61	143.53	142.52	142.25	142.20	142.27	
29	142.51	143.06	142.16	143.62	143.82	144.24	143.60	143.53	142.51	142.24		142.27	
30	142.53	143.07	142.15	143.63	143.81	144.18	143.58	143.52	142.51	142.24		142.27	
31		143.05		143.65	143.80		143.55		142.50	142.23		142.27	
Mean	142.45	142.60	142.58	142.96	143.73	143.96	143.71	143.56	142.80	142.36	142.23	142.26	
Max	142.53	143.07	143.04	143.65	143.86	144.71	144.10	143.60	143.50	142.50	142.25	142.29	144.71
Min	142.29	142.52	142.15	142.19	143.63	143.61	143.55	143.52	142.50	142.23	142.20	142.21	142.15

Annual Max Momentary Gage Height 144.73 m. (MSL.) , at 12.00 Hours , on Sep 24, 2018

Zero Gage at Bottom Elevation 143.90 m. (MSL.) , River Bed 141.48 m. (MSL)

Left Bank Elevation 153.45 m. (MSL.) ,

Right Bank Elevation 153.48 m. (MSL.) , Drainage Are 562 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.49	0.74	1.24	0.39	4.20	6.40	13.00	2.35	1.70	0.00	0.00	0.00		
2	0.51	0.74	1.21	0.48	5.00	5.20	11.60	2.35	1.62	0.00	0.00	0.00		
3	0.53	0.74	1.17	0.59	5.00	5.80	10.40	2.48	1.49	0.00	0.00	0.00		
4	0.55	0.73	1.15	0.67	5.40	5.20	9.00	2.48	1.49	0.00	0.00	0.00		
5	0.57	0.73	1.12	0.69	6.20	5.20	7.80	2.61	1.43	0.00	0.00	0.00		
6	0.61	0.73	1.09	0.70	7.00	6.20	6.40	2.74	1.36	0.00	0.00	0.00		
7	0.65	0.73	1.07	0.70	7.20	5.00	5.60	2.87	1.30	0.00	0.00	0.00		
8	0.67	0.73	1.03	0.68	8.20	4.00	5.20	2.87	1.23	0.00	0.00	0.00		
9	0.68	0.72	1.00	0.69	7.20	3.20	5.00	3.00	1.17	0.00	0.00	0.00		
10	0.69	0.72	0.98	0.68	6.20	4.00	4.60	3.00	1.11	0.00	0.00	0.00		
11	0.69	0.72	0.94	0.67	5.80	6.00	5.60	2.87	1.09	0.00	0.00	0.00		
12	0.69	0.72	0.91	0.65	5.40	7.40	6.40	2.87	1.05	0.00	0.00	0.00		
13	0.69	0.72	0.87	0.67	5.00	6.60	5.80	2.87	1.01	0.00	0.00	0.00		
14	0.68	0.73	0.81	0.70	4.60	6.00	5.40	2.74	0.97	0.00	0.00	0.00		
15	0.68	0.73	0.77	1.28	4.40	7.20	5.00	2.74	0.94	0.00	0.00	0.00		
16	0.68	0.73	0.74	0.78	4.20	10.40	4.60	2.74	0.90	0.00	0.00	0.00		
17	0.68	0.74	0.72	0.86	4.00	9.60	4.20	2.61	0.86	0.00	0.00	0.00		
18	0.68	0.74	0.69	1.08	3.60	8.80	3.60	2.61	0.82	0.00	0.00	0.00		
19	0.68	0.74	0.66	1.40	4.00	7.60	3.80	2.48	0.79	0.00	0.00	0.00		
20	0.68	0.74	0.63	1.68	4.80	6.80	3.80	2.48	0.76	0.00	0.00	0.00		
21	0.67	0.75	0.60	2.48	4.60	9.40	3.60	2.35	0.75	0.00	0.00	0.00		
22	0.67	0.75	0.57	2.74	5.00	14.40	3.60	2.35	0.74	0.00	0.00	0.00		
23	0.67	0.75	0.53	2.87	5.20	20.00	3.40	2.35	0.74	0.00	0.00	0.00		
24	0.67	0.76	0.51	2.87	5.40	27.25	3.40	2.35	0.74	0.00	0.00	0.00		
25	0.68	0.79	0.47	3.00	5.80	25.00	3.40	2.22	0.73	0.00	0.00	0.00		
26	0.68	0.82	0.44	3.20	6.40	22.00	3.40	2.22	0.73	0.00	0.00	0.00		
27	0.68	0.87	0.41	3.20	7.00	20.25	3.20	2.22	0.72	0.00	0.00	0.00		
28	0.69	0.99	0.40	3.40	7.00	18.00	3.20	2.09	0.00	0.00	0.00	0.00		
29	0.71	1.26	0.36	3.40	7.40	15.80	3.00	2.09	0.00	0.00		0.00		
30	0.73	1.27	0.35	3.60	7.20	14.60	2.74	1.96	0.00	0.00		0.00		
31		1.25		4.00	7.00		2.35		0.00	0.00		0.00		
Total	19.63	24.88	23.44	50.80	175.40	313.30	162.09	75.96	28.24	0.00	0.00	0.00	873.74	CMSDAY
Mean	0.65	0.80	0.78	1.64	5.66	10.44	5.23	2.53	0.91	0.00	0.00	0.00	2.39	CMS
Max	0.73	1.27	1.24	4.00	8.20	27.25	13.00	3.00	1.70	0.00	0.00	0.00	27.25	CMS
Min	0.49	0.72	0.35	0.39	3.60	3.20	2.35	1.96	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	1.70	2.15	2.03	4.39	15.15	27.07	14.00	6.56	2.44	0.00	0.00	0.00	75.49	MCM

Momentary Peak 27.75 CMS. at 144.73 m. (MSL.) at 12.00 Hours , on Sep 24, 2018

Runoff Yield 4.26 Liters/Second/Square KM. Momentary Peak Yield 49.38 Liters/Second/Square KM.

WATER YEAR : 2018

MUN RIVER BASIN

Lam Takhong at Vaccine Serum Office, Nakhon Ratchasima (M.89)

Lat 14 - 41 - 39 N Long 101 - 25 - 00 E

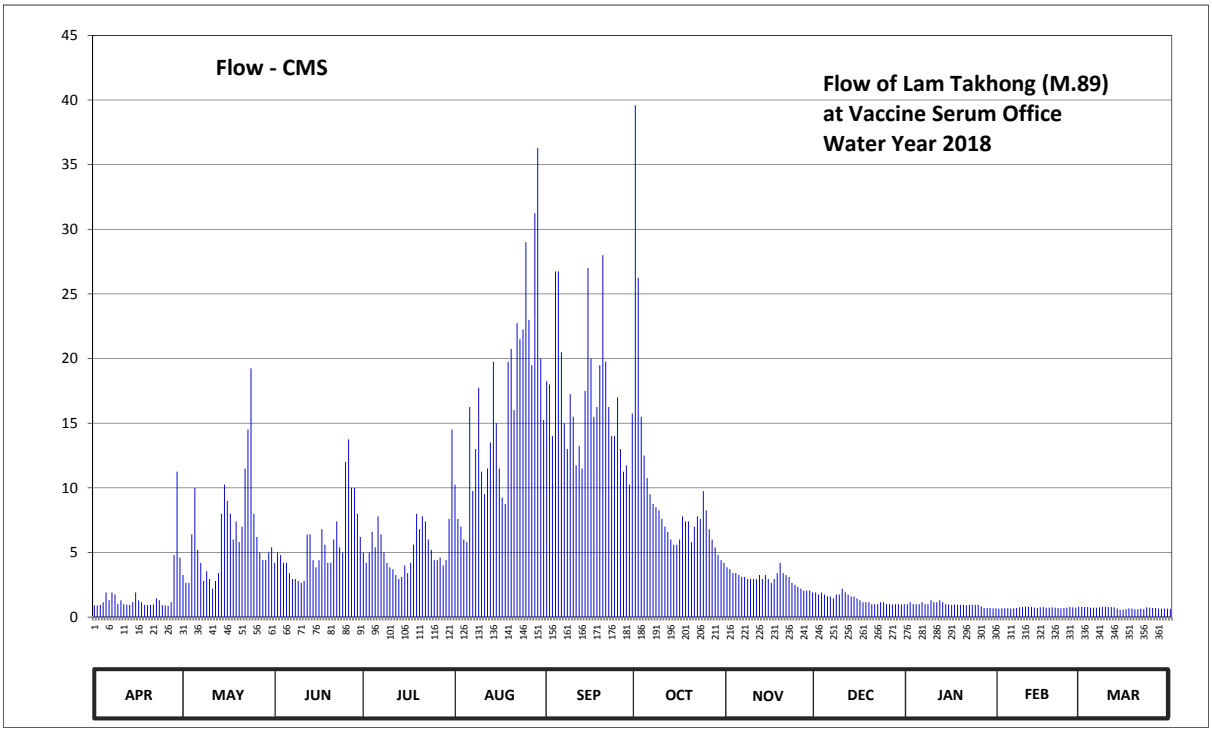
Location : on left bank at the bridge infront of Vaccine Serum Office.

	Ban	-	**Amphoe**	Pak Chong	**Changwat** Nakhon Ratchasima
Drainge Area	713	sq.km.			
Type of Gage	Water - stage recorder.				
Zero Gage at Bottom	+290.900 m. (MSL.)				
Bench Mark	B.M.-H.D.				
Location BM	On left bank at the abutment of the bridge.				**Elevation** +299.985 m. (MSL.)
Gage Reading Frequency	Recording.				
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings				
Period of Available Gage Records	1970 to date				
Rating Operation					
Period of Rating	1971 to date				
Rated by Flot	-				
Rated by Current Meter	1971 to date				
Stability of Channel Regimes	Stable.				
Overbank Flow Conditions	No overbank flow.				
General Description	Records good. Stage-discharge relation defined by 49 discharge measurements made in 2018.				

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	292.76	292.95	293.01	293.05	293.29	293.61	294.42	292.99	292.86	292.80	292.66	292.72	
2	292.76	292.91	293.05	293.01	293.18	293.60	293.93	292.98	292.85	292.81	292.67	292.71	
3	292.78	292.91	293.04	293.05	293.15	293.44	293.50	292.96	292.86	292.80	292.67	292.71	
4	292.81	293.12	293.01	293.13	293.10	293.95	293.38	292.96	292.85	292.80	292.67	292.69	
5	292.86	293.28	293.01	293.07	293.09	293.95	293.31	292.95	292.84	292.80	292.66	292.69	
6	292.82	293.06	292.96	293.19	293.53	293.70	293.26	292.94	292.84	292.81	292.67	292.69	
7	292.86	293.01	292.93	293.12	293.27	293.48	293.23	292.94	292.83	292.80	292.68	292.70	
8	292.85	292.92	292.93	293.05	293.40	293.40	293.22	292.93	292.85	292.80	292.70	292.72	
9	292.80	292.97	292.92	293.01	293.59	293.57	293.21	292.93	292.85	292.82	292.71	292.72	
10	292.82	292.93	292.91	292.99	293.33	293.50	293.18	292.93	292.88	292.81	292.72	292.71	
11	292.80	292.88	292.92	292.98	293.26	293.35	293.15	292.93	292.86	292.81	292.72	292.71	
12	292.78	292.92	293.12	292.95	293.34	293.41	293.13	292.95	292.85	292.82	292.71	292.70	
13	292.78	292.96	293.12	292.93	293.42	293.34	293.10	292.93	292.84	292.81	292.69	292.66	
14	292.81	293.20	293.02	292.94	293.67	293.58	293.08	292.95	292.84	292.80	292.68	292.62	
15	292.86	293.29	292.99	293.00	293.48	293.96	293.08	292.93	292.83	292.79	292.70	292.63	
16	292.82	293.24	293.02	292.96	293.34	293.68	293.10	292.91	292.82	292.78	292.71	292.64	
17	292.81	293.20	293.14	293.01	293.25	293.50	293.19	292.93	292.81	292.79	292.69	292.67	
18	292.78	293.10	293.08	293.08	293.23	293.53	293.17	292.96	292.81	292.78	292.69	292.66	
19	292.77	293.17	293.01	293.20	293.67	293.66	293.17	293.01	292.81	292.78	292.70	292.64	
20	292.78	293.09	293.01	293.14	293.71	294.00	293.09	292.96	292.80	292.78	292.69	292.64	
21	292.79	293.15	293.10	293.19	293.52	293.67	293.15	292.95	292.80	292.77	292.68	292.66	
22	292.83	293.34	293.17	293.17	293.79	293.53	293.19	292.94	292.80	292.78	292.67	292.65	
23	292.82	293.46	293.07	293.10	293.74	293.44	293.18	292.91	292.81	292.78	292.68	292.70	
24	292.77	293.65	293.05	293.06	293.77	293.44	293.27	292.90	292.81	292.78	292.69	292.69	
25	292.76	293.20	293.36	293.02	294.04	293.56	293.21	292.89	292.80	292.78	292.71	292.68	
26	292.75	293.11	293.43	293.02	293.80	293.40	293.14	292.88	292.80	292.73	292.70	292.68	
27	292.81	293.05	293.28	293.03	293.66	293.33	293.10	292.87	292.79	292.68	292.69	292.66	
28	293.04	293.02	293.28	293.00	294.13	293.35	293.07	292.87	292.80	292.68	292.72	292.66	
29	293.33	293.02	293.20	293.02	294.31	293.29	293.04	292.87	292.80	292.68		292.66	
30	293.03	293.05	293.11	293.18	293.68	293.51	293.02	292.86	292.79	292.67		292.66	
31		293.07		293.46	293.49		293.01		292.80	292.67		292.65	
Mean	292.83	293.10	293.08	293.07	293.52	293.56	293.23	292.93	292.83	292.77	292.69	292.68	
Max	293.33	293.65	293.43	293.46	294.31	294.00	294.42	293.01	292.88	292.82	292.72	292.72	294.42
Min	292.75	292.88	292.91	292.93	293.09	293.29	293.01	292.86	292.79	292.67	292.66	292.62	292.62

Annual Max Momentary Gage Height	295.00	m. (MSL.) ,	at 22.00 Hours , on Oct 1, 2018		
Zero Gage at Bottom Elevation	290.90	m. (MSL.) ,	River Bed	291.32	m. (MSL.)
Left Bank Elevation	299.94	m. (MSL.) ,			
Right Bank Elevation	299.96	m. (MSL.) ,	Drainage Are	713	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.90	3.25	4.20	5.00	10.25	18.25	39.60	3.85	1.90	1.00	0.65	0.80		
2	0.90	2.65	5.00	4.20	7.60	18.00	26.25	3.70	1.75	1.15	0.68	0.78		
3	0.95	2.65	4.80	5.00	7.00	14.00	15.50	3.40	1.90	1.00	0.68	0.78		
4	1.15	6.40	4.20	6.60	6.00	26.75	12.50	3.40	1.75	1.00	0.68	0.73		
5	1.90	10.00	4.20	5.40	5.80	26.75	10.75	3.25	1.60	1.00	0.65	0.73		
6	1.30	5.20	3.40	7.80	16.25	20.50	9.50	3.10	1.60	1.15	0.68	0.73		
7	1.90	4.20	2.95	6.40	9.75	15.00	8.75	3.10	1.45	1.00	0.70	0.75		
8	1.75	2.80	2.95	5.00	13.00	13.00	8.50	2.95	1.75	1.00	0.75	0.80		
9	1.00	3.55	2.80	4.20	17.75	17.25	8.25	2.95	1.75	1.30	0.78	0.80		
10	1.30	2.95	2.65	3.85	11.25	15.50	7.60	2.95	2.20	1.15	0.80	0.78		
11	1.00	2.20	2.80	3.70	9.50	11.75	7.00	2.95	1.90	1.15	0.80	0.78		
12	0.95	2.80	6.40	3.25	11.50	13.25	6.60	3.25	1.75	1.30	0.78	0.75		
13	0.95	3.40	6.40	2.95	13.50	11.50	6.00	2.95	1.60	1.15	0.73	0.65		
14	1.15	8.00	4.40	3.10	19.75	17.50	5.60	3.25	1.60	1.00	0.70	0.55		
15	1.90	10.25	3.85	4.00	15.00	27.00	5.60	2.95	1.45	0.98	0.75	0.58		
16	1.30	9.00	4.40	3.40	11.50	20.00	6.00	2.65	1.30	0.95	0.78	0.60		
17	1.15	8.00	6.80	4.20	9.25	15.50	7.80	2.95	1.15	0.98	0.73	0.68		
18	0.95	6.00	5.60	5.60	8.75	16.25	7.40	3.40	1.15	0.95	0.73	0.65		
19	0.93	7.40	4.20	8.00	19.75	19.50	7.40	4.20	1.15	0.95	0.75	0.60		
20	0.95	5.80	4.20	6.80	20.75	28.00	5.80	3.40	1.00	0.95	0.73	0.60		
21	0.98	7.00	6.00	7.80	16.00	19.75	7.00	3.25	1.00	0.93	0.70	0.65		
22	1.45	11.50	7.40	7.40	22.75	16.25	7.80	3.10	1.00	0.95	0.68	0.63		
23	1.30	14.50	5.40	6.00	21.50	14.00	7.60	2.65	1.15	0.95	0.70	0.75		
24	0.93	19.25	5.00	5.20	22.25	14.00	9.75	2.50	1.15	0.95	0.73	0.73		
25	0.90	8.00	12.00	4.40	29.00	17.00	8.25	2.35	1.00	0.95	0.78	0.70		
26	0.88	6.20	13.75	4.40	23.00	13.00	6.80	2.20	1.00	0.83	0.75	0.70		
27	1.15	5.00	10.00	4.60	19.50	11.25	6.00	2.05	0.98	0.70	0.73	0.65		
28	4.80	4.40	10.00	4.00	31.25	11.75	5.40	2.05	1.00	0.70	0.80	0.65		
29	11.25	4.40	8.00	4.40	36.30	10.25	4.80	2.05	1.00	0.70		0.65		
30	4.60	5.00	6.20	7.60	20.00	15.75	4.40	1.90	0.98	0.68		0.65		
31		5.40		14.50	15.25		4.20		1.00	0.68		0.63		
Total	52.52	197.15	169.95	168.75	500.70	508.25	284.40	88.70	42.96	30.13	20.40	21.51	2085.42	CMSDAY
Mean	1.75	6.36	5.67	5.44	16.15	16.94	9.17	2.96	1.39	0.97	0.73	0.69	5.71	CMS
Max	11.25	19.25	13.75	14.50	36.30	28.00	39.60	4.20	2.20	1.30	0.80	0.80	39.60	CMS
Min	0.88	2.20	2.65	2.95	5.80	10.25	4.20	1.90	0.98	0.68	0.65	0.55	0.55	CMS
Runoff	4.54	17.03	14.68	14.58	43.26	43.91	24.57	7.66	3.71	2.60	1.76	1.86	180.18	MCM

Momentary Peak 57.00 CMS. at 295.00 m. (MSL.) at 22.00 Hours , on Oct 1, 2018

Runoff Yield 8.01 Liters/Second/Square KM. Momentary Peak Yield 79.94 Liters/Second/Square KM.

WATER YEAR : 2018

MUN RIVER BASIN

Lam Sieo Yai at Ban Ku, Roi Et. (M.95)

Lat 15 - 34 - 12 N Long 103 - 49 - 27 E

Location : on left bank at the bridge on Highway.

Ban Ku **Amphoe** Suwannaphum **Changwat** Roi Et

Drainge Area	3,484 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+118.100 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank near the gage site. **Elevation** +124.105 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00 ,09.00, 12.00,15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings
Period of Available Gage Records	1978 - 1989, 2005 to date
Rating Operation	
Period of Rating	1978 - 1989, 2005 to date
Rated by Flot	-
Rated by Current Meter	1978 - 1989, 2005 to date
Stability of Channel Regimes	Stable because of backwater effect.
Overbank Flow Conditions	No overbank flow
General Description	Records poor. Stage-discharge relation defined by 4 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

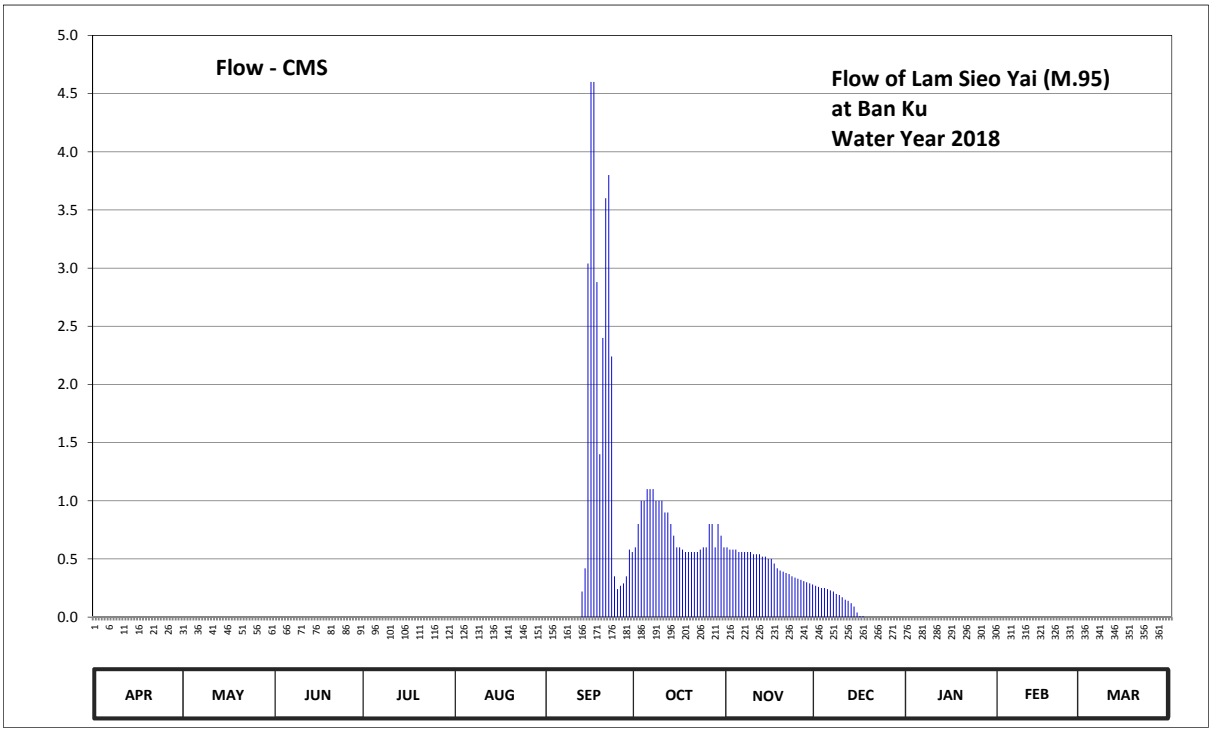
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	119.60	119.42	119.18	119.02	119.30	119.56	120.50	120.50	120.27	119.81	119.33	118.93	
2	119.59	119.41	119.17	119.01	119.32	119.56	120.52	120.49	120.26	119.80	119.31	118.93	
3	119.58	119.41	119.18	118.99	119.34	119.56	120.54	120.49	120.25	119.79	119.30	118.93	
4	119.57	119.40	119.18	118.98	119.34	119.56	120.54	120.49	120.25	119.76	119.28	118.93	
5	119.56	119.40	119.16	118.94	119.35	119.59	120.55	120.48	120.24	119.75	119.27	118.95	
6	119.55	119.39	119.15	118.92	119.35	119.59	120.55	120.48	120.23	119.74	119.25	118.94	
7	119.54	119.40	119.15	118.91	119.35	119.59	120.55	120.48	120.22	119.73	119.25	118.94	
8	119.52	119.40	119.15	118.90	119.35	119.65	120.54	120.48	120.20	119.72	119.24	118.93	
9	119.51	119.38	119.14	118.89	119.35	119.73	120.54	120.48	120.19	119.71	119.21	118.93	
10	119.50	119.36	119.13	118.88	119.37	119.82	120.54	120.47	120.17	119.68	119.20	118.89	
11	119.49	119.36	119.13	118.88	119.37	119.88	120.53	120.47	120.15	119.67	119.18	118.86	
12	119.47	119.34	119.12	118.88	119.37	119.92	120.53	120.47	120.14	119.65	119.17	118.86	
13	119.46	119.33	119.11	118.88	119.37	120.22	120.52	120.46	120.12	119.63	119.16	118.86	
14	119.46	119.33	119.11	118.89	119.37	120.41	120.51	120.46	120.09	119.62	119.15	118.86	
15	119.45	119.32	119.10	118.90	119.38	120.69	120.50	120.45	120.04	119.60	119.13	118.86	
16	119.44	119.31	119.10	118.90	119.40	120.77	120.50	120.45	120.01	119.59	119.11	118.86	
17	119.43	119.30	119.10	118.91	119.40	120.77	120.49	120.43	120.01	119.58	119.09	118.86	
18	119.45	119.29	119.10	118.93	119.40	120.68	120.48	120.41	120.00	119.56	119.08	118.86	
19	119.45	119.28	119.09	119.03	119.44	120.58	120.48	120.40	119.98	119.53	119.05	118.86	
20	119.44	119.27	119.12	119.04	119.45	120.65	120.48	120.39	119.97	119.51	119.04	118.86	
21	119.43	119.26	119.12	119.05	119.46	120.72	120.48	120.38	119.96	119.50	119.03	118.85	
22	119.42	119.25	119.12	119.05	119.47	120.73	120.48	120.37	119.95	119.49	119.00	118.85	
23	119.40	119.24	119.12	119.05	119.47	120.64	120.49	120.35	119.94	119.47	118.99	118.85	
24	119.39	119.23	119.09	119.05	119.50	120.35	120.50	120.34	119.94	119.46	118.97	118.85	
25	119.38	119.22	119.06	119.06	119.50	120.24	120.50	120.33	119.91	119.45	118.96	118.85	
26	119.40	119.21	119.05	119.08	119.53	120.27	120.52	120.32	119.90	119.44	118.93	118.85	
27	119.47	119.22	119.04	119.09	119.55	120.29	120.52	120.31	119.88	119.41	118.92	118.85	
28	119.45	119.21	119.03	119.14	119.56	120.35	120.50	120.30	119.87	119.40	118.90	118.85	
29	119.43	119.20	119.03	119.18	119.56	120.49	120.52	120.29	119.86	119.37		118.85	
30	119.42	119.20	119.02	119.23	119.57	120.48	120.51	120.28	119.84	119.36		118.85	
31		119.19		119.28	119.57		120.50		119.82	119.35		118.85	
Mean	119.47	119.31	119.11	119.00	119.42	120.18	120.51	120.42	120.05	119.58	119.13	118.88	
Max	119.60	119.42	119.18	119.28	119.57	120.77	120.55	120.50	120.27	119.81	119.33	118.95	120.77
Min	119.38	119.19	119.02	118.88	119.30	119.56	120.48	120.28	119.82	119.35	118.90	118.85	118.85

Annual Max Momentary Gage Height 120.77 m. (MSL.) , at 06.00 Hours , on Sep 16 , 2018

Zero Gage at Bottom Elevation 118.10 m. (MSL.) , River Bed 118.25 m. (MSL.)

Left Bank Elevation 124.40 m. (MSL.) ,

Right Bank Elevation 124.10 m. (MSL.) , Drainage Are 3,484 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.60	0.27	0.00	0.00	0.00		
2	0.00	0.00	0.00	0.00	0.00	0.00	0.80	0.58	0.26	0.00	0.00	0.00		
3	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.58	0.25	0.00	0.00	0.00		
4	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.58	0.25	0.00	0.00	0.00		
5	0.00	0.00	0.00	0.00	0.00	0.00	1.10	0.56	0.24	0.00	0.00	0.00		
6	0.00	0.00	0.00	0.00	0.00	0.00	1.10	0.56	0.23	0.00	0.00	0.00		
7	0.00	0.00	0.00	0.00	0.00	0.00	1.10	0.56	0.22	0.00	0.00	0.00		
8	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.56	0.20	0.00	0.00	0.00		
9	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.56	0.19	0.00	0.00	0.00		
10	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.54	0.17	0.00	0.00	0.00		
11	0.00	0.00	0.00	0.00	0.00	0.00	0.90	0.54	0.15	0.00	0.00	0.00		
12	0.00	0.00	0.00	0.00	0.00	0.00	0.90	0.54	0.14	0.00	0.00	0.00		
13	0.00	0.00	0.00	0.00	0.00	0.22	0.80	0.52	0.12	0.00	0.00	0.00		
14	0.00	0.00	0.00	0.00	0.00	0.42	0.70	0.52	0.09	0.00	0.00	0.00		
15	0.00	0.00	0.00	0.00	0.00	3.04	0.60	0.50	0.04	0.00	0.00	0.00		
16	0.00	0.00	0.00	0.00	0.00	4.60	0.60	0.50	0.01	0.00	0.00	0.00		
17	0.00	0.00	0.00	0.00	0.00	4.60	0.58	0.46	0.01	0.00	0.00	0.00		
18	0.00	0.00	0.00	0.00	0.00	2.88	0.56	0.42	0.00	0.00	0.00	0.00		
19	0.00	0.00	0.00	0.00	0.00	1.40	0.56	0.40	0.00	0.00	0.00	0.00		
20	0.00	0.00	0.00	0.00	0.00	2.40	0.56	0.39	0.00	0.00	0.00	0.00		
21	0.00	0.00	0.00	0.00	0.00	3.60	0.56	0.38	0.00	0.00	0.00	0.00		
22	0.00	0.00	0.00	0.00	0.00	3.80	0.56	0.37	0.00	0.00	0.00	0.00		
23	0.00	0.00	0.00	0.00	0.00	2.24	0.58	0.35	0.00	0.00	0.00	0.00		
24	0.00	0.00	0.00	0.00	0.00	0.35	0.60	0.34	0.00	0.00	0.00	0.00		
25	0.00	0.00	0.00	0.00	0.00	0.24	0.60	0.33	0.00	0.00	0.00	0.00		
26	0.00	0.00	0.00	0.00	0.00	0.27	0.80	0.32	0.00	0.00	0.00	0.00		
27	0.00	0.00	0.00	0.00	0.00	0.29	0.80	0.31	0.00	0.00	0.00	0.00		
28	0.00	0.00	0.00	0.00	0.00	0.35	0.60	0.30	0.00	0.00	0.00	0.00		
29	0.00	0.00	0.00	0.00	0.00	0.58	0.80	0.29	0.00	0.00		0.00		
30	0.00	0.00	0.00	0.00	0.00	0.56	0.70	0.28	0.00	0.00		0.00		
31		0.00		0.00	0.00		0.60		0.00	0.00		0.00		
Total	0.00	0.00	0.00	0.00	0.00	31.84	23.66	13.74	2.84	0.00	0.00	0.00	72.08	CMSDAY
Mean	0.00	0.00	0.00	0.00	0.00	1.06	0.76	0.46	0.09	0.00	0.00	0.00	0.20	CMS
Max	0.00	0.00	0.00	0.00	0.00	4.60	1.10	0.60	0.27	0.00	0.00	0.00	4.60	CMS
Min	0.00	0.00	0.00	0.00	0.00	0.00	0.56	0.28	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	0.00	0.00	0.00	0.00	0.00	2.75	2.04	1.19	0.25	0.00	0.00	0.00	6.23	MCM

Momentary Peak 4.60 CMS. at 120.77 m. (MSL.) at 06.00 Hours , on Sep 16, 2018

Runoff Yield 0.06 Liters/Second/Square KM. Momentary Peak Yield 1.32 Liters/Second/Square KM.

WATER YEAR : 2018

MUN RIVER BASIN

Mun River at Ban Wang Prat, Buri Ram (M.104)

Lat 15 - 26 - 02 N Long 103 - 00 - 59 E

Location : on left bank at the bridge.

Ban Wang Prat **Amphoe** Khu Mueang **Changwat** Buri Ram

Drainge Area	24,841 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+129.800 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank at the footpath of the bridge. **Elevation** +140.339 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00 ,09.00, 12.00,15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic mean of 5 readings
Period of Available Gage Records	2005 to date
Rating Operation	
Period of Rating	2005 to date
Rated by Flot	-
Rated by Current Meter	2005 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	No overbank flow
General Description	Records fair. Stage-discharge relation defined by 14 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

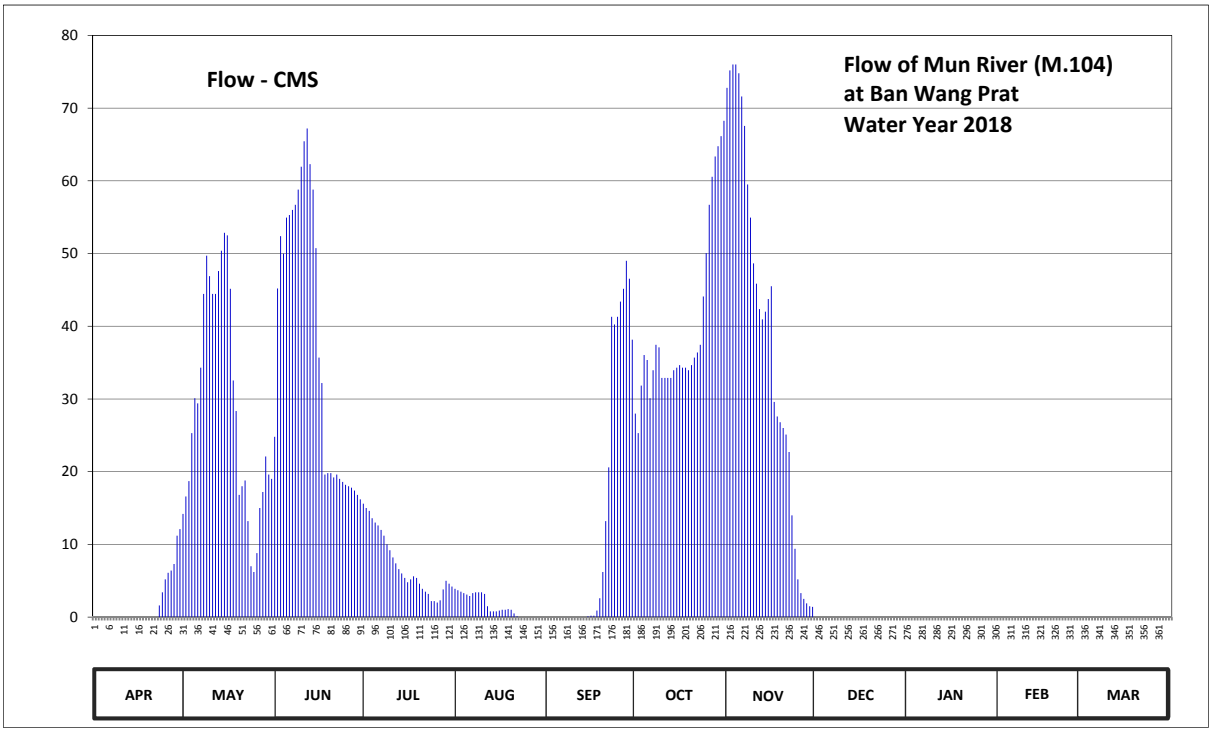
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	131.09	131.54	132.36	131.98	131.39	130.86	132.00	133.27	131.24	131.88	131.58	131.29	
2	131.08	131.62	132.71	131.95	131.37	130.85	131.91	133.33	131.37	131.88	131.57	131.28	
3	131.07	131.69	132.77	131.93	131.35	130.85	132.11	133.35	131.49	131.87	131.56	131.27	
4	131.06	131.91	132.75	131.88	131.33	130.89	132.23	133.35	131.59	131.86	131.56	131.27	
5	131.06	132.06	132.77	131.85	131.31	130.90	132.21	133.32	131.68	131.85	131.55	131.27	
6	131.05	132.04	132.78	131.83	131.29	130.90	132.06	133.24	131.87	131.84	131.53	131.25	
7	131.05	132.18	132.80	131.80	131.33	130.90	132.17	133.13	132.03	131.83	131.53	131.24	
8	131.04	132.47	132.82	131.76	131.34	130.90	132.27	132.90	132.10	131.82	131.52	131.23	
9	131.03	132.62	132.88	131.70	131.34	130.90	132.26	132.77	132.11	131.81	131.51	131.21	
10	131.02	132.54	132.97	131.66	131.34	130.87	132.14	132.59	132.11	131.81	131.50	131.20	
11	131.02	132.47	133.07	131.61	131.32	130.86	132.14	132.51	132.10	131.80	131.49	131.19	
12	131.01	132.47	133.12	131.57	131.15	130.86	132.14	132.41	132.06	131.79	131.48	131.17	
13	131.01	132.56	132.98	131.53	131.08	130.93	132.14	132.37	132.04	131.78	131.47	131.16	
14	131.00	132.64	132.88	131.50	131.08	130.99	132.17	132.40	132.04	131.77	131.46	131.15	
15	130.99	132.71	132.65	131.47	131.08	131.01	132.18	132.45	132.05	131.76	131.45	131.14	
16	130.98	132.70	132.22	131.44	131.09	131.02	132.19	132.50	132.05	131.75	131.44	131.13	
17	130.97	132.49	132.12	131.46	131.10	131.02	132.18	132.49	132.05	131.74	131.42	131.12	
18	130.97	132.13	132.18	131.48	131.10	131.09	132.18	132.44	132.00	131.73	131.41	131.12	
19	130.97	132.01	132.19	131.47	131.11	131.26	132.17	132.42	131.97	131.72	131.40	131.11	
20	130.96	132.04	132.19	131.43	131.10	131.51	132.19	132.40	131.96	131.71	131.39	131.10	
21	130.93	132.10	132.16	131.39	131.05	131.86	132.22	132.37	131.96	131.70	131.38	131.09	
22	130.92	132.14	132.18	131.35	131.01	132.22	132.24	132.29	131.96	131.68	131.37	131.07	
23	131.08	131.86	132.15	131.32	130.99	132.38	132.27	131.90	131.96	131.67	131.36	131.06	
24	131.17	131.55	132.13	131.22	130.91	132.35	132.46	131.67	131.96	131.66	131.34	131.05	
25	131.24	131.51	132.11	131.22	130.88	132.38	132.63	131.46	131.95	131.65	131.33	131.05	
26	131.27	131.64	132.10	131.20	130.84	132.44	132.82	131.33	131.94	131.64	131.32	131.05	
27	131.28	131.95	132.09	131.23	130.83	132.49	132.93	131.25	131.93	131.63	131.31	131.04	
28	131.31	132.06	132.07	131.38	130.86	132.60	133.01	131.19	131.93	131.62	131.30	131.04	
29	131.44	132.27	132.04	131.45	130.86	132.53	133.05	131.15	131.91	131.61		131.03	
30	131.47	132.18	132.01	131.43	130.87	132.29	133.09	131.14	131.90	131.60		131.02	
31		132.15		131.41	130.87		133.15		131.89	131.59		131.01	
Mean	131.08	132.14	132.47	131.55	131.12	131.43	132.35	132.38	131.91	131.74	131.45	131.14	
Max	131.47	132.71	133.12	131.98	131.39	132.60	133.15	133.35	132.11	131.88	131.58	131.29	133.35
Min	130.92	131.51	132.01	131.20	130.83	130.85	131.91	131.14	131.24	131.59	131.30	131.01	130.83

Annual Max Momentary Gage Height 133.35 m. (MSL.) , at 12.00 Hours , on Nov 3 , 2018

Zero Gage at Bottom Elevation 129.80 m. (MSL.) , River Bed 126.70 m. (MSL.)

Left Bank Elevation 140.34 m. (MSL.) ,

Right Bank Elevation 140.48 m. (MSL.) , Drainage Are 24,841 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	14.20	24.80	15.60	3.90	0.00	28.00	72.80	0.00	0.00	0.00	0.00		
2	0.00	16.60	45.20	15.00	3.70	0.00	25.30	75.20	0.00	0.00	0.00	0.00		
3	0.00	18.70	52.40	14.60	3.50	0.00	31.85	76.00	0.00	0.00	0.00	0.00		
4	0.00	25.30	50.00	13.60	3.30	0.00	36.05	76.00	0.00	0.00	0.00	0.00		
5	0.00	30.10	54.95	13.00	3.10	0.00	35.35	74.80	0.00	0.00	0.00	0.00		
6	0.00	29.40	55.30	12.60	2.90	0.00	30.10	71.60	0.00	0.00	0.00	0.00		
7	0.00	34.30	56.00	12.00	3.30	0.00	33.95	67.55	0.00	0.00	0.00	0.00		
8	0.00	44.45	56.70	11.20	3.40	0.00	37.45	59.50	0.00	0.00	0.00	0.00		
9	0.00	49.70	58.80	10.00	3.40	0.00	37.10	54.95	0.00	0.00	0.00	0.00		
10	0.00	46.90	61.95	9.20	3.40	0.00	32.90	48.65	0.00	0.00	0.00	0.00		
11	0.00	44.45	65.45	8.20	3.20	0.00	32.90	45.85	0.00	0.00	0.00	0.00		
12	0.00	44.45	67.20	7.40	1.50	0.00	32.90	42.35	0.00	0.00	0.00	0.00		
13	0.00	47.60	62.30	6.60	0.80	0.00	32.90	40.95	0.00	0.00	0.00	0.00		
14	0.00	50.40	58.80	6.00	0.80	0.00	33.95	42.00	0.00	0.00	0.00	0.00		
15	0.00	52.85	50.75	5.40	0.80	0.10	34.30	43.75	0.00	0.00	0.00	0.00		
16	0.00	52.50	35.70	4.80	0.90	0.20	34.65	45.50	0.00	0.00	0.00	0.00		
17	0.00	45.15	32.20	5.20	1.00	0.20	34.30	29.60	0.00	0.00	0.00	0.00		
18	0.00	32.55	19.60	5.60	1.00	0.90	34.30	27.60	0.00	0.00	0.00	0.00		
19	0.00	28.35	19.80	5.40	1.10	2.60	33.95	26.80	0.00	0.00	0.00	0.00		
20	0.00	16.80	19.80	4.60	1.00	6.20	34.65	26.00	0.00	0.00	0.00	0.00		
21	0.00	18.00	19.20	3.90	0.50	13.20	35.70	25.10	0.00	0.00	0.00	0.00		
22	0.00	18.80	19.60	3.50	0.10	20.60	36.40	22.70	0.00	0.00	0.00	0.00		
23	1.60	13.20	19.00	3.20	0.00	41.30	37.45	14.00	0.00	0.00	0.00	0.00		
24	3.40	7.00	18.60	2.20	0.00	40.25	44.10	9.40	0.00	0.00	0.00	0.00		
25	5.20	6.20	18.20	2.20	0.00	41.30	50.05	5.20	0.00	0.00	0.00	0.00		
26	6.10	8.80	18.00	2.00	0.00	43.40	56.70	3.30	0.00	0.00	0.00	0.00		
27	6.40	15.00	17.80	2.30	0.00	45.15	60.55	2.50	0.00	0.00	0.00	0.00		
28	7.30	17.20	17.40	3.80	0.00	49.00	63.35	1.90	0.00	0.00	0.00	0.00		
29	11.20	22.10	16.80	5.00	0.00	46.55	64.75	1.50	0.00	0.00		0.00		
30	12.10	19.60	16.20	4.60	0.00	38.15	66.15	1.40	0.00	0.00		0.00		
31		19.00		4.20	0.00		68.25		0.00	0.00		0.00		
Total	53.30	889.65	1128.50	222.90	46.60	389.10	1250.30	1134.45	0.00	0.00	0.00	0.00	5114.80	CMSDAY
Mean	1.78	28.70	37.62	7.19	1.50	12.97	40.33	37.82	0.00	0.00	0.00	0.00	14.01	CMS
Max	12.10	52.85	67.20	15.60	3.90	49.00	68.25	76.00	0.00	0.00	0.00	0.00	76.00	CMS
Min	0.00	6.20	16.20	2.00	0.00	0.00	25.30	1.40	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	4.61	76.87	97.50	19.26	4.03	33.62	108.03	98.02	0.00	0.00	0.00	0.00	441.92	MCM

Momentary Peak 76.00 CMS. at 133.35 m. (MSL.) at 12.00 Hours , on Nov 3, 2018

Runoff Yield 0.56 Liters/Second/Square KM. Momentary Peak Yield 3.06 Liters/Second/Square KM.

WATER YEAR : 2018

MUN RIVER BASIN

Huai Ta Thieo at Ban Na Hai, Ubon Ratchathani (M.127)

Lat 15 - 38 - 37 N Long 104 - 55 - 57 E

Location : on left bank at the bridge on road.

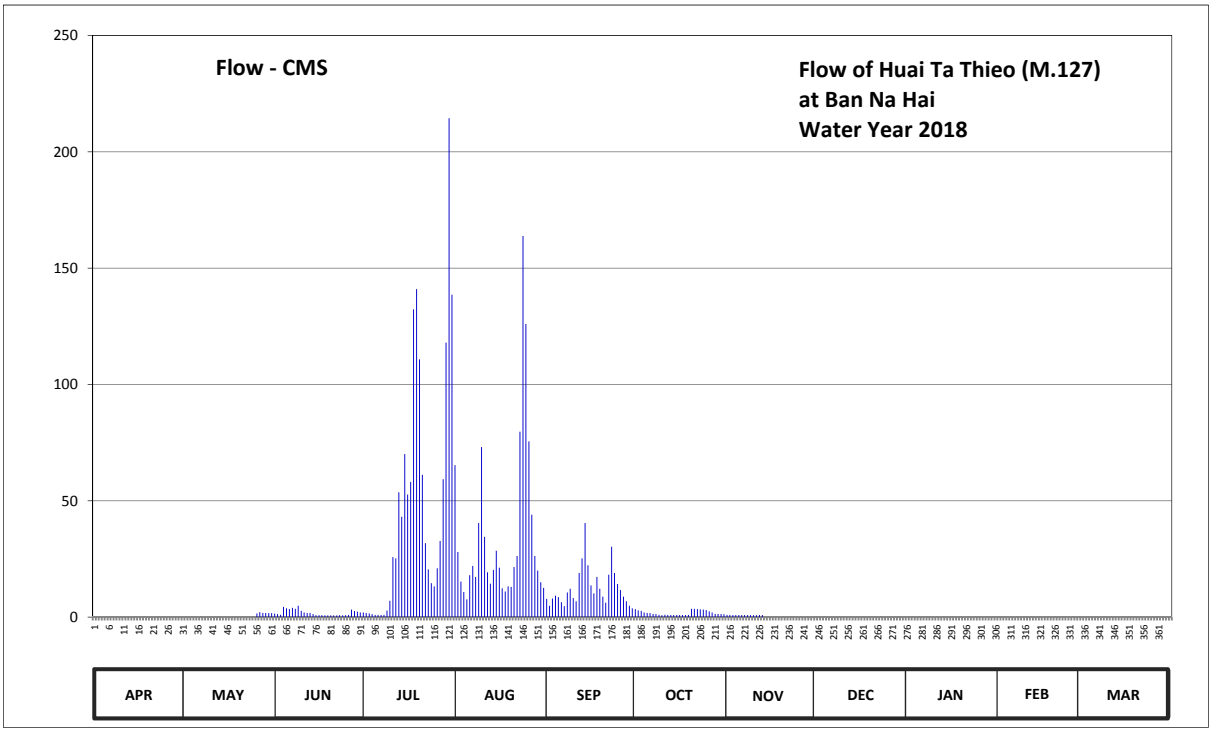
Ban Na Hai **Amphoe** Trakan Phutphon **Changwat** Ubon Ratchathani

Drainge Area	424 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+115.300 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank downstream side at the abutment of the bridge. **Elevation** +126.877 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00 ,09.00, 12.00,15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic mean of 5 readings
Period of Available Gage Records	1984 to date
Rating Operation	
Period of Rating	1987 to date
Rated by Flot	-
Rated by Current Meter	1987 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records very good. The weir situsted about 300 meters downstream from the gage site. Stage-discharge relation defined by 45 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	116.56	116.50	116.75	116.80	119.41	117.24	116.94	116.69	116.55	116.54	116.47	116.32	
2	116.56	116.50	116.73	116.78	118.12	117.09	116.89	116.68	116.55	116.54	116.47	116.32	
3	116.56	116.50	116.70	116.76	117.61	117.25	116.87	116.66	116.55	116.54	116.46	116.31	
4	116.55	116.51	117.04	116.73	117.39	117.31	116.80	116.66	116.55	116.54	116.46	116.30	
5	116.55	116.51	116.98	116.68	117.23	117.28	116.78	116.66	116.55	116.54	116.45	116.30	
6	116.55	116.52	116.94	116.69	117.72	117.17	116.77	116.66	116.55	116.54	116.45	116.29	
7	116.55	116.53	117.00	116.66	117.88	117.07	116.74	116.65	116.56	116.54	116.44	116.29	
8	116.55	116.53	116.96	116.69	117.69	117.38	116.73	116.64	116.56	116.54	116.44	116.28	
9	116.55	116.54	117.09	116.88	118.58	117.46	116.67	116.62	116.56	116.54	116.43	116.27	
10	116.55	116.54	116.87	117.20	119.67	117.26	116.61	116.62	116.56	116.54	116.42	116.27	
11	116.54	116.55	116.80	118.03	118.38	117.19	116.70	116.60	116.56	116.54	116.42	116.26	
12	116.54	116.55	116.78	118.01	117.77	117.76	116.68	116.64	116.56	116.54	116.41	116.25	
13	116.54	116.55	116.78	119.02	117.57	118.01	116.66	116.64	116.56	116.54	116.41	116.25	
14	116.54	116.55	116.73	118.67	117.81	118.58	116.66	116.64	116.56	116.53	116.40	116.24	
15	116.54	116.55	116.60	119.57	118.14	117.89	116.66	116.64	116.56	116.53	116.40	116.24	
16	116.53	116.55	116.60	118.99	117.85	117.53	116.66	116.64	116.56	116.53	116.39	116.23	
17	116.53	116.54	116.60	119.17	117.47	117.36	116.66	116.62	116.56	116.52	116.39	116.23	
18	116.53	116.54	116.59	121.35	117.40	117.69	116.66	116.62	116.56	116.52	116.38	116.22	
19	116.53	116.54	116.59	121.54	117.51	117.46	116.67	116.60	116.55	116.52	116.37	116.21	
20	116.52	116.54	116.59	120.82	117.50	117.29	116.96	116.60	116.55	116.51	116.37	116.20	
21	116.52	116.54	116.59	119.27	117.86	117.16	116.96	116.59	116.55	116.51	116.36	116.19	
22	116.50	116.54	116.59	118.27	118.05	117.73	116.94	116.59	116.55	116.51	116.35	116.19	
23	116.52	116.54	116.60	117.82	119.89	118.21	116.93	116.58	116.55	116.50	116.35	116.18	
24	116.51	116.54	116.59	117.58	121.94	117.76	116.92	116.58	116.55	116.50	116.34	116.18	
25	116.51	116.55	116.60	117.51	121.20	117.56	116.90	116.57	116.55	116.49	116.34	116.17	
26	116.51	116.76	116.68	117.84	119.75	117.43	116.85	116.56	116.55	116.49	116.34	116.16	
27	116.50	116.81	116.92	118.31	118.70	117.29	116.80	116.56	116.55	116.49	116.33	116.15	
28	116.50	116.78	116.86	119.21	118.05	117.19	116.74	116.56	116.55	116.48	116.33	116.14	
29	116.50	116.78	116.83	121.00	117.80	117.09	116.74	116.55	116.55	116.48		116.13	
30	116.50	116.77	116.80	122.47	117.60	116.98	116.73	116.55	116.55	116.48		116.13	
31		116.77		121.49	117.48		116.72		116.55	116.48		116.12	
Mean	116.53	116.58	116.76	118.51	118.29	117.46	116.77	116.62	116.55	116.52	116.40	116.23	
Max	116.56	116.81	117.09	122.47	121.94	118.58	116.96	116.69	116.56	116.54	116.47	116.32	122.47
Min	116.50	116.50	116.59	116.66	117.23	116.98	116.61	116.55	116.55	116.48	116.33	116.12	116.12

Annual Max Momentary Gage Height	122.54	m. (MSL.) ,	at 14.00 Hours , on Jul 30, 2018		
Zero Gage at Bottom Elevation	115.30	m. (MSL.) ,	River Bed	113.62	m. (MSL.)
Left Bank Elevation	126.62	m. (MSL.) ,			
Right Bank Elevation	126.61	m. (MSL.) ,	Drainage Are	424	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	1.50	2.00	65.30	7.80	3.40	0.98	0.00	0.00	0.00	0.00		
2	0.00	0.00	1.30	1.80	28.00	4.90	2.90	0.96	0.00	0.00	0.00	0.00		
3	0.00	0.00	1.00	1.60	15.25	8.00	2.70	0.92	0.00	0.00	0.00	0.00		
4	0.00	0.00	4.40	1.30	10.80	9.20	2.00	0.92	0.00	0.00	0.00	0.00		
5	0.00	0.00	3.80	0.96	7.60	8.60	1.80	0.92	0.00	0.00	0.00	0.00		
6	0.00	0.00	3.40	0.98	18.00	6.40	1.70	0.92	0.00	0.00	0.00	0.00		
7	0.00	0.00	4.00	0.92	22.00	4.70	1.40	0.90	0.00	0.00	0.00	0.00		
8	0.00	0.00	3.60	0.98	17.25	10.60	1.30	0.88	0.00	0.00	0.00	0.00		
9	0.00	0.00	4.90	2.80	40.40	12.20	0.94	0.84	0.00	0.00	0.00	0.00		
10	0.00	0.00	2.70	7.00	73.10	8.20	0.82	0.84	0.00	0.00	0.00	0.00		
11	0.00	0.00	2.00	25.75	34.50	6.80	1.00	0.80	0.00	0.00	0.00	0.00		
12	0.00	0.00	1.80	25.25	19.25	19.00	0.96	0.88	0.00	0.00	0.00	0.00		
13	0.00	0.00	1.80	53.60	14.40	25.25	0.92	0.88	0.00	0.00	0.00	0.00		
14	0.00	0.00	1.30	43.10	20.25	40.40	0.92	0.00	0.00	0.00	0.00	0.00		
15	0.00	0.00	0.80	70.10	28.50	22.25	0.92	0.00	0.00	0.00	0.00	0.00		
16	0.00	0.00	0.80	52.70	21.25	13.60	0.92	0.00	0.00	0.00	0.00	0.00		
17	0.00	0.00	0.80	58.10	12.40	10.20	0.92	0.00	0.00	0.00	0.00	0.00		
18	0.00	0.00	0.78	132.25	11.00	17.25	0.92	0.00	0.00	0.00	0.00	0.00		
19	0.00	0.00	0.78	141.00	13.20	12.20	0.94	0.00	0.00	0.00	0.00	0.00		
20	0.00	0.00	0.78	110.80	13.00	8.80	3.60	0.00	0.00	0.00	0.00	0.00		
21	0.00	0.00	0.78	61.10	21.50	6.20	3.60	0.00	0.00	0.00	0.00	0.00		
22	0.00	0.00	0.78	31.75	26.25	18.25	3.40	0.00	0.00	0.00	0.00	0.00		
23	0.00	0.00	0.80	20.50	79.70	30.25	3.30	0.00	0.00	0.00	0.00	0.00		
24	0.00	0.00	0.78	14.60	163.80	19.00	3.20	0.00	0.00	0.00	0.00	0.00		
25	0.00	0.00	0.80	13.20	126.00	14.20	3.00	0.00	0.00	0.00	0.00	0.00		
26	0.00	1.60	0.96	21.00	75.50	11.60	2.50	0.00	0.00	0.00	0.00	0.00		
27	0.00	2.10	3.20	32.75	44.00	8.80	2.00	0.00	0.00	0.00	0.00	0.00		
28	0.00	1.80	2.60	59.30	26.25	6.80	1.40	0.00	0.00	0.00	0.00	0.00		
29	0.00	1.80	2.30	118.00	20.00	4.90	1.40	0.00	0.00	0.00		0.00		
30	0.00	1.70	2.00	214.40	15.00	3.80	1.30	0.00	0.00	0.00		0.00		
31		1.70		138.55	12.60		1.20		0.00	0.00		0.00		
Total	0.00	10.70	57.24	1458.14	1096.05	380.15	57.28	11.64	0.00	0.00	0.00	0.00	3071.20	CMSDAY
Mean	0.00	0.35	1.91	47.04	35.36	12.67	1.85	0.39	0.00	0.00	0.00	0.00	8.41	CMS
Max	0.00	2.10	4.90	214.40	163.80	40.40	3.60	0.98	0.00	0.00	0.00	0.00	214.40	CMS
Min	0.00	0.00	0.78	0.92	7.60	3.80	0.82	0.00	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	0.00	0.92	4.95	125.98	94.70	32.84	4.95	1.01	0.00	0.00	0.00	0.00	265.35	MCM

Momentary Peak 223.20 CMS, at 122.54 m. (MSL.) , at 14.00 Hours , on Jul 30, 2018

Runoff Yield 19.84 Liters/Second/Square KM. Momentary Peak Yield 526.42 Liters/Second/Square KM.

WATER YEAR : 2018

MUN RIVER BASIN

Lam Phra Phloeng at Ban Wang Takian Thong, Nakhon Ratchasima (M.145)

Lat 14 - 29 - 24 N Long 101 - 41 - 14 E

Location : on right bank at Ban Wang Takian Thong.

Ban Wang Takian Thong **Amphoe** Pak Chong **Changwat** Nakhon Ratchasima

Drainge Area	335 sq.km.
Type of Gage	Staff gage.
Zero Gage at Bottom	+383.000 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On right bank about 12 meters from the top staff gage. **Elevation** +390.970 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic mean of 5 readings
Period of Available Gage Records	1990 to date
Rating Operation	
Period of Rating	1990 to date
Rated by Flot	-
Rated by Current Meter	1990 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records very good. Stage-discharge relation defined by 70 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

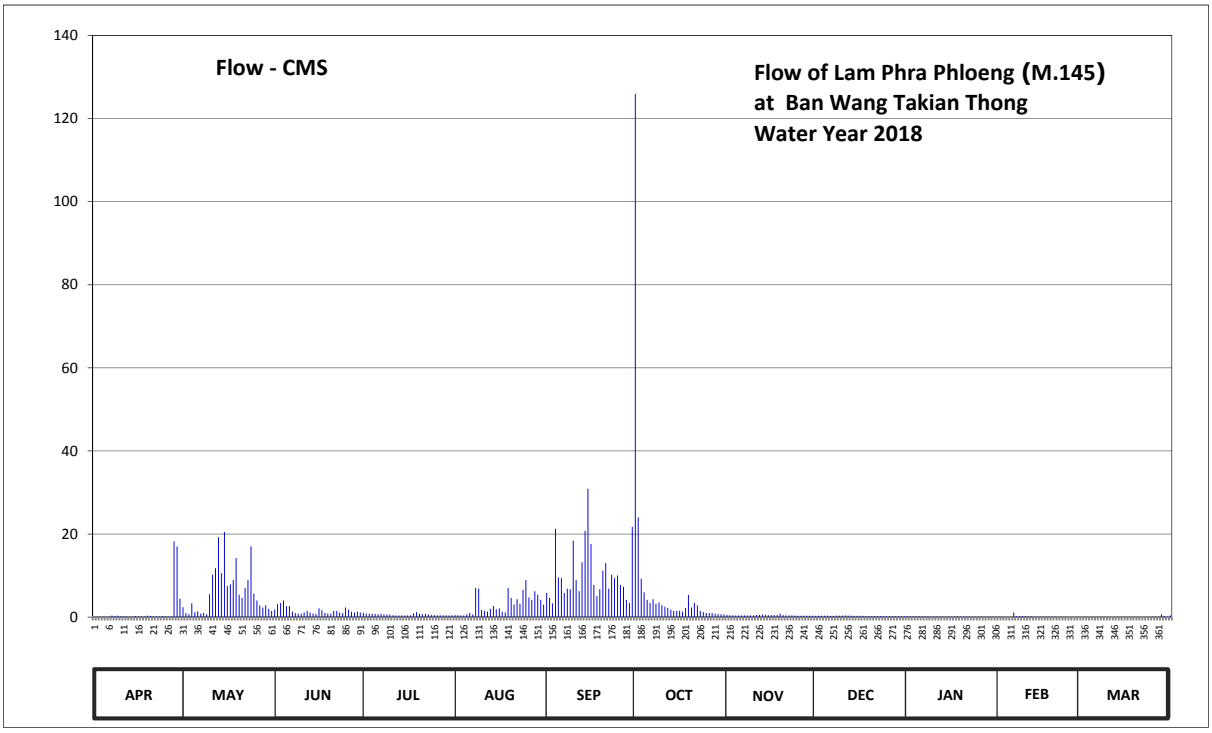
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	386.18	386.64	386.58	386.50	386.40	386.92	390.13	386.41	386.31	386.24	386.14	386.09	
2	386.18	386.49	386.71	386.47	386.39	386.84	387.86	386.39	386.32	386.24	386.13	386.08	
3	386.18	386.44	386.74	386.46	386.37	386.73	387.15	386.38	386.32	386.24	386.11	386.08	
4	386.18	386.73	386.80	386.46	386.36	387.75	386.93	386.37	386.32	386.24	386.11	386.08	
5	386.18	386.52	386.66	386.45	386.43	387.17	386.81	386.36	386.32	386.24	386.10	386.07	
6	386.21	386.54	386.67	386.44	386.50	387.16	386.74	386.36	386.31	386.24	386.51	386.06	
7	386.34	386.47	386.53	386.45	386.43	386.92	386.82	386.36	386.31	386.23	386.25	386.05	
8	386.27	386.50	386.49	386.43	387.00	386.99	386.72	386.36	386.34	386.22	386.26	386.05	
9	386.32	386.44	386.47	386.43	386.99	386.98	386.75	386.36	386.32	386.20	386.28	386.05	
10	386.26	386.90	386.46	386.42	386.57	387.62	386.69	386.37	386.35	386.21	386.27	386.04	
11	386.23	387.21	386.51	386.38	386.55	387.13	386.65	386.39	386.36	386.21	386.23	386.03	
12	386.22	387.29	386.55	386.37	386.53	386.95	386.62	386.39	386.35	386.21	386.22	386.02	
13	386.20	387.66	386.51	386.36	386.60	387.36	386.58	386.43	386.32	386.20	386.19	386.02	
14	386.20	387.23	386.47	386.36	386.67	387.73	386.55	386.41	386.31	386.20	386.17	386.00	
15	386.28	387.72	386.45	386.36	386.59	388.13	386.55	386.39	386.31	386.20	386.17	386.00	
16	386.23	387.03	386.61	386.36	386.61	387.58	386.55	386.39	386.31	386.20	386.16	386.02	
17	386.22	387.06	386.57	386.38	386.53	387.05	386.53	386.39	386.31	386.20	386.16	386.03	
18	386.22	387.13	386.50	386.48	386.51	386.87	386.62	386.39	386.26	386.22	386.15	386.02	
19	386.32	387.41	386.48	386.52	387.00	386.98	386.89	386.47	386.26	386.20	386.13	386.01	
20	386.30	386.89	386.47	386.45	386.84	387.26	386.63	386.40	386.26	386.20	386.12	386.01	
21	386.25	386.84	386.55	386.44	386.70	387.35	386.74	386.37	386.26	386.20	386.11	386.01	
22	386.23	387.00	386.55	386.46	386.82	386.99	386.68	386.36	386.26	386.19	386.11	386.00	
23	386.22	387.13	386.51	386.43	386.72	387.21	386.55	386.37	386.26	386.18	386.11	386.01	
24	386.28	387.55	386.49	386.41	386.97	387.16	386.52	386.35	386.26	386.18	386.10	386.06	
25	386.25	386.91	386.63	386.39	387.13	387.20	386.50	386.33	386.25	386.19	386.10	386.18	
26	386.22	386.80	386.58	386.38	386.85	387.05	386.50	386.33	386.25	386.20	386.10	386.17	
27	386.22	386.68	386.53	386.38	386.81	387.02	386.50	386.32	386.25	386.19	386.10	386.13	
28	387.61	386.63	386.51	386.38	386.95	386.81	386.46	386.32	386.25	386.17	386.10	386.44	
29	387.55	386.69	386.53	386.38	386.89	386.74	386.45	386.32	386.25	386.16		386.27	
30	386.83	386.60	386.51	386.37	386.81	387.77	386.44	386.32	386.25	386.15		386.19	
31		386.55		386.38	386.70		386.43		386.25	386.15		386.35	
Mean	386.35	386.89	386.55	386.42	386.68	387.18	386.79	386.37	386.29	386.20	386.17	386.08	
Max	387.61	387.72	386.80	386.52	387.13	388.13	390.13	386.47	386.36	386.24	386.51	386.44	390.13
Min	386.18	386.44	386.45	386.36	386.36	386.73	386.43	386.32	386.25	386.15	386.10	386.00	386.00

Annual Max Momentary Gage Height 390.50 m. (MSL.) , at 13.00 Hours , on Oct 1, 2018

Zero Gage at Bottom Elevation 383.00 m. (MSL.) , River Bed 385.80 m. (MSL.)

Left Bank Elevation 391.30 m. (MSL.) ,

Right Bank Elevation 390.68 m. (MSL.) , Drainage Are 335 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.08	2.40	1.80	1.00	0.50	5.80	125.95	0.55	0.32	0.18	0.04	0.00		
2	0.08	0.95	3.10	0.85	0.48	4.60	24.00	0.48	0.34	0.18	0.03	0.00		
3	0.08	0.70	3.40	0.80	0.44	3.30	9.25	0.46	0.34	0.18	0.01	0.00		
4	0.08	3.30	4.00	0.80	0.42	21.25	5.95	0.44	0.34	0.18	0.01	0.00		
5	0.08	1.20	2.60	0.75	0.65	9.55	4.15	0.42	0.34	0.18	0.00	0.00		
6	0.12	1.40	2.70	0.70	1.00	9.40	3.40	0.42	0.32	0.18	1.10	0.00		
7	0.38	0.85	1.30	0.75	0.65	5.80	4.30	0.42	0.32	0.16	0.20	0.00		
8	0.24	1.00	0.95	0.65	7.00	6.85	3.20	0.42	0.38	0.14	0.22	0.00		
9	0.34	0.70	0.85	0.65	6.85	6.70	3.50	0.42	0.34	0.10	0.26	0.00		
10	0.22	5.50	0.80	0.60	1.70	18.40	2.90	0.44	0.40	0.12	0.24	0.00		
11	0.16	10.20	1.10	0.46	1.50	8.95	2.50	0.48	0.42	0.12	0.16	0.00		
12	0.14	11.80	1.50	0.44	1.30	6.25	2.20	0.48	0.40	0.12	0.14	0.00		
13	0.10	19.20	1.10	0.42	2.00	13.20	1.80	0.65	0.34	0.10	0.09	0.00		
14	0.10	10.60	0.85	0.42	2.70	20.75	1.50	0.55	0.32	0.10	0.07	0.00		
15	0.26	20.50	0.75	0.42	1.90	30.90	1.50	0.48	0.32	0.10	0.07	0.00		
16	0.16	7.45	2.10	0.42	2.10	17.60	1.50	0.48	0.32	0.10	0.06	0.00		
17	0.14	7.90	1.70	0.46	1.30	7.75	1.30	0.48	0.32	0.10	0.06	0.00		
18	0.14	8.95	1.00	0.90	1.10	5.05	2.20	0.48	0.22	0.14	0.05	0.00		
19	0.34	14.20	0.90	1.20	7.00	6.70	5.35	0.85	0.22	0.10	0.03	0.00		
20	0.30	5.35	0.85	0.75	4.60	11.20	2.30	0.50	0.22	0.10	0.02	0.00		
21	0.20	4.60	1.50	0.70	3.00	13.00	3.40	0.44	0.22	0.10	0.01	0.00		
22	0.16	7.00	1.50	0.80	4.30	6.85	2.80	0.42	0.22	0.09	0.01	0.00		
23	0.14	8.95	1.10	0.65	3.20	10.20	1.50	0.44	0.22	0.08	0.01	0.00		
24	0.26	17.00	0.95	0.55	6.55	9.40	1.20	0.40	0.22	0.08	0.00	0.00		
25	0.20	5.65	2.30	0.48	8.95	10.00	1.00	0.36	0.20	0.09	0.00	0.08		
26	0.14	4.00	1.80	0.46	4.75	7.75	1.00	0.36	0.20	0.10	0.00	0.07		
27	0.14	2.80	1.30	0.46	4.15	7.30	1.00	0.34	0.20	0.09	0.00	0.03		
28	18.20	2.30	1.10	0.46	6.25	4.15	0.80	0.34	0.20	0.07	0.00	0.70		
29	17.00	2.90	1.30	0.46	5.35	3.40	0.75	0.34	0.20	0.06		0.24		
30	4.45	2.00	1.10	0.44	4.15	21.75	0.70	0.34	0.20	0.05		0.09		
31		1.50		0.46	3.00		0.65		0.20	0.05		0.40		
Total	44.43	192.85	47.30	19.36	98.84	313.80	223.55	13.68	8.82	3.54	2.89	1.61	970.67	CMSDAY
Mean	1.48	6.22	1.58	0.62	3.19	10.46	7.21	0.46	0.28	0.11	0.10	0.05	2.66	CMS
Max	18.20	20.50	4.00	1.20	8.95	30.90	125.95	0.85	0.42	0.18	1.10	0.70	125.95	CMS
Min	0.08	0.70	0.75	0.42	0.42	3.30	0.65	0.34	0.20	0.05	0.00	0.00	0.00	CMS
Runoff	3.84	16.66	4.09	1.67	8.54	27.11	19.31	1.18	0.76	0.31	0.25	0.14	83.87	MCM

Momentary Peak 150.00 CMS, at 390.50 m. (MSL.) , at 13.00 Hours , on Oct 1 , 2018

Runoff Yield 7.94 Liters/Second/Square KM. Momentary Peak Yield 447.76 Liters/Second/Square KM.

WATER YEAR : 2018

MUN RIVER BASIN

Lam Chi at Ban Lum Din, Surin (M.159)

Lat 15 - 08 - 24 N Long 103 - 25 - 57 E

Location : on right bank at Ban Lum Din.

	Ban Lum Din	**Amphoe** Chom Phra	**Changwat** Surin
Drainge Area	4,806 sq.km.		
Type of Gage	Staff gage.		
Zero Gage at Bottom	+120.900 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank at staff gage line.		**Elevation** +131.079 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic mean of 5 readings		
Period of Available Gage Records	1999 to date		
Rating Operation			
Period of Rating	1999 to date		
Rated by Flot	-		
Rated by Current Meter	1999 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 17 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

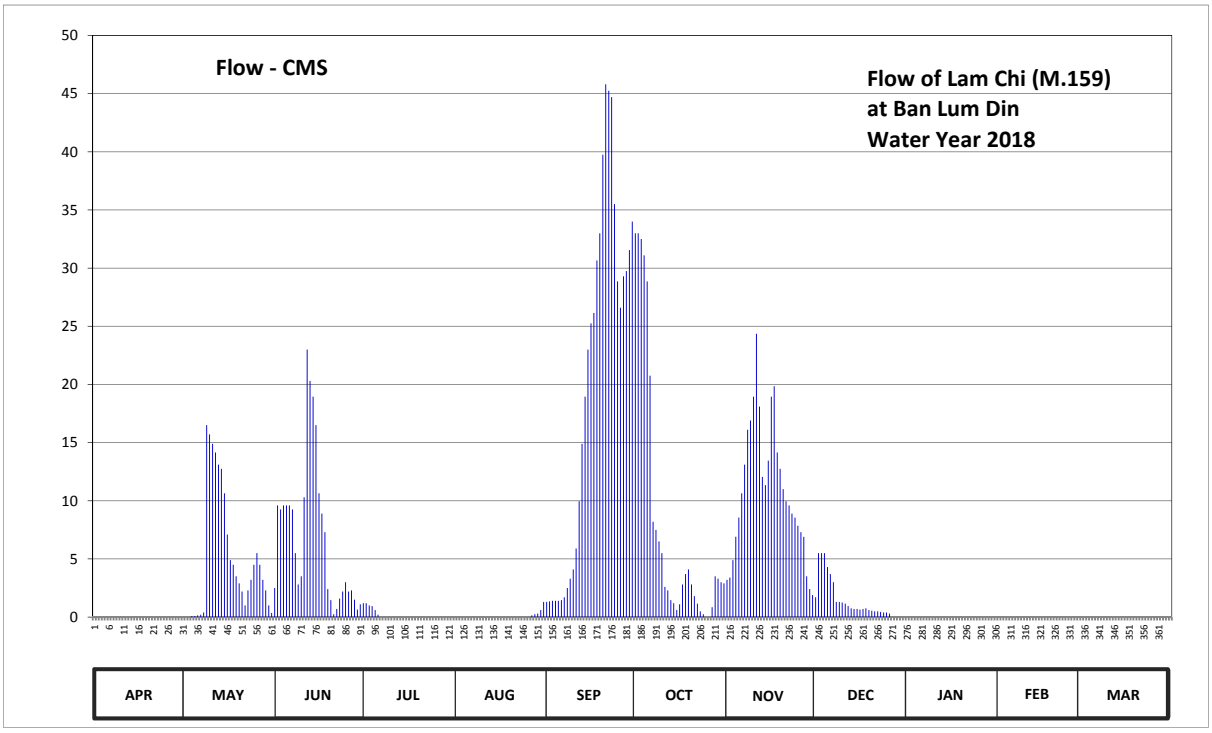
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	122.47	122.45	122.90	122.74	122.24	122.76	123.82	122.97	122.82	122.40	121.63	121.21	
2	122.46	122.46	123.26	122.74	122.25	122.77	123.82	122.99	123.10	122.40	121.60	121.21	
3	122.48	122.50	123.25	122.70	122.31	122.78	123.81	123.07	123.10	122.40	121.57	121.22	
4	122.49	122.52	123.26	122.69	122.32	122.78	123.78	123.17	123.10	122.40	121.55	121.23	
5	122.47	122.52	123.26	122.62	122.34	122.78	123.73	123.23	123.04	122.36	121.52	121.23	
6	122.46	122.53	123.26	122.54	122.34	122.79	123.55	123.29	123.01	122.33	121.49	121.23	
7	122.44	122.54	123.25	122.50	122.35	122.82	123.22	123.36	122.95	122.29	121.47	121.23	
8	122.43	122.58	123.10	122.42	122.34	122.90	123.20	123.44	122.76	122.24	121.44	121.23	
9	122.43	123.45	122.93	122.36	122.36	122.98	123.15	123.46	122.76	122.21	121.41	121.24	
10	122.42	123.43	123.00	122.34	122.38	123.03	123.10	123.51	122.75	122.24	121.39	121.23	
11	122.41	123.41	123.28	122.30	122.40	123.12	122.91	123.63	122.73	122.22	121.36	121.23	
12	122.42	123.39	123.60	122.22	122.40	123.27	122.88	123.49	122.69	122.20	121.33	121.24	
13	122.43	123.36	123.54	122.20	122.41	123.41	122.79	123.33	122.65	122.17	121.31	121.24	
14	122.44	123.35	123.51	122.18	122.41	123.51	122.74	123.31	122.64	122.10	121.28	121.24	
15	122.46	123.29	123.45	122.09	122.43	123.60	122.62	123.37	122.64	122.09	121.25	121.24	
16	122.47	123.18	123.29	122.04	122.44	123.65	122.72	123.51	122.63	122.08	121.25	121.24	
17	122.47	123.07	123.24	122.04	122.41	123.67	122.93	123.53	122.64	122.07	121.25	121.24	
18	122.46	123.05	123.19	122.00	122.35	123.77	123.01	123.39	122.65	122.06	121.24	121.24	
19	122.46	123.00	122.89	121.97	122.34	123.82	123.03	123.35	122.62	122.04	121.24	121.23	
20	122.46	122.94	122.79	121.97	122.34	123.95	122.93	123.30	122.61	122.02	121.24	121.23	
21	122.47	122.87	122.55	121.94	122.38	124.06	122.83	123.27	122.60	122.00	121.24	121.23	
22	122.46	122.70	122.64	121.95	122.37	124.05	122.73	123.26	122.60	121.98	121.23	121.23	
23	122.44	122.88	122.81	122.02	122.34	124.04	122.60	123.24	122.59	121.95	121.23	121.23	
24	122.45	122.97	122.87	122.04	122.33	123.87	122.55	123.23	122.58	121.93	121.22	121.22	
25	122.46	123.05	122.95	122.05	122.35	123.73	122.50	123.21	122.58	121.92	121.22	121.22	
26	122.44	123.10	122.87	122.05	122.49	123.68	122.50	123.19	122.56	121.88	121.22	121.21	
27	122.43	123.05	122.88	122.04	122.53	123.74	122.67	123.17	122.49	121.86	121.21	121.20	
28	122.44	122.97	122.80	122.05	122.55	123.75	123.00	123.00	122.46	121.85	121.21	121.19	
29	122.44	122.88	122.63	122.06	122.56	123.79	122.98	122.89	122.45	121.82		121.18	
30	122.44	122.70	122.72	122.11	122.62	123.84	122.95	122.84	122.43	121.75		121.18	
31		122.57		122.22	122.76		122.94		122.40	121.64		121.17	
Mean	122.45	122.93	123.07	122.23	122.40	123.42	123.03	123.27	122.70	122.09	121.34	121.22	
Max	122.49	123.45	123.60	122.74	122.76	124.06	123.82	123.63	123.10	122.40	121.63	121.24	124.06
Min	122.41	122.45	122.55	121.94	122.24	122.76	122.50	122.84	122.40	121.64	121.21	121.17	121.17

Annual Max Momentary Gage Height 124.06 m. (MSL.) , at 06.00 Hours, on Sep 21, 2018

Zero Gage at Bottom Elevation 120.90 m. (MSL.) , River Bed 120.78 m. (MSL.)

Left Bank Elevation 132.21 m. (MSL.) ,

Right Bank Elevation 132.28 m. (MSL.) , Drainage Are 4,806 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	2.50	1.20	0.00	1.30	33.00	3.20	1.70	0.00	0.00	0.00		
2	0.00	0.00	9.60	1.20	0.00	1.35	33.00	3.40	5.50	0.00	0.00	0.00		
3	0.00	0.00	9.25	1.00	0.00	1.40	32.50	4.90	5.50	0.00	0.00	0.00		
4	0.00	0.10	9.60	0.95	0.00	1.40	31.10	6.90	5.50	0.00	0.00	0.00		
5	0.00	0.10	9.60	0.60	0.00	1.40	28.85	8.55	4.30	0.00	0.00	0.00		
6	0.00	0.15	9.60	0.20	0.00	1.45	20.75	10.65	3.70	0.00	0.00	0.00		
7	0.00	0.20	9.25	0.00	0.00	1.70	8.20	13.10	3.00	0.00	0.00	0.00		
8	0.00	0.40	5.50	0.00	0.00	2.50	7.50	16.10	1.30	0.00	0.00	0.00		
9	0.00	16.50	2.80	0.00	0.00	3.30	6.50	16.90	1.30	0.00	0.00	0.00		
10	0.00	15.70	3.50	0.00	0.00	4.10	5.50	18.95	1.25	0.00	0.00	0.00		
11	0.00	14.90	10.30	0.00	0.00	5.90	2.60	24.35	1.15	0.00	0.00	0.00		
12	0.00	14.15	23.00	0.00	0.00	9.95	2.30	18.10	0.95	0.00	0.00	0.00		
13	0.00	13.10	20.30	0.00	0.00	14.90	1.45	12.05	0.75	0.00	0.00	0.00		
14	0.00	12.75	18.95	0.00	0.00	18.95	1.20	11.35	0.70	0.00	0.00	0.00		
15	0.00	10.65	16.50	0.00	0.00	23.00	0.60	13.45	0.70	0.00	0.00	0.00		
16	0.00	7.10	10.65	0.00	0.00	25.25	1.10	18.95	0.65	0.00	0.00	0.00		
17	0.00	4.90	8.90	0.00	0.00	26.15	2.80	19.85	0.70	0.00	0.00	0.00		
18	0.00	4.50	7.30	0.00	0.00	30.65	3.70	14.15	0.75	0.00	0.00	0.00		
19	0.00	3.50	2.40	0.00	0.00	33.00	4.10	12.75	0.60	0.00	0.00	0.00		
20	0.00	2.90	1.45	0.00	0.00	39.75	2.80	11.00	0.55	0.00	0.00	0.00		
21	0.00	2.20	0.25	0.00	0.00	45.80	1.80	9.95	0.50	0.00	0.00	0.00		
22	0.00	1.00	0.70	0.00	0.00	45.25	1.15	9.60	0.50	0.00	0.00	0.00		
23	0.00	2.30	1.60	0.00	0.00	44.70	0.50	8.90	0.45	0.00	0.00	0.00		
24	0.00	3.20	2.20	0.00	0.00	35.50	0.25	8.55	0.40	0.00	0.00	0.00		
25	0.00	4.50	3.00	0.00	0.00	28.85	0.00	7.85	0.40	0.00	0.00	0.00		
26	0.00	5.50	2.20	0.00	0.00	26.60	0.00	7.30	0.30	0.00	0.00	0.00		
27	0.00	4.50	2.30	0.00	0.15	29.30	0.85	6.90	0.00	0.00	0.00	0.00		
28	0.00	3.20	1.50	0.00	0.25	29.75	3.50	3.50	0.00	0.00	0.00	0.00		
29	0.00	2.30	0.65	0.00	0.30	31.55	3.30	2.40	0.00	0.00		0.00		
30	0.00	1.00	1.10	0.00	0.60	34.00	3.00	1.90	0.00	0.00		0.00		
31		0.35		0.00	1.30		2.90		0.00	0.00		0.00		
Total	0.00	151.65	206.45	5.15	2.60	598.70	246.80	325.50	43.10	0.00	0.00	0.00	1579.95	CMSDAY
Mean	0.00	4.89	6.88	0.17	0.08	19.96	7.96	10.85	1.39	0.00	0.00	0.00	4.33	CMS
Max	0.00	16.50	23.00	1.20	1.30	45.80	33.00	24.35	5.50	0.00	0.00	0.00	45.80	CMS
Min	0.00	0.00	0.25	0.00	0.00	1.30	0.00	1.90	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	0.00	13.10	17.84	0.44	0.22	51.73	21.32	28.12	3.72	0.00	0.00	0.00	136.51	MCM

Momentary Peak 45.80 CMS. at 124.06 m. (MSL.) at 06.00 Hours , on Sep 21 , 2018

Runoff Yield 0.90 Liters/Second/Square KM. Momentary Peak Yield 9.53 Liters/Second/Square KM.

WATER YEAR : 2018

MUN RIVER BASIN

Lam Ta Khong at Ban Send Mari, Nakhon Ratchasima (M.164)

Lat 14 - 58 - 57 N Long 102 - 05 - 52 E

Location : on right bank at the bridge on highway.

Ban Send Mari **Amphoe** Mueang **Changwat** Nakhon Ratchasima

Drainge Area	3,012 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+174.100 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank at staff gage line. **Elevation** +179.529 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	1999 to date
Rating Operation	
Period of Rating	1999 to date
Rated by Flot	-
Rated by Current Meter	1999 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. Stage-discharge relation defined by 19 discharge measurements made in 2018

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

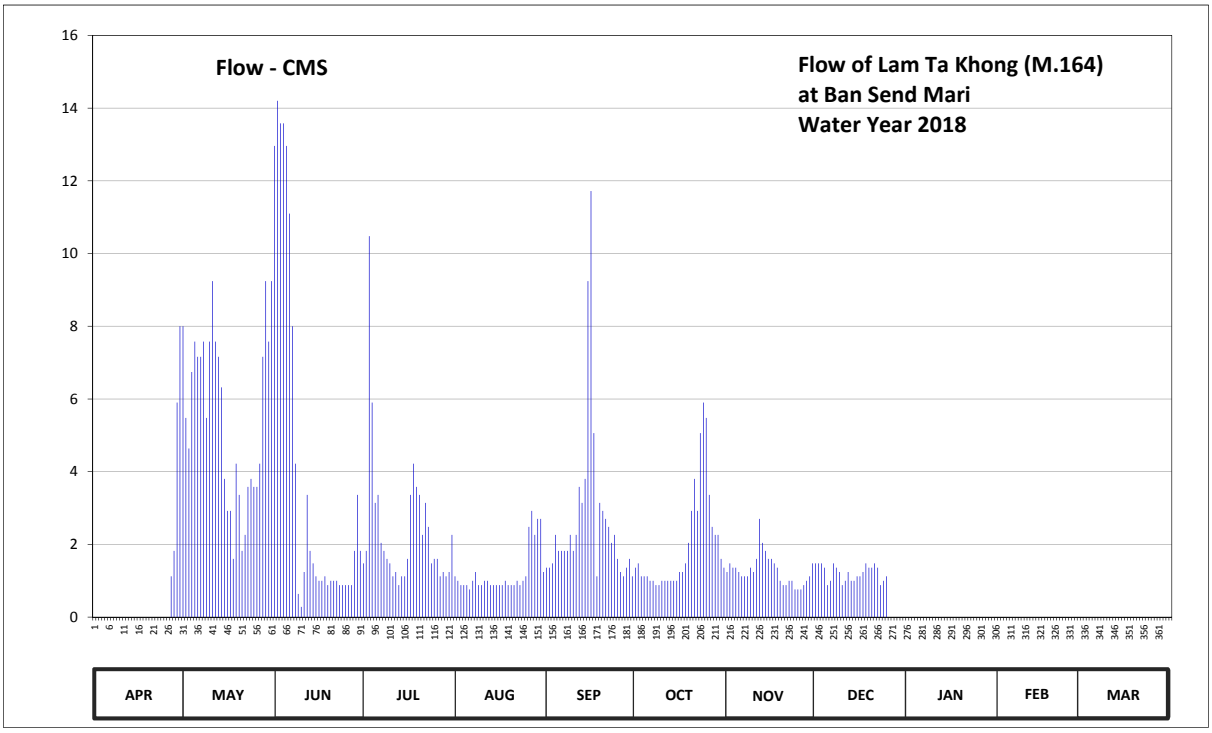
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	176.53	176.80	176.88	176.59	176.56	176.58	176.58	176.57	176.59	176.53	176.54	176.54	
2	176.52	176.74	176.90	176.61	176.55	176.58	176.59	176.59	176.59	176.53	176.54	176.54	
3	176.47	176.72	176.89	176.84	176.54	176.59	176.56	176.58	176.59	176.54	176.57	176.54	
4	176.39	176.77	176.89	176.75	176.54	176.63	176.56	176.58	176.58	176.55	176.57	176.54	
5	176.35	176.79	176.88	176.67	176.54	176.61	176.56	176.57	176.54	176.56	176.56	176.55	
6	176.42	176.78	176.85	176.68	176.53	176.61	176.55	176.56	176.55	176.58	176.55	176.55	
7	176.50	176.78	176.80	176.62	176.55	176.61	176.55	176.56	176.59	176.54	176.55	176.54	
8	176.50	176.79	176.71	176.61	176.57	176.61	176.54	176.56	176.58	176.54	176.53	176.54	
9	176.47	176.74	176.52	176.60	176.54	176.63	176.54	176.58	176.57	176.56	176.53	176.54	
10	176.45	176.79	176.46	176.59	176.54	176.61	176.55	176.57	176.54	176.56	176.53	176.55	
11	176.51	176.82	176.57	176.56	176.55	176.63	176.55	176.60	176.55	176.53	176.55	176.55	
12	176.51	176.79	176.68	176.57	176.55	176.69	176.55	176.65	176.57	176.53	176.55	176.54	
13	176.51	176.78	176.61	176.54	176.54	176.67	176.55	176.62	176.55	176.53	176.56	176.54	
14	176.51	176.76	176.59	176.56	176.54	176.70	176.55	176.61	176.55	176.53	176.56	176.54	
15	176.51	176.70	176.56	176.56	176.54	176.82	176.55	176.60	176.56	176.55	176.57	176.55	
16	176.52	176.66	176.55	176.60	176.54	176.86	176.57	176.60	176.56	176.55	176.58	176.56	
17	176.55	176.66	176.55	176.68	176.54	176.73	176.57	176.59	176.57	176.56	176.56	176.54	
18	176.55	176.60	176.56	176.71	176.55	176.56	176.59	176.58	176.59	176.55	176.56	176.55	
19	176.55	176.71	176.54	176.69	176.54	176.67	176.62	176.55	176.58	176.55	176.57	176.54	
20	176.55	176.68	176.55	176.68	176.54	176.66	176.66	176.54	176.58	176.55	176.57	176.54	
21	176.55	176.61	176.55	176.63	176.54	176.65	176.70	176.54	176.59	176.55	176.56	176.54	
22	176.55	176.63	176.55	176.67	176.55	176.64	176.66	176.55	176.58	176.55	176.55	176.55	
23	176.55	176.69	176.54	176.64	176.54	176.62	176.73	176.55	176.54	176.55	176.58	176.56	
24	176.53	176.70	176.54	176.59	176.55	176.63	176.75	176.53	176.55	176.55	176.57	176.60	
25	176.53	176.69	176.54	176.60	176.56	176.60	176.74	176.53	176.56	176.54	176.57	176.58	
26	176.54	176.69	176.54	176.60	176.64	176.57	176.68	176.53	176.54	176.54	176.57	176.58	
27	176.56	176.71	176.54	176.56	176.66	176.56	176.64	176.54	176.55	176.56	176.57	176.60	
28	176.61	176.78	176.61	176.57	176.63	176.58	176.63	176.55	176.55	176.57	176.56	176.59	
29	176.75	176.82	176.68	176.56	176.65	176.60	176.63	176.56	176.55	176.58		176.57	
30	176.80	176.79	176.61	176.57	176.65	176.56	176.60	176.59	176.55	176.55		176.58	
31		176.82		176.63	176.57		176.58		176.57	176.58		176.56	
Mean	176.53	176.74	176.64	176.62	176.56	176.64	176.60	176.57	176.56	176.55	176.56	176.55	
Max	176.80	176.82	176.90	176.84	176.66	176.86	176.75	176.65	176.59	176.58	176.58	176.60	176.90
Min	176.35	176.60	176.46	176.54	176.53	176.56	176.54	176.53	176.54	176.53	176.53	176.54	176.35

Annual Max Momentary Gage Height 176.90 m. (MSL.) , at 06.00 Hours, on Jun 2, 2018

Zero Gage at Bottom Elevation 174.10 m. (MSL.) , River Bed 174.49 m. (MSL.)

Left Bank Elevation 179.63 m. (MSL.) ,

Right Bank Elevation 179.92 m. (MSL.) , Drainage Are 3,012 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	8.00	12.96	1.48	1.12	1.36	1.36	1.24	1.48	0.00	0.00	0.00		
2	0.00	5.48	14.20	1.82	1.00	1.36	1.48	1.48	1.48	0.00	0.00	0.00		
3	0.00	4.64	13.58	10.48	0.88	1.48	1.12	1.36	1.48	0.00	0.00	0.00		
4	0.00	6.74	13.58	5.90	0.88	2.26	1.12	1.36	1.36	0.00	0.00	0.00		
5	0.00	7.58	12.96	3.14	0.88	1.82	1.12	1.24	0.88	0.00	0.00	0.00		
6	0.00	7.16	11.10	3.36	0.76	1.82	1.00	1.12	1.00	0.00	0.00	0.00		
7	0.00	7.16	8.00	2.04	1.00	1.82	1.00	1.12	1.48	0.00	0.00	0.00		
8	0.00	7.58	4.22	1.82	1.24	1.82	0.88	1.12	1.36	0.00	0.00	0.00		
9	0.00	5.48	0.64	1.60	0.88	2.26	0.88	1.36	1.24	0.00	0.00	0.00		
10	0.00	7.58	0.28	1.48	0.88	1.82	1.00	1.24	0.88	0.00	0.00	0.00		
11	0.00	9.24	1.24	1.12	1.00	2.26	1.00	1.60	1.00	0.00	0.00	0.00		
12	0.00	7.58	3.36	1.24	1.00	3.58	1.00	2.70	1.24	0.00	0.00	0.00		
13	0.00	7.16	1.82	0.88	0.88	3.14	1.00	2.04	1.00	0.00	0.00	0.00		
14	0.00	6.32	1.48	1.12	0.88	3.80	1.00	1.82	1.00	0.00	0.00	0.00		
15	0.00	3.80	1.12	1.12	0.88	9.24	1.00	1.60	1.12	0.00	0.00	0.00		
16	0.00	2.92	1.00	1.60	0.88	11.72	1.24	1.60	1.12	0.00	0.00	0.00		
17	0.00	2.92	1.00	3.36	0.88	5.06	1.24	1.48	1.24	0.00	0.00	0.00		
18	0.00	1.60	1.12	4.22	1.00	1.12	1.48	1.36	1.48	0.00	0.00	0.00		
19	0.00	4.22	0.88	3.58	0.88	3.14	2.04	1.00	1.36	0.00	0.00	0.00		
20	0.00	3.36	1.00	3.36	0.88	2.92	2.92	0.88	1.36	0.00	0.00	0.00		
21	0.00	1.82	1.00	2.26	0.88	2.70	3.80	0.88	1.48	0.00	0.00	0.00		
22	0.00	2.26	1.00	3.14	1.00	2.48	2.92	1.00	1.36	0.00	0.00	0.00		
23	0.00	3.58	0.88	2.48	0.88	2.04	5.06	1.00	0.88	0.00	0.00	0.00		
24	0.00	3.80	0.88	1.48	1.00	2.26	5.90	0.76	1.00	0.00	0.00	0.00		
25	0.00	3.58	0.88	1.60	1.12	1.60	5.48	0.76	1.12	0.00	0.00	0.00		
26	0.00	3.58	0.88	1.60	2.48	1.24	3.36	0.76	0.00	0.00	0.00	0.00		
27	1.12	4.22	0.88	1.12	2.92	1.12	2.48	0.88	0.00	0.00	0.00	0.00		
28	1.82	7.16	1.82	1.24	2.26	1.36	2.26	1.00	0.00	0.00	0.00	0.00		
29	5.90	9.24	3.36	1.12	2.70	1.60	2.26	1.12	0.00	0.00		0.00		
30	8.00	7.58	1.82	1.24	2.70	1.12	1.60	1.48	0.00	0.00		0.00		
31		9.24		2.26	1.24		1.36		0.00	0.00		0.00		
Total	16.84	172.58	118.94	74.26	37.86	81.32	61.36	38.36	30.40	0.00	0.00	0.00	631.92	CMSDAY
Mean	0.56	5.57	3.96	2.40	1.22	2.71	1.98	1.28	0.98	0.00	0.00	0.00	1.73	CMS
Max	8.00	9.24	14.20	10.48	2.92	11.72	5.90	2.70	1.48	0.00	0.00	0.00	14.20	CMS
Min	0.00	1.60	0.28	0.88	0.76	1.12	0.88	0.76	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	1.45	14.91	10.28	6.42	3.27	7.03	5.30	3.31	2.63	0.00	0.00	0.00	54.60	MCM

Momentary Peak 14.20 CMS. at 176.90 m. (MSL.) at 06.00 Hours , on Jun 2 , 2018

Runoff Yield 0.57 Liters/Second/Square KM. Momentary Peak Yield 4.71 Liters/Second/Square KM.

WATER YEAR : 2018

MUN RIVER BASIN

Lam Dom Yai at Ban Kham Samran, Ubon Ratehathani (M.170)

Lat 14 - 47 - 19 N Long 105 - 06 - 10 E

Location : on right bank at the bridge

Ban Kham Samran **Amphoe** Det Udom **Changwat** Ubon Ratchathani

Drainge Area	1,745 sq.km.
Type of Gage	Staff gage.
Zero Gage at Bottom	+123.300 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On right bank upstream at the footpath **Elevation** +133.374 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic mean of 5 readings
Period of Available Gage Records	2001 to date
Rating Operation	
Period of Rating	2001 to date
Rated by Flot	-
Rated by Current Meter	2001 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records very good. Stage-discharge relation defined by 41 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

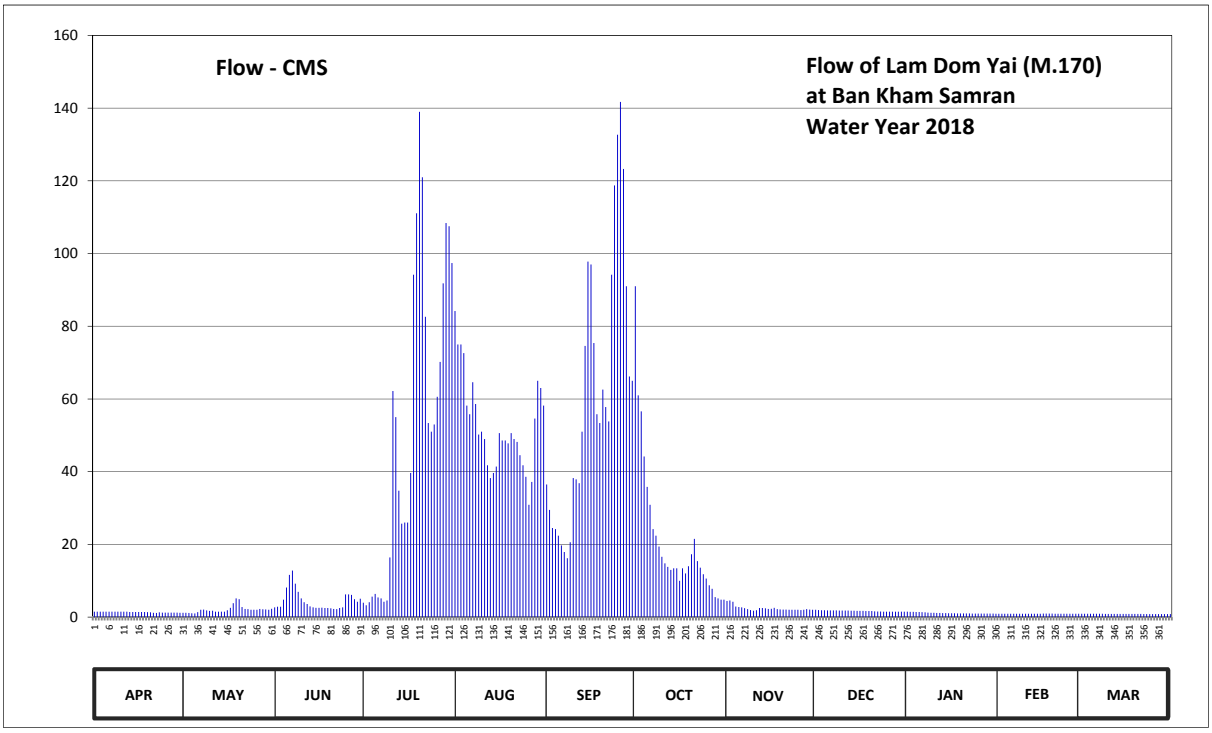
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	123.90	123.84	124.14	124.28	126.93	125.70	127.10	124.32	124.00	123.90	123.77	123.76	
2	123.90	123.84	124.17	124.22	126.70	125.50	126.35	124.33	123.99	123.89	123.77	123.76	
3	123.90	123.83	124.17	124.29	126.70	125.35	126.24	124.30	123.98	123.89	123.77	123.76	
4	123.90	123.81	124.35	124.42	126.64	125.34	125.92	124.18	123.98	123.88	123.77	123.76	
5	123.90	123.80	124.63	124.48	126.28	125.28	125.68	124.15	123.97	123.88	123.77	123.75	
6	123.90	123.87	124.83	124.40	126.22	125.19	125.54	124.14	123.97	123.87	123.77	123.75	
7	123.90	124.00	124.89	124.38	126.44	125.13	125.34	124.09	123.97	123.86	123.77	123.75	
8	123.90	124.01	124.71	124.30	126.29	125.06	125.28	124.04	123.97	123.85	123.77	123.75	
9	123.90	123.97	124.53	124.33	126.08	125.22	125.18	123.99	123.96	123.84	123.77	123.74	
10	123.90	123.94	124.38	125.07	126.10	125.75	125.08	123.95	123.96	123.84	123.76	123.74	
11	123.90	123.95	124.29	126.38	126.05	125.74	124.99	123.98	123.96	123.83	123.76	123.74	
12	123.90	123.90	124.25	126.20	125.85	125.71	124.94	124.10	123.96	123.83	123.76	123.74	
13	123.88	123.90	124.19	125.65	125.75	126.10	124.90	124.10	123.95	123.82	123.75	123.74	
14	123.88	123.90	124.14	125.39	125.79	126.69	124.92	124.08	123.95	123.82	123.75	123.74	
15	123.88	123.90	124.11	125.40	125.84	127.27	124.92	124.05	123.94	123.81	123.77	123.74	
16	123.88	123.98	124.11	125.40	126.09	127.25	124.75	124.06	123.94	123.81	123.78	123.73	
17	123.88	124.11	124.12	125.79	126.04	126.71	124.92	124.11	123.94	123.81	123.78	123.73	
18	123.88	124.27	124.10	127.18	126.04	126.22	124.85	124.04	123.93	123.80	123.78	123.73	
19	123.87	124.38	124.10	127.58	126.02	126.16	124.95	124.02	123.93	123.80	123.78	123.73	
20	123.86	124.36	124.08	128.20	126.09	126.39	125.11	124.01	123.93	123.80	123.77	123.73	
21	123.84	124.15	124.05	127.80	126.05	126.27	125.25	124.01	123.92	123.80	123.77	123.73	
22	123.83	124.05	124.04	126.89	126.03	126.17	125.02	124.00	123.91	123.80	123.77	123.72	
23	123.86	124.04	124.10	126.16	125.93	127.18	124.93	124.00	123.91	123.79	123.77	123.72	
24	123.85	124.00	124.14	126.10	125.85	127.75	124.84	124.00	123.90	123.79	123.77	123.71	
25	123.85	124.00	124.47	126.15	125.76	128.06	124.78	124.00	123.90	123.79	123.77	123.71	
26	123.85	124.00	124.47	126.34	125.54	128.26	124.68	123.99	123.90	123.79	123.77	123.71	
27	123.85	124.05	124.46	126.58	125.72	127.85	124.60	124.00	123.90	123.79	123.77	123.71	
28	123.85	124.03	124.36	127.12	126.19	127.10	124.41	124.04	123.90	123.78	123.77	123.71	
29	123.85	124.02	124.30	127.52	126.45	126.48	124.38	124.01	123.90	123.78		123.71	
30	123.84	124.00	124.37	127.50	126.40	126.45	124.35	124.00	123.90	123.78		123.71	
31		124.06		127.26	126.28		124.35		123.90	123.77		123.72	
Mean	123.88	124.00	124.30	125.90	126.13	126.31	125.11	124.07	123.94	123.82	123.77	123.73	
Max	123.90	124.38	124.89	128.20	126.93	128.26	127.10	124.33	124.00	123.90	123.78	123.76	128.26
Min	123.83	123.80	124.04	124.22	125.54	125.06	124.35	123.95	123.90	123.77	123.75	123.71	123.71

Annual Max Momentary Gage Height 128.29 m. (MSL.) , at 12.00 Hours, on Sep 26, 2018

Zero Gage at Bottom Elevation 123.30 m. (MSL.) , River Bed 122.69 m. (MSL.)

Left Bank Elevation 133.08 m. (MSL.) ,

Right Bank Elevation 133.09 m. (MSL.) , Drainage Are 1,745 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.50	1.20	2.70	3.96	84.20	36.50	91.00	4.44	2.00	1.50	0.94	0.92		
2	1.50	1.20	2.85	3.24	75.00	29.50	61.00	4.56	1.95	1.45	0.94	0.92		
3	1.50	1.15	2.85	4.08	75.00	24.50	56.60	4.20	1.90	1.45	0.94	0.92		
4	1.50	1.05	4.80	5.64	72.60	24.20	44.20	2.90	1.90	1.40	0.94	0.92		
5	1.50	1.00	8.16	6.36	58.20	22.40	35.80	2.75	1.85	1.40	0.94	0.90		
6	1.50	1.35	11.60	5.40	55.80	19.70	30.90	2.70	1.85	1.35	0.94	0.90		
7	1.50	2.00	12.80	5.16	64.60	17.90	24.20	2.45	1.85	1.30	0.94	0.90		
8	1.50	2.05	9.20	4.20	58.60	16.20	22.40	2.20	1.85	1.25	0.94	0.90		
9	1.50	1.85	6.96	4.56	50.20	20.60	19.40	1.95	1.80	1.20	0.94	0.88		
10	1.50	1.70	5.16	16.40	51.00	38.25	16.60	1.75	1.80	1.20	0.92	0.88		
11	1.50	1.75	4.08	62.20	49.00	37.90	14.80	1.90	1.80	1.15	0.92	0.88		
12	1.50	1.50	3.60	55.00	41.75	36.85	13.80	2.50	1.80	1.15	0.92	0.88		
13	1.40	1.50	2.95	34.75	38.25	51.00	13.00	2.50	1.75	1.10	0.90	0.88		
14	1.40	1.50	2.70	25.70	39.65	74.60	13.40	2.40	1.75	1.10	0.90	0.88		
15	1.40	1.50	2.55	26.00	41.40	97.80	13.40	2.25	1.70	1.05	0.94	0.88		
16	1.40	1.90	2.55	26.00	50.60	97.00	10.00	2.30	1.70	1.05	0.96	0.86		
17	1.40	2.55	2.60	39.65	48.60	75.40	13.40	2.55	1.70	1.05	0.96	0.86		
18	1.40	3.84	2.50	94.20	48.60	55.80	12.00	2.20	1.65	1.00	0.96	0.86		
19	1.35	5.16	2.50	111.10	47.80	53.40	14.00	2.10	1.65	1.00	0.96	0.86		
20	1.30	4.92	2.40	139.00	50.60	62.60	17.30	2.05	1.65	1.00	0.94	0.86		
21	1.20	2.75	2.25	121.00	49.00	57.80	21.50	2.05	1.60	1.00	0.94	0.86		
22	1.15	2.25	2.20	82.60	48.20	53.80	15.40	2.00	1.55	1.00	0.94	0.84		
23	1.30	2.20	2.50	53.40	44.55	94.20	13.60	2.00	1.55	0.98	0.94	0.84		
24	1.25	2.00	2.70	51.00	41.75	118.75	11.80	2.00	1.50	0.98	0.94	0.82		
25	1.25	2.00	6.24	53.00	38.60	132.70	10.60	2.00	1.50	0.98	0.94	0.82		
26	1.25	2.00	6.24	60.60	30.90	141.70	8.76	1.95	1.50	0.98	0.94	0.82		
27	1.25	2.25	6.12	70.20	37.20	123.25	7.80	2.00	1.50	0.98	0.94	0.82		
28	1.25	2.15	4.92	91.80	54.60	91.00	5.52	2.20	1.50	0.96	0.94	0.82		
29	1.25	2.10	4.20	108.40	65.00	66.20	5.16	2.05	1.50	0.96		0.82		
30	1.20	2.00	5.04	107.50	63.00	65.00	4.80	2.00	1.50	0.96		0.82		
31		2.30		97.40	58.20		4.80		1.50	0.94		0.84		
Total	41.40	64.67	137.92	1569.50	1632.45	1836.50	646.94	72.90	52.60	34.87	26.26	26.86	6142.87	CMSDAY
Mean	1.38	2.09	4.60	50.63	52.66	61.22	20.87	2.43	1.70	1.12	0.94	0.87	16.83	CMS
Max	1.50	5.16	12.80	139.00	84.20	141.70	91.00	4.56	2.00	1.50	0.96	0.92	141.70	CMS
Min	1.15	1.00	2.20	3.24	30.90	16.20	4.80	1.75	1.50	0.94	0.90	0.82	0.82	CMS
Runoff	3.58	5.59	11.92	135.60	141.04	158.67	55.90	6.30	4.54	3.01	2.27	2.32	530.74	MCM

Momentary Peak 143.05 CMS. at 128.29 m. (MSL.) at 12.00 Hours , on Sep 26 , 2018

Runoff Yield 9.64 Liters/Second/Square KM. Momentary Peak Yield 81.98 Liters/Second/Square KM.

WATER YEAR : 2018

MUN RIVER BASIN

Lam Phra Phloeng at Ban Non Sao - E, Nakhon Ratchasima (M.171)

Lat 14 - 29 - 58 N Long 101 - 46 - 22 E

Location : on right bank at Ban Non Sao - E.

	Ban Non Sao - E	**Amphoe** Wang Nam Khieo	**Changwat** Nakhon Ratchasima
Drainge Area	554 sq.km.		
Type of Gage	Staff gage.		
Zero Gage at Bottom	+272.200 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank downstream at the footpath	**Elevation** +280.170 m. (MSL.)	
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic mean of 5 readings		
Period of Available Gage Records	2002 to date		
Rating Operation			
Period of Rating	2002 to date		
Rated by Flot	-		
Rated by Current Meter	2002 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records very good. Stage-discharge relation defined by 61 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

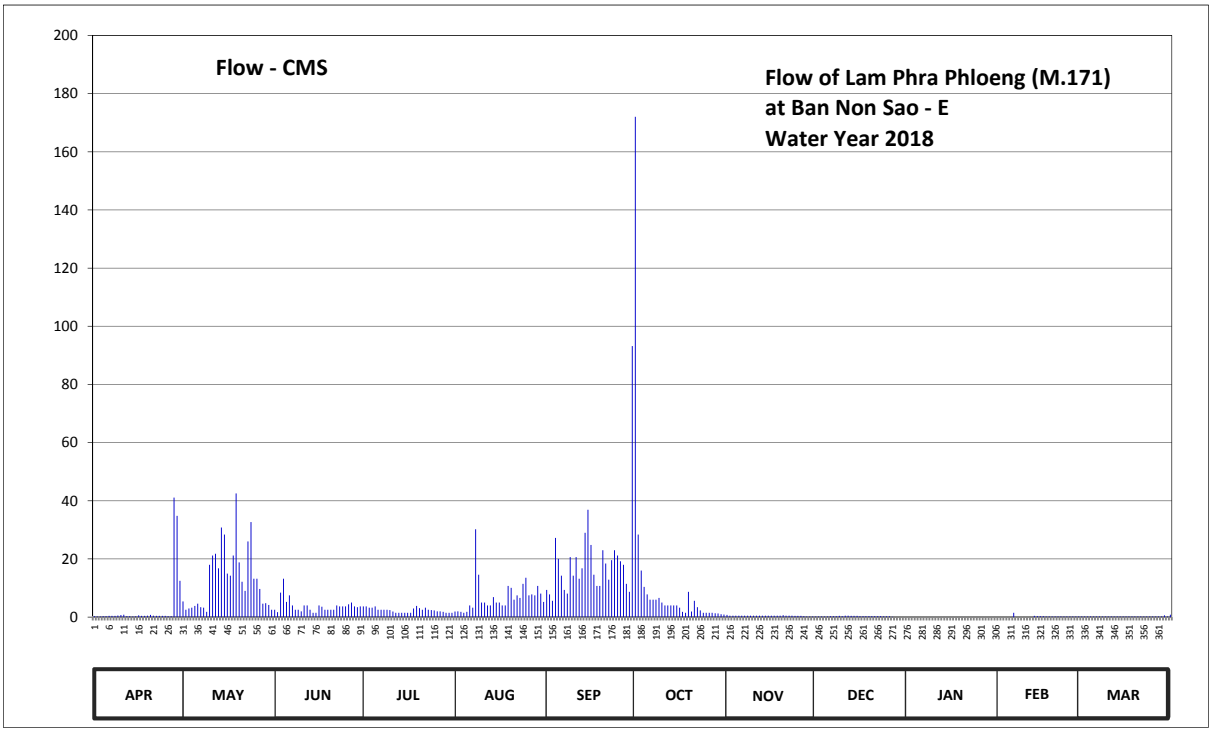
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	272.74	273.27	273.10	273.18	273.04	273.41	275.11	272.85	272.70	272.49	272.38	272.70	
2	272.70	273.10	273.02	273.18	273.05	273.36	273.84	272.80	272.70	272.49	272.35	272.70	
3	272.70	273.13	273.38	273.15	273.03	273.28	273.60	272.80	272.70	272.49	272.34	272.70	
4	272.74	273.15	273.52	273.15	273.00	273.82	273.44	272.80	272.70	272.49	272.32	272.70	
5	272.74	273.19	273.26	273.18	273.03	273.70	273.36	272.80	272.70	272.49	272.30	272.70	
6	272.78	273.23	273.35	273.10	273.20	273.55	273.30	272.80	272.75	272.49	273.00	272.70	
7	272.78	273.16	273.20	273.10	273.15	273.41	273.30	272.80	272.75	272.49	272.50	272.70	
8	272.78	273.15	273.10	273.10	273.87	273.37	273.30	272.80	272.75	272.49	272.46	272.70	
9	272.81	273.03	273.10	273.10	273.56	273.71	273.32	272.79	272.77	272.49	272.40	272.70	
10	272.84	273.65	273.05	273.09	273.25	273.55	273.25	272.79	272.75	272.49	272.40	272.70	
11	272.86	273.72	273.20	273.04	273.25	273.71	273.20	272.80	272.80	272.48	272.40	272.70	
12	272.74	273.73	273.20	273.00	273.20	273.52	273.20	272.80	272.79	272.48	272.40	272.70	
13	272.74	273.62	273.10	273.00	273.20	273.62	273.20	272.80	272.78	272.48	272.78	272.70	
14	272.70	273.88	273.00	273.00	273.33	273.85	273.20	272.80	272.78	272.45	272.75	272.70	
15	272.72	273.84	273.00	273.00	273.25	273.97	273.20	272.80	272.78	272.45	272.74	272.70	
16	272.82	273.57	273.20	273.00	273.25	273.78	273.15	272.79	272.75	272.45	272.74	272.70	
17	272.78	273.55	273.17	273.00	273.20	273.56	273.03	272.79	272.75	272.45	272.70	272.70	
18	272.78	273.72	273.10	273.13	273.20	273.45	273.00	272.79	272.74	272.44	272.70	272.70	
19	272.79	274.05	273.10	273.19	273.45	273.45	273.39	272.80	272.74	272.44	272.70	272.70	
20	272.85	273.67	273.10	273.14	273.43	273.75	273.04	272.83	272.74	272.40	272.70	272.70	
21	272.80	273.49	273.10	273.10	273.30	273.66	273.28	272.80	272.74	272.40	272.70	272.70	
22	272.78	273.40	273.20	273.15	273.35	273.51	273.16	272.80	272.74	272.40	272.70	272.70	
23	272.78	273.80	273.18	273.10	273.32	273.69	273.08	272.79	272.74	272.40	272.70	272.70	
24	272.78	273.91	273.18	273.09	273.47	273.75	273.00	272.78	272.72	272.40	272.70	272.70	
25	272.78	273.52	273.18	273.08	273.53	273.72	273.00	272.78	272.72	272.39	272.70	272.70	
26	272.75	273.52	273.22	273.05	273.35	273.68	273.00	272.78	272.72	272.39	272.70	272.70	
27	272.75	273.42	273.25	273.05	273.36	273.65	273.00	272.75	272.65	272.38	272.70	272.70	
28	274.03	273.23	273.18	273.03	273.35	273.47	272.96	272.70	272.50	272.38	272.70	272.70	
29	273.94	273.24	273.16	273.00	273.45	273.39	272.95	272.70	272.49	272.38		272.82	
30	273.50	273.21	273.18	273.00	273.37	274.61	272.90	272.70	272.49	272.38		272.70	
31		273.10		273.00	273.26		272.88		272.49	272.38		272.86	
Mean	272.88	273.46	273.17	273.08	273.29	273.63	273.25	272.79	272.71	272.44	272.59	272.71	
Max	274.03	274.05	273.52	273.19	273.87	274.61	275.11	272.85	272.80	272.49	273.00	272.86	275.11
Min	272.70	273.03	273.00	273.00	273.00	273.28	272.88	272.70	272.49	272.38	272.30	272.70	272.30

Annual Max Momentary Gage Height 275.20 m. (MSL.) , at 12.00 Hours, on Oct 1, 2018

Zero Gage at Bottom Elevation 272.20 m. (MSL.) , River Bed 272.12 m. (MSL.)

Left Bank Elevation 279.90 m. (MSL.) ,

Right Bank Elevation 279.93 m. (MSL.) , Drainage Are 554 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.32	5.40	2.50	3.70	1.90	9.35	172.00	0.75	0.20	0.00	0.00	0.20		
2	0.20	2.50	1.70	3.70	2.00	7.80	28.40	0.50	0.20	0.00	0.00	0.20		
3	0.20	2.95	8.40	3.25	1.80	5.60	16.00	0.50	0.20	0.00	0.00	0.20		
4	0.32	3.25	13.20	3.25	1.50	27.20	10.40	0.50	0.20	0.00	0.00	0.20		
5	0.32	3.85	5.20	3.70	1.80	20.00	7.80	0.50	0.20	0.00	0.00	0.20		
6	0.44	4.60	7.50	2.50	4.00	14.25	6.00	0.50	0.35	0.00	1.50	0.20		
7	0.44	3.40	4.00	2.50	3.25	9.35	6.00	0.50	0.35	0.00	0.00	0.20		
8	0.44	3.25	2.50	2.50	30.20	8.10	6.00	0.50	0.35	0.00	0.00	0.20		
9	0.55	1.80	2.50	2.50	14.60	20.60	6.60	0.47	0.41	0.00	0.00	0.20		
10	0.70	18.00	2.00	2.40	5.00	14.25	5.00	0.47	0.35	0.00	0.00	0.20		
11	0.80	21.20	4.00	1.90	5.00	20.60	4.00	0.50	0.50	0.00	0.00	0.20		
12	0.32	21.80	4.00	1.50	4.00	13.20	4.00	0.50	0.47	0.00	0.00	0.20		
13	0.32	16.80	2.50	1.50	4.00	16.80	4.00	0.50	0.44	0.00	0.44	0.20		
14	0.20	30.80	1.50	1.50	6.90	29.00	4.00	0.50	0.44	0.00	0.35	0.20		
15	0.26	28.40	1.50	1.50	5.00	36.90	4.00	0.50	0.44	0.00	0.32	0.20		
16	0.60	14.95	4.00	1.50	5.00	24.80	3.25	0.47	0.35	0.00	0.32	0.20		
17	0.44	14.25	3.55	1.50	4.00	14.60	1.80	0.47	0.35	0.00	0.20	0.20		
18	0.44	21.20	2.50	2.95	4.00	10.75	1.50	0.47	0.32	0.00	0.20	0.20		
19	0.47	42.50	2.50	3.85	10.75	10.75	8.70	0.50	0.32	0.00	0.20	0.20		
20	0.75	18.80	2.50	3.10	10.05	23.00	1.90	0.65	0.32	0.00	0.20	0.20		
21	0.50	12.15	2.50	2.50	6.00	18.40	5.60	0.50	0.32	0.00	0.20	0.20		
22	0.44	9.00	4.00	3.25	7.50	12.85	3.40	0.50	0.32	0.00	0.20	0.20		
23	0.44	26.00	3.70	2.50	6.60	19.60	2.30	0.47	0.32	0.00	0.20	0.20		
24	0.44	32.70	3.70	2.40	11.45	23.00	1.50	0.44	0.26	0.00	0.20	0.20		
25	0.44	13.20	3.70	2.30	13.55	21.20	1.50	0.44	0.26	0.00	0.20	0.20		
26	0.35	13.20	4.40	2.00	7.50	19.20	1.50	0.44	0.26	0.00	0.20	0.20		
27	0.35	9.70	5.00	2.00	7.80	18.00	1.50	0.35	0.10	0.00	0.20	0.20		
28	41.10	4.60	3.70	1.80	7.50	11.45	1.30	0.20	0.00	0.00	0.20	0.20		
29	34.80	4.80	3.40	1.50	10.75	8.70	1.25	0.20	0.00	0.00		0.60		
30	12.50	4.20	3.70	1.50	8.10	93.20	1.00	0.20	0.00	0.00		0.20		
31		2.50		1.50	5.20		0.90		0.00	0.00		0.80		
Total	99.89	411.75	115.85	74.05	216.70	582.50	323.10	13.99	8.60	0.00	5.33	7.20	1858.96	CMSDAY
Mean	3.33	13.28	3.86	2.39	6.99	19.42	10.42	0.47	0.28	0.00	0.19	0.23	5.09	CMS
Max	41.10	42.50	13.20	3.85	30.20	93.20	172.00	0.75	0.50	0.00	1.50	0.80	172.00	CMS
Min	0.20	1.80	1.50	1.50	1.50	5.60	0.90	0.20	0.00	0.00	0.00	0.20	0.00	CMS
Runoff	8.63	35.58	10.01	6.40	18.72	50.33	27.92	1.21	0.74	0.00	0.46	0.62	160.61	MCM

Momentary Peak 190.00 CMS. at 275.20 m. (MSL.) at 12.00 Hours , on Oct 1 , 2018

Runoff Yield 9.21 Liters/Second/Square KM. Momentary Peak Yield 343.58 Liters/Second/Square KM.

WATER YEAR : 2018

MUN RIVER BASIN

Khlong Phai at Ban Non Sao - E, Nakhon Ratchasima (M.172)

Lat 14 - 29 - 14 N Long 101 - 46 - 57 E

Location : on right bank at the bridge.

Ban Non Sao - E **Amphoe** Wang Nam Khieo **Changwat** Nakhon Ratchasima

Drainge Area	143 sq.km.
Type of Gage	Staff gage.
Zero Gage at Bottom	+293.200 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On right bank downstream side at the footpath of the bridge. **Elevation** +299.100 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic mean of 5 readings
Period of Available Gage Records	2003 to date
Rating Operation	
Period of Rating	2003 to date
Rated by Flot	-
Rated by Current Meter	2003 to date
Stability of Channel Regimes	Stable with variable water surface slope.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Stage-discharge relation defined by 37 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

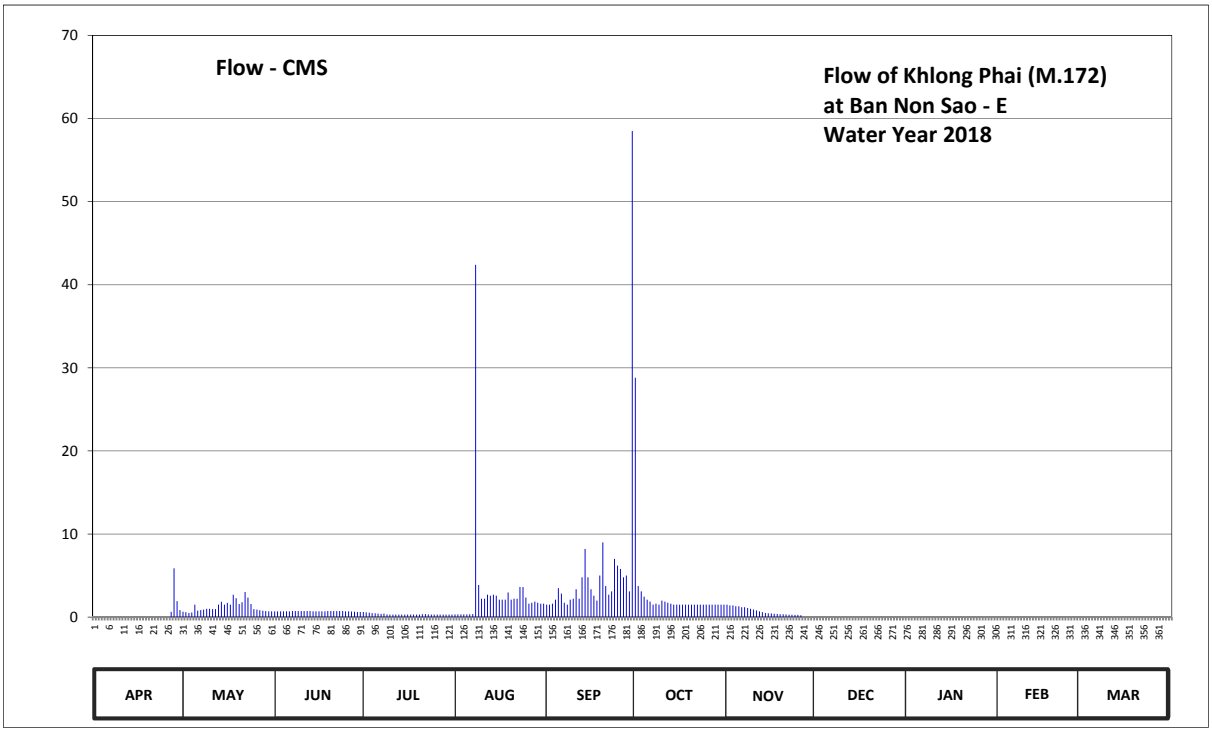
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	293.20	293.38	293.40	293.36	293.21	293.40	294.32	293.40	293.20	293.20	293.20	293.20	
2	293.20	293.35	293.40	293.34	293.21	293.40	293.58	293.39	293.20	293.20	293.20	293.20	
3	293.20	293.30	293.40	293.32	293.21	293.41	293.53	293.39	293.20	293.20	293.20	293.20	
4	293.20	293.33	293.40	293.29	293.21	293.45	293.48	293.38	293.20	293.20	293.20	293.20	
5	293.20	293.60	293.40	293.28	293.21	293.56	293.45	293.38	293.20	293.20	293.20	293.20	
6	293.20	293.42	293.40	293.26	293.22	293.51	293.43	293.37	293.20	293.20	293.20	293.20	
7	293.20	293.45	293.41	293.24	293.23	293.42	293.40	293.37	293.20	293.20	293.20	293.20	
8	293.20	293.47	293.41	293.26	294.52	293.40	293.41	293.36	293.20	293.20	293.20	293.20	
9	293.20	293.50	293.41	293.21	293.59	293.45	293.40	293.35	293.20	293.20	293.20	293.20	
10	293.20	293.50	293.41	293.20	293.46	293.46	293.44	293.34	293.20	293.20	293.20	293.20	
11	293.20	293.49	293.41	293.20	293.46	293.55	293.43	293.33	293.20	293.20	293.20	293.20	
12	293.20	293.49	293.41	293.20	293.50	293.46	293.42	293.32	293.20	293.20	293.20	293.20	
13	293.20	293.60	293.41	293.20	293.49	293.64	293.41	293.31	293.20	293.20	293.20	293.20	
14	293.20	293.65	293.40	293.20	293.50	293.81	293.40	293.30	293.20	293.20	293.20	293.20	
15	293.20	293.60	293.40	293.20	293.49	293.64	293.40	293.29	293.20	293.20	293.20	293.20	
16	293.20	293.63	293.40	293.20	293.45	293.55	293.40	293.28	293.20	293.20	293.20	293.20	
17	293.20	293.60	293.40	293.20	293.45	293.49	293.40	293.27	293.20	293.20	293.20	293.20	
18	293.20	293.77	293.40	293.20	293.45	293.44	293.40	293.26	293.20	293.20	293.20	293.20	
19	293.20	293.71	293.41	293.20	293.52	293.65	293.40	293.25	293.20	293.20	293.20	293.20	
20	293.20	293.61	293.41	293.20	293.45	293.85	293.40	293.25	293.20	293.20	293.20	293.20	
21	293.20	293.64	293.41	293.22	293.46	293.58	293.40	293.24	293.20	293.20	293.20	293.20	
22	293.20	293.81	293.41	293.23	293.46	293.50	293.40	293.23	293.20	293.20	293.20	293.20	
23	293.20	293.72	293.41	293.21	293.57	293.53	293.40	293.23	293.20	293.20	293.20	293.20	
24	293.20	293.61	293.41	293.20	293.57	293.75	293.40	293.22	293.20	293.20	293.20	293.20	
25	293.20	293.49	293.40	293.20	293.47	293.71	293.40	293.22	293.20	293.20	293.20	293.20	
26	293.20	293.47	293.40	293.20	293.41	293.69	293.40	293.21	293.20	293.20	293.20	293.20	
27	293.37	293.44	293.39	293.20	293.42	293.64	293.40	293.21	293.20	293.20	293.20	293.20	
28	293.98	293.42	293.38	293.20	293.43	293.65	293.40	293.20	293.20	293.20	293.20	293.20	
29	293.66	293.41	293.36	293.20	293.42	293.53	293.40	293.20	293.20	293.20		293.20	
30	293.45	293.40	293.36	293.20	293.41	294.75	293.40	293.20	293.20	293.20		293.20	
31		293.40		293.20	293.41		293.40		293.20	293.20		293.20	
Mean	293.26	293.52	293.40	293.23	293.45	293.60	293.45	293.29	293.20	293.20	293.20	293.20	
Max	293.98	293.81	293.41	293.36	294.52	294.75	294.32	293.40	293.20	293.20	293.20	293.20	294.75
Min	293.20	293.30	293.36	293.20	293.21	293.40	293.40	293.20	293.20	293.20	293.20	293.20	293.20

Annual Max Momentary Gage Height 295.20 m. (MSL.) , at 10.00 Hours, on Sep 30, 2018

Zero Gage at Bottom Elevation 293.20 m. (MSL.) , River Bed 292.78 m. (MSL.)

Left Bank Elevation 299.10 m. (MSL.) ,

Right Bank Elevation 299.10 m. (MSL.) , Drainage Are 143 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.66	0.70	0.62	0.32	1.50	28.80	1.50	0.00	0.00	0.00	0.00		
2	0.00	0.60	0.70	0.58	0.32	1.50	3.74	1.40	0.00	0.00	0.00	0.00		
3	0.00	0.50	0.70	0.54	0.32	1.62	3.09	1.40	0.00	0.00	0.00	0.00		
4	0.00	0.56	0.70	0.48	0.32	2.10	2.46	1.30	0.00	0.00	0.00	0.00		
5	0.00	1.50	0.70	0.46	0.32	3.48	2.10	1.30	0.00	0.00	0.00	0.00		
6	0.00	0.76	0.70	0.42	0.34	2.83	1.86	1.20	0.00	0.00	0.00	0.00		
7	0.00	0.85	0.73	0.38	0.36	1.74	1.50	1.20	0.00	0.00	0.00	0.00		
8	0.00	0.91	0.73	0.42	42.40	1.50	1.62	1.10	0.00	0.00	0.00	0.00		
9	0.00	1.00	0.73	0.32	3.87	2.10	1.50	1.00	0.00	0.00	0.00	0.00		
10	0.00	1.00	0.73	0.30	2.22	2.22	1.98	0.90	0.00	0.00	0.00	0.00		
11	0.00	0.97	0.73	0.30	2.22	3.35	1.86	0.80	0.00	0.00	0.00	0.00		
12	0.00	0.97	0.73	0.30	2.70	2.22	1.74	0.70	0.00	0.00	0.00	0.00		
13	0.00	1.50	0.73	0.30	2.58	4.80	1.62	0.60	0.00	0.00	0.00	0.00		
14	0.00	1.85	0.70	0.30	2.70	8.20	1.50	0.50	0.00	0.00	0.00	0.00		
15	0.00	1.50	0.70	0.30	2.58	4.80	1.50	0.47	0.00	0.00	0.00	0.00		
16	0.00	1.71	0.70	0.30	2.10	3.35	1.50	0.44	0.00	0.00	0.00	0.00		
17	0.00	1.50	0.70	0.30	2.10	2.58	1.50	0.41	0.00	0.00	0.00	0.00		
18	0.00	2.69	0.70	0.30	2.10	1.98	1.50	0.38	0.00	0.00	0.00	0.00		
19	0.00	2.27	0.73	0.30	2.96	5.00	1.50	0.35	0.00	0.00	0.00	0.00		
20	0.00	1.57	0.73	0.30	2.10	9.00	1.50	0.35	0.00	0.00	0.00	0.00		
21	0.00	1.78	0.73	0.34	2.22	3.74	1.50	0.32	0.00	0.00	0.00	0.00		
22	0.00	3.03	0.73	0.36	2.22	2.70	1.50	0.29	0.00	0.00	0.00	0.00		
23	0.00	2.34	0.73	0.32	3.61	3.09	1.50	0.29	0.00	0.00	0.00	0.00		
24	0.00	1.57	0.73	0.30	3.61	7.00	1.50	0.26	0.00	0.00	0.00	0.00		
25	0.00	0.97	0.70	0.30	2.34	6.20	1.50	0.26	0.00	0.00	0.00	0.00		
26	0.00	0.91	0.70	0.30	1.62	5.80	1.50	0.23	0.00	0.00	0.00	0.00		
27	0.64	0.82	0.68	0.30	1.74	4.80	1.50	0.00	0.00	0.00	0.00	0.00		
28	5.88	0.76	0.66	0.30	1.86	5.00	1.50	0.00	0.00	0.00	0.00	0.00		
29	1.92	0.73	0.62	0.30	1.74	3.09	1.50	0.00	0.00	0.00		0.00		
30	0.85	0.70	0.62	0.30	1.62	58.50	1.50	0.00	0.00	0.00		0.00		
31		0.70		0.30	1.62		1.50		0.00	0.00		0.00		
Total	9.29	39.18	21.17	10.94	99.13	165.79	80.87	18.95	0.00	0.00	0.00	0.00	445.32	CMSDAY
Mean	0.31	1.26	0.71	0.35	3.20	5.53	2.61	0.63	0.00	0.00	0.00	0.00	1.22	CMS
Max	5.88	3.03	0.73	0.62	42.40	58.50	28.80	1.50	0.00	0.00	0.00	0.00	58.50	CMS
Min	0.00	0.50	0.62	0.30	0.32	1.50	1.50	0.00	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	0.80	3.39	1.83	0.95	8.56	14.32	6.99	1.64	0.00	0.00	0.00	0.00	38.48	MCM

Momentary Peak 93.00 CMS. at 295.20 m. (MSL.) at 10.00 Hours , on Sep 30 , 2018

Runoff Yield 8.53 Liters/Second/Square KM. Momentary Peak Yield 650.35 Liters/Second/Square KM.

WATER YEAR : 2018

MUN RIVER BASIN

Mun River at Ban Non Sa - at, Nakhon Ratchasima (M.173)

Lat 14 - 44 - 37 N Long 102 - 12 - 54 E

Location : on right bank at Ban Non Sa - at.

	Ban Non Sa - at	**Amphoe** Chok Chai	**Changwat** Nakhon Ratchasima
Drainge Area	4,211 sq.km.		
Type of Gage	Water - stage recorder.		
Zero Gage at Bottom	+174.800 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank at the footpath of the bridge.		**Elevation** +183.884 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	2003 to date		
Rating Operation			
Period of Rating	2003 to date		
Rated by Flot	-		
Rated by Current Meter	2003 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 34 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

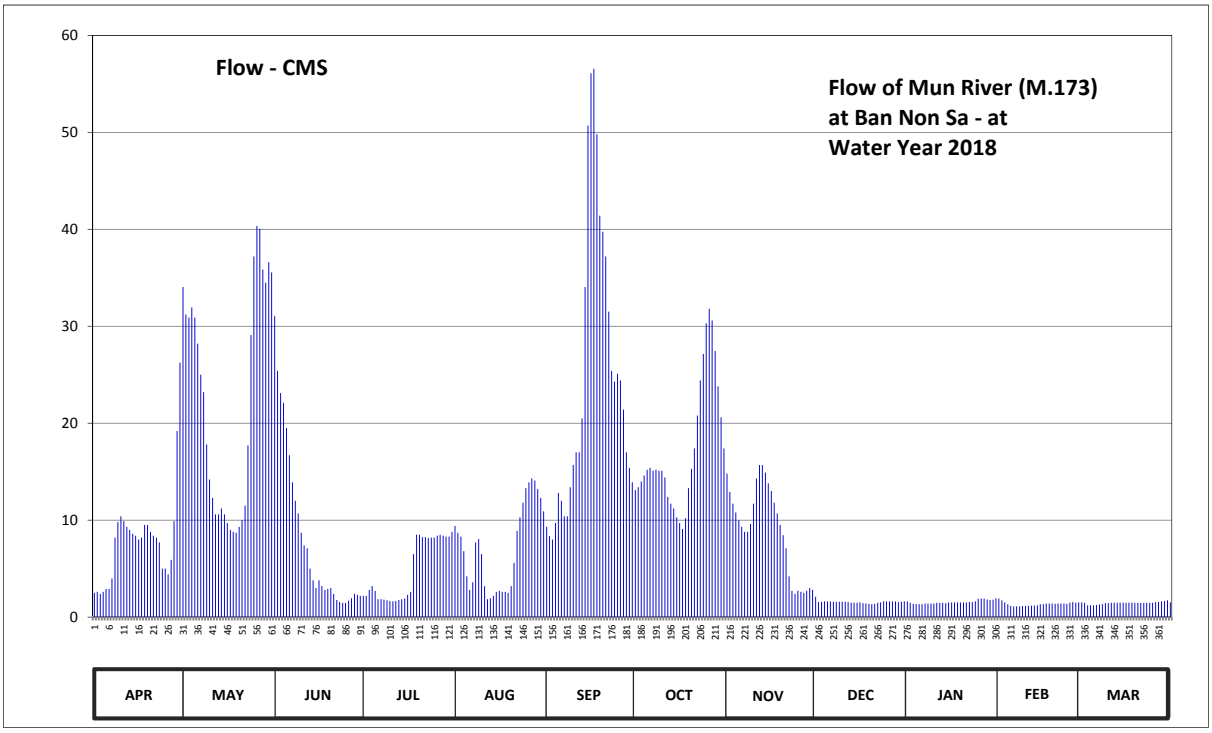
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	176.55	179.17	178.97	176.52	176.99	176.98	177.36	177.53	176.51	176.37	176.47	176.34	
2	176.56	178.98	178.59	176.52	176.92	176.87	177.39	177.34	176.35	176.33	176.41	176.32	
3	176.54	178.96	178.36	176.58	176.86	176.80	177.45	177.22	176.36	176.29	176.34	176.24	
4	176.56	179.03	178.26	176.61	176.76	177.02	177.51	177.13	176.38	176.28	176.28	176.24	
5	176.59	178.96	178.00	176.57	176.66	177.33	177.57	177.05	176.37	176.28	176.22	176.24	
6	176.59	178.78	177.72	176.45	176.58	177.25	177.59	176.98	176.37	176.28	176.20	176.25	
7	176.65	178.55	177.44	176.45	176.63	177.09	177.56	176.93	176.36	176.30	176.20	176.27	
8	176.84	178.37	177.25	176.43	176.79	177.09	177.57	176.93	176.36	176.30	176.20	176.28	
9	177.03	177.83	177.12	176.41	176.81	177.39	177.56	177.01	176.36	176.30	176.21	176.31	
10	177.09	177.47	176.92	176.39	176.75	177.62	177.56	177.22	176.36	176.30	176.22	176.31	
11	177.04	177.28	176.78	176.38	176.61	177.75	177.49	177.48	176.36	176.32	176.22	176.33	
12	176.98	177.11	176.77	176.39	176.45	177.75	177.29	177.62	176.35	176.32	176.23	176.33	
13	176.95	177.11	176.70	176.42	176.48	178.10	177.22	177.62	176.33	176.32	176.23	176.33	
14	176.91	177.17	176.64	176.45	176.52	179.17	177.17	177.54	176.33	176.31	176.24	176.33	
15	176.88	177.11	176.60	176.47	176.56	180.28	177.08	177.43	176.33	176.34	176.28	176.33	
16	176.80	177.02	176.64	176.53	176.57	180.64	177.02	177.35	176.34	176.34	176.28	176.33	
17	176.84	176.95	176.61	176.56	176.56	180.67	176.96	177.23	176.31	176.34	176.30	176.33	
18	177.00	176.93	176.58	176.75	176.56	180.22	177.07	177.12	176.30	176.34	176.30	176.33	
19	177.00	176.92	176.59	176.90	176.55	179.66	177.38	177.00	176.29	176.34	176.30	176.32	
20	176.93	176.98	176.60	176.90	176.61	179.55	177.58	176.89	176.28	176.34	176.29	176.32	
21	176.88	177.05	176.54	176.85	176.72	179.38	177.79	176.77	176.29	176.34	176.30	176.32	
22	176.84	177.20	176.42	176.85	176.94	179.00	178.13	176.66	176.32	176.35	176.30	176.32	
23	176.79	177.82	176.35	176.83	177.08	178.59	178.49	176.57	176.34	176.35	176.30	176.32	
24	176.70	178.84	176.32	176.84	177.23	178.48	178.71	176.54	176.38	176.38	176.29	176.32	
25	176.70	179.38	176.32	176.84	177.38	178.56	178.92	176.57	176.37	176.46	176.33	176.32	
26	176.67	179.59	176.40	176.88	177.44	178.49	179.02	176.56	176.37	176.47	176.35	176.35	
27	176.73	179.57	176.48	176.90	177.48	178.19	178.94	176.55	176.37	176.47	176.33	176.35	
28	177.04	179.29	176.54	176.88	177.46	177.75	178.73	176.57	176.37	176.44	176.34	176.37	
29	177.97	179.20	176.53	176.86	177.37	177.59	178.43	176.60	176.35	176.42		176.39	
30	178.65	179.34	176.52	176.86	177.28	177.44	178.11	176.58	176.36	176.43		176.41	
31		179.27		176.93	177.14		177.79		176.38	176.48		176.34	
Mean	176.91	178.17	176.99	176.65	176.86	178.29	177.76	177.02	176.35	176.35	176.28	176.32	
Max	178.65	179.59	178.97	176.93	177.48	180.67	179.02	177.62	176.51	176.48	176.47	176.41	180.67
Min	176.54	176.92	176.32	176.38	176.45	176.80	176.96	176.54	176.28	176.28	176.20	176.24	176.20

Annual Max Momentary Gage Height 180.76 m. (MSL.) , at 06.00 Hours, on Sep 17, 2018

Zero Gage at Bottom Elevation 174.80 m. (MSL.) , River Bed 175.43 m. (MSL.)

Left Bank Elevation 183.87 m. (MSL.) ,

Right Bank Elevation 183.86 m. (MSL.) , Drainage Are 4,211 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.50	34.05	31.05	2.20	9.40	9.30	13.10	14.80	2.10	1.61	1.91	1.52		
2	2.60	31.20	25.40	2.20	8.70	8.35	13.40	12.90	1.55	1.49	1.73	1.46		
3	2.40	30.90	23.10	2.80	8.30	8.00	14.00	11.70	1.58	1.37	1.52	1.22		
4	2.60	31.95	22.10	3.20	6.80	9.70	14.60	10.80	1.64	1.34	1.34	1.22		
5	2.90	30.90	19.50	2.70	4.20	12.80	15.20	10.00	1.61	1.34	1.16	1.22		
6	2.90	28.20	16.70	1.85	2.80	12.00	15.40	9.30	1.61	1.34	1.10	1.25		
7	4.00	25.00	13.90	1.85	3.60	10.40	15.10	8.80	1.58	1.40	1.10	1.31		
8	8.20	23.20	12.00	1.79	7.70	10.40	15.20	8.80	1.58	1.40	1.10	1.34		
9	9.80	17.80	10.70	1.73	8.05	13.40	15.10	9.60	1.58	1.40	1.13	1.43		
10	10.40	14.20	8.70	1.67	6.50	15.70	15.10	11.70	1.58	1.40	1.16	1.43		
11	9.90	12.30	7.40	1.64	3.20	17.00	14.40	14.30	1.58	1.46	1.16	1.49		
12	9.30	10.60	7.10	1.67	1.85	17.00	12.40	15.70	1.55	1.46	1.19	1.49		
13	9.00	10.60	5.00	1.76	1.94	20.50	11.70	15.70	1.49	1.46	1.19	1.49		
14	8.60	11.20	3.80	1.85	2.20	34.05	11.20	14.90	1.49	1.43	1.22	1.49		
15	8.40	10.60	3.00	1.91	2.60	50.70	10.30	13.80	1.49	1.52	1.34	1.49		
16	8.00	9.70	3.80	2.30	2.70	56.10	9.70	13.00	1.52	1.52	1.34	1.49		
17	8.20	9.00	3.20	2.60	2.60	56.55	9.10	11.80	1.43	1.52	1.40	1.49		
18	9.50	8.80	2.80	6.50	2.60	49.80	10.20	10.70	1.40	1.52	1.40	1.49		
19	9.50	8.70	2.90	8.50	2.50	41.40	13.30	9.50	1.37	1.52	1.40	1.46		
20	8.80	9.30	3.00	8.50	3.20	39.75	15.30	8.45	1.34	1.52	1.37	1.46		
21	8.40	10.00	2.40	8.25	5.60	37.20	17.40	7.10	1.37	1.52	1.40	1.46		
22	8.20	11.50	1.76	8.25	8.90	31.50	20.80	4.20	1.46	1.55	1.40	1.46		
23	7.70	17.70	1.55	8.15	10.30	25.40	24.40	2.70	1.52	1.55	1.40	1.46		
24	5.00	29.10	1.46	8.20	11.80	24.30	27.15	2.40	1.64	1.64	1.37	1.46		
25	5.00	37.20	1.46	8.20	13.30	25.10	30.30	2.70	1.61	1.88	1.49	1.46		
26	4.40	40.35	1.70	8.40	13.90	24.40	31.80	2.60	1.61	1.91	1.55	1.55		
27	5.90	40.05	1.94	8.50	14.30	21.40	30.60	2.50	1.61	1.91	1.49	1.55		
28	9.90	35.85	2.40	8.40	14.10	17.00	27.45	2.70	1.61	1.82	1.52	1.61		
29	19.20	34.50	2.30	8.30	13.20	15.40	23.80	3.00	1.55	1.76		1.67		
30	26.25	36.60	2.20	8.30	12.30	13.90	20.60	2.80	1.58	1.79		1.73		
31		35.55		8.80	10.90		17.40		1.64	1.94		1.52		
Total	237.45	696.60	244.32	150.97	220.04	728.50	535.50	268.95	48.27	48.29	37.88	45.17	3261.94	CMSDAY
Mean	7.92	22.47	8.14	4.87	7.10	24.28	17.27	8.96	1.56	1.56	1.35	1.46	8.94	CMS
Max	26.25	40.35	31.05	8.80	14.30	56.55	31.80	15.70	2.10	1.94	1.91	1.73	56.55	CMS
Min	2.40	8.70	1.46	1.64	1.85	8.00	9.10	2.40	1.34	1.34	1.10	1.22	1.10	CMS
Runoff	20.52	60.19	21.11	13.04	19.01	62.94	46.27	23.24	4.17	4.17	3.27	3.90	281.83	MCM

Momentary Peak 57.90 CMS. at 180.76 m. (MSL.) at 06.00 Hours , on Sep 17 , 2018

Runoff Yield 2.12 Liters/Second/Square KM. Momentary Peak Yield 13.75 Liters/Second/Square KM.

WATER YEAR : 2018

MUN RIVER BASIN

Huai Khayung at Ban Non Si Khlai, Si Sa Ket (M.176)

Lat 15 - 00 - 18 N Long 104 - 38 - 14 E

Location : on left bank at Ban Non Si Khlai.

	Ban Non Si Khlai **Amphoe** Kanthararom **Changwat** Si Sa Ket
Drainge Area	3,131 sq.km.
Type of Gage	Staff gage.
Zero Gage at Bottom	+110.200 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank at the footpath of the bridge. **Elevation** +124.131 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic mean of 5 readings
Period of Available Gage Records	2003 to date
Rating Operation	
Period of Rating	2003 to date
Rated by Flot	-
Rated by Current Meter	2003 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records very good. Stage-discharge relation defined by 64 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

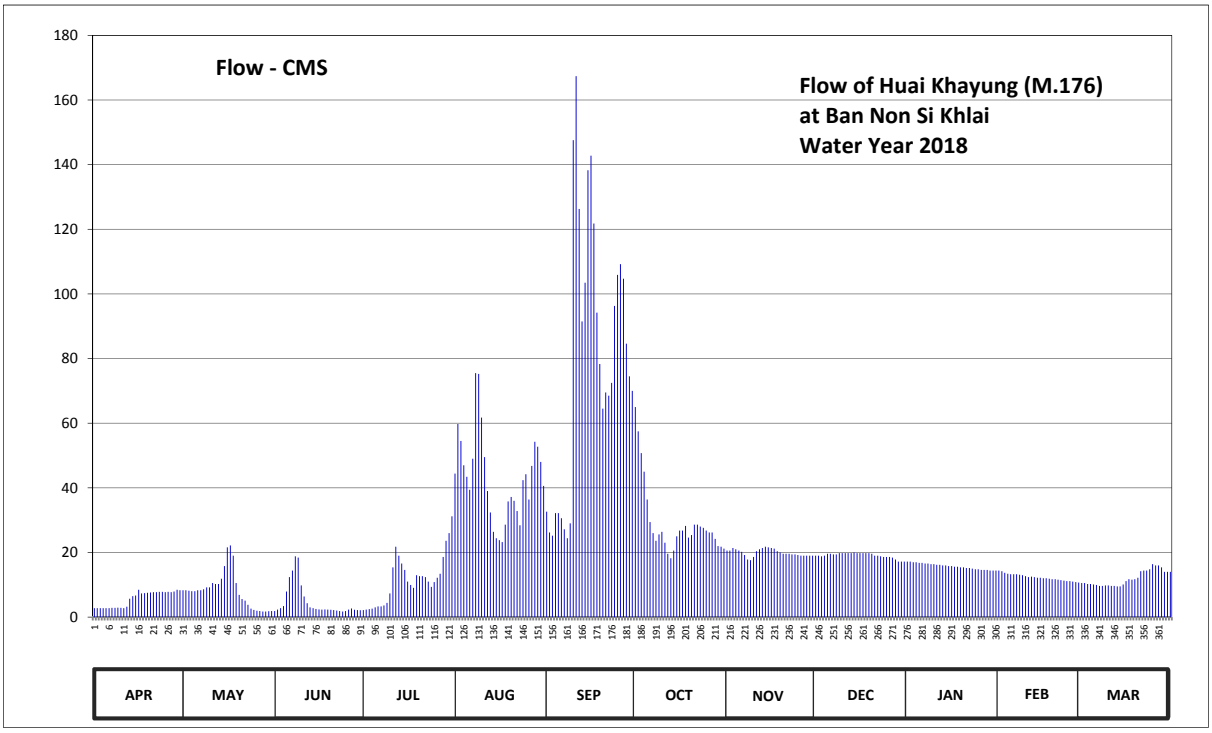
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	111.13	111.72	110.82	110.92	113.62	113.03	114.48	112.43	112.35	112.26	112.12	111.87	
2	111.13	111.72	110.97	110.97	114.27	112.71	114.18	112.43	112.35	112.26	112.11	111.87	
3	111.12	111.71	111.12	111.02	114.06	112.66	113.91	112.47	112.34	112.25	112.08	111.85	
4	111.12	111.70	111.24	111.08	113.75	113.01	113.65	112.45	112.35	112.25	112.06	111.85	
5	111.12	111.70	111.69	111.20	113.57	113.01	113.22	112.43	112.38	112.24	112.05	111.84	
6	111.13	111.72	111.99	111.23	113.37	112.93	112.87	112.41	112.38	112.24	112.05	111.83	
7	111.15	111.72	112.12	111.23	113.84	112.76	112.70	112.36	112.37	112.23	112.05	111.81	
8	111.16	111.74	112.34	111.26	114.90	112.62	112.58	112.29	112.37	112.23	112.04	111.81	
9	111.17	111.78	112.32	111.34	114.89	112.85	112.68	112.28	112.39	112.22	112.03	111.82	
10	111.16	111.78	111.82	111.63	114.35	117.32	112.72	112.33	112.39	112.22	112.01	111.82	
11	111.13	111.87	111.54	112.17	113.86	117.98	112.55	112.42	112.39	112.21	111.99	111.81	
12	111.22	111.85	111.33	112.49	113.35	116.61	112.38	112.45	112.39	112.21	112.00	111.81	
13	111.47	111.85	111.20	112.35	113.02	115.45	112.31	112.47	112.39	112.20	111.99	111.80	
14	111.55	111.96	111.13	112.23	112.72	115.85	112.43	112.49	112.40	112.20	111.98	111.80	
15	111.57	112.19	111.04	112.13	112.62	117.01	112.65	112.48	112.39	112.19	111.98	111.84	
16	111.73	112.48	110.99	111.90	112.59	117.16	112.74	112.47	112.39	112.19	111.97	111.91	
17	111.63	112.51	110.98	111.83	112.56	116.46	112.74	112.46	112.39	112.18	111.97	111.95	
18	111.64	112.35	110.99	111.77	112.83	115.54	112.81	112.42	112.39	112.18	111.96	111.94	
19	111.65	111.87	110.98	112.03	113.19	115.01	112.63	112.40	112.39	112.17	111.95	111.95	
20	111.66	111.59	110.96	112.01	113.26	114.46	112.67	112.38	112.38	112.17	111.95	111.98	
21	111.67	111.46	110.92	112.01	113.20	114.66	112.83	112.38	112.35	112.16	111.94	112.11	
22	111.67	111.41	110.88	111.99	113.04	114.62	112.83	112.38	112.35	112.16	111.93	112.12	
23	111.68	111.28	110.82	111.90	112.82	114.78	112.80	112.37	112.34	112.15	111.92	112.12	
24	111.68	111.08	110.78	111.79	113.52	115.61	112.78	112.37	112.33	112.14	111.91	112.14	
25	111.67	110.94	110.82	111.89	113.61	115.93	112.74	112.36	112.33	112.14	111.91	112.22	
26	111.68	110.86	110.97	111.98	113.22	116.04	112.71	112.35	112.33	112.13	111.90	112.20	
27	111.67	110.82	111.09	112.06	113.74	115.89	112.71	112.35	112.32	112.13	111.89	112.20	
28	111.69	110.78	110.96	112.33	114.05	115.22	112.61	112.35	112.29	112.13	111.88	112.17	
29	111.73	110.78	110.92	112.58	113.99	114.86	112.50	112.35	112.26	112.12		112.10	
30	111.72	110.81	110.91	112.70	113.80	114.68	112.49	112.35	112.26	112.12		112.10	
31		110.82		112.96	113.43		112.46		112.26	112.12		112.10	
Mean	111.45	111.58	111.22	111.84	113.52	114.89	112.85	112.40	112.35	112.19	111.99	111.96	
Max	111.73	112.51	112.34	112.96	114.90	117.98	114.48	112.49	112.40	112.26	112.12	112.22	117.98
Min	111.12	110.78	110.78	110.92	112.56	112.62	112.31	112.28	112.26	112.12	111.88	111.80	110.78

Annual Max Momentary Gage Height 118.16 m. (MSL.) , at 06.00 Hours, on Sep 11, 2018

Zero Gage at Bottom Elevation 110.20 m. (MSL.) , River Bed 110.06 m. (MSL.)

Left Bank Elevation 123.85 m. (MSL.) ,

Right Bank Elevation 123.59 m. (MSL.) , Drainage Are 3,131 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.79	8.30	1.86	2.16	44.40	32.60	65.00	20.60	19.00	17.20	14.40	10.55		
2	2.79	8.30	2.31	2.31	59.75	26.20	57.50	20.60	19.00	17.20	14.20	10.55		
3	2.76	8.15	2.76	2.46	54.50	25.20	50.75	21.40	18.80	17.00	13.70	10.25		
4	2.76	8.00	3.40	2.64	47.00	32.20	45.00	21.00	19.00	17.00	13.40	10.25		
5	2.76	8.00	7.90	3.00	43.40	32.20	36.40	20.60	19.60	16.80	13.25	10.10		
6	2.79	8.30	12.35	3.30	39.40	30.60	29.40	20.20	19.60	16.80	13.25	9.95		
7	2.85	8.30	14.40	3.30	49.00	27.20	26.00	19.20	19.40	16.60	13.25	9.65		
8	2.88	8.60	18.80	3.60	75.50	24.40	23.60	17.80	19.40	16.60	13.10	9.65		
9	2.91	9.20	18.40	4.40	75.25	29.00	25.60	17.60	19.80	16.40	12.95	9.80		
10	2.88	9.20	9.80	7.30	61.75	147.60	26.40	18.60	19.80	16.40	12.65	9.80		
11	2.79	10.55	6.40	15.40	49.50	167.40	23.00	20.40	19.80	16.20	12.35	9.65		
12	3.20	10.25	4.30	21.80	39.00	126.30	19.60	21.00	19.80	16.20	12.50	9.65		
13	5.70	10.25	3.00	19.00	32.40	91.50	18.20	21.40	19.80	16.00	12.35	9.50		
14	6.50	11.90	2.79	16.60	26.40	103.50	20.60	21.80	20.00	16.00	12.20	9.50		
15	6.70	15.80	2.52	14.60	24.40	138.30	25.00	21.60	19.80	15.80	12.20	10.10		
16	8.45	21.60	2.37	11.00	23.80	142.80	26.80	21.40	19.80	15.80	12.05	11.15		
17	7.30	22.20	2.34	9.95	23.20	121.80	26.80	21.20	19.80	15.60	12.05	11.75		
18	7.40	19.00	2.37	9.05	28.60	94.20	28.20	20.40	19.80	15.60	11.90	11.60		
19	7.50	10.55	2.34	12.95	35.80	78.30	24.60	20.00	19.80	15.40	11.75	11.75		
20	7.60	6.90	2.28	12.65	37.20	64.50	25.40	19.60	19.60	15.40	11.75	12.20		
21	7.70	5.60	2.16	12.65	36.00	69.50	28.60	19.60	19.00	15.20	11.60	14.20		
22	7.70	5.10	2.04	12.35	32.80	68.50	28.60	19.60	19.00	15.20	11.45	14.40		
23	7.80	3.80	1.86	11.00	28.40	72.50	28.00	19.40	18.80	15.00	11.30	14.40		
24	7.80	2.64	1.74	9.35	42.40	96.30	27.60	19.40	18.60	14.80	11.15	14.80		
25	7.70	2.22	1.86	10.85	44.20	105.90	26.80	19.20	18.60	14.80	11.15	16.40		
26	7.80	1.98	2.31	12.20	36.40	109.20	26.20	19.00	18.60	14.60	11.00	16.00		
27	7.70	1.86	2.67	13.40	46.80	104.70	26.20	19.00	18.40	14.60	10.85	16.00		
28	7.90	1.74	2.28	18.60	54.25	84.60	24.20	19.00	17.80	14.60	10.70	15.40		
29	8.45	1.74	2.16	23.60	52.75	74.50	22.00	19.00	17.20	14.40		14.00		
30	8.30	1.83	2.13	26.00	48.00	70.00	21.80	19.00	17.20	14.40		14.00		
31		1.86		31.20	40.60		21.20		17.20	14.40		14.00		
Total	170.16	253.72	143.90	358.67	1332.85	2391.50	905.05	598.60	591.80	488.00	344.45	371.00	7949.70	CMSDAY
Mean	5.67	8.18	4.80	11.57	43.00	79.72	29.20	19.95	19.09	15.74	12.30	11.97	21.78	CMS
Max	8.45	22.20	18.80	31.20	75.50	167.40	65.00	21.80	20.00	17.20	14.40	16.40	167.40	CMS
Min	2.76	1.74	1.74	2.16	23.20	24.40	18.20	17.60	17.20	14.40	10.70	9.50	1.74	CMS
Runoff	14.70	21.92	12.43	30.99	115.16	206.63	78.20	51.72	51.13	42.16	29.76	32.05	686.85	MCM

Momentary Peak 173.60 CMS, at 118.16 m. (MSL.), at 06.00 Hours, on Sep 11, 2018

Runoff Yield 6.96 Liters/Second/Square KM. Momentary Peak Yield 55.45 Liters/Second/Square KM.

WATER YEAR : 2018

MUN RIVER BASIN

Lam Ta Khong at Ban Non Sawang, Nakhon Ratchasima (M.177)

Lat 14 - 50 - 57 N Long 101 - 37 - 12 E

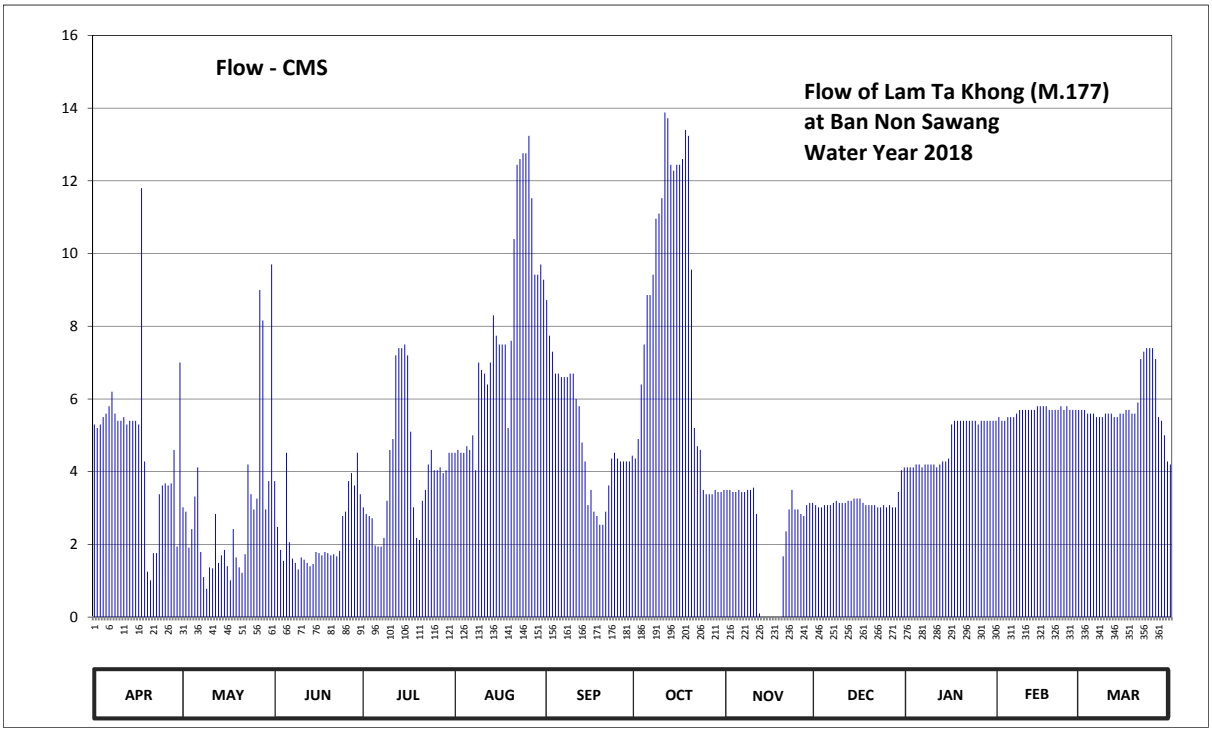
Location : on right bank at the bridge.

	Ban Non Sawang	**Amphoe** Si Khiu	**Changwat** Nakhon Ratchasima
Drainge Area	1,519 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+236.700 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank at the footpath of the bridge.		**Elevation** +243.940 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	2003 to date		
Rating Operation			
Period of Rating	2003 to date		
Rated by Flot	-		
Rated by Current Meter	2003 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 46 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	239.27	238.97	239.09	238.97	239.19	239.58	239.17	239.05	238.98	239.14	239.29	239.31	
2	239.26	238.95	238.88	238.94	239.20	239.51	239.23	239.05	238.97	239.14	239.28	239.31	
3	239.27	238.77	238.75	238.93	239.19	239.47	239.38	239.04	238.97	239.14	239.28	239.30	
4	239.29	238.87	238.65	238.92	239.19	239.41	239.49	239.04	238.98	239.15	239.29	239.30	
5	239.30	239.02	239.19	238.79	239.21	239.41	239.59	239.05	238.98	239.15	239.29	239.30	
6	239.32	239.14	238.81	238.78	239.20	239.40	239.59	239.04	238.98	239.14	239.29	239.29	
7	239.36	238.73	238.67	238.78	239.24	239.40	239.63	239.04	238.99	239.15	239.30	239.29	
8	239.30	238.50	238.63	238.83	239.13	239.40	239.74	239.05	239.00	239.15	239.31	239.29	
9	239.28	238.39	238.57	239.00	239.44	239.41	239.75	239.05	238.99	239.15	239.31	239.30	
10	239.28	238.59	238.68	239.20	239.42	239.41	239.78	239.06	238.99	239.15	239.31	239.30	
11	239.29	238.58	238.66	239.23	239.41	239.34	239.93	238.94	238.99	239.14	239.31	239.30	
12	239.27	238.94	238.63	239.46	239.38	239.32	239.92	238.05	239.00	239.15	239.31	239.29	
13	239.28	238.63	238.60	239.48	239.44	239.22	239.84	237.98	239.00	239.16	239.31	239.29	
14	239.28	238.70	238.62	239.48	239.55	239.16	239.83	237.97	239.01	239.16	239.32	239.30	
15	239.28	238.75	238.73	239.49	239.51	238.98	239.84	237.97	239.01	239.17	239.32	239.30	
16	239.27	238.60	238.72	239.46	239.49	239.05	239.84	237.97	239.01	239.27	239.32	239.31	
17	239.80	238.47	238.70	239.25	239.49	238.95	239.85	237.97	238.99	239.28	239.32	239.31	
18	239.16	238.87	238.73	238.97	239.49	238.93	239.90	237.97	238.98	239.28	239.31	239.30	
19	238.55	238.68	238.72	238.83	239.26	238.89	239.89	237.98	238.98	239.28	239.31	239.30	
20	238.47	238.59	238.70	238.82	239.50	238.89	239.64	238.69	238.98	239.28	239.31	239.33	
21	238.72	238.54	238.71	239.00	239.70	238.95	239.26	238.86	238.98	239.28	239.31	239.45	
22	238.72	238.71	238.69	239.05	239.84	239.07	239.21	238.96	238.97	239.28	239.32	239.47	
23	239.03	239.15	238.74	239.15	239.85	239.17	239.20	239.05	238.97	239.28	239.31	239.48	
24	239.07	239.03	238.93	239.20	239.86	239.19	239.05	238.96	238.98	239.28	239.32	239.48	
25	239.08	238.96	238.95	239.13	239.86	239.17	239.03	238.96	238.97	239.27	239.31	239.48	
26	239.07	239.01	239.09	239.13	239.89	239.16	239.03	238.94	238.98	239.28	239.31	239.45	
27	239.08	239.60	239.12	239.14	239.78	239.16	239.03	238.93	238.97	239.28	239.31	239.29	
28	239.20	239.54	239.07	239.12	239.63	239.16	239.05	238.98	238.97	239.28	239.31	239.28	
29	238.78	238.96	239.19	239.13	239.63	239.16	239.04	238.99	239.04	239.28		239.24	
30	239.44	239.09	239.03	239.19	239.65	239.18	239.04	238.99	239.13	239.28		239.16	
31		239.65		239.19	239.62		239.05		239.14	239.28		239.15	
Mean	239.16	238.87	238.81	239.10	239.49	239.22	239.48	238.72	239.00	239.22	239.31	239.32	
Max	239.80	239.65	239.19	239.49	239.89	239.58	239.93	239.06	239.14	239.28	239.32	239.48	239.93
Min	238.47	238.39	238.57	238.78	239.13	238.89	239.03	237.97	238.97	239.14	239.28	239.15	237.97

Annual Max Momentary Gage Height	240.43	m. (MSL.) ,	at 15.00 Hours, on Apr 17, 2018		
Zero Gage at Bottom Elevation	236.70	m. (MSL.) ,	River Bed	237.42	m. (MSL.)
Left Bank Elevation	243.94	m. (MSL.) ,			
Right Bank Elevation	243.94	m. (MSL.) ,	Drainage Are	1,519	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	5.30	3.02	3.74	3.02	4.52	8.72	4.36	3.50	3.08	4.12	5.50	5.70		
2	5.20	2.90	2.48	2.84	4.60	7.74	4.90	3.50	3.02	4.12	5.40	5.70		
3	5.30	1.91	1.85	2.78	4.52	7.30	6.40	3.44	3.02	4.12	5.40	5.60		
4	5.50	2.42	1.55	2.72	4.52	6.70	7.50	3.44	3.08	4.20	5.50	5.60		
5	5.60	3.32	4.52	1.97	4.70	6.70	8.86	3.50	3.08	4.20	5.50	5.60		
6	5.80	4.12	2.06	1.94	4.60	6.60	8.86	3.44	3.08	4.12	5.50	5.50		
7	6.20	1.79	1.61	1.94	5.00	6.60	9.42	3.44	3.14	4.20	5.60	5.50		
8	5.60	1.10	1.49	2.18	4.04	6.60	10.96	3.50	3.20	4.20	5.70	5.50		
9	5.40	0.78	1.31	3.20	7.00	6.70	11.10	3.50	3.14	4.20	5.70	5.60		
10	5.40	1.37	1.64	4.60	6.80	6.70	11.52	3.56	3.14	4.20	5.70	5.60		
11	5.50	1.34	1.58	4.90	6.70	6.00	13.88	2.84	3.14	4.12	5.70	5.60		
12	5.30	2.84	1.49	7.20	6.40	5.80	13.72	0.10	3.20	4.20	5.70	5.50		
13	5.40	1.49	1.40	7.40	7.00	4.80	12.44	0.00	3.20	4.28	5.70	5.50		
14	5.40	1.70	1.46	7.40	8.30	4.28	12.28	0.00	3.26	4.28	5.80	5.60		
15	5.40	1.85	1.79	7.50	7.74	3.08	12.44	0.00	3.26	4.36	5.80	5.60		
16	5.30	1.40	1.76	7.20	7.50	3.50	12.44	0.00	3.26	5.30	5.80	5.70		
17	11.80	1.01	1.70	5.10	7.50	2.90	12.60	0.00	3.14	5.40	5.80	5.70		
18	4.28	2.42	1.79	3.02	7.50	2.78	13.40	0.00	3.08	5.40	5.70	5.60		
19	1.25	1.64	1.76	2.18	5.20	2.54	13.24	0.00	3.08	5.40	5.70	5.60		
20	1.01	1.37	1.70	2.12	7.60	2.54	9.56	1.67	3.08	5.40	5.70	5.90		
21	1.76	1.22	1.73	3.20	10.40	2.90	5.20	2.36	3.08	5.40	5.70	7.10		
22	1.76	1.73	1.67	3.50	12.44	3.62	4.70	2.96	3.02	5.40	5.80	7.30		
23	3.38	4.20	1.82	4.20	12.60	4.36	4.60	3.50	3.02	5.40	5.70	7.40		
24	3.62	3.38	2.78	4.60	12.76	4.52	3.50	2.96	3.08	5.40	5.80	7.40		
25	3.68	2.96	2.90	4.04	12.76	4.36	3.38	2.96	3.02	5.30	5.70	7.40		
26	3.62	3.26	3.74	4.04	13.24	4.28	3.38	2.84	3.08	5.40	5.70	7.10		
27	3.68	9.00	3.96	4.12	11.52	4.28	3.38	2.78	3.02	5.40	5.70	5.50		
28	4.60	8.16	3.62	3.96	9.42	4.28	3.50	3.08	3.02	5.40	5.70	5.40		
29	1.94	2.96	4.52	4.04	9.42	4.28	3.44	3.14	3.44	5.40		5.00		
30	7.00	3.74	3.38	4.52	9.70	4.44	3.44	3.14	4.04	5.40		4.28		
31		9.70		4.52	9.28		3.50		4.12	5.40		4.20		
Total	140.98	90.10	68.80	125.95	245.28	149.90	251.90	69.15	98.62	149.12	158.70	180.28	1728.78	CMSDAY
Mean	4.70	2.91	2.29	4.06	7.91	5.00	8.13	2.31	3.18	4.81	5.67	5.82	4.74	CMS
Max	11.80	9.70	4.52	7.50	13.24	8.72	13.88	3.56	4.12	5.40	5.80	7.40	13.88	CMS
Min	1.01	0.78	1.31	1.94	4.04	2.54	3.38	0.00	3.02	4.12	5.40	4.20	0.00	CMS
Runoff	12.18	7.78	5.94	10.88	21.19	12.95	21.76	5.97	8.52	12.88	13.71	15.58	149.37	MCM

Momentary Peak 24.12 CMS. at 240.43 m. (MSL.) at 15.00 Hours , on Apr 17 , 2018

Runoff Yield 3.12 Liters/Second/Square KM. Momentary Peak Yield 15.88 Liters/Second/Square KM.

WATER YEAR : 2018

MUN RIVER BASIN

Lam Sa Bai at Ban Pa Kor, Ubon Ratchathani (M.179A)

Lat 15 - 30 - 12 N Long 104 - 35 - 41 E

Location : on right bank at the bridge.

Ban Pa Kor **Amphoe** Khueang Nai **Changwat** Ubon Ratchathani

Drainge Area	3,546 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+109.800 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On right bank at the footpath of the bridge. **Elevation** +123.400 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic mean of 5 readings
Period of Available Gage Records	2013 to date
Rating Operation	
Period of Rating	2013 to date
Rated by Flot	-
Rated by Current Meter	2013 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Stage-discharge relation defined by 41 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

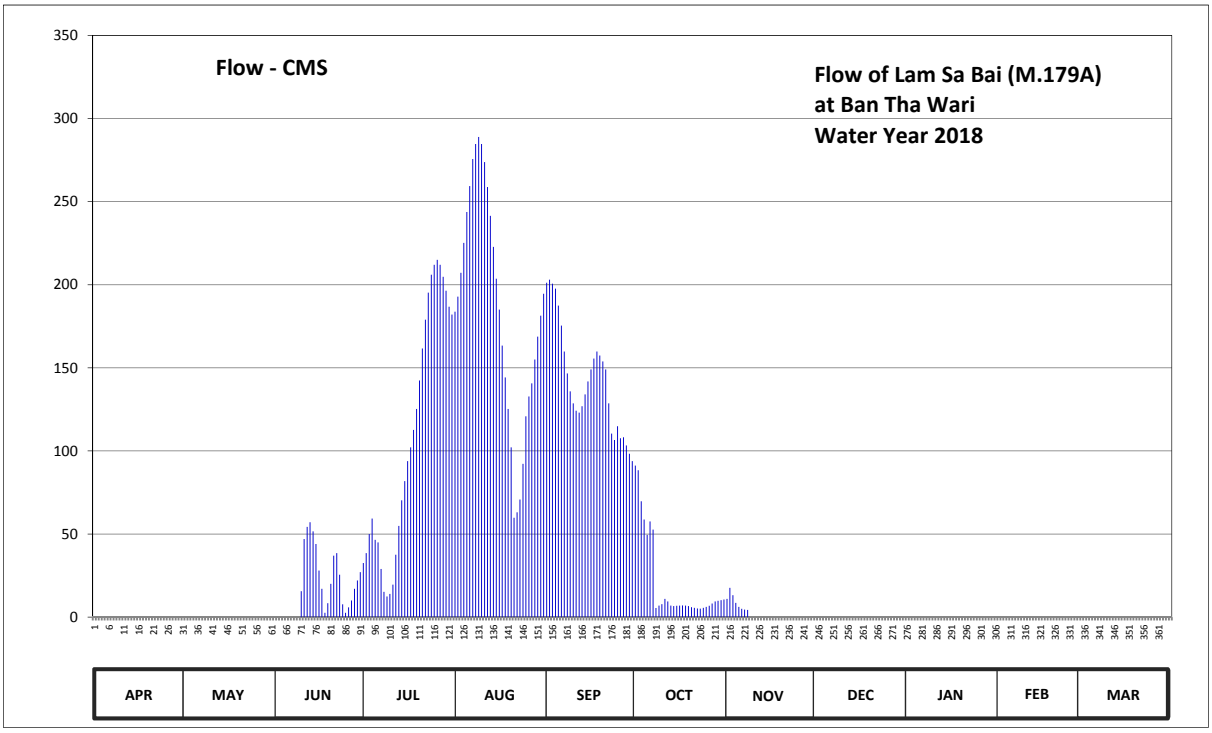
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	112.98	112.91	112.53	113.13	115.83	116.12	114.23	113.90	113.42	113.35	113.18	112.96	
2	112.97	112.90	112.56	113.25	115.98	116.15	114.18	113.96	113.42	113.35	113.17	112.96	
3	112.96	112.90	112.57	113.48	116.22	116.11	113.84	113.92	113.43	113.34	113.16	112.95	
4	112.95	112.91	112.57	113.65	116.52	116.06	113.64	113.84	113.41	113.34	113.15	112.95	
5	112.94	112.92	112.55	113.41	116.83	115.89	113.47	113.64	113.41	113.33	113.15	112.93	
6	112.94	112.92	112.55	113.38	117.09	115.69	113.62	113.40	113.41	113.33	113.14	112.90	
7	112.94	112.90	112.54	113.06	117.36	115.43	113.53	113.30	113.40	113.34	113.14	112.85	
8	112.95	112.89	112.54	112.78	117.51	115.21	113.49	113.26	113.40	113.34	113.13	112.80	
9	112.95	112.88	112.54	112.71	117.57	115.03	113.79	113.28	113.40	113.34	113.12	112.78	
10	112.96	112.86	112.79	112.75	117.51	114.91	113.82	113.32	113.40	113.33	113.14	112.78	
11	112.97	112.78	113.42	112.87	117.33	114.83	113.90	113.34	113.40	113.32	113.11	112.78	
12	112.97	112.70	113.56	113.23	117.08	114.81	113.86	113.34	113.41	113.32	113.10	112.78	
13	112.97	112.64	113.61	113.57	116.79	114.88	113.78	113.34	113.41	113.30	113.09	112.78	
14	112.96	112.59	113.51	113.85	116.48	115.00	113.72	113.36	113.40	113.30	113.08	112.78	
15	112.96	112.55	113.36	114.06	116.16	115.13	113.76	113.36	113.42	113.29	113.07	112.78	
16	112.95	112.50	113.04	114.28	115.85	115.25	113.78	113.36	113.42	113.29	113.06	112.78	
17	112.95	112.47	112.82	114.43	115.49	115.36	113.80	113.38	113.42	113.28	113.06	112.78	
18	112.95	112.47	112.42	114.62	115.17	115.43	113.78	113.38	113.41	113.27	113.05	112.78	
19	112.95	112.50	112.61	114.85	114.85	115.39	113.72	113.38	113.41	113.27	113.01	112.78	
20	112.95	112.51	112.88	115.14	114.43	115.33	113.60	113.38	113.40	113.27	112.99	112.78	
21	112.94	112.51	113.22	115.46	113.66	115.25	113.52	113.40	113.38	113.27	112.98	112.77	
22	112.94	112.54	113.25	115.75	113.72	114.91	113.44	113.40	113.38	113.26	112.98	112.76	
23	112.93	112.54	112.99	116.02	113.86	114.58	113.42	113.42	113.38	113.26	112.97	112.75	
24	112.93	112.52	112.59	116.20	114.25	114.51	113.51	113.42	113.37	113.24	112.97	112.74	
25	112.93	112.51	112.42	116.30	114.77	114.66	113.63	113.42	113.37	113.24	112.97	112.72	
26	112.92	112.51	112.53	116.35	114.98	114.53	113.77	113.42	113.37	113.22	112.97	112.72	
27	112.92	112.51	112.65	116.30	115.11	114.54	113.83	113.42	113.37	113.22	112.96	112.70	
28	112.92	112.51	112.82	116.18	115.35	114.45	113.86	113.43	113.36	113.20	112.96	112.70	
29	112.92	112.51	112.92	116.04	115.58	114.36	113.87	113.43	113.36	113.20		112.67	
30	112.91	112.51	113.02	115.88	115.79	114.28	113.88	113.43	113.35	113.19		112.66	
31		112.51		115.80	116.01		113.89		113.35	113.18		112.66	
Mean	112.95	112.66	112.85	114.48	115.84	115.14	113.74	113.45	113.39	113.28	113.07	112.79	
Max	112.98	112.92	113.61	116.35	117.57	116.15	114.23	113.96	113.43	113.35	113.18	112.96	117.57
Min	112.91	112.47	112.42	112.71	113.66	114.28	113.42	113.26	113.35	113.18	112.96	112.66	112.42

Annual Max Momentary Gage Height 117.57 m. (MSL.) , at 06.00 Hours, on Aug 9, 2018

Zero Gage at Bottom Elevation 109.80 m. (MSL.) , River Bed 109.66 m. (MSL.) ,

Left Bank Elevation 123.18 m. (MSL.) ,

Right Bank Elevation 123.18 m. (MSL.) , Drainage Are 3,546 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	0.00	32.50	183.80	201.20	91.15	11.00	0.00	0.00	0.00	0.00		
2	0.00	0.00	0.00	38.50	192.80	203.00	88.40	17.60	0.00	0.00	0.00	0.00		
3	0.00	0.00	0.00	50.00	207.20	200.60	69.70	13.20	0.00	0.00	0.00	0.00		
4	0.00	0.00	0.00	59.25	225.20	197.60	58.70	8.60	0.00	0.00	0.00	0.00		
5	0.00	0.00	0.00	46.50	243.80	187.40	49.50	6.20	0.00	0.00	0.00	0.00		
6	0.00	0.00	0.00	45.00	259.40	175.40	57.60	5.00	0.00	0.00	0.00	0.00		
7	0.00	0.00	0.00	29.00	275.60	159.80	52.65	4.50	0.00	0.00	0.00	0.00		
8	0.00	0.00	0.00	15.20	284.70	146.60	5.45	4.30	0.00	0.00	0.00	0.00		
9	0.00	0.00	0.00	12.40	288.90	135.80	6.95	0.00	0.00	0.00	0.00	0.00		
10	0.00	0.00	15.60	14.00	284.70	128.60	7.80	0.00	0.00	0.00	0.00	0.00		
11	0.00	0.00	47.00	19.50	273.80	124.15	11.00	0.00	0.00	0.00	0.00	0.00		
12	0.00	0.00	54.30	37.50	258.80	123.05	9.40	0.00	0.00	0.00	0.00	0.00		
13	0.00	0.00	57.05	54.85	241.40	126.90	6.90	0.00	0.00	0.00	0.00	0.00		
14	0.00	0.00	51.55	70.25	222.80	134.00	6.60	0.00	0.00	0.00	0.00	0.00		
15	0.00	0.00	44.00	81.80	203.60	141.80	6.80	0.00	0.00	0.00	0.00	0.00		
16	0.00	0.00	28.00	93.90	185.00	149.00	6.90	0.00	0.00	0.00	0.00	0.00		
17	0.00	0.00	17.00	102.15	163.40	155.60	7.00	0.00	0.00	0.00	0.00	0.00		
18	0.00	0.00	2.60	112.60	144.20	159.80	6.90	0.00	0.00	0.00	0.00	0.00		
19	0.00	0.00	8.40	125.25	125.25	157.40	6.60	0.00	0.00	0.00	0.00	0.00		
20	0.00	0.00	20.00	142.40	102.15	153.80	6.00	0.00	0.00	0.00	0.00	0.00		
21	0.00	0.00	37.00	161.60	59.80	149.00	5.60	0.00	0.00	0.00	0.00	0.00		
22	0.00	0.00	38.50	179.00	63.10	128.60	5.20	0.00	0.00	0.00	0.00	0.00		
23	0.00	0.00	25.50	195.20	70.80	110.40	5.10	0.00	0.00	0.00	0.00	0.00		
24	0.00	0.00	7.70	206.00	92.25	106.55	5.55	0.00	0.00	0.00	0.00	0.00		
25	0.00	0.00	2.60	212.00	120.85	114.80	6.15	0.00	0.00	0.00	0.00	0.00		
26	0.00	0.00	5.90	215.00	132.80	107.65	6.85	0.00	0.00	0.00	0.00	0.00		
27	0.00	0.00	10.00	212.00	140.60	108.20	8.20	0.00	0.00	0.00	0.00	0.00		
28	0.00	0.00	17.00	204.80	155.00	103.25	9.40	0.00	0.00	0.00	0.00	0.00		
29	0.00	0.00	22.00	196.40	168.80	98.30	9.80	0.00	0.00	0.00		0.00		
30	0.00	0.00	27.00	186.80	181.40	93.90	10.20	0.00	0.00	0.00		0.00		
31		0.00		182.00	194.60		10.60		0.00	0.00		0.00		
Total	0.00	0.00	538.70	3333.35	5746.50	4282.15	644.65	70.40	0.00	0.00	0.00	0.00	14615.75	CMSDAY
Mean	0.00	0.00	17.96	107.53	185.37	142.74	20.80	2.35	0.00	0.00	0.00	0.00	40.04	CMS
Max	0.00	0.00	57.05	215.00	288.90	203.00	91.15	17.60	0.00	0.00	0.00	0.00	288.90	CMS
Min	0.00	0.00	0.00	12.40	59.80	93.90	5.10	0.00	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	0.00	0.00	46.54	288.00	496.50	369.98	55.70	6.08	0.00	0.00	0.00	0.00	1262.80	MCM

Momentary Peak 288.90 CMS. at 117.57 m. (MSL.) at 06.00 Hours , on Aug 9 , 2018

Runoff Yield 11.29 Liters/Second/Square KM. Momentary Peak Yield 81.47 Liters/Second/Square KM.

WATER YEAR : 2018

MUN RIVER BASIN

Lam Phra Phloeng at Ban Tha Yiam, Nakhon Ratchasima (M.180)

Lat 14 - 38 - 04 N Long 101 - 53 - 16 E

Location : on left bank at Ban Tha Yiam

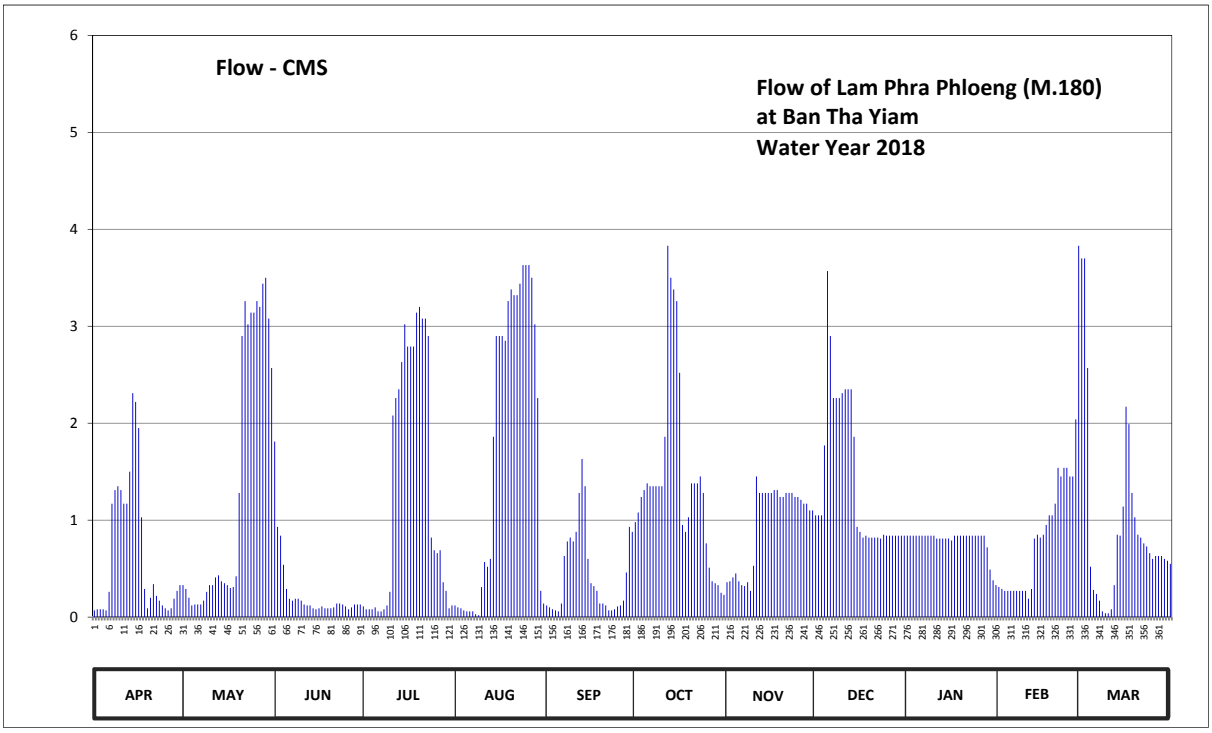
Ban Tha Yiam **Amphoe** Pak Thong Chai **Changwat** Nakhon Ratchasima

Drainge Area	864 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	219.200 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank at the footpath of the bridge. **Elevation** +227.886 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic mean of 5 readings
Period of Available Gage Records	2003 to date
Rating Operation	
Period of Rating	2003 to date
Rated by Flot	-
Rated by Current Meter	2003 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. Stage-discharge relation defined by 13 discharge measurement made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	219.60	219.97	220.68	219.67	219.68	219.68	220.45	220.01	220.48	220.39	219.95	221.03	
2	219.62	219.93	220.43	219.62	219.65	219.65	220.49	220.02	220.48	220.39	219.93	221.03	
3	219.62	219.80	220.39	219.61	219.64	219.61	220.54	220.06	220.48	220.39	219.90	220.84	
4	219.62	219.68	220.19	219.62	219.60	219.59	220.56	220.10	220.67	220.39	219.90	220.17	
5	219.60	219.70	219.93	219.65	219.58	219.57	220.58	220.02	221.01	220.39	219.90	219.91	
6	219.88	219.70	219.78	219.57	219.58	219.72	220.57	219.97	220.90	220.39	219.90	219.86	
7	220.52	219.70	219.76	219.57	219.57	220.25	220.57	219.96	220.78	220.39	219.90	219.76	
8	220.56	219.76	219.78	219.61	219.49	220.35	220.57	220.01	220.78	220.39	219.90	219.58	
9	220.57	219.88	219.78	219.68	219.35	220.38	220.57	219.90	220.78	220.39	219.90	219.52	
10	220.56	219.97	219.75	219.89	219.95	220.35	220.57	220.18	220.79	220.39	219.90	219.52	
11	220.52	219.97	219.70	220.74	220.21	220.41	220.69	220.60	220.80	220.37	219.79	219.61	
12	220.52	220.06	219.69	220.78	220.17	220.55	221.05	220.55	220.80	220.37	219.93	219.97	
13	220.61	220.08	219.68	220.80	220.23	220.64	221.00	220.55	220.80	220.37	220.37	220.40	
14	220.79	220.02	219.64	220.85	220.69	220.57	220.98	220.55	220.69	220.37	220.40	220.39	
15	220.77	220.00	219.62	220.92	220.90	220.23	220.96	220.55	220.43	220.37	220.38	220.51	
16	220.71	219.98	219.64	220.88	220.90	220.00	220.83	220.55	220.41	220.36	220.40	220.76	
17	220.47	219.94	219.67	220.88	220.90	219.96	220.44	220.56	220.38	220.39	220.44	220.72	
18	219.92	219.95	219.64	220.88	220.89	219.90	220.41	220.56	220.39	220.39	220.48	220.55	
19	219.63	220.07	219.64	220.94	220.96	219.72	220.47	220.54	220.38	220.39	220.48	220.47	
20	219.80	220.55	219.63	220.95	220.98	219.72	220.58	220.54	220.38	220.39	220.52	220.40	
21	219.99	220.90	219.65	220.93	220.97	219.68	220.58	220.55	220.38	220.39	220.62	220.38	
22	219.83	220.96	219.72	220.93	220.97	219.60	220.58	220.55	220.38	220.39	220.60	220.34	
23	219.76	220.92	219.72	220.90	220.99	219.60	220.60	220.55	220.37	220.39	220.62	220.32	
24	219.68	220.94	219.70	220.38	221.02	219.62	220.55	220.54	220.40	220.39	220.62	220.27	
25	219.63	220.94	219.66	220.29	221.02	219.66	220.34	220.54	220.39	220.39	220.60	220.23	
26	219.59	220.96	219.62	220.27	221.02	219.68	220.16	220.53	220.39	220.39	220.60	220.25	
27	219.63	220.95	219.65	220.29	221.00	219.75	220.02	220.52	220.39	220.39	220.73	220.25	
28	219.78	220.99	219.70	220.01	220.92	220.11	220.00	220.52	220.39	220.31	221.05	220.25	
29	219.90	221.00	219.70	219.90	220.78	220.43	219.97	220.50	220.39	220.14		220.23	
30	219.97	220.93	219.70	219.64	219.90	220.41	219.87	220.50	220.39	220.03		220.22	
31		220.84		219.69	219.71		219.84		220.39	219.97		220.20	
Mean	220.06	220.29	219.79	220.27	220.36	219.98	220.50	220.37	220.54	220.35	220.28	220.26	
Max	220.79	221.00	220.68	220.95	221.02	220.64	221.05	220.60	221.01	220.39	221.05	221.03	221.05
Min	219.59	219.68	219.62	219.57	219.35	219.57	219.84	219.90	220.37	219.97	219.79	219.52	219.35

Annual Max Momentary Gage Height	221.06	m. (MSL.) ,	at 06.00 Hours, on Oct 12, 2018		
Zero Gage at Bottom Elevation	219.20	m. (MSL.) ,	River Bed	219.44	m. (MSL.)
Left Bank Elevation	227.56	m. (MSL.) ,			
Right Bank Elevation	227.61	m. (MSL.) ,	Drainage Are	864	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.07	0.33	1.81	0.11	0.12	0.12	0.98	0.36	1.05	0.84	0.31	3.70		
2	0.08	0.29	0.93	0.08	0.10	0.10	1.08	0.37	1.05	0.84	0.29	3.70		
3	0.08	0.20	0.84	0.08	0.09	0.08	1.24	0.41	1.05	0.84	0.27	2.57		
4	0.08	0.12	0.54	0.08	0.07	0.07	1.31	0.45	1.77	0.84	0.27	0.52		
5	0.07	0.13	0.29	0.10	0.06	0.06	1.38	0.37	3.57	0.84	0.27	0.28		
6	0.26	0.13	0.19	0.06	0.06	0.14	1.35	0.33	2.90	0.84	0.27	0.24		
7	1.17	0.13	0.17	0.06	0.06	0.63	1.35	0.32	2.26	0.84	0.27	0.17		
8	1.31	0.17	0.19	0.08	0.03	0.78	1.35	0.36	2.26	0.84	0.27	0.06		
9	1.35	0.26	0.19	0.12	0.02	0.82	1.35	0.27	2.26	0.84	0.27	0.04		
10	1.31	0.33	0.17	0.26	0.31	0.78	1.35	0.53	2.31	0.84	0.27	0.04		
11	1.17	0.33	0.13	2.08	0.57	0.88	1.86	1.45	2.35	0.81	0.19	0.08		
12	1.17	0.41	0.12	2.26	0.52	1.28	3.83	1.28	2.35	0.81	0.29	0.33		
13	1.50	0.43	0.12	2.35	0.60	1.63	3.50	1.28	2.35	0.81	0.81	0.85		
14	2.31	0.37	0.09	2.63	1.86	1.35	3.38	1.28	1.86	0.81	0.85	0.84		
15	2.22	0.35	0.08	3.02	2.90	0.60	3.26	1.28	0.93	0.81	0.82	1.14		
16	1.95	0.33	0.09	2.79	2.90	0.35	2.52	1.28	0.88	0.79	0.85	2.17		
17	1.03	0.30	0.11	2.79	2.90	0.32	0.95	1.31	0.82	0.84	0.95	1.99		
18	0.29	0.31	0.09	2.79	2.85	0.27	0.88	1.31	0.84	0.84	1.05	1.28		
19	0.09	0.42	0.09	3.14	3.26	0.14	1.03	1.24	0.82	0.84	1.05	1.03		
20	0.20	1.28	0.09	3.20	3.38	0.14	1.38	1.24	0.82	0.84	1.17	0.85		
21	0.34	2.90	0.10	3.08	3.32	0.12	1.38	1.28	0.82	0.84	1.54	0.82		
22	0.22	3.26	0.14	3.08	3.32	0.07	1.38	1.28	0.82	0.84	1.45	0.76		
23	0.17	3.02	0.14	2.90	3.44	0.07	1.45	1.28	0.81	0.84	1.54	0.73		
24	0.12	3.14	0.13	0.82	3.63	0.08	1.28	1.24	0.85	0.84	1.54	0.66		
25	0.09	3.14	0.11	0.69	3.63	0.11	0.76	1.24	0.84	0.84	1.45	0.60		
26	0.07	3.26	0.08	0.66	3.63	0.12	0.51	1.21	0.84	0.84	1.45	0.63		
27	0.09	3.20	0.10	0.69	3.50	0.17	0.37	1.17	0.84	0.84	2.04	0.63		
28	0.19	3.44	0.13	0.36	3.02	0.46	0.35	1.17	0.84	0.72	3.83	0.63		
29	0.27	3.50	0.13	0.27	2.26	0.93	0.33	1.10	0.84	0.49		0.60		
30	0.33	3.08	0.13	0.09	0.27	0.88	0.25	1.10	0.84	0.38		0.58		
31		2.57		0.12	0.14		0.23		0.84	0.33		0.55		
Total	19.60	41.13	7.52	40.84	52.82	13.55	43.62	28.79	43.68	24.40	25.63	29.07	370.65	CMSDAY
Mean	0.65	1.33	0.25	1.32	1.70	0.45	1.41	0.96	1.41	0.79	0.92	0.94	1.02	CMS
Max	2.31	3.50	1.81	3.20	3.63	1.63	3.83	1.45	3.57	0.84	3.83	3.70	3.83	CMS
Min	0.07	0.12	0.08	0.06	0.02	0.06	0.23	0.27	0.81	0.33	0.19	0.04	0.02	CMS
Runoff	1.69	3.55	0.65	3.53	4.56	1.17	3.77	2.49	3.77	2.11	2.21	2.51	32.02	MCM

Momentary Peak 3.89 CMS. at 221.06 m. (MSL.) at 06.00 Hours , on Oct 12 , 2018

Runoff Yield 1.18 Liters/Second/Square KM. Momentary Peak Yield 4.50 Liters/Second/Square KM.

WATER YEAR : 2018

MUN RIVER BASIN

Huai Hin Lap at Ban Khlong Hin Lap, Nakhon Ratchasima (M.183A)

Lat 14 - 43 - 26 N Long 101 - 34 - 19 E

Location : on left bank at the bridge on highway.

Ban Khlong Hin Lap **Amphoe** Pak Chong **Changwat** Nakhon Ratchasima

Drainge Area	250 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+292.600 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank near the gage site. **Elevation** +297.232 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic mean of 5 readings
Period of Available Gage Records	2016 to date
Rating Operation	
Period of Rating	2016 to date
Rated by Flot	-
Rated by Current Meter	2016 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Stage-discharge relation defined by 45 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

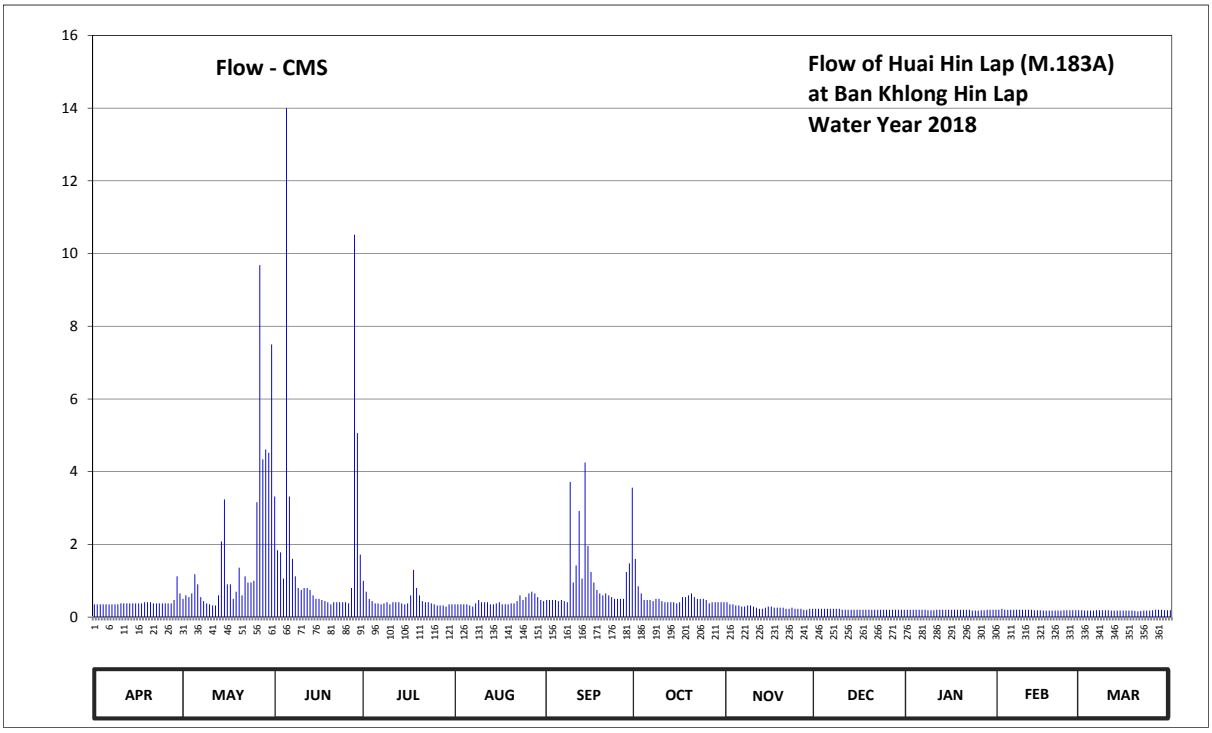
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	292.85	292.90	293.34	293.00	292.85	292.89	293.10	292.87	292.81	292.80	292.80	292.79	
2	292.85	292.92	293.14	292.94	292.85	292.89	292.97	292.85	292.81	292.80	292.81	292.78	
3	292.85	292.91	293.13	292.90	292.85	292.89	292.93	292.85	292.81	292.80	292.80	292.78	
4	292.85	292.93	293.01	292.88	292.85	292.89	292.89	292.84	292.81	292.80	292.80	292.78	
5	292.85	293.03	294.35	292.86	292.85	292.88	292.89	292.84	292.81	292.80	292.80	292.78	
6	292.85	292.98	293.34	292.86	292.84	292.89	292.89	292.83	292.81	292.80	292.80	292.79	
7	292.85	292.91	293.10	292.85	292.83	292.88	292.88	292.83	292.81	292.80	292.80	292.79	
8	292.85	292.88	293.02	292.86	292.86	292.87	292.90	292.84	292.81	292.79	292.80	292.79	
9	292.85	292.86	292.96	292.87	292.89	293.39	292.90	292.84	292.81	292.79	292.80	292.79	
10	292.86	292.85	292.95	292.85	292.87	292.99	292.88	292.83	292.80	292.79	292.80	292.79	
11	292.86	292.84	292.96	292.87	292.87	293.07	292.87	292.82	292.80	292.80	292.80	292.78	
12	292.86	292.84	292.96	292.87	292.87	293.29	292.87	292.81	292.80	292.80	292.80	292.78	
13	292.86	292.92	292.95	292.87	292.85	293.01	292.87	292.81	292.80	292.80	292.79	292.78	
14	292.86	293.18	292.92	292.86	292.85	293.45	292.87	292.82	292.80	292.80	292.79	292.78	
15	292.86	293.33	292.90	292.85	292.86	293.16	292.86	292.83	292.80	292.80	292.79	292.78	
16	292.86	292.98	292.90	292.86	292.87	293.04	292.87	292.83	292.80	292.80	292.78	292.78	
17	292.86	292.98	292.89	292.92	292.85	292.99	292.91	292.82	292.80	292.80	292.78	292.78	
18	292.87	292.90	292.88	293.05	292.85	292.95	292.91	292.82	292.80	292.80	292.78	292.78	
19	292.87	292.94	292.87	292.96	292.85	292.93	292.92	292.82	292.80	292.80	292.78	292.77	
20	292.87	293.06	292.85	292.92	292.86	292.92	292.93	292.82	292.80	292.80	292.78	292.76	
21	292.86	292.92	292.87	292.88	292.86	292.93	292.91	292.81	292.80	292.80	292.78	292.77	
22	292.86	293.02	292.87	292.87	292.88	292.92	292.90	292.81	292.80	292.80	292.78	292.78	
23	292.86	292.99	292.87	292.87	292.92	292.91	292.90	292.82	292.80	292.78	292.79	292.78	
24	292.86	292.99	292.87	292.86	292.89	292.90	292.90	292.81	292.80	292.78	292.79	292.78	
25	292.86	293.00	292.87	292.85	292.91	292.90	292.89	292.81	292.80	292.78	292.79	292.79	
26	292.86	293.32	292.86	292.84	292.93	292.90	292.86	292.81	292.80	292.79	292.79	292.80	
27	292.86	293.99	292.96	292.84	292.94	292.90	292.87	292.80	292.80	292.79	292.79	292.80	
28	292.89	293.46	294.06	292.84	292.93	293.04	292.87	292.80	292.80	292.80	292.79	292.80	
29	293.02	293.49	293.54	292.83	292.91	293.08	292.87	292.81	292.80	292.80		292.79	
30	292.93	293.48	293.12	292.85	292.89	293.37	292.87	292.81	292.80	292.80		292.79	
31		293.79		292.85	292.88		292.87		292.80	292.80		292.79	
Mean	292.87	293.08	293.08	292.88	292.87	293.00	292.90	292.82	292.80	292.80	292.79	292.78	
Max	293.02	293.99	294.35	293.05	292.94	293.45	293.10	292.87	292.81	292.80	292.81	292.80	294.35
Min	292.85	292.84	292.85	292.83	292.83	292.87	292.86	292.80	292.80	292.78	292.78	292.76	292.76

Annual Max Momentary Gage Height 294.93 m. (MSL.) , at 09.00 Hours, on Jun 5, 2018

Zero Gage at Bottom Elevation 292.60 m. (MSL.) , River Bed 292.50 m. (MSL.)

Left Bank Elevation 297.09 m. (MSL.) ,

Right Bank Elevation 297.20 m. (MSL.) , Drainage Are 250 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.35	0.50	3.32	1.00	0.35	0.47	1.60	0.41	0.23	0.20	0.20	0.19		
2	0.35	0.60	1.84	0.70	0.35	0.47	0.85	0.35	0.23	0.20	0.23	0.18		
3	0.35	0.55	1.78	0.50	0.35	0.47	0.65	0.35	0.23	0.20	0.20	0.18		
4	0.35	0.65	1.06	0.44	0.35	0.47	0.47	0.32	0.23	0.20	0.20	0.18		
5	0.35	1.18	14.00	0.38	0.35	0.44	0.47	0.32	0.23	0.20	0.20	0.18		
6	0.35	0.90	3.32	0.38	0.32	0.47	0.47	0.29	0.23	0.20	0.20	0.19		
7	0.35	0.55	1.60	0.35	0.29	0.44	0.44	0.29	0.23	0.20	0.20	0.19		
8	0.35	0.44	1.12	0.38	0.38	0.41	0.50	0.32	0.23	0.19	0.20	0.19		
9	0.35	0.38	0.80	0.41	0.47	3.72	0.50	0.32	0.23	0.19	0.20	0.19		
10	0.38	0.35	0.75	0.35	0.41	0.95	0.44	0.29	0.20	0.19	0.20	0.19		
11	0.38	0.32	0.80	0.41	0.41	1.42	0.41	0.26	0.20	0.20	0.20	0.18		
12	0.38	0.32	0.80	0.41	0.41	2.92	0.41	0.23	0.20	0.20	0.20	0.18		
13	0.38	0.60	0.75	0.41	0.35	1.06	0.41	0.23	0.20	0.20	0.19	0.18		
14	0.38	2.08	0.60	0.38	0.35	4.25	0.41	0.26	0.20	0.20	0.19	0.18		
15	0.38	3.24	0.50	0.35	0.38	1.96	0.38	0.29	0.20	0.20	0.19	0.18		
16	0.38	0.90	0.50	0.38	0.41	1.24	0.41	0.29	0.20	0.20	0.18	0.18		
17	0.38	0.90	0.47	0.60	0.35	0.95	0.55	0.26	0.20	0.20	0.18	0.18		
18	0.41	0.50	0.44	1.30	0.35	0.75	0.55	0.26	0.20	0.20	0.18	0.18		
19	0.41	0.70	0.41	0.80	0.35	0.65	0.60	0.26	0.20	0.20	0.18	0.17		
20	0.41	1.36	0.35	0.60	0.38	0.60	0.65	0.26	0.20	0.20	0.18	0.16		
21	0.38	0.60	0.41	0.44	0.38	0.65	0.55	0.23	0.20	0.20	0.18	0.17		
22	0.38	1.12	0.41	0.41	0.44	0.60	0.50	0.23	0.20	0.20	0.18	0.18		
23	0.38	0.95	0.41	0.41	0.60	0.55	0.50	0.26	0.20	0.18	0.19	0.18		
24	0.38	0.95	0.41	0.38	0.47	0.50	0.50	0.23	0.20	0.18	0.19	0.18		
25	0.38	1.00	0.41	0.35	0.55	0.50	0.47	0.23	0.20	0.18	0.19	0.19		
26	0.38	3.16	0.38	0.32	0.65	0.50	0.38	0.23	0.20	0.19	0.19	0.20		
27	0.38	9.68	0.80	0.32	0.70	0.50	0.41	0.20	0.20	0.19	0.19	0.20		
28	0.47	4.34	10.52	0.32	0.65	1.24	0.41	0.20	0.20	0.20	0.19	0.20		
29	1.12	4.61	5.06	0.29	0.55	1.48	0.41	0.23	0.20	0.20		0.19		
30	0.65	4.52	1.72	0.35	0.47	3.56	0.41	0.23	0.20	0.20		0.19		
31		7.50		0.35	0.44		0.41		0.20	0.20		0.19		
Total	12.32	55.45	55.74	14.47	13.26	34.19	16.12	8.13	6.47	6.09	5.40	5.70	233.34	CMSDAY
Mean	0.41	1.79	1.86	0.47	0.43	1.14	0.52	0.27	0.21	0.20	0.19	0.18	0.64	CMS
Max	1.12	9.68	14.00	1.30	0.70	4.25	1.60	0.41	0.23	0.20	0.23	0.20	14.00	CMS
Min	0.35	0.32	0.35	0.29	0.29	0.41	0.38	0.20	0.20	0.18	0.18	0.16	0.16	CMS
Runoff	1.06	4.79	4.82	1.25	1.15	2.95	1.39	0.70	0.56	0.53	0.47	0.49	20.16	MCM

Momentary Peak 21.09 CMS. at 294.93 m. (MSL.) at 09.00 Hours , on Jun 5 , 2018

Runoff Yield 2.56 Liters/Second/Square KM. Momentary Peak Yield 84.36 Liters/Second/Square KM.

WATER YEAR : 2018

MUN RIVER BASIN

Mun River at Ban Cum, Nakhon Ratchasima (M.184)

Lat 15 - 13 - 12 N Long 102 - 25 - 41 E

Location : on right at the bridge on highway.

Ban Cum **Amphoe** Phimai **Changwat** Nakhon Ratchasima

Drainge Area	11,489 sq.km.
Type of Gage	Water - stage recorder.
Zero Gage at Bottom	+150.000 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On right bank near the gage site. **Elevation** +156.067 m. (MSL.)
Gage Reading Frequency	Recording.
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	2008 to date
Rating Operation	
Period of Rating	2008 to date
Rated by Flot	-
Rated by Current Meter	2008 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. Stage-discharge relation defined by 26 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

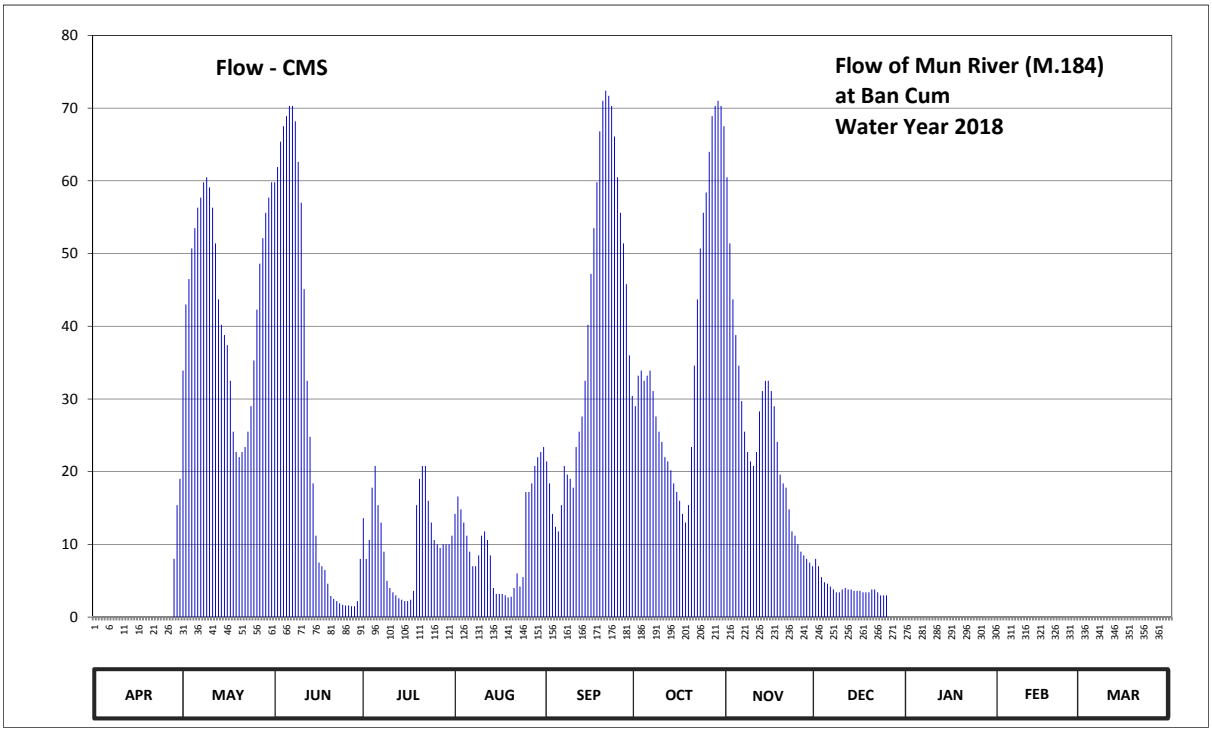
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	153.11	153.67	154.04	153.36	153.37	153.49	153.60	154.05	153.26	153.09	152.64	152.06	
2	153.17	153.80	154.07	153.26	153.41	153.44	153.66	153.92	153.24	153.07	152.59	152.05	
3	153.15	153.85	154.12	153.31	153.38	153.37	153.67	153.81	153.21	153.07	152.56	152.05	
4	153.16	153.91	154.15	153.43	153.35	153.34	153.65	153.74	153.19	153.07	152.52	152.05	
5	153.20	153.95	154.17	153.48	153.32	153.33	153.66	153.68	153.18	153.06	152.49	152.04	
6	153.20	153.99	154.19	153.39	153.28	153.39	153.67	153.61	153.16	153.06	152.48	152.03	
7	153.19	154.01	154.19	153.35	153.24	153.48	153.63	153.55	153.14	153.06	152.45	152.02	
8	153.19	154.04	154.16	153.28	153.24	153.46	153.58	153.51	153.12	153.06	152.41	152.00	
9	153.21	154.05	154.08	153.20	153.27	153.45	153.55	153.49	153.12	153.06	152.39	152.00	
10	153.29	154.03	154.00	153.15	153.32	153.43	153.53	153.48	153.14	153.06	152.37	152.00	
11	153.34	153.99	153.83	153.12	153.33	153.52	153.50	153.51	153.15	153.05	152.35	151.99	
12	153.36	153.92	153.65	153.10	153.31	153.55	153.49	153.59	153.14	153.05	152.34	151.98	
13	153.35	153.81	153.54	153.06	153.27	153.58	153.47	153.63	153.14	153.03	152.32	151.97	
14	153.34	153.76	153.44	153.04	153.15	153.65	153.44	153.65	153.13	153.01	152.28	151.96	
15	153.34	153.74	153.32	153.02	153.11	153.76	153.42	153.65	153.13	153.00	152.26	151.95	
16	153.34	153.72	153.25	153.02	153.11	153.86	153.40	153.63	153.13	152.98	152.25	151.95	
17	153.32	153.65	153.24	153.04	153.11	153.95	153.37	153.60	153.12	152.97	152.24	151.95	
18	153.31	153.55	153.23	153.13	153.10	154.04	153.35	153.53	153.12	152.94	152.23	151.95	
19	153.31	153.51	153.18	153.39	153.07	154.14	153.39	153.46	153.12	152.91	152.20	151.95	
20	153.32	153.50	153.09	153.45	153.08	154.20	153.52	153.44	153.14	152.88	152.18	151.94	
21	153.32	153.51	153.05	153.48	153.15	154.22	153.68	153.43	153.14	152.86	152.18	151.93	
22	153.31	153.52	153.02	153.48	153.22	154.21	153.81	153.38	153.12	152.84	152.15	151.96	
23	153.28	153.55	152.99	153.40	153.16	154.19	153.91	153.33	153.10	152.83	152.13	152.04	
24	153.27	153.60	152.97	153.35	153.21	154.13	153.98	153.32	153.10	152.80	152.12	152.12	
25	153.25	153.69	152.96	153.31	153.42	154.05	154.02	153.30	153.10	152.78	152.11	152.16	
26	153.21	153.79	152.96	153.30	153.42	153.98	154.10	153.28	153.10	152.76	152.10	152.17	
27	153.21	153.88	152.95	153.29	153.44	153.92	154.17	153.27	153.12	152.74	152.09	152.43	
28	153.26	153.93	152.95	153.30	153.48	153.84	154.19	153.26	153.11	152.72	152.08	152.72	
29	153.39	153.98	153.02	153.30	153.50	153.70	154.20	153.25	153.11	152.69		152.16	
30	153.45	154.01	153.26	153.30	153.51	153.62	154.19	153.24	153.10	152.66		152.15	
31		154.04		153.32	153.52		154.15		153.09	152.64		152.14	
Mean	153.27	153.80	153.50	153.27	153.29	153.74	153.71	153.52	153.14	152.93	152.30	152.06	
Max	153.45	154.05	154.19	153.48	153.52	154.22	154.20	154.05	153.26	153.09	152.64	152.72	154.22
Min	153.11	153.50	152.95	153.02	153.07	153.33	153.35	153.24	153.09	152.64	152.08	151.93	151.93

Annual Max Momentary Gage Height 154.22 m. (MSL.) , at 06.00 Hours, on Sep 21, 2018

Zero Gage at Bottom Elevation 150.00 m. (MSL.) , River Bed 149.56 m. (MSL.)

Left Bank Elevation 155.85 m. (MSL.) ,

Right Bank Elevation 155.98 m. (MSL.) , Drainage Are 11,489 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	33.90	59.80	13.60	14.20	21.40	29.00	60.50	8.00	0.00	0.00	0.00		
2	0.00	43.00	61.90	8.00	16.60	18.40	33.20	51.40	7.00	0.00	0.00	0.00		
3	0.00	46.50	65.40	10.60	14.80	14.20	33.90	43.70	5.50	0.00	0.00	0.00		
4	0.00	50.70	67.50	17.80	13.00	12.40	32.50	38.80	4.80	0.00	0.00	0.00		
5	0.00	53.50	68.90	20.80	11.20	11.80	33.20	34.60	4.60	0.00	0.00	0.00		
6	0.00	56.30	70.30	15.40	9.00	15.40	33.90	29.70	4.20	0.00	0.00	0.00		
7	0.00	57.70	70.30	13.00	7.00	20.80	31.10	25.50	3.80	0.00	0.00	0.00		
8	0.00	59.80	68.20	9.00	7.00	19.60	27.60	22.70	3.40	0.00	0.00	0.00		
9	0.00	60.50	62.60	5.00	8.50	19.00	25.50	21.40	3.40	0.00	0.00	0.00		
10	0.00	59.10	57.00	4.00	11.20	17.80	24.10	20.80	3.80	0.00	0.00	0.00		
11	0.00	56.30	45.10	3.40	11.80	23.40	22.00	22.70	4.00	0.00	0.00	0.00		
12	0.00	51.40	32.50	3.00	10.60	25.50	21.40	28.30	3.80	0.00	0.00	0.00		
13	0.00	43.70	24.80	2.60	8.50	27.60	20.20	31.10	3.80	0.00	0.00	0.00		
14	0.00	40.20	18.40	2.40	4.00	32.50	18.40	32.50	3.60	0.00	0.00	0.00		
15	0.00	38.80	11.20	2.20	3.20	40.20	17.20	32.50	3.60	0.00	0.00	0.00		
16	0.00	37.40	7.50	2.20	3.20	47.20	16.00	31.10	3.60	0.00	0.00	0.00		
17	0.00	32.50	7.00	2.40	3.20	53.50	14.20	29.00	3.40	0.00	0.00	0.00		
18	0.00	25.50	6.50	3.60	3.00	59.80	13.00	24.10	3.40	0.00	0.00	0.00		
19	0.00	22.70	4.60	15.40	2.70	66.80	15.40	19.60	3.40	0.00	0.00	0.00		
20	0.00	22.00	2.90	19.00	2.80	71.00	23.40	18.40	3.80	0.00	0.00	0.00		
21	0.00	22.70	2.50	20.80	4.00	72.40	34.60	17.80	3.80	0.00	0.00	0.00		
22	0.00	23.40	2.20	20.80	6.00	71.70	43.70	14.80	3.40	0.00	0.00	0.00		
23	0.00	25.50	1.90	16.00	4.20	70.30	50.70	11.80	3.00	0.00	0.00	0.00		
24	0.00	29.00	1.70	13.00	5.50	66.10	55.60	11.20	3.00	0.00	0.00	0.00		
25	0.00	35.30	1.60	10.60	17.20	60.50	58.40	10.00	3.00	0.00	0.00	0.00		
26	0.00	42.30	1.60	10.00	17.20	55.60	64.00	9.00	0.00	0.00	0.00	0.00		
27	0.00	48.60	1.50	9.50	18.40	51.40	68.90	8.50	0.00	0.00	0.00	0.00		
28	8.00	52.10	1.50	10.00	20.80	45.80	70.30	8.00	0.00	0.00	0.00	0.00		
29	15.40	55.60	2.20	10.00	22.00	36.00	71.00	7.50	0.00	0.00		0.00		
30	19.00	57.70	8.00	10.00	22.70	30.40	70.30	7.00	0.00	0.00		0.00		
31		59.80		11.20	23.40		67.50		0.00	0.00		0.00		
Total	42.40	1343.50	837.10	315.30	326.90	1178.50	1140.20	724.00	101.10	0.00	0.00	0.00	6009.00	CMSDAY
Mean	1.41	43.34	27.90	10.17	10.55	39.28	36.78	24.13	3.26	0.00	0.00	0.00	16.46	CMS
Max	19.00	60.50	70.30	20.80	23.40	72.40	71.00	60.50	8.00	0.00	0.00	0.00	72.40	CMS
Min	0.00	22.00	1.50	2.20	2.70	11.80	13.00	7.00	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	3.66	116.08	72.33	27.24	28.24	101.82	98.51	62.55	8.74	0.00	0.00	0.00	519.18	MCM

Momentary Peak 72.40 CMS. at 154.22 m. (MSL.) at 06.00 Hours , on Sep 21 , 2018

Runoff Yield 1.43 Liters/Second/Square KM. Momentary Peak Yield 6.30 Liters/Second/Square KM.

WATER YEAR : 2018

MUN RIVER BASIN

Lam Plai Mat at Ban Phai Noi, Buri Ram (M.185)

Lat 14 - 59 - 57 N Long 102 - 49 - 02 E

Location : on right at the bridge on highway.

Ban Phai Noi **Amphoe** Lam Plai Mat **Changwat** Buri Ram

Drainge Area	4,880 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+149.700 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On right bank near the gage site. **Elevation** +157.900 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic mean of 5 readings
Period of Available Gage Records	2008 to date
Rating Operation	
Period of Rating	2008 to date
Rated by Flot	-
Rated by Current Meter	2008 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. Stage-discharge relation defined by 8 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

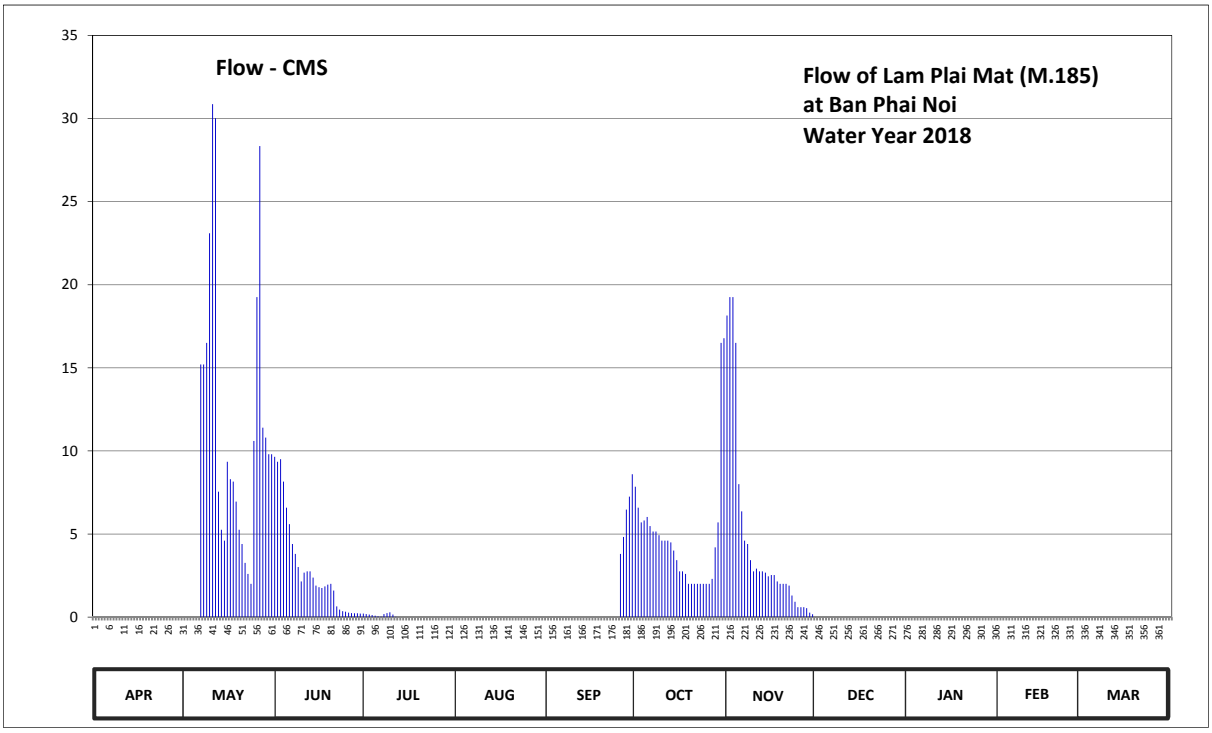
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	152.10	152.00	153.49	152.34	152.09	151.91	153.37	153.86	152.29	152.20	151.90	151.80	
2	152.10	152.00	153.47	152.32	152.08	151.90	153.28	153.90	152.24	152.20	151.90	151.77	
3	152.10	152.00	153.48	152.30	152.07	151.90	153.20	153.90	152.20	152.20	151.89	151.76	
4	152.10	152.00	153.39	152.28	152.06	151.90	153.21	153.80	152.19	152.20	151.89	151.74	
5	152.10	152.00	153.28	152.26	152.05	151.90	153.23	153.38	152.18	152.20	151.89	151.72	
6	152.10	152.10	153.19	152.23	152.04	151.90	153.18	153.26	152.17	152.20	151.88	151.70	
7	152.10	153.75	153.08	152.22	152.03	151.90	153.15	153.10	152.15	152.20	151.88	151.69	
8	152.10	153.75	153.02	152.32	152.02	151.90	153.15	153.08	152.14	152.20	151.87	151.68	
9	152.10	153.80	152.93	152.36	152.01	151.90	153.13	152.98	152.12	152.20	151.87	151.66	
10	152.10	154.04	152.82	152.39	152.01	151.90	153.10	152.90	152.10	152.20	151.86	151.64	
11	152.10	154.32	152.89	152.30	152.00	151.90	153.10	152.92	152.16	152.20	151.86	151.62	
12	152.10	154.29	152.90	152.21	152.00	151.90	153.10	152.90	152.20	152.18	151.86	151.60	
13	152.10	153.35	152.90	152.18	152.00	151.90	153.09	152.90	152.20	152.14	151.85	151.58	
14	152.10	153.16	152.85	152.15	152.00	151.92	153.04	152.89	152.20	152.09	151.85	151.57	
15	152.10	153.10	152.78	152.13	152.00	151.98	152.98	152.86	152.20	152.05	151.84	151.54	
16	152.10	153.47	152.76	152.12	152.00	152.00	152.90	152.87	152.20	152.01	151.84	151.53	
17	152.10	153.40	152.75	152.11	152.00	152.00	152.90	152.87	152.20	151.97	151.83	151.52	
18	152.10	153.39	152.77	152.10	152.00	152.00	152.88	152.82	152.20	151.93	151.83	151.50	
19	152.10	153.31	152.79	152.10	152.00	152.00	152.80	152.80	152.20	151.90	151.83	151.47	
20	152.10	153.16	152.80	152.10	152.00	152.00	152.80	152.80	152.20	151.90	151.82	151.46	
21	152.10	153.08	152.72	152.10	152.00	152.00	152.80	152.80	152.20	151.90	151.82	151.45	
22	152.10	152.96	152.51	152.10	151.99	152.00	152.80	152.78	152.20	151.90	151.82	151.43	
23	152.09	152.88	152.45	152.10	151.98	152.00	152.80	152.66	152.20	151.90	151.81	151.41	
24	152.08	152.80	152.42	152.10	151.97	152.00	152.80	152.58	152.20	151.90	151.81	151.40	
25	152.07	153.54	152.41	152.10	151.96	152.17	152.80	152.50	152.20	151.90	151.81	151.38	
26	152.06	153.90	152.38	152.10	151.95	153.02	152.80	152.50	152.20	151.90	151.81	151.36	
27	152.05	154.23	152.36	152.10	151.94	153.12	152.84	152.50	152.20	151.90	151.80	151.35	
28	152.05	153.58	152.35	152.10	151.93	153.27	153.06	152.48	152.20	151.90	151.80	151.34	
29	152.03	153.55	152.35	152.09	151.92	153.33	153.20	152.38	152.20	151.90		151.32	
30	152.00	153.50	152.34	152.08	151.92	153.42	153.80	152.31	152.20	151.90		151.30	
31		153.50		152.10	151.92		153.81		152.20	151.90		151.27	
Mean	152.09	153.22	152.82	152.18	152.00	152.16	153.07	152.94	152.19	152.04	151.85	151.53	
Max	152.10	154.32	153.49	152.39	152.09	153.42	153.81	153.90	152.29	152.20	151.90	151.80	154.32
Min	152.00	152.00	152.34	152.08	151.92	151.90	152.80	152.31	152.10	151.90	151.80	151.27	151.27

Annual Max Momentary Gage Height 154.35 m. (MSL.) , at 06.00 Hours, on May 12, 2018

Zero Gage at Bottom Elevation 149.70 m. (MSL.) , River Bed 151.08 m. (MSL.)

Left Bank Elevation 158.31 m. (MSL.) ,

Right Bank Elevation 158.04 m. (MSL.) , Drainage Are 4,880 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	9.65	0.21	0.00	0.00	7.85	18.15	0.00	0.00	0.00	0.00		
2	0.00	0.00	9.35	0.18	0.00	0.00	6.58	19.25	0.00	0.00	0.00	0.00		
3	0.00	0.00	9.50	0.15	0.00	0.00	5.70	19.25	0.00	0.00	0.00	0.00		
4	0.00	0.00	8.15	0.12	0.00	0.00	5.81	16.50	0.00	0.00	0.00	0.00		
5	0.00	0.00	6.58	0.09	0.00	0.00	6.03	8.00	0.00	0.00	0.00	0.00		
6	0.00	0.00	5.59	0.05	0.00	0.00	5.48	6.36	0.00	0.00	0.00	0.00		
7	0.00	15.20	4.40	0.03	0.00	0.00	5.15	4.60	0.00	0.00	0.00	0.00		
8	0.00	15.20	3.80	0.18	0.00	0.00	5.15	4.40	0.00	0.00	0.00	0.00		
9	0.00	16.50	3.01	0.24	0.00	0.00	4.93	3.43	0.00	0.00	0.00	0.00		
10	0.00	23.10	2.15	0.29	0.00	0.00	4.60	2.75	0.00	0.00	0.00	0.00		
11	0.00	30.86	2.68	0.15	0.00	0.00	4.60	2.92	0.00	0.00	0.00	0.00		
12	0.00	30.02	2.75	0.02	0.00	0.00	4.60	2.75	0.00	0.00	0.00	0.00		
13	0.00	7.55	2.75	0.00	0.00	0.00	4.50	2.75	0.00	0.00	0.00	0.00		
14	0.00	5.26	2.38	0.00	0.00	0.00	4.00	2.68	0.00	0.00	0.00	0.00		
15	0.00	4.60	1.90	0.00	0.00	0.00	3.43	2.45	0.00	0.00	0.00	0.00		
16	0.00	9.35	1.80	0.00	0.00	0.00	2.75	2.53	0.00	0.00	0.00	0.00		
17	0.00	8.30	1.75	0.00	0.00	0.00	2.75	2.53	0.00	0.00	0.00	0.00		
18	0.00	8.15	1.85	0.00	0.00	0.00	2.60	2.15	0.00	0.00	0.00	0.00		
19	0.00	6.95	1.95	0.00	0.00	0.00	2.00	2.00	0.00	0.00	0.00	0.00		
20	0.00	5.26	2.00	0.00	0.00	0.00	2.00	2.00	0.00	0.00	0.00	0.00		
21	0.00	4.40	1.60	0.00	0.00	0.00	2.00	2.00	0.00	0.00	0.00	0.00		
22	0.00	3.26	0.64	0.00	0.00	0.00	2.00	1.90	0.00	0.00	0.00	0.00		
23	0.00	2.60	0.45	0.00	0.00	0.00	2.00	1.30	0.00	0.00	0.00	0.00		
24	0.00	2.00	0.36	0.00	0.00	0.00	2.00	0.92	0.00	0.00	0.00	0.00		
25	0.00	10.60	0.33	0.00	0.00	0.00	2.00	0.60	0.00	0.00	0.00	0.00		
26	0.00	19.25	0.27	0.00	0.00	3.80	2.00	0.60	0.00	0.00	0.00	0.00		
27	0.00	28.34	0.24	0.00	0.00	4.82	2.30	0.60	0.00	0.00	0.00	0.00		
28	0.00	11.40	0.23	0.00	0.00	6.47	4.20	0.54	0.00	0.00	0.00	0.00		
29	0.00	10.80	0.23	0.00	0.00	7.25	5.70	0.27	0.00	0.00		0.00		
30	0.00	9.80	0.21	0.00	0.00	8.60	16.50	0.17	0.00	0.00		0.00		
31		9.80		0.00	0.00		16.78		0.00	0.00		0.00		
Total	0.00	298.55	88.55	1.71	0.00	30.94	147.99	136.35	0.00	0.00	0.00	0.00	704.09	CMSDAY
Mean	0.00	9.63	2.95	0.06	0.00	1.03	4.77	4.55	0.00	0.00	0.00	0.00	1.93	CMS
Max	0.00	30.86	9.65	0.29	0.00	8.60	16.78	19.25	0.00	0.00	0.00	0.00	30.86	CMS
Min	0.00	0.00	0.21	0.00	0.00	0.00	2.00	0.17	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	0.00	25.79	7.65	0.15	0.00	2.67	12.79	11.78	0.00	0.00	0.00	0.00	60.83	MCM

Momentary Peak 31.70 CMS. at 154.35 m. (MSL.) at 06.00 Hours , on May 12 , 2018

Runoff Yield 0.40 Liters/Second/Square KM. Momentary Peak Yield 6.50 Liters/Second/Square KM.

WATER YEAR : 2018

MUN RIVER BASIN

Lam Chakkarat at Ban Non Koy, Nakhon Ratchasima (M.186)

Lat 15 - 03 - 58 N Long 102 - 24 - 09 E

Location : on right at the bridge on highway.

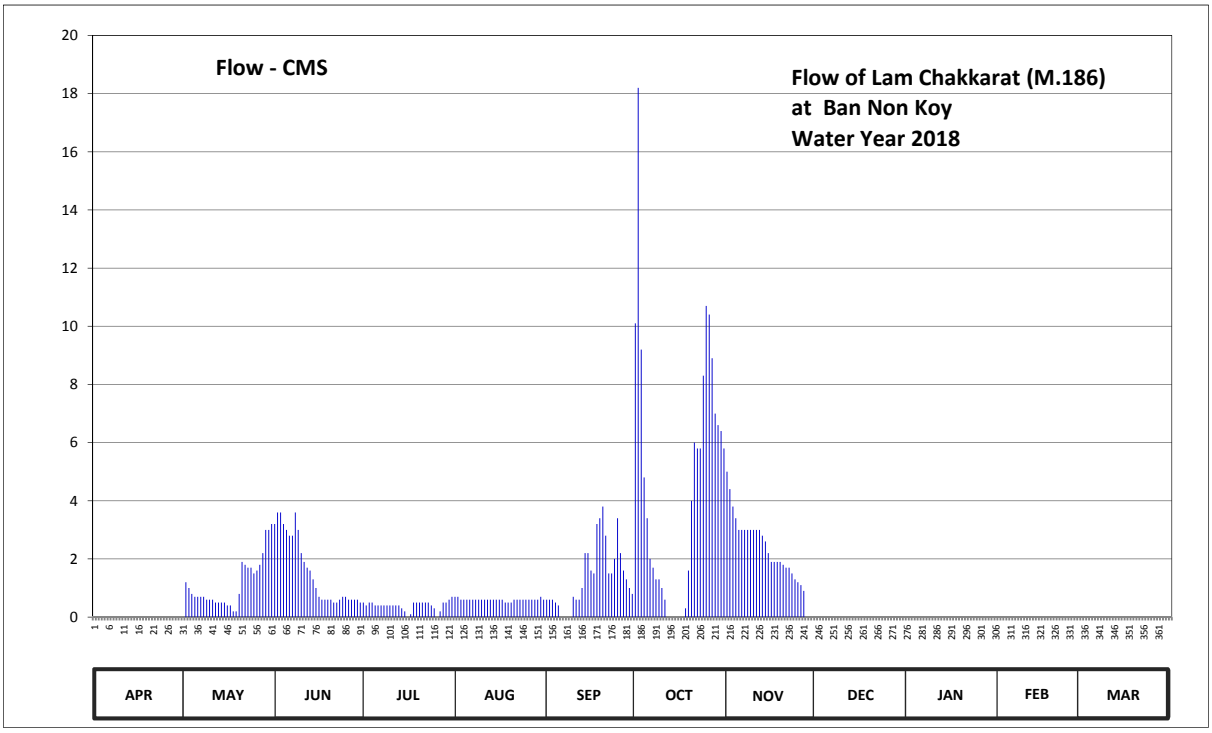
Ban Non Koy **Amphoe** Chakkarat **Changwat** Nakhon Ratchasima

Drainge Area	1,337 sq.km.
Type of Gage	Water - stage recorder.
Zero Gage at Bottom	+158.300 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On right bank near the gage site. **Elevation** +163.112 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	2008 to date
Rating Operation	
Period of Rating	2008 to date
Rated by Flot	-
Rated by Current Meter	2008 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. Stage-discharge relation defined by 9 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	158.99	160.12	160.46	160.25	160.27	160.26	160.77	160.55	160.27	160.11	159.75	159.43	
2	158.97	160.32	160.48	160.24	160.27	160.26	161.03	160.52	160.27	160.10	159.74	159.41	
3	158.97	160.30	160.48	160.25	160.26	160.26	160.74	160.49	160.27	160.09	159.73	159.40	
4	158.95	160.28	160.46	160.25	160.26	160.25	160.54	160.47	160.27	160.08	159.71	159.38	
5	158.95	160.27	160.45	160.24	160.26	160.24	160.47	160.45	160.27	160.07	159.70	159.36	
6	158.95	160.27	160.44	160.24	160.26	160.19	160.40	160.45	160.27	160.06	159.70	159.31	
7	158.96	160.27	160.44	160.24	160.26	160.16	160.37	160.45	160.26	160.06	159.70	159.27	
8	158.96	160.27	160.48	160.24	160.26	160.16	160.33	160.45	160.26	160.05	159.69	159.25	
9	158.96	160.26	160.45	160.24	160.26	160.19	160.33	160.45	160.26	160.03	159.67	159.23	
10	158.95	160.26	160.41	160.24	160.26	160.27	160.30	160.45	160.26	160.02	159.66	159.19	
11	158.94	160.26	160.39	160.24	160.26	160.26	160.26	160.45	160.26	160.00	159.64	159.16	
12	158.93	160.25	160.37	160.24	160.26	160.26	160.18	160.45	160.26	160.00	159.62	159.13	
13	158.93	160.25	160.36	160.24	160.26	160.30	160.17	160.44	160.26	160.00	159.60	159.11	
14	158.93	160.25	160.33	160.23	160.26	160.41	160.17	160.43	160.26	160.00	159.59	159.09	
15	158.94	160.25	160.30	160.22	160.26	160.41	160.17	160.41	160.26	160.00	159.59	159.06	
16	158.91	160.24	160.27	160.20	160.26	160.36	160.16	160.39	160.26	160.00	159.57	159.03	
17	158.90	160.24	160.26	160.21	160.26	160.35	160.16	160.39	160.26	160.00	159.57	158.99	
18	158.90	160.22	160.26	160.25	160.25	160.46	160.23	160.39	160.25	159.98	159.57	158.94	
19	158.90	160.22	160.26	160.25	160.25	160.47	160.36	160.39	160.25	159.97	159.56	158.84	
20	158.89	160.28	160.26	160.25	160.25	160.49	160.50	160.38	160.25	159.96	159.55	158.82	
21	158.88	160.39	160.25	160.25	160.26	160.44	160.60	160.37	160.24	159.95	159.54	158.79	
22	158.87	160.38	160.25	160.25	160.26	160.35	160.59	160.37	160.24	159.94	159.53	158.76	
23	158.85	160.37	160.26	160.25	160.26	160.35	160.59	160.35	160.24	159.93	159.52	158.73	
24	158.84	160.37	160.27	160.24	160.26	160.40	160.71	160.33	160.23	159.91	159.50	158.72	
25	158.84	160.35	160.27	160.23	160.26	160.47	160.79	160.32	160.20	159.90	159.49	158.69	
26	158.82	160.36	160.26	160.20	160.26	160.41	160.78	160.31	160.18	159.89	159.47	158.67	
27	158.81	160.38	160.26	160.22	160.26	160.36	160.73	160.29	160.17	159.89	159.45	158.63	
28	158.84	160.41	160.26	160.25	160.26	160.33	160.65	160.27	160.16	159.86	159.44	158.61	
29	158.98	160.45	160.26	160.25	160.26	160.30	160.63	160.27	160.15	159.81		158.61	
30	159.32	160.45	160.25	160.26	160.27	160.28	160.62	160.27	160.14	159.79		158.59	
31		160.46		160.27	160.26		160.59		160.13	159.77		158.57	
Mean	158.93	160.30	160.34	160.24	160.26	160.32	160.48	160.40	160.24	159.97	159.60	158.99	
Max	159.32	160.46	160.48	160.27	160.27	160.49	161.03	160.55	160.27	160.11	159.75	159.43	161.03
Min	158.81	160.12	160.25	160.20	160.25	160.16	160.16	160.27	160.13	159.77	159.44	158.57	158.57

Annual Max Momentary Gage Height	161.10	m. (MSL.) ,	at 18.00 Hours, on Oct 18, 2018		
Zero Gage at Bottom Elevation	158.30	m. (MSL.) ,	River Bed	158.10	m. (MSL.)
Left Bank Elevation	163.14	m. (MSL.) ,			
Right Bank Elevation	163.11	m. (MSL.) ,	Drainage Are	1,337	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	3.20	0.50	0.70	0.60	10.10	5.00	0.00	0.00	0.00	0.00		
2	0.00	1.20	3.60	0.40	0.70	0.60	18.20	4.40	0.00	0.00	0.00	0.00		
3	0.00	1.00	3.60	0.50	0.60	0.60	9.20	3.80	0.00	0.00	0.00	0.00		
4	0.00	0.80	3.20	0.50	0.60	0.50	4.80	3.40	0.00	0.00	0.00	0.00		
5	0.00	0.70	3.00	0.40	0.60	0.40	3.40	3.00	0.00	0.00	0.00	0.00		
6	0.00	0.70	2.80	0.40	0.60	0.00	2.00	3.00	0.00	0.00	0.00	0.00		
7	0.00	0.70	2.80	0.40	0.60	0.00	1.70	3.00	0.00	0.00	0.00	0.00		
8	0.00	0.70	3.60	0.40	0.60	0.00	1.30	3.00	0.00	0.00	0.00	0.00		
9	0.00	0.60	3.00	0.40	0.60	0.00	1.30	3.00	0.00	0.00	0.00	0.00		
10	0.00	0.60	2.20	0.40	0.60	0.70	1.00	3.00	0.00	0.00	0.00	0.00		
11	0.00	0.60	1.90	0.40	0.60	0.60	0.60	3.00	0.00	0.00	0.00	0.00		
12	0.00	0.50	1.70	0.40	0.60	0.60	0.00	3.00	0.00	0.00	0.00	0.00		
13	0.00	0.50	1.60	0.40	0.60	1.00	0.00	2.80	0.00	0.00	0.00	0.00		
14	0.00	0.50	1.30	0.30	0.60	2.20	0.00	2.60	0.00	0.00	0.00	0.00		
15	0.00	0.50	1.00	0.20	0.60	2.20	0.00	2.20	0.00	0.00	0.00	0.00		
16	0.00	0.40	0.70	0.00	0.60	1.60	0.00	1.90	0.00	0.00	0.00	0.00		
17	0.00	0.40	0.60	0.10	0.60	1.50	0.00	1.90	0.00	0.00	0.00	0.00		
18	0.00	0.20	0.60	0.50	0.50	3.20	0.30	1.90	0.00	0.00	0.00	0.00		
19	0.00	0.20	0.60	0.50	0.50	3.40	1.60	1.90	0.00	0.00	0.00	0.00		
20	0.00	0.80	0.60	0.50	0.50	3.80	4.00	1.80	0.00	0.00	0.00	0.00		
21	0.00	1.90	0.50	0.50	0.60	2.80	6.00	1.70	0.00	0.00	0.00	0.00		
22	0.00	1.80	0.50	0.50	0.60	1.50	5.80	1.70	0.00	0.00	0.00	0.00		
23	0.00	1.70	0.60	0.50	0.60	1.50	5.80	1.50	0.00	0.00	0.00	0.00		
24	0.00	1.70	0.70	0.40	0.60	2.00	8.30	1.30	0.00	0.00	0.00	0.00		
25	0.00	1.50	0.70	0.30	0.60	3.40	10.70	1.20	0.00	0.00	0.00	0.00		
26	0.00	1.60	0.60	0.00	0.60	2.20	10.40	1.10	0.00	0.00	0.00	0.00		
27	0.00	1.80	0.60	0.20	0.60	1.60	8.90	0.90	0.00	0.00	0.00	0.00		
28	0.00	2.20	0.60	0.50	0.60	1.30	7.00	0.00	0.00	0.00	0.00	0.00		
29	0.00	3.00	0.60	0.50	0.60	1.00	6.60	0.00	0.00	0.00		0.00		
30	0.00	3.00	0.50	0.60	0.70	0.80	6.40	0.00	0.00	0.00		0.00		
31		3.20		0.70	0.60		5.80		0.00	0.00		0.00		
Total	0.00	35.00	47.50	12.30	18.60	41.60	141.20	67.00	0.00	0.00	0.00	0.00	363.20	CMSDAY
Mean	0.00	1.13	1.58	0.40	0.60	1.39	4.55	2.23	0.00	0.00	0.00	0.00	1.00	CMS
Max	0.00	3.20	3.60	0.70	0.70	3.80	18.20	5.00	0.00	0.00	0.00	0.00	18.20	CMS
Min	0.00	0.00	0.50	0.00	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	0.00	3.02	4.10	1.06	1.61	3.59	12.20	5.79	0.00	0.00	0.00	0.00	31.38	MCM

Momentary Peak 21.00 CMS. at 161.10 m. (MSL.) at 18.00 Hours , on Oct 18 , 2018

Runoff Yield 0.74 Liters/Second/Square KM. Momentary Peak Yield 15.71 Liters/Second/Square KM.

WATER YEAR : 2018

MUN RIVER BASIN

Huai Sanaeng at Mueang, Surin (M.187)

Lat 14 - 51 - 26 N Long 103 - 28 - 37 E

Location : on right at the bridge on highway.

	Ban -	**Amphoe**	Mueang	**Changwat**	Surin
Drainge Area	641 sq.km.				
Type of Gage	Staff gage				
Zero Gage at Bottom	+136.800 m. (MSL.)				
Bench Mark	B.M.-H.D.				
Location BM	On right bank near the gage site.			**Elevation**	+143.644 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.				
Basis of Mean Daily Gage Height	Arithmetic mean of 3 readings				
Period of Available Gage Records	2008 to date				
Rating Operation					
Period of Rating	2008 to date				
Rated by Flot	-				
Rated by Current Meter	2008 to date				
Stability of Channel Regimes	Stable.				
Overbank Flow Conditions	No overbank flow.				
General Description	Records fair. Stage-discharge relation defined by 4 discharge measurements made in 2018.				

Gage Height in Meter (MSL.) Water Year April 1, 2017 to March 31, 2018

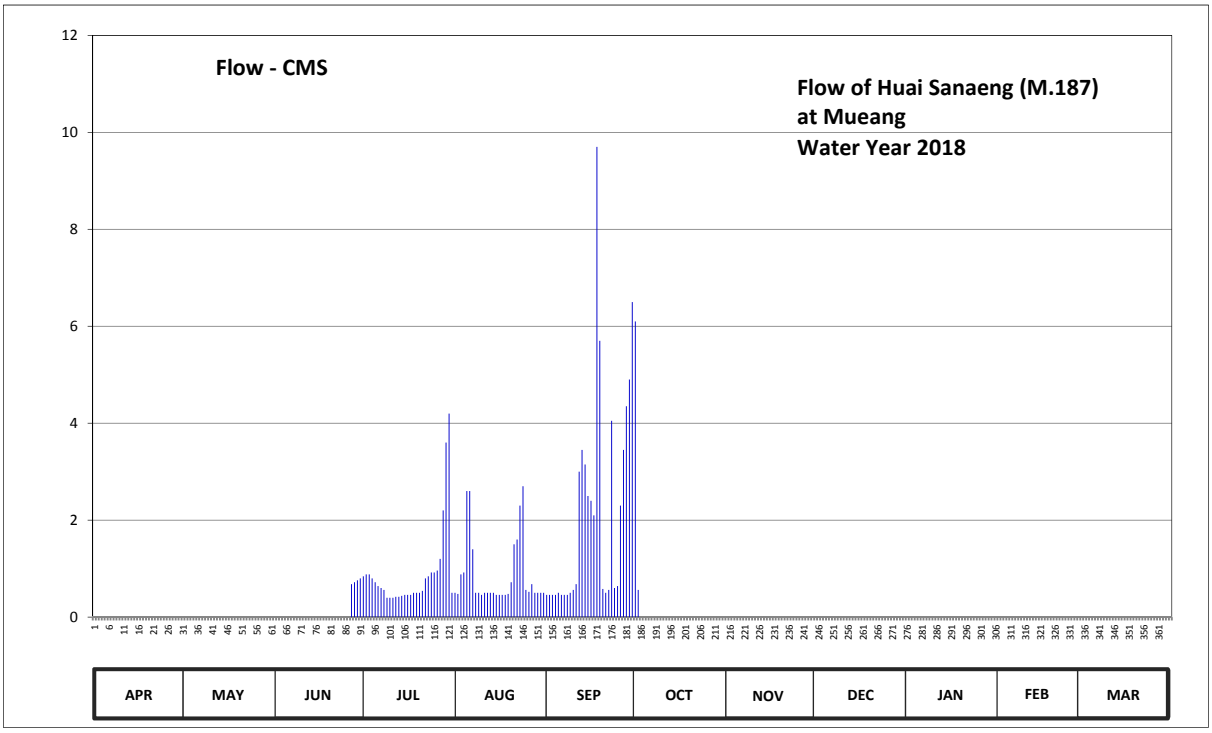
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	138.05	138.06	138.70	138.36	138.25	138.23	138.78	138.20	137.94	137.70	137.27	137.49	
2	138.05	138.06	138.70	138.37	138.24	138.23	138.28	138.20	137.90	137.69	137.26	137.49	
3	138.05	138.06	138.70	138.37	138.37	138.23	138.25	138.20	137.85	137.68	137.25	137.50	
4	138.05	138.07	138.72	138.35	138.38	138.23	138.30	138.20	137.82	137.67	137.25	137.50	
5	138.04	138.07	138.80	138.33	138.56	138.25	138.30	138.20	137.85	137.62	137.25	137.51	
6	138.03	138.05	138.80	138.31	138.56	138.23	138.28	138.20	137.93	137.50	137.25	137.54	
7	138.02	138.05	138.80	138.30	138.44	138.23	138.27	138.18	137.93	137.50	137.25	137.55	
8	138.01	138.05	138.82	138.28	138.25	138.23	138.26	138.18	137.95	137.50	137.25	137.55	
9	138.00	138.05	138.82	138.20	138.25	138.25	138.26	138.18	138.05	137.51	137.25	137.56	
10	138.00	138.05	138.82	138.20	138.23	138.28	138.25	138.16	138.15	137.56	137.25	137.58	
11	138.00	138.05	138.83	138.20	138.25	138.32	138.25	138.14	138.15	137.55	137.28	137.58	
12	138.00	138.05	138.82	138.21	138.25	138.60	138.25	138.11	138.15	137.55	137.28	137.58	
13	138.00	138.06	138.82	138.21	138.25	138.63	138.25	138.10	138.12	137.53	137.25	137.60	
14	138.00	138.15	138.82	138.22	138.25	138.61	138.22	138.09	138.10	137.50	137.25	137.61	
15	138.00	138.16	138.82	138.23	138.23	138.55	138.18	138.08	138.10	137.48	137.26	137.61	
16	138.00	138.18	138.82	138.23	138.23	138.54	138.18	138.07	138.10	137.51	137.33	137.62	
17	138.00	138.18	138.82	138.23	138.23	138.51	138.18	138.07	138.07	137.53	137.35	137.62	
18	138.00	138.20	138.85	138.25	138.23	138.92	138.19	138.05	138.03	137.53	137.38	137.62	
19	138.01	138.20	138.85	138.25	138.24	138.76	138.20	138.03	138.00	137.48	137.40	137.62	
20	138.15	138.20	138.82	138.25	138.33	138.29	138.20	138.02	137.99	137.39	137.40	137.62	
21	138.15	138.20	138.82	138.27	138.45	138.25	138.23	138.00	137.95	137.33	137.41	137.62	
22	138.13	138.20	138.81	138.35	138.46	138.28	138.25	138.00	137.90	137.25	137.42	137.62	
23	138.08	138.20	138.68	138.36	138.53	138.67	138.25	138.00	137.88	137.25	137.44	137.62	
24	138.08	138.23	138.60	138.38	138.57	138.30	138.23	138.00	137.85	137.26	137.44	137.62	
25	138.07	138.23	138.59	138.38	138.28	138.31	138.22	137.98	137.85	137.28	137.45	137.62	
26	138.06	138.25	138.30	138.39	138.26	138.53	138.22	137.97	137.85	137.28	137.45	137.60	
27	138.06	138.37	138.32	138.42	138.32	138.63	138.22	137.97	137.84	137.28	137.46	137.60	
28	138.06	138.60	138.33	138.52	138.25	138.69	138.21	137.97	137.82	137.28	137.49	137.60	
29	138.06	138.60	138.34	138.64	138.25	138.72	138.20	137.96	137.79	137.28		137.60	
30	138.06	138.67	138.35	138.68	138.25	138.80	138.20	137.95	137.74	137.28		137.61	
31		138.68		138.25	138.25		138.20		137.70	137.28		137.59	
Mean	138.04	138.20	138.70	138.32	138.32	138.44	138.25	138.08	137.95	137.45	137.33	137.58	
Max	138.15	138.68	138.85	138.68	138.57	138.92	138.78	138.20	138.15	137.70	137.49	137.62	138.92
Min	138.00	138.05	138.30	138.20	138.23	138.23	138.18	137.95	137.70	137.25	137.25	137.49	137.25

Annual Max Momentary Gage Height 138.96 m. (MSL.) , at 12.00 Hours , on Sep 18 , 2018

Zero Gage at Bottom Elevation 136.80 m. (MSL.) , River Bed 136.37 m. (MSL.)

Left Bank Elevation 143.64 m. (MSL.) ,

Right Bank Elevation 143.65 m. (MSL.) , Drainage Are 641 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	0.00	0.84	0.50	0.46	6.10	0.00	0.00	0.00	0.00	0.00		
2	0.00	0.00	0.00	0.88	0.48	0.46	0.56	0.00	0.00	0.00	0.00	0.00		
3	0.00	0.00	0.00	0.88	0.88	0.46	0.00	0.00	0.00	0.00	0.00	0.00		
4	0.00	0.00	0.00	0.80	0.92	0.46	0.00	0.00	0.00	0.00	0.00	0.00		
5	0.00	0.00	0.00	0.72	2.60	0.50	0.00	0.00	0.00	0.00	0.00	0.00		
6	0.00	0.00	0.00	0.64	2.60	0.46	0.00	0.00	0.00	0.00	0.00	0.00		
7	0.00	0.00	0.00	0.60	1.40	0.46	0.00	0.00	0.00	0.00	0.00	0.00		
8	0.00	0.00	0.00	0.56	0.50	0.46	0.00	0.00	0.00	0.00	0.00	0.00		
9	0.00	0.00	0.00	0.40	0.50	0.50	0.00	0.00	0.00	0.00	0.00	0.00		
10	0.00	0.00	0.00	0.40	0.46	0.56	0.00	0.00	0.00	0.00	0.00	0.00		
11	0.00	0.00	0.00	0.40	0.50	0.68	0.00	0.00	0.00	0.00	0.00	0.00		
12	0.00	0.00	0.00	0.42	0.50	3.00	0.00	0.00	0.00	0.00	0.00	0.00		
13	0.00	0.00	0.00	0.42	0.50	3.45	0.00	0.00	0.00	0.00	0.00	0.00		
14	0.00	0.00	0.00	0.44	0.50	3.15	0.00	0.00	0.00	0.00	0.00	0.00		
15	0.00	0.00	0.00	0.46	0.46	2.50	0.00	0.00	0.00	0.00	0.00	0.00		
16	0.00	0.00	0.00	0.46	0.46	2.40	0.00	0.00	0.00	0.00	0.00	0.00		
17	0.00	0.00	0.00	0.46	0.46	2.10	0.00	0.00	0.00	0.00	0.00	0.00		
18	0.00	0.00	0.00	0.50	0.46	9.70	0.00	0.00	0.00	0.00	0.00	0.00		
19	0.00	0.00	0.00	0.50	0.48	5.70	0.00	0.00	0.00	0.00	0.00	0.00		
20	0.00	0.00	0.00	0.50	0.72	0.58	0.00	0.00	0.00	0.00	0.00	0.00		
21	0.00	0.00	0.00	0.54	1.50	0.50	0.00	0.00	0.00	0.00	0.00	0.00		
22	0.00	0.00	0.00	0.80	1.60	0.56	0.00	0.00	0.00	0.00	0.00	0.00		
23	0.00	0.00	0.00	0.84	2.30	4.05	0.00	0.00	0.00	0.00	0.00	0.00		
24	0.00	0.00	0.00	0.92	2.70	0.60	0.00	0.00	0.00	0.00	0.00	0.00		
25	0.00	0.00	0.00	0.92	0.56	0.64	0.00	0.00	0.00	0.00	0.00	0.00		
26	0.00	0.00	0.00	0.96	0.52	2.30	0.00	0.00	0.00	0.00	0.00	0.00		
27	0.00	0.00	0.68	1.20	0.68	3.45	0.00	0.00	0.00	0.00	0.00	0.00		
28	0.00	0.00	0.72	2.20	0.50	4.35	0.00	0.00	0.00	0.00	0.00	0.00		
29	0.00	0.00	0.76	3.60	0.50	4.90	0.00	0.00	0.00	0.00		0.00		
30	0.00	0.00	0.80	4.20	0.50	6.50	0.00	0.00	0.00	0.00		0.00		
31		0.00		0.50	0.50		0.00		0.00	0.00		0.00		
Total	0.00	0.00	2.96	27.96	27.74	65.89	6.66	0.00	0.00	0.00	0.00	0.00	131.21	CMSDAY
Mean	0.00	0.00	0.10	0.90	0.89	2.20	0.21	0.00	0.00	0.00	0.00	0.00	0.36	CMS
Max	0.00	0.00	0.80	4.20	2.70	9.70	6.10	0.00	0.00	0.00	0.00	0.00	9.70	CMS
Min	0.00	0.00	0.00	0.40	0.46	0.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	0.00	0.00	0.26	2.42	2.40	5.69	0.58	0.00	0.00	0.00	0.00	0.00	11.34	MCM

Momentary Peak 11.10 CMS. at 138.96 m. (MSL.) at 12.00 Hours , on Sep 18 , 2018

Runoff Yield 0.56 Liters/Second/Square KM. Momentary Peak Yield 17.32 Liters/Second/Square KM.

WATER YEAR : 2018

MUN RIVER BASIN

Lam Chiang Krai at Ban Bua, Nakhon Ratchasima (M.188)

Lat 08 - 48 - 34 N Long 98 - 30 - 00 E

Location : on right at the bridge on highway.

Ban Bua **Amphoe** Non Sung **Changwat** Nakhon Ratchasima

Drainge Area	2,763 sq.km.
Type of Gage	Water - stage recorder.
Zero Gage at Bottom	+157.900 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On right bank near the gage site. **Elevation** +162.872 m. (MSL.)
Gage Reading Frequency	Recording.
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	2008 to date
Rating Operation	
Period of Rating	2008 to date
Rated by Flot	-
Rated by Current Meter	2008 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. Stage-discharge relation defined by 5 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

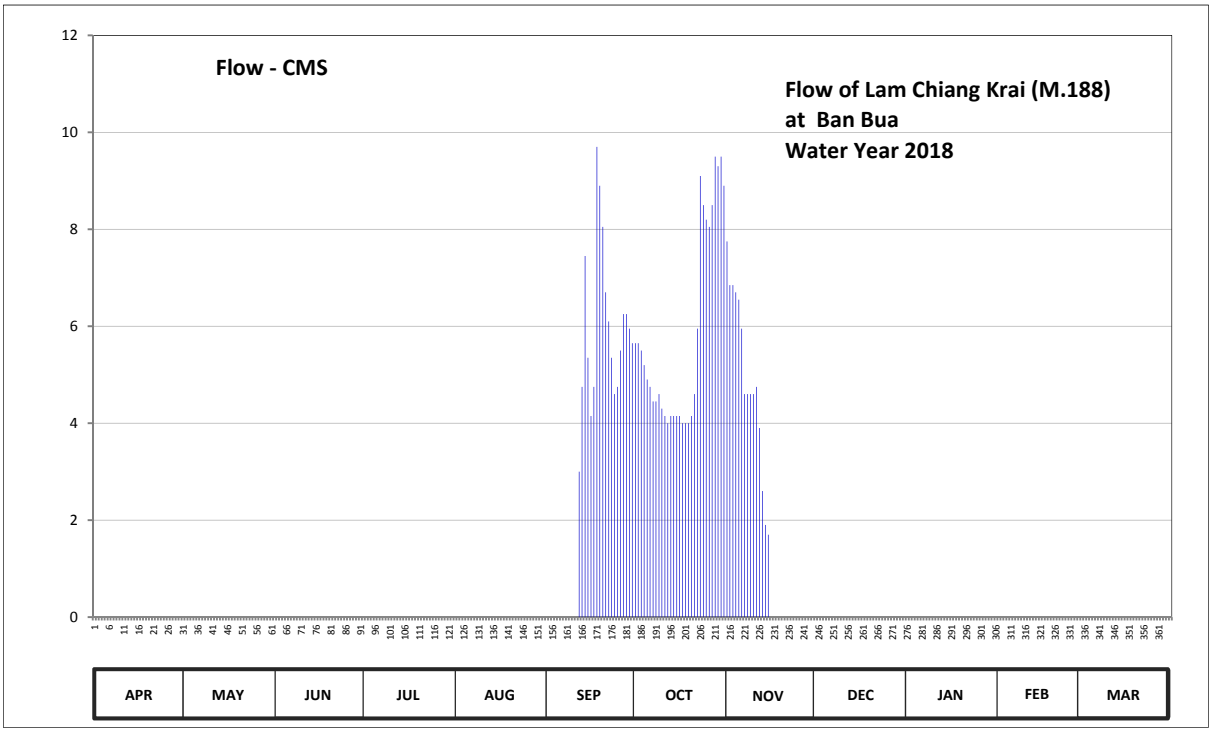
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	160.30	160.87	160.67	160.56	160.59	160.55	160.91	161.05	160.56	160.48	160.20	159.97	
2	160.30	160.90	160.70	160.54	160.57	160.55	160.91	160.99	160.56	160.47	160.19	159.96	
3	160.30	160.90	160.68	160.53	160.57	160.57	160.90	160.99	160.55	160.47	160.18	159.95	
4	160.30	160.90	160.68	160.51	160.58	160.58	160.88	160.98	160.55	160.47	160.17	159.94	
5	160.30	160.90	160.69	160.51	160.56	160.59	160.86	160.97	160.54	160.46	160.17	159.93	
6	160.30	160.90	160.78	160.49	160.54	160.65	160.85	160.93	160.54	160.46	160.16	159.92	
7	160.28	160.90	160.78	160.51	160.55	160.64	160.83	160.84	160.54	160.45	160.16	159.91	
8	160.24	160.89	160.76	160.49	160.58	160.64	160.83	160.84	160.55	160.45	160.15	159.90	
9	160.24	160.86	160.69	160.47	160.58	160.64	160.84	160.84	160.56	160.45	160.14	159.89	
10	160.24	160.86	160.68	160.45	160.58	160.64	160.82	160.84	160.56	160.44	160.13	159.88	
11	160.23	160.86	160.68	160.44	160.58	160.66	160.81	160.85	160.56	160.43	160.12	159.87	
12	160.23	160.86	160.67	160.44	160.58	160.70	160.80	160.79	160.55	160.41	160.11	159.87	
13	160.23	160.84	160.62	160.44	160.56	160.85	160.81	160.66	160.55	160.39	160.10	159.86	
14	160.22	160.82	160.60	160.43	160.56	161.03	160.81	160.59	160.55	160.37	160.09	159.85	
15	160.25	160.79	160.60	160.40	160.56	160.89	160.81	160.57	160.54	160.35	160.08	159.84	
16	160.31	160.78	160.61	160.41	160.55	160.81	160.81	160.57	160.54	160.33	160.07	159.83	
17	160.31	160.79	160.58	160.50	160.54	160.85	160.80	160.61	160.53	160.31	160.06	159.82	
18	160.32	160.72	160.57	160.57	160.52	161.16	160.80	160.67	160.52	160.30	160.06	159.81	
19	160.32	160.69	160.57	160.57	160.50	161.12	160.80	160.74	160.52	160.29	160.05	159.80	
20	160.31	160.69	160.57	160.57	160.50	161.07	160.81	160.77	160.52	160.28	160.05	159.79	
21	160.31	160.69	160.57	160.57	160.50	160.98	160.84	160.79	160.52	160.27	160.04	159.78	
22	160.31	160.72	160.57	160.56	160.49	160.94	160.93	160.77	160.52	160.27	160.03	159.77	
23	160.31	160.72	160.56	160.56	160.49	160.89	161.13	160.70	160.52	160.26	160.02	159.76	
24	160.30	160.70	160.55	160.55	160.49	160.84	161.10	160.62	160.51	160.26	160.01	159.75	
25	160.30	160.67	160.54	160.55	160.48	160.85	161.08	160.62	160.50	160.25	160.00	159.74	
26	160.34	160.65	160.54	160.56	160.49	160.90	161.07	160.61	160.50	160.24	159.99	159.74	
27	160.36	160.64	160.55	160.56	160.53	160.95	161.10	160.60	160.50	160.23	159.99	159.74	
28	160.46	160.64	160.55	160.58	160.56	160.95	161.15	160.60	160.50	160.22	159.98	159.75	
29	160.64	160.64	160.57	160.57	160.56	160.93	161.14	160.59	160.49	160.22		159.76	
30	160.73	160.64	160.57	160.59	160.56	160.91	161.15	160.57	160.49	160.22		159.77	
31		160.64		160.61	160.55		161.12		160.48	160.22		159.77	
Mean	160.32	160.78	160.63	160.52	160.54	160.81	160.92	160.75	160.53	160.35	160.09	159.84	
Max	160.73	160.90	160.78	160.61	160.59	161.16	161.15	161.05	160.56	160.48	160.20	159.97	161.16
Min	160.22	160.64	160.54	160.40	160.48	160.55	160.80	160.57	160.48	160.22	159.98	159.74	159.74

Annual Max Momentary Gage Height 161.22 m. (MSL.) , at 14.00 Hours , on Sep 18 , 2018

Zero Gage at Bottom Elevation 157.90 m. (MSL.) , River Bed 157.94 m. (MSL.)

Left Bank Elevation 163.58 m. (MSL.) ,

Right Bank Elevation 163.56 m. (MSL.) , Drainage Are 2,763 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	0.00	0.00	0.00	0.00	5.65	7.75	0.00	0.00	0.00	0.00		
2	0.00	0.00	0.00	0.00	0.00	0.00	5.65	6.85	0.00	0.00	0.00	0.00		
3	0.00	0.00	0.00	0.00	0.00	0.00	5.50	6.85	0.00	0.00	0.00	0.00		
4	0.00	0.00	0.00	0.00	0.00	0.00	5.20	6.70	0.00	0.00	0.00	0.00		
5	0.00	0.00	0.00	0.00	0.00	0.00	4.90	6.55	0.00	0.00	0.00	0.00		
6	0.00	0.00	0.00	0.00	0.00	0.00	4.75	5.95	0.00	0.00	0.00	0.00		
7	0.00	0.00	0.00	0.00	0.00	0.00	4.45	4.60	0.00	0.00	0.00	0.00		
8	0.00	0.00	0.00	0.00	0.00	0.00	4.45	4.60	0.00	0.00	0.00	0.00		
9	0.00	0.00	0.00	0.00	0.00	0.00	4.60	4.60	0.00	0.00	0.00	0.00		
10	0.00	0.00	0.00	0.00	0.00	0.00	4.30	4.60	0.00	0.00	0.00	0.00		
11	0.00	0.00	0.00	0.00	0.00	0.00	4.15	4.75	0.00	0.00	0.00	0.00		
12	0.00	0.00	0.00	0.00	0.00	3.00	4.00	3.90	0.00	0.00	0.00	0.00		
13	0.00	0.00	0.00	0.00	0.00	4.75	4.15	2.60	0.00	0.00	0.00	0.00		
14	0.00	0.00	0.00	0.00	0.00	7.45	4.15	1.90	0.00	0.00	0.00	0.00		
15	0.00	0.00	0.00	0.00	0.00	5.35	4.15	1.70	0.00	0.00	0.00	0.00		
16	0.00	0.00	0.00	0.00	0.00	4.15	4.15	0.00	0.00	0.00	0.00	0.00		
17	0.00	0.00	0.00	0.00	0.00	4.75	4.00	0.00	0.00	0.00	0.00	0.00		
18	0.00	0.00	0.00	0.00	0.00	9.70	4.00	0.00	0.00	0.00	0.00	0.00		
19	0.00	0.00	0.00	0.00	0.00	8.90	4.00	0.00	0.00	0.00	0.00	0.00		
20	0.00	0.00	0.00	0.00	0.00	8.05	4.15	0.00	0.00	0.00	0.00	0.00		
21	0.00	0.00	0.00	0.00	0.00	6.70	4.60	0.00	0.00	0.00	0.00	0.00		
22	0.00	0.00	0.00	0.00	0.00	6.10	5.95	0.00	0.00	0.00	0.00	0.00		
23	0.00	0.00	0.00	0.00	0.00	5.35	9.10	0.00	0.00	0.00	0.00	0.00		
24	0.00	0.00	0.00	0.00	0.00	4.60	8.50	0.00	0.00	0.00	0.00	0.00		
25	0.00	0.00	0.00	0.00	0.00	4.75	8.20	0.00	0.00	0.00	0.00	0.00		
26	0.00	0.00	0.00	0.00	0.00	5.50	8.05	0.00	0.00	0.00	0.00	0.00		
27	0.00	0.00	0.00	0.00	0.00	6.25	8.50	0.00	0.00	0.00	0.00	0.00		
28	0.00	0.00	0.00	0.00	0.00	6.25	9.50	0.00	0.00	0.00	0.00	0.00		
29	0.00	0.00	0.00	0.00	0.00	5.95	9.30	0.00	0.00	0.00		0.00		
30	0.00	0.00	0.00	0.00	0.00	5.65	9.50	0.00	0.00	0.00		0.00		
31		0.00		0.00	0.00		8.90		0.00	0.00		0.00		
Total	0.00	0.00	0.00	0.00	0.00	113.20	180.45	73.90	0.00	0.00	0.00	0.00	367.55	CMSDAY
Mean	0.00	0.00	0.00	0.00	0.00	3.77	5.82	2.46	0.00	0.00	0.00	0.00	1.01	CMS
Max	0.00	0.00	0.00	0.00	0.00	9.70	9.50	7.75	0.00	0.00	0.00	0.00	9.70	CMS
Min	0.00	0.00	0.00	0.00	0.00	0.00	4.00	0.00	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	0.00	0.00	0.00	0.00	0.00	9.78	15.59	6.38	0.00	0.00	0.00	0.00	31.76	MCM

Momentary Peak 10.90 CMS. at 161.22 m. (MSL.) at 14.00 Hours , on Sep 18 , 2018

Runoff Yield 0.36 Liters/Second/Square KM. Momentary Peak Yield 3.94 Liters/Second/Square KM.

WATER YEAR : 2018

MUN RIVER BASIN

Huai Samran at Ban Khwaw, Si Sa Ket (M.190)

Lat 07 - 54 - 13 N Long 98 - 21 - 02 E

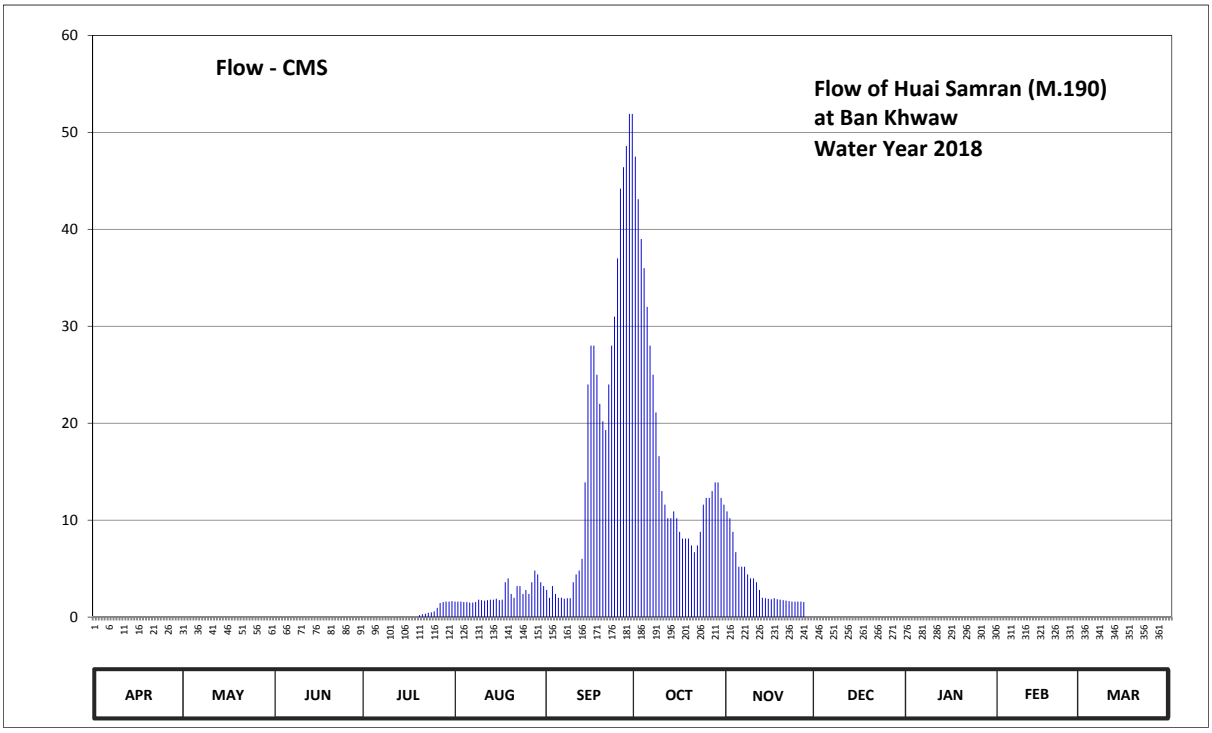
Location : on right at the bridge on highway.

	Ban Khwaw	**Amphoe** Uthumphon Phisai	**Changwat** Si Sa Ket
Drainge Area	2,339 sq.km.		
Type of Gage	Water - stage recorder.		
Zero Gage at Bottom	+119.700 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank near the gage site.	**Elevation** +129.804 m. (MSL.)	
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	2008 to date		
Rating Operation			
Period of Rating	2008 to date		
Rated by Flot	-		
Rated by Current Meter	2008 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 21 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	123.32	123.10	123.44	123.78	124.32	124.42	124.95	124.57	124.31	124.01	123.90	123.40	
2	123.31	123.09	123.45	123.78	124.32	124.40	124.91	124.56	124.31	124.00	123.88	123.39	
3	123.30	123.08	123.47	123.76	124.32	124.43	124.87	124.54	124.31	123.98	123.87	123.37	
4	123.29	123.06	123.51	123.75	124.31	124.41	124.84	124.51	124.30	123.96	123.85	123.35	
5	123.28	123.05	123.54	123.74	124.31	124.40	124.80	124.48	124.30	123.94	123.84	123.33	
6	123.27	123.06	123.58	123.73	124.30	124.40	124.76	124.48	124.30	123.93	123.82	123.31	
7	123.26	123.06	123.64	123.72	124.30	124.38	124.73	124.48	124.30	123.91	123.80	123.30	
8	123.25	123.05	123.68	123.71	124.31	124.39	124.69	124.46	124.30	123.90	123.78	123.28	
9	123.24	123.04	123.70	123.71	124.36	124.39	124.64	124.45	124.30	123.89	123.76	123.26	
10	123.23	123.03	123.71	123.77	124.35	124.44	124.60	124.45	124.28	123.88	123.74	123.25	
11	123.21	123.05	123.72	123.77	124.34	124.46	124.58	124.44	124.26	123.87	123.72	123.23	
12	123.19	123.07	123.74	123.76	124.35	124.47	124.56	124.42	124.24	123.87	123.70	123.22	
13	123.16	123.19	123.75	123.77	124.36	124.50	124.56	124.40	124.23	123.88	123.69	123.20	
14	123.14	123.29	123.76	123.79	124.36	124.61	124.57	124.39	124.21	123.91	123.68	123.19	
15	123.13	123.31	123.77	123.80	124.38	124.72	124.56	124.38	124.20	123.92	123.66	123.18	
16	123.15	123.30	123.80	123.80	124.35	124.76	124.54	124.37	124.19	123.93	123.64	123.16	
17	123.14	123.28	123.81	123.80	124.36	124.76	124.53	124.39	124.17	123.93	123.61	123.14	
18	123.15	123.27	123.82	123.83	124.44	124.73	124.53	124.37	124.15	123.94	123.60	123.12	
19	123.14	123.25	123.83	123.94	124.45	124.70	124.53	124.36	124.15	123.95	123.58	123.10	
20	123.13	123.26	123.83	123.99	124.41	124.68	124.52	124.35	124.14	123.95	123.56	123.08	
21	123.13	123.30	123.82	124.03	124.40	124.67	124.51	124.34	124.13	123.95	123.55	123.07	
22	123.12	123.32	123.82	124.05	124.43	124.72	124.52	124.33	124.13	123.96	123.53	123.05	
23	123.12	123.40	123.82	124.08	124.43	124.76	124.54	124.32	124.12	123.96	123.51	123.05	
24	123.11	123.40	123.81	124.10	124.41	124.79	124.58	124.32	124.11	123.96	123.49	123.04	
25	123.11	123.41	123.80	124.12	124.42	124.85	124.59	124.32	124.11	123.96	123.47	123.03	
26	123.12	123.42	123.81	124.19	124.41	124.92	124.59	124.32	124.10	123.97	123.45	123.03	
27	123.13	123.41	123.81	124.29	124.44	124.94	124.60	124.31	124.09	123.97	123.43	123.02	
28	123.11	123.41	123.80	124.31	124.47	124.96	124.61	124.31	124.08	123.96	123.41	123.01	
29	123.10	123.42	123.79	124.32	124.46	124.99	124.61	124.31	124.06	123.95		122.99	
30	123.10	123.45	123.79	124.32	124.44	124.99	124.59	124.31	124.05	123.93		122.98	
31		123.45		124.33	124.43		124.58		124.03	123.91		122.97	
Mean	123.18	123.23	123.72	123.93	124.38	124.63	124.63	124.40	124.19	123.94	123.66	123.16	
Max	123.32	123.45	123.83	124.33	124.47	124.99	124.95	124.57	124.31	124.01	123.90	123.40	124.99
Min	123.10	123.03	123.44	123.71	124.30	124.38	124.51	124.31	124.03	123.87	123.41	122.97	122.97

Annual Max Momentary Gage Height	125.00	m. (MSL.) ,	at 06.00 Hours, on Sep 29, 2018		
Zero Gage at Bottom Elevation	119.70	m. (MSL.) ,	River Bed	120.57	m. (MSL.)
Left Bank Elevation	129.80	m. (MSL.) ,			
Right Bank Elevation	129.85	m. (MSL.) ,	Drainage Are	2,339	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	0.00	0.00	1.60	2.80	47.50	10.90	0.00	0.00	0.00	0.00		
2	0.00	0.00	0.00	0.00	1.60	2.00	43.10	10.20	0.00	0.00	0.00	0.00		
3	0.00	0.00	0.00	0.00	1.60	3.20	39.00	8.80	0.00	0.00	0.00	0.00		
4	0.00	0.00	0.00	0.00	1.55	2.40	36.00	6.70	0.00	0.00	0.00	0.00		
5	0.00	0.00	0.00	0.00	1.55	2.00	32.00	5.20	0.00	0.00	0.00	0.00		
6	0.00	0.00	0.00	0.00	1.50	2.00	28.00	5.20	0.00	0.00	0.00	0.00		
7	0.00	0.00	0.00	0.00	1.50	1.90	25.00	5.20	0.00	0.00	0.00	0.00		
8	0.00	0.00	0.00	0.00	1.55	1.95	21.10	4.40	0.00	0.00	0.00	0.00		
9	0.00	0.00	0.00	0.00	1.80	1.95	16.60	4.00	0.00	0.00	0.00	0.00		
10	0.00	0.00	0.00	0.00	1.75	3.60	13.00	4.00	0.00	0.00	0.00	0.00		
11	0.00	0.00	0.00	0.00	1.70	4.40	11.60	3.60	0.00	0.00	0.00	0.00		
12	0.00	0.00	0.00	0.00	1.75	4.80	10.20	2.80	0.00	0.00	0.00	0.00		
13	0.00	0.00	0.00	0.00	1.80	6.00	10.20	2.00	0.00	0.00	0.00	0.00		
14	0.00	0.00	0.00	0.00	1.80	13.90	10.90	1.95	0.00	0.00	0.00	0.00		
15	0.00	0.00	0.00	0.00	1.90	24.00	10.20	1.90	0.00	0.00	0.00	0.00		
16	0.00	0.00	0.00	0.00	1.75	28.00	8.80	1.85	0.00	0.00	0.00	0.00		
17	0.00	0.00	0.00	0.00	1.80	28.00	8.10	1.95	0.00	0.00	0.00	0.00		
18	0.00	0.00	0.00	0.00	3.60	25.00	8.10	1.85	0.00	0.00	0.00	0.00		
19	0.00	0.00	0.00	0.00	4.00	22.00	8.10	1.80	0.00	0.00	0.00	0.00		
20	0.00	0.00	0.00	0.19	2.40	20.20	7.40	1.75	0.00	0.00	0.00	0.00		
21	0.00	0.00	0.00	0.29	2.00	19.30	6.70	1.70	0.00	0.00	0.00	0.00		
22	0.00	0.00	0.00	0.35	3.20	24.00	7.40	1.65	0.00	0.00	0.00	0.00		
23	0.00	0.00	0.00	0.44	3.20	28.00	8.80	1.60	0.00	0.00	0.00	0.00		
24	0.00	0.00	0.00	0.50	2.40	31.00	11.60	1.60	0.00	0.00	0.00	0.00		
25	0.00	0.00	0.00	0.60	2.80	37.00	12.30	1.60	0.00	0.00	0.00	0.00		
26	0.00	0.00	0.00	0.95	2.40	44.20	12.30	1.60	0.00	0.00	0.00	0.00		
27	0.00	0.00	0.00	1.45	3.60	46.40	13.00	1.55	0.00	0.00	0.00	0.00		
28	0.00	0.00	0.00	1.55	4.80	48.60	13.90	0.00	0.00	0.00	0.00	0.00		
29	0.00	0.00	0.00	1.60	4.40	51.90	13.90	0.00	0.00	0.00		0.00		
30	0.00	0.00	0.00	1.60	3.60	51.90	12.30	0.00	0.00	0.00		0.00		
31		0.00		1.65	3.20		11.60		0.00	0.00		0.00		
Total	0.00	0.00	0.00	11.17	74.10	582.40	518.70	97.35	0.00	0.00	0.00	0.00	1283.72	CMSDAY
Mean	0.00	0.00	0.00	0.36	2.39	19.41	16.73	3.24	0.00	0.00	0.00	0.00	3.52	CMS
Max	0.00	0.00	0.00	1.65	4.80	51.90	47.50	10.90	0.00	0.00	0.00	0.00	51.90	CMS
Min	0.00	0.00	0.00	0.00	1.50	1.90	6.70	0.00	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	0.00	0.00	0.00	0.97	6.40	50.32	44.82	8.41	0.00	0.00	0.00	0.00	110.91	MCM

Momentary Peak 53.00 CMS. at 125.00 m. (MSL.) at 06.00 Hours , on Sep 29 , 2018

Runoff Yield 1.50 Liters/Second/Square KM. Momentary Peak Yield 22.66 Liters/Second/Square KM.

WATER YEAR : 2018

MUN RIVER BASIN

Lam Ta Khong at Ban Khok Kruad, Nakhon Ratchasima (M.191)

Lat 44 - 55 - 57 N Long 101 - 57 - 07 E

Location : on left bank at the bridge on road.

Ban Khok Kruad **Amphoe** Mueang **Changwat** Nakhon Ratchasima

Drainge Area	2,854 sq.km.
Type of Gage	Water - stage recorder.
Zero Gage at Bottom	+191.800 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank near the gage site. **Elevation** +195.991 m. (MSL.)
Gage Reading Frequency	Recording.
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	2011 to date
Rating Operation	
Period of Rating	2011 to date
Rated by Flot	-
Rated by Current Meter	2011 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. Stage-discharge relation defined by 23 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

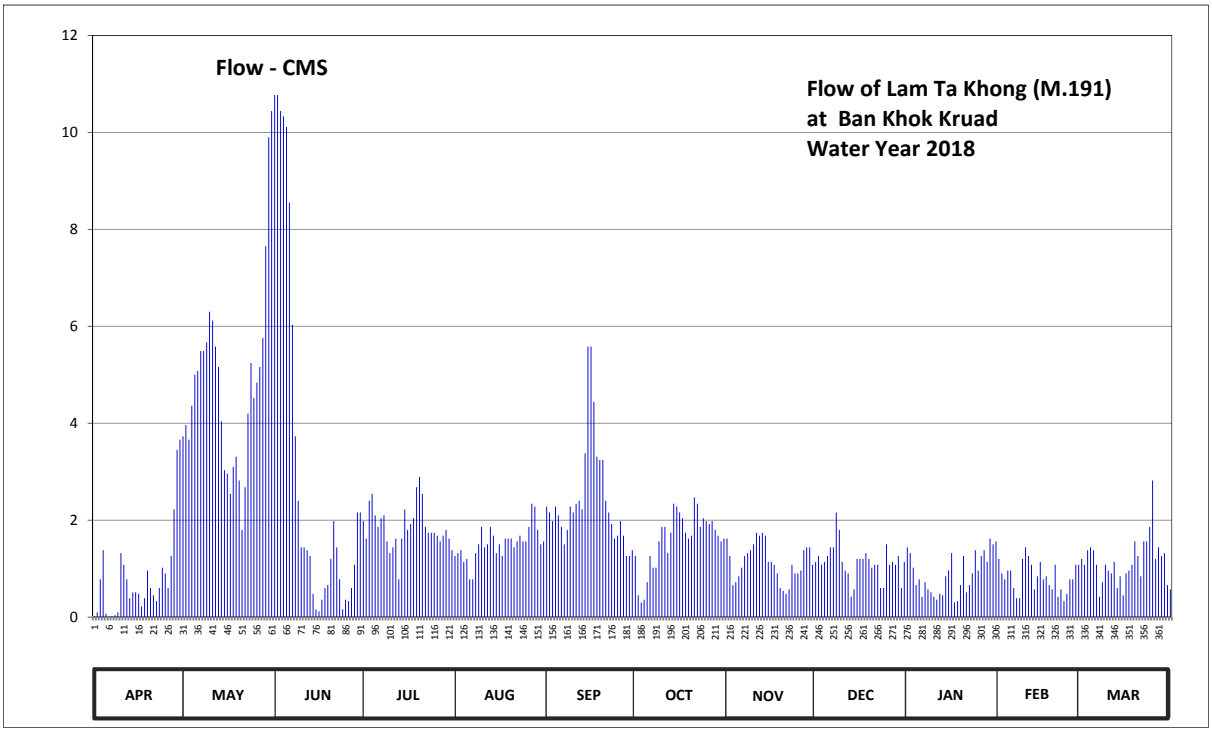
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	192.31	193.19	193.97	192.93	192.81	192.98	192.81	192.87	192.79	192.84	192.80	192.80	
2	192.49	193.22	193.97	192.87	192.82	192.96	192.65	192.81	192.81	192.82	192.75	192.78	
3	192.73	193.18	193.94	193.00	192.83	192.93	192.60	192.71	192.78	192.77	192.73	192.83	
4	192.83	193.27	193.93	193.02	192.79	192.98	192.62	192.72	192.79	192.71	192.76	192.84	
5	192.44	193.35	193.91	192.95	192.80	192.95	192.72	192.74	192.81	192.73	192.76	192.83	
6	192.26	193.36	193.75	192.91	192.73	192.91	192.81	192.77	192.84	192.64	192.70	192.78	
7	192.29	193.41	193.47	192.94	192.73	192.85	192.77	192.81	192.84	192.72	192.63	192.64	
8	192.37	193.41	193.19	192.95	192.82	192.90	192.77	192.82	192.96	192.69	192.63	192.72	
9	192.49	193.43	193.00	192.86	192.85	192.98	192.86	192.83	192.90	192.67	192.80	192.78	
10	192.82	193.50	192.84	192.82	192.91	192.96	192.91	192.85	192.79	192.64	192.84	192.76	
11	192.78	193.48	192.84	192.84	192.84	192.99	192.91	192.89	192.76	192.62	192.81	192.75	
12	192.73	193.42	192.83	192.87	192.85	193.00	192.82	192.88	192.75	192.66	192.78	192.79	
13	192.63	193.37	192.81	192.73	192.91	192.97	192.89	192.89	192.64	192.65	192.69	192.70	
14	192.67	193.23	192.66	192.87	192.88	193.14	192.99	192.88	192.69	192.74	192.74	192.74	
15	192.67	193.09	192.53	192.97	192.82	193.42	192.98	192.79	192.80	192.76	192.79	192.65	
16	192.66	193.08	192.51	192.90	192.85	193.42	192.96	192.79	192.80	192.82	192.73	192.75	
17	192.56	193.02	192.62	192.92	192.81	193.28	192.94	192.78	192.80	192.60	192.74	192.76	
18	192.63	193.10	192.70	192.94	192.87	193.13	192.89	192.75	192.82	192.61	192.71	192.78	
19	192.76	193.13	192.71	193.04	192.87	193.12	192.87	192.70	192.80	192.71	192.69	192.86	
20	192.70	193.06	192.80	193.07	192.87	193.12	192.88	192.68	192.77	192.81	192.78	192.81	
21	192.65	192.90	192.93	193.02	192.84	193.00	193.01	192.66	192.78	192.67	192.64	192.74	
22	192.61	193.04	192.84	192.91	192.86	192.96	192.99	192.69	192.78	192.71	192.69	192.86	
23	192.70	193.25	192.73	192.89	192.88	192.92	192.91	192.78	192.70	192.75	192.61	192.86	
24	192.77	193.38	192.53	192.89	192.86	192.87	192.94	192.75	192.70	192.83	192.66	192.91	
25	192.75	193.29	192.62	192.89	192.86	192.88	192.93	192.75	192.85	192.76	192.73	193.06	
26	192.70	193.33	192.61	192.88	192.91	192.93	192.92	192.76	192.78	192.81	192.73	192.80	
27	192.81	193.37	192.70	192.86	192.99	192.88	192.93	192.83	192.79	192.83	192.78	192.84	
28	192.97	193.44	192.78	192.88	192.98	192.81	192.90	192.84	192.78	192.79	192.78	192.81	
29	193.15	193.65	192.96	192.90	192.90	192.81	192.88	192.84	192.81	192.87		192.82	
30	193.18	193.89	192.96	192.87	192.85	192.83	192.86	192.78	192.70	192.85		192.71	
31		193.94		192.83	192.86		192.87		192.79	192.86		192.69	
Mean	192.67	193.32	193.02	192.91	192.85	193.00	192.86	192.79	192.79	192.74	192.73	192.79	
Max	193.18	193.94	193.97	193.07	192.99	193.42	193.01	192.89	192.96	192.87	192.84	193.06	193.97
Min	192.26	192.90	192.51	192.73	192.73	192.81	192.60	192.66	192.64	192.60	192.61	192.64	192.26

Annual Max Momentary Gage Height 193.97 m. (MSL.) , at 22.00 Hours , on May 31 , 2018

Zero Gage at Bottom Elevation 191.80 m. (MSL.) , River Bed 192.01 m. (MSL.)

Left Bank Elevation 195.98 m. (MSL.) ,

Right Bank Elevation 195.93 m. (MSL.) , Drainage Are 2,854 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.02	3.73	10.77	1.98	1.26	2.28	1.26	1.62	1.14	1.44	1.20	1.20		
2	0.10	3.96	10.77	1.62	1.32	2.16	0.45	1.26	1.26	1.32	0.90	1.08		
3	0.78	3.66	10.44	2.40	1.38	1.98	0.30	0.66	1.08	1.02	0.78	1.38		
4	1.38	4.36	10.33	2.54	1.14	2.28	0.36	0.72	1.14	0.66	0.96	1.44		
5	0.07	5.00	10.11	2.10	1.20	2.10	0.72	0.84	1.26	0.78	0.96	1.38		
6	0.01	5.08	8.55	1.86	0.78	1.86	1.26	1.02	1.44	0.42	0.60	1.08		
7	0.02	5.49	6.03	2.04	0.78	1.50	1.02	1.26	1.44	0.72	0.39	0.42		
8	0.04	5.49	3.73	2.10	1.32	1.80	1.02	1.32	2.16	0.57	0.39	0.72		
9	0.10	5.67	2.40	1.56	1.50	2.28	1.56	1.38	1.80	0.51	1.20	1.08		
10	1.32	6.30	1.44	1.32	1.86	2.16	1.86	1.50	1.14	0.42	1.44	0.96		
11	1.08	6.12	1.44	1.44	1.44	2.34	1.86	1.74	0.96	0.36	1.26	0.90		
12	0.78	5.58	1.38	1.62	1.50	2.40	1.32	1.68	0.90	0.48	1.08	1.14		
13	0.39	5.16	1.26	0.78	1.86	2.22	1.74	1.74	0.42	0.45	0.57	0.60		
14	0.51	4.04	0.48	1.62	1.68	3.38	2.34	1.68	0.57	0.84	0.84	0.84		
15	0.51	3.03	0.16	2.22	1.32	5.58	2.28	1.14	1.20	0.96	1.14	0.45		
16	0.48	2.96	0.12	1.80	1.50	5.58	2.16	1.14	1.20	1.32	0.78	0.90		
17	0.22	2.54	0.36	1.92	1.26	4.44	2.04	1.08	1.20	0.30	0.84	0.96		
18	0.39	3.10	0.60	2.04	1.62	3.31	1.74	0.90	1.32	0.33	0.66	1.08		
19	0.96	3.31	0.66	2.68	1.62	3.24	1.62	0.60	1.20	0.66	0.57	1.56		
20	0.60	2.82	1.20	2.89	1.62	3.24	1.68	0.54	1.02	1.26	1.08	1.26		
21	0.45	1.80	1.98	2.54	1.44	2.40	2.47	0.48	1.08	0.51	0.42	0.84		
22	0.33	2.68	1.44	1.86	1.56	2.16	2.34	0.57	1.08	0.66	0.57	1.56		
23	0.60	4.20	0.78	1.74	1.68	1.92	1.86	1.08	0.60	0.90	0.33	1.56		
24	1.02	5.24	0.16	1.74	1.56	1.62	2.04	0.90	0.60	1.38	0.48	1.86		
25	0.90	4.52	0.36	1.74	1.56	1.68	1.98	0.90	1.50	0.96	0.78	2.82		
26	0.60	4.84	0.33	1.68	1.86	1.98	1.92	0.96	1.08	1.26	0.78	1.20		
27	1.26	5.16	0.60	1.56	2.34	1.68	1.98	1.38	1.14	1.38	1.08	1.44		
28	2.22	5.76	1.08	1.68	2.28	1.26	1.80	1.44	1.08	1.14	1.08	1.26		
29	3.45	7.65	2.16	1.80	1.80	1.26	1.68	1.44	1.26	1.62		1.32		
30	3.66	9.90	2.16	1.62	1.50	1.38	1.56	1.08	0.60	1.50		0.66		
31		10.44		1.38	1.56		1.62		1.14	1.56		0.57		
Total	24.25	149.59	93.28	57.87	47.10	73.47	49.84	34.05	35.01	27.69	23.16	35.52	650.83	CMSDAY
Mean	0.81	4.83	3.11	1.87	1.52	2.45	1.61	1.14	1.13	0.89	0.83	1.15	1.78	CMS
Max	3.66	10.44	10.77	2.89	2.34	5.58	2.47	1.74	2.16	1.62	1.44	2.82	10.77	CMS
Min	0.01	1.80	0.12	0.78	0.78	1.26	0.30	0.48	0.42	0.30	0.33	0.42	0.01	CMS
Runoff	2.10	12.92	8.06	5.00	4.07	6.35	4.31	2.94	3.02	2.39	2.00	3.07	56.23	MCM

Momentary Peak 10.77 CMS. at 193.97 m. (MSL.) at 22.00 Hours , on May 31 , 2018

Runoff Yield 0.62 Liters/Second/Square KM. Momentary Peak Yield 3.77 Liters/Second/Square KM.

WATER YEAR : 2018

PING RIVER BASIN

Ping River at Nawarat Bridge , Chiang Mai (P.1)

Lat 18 - 47 - 10 N Long 99 - 00 - 27 E

Location : on left bank about 100 meters downstream from Nawarat Bridge.

Ban Nawarat Bridge **Amphoe** Mueang **Changwat** Chiang Mai

Drainge Area	6,350 sq.km.
Type of Gage	Water - stage recorder.
Zero Gage at Bottom	+300.500 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank near automatic gage building **Elevation** +305.310 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	1921 to date
Rating Operation	
Period of Rating	1954 - 1960 , 1967 to date
Rated by Flot	1936 - 1938
Rated by Current Meter	1954 - 1960 , 1967 to date
Stability of Channel Regimes	Fairly stable because of backwater effect.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. Flow regulated by Mae Ngat Dam and Mae Taeng Weir above gage site. Phaya Kham weir situated about 2 Kilometers dowmstream from the gage site. Stage-discharge relation defined by 34 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

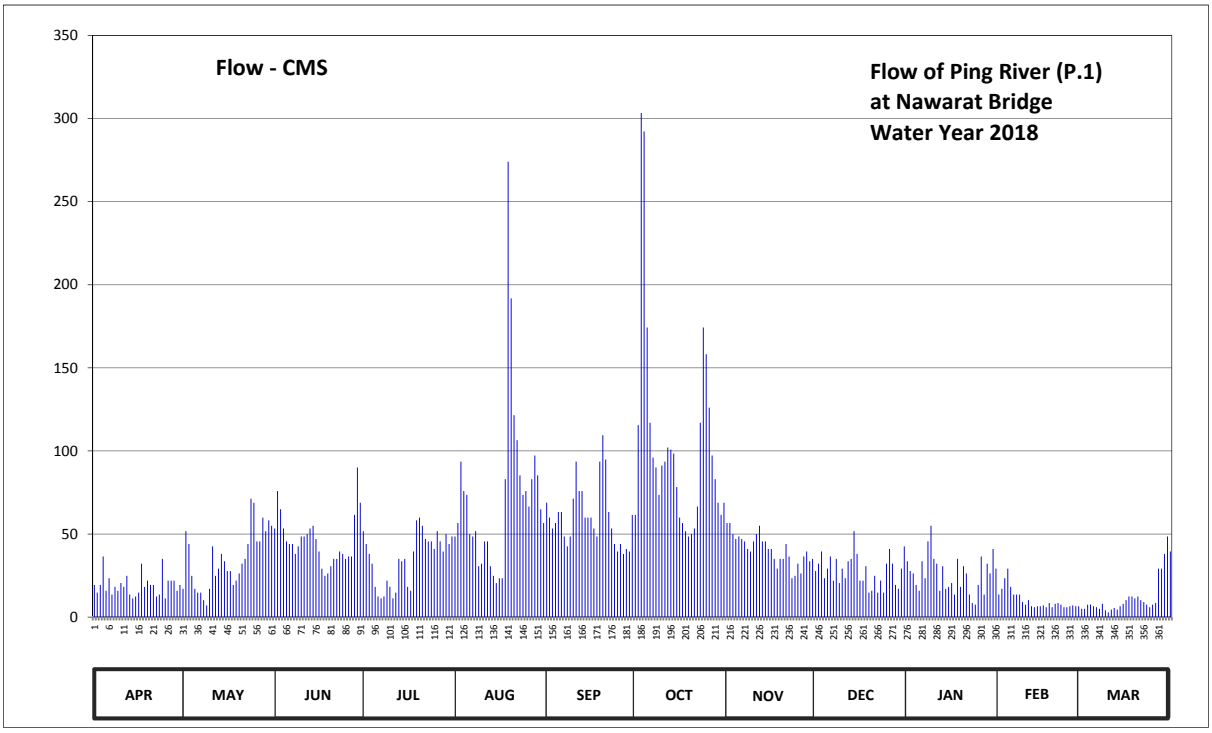
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	301.79	301.77	302.02	302.01	301.99	302.11	302.07	302.04	301.85	301.89	301.74	301.62	
2	301.75	302.01	302.14	301.96	302.04	302.06	302.39	302.04	301.88	301.85	301.77	301.62	
3	301.79	301.96	302.09	301.92	302.23	302.02	303.51	302.00	301.93	301.84	301.82	301.67	
4	301.91	301.83	302.02	301.88	302.14	302.04	303.45	301.98	301.82	301.79	301.86	301.67	
5	301.76	301.77	301.97	301.78	302.13	302.08	302.77	301.99	301.86	301.76	301.78	301.65	
6	301.82	301.75	301.96	301.73	302.00	302.08	302.40	301.98	301.91	301.89	301.74	301.64	
7	301.74	301.75	301.96	301.72	301.99	301.99	302.25	301.97	301.81	301.82	301.74	301.62	
8	301.78	301.71	301.92	301.73	302.01	301.95	302.20	301.94	301.90	301.97	301.74	301.68	
9	301.76	301.66	301.95	301.81	301.87	301.99	302.13	301.93	301.80	302.03	301.70	301.60	
10	301.80	301.77	301.99	301.78	301.88	302.12	302.21	301.97	301.86	301.90	301.67	301.56	
11	301.78	301.95	301.99	301.72	301.97	302.23	302.23	302.00	301.82	301.88	301.71	301.61	
12	301.83	301.83	302.00	301.75	301.97	302.14	302.30	302.03	301.89	301.76	301.65	301.63	
13	301.74	301.86	302.02	301.90	301.87	302.14	302.29	301.97	301.90	301.87	301.64	301.61	
14	301.72	301.92	302.03	301.89	301.83	302.06	302.27	301.97	302.01	301.77	301.65	301.65	
15	301.73	301.89	301.98	301.90	301.80	302.06	302.15	301.94	301.92	301.78	301.65	301.68	
16	301.75	301.85	301.93	301.78	301.82	302.06	302.06	301.94	301.81	301.80	301.66	301.71	
17	301.88	301.85	301.86	301.76	301.82	302.02	302.04	301.90	301.81	301.74	301.64	301.73	
18	301.78	301.79	301.83	301.93	302.17	301.99	302.01	301.86	301.87	301.90	301.69	301.73	
19	301.81	301.81	301.84	302.05	303.35	302.23	301.99	301.90	301.75	301.78	301.64	301.72	
20	301.79	301.84	301.87	302.06	302.88	302.35	302.00	301.90	301.76	301.87	301.68	301.73	
21	301.79	301.88	301.90	302.03	302.43	302.24	302.02	301.96	301.83	301.84	301.69	301.71	
22	301.73	301.90	301.90	301.98	302.33	302.08	302.10	301.91	301.75	301.74	301.67	301.70	
23	301.74	301.96	301.93	301.97	302.18	302.02	302.40	301.82	301.81	301.69	301.64	301.67	
24	301.90	302.12	301.92	301.97	302.13	301.96	302.77	301.83	301.75	301.67	301.64	301.64	
25	301.72	302.11	301.90	301.94	302.14	301.93	302.67	301.88	301.88	301.79	301.65	301.67	
26	301.81	301.97	301.91	302.01	302.10	301.96	302.46	301.84	301.94	301.91	301.66	301.69	
27	301.81	301.97	301.91	301.97	302.17	301.92	302.26	301.91	301.88	301.74	301.65	301.86	
28	301.81	302.06	302.07	301.93	302.26	301.94	302.17	301.93	301.79	301.88	301.65	301.86	
29	301.76	302.01	302.20	302.00	302.18	301.93	302.11	301.89	301.77	301.84		301.92	
30	301.79	302.05	302.11	301.96	302.09	302.07	302.07	301.90	301.86	301.94		301.99	
31		302.03		301.99	302.04		302.11		301.95	301.86		301.93	
Mean	301.79	301.89	301.97	301.90	302.12	302.06	302.32	301.94	301.85	301.83	301.69	301.70	
Max	301.91	302.12	302.20	302.06	303.35	302.35	303.51	302.04	302.01	302.03	301.86	301.99	303.51
Min	301.72	301.66	301.83	301.72	301.80	301.92	301.99	301.82	301.75	301.67	301.64	301.56	301.56

Annual Max Momentary Gage Height 303.65 m. (MSL.) , at 16.00 Hours , on Oct 3 , 2018

Zero Gage at Bottom Elevation 300.50 m. (MSL.) , River Bed 299.25 m. (MSL.)

Left Bank Elevation 307.86 m. (MSL.) ,

Right Bank Elevation 307.79 m. (MSL.) , Drainage Are 6,350 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	19.35	17.05	53.30	51.65	48.50	68.85	61.55	56.60	27.75	33.55	13.60	5.00		
2	14.75	51.65	75.90	44.00	56.60	59.90	115.50	56.60	32.10	27.75	17.05	5.00		
3	19.35	44.00	64.85	38.00	93.60	53.30	303.35	50.00	39.50	26.30	23.40	7.50		
4	36.50	24.85	53.30	32.10	75.90	56.60	292.25	47.00	23.40	19.35	29.20	7.50		
5	15.90	17.05	45.50	18.20	73.55	63.20	174.20	48.50	29.20	15.90	18.20	6.50		
6	23.40	14.75	44.00	12.45	50.00	63.20	117.00	47.00	36.50	33.55	13.60	6.00		
7	13.60	14.75	44.00	11.30	48.50	48.50	96.00	45.50	21.95	23.40	13.60	5.00		
8	18.20	10.15	38.00	12.45	51.65	42.50	90.00	41.00	35.00	45.50	13.60	8.00		
9	15.90	7.00	42.50	21.95	30.65	48.50	73.55	39.50	20.50	54.95	9.00	4.00		
10	20.50	17.05	48.50	18.20	32.10	71.20	91.20	45.50	29.20	35.00	7.50	2.88		
11	18.20	42.50	48.50	11.30	45.50	93.60	93.60	50.00	23.40	32.10	10.15	4.50		
12	24.85	24.85	50.00	14.75	45.50	75.90	102.00	54.95	33.55	15.90	6.50	5.50		
13	13.60	29.20	53.30	35.00	30.65	75.90	100.80	45.50	35.00	30.65	6.00	4.50		
14	11.30	38.00	54.95	33.55	24.85	59.90	98.40	45.50	51.65	17.05	6.50	6.50		
15	12.45	33.55	47.00	35.00	20.50	59.90	78.25	41.00	38.00	18.20	6.50	8.00		
16	14.75	27.75	39.50	18.20	23.40	59.90	59.90	41.00	21.95	20.50	7.00	10.15		
17	32.10	27.75	29.20	15.90	23.40	53.30	56.60	35.00	21.95	13.60	6.00	12.45		
18	18.20	19.35	24.85	39.50	82.95	48.50	51.65	29.20	30.65	35.00	8.50	12.45		
19	21.95	21.95	26.30	58.25	274.00	93.60	48.50	35.00	14.75	18.20	6.00	11.30		
20	19.35	26.30	30.65	59.90	191.80	109.50	50.00	35.00	15.90	30.65	8.00	12.45		
21	19.35	32.10	35.00	54.95	121.50	94.80	53.30	44.00	24.85	26.30	8.50	10.15		
22	12.45	35.00	35.00	47.00	106.50	63.20	66.50	36.50	14.75	13.60	7.50	9.00		
23	13.60	44.00	39.50	45.50	85.30	53.30	117.00	23.40	21.95	8.50	6.00	7.50		
24	35.00	71.20	38.00	45.50	73.55	44.00	174.20	24.85	14.75	7.50	6.00	6.00		
25	11.30	68.85	35.00	41.00	75.90	39.50	158.20	32.10	32.10	19.35	6.50	7.50		
26	21.95	45.50	36.50	51.65	66.50	44.00	126.00	26.30	41.00	36.50	7.00	8.50		
27	21.95	45.50	36.50	45.50	82.95	38.00	97.20	36.50	32.10	13.60	6.50	29.20		
28	21.95	59.90	61.55	39.50	97.20	41.00	82.95	39.50	19.35	32.10	6.50	29.20		
29	15.90	51.65	90.00	50.00	85.30	39.50	68.85	33.55	17.05	26.30		38.00		
30	19.35	58.25	68.85	44.00	64.85	61.55	61.55	35.00	29.20	41.00		48.50		
31		54.95		48.50	56.60		68.85		42.50	29.20		39.50		
Total	577.00	1076.40	1390.00	1094.75	2239.75	1824.60	3228.90	1221.05	871.50	801.05	284.40	378.23	14987.63	CMSDAY
Mean	19.23	34.72	46.33	35.31	72.25	60.82	104.16	40.70	28.11	25.84	10.16	12.20	41.06	CMS
Max	36.50	71.20	90.00	59.90	274.00	109.50	303.35	56.60	51.65	54.95	29.20	48.50	303.35	CMS
Min	11.30	7.00	24.85	11.30	20.50	38.00	48.50	23.40	14.75	7.50	6.00	2.88	2.88	CMS
Runoff	49.85	93.00	120.10	94.59	193.51	157.65	278.98	105.50	75.30	69.21	24.57	32.68	1294.93	MCM

Momentary Peak 329.75 CMS. at 303.65 m. (MSL.) at 16.00 Hours , on Oct 3 , 2018

Runoff Yield 6.47 Liters/Second/Square KM. Momentary Peak Yield 51.93 Liters/Second/Square KM.

WATER YEAR : 2018

PING RIVER BASIN

Ping River at Ban Tha Khae , Tak (P.2A)

Lat 16 - 51 - 11 N Long 99 - 07 - 34 E

Location : on right bank about 200 meters downstream from Kittikhachon I Bridge.

Ban Tha Khae **Amphoe** Mueang **Changwat** Tak

Drainge Area	38,681 sq.km.
Type of Gage	Staff gage.
Zero Gage at Bottom	+104.000 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	Near automatic gage building **Elevation** +116.118 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic mean of 5 readings
Period of Available Gage Records	1952 to date
Rating Operation	
Period of Rating	1952 - 1960 , 1963 - 1967 , 1971 to date
Rated by Flot	-
Rated by Current Meter	1952 - 1960 , 1963 - 1967 , 1971 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Flow regulated by Phumiphol Dam reservoir since 1964. Stage-discharge relation defined by 19 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

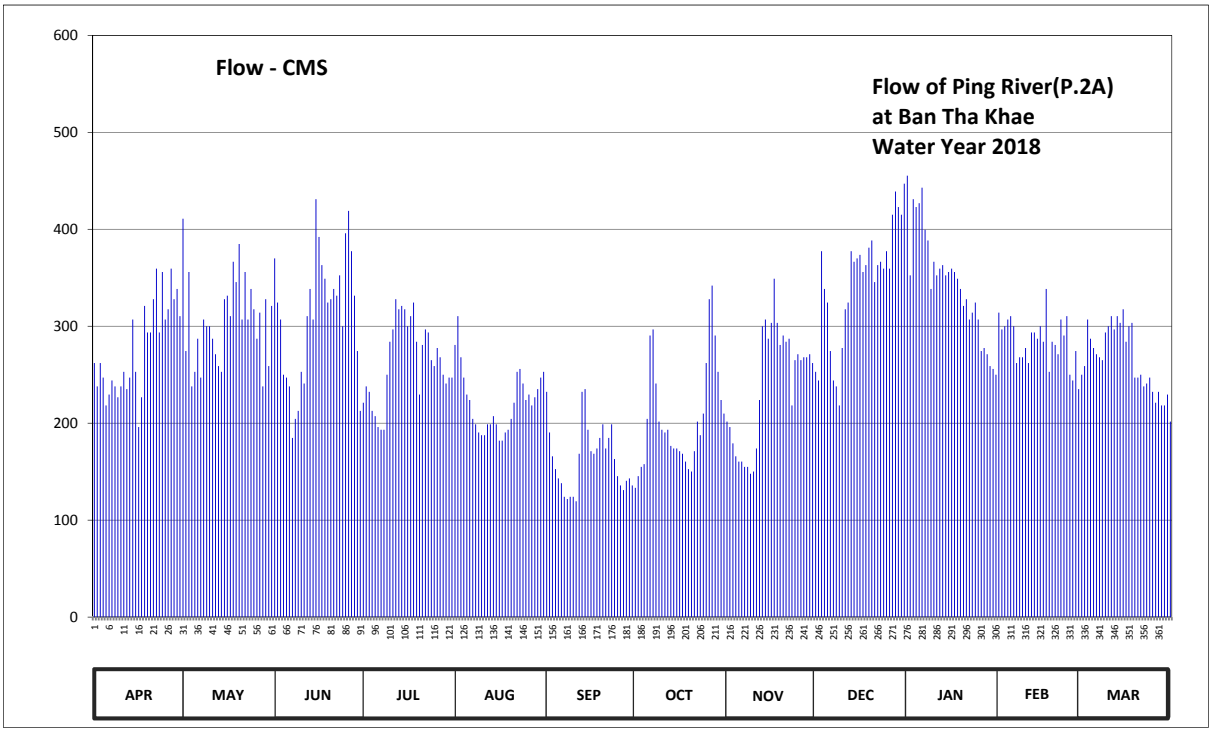
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	104.78	105.21	105.10	104.64	104.84	104.68	104.31	104.57	104.75	105.32	104.94	104.74	
2	104.70	104.82	104.97	104.70	104.93	104.53	104.36	104.55	104.72	105.05	104.89	104.77	
3	104.78	105.06	104.92	104.68	104.80	104.44	104.40	104.49	105.12	105.26	104.90	104.92	
4	104.73	104.70	104.74	104.61	104.73	104.39	104.41	104.44	105.01	105.24	104.92	104.86	
5	104.63	104.75	104.73	104.59	104.67	104.35	104.58	104.42	104.97	105.25	104.93	104.83	
6	104.67	104.86	104.70	104.55	104.65	104.33	104.87	104.42	104.82	105.29	104.90	104.81	
7	104.72	104.73	104.51	104.54	104.58	104.27	104.89	104.40	104.72	105.18	104.78	104.80	
8	104.70	104.92	104.58	104.54	104.56	104.26	104.71	104.40	104.70	105.15	104.80	104.79	
9	104.66	104.90	104.61	104.74	104.53	104.27	104.57	104.37	104.63	105.01	104.80	104.88	
10	104.70	104.90	104.75	104.85	104.52	104.27	104.54	104.38	104.83	105.09	104.83	104.90	
11	104.75	104.86	104.71	104.89	104.52	104.25	104.53	104.47	104.95	105.05	104.78	104.93	
12	104.69	104.81	104.93	104.98	104.56	104.45	104.54	104.65	104.97	105.07	104.88	104.89	
13	104.73	104.77	105.01	104.95	104.56	104.68	104.48	104.90	105.12	105.08	104.88	104.93	
14	104.92	104.75	104.92	104.96	104.59	104.69	104.47	104.92	105.09	105.05	104.86	104.91	
15	104.75	104.98	105.26	104.95	104.56	104.54	104.47	104.86	105.10	105.06	104.90	104.95	
16	104.55	104.99	105.16	104.90	104.50	104.46	104.46	104.91	105.11	105.07	104.85	104.85	
17	104.66	104.93	105.08	104.93	104.50	104.45	104.45	105.04	105.06	105.06	105.01	104.90	
18	104.96	105.09	105.04	104.97	104.53	104.47	104.42	104.91	105.08	105.04	104.75	104.91	
19	104.88	105.03	104.97	104.85	104.54	104.51	104.39	104.84	105.13	105.01	104.85	104.73	
20	104.88	105.14	104.98	104.67	104.58	104.56	104.38	104.87	105.15	104.96	104.84	104.73	
21	104.98	104.92	105.01	104.84	104.64	104.47	104.46	104.85	105.03	104.98	104.81	104.74	
22	105.07	105.06	104.99	104.89	104.75	104.51	104.57	104.86	105.08	104.92	104.92	104.70	
23	104.88	104.92	105.05	104.88	104.76	104.56	104.52	104.63	105.09	104.94	104.87	104.71	
24	105.06	105.01	104.90	104.79	104.71	104.43	104.60	104.79	105.07	104.97	104.93	104.73	
25	104.92	104.95	105.17	104.77	104.65	104.36	104.78	104.81	105.12	104.92	104.74	104.68	
26	104.95	104.86	105.23	104.83	104.67	104.32	104.98	104.79	105.07	104.82	104.72	104.64	
27	105.07	104.94	105.12	104.80	104.63	104.30	105.02	104.80	105.22	104.83	104.82	104.68	
28	104.98	104.70	104.99	104.74	104.66	104.34	104.87	104.80	105.28	104.81	104.69	104.63	
29	105.01	104.98	104.82	104.71	104.69	104.35	104.75	104.81	105.24	104.77		104.63	
30	104.93	104.77	104.61	104.73	104.73	104.32	104.65	104.78	105.22	104.76		104.67	
31		104.96		104.73	104.75		104.60		105.30	104.74		104.57	
Mean	104.82	104.91	104.92	104.78	104.64	104.43	104.58	104.69	105.02	105.02	104.85	104.79	
Max	105.07	105.21	105.26	104.98	104.93	104.69	105.02	105.04	105.30	105.32	105.01	104.95	105.32
Min	104.55	104.70	104.51	104.54	104.50	104.25	104.31	104.37	104.63	104.74	104.69	104.57	104.25

Annual Max Momentary Gage Height 105.99 m. (MSL.) , at 09.00 Hours, on Jan 6, 2019

Zero Gage at Bottom Elevation 104.00 m. (MSL.) , River Bed 101.13 m. (MSL.)

Left Bank Elevation 109.93 m. (MSL.) ,

Right Bank Elevation 109.94 m. (MSL.) , Drainage Are 38,681 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	262.00	411.00	370.00	221.20	280.80	232.40	133.40	201.60	253.00	455.40	314.00	250.00		
2	238.00	274.40	324.50	238.00	310.50	190.40	145.40	196.00	244.00	352.50	296.80	259.00		
3	262.00	356.00	307.00	232.40	268.00	165.80	155.00	179.30	377.40	431.00	300.00	307.00		
4	247.00	238.00	250.00	212.80	247.00	152.60	157.70	165.80	338.50	423.00	307.00	287.20		
5	218.40	253.00	247.00	207.20	229.60	143.00	204.40	160.40	324.50	427.00	310.50	277.60		
6	229.60	287.20	238.00	196.00	224.00	138.20	290.40	160.40	274.40	443.00	300.00	271.20		
7	244.00	247.00	184.80	193.20	204.40	124.10	296.80	155.00	244.00	399.60	262.00	268.00		
8	238.00	307.00	204.40	193.20	198.80	121.80	241.00	155.00	238.00	388.50	268.00	265.00		
9	226.80	300.00	212.80	250.00	190.40	124.10	201.60	147.80	218.40	338.50	268.00	293.60		
10	238.00	300.00	253.00	284.00	187.60	124.10	193.20	150.20	277.60	366.50	277.60	300.00		
11	253.00	287.20	241.00	296.80	187.60	119.50	190.40	173.90	317.50	352.50	262.00	310.50		
12	235.20	271.20	310.50	328.00	198.80	168.50	193.20	224.00	324.50	359.50	293.60	296.80		
13	247.00	259.00	338.50	317.50	198.80	232.40	176.60	300.00	377.40	363.00	293.60	310.50		
14	307.00	253.00	307.00	321.00	207.20	235.20	173.90	307.00	366.50	352.50	287.20	303.50		
15	253.00	328.00	431.00	317.50	198.80	193.20	173.90	287.20	370.00	356.00	300.00	317.50		
16	196.00	331.50	392.20	300.00	182.00	171.20	171.20	303.50	373.70	359.50	284.00	284.00		
17	226.80	310.50	363.00	310.50	182.00	168.50	168.50	349.00	356.00	356.00	338.50	300.00		
18	321.00	366.50	349.00	324.50	190.40	173.90	160.40	303.50	363.00	349.00	253.00	303.50		
19	293.60	345.50	324.50	284.00	193.20	184.80	152.60	280.80	381.10	338.50	284.00	247.00		
20	293.60	384.80	328.00	229.60	204.40	198.80	150.20	290.40	388.50	321.00	280.80	247.00		
21	328.00	307.00	338.50	280.80	221.20	173.90	171.20	284.00	345.50	328.00	271.20	250.00		
22	359.50	356.00	331.50	296.80	253.00	184.80	201.60	287.20	363.00	307.00	307.00	238.00		
23	293.60	307.00	352.50	293.60	256.00	198.80	187.60	218.40	366.50	314.00	290.40	241.00		
24	356.00	338.50	300.00	265.00	241.00	163.10	210.00	265.00	359.50	324.50	310.50	247.00		
25	307.00	317.50	395.90	259.00	224.00	145.40	262.00	271.20	377.40	307.00	250.00	232.40		
26	317.50	287.20	419.00	277.60	229.60	135.80	328.00	265.00	359.50	274.40	244.00	221.20		
27	359.50	314.00	377.40	268.00	218.40	131.00	342.00	268.00	415.00	277.60	274.40	232.40		
28	328.00	238.00	331.50	250.00	226.80	140.60	290.40	268.00	439.00	271.20	235.20	218.40		
29	338.50	328.00	274.40	241.00	235.20	143.00	253.00	271.20	423.00	259.00		218.40		
30	310.50	259.00	212.80	247.00	247.00	135.80	224.00	262.00	415.00	256.00		229.60		
31		321.00		247.00	253.00		210.00		447.00	250.00		201.60		
Total	8328.10	9484.00	9309.70	8183.20	6889.50	4914.70	6409.60	7150.80	10718.40	10701.20	7963.30	8228.90	98281.40	CMSDAY
Mean	277.60	305.94	310.32	263.97	222.24	163.82	206.76	238.36	345.75	345.20	284.40	265.45	269.26	CMS
Max	359.50	411.00	431.00	328.00	310.50	235.20	342.00	349.00	447.00	455.40	338.50	317.50	455.40	CMS
Min	196.00	238.00	184.80	193.20	182.00	119.50	133.40	147.80	218.40	250.00	235.20	201.60	119.50	CMS
Runoff	719.55	819.42	804.36	707.03	595.25	424.63	553.79	617.83	926.07	924.58	688.03	710.98	8491.51	MCM

Momentary Peak 803.60 CMS. at 105.99 m. (MSL.) at 09.00 Hours , on Jan 6, 2019

Runoff Yield 6.96 Liters/Second/Square KM. Momentary Peak Yield 20.78 Liters/Second/Square KM.

WATER YEAR : 2018

PING RIVER BASIN

Nam Mae Taeng at Ban Mae Taeng , Chiang Mai (P.4A)

Lat 19 - 07 - 15 N Long 98 - 56 - 53 E

Location : on right bank at the bridge of Chiang Mai from Fang Highway.

Ban Mae Taeng **Amphoe** Mae Taeng **Changwat** Chiang Mai

Drainge Area	1,930 sq.km.
Type of Gage	Water - stage recorder.
Zero Gage at Bottom	+334.000 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	In the vicinity of Amphoe Mae Taeng office **Elevation** +339.946 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	1955 to date
Rating Operation	
Period of Rating	1955 - 1960 , 1967 to date
Rated by Flot	-
Rated by Current Meter	1955 - 1960 , 1967 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. Flow regulated by Mae Taeng weir about 7 kilometers above gage site. Stage-discharge relation defined by 31 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

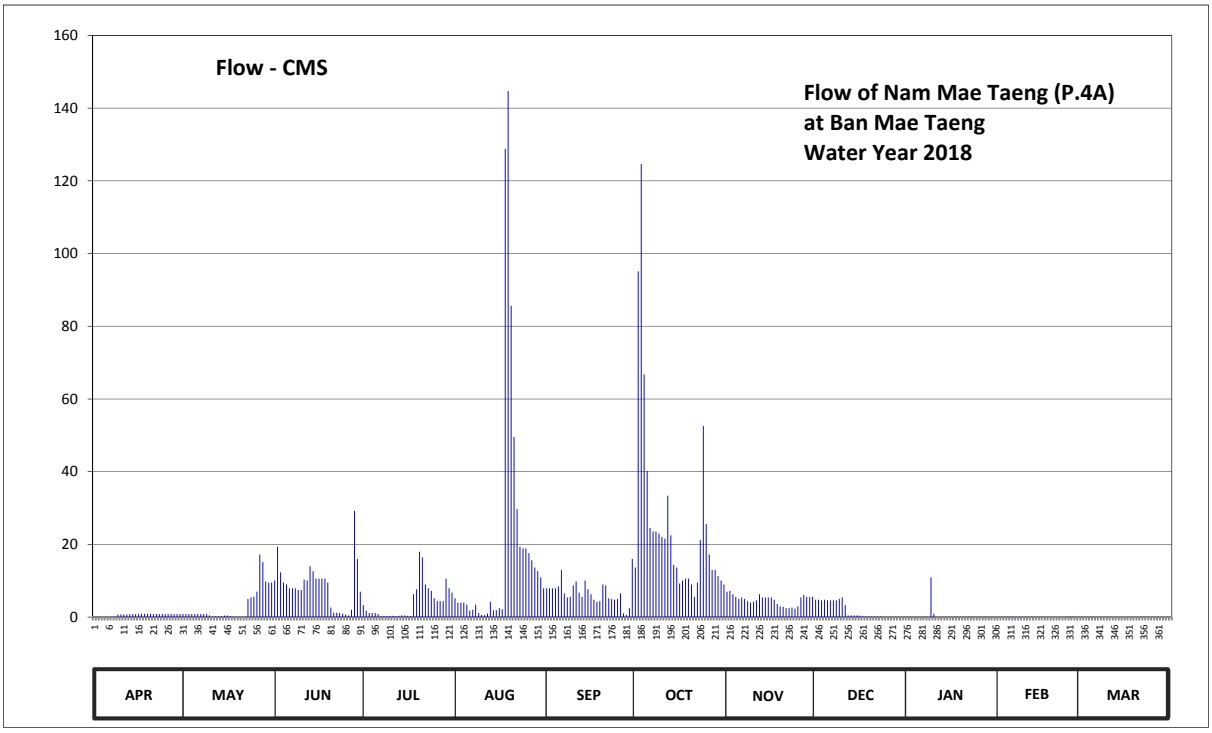
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	332.96	333.86	333.68	333.38	333.48	333.60	333.79	333.56	333.46	332.90	332.85	332.89	
2	332.96	333.86	333.93	333.28	333.42	333.60	335.06	333.57	333.46	332.90	332.85	332.88	
3	332.96	333.86	333.75	333.22	333.42	333.60	335.42	333.53	333.45	332.90	332.85	332.88	
4	332.96	333.86	333.66	333.22	333.42	333.60	334.69	333.50	333.46	332.90	332.85	332.89	
5	332.97	333.86	333.64	333.22	333.39	333.62	334.32	333.47	333.45	332.89	332.85	332.88	
6	333.00	333.86	333.60	333.19	333.28	333.77	334.04	333.49	333.45	332.87	332.85	332.84	
7	333.00	333.86	333.60	333.11	333.30	333.54	334.02	333.47	333.45	332.87	332.85	332.84	
8	333.23	333.86	333.60	333.11	333.39	333.49	334.02	333.44	333.45	332.91	332.85	332.84	
9	333.81	333.86	333.58	333.11	333.22	333.50	334.01	333.42	333.47	333.71	332.85	332.84	
10	333.83	333.70	333.58	333.12	333.16	333.63	333.99	333.43	333.49	333.20	332.85	332.84	
11	333.83	333.35	333.69	333.12	333.15	333.67	333.98	333.45	333.38	332.93	332.85	332.84	
12	333.83	333.48	333.68	333.11	333.21	333.55	334.21	333.53	333.14	332.93	332.85	332.84	
13	333.85	333.48	333.80	333.12	333.43	333.50	334.00	333.49	333.14	332.92	332.85	332.84	
14	333.87	333.53	333.76	333.14	333.29	333.68	333.81	333.49	333.14	332.86	332.85	332.84	
15	333.87	333.66	333.70	333.14	333.29	333.59	333.79	333.49	333.14	332.86	332.84	332.84	
16	333.88	333.66	333.70	333.12	333.33	333.53	333.65	333.49	333.13	332.86	332.82	332.84	
17	333.90	333.55	333.70	333.12	333.31	333.46	333.68	333.46	333.10	332.86	332.82	332.84	
18	333.90	333.31	333.70	333.53	335.47	333.43	333.70	333.40	333.09	332.86	332.82	332.83	
19	333.90	333.30	333.66	333.59	335.66	333.44	333.70	333.36	333.07	332.86	332.82	332.83	
20	333.88	333.30	333.34	333.90	334.94	333.64	333.64	333.35	333.05	332.86	332.82	332.82	
21	333.86	333.29	333.23	333.86	334.46	333.63	333.50	333.33	333.05	332.86	332.82	332.81	
22	333.86	333.31	333.23	333.64	334.14	333.48	333.66	333.33	333.05	332.86	332.82	332.81	
23	333.86	333.47	333.22	333.60	333.93	333.47	333.97	333.34	333.05	332.86	332.82	332.81	
24	333.86	333.49	333.20	333.57	333.92	333.46	334.50	333.32	333.00	332.86	332.90	332.81	
25	333.86	333.50	333.17	333.48	333.92	333.47	334.06	333.36	332.88	332.86	333.09	332.81	
26	333.86	333.56	333.14	333.44	333.89	333.54	333.88	333.49	332.87	332.86	333.04	332.81	
27	333.86	333.88	333.30	333.44	333.84	333.21	333.77	333.52	332.87	332.86	332.90	332.81	
28	333.86	333.83	334.13	333.44	333.79	333.16	333.77	333.50	332.87	332.85	332.90	332.81	
29	333.86	333.67	333.85	333.70	333.76	333.33	333.72	333.50	332.89	332.85		332.81	
30	333.86	333.66	333.56	333.60	333.71	333.85	333.68	333.50	332.90	332.85		332.81	
31		333.66		333.55	333.60		333.64		332.90	332.85		332.81	
Mean	333.63	333.63	333.58	333.36	333.73	333.53	333.99	333.45	333.17	332.91	332.86	332.84	
Max	333.90	333.88	334.13	333.90	335.66	333.85	335.42	333.57	333.49	333.71	333.09	332.89	335.66
Min	332.96	333.29	333.14	333.11	333.15	333.16	333.50	333.32	332.87	332.85	332.82	332.81	332.81

Annual Max Momentary Gage Height 336.82 m. (MSL.) , at 18.00 Hours , on Aug 18 , 2018

Zero Gage at Bottom Elevation 334.00 m. (MSL.) , River Bed 332.40 m. (MSL.)

Left Bank Elevation 339.91 m. (MSL.) ,

Right Bank Elevation 339.91 m. (MSL.) , Drainage Are 1,930 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.03	0.82	10.06	3.28	5.20	7.90	13.66	6.98	4.80	0.02	0.02	0.02		
2	0.03	0.82	19.35	1.78	4.00	7.90	95.09	7.21	4.80	0.02	0.02	0.02		
3	0.03	0.82	12.30	1.12	4.00	7.90	124.65	6.29	4.60	0.02	0.02	0.02		
4	0.03	0.82	9.52	1.12	4.00	7.90	66.75	5.60	4.80	0.02	0.02	0.02		
5	0.03	0.82	8.98	1.12	3.44	8.44	40.18	5.00	4.60	0.02	0.02	0.02		
6	0.03	0.82	7.90	0.83	1.78	12.98	24.56	5.40	4.60	0.02	0.02	0.01		
7	0.03	0.82	7.90	0.27	2.00	6.52	23.53	5.00	4.60	0.02	0.02	0.01		
8	0.08	0.82	7.90	0.27	3.44	5.40	23.53	4.40	4.60	0.02	0.02	0.01		
9	0.72	0.82	7.44	0.27	1.12	5.60	23.02	4.00	5.00	10.94	0.02	0.01		
10	0.76	0.50	7.44	0.34	0.62	8.71	22.05	4.20	5.40	0.90	0.02	0.01		
11	0.76	0.13	10.33	0.34	0.55	9.79	21.60	4.60	3.28	0.02	0.02	0.01		
12	0.76	0.19	10.06	0.27	1.01	6.75	33.41	6.29	0.48	0.02	0.02	0.01		
13	0.80	0.19	14.00	0.34	4.20	5.60	22.50	5.40	0.48	0.02	0.02	0.01		
14	0.84	0.23	12.64	0.48	1.89	10.06	14.40	5.40	0.48	0.02	0.02	0.01		
15	0.84	0.42	10.60	0.48	1.89	7.67	13.66	5.40	0.48	0.02	0.01	0.01		
16	0.86	0.42	10.60	0.34	2.48	6.29	9.25	5.40	0.41	0.02	0.01	0.01		
17	0.90	0.25	10.60	0.34	2.16	4.80	10.06	4.80	0.20	0.02	0.01	0.01		
18	0.90	0.11	10.60	6.29	128.77	4.20	10.60	3.60	0.18	0.02	0.01	0.01		
19	0.90	0.10	9.52	7.67	144.72	4.40	10.60	2.96	0.15	0.02	0.01	0.01		
20	0.86	0.10	2.64	18.00	85.64	8.98	8.98	2.80	0.12	0.02	0.01	0.01		
21	0.82	0.10	1.23	16.40	49.57	8.71	5.60	2.48	0.12	0.02	0.01	0.01		
22	0.82	0.11	1.23	8.98	29.71	5.20	9.52	2.48	0.12	0.02	0.01	0.01		
23	0.82	5.00	1.12	7.90	19.35	5.00	21.15	2.64	0.12	0.02	0.01	0.01		
24	0.82	5.40	0.90	7.21	18.90	4.80	52.55	2.32	0.03	0.02	0.02	0.01		
25	0.82	5.60	0.69	5.20	18.90	5.00	25.59	2.96	0.02	0.02	0.18	0.01		
26	0.82	6.98	0.48	4.40	17.60	6.52	17.20	5.40	0.02	0.02	0.10	0.01		
27	0.82	17.20	2.00	4.40	15.60	1.01	12.98	6.06	0.02	0.02	0.02	0.01		
28	0.82	15.20	29.20	4.40	13.66	0.62	12.98	5.60	0.02	0.02	0.02	0.01		
29	0.82	9.79	16.00	10.60	12.64	2.48	11.28	5.60	0.02	0.02		0.01		
30	0.82	9.52	6.98	7.90	10.94	16.00	10.06	5.60	0.02	0.02		0.01		
31		9.52		6.75	7.90		8.98		0.02	0.02		0.01		
Total	18.39	94.44	260.21	129.09	617.68	203.13	799.97	141.87	54.59	12.42	0.71	0.36	2332.86	CMSDAY
Mean	0.61	3.05	8.67	4.16	19.93	6.77	25.81	4.73	1.76	0.40	0.03	0.01	6.39	CMS
Max	0.90	17.20	29.20	18.00	144.72	16.00	124.65	7.21	5.40	10.94	0.18	0.02	144.72	CMS
Min	0.03	0.10	0.48	0.27	0.55	0.62	5.60	2.32	0.02	0.02	0.01	0.01	0.01	CMS
Runoff	1.59	8.16	22.48	11.15	53.37	17.55	69.12	12.26	4.72	1.07	0.06	0.03	201.56	MCM

Momentary Peak 251.45 CMS. at 336.82 m. (MSL.) at 18.00 Hours , on Aug 18 , 2018

Runoff Yield 3.31 Liters/Second/Square KM. Momentary Peak Yield 130.28 Liters/Second/Square KM.

WATER YEAR : 2018

PING RIVER BASIN

Nam Mae Kuang at Tha Nang Bridge , Lamphun (P.5)

Lat 18 - 34 - 32 N Long 99 - 00 - 44 E

Location : on right bank at the bridge of Chiang Mai from Fang Highway.

Ban Tha Nang Bridge **Amphoe** Mueang **Changwat** Lamphun

Drainge Area	1,569 sq.km.
Type of Gage	Water - stage recorder.
Zero Gage at Bottom	+288.500 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	Near the gage site. **Elevation** +294.592 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	1978 - 1992 , 2006 to date
Rating Operation	
Period of Rating	1978 - 1992 , 2006 to date
Rated by Flot	-
Rated by Current Meter	1978 - 1992 , 2006 to date
Stability of Channel Regimes	Fairly stable because of backwater effect.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. Stage-discharge relation defined by 36 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

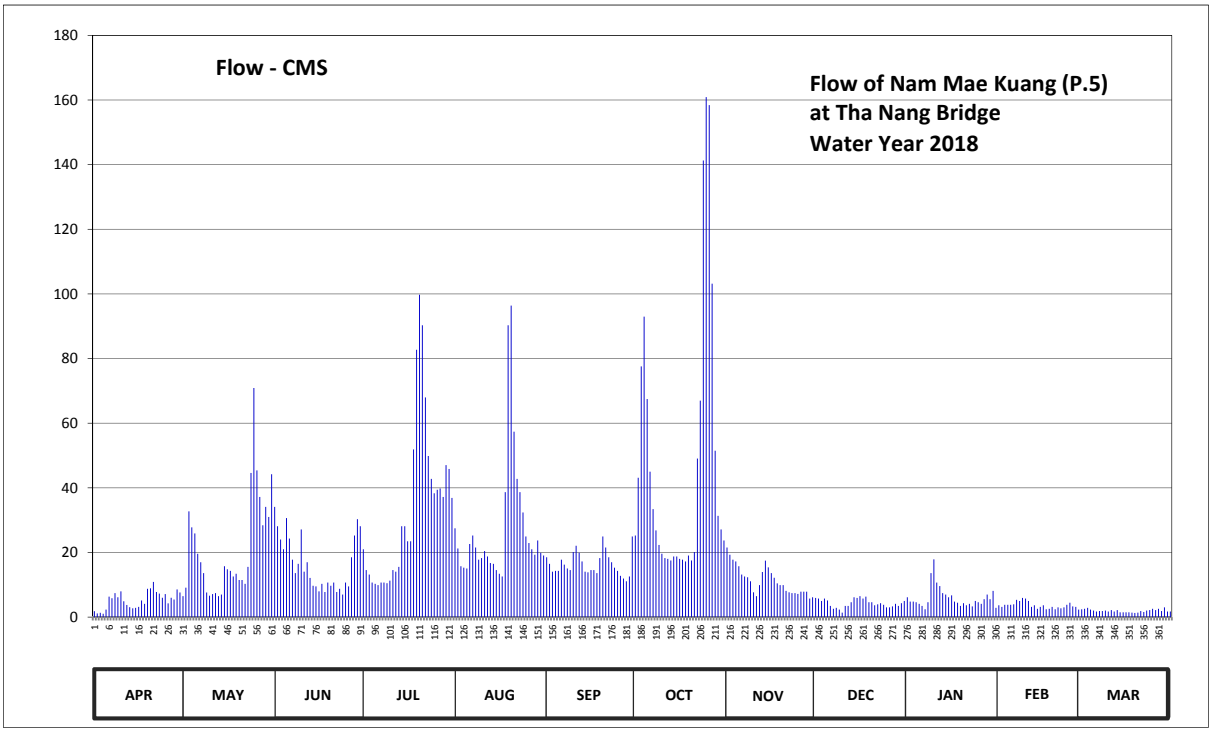
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	290.05	290.43	291.51	291.09	291.31	291.00	291.24	291.11	290.67	290.68	290.54	290.46	
2	289.95	290.58	291.33	290.84	291.10	290.92	291.76	291.03	290.66	290.61	290.51	290.47	
3	289.99	291.47	291.20	290.78	290.89	290.82	292.51	290.97	290.62	290.61	290.55	290.49	
4	289.93	291.32	291.09	290.66	290.87	290.83	292.80	290.95	290.66	290.60	290.55	290.45	
5	290.10	291.26	291.41	290.64	290.86	290.83	292.31	290.89	290.63	290.57	290.55	290.43	
6	290.42	291.04	291.21	290.62	291.15	290.97	291.81	290.78	290.53	290.53	290.56	290.41	
7	290.39	290.94	290.97	290.66	291.24	290.91	291.49	290.75	290.47	290.46	290.64	290.42	
8	290.49	290.80	290.80	290.66	291.11	290.86	291.29	290.74	290.49	290.60	290.62	290.42	
9	290.41	290.50	290.92	290.65	290.97	290.84	291.14	290.68	290.45	290.96	290.67	290.43	
10	290.52	290.44	291.30	290.69	290.99	291.06	291.04	290.75	290.38	291.07	290.66	290.41	
11	290.32	290.47	290.82	290.84	291.07	291.13	290.99	290.70	290.53	290.87	290.62	290.44	
12	290.23	290.49	290.94	290.82	291.01	291.05	290.98	290.84	290.53	290.83	290.51	290.41	
13	290.17	290.43	290.73	290.88	290.93	290.95	290.96	290.97	290.60	290.74	290.54	290.44	
14	290.14	290.46	290.61	291.33	290.92	290.82	291.01	291.06	290.68	290.72	290.47	290.39	
15	290.15	290.89	290.60	291.33	290.84	290.81	291.01	291.01	290.67	290.68	290.51	290.39	
16	290.18	290.85	290.52	291.18	290.79	290.84	290.98	290.96	290.70	290.71	290.54	290.39	
17	290.34	290.83	290.64	291.18	290.75	290.84	290.97	290.92	290.66	290.61	290.46	290.39	
18	290.26	290.75	290.51	291.98	291.64	290.80	290.95	290.86	290.69	290.59	290.47	290.38	
19	290.56	290.79	290.66	292.61	292.75	290.99	291.02	290.84	290.60	290.53	290.51	290.37	
20	290.57	290.70	290.61	292.92	292.86	291.23	290.96	290.84	290.60	290.58	290.46	290.38	
21	290.67	290.70	290.66	292.75	292.10	291.11	291.06	290.77	290.54	290.54	290.50	290.42	
22	290.51	290.64	290.51	292.32	291.75	291.00	291.91	290.75	290.56	290.57	290.48	290.40	
23	290.48	290.88	290.56	291.93	291.64	290.94	292.30	290.74	290.58	290.52	290.50	290.43	
24	290.40	291.80	290.46	291.75	291.46	290.87	293.63	290.74	290.55	290.62	290.55	290.44	
25	290.47	292.38	290.66	291.63	291.23	290.83	293.95	290.73	290.50	290.60	290.59	290.47	
26	290.27	291.82	290.60	291.66	291.16	290.76	293.91	290.76	290.50	290.57	290.52	290.44	
27	290.40	291.60	291.00	291.67	291.09	290.72	292.98	290.76	290.52	290.65	290.51	290.47	
28	290.36	291.34	291.24	291.60	291.03	290.68	291.97	290.76	290.57	290.72	290.45	290.42	
29	290.55	291.51	291.40	291.86	291.19	290.75	291.43	290.66	290.53	290.65		290.50	
30	290.50	291.42	291.33	291.83	291.05	291.23	291.30	290.68	290.58	290.77		290.41	
31		291.79		291.59	291.02		291.19		290.62	290.49		290.41	
Mean	290.33	291.01	290.89	291.39	291.25	290.91	291.70	290.83	290.58	290.65	290.54	290.43	
Max	290.67	292.38	291.51	292.92	292.86	291.23	293.95	291.11	290.70	291.07	290.67	290.50	293.95
Min	289.93	290.43	290.46	290.62	290.75	290.68	290.95	290.66	290.38	290.46	290.45	290.37	289.93

Annual Max Momentary Gage Height 293.99 m. (MSL.) , at 22.00 Hours , on Oct 25, 2018

Zero Gage at Bottom Elevation 288.50 m. (MSL.) , River Bed 288.99 m. (MSL.)

Left Bank Elevation 295.89 m. (MSL.) ,

Right Bank Elevation 296.07 m. (MSL.) , Drainage Are 1,569 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.85	6.48	34.10	20.98	27.47	18.50	25.26	21.53	5.93	6.12	3.64	2.44		
2	1.15	9.12	28.10	14.56	21.25	16.50	43.12	19.33	5.74	4.79	3.16	2.58		
3	1.35	32.72	24.00	13.18	15.76	14.08	77.57	17.75	4.98	4.79	3.80	2.86		
4	1.05	27.78	20.98	10.70	15.28	14.32	93.00	17.25	5.74	4.60	3.80	2.30		
5	2.30	25.89	30.65	10.30	15.04	14.32	67.49	15.76	5.17	4.12	3.80	2.02		
6	6.32	19.60	24.32	9.90	22.63	17.75	45.01	13.18	3.48	3.48	3.96	1.74		
7	5.86	17.00	17.75	10.70	25.26	16.25	33.41	12.55	2.58	2.44	5.36	1.88		
8	7.44	13.60	13.60	10.70	21.53	15.04	26.84	12.34	2.86	4.60	4.98	1.88		
9	6.16	7.60	16.50	10.50	17.75	14.56	22.35	11.10	2.30	13.60	5.93	2.02		
10	7.98	6.64	27.15	11.30	18.25	20.15	19.60	7.65	1.40	17.87	5.74	1.74		
11	4.88	7.12	14.08	14.56	20.43	22.08	18.25	6.50	3.48	10.69	4.98	2.16		
12	3.76	7.44	17.00	14.08	18.78	19.88	18.00	9.88	3.48	9.61	3.16	1.74		
13	3.07	6.48	12.13	15.52	16.75	17.25	17.50	13.95	4.60	7.42	3.64	2.16		
14	2.74	6.96	9.70	28.10	16.50	14.08	18.78	17.46	6.12	6.96	2.58	1.50		
15	2.85	15.76	9.50	28.10	14.56	13.84	18.78	15.41	5.93	6.12	3.16	1.50		
16	3.18	14.80	7.98	23.45	13.39	14.56	18.00	13.60	6.50	6.73	3.64	1.50		
17	5.16	14.32	10.30	23.45	12.55	14.56	17.75	12.20	5.74	4.79	2.44	1.50		
18	4.12	12.55	7.79	51.89	38.68	13.60	17.25	10.42	6.31	4.44	2.58	1.40		
19	8.74	13.39	10.70	82.74	90.30	18.25	19.05	9.88	4.60	3.48	3.16	1.30		
20	8.93	11.50	9.70	99.78	96.39	24.95	17.50	9.88	4.60	4.28	2.44	1.40		
21	10.90	11.50	10.70	90.30	57.40	21.53	20.15	8.11	3.64	3.64	3.00	1.88		
22	7.79	10.30	7.79	67.98	42.75	18.50	49.06	7.65	3.96	4.12	2.72	1.60		
23	7.28	15.52	8.74	49.87	38.68	17.00	67.00	7.42	4.28	3.32	3.00	2.02		
24	6.00	44.60	6.96	42.75	32.37	15.28	141.32	7.42	3.80	4.98	3.80	2.16		
25	7.12	70.92	10.70	38.31	24.95	14.32	160.90	7.19	3.00	4.60	4.44	2.58		
26	4.24	45.41	9.50	39.42	22.90	12.76	158.42	7.88	3.00	4.12	3.32	2.16		
27	6.00	37.20	18.50	39.79	20.98	11.92	103.17	7.88	3.32	5.55	3.16	2.58		
28	5.44	28.41	25.26	37.20	19.33	11.10	51.49	7.88	4.12	6.96	2.30	1.88		
29	8.55	34.10	30.30	47.03	23.73	12.55	31.34	5.74	3.48	5.55		3.00		
30	7.60	30.99	28.10	45.82	19.88	24.95	27.15	6.12	4.28	8.11		1.74		
31		44.23		36.86	19.05		23.73		4.98	2.86		1.74		
Total	159.81	649.93	502.58	1039.82	860.57	494.43	1468.24	340.91	133.40	184.74	101.69	60.96	5997.08	CMSDAY
Mean	5.33	20.97	16.75	33.54	27.76	16.48	47.36	11.36	4.30	5.96	3.63	1.97	16.43	CMS
Max	10.90	70.92	34.10	99.78	96.39	24.95	160.90	21.53	6.50	17.87	5.93	3.00	160.90	CMS
Min	1.05	6.48	6.96	9.90	12.55	11.10	17.25	5.74	1.40	2.44	2.30	1.30	1.05	CMS
Runoff	13.81	56.15	43.42	89.84	74.35	42.72	126.86	29.45	11.53	15.96	8.79	5.27	518.15	MCM

Momentary Peak 163.38 CMS. at 293.99 m. (MSL.) at 22.00 Hours , on Oct 25, 2018

Runoff Yield 10.47 Liters/Second/Square KM. Momentary Peak Yield 104.13 Liters/Second/Square KM.

WATER YEAR : 2018

PING RIVER BASIN

Ping River at Ban Huai Yang , Kamphaeng Phet (P.7A)

Lat 16 - 28 - 41 N Long 99 - 31 - 19 E

Location : on left bank about 100 meters upstream from the bridge on highway.

Ban Huai Yang **Amphoe** Mueang **Changwat** Kamphaeng Phet

Drainge Area	42,464 sq.km.
Type of Gage	Staff gage.
Zero Gage at Bottom	+71.730 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	Near the gage observers house. **Elevation** +77.717 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic mean of 5 readings
Period of Available Gage Records	1960 to date
Rating Operation	
Period of Rating	1960 - 1961 , 1967 to date
Rated by Flot	-
Rated by Current Meter	1960 - 1961 , 1967 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Flow regulated by Phumiphol Dam reservior above gage site. Stage-discharge relation defined by 19 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

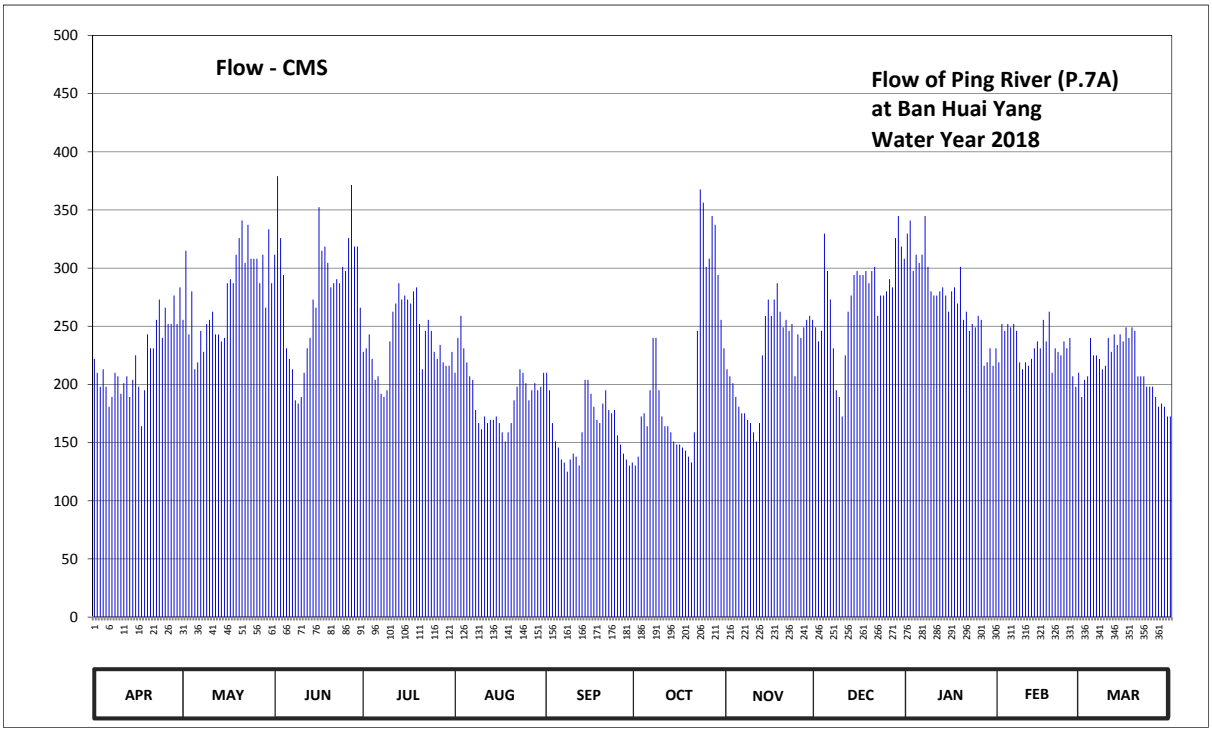
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	72.50	72.61	72.77	72.52	72.46	72.46	72.17	72.47	72.59	72.82	72.49	72.39	
2	72.46	72.78	72.95	72.53	72.56	72.41	72.20	72.45	72.55	72.85	72.60	72.44	
3	72.42	72.57	72.81	72.57	72.62	72.31	72.33	72.43	72.58	72.73	72.58	72.45	
4	72.47	72.68	72.72	72.50	72.53	72.25	72.34	72.39	72.82	72.77	72.60	72.56	
5	72.42	72.47	72.53	72.44	72.49	72.23	72.30	72.36	72.73	72.75	72.59	72.51	
6	72.36	72.49	72.50	72.45	72.45	72.19	72.41	72.34	72.66	72.77	72.60	72.51	
7	72.39	72.58	72.47	72.40	72.44	72.18	72.56	72.34	72.53	72.86	72.58	72.50	
8	72.46	72.52	72.38	72.39	72.35	72.15	72.56	72.32	72.41	72.74	72.49	72.47	
9	72.45	72.60	72.37	72.41	72.31	72.19	72.41	72.31	72.39	72.68	72.47	72.48	
10	72.40	72.61	72.39	72.55	72.29	72.21	72.33	72.28	72.33	72.67	72.49	72.56	
11	72.43	72.63	72.46	72.63	72.33	72.20	72.30	72.25	72.51	72.67	72.48	72.52	
12	72.45	72.57	72.53	72.65	72.31	72.17	72.30	72.31	72.63	72.68	72.50	72.57	
13	72.39	72.57	72.56	72.70	72.32	72.28	72.28	72.51	72.67	72.69	72.53	72.54	
14	72.44	72.55	72.66	72.66	72.32	72.44	72.25	72.62	72.72	72.67	72.55	72.57	
15	72.51	72.56	72.64	72.67	72.33	72.44	72.24	72.66	72.73	72.63	72.53	72.55	
16	72.42	72.70	72.88	72.66	72.31	72.40	72.24	72.62	72.72	72.68	72.61	72.59	
17	72.30	72.71	72.78	72.65	72.28	72.36	72.23	72.66	72.72	72.69	72.55	72.56	
18	72.41	72.70	72.79	72.68	72.25	72.32	72.22	72.70	72.73	72.65	72.63	72.59	
19	72.57	72.77	72.75	72.69	72.28	72.31	72.20	72.63	72.70	72.74	72.46	72.58	
20	72.53	72.81	72.69	72.60	72.31	72.37	72.18	72.59	72.73	72.61	72.53	72.45	
21	72.53	72.85	72.70	72.47	72.38	72.41	72.28	72.61	72.74	72.63	72.52	72.45	
22	72.61	72.75	72.71	72.58	72.42	72.35	72.58	72.58	72.62	72.58	72.51	72.45	
23	72.66	72.84	72.70	72.61	72.47	72.34	72.92	72.60	72.67	72.60	72.55	72.42	
24	72.56	72.76	72.74	72.58	72.46	72.35	72.89	72.45	72.67	72.59	72.53	72.42	
25	72.64	72.76	72.73	72.52	72.43	72.27	72.74	72.57	72.68	72.62	72.56	72.42	
26	72.60	72.76	72.81	72.50	72.38	72.24	72.76	72.56	72.71	72.61	72.45	72.39	
27	72.60	72.70	72.93	72.54	72.41	72.21	72.86	72.59	72.69	72.48	72.42	72.36	
28	72.67	72.77	72.79	72.49	72.43	72.19	72.84	72.61	72.81	72.49	72.46	72.37	
29	72.60	72.64	72.79	72.48	72.41	72.17	72.72	72.62	72.86	72.53		72.36	
30	72.69	72.83	72.64	72.48	72.42	72.18	72.61	72.61	72.79	72.48		72.33	
31		72.70		72.52	72.46		72.53		72.76	72.53		72.33	
Mean	72.50	72.67	72.67	72.55	72.39	72.29	72.44	72.50	72.66	72.66	72.53	72.47	
Max	72.69	72.85	72.95	72.70	72.62	72.46	72.92	72.70	72.86	72.86	72.63	72.59	72.95
Min	72.30	72.47	72.37	72.39	72.25	72.15	72.17	72.25	72.33	72.48	72.42	72.33	72.15

Annual Max Momentary Gage Height 73.20 m. (MSL.) , at 09.00 Hours , on Jan 7 , 2019

Zero Gage at Bottom Elevation 71.73 m. (MSL.) , River Bed 68.90 m. (MSL.)

Left Bank Elevation 77.60 m. (MSL.) ,

Right Bank Elevation 77.90 m. (MSL.) , Drainage Are 42,464 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	222.00	255.50	311.50	228.00	210.00	210.00	130.20	213.00	249.00	329.60	219.00	189.20		
2	210.00	315.00	379.00	231.00	240.00	195.00	138.00	207.00	237.00	341.00	252.00	204.00		
3	198.00	243.00	325.80	243.00	259.00	166.80	172.40	201.00	246.00	297.50	246.00	207.00		
4	213.00	280.00	294.00	222.00	231.00	151.00	175.20	189.20	329.60	311.50	252.00	240.00		
5	198.00	213.00	231.00	204.00	219.00	145.80	164.00	180.80	297.50	304.50	249.00	225.00		
6	180.80	219.00	222.00	207.00	207.00	135.40	195.00	175.20	273.00	311.50	252.00	225.00		
7	189.20	246.00	213.00	192.00	204.00	132.80	240.00	175.20	231.00	344.80	246.00	222.00		
8	210.00	228.00	186.40	189.20	178.00	125.00	240.00	169.60	195.00	301.00	219.00	213.00		
9	207.00	252.00	183.60	195.00	166.80	135.40	195.00	166.80	189.20	280.00	213.00	216.00		
10	192.00	255.50	189.20	237.00	161.40	140.60	172.40	158.80	172.40	276.50	219.00	240.00		
11	201.00	262.50	210.00	262.50	172.40	138.00	164.00	151.00	225.00	276.50	216.00	228.00		
12	207.00	243.00	231.00	269.50	166.80	130.20	164.00	166.80	262.50	280.00	222.00	243.00		
13	189.20	243.00	240.00	287.00	169.60	158.80	158.80	225.00	276.50	283.50	231.00	234.00		
14	204.00	237.00	273.00	273.00	169.60	204.00	151.00	259.00	294.00	276.50	237.00	243.00		
15	225.00	240.00	266.00	276.50	172.40	204.00	148.40	273.00	297.50	262.50	231.00	237.00		
16	198.00	287.00	352.40	273.00	166.80	192.00	148.40	259.00	294.00	280.00	255.50	249.00		
17	164.00	290.50	315.00	269.50	158.80	180.80	145.80	273.00	294.00	283.50	237.00	240.00		
18	195.00	287.00	318.50	280.00	151.00	169.60	143.20	287.00	297.50	269.50	262.50	249.00		
19	243.00	311.50	304.50	283.50	158.80	166.80	138.00	262.50	287.00	301.00	210.00	246.00		
20	231.00	325.80	283.50	252.00	166.80	183.60	132.80	249.00	297.50	255.50	231.00	207.00		
21	231.00	341.00	287.00	213.00	186.40	195.00	158.80	255.50	301.00	262.50	228.00	207.00		
22	255.50	304.50	290.50	246.00	198.00	178.00	246.00	246.00	259.00	246.00	225.00	207.00		
23	273.00	337.20	287.00	255.50	213.00	175.20	367.60	252.00	276.50	252.00	237.00	198.00		
24	240.00	308.00	301.00	246.00	210.00	178.00	356.20	207.00	276.50	249.00	231.00	198.00		
25	266.00	308.00	297.50	228.00	201.00	156.20	301.00	243.00	280.00	259.00	240.00	198.00		
26	252.00	308.00	325.80	222.00	186.40	148.40	308.00	240.00	290.50	255.50	207.00	189.20		
27	252.00	287.00	371.40	234.00	195.00	140.60	344.80	249.00	283.50	216.00	198.00	180.80		
28	276.50	311.50	318.50	219.00	201.00	135.40	337.20	255.50	325.80	219.00	210.00	183.60		
29	252.00	266.00	318.50	216.00	195.00	130.20	294.00	259.00	344.80	231.00		180.80		
30	283.50	333.40	266.00	216.00	198.00	132.80	255.50	255.50	318.50	216.00		172.40		
31		287.00		228.00	210.00		231.00		308.00	231.00		172.40		
Total	6658.70	8625.90	8392.60	7398.20	5923.00	4835.40	6516.70	6704.40	8509.30	8503.40	6476.00	6644.40	85188.00	CMSDAY
Mean	221.96	278.25	279.75	238.65	191.06	161.18	210.22	223.48	274.49	274.30	231.29	214.34	233.39	CMS
Max	283.50	341.00	379.00	287.00	259.00	210.00	367.60	287.00	344.80	344.80	262.50	249.00	379.00	CMS
Min	164.00	213.00	183.60	189.20	151.00	125.00	130.20	151.00	172.40	216.00	198.00	172.40	125.00	CMS
Runoff	575.31	745.28	725.12	639.20	511.75	417.78	563.04	579.26	735.20	734.69	559.53	574.08	7360.24	MCM

Momentary Peak 486.00 CMS. at 73.20 m. (MSL.) at 09.00 Hours , on Jan 7 , 2019

Runoff Yield 5.50 Liters/Second/Square KM. Momentary Peak Yield 11.44 Liters/Second/Square KM.

WATER YEAR : 2018

PING RIVER BASIN

Ping River at Ban Yanree , Tak (P.12C)

Lat 17 - 14 - 17 N Long 99 - 01 - 32 E

Location : on right bank about 3 kilometers from Phumiphol Dam reservoir.

	Ban Yanree	**Amphoe** Sam Ngao	**Changwat** Tak
Drainge Area	26,241 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+129.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank at the pier of the bridge.		**Elevation** +137.031 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	1995 to date		
Rating Operation			
Period of Rating	1996 to date		
Rated by Flot	-		
Rated by Current Meter	1996 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Flow regulated by Phumiphol Dam reservior downstream from the gage site. Stage-discharge relation defined by 16 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

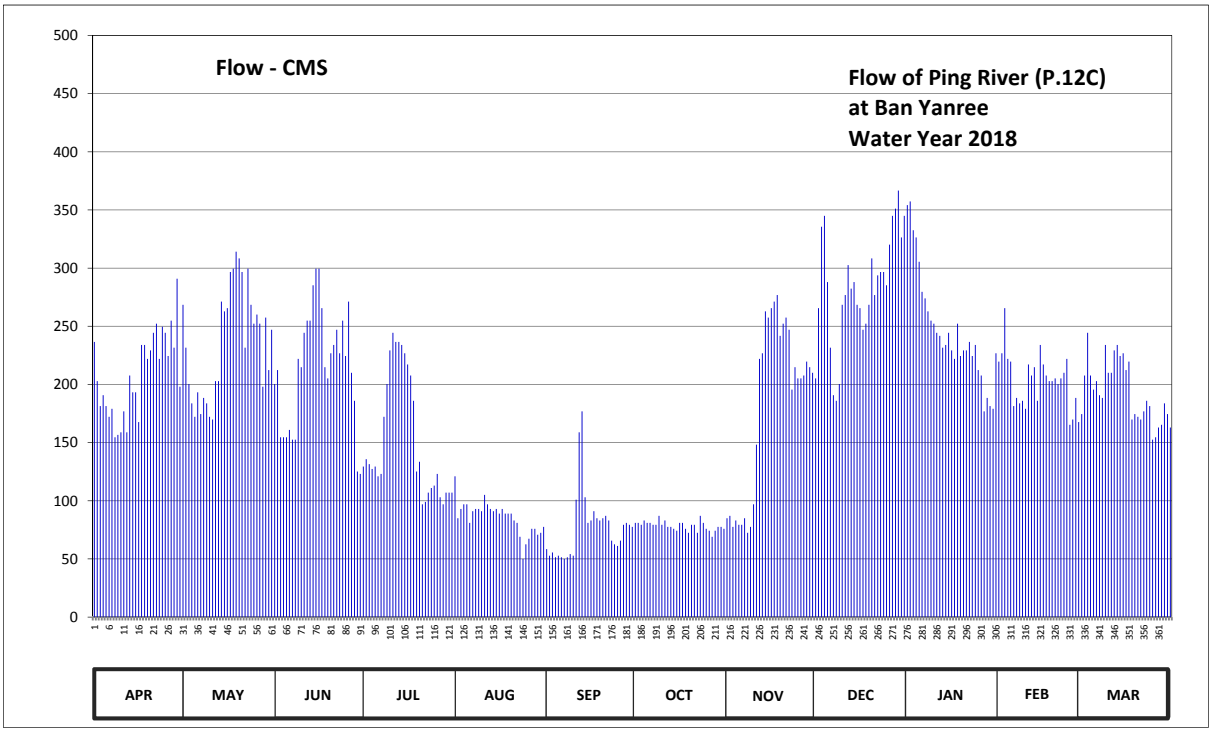
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	130.41	130.53	130.26	129.94	129.90	129.56	129.70	129.72	130.28	130.82	130.34	130.15	
2	130.27	130.39	130.31	129.97	129.72	129.52	129.70	129.73	130.52	130.83	130.37	130.29	
3	130.18	130.26	130.06	129.95	129.76	129.54	129.69	129.68	130.76	130.75	130.52	130.44	
4	130.22	130.19	130.06	129.93	129.78	129.51	129.71	129.71	130.79	130.73	130.35	130.29	
5	130.18	130.14	130.06	129.94	129.78	129.52	129.70	129.69	130.60	130.66	130.34	130.24	
6	130.14	130.23	130.09	129.90	129.70	129.51	129.70	129.69	130.39	130.57	130.18	130.27	
7	130.17	130.15	130.05	129.91	129.75	129.50	129.69	129.72	130.22	130.55	130.21	130.22	
8	130.06	130.21	130.05	130.14	129.76	129.51	129.69	129.65	130.20	130.51	130.19	130.21	
9	130.07	130.19	130.35	130.26	129.76	129.53	129.73	129.68	130.26	130.48	130.20	130.40	
10	130.08	130.14	130.32	130.38	129.75	129.52	129.69	129.78	130.53	130.47	130.17	130.30	
11	130.16	130.13	130.44	130.44	129.82	129.80	129.71	130.03	130.56	130.44	130.33	130.30	
12	130.08	130.27	130.48	130.41	129.78	130.08	129.68	130.35	130.65	130.43	130.29	130.38	
13	130.29	130.27	130.48	130.41	129.76	130.16	129.68	130.37	130.58	130.39	130.32	130.40	
14	130.23	130.54	130.59	130.40	129.75	129.81	129.67	130.51	130.60	130.40	130.20	130.36	
15	130.23	130.51	130.64	130.37	129.76	129.70	129.66	130.49	130.53	130.44	130.40	130.37	
16	130.12	130.52	130.64	130.33	129.74	129.71	129.70	130.52	130.52	130.38	130.33	130.31	
17	130.40	130.63	130.52	130.29	129.76	129.75	129.70	130.54	130.45	130.35	130.29	130.34	
18	130.40	130.64	130.32	130.20	129.74	129.72	129.67	130.56	130.47	130.47	130.27	130.13	
19	130.35	130.69	130.28	129.92	129.74	129.71	129.65	130.43	130.53	130.36	130.27	130.15	
20	130.38	130.67	130.37	129.96	129.74	129.72	129.69	130.47	130.67	130.38	130.28	130.14	
21	130.44	130.63	130.40	129.78	129.71	129.73	129.69	130.49	130.56	130.38	130.26	130.13	
22	130.47	130.39	130.45	129.79	129.70	129.71	129.65	130.45	130.62	130.41	130.28	130.16	
23	130.35	130.64	130.37	129.83	129.63	129.61	129.73	130.24	130.63	130.36	130.30	130.20	
24	130.46	130.53	130.48	129.85	129.50	129.59	129.70	130.32	130.63	130.40	130.35	130.18	
25	130.44	130.47	130.36	129.86	129.59	129.58	129.67	130.28	130.59	130.31	130.11	130.05	
26	130.36	130.50	130.54	129.91	129.62	129.61	129.66	130.28	130.71	130.29	130.13	130.06	
27	130.48	130.47	130.30	129.81	129.67	129.69	129.63	130.29	130.79	130.16	130.21	130.10	
28	130.39	130.25	130.20	129.78	129.67	129.70	129.66	130.34	130.81	130.21	130.12	130.11	
29	130.61	130.49	129.92	129.83	129.64	129.69	129.68	130.32	130.86	130.18		130.19	
30	130.25	130.31	129.91	129.83	129.65	129.68	129.68	130.30	130.73	130.17		130.15	
31		130.45		129.83	129.68		129.67		130.79	130.37		130.10	
Mean	130.29	130.40	130.31	130.04	129.72	129.67	129.68	130.15	130.58	130.44	130.27	130.23	
Max	130.61	130.69	130.64	130.44	129.90	130.16	129.73	130.56	130.86	130.83	130.52	130.44	130.86
Min	130.06	130.13	129.91	129.78	129.50	129.50	129.63	129.65	130.20	130.16	130.11	130.05	129.50

Annual Max Momentary Gage Height 132.50 m. (MSL.) , at 24.00 Hours , on Jan 21 , 2019

Zero Gage at Bottom Elevation 129.00 m. (MSL.) , River Bed 126.91 m. (MSL.)

Left Bank Elevation 134.16 m. (MSL.) ,

Right Bank Elevation 134.20 m. (MSL.) , Drainage Are 26,241 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	236.60	268.40	200.40	129.40	121.00	58.40	81.00	85.00	205.20	354.20	219.60	174.50		
2	202.80	231.60	212.40	135.70	85.00	52.80	81.00	87.00	265.60	357.30	226.80	207.60		
3	181.40	200.40	154.60	131.50	93.00	55.60	79.30	77.60	335.60	332.50	265.60	244.40		
4	190.80	183.70	154.60	127.30	97.00	51.40	83.00	83.00	344.90	326.30	222.00	207.60		
5	181.40	172.20	154.60	129.40	97.00	52.80	81.00	79.30	288.00	305.40	219.60	195.60		
6	172.20	193.20	160.90	121.00	81.00	51.40	81.00	79.30	231.60	279.60	181.40	202.80		
7	179.10	174.50	152.50	123.10	91.00	50.00	79.30	85.00	190.80	274.00	188.40	190.80		
8	154.60	188.40	152.50	172.20	93.00	51.40	79.30	72.50	186.00	262.80	183.70	188.40		
9	156.70	183.70	222.00	200.40	93.00	54.20	87.00	77.60	200.40	254.80	186.00	234.00		
10	158.80	172.20	214.80	229.20	91.00	52.80	79.30	97.00	268.40	252.20	179.10	210.00		
11	176.80	169.90	244.40	244.40	105.00	101.00	83.00	148.30	276.80	244.40	217.20	210.00		
12	158.80	202.80	254.80	236.60	97.00	158.80	77.60	222.00	302.50	241.80	207.60	229.20		
13	207.60	202.80	254.80	236.60	93.00	176.80	77.60	226.80	282.40	231.60	214.80	234.00		
14	193.20	271.20	285.20	234.00	91.00	103.00	75.90	262.80	288.00	234.00	186.00	224.40		
15	193.20	262.80	299.60	226.80	93.00	81.00	74.20	257.40	268.40	244.40	234.00	226.80		
16	167.60	265.60	299.60	217.20	89.00	83.00	81.00	265.60	265.60	229.20	217.20	212.40		
17	234.00	296.70	265.60	207.60	93.00	91.00	81.00	271.20	247.00	222.00	207.60	219.60		
18	234.00	299.60	214.80	186.00	89.00	85.00	75.90	276.80	252.20	252.20	202.80	169.90		
19	222.00	314.10	205.20	125.20	89.00	83.00	72.50	241.80	268.40	224.40	202.80	174.50		
20	229.20	308.30	226.80	133.60	89.00	85.00	79.30	252.20	308.30	229.20	205.20	172.20		
21	244.40	296.70	234.00	97.00	83.00	87.00	79.30	257.40	276.80	229.20	200.40	169.90		
22	252.20	231.60	247.00	99.00	81.00	83.00	72.50	247.00	293.80	236.60	205.20	176.80		
23	222.00	299.60	226.80	107.00	69.10	65.70	87.00	195.60	296.70	224.40	210.00	186.00		
24	249.60	268.40	254.80	111.00	50.00	62.60	81.00	214.80	296.70	234.00	222.00	181.40		
25	244.40	252.20	224.40	113.00	62.60	61.20	75.90	205.20	285.20	212.40	165.30	152.50		
26	224.40	260.00	271.20	123.10	67.40	65.70	74.20	205.20	320.10	207.60	169.90	154.60		
27	254.80	252.20	210.00	103.00	75.90	79.30	69.10	207.60	344.90	176.80	188.40	163.00		
28	231.60	198.00	186.00	97.00	75.90	81.00	74.20	219.60	351.10	188.40	167.60	165.30		
29	290.90	257.40	125.20	107.00	70.80	79.30	77.60	214.80	366.60	181.40		183.70		
30	198.00	212.40	123.10	107.00	72.50	77.60	77.60	210.00	326.30	179.10		174.50		
31		247.00		107.00	77.60		75.90		344.90	226.80		163.00		
Total	6243.10	7337.60	6432.60	4718.30	2655.80	2320.80	2433.50	5425.40	8779.20	7649.00	5696.20	5999.40	65690.90	CMSDAY
Mean	208.10	236.70	214.42	152.20	85.67	77.36	78.50	180.85	283.20	246.74	203.44	193.53	179.98	CMS
Max	290.90	314.10	299.60	244.40	121.00	176.80	87.00	276.80	366.60	357.30	265.60	244.40	366.60	CMS
Min	154.60	169.90	123.10	97.00	50.00	50.00	69.10	72.50	186.00	176.80	165.30	152.50	50.00	CMS
Runoff	539.40	633.97	555.78	407.66	229.46	200.52	210.25	468.75	758.52	660.87	492.15	518.35	5675.69	MCM

Momentary Peak 993.00 CMS. at 132.50 m. (MSL.) at 24.00 Hours , on Jan 21 , 2019

Runoff Yield 6.86 Liters/Second/Square KM. Momentary Peak Yield 37.84 Liters/Second/Square KM.

WATER YEAR : 2018

PING RIVER BASIN

Nam Mae Chaem at Tha Kham Bridge , Chiang Mai (P.14A)

Lat 19 - 12 - 02 N Long 98 - 37 - 01 E

Location : on right bank near the bridge of Hot - Mae Sariang Highway at guidepost 7+500.

Ban - **Amphoe** Chom Thong **Changwat** Chiang Mai

Drainge Area	3,909 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+261.863 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	about 10 meters in front of automatic gage building. **Elevation** +267.972 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	1953 to date
Rating Operation	
Period of Rating	1955 - 1960 , 1967 to date
Rated by Flot	-
Rated by Current Meter	1955 - 1960 , 1967 to date
Stability of Channel Regimes	Fairly stable by some silting.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. The concrete weir situated about 6 kilometers downstream from the gage site. Stage-discharge relation defined by 30 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

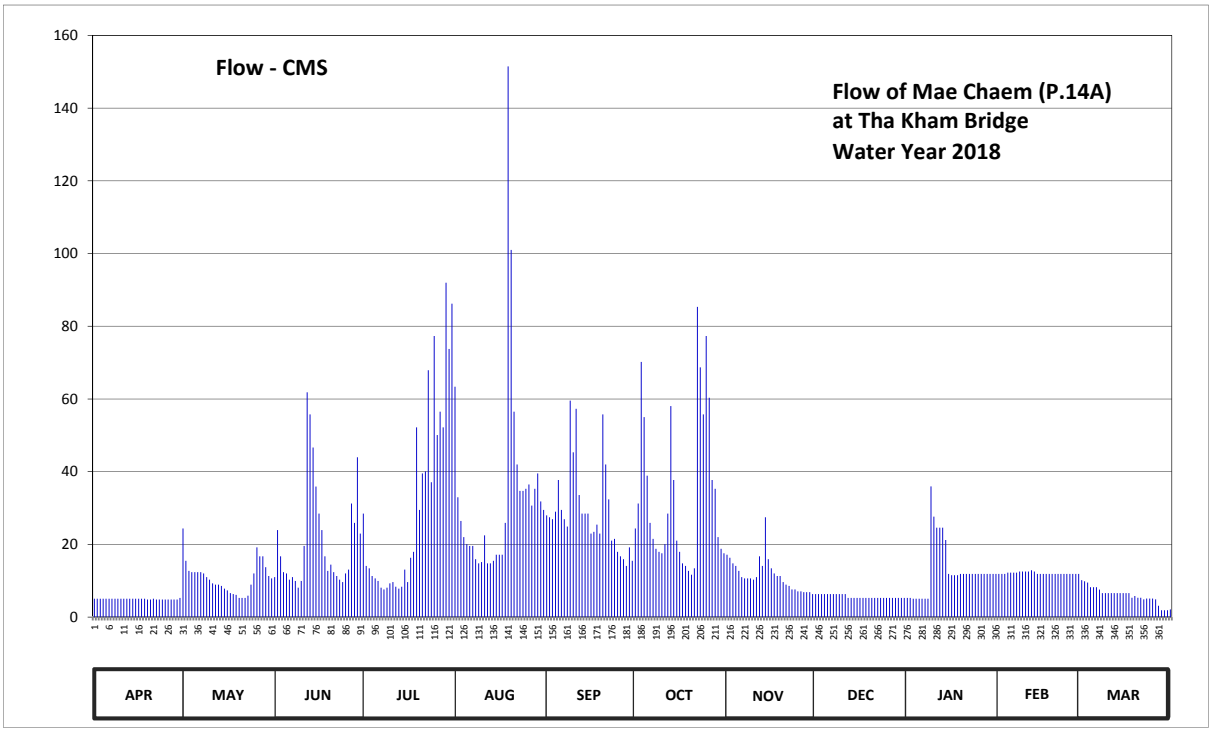
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	261.95	262.50	262.17	262.58	263.11	262.57	262.50	262.34	262.01	261.96	261.77	261.72	
2	261.95	262.30	262.49	262.26	262.66	262.56	262.63	262.32	262.01	261.96	261.77	261.71	
3	261.95	262.22	262.33	262.24	262.54	262.55	263.20	262.28	262.01	261.95	261.77	261.70	
4	261.95	262.21	262.21	262.18	262.45	262.59	263.00	262.26	262.01	261.95	261.78	261.66	
5	261.95	262.21	262.20	262.16	262.41	262.74	262.76	262.22	262.01	261.95	261.78	261.66	
6	261.95	262.21	262.15	262.14	262.40	262.60	262.53	262.17	262.01	261.95	261.78	261.66	
7	261.95	262.21	262.17	262.08	262.40	262.55	262.44	262.16	262.01	261.95	261.78	261.64	
8	261.95	262.20	262.14	262.06	262.31	262.51	262.38	262.16	262.01	261.95	261.79	261.61	
9	261.95	262.17	262.08	262.08	262.28	263.06	262.36	262.16	262.01	262.26	261.79	261.61	
10	261.95	262.15	262.14	262.12	262.29	262.86	262.35	262.15	262.01	262.12	261.79	261.61	
11	261.95	262.12	262.40	262.13	262.46	263.03	262.41	262.17	262.01	262.06	261.79	261.61	
12	261.95	262.11	263.09	262.09	262.28	262.67	262.58	262.33	261.96	262.06	261.80	261.61	
13	261.95	262.11	263.01	262.07	262.28	262.58	263.04	262.26	261.96	262.06	261.79	261.61	
14	261.95	262.10	262.88	262.09	262.30	262.58	262.74	262.56	261.96	261.99	261.77	261.61	
15	261.95	262.07	262.71	262.23	262.34	262.58	262.43	262.31	261.96	261.77	261.77	261.61	
16	261.95	262.05	262.58	262.13	262.34	262.47	262.36	262.24	261.96	261.76	261.77	261.61	
17	261.95	262.02	262.49	262.32	262.34	262.48	262.28	262.20	261.96	261.76	261.77	261.61	
18	261.95	262.01	262.33	262.36	262.53	262.52	262.26	262.18	261.96	261.76	261.77	261.56	
19	261.94	262.00	262.22	262.96	263.95	262.47	262.22	262.18	261.96	261.77	261.77	261.58	
20	261.94	261.96	262.27	262.60	263.53	263.01	262.19	262.13	261.96	261.77	261.77	261.56	
21	261.95	261.96	262.21	262.77	263.02	262.81	262.24	262.11	261.96	261.77	261.77	261.56	
22	261.94	261.96	262.18	262.78	262.81	262.65	263.37	262.10	261.96	261.77	261.77	261.54	
23	261.94	261.99	262.15	263.17	262.69	262.43	263.18	262.06	261.96	261.77	261.77	261.55	
24	261.94	262.11	262.13	262.73	262.69	262.44	263.01	262.06	261.96	261.77	261.77	261.55	
25	261.94	262.20	262.20	263.28	262.70	262.36	263.28	262.04	261.96	261.77	261.77	261.55	
26	261.94	262.39	262.23	262.93	262.72	262.33	263.07	262.04	261.96	261.77	261.77	261.54	
27	261.94	262.33	262.63	263.02	262.62	262.31	262.74	262.03	261.96	261.77	261.77	261.46	
28	261.94	262.33	262.53	262.96	262.70	262.26	262.70	262.03	261.96	261.77	261.77	261.40	
29	261.94	262.25	262.84	263.44	262.77	262.39	262.45	262.03	261.96	261.77		261.40	
30	261.96	262.18	262.47	263.24	262.64	262.30	262.38	262.01	261.96	261.77		261.40	
31		262.16		263.38	262.60		262.35		261.96	261.77		261.41	
Mean	261.95	262.15	262.39	262.53	262.62	262.58	262.63	262.18	261.98	261.88	261.78	261.58	
Max	261.96	262.50	263.09	263.44	263.95	263.06	263.37	262.56	262.01	262.26	261.80	261.72	263.95
Min	261.94	261.96	262.08	262.06	262.28	262.26	262.19	262.01	261.96	261.76	261.77	261.40	261.40

Annual Max Momentary Gage Height 264.21 m. (MSL.) , at 15.00 Hours , on Aug 19 , 2018

Zero Gage at Bottom Elevation 261.86 m. (MSL.) , River Bed 261.30 m. (MSL)

Left Bank Elevation 268.22 m. (MSL.) ,

Right Bank Elevation 268.33 m. (MSL.) , Drainage Are 3,909 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	5.05	24.40	10.98	28.48	63.36	27.97	24.40	17.14	6.35	5.26	11.88	10.18		
2	5.05	15.50	23.92	14.10	32.98	27.46	31.24	16.32	6.35	5.26	11.88	9.84		
3	5.05	12.70	16.73	13.40	26.44	26.95	70.20	14.80	6.35	5.05	11.88	9.50		
4	5.05	12.35	12.35	11.32	22.00	28.99	55.00	14.10	6.35	5.05	12.22	8.22		
5	5.05	12.35	12.00	10.64	20.08	37.70	38.90	12.70	6.35	5.05	12.22	8.22		
6	5.05	12.35	10.30	9.96	19.60	29.50	25.93	10.98	6.35	5.05	12.22	8.22		
7	5.05	12.35	10.98	8.10	19.60	26.95	21.52	10.64	6.35	5.05	12.22	7.58		
8	5.05	12.00	9.96	7.60	15.91	24.91	18.78	10.64	6.35	5.05	12.56	6.62		
9	5.05	10.98	8.10	8.10	14.80	59.56	17.96	10.64	6.35	35.94	12.56	6.62		
10	5.05	10.30	9.96	9.28	15.15	45.32	17.55	10.30	6.35	27.62	12.56	6.62		
11	5.05	9.28	19.60	9.62	22.48	57.28	20.08	10.98	6.35	24.58	12.56	6.62		
12	5.05	8.94	61.84	8.35	14.80	33.56	28.48	16.73	5.26	24.58	12.90	6.62		
13	5.05	8.94	55.76	7.85	14.80	28.48	58.04	14.10	5.26	24.58	12.56	6.62		
14	5.05	8.60	46.66	8.35	15.50	28.48	37.70	27.46	5.26	21.23	11.88	6.62		
15	5.05	7.85	35.90	13.05	17.14	28.48	21.04	15.91	5.26	11.88	11.88	6.62		
16	5.05	7.35	28.48	9.62	17.14	22.96	17.96	13.40	5.26	11.54	11.88	6.62		
17	5.05	6.60	23.92	16.32	17.14	23.44	14.80	12.00	5.26	11.54	11.88	6.62		
18	5.05	6.35	16.73	17.96	25.93	25.42	14.10	11.32	5.26	11.54	11.88	5.34		
19	4.84	6.10	12.70	52.20	151.50	22.96	12.70	11.32	5.26	11.88	11.88	5.82		
20	4.84	5.26	14.45	29.50	101.00	55.76	11.66	9.62	5.26	11.88	11.88	5.34		
21	5.05	5.26	12.35	39.50	56.52	41.97	13.40	8.94	5.26	11.88	11.88	5.34		
22	4.84	5.26	11.32	40.10	41.97	32.40	85.33	8.60	5.26	11.88	11.88	4.86		
23	4.84	5.89	10.30	67.92	34.72	21.04	68.68	7.60	5.26	11.88	11.88	5.10		
24	4.84	8.94	9.62	37.10	34.72	21.52	55.76	7.60	5.26	11.88	11.88	5.10		
25	4.84	12.00	12.00	77.32	35.30	17.96	77.32	7.10	5.26	11.88	11.88	5.10		
26	4.84	19.19	13.05	50.10	36.50	16.73	60.32	7.10	5.26	11.88	11.88	4.86		
27	4.84	16.73	31.24	56.52	30.66	15.91	37.70	6.85	5.26	11.88	11.88	3.10		
28	4.84	16.73	25.93	52.20	35.30	14.10	35.30	6.85	5.26	11.88	11.88	1.90		
29	4.84	13.75	43.98	92.00	39.50	19.19	22.00	6.85	5.26	11.88		1.90		
30	5.26	11.32	22.96	73.76	31.82	15.50	18.78	6.35	5.26	11.88		1.90		
31		10.64		86.22	29.50		17.55		5.26	11.88		2.10		
Total	149.61	336.26	634.07	966.54	1053.86	878.45	1050.18	344.94	175.05	400.29	338.42	185.72	6513.39	CMSDAY
Mean	4.99	10.85	21.14	31.18	34.00	29.28	33.88	11.50	5.65	12.91	12.09	5.99	17.84	CMS
Max	5.26	24.40	61.84	92.00	151.50	59.56	85.33	27.46	6.35	35.94	12.90	10.18	151.50	CMS
Min	4.84	5.26	8.10	7.60	14.80	14.10	11.66	6.35	5.26	5.05	11.88	1.90	1.90	CMS
Runoff	12.93	29.05	54.78	83.51	91.05	75.90	90.74	29.80	15.12	34.59	29.24	16.05	562.76	MCM

Momentary Peak 188.60 CMS. at 264.21 m. (MSL.) at 15.00 Hours , on Aug 19 , 2018

Runoff Yield 4.57 Liters/Second/Square KM. Momentary Peak Yield 48.25 Liters/Second/Square KM.

WATER YEAR : 2018

PING RIVER BASIN

Ping River at Wat Sri Phirom , Kamphaeng Phet (P.15)

Lat 16 - 12 - 52 N Long 99 - 43 - 24 E

Location : on right bank in front of Amphoe Khlong Khlung Office.

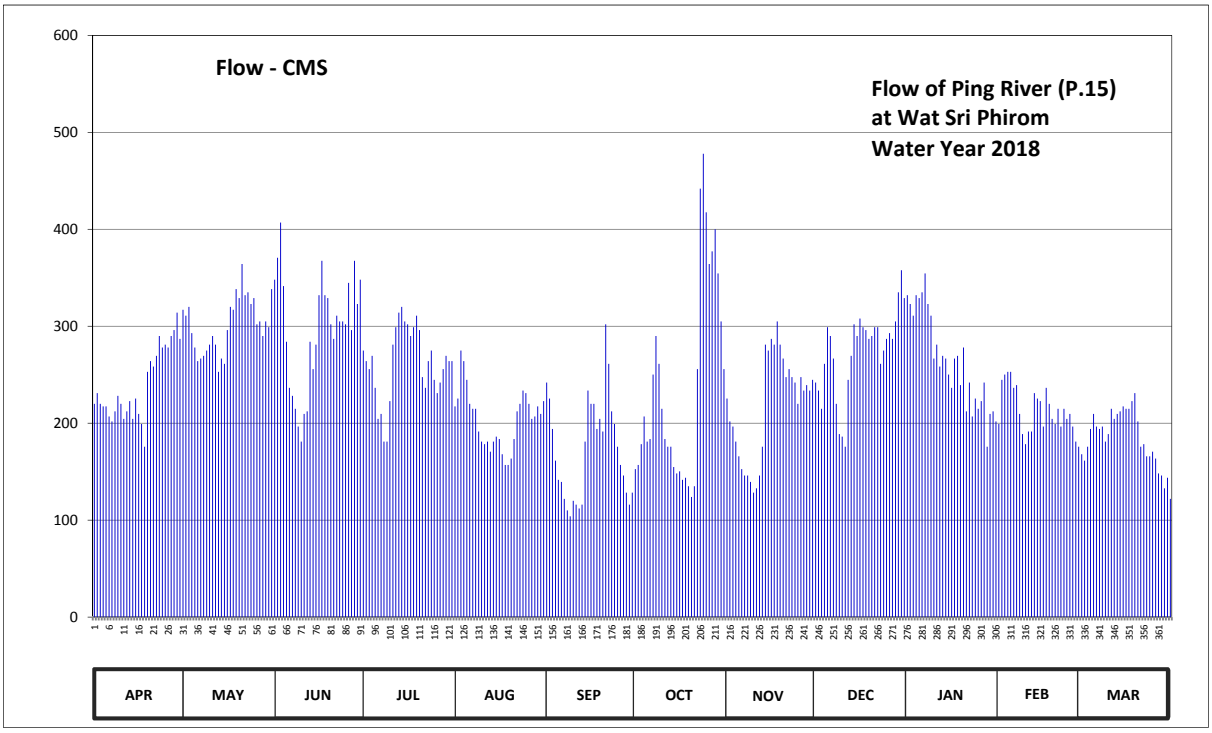
Ban Wat Sri Phirom **Amphoe** Khlong Khlung **Changwat** Kamphaeng Phet

Drainge Area	44,461 sq.km.
Type of Gage	Staff gage.
Zero Gage at Bottom	+51.555 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On right bank about 30 meters from the south of Wat Sri Phirom. **Elevation** +61.835 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic mean of 5 readings
Period of Available Gage Records	1954 to date
Rating Operation	
Period of Rating	1964 - 1974 , 1997 to date
Rated by Flot	-
Rated by Current Meter	1964 - 1974 , 1997 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Stage-discharge relation defined by 17 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	53.00	53.34	53.44	53.20	52.99	53.08	52.73	53.02	53.08	53.39	52.92	52.80	
2	53.04	53.32	53.51	53.16	53.02	53.02	52.75	52.93	53.05	53.36	53.09	52.77	
3	53.00	53.35	53.62	53.13	53.20	52.90	52.84	52.91	52.98	53.32	53.11	52.83	
4	52.99	53.26	53.42	53.18	53.16	52.77	52.95	52.85	53.15	53.39	53.12	52.90	
5	52.99	53.21	53.23	53.06	53.09	52.68	52.85	52.79	53.28	53.38	53.12	52.96	
6	52.95	53.16	53.06	52.94	53.00	52.67	52.86	52.73	53.25	53.40	53.06	52.91	
7	52.93	53.17	53.03	52.96	52.98	52.59	53.11	52.70	53.17	53.46	53.07	52.90	
8	52.97	53.18	52.98	52.85	52.98	52.53	53.25	52.70	53.00	53.36	52.96	52.91	
9	53.03	53.20	52.91	52.85	52.89	52.50	53.15	52.67	52.88	53.32	52.88	52.85	
10	53.00	53.22	52.85	53.01	52.85	52.58	52.98	52.62	52.87	53.17	52.84	52.88	
11	52.94	53.25	52.96	53.22	52.84	52.56	52.86	52.64	52.83	53.22	52.89	52.98	
12	52.97	53.22	52.97	53.28	52.85	52.54	52.83	52.70	53.09	53.14	52.89	52.94	
13	53.01	53.12	53.23	53.33	52.81	52.56	52.83	52.83	53.18	53.18	53.04	52.96	
14	52.94	53.17	53.13	53.35	52.85	52.85	52.74	53.22	53.29	53.17	53.02	52.97	
15	53.02	53.15	53.22	53.30	52.87	53.05	52.71	53.20	53.25	53.11	53.01	52.99	
16	52.96	53.27	53.39	53.29	52.86	53.00	52.72	53.24	53.31	53.06	52.91	52.98	
17	52.92	53.35	53.50	53.25	52.80	53.00	52.68	53.22	53.28	53.17	53.06	52.98	
18	52.83	53.34	53.39	53.28	52.75	52.90	52.69	53.30	53.27	53.18	53.00	53.01	
19	53.12	53.41	53.38	53.32	52.75	52.94	52.65	53.22	53.24	53.07	52.94	53.04	
20	53.16	53.38	53.29	53.27	52.78	52.89	52.60	53.17	53.25	53.21	52.92	52.93	
21	53.14	53.49	53.24	53.10	52.86	53.29	52.65	53.10	53.28	52.97	52.98	52.83	
22	53.18	53.39	53.32	53.06	52.97	53.15	53.13	53.13	53.28	53.08	52.91	52.84	
23	53.25	53.40	53.30	53.16	53.00	52.97	53.72	53.10	53.15	52.95	52.98	52.79	
24	53.21	53.36	53.30	53.20	53.05	52.92	53.82	53.08	53.20	53.02	52.94	52.79	
25	53.22	53.38	53.29	53.09	53.04	52.83	53.65	53.00	53.24	52.98	52.96	52.81	
26	53.21	53.29	53.43	53.04	53.00	52.75	53.49	53.10	53.26	53.01	52.91	52.78	
27	53.25	53.30	53.27	53.08	52.94	52.70	53.53	53.05	53.24	53.08	52.85	52.71	
28	53.27	53.25	53.50	53.13	52.95	52.62	53.60	53.07	53.30	52.83	52.83	52.70	
29	53.33	53.30	53.36	53.18	52.99	52.56	53.46	53.05	53.40	52.96		52.64	
30	53.24	53.28	53.44	53.16	52.96	52.62	53.30	53.09	53.47	52.97		52.69	
31		53.41		53.16	53.01		53.13		53.38	52.93		52.59	
Mean	53.07	53.29	53.27	53.15	52.94	52.80	53.04	52.98	53.19	53.16	52.97	52.86	
Max	53.33	53.49	53.62	53.35	53.20	53.29	53.82	53.30	53.47	53.46	53.12	53.04	53.82
Min	52.83	53.12	52.85	52.85	52.75	52.50	52.60	52.62	52.83	52.83	52.83	52.59	52.50

Annual Max Momentary Gage Height	53.86	m. (MSL.) ,	at 06.00 Hours , on Oct 24 , 2018		
Zero Gage at Bottom Elevation	51.56	m. (MSL.) ,	River Bed	48.64	m. (MSL.)
Left Bank Elevation	55.93	m. (MSL.) ,			
Right Bank Elevation	55.40	m. (MSL.) ,	Drainage Are	44,461	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	220.00	317.00	348.00	275.00	217.40	242.00	152.60	225.50	242.00	332.00	199.20	168.00		
2	231.00	311.00	370.75	264.00	225.50	225.50	157.00	201.80	233.75	323.00	244.75	161.40		
3	220.00	320.00	407.00	255.75	275.00	194.00	178.40	196.60	214.80	311.00	250.25	175.80		
4	217.40	293.00	341.50	269.50	264.00	161.40	207.00	181.00	261.25	332.00	253.00	194.00		
5	217.40	278.00	284.00	236.50	244.75	141.60	181.00	165.80	299.00	329.00	253.00	209.60		
6	207.00	264.00	236.50	204.40	220.00	139.40	183.60	152.60	290.00	335.00	236.50	196.60		
7	201.80	266.75	228.25	209.60	214.80	122.00	250.25	146.00	266.75	354.50	239.25	194.00		
8	212.20	269.50	214.80	181.00	214.80	110.00	290.00	146.00	220.00	323.00	209.60	196.60		
9	228.25	275.00	196.60	181.00	191.40	104.00	261.25	139.40	188.80	311.00	188.80	181.00		
10	220.00	281.00	181.00	222.75	181.00	120.00	214.80	128.40	186.20	266.75	178.40	188.80		
11	204.40	290.00	209.60	281.00	178.40	116.00	183.60	132.80	175.80	281.00	191.40	214.80		
12	212.20	281.00	212.20	299.00	181.00	112.00	175.80	146.00	244.75	258.50	191.40	204.40		
13	222.75	253.00	284.00	314.00	170.60	116.00	175.80	175.80	269.50	269.50	231.00	209.60		
14	204.40	266.75	255.75	320.00	181.00	181.00	154.80	281.00	302.00	266.75	225.50	212.20		
15	225.50	261.25	281.00	305.00	186.20	233.75	148.20	275.00	290.00	250.25	222.75	217.40		
16	209.60	296.00	332.00	302.00	183.60	220.00	150.40	287.00	308.00	236.50	196.60	214.80		
17	199.20	320.00	367.50	290.00	168.00	220.00	141.60	281.00	299.00	266.75	236.50	214.80		
18	175.80	317.00	332.00	299.00	157.00	194.00	143.80	305.00	296.00	269.50	220.00	222.75		
19	253.00	338.25	329.00	311.00	157.00	204.40	135.00	281.00	287.00	239.25	204.40	231.00		
20	264.00	329.00	302.00	296.00	163.60	191.40	124.00	266.75	290.00	278.00	199.20	201.80		
21	258.50	364.25	287.00	247.50	183.60	302.00	135.00	247.50	299.00	212.20	214.80	175.80		
22	269.50	332.00	311.00	236.50	212.20	261.25	255.75	255.75	299.00	242.00	196.60	178.40		
23	290.00	335.00	305.00	264.00	220.00	212.20	442.00	247.50	261.25	207.00	214.80	165.80		
24	278.00	323.00	305.00	275.00	233.75	199.20	478.00	242.00	275.00	225.50	204.40	165.80		
25	281.00	329.00	302.00	244.75	231.00	175.80	417.50	220.00	287.00	214.80	209.60	170.60		
26	278.00	302.00	344.75	231.00	220.00	157.00	364.25	247.50	293.00	222.75	196.60	163.60		
27	290.00	305.00	296.00	242.00	204.40	146.00	377.25	233.75	287.00	242.00	181.00	148.20		
28	296.00	290.00	367.50	255.75	207.00	128.40	400.00	239.25	305.00	175.80	175.80	146.00		
29	314.00	305.00	323.00	269.50	217.40	116.00	354.50	233.75	335.00	209.60		132.80		
30	287.00	299.00	348.00	264.00	209.60	128.40	305.00	244.75	357.75	212.20		143.80		
31		338.25		264.00	222.75		255.75		329.00	201.80		122.00		
Total	7187.90	9350.00	8902.70	8110.50	6336.75	5174.70	7393.90	6526.20	8492.60	8198.90	5965.10	5722.15	87361.40	CMSDAY
Mean	239.60	301.61	296.76	261.63	204.41	172.49	238.51	217.54	273.95	264.48	213.04	184.59	239.35	CMS
Max	314.00	364.25	407.00	320.00	275.00	302.00	478.00	305.00	357.75	354.50	253.00	231.00	478.00	CMS
Min	175.80	253.00	181.00	181.00	157.00	104.00	124.00	128.40	175.80	175.80	175.80	122.00	104.00	CMS
Runoff	621.03	807.84	769.19	700.75	547.50	447.09	638.83	563.86	733.76	708.38	515.38	494.39	7548.02	MCM

Momentary Peak 494.00 CMS. at 53.86 m. (MSL.) at 06.00 Hours , on Oct 24 , 2018

Runoff Yield 5.38 Liters/Second/Square KM. Momentary Peak Yield 11.11 Liters/Second/Square KM.

WATER YEAR : 2018

PING RIVER BASIN

Ping River at Ban San Tor , Kamphaeng Phet (P.16)

Lat 16 - 03 - 45 N Long 99 - 51 - 48 E

Location : on right bank behind the Post Office.

Ban San Tor **Amphoe** Khanu Woralaksaburi **Changwat** Kamphaeng Phet

Drainge Area	45,076 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+39.780 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On right bank near the automatic gage building. **Elevation** +46.604 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic mean of 5 readings
Period of Available Gage Records	1954 to date
Rating Operation	
Period of Rating	1960 , 1967 - 1974 , 1990 to date
Rated by Flot	-
Rated by Current Meter	1960 , 1964 - 1975 , 1979 , 1990 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Stage-discharge relation defined by 18 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

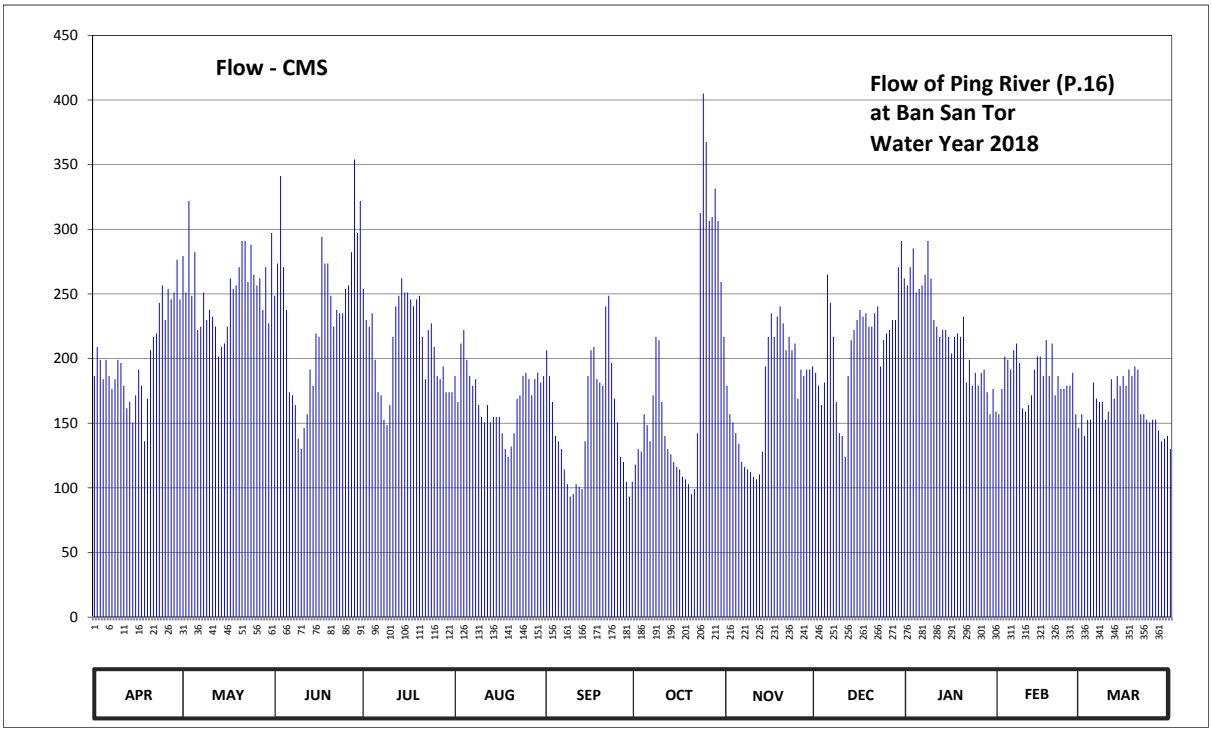
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	40.91	41.26	41.15	41.17	40.91	40.99	40.60	40.88	40.92	41.18	40.79	40.79	
2	41.00	41.16	41.24	41.08	40.83	40.91	40.66	40.79	40.88	41.23	40.87	40.71	
3	40.96	41.40	41.46	41.06	41.01	40.83	40.65	40.76	40.82	41.28	40.97	40.77	
4	40.90	41.15	41.23	41.10	41.05	40.71	40.79	40.72	40.89	41.16	40.96	40.77	
5	40.96	41.27	41.11	40.96	40.96	40.69	40.75	40.68	41.21	41.17	40.93	40.89	
6	40.91	41.05	40.86	40.86	40.91	40.66	40.69	40.61	41.13	41.18	40.99	40.84	
7	40.87	41.06	40.85	40.85	40.88	40.58	40.85	40.59	41.03	41.21	41.01	40.83	
8	40.90	41.16	40.82	40.77	40.90	40.52	41.03	40.58	40.83	41.30	40.95	40.83	
9	40.96	41.08	40.70	40.75	40.82	40.47	41.02	40.57	40.72	41.20	40.81	40.77	
10	40.95	41.11	40.66	40.82	40.78	40.48	40.83	40.55	40.71	41.08	40.80	40.80	
11	40.88	41.09	40.74	41.03	40.76	40.52	40.71	40.54	40.63	41.06	40.82	40.90	
12	40.81	41.06	40.79	41.12	40.82	40.51	40.66	40.56	40.91	41.03	40.85	40.84	
13	40.83	40.97	40.93	41.15	40.76	40.50	40.64	40.65	41.02	41.05	40.93	40.91	
14	40.76	41.00	40.88	41.20	40.78	40.69	40.61	40.94	41.05	41.05	40.97	40.88	
15	40.85	41.01	41.04	41.16	40.78	40.91	40.59	41.03	41.08	41.03	40.97	40.91	
16	40.93	41.06	41.03	41.16	40.78	40.99	40.58	41.10	41.11	40.98	40.91	40.88	
17	40.88	41.20	41.31	41.14	40.72	41.00	40.55	41.03	41.09	41.03	41.02	40.93	
18	40.69	41.17	41.24	41.12	40.66	40.90	40.54	41.09	41.10	41.04	40.91	40.91	
19	40.84	41.18	41.24	41.14	40.63	40.89	40.52	41.12	41.06	41.03	41.01	40.94	
20	40.99	41.23	41.15	41.15	40.67	40.88	40.48	41.07	41.06	41.09	40.85	40.93	
21	41.03	41.30	41.06	41.03	40.72	41.12	40.50	40.99	41.10	40.89	40.91	40.79	
22	41.04	41.30	41.11	40.90	40.84	41.15	40.72	41.03	41.12	40.96	40.87	40.79	
23	41.13	41.19	41.10	41.05	40.85	40.95	41.37	40.99	40.94	40.88	40.87	40.77	
24	41.18	41.29	41.10	41.07	40.91	40.84	41.65	41.01	41.02	40.92	40.88	40.76	
25	41.08	41.21	41.17	41.00	40.92	40.76	41.54	40.84	41.04	40.88	40.88	40.77	
26	41.17	41.18	41.18	40.91	40.90	40.63	41.35	40.93	41.05	40.92	40.92	40.77	
27	41.14	41.20	41.27	40.90	40.85	40.61	41.36	40.91	41.08	40.93	40.79	40.73	
28	41.16	41.11	41.50	40.94	40.90	40.53	41.43	40.93	41.08	40.86	40.74	40.69	
29	41.25	41.23	41.32	40.86	40.92	40.47	41.35	40.93	41.23	40.79		40.70	
30	41.14	41.07	41.40	40.86	40.89	40.53	41.19	40.94	41.30	40.87		40.71	
31		41.32		40.86	40.91		41.03		41.20	40.80		40.66	
Mean	40.97	41.16	41.09	41.01	40.84	40.74	40.88	40.85	41.01	41.03	40.90	40.81	
Max	41.25	41.40	41.50	41.20	41.05	41.15	41.65	41.12	41.30	41.30	41.02	40.94	41.65
Min	40.69	40.97	40.66	40.75	40.63	40.47	40.48	40.54	40.63	40.79	40.74	40.66	40.47

Annual Max Momentary Gage Height 41.66 m. (MSL.) , at 06.00 Hours , on Oct 24 , 2018

Zero Gage at Bottom Elevation 39.78 m. (MSL.) , River Bed 36.99 m. (MSL.)

Left Bank Elevation 45.18 m. (MSL.) ,

Right Bank Elevation 45.70 m. (MSL.) , Drainage Are 45,076 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	186.50	279.40	248.50	253.90	186.50	206.50	118.00	179.00	189.00	256.60	156.90	156.90		
2	209.00	251.20	273.60	229.80	166.50	186.50	130.00	156.90	179.00	270.70	176.50	140.10		
3	199.00	322.00	341.20	224.60	211.60	166.50	128.00	150.60	164.00	285.20	201.50	152.70		
4	184.00	248.50	270.70	235.00	222.00	140.10	156.90	142.20	181.50	251.20	199.00	152.70		
5	199.00	282.30	237.70	199.00	199.00	136.00	148.50	134.00	264.90	253.90	191.50	181.50		
6	186.50	222.00	174.00	174.00	186.50	130.00	136.00	120.00	243.10	256.60	206.50	169.00		
7	176.50	224.60	171.50	171.50	179.00	114.20	171.50	116.10	216.80	264.90	211.60	166.50		
8	184.00	251.20	164.00	152.70	184.00	102.80	216.80	114.20	166.50	291.00	196.50	166.50		
9	199.00	229.80	138.00	148.50	164.00	93.30	214.20	112.30	142.20	262.00	161.50	152.70		
10	196.50	237.70	130.00	164.00	154.80	95.20	166.50	108.50	140.10	229.80	159.00	159.00		
11	179.00	232.40	146.40	216.80	150.60	102.80	140.10	106.60	124.00	224.60	164.00	184.00		
12	161.50	224.60	156.90	240.40	164.00	100.90	130.00	110.40	186.50	216.80	171.50	169.00		
13	166.50	201.50	191.50	248.50	150.60	99.00	126.00	128.00	214.20	222.00	191.50	186.50		
14	150.60	209.00	179.00	262.00	154.80	136.00	120.00	194.00	222.00	222.00	201.50	179.00		
15	171.50	211.60	219.40	251.20	154.80	186.50	116.10	216.80	229.80	216.80	201.50	186.50		
16	191.50	224.60	216.80	251.20	154.80	206.50	114.20	235.00	237.70	204.00	186.50	179.00		
17	179.00	262.00	294.10	245.80	142.20	209.00	108.50	216.80	232.40	216.80	214.20	191.50		
18	136.00	253.90	273.60	240.40	130.00	184.00	106.60	232.40	235.00	219.40	186.50	186.50		
19	169.00	256.60	273.60	245.80	124.00	181.50	102.80	240.40	224.60	216.80	211.60	194.00		
20	206.50	270.70	248.50	248.50	132.00	179.00	95.20	227.20	224.60	232.40	171.50	191.50		
21	216.80	291.00	224.60	216.80	142.20	240.40	99.00	206.50	235.00	181.50	186.50	156.90		
22	219.40	291.00	237.70	184.00	169.00	248.50	142.20	216.80	240.40	199.00	176.50	156.90		
23	243.10	259.30	235.00	222.00	171.50	196.50	312.70	206.50	194.00	179.00	176.50	152.70		
24	256.60	288.10	235.00	227.20	186.50	169.00	405.00	211.60	214.20	189.00	179.00	150.60		
25	229.80	264.90	253.90	209.00	189.00	150.60	367.60	169.00	219.40	179.00	179.00	152.70		
26	253.90	256.60	256.60	186.50	184.00	124.00	306.50	191.50	222.00	189.00	189.00	152.70		
27	245.80	262.00	282.30	184.00	171.50	120.00	309.60	186.50	229.80	191.50	156.90	144.30		
28	251.20	237.70	354.00	194.00	184.00	104.70	331.60	191.50	229.80	174.00	146.40	136.00		
29	276.50	270.70	297.20	174.00	189.00	93.30	306.50	191.50	270.70	156.90		138.00		
30	245.80	227.20	322.00	174.00	181.50	104.70	259.30	194.00	291.00	176.50		140.10		
31		297.20		174.00	186.50		216.80		262.00	159.00		130.00		
Total	6070.00	7841.30	7047.30	6549.10	5266.40	4508.00	5802.70	5206.80	6626.20	6787.90	5150.60	5056.00	71912.30	CMSDAY
Mean	202.33	252.95	234.91	211.26	169.88	150.27	187.18	173.56	213.75	218.96	183.95	163.10	197.02	CMS
Max	276.50	322.00	354.00	262.00	222.00	248.50	405.00	240.40	291.00	291.00	214.20	194.00	405.00	CMS
Min	136.00	201.50	130.00	148.50	124.00	93.30	95.20	106.60	124.00	156.90	146.40	130.00	93.30	CMS
Runoff	524.45	677.49	608.89	565.84	455.02	389.49	501.35	449.87	572.50	586.47	445.01	436.84	6213.22	MCM

Momentary Peak 408.40 CMS. at 41.66 m. (MSL.) at 06.00 Hours , on Oct 24 , 2018

Runoff Yield 4.37 Liters/Second/Square KM. Momentary Peak Yield 9.06 Liters/Second/Square KM.

WATER YEAR : 2018

PING RIVER BASIN

Ping River at Ban Tha Ngiu, Nakhon Sawan (P.17)

Lat 15 - 56 - 02 N Long 99 - 58 - 50 E

Location : on right bank at Som Sieo Market

	Ban Tha Ngiu	**Amphoe** Banphot Phisai	**Changwat** Nakhon Sawan		
Drainge Area	45,297 sq.km.				
Type of Gage	Water - stage recorder				
Zero Gage at Bottom	+0.000 m. (MSL.)				
Bench Mark	B.M.-H.D.				
Location BM	On right bank about 5.00 meters from the top staff gage		**Elevation** +37.900 m. (MSL.)		
Gage Reading Frequency	Recording				
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings				
Period of Available Gage Records	1954 to date				
Rating Operation					
Period of Rating	1960, 1967 - 1974, 1990 to date				
Rated by Flot	-				
Rated by Current Meter	1954 - 1979, 1990 to date				
Stability of Channel Regimes	Fairly stable.				
Overbank Flow Conditions	No overbank flow.				
General Description	Records good. Flow effected by Phumiphol Dam.				
	Stage-discharge relation defined by 31 discharge measurements made in 2018.				

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

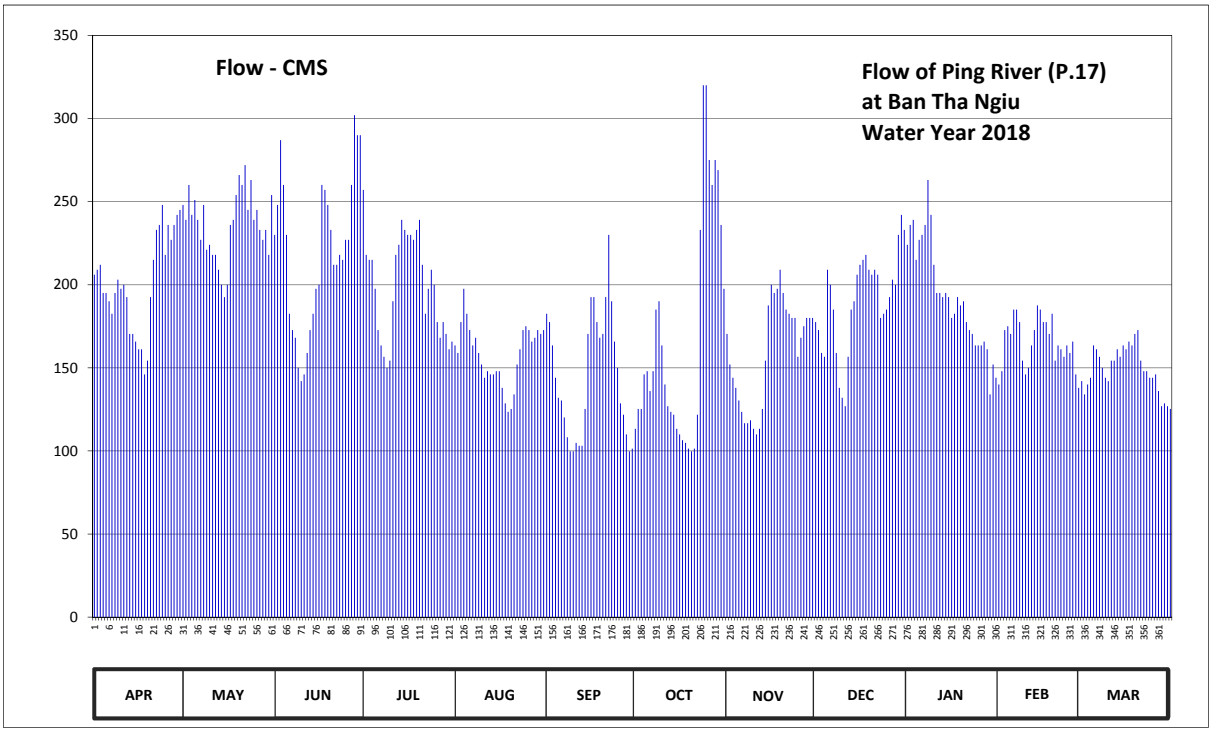
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	35.02	35.16	35.10	35.19	34.85	34.93	34.59	34.88	34.91	35.08	34.74	34.75	
2	35.03	35.13	35.16	35.06	34.83	34.91	34.66	34.80	34.89	35.12	34.78	34.71	
3	35.04	35.20	35.29	35.05	34.91	34.85	34.66	34.76	34.83	35.13	34.89	34.74	
4	34.98	35.14	35.20	35.05	34.99	34.76	34.77	34.73	34.82	35.05	34.90	34.76	
5	34.98	35.17	35.10	34.99	34.93	34.70	34.78	34.69	35.03	35.09	34.88	34.85	
6	34.96	35.13	34.93	34.89	34.89	34.69	34.72	34.65	35.00	35.10	34.94	34.84	
7	34.93	35.09	34.89	34.85	34.85	34.63	34.78	34.61	34.94	35.12	34.94	34.82	
8	34.98	35.16	34.87	34.82	34.87	34.56	34.94	34.61	34.83	35.21	34.91	34.79	
9	35.01	35.07	34.79	34.79	34.83	34.51	34.96	34.62	34.73	35.14	34.81	34.76	
10	34.99	35.08	34.75	34.81	34.80	34.51	34.85	34.59	34.70	35.04	34.77	34.75	
11	35.00	35.06	34.77	34.96	34.76	34.54	34.74	34.57	34.67	34.98	34.79	34.81	
12	34.97	35.06	34.83	35.06	34.78	34.53	34.67	34.59	34.82	34.98	34.85	34.81	
13	34.88	35.03	34.89	35.08	34.77	34.53	34.65	34.66	34.94	34.97	34.89	34.84	
14	34.88	35.00	34.93	35.13	34.77	34.66	34.64	34.81	34.96	34.98	34.95	34.82	
15	34.86	34.97	34.99	35.11	34.78	34.88	34.59	34.95	35.02	34.97	34.94	34.85	
16	34.84	35.00	35.00	35.10	34.78	34.97	34.57	35.00	35.04	34.92	34.91	34.84	
17	34.84	35.12	35.20	35.10	34.73	34.97	34.55	34.98	35.05	34.93	34.91	34.86	
18	34.77	35.13	35.19	35.09	34.68	34.91	34.54	34.99	35.06	34.97	34.88	34.85	
19	34.81	35.18	35.16	35.11	34.65	34.87	34.52	35.03	35.03	34.95	34.93	34.88	
20	34.97	35.22	35.11	35.13	34.66	34.88	34.51	34.98	35.02	34.96	34.81	34.89	
21	35.05	35.20	35.04	35.04	34.71	34.97	34.52	34.94	35.03	34.91	34.85	34.81	
22	35.11	35.24	35.04	34.93	34.80	35.10	34.64	34.93	35.02	34.89	34.84	34.78	
23	35.12	35.15	35.06	34.99	34.84	34.96	35.11	34.92	34.92	34.88	34.82	34.78	
24	35.16	35.21	35.05	35.03	34.89	34.86	35.40	34.92	34.93	34.85	34.85	34.76	
25	35.06	35.13	35.09	35.00	34.90	34.79	35.40	34.82	34.94	34.85	34.83	34.76	
26	35.12	35.15	35.09	34.91	34.89	34.68	35.25	34.87	34.97	34.85	34.86	34.77	
27	35.09	35.11	35.20	34.87	34.86	34.64	35.20	34.90	35.01	34.86	34.77	34.72	
28	35.12	35.09	35.34	34.91	34.87	34.57	35.25	34.92	35.00	34.84	34.73	34.67	
29	35.14	35.11	35.30	34.88	34.89	34.51	35.23	34.92	35.10	34.71		34.68	
30	35.15	35.06	35.30	34.84	34.88	34.52	35.12	34.92	35.14	34.80		34.67	
31		35.18		34.86	34.89		35.20		35.11	34.76		34.66	
Mean	35.00	35.12	35.06	34.99	34.82	34.75	34.84	34.82	34.95	34.96	34.86	34.78	
Max	35.16	35.24	35.34	35.19	34.99	35.10	35.40	35.03	35.14	35.21	34.95	34.89	35.40
Min	34.77	34.97	34.75	34.79	34.65	34.51	34.51	34.57	34.67	34.71	34.73	34.66	34.51

Annual Max Momentary Gage Height 35.44 m. (MSL.) , at 17.00 Hours , on Oct 24 , 2018

Zero Gage at Bottom Elevation 0.00 m. (MSL.) , River Bed 30.63 m. (MSL.)

Left Bank Elevation 38.71 m. (MSL.) ,

Right Bank Elevation 38.87 m. (MSL.) , Drainage Are 45,297 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	206.00	248.00	230.00	257.00	163.50	182.50	113.30	170.40	177.50	224.00	140.00	142.00		
2	209.00	239.00	248.00	218.00	158.90	177.50	125.20	152.00	172.70	236.00	148.00	134.00		
3	212.00	260.00	287.00	215.00	177.50	163.50	125.20	144.00	158.90	239.00	172.70	140.00		
4	195.00	242.00	260.00	215.00	197.50	144.00	146.00	138.00	156.60	215.00	175.00	144.00		
5	195.00	251.00	230.00	197.50	182.50	132.00	148.00	130.30	209.00	227.00	170.40	163.50		
6	190.00	239.00	182.50	172.70	172.70	130.30	136.00	123.50	200.00	230.00	185.00	161.20		
7	182.50	227.00	172.70	163.50	163.50	120.10	148.00	116.70	185.00	236.00	185.00	156.60		
8	195.00	248.00	168.10	156.60	168.10	108.20	185.00	116.70	158.90	263.00	177.50	150.00		
9	203.00	221.00	150.00	150.00	158.90	99.70	190.00	118.40	138.00	242.00	154.30	144.00		
10	197.50	224.00	142.00	154.30	152.00	99.70	163.50	113.30	132.00	212.00	146.00	142.00		
11	200.00	218.00	146.00	190.00	144.00	104.80	140.00	109.90	126.90	195.00	150.00	154.30		
12	192.50	218.00	158.90	218.00	148.00	103.10	126.90	113.30	156.60	195.00	163.50	154.30		
13	170.40	209.00	172.70	224.00	146.00	103.10	123.50	125.20	185.00	192.50	172.70	161.20		
14	170.40	200.00	182.50	239.00	146.00	125.20	121.80	154.30	190.00	195.00	187.50	156.60		
15	165.80	192.50	197.50	233.00	148.00	170.40	113.30	187.50	206.00	192.50	185.00	163.50		
16	161.20	200.00	200.00	230.00	148.00	192.50	109.90	200.00	212.00	180.00	177.50	161.20		
17	161.20	236.00	260.00	230.00	138.00	192.50	106.50	195.00	215.00	182.50	177.50	165.80		
18	146.00	239.00	257.00	227.00	128.60	177.50	104.80	197.50	218.00	192.50	170.40	163.50		
19	154.30	254.00	248.00	233.00	123.50	168.10	101.40	209.00	209.00	187.50	182.50	170.40		
20	192.50	266.00	233.00	239.00	125.20	170.40	99.70	195.00	206.00	190.00	154.30	172.70		
21	215.00	260.00	212.00	212.00	134.00	192.50	101.40	185.00	209.00	177.50	163.50	154.30		
22	233.00	272.00	212.00	182.50	152.00	230.00	121.80	182.50	206.00	172.70	161.20	148.00		
23	236.00	245.00	218.00	197.50	161.20	190.00	233.00	180.00	180.00	170.40	156.60	148.00		
24	248.00	263.00	215.00	209.00	172.70	165.80	320.00	180.00	182.50	163.50	163.50	144.00		
25	218.00	239.00	227.00	200.00	175.00	150.00	320.00	156.60	185.00	163.50	158.90	144.00		
26	236.00	245.00	227.00	177.50	172.70	128.60	275.00	168.10	192.50	163.50	165.80	146.00		
27	227.00	233.00	260.00	168.10	165.80	121.80	260.00	175.00	203.00	165.80	146.00	136.00		
28	236.00	227.00	302.00	177.50	168.10	109.90	275.00	180.00	200.00	161.20	138.00	126.90		
29	242.00	233.00	290.00	170.40	172.70	99.70	269.00	180.00	230.00	134.00		128.60		
30	245.00	218.00	290.00	161.20	170.40	101.40	236.00	180.00	242.00	152.00		126.90		
31		254.00		165.80	172.70		197.50		233.00	144.00		125.20		
Total	6035.30	7320.50	6578.90	6184.10	4907.70	4354.80	5236.70	4777.20	5876.10	5994.60	4628.30	4628.70	66522.90	CMSDAY
Mean	201.18	236.15	219.30	199.49	158.31	145.16	168.93	159.24	189.55	193.37	165.30	149.31	182.25	CMS
Max	248.00	272.00	302.00	257.00	197.50	230.00	320.00	209.00	242.00	263.00	187.50	172.70	320.00	CMS
Min	146.00	192.50	142.00	150.00	123.50	99.70	99.70	109.90	126.90	134.00	138.00	125.20	99.70	CMS
Runoff	521.45	632.49	568.42	534.31	424.03	376.25	452.45	412.75	507.70	517.93	399.89	399.92	5747.58	MCM

Momentary Peak 332.00 CMS. at 35.44 m. (MSL.) at 17.00 Hours , on Oct 24, 2018

Runoff Yield 4.02 Liters/Second/Square KM. Momentary Peak Yield 7.33 Liters/Second/Square KM.

WATER YEAR : 2018

PING RIVER BASIN

Ping River at Ban Chiang Dao , Chiang Mai (P.20)

Lat 19 - 21 - 58 N Long 98 - 58 - 21 E

Location : on right bank near War Inthra Ram.

Ban Chiang Dao **Amphoe** Chiang Dao **Changwat** Chiang Mai

Drainge Area	1,345 sq.km.
Type of Gage	Water - stage recorder.
Zero Gage at Bottom	+379.900 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	About 2 meters from automatic gage building. **Elevation** +384.033 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	1954 to date
Rating Operation	
Period of Rating	1979 - 1982 , 1989 to date
Rated by Flot	-
Rated by Current Meter	1979 - 1982 , 1989 to date
Stability of Channel Regimes	Fairly stable because of backwater effect.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. Flow effected by the local weir about 300 meters downstream from the gage site. Stage-discharge relation defined by 30 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

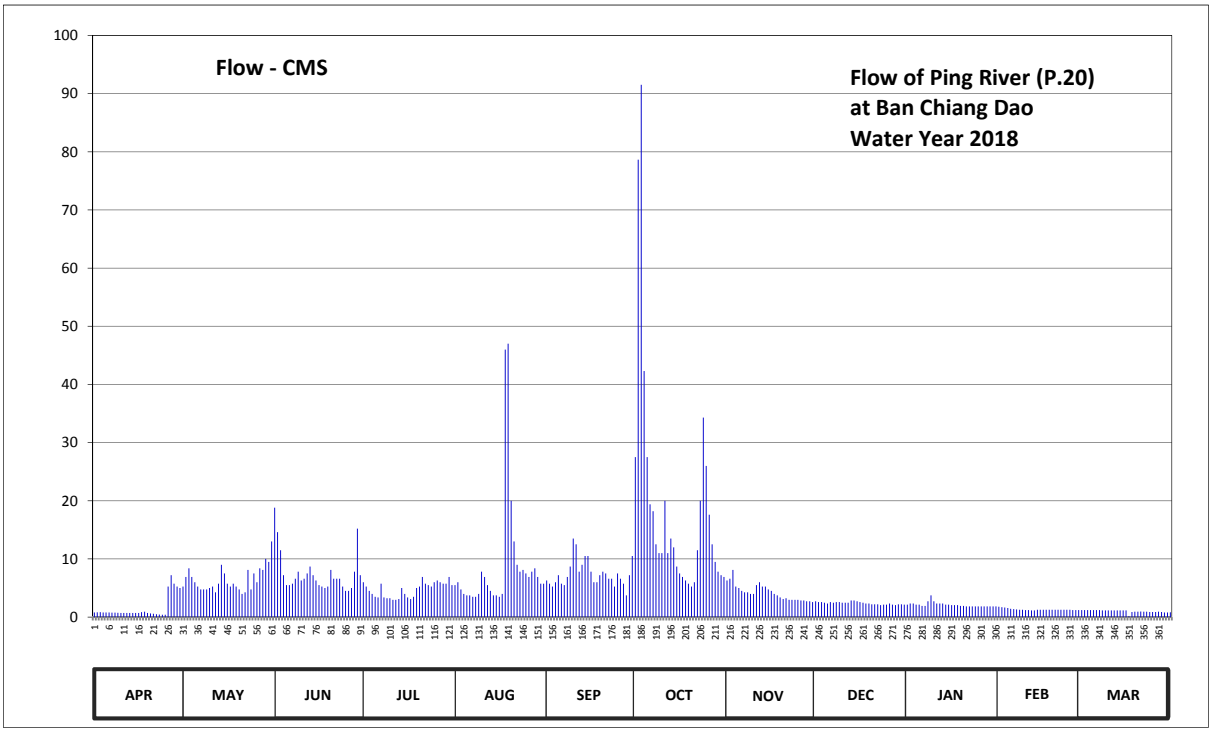
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	380.30	380.17	380.48	380.20	380.18	380.21	380.60	380.21	380.04	379.99	379.94	379.85	
2	380.31	380.23	380.41	380.17	380.20	380.19	381.13	380.22	380.03	380.01	379.93	379.85	
3	380.32	380.28	380.35	380.14	380.15	380.17	381.25	380.27	380.03	380.01	379.92	379.85	
4	380.30	380.23	380.24	380.12	380.12	380.20	380.77	380.17	380.02	379.99	379.91	379.85	
5	380.30	380.20	380.18	380.10	380.11	380.24	380.60	380.16	380.01	379.99	379.89	379.85	
6	380.30	380.17	380.18	380.09	380.11	380.19	380.49	380.14	380.03	379.96	379.88	379.85	
7	380.29	380.15	380.19	380.19	380.10	380.18	380.47	380.13	380.02	379.96	379.87	379.85	
8	380.28	380.15	380.22	380.09	380.10	380.23	380.37	380.13	380.03	380.04	379.86	379.84	
9	380.27	380.15	380.26	380.08	380.12	380.29	380.34	380.12	380.03	380.11	379.86	379.84	
10	380.26	380.16	380.21	380.08	380.26	380.39	380.34	380.12	380.02	380.04	379.85	379.84	
11	380.26	380.17	380.22	380.06	380.23	380.37	380.50	380.18	380.02	380.01	379.85	379.84	
12	380.25	380.13	380.25	380.06	380.18	380.26	380.34	380.20	380.02	380.01	379.84	379.84	
13	380.25	380.19	380.29	380.07	380.14	380.30	380.39	380.17	380.05	380.01	379.84	379.84	
14	380.25	380.30	380.24	380.16	380.11	380.33	380.36	380.17	380.05	379.99	379.86	379.84	
15	380.25	380.25	380.21	380.12	380.11	380.33	380.29	380.15	380.04	379.99	379.86	379.84	
16	380.26	380.19	380.18	380.09	380.10	380.26	380.25	380.14	380.03	379.98	379.86	379.84	
17	380.32	380.17	380.17	380.07	380.12	380.20	380.23	380.12	380.02	379.98	379.86	379.97	
18	380.34	380.19	380.16	380.10	380.81	380.20	380.21	380.11	380.01	379.98	379.86	380.33	
19	380.25	380.17	380.17	380.16	380.82	380.24	380.19	380.09	380.01	379.96	379.86	380.34	
20	380.22	380.15	380.27	380.17	380.50	380.26	380.17	380.07	380.00	379.96	379.86	380.34	
21	380.19	380.12	380.22	380.23	380.38	380.25	380.20	380.08	380.00	379.95	379.86	380.35	
22	380.14	380.13	380.22	380.19	380.30	380.22	380.35	380.06	380.00	379.95	379.86	380.34	
23	380.12	380.27	380.22	380.18	380.26	380.22	380.50	380.06	379.98	379.95	379.86	380.34	
24	380.10	380.15	380.17	380.17	380.27	380.17	380.68	380.06	379.99	379.95	379.86	380.33	
25	380.10	380.25	380.14	380.20	380.25	380.25	380.58	380.06	379.99	379.95	379.86	380.33	
26	380.17	380.20	380.14	380.21	380.23	380.22	380.46	380.05	380.01	379.95	379.85	380.33	
27	380.24	380.28	380.16	380.20	380.26	380.19	380.37	380.05	379.99	379.95	379.85	380.34	
28	380.19	380.27	380.26	380.19	380.28	380.11	380.31	380.04	379.98	379.95	379.85	380.33	
29	380.17	380.32	380.42	380.19	380.23	380.24	380.26	380.04	380.00	379.95		380.30	
30	380.16	380.31	380.24	380.23	380.19	380.33	380.24	380.03	380.00	379.95		380.30	
31		380.38		380.18	380.19		380.23		379.99	379.95		380.31	
Mean	380.24	380.21	380.24	380.14	380.24	380.24	380.43	380.12	380.01	379.98	379.87	380.07	
Max	380.34	380.38	380.48	380.23	380.82	380.39	381.25	380.27	380.05	380.11	379.94	380.35	381.25
Min	380.10	380.12	380.14	380.06	380.10	380.11	380.17	380.03	379.98	379.95	379.84	379.84	379.84

Annual Max Momentary Gage Height 381.68 m. (MSL.) , at 02.00 Hours , on Oct 3 , 2018

Zero Gage at Bottom Elevation 379.90 m. (MSL.) , River Bed 378.60 m. (MSL.)

Left Bank Elevation 385.62 m. (MSL.) ,

Right Bank Elevation 386.72 m. (MSL.) , Drainage Are 1,345 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.80	5.25	18.80	6.00	5.50	6.30	27.50	6.30	2.72	2.13	1.78	1.20		
2	0.83	6.90	14.60	5.25	6.00	5.75	78.65	6.60	2.59	2.33	1.71	1.20		
3	0.86	8.40	11.50	4.50	4.75	5.25	91.50	8.10	2.59	2.33	1.64	1.20		
4	0.80	6.90	7.20	4.00	4.00	6.00	42.30	5.25	2.46	2.13	1.57	1.20		
5	0.80	6.00	5.50	3.50	3.75	7.20	27.50	5.00	2.33	2.13	1.44	1.20		
6	0.80	5.25	5.50	3.37	3.75	5.75	19.40	4.50	2.59	1.92	1.38	1.20		
7	0.78	4.75	5.75	5.75	3.50	5.50	18.20	4.25	2.46	1.92	1.32	1.20		
8	0.76	4.75	6.60	3.37	3.50	6.90	12.50	4.25	2.59	2.72	1.26	1.14		
9	0.74	4.75	7.80	3.24	4.00	8.70	11.00	4.00	2.59	3.75	1.26	1.14		
10	0.72	5.00	6.30	3.24	7.80	13.50	11.00	4.00	2.46	2.72	1.20	1.14		
11	0.72	5.25	6.60	2.98	6.90	12.50	20.00	5.50	2.46	2.33	1.20	1.14		
12	0.70	4.25	7.50	2.98	5.50	7.80	11.00	6.00	2.46	2.33	1.14	1.14		
13	0.70	5.75	8.70	3.11	4.50	9.00	13.50	5.25	2.85	2.33	1.14	1.14		
14	0.70	9.00	7.20	5.00	3.75	10.50	12.00	5.25	2.85	2.13	1.26	1.14		
15	0.70	7.50	6.30	4.00	3.75	10.50	8.70	4.75	2.72	2.13	1.26	1.14		
16	0.72	5.75	5.50	3.37	3.50	7.80	7.50	4.50	2.59	2.06	1.26	1.14		
17	0.86	5.25	5.25	3.11	4.00	6.00	6.90	4.00	2.46	2.06	1.26	0.17		
18	0.92	5.75	5.00	3.50	46.00	6.00	6.30	3.75	2.33	2.06	1.26	0.89		
19	0.70	5.25	5.25	5.00	47.00	7.20	5.75	3.37	2.33	1.92	1.26	0.92		
20	0.64	4.75	8.10	5.25	20.00	7.80	5.25	3.11	2.20	1.92	1.26	0.92		
21	0.58	4.00	6.60	6.90	13.00	7.50	6.00	3.24	2.20	1.85	1.26	0.95		
22	0.48	4.25	6.60	5.75	9.00	6.60	11.50	2.98	2.20	1.85	1.26	0.92		
23	0.44	8.10	6.60	5.50	7.80	6.60	20.00	2.98	2.06	1.85	1.26	0.92		
24	0.40	4.75	5.25	5.25	8.10	5.25	34.30	2.98	2.13	1.85	1.26	0.89		
25	0.40	7.50	4.50	6.00	7.50	7.50	26.00	2.98	2.13	1.85	1.26	0.89		
26	5.25	6.00	4.50	6.30	6.90	6.60	17.60	2.85	2.33	1.85	1.20	0.89		
27	7.20	8.40	5.00	6.00	7.80	5.75	12.50	2.85	2.13	1.85	1.20	0.92		
28	5.75	8.10	7.80	5.75	8.40	3.75	9.50	2.72	2.06	1.85	1.20	0.89		
29	5.25	10.00	15.20	5.75	6.90	7.20	7.80	2.72	2.20	1.85		0.80		
30	5.00	9.50	7.20	6.90	5.75	10.50	7.20	2.59	2.20	1.85		0.80		
31		13.00		5.50	5.75		6.90		2.13	1.85		0.83		
Total	46.00	200.05	224.20	146.12	278.35	223.20	595.75	126.62	74.40	65.70	36.76	31.26	2048.41	CMSDAY
Mean	1.53	6.45	7.47	4.71	8.98	7.44	19.22	4.22	2.40	2.12	1.31	1.01	5.61	CMS
Max	7.20	13.00	18.80	6.90	47.00	13.50	91.50	8.10	2.85	3.75	1.78	1.20	91.50	CMS
Min	0.40	4.00	4.50	2.98	3.50	3.75	5.25	2.59	2.06	1.85	1.14	0.17	0.17	CMS
Runoff	3.97	17.28	19.37	12.62	24.05	19.28	51.47	10.94	6.43	5.68	3.18	2.70	176.98	MCM

Momentary Peak 139.90 CMS. at 381.68 m. (MSL.) at 02.00 Hours , on Oct 3 , 2018

Runoff Yield 4.17 Liters/Second/Square KM. Momentary Peak Yield 104.01 Liters/Second/Square KM.

WATER YEAR : 2018

PING RIVER BASIN

Nam Mae Rim at Ban Mae Rim Tai , Chiang Mai (P.21)

Lat 18 - 55 - 45 N Long 98 - 56 - 40 E

Location : on left bank about 100 meters downstream from the bridge of Chiang Mai - Fang Highway.

Ban Mae Rim Tai **Amphoe** Mae Rim **Changwat** Chiang Mai

Drainge Area	452 sq.km.
Type of Gage	Water - stage recorder.
Zero Gage at Bottom	+319.700 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	In the vicinity of gage observer's house. **Elevation** +325.270 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	1954 to date
Rating Operation	
Period of Rating	1954 - 1960 , 1977 to date
Rated by Flot	-
Rated by Current Meter	1954 - 1960 , 1977 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Stage-discharge relation defined by 31 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

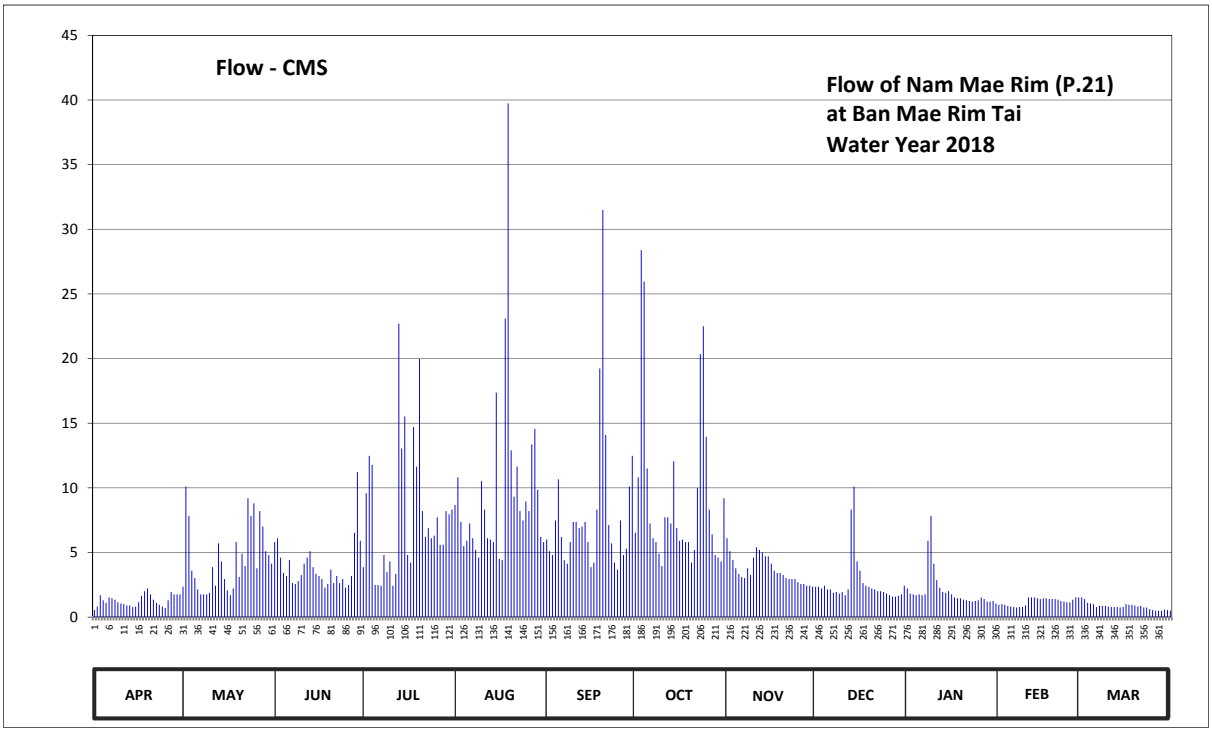
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	320.21	320.55	320.94	320.74	321.19	320.96	321.01	320.97	320.55	320.53	320.31	320.42	
2	320.28	321.30	320.97	321.26	321.35	320.87	321.35	320.87	320.55	320.47	320.32	320.40	
3	320.45	321.12	320.82	321.47	321.08	320.84	322.34	320.80	320.53	320.46	320.31	320.34	
4	320.38	320.71	320.69	321.42	320.91	321.09	322.23	320.73	320.56	320.45	320.29	320.33	
5	320.34	320.64	320.66	320.57	320.95	321.34	321.40	320.68	320.52	320.46	320.28	320.32	
6	320.42	320.52	320.80	320.57	321.07	320.98	321.07	320.65	320.52	320.45	320.27	320.27	
7	320.41	320.46	320.59	320.56	320.97	320.80	320.97	320.64	320.48	320.46	320.26	320.29	
8	320.39	320.46	320.58	320.84	320.88	320.77	320.94	320.73	320.49	320.95	320.27	320.29	
9	320.35	320.46	320.61	320.70	320.82	320.94	320.85	320.67	320.47	321.12	320.27	320.29	
10	320.33	320.48	320.67	320.79	321.33	321.08	320.75	320.82	320.49	320.77	320.30	320.28	
11	320.32	320.74	320.77	320.56	321.16	321.08	321.11	320.90	320.45	320.62	320.42	320.27	
12	320.30	320.56	320.82	320.68	320.97	321.04	321.11	320.88	320.52	320.54	320.42	320.27	
13	320.30	320.93	320.87	322.07	320.96	321.05	321.07	320.86	321.16	320.49	320.42	320.27	
14	320.27	320.79	320.74	321.51	320.94	321.08	321.44	320.83	321.30	320.48	320.41	320.26	
15	320.28	320.63	320.68	321.67	321.78	320.94	321.04	320.83	320.79	320.50	320.40	320.27	
16	320.35	320.51	320.66	320.84	320.81	320.74	320.95	320.77	320.71	320.46	320.41	320.32	
17	320.44	320.45	320.63	320.78	320.80	320.78	320.96	320.71	320.59	320.42	320.41	320.31	
18	320.50	320.53	320.54	321.62	322.09	321.16	320.94	320.69	320.56	320.41	320.40	320.31	
19	320.53	320.94	320.58	321.41	322.83	321.89	320.94	320.69	320.55	320.41	320.40	320.30	
20	320.46	320.65	320.72	321.93	321.50	322.48	320.78	320.67	320.53	320.39	320.40	320.28	
21	320.39	320.85	320.59	321.15	321.24	321.58	320.88	320.64	320.52	320.38	320.39	320.29	
22	320.34	320.75	320.66	320.98	321.41	321.06	321.29	320.63	320.50	320.37	320.37	320.26	
23	320.31	321.23	320.59	321.04	321.15	320.93	321.95	320.63	320.50	320.36	320.36	320.26	
24	320.28	321.12	320.63	320.97	321.09	320.78	322.06	320.63	320.49	320.37	320.35	320.23	
25	320.25	321.20	320.54	320.99	321.21	320.72	321.57	320.60	320.47	320.38	320.35	320.21	
26	320.38	320.73	320.57	321.11	321.15	321.09	321.16	320.58	320.45	320.42	320.39	320.20	
27	320.49	321.15	320.66	320.92	321.53	320.84	321.00	320.58	320.43	320.40	320.42	320.20	
28	320.46	321.05	321.01	320.92	321.61	320.89	320.84	320.56	320.43	320.36	320.42	320.20	
29	320.46	320.87	321.38	321.15	321.28	321.30	320.82	320.56	320.44	320.36		320.22	
30	320.46	320.84	320.95	321.13	320.98	321.47	320.79	320.55	320.46	320.37		320.21	
31		320.77		321.16	320.94		321.23		320.56	320.33		320.20	
Mean	320.37	320.77	320.73	321.08	321.23	321.09	321.19	320.71	320.57	320.48	320.36	320.28	
Max	320.53	321.30	321.38	322.07	322.83	322.48	322.34	320.97	321.30	321.12	320.42	320.42	322.83
Min	320.21	320.45	320.54	320.56	320.80	320.72	320.75	320.55	320.43	320.33	320.26	320.20	320.20

Annual Max Momentary Gage Height 323.16 m. (MSL.) , at 07.00 Hours , on Aug 19 , 2018

Zero Gage at Bottom Elevation 319.70 m. (MSL.) , River Bed 319.57 m. (MSL.)

Left Bank Elevation 325.15 m. (MSL.) ,

Right Bank Elevation 325.15 m. (MSL.) , Drainage Are 452 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.54	2.35	5.80	3.86	8.68	6.00	6.52	6.10	2.35	2.21	0.95	1.52		
2	0.82	10.10	6.10	9.58	10.80	5.10	10.80	5.10	2.35	1.82	1.00	1.40		
3	1.70	7.84	4.60	12.48	7.36	4.80	28.38	4.40	2.21	1.76	0.95	1.10		
4	1.30	3.59	3.42	11.78	5.50	7.48	25.96	3.77	2.42	1.70	0.86	1.05		
5	1.10	3.02	3.18	2.49	5.90	10.66	11.50	3.34	2.14	1.76	0.82	1.00		
6	1.52	2.14	4.40	2.49	7.24	6.20	7.24	3.10	2.14	1.70	0.78	0.78		
7	1.46	1.76	2.63	2.42	6.10	4.40	6.10	3.02	1.88	1.76	0.74	0.86		
8	1.35	1.76	2.56	4.80	5.20	4.13	5.80	3.77	1.94	5.90	0.78	0.86		
9	1.15	1.76	2.78	3.50	4.60	5.80	4.90	3.26	1.82	7.84	0.78	0.86		
10	1.05	1.88	3.26	4.31	10.52	7.36	3.95	4.60	1.94	4.13	0.90	0.82		
11	1.00	3.86	4.13	2.42	8.32	7.36	7.72	5.40	1.70	2.86	1.52	0.78		
12	0.90	2.42	4.60	3.34	6.10	6.88	7.72	5.20	2.14	2.28	1.52	0.78		
13	0.90	5.70	5.10	22.70	6.00	7.00	7.24	5.00	8.32	1.94	1.52	0.78		
14	0.78	4.31	3.86	13.05	5.80	7.36	12.06	4.70	10.10	1.88	1.46	0.74		
15	0.82	2.94	3.34	15.52	17.36	5.80	6.88	4.70	4.31	2.00	1.40	0.78		
16	1.15	2.07	3.18	4.80	4.50	3.86	5.90	4.13	3.59	1.76	1.46	1.00		
17	1.64	1.70	2.94	4.22	4.40	4.22	6.00	3.59	2.63	1.52	1.46	0.95		
18	2.00	2.21	2.28	14.72	23.10	8.32	5.80	3.42	2.42	1.46	1.40	0.95		
19	2.21	5.80	2.56	11.64	39.75	19.23	5.80	3.42	2.35	1.46	1.40	0.90		
20	1.76	3.10	3.68	19.97	12.90	31.50	4.22	3.26	2.21	1.35	1.40	0.82		
21	1.35	4.90	2.63	8.20	9.32	14.10	5.20	3.02	2.14	1.30	1.35	0.86		
22	1.10	3.95	3.18	6.20	11.64	7.12	9.97	2.94	2.00	1.25	1.25	0.74		
23	0.95	9.19	2.63	6.88	8.20	5.70	20.35	2.94	2.00	1.20	1.20	0.74		
24	0.82	7.84	2.94	6.10	7.48	4.22	22.50	2.94	1.94	1.25	1.15	0.62		
25	0.70	8.80	2.28	6.30	8.93	3.68	13.95	2.70	1.82	1.30	1.15	0.54		
26	1.30	3.77	2.49	7.72	8.20	7.48	8.32	2.56	1.70	1.52	1.35	0.50		
27	1.94	8.20	3.18	5.60	13.35	4.80	6.40	2.56	1.58	1.40	1.52	0.50		
28	1.76	7.00	6.52	5.60	14.56	5.30	4.80	2.42	1.58	1.20	1.52	0.50		
29	1.76	5.10	11.22	8.20	9.84	10.10	4.60	2.42	1.64	1.20		0.58		
30	1.76	4.80	5.90	7.96	6.20	12.48	4.31	2.35	1.76	1.25		0.54		
31		4.13		8.32	5.80		9.19		2.42	1.05		0.50		
Total	38.59	137.99	117.37	247.17	303.65	238.44	290.08	110.13	81.54	63.01	33.59	25.35	1686.91	CMSDAY
Mean	1.29	4.45	3.91	7.97	9.80	7.95	9.36	3.67	2.63	2.03	1.20	0.82	4.62	CMS
Max	2.21	10.10	11.22	22.70	39.75	31.50	28.38	6.10	10.10	7.84	1.52	1.52	39.75	CMS
Min	0.54	1.70	2.28	2.42	4.40	3.68	3.95	2.35	1.58	1.05	0.74	0.50	0.50	CMS
Runoff	3.33	11.92	10.14	21.36	26.24	20.60	25.06	9.52	7.05	5.44	2.90	2.19	145.75	MCM

Momentary Peak 48.08 CMS. at 323.16 m. (MSL.) at 07.00 Hours , on Aug 19 , 2018

Runoff Yield 10.22 Liters/Second/Square KM. Momentary Peak Yield 106.37 Liters/Second/Square KM.

WATER YEAR : 2018

PING RIVER BASIN

Nam Mae Klang at Pracha Uthit Bridge , Chiang Mai (P.24A)

Lat 18 - 24 - 56 N Long 98 - 40 - 11 E

Location : on left bank at Pracha Uthit Bridge.

	Ban Pracha Uthit Bridge	**Amphoe** Chom Thong	**Changwat** Chiang Mai
Drainge Area	452 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+275.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	near the gage observer's house.		**Elevation** +277.954 m. (MSL.)
Gage Reading Frequency	3-time daily reading at 06.00, 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic mean of 3 readings		
Period of Available Gage Records	1973 to date		
Rating Operation			
Period of Rating	1973 to date		
Rated by Flot	-		
Rated by Current Meter	1973 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 31 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

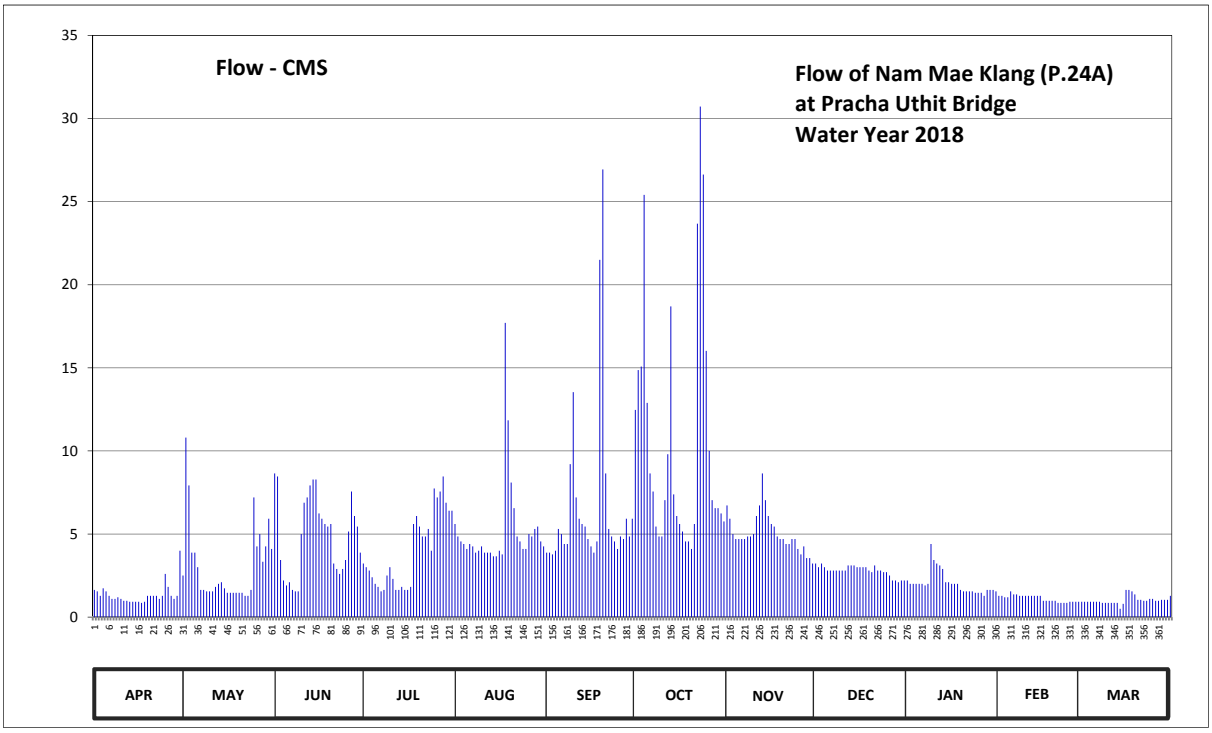
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	275.36	275.45	275.88	275.52	275.70	275.58	276.07	275.77	275.52	275.42	275.32	275.27	
2	275.35	275.99	275.87	275.50	275.65	275.58	276.18	275.72	275.50	275.40	275.32	275.27	
3	275.32	275.84	275.54	275.48	275.63	275.57	276.19	275.66	275.52	275.40	275.31	275.27	
4	275.37	275.58	275.42	275.44	275.62	275.59	276.59	275.64	275.50	275.40	275.31	275.27	
5	275.35	275.58	275.39	275.40	275.60	275.68	276.09	275.64	275.48	275.40	275.35	275.27	
6	275.32	275.50	275.41	275.38	275.62	275.66	275.88	275.64	275.48	275.40	275.33	275.27	
7	275.30	275.36	275.36	275.35	275.61	275.62	275.82	275.64	275.48	275.39	275.33	275.27	
8	275.30	275.36	275.35	275.36	275.58	275.62	275.69	275.65	275.48	275.40	275.32	275.26	
9	275.31	275.35	275.35	275.45	275.59	275.91	275.65	275.65	275.48	275.62	275.32	275.26	
10	275.30	275.35	275.66	275.50	275.61	276.12	275.65	275.66	275.48	275.54	275.32	275.26	
11	275.28	275.35	275.78	275.43	275.58	275.80	275.79	275.73	275.48	275.52	275.32	275.26	
12	275.28	275.38	275.80	275.36	275.58	275.72	275.94	275.77	275.51	275.51	275.32	275.26	
13	275.27	275.40	275.84	275.36	275.58	275.70	276.34	275.88	275.51	275.49	275.32	275.26	
14	275.27	275.41	275.86	275.38	275.56	275.69	275.81	275.79	275.51	275.41	275.32	275.20	
15	275.27	275.37	275.86	275.36	275.56	275.64	275.73	275.73	275.50	275.41	275.32	275.25	
16	275.27	275.34	275.74	275.36	275.59	275.61	275.70	275.70	275.50	275.40	275.28	275.36	
17	275.26	275.34	275.72	275.38	275.57	275.58	275.67	275.69	275.50	275.40	275.28	275.36	
18	275.27	275.34	275.70	275.70	276.30	275.63	275.63	275.65	275.50	275.40	275.28	275.35	
19	275.32	275.34	275.69	275.73	276.04	276.45	275.63	275.64	275.48	275.36	275.28	275.33	
20	275.32	275.34	275.70	275.69	275.85	276.64	275.60	275.64	275.47	275.35	275.28	275.29	
21	275.32	275.34	275.52	275.65	275.76	275.88	275.70	275.62	275.51	275.35	275.26	275.29	
22	275.32	275.32	275.49	275.65	275.65	275.68	276.53	275.62	275.48	275.35	275.26	275.28	
23	275.30	275.32	275.46	275.68	275.63	275.65	276.76	275.64	275.48	275.35	275.26	275.28	
24	275.32	275.36	275.49	275.59	275.60	275.63	276.63	275.64	275.47	275.34	275.26	275.30	
25	275.46	275.80	275.54	275.83	275.60	275.60	276.23	275.60	275.47	275.34	275.27	275.30	
26	275.38	275.61	275.67	275.80	275.66	275.65	275.95	275.57	275.45	275.34	275.27	275.28	
27	275.32	275.66	275.82	275.82	275.65	275.64	275.79	275.61	275.42	275.32	275.27	275.28	
28	275.30	275.53	275.73	275.87	275.68	275.72	275.76	275.55	275.42	275.36	275.27	275.29	
29	275.32	275.61	275.69	275.78	275.69	275.65	275.76	275.55	275.41	275.36		275.29	
30	275.59	275.72	275.58	275.75	275.63	275.72	275.74	275.52	275.42	275.36		275.29	
31		275.60		275.75	275.61		275.71		275.42	275.35		275.32	
Mean	275.32	275.48	275.63	275.56	275.66	275.74	275.94	275.66	275.48	275.40	275.30	275.28	
Max	275.59	275.99	275.88	275.87	276.30	276.64	276.76	275.88	275.52	275.62	275.35	275.36	276.76
Min	275.26	275.32	275.35	275.35	275.56	275.57	275.60	275.52	275.41	275.32	275.26	275.20	275.20

Annual Max Momentary Gage Height 277.46 m. (MSL.) , at 05.00 Hours , on Oct 4 , 2018

Zero Gage at Bottom Elevation 275.00 m. (MSL.) , River Bed 274.80 m. (MSL.)

Left Bank Elevation 280.23 m. (MSL.) ,

Right Bank Elevation 280.04 m. (MSL.) , Drainage Are 452 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.64	2.50	8.64	3.22	5.60	3.88	12.47	6.72	3.22	2.20	1.28	0.92		
2	1.55	10.80	8.46	3.00	4.85	3.88	14.86	5.92	3.00	2.00	1.28	0.92		
3	1.28	7.92	3.44	2.80	4.55	3.77	15.08	5.00	3.22	2.00	1.19	0.92		
4	1.73	3.88	2.20	2.40	4.40	3.99	25.41	4.70	3.00	2.00	1.19	0.92		
5	1.55	3.88	1.91	2.00	4.10	5.30	12.89	4.70	2.80	2.00	1.55	0.92		
6	1.28	3.00	2.10	1.82	4.40	5.00	8.64	4.70	2.80	2.00	1.37	0.92		
7	1.10	1.64	1.64	1.55	4.25	4.40	7.56	4.70	2.80	1.91	1.37	0.92		
8	1.10	1.64	1.55	1.64	3.88	4.40	5.45	4.85	2.80	2.00	1.28	0.86		
9	1.19	1.55	1.55	2.50	3.99	9.20	4.85	4.85	2.80	4.40	1.28	0.86		
10	1.10	1.55	5.00	3.00	4.25	13.54	4.85	5.00	2.80	3.44	1.28	0.86		
11	0.98	1.55	6.88	2.30	3.88	7.20	7.04	6.08	2.80	3.22	1.28	0.86		
12	0.98	1.82	7.20	1.64	3.88	5.92	9.80	6.72	3.11	3.11	1.28	0.86		
13	0.92	2.00	7.92	1.64	3.88	5.60	18.70	8.64	3.11	2.90	1.28	0.86		
14	0.92	2.10	8.28	1.82	3.66	5.45	7.38	7.04	3.11	2.10	1.28	0.50		
15	0.92	1.73	8.28	1.64	3.66	4.70	6.08	6.08	3.00	2.10	1.28	0.80		
16	0.92	1.46	6.24	1.64	3.99	4.25	5.60	5.60	3.00	2.00	0.98	1.64		
17	0.86	1.46	5.92	1.82	3.77	3.88	5.15	5.45	3.00	2.00	0.98	1.64		
18	0.92	1.46	5.60	5.60	17.70	4.55	4.55	4.85	3.00	2.00	0.98	1.55		
19	1.28	1.46	5.45	6.08	11.84	21.50	4.55	4.70	2.80	1.64	0.98	1.37		
20	1.28	1.46	5.60	5.45	8.10	26.94	4.10	4.70	2.70	1.55	0.98	1.04		
21	1.28	1.46	3.22	4.85	6.56	8.64	5.60	4.40	3.11	1.55	0.86	1.04		
22	1.28	1.28	2.90	4.85	4.85	5.30	23.67	4.40	2.80	1.55	0.86	0.98		
23	1.10	1.28	2.60	5.30	4.55	4.85	30.72	4.70	2.80	1.55	0.86	0.98		
24	1.28	1.64	2.90	3.99	4.10	4.55	26.63	4.70	2.70	1.46	0.86	1.10		
25	2.60	7.20	3.44	7.74	4.10	4.10	16.02	4.10	2.70	1.46	0.92	1.10		
26	1.82	4.25	5.15	7.20	5.00	4.85	10.00	3.77	2.50	1.46	0.92	0.98		
27	1.28	5.00	7.56	7.56	4.85	4.70	7.04	4.25	2.20	1.28	0.92	0.98		
28	1.10	3.33	6.08	8.46	5.30	5.92	6.56	3.55	2.20	1.64	0.92	1.04		
29	1.28	4.25	5.45	6.88	5.45	4.85	6.56	3.55	2.10	1.64		1.04		
30	3.99	5.92	3.88	6.40	4.55	5.92	6.24	3.22	2.20	1.64		1.04		
31		4.10		6.40	4.25		5.76		2.20	1.55		1.28		
Total	40.51	94.57	147.04	123.19	162.19	201.03	329.81	151.64	86.38	63.35	31.49	31.70	1462.90	CMSDAY
Mean	1.35	3.05	4.90	3.97	5.23	6.70	10.64	5.05	2.79	2.04	1.12	1.02	4.01	CMS
Max	3.99	10.80	8.64	8.46	17.70	26.94	30.72	8.64	3.22	4.40	1.55	1.64	30.72	CMS
Min	0.86	1.28	1.55	1.55	3.66	3.77	4.10	3.22	2.10	1.28	0.86	0.50	0.50	CMS
Runoff	3.50	8.17	12.70	10.64	14.01	17.37	28.50	13.10	7.46	5.47	2.72	2.74	126.39	MCM

Momentary Peak 56.98 CMS. at 277.46 m. (MSL.) at 05.00 Hours , on Oct 4 , 2018

Runoff Yield 8.87 Liters/Second/Square KM. Momentary Peak Yield 126.06 Liters/Second/Square KM.

WATER YEAR : 2018

PING RIVER BASIN

Khlong Suan Mak at Ban Mai , Kamphaeng Phet (P.26A)

Lat 16 - 26 - 55 N Long 99 - 26 - 28 E

Location : on right bank about 615 meters downstream from tha Kradan Wair.

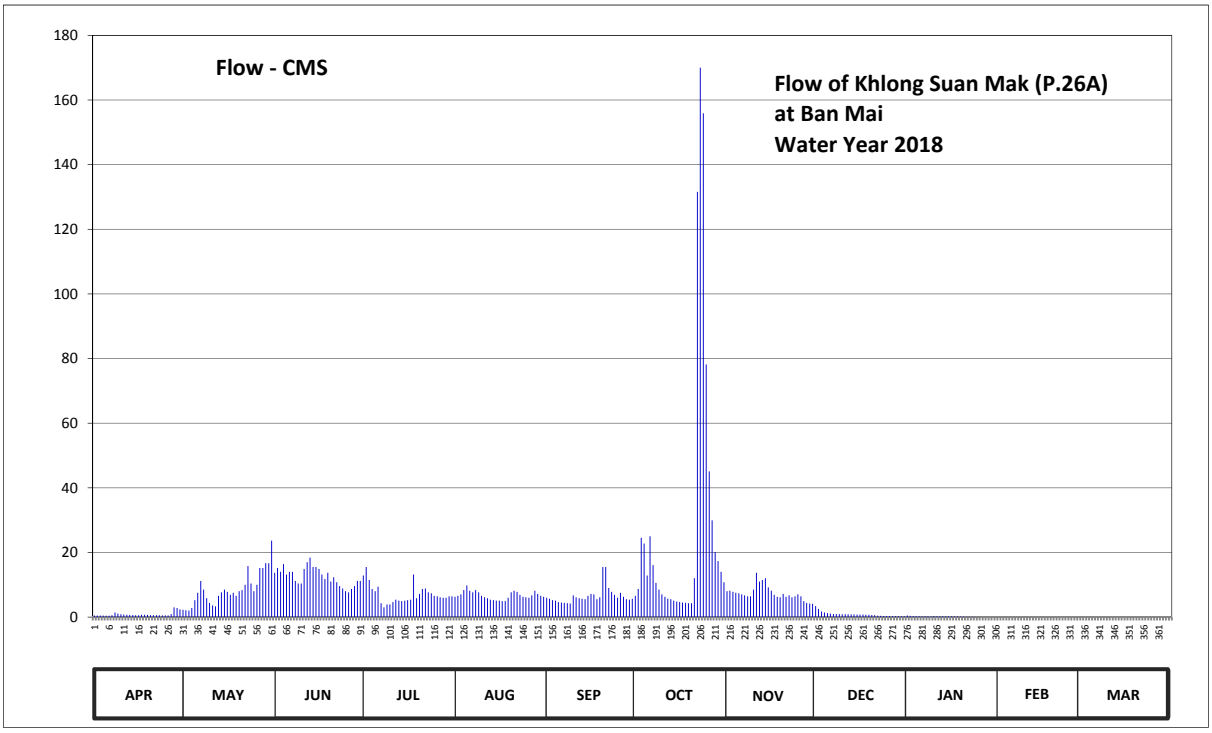
Ban Mai **Amphoe** Mueang **Changwat** Kamphaeng Phet

Drainge Area	974 sq.km.
Type of Gage	Staff gage.
Zero Gage at Bottom	+84.110 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On right bank about 30 meters from the south of Wat Sri Phirom. **Elevation** +90.956 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic mean of 5 readings
Period of Available Gage Records	1971 to date
Rating Operation	
Period of Rating	1972 - 1974 , 1980 to date
Rated by Flot	-
Rated by Current Meter	1972 - 1974 , 1980 to date
Stability of Channel Regimes	Rather unstable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Flow effected by Tha Kradan weir about 3.5 kilometers above gage site. Stage-discharge relation defined by 12 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	84.64	84.97	85.69	85.66	85.32	85.30	85.34	85.43	85.09	84.65	84.36	84.36	
2	84.64	84.95	85.74	85.75	85.34	85.28	85.47	85.44	85.00	84.59	84.36	84.36	
3	84.64	84.94	85.70	85.61	85.37	85.25	85.99	85.42	84.90	84.55	84.36	84.36	
4	84.64	85.03	85.78	85.47	85.45	85.24	85.95	85.40	84.86	84.54	84.36	84.36	
5	84.63	85.25	85.67	85.43	85.53	85.21	85.66	85.39	84.83	84.53	84.36	84.36	
6	84.63	85.40	85.70	85.51	85.44	85.20	86.00	85.37	84.81	84.52	84.36	84.36	
7	84.69	85.60	85.70	85.18	85.41	85.19	85.77	85.35	84.79	84.51	84.36	84.36	
8	84.86	85.46	85.60	85.05	85.45	85.18	85.57	85.33	84.78	84.51	84.36	84.36	
9	84.81	85.29	85.56	85.14	85.41	85.17	85.46	85.33	84.78	84.50	84.36	84.36	
10	84.77	85.19	85.56	85.14	85.34	85.35	85.37	85.46	84.77	84.56	84.36	84.36	
11	84.75	85.11	85.73	85.21	85.31	85.31	85.32	85.69	84.77	84.52	84.36	84.36	
12	84.73	85.08	85.80	85.26	85.29	85.29	85.28	85.59	84.77	84.51	84.36	84.36	
13	84.72	85.34	85.84	85.24	85.26	85.28	85.27	85.61	84.76	84.53	84.36	84.36	
14	84.71	85.41	85.75	85.23	85.25	85.27	85.24	85.63	84.76	84.53	84.36	84.36	
15	84.70	85.46	85.75	85.24	85.24	85.34	85.22	85.50	84.75	84.52	84.36	84.36	
16	84.69	85.42	85.73	85.25	85.24	85.38	85.21	85.44	84.75	84.51	84.36	84.36	
17	84.73	85.36	85.67	85.26	85.23	85.37	85.20	85.36	84.75	84.50	84.36	84.36	
18	84.73	85.40	85.62	85.67	85.23	85.27	85.19	85.32	84.74	84.49	84.36	84.36	
19	84.72	85.34	85.69	85.29	85.30	85.31	85.18	85.31	84.74	84.48	84.36	84.36	
20	84.70	85.43	85.59	85.38	85.41	85.75	85.18	85.38	84.71	84.47	84.36	84.36	
21	84.70	85.45	85.64	85.47	85.44	85.75	85.63	85.32	84.70	84.46	84.36	84.36	
22	84.69	85.54	85.58	85.48	85.42	85.49	87.54	85.35	84.63	84.45	84.36	84.36	
23	84.69	85.76	85.52	85.41	85.36	85.42	87.96	85.31	84.59	84.44	84.36	84.36	
24	84.68	85.56	85.48	85.39	85.32	85.36	87.81	85.33	84.56	84.43	84.36	84.36	
25	84.68	85.43	85.43	85.34	85.31	85.30	86.86	85.37	84.56	84.42	84.36	84.36	
26	84.67	85.54	85.41	85.33	85.30	85.40	86.36	85.33	84.56	84.41	84.36	84.36	
27	84.79	85.74	85.47	85.31	85.35	85.32	86.09	85.23	84.55	84.40	84.36	84.36	
28	85.05	85.74	85.52	85.30	85.44	85.27	85.89	85.19	84.54	84.39	84.36	84.36	
29	85.03	85.79	85.60	85.30	85.38	85.26	85.81	85.17	84.54	84.38		84.36	
30	84.98	85.79	85.60	85.33	85.34	85.28	85.70	85.16	84.53	84.37		84.36	
31		85.97		85.33	85.32		85.58		84.53	84.36		84.36	
Mean	84.74	85.41	85.64	85.35	85.35	85.33	85.81	85.38	84.72	84.48	84.36	84.36	
Max	85.05	85.97	85.84	85.75	85.53	85.75	87.96	85.69	85.09	84.65	84.36	84.36	87.96
Min	84.63	84.94	85.41	85.05	85.23	85.17	85.18	85.16	84.53	84.36	84.36	84.36	84.36

Annual Max Momentary Gage Height	88.08	m. (MSL.) ,	at 18.00 Hours , on Oct 23 , 2018		
Zero Gage at Bottom Elevation	84.11	m. (MSL.) ,	River Bed	83.38	m. (MSL.)
Left Bank Elevation	88.28	m. (MSL.) ,			
Right Bank Elevation	88.98	m. (MSL.) ,	Drainage Are	974	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.48	2.28	13.72	12.88	6.30	6.00	6.60	8.01	3.40	0.50	0.00	0.00		
2	0.48	2.13	15.20	15.50	6.60	5.70	8.69	8.18	2.50	0.38	0.00	0.00		
3	0.48	2.05	14.00	11.48	7.05	5.25	24.55	7.84	1.75	0.30	0.00	0.00		
4	0.48	2.80	16.40	8.69	8.35	5.10	22.75	7.50	1.45	0.28	0.00	0.00		
5	0.46	5.25	13.16	8.01	9.80	4.65	12.88	7.35	1.23	0.26	0.00	0.00		
6	0.46	7.50	14.00	9.40	8.18	4.50	25.00	7.05	1.08	0.24	0.00	0.00		
7	0.58	11.20	14.00	4.30	7.67	4.40	16.10	6.75	0.96	0.22	0.00	0.00		
8	1.45	8.52	11.20	3.00	8.35	4.30	10.60	6.45	0.92	0.22	0.00	0.00		
9	1.08	5.85	10.40	3.90	7.67	4.20	8.52	6.45	0.92	0.20	0.00	0.00		
10	0.88	4.40	10.40	3.90	6.60	6.75	7.05	8.52	0.88	0.32	0.00	0.00		
11	0.80	3.60	14.90	4.65	6.15	6.15	6.30	13.72	0.88	0.24	0.00	0.00		
12	0.72	3.30	17.00	5.40	5.85	5.85	5.70	11.00	0.88	0.22	0.00	0.00		
13	0.68	6.60	18.40	5.10	5.40	5.70	5.55	11.48	0.84	0.26	0.00	0.00		
14	0.64	7.67	15.50	4.95	5.25	5.55	5.10	12.04	0.84	0.26	0.00	0.00		
15	0.60	8.52	15.50	5.10	5.10	6.60	4.80	9.20	0.80	0.24	0.00	0.00		
16	0.58	7.84	14.90	5.25	5.10	7.20	4.65	8.18	0.80	0.22	0.00	0.00		
17	0.72	6.90	13.16	5.40	4.95	7.05	4.50	6.90	0.80	0.20	0.00	0.00		
18	0.72	7.50	11.76	13.16	4.95	5.55	4.40	6.30	0.76	0.18	0.00	0.00		
19	0.68	6.60	13.72	5.85	6.00	6.15	4.30	6.15	0.76	0.16	0.00	0.00		
20	0.60	8.01	11.00	7.20	7.67	15.50	4.30	7.20	0.64	0.14	0.00	0.00		
21	0.60	8.35	12.32	8.69	8.18	15.50	12.04	6.30	0.60	0.12	0.00	0.00		
22	0.58	10.00	10.80	8.86	7.84	9.03	131.60	6.75	0.46	0.10	0.00	0.00		
23	0.58	15.80	9.60	7.67	6.90	7.84	170.00	6.15	0.38	0.08	0.00	0.00		
24	0.56	10.40	8.86	7.35	6.30	6.90	155.90	6.45	0.32	0.06	0.00	0.00		
25	0.56	8.01	8.01	6.60	6.15	6.00	78.20	7.05	0.32	0.04	0.00	0.00		
26	0.54	10.00	7.67	6.45	6.00	7.50	45.10	6.45	0.32	0.02	0.00	0.00		
27	0.96	15.20	8.69	6.15	6.75	6.30	29.95	4.95	0.30	0.00	0.00	0.00		
28	3.00	15.20	9.60	6.00	8.18	5.55	20.15	4.40	0.28	0.00	0.00	0.00		
29	2.80	16.70	11.20	6.00	7.20	5.40	17.35	4.20	0.28	0.00		0.00		
30	2.35	16.70	11.20	6.45	6.60	5.70	14.00	4.10	0.26	0.00		0.00		
31		23.65		6.45	6.30		10.80		0.26	0.00		0.00		
Total	26.10	268.53	376.27	219.79	209.39	197.87	877.43	223.07	26.87	5.46	0.00	0.00	2430.78	CMSDAY
Mean	0.87	8.66	12.54	7.09	6.75	6.60	28.30	7.44	0.87	0.18	0.00	0.00	6.66	CMS
Max	3.00	23.65	18.40	15.50	9.80	15.50	170.00	13.72	3.40	0.50	0.00	0.00	170.00	CMS
Min	0.46	2.05	7.67	3.00	4.95	4.20	4.30	4.10	0.26	0.00	0.00	0.00	0.00	CMS
Runoff	2.26	23.20	32.51	18.99	18.09	17.10	75.81	19.27	2.32	0.47	0.00	0.00	210.02	MCM

Momentary Peak 182.00 CMS. at 88.08 m. (MSL.) at 18.00 Hours , on Oct 23 , 2018

Runoff Yield 6.84 Liters/Second/Square KM. Momentary Peak Yield 186.86 Liters/Second/Square KM.

WATER YEAR : 2018

PING RIVER BASIN

Khlong Suan Mak at Ban Pong Nam Ron , Kamphaeng Phet (P.47)

Lat 16 - 20 - 04 N Long 99 - 26 - 16 E

Location : on right bank at Ban Pong Ron.

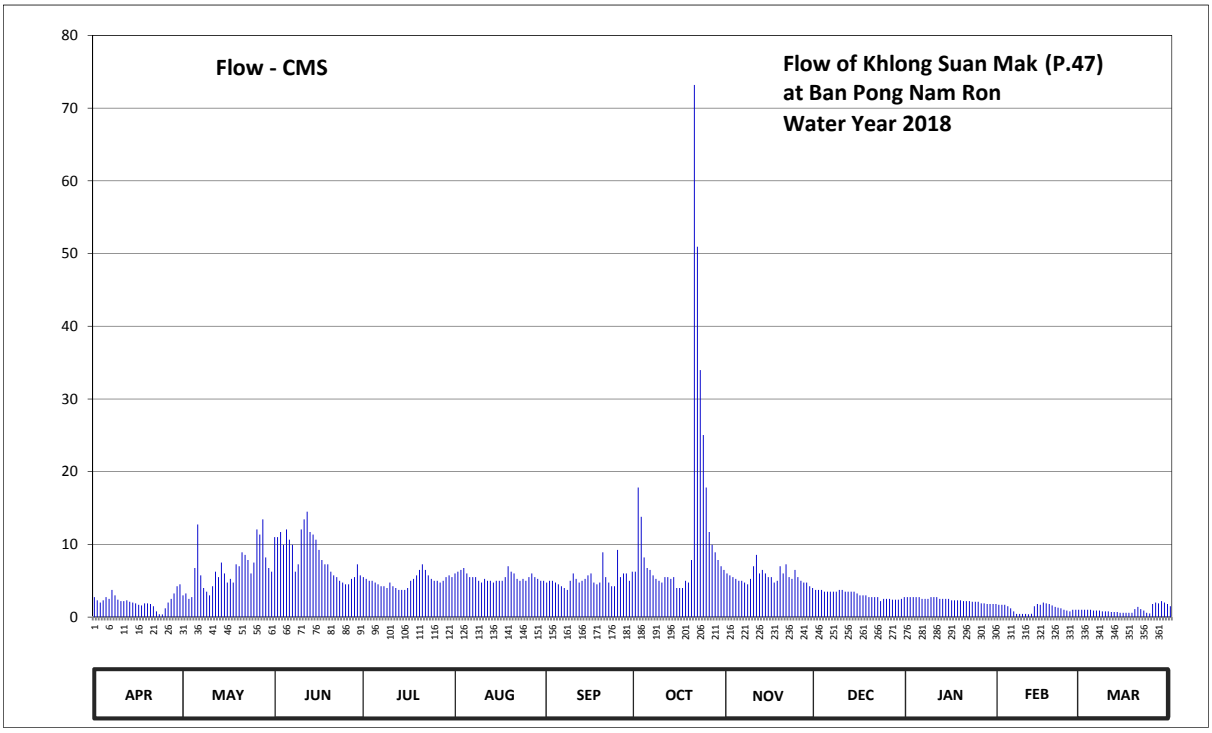
Ban Pong Nam Ron **Amphoe** Khlong Lan **Changwat** Kamphaeng Phet

Drainge Area	529 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+143.770 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On right bank about 9 meters from the top staff gage. **Elevation** +150.203 m. (MSL.)
Gage Reading Frequency	5-time daily reading at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic mean of 5 readings
Period of Available Gage Records	1983 to date
Rating Operation	
Period of Rating	1983 to date
Rated by Flot	-
Rated by Current Meter	1983 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Stage-discharge relation defined by 13 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	144.21	144.22	144.50	144.32	144.34	144.29	144.35	144.34	144.25	144.21	144.12	144.05	
2	144.18	144.23	144.50	144.31	144.35	144.30	144.67	144.33	144.25	144.21	144.12	144.05	
3	144.15	144.20	144.52	144.30	144.36	144.30	144.58	144.32	144.25	144.21	144.12	144.05	
4	144.18	144.21	144.47	144.30	144.37	144.29	144.42	144.31	144.24	144.21	144.10	144.05	
5	144.21	144.37	144.53	144.29	144.34	144.28	144.37	144.30	144.24	144.21	144.07	144.04	
6	144.20	144.55	144.49	144.28	144.32	144.27	144.36	144.30	144.24	144.20	144.03	144.04	
7	144.25	144.33	144.47	144.27	144.32	144.26	144.33	144.29	144.24	144.20	143.97	144.04	
8	144.22	144.26	144.35	144.27	144.32	144.25	144.31	144.28	144.24	144.20	143.97	144.03	
9	144.19	144.24	144.39	144.26	144.30	144.30	144.30	144.31	144.25	144.21	143.97	144.03	
10	144.17	144.22	144.53	144.29	144.29	144.34	144.29	144.38	144.25	144.21	143.97	144.03	
11	144.17	144.27	144.57	144.27	144.31	144.31	144.32	144.43	144.24	144.21	143.96	144.02	
12	144.18	144.35	144.60	144.26	144.30	144.29	144.32	144.34	144.24	144.20	143.98	144.02	
13	144.16	144.32	144.52	144.25	144.30	144.30	144.31	144.36	144.24	144.20	144.10	144.02	
14	144.15	144.40	144.51	144.25	144.29	144.31	144.32	144.34	144.24	144.20	144.13	144.01	
15	144.14	144.34	144.49	144.25	144.30	144.33	144.26	144.32	144.23	144.20	144.12	144.01	
16	144.12	144.29	144.45	144.26	144.30	144.34	144.26	144.32	144.22	144.18	144.15	144.01	
17	144.11	144.31	144.41	144.30	144.30	144.29	144.26	144.29	144.22	144.18	144.14	144.01	
18	144.14	144.29	144.39	144.31	144.32	144.28	144.30	144.30	144.22	144.18	144.13	144.01	
19	144.14	144.39	144.39	144.33	144.38	144.29	144.29	144.38	144.21	144.18	144.11	144.06	
20	144.13	144.38	144.35	144.36	144.35	144.44	144.41	144.34	144.21	144.17	144.09	144.09	
21	144.10	144.44	144.33	144.39	144.34	144.32	145.57	144.39	144.21	144.17	144.08	144.06	
22	144.03	144.43	144.32	144.36	144.31	144.29	145.26	144.32	144.21	144.17	144.07	144.04	
23	143.96	144.41	144.30	144.33	144.30	144.27	144.99	144.31	144.17	144.16	144.05	144.01	
24	143.95	144.34	144.29	144.31	144.31	144.27	144.82	144.36	144.20	144.16	144.04	144.00	
25	144.07	144.40	144.28	144.30	144.30	144.45	144.67	144.32	144.20	144.16	144.03	144.13	
26	144.15	144.53	144.28	144.30	144.32	144.32	144.52	144.30	144.20	144.14	144.05	144.15	
27	144.20	144.51	144.31	144.29	144.34	144.34	144.47	144.29	144.19	144.14	144.05	144.14	
28	144.23	144.57	144.32	144.30	144.32	144.34	144.44	144.29	144.19	144.13	144.05	144.17	
29	144.27	144.42	144.39	144.32	144.31	144.30	144.41	144.27	144.19	144.13		144.15	
30	144.28	144.37	144.33	144.33	144.30	144.35	144.38	144.26	144.20	144.13		144.13	
31		144.35		144.32	144.30		144.36		144.21	144.13		144.10	
Mean	144.15	144.35	144.42	144.30	144.32	144.31	144.48	144.32	144.22	144.18	144.06	144.06	
Max	144.28	144.57	144.60	144.39	144.38	144.45	145.57	144.43	144.25	144.21	144.15	144.17	145.57
Min	143.95	144.20	144.28	144.25	144.29	144.25	144.26	144.26	144.17	144.13	143.96	144.00	143.95

Annual Max Momentary Gage Height	146.13	m. (MSL.) ,	at 18.00 Hours , on Oct 21 , 2018		
Zero Gage at Bottom Elevation	143.77	m. (MSL.) ,	River Bed	143.19	m. (MSL.)
Left Bank Elevation	147.62	m. (MSL.) ,			
Right Bank Elevation	149.24	m. (MSL.) ,	Drainage Are	529	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.75	3.00	11.00	5.50	6.00	4.75	6.25	6.00	3.75	2.75	1.70	1.00		
2	2.30	3.25	11.00	5.25	6.25	5.00	17.83	5.75	3.75	2.75	1.70	1.00		
3	2.00	2.50	11.70	5.00	6.50	5.00	13.80	5.50	3.75	2.75	1.70	1.00		
4	2.30	2.75	9.95	5.00	6.75	4.75	8.20	5.25	3.50	2.75	1.50	1.00		
5	2.75	6.75	12.05	4.75	6.00	4.50	6.75	5.00	3.50	2.75	1.20	0.90		
6	2.50	12.75	10.65	4.50	5.50	4.25	6.50	5.00	3.50	2.50	0.80	0.90		
7	3.75	5.75	9.95	4.25	5.50	4.00	5.75	4.75	3.50	2.50	0.43	0.90		
8	3.00	4.00	6.25	4.25	5.50	3.75	5.25	4.50	3.50	2.50	0.43	0.80		
9	2.40	3.50	7.25	4.00	5.00	5.00	5.00	5.25	3.75	2.75	0.43	0.80		
10	2.20	3.00	12.05	4.75	4.75	6.00	4.75	7.00	3.75	2.75	0.43	0.80		
11	2.20	4.25	13.45	4.25	5.25	5.25	5.50	8.55	3.50	2.75	0.40	0.70		
12	2.30	6.25	14.50	4.00	5.00	4.75	5.50	6.00	3.50	2.50	0.45	0.70		
13	2.10	5.50	11.70	3.75	5.00	5.00	5.25	6.50	3.50	2.50	1.50	0.70		
14	2.00	7.50	11.35	3.75	4.75	5.25	5.50	6.00	3.50	2.50	1.80	0.60		
15	1.90	6.00	10.65	3.75	5.00	5.75	4.00	5.50	3.25	2.50	1.70	0.60		
16	1.70	4.75	9.25	4.00	5.00	6.00	4.00	5.50	3.00	2.30	2.00	0.60		
17	1.60	5.25	7.85	5.00	5.00	4.75	4.00	4.75	3.00	2.30	1.90	0.60		
18	1.90	4.75	7.25	5.25	5.50	4.50	5.00	5.00	3.00	2.30	1.80	0.60		
19	1.90	7.25	7.25	5.75	7.00	4.75	4.75	7.00	2.75	2.30	1.60	1.10		
20	1.80	7.00	6.25	6.50	6.25	8.90	7.85	6.00	2.75	2.20	1.40	1.40		
21	1.50	8.90	5.75	7.25	6.00	5.50	73.19	7.25	2.75	2.20	1.30	1.10		
22	0.80	8.55	5.50	6.50	5.25	4.75	50.93	5.50	2.75	2.20	1.20	0.90		
23	0.40	7.85	5.00	5.75	5.00	4.25	33.98	5.25	2.20	2.10	1.00	0.60		
24	0.38	6.00	4.75	5.25	5.25	4.25	25.05	6.50	2.50	2.10	0.90	0.50		
25	1.20	7.50	4.50	5.00	5.00	9.25	17.83	5.50	2.50	2.10	0.80	1.80		
26	2.00	12.05	4.50	5.00	5.50	5.50	11.70	5.00	2.50	1.90	1.00	2.00		
27	2.50	11.35	5.25	4.75	6.00	6.00	9.95	4.75	2.40	1.90	1.00	1.90		
28	3.25	13.45	5.50	5.00	5.50	6.00	8.90	4.75	2.40	1.80	1.00	2.20		
29	4.25	8.20	7.25	5.50	5.25	5.00	7.85	4.25	2.40	1.80		2.00		
30	4.50	6.75	5.75	5.75	5.00	6.25	7.00	4.00	2.50	1.80		1.80		
31		6.25		5.50	5.00		6.50		2.75	1.80		1.50		
Total	66.13	202.60	255.10	154.50	170.25	158.65	384.31	167.55	95.65	72.60	33.07	33.00	1793.41	CMSDAY
Mean	2.20	6.54	8.50	4.98	5.49	5.29	12.40	5.58	3.09	2.34	1.18	1.06	4.91	CMS
Max	4.50	13.45	14.50	7.25	7.00	9.25	73.19	8.55	3.75	2.75	2.00	2.20	73.19	CMS
Min	0.38	2.50	4.50	3.75	4.75	3.75	4.00	4.00	2.20	1.80	0.40	0.50	0.38	CMS
Runoff	5.71	17.50	22.04	13.35	14.71	13.71	33.20	14.48	8.26	6.27	2.86	2.85	154.95	MCM

Momentary Peak 130.24 CMS. at 146.13 m. (MSL.) at 18.00 Hours , on Oct 21 , 2018

Runoff Yield 9.29 Liters/Second/Square KM. Momentary Peak Yield 246.20 Liters/Second/Square KM.

WATER YEAR : 2018

PING RIVER BASIN

Khlong Wang Chao at Ban Thai Tawee , Kamphaeng Phet (P.50A)

Lat 16 - 32 - 45 N Long 99 - 14 - 57 E

Location : on left bank at Ban Thai Tawee.

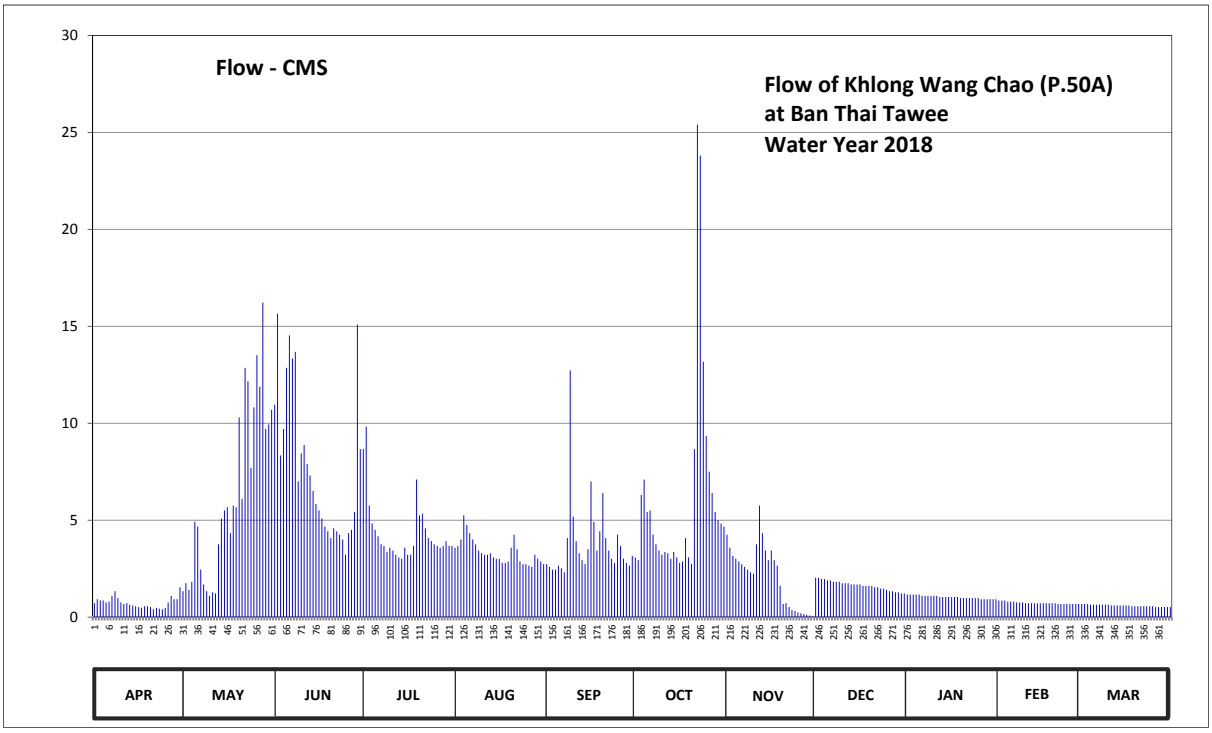
Ban Thai Tawee **Amphoe** Kosumpee Nakhon **Changwat** Kamphaeng Phet

Drainge Area	480 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+104.360 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank about 10 meters from the top staff gage. **Elevation** +109.825 m. (MSL.)
Gage Reading Frequency	5-time daily reading at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic mean of 5 readings
Period of Available Gage Records	1999 to date
Rating Operation	
Period of Rating	1999 to date
Rated by Flot	-
Rated by Current Meter	1999 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	Overbank flow starts at elevation +106.870 m.(MSL.), records are channel flow only.
General Description	Records good. Stage-discharge relation defined by 18 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	104.68	104.79	105.85	105.66	105.11	104.99	105.04	105.19	104.89	104.76	104.71	104.67	
2	104.72	104.85	106.15	105.76	105.12	104.97	105.02	105.11	104.89	104.76	104.71	104.67	
3	104.71	104.80	105.63	105.37	105.16	104.95	105.43	105.05	104.88	104.76	104.71	104.67	
4	104.71	104.86	105.75	105.26	105.31	104.95	105.51	105.03	104.88	104.76	104.70	104.66	
5	104.69	105.27	105.99	105.22	105.25	104.98	105.33	105.01	104.87	104.76	104.70	104.66	
6	104.70	105.24	106.09	105.18	105.20	104.96	105.34	104.99	104.87	104.75	104.70	104.66	
7	104.75	104.95	106.02	105.13	105.16	104.93	105.19	104.97	104.86	104.75	104.69	104.66	
8	104.79	104.84	106.04	105.12	105.13	105.17	105.13	104.95	104.86	104.75	104.69	104.66	
9	104.73	104.79	105.50	105.08	105.09	105.98	105.09	104.93	104.86	104.75	104.69	104.66	
10	104.69	104.75	105.64	105.11	105.07	105.30	105.06	104.92	104.85	104.75	104.68	104.66	
11	104.67	104.78	105.68	105.09	105.06	105.15	105.08	105.13	104.85	104.75	104.68	104.65	
12	104.68	104.77	105.59	105.06	105.06	105.07	105.07	105.37	104.85	104.74	104.68	104.65	
13	104.66	105.13	105.53	105.04	105.07	105.02	105.03	105.20	104.84	104.74	104.68	104.65	
14	104.65	105.29	105.45	105.03	105.04	104.99	105.08	105.09	104.84	104.74	104.68	104.65	
15	104.64	105.34	105.38	105.11	105.03	105.10	105.04	105.02	104.84	104.74	104.68	104.65	
16	104.63	105.36	105.34	105.06	105.03	105.50	105.00	105.09	104.84	104.74	104.68	104.65	
17	104.62	105.20	105.29	105.06	105.00	105.27	105.01	105.02	104.83	104.74	104.68	104.65	
18	104.64	105.37	105.24	105.12	105.00	105.09	105.17	104.98	104.83	104.74	104.68	104.64	
19	104.64	105.36	105.21	105.51	105.01	105.21	105.04	104.83	104.83	104.73	104.68	104.64	
20	104.63	105.80	105.17	105.31	105.11	105.44	104.99	104.67	104.83	104.73	104.68	104.64	
21	104.60	105.41	105.23	105.32	105.19	105.17	105.66	104.68	104.82	104.73	104.67	104.64	
22	104.62	105.99	105.21	105.23	105.10	105.09	106.48	104.63	104.82	104.73	104.67	104.64	
23	104.61	105.94	105.19	105.17	105.01	105.03	106.44	104.59	104.81	104.73	104.67	104.64	
24	104.60	105.57	105.16	105.15	104.99	105.00	106.01	104.58	104.81	104.73	104.67	104.64	
25	104.62	105.84	105.06	105.13	104.99	105.19	105.72	104.56	104.80	104.73	104.67	104.64	
26	104.69	106.03	105.20	105.12	104.98	105.12	105.55	104.55	104.79	104.72	104.67	104.63	
27	104.75	105.92	105.22	105.11	104.97	105.03	105.44	104.54	104.79	104.72	104.67	104.63	
28	104.72	106.18	105.33	105.12	105.06	105.00	105.33	104.53	104.78	104.72	104.67	104.63	
29	104.72	105.75	106.12	105.15	105.03	104.98	105.28	104.52	104.78	104.72		104.63	
30	104.82	105.77	105.66	105.12	105.01	105.05	105.26	104.51	104.77	104.72		104.63	
31		105.83		105.12	104.99		105.24		104.77	104.72		104.63	
Mean	104.68	105.35	105.53	105.19	105.08	105.12	105.32	104.87	104.83	104.74	104.68	104.65	
Max	104.82	106.18	106.15	105.76	105.31	105.98	106.48	105.37	104.89	104.76	104.71	104.67	106.48
Min	104.60	104.75	105.06	105.03	104.97	104.93	104.99	104.51	104.77	104.72	104.67	104.63	104.51

Annual Max Momentary Gage Height	106.99	m. (MSL.) ,	at 04.00 Hours , on Oct 23 , 2018		
Zero Gage at Bottom Elevation	104.36	m. (MSL.) ,	River Bed	103.91	m. (MSL.)
Left Bank Elevation	106.86	m. (MSL.) ,			
Right Bank Elevation	107.65	m. (MSL.) ,	Drainage Are	480	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.72	1.34	10.95	8.66	3.58	2.73	3.08	4.25	2.03	1.16	0.86	0.68		
2	0.92	1.75	15.65	9.82	3.67	2.59	2.94	3.58	2.03	1.16	0.86	0.68		
3	0.86	1.40	8.33	5.75	4.00	2.45	6.30	3.15	1.96	1.16	0.86	0.68		
4	0.86	1.82	9.70	4.83	5.25	2.45	7.10	3.01	1.96	1.16	0.80	0.64		
5	0.76	4.92	12.86	4.50	4.75	2.66	5.42	2.87	1.89	1.16	0.80	0.64		
6	0.80	4.67	14.53	4.17	4.33	2.52	5.50	2.73	1.89	1.10	0.80	0.64		
7	1.10	2.45	13.34	3.75	4.00	2.31	4.25	2.59	1.82	1.10	0.76	0.64		
8	1.34	1.68	13.68	3.67	3.75	4.08	3.75	2.45	1.82	1.10	0.76	0.64		
9	0.98	1.34	7.00	3.36	3.43	12.72	3.43	2.31	1.82	1.10	0.76	0.64		
10	0.76	1.10	8.44	3.58	3.29	5.17	3.22	2.24	1.75	1.10	0.72	0.64		
11	0.68	1.28	8.88	3.43	3.22	3.92	3.36	3.75	1.75	1.10	0.72	0.60		
12	0.72	1.22	7.90	3.22	3.22	3.29	3.29	5.75	1.75	1.04	0.72	0.60		
13	0.64	3.75	7.30	3.08	3.29	2.94	3.01	4.33	1.68	1.04	0.72	0.60		
14	0.60	5.08	6.50	3.01	3.08	2.73	3.36	3.43	1.68	1.04	0.72	0.60		
15	0.56	5.50	5.83	3.58	3.01	3.50	3.08	2.94	1.68	1.04	0.72	0.60		
16	0.52	5.67	5.50	3.22	3.01	7.00	2.80	3.43	1.68	1.04	0.72	0.60		
17	0.48	4.33	5.08	3.22	2.80	4.92	2.87	2.94	1.61	1.04	0.72	0.60		
18	0.56	5.75	4.67	3.67	2.80	3.43	4.08	2.66	1.61	1.04	0.72	0.56		
19	0.56	5.67	4.42	7.10	2.87	4.42	3.08	1.61	1.61	0.98	0.72	0.56		
20	0.52	10.30	4.08	5.25	3.58	6.40	2.73	0.68	1.61	0.98	0.72	0.56		
21	0.40	6.10	4.58	5.33	4.25	4.08	8.66	0.72	1.54	0.98	0.68	0.56		
22	0.48	12.86	4.42	4.58	3.50	3.43	25.40	0.52	1.54	0.98	0.68	0.56		
23	0.44	12.16	4.25	4.08	2.87	3.01	23.80	0.36	1.47	0.98	0.68	0.56		
24	0.40	7.70	4.00	3.92	2.73	2.80	13.17	0.32	1.47	0.98	0.68	0.56		
25	0.48	10.82	3.22	3.75	2.73	4.25	9.34	0.24	1.40	0.98	0.68	0.56		
26	0.76	13.51	4.33	3.67	2.66	3.67	7.50	0.20	1.34	0.92	0.68	0.52		
27	1.10	11.88	4.50	3.58	2.59	3.01	6.40	0.16	1.34	0.92	0.68	0.52		
28	0.92	16.22	5.42	3.67	3.22	2.80	5.42	0.12	1.28	0.92	0.68	0.52		
29	0.92	9.70	15.08	3.92	3.01	2.66	5.00	0.08	1.28	0.92		0.52		
30	1.54	9.94	8.66	3.67	2.87	3.15	4.83	0.04	1.22	0.92		0.52		
31		10.69		3.67	2.73		4.67		1.22	0.92		0.52		
Total	22.38	192.60	233.10	134.71	104.09	115.09	190.84	63.46	50.73	32.06	20.62	18.32	1178.00	CMSDAY
Mean	0.75	6.21	7.77	4.35	3.36	3.84	6.16	2.12	1.64	1.03	0.74	0.59	3.23	CMS
Max	1.54	16.22	15.65	9.82	5.25	12.72	25.40	5.75	2.03	1.16	0.86	0.68	25.40	CMS
Min	0.40	1.10	3.22	3.01	2.59	2.31	2.73	0.04	1.22	0.92	0.68	0.52	0.04	CMS
Runoff	1.93	16.64	20.14	11.64	8.99	9.94	16.49	5.48	4.38	2.77	1.78	1.58	101.78	MCM

Momentary Peak 52.50 CMS. at 106.99 m. (MSL.) at 04.00 Hours , on Oct 23 , 2018

Runoff Yield 6.77 Liters/Second/Square KM. Momentary Peak Yield 110.06 Liters/Second/Square KM.

WATER YEAR : 2018

PING RIVER BASIN

Nam Mae Ngat at Ban Sahakorn Romklao , Chiang Mai (P.56A)

Lat 19 - 17 - 04 N Long 99 - 11 - 23 E

Location : on left bank at the bridge near land Cooperative Office.

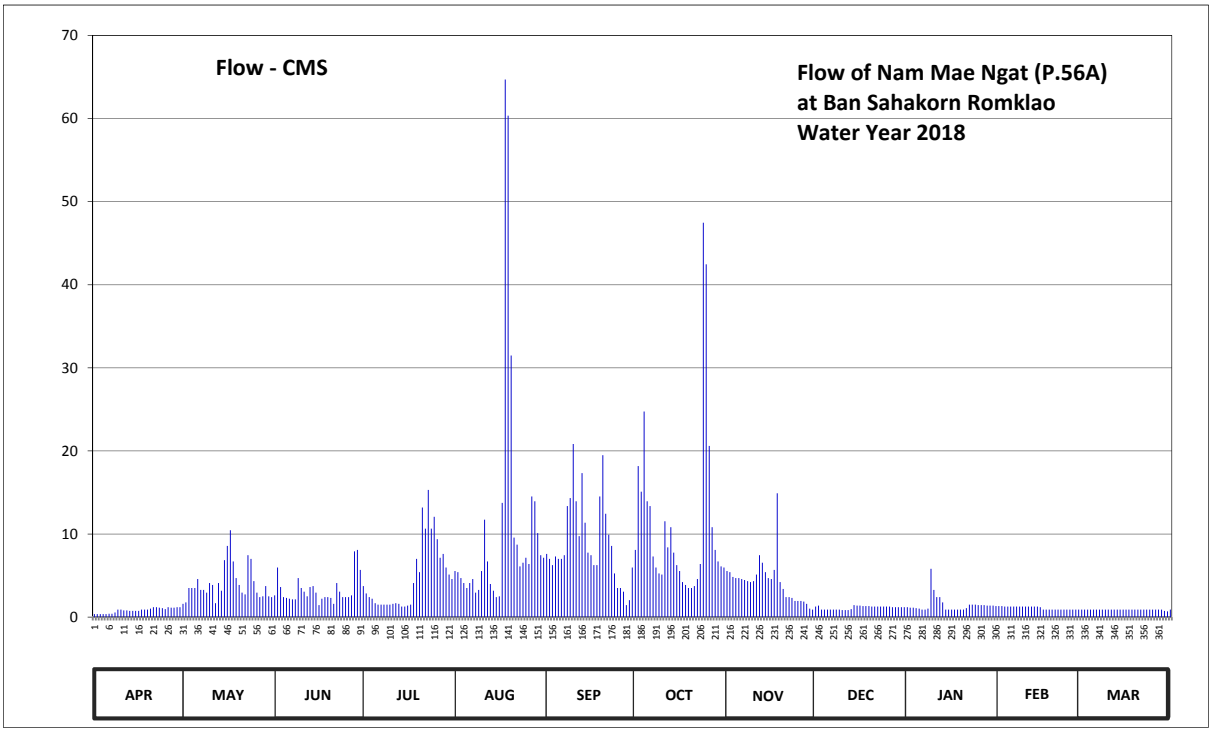
Ban Sahakorn Romklao **Amphoe** Phrao **Changwat** Chiang Mai

Drainge Area	546 sq.km.
Type of Gage	Water - stage recorder.
Zero Gage at Bottom	+408.300 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank about 10 meters from the top staff gage. **Elevation** +416.250 m. (MSL.)
Gage Reading Frequency	Recording.
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	1998 to date
Rating Operation	
Period of Rating	1998 to date
Rated by Flot	-
Rated by Current Meter	1998 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Stage-discharge relation defined by 33 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	408.69	408.91	409.02	409.12	409.26	409.40	409.43	409.26	408.86	408.85	408.87	408.80	
2	408.69	408.93	409.29	409.04	409.25	409.36	409.97	409.25	408.88	408.84	408.87	408.80	
3	408.69	409.10	409.11	409.00	409.20	409.31	409.82	409.21	408.80	408.84	408.86	408.80	
4	408.69	409.10	409.00	408.98	409.15	409.38	410.26	409.20	408.80	408.83	408.86	408.80	
5	408.69	409.10	408.99	408.92	409.10	409.36	409.76	409.20	408.80	408.82	408.86	408.80	
6	408.70	409.19	408.98	408.90	409.15	409.36	409.73	409.19	408.80	408.80	408.86	408.80	
7	408.70	409.08	408.97	408.90	409.19	409.39	409.38	409.18	408.80	408.80	408.86	408.80	
8	408.73	409.08	408.97	408.90	409.05	409.73	409.29	409.17	408.80	408.82	408.86	408.80	
9	408.80	409.05	409.20	408.90	409.08	409.78	409.24	409.16	408.80	409.28	408.86	408.80	
10	408.80	409.15	409.10	408.90	409.26	410.09	409.23	409.17	408.79	409.08	408.86	408.80	
11	408.78	409.13	409.06	408.91	409.64	409.76	409.63	409.23	408.79	409.00	408.86	408.80	
12	408.78	408.92	409.01	408.92	409.34	409.53	409.45	409.39	408.79	409.00	408.86	408.80	
13	408.77	409.15	409.11	408.91	409.14	409.93	409.59	409.33	408.81	408.93	408.86	408.80	
14	408.77	409.07	409.12	408.86	409.07	409.62	409.41	409.25	408.89	408.80	408.86	408.80	
15	408.77	409.35	409.05	408.86	409.00	409.41	409.31	409.20	408.88	408.80	408.85	408.80	
16	408.77	409.46	408.89	408.88	409.01	409.39	409.26	409.19	408.88	408.80	408.80	408.80	
17	408.80	409.57	408.98	408.90	409.75	409.31	409.16	409.27	408.87	408.80	408.80	408.80	
18	408.80	409.34	409.00	409.15	411.60	409.31	409.13	409.81	408.87	408.80	408.80	408.80	
19	408.80	409.20	409.00	409.36	411.47	409.79	409.10	409.16	408.87	408.80	408.80	408.80	
20	408.82	409.13	408.99	409.25	410.53	410.03	409.10	409.09	408.86	408.80	408.80	408.80	
21	408.85	409.05	408.91	409.72	409.52	409.68	409.12	409.00	408.86	408.83	408.80	408.80	
22	408.85	409.03	409.15	409.58	409.47	409.54	409.19	409.00	408.86	408.90	408.80	408.80	
23	408.84	409.39	409.06	409.83	409.30	409.46	409.32	408.99	408.86	408.90	408.80	408.80	
24	408.83	409.36	409.00	409.58	409.33	409.24	411.08	408.95	408.86	408.90	408.80	408.80	
25	408.81	409.17	409.00	409.66	409.37	409.10	410.92	408.95	408.86	408.89	408.80	408.80	
26	408.85	409.05	409.00	409.51	409.32	409.10	410.08	408.95	408.86	408.89	408.80	408.80	
27	408.84	409.00	409.02	409.37	409.79	409.06	409.59	408.94	408.85	408.89	408.80	408.80	
28	408.84	409.01	409.42	409.40	409.76	408.89	409.43	408.91	408.85	408.88	408.80	408.80	
29	408.85	409.12	409.43	409.29	409.55	408.96	409.34	408.82	408.85	408.88		408.77	
30	408.85	409.01	409.27	409.23	409.39	409.29	409.30	408.80	408.85	408.88		408.76	
31		409.00		409.19	409.37		409.29		408.85	408.87		408.80	
Mean	408.78	409.14	409.07	409.16	409.50	409.45	409.55	409.14	408.84	408.88	408.83	408.80	
Max	408.85	409.57	409.43	409.83	411.60	410.09	411.08	409.81	408.89	409.28	408.87	408.80	411.60
Min	408.69	408.91	408.89	408.86	409.00	408.89	409.10	408.80	408.79	408.80	408.80	408.76	408.69

Annual Max Momentary Gage Height	411.96	m. (MSL.) ,	at 21.00 Hours , on Aug 18 , 2018		
Zero Gage at Bottom Elevation	408.30	m. (MSL.) ,	River Bed	408.31	m. (MSL.)
Left Bank Elevation	415.80	m. (MSL.) ,			
Right Bank Elevation	415.86	m. (MSL.) ,	Drainage Are	546	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.36	1.59	2.62	3.74	5.54	7.60	8.08	5.54	1.26	1.20	1.32	0.90		
2	0.36	1.77	5.96	2.84	5.40	7.00	18.17	5.40	1.38	1.14	1.32	0.90		
3	0.36	3.50	3.62	2.40	4.70	6.25	15.10	4.84	0.90	1.14	1.26	0.90		
4	0.36	3.50	2.40	2.22	4.10	7.30	24.74	4.70	0.90	1.08	1.26	0.90		
5	0.36	3.50	2.31	1.68	3.50	7.00	13.94	4.70	0.90	1.02	1.26	0.90		
6	0.40	4.58	2.22	1.50	4.10	7.00	13.37	4.58	0.90	0.90	1.26	0.90		
7	0.40	3.28	2.13	1.50	4.58	7.45	7.30	4.46	0.90	0.90	1.26	0.90		
8	0.55	3.28	2.13	1.50	2.95	13.37	5.96	4.34	0.90	1.02	1.26	0.90		
9	0.90	2.95	4.70	1.50	3.28	14.32	5.26	4.22	0.90	5.82	1.26	0.90		
10	0.90	4.10	3.50	1.50	5.54	20.83	5.12	4.34	0.85	3.28	1.26	0.90		
11	0.80	3.86	3.06	1.59	11.72	13.94	11.54	5.12	0.85	2.40	1.26	0.90		
12	0.80	1.68	2.51	1.68	6.70	9.74	8.40	7.45	0.85	2.40	1.26	0.90		
13	0.75	4.10	3.62	1.59	3.98	17.33	10.82	6.55	0.96	1.77	1.26	0.90		
14	0.75	3.17	3.74	1.26	3.17	11.36	7.76	5.40	1.44	0.90	1.26	0.90		
15	0.75	6.85	2.95	1.26	2.40	7.76	6.25	4.70	1.38	0.90	1.20	0.90		
16	0.75	8.56	1.44	1.38	2.51	7.45	5.54	4.58	1.38	0.90	0.90	0.90		
17	0.90	10.46	2.22	1.50	13.75	6.25	4.22	5.68	1.32	0.90	0.90	0.90		
18	0.90	6.70	2.40	4.10	64.70	6.25	3.86	14.90	1.32	0.90	0.90	0.90		
19	0.90	4.70	2.40	7.00	60.35	14.51	3.50	4.22	1.32	0.90	0.90	0.90		
20	1.02	3.86	2.31	5.40	31.48	19.48	3.50	3.39	1.26	0.90	0.90	0.90		
21	1.20	2.95	1.59	13.18	9.56	12.44	3.74	2.40	1.26	1.08	0.90	0.90		
22	1.20	2.73	4.10	10.64	8.72	9.92	4.58	2.40	1.26	1.50	0.90	0.90		
23	1.14	7.45	3.06	15.30	6.10	8.56	6.40	2.31	1.26	1.50	0.90	0.90		
24	1.08	7.00	2.40	10.64	6.55	5.26	47.46	1.95	1.26	1.50	0.90	0.90		
25	0.96	4.34	2.40	12.08	7.15	3.50	42.46	1.95	1.26	1.44	0.90	0.90		
26	1.20	2.95	2.40	9.38	6.40	3.50	20.60	1.95	1.26	1.44	0.90	0.90		
27	1.14	2.40	2.62	7.15	14.51	3.06	10.82	1.86	1.20	1.44	0.90	0.90		
28	1.14	2.51	7.92	7.60	13.94	1.44	8.08	1.59	1.20	1.38	0.90	0.90		
29	1.20	3.74	8.08	5.96	10.10	2.04	6.70	1.02	1.20	1.38		0.75		
30	1.20	2.51	5.68	5.12	7.45	5.96	6.10	0.90	1.20	1.38		0.70		
31		2.40		4.58	7.15		5.96		1.20	1.32		0.90		
Total	24.73	126.97	98.49	148.77	342.08	267.87	345.33	127.44	35.43	45.73	30.66	27.55	1621.05	CMSDAY
Mean	0.82	4.10	3.28	4.80	11.03	8.93	11.14	4.25	1.14	1.48	1.09	0.89	4.44	CMS
Max	1.20	10.46	8.08	15.30	64.70	20.83	47.46	14.90	1.44	5.82	1.32	0.90	64.70	CMS
Min	0.36	1.59	1.44	1.26	2.40	1.44	3.50	0.90	0.85	0.90	0.90	0.70	0.36	CMS
Runoff	2.14	10.97	8.51	12.85	29.56	23.14	29.84	11.01	3.06	3.95	2.65	2.38	140.06	MCM

Momentary Peak 76.76 CMS. at 411.96 m. (MSL.) at 21.00 Hours , on Aug 18 , 2018

Runoff Yield 8.13 Liters/Second/Square KM. Momentary Peak Yield 140.59 Liters/Second/Square KM.

WATER YEAR : 2018

PING RIVER BASIN

Ping River at Ban Mae Tae , Chiang Mai (P.67)

Lat 19 - 01 - 11 N Long 98 - 57 - 43 E

Location : on left bank at the bridge on highway.

Ban Mae Tae **Amphoe** San Sai **Changwat** Chiang Mai

Drainge Area	5,323 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+315.926 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank about 20 meters from the top staff gage. **Elevation** +323.690 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	1995 to date
Rating Operation	
Period of Rating	1995 to date
Rated by Flot	-
Rated by Current Meter	1995 to date
Stability of Channel Regimes	Fairly stable because of backwater effect.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. Flow regulated by Mae Faek and Mae Taeng weir situated above gage site. Flow effected by the sand-dredger about 10 kilometers downstream from the gage site. Stage-discharge relation defined by 31 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

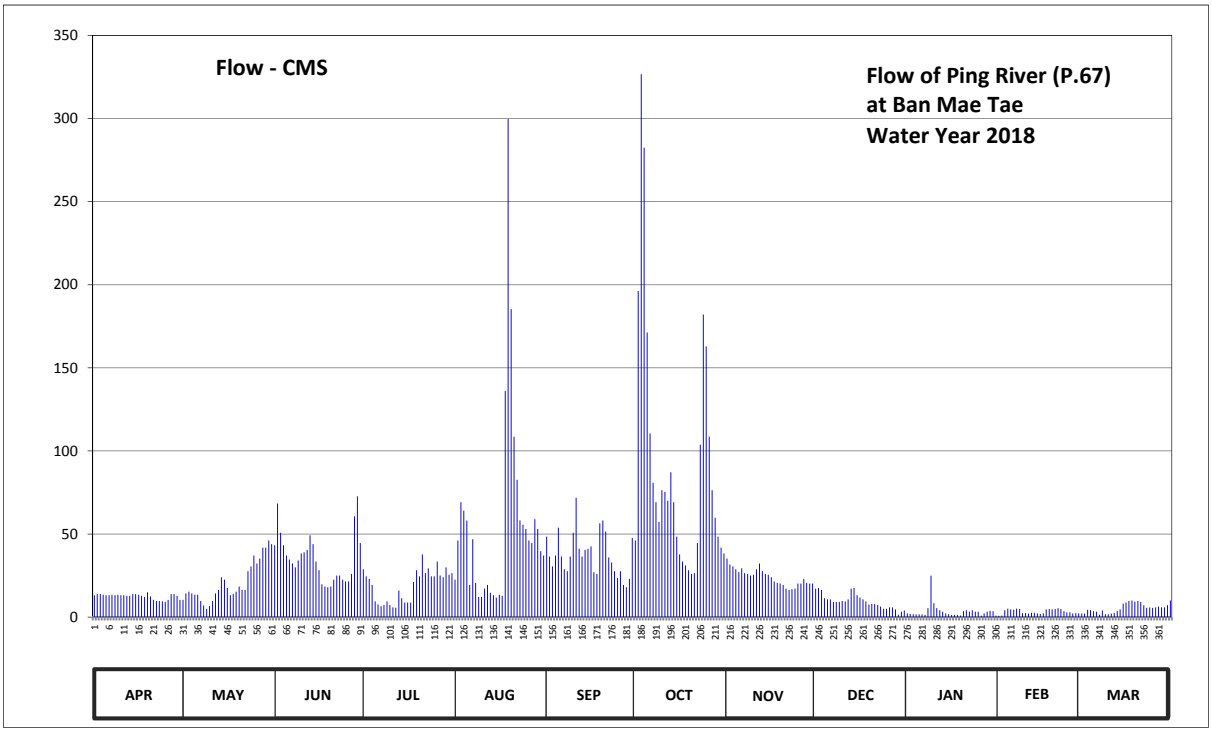
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	315.29	315.21	315.87	315.64	315.52	315.94	315.91	315.75	315.40	315.10	314.93	315.10	
2	315.31	315.32	316.18	315.56	315.91	315.77	317.47	315.69	315.41	315.08	314.99	315.09	
3	315.31	315.35	315.97	315.53	316.19	315.67	318.61	315.67	315.38	315.06	315.19	315.20	
4	315.30	315.32	315.87	315.45	316.13	315.78	318.23	315.64	315.24	315.05	315.23	315.19	
5	315.29	315.30	315.78	315.18	316.06	316.01	317.24	315.61	315.22	315.05	315.21	315.16	
6	315.29	315.30	315.74	315.12	315.45	315.77	316.64	315.65	315.22	315.05	315.20	315.15	
7	315.30	315.19	315.70	315.08	315.92	315.64	316.32	315.60	315.17	315.03	315.23	315.04	
8	315.29	315.10	315.66	315.11	315.48	315.62	316.19	315.59	315.17	315.24	315.22	315.18	
9	315.30	315.01	315.73	315.18	315.26	315.77	316.05	315.57	315.17	315.66	315.11	315.06	
10	315.29	315.09	315.80	315.11	315.26	315.97	316.27	315.58	315.19	315.35	315.11	315.06	
11	315.29	315.19	315.81	315.05	315.40	316.22	316.26	315.64	315.18	315.24	315.09	315.09	
12	315.28	315.32	315.83	315.04	315.45	315.84	316.20	315.70	315.22	315.19	315.12	315.12	
13	315.28	315.38	315.95	315.37	315.33	315.77	316.39	315.62	315.40	315.15	315.12	315.17	
14	315.31	315.55	315.88	315.24	315.29	315.83	316.19	315.59	315.41	315.10	315.10	315.21	
15	315.31	315.52	315.72	315.16	315.25	315.84	315.94	315.58	315.29	315.06	315.08	315.34	
16	315.30	315.41	315.63	315.16	315.30	315.86	315.79	315.55	315.25	315.03	315.10	315.36	
17	315.28	315.29	315.46	315.16	315.28	315.61	315.72	315.50	315.22	315.03	315.21	315.39	
18	315.26	315.31	315.43	315.49	316.90	315.59	315.68	315.48	315.18	315.03	315.22	315.40	
19	315.34	315.35	315.42	315.63	318.38	316.04	315.63	315.47	315.12	315.00	315.21	315.38	
20	315.27	315.43	315.43	315.56	317.37	316.06	315.59	315.45	315.13	315.16	315.22	315.39	
21	315.21	315.38	315.52	315.79	316.62	315.98	315.60	315.40	315.13	315.19	315.24	315.37	
22	315.19	315.38	315.57	315.60	316.34	315.76	315.89	315.38	315.11	315.15	315.22	315.31	
23	315.19	315.62	315.57	315.65	316.06	315.71	316.57	315.39	315.07	315.19	315.16	315.25	
24	315.18	315.67	315.52	315.56	316.03	315.62	317.34	315.40	315.01	315.15	315.13	315.26	
25	315.17	315.78	315.50	315.56	316.00	315.54	317.16	315.47	315.01	315.15	315.13	315.25	
26	315.21	315.70	315.50	315.72	315.91	315.62	316.62	315.47	315.05	314.96	315.10	315.26	
27	315.31	315.75	315.59	315.57	315.89	315.45	316.27	315.53	315.05	315.10	315.11	315.28	
28	315.31	315.85	316.09	315.55	316.07	315.42	316.08	315.48	314.99	315.15	315.10	315.26	
29	315.28	315.85	316.23	315.66	316.00	315.53	315.94	315.47	315.04	315.17		315.26	
30	315.21	315.91	315.89	315.58	315.82	315.93	315.85	315.47	315.15	315.16		315.31	
31		315.88		315.60	315.78		315.80		315.18	314.96		315.40	
Mean	315.27	315.44	315.73	315.41	315.92	315.77	316.37	315.55	315.19	315.13	315.15	315.24	
Max	315.34	315.91	316.23	315.79	318.38	316.22	318.61	315.75	315.41	315.66	315.24	315.40	318.61
Min	315.17	315.01	315.42	315.04	315.25	315.42	315.59	315.38	314.99	314.96	314.93	315.04	314.93

Annual Max Momentary Gage Height 318.86 m. (MSL.) , at 01.00 Hours , on Aug 19 , 2018

Zero Gage at Bottom Elevation 315.93 m. (MSL.) , River Bed 312.52 m. (MSL.)

Left Bank Elevation 326.35 m. (MSL.) ,

Right Bank Elevation 326.25 m. (MSL.) , Drainage Are 5,323 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	13.15	10.35	43.20	28.78	22.50	48.38	46.07	35.25	17.10	2.20	0.72	2.20		
2	13.86	14.22	68.30	24.50	46.07	36.47	196.20	31.63	17.54	1.96	0.96	2.08		
3	13.86	15.30	50.69	23.00	69.15	30.49	326.68	30.49	16.38	1.72	4.18	4.40		
4	13.50	14.22	43.20	19.30	64.05	37.08	282.45	28.78	11.40	1.60	5.12	4.18		
5	13.15	13.50	37.08	9.40	58.10	53.85	171.30	27.07	10.70	1.60	4.64	3.52		
6	13.15	13.50	34.64	7.60	19.30	36.47	110.40	29.35	10.70	1.60	4.40	3.30		
7	13.50	9.70	32.20	6.56	46.84	28.78	80.80	26.50	9.10	1.36	5.12	1.48		
8	13.15	7.00	29.92	7.30	20.62	27.64	69.15	26.00	9.10	5.36	4.88	3.96		
9	13.50	5.02	34.03	9.40	12.10	36.47	57.25	25.00	9.10	24.92	2.42	1.72		
10	13.15	6.78	38.30	7.30	12.10	50.69	76.30	25.50	9.70	8.40	2.42	1.72		
11	13.15	9.70	39.00	5.90	17.10	71.80	75.40	28.78	9.40	5.36	2.08	2.08		
12	12.80	14.22	40.40	5.68	19.30	41.10	70.00	32.20	10.70	4.18	2.64	2.64		
13	12.80	16.38	49.15	16.02	14.58	36.47	87.10	27.64	17.10	3.30	2.64	3.74		
14	13.86	24.00	43.90	11.40	13.15	40.40	69.15	26.00	17.54	2.20	2.20	4.64		
15	13.86	22.50	33.42	8.80	11.75	41.10	48.38	25.50	13.15	1.72	1.96	8.08		
16	13.50	17.54	28.21	8.80	13.50	42.50	37.69	24.00	11.75	1.36	2.20	8.72		
17	12.80	13.15	19.74	8.80	12.80	27.07	33.42	21.50	10.70	1.36	4.64	9.68		
18	12.10	13.86	18.42	21.06	136.10	26.00	31.06	20.62	9.40	1.36	4.88	10.00		
19	14.94	15.30	17.98	28.21	299.70	56.40	28.21	20.18	7.60	1.00	4.64	9.36		
20	12.45	18.42	18.42	24.50	185.28	58.10	26.00	19.30	7.90	3.52	4.88	9.68		
21	10.35	16.38	22.50	37.69	108.45	51.46	26.50	17.10	7.90	4.18	5.36	9.04		
22	9.70	16.38	25.00	26.50	82.60	35.86	44.60	16.38	7.30	3.30	4.88	7.12		
23	9.70	27.64	25.00	29.35	58.10	32.81	103.73	16.74	6.34	4.18	3.52	5.60		
24	9.40	30.49	22.50	24.50	55.55	27.64	182.05	17.10	5.02	3.30	2.86	5.84		
25	9.10	37.08	21.50	24.50	53.00	23.50	162.84	20.18	5.02	3.30	2.86	5.60		
26	10.35	32.20	21.50	33.42	46.07	27.64	108.45	20.18	5.90	0.84	2.20	5.84		
27	13.86	35.25	26.00	25.00	44.60	19.30	76.30	23.00	5.90	2.20	2.42	6.32		
28	13.86	41.80	60.65	24.00	58.95	17.98	59.80	20.62	4.61	3.30	2.20	5.84		
29	12.80	41.80	72.70	29.92	53.00	23.00	48.38	20.18	1.48	3.74		5.84		
30	10.35	46.07	44.60	25.50	39.70	47.61	41.80	20.18	3.30	3.52		7.12		
31		43.90		26.50	37.08		38.30		3.96	0.84		10.00		
Total	375.70	643.65	1062.15	589.19	1731.19	1134.06	2815.76	722.95	292.79	108.78	93.92	171.34	9741.48	CMSDAY
Mean	12.52	20.76	35.40	19.01	55.84	37.80	90.83	24.10	9.44	3.51	3.35	5.53	26.69	CMS
Max	14.94	46.07	72.70	37.69	299.70	71.80	326.68	35.25	17.54	24.92	5.36	10.00	326.68	CMS
Min	9.10	5.02	17.98	5.68	11.75	17.98	26.00	16.38	1.48	0.84	0.72	1.48	0.72	CMS
Runoff	32.46	55.61	91.77	50.91	149.57	97.98	243.28	62.46	25.30	9.40	8.11	14.80	841.66	MCM

Momentary Peak 356.20 CMS. at 318.86 m. (MSL.) at 01.00 Hours , on Aug 19 , 2018

Runoff Yield 5.01 Liters/Second/Square KM. Momentary Peak Yield 66.92 Liters/Second/Square KM.

WATER YEAR : 2018

PING RIVER BASIN

Nam Mae Khan at Ban Klang , Chiang Mai (P.71A)

Lat 18 - 32 - 50 N Long 98 - 51 - 44 E

Location : on left bank at the bridge on highway.

Ban Klang **Amphoe** San Pa Tong **Changwat** Chiang Mai

Drainge Area	1,634 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+283.285 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank about 3 meters from the top staff gage. **Elevation** +287.570 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	1996 to date
Rating Operation	
Period of Rating	1996 to date
Rated by Flot	-
Rated by Current Meter	1996 to date
Stability of Channel Regimes	Fairly stable because of backwater effect.
Overbank Flow Conditions	No overbank flow
General Description	Records fair. The concrete weir made by R.I.D. about 3 kilometers and the temporary weir about 300 meters downstream from the gage site. Stage-discharge relation defined by 31 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

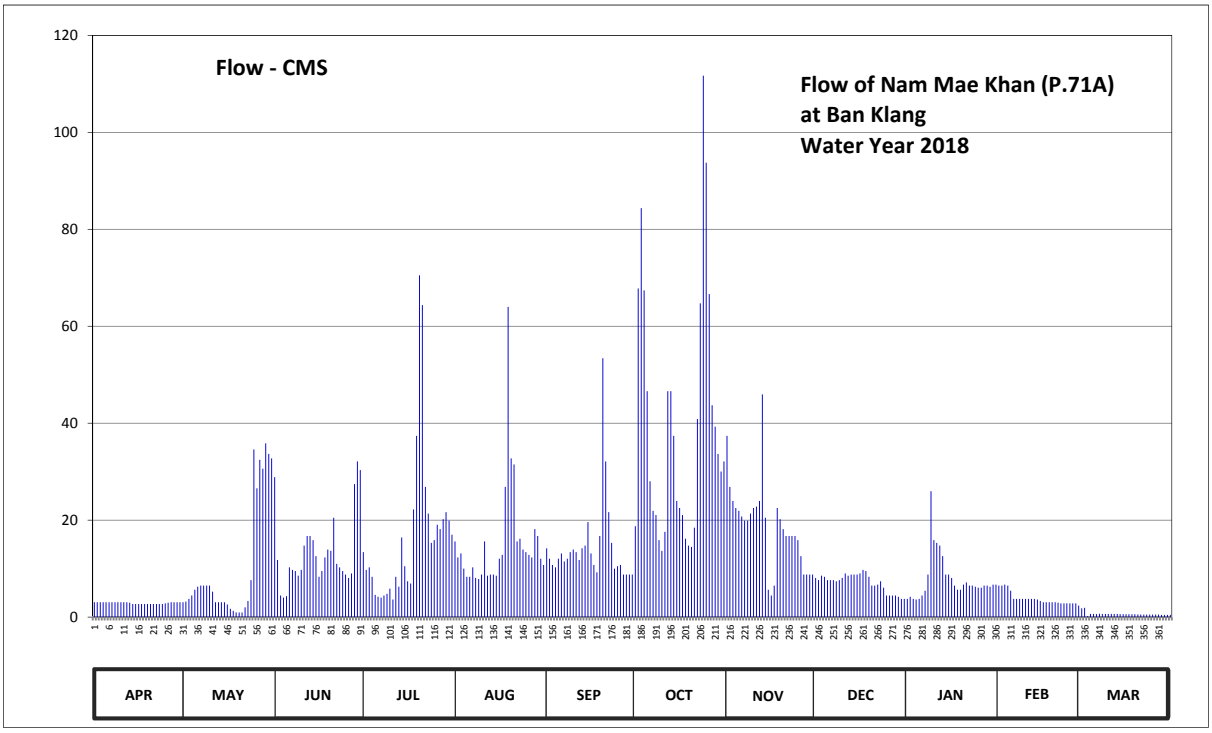
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	284.29	284.29	285.31	284.77	284.85	284.80	284.96	285.59	284.56	284.34	284.49	284.18	
2	284.29	284.30	284.71	284.63	284.73	284.72	286.47	285.24	284.54	284.37	284.49	284.19	
3	284.29	284.34	284.39	284.65	284.76	284.67	286.90	285.14	284.58	284.34	284.50	284.28	
4	284.29	284.39	284.36	284.57	284.64	284.65	286.46	285.09	284.57	284.33	284.49	284.58	
5	284.29	284.45	284.38	284.40	284.57	284.72	285.88	285.07	284.54	284.34	284.44	284.58	
6	284.29	284.48	284.65	284.37	284.57	284.76	285.28	285.03	284.54	284.39	284.34	284.56	
7	284.29	284.49	284.63	284.36	284.65	284.70	285.07	285.00	284.54	284.44	284.34	284.59	
8	284.29	284.49	284.62	284.39	284.56	284.72	285.04	285.00	284.53	284.59	284.34	284.58	
9	284.29	284.49	284.58	284.41	284.55	284.77	284.86	285.05	284.54	285.21	284.34	284.58	
10	284.29	284.49	284.63	284.46	284.59	284.79	284.78	285.09	284.56	284.86	284.34	284.58	
11	284.29	284.43	284.82	284.33	284.85	284.77	284.92	285.10	284.60	284.84	284.34	284.58	
12	284.29	284.29	284.89	284.57	284.58	284.71	285.88	285.14	284.58	284.82	284.34	284.58	
13	284.28	284.29	284.89	284.48	284.59	284.80	285.88	285.86	284.59	284.74	284.34	284.58	
14	284.26	284.29	284.86	284.88	284.59	284.82	285.59	285.02	284.59	284.59	284.33	284.56	
15	284.26	284.29	284.74	284.66	284.58	284.99	285.14	284.45	284.59	284.59	284.31	284.54	
16	284.26	284.25	284.57	284.53	284.72	284.76	285.09	284.39	284.60	284.56	284.29	284.54	
17	284.26	284.17	284.62	284.51	284.75	284.67	285.04	284.49	284.63	284.49	284.29	284.54	
18	284.26	284.13	284.73	285.08	285.24	284.61	284.87	285.09	284.62	284.45	284.29	284.54	
19	284.26	284.09	284.79	285.59	286.37	284.89	284.82	285.01	284.57	284.45	284.29	284.54	
20	284.26	284.09	284.78	286.54	285.44	286.08	284.81	284.94	284.49	284.50	284.29	284.53	
21	284.26	284.09	285.02	286.38	285.40	285.42	284.95	284.89	284.49	284.52	284.28	284.52	
22	284.26	284.20	284.68	285.24	284.85	285.06	285.70	284.89	284.50	284.49	284.27	284.52	
23	284.26	284.31	284.65	285.05	284.87	284.84	286.39	284.89	284.53	284.49	284.27	284.52	
24	284.26	284.54	284.62	284.84	284.79	284.64	287.59	284.89	284.47	284.48	284.27	284.52	
25	284.27	285.50	284.59	284.86	284.77	284.66	287.14	284.86	284.39	284.47	284.27	284.52	
26	284.28	285.23	284.56	284.97	284.75	284.67	286.44	284.74	284.39	284.47	284.27	284.52	
27	284.29	285.43	284.60	284.94	284.73	284.59	285.79	284.59	284.39	284.49	284.27	284.51	
28	284.29	285.37	285.26	285.01	284.94	284.59	285.65	284.59	284.39	284.49	284.23	284.48	
29	284.29	285.54	285.42	285.06	284.89	284.59	285.47	284.59	284.37	284.48		284.48	
30	284.29	285.47	285.36	285.00	284.72	284.59	285.35	284.59	284.34	284.50		284.48	
31		285.44		284.90	284.67		285.42		284.34	284.50		284.48	
Mean	284.28	284.57	284.76	284.85	284.82	284.80	285.60	284.94	284.51	284.54	284.33	284.51	
Max	284.29	285.54	285.42	286.54	286.37	286.08	287.59	285.86	284.63	285.21	284.50	284.59	287.59
Min	284.26	284.09	284.36	284.33	284.55	284.59	284.78	284.39	284.34	284.33	284.23	284.18	284.09

Annual Max Momentary Gage Height 287.85 m. (MSL.) , at 12.00 Hours , on Oct 24 , 2018

Zero Gage at Bottom Elevation 283.29 m. (MSL.) , River Bed 282.48 m. (MSL.)

Left Bank Elevation 290.16 m. (MSL.) ,

Right Bank Elevation 290.12 m. (MSL.) , Drainage Are 1,634 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	3.08	3.08	28.89	13.39	15.60	14.20	18.74	37.39	8.08	3.76	6.49	1.80		
2	3.08	3.20	11.77	9.75	12.31	12.04	67.80	26.86	7.62	4.18	6.49	1.90		
3	3.08	3.76	4.46	10.25	13.12	10.75	84.35	23.96	8.54	3.76	6.70	0.18		
4	3.08	4.46	4.04	8.31	10.00	10.25	67.41	22.51	8.31	3.62	6.49	0.66		
5	3.08	5.65	4.32	4.60	8.31	12.04	46.60	21.93	7.62	3.76	5.44	0.66		
6	3.08	6.28	10.25	4.18	8.31	13.12	28.02	20.77	7.62	4.46	3.76	0.62		
7	3.08	6.49	9.75	4.04	10.25	11.50	21.93	19.90	7.62	5.44	3.76	0.68		
8	3.08	6.49	9.50	4.46	8.08	12.04	21.06	19.90	7.39	8.77	3.76	0.66		
9	3.08	6.49	8.54	4.81	7.85	13.39	15.88	21.35	7.62	25.99	3.76	0.66		
10	3.08	6.49	9.75	5.86	8.77	13.93	13.66	22.51	8.08	15.88	3.76	0.66		
11	3.08	5.23	14.76	3.62	15.60	13.39	17.58	22.80	9.00	15.32	3.76	0.66		
12	3.08	3.08	16.72	8.31	8.54	11.77	46.60	23.96	8.54	14.76	3.76	0.66		
13	2.96	3.08	16.72	6.28	8.77	14.20	46.60	45.95	8.77	12.58	3.76	0.66		
14	2.72	3.08	15.88	16.44	8.77	14.76	37.39	20.48	8.77	8.77	3.62	0.62		
15	2.72	3.08	12.58	10.50	8.54	19.61	23.96	5.65	8.77	8.77	3.34	0.58		
16	2.72	2.60	8.31	7.39	12.04	13.12	22.51	4.46	9.00	8.08	3.08	0.58		
17	2.72	1.70	9.50	6.93	12.85	10.75	21.06	6.49	9.75	6.49	3.08	0.58		
18	2.72	1.30	12.31	22.22	26.86	9.25	16.16	22.51	9.50	5.65	3.08	0.58		
19	2.72	0.95	13.93	37.39	64.01	16.72	14.76	20.19	8.31	5.65	3.08	0.58		
20	2.72	0.95	13.66	70.49	32.74	53.42	14.48	18.16	6.49	6.70	3.08	0.56		
21	2.72	0.95	20.48	64.37	31.50	32.12	18.45	16.72	6.49	7.16	2.96	0.54		
22	2.72	2.00	11.00	26.86	15.60	21.64	40.85	16.72	6.70	6.49	2.84	0.54		
23	2.72	3.34	10.25	21.35	16.16	15.32	64.74	16.72	7.39	6.49	2.84	0.54		
24	2.72	7.62	9.50	15.32	13.93	10.00	111.70	16.72	6.07	6.28	2.84	0.54		
25	2.84	34.60	8.77	15.88	13.39	10.50	93.73	15.88	4.46	6.07	2.84	0.54		
26	2.96	26.57	8.08	19.03	12.85	10.75	66.64	12.58	4.46	6.07	2.84	0.54		
27	3.08	32.43	9.00	18.16	12.31	8.77	43.69	8.77	4.46	6.49	2.84	0.52		
28	3.08	30.63	27.44	20.19	18.16	8.77	39.28	8.77	4.46	6.49	2.36	0.46		
29	3.08	35.84	32.12	21.64	16.72	8.77	33.67	8.77	4.18	6.28		0.46		
30	3.08	33.67	30.34	19.90	12.04	8.77	30.05	8.77	3.76	6.70		0.46		
31		32.74		17.00	10.75		32.12		3.76	6.70		0.46		
Total	87.96	317.83	402.62	518.92	474.73	435.66	1221.47	558.15	221.59	243.61	106.41	20.14	4609.09	CMSDAY
Mean	2.93	10.25	13.42	16.74	15.31	14.52	39.40	18.61	7.15	7.86	3.80	0.65	12.63	CMS
Max	3.08	35.84	32.12	70.49	64.01	53.42	111.70	45.95	9.75	25.99	6.70	1.90	111.70	CMS
Min	2.72	0.95	4.04	3.62	7.85	8.77	13.66	4.46	3.76	3.62	2.36	0.18	0.18	CMS
Runoff	7.60	27.46	34.79	44.83	41.02	37.64	105.54	48.22	19.15	21.05	9.19	1.74	398.23	MCM

Momentary Peak 122.33 CMS. at 287.85 m. (MSL.) at 12.00 Hours , on Oct 24 , 2018

Runoff Yield 7.73 Liters/Second/Square KM. Momentary Peak Yield 74.87 Liters/Second/Square KM.

WATER YEAR : 2018

PING RIVER BASIN

Ping River at Ban Sop Soi , Chiang Mai (P.73)

Lat 18 - 17 - 25 N Long 98 - 39 - 01 E

Location : on left bank at Sop Soi Phatana Bridge.

Ban Sop Soi **Amphoe** Chom Thong **Changwat** Chiang Mai

Drainge Area	14,814 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+261.750 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank about 15 meters from the abutment of the bridge. **Elevation** +267.505 m. (MSL.)
Gage Reading Frequency	Recording.
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	1997 to date
Rating Operation	
Period of Rating	1997 to date
Rated by Flot	-
Rated by Current Meter	1998 to date
Stability of Channel Regimes	Fairly stable because of backwater effect.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. No gage height in the drought period. Stage-discharge relation defined by 31 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

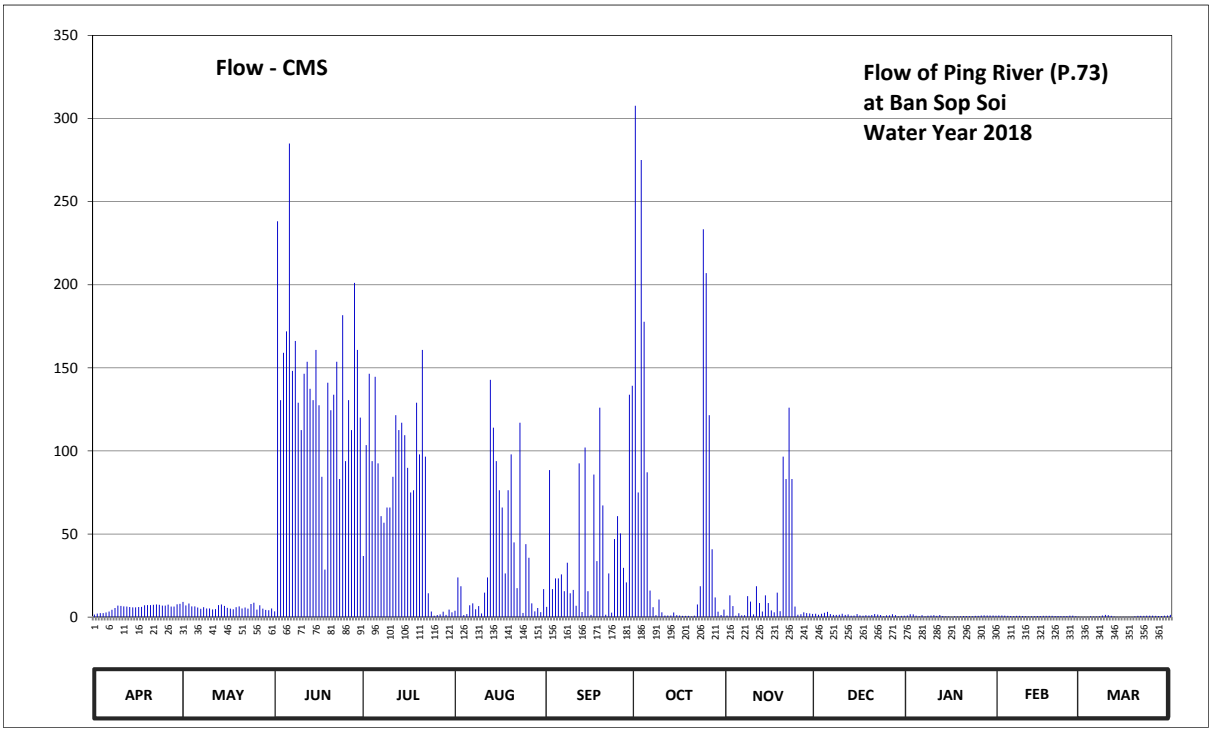
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	261.97	265.31	263.20	262.88	262.20	262.30	264.41	261.57	262.27	261.52	261.55	260.74	
2	262.36	264.63	264.13	263.41	262.72	263.30	263.20	262.51	261.86	262.11	261.55	260.76	
3	262.55	265.03	263.59	263.68	262.63	262.60	264.28	262.32	262.27	262.00	261.49	260.83	
4	262.56	264.46	263.75	263.34	261.82	262.71	263.85	261.46	262.64	261.45	261.32	261.05	
5	262.82	264.45	263.82	263.67	262.03	262.71	263.29	262.07	263.05	261.19	261.28	260.93	
6	263.12	264.23	264.32	263.33	262.34	262.75	262.58	261.68	262.15	261.69	261.31	260.94	
7	263.64	263.95	263.69	263.09	262.39	262.57	262.29	261.79	261.84	261.11	261.34	261.09	
8	264.14	264.28	263.79	263.06	262.24	262.84	261.77	262.50	261.85	261.48	261.40	261.56	
9	264.60	264.03	263.58	263.13	262.32	262.54	262.45	262.42	261.90	261.53	261.25	261.82	
10	264.56	264.04	263.47	263.13	262.06	262.59	262.12	262.01	262.25	261.68	261.20	261.68	
11	264.44	263.76	263.68	263.27	262.55	262.33	261.56	262.63	261.82	261.32	260.96	261.34	
12	264.40	263.85	263.72	263.53	262.72	263.33	261.55	262.40	261.99	261.74	261.09	260.97	
13	264.33	264.71	263.63	263.47	263.66	262.14	261.57	262.16	261.50	261.29	261.17	260.83	
14	264.24	264.82	263.59	263.50	263.48	263.40	262.11	262.51	261.55	261.06	261.23	260.75	
15	264.27	264.55	263.76	263.45	263.34	262.57	261.76	262.40	262.13	260.94	261.25	260.75	
16	264.32	264.17	263.57	263.31	263.21	261.94	261.53	262.21	261.66	260.79	261.39	260.75	
17	264.35	263.98	263.27	263.20	263.13	263.28	261.37	262.12	261.42	261.07	261.36	260.75	
18	264.66	263.79	262.80	263.21	262.76	262.85	261.35	262.55	261.70	260.99	261.39	260.77	
19	264.72	264.28	263.65	263.58	263.21	263.56	261.38	262.18	261.58	261.03	261.37	261.08	
20	264.72	264.45	263.55	263.37	263.37	263.14	260.99	263.36	261.75	261.29	261.29	261.35	
21	264.76	264.02	263.61	263.76	262.96	261.99	261.45	263.26	262.15	261.23	261.27	261.39	
22	264.84	264.23	263.72	263.36	262.61	262.76	262.36	263.56	261.98	261.15	261.18	261.39	
23	264.78	264.01	263.26	262.54	263.50	262.10	262.63	263.26	261.73	261.17	261.29	261.42	
24	264.60	264.94	263.87	262.16	262.09	262.98	264.11	262.31	261.19	261.35	261.30	261.49	
25	264.62	265.18	263.34	261.50	262.95	263.09	264.00	261.98	261.62	261.32	261.42	261.47	
26	264.81	263.70	263.59	261.86	262.87	263.01	263.53	262.08	261.61	261.52	261.43	261.39	
27	264.43	264.66	263.47	262.01	262.39	262.81	262.92	262.85	262.07	261.66	261.18	261.27	
28	264.43	263.99	263.97	262.15	262.17	262.67	262.48	262.55	261.69	261.55	260.88	261.30	
29	264.87	263.62	263.76	261.93	262.27	263.61	262.15	262.37	261.06	261.52		261.44	
30	264.97	263.50	263.52	262.23	262.13	263.64	261.88	262.20	261.34	261.54		261.58	
31		264.02		262.12	262.60		262.23		261.42	261.50		261.85	
Mean	264.13	264.28	263.62	262.98	262.67	262.80	262.42	262.38	261.84	261.38	261.29	261.18	
Max	264.97	265.31	264.32	263.76	263.66	263.64	264.41	263.56	263.05	262.11	261.55	261.85	265.31
Min	261.97	263.50	262.80	261.50	261.82	261.94	260.99	261.46	261.06	260.79	260.88	260.74	260.74

Annual Max Momentary Gage Height 264.69 m. (MSL.) , at 11.00 Hours , on Oct 1 , 2018

Zero Gage at Bottom Elevation 261.75 m. (MSL.) , River Bed 258.08 m. (MSL.)

Left Bank Elevation 267.73 m. (MSL.) ,

Right Bank Elevation 268.03 m. (MSL.) , Drainage Are 14,814 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.56	9.14	3.50	36.76	3.80	6.15	307.65	0.97	2.01	0.92	0.95	0.14		
2	2.14	6.99	238.20	103.50	23.88	88.50	75.00	13.07	1.39	1.77	0.95	0.16		
3	2.43	8.19	130.50	146.40	18.57	16.80	275.00	6.62	2.01	1.60	0.89	0.23		
4	2.44	6.48	159.00	93.90	1.22	23.29	177.75	0.86	2.56	0.85	0.72	0.45		
5	2.83	6.45	171.90	144.60	1.85	23.29	87.15	2.31	3.20	0.59	0.68	0.33		
6	3.34	5.79	285.00	92.55	7.09	25.65	15.97	1.08	1.83	1.14	0.71	0.34		
7	4.38	5.00	148.20	60.70	8.27	15.56	5.92	1.19	1.36	0.51	0.74	0.49		
8	5.52	5.94	166.20	56.80	4.74	32.68	1.17	12.65	1.38	0.88	0.80	0.96		
9	6.90	5.19	129.00	65.90	6.62	14.31	10.58	9.33	1.45	0.93	0.65	1.33		
10	6.78	5.22	112.50	65.90	2.19	16.39	2.88	1.62	1.98	1.12	0.60	1.12		
11	6.42	4.62	146.40	84.45	14.73	6.86	0.96	18.57	1.33	0.72	0.36	0.74		
12	6.30	4.80	153.60	121.50	23.88	92.55	0.95	8.50	1.59	1.21	0.49	0.37		
13	6.09	7.23	137.40	112.50	142.80	3.11	0.97	3.34	0.90	0.69	0.57	0.23		
14	5.82	7.56	130.50	117.00	114.00	102.00	2.77	13.07	0.95	0.46	0.63	0.15		
15	5.91	6.75	160.80	109.50	93.90	15.56	1.16	8.50	1.80	0.34	0.65	0.15		
16	6.06	5.61	127.50	89.85	76.35	1.38	0.93	4.04	1.09	0.19	0.79	0.15		
17	6.15	5.06	84.45	75.00	65.90	85.80	0.77	2.88	0.82	0.47	0.76	0.15		
18	7.08	4.68	28.60	76.35	26.24	33.70	0.75	14.73	1.15	0.39	0.79	0.17		
19	7.26	5.94	141.00	129.00	76.35	126.00	0.78	3.57	0.98	0.43	0.77	0.48		
20	7.26	6.45	124.50	97.95	97.95	67.20	0.39	96.60	1.23	0.69	0.69	0.75		
21	7.38	5.16	133.80	160.80	44.92	1.48	0.85	83.10	1.83	0.63	0.67	0.79		
22	7.62	5.79	153.60	96.60	17.39	26.24	7.56	126.00	1.57	0.55	0.58	0.79		
23	7.44	5.13	83.10	14.31	117.00	2.65	18.57	83.10	1.20	0.57	0.69	0.82		
24	6.90	7.92	181.65	3.34	2.54	46.96	233.40	6.39	0.59	0.75	0.70	0.89		
25	6.96	8.64	93.90	0.90	43.90	60.70	207.00	1.46	1.03	0.72	0.82	0.87		
26	7.53	4.50	130.50	1.26	35.74	50.30	121.50	1.72	1.02	0.92	0.83	0.79		
27	6.39	7.08	112.50	1.62	8.27	29.62	40.84	2.88	1.71	1.09	0.58	0.67		
28	6.39	5.08	201.15	3.23	3.46	20.93	11.82	2.43	1.14	0.95	0.28	0.70		
29	7.71	4.34	160.80	1.36	5.45	133.80	3.23	2.16	0.46	0.92		0.84		
30	8.01	4.10	120.00	4.51	3.00	139.20	1.28	1.90	0.74	0.94		0.98		
31		5.16		2.88	16.80		4.51		0.82	0.90		1.38		
Total	175.00	185.99	4149.75	2170.92	1108.80	1308.66	1620.06	534.64	43.12	24.84	19.34	18.41	11359.53	CMSDAY
Mean	5.83	6.00	138.32	70.03	35.77	43.62	52.26	17.82	1.39	0.80	0.69	0.59	31.12	CMS
Max	8.01	9.14	285.00	160.80	142.80	139.20	307.65	126.00	3.20	1.77	0.95	1.38	307.65	CMS
Min	1.56	4.10	3.50	0.90	1.22	1.38	0.39	0.86	0.46	0.19	0.28	0.14	0.14	CMS
Runoff	15.12	16.07	358.54	187.57	95.80	113.07	139.97	46.19	3.73	2.15	1.67	1.59	981.46	MCM

Momentary Peak 382.75 CMS. at 264.69 m. (MSL.) at 11.00 Hours , on Oct 1 , 2018

Runoff Yield 2.10 Liters/Second/Square KM. Momentary Peak Yield 25.84 Liters/Second/Square KM.

WATER YEAR : 2018

PING RIVER BASIN

Ping River at Ban Sop Pae , Chiang Mai (P.73A)

Lat 18 - 15 - 12 N Long 98 - 38 - 29 E

Location : on right bank at Ban Sop Pae.

Ban Sop Pae **Amphoe** Chom Thong **Changwat** Chiang Mai

Drainge Area	14,820 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+261.750 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank about 15 meters from the abutment of the bridge. **Elevation** +267.505 m. (MSL.)
Gage Reading Frequency	Recording.
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	2017 to date
Rating Operation	
Period of Rating	2017 to date
Rated by Flot	-
Rated by Current Meter	2017 to date
Stability of Channel Regimes	Fairly stable because of backwater effect.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. No gage height in the drought period. Stage-discharge relation defined by 32 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

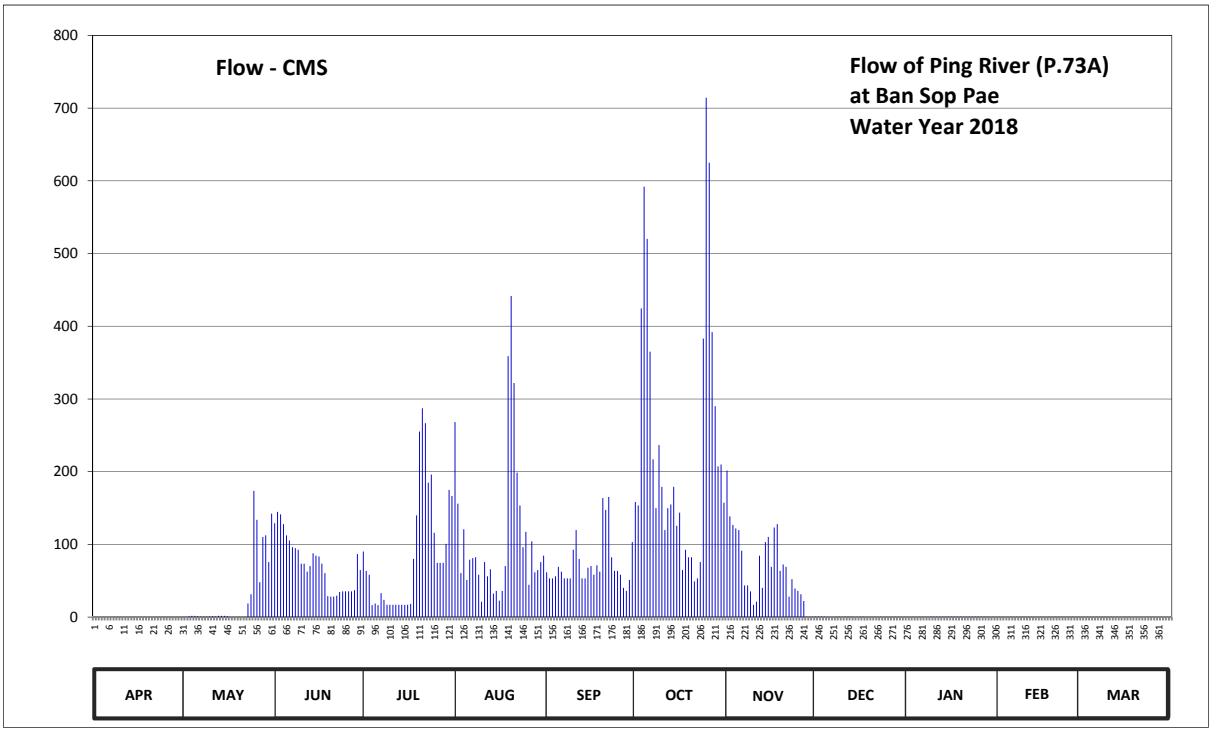
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	257.77	258.07	259.54	259.21	260.56	258.95	259.78	260.09	258.66	258.18	258.17	258.07	
2	257.77	258.16	259.67	258.97	259.76	258.87	259.74	259.62	258.67	258.22	258.17	258.07	
3	257.77	258.89	259.64	258.92	258.94	258.87	261.61	259.52	258.67	258.26	258.17	258.07	
4	257.77	259.26	259.53	258.36	259.47	258.90	262.66	259.48	258.55	258.27	258.17	258.07	
5	257.77	259.27	259.40	258.41	258.85	259.02	262.22	259.46	258.27	258.27	258.17	258.07	
6	257.77	259.09	259.34	258.36	259.11	258.96	261.22	259.22	258.27	258.27	258.17	258.04	
7	257.77	258.67	259.26	258.64	259.13	258.87	260.20	258.77	258.31	258.27	258.17	257.97	
8	257.77	258.67	259.25	258.50	259.14	258.87	259.71	258.77	258.46	258.31	258.17	257.97	
9	257.96	258.67	259.23	258.37	258.92	258.87	260.34	258.67	258.42	258.46	258.17	257.97	
10	257.79	258.83	259.06	258.37	258.45	259.23	259.93	258.37	258.32	258.47	258.17	257.97	
11	257.77	259.08	259.06	258.37	259.08	259.46	259.46	258.45	258.46	258.47	258.17	257.97	
12	257.77	258.84	258.96	258.37	258.90	259.12	259.71	259.16	258.47	258.47	258.17	257.97	
13	257.78	259.26	259.03	258.37	258.99	258.87	259.75	258.73	258.42	258.47	258.14	257.97	
14	257.86	259.27	259.19	258.37	258.63	258.87	259.93	259.32	258.27	258.47	258.07	257.97	
15	257.87	259.27	259.16	258.37	258.68	259.01	259.51	259.38	258.31	258.47	258.07	257.97	
16	257.85	259.00	259.15	258.37	258.48	259.03	259.66	259.02	258.46	258.47	258.07	257.97	
17	257.77	258.28	259.06	258.40	258.68	258.92	258.98	259.49	258.42	258.47	258.07	257.92	
18	257.77	258.27	258.94	259.12	259.03	259.04	259.23	259.53	258.27	258.46	258.07	257.77	
19	257.77	258.23	258.58	259.63	261.18	258.96	259.14	258.97	258.27	258.47	258.07	257.77	
20	257.77	258.17	258.57	260.47	261.72	259.82	259.14	259.05	258.27	258.47	258.07	257.77	
21	257.77	258.17	258.57	260.69	260.93	259.69	258.83	259.02	258.27	258.47	258.07	257.77	
22	257.89	258.19	258.59	260.55	260.07	259.83	258.87	258.57	258.27	258.47	258.07	257.77	
23	258.16	258.41	258.66	259.97	259.74	259.14	259.08	258.86	258.27	258.47	258.07	257.77	
24	258.17	258.62	258.67	260.05	259.26	258.97	261.34	258.72	258.27	258.47	258.07	257.77	
25	258.17	259.89	258.67	259.43	259.44	258.97	263.39	258.68	258.27	258.47	258.07	257.77	
26	258.17	259.58	258.67	259.07	258.78	258.92	262.86	258.62	258.27	258.47	258.07	257.77	
27	258.17	258.82	258.67	259.07	259.33	258.73	261.40	258.47	258.27	258.54	258.07	257.77	
28	258.17	259.38	258.69	259.07	258.95	258.68	260.71	258.48	258.24	258.47	258.07	257.77	
29	258.17	259.40	259.18	259.30	258.98	258.85	260.13	258.54	258.17	258.17		257.77	
30	258.13	259.08	258.98	259.90	259.08	259.32	260.15	258.51	258.17	258.17		257.77	
31		259.65		259.84	259.16		259.77		258.17	258.17		257.77	
Mean	257.90	258.85	259.03	259.06	259.34	259.05	260.27	258.98	258.35	258.39	258.12	257.90	
Max	258.17	259.89	259.67	260.69	261.72	259.83	263.39	260.09	258.67	258.54	258.17	258.07	263.39
Min	257.77	258.07	258.57	258.36	258.45	258.68	258.83	258.37	258.17	258.17	258.07	257.77	257.77

Annual Max Momentary Gage Height 263.70 m. (MSL.) , at 18.00 Hours , on Oct 25 , 2018

Zero Gage at Bottom Elevation 257.67 m. (MSL.) , River Bed 255.25 m. (MSL.)

Left Bank Elevation 267.39 m. (MSL.) ,

Right Bank Elevation 267.41 m. (MSL.) , Drainage Are 14,820 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.04	0.19	129.09	90.17	268.20	61.50	158.52	201.60	0.54	0.24	0.24	0.19		
2	0.04	0.23	144.88	63.62	156.04	53.14	153.56	138.68	0.56	0.26	0.24	0.19		
3	0.04	0.98	141.16	58.32	60.44	53.14	424.55	126.72	0.56	0.28	0.24	0.19		
4	0.04	1.72	127.91	16.44	120.80	56.20	591.90	121.98	0.43	0.29	0.24	0.19		
5	0.04	1.74	112.50	18.76	51.10	69.02	520.20	119.61	0.29	0.29	0.24	0.19		
6	0.04	1.38	105.45	16.44	79.01	62.56	365.00	91.35	0.29	0.29	0.24	0.17		
7	0.04	0.56	96.05	33.08	81.23	53.14	217.00	43.51	0.31	0.29	0.24	0.14		
8	0.04	0.56	94.87	23.80	82.34	53.14	149.84	43.51	0.38	0.31	0.24	0.14		
9	0.13	0.56	92.52	16.88	58.32	53.14	236.60	35.39	0.36	0.38	0.24	0.14		
10	0.05	0.86	73.46	16.88	21.00	92.52	179.20	16.88	0.31	0.39	0.24	0.14		
11	0.04	1.36	73.46	16.88	75.68	119.61	119.61	21.00	0.38	0.39	0.24	0.14		
12	0.04	0.88	62.56	16.88	56.20	80.12	149.84	84.56	0.39	0.39	0.24	0.14		
13	0.05	1.72	70.13	16.88	65.74	53.14	154.80	40.19	0.36	0.39	0.22	0.14		
14	0.08	1.74	87.89	16.88	32.31	53.14	179.20	103.10	0.29	0.39	0.19	0.14		
15	0.09	1.74	84.56	16.88	36.16	67.91	125.54	110.15	0.31	0.39	0.19	0.14		
16	0.08	1.20	83.45	16.88	22.68	70.13	143.64	69.02	0.38	0.39	0.19	0.14		
17	0.04	0.29	73.46	18.20	36.16	58.32	64.68	123.17	0.36	0.39	0.19	0.11		
18	0.04	0.29	60.44	80.12	70.13	71.24	92.52	127.91	0.29	0.38	0.19	0.04		
19	0.04	0.27	28.76	139.92	359.00	62.56	82.34	63.62	0.29	0.39	0.19	0.04		
20	0.04	0.24	28.14	255.15	441.60	163.80	82.34	72.35	0.29	0.39	0.19	0.04		
21	0.04	0.24	28.14	287.05	321.85	147.36	49.06	69.02	0.29	0.39	0.19	0.04		
22	0.10	0.25	29.38	266.75	198.80	165.20	53.14	28.14	0.29	0.39	0.19	0.04		
23	0.23	18.76	34.62	184.80	153.56	82.34	75.68	52.12	0.29	0.39	0.19	0.04		
24	0.24	31.54	35.39	196.00	96.05	63.62	383.00	39.36	0.29	0.39	0.19	0.04		
25	0.24	173.60	35.39	116.06	117.24	63.62	714.30	36.16	0.29	0.39	0.19	0.04		
26	0.24	133.83	35.39	74.57	44.34	58.32	624.90	31.54	0.29	0.39	0.19	0.04		
27	0.24	48.04	35.39	74.57	104.28	40.19	392.00	22.12	0.29	0.42	0.19	0.04		
28	0.24	110.15	36.93	74.57	61.50	36.16	289.95	0.39	0.27	0.39	0.19	0.04		
29	0.24	112.50	86.78	100.75	64.68	51.10	207.20	0.42	0.24	0.24		0.04		
30	0.22	75.68	64.68	175.00	75.68	103.10	210.00	0.41	0.24	0.24		0.04		
31		142.40		166.60	84.56		157.28		0.24	0.24		0.04		
Total	3.07	865.50	2192.83	2665.78	3496.68	2218.48	7347.39	2033.98	10.39	10.78	5.95	3.19	20854.02	CMSDAY
Mean	0.10	27.92	73.09	85.99	112.80	73.95	237.01	67.80	0.34	0.35	0.21	0.10	57.13	CMS
Max	0.24	173.60	144.88	287.05	441.60	165.20	714.30	201.60	0.56	0.42	0.24	0.19	714.30	CMS
Min	0.04	0.19	28.14	16.44	21.00	36.16	49.06	0.39	0.24	0.24	0.19	0.04	0.04	CMS
Runoff	0.27	74.78	189.46	230.32	302.11	191.68	634.81	175.74	0.90	0.93	0.51	0.28	1801.79	MCM

Momentary Peak 767.50 CMS. at 263.70 m. (MSL.) at 18.00 Hours , on Oct 25 , 2018

Runoff Yield 3.86 Liters/Second/Square KM. Momentary Peak Yield 51.79 Liters/Second/Square KM.

WATER YEAR : 2018

PING RIVER BASIN

Ping River at Ban Cho Lae , Chiang Mai (P.75)

Lat 19 - 08 - 58 N Long 99 - 00 - 43 E

Location : on left bank at the bridge on road.

Ban Cho Lae **Amphoe** Mae Teang **Changwat** Chiang Mai

Drainge Area	3,080 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+337.600 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank about 3 meters from the top staff gage. **Elevation** +341.805 m. (MSL.)
Gage Reading Frequency	Recording.
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	1998 to date
Rating Operation	
Period of Rating	1998 to date
Rated by Flot	-
Rated by Current Meter	1999 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Stage-discharge relation defined by 30 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

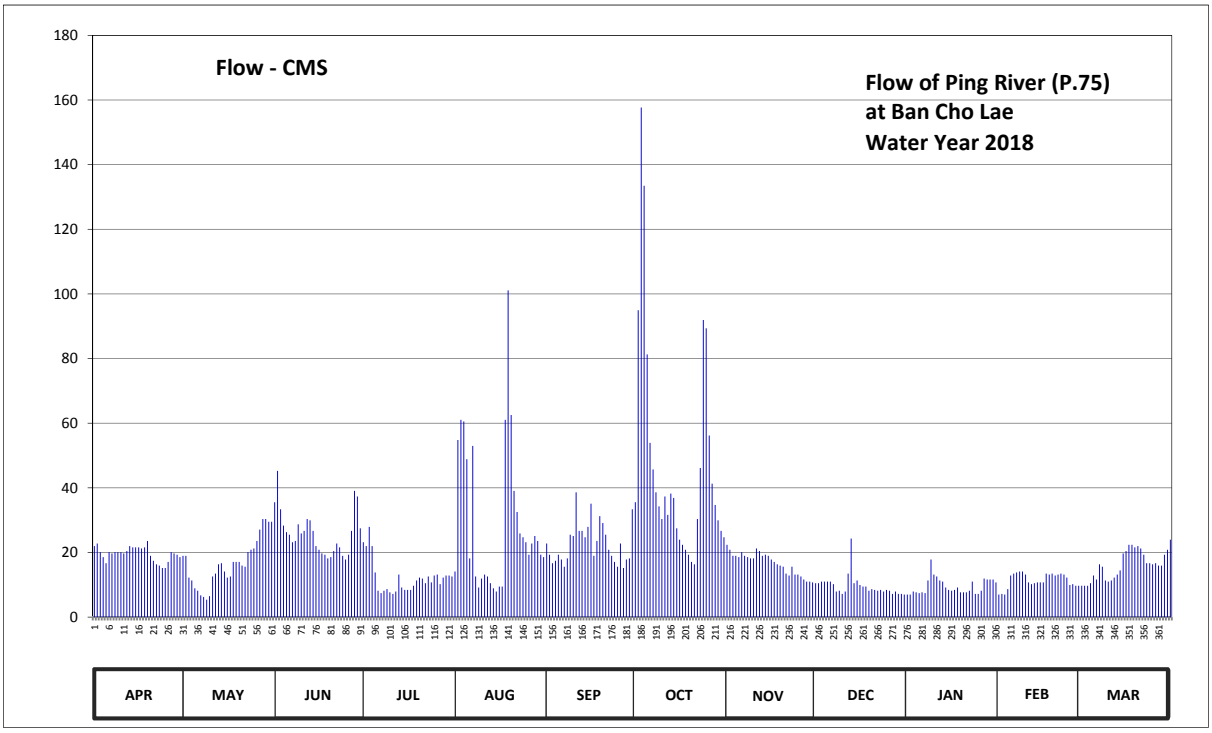
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	338.41	338.33	338.74	338.44	338.20	338.43	338.74	338.42	338.08	337.94	337.94	338.05	
2	338.43	338.33	338.96	338.41	339.17	338.34	339.98	338.38	338.08	337.94	337.95	338.05	
3	338.36	338.14	338.69	338.56	339.30	338.27	341.14	338.33	338.10	337.98	337.94	338.05	
4	338.32	338.11	338.57	338.41	339.29	338.29	340.70	338.33	338.10	337.97	338.01	338.08	
5	338.27	338.02	338.52	338.19	339.04	338.34	339.71	338.32	338.10	337.96	338.16	338.16	
6	338.36	337.99	338.50	337.99	338.31	338.30	339.15	338.36	338.10	337.97	338.18	338.12	
7	338.35	337.93	338.44	337.96	339.13	338.24	338.97	338.33	338.07	337.96	338.19	338.26	
8	338.36	337.91	338.45	337.99	338.15	338.31	338.81	338.32	337.98	338.11	338.20	338.24	
9	338.36	337.87	338.58	338.01	338.03	338.50	338.71	338.31	337.99	338.30	338.20	338.11	
10	338.36	337.92	338.51	337.97	338.13	338.49	338.62	338.31	337.95	338.17	338.17	338.10	
11	338.35	338.15	338.53	337.95	338.17	338.81	338.78	338.39	337.98	338.15	338.09	338.11	
12	338.37	338.18	338.62	337.98	338.15	338.53	338.65	338.37	338.18	338.11	338.07	338.14	
13	338.41	338.26	338.61	338.17	338.08	338.53	338.80	338.33	338.47	338.10	338.08	338.17	
14	338.40	338.27	338.53	338.03	338.02	338.48	338.77	338.34	338.08	338.03	338.09	338.21	
15	338.40	338.20	338.41	338.00	337.98	338.56	338.55	338.33	338.11	338.00	338.09	338.35	
16	338.40	338.14	338.38	338.00	338.04	338.73	338.46	338.30	338.06	337.99	338.09	338.37	
17	338.39	338.15	338.35	338.00	338.04	338.33	338.42	338.28	338.04	338.00	338.18	338.42	
18	338.40	338.28	338.34	338.05	339.30	338.45	338.38	338.26	338.04	338.03	338.17	338.42	
19	338.45	338.28	338.31	338.11	340.10	338.64	338.34	338.25	337.99	337.97	338.18	338.40	
20	338.33	338.28	338.32	338.14	339.33	338.59	338.28	338.24	338.01	337.97	338.16	338.41	
21	338.29	338.25	338.37	338.13	338.82	338.50	338.26	338.18	338.00	337.97	338.17	338.39	
22	338.26	338.24	338.43	338.08	338.67	338.38	338.62	338.16	337.99	337.99	338.18	338.34	
23	338.25	338.36	338.40	338.15	338.51	338.33	338.98	338.24	338.00	338.10	338.17	338.27	
24	338.23	338.38	338.33	338.09	338.48	338.28	339.92	338.17	337.98	337.95	338.14	338.27	
25	338.23	338.39	338.30	338.16	338.44	338.24	339.87	338.17	338.00	337.95	338.06	338.26	
26	338.28	338.45	338.34	338.17	338.34	338.43	339.20	338.15	337.99	337.99	338.07	338.27	
27	338.36	338.54	338.53	338.07	338.43	338.23	338.87	338.12	337.95	338.13	338.05	338.25	
28	338.35	338.62	338.82	338.14	338.49	338.30	338.72	338.10	337.98	338.12	338.05	338.25	
29	338.34	338.62	338.78	338.16	338.45	338.31	338.61	338.10	337.95	338.12		338.34	
30	338.32	338.60	338.55	338.16	338.34	338.69	338.53	338.09	337.95	338.12		338.38	
31		338.60		338.15	338.32		338.48		337.94	338.09		338.46	
Mean	338.35	338.25	338.51	338.12	338.56	338.43	338.97	338.27	338.04	338.04	338.11	338.25	
Max	338.45	338.62	338.96	338.56	340.10	338.81	341.14	338.42	338.47	338.30	338.20	338.46	341.14
Min	338.23	337.87	338.30	337.95	337.98	338.23	338.26	338.09	337.94	337.94	337.94	338.05	337.87

Annual Max Momentary Gage Height 341.43 m. (MSL.) , at 19.00 Hours , on Oct 3 , 2018

Zero Gage at Bottom Elevation 337.60 m. (MSL.) , River Bed 336.95 m. (MSL.)

Left Bank Elevation 345.08 m. (MSL.) ,

Right Bank Elevation 345.11 m. (MSL.) , Drainage Are 3,080 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	21.99	18.94	35.56	23.16	14.10	22.77	35.56	22.38	10.48	6.96	6.96	9.70		
2	22.77	18.94	45.24	21.99	54.82	19.32	94.98	20.84	10.48	6.96	7.20	9.70		
3	20.08	12.24	33.37	27.90	61.05	16.69	157.70	18.94	11.00	7.92	6.96	9.70		
4	18.56	11.31	28.30	21.99	60.57	17.43	133.50	18.94	11.00	7.68	8.66	10.48		
5	16.69	8.92	26.30	13.79	48.84	19.32	81.30	18.56	11.00	7.44	12.86	12.86		
6	20.08	8.16	25.50	8.16	18.18	17.80	53.90	20.08	11.00	7.68	13.48	11.62		
7	19.70	6.72	23.16	7.44	52.98	15.58	45.68	18.94	10.22	7.44	13.79	16.32		
8	20.08	6.24	23.55	8.16	12.55	18.18	38.64	18.56	7.92	11.31	14.10	15.58		
9	20.08	5.40	28.70	8.66	9.18	25.50	34.24	18.18	8.16	17.80	14.10	11.31		
10	20.08	6.48	25.90	7.68	11.93	25.11	30.36	18.18	7.20	13.17	13.17	11.00		
11	19.70	12.55	26.70	7.20	13.17	38.64	37.32	21.22	7.92	12.55	10.74	11.31		
12	20.46	13.48	30.36	7.92	12.55	26.70	31.65	20.46	13.48	11.31	10.22	12.24		
13	21.99	16.32	29.93	13.17	10.48	26.70	38.20	18.94	24.33	11.00	10.48	13.17		
14	21.60	16.69	26.70	9.18	8.92	24.72	36.88	19.32	10.48	9.18	10.74	14.47		
15	21.60	14.10	21.99	8.40	7.92	27.90	27.50	18.94	11.31	8.40	10.74	19.70		
16	21.60	12.24	20.84	8.40	9.44	35.12	23.94	17.80	9.96	8.16	10.74	20.46		
17	21.22	12.55	19.70	8.40	9.44	18.94	22.38	17.06	9.44	8.40	13.48	22.38		
18	21.60	17.06	19.32	9.70	61.05	23.55	20.84	16.32	9.44	9.18	13.17	22.38		
19	23.55	17.06	18.18	11.31	101.10	31.22	19.32	15.95	8.16	7.68	13.48	21.60		
20	18.94	17.06	18.56	12.24	62.51	29.10	17.06	15.58	8.66	7.68	12.86	21.99		
21	17.43	15.95	20.46	11.93	39.08	25.50	16.32	13.48	8.40	7.68	13.17	21.22		
22	16.32	15.58	22.77	10.48	32.51	20.84	30.36	12.86	8.16	8.16	13.48	19.32		
23	15.95	20.08	21.60	12.55	25.90	18.94	46.12	15.58	8.40	11.00	13.17	16.69		
24	15.21	20.84	18.94	10.74	24.72	17.06	91.92	13.17	7.92	7.20	12.24	16.69		
25	15.21	21.22	17.80	12.86	23.16	15.58	89.37	13.17	8.40	7.20	9.96	16.32		
26	17.06	23.55	19.32	13.17	19.32	22.77	56.20	12.55	8.16	8.16	10.22	16.69		
27	20.08	27.10	26.70	10.22	22.77	15.21	41.28	11.62	7.20	11.93	9.70	15.95		
28	19.70	30.36	39.08	12.24	25.11	17.80	34.68	11.00	7.92	11.62	9.70	15.95		
29	19.32	30.36	37.32	12.86	23.55	18.18	29.93	11.00	7.20	11.62		19.32		
30	18.56	29.50	27.50	12.86	19.32	33.37	26.70	10.74	7.20	11.62		20.84		
31		29.50		12.55	18.56		24.72		6.96	10.74		23.94		
Total	587.21	516.50	779.35	377.31	914.78	685.54	1468.55	500.36	297.56	294.83	319.57	500.90	7242.46	CMSDAY
Mean	19.57	16.66	25.98	12.17	29.51	22.85	47.37	16.68	9.60	9.51	11.41	16.16	19.84	CMS
Max	23.55	30.36	45.24	27.90	101.10	38.64	157.70	22.38	24.33	17.80	14.10	23.94	157.70	CMS
Min	15.21	5.40	17.80	7.20	7.92	15.21	16.32	10.74	6.96	6.96	6.96	9.70	5.40	CMS
Runoff	50.73	44.63	67.34	32.60	79.04	59.23	126.88	43.23	25.71	25.47	27.61	43.28	625.75	MCM

Momentary Peak 173.73 CMS. at 341.43 m. (MSL.) at 19.00 Hours , on Oct 3 , 2018

Runoff Yield 6.44 Liters/Second/Square KM. Momentary Peak Yield 56.41 Liters/Second/Square KM.

WATER YEAR : 2018

PING RIVER BASIN

Nam Mae Li at Ban Mae E - Hai , Lamphun (P.76)

Lat 18 - 08 - 23 N Long 98 - 53 - 58 E

Location : on left bank near the bridge of Li - Ban Mae E - Hai road.

Ban Mae E - Hai **Amphoe** Li **Changwat** Lamphun

Drainge Area	1,545 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+363.617 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank about 15 meters from the top staff gage. **Elevation** +370.937 m. (MSL.)
Gage Reading Frequency	Recording.
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	1999 to date
Rating Operation	
Period of Rating	1999 to date
Rated by Flot	-
Rated by Current Meter	1999 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. Stage-discharge relation defined by 32 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

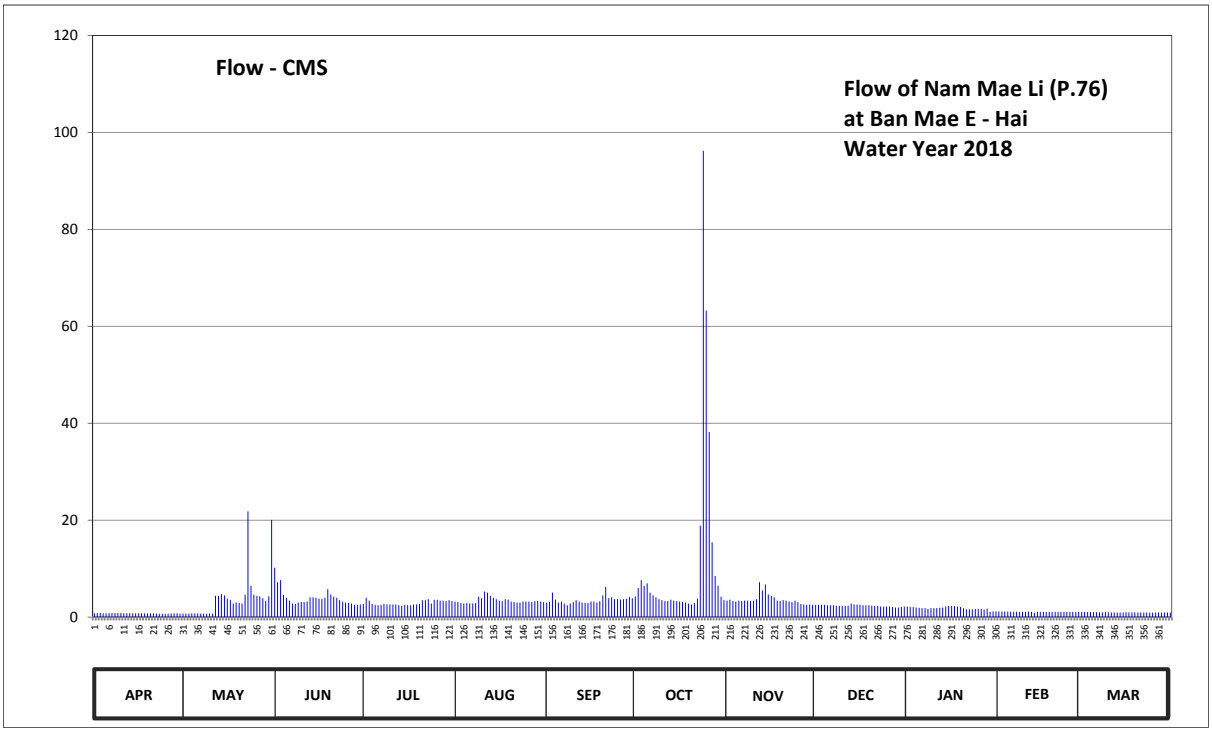
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	364.89	364.86	365.27	364.89	364.94	364.92	365.05	364.96	364.87	364.83	365.08	365.02	
2	364.91	364.86	365.20	365.02	364.93	364.93	365.15	364.98	364.87	364.82	365.08	365.02	
3	364.92	364.87	365.21	364.96	364.91	365.11	365.21	364.95	364.87	364.82	365.07	365.02	
4	364.90	364.89	365.08	364.89	364.90	364.98	365.17	364.94	364.87	364.81	365.07	365.01	
5	364.90	364.90	365.02	364.87	364.91	364.92	365.19	364.96	364.86	364.80	365.06	365.01	
6	364.91	364.89	364.96	364.86	364.90	364.94	365.11	364.95	364.86	364.79	365.06	365.01	
7	364.92	364.87	364.90	364.87	364.90	364.90	365.07	364.96	364.86	364.79	365.06	365.00	
8	364.93	364.86	364.89	364.89	364.91	364.86	365.03	364.96	364.85	364.77	365.05	365.00	
9	364.93	364.85	364.92	364.88	365.04	364.90	364.99	364.95	364.85	364.79	365.05	365.01	
10	364.92	364.86	364.93	364.88	365.01	364.93	364.97	364.96	364.84	364.79	365.05	365.00	
11	364.90	364.87	364.93	364.88	365.12	364.97	364.95	364.99	364.84	364.79	365.06	364.98	
12	364.90	365.06	364.94	364.88	365.11	364.94	364.95	365.20	364.85	364.80	365.04	364.98	
13	364.89	365.06	365.03	364.86	365.06	364.92	364.98	365.13	364.90	364.81	364.94	364.98	
14	364.89	365.10	365.03	364.85	365.02	364.91	364.96	365.18	364.88	364.83	365.04	364.98	
15	364.89	365.07	365.02	364.87	364.99	364.91	364.95	365.09	364.88	364.84	365.04	364.97	
16	364.89	365.00	365.00	364.86	364.96	364.94	364.94	365.06	364.87	364.84	365.04	365.01	
17	364.89	364.97	365.00	364.86	364.95	364.94	364.93	365.03	364.86	364.84	365.03	365.00	
18	364.88	364.90	365.02	364.88	364.99	364.92	364.92	364.96	364.86	364.83	365.03	364.99	
19	364.88	364.92	365.14	364.88	364.98	364.95	364.90	364.95	364.86	364.82	365.03	364.99	
20	364.88	364.91	365.09	364.89	364.94	365.07	364.88	364.97	364.85	364.79	365.04	364.98	
21	364.88	364.90	365.04	364.97	364.93	365.16	364.91	364.96	364.84	364.76	365.04	364.98	
22	364.87	365.08	365.02	364.97	364.92	365.01	365.00	364.94	364.84	364.76	365.04	364.97	
23	364.85	365.48	364.97	364.99	364.92	365.03	365.43	364.93	364.83	364.76	365.04	364.97	
24	364.85	365.17	364.94	364.90	364.94	364.99	366.48	364.96	364.83	364.77	365.04	364.96	
25	364.84	365.08	364.92	364.98	364.94	364.99	366.08	364.93	364.83	364.77	365.04	364.96	
26	364.85	365.06	364.91	364.98	364.94	364.98	365.74	364.89	364.83	364.77	365.05	364.97	
27	364.88	365.05	364.90	364.96	364.93	364.99	365.37	364.88	364.82	364.75	365.04	364.98	
28	364.89	365.01	364.87	364.96	364.95	365.00	365.23	364.87	364.81	364.78	365.04	364.98	
29	364.89	364.95	364.87	364.95	364.95	365.04	365.17	364.88	364.81	365.05		364.97	
30	364.85	365.05	364.88	364.97	364.94	365.01	365.04	364.87	364.82	365.09		364.97	
31		365.45		364.95	364.93		364.97		364.83	365.09		364.98	
Mean	364.89	365.00	365.00	364.91	364.96	364.97	365.15	364.97	364.85	364.82	365.04	364.99	
Max	364.93	365.48	365.27	365.02	365.12	365.16	366.48	365.20	364.90	365.09	365.08	365.02	366.48
Min	364.84	364.85	364.87	364.85	364.90	364.86	364.88	364.87	364.81	364.75	364.94	364.96	364.75

Annual Max Momentary Gage Height 366.65 m. (MSL.) , at 13.00 Hours , on Oct 24 , 2018

Zero Gage at Bottom Elevation 363.62 m. (MSL.) , River Bed 364.13 m. (MSL.)

Left Bank Elevation 371.49 m. (MSL.) ,

Right Bank Elevation 371.59 m. (MSL.) , Drainage Are 1,545 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.78	0.72	10.21	2.71	3.20	3.00	4.30	3.40	2.53	2.17	1.16	1.04		
2	0.82	0.72	7.20	4.00	3.10	3.10	6.00	3.60	2.53	2.08	1.16	1.04		
3	0.84	0.74	7.63	3.40	2.90	5.04	7.63	3.30	2.53	2.08	1.14	1.04		
4	0.80	0.78	4.60	2.71	2.80	3.60	6.48	3.20	2.53	1.99	1.14	1.02		
5	0.80	0.80	4.00	2.53	2.90	3.00	6.96	3.40	2.44	1.90	1.12	1.02		
6	0.82	0.78	3.40	2.44	2.80	3.20	5.04	3.30	2.44	1.83	1.12	1.02		
7	0.84	0.74	2.80	2.53	2.80	2.80	4.50	3.40	2.44	1.83	1.12	1.00		
8	0.86	0.72	2.71	2.71	2.90	2.44	4.10	3.40	2.35	1.69	1.10	1.00		
9	0.86	0.70	3.00	2.62	4.20	2.80	3.70	3.30	2.35	1.83	1.10	1.02		
10	0.84	0.72	3.10	2.62	3.90	3.10	3.50	3.40	2.26	1.83	1.10	1.00		
11	0.80	0.74	3.10	2.62	5.28	3.50	3.30	3.70	2.26	1.83	1.12	0.96		
12	0.80	4.40	3.20	2.62	5.04	3.20	3.30	7.20	2.35	1.90	1.08	0.96		
13	0.78	4.40	4.10	2.44	4.40	3.00	3.60	5.52	2.80	1.99	0.88	0.96		
14	0.78	4.80	4.10	2.35	4.00	2.90	3.40	6.72	2.62	2.17	1.08	0.96		
15	0.78	4.50	4.00	2.53	3.70	2.90	3.30	4.70	2.62	2.26	1.08	0.94		
16	0.78	3.80	3.80	2.44	3.40	3.20	3.20	4.40	2.53	2.26	1.08	1.02		
17	0.78	3.50	3.80	2.44	3.30	3.20	3.10	4.10	2.44	2.26	1.06	1.00		
18	0.76	2.80	4.00	2.62	3.70	3.00	3.00	3.40	2.44	2.17	1.06	0.98		
19	0.76	3.00	5.76	2.62	3.60	3.30	2.80	3.30	2.44	2.08	1.06	0.98		
20	0.76	2.90	4.70	2.71	3.20	4.50	2.62	3.50	2.35	1.83	1.08	0.96		
21	0.76	2.80	4.20	3.50	3.10	6.24	2.90	3.40	2.26	1.62	1.08	0.96		
22	0.74	4.60	4.00	3.50	3.00	3.90	3.80	3.20	2.26	1.62	1.08	0.94		
23	0.70	21.82	3.50	3.70	3.00	4.10	18.87	3.10	2.17	1.62	1.08	0.94		
24	0.70	6.48	3.20	2.80	3.20	3.70	96.18	3.40	2.17	1.69	1.08	0.92		
25	0.68	4.60	3.00	3.60	3.20	3.70	63.24	3.10	2.17	1.69	1.08	0.92		
26	0.70	4.40	2.90	3.60	3.20	3.60	38.18	2.71	2.17	1.69	1.10	0.94		
27	0.76	4.30	2.80	3.40	3.10	3.70	15.42	2.62	2.08	1.55	1.08	0.96		
28	0.78	3.90	2.53	3.40	3.30	3.80	8.49	2.53	1.99	1.76	1.08	0.96		
29	0.78	3.30	2.53	3.30	3.30	4.20	6.48	2.62	1.99	1.10		0.94		
30	0.70	4.30	2.62	3.50	3.20	3.90	4.20	2.53	2.08	1.18		0.94		
31		20.05		3.30	3.10		3.50		2.17	1.18		0.96		
Total	23.34	122.81	120.49	91.26	105.82	105.62	345.09	109.45	72.76	56.68	30.50	30.30	1214.12	CMSDAY
Mean	0.78	3.96	4.02	2.94	3.41	3.52	11.13	3.65	2.35	1.83	1.09	0.98	3.33	CMS
Max	0.86	21.82	10.21	4.00	5.28	6.24	96.18	7.20	2.80	2.26	1.16	1.04	96.18	CMS
Min	0.68	0.70	2.53	2.35	2.80	2.44	2.62	2.53	1.99	1.10	0.88	0.92	0.68	CMS
Runoff	2.02	10.61	10.41	7.88	9.14	9.13	29.82	9.46	6.29	4.90	2.64	2.62	104.90	MCM

Momentary Peak 111.23 CMS. at 366.65 m. (MSL.) at 13.00 Hours , on Oct 24 , 2017

Runoff Yield 2.15 Liters/Second/Square KM. Momentary Peak Yield 71.99 Liters/Second/Square KM.

WATER YEAR : 2018

PING RIVER BASIN

Nam Mae Tha at Ban Sop Mae Sapuad , Lamphun (P.77)

Lat 18 - 25 - 57 N Long 99 - 05 - 02 E

Location : on left bank at the bridge on road.

	Ban Sop Mae Sapuad	**Amphoe** Mae Tha	**Changwat** Lamphun
Drainge Area	550 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+364.378 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank about 20 meters from the top staff gage.		**Elevation** +369.286 m. (MSL.)
Gage Reading Frequency	Recording.		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	1999 to date		
Rating Operation			
Period of Rating	1999 to date		
Rated by Flot	-		
Rated by Current Meter	1999 to date		
Stability of Channel Regimes	Fairly stable because of backwater effect.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 34 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

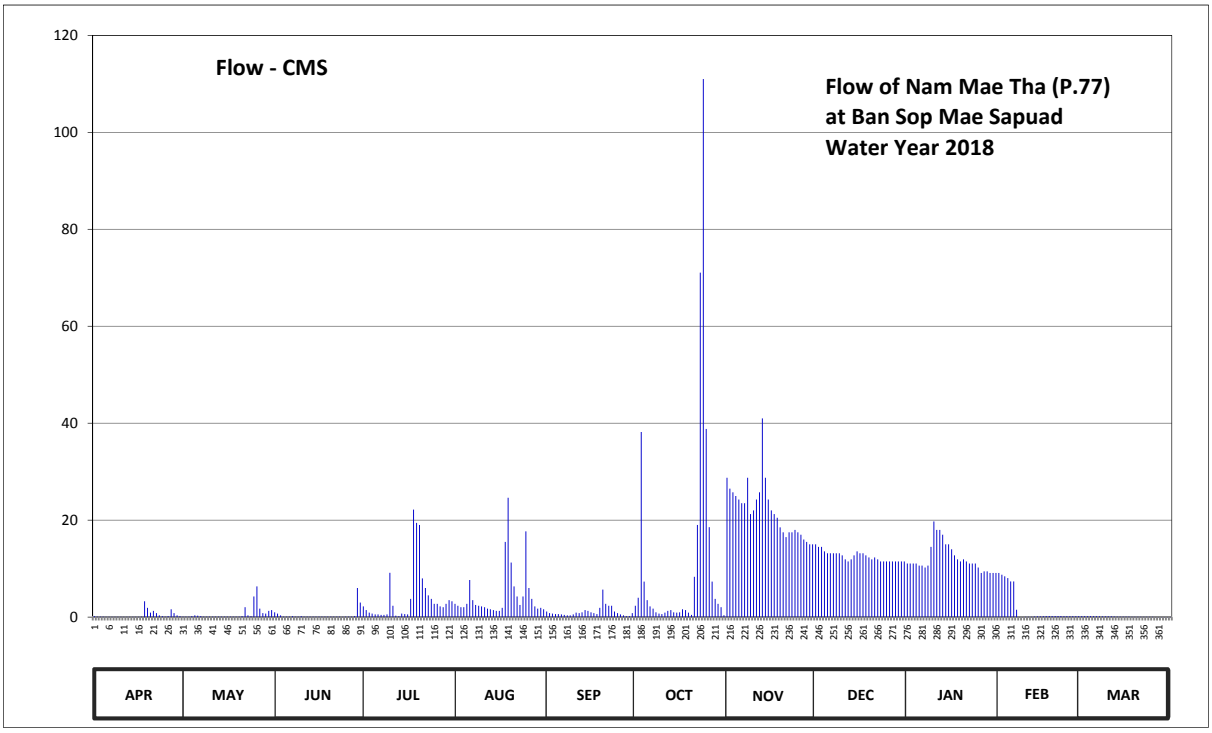
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	366.01	366.00	366.10	366.18	366.21	366.11	366.19	367.13	366.92	366.83	366.78	366.16	
2	366.00	366.00	366.07	366.13	366.19	366.08	366.26	367.10	366.91	366.83	366.77	366.16	
3	365.97	366.00	366.03	366.09	366.17	366.07	367.02	367.09	366.91	366.83	366.76	366.15	
4	365.97	366.01	366.00	366.07	366.17	366.06	366.37	367.08	366.89	366.83	366.75	366.15	
5	365.96	366.03	365.98	366.05	366.21	366.06	366.24	367.07	366.88	366.82	366.73	366.14	
6	365.96	366.02	365.98	366.05	366.38	366.05	366.18	367.06	366.88	366.82	366.73	366.13	
7	365.96	366.01	366.01	366.04	366.24	366.04	366.15	367.06	366.88	366.81	366.45	366.12	
8	365.95	366.00	366.00	366.04	366.20	366.03	366.10	367.13	366.88	366.82	365.73	366.12	
9	365.95	366.00	366.00	366.05	366.19	366.03	366.07	367.03	366.88	366.91	365.73	366.12	
10	365.95	366.00	366.01	366.42	366.18	366.05	366.06	367.04	366.87	367.01	365.89	366.10	
11	365.95	365.99	366.00	366.19	366.17	366.09	366.09	367.07	366.85	366.98	365.91	366.10	
12	365.95	365.99	366.00	366.02	366.15	366.08	366.12	367.09	366.84	366.98	365.93	366.08	
13	365.95	365.99	366.00	366.01	366.14	366.10	366.13	367.25	366.85	366.96	366.04	366.02	
14	365.93	365.99	365.99	366.07	366.13	366.13	366.10	367.13	366.87	366.92	366.11	365.99	
15	365.88	365.99	365.98	366.06	366.12	366.12	366.09	367.07	366.89	366.92	366.12	365.98	
16	365.90	365.99	365.98	366.05	366.12	366.10	366.10	367.04	366.88	366.90	366.15	365.98	
17	365.97	365.98	365.97	366.25	366.16	366.08	366.14	367.03	366.88	366.87	366.17	365.98	
18	366.23	366.00	365.97	366.72	366.57	366.06	366.13	367.02	366.87	366.85	366.17	365.96	
19	366.16	365.98	365.97	366.66	366.77	366.16	366.09	366.99	366.86	366.84	366.17	365.95	
20	366.09	366.00	365.97	366.65	366.47	366.32	366.04	366.97	366.85	366.85	366.18	365.94	
21	366.12	366.01	365.97	366.39	366.34	366.21	366.40	366.95	366.86	366.84	366.18	365.92	
22	366.08	366.17	365.97	366.33	366.27	366.19	366.65	366.97	366.85	366.83	366.17	365.90	
23	366.03	366.03	365.97	366.28	366.20	366.19	367.52	366.97	366.84	366.83	366.16	365.89	
24	366.01	366.01	365.96	366.25	366.27	366.11	368.00	366.98	366.84	366.83	366.15	365.88	
25	366.00	366.27	365.98	366.21	366.62	366.08	367.03	366.97	366.84	366.81	366.16	365.86	
26	366.01	366.34	365.98	366.21	366.33	366.05	366.64	366.96	366.84	366.78	366.16	365.84	
27	366.14	366.15	365.99	366.18	366.25	366.03	366.37	366.94	366.84	366.79	366.16	365.84	
28	366.08	366.08	366.01	366.17	366.18	366.01	366.25	366.93	366.84	366.79	366.16	365.82	
29	366.03	366.07	366.33	366.21	366.15	366.01	366.21	366.92	366.84	366.78		365.80	
30	366.01	366.12	366.22	366.24	366.16	366.08	366.17	366.92	366.84	366.78		365.80	
31		366.13		366.23	366.14		366.25		366.84	366.78		365.80	
Mean	366.01	366.04	366.01	366.21	366.25	366.09	366.36	367.03	366.86	366.85	366.23	365.99	
Max	366.23	366.34	366.33	366.72	366.77	366.32	368.00	367.25	366.92	367.01	366.78	366.16	368.00
Min	365.88	365.98	365.96	366.01	366.12	366.01	366.04	366.92	366.84	366.78	365.73	365.80	365.73

Annual Max Momentary Gage Height 368.49 m. (MSL.) , at 11.00 Hours , on Oct 23 , 2018

Zero Gage at Bottom Elevation 364.38 m. (MSL.) , River Bed 365.60 m. (MSL.)

Left Bank Elevation 370.11 m. (MSL.) ,

Right Bank Elevation 373.20 m. (MSL.) , Drainage Are 550 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.19	0.10	1.00	2.20	2.75	1.15	2.35	28.75	15.00	11.06	9.10	0.21		
2	0.10	0.10	0.73	1.45	2.35	0.82	4.00	26.50	14.50	11.06	8.75	0.21		
3	0.09	0.10	0.37	0.91	2.05	0.73	38.20	25.75	14.50	11.06	8.40	0.20		
4	0.09	0.19	0.10	0.73	2.05	0.64	7.31	25.00	13.58	11.06	8.05	0.20		
5	0.08	0.37	0.09	0.55	2.75	0.64	3.50	24.25	13.16	10.64	7.35	0.19		
6	0.08	0.28	0.09	0.55	7.64	0.55	2.20	23.50	13.16	10.64	7.35	0.18		
7	0.08	0.19	0.19	0.46	3.50	0.46	1.75	23.50	13.16	10.22	1.50	0.17		
8	0.08	0.10	0.10	0.46	2.50	0.37	1.00	28.75	13.16	10.64	0.02	0.17		
9	0.08	0.10	0.10	0.55	2.35	0.37	0.73	21.25	13.16	14.50	0.02	0.17		
10	0.08	0.10	0.19	9.14	2.20	0.55	0.64	22.00	12.74	19.75	0.06	0.15		
11	0.08	0.10	0.10	2.35	2.05	0.91	0.91	24.25	11.90	18.00	0.06	0.15		
12	0.08	0.10	0.10	0.28	1.75	0.82	1.30	25.75	11.48	18.00	0.07	0.14		
13	0.08	0.10	0.10	0.19	1.60	1.00	1.45	41.00	11.90	17.00	0.12	0.11		
14	0.07	0.10	0.10	0.73	1.45	1.45	1.00	28.75	12.74	15.00	0.16	0.10		
15	0.05	0.10	0.09	0.64	1.30	1.30	0.91	24.25	13.58	15.00	0.17	0.09		
16	0.06	0.10	0.09	0.55	1.30	1.00	1.00	22.00	13.16	14.00	0.20	0.09		
17	0.09	0.09	0.09	3.75	1.90	0.82	1.60	21.25	13.16	12.74	0.22	0.09		
18	3.25	0.10	0.09	22.18	15.51	0.64	1.45	20.50	12.74	11.90	0.22	0.08		
19	1.90	0.09	0.09	19.44	24.63	1.90	0.91	18.50	12.32	11.48	0.22	0.08		
20	0.91	0.10	0.09	19.00	11.24	5.66	0.46	17.50	11.90	11.90	0.23	0.08		
21	1.30	0.19	0.09	7.97	6.32	2.75	8.30	16.50	12.32	11.48	0.23	0.07		
22	0.82	2.05	0.09	5.99	4.25	2.35	19.00	17.50	11.90	11.06	0.22	0.06		
23	0.37	0.37	0.09	4.50	2.50	2.35	71.08	17.50	11.48	11.06	0.21	0.06		
24	0.19	0.19	0.08	3.75	4.25	1.15	111.00	18.00	11.48	11.06	0.20	0.05		
25	0.10	4.25	0.09	2.75	17.68	0.82	38.80	17.50	11.48	10.22	0.21	0.05		
26	0.19	6.32	0.09	2.75	5.99	0.55	18.56	17.00	11.48	9.10	0.21	0.04		
27	1.60	1.75	0.10	2.20	3.75	0.37	7.31	16.00	11.48	9.45	0.21	0.04		
28	0.82	0.82	0.19	2.05	2.20	0.19	3.75	15.50	11.48	9.45	0.21	0.04		
29	0.37	0.73	5.99	2.75	1.75	0.19	2.75	15.00	11.48	9.10		0.03		
30	0.19	1.30	3.00	3.50	1.90	0.82	2.05	15.00	11.48	9.10		0.03		
31		1.45		3.25	1.60		0.38		11.48	9.10		0.03		
Total	13.47	22.03	13.71	127.57	145.06	33.32	355.65	658.50	388.54	375.83	53.97	3.36	2191.01	CMSDAY
Mean	0.45	0.71	0.46	4.12	4.68	1.11	11.47	21.95	12.53	12.12	1.93	0.11	6.00	CMS
Max	3.25	6.32	5.99	22.18	24.63	5.66	111.00	41.00	15.00	19.75	9.10	0.21	111.00	CMS
Min	0.05	0.09	0.08	0.19	1.30	0.19	0.38	15.00	11.48	9.10	0.02	0.03	0.02	CMS
Runoff	1.16	1.90	1.18	11.02	12.53	2.88	30.73	56.89	33.57	32.47	4.66	0.29	189.30	MCM

Momentary Peak 158.37 CMS. at 368.49 m. (MSL.) at 11.00 Hours , on Oct 23 , 2018

Runoff Yield 10.91 Liters/Second/Square KM. Momentary Peak Yield 287.95 Liters/Second/Square KM.

WATER YEAR : 2018

PING RIVER BASIN

Khlong Khlung at Ban Sam Ruean , Kamphaeng Phet (P.78)

Lat 16 - 11 - 03 N Long 99 - 36 - 09 E

Location : on left bank at Ban Sam Ruean.

	Ban Sam Ruean	**Amphoe** Khlong Khlung	**Changwat** Kamphaeng Phet
Drainge Area	1,119 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+65.177 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	Near the gage site.		**Elevation** +73.494 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic mean of 5 readings		
Period of Available Gage Records	2005 to date		
Rating Operation			
Period of Rating	2005 to date		
Rated by Flot	-		
Rated by Current Meter	2005 to date		
Stability of Channel Regimes	Rather unstable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 14 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

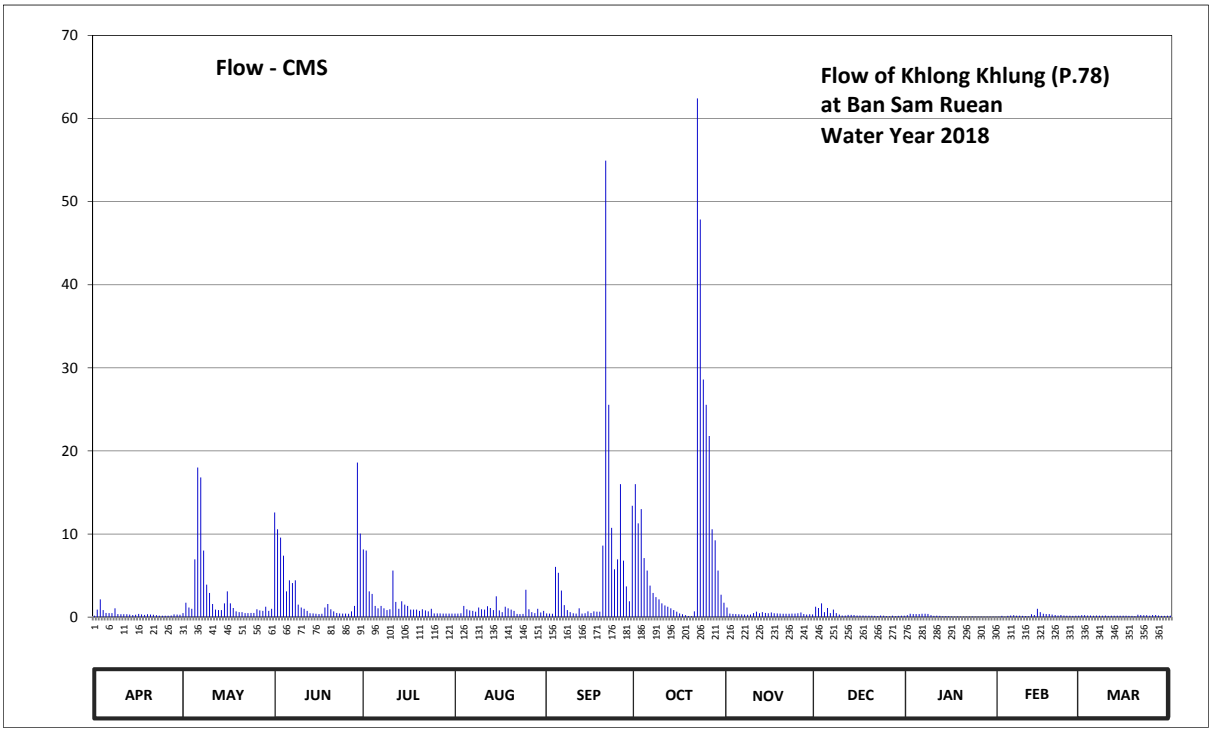
	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	66.44	66.59	67.63	67.37	66.56	66.57	67.80	66.73	66.75	66.46	66.36	66.46	
2	66.68	66.83	67.52	67.36	66.56	66.56	67.56	66.56	66.72	66.55	66.43	66.46	
3	66.88	66.73	67.46	66.98	66.58	66.55	67.65	66.54	66.82	66.53	66.36	66.45	
4	66.67	66.70	67.32	66.95	66.77	67.23	67.30	66.53	66.62	66.53	66.43	66.45	
5	66.60	67.29	66.98	66.77	66.69	67.18	67.20	66.52	66.72	66.53	66.45	66.44	
6	66.59	67.90	67.11	66.71	66.66	66.99	67.05	66.51	66.59	66.55	66.46	66.45	
7	66.59	67.84	67.08	66.77	66.65	66.79	66.96	66.50	66.68	66.55	66.44	66.44	
8	66.71	67.36	67.11	66.71	66.63	66.67	66.91	66.49	66.59	66.54	66.44	66.44	
9	66.53	67.06	66.80	66.67	66.73	66.62	66.88	66.50	66.50	66.46	66.43	66.45	
10	66.52	66.96	66.73	66.69	66.69	66.58	66.82	66.59	66.45	66.43	66.42	66.43	
11	66.52	66.81	66.70	67.20	66.68	66.56	66.78	66.63	66.45	66.44	66.40	66.44	
12	66.52	66.68	66.65	66.84	66.76	66.71	66.75	66.58	66.48	66.43	66.52	66.44	
13	66.50	66.67	66.58	66.70	66.72	66.56	66.71	66.62	66.48	66.40	66.47	66.44	
14	66.47	66.67	66.57	66.85	66.67	66.58	66.67	66.60	66.47	66.41	66.70	66.44	
15	66.49	66.82	66.55	66.80	66.92	66.64	66.63	66.58	66.45	66.40	66.62	66.44	
16	66.54	66.98	66.53	66.77	66.66	66.60	66.57	66.61	66.45	66.38	66.55	66.44	
17	66.51	66.82	66.55	66.68	66.62	66.64	66.52	66.58	66.45	66.36	66.53	66.43	
18	66.48	66.72	66.73	66.68	66.75	66.63	66.46	66.57	66.44	66.37	66.53	66.43	
19	66.52	66.64	66.81	66.68	66.71	66.63	66.42	66.56	66.44	66.36	66.50	66.41	
20	66.50	66.62	66.69	66.65	66.68	67.40	66.41	66.55	66.44	66.36	66.47	66.49	
21	66.49	66.62	66.64	66.69	66.65	69.35	66.64	66.55	66.43	66.36	66.45	66.47	
22	66.46	66.59	66.60	66.66	66.54	68.27	69.58	66.55	66.42	66.36	66.47	66.46	
23	66.44	66.59	66.57	66.64	66.53	67.53	69.11	66.56	66.45	66.37	66.45	66.46	
24	66.44	66.60	66.56	66.70	66.54	67.21	68.40	66.56	66.44	66.36	66.44	66.44	
25	66.44	66.60	66.56	66.57	67.00	67.29	68.27	66.58	66.41	66.36	66.44	66.47	
26	66.44	66.69	66.55	66.57	66.69	67.80	68.09	66.61	66.40	66.36	66.43	66.47	
27	66.45	66.66	66.64	66.57	66.62	67.28	67.52	66.53	66.44	66.36	66.44	66.45	
28	66.51	66.65	66.77	66.56	66.59	67.04	67.44	66.50	66.41	66.36	66.44	66.43	
29	66.50	66.75	67.93	66.56	66.70	66.85	67.20	66.52	66.43	66.36		66.43	
30	66.49	66.65	67.49	66.56	66.61	67.67	66.94	66.51	66.44	66.36		66.44	
31		66.70		66.56	66.65		66.83		66.44	66.36		66.44	
Mean	66.53	66.83	66.88	66.76	66.67	67.03	67.23	66.56	66.51	66.42	66.47	66.45	
Max	66.88	67.90	67.93	67.37	67.00	69.35	69.58	66.73	66.82	66.55	66.70	66.49	69.58
Min	66.44	66.59	66.53	66.56	66.53	66.55	66.41	66.49	66.40	66.36	66.36	66.41	66.36

Annual Max Momentary Gage Height 69.98 m. (MSL.) , at 15.00 Hours , on Oct 22 , 2018

Zero Gage at Bottom Elevation 65.18 m. (MSL.) , River Bed 66.33 m. (MSL.)

Left Bank Elevation 71.45 m. (MSL.) ,

Right Bank Elevation 71.87 m. (MSL.) , Drainage Are 1,119 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.18	0.48	12.60	8.15	0.42	0.44	16.00	1.15	1.25	0.22	0.06	0.22		
2	0.90	1.74	10.56	8.00	0.42	0.42	11.28	0.42	1.10	0.40	0.16	0.22		
3	2.14	1.15	9.56	3.10	0.46	0.40	13.00	0.38	1.66	0.36	0.06	0.20		
4	0.85	1.00	7.40	2.80	1.35	6.05	7.10	0.36	0.60	0.36	0.16	0.20		
5	0.50	6.95	3.10	1.35	0.95	5.34	5.60	0.34	1.10	0.36	0.20	0.18		
6	0.48	18.00	4.43	1.05	0.80	3.20	3.80	0.32	0.48	0.40	0.22	0.20		
7	0.48	16.80	4.10	1.35	0.75	1.45	2.90	0.30	0.90	0.40	0.18	0.18		
8	1.05	8.00	4.43	1.05	0.65	0.85	2.40	0.28	0.48	0.38	0.18	0.18		
9	0.36	3.90	1.50	0.85	1.15	0.60	2.14	0.30	0.30	0.22	0.16	0.20		
10	0.34	2.90	1.15	0.95	0.95	0.46	1.66	0.48	0.20	0.16	0.14	0.16		
11	0.34	1.58	1.00	5.60	0.90	0.42	1.40	0.65	0.20	0.18	0.10	0.18		
12	0.34	0.90	0.75	1.82	1.30	1.05	1.25	0.46	0.26	0.16	0.34	0.18		
13	0.30	0.85	0.46	1.00	1.10	0.42	1.05	0.60	0.26	0.10	0.24	0.18		
14	0.24	0.85	0.44	1.90	0.85	0.46	0.85	0.50	0.24	0.12	1.00	0.18		
15	0.28	1.66	0.40	1.50	2.50	0.70	0.65	0.46	0.20	0.10	0.60	0.18		
16	0.38	3.10	0.36	1.35	0.80	0.50	0.44	0.55	0.20	0.08	0.40	0.18		
17	0.32	1.66	0.40	0.90	0.60	0.70	0.34	0.46	0.20	0.06	0.36	0.16		
18	0.26	1.10	1.15	0.90	1.25	0.65	0.22	0.44	0.18	0.07	0.36	0.16		
19	0.34	0.70	1.58	0.90	1.05	0.65	0.14	0.42	0.18	0.06	0.30	0.12		
20	0.30	0.60	0.95	0.75	0.90	8.60	0.12	0.40	0.18	0.06	0.24	0.28		
21	0.28	0.60	0.70	0.95	0.75	54.93	0.70	0.40	0.16	0.06	0.20	0.24		
22	0.22	0.48	0.50	0.80	0.38	25.54	62.42	0.40	0.14	0.06	0.24	0.22		
23	0.18	0.48	0.44	0.70	0.36	10.74	47.85	0.42	0.20	0.07	0.20	0.22		
24	0.18	0.50	0.42	1.00	0.38	5.75	28.60	0.42	0.18	0.06	0.18	0.18		
25	0.18	0.50	0.42	0.44	3.30	6.95	25.54	0.46	0.12	0.06	0.18	0.24		
26	0.18	0.95	0.40	0.44	0.95	16.00	21.80	0.55	0.10	0.06	0.16	0.24		
27	0.20	0.80	0.70	0.44	0.60	6.80	10.56	0.36	0.18	0.06	0.18	0.20		
28	0.32	0.75	1.35	0.42	0.48	3.70	9.24	0.30	0.12	0.06	0.18	0.16		
29	0.30	1.25	18.60	0.42	1.00	1.90	5.60	0.34	0.16	0.06		0.16		
30	0.28	0.75	10.04	0.42	0.55	13.40	2.70	0.32	0.18	0.06		0.18		
31		1.00		0.42	0.75		1.74		0.18	0.06		0.18		
Total	12.70	81.98	99.89	51.72	28.65	179.07	289.09	13.24	11.89	4.92	6.98	5.96	786.09	CMSDAY
Mean	0.42	2.64	3.33	1.67	0.92	5.97	9.33	0.44	0.38	0.16	0.25	0.19	2.15	CMS
Max	2.14	18.00	18.60	8.15	3.30	54.93	62.42	1.15	1.66	0.40	1.00	0.28	62.42	CMS
Min	0.18	0.48	0.36	0.42	0.36	0.40	0.12	0.28	0.10	0.06	0.06	0.12	0.06	CMS
Runoff	1.10	7.08	8.63	4.47	2.48	15.47	24.98	1.14	1.03	0.43	0.60	0.51	67.92	MCM

Momentary Peak 77.46 CMS. at 69.98 m. (MSL.) at 15.00 Hours , on Oct 22 , 2018

Runoff Yield 1.92 Liters/Second/Square KM. Momentary Peak Yield 69.22 Liters/Second/Square KM.

WATER YEAR : 2018

PING RIVER BASIN

Nam Mae Kuang at Ban Mae Wan , Chiang Mai (P.79)

Lat 18 - 57 - 45 N Long 99 - 14 - 31 E

Location : on left bank at the bridge on road.

Ban Mae Wan **Amphoe** Doi Saket **Changwat** Chiang Mai

Drainge Area	136 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+442.300 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank at the approach of the bridge. **Elevation** +447.326 m. (MSL.)
Gage Reading Frequency	Recording.
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	2001 to date
Rating Operation	
Period of Rating	2001 to date
Rated by Flot	-
Rated by Current Meter	2001 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Stage-discharge relation defined by 31 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

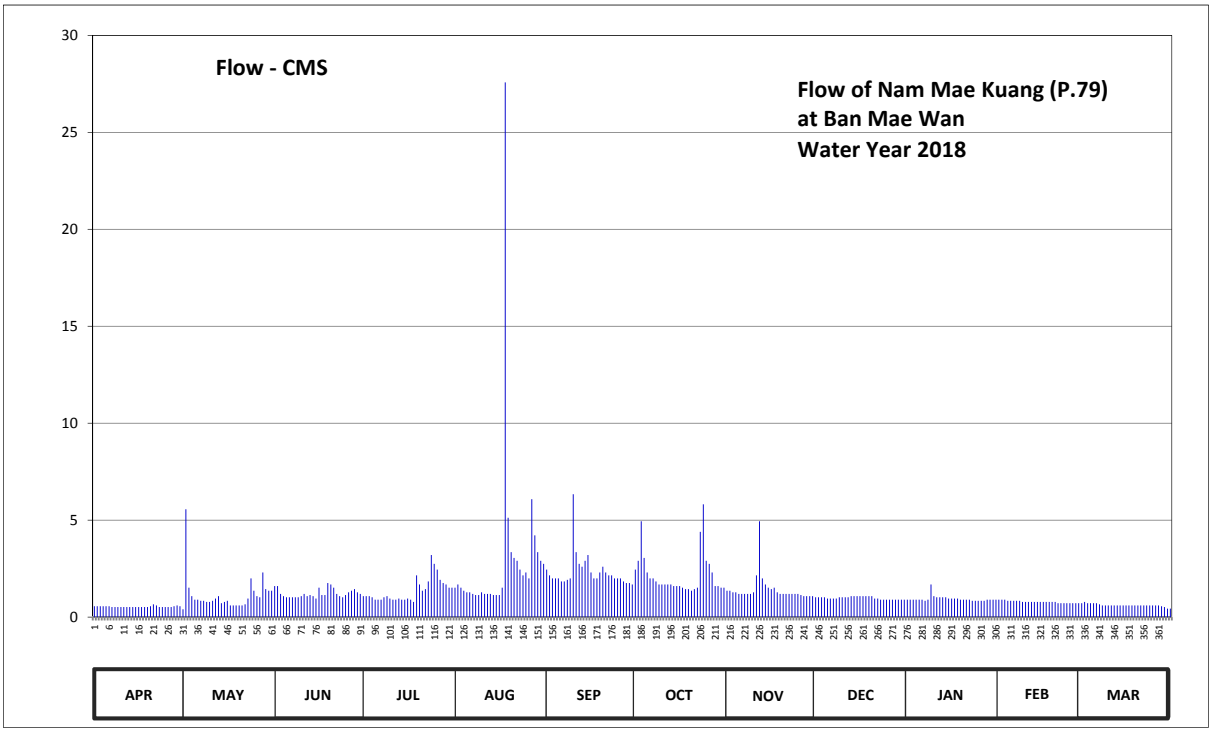
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	442.49	442.45	442.65	442.58	442.64	442.73	442.73	442.62	442.57	442.55	442.55	442.52	
2	442.49	442.91	442.65	442.58	442.66	442.71	442.76	442.62	442.57	442.55	442.55	442.53	
3	442.49	442.64	442.60	442.58	442.64	442.70	442.88	442.61	442.57	442.55	442.55	442.52	
4	442.49	442.58	442.58	442.57	442.62	442.70	442.77	442.61	442.57	442.55	442.54	442.52	
5	442.49	442.55	442.57	442.55	442.61	442.70	442.72	442.60	442.56	442.55	442.54	442.52	
6	442.49	442.55	442.57	442.55	442.61	442.68	442.70	442.60	442.56	442.55	442.54	442.52	
7	442.48	442.54	442.57	442.55	442.60	442.68	442.70	442.60	442.56	442.54	442.54	442.51	
8	442.48	442.54	442.57	442.57	442.59	442.69	442.68	442.60	442.56	442.55	442.54	442.50	
9	442.48	442.53	442.57	442.58	442.59	442.70	442.66	442.60	442.57	442.66	442.53	442.50	
10	442.48	442.53	442.58	442.56	442.61	442.94	442.66	442.61	442.57	442.58	442.53	442.50	
11	442.48	442.54	442.60	442.55	442.60	442.79	442.66	442.71	442.57	442.57	442.53	442.50	
12	442.48	442.56	442.58	442.55	442.60	442.75	442.66	442.88	442.57	442.57	442.53	442.50	
13	442.48	442.58	442.59	442.56	442.60	442.74	442.66	442.70	442.58	442.57	442.53	442.50	
14	442.48	442.52	442.58	442.55	442.59	442.76	442.65	442.66	442.58	442.57	442.53	442.50	
15	442.48	442.53	442.56	442.55	442.59	442.78	442.65	442.64	442.58	442.56	442.53	442.50	
16	442.48	442.54	442.64	442.56	442.59	442.72	442.65	442.63	442.58	442.56	442.53	442.50	
17	442.48	442.50	442.59	442.55	442.64	442.70	442.64	442.64	442.58	442.56	442.53	442.50	
18	442.48	442.50	442.59	442.53	443.46	442.70	442.63	442.61	442.58	442.56	442.53	442.50	
19	442.48	442.50	442.67	442.71	442.89	442.72	442.63	442.60	442.58	442.55	442.53	442.50	
20	442.49	442.50	442.66	442.66	442.79	442.74	442.62	442.60	442.58	442.55	442.53	442.50	
21	442.51	442.50	442.64	442.62	442.77	442.72	442.63	442.60	442.56	442.55	442.52	442.50	
22	442.50	442.51	442.60	442.63	442.76	442.71	442.64	442.60	442.56	442.55	442.52	442.50	
23	442.48	442.56	442.58	442.68	442.73	442.71	442.85	442.60	442.55	442.54	442.52	442.50	
24	442.48	442.70	442.57	442.78	442.71	442.70	442.92	442.60	442.55	442.54	442.52	442.50	
25	442.48	442.62	442.59	442.75	442.72	442.70	442.76	442.60	442.55	442.54	442.52	442.50	
26	442.48	442.58	442.61	442.73	442.70	442.70	442.75	442.59	442.55	442.54	442.52	442.50	
27	442.48	442.57	442.62	442.69	442.93	442.68	442.72	442.58	442.55	442.54	442.52	442.50	
28	442.49	442.72	442.63	442.67	442.84	442.67	442.65	442.58	442.55	442.55	442.52	442.49	
29	442.50	442.63	442.61	442.66	442.79	442.67	442.65	442.58	442.55	442.55		442.48	
30	442.49	442.62	442.60	442.64	442.76	442.66	442.64	442.58	442.55	442.55		442.46	
31		442.62		442.64	442.75		442.64		442.55	442.55		442.46	
Mean	442.49	442.57	442.60	442.61	442.71	442.72	442.70	442.62	442.56	442.56	442.53	442.50	
Max	442.51	442.91	442.67	442.78	443.46	442.94	442.92	442.88	442.58	442.66	442.55	442.53	443.46
Min	442.48	442.45	442.56	442.53	442.59	442.66	442.62	442.58	442.55	442.54	442.52	442.46	442.45

Annual Max Momentary Gage Height 444.48 m. (MSL.) , at 05.00 Hours , on Aug 18 , 2018

Zero Gage at Bottom Elevation 442.30 m. (MSL.) , River Bed 442.14 m. (MSL.)

Left Bank Elevation 446.85 m. (MSL.) ,

Right Bank Elevation 445.49 m. (MSL.) , Drainage Are 136 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.56	0.40	1.60	1.08	1.52	2.45	2.45	1.36	1.02	0.90	0.90	0.72		
2	0.56	5.56	1.60	1.08	1.68	2.15	2.90	1.36	1.02	0.90	0.90	0.78		
3	0.56	1.52	1.20	1.08	1.52	2.00	4.94	1.28	1.02	0.90	0.90	0.72		
4	0.56	1.08	1.08	1.02	1.36	2.00	3.05	1.28	1.02	0.90	0.84	0.72		
5	0.56	0.90	1.02	0.90	1.28	2.00	2.30	1.20	0.96	0.90	0.84	0.72		
6	0.56	0.90	1.02	0.90	1.28	1.84	2.00	1.20	0.96	0.90	0.84	0.72		
7	0.52	0.84	1.02	0.90	1.20	1.84	2.00	1.20	0.96	0.84	0.84	0.66		
8	0.52	0.84	1.02	1.02	1.14	1.92	1.84	1.20	0.96	0.90	0.84	0.60		
9	0.52	0.78	1.02	1.08	1.14	2.00	1.68	1.20	1.02	1.68	0.78	0.60		
10	0.52	0.78	1.08	0.96	1.28	6.34	1.68	1.28	1.02	1.08	0.78	0.60		
11	0.52	0.84	1.20	0.90	1.20	3.35	1.68	2.15	1.02	1.02	0.78	0.60		
12	0.52	0.96	1.08	0.90	1.20	2.75	1.68	4.94	1.02	1.02	0.78	0.60		
13	0.52	1.08	1.14	0.96	1.20	2.60	1.68	2.00	1.08	1.02	0.78	0.60		
14	0.52	0.72	1.08	0.90	1.14	2.90	1.60	1.68	1.08	1.02	0.78	0.60		
15	0.52	0.78	0.96	0.90	1.14	3.20	1.60	1.52	1.08	0.96	0.78	0.60		
16	0.52	0.84	1.52	0.96	1.14	2.30	1.60	1.44	1.08	0.96	0.78	0.60		
17	0.52	0.60	1.14	0.90	1.52	2.00	1.52	1.52	1.08	0.96	0.78	0.60		
18	0.52	0.60	1.14	0.78	27.58	2.00	1.44	1.28	1.08	0.96	0.78	0.60		
19	0.52	0.60	1.76	2.15	5.12	2.30	1.44	1.20	1.08	0.90	0.78	0.60		
20	0.56	0.60	1.68	1.68	3.35	2.60	1.36	1.20	1.08	0.90	0.78	0.60		
21	0.66	0.60	1.52	1.36	3.05	2.30	1.44	1.20	0.96	0.90	0.72	0.60		
22	0.60	0.66	1.20	1.44	2.90	2.15	1.52	1.20	0.96	0.90	0.72	0.60		
23	0.52	0.96	1.08	1.84	2.45	2.15	4.40	1.20	0.90	0.84	0.72	0.60		
24	0.52	2.00	1.02	3.20	2.15	2.00	5.82	1.20	0.90	0.84	0.72	0.60		
25	0.52	1.36	1.14	2.75	2.30	2.00	2.90	1.20	0.90	0.84	0.72	0.60		
26	0.52	1.08	1.28	2.45	2.00	2.00	2.75	1.14	0.90	0.84	0.72	0.60		
27	0.52	1.02	1.36	1.92	6.08	1.84	2.30	1.08	0.90	0.84	0.72	0.60		
28	0.56	2.30	1.44	1.76	4.22	1.76	1.60	1.08	0.90	0.90	0.72	0.56		
29	0.60	1.44	1.28	1.68	3.35	1.76	1.60	1.08	0.90	0.90		0.52		
30	0.56	1.36	1.20	1.52	2.90	1.68	1.52	1.08	0.90	0.90		0.44		
31		1.36		1.52	2.75		1.52		0.90	0.90		0.44		
Total	16.26	35.36	36.88	42.49	92.14	70.18	67.81	42.95	30.66	29.22	22.02	19.00	504.97	CMSDAY
Mean	0.54	1.14	1.23	1.37	2.97	2.34	2.19	1.43	0.99	0.94	0.79	0.61	1.38	CMS
Max	0.66	5.56	1.76	3.20	27.58	6.34	5.82	4.94	1.08	1.68	0.90	0.78	27.58	CMS
Min	0.52	0.40	0.96	0.78	1.14	1.68	1.36	1.08	0.90	0.84	0.72	0.44	0.40	CMS
Runoff	1.40	3.06	3.19	3.67	7.96	6.06	5.86	3.71	2.65	2.52	1.90	1.64	43.63	MCM

Momentary Peak 84.00 CMS. at 444.48 m. (MSL.) at 05.00 Hours , on Aug 18 , 2018

Runoff Yield 10.17 Liters/Second/Square KM. Momentary Peak Yield 617.65 Liters/Second/Square KM.

WATER YEAR : 2018

PING RIVER BASIN

Nam Mae Lai at Ban Pong Din , Chiang Mai (P.80)

Lat 18 - 54 - 49 N Long 99 - 14 - 17 E

Location : on left bank at the bridge on road.

Ban Pong Din **Amphoe** Doi Saket **Changwat** Chiang Mai

Drainge Area	129 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+455.096 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank at the approach of the bridge. **Elevation** +462.021 m. (MSL.)
Gage Reading Frequency	Recording.
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	2001 to date
Rating Operation	
Period of Rating	2001 to date
Rated by Flot	-
Rated by Current Meter	2001 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Stage-discharge relation defined by 31 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

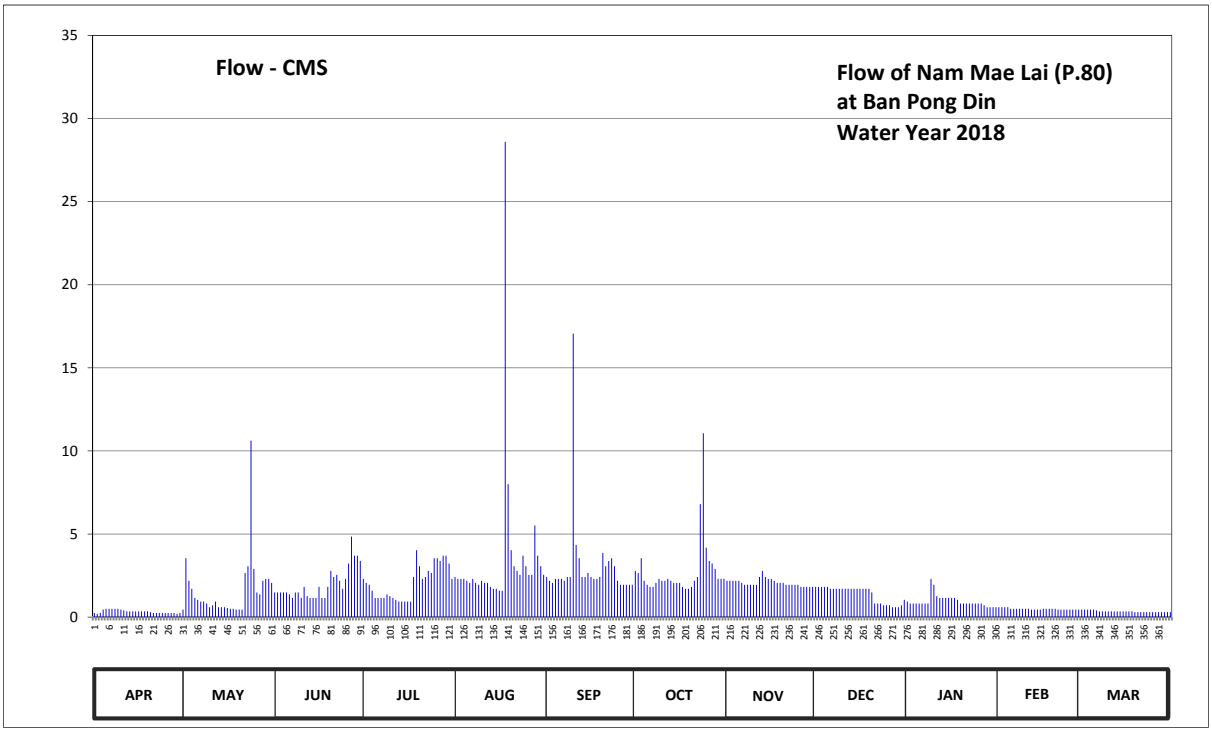
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	455.43	455.47	455.58	455.65	455.66	455.66	455.69	455.64	455.61	455.53	455.50	455.47	
2	455.42	455.74	455.58	455.63	455.65	455.64	455.68	455.64	455.61	455.52	455.50	455.47	
3	455.43	455.64	455.58	455.62	455.65	455.63	455.74	455.64	455.61	455.52	455.50	455.47	
4	455.47	455.60	455.58	455.59	455.65	455.65	455.64	455.64	455.61	455.52	455.50	455.47	
5	455.48	455.55	455.58	455.55	455.64	455.65	455.62	455.64	455.61	455.52	455.48	455.47	
6	455.48	455.54	455.57	455.55	455.63	455.65	455.61	455.63	455.60	455.52	455.48	455.46	
7	455.48	455.53	455.55	455.55	455.65	455.64	455.61	455.62	455.60	455.52	455.48	455.45	
8	455.48	455.53	455.58	455.55	455.63	455.66	455.63	455.62	455.60	455.52	455.48	455.45	
9	455.48	455.52	455.58	455.57	455.62	455.66	455.65	455.62	455.60	455.65	455.48	455.45	
10	455.47	455.50	455.55	455.56	455.64	456.39	455.64	455.62	455.60	455.62	455.48	455.45	
11	455.46	455.51	455.61	455.55	455.63	455.79	455.64	455.62	455.60	455.56	455.48	455.45	
12	455.45	455.53	455.56	455.54	455.63	455.74	455.65	455.66	455.60	455.55	455.47	455.45	
13	455.45	455.50	455.55	455.53	455.61	455.66	455.64	455.69	455.60	455.55	455.47	455.45	
14	455.45	455.50	455.55	455.53	455.60	455.66	455.63	455.66	455.60	455.55	455.47	455.45	
15	455.45	455.50	455.55	455.53	455.60	455.68	455.63	455.65	455.60	455.55	455.47	455.45	
16	455.45	455.49	455.61	455.53	455.59	455.66	455.63	455.65	455.60	455.55	455.48	455.45	
17	455.45	455.48	455.55	455.53	455.59	455.65	455.61	455.64	455.60	455.55	455.48	455.45	
18	455.45	455.48	455.55	455.66	456.85	455.65	455.60	455.63	455.60	455.54	455.48	455.45	
19	455.45	455.47	455.61	455.77	455.99	455.66	455.60	455.63	455.60	455.52	455.48	455.44	
20	455.44	455.47	455.69	455.71	455.77	455.76	455.61	455.63	455.58	455.52	455.48	455.44	
21	455.43	455.47	455.66	455.65	455.71	455.71	455.64	455.62	455.52	455.52	455.47	455.44	
22	455.43	455.68	455.67	455.66	455.69	455.73	455.66	455.62	455.52	455.52	455.47	455.44	
23	455.43	455.71	455.64	455.69	455.67	455.74	455.93	455.62	455.52	455.52	455.47	455.44	
24	455.43	456.11	455.60	455.68	455.75	455.71	456.13	455.62	455.51	455.52	455.47	455.44	
25	455.43	455.70	455.65	455.74	455.71	455.64	455.78	455.62	455.51	455.52	455.47	455.44	
26	455.43	455.58	455.72	455.74	455.67	455.62	455.73	455.61	455.51	455.52	455.47	455.44	
27	455.43	455.57	455.82	455.73	455.67	455.62	455.72	455.61	455.50	455.51	455.47	455.44	
28	455.43	455.64	455.75	455.75	455.86	455.62	455.70	455.61	455.50	455.50	455.47	455.44	
29	455.42	455.65	455.75	455.75	455.75	455.62	455.65	455.61	455.50	455.50		455.44	
30	455.43	455.65	455.73	455.72	455.71	455.62	455.65	455.61	455.51	455.50		455.44	
31		455.63		455.65	455.67		455.65		455.54	455.50		455.44	
Mean	455.45	455.58	455.62	455.63	455.71	455.69	455.68	455.63	455.57	455.53	455.48	455.45	
Max	455.48	456.11	455.82	455.77	456.85	456.39	456.13	455.69	455.61	455.65	455.50	455.47	456.85
Min	455.42	455.47	455.55	455.53	455.59	455.62	455.60	455.61	455.50	455.50	455.47	455.44	455.42

Annual Max Momentary Gage Height 457.71 m. (MSL.) , at 05.00 Hours , on Aug 18 , 2018

Zero Gage at Bottom Elevation 455.10 m. (MSL.) , River Bed 454.92 m. (MSL.)

Left Bank Elevation 461.80 m. (MSL.) ,

Right Bank Elevation 461.78 m. (MSL.) , Drainage Are 129 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.25	0.45	1.48	2.30	2.42	2.42	2.78	2.18	1.82	0.93	0.60	0.45		
2	0.20	3.54	1.48	2.06	2.30	2.18	2.66	2.18	1.82	0.82	0.60	0.45		
3	0.25	2.18	1.48	1.94	2.30	2.06	3.54	2.18	1.82	0.82	0.60	0.45		
4	0.45	1.70	1.48	1.59	2.30	2.30	2.18	2.18	1.82	0.82	0.60	0.45		
5	0.50	1.15	1.48	1.15	2.18	2.30	1.94	2.18	1.82	0.82	0.50	0.45		
6	0.50	1.04	1.37	1.15	2.06	2.30	1.82	2.06	1.70	0.82	0.50	0.40		
7	0.50	0.93	1.15	1.15	2.30	2.18	1.82	1.94	1.70	0.82	0.50	0.35		
8	0.50	0.93	1.48	1.15	2.06	2.42	2.06	1.94	1.70	0.82	0.50	0.35		
9	0.50	0.82	1.48	1.37	1.94	2.42	2.30	1.94	1.70	2.30	0.50	0.35		
10	0.45	0.60	1.15	1.26	2.18	17.06	2.18	1.94	1.70	1.94	0.50	0.35		
11	0.40	0.71	1.82	1.15	2.06	4.34	2.18	1.94	1.70	1.26	0.50	0.35		
12	0.35	0.93	1.26	1.04	2.06	3.54	2.30	2.42	1.70	1.15	0.45	0.35		
13	0.35	0.60	1.15	0.93	1.82	2.42	2.18	2.78	1.70	1.15	0.45	0.35		
14	0.35	0.60	1.15	0.93	1.70	2.42	2.06	2.42	1.70	1.15	0.45	0.35		
15	0.35	0.60	1.15	0.93	1.70	2.66	2.06	2.30	1.70	1.15	0.45	0.35		
16	0.35	0.55	1.82	0.93	1.59	2.42	2.06	2.30	1.70	1.15	0.50	0.35		
17	0.35	0.50	1.15	0.93	1.59	2.30	1.82	2.18	1.70	1.15	0.50	0.35		
18	0.35	0.50	1.15	2.42	28.60	2.30	1.70	2.06	1.70	1.04	0.50	0.35		
19	0.35	0.45	1.82	4.02	8.00	2.42	1.70	2.06	1.70	0.82	0.50	0.30		
20	0.30	0.45	2.78	3.06	4.02	3.86	1.82	2.06	1.48	0.82	0.50	0.30		
21	0.25	0.45	2.42	2.30	3.06	3.06	2.18	1.94	0.82	0.82	0.45	0.30		
22	0.25	2.66	2.54	2.42	2.78	3.38	2.42	1.94	0.82	0.82	0.45	0.30		
23	0.25	3.06	2.18	2.78	2.54	3.54	6.80	1.94	0.82	0.82	0.45	0.30		
24	0.25	10.62	1.70	2.66	3.70	3.06	11.06	1.94	0.71	0.82	0.45	0.30		
25	0.25	2.90	2.30	3.54	3.06	2.18	4.18	1.94	0.71	0.82	0.45	0.30		
26	0.25	1.48	3.22	3.54	2.54	1.94	3.38	1.82	0.71	0.82	0.45	0.30		
27	0.25	1.37	4.84	3.38	2.54	1.94	3.22	1.82	0.60	0.71	0.45	0.30		
28	0.25	2.18	3.70	3.70	5.52	1.94	2.90	1.82	0.60	0.60	0.45	0.30		
29	0.20	2.30	3.70	3.70	3.70	1.94	2.30	1.82	0.60	0.60		0.30		
30	0.25	2.30	3.38	3.22	3.06	1.94	2.30	1.82	0.71	0.60		0.30		
31		2.06		2.30	2.54		2.30		1.04	0.60		0.30		
Total	10.05	50.61	59.26	65.00	110.22	91.24	86.20	62.04	42.52	29.78	13.80	10.75	631.47	CMSDAY
Mean	0.33	1.63	1.98	2.10	3.56	3.04	2.78	2.07	1.37	0.96	0.49	0.35	1.73	CMS
Max	0.50	10.62	4.84	4.02	28.60	17.06	11.06	2.78	1.82	2.30	0.60	0.45	28.60	CMS
Min	0.20	0.45	1.15	0.93	1.59	1.94	1.70	1.82	0.60	0.60	0.45	0.30	0.20	CMS
Runoff	0.87	4.37	5.12	5.62	9.52	7.88	7.45	5.36	3.67	2.57	1.19	0.93	54.56	MCM

Momentary Peak 51.57 CMS. at 457.71 m. (MSL.) at 05.00 Hours , on Aug 18 , 2018

Runoff Yield 13.41 Liters/Second/Square KM. Momentary Peak Yield 399.77 Liters/Second/Square KM.

WATER YEAR : 2018

PING RIVER BASIN

Nam Mae Kuang at Ban Pong , Chiang Mai (P.81)

Lat 18 - 41 - 37 N Long 99 - 04 - 55 E

Location : on right bank at Ban Pong.

	Ban Pong	**Amphoe** San Kamphaeng	**Changwat** Chiang Mai
Drainge Area	1,190 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+289.919 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank at the abutment of the bridge.		**Elevation** +295.749 m. (MSL.)
Gage Reading Frequency	Recording.		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	2002 to date		
Rating Operation			
Period of Rating	2002 to date		
Rated by Flot	-		
Rated by Current Meter	2002 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 34 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

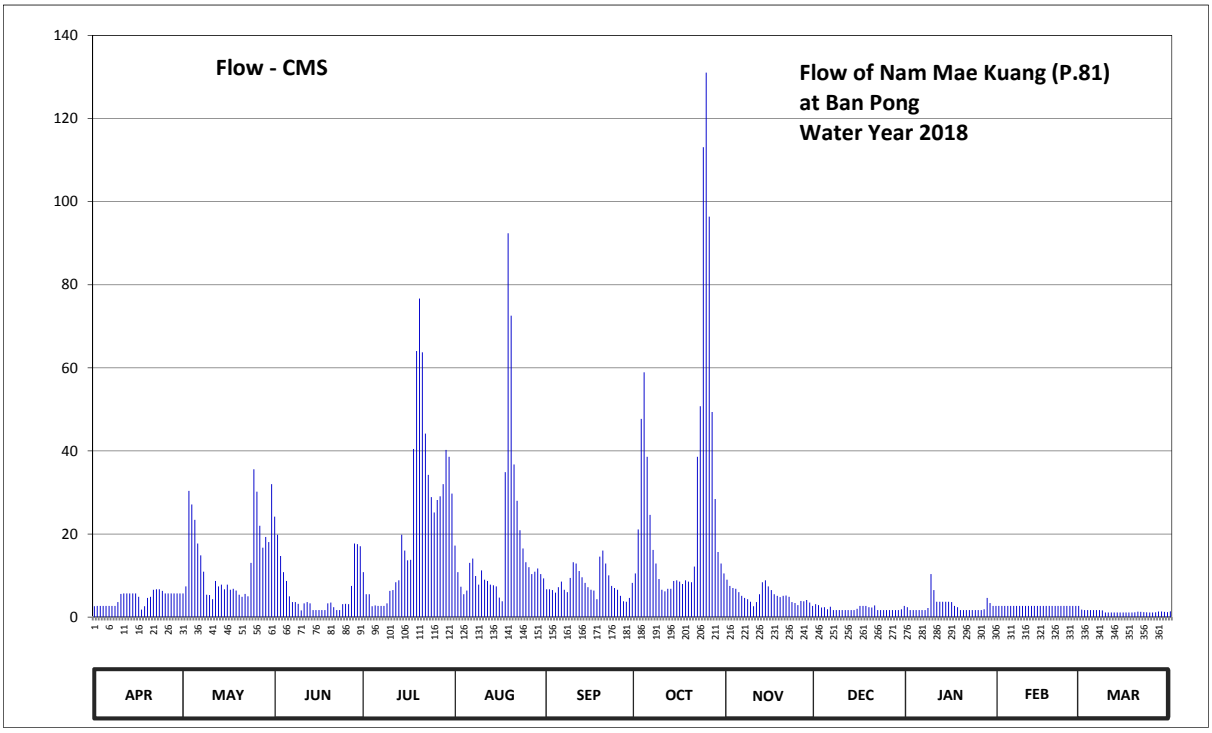
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	291.01	291.32	292.51	291.72	292.13	291.42	291.70	291.60	291.06	290.99	291.02	290.93	
2	291.02	291.49	292.28	291.30	291.72	291.42	292.35	291.50	291.04	290.92	291.02	290.92	
3	291.02	292.80	291.98	291.30	291.48	291.40	293.52	291.45	290.98	290.92	291.02	290.92	
4	291.02	292.65	291.72	291.01	291.30	291.34	293.92	291.43	290.99	290.92	291.02	290.92	
5	291.02	292.47	291.58	291.03	291.39	291.47	293.16	291.35	290.94	290.92	291.02	290.92	
6	291.02	292.16	291.25	291.02	291.87	291.57	292.53	291.26	291.00	290.92	291.02	290.92	
7	291.02	291.99	291.11	291.02	291.94	291.41	292.07	291.21	290.92	290.92	291.02	290.92	
8	291.02	291.73	291.11	291.02	291.66	291.35	291.86	291.18	290.92	290.97	291.02	290.91	
9	291.11	291.29	291.07	291.08	291.52	291.63	291.61	291.12	290.92	291.69	291.02	290.82	
10	291.31	291.28	290.91	291.38	291.75	291.88	291.41	291.01	290.92	291.40	291.02	290.82	
11	291.32	291.18	291.08	291.40	291.60	291.86	291.37	291.11	290.92	291.12	291.02	290.82	
12	291.32	291.58	291.11	291.56	291.58	291.74	291.43	291.30	290.92	291.12	291.02	290.82	
13	291.32	291.49	291.08	291.59	291.52	291.64	291.43	291.56	290.92	291.12	291.02	290.82	
14	291.32	291.52	290.92	292.28	291.51	291.55	291.58	291.59	290.92	291.12	291.02	290.82	
15	291.32	291.42	290.92	292.06	291.49	291.47	291.59	291.49	290.95	291.12	291.02	290.82	
16	291.24	291.52	290.92	291.91	291.22	291.41	291.57	291.40	291.02	291.11	291.02	290.82	
17	290.93	291.41	290.92	291.92	291.13	291.39	291.53	291.30	291.02	291.02	291.02	290.82	
18	291.01	291.43	290.92	293.24	293.00	291.18	291.59	291.26	291.02	290.99	291.02	290.82	
19	291.21	291.39	291.08	294.09	294.95	291.97	291.57	291.23	290.99	290.92	291.02	290.83	
20	291.24	291.29	291.10	294.49	294.36	292.06	291.56	291.26	290.98	290.92	291.02	290.86	
21	291.41	291.24	290.99	294.08	293.08	291.86	291.81	291.27	291.03	290.92	291.02	290.85	
22	291.42	291.31	290.92	293.39	292.69	291.67	293.16	291.24	290.92	290.92	291.02	290.84	
23	291.42	291.25	290.92	292.97	292.34	291.50	293.63	291.11	290.92	290.92	291.02	290.83	
24	291.38	291.87	291.06	292.73	292.09	291.45	295.49	291.09	290.92	290.92	291.02	290.82	
25	291.32	293.03	291.07	292.56	291.88	291.41	295.93	291.04	290.92	290.92	291.02	290.82	
26	291.32	292.79	291.06	292.70	291.80	291.26	295.06	291.14	290.92	290.92	291.02	290.83	
27	291.32	292.40	291.50	292.74	291.69	291.13	293.58	291.13	290.92	290.94	291.02	290.87	
28	291.32	292.10	292.16	292.87	291.73	291.12	292.71	291.16	290.92	291.21	291.02	290.87	
29	291.32	292.25	292.15	293.23	291.78	291.21	292.04	291.10	290.92	291.09		290.85	
30	291.32	292.18	292.12	293.16	291.69	291.55	291.86	291.02	290.94	291.02		290.84	
31		292.87		292.77	291.62		291.70		291.02	291.02		290.88	
Mean	291.21	291.83	291.32	292.25	291.98	291.51	292.46	291.26	290.96	291.03	291.02	290.86	
Max	291.42	293.03	292.51	294.49	294.95	292.06	295.93	291.60	291.06	291.69	291.02	290.93	295.93
Min	290.93	291.18	290.91	291.01	291.13	291.12	291.37	291.01	290.92	290.92	291.02	290.82	290.82

Annual Max Momentary Gage Height 295.98 m. (MSL.) , at 04.00 Hours , on Oct 25 , 2018

Zero Gage at Bottom Elevation 289.92 m. (MSL.) , River Bed 290.15 m. (MSL.)

Left Bank Elevation 296.85 m. (MSL.) ,

Right Bank Elevation 296.86 m. (MSL.) , Drainage Are 1,190 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.60	5.70	24.20	10.80	17.21	6.70	10.50	9.00	3.10	2.40	2.70	1.80		
2	2.70	7.40	19.84	5.50	10.80	6.70	21.10	7.50	2.90	1.70	2.70	1.70		
3	2.70	30.40	14.70	5.50	7.30	6.50	47.70	7.00	2.30	1.70	2.70	1.70		
4	2.70	27.10	10.80	2.60	5.50	5.90	58.92	6.80	2.40	1.70	2.70	1.70		
5	2.70	23.40	8.70	2.80	6.40	7.20	38.58	6.00	1.90	1.70	2.70	1.70		
6	2.70	17.72	5.00	2.70	13.05	8.55	24.60	5.10	2.50	1.70	2.70	1.70		
7	2.70	14.85	3.60	2.70	14.10	6.60	16.19	4.60	1.70	1.70	2.70	1.70		
8	2.70	10.95	3.60	2.70	9.90	6.00	12.90	4.30	1.70	2.20	2.70	1.60		
9	3.60	5.40	3.20	3.30	7.80	9.45	9.15	3.70	1.70	10.35	2.70	1.10		
10	5.60	5.30	1.60	6.30	11.25	13.20	6.60	2.60	1.70	6.50	2.70	1.10		
11	5.70	4.30	3.30	6.50	9.00	12.90	6.20	3.60	1.70	3.70	2.70	1.10		
12	5.70	8.70	3.60	8.40	8.70	11.10	6.80	5.50	1.70	3.70	2.70	1.10		
13	5.70	7.40	3.30	8.85	7.80	9.60	6.80	8.40	1.70	3.70	2.70	1.10		
14	5.70	7.80	1.70	19.84	7.65	8.25	8.70	8.85	1.70	3.70	2.70	1.10		
15	5.70	6.70	1.70	16.02	7.40	7.20	8.85	7.40	2.00	3.70	2.70	1.10		
16	4.90	7.80	1.70	13.65	4.70	6.60	8.55	6.50	2.70	3.60	2.70	1.10		
17	1.80	6.60	1.70	13.80	3.80	6.40	7.95	5.50	2.70	2.70	2.70	1.10		
18	2.60	6.80	1.70	40.48	34.90	4.30	8.85	5.10	2.70	2.40	2.70	1.10		
19	4.60	6.40	3.30	64.04	92.40	14.55	8.55	4.80	2.40	1.70	2.70	1.15		
20	4.90	5.40	3.50	76.68	72.54	16.02	8.40	5.10	2.30	1.70	2.70	1.30		
21	6.60	4.90	2.40	63.72	36.74	12.90	12.15	5.20	2.80	1.70	2.70	1.25		
22	6.70	5.60	1.70	44.16	27.98	10.05	38.58	4.90	1.70	1.70	2.70	1.20		
23	6.70	5.00	1.70	34.23	20.92	7.50	50.74	3.60	1.70	1.70	2.70	1.15		
24	6.30	13.05	3.10	28.86	16.53	7.00	113.10	3.40	1.70	1.70	2.70	1.10		
25	5.70	35.59	3.20	25.20	13.20	6.60	131.03	2.90	1.70	1.70	2.70	1.10		
26	5.70	30.18	3.10	28.20	12.00	5.10	96.39	3.90	1.70	1.70	2.70	1.15		
27	5.70	22.00	7.50	29.08	10.35	3.80	49.35	3.80	1.70	1.90	2.70	1.35		
28	5.70	16.70	17.72	31.98	10.95	3.70	28.42	4.10	1.70	4.60	2.70	1.35		
29	5.70	19.30	17.55	40.24	11.70	4.60	15.68	3.50	1.70	3.40		1.25		
30	5.70	18.06	17.04	38.58	10.35	8.25	12.90	2.70	1.90	2.70		1.20		
31		31.98		29.74	9.30		10.50		2.70	2.70		1.40		
Total	138.50	418.48	195.75	707.15	532.22	243.22	884.73	155.35	64.50	87.75	75.60	40.55	3543.80	CMSDAY
Mean	4.62	13.50	6.52	22.81	17.17	8.11	28.54	5.18	2.08	2.83	2.70	1.31	9.71	CMS
Max	6.70	35.59	24.20	76.68	92.40	16.02	131.03	9.00	3.10	10.35	2.70	1.80	131.03	CMS
Min	1.80	4.30	1.60	2.60	3.80	3.70	6.20	2.60	1.70	1.70	2.70	1.10	1.10	CMS
Runoff	11.97	36.16	16.91	61.10	45.98	21.01	76.44	13.42	5.57	7.58	6.53	3.50	306.18	MCM

Momentary Peak 133.15 CMS. at 295.98 m. (MSL.) at 04.00 Hours , on Oct 25 , 2018

Runoff Yield 8.16 Liters/Second/Square KM. Momentary Peak Yield 111.89 Liters/Second/Square KM.

WATER YEAR : 2018

PING RIVER BASIN

Nam Mae Wang at Ban Sop Win , Chiang Mai (P.82)

Lat 18 - 39 - 06 N Long 98 - 41 - 23 E

Location : on left bank at Ban Sop Win.

	Ban Sop Win	**Amphoe** Mae Wang	**Changwat** Chiang Mai
Drainge Area	389 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+400.196 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank about 5.00 meters from the top staff gage.		**Elevation** +406.756 m. (MSL.)
Gage Reading Frequency	Recording.		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	2003 to date		
Rating Operation			
Period of Rating	2003 to date		
Rated by Flot	-		
Rated by Current Meter	2003 to date		
Stability of Channel Regimes	Fairly stable by some scouring.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 31 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

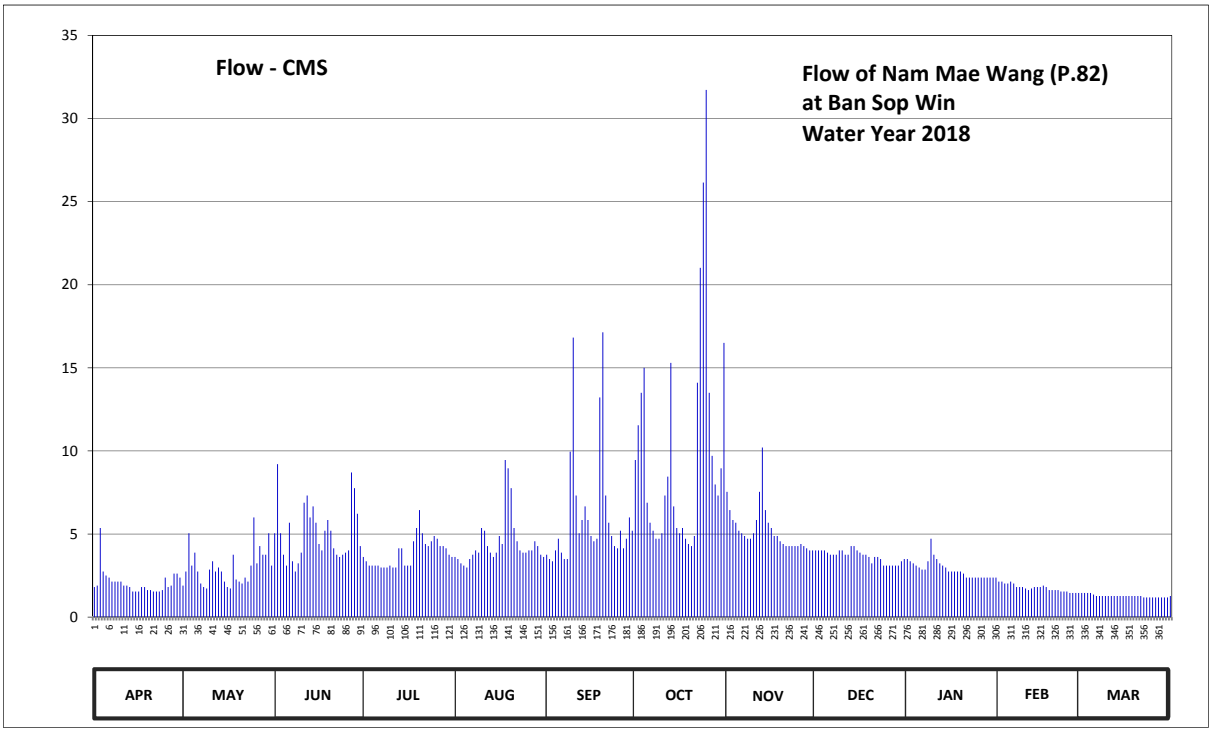
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	400.79	400.80	401.04	400.94	400.94	400.95	401.25	401.17	400.97	400.93	400.82	400.75	
2	400.80	400.87	401.24	400.92	400.93	400.93	401.33	401.12	400.97	400.92	400.82	400.75	
3	401.06	401.04	401.04	400.90	400.91	400.92	401.40	401.09	400.97	400.91	400.81	400.75	
4	400.87	400.90	400.95	400.90	400.90	400.97	401.45	401.08	400.97	400.90	400.81	400.75	
5	400.85	400.96	400.90	400.90	400.89	401.02	401.14	401.05	400.96	400.89	400.82	400.74	
6	400.84	400.87	401.08	400.90	400.93	400.96	401.08	401.04	400.95	400.88	400.81	400.73	
7	400.82	400.81	400.92	400.89	400.95	400.93	401.05	401.03	400.95	400.88	400.79	400.73	
8	400.82	400.79	400.87	400.89	400.97	400.93	401.02	401.02	400.95	400.92	400.79	400.73	
9	400.82	400.78	400.91	400.89	400.96	401.27	401.02	401.02	400.97	401.02	400.79	400.73	
10	400.82	400.88	400.96	400.90	401.06	401.51	401.04	401.04	400.97	400.95	400.78	400.73	
11	400.80	400.92	401.14	400.89	401.05	401.16	401.16	401.09	400.95	400.93	400.77	400.73	
12	400.80	400.87	401.16	400.89	400.99	401.04	401.21	401.17	400.95	400.91	400.78	400.73	
13	400.79	400.89	401.10	400.98	400.96	401.09	401.46	401.28	400.99	400.90	400.79	400.73	
14	400.76	400.87	401.13	400.98	400.94	401.13	401.13	401.12	400.99	400.89	400.79	400.73	
15	400.76	400.82	401.08	400.90	400.96	401.09	401.06	401.08	400.97	400.87	400.79	400.73	
16	400.76	400.79	401.00	400.90	401.03	401.03	401.04	401.06	400.96	400.87	400.80	400.73	
17	400.79	400.78	400.97	400.90	401.00	401.01	401.06	401.03	400.95	400.87	400.79	400.73	
18	400.79	400.95	401.05	401.01	401.25	401.02	401.02	401.03	400.95	400.87	400.77	400.73	
19	400.77	400.83	401.09	401.06	401.23	401.39	401.00	401.01	400.94	400.87	400.77	400.73	
20	400.77	400.82	401.05	401.12	401.18	401.52	400.99	401.00	400.91	400.86	400.77	400.73	
21	400.76	400.81	400.98	401.04	401.06	401.16	401.03	400.99	400.94	400.84	400.77	400.73	
22	400.76	400.84	400.95	401.00	401.01	401.08	401.42	400.99	400.94	400.84	400.76	400.72	
23	400.76	400.82	400.94	400.99	400.97	401.03	401.64	400.99	400.93	400.84	400.76	400.72	
24	400.77	400.90	400.95	401.01	400.96	400.99	401.79	400.99	400.90	400.84	400.76	400.72	
25	400.84	401.10	400.96	401.03	400.96	400.98	401.94	400.99	400.90	400.84	400.75	400.72	
26	400.79	400.91	400.97	401.02	400.97	401.05	401.40	401.00	400.90	400.84	400.75	400.72	
27	400.80	400.99	401.22	400.99	400.97	400.98	401.26	400.99	400.90	400.84	400.75	400.72	
28	400.86	400.95	401.18	400.99	401.01	401.02	401.19	400.98	400.90	400.84	400.75	400.72	
29	400.86	400.95	401.11	400.98	400.99	401.10	401.16	400.97	400.90	400.84		400.72	
30	400.84	401.04	400.99	400.95	400.95	401.05	401.23	400.97	400.92	400.84		400.72	
31		400.90		400.94	400.94		401.50		400.93	400.84		400.73	
Mean	400.81	400.89	401.03	400.95	400.99	401.08	401.24	401.05	400.94	400.88	400.78	400.73	
Max	401.06	401.10	401.24	401.12	401.25	401.52	401.94	401.28	400.99	401.02	400.82	400.75	401.94
Min	400.76	400.78	400.87	400.89	400.89	400.92	400.99	400.97	400.90	400.84	400.75	400.72	400.72

Annual Max Momentary Gage Height 402.72 m. (MSL.) , at 02.00 Hours , on Oct 25 , 2018

Zero Gage at Bottom Elevation 400.20 m. (MSL.) , River Bed 399.56 m. (MSL.)

Left Bank Elevation 407.50 m. (MSL.) ,

Right Bank Elevation 407.59 m. (MSL.) , Drainage Are 389 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.81	1.90	5.04	3.62	3.62	3.75	9.45	7.54	4.01	3.49	2.14	1.45		
2	1.90	2.74	9.20	3.36	3.49	3.49	11.54	6.44	4.01	3.36	2.14	1.45		
3	5.36	5.04	5.04	3.10	3.23	3.36	13.50	5.84	4.01	3.23	2.02	1.45		
4	2.74	3.10	3.75	3.10	3.10	4.01	15.00	5.68	4.01	3.10	2.02	1.45		
5	2.50	3.88	3.10	3.10	2.98	4.72	6.88	5.20	3.88	2.98	2.14	1.36		
6	2.38	2.74	5.68	3.10	3.49	3.88	5.68	5.04	3.75	2.86	2.02	1.27		
7	2.14	2.02	3.36	2.98	3.75	3.49	5.20	4.88	3.75	2.86	1.81	1.27		
8	2.14	1.81	2.74	2.98	4.01	3.49	4.72	4.72	3.75	3.36	1.81	1.27		
9	2.14	1.72	3.23	2.98	3.88	9.95	4.72	4.72	4.01	4.72	1.81	1.27		
10	2.14	2.86	3.88	3.10	5.36	16.82	5.04	5.04	4.01	3.75	1.72	1.27		
11	1.90	3.36	6.88	2.98	5.20	7.32	7.32	5.84	3.75	3.49	1.63	1.27		
12	1.90	2.74	7.32	2.98	4.27	5.04	8.45	7.54	3.75	3.23	1.72	1.27		
13	1.81	2.98	6.00	4.14	3.88	5.84	15.30	10.20	4.27	3.10	1.81	1.27		
14	1.54	2.74	6.66	4.14	3.62	6.66	6.66	6.44	4.27	2.98	1.81	1.27		
15	1.54	2.14	5.68	3.10	3.88	5.84	5.36	5.68	4.01	2.74	1.81	1.27		
16	1.54	1.81	4.40	3.10	4.88	4.88	5.04	5.36	3.88	2.74	1.90	1.27		
17	1.81	1.72	4.01	3.10	4.40	4.56	5.36	4.88	3.75	2.74	1.81	1.27		
18	1.81	3.75	5.20	4.56	9.45	4.72	4.72	4.88	3.75	2.74	1.63	1.27		
19	1.63	2.26	5.84	5.36	8.95	13.22	4.40	4.56	3.62	2.74	1.63	1.27		
20	1.63	2.14	5.20	6.44	7.76	17.14	4.27	4.40	3.23	2.62	1.63	1.27		
21	1.54	2.02	4.14	5.04	5.36	7.32	4.88	4.27	3.62	2.38	1.63	1.27		
22	1.54	2.38	3.75	4.40	4.56	5.68	14.10	4.27	3.62	2.38	1.54	1.18		
23	1.54	2.14	3.62	4.27	4.01	4.88	21.02	4.27	3.49	2.38	1.54	1.18		
24	1.63	3.10	3.75	4.56	3.88	4.27	26.15	4.27	3.10	2.38	1.54	1.18		
25	2.38	6.00	3.88	4.88	3.88	4.14	31.72	4.27	3.10	2.38	1.45	1.18		
26	1.81	3.23	4.01	4.72	4.01	5.20	13.50	4.40	3.10	2.38	1.45	1.18		
27	1.90	4.27	8.70	4.27	4.01	4.14	9.70	4.27	3.10	2.38	1.45	1.18		
28	2.62	3.75	7.76	4.27	4.56	4.72	7.98	4.14	3.10	2.38	1.45	1.18		
29	2.62	3.75	6.22	4.14	4.27	6.00	7.32	4.01	3.10	2.38		1.18		
30	2.38	5.04	4.27	3.75	3.75	5.20	8.95	4.01	3.36	2.38		1.18		
31		3.10		3.62	3.62		16.50		3.49	2.38		1.27		
Total	62.32	92.23	152.31	119.24	139.11	183.73	310.43	157.06	113.65	89.01	49.06	39.37	1507.52	CMSDAY
Mean	2.08	2.98	5.08	3.85	4.49	6.12	10.01	5.24	3.67	2.87	1.75	1.27	4.13	CMS
Max	5.36	6.00	9.20	6.44	9.45	17.14	31.72	10.20	4.27	4.72	2.14	1.45	31.72	CMS
Min	1.54	1.72	2.74	2.98	2.98	3.36	4.27	4.01	3.10	2.38	1.45	1.18	1.18	CMS
Runoff	5.38	7.97	13.16	10.30	12.02	15.87	26.82	13.57	9.82	7.69	4.24	3.40	130.25	MCM

Momentary Peak 62.92 CMS. at 402.72 m. (MSL.) at 02.00 Hours , on Oct 25 , 2018

Runoff Yield 10.62 Liters/Second/Square KM. Momentary Peak Yield 161.75 Liters/Second/Square KM.

WATER YEAR : 2018

PING RIVER BASIN

Nam Mae Wang at Ban Phan Ton , Chiang Mai (P.84)

Lat 18 - 35 - 19 N Long 98 - 47 - 58 E

Location : on left bank at Ban Phan Ton.

Ban Phan Ton **Amphoe** Mae Wang **Changwat** Chiang Mai

Drainge Area	503 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+303.244 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank at the abutment of the bridge. **Elevation** +309.244 m. (MSL.)
Gage Reading Frequency	Recording.
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	2003 to date
Rating Operation	
Period of Rating	2003 to date
Rated by Flot	-
Rated by Current Meter	2003 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Stage-discharge relation defined by 31 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

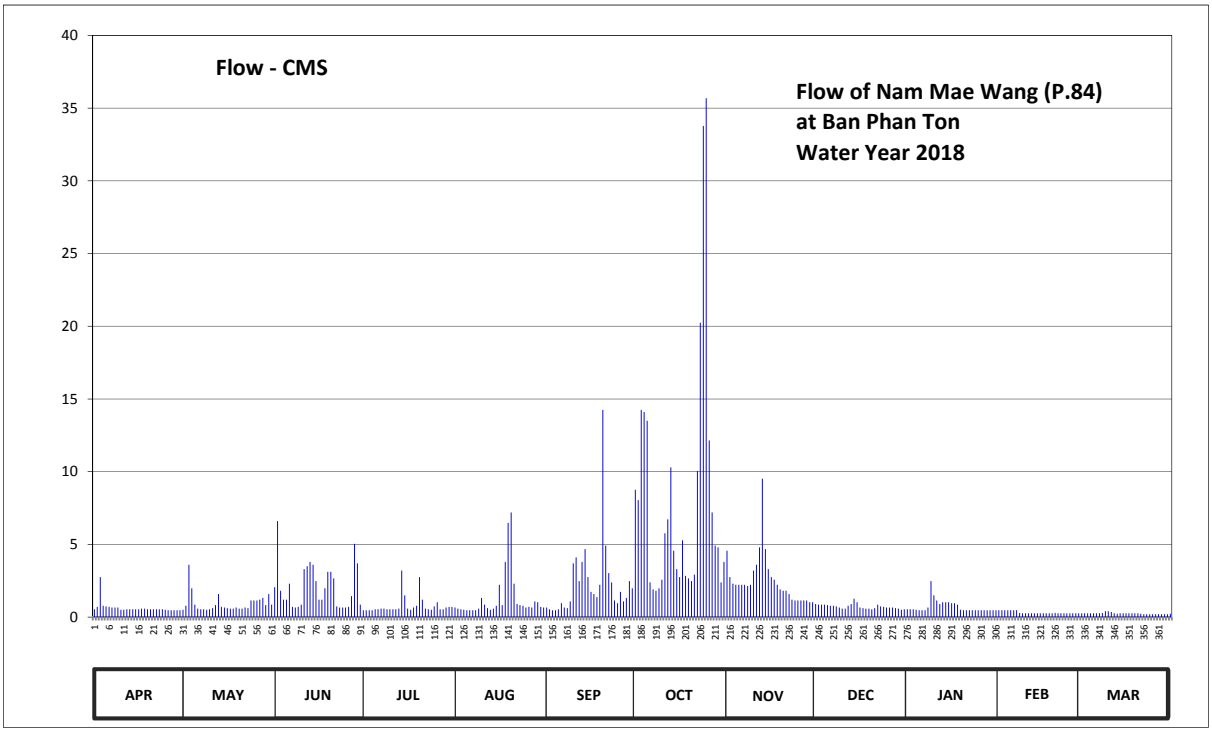
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	303.31	303.30	303.57	303.29	303.34	303.34	304.18	303.83	303.40	303.31	303.29	303.22	
2	303.35	303.37	304.00	303.29	303.32	303.31	304.12	303.65	303.39	303.31	303.29	303.22	
3	303.65	303.74	303.54	303.29	303.31	303.29	304.57	303.60	303.39	303.31	303.29	303.22	
4	303.37	303.56	303.45	303.29	303.30	303.29	304.56	303.59	303.39	303.30	303.29	303.22	
5	303.36	303.39	303.45	303.31	303.29	303.31	304.52	303.59	303.38	303.29	303.29	303.22	
6	303.35	303.32	303.60	303.31	303.29	303.41	303.61	303.59	303.37	303.29	303.29	303.22	
7	303.34	303.31	303.35	303.32	303.29	303.34	303.55	303.59	303.37	303.29	303.29	303.22	
8	303.34	303.31	303.34	303.32	303.29	303.33	303.54	303.58	303.36	303.34	303.23	303.23	
9	303.34	303.30	303.35	303.31	303.32	303.43	303.56	303.59	303.34	303.62	303.22	303.27	
10	303.30	303.31	303.39	303.31	303.47	303.75	303.63	303.70	303.32	303.50	303.22	303.27	
11	303.30	303.33	303.71	303.31	303.39	303.79	303.93	303.74	303.32	303.44	303.22	303.25	
12	303.31	303.38	303.73	303.31	303.33	303.62	304.01	303.85	303.37	303.40	303.22	303.22	
13	303.31	303.51	303.76	303.32	303.30	303.76	304.30	304.24	303.40	303.42	303.22	303.21	
14	303.31	303.35	303.74	303.70	303.32	303.84	303.83	303.84	303.46	303.42	303.22	303.22	
15	303.31	303.34	303.62	303.50	303.37	303.65	303.71	303.71	303.42	303.42	303.22	303.22	
16	303.31	303.33	303.45	303.32	303.59	303.53	303.65	303.65	303.34	303.41	303.22	303.22	
17	303.32	303.32	303.45	303.30	303.38	303.51	303.89	303.63	303.33	303.41	303.22	303.22	
18	303.32	303.32	303.56	303.34	303.76	303.48	303.66	303.59	303.32	303.39	303.22	303.22	
19	303.31	303.34	303.69	303.37	303.99	303.59	303.64	303.55	303.32	303.30	303.22	303.22	
20	303.31	303.32	303.69	303.65	304.05	304.57	303.62	303.54	303.31	303.29	303.23	303.22	
21	303.31	303.32	303.64	303.45	303.60	303.86	303.67	303.54	303.33	303.29	303.22	303.21	
22	303.31	303.34	303.36	303.32	303.40	303.68	304.28	303.51	303.39	303.29	303.22	303.20	
23	303.31	303.33	303.34	303.31	303.38	303.61	304.93	303.45	303.36	303.29	303.22	303.20	
24	303.31	303.44	303.34	303.30	303.37	303.44	305.59	303.44	303.35	303.29	303.22	303.20	
25	303.30	303.44	303.34	303.36	303.34	303.41	305.67	303.44	303.34	303.29	303.22	303.20	
26	303.29	303.44	303.35	303.42	303.35	303.53	304.43	303.44	303.34	303.29	303.22	303.20	
27	303.29	303.45	303.49	303.31	303.34	303.43	304.05	303.44	303.34	303.29	303.22	303.20	
28	303.29	303.47	303.87	303.31	303.43	303.47	303.86	303.44	303.33	303.29	303.22	303.20	
29	303.29	303.38	303.75	303.34	303.42	303.62	303.85	303.42	303.32	303.29		303.20	
30	303.29	303.51	303.39	303.35	303.35	303.56	303.61	303.42	303.30	303.29		303.20	
31		303.39		303.35	303.34		303.76		303.31	303.29		303.21	
Mean	303.33	303.39	303.54	303.35	303.42	303.56	304.06	303.61	303.36	303.34	303.24	303.22	
Max	303.65	303.74	304.00	303.70	304.05	304.57	305.67	304.24	303.46	303.62	303.29	303.27	305.67
Min	303.29	303.30	303.34	303.29	303.29	303.29	303.54	303.42	303.30	303.29	303.22	303.20	303.20

Annual Max Momentary Gage Height 306.15 m. (MSL.) , at 07.00 Hours , on Oct 25 , 2018

Zero Gage at Bottom Elevation 303.24 m. (MSL.) , River Bed 303.00 m. (MSL.)

Left Bank Elevation 309.07 m. (MSL.) ,

Right Bank Elevation 309.08 m. (MSL.) , Drainage Are 503 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.54	0.50	2.06	0.47	0.66	0.66	8.76	4.56	0.90	0.54	0.47	0.26		
2	0.70	0.78	6.60	0.47	0.58	0.54	8.04	2.75	0.86	0.54	0.47	0.26		
3	2.75	3.60	1.82	0.47	0.54	0.47	14.25	2.30	0.86	0.54	0.47	0.26		
4	0.78	1.98	1.20	0.47	0.50	0.47	14.10	2.22	0.86	0.50	0.47	0.26		
5	0.74	0.86	1.20	0.54	0.47	0.54	13.50	2.22	0.82	0.47	0.47	0.26		
6	0.70	0.58	2.30	0.54	0.47	0.96	2.39	2.22	0.78	0.47	0.47	0.26		
7	0.66	0.54	0.70	0.58	0.47	0.66	1.90	2.22	0.78	0.47	0.47	0.26		
8	0.66	0.54	0.66	0.58	0.47	0.62	1.82	2.14	0.74	0.66	0.29	0.29		
9	0.66	0.50	0.70	0.54	0.58	1.08	1.98	2.22	0.66	2.48	0.26	0.41		
10	0.50	0.54	0.86	0.54	1.32	3.70	2.57	3.20	0.58	1.50	0.26	0.41		
11	0.50	0.62	3.30	0.54	0.86	4.10	5.76	3.60	0.58	1.14	0.26	0.35		
12	0.54	0.82	3.50	0.54	0.62	2.48	6.72	4.80	0.78	0.90	0.26	0.26		
13	0.54	1.58	3.80	0.58	0.50	3.80	10.30	9.52	0.90	1.02	0.26	0.23		
14	0.54	0.70	3.60	3.20	0.58	4.68	4.56	4.68	1.26	1.02	0.26	0.26		
15	0.54	0.66	2.48	1.50	0.78	2.75	3.30	3.30	1.02	1.02	0.26	0.26		
16	0.54	0.62	1.20	0.58	2.22	1.74	2.75	2.75	0.66	0.96	0.26	0.26		
17	0.58	0.58	1.20	0.50	0.82	1.58	5.28	2.57	0.62	0.96	0.26	0.26		
18	0.58	0.58	1.98	0.66	3.80	1.38	2.84	2.22	0.58	0.86	0.26	0.26		
19	0.54	0.66	3.11	0.78	6.48	2.22	2.66	1.90	0.58	0.50	0.26	0.26		
20	0.54	0.58	3.11	2.75	7.20	14.25	2.48	1.82	0.54	0.47	0.29	0.26		
21	0.54	0.58	2.66	1.20	2.30	4.92	2.93	1.82	0.62	0.47	0.26	0.23		
22	0.54	0.66	0.74	0.58	0.90	3.02	10.04	1.58	0.86	0.47	0.26	0.20		
23	0.54	0.62	0.66	0.54	0.82	2.39	20.24	1.20	0.74	0.47	0.26	0.20		
24	0.54	1.14	0.66	0.50	0.78	1.14	33.78	1.14	0.70	0.47	0.26	0.20		
25	0.50	1.14	0.66	0.74	0.66	0.96	35.68	1.14	0.66	0.47	0.26	0.20		
26	0.47	1.14	0.70	1.02	0.70	1.74	12.15	1.14	0.66	0.47	0.26	0.20		
27	0.47	1.20	1.44	0.54	0.66	1.08	7.20	1.14	0.66	0.47	0.26	0.20		
28	0.47	1.32	5.04	0.54	1.08	1.32	4.92	1.14	0.62	0.47	0.26	0.20		
29	0.47	0.82	3.70	0.66	1.02	2.48	4.80	1.02	0.58	0.47		0.20		
30	0.47	1.58	0.86	0.70	0.70	1.98	2.39	1.02	0.50	0.47		0.20		
31		0.86		0.70	0.66		3.80		0.54	0.47		0.23		
Total	19.14	28.88	62.50	24.55	40.20	69.71	253.89	75.55	22.50	22.19	8.81	7.85	635.77	CMSDAY
Mean	0.64	0.93	2.08	0.79	1.30	2.32	8.19	2.52	0.73	0.72	0.31	0.25	1.74	CMS
Max	2.75	3.60	6.60	3.20	7.20	14.25	35.68	9.52	1.26	2.48	0.47	0.41	35.68	CMS
Min	0.47	0.50	0.66	0.47	0.47	0.47	1.82	1.02	0.50	0.47	0.26	0.20	0.20	CMS
Runoff	1.65	2.50	5.40	2.12	3.47	6.02	21.94	6.53	1.94	1.92	0.76	0.68	54.93	MCM

Momentary Peak 47.83 CMS. at 306.15 m. (MSL.) at 07.00 Hours , on Oct 25 , 2018

Runoff Yield 3.46 Liters/Second/Square KM. Momentary Peak Yield 95.09 Liters/Second/Square KM.

WATER YEAR : 2018

PING RIVER BASIN

Nam Mae Li at Ban Lai Khaeo , Lamphun (P.85)

Lat 18 - 21 - 49 N Long 98 - 46 - 31 E

Location : on right bank at Ban Lai Khaeo.

	Ban Lai Khaeo	**Amphoe** Ban Hong	**Changwat** Lamphun
Drainge Area	2,052 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+290.368 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank at the abutment of the bridge.		**Elevation** +295.123 m. (MSL.)
Gage Reading Frequency	Recording.		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	2003 to date		
Rating Operation			
Period of Rating	2003 to date		
Rated by Flot	-		
Rated by Current Meter	2003 to date		
Stability of Channel Regimes	Fairly stable because of backwater effect.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 31 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

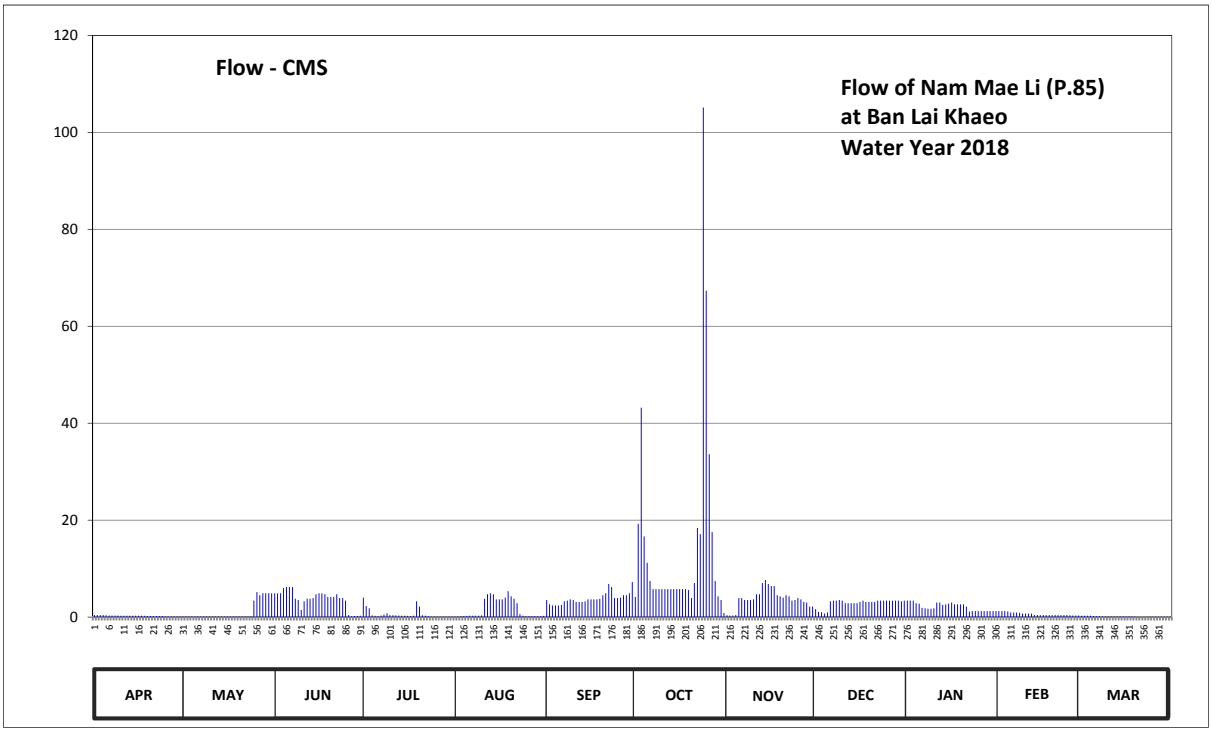
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	289.57	289.07	290.03	289.98	288.97	289.94	289.99	289.54	289.78	289.93	289.73	289.39	
2	289.57	289.07	290.03	289.84	289.03	289.87	290.51	289.48	289.71	289.93	289.73	289.38	
3	289.57	289.07	290.03	289.80	289.20	289.85	290.97	289.48	289.70	289.93	289.73	289.37	
4	289.57	289.07	290.08	289.49	289.27	289.85	290.45	289.57	289.65	289.89	289.72	289.36	
5	289.56	289.07	290.09	289.32	289.30	289.85	290.29	289.97	289.69	289.88	289.69	289.26	
6	289.45	289.07	290.09	289.20	289.37	289.86	290.15	289.97	289.92	289.81	289.69	289.17	
7	289.45	289.07	290.09	289.43	289.40	289.92	290.07	289.94	289.93	289.80	289.69	289.16	
8	289.45	289.07	289.96	289.61	289.39	289.93	290.07	289.94	289.93	289.79	289.68	289.07	
9	289.45	289.07	289.94	289.66	289.39	289.95	290.07	289.94	289.94	289.79	289.65	289.07	
10	289.41	289.07	289.76	289.58	289.52	289.94	290.07	289.95	289.93	289.80	289.65	289.07	
11	289.41	289.07	289.92	289.55	289.96	289.91	290.07	290.02	289.89	289.90	289.65	289.07	
12	289.41	289.07	289.96	289.52	290.02	289.91	290.07	290.02	289.89	289.90	289.65	289.07	
13	289.42	289.07	289.96	289.45	290.03	289.91	290.07	290.13	289.89	289.86	289.57	289.07	
14	289.42	289.07	289.97	289.42	290.02	289.92	290.07	290.16	289.89	289.87	289.57	289.07	
15	289.42	289.07	290.02	289.37	289.95	289.95	290.07	290.12	289.89	289.88	289.57	289.07	
16	289.41	289.07	290.03	289.31	289.95	289.95	290.07	290.10	289.91	289.90	289.57	289.07	
17	289.37	289.07	290.03	289.17	289.95	289.95	290.07	290.10	289.93	289.87	289.57	289.06	
18	289.34	289.07	290.02	289.37	289.98	289.95	290.07	290.01	289.91	289.87	289.57	289.02	
19	289.27	289.07	289.99	289.92	290.05	289.96	290.06	290.00	289.91	289.87	289.57	288.99	
20	289.27	289.07	289.99	289.83	290.00	290.01	289.97	289.98	289.91	289.87	289.57	288.88	
21	289.27	289.07	289.99	289.54	289.96	290.03	290.13	290.01	289.91	289.83	289.57	288.87	
22	289.27	289.07	290.02	289.36	289.89	290.12	290.49	290.00	289.93	289.72	289.57	288.87	
23	289.27	289.07	289.97	289.22	289.63	290.09	290.46	289.93	289.93	289.73	289.57	288.87	
24	289.26	289.21	289.97	288.98	289.42	289.97	291.72	289.94	289.93	289.73	289.57	288.89	
25	289.08	289.93	289.93	288.97	289.18	289.97	291.30	289.97	289.93	289.73	289.54	288.93	
26	289.07	290.04	289.58	288.97	289.17	289.98	290.81	289.95	289.93	289.73	289.43	288.95	
27	289.07	290.01	289.11	288.97	289.17	290.01	290.47	289.91	289.93	289.73	289.43	288.95	
28	289.07	290.03	289.26	288.97	289.17	290.01	290.15	289.90	289.93	289.73	289.43	288.95	
29	289.07	290.03	289.27	288.97	289.17	290.03	290.00	289.83	289.93	289.73		288.95	
30	289.07	290.03	289.42	288.97	289.17	290.14	289.94	289.83	289.92	289.73		288.95	
31		290.03		288.97	289.30		289.67		289.93	289.73		288.95	
Mean	289.34	289.29	289.88	289.38	289.55	289.96	290.27	289.92	289.88	289.82	289.60	289.06	
Max	289.57	290.04	290.09	289.98	290.05	290.14	291.72	290.16	289.94	289.93	289.73	289.39	291.72
Min	289.07	289.07	289.11	288.97	288.97	289.85	289.67	289.48	289.65	289.72	289.43	288.87	288.87

Annual Max Momentary Gage Height 292.24 m. (MSL.) , at 17.00 Hours , on Oct 24 , 2018

Zero Gage at Bottom Elevation 290.37 m. (MSL.) , River Bed 287.45 m. (MSL.)

Left Bank Elevation 295.35 m. (MSL.) ,

Right Bank Elevation 295.36 m. (MSL.) , Drainage Are 2,052 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.42	0.14	4.93	4.04	0.09	3.52	4.17	0.39	1.64	3.39	1.24	0.30		
2	0.42	0.14	4.93	2.28	0.12	2.64	19.23	0.34	1.08	3.39	1.24	0.29		
3	0.42	0.14	4.93	1.80	0.20	2.40	43.20	0.34	1.00	3.39	1.24	0.29		
4	0.42	0.14	5.98	0.35	0.24	2.40	16.65	0.42	0.73	2.88	1.16	0.28		
5	0.41	0.14	6.19	0.26	0.25	2.40	11.20	3.91	0.95	2.76	0.95	0.23		
6	0.33	0.14	6.19	0.20	0.29	2.52	7.45	3.91	3.26	1.92	0.95	0.19		
7	0.33	0.14	6.19	0.32	0.30	3.26	5.77	3.52	3.39	1.80	0.95	0.18		
8	0.33	0.14	3.78	0.51	0.30	3.39	5.77	3.52	3.39	1.72	0.89	0.14		
9	0.33	0.14	3.52	0.78	0.30	3.65	5.77	3.52	3.52	1.72	0.73	0.14		
10	0.31	0.14	1.48	0.43	0.37	3.52	5.77	3.65	3.39	1.80	0.73	0.14		
11	0.31	0.14	3.26	0.40	3.78	3.13	5.77	4.72	2.88	3.00	0.73	0.14		
12	0.31	0.14	3.78	0.37	4.72	3.13	5.77	4.72	2.88	3.00	0.73	0.14		
13	0.31	0.14	3.78	0.33	4.93	3.13	5.77	7.03	2.88	2.52	0.42	0.14		
14	0.31	0.14	3.91	0.31	4.72	3.26	5.77	7.66	2.88	2.64	0.42	0.14		
15	0.31	0.14	4.72	0.29	3.65	3.65	5.77	6.82	2.88	2.76	0.42	0.14		
16	0.31	0.14	4.93	0.26	3.65	3.65	5.77	6.40	3.13	3.00	0.42	0.14		
17	0.29	0.14	4.93	0.19	3.65	3.65	5.77	6.40	3.39	2.64	0.42	0.13		
18	0.27	0.14	4.72	0.29	4.04	3.65	5.77	4.51	3.13	2.64	0.42	0.11		
19	0.24	0.14	4.17	3.26	5.35	3.78	5.56	4.30	3.13	2.64	0.42	0.10		
20	0.24	0.14	4.17	2.16	4.30	4.51	3.91	4.04	3.13	2.64	0.42	0.04		
21	0.24	0.14	4.17	0.39	3.78	4.93	7.03	4.51	3.13	2.16	0.42	0.04		
22	0.24	0.14	4.72	0.28	2.88	6.82	18.37	4.30	3.39	1.16	0.42	0.04		
23	0.24	0.14	3.91	0.21	0.62	6.19	17.08	3.39	3.39	1.24	0.42	0.04		
24	0.23	0.21	3.91	0.09	0.31	3.91	105.12	3.52	3.39	1.24	0.42	0.05		
25	0.14	3.39	3.39	0.09	0.19	3.91	67.35	3.91	3.39	1.24	0.39	0.07		
26	0.14	5.14	0.43	0.09	0.19	4.04	33.60	3.65	3.39	1.24	0.32	0.08		
27	0.14	4.51	0.16	0.09	0.19	4.51	17.51	3.13	3.39	1.24	0.32	0.08		
28	0.14	4.93	0.23	0.09	0.19	4.51	7.45	3.00	3.39	1.24	0.32	0.08		
29	0.14	4.93	0.24	0.09	0.19	4.93	4.30	2.16	3.39	1.24		0.08		
30	0.14	4.93	0.31	0.09	0.19	7.24	3.52	2.16	3.26	1.24		0.08		
31		4.93		0.09	0.25		0.84		3.39	1.24		0.08		
Total	8.41	36.19	111.96	20.43	54.23	116.23	462.78	113.85	89.56	66.73	17.93	4.12	1102.42	CMSDAY
Mean	0.28	1.17	3.73	0.66	1.75	3.87	14.93	3.80	2.89	2.15	0.64	0.13	3.02	CMS
Max	0.42	5.14	6.19	4.04	5.35	7.24	105.12	7.66	3.52	3.39	1.24	0.30	105.12	CMS
Min	0.14	0.14	0.16	0.09	0.09	2.40	0.84	0.34	0.73	1.16	0.32	0.04	0.04	CMS
Runoff	0.73	3.13	9.67	1.77	4.69	10.04	39.98	9.84	7.74	5.77	1.55	0.36	95.25	MCM

Momentary Peak 163.06 CMS. at 292.24 m. (MSL.) at 17.00 Hours , on Oct 24 , 2018

Runoff Yield 1.47 Liters/Second/Square KM. Momentary Peak Yield 79.46 Liters/Second/Square KM.

WATER YEAR : 2018

PING RIVER BASIN

Nam Mae On at Ban Hong , Chiang Mai (P.86)

Lat 18 - 44 - 22 N Long 99 - 13 - 08 E

Location : on left bank at Ban Hong.

	Ban Hong	**Amphoe** San Kamphaeng	**Changwat** Chiang Mai
Drainge Area	98 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+341.205 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank at the abutment of the bridge.		**Elevation** +345.535 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	2004 to date		
Rating Operation			
Period of Rating	2004 to date		
Rated by Flot	-		
Rated by Current Meter	2004 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 31 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

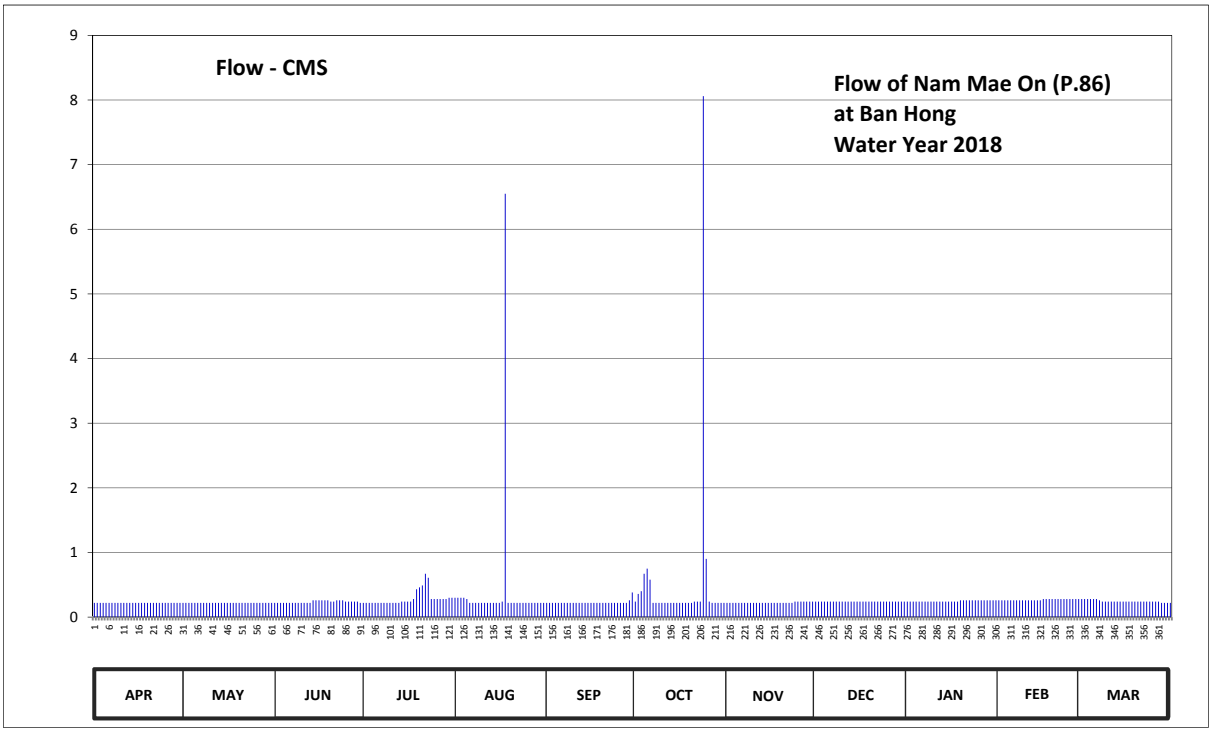
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	341.11	341.11	341.11	341.11	341.15	341.11	341.12	341.11	341.12	341.12	341.13	341.14	
2	341.11	341.11	341.11	341.11	341.15	341.11	341.18	341.11	341.12	341.12	341.13	341.14	
3	341.11	341.11	341.11	341.11	341.15	341.11	341.20	341.11	341.12	341.12	341.13	341.14	
4	341.11	341.11	341.11	341.11	341.15	341.11	341.29	341.11	341.12	341.12	341.13	341.14	
5	341.11	341.11	341.11	341.11	341.14	341.11	341.31	341.11	341.12	341.12	341.13	341.14	
6	341.11	341.11	341.11	341.11	341.11	341.11	341.26	341.11	341.12	341.12	341.13	341.14	
7	341.11	341.11	341.11	341.11	341.11	341.11	341.11	341.11	341.12	341.12	341.13	341.13	
8	341.11	341.11	341.11	341.11	341.11	341.11	341.11	341.11	341.12	341.12	341.13	341.12	
9	341.11	341.11	341.11	341.11	341.11	341.11	341.11	341.11	341.12	341.12	341.13	341.12	
10	341.11	341.11	341.11	341.11	341.11	341.11	341.11	341.11	341.12	341.12	341.13	341.12	
11	341.11	341.11	341.11	341.11	341.11	341.11	341.11	341.11	341.12	341.12	341.13	341.12	
12	341.11	341.11	341.11	341.11	341.11	341.11	341.11	341.11	341.12	341.12	341.13	341.12	
13	341.11	341.11	341.11	341.11	341.11	341.11	341.11	341.11	341.12	341.12	341.13	341.12	
14	341.11	341.11	341.13	341.12	341.11	341.11	341.11	341.11	341.12	341.12	341.13	341.12	
15	341.11	341.11	341.13	341.12	341.11	341.11	341.11	341.11	341.12	341.12	341.13	341.12	
16	341.11	341.11	341.13	341.12	341.11	341.11	341.11	341.11	341.12	341.12	341.14	341.12	
17	341.11	341.11	341.13	341.12	341.12	341.11	341.11	341.11	341.12	341.12	341.14	341.12	
18	341.11	341.11	341.13	341.14	341.89	341.11	341.11	341.11	341.12	341.12	341.14	341.12	
19	341.11	341.11	341.13	341.21	341.11	341.11	341.11	341.11	341.12	341.13	341.14	341.12	
20	341.11	341.11	341.12	341.22	341.11	341.11	341.11	341.11	341.12	341.13	341.14	341.12	
21	341.11	341.11	341.12	341.23	341.11	341.11	341.12	341.11	341.12	341.13	341.14	341.12	
22	341.11	341.11	341.13	341.29	341.11	341.11	341.12	341.11	341.12	341.13	341.14	341.12	
23	341.11	341.11	341.13	341.27	341.11	341.11	341.12	341.11	341.12	341.13	341.14	341.12	
24	341.11	341.11	341.13	341.14	341.11	341.11	341.98	341.12	341.12	341.13	341.14	341.12	
25	341.11	341.11	341.12	341.14	341.11	341.11	341.34	341.12	341.12	341.13	341.14	341.12	
26	341.11	341.11	341.12	341.14	341.11	341.11	341.12	341.12	341.12	341.13	341.14	341.12	
27	341.11	341.11	341.12	341.14	341.11	341.11	341.11	341.12	341.12	341.13	341.14	341.12	
28	341.11	341.11	341.12	341.14	341.11	341.11	341.11	341.12	341.12	341.13	341.14	341.11	
29	341.11	341.11	341.12	341.14	341.11	341.13	341.11	341.12	341.12	341.13		341.11	
30	341.11	341.11	341.11	341.15	341.11	341.19	341.11	341.12	341.12	341.13		341.11	
31		341.11		341.15	341.11		341.11		341.12	341.13		341.11	
Mean	341.11	341.11	341.12	341.14	341.14	341.11	341.17	341.11	341.12	341.12	341.13	341.12	
Max	341.11	341.11	341.13	341.29	341.89	341.19	341.98	341.12	341.12	341.13	341.14	341.14	341.98
Min	341.11	341.11	341.11	341.11	341.11	341.11	341.11	341.11	341.12	341.12	341.13	341.11	341.11

Annual Max Momentary Gage Height 343.61 m. (MSL.) , at 05.00 Hours , on Aug 18 , 2018

Zero Gage at Bottom Elevation 341.20 m. (MSL.) , River Bed 340.59 m. (MSL.)

Left Bank Elevation 345.48 m. (MSL.) ,

Right Bank Elevation 345.44 m. (MSL.) , Drainage Are 98 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.22	0.22	0.22	0.22	0.30	0.22	0.24	0.22	0.24	0.24	0.26	0.28		
2	0.22	0.22	0.22	0.22	0.30	0.22	0.36	0.22	0.24	0.24	0.26	0.28		
3	0.22	0.22	0.22	0.22	0.30	0.22	0.40	0.22	0.24	0.24	0.26	0.28		
4	0.22	0.22	0.22	0.22	0.30	0.22	0.67	0.22	0.24	0.24	0.26	0.28		
5	0.22	0.22	0.22	0.22	0.28	0.22	0.75	0.22	0.24	0.24	0.26	0.28		
6	0.22	0.22	0.22	0.22	0.22	0.22	0.58	0.22	0.24	0.24	0.26	0.28		
7	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.24	0.24	0.26	0.26		
8	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.24	0.24	0.26	0.24		
9	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.24	0.24	0.26	0.24		
10	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.24	0.24	0.26	0.24		
11	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.24	0.24	0.26	0.24		
12	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.24	0.24	0.26	0.24		
13	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.24	0.24	0.26	0.24		
14	0.22	0.22	0.26	0.24	0.22	0.22	0.22	0.22	0.24	0.24	0.26	0.24		
15	0.22	0.22	0.26	0.24	0.22	0.22	0.22	0.22	0.24	0.24	0.26	0.24		
16	0.22	0.22	0.26	0.24	0.22	0.22	0.22	0.22	0.24	0.24	0.28	0.24		
17	0.22	0.22	0.26	0.24	0.24	0.22	0.22	0.22	0.24	0.24	0.28	0.24		
18	0.22	0.22	0.26	0.28	6.55	0.22	0.22	0.22	0.24	0.24	0.28	0.24		
19	0.22	0.22	0.26	0.43	0.22	0.22	0.22	0.22	0.24	0.26	0.28	0.24		
20	0.22	0.22	0.24	0.46	0.22	0.22	0.22	0.22	0.24	0.26	0.28	0.24		
21	0.22	0.22	0.24	0.49	0.22	0.22	0.24	0.22	0.24	0.26	0.28	0.24		
22	0.22	0.22	0.26	0.67	0.22	0.22	0.24	0.22	0.24	0.26	0.28	0.24		
23	0.22	0.22	0.26	0.61	0.22	0.22	0.24	0.22	0.24	0.26	0.28	0.24		
24	0.22	0.22	0.26	0.28	0.22	0.22	8.06	0.24	0.24	0.26	0.28	0.24		
25	0.22	0.22	0.24	0.28	0.22	0.22	0.90	0.24	0.24	0.26	0.28	0.24		
26	0.22	0.22	0.24	0.28	0.22	0.22	0.24	0.24	0.24	0.26	0.28	0.24		
27	0.22	0.22	0.24	0.28	0.22	0.22	0.22	0.24	0.24	0.26	0.28	0.24		
28	0.22	0.22	0.24	0.28	0.22	0.22	0.22	0.24	0.24	0.26	0.28	0.22		
29	0.22	0.22	0.24	0.28	0.22	0.26	0.22	0.24	0.24	0.26		0.22		
30	0.22	0.22	0.22	0.30	0.22	0.38	0.22	0.24	0.24	0.26		0.22		
31		0.22		0.30	0.22		0.22		0.24	0.26		0.22		
Total	6.60	6.82	7.10	9.04	13.55	6.80	17.10	6.74	7.44	7.70	7.54	7.62	104.05	CMSDAY
Mean	0.22	0.22	0.24	0.29	0.44	0.23	0.55	0.22	0.24	0.25	0.27	0.25	0.29	CMS
Max	0.22	0.22	0.26	0.67	6.55	0.38	8.06	0.24	0.24	0.26	0.28	0.28	8.06	CMS
Min	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.24	0.24	0.26	0.22	0.22	CMS
Runoff	0.57	0.59	0.61	0.78	1.17	0.59	1.48	0.58	0.64	0.67	0.65	0.66	8.99	MCM

Momentary Peak 57.34 CMS. at 343.61 m. (MSL.) at 05.00 Hours , on Aug 18 , 2018

Runoff Yield 2.91 Liters/Second/Square KM. Momentary Peak Yield 585.10 Liters/Second/Square KM.

WATER YEAR : 2018

PING RIVER BASIN

Nam Mae Tha at Ban Pa Cang Noy, Lamphun (P.87)

Lat 18 - 31 - 04 N Long 98 - 56 - 42 E

Location : on left bank at Ban Pa Cang Noy.

Ban Pa Cang Noy **Amphoe** Pa Cang **Changwat** Lamphun

Drainge Area	934 sq.km.
Type of Gage	Water - stage recorder.
Zero Gage at Bottom	+288.954 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank near the gage site. **Elevation** +293.954 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	2005 to date
Rating Operation	
Period of Rating	2005 to date
Rated by Flot	-
Rated by Current Meter	2005 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Stage-discharge relation defined by 31 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

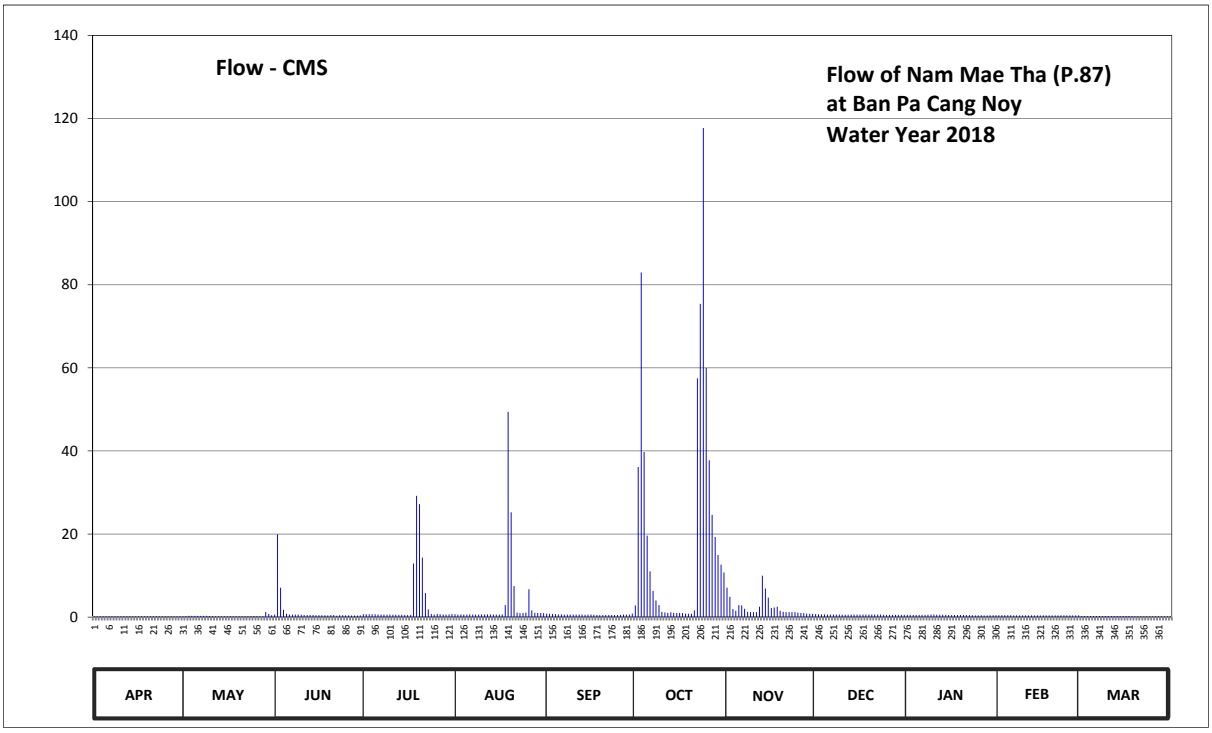
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	289.35	289.40	289.61	289.65	289.64	289.71	289.98	290.23	289.66	289.57	289.53	289.44	
2	289.36	289.42	290.70	289.65	289.61	289.70	291.20	290.11	289.65	289.57	289.53	289.43	
3	289.37	289.45	290.23	289.65	289.63	289.68	292.54	289.89	289.63	289.57	289.53	289.43	
4	289.37	289.45	289.87	289.65	289.60	289.64	291.31	289.84	289.63	289.57	289.53	289.43	
5	289.36	289.45	289.70	289.64	289.61	289.63	290.69	289.99	289.60	289.57	289.53	289.43	
6	289.37	289.45	289.61	289.61	289.63	289.62	290.40	289.98	289.60	289.57	289.51	289.43	
7	289.37	289.45	289.60	289.60	289.60	289.60	290.19	289.90	289.60	289.57	289.51	289.43	
8	289.37	289.45	289.60	289.60	289.60	289.60	290.06	289.81	289.60	289.58	289.51	289.43	
9	289.37	289.45	289.60	289.59	289.61	289.60	289.99	289.80	289.60	289.60	289.51	289.43	
10	289.37	289.44	289.59	289.60	289.63	289.60	289.81	289.80	289.59	289.60	289.51	289.43	
11	289.37	289.41	289.56	289.59	289.63	289.60	289.78	289.80	289.59	289.59	289.51	289.43	
12	289.37	289.40	289.55	289.59	289.63	289.60	289.76	289.95	289.59	289.59	289.51	289.43	
13	289.37	289.40	289.55	289.57	289.63	289.60	289.79	290.36	289.60	289.59	289.51	289.43	
14	289.37	289.40	289.55	289.58	289.60	289.59	289.76	290.22	289.60	289.56	289.51	289.43	
15	289.37	289.40	289.53	289.57	289.60	289.60	289.75	290.10	289.60	289.55	289.51	289.43	
16	289.37	289.40	289.53	289.55	289.60	289.60	289.75	289.92	289.60	289.55	289.51	289.43	
17	289.37	289.40	289.53	289.57	289.62	289.59	289.74	289.93	289.60	289.55	289.51	289.43	
18	289.37	289.40	289.53	290.47	289.99	289.56	289.71	289.95	289.60	289.55	289.51	289.41	
19	289.37	289.40	289.52	290.99	291.60	289.55	289.70	289.84	289.60	289.55	289.51	289.40	
20	289.37	289.40	289.55	290.93	290.87	289.55	289.70	289.81	289.60	289.55	289.51	289.40	
21	289.37	289.40	289.54	290.52	290.25	289.55	289.85	289.80	289.60	289.55	289.51	289.40	
22	289.37	289.39	289.47	290.16	289.77	289.55	291.83	289.80	289.60	289.53	289.51	289.40	
23	289.37	289.39	289.53	289.88	289.74	289.55	292.33	289.80	289.60	289.53	289.51	289.39	
24	289.38	289.41	289.53	289.67	289.75	289.55	293.47	289.80	289.58	289.51	289.51	289.39	
25	289.40	289.44	289.52	289.61	289.77	289.55	291.90	289.77	289.57	289.51	289.51	289.38	
26	289.40	289.41	289.51	289.68	290.21	289.57	291.25	289.75	289.57	289.53	289.51	289.39	
27	289.40	289.39	289.50	289.64	289.85	289.60	290.85	289.74	289.57	289.51	289.51	289.39	
28	289.40	289.40	289.50	289.61	289.76	289.60	290.68	289.71	289.57	289.51	289.51	289.39	
29	289.40	289.81	289.50	289.60	289.75	289.61	290.54	289.70	289.57	289.53		289.39	
30	289.40	289.69	289.52	289.62	289.75	289.71	290.46	289.68	289.57	289.53		289.39	
31		289.53		289.66	289.74		290.39		289.57	289.53		289.38	
Mean	289.37	289.44	289.62	289.78	289.82	289.60	290.55	289.89	289.60	289.55	289.51	289.41	
Max	289.40	289.81	290.70	290.99	291.60	289.71	293.47	290.36	289.66	289.60	289.53	289.44	293.47
Min	289.35	289.39	289.47	289.55	289.60	289.55	289.70	289.68	289.57	289.51	289.51	289.38	289.35

Annual Max Momentary Gage Height 293.98 m. (MSL.) , at 13.00 Hours , on Oct 24 , 2018

Zero Gage at Bottom Elevation 288.95 m. (MSL.) , River Bed 287.39 m. (MSL.)

Left Bank Elevation 293.99 m. (MSL.) ,

Right Bank Elevation 294.00 m. (MSL.) , Drainage Are 934 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.18	0.20	0.62	0.70	0.68	0.84	2.80	7.07	0.72	0.54	0.46	0.28		
2	0.18	0.24	19.90	0.70	0.62	0.80	36.10	4.88	0.70	0.54	0.46	0.26		
3	0.19	0.30	7.07	0.70	0.66	0.76	82.94	1.92	0.66	0.54	0.46	0.26		
4	0.19	0.30	1.76	0.70	0.60	0.68	39.73	1.52	0.66	0.54	0.46	0.26		
5	0.18	0.30	0.80	0.68	0.62	0.66	19.59	2.90	0.60	0.54	0.46	0.26		
6	0.19	0.30	0.62	0.62	0.66	0.64	11.00	2.80	0.60	0.54	0.42	0.26		
7	0.19	0.30	0.60	0.60	0.60	0.60	6.32	2.00	0.60	0.54	0.42	0.26		
8	0.19	0.30	0.60	0.60	0.60	0.60	4.02	1.28	0.60	0.56	0.42	0.26		
9	0.19	0.30	0.60	0.58	0.62	0.60	2.90	1.20	0.60	0.60	0.42	0.26		
10	0.19	0.28	0.58	0.60	0.66	0.60	1.28	1.20	0.58	0.60	0.42	0.26		
11	0.19	0.22	0.52	0.58	0.66	0.60	1.12	1.20	0.58	0.58	0.42	0.26		
12	0.19	0.20	0.50	0.58	0.66	0.60	1.04	2.50	0.58	0.58	0.42	0.26		
13	0.19	0.20	0.50	0.54	0.66	0.60	1.16	9.96	0.60	0.58	0.42	0.26		
14	0.19	0.20	0.50	0.56	0.60	0.58	1.04	6.88	0.60	0.52	0.42	0.26		
15	0.19	0.20	0.46	0.54	0.60	0.60	1.00	4.70	0.60	0.50	0.42	0.26		
16	0.19	0.20	0.46	0.50	0.60	0.60	1.00	2.20	0.60	0.50	0.42	0.26		
17	0.19	0.20	0.46	0.54	0.64	0.58	0.96	2.30	0.60	0.50	0.42	0.26		
18	0.19	0.20	0.46	12.89	2.90	0.52	0.84	2.50	0.60	0.50	0.42	0.22		
19	0.19	0.20	0.44	29.17	49.40	0.50	0.80	1.52	0.60	0.50	0.42	0.20		
20	0.19	0.20	0.50	27.19	25.24	0.50	0.80	1.28	0.60	0.50	0.42	0.20		
21	0.19	0.20	0.48	14.32	7.45	0.50	1.60	1.20	0.60	0.50	0.42	0.20		
22	0.19	0.20	0.34	5.78	1.08	0.50	57.47	1.20	0.60	0.46	0.42	0.20		
23	0.19	0.20	0.46	1.84	0.96	0.50	75.38	1.20	0.60	0.46	0.42	0.20		
24	0.19	0.22	0.46	0.74	1.00	0.50	117.73	1.20	0.56	0.42	0.42	0.20		
25	0.20	0.28	0.44	0.62	1.08	0.50	59.95	1.08	0.54	0.42	0.42	0.19		
26	0.20	0.22	0.42	0.76	6.69	0.54	37.75	1.00	0.54	0.46	0.42	0.20		
27	0.20	0.20	0.40	0.68	1.60	0.60	24.60	0.96	0.54	0.42	0.42	0.20		
28	0.20	0.20	0.40	0.62	1.04	0.60	19.28	0.84	0.54	0.42	0.42	0.20		
29	0.20	1.28	0.40	0.60	1.00	0.62	14.94	0.80	0.54	0.46		0.20		
30	0.20	0.78	0.44	0.64	1.00	0.84	12.62	0.76	0.54	0.46		0.20		
31		0.46		0.72	0.96		10.74		0.54	0.46		0.19		
Total	5.73	9.08	42.19	106.89	112.14	18.16	648.50	72.05	18.42	15.74	11.96	7.24	1068.10	CMSDAY
Mean	0.19	0.29	1.41	3.45	3.62	0.61	20.92	2.40	0.59	0.51	0.43	0.23	2.93	CMS
Max	0.20	1.28	19.90	29.17	49.40	0.84	117.73	9.96	0.72	0.60	0.46	0.28	117.73	CMS
Min	0.18	0.20	0.34	0.50	0.60	0.50	0.80	0.76	0.54	0.42	0.42	0.19	0.18	CMS
Runoff	0.50	0.78	3.65	9.24	9.69	1.57	56.03	6.23	1.59	1.36	1.03	0.63	92.28	MCM

Momentary Peak 137.71 CMS. at 293.98 m. (MSL.) at 13.00 Hours , on Oct 24 , 2018

Runoff Yield 3.13 Liters/Second/Square KM. Momentary Peak Yield 147.44 Liters/Second/Square KM.

WATER YEAR : 2018

PING RIVER BASIN

Nam Mae Khod at Ban San Pu Loei, Chiang Mai (P.91)

Lat 19 - 08 - 01 N Long 99 - 09 - 59 E

Location : on right bank at Ban San Pu Loei.

	Ban San Pu Loei	**Amphoe** Phrao	**Changwat** Chiang Mai
Drainge Area	234 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+413.100 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank near the gage site.		**Elevation** +419.380 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	2011 to date		
Rating Operation			
Period of Rating	2011 to date		
Rated by Flot	-		
Rated by Current Meter	2011 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 31 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

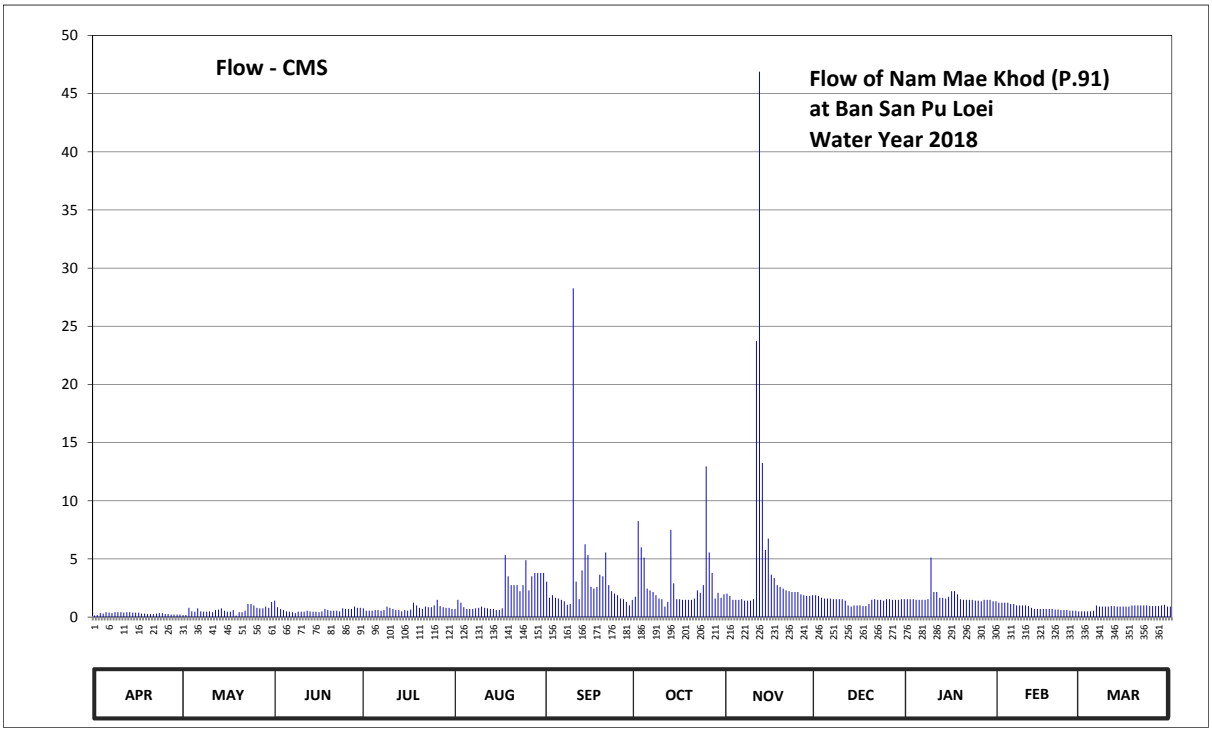
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	413.51	413.52	413.77	413.65	413.64	413.95	413.82	413.86	413.84	413.79	413.74	413.60	
2	413.52	413.52	413.67	413.61	413.78	413.81	414.19	413.83	413.83	413.79	413.74	413.60	
3	413.56	413.66	413.64	413.61	413.74	413.84	414.10	413.78	413.81	413.79	413.74	413.60	
4	413.55	413.60	413.62	413.61	413.67	413.81	414.06	413.78	413.80	413.78	413.74	413.60	
5	413.58	413.59	413.60	413.62	413.64	413.80	413.91	413.78	413.80	413.78	413.72	413.61	
6	413.57	413.65	413.59	413.62	413.64	413.78	413.90	413.79	413.80	413.78	413.72	413.70	
7	413.56	413.60	413.58	413.61	413.64	413.76	413.88	413.77	413.79	413.78	413.70	413.68	
8	413.58	413.59	413.56	413.62	413.65	413.71	413.84	413.77	413.79	413.79	413.70	413.68	
9	413.58	413.59	413.59	413.68	413.66	413.72	413.80	413.77	413.79	414.06	413.70	413.68	
10	413.58	413.60	413.59	413.66	413.68	414.81	413.79	413.79	413.79	413.88	413.70	413.68	
11	413.57	413.58	413.59	413.64	413.66	413.95	413.68	414.68	413.77	413.88	413.69	413.69	
12	413.58	413.62	413.61	413.62	413.65	413.79	413.75	415.31	413.70	413.81	413.66	413.69	
13	413.58	413.63	413.60	413.62	413.64	414.01	414.16	414.36	413.68	413.81	413.64	413.68	
14	413.57	413.65	413.59	413.60	413.64	414.11	413.94	414.09	413.70	413.80	413.64	413.68	
15	413.57	413.61	413.59	413.62	413.62	414.07	413.79	414.13	413.70	413.82	413.64	413.68	
16	413.57	413.59	413.58	413.61	413.62	413.92	413.79	413.99	413.70	413.89	413.64	413.68	
17	413.55	413.59	413.60	413.63	413.65	413.91	413.78	413.97	413.69	413.89	413.64	413.68	
18	413.55	413.62	413.64	413.74	414.07	413.92	413.78	413.93	413.69	413.85	413.64	413.70	
19	413.54	413.51	413.62	413.70	413.98	413.99	413.78	413.92	413.72	413.79	413.64	413.70	
20	413.54	413.58	413.61	413.66	413.93	413.98	413.78	413.91	413.78	413.78	413.63	413.70	
21	413.54	413.58	413.61	413.64	413.93	414.08	413.80	413.90	413.79	413.78	413.63	413.70	
22	413.55	413.61	413.61	413.68	413.93	413.93	413.90	413.89	413.78	413.78	413.62	413.70	
23	413.56	413.72	413.60	413.67	413.89	413.89	413.87	413.88	413.78	413.78	413.62	413.70	
24	413.56	413.72	413.65	413.67	413.93	413.86	413.93	413.88	413.77	413.77	413.62	413.69	
25	413.54	413.70	413.64	413.70	414.05	413.84	414.35	413.88	413.79	413.77	413.61	413.69	
26	413.54	413.66	413.64	413.78	413.90	413.80	414.08	413.85	413.79	413.76	413.61	413.69	
27	413.53	413.65	413.64	413.69	413.98	413.79	414.00	413.84	413.78	413.78	413.61	413.69	
28	413.53	413.65	413.68	413.67	414.00	413.75	413.80	413.83	413.78	413.78	413.60	413.70	
29	413.53	413.68	413.66	413.66	414.00	413.70	413.87	413.83	413.78	413.78		413.71	
30	413.53	413.66	413.66	413.66	414.00	413.78	413.81	413.84	413.79	413.76		413.68	
31		413.75		413.64	414.00		413.85		413.79	413.76		413.68	
Mean	413.55	413.62	413.62	413.65	413.80	413.90	413.90	413.96	413.77	413.81	413.66	413.68	
Max	413.58	413.75	413.77	413.78	414.07	414.81	414.35	415.31	413.84	414.06	413.74	413.71	415.31
Min	413.51	413.51	413.56	413.60	413.62	413.70	413.68	413.77	413.68	413.76	413.60	413.60	413.51

Annual Max Momentary Gage Height 416.72 m. (MSL.) , at 24.00 Hours , on Nov 11 , 2018

Zero Gage at Bottom Elevation 413.10 m. (MSL.) , River Bed 412.17 m. (MSL.)

Left Bank Elevation 418.79 m. (MSL.) ,

Right Bank Elevation 418.84 m. (MSL.) , Drainage Are 234 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.14	0.18	1.42	0.75	0.70	3.05	1.74	2.02	1.88	1.54	1.24	0.50		
2	0.18	0.18	0.85	0.55	1.48	1.67	8.25	1.81	1.81	1.54	1.24	0.50		
3	0.34	0.80	0.70	0.55	1.24	1.88	6.00	1.48	1.67	1.54	1.24	0.50		
4	0.30	0.50	0.60	0.55	0.85	1.67	5.12	1.48	1.60	1.48	1.24	0.50		
5	0.42	0.46	0.50	0.60	0.70	1.60	2.45	1.48	1.60	1.48	1.12	0.55		
6	0.38	0.75	0.46	0.60	0.70	1.48	2.30	1.54	1.60	1.48	1.12	1.00		
7	0.34	0.50	0.42	0.55	0.70	1.36	2.16	1.42	1.54	1.48	1.00	0.90		
8	0.42	0.46	0.34	0.60	0.75	1.06	1.88	1.42	1.54	1.54	1.00	0.90		
9	0.42	0.46	0.46	0.90	0.80	1.12	1.60	1.42	1.54	5.12	1.00	0.90		
10	0.42	0.50	0.46	0.80	0.90	28.26	1.54	1.54	1.54	2.16	1.00	0.90		
11	0.38	0.42	0.46	0.70	0.80	3.05	0.90	23.72	1.42	2.16	0.95	0.95		
12	0.42	0.60	0.55	0.60	0.75	1.54	1.30	46.88	1.00	1.67	0.80	0.95		
13	0.42	0.65	0.50	0.60	0.70	4.02	7.50	13.26	0.90	1.67	0.70	0.90		
14	0.38	0.75	0.46	0.50	0.70	6.25	2.90	5.78	1.00	1.60	0.70	0.90		
15	0.38	0.55	0.46	0.60	0.60	5.34	1.54	6.75	1.00	1.74	0.70	0.90		
16	0.38	0.46	0.42	0.55	0.60	2.60	1.54	3.65	1.00	2.23	0.70	0.90		
17	0.30	0.46	0.50	0.65	0.75	2.45	1.48	3.35	0.95	2.23	0.70	0.90		
18	0.30	0.60	0.70	1.24	5.34	2.60	1.48	2.75	0.95	1.95	0.70	1.00		
19	0.26	0.14	0.60	1.00	3.50	3.65	1.48	2.60	1.12	1.54	0.70	1.00		
20	0.26	0.42	0.55	0.80	2.75	3.50	1.48	2.45	1.48	1.48	0.65	1.00		
21	0.26	0.42	0.55	0.70	2.75	5.56	1.60	2.30	1.54	1.48	0.65	1.00		
22	0.30	0.55	0.55	0.90	2.75	2.75	2.30	2.23	1.48	1.48	0.60	1.00		
23	0.34	1.12	0.50	0.85	2.23	2.23	2.09	2.16	1.48	1.48	0.60	1.00		
24	0.34	1.12	0.75	0.85	2.75	2.02	2.75	2.16	1.42	1.42	0.60	0.95		
25	0.26	1.00	0.70	1.00	4.90	1.88	12.95	2.16	1.54	1.42	0.55	0.95		
26	0.26	0.80	0.70	1.48	2.30	1.60	5.56	1.95	1.54	1.36	0.55	0.95		
27	0.22	0.75	0.70	0.95	3.50	1.54	3.80	1.88	1.48	1.48	0.55	0.95		
28	0.22	0.75	0.90	0.85	3.80	1.30	1.60	1.81	1.48	1.48	0.50	1.00		
29	0.22	0.90	0.80	0.80	3.80	1.00	2.09	1.81	1.48	1.48		1.06		
30	0.22	0.80	0.80	0.80	3.80	1.48	1.67	1.88	1.54	1.36		0.90		
31		1.30		0.70	3.80		1.95		1.54	1.36		0.90		
Total	9.48	19.35	18.36	23.57	61.69	99.51	93.00	147.14	43.66	53.43	23.10	27.21	619.50	CMSDAY
Mean	0.32	0.62	0.61	0.76	1.99	3.32	3.00	4.90	1.41	1.72	0.82	0.88	1.70	CMS
Max	0.42	1.30	1.42	1.48	5.34	28.26	12.95	46.88	1.88	5.12	1.24	1.06	46.88	CMS
Min	0.14	0.14	0.34	0.50	0.60	1.00	0.90	1.42	0.90	1.36	0.50	0.50	0.14	CMS
Runoff	0.82	1.67	1.59	2.04	5.33	8.60	8.04	12.71	3.77	4.62	2.00	2.35	53.52	MCM

Momentary Peak 105.94 CMS. at 416.72 m. (MSL.) at 24.00 Hours , on Nov 11 , 2018

Runoff Yield 7.25 Liters/Second/Square KM. Momentary Peak Yield 452.74 Liters/Second/Square KM.

WATER YEAR : 2018

PING RIVER BASIN

Nam Mae Taeng at Ban Mueang Kud, Chiang Mai (P.92)

Lat 19 - 13 - 15 N Long 98 - 50 - 51 E

Location : on left bank at Ban Mueang Kud.

	Ban Mueang Kud	**Amphoe** Mae Taeng	**Changwat** Chiang Mai
Drainge Area	1,653 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+440.645 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank near the gage site.		**Elevation** +447.535 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	2011 to date		
Rating Operation			
Period of Rating	2011 to date		
Rated by Flot	-		
Rated by Current Meter	2011 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 32 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

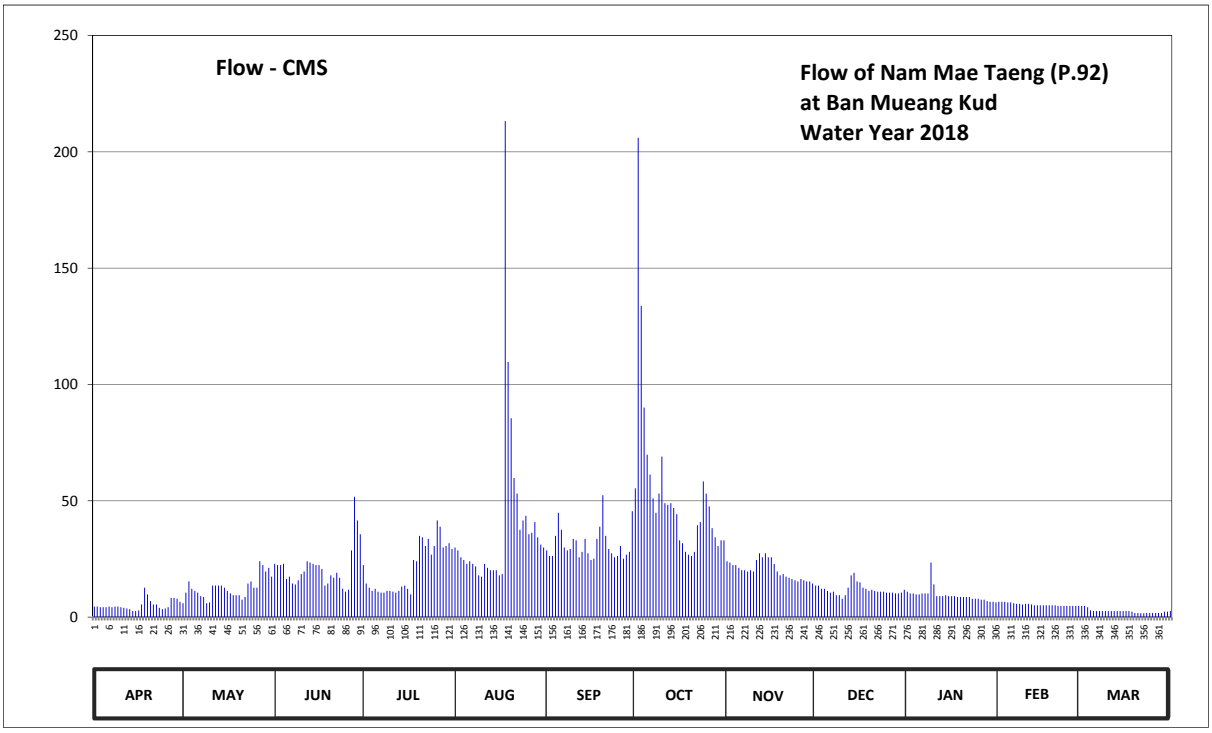
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	440.70	440.75	441.13	441.12	441.25	441.23	441.63	441.15	440.95	440.89	440.77	440.71	
2	440.70	440.88	441.12	440.97	441.23	441.19	443.15	441.14	440.95	440.87	440.77	440.71	
3	440.69	440.99	441.12	440.93	441.18	441.19	442.50	441.12	440.92	440.87	440.77	440.69	
4	440.69	440.92	441.13	440.90	441.16	441.33	442.05	441.12	440.92	440.86	440.76	440.64	
5	440.69	440.90	441.01	440.92	441.13	441.48	441.82	441.10	440.90	440.86	440.76	440.63	
6	440.70	440.88	441.03	440.89	441.15	441.37	441.71	441.08	440.88	440.87	440.75	440.63	
7	440.69	440.84	440.97	440.88	441.13	441.25	441.57	441.08	440.89	440.87	440.74	440.63	
8	440.70	440.83	440.96	440.88	441.11	441.23	441.48	441.07	440.85	440.87	440.74	440.63	
9	440.70	440.75	441.00	440.90	441.04	441.24	441.60	441.08	440.85	441.14	440.73	440.63	
10	440.69	440.76	441.05	440.90	441.03	441.31	441.81	441.07	440.81	440.96	440.74	440.63	
11	440.68	440.95	441.07	440.89	441.13	441.30	441.54	441.16	440.85	440.84	440.74	440.63	
12	440.67	440.95	441.15	440.88	441.10	441.18	441.53	441.21	440.93	440.84	440.73	440.63	
13	440.66	440.95	441.14	440.90	441.08	441.22	441.54	441.18	441.04	440.84	440.72	440.63	
14	440.63	440.95	441.13	440.94	441.08	441.31	441.51	441.21	441.06	440.85	440.72	440.63	
15	440.63	440.93	441.12	440.95	441.08	441.21	441.47	441.18	440.99	440.84	440.72	440.63	
16	440.64	440.90	441.12	440.92	441.04	441.16	441.30	441.18	440.98	440.84	440.72	440.63	
17	440.73	440.87	441.09	440.86	441.05	441.17	441.28	441.13	440.93	440.84	440.72	440.63	
18	440.93	440.85	440.95	441.16	443.21	441.31	441.22	441.07	440.92	440.83	440.72	440.62	
19	440.86	440.85	440.97	441.15	442.26	441.39	441.20	441.04	440.90	440.83	440.72	440.60	
20	440.78	440.85	441.04	441.33	442.00	441.59	441.19	441.05	440.91	440.83	440.72	440.60	
21	440.73	440.80	441.02	441.32	441.69	441.33	441.22	441.03	440.90	440.83	440.71	440.59	
22	440.73	440.83	441.06	441.26	441.60	441.24	441.40	441.02	440.89	440.83	440.71	440.59	
23	440.68	440.97	441.02	441.31	441.37	441.21	441.42	441.01	440.89	440.81	440.71	440.60	
24	440.66	440.99	440.92	441.20	441.43	441.18	441.67	441.00	440.89	440.81	440.71	440.60	
25	440.67	440.93	440.89	441.26	441.46	441.19	441.60	440.99	440.88	440.81	440.71	440.60	
26	440.69	440.93	440.91	441.43	441.34	441.26	441.52	441.01	440.88	440.80	440.71	440.60	
27	440.82	441.15	441.23	441.39	441.35	441.17	441.38	441.00	440.88	440.80	440.71	440.60	
28	440.82	441.12	441.58	441.25	441.42	441.20	441.32	440.99	440.87	440.78	440.71	440.60	
29	440.81	441.07	441.43	441.26	441.32	441.22	441.26	440.99	440.87	440.77		440.62	
30	440.77	441.10	441.34	441.28	441.27	441.49	441.30	440.97	440.88	440.77		440.62	
31		441.03		441.24	441.25		441.30		440.91	440.76		440.63	
Mean	440.72	440.92	441.09	441.08	441.35	441.27	441.56	441.08	440.91	440.85	440.73	440.63	
Max	440.93	441.15	441.58	441.43	443.21	441.59	443.15	441.21	441.06	441.14	440.77	440.71	443.21
Min	440.63	440.75	440.89	440.86	441.03	441.16	441.19	440.97	440.81	440.76	440.71	440.59	440.59

Annual Max Momentary Gage Height 443.93 m. (MSL.) , at 12.00 Hours , on Aug 18 , 2018

Zero Gage at Bottom Elevation 440.64 m. (MSL.) , River Bed 439.82 m. (MSL.)

Left Bank Elevation 447.43 m. (MSL.) ,

Right Bank Elevation 447.42 m. (MSL.) , Drainage Are 1,653 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	4.50	6.00	22.88	22.32	29.90	28.66	55.32	24.00	13.55	10.92	6.60	4.80		
2	4.50	10.54	22.32	14.45	28.66	26.24	206.00	23.44	13.55	10.16	6.60	4.80		
3	4.23	15.35	22.32	12.65	25.68	26.24	133.75	22.32	12.20	10.16	6.60	4.23		
4	4.23	12.20	22.88	11.30	24.56	34.95	90.08	22.32	12.20	9.78	6.30	2.88		
5	4.23	11.30	16.34	12.20	22.88	44.86	69.82	21.20	11.30	9.78	6.30	2.61		
6	4.50	10.54	17.42	10.92	24.00	37.55	61.26	20.12	10.54	10.16	6.00	2.61		
7	4.23	9.02	14.45	10.54	22.88	29.90	51.03	20.12	10.92	10.16	5.70	2.61		
8	4.50	8.64	14.00	10.54	21.76	28.66	44.86	19.58	9.40	10.16	5.70	2.61		
9	4.50	6.00	15.80	11.30	17.96	29.28	53.10	20.12	9.40	23.44	5.40	2.61		
10	4.23	6.30	18.50	11.30	17.42	33.65	68.96	19.58	7.88	14.00	5.70	2.61		
11	3.96	13.55	19.58	10.92	22.88	33.00	48.96	24.56	9.40	9.02	5.70	2.61		
12	3.69	13.55	24.00	10.54	21.20	25.68	48.27	27.42	12.65	9.02	5.40	2.61		
13	3.42	13.55	23.44	11.30	20.12	28.04	48.96	25.68	17.96	9.02	5.10	2.61		
14	2.61	13.55	22.88	13.10	20.12	33.65	46.89	27.42	19.04	9.40	5.10	2.61		
15	2.61	12.65	22.32	13.55	20.12	27.42	44.19	25.68	15.35	9.02	5.10	2.61		
16	2.88	11.30	22.32	12.20	17.96	24.56	33.00	25.68	14.90	9.02	5.10	2.61		
17	5.40	10.16	20.66	9.78	18.50	25.12	31.76	22.88	12.65	9.02	5.10	2.61		
18	12.65	9.40	13.55	24.56	213.20	33.65	28.04	19.58	12.20	8.64	5.10	2.34		
19	9.78	9.40	14.45	24.00	109.71	38.85	26.80	17.96	11.30	8.64	5.10	1.80		
20	6.90	9.40	17.96	34.95	85.50	52.41	26.24	18.50	11.75	8.64	5.10	1.80		
21	5.40	7.50	16.88	34.30	59.76	34.95	28.04	17.42	11.30	8.64	4.80	1.62		
22	5.40	8.64	19.04	30.52	53.10	29.28	39.50	16.88	10.92	8.64	4.80	1.62		
23	3.96	14.45	16.88	33.65	37.55	27.42	40.84	16.34	10.92	7.88	4.80	1.80		
24	3.42	15.35	12.20	26.80	41.51	25.68	58.28	15.80	10.92	7.88	4.80	1.80		
25	3.69	12.65	10.92	30.52	43.52	26.24	53.10	15.35	10.54	7.88	4.80	1.80		
26	4.23	12.65	11.75	41.51	35.60	30.52	47.58	16.34	10.54	7.50	4.80	1.80		
27	8.26	24.00	28.66	38.85	36.25	25.12	38.20	15.80	10.54	7.50	4.80	1.80		
28	8.26	22.32	51.72	29.90	40.84	26.80	34.30	15.35	10.16	6.90	4.80	1.80		
29	7.88	19.58	41.51	30.52	34.30	28.04	30.52	15.35	10.16	6.60		2.34		
30	6.60	21.20	35.60	31.76	31.14	45.53	33.00	14.45	10.54	6.60		2.34		
31		17.42		29.28	29.90		33.00		11.75	6.30		2.61		
Total	154.65	388.16	633.23	650.03	1228.48	941.95	1653.65	607.24	366.43	290.48	151.20	77.91	7143.41	CMSDAY
Mean	5.16	12.52	21.11	20.97	39.63	31.40	53.34	20.24	11.82	9.37	5.40	2.51	19.57	CMS
Max	12.65	24.00	51.72	41.51	213.20	52.41	206.00	27.42	19.04	23.44	6.60	4.80	213.20	CMS
Min	2.61	6.00	10.92	9.78	17.42	24.56	26.24	14.45	7.88	6.30	4.80	1.62	1.62	CMS
Runoff	13.36	33.54	54.71	56.16	106.14	81.38	142.88	52.47	31.66	25.10	13.06	6.73	617.19	MCM

Momentary Peak 301.90 CMS. at 443.93 m. (MSL.) at 12.00 Hours , on Aug 18 , 2018

Runoff Yield 11.84 Liters/Second/Square KM. Momentary Peak Yield 182.64 Liters/Second/Square KM.

WATER YEAR : 2018

PING RIVER BASIN

Nam Mae Taeng at Ban Huai Pa Cang, Chiang Mai (P.92A)

Lat 19 - 13 - 15 N Long 98 - 50 - 51 E

Location : on left bank at Ban Huai Pa Cang.

	Ban Huai Pa Cang	**Amphoe** Mae Taeng	**Changwat** Chiang Mai
Drainge Area	1,866 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+346.652 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank near the gage site.		**Elevation** +355.324 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	2017 to date		
Rating Operation			
Period of Rating	2017 to date		
Rated by Flot	-		
Rated by Current Meter	2017 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 30 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

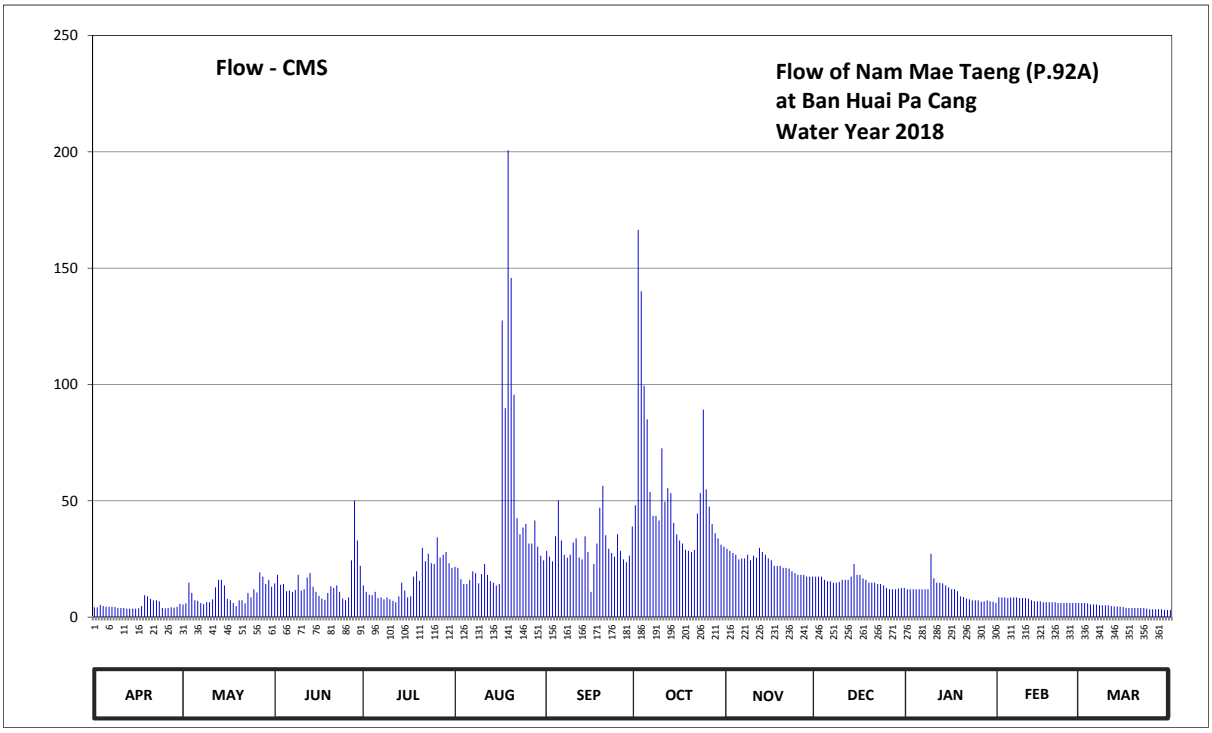
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	347.37	347.45	347.84	347.81	348.04	348.21	348.62	348.23	347.93	347.75	347.61	347.49	
2	347.37	347.48	347.95	347.71	348.03	348.15	350.48	348.21	347.93	347.75	347.61	347.49	
3	347.44	347.85	347.82	347.66	347.90	348.10	350.13	348.19	347.93	347.75	347.61	347.48	
4	347.41	347.69	347.83	347.65	347.83	348.35	349.53	348.17	347.89	347.75	347.60	347.45	
5	347.39	347.55	347.72	347.71	347.83	348.66	349.30	348.12	347.87	347.75	347.61	347.45	
6	347.39	347.54	347.73	347.60	347.89	348.31	348.73	348.13	347.87	347.75	347.61	347.45	
7	347.39	347.49	347.71	347.61	347.99	348.17	348.53	348.13	347.85	347.75	347.61	347.43	
8	347.38	347.46	347.74	347.57	347.97	348.14	348.53	348.17	347.85	347.75	347.60	347.43	
9	347.35	347.51	347.95	347.61	347.84	348.17	348.49	348.11	347.86	348.18	347.60	347.43	
10	347.35	347.51	347.73	347.57	347.96	348.29	349.08	348.16	347.89	347.91	347.60	347.43	
11	347.35	347.57	347.75	347.54	348.07	348.33	348.65	348.14	347.89	347.85	347.59	347.41	
12	347.33	347.78	347.92	347.51	347.95	348.14	348.76	348.24	347.89	347.85	347.55	347.40	
13	347.33	347.89	347.97	347.63	347.87	348.12	348.72	348.20	347.93	347.84	347.53	347.40	
14	347.33	347.89	347.79	347.85	347.85	348.35	348.47	348.17	348.07	347.81	347.53	347.39	
15	347.33	347.81	347.71	347.73	347.81	348.20	348.37	348.13	347.95	347.78	347.53	347.38	
16	347.34	347.58	347.64	347.61	347.83	347.71	348.31	348.11	347.95	347.75	347.51	347.35	
17	347.41	347.55	347.59	347.63	349.95	348.07	348.28	348.05	347.91	347.75	347.51	347.35	
18	347.65	347.49	347.56	347.93	349.38	348.28	348.22	348.05	347.89	347.72	347.51	347.35	
19	347.63	347.41	347.69	347.99	350.89	348.60	348.21	348.05	347.85	347.63	347.51	347.35	
20	347.58	347.55	347.80	347.88	350.21	348.78	348.20	348.03	347.85	347.62	347.51	347.35	
21	347.55	347.55	347.77	348.24	349.47	348.36	348.22	348.03	347.85	347.59	347.49	347.35	
22	347.55	347.48	347.81	348.10	348.51	348.23	348.55	348.02	347.83	347.57	347.49	347.35	
23	347.53	347.69	347.71	348.18	348.37	348.19	348.72	347.99	347.83	347.55	347.49	347.33	
24	347.35	347.61	347.59	348.08	348.43	348.15	349.37	347.97	347.81	347.55	347.49	347.31	
25	347.34	347.75	347.55	348.07	348.46	348.37	348.75	347.95	347.77	347.55	347.49	347.31	
26	347.35	347.70	347.61	348.34	348.28	348.21	348.61	347.95	347.75	347.52	347.49	347.31	
27	347.37	347.98	348.11	348.14	348.28	348.12	348.46	347.95	347.75	347.53	347.49	347.31	
28	347.36	347.93	348.66	348.17	348.49	348.09	348.38	347.93	347.75	347.55	347.49	347.31	
29	347.39	347.83	348.31	348.20	348.25	348.16	348.33	347.93	347.76	347.53		347.29	
30	347.47	347.89	348.05	348.08	348.16	348.44	348.27	347.93	347.77	347.52		347.29	
31		347.79		348.03	348.11		348.25		347.77	347.49		347.29	
Mean	347.41	347.65	347.82	347.85	348.38	348.25	348.69	348.08	347.86	347.70	347.54	347.38	
Max	347.65	347.98	348.66	348.34	350.89	348.78	350.48	348.24	348.07	348.18	347.61	347.49	350.89
Min	347.33	347.41	347.55	347.51	347.81	347.71	348.20	347.93	347.75	347.49	347.49	347.29	347.29

Annual Max Momentary Gage Height 351.57 m. (MSL.) , at 17.00 Hours , on Aug 17 , 2018

Zero Gage at Bottom Elevation 346.65 m. (MSL.) , River Bed 346.06 m. (MSL.)

Left Bank Elevation 355.11 m. (MSL.) ,

Right Bank Elevation 355.00 m. (MSL.) , Drainage Are 1,866 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	4.18	5.40	14.50	13.60	21.60	28.45	48.05	29.35	17.41	11.95	8.44	6.04		
2	4.18	5.88	18.15	10.87	21.20	26.00	166.40	28.45	17.41	11.95	8.44	6.04		
3	5.24	14.80	13.90	9.64	16.30	24.00	140.10	27.60	17.41	11.95	8.44	5.88		
4	4.76	10.36	14.20	9.40	14.20	34.75	99.45	26.80	16.00	11.95	8.20	5.40		
5	4.46	7.20	11.14	10.87	14.20	50.15	85.00	24.80	15.40	11.95	8.44	5.40		
6	4.46	7.00	11.41	8.20	16.00	32.95	53.83	25.20	15.40	11.95	8.44	5.40		
7	4.46	6.04	10.87	8.44	19.63	26.80	43.50	25.20	14.80	11.95	8.44	5.08		
8	4.32	5.56	11.68	7.60	18.89	25.60	43.50	26.80	14.80	11.95	8.20	5.08		
9	3.90	6.40	18.15	8.44	14.50	26.80	41.50	24.40	15.10	27.20	8.20	5.08		
10	3.90	6.40	11.41	7.60	18.52	32.05	72.52	26.40	16.00	16.67	8.20	5.08		
11	3.90	7.60	11.95	7.00	22.80	33.85	49.63	25.60	16.00	14.80	8.00	4.76		
12	3.62	12.76	17.04	6.40	18.15	25.60	55.40	29.80	16.00	14.80	7.20	4.60		
13	3.62	16.00	18.89	8.92	15.40	24.80	53.30	28.00	17.41	14.50	6.80	4.60		
14	3.62	16.00	13.03	14.80	14.80	34.75	40.50	26.80	22.80	13.60	6.80	4.46		
15	3.62	13.60	10.87	11.41	13.60	28.00	35.65	25.20	18.15	12.76	6.80	4.32		
16	3.76	7.80	9.16	8.44	14.20	10.87	32.95	24.40	18.15	11.95	6.40	3.90		
17	4.76	7.20	8.00	8.92	127.50	22.80	31.60	22.00	16.67	11.95	6.40	3.90		
18	9.40	6.04	7.40	17.41	89.80	31.60	28.90	22.00	16.00	11.14	6.40	3.90		
19	8.92	4.76	10.36	19.63	200.65	47.00	28.45	22.00	14.80	8.92	6.40	3.90		
20	7.80	7.20	13.30	15.70	145.75	56.45	28.00	21.20	14.80	8.68	6.40	3.90		
21	7.20	7.20	12.49	29.80	95.55	35.20	28.90	21.20	14.80	8.00	6.04	3.90		
22	7.20	5.88	13.60	24.00	42.50	29.35	44.50	20.80	14.20	7.60	6.04	3.90		
23	6.80	10.36	10.87	27.20	35.65	27.60	53.30	19.63	14.20	7.20	6.04	3.62		
24	3.90	8.44	8.00	23.20	38.50	26.00	89.20	18.89	13.60	7.20	6.04	3.34		
25	3.76	11.95	7.20	22.80	40.00	35.65	54.88	18.15	12.49	7.20	6.04	3.34		
26	3.90	10.60	8.44	34.30	31.60	28.45	47.53	18.15	11.95	6.60	6.04	3.34		
27	4.18	19.26	24.40	25.60	31.60	24.80	40.00	18.15	11.95	6.80	6.04	3.34		
28	4.04	17.41	50.15	26.80	41.50	23.60	36.10	17.41	11.95	7.20	6.04	3.34		
29	4.46	14.20	32.95	28.00	30.25	26.40	33.85	17.41	12.22	6.80		3.08		
30	5.72	16.00	22.00	23.20	26.40	39.00	31.15	17.41	12.49	6.60		3.08		
31		13.03		21.20	24.40		30.25		12.49	6.04		3.08		
Total	148.04	308.33	445.51	499.39	1275.64	919.32	1667.89	699.20	472.85	339.81	199.36	134.08	7109.42	CMSDAY
Mean	4.93	9.95	14.85	16.11	41.15	30.64	53.80	23.31	15.25	10.96	7.12	4.33	19.48	CMS
Max	9.40	19.26	50.15	34.30	200.65	56.45	166.40	29.80	22.80	27.20	8.44	6.04	200.65	CMS
Min	3.62	4.76	7.20	6.40	13.60	10.87	28.00	17.41	11.95	6.04	6.04	3.08	3.08	CMS
Runoff	12.79	26.64	38.49	43.15	110.22	79.43	144.11	60.41	40.85	29.36	17.22	11.58	614.25	MCM

Momentary Peak 260.30 CMS. at 351.57 m. (MSL.) at 17.00 Hours , on Aug 17 , 2018

Runoff Yield 10.44 Liters/Second/Square KM. Momentary Peak Yield 139.50 Liters/Second/Square KM.

WATER YEAR : 2018

PING RIVER BASIN

Nam Mae Rim at Ban Saluang Nok, Chiang Mai (P.93)

Lat 19 - 00 - 54 N Long 98 - 52 - 50 E

Location : on left bank at Ban Saluang Nok.

	Ban Saluang Nok	**Amphoe** Mae Rim	**Changwat** Chiang Mai
Drainge Area	411 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+340.588 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank near the gage site.		**Elevation** +344.720 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	2011 to date		
Rating Operation			
Period of Rating	2011 to date		
Rated by Flot	-		
Rated by Current Meter	2011 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 30 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

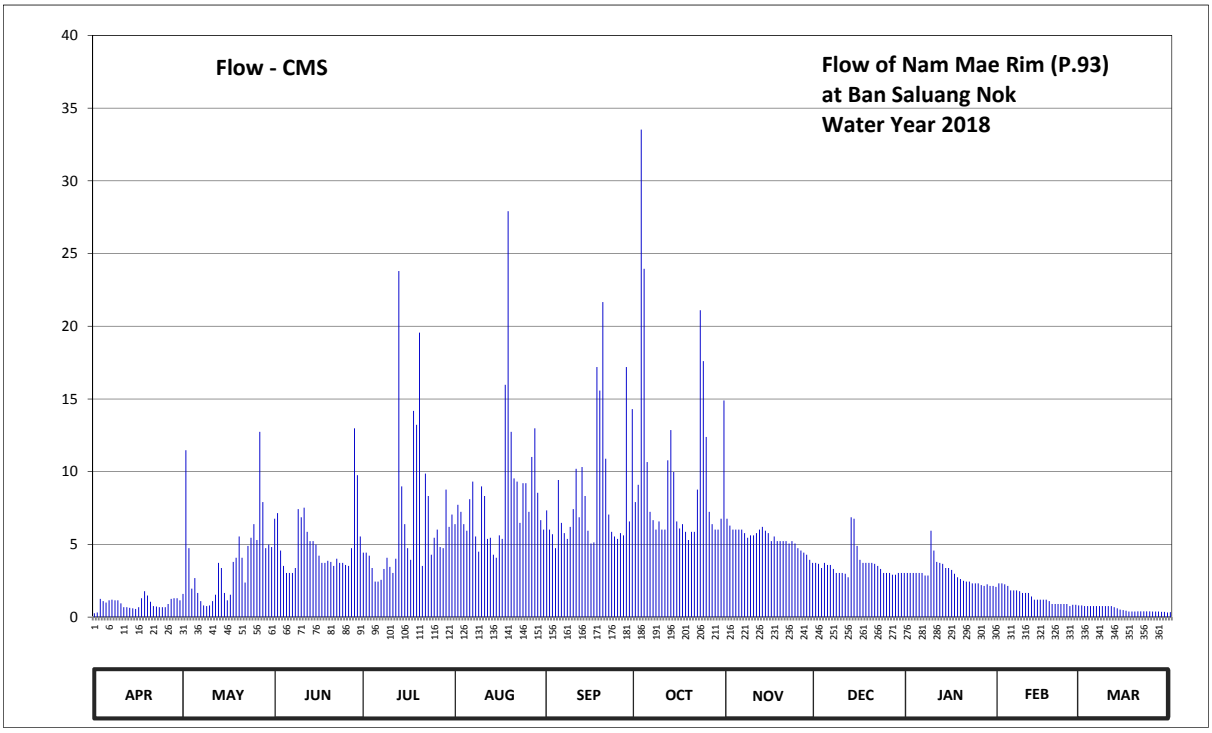
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	340.63	340.95	341.67	341.39	341.63	341.73	341.79	341.67	341.29	341.19	341.07	340.80	
2	340.66	342.11	341.71	341.39	341.77	341.59	341.90	341.62	341.28	341.19	341.07	340.79	
3	340.89	341.43	341.41	341.36	341.72	341.55	343.67	341.59	341.24	341.19	341.06	340.79	
4	340.86	341.01	341.26	341.24	341.63	341.43	343.05	341.59	341.29	341.19	341.04	340.79	
5	340.84	341.13	341.19	341.09	341.58	341.93	342.04	341.59	341.27	341.19	340.99	340.79	
6	340.87	340.96	341.19	341.09	341.81	341.64	341.72	341.59	341.27	341.19	340.99	340.79	
7	340.88	340.86	341.19	341.11	341.92	341.56	341.66	341.56	341.23	341.16	340.99	340.79	
8	340.87	340.80	341.24	341.23	341.53	341.51	341.59	341.52	341.19	341.16	340.98	340.79	
9	340.87	340.79	341.74	341.34	341.40	341.61	341.65	341.54	341.19	341.58	340.96	340.79	
10	340.83	340.80	341.68	341.25	341.89	341.74	341.59	341.54	341.19	341.41	340.96	340.79	
11	340.77	340.86	341.75	341.19	341.83	342.00	341.59	341.56	341.18	341.30	340.96	340.79	
12	340.77	340.94	341.57	341.33	341.51	341.68	342.05	341.59	341.14	341.29	340.92	340.77	
13	340.76	341.29	341.49	343.04	341.52	342.01	342.23	341.61	341.68	341.28	340.88	340.75	
14	340.75	341.24	341.49	341.89	341.37	341.83	341.98	341.58	341.67	341.24	340.88	340.73	
15	340.74	340.96	341.46	341.63	341.34	341.58	341.65	341.56	341.45	341.24	340.88	340.72	
16	340.77	340.87	341.36	341.43	341.54	341.47	341.60	341.49	341.32	341.22	340.88	340.71	
17	340.90	340.94	341.29	341.32	341.51	341.48	341.63	341.53	341.29	341.18	340.88	340.69	
18	340.98	341.30	341.29	342.34	342.48	342.57	341.57	341.49	341.29	341.14	340.86	340.69	
19	340.93	341.34	341.31	342.26	343.31	342.45	341.50	341.49	341.29	341.12	340.82	340.69	
20	340.85	341.53	341.30	342.74	342.22	342.89	341.57	341.49	341.29	341.10	340.82	340.70	
21	340.79	341.34	341.26	341.26	341.94	342.06	341.57	341.49	341.28	341.09	340.82	340.70	
22	340.78	341.08	341.33	341.97	341.92	341.70	341.87	341.47	341.26	341.09	340.82	340.70	
23	340.77	341.45	341.29	341.83	341.64	341.57	342.85	341.49	341.23	341.07	340.82	340.70	
24	340.77	341.52	341.29	341.37	341.91	341.53	342.60	341.47	341.19	341.07	340.82	340.70	
25	340.77	341.63	341.27	341.52	341.91	341.51	342.19	341.43	341.19	341.07	340.79	340.69	
26	340.82	341.50	341.26	341.59	341.72	341.56	341.72	341.41	341.19	341.05	340.81	340.69	
27	340.89	342.22	341.43	341.44	342.07	341.54	341.63	341.39	341.17	341.04	340.81	340.69	
28	340.90	341.79	342.24	341.43	342.24	342.57	341.59	341.37	341.17	341.06	340.80	340.68	
29	340.90	341.43	341.96	341.87	341.85	341.65	341.59	341.32	341.19	341.04		340.68	
30	340.87	341.46	341.53	341.61	341.66	342.35	341.67	341.29	341.19	341.04		340.66	
31		341.44		341.70	341.59		342.40		341.19	341.03		340.67	
Mean	340.82	341.26	341.45	341.59	341.81	341.81	341.93	341.51	341.27	341.17	340.91	340.73	
Max	340.98	342.22	342.24	343.04	343.31	342.89	343.67	341.67	341.68	341.58	341.07	340.80	343.67
Min	340.63	340.79	341.19	341.09	341.34	341.43	341.50	341.29	341.14	341.03	340.79	340.66	340.63

Annual Max Momentary Gage Height 343.79 m. (MSL.) , at 06.00 Hours , on Oct 3 , 2018

Zero Gage at Bottom Elevation 340.59 m. (MSL.) , River Bed 340.40 m. (MSL.)

Left Bank Elevation 344.28 m. (MSL.) ,

Right Bank Elevation 344.10 m. (MSL.) , Drainage Are 411 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.26	1.60	6.77	4.43	6.39	7.34	7.91	6.77	3.73	3.04	2.32	0.80		
2	0.32	11.47	7.15	4.43	7.72	6.02	9.10	6.29	3.66	3.04	2.32	0.76		
3	1.25	4.74	4.58	4.22	7.24	5.70	33.52	6.02	3.38	3.04	2.26	0.76		
4	1.10	1.96	3.52	3.38	6.39	4.74	23.95	6.02	3.73	3.04	2.14	0.76		
5	1.00	2.68	3.04	2.44	5.94	9.43	10.66	6.02	3.59	3.04	1.84	0.76		
6	1.15	1.66	3.04	2.44	8.11	6.48	7.24	6.02	3.59	3.04	1.84	0.76		
7	1.20	1.10	3.04	2.56	9.32	5.78	6.67	5.78	3.31	2.86	1.84	0.76		
8	1.15	0.80	3.38	3.31	5.54	5.38	6.02	5.46	3.04	2.86	1.78	0.76		
9	1.15	0.76	7.43	4.08	4.50	6.20	6.58	5.62	3.04	5.94	1.66	0.76		
10	0.95	0.80	6.86	3.45	8.99	7.43	6.02	5.62	3.04	4.58	1.66	0.76		
11	0.68	1.10	7.53	3.04	8.33	10.20	6.02	5.78	2.98	3.80	1.66	0.76		
12	0.68	1.54	5.86	4.01	5.38	6.86	10.78	6.02	2.74	3.73	1.42	0.68		
13	0.64	3.73	5.22	23.80	5.46	10.32	12.86	6.20	6.86	3.66	1.20	0.60		
14	0.60	3.38	5.22	8.99	4.29	8.33	9.98	5.94	6.77	3.38	1.20	0.52		
15	0.56	1.66	4.98	6.39	4.08	5.94	6.58	5.78	4.90	3.38	1.20	0.48		
16	0.68	1.15	4.22	4.74	5.62	5.06	6.10	5.22	3.94	3.24	1.20	0.44		
17	1.30	1.54	3.73	3.94	5.38	5.14	6.39	5.54	3.73	2.98	1.20	0.38		
18	1.78	3.80	3.73	14.18	15.98	17.20	5.86	5.22	3.73	2.74	1.10	0.38		
19	1.48	4.08	3.87	13.22	27.91	15.58	5.30	5.22	3.73	2.62	0.90	0.38		
20	1.05	5.54	3.80	19.56	12.74	21.66	5.86	5.22	3.73	2.50	0.90	0.40		
21	0.76	4.08	3.52	3.52	9.54	10.89	5.86	5.22	3.66	2.44	0.90	0.40		
22	0.72	2.38	4.01	9.87	9.32	7.05	8.77	5.06	3.52	2.44	0.90	0.40		
23	0.68	4.90	3.73	8.33	6.48	5.86	21.10	5.22	3.31	2.32	0.90	0.40		
24	0.68	5.46	3.73	4.29	9.21	5.54	17.60	5.06	3.04	2.32	0.90	0.40		
25	0.68	6.39	3.59	5.46	9.21	5.38	12.39	4.74	3.04	2.32	0.76	0.38		
26	0.90	5.30	3.52	6.02	7.24	5.78	7.24	4.58	3.04	2.20	0.85	0.38		
27	1.25	12.74	4.74	4.82	11.01	5.62	6.39	4.43	2.92	2.14	0.85	0.38		
28	1.30	7.91	12.98	4.74	12.98	17.20	6.02	4.29	2.92	2.26	0.80	0.36		
29	1.30	4.74	9.76	8.77	8.55	6.58	6.02	3.94	3.04	2.14		0.36		
30	1.15	4.98	5.54	6.20	6.67	14.30	6.77	3.73	3.04	2.14		0.32		
31		4.82		7.05	6.02		14.90		3.04	2.08		0.34		
Total	28.40	118.79	152.09	205.68	261.54	254.99	306.46	162.03	111.79	91.31	38.50	16.78	1748.36	CMSDAY
Mean	0.95	3.83	5.07	6.63	8.44	8.50	9.89	5.40	3.61	2.95	1.37	0.54	4.79	CMS
Max	1.78	12.74	12.98	23.80	27.91	21.66	33.52	6.77	6.86	5.94	2.32	0.80	33.52	CMS
Min	0.26	0.76	3.04	2.44	4.08	4.74	5.30	3.73	2.74	2.08	0.76	0.32	0.26	CMS
Runoff	2.45	10.26	13.14	17.77	22.60	22.03	26.48	14.00	9.66	7.89	3.33	1.45	151.06	MCM

Momentary Peak 35.44 CMS. at 343.79 m. (MSL.) at 06.00 Hours , on Oct 3 , 2018

Runoff Yield 11.65 Liters/Second/Square KM. Momentary Peak Yield 86.23 Liters/Second/Square KM.

WATER YEAR : 2018

WANG RIVER BASIN

Wang River at Setuwaree Bridge , Lampang (W.1C)

Lat 18 - 17 - 51 N Long 99 - 30 - 56 E

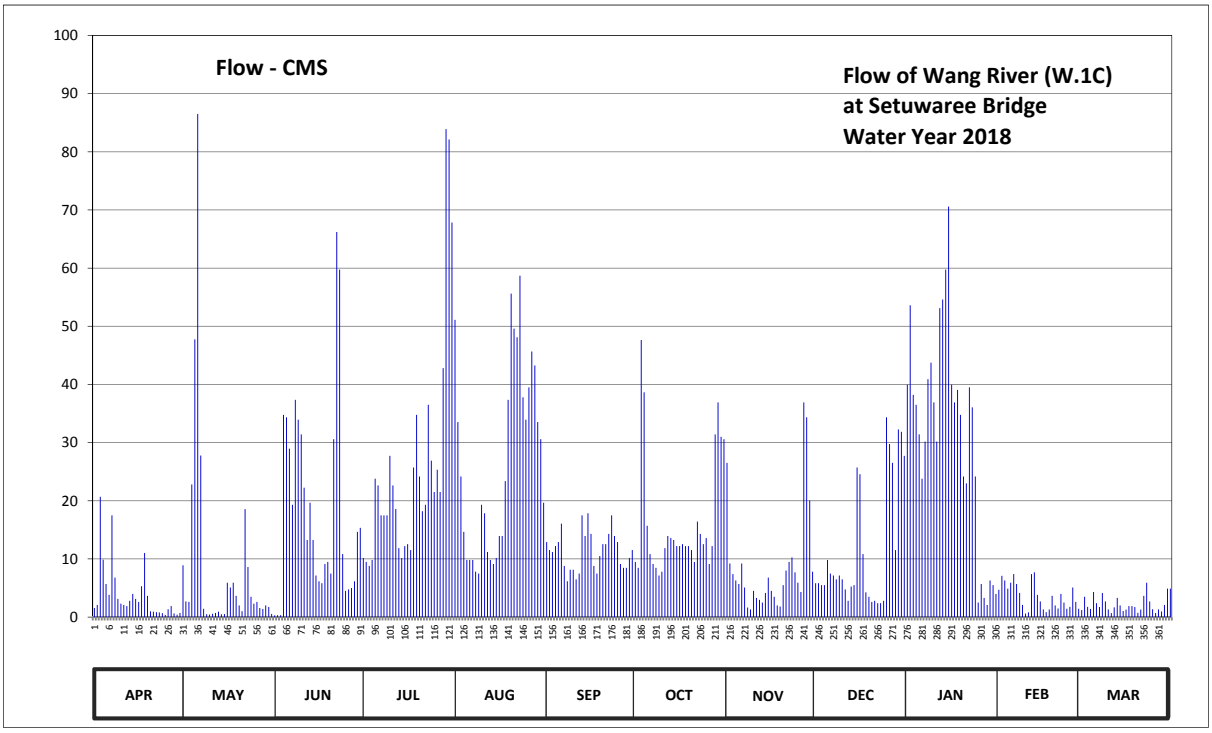
Location : on left bank at the bridge.

	Ban Setuwaree Bridge	**Amphoe** Mueang	**Changwat** Lampang
Drainge Area	3,478 sq.km.		
Type of Gage	Water - stage recorder.		
Zero Gage at Bottom	+229.300 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank at the approach of the bridge.		**Elevation** +234.725 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	1990 - 1998, 2006 to date		
Rating Operation			
Period of Rating	1990 - 1998, 2006 to date		
Rated by Flot	-		
Rated by Current Meter	1990 - 1998, 2006 to date		
Stability of Channel Regimes	Fairly stable because of backwater effect.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 49 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	229.24	229.68	228.69	228.84	229.84	228.92	228.82	229.29	228.71	229.61	229.51	229.14	
2	229.33	229.39	228.74	228.82	229.46	228.88	228.79	229.69	228.71	229.89	229.62	229.44	
3	229.96	229.38	228.74	228.80	229.23	228.87	229.77	229.63	228.70	229.57	229.59	229.29	
4	229.71	230.00	229.49	228.83	228.97	228.90	229.58	229.59	228.70	229.53	229.52	229.20	
5	229.56	230.30	229.48	229.22	228.83	228.92	229.00	229.56	228.83	229.41	229.57	229.49	
6	229.46	230.56	229.35	229.19	228.83	229.01	228.86	229.69	228.76	229.22	229.63	229.36	
7	229.90	230.07	229.10	229.05	228.83	228.80	228.81	229.53	228.75	229.38	229.56	229.28	
8	229.61	229.21	229.55	229.05	228.77	228.72	228.79	229.26	228.73	229.63	229.48	229.48	
9	229.42	228.85	229.47	229.05	228.76	228.78	228.75	229.17	228.75	229.69	229.33	229.39	
10	229.35	228.82	229.41	229.32	229.10	228.78	228.77	229.50	228.73	229.54	228.90	229.17	
11	229.33	228.89	229.18	229.19	229.06	228.73	228.89	229.43	228.67	229.38	229.01	228.94	
12	229.31	228.95	228.93	229.08	228.87	228.76	228.95	229.41	228.59	229.88	229.63	229.27	
13	229.40	229.04	229.11	228.89	228.83	229.05	228.94	229.37	228.69	229.91	229.64	229.43	
14	229.47	228.85	228.93	228.84	228.81	228.95	228.93	229.48	228.70	230.01	229.46	229.32	
15	229.42	228.86	228.75	228.90	228.84	229.06	228.90	229.61	229.27	230.21	229.39	229.08	
16	229.38	229.57	228.72	228.91	228.95	228.96	228.90	229.50	229.24	229.61	229.17	229.16	
17	229.54	229.53	228.71	228.88	228.95	228.80	228.91	229.44	228.86	229.54	229.02	229.31	
18	229.74	229.57	228.81	229.27	229.21	228.76	228.90	229.32	228.65	229.59	229.17	229.31	
19	229.45	229.45	228.82	229.49	229.55	228.85	228.90	229.30	228.62	229.49	229.45	229.28	
20	229.06	229.32	228.76	229.23	229.93	228.91	228.88	229.55	228.58	229.23	229.32	228.97	
21	229.04	229.07	229.39	229.07	229.81	228.91	228.82	229.65	228.59	229.20	229.22	229.16	
22	229.02	229.92	230.13	229.10	229.78	228.96	229.02	229.70	228.57	229.60	229.47	229.45	
23	229.00	229.67	230.01	229.53	229.99	229.05	228.96	229.72	228.57	229.52	229.37	229.57	
24	228.94	229.44	228.86	229.30	229.56	228.95	228.91	229.64	228.59	229.23	229.21	229.39	
25	228.79	229.35	228.66	229.16	229.47	228.92	228.94	229.57	229.48	229.37	229.29	229.18	
26	229.18	229.38	228.67	229.26	229.60	228.81	228.81	229.49	229.37	229.56	229.53	228.95	
27	229.31	229.24	228.68	229.16	229.73	228.79	228.90	229.54	229.29	229.43	229.38	229.17	
28	228.91	229.20	228.72	229.67	229.68	228.79	229.41	229.48	228.88	229.33	229.21	229.05	
29	228.81	229.32	228.97	230.44	229.46	228.84	229.54	229.12	229.43	229.59		229.33	
30	228.96	229.28	228.99	230.41	229.39	228.88	229.40	228.77	229.42	229.55		229.52	
31		228.88		230.16	229.11		229.39		229.32	229.47		229.52	
Mean	229.32	229.39	229.06	229.23	229.26	228.88	229.00	229.47	228.86	229.55	229.38	229.28	
Max	229.96	230.56	230.13	230.44	229.99	229.06	229.77	229.72	229.48	230.21	229.64	229.57	230.56
Min	228.79	228.82	228.66	228.80	228.76	228.72	228.75	228.77	228.57	229.20	228.90	228.94	228.57

Annual Max Momentary Gage Height	230.67	m. (MSL.) ,	at 17.00 Hours , on May 6 , 2018		
Zero Gage at Bottom Elevation	229.30	m. (MSL.) ,	River Bed	226.89	m. (MSL.)
Left Bank Elevation	234.44	m. (MSL.) ,			
Right Bank Elevation	235.10	m. (MSL.) ,	Drainage Are	3,478	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.56	8.90	0.29	10.16	51.10	12.90	9.48	26.51	5.83	39.97	4.70	1.22		
2	2.10	2.70	0.34	9.48	33.52	11.52	8.47	9.20	5.83	53.60	7.10	3.48		
3	20.68	2.60	0.34	8.80	24.17	11.18	47.63	7.40	5.50	38.21	6.30	1.76		
4	9.88	22.80	34.78	9.82	14.65	12.20	38.64	6.30	5.50	36.49	4.90	1.40		
5	5.70	47.75	34.36	23.78	9.82	12.90	15.70	5.70	9.82	31.42	5.90	4.33		
6	3.82	86.50	28.95	22.63	9.82	16.06	10.84	9.20	7.48	23.78	7.40	2.40		
7	17.50	27.77	19.30	17.50	9.82	8.80	9.14	5.10	7.15	30.18	5.70	1.72		
8	6.80	1.44	37.35	17.50	7.81	6.16	8.47	1.64	6.49	40.91	4.16	4.16		
9	3.14	0.50	33.94	17.50	7.48	8.14	7.15	1.31	7.15	43.73	2.10	2.70		
10	2.30	0.44	31.42	27.72	19.30	8.14	7.81	4.50	6.49	36.92	0.60	1.31		
11	2.10	0.58	22.26	22.63	17.86	6.49	11.86	3.31	4.75	30.18	0.83	0.68		
12	1.90	0.70	13.25	18.58	11.18	7.48	13.95	2.97	2.80	53.10	7.40	1.68		
13	2.80	0.92	19.67	11.86	9.82	17.50	13.60	2.50	5.25	54.61	7.70	3.31		
14	3.99	0.50	13.25	10.16	9.14	13.95	13.25	4.16	5.50	59.74	3.82	2.00		
15	3.14	0.52	7.15	12.20	10.16	17.86	12.20	6.80	25.73	70.58	2.70	1.04		
16	2.60	5.90	6.16	12.55	13.95	14.30	12.20	4.50	24.56	39.97	1.31	1.28		
17	5.30	5.10	5.83	11.52	13.95	8.80	12.55	3.48	10.84	36.92	0.86	1.90		
18	11.02	5.90	9.14	25.73	23.39	7.48	12.20	2.00	4.25	39.07	1.31	1.90		
19	3.65	3.65	9.48	34.78	37.35	10.50	12.20	1.80	3.50	34.78	3.65	1.72		
20	0.98	2.00	7.48	24.17	55.63	12.55	11.52	5.50	2.60	24.17	2.00	0.74		
21	0.92	1.01	30.59	18.22	49.60	12.55	9.48	8.00	2.80	23.00	1.48	1.28		
22	0.86	18.56	66.22	19.30	48.12	14.30	16.42	9.50	2.40	39.50	3.99	3.65		
23	0.80	8.60	59.74	36.49	58.69	17.50	14.30	10.26	2.40	36.06	2.50	5.90		
24	0.68	3.48	10.84	26.90	37.78	13.95	12.55	7.70	2.80	24.17	1.44	2.70		
25	0.39	2.30	4.50	21.52	33.94	12.90	13.60	5.90	34.36	2.50	1.76	1.34		
26	1.34	2.60	4.75	25.34	39.50	9.14	9.14	4.33	29.77	5.70	5.10	0.70		
27	1.90	1.56	5.00	21.52	45.67	8.47	12.20	36.92	26.51	3.31	2.60	1.31		
28	0.62	1.40	6.16	42.79	43.26	8.47	31.42	34.36	11.52	2.10	1.44	0.95		
29	0.42	2.00	14.65	83.90	33.52	10.16	36.92	20.04	32.26	6.30		2.10		
30	0.72	1.72	15.35	82.10	30.59	11.52	31.00	7.81	31.84	5.50		4.90		
31		0.56		67.84	19.67		30.59		27.72	3.99		4.90		
Total	119.61	270.96	552.54	794.99	830.26	343.87	506.48	258.70	361.40	970.46	100.75	70.46	5180.48	CMSDAY
Mean	3.99	8.74	18.42	25.64	26.78	11.46	16.34	8.62	11.66	31.31	3.60	2.27	14.19	CMS
Max	20.68	86.50	66.22	83.90	58.69	17.86	47.63	36.92	34.36	70.58	7.70	5.90	86.50	CMS
Min	0.39	0.44	0.29	8.80	7.48	6.16	7.15	1.31	2.40	2.10	0.60	0.68	0.29	CMS
Runoff	10.33	23.41	47.74	68.69	71.73	29.71	43.76	22.35	31.22	83.85	8.70	6.09	447.59	MCM

Momentary Peak 103.65 CMS. at 230.67 m. (MSL.) at 17.00 Hours , on May 6 , 2018

Runoff Yield 4.08 Liters/Second/Square KM. Momentary Peak Yield 29.80 Liters/Second/Square KM.

WATER YEAR : 2018

WANG RIVER BASIN

Wang River at Ban Don Chai , Lampang (W.3A)

Lat 17 - 38 - 28 N Long 99 - 14 - 01 E

Location : on right bank about 30 meters upstream from Siriyong Bridge.

Ban Don Chai **Amphoe** Thoen **Changwat** Lampang

Drainge Area	8,924 sq.km.
Type of Gage	Water - stage recorder.
Zero Gage at Bottom	+161.000 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On right bank about 15 meters from automatic gage building **Elevation** +167.074 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	1967 to date
Rating Operation	
Period of Rating	1967 to date
Rated by Flot	-
Rated by Current Meter	1967 to date
Stability of Channel Regimes	Fairly stable because of backwater effect.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. The channel is fulled of the Mimosa pudica plants. Stage-discharge relation defined by 39 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

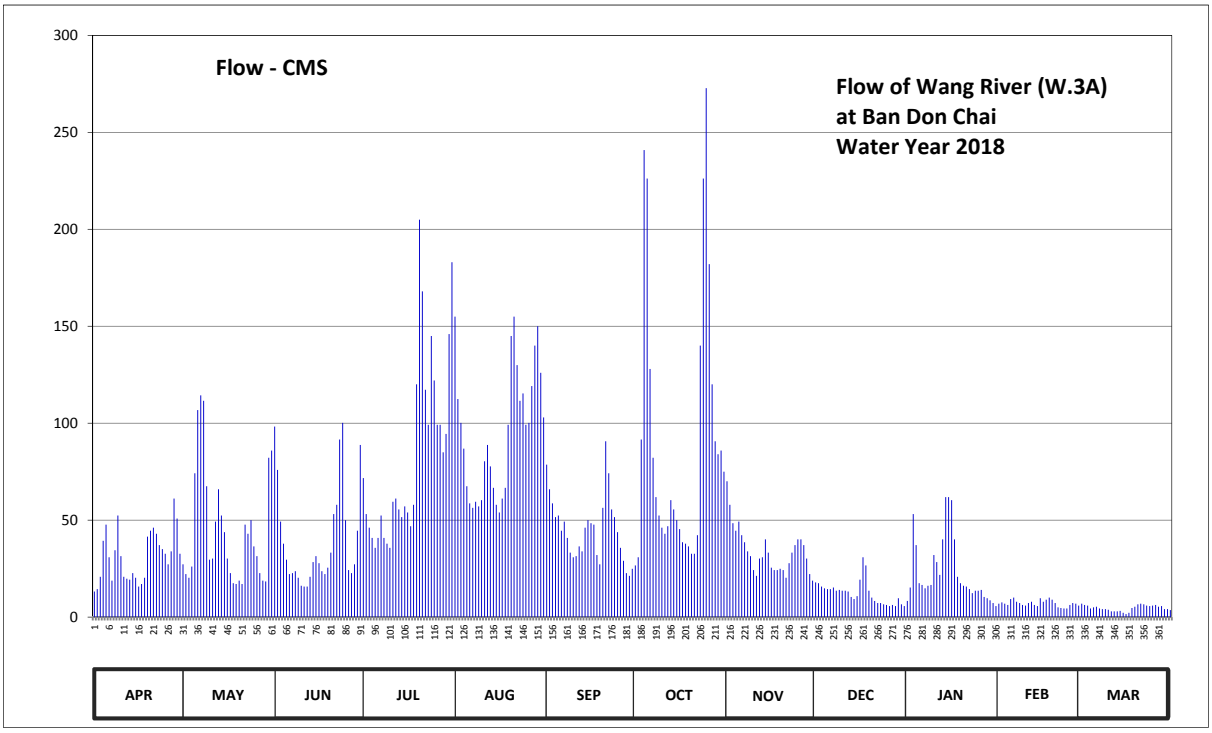
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	160.77	161.06	161.95	161.66	162.53	161.74	161.05	161.64	160.88	160.64	160.60	160.60	
2	160.80	160.97	161.71	161.43	162.10	161.59	161.12	161.49	160.87	160.82	160.62	160.58	
3	160.94	160.93	161.38	161.34	161.97	161.50	161.88	161.37	160.83	161.43	160.60	160.57	
4	161.25	161.04	161.23	161.27	161.83	161.41	163.38	161.32	160.81	161.22	160.58	160.52	
5	161.36	161.69	161.10	161.20	161.61	161.42	163.24	161.38	160.80	160.87	160.67	160.54	
6	161.12	162.04	160.97	161.27	161.50	161.32	162.26	161.29	160.80	160.85	160.69	160.55	
7	160.90	162.12	160.98	161.42	161.47	161.38	161.78	161.24	160.82	160.81	160.63	160.52	
8	161.18	162.09	161.00	161.27	161.51	161.27	161.54	161.17	160.78	160.84	160.61	160.51	
9	161.42	161.61	160.93	161.23	161.48	161.16	161.42	161.13	160.79	160.85	160.58	160.51	
10	161.13	161.10	160.84	161.20	161.52	161.12	161.34	161.01	160.78	161.14	160.57	160.50	
11	160.94	161.11	160.83	161.51	161.76	161.13	161.30	160.95	160.78	161.08	160.61	160.46	
12	160.92	161.38	160.83	161.53	161.85	161.21	161.35	161.11	160.77	160.96	160.63	160.46	
13	160.91	161.59	160.94	161.46	161.73	161.17	161.52	161.12	160.70	161.26	160.58	160.46	
14	160.98	161.42	161.08	161.41	161.60	161.34	161.46	161.26	160.67	161.54	160.56	160.47	
15	160.93	161.31	161.13	161.48	161.49	161.39	161.39	161.16	160.71	161.54	160.68	160.42	
16	160.83	161.11	161.07	161.44	161.44	161.37	161.33	161.03	160.91	161.52	160.63	160.38	
17	160.86	160.98	161.00	161.35	161.53	161.36	161.24	161.01	161.12	161.26	160.66	160.42	
18	160.93	160.87	160.97	161.49	161.60	161.14	161.23	161.01	161.05	160.94	160.69	160.53	
19	161.28	160.86	161.03	162.18	161.96	161.06	161.21	161.02	160.78	160.87	160.66	160.55	
20	161.32	160.90	161.16	163.03	162.43	161.47	161.15	161.01	160.69	160.84	160.61	160.59	
21	161.34	160.86	161.43	162.66	162.53	161.87	161.15	160.93	160.64	160.83	160.54	160.60	
22	161.30	161.36	161.49	162.15	162.28	161.69	161.29	161.07	160.61	160.80	160.53	160.59	
23	161.22	161.30	161.88	161.96	162.09	161.46	162.38	161.16	160.61	160.75	160.52	160.57	
24	161.19	161.39	161.97	162.43	162.13	161.41	163.24	161.22	160.59	160.78	160.52	160.56	
25	161.15	161.21	161.39	162.20	161.96	161.31	163.68	161.26	160.58	160.78	160.58	160.57	
26	161.06	161.13	161.01	161.96	161.97	161.20	162.80	161.26	160.56	160.79	160.61	160.58	
27	161.17	160.98	160.98	161.96	162.17	161.09	162.18	161.22	160.58	160.70	160.60	160.55	
28	161.53	160.90	161.06	161.81	162.38	160.98	161.87	161.11	160.56	160.68	160.57	160.56	
29	161.40	160.89	161.32	161.91	162.48	160.95	161.80	160.97	160.68	160.65		160.51	
30	161.15	161.78	161.85	162.44	162.24	161.02	161.82	160.90	160.59	160.61		160.51	
31		161.82		162.81	162.00		161.70		160.56	160.56		160.49	
Mean	161.11	161.28	161.22	161.76	161.91	161.32	161.81	161.16	160.74	160.94	160.60	160.52	
Max	161.53	162.12	161.97	163.03	162.53	161.87	163.68	161.64	161.12	161.54	160.69	160.60	163.68
Min	160.77	160.86	160.83	161.20	161.44	160.95	161.05	160.90	160.56	160.56	160.52	160.38	160.38

Annual Max Momentary Gage Height 163.79 m. (MSL.) , at 06.00 Hours , on Oct 25 , 2018

Zero Gage at Bottom Elevation 161.00 m. (MSL.) , River Bed 159.10 m. (MSL.)

Left Bank Elevation 169.11 m. (MSL.) ,

Right Bank Elevation 169.08 m. (MSL.) , Drainage Are 8,924 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	13.20	27.24	98.25	71.68	155.00	78.60	26.65	70.02	17.92	8.30	6.90	6.90		
2	14.40	22.23	75.90	53.17	112.50	65.90	30.82	57.91	17.48	15.28	7.60	6.28		
3	20.76	20.27	49.24	46.12	100.15	58.70	91.60	48.46	15.72	53.17	6.90	5.97		
4	39.35	26.06	37.89	40.81	86.85	51.59	240.90	44.56	14.84	37.16	6.28	4.42		
5	47.68	74.17	29.60	35.70	67.53	52.38	226.20	49.24	14.40	17.48	9.35	5.04		
6	30.82	106.80	22.23	40.81	58.70	44.56	128.00	42.27	14.40	16.60	10.05	5.35		
7	18.80	114.40	22.72	52.38	56.33	49.24	82.20	38.62	15.28	14.84	7.95	4.42		
8	34.48	111.55	23.70	40.81	59.50	40.81	61.90	33.87	13.60	16.16	7.25	4.11		
9	52.38	67.53	20.27	37.89	57.12	33.26	52.38	31.43	14.00	16.60	6.28	4.11		
10	31.43	29.60	16.16	35.70	60.30	30.82	46.12	24.29	13.60	32.04	5.97	3.80		
11	20.76	30.21	15.72	59.50	80.40	31.43	43.00	21.25	13.60	28.42	7.25	3.00		
12	19.78	49.24	15.72	61.10	88.75	36.43	46.90	30.21	13.20	21.74	7.95	3.00		
13	19.29	65.90	20.76	55.54	77.70	33.87	60.30	30.82	10.40	40.08	6.28	3.00		
14	22.72	52.38	28.42	51.59	66.70	46.12	55.54	40.08	9.35	61.90	5.66	3.20		
15	20.27	43.78	31.43	57.12	57.91	50.02	50.02	33.26	10.80	61.90	9.70	2.20		
16	15.72	30.21	27.83	53.96	53.96	48.46	45.34	25.47	19.29	60.30	7.95	1.54		
17	17.04	22.72	23.70	46.90	61.10	47.68	38.62	24.29	30.82	40.08	9.00	2.20		
18	20.27	17.48	22.23	57.91	66.70	32.04	37.89	24.29	26.65	20.76	10.05	4.73		
19	41.54	17.04	25.47	120.10	99.20	27.24	36.43	24.88	13.60	17.48	9.00	5.35		
20	44.56	18.80	33.26	205.00	145.00	56.33	32.65	24.29	10.05	16.16	7.25	6.59		
21	46.12	17.04	53.17	168.00	155.00	90.65	32.65	20.27	8.30	15.72	5.04	6.90		
22	43.00	47.68	57.91	117.25	130.00	74.17	42.27	27.83	7.25	14.40	4.73	6.59		
23	37.16	43.00	91.60	99.20	111.55	55.54	140.00	33.26	7.25	12.40	4.42	5.97		
24	35.09	50.02	100.15	145.00	115.35	51.59	226.20	37.16	6.59	13.60	4.42	5.66		
25	32.65	36.43	50.02	122.00	99.20	43.78	272.80	40.08	6.28	13.60	6.28	5.97		
26	27.24	31.43	24.29	99.20	100.15	35.70	182.00	40.08	5.66	14.00	7.25	6.28		
27	33.87	22.72	22.72	99.20	119.15	29.01	120.10	37.16	6.28	10.40	6.90	5.35		
28	61.10	18.80	27.24	84.95	140.00	22.72	90.65	30.21	5.66	9.70	5.97	5.66		
29	50.80	18.36	44.56	94.45	150.00	21.25	84.00	22.23	9.70	8.65		4.11		
30	32.65	82.20	88.75	146.00	126.00	24.88	85.90	18.80	6.59	7.25		4.11		
31		85.90		183.00	103.00		75.00		5.66	5.66		3.60		
Total	944.93	1401.19	1200.91	2582.04	2960.80	1364.77	2785.03	1026.59	384.22	721.83	199.63	145.41	15717.35	CMSDAY
Mean	31.50	45.20	40.03	83.29	95.51	45.49	89.84	34.22	12.39	23.28	7.13	4.69	43.06	CMS
Max	61.10	114.40	100.15	205.00	155.00	90.65	272.80	70.02	30.82	61.90	10.05	6.90	272.80	CMS
Min	13.20	17.04	15.72	35.70	53.96	21.25	26.65	18.80	5.66	5.66	4.42	1.54	1.54	CMS
Runoff	81.64	121.06	103.76	223.09	255.81	117.92	240.63	88.70	33.20	62.37	17.25	12.56	1357.98	MCM

Momentary Peak 284.90 CMS. at 163.79 m. (MSL.) at 06.00 Hours , on Oct 25 , 2018

Runoff Yield 4.83 Liters/Second/Square KM. Momentary Peak Yield 31.93 Liters/Second/Square KM.

WATER YEAR : 2018

WANG RIVER BASIN

Wang River at Ban Wang Man , Tak (W.4A)

Lat 17 - 12 - 19 N Long 99 - 06 - 05 E

Location : on left bank about 200 meters upstream from the bridge on highway.

	Ban Wang Man	**Amphoe** Sam Ngao	**Changwat** Tak
Drainge Area	10,448 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+130.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	In front of Wat Wang Man		**Elevation** +143.060 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours		
Basis of Mean Daily Gage Height	Arithmetic mean of 5 readings		
Period of Available Gage Records	1968 to date		
Rating Operation			
Period of Rating	1971 to date		
Rated by Flot	-		
Rated by Current Meter	1971 to date		
Stability of Channel Regimes	Rather unstable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good.Stage-discharge relation defined by 22 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

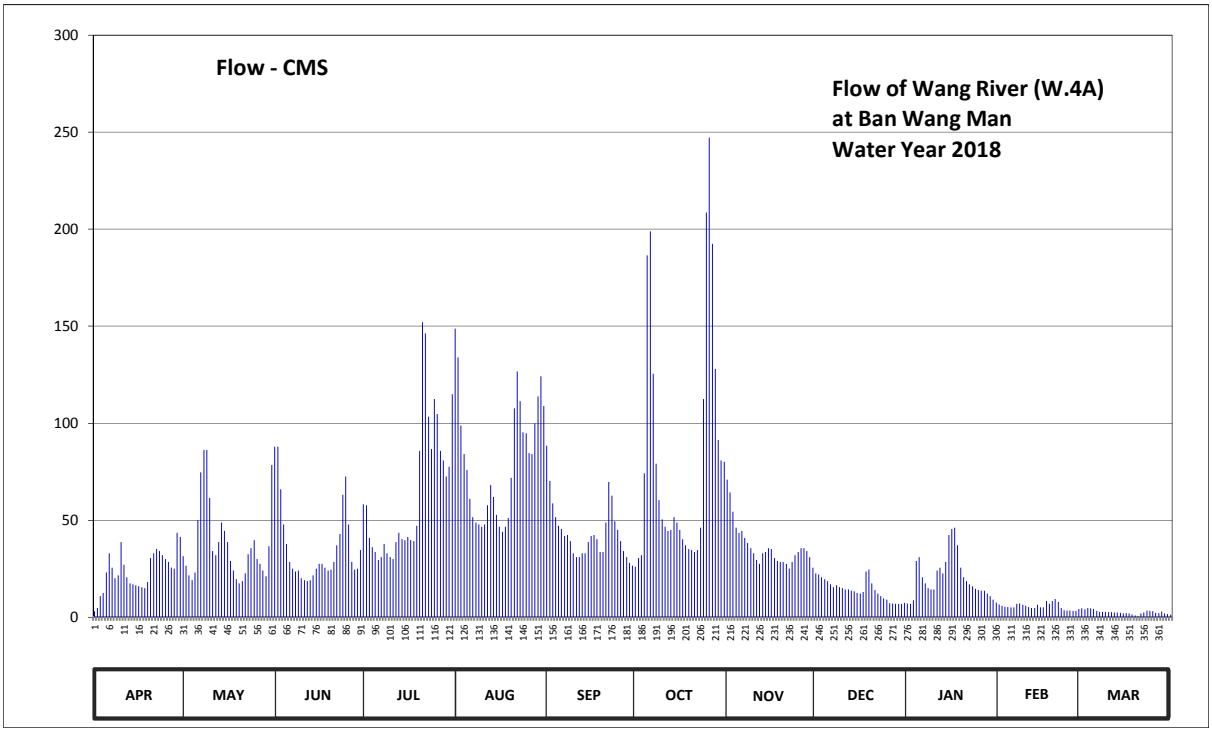
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	130.50	131.33	132.37	131.83	133.35	132.38	131.22	132.06	131.15	130.75	130.73	130.63	
2	130.64	131.23	132.37	131.82	133.12	132.05	131.31	131.94	131.14	130.74	130.69	130.60	
3	130.88	131.13	131.97	131.51	132.56	131.84	131.34	131.76	131.11	130.82	130.67	130.64	
4	130.93	131.08	131.64	131.42	132.30	131.71	132.12	131.61	131.09	131.28	130.66	130.63	
5	131.16	131.16	131.45	131.37	132.15	131.63	133.93	131.56	131.07	131.32	130.65	130.61	
6	131.36	131.68	131.27	131.29	131.88	131.60	134.12	131.58	131.04	131.11	130.65	130.53	
7	131.21	132.13	131.20	131.32	131.71	131.53	132.99	131.51	131.01	131.05	130.74	130.48	
8	131.10	132.34	131.17	131.45	131.66	131.54	132.21	131.46	131.03	131.00	130.75	130.47	
9	131.13	132.34	131.18	131.36	131.64	131.48	131.87	131.41	131.01	130.98	130.72	130.47	
10	131.47	131.89	131.10	131.32	131.62	131.36	131.69	131.36	131.00	130.98	130.69	130.46	
11	131.24	131.38	131.08	131.30	131.64	131.32	131.62	131.29	130.98	131.18	130.66	130.45	
12	131.11	131.34	131.07	131.47	131.82	131.32	131.58	131.25	130.98	131.21	130.64	130.44	
13	131.05	131.47	131.08	131.56	132.01	131.36	131.59	131.36	130.96	131.15	130.64	130.44	
14	131.04	131.66	131.13	131.50	131.90	131.36	131.71	131.37	130.95	131.27	130.72	130.43	
15	131.03	131.58	131.20	131.49	131.73	131.47	131.66	131.41	130.93	131.54	130.65	130.40	
16	131.02	131.47	131.25	131.52	131.62	131.53	131.59	131.40	130.92	131.60	130.65	130.41	
17	131.01	131.28	131.25	131.49	131.57	131.54	131.50	131.31	130.94	131.61	130.81	130.39	
18	131.00	131.18	131.21	131.48	131.62	131.50	131.44	131.28	131.17	131.44	130.74	130.33	
19	131.06	131.09	131.18	131.63	131.70	131.37	131.40	131.27	131.19	131.21	130.81	130.25	
20	131.31	131.05	131.19	132.33	132.08	131.37	131.39	131.27	131.05	131.11	130.84	130.20	
21	131.36	131.07	131.27	133.40	132.71	131.66	131.37	131.25	130.97	131.07	130.79	130.39	
22	131.40	131.15	131.44	133.31	133.01	132.04	131.39	131.20	130.92	131.04	130.64	130.44	
23	131.38	131.35	131.55	132.64	132.77	131.91	131.61	131.27	130.88	131.02	130.56	130.54	
24	131.34	131.41	131.92	132.35	132.50	131.67	132.79	131.34	130.85	130.99	130.54	130.53	
25	131.30	131.49	132.09	132.79	132.49	131.59	134.27	131.37	130.83	130.97	130.54	130.50	
26	131.27	131.30	131.64	132.66	132.31	131.48	134.83	131.41	130.76	130.96	130.53	130.42	
27	131.21	131.25	131.27	132.33	132.30	131.38	134.02	131.41	130.75	130.96	130.52	130.41	
28	131.20	131.18	131.19	132.24	132.58	131.32	133.03	131.38	130.74	130.92	130.61	130.49	
29	131.56	131.12	131.20	132.09	132.81	131.26	132.43	131.32	130.74	130.88		130.38	
30	131.52	131.43	131.39	132.18	132.97	131.23	132.24	131.21	130.74	130.83		130.34	
31		132.20		132.83	132.73		132.23		130.77	130.78		130.30	
Mean	131.16	131.44	131.41	131.91	132.22	131.56	132.21	131.42	130.96	131.09	130.67	130.45	
Max	131.56	132.34	132.37	133.40	133.35	132.38	134.83	132.06	131.19	131.61	130.84	130.64	134.83
Min	130.50	131.05	131.07	131.29	131.57	131.23	131.22	131.20	130.74	130.74	130.52	130.20	130.20

Annual Max Momentary Gage Height 134.94 m. (MSL.) , at 07.00 Hours , on Oct 26 , 2018

Zero Gage at Bottom Elevation 130.00 m. (MSL.) , River Bed 128.42 m. (MSL.)

Left Bank Elevation 137.43 m. (MSL.) ,

Right Bank Elevation 142.02 m. (MSL.) , Drainage Are 10,448 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	3.00	31.50	87.85	58.15	148.75	88.40	26.00	70.80	22.50	7.00	6.60	4.60		
2	4.80	26.50	87.85	57.60	133.80	70.25	30.50	64.20	22.00	6.80	5.80	4.00		
3	10.80	21.50	65.85	40.78	98.70	58.70	32.00	54.30	20.50	8.70	5.40	4.80		
4	12.55	19.00	47.70	36.05	84.00	51.55	74.10	46.05	19.50	29.00	5.20	4.60		
5	23.00	23.00	37.63	33.50	75.75	47.15	186.45	43.40	18.50	31.00	5.00	4.20		
6	33.00	49.90	28.50	29.50	60.90	45.50	198.80	44.45	17.00	20.50	5.00	3.30		
7	25.50	74.65	25.00	31.00	51.55	41.83	125.35	40.78	15.50	17.50	6.80	2.80		
8	20.00	86.20	23.50	37.63	48.80	42.35	79.05	38.15	16.50	15.00	7.00	2.70		
9	21.50	86.20	24.00	33.00	47.70	39.20	60.35	35.53	15.50	14.30	6.40	2.70		
10	38.68	61.45	20.00	31.00	46.60	33.00	50.45	33.00	15.00	14.30	5.80	2.60		
11	27.00	34.00	19.00	30.00	47.70	31.00	46.60	29.50	14.30	24.00	5.20	2.50		
12	20.50	32.00	18.50	38.68	57.60	31.00	44.45	27.50	14.30	25.50	4.80	2.40		
13	17.50	38.68	19.00	43.40	68.05	33.00	44.98	33.00	13.60	22.50	4.80	2.40		
14	17.00	48.80	21.50	40.25	62.00	33.00	51.55	33.50	13.25	28.50	6.40	2.30		
15	16.50	44.45	25.00	39.73	52.65	38.68	48.80	35.53	12.55	42.35	5.00	2.00		
16	16.00	38.68	27.50	41.30	46.60	41.83	44.98	35.00	12.20	45.50	5.00	2.10		
17	15.50	29.00	27.50	39.73	43.93	42.35	40.25	30.50	12.90	46.05	8.35	1.93		
18	15.00	24.00	25.50	39.20	46.60	40.25	37.10	29.00	23.50	37.10	6.80	1.48		
19	18.00	19.50	24.00	47.15	51.00	33.50	35.00	28.50	24.50	25.50	8.35	0.88		
20	30.50	17.50	24.50	85.65	71.90	33.50	34.50	28.50	17.50	20.50	9.40	0.50		
21	33.00	18.50	28.50	152.00	107.60	48.80	33.50	27.50	13.95	18.50	7.80	1.93		
22	35.00	22.50	37.10	146.15	126.65	69.70	34.50	25.00	12.20	17.00	4.80	2.40		
23	34.00	32.50	42.88	103.40	111.20	62.55	46.05	28.50	10.80	16.00	3.60	3.40		
24	32.00	35.53	63.10	86.75	95.25	49.35	112.40	32.00	9.75	14.65	3.40	3.30		
25	30.00	39.73	72.45	112.40	94.68	44.98	208.55	33.50	9.05	13.95	3.40	3.00		
26	28.50	30.00	47.70	104.60	84.55	39.20	247.10	35.53	7.20	13.60	3.30	2.20		
27	25.50	27.50	28.50	85.65	84.00	34.00	192.30	35.53	7.00	13.60	3.20	2.10		
28	25.00	24.00	24.50	80.70	99.85	31.00	127.95	34.00	6.80	12.20	4.20	2.90		
29	43.40	21.00	25.00	72.45	113.65	28.00	91.23	31.00	6.80	10.80		1.85		
30	41.30	36.58	34.50	77.40	124.05	26.50	80.70	25.50	6.80	9.05		1.55		
31		78.50		114.95	108.80		80.15		7.40	7.60		1.25		
Total	714.03	1172.85	1084.11	1969.75	2494.86	1310.12	2545.69	1089.25	438.85	628.55	156.80	80.67	13685.53	CMSDAY
Mean	23.80	37.83	36.14	63.54	80.48	43.67	82.12	36.31	14.16	20.28	5.60	2.60	37.49	CMS
Max	43.40	86.20	87.85	152.00	148.75	88.40	247.10	70.80	24.50	46.05	9.40	4.80	247.10	CMS
Min	3.00	17.50	18.50	29.50	43.93	26.50	26.00	25.00	6.80	6.80	3.20	0.50	0.50	CMS
Runoff	61.69	101.33	93.67	170.19	215.56	113.19	219.95	94.11	37.92	54.31	13.55	6.97	1182.43	MCM

Momentary Peak 254.80 CMS. at 134.94 m. (MSL.) at 07.00 Hours , on Oct 26 , 2018

Runoff Yield 3.57 Liters/Second/Square KM. Momentary Peak Yield 24.28 Liters/Second/Square KM.

WATER YEAR : 2018

WANG RIVER BASIN

Wang River at Ban Don Mun , Lampang (W.10A)

Lat 18 - 31 - 16 N Long 99 - 37 - 52 E

Location : on left bank at Ban Don Mun

	Ban Don Mun	**Amphoe** Mueang	**Changwat** Lampang
Drainge Area	2,798 sq.km.		
Type of Gage	Water - stage recorder.		
Zero Gage at Bottom	+259.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank at the bridge.		**Elevation** +270.290 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	1984 to date		
Rating Operation			
Period of Rating	1984 to date		
Rated by Flot	-		
Rated by Current Meter	1984 to date		
Stability of Channel Regimes	Fairly stable because of backwater effect.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair.Stage-discharge relation defined by 44 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

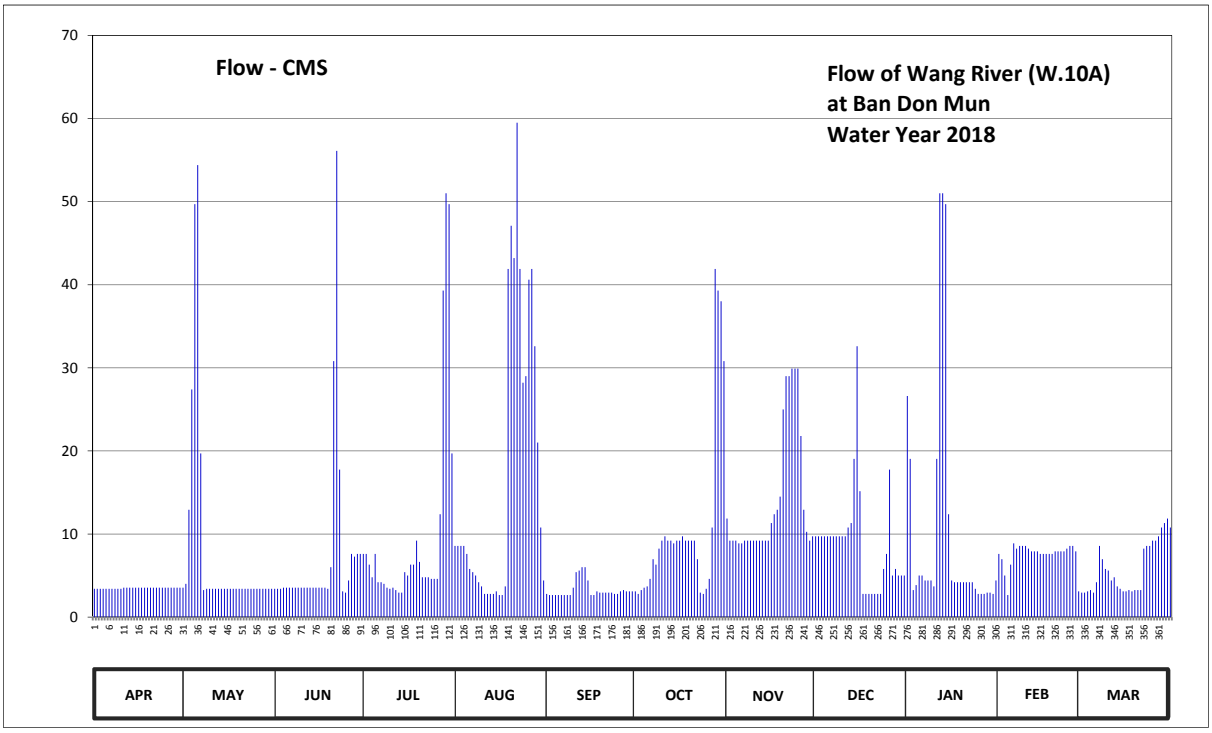
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	259.96	259.97	259.96	260.15	260.18	259.92	259.94	260.25	260.21	260.47	260.15	259.93	
2	259.96	260.00	259.96	260.15	260.18	259.91	259.92	260.20	260.21	260.37	260.13	259.93	
3	259.96	260.27	259.96	260.11	260.18	259.91	259.95	260.20	260.21	259.95	260.05	259.94	
4	259.96	260.48	259.97	260.04	260.18	259.91	259.97	260.20	260.21	259.99	259.91	259.95	
5	259.96	260.69	259.97	260.15	260.15	259.91	259.98	260.19	260.21	260.05	260.11	259.93	
6	259.96	260.72	259.97	260.01	260.09	259.91	260.03	260.19	260.21	260.05	260.19	260.01	
7	259.96	260.38	259.97	260.01	260.07	259.91	260.13	260.20	260.21	260.02	260.17	260.18	
8	259.96	259.95	259.97	260.00	260.05	259.91	260.11	260.20	260.21	260.02	260.18	260.13	
9	259.96	259.96	259.97	259.97	260.01	259.91	260.17	260.20	260.21	260.02	260.18	260.09	
10	259.96	259.96	259.97	259.96	259.98	259.97	260.20	260.20	260.21	259.98	260.18	260.08	
11	259.97	259.96	259.97	259.97	259.92	260.07	260.21	260.20	260.21	260.37	260.17	260.02	
12	259.97	259.96	259.97	259.95	259.92	260.08	260.20	260.20	260.23	260.70	260.16	260.04	
13	259.97	259.96	259.97	259.93	259.92	260.10	260.20	260.20	260.24	260.70	260.16	259.98	
14	259.97	259.96	259.97	259.93	259.92	260.10	260.19	260.20	260.37	260.69	260.16	259.96	
15	259.97	259.96	259.97	260.07	259.94	260.02	260.20	260.20	260.54	260.26	260.15	259.94	
16	259.97	259.96	259.97	260.05	259.91	259.91	260.20	260.24	260.31	260.02	260.15	259.94	
17	259.97	259.96	259.97	260.11	259.91	259.91	260.21	260.26	259.92	260.01	260.15	259.95	
18	259.97	259.96	259.97	260.11	259.98	259.94	260.20	260.27	259.92	260.01	260.15	259.94	
19	259.97	259.96	259.96	260.20	260.63	259.93	260.20	260.30	259.92	260.01	260.15	259.95	
20	259.97	259.96	260.10	260.12	260.67	259.93	260.20	260.45	259.92	260.01	260.16	259.95	
21	259.97	259.96	260.52	260.04	260.64	259.93	260.20	260.50	259.92	260.01	260.16	259.95	
22	259.97	259.96	260.73	260.04	260.75	259.93	260.13	260.50	259.92	260.01	260.16	260.17	
23	259.97	259.96	260.35	260.04	260.63	259.93	259.93	260.51	259.92	260.01	260.16	260.18	
24	259.97	259.96	259.94	260.03	260.49	259.92	259.92	260.51	260.09	259.96	260.17	260.18	
25	259.97	259.96	259.93	260.03	260.50	259.92	259.96	260.51	260.15	259.92	260.18	260.20	
26	259.97	259.96	260.02	260.03	260.62	259.94	260.03	260.41	260.35	259.92	260.18	260.20	
27	259.97	259.96	260.15	260.26	260.63	259.95	260.23	260.27	260.05	259.92	260.16	260.21	
28	259.97	259.96	260.14	260.61	260.54	259.94	260.63	260.22	260.09	259.93	259.94	260.23	
29	259.97	259.96	260.15	260.70	260.40	259.94	260.61	260.20	260.05	259.93		260.24	
30	259.97	259.96	260.15	260.69	260.23	259.94	260.60	260.21	260.05	259.92		260.25	
31		259.96		260.38	260.02		260.52		260.05	260.02		260.23	
Mean	259.97	260.05	260.05	260.12	260.23	259.95	260.17	260.28	260.14	260.10	260.14	260.06	
Max	259.97	260.72	260.73	260.70	260.75	260.10	260.63	260.51	260.54	260.70	260.19	260.25	260.75
Min	259.96	259.95	259.93	259.93	259.91	259.91	259.92	260.19	259.92	259.92	259.91	259.93	259.91

Annual Max Momentary Gage Height 261.10 m. (MSL.) , at 12.00 Hours , on Dec 26 , 2018

Zero Gage at Bottom Elevation 259.00 m. (MSL.) , River Bed 258.06 m. (MSL.)

Left Bank Elevation 270.17 m. (MSL.) ,

Right Bank Elevation 269.86 m. (MSL.) , Drainage Are 2,798 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	3.40	3.55	3.40	7.60	8.56	2.80	3.10	11.85	9.73	26.60	7.60	2.95		
2	3.40	4.00	3.40	7.60	8.56	2.65	2.80	9.20	9.73	19.05	6.96	2.95		
3	3.40	12.91	3.40	6.32	8.56	2.65	3.25	9.20	9.73	3.25	5.00	3.10		
4	3.40	27.40	3.55	4.80	8.56	2.65	3.55	9.20	9.73	3.85	2.65	3.25		
5	3.40	49.70	3.55	7.60	7.60	2.65	3.70	8.88	9.73	5.00	6.32	2.95		
6	3.40	54.40	3.55	4.20	5.80	2.65	4.60	8.88	9.73	5.00	8.88	4.20		
7	3.40	19.70	3.55	4.20	5.40	2.65	6.96	9.20	9.73	4.40	8.24	8.56		
8	3.40	3.25	3.55	4.00	5.00	2.65	6.32	9.20	9.73	4.40	8.56	6.96		
9	3.40	3.40	3.55	3.55	4.20	2.65	8.24	9.20	9.73	4.40	8.56	5.80		
10	3.40	3.40	3.55	3.40	3.70	3.55	9.20	9.20	9.73	3.70	8.56	5.60		
11	3.55	3.40	3.55	3.55	2.80	5.40	9.73	9.20	9.73	19.05	8.24	4.40		
12	3.55	3.40	3.55	3.25	2.80	5.60	9.20	9.20	10.79	51.00	7.92	4.80		
13	3.55	3.40	3.55	2.95	2.80	6.00	9.20	9.20	11.32	51.00	7.92	3.70		
14	3.55	3.40	3.55	2.95	2.80	6.00	8.88	9.20	19.05	49.70	7.92	3.40		
15	3.55	3.40	3.55	5.40	3.10	4.40	9.20	9.20	32.60	12.38	7.60	3.10		
16	3.55	3.40	3.55	5.00	2.65	2.65	9.20	11.32	15.15	4.40	7.60	3.10		
17	3.55	3.40	3.55	6.32	2.65	2.65	9.73	12.38	2.80	4.20	7.60	3.25		
18	3.55	3.40	3.55	6.32	3.70	3.10	9.20	12.91	2.80	4.20	7.60	3.10		
19	3.55	3.40	3.40	9.20	41.90	2.95	9.20	14.50	2.80	4.20	7.60	3.25		
20	3.55	3.40	6.00	6.64	47.10	2.95	9.20	25.00	2.80	4.20	7.92	3.25		
21	3.55	3.40	30.80	4.80	43.20	2.95	9.20	29.00	2.80	4.20	7.92	3.25		
22	3.55	3.40	56.10	4.80	59.50	2.95	6.96	29.00	2.80	4.20	7.92	8.24		
23	3.55	3.40	17.75	4.80	41.90	2.95	2.95	29.90	2.80	4.20	7.92	8.56		
24	3.55	3.40	3.10	4.60	28.20	2.80	2.80	29.90	5.80	3.40	8.24	8.56		
25	3.55	3.40	2.95	4.60	29.00	2.80	3.40	29.90	7.60	2.80	8.56	9.20		
26	3.55	3.40	4.40	4.60	40.60	3.10	4.60	21.80	17.75	2.80	8.56	9.20		
27	3.55	3.40	7.60	12.38	41.90	3.25	10.79	12.91	5.00	2.80	7.92	9.73		
28	3.55	3.40	7.28	39.30	32.60	3.10	41.90	10.26	5.80	2.95	3.10	10.79		
29	3.55	3.40	7.60	51.00	21.00	3.10	39.30	9.20	5.00	2.95		11.32		
30	3.55	3.40	7.60	49.70	10.79	3.10	38.00	9.73	5.00	2.80		11.85		
31		3.40		19.70	4.40		30.80		5.00	4.40		10.79		
Total	105.00	253.11	218.03	305.13	531.33	99.35	335.16	427.72	272.49	321.48	209.39	183.16	3261.35	CMSDAY
Mean	3.50	8.16	7.27	9.84	17.14	3.31	10.81	14.26	8.79	10.37	7.48	5.91	8.94	CMS
Max	3.55	54.40	56.10	51.00	59.50	6.00	41.90	29.90	32.60	51.00	8.88	11.85	59.50	CMS
Min	3.40	3.25	2.95	2.95	2.65	2.65	2.80	8.88	2.80	2.80	2.65	2.95	2.65	CMS
Runoff	9.07	21.87	18.84	26.36	45.91	8.58	28.96	36.96	23.54	27.78	18.09	15.83	281.78	MCM

Momentary Peak 164.00 CMS. at 261.10 m. (MSL.) at 12.00 Hours , on Dec 26 , 2018

Runoff Yield 3.19 Liters/Second/Square KM. Momentary Peak Yield 58.61 Liters/Second/Square KM.

WATER YEAR : 2018

WANG RIVER BASIN

Wang River at Ban Hai , Lampang (W.16A)

Lat 18 - 46 - 45 N Long 99 - 37 - 52 E

Location : on left bank at Ban Hai

	Ban Hai	**Amphoe** Chae Hom	**Changwat** Lampang
Drainge Area	1,392 sq.km.		
Type of Gage	Water - stage recorder.		
Zero Gage at Bottom	+304.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank about 10.00 meters from the top staff gage.		**Elevation** +310.113 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	1995 to date		
Rating Operation			
Period of Rating	1995 to date		
Rated by Flot	-		
Rated by Current Meter	1995 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good.The pumping station is located about 150 meters upstream from the gage site. Stage-discharge relation defined by 42 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

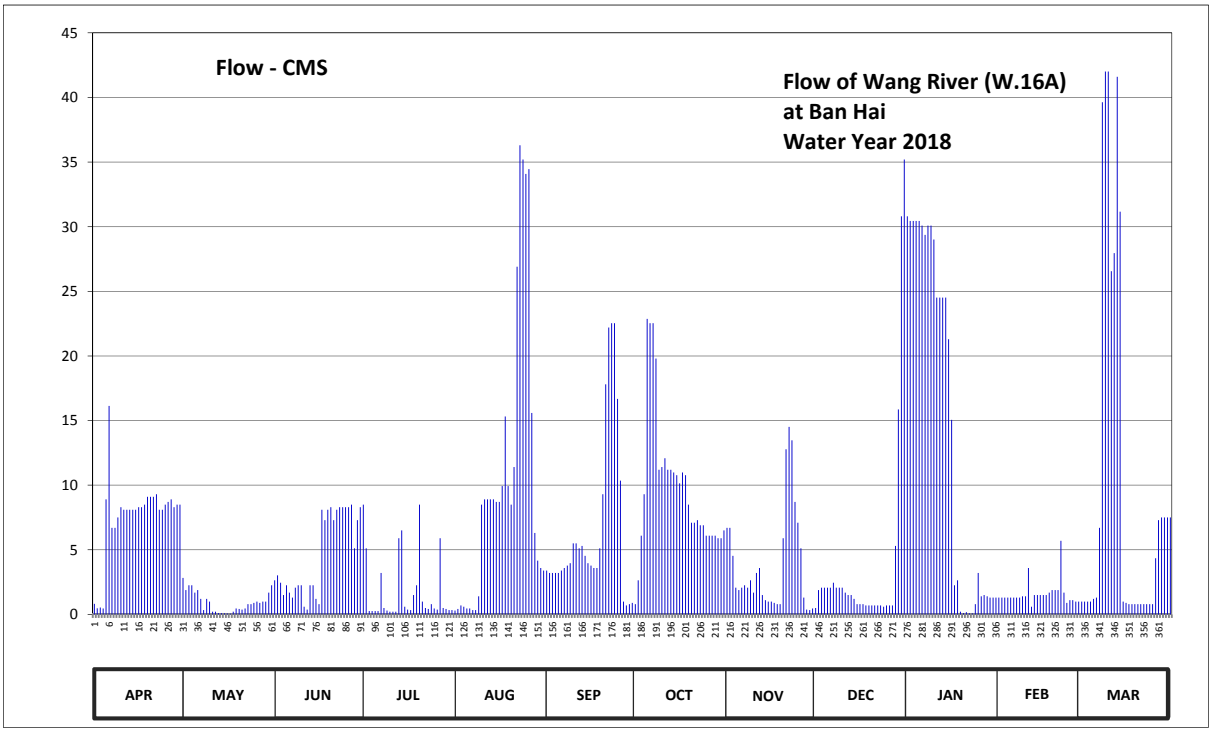
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	305.21	304.87	304.86	305.16	304.65	304.90	304.73	305.07	304.70	305.95	304.78	304.75	
2	304.98	304.82	304.88	304.99	304.68	304.89	304.86	305.07	304.82	305.94	304.78	304.75	
3	305.03	304.84	304.85	304.64	304.72	304.89	305.04	304.96	304.83	305.94	304.78	304.75	
4	304.96	304.84	304.80	304.64	304.71	304.89	305.20	304.83	304.83	305.94	304.78	304.75	
5	305.18	304.81	304.84	304.64	304.69	304.89	305.72	304.82	304.83	305.94	304.78	304.77	
6	305.49	304.82	304.81	304.64	304.69	304.90	305.71	304.83	304.83	305.93	304.78	304.78	
7	305.07	304.77	304.78	304.89	304.66	304.91	305.71	304.84	304.85	305.91	304.78	305.07	
8	305.07	304.66	304.83	304.70	304.66	304.92	305.62	304.83	304.83	305.93	304.78	306.19	
9	305.11	304.77	304.84	304.65	304.79	304.93	305.29	304.86	304.83	305.93	304.79	306.25	
10	305.15	304.75	304.84	304.63	305.16	305.01	305.30	304.81	304.83	305.90	304.79	306.25	
11	305.14	304.63	304.71	304.63	305.18	305.01	305.33	304.89	304.81	305.77	304.91	305.83	
12	305.14	304.63	304.67	304.63	305.18	304.99	305.29	304.91	304.80	305.77	304.71	305.87	
13	305.14	304.60	304.84	305.03	305.18	305.00	305.29	304.80	304.80	305.77	304.80	306.24	
14	305.14	304.60	304.84	305.06	305.18	304.96	305.28	304.76	304.77	305.77	304.80	305.96	
15	305.14	304.59	304.77	304.71	305.17	304.93	305.27	304.75	304.73	305.67	304.80	304.75	
16	305.15	304.58	304.73	304.67	305.17	304.92	305.24	304.75	304.73	305.45	304.80	304.74	
17	305.15	304.57	305.14	304.66	305.23	304.91	305.28	304.74	304.73	304.84	304.80	304.73	
18	305.16	304.63	305.10	304.80	305.46	304.91	305.27	304.73	304.72	304.86	304.81	304.73	
19	305.19	304.69	305.14	304.84	305.23	304.99	305.16	304.73	304.72	304.63	304.82	304.73	
20	305.19	304.68	305.15	305.16	305.16	305.20	305.09	305.03	304.72	304.60	304.82	304.73	
21	305.19	304.67	305.10	304.75	305.30	305.55	305.09	305.36	304.72	304.62	304.82	304.73	
22	305.20	304.69	305.14	304.70	305.84	305.70	305.10	305.43	304.72	304.59	305.02	304.73	
23	305.14	304.73	305.15	304.68	306.10	305.71	305.08	305.39	304.72	304.59	304.81	304.73	
24	305.14	304.73	305.15	304.73	306.07	305.71	305.08	305.17	304.71	304.73	304.74	304.73	
25	305.16	304.74	305.15	304.69	306.04	305.51	305.04	305.09	304.72	304.89	304.76	304.73	
26	305.17	304.75	305.15	304.67	306.05	305.25	305.04	304.99	304.72	304.79	304.76	304.95	
27	305.18	304.74	305.16	305.03	305.47	304.75	305.04	304.78	304.72	304.80	304.75	305.10	
28	305.15	304.75	304.99	304.70	305.05	304.72	305.04	304.67	305.00	304.79	304.75	305.11	
29	305.16	304.75	305.10	304.68	304.94	304.73	305.03	304.66	305.48	304.78		305.11	
30	305.16	304.81	305.15	304.66	304.91	304.74	305.03	304.69	305.95	304.78		305.11	
31		304.84		304.66	304.90		305.06		306.07	304.78		305.11	
Mean	305.15	304.72	304.96	304.77	305.17	305.04	305.20	304.91	304.88	305.31	304.80	305.12	
Max	305.49	304.87	305.16	305.16	306.10	305.71	305.72	305.43	306.07	305.95	305.02	306.25	306.25
Min	304.96	304.57	304.67	304.63	304.65	304.72	304.73	304.66	304.70	304.59	304.71	304.73	304.57

Annual Max Momentary Gage Height 306.28 m. (MSL.) , at 16.00 Hours , on Mar 13 , 2018

Zero Gage at Bottom Elevation 304.00 m. (MSL.) , River Bed 303.43 m. (MSL.)

Left Bank Elevation 310.13 m. (MSL.) ,

Right Bank Elevation 310.11 m. (MSL.) , Drainage Are 1,392 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.82	2.83	2.64	8.50	0.30	3.40	0.80	6.70	0.50	30.80	1.30	1.00		
2	0.48	1.88	3.02	5.11	0.42	3.21	2.64	6.70	1.88	30.44	1.30	1.00		
3	0.53	2.26	2.45	0.26	0.70	3.21	6.10	4.54	2.07	30.44	1.30	1.00		
4	0.46	2.26	1.50	0.26	0.60	3.21	9.30	2.07	2.07	30.44	1.30	1.00		
5	8.90	1.69	2.26	0.26	0.46	3.21	22.86	1.88	2.07	30.44	1.30	1.20		
6	16.13	1.88	1.69	0.26	0.46	3.40	22.53	2.07	2.07	30.08	1.30	1.30		
7	6.70	1.20	1.30	3.21	0.34	3.59	22.53	2.26	2.45	29.36	1.30	6.70		
8	6.70	0.34	2.07	0.50	0.34	3.78	19.80	2.07	2.07	30.08	1.30	39.63		
9	7.50	1.20	2.26	0.30	1.40	3.97	11.19	2.64	2.07	30.08	1.40	42.00		
10	8.30	1.00	2.26	0.22	8.50	5.50	11.40	1.69	2.07	29.00	1.40	42.00		
11	8.10	0.22	0.60	0.22	8.90	5.50	12.09	3.21	1.69	24.51	3.59	26.55		
12	8.10	0.22	0.38	0.22	8.90	5.11	11.19	3.59	1.50	24.51	0.60	27.95		
13	8.10	0.10	2.26	5.90	8.90	5.30	11.19	1.50	1.50	24.51	1.50	41.60		
14	8.10	0.10	2.26	6.50	8.90	4.54	10.98	1.10	1.20	24.51	1.50	31.16		
15	8.10	0.09	1.20	0.60	8.70	3.97	10.77	1.00	0.80	21.30	1.50	1.00		
16	8.30	0.08	0.80	0.38	8.70	3.78	10.14	1.00	0.80	15.05	1.50	0.90		
17	8.30	0.07	8.10	0.34	9.93	3.59	10.98	0.90	0.80	2.26	1.50	0.80		
18	8.50	0.22	7.30	1.50	15.32	3.59	10.77	0.80	0.70	2.64	1.69	0.80		
19	9.10	0.46	8.10	2.26	9.93	5.11	8.50	0.80	0.70	0.22	1.88	0.80		
20	9.10	0.42	8.30	8.50	8.50	9.30	7.10	5.90	0.70	0.10	1.88	0.80		
21	9.10	0.38	7.30	1.00	11.40	17.80	7.10	12.78	0.70	0.18	1.88	0.80		
22	9.30	0.46	8.10	0.50	26.90	22.20	7.30	14.51	0.70	0.09	5.70	0.80		
23	8.10	0.80	8.30	0.42	36.30	22.53	6.90	13.47	0.70	0.09	1.69	0.80		
24	8.10	0.80	8.30	0.80	35.19	22.53	6.90	8.70	0.60	0.80	0.90	0.80		
25	8.50	0.90	8.30	0.46	34.08	16.68	6.10	7.10	0.70	3.21	1.10	0.80		
26	8.70	1.00	8.30	0.38	34.45	10.35	6.10	5.11	0.70	1.40	1.10	4.35		
27	8.90	0.90	8.50	5.90	15.59	1.00	6.10	1.30	0.70	1.50	1.00	7.30		
28	8.30	1.00	5.11	0.50	6.30	0.70	6.10	0.38	5.30	1.40	1.00	7.50		
29	8.50	1.00	7.30	0.42	4.16	0.80	5.90	0.34	15.86	1.30		7.50		
30	8.50	1.69	8.30	0.34	3.59	0.90	5.90	0.46	30.80	1.30		7.50		
31		2.26		0.34	3.40		6.50		35.19	1.30		7.50		
Total	226.32	29.71	138.56	56.36	321.56	201.76	303.76	116.57	121.66	453.34	44.71	314.84	2329.15	CMSDAY
Mean	7.54	0.96	4.62	1.82	10.37	6.73	9.80	3.89	3.92	14.62	1.60	10.16	6.38	CMS
Max	16.13	2.83	8.50	8.50	36.30	22.53	22.86	14.51	35.19	30.80	5.70	42.00	42.00	CMS
Min	0.46	0.07	0.38	0.22	0.30	0.70	0.80	0.34	0.50	0.09	0.60	0.80	0.07	CMS
Runoff	19.55	2.57	11.97	4.87	27.78	17.43	26.24	10.07	10.51	39.17	3.86	27.20	201.24	MCM

Momentary Peak 43.20 CMS. at 306.28 m. (MSL.) at 16.00 Hours , on Mar 13 , 2018

Runoff Yield 4.58 Liters/Second/Square KM. Momentary Peak Yield 31.03 Liters/Second/Square KM.

WATER YEAR : 2018

WANG RIVER BASIN

Nam Mae Soi at Ban Nong Nao , Lampang (W.17)

Lat 18 - 43 - 13 N Long 99 - 34 - 04 E

Location : on right at the bridge of Lampang - Wang Nua Road.

Ban Nong Nao **Amphoe** Chae Hom **Changwat** Lampang

Drainge Area	726 sq.km.
Type of Gage	Water - stage recorder.
Zero Gage at Bottom	+292.000 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	About 21 meters from the top staff gage. **Elevation** +296.276 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	1980 to date
Rating Operation	
Period of Rating	1980 to date
Rated by Flot	-
Rated by Current Meter	1980 to date
Stability of Channel Regimes	Fairly stable because of backwater effect.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair.The local weir situated about 500 meters downstream from the gage site. Stage-discharge relation defined by 43 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

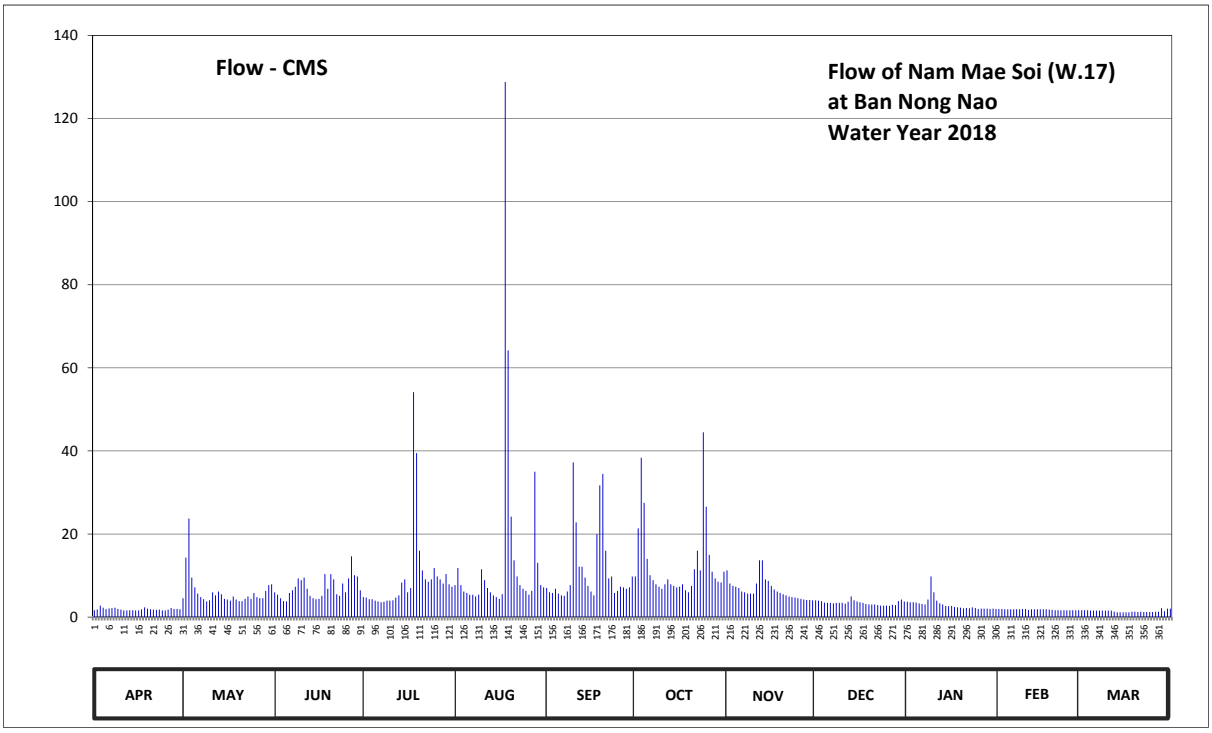
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	291.35	291.41	291.51	291.43	291.61	291.57	291.71	291.76	291.36	291.32	291.12	291.08	
2	291.41	291.86	291.47	291.42	291.78	291.51	292.04	291.63	291.35	291.31	291.12	291.08	
3	291.57	292.09	291.41	291.39	291.61	291.50	292.37	291.60	291.34	291.31	291.11	291.08	
4	291.51	291.70	291.34	291.39	291.52	291.56	292.17	291.59	291.30	291.30	291.11	291.07	
5	291.43	291.58	291.33	291.35	291.50	291.49	291.85	291.57	291.29	291.28	291.11	291.07	
6	291.47	291.49	291.50	291.33	291.47	291.46	291.72	291.52	291.29	291.26	291.11	291.07	
7	291.49	291.43	291.54	291.31	291.47	291.45	291.67	291.51	291.28	291.25	291.11	291.07	
8	291.51	291.39	291.59	291.32	291.44	291.52	291.62	291.49	291.29	291.38	291.11	291.07	
9	291.44	291.33	291.69	291.35	291.47	291.61	291.59	291.49	291.29	291.71	291.12	291.07	
10	291.40	291.36	291.67	291.35	291.77	292.35	291.56	291.49	291.29	291.51	291.12	291.07	
11	291.34	291.51	291.70	291.36	291.67	292.07	291.62	291.63	291.27	291.35	291.09	291.07	
12	291.34	291.46	291.56	291.42	291.57	291.79	291.68	291.84	291.32	291.28	291.11	291.04	
13	291.35	291.52	291.45	291.46	291.51	291.79	291.62	291.84	291.44	291.25	291.11	291.02	
14	291.35	291.48	291.41	291.64	291.46	291.70	291.60	291.68	291.36	291.21	291.11	291.02	
15	291.34	291.40	291.39	291.68	291.43	291.60	291.58	291.66	291.33	291.20	291.11	291.02	
16	291.34	291.38	291.40	291.51	291.40	291.52	291.59	291.60	291.31	291.21	291.11	291.02	
17	291.42	291.35	291.45	291.57	291.48	291.46	291.62	291.55	291.29	291.18	291.11	291.02	
18	291.52	291.44	291.73	292.62	293.61	292.01	291.54	291.52	291.26	291.17	291.10	291.04	
19	291.46	291.38	291.56	292.39	292.77	292.25	291.51	291.50	291.25	291.16	291.09	291.04	
20	291.42	291.34	291.73	291.91	292.10	292.30	291.60	291.48	291.25	291.14	291.08	291.03	
21	291.40	291.34	291.68	291.76	291.84	291.91	291.77	291.46	291.25	291.15	291.08	291.04	
22	291.38	291.40	291.48	291.68	291.71	291.69	291.91	291.44	291.23	291.14	291.08	291.03	
23	291.40	291.44	291.45	291.65	291.61	291.71	291.76	291.43	291.22	291.17	291.08	291.03	
24	291.34	291.40	291.63	291.68	291.56	291.50	292.47	291.42	291.22	291.15	291.08	291.03	
25	291.34	291.50	291.51	291.78	291.53	291.53	292.15	291.41	291.22	291.12	291.08	291.03	
26	291.40	291.43	291.69	291.71	291.47	291.59	291.88	291.40	291.21	291.13	291.08	291.04	
27	291.50	291.41	291.87	291.68	291.53	291.58	291.75	291.38	291.24	291.13	291.08	291.24	
28	291.44	291.41	291.72	291.63	292.31	291.56	291.69	291.37	291.23	291.13	291.08	291.49	
29	291.44	291.53	291.71	291.73	291.82	291.58	291.65	291.37	291.34	291.12		291.27	
30	291.42	291.61	291.54	291.62	291.61	291.71	291.64	291.36	291.38	291.13		291.46	
31		291.62		291.59	291.58		291.75		291.33	291.12		291.46	
Mean	291.42	291.48	291.56	291.60	291.72	291.70	291.76	291.53	291.29	291.23	291.10	291.10	
Max	291.57	292.09	291.87	292.62	293.61	292.35	292.47	291.84	291.44	291.71	291.12	291.49	293.61
Min	291.34	291.33	291.33	291.31	291.40	291.45	291.51	291.36	291.21	291.12	291.08	291.02	291.02

Annual Max Momentary Gage Height 294.64 m. (MSL.) , at 12.00 Hours , on Aug 18 , 2018

Zero Gage at Bottom Elevation 292.00 m. (MSL.) , River Bed 290.73 m. (MSL.)

Left Bank Elevation 296.51 m. (MSL.) ,

Right Bank Elevation 296.46 m. (MSL.) , Drainage Are 726 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.65	4.54	5.97	4.82	7.70	6.99	9.79	11.24	4.04	3.68	1.96	1.64		
2	1.84	14.32	5.38	4.68	11.82	5.97	21.38	8.10	3.95	3.59	1.96	1.64		
3	2.76	23.73	4.54	4.31	7.70	5.80	38.34	7.50	3.86	3.59	1.88	1.64		
4	2.28	9.50	3.86	4.31	6.14	6.82	27.49	7.33	3.50	3.50	1.88	1.56		
5	1.92	7.16	3.77	3.95	5.80	5.66	14.00	6.99	3.41	3.32	1.88	1.56		
6	2.08	5.66	5.80	3.77	5.38	5.24	10.08	6.14	3.41	3.14	1.88	1.56		
7	2.16	4.82	6.48	3.59	5.38	5.10	8.90	5.97	3.32	3.05	1.88	1.56		
8	2.28	4.31	7.33	3.68	4.96	6.14	7.90	5.66	3.41	4.22	1.88	1.56		
9	1.96	3.77	9.30	3.95	5.38	7.70	7.33	5.66	3.41	9.79	1.96	1.56		
10	1.80	4.04	8.90	3.95	11.53	37.23	6.82	5.66	3.41	5.97	1.96	1.56		
11	1.62	5.97	9.50	4.04	8.90	22.79	7.90	8.10	3.23	3.95	1.72	1.56		
12	1.62	5.24	6.82	4.68	6.99	12.11	9.10	13.68	3.68	3.32	1.88	1.32		
13	1.65	6.14	5.10	5.24	5.97	12.11	7.90	13.68	4.96	3.05	1.88	1.16		
14	1.65	5.52	4.54	8.30	5.24	9.50	7.50	9.10	4.04	2.69	1.88	1.16		
15	1.62	4.40	4.31	9.10	4.82	7.50	7.16	8.70	3.77	2.60	1.88	1.16		
16	1.62	4.22	4.40	5.97	4.40	6.14	7.33	7.50	3.59	2.69	1.88	1.16		
17	1.88	3.95	5.10	6.99	5.52	5.24	7.90	6.65	3.41	2.44	1.88	1.16		
18	2.36	4.96	10.37	54.14	128.83	19.97	6.48	6.14	3.14	2.36	1.80	1.32		
19	2.04	4.22	6.82	39.45	64.19	31.68	5.97	5.80	3.05	2.28	1.72	1.32		
20	1.88	3.86	10.37	15.99	24.20	34.45	7.50	5.52	3.05	2.12	1.64	1.24		
21	1.80	3.86	9.10	11.24	13.68	15.99	11.53	5.24	3.05	2.20	1.64	1.32		
22	1.74	4.40	5.52	9.10	9.79	9.30	15.99	4.96	2.87	2.12	1.64	1.24		
23	1.80	4.96	5.10	8.50	7.70	9.79	11.24	4.82	2.78	2.36	1.64	1.24		
24	1.62	4.40	8.10	9.10	6.82	5.80	44.48	4.68	2.78	2.20	1.64	1.24		
25	1.62	5.80	5.97	11.82	6.31	6.31	26.55	4.54	2.78	1.96	1.64	1.24		
26	1.80	4.82	9.30	9.79	5.38	7.33	14.96	4.40	2.69	2.04	1.64	1.32		
27	2.20	4.54	14.64	9.10	6.31	7.16	10.95	4.22	2.96	2.04	1.64	1.32		
28	1.96	4.54	10.08	8.10	35.01	6.82	9.30	4.13	2.87	2.04	1.64	2.16		
29	1.96	6.31	9.79	10.37	13.04	7.16	8.50	4.13	3.86	1.96		1.41		
30	1.88	7.70	6.48	7.90	7.70	9.79	8.30	4.04	4.22	2.04		2.04		
31		7.90		7.33	7.16		10.95		3.77	1.96		2.04		
Total	57.05	189.56	212.74	297.26	449.75	339.59	399.52	200.28	106.27	94.27	50.40	44.97	2441.66	CMSDAY
Mean	1.90	6.11	7.09	9.59	14.51	11.32	12.89	6.68	3.43	3.04	1.80	1.45	6.69	CMS
Max	2.76	23.73	14.64	54.14	128.83	37.23	44.48	13.68	4.96	9.79	1.96	2.16	128.83	CMS
Min	1.62	3.77	3.77	3.59	4.40	5.10	5.97	4.04	2.69	1.96	1.64	1.16	1.16	CMS
Runoff	4.93	16.38	18.38	25.68	38.86	29.34	34.52	17.30	9.18	8.14	4.35	3.89	210.96	MCM

Momentary Peak 218.64 CMS. at 294.64 m. (MSL.) at 12.00 Hours , on Aug 18 , 2018

Runoff Yield 9.21 Liters/Second/Square KM. Momentary Peak Yield 301.16 Liters/Second/Square KM.

WATER YEAR : 2018

WANG RIVER BASIN

Nam Mae Tui at Ban Tha Lo , Lampang (W.20)

Lat 18 - 18 - 34 N Long 99 - 27 - 40 E

Location : on left bank at the bridge of Lampang - Hang Chat Highway.

Ban Tha Lo **Amphoe** Mueang **Changwat** Lampang

Drainge Area	1,065 sq.km.
Type of Gage	Staff gage.
Zero Gage at Bottom	+230.420 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank at the approach of the bridge. **Elevation** +237.644 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic mean of 3 readings.
Period of Available Gage Records	1993 to date
Rating Operation	
Period of Rating	1993 to date
Rated by Flot	-
Rated by Current Meter	1993 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good.Flow effected by the local weir about 200 meters downstream from the gage site. Stage-discharge relation defined by 51 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

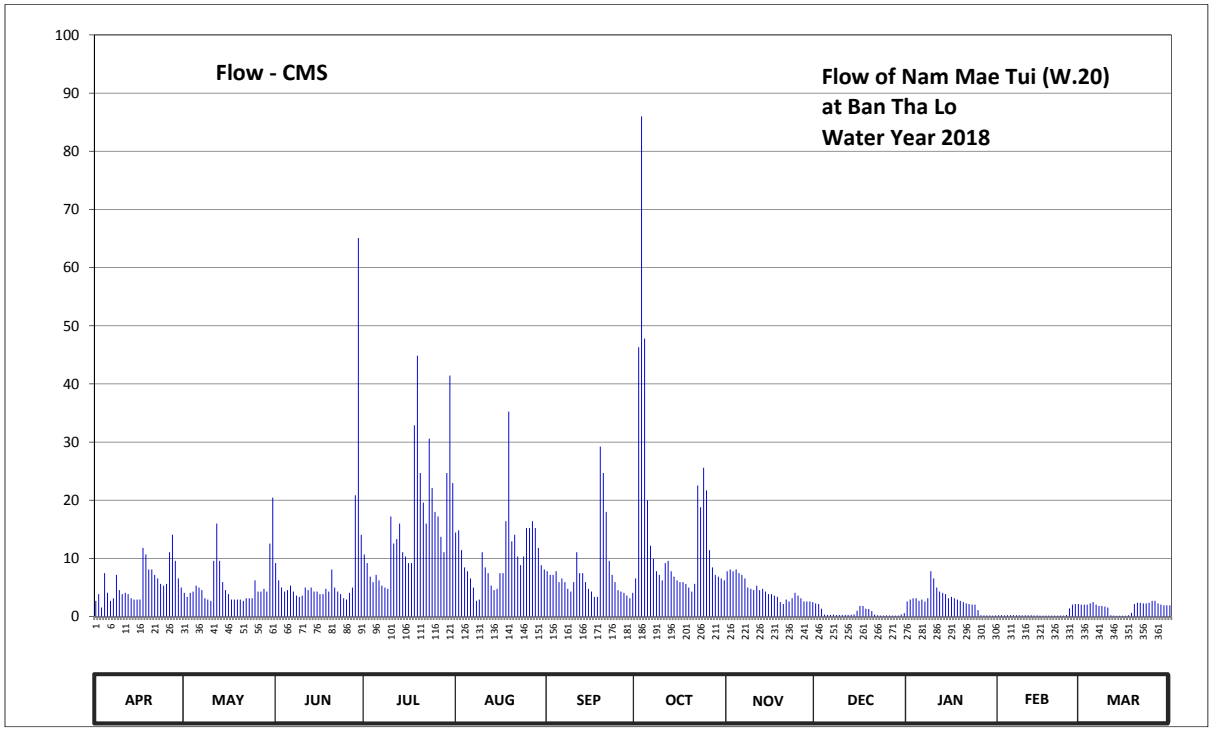
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	230.70	230.76	230.93	230.97	231.07	230.89	230.85	230.89	230.66	230.69	230.21	230.64	
2	230.75	230.73	230.84	230.93	231.08	230.87	231.78	230.90	230.65	230.71	230.21	230.64	
3	230.59	230.76	230.80	230.86	230.99	230.87	232.52	230.89	230.56	230.72	230.20	230.64	
4	230.88	230.77	230.77	230.83	230.91	230.89	231.81	230.90	230.27	230.72	230.22	230.66	
5	230.76	230.81	230.78	230.87	230.89	230.83	231.21	230.88	230.25	230.70	230.22	230.68	
6	230.70	230.80	230.81	230.84	230.85	230.85	231.01	230.87	230.24	230.71	230.23	230.64	
7	230.72	230.78	230.77	230.81	230.80	230.83	230.95	230.85	230.27	230.69	230.21	230.62	
8	230.87	230.72	230.74	230.80	230.70	230.79	230.89	230.80	230.23	230.72	230.21	230.62	
9	230.78	230.71	230.73	230.79	230.71	230.77	230.87	230.79	230.25	230.89	230.22	230.61	
10	230.75	230.70	230.74	231.14	230.98	230.83	230.84	230.78	230.25	230.85	230.22	230.59	
11	230.76	230.94	230.80	231.02	230.91	230.98	230.93	230.81	230.25	230.80	230.22	230.22	
12	230.75	231.11	230.78	231.04	230.88	230.88	230.94	230.78	230.24	230.77	230.21	230.17	
13	230.72	230.94	230.80	231.11	230.81	230.88	230.89	230.79	230.26	230.76	230.20	230.16	
14	230.71	230.83	230.77	230.98	230.78	230.83	230.86	230.77	230.29	230.75	230.20	230.15	
15	230.71	230.78	230.77	230.96	230.79	230.79	230.84	230.75	230.50	230.72	230.19	230.15	
16	230.71	230.75	230.75	230.93	230.88	230.77	230.83	230.75	230.62	230.73	230.19	230.16	
17	231.00	230.71	230.75	230.93	230.88	230.73	230.83	230.74	230.62	230.72	230.18	230.22	
18	230.97	230.71	230.79	231.50	231.12	230.73	230.82	230.73	230.56	230.71	230.18	230.41	
19	230.90	230.71	230.77	231.75	231.55	231.42	230.80	230.68	230.55	230.70	230.17	230.65	
20	230.90	230.71	230.90	231.32	231.03	231.32	230.77	230.65	230.49	230.68	230.17	230.67	
21	230.87	230.70	230.80	231.20	231.06	231.16	230.82	230.71	230.27	230.66	230.17	230.67	
22	230.85	230.72	230.77	231.11	230.96	230.94	231.27	230.69	230.21	230.65	230.18	230.66	
23	230.82	230.72	230.75	231.45	230.92	230.87	231.18	230.72	230.19	230.64	230.19	230.66	
24	230.81	230.72	230.72	231.26	230.96	230.83	231.34	230.76	230.19	230.64	230.23	230.67	
25	230.82	230.84	230.71	231.16	231.09	230.78	231.25	230.74	230.20	230.52	230.57	230.70	
26	230.98	230.77	230.76	231.14	231.09	230.77	230.99	230.72	230.19	230.22	230.64	230.70	
27	231.06	230.77	230.80	231.05	231.12	230.76	230.91	230.69	230.18	230.20	230.65	230.66	
28	230.94	230.79	231.23	230.98	231.09	230.74	230.87	230.69	230.19	230.20	230.65	230.64	
29	230.85	230.77	232.14	231.32	231.00	230.72	230.86	230.69	230.19	230.20		230.63	
30	230.80	231.02	231.06	231.68	230.92	230.76	230.85	230.68	230.29	230.19		230.63	
31		231.22		231.28	230.90		230.84		230.39	230.20		230.63	
Mean	230.81	230.80	230.85	231.10	230.96	230.87	231.05	230.77	230.34	230.61	230.26	230.53	
Max	231.06	231.22	232.14	231.75	231.55	231.42	232.52	230.90	230.66	230.89	230.65	230.70	232.52
Min	230.59	230.70	230.71	230.79	230.70	230.72	230.77	230.65	230.18	230.19	230.17	230.15	230.15

Annual Max Momentary Gage Height 232.72 m. (MSL.) , at 06.00 Hours , on Jun 29 , 2018

Zero Gage at Bottom Elevation 230.42 m. (MSL.) , River Bed 229.23 m. (MSL.)

Left Bank Elevation 238.02 m. (MSL.) ,

Right Bank Elevation 238.07 m. (MSL.) , Drainage Are 1,065 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.70	4.08	9.21	10.69	14.46	7.79	6.55	7.79	2.26	2.59	0.22	2.04		
2	3.85	3.39	6.24	9.21	14.84	7.17	46.32	8.10	2.15	2.93	0.22	2.04		
3	1.54	4.08	5.00	6.86	11.43	7.17	86.00	7.79	1.36	3.16	0.20	2.04		
4	7.48	4.31	4.31	5.93	8.47	7.79	47.80	8.10	0.34	3.16	0.24	2.26		
5	4.08	5.31	4.54	7.17	7.79	5.93	20.02	7.48	0.30	2.70	0.24	2.48		
6	2.70	5.00	5.31	6.24	6.55	6.55	12.18	7.17	0.28	2.93	0.26	2.04		
7	3.16	4.54	4.31	5.31	5.00	5.93	9.95	6.55	0.34	2.59	0.22	1.82		
8	7.17	3.16	3.62	5.00	2.70	4.77	7.79	5.00	0.26	3.16	0.22	1.82		
9	4.54	2.93	3.39	4.77	2.93	4.31	7.17	4.77	0.30	7.79	0.24	1.71		
10	3.85	2.70	3.62	17.20	11.06	5.93	6.24	4.54	0.30	6.55	0.24	1.54		
11	4.08	9.58	5.00	12.56	8.47	11.06	9.21	5.31	0.30	5.00	0.24	0.24		
12	3.85	16.00	4.54	13.32	7.48	7.48	9.58	4.54	0.28	4.31	0.22	0.17		
13	3.16	9.58	5.00	16.00	5.31	7.48	7.79	4.77	0.32	4.08	0.20	0.16		
14	2.93	5.93	4.31	11.06	4.54	5.93	6.86	4.31	0.38	3.85	0.20	0.15		
15	2.93	4.54	4.31	10.32	4.77	4.77	6.24	3.85	1.00	3.16	0.19	0.15		
16	2.93	3.85	3.85	9.21	7.48	4.31	5.93	3.85	1.82	3.39	0.19	0.16		
17	11.80	2.93	3.85	9.21	7.48	3.39	5.93	3.62	1.82	3.16	0.18	0.24		
18	10.69	2.93	4.77	32.90	16.40	3.39	5.62	3.39	1.36	2.93	0.18	0.64		
19	8.10	2.93	4.31	44.85	35.25	29.22	5.00	2.48	1.30	2.70	0.17	2.15		
20	8.10	2.93	8.10	24.70	12.94	24.70	4.31	2.15	0.96	2.48	0.17	2.37		
21	7.17	2.70	5.00	19.60	14.08	18.00	5.62	2.93	0.34	2.26	0.17	2.37		
22	6.55	3.16	4.31	16.00	10.32	9.58	22.54	2.59	0.22	2.15	0.18	2.26		
23	5.62	3.16	3.85	30.60	8.84	7.17	18.80	3.16	0.19	2.04	0.19	2.26		
24	5.31	3.16	3.16	22.12	10.32	5.93	25.60	4.08	0.19	2.04	0.26	2.37		
25	5.62	6.24	2.93	18.00	15.22	4.54	21.70	3.62	0.20	1.12	1.42	2.70		
26	11.06	4.31	4.08	17.20	15.22	4.31	11.43	3.16	0.19	0.24	2.04	2.70		
27	14.08	4.31	5.00	13.70	16.40	4.08	8.47	2.59	0.18	0.20	2.15	2.26		
28	9.58	4.77	20.86	11.06	15.22	3.62	7.17	2.59	0.19	0.20	2.15	2.04		
29	6.55	4.31	65.09	24.70	11.80	3.16	6.86	2.59	0.19	0.20		1.93		
30	5.00	12.56	14.08	41.44	8.84	4.08	6.55	2.48	0.38	0.19		1.93		
31		20.44		22.96	8.10		6.24		0.58	0.20		1.93		
Total	176.18	169.82	225.95	499.89	329.71	229.54	457.47	135.35	20.28	83.46	12.80	50.97	2391.42	CMSDAY
Mean	5.87	5.48	7.53	16.13	10.64	7.65	14.76	4.51	0.65	2.69	0.46	1.64	6.55	CMS
Max	14.08	20.44	65.09	44.85	35.25	29.22	86.00	8.10	2.26	7.79	2.15	2.70	86.00	CMS
Min	1.54	2.70	2.93	4.77	2.70	3.16	4.31	2.15	0.18	0.19	0.17	0.15	0.15	CMS
Runoff	15.22	14.67	19.52	43.19	28.49	19.83	39.53	11.69	1.75	7.21	1.11	4.40	206.62	MCM

Momentary Peak 97.62 CMS. at 232.72 m. (MSL.) at 06.00 Hours , on Jun 29 , 2018

Runoff Yield 6.96 Liters/Second/Square KM. Momentary Peak Yield 103.74 Liters/Second/Square KM.

WATER YEAR : 2018

WANG RIVER BASIN

Wang River at Ban Tha Dua , Lampang (W.21)

Lat 18 - 20 - 18 N Long 99 - 32 - 27 E

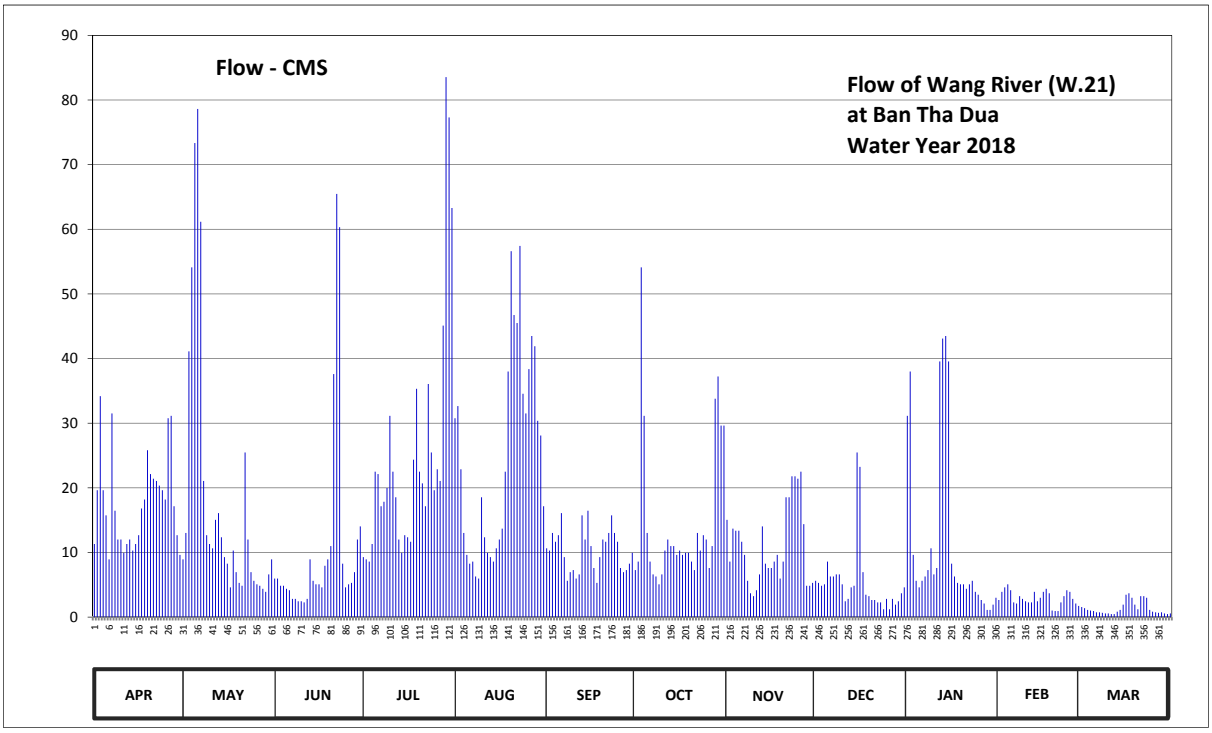
Location : on left bank at the bridge on highway.

	Ban Tha Dua	**Amphoe** Mueang	**Changwat** Lampang
Drainge Area	3,367 sq.km.		
Type of Gage	Staff gage.		
Zero Gage at Bottom	+232.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank about 5 meters from the top staff gage.		**Elevation** +236.495 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic mean of 3 readings.		
Period of Available Gage Records	1999 to date		
Rating Operation			
Period of Rating	1999 to date		
Rated by Flot	-		
Rated by Current Meter	1999 to date		
Stability of Channel Regimes	Fairly stable because of backwater effect.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair.Stage-discharge relation defined by 48 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	232.08	232.01	231.92	232.02	232.62	232.06	231.96	232.19	231.91	232.63	231.78	231.72	
2	232.32	232.13	231.92	232.01	232.67	232.05	232.00	232.00	231.90	232.81	231.84	231.71	
3	232.71	232.89	231.88	232.00	232.41	232.13	233.21	232.15	231.88	232.03	231.87	231.69	
4	232.32	233.21	231.88	232.08	232.13	232.09	232.63	232.14	231.89	231.91	231.89	231.68	
5	232.21	233.66	231.86	232.40	232.03	232.12	232.13	232.14	232.00	231.87	231.85	231.67	
6	232.01	233.78	231.85	232.39	231.99	232.22	232.00	232.09	231.93	231.91	231.76	231.65	
7	232.64	233.38	231.79	232.25	232.00	232.02	231.94	232.03	231.93	231.93	231.75	231.65	
8	232.23	232.36	231.79	232.27	231.93	231.91	231.93	231.91	231.94	231.96	231.81	231.64	
9	232.10	232.12	231.77	232.33	231.92	231.95	231.89	231.83	231.94	232.06	231.79	231.63	
10	232.10	232.08	231.77	232.63	232.29	231.96	231.94	231.81	231.89	231.94	231.77	231.63	
11	232.04	232.06	231.76	232.40	232.11	231.92	232.05	231.85	231.77	231.97	231.76	231.62	
12	232.08	232.19	231.79	232.29	232.04	231.94	232.10	231.94	231.79	232.85	231.76	231.62	
13	232.10	232.22	232.01	232.10	232.02	232.21	232.07	232.16	231.87	232.94	231.84	231.66	
14	232.05	232.11	231.91	232.04	232.00	232.10	232.07	231.99	231.88	232.95	231.77	231.69	
15	232.08	232.02	231.89	232.12	232.06	232.23	232.03	231.97	232.48	232.85	231.80	231.74	
16	232.12	231.99	231.89	232.11	232.10	232.07	232.05	231.97	232.42	231.99	231.84	231.82	
17	232.24	231.87	231.87	232.09	232.15	231.97	232.03	232.00	231.95	231.93	231.86	231.83	
18	232.28	232.05	231.98	232.45	232.40	231.90	232.04	232.03	231.82	231.90	231.83	231.80	
19	232.49	231.95	232.01	232.74	232.81	232.02	232.04	231.92	231.81	231.89	231.68	231.74	
20	232.39	231.90	232.07	232.40	233.27	232.10	232.00	232.00	231.78	231.89	231.67	231.70	
21	232.37	231.88	232.80	232.35	233.03	232.09	231.96	232.29	231.78	231.86	231.67	231.81	
22	232.36	232.48	233.48	232.25	233.00	232.13	232.13	232.29	231.76	231.89	231.76	231.81	
23	232.34	232.10	233.36	232.76	233.29	232.21	232.05	232.38	231.76	231.91	231.81	231.80	
24	232.32	231.95	231.99	232.48	232.72	232.13	232.12	232.38	231.70	231.84	231.85	231.69	
25	232.28	231.91	231.87	232.32	232.64	232.09	232.10	232.37	231.79	231.82	231.84	231.66	
26	232.62	231.89	231.89	232.41	232.82	231.97	231.97	232.40	231.70	231.78	231.79	231.65	
27	232.63	231.88	231.90	232.36	232.95	231.95	232.07	232.17	231.79	231.75	231.75	231.64	
28	232.25	231.86	231.95	232.99	232.91	231.96	232.70	231.88	231.74	231.69	231.73	231.65	
29	232.12	231.84	232.10	233.89	232.61	231.99	232.79	231.88	231.77	231.69		231.63	
30	232.03	231.94	232.16	233.75	232.55	232.04	232.59	231.90	231.83	231.74		231.62	
31		232.01		233.43	232.25		232.59		231.87	231.80		231.63	
Mean	232.26	232.25	232.04	232.46	232.44	232.05	232.17	232.07	231.88	232.06	231.79	231.69	
Max	232.71	233.78	233.48	233.89	233.29	232.23	233.21	232.40	232.48	232.95	231.89	231.83	233.89
Min	232.01	231.84	231.76	232.00	231.92	231.90	231.89	231.81	231.70	231.69	231.67	231.62	231.62

Annual Max Momentary Gage Height	233.97	m. (MSL.) ,	at 11.00 Hours , on Jul 29 , 2018		
Zero Gage at Bottom Elevation	232.00	m. (MSL.) ,	River Bed	231.18	m. (MSL.)
Left Bank Elevation	239.85	m. (MSL.) ,			
Right Bank Elevation	240.72	m. (MSL.) ,	Drainage Are	3,367	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	11.32	8.94	5.96	9.28	30.76	10.64	7.28	15.06	5.63	31.14	2.64	1.56		
2	19.62	13.02	5.96	8.94	32.66	10.30	8.60	8.60	5.30	37.99	3.92	1.38		
3	34.18	41.11	4.84	8.60	22.87	13.02	54.12	13.70	4.84	9.62	4.61	1.11		
4	19.62	54.12	4.84	11.32	13.02	11.66	31.14	13.36	5.07	5.63	5.07	1.02		
5	15.75	73.34	4.38	22.50	9.62	12.68	13.02	13.36	8.60	4.61	4.15	0.93		
6	8.94	78.62	4.15	22.14	8.27	16.10	8.60	11.66	6.29	5.63	2.28	0.75		
7	31.52	61.17	2.82	17.15	8.60	9.28	6.62	9.62	6.29	6.29	2.10	0.75		
8	16.45	21.06	2.82	17.85	6.29	5.63	6.29	5.63	6.62	7.28	3.23	0.66		
9	12.00	12.68	2.46	19.98	5.96	6.95	5.07	3.69	6.62	10.64	2.82	0.57		
10	12.00	11.32	2.46	31.14	18.55	7.28	6.62	3.23	5.07	6.62	2.46	0.57		
11	9.96	10.64	2.28	22.50	12.34	5.96	10.30	4.15	2.46	7.61	2.28	0.48		
12	11.32	15.06	2.82	18.55	9.96	6.62	12.00	6.62	2.82	39.55	2.28	0.48		
13	12.00	16.10	8.94	12.00	9.28	15.75	10.98	14.04	4.61	43.10	3.92	0.84		
14	10.30	12.34	5.63	9.96	8.60	12.00	10.98	8.27	4.84	43.50	2.46	1.11		
15	11.32	9.28	5.07	12.68	10.64	16.45	9.62	7.61	25.46	39.55	3.00	1.92		
16	12.68	8.27	5.07	12.34	12.00	10.98	10.30	7.61	23.24	8.27	3.92	3.46		
17	16.80	4.61	4.61	11.66	13.70	7.61	9.62	8.60	6.95	6.29	4.38	3.69		
18	18.20	10.30	7.94	24.35	22.50	5.30	9.96	9.62	3.46	5.30	3.69	3.00		
19	25.83	6.95	8.94	35.32	37.99	9.28	9.96	5.96	3.23	5.07	1.02	1.92		
20	22.14	5.30	10.98	22.50	56.61	12.00	8.60	8.60	2.64	5.07	0.93	1.20		
21	21.42	4.84	37.60	20.70	46.73	11.66	7.28	18.55	2.64	4.38	0.93	3.23		
22	21.06	25.46	65.48	17.15	45.50	13.02	13.02	18.55	2.28	5.07	2.28	3.23		
23	20.34	12.00	60.34	36.08	57.44	15.75	10.30	21.78	2.28	5.63	3.23	3.00		
24	19.62	6.95	8.27	25.46	34.56	13.02	12.68	21.78	1.20	3.92	4.15	1.11		
25	18.20	5.63	4.61	19.62	31.52	11.66	12.00	21.42	2.82	3.46	3.92	0.84		
26	30.76	5.07	5.07	22.87	38.38	7.61	7.61	22.50	1.20	2.64	2.82	0.75		
27	31.14	4.84	5.30	21.06	43.50	6.95	10.98	14.38	2.82	2.10	2.10	0.66		
28	17.15	4.38	6.95	45.10	41.90	7.28	33.80	4.84	1.92	1.11	1.74	0.75		
29	12.68	3.92	12.00	83.55	30.38	8.27	37.22	4.84	2.46	1.11		0.57		
30	9.62	6.62	14.04	77.30	28.10	9.96	29.62	5.30	3.69	1.92		0.48		
31		8.94		63.31	17.15		29.62		4.61	3.00		0.57		
Total	533.94	562.88	322.63	782.96	765.38	310.67	453.81	332.93	167.96	363.10	82.33	42.59	4721.18	CMSDAY
Mean	17.80	18.16	10.75	25.26	24.69	10.36	14.64	11.10	5.42	11.71	2.94	1.37	12.93	CMS
Max	34.18	78.62	65.48	83.55	57.44	16.45	54.12	22.50	25.46	43.50	5.07	3.69	83.55	CMS
Min	8.94	3.92	2.28	8.60	5.96	5.30	5.07	3.23	1.20	1.11	0.93	0.48	0.48	CMS
Runoff	46.13	48.63	27.88	67.65	66.13	26.84	39.21	28.77	14.51	31.37	7.11	3.68	407.91	MCM

Momentary Peak 87.15 CMS. at 233.97 m. (MSL.) at 11.00 Hours , on Jul 29 , 2018

Runoff Yield 3.84 Liters/Second/Square KM. Momentary Peak Yield 25.88 Liters/Second/Square KM.

WATER YEAR : 2018

WANG RIVER BASIN

Nam Mae Chang at Ban Wang Phrao , Lampang (W.22)

Lat 18 - 08 - 35 N Long 99 - 24 - 48 E

Location : on right bank at the bridge.

	Ban Wang Phrao	**Amphoe** Ko Kha	**Changwat** Lampang
Drainge Area	1,549 sq.km.		
Type of Gage	Water - stage recorder.		
Zero Gage at Bottom	+215.161 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank at the approach of the bridge.		**Elevation** +221.137 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings.		
Period of Available Gage Records	2001 to date		
Rating Operation			
Period of Rating	2001 to date		
Rated by Flot	-		
Rated by Current Meter	2001 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good.Stage-discharge relation defined by 41 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

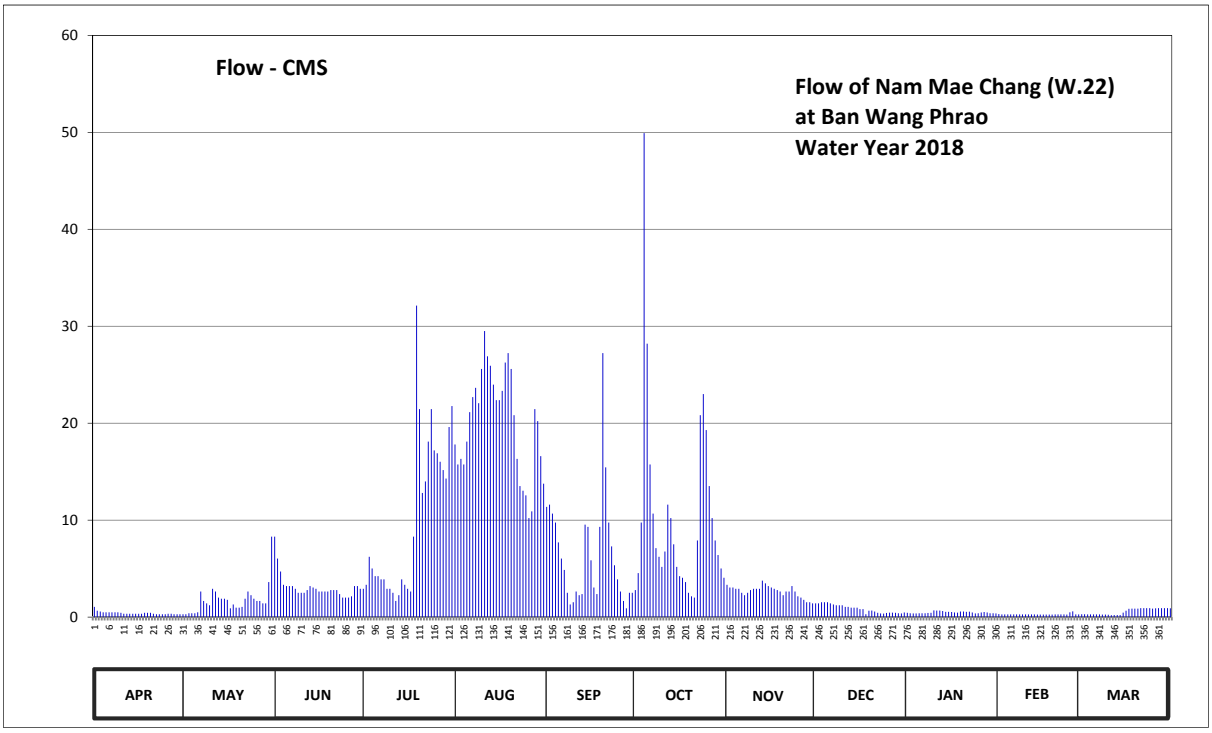
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	214.97	214.86	215.45	215.13	215.83	215.59	215.12	215.16	215.01	215.07	215.01	215.00	
2	214.92	214.86	215.33	215.16	215.76	215.60	215.24	215.14	215.01	215.05	214.99	215.00	
3	214.91	214.88	215.25	215.34	215.78	215.56	215.52	215.14	215.02	215.04	214.99	214.99	
4	214.90	214.88	215.16	215.27	215.76	215.52	216.72	215.13	215.02	215.04	214.99	214.99	
5	214.90	214.88	215.15	215.22	215.84	215.42	216.16	215.13	215.02	215.05	214.99	214.99	
6	214.90	214.90	215.15	215.22	215.94	215.33	215.76	215.10	215.01	215.05	214.99	214.99	
7	214.90	215.11	215.15	215.20	215.99	215.26	215.56	215.08	215.00	215.05	214.99	214.99	
8	214.90	215.03	215.13	215.20	216.02	215.10	215.39	215.10	214.99	215.06	214.99	214.98	
9	214.90	215.01	215.10	215.13	215.97	215.00	215.34	215.12	214.99	215.07	214.99	214.98	
10	214.89	214.99	215.10	215.13	216.08	215.02	215.28	215.13	214.99	215.20	214.99	214.97	
11	214.87	215.13	215.10	215.10	216.20	215.11	215.37	215.13	214.97	215.19	214.99	214.95	
12	214.87	215.11	215.12	215.03	216.12	215.08	215.60	215.13	214.97	215.19	214.99	214.96	
13	214.87	215.06	215.15	215.08	216.09	215.09	215.54	215.19	214.96	215.16	214.99	214.96	
14	214.87	215.05	215.14	215.20	216.03	215.51	215.41	215.17	214.96	215.12	214.98	214.96	
15	214.87	215.05	215.13	215.16	215.98	215.50	215.28	215.15	214.96	215.12	214.98	215.08	
16	214.87	215.04	215.11	215.13	215.98	215.32	215.22	215.14	214.94	215.11	214.98	215.18	
17	214.87	214.95	215.11	215.11	216.01	215.14	215.21	215.13	214.94	215.09	214.98	215.28	
18	214.89	215.00	215.11	215.45	216.10	215.09	215.18	215.12	215.00	215.08	214.98	215.29	
19	214.89	214.96	215.11	216.27	216.13	215.50	215.10	215.11	215.18	215.14	214.98	215.29	
20	214.89	214.96	215.12	215.95	216.08	216.13	215.07	215.08	215.19	215.14	214.99	215.29	
21	214.87	214.97	215.12	215.65	215.93	215.75	215.06	215.11	215.14	215.12	214.99	215.31	
22	214.86	215.05	215.12	215.70	215.78	215.52	215.43	215.11	215.07	215.13	214.99	215.31	
23	214.86	215.11	215.09	215.84	215.68	215.40	215.93	215.15	215.04	215.09	214.99	215.31	
24	214.86	215.08	215.06	215.95	215.66	215.29	216.00	215.11	215.03	215.04	214.98	215.31	
25	214.86	215.05	215.06	215.81	215.64	215.20	215.88	215.07	215.06	215.05	215.10	215.29	
26	214.87	215.03	215.06	215.80	215.54	215.11	215.68	215.06	215.08	215.09	215.15	215.30	
27	214.87	215.03	215.07	215.77	215.57	215.03	215.54	215.04	215.08	215.11	214.99	215.31	
28	214.86	215.01	215.15	215.74	215.95	214.95	215.43	215.02	215.07	215.09	214.99	215.31	
29	214.86	215.01	215.15	215.71	215.91	215.10	215.35	215.02	215.05	215.05		215.31	
30	214.86	215.18	215.13	215.89	215.79	215.10	215.27	215.01	215.04	215.05		215.31	
31		215.45		215.96	215.69		215.21		215.09	215.04		215.30	
Mean	214.88	215.02	215.14	215.46	215.90	215.31	215.48	215.11	215.03	215.09	215.00	215.14	
Max	214.97	215.45	215.45	216.27	216.20	216.13	216.72	215.19	215.19	215.20	215.15	215.31	216.72
Min	214.86	214.86	215.06	215.03	215.54	214.95	215.06	215.01	214.94	215.04	214.98	214.95	214.86

Annual Max Momentary Gage Height 216.91 m. (MSL.) , at 08.00 Hours , on Oct 4, 2018

Zero Gage at Bottom Elevation 215.16 m. (MSL.) , River Bed 214.08 m. (MSL.)

Left Bank Elevation 221.21 m. (MSL.) ,

Right Bank Elevation 221.24 m. (MSL.) , Drainage Are 1,549 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.06	0.30	8.30	2.92	17.80	11.37	2.78	3.34	1.42	0.44	0.32	0.30		
2	0.66	0.30	6.04	3.34	15.74	11.60	4.54	3.06	1.42	0.40	0.28	0.30		
3	0.58	0.40	4.70	6.22	16.32	10.68	9.76	3.06	1.54	0.38	0.28	0.28		
4	0.50	0.40	3.34	5.02	15.74	9.76	49.92	2.92	1.54	0.38	0.28	0.28		
5	0.50	0.40	3.20	4.22	18.10	7.70	28.20	2.92	1.54	0.40	0.28	0.28		
6	0.50	0.50	3.20	4.22	21.14	6.04	15.74	2.50	1.42	0.40	0.28	0.28		
7	0.50	2.64	3.20	3.90	22.69	4.86	10.68	2.26	1.30	0.40	0.28	0.28		
8	0.50	1.66	2.92	3.90	23.65	2.50	7.12	2.50	1.22	0.42	0.28	0.26		
9	0.50	1.42	2.50	2.92	22.07	1.30	6.22	2.78	1.22	0.44	0.28	0.26		
10	0.45	1.22	2.50	2.92	25.60	1.54	5.18	2.92	1.22	0.70	0.28	0.24		
11	0.35	2.92	2.50	2.50	29.50	2.64	6.76	2.92	1.06	0.68	0.28	0.20		
12	0.35	2.64	2.78	1.66	26.90	2.26	11.60	2.92	1.06	0.68	0.28	0.22		
13	0.35	2.02	3.20	2.26	25.93	2.38	10.22	3.76	0.98	0.62	0.28	0.22		
14	0.35	1.90	3.06	3.90	23.98	9.53	7.50	3.48	0.98	0.54	0.26	0.22		
15	0.35	1.90	2.92	3.34	22.38	9.30	5.18	3.20	0.98	0.54	0.26	0.46		
16	0.35	1.78	2.64	2.92	22.38	5.86	4.22	3.06	0.82	0.52	0.26	0.66		
17	0.35	0.90	2.64	2.64	23.33	3.06	4.06	2.92	0.82	0.48	0.26	0.86		
18	0.45	1.30	2.64	8.30	26.25	2.38	3.62	2.78	0.30	0.46	0.26	0.88		
19	0.45	0.98	2.64	32.13	27.23	9.30	2.50	2.64	0.66	0.58	0.26	0.88		
20	0.45	0.98	2.78	21.45	25.60	27.23	2.14	2.26	0.68	0.58	0.28	0.88		
21	0.35	1.06	2.78	12.80	20.83	15.45	2.02	2.64	0.58	0.54	0.28	0.92		
22	0.30	1.90	2.78	14.00	16.32	9.76	7.90	2.64	0.44	0.56	0.28	0.92		
23	0.30	2.64	2.38	18.10	13.52	7.30	20.83	3.20	0.38	0.48	0.28	0.92		
24	0.30	2.26	2.02	21.45	13.04	5.34	23.00	2.64	0.36	0.38	0.26	0.92		
25	0.30	1.90	2.02	17.20	12.56	3.90	19.30	2.14	0.42	0.40	0.50	0.88		
26	0.35	1.66	2.02	16.90	10.22	2.64	13.52	2.02	0.46	0.48	0.60	0.90		
27	0.35	1.66	2.14	16.03	10.91	1.66	10.22	1.78	0.46	0.52	0.28	0.92		
28	0.30	1.42	3.20	15.16	21.45	0.90	7.90	1.54	0.44	0.48	0.28	0.92		
29	0.30	1.42	3.20	14.29	20.21	2.50	6.40	1.54	0.40	0.40		0.92		
30	0.30	3.62	2.92	19.60	16.61	2.50	5.02	1.42	0.38	0.40		0.92		
31		8.30		21.76	13.76		4.06		0.48	0.38		0.90		
Total	12.70	54.40	93.16	307.97	621.76	193.24	318.11	79.76	26.98	15.06	8.28	18.28	1749.70	CMSDAY
Mean	0.42	1.75	3.11	9.93	20.06	6.44	10.26	2.66	0.87	0.49	0.30	0.59	4.79	CMS
Max	1.06	8.30	8.30	32.13	29.50	27.23	49.92	3.76	1.54	0.70	0.60	0.92	49.92	CMS
Min	0.30	0.30	2.02	1.66	10.22	0.90	2.02	1.42	0.30	0.38	0.26	0.20	0.20	CMS
Runoff	1.10	4.70	8.05	26.61	53.72	16.70	27.48	6.89	2.33	1.30	0.72	1.58	151.17	MCM

Momentary Peak 58.21 CMS. at 216.91 m. (MSL.) at 08.00 Hours , on Oct 4 , 2018

Runoff Yield 3.09 Liters/Second/Square KM. Momentary Peak Yield 37.58 Liters/Second/Square KM.

WATER YEAR : 2018

WANG RIVER BASIN

Wang River at Ban Chiang Rai , Tak (W.23)

Lat 17 - 22 - 01 N Long 99 - 06 - 55 E

Location : on left bank at Amphoe Sam Ngao.

	Ban Chiang Rai	**Amphoe** Sam Ngao	**Changwat** Tak
Drainge Area	9,930 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+141.291 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank near the gage site.		**Elevation** +149.509 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic mean of 5 readings.		
Period of Available Gage Records	2001 to date		
Rating Operation			
Period of Rating	2001 to date		
Rated by Flot	-		
Rated by Current Meter	2001 to date		
Stability of Channel Regimes	Fairly stable because of backwater effect.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good.Stage-discharge relation defined by 20 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

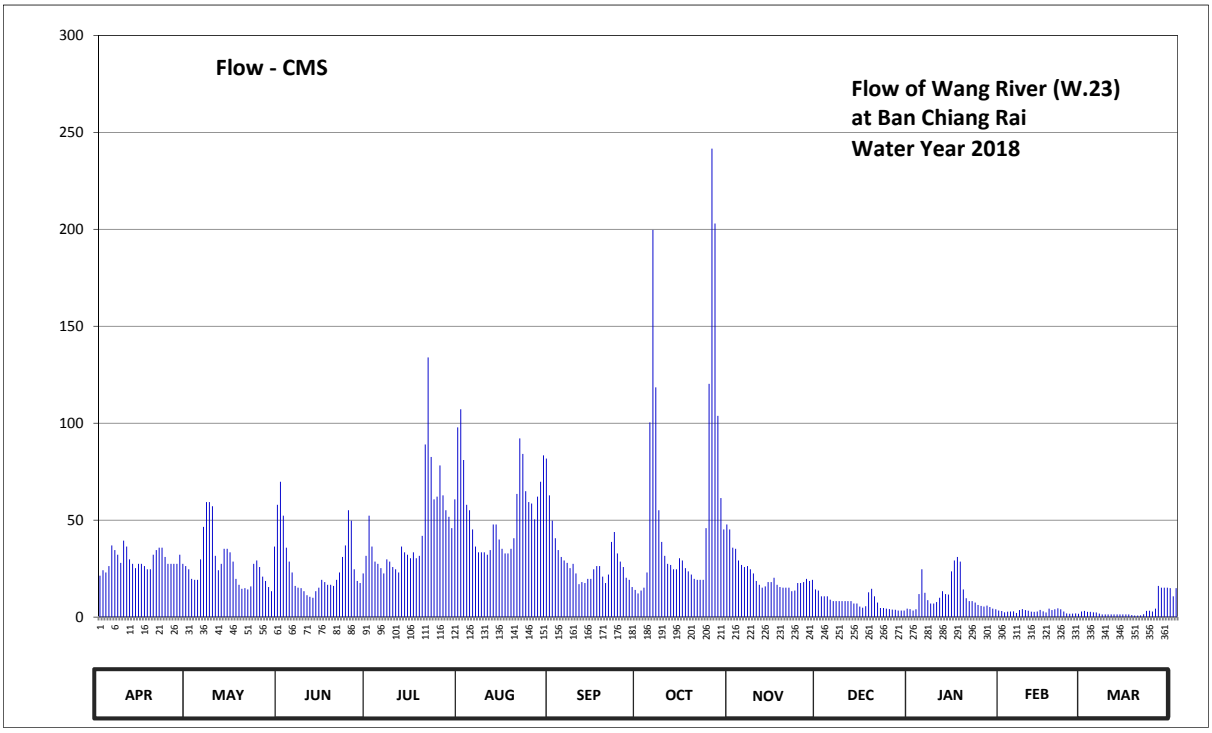
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	142.68	142.74	143.44	143.19	143.92	143.15	142.49	142.93	142.39	141.94	141.85	141.87	
2	142.73	142.65	143.19	142.94	143.60	143.01	142.54	142.92	142.39	142.00	141.88	141.87	
3	142.71	142.64	142.93	142.81	143.27	142.91	142.71	142.82	142.39	142.43	141.89	141.85	
4	142.77	142.64	142.81	142.79	143.23	142.85	143.84	142.78	142.32	142.74	141.90	141.84	
5	142.95	142.83	142.71	142.75	143.08	142.82	144.87	142.76	142.29	142.45	141.81	141.78	
6	142.91	143.10	142.57	142.70	142.94	142.80	144.05	142.77	142.29	142.31	141.96	141.74	
7	142.87	143.29	142.54	142.83	142.89	142.75	143.23	142.74	142.29	142.24	142.01	141.74	
8	142.80	143.29	142.53	142.81	142.89	142.79	142.98	142.70	142.29	142.24	141.96	141.74	
9	142.99	143.26	142.48	142.76	142.89	142.70	142.86	142.63	142.29	142.27	141.93	141.74	
10	142.94	142.86	142.41	142.74	142.87	142.60	142.79	142.59	142.29	142.36	141.88	141.74	
11	142.83	142.73	142.38	142.71	142.91	142.62	142.78	142.54	142.29	142.48	141.87	141.74	
12	142.79	142.79	142.36	142.94	143.12	142.61	142.74	142.56	142.24	142.43	141.89	141.74	
13	142.75	142.92	142.48	142.89	143.12	142.65	142.74	142.62	142.24	142.42	141.97	141.74	
14	142.79	142.92	142.54	142.87	143.00	142.65	142.84	142.62	142.14	142.72	141.90	141.74	
15	142.79	142.89	142.64	142.84	142.92	142.74	142.82	142.66	142.09	142.82	141.84	141.74	
16	142.77	142.81	142.62	142.89	142.88	142.77	142.75	142.59	142.16	142.85	142.04	141.71	
17	142.74	142.65	142.59	142.84	142.88	142.77	142.72	142.55	142.46	142.81	141.96	141.68	
18	142.74	142.59	142.59	142.86	142.92	142.67	142.69	142.54	142.52	142.51	142.00	141.68	
19	142.87	142.52	142.57	143.03	143.01	142.61	142.65	142.54	142.39	142.35	142.05	141.69	
20	142.91	142.53	142.64	143.70	143.35	142.69	142.64	142.54	142.26	142.29	142.00	141.75	
21	142.93	142.51	142.71	144.22	143.74	142.98	142.64	142.48	142.07	142.29	141.89	141.92	
22	142.93	142.56	142.85	143.62	143.64	143.06	142.64	142.49	142.07	142.26	141.79	141.93	
23	142.85	142.79	142.95	143.31	143.37	142.88	143.09	142.61	142.04	142.21	141.77	141.89	
24	142.79	142.82	143.23	143.33	143.29	142.81	144.07	142.61	142.01	142.18	141.78	142.04	
25	142.79	142.76	143.15	143.56	143.28	142.76	145.22	142.62	141.99	142.14	141.79	142.57	
26	142.79	142.67	142.74	143.34	143.16	142.66	144.90	142.65	141.98	142.19	141.77	142.54	
27	142.79	142.63	142.63	143.23	143.33	142.64	143.88	142.63	141.94	142.12	141.89	142.54	
28	142.87	142.55	142.61	143.18	143.44	142.55	143.32	142.64	141.94	142.04	141.92	142.54	
29	142.79	142.48	142.70	143.09	143.63	142.50	143.08	142.51	141.94	142.00		142.53	
30	142.77	142.94	142.86	143.31	143.61	142.44	143.12	142.49	142.04	141.94		142.39	
31		143.27		143.81	143.34		143.08		142.01	141.91		142.53	
Mean	142.82	142.79	142.72	143.09	143.21	142.75	143.19	142.64	142.20	142.32	141.90	141.95	
Max	142.99	143.29	143.44	144.22	143.92	143.15	145.22	142.93	142.52	142.85	142.05	142.57	145.22
Min	142.68	142.48	142.36	142.70	142.87	142.44	142.49	142.48	141.94	141.91	141.77	141.68	141.68

Annual Max Momentary Gage Height 145.42 m. (MSL.) , at 18.00 Hours , on Oct 25 , 2018

Zero Gage at Bottom Elevation 141.29 m. (MSL.) , River Bed 139.96 m. (MSL.)

Left Bank Elevation 148.65 m. (MSL.) ,

Right Bank Elevation 149.20 m. (MSL.) , Drainage Are 9,930 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	21.40	24.70	69.80	52.35	107.20	49.75	13.70	35.80	10.75	3.40	2.50	2.70		
2	24.15	19.75	52.35	36.40	81.00	40.65	15.20	35.20	10.75	4.00	2.80	2.70		
3	23.05	19.20	35.80	28.60	57.90	34.60	23.05	29.20	10.75	11.90	2.90	2.50		
4	26.35	19.20	28.60	27.45	55.10	31.00	100.40	26.90	9.00	24.70	3.00	2.40		
5	37.00	29.80	23.05	25.25	45.20	29.20	199.70	25.80	8.25	12.50	2.10	1.80		
6	34.60	46.50	16.10	22.50	36.40	28.00	118.50	26.35	8.25	8.75	3.60	1.40		
7	32.20	59.30	15.20	29.80	33.40	25.25	55.10	24.70	8.25	7.00	4.10	1.40		
8	28.00	59.30	14.90	28.60	33.40	27.45	38.80	22.50	8.25	7.00	3.60	1.40		
9	39.40	57.20	13.40	25.80	33.40	22.50	31.60	18.65	8.25	7.75	3.30	1.40		
10	36.40	31.60	11.30	24.70	32.20	17.00	27.45	16.70	8.25	10.00	2.80	1.40		
11	29.80	24.15	10.50	23.05	34.60	18.10	26.90	15.20	8.25	13.40	2.70	1.40		
12	27.45	27.45	10.00	36.40	47.80	17.55	24.70	15.80	7.00	11.90	2.90	1.40		
13	25.25	35.20	13.40	33.40	47.80	19.75	24.70	18.10	7.00	11.60	3.70	1.40		
14	27.45	35.20	15.20	32.20	40.00	19.75	30.40	18.10	5.40	23.60	3.00	1.40		
15	27.45	33.40	19.20	30.40	35.20	24.70	29.20	20.30	4.90	29.20	2.40	1.40		
16	26.35	28.60	18.10	33.40	32.80	26.35	25.25	16.70	5.60	31.00	4.40	1.10		
17	24.70	19.75	16.70	30.40	32.80	26.35	23.60	15.50	12.80	28.60	3.60	0.80		
18	24.70	16.70	16.70	31.60	35.20	20.85	21.95	15.20	14.60	14.30	4.00	0.80		
19	32.20	14.60	16.10	41.95	40.65	17.55	19.75	15.20	10.75	9.75	4.50	0.90		
20	34.60	14.90	19.20	89.00	63.50	21.95	19.20	15.20	7.50	8.25	4.00	1.50		
21	35.80	14.30	23.05	133.90	92.20	38.80	19.20	13.40	4.70	8.25	2.90	3.20		
22	35.80	15.80	31.00	82.60	84.20	43.90	19.20	13.70	4.70	7.50	1.90	3.30		
23	31.00	27.45	37.00	60.70	64.90	32.80	45.85	17.55	4.40	6.25	1.70	2.90		
24	27.45	29.20	55.10	62.10	59.30	28.60	120.30	17.55	4.10	5.80	1.80	4.40		
25	27.45	25.80	49.75	78.20	58.60	25.80	241.60	18.10	3.90	5.40	1.90	16.10		
26	27.45	20.85	24.70	62.80	50.40	20.30	203.00	19.75	3.80	5.90	1.70	15.20		
27	27.45	18.65	18.65	55.10	62.10	19.20	103.80	18.65	3.40	5.20	2.90	15.20		
28	32.20	15.50	17.55	51.70	69.80	15.50	61.40	19.20	3.40	4.40	3.20	15.20		
29	27.45	13.40	22.50	45.85	83.40	14.00	45.20	14.30	3.40	4.00		14.90		
30	26.35	36.40	31.60	60.70	81.80	12.20	47.80	13.70	4.40	3.40		10.75		
31		57.90		97.85	62.80		45.20		4.10	3.10		14.90		
Total	880.90	891.75	746.50	1474.75	1695.05	769.40	1821.70	593.00	218.85	337.80	83.90	147.25	9660.85	CMSDAY
Mean	29.36	28.77	24.88	47.57	54.68	25.65	58.76	19.77	7.06	10.90	3.00	4.75	26.47	CMS
Max	39.40	59.30	69.80	133.90	107.20	49.75	241.60	35.80	14.60	31.00	4.50	16.10	241.60	CMS
Min	21.40	13.40	10.00	22.50	32.20	12.20	13.70	13.40	3.40	3.10	1.70	0.80	0.80	CMS
Runoff	76.11	77.05	64.50	127.42	146.45	66.48	157.39	51.24	18.91	29.19	7.25	12.72	834.70	MCM

Momentary Peak 267.90 CMS. at 145.42 m. (MSL.) at 18.00 Hours , on Oct 25 , 2018

Runoff Yield 2.67 Liters/Second/Square KM. Momentary Peak Yield 26.98 Liters/Second/Square KM.

WATER YEAR : 2018

WANG RIVER BASIN

Wang River at Ban Tha Phai , Tak (W.24)

Lat 17 - 19 - 11 N Long 99 - 04 - 51 E

Location : on left bank at Ban Tha Phai

	Ban Tha Phai	**Amphoe** Sam Ngao	**Changwat** Tak
Drainge Area	10,225 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+135.430 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank near the gage site.		**Elevation** +145.049 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic mean of 5 readings.		
Period of Available Gage Records	2010 to date		
Rating Operation			
Period of Rating	2010 to date		
Rated by Flot	-		
Rated by Current Meter	2010 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good.Stage-discharge relation defined by 17 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

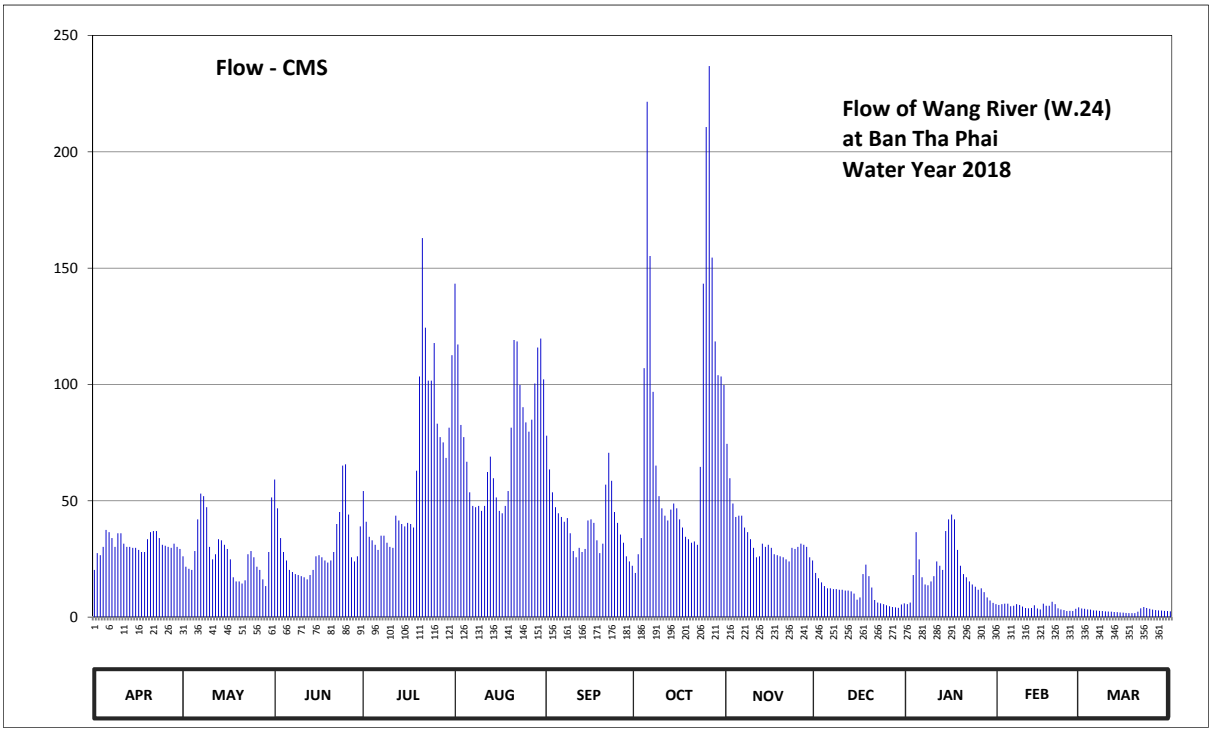
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	137.54	137.67	138.32	138.23	139.69	138.66	137.51	138.60	137.51	137.09	137.07	136.97	
2	137.70	137.57	138.09	137.98	139.31	138.40	137.69	138.33	137.46	137.13	137.09	136.96	
3	137.68	137.55	137.84	137.85	138.74	138.22	137.84	138.13	137.42	137.49	137.10	136.93	
4	137.76	137.54	137.71	137.82	138.65	138.10	139.15	138.02	137.38	137.89	137.10	136.92	
5	137.91	137.72	137.63	137.78	138.46	138.05	140.70	138.03	137.35	137.64	137.04	136.89	
6	137.89	138.00	137.54	137.73	138.22	138.02	139.86	138.03	137.35	137.47	137.05	136.88	
7	137.84	138.21	137.52	137.86	138.11	137.98	138.98	137.93	137.34	137.40	137.09	136.87	
8	137.76	138.19	137.50	137.86	138.10	138.01	138.43	137.89	137.34	137.39	137.07	136.86	
9	137.88	138.10	137.49	137.80	138.11	137.88	138.19	137.83	137.33	137.43	137.03	136.85	
10	137.88	137.76	137.48	137.76	138.07	137.72	138.09	137.75	137.33	137.48	136.99	136.84	
11	137.79	137.64	137.47	137.75	138.11	137.66	138.03	137.66	137.32	137.62	136.98	136.83	
12	137.76	137.69	137.45	138.03	138.38	137.75	137.99	137.67	137.32	137.58	136.99	136.82	
13	137.76	137.83	137.49	137.99	138.50	137.71	138.08	137.79	137.31	137.54	137.06	136.81	
14	137.75	137.82	137.54	137.96	138.33	137.74	138.13	137.76	137.28	137.90	136.97	136.80	
15	137.75	137.78	137.67	137.94	138.18	137.99	138.09	137.78	137.20	138.00	136.93	136.79	
16	137.73	137.74	137.68	137.97	138.07	138.00	138.00	137.75	137.23	138.04	137.10	136.78	
17	137.71	137.64	137.66	137.96	138.05	137.97	137.93	137.69	137.50	138.00	137.05	136.77	
18	137.71	137.47	137.63	137.93	138.11	137.82	137.85	137.68	137.59	137.73	137.05	136.77	
19	137.83	137.43	137.61	138.39	138.23	137.70	137.83	137.67	137.48	137.58	137.15	136.77	
20	137.89	137.43	137.63	139.09	138.72	137.79	137.80	137.66	137.36	137.50	137.09	136.83	
21	137.90	137.41	137.71	139.97	139.34	138.28	137.81	137.64	137.19	137.47	136.98	136.98	
22	137.90	137.44	137.96	139.42	139.33	138.53	137.78	137.62	137.13	137.43	136.93	137.02	
23	137.84	137.69	138.06	139.06	139.03	138.31	138.42	137.75	137.11	137.40	136.90	136.99	
24	137.78	137.72	138.43	139.06	138.87	138.06	139.69	137.74	137.09	137.37	136.86	136.96	
25	137.77	137.66	138.44	139.32	138.76	137.97	140.57	137.76	137.06	137.33	136.87	136.92	
26	137.76	137.57	138.04	138.75	138.69	137.87	140.88	137.79	137.04	137.35	136.86	136.90	
27	137.75	137.54	137.66	138.65	138.78	137.80	139.85	137.78	137.02	137.30	136.96	136.89	
28	137.79	137.45	137.62	138.61	139.04	137.67	139.33	137.76	137.01	137.23	137.01	136.88	
29	137.76	137.38	137.67	138.49	139.29	137.62	139.10	137.66	137.00	137.18		136.87	
30	137.74	137.71	137.94	138.72	139.35	137.58	139.09	137.63	137.08	137.12		136.86	
31		138.18		139.24	139.07		139.03		137.11	137.09		136.85	
Mean	137.78	137.69	137.75	138.35	138.64	137.96	138.64	137.83	137.27	137.49	137.01	136.87	
Max	137.91	138.21	138.44	139.97	139.69	138.66	140.88	138.60	137.59	138.04	137.15	137.02	140.88
Min	137.54	137.38	137.45	137.73	138.05	137.58	137.51	137.62	137.00	137.09	136.86	136.77	136.77

Annual Max Momentary Gage Height 141.13 m. (MSL.) , at 06.00 Hours , on Oct 26 , 2018

Zero Gage at Bottom Elevation 135.43 m. (MSL.) , River Bed 135.04 m. (MSL.)

Left Bank Elevation 144.67 m. (MSL.) ,

Right Bank Elevation 144.90 m. (MSL.) , Drainage Are 10,225 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	20.30	26.15	59.10	54.15	143.30	77.95	18.95	74.50	18.95	5.58	5.23	3.70		
2	27.50	21.65	46.73	41.00	117.15	63.50	27.05	59.65	16.70	6.28	5.58	3.60		
3	26.60	20.75	34.00	34.50	82.55	53.60	34.00	48.83	14.90	18.05	5.75	3.30		
4	30.20	20.30	27.95	33.00	77.38	47.25	107.00	43.05	13.35	36.50	5.75	3.20		
5	37.50	28.40	24.35	31.10	66.80	44.63	221.50	43.58	12.38	24.80	4.70	2.90		
6	36.50	42.00	20.30	28.85	53.60	43.05	155.20	43.58	12.38	17.15	4.88	2.80		
7	34.00	53.05	19.40	35.00	47.78	41.00	96.80	38.50	12.05	14.00	5.58	2.70		
8	30.20	51.98	18.50	35.00	47.25	42.53	65.15	36.50	12.05	13.68	5.23	2.60		
9	36.00	47.25	18.05	32.00	47.78	36.00	51.98	33.50	11.73	15.35	4.53	2.50		
10	36.00	30.20	17.60	30.20	45.68	28.40	46.73	29.75	11.73	17.60	3.90	2.40		
11	31.55	24.80	17.15	29.75	47.78	25.70	43.58	25.70	11.40	23.90	3.80	2.30		
12	30.20	27.05	16.25	43.58	62.40	29.75	41.50	26.15	11.40	22.10	3.90	2.20		
13	30.20	33.50	18.05	41.50	69.00	27.95	46.20	31.55	11.08	20.30	5.05	2.10		
14	29.75	33.00	20.30	40.00	59.65	29.30	48.83	30.20	10.10	37.00	3.70	2.00		
15	29.75	31.10	26.15	39.00	51.45	41.50	46.73	31.10	7.50	42.00	3.30	1.90		
16	28.85	29.30	26.60	40.50	45.68	42.00	42.00	29.75	8.48	44.10	5.75	1.80		
17	27.95	24.80	25.70	40.00	44.63	40.50	38.50	27.05	18.50	42.00	4.88	1.70		
18	27.95	17.15	24.35	38.50	47.78	33.00	34.50	26.60	22.55	28.85	4.88	1.70		
19	33.50	15.35	23.45	62.95	54.15	27.50	33.50	26.15	17.60	22.10	6.63	1.70		
20	36.50	15.35	24.35	103.40	81.40	31.55	32.00	25.70	12.70	18.50	5.58	2.30		
21	37.00	14.45	27.95	162.90	119.10	56.90	32.50	24.80	7.33	17.15	3.80	3.80		
22	37.00	15.80	40.00	124.40	118.45	70.65	31.10	23.90	6.28	15.35	3.30	4.35		
23	34.00	27.05	45.15	101.60	99.80	58.55	64.60	29.75	5.93	14.00	3.00	3.90		
24	31.10	28.40	65.15	101.60	90.20	45.15	143.30	29.30	5.58	13.03	2.60	3.60		
25	30.65	25.70	65.70	117.80	83.70	40.50	210.60	30.20	5.05	11.73	2.70	3.20		
26	30.20	21.65	44.10	83.13	79.68	35.50	236.80	31.55	4.70	12.38	2.60	3.00		
27	29.75	20.30	25.70	77.38	84.85	32.00	154.50	31.10	4.35	10.75	3.60	2.90		
28	31.55	16.25	23.90	75.08	100.40	26.15	118.45	30.20	4.18	8.48	4.18	2.80		
29	30.20	13.35	26.15	68.45	115.85	23.90	104.00	25.70	4.00	7.15		2.70		
30	29.30	27.95	39.00	81.40	119.75	22.10	103.40	24.35	5.40	6.10		2.60		
31		51.45		112.60	102.20		99.80		5.93	5.58		2.50		
Total	941.75	855.48	911.13	1940.32	2407.17	1218.06	2530.75	1012.24	326.26	591.54	124.38	84.75	12943.83	CMSDAY
Mean	31.39	27.60	30.37	62.59	77.65	40.60	81.64	33.74	10.52	19.08	4.44	2.73	35.46	CMS
Max	37.50	53.05	65.70	162.90	143.30	77.95	236.80	74.50	22.55	44.10	6.63	4.35	236.80	CMS
Min	20.30	13.35	16.25	28.85	44.63	22.10	18.95	23.90	4.00	5.58	2.60	1.70	1.70	CMS
Runoff	81.37	73.91	78.72	167.64	207.98	105.24	218.66	87.46	28.19	51.11	10.75	7.32	1118.35	MCM

Momentary Peak 258.05 CMS. at 141.13 m. (MSL.) at 6.00 Hours , on Oct 26 , 2018

Runoff Yield 3.47 Liters/Second/Square KM. Momentary Peak Yield 25.24 Liters/Second/Square KM.

WATER YEAR : 2018

WANG RIVER BASIN

Wang River at Ban Huai Kod , Lampang (W.25)

Lat 19 - 02 - 09 N Long 99 - 37 - 10 E

Location : on left bank at Ban Huai Kod.

	Ban Huai Kod	**Amphoe** Wang Nua	**Changwat** Lampang
Drainge Area	762 sq.km.		
Type of Gage	Staff gage.		
Zero Gage at Bottom	+381.903 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank at the approach of the bridge.		**Elevation** +387.093 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic mean of 3 readings.		
Period of Available Gage Records	2009 to date		
Rating Operation			
Period of Rating	2009 to date		
Rated by Flot	-		
Rated by Current Meter	2009 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair.Stage-discharge relation defined by 44 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

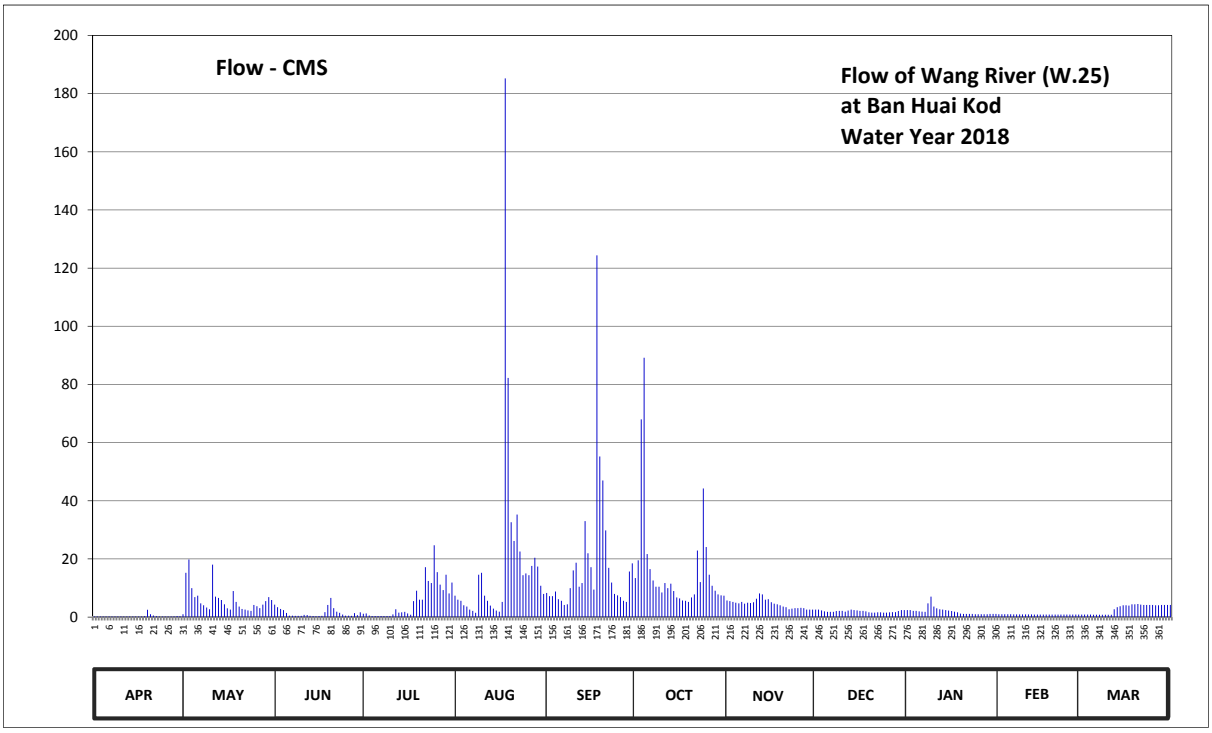
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	381.55	381.80	382.16	381.82	382.39	382.45	382.74	382.28	382.00	381.98	381.80	381.78	
2	381.55	382.83	382.08	381.84	382.30	382.38	383.02	382.26	382.00	381.98	381.80	381.78	
3	381.55	383.03	382.02	381.71	382.27	382.38	384.00	382.24	381.97	381.95	381.80	381.78	
4	381.55	382.55	381.98	381.65	382.14	382.48	384.22	382.22	381.93	381.95	381.80	381.77	
5	381.55	382.36	381.86	381.65	382.10	382.31	383.09	382.20	381.91	381.93	381.80	381.76	
6	381.55	382.39	381.69	381.65	382.00	382.27	382.89	382.24	381.91	381.92	381.79	381.76	
7	381.55	382.20	381.69	381.65	381.95	382.15	382.70	382.19	381.91	381.91	381.79	381.76	
8	381.55	382.14	381.67	381.65	381.87	382.17	382.58	382.22	381.94	382.20	381.79	381.76	
9	381.55	382.07	381.66	381.65	382.80	382.55	382.58	382.21	381.95	382.37	381.79	381.76	
10	381.55	382.01	381.67	381.65	382.83	382.87	382.46	382.23	381.95	382.10	381.79	381.76	
11	381.55	382.96	381.75	381.79	382.39	382.99	382.65	382.32	381.92	382.04	381.79	381.76	
12	381.55	382.37	381.74	382.01	382.27	382.58	382.55	382.44	381.96	382.01	381.79	382.01	
13	381.55	382.34	381.67	381.88	382.13	382.65	382.64	382.42	382.00	382.00	381.78	382.08	
14	381.55	382.29	381.65	381.89	382.03	383.40	382.49	382.30	381.98	381.98	381.78	382.11	
15	381.55	382.17	381.61	381.91	381.96	383.10	382.35	382.31	381.97	381.96	381.78	382.14	
16	381.55	382.04	381.63	381.84	381.92	382.92	382.33	382.23	381.95	381.94	381.78	382.14	
17	381.55	382.00	381.68	381.76	382.24	382.52	382.28	382.19	381.95	381.92	381.78	382.13	
18	381.61	382.49	381.90	382.26	385.08	384.54	382.27	382.17	381.93	381.89	381.78	382.17	
19	381.99	382.24	382.15	382.50	384.15	383.83	382.24	382.14	381.89	381.83	381.78	382.17	
20	381.80	382.10	382.34	382.30	383.39	383.69	382.35	382.10	381.88	381.81	381.78	382.18	
21	381.71	382.02	382.05	382.30	383.23	383.32	382.42	382.08	381.88	381.81	381.78	382.16	
22	381.60	382.00	381.92	382.92	383.45	382.91	383.13	382.01	381.89	381.81	381.78	382.15	
23	381.56	381.97	381.87	382.69	383.12	382.66	382.67	382.03	381.89	381.81	381.78	382.15	
24	381.56	381.95	381.78	382.65	382.79	382.43	383.64	382.05	381.88	381.80	381.78	382.15	
25	381.55	382.15	381.70	383.19	382.82	382.40	383.17	382.05	381.88	381.80	381.78	382.15	
26	381.55	382.11	381.69	382.84	382.79	382.36	382.80	382.06	381.89	381.80	381.78	382.14	
27	381.55	382.05	381.68	382.62	382.94	382.27	382.60	382.05	381.90	381.80	381.78	382.14	
28	381.59	382.16	381.85	382.51	383.05	382.24	382.50	382.00	381.90	381.80	381.78	382.15	
29	381.63	382.26	381.73	382.80	382.93	382.85	382.42	382.00	381.94	381.81		382.15	
30	381.61	382.36	381.89	382.44	382.60	382.98	382.40	382.00	381.98	381.81		382.15	
31		382.29		382.66	382.43		382.39		381.98	381.81		382.15	
Mean	381.59	382.25	381.83	382.15	382.66	382.75	382.73	382.17	381.93	381.92	381.79	382.01	
Max	381.99	383.03	382.34	383.19	385.08	384.54	384.22	382.44	382.00	382.37	381.80	382.18	385.08
Min	381.55	381.80	381.61	381.65	381.87	382.15	382.24	382.00	381.88	381.80	381.78	381.76	381.55

Annual Max Momentary Gage Height 385.16 m. (MSL.) , at 12.00 Hours , on Aug 18 , 2018

Zero Gage at Bottom Elevation 381.90 m. (MSL.) , River Bed 381.40 m. (MSL.)

Left Bank Elevation 387.23 m. (MSL.) ,

Right Bank Elevation 387.29 m. (MSL.) , Drainage Are 762 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.20	1.00	4.26	1.14	7.35	8.30	13.40	5.74	2.60	2.42	1.00	0.90		
2	0.20	15.23	3.40	1.28	6.00	7.20	19.51	5.48	2.60	2.42	1.00	0.90		
3	0.20	19.82	2.80	0.55	5.61	7.20	68.00	5.22	2.33	2.15	1.00	0.90		
4	0.20	9.95	2.42	0.40	4.04	8.78	89.20	4.96	1.97	2.15	1.00	0.85		
5	0.20	6.90	1.42	0.40	3.60	6.15	21.65	4.70	1.79	1.97	1.00	0.80		
6	0.20	7.35	0.48	0.40	2.60	5.61	16.49	5.22	1.79	1.88	0.95	0.80		
7	0.20	4.70	0.48	0.40	2.15	4.15	12.60	4.59	1.79	1.79	0.95	0.80		
8	0.20	4.04	0.44	0.40	1.49	4.37	10.46	4.96	2.06	4.70	0.95	0.80		
9	0.20	3.30	0.42	0.40	14.60	9.95	10.46	4.83	2.15	7.05	0.95	0.80		
10	0.20	2.70	0.44	0.40	15.23	16.07	8.46	5.09	2.15	3.60	0.95	0.80		
11	0.20	18.02	0.75	0.95	7.35	18.68	11.70	6.30	1.88	3.00	0.95	0.80		
12	0.20	7.05	0.70	2.70	5.61	10.46	9.95	8.14	2.24	2.70	0.95	2.70		
13	0.20	6.60	0.44	1.56	3.93	11.70	11.52	7.82	2.60	2.60	0.90	3.40		
14	0.20	5.87	0.40	1.63	2.90	33.00	8.94	6.00	2.42	2.42	0.90	3.71		
15	0.20	4.37	0.32	1.79	2.24	21.95	6.75	6.15	2.33	2.24	0.90	4.04		
16	0.20	3.00	0.36	1.28	1.88	17.14	6.45	5.09	2.15	2.06	0.90	4.04		
17	0.20	2.60	0.46	0.80	5.22	9.44	5.74	4.59	2.15	1.88	0.90	3.93		
18	0.32	8.94	1.70	5.48	185.20	124.40	5.61	4.37	1.97	1.63	0.90	4.37		
19	2.51	5.22	4.15	9.10	82.25	55.25	5.22	4.04	1.63	1.21	0.90	4.37		
20	1.00	3.60	6.60	6.00	32.60	46.95	6.75	3.60	1.56	1.07	0.90	4.48		
21	0.55	2.80	3.10	6.00	26.20	29.80	7.82	3.40	1.56	1.07	0.90	4.26		
22	0.30	2.60	1.88	17.14	35.25	16.92	22.87	2.70	1.63	1.07	0.90	4.15		
23	0.22	2.33	1.49	12.42	22.56	11.88	12.06	2.90	1.63	1.07	0.90	4.15		
24	0.22	2.15	0.90	11.70	14.40	7.98	44.20	3.10	1.56	1.00	0.90	4.15		
25	0.20	4.15	0.50	24.70	15.02	7.50	24.09	3.10	1.56	1.00	0.90	4.15		
26	0.20	3.71	0.48	15.44	14.40	6.90	14.60	3.20	1.63	1.00	0.90	4.04		
27	0.20	3.10	0.46	11.16	17.58	5.61	10.80	3.10	1.70	1.00	0.90	4.04		
28	0.28	4.26	1.35	9.27	20.43	5.22	9.10	2.60	1.70	1.00	0.90	4.15		
29	0.36	5.48	0.65	14.60	17.36	15.65	7.82	2.60	2.06	1.07		4.15		
30	0.32	6.90	1.63	8.14	10.80	18.46	7.50	2.60	2.42	1.07		4.15		
31		5.87		11.88	7.98		7.35		2.42	1.07		4.15		
Total	10.08	183.61	44.88	179.51	593.83	552.67	517.07	136.19	62.03	62.36	26.05	89.73	2458.01	CMSDAY
Mean	0.34	5.92	1.50	5.79	19.16	18.42	16.68	4.54	2.00	2.01	0.93	2.89	6.73	CMS
Max	2.51	19.82	6.60	24.70	185.20	124.40	89.20	8.14	2.60	7.05	1.00	4.48	185.20	CMS
Min	0.20	1.00	0.32	0.40	1.49	4.15	5.22	2.60	1.56	1.00	0.90	0.80	0.20	CMS
Runoff	0.87	15.86	3.88	15.51	51.31	47.75	44.67	11.77	5.36	5.39	2.25	7.75	212.37	MCM

Momentary Peak 194.40 CMS. at 385.16 m. (MSL.) at 12.00 Hours , on Aug 18 , 2018

Runoff Yield 8.84 Liters/Second/Square KM. Momentary Peak Yield 255.12 Liters/Second/Square KM.

WATER YEAR : 2018

WANG RIVER BASIN

Nam Mae Ta at Ban Huai Mae Ta , Lampang (W.26)

Lat 18 - 36 - 26 N Long 99 - 37 - 44 E

Location : on left bank at Ban Huai Mae Ta.

	Ban Huai Mae Ta	**Amphoe** Chae Hom	**Changwat** Lampang
Drainge Area	150 sq.km.		
Type of Gage	Staff gage.		
Zero Gage at Bottom	+286.470 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank at the approach of the bridge.		**Elevation** +290.173 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic mean of 3 readings.		
Period of Available Gage Records	2011 to date		
Rating Operation			
Period of Rating	2011 to date		
Rated by Flot	-		
Rated by Current Meter	2011 to date		
Stability of Channel Regimes	Fairly stable because of backwater effect.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair.Stage-discharge relation defined by 41 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

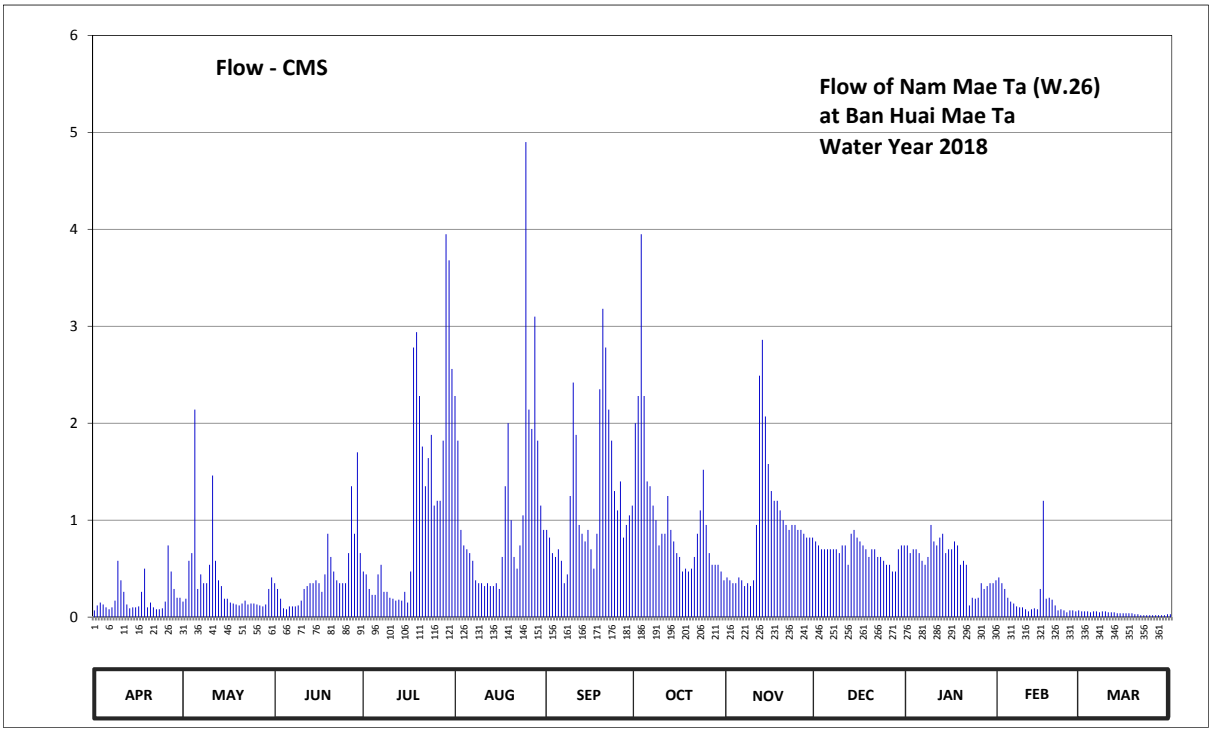
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	285.95	286.06	286.15	286.19	286.54	286.30	286.50	286.17	286.27	286.26	286.17	285.94	
2	286.02	286.09	286.13	286.18	286.47	286.28	286.54	286.16	286.26	286.24	286.15	285.94	
3	286.05	286.22	286.09	286.13	286.30	286.24	286.75	286.15	286.25	286.25	286.13	285.93	
4	286.03	286.24	285.99	286.11	286.26	286.23	286.54	286.15	286.25	286.25	286.10	285.91	
5	286.00	286.52	285.96	286.11	286.25	286.25	286.40	286.17	286.25	286.24	286.06	285.94	
6	285.97	286.13	286.01	286.18	286.24	286.22	286.39	286.16	286.25	286.22	286.04	285.94	
7	286.00	286.18	286.01	286.21	286.22	286.15	286.35	286.14	286.25	286.21	286.01	285.92	
8	286.07	286.15	286.01	286.12	286.16	286.18	286.32	286.15	286.25	286.23	286.00	285.94	
9	286.22	286.15	286.02	286.12	286.15	286.37	286.26	286.14	286.24	286.31	286.00	285.93	
10	286.16	286.21	286.07	286.10	286.15	286.56	286.29	286.16	286.26	286.27	285.97	285.92	
11	286.12	286.41	286.13	286.09	286.14	286.48	286.29	286.31	286.26	286.26	285.94	285.91	
12	286.03	286.22	286.14	286.07	286.15	286.31	286.37	286.57	286.21	286.28	285.97	285.91	
13	285.98	286.16	286.15	286.08	286.14	286.29	286.30	286.62	286.29	286.29	285.98	285.89	
14	286.00	286.14	286.15	286.07	286.14	286.27	286.27	286.51	286.30	286.24	285.96	285.90	
15	286.00	286.09	286.16	286.12	286.15	286.30	286.24	286.43	286.28	286.25	286.13	285.90	
16	286.01	286.09	286.15	286.05	286.13	286.25	286.23	286.38	286.27	286.25	286.36	285.90	
17	286.12	286.05	286.12	286.19	286.23	286.20	286.19	286.36	286.26	286.27	286.09	285.89	
18	286.20	286.04	286.18	286.61	286.39	286.29	286.20	286.36	286.25	286.26	286.10	285.89	
19	286.00	286.03	286.29	286.63	286.50	286.55	286.19	286.34	286.23	286.21	286.08	285.87	
20	286.05	286.02	286.23	286.54	286.32	286.66	286.20	286.32	286.25	286.22	286.02	285.87	
21	286.00	286.04	286.19	286.46	286.23	286.61	286.23	286.31	286.25	286.21	285.95	285.85	
22	285.97	286.07	286.16	286.39	286.20	286.52	286.29	286.30	286.23	286.02	285.96	285.85	
23	285.96	286.03	286.15	286.44	286.26	286.47	286.34	286.31	286.23	286.10	285.95	285.84	
24	285.98	286.04	286.15	286.48	286.33	286.38	286.42	286.31	286.22	286.09	285.92	285.84	
25	286.06	286.04	286.15	286.35	286.85	286.34	286.31	286.30	286.21	286.10	285.95	285.84	
26	286.26	286.03	286.24	286.36	286.52	286.40	286.24	286.30	286.21	286.15	285.95	285.84	
27	286.19	286.02	286.39	286.36	286.49	286.28	286.21	286.29	286.19	286.13	285.94	285.85	
28	286.13	286.01	286.29	286.47	286.65	286.31	286.21	286.28	286.19	286.14	285.95	285.85	
29	286.10	286.03	286.45	286.75	286.47	286.33	286.21	286.28	286.25	286.15		285.86	
30	286.10	286.13	286.24	286.72	286.35	286.35	286.19	286.28	286.26	286.15		285.87	
31		286.17		286.58	286.30		286.16		286.26	286.16		285.88	
Mean	286.06	286.12	286.15	286.30	286.31	286.35	286.31	286.29	286.25	286.21	286.03	285.89	
Max	286.26	286.52	286.45	286.75	286.85	286.66	286.75	286.62	286.30	286.31	286.36	285.94	286.85
Min	285.95	286.01	285.96	286.05	286.13	286.15	286.16	286.14	286.19	286.02	285.92	285.84	285.84

Annual Max Momentary Gage Height 286.95 m. (MSL.) , at 06.00 Hours , on Aug 25 , 2018

Zero Gage at Bottom Elevation 286.47 m. (MSL.) , River Bed 283.90 m. (MSL.)

Left Bank Elevation 291.23 m. (MSL.) ,

Right Bank Elevation 291.27 m. (MSL.) , Drainage Are 150 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.07	0.16	0.35	0.47	2.28	0.90	2.00	0.41	0.78	0.74	0.41	0.06		
2	0.12	0.19	0.29	0.44	1.82	0.82	2.28	0.38	0.74	0.66	0.35	0.06		
3	0.15	0.58	0.19	0.29	0.90	0.66	3.95	0.35	0.70	0.70	0.29	0.06		
4	0.13	0.66	0.09	0.23	0.74	0.62	2.28	0.35	0.70	0.70	0.20	0.05		
5	0.10	2.14	0.08	0.23	0.70	0.70	1.40	0.41	0.70	0.66	0.16	0.06		
6	0.08	0.29	0.11	0.44	0.66	0.58	1.35	0.38	0.70	0.58	0.14	0.06		
7	0.10	0.44	0.11	0.54	0.58	0.35	1.15	0.32	0.70	0.54	0.11	0.05		
8	0.17	0.35	0.11	0.26	0.38	0.44	1.00	0.35	0.70	0.62	0.10	0.06		
9	0.58	0.35	0.12	0.26	0.35	1.25	0.74	0.32	0.66	0.95	0.10	0.06		
10	0.38	0.54	0.17	0.20	0.35	2.42	0.86	0.38	0.74	0.78	0.08	0.05		
11	0.26	1.46	0.29	0.19	0.32	1.88	0.86	0.95	0.74	0.74	0.06	0.05		
12	0.13	0.58	0.32	0.17	0.35	0.95	1.25	2.49	0.54	0.82	0.08	0.05		
13	0.09	0.38	0.35	0.18	0.32	0.86	0.90	2.86	0.86	0.86	0.09	0.04		
14	0.10	0.32	0.35	0.17	0.32	0.78	0.78	2.07	0.90	0.66	0.08	0.04		
15	0.10	0.19	0.38	0.26	0.35	0.90	0.66	1.58	0.82	0.70	0.29	0.04		
16	0.11	0.19	0.35	0.15	0.29	0.70	0.62	1.30	0.78	0.70	1.20	0.04		
17	0.26	0.15	0.26	0.47	0.62	0.50	0.47	1.20	0.74	0.78	0.19	0.04		
18	0.50	0.14	0.44	2.78	1.35	0.86	0.50	1.20	0.70	0.74	0.20	0.04		
19	0.10	0.13	0.86	2.94	2.00	2.35	0.47	1.10	0.62	0.54	0.18	0.03		
20	0.15	0.12	0.62	2.28	1.00	3.18	0.50	1.00	0.70	0.58	0.12	0.03		
21	0.10	0.14	0.47	1.76	0.62	2.78	0.62	0.95	0.70	0.54	0.07	0.02		
22	0.08	0.17	0.38	1.35	0.50	2.14	0.86	0.90	0.62	0.12	0.08	0.02		
23	0.08	0.13	0.35	1.64	0.74	1.82	1.10	0.95	0.62	0.20	0.07	0.02		
24	0.09	0.14	0.35	1.88	1.05	1.30	1.52	0.95	0.58	0.19	0.05	0.02		
25	0.16	0.14	0.35	1.15	4.90	1.10	0.95	0.90	0.54	0.20	0.07	0.02		
26	0.74	0.13	0.66	1.20	2.14	1.40	0.66	0.90	0.54	0.35	0.07	0.02		
27	0.47	0.12	1.35	1.20	1.94	0.82	0.54	0.86	0.47	0.29	0.06	0.02		
28	0.29	0.11	0.86	1.82	3.10	0.95	0.54	0.82	0.47	0.32	0.07	0.02		
29	0.20	0.13	1.70	3.95	1.82	1.05	0.54	0.82	0.70	0.35		0.02		
30	0.20	0.29	0.66	3.68	1.15	1.15	0.47	0.82	0.74	0.35		0.03		
31		0.41		2.56	0.90		0.38		0.74	0.38		0.03		
Total	6.09	11.27	12.97	35.14	34.54	36.21	32.20	28.27	21.24	17.34	4.97	1.21	241.45	CMSDAY
Mean	0.20	0.36	0.43	1.13	1.11	1.21	1.04	0.94	0.69	0.56	0.18	0.04	0.66	CMS
Max	0.74	2.14	1.70	3.95	4.90	3.18	3.95	2.86	0.90	0.95	1.20	0.06	4.90	CMS
Min	0.07	0.11	0.08	0.15	0.29	0.35	0.38	0.32	0.47	0.12	0.05	0.02	0.02	CMS
Runoff	0.53	0.97	1.12	3.04	2.98	3.13	2.78	2.44	1.84	1.50	0.43	0.10	20.86	MCM

Momentary Peak 5.95 CMS. at 286.95 m. (MSL.) at 06.00 Hours , on Aug 25 , 2018

Runoff Yield 4.41 Liters/Second/Square KM. Momentary Peak Yield 39.67 Liters/Second/Square KM.

WATER YEAR : 2018

YOM RIVER BASIN

Yom River at Ban Nam Khong , Phrae (Y.1C)

Lat 18 - 07 - 57 N Long 100 - 07 - 42 E

Location : on right bank about 5 meters downstream from Phathana Phak Nua 8 Bridge.

	Ban Nam Khong	**Amphoe** Mueang	**Changwat** Phrae
Drainge Area	7,749 sq.km.		
Type of Gage	Water - stage recorder.		
Zero Gage at Bottom	+143.500 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	In front of the station office		**Elevation** +153.972 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	1979 to date		
Rating Operation			
Period of Rating	1979 to date		
Rated by Flot	-		
Rated by Current Meter	1979 to date		
Stability of Channel Regimes	Fairly stable because of backwater effect.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Mae yom weir situated about 76 kilometers above gage site. Stage-discharge relation defined by 48 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

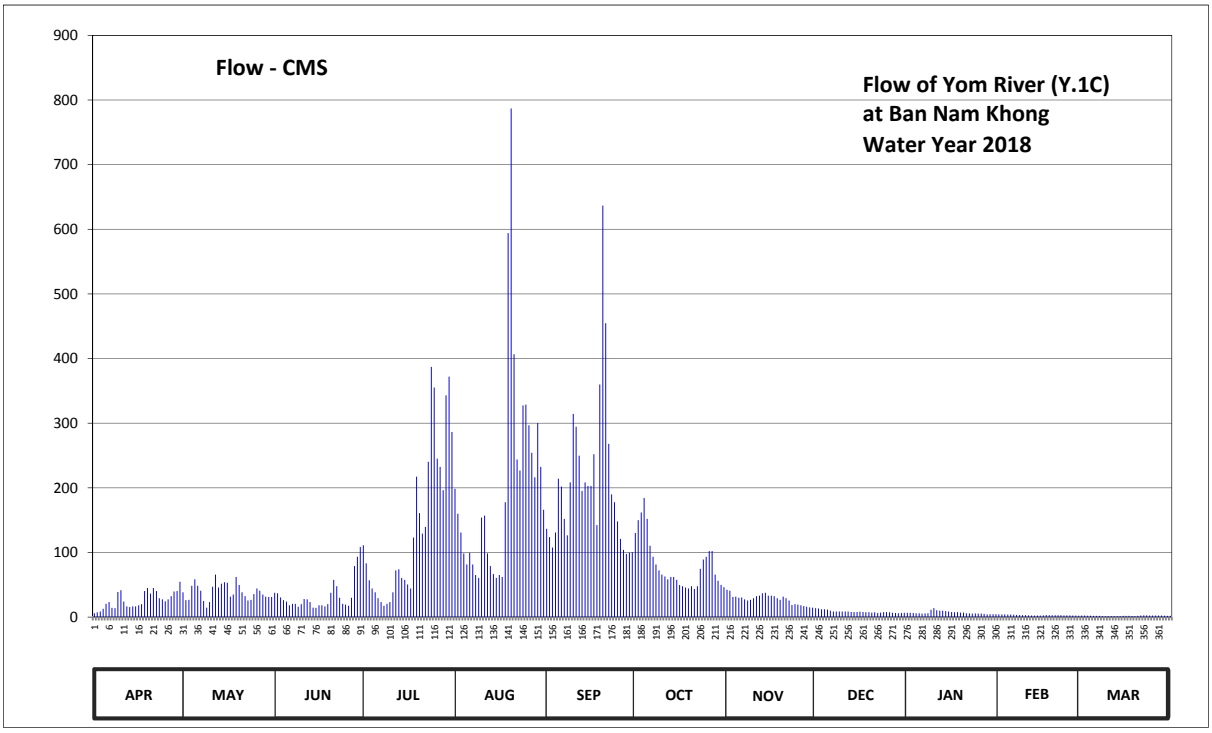
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	143.63	144.26	144.25	145.18	146.06	145.46	145.39	144.32	143.84	143.65	143.57	143.48	
2	143.67	144.07	144.24	144.86	145.70	145.32	145.60	144.30	143.83	143.65	143.56	143.48	
3	143.71	144.08	144.14	144.53	145.40	145.14	145.72	144.15	143.80	143.64	143.56	143.47	
4	143.82	144.41	144.07	144.35	145.04	145.40	145.93	144.16	143.80	143.63	143.55	143.47	
5	143.97	144.55	144.03	144.26	144.84	146.20	145.62	144.13	143.79	143.63	143.55	143.46	
6	144.02	144.41	143.93	144.12	145.05	146.09	145.17	144.14	143.74	143.61	143.54	143.46	
7	143.85	144.30	143.97	144.02	144.84	145.62	144.98	144.09	143.71	143.62	143.53	143.46	
8	143.84	144.05	143.97	143.92	144.64	145.35	144.84	144.06	143.71	143.63	143.52	143.43	
9	144.27	143.86	143.89	143.97	144.58	146.15	144.73	144.08	143.71	143.78	143.51	143.41	
10	144.31	144.02	143.96	144.02	145.64	147.07	144.65	144.12	143.71	143.84	143.51	143.43	
11	144.03	144.39	144.10	144.26	145.67	146.90	144.61	144.17	143.71	143.76	143.50	143.43	
12	143.90	144.65	144.09	144.73	145.04	146.51	144.55	144.18	143.71	143.74	143.49	143.43	
13	143.88	144.37	144.02	144.75	144.81	146.03	144.60	144.24	143.69	143.74	143.49	143.43	
14	143.90	144.46	143.86	144.58	144.66	146.15	144.60	144.25	143.69	143.73	143.48	143.43	
15	143.90	144.49	143.85	144.54	144.58	146.10	144.54	144.18	143.69	143.71	143.48	143.46	
16	143.93	144.48	143.93	144.44	144.64	146.10	144.43	144.18	143.70	143.69	143.50	143.46	
17	143.96	144.16	143.93	144.35	144.60	146.53	144.40	144.17	143.69	143.67	143.52	143.45	
18	144.29	144.21	143.90	145.31	145.87	145.52	144.37	144.12	143.68	143.68	143.51	143.44	
19	144.36	144.60	143.96	146.23	149.23	147.45	144.35	144.08	143.68	143.66	143.51	143.43	
20	144.23	144.43	144.25	145.71	150.60	149.54	144.40	144.16	143.66	143.66	143.51	143.46	
21	144.36	144.26	144.54	145.38	147.82	148.19	144.34	144.12	143.67	143.63	143.51	143.48	
22	144.29	144.17	144.40	145.49	146.46	146.67	144.40	144.06	143.64	143.62	143.51	143.50	
23	144.12	144.06	144.13	146.43	146.31	145.98	144.76	143.94	143.66	143.61	143.50	143.50	
24	144.09	144.08	143.97	147.67	147.18	145.87	144.93	143.96	143.68	143.62	143.50	143.48	
25	144.04	144.22	143.95	147.41	147.19	145.58	144.98	143.95	143.68	143.61	143.50	143.49	
26	144.09	144.35	143.92	146.47	146.92	145.29	145.08	143.93	143.67	143.61	143.49	143.48	
27	144.17	144.30	144.13	146.36	146.55	145.10	145.08	143.91	143.65	143.60	143.48	143.48	
28	144.28	144.21	144.81	146.04	146.22	145.03	144.65	143.89	143.64	143.57	143.47	143.48	
29	144.29	144.16	144.98	147.31	146.95	145.05	144.52	143.87	143.63	143.58		143.47	
30	144.50	144.15	145.15	147.55	146.36	145.06	144.43	143.86	143.64	143.58		143.46	
31		144.15		146.83	145.76		144.38		143.65	143.58		143.45	
Mean	144.06	144.27	144.14	145.32	145.97	146.08	144.81	144.09	143.70	143.66	143.51	143.46	
Max	144.50	144.65	145.15	147.67	150.60	149.54	145.93	144.32	143.84	143.84	143.57	143.50	150.60
Min	143.63	143.86	143.85	143.92	144.58	145.03	144.34	143.86	143.63	143.57	143.47	143.41	143.41

Annual Max Momentary Gage Height 151.00 m. (MSL.) , at 08.00 Hours , on Aug 20 , 2018

Zero Gage at Bottom Elevation 143.50 m. (MSL.) , River Bed 143.03 m. (MSL.)

Left Bank Elevation 153.91 m. (MSL.) ,

Right Bank Elevation 154.02 m. (MSL.) , Drainage Are 7,749 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	5.99	38.26	37.60	111.20	198.60	136.70	130.10	42.26	13.80	6.65	4.31	2.36		
2	7.31	26.26	36.94	83.04	160.00	123.80	150.00	40.90	13.35	6.65	4.08	2.36		
3	8.67	26.84	30.52	56.82	131.00	107.60	162.00	31.15	12.00	6.32	4.08	2.19		
4	12.90	48.39	26.26	44.30	98.60	131.00	184.30	31.78	12.00	5.99	3.85	2.19		
5	20.49	58.30	23.94	38.26	81.36	214.00	152.00	29.89	11.63	5.99	3.85	2.02		
6	23.36	48.39	18.21	29.26	99.50	201.90	110.30	30.52	9.78	5.33	3.62	2.02		
7	14.25	40.90	20.49	23.36	81.36	152.00	93.28	27.42	8.67	5.66	3.39	2.02		
8	13.80	25.10	20.49	17.64	65.12	126.50	81.36	25.68	8.67	5.99	3.16	1.51		
9	38.92	14.70	16.05	20.49	60.52	208.50	72.26	26.84	8.67	11.26	2.93	1.17		
10	41.58	23.36	19.92	23.36	154.00	314.40	65.90	29.26	8.67	13.80	2.93	1.51		
11	23.94	47.02	28.00	38.26	157.00	294.50	62.78	32.41	8.67	10.52	2.70	1.51		
12	16.50	65.90	27.42	72.26	98.60	249.65	58.30	33.04	8.67	9.78	2.53	1.51		
13	15.60	45.66	23.36	73.90	78.84	195.30	62.00	36.94	7.97	9.78	2.53	1.51		
14	16.50	51.84	14.70	60.52	66.68	208.50	62.00	37.60	7.97	9.41	2.36	1.51		
15	16.50	53.91	14.25	57.56	60.52	203.00	57.56	33.04	7.97	8.67	2.36	2.02		
16	18.21	53.22	18.21	50.46	65.12	203.00	49.77	33.04	8.30	7.97	2.70	2.02		
17	19.92	31.78	18.21	44.30	62.00	251.95	47.70	32.41	7.97	7.31	3.16	1.85		
18	40.24	34.96	16.50	122.90	177.70	142.40	45.66	29.26	7.64	7.64	2.93	1.68		
19	44.98	62.00	19.92	217.45	594.05	360.00	44.30	26.84	7.64	6.98	2.93	1.51		
20	36.28	49.77	37.60	161.00	787.00	636.60	47.70	31.78	6.98	6.98	2.93	2.02		
21	44.98	38.26	57.56	129.20	406.60	454.70	43.62	29.26	7.31	5.99	2.93	2.36		
22	40.24	32.41	47.70	139.55	243.90	268.05	47.70	25.68	6.32	5.66	2.93	2.70		
23	29.26	25.68	29.89	240.45	226.65	189.80	74.72	18.78	6.98	5.33	2.70	2.70		
24	27.42	26.84	20.49	387.10	327.60	177.70	88.98	19.92	7.64	5.66	2.70	2.36		
25	24.52	35.62	19.35	355.20	328.80	148.10	93.28	19.35	7.64	5.33	2.70	2.53		
26	27.42	44.30	17.64	245.05	296.80	121.10	102.20	18.21	7.31	5.33	2.53	2.36		
27	32.41	40.90	29.89	232.40	254.25	104.00	102.20	17.07	6.65	5.00	2.36	2.36		
28	39.58	34.96	78.84	196.40	216.30	97.70	65.90	16.05	6.32	4.31	2.19	2.36		
29	40.24	31.78	93.28	343.20	300.25	99.50	56.08	15.15	5.99	4.54		2.19		
30	54.60	31.15	108.50	372.00	232.40	100.40	49.77	14.70	6.32	4.54		2.02		
31		31.15		286.45	166.00		46.34		6.65	4.54		1.85		
Total	796.61	1219.61	971.73	4273.34	6277.12	6222.35	2510.06	836.23	262.15	214.91	84.37	62.28	23730.76	CMSDAY
Mean	26.55	39.34	32.39	137.85	202.49	207.41	80.97	27.87	8.46	6.93	3.01	2.01	65.02	CMS
Max	54.60	65.90	108.50	387.10	787.00	636.60	184.30	42.26	13.80	13.80	4.31	2.70	787.00	CMS
Min	5.99	14.70	14.25	17.64	60.52	97.70	43.62	14.70	5.99	4.31	2.19	1.17	1.17	CMS
Runoff	68.83	105.37	83.96	369.22	542.34	537.61	216.87	72.25	22.65	18.57	7.29	5.38	2050.34	MCM

Momentary Peak 847.00 CMS. at 151.00 m. (MSL.) at 08.00 Hours , on Aug 20 , 2018

Runoff Yield 8.39 Liters/Second/Square KM. Momentary Peak Yield 109.30 Liters/Second/Square KM.

WATER YEAR : 2018

YOM RIVER BASIN

Yom River at Ban Wang Mai Khon , Sukhothai (Y.3A)

Lat 17 - 18 - 28 N Long 99 - 49 - 44 E

Location : on right bank about 100 meters downstream from the bridge on highway.

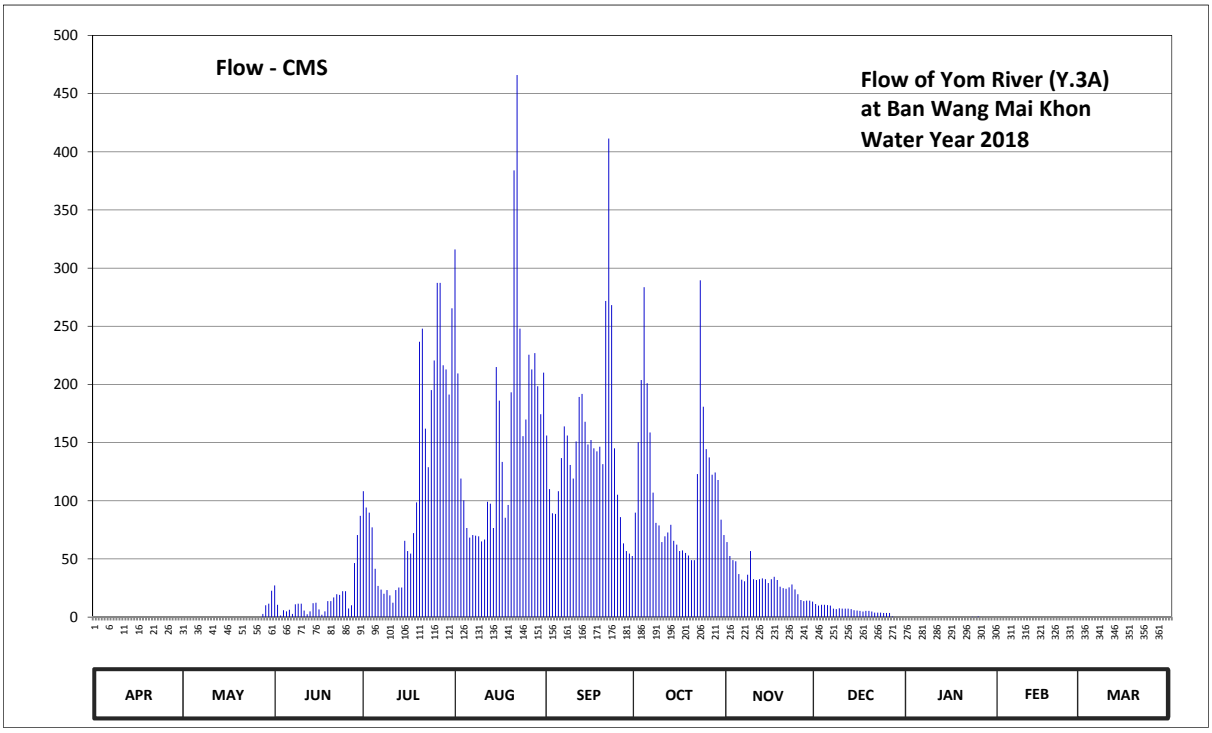
Ban Wang Mai Khon **Amphoe** Sawankhalok **Changwat** Sukhothai

Drainge Area	13,331 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+51.000 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	In front of automatic gage building. **Elevation** +65.475 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic mean of 5 readings
Period of Available Gage Records	1967 to date
Rating Operation	
Period of Rating	1967 to date
Rated by Flot	-
Rated by Current Meter	1967 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Stage-discharge relation defined by 15 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	50.70	51.40	51.25	52.77	55.80	53.51	52.45	51.99	52.38	51.20	51.34	50.91	
2	50.70	51.14	50.88	52.53	54.32	52.80	53.42	51.77	52.34	51.20	51.52	50.90	
3	50.70	51.04	50.64	52.45	52.94	52.44	54.24	51.70	52.36	51.19	50.90	50.89	
4	50.70	50.99	50.77	52.22	52.64	52.43	55.38	51.68	52.36	51.39	50.88	50.87	
5	50.70	51.43	50.74	51.55	52.21	52.77	54.20	51.46	52.35	51.32	50.87	50.86	
6	50.57	51.59	50.78	51.24	52.06	53.21	53.55	51.36	52.34	51.21	50.82	50.84	
7	50.57	51.75	50.68	51.17	52.10	53.63	52.75	51.33	52.26	51.16	50.86	50.80	
8	50.56	51.63	50.89	51.09	52.09	53.51	52.29	51.45	52.25	51.02	50.88	50.65	
9	50.59	51.51	50.90	51.16	52.08	53.12	52.25	51.85	52.27	51.05	50.84	50.54	
10	50.72	51.33	50.90	51.06	52.00	52.94	51.99	52.77	52.26	51.05	50.74	50.52	
11	50.71	51.12	50.76	50.92	52.03	53.43	52.08	52.76	52.26	51.11	50.84	50.50	
12	50.81	50.94	50.67	51.16	52.62	54.02	52.14	52.77	52.26	51.25	50.87	50.47	
13	51.01	51.13	50.74	51.21	52.59	54.06	52.26	52.78	52.25	51.25	50.76	50.42	
14	50.68	51.65	50.91	51.21	52.21	53.69	52.01	52.77	52.22	51.26	50.80	50.41	
15	50.61	51.13	50.92	52.01	54.40	53.39	51.95	52.72	52.21	51.46	50.78	50.45	
16	50.66	50.99	50.79	51.85	53.97	53.45	51.85	52.77	52.20	51.54	50.77	50.45	
17	50.69	50.60	50.66	51.81	53.16	53.34	51.86	52.80	52.18	51.75	50.77	50.45	
18	50.66	50.59	50.74	52.13	52.37	53.30	51.82	52.76	52.20	51.85	50.76	50.45	
19	50.62	50.60	50.95	52.61	52.57	53.36	51.78	52.67	52.20	51.87	50.77	50.45	
20	50.71	50.60	50.95	54.71	54.08	53.13	51.70	52.65	52.18	51.87	50.76	50.45	
21	50.91	50.73	51.02	54.87	56.65	55.21	51.70	52.64	52.14	51.86	50.77	50.44	
22	50.91	51.22	51.08	53.60	57.61	56.98	53.00	52.66	52.14	51.86	50.78	50.44	
23	50.75	51.20	51.07	53.09	54.87	55.16	55.46	52.70	52.14	51.93	51.02	50.44	
24	50.75	51.03	51.14	54.11	53.50	53.34	53.89	52.63	52.13	51.91	51.17	50.44	
25	50.96	50.64	51.14	54.48	53.72	52.72	53.33	52.56	52.13	51.95	50.81	50.44	
26	51.05	50.54	50.81	55.43	54.55	52.38	53.22	52.46	52.13	51.87	50.78	50.44	
27	51.05	50.55	50.87	55.43	54.37	51.97	52.99	52.44	51.96	51.86	50.79	50.44	
28	50.96	50.68	51.65	54.42	54.57	51.85	53.02	52.45	51.49	51.85	50.89	50.44	
29	51.23	50.87	52.10	54.37	54.16	51.81	52.92	52.45	51.21	51.83		50.44	
30	51.36	50.90	52.40	54.05	53.79	51.77	52.34	52.43	51.20	51.70		50.44	
31		51.15		55.12	54.33		52.10		51.20	51.55		50.44	
Mean	50.79	51.05	50.99	52.77	53.56	53.29	52.77	52.34	52.10	51.52	50.88	50.55	
Max	51.36	51.75	52.40	55.43	57.61	56.98	55.46	52.80	52.38	51.95	51.52	50.91	57.61
Min	50.56	50.54	50.64	50.92	52.00	51.77	51.70	51.33	51.20	51.02	50.74	50.41	50.41

Annual Max Momentary Gage Height	57.81	m. (MSL.) ,	at 22.00 Hours , on Aug 22 , 2018		
Zero Gage at Bottom Elevation	51.00	m. (MSL.) ,	River Bed	48.22	m. (MSL.)
Left Bank Elevation	61.52	m. (MSL.) ,			
Right Bank Elevation	62.03	m. (MSL.) ,	Drainage Are	13,331	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	27.25	108.20	316.00	156.15	89.75	64.45	11.30	0.00	0.00	0.00		
2	0.00	0.00	10.60	94.15	209.40	110.00	150.30	52.50	9.90	0.00	0.00	0.00		
3	0.00	0.00	1.40	89.75	119.10	89.20	203.80	49.00	10.60	0.00	0.00	0.00		
4	0.00	0.00	5.95	77.10	100.40	88.65	283.60	48.00	10.60	0.00	0.00	0.00		
5	0.00	0.00	4.90	41.50	76.55	108.20	201.00	37.00	10.25	0.00	0.00	0.00		
6	0.00	0.00	6.30	26.80	68.30	136.65	158.75	32.20	9.90	0.00	0.00	0.00		
7	0.00	0.00	2.80	23.65	70.50	163.95	107.00	30.85	7.22	0.00	0.00	0.00		
8	0.00	0.00	11.05	20.05	69.95	156.15	80.95	36.50	6.90	0.00	0.00	0.00		
9	0.00	0.00	11.50	23.20	69.40	130.80	78.75	56.75	7.54	0.00	0.00	0.00		
10	0.00	0.00	11.50	18.70	65.00	119.10	64.45	32.62	7.22	0.00	0.00	0.00		
11	0.00	0.00	5.60	12.40	66.65	150.95	69.40	31.96	7.22	0.00	0.00	0.00		
12	0.00	0.00	2.45	23.20	99.20	189.30	72.70	32.62	7.22	0.00	0.00	0.00		
13	0.00	0.00	4.90	25.45	97.45	191.90	79.30	33.28	6.90	0.00	0.00	0.00		
14	0.00	0.00	11.95	25.45	76.55	167.85	65.55	32.62	5.94	0.00	0.00	0.00		
15	0.00	0.00	12.40	65.55	215.00	148.35	62.25	29.32	5.62	0.00	0.00	0.00		
16	0.00	0.00	6.65	56.75	186.05	152.25	56.75	32.62	5.30	0.00	0.00	0.00		
17	0.00	0.00	2.10	54.55	133.40	145.10	57.30	34.60	4.82	0.00	0.00	0.00		
18	0.00	0.00	4.90	72.15	85.35	142.50	55.10	31.96	5.30	0.00	0.00	0.00		
19	0.00	0.00	13.75	98.60	96.35	146.40	53.00	26.17	5.30	0.00	0.00	0.00		
20	0.00	0.00	13.75	236.70	193.20	131.45	49.00	24.95	4.82	0.00	0.00	0.00		
21	0.00	0.00	16.90	247.90	384.00	271.70	49.00	24.34	3.86	0.00	0.00	0.00		
22	0.00	0.00	19.60	162.00	465.90	411.30	123.00	25.56	3.86	0.00	0.00	0.00		
23	0.00	0.00	19.15	128.85	247.90	268.20	289.50	28.00	3.86	0.30	0.00	0.00		
24	0.00	0.00	22.30	195.15	155.50	145.10	180.85	23.73	3.62	0.10	0.00	0.00		
25	0.00	0.00	22.30	220.60	169.80	105.20	144.45	19.70	3.62	0.50	0.00	0.00		
26	0.00	0.00	7.45	287.25	225.50	85.90	137.30	14.64	3.62	0.00	0.00	0.00		
27	0.00	0.00	10.15	287.25	212.90	63.35	122.35	13.76	0.60	0.00	0.00	0.00		
28	0.00	2.80	46.50	216.40	226.90	56.75	124.30	14.20	0.00	0.00	0.00	0.00		
29	0.00	10.15	70.50	212.90	198.40	54.55	117.80	14.20	0.00	0.00		0.00		
30	0.00	11.50	87.00	191.25	174.35	52.50	83.70	13.32	0.00	0.00		0.00		
31		22.75		265.40	210.10		70.50		0.00	0.00		0.00		
Total	0.00	47.20	493.55	3608.85	5085.05	4339.45	3481.45	941.42	172.91	0.90	0.00	0.00	18170.78	CMSDAY
Mean	0.00	1.52	16.45	116.41	164.03	144.65	112.30	31.38	5.58	0.03	0.00	0.00	49.78	CMS
Max	0.00	22.75	87.00	287.25	465.90	411.30	289.50	64.45	11.30	0.50	0.00	0.00	465.90	CMS
Min	0.00	0.00	1.40	12.40	65.00	52.50	49.00	13.32	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	0.00	4.08	42.64	311.80	439.35	374.93	300.80	81.34	14.94	0.08	0.00	0.00	1569.96	MCM

Momentary Peak 483.90 CMS. at 57.81 m. (MSL.) at 22.00 Hours , on Aug 22 , 2018

Runoff Yield 3.67 Liters/Second/Square KM. Momentary Peak Yield 35.63 Liters/Second/Square KM.

WATER YEAR : 2018

YOM RIVER BASIN

Yom River at Ban Kaeng Luang , Sukhothai (Y.6)

Lat 17 - 26 - 05 N Long 99 - 47 - 30 E

Location : on left bank about 150 meters upstream from Kaeng Luang.

Ban Kaeng Luang **Amphoe** Si Satchanalai **Changwat** Sukhothai

Drainge Area	12,769 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+59.000 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	Near automatic gage building **Elevation** +68.928 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic mean of 5 readings
Period of Available Gage Records	1952 to date
Rating Operation	
Period of Rating	1952 to date
Rated by Flot	-
Rated by Current Meter	1952 to date
Stability of Channel Regimes	Fairly stable because of backwater effect.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. Stage-discharge relation defined by 12 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

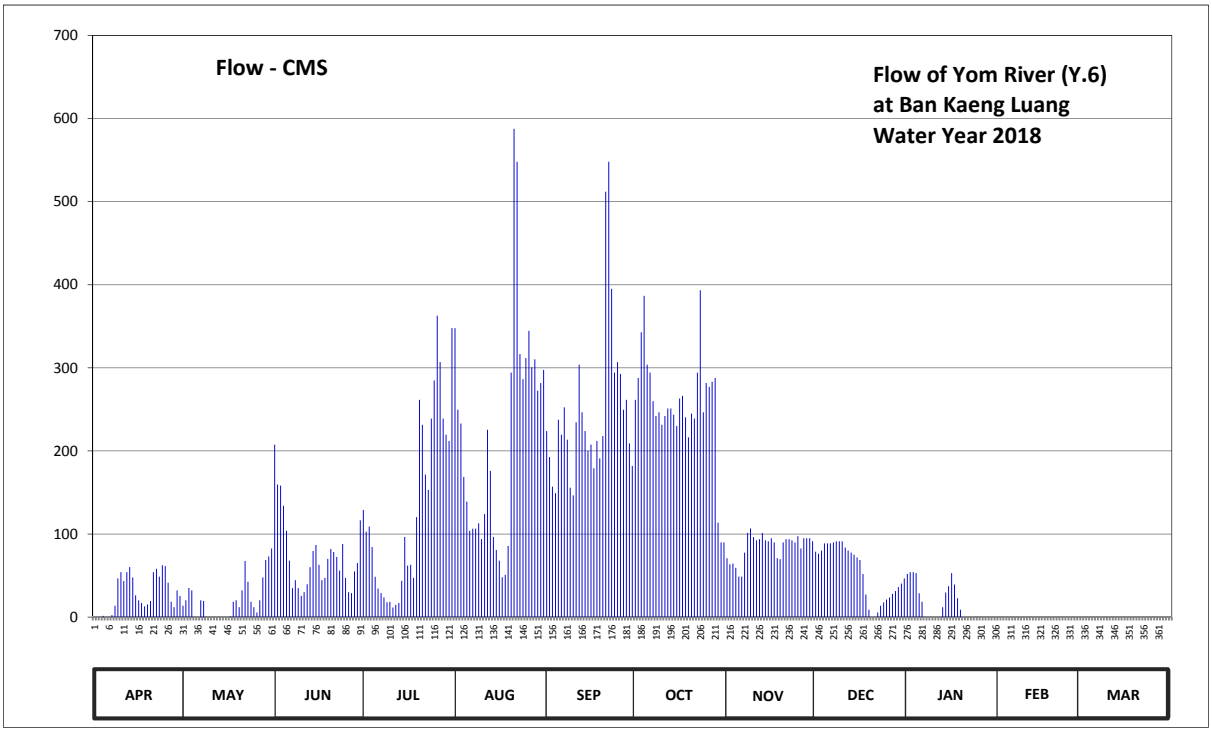
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	61.52	61.77	62.25	61.68	63.15	62.36	62.61	62.36	62.43	62.18	61.39	59.34	
2	61.52	61.85	61.92	61.47	62.53	62.15	62.78	62.29	62.41	62.20	61.40	59.24	
3	61.60	62.02	61.91	61.52	62.42	61.90	63.12	62.30	62.44	62.20	61.41	59.18	
4	61.62	61.99	61.72	61.32	61.99	61.84	63.38	62.25	62.51	62.19	61.34	59.15	
5	61.60	61.53	61.48	60.98	61.76	62.45	62.88	62.15	62.51	61.95	61.29	59.07	
6	61.60	61.46	61.18	60.77	61.48	62.33	62.82	62.15	62.51	61.83	61.28	59.03	
7	61.63	61.85	60.78	60.67	61.50	62.55	62.60	62.42	62.52	61.52	61.12	58.94	
8	61.77	61.84	60.92	60.57	61.50	62.29	62.48	62.61	62.53	61.53	60.91	58.90	
9	62.13	61.59	60.78	60.44	61.55	61.89	62.51	62.65	62.53	61.51	60.72	58.87	
10	62.20	61.27	60.61	60.45	61.40	61.82	62.41	62.57	62.53	61.50	60.64	58.84	
11	62.10	60.92	60.69	60.29	61.64	62.43	62.48	62.54	62.47	61.55	60.52	58.83	
12	62.20	60.60	60.85	60.37	62.37	62.88	62.54	62.55	62.44	61.59	60.21	58.82	
13	62.26	60.53	61.10	60.42	62.04	62.51	62.54	62.61	62.42	61.75	60.32	58.82	
14	62.14	61.10	61.28	60.91	61.42	62.36	62.49	62.54	62.40	61.96	60.31	58.81	
15	61.92	61.01	61.34	61.42	61.29	62.20	62.40	62.53	62.37	62.04	60.30	58.81	
16	61.85	61.26	61.13	61.12	61.18	62.25	62.62	62.56	62.34	62.19	60.29	58.80	
17	61.81	61.61	60.92	61.13	60.97	62.06	62.64	62.52	62.18	62.06	60.27	58.80	
18	61.76	61.83	60.96	60.96	61.01	62.28	62.47	62.36	61.93	61.88	60.26	58.79	
19	61.79	61.85	61.20	61.61	61.33	62.14	62.31	62.35	61.71	61.71	60.23	58.79	
20	61.84	61.75	61.30	62.61	62.82	62.32	62.50	62.52	61.53	61.55	60.18	58.79	
21	62.20	61.99	61.27	62.41	64.52	64.10	62.46	62.55	61.54	61.37	60.14	58.79	
22	62.24	62.33	61.22	62.01	64.30	64.30	62.82	62.55	61.67	61.24	60.06	58.78	
23	62.15	62.09	61.06	61.87	62.96	63.43	63.42	62.54	61.77	61.17	59.92	58.77	
24	62.28	61.83	61.35	62.46	62.77	62.82	62.51	62.52	61.82	61.11	59.75	58.77	
25	62.27	61.75	60.96	62.76	62.93	62.90	62.74	62.58	61.86	61.15	59.59	58.76	
26	62.08	61.67	60.69	63.24	63.13	62.81	62.71	62.46	61.89	61.20	59.52	58.76	
27	61.83	61.85	60.67	62.90	62.86	62.53	62.75	62.56	61.94	61.27	59.46	58.75	
28	61.75	62.14	61.05	62.46	62.92	62.61	62.78	62.56	61.98	61.32	59.40	58.75	
29	61.99	62.34	61.15	62.33	62.68	62.26	62.70	62.56	62.03	61.36		58.75	
30	61.91	62.38	61.58	62.28	62.74	62.08	62.52	62.53	62.07	61.37		58.75	
31		62.46		63.15	62.84		62.52		62.13	61.37		58.75	
Mean	61.92	61.69	61.18	61.57	62.26	62.49	62.66	62.47	62.17	61.64	60.44	58.87	
Max	62.28	62.46	62.25	63.24	64.52	64.30	63.42	62.65	62.53	62.20	61.41	59.34	64.52
Min	61.52	60.53	60.61	60.29	60.97	61.82	62.31	62.15	61.53	61.11	59.40	58.75	58.75

Annual Max Momentary Gage Height 64.71 m. (MSL.) , at 18.00 Hours , on Aug 21 , 2018

Zero Gage at Bottom Elevation 59.00 m. (MSL.) , River Bed 58.40 m. (MSL.)

Left Bank Elevation 68.35 m. (MSL.) ,

Right Bank Elevation 68.78 m. (MSL.) , Drainage Are 12,769 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	13.60	207.50	129.00	347.75	224.00	261.55	70.80	78.75	51.90	0.00	0.00		
2	0.00	20.25	159.60	102.75	249.50	192.50	287.90	63.45	76.25	54.00	0.00	0.00		
3	0.00	35.10	158.30	109.00	233.00	157.00	342.80	64.50	80.00	54.00	0.00	0.00		
4	1.60	32.15	134.00	84.40	168.70	149.20	386.60	59.25	88.75	52.95	0.00	0.00		
5	0.00	0.00	104.00	48.60	139.00	237.50	303.80	48.75	88.75	28.75	0.00	0.00		
6	0.00	0.00	68.00	34.35	104.00	219.50	294.20	48.75	88.75	18.55	0.00	0.00		
7	2.40	20.25	34.90	28.85	106.50	252.50	260.00	77.50	90.00	0.00	0.00	0.00		
8	13.60	19.40	44.40	23.65	106.50	213.50	242.00	101.35	91.25	0.00	0.00	0.00		
9	46.65	0.00	34.90	17.80	112.75	155.70	246.50	106.75	91.25	0.00	0.00	0.00		
10	54.00	0.00	25.55	18.25	94.00	146.60	231.50	96.25	91.25	0.00	0.00	0.00		
11	43.50	0.00	29.95	11.60	124.00	234.50	242.00	92.50	83.75	0.00	0.00	0.00		
12	54.00	0.00	39.50	14.80	225.50	303.80	251.00	93.75	80.00	0.00	0.00	0.00		
13	60.30	0.00	60.00	16.90	176.00	246.50	251.00	101.35	77.50	12.00	0.00	0.00		
14	47.70	0.00	79.60	43.70	96.50	224.00	243.50	92.50	75.00	29.60	0.00	0.00		
15	26.20	0.00	86.80	96.50	80.80	200.00	230.00	91.25	71.85	37.20	0.00	0.00		
16	20.25	0.00	63.00	62.00	68.00	207.50	263.10	95.00	68.70	52.95	0.00	0.00		
17	16.85	0.80	44.40	63.00	47.90	179.00	266.20	90.00	51.90	39.30	0.00	0.00		
18	12.80	18.55	47.20	47.20	51.00	212.00	240.50	70.80	27.05	22.80	0.00	0.00		
19	15.20	20.25	70.00	120.25	85.60	191.00	216.50	69.75	8.80	8.80	0.00	0.00		
20	19.40	12.00	82.00	261.55	294.20	218.00	245.00	90.00	0.00	0.00	0.00	0.00		
21	54.00	32.15	78.40	231.50	587.60	512.00	239.00	93.75	0.00	0.00	0.00	0.00		
22	58.20	67.65	72.40	171.50	548.00	548.00	294.20	93.75	5.60	0.00	0.00	0.00		
23	48.75	42.45	56.00	153.10	316.60	395.10	393.40	92.50	13.60	0.00	0.00	0.00		
24	62.40	18.55	88.00	239.00	286.35	294.20	246.50	90.00	17.70	0.00	0.00	0.00		
25	61.35	12.00	47.20	284.80	311.80	307.00	281.70	97.50	21.10	0.00	0.00	0.00		
26	41.40	5.60	29.95	362.80	344.45	292.60	277.05	82.50	23.65	0.00	0.00	0.00		
27	18.55	20.25	28.85	307.00	300.60	249.50	283.25	95.00	27.90	0.00	0.00	0.00		
28	12.00	47.70	55.00	239.00	310.20	261.55	287.90	95.00	31.30	0.00	0.00	0.00		
29	32.15	68.70	65.00	219.50	272.40	209.00	113.50	95.00	36.15	0.00		0.00		
30	25.35	72.90	116.50	212.00	281.70	182.00	90.00	91.25	40.35	0.00		0.00		
31		82.50		347.75	297.40		90.00		46.65	0.00		0.00		
Total	848.60	662.80	2210.90	4102.10	6768.30	7415.25	7902.15	2550.50	1673.55	462.80	0.00	0.00	34596.95	CMSDAY
Mean	28.29	21.38	73.70	132.33	218.33	247.18	254.91	85.02	53.99	14.93	0.00	0.00	94.79	CMS
Max	62.40	82.50	207.50	362.80	587.60	548.00	393.40	106.75	91.25	54.00	0.00	0.00	587.60	CMS
Min	0.00	0.00	25.55	11.60	47.90	146.60	90.00	48.75	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	73.32	57.27	191.02	354.42	584.78	640.68	682.75	220.36	144.59	39.99	0.00	0.00	2989.18	MCM

Momentary Peak 621.80 CMS. at 64.71 m. (MSL.) at 18.00 Hours , on Aug 21 , 2018

Runoff Yield 7.49 Liters/Second/Square KM. Momentary Peak Yield 49.12 Liters/Second/Square KM.

WATER YEAR : 2018

YOM RIVER BASIN

Nam Ngao at Ban Luang Nua , Lampang (Y.13A)

Lat 18 - 45 - 32 N Long 99 - 58 - 33 E

Location : on left bank at the bridge on highway about 1.6 kilometers upstream from station Y.13

Ban Luang Nua **Amphoe** Ngao **Changwat** Lampang

Drainge Area	381 sq.km.
Type of Gage	Water - stage recorder.
Zero Gage at Bottom	+268.300 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank about 10 meters from the top staff gage. **Elevation** +272.644 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	1988 - 1995, 2001 to date
Rating Operation	
Period of Rating	1988 - 1995, 2001 to date
Rated by Flot	-
Rated by Current Meter	1988 - 1995, 2001 to date
Stability of Channel Regimes	Fairly stable because of backwater effect.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. Stage-discharge relation defined by 40 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

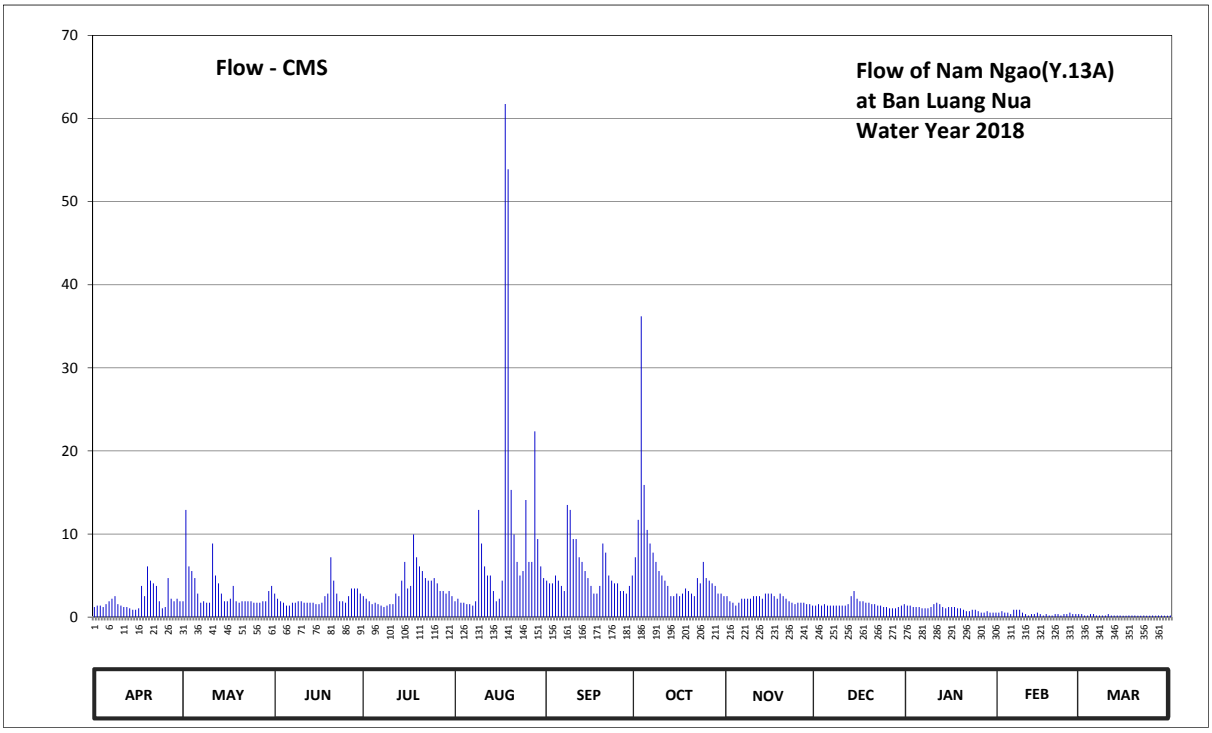
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	269.46	269.50	269.53	269.52	269.50	269.58	269.64	269.52	269.47	269.47	269.42	269.41	
2	269.47	269.74	269.51	269.51	269.51	269.57	269.72	269.50	269.48	269.47	269.43	269.40	
3	269.47	269.62	269.50	269.50	269.49	269.57	270.10	269.49	269.47	269.46	269.42	269.40	
4	269.46	269.61	269.49	269.48	269.49	269.60	269.79	269.47	269.48	269.46	269.42	269.41	
5	269.48	269.59	269.47	269.49	269.48	269.58	269.70	269.49	269.47	269.46	269.41	269.41	
6	269.50	269.53	269.47	269.48	269.48	269.56	269.67	269.51	269.47	269.45	269.44	269.40	
7	269.51	269.49	269.49	269.47	269.47	269.54	269.65	269.51	269.47	269.45	269.44	269.40	
8	269.52	269.50	269.49	269.46	269.50	269.75	269.63	269.51	269.47	269.45	269.44	269.40	
9	269.48	269.49	269.50	269.47	269.74	269.74	269.61	269.51	269.47	269.46	269.42	269.40	
10	269.47	269.49	269.50	269.48	269.67	269.68	269.60	269.52	269.47	269.48	269.41	269.41	
11	269.46	269.67	269.49	269.48	269.62	269.68	269.58	269.52	269.47	269.49	269.40	269.40	
12	269.46	269.60	269.49	269.53	269.60	269.64	269.56	269.52	269.48	269.48	269.41	269.40	
13	269.45	269.57	269.49	269.52	269.60	269.63	269.52	269.51	269.52	269.46	269.41	269.40	
14	269.44	269.53	269.49	269.58	269.54	269.61	269.52	269.53	269.54	269.45	269.42	269.40	
15	269.44	269.50	269.48	269.63	269.50	269.59	269.53	269.53	269.51	269.46	269.41	269.39	
16	269.45	269.50	269.48	269.55	269.51	269.56	269.52	269.53	269.50	269.46	269.40	269.39	
17	269.56	269.51	269.49	269.56	269.58	269.53	269.53	269.52	269.50	269.46	269.41	269.40	
18	269.52	269.56	269.52	269.69	270.47	269.53	269.55	269.51	269.49	269.45	269.40	269.40	
19	269.62	269.50	269.53	269.64	270.36	269.56	269.54	269.53	269.49	269.45	269.40	269.40	
20	269.58	269.49	269.64	269.62	269.78	269.67	269.53	269.52	269.48	269.44	269.41	269.39	
21	269.57	269.50	269.58	269.61	269.69	269.65	269.52	269.51	269.48	269.43	269.41	269.39	
22	269.56	269.50	269.53	269.59	269.63	269.60	269.59	269.50	269.47	269.43	269.40	269.40	
23	269.50	269.50	269.50	269.58	269.60	269.58	269.57	269.49	269.47	269.44	269.41	269.39	
24	269.45	269.50	269.50	269.58	269.61	269.57	269.63	269.48	269.46	269.44	269.41	269.39	
25	269.46	269.49	269.49	269.59	269.76	269.57	269.59	269.49	269.46	269.43	269.42	269.40	
26	269.59	269.49	269.52	269.57	269.63	269.54	269.58	269.49	269.45	269.42	269.41	269.39	
27	269.51	269.49	269.55	269.54	269.63	269.54	269.57	269.49	269.45	269.42	269.41	269.40	
28	269.50	269.50	269.55	269.54	269.89	269.53	269.56	269.48	269.45	269.43	269.41	269.40	
29	269.51	269.50	269.55	269.53	269.68	269.56	269.53	269.48	269.46	269.42		269.39	
30	269.50	269.54	269.53	269.54	269.62	269.60	269.53	269.47	269.47	269.42		269.39	
31		269.56		269.52	269.59		269.52		269.48	269.42		269.40	
Mean	269.50	269.53	269.51	269.54	269.65	269.60	269.60	269.50	269.48	269.45	269.41	269.40	
Max	269.62	269.74	269.64	269.69	270.47	269.75	270.10	269.53	269.54	269.49	269.44	269.41	270.47
Min	269.44	269.49	269.47	269.46	269.47	269.53	269.52	269.47	269.45	269.42	269.40	269.39	269.39

Annual Max Momentary Gage Height 270.86 m. (MSL.) , at 16.00 Hours , on Aug 18 , 2018

Zero Gage at Bottom Elevation 268.30 m. (MSL.) , River Bed 268.25 m. (MSL.)

Left Bank Elevation 274.92 m. (MSL.) ,

Right Bank Elevation 275.04 m. (MSL.) , Drainage Are 381 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.22	1.90	2.83	2.52	1.90	4.38	7.20	2.52	1.39	1.39	0.54	0.37		
2	1.39	12.90	2.21	2.21	2.21	4.07	11.70	1.90	1.56	1.39	0.71	0.20		
3	1.39	6.10	1.90	1.90	1.73	4.07	36.20	1.73	1.39	1.22	0.54	0.20		
4	1.22	5.55	1.73	1.56	1.73	5.00	15.90	1.39	1.56	1.22	0.54	0.37		
5	1.56	4.69	1.39	1.73	1.56	4.38	10.50	1.73	1.39	1.22	0.37	0.37		
6	1.90	2.83	1.39	1.56	1.56	3.76	8.85	2.21	1.39	1.05	0.88	0.20		
7	2.21	1.73	1.73	1.39	1.39	3.14	7.75	2.21	1.39	1.05	0.88	0.20		
8	2.52	1.90	1.73	1.22	1.90	13.50	6.65	2.21	1.39	1.05	0.88	0.20		
9	1.56	1.73	1.90	1.39	12.90	12.90	5.55	2.21	1.39	1.22	0.54	0.20		
10	1.39	1.73	1.90	1.56	8.85	9.40	5.00	2.52	1.39	1.56	0.37	0.37		
11	1.22	8.85	1.73	1.56	6.10	9.40	4.38	2.52	1.39	1.73	0.20	0.20		
12	1.22	5.00	1.73	2.83	5.00	7.20	3.76	2.52	1.56	1.56	0.37	0.20		
13	1.05	4.07	1.73	2.52	5.00	6.65	2.52	2.21	2.52	1.22	0.37	0.20		
14	0.88	2.83	1.73	4.38	3.14	5.55	2.52	2.83	3.14	1.05	0.54	0.20		
15	0.88	1.90	1.56	6.65	1.90	4.69	2.83	2.83	2.21	1.22	0.37	0.18		
16	1.05	1.90	1.56	3.45	2.21	3.76	2.52	2.83	1.90	1.22	0.20	0.18		
17	3.76	2.21	1.73	3.76	4.38	2.83	2.83	2.52	1.90	1.22	0.37	0.20		
18	2.52	3.76	2.52	9.95	61.74	2.83	3.45	2.21	1.73	1.05	0.20	0.20		
19	6.10	1.90	2.83	7.20	53.90	3.76	3.14	2.83	1.73	1.05	0.20	0.20		
20	4.38	1.73	7.20	6.10	15.30	8.85	2.83	2.52	1.56	0.88	0.37	0.18		
21	4.07	1.90	4.38	5.55	9.95	7.75	2.52	2.21	1.56	0.71	0.37	0.18		
22	3.76	1.90	2.83	4.69	6.65	5.00	4.69	1.90	1.39	0.71	0.20	0.20		
23	1.90	1.90	1.90	4.38	5.00	4.38	4.07	1.73	1.39	0.88	0.37	0.18		
24	1.05	1.90	1.90	4.38	5.55	4.07	6.65	1.56	1.22	0.88	0.37	0.18		
25	1.22	1.73	1.73	4.69	14.10	4.07	4.69	1.73	1.22	0.71	0.54	0.20		
26	4.69	1.73	2.52	4.07	6.65	3.14	4.38	1.73	1.05	0.54	0.37	0.18		
27	2.21	1.73	3.45	3.14	6.65	3.14	4.07	1.73	1.05	0.54	0.37	0.20		
28	1.90	1.90	3.45	3.14	22.35	2.83	3.76	1.56	1.05	0.71	0.37	0.20		
29	2.21	1.90	3.45	2.83	9.40	3.76	2.83	1.56	1.22	0.54		0.18		
30	1.90	3.14	2.83	3.14	6.10	5.00	2.83	1.39	1.39	0.54		0.18		
31		3.76		2.52	4.69		2.52		1.56	0.54		0.20		
Total	64.33	98.70	71.47	107.97	291.49	163.26	189.09	63.55	47.98	31.87	12.40	6.70	1148.81	CMSDAY
Mean	2.14	3.18	2.38	3.48	9.40	5.44	6.10	2.12	1.55	1.03	0.44	0.22	3.15	CMS
Max	6.10	12.90	7.20	9.95	61.74	13.50	36.20	2.83	3.14	1.73	0.88	0.37	61.74	CMS
Min	0.88	1.73	1.39	1.22	1.39	2.83	2.52	1.39	1.05	0.54	0.20	0.18	0.18	CMS
Runoff	5.56	8.53	6.18	9.33	25.18	14.11	16.34	5.49	4.15	2.75	1.07	0.58	99.26	MCM

Momentary Peak 91.80 CMS. at 270.86 m. (MSL.) at 16.00 Hours , on Aug 18 , 2018

Runoff Yield 8.26 Liters/Second/Square KM. Momentary Peak Yield 240.94 Liters/Second/Square KM.

WATER YEAR : 2018

YOM RIVER BASIN

Yom River at Ban Don Rabiang , Sukhothai (Y.14)

Lat 17 - 35 - 42 N Long 99 - 43 - 06 E

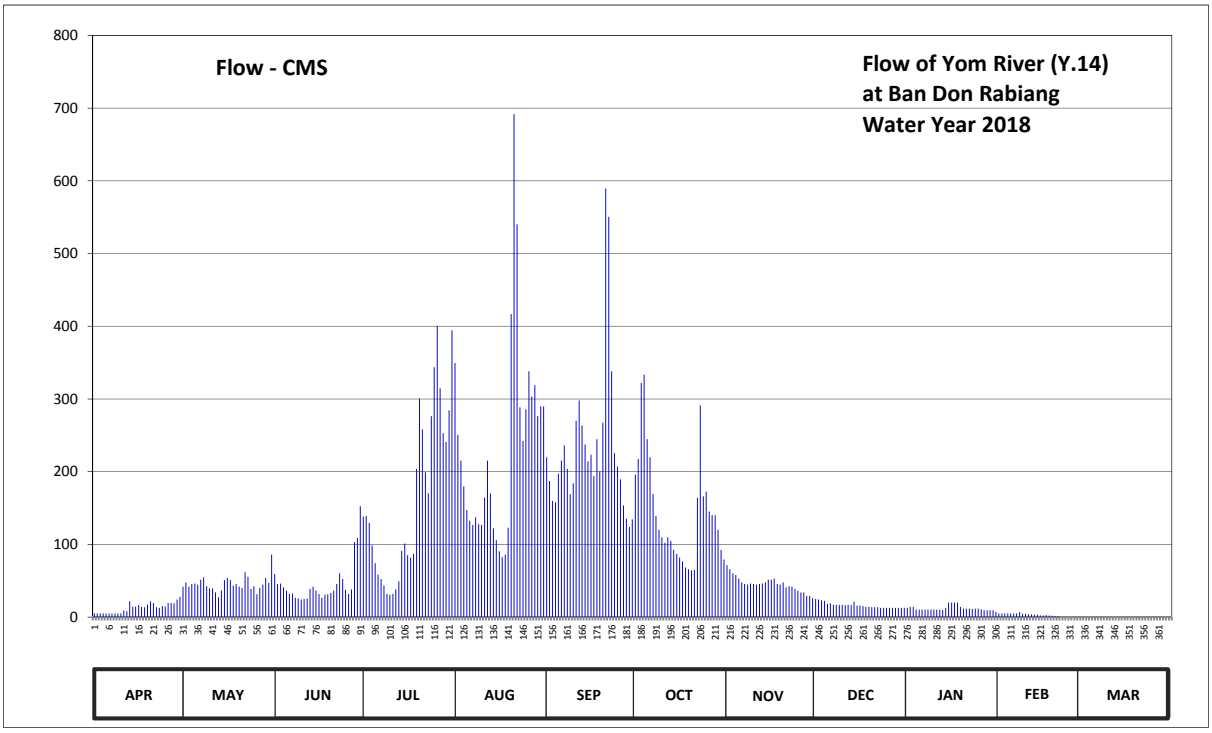
Location : on left bank about 50 meters from Si Satchanalai - Den Chai Highway No.101 at guidepost 44 th.

	Ban	Don Rabiang	**Amphoe**	Si Satchanalai	**Changwat**	Sukhothai
Drainge Area	12,100	sq.km.				
Type of Gage	Staff gage					
Zero Gage at Bottom	+65.100	m. (MSL.)				
Bench Mark	B.M.-H.D.					
Location BM	In front of gage observer's house.				**Elevation**	+78.363 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.					
Basis of Mean Daily Gage Height	Arithmetic mean of 5 readings					
Period of Available Gage Records	1964 to date					
Rating Operation						
Period of Rating	1964 to date					
Rated by Flot	-					
Rated by Current Meter	1964 to date					
Stability of Channel Regimes	Stable.					
Overbank Flow Conditions	No overbank flow.					
General Description	Records good. Stage-discharge relation defined by 25 discharge measurements made in 2018.					

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	66.00	66.65	66.88	67.76	69.50	68.52	68.31	67.03	66.38	66.17	66.00	65.70	
2	66.00	66.73	66.70	67.77	68.78	68.23	68.50	66.96	66.37	66.20	66.00	65.70	
3	66.00	66.65	66.71	67.67	68.48	67.97	69.31	66.89	66.35	66.20	66.00	65.69	
4	66.00	66.70	66.64	67.34	68.16	67.95	69.39	66.86	66.34	66.12	66.00	65.75	
5	66.00	66.71	66.57	67.06	67.85	68.32	68.73	66.80	66.27	66.12	66.00	65.74	
6	66.00	66.69	66.50	66.87	67.70	68.48	68.52	66.73	66.28	66.12	66.00	65.74	
7	66.00	66.78	66.51	66.79	67.64	68.66	68.06	66.70	66.25	66.12	66.00	65.74	
8	66.00	66.82	66.41	66.67	67.75	68.38	67.77	66.69	66.25	66.12	66.04	65.73	
9	66.00	66.66	66.39	66.50	67.65	68.06	67.57	66.71	66.25	66.12	65.98	65.75	
10	66.00	66.62	66.37	66.48	67.64	68.20	67.46	66.70	66.25	66.12	65.98	65.75	
11	66.09	66.62	66.38	66.50	68.01	68.93	67.38	66.69	66.24	66.12	65.96	65.69	
12	66.07	66.53	66.39	66.60	68.48	69.14	67.46	66.70	66.25	66.12	65.95	65.68	
13	66.33	66.42	66.61	66.75	68.07	68.88	67.41	66.71	66.24	66.11	65.94	65.68	
14	66.21	66.58	66.65	67.26	67.59	68.67	67.27	66.73	66.32	66.16	65.94	65.68	
15	66.21	66.77	66.58	67.37	67.42	68.47	67.21	66.78	66.23	66.30	65.90	65.68	
16	66.24	66.81	66.50	67.19	67.25	68.55	67.15	66.78	66.23	66.30	65.89	65.68	
17	66.20	66.77	66.41	67.15	67.16	68.29	67.09	66.80	66.22	66.30	65.91	65.68	
18	66.19	66.67	66.48	67.21	67.20	68.73	66.99	66.70	66.20	66.30	65.89	65.68	
19	66.25	66.70	66.49	68.38	67.60	68.35	66.96	66.69	66.20	66.20	65.88	65.68	
20	66.33	66.65	66.52	69.16	69.93	68.91	66.94	66.73	66.19	66.15	65.85	65.68	
21	66.29	66.63	66.57	68.84	71.57	70.98	66.95	66.64	66.19	66.15	65.84	65.67	
22	66.19	66.91	66.70	68.34	70.69	70.75	68.01	66.66	66.19	66.15	65.75	65.65	
23	66.17	66.83	66.89	68.07	69.07	69.42	69.09	66.65	66.17	66.14	65.75	65.63	
24	66.22	66.61	66.79	68.98	68.71	68.57	68.03	66.61	66.17	66.15	65.75	65.62	
25	66.21	66.66	66.59	69.46	69.05	68.41	68.09	66.57	66.17	66.15	65.75	65.59	
26	66.29	66.49	66.50	69.83	69.42	68.25	67.83	66.53	66.17	66.13	65.75	65.59	
27	66.29	66.63	66.60	69.26	69.18	67.91	67.78	66.53	66.17	66.10	65.70	65.59	
28	66.28	66.69	67.39	68.80	69.29	67.73	67.78	66.45	66.17	66.10	65.70	65.59	
29	66.37	66.81	67.45	68.70	68.98	67.61	67.57	66.45	66.17	66.10		65.59	
30	66.43	66.72	67.90	69.04	69.08	67.72	67.27	66.40	66.17	66.10		65.59	
31		67.20		69.79	69.08		67.12		66.17	66.05		65.59	
Mean	66.16	66.70	66.67	67.86	68.52	68.57	67.77	66.70	66.23	66.15	65.90	65.67	
Max	66.43	67.20	67.90	69.83	71.57	70.98	69.39	67.03	66.38	66.30	66.04	65.75	71.57
Min	66.00	66.42	66.37	66.48	67.16	67.61	66.94	66.40	66.17	66.05	65.70	65.59	65.59

Annual Max Momentary Gage Height	71.78	m. (MSL.) ,	at 18.00 Hours , on Aug 21 , 2018		
Zero Gage at Bottom Elevation	65.10	m. (MSL.) ,	River Bed	64.47	m. (MSL.)
Left Bank Elevation	76.16	m. (MSL.) ,			
Right Bank Elevation	77.98	m. (MSL.) ,	Drainage Are	12,100	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	5.00	41.75	59.40	138.20	349.50	219.80	196.10	71.55	24.80	12.65	5.00	0.00		
2	5.00	47.75	45.50	139.15	250.60	187.30	217.50	65.80	24.20	14.00	5.00	0.00		
3	5.00	41.75	46.25	129.65	215.20	159.85	321.95	60.20	23.00	14.00	5.00	0.00		
4	5.00	45.50	41.00	98.60	179.80	157.75	333.55	57.80	22.40	10.40	5.00	0.00		
5	5.00	46.25	36.20	74.10	147.25	197.20	244.60	53.00	18.20	10.40	5.00	0.00		
6	5.00	44.75	32.00	58.60	132.50	215.20	219.80	47.75	18.80	10.40	5.00	0.00		
7	5.00	51.50	32.60	52.25	126.80	236.20	169.30	45.50	17.00	10.40	5.00	0.00		
8	5.00	54.60	26.60	43.25	137.25	203.80	139.15	44.75	17.00	10.40	6.80	0.00		
9	5.00	42.50	25.40	32.00	127.75	169.30	120.15	46.25	17.00	10.40	4.50	0.00		
10	5.00	39.50	24.20	30.80	126.80	184.00	109.70	45.50	17.00	10.40	4.50	0.00		
11	9.05	39.50	24.80	32.00	164.05	269.90	102.20	44.75	16.40	10.40	4.00	0.00		
12	8.15	33.80	25.40	38.00	215.20	297.90	109.70	45.50	17.00	10.40	3.75	0.00		
13	21.80	27.20	38.75	49.25	170.35	263.40	104.95	46.25	16.40	9.95	3.50	0.00		
14	14.60	36.80	41.75	91.40	122.05	237.40	92.30	47.75	21.20	12.20	3.50	0.00		
15	14.60	50.75	36.80	101.30	105.90	214.05	86.90	51.50	15.80	20.00	2.50	0.00		
16	16.40	53.80	32.00	85.15	90.50	223.25	81.75	51.50	15.80	20.00	2.25	0.00		
17	14.00	50.75	26.60	81.75	82.60	193.90	76.65	53.00	15.20	20.00	2.75	0.00		
18	13.55	43.25	30.80	86.90	86.00	244.60	68.20	45.50	14.00	20.00	2.25	0.00		
19	17.00	45.50	31.40	203.80	123.00	200.50	65.80	44.75	14.00	14.00	2.00	0.00		
20	21.80	41.75	33.20	300.60	416.80	267.30	64.20	47.75	13.55	11.75	1.25	0.00		
21	19.40	40.25	36.20	258.20	691.75	589.60	65.00	41.00	13.55	11.75	1.00	0.00		
22	13.55	61.80	45.50	199.40	540.30	550.50	164.05	42.50	13.55	11.75	0.00	0.00		
23	12.65	55.40	60.20	170.35	288.45	337.90	291.15	41.75	12.65	11.30	0.00	0.00		
24	15.20	38.75	52.25	276.40	242.20	225.55	166.15	38.75	12.65	11.75	0.00	0.00		
25	14.60	42.50	37.40	343.70	285.75	207.15	172.45	36.20	12.65	11.75	0.00	0.00		
26	19.40	31.40	32.00	400.80	337.90	189.50	145.15	33.80	12.65	10.85	0.00	0.00		
27	19.40	40.25	38.00	314.70	303.30	153.55	140.10	33.80	12.65	9.50	0.00	0.00		
28	18.80	44.75	103.10	253.00	319.05	135.35	140.10	29.00	12.65	9.50	0.00	0.00		
29	24.20	53.80	108.75	241.00	276.40	123.95	120.15	29.00	12.65	9.50		0.00		
30	27.80	47.00	152.50	284.40	289.80	134.40	92.30	26.00	12.65	9.50		0.00		
31		86.00		394.40	289.80		79.20		12.65	7.25		0.00		
Total	385.95	1420.85	1356.55	5003.10	7234.60	6990.05	4500.25	1368.15	499.70	376.55	79.55	0.00	29215.30	CMSDAY
Mean	12.87	45.83	45.22	161.39	233.37	233.00	145.17	45.60	16.12	12.15	2.84	0.00	80.04	CMS
Max	27.80	86.00	152.50	400.80	691.75	589.60	333.55	71.55	24.80	20.00	6.80	0.00	691.75	CMS
Min	5.00	27.20	24.20	30.80	82.60	123.95	64.20	26.00	12.65	7.25	0.00	0.00	0.00	CMS
Runoff	33.35	122.76	117.21	432.27	625.07	603.94	388.82	118.21	43.17	32.53	6.87	0.00	2524.20	MCM

Momentary Peak 730.30 CMS. at 71.78 m. (MSL.) at 18.00 Hours , on Aug 21 , 2018

Runoff Yield 6.60 Liters/Second/Square KM. Momentary Peak Yield 60.20 Liters/Second/Square KM.

WATER YEAR : 2018

YOM RIVER BASIN

Yom River at Ban Bang Rakam , Phitsanulok (Y.16)

Lat 16 - 45 - 26 N Long 100 - 07 - 15 E

Location : on right bank about 58 meters upstream from the old staff gage.

Ban Bang Rakam **Amphoe** Bang Rakam **Changwat** Phitsanulok

Drainge Area	20,201 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+31.630 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On right bank about 13 meters from the top staff gage. **Elevation** +43.630 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic mean of 5 readings
Period of Available Gage Records	1967 to date
Rating Operation	
Period of Rating	1967 , 1995 to date
Rated by Flot	-
Rated by Current Meter	1967 , 1995 to date
Stability of Channel Regimes	Rather unstable because of backwater effect.
Overbank Flow Conditions	Overbank flow starts at elevation +38.330 m.(MSL.), records are channel flow only.
General Description	Records fair. Stage-discharge relation defined by 25 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

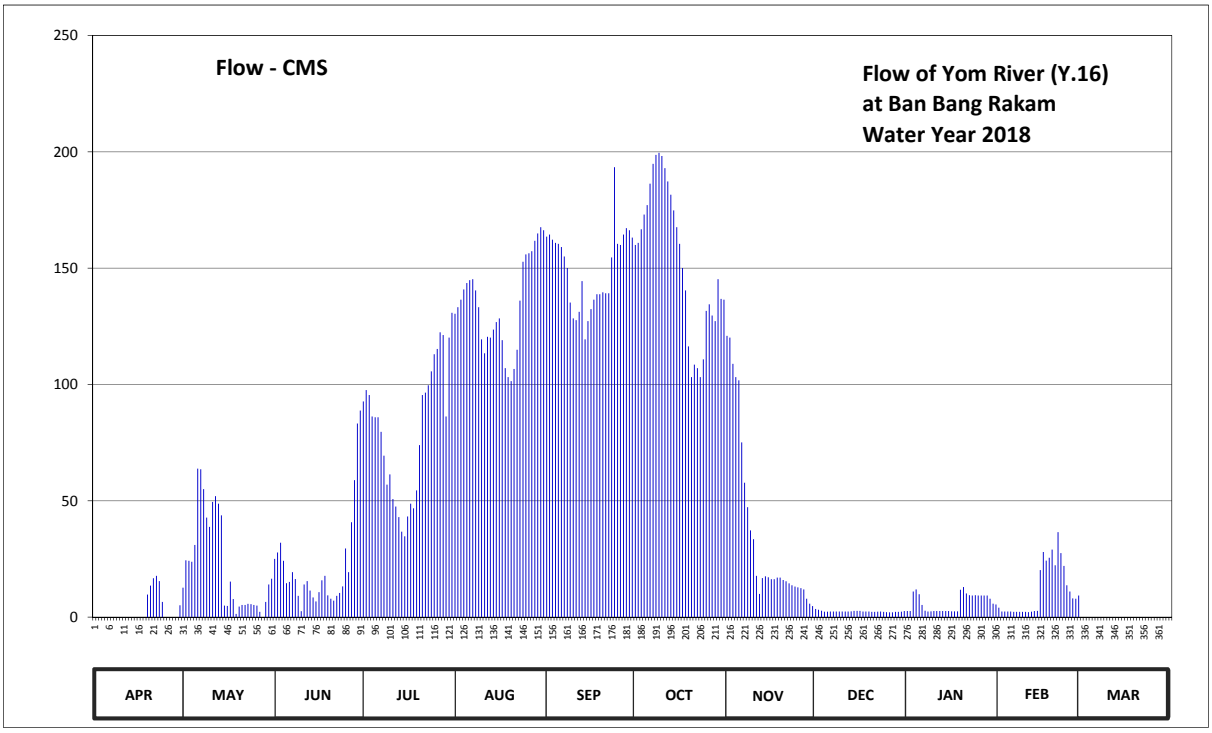
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	32.62	33.58	34.25	35.79	36.81	37.59	37.51	36.57	32.20	32.08	32.23	32.63	
2	32.61	34.22	34.39	35.93	36.88	37.61	37.53	36.55	32.15	32.08	32.05	32.63	
3	32.60	34.21	34.56	35.87	36.96	37.56	37.66	36.25	32.10	32.63	32.05	32.63	
4	32.58	34.19	34.21	35.59	37.07	37.53	37.80	36.09	32.04	32.68	32.05	32.63	
5	32.58	34.52	33.69	35.58	37.14	37.52	37.89	36.05	32.04	32.56	32.05	32.63	
6	32.58	34.83	33.72	35.58	37.17	37.49	38.09	35.22	32.05	32.30	32.03	32.63	
7	32.58	34.82	33.96	35.37	37.18	37.40	38.27	34.61	32.05	32.10	32.03	32.63	
8	32.58	34.51	33.79	35.03	37.06	37.29	38.35	34.21	32.05	32.05	32.03	32.63	
9	32.72	34.03	33.38	34.58	36.88	36.93	38.37	33.81	32.05	32.06	32.03	32.63	
10	32.74	33.87	32.97	34.74	36.53	36.76	38.34	33.66	32.05	32.08	32.03	32.55	
11	32.72	34.30	33.66	34.35	36.37	36.74	38.23	33.01	32.05	32.08	32.02	32.55	
12	32.69	34.40	33.74	34.22	36.56	36.83	38.11	32.57	32.05	32.08	32.04	32.53	
13	32.73	34.27	33.51	34.04	36.55	37.16	37.99	32.96	32.06	32.08	32.08	32.34	
14	32.73	34.07	33.34	33.79	36.64	36.53	37.84	33.00	32.09	32.08	32.09	32.33	
15	32.73	33.13	33.24	33.71	36.72	36.73	37.68	32.98	32.09	32.08	33.12	32.33	
16	32.73	33.12	33.47	34.05	36.76	36.86	37.52	32.93	32.09	32.06	33.44	32.33	
17	32.74	33.73	33.76	34.27	36.52	36.96	37.29	32.93	32.05	32.06	33.29	32.33	
18	32.76	33.30	33.87	34.19	36.20	37.02	37.06	32.97	32.05	32.06	33.34	32.33	
19	33.41	32.89	33.39	34.49	36.09	37.02	36.45	32.97	32.05	32.67	33.48	32.33	
20	33.63	33.10	33.31	35.18	36.04	37.04	36.09	32.91	32.03	32.74	33.21	32.31	
21	33.81	33.15	33.26	35.87	36.19	37.03	36.24	32.88	32.03	32.58	33.78	32.27	
22	33.87	33.15	33.38	35.90	36.41	37.03	36.20	32.83	32.04	32.54	33.42	32.23	
23	33.74	33.18	33.45	35.99	36.95	37.39	36.09	32.78	32.05	32.53	33.20	32.12	
24	33.23	33.17	33.61	36.16	37.35	38.24	36.30	32.75	32.03	32.54	32.78	32.11	
25	32.60	33.15	34.46	36.36	37.42	37.52	36.84	32.73	32.02	32.53	32.63	32.04	
26	32.63	33.13	33.96	36.42	37.43	37.51	36.91	32.71	32.01	32.53	32.46	32.04	
27	32.59	32.95	33.95	36.61	37.45	37.61	36.79	32.68	32.01	32.53	32.45	32.06	
28	32.55	32.73	34.65	36.58	37.55	37.67	36.73	32.45	32.03	32.53	32.53	32.07	
29	32.57	33.23	35.49	35.59	37.62	37.65	37.18	32.33	32.03	32.45		32.08	
30	33.14	33.66	35.67	36.55	37.68	37.58	36.97	32.27	32.04	32.33		32.08	
31		33.80		36.82	37.65		36.96		32.08	32.31		32.08	
Mean	32.86	33.69	33.87	35.33	36.90	37.26	37.33	33.62	32.06	32.32	32.57	32.36	
Max	33.87	34.83	35.67	36.82	37.68	38.24	38.37	36.57	32.20	32.74	33.78	32.63	38.37
Min	32.55	32.73	32.97	33.71	36.04	36.53	36.09	32.27	32.01	32.05	32.02	32.04	32.01

Annual Max Momentary Gage Height 38.38 m. (MSL.) , at 06.00 Hours , on Oct 10 , 2018

Zero Gage at Bottom Elevation 31.63 m. (MSL.) , River Bed 31.04 m. (MSL.)

Left Bank Elevation 38.32 m. (MSL.) ,

Right Bank Elevation 43.04 m. (MSL.) , Drainage Are 20,201 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	12.65	25.00	92.68	130.40	163.55	159.95	120.88	3.50	2.60	4.03	0.00		
2	0.00	24.40	27.80	97.55	133.20	164.45	160.85	120.13	3.13	2.60	2.38	0.00		
3	0.00	24.20	32.00	95.45	136.40	162.20	166.70	108.88	2.75	11.03	2.38	0.00		
4	0.00	23.80	24.20	86.20	140.80	160.85	173.00	103.15	2.30	11.90	2.38	0.00		
5	0.00	31.00	14.58	85.90	143.60	160.40	177.05	101.75	2.30	9.80	2.38	0.00		
6	0.00	63.83	15.10	85.90	144.80	159.05	186.28	75.10	2.38	5.25	2.23	0.00		
7	0.00	63.55	19.30	79.60	145.20	155.00	194.83	57.78	2.38	2.75	2.23	0.00		
8	0.00	55.03	16.33	69.40	140.40	150.05	198.63	47.25	2.38	2.38	2.23	0.00		
9	0.00	42.75	9.15	56.95	133.20	135.20	199.58	37.25	2.38	2.45	2.23	0.00		
10	0.00	38.75	2.55	61.35	119.38	128.40	198.15	33.50	2.38	2.60	2.23	0.00		
11	0.00	49.50	14.05	50.75	113.38	127.60	192.93	17.73	2.38	2.60	2.15	0.00		
12	0.00	52.00	15.45	47.50	120.50	131.20	187.23	9.98	2.38	2.60	2.30	0.00		
13	0.00	48.75	11.43	43.00	120.13	144.40	181.55	16.80	2.45	2.60	2.60	0.00		
14	0.00	43.75	8.45	36.75	123.60	119.38	174.80	17.50	2.68	2.60	2.68	0.00		
15	0.00	4.95	6.70	34.75	126.80	127.20	167.60	17.15	2.68	2.60	20.20	0.00		
16	0.00	4.80	10.73	43.25	128.40	132.40	160.40	16.28	2.68	2.45	28.00	0.00		
17	0.00	15.28	15.80	48.75	119.00	136.40	150.05	16.28	2.38	2.45	24.25	0.00		
18	0.00	7.75	17.73	46.75	107.00	138.80	140.40	16.98	2.38	2.45	25.50	0.00		
19	9.68	1.35	9.33	54.48	103.15	138.80	116.38	16.98	2.38	11.73	29.00	0.00		
20	13.53	4.50	7.93	73.90	101.40	139.60	103.15	15.93	2.23	12.95	22.25	0.00		
21	16.68	5.25	7.05	95.45	106.65	139.20	108.50	15.40	2.23	10.15	36.50	0.00		
22	17.73	5.25	9.15	96.50	114.88	139.20	107.00	14.53	2.30	9.45	27.50	0.00		
23	15.45	5.70	10.38	99.65	136.00	154.55	103.15	13.65	2.38	9.28	22.00	0.00		
24	6.53	5.55	13.18	105.60	152.75	193.40	110.75	13.13	2.23	9.45	13.65	0.00		
25	0.00	5.25	29.50	113.00	155.90	160.40	131.60	12.78	2.15	9.28	11.03	0.00		
26	0.00	4.95	19.30	115.25	156.35	159.95	134.40	12.43	2.08	9.28	8.05	0.00		
27	0.00	2.25	40.75	122.40	157.25	164.45	129.60	11.90	2.08	9.28	7.88	0.00		
28	0.00	0.00	58.88	121.25	161.75	167.15	127.20	7.88	2.23	9.28	9.28	0.00		
29	0.00	6.53	83.20	86.20	164.90	166.25	145.20	5.78	2.23	7.88		0.00		
30	5.10	14.05	88.78	120.13	167.60	163.10	136.80	4.73	2.30	5.78		0.00		
31		16.50		130.80	166.25		136.40		2.60	5.43		0.00		
Total	84.70	683.87	663.78	2497.09	4171.02	4482.58	4760.11	1079.49	75.31	192.93	319.52	0.00	19010.40	CMSDAY
Mean	2.82	22.06	22.13	80.55	134.55	149.42	153.55	35.98	2.43	6.22	11.41	0.00	52.08	CMS
Max	17.73	63.83	88.78	130.80	167.60	193.40	199.58	120.88	3.50	12.95	36.50	0.00	199.58	CMS
Min	0.00	0.00	2.55	34.75	101.40	119.38	103.15	4.73	2.08	2.38	2.15	0.00	0.00	CMS
Runoff	7.32	59.09	57.35	215.75	360.38	387.29	411.27	93.27	6.51	16.67	27.61	0.00	1642.50	MCM

Momentary Peak 200.05 CMS. at 38.38 m. (MSL.) at 06.00 Hours , on Oct 10 , 2018

Runoff Yield 2.50 Liters/Second/Square KM. Momentary Peak Yield 9.60 Liters/Second/Square KM.

WATER YEAR : 2018

YOM RIVER BASIN

Yom River at Ban Sam Ngam , Phichit (Y.17)

Lat 16 - 30 - 24 N Long 100 - 12 - 27 E

Location : on left bank at the bridge on highway from in front of Amphoe Sam Ngam office.

Ban Sam Ngam **Amphoe** Sam Ngam **Changwat** Phichit

Drainge Area	22,034 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+31.490 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank about 50 meters from Amphoe Sam Ngam Office. **Elevation** +41.843 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic mean of 5 readings
Period of Available Gage Records	1967 to date
Rating Operation	
Period of Rating	1967 , 1990 to date
Rated by Flot	-
Rated by Current Meter	1967 , 1990 to date
Stability of Channel Regimes	Fairly stable because of backwater effect.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Stage-discharge relation defined by 28 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

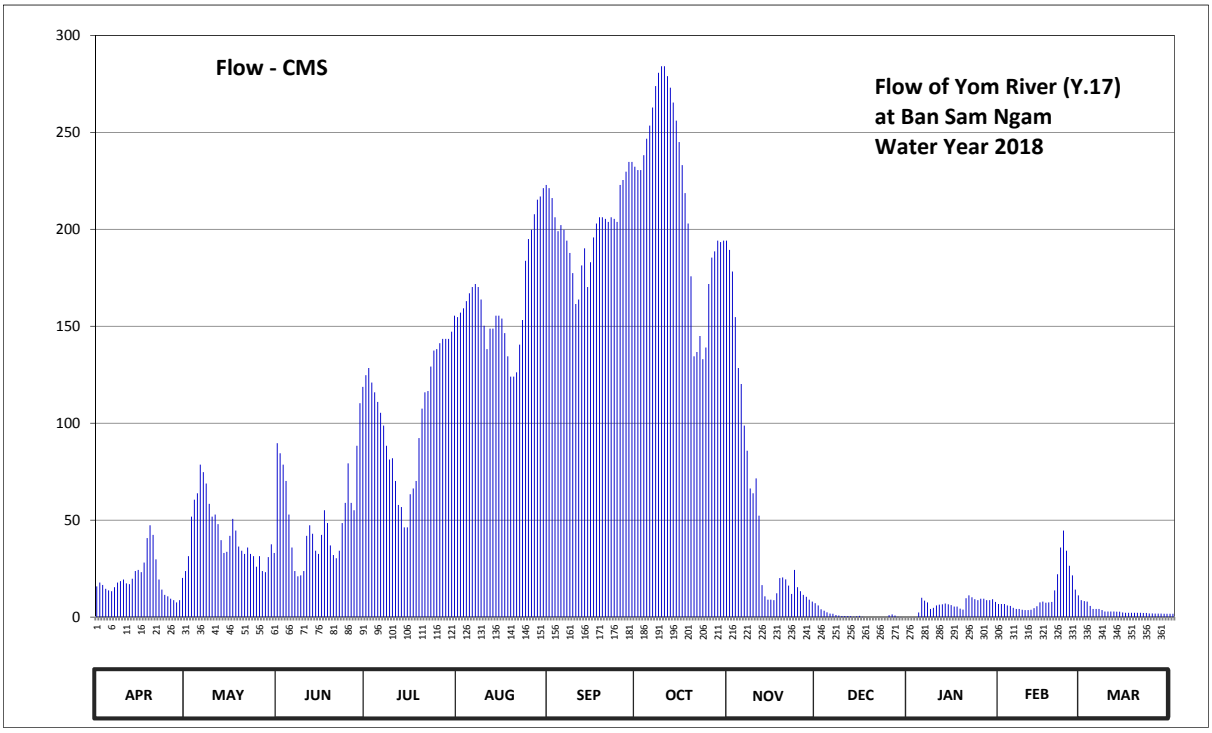
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	32.27	32.45	33.58	34.09	34.49	35.32	35.43	34.93	31.90	31.06	31.94	32.01	
2	32.32	32.59	33.50	34.14	34.52	35.26	35.43	34.79	31.80	31.10	31.94	32.00	
3	32.29	32.96	33.41	34.04	34.55	35.14	35.52	34.49	31.73	31.09	31.90	31.89	
4	32.24	33.12	33.28	33.97	34.60	35.05	35.62	34.14	31.65	31.64	31.89	31.81	
5	32.22	33.18	32.98	33.90	34.65	35.09	35.70	34.03	31.58	32.08	31.84	31.81	
6	32.21	33.41	32.67	33.82	34.69	35.06	35.81	33.72	31.57	32.02	31.81	31.81	
7	32.26	33.35	32.45	33.72	34.71	34.99	35.94	33.52	31.51	31.98	31.81	31.76	
8	32.32	33.26	32.40	33.56	34.69	34.91	36.02	33.22	31.44	31.81	31.78	31.69	
9	32.34	33.08	32.41	33.45	34.61	34.78	36.06	33.18	31.38	31.84	31.76	31.69	
10	32.36	32.96	32.45	33.46	34.43	34.58	36.06	33.30	31.39	31.90	31.76	31.69	
11	32.31	32.98	32.78	33.28	34.27	34.61	36.00	32.97	31.39	31.92	31.78	31.69	
12	32.30	32.89	32.88	33.07	34.41	34.83	35.93	32.78	31.36	31.93	31.83	31.68	
13	32.37	32.74	32.80	33.05	34.41	34.94	35.84	32.55	31.30	31.95	31.88	31.68	
14	32.45	32.62	32.64	32.86	34.50	34.69	35.73	32.48	31.34	31.93	31.98	31.64	
15	32.46	32.63	32.61	32.86	34.50	34.85	35.60	32.48	31.41	31.91	32.00	31.62	
16	32.44	32.78	32.79	33.17	34.48	35.01	35.46	32.47	31.21	31.87	31.97	31.62	
17	32.53	32.94	33.02	33.22	34.38	35.10	35.29	32.61	31.06	31.87	31.98	31.62	
18	32.76	32.83	32.90	33.28	34.22	35.14	35.10	32.89	31.00	31.82	31.99	31.62	
19	32.88	32.68	32.69	33.62	34.08	35.14	34.76	32.90	31.00	31.79	32.22	31.62	
20	32.79	32.64	32.60	33.85	34.08	35.13	34.22	32.87	31.00	32.07	32.42	31.62	
21	32.56	32.61	32.57	33.97	34.11	35.11	34.25	32.77	31.00	32.13	32.67	31.61	
22	32.36	32.67	32.64	33.98	34.30	35.14	34.36	32.60	31.00	32.09	32.83	31.61	
23	32.23	32.61	32.90	34.15	34.47	35.13	34.20	32.46	31.00	32.05	32.64	31.59	
24	32.14	32.59	33.09	34.26	34.86	35.11	34.28	32.26	31.01	32.03	32.50	31.59	
25	32.11	32.49	33.42	34.27	35.00	35.34	34.71	32.21	31.50	32.06	32.41	31.58	
26	32.06	32.59	33.09	34.31	35.06	35.37	34.88	32.14	31.54	32.06	32.23	31.58	
27	32.03	32.45	33.02	34.34	35.16	35.42	34.92	32.10	31.45	32.03	32.13	31.58	
28	31.98	32.44	33.56	34.34	35.25	35.48	34.99	32.04	31.22	32.03	32.03	31.57	
29	32.03	32.58	33.89	34.34	35.27	35.48	34.98	32.00	31.15	32.05		31.57	
30	32.38	32.70	34.01	34.39	35.32	35.45	34.99	31.96	31.06	31.99		31.57	
31		32.62		34.50	35.34		34.99		31.06	31.94		31.57	
Mean	32.33	32.79	32.97	33.78	34.63	35.09	35.26	32.96	31.32	31.87	32.07	31.68	
Max	32.88	33.41	34.01	34.50	35.34	35.48	36.06	34.93	31.90	32.13	32.83	32.01	36.06
Min	31.98	32.44	32.40	32.86	34.08	34.58	34.20	31.96	31.00	31.06	31.76	31.57	31.00

Annual Max Momentary Gage Height 36.08 m. (MSL.) , at 18.00 Hours , on Oct 9 , 2018

Zero Gage at Bottom Elevation 31.49 m. (MSL.) , River Bed 29.94 m. (MSL.)

Left Bank Elevation 35.10 m. (MSL.) ,

Right Bank Elevation 38.08 m. (MSL.) , Drainage Are 22,034 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	15.80	23.75	89.70	124.75	154.75	221.20	230.55	189.40	6.00	0.00	6.80	8.25		
2	17.80	31.45	84.50	128.50	157.00	216.10	230.55	178.20	4.00	0.00	6.80	8.00		
3	16.60	51.80	78.65	121.00	159.25	206.20	238.20	154.75	3.30	0.00	6.00	5.80		
4	14.60	60.60	70.20	115.90	163.00	199.00	246.70	128.50	2.50	2.40	5.80	4.20		
5	13.80	63.90	52.90	111.00	167.00	202.20	253.50	120.25	1.80	10.00	4.80	4.20		
6	13.40	78.65	35.85	105.40	170.20	199.80	262.85	98.80	1.70	8.50	4.20	4.20		
7	15.40	74.75	23.75	98.80	171.80	194.20	273.90	85.80	1.10	7.60	4.20	3.60		
8	17.80	68.90	21.00	88.40	170.20	187.80	280.70	66.30	0.78	4.20	3.80	2.90		
9	18.60	58.40	21.55	81.25	163.80	177.40	284.10	63.90	0.55	4.80	3.60	2.90		
10	19.40	51.80	23.75	81.90	150.25	161.50	284.10	71.50	0.59	6.00	3.60	2.90		
11	17.40	52.90	41.90	70.20	138.25	163.80	279.00	52.35	0.59	6.40	3.80	2.90		
12	17.00	47.95	47.40	57.85	148.75	181.40	273.05	16.50	0.48	6.60	4.60	2.80		
13	19.80	39.70	43.00	56.75	148.75	190.20	265.40	10.75	0.25	7.00	5.60	2.80		
14	23.75	33.10	34.20	46.30	155.50	170.20	256.05	9.00	0.40	6.60	7.60	2.40		
15	24.30	33.65	32.55	46.30	155.50	183.00	245.00	9.00	0.66	6.20	8.00	2.20		
16	23.20	41.90	42.45	63.35	154.00	195.80	233.10	8.75	0.14	5.40	7.40	2.20		
17	28.15	50.70	55.10	66.30	146.50	203.00	218.65	12.25	0.00	5.40	7.60	2.20		
18	40.80	44.65	48.50	70.20	134.50	206.20	203.00	20.15	0.00	4.40	7.80	2.20		
19	47.40	36.40	36.95	92.30	124.00	206.20	175.80	20.50	0.00	3.90	13.80	2.20		
20	42.45	34.20	32.00	107.50	124.00	205.40	134.50	19.45	0.00	9.75	22.10	2.20		
21	29.80	32.55	30.35	115.90	126.25	203.80	136.75	16.25	0.00	11.25	35.85	2.10		
22	19.40	35.85	34.20	116.60	140.50	206.20	145.00	12.00	0.00	10.25	44.65	2.10		
23	14.20	32.55	48.50	129.25	153.25	205.40	133.00	24.30	0.00	9.25	34.20	1.90		
24	11.50	31.45	58.95	137.50	183.80	203.80	139.00	15.40	0.00	8.75	26.50	1.90		
25	10.75	25.95	79.30	138.25	195.00	222.90	171.80	13.40	1.00	9.50	21.55	1.80		
26	9.50	31.45	58.95	141.25	199.80	225.45	185.40	11.50	1.40	9.50	14.20	1.80		
27	8.75	23.75	55.10	143.50	207.80	229.70	188.60	10.50	0.81	8.75	11.25	1.80		
28	7.60	23.20	88.40	143.50	215.25	234.80	194.20	9.00	0.15	8.75	8.75	1.70		
29	8.75	30.90	110.30	143.50	216.95	234.80	193.40	8.00	0.06	9.25		1.70		
30	20.20	37.50	118.75	147.25	221.20	232.25	194.20	7.20	0.00	7.80		1.70		
31		33.10		155.50	222.90		194.20		0.00	6.80		1.70		
Total	587.90	1317.40	1598.70	3245.95	5139.70	6069.70	6744.25	1463.65	28.26	205.00	334.85	91.25	26826.61	CMSDAY
Mean	19.60	42.50	53.29	104.71	165.80	202.32	217.56	48.79	0.91	6.61	11.96	2.94	73.50	CMS
Max	47.40	78.65	118.75	155.50	222.90	234.80	284.10	189.40	6.00	11.25	44.65	8.25	284.10	CMS
Min	7.60	23.20	21.00	46.30	124.00	161.50	133.00	7.20	0.00	0.00	3.60	1.70	0.00	CMS
Runoff	50.79	113.82	138.13	280.45	444.07	524.42	582.70	126.46	2.44	17.71	28.93	7.88	2317.82	MCM

Momentary Peak 285.80 CMS. at 36.08 m. (MSL.) at 18.00 Hours , on Oct 9 , 2018

Runoff Yield 3.34 Liters/Second/Square KM. Momentary Peak Yield 12.97 Liters/Second/Square KM.

WATER YEAR : 2018

YOM RIVER BASIN

Yom River at Ban Huai Sak , Phrae (Y.20)

Lat 18 - 35 - 06 N Long 100 - 09 - 16 E

Location : on left bank about 1 kilometer downstream from Sop Ngao.

	Ban Huai Sak	**Amphoe** Song	**Changwat** Phrae
Drainge Area	5,394 sq.km.		
Type of Gage	Water - stage recorder.		
Zero Gage at Bottom	+181.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	Near the automatic gage building.		**Elevation** +193.552 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	1971 to date		
Rating Operation			
Period of Rating	1972 to date		
Rated by Flot	-		
Rated by Current Meter	1972 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Mae yom weir situated about 15 kilometers above site.		
	Stage-discharge relation defined by 40 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

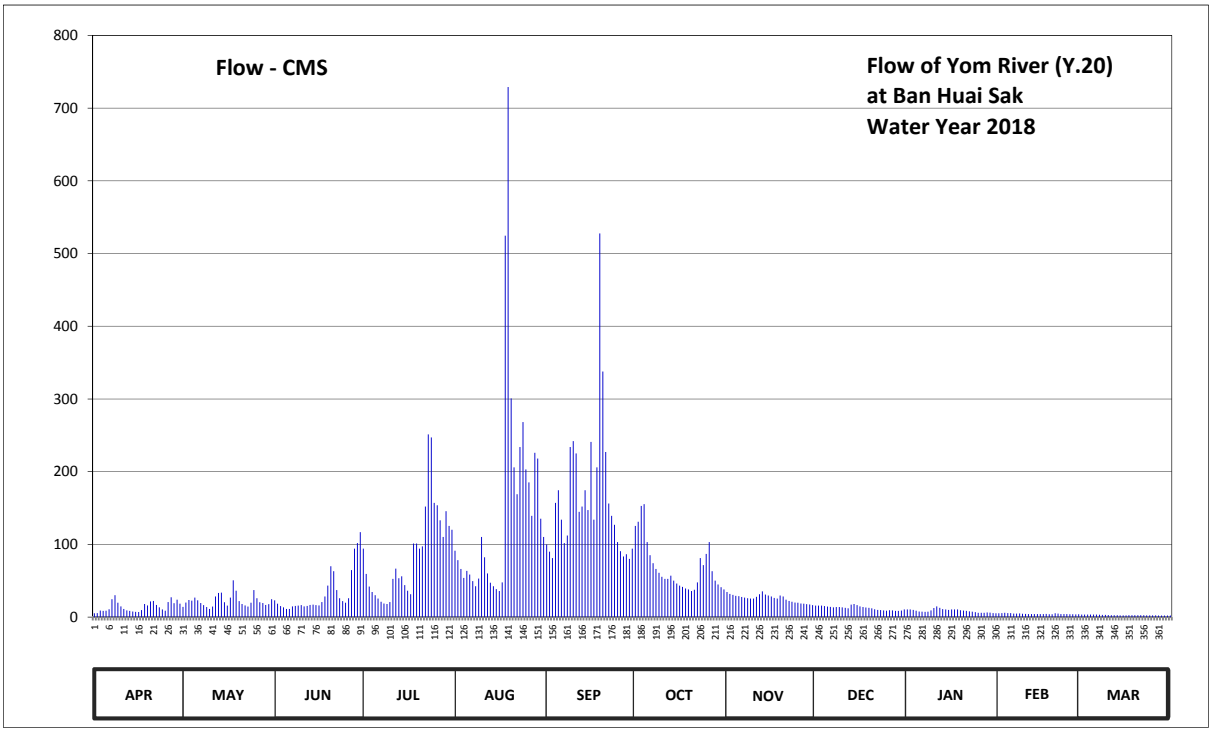
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	181.75	182.09	182.35	183.77	183.72	183.86	184.25	182.62	182.14	181.97	181.75	181.66	
2	181.76	182.27	182.22	183.15	183.50	183.70	184.33	182.56	182.14	181.97	181.76	181.66	
3	181.91	182.36	182.12	182.79	183.28	183.55	184.61	182.53	182.14	181.95	181.78	181.66	
4	181.89	182.34	182.07	182.62	183.04	184.66	184.64	182.50	182.12	181.90	181.76	181.65	
5	181.90	182.44	182.00	182.52	183.23	184.86	183.91	182.49	182.10	181.86	181.76	181.65	
6	181.98	182.35	182.00	182.41	183.13	184.37	183.62	182.46	182.09	181.85	181.73	181.65	
7	182.39	182.25	182.11	182.30	182.95	183.89	183.43	182.44	182.07	181.84	181.73	181.64	
8	182.52	182.16	182.13	182.23	182.80	184.05	183.28	182.42	182.08	181.85	181.74	181.63	
9	182.26	182.08	182.14	182.21	183.02	185.48	183.18	182.41	182.08	181.92	181.72	181.63	
10	182.11	182.00	182.16	182.29	184.02	185.56	183.07	182.41	182.07	182.04	181.71	181.61	
11	182.00	182.10	182.11	183.01	183.57	185.39	183.01	182.47	182.05	182.11	181.70	181.60	
12	181.92	182.48	182.13	183.29	183.16	184.51	183.01	182.55	182.03	182.05	181.70	181.60	
13	181.89	182.59	182.17	183.03	182.90	184.60	183.10	182.64	182.18	181.99	181.70	181.59	
14	181.86	182.60	182.18	183.08	182.80	184.86	182.96	182.54	182.21	181.97	181.70	181.58	
15	181.84	182.28	182.16	182.83	182.71	184.54	182.88	182.51	182.16	181.95	181.70	181.58	
16	181.83	182.14	182.15	182.66	182.65	185.55	182.82	182.48	182.11	181.97	181.70	181.58	
17	181.94	182.44	182.29	182.55	182.91	184.37	182.78	182.43	182.08	181.97	181.71	181.59	
18	182.21	182.97	182.48	183.88	187.72	185.20	182.73	182.41	182.06	181.97	181.69	181.60	
19	182.15	182.66	182.82	183.88	188.94	187.74	182.70	182.51	182.05	181.93	181.69	181.60	
20	182.31	182.32	183.35	183.77	186.09	186.39	182.65	182.48	182.03	181.91	181.75	181.59	
21	182.33	182.21	183.22	183.82	185.20	185.41	182.69	182.37	181.98	181.89	181.73	181.60	
22	182.17	182.15	182.68	184.60	184.80	184.65	182.91	182.33	181.95	181.87	181.70	181.59	
23	182.07	182.10	182.42	185.65	185.48	184.44	183.55	182.30	181.94	181.85	181.70	181.58	
24	181.97	182.26	182.32	185.61	185.81	184.27	183.38	182.27	181.92	181.82	181.70	181.58	
25	181.90	182.68	182.26	184.66	185.17	183.91	183.65	182.26	181.90	181.78	181.69	181.58	
26	182.29	182.42	182.42	184.62	184.98	183.71	183.91	182.23	181.93	181.78	181.68	181.58	
27	182.45	182.28	183.25	184.36	184.44	183.59	183.22	182.22	181.92	181.78	181.67	181.56	
28	182.24	182.25	183.77	184.02	185.40	183.64	182.96	182.20	181.89	181.80	181.68	181.56	
29	182.37	182.17	183.89	184.52	185.32	183.53	182.85	182.19	181.89	181.79		181.56	
30	182.22	182.20	184.12	184.25	184.39	183.77	182.77	182.16	181.91	181.76		181.56	
31		182.39		184.17	184.02		182.70		181.97	181.75		181.57	
Mean	182.08	182.32	182.52	183.50	184.23	184.60	183.28	182.41	182.04	181.90	181.72	181.60	
Max	182.52	182.97	184.12	185.65	188.94	187.74	184.64	182.64	182.21	182.11	181.78	181.66	188.94
Min	181.75	182.00	182.00	182.21	182.65	183.53	182.65	182.16	181.89	181.75	181.67	181.56	181.56

Annual Max Momentary Gage Height 190.15 m. (MSL.) , at 06.00 Hours , on Aug 19, 2018

Zero Gage at Bottom Elevation 181.00 m. (MSL.) , River Bed 179.16 m. (MSL.)

Left Bank Elevation 193.51 m. (MSL.) ,

Right Bank Elevation 193.64 m. (MSL.) , Drainage Are 5,394 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	5.25	14.08	23.10	94.20	91.20	99.90	125.50	34.48	15.72	10.45	5.25	3.60		
2	5.46	20.08	18.38	59.50	78.25	90.00	131.10	31.88	15.72	10.45	5.46	3.60		
3	8.95	23.50	15.06	42.05	66.20	81.13	152.85	30.59	15.72	9.95	5.88	3.60		
4	8.46	22.70	13.44	34.48	54.00	157.10	155.40	29.30	15.06	8.70	5.46	3.45		
5	8.70	26.78	11.20	30.16	63.58	174.40	103.15	28.88	14.40	7.74	5.46	3.45		
6	10.70	23.10	11.20	25.52	58.50	133.90	85.20	27.62	14.08	7.50	4.83	3.45		
7	24.70	19.40	14.73	21.10	49.60	101.85	74.23	26.78	13.44	7.26	4.83	3.30		
8	30.16	16.38	15.39	18.72	42.50	112.25	66.20	25.94	13.76	7.50	5.04	3.15		
9	19.74	13.76	15.72	18.04	53.00	234.00	61.00	25.52	13.76	9.20	4.62	3.15		
10	14.73	11.20	16.38	20.76	110.30	242.00	55.50	25.52	13.44	12.48	4.41	2.85		
11	11.20	14.40	14.73	52.50	82.28	225.00	52.50	28.04	12.80	14.73	4.20	2.70		
12	9.20	28.46	15.39	66.73	60.00	144.80	52.50	31.45	12.16	12.80	4.20	2.70		
13	8.46	33.17	16.71	53.50	47.20	152.00	57.00	35.36	17.04	10.95	4.20	2.56		
14	7.74	33.60	17.04	56.00	42.50	174.40	50.08	31.02	18.04	10.45	4.20	2.42		
15	7.26	20.42	16.38	43.91	38.45	147.20	46.26	29.73	16.38	9.95	4.20	2.42		
16	7.02	15.72	16.05	36.24	35.80	241.00	43.44	28.46	14.73	10.45	4.20	2.42		
17	9.70	26.78	20.76	31.45	47.68	133.90	41.60	26.36	13.76	10.45	4.41	2.56		
18	18.04	50.56	28.46	101.20	524.60	206.00	39.35	25.52	13.12	10.45	4.05	2.70		
19	16.05	36.24	43.44	101.20	728.97	527.70	38.00	29.73	12.80	9.45	4.05	2.70		
20	21.50	21.90	69.88	94.20	300.80	337.75	35.80	28.46	12.16	8.95	5.25	2.56		
21	22.30	18.04	63.05	97.30	206.00	227.00	37.56	23.90	10.70	8.46	4.83	2.70		
22	16.71	16.05	37.12	152.00	169.00	156.25	47.68	22.30	9.95	7.98	4.20	2.56		
23	13.44	14.40	25.94	251.25	234.00	139.20	81.13	21.10	9.70	7.50	4.20	2.42		
24	10.45	19.74	21.90	247.05	268.15	126.90	71.45	20.08	9.20	6.78	4.20	2.42		
25	8.70	37.12	19.74	157.10	203.15	103.15	87.00	19.74	8.70	5.88	4.05	2.42		
26	20.76	25.94	25.94	153.70	185.20	90.60	103.15	18.72	9.45	5.88	3.90	2.42		
27	27.20	20.42	64.63	133.20	139.20	83.43	63.05	18.38	9.20	5.88	3.75	2.14		
28	19.06	19.40	94.20	110.30	226.00	86.40	50.08	17.70	8.46	6.30	3.90	2.14		
29	23.90	16.71	101.85	145.60	218.00	79.98	44.85	17.37	8.46	6.09		2.14		
30	18.38	17.70	116.80	125.50	135.30	94.20	41.15	16.38	8.95	5.46		2.14		
31		24.70		120.05	110.30		38.00		10.45	5.25		2.28		
Total	433.92	702.45	984.61	2694.51	4669.71	4903.39	2131.76	776.31	391.31	271.32	127.23	85.12	18171.64	CMSDAY
Mean	14.46	22.66	32.82	86.92	150.64	163.45	68.77	25.88	12.62	8.75	4.54	2.75	49.79	CMS
Max	30.16	50.56	116.80	251.25	728.97	527.70	155.40	35.36	18.04	14.73	5.88	3.60	728.97	CMS
Min	5.25	11.20	11.20	18.04	35.80	79.98	35.80	16.38	8.46	5.25	3.75	2.14	2.14	CMS
Runoff	37.49	60.69	85.07	232.81	403.46	423.65	184.18	67.07	33.81	23.44	10.99	7.35	1570.03	MCM

Momentary Peak 952.50 CMS. at 190.15 m. (MSL.) at 06.00 Hours , on Aug 19 , 2018

Runoff Yield 9.23 Liters/Second/Square KM. Momentary Peak Yield 176.59 Liters/Second/Square KM.

WATER YEAR : 2018

YOM RIVER BASIN

Nam Pi at Ban Mang , Phayao (Y.24)

Lat 18 - 53 - 11 N Long 100 - 17 - 20 E

Location : on right bank upstream of the bridge from Pong Sanuk - Chiang Muan road.

Ban Mang **Amphoe** Chiang Muan **Changwat** Phayao

Drainge Area	590 sq.km.
Type of Gage	Staff gage.
Zero Gage at Bottom	+257.765 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On right bank at the abutment of the bridge. **Elevation** +264.800 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic mean of 3 readings
Period of Available Gage Records	1977 to date
Rating Operation	
Period of Rating	1979 - 1986 , 1996 to date
Rated by Flot	-
Rated by Current Meter	1979 - 1986 , 1996 to date
Stability of Channel Regimes	Fairly stable because of backwater effect.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. The channel flow silted about 100 meters downstream from the gage site. Stage-discharge relation defined by 40 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

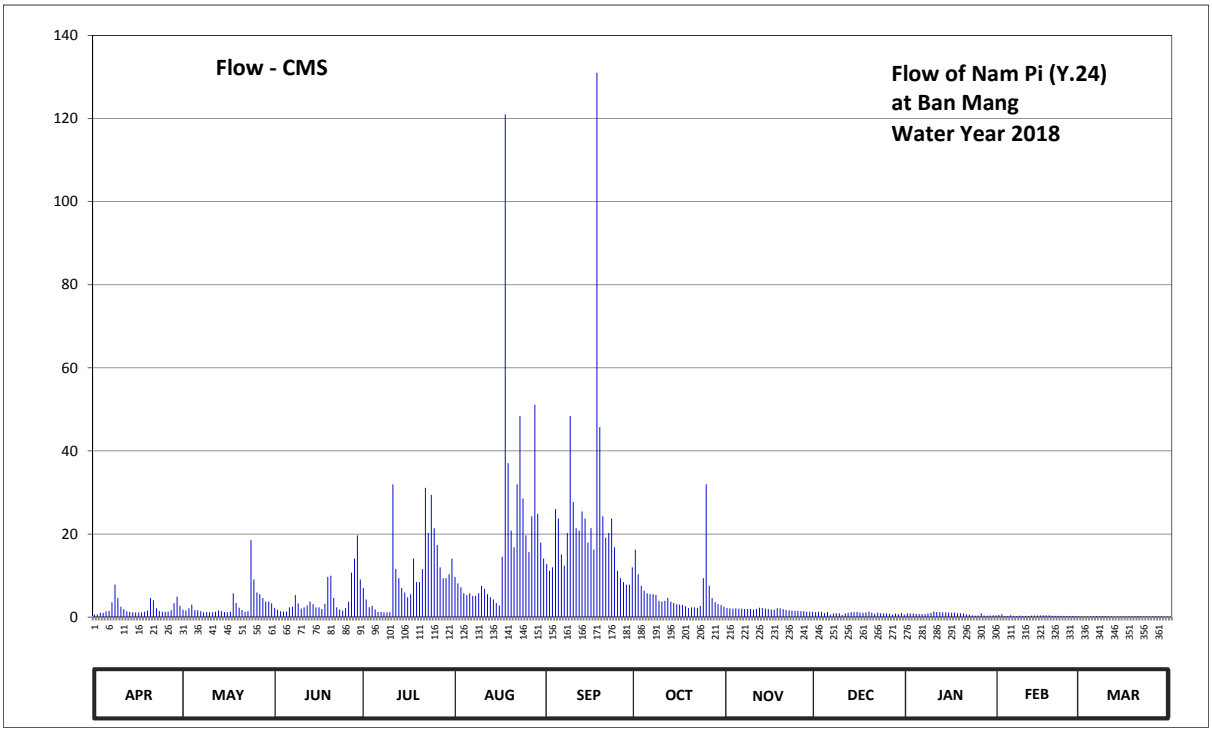
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	259.74	260.39	260.47	260.79	260.88	260.96	261.03	260.46	260.15	259.95	259.66	259.30	
2	259.77	260.33	260.39	260.65	260.83	260.92	260.90	260.45	260.19	259.91	259.80	259.32	
3	260.03	260.45	260.29	260.50	260.80	260.94	260.81	260.44	260.19	259.92	259.42	259.29	
4	260.03	260.56	260.23	260.53	260.73	261.20	260.76	260.45	260.00	259.85	259.43	259.31	
5	260.22	260.36	260.24	260.41	260.71	261.16	260.73	260.44	260.12	259.81	259.61	259.35	
6	260.31	260.36	260.49	260.15	260.73	261.01	260.72	260.44	259.75	259.79	259.47	259.40	
7	260.61	260.28	260.51	260.16	260.70	260.95	260.72	260.43	259.92	259.81	259.39	259.38	
8	260.82	260.10	260.71	260.11	260.70	261.10	260.71	260.43	259.98	259.91	259.50	259.37	
9	260.67	260.12	260.59	260.11	260.73	261.46	260.63	260.43	259.96	260.00	259.44	259.36	
10	260.51	260.10	260.44	260.12	260.81	261.22	260.62	260.40	259.64	260.23	259.44	259.35	
11	260.42	260.09	260.49	261.27	260.78	261.12	260.63	260.43	259.95	260.15	259.41	259.31	
12	260.25	260.19	260.54	260.93	260.72	261.11	260.67	260.48	260.01	260.12	259.48	259.22	
13	260.15	260.33	260.62	260.87	260.68	261.19	260.62	260.46	260.14	260.10	259.52	259.26	
14	260.11	260.28	260.57	260.79	260.65	261.16	260.60	260.44	260.13	260.07	259.53	259.28	
15	260.08	260.16	260.49	260.74	260.60	261.06	260.57	260.42	260.16	260.05	259.56	259.27	
16	260.08	260.11	260.49	260.68	260.54	261.12	260.56	260.40	260.05	260.06	259.57	259.27	
17	260.11	260.19	260.43	260.72	261.00	261.03	260.55	260.39	260.03	260.05	259.59	259.31	
18	260.20	260.73	260.58	260.99	262.22	262.32	260.52	260.45	260.09	259.96	259.56	259.35	
19	260.33	260.60	260.88	260.84	261.33	261.43	260.46	260.45	260.20	259.95	259.51	259.34	
20	260.67	260.48	260.89	260.84	261.11	261.17	260.49	260.42	260.04	259.89	259.47	259.39	
21	260.64	260.37	260.67	260.93	261.04	261.08	260.49	260.37	259.88	259.80	259.45	259.34	
22	260.46	260.18	260.49	261.26	261.27	261.10	260.47	260.35	260.06	259.72	259.44	259.32	
23	260.30	260.29	260.40	261.10	261.46	261.16	260.53	260.32	259.94	259.57	259.45	259.31	
24	260.21	261.07	260.34	261.24	261.23	261.04	260.87	260.31	259.93	259.49	259.42	259.29	
25	260.17	260.86	260.46	261.12	261.09	260.92	261.27	260.30	259.93	259.54	259.42	259.27	
26	260.23	260.74	260.62	261.05	261.02	260.87	260.81	260.29	259.88	259.95	259.42	259.27	
27	260.37	260.72	260.91	260.94	261.17	260.84	260.67	260.27	259.75	259.55	259.39	259.32	
28	260.59	260.67	260.99	260.87	261.49	260.82	260.61	260.18	259.89	259.51	259.34	259.35	
29	260.69	260.62	261.09	260.87	261.18	260.82	260.57	260.20	259.82	259.54		259.26	
30	260.53	260.62	260.86	260.90	261.06	260.94	260.55	260.19	260.00	259.59		259.24	
31		260.59		260.99	260.99		260.51		259.74	259.57		259.25	
Mean	260.31	260.42	260.57	260.76	260.98	261.11	260.67	260.38	259.98	259.85	259.49	259.31	
Max	260.82	261.07	261.09	261.27	262.22	262.32	261.27	260.48	260.20	260.23	259.80	259.40	262.32
Min	259.74	260.09	260.23	260.11	260.54	260.82	260.46	260.18	259.64	259.49	259.34	259.22	259.22

Annual Max Momentary Gage Height 262.71 m. (MSL.) , at 17.00 Hours , on Sep 18 , 2018

Zero Gage at Bottom Elevation 257.77 m. (MSL.) , River Bed 255.55 m. (MSL.)

Left Bank Elevation 266.23 m. (MSL.) ,

Right Bank Elevation 266.69 m. (MSL.) , Drainage Are 590 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.61	1.77	2.22	6.99	9.68	12.82	16.23	2.16	1.23	0.93	0.51	0.15		
2	0.66	1.56	1.77	4.25	8.13	11.14	10.30	2.10	1.29	0.87	0.70	0.17		
3	1.05	2.10	1.44	2.40	7.20	11.98	7.51	2.04	1.29	0.88	0.27	0.15		
4	1.05	3.00	1.35	2.70	5.73	26.00	6.36	2.10	1.00	0.78	0.28	0.16		
5	1.33	1.66	1.36	1.86	5.31	23.70	5.73	2.04	1.18	0.72	0.46	0.20		
6	1.49	1.66	2.34	1.23	5.73	15.08	5.52	2.04	0.63	0.69	0.32	0.25		
7	3.57	1.42	2.50	1.24	5.10	12.40	5.52	1.98	0.88	0.72	0.24	0.23		
8	7.82	1.15	5.31	1.17	5.10	20.25	5.31	1.98	0.97	0.87	0.35	0.22		
9	4.59	1.18	3.30	1.17	5.73	48.40	3.91	1.98	0.94	1.00	0.29	0.21		
10	2.50	1.15	2.04	1.18	7.51	27.70	3.74	1.80	0.49	1.35	0.29	0.20		
11	1.92	1.14	2.34	31.95	6.78	21.40	3.91	1.98	0.93	1.23	0.26	0.16		
12	1.38	1.29	2.80	11.56	5.52	20.83	4.59	2.28	1.02	1.18	0.33	0.11		
13	1.23	1.56	3.74	9.37	4.76	25.42	3.74	2.16	1.21	1.15	0.37	0.13		
14	1.17	1.42	3.10	6.99	4.25	23.70	3.40	2.04	1.20	1.11	0.38	0.14		
15	1.12	1.24	2.34	5.94	3.40	17.95	3.10	1.92	1.24	1.08	0.41	0.14		
16	1.12	1.17	2.34	4.76	2.80	21.40	3.00	1.80	1.08	1.09	0.42	0.14		
17	1.17	1.29	1.98	5.52	14.50	16.23	2.90	1.77	1.05	1.08	0.44	0.16		
18	1.30	5.73	3.20	14.08	121.00	131.00	2.60	2.10	1.14	0.94	0.41	0.20		
19	1.56	3.40	9.68	8.44	37.05	45.70	2.16	2.10	1.30	0.93	0.36	0.19		
20	4.59	2.28	9.99	8.44	20.83	24.27	2.34	1.92	1.06	0.84	0.32	0.24		
21	4.08	1.70	4.59	11.56	16.80	19.10	2.34	1.70	0.82	0.70	0.30	0.19		
22	2.16	1.27	2.34	31.10	31.95	20.25	2.22	1.63	1.09	0.58	0.29	0.17		
23	1.45	1.44	1.80	20.25	48.40	23.70	2.70	1.52	0.91	0.42	0.30	0.16		
24	1.32	18.53	1.59	29.40	28.55	16.80	9.37	1.49	0.90	0.34	0.27	0.15		
25	1.26	9.06	2.16	21.40	19.68	11.14	31.95	1.45	0.90	0.39	0.27	0.14		
26	1.35	5.94	3.74	17.38	15.65	9.37	7.51	1.44	0.82	0.93	0.27	0.14		
27	1.70	5.52	10.72	11.98	24.27	8.44	4.59	1.41	0.63	0.40	0.24	0.17		
28	3.30	4.59	14.08	9.37	51.10	7.82	3.57	1.27	0.84	0.36	0.19	0.20		
29	4.93	3.74	19.68	9.37	24.85	7.82	3.10	1.30	0.73	0.39		0.13		
30	2.70	3.74	9.06	10.30	17.95	11.98	2.90	1.29	1.00	0.44		0.12		
31		3.30		14.08	14.08		2.50		0.61	0.42		0.13		
Total	65.48	96.00	134.90	317.43	579.39	693.79	174.62	54.79	30.38	24.81	9.54	5.25	2186.38	CMSDAY
Mean	2.18	3.10	4.50	10.24	18.69	23.13	5.63	1.83	0.98	0.80	0.34	0.17	5.99	CMS
Max	7.82	18.53	19.68	31.95	121.00	131.00	31.95	2.28	1.30	1.35	0.70	0.25	131.00	CMS
Min	0.61	1.14	1.35	1.17	2.80	7.82	2.16	1.27	0.49	0.34	0.19	0.11	0.11	CMS
Runoff	5.66	8.29	11.66	27.43	50.06	59.94	15.09	4.73	2.62	2.14	0.82	0.45	188.90	MCM

Momentary Peak 170.55 CMS. at 262.71 m. (MSL.) at 17.00 Hours , on Sep 18 , 2018

Runoff Yield 10.15 Liters/Second/Square KM. Momentary Peak Yield 289.07 Liters/Second/Square KM.

WATER YEAR : 2018

YOM RIVER BASIN

Huai Pong at Ban Pong , Lampang (Y.30)

Lat 18 - 42 - 29 N Long 99 - 57 - 40 E

Location : on right bank at the bridge on highway.

	Ban Pong	**Amphoe** Ngao	**Changwat** Lampang
Drainge Area	325 sq.km.		
Type of Gage	Staff gage.		
Zero Gage at Bottom	+265.630 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank about 25 meters from the top staff gage.		**Elevation** +271.053 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic mean of 3 readings		
Period of Available Gage Records	1983 to date		
Rating Operation			
Period of Rating	1983 to date		
Rated by Flot	-		
Rated by Current Meter	1983 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. The carcass of the bridge is near the gage site.		
	Stage-discharge relation defined by 43 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

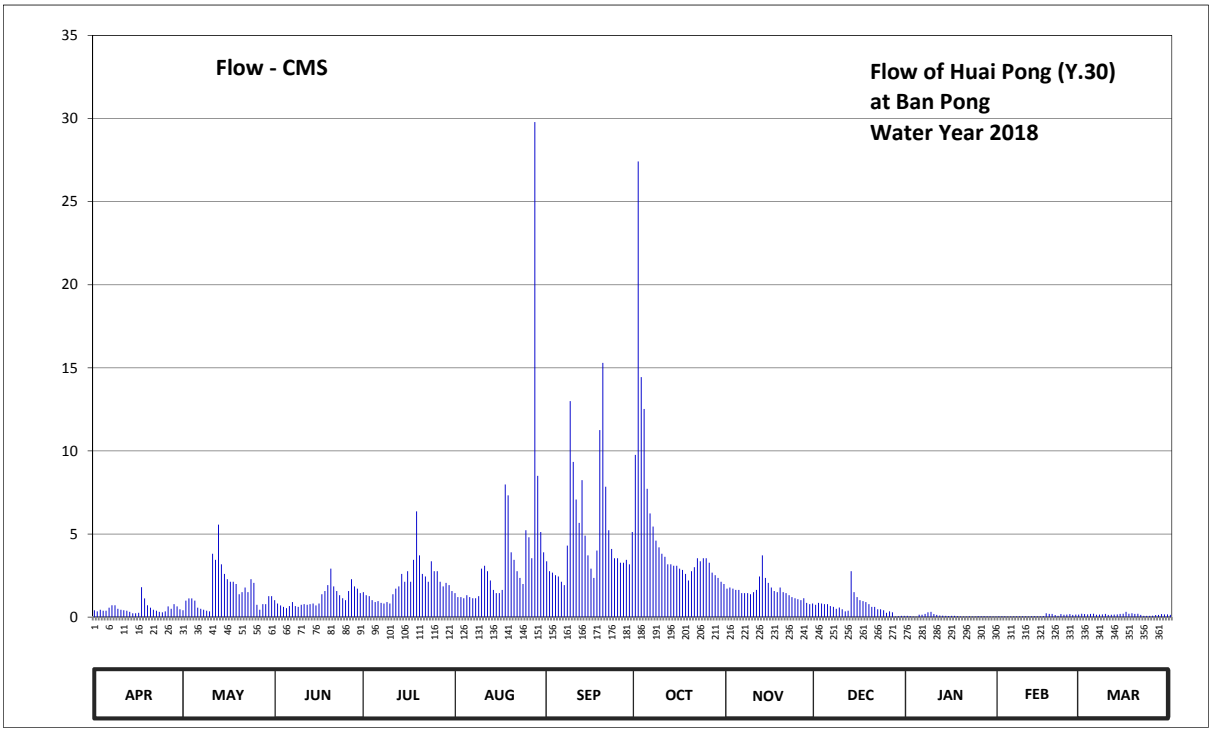
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	266.17	266.17	266.02	266.10	266.09	266.34	266.89	266.13	265.96	265.99	265.92	266.10	
2	266.15	266.27	265.98	266.07	266.05	266.27	267.88	266.14	265.99	265.94	265.92	266.08	
3	266.18	266.29	265.95	266.06	266.05	266.26	267.19	266.13	265.98	265.89	265.92	266.07	
4	266.16	266.29	265.93	266.02	266.04	266.24	267.07	266.12	265.97	265.87	265.91	266.09	
5	266.16	266.27	265.91	266.00	266.07	266.23	266.74	266.12	265.97	266.05	265.91	266.10	
6	266.21	266.21	265.94	266.01	266.05	266.19	266.62	266.09	265.94	266.05	265.92	266.05	
7	266.23	266.20	266.00	265.99	266.04	266.16	266.55	266.09	265.93	266.09	265.92	266.06	
8	266.23	266.18	265.94	265.98	266.04	266.44	266.47	266.09	265.90	266.13	265.92	266.07	
9	266.20	266.16	265.93	266.00	266.06	267.10	266.43	266.08	265.92	266.14	265.92	266.09	
10	266.18	266.15	265.96	265.98	266.29	266.86	266.39	266.10	265.89	266.08	265.92	266.04	
11	266.17	266.39	265.97	266.08	266.31	266.69	266.37	266.12	265.85	266.04	265.91	266.05	
12	266.16	266.35	265.96	266.13	266.27	266.57	266.32	266.23	265.86	266.02	265.93	266.06	
13	266.14	266.56	265.97	266.15	266.20	266.78	266.32	266.38	266.27	266.01	265.94	266.07	
14	266.11	266.32	265.98	266.25	266.12	266.50	266.31	266.22	266.10	265.99	265.93	266.09	
15	266.11	266.25	265.95	266.19	266.09	266.38	266.31	266.18	266.05	265.98	265.93	266.10	
16	266.12	266.21	265.98	266.27	266.09	266.29	266.29	266.14	266.02	266.00	265.97	266.14	
17	266.34	266.19	266.08	266.19	266.12	266.22	266.28	266.11	266.01	265.99	266.11	266.10	
18	266.29	266.19	266.11	266.35	266.76	266.41	266.25	266.10	266.00	265.96	266.09	266.11	
19	266.23	266.17	266.16	266.63	266.71	266.99	266.20	266.14	265.97	265.91	266.09	266.09	
20	266.21	266.08	266.29	266.38	266.40	267.24	266.27	266.10	265.93	265.88	266.03	266.10	
21	266.18	266.10	266.15	266.25	266.35	266.75	266.30	266.09	265.93	265.88	265.99	266.04	
22	266.16	266.14	266.11	266.23	266.27	266.53	266.36	266.07	265.89	265.93	266.08	266.00	
23	266.14	266.10	266.07	266.19	266.22	266.42	266.34	266.05	265.89	265.88	266.05	266.00	
24	266.13	266.21	266.04	266.34	266.17	266.36	266.36	266.04	265.87	265.89	266.06	266.00	
25	266.15	266.18	266.02	266.27	266.53	266.36	266.36	266.03	265.82	265.94	266.08	266.01	
26	266.22	265.96	266.11	266.27	266.49	266.33	266.33	266.02	265.85	265.92	266.04	266.03	
27	266.20	265.88	266.21	266.19	266.36	266.33	266.26	266.04	265.83	265.94	266.06	266.04	
28	266.24	265.97	266.15	266.15	267.99	266.35	266.24	265.99	265.90	265.93	266.06	266.08	
29	266.22	265.97	266.13	266.18	266.80	266.32	266.22	265.97	265.94	265.92		266.07	
30	266.19	266.06	266.09	266.16	266.52	266.52	266.19	265.98	266.00	265.91		266.07	
31		266.06		266.11	266.40		266.17		266.00	265.91		266.04	
Mean	266.19	266.18	266.04	266.17	266.32	266.48	266.46	266.10	265.95	265.97	265.98	266.07	
Max	266.34	266.56	266.29	266.63	267.99	267.24	267.88	266.38	266.27	266.14	266.11	266.14	267.99
Min	266.11	265.88	265.91	265.98	266.04	266.16	266.17	265.97	265.82	265.87	265.91	266.00	265.82

Annual Max Momentary Gage Height 268.23 m. (MSL.) , at 12.00 Hours , on Oct 2 , 2018

Zero Gage at Bottom Elevation 265.63 m. (MSL.) , River Bed 265.41 m. (MSL.)

Left Bank Elevation 273.94 m. (MSL.) ,

Right Bank Elevation 273.87 m. (MSL.) , Drainage Are 325 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.41	0.41	1.02	1.50	1.44	3.36	9.76	1.71	0.74	0.08	0.05	0.20		
2	0.35	0.99	0.82	1.32	1.20	2.76	27.42	1.78	0.86	0.06	0.05	0.18		
3	0.44	1.13	0.70	1.26	1.20	2.68	14.44	1.71	0.82	0.04	0.05	0.16		
4	0.38	1.13	0.62	1.02	1.14	2.52	12.52	1.64	0.78	0.03	0.04	0.19		
5	0.38	0.99	0.54	0.90	1.32	2.44	7.72	1.64	0.78	0.14	0.04	0.20		
6	0.57	0.57	0.66	0.96	1.20	2.13	6.24	1.44	0.66	0.14	0.05	0.14		
7	0.71	0.50	0.90	0.86	1.14	1.92	5.45	1.44	0.62	0.19	0.05	0.15		
8	0.71	0.44	0.66	0.82	1.14	4.30	4.60	1.44	0.50	0.29	0.05	0.16		
9	0.50	0.38	0.62	0.90	1.26	13.00	4.20	1.38	0.58	0.32	0.05	0.19		
10	0.44	0.35	0.74	0.82	2.92	9.34	3.81	1.50	0.47	0.18	0.05	0.13		
11	0.41	3.81	0.78	1.38	3.09	7.08	3.63	1.64	0.35	0.13	0.04	0.14		
12	0.38	3.45	0.74	1.71	2.76	5.67	3.18	2.44	0.38	0.10	0.05	0.15		
13	0.32	5.56	0.78	1.85	2.20	8.24	3.18	3.72	2.76	0.09	0.06	0.16		
14	0.23	3.18	0.82	2.60	1.64	4.90	3.09	2.36	1.50	0.08	0.05	0.19		
15	0.23	2.60	0.70	2.13	1.44	3.72	3.09	2.06	1.20	0.07	0.05	0.20		
16	0.26	2.28	0.82	2.76	1.44	2.92	2.92	1.78	1.02	0.08	0.07	0.32		
17	1.80	2.13	1.38	2.13	1.64	2.36	2.84	1.57	0.96	0.08	0.23	0.20		
18	1.13	2.13	1.57	3.45	7.98	4.00	2.60	1.50	0.90	0.06	0.19	0.23		
19	0.71	1.99	1.92	6.36	7.33	11.25	2.20	1.78	0.78	0.04	0.19	0.19		
20	0.57	1.38	2.92	3.72	3.90	15.30	2.76	1.50	0.62	0.04	0.12	0.20		
21	0.44	1.50	1.85	2.60	3.45	7.85	3.00	1.44	0.62	0.04	0.08	0.13		
22	0.38	1.78	1.57	2.44	2.76	5.23	3.54	1.32	0.47	0.05	0.18	0.08		
23	0.32	1.50	1.32	2.13	2.36	4.10	3.36	1.20	0.47	0.04	0.14	0.08		
24	0.29	2.28	1.14	3.36	1.99	3.54	3.54	1.14	0.41	0.04	0.15	0.08		
25	0.35	2.06	1.02	2.76	5.23	3.54	3.54	1.08	0.26	0.06	0.18	0.09		
26	0.64	0.74	1.57	2.76	4.80	3.27	3.27	1.02	0.35	0.05	0.13	0.12		
27	0.50	0.44	2.28	2.13	3.54	3.27	2.68	1.14	0.29	0.06	0.15	0.13		
28	0.78	0.78	1.85	1.85	29.79	3.45	2.52	0.86	0.04	0.05	0.15	0.18		
29	0.64	0.78	1.71	2.06	8.50	3.18	2.36	0.78	0.06	0.05		0.16		
30	0.47	1.26	1.44	1.92	5.12	5.12	2.13	0.82	0.08	0.04		0.16		
31		1.26		1.57	3.90		1.99		0.08	0.04		0.13		
Total	15.74	49.78	35.46	64.03	118.82	152.44	157.58	46.83	20.41	2.76	2.69	5.02	671.56	CMSDAY
Mean	0.52	1.61	1.18	2.07	3.83	5.08	5.08	1.56	0.66	0.09	0.10	0.16	1.84	CMS
Max	1.80	5.56	2.92	6.36	29.79	15.30	27.42	3.72	2.76	0.32	0.23	0.32	29.79	CMS
Min	0.23	0.35	0.54	0.82	1.14	1.92	1.99	0.78	0.04	0.03	0.04	0.08	0.03	CMS
Runoff	1.36	4.30	3.06	5.53	10.27	13.17	13.61	4.05	1.76	0.24	0.23	0.43	58.02	MCM

Momentary Peak 35.22 CMS. at 268.23 m. (MSL.) at 12.00 Hours , on Oct 2 , 2018

Runoff Yield 5.66 Liters/Second/Square KM. Momentary Peak Yield 108.37 Liters/Second/Square KM.

WATER YEAR : 2018

YOM RIVER BASIN

Yom River at Ban Thung Nong , Phayao (Y.31)

Lat 18 - 57 - 28 N Long 100 - 15 - 58 E

Location : on right bank downstream of the bridge of Pong - Chiang Muan road.

	Ban Thung Nong	**Amphoe** Chiang Muan	**Changwat** Phayao
Drainge Area	1,981 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+257.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank about 5 meters from the top staff gage.		**Elevation** +266.960 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	1983 to date		
Rating Operation			
Period of Rating	1996 to date		
Rated by Flot	-		
Rated by Current Meter	1996 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Flow effected by the islet about 200 meters dowmstream from the gage site. Stage-discharge relation defined by 38 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

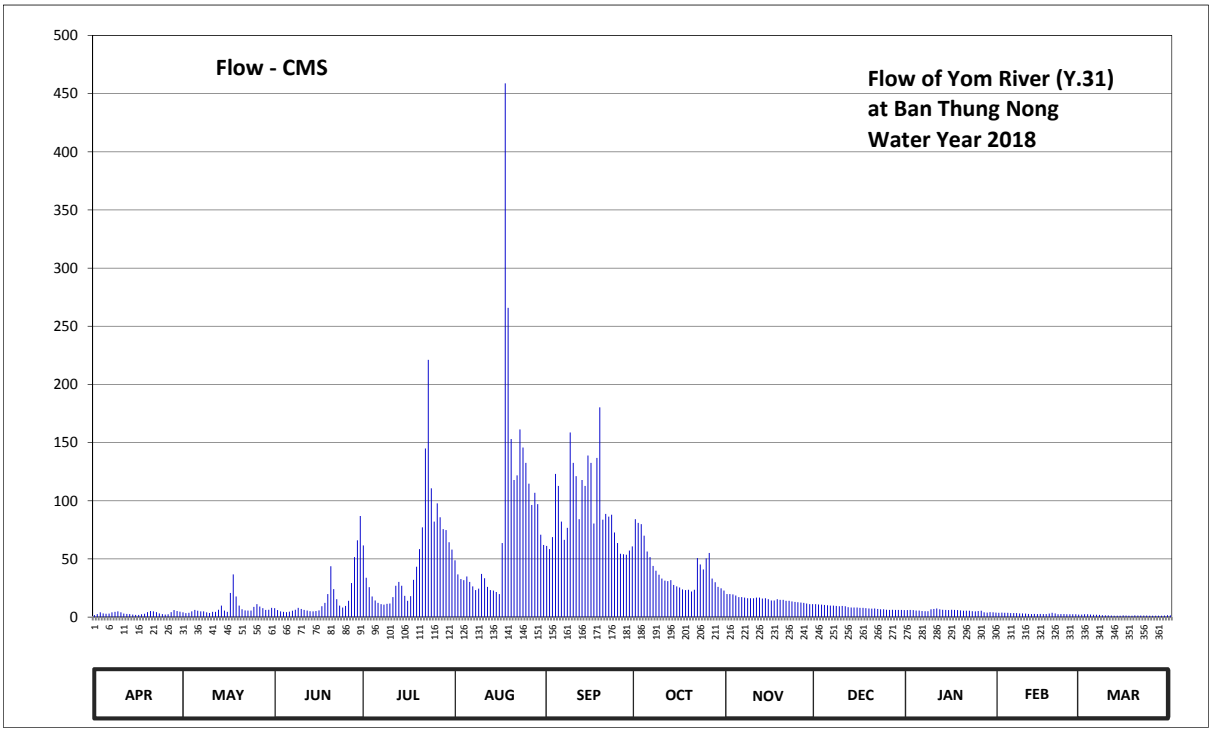
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	257.71	257.85	258.04	259.61	259.29	259.60	260.13	258.47	258.17	257.96	257.83	257.74	
2	257.76	257.81	257.96	258.90	258.98	259.53	260.07	258.47	258.16	257.97	257.84	257.75	
3	257.85	257.83	257.90	258.66	258.87	259.79	260.05	258.46	258.15	257.96	257.83	257.75	
4	257.80	257.90	257.88	258.40	258.84	260.74	259.82	258.43	258.14	257.94	257.83	257.74	
5	257.78	257.97	257.86	258.28	258.93	260.58	259.48	258.38	258.13	257.94	257.81	257.73	
6	257.79	257.93	257.89	258.21	258.80	260.09	259.36	258.38	258.12	257.92	257.81	257.73	
7	257.85	257.90	257.93	258.17	258.68	259.73	259.17	258.37	258.12	257.91	257.81	257.72	
8	257.88	257.90	257.98	258.15	258.58	259.99	259.06	258.35	258.11	257.91	257.80	257.70	
9	257.90	257.85	258.05	258.18	258.62	261.22	258.97	258.35	258.10	258.00	257.80	257.69	
10	257.85	257.82	258.01	258.19	258.99	260.88	258.88	258.35	258.11	258.01	257.79	257.68	
11	257.79	257.88	257.97	258.38	258.89	260.71	258.83	258.37	258.10	258.03	257.77	257.67	
12	257.77	257.88	257.94	258.70	258.67	260.13	258.82	258.37	258.07	258.00	257.76	257.65	
13	257.76	257.98	257.91	258.80	258.58	260.66	258.84	258.34	258.06	257.98	257.77	257.66	
14	257.74	258.12	257.90	258.70	258.57	260.58	258.72	258.35	258.06	257.97	257.76	257.66	
15	257.72	257.94	257.92	258.42	258.53	260.97	258.68	258.32	258.06	257.96	257.77	257.68	
16	257.72	257.88	257.95	258.27	258.47	260.88	258.65	258.28	258.05	257.98	257.76	257.67	
17	257.75	258.50	258.10	258.41	259.66	260.06	258.60	258.28	258.05	257.97	257.76	257.65	
18	257.78	258.98	258.21	258.85	263.18	260.94	258.58	258.32	258.04	257.96	257.79	257.66	
19	257.86	258.40	258.47	259.15	262.22	261.47	258.59	258.30	258.03	257.95	257.83	257.68	
20	257.92	258.12	259.16	259.53	261.15	260.12	258.54	258.30	258.02	257.93	257.80	257.67	
21	257.90	258.00	258.61	260.00	260.66	260.21	258.59	258.27	258.03	257.93	257.75	257.67	
22	257.86	257.95	258.32	261.05	260.72	260.17	259.34	258.27	258.01	257.93	257.76	257.67	
23	257.80	257.94	258.12	261.86	261.25	260.20	259.20	258.25	258.00	257.91	257.76	257.67	
24	257.76	257.94	258.06	260.55	261.06	259.89	259.09	258.24	258.00	257.90	257.75	257.65	
25	257.74	258.08	258.11	260.09	260.88	259.66	259.33	258.23	257.98	257.92	257.75	257.65	
26	257.75	258.17	258.27	260.35	260.61	259.43	259.45	258.22	257.97	257.93	257.75	257.65	
27	257.86	258.09	258.77	260.16	260.33	259.42	258.88	258.21	257.98	257.85	257.75	257.65	
28	257.96	258.04	259.36	259.96	260.49	259.41	258.79	258.19	257.97	257.84	257.74	257.65	
29	257.92	257.97	259.72	259.94	260.34	259.50	258.67	258.17	257.97	257.86		257.67	
30	257.89	257.98	260.18	259.68	259.84	259.59	258.63	258.17	257.97	257.85		257.70	
31		258.05		259.52	259.62		258.57		257.96	257.84		257.68	
Mean	257.81	258.02	258.29	259.20	259.75	260.21	259.04	258.32	258.05	257.94	257.78	257.68	
Max	257.96	258.98	260.18	261.86	263.18	261.47	260.13	258.47	258.17	258.03	257.84	257.75	263.18
Min	257.71	257.81	257.86	258.15	258.47	259.41	258.54	258.17	257.96	257.84	257.74	257.65	257.65

Annual Max Momentary Gage Height 263.85 m. (MSL.) , at 18.00 Hours , on Aug 18 , 2018

Zero Gage at Bottom Elevation 257.00 m. (MSL.) , River Bed 254.01 m. (MSL.)

Left Bank Elevation 267.39 m. (MSL.) ,

Right Bank Elevation 267.25 m. (MSL.) , Drainage Are 1,981 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.76	4.05	7.74	61.60	48.80	61.20	84.22	19.80	11.19	5.98	3.71	2.24		
2	2.56	3.37	5.98	33.80	36.76	58.40	80.98	19.80	10.92	6.16	3.88	2.40		
3	4.05	3.71	4.90	25.72	32.75	68.80	79.90	19.50	10.65	5.98	3.71	2.40		
4	3.20	4.90	4.56	17.70	31.70	123.10	70.00	18.60	10.38	5.62	3.71	2.24		
5	2.88	6.16	4.22	14.24	34.91	112.70	56.40	17.12	10.11	5.62	3.37	2.08		
6	3.04	5.44	4.73	12.28	30.30	82.06	51.60	17.12	9.84	5.26	3.37	2.08		
7	4.05	4.90	5.44	11.19	26.36	66.40	44.05	16.83	9.84	5.08	3.37	1.92		
8	4.56	4.90	6.34	10.65	23.18	76.80	39.81	16.25	9.57	5.08	3.20	1.60		
9	4.90	4.05	8.00	11.46	24.44	158.70	36.39	16.25	9.30	6.70	3.20	1.52		
10	4.05	3.54	6.96	11.73	37.13	132.60	33.10	16.25	9.57	6.96	3.04	1.44		
11	3.04	4.56	6.16	17.12	33.45	121.15	31.35	16.83	9.30	7.48	2.72	1.36		
12	2.72	4.56	5.62	27.00	26.04	84.22	31.00	16.83	8.52	6.70	2.56	1.20		
13	2.56	6.34	5.08	30.30	23.18	117.90	31.70	15.96	8.26	6.34	2.72	1.28		
14	2.24	9.84	4.90	27.00	22.87	112.70	27.66	16.25	8.26	6.16	2.56	1.28		
15	1.92	5.62	5.26	18.30	21.63	138.90	26.36	15.38	8.26	5.98	2.72	1.44		
16	1.92	4.56	5.80	13.96	19.80	132.60	25.40	14.24	8.00	6.34	2.56	1.36		
17	2.40	20.70	9.30	18.00	63.60	80.44	23.80	14.24	8.00	6.16	2.56	1.20		
18	2.88	36.76	12.28	32.05	458.80	136.80	23.18	15.38	7.74	5.98	3.04	1.28		
19	4.22	17.70	19.80	43.28	265.90	180.30	23.49	14.80	7.48	5.80	3.71	1.44		
20	5.26	9.84	43.66	58.40	153.00	83.68	21.94	14.80	7.22	5.44	3.20	1.36		
21	4.90	6.70	24.12	77.20	117.90	88.65	23.49	13.96	7.48	5.44	2.40	1.36		
22	4.22	5.80	15.38	145.00	121.80	86.38	50.80	13.96	6.96	5.44	2.56	1.36		
23	3.20	5.62	9.84	221.20	161.25	88.00	45.20	13.40	6.70	5.08	2.56	1.36		
24	2.56	5.62	8.26	110.75	145.80	72.80	40.97	13.12	6.70	4.90	2.40	1.20		
25	2.24	8.78	9.57	82.06	132.60	63.60	50.40	12.84	6.34	5.26	2.40	1.20		
26	2.40	11.19	13.96	97.75	114.65	54.40	55.20	12.56	6.16	5.44	2.40	1.20		
27	4.22	9.04	29.31	85.84	96.45	54.00	33.10	12.28	6.34	4.05	2.40	1.20		
28	5.98	7.74	51.60	75.60	106.85	53.60	29.97	11.73	6.16	3.88	2.24	1.20		
29	5.26	6.16	66.00	74.80	97.10	57.20	26.04	11.19	6.16	4.22		1.36		
30	4.73	6.34	86.92	64.40	70.80	60.80	24.76	11.19	6.16	4.05		1.60		
31		8.00		58.00	62.00		22.87		5.98	3.88		1.44		
Total	103.92	246.49	491.69	1588.38	2641.80	2808.88	1245.13	458.46	253.55	172.46	82.27	47.60	10140.63	CMSDAY
Mean	3.46	7.95	16.39	51.24	85.22	93.63	40.17	15.28	8.18	5.56	2.94	1.54	27.78	CMS
Max	5.98	36.76	86.92	221.20	458.80	180.30	84.22	19.80	11.19	7.48	3.88	2.40	458.80	CMS
Min	1.76	3.37	4.22	10.65	19.80	53.60	21.94	11.19	5.98	3.88	2.24	1.20	1.20	CMS
Runoff	8.98	21.30	42.48	137.24	228.25	242.69	107.58	39.61	21.91	14.90	7.11	4.11	876.15	MCM

Momentary Peak 686.00 CMS. at 263.85 m. (MSL.) at 18.00 Hours , on Aug 18 , 2018

Runoff Yield 14.02 Liters/Second/Square KM. Momentary Peak Yield 346.29 Liters/Second/Square KM.

WATER YEAR : 2018

YOM RIVER BASIN

Yom River at Ban Khlong Tan , Sukhothai (Y.33)

Lat 17 - 10 - 06 N Long 99 - 51 - 52 E

Location : on left bank at the bridge on road from Tambon Khlong Tan.

Ban Khlong Tan **Amphoe** Si Samrong **Changwat** Sukhothai

Drainge Area	13,948 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+45.820 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank about 20.30 meters from the top staff gage. **Elevation** +55.420 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic mean of 5 readings
Period of Available Gage Records	1990 to date
Rating Operation	
Period of Rating	1990 to date
Rated by Flot	-
Rated by Current Meter	1990 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Flow effected by the temporary weir about 500 meters dowmstream from the gage site. Stage-discharge relation defined by 14 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

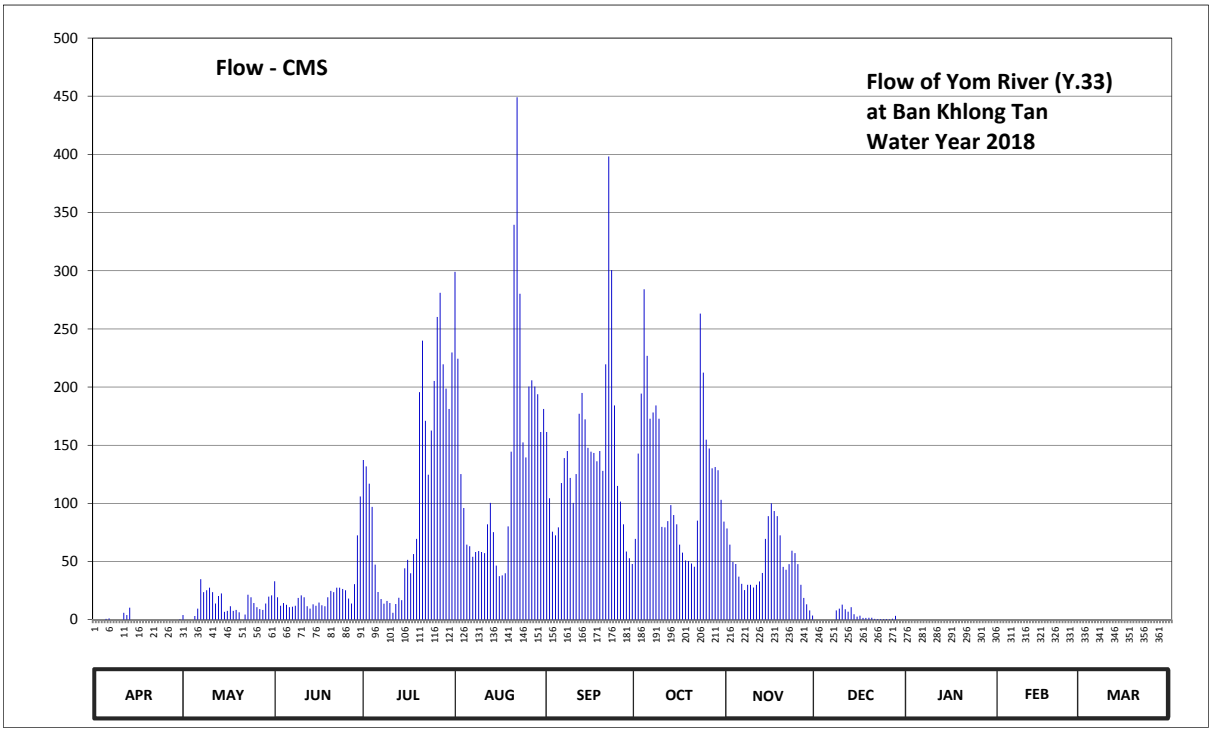
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	47.62	48.10	48.70	49.97	52.52	50.39	48.61	48.81	47.99	46.95	46.58	46.36	
2	47.72	48.00	48.46	49.87	51.44	49.35	50.07	48.50	47.82	46.95	46.64	46.41	
3	47.82	47.87	48.30	49.60	49.75	48.75	50.94	48.17	47.68	46.91	46.59	46.43	
4	47.92	47.79	48.36	49.20	49.18	48.68	52.32	48.13	47.65	46.95	46.56	46.43	
5	48.02	48.08	48.32	48.12	48.50	48.83	51.48	47.86	47.58	47.16	46.84	46.42	
6	48.03	48.24	48.27	47.48	48.47	49.61	50.58	47.68	47.48	47.01	46.66	46.43	
7	48.00	48.73	48.28	47.31	48.27	50.00	50.67	47.53	47.30	46.85	46.87	46.40	
8	47.93	48.54	48.30	47.19	48.36	50.11	50.77	47.66	46.96	46.57	46.78	46.35	
9	47.93	48.57	48.45	47.26	48.38	49.69	50.58	47.66	47.02	46.62	46.82	46.28	
10	48.00	48.61	48.49	47.21	48.36	49.27	48.84	47.59	47.16	46.62	46.75	46.24	
11	48.15	48.54	48.46	46.88	48.34	49.75	48.83	47.66	47.00	46.70	46.72	46.21	
12	48.10	48.35	48.29	47.18	48.89	50.65	48.95	47.74	46.92	46.84	46.78	46.19	
13	48.26	48.48	48.24	47.34	49.27	50.95	49.23	47.95	47.07	46.87	46.60	46.18	
14	47.96	48.52	48.33	47.28	48.74	50.57	49.06	48.61	46.83	46.87	46.52	46.19	
15	47.70	48.17	48.30	48.05	48.10	50.16	48.89	49.04	46.66	46.79	46.57	46.19	
16	47.62	48.19	48.37	48.21	47.87	50.10	48.50	49.26	46.75	46.73	46.55	46.19	
17	47.46	48.29	48.31	47.94	47.89	50.08	48.35	49.31	46.56	46.93	46.59	46.19	
18	47.62	48.19	48.29	48.32	47.94	49.95	48.20	49.28	46.55	47.08	46.56	46.19	
19	47.37	48.21	48.46	48.61	48.85	50.11	48.19	49.16	46.57	47.14	46.51	46.19	
20	47.63	48.16	48.56	50.96	50.10	49.80	48.14	48.88	46.57	47.09	46.52	46.19	
21	47.38	47.89	48.54	51.69	53.06	51.36	48.08	48.85	46.46	46.93	46.51	46.22	
22	47.37	48.11	48.61	50.55	54.39	53.79	48.96	48.91	46.42	46.83	46.52	46.22	
23	47.37	48.50	48.61	49.74	52.27	52.54	52.03	49.04	46.42	46.75	46.45	46.22	
24	47.76	48.46	48.59	50.41	50.24	50.77	51.24	49.02	46.41	46.72	46.32	46.22	
25	47.73	48.36	48.57	51.12	50.01	49.56	50.28	48.91	46.41	46.72	46.56	46.22	
26	47.80	48.27	48.44	51.99	51.04	49.29	50.15	48.65	46.40	46.69	46.54	46.22	
27	47.79	48.23	48.35	52.28	51.13	48.89	49.84	48.45	46.48	46.52	46.48	46.22	
28	47.71	48.21	48.66	51.36	51.04	48.37	49.86	48.33	46.74	46.45	46.38	46.22	
29	47.69	48.35	49.16	51.01	50.93	48.24	49.81	48.20	47.02	46.38		46.22	
30	48.01	48.47	49.38	50.72	50.39	48.13	49.32	48.09	47.02	46.43		46.22	
31		48.49		51.53	50.72		48.94		46.94	46.49		46.22	
Mean	47.78	48.29	48.48	49.24	49.82	49.92	49.67	48.43	46.93	46.79	46.60	46.26	
Max	48.26	48.73	49.38	52.28	54.39	53.79	52.32	49.31	47.99	47.16	46.87	46.43	54.39
Min	47.37	47.79	48.24	46.88	47.87	48.13	48.08	47.53	46.40	46.38	46.32	46.18	46.18

Annual Max Momentary Gage Height 54.57 m. (MSL.) , at 15.00 Hours , on Aug 22 , 2018

Zero Gage at Bottom Elevation 45.82 m. (MSL.) , River Bed 43.95 m. (MSL.)

Left Bank Elevation 56.52 m. (MSL.) ,

Right Bank Elevation 56.48 m. (MSL.) , Drainage Are 13,948 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	4.00	33.00	137.35	299.00	161.40	69.45	78.45	0.00	0.00	0.00	0.00		
2	0.00	0.00	19.30	131.85	224.40	104.50	142.85	64.50	0.00	0.00	0.00	0.00		
3	0.00	0.00	12.00	117.00	125.25	75.75	194.40	49.65	0.00	0.00	0.00	0.00		
4	0.00	0.00	14.40	97.00	96.00	72.60	284.00	47.85	0.00	0.00	0.00	0.00		
5	0.80	3.20	12.80	47.40	64.50	79.35	226.80	37.10	0.00	0.00	0.00	0.00		
6	1.20	9.60	10.80	23.80	63.15	117.55	172.80	30.80	0.00	0.00	0.00	0.00		
7	0.00	34.80	11.20	17.85	54.15	139.00	178.20	25.55	0.00	0.00	0.00	0.00		
8	0.00	23.70	12.00	13.75	58.20	145.05	184.20	30.10	8.00	0.00	0.00	0.00		
9	0.00	25.35	18.75	16.10	59.10	121.95	172.80	30.10	9.50	0.00	0.00	0.00		
10	0.00	27.60	20.95	14.35	58.20	100.50	79.80	27.65	13.00	0.00	0.00	0.00		
11	6.00	23.70	19.30	6.00	57.30	125.25	79.35	30.10	9.00	0.00	0.00	0.00		
12	4.00	14.00	11.60	13.50	82.05	177.00	84.75	32.90	7.00	0.00	0.00	0.00		
13	10.40	20.40	9.60	18.90	100.50	195.00	98.50	40.25	10.75	0.00	0.00	0.00		
14	0.00	22.60	13.20	16.80	75.30	172.20	90.00	69.45	4.75	0.00	0.00	0.00		
15	0.00	6.80	12.00	44.25	46.50	147.80	82.05	89.00	2.60	0.00	0.00	0.00		
16	0.00	7.60	14.80	51.45	37.45	144.50	64.50	100.00	3.50	0.00	0.00	0.00		
17	0.00	11.60	12.40	39.90	38.15	143.40	57.75	93.50	1.60	0.00	0.00	0.00		
18	0.00	7.60	11.60	56.40	39.90	136.25	51.00	89.00	1.50	0.00	0.00	0.00		
19	0.00	8.40	19.30	69.45	80.25	145.05	50.55	72.60	1.70	0.00	0.00	0.00		
20	0.00	6.40	24.80	195.60	144.50	128.00	48.30	45.40	1.70	0.00	0.00	0.00		
21	0.00	0.00	23.70	239.85	339.50	219.60	45.60	43.00	0.80	0.00	0.00	0.00		
22	0.00	4.40	27.60	171.00	449.15	398.15	85.20	47.80	0.60	0.00	0.00	0.00		
23	0.00	21.50	27.60	124.70	280.25	300.50	263.10	59.40	0.60	0.00	0.00	0.00		
24	0.00	19.30	26.45	162.60	152.40	184.20	212.40	57.20	0.55	0.00	0.00	0.00		
25	0.00	14.40	25.35	205.20	139.55	115.00	154.80	47.80	0.55	0.00	0.00	0.00		
26	0.00	10.80	18.20	260.30	200.40	101.50	147.25	30.00	0.50	0.00	0.00	0.00		
27	0.00	9.20	14.00	281.00	205.80	82.05	130.20	18.75	0.90	0.00	0.00	0.00		
28	0.00	8.40	30.60	219.60	200.40	58.65	131.30	13.20	3.40	0.00	0.00	0.00		
29	0.00	14.00	72.60	198.60	193.80	52.80	128.55	8.00	0.00	0.00		0.00		
30	0.40	19.85	106.00	181.20	161.40	47.85	103.00	3.60	0.00	0.00		0.00		
31		20.95		229.80	181.20		84.30		0.00	0.00		0.00		
Total	22.80	400.15	685.90	3402.55	4307.70	4192.40	3897.75	1412.70	82.50	0.00	0.00	0.00	18404.45	CMSDAY
Mean	0.76	12.91	22.86	109.76	138.96	139.75	125.73	47.09	2.66	0.00	0.00	0.00	50.42	CMS
Max	10.40	34.80	106.00	281.00	449.15	398.15	284.00	100.00	13.00	0.00	0.00	0.00	449.15	CMS
Min	0.00	0.00	9.60	6.00	37.45	47.85	45.60	3.60	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	1.97	34.57	59.26	293.98	372.19	362.22	336.77	122.06	7.13	0.00	0.00	0.00	1590.14	MCM

Momentary Peak 464.45 CMS. at 54.57 m. (MSL.) at 15.00 Hours , on Aug 22 , 2018

Runoff Yield 3.66 Liters/Second/Square KM. Momentary Peak Yield 33.74 Liters/Second/Square KM.

WATER YEAR : 2018

YOM RIVER BASIN

Nam Mae Lai at Ban Mae Lai , Phrae (Y.34)

Lat 18 - 12 - 59 N Long 100 - 12 - 36 E

Location : on left bank at the bridge on highway.

	Ban Mae Lai	**Amphoe** Mueang	**Changwat** Phrae
Drainge Area	331 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+157.270 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank about 10 meters from the top staff gage.		**Elevation** +167.293 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	1996 to date		
Rating Operation			
Period of Rating	1996 to date		
Rated by Flot	-		
Rated by Current Meter	1996 to date		
Stability of Channel Regimes	Fairly stable because of backwater effect.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Flow effected by the temporary weir about 300 meters dowmstream from the gage site. Stage-discharge relation defined by 39 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

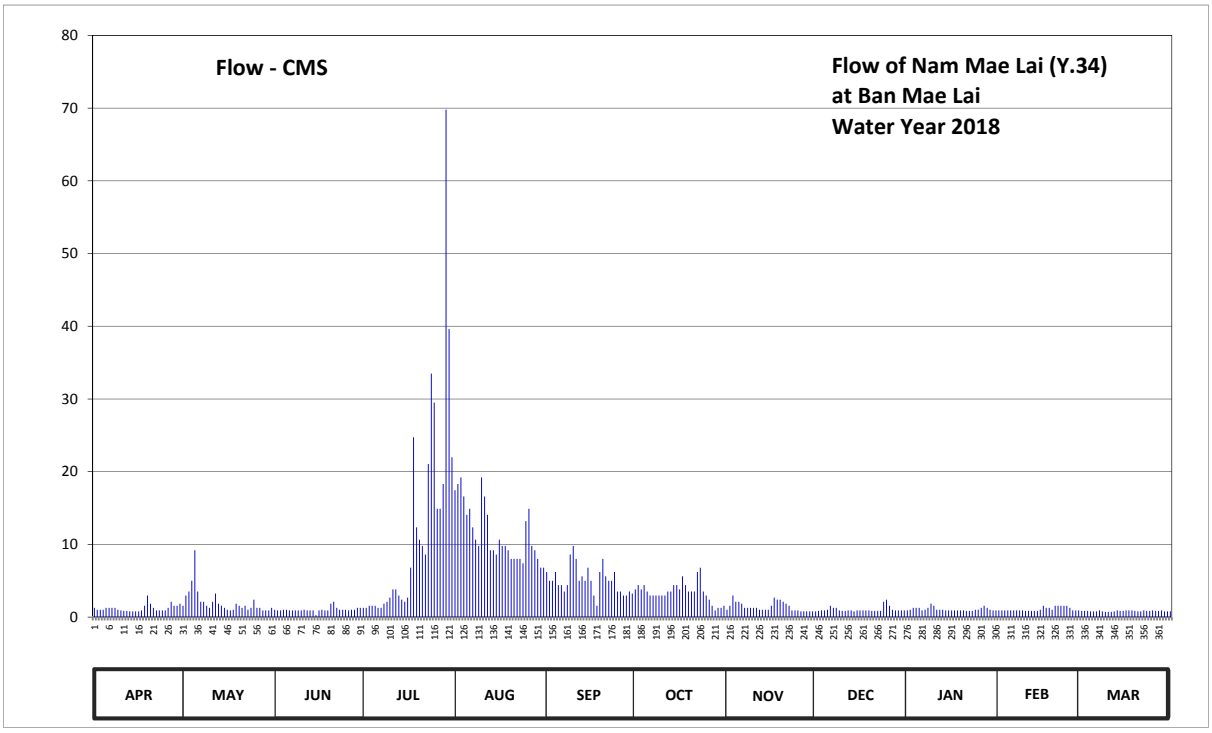
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	159.21	159.22	159.20	159.21	159.49	159.34	159.30	159.20	159.17	159.19	159.19	159.18	
2	159.20	159.27	159.19	159.21	159.50	159.32	159.31	159.22	159.18	159.20	159.19	159.18	
3	159.20	159.29	159.19	159.22	159.51	159.32	159.30	159.27	159.19	159.21	159.19	159.18	
4	159.20	159.32	159.20	159.22	159.48	159.34	159.31	159.24	159.19	159.21	159.19	159.17	
5	159.21	159.39	159.20	159.22	159.45	159.31	159.29	159.24	159.20	159.21	159.19	159.17	
6	159.21	159.29	159.19	159.21	159.46	159.31	159.27	159.23	159.22	159.19	159.19	159.17	
7	159.21	159.24	159.19	159.21	159.43	159.29	159.27	159.21	159.21	159.20	159.19	159.19	
8	159.21	159.24	159.19	159.23	159.41	159.31	159.27	159.21	159.21	159.21	159.19	159.17	
9	159.20	159.22	159.19	159.24	159.40	159.38	159.27	159.21	159.19	159.23	159.19	159.16	
10	159.19	159.21	159.19	159.26	159.51	159.40	159.27	159.21	159.18	159.22	159.18	159.16	
11	159.18	159.24	159.20	159.30	159.48	159.37	159.27	159.21	159.18	159.20	159.18	159.16	
12	159.18	159.28	159.19	159.30	159.45	159.32	159.29	159.20	159.19	159.20	159.18	159.17	
13	159.17	159.23	159.19	159.27	159.39	159.33	159.29	159.20	159.19	159.20	159.18	159.19	
14	159.17	159.22	159.19	159.25	159.39	159.32	159.31	159.20	159.17	159.19	159.18	159.18	
15	159.17	159.21	159.09	159.24	159.38	159.35	159.31	159.20	159.19	159.19	159.20	159.18	
16	159.17	159.20	159.19	159.26	159.41	159.32	159.30	159.22	159.19	159.19	159.22	159.19	
17	159.19	159.19	159.20	159.35	159.40	159.27	159.33	159.26	159.19	159.19	159.21	159.19	
18	159.22	159.20	159.19	159.57	159.40	159.22	159.31	159.25	159.19	159.19	159.21	159.19	
19	159.27	159.23	159.19	159.43	159.39	159.34	159.29	159.25	159.19	159.19	159.20	159.18	
20	159.23	159.22	159.23	159.41	159.37	159.37	159.29	159.24	159.18	159.19	159.22	159.17	
21	159.21	159.21	159.24	159.40	159.37	159.33	159.29	159.23	159.18	159.18	159.22	159.17	
22	159.19	159.22	159.21	159.38	159.37	159.32	159.34	159.22	159.18	159.18	159.22	159.19	
23	159.19	159.20	159.20	159.53	159.37	159.32	159.35	159.19	159.18	159.18	159.22	159.18	
24	159.19	159.21	159.20	159.66	159.36	159.34	159.29	159.19	159.24	159.20	159.22	159.18	
25	159.19	159.25	159.20	159.62	159.44	159.29	159.27	159.19	159.25	159.20	159.21	159.19	
26	159.21	159.21	159.19	159.46	159.46	159.29	159.25	159.17	159.22	159.21	159.19	159.18	
27	159.24	159.21	159.20	159.46	159.40	159.27	159.22	159.17	159.20	159.22	159.19	159.18	
28	159.22	159.19	159.20	159.50	159.39	159.27	159.19	159.17	159.19	159.21	159.19	159.19	
29	159.22	159.19	159.21	159.99	159.37	159.29	159.21	159.17	159.19	159.20		159.17	
30	159.23	159.19	159.21	159.72	159.35	159.28	159.21	159.17	159.19	159.19		159.17	
31		159.21		159.54	159.35		159.22		159.19	159.19		159.17	
Mean	159.20	159.23	159.19	159.38	159.42	159.32	159.28	159.21	159.19	159.20	159.20	159.18	
Max	159.27	159.39	159.24	159.99	159.51	159.40	159.35	159.27	159.25	159.23	159.22	159.19	159.99
Min	159.17	159.19	159.09	159.21	159.35	159.22	159.19	159.17	159.17	159.18	159.18	159.16	159.09

Annual Max Momentary Gage Height 160.35 m. (MSL.) , at 06.00 Hours , on Jul 29 , 2018

Zero Gage at Bottom Elevation 157.27 m. (MSL.) , River Bed 157.75 m. (MSL)

Left Bank Elevation 167.50 m. (MSL.) ,

Right Bank Elevation 167.49 m. (MSL.) , Drainage Are 331 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.28	1.56	1.00	1.28	17.45	6.20	3.80	1.00	0.79	0.93	0.93	0.86		
2	1.00	2.96	0.93	1.28	18.30	5.00	4.40	1.56	0.86	1.00	0.93	0.86		
3	1.00	3.52	0.93	1.56	19.22	5.00	3.80	2.96	0.93	1.28	0.93	0.86		
4	1.00	5.00	1.00	1.56	16.60	6.20	4.40	2.12	0.93	1.28	0.93	0.79		
5	1.28	9.20	1.00	1.56	14.05	4.40	3.52	2.12	1.00	1.28	0.93	0.79		
6	1.28	3.52	0.93	1.28	14.90	4.40	2.96	1.84	1.56	0.93	0.93	0.79		
7	1.28	2.12	0.93	1.28	12.35	3.52	2.96	1.28	1.28	1.00	0.93	0.93		
8	1.28	2.12	0.93	1.84	10.65	4.40	2.96	1.28	1.28	1.28	0.93	0.79		
9	1.00	1.56	0.93	2.12	9.80	8.60	2.96	1.28	0.93	1.84	0.93	0.72		
10	0.93	1.28	0.93	2.68	19.22	9.80	2.96	1.28	0.86	1.56	0.86	0.72		
11	0.86	2.12	1.00	3.80	16.60	8.00	2.96	1.28	0.86	1.00	0.86	0.72		
12	0.86	3.24	0.93	3.80	14.05	5.00	3.52	1.00	0.93	1.00	0.86	0.79		
13	0.79	1.84	0.93	2.96	9.20	5.60	3.52	1.00	0.93	1.00	0.86	0.93		
14	0.79	1.56	0.93	2.40	9.20	5.00	4.40	1.00	0.79	0.93	0.86	0.86		
15	0.79	1.28	0.27	2.12	8.60	6.80	4.40	1.00	0.93	0.93	1.00	0.86		
16	0.79	1.00	0.93	2.68	10.65	5.00	3.80	1.56	0.93	0.93	1.56	0.93		
17	0.93	0.93	1.00	6.80	9.80	2.96	5.60	2.68	0.93	0.93	1.28	0.93		
18	1.56	1.00	0.93	24.74	9.80	1.56	4.40	2.40	0.93	0.93	1.28	0.93		
19	2.96	1.84	0.93	12.35	9.20	6.20	3.52	2.40	0.93	0.93	1.00	0.86		
20	1.84	1.56	1.84	10.65	8.00	8.00	3.52	2.12	0.86	0.93	1.56	0.79		
21	1.28	1.28	2.12	9.80	8.00	5.60	3.52	1.84	0.86	0.86	1.56	0.79		
22	0.93	1.56	1.28	8.60	8.00	5.00	6.20	1.56	0.86	0.86	1.56	0.93		
23	0.93	1.00	1.00	21.06	8.00	5.00	6.80	0.93	0.86	0.86	1.56	0.86		
24	0.93	1.28	1.00	33.50	7.40	6.20	3.52	0.93	2.12	1.00	1.56	0.86		
25	0.93	2.40	1.00	29.50	13.20	3.52	2.96	0.93	2.40	1.00	1.28	0.93		
26	1.28	1.28	0.93	14.90	14.90	3.52	2.40	0.79	1.56	1.28	0.93	0.86		
27	2.12	1.28	1.00	14.90	9.80	2.96	1.56	0.79	1.00	1.56	0.93	0.86		
28	1.56	0.93	1.00	18.30	9.20	2.96	0.93	0.79	0.93	1.28	0.93	0.93		
29	1.56	0.93	1.28	69.80	8.00	3.52	1.28	0.79	0.93	1.00		0.79		
30	1.84	0.93	1.28	39.60	6.80	3.24	1.28	0.79	0.93	0.93		0.79		
31		1.28		21.98	6.80		1.56		0.93	0.93		0.79		
Total	36.86	63.36	31.09	370.68	357.74	153.16	106.37	43.30	32.82	33.45	30.66	26.10	1285.59	CMSDAY
Mean	1.23	2.04	1.04	11.96	11.54	5.11	3.43	1.44	1.06	1.08	1.09	0.84	3.52	CMS
Max	2.96	9.20	2.12	69.80	19.22	9.80	6.80	2.96	2.40	1.84	1.56	0.93	69.80	CMS
Min	0.79	0.93	0.27	1.28	6.80	1.56	0.93	0.79	0.79	0.86	0.86	0.72	0.27	CMS
Runoff	3.18	5.47	2.69	32.03	30.91	13.23	9.19	3.74	2.84	2.89	2.65	2.26	111.07	MCM

Momentary Peak 117.25 CMS. at 160.35 m. (MSL.) at 06.00 Hours , on Jul 29 , 2018

Runoff Yield 10.64 Liters/Second/Square KM. Momentary Peak Yield 354.23 Liters/Second/Square KM.

WATER YEAR : 2018

YOM RIVER BASIN

Nam Khuan at Ban Pa Kha , Phayao (Y.36)

Lat 19 - 09 - 24 N Long 100 - 19 - 36 E

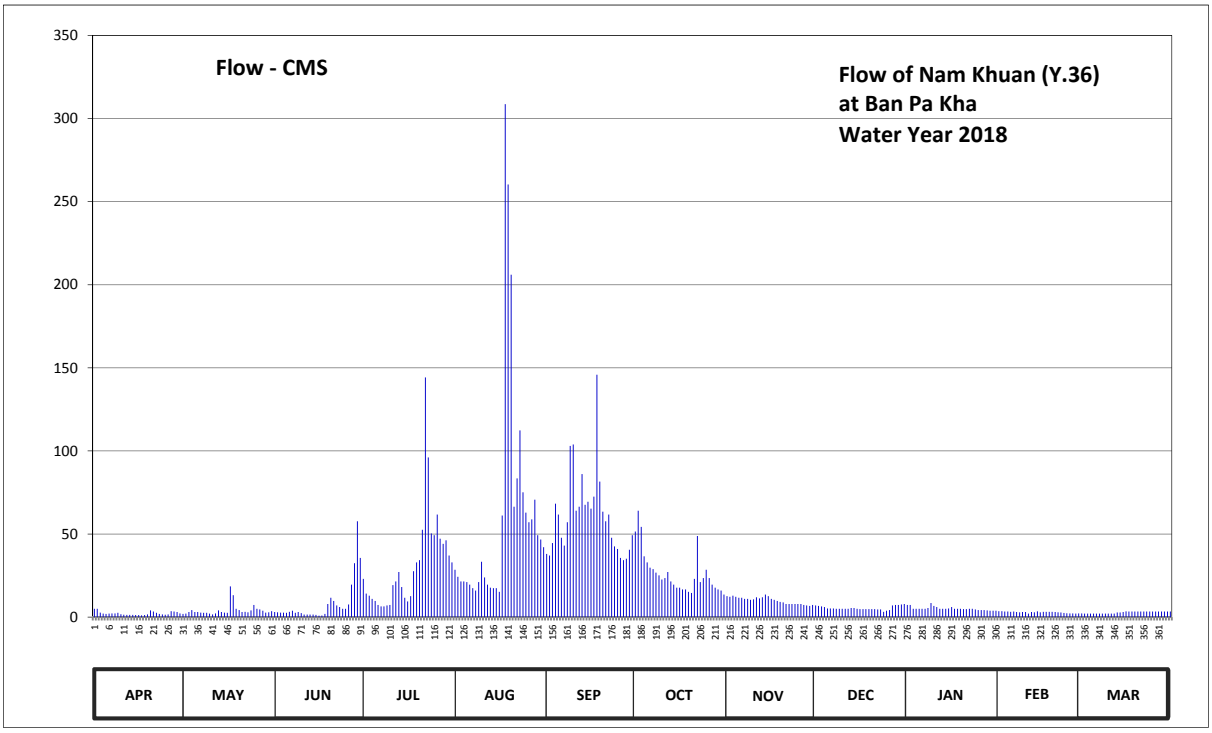
Location : on left bank at the bridge.

	Ban Pa Kha	**Amphoe** Pong	**Changwat** Phayao
Drainge Area	853 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+298.586 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank about 20 meters from the abutment of the bridge.	**Elevation** +307.764 m. (MSL.)	
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic mean of 3 readings		
Period of Available Gage Records	1998 to date		
Rating Operation			
Period of Rating	1998 to date		
Rated by Flot	-		
Rated by Current Meter	1998 to date		
Stability of Channel Regimes	Fairly stable because of backwater effect.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Flow effected by the islet at the gage site.		
	Stage-discharge relation defined by 35 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	300.49	300.32	300.39	301.03	301.16	301.37	301.63	300.74	300.56	300.57	300.42	300.40	
2	300.49	300.33	300.38	300.79	301.06	301.35	301.85	300.73	300.55	300.57	300.42	300.39	
3	300.37	300.39	300.37	300.75	300.99	301.50	301.68	300.75	300.54	300.49	300.41	300.39	
4	300.33	300.45	300.37	300.69	300.99	301.92	301.34	300.73	300.53	300.49	300.41	300.39	
5	300.32	300.39	300.36	300.65	300.98	301.81	301.26	300.71	300.50	300.49	300.40	300.39	
6	300.33	300.39	300.40	300.57	300.94	301.56	301.19	300.71	300.50	300.49	300.41	300.39	
7	300.34	300.37	300.43	300.54	300.88	301.47	301.17	300.69	300.50	300.49	300.39	300.39	
8	300.34	300.36	300.36	300.54	300.84	301.73	301.12	300.69	300.49	300.51	300.38	300.39	
9	300.36	300.36	300.39	300.56	300.98	302.42	301.08	300.67	300.49	300.61	300.39	300.39	
10	300.31	300.33	300.35	300.57	301.27	302.43	301.02	300.68	300.49	300.55	300.39	300.39	
11	300.28	300.30	300.29	300.93	301.05	301.85	301.04	300.72	300.49	300.53	300.33	300.39	
12	300.27	300.34	300.29	300.99	300.94	301.89	301.13	300.70	300.49	300.49	300.39	300.39	
13	300.27	300.44	300.29	301.13	300.89	302.20	300.99	300.72	300.51	300.49	300.38	300.44	
14	300.27	300.39	300.29	300.90	300.88	301.91	300.94	300.77	300.51	300.49	300.49	300.44	
15	300.26	300.37	300.27	300.71	300.88	301.94	300.89	300.74	300.49	300.50	300.45	300.46	
16	300.26	300.36	300.23	300.64	300.82	301.87	300.89	300.69	300.48	300.53	300.47	300.49	
17	300.25	300.91	300.24	300.74	301.80	301.99	300.86	300.67	300.48	300.49	300.47	300.48	
18	300.26	300.76	300.32	301.14	304.51	302.96	300.86	300.65	300.48	300.49	300.47	300.48	
19	300.30	300.49	300.59	301.26	304.09	302.13	300.82	300.63	300.48	300.49	300.47	300.48	
20	300.44	300.45	300.71	301.29	303.59	301.84	300.80	300.62	300.48	300.48	300.46	300.48	
21	300.41	300.39	300.65	301.65	301.89	301.74	301.03	300.59	300.48	300.48	300.45	300.48	
22	300.36	300.40	300.56	302.94	302.16	301.81	301.58	300.59	300.47	300.49	300.44	300.48	
23	300.32	300.38	300.53	302.33	302.54	301.56	300.98	300.59	300.47	300.49	300.42	300.48	
24	300.30	300.44	300.49	301.61	302.03	301.46	301.04	300.59	300.40	300.47	300.41	300.48	
25	300.28	300.57	300.49	301.59	301.83	301.43	301.16	300.59	300.43	300.45	300.40	300.48	
26	300.30	300.49	300.58	301.81	301.73	301.32	301.04	300.59	300.45	300.45	300.40	300.48	
27	300.42	300.47	300.94	301.55	301.76	301.29	300.94	300.57	300.56	300.45	300.39	300.48	
28	300.41	300.43	301.25	301.49	301.96	301.31	300.89	300.56	300.57	300.44	300.40	300.48	
29	300.39	300.37	301.74	301.53	301.59	301.42	300.86	300.55	300.57	300.43		300.48	
30	300.34	300.38	301.32	301.35	301.54	301.59	300.84	300.57	300.58	300.43		300.48	
31		300.42		301.26	301.45		300.77		300.59	300.43		300.48	
Mean	300.34	300.43	300.53	301.15	301.61	301.77	301.09	300.66	300.50	300.49	300.42	300.44	
Max	300.49	300.91	301.74	302.94	304.51	302.96	301.85	300.77	300.59	300.61	300.49	300.49	304.51
Min	300.25	300.30	300.23	300.54	300.82	301.29	300.77	300.55	300.40	300.43	300.33	300.39	300.23

Annual Max Momentary Gage Height	304.59	m. (MSL.) ,	at 06.00 Hours , on Aug 18, 2018		
Zero Gage at Bottom Elevation	298.59	m. (MSL.) ,	River Bed	298.71	m. (MSL.)
Left Bank Elevation	307.46	m. (MSL.) ,			
Right Bank Elevation	307.72	m. (MSL.) ,	Drainage Are	853	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	5.00	1.92	3.04	23.03	28.48	38.06	51.48	12.58	7.00	7.30	3.60	2.20		
2	5.00	2.08	2.88	14.18	24.26	37.10	64.05	12.26	6.70	7.30	3.60	2.09		
3	2.72	3.04	2.72	12.90	21.43	44.60	54.28	12.90	6.40	5.00	3.40	2.09		
4	2.08	4.20	2.72	10.99	21.43	68.22	36.62	12.26	6.10	5.00	3.40	2.09		
5	1.92	3.04	2.56	9.75	21.06	61.69	32.90	11.62	5.20	5.00	3.20	2.09		
6	2.08	3.04	3.20	7.30	19.58	47.72	29.77	11.62	5.20	5.00	3.40	2.09		
7	2.24	2.72	3.80	6.40	17.38	43.07	28.91	10.99	5.20	5.00	3.04	2.09		
8	2.24	2.56	2.56	6.40	15.94	57.11	26.76	10.99	5.00	5.50	2.88	2.09		
9	2.56	2.56	3.04	7.00	21.06	103.05	25.08	10.37	5.00	8.51	3.04	2.09		
10	1.76	2.08	2.40	7.30	33.35	103.83	22.62	10.68	5.00	6.70	3.04	2.09		
11	1.40	1.60	1.50	19.21	23.85	64.05	23.44	11.94	5.00	6.10	2.08	2.09		
12	1.30	2.24	1.50	21.43	19.58	66.41	27.19	11.30	5.00	5.00	3.04	2.09		
13	1.30	4.00	1.50	27.19	17.74	86.10	21.43	11.94	5.50	5.00	2.88	2.76		
14	1.30	3.04	1.50	18.10	17.38	67.61	19.58	13.54	5.50	5.00	3.46	2.76		
15	1.20	2.72	1.30	11.62	17.38	69.44	17.74	12.58	5.00	5.20	2.90	3.04		
16	1.20	2.56	0.90	9.44	15.22	65.23	17.74	10.99	4.80	6.10	3.18	3.46		
17	1.10	18.47	1.00	12.58	61.10	72.49	16.66	10.37	4.80	5.00	3.18	3.32		
18	1.20	13.22	1.92	27.62	308.65	145.80	16.66	9.75	4.80	5.00	3.18	3.32		
19	1.60	5.00	7.90	32.90	260.35	81.55	15.22	9.13	4.80	5.00	3.18	3.32		
20	4.00	4.20	11.62	34.25	206.00	63.46	14.50	8.82	4.80	4.80	3.04	3.32		
21	3.40	3.04	9.75	52.60	66.41	57.68	23.03	7.90	4.80	4.80	2.90	3.32		
22	2.56	3.20	7.00	144.20	83.50	61.69	48.76	7.90	4.60	5.00	2.76	3.32		
23	1.92	2.88	6.10	96.11	112.35	47.72	21.06	7.90	4.60	5.00	2.48	3.32		
24	1.60	4.00	5.00	50.36	75.05	42.56	23.44	7.90	3.20	4.60	2.34	3.32		
25	1.40	7.30	5.00	49.28	62.87	41.03	28.48	7.90	3.80	4.20	2.20	3.32		
26	1.60	5.00	7.60	61.69	57.11	35.66	23.44	7.90	4.20	4.20	2.20	3.32		
27	3.60	4.60	19.58	47.20	58.82	34.25	19.58	7.30	7.00	4.20	2.09	3.32		
28	3.40	3.80	32.45	44.09	70.66	35.18	17.74	7.00	7.30	4.00	2.20	3.32		
29	3.04	2.72	57.68	46.16	49.28	40.52	16.66	6.70	7.30	3.80		3.32		
30	2.24	2.88	35.66	37.10	46.68	49.28	15.94	7.30	7.60	3.80		3.32		
31		3.60		32.90	42.05		13.54		7.90	3.80		3.32		
Total	67.96	127.31	245.38	981.28	1896.00	1832.16	814.30	302.33	169.10	159.91	81.89	87.01	6764.63	CMSDAY
Mean	2.27	4.11	8.18	31.65	61.16	61.07	26.27	10.08	5.45	5.16	2.92	2.81	18.53	CMS
Max	5.00	18.47	57.68	144.20	308.65	145.80	64.05	13.54	7.90	8.51	3.60	3.46	308.65	CMS
Min	1.10	1.60	0.90	6.40	15.22	34.25	13.54	6.70	3.20	3.80	2.08	2.09	0.90	CMS
Runoff	5.87	11.00	21.20	84.78	163.81	158.30	70.36	26.12	14.61	13.82	7.08	7.52	584.46	MCM

Momentary Peak 317.85 CMS. at 304.59 m. (MSL.) at 06.00 Hours , on Aug 18 , 2018

Runoff Yield 21.73 Liters/Second/Square KM. Momentary Peak Yield 372.63 Liters/Second/Square KM.

WATER YEAR : 2018

YOM RIVER BASIN

Yom River at Ban Wang Chin , Phrae (Y.37)

Lat 17 - 53 - 48 N Long 99 - 36 - 28 E

Location : on left bank at the bridge on road.

	Ban Wang Chin	**Amphoe** Wang Chin	**Changwat** Phrae
Drainge Area	10,305 sq.km.		
Type of Gage	Water - stage recorder.		
Zero Gage at Bottom	+92.280 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank about 5 meters from the top staff gage.		**Elevation** +105.250 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	1999 to date		
Rating Operation			
Period of Rating	1999 to date		
Rated by Flot	-		
Rated by Current Meter	1999 to date		
Stability of Channel Regimes	Fairly stable because of backwater effect.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. The weir situated about 1 kilometer downstream from the gage site. Stage-discharge relation defined by 45 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

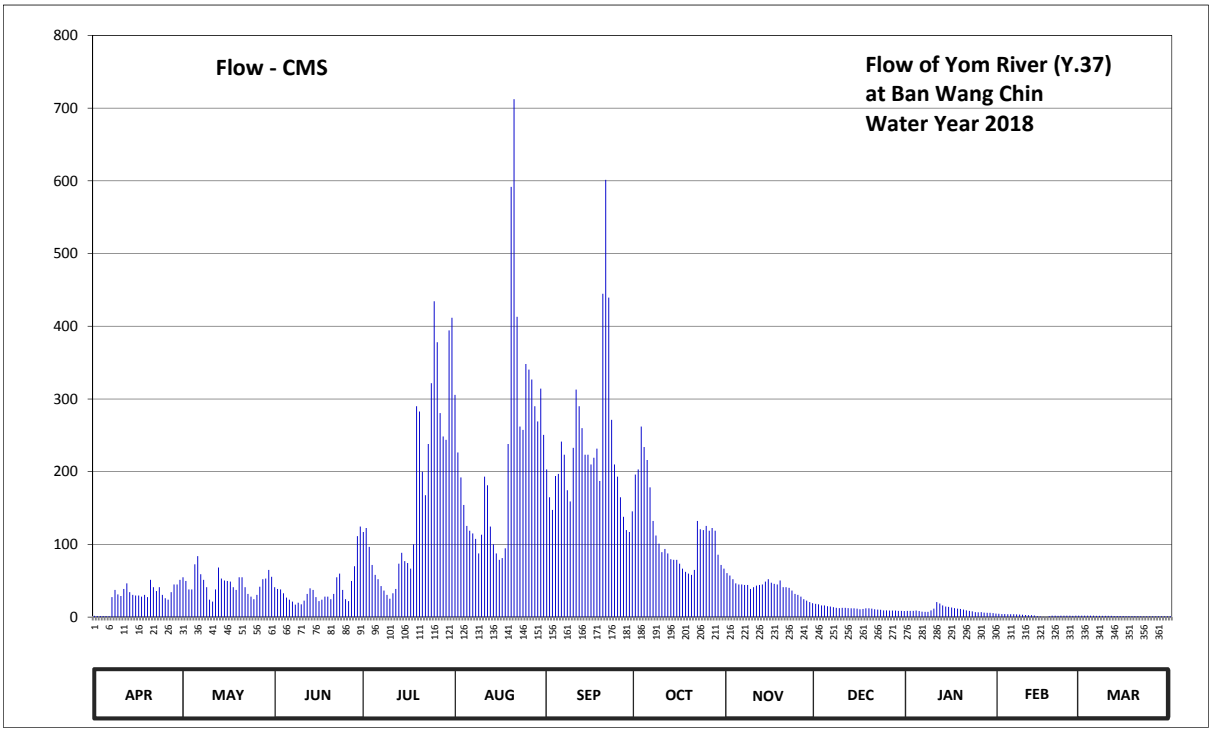
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	94.49	94.87	94.70	95.57	97.38	96.46	96.39	94.94	94.38	94.16	94.03	94.60	
2	94.44	94.81	94.67	95.63	96.69	96.07	96.46	94.90	94.37	94.16	94.02	94.60	
3	94.44	94.66	94.66	95.35	96.35	95.89	97.01	94.84	94.34	94.16	94.02	94.60	
4	94.44	94.66	94.59	95.07	95.96	96.37	96.76	94.77	94.34	94.17	94.01	94.58	
5	94.42	95.08	94.51	94.91	95.66	96.40	96.59	94.75	94.32	94.15	94.01	94.56	
6	94.38	95.21	94.47	94.84	95.59	96.83	96.21	94.75	94.31	94.13	94.01	94.53	
7	94.52	94.92	94.43	94.72	95.55	96.66	95.73	94.74	94.29	94.12	94.00	94.53	
8	94.65	94.83	94.36	94.64	95.47	96.17	95.52	94.74	94.27	94.12	93.99	94.51	
9	94.57	94.70	94.41	94.56	95.25	96.01	95.40	94.67	94.26	94.18	93.98	94.50	
10	94.54	94.47	94.37	94.49	95.53	96.75	95.27	94.70	94.27	94.24	93.96	94.49	
11	94.67	94.43	94.45	94.59	96.36	97.44	95.32	94.73	94.27	94.42	93.94	94.48	
12	94.77	94.66	94.58	94.67	96.24	97.25	95.25	94.74	94.26	94.39	93.94	94.47	
13	94.61	95.03	94.68	95.09	95.65	96.99	95.16	94.75	94.25	94.34	93.92	94.45	
14	94.56	94.85	94.65	95.26	95.39	96.66	95.15	94.80	94.25	94.31	93.87	94.43	
15	94.55	94.82	94.52	95.13	95.25	96.66	95.15	94.84	94.24	94.30	93.83	94.41	
16	94.55	94.81	94.44	95.10	95.15	96.53	95.09	94.78	94.22	94.28	93.80	94.39	
17	94.53	94.80	94.47	95.01	95.18	96.62	95.01	94.76	94.23	94.26	93.86	94.37	
18	94.56	94.70	94.53	95.39	95.33	96.74	94.96	94.75	94.25	94.24	94.35	94.35	
19	94.52	94.65	94.53	97.25	96.80	96.30	94.93	94.82	94.25	94.23	94.57	94.35	
20	94.83	94.87	94.48	97.19	99.59	98.49	94.91	94.70	94.24	94.21	94.57	94.34	
21	94.70	94.87	94.58	96.43	100.43	99.66	94.99	94.70	94.22	94.18	94.55	94.33	
22	94.63	94.70	94.87	96.10	98.24	98.45	95.73	94.69	94.21	94.16	94.57	94.33	
23	94.70	94.58	94.93	96.80	97.01	97.09	95.61	94.64	94.20	94.14	94.61	94.32	
24	94.56	94.53	94.65	97.51	96.97	96.53	95.60	94.58	94.18	94.11	94.61	94.31	
25	94.50	94.48	94.48	98.41	97.72	96.36	95.66	94.56	94.18	94.10	94.57	94.31	
26	94.47	94.56	94.44	97.96	97.66	96.07	95.59	94.53	94.17	94.11	94.54	94.30	
27	94.61	94.71	94.81	97.17	97.55	95.79	95.63	94.48	94.17	94.09	94.57	94.30	
28	94.75	94.84	95.05	96.89	97.25	95.60	95.59	94.45	94.17	94.08	94.61	94.29	
29	94.75	94.85	95.51	96.85	97.07	95.57	95.23	94.42	94.16	94.08		94.29	
30	94.83	94.99	95.65	98.09	97.45	95.87	95.07	94.40	94.16	94.06		94.28	
31		94.88		98.23	96.91		95.01		94.15	94.04		94.28	
Mean	94.58	94.77	94.65	95.96	96.60	96.68	95.55	94.70	94.24	94.18	94.19	94.42	
Max	94.83	95.21	95.65	98.41	100.43	99.66	97.01	94.94	94.38	94.42	94.61	94.60	100.43
Min	94.38	94.43	94.36	94.49	95.15	95.57	94.91	94.40	94.15	94.04	93.80	94.28	93.80

Annual Max Momentary Gage Height 100.74 m. (MSL.) , at 06.00 Hours , on Aug 21 , 2018

Zero Gage at Bottom Elevation 92.28 m. (MSL.) , River Bed 91.97 m. (MSL.)

Left Bank Elevation 105.39 m. (MSL.) ,

Right Bank Elevation 106.47 m. (MSL.) , Drainage Are 10,305 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.67	54.68	41.10	116.98	305.60	203.00	196.03	60.60	18.16	8.60	4.54	2.00		
2	1.52	49.64	38.82	122.65	226.45	164.83	203.00	57.20	17.64	8.60	4.26	2.00		
3	1.52	38.06	38.06	96.50	192.13	147.44	262.15	52.16	16.08	8.60	4.26	2.00		
4	1.52	38.06	32.75	71.76	154.16	194.08	233.80	46.49	16.08	8.95	3.98	1.94		
5	1.46	72.62	26.75	58.05	125.50	197.00	216.00	44.95	15.04	8.25	3.98	1.88		
6	1.34	83.90	23.96	52.16	118.86	241.45	178.48	44.95	14.52	7.55	3.98	1.79		
7	27.50	58.90	21.24	42.64	115.10	223.30	132.15	44.18	13.60	7.20	3.70	1.79		
8	37.30	51.32	17.12	36.54	107.58	174.58	112.28	44.18	12.80	7.20	3.51	1.73		
9	31.25	41.10	19.88	30.50	87.50	158.98	101.00	38.82	12.40	9.30	3.32	1.70		
10	29.00	23.96	17.64	25.32	113.22	232.75	89.30	41.10	12.80	11.60	2.94	1.67		
11	38.82	21.24	22.60	32.75	193.10	313.00	93.80	43.41	12.80	20.56	2.56	1.64		
12	46.49	38.06	32.00	38.82	181.40	290.00	87.50	44.18	12.40	18.68	2.56	1.61		
13	34.26	68.30	39.58	73.49	124.55	259.85	79.54	44.95	12.00	16.08	2.18	1.55		
14	30.50	53.00	37.30	88.40	100.10	223.30	78.68	48.80	12.00	14.52	1.41	1.49		
15	29.75	50.48	27.50	76.95	87.50	223.30	78.68	52.16	11.60	14.00	0.89	1.43		
16	29.75	49.64	21.92	74.35	78.68	210.00	73.49	47.26	10.80	13.20	0.50	1.37		
17	28.25	48.80	23.96	66.57	81.27	219.10	66.57	45.72	11.20	12.40	0.16	1.31		
18	30.50	41.10	28.25	100.10	94.70	231.70	62.30	44.95	12.00	11.60	1.25	1.25		
19	27.50	37.30	28.25	290.00	238.00	187.25	59.75	50.48	12.00	11.20	1.91	1.25		
20	51.32	54.68	24.64	282.85	591.60	444.70	58.05	41.10	11.60	10.40	1.91	1.22		
21	41.10	54.68	32.00	200.00	712.35	601.40	64.85	41.10	10.80	9.30	1.85	1.19		
22	35.78	41.10	54.68	167.75	413.00	439.50	132.15	40.34	10.40	8.60	1.91	1.19		
23	41.10	32.00	59.75	238.00	262.15	271.35	120.75	36.54	10.00	7.90	2.03	1.16		
24	30.50	28.25	37.30	321.75	257.55	210.00	119.80	32.00	9.30	6.85	2.03	1.13		
25	26.00	24.64	24.64	434.30	348.00	193.10	125.50	30.50	9.30	6.50	1.91	1.13		
26	23.96	30.50	21.92	378.00	340.50	164.83	118.86	28.25	8.95	6.85	1.82	1.10		
27	34.26	41.87	49.64	280.55	326.75	137.85	122.65	24.64	8.95	6.22	1.91	1.10		
28	44.95	52.16	70.03	248.35	290.00	119.80	118.86	22.60	8.95	5.94	2.03	1.07		
29	44.95	53.00	111.34	243.75	269.05	116.98	85.70	20.56	8.60	5.94		1.07		
30	51.32	64.85	124.55	394.25	314.25	145.52	71.76	19.20	8.60	5.38		1.04		
31		55.52		411.75	250.65		66.57		8.25	4.82		1.04		
Total	855.14	1453.41	1149.17	5095.83	7101.25	6939.94	3610.00	1233.37	369.62	302.79	69.29	44.84	28224.65	CMSDAY
Mean	28.50	46.88	38.31	164.38	229.07	231.33	116.45	41.11	11.92	9.77	2.47	1.45	77.33	CMS
Max	51.32	83.90	124.55	434.30	712.35	601.40	262.15	60.60	18.16	20.56	4.54	2.00	712.35	CMS
Min	1.34	21.24	17.12	25.32	78.68	116.98	58.05	19.20	8.25	4.82	0.16	1.04	0.16	CMS
Runoff	73.88	125.57	99.29	440.28	613.55	599.61	311.90	106.56	31.94	26.16	5.99	3.87	2438.61	MCM

Momentary Peak 757.30 CMS. at 100.74 m. (MSL.) at 06.00 Hours , on Aug 21, 2018

Runoff Yield 7.50 Liters/Second/Square KM. Momentary Peak Yield 73.49 Liters/Second/Square KM.

WATER YEAR : 2018

YOM RIVER BASIN

Nam Mae Kham Mi at Ban Mae Kham Mi Tamnak Tham , Phrae (Y.38)

Lat 18 - 15 - 54 N Long 100 - 14 - 28 E

Location : on right bank at the bridge on road.

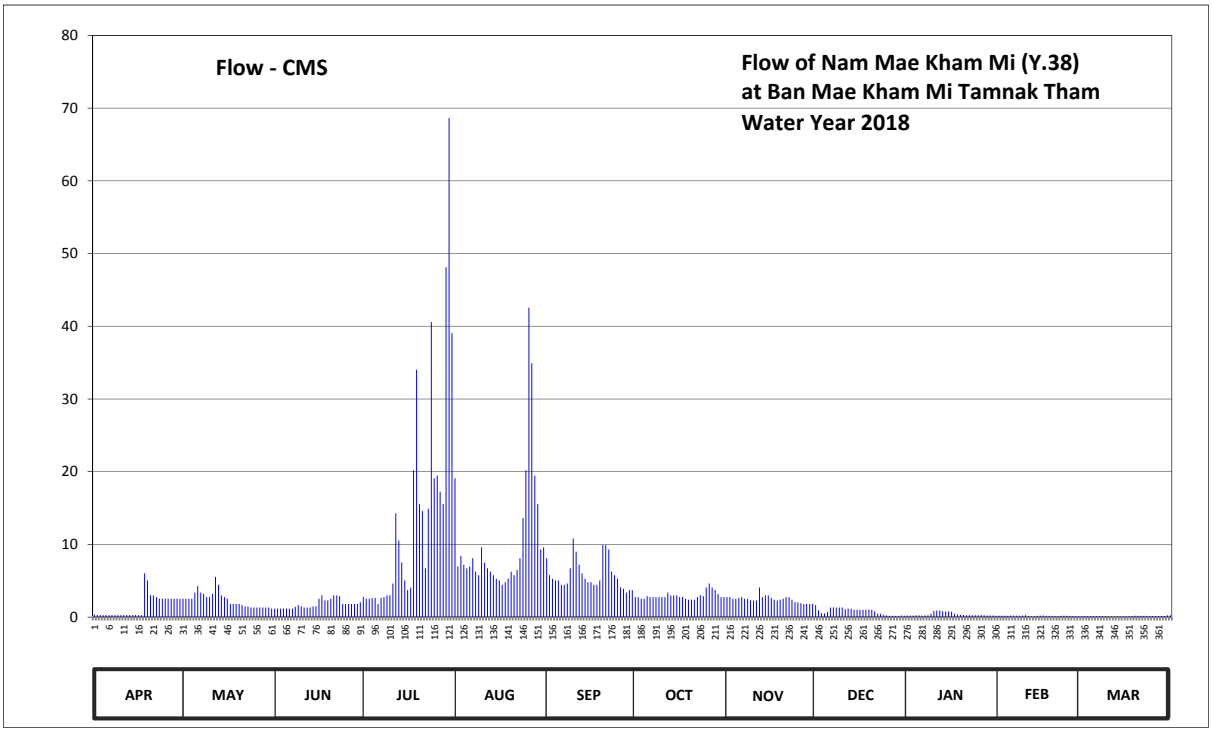
Ban Mae Kham Mi Tamnak Tham **Amphoe** Nong Muang Khai **Changwat** Phrae

Drainge Area	425 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+170.100 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On right bank about 15 meters from the top staff gage. **Elevation** +179.900 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	1999 to date
Rating Operation	
Period of Rating	1999 to date
Rated by Flot	-
Rated by Current Meter	1999 to date
Stability of Channel Regimes	Fairly stable because of backwater effect.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. The islet situated of the gage site.
	Stage-discharge relation defined by 36 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	171.26	171.16	171.02	171.18	171.77	171.43	171.18	171.18	171.08	170.76	170.75	170.72	
2	171.21	171.16	171.02	171.16	171.39	171.34	171.18	171.18	170.99	170.76	170.75	170.72	
3	171.18	171.16	171.02	171.16	171.44	171.32	171.16	171.16	170.91	170.76	170.75	170.72	
4	171.18	171.16	171.02	171.17	171.40	171.31	171.16	171.16	170.90	170.77	170.75	170.72	
5	171.18	171.22	171.02	171.17	171.38	171.31	171.19	171.17	170.94	170.77	170.76	170.72	
6	171.18	171.27	171.02	171.10	171.39	171.28	171.18	171.18	171.04	170.76	170.76	170.72	
7	171.18	171.22	171.02	171.17	171.43	171.28	171.18	171.16	171.04	170.77	170.75	170.72	
8	171.18	171.21	171.05	171.18	171.36	171.29	171.18	171.16	171.04	170.78	170.75	170.73	
9	171.18	171.18	171.08	171.20	171.34	171.38	171.18	171.14	171.04	170.88	170.76	170.72	
10	171.18	171.18	171.06	171.20	171.48	171.52	171.18	171.14	171.04	170.97	170.78	170.70	
11	171.18	171.21	171.04	171.29	171.41	171.46	171.18	171.14	171.01	170.98	170.73	170.70	
12	171.18	171.33	171.04	171.63	171.38	171.40	171.22	171.26	171.02	170.98	170.70	170.70	
13	171.18	171.28	171.04	171.51	171.36	171.35	171.20	171.18	171.02	170.96	170.72	170.70	
14	171.18	171.20	171.06	171.41	171.34	171.32	171.20	171.20	171.00	170.96	170.74	170.70	
15	171.18	171.18	171.06	171.31	171.32	171.30	171.20	171.20	171.00	170.96	170.75	170.70	
16	171.18	171.16	171.16	171.24	171.31	171.30	171.18	171.17	171.00	170.95	170.76	170.70	
17	171.19	171.10	171.20	171.26	171.28	171.28	171.18	171.15	171.00	170.87	170.74	170.70	
18	171.35	171.10	171.14	171.80	171.30	171.28	171.16	171.14	171.00	170.82	170.74	170.73	
19	171.31	171.10	171.14	172.13	171.32	171.31	171.15	171.15	171.00	170.80	170.74	170.75	
20	171.20	171.10	171.16	171.67	171.36	171.49	171.15	171.16	171.00	170.80	170.72	170.75	
21	171.20	171.08	171.20	171.64	171.34	171.49	171.15	171.18	170.96	170.78	170.72	170.74	
22	171.18	171.06	171.20	171.38	171.37	171.47	171.18	171.18	170.88	170.78	170.74	170.74	
23	171.16	171.06	171.19	171.65	171.43	171.36	171.20	171.15	170.88	170.78	170.75	170.74	
24	171.16	171.04	171.10	172.27	171.61	171.34	171.19	171.12	170.81	170.78	170.74	170.73	
25	171.16	171.04	171.10	171.77	171.80	171.32	171.26	171.12	170.77	170.78	170.74	170.73	
26	171.16	171.04	171.10	171.78	172.31	171.26	171.29	171.11	170.75	170.78	170.72	170.73	
27	171.16	171.04	171.10	171.72	172.15	171.25	171.26	171.10	170.74	170.78	170.72	170.73	
28	171.16	171.04	171.10	171.67	171.78	171.22	171.24	171.10	170.74	170.76	170.72	170.73	
29	171.16	171.04	171.10	172.42	171.67	171.24	171.21	171.10	170.74	170.76		170.73	
30	171.16	171.04	171.12	172.79	171.47	171.24	171.18	171.10	170.76	170.76		170.77	
31		171.02		172.24	171.48		171.18		170.75	170.75		170.78	
Mean	171.19	171.13	171.09	171.56	171.49	171.34	171.19	171.15	170.93	170.82	170.74	170.72	
Max	171.35	171.33	171.20	172.79	172.31	171.52	171.29	171.26	171.08	170.98	170.78	170.78	172.79
Min	171.16	171.02	171.02	171.10	171.28	171.22	171.15	171.10	170.74	170.75	170.70	170.70	170.70

Annual Max Momentary Gage Height	173.20	m. (MSL.) ,	at 12.00 Hours , on Jul 30 , 2018		
Zero Gage at Bottom Elevation	170.10	m. (MSL.) ,	River Bed	170.60	m. (MSL.)
Left Bank Elevation	180.13	m. (MSL.) ,			
Right Bank Elevation	180.12	m. (MSL.) ,	Drainage Are	425	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.36	2.52	1.16	2.76	19.09	8.10	2.76	2.76	1.64	0.22	0.20	0.14		
2	0.31	2.52	1.16	2.52	6.96	5.76	2.76	2.76	0.95	0.22	0.20	0.14		
3	0.28	2.52	1.16	2.52	8.40	5.28	2.52	2.52	0.55	0.22	0.20	0.14		
4	0.28	2.52	1.16	2.64	7.20	5.04	2.52	2.52	0.50	0.24	0.20	0.14		
5	0.28	3.36	1.16	2.64	6.72	5.04	2.88	2.64	0.70	0.24	0.22	0.14		
6	0.28	4.26	1.16	1.80	6.96	4.44	2.76	2.76	1.32	0.22	0.22	0.14		
7	0.28	3.36	1.16	2.64	8.10	4.44	2.76	2.52	1.32	0.24	0.20	0.14		
8	0.28	3.18	1.40	2.76	6.24	4.62	2.76	2.52	1.32	0.26	0.20	0.16		
9	0.28	2.76	1.64	3.00	5.76	6.72	2.76	2.28	1.32	0.46	0.22	0.14		
10	0.28	2.76	1.48	3.00	9.60	10.82	2.76	2.28	1.32	0.85	0.26	0.10		
11	0.28	3.18	1.32	4.62	7.50	9.00	2.76	2.28	1.08	0.90	0.16	0.10		
12	0.28	5.52	1.32	14.26	6.72	7.20	3.36	4.08	1.16	0.90	0.10	0.10		
13	0.28	4.44	1.32	10.51	6.24	6.00	3.00	2.76	1.16	0.80	0.14	0.10		
14	0.28	3.00	1.48	7.50	5.76	5.28	3.00	3.00	1.00	0.80	0.18	0.10		
15	0.28	2.76	1.48	5.04	5.28	4.80	3.00	3.00	1.00	0.80	0.20	0.10		
16	0.28	2.52	2.52	3.72	5.04	4.80	2.76	2.64	1.00	0.75	0.22	0.10		
17	0.29	1.80	3.00	4.08	4.44	4.44	2.76	2.40	1.00	0.44	0.18	0.10		
18	6.00	1.80	2.28	20.20	4.80	4.44	2.52	2.28	1.00	0.34	0.18	0.16		
19	5.04	1.80	2.28	34.02	5.28	5.04	2.40	2.40	1.00	0.30	0.18	0.20		
20	3.00	1.80	2.52	15.54	6.24	9.90	2.40	2.52	1.00	0.30	0.14	0.20		
21	3.00	1.64	3.00	14.58	5.76	9.90	2.40	2.76	0.80	0.26	0.14	0.18		
22	2.76	1.48	3.00	6.72	6.48	9.30	2.76	2.76	0.46	0.26	0.18	0.18		
23	2.52	1.48	2.88	14.90	8.10	6.24	3.00	2.40	0.46	0.26	0.20	0.18		
24	2.52	1.32	1.80	40.57	13.62	5.76	2.88	2.04	0.32	0.26	0.18	0.16		
25	2.52	1.32	1.80	19.09	20.20	5.28	4.08	2.04	0.24	0.26	0.18	0.16		
26	2.52	1.32	1.80	19.46	42.55	4.08	4.62	1.92	0.20	0.26	0.14	0.16		
27	2.52	1.32	1.80	17.24	34.90	3.90	4.08	1.80	0.18	0.26	0.14	0.16		
28	2.52	1.32	1.80	15.54	19.46	3.36	3.72	1.80	0.18	0.22	0.14	0.16		
29	2.52	1.32	1.80	48.10	15.54	3.72	3.18	1.80	0.18	0.22		0.16		
30	2.52	1.32	2.04	68.64	9.30	3.72	2.76	1.80	0.22	0.22		0.24		
31		1.16		39.08	9.60		2.76		0.20	0.20		0.26		
Total	44.84	73.38	53.88	449.69	327.84	176.42	91.44	74.04	24.78	12.18	5.10	4.64	1338.23	CMSDAY
Mean	1.49	2.37	1.80	14.51	10.58	5.88	2.95	2.47	0.80	0.39	0.18	0.15	3.67	CMS
Max	6.00	5.52	3.00	68.64	42.55	10.82	4.62	4.08	1.64	0.90	0.26	0.26	68.64	CMS
Min	0.28	1.16	1.16	1.80	4.44	3.36	2.40	1.80	0.18	0.20	0.10	0.10	0.10	CMS
Runoff	3.87	6.34	4.66	38.85	28.33	15.24	7.90	6.40	2.14	1.05	0.44	0.40	115.62	MCM

Momentary Peak 95.00 CMS. at 173.20 m. (MSL.) at 12.00 Hours , on Jul 30 , 2018

Runoff Yield 8.63 Liters/Second/Square KM. Momentary Peak Yield 223.53 Liters/Second/Square KM.

WATER YEAR : 2018

YOM RIVER BASIN

Yom River at Ban Tha Tako , Phichit (Y.42)

Lat 16 - 18 - 40 N Long 100 - 16 - 19 E

Location : on left bank at Ban Tha Tako

	Ban Tha Tako	**Amphoe** Pho Prathap Chang	**Changwat** Phichit		
Drainge Area	22,753 sq.km.				
Type of Gage	Staff gage				
Zero Gage at Bottom	+0.000 m. (A.D.)				
Bench Mark	B.M.-H.D.				
Location BM	Near the gage observers house.		**Elevation** +8.000 m. (A.D.)		
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.				
Basis of Mean Daily Gage Height	Arithmetic mean of 5 readings				
Period of Available Gage Records	2011 to date				
Rating Operation					
Period of Rating	2011 to date				
Rated by Flot	-				
Rated by Current Meter	2011 to date				
Stability of Channel Regimes	Fairly stable.				
Overbank Flow Conditions	No overbank flow.				
General Description	Records good.Stage-discharge relation defined by 19 discharge measurements made in 2018.				

Gage Height in Meter (A.D.) Water Year April 1, 2018 to March 31, 2019

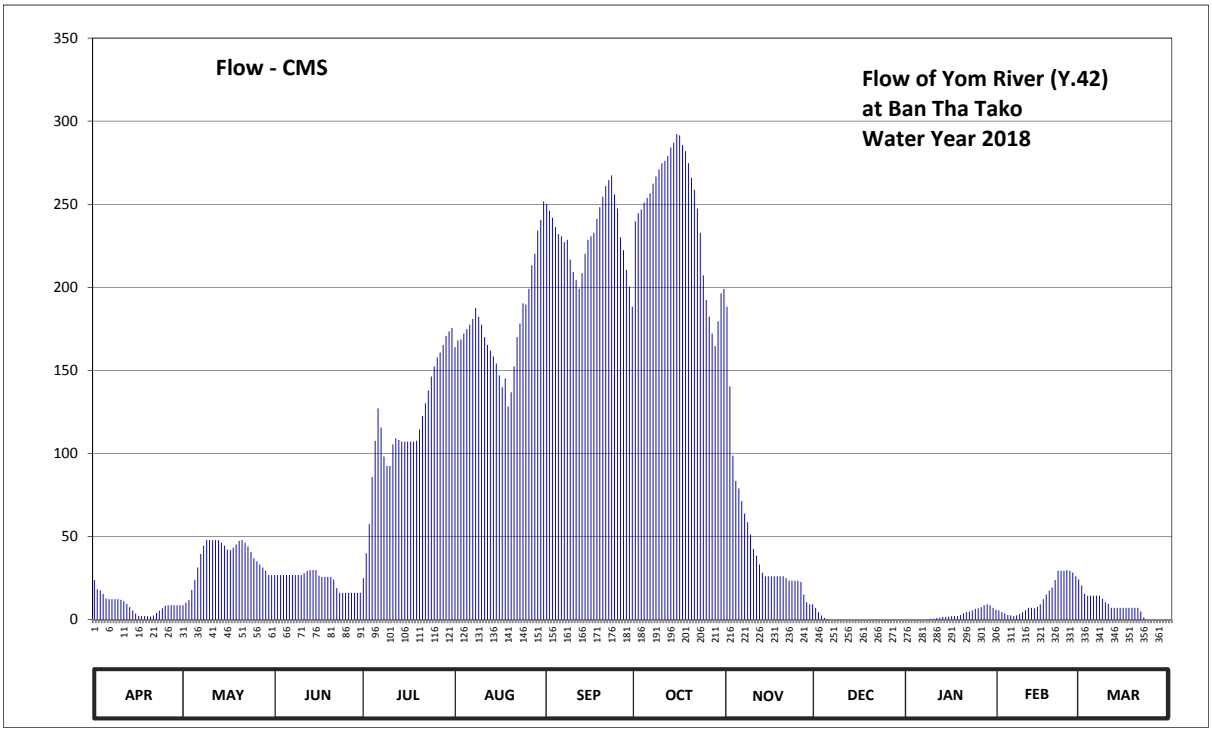
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	2.13	1.69	2.21	2.16	5.03	6.29	6.14	5.39	1.64	1.00	1.58	2.04	
2	1.98	1.74	2.21	2.56	5.09	6.23	6.21	4.64	1.52	1.04	1.52	1.90	
3	1.96	1.80	2.21	3.00	5.10	6.17	6.24	3.90	1.40	1.07	1.47	1.87	
4	1.90	1.97	2.21	3.64	5.15	6.09	6.30	3.59	1.29	1.10	1.42	1.87	
5	1.82	2.13	2.21	4.07	5.19	6.03	6.34	3.49	1.23	1.13	1.41	1.87	
6	1.81	2.33	2.21	4.42	5.23	6.01	6.38	3.32	1.17	1.15	1.37	1.87	
7	1.81	2.55	2.21	4.22	5.28	5.96	6.46	3.15	1.11	1.20	1.41	1.87	
8	1.81	2.68	2.21	3.89	5.38	5.98	6.52	3.03	1.04	1.22	1.46	1.82	
9	1.81	2.77	2.21	3.78	5.30	5.81	6.58	2.85	1.00	1.24	1.51	1.75	
10	1.80	2.77	2.21	3.78	5.23	5.70	6.63	2.63	1.00	1.25	1.59	1.72	
11	1.77	2.77	2.24	4.03	5.12	5.63	6.65	2.52	1.00	1.28	1.64	1.64	
12	1.72	2.77	2.28	4.10	5.05	5.55	6.69	2.38	1.00	1.30	1.64	1.64	
13	1.65	2.77	2.29	4.08	5.00	5.69	6.76	2.25	1.00	1.33	1.63	1.64	
14	1.57	2.73	2.29	4.06	4.94	5.86	6.80	2.19	1.00	1.34	1.66	1.64	
15	1.47	2.68	2.29	4.06	4.87	5.98	6.87	2.19	1.00	1.35	1.71	1.64	
16	1.39	2.62	2.20	4.06	4.75	6.01	6.86	2.19	0.94	1.37	1.81	1.64	
17	1.37	2.61	2.18	4.06	4.63	6.04	6.78	2.19	0.85	1.37	1.89	1.64	
18	1.37	2.65	2.18	4.06	4.72	6.16	6.73	2.19	0.77	1.38	1.96	1.64	
19	1.37	2.70	2.18	4.07	4.44	6.26	6.63	2.19	0.77	1.42	2.01	1.64	
20	1.36	2.76	2.18	4.20	4.58	6.35	6.51	2.19	0.83	1.48	2.13	1.64	
21	1.40	2.77	2.14	4.34	4.84	6.44	6.41	2.16	0.91	1.52	2.28	1.54	
22	1.49	2.73	2.00	4.47	5.12	6.49	6.25	2.12	0.97	1.54	2.28	1.32	
23	1.57	2.67	1.92	4.60	5.24	6.53	6.04	2.12	1.00	1.58	2.28	1.12	
24	1.63	2.58	1.92	4.74	5.42	6.37	5.67	2.12	1.00	1.62	2.29	0.96	
25	1.68	2.48	1.92	4.84	5.41	6.25	5.45	2.12	1.00	1.63	2.28	0.81	
26	1.69	2.43	1.92	4.93	5.55	6.00	5.30	2.10	1.00	1.65	2.25	0.67	
27	1.69	2.38	1.92	4.98	5.76	5.89	5.15	1.89	1.00	1.69	2.19	0.52	
28	1.69	2.33	1.92	5.05	5.86	5.72	5.04	1.75	1.00	1.71	2.14	0.50	
29	1.69	2.28	1.92	5.13	6.06	5.57	5.26	1.71	1.00	1.69		0.50	
30	1.69	2.21	1.92	5.17	6.15	5.39	5.51	1.71	1.00	1.64		0.50	
31		2.21		5.20	6.31		5.55		1.00	1.60		0.50	
Mean	1.67	2.47	2.13	4.19	5.22	6.01	6.22	2.61	1.05	1.38	1.81	1.42	
Max	2.13	2.77	2.29	5.20	6.31	6.53	6.87	5.39	1.64	1.71	2.29	2.04	6.87
Min	1.36	1.69	1.92	2.16	4.44	5.39	5.04	1.71	0.77	1.00	1.37	0.50	0.50

Annual Max Momentary Gage Height 6.90 m. (A.D.) , at 06.00 Hours , on Oct 15 , 2018

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed 0.66 m. (A.D.)

Left Bank Elevation 8.63 m. (A.D.) ,

Right Bank Elevation 9.38 m. (A.D.) , Drainage Are 22,753 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	23.88	8.70	26.88	25.00	164.03	250.30	239.80	188.33	7.20	0.00	5.65	20.50		
2	18.30	10.20	26.88	40.00	168.08	246.10	244.70	140.40	4.60	0.00	4.60	15.50		
3	17.60	12.00	26.88	57.50	168.75	241.90	246.80	98.75	2.50	0.00	3.73	14.45		
4	15.50	17.95	26.88	85.90	172.13	236.30	251.00	83.55	1.13	0.00	2.85	14.45		
5	12.70	23.88	26.88	107.68	174.83	232.10	253.80	79.05	0.38	0.00	2.68	14.45		
6	12.35	31.38	26.88	127.20	177.53	230.70	256.60	71.40	0.00	0.00	2.13	14.45		
7	12.35	39.63	26.88	115.65	180.90	227.20	262.35	63.88	0.00	0.00	2.68	14.45		
8	12.35	44.50	26.88	98.23	187.65	228.60	266.70	58.78	0.00	0.25	3.55	12.70		
9	12.35	47.88	26.88	92.55	182.25	216.70	271.05	51.13	0.00	0.50	4.43	10.50		
10	12.00	47.88	26.88	92.55	177.53	209.25	274.68	42.63	0.00	0.63	5.83	9.60		
11	11.10	47.88	28.00	105.58	170.10	204.53	276.13	38.50	0.00	1.00	7.20	7.20		
12	9.60	47.88	29.50	109.25	165.38	199.13	279.03	33.25	0.00	1.25	7.20	7.20		
13	7.50	47.88	29.88	108.20	162.00	208.58	284.10	28.38	0.00	1.63	6.90	7.20		
14	5.48	46.38	29.88	107.15	158.40	220.20	287.00	26.13	0.00	1.75	7.80	7.20		
15	3.73	44.50	29.88	107.15	154.20	228.60	292.25	26.13	0.00	1.88	9.30	7.20		
16	2.38	42.25	26.50	107.15	147.00	230.70	291.50	26.13	0.00	2.13	12.35	7.20		
17	2.13	41.88	25.75	107.15	139.80	232.80	285.55	26.13	0.00	2.13	15.15	7.20		
18	2.13	43.38	25.75	107.15	145.20	241.20	281.93	26.13	0.00	2.25	17.60	7.20		
19	2.13	45.25	25.75	107.68	128.40	248.20	274.68	26.13	0.00	2.85	19.38	7.20		
20	2.00	47.50	25.75	114.50	136.80	254.50	265.98	26.13	0.00	3.90	23.88	7.20		
21	2.50	47.88	24.25	122.55	152.40	260.90	258.73	25.00	0.00	4.60	29.50	4.95		
22	4.08	46.38	19.00	130.20	170.10	264.53	247.50	23.50	0.00	4.95	29.50	1.50		
23	5.48	44.13	16.20	138.00	178.20	267.43	232.80	23.50	0.00	5.65	29.50	0.00		
24	6.90	40.75	16.20	146.40	190.35	255.90	207.23	23.50	0.00	6.60	29.88	0.00		
25	8.40	37.00	16.20	152.40	189.68	247.50	192.38	23.50	0.00	6.90	29.50	0.00		
26	8.70	35.13	16.20	157.80	199.13	230.00	182.25	22.75	0.00	7.50	28.38	0.00		
27	8.70	33.25	16.20	160.80	213.30	222.30	172.13	15.15	0.00	8.70	26.13	0.00		
28	8.70	31.38	16.20	165.38	220.20	210.60	164.70	10.50	0.00	9.30	24.25	0.00		
29	8.70	29.50	16.20	170.78	234.20	200.48	179.55	9.30	0.00	8.70		0.00		
30	8.70	26.88	16.20	173.48	240.50	188.33	196.43	9.30	0.00	7.20		0.00		
31		26.88		175.50	251.70		199.13		0.00	6.00		0.00		
Total	268.42	1137.94	718.29	3616.51	5500.72	6935.56	7618.46	1346.94	15.81	98.25	391.53	219.50	27867.93	CMSDAY
Mean	8.95	36.71	23.94	116.66	177.44	231.19	245.76	44.90	0.51	3.17	13.98	7.08	76.35	CMS
Max	23.88	47.88	29.88	175.50	251.70	267.43	292.25	188.33	7.20	9.30	29.88	20.50	292.25	CMS
Min	2.00	8.70	16.20	25.00	128.40	188.33	164.70	9.30	0.00	0.00	2.13	0.00	0.00	CMS
Runoff	23.19	98.32	62.06	312.47	475.26	599.23	658.23	116.38	1.37	8.49	33.83	18.96	2407.79	MCM

Momentary Peak 294.50 CMS. at 6.90 m. (A.D.) at 06.00 Hours , on Oct 15, 2018

Runoff Yield 3.36 Liters/Second/Square KM. Momentary Peak Yield 12.94 Liters/Second/Square KM.

WATER YEAR : 2018

YOM RIVER BASIN

Yom River at Ban Bang Rakam , Phitsanulok (Y.64)

Lat 16 - 45 - 43 N Long 100 - 07 - 16 E

Location : on right bank at Bang Rakam

Ban Bang Rakam **Amphoe** Bang Rakam **Changwat** Phitsanulok

Drainge Area	21,059 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+32.514 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	Near the gage observers house. **Elevation** +43.630 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic mean of 5 readings
Period of Available Gage Records	2017 to date
Rating Operation	
Period of Rating	2017 to date
Rated by Flot	-
Rated by Current Meter	2017 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good.Stage-discharge relation defined by 27 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

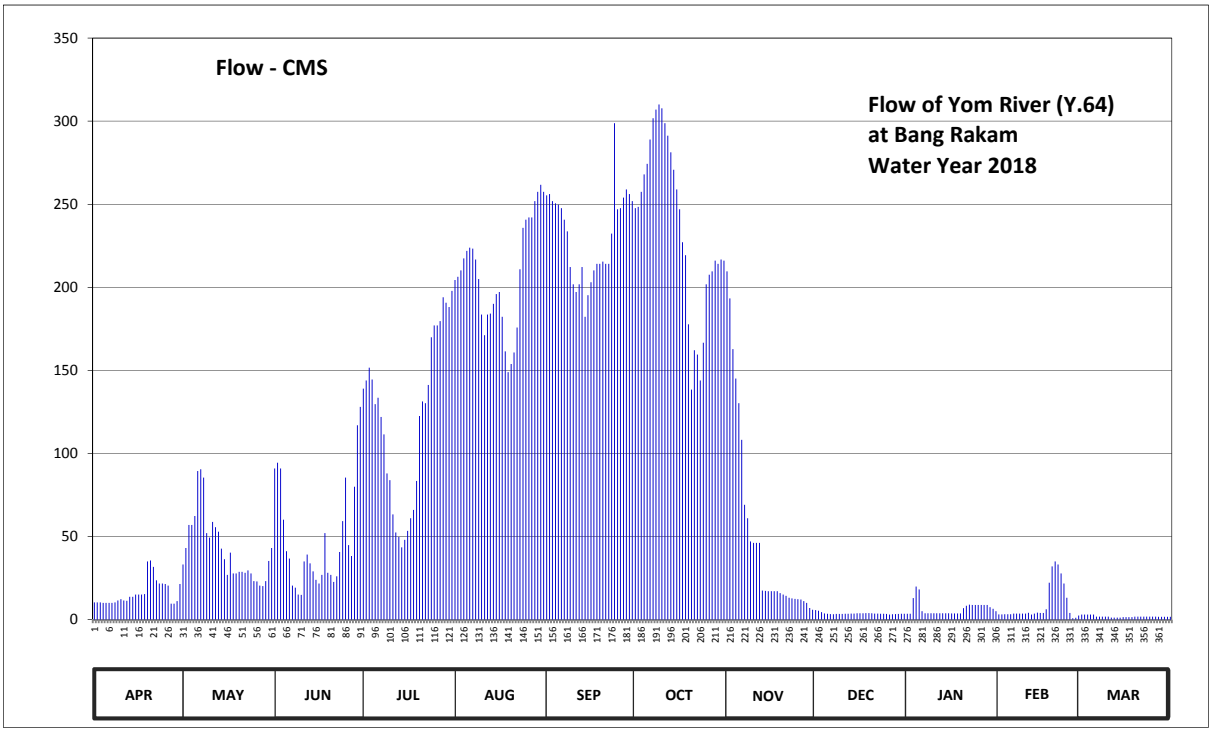
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	32.56	33.51	34.82	35.71	36.76	37.52	37.41	36.84	32.18	31.96	31.92	31.91	
2	32.56	33.78	34.89	35.80	36.79	37.53	37.42	36.59	32.14	31.96	31.92	31.91	
3	32.56	34.09	34.82	35.94	36.85	37.47	37.55	36.12	32.06	32.70	31.93	31.91	
4	32.54	34.09	34.16	35.81	36.96	37.45	37.70	35.82	31.98	33.04	31.93	31.91	
5	32.54	34.21	33.73	35.54	37.03	37.44	37.79	35.55	31.96	32.96	31.93	31.91	
6	32.54	34.79	33.62	35.61	37.06	37.41	38.00	35.15	31.94	32.11	31.97	31.77	
7	32.54	34.81	33.06	35.40	37.05	37.31	38.17	34.36	31.93	31.99	31.97	31.77	
8	32.56	34.71	33.01	35.21	36.95	37.21	38.24	34.18	31.95	31.99	31.97	31.77	
9	32.63	33.98	32.81	34.76	36.77	36.88	38.28	33.87	31.95	31.99	31.97	31.77	
10	32.67	33.92	32.80	34.68	36.44	36.72	38.25	33.85	31.95	31.99	31.97	31.77	
11	32.63	34.13	33.57	34.23	36.25	36.65	38.13	33.85	31.96	31.99	32.02	31.65	
12	32.62	34.06	33.68	33.99	36.44	36.72	38.03	33.85	31.96	31.99	31.91	31.65	
13	32.74	34.00	33.53	33.93	36.45	36.88	37.89	32.93	31.97	31.99	31.97	31.65	
14	32.74	33.77	33.37	33.79	36.54	36.42	37.74	32.92	31.97	31.99	32.03	31.65	
15	32.81	33.61	33.20	33.89	36.63	36.62	37.57	32.91	31.99	31.99	32.01	31.71	
16	32.81	33.30	33.11	34.01	36.65	36.74	37.40	32.91	31.99	31.98	32.01	31.71	
17	32.81	33.71	33.30	34.18	36.42	36.85	37.11	32.91	31.99	31.98	32.23	31.71	
18	32.82	33.33	33.98	34.29	36.10	36.91	36.99	32.91	32.00	31.98	33.13	31.71	
19	33.57	33.33	33.34	34.67	35.89	36.91	36.35	32.85	32.00	31.98	33.47	31.78	
20	33.59	33.36	33.30	35.41	35.98	36.93	35.70	32.81	31.99	32.30	33.57	31.78	
21	33.46	33.36	33.15	35.57	36.09	36.91	36.11	32.77	31.97	32.43	33.51	31.78	
22	33.19	33.34	33.27	35.55	36.32	36.91	36.07	32.71	31.97	32.47	33.33	31.78	
23	33.11	33.39	33.72	35.75	36.86	37.19	35.80	32.69	31.96	32.46	33.11	31.77	
24	33.11	33.33	34.14	36.23	37.24	38.13	36.18	32.68	31.96	32.46	32.71	31.77	
25	33.10	33.17	34.71	36.34	37.31	37.40	36.72	32.67	31.95	32.46	32.01	31.77	
26	33.06	33.16	33.82	36.34	37.33	37.41	36.81	32.66	31.91	32.46	31.57	31.77	
27	32.51	33.06	33.66	36.38	37.33	37.50	36.84	32.61	31.93	32.46	31.64	31.76	
28	32.51	33.05	34.60	36.60	37.47	37.57	36.94	32.54	31.94	32.46	31.85	31.76	
29	32.61	33.17	35.31	36.55	37.55	37.53	36.91	32.31	31.95	32.35		31.76	
30	33.10	33.58	35.51	36.51	37.61	37.47	36.95	32.20	31.96	32.26		31.76	
31		33.78		36.66	37.55		36.94		31.96	32.11		31.76	
Mean	32.82	33.71	33.80	35.33	36.80	37.15	37.23	33.63	31.98	32.23	32.27	31.77	
Max	33.59	34.81	35.51	36.66	37.61	38.13	38.28	36.84	32.18	33.04	33.57	31.91	38.28
Min	32.51	33.05	32.80	33.79	35.89	36.42	35.70	32.20	31.91	31.96	31.57	31.65	31.57

Annual Max Momentary Gage Height 38.29 m. (MSL.) , at 06.00 Hours , on Oct 9 , 2018

Zero Gage at Bottom Elevation 32.51 m. (MSL.) , River Bed 30.69 m. (MSL.)

Left Bank Elevation 41.41 m. (MSL.) ,

Right Bank Elevation 42.11 m. (MSL.) , Drainage Are 21,059 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	10.40	33.30	91.00	139.05	204.40	255.40	247.70	209.60	5.80	3.60	3.20	3.10		
2	10.40	43.20	94.50	144.00	206.35	256.10	248.40	193.35	5.40	3.60	3.20	3.10		
3	10.40	57.05	91.00	151.70	210.25	251.90	257.50	162.80	4.60	13.00	3.30	3.10		
4	10.10	57.05	60.20	144.55	217.40	250.50	268.00	145.10	3.80	20.00	3.30	3.10		
5	10.10	62.45	41.20	129.70	221.95	249.80	274.30	130.25	3.60	18.20	3.30	3.10		
6	10.10	89.50	36.80	133.55	223.90	247.70	289.00	108.25	3.40	5.10	3.70	1.85		
7	10.10	90.50	20.50	122.00	223.25	240.70	301.75	69.20	3.30	3.90	3.70	1.85		
8	10.40	85.50	19.25	111.55	216.75	233.70	307.00	61.10	3.50	3.90	3.70	1.85		
9	11.60	52.10	15.20	88.00	205.05	212.20	310.00	47.15	3.50	3.90	3.70	1.85		
10	12.40	49.40	15.00	84.00	183.60	201.80	307.75	46.25	3.50	3.90	3.70	1.85		
11	11.60	58.85	35.10	63.35	171.25	197.25	298.75	46.25	3.60	3.90	4.20	1.25		
12	11.40	55.70	39.20	52.55	183.60	201.80	291.25	46.25	3.60	3.90	3.10	1.25		
13	13.80	53.00	33.90	49.85	184.25	212.20	281.30	17.60	3.70	3.90	3.70	1.25		
14	13.80	42.80	29.10	43.60	190.10	182.30	270.80	17.40	3.70	3.90	4.30	1.25		
15	15.20	36.40	24.00	48.05	195.95	195.30	258.90	17.20	3.90	3.90	4.10	1.55		
16	15.20	27.00	21.75	53.45	197.25	203.10	247.00	17.20	3.90	3.80	4.10	1.55		
17	15.20	40.40	27.00	61.10	182.30	210.25	227.15	17.20	3.90	3.80	6.30	1.55		
18	15.40	27.90	52.10	66.05	161.50	214.15	219.35	17.20	4.00	3.80	22.25	1.55		
19	35.10	27.90	28.20	83.50	148.95	214.15	177.75	16.00	4.00	3.80	32.10	1.90		
20	35.70	28.80	27.00	122.55	153.90	215.45	138.50	15.20	3.90	7.00	35.10	1.90		
21	31.80	28.80	22.75	131.35	160.85	214.15	162.15	14.40	3.70	8.45	33.30	1.90		
22	23.75	28.20	26.10	130.25	175.80	214.15	159.55	13.20	3.70	9.05	27.90	1.90		
23	21.75	29.70	40.80	141.25	210.90	232.35	144.00	12.80	3.60	8.90	21.75	1.85		
24	21.75	27.90	59.30	169.95	235.80	298.75	166.70	12.60	3.60	8.90	13.20	1.85		
25	21.50	23.25	85.50	177.10	240.70	247.00	201.80	12.40	3.50	8.90	4.10	1.85		
26	20.50	23.00	44.90	177.10	242.10	247.70	207.65	12.20	3.10	8.90	0.93	1.85		
27	9.65	20.50	38.40	179.70	242.10	254.00	209.60	11.20	3.30	8.90	1.20	1.80		
28	9.65	20.25	80.00	194.00	251.90	258.90	216.10	10.10	3.40	8.90	2.50	1.80		
29	11.20	23.25	117.05	190.75	257.50	256.10	214.15	7.10	3.50	7.50		1.80		
30	21.50	35.40	128.05	188.15	261.70	251.90	216.75	6.00	3.60	6.60		1.80		
31		43.20		197.90	257.50		216.10		3.60	5.10		1.80		
Total	481.45	1322.25	1444.85	3769.65	6418.80	6920.75	7336.70	1512.55	117.20	210.90	258.93	59.95	29853.98	CMSDAY
Mean	16.05	42.65	48.16	121.60	207.06	230.69	236.67	50.42	3.78	6.80	9.25	1.93	81.79	CMS
Max	35.70	90.50	128.05	197.90	261.70	298.75	310.00	209.60	5.80	20.00	35.10	3.10	310.00	CMS
Min	9.65	20.25	15.00	43.60	148.95	182.30	138.50	6.00	3.10	3.60	0.93	1.25	0.93	CMS
Runoff	41.60	114.24	124.84	325.70	554.58	597.95	633.89	130.68	10.13	18.22	22.37	5.18	2579.38	MCM

Momentary Peak 310.75 CMS. at 38.29 m. (MSL.) at 06.00 Hours , on Oct 9 , 2018

Runoff Yield 3.88 Liters/Second/Square KM. Momentary Peak Yield 14.76 Liters/Second/Square KM.

WATER YEAR : 2018

YOM RIVER BASIN

Nam Pi at Ban Phi Tai , Nan (Y.65)

Lat 18 - 52 - 38 N Long 100 - 26 - 20 E

Location : on right bank at the bridge on road.

	Ban Phi Tai	**Amphoe** Ban Luang	**Changwat** Nan
Drainge Area	131 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+343.540 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank about 15 meters from the top staff gage.		**Elevation** +349.644 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	2018 to date		
Rating Operation			
Period of Rating	2018 to date		
Rated by Flot	-		
Rated by Current Meter	2018 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. The islet situated of the gage site.		
	Stage-discharge relation defined by 36 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

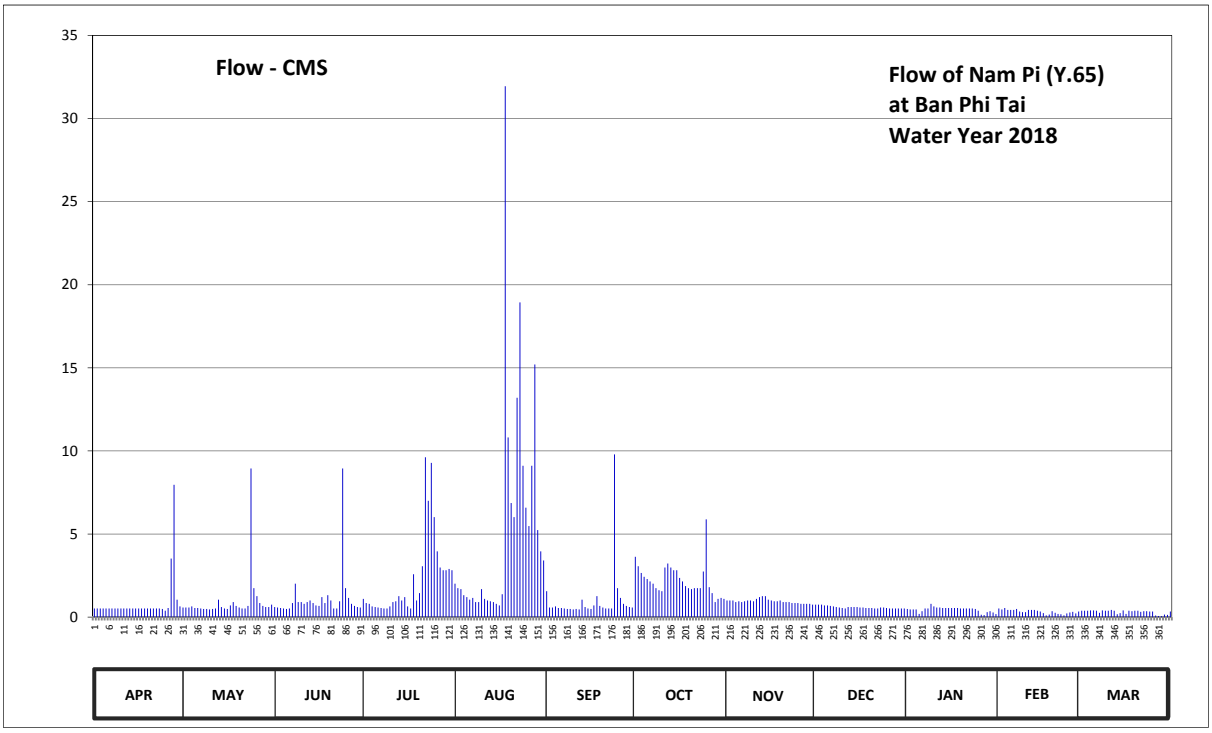
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	344.14	344.16	344.17	344.28	344.43	344.36	344.63	344.26	344.21	344.13	344.14	344.09	
2	344.14	344.16	344.16	344.23	344.39	344.16	344.57	344.26	344.21	344.12	344.12	344.09	
3	344.14	344.16	344.15	344.22	344.38	344.16	344.52	344.26	344.21	344.12	344.15	344.09	
4	344.14	344.18	344.14	344.18	344.32	344.18	344.49	344.24	344.20	344.12	344.11	344.10	
5	344.14	344.15	344.13	344.17	344.30	344.15	344.47	344.25	344.20	343.99	344.11	344.10	
6	344.14	344.15	344.14	344.16	344.27	344.15	344.45	344.24	344.19	344.08	344.11	344.09	
7	344.14	344.14	344.23	344.15	344.29	344.14	344.43	344.25	344.18	344.14	344.13	344.03	
8	344.14	344.13	344.43	344.14	344.24	344.13	344.39	344.26	344.17	344.14	344.07	344.10	
9	344.14	344.13	344.24	344.14	344.24	344.13	344.37	344.26	344.16	344.22	344.05	344.09	
10	344.14	344.12	344.24	344.18	344.38	344.12	344.36	344.25	344.15	344.18	344.05	344.09	
11	344.14	344.13	344.22	344.24	344.28	344.13	344.56	344.28	344.14	344.16	344.11	344.11	
12	344.14	344.14	344.24	344.25	344.26	344.12	344.59	344.30	344.17	344.16	344.11	344.09	
13	344.14	344.27	344.26	344.31	344.25	344.27	344.56	344.31	344.17	344.15	344.11	343.97	
14	344.14	344.17	344.23	344.26	344.24	344.17	344.54	344.31	344.17	344.15	344.09	344.02	
15	344.14	344.14	344.20	344.30	344.22	344.14	344.54	344.27	344.17	344.15	344.07	344.10	
16	344.14	344.13	344.19	344.18	344.20	344.13	344.48	344.26	344.16	344.15	344.02	343.99	
17	344.14	344.20	344.30	344.14	344.33	344.20	344.45	344.25	344.16	344.15	343.91	344.09	
18	344.14	344.24	344.23	344.51	345.94	344.31	344.41	344.25	344.15	344.15	343.95	344.08	
19	344.14	344.19	344.32	344.26	345.13	344.19	344.39	344.26	344.15	344.14	344.08	344.09	
20	344.14	344.16	344.26	344.34	344.89	344.16	344.38	344.24	344.15	344.14	344.03	344.09	
21	344.14	344.14	344.14	344.57	344.83	344.14	344.39	344.24	344.14	344.14	343.99	344.06	
22	344.14	344.14	344.14	345.06	345.26	344.14	344.39	344.24	344.14	344.14	343.97	344.08	
23	344.14	344.19	344.25	344.90	345.52	344.14	344.39	344.23	344.16	344.14	343.91	344.08	
24	344.13	345.02	345.02	345.04	345.03	345.07	344.53	344.23	344.16	344.13	344.01	344.07	
25	344.09	344.39	344.39	344.83	344.87	344.39	344.82	344.23	344.15	344.09	344.04	344.07	
26	344.15	344.31	344.29	344.66	344.79	344.29	344.40	344.22	344.14	343.94	344.06	343.90	
27	344.62	344.23	344.22	344.56	345.03	344.22	344.34	344.22	344.14	343.92	344.01	343.85	
28	344.96	344.19	344.19	344.54	345.36	344.19	344.24	344.22	344.14	344.05	344.07	343.84	
29	344.27	344.17	344.17	344.54	344.77	344.17	344.28	344.22	344.14	344.08		343.95	
30	344.18	344.17	344.16	344.55	344.66	344.16	344.29	344.21	344.14	344.04		343.93	
31		344.21		344.54	344.61		344.28		344.14	343.98		344.07	
Mean	344.19	344.21	344.25	344.40	344.64	344.21	344.45	344.25	344.16	344.11	344.06	344.05	
Max	344.96	345.02	345.02	345.06	345.94	345.07	344.82	344.31	344.21	344.22	344.15	344.11	345.94
Min	344.09	344.12	344.13	344.14	344.20	344.12	344.24	344.21	344.14	343.92	343.91	343.84	343.84

Annual Max Momentary Gage Height 346.14 m. (MSL.) , at 06.00 Hours , on Aug 18 , 2018

Zero Gage at Bottom Elevation 343.54 m. (MSL.) , River Bed 343.42 m. (MSL.)

Left Bank Elevation 349.64 m. (MSL.) ,

Right Bank Elevation 349.65 m. (MSL.) , Drainage Are 131 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.52	0.58	0.61	1.10	2.01	1.56	3.63	1.00	0.75	0.49	0.52	0.38		
2	0.52	0.58	0.58	0.85	1.74	0.58	3.06	1.00	0.75	0.46	0.46	0.38		
3	0.52	0.58	0.55	0.80	1.68	0.58	2.66	1.00	0.75	0.46	0.55	0.38		
4	0.52	0.64	0.52	0.64	1.32	0.64	2.43	0.90	0.70	0.46	0.43	0.40		
5	0.52	0.55	0.49	0.61	1.20	0.55	2.29	0.95	0.70	0.19	0.43	0.40		
6	0.52	0.55	0.52	0.58	1.05	0.55	2.15	0.90	0.67	0.36	0.43	0.38		
7	0.52	0.52	0.85	0.55	1.15	0.52	2.01	0.95	0.64	0.52	0.49	0.26		
8	0.52	0.49	2.01	0.52	0.90	0.49	1.74	1.00	0.61	0.52	0.34	0.40		
9	0.52	0.49	0.90	0.52	0.90	0.49	1.62	1.00	0.58	0.80	0.30	0.38		
10	0.52	0.46	0.90	0.64	1.68	0.46	1.56	0.95	0.55	0.64	0.30	0.38		
11	0.52	0.49	0.80	0.90	1.10	0.49	2.98	1.10	0.52	0.58	0.43	0.43		
12	0.52	0.52	0.90	0.95	1.00	0.46	3.22	1.20	0.61	0.58	0.43	0.38		
13	0.52	1.05	1.00	1.26	0.95	1.05	2.98	1.26	0.61	0.55	0.43	0.17		
14	0.52	0.61	0.85	1.00	0.90	0.61	2.82	1.26	0.61	0.55	0.38	0.24		
15	0.52	0.52	0.70	1.20	0.80	0.52	2.82	1.05	0.61	0.55	0.34	0.40		
16	0.52	0.49	0.67	0.64	0.70	0.49	2.36	1.00	0.58	0.55	0.24	0.19		
17	0.52	0.70	1.20	0.52	1.38	0.70	2.15	0.95	0.58	0.55	0.11	0.38		
18	0.52	0.90	0.85	2.58	31.94	1.26	1.87	0.95	0.55	0.55	0.15	0.36		
19	0.52	0.67	1.32	1.00	10.81	0.67	1.74	1.00	0.55	0.52	0.36	0.38		
20	0.52	0.58	1.00	1.44	6.86	0.58	1.68	0.90	0.55	0.52	0.26	0.38		
21	0.52	0.52	0.52	3.06	6.02	0.52	1.74	0.90	0.52	0.52	0.19	0.32		
22	0.52	0.52	0.52	9.62	13.20	0.52	1.74	0.90	0.52	0.52	0.17	0.36		
23	0.52	0.67	0.95	7.00	18.94	0.52	1.74	0.85	0.58	0.52	0.11	0.36		
24	0.49	8.94	8.94	9.28	9.11	9.79	2.74	0.85	0.58	0.49	0.22	0.34		
25	0.38	1.74	1.74	6.02	6.58	1.74	5.88	0.85	0.55	0.38	0.28	0.34		
26	0.55	1.26	1.15	3.96	5.48	1.15	1.80	0.80	0.52	0.14	0.32	0.10		
27	3.52	0.85	0.80	2.98	9.11	0.80	1.44	0.80	0.52	0.12	0.22	0.07		
28	7.96	0.67	0.67	2.82	15.20	0.67	0.90	0.80	0.52	0.30	0.34	0.06		
29	1.05	0.61	0.61	2.82	5.24	0.61	1.10	0.80	0.52	0.36		0.15		
30	0.64	0.61	0.58	2.90	3.96	0.58	1.15	0.75	0.52	0.28		0.13		
31		0.75		2.82	3.41		1.10		0.52	0.18		0.34		
Total	26.55	29.11	33.70	71.58	166.32	30.15	69.10	28.62	18.34	14.21	9.23	9.62	506.53	CMSDAY
Mean	0.88	0.94	1.12	2.31	5.37	1.00	2.23	0.95	0.59	0.46	0.33	0.31	1.39	CMS
Max	7.96	8.94	8.94	9.62	31.94	9.79	5.88	1.26	0.75	0.80	0.55	0.43	31.94	CMS
Min	0.38	0.46	0.49	0.52	0.70	0.46	0.90	0.75	0.52	0.12	0.11	0.06	0.06	CMS
Runoff	2.29	2.52	2.91	6.18	14.37	2.60	5.97	2.47	1.58	1.23	0.80	0.83	43.76	MCM

Momentary Peak 40.05 CMS. at 346.14 m. (MSL.) at 06.00 Hours , on Aug 18 , 2018

Runoff Yield 10.59 Liters/Second/Square KM. Momentary Peak Yield 305.73 Liters/Second/Square KM.

WATER YEAR : 2018

NAN RIVER BASIN

Nan River at Forestry Office , Nan (N.1)

Lat 18 - 46 - 26 N Long 100 - 46 - 56 E

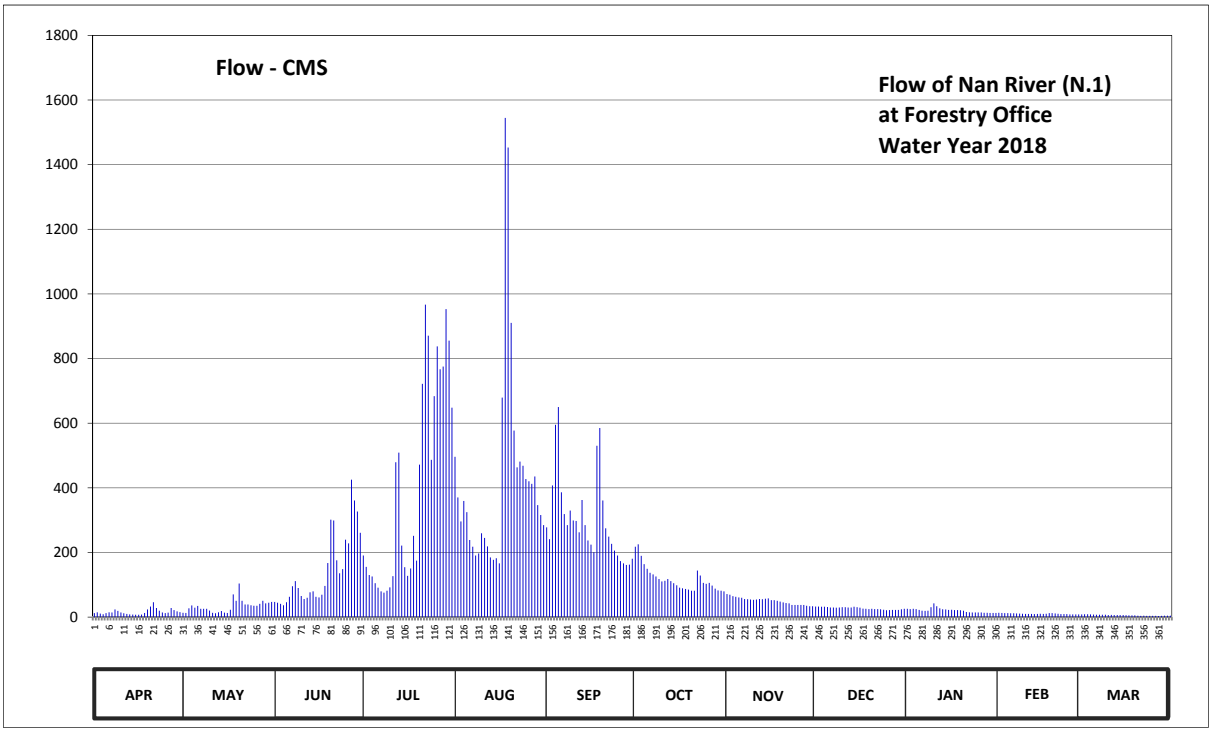
Location : on right bank in front of Forestry Office.

	Ban Forestry Office	**Amphoe** Mueang	**Changwat** Nan
Drainge Area	4,560 sq.km.		
Type of Gage	Water - stage recorder.		
Zero Gage at Bottom	+192.200 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On west side of automatic gage building.		**Elevation** +199.868 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	1922 - 1956 , 1962 to date		
Rating Operation			
Period of Rating	1954 - 1956 , 1979 to date		
Rated by Flot	-		
Rated by Current Meter	1954 - 1956 , 1979 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 37 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	192.08	192.11	192.59	193.91	195.93	194.57	194.12	192.85	192.42	192.32	192.11	191.99	
2	192.14	192.10	192.56	193.62	195.19	194.30	194.18	192.83	192.42	192.31	192.10	192.01	
3	192.05	192.34	192.52	193.40	194.70	195.42	193.90	192.78	192.41	192.32	192.09	192.01	
4	192.01	192.46	192.47	193.36	195.12	196.44	193.69	192.76	192.41	192.31	192.08	192.00	
5	192.08	192.37	192.58	193.17	194.90	196.71	193.57	192.74	192.40	192.27	192.07	191.98	
6	192.14	192.44	192.76	193.04	194.28	195.29	193.46	192.73	192.38	192.23	192.07	191.97	
7	192.13	192.32	193.08	192.93	194.12	194.86	193.42	192.69	192.38	192.22	192.06	191.96	
8	192.29	192.32	193.23	192.89	193.91	194.62	193.36	192.68	192.37	192.23	192.05	191.96	
9	192.22	192.32	193.03	192.95	193.96	194.93	193.29	192.67	192.38	192.39	192.04	191.96	
10	192.13	192.24	192.79	193.05	194.44	194.72	193.22	192.66	192.39	192.54	192.03	191.94	
11	192.07	192.11	192.69	193.37	194.33	194.71	193.24	192.67	192.39	192.43	192.03	191.95	
12	192.03	192.07	192.73	195.84	194.13	194.46	193.29	192.69	192.38	192.34	192.03	191.93	
13	192.00	192.14	192.90	196.00	193.86	195.14	193.23	192.68	192.38	192.30	192.02	191.93	
14	191.98	192.21	192.93	194.15	193.80	194.62	193.17	192.70	192.41	192.29	192.03	191.93	
15	191.97	192.12	192.76	193.61	193.84	194.27	193.11	192.71	192.39	192.27	192.04	191.94	
16	191.97	192.10	192.74	193.38	193.71	194.17	193.04	192.65	192.37	192.28	192.03	191.92	
17	191.98	192.28	192.83	193.58	196.85	193.99	193.02	192.65	192.33	192.26	192.04	191.91	
18	192.10	192.84	193.09	194.38	200.52	196.11	193.00	192.63	192.32	192.26	192.09	191.90	
19	192.29	192.63	193.72	193.78	200.16	196.39	192.98	192.60	192.31	192.25	192.09	191.90	
20	192.42	193.16	194.74	195.80	197.92	195.13	192.95	192.57	192.32	192.23	192.06	191.87	
21	192.58	192.63	194.72	197.05	196.35	194.55	192.95	192.55	192.31	192.16	192.04	191.86	
22	192.36	192.50	193.79	198.17	195.75	194.36	193.52	192.54	192.31	192.14	192.02	191.88	
23	192.23	192.50	193.45	197.74	195.85	194.19	193.39	192.48	192.30	192.13	192.02	191.86	
24	192.13	192.47	193.56	195.88	195.78	194.03	193.18	192.48	192.28	192.13	192.02	191.86	
25	192.08	192.45	194.29	196.87	195.54	193.91	193.15	192.48	192.25	192.13	192.00	191.85	
26	192.12	192.45	194.20	197.59	195.50	193.77	193.18	192.48	192.26	192.13	191.99	191.85	
27	192.36	192.52	195.53	197.26	195.45	193.71	193.10	192.48	192.27	192.11	191.99	191.84	
28	192.26	192.63	195.13	197.30	195.59	193.67	193.01	192.45	192.27	192.11	191.99	191.86	
29	192.20	192.54	194.91	198.11	195.04	193.68	192.96	192.43	192.27	192.10		191.87	
30	192.15	192.56	194.45	197.67	194.84	193.83	192.95	192.43	192.30	192.10		191.87	
31		192.59		196.70	194.62		192.93		192.32	192.10		191.87	
Mean	192.15	192.40	193.43	195.05	195.35	194.69	193.28	192.62	192.35	192.24	192.04	191.92	
Max	192.58	193.16	195.53	198.17	200.52	196.71	194.18	192.85	192.42	192.54	192.11	192.01	200.52
Min	191.97	192.07	192.47	192.89	193.71	193.67	192.93	192.43	192.25	192.10	191.99	191.84	191.84

Annual Max Momentary Gage Height	200.62	m. (MSL.) ,	at 11.00 Hours , on Aug 18 , 2018		
Zero Gage at Bottom Elevation	192.20	m. (MSL.) ,	River Bed	188.90	m. (MSL.)
Left Bank Elevation	204.23	m. (MSL.) ,			
Right Bank Elevation	204.15	m. (MSL.) ,	Drainage Are	4,560	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	12.10	13.50	47.12	190.75	496.05	277.80	217.60	71.50	32.80	25.60	13.50	8.17		
2	15.00	13.00	44.48	155.40	370.40	241.00	225.40	69.50	32.80	24.90	13.00	8.95		
3	10.75	27.00	40.96	130.00	296.00	407.30	189.50	64.60	32.00	25.60	12.55	8.95		
4	8.95	36.00	36.80	125.60	359.20	595.00	163.80	62.70	32.00	24.90	12.10	8.50		
5	12.10	29.10	46.24	104.85	325.00	650.10	149.55	60.80	31.20	22.34	11.65	7.84		
6	15.00	34.40	62.70	91.20	238.40	386.40	136.90	59.85	29.80	19.86	11.65	7.51		
7	14.50	25.60	95.40	79.65	217.60	319.00	132.30	56.10	29.80	19.24	11.20	7.18		
8	23.58	25.60	111.30	75.50	190.75	284.80	125.60	55.20	29.10	19.86	10.75	7.18		
9	19.24	25.60	90.15	81.75	197.00	329.50	117.90	54.30	29.80	30.50	10.30	7.18		
10	14.50	20.48	65.55	92.25	259.60	298.80	110.20	53.40	30.50	42.72	9.85	6.52		
11	11.65	13.50	56.10	126.70	244.90	297.40	112.40	54.30	30.50	33.60	9.85	6.85		
12	9.85	11.65	59.85	479.40	218.90	262.40	117.90	56.10	29.80	27.00	9.85	6.19		
13	8.50	15.00	76.50	509.00	184.50	362.40	111.30	55.20	29.80	24.20	9.40	6.19		
14	7.84	18.62	79.65	221.50	177.00	284.80	104.85	57.00	32.00	23.58	9.85	6.19		
15	7.51	14.00	62.70	154.20	182.00	237.10	98.55	57.95	30.50	22.34	10.30	6.52		
16	7.51	13.00	60.80	127.80	166.20	224.10	91.20	52.50	29.10	22.96	9.85	5.86		
17	7.84	22.96	69.50	150.70	679.50	200.75	89.10	52.50	26.30	21.72	10.30	5.53		
18	13.00	70.50	96.45	251.40	1544.60	530.45	87.00	50.70	25.60	21.72	12.55	5.20		
19	23.58	50.70	167.40	174.60	1453.00	585.05	84.90	48.00	24.90	21.10	12.55	5.20		
20	32.80	103.80	301.60	472.00	910.40	360.80	81.75	45.36	25.60	19.86	11.20	4.39		
21	46.24	50.70	298.80	721.75	577.25	275.00	81.75	43.60	24.90	16.00	10.30	4.12		
22	28.40	39.20	175.80	967.10	463.25	248.80	143.80	42.72	24.90	15.00	9.40	4.66		
23	19.86	39.20	135.75	870.80	481.25	226.70	128.90	37.60	24.20	14.50	9.40	4.12		
24	14.50	36.80	148.40	486.80	468.50	205.90	105.90	37.60	22.96	14.50	9.40	4.12		
25	12.10	35.20	239.70	683.70	427.10	190.75	102.75	37.60	21.10	14.50	8.50	3.85		
26	14.00	35.20	228.00	837.85	420.50	173.40	105.90	37.60	21.72	14.50	8.17	3.85		
27	28.40	40.96	425.45	766.90	412.25	166.20	97.50	37.60	22.34	13.50	8.17	3.58		
28	21.72	50.70	360.80	775.50	435.35	161.40	88.05	35.20	22.34	13.50	8.17	4.12		
29	18.00	42.72	326.50	953.30	346.40	162.60	82.80	33.60	22.34	13.00		4.39		
30	15.50	44.48	261.00	855.40	316.00	180.75	81.75	33.60	24.20	13.00		4.39		
31		47.12		648.00	284.80		79.65		25.60	13.00		4.39		
Total	494.52	1046.29	4271.45	12361.35	13343.65	9126.45	3646.45	1514.28	850.50	648.60	293.76	181.69	47778.99	CMSDAY
Mean	16.48	33.75	142.38	398.75	430.44	304.22	117.63	50.48	27.44	20.92	10.49	5.86	130.90	CMS
Max	46.24	103.80	425.45	967.10	1544.60	650.10	225.40	71.50	32.80	42.72	13.50	8.95	1544.60	CMS
Min	7.51	11.65	36.80	75.50	166.20	161.40	79.65	33.60	21.10	13.00	8.17	3.58	3.58	CMS
Runoff	42.73	90.40	369.05	1068.02	1152.89	788.53	315.05	130.83	73.48	56.04	25.38	15.70	4128.10	MCM

Momentary Peak 1570.10 CMS. at 200.62 m. (MSL.) at 11.00 Hours , on Aug 18 , 2018

Runoff Yield 28.71 Liters/Second/Square KM. Momentary Peak Yield 344.32 Liters/Second/Square KM.

WATER YEAR : 2018

NAN RIVER BASIN

Nan River at Nai Mueang , Uttaradit (N.2B)

Lat 17 - 36 - 30 N Long 100 - 06 - 08 E

Location : on right bank at Mueang, Uttaradit.

Ban Nai Mueang **Amphoe** Mueang **Changwat** Uttaradit

Drainge Area	16,865 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+52.300 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On right bank near the gage site. **Elevation** +63.138 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic mean of 5 readings
Period of Available Gage Records	1993 to date
Rating Operation	
Period of Rating	1993 to date
Rated by Flot	-
Rated by Current Meter	1993 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Stage-discharge relation defined by 29 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

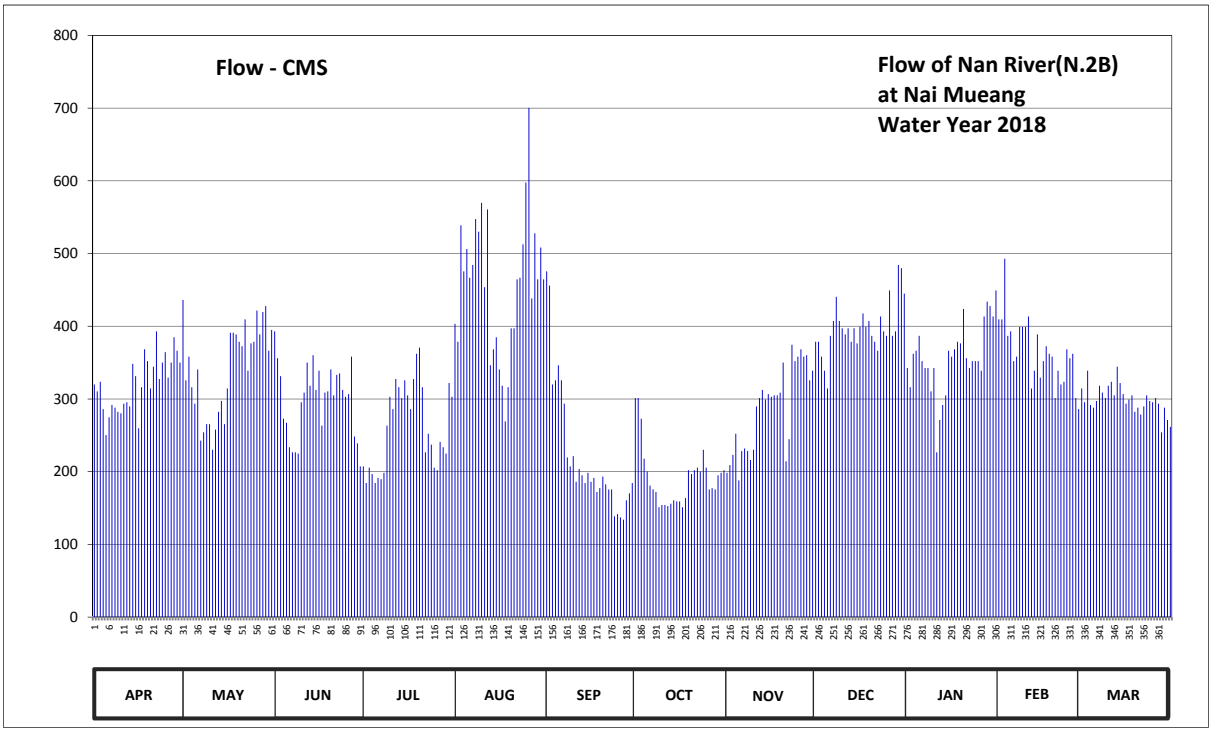
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	53.93	54.51	54.30	53.32	54.35	54.69	53.83	53.27	54.23	54.05	54.38	53.90	
2	53.88	53.96	54.12	53.19	54.23	54.60	53.83	53.33	54.23	53.91	54.38	53.80	
3	53.95	54.13	53.99	53.31	54.98	53.93	53.68	53.41	54.13	54.15	54.77	54.03	
4	53.75	53.91	53.68	53.26	54.69	53.96	53.38	53.57	54.03	54.17	54.27	53.78	
5	53.56	53.79	53.65	53.19	54.83	54.07	53.28	53.21	53.90	54.27	54.30	53.76	
6	53.69	54.04	53.47	53.23	54.65	53.96	53.17	53.44	54.27	54.10	54.10	53.81	
7	53.78	53.52	53.43	53.22	54.73	53.79	53.14	53.46	54.37	54.05	54.13	53.92	
8	53.76	53.58	53.43	53.27	55.02	53.39	53.12	53.44	54.53	54.05	54.33	53.87	
9	53.73	53.64	53.42	53.63	54.94	53.32	52.99	53.37	54.37	53.88	54.33	53.83	
10	53.72	53.64	53.80	53.84	55.12	53.40	53.01	53.45	54.32	54.05	54.33	53.92	
11	53.79	53.45	53.87	53.75	54.59	53.20	53.01	53.77	54.28	53.43	54.40	53.95	
12	53.80	53.60	54.09	53.97	55.08	53.30	53.00	53.83	54.32	53.67	53.90	53.85	
13	53.77	53.73	53.92	53.91	54.07	53.25	53.02	53.89	54.23	53.78	54.03	54.06	
14	54.08	53.81	54.14	53.83	54.18	53.19	53.05	53.82	54.32	53.85	54.28	53.94	
15	53.99	53.64	53.89	53.96	54.26	53.27	53.04	53.86	54.22	54.17	53.98	53.86	
16	53.61	53.90	54.03	53.85	54.04	53.20	53.04	53.84	54.33	54.13	54.10	53.79	
17	53.91	54.29	53.63	53.75	53.92	53.23	52.99	53.85	54.42	54.18	54.20	53.82	
18	54.18	54.29	53.87	53.97	53.66	53.12	53.07	53.85	54.33	54.23	54.15	53.85	
19	54.10	54.28	53.88	54.15	53.91	53.15	53.29	53.87	54.37	54.22	54.13	53.73	
20	53.90	54.23	54.04	54.19	54.32	53.24	53.26	54.09	54.27	54.45	53.83	53.76	
21	54.06	54.20	53.85	53.91	54.32	53.18	53.29	53.36	54.23	54.12	54.03	53.71	
22	54.30	54.38	54.00	53.43	54.64	53.14	53.31	53.53	54.17	54.05	53.93	53.77	
23	53.97	54.03	54.01	53.57	54.65	53.14	53.28	54.21	54.40	54.10	53.95	53.85	
24	54.09	54.22	53.89	53.49	54.86	52.91	53.45	54.10	54.30	54.10	54.18	53.81	
25	54.16	54.23	53.84	53.31	55.24	52.93	53.31	54.13	54.27	54.10	54.12	53.80	
26	53.98	54.44	53.86	53.29	55.68	52.90	53.14	54.18	54.57	54.03	54.15	53.83	
27	54.09	54.28	54.13	53.51	54.52	52.88	53.15	54.13	54.27	54.40	53.83	53.79	
28	54.26	54.43	53.55	53.47	54.93	53.05	53.14	54.14	54.30	54.50	53.75	53.58	
29	54.17	54.47	53.50	53.42	54.64	53.11	53.25	53.96	54.73	54.47		53.76	
30	54.09	54.17	53.32	53.94	54.84	53.19	53.27	54.03	54.71	54.40		53.67	
31		54.31		53.84	54.64		53.29		54.55	54.57		53.62	
Mean	53.93	54.04	53.82	53.61	54.60	53.39	53.23	53.75	54.32	54.12	54.15	53.82	
Max	54.30	54.51	54.30	54.19	55.68	54.69	53.83	54.21	54.73	54.57	54.77	54.06	55.68
Min	53.56	53.45	53.32	53.19	53.66	52.88	52.99	53.21	53.90	53.43	53.75	53.58	52.88

Annual Max Momentary Gage Height 55.94 m. (MSL.) , at 12.00 Hours , on Aug 26 , 2018

Zero Gage at Bottom Elevation 52.30 m. (MSL.) , River Bed 48.31 m. (MSL.)

Left Bank Elevation 63.32 m. (MSL.) ,

Right Bank Elevation 61.53 m. (MSL.) , Drainage Are 16,865 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	319.98	436.18	393.00	207.28	403.25	475.48	301.15	198.46	378.65	342.58	409.40	314.33		
2	310.57	325.63	356.10	184.36	378.65	455.83	301.15	209.04	378.65	316.22	409.40	295.50		
3	323.75	358.15	331.28	205.51	538.80	319.98	272.90	223.14	358.15	362.25	492.95	338.82		
4	286.08	316.22	272.90	196.70	475.48	325.63	217.85	252.18	338.82	366.35	386.85	291.73		
5	250.30	293.62	267.25	184.36	506.05	346.35	200.23	187.89	314.33	386.85	393.00	287.97		
6	274.78	340.70	233.71	191.41	466.75	325.63	180.84	228.43	386.85	352.00	352.00	297.38		
7	291.73	242.77	226.66	189.65	484.22	293.62	175.55	231.95	407.35	342.58	358.15	318.10		
8	287.97	254.07	226.66	198.46	547.53	219.61	172.03	228.43	440.55	342.58	399.15	308.68		
9	282.32	265.37	224.90	263.48	530.07	207.28	151.18	216.09	407.35	310.57	399.15	301.15		
10	280.43	265.37	295.50	303.03	569.67	221.38	154.33	230.19	397.10	342.58	399.15	318.10		
11	293.62	230.19	308.68	286.08	453.65	186.13	154.33	289.85	388.90	226.66	413.50	323.75		
12	295.50	257.83	350.12	327.52	560.63	203.75	152.75	301.15	397.10	271.02	314.33	304.92		
13	289.85	282.32	318.10	316.22	346.35	194.94	155.90	312.45	378.65	291.73	338.82	344.47		
14	348.23	297.38	360.20	301.15	368.40	184.36	160.63	299.27	397.10	304.92	388.90	321.87		
15	331.28	265.37	312.45	325.63	384.80	198.46	159.05	306.80	376.60	366.35	329.40	306.80		
16	259.72	314.33	338.82	304.92	340.70	186.13	159.05	303.03	399.15	358.15	352.00	293.62		
17	316.22	390.95	263.48	286.08	318.10	191.41	151.18	304.92	417.60	368.40	372.50	299.27		
18	368.40	390.95	308.68	327.52	269.13	172.03	163.78	304.92	399.15	378.65	362.25	304.92		
19	352.00	388.90	310.57	362.25	316.22	177.31	201.99	308.68	407.35	376.60	358.15	282.32		
20	314.33	378.65	340.70	370.45	397.10	193.18	196.70	350.12	386.85	423.75	301.15	287.97		
21	344.47	372.50	304.92	316.22	397.10	182.60	201.99	214.33	378.65	356.10	338.82	278.55		
22	393.00	409.40	333.17	226.66	464.57	175.55	205.51	244.65	366.35	342.58	319.98	289.85		
23	327.52	338.82	335.05	252.18	466.75	175.55	200.23	374.55	413.50	352.00	323.75	304.92		
24	350.12	376.60	312.45	237.24	512.60	138.58	230.19	352.00	393.00	352.00	368.40	297.38		
25	364.30	378.65	303.03	205.51	597.67	141.73	205.51	358.15	386.85	352.00	356.10	295.50		
26	329.40	421.70	306.80	201.99	700.33	137.00	175.55	368.40	449.28	338.82	362.25	301.15		
27	350.12	388.90	358.15	240.88	438.37	134.08	177.31	358.15	386.85	413.50	301.15	293.62		
28	384.80	419.65	248.42	233.71	527.88	160.63	175.55	360.20	393.00	434.00	286.08	254.07		
29	366.35	427.85	239.00	224.90	464.57	170.26	194.94	325.63	484.22	427.85		287.97		
30	350.12	366.35	207.28	321.87	508.23	184.36	198.46	338.82	479.85	413.50		271.02		
31		395.05		303.03	464.57		201.99		444.92	449.28		261.60		
Total	9637.26	10590.42	8988.03	8096.25	14198.19	6678.83	5949.80	8581.87	12332.72	11062.42	10186.73	9277.30	115579.82	CMSDAY
Mean	321.24	341.63	299.60	261.17	458.01	222.63	191.93	286.06	397.83	356.85	363.81	299.27	316.66	CMS
Max	393.00	436.18	393.00	370.45	700.33	475.48	301.15	374.55	484.22	449.28	492.95	344.47	700.33	CMS
Min	250.30	230.19	207.28	184.36	269.13	134.08	151.18	187.89	314.33	226.66	286.08	254.07	134.08	CMS
Runoff	832.66	915.01	776.57	699.52	1226.72	577.05	514.06	741.47	1065.55	955.79	880.13	801.56	9986.10	MCM

Momentary Peak 761.00 CMS. at 55.94 m. (MSL.) at 12.00 Hours , on Aug 26 , 2018

Runoff Yield 18.78 Liters/Second/Square KM. Momentary Peak Yield 45.12 Liters/Second/Square KM.

WATER YEAR : 2018

NAN RIVER BASIN

Nan River at Mueang , Phitsanulok (N.5A)

Lat 16 - 49 - 19 N Long 100 - 15 - 49 E

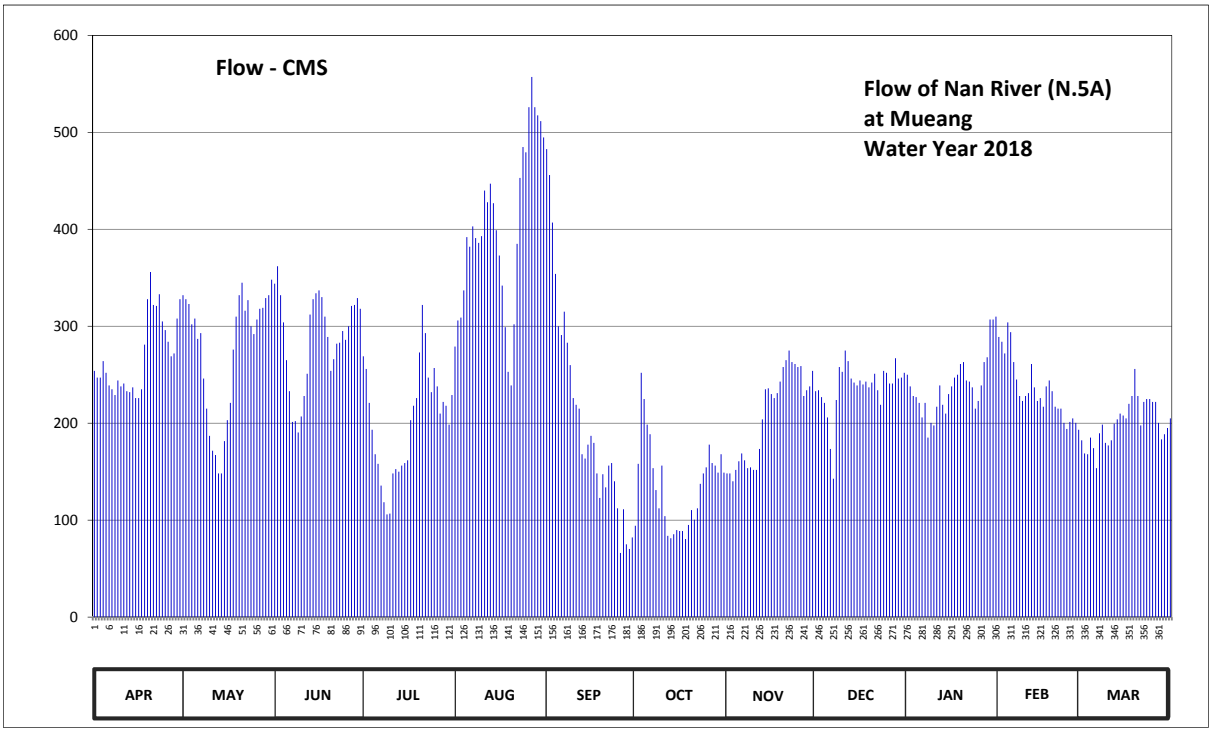
Location : on right bank near the Post Office and about 1 kilometer upstream from gaging station N.5

	Ban Nai Mueang	**Amphoe** Mueang	**Changwat** Phitsanulok
Drainge Area	25,039 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+34.500 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	Near the automatic gage building.		**Elevation** +44.800 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	1963 to date		
Rating Operation			
Period of Rating	1966 to date		
Rated by Flot	-		
Rated by Current Meter	1966 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Flow effected by Naresuan Dam.		
	Stage-discharge relation defined by 31 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	37.30	38.08	38.20	37.45	37.55	39.57	35.58	36.18	37.09	37.26	37.65	36.56	
2	37.23	38.04	38.38	37.32	37.82	39.32	36.29	36.18	37.10	37.14	37.60	36.41	
3	37.23	37.99	38.08	36.97	37.85	38.83	37.28	36.09	37.03	37.04	37.48	36.40	
4	37.40	37.78	37.80	36.68	38.13	38.30	37.01	36.22	36.97	37.03	37.80	36.59	
5	37.28	37.84	37.41	36.40	38.68	37.76	36.74	36.32	36.82	36.97	37.70	36.47	
6	37.15	37.63	37.09	36.29	38.58	37.67	36.63	36.41	36.46	36.82	37.39	36.24	
7	37.11	37.69	36.77	36.04	38.79	37.91	36.24	36.33	36.12	36.97	37.21	36.64	
8	37.05	37.22	36.78	35.85	38.67	37.59	35.99	36.24	37.00	36.59	37.04	36.74	
9	37.20	36.91	36.65	35.71	38.62	37.36	35.78	36.25	37.34	36.76	36.99	36.53	
10	37.14	36.61	36.83	35.72	38.69	37.02	36.27	36.22	37.29	36.73	37.04	36.50	
11	37.17	36.44	37.04	36.18	39.16	36.95	35.69	36.22	37.51	36.93	37.07	36.56	
12	37.09	36.39	37.27	36.23	39.04	36.91	35.46	36.46	37.40	37.15	37.37	36.75	
13	37.08	36.18	37.88	36.20	39.23	36.40	35.43	36.80	37.22	36.95	37.13	36.80	
14	37.13	36.18	38.04	36.27	39.03	36.35	35.48	37.11	37.18	36.86	36.99	36.86	
15	37.02	36.55	38.10	36.30	38.75	36.51	35.53	37.12	37.15	37.06	37.02	36.84	
16	37.02	36.79	38.13	36.33	38.49	36.61	35.52	37.06	37.20	37.14	36.93	36.81	
17	37.11	36.97	38.06	36.79	38.18	36.53	35.52	37.02	37.16	37.23	37.14	36.96	
18	37.57	37.52	37.86	36.94	37.75	36.18	35.42	37.07	37.19	37.26	37.20	37.04	
19	38.04	37.86	37.65	37.02	37.29	35.90	35.59	37.19	37.13	37.37	37.09	37.32	
20	38.32	38.08	37.30	37.49	37.15	36.17	35.76	37.34	37.18	37.39	36.93	37.04	
21	37.98	38.21	37.42	37.98	37.78	36.02	35.65	37.41	37.27	37.20	36.91	36.73	
22	37.97	37.92	37.58	37.69	38.61	36.27	35.78	37.51	37.10	37.19	36.91	36.98	
23	38.09	38.03	37.59	37.23	39.29	36.30	36.06	37.39	36.95	37.13	36.76	37.01	
24	37.81	37.76	37.71	37.08	39.59	36.09	36.18	37.37	37.30	36.91	36.69	37.01	
25	37.72	37.68	37.62	37.33	39.54	35.78	36.25	37.34	37.28	36.99	36.77	36.98	
26	37.60	37.83	37.76	37.14	39.95	35.23	36.51	37.35	37.17	37.15	36.81	36.98	
27	37.45	37.94	37.97	36.86	40.21	35.77	36.30	37.04	37.17	37.39	36.76	36.76	
28	37.48	37.95	37.98	36.98	39.95	35.35	36.27	37.10	37.43	37.44	36.68	36.57	
29	37.84	38.05	38.05	36.94	39.88	35.29	36.19	37.14	37.22	37.83		36.63	
30	38.04	38.08	37.94	36.74	39.83	35.44	36.40	37.30	37.23	37.83		36.70	
31		38.24		37.05	39.68		36.19		37.28	37.86		36.81	
Mean	37.45	37.50	37.63	36.75	38.77	36.78	36.03	36.83	37.13	37.15	37.11	36.75	
Max	38.32	38.24	38.38	37.98	40.21	39.57	37.28	37.51	37.51	37.86	37.80	37.32	40.21
Min	37.02	36.18	36.65	35.71	37.15	35.23	35.42	36.09	36.12	36.59	36.68	36.24	35.23

Annual Max Momentary Gage Height	40.27	m. (MSL.) ,	at 12.00 Hours , on Aug 27 , 2018		
Zero Gage at Bottom Elevation	34.50	m. (MSL.) ,	River Bed	33.16	m. (MSL.)
Left Bank Elevation	45.06	m. (MSL.) ,			
Right Bank Elevation	45.02	m. (MSL.) ,	Drainage Are	25,039	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	254.00	332.00	344.00	269.00	279.00	482.70	94.20	148.20	233.00	250.00	289.00	182.40		
2	247.00	328.00	362.00	256.00	306.00	456.00	158.10	148.20	234.00	238.00	284.00	168.90		
3	247.00	323.00	332.00	221.00	309.00	407.00	252.00	140.10	227.00	228.00	272.00	168.00		
4	264.00	302.00	304.00	193.20	337.00	354.00	225.00	151.80	221.00	227.00	304.00	185.10		
5	252.00	308.00	265.00	168.00	392.00	300.00	198.60	160.80	206.00	221.00	294.00	174.30		
6	239.00	287.00	233.00	158.10	382.00	291.00	188.70	168.90	173.40	206.00	263.00	153.60		
7	235.00	293.00	201.30	135.60	403.00	315.00	153.60	161.70	142.80	221.00	245.00	189.60		
8	229.00	246.00	202.20	118.50	391.00	283.00	131.10	153.60	224.00	185.10	228.00	198.60		
9	244.00	215.00	190.50	105.90	386.00	260.00	112.20	154.50	258.00	200.40	223.00	179.70		
10	238.00	186.90	207.00	106.80	393.00	226.00	156.30	151.80	253.00	197.70	228.00	177.00		
11	241.00	171.60	228.00	148.20	440.00	219.00	104.10	151.80	275.00	217.00	231.00	182.40		
12	233.00	167.10	251.00	152.70	428.00	215.00	83.80	173.40	264.00	239.00	261.00	199.50		
13	232.00	148.20	312.00	150.00	447.00	168.00	81.40	204.00	246.00	219.00	237.00	204.00		
14	237.00	148.20	328.00	156.30	427.00	163.50	85.40	235.00	242.00	210.00	223.00	210.00		
15	226.00	181.50	334.00	159.00	399.00	177.90	89.70	236.00	239.00	230.00	226.00	208.00		
16	226.00	203.10	337.00	161.70	373.00	186.90	88.80	230.00	244.00	238.00	217.00	205.00		
17	235.00	221.00	330.00	203.10	342.00	179.70	88.80	226.00	240.00	247.00	238.00	220.00		
18	281.00	276.00	310.00	218.00	299.00	148.20	80.60	231.00	243.00	250.00	244.00	228.00		
19	328.00	310.00	289.00	226.00	253.00	123.00	95.10	243.00	237.00	261.00	233.00	256.00		
20	356.00	332.00	254.00	273.00	239.00	147.30	110.40	258.00	242.00	263.00	217.00	228.00		
21	322.00	345.00	266.00	322.00	302.00	133.80	100.50	265.00	251.00	244.00	215.00	197.70		
22	321.00	316.00	282.00	293.00	385.00	156.30	112.20	275.00	234.00	243.00	215.00	222.00		
23	333.00	327.00	283.00	247.00	453.00	159.00	137.40	263.00	219.00	237.00	200.40	225.00		
24	305.00	300.00	295.00	232.00	484.90	140.10	148.20	261.00	254.00	215.00	194.10	225.00		
25	296.00	292.00	286.00	257.00	479.40	112.20	154.50	258.00	252.00	223.00	201.30	222.00		
26	284.00	307.00	300.00	238.00	526.00	66.10	177.90	259.00	241.00	239.00	205.00	222.00		
27	269.00	318.00	321.00	210.00	557.20	111.30	159.00	228.00	241.00	263.00	200.40	200.40		
28	272.00	319.00	322.00	222.00	526.00	75.00	156.30	234.00	267.00	268.00	193.20	183.30		
29	308.00	329.00	329.00	218.00	517.60	70.30	149.10	238.00	246.00	307.00		188.70		
30	328.00	332.00	318.00	198.60	511.60	82.20	168.00	254.00	247.00	307.00		195.00		
31		348.00		229.00	494.80		149.10		252.00	310.00		205.00		
Total	8082.00	8512.60	8616.00	6246.70	12462.50	6209.50	4190.10	6262.80	7348.20	7404.20	6581.40	6204.20	88120.20	CMSDAY
Mean	269.40	274.60	287.20	201.51	402.02	206.98	135.16	208.76	237.04	238.85	235.05	200.14	241.43	CMS
Max	356.00	348.00	362.00	322.00	557.20	482.70	252.00	275.00	275.00	310.00	304.00	256.00	557.20	CMS
Min	226.00	148.20	190.50	105.90	239.00	66.10	80.60	140.10	142.80	185.10	193.20	153.60	66.10	CMS
Runoff	698.28	735.49	744.42	539.71	1076.76	536.50	362.02	541.11	634.88	639.72	568.63	536.04	7613.59	MCM

Momentary Peak 564.40 CMS. at 40.27 m. (MSL.) at 12.00 Hours , on Aug 27 , 2018

Runoff Yield 9.64 Liters/Second/Square KM. Momentary Peak Yield 22.54 Liters/Second/Square KM.

WATER YEAR : 2018

NAN RIVER BASIN

Nan River at Ban Rat Chang Khwan , Phichit (N.7A)

Lat 16 - 28 - 03 N Long 100 - 20 - 05 E

Location : on right bank in front of Phichit Phitthaya Khom School

	Ban Rat Chang Khwan **Amphoe** Mueang **Changwat** Phichit
Drainge Area	27,897 sq.km.
Type of Gage	Staff gage.
Zero Gage at Bottom	+26.000 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	In front of Phichit Phitthaya Khom School. **Elevation** +37.143 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic mean of 5 readings
Period of Available Gage Records	2000 to date
Rating Operation	
Period of Rating	2000 to date
Rated by Flot	-
Rated by Current Meter	2000 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Flow effected by Naresuan Dam. Stage-discharge relation defined by 31 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

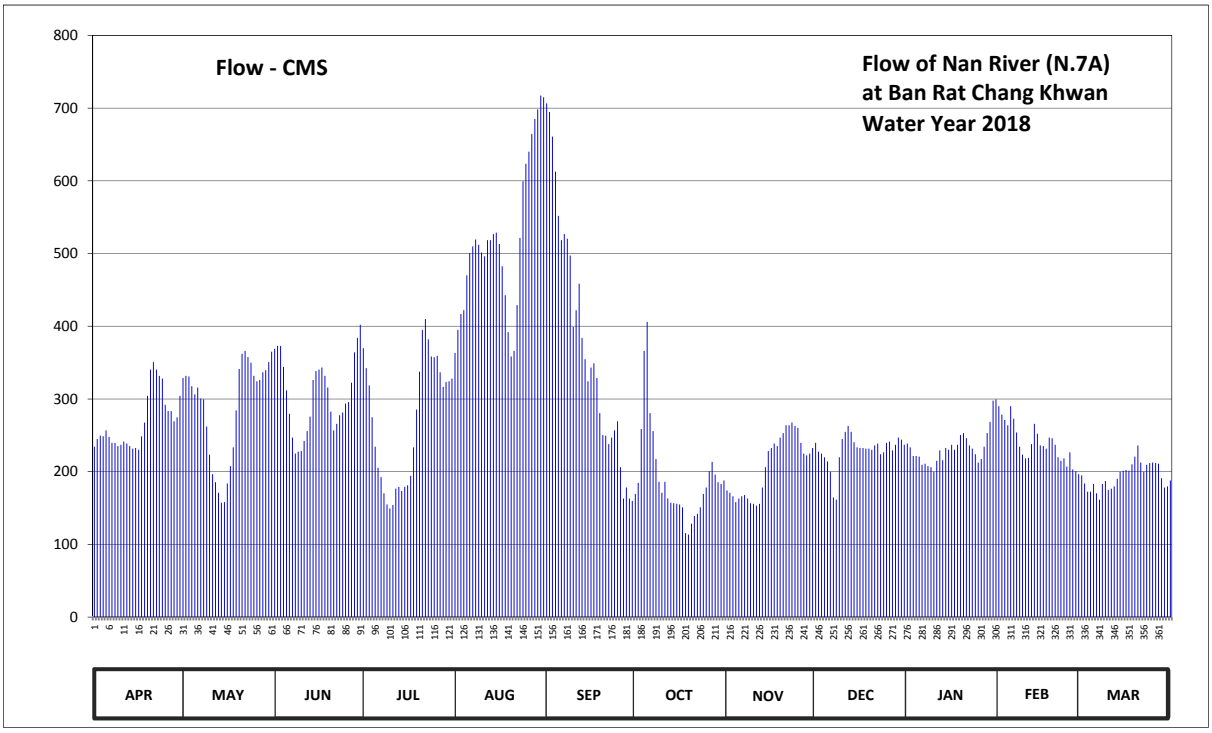
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	29.18	30.20	30.62	30.63	30.56	33.78	28.38	28.44	29.24	29.23	29.79	28.70	
2	29.30	30.23	30.66	30.34	30.88	33.68	28.57	28.40	29.10	29.17	29.67	28.56	
3	29.35	30.22	30.66	30.09	31.10	33.39	29.45	28.34	29.07	29.03	29.59	28.42	
4	29.34	30.08	30.36	29.63	31.15	32.96	30.59	28.24	29.01	29.03	29.51	28.42	
5	29.43	29.96	30.02	29.18	31.61	32.39	30.99	28.30	28.94	29.02	29.79	28.55	
6	29.33	30.06	29.68	28.83	31.90	32.07	29.69	28.34	28.76	28.88	29.61	28.39	
7	29.24	29.90	29.32	28.67	31.99	32.15	29.42	28.36	28.32	28.90	29.40	28.28	
8	29.24	29.89	29.07	28.39	32.08	32.09	28.98	28.30	28.28	28.86	29.18	28.55	
9	29.19	29.49	29.10	28.20	32.01	31.87	28.59	28.22	29.01	28.84	29.05	28.60	
10	29.21	29.05	29.11	28.13	31.91	30.92	28.40	28.21	29.30	28.76	28.99	28.45	
11	29.26	28.72	29.27	28.19	31.86	31.15	28.59	28.18	29.41	28.95	29.00	28.47	
12	29.23	28.58	29.42	28.47	32.07	31.50	28.30	28.21	29.50	29.12	29.22	28.51	
13	29.19	28.40	29.64	28.50	32.07	30.77	28.23	28.49	29.41	28.96	29.53	28.64	
14	29.15	28.23	30.17	28.43	32.15	30.47	28.22	28.84	29.25	29.16	29.38	28.76	
15	29.16	28.24	30.30	28.50	32.17	30.15	28.21	29.11	29.17	29.13	29.20	28.78	
16	29.13	28.56	30.32	28.53	32.02	30.35	28.20	29.16	29.16	29.21	29.19	28.79	
17	29.34	28.86	30.35	28.69	31.73	30.41	28.15	29.23	29.16	29.13	29.15	28.78	
18	29.55	29.17	30.23	29.17	31.35	30.20	27.68	29.19	29.15	29.21	29.32	28.89	
19	29.94	29.73	30.06	29.74	30.85	29.69	27.65	29.32	29.15	29.36	29.31	29.02	
20	30.32	30.33	29.71	30.29	30.51	29.36	27.86	29.39	29.13	29.39	29.21	29.20	
21	30.43	30.55	29.43	30.88	30.59	29.35	28.00	29.51	29.20	29.31	29.01	28.92	
22	30.32	30.59	29.53	31.03	31.22	29.22	28.04	29.51	29.23	29.20	28.95	28.76	
23	30.23	30.50	29.66	30.75	32.10	29.32	28.15	29.55	29.06	29.15	28.99	28.88	
24	30.19	30.42	29.70	30.51	32.84	29.43	28.38	29.50	29.09	29.06	28.85	28.91	
25	29.81	30.23	29.83	30.50	33.06	29.57	28.49	29.47	29.24	28.92	29.09	28.92	
26	29.72	30.15	29.85	30.52	33.21	28.84	28.77	29.24	29.26	28.98	28.80	28.91	
27	29.72	30.17	30.13	30.28	33.42	28.30	28.93	29.07	29.12	29.18	28.77	28.90	
28	29.57	30.28	30.57	30.07	33.60	28.49	28.71	29.04	29.21	29.39	28.72	28.65	
29	29.63	30.31	30.77	30.14	33.71	28.30	28.58	29.07	29.32	29.56		28.49	
30	29.94	30.43	30.95	30.15	33.87	28.26	28.55	29.16	29.29	29.87		28.51	
31		30.58		30.19	33.85		28.61		29.21	29.89		28.61	
Mean	29.55	29.75	29.95	29.54	32.05	30.61	28.62	28.85	29.12	29.16	29.22	28.68	
Max	30.43	30.59	30.95	31.03	33.87	33.78	30.99	29.55	29.50	29.89	29.79	29.20	33.87
Min	29.13	28.23	29.07	28.13	30.51	28.26	27.65	28.18	28.28	28.76	28.72	28.28	27.65

Annual Max Momentary Gage Height 33.91 m. (MSL.) , at 19.00 Hours , on Aug 30 , 2018

Zero Gage at Bottom Elevation 26.00 m. (MSL.) , River Bed 22.63 m. (MSL.)

Left Bank Elevation 37.93 m. (MSL.) ,

Right Bank Elevation 37.83 m. (MSL.) , Drainage Are 27,897 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	234.30	329.00	369.00	370.00	363.20	706.60	169.40	174.20	239.60	238.70	290.05	195.00		
2	245.00	331.85	373.00	342.30	395.00	694.60	184.60	171.00	227.50	233.45	278.65	183.80		
3	249.50	330.90	373.00	318.55	417.00	660.85	258.50	166.20	224.95	221.55	271.10	172.60		
4	248.60	317.60	344.20	274.85	422.00	612.60	366.05	158.20	219.85	221.55	263.90	172.60		
5	256.70	306.20	311.90	234.30	470.05	551.95	406.00	163.00	214.20	220.70	290.05	183.00		
6	247.70	315.70	279.60	205.40	500.50	518.35	280.55	166.20	199.80	209.40	272.95	170.20		
7	239.60	300.50	246.80	192.60	509.95	526.75	255.80	167.80	164.60	211.00	254.00	161.40		
8	239.60	299.55	224.95	170.20	519.40	520.45	217.40	163.00	161.40	207.80	234.30	183.00		
9	235.15	262.10	227.50	155.00	512.05	497.35	186.20	156.60	219.85	206.20	223.25	187.00		
10	236.90	223.25	228.35	149.40	501.55	399.00	171.00	155.80	245.00	199.80	218.20	175.00		
11	241.40	196.60	242.30	154.20	496.30	422.00	186.20	153.40	254.90	215.00	219.00	176.60		
12	238.70	185.40	255.80	176.60	518.35	458.50	163.00	155.80	263.00	229.20	237.80	179.80		
13	235.15	171.00	275.80	179.00	518.35	384.00	157.40	178.20	254.90	215.80	265.70	190.20		
14	231.75	157.40	326.15	173.40	526.75	354.65	156.60	206.20	240.50	232.60	252.20	199.80		
15	232.60	158.20	338.50	179.00	528.85	324.25	155.80	228.35	233.45	230.05	236.00	201.40		
16	230.05	183.80	340.40	181.40	513.10	343.25	155.00	232.60	232.60	236.90	235.15	202.20		
17	248.60	207.80	343.25	194.20	482.65	348.95	151.00	238.70	232.60	230.05	231.75	201.40		
18	267.50	233.45	331.85	233.45	442.75	329.00	115.60	235.15	231.75	236.90	246.80	210.20		
19	304.30	284.35	315.70	285.30	392.00	280.55	113.50	246.80	231.75	250.40	245.90	220.70		
20	340.40	341.35	282.45	337.55	358.45	250.40	128.50	253.10	230.05	253.10	236.90	236.00		
21	350.85	362.25	256.70	395.00	366.05	249.50	139.00	263.90	236.00	245.90	219.85	212.60		
22	340.40	366.05	265.70	410.00	429.10	237.80	142.20	263.90	238.70	236.00	215.00	199.80		
23	331.85	357.50	277.70	382.00	521.50	246.80	151.00	267.50	224.10	231.75	218.20	209.40		
24	328.05	349.90	281.50	358.45	599.40	256.70	169.40	263.00	226.65	224.10	207.00	211.80		
25	291.95	331.85	293.85	357.50	623.60	269.30	178.20	260.30	239.60	212.60	226.65	212.60		
26	283.40	324.25	295.75	359.40	640.15	206.20	200.60	239.60	241.40	217.40	203.00	211.80		
27	283.40	326.15	322.35	336.60	664.30	163.00	213.40	224.95	229.20	234.30	200.60	211.00		
28	269.30	336.60	364.15	316.65	685.00	178.20	195.80	222.40	236.90	253.10	196.60	191.00		
29	274.85	339.45	384.00	323.30	698.20	163.00	185.40	224.95	246.80	268.40		178.20		
30	304.30	350.85	402.00	324.25	717.40	159.80	183.00	232.60	244.10	297.65		179.80		
31		365.10		328.05	715.00		187.80		236.90	299.55		187.80		
Total	8061.85	8945.95	9174.20	8397.90	16047.95	11314.35	5923.90	6233.40	7122.60	7220.90	6690.55	6007.70	101141.25	CMSDAY
Mean	268.73	288.58	305.81	270.90	517.68	377.14	191.09	207.78	229.76	232.93	238.95	193.80	277.10	CMS
Max	350.85	366.05	402.00	410.00	717.40	706.60	406.00	267.50	263.00	299.55	290.05	236.00	717.40	CMS
Min	230.05	157.40	224.95	149.40	358.45	159.80	113.50	153.40	161.40	199.80	196.60	161.40	113.50	CMS
Runoff	696.54	772.93	792.65	725.58	1386.54	977.56	511.82	538.57	615.39	623.89	578.06	519.07	8738.60	MCM

Momentary Peak 722.20 CMS. at 33.91 m. (MSL.) at 19.00 Hours , on Aug 30 , 2018

Runoff Yield 9.93 Liters/Second/Square KM. Momentary Peak Yield 25.89 Liters/Second/Square KM.

WATER YEAR : 2018

NAN RIVER BASIN

Nan River at Ban Hor Krai , Phichit (N.8A)

Lat 16 - 04 - 45 N Long 100 - 24 - 00 E

Location : on right bank opposite to Wat Bang Mun Nak.

Ban Hor Krai **Amphoe** Bang Mun Nak **Changwat** Phichit

Drainge Area	31,472 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+20.000 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On right bank about 89 meters upstream from the top staff gage. **Elevation** +30.948 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic mean of 5 readings
Period of Available Gage Records	2000 to date
Rating Operation	
Period of Rating	2000 to date
Rated by Flot	-
Rated by Current Meter	2000 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Flow effected by Naresuan Dam. Stage-discharge relation defined by 32 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

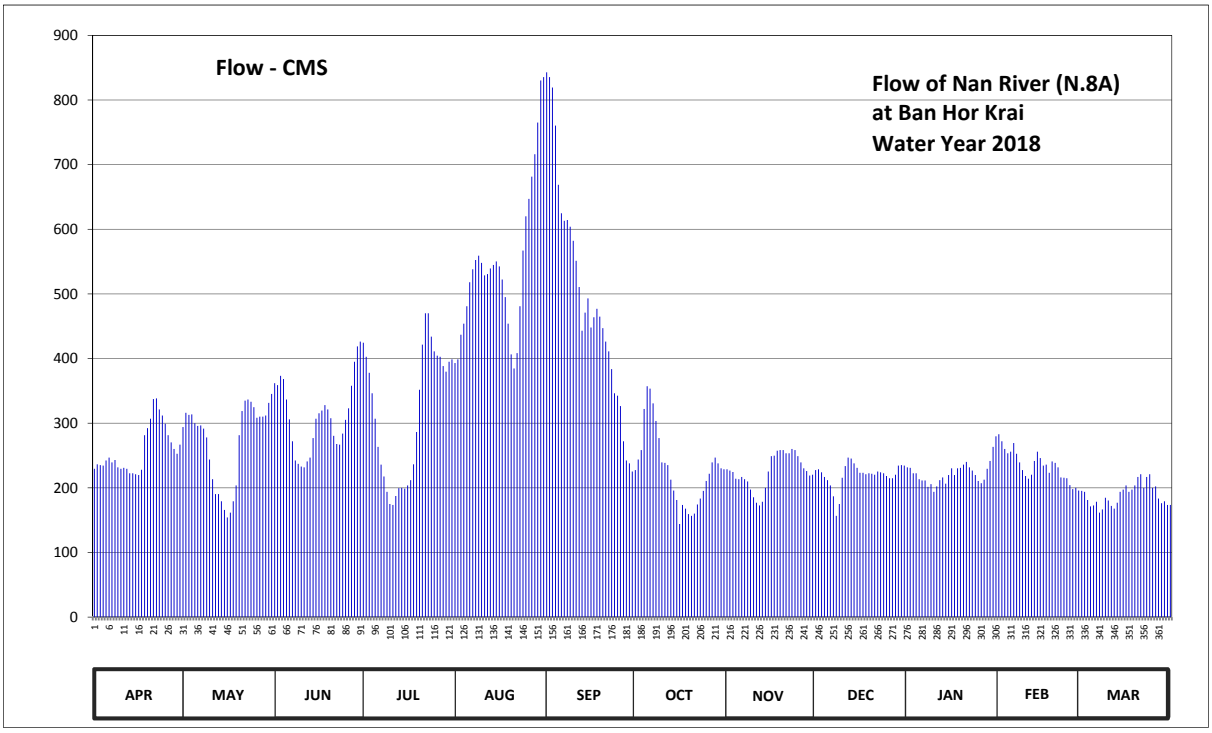
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	23.45	24.26	25.04	25.70	25.37	29.01	23.42	23.44	23.42	23.48	24.13	22.96	
2	23.55	24.52	25.01	25.47	25.43	28.97	23.65	23.41	23.44	23.47	24.00	22.94	
3	23.53	24.48	25.16	25.21	25.83	28.88	23.84	23.38	23.37	23.35	23.86	22.76	
4	23.52	24.49	25.11	24.87	26.00	28.54	24.59	23.23	23.27	23.35	23.78	22.62	
5	23.63	24.33	24.76	24.41	26.27	27.92	24.99	23.22	23.20	23.22	23.81	22.64	
6	23.69	24.28	24.40	23.90	26.63	27.58	24.95	23.27	23.08	23.19	23.97	22.72	
7	23.59	24.29	24.00	23.54	26.82	27.48	24.69	23.22	22.84	23.19	23.77	22.48	
8	23.64	24.23	23.63	23.28	26.95	27.49	24.37	23.17	22.41	23.05	23.59	22.55	
9	23.48	24.07	23.56	22.94	27.01	27.40	24.06	22.99	22.67	23.11	23.42	22.81	
10	23.45	23.65	23.50	22.67	26.91	27.21	23.59	22.82	23.25	22.94	23.29	22.75	
11	23.47	23.22	23.48	22.65	26.73	26.94	23.58	22.70	23.51	23.06	23.23	22.63	
12	23.45	22.89	23.61	22.85	26.75	26.56	23.53	22.64	23.69	23.20	23.32	22.57	
13	23.35	22.89	23.69	23.02	26.83	25.89	23.21	22.72	23.67	23.26	23.62	22.70	
14	23.35	22.73	24.06	23.03	26.88	26.17	22.97	23.03	23.57	23.12	23.81	22.94	
15	23.33	22.54	24.41	23.01	26.93	26.39	22.76	23.39	23.47	23.31	23.68	22.99	
16	23.31	22.37	24.51	23.08	26.86	25.94	22.20	23.72	23.36	23.46	23.52	23.08	
17	23.43	22.48	24.56	23.20	26.67	26.10	22.65	23.73	23.36	23.31	23.54	22.94	
18	24.11	22.73	24.66	23.55	26.41	26.23	22.57	23.83	23.33	23.46	23.36	22.99	
19	24.24	23.08	24.58	24.17	26.00	26.11	22.45	23.84	23.35	23.47	23.61	23.08	
20	24.41	24.11	24.42	24.93	25.51	25.93	22.41	23.84	23.34	23.54	23.58	23.27	
21	24.77	24.55	24.10	25.67	25.28	25.72	22.46	23.78	23.32	23.60	23.48	23.33	
22	24.78	24.74	23.95	26.16	25.53	25.56	22.66	23.78	23.39	23.48	23.26	23.03	
23	24.58	24.76	23.94	26.16	26.27	25.27	22.79	23.86	23.37	23.41	23.25	23.27	
24	24.47	24.72	24.14	25.80	27.08	24.87	22.96	23.84	23.35	23.31	23.24	23.33	
25	24.32	24.62	24.39	25.56	27.54	24.83	23.18	23.72	23.29	23.18	23.09	23.03	
26	24.11	24.43	24.60	25.49	27.76	24.64	23.34	23.59	23.24	23.13	23.00	23.06	
27	23.98	24.45	25.00	25.47	28.01	24.00	23.59	23.46	23.24	23.21	23.03	22.79	
28	23.86	24.45	25.39	25.32	28.25	23.63	23.69	23.40	23.32	23.45	22.97	22.69	
29	23.77	24.47	25.64	25.23	28.57	23.57	23.57	23.30	23.52	23.62		22.73	
30	23.94	24.70	25.72	25.39	28.94	23.39	23.46	23.32	23.53	23.90		22.65	
31		24.86		25.43	28.97		23.44		23.52	24.09		22.65	
Mean	23.82	23.95	24.43	24.42	26.81	26.27	23.41	23.39	23.31	23.35	23.51	22.87	
Max	24.78	24.86	25.72	26.16	28.97	29.01	24.99	23.86	23.69	24.09	24.13	23.33	29.01
Min	23.31	22.37	23.48	22.65	25.28	23.39	22.20	22.64	22.41	22.94	22.97	22.48	22.20

Annual Max Momentary Gage Height 29.02 m. (MSL.) , at 01.00 Hours , on Sep 1 , 2018

Zero Gage at Bottom Elevation 20.00 m. (MSL.) , River Bed 20.15 m. (MSL.)

Left Bank Elevation 30.62 m. (MSL.) ,

Right Bank Elevation 31.71 m. (MSL.) , Drainage Are 31,472 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	229.50	294.10	361.80	424.50	393.15	842.80	227.40	228.80	227.40	231.60	283.05	195.20		
2	236.50	316.20	358.95	402.65	398.85	835.60	243.75	226.70	228.80	230.90	272.00	193.80		
3	235.10	312.80	373.20	377.95	437.00	819.40	258.40	224.60	223.90	222.50	260.10	181.20		
4	234.40	313.65	368.45	346.30	454.00	760.40	322.15	214.10	216.90	222.50	253.50	171.40		
5	242.25	300.05	336.60	306.85	481.00	668.80	357.10	213.40	212.00	213.40	255.85	172.80		
6	246.75	295.80	306.00	263.50	518.15	624.70	353.50	216.90	203.60	211.30	269.45	178.40		
7	239.30	296.65	272.00	235.80	538.20	613.20	330.65	213.40	186.80	211.30	252.75	161.60		
8	243.00	291.55	242.25	217.60	552.50	614.35	303.45	209.90	156.70	201.50	239.30	166.50		
9	231.60	277.95	237.20	193.80	559.15	604.00	277.10	197.30	174.90	205.70	227.40	184.70		
10	229.50	243.75	233.00	174.90	548.10	582.15	239.30	185.40	215.50	193.80	218.30	180.50		
11	230.90	213.40	231.60	173.50	528.65	551.40	238.60	177.00	233.70	202.20	214.10	172.10		
12	229.50	190.30	240.75	187.50	530.75	510.80	235.10	172.80	246.75	212.00	220.40	167.90		
13	222.50	190.30	246.75	199.40	539.30	443.00	212.70	178.40	245.25	216.20	241.50	177.00		
14	222.50	179.10	277.10	200.10	544.80	471.00	195.90	200.10	237.90	206.40	255.85	193.80		
15	221.10	165.80	306.85	198.70	550.30	493.00	181.20	225.30	230.90	219.70	246.00	197.30		
16	219.70	154.20	315.35	203.60	542.60	448.00	144.00	249.00	223.20	230.20	234.40	203.60		
17	228.10	161.60	319.60	212.00	522.35	464.00	173.50	249.75	223.20	219.70	235.80	193.80		
18	281.35	179.10	328.10	236.50	495.05	477.00	167.90	257.55	221.10	230.20	223.20	197.30		
19	292.40	203.60	321.30	286.45	454.00	465.00	159.50	258.40	222.50	230.90	240.75	203.60		
20	306.85	281.35	307.70	351.70	406.45	447.00	156.70	258.40	221.80	235.80	238.60	216.90		
21	337.45	318.75	280.50	421.65	384.60	426.40	160.20	253.50	220.40	240.00	231.60	221.10		
22	338.30	334.90	267.75	470.00	408.35	411.20	174.20	253.50	225.30	231.60	216.20	200.10		
23	321.30	336.60	266.90	470.00	481.00	383.65	183.30	260.10	223.90	226.70	215.50	216.90		
24	311.95	333.20	283.90	434.00	567.20	346.30	195.20	258.40	222.50	219.70	214.80	221.10		
25	299.20	324.70	305.15	411.20	620.10	342.70	210.60	249.00	218.30	210.60	204.30	200.10		
26	281.35	308.55	323.00	404.55	647.00	326.40	221.80	239.30	214.80	207.10	198.00	202.20		
27	270.30	310.25	358.00	402.65	681.45	272.00	239.30	230.20	214.80	212.70	200.10	183.30		
28	260.10	310.25	395.05	388.40	716.25	242.25	246.75	226.00	220.40	229.50	195.90	176.30		
29	252.75	311.95	418.80	379.85	765.20	237.90	237.90	219.00	234.40	241.50		179.10		
30	266.90	331.50	426.40	395.05	830.20	225.30	230.20	220.40	235.10	263.50		173.50		
31		345.40		398.85	835.60		228.80		234.40	279.65		173.50		
Total	7762.40	8427.30	9310.00	9769.50	16931.30	14949.70	7106.15	6766.60	6817.10	6910.35	6558.70	5856.60	107165.70	CMSDAY
Mean	258.75	271.85	310.33	315.15	546.17	498.32	229.23	225.55	219.91	222.91	234.24	188.92	293.60	CMS
Max	338.30	345.40	426.40	470.00	835.60	842.80	357.10	260.10	246.75	279.65	283.05	221.10	842.80	CMS
Min	219.70	154.20	231.60	173.50	384.60	225.30	144.00	172.80	156.70	193.80	195.90	161.60	144.00	CMS
Runoff	670.67	728.12	804.38	844.08	1462.86	1291.65	613.97	584.63	589.00	597.05	566.67	506.01	9259.12	MCM

Momentary Peak 844.60 CMS. at 29.02 m. (MSL.) at 01.00 Hours , on Sep 1 , 2018

Runoff Yield 9.33 Liters/Second/Square KM. Momentary Peak Yield 26.84 Liters/Second/Square KM.

WATER YEAR : 2018

NAN RIVER BASIN

Nan River at Ban Taphan Hin , Phichit (N.10A)

Lat 16 - 13 - 00 N Long 100 - 25 - 19 E

Location : on left bank near Amphoe Taphan Hin Office about 250 meters from Station N.10

Ban Taphan Hin **Amphoe** Taphan Hin **Changwat** Phichit

Drainge Area	30,328 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+22.280 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank near automatic gage building. **Elevation** +33.300 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic mean of 5 readings
Period of Available Gage Records	1969 to date
Rating Operation	
Period of Rating	1974 - 1979, 1991 to date
Rated by Flot	-
Rated by Current Meter	1974 - 1982, 1987, 1991 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Flow effected by Naresuan Dam. Stage-discharge relation defined by 26 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

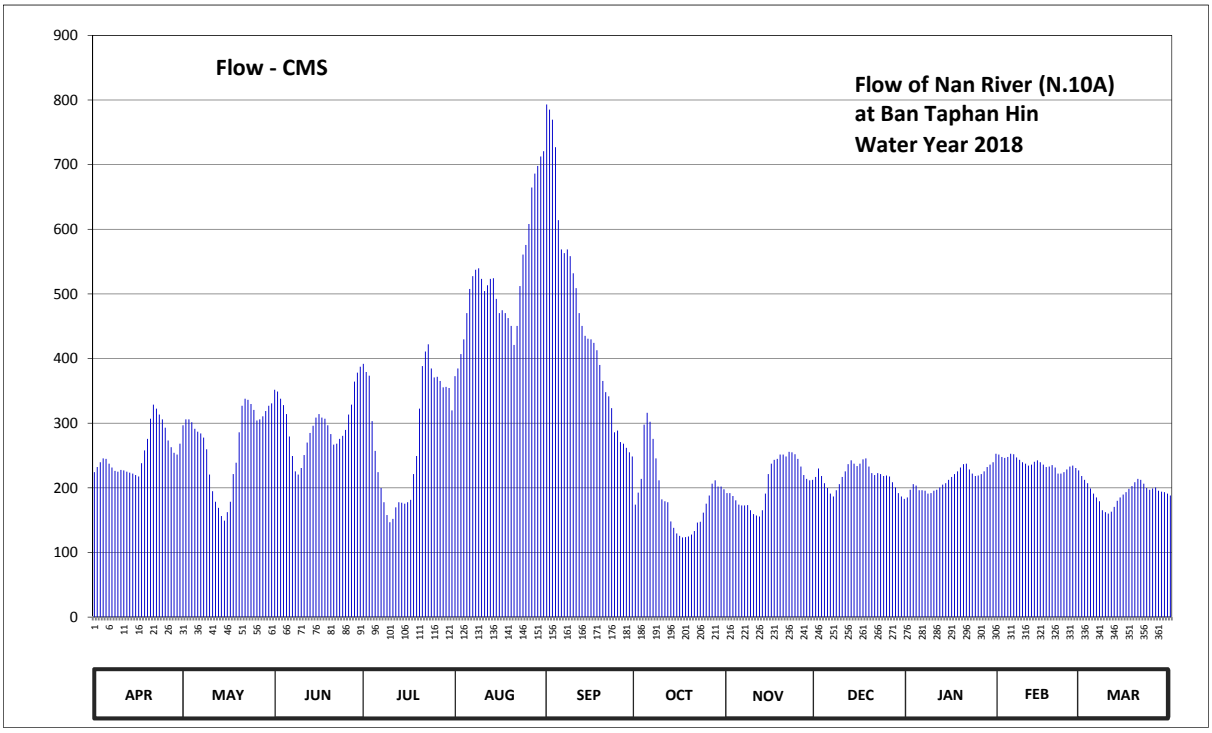
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	24.94	25.85	26.45	26.89	26.68	30.37	24.26	24.50	24.84	24.41	25.31	24.86	
2	25.05	25.95	26.42	26.75	26.81	30.31	24.51	24.50	25.02	24.57	25.26	24.78	
3	25.15	25.95	26.30	26.69	27.05	30.19	24.80	24.44	24.86	24.69	25.24	24.71	
4	25.23	25.90	26.19	25.92	27.27	29.85	25.86	24.35	24.71	24.66	25.26	24.60	
5	25.22	25.79	26.04	25.39	27.64	28.91	26.06	24.26	24.61	24.56	25.33	24.49	
6	25.12	25.74	25.66	24.94	27.98	28.53	25.91	24.24	24.49	24.56	25.32	24.41	
7	25.04	25.71	25.28	24.61	28.16	28.48	25.62	24.24	24.43	24.55	25.25	24.33	
8	24.97	25.64	24.96	24.31	28.25	28.53	25.23	24.25	24.56	24.49	25.20	24.14	
9	24.95	25.42	24.89	24.04	28.27	28.44	24.77	24.14	24.69	24.50	25.15	24.10	
10	24.99	24.89	25.03	23.87	28.12	28.20	24.37	24.06	24.84	24.55	25.12	24.07	
11	24.98	24.54	25.30	23.95	27.95	27.99	24.33	24.03	24.96	24.57	25.08	24.11	
12	24.95	24.32	25.55	24.20	28.03	27.64	24.31	24.01	25.11	24.62	25.10	24.21	
13	24.93	24.19	25.72	24.31	28.12	27.46	23.89	24.14	25.19	24.68	25.16	24.34	
14	24.91	24.02	25.84	24.30	28.13	27.32	23.73	24.49	25.12	24.71	25.19	24.41	
15	24.88	23.91	25.98	24.28	27.84	27.28	23.59	24.90	25.07	24.78	25.15	24.47	
16	24.85	24.10	26.04	24.31	27.64	27.27	23.51	25.12	25.12	24.84	25.10	24.52	
17	25.13	24.32	25.98	24.36	27.68	27.22	23.46	25.20	25.21	24.90	25.05	24.59	
18	25.40	24.90	25.96	24.90	27.64	27.11	23.47	25.22	25.23	24.96	25.06	24.65	
19	25.62	25.14	25.85	25.28	27.57	26.87	23.49	25.31	25.06	25.04	25.09	24.73	
20	25.96	25.73	25.70	26.13	27.46	26.60	23.55	25.31	24.92	25.11	25.04	24.80	
21	26.20	26.18	25.51	26.85	27.19	26.41	23.65	25.27	24.88	25.12	24.91	24.78	
22	26.13	26.30	25.53	27.09	27.46	26.34	23.86	25.37	24.92	25.00	24.91	24.70	
23	26.03	26.28	25.62	27.20	28.02	26.14	23.88	25.36	24.90	24.91	24.94	24.61	
24	25.95	26.21	25.67	26.81	28.46	25.73	24.09	25.32	24.86	24.86	25.00	24.57	
25	25.81	26.11	25.77	26.66	28.59	25.76	24.28	25.22	24.87	24.87	25.06	24.60	
26	25.59	25.93	26.03	26.67	28.86	25.56	24.45	25.06	24.85	24.90	25.08	24.62	
27	25.46	25.95	26.20	26.60	29.33	25.53	24.70	24.88	24.73	24.96	25.03	24.55	
28	25.35	26.00	26.59	26.49	29.51	25.45	24.77	24.80	24.62	25.05	24.98	24.53	
29	25.31	26.09	26.74	26.50	29.61	25.36	24.64	24.77	24.50	25.10		24.52	
30	25.53	26.18	26.84	26.48	29.73	25.27	24.64	24.78	24.43	25.15		24.49	
31		26.22		26.10	29.80		24.58		24.38	25.33		24.45	
Mean	25.32	25.47	25.85	25.58	28.09	27.40	24.40	24.72	24.84	24.81	25.12	24.51	
Max	26.20	26.30	26.84	27.20	29.80	30.37	26.06	25.37	25.23	25.33	25.33	24.86	30.37
Min	24.85	23.91	24.89	23.87	26.68	25.27	23.46	24.01	24.38	24.41	24.91	24.07	23.46

Annual Max Momentary Gage Height 30.37 m. (MSL.) , at 06.00 Hours , on Sep 1 , 2018

Zero Gage at Bottom Elevation 22.28 m. (MSL.) , River Bed 17.11 m. (MSL.)

Left Bank Elevation 32.10 m. (MSL.) ,

Right Bank Elevation 31.88 m. (MSL.) , Drainage Are 30,328 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	224.16	296.86	351.71	391.94	372.74	793.10	174.13	191.79	216.80	185.16	251.38	218.27		
2	232.25	306.00	348.97	379.14	384.63	785.30	192.52	191.79	230.04	196.94	247.70	212.39		
3	239.61	306.00	338.00	373.66	407.00	769.70	213.86	187.37	218.27	205.76	246.23	207.24		
4	245.49	301.43	327.94	303.26	429.70	727.00	297.77	180.75	207.24	203.56	247.70	199.14		
5	244.76	291.37	314.23	257.26	470.40	614.20	316.06	174.13	199.88	196.20	252.85	191.05		
6	237.40	286.80	279.49	224.16	507.80	568.95	302.34	172.66	191.05	196.20	252.11	185.16		
7	231.51	284.06	249.17	199.88	527.60	563.20	275.83	172.66	186.64	195.46	246.96	179.28		
8	226.36	277.66	225.63	177.81	537.50	568.95	245.49	173.39	196.20	191.05	243.29	165.30		
9	224.89	259.60	220.48	157.94	539.70	558.60	211.65	165.30	205.76	191.79	239.61	162.36		
10	227.84	220.48	230.78	146.88	523.20	532.00	182.22	159.41	216.80	195.46	237.40	160.15		
11	227.10	194.73	250.64	151.88	504.50	508.90	179.28	157.21	225.63	196.94	234.46	163.09		
12	224.89	178.54	270.00	169.71	513.30	470.40	177.81	155.74	236.66	200.61	235.93	170.45		
13	223.42	168.98	284.97	177.81	523.20	450.60	148.13	165.30	242.55	205.03	240.34	180.01		
14	221.95	156.47	295.94	177.07	524.30	435.20	138.13	191.05	237.40	207.24	242.55	185.16		
15	219.74	149.38	308.74	175.60	492.40	430.80	129.53	221.21	233.72	212.39	239.61	189.58		
16	217.54	162.36	314.23	177.81	470.40	429.70	125.73	237.40	237.40	216.80	235.93	193.26		
17	238.14	178.54	308.74	181.49	474.80	424.20	123.35	243.29	244.02	221.21	232.25	198.41		
18	258.00	221.21	306.91	221.21	470.40	413.00	123.83	244.76	245.49	225.63	232.99	202.82		
19	275.83	238.87	296.86	249.17	462.70	390.11	124.78	251.38	232.99	231.51	235.19	208.71		
20	306.91	285.89	283.14	322.46	450.60	365.43	127.63	251.38	222.69	236.66	231.51	213.86		
21	328.86	327.03	266.80	388.29	421.00	348.06	133.13	248.44	219.74	237.40	221.95	212.39		
22	322.46	338.00	268.40	411.00	450.60	341.66	146.25	255.79	222.69	228.57	221.95	206.50		
23	313.31	336.17	275.83	422.00	512.20	323.37	147.50	255.06	221.21	221.95	224.16	199.88		
24	306.00	329.77	280.40	384.63	560.90	285.89	161.62	252.11	218.27	218.27	228.57	196.94		
25	293.20	320.63	289.54	370.91	575.85	288.63	175.60	244.76	219.01	219.01	232.99	199.14		
26	273.20	304.17	313.31	371.83	608.20	270.80	188.11	232.99	217.54	221.21	234.46	200.61		
27	262.80	306.00	328.86	365.43	664.60	268.40	206.50	219.74	208.71	225.63	230.78	195.46		
28	254.32	310.57	364.51	355.37	686.20	262.00	211.65	213.86	200.61	232.25	227.10	193.99		
29	251.38	318.80	378.23	356.29	698.20	255.06	202.09	211.65	191.79	235.93		193.26		
30	268.40	327.03	387.37	354.46	712.60	248.44	202.09	212.39	186.64	239.61		191.05		
31		330.69		319.71	721.00		197.67		182.96	252.85		188.11		
Total	7621.72	8314.09	8959.82	8716.06	16198.22	13691.65	5782.28	6234.76	6716.40	6644.28	6647.95	5963.02	101490.25	CMSDAY
Mean	254.06	268.20	298.66	281.16	522.52	456.39	186.53	207.83	216.66	214.33	237.43	192.36	278.06	CMS
Max	328.86	338.00	387.37	422.00	721.00	793.10	316.06	255.79	245.49	252.85	252.85	218.27	793.10	CMS
Min	217.54	149.38	220.48	146.88	372.74	248.44	123.35	155.74	182.96	185.16	221.95	160.15	123.35	CMS
Runoff	658.52	718.34	774.13	753.07	1399.53	1182.96	499.59	538.68	580.30	574.07	574.38	515.20	8768.76	MCM

Momentary Peak 793.10 CMS. at 30.37 m. (MSL.) at 06.00 Hours , on Sep 1 , 2018

Runoff Yield 9.17 Liters/Second/Square KM. Momentary Peak Yield 26.15 Liters/Second/Square KM.

WATER YEAR : 2018

NAN RIVER BASIN

Nan River at Ban Hat Phai , Uttaradit (N.12A)

Lat 17 - 44 - 11 N Long 100 - 32 - 27 E

Location : on right bank about 4 kilometers downstream, Sirikit Dam Site, along Phasom - Silot road.

Ban Hat Phai **Amphoe** Tha Pla **Changwat** Uttaradit

Drainge Area	15,579 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+69.000 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On right bank in front of gage observer's house. **Elevation** +84.000 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	1966 to date
Rating Operation	
Period of Rating	1966 to date
Rated by Flot	-
Rated by Current Meter	1966 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Flow regulated by Sirikit Dam reservoir about 6 kilometers above gage site. Stage-discharge relation defined by 16 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

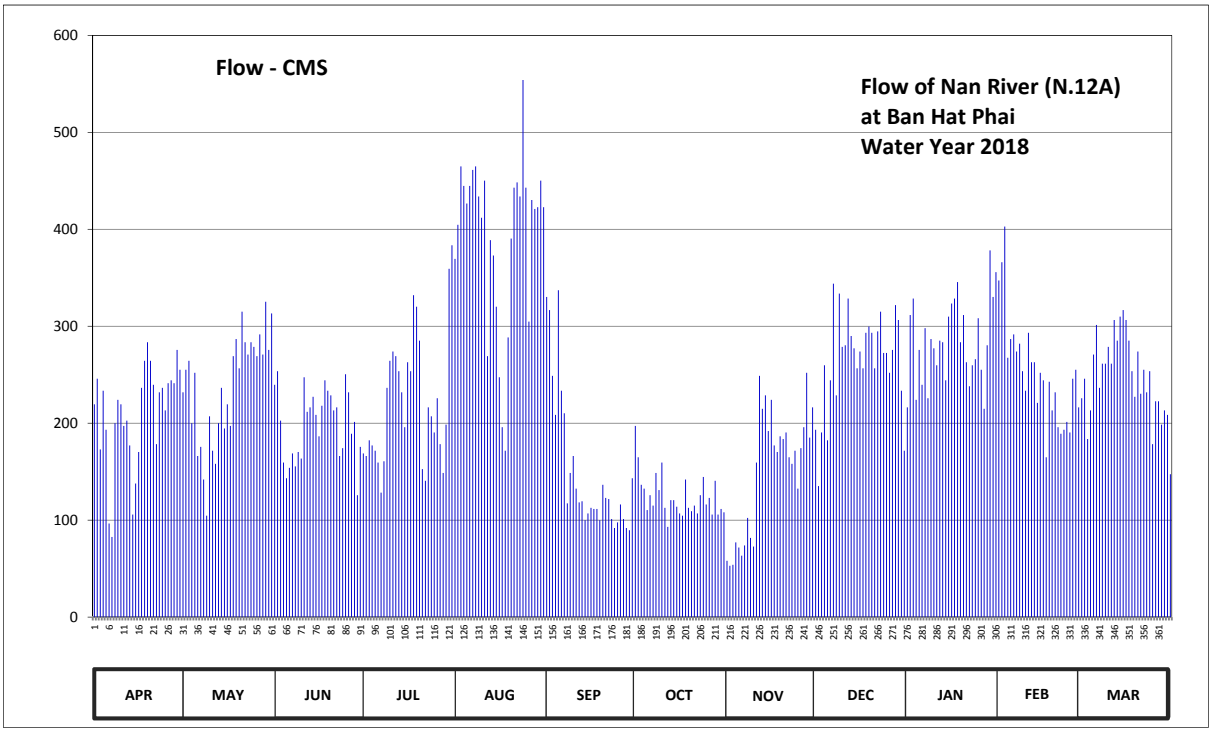
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	71.50	71.58	71.63	71.14	72.42	72.19	71.35	70.22	71.32	71.48	72.29	71.54	
2	71.67	71.73	71.72	71.12	72.62	72.11	71.11	70.17	70.89	72.08	72.40	71.67	
3	71.17	71.79	71.39	71.24	72.95	71.69	70.90	70.18	71.30	72.18	72.61	71.25	
4	71.59	71.37	71.07	71.20	72.84	71.43	70.87	70.40	71.76	71.53	71.81	71.46	
5	71.32	71.71	70.95	71.16	72.74	72.23	70.69	70.35	71.24	71.86	71.93	71.83	
6	70.57	71.12	71.03	71.07	72.84	71.59	70.82	70.27	71.66	71.63	71.96	72.02	
7	70.45	71.19	71.14	70.84	72.93	71.44	70.73	70.37	72.27	72.00	71.85	71.61	
8	71.37	70.94	71.04	71.08	72.95	70.75	70.99	70.62	71.56	71.54	71.90	71.77	
9	71.53	70.64	71.15	71.61	72.78	70.99	70.86	70.44	72.21	71.93	71.72	71.77	
10	71.50	71.42	71.10	71.79	72.66	71.12	71.07	70.36	71.88	71.87	71.59	71.88	
11	71.35	71.16	71.68	71.85	72.87	70.87	70.71	71.07	71.89	71.76	71.97	71.77	
12	71.39	71.06	71.45	71.82	71.82	70.76	70.54	71.69	72.18	71.92	71.78	72.05	
13	71.20	71.37	71.48	71.72	72.53	70.77	70.78	71.47	71.95	71.91	71.78	71.92	
14	70.65	71.61	71.55	71.58	72.44	70.60	70.78	71.56	71.87	71.66	71.51	72.07	
15	70.91	71.33	71.43	71.34	72.13	70.66	70.72	71.31	71.74	72.07	71.71	72.11	
16	71.15	71.50	71.27	71.78	71.68	70.71	70.66	71.53	71.85	72.15	71.66	72.05	
17	71.61	71.35	71.49	71.72	71.34	70.70	70.64	71.20	71.74	72.18	71.11	71.92	
18	71.79	71.82	71.66	72.20	71.16	70.70	70.94	71.15	71.97	72.28	71.65	71.72	
19	71.91	71.93	71.59	72.13	71.94	70.60	70.71	71.27	72.01	71.91	71.46	71.55	
20	71.79	71.74	71.56	71.92	72.54	70.90	70.68	71.25	71.97	72.08	71.58	71.85	
21	71.63	72.10	71.46	71.02	72.83	70.80	70.73	71.30	71.74	71.78	71.34	71.57	
22	71.21	71.91	71.48	70.93	72.86	70.79	70.66	71.11	71.98	71.62	71.29	71.73	
23	71.58	71.83	71.12	71.48	72.78	70.61	70.82	71.06	72.10	71.76	71.32	71.58	
24	71.61	71.91	71.18	71.42	73.41	70.53	70.96	71.16	71.84	71.80	71.38	71.72	
25	71.46	71.88	71.70	71.30	72.83	70.58	70.74	70.87	71.84	72.06	71.30	71.21	
26	71.64	71.82	71.58	71.54	72.04	70.74	70.80	71.18	71.71	71.73	71.67	71.52	
27	71.66	71.96	71.29	71.21	72.76	70.61	70.65	71.34	71.86	71.47	71.73	71.52	
28	71.64	71.83	71.38	70.99	72.71	70.53	70.93	71.71	72.14	71.89	71.48	71.36	
29	71.86	72.16	70.82	71.36	72.72	70.51	70.65	71.26	72.05	72.47		71.46	
30	71.73	71.86	71.19	72.36	72.87	70.95	70.70	71.48	71.59	72.19		71.43	
31		72.09		72.50	72.72		70.67		71.16	72.34		70.98	
Mean	71.41	71.60	71.35	71.50	72.54	70.98	70.80	70.98	71.78	71.91	71.71	71.67	
Max	71.91	72.16	71.72	72.50	73.41	72.23	71.35	71.71	72.27	72.47	72.61	72.11	73.41
Min	70.45	70.64	70.82	70.84	71.16	70.51	70.54	70.17	70.89	71.47	71.11	70.98	70.17

Annual Max Momentary Gage Height 74.60 m. (MSL.) , at 16.00 Hours , on Aug 24 , 2018

Zero Gage at Bottom Elevation 69.00 m. (MSL.) , River Bed 67.74 m. (MSL.)

Left Bank Elevation 82.81 m. (MSL.) ,

Right Bank Elevation 81.49 m. (MSL.) , Drainage Are 15,579 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	219.50	231.90	239.65	168.90	369.50	330.30	197.25	58.10	193.20	216.40	347.30	225.70		
2	245.85	255.15	253.60	166.20	404.65	316.70	164.85	53.00	135.15	311.60	366.00	245.85		
3	172.95	264.45	202.65	182.40	464.88	248.95	136.50	54.00	190.50	328.60	402.83	183.75		
4	233.45	199.95	159.45	177.00	444.80	208.65	132.45	77.00	259.80	224.15	267.60	213.30		
5	193.20	252.05	143.25	171.60	426.55	337.10	110.35	71.75	182.40	275.60	286.80	270.80		
6	96.55	166.20	154.05	159.45	444.80	233.45	125.70	63.35	244.30	239.65	291.60	301.40		
7	82.75	175.65	168.90	128.40	461.23	210.20	114.95	73.85	343.90	298.00	274.00	236.55		
8	199.95	141.90	155.40	160.80	464.88	117.25	148.65	102.30	228.80	225.70	282.00	261.35		
9	224.15	104.60	170.25	236.55	433.85	148.65	131.10	81.60	333.70	286.80	253.60	261.35		
10	219.50	207.10	163.50	264.45	411.95	166.20	159.45	72.80	278.80	277.20	233.45	278.80		
11	197.25	171.60	247.40	274.00	450.28	132.45	112.65	159.45	280.40	259.80	293.20	261.35		
12	202.65	158.10	211.75	269.20	269.20	118.40	93.10	248.95	328.60	285.20	262.90	306.50		
13	177.00	199.95	216.40	253.60	388.75	119.55	120.70	214.85	290.00	283.60	262.90	285.20		
14	105.75	236.55	227.25	231.90	373.00	100.00	120.70	228.80	277.20	244.30	221.05	309.90		
15	137.85	194.55	208.65	195.90	320.10	106.90	113.80	191.85	256.70	309.90	252.05	316.70		
16	170.25	219.50	186.45	262.90	247.40	112.65	106.90	224.15	274.00	323.50	244.30	306.50		
17	236.55	197.25	217.95	253.60	195.90	111.50	104.60	177.00	256.70	328.60	164.85	285.20		
18	264.45	269.20	244.30	332.00	171.60	111.50	141.90	170.25	293.20	345.60	242.75	253.60		
19	283.60	286.80	233.45	320.10	288.40	100.00	112.65	186.45	299.70	283.60	213.30	227.25		
20	264.45	256.70	228.80	285.20	390.50	136.50	109.20	183.75	293.20	311.60	231.90	274.00		
21	239.65	315.00	213.30	152.70	442.98	123.00	114.95	190.50	256.70	262.90	195.90	230.35		
22	178.35	283.60	216.40	140.55	448.45	121.85	106.90	164.85	294.80	238.10	189.15	255.15		
23	231.90	270.80	166.20	216.40	433.85	101.15	125.70	158.10	315.00	259.80	193.20	231.90		
24	236.55	283.60	174.30	207.10	553.95	91.95	144.60	171.60	272.40	266.00	201.30	253.60		
25	213.30	278.80	250.50	190.50	442.98	97.70	116.10	132.45	272.40	308.20	190.50	178.35		
26	241.20	269.20	231.90	225.70	304.80	116.10	123.00	174.30	252.05	255.15	245.85	222.60		
27	244.30	291.60	189.15	178.35	430.20	101.15	105.75	195.90	275.60	214.85	255.15	222.60		
28	241.20	270.80	201.30	148.65	421.08	91.95	140.55	252.05	321.80	280.40	216.40	198.60		
29	275.60	325.20	125.70	198.60	422.90	89.65	105.75	185.10	306.50	378.25		213.30		
30	255.15	275.60	175.65	359.20	450.28	143.25	111.50	216.40	233.45	330.30		208.65		
31		313.30		383.50	422.90		108.05		171.60	355.80		147.30		
Total	6284.85	7366.65	5977.50	6895.40	12196.59	4544.65	3860.30	4534.50	8212.55	8809.15	7081.83	7667.45	83431.42	CMSDAY
Mean	209.50	237.63	199.25	222.43	393.44	151.49	124.53	151.15	264.92	284.17	252.92	247.34	228.58	CMS
Max	283.60	325.20	253.60	383.50	553.95	337.10	197.25	252.05	343.90	378.25	402.83	316.70	553.95	CMS
Min	82.75	104.60	125.70	128.40	171.60	89.65	93.10	53.00	135.15	214.85	164.85	147.30	53.00	CMS
Runoff	543.01	636.48	516.46	595.76	1053.79	392.66	333.53	391.78	709.56	761.11	611.87	662.47	7208.47	MCM

Momentary Peak 808.00 CMS. at 74.60 m. (MSL.) at 16.00 Hours , on Aug 24 , 2018

Runoff Yield 14.67 Liters/Second/Square KM. Momentary Peak Yield 51.86 Liters/Second/Square KM.

WATER YEAR : 2018

NAN RIVER BASIN

Nan River at Ban Bun Nak , Nan (N.13A)

Lat 18 - 33 - 12 N Long 100 - 46 - 03 E

Location : on right bank about 2 kilometers upstream from Station N.13

	Ban Bun Nak	**Amphoe** Wiang Sa	**Changwat** Nan
Drainge Area	8,706 sq.km.		
Type of Gage	Staff gage.		
Zero Gage at Bottom	+177.400 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank at the abutment of the bridge.		**Elevation** +192.700 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic mean of 3 readings		
Period of Available Gage Records	1987 to date		
Rating Operation			
Period of Rating	1987 to date		
Rated by Flot	-		
Rated by Current Meter	1987 to date		
Stability of Channel Regimes	Fairly Stable because of backwater effect.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 42 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

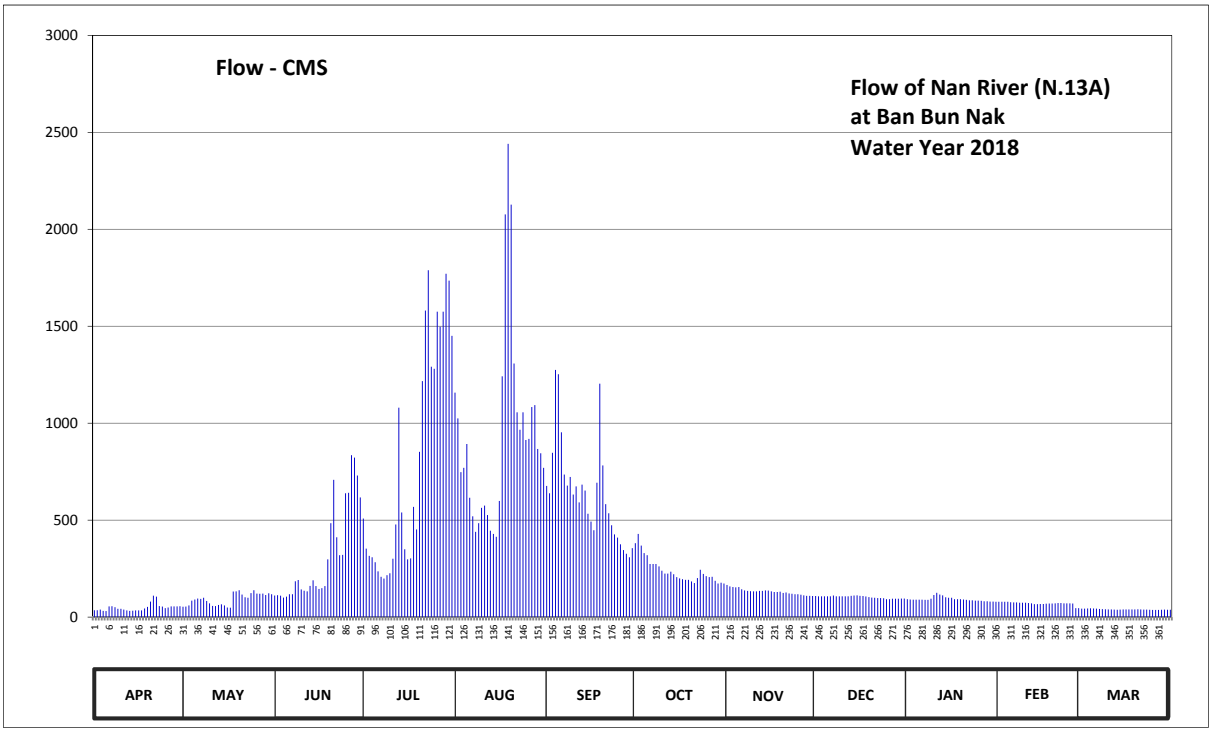
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	176.95	177.16	177.70	179.66	182.25	180.38	179.06	177.83	177.42	177.29	177.18	177.05	
2	176.95	177.17	177.71	178.92	181.75	180.22	179.29	177.78	177.41	177.28	177.18	177.05	
3	176.99	177.23	177.69	178.72	180.67	181.07	179.00	177.76	177.41	177.27	177.18	177.06	
4	176.90	177.47	177.61	178.68	180.76	182.68	178.80	177.75	177.41	177.27	177.18	177.07	
5	176.89	177.52	177.65	178.54	181.25	182.60	178.74	177.76	177.41	177.27	177.16	177.06	
6	177.18	177.57	177.75	178.27	180.12	181.48	178.49	177.68	177.41	177.27	177.15	177.05	
7	177.19	177.55	177.75	178.10	179.71	180.62	178.49	177.64	177.44	177.26	177.15	177.03	
8	177.13	177.60	178.23	178.04	179.34	180.39	178.49	177.62	177.41	177.26	177.14	177.02	
9	177.04	177.46	178.27	178.15	179.55	180.57	178.42	177.61	177.41	177.31	177.14	177.01	
10	177.04	177.34	177.94	178.21	179.90	180.19	178.29	177.60	177.41	177.46	177.14	177.00	
11	176.99	177.21	177.89	178.64	179.95	180.37	178.20	177.60	177.41	177.55	177.12	177.00	
12	176.94	177.20	177.87	179.52	179.74	180.02	178.20	177.62	177.41	177.48	177.11	176.99	
13	176.90	177.26	178.07	181.96	179.37	180.41	178.26	177.62	177.43	177.45	177.07	176.98	
14	176.91	177.29	178.26	179.80	179.29	180.28	178.18	177.64	177.44	177.37	177.07	176.99	
15	176.93	177.23	178.06	178.90	179.22	179.77	178.09	177.63	177.45	177.35	177.08	177.00	
16	176.94	177.12	177.96	178.62	180.05	179.59	178.05	177.60	177.43	177.35	177.08	177.00	
17	176.94	177.11	177.99	178.65	182.56	179.38	178.02	177.58	177.42	177.29	177.09	177.00	
18	177.06	177.86	178.06	179.92	185.41	180.45	178.00	177.58	177.40	177.29	177.10	177.00	
19	177.15	177.87	178.62	179.40	186.55	182.42	178.00	177.59	177.38	177.29	177.10	177.00	
20	177.43	177.91	179.55	181.09	185.57	180.81	177.95	177.54	177.36	177.28	177.11	177.01	
21	177.69	177.74	180.51	182.47	182.80	179.98	177.90	177.56	177.35	177.26	177.12	177.00	
22	177.65	177.62	179.21	183.76	181.87	179.78	178.06	177.52	177.34	177.24	177.12	176.99	
23	177.20	177.60	178.74	184.47	181.53	179.50	178.32	177.51	177.34	177.24	177.11	176.99	
24	177.17	177.80	178.75	182.74	181.87	179.28	178.19	177.49	177.33	177.23	177.11	176.98	
25	177.08	177.91	180.22	182.70	181.33	179.20	178.12	177.49	177.29	177.23	177.11	176.97	
26	177.12	177.78	180.23	183.74	181.35	179.03	178.09	177.47	177.29	177.22	177.10	176.97	
27	177.18	177.77	181.02	183.47	181.97	178.88	178.10	177.45	177.31	177.20	177.08	176.97	
28	177.18	177.78	180.97	183.74	182.01	178.78	177.97	177.43	177.31	177.20	177.08	176.98	
29	177.18	177.72	180.60	184.41	181.15	178.68	177.88	177.43	177.31	177.19		176.99	
30	177.19	177.79	180.13	184.29	181.06	178.93	177.91	177.42	177.32	177.19		176.98	
31		177.75		183.31	180.76		177.88		177.32	177.18		176.98	
Mean	177.10	177.53	178.70	180.67	181.31	180.19	178.27	177.59	177.38	177.29	177.12	177.01	
Max	177.69	177.91	181.02	184.47	186.55	182.68	179.29	177.83	177.45	177.55	177.18	177.07	186.55
Min	176.89	177.11	177.61	178.04	179.22	178.68	177.88	177.42	177.29	177.18	177.07	176.97	176.89

Annual Max Momentary Gage Height 186.62 m. (MSL.) , at 13.00 Hours , on Aug 19, 2018

Zero Gage at Bottom Elevation 177.40 m. (MSL.) , River Bed 174.37 m. (MSL.)

Left Bank Elevation 190.33 m. (MSL.) ,

Right Bank Elevation 192.60 m. (MSL.) , Drainage Are 8,706 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	35.75	53.40	111.50	508.50	1157.50	676.30	381.30	165.50	108.60	92.30	79.20	43.75		
2	35.75	54.30	112.75	353.40	1024.75	638.70	428.90	158.10	107.30	91.10	79.20	43.75		
3	38.75	60.00	110.30	315.60	747.50	847.50	369.00	155.20	107.30	89.90	79.20	44.60		
4	32.00	84.70	100.70	308.40	770.00	1275.00	330.00	153.75	107.30	89.90	79.20	45.45		
5	31.30	90.30	105.50	283.20	893.00	1253.00	319.20	155.20	107.30	89.90	76.90	44.60		
6	55.20	96.05	117.75	235.90	615.20	953.20	274.20	143.70	107.30	89.90	75.75	43.75		
7	56.10	93.75	117.75	208.00	519.75	735.00	274.20	138.10	111.20	88.70	75.75	42.05		
8	50.70	99.50	184.80	198.40	439.40	678.65	274.20	135.30	107.30	88.70	74.60	41.20		
9	42.90	83.60	191.20	216.00	484.25	722.65	261.60	133.90	107.30	94.75	74.60	40.35		
10	42.90	71.00	142.60	225.70	563.50	631.65	239.30	132.50	107.30	113.80	74.60	39.50		
11	38.75	58.00	135.70	301.20	575.25	673.95	224.00	132.50	107.30	125.75	72.30	39.50		
12	35.00	57.00	133.10	477.80	526.50	591.70	224.00	135.30	107.30	116.40	71.15	38.75		
13	32.00	63.00	161.15	1080.40	445.70	683.45	234.20	135.30	109.90	112.50	66.70	38.00		
14	32.75	66.00	189.60	540.00	428.90	652.80	220.80	138.10	111.20	102.25	66.70	38.75		
15	34.25	60.00	159.70	349.50	414.20	533.25	206.40	136.70	112.50	99.75	67.80	39.50		
16	35.00	49.80	145.40	297.60	598.75	492.85	200.00	132.50	109.90	99.75	67.80	39.50		
17	35.00	48.90	149.60	303.00	1242.00	447.80	195.20	129.80	108.60	92.30	68.90	39.50		
18	44.60	131.80	159.70	568.20	2077.15	693.25	192.00	129.80	106.00	92.30	70.00	39.50		
19	52.50	133.10	297.60	452.00	2440.50	1203.50	192.00	131.15	103.50	92.30	70.00	39.50		
20	80.30	138.40	484.25	852.50	2127.55	782.50	184.00	124.40	101.00	91.10	71.15	40.35		
21	110.30	116.50	707.95	1217.25	1308.00	582.30	176.00	127.10	99.75	88.70	72.30	39.50		
22	105.50	101.90	412.10	1581.40	1056.55	535.50	201.60	121.70	98.50	86.30	72.30	38.75		
23	57.00	99.50	319.20	1789.00	966.45	473.50	244.40	120.35	98.50	86.30	71.15	38.75		
24	54.30	124.00	321.00	1291.50	1056.55	426.80	222.40	117.70	97.25	85.10	71.15	38.00		
25	46.30	138.40	638.70	1280.50	913.80	410.00	211.20	117.70	92.30	85.10	71.15	37.25		
26	49.80	121.50	641.05	1575.60	919.00	375.15	206.40	115.10	92.30	83.90	70.00	37.25		
27	55.20	120.25	835.00	1497.30	1083.05	345.60	208.00	112.50	94.75	81.50	46.30	37.25		
28	55.20	121.50	822.50	1575.60	1093.65	326.40	187.20	109.90	94.75	81.50	46.30	38.00		
29	55.20	114.00	730.00	1771.00	867.50	308.40	173.00	109.90	94.75	80.35		38.75		
30	56.10	122.75	617.55	1735.55	845.00	355.35	177.60	108.60	96.00	80.35		38.00		
31		117.75		1450.90	770.00		173.00		96.00	79.20		38.00		
Total	1486.40	2890.65	9355.70	24840.90	28970.90	19305.70	7405.30	3957.35	3210.25	2871.65	1982.15	1241.35	107518.30	CMSDAY
Mean	49.55	93.25	311.86	801.32	934.55	643.52	238.88	131.91	103.56	92.63	70.79	40.04	294.57	CMS
Max	110.30	138.40	835.00	1789.00	2440.50	1275.00	428.90	165.50	112.50	125.75	79.20	45.45	2440.50	CMS
Min	31.30	48.90	100.70	198.40	414.20	308.40	173.00	108.60	92.30	79.20	46.30	37.25	31.30	CMS
Runoff	128.42	249.75	808.33	2146.25	2503.09	1668.01	639.82	341.92	277.37	248.11	171.26	107.25	9289.58	MCM

Momentary Peak 2463.70 CMS. at 186.62 m. (MSL.) at 13.00 Hours , on Aug 19 , 2018

Runoff Yield 33.84 Liters/Second/Square KM. Momentary Peak Yield 282.99 Liters/Second/Square KM.

WATER YEAR : 2018

Nan RIVER BASIN

Nan River at Wat Luang Pho Kaeo , Nakhon Sawan (N.14A)

Lat 15 - 53 - 44 N Long 100 - 18 - 42 E

Location : on right bank in front of Wat Luang Pho Kaeo about 1 kilometer upstream from Station N.14

Ban Wat Luang Pho Kaeo **Amphoe** Chum Saeng **Changwat** Nakhon Sawan

Drainge Area	32,826 sq.km.
Type of Gage	Staff gage.
Zero Gage at Bottom	+0.000 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On right bank in front of automatic gage building. **Elevation** +32.155 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic mean of 3 readings
Period of Available Gage Records	1971 to date
Rating Operation	
Period of Rating	1973 - 1979, 1991 to date
Rated by Flot	-
Rated by Current Meter	1972 - 1980, 1991 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	No overbank flow
General Description	Records good. Flow effected by Naresuan Dam. Stage-discharge relation defined by 29 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

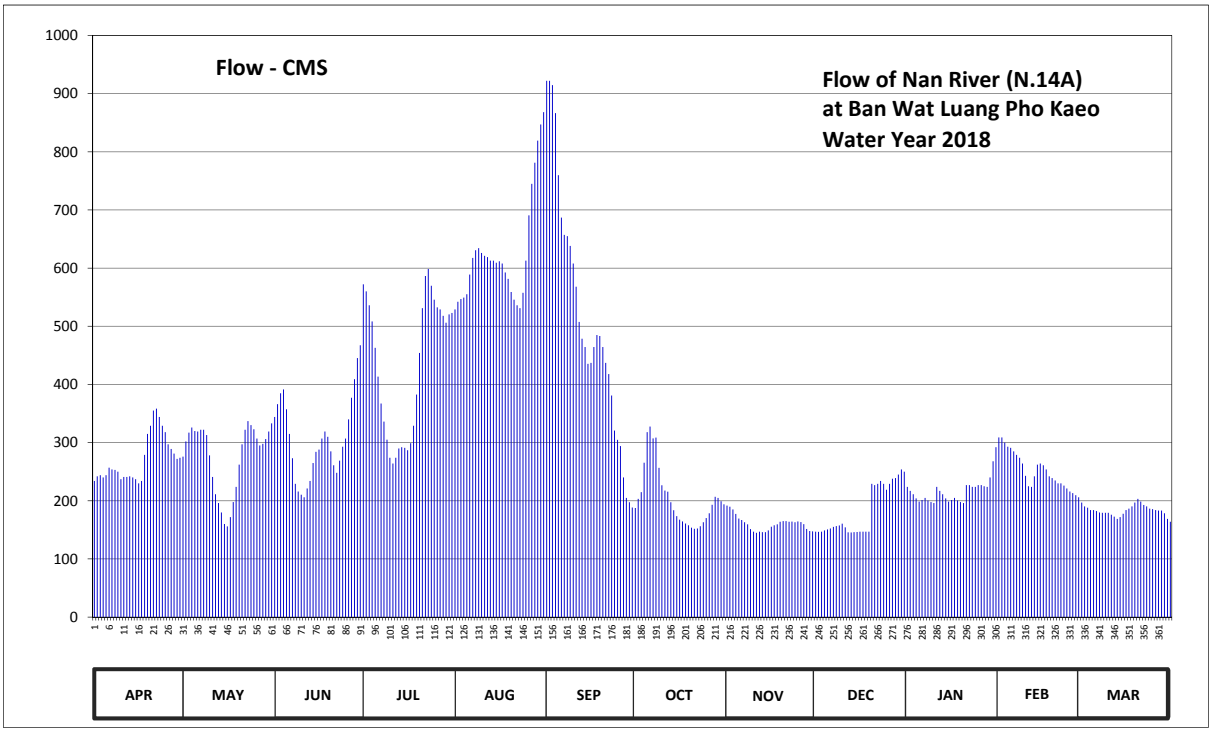
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	20.90	21.32	22.00	24.00	23.64	26.66	22.28	22.34	20.86	20.80	21.65	20.51	
2	20.98	21.58	22.20	23.90	23.75	26.66	22.49	22.31	20.87	20.73	21.65	20.43	
3	21.00	21.73	22.37	23.70	23.79	26.61	22.62	22.24	20.86	20.67	21.56	20.40	
4	20.96	21.82	22.43	23.47	23.81	26.41	23.11	22.12	20.74	20.59	21.49	20.35	
5	21.00	21.76	22.12	23.08	23.86	25.96	23.54	21.96	20.66	20.53	21.47	20.35	
6	21.13	21.75	21.71	22.63	24.14	25.64	23.61	21.90	20.59	20.56	21.41	20.33	
7	21.10	21.78	21.29	22.21	24.38	25.50	23.46	21.80	20.50	20.60	21.35	20.30	
8	21.09	21.78	20.85	21.92	24.49	25.49	23.24	21.71	20.47	20.55	21.30	20.29	
9	21.06	21.69	20.72	21.61	24.52	25.41	23.05	21.47	20.45	20.52	21.20	20.29	
10	20.93	21.34	20.66	21.30	24.45	25.26	22.75	21.19	20.39	20.50	20.99	20.29	
11	20.97	20.97	20.61	21.20	24.41	25.06	22.65	21.00	20.52	20.80	20.81	20.25	
12	20.97	20.67	20.77	21.30	24.39	24.73	22.63	20.85	20.91	20.73	20.80	20.21	
13	20.98	20.50	20.90	21.46	24.34	24.56	22.42	20.90	20.94	20.67	20.98	20.16	
14	20.96	20.30	21.21	21.48	24.34	24.47	22.22	21.10	20.90	20.59	21.18	20.20	
15	20.93	20.05	21.40	21.47	24.31	24.29	22.05	21.35	20.88	20.53	21.20	20.27	
16	20.86	20.00	21.44	21.43	24.33	24.30	21.91	21.61	20.86	20.56	21.17	20.35	
17	20.90	20.20	21.63	21.55	24.30	24.47	21.84	21.67	20.86	20.60	21.10	20.38	
18	21.35	20.52	21.75	21.85	24.17	24.60	21.75	21.71	20.85	20.55	20.98	20.43	
19	21.71	20.80	21.66	22.35	24.08	24.59	21.67	21.82	20.85	20.52	20.95	20.51	
20	21.85	21.18	21.41	23.00	23.89	24.47	21.56	21.85	20.85	20.50	20.91	20.58	
21	22.10	21.53	21.17	23.66	23.78	24.30	21.49	21.85	20.83	20.83	20.86	20.53	
22	22.13	21.78	21.04	24.12	23.70	24.18	21.51	21.82	20.85	20.83	20.86	20.46	
23	22.00	21.93	21.25	24.22	23.66	23.95	21.63	21.83	20.90	20.80	20.82	20.43	
24	21.85	21.86	21.49	23.98	23.88	23.56	21.80	21.80	20.85	20.80	20.77	20.38	
25	21.74	21.79	21.63	23.78	24.34	23.44	21.98	21.84	20.75	20.83	20.72	20.37	
26	21.53	21.63	21.96	23.67	24.99	23.36	22.14	21.81	20.85	20.83	20.69	20.35	
27	21.45	21.51	22.30	23.64	25.41	22.90	22.36	21.72	20.94	20.81	20.65	20.34	
28	21.37	21.54	22.59	23.55	25.68	22.51	22.53	21.48	20.95	20.80	20.61	20.34	
29	21.28	21.62	22.92	23.45	25.95	22.42	22.51	21.29	21.01	20.96		20.28	
30	21.30	21.75	23.12	23.57	26.15	22.29	22.44	21.25	21.10	21.24		20.16	
31		21.89		23.59	26.30		22.37		21.06	21.48		20.10	
Mean	21.28	21.31	21.62	22.78	24.43	24.60	22.37	21.65	20.80	20.72	21.08	20.34	
Max	22.13	21.93	23.12	24.22	26.30	26.66	23.61	22.34	21.10	21.48	21.65	20.58	26.66
Min	20.86	20.00	20.61	21.20	23.64	22.29	21.49	20.85	20.39	20.50	20.61	20.10	20.00

Annual Max Momentary Gage Height 26.67 m. (MSL.) , at 06.00 Hours , on Sep 1 , 2018

Zero Gage at Bottom Elevation 0.00 m. (MSL.) , River Bed 14.86 m. (MSL.)

Left Bank Elevation 29.84 m. (MSL.) ,

Right Bank Elevation 32.10 m. (MSL.) , Drainage Are 32,826 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	234.00	276.00	344.00	572.00	528.80	922.00	187.70	191.80	146.80	224.00	309.00	196.90		
2	242.00	302.00	366.00	560.00	542.00	922.00	203.20	189.70	146.60	217.00	309.00	190.40		
3	244.00	317.00	384.70	536.00	546.80	914.50	214.80	185.10	146.80	211.30	300.00	188.00		
4	240.00	326.00	391.30	508.40	549.20	866.40	265.33	177.30	149.20	204.10	293.00	184.00		
5	244.00	320.00	357.20	462.80	555.20	759.80	318.00	169.40	150.80	198.70	291.00	184.00		
6	257.00	319.00	315.00	413.30	588.80	686.80	327.50	167.00	152.30	201.40	285.00	182.40		
7	254.00	322.00	273.00	367.10	617.60	657.00	307.33	163.00	155.00	205.00	279.00	180.00		
8	253.00	322.00	229.00	336.00	630.80	654.90	308.67	159.40	156.50	200.50	274.00	179.20		
9	250.00	313.00	216.00	305.00	634.40	638.10	256.50	151.40	157.50	197.80	264.00	179.20		
10	237.00	278.00	210.40	274.00	626.00	608.00	226.50	146.90	160.50	196.00	243.00	179.20		
11	241.00	241.00	205.90	264.00	621.20	568.00	217.50	145.00	154.40	224.00	225.00	176.00		
12	241.00	211.30	221.00	274.00	618.80	507.40	215.70	147.00	145.90	217.00	224.00	172.80		
13	242.00	196.00	234.00	290.00	612.80	478.60	197.60	146.00	145.60	211.30	242.00	168.80		
14	240.00	180.00	265.00	292.00	612.80	464.20	183.80	146.00	146.00	204.10	262.00	172.00		
15	237.00	160.00	284.00	291.00	609.20	435.40	173.50	149.00	146.40	198.70	264.00	177.60		
16	230.00	156.00	288.00	287.00	611.60	437.00	167.40	155.40	146.80	201.40	261.00	184.00		
17	234.00	172.00	307.00	299.00	608.00	464.20	164.60	157.80	146.80	205.00	254.00	186.40		
18	279.00	197.80	319.00	329.00	592.40	485.00	161.00	159.40	147.00	200.50	242.00	190.40		
19	315.00	224.00	310.00	382.50	581.60	483.40	157.80	163.80	147.00	197.80	239.00	196.90		
20	329.00	262.00	285.00	454.00	558.80	464.20	153.80	165.00	229.00	196.00	235.00	203.20		
21	355.00	297.00	261.00	531.20	545.60	437.00	151.80	165.00	227.00	227.00	230.00	198.70		
22	358.30	322.00	248.00	586.40	536.00	417.80	152.30	163.80	229.00	227.00	230.00	192.80		
23	344.00	337.00	269.00	598.40	531.20	381.00	156.20	164.20	234.00	224.00	226.00	190.40		
24	329.00	330.00	293.00	569.60	557.60	320.67	163.00	163.00	229.00	224.00	221.00	186.40		
25	318.00	323.00	307.00	545.60	612.80	304.67	170.20	164.60	219.00	227.00	216.00	185.60		
26	297.00	307.00	340.00	532.40	690.80	294.00	178.60	163.40	229.00	227.00	213.10	184.00		
27	289.00	295.00	377.00	528.80	744.92	240.00	193.20	159.80	238.00	225.00	209.50	183.20		
28	281.00	298.00	408.90	518.00	781.20	204.90	206.70	151.60	239.00	224.00	205.90	183.20		
29	272.00	306.00	445.20	506.00	819.00	197.60	204.90	147.90	245.00	240.00		178.40		
30	274.00	319.00	467.20	520.40	847.00	188.35	199.20	147.50	254.00	268.00		168.80		
31		333.00		522.80	868.00		193.90		250.00	292.00		164.00		
Total	8160.30	8562.10	9221.80	13456.70	19380.92	15402.89	6378.23	4826.20	5669.90	6716.60	7046.50	5686.90	110509.04	CMSDAY
Mean	272.01	276.20	307.39	434.09	625.19	513.43	205.75	160.87	182.90	216.66	251.66	183.45	302.76	CMS
Max	358.30	337.00	467.20	598.40	868.00	922.00	327.50	191.80	254.00	292.00	309.00	203.20	922.00	CMS
Min	230.00	156.00	205.90	264.00	528.80	188.35	151.80	145.00	145.60	196.00	205.90	164.00	145.00	CMS
Runoff	705.05	739.77	796.76	1162.66	1674.51	1330.81	551.08	416.98	489.88	580.31	608.82	491.35	9547.98	MCM

Momentary Peak 923.50 CMS. at 26.67 m. (MSL.) at 06.00 Hours , on Sep 1 , 2018

Runoff Yield 9.22 Liters/Second/Square KM. Momentary Peak Yield 28.13 Liters/Second/Square KM.

WATER YEAR : 2018

NAN RIVER BASIN

Khwae Noi River at Ban Tha Ngam , Phitsanulok (N.22A)

Lat 16 - 59 - 33 N Long 100 - 19 - 31 E

Location : on left bank at Ban Tha Ngam.

	Ban Tha Ngam	**Amphoe** Wat Bot	**Changwat** Phitsanulok
Drainge Area	4,774 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+41.630 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	Near the gage site.		**Elevation** +52.936 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings		
Period of Available Gage Records	2008 to date		
Rating Operation			
Period of Rating	2008 to date		
Rated by Flot	-		
Rated by Current Meter	2008 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 27 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

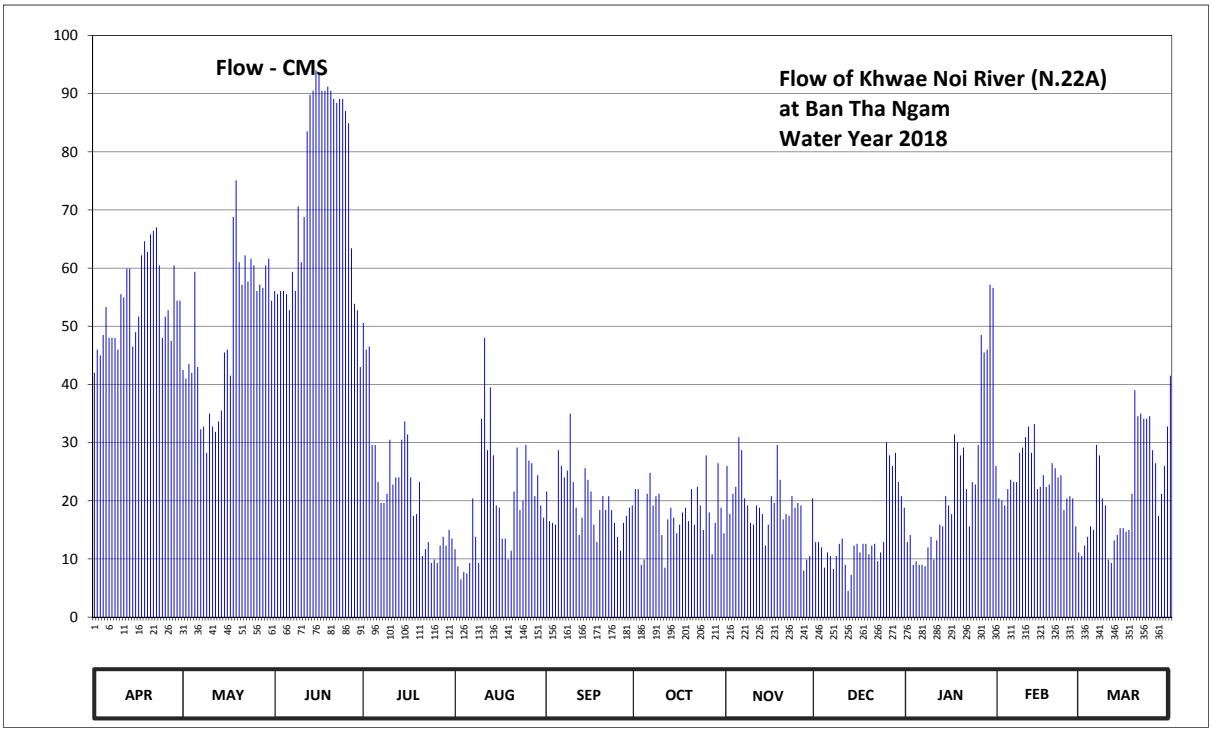
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	42.94	42.95	43.21	43.11	42.19	42.49	42.50	42.60	42.23	42.23	42.46	42.15	
2	43.02	42.92	43.20	43.02	42.09	42.35	42.50	42.39	42.23	42.27	42.45	42.21	
3	43.00	42.97	43.21	43.03	42.00	42.34	42.10	42.48	42.20	42.10	42.43	42.26	
4	43.07	42.94	43.21	42.68	42.05	42.33	42.13	42.51	42.08	42.12	42.50	42.32	
5	43.16	43.27	43.20	42.68	42.04	42.66	42.48	42.71	42.17	42.10	42.54	42.30	
6	43.06	42.96	43.15	42.53	42.11	42.60	42.57	42.66	42.15	42.10	42.53	42.68	
7	43.06	42.74	43.27	42.44	42.46	42.55	42.43	42.46	42.07	42.09	42.53	42.64	
8	43.06	42.75	43.21	42.44	42.26	42.58	42.47	42.43	42.15	42.20	42.65	42.46	
9	43.02	42.65	43.46	42.48	42.11	42.80	42.48	42.34	42.22	42.26	42.67	42.43	
10	43.20	42.80	43.30	42.70	42.78	42.53	42.27	42.33	42.25	42.13	42.71	42.13	
11	43.19	42.75	43.43	42.52	43.06	42.42	42.08	42.43	42.10	42.24	42.75	42.11	
12	43.28	42.73	43.65	42.55	42.66	42.27	42.36	42.42	41.90	42.33	42.65	42.24	
13	43.28	42.77	43.74	42.55	42.89	42.37	42.42	42.39	42.03	42.32	42.76	42.27	
14	43.03	42.81	43.75	42.70	42.64	42.59	42.37	42.21	42.21	42.47	42.50	42.31	
15	43.08	43.01	43.80	42.77	42.43	42.54	42.28	42.33	42.22	42.43	42.51	42.31	
16	43.13	43.02	43.79	42.72	42.42	42.49	42.33	42.47	42.17	42.39	42.56	42.29	
17	43.32	42.93	43.75	42.55	42.25	42.33	42.40	42.44	42.22	42.72	42.51	42.30	
18	43.36	43.43	43.75	42.38	42.25	42.23	42.42	42.68	42.22	42.69	42.52	42.48	
19	43.33	43.53	43.76	42.39	42.13	42.41	42.35	42.54	42.16	42.64	42.61	42.88	
20	43.38	43.30	43.75	42.53	42.18	42.47	42.50	42.36	42.21	42.67	42.59	42.79	
21	43.39	43.23	43.73	42.15	42.49	42.41	42.33	42.39	42.22	42.50	42.55	42.80	
22	43.40	43.32	43.72	42.19	42.67	42.47	42.51	42.38	42.12	42.32	42.56	42.78	
23	43.29	43.24	43.73	42.23	42.41	42.41	42.43	42.47	42.17	42.53	42.41	42.78	
24	43.06	43.31	43.73	42.11	42.45	42.34	42.30	42.42	42.23	42.52	42.46	42.79	
25	43.13	43.29	43.70	42.13	42.68	42.26	42.64	42.44	42.69	42.68	42.47	42.66	
26	43.15	43.21	43.67	42.11	42.62	42.18	42.40	42.43	42.64	43.07	42.46	42.61	
27	43.05	43.23	43.34	42.21	42.61	42.34	42.16	42.06	42.60	43.01	42.32	42.38	
28	43.29	43.22	43.17	42.26	42.47	42.38	42.34	42.13	42.65	43.02	42.17	42.48	
29	43.18	43.29	43.15	42.21	42.56	42.42	42.61	42.15	42.53	43.23		42.60	
30	43.18	43.31	42.96	42.30	42.43	42.43	42.42	42.46	42.47	43.22		42.75	
31		43.18		42.25	42.37		42.28		42.42	42.60		42.93	
Mean	43.17	43.07	43.48	42.48	42.41	42.43	42.38	42.42	42.26	42.49	42.53	42.49	
Max	43.40	43.53	43.80	43.11	43.06	42.80	42.64	42.71	42.69	43.23	42.76	42.93	43.80
Min	42.94	42.65	42.96	42.11	42.00	42.18	42.08	42.06	41.90	42.09	42.17	42.11	41.90

Annual Max Momentary Gage Height 43.82 m. (MSL.) , at 18.00 Hours , on Jun 14 , 2018

Zero Gage at Bottom Elevation 41.63 m. (MSL.) , River Bed 40.22 m. (MSL.)

Left Bank Elevation 49.11 m. (MSL.) ,

Right Bank Elevation 49.42 m. (MSL.) , Drainage Are 4,774 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	42.00	42.50	56.05	50.55	11.70	21.60	22.00	26.00	12.90	12.90	20.40	10.50		
2	46.00	41.00	55.50	46.00	8.75	16.50	22.00	17.70	12.90	14.10	20.00	12.30		
3	45.00	43.50	56.05	46.50	6.50	16.20	9.00	21.20	12.00	9.00	19.20	13.80		
4	48.50	42.00	56.05	29.60	7.75	15.90	9.90	22.40	8.50	9.60	22.00	15.60		
5	53.30	59.35	55.50	29.60	7.50	28.70	21.20	30.95	11.10	9.00	23.60	15.00		
6	48.00	43.00	52.75	23.20	9.30	26.00	24.80	28.70	10.50	9.00	23.20	29.60		
7	48.00	32.30	59.35	19.60	20.40	24.00	19.20	20.40	8.25	8.75	23.20	27.80		
8	48.00	32.75	56.05	19.60	13.80	25.20	20.80	19.20	10.50	12.00	28.25	20.40		
9	46.00	28.25	70.60	21.20	9.30	35.00	21.20	16.20	12.60	13.80	29.15	19.20		
10	55.50	35.00	61.00	30.50	34.10	23.20	14.10	15.90	13.50	9.90	30.95	9.90		
11	54.95	32.75	68.80	22.80	48.00	18.80	8.50	19.20	9.00	13.20	32.75	9.30		
12	59.90	31.85	83.50	24.00	28.70	14.10	16.80	18.80	4.50	15.90	28.25	13.20		
13	59.90	33.65	89.80	24.00	39.50	17.10	18.80	17.70	7.25	15.60	33.20	14.10		
14	46.50	35.50	90.50	30.50	27.80	25.60	17.10	12.30	12.30	20.80	22.00	15.30		
15	49.00	45.50	94.00	33.65	19.20	23.60	14.40	15.90	12.60	19.20	22.40	15.30		
16	51.65	46.00	93.30	31.40	18.80	21.60	15.90	20.80	11.10	17.70	24.40	14.70		
17	62.20	41.50	90.50	24.00	13.50	15.90	18.00	19.60	12.60	31.40	22.40	15.00		
18	64.60	68.80	90.50	17.40	13.50	12.90	18.80	29.60	12.60	30.05	22.80	21.20		
19	62.80	75.10	91.20	17.70	9.90	18.40	16.50	23.60	10.80	27.80	26.45	39.00		
20	65.80	61.00	90.50	23.20	11.40	20.80	22.00	16.80	12.30	29.15	25.60	34.55		
21	66.40	57.15	89.10	10.50	21.60	18.40	15.90	17.70	12.60	22.00	24.00	35.00		
22	67.00	62.20	88.40	11.70	29.15	20.80	22.40	17.40	9.60	15.60	24.40	34.10		
23	60.45	57.70	89.10	12.90	18.40	18.40	19.20	20.80	11.10	23.20	18.40	34.10		
24	48.00	61.60	89.10	9.30	20.00	16.20	15.00	18.80	12.90	22.80	20.40	34.55		
25	51.65	60.45	87.00	9.90	29.60	13.80	27.80	19.60	30.05	29.60	20.80	28.70		
26	52.75	56.05	84.90	9.30	26.90	11.40	18.00	19.20	27.80	48.50	20.40	26.45		
27	47.50	57.15	63.40	12.30	26.45	16.20	10.80	8.00	26.00	45.50	15.60	17.40		
28	60.45	56.60	53.85	13.80	20.80	17.40	16.20	9.90	28.25	46.00	11.10	21.20		
29	54.40	60.45	52.75	12.30	24.40	18.80	26.45	10.50	23.20	57.15		26.00		
30	54.40	61.60	43.00	15.00	19.20	19.20	18.80	20.40	20.80	56.60		32.75		
31		54.40		13.50	17.10		14.40		18.80	26.00		41.50		
Total	1620.60	1516.65	2202.10	695.50	613.00	591.70	555.95	575.25	438.90	721.80	655.30	697.50	10884.25	CMSDAY
Mean	54.02	48.92	73.40	22.44	19.77	19.72	17.93	19.18	14.16	23.28	23.40	22.50	29.82	CMS
Max	67.00	75.10	94.00	50.55	48.00	35.00	27.80	30.95	30.05	57.15	33.20	41.50	94.00	CMS
Min	42.00	28.25	43.00	9.30	6.50	11.40	8.50	8.00	4.50	8.75	11.10	9.30	4.50	CMS
Runoff	140.02	131.04	190.26	60.09	52.96	51.12	48.03	49.70	37.92	62.36	56.62	60.26	940.40	MCM

Momentary Peak 95.40 CMS. at 43.82 m. (MSL.) at 18.00 Hours , on Jun 14 , 2018

Runoff Yield 6.25 Liters/Second/Square KM. Momentary Peak Yield 19.98 Liters/Second/Square KM.

WATER YEAR : 2018

NAN RIVER BASIN

Khek River at Ban Wang Nok Aen , Phitsanulok (N.24A)

Lat 16 - 50 - 36 N Long 100 - 31 - 20 E

Location : on right bank about 2 kilometers downstream from Sakunothayan Fall.

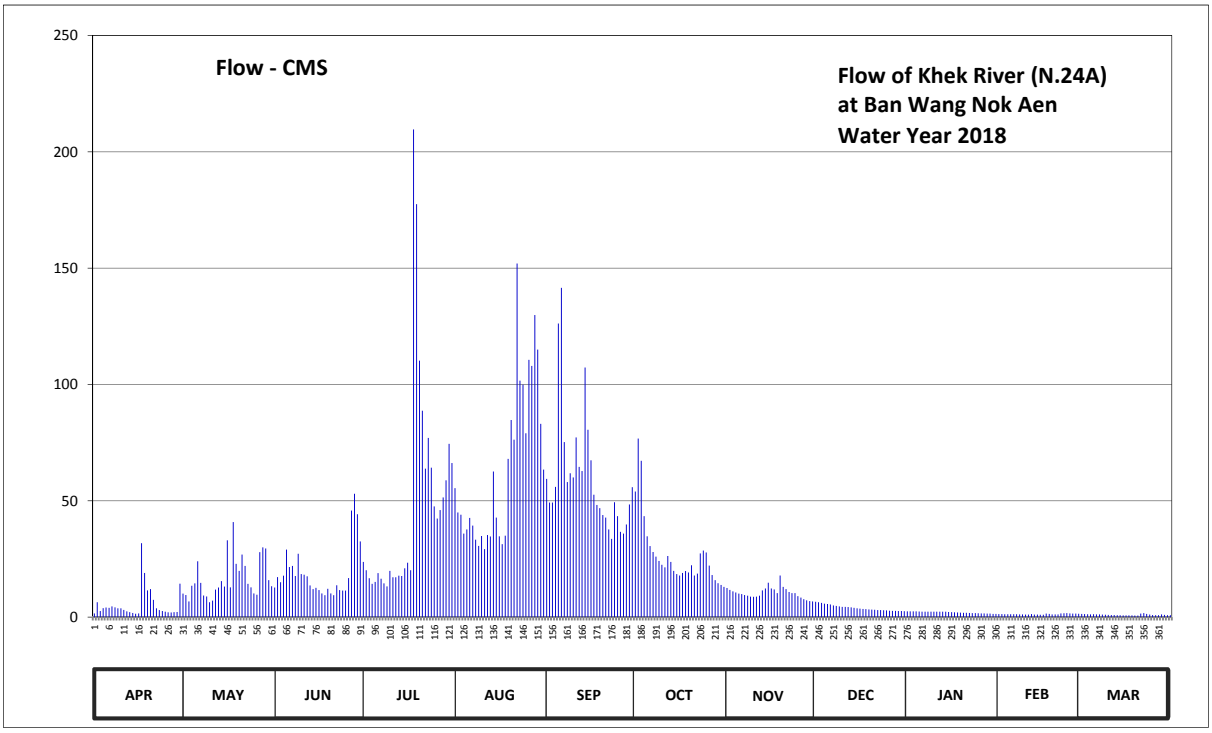
Ban Wang Nok Aen **Amphoe** Wang Thong **Changwat** Phitsanulok

Drainge Area	1,839 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+40.710 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	Near the gage site. **Elevation** +54.851 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic mean of 5 readings
Period of Available Gage Records	1965 to date
Rating Operation	
Period of Rating	1965 - 1974 , 1980 to date
Rated by Flot	-
Rated by Current Meter	1965 - 1974 , 1980 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Stage-discharge relation defined by 21 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	41.89	43.01	43.27	44.30	46.37	46.57	46.30	43.25	42.66	42.10	41.83	41.84	
2	42.64	42.95	43.72	44.01	45.85	46.06	47.37	43.17	42.64	42.09	41.82	41.82	
3	42.12	42.67	43.50	43.67	45.80	46.06	46.96	43.11	42.61	42.09	41.81	41.80	
4	42.37	43.35	43.78	43.43	45.26	46.40	45.76	43.06	42.58	42.09	41.81	41.78	
5	42.41	43.45	44.72	43.51	45.38	48.83	45.18	43.01	42.56	42.08	41.81	41.80	
6	42.39	44.32	44.12	43.89	45.71	49.19	44.84	42.99	42.54	42.07	41.80	41.79	
7	42.46	43.47	44.16	43.65	45.49	47.31	44.64	42.95	42.50	42.06	41.80	41.78	
8	42.42	42.93	43.77	43.45	45.06	46.50	44.48	42.92	42.48	42.06	41.79	41.76	
9	42.35	42.89	44.58	43.32	44.85	46.69	44.33	42.88	42.46	42.07	41.78	41.74	
10	42.35	42.64	43.85	43.99	45.19	46.60	44.20	42.87	42.44	42.06	41.77	41.72	
11	42.22	42.71	43.82	43.71	44.74	47.39	44.11	42.88	42.44	42.06	41.76	41.70	
12	42.09	43.18	43.75	43.71	45.22	46.83	44.50	42.92	42.43	42.07	41.83	41.69	
13	42.02	43.27	43.36	43.78	45.17	46.74	44.30	43.15	42.42	42.07	41.77	41.68	
14	41.95	43.55	43.20	43.77	46.73	48.35	43.99	43.23	42.39	42.06	41.76	41.67	
15	41.86	43.31	43.26	44.08	45.72	47.52	43.85	43.48	42.36	42.04	41.75	41.66	
16	41.90	45.04	43.16	44.27	45.18	46.97	43.79	43.23	42.33	42.02	41.74	41.65	
17	44.94	43.28	43.02	44.01	44.91	46.23	43.90	43.19	42.30	42.01	41.87	41.64	
18	43.90	45.59	42.94	50.52	45.20	46.01	43.98	43.03	42.28	41.99	41.84	41.64	
19	43.15	44.23	43.22	49.91	47.00	45.94	43.92	43.79	42.26	41.98	41.79	41.63	
20	43.20	43.99	43.02	48.43	47.68	45.79	44.18	43.30	42.24	41.97	41.78	41.63	
21	42.74	44.55	42.94	47.82	47.35	45.72	43.79	43.20	42.23	41.96	41.78	41.88	
22	42.36	44.16	43.37	46.79	49.40	45.38	43.87	43.08	42.21	41.94	41.89	41.92	
23	42.21	43.43	43.16	47.38	48.19	45.09	44.59	43.03	42.20	41.93	41.91	41.84	
24	42.12	43.28	43.14	46.81	48.14	46.07	44.69	43.03	42.19	41.92	41.93	41.77	
25	42.06	43.02	43.14	45.98	47.46	45.76	44.62	42.90	42.18	41.91	41.90	41.70	
26	42.01	42.96	43.68	45.69	48.44	45.31	44.17	42.84	42.15	41.90	41.88	41.68	
27	42.00	44.63	45.89	45.90	48.37	45.26	43.81	42.77	42.14	41.89	41.87	41.67	
28	42.02	44.80	46.25	46.17	48.92	45.52	43.59	42.72	42.13	41.88	41.86	41.79	
29	42.04	44.76	45.81	46.54	48.55	46.02	43.46	42.69	42.12	41.87		41.73	
30	43.44	43.59	45.00	47.28	47.62	46.39	43.38	42.67	42.12	41.85		41.67	
31		43.33		46.91	46.77		43.30		42.11	41.84		41.67	
Mean	42.45	43.62	43.82	45.38	46.51	46.48	44.45	43.04	42.35	42.00	41.82	41.73	
Max	44.94	45.59	46.25	50.52	49.40	49.19	47.37	43.79	42.66	42.10	41.93	41.92	50.52
Min	41.86	42.64	42.94	43.32	44.74	45.09	43.30	42.67	42.11	41.84	41.74	41.63	41.63

Annual Max Momentary Gage Height	51.37	m. (MSL.) ,	at 18.00 Hours , on Jul 18 , 2018		
Zero Gage at Bottom Elevation	40.71	m. (MSL.) ,	River Bed	40.36	m. (MSL.)
Left Bank Elevation	55.41	m. (MSL.) ,			
Right Bank Elevation	54.90	m. (MSL.) ,	Drainage Are	1,839	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.56	10.10	12.70	23.75	55.40	59.40	54.00	12.50	6.60	2.50	1.32	1.36		
2	6.40	9.50	17.20	20.13	45.00	49.20	76.75	11.70	6.40	2.45	1.28	1.28		
3	2.60	6.70	15.00	16.70	44.00	49.20	67.20	11.10	6.10	2.45	1.24	1.20		
4	3.85	13.50	17.80	14.30	35.90	56.00	43.40	10.60	5.80	2.45	1.24	1.14		
5	4.10	14.50	29.00	15.10	37.70	126.20	34.75	10.10	5.60	2.40	1.24	1.20		
6	3.95	24.00	21.50	18.90	42.65	141.55	30.50	9.90	5.40	2.35	1.20	1.17		
7	4.60	14.70	22.00	16.50	39.35	75.25	28.00	9.50	5.00	2.30	1.20	1.14		
8	4.20	9.30	17.70	14.50	33.25	58.00	26.00	9.20	4.80	2.30	1.17	1.08		
9	3.75	8.90	27.25	13.20	30.63	61.80	24.13	8.80	4.60	2.35	1.14	1.02		
10	3.75	6.40	18.50	19.90	34.88	60.00	22.50	8.70	4.40	2.30	1.11	0.96		
11	3.10	7.10	18.20	17.10	29.25	77.25	21.38	8.80	4.40	2.30	1.08	0.90		
12	2.45	11.80	17.50	17.10	35.30	64.60	26.25	9.20	4.30	2.35	1.32	0.87		
13	2.10	12.70	13.60	17.80	34.63	62.80	23.75	11.50	4.20	2.35	1.11	0.84		
14	1.80	15.50	12.00	17.70	62.60	107.25	19.90	12.30	3.95	2.30	1.08	0.81		
15	1.44	13.10	12.60	21.00	42.80	80.50	18.50	14.80	3.80	2.20	1.05	0.78		
16	1.60	33.00	11.60	23.38	34.75	67.40	17.90	12.30	3.65	2.10	1.02	0.75		
17	31.75	12.80	10.20	20.13	31.38	52.60	19.00	11.90	3.50	2.05	1.48	0.72		
18	19.00	40.85	9.40	209.60	35.00	48.20	19.80	10.30	3.40	1.96	1.36	0.72		
19	11.50	22.88	12.20	177.50	68.00	46.80	19.20	17.90	3.30	1.92	1.17	0.69		
20	12.00	19.90	10.20	110.20	84.70	43.85	22.25	13.00	3.20	1.88	1.14	0.69		
21	7.40	26.88	9.40	88.70	76.25	42.80	17.90	12.00	3.15	1.84	1.14	1.52		
22	3.80	22.00	13.70	63.80	152.00	37.70	18.70	10.80	3.05	1.76	1.56	1.68		
23	3.05	14.30	11.60	77.00	101.65	33.63	27.38	10.30	3.00	1.72	1.64	1.36		
24	2.60	12.80	11.40	64.20	99.90	49.40	28.63	10.30	2.95	1.68	1.72	1.11		
25	2.30	10.20	11.40	47.60	79.00	43.40	27.75	9.00	2.90	1.64	1.60	0.90		
26	2.05	9.60	16.80	42.35	110.60	36.65	22.13	8.40	2.75	1.60	1.52	0.84		
27	2.00	27.88	45.80	46.00	107.95	35.90	18.10	7.70	2.70	1.56	1.48	0.81		
28	2.10	30.00	53.00	51.40	129.80	39.80	15.90	7.20	2.65	1.52	1.44	1.17		
29	2.20	29.50	44.20	58.80	115.00	48.40	14.60	6.90	2.60	1.48		0.99		
30	14.40	15.90	32.50	74.50	83.05	55.80	13.80	6.70	2.60	1.40		0.81		
31		13.30		66.20	63.40		13.00		2.55	1.36		0.81		
Total	167.40	519.59	575.95	1485.04	1975.77	1811.33	833.05	313.40	123.30	62.82	36.05	31.32	7935.02	CMSDAY
Mean	5.58	16.76	19.20	47.90	63.73	60.38	26.87	10.45	3.98	2.03	1.29	1.01	21.74	CMS
Max	31.75	40.85	53.00	209.60	152.00	141.55	76.75	17.90	6.60	2.50	1.72	1.68	209.60	CMS
Min	1.44	6.40	9.40	13.20	29.25	33.63	13.00	6.70	2.55	1.36	1.02	0.69	0.69	CMS
Runoff	14.46	44.89	49.76	128.31	170.71	156.50	71.98	27.08	10.65	5.43	3.11	2.71	685.59	MCM

Momentary Peak 264.90 CMS. at 51.37 m. (MSL.) at 18.00 Hours , on Jul 18 , 2018

Runoff Yield 11.68 Liters/Second/Square KM. Momentary Peak Yield 142.34 Liters/Second/Square KM.

WATER YEAR : 2018

NAN RIVER BASIN

Nan River at Ban Nong Kham , Phitsanulok (N.27A)

Lat 17 - 01 - 46 N Long 100 - 11 - 00 E

Location : on right bank about 1.8 kilometers downstream from Phrom Phiram Dam.

Ban Nong Kham **Amphoe** Phrom Phiram **Changwat** Phitsanulok

Drainge Area	19,360 sq.km.
Type of Gage	Staff gage.
Zero Gage at Bottom	+38.430 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	About 10 meters from the top staff gage. **Elevation** +49.457 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic mean of 5 readings
Period of Available Gage Records	1980 to date
Rating Operation	
Period of Rating	1980 to date
Rated by Flot	-
Rated by Current Meter	1980 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Flow regulated by Naresuan Dam about 2 kilometers above gage site. Stage-discharge relation defined by 30 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

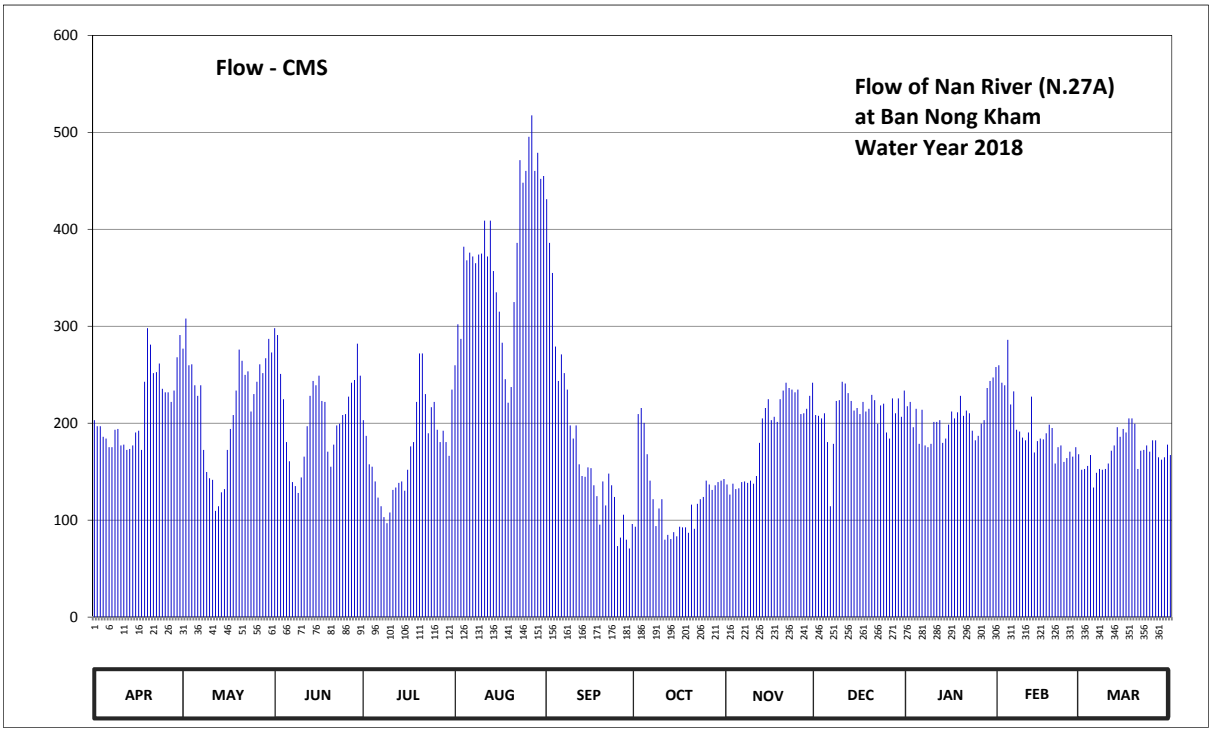
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	40.79	41.60	41.81	40.79	41.42	43.14	39.46	40.01	40.85	40.95	41.42	40.20	
2	40.72	41.91	41.74	40.61	41.85	42.69	40.86	39.88	40.84	41.00	41.22	40.21	
3	40.72	41.42	41.32	40.27	41.70	42.38	40.93	40.02	40.81	40.71	41.19	40.25	
4	40.60	41.43	41.03	40.24	42.65	41.62	40.76	39.95	40.87	40.92	41.69	40.39	
5	40.58	41.19	40.54	40.05	42.51	41.24	40.40	39.96	40.54	40.52	40.97	39.97	
6	40.48	41.07	40.31	39.84	42.59	41.54	40.06	40.04	39.73	40.91	41.12	40.16	
7	40.48	41.19	40.04	39.73	42.55	41.33	39.82	40.05	40.52	40.50	40.68	40.21	
8	40.68	40.45	39.99	39.59	42.48	41.14	39.47	40.03	41.01	40.48	40.66	40.20	
9	40.69	40.17	39.90	39.51	42.57	40.73	39.70	40.06	41.02	40.52	40.59	40.21	
10	40.50	40.09	40.10	39.65	42.58	40.58	39.82	40.02	41.23	40.77	40.56	40.28	
11	40.51	40.07	40.37	39.94	42.92	40.73	39.27	40.12	41.21	40.77	40.65	40.44	
12	40.45	39.67	40.72	39.97	42.55	40.27	39.34	40.53	41.10	40.79	41.06	40.50	
13	40.46	39.73	41.07	40.03	42.92	40.12	39.28	40.81	41.01	40.53	40.42	40.71	
14	40.50	39.91	41.24	40.05	42.40	40.11	39.38	40.93	40.90	40.58	40.55	40.60	
15	40.65	39.95	41.19	39.93	42.18	40.23	39.32	41.03	40.93	40.74	40.58	40.69	
16	40.67	40.45	41.30	40.20	41.98	40.22	39.46	40.79	40.86	40.89	40.57	40.65	
17	40.45	40.69	41.01	40.49	41.66	40.00	39.45	40.83	41.00	40.81	40.64	40.81	
18	41.23	40.85	41.00	40.54	41.26	39.86	39.45	40.77	40.89	40.88	40.74	40.81	
19	41.81	41.13	40.43	41.00	40.99	39.49	39.37	41.03	40.92	41.07	40.70	40.75	
20	41.64	41.59	40.24	41.55	41.17	40.05	39.75	41.13	41.08	40.84	40.28	40.21	
21	41.33	41.47	40.51	41.55	42.08	39.74	39.43	41.22	41.02	40.90	40.48	40.44	
22	41.34	41.31	40.73	41.09	42.69	40.15	39.76	41.16	40.75	40.87	40.50	40.45	
23	41.44	41.35	40.75	40.64	43.53	40.00	39.82	41.14	40.96	40.67	40.30	40.50	
24	41.15	40.89	40.85	40.94	43.31	39.85	39.85	41.11	40.98	40.56	40.35	40.43	
25	41.11	41.09	40.86	41.00	43.43	39.17	40.06	41.14	40.65	40.61	40.43	40.56	
26	41.11	41.23	41.06	40.68	43.75	39.30	40.01	40.86	40.58	40.75	40.37	40.56	
27	41.00	41.43	41.22	40.54	43.95	39.62	39.94	40.87	41.04	40.79	40.48	40.36	
28	41.13	41.33	41.25	40.67	43.43	39.27	40.00	40.92	40.87	41.16	40.40	40.33	
29	41.51	41.50	41.65	40.54	43.60	39.13	40.04	41.07	41.04	41.24		40.36	
30	41.74	41.70	41.30	40.38	43.35	39.50	40.06	41.22	40.83	41.28		40.51	
31		41.56		41.14	43.38		40.08		41.13	41.40		40.39	
Mean	40.92	40.95	40.85	40.42	42.56	40.44	39.82	40.62	40.88	40.82	40.70	40.42	
Max	41.81	41.91	41.81	41.55	43.95	43.14	40.93	41.22	41.23	41.40	41.69	40.81	43.95
Min	40.45	39.67	39.90	39.51	40.99	39.13	39.27	39.88	39.73	40.48	40.28	39.97	39.13

Annual Max Momentary Gage Height 44.23 m. (MSL.) , at 06.00 Hours , on Aug 27 , 2018

Zero Gage at Bottom Elevation 38.43 m. (MSL.) , River Bed 33.45 m. (MSL.)

Left Bank Elevation 49.16 m. (MSL.) ,

Right Bank Elevation 48.25 m. (MSL.) , Drainage Are 19,360 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	203.10	277.00	298.00	203.10	259.80	431.00	93.20	136.80	208.50	217.50	259.80	152.00		
2	196.80	308.00	291.00	186.90	302.00	386.00	209.40	126.40	207.60	222.00	241.80	152.80		
3	196.80	259.80	250.80	157.60	287.00	355.00	215.70	137.60	204.90	195.90	239.10	156.00		
4	186.00	260.70	224.70	155.20	382.00	279.00	200.40	132.00	210.30	214.80	286.00	167.20		
5	184.20	239.10	180.60	140.00	368.00	243.60	168.00	132.80	180.60	178.80	219.30	133.60		
6	175.20	228.30	160.80	123.20	376.00	271.00	140.80	139.20	114.40	213.90	232.80	148.80		
7	175.20	239.10	139.20	114.40	372.00	251.70	121.60	140.00	178.80	177.00	193.20	152.80		
8	193.20	172.50	135.20	103.20	365.00	234.60	93.90	138.40	222.90	175.20	191.40	152.00		
9	194.10	149.60	128.00	96.80	374.00	197.70	112.00	140.80	223.80	178.80	185.10	152.80		
10	177.00	143.20	144.00	108.00	375.00	184.20	121.60	137.60	242.70	201.30	182.40	158.40		
11	177.90	141.60	165.60	131.20	409.00	197.70	79.90	145.60	240.90	201.30	190.50	171.60		
12	172.50	109.60	196.80	133.60	372.00	157.60	84.80	179.70	231.00	203.10	227.40	177.00		
13	173.40	114.40	228.30	138.40	409.00	145.60	80.60	204.90	222.90	179.70	169.80	195.90		
14	177.00	128.80	243.60	140.00	357.00	144.80	87.60	215.70	213.00	184.20	181.50	186.00		
15	190.50	132.00	239.10	130.40	335.00	154.40	83.40	224.70	215.70	198.60	184.20	194.10		
16	192.30	172.50	249.00	152.00	315.00	153.60	93.20	203.10	209.40	212.10	183.30	190.50		
17	172.50	194.10	222.90	176.10	283.00	136.00	92.50	206.70	222.00	204.90	189.60	204.90		
18	242.70	208.50	222.00	180.60	245.40	124.80	92.50	201.30	212.10	211.20	198.60	204.90		
19	298.00	233.70	170.70	222.00	221.10	95.30	86.90	224.70	214.80	228.30	195.00	199.50		
20	281.00	276.00	155.20	272.00	237.30	140.00	116.00	233.70	229.20	207.60	158.40	152.80		
21	251.70	264.30	177.90	272.00	325.00	115.20	91.10	241.80	223.80	213.00	175.20	171.60		
22	252.60	249.90	197.70	230.10	386.00	148.00	116.80	236.40	199.50	210.30	177.00	172.50		
23	261.60	253.50	199.50	189.60	471.30	136.00	121.60	234.60	218.40	192.30	160.00	177.00		
24	235.50	212.10	208.50	216.60	448.00	124.00	124.00	231.90	220.20	182.40	164.00	170.70		
25	231.90	230.10	209.40	222.00	460.30	73.20	140.80	234.60	190.50	186.90	170.70	182.40		
26	231.90	242.70	227.40	193.20	495.50	82.00	136.80	209.40	184.20	199.50	165.60	182.40		
27	222.00	260.70	241.80	180.60	517.50	105.60	131.20	210.30	225.60	203.10	175.20	164.80		
28	233.70	251.70	244.50	192.30	460.30	79.90	136.00	214.80	210.30	236.40	168.00	162.40		
29	268.00	267.00	282.00	180.60	479.00	70.80	139.20	228.30	225.60	243.60		164.80		
30	291.00	287.00	249.00	166.40	452.00	96.00	140.80	241.80	206.70	247.20		177.90		
31		273.00		234.60	455.00		142.40		233.70	258.00		167.20		
Total	6439.30	6780.50	6283.20	5342.70	11594.50	5314.30	3794.70	5685.60	6544.00	6378.90	5464.90	5297.30	74919.90	CMSDAY
Mean	214.64	218.73	209.44	172.35	374.02	177.14	122.41	189.52	211.10	205.77	195.17	170.88	205.26	CMS
Max	298.00	308.00	298.00	272.00	517.50	431.00	215.70	241.80	242.70	258.00	286.00	204.90	517.50	CMS
Min	172.50	109.60	128.00	96.80	221.10	70.80	79.90	126.40	114.40	175.20	158.40	133.60	70.80	CMS
Runoff	556.36	585.84	542.87	461.61	1001.76	459.16	327.86	491.24	565.40	551.14	472.17	457.69	6473.08	MCM

Momentary Peak 548.30 CMS. at 44.23 m. (MSL.) at 06.00 Hours , on Aug 27 , 2018

Runoff Yield 10.60 Liters/Second/Square KM. Momentary Peak Yield 28.32 Liters/Second/Square KM.

WATER YEAR : 2018

NAN RIVER BASIN

Khwae Noi River at Ban Nong Krathao , Phitsanulok (N.36)

Lat 17 - 04 - 59 N Long 100 - 49 - 44 E

Location : on left bank about 50 meters upstream from the bridge along Lom Sak - Nakhon Thai Road, Tambon Nong Krathao.

Ban Nong Krathao **Amphoe** Nakhon Thai **Changwat** Phitsanulok

Drainge Area	1,710 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+191.880 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank along the measuring line. **Elevation** +202.438 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic mean of 5 readings
Period of Available Gage Records	1967 to date
Rating Operation	
Period of Rating	1971 - 1979 , 1993 to date
Rated by Flot	-
Rated by Current Meter	1971 - 1979 , 1993 to date
Stability of Channel Regimes	Stable because of backwater effect.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Stage-discharge relation defined by 23 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

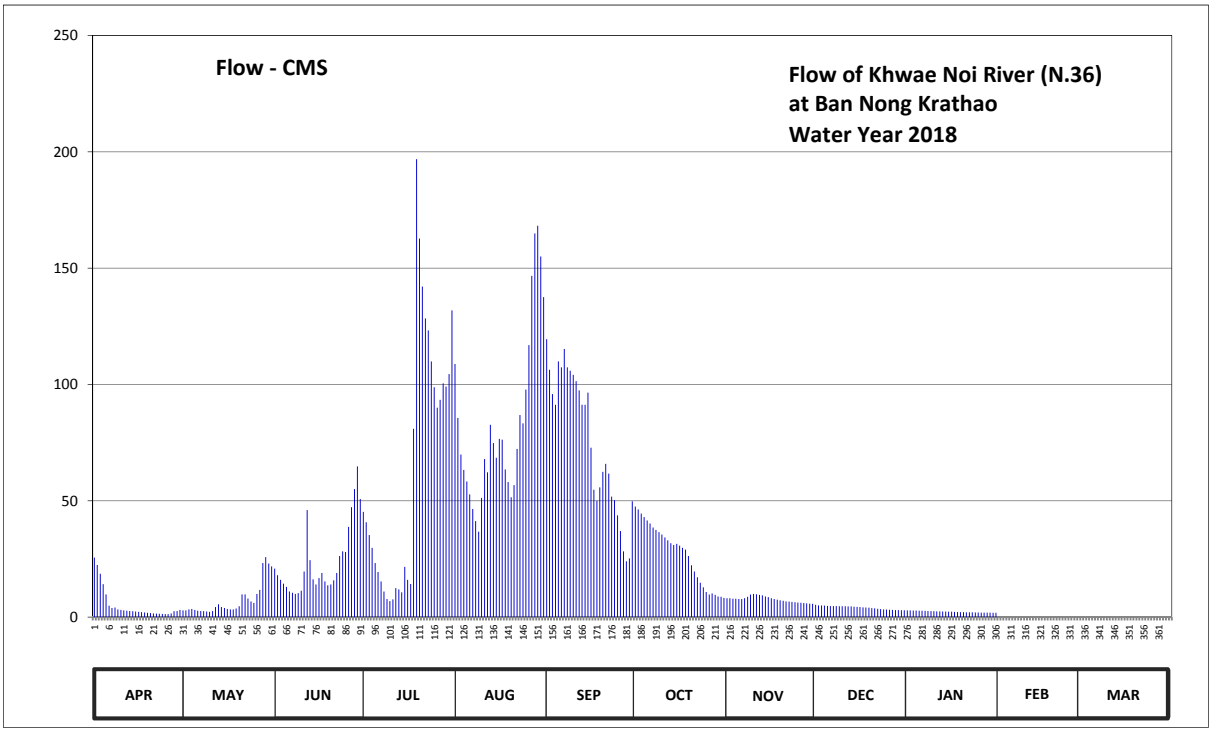
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	194.63	194.20	194.94	195.93	198.15	198.41	196.02	194.23	194.01	193.73	193.57	194.15	
2	194.58	194.20	194.80	195.75	197.44	198.08	195.97	194.23	193.98	193.73	193.58	194.15	
3	194.52	194.22	194.69	195.53	196.89	197.77	195.90	194.22	193.98	193.72	193.63	194.14	
4	194.45	194.23	194.60	195.31	196.64	197.62	195.84	194.22	193.97	193.72	193.67	194.14	
5	194.38	194.21	194.52	195.05	196.45	198.18	195.78	194.21	193.96	193.71	193.73	194.14	
6	194.30	194.19	194.41	194.87	196.23	198.11	195.73	194.21	193.95	193.71	193.81	194.14	
7	194.25	194.18	194.38	194.65	195.98	198.31	195.66	194.23	193.95	193.70	193.89	194.13	
8	194.26	194.17	194.35	194.41	195.77	198.11	195.62	194.27	193.95	193.69	193.93	194.13	
9	194.22	194.16	194.37	194.21	195.59	198.07	195.58	194.33	193.94	193.69	193.93	194.13	
10	194.21	194.15	194.43	194.14	196.17	198.02	195.54	194.35	193.94	193.68	193.92	194.12	
11	194.20	194.18	194.88	194.20	196.82	197.94	195.49	194.34	193.94	193.67	193.92	194.12	
12	194.19	194.27	195.96	194.49	196.60	197.82	195.44	194.32	193.93	193.67	193.91	194.12	
13	194.18	194.31	195.10	194.46	197.34	197.62	195.39	194.31	193.93	193.66	193.91	194.12	
14	194.17	194.27	194.70	194.39	197.07	197.62	195.36	194.28	193.92	193.66	193.90	194.11	
15	194.16	194.25	194.58	194.98	196.84	197.79	195.38	194.26	193.91	193.65	193.90	194.11	
16	194.15	194.23	194.73	194.69	197.13	197.00	195.35	194.23	193.90	193.65	193.93	194.11	
17	194.14	194.22	194.85	194.59	197.12	196.31	195.31	194.21	193.89	193.64	193.96	194.10	
18	194.13	194.22	194.65	197.28	196.65	196.12	195.28	194.19	193.88	193.63	193.99	194.10	
19	194.12	194.24	194.56	199.29	196.44	196.35	195.17	194.17	193.87	193.62	194.02	194.10	
20	194.11	194.29	194.58	199.07	196.18	196.61	195.01	194.15	193.85	193.62	194.05	194.10	
21	194.10	194.38	194.68	198.83	196.39	196.74	194.88	194.13	193.84	193.61	194.07	194.09	
22	194.09	194.38	194.85	198.60	196.98	196.58	194.75	194.12	193.82	193.61	194.10	194.09	
23	194.08	194.35	195.17	198.49	197.48	196.19	194.62	194.11	193.80	193.61	194.12	194.10	
24	194.07	194.33	195.25	198.18	197.36	196.13	194.51	194.10	193.79	193.60	194.13	194.10	
25	194.06	194.32	195.24	197.86	197.83	195.87	194.40	194.09	193.78	193.60	194.14	194.11	
26	194.06	194.35	195.67	197.58	198.35	195.60	194.33	194.08	193.77	193.59	194.14	194.12	
27	194.10	194.45	196.01	197.69	198.89	195.25	194.36	194.07	193.76	193.59	194.15	194.12	
28	194.17	195.05	196.32	197.91	199.09	195.08	194.32	194.06	193.75	193.58	194.15	194.13	
29	194.18	195.15	196.70	197.87	199.12	195.13	194.28	194.05	193.75	193.58		194.13	
30	194.21	195.04	196.15	198.03	199.00	196.11	194.27	194.04	193.74	193.57		194.14	
31		194.99		198.66	198.76		194.24		193.74	193.57		194.14	
Mean	194.22	194.36	195.00	196.35	197.19	197.02	195.15	194.19	193.88	193.65	193.93	194.12	
Max	194.63	195.15	196.70	199.29	199.12	198.41	196.02	194.35	194.01	193.73	194.15	194.15	199.29
Min	194.06	194.15	194.35	194.14	195.59	195.08	194.24	194.04	193.74	193.57	193.57	194.09	193.57

Annual Max Momentary Gage Height 199.31 m. (MSL.) , at 12.00 Hours , on Jul 19 , 2018

Zero Gage at Bottom Elevation 191.88 m. (MSL.) , River Bed 189.05 m. (MSL.)

Left Bank Elevation 199.39 m. (MSL.) ,

Right Bank Elevation 200.05 m. (MSL.) , Drainage Are 1,710 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	25.57	2.90	20.80	45.25	108.80	119.47	47.50	8.08	5.32	2.91	0.00	0.00		
2	22.40	2.90	18.00	40.75	85.64	106.28	46.25	8.08	5.02	2.91	0.00	0.00		
3	18.60	3.30	16.02	35.25	69.83	95.87	44.50	7.92	5.02	2.84	0.00	0.00		
4	14.17	3.50	14.40	29.75	63.24	91.22	43.00	7.92	4.93	2.84	0.00	0.00		
5	9.78	3.10	12.96	23.25	58.30	109.88	41.50	7.76	4.84	2.77	0.00	0.00		
6	4.90	2.77	10.98	19.40	52.75	107.36	40.25	7.76	4.75	2.77	0.00	0.00		
7	3.90	2.64	10.48	15.30	46.50	115.22	38.50	8.08	4.75	2.70	0.00	0.00		
8	4.10	2.51	10.00	10.98	41.25	107.36	37.50	8.72	4.75	2.63	0.00	0.00		
9	3.30	2.38	10.32	7.76	36.75	105.92	36.50	9.68	4.66	2.63	0.00	0.00		
10	3.10	2.25	11.34	6.88	51.25	104.12	35.50	10.00	4.66	2.56	0.00	0.00		
11	2.90	2.64	19.60	7.60	67.94	101.42	34.25	9.84	4.66	2.49	0.00	0.00		
12	2.77	4.30	46.00	12.42	62.20	97.46	33.00	9.52	4.57	2.49	0.00	0.00		
13	2.64	5.51	24.50	11.88	82.66	91.22	31.75	9.36	4.57	2.42	0.00	0.00		
14	2.51	4.30	16.20	10.64	74.83	91.22	31.00	8.88	4.48	2.42	0.00	0.00		
15	2.38	3.90	14.04	21.60	68.48	96.49	31.50	8.56	4.39	2.35	0.00	0.00		
16	2.25	3.50	16.74	16.02	76.57	72.80	30.75	8.08	4.30	2.35	0.00	0.00		
17	2.12	3.30	19.00	14.22	76.28	54.75	29.75	7.76	4.21	2.28	0.00	0.00		
18	1.99	3.30	15.30	80.92	63.50	50.00	29.00	7.48	4.12	2.21	0.00	0.00		
19	1.86	3.70	13.68	196.80	58.04	55.75	26.25	7.24	4.03	2.14	0.00	0.00		
20	1.73	4.70	14.04	162.70	51.50	62.46	22.25	7.00	3.85	2.14	0.00	0.00		
21	1.60	9.78	15.84	142.08	56.75	65.84	19.60	6.76	3.76	2.07	0.00	0.00		
22	1.53	9.78	19.00	128.40	72.26	61.68	17.10	6.64	3.58	2.07	0.00	0.00		
23	1.46	7.95	26.25	123.23	86.88	51.75	14.76	6.52	3.40	2.07	0.00	0.00		
24	1.39	6.73	28.25	109.88	83.24	50.25	12.78	6.40	3.33	2.00	0.00	0.00		
25	1.32	6.12	28.00	98.78	97.79	43.75	10.80	6.28	3.26	2.00	0.00	0.00		
26	1.32	10.00	38.75	89.98	116.90	37.00	9.68	6.16	3.19	1.95	0.00	0.00		
27	1.60	11.70	47.25	93.39	146.64	28.25	10.16	6.04	3.12	1.95	0.00	0.00		
28	2.51	23.25	55.00	100.43	164.90	24.00	9.52	5.92	3.05	1.90	0.00	0.00		
29	2.64	25.75	64.80	99.11	168.20	25.25	8.88	5.80	3.05	1.90		0.00		
30	3.10	23.00	50.75	104.48	155.00	49.75	8.72	5.68	2.98	1.85		0.00		
31		21.80		131.82	137.52		8.24		2.98	1.85		0.00		
Total	151.44	223.26	708.29	1990.95	2582.39	2273.79	840.74	229.92	127.58	72.46	0.00	0.00	9200.82	CMSDAY
Mean	5.05	7.20	23.61	64.22	83.30	75.79	27.12	7.66	4.12	2.34	0.00	0.00	25.21	CMS
Max	25.57	25.75	64.80	196.80	168.20	119.47	47.50	10.00	5.32	2.91	0.00	0.00	196.80	CMS
Min	1.32	2.25	10.00	6.88	36.75	24.00	8.24	5.68	2.98	1.85	0.00	0.00	0.00	CMS
Runoff	13.08	19.29	61.20	172.02	223.12	196.46	72.64	19.87	11.02	6.26	0.00	0.00	794.95	MCM

Momentary Peak 201.20 CMS. at 199.31 m. (MSL.) at 12.00 Hours , on Jul 19 , 2018

Runoff Yield 14.74 Liters/Second/Square KM. Momentary Peak Yield 117.66 Liters/Second/Square KM.

WATER YEAR : 2018

NAN RIVER BASIN

Nan River at Ban Thap Krit , Nakhon Sawan (N.37)

Lat 15 - 45 - 20 N Long 100 - 15 - 29 E

Location : on right bank at Ban Thap Krit.

	Ban Thap Krit	**Amphoe** Chum Saeng	**Changwat** Nakhon Sawan
Drainge Area	57,613 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank in front of automatic gage building.		**Elevation** +27.246 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	1971 to date		
Rating Operation			
Period of Rating	1971 to date		
Rated by Flot	-		
Rated by Current Meter	1971 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow		
General Description	Records good. Stage-discharge relation defined by 25 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

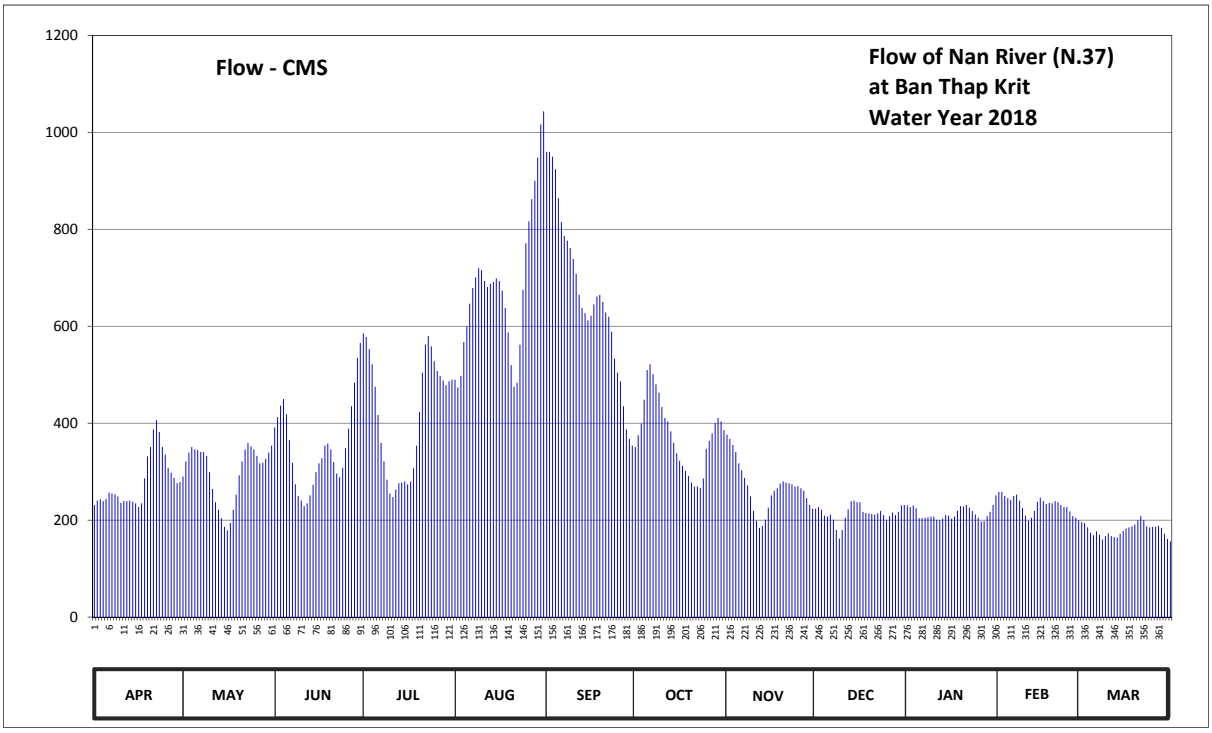
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	19.04	19.53	20.29	21.48	20.93	23.45	20.00	20.18	18.97	19.03	19.27	18.71	
2	19.12	19.77	20.43	21.44	20.83	23.45	20.17	20.12	19.00	19.00	19.27	18.69	
3	19.14	19.91	20.59	21.30	20.98	23.40	20.34	20.03	18.95	19.03	19.20	18.60	
4	19.11	20.00	20.68	21.12	21.38	23.27	20.67	19.92	18.84	18.98	19.16	18.49	
5	19.15	19.96	20.47	20.84	21.56	22.97	21.05	19.74	18.82	18.79	19.13	18.44	
6	19.26	19.95	20.10	20.46	21.82	22.72	21.12	19.63	18.86	18.79	19.20	18.52	
7	19.24	19.92	19.75	20.06	22.00	22.57	21.00	19.51	18.76	18.80	19.22	18.45	
8	19.23	19.92	19.40	19.77	22.12	22.52	20.87	19.38	18.55	18.81	19.12	18.35	
9	19.19	19.86	19.20	19.48	22.22	22.44	20.76	19.19	18.37	18.82	18.98	18.42	
10	19.08	19.60	19.12	19.24	22.20	22.32	20.57	18.93	18.55	18.82	18.84	18.48	
11	19.11	19.32	19.02	19.18	22.08	22.16	20.42	18.74	18.80	18.76	18.74	18.42	
12	19.11	19.09	19.07	19.31	22.01	21.92	20.37	18.59	18.96	18.75	18.80	18.40	
13	19.12	18.95	19.21	19.42	22.05	21.77	20.23	18.63	19.11	18.78	18.93	18.39	
14	19.10	18.79	19.39	19.43	22.07	21.71	20.06	18.76	19.12	18.85	19.10	18.47	
15	19.07	18.61	19.60	19.45	22.11	21.63	19.90	18.99	19.09	18.84	19.17	18.53	
16	19.00	18.54	19.74	19.40	22.08	21.68	19.78	19.21	19.09	18.78	19.11	18.58	
17	19.07	18.69	19.82	19.45	21.97	21.81	19.70	19.29	18.91	18.82	19.06	18.60	
18	19.50	18.95	20.02	19.66	21.77	21.90	19.62	19.33	18.89	18.93	19.08	18.62	
19	19.85	19.22	20.05	20.02	21.49	21.92	19.54	19.41	18.88	19.02	19.07	18.66	
20	20.00	19.55	19.96	20.50	21.11	21.84	19.43	19.45	18.87	19.01	19.11	18.75	
21	20.26	19.77	19.76	21.02	20.84	21.72	19.36	19.43	18.86	19.04	19.09	18.83	
22	20.39	19.96	19.58	21.35	20.89	21.67	19.36	19.42	18.88	18.99	19.04	18.75	
23	20.22	20.06	19.52	21.45	21.35	21.50	19.34	19.40	18.93	18.93	19.00	18.62	
24	20.00	20.01	19.67	21.33	21.98	21.19	19.50	19.36	18.85	18.86	19.00	18.60	
25	19.88	19.96	19.98	21.16	22.49	21.02	19.97	19.37	18.76	18.80	18.92	18.61	
26	19.67	19.86	20.27	21.04	22.73	20.91	20.09	19.33	18.83	18.72	18.83	18.61	
27	19.59	19.74	20.58	20.98	22.96	20.58	20.20	19.29	18.90	18.73	18.80	18.63	
28	19.51	19.75	20.89	20.92	23.15	20.26	20.35	19.16	18.85	18.83	18.75	18.59	
29	19.42	19.81	21.20	20.86	23.39	20.12	20.42	19.04	18.91	18.91		18.47	
30	19.44	19.91	21.37	20.91	23.72	20.02	20.37	18.97	19.03	19.04		18.36	
31		20.02		20.93	23.85		20.25		19.04	19.21		18.31	
Mean	19.43	19.58	19.96	20.42	22.00	21.88	20.16	19.33	18.88	18.89	19.04	18.55	
Max	20.39	20.06	21.37	21.48	23.85	23.45	21.12	20.18	19.12	19.21	19.27	18.83	23.85
Min	19.00	18.54	19.02	19.18	20.83	20.02	19.34	18.59	18.37	18.72	18.74	18.31	18.31

Annual Max Momentary Gage Height 23.86 m. (MSL.) , at 18.00 Hours , on Aug 31 , 2018

Zero Gage at Bottom Elevation 0.00 m. (MSL.) , River Bed 12.97 m. (MSL.)

Left Bank Elevation 27.91 m. (MSL.) ,

Right Bank Elevation 27.95 m. (MSL.) , Drainage Are 57,613 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	231.40	289.90	391.60	585.40	489.80	960.00	351.00	376.20	223.70	230.30	258.40	196.00		
2	240.40	321.10	412.50	578.20	473.80	960.00	374.80	367.80	227.00	227.00	258.40	194.00		
3	242.80	339.30	436.50	553.00	497.80	950.00	399.00	355.20	221.50	230.30	250.00	185.00		
4	239.20	351.00	450.00	521.40	567.40	924.00	448.50	340.60	209.40	224.80	245.20	174.00		
5	244.00	345.80	418.50	475.40	599.80	864.00	509.50	317.20	207.20	204.00	241.60	169.00		
6	257.20	344.50	365.00	417.00	646.60	814.80	521.40	302.90	211.60	204.00	250.00	177.00		
7	254.80	340.60	318.50	359.40	679.00	786.30	501.00	287.30	201.00	205.00	252.40	170.00		
8	253.60	340.60	274.00	321.10	700.80	776.80	480.20	271.60	180.00	206.10	240.40	160.00		
9	248.80	332.80	250.00	283.60	719.80	761.60	462.60	248.80	162.00	207.20	224.80	167.00		
10	235.80	299.00	240.40	254.80	716.00	738.80	433.50	219.30	180.00	207.20	209.40	173.00		
11	239.20	264.40	229.20	247.60	693.40	708.40	411.00	199.00	205.00	201.00	199.00	167.00		
12	239.20	236.90	234.70	263.20	680.80	664.60	403.50	184.00	222.60	200.00	205.00	165.00		
13	240.40	221.50	251.20	276.40	688.00	637.60	383.20	188.00	239.20	203.00	219.30	164.00		
14	238.00	204.00	272.80	277.60	691.60	626.80	359.40	201.00	240.40	210.50	238.00	172.00		
15	234.70	186.00	299.00	280.00	698.90	612.40	338.00	225.90	236.90	209.40	246.40	178.00		
16	227.00	179.00	317.20	274.00	693.40	621.40	322.40	251.20	236.90	203.00	239.20	183.00		
17	234.70	194.00	327.60	280.00	673.60	644.80	312.00	260.80	217.10	207.20	233.60	185.00		
18	286.00	221.50	353.80	306.80	637.60	661.00	301.60	265.60	214.90	219.30	235.80	187.00		
19	331.50	252.40	358.00	353.80	587.20	664.60	291.20	275.20	213.80	229.20	234.70	191.00		
20	351.00	292.50	345.80	423.00	519.70	650.20	277.60	280.00	212.70	228.10	239.20	200.00		
21	387.40	321.10	319.80	504.40	475.40	628.60	269.20	277.60	211.60	231.40	236.90	208.30		
22	406.50	345.80	296.40	562.00	483.40	619.60	269.20	276.40	213.80	225.90	231.40	200.00		
23	381.80	359.40	288.60	580.00	562.00	589.00	266.80	274.00	219.30	219.30	227.00	187.00		
24	351.00	352.40	308.10	558.40	675.40	533.30	286.00	269.20	210.50	211.60	227.00	185.00		
25	335.40	345.80	348.40	528.20	771.10	504.40	347.10	270.40	201.00	205.00	218.20	186.00		
26	308.10	332.80	388.80	507.80	816.70	486.60	363.60	265.60	208.30	197.00	208.30	186.00		
27	297.70	317.20	435.00	497.80	862.00	435.00	379.00	260.80	216.00	198.00	205.00	188.00		
28	287.30	318.50	483.40	488.20	900.00	387.40	400.50	245.20	210.50	208.30	200.00	184.00		
29	276.40	326.30	535.00	478.60	948.00	367.80	411.00	231.40	217.10	217.10		172.00		
30	278.80	339.30	565.60	486.60	1016.20	353.80	403.50	223.70	230.30	231.40		161.00		
31		353.80		489.80	1043.50		386.00		231.40	251.20		156.00		
Total	8380.10	9269.20	10515.40	13013.50	21208.70	19933.60	11663.30	8011.90	6632.70	6652.80	6474.60	5570.30	127326.10	CMSDAY
Mean	279.34	299.01	350.51	419.79	684.15	664.45	376.24	267.06	213.96	214.61	231.24	179.69	348.84	CMS
Max	406.50	359.40	565.60	585.40	1043.50	960.00	521.40	376.20	240.40	251.20	258.40	208.30	1043.50	CMS
Min	227.00	179.00	229.20	247.60	473.80	353.80	266.80	184.00	162.00	197.00	199.00	156.00	156.00	CMS
Runoff	724.04	800.86	908.53	1124.37	1832.43	1722.26	1007.71	692.23	573.07	574.80	559.41	481.27	11000.98	MCM

Momentary Peak 1045.60 CMS. at 23.86 m. (MSL.) at 18.00 Hours , on Aug 31 , 2018

Runoff Yield 6.05 Liters/Second/Square KM. Momentary Peak Yield 18.15 Liters/Second/Square KM.

WATER YEAR : 2018

NAN RIVER BASIN

Khlong Chom Phu at Ban Chom Phu , Phitsanulok (N.43A)

Lat 16 - 41 - 40 N Long 100 - 39 - 28 E

Location : on right bank at Ban Chom Phu.

	Ban Chom Phu	**Amphoe** Noen Maprang	**Changwat** Phitsanulok
Drainge Area	434 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+50.056 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	Near the gage site.		**Elevation** +63.086 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic mean of 5 readings		
Period of Available Gage Records	2010 to date		
Rating Operation			
Period of Rating	2010 to date		
Rated by Flot	-		
Rated by Current Meter	2010 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 19 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

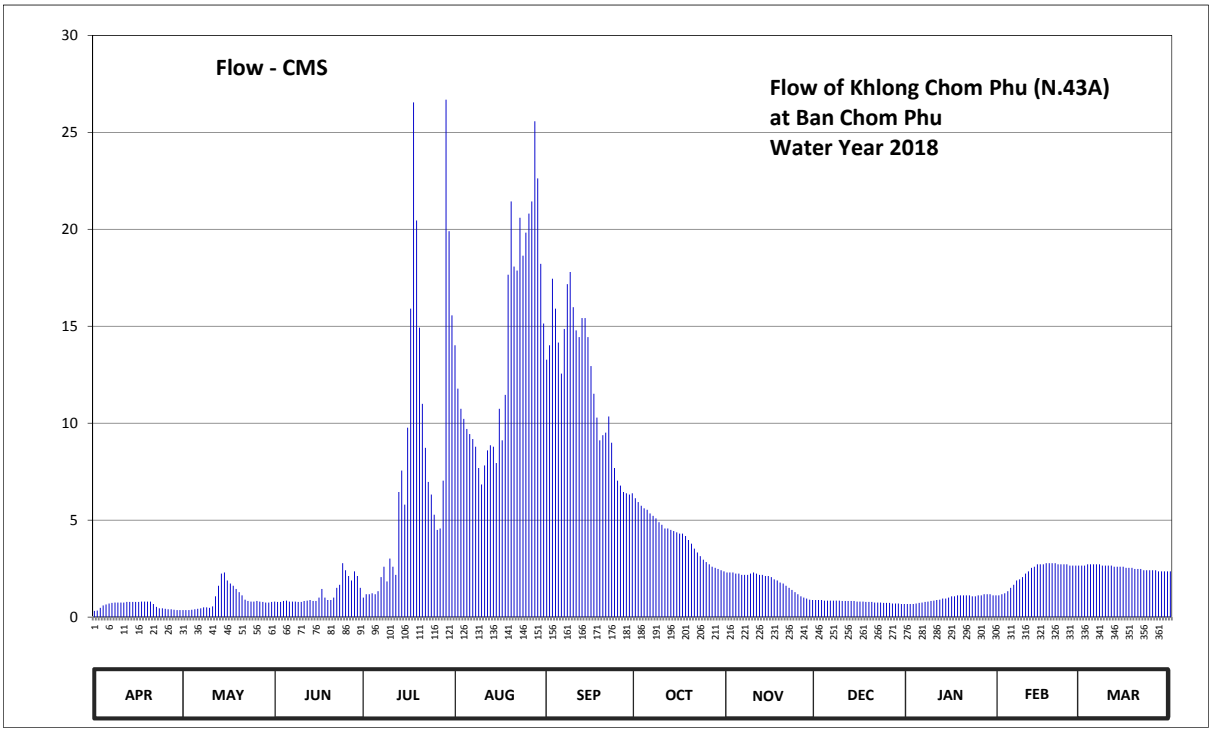
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	51.66	51.68	51.86	51.92	53.96	53.85	52.75	52.15	51.89	51.81	51.94	52.21	
2	51.67	51.68	51.85	51.95	53.62	53.96	52.72	52.15	51.89	51.81	51.95	52.21	
3	51.73	51.68	51.85	51.95	53.46	54.45	52.69	52.15	51.89	51.81	51.96	52.22	
4	51.78	51.69	51.87	51.96	53.38	54.23	52.67	52.14	51.88	51.82	51.98	52.22	
5	51.80	51.70	51.88	51.95	53.30	53.98	52.66	52.14	51.88	51.83	52.01	52.22	
6	51.82	51.71	51.86	51.98	53.26	53.74	52.63	52.13	51.88	51.84	52.04	52.22	
7	51.83	51.72	51.86	52.11	53.22	54.08	52.61	52.13	51.88	51.85	52.08	52.22	
8	51.84	51.74	51.86	52.20	53.16	54.41	52.59	52.13	51.88	51.86	52.09	52.21	
9	51.84	51.74	51.85	52.07	52.99	54.50	52.56	52.14	51.88	51.87	52.11	52.21	
10	51.84	51.73	51.85	52.27	52.86	54.24	52.54	52.15	51.87	51.88	52.14	52.21	
11	51.84	51.76	51.87	52.20	53.01	54.07	52.51	52.14	51.87	51.89	52.16	52.21	
12	51.85	51.93	51.88	52.13	53.13	54.02	52.51	52.13	51.87	51.90	52.19	52.20	
13	51.85	52.03	51.89	52.80	53.17	54.16	52.50	52.13	51.87	51.91	52.20	52.20	
14	51.85	52.14	51.87	52.97	53.16	54.16	52.49	52.12	51.87	51.91	52.22	52.20	
15	51.85	52.15	51.87	52.70	53.03	54.02	52.48	52.12	51.86	51.92	52.22	52.20	
16	51.85	52.08	51.92	53.31	53.46	53.80	52.47	52.11	51.86	51.93	52.22	52.19	
17	51.86	52.05	52.00	54.23	53.21	53.58	52.47	52.09	51.86	51.93	52.23	52.19	
18	51.86	52.03	51.92	55.75	53.57	53.39	52.45	52.08	51.85	51.94	52.23	52.19	
19	51.86	52.00	51.89	54.88	54.48	53.21	52.42	52.06	51.85	51.94	52.23	52.18	
20	51.86	51.97	51.89	54.09	55.02	53.25	52.39	52.05	51.85	51.94	52.23	52.18	
21	51.81	51.94	51.92	53.50	54.54	53.27	52.35	52.03	51.84	51.94	52.22	52.18	
22	51.75	51.90	52.01	53.15	54.51	53.40	52.32	52.01	51.84	51.94	52.22	52.17	
23	51.72	51.87	52.04	52.88	54.90	53.19	52.29	51.99	51.84	51.93	52.22	52.17	
24	51.72	51.86	52.23	52.78	54.62	52.99	52.26	51.97	51.83	51.93	52.22	52.17	
25	51.71	51.86	52.17	52.62	54.79	52.89	52.24	51.95	51.83	51.94	52.21	52.17	
26	51.70	51.87	52.12	52.50	54.93	52.85	52.22	51.93	51.83	51.94	52.21	52.17	
27	51.70	51.86	52.08	52.51	55.02	52.80	52.20	51.92	51.82	51.95	52.21	52.16	
28	51.69	51.85	52.16	52.89	55.61	52.79	52.19	51.91	51.82	51.95	52.21	52.16	
29	51.68	51.84	52.12	55.77	55.19	52.78	52.18	51.90	51.82	51.95		52.16	
30	51.68	51.84	52.01	54.80	54.56	52.79	52.17	51.89	51.81	51.94		52.16	
31		51.85		54.18	54.12		52.16		51.81	51.94		52.16	
Mean	51.78	51.86	51.95	53.00	53.91	53.63	52.44	52.06	51.86	51.90	52.15	52.19	
Max	51.86	52.15	52.23	55.77	55.61	54.50	52.75	52.15	51.89	51.95	52.23	52.22	55.77
Min	51.66	51.68	51.85	51.92	52.86	52.78	52.16	51.89	51.81	51.81	51.94	52.16	51.66

Annual Max Momentary Gage Height 55.96 m. (MSL.) , at 06.00 Hours , on Jul 18 , 2018

Zero Gage at Bottom Elevation 50.06 m. (MSL.) , River Bed 50.25 m. (MSL.)

Left Bank Elevation 61.75 m. (MSL.) ,

Right Bank Elevation 61.55 m. (MSL.) , Drainage Are 434 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.32	0.36	0.80	1.01	14.02	13.28	6.13	2.30	0.88	0.68	1.12	2.66		
2	0.34	0.36	0.78	1.18	11.78	14.02	5.93	2.30	0.88	0.68	1.18	2.66		
3	0.48	0.36	0.78	1.18	10.74	17.45	5.74	2.30	0.88	0.68	1.23	2.72		
4	0.60	0.38	0.83	1.23	10.22	15.91	5.61	2.24	0.85	0.70	1.34	2.72		
5	0.65	0.40	0.85	1.18	9.70	14.16	5.54	2.24	0.85	0.73	1.51	2.72		
6	0.70	0.43	0.80	1.34	9.44	12.56	5.35	2.18	0.85	0.75	1.67	2.72		
7	0.73	0.45	0.80	2.06	9.18	14.86	5.22	2.18	0.85	0.78	1.89	2.72		
8	0.75	0.50	0.80	2.60	8.79	17.17	5.09	2.18	0.85	0.80	1.95	2.66		
9	0.75	0.50	0.78	1.84	7.69	17.80	4.89	2.24	0.85	0.83	2.06	2.66		
10	0.75	0.48	0.78	3.02	6.84	15.98	4.76	2.30	0.83	0.85	2.24	2.66		
11	0.75	0.55	0.83	2.60	7.82	14.79	4.57	2.24	0.83	0.88	2.36	2.66		
12	0.78	1.07	0.85	2.18	8.60	14.44	4.57	2.18	0.83	0.90	2.54	2.60		
13	0.78	1.62	0.88	6.45	8.86	15.42	4.50	2.18	0.83	0.96	2.60	2.60		
14	0.78	2.24	0.83	7.56	8.79	15.42	4.44	2.12	0.83	0.96	2.72	2.60		
15	0.78	2.30	0.83	5.80	7.95	14.44	4.37	2.12	0.80	1.01	2.72	2.60		
16	0.78	1.89	1.01	9.77	10.74	12.95	4.31	2.06	0.80	1.07	2.72	2.54		
17	0.80	1.73	1.45	15.91	9.12	11.52	4.31	1.95	0.80	1.07	2.78	2.54		
18	0.80	1.62	1.01	26.55	11.46	10.29	4.18	1.89	0.78	1.12	2.78	2.54		
19	0.80	1.45	0.88	20.46	17.66	9.12	3.98	1.78	0.78	1.12	2.78	2.48		
20	0.80	1.29	0.88	14.93	21.44	9.38	3.79	1.73	0.78	1.12	2.78	2.48		
21	0.68	1.12	1.01	11.00	18.08	9.51	3.53	1.62	0.75	1.12	2.72	2.48		
22	0.53	0.90	1.51	8.73	17.87	10.35	3.33	1.51	0.75	1.12	2.72	2.42		
23	0.45	0.83	1.67	6.97	20.60	8.99	3.14	1.40	0.75	1.07	2.72	2.42		
24	0.45	0.80	2.78	6.32	18.64	7.69	2.96	1.29	0.73	1.07	2.72	2.42		
25	0.43	0.80	2.42	5.28	19.83	7.04	2.84	1.18	0.73	1.12	2.66	2.42		
26	0.40	0.83	2.12	4.50	20.81	6.78	2.72	1.07	0.73	1.12	2.66	2.42		
27	0.40	0.80	1.89	4.57	21.44	6.45	2.60	1.01	0.70	1.18	2.66	2.36		
28	0.38	0.78	2.36	7.04	25.57	6.39	2.54	0.96	0.70	1.18	2.66	2.36		
29	0.36	0.75	2.12	26.69	22.63	6.32	2.48	0.90	0.70	1.18		2.36		
30	0.36	0.75	1.51	19.90	18.22	6.39	2.42	0.88	0.68	1.12		2.36		
31		0.78		15.56	15.14		2.36		0.68	1.12		2.36		
Total	18.36	29.12	36.84	245.41	429.67	356.87	128.20	54.53	24.53	30.09	64.49	78.92	1497.03	CMSDAY
Mean	0.61	0.94	1.23	7.92	13.86	11.90	4.14	1.82	0.79	0.97	2.30	2.55	4.10	CMS
Max	0.80	2.30	2.78	26.69	25.57	17.80	6.13	2.30	0.88	1.18	2.78	2.72	26.69	CMS
Min	0.32	0.36	0.78	1.01	6.84	6.32	2.36	0.88	0.68	0.68	1.12	2.36	0.32	CMS
Runoff	1.59	2.52	3.18	21.20	37.12	30.83	11.08	4.71	2.12	2.60	5.57	6.82	129.34	MCM

Momentary Peak 28.02 CMS. at 55.96 m. (MSL.) at 06.00 Hours , on Jul 18 , 2018

Runoff Yield 9.45 Liters/Second/Square KM. Momentary Peak Yield 64.56 Liters/Second/Square KM.

WATER YEAR : 2018

NAN RIVER BASIN

Nam Yao at Ban Nam Yao , Nan (N.49)

Lat 18 - 59 - 33 N Long 100 - 56 - 36 E

Location : on right bank downstream of the bridge of Nam Yao, along Pua - Sila Phet Road.

	Ban Nam Yao	**Amphoe** Pua	**Changwat** Nan
Drainge Area	155 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+263.983 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank about 15 meters from the top staff gage.		**Elevation** +270.035 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	1979 to date		
Rating Operation			
Period of Rating	1979 to date		
Rated by Flot	-		
Rated by Current Meter	1979 to date		
Stability of Channel Regimes	Fairly stable because of backwater effect.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 31 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

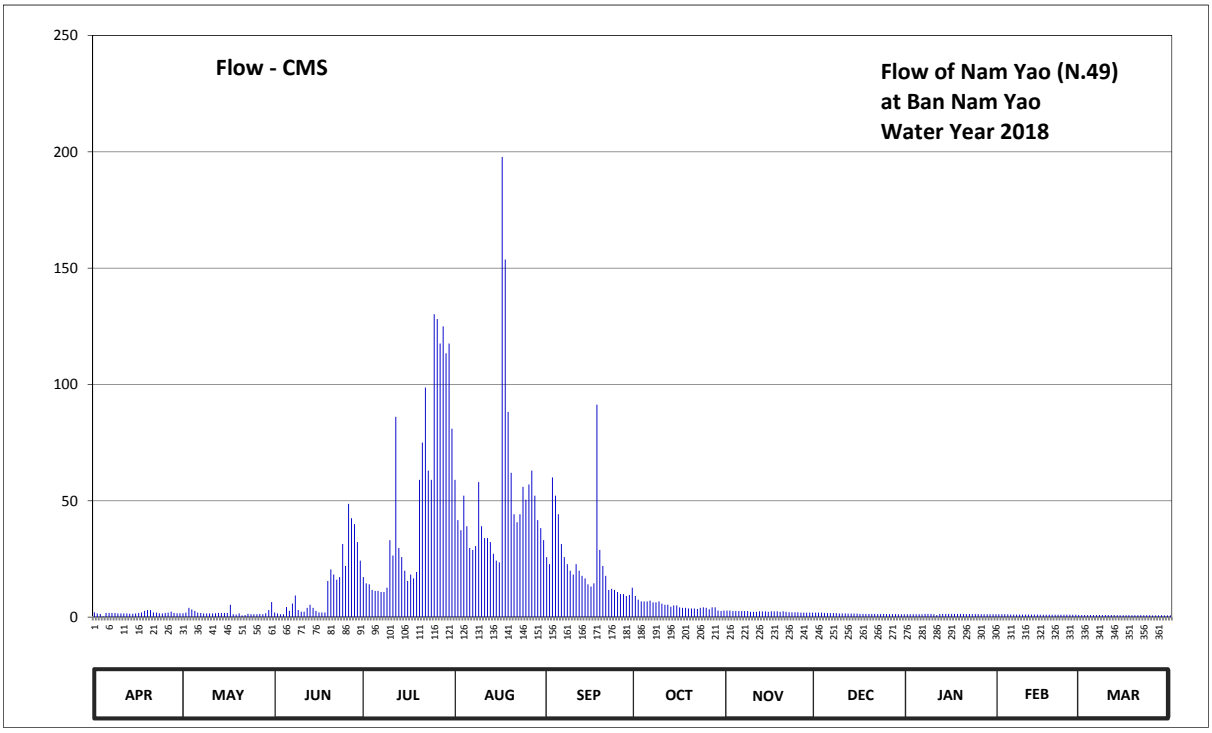
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	265.31	265.57	265.60	265.74	266.25	265.87	265.57	265.35	265.30	265.23	265.23	265.20	
2	265.27	265.59	265.56	265.69	266.06	265.83	265.53	265.35	265.30	265.23	265.23	265.20	
3	265.25	265.66	265.53	265.68	266.01	266.26	265.51	265.34	265.30	265.23	265.23	265.20	
4	265.33	265.64	265.53	265.63	266.18	266.18	265.51	265.34	265.29	265.23	265.23	265.20	
5	265.58	265.62	265.67	265.62	266.03	266.09	265.51	265.34	265.28	265.23	265.22	265.20	
6	265.58	265.59	265.62	265.62	265.92	265.94	265.52	265.34	265.28	265.23	265.22	265.20	
7	265.58	265.58	265.71	265.61	265.91	265.87	265.50	265.34	265.28	265.25	265.22	265.20	
8	265.58	265.56	265.77	265.61	265.93	265.83	265.50	265.34	265.28	265.25	265.22	265.20	
9	265.56	265.56	265.63	265.65	266.24	265.79	265.51	265.32	265.27	265.25	265.22	265.20	
10	265.56	265.56	265.61	265.96	266.03	265.76	265.48	265.32	265.27	265.23	265.22	265.20	
11	265.56	265.56	265.61	265.88	265.97	265.83	265.46	265.32	265.27	265.20	265.22	265.20	
12	265.56	265.57	265.66	266.52	265.97	265.79	265.46	265.33	265.26	265.25	265.22	265.20	
13	265.55	265.58	265.70	265.92	265.95	265.75	265.43	265.33	265.26	265.25	265.22	265.19	
14	265.55	265.58	265.66	265.87	265.89	265.73	265.45	265.33	265.26	265.25	265.22	265.19	
15	265.56	265.58	265.62	265.79	265.85	265.68	265.45	265.32	265.26	265.25	265.21	265.19	
16	265.58	265.58	265.60	265.71	265.84	265.66	265.42	265.33	265.25	265.25	265.21	265.19	
17	265.60	265.70	265.60	265.76	267.54	265.69	265.41	265.33	265.25	265.25	265.21	265.19	
18	265.62	265.53	265.60	265.73	267.16	266.57	265.41	265.33	265.25	265.25	265.21	265.19	
19	265.63	265.52	265.71	265.78	266.54	265.91	265.40	265.32	265.25	265.25	265.21	265.19	
20	265.63	265.56	265.80	266.25	266.28	265.82	265.40	265.33	265.25	265.24	265.21	265.19	
21	265.60	265.46	265.76	266.41	266.09	265.75	265.40	265.32	265.25	265.24	265.21	265.19	
22	265.59	265.49	265.72	266.64	266.05	265.63	265.39	265.31	265.24	265.24	265.21	265.19	
23	265.57	265.55	265.74	266.29	266.09	265.64	265.41	265.31	265.24	265.24	265.21	265.19	
24	265.56	265.53	265.94	266.25	266.22	265.63	265.42	265.31	265.25	265.24	265.21	265.19	
25	265.58	265.53	265.82	266.94	266.16	265.61	265.41	265.31	265.24	265.24	265.21	265.18	
26	265.59	265.53	266.14	266.92	266.23	265.59	265.38	265.30	265.24	265.23	265.21	265.18	
27	265.61	265.54	266.07	266.82	266.29	265.59	265.42	265.30	265.24	265.23	265.21	265.18	
28	265.58	265.53	266.04	266.89	266.18	265.57	265.42	265.30	265.24	265.23	265.20	265.19	
29	265.57	265.57	265.95	266.78	266.06	265.58	265.35	265.30	265.23	265.23		265.18	
30	265.57	265.63	265.85	266.82	266.02	265.65	265.34	265.30	265.23	265.23		265.18	
31		265.72		266.47	265.96		265.35		265.23	265.23		265.18	
Mean	265.54	265.57	265.73	266.10	266.16	265.80	265.44	265.32	265.26	265.24	265.22	265.19	
Max	265.63	265.72	266.14	266.94	267.54	266.57	265.57	265.35	265.30	265.25	265.23	265.20	267.54
Min	265.25	265.46	265.53	265.61	265.84	265.57	265.34	265.30	265.23	265.20	265.20	265.18	265.18

Annual Max Momentary Gage Height 268.58 m. (MSL.) , at 06.00 Hours , on Aug 17, 2018

Zero Gage at Bottom Elevation 263.98 m. (MSL.) , River Bed 264.47 m. (MSL.)

Left Bank Elevation 273.26 m. (MSL.) ,

Right Bank Elevation 275.24 m. (MSL.) , Drainage Are 155 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.08	1.67	2.00	17.20	59.00	25.75	9.10	2.80	1.90	1.20	1.20	0.90		
2	1.60	1.89	1.56	14.53	41.66	22.75	7.50	2.80	1.90	1.20	1.20	0.90		
3	1.40	3.98	1.23	14.06	37.36	60.00	6.70	2.62	1.90	1.20	1.20	0.90		
4	0.29	3.32	1.23	11.71	52.22	52.22	6.70	2.62	1.80	1.20	1.20	0.90		
5	1.78	2.66	4.31	11.24	39.08	44.24	6.70	2.62	1.70	1.20	1.10	0.90		
6	1.78	1.89	2.66	11.24	29.70	31.40	7.10	2.62	1.70	1.20	1.10	0.90		
7	1.78	1.78	5.87	10.77	28.85	25.75	6.30	2.62	1.70	1.40	1.10	0.90		
8	1.78	1.56	9.29	10.77	30.55	22.75	6.30	2.62	1.70	1.40	1.10	0.90		
9	1.56	1.56	2.99	12.65	58.00	19.95	6.70	2.26	1.60	1.40	1.10	0.90		
10	1.56	1.56	2.33	33.10	39.08	18.30	5.78	2.26	1.60	1.20	1.10	0.90		
11	1.56	1.56	2.33	26.50	33.95	22.75	5.26	2.26	1.60	0.90	1.10	0.90		
12	1.56	1.67	3.98	86.10	33.95	19.95	5.26	2.44	1.50	1.40	1.10	0.90		
13	1.45	1.78	5.30	29.70	32.25	17.75	4.48	2.44	1.50	1.40	1.10	0.81		
14	1.45	1.78	3.98	25.75	27.25	16.65	5.00	2.44	1.50	1.40	1.10	0.81		
15	1.56	1.78	2.66	19.95	24.25	14.06	5.00	2.26	1.50	1.40	1.00	0.81		
16	1.78	1.78	2.00	15.55	23.50	13.12	4.22	2.44	1.40	1.40	1.00	0.81		
17	2.00	5.30	2.00	18.30	197.80	14.53	3.96	2.44	1.40	1.40	1.00	0.81		
18	2.66	1.23	2.00	16.65	153.70	91.35	3.96	2.44	1.40	1.40	1.00	0.81		
19	2.99	1.12	15.55	19.40	88.20	28.85	3.70	2.26	1.40	1.40	1.00	0.81		
20	2.99	1.56	20.50	59.00	62.00	22.00	3.70	2.44	1.40	1.30	1.00	0.81		
21	2.00	0.74	18.30	75.00	44.24	17.75	3.70	2.26	1.40	1.30	1.00	0.81		
22	1.89	0.86	16.10	98.70	40.80	11.71	3.52	2.08	1.30	1.30	1.00	0.81		
23	1.67	1.45	17.20	63.00	44.24	12.18	3.96	2.08	1.30	1.30	1.00	0.81		
24	1.56	1.23	31.40	59.00	56.00	11.71	4.22	2.08	1.40	1.30	1.00	0.81		
25	1.78	1.23	22.00	130.20	50.44	10.77	3.96	2.08	1.30	1.30	1.00	0.72		
26	1.89	1.23	48.66	128.10	57.00	9.90	3.34	1.90	1.30	1.20	1.00	0.72		
27	2.33	1.34	42.52	117.60	63.00	9.90	4.22	1.90	1.30	1.20	1.00	0.72		
28	1.78	1.23	39.94	124.95	52.22	9.10	4.22	1.90	1.30	1.20	0.90	0.81		
29	1.67	1.67	32.25	113.40	41.66	9.50	2.80	1.90	1.20	1.20		0.72		
30	1.67	2.99	24.25	117.60	38.22	12.65	2.62	1.90	1.20	1.20		0.72		
31		6.44		81.00	33.10		2.80		1.20	1.20		0.72		
Total	53.85	61.84	386.39	1572.72	1613.27	699.29	152.78	69.78	46.30	39.70	29.70	25.65	4751.27	CMSDAY
Mean	1.80	1.99	12.88	50.73	52.04	23.31	4.93	2.33	1.49	1.28	1.06	0.83	13.02	CMS
Max	2.99	6.44	48.66	130.20	197.80	91.35	9.10	2.80	1.90	1.40	1.20	0.90	197.80	CMS
Min	0.29	0.74	1.23	10.77	23.50	9.10	2.62	1.90	1.20	0.90	0.90	0.72	0.29	CMS
Runoff	4.65	5.34	33.38	135.88	139.39	60.42	13.20	6.03	4.00	3.43	2.57	2.22	410.51	MCM

Momentary Peak 332.30 CMS. at 268.58 m. (MSL.) at 06.00 Hours , on Aug 17 , 2018

Runoff Yield 83.98 Liters/Second/Square KM. Momentary Peak Yield 2143.87 Liters/Second/Square KM.

WATER YEAR : 2018

NAN RIVER BASIN

Khlong Wang Pong at Ban Wang Pong , Phetchabun (N.54)

Lat 16 - 19 - 34 N Long 100 - 48 - 17 E

Location : on left bank at the bridge on road.

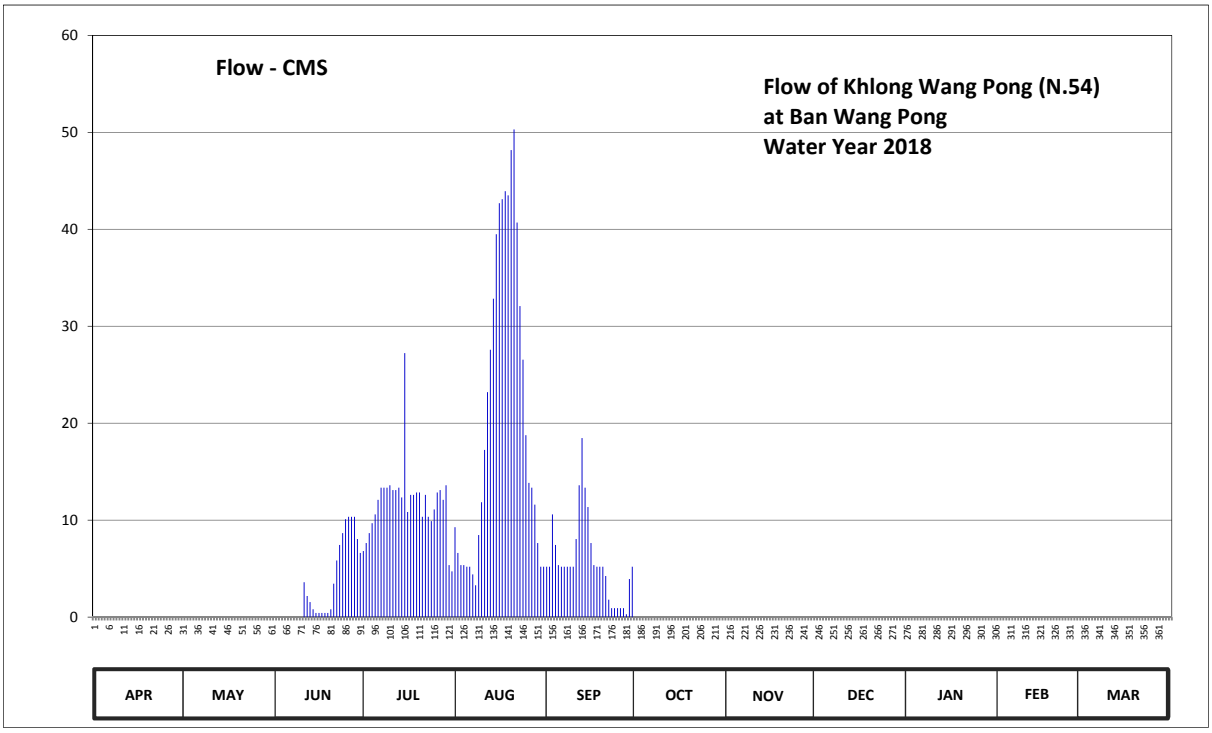
Ban Wang Pong **Amphoe** Chon Dan **Changwat** Phetchabun

Drainge Area	174 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+104.350 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank at the abutment of the bridge. **Elevation** +108.350 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic mean of 5 readings
Period of Available Gage Records	1999 to date
Rating Operation	
Period of Rating	1999 to date
Rated by Flot	-
Rated by Current Meter	1999 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Stage-discharge relation defined by 8 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	103.58	103.58	103.58	104.44	104.56	104.35	103.90	103.90	103.90	103.90	103.90	103.90	
2	103.58	103.58	103.58	104.48	104.43	104.35	103.90	103.90	103.90	103.90	103.90	103.90	
3	103.58	103.58	103.58	104.53	104.36	104.62	103.90	103.90	103.90	103.90	103.90	103.90	
4	103.58	103.58	103.58	104.58	104.36	104.47	103.90	103.90	103.90	103.90	103.90	103.90	
5	103.58	103.58	103.58	104.62	104.35	104.36	103.90	103.90	103.90	103.90	103.90	103.90	
6	103.58	103.58	103.58	104.68	104.35	104.35	103.90	103.90	103.90	103.90	103.90	103.90	
7	103.58	103.58	103.58	104.73	104.30	104.35	103.90	103.90	103.90	103.90	103.90	103.90	
8	103.58	103.58	103.58	104.73	104.23	104.35	103.90	103.90	103.90	103.90	103.90	103.90	
9	103.58	103.58	103.58	104.73	104.52	104.35	103.90	103.90	103.90	103.90	103.90	103.90	
10	103.58	103.58	103.58	104.74	104.67	104.35	103.90	103.90	103.90	103.90	103.90	103.90	
11	103.58	103.58	104.25	104.72	104.87	104.50	103.90	103.90	103.90	103.90	103.90	103.90	
12	103.58	103.58	104.15	104.72	105.06	104.74	103.90	103.90	103.90	103.90	103.90	103.90	
13	103.58	103.58	104.10	104.73	105.19	104.91	103.90	103.90	103.90	103.90	103.90	103.90	
14	103.58	103.58	104.04	104.69	105.33	104.73	103.90	103.90	103.90	103.90	103.90	103.90	
15	103.58	103.58	104.01	105.18	105.50	104.65	103.90	103.90	103.90	103.90	103.90	103.90	
16	103.58	103.58	104.01	104.63	105.58	104.48	103.90	103.90	103.90	103.90	103.90	103.90	
17	103.58	103.58	104.01	104.70	105.59	104.36	103.90	103.90	103.90	103.90	103.90	103.90	
18	103.58	103.58	104.01	104.70	105.61	104.35	103.90	103.90	103.90	103.90	103.90	103.90	
19	103.58	103.58	104.01	104.71	105.60	104.35	103.90	103.90	103.90	103.90	103.90	103.90	
20	103.58	103.58	104.04	104.71	105.71	104.35	103.90	103.90	103.90	103.90	103.90	103.90	
21	103.58	103.58	104.24	104.61	105.76	104.29	103.90	103.90	103.90	103.90	103.90	103.90	
22	103.58	103.58	104.39	104.70	105.53	104.12	103.90	103.90	103.90	103.90	103.90	103.90	
23	103.58	103.58	104.47	104.61	105.31	104.05	103.90	103.90	103.90	103.90	103.90	103.90	
24	103.58	103.58	104.53	104.59	105.16	104.05	103.90	103.90	103.90	103.90	103.90	103.90	
25	103.58	103.58	104.60	104.64	104.92	104.05	103.90	103.90	103.90	103.90	103.90	103.90	
26	103.58	103.58	104.61	104.71	104.75	104.05	103.90	103.90	103.90	103.90	103.90	103.90	
27	103.58	103.58	104.61	104.72	104.73	104.05	103.90	103.90	103.90	103.90	103.90	103.90	
28	103.58	103.58	104.61	104.68	104.66	104.00	103.90	103.90	103.90	103.90	103.90	103.90	
29	103.58	103.58	104.50	104.74	104.48	104.27	103.90	103.90	103.90	103.90		103.90	
30	103.58	103.58	104.43	104.36	104.35	104.35	103.90	103.90	103.90	103.90		103.90	
31		103.58		104.32	104.35		103.90		103.90	103.90		103.90	
Mean	103.58	103.58	104.05	104.66	104.91	104.35	103.90	103.90	103.90	103.90	103.90	103.90	
Max	103.58	103.58	104.61	105.18	105.76	104.91	103.90	103.90	103.90	103.90	103.90	103.90	105.76
Min	103.58	103.58	103.58	104.32	104.23	104.00	103.90	103.90	103.90	103.90	103.90	103.90	103.58

Annual Max Momentary Gage Height	106.05	m. (MSL.) ,	at 18.00 Hours , on Jul 15 , 2018		
Zero Gage at Bottom Elevation	104.35	m. (MSL.) ,	River Bed	103.38	m. (MSL.)
Left Bank Elevation	109.91	m. (MSL.) ,			
Right Bank Elevation	106.79	m. (MSL.) ,	Drainage Are	174	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	0.00	6.82	9.28	5.20	0.00	0.00	0.00	0.00	0.00	0.00		
2	0.00	0.00	0.00	7.64	6.62	5.20	0.00	0.00	0.00	0.00	0.00	0.00		
3	0.00	0.00	0.00	8.67	5.36	10.60	0.00	0.00	0.00	0.00	0.00	0.00		
4	0.00	0.00	0.00	9.69	5.36	7.44	0.00	0.00	0.00	0.00	0.00	0.00		
5	0.00	0.00	0.00	10.60	5.20	5.36	0.00	0.00	0.00	0.00	0.00	0.00		
6	0.00	0.00	0.00	12.10	5.20	5.20	0.00	0.00	0.00	0.00	0.00	0.00		
7	0.00	0.00	0.00	13.35	4.40	5.20	0.00	0.00	0.00	0.00	0.00	0.00		
8	0.00	0.00	0.00	13.35	3.28	5.20	0.00	0.00	0.00	0.00	0.00	0.00		
9	0.00	0.00	0.00	13.35	8.46	5.20	0.00	0.00	0.00	0.00	0.00	0.00		
10	0.00	0.00	0.00	13.60	11.85	5.20	0.00	0.00	0.00	0.00	0.00	0.00		
11	0.00	0.00	3.60	13.10	17.24	8.05	0.00	0.00	0.00	0.00	0.00	0.00		
12	0.00	0.00	2.18	13.10	23.21	13.60	0.00	0.00	0.00	0.00	0.00	0.00		
13	0.00	0.00	1.55	13.35	27.57	18.46	0.00	0.00	0.00	0.00	0.00	0.00		
14	0.00	0.00	0.80	12.35	32.84	13.35	0.00	0.00	0.00	0.00	0.00	0.00		
15	0.00	0.00	0.43	27.23	39.50	11.35	0.00	0.00	0.00	0.00	0.00	0.00		
16	0.00	0.00	0.43	10.85	42.70	7.64	0.00	0.00	0.00	0.00	0.00	0.00		
17	0.00	0.00	0.43	12.60	43.10	5.36	0.00	0.00	0.00	0.00	0.00	0.00		
18	0.00	0.00	0.43	12.60	43.93	5.20	0.00	0.00	0.00	0.00	0.00	0.00		
19	0.00	0.00	0.43	12.85	43.50	5.20	0.00	0.00	0.00	0.00	0.00	0.00		
20	0.00	0.00	0.80	12.85	48.18	5.20	0.00	0.00	0.00	0.00	0.00	0.00		
21	0.00	0.00	3.44	10.35	50.30	4.24	0.00	0.00	0.00	0.00	0.00	0.00		
22	0.00	0.00	5.84	12.60	40.70	1.80	0.00	0.00	0.00	0.00	0.00	0.00		
23	0.00	0.00	7.44	10.35	32.08	0.93	0.00	0.00	0.00	0.00	0.00	0.00		
24	0.00	0.00	8.67	9.90	26.56	0.93	0.00	0.00	0.00	0.00	0.00	0.00		
25	0.00	0.00	10.10	11.10	18.76	0.93	0.00	0.00	0.00	0.00	0.00	0.00		
26	0.00	0.00	10.35	12.85	13.85	0.93	0.00	0.00	0.00	0.00	0.00	0.00		
27	0.00	0.00	10.35	13.10	13.35	0.93	0.00	0.00	0.00	0.00	0.00	0.00		
28	0.00	0.00	10.35	12.10	11.60	0.30	0.00	0.00	0.00	0.00	0.00	0.00		
29	0.00	0.00	8.05	13.60	7.64	3.92	0.00	0.00	0.00	0.00		0.00		
30	0.00	0.00	6.62	5.36	5.20	5.20	0.00	0.00	0.00	0.00		0.00		
31		0.00		4.72	5.20		0.00		0.00	0.00		0.00		
Total	0.00	0.00	92.29	366.08	652.02	173.32	0.00	0.00	0.00	0.00	0.00	0.00	1283.71	CMSDAY
Mean	0.00	0.00	3.08	11.81	21.03	5.78	0.00	0.00	0.00	0.00	0.00	0.00	3.52	CMS
Max	0.00	0.00	10.35	27.23	50.30	18.46	0.00	0.00	0.00	0.00	0.00	0.00	50.30	CMS
Min	0.00	0.00	0.00	4.72	3.28	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	0.00	0.00	7.97	31.63	56.33	14.97	0.00	0.00	0.00	0.00	0.00	0.00	110.91	MCM

Momentary Peak 63.50 CMS. at 106.05 m. (MSL.) at 18.00 Hours , on Jul 15, 2018

Runoff Yield 20.21 Liters/Second/Square KM. Momentary Peak Yield 364.94 Liters/Second/Square KM.

WATER YEAR : 2018

NAN RIVER BASIN

Nam Phak at Ban Tha Sakae , Phitsanulok (N.55)

Lat 17 - 15 - 06 N Long 100 - 37 - 53 E

Location : on left bank at the bridge of Nakhon Thai - Chat Trakan Road , Tambon Pa Daeng.

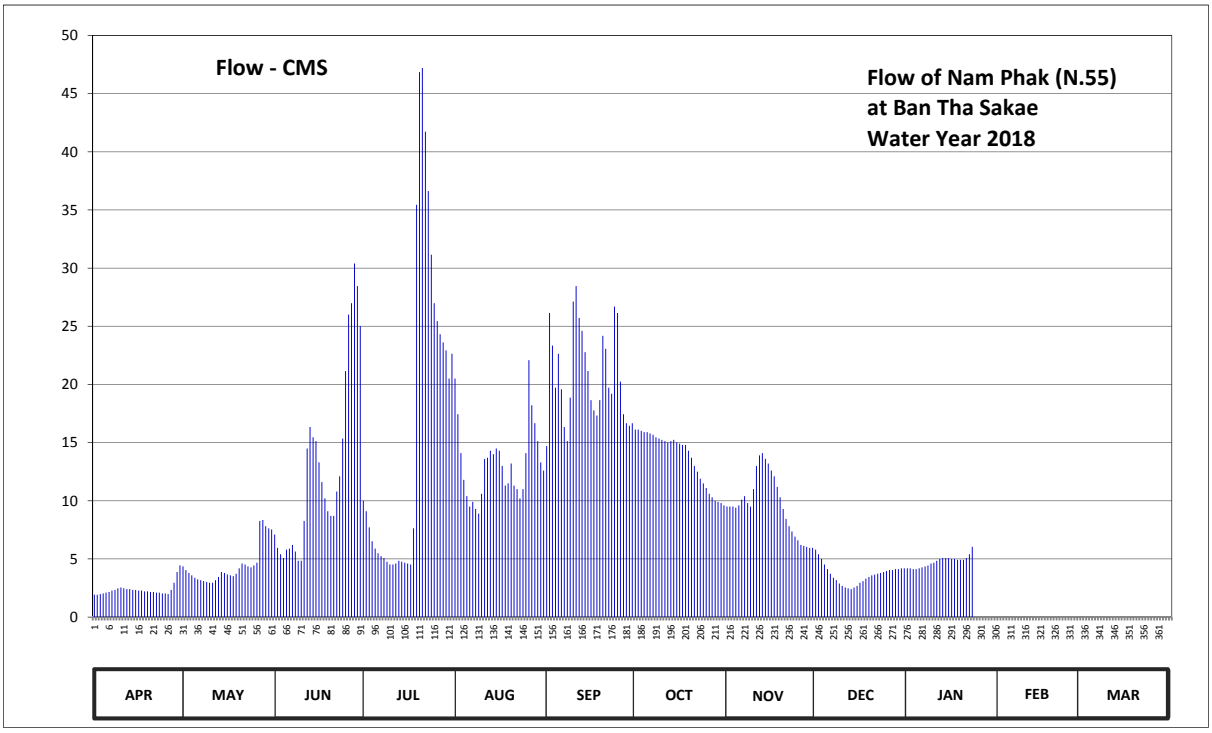
Ban Tha Sakae **Amphoe** Chat Trakan **Changwat** Phitsanulok

Drainge Area	971 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+182.830 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank about 13 meters from the top staff gage. **Elevation** +191.446 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic mean of 5 readings
Period of Available Gage Records	1983 to date
Rating Operation	
Period of Rating	1994 to date
Rated by Flot	-
Rated by Current Meter	1994 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Stage-discharge relation defined by 13 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	183.32	183.67	184.01	184.32	185.30	184.79	184.92	184.27	183.85	183.65	185.51	185.75	
2	183.32	183.63	183.87	184.23	185.04	185.71	184.92	184.27	183.80	183.65	185.56	185.75	
3	183.33	183.60	183.80	184.08	184.73	185.51	184.91	184.27	183.75	183.64	185.61	185.75	
4	183.34	183.57	183.76	183.94	184.50	185.24	184.90	184.26	183.69	183.64	185.67	185.76	
5	183.35	183.54	183.85	183.86	184.36	185.46	184.90	184.28	183.64	183.65	185.71	185.76	
6	183.36	183.52	183.86	183.81	184.27	185.23	184.89	184.33	183.59	183.66	185.76	185.76	
7	183.38	183.51	183.90	183.78	184.31	184.94	184.88	184.36	183.54	183.67	185.79	185.76	
8	183.39	183.50	183.83	183.76	184.25	184.83	184.86	184.30	183.51	183.68	185.79	185.76	
9	183.41	183.49	183.73	183.72	184.21	185.17	184.85	184.27	183.47	183.70	185.78	185.75	
10	183.42	183.48	183.73	183.69	184.38	185.78	184.84	184.42	183.44	183.71	185.78	185.75	
11	183.41	183.48	184.14	183.69	184.68	185.87	184.83	184.62	183.42	183.73	185.77	185.75	
12	183.40	183.51	184.77	183.70	184.69	185.68	184.82	184.71	183.41	183.75	185.77	185.75	
13	183.40	183.55	184.94	183.73	184.75	185.60	184.83	184.73	183.40	183.76	185.77	185.75	
14	183.39	183.61	184.86	183.72	184.72	185.47	184.84	184.68	183.42	183.76	185.77	185.76	
15	183.39	183.60	184.83	183.71	184.77	185.35	184.82	184.64	183.44	183.76	185.77	185.76	
16	183.38	183.58	184.65	183.70	184.75	185.15	184.81	184.58	183.48	183.75	185.76	185.77	
17	183.38	183.57	184.48	183.69	184.62	185.07	184.80	184.53	183.50	183.75	185.76	185.78	
18	183.37	183.56	184.34	184.07	184.45	185.03	184.80	184.44	183.53	183.74	185.76	185.79	
19	183.37	183.59	184.23	186.32	184.47	185.15	184.75	184.35	183.55	183.74	185.77	185.81	
20	183.36	183.65	184.19	186.98	184.64	185.57	184.69	184.25	183.57	183.74	185.77	185.83	
21	183.36	183.70	184.19	187.00	184.45	185.49	184.62	184.16	183.58	183.76	185.76	185.85	
22	183.35	183.69	184.40	186.69	184.42	185.24	184.57	184.09	183.59	183.80	185.76	185.89	
23	183.35	183.67	184.53	186.39	184.34	185.20	184.51	184.04	183.60	183.88	185.76	185.91	
24	183.34	183.66	184.85	186.05	184.42	185.75	184.47	183.99	183.61	184.08	185.76	185.93	
25	183.34	183.68	185.35	185.77	184.73	185.71	184.43	183.95	183.62	184.29	185.75	185.96	
26	183.33	183.71	185.70	185.66	185.42	185.28	184.38	183.90	183.63	184.57	185.75	185.98	
27	183.39	184.14	185.77	185.58	185.11	185.04	184.35	183.89	183.63	184.90	185.75	186.01	
28	183.48	184.15	186.00	185.53	184.97	184.97	184.32	183.88	183.64	185.11	185.75	186.03	
29	183.61	184.09	185.87	185.48	184.83	184.95	184.31	183.87	183.64	185.37		186.02	
30	183.68	184.07	185.63	185.30	184.65	184.97	184.30	183.87	183.65	185.44		186.01	
31		184.06		185.46	184.58		184.28		183.65	185.48		186.00	
Mean	183.39	183.67	184.54	184.76	184.64	185.31	184.69	184.27	183.58	184.03	185.74	185.84	
Max	183.68	184.15	186.00	187.00	185.42	185.87	184.92	184.73	183.85	185.48	185.79	186.03	187.00
Min	183.32	183.48	183.73	183.69	184.21	184.79	184.28	183.87	183.40	183.64	185.51	185.75	183.32

Annual Max Momentary Gage Height	187.15	m. (MSL.) ,	at 18.00 Hours , on Jul 20 , 2018		
Zero Gage at Bottom Elevation	182.83	m. (MSL.) ,	River Bed	182.78	m. (MSL.)
Left Bank Elevation	190.06	m. (MSL.) ,			
Right Bank Elevation	190.00	m. (MSL.) ,	Drainage Are	971	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.92	4.36	7.09	10.00	20.50	14.70	16.12	9.50	5.80	4.20	0.00	0.00		
2	1.92	4.04	5.96	9.10	17.44	26.14	16.12	9.50	5.40	4.20	0.00	0.00		
3	1.98	3.80	5.40	7.72	14.10	23.34	16.01	9.50	5.00	4.12	0.00	0.00		
4	2.04	3.59	5.08	6.52	11.80	19.72	15.90	9.40	4.52	4.12	0.00	0.00		
5	2.10	3.38	5.80	5.88	10.40	22.64	15.90	9.60	4.12	4.20	0.00	0.00		
6	2.16	3.24	5.88	5.48	9.50	19.59	15.79	10.10	3.73	4.28	0.00	0.00		
7	2.28	3.17	6.20	5.24	9.90	16.34	15.68	10.40	3.38	4.36	0.00	0.00		
8	2.34	3.10	5.64	5.08	9.30	15.13	15.46	9.80	3.17	4.44	0.00	0.00		
9	2.47	3.03	4.84	4.76	8.90	18.87	15.35	9.50	2.89	4.60	0.00	0.00		
10	2.54	2.96	4.84	4.52	10.60	27.12	15.24	11.00	2.68	4.68	0.00	0.00		
11	2.47	2.96	8.26	4.52	13.60	28.45	15.13	13.00	2.54	4.84	0.00	0.00		
12	2.40	3.17	14.50	4.60	13.70	25.72	15.02	13.90	2.47	5.00	0.00	0.00		
13	2.40	3.45	16.34	4.84	14.30	24.60	15.13	14.10	2.40	5.08	0.00	0.00		
14	2.34	3.88	15.46	4.76	14.00	22.78	15.24	13.60	2.54	5.08	0.00	0.00		
15	2.34	3.80	15.13	4.68	14.50	21.15	15.02	13.20	2.68	5.08	0.00	0.00		
16	2.28	3.66	13.30	4.60	14.30	18.65	14.91	12.60	2.96	5.00	0.00	0.00		
17	2.28	3.59	11.60	4.52	13.00	17.77	14.80	12.10	3.10	5.00	0.00	0.00		
18	2.22	3.52	10.20	7.63	11.30	17.33	14.80	11.20	3.31	4.92	0.00	0.00		
19	2.22	3.73	9.10	35.44	11.50	18.65	14.30	10.30	3.45	4.92	0.00	0.00		
20	2.16	4.20	8.71	46.84	13.20	24.18	13.70	9.30	3.59	4.92	0.00	0.00		
21	2.16	4.60	8.71	47.20	11.30	23.06	13.00	8.44	3.66	5.08	0.00	0.00		
22	2.10	4.52	10.80	41.73	11.00	19.72	12.50	7.81	3.73	5.40	0.00	0.00		
23	2.10	4.36	12.10	36.63	10.20	19.20	11.90	7.36	3.80	6.04	0.00	0.00		
24	2.04	4.28	15.35	31.15	11.00	26.70	11.50	6.92	3.88	0.00	0.00	0.00		
25	2.04	4.44	21.15	26.98	14.10	26.14	11.10	6.60	3.96	0.00	0.00	0.00		
26	1.98	4.68	26.00	25.44	22.08	20.24	10.60	6.20	4.04	0.00	0.00	0.00		
27	2.34	8.26	26.98	24.32	18.21	17.44	10.30	6.12	4.04	0.00	0.00	0.00		
28	2.96	8.35	30.40	23.62	16.67	16.67	10.00	6.04	4.12	0.00	0.00	0.00		
29	3.88	7.81	28.45	22.92	15.13	16.45	9.90	5.96	4.12	0.00		0.00		
30	4.44	7.63	25.02	20.50	13.30	16.67	9.80	5.96	4.20	0.00		0.00		
31		7.54		22.64	12.60		9.60		4.20	0.00		0.00		
Total	70.90	137.10	384.29	509.86	411.43	625.16	425.82	289.01	113.48	109.56	0.00	0.00	3076.61	CMSDAY
Mean	2.36	4.42	12.81	16.45	13.27	20.84	13.74	9.63	3.66	3.53	0.00	0.00	8.43	CMS
Max	4.44	8.35	30.40	47.20	22.08	28.45	16.12	14.10	5.80	6.04	0.00	0.00	47.20	CMS
Min	1.92	2.96	4.84	4.52	8.90	14.70	9.60	5.96	2.40	0.00	0.00	0.00	0.00	CMS
Runoff	6.13	11.85	33.20	44.05	35.55	54.01	36.79	24.97	9.80	9.47	0.00	0.00	265.82	MCM

Momentary Peak 50.05 CMS. at 187.15 m. (MSL.) at 18.00 Hours , on Jul 20 , 2018

Runoff Yield 8.68 Liters/Second/Square KM. Momentary Peak Yield 51.54 Liters/Second/Square KM.

WATER YEAR : 2018

NAN RIVER BASIN

Nam Fua at Ban Nam Fua , Phitsanulok (N.58)

Lat 17 - 08 - 45 N Long 100 - 56 - 04 E

Location : on left bank at the bridge of Nakhon Thai - Dan Sai Road from the guidpost 11.5

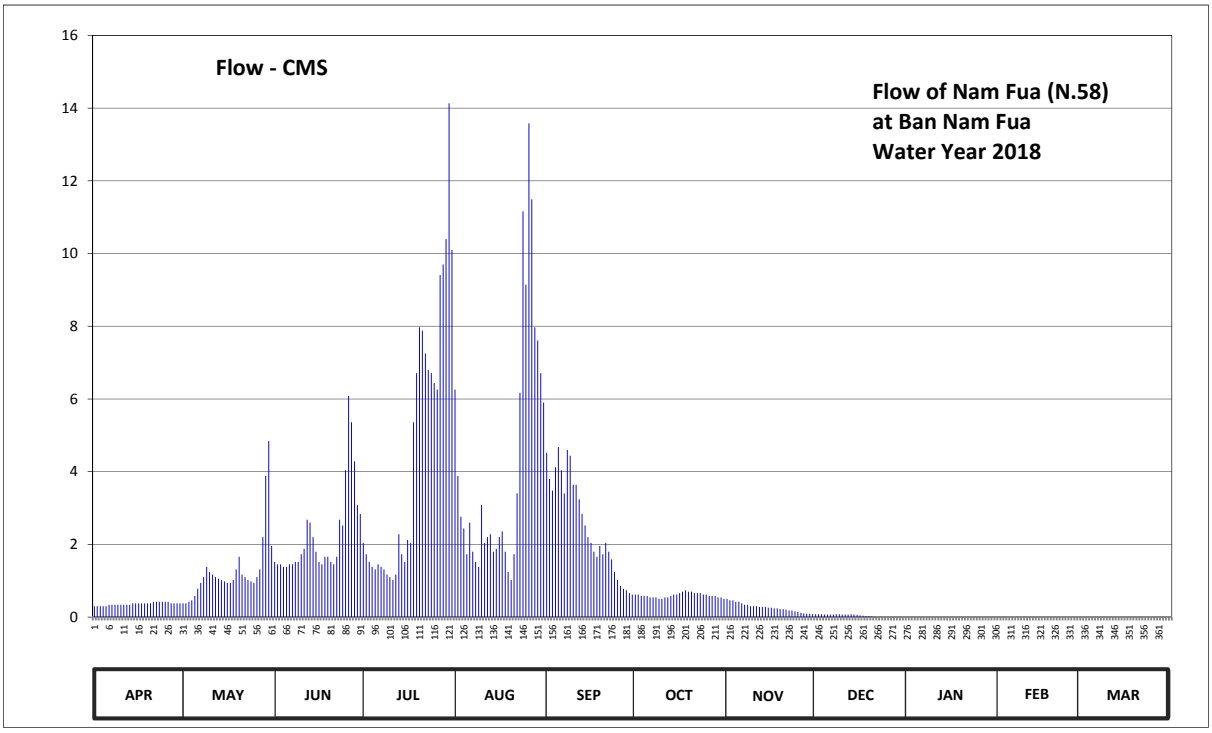
Ban Nam Fua **Amphoe** Nakhon Thai **Changwat** Phitsanulok

Drainge Area	318 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+208.360 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank about 16 meters from the top staff gage. **Elevation** +214.931 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic mean of 5 readings
Period of Available Gage Records	1984 to date
Rating Operation	
Period of Rating	1996 to date
Rated by Flot	-
Rated by Current Meter	1996 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. Stage-discharge relation defined by 11 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	209.80	209.82	210.06	210.13	210.64	210.44	209.88	209.85	209.68	209.58	209.50	209.50	
2	209.80	209.82	210.05	210.09	210.36	210.35	209.88	209.84	209.68	209.58	209.50	209.50	
3	209.80	209.83	210.05	210.06	210.22	210.31	209.87	209.84	209.68	209.58	209.50	209.50	
4	209.80	209.84	210.04	210.04	210.18	210.39	209.87	209.83	209.67	209.57	209.50	209.50	
5	209.80	209.87	210.04	210.03	210.09	210.46	209.87	209.83	209.67	209.57	209.50	209.50	
6	209.81	209.92	210.05	210.05	210.20	210.38	209.86	209.82	209.67	209.57	209.50	209.50	
7	209.81	209.96	210.05	210.04	210.10	210.30	209.86	209.81	209.67	209.57	209.50	209.50	
8	209.81	210.00	210.06	210.03	210.06	210.45	209.86	209.81	209.68	209.56	209.50	209.50	
9	209.81	210.04	210.06	210.01	210.04	210.43	209.85	209.80	209.68	209.56	209.50	209.50	
10	209.81	210.02	210.09	210.00	210.26	210.33	209.85	209.80	209.67	209.56	209.50	209.50	
11	209.81	210.01	210.11	209.98	210.13	210.33	209.86	209.80	209.67	209.56	209.50	209.50	
12	209.81	210.00	210.21	210.01	210.15	210.28	209.86	209.79	209.67	209.55	209.50	209.50	
13	209.81	209.99	210.20	210.16	210.16	210.23	209.87	209.79	209.68	209.55	209.50	209.50	
14	209.82	209.98	210.15	210.09	210.10	210.19	209.88	209.79	209.67	209.55	209.50	209.50	
15	209.82	209.97	210.10	210.06	210.11	210.15	209.88	209.78	209.66	209.54	209.50	209.50	
16	209.82	209.96	210.06	210.14	210.15	210.13	209.89	209.78	209.65	209.54	209.50	209.50	
17	209.82	209.96	210.05	210.13	210.17	210.10	209.90	209.77	209.64	209.54	209.50	209.50	
18	209.82	209.98	210.08	210.54	210.10	210.08	209.91	209.77	209.63	209.53	209.50	209.50	
19	209.82	210.03	210.08	210.69	210.02	210.12	209.90	209.76	209.63	209.53	209.50	209.50	
20	209.82	210.08	210.06	210.83	209.98	210.09	209.90	209.76	209.62	209.53	209.50	209.50	
21	209.83	210.01	210.05	210.82	210.09	210.13	209.89	209.75	209.61	209.53	209.50	209.50	
22	209.83	210.00	210.08	210.75	210.30	210.10	209.89	209.74	209.60	209.52	209.50	209.50	
23	209.83	209.98	210.21	210.70	210.63	210.07	209.89	209.74	209.60	209.52	209.50	209.50	
24	209.83	209.97	210.19	210.69	211.16	210.02	209.88	209.73	209.59	209.52	209.50	209.50	
25	209.83	209.96	210.38	210.66	210.96	209.98	209.88	209.72	209.59	209.52	209.50	209.50	
26	209.83	210.00	210.62	210.64	211.38	209.94	209.87	209.71	209.58	209.51	209.50	209.50	
27	209.82	210.03	210.54	210.99	211.19	209.92	209.87	209.70	209.58	209.51	209.50	209.50	
28	209.82	210.15	210.41	211.02	210.83	209.91	209.87	209.69	209.58	209.51	209.50	209.50	
29	209.82	210.36	210.26	211.09	210.79	209.89	209.86	209.69	209.58	209.51		209.50	
30	209.82	210.48	210.23	211.43	210.69	209.88	209.86	209.68	209.58	209.50		209.50	
31		210.12		211.06	210.60		209.85		209.58	209.50		209.50	
Mean	209.82	210.00	210.15	210.42	210.38	210.18	209.87	209.77	209.64	209.54	209.50	209.50	
Max	209.83	210.48	210.62	211.43	211.38	210.46	209.91	209.85	209.68	209.58	209.50	209.50	211.43
Min	209.80	209.82	210.04	209.98	209.98	209.88	209.85	209.68	209.58	209.50	209.50	209.50	209.50

Annual Max Momentary Gage Height	211.56	m. (MSL.) ,	at 18.00 Hours , on Aug 26 , 2018		
Zero Gage at Bottom Elevation	208.36	m. (MSL.) ,	River Bed	208.97	m. (MSL.)
Left Bank Elevation	213.72	m. (MSL.) ,			
Right Bank Elevation	213.26	m. (MSL.) ,	Drainage Are	318	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.30	0.38	1.52	2.04	6.26	4.52	0.62	0.50	0.08	0.00	0.00	0.00		
2	0.30	0.38	1.45	1.73	3.88	3.80	0.62	0.46	0.08	0.00	0.00	0.00		
3	0.30	0.42	1.45	1.52	2.76	3.48	0.58	0.46	0.08	0.00	0.00	0.00		
4	0.30	0.46	1.38	1.38	2.44	4.12	0.58	0.42	0.07	0.00	0.00	0.00		
5	0.30	0.58	1.38	1.31	1.73	4.68	0.58	0.42	0.07	0.00	0.00	0.00		
6	0.34	0.78	1.45	1.45	2.60	4.04	0.54	0.38	0.07	0.00	0.00	0.00		
7	0.34	0.94	1.45	1.38	1.80	3.40	0.54	0.34	0.07	0.00	0.00	0.00		
8	0.34	1.10	1.52	1.31	1.52	4.60	0.54	0.34	0.08	0.00	0.00	0.00		
9	0.34	1.38	1.52	1.17	1.38	4.44	0.50	0.30	0.08	0.00	0.00	0.00		
10	0.34	1.24	1.73	1.10	3.08	3.64	0.50	0.30	0.07	0.00	0.00	0.00		
11	0.34	1.17	1.88	1.02	2.04	3.64	0.54	0.30	0.07	0.00	0.00	0.00		
12	0.34	1.10	2.68	1.17	2.20	3.24	0.54	0.28	0.07	0.00	0.00	0.00		
13	0.34	1.06	2.60	2.28	2.28	2.84	0.58	0.28	0.08	0.00	0.00	0.00		
14	0.38	1.02	2.20	1.73	1.80	2.52	0.62	0.28	0.07	0.00	0.00	0.00		
15	0.38	0.98	1.80	1.52	1.88	2.20	0.62	0.26	0.06	0.00	0.00	0.00		
16	0.38	0.94	1.52	2.12	2.20	2.04	0.66	0.26	0.05	0.00	0.00	0.00		
17	0.38	0.94	1.45	2.04	2.36	1.80	0.70	0.24	0.04	0.00	0.00	0.00		
18	0.38	1.02	1.66	5.36	1.80	1.66	0.74	0.24	0.03	0.00	0.00	0.00		
19	0.38	1.31	1.66	6.71	1.24	1.96	0.70	0.22	0.03	0.00	0.00	0.00		
20	0.38	1.66	1.52	7.97	1.02	1.73	0.70	0.22	0.02	0.00	0.00	0.00		
21	0.42	1.17	1.45	7.88	1.73	2.04	0.66	0.20	0.01	0.00	0.00	0.00		
22	0.42	1.10	1.66	7.25	3.40	1.80	0.66	0.18	0.00	0.00	0.00	0.00		
23	0.42	1.02	2.68	6.80	6.17	1.59	0.66	0.18	0.00	0.00	0.00	0.00		
24	0.42	0.98	2.52	6.71	11.16	1.24	0.62	0.16	0.00	0.00	0.00	0.00		
25	0.42	0.94	4.04	6.44	9.14	1.02	0.62	0.14	0.00	0.00	0.00	0.00		
26	0.42	1.10	6.08	6.26	13.58	0.86	0.58	0.12	0.00	0.00	0.00	0.00		
27	0.38	1.31	5.36	9.41	11.49	0.78	0.58	0.10	0.00	0.00	0.00	0.00		
28	0.38	2.20	4.28	9.70	7.97	0.74	0.58	0.09	0.00	0.00	0.00	0.00		
29	0.38	3.88	3.08	10.40	7.61	0.66	0.54	0.09	0.00	0.00		0.00		
30	0.38	4.84	2.84	14.13	6.71	0.62	0.54	0.08	0.00	0.00		0.00		
31		1.96		10.10	5.90		0.50		0.00	0.00		0.00		
Total	10.92	39.36	67.81	141.39	131.13	75.70	18.54	7.84	1.28	0.00	0.00	0.00	493.97	CMSDAY
Mean	0.36	1.27	2.26	4.56	4.23	2.52	0.60	0.26	0.04	0.00	0.00	0.00	1.35	CMS
Max	0.42	4.84	6.08	14.13	13.58	4.68	0.74	0.50	0.08	0.00	0.00	0.00	14.13	CMS
Min	0.30	0.38	1.38	1.02	1.02	0.62	0.50	0.08	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	0.94	3.40	5.86	12.22	11.33	6.54	1.60	0.68	0.11	0.00	0.00	0.00	42.68	MCM

Momentary Peak 15.62 CMS. at 211.56 m. (MSL.) at 18.00 Hours , on Aug 26 , 2018

Runoff Yield 4.26 Liters/Second/Square KM. Momentary Peak Yield 49.12 Liters/Second/Square KM.

WATER YEAR : 2018

NAN RIVER BASIN

Lam Nam Khan at Ban Na Pho Na Chan , Phitsanulok (N.59)

Lat 17 - 01 - 49 N Long 100 - 50 - 35 E

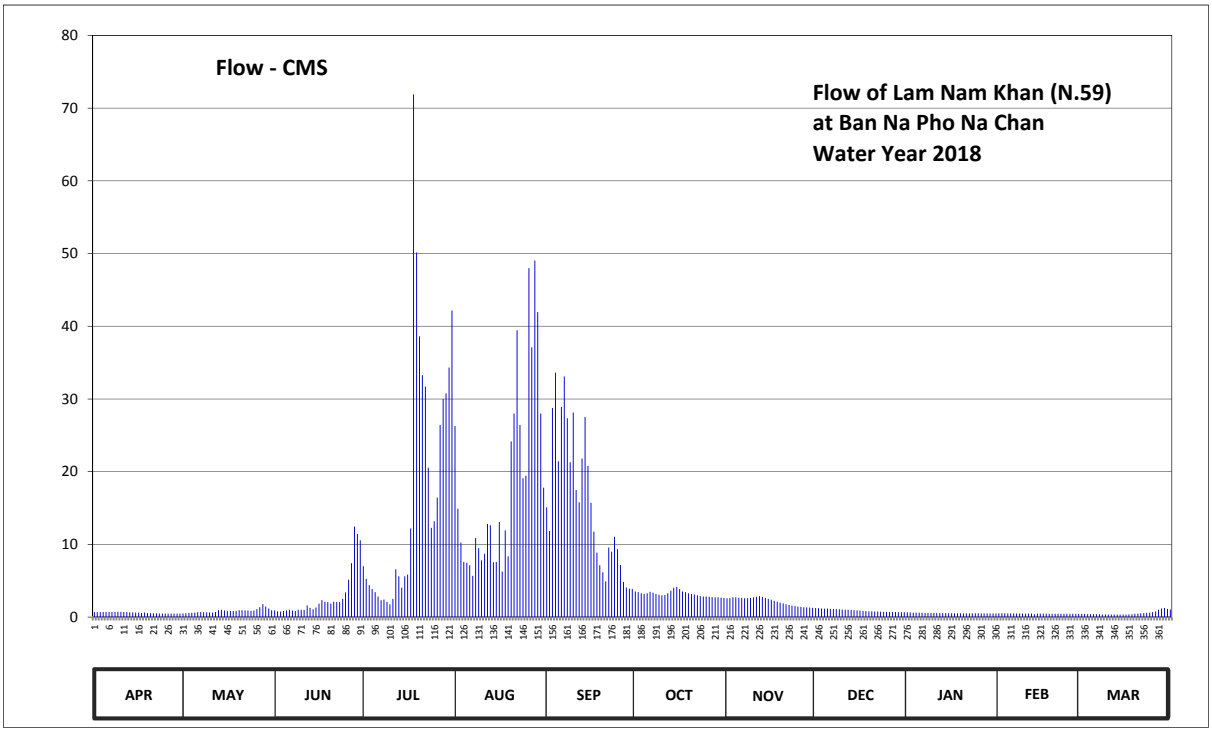
Location : on left bank at Ban Na Pho Na Chan.

	Ban Na Pho Na Chan	**Amphoe** Nakhon Thai	**Changwat** Phitsanulok
Drainge Area	415 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+197.680 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank about 25 meters from the top staff gage.	**Elevation** +206.935 m. (MSL.)	
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic mean of 5 readings		
Period of Available Gage Records	1984 to date		
Rating Operation			
Period of Rating	1996 to date		
Rated by Flot	-		
Rated by Current Meter	1996 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 29 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	201.12	201.00	201.24	202.70	204.65	203.73	202.03	201.80	201.35	201.10	201.01	200.95	
2	201.12	201.02	201.20	202.41	203.71	203.38	202.01	201.80	201.34	201.09	201.01	200.94	
3	201.12	201.04	201.17	202.24	203.18	204.81	201.97	201.83	201.33	201.08	201.01	200.93	
4	201.13	201.06	201.21	202.12	202.80	205.11	201.94	201.83	201.32	201.07	201.00	200.92	
5	201.13	201.08	201.24	202.01	202.78	204.29	201.97	201.82	201.32	201.07	201.00	200.92	
6	201.14	201.11	201.27	201.86	202.72	204.82	202.02	201.81	201.31	201.06	201.00	200.91	
7	201.14	201.13	201.23	201.70	202.48	205.08	201.99	201.80	201.31	201.05	201.00	200.91	
8	201.14	201.11	201.21	201.74	203.26	204.72	201.95	201.80	201.30	201.05	201.00	200.90	
9	201.15	201.10	201.27	201.63	203.07	204.28	201.92	201.81	201.29	201.04	200.99	200.90	
10	201.15	201.09	201.27	201.52	202.83	204.77	201.90	201.83	201.28	201.04	200.99	200.89	
11	201.14	201.08	201.26	201.77	202.96	203.96	201.91	201.85	201.27	201.04	200.99	200.89	
12	201.13	201.14	201.47	202.63	203.49	203.80	201.97	201.87	201.27	201.03	200.99	200.88	
13	201.10	201.25	201.36	202.47	203.47	204.32	202.06	201.85	201.26	201.03	200.92	200.88	
14	201.10	201.27	201.29	202.16	202.79	204.73	202.16	201.81	201.25	201.03	200.98	200.88	
15	201.08	201.24	201.37	202.47	202.80	204.24	202.19	201.77	201.24	201.02	200.98	200.89	
16	201.07	201.22	201.55	202.51	203.52	203.79	202.11	201.73	201.23	201.02	200.98	200.89	
17	201.05	201.21	201.71	203.42	202.58	203.37	202.03	201.68	201.22	201.01	200.98	200.90	
18	201.09	201.21	201.64	206.54	203.39	202.98	202.01	201.64	201.21	201.01	200.97	200.92	
19	201.03	201.22	201.62	205.86	202.91	202.72	201.97	201.59	201.20	201.01	200.97	200.96	
20	201.02	201.25	201.55	205.38	204.50	202.56	201.94	201.56	201.19	201.00	200.97	200.98	
21	201.01	201.25	201.64	205.09	204.76	202.34	201.93	201.52	201.18	201.00	200.97	201.01	
22	201.01	201.24	201.62	205.00	205.42	203.08	201.90	201.49	201.17	201.00	200.97	201.03	
23	201.00	201.23	201.62	204.22	204.66	203.00	201.87	201.46	201.16	201.01	200.97	201.06	
24	200.99	201.22	201.77	203.43	204.10	203.28	201.86	201.44	201.15	201.01	200.97	201.08	
25	200.98	201.23	202.00	203.53	204.13	203.05	201.86	201.42	201.15	201.01	200.96	201.12	
26	200.98	201.30	202.39	203.86	205.78	202.73	201.85	201.40	201.14	201.00	200.96	201.18	
27	200.98	201.39	202.77	204.66	205.30	202.33	201.84	201.39	201.14	201.00	200.96	201.27	
28	200.99	201.53	203.45	204.89	205.82	202.17	201.83	201.38	201.13	201.00	200.96	201.33	
29	200.99	201.42	203.33	204.94	205.53	202.13	201.83	201.37	201.12	201.00		201.35	
30	200.98	201.33	203.22	205.15	204.76	202.12	201.82	201.36	201.12	201.00		201.31	
31		201.25		205.54	203.99		201.81		201.11	201.00		201.28	
Mean	201.07	201.20	201.70	203.40	203.81	203.59	201.95	201.66	201.23	201.03	200.98	201.01	
Max	201.15	201.53	203.45	206.54	205.82	205.11	202.19	201.87	201.35	201.10	201.01	201.35	206.54
Min	200.98	201.00	201.17	201.52	202.48	202.12	201.81	201.36	201.11	201.00	200.92	200.88	200.88

Annual Max Momentary Gage Height	207.18	m. (MSL.) ,	at 18.00 Hours , on Jul 18 , 2018		
Zero Gage at Bottom Elevation	197.68	m. (MSL.) ,	River Bed	200.21	m. (MSL.)
Left Bank Elevation	206.51	m. (MSL.) ,			
Right Bank Elevation	206.81	m. (MSL.) ,	Drainage Are	415	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.68	0.50	0.92	7.00	26.28	15.10	3.52	2.60	1.25	0.65	0.52	0.44		
2	0.68	0.53	0.80	5.26	14.90	11.84	3.44	2.60	1.22	0.64	0.52	0.43		
3	0.68	0.56	0.76	4.40	10.26	28.76	3.28	2.72	1.19	0.62	0.52	0.41		
4	0.70	0.59	0.83	3.88	7.60	33.63	3.16	2.72	1.16	0.61	0.50	0.40		
5	0.70	0.62	0.92	3.44	7.48	21.43	3.28	2.68	1.16	0.61	0.50	0.40		
6	0.71	0.67	1.01	2.84	7.12	28.91	3.48	2.64	1.13	0.59	0.50	0.39		
7	0.71	0.70	0.89	2.30	5.68	33.10	3.36	2.60	1.13	0.58	0.50	0.39		
8	0.71	0.67	0.83	2.42	10.88	27.36	3.20	2.60	1.10	0.58	0.50	0.38		
9	0.73	0.65	1.01	2.09	9.49	21.30	3.08	2.64	1.07	0.56	0.49	0.38		
10	0.73	0.64	1.01	1.76	7.81	28.14	3.00	2.72	1.04	0.56	0.49	0.36		
11	0.71	0.62	0.98	2.51	8.72	17.48	3.04	2.80	1.01	0.56	0.49	0.36		
12	0.70	0.71	1.61	6.58	12.81	15.80	3.28	2.88	1.01	0.55	0.49	0.35		
13	0.65	0.95	1.28	5.62	12.63	21.80	3.64	2.80	0.98	0.55	0.40	0.35		
14	0.65	1.01	1.07	4.04	7.54	27.52	4.04	2.64	0.95	0.55	0.48	0.35		
15	0.62	0.92	1.31	5.62	7.60	20.80	4.16	2.51	0.92	0.53	0.48	0.36		
16	0.61	0.86	1.85	5.86	13.08	15.70	3.84	2.39	0.89	0.53	0.48	0.36		
17	0.58	0.83	2.33	12.18	6.28	11.76	3.52	2.24	0.86	0.52	0.48	0.38		
18	0.64	0.83	2.12	71.90	11.92	8.86	3.44	2.12	0.83	0.52	0.46	0.40		
19	0.55	0.86	2.06	50.15	8.37	7.12	3.28	1.97	0.80	0.52	0.46	0.45		
20	0.53	0.95	1.85	38.62	24.15	6.16	3.16	1.88	0.79	0.50	0.46	0.48		
21	0.52	0.95	2.12	33.28	27.98	4.90	3.12	1.76	0.77	0.50	0.46	0.52		
22	0.52	0.92	2.06	31.70	39.45	9.56	3.00	1.67	0.76	0.50	0.46	0.55		
23	0.50	0.89	2.06	20.55	26.43	9.00	2.88	1.58	0.74	0.52	0.46	0.59		
24	0.49	0.86	2.51	12.27	19.10	11.04	2.84	1.52	0.73	0.52	0.46	0.62		
25	0.48	0.89	3.40	13.17	19.46	9.35	2.84	1.46	0.73	0.52	0.45	0.68		
26	0.48	1.10	5.15	16.43	48.00	7.18	2.80	1.40	0.71	0.50	0.45	0.77		
27	0.48	1.37	7.42	26.43	37.10	4.85	2.76	1.37	0.71	0.50	0.45	1.01		
28	0.49	1.79	12.45	30.00	49.05	4.08	2.72	1.34	0.70	0.50	0.45	1.19		
29	0.49	1.46	11.44	30.77	41.93	3.92	2.72	1.31	0.68	0.50		1.25		
30	0.48	1.19	10.56	34.33	27.98	3.88	2.68	1.28	0.68	0.50		1.13		
31		0.95		42.15	17.80		2.64		0.67	0.50		1.04		
Total	18.20	27.04	84.61	529.55	574.88	470.33	99.20	65.44	28.37	16.89	13.36	17.17	1945.04	CMSDAY
Mean	0.61	0.87	2.82	17.08	18.54	15.68	3.20	2.18	0.92	0.54	0.48	0.55	5.33	CMS
Max	0.73	1.79	12.45	71.90	49.05	33.63	4.16	2.88	1.25	0.65	0.52	1.25	71.90	CMS
Min	0.48	0.50	0.76	1.76	5.68	3.88	2.64	1.28	0.67	0.50	0.40	0.35	0.35	CMS
Runoff	1.57	2.34	7.31	45.75	49.67	40.64	8.57	5.65	2.45	1.46	1.15	1.48	168.05	MCM

Momentary Peak 97.12 CMS. at 207.18 m. (MSL.) at 18.00 Hours , on Jul 18 , 2018

Runoff Yield 12.84 Liters/Second/Square KM. Momentary Peak Yield 234.02 Liters/Second/Square KM.

WATER YEAR : 2018

NAN RIVER BASIN

Nan River at Ban Hat Song Khwae , Uttaradit (N.60)

Lat 17 - 24 - 54 N Long 100 - 07 - 58 E

Location : on right bank about 1 kilometer downstream from Wat Hat Song Khwae.

Ban Hat Song Khwae **Amphoe** Tron **Changwat** Uttaradit

Drainge Area	18,447 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+48.500 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On right bank near the Meteorological Station. **Elevation** +57.592 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic mean of 5 readings
Period of Available Gage Records	1986 to date
Rating Operation	
Period of Rating	1986 to date
Rated by Flot	-
Rated by Current Meter	1986 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Flow effected by Sirikit Dam reservior. Stage-discharge relation defined by 24 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

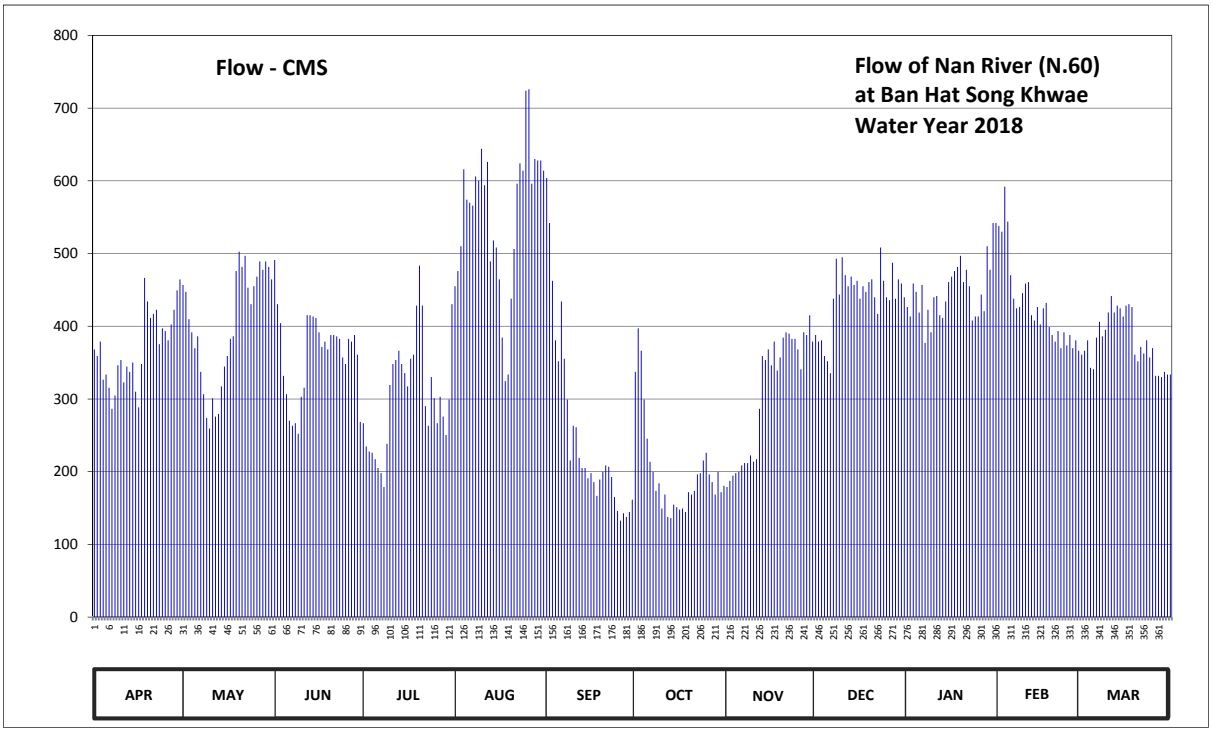
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	50.63	51.11	51.29	50.07	51.10	51.86	50.46	49.57	50.74	50.95	51.53	50.59	
2	50.58	51.06	50.97	49.89	51.21	51.55	50.79	49.62	50.69	50.88	51.49	50.62	
3	50.69	50.86	50.83	49.85	51.39	51.14	50.62	49.66	50.70	51.12	51.80	50.70	
4	50.40	50.76	50.43	49.84	51.92	50.70	50.25	49.68	50.58	51.06	51.56	50.49	
5	50.44	50.64	50.29	49.79	51.71	50.54	49.95	49.69	50.54	50.91	51.18	50.48	
6	50.34	50.73	50.09	49.72	51.69	50.99	49.77	49.74	50.45	51.11	51.01	50.72	
7	50.18	50.46	50.05	49.68	51.67	50.56	49.69	49.76	51.01	50.68	50.94	50.84	
8	50.28	50.29	50.07	49.57	51.87	50.25	49.54	49.76	51.30	50.93	50.95	50.73	
9	50.51	50.11	49.99	49.91	51.84	49.78	49.60	49.82	51.04	50.76	51.05	50.78	
10	50.55	50.03	50.27	50.36	52.06	50.05	49.40	49.77	51.31	51.02	51.12	50.91	
11	50.38	50.26	50.34	50.52	51.81	50.04	49.51	49.79	51.18	51.03	51.13	51.03	
12	50.50	50.12	50.89	50.55	51.97	49.80	49.33	50.18	51.10	50.89	50.89	50.91	
13	50.46	50.14	50.89	50.62	51.28	49.72	49.32	50.58	51.17	50.87	50.85	50.96	
14	50.53	50.35	50.88	50.52	51.43	49.72	49.43	50.55	51.11	50.99	50.95	50.94	
15	50.31	50.50	50.87	50.45	51.38	49.64	49.41	50.63	51.14	51.13	50.82	50.88	
16	50.19	50.58	50.76	50.35	51.15	49.68	49.39	50.51	51.01	51.17	50.94	50.96	
17	50.52	50.71	50.65	50.56	50.72	49.61	49.40	50.69	51.10	51.21	50.98	50.97	
18	51.16	50.73	50.69	50.59	50.39	49.50	49.37	50.47	51.06	51.24	50.80	50.95	
19	50.99	51.21	50.63	50.96	50.44	49.63	49.53	50.57	51.13	51.32	50.74	50.59	
20	50.87	51.35	50.74	51.25	51.01	49.69	49.51	50.72	51.15	51.13	50.69	50.54	
21	50.90	51.24	50.74	50.96	51.37	49.74	49.54	50.76	51.02	51.22	50.77	50.65	
22	50.93	51.32	50.73	50.20	51.82	49.73	49.67	50.75	50.90	51.10	50.64	50.60	
23	50.67	51.09	50.71	50.05	51.96	49.65	49.68	50.71	51.38	50.85	50.76	50.70	
24	50.79	50.97	50.57	50.42	51.91	49.49	49.78	50.71	51.14	50.88	50.66	50.57	
25	50.77	51.10	50.52	50.26	52.46	49.38	49.84	50.63	51.02	50.88	50.74	50.64	
26	50.70	51.17	50.71	50.07	52.47	49.30	49.67	50.48	51.00	51.04	50.64	50.43	
27	50.82	51.28	50.69	50.27	51.82	49.36	49.61	50.76	51.27	50.92	50.70	50.43	
28	50.93	51.22	50.74	50.12	51.99	49.33	49.51	50.74	51.01	51.39	50.62	50.42	
29	51.07	51.28	50.59	49.98	51.98	49.37	49.69	50.89	51.15	51.22		50.46	
30	51.15	51.24	50.08	50.25	51.98	49.47	49.53	50.69	51.12	51.55		50.44	
31		51.15		50.97	51.91		49.58		51.02	51.55		50.44	
Mean	50.64	50.81	50.59	50.28	51.60	49.98	49.69	50.30	51.02	51.06	50.96	50.69	
Max	51.16	51.35	51.29	51.25	52.47	51.86	50.79	50.89	51.38	51.55	51.80	51.03	52.47
Min	50.18	50.03	49.99	49.57	50.39	49.30	49.32	49.57	50.45	50.68	50.62	50.42	49.30

Annual Max Momentary Gage Height 52.76 m. (MSL.) , at 18.00 Hours , on Aug 26 , 2018

Zero Gage at Bottom Elevation 48.50 m. (MSL.) , River Bed 44.56 m. (MSL.)

Left Bank Elevation 58.56 m. (MSL.) ,

Right Bank Elevation 58.49 m. (MSL.) , Drainage Are 18,447 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	368.10	456.90	491.10	266.68	455.00	604.00	337.31	178.83	388.02	426.50	538.00	360.86		
2	359.04	447.40	430.30	234.75	475.90	542.00	397.08	187.50	378.97	413.38	530.00	366.29		
3	378.97	409.76	404.32	227.75	510.10	462.60	366.29	194.50	380.78	458.80	592.00	380.78		
4	326.44	391.64	331.88	226.00	616.00	380.78	299.28	198.00	359.04	447.40	544.00	342.74		
5	333.69	369.91	306.52	217.25	574.00	351.80	245.25	199.75	351.80	418.90	470.20	340.93		
6	315.58	386.21	270.30	205.00	570.00	434.10	213.75	208.50	335.50	456.90	437.90	384.40		
7	286.60	337.31	263.06	198.00	566.00	355.42	199.75	212.00	437.90	377.16	424.60	406.13		
8	304.71	306.52	266.68	178.83	606.00	299.28	173.65	212.00	493.00	422.70	426.50	386.21		
9	346.37	273.92	252.25	238.25	600.00	215.50	184.00	222.50	443.60	391.64	445.50	395.27		
10	353.61	259.43	302.90	319.20	644.00	263.06	149.50	213.75	494.90	439.80	458.80	418.90		
11	322.82	301.09	315.58	348.18	594.00	261.24	168.48	217.25	470.20	441.70	460.70	441.70		
12	344.56	275.73	415.19	353.61	626.00	219.00	137.78	286.60	455.00	415.19	415.19	418.90		
13	337.31	279.36	415.19	366.29	489.20	205.00	136.10	359.04	468.30	411.57	407.94	428.40		
14	349.99	317.39	413.38	348.18	518.00	205.00	154.68	353.61	456.90	434.10	426.50	424.60		
15	310.14	344.56	411.57	335.50	508.20	191.00	151.23	368.10	462.60	460.70	402.51	413.38		
16	288.41	359.04	391.64	317.39	464.50	198.00	147.83	346.37	437.90	468.30	424.60	428.40		
17	348.18	382.59	371.72	355.42	384.40	185.75	149.50	378.97	455.00	475.90	432.20	430.30		
18	466.40	386.21	378.97	360.86	324.63	166.75	144.48	339.12	447.40	481.60	398.89	426.50		
19	434.10	475.90	368.10	428.40	333.69	189.25	171.93	357.23	460.70	496.80	388.02	360.86		
20	411.57	502.50	388.02	483.50	437.90	199.75	168.48	384.40	464.50	460.70	378.97	351.80		
21	417.00	481.60	388.02	428.40	506.30	208.50	173.65	391.64	439.80	477.80	393.46	371.72		
22	422.70	496.80	386.21	290.22	596.00	206.75	196.25	389.83	417.00	455.00	369.91	362.67		
23	375.34	453.10	382.59	263.06	624.00	192.75	198.00	382.59	508.20	407.94	391.64	380.78		
24	397.08	430.30	357.23	330.07	614.00	165.03	215.50	382.59	462.60	413.38	373.53	357.23		
25	393.46	455.00	348.18	301.09	724.00	146.15	226.00	368.10	439.80	413.38	388.02	369.91		
26	380.78	468.30	382.59	266.68	726.00	132.75	196.25	340.93	436.00	443.60	369.91	331.88		
27	402.51	489.20	378.97	302.90	596.00	142.80	185.75	391.64	487.30	420.80	380.78	331.88		
28	422.70	477.80	388.02	275.73	630.00	137.78	168.48	388.02	437.90	510.10	366.29	330.07		
29	449.30	489.20	360.86	250.50	628.00	144.48	199.75	415.19	464.50	477.80		337.31		
30	464.50	481.60	268.49	299.28	628.00	161.58	171.93	378.97	458.80	542.00		333.69		
31		464.50		430.30	614.00		180.55		439.80	542.00		333.69		
Total	11111.96	12450.77	10829.83	9447.27	17183.82	7567.85	6208.46	9247.52	13633.71	13903.54	12036.56	11748.18	135369.47	CMSDAY
Mean	370.40	401.64	360.99	304.75	554.32	252.26	200.27	308.25	439.80	448.50	429.88	378.97	370.88	CMS
Max	466.40	502.50	491.10	483.50	726.00	604.00	397.08	415.19	508.20	542.00	592.00	441.70	726.00	CMS
Min	286.60	259.43	252.25	178.83	324.63	132.75	136.10	178.83	335.50	377.16	366.29	330.07	132.75	CMS
Runoff	960.07	1075.75	935.70	816.24	1484.68	653.86	536.41	798.99	1177.95	1201.27	1039.96	1015.04	11695.92	MCM

Momentary Peak 784.00 CMS. at 52.76 m. (MSL.) at 18.00 Hours , on Aug 26 , 2018

Runoff Yield 20.10 Liters/Second/Square KM. Momentary Peak Yield 42.50 Liters/Second/Square KM.

WATER YEAR : 2018

NAN RIVER BASIN

Huai Nam Khlung at Ban Huai Tha Nua , Phitsanulok (N.62)

Lat 17 - 14 - 24 N Long 100 - 33 - 18 E

Location : on left bank at Ban Huai Tha Nua.

	Ban Huai Tha Nua	**Amphoe** Chat Trakan	**Changwat** Phitsanulok
Drainge Area	353 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+190.310 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank about 60 meters from the top staff gage.	**Elevation** +200.077 m. (MSL.)	
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic mean of 5 readings		
Period of Available Gage Records	1986 to date		
Rating Operation			
Period of Rating	1996 to date		
Rated by Flot	-		
Rated by Current Meter	1996 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 18 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

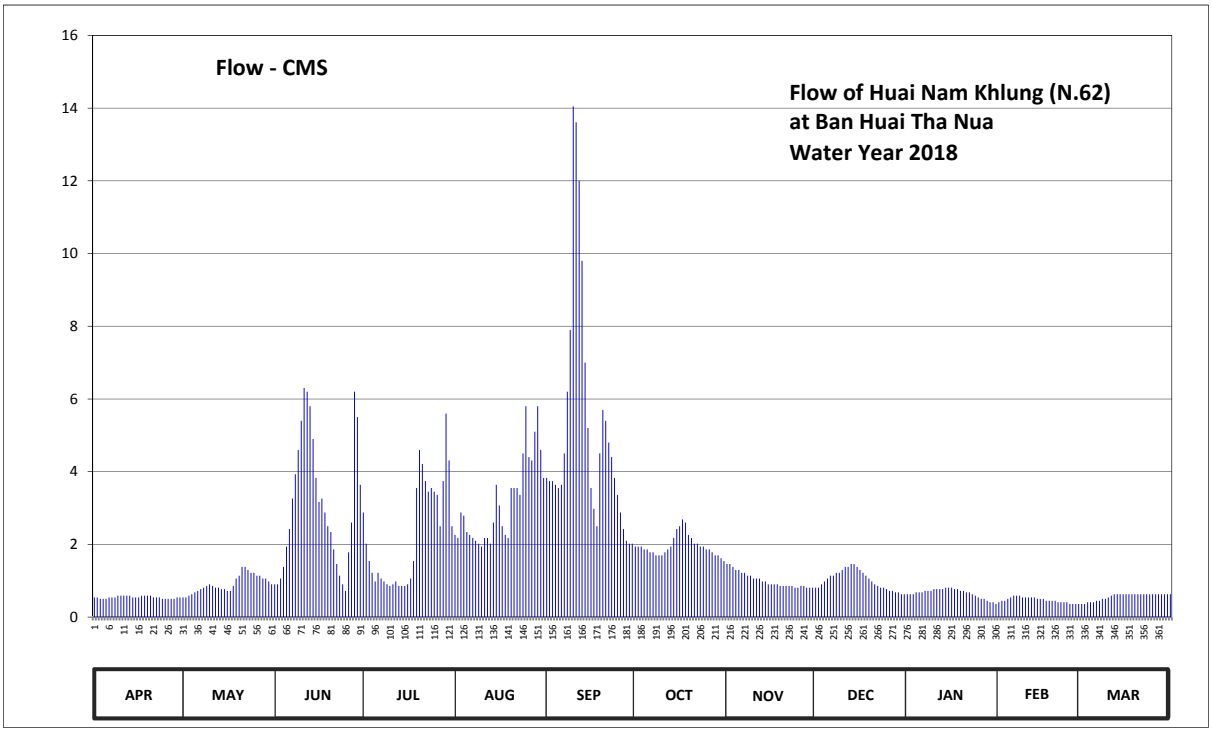
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	191.32	191.32	191.40	191.64	191.57	191.74	191.53	191.47	191.38	191.34	191.29	191.28	
2	191.32	191.32	191.40	191.54	191.56	191.73	191.53	191.47	191.38	191.34	191.30	191.28	
3	191.31	191.33	191.42	191.48	191.64	191.73	191.53	191.46	191.40	191.34	191.30	191.29	
4	191.31	191.34	191.46	191.44	191.63	191.72	191.52	191.45	191.41	191.35	191.31	191.29	
5	191.31	191.35	191.53	191.41	191.58	191.71	191.52	191.45	191.42	191.35	191.32	191.29	
6	191.32	191.36	191.59	191.44	191.57	191.72	191.51	191.44	191.43	191.35	191.33	191.30	
7	191.32	191.37	191.68	191.42	191.56	191.81	191.51	191.44	191.43	191.36	191.33	191.30	
8	191.32	191.38	191.75	191.41	191.55	191.98	191.50	191.43	191.44	191.36	191.33	191.31	
9	191.33	191.39	191.82	191.40	191.54	192.15	191.50	191.43	191.44	191.36	191.32	191.31	
10	191.33	191.40	191.90	191.39	191.53	192.75	191.50	191.42	191.45	191.37	191.32	191.32	
11	191.33	191.39	191.99	191.40	191.56	192.71	191.51	191.42	191.46	191.37	191.32	191.33	
12	191.33	191.38	191.98	191.41	191.56	192.56	191.52	191.42	191.46	191.37	191.32	191.34	
13	191.33	191.38	191.94	191.39	191.54	192.34	191.53	191.41	191.47	191.37	191.32	191.34	
14	191.32	191.37	191.85	191.39	191.61	192.06	191.56	191.41	191.47	191.38	191.31	191.34	
15	191.32	191.37	191.74	191.39	191.72	191.88	191.59	191.40	191.46	191.38	191.31	191.34	
16	191.32	191.36	191.67	191.40	191.66	191.71	191.60	191.40	191.45	191.38	191.31	191.34	
17	191.33	191.36	191.68	191.42	191.60	191.65	191.62	191.40	191.44	191.37	191.30	191.34	
18	191.33	191.39	191.64	191.48	191.57	191.60	191.61	191.40	191.43	191.37	191.30	191.34	
19	191.33	191.42	191.60	191.71	191.56	191.81	191.57	191.39	191.42	191.36	191.30	191.34	
20	191.33	191.43	191.58	191.82	191.71	191.93	191.56	191.39	191.41	191.36	191.30	191.34	
21	191.32	191.46	191.52	191.78	191.71	191.90	191.54	191.39	191.40	191.35	191.29	191.34	
22	191.32	191.46	191.47	191.73	191.71	191.84	191.54	191.39	191.39	191.35	191.29	191.34	
23	191.32	191.45	191.43	191.70	191.69	191.80	191.53	191.39	191.38	191.34	191.29	191.34	
24	191.31	191.44	191.40	191.71	191.81	191.74	191.53	191.38	191.38	191.33	191.29	191.34	
25	191.31	191.44	191.36	191.70	191.94	191.69	191.52	191.38	191.37	191.32	191.28	191.34	
26	191.31	191.43	191.51	191.69	191.80	191.64	191.52	191.39	191.36	191.31	191.28	191.34	
27	191.31	191.43	191.61	191.60	191.79	191.59	191.51	191.39	191.36	191.31	191.28	191.34	
28	191.31	191.42	191.98	191.73	191.87	191.55	191.50	191.38	191.35	191.30	191.28	191.34	
29	191.32	191.42	191.91	191.92	191.94	191.54	191.50	191.38	191.35	191.29		191.34	
30	191.32	191.41	191.72	191.79	191.82	191.54	191.49	191.38	191.34	191.29		191.34	
31		191.40		191.60	191.74		191.48		191.34	191.28		191.34	
Mean	191.32	191.39	191.65	191.56	191.67	191.87	191.53	191.41	191.41	191.35	191.30	191.33	
Max	191.33	191.46	191.99	191.92	191.94	192.75	191.62	191.47	191.47	191.38	191.33	191.34	192.75
Min	191.31	191.32	191.36	191.39	191.53	191.54	191.48	191.38	191.34	191.28	191.28	191.28	191.28

Annual Max Momentary Gage Height 192.81 m. (MSL.) , at 18.00 Hours , on Sep 10 , 2018

Zero Gage at Bottom Elevation 190.31 m. (MSL.) , River Bed 190.74 m. (MSL.)

Left Bank Elevation 195.63 m. (MSL.) ,

Right Bank Elevation 195.45 m. (MSL.) , Drainage Are 353 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.54	0.54	0.90	2.88	2.26	3.83	1.94	1.46	0.81	0.63	0.41	0.36		
2	0.54	0.54	0.90	2.02	2.18	3.74	1.94	1.46	0.81	0.63	0.45	0.36		
3	0.50	0.59	1.06	1.54	2.88	3.74	1.94	1.38	0.90	0.63	0.45	0.41		
4	0.50	0.63	1.38	1.22	2.79	3.64	1.86	1.30	0.98	0.68	0.50	0.41		
5	0.50	0.68	1.94	0.98	2.34	3.55	1.86	1.30	1.06	0.68	0.54	0.41		
6	0.54	0.72	2.42	1.22	2.26	3.64	1.78	1.22	1.14	0.68	0.59	0.45		
7	0.54	0.77	3.26	1.06	2.18	4.50	1.78	1.22	1.14	0.72	0.59	0.45		
8	0.54	0.81	3.93	0.98	2.10	6.20	1.70	1.14	1.22	0.72	0.59	0.50		
9	0.59	0.86	4.60	0.90	2.02	7.90	1.70	1.14	1.22	0.72	0.54	0.50		
10	0.59	0.90	5.40	0.86	1.94	14.05	1.70	1.06	1.30	0.77	0.54	0.54		
11	0.59	0.86	6.30	0.90	2.18	13.61	1.78	1.06	1.38	0.77	0.54	0.59		
12	0.59	0.81	6.20	0.98	2.18	12.00	1.86	1.06	1.38	0.77	0.54	0.63		
13	0.59	0.81	5.80	0.86	2.02	9.80	1.94	0.98	1.46	0.77	0.54	0.63		
14	0.54	0.77	4.90	0.86	2.60	7.00	2.18	0.98	1.46	0.81	0.50	0.63		
15	0.54	0.77	3.83	0.86	3.64	5.20	2.42	0.90	1.38	0.81	0.50	0.63		
16	0.54	0.72	3.17	0.90	3.07	3.55	2.50	0.90	1.30	0.81	0.50	0.63		
17	0.59	0.72	3.26	1.06	2.50	2.98	2.69	0.90	1.22	0.77	0.45	0.63		
18	0.59	0.86	2.88	1.54	2.26	2.50	2.60	0.90	1.14	0.77	0.45	0.63		
19	0.59	1.06	2.50	3.55	2.18	4.50	2.26	0.86	1.06	0.72	0.45	0.63		
20	0.59	1.14	2.34	4.60	3.55	5.70	2.18	0.86	0.98	0.72	0.45	0.63		
21	0.54	1.38	1.86	4.21	3.55	5.40	2.02	0.86	0.90	0.68	0.41	0.63		
22	0.54	1.38	1.46	3.74	3.55	4.80	2.02	0.86	0.86	0.68	0.41	0.63		
23	0.54	1.30	1.14	3.45	3.36	4.40	1.94	0.86	0.81	0.63	0.41	0.63		
24	0.50	1.22	0.90	3.55	4.50	3.83	1.94	0.81	0.81	0.59	0.41	0.63		
25	0.50	1.22	0.72	3.45	5.80	3.36	1.86	0.81	0.77	0.54	0.36	0.63		
26	0.50	1.14	1.78	3.36	4.40	2.88	1.86	0.86	0.72	0.50	0.36	0.63		
27	0.50	1.14	2.60	2.50	4.31	2.42	1.78	0.86	0.72	0.50	0.36	0.63		
28	0.50	1.06	6.20	3.74	5.10	2.10	1.70	0.81	0.68	0.45	0.36	0.63		
29	0.54	1.06	5.50	5.60	5.80	2.02	1.70	0.81	0.68	0.41		0.63		
30	0.54	0.98	3.64	4.31	4.60	2.02	1.62	0.81	0.63	0.41		0.63		
31		0.90		2.50	3.83		1.54		0.63	0.36		0.63		
Total	16.33	28.34	92.77	70.18	97.93	154.86	60.59	30.43	31.55	20.33	13.20	17.58	634.09	CMSDAY
Mean	0.54	0.91	3.09	2.26	3.16	5.16	1.95	1.01	1.02	0.66	0.47	0.57	1.74	CMS
Max	0.59	1.38	6.30	5.60	5.80	14.05	2.69	1.46	1.46	0.81	0.59	0.63	14.05	CMS
Min	0.50	0.54	0.72	0.86	1.94	2.02	1.54	0.81	0.63	0.36	0.36	0.36	0.36	CMS
Runoff	1.41	2.45	8.02	6.06	8.46	13.38	5.23	2.63	2.73	1.76	1.14	1.52	54.79	MCM

Momentary Peak 14.71 CMS. at 192.81 m. (MSL.) at 18.00 Hours , on Sep 10 , 2018

Runoff Yield 4.92 Liters/Second/Square KM. Momentary Peak Yield 41.67 Liters/Second/Square KM.

WATER YEAR : 2018

NAN RIVER BASIN

Nan River at Ban Pha Khwang , Nan (N.64)

Lat 19 - 00 - 32 N Long 100 - 47 - 19 E

Location : on right bank at the bridge on highway from Tambon Bo.

Ban Pha Khwang **Amphoe** Mueang **Changwat** Nan

Drainge Area	3,476 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+210.900 m. (MSL.)
Bench Mark	B.M.- Temporary.
Location BM	On right bank at the approach of the bridge. **Elevation** +223.555 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	1994 to date
Rating Operation	
Period of Rating	1994 to date
Rated by Flot	-
Rated by Current Meter	1994 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. Stage-discharge relation defined by 44 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

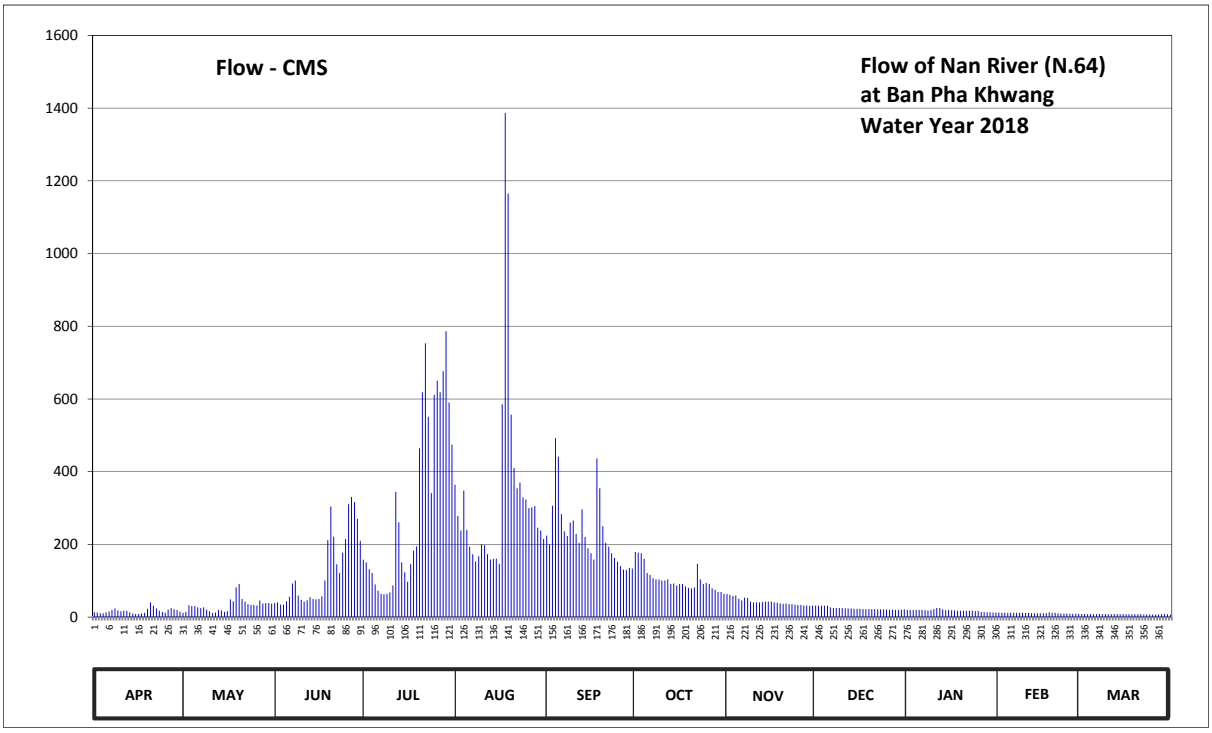
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	211.64	211.62	211.95	213.01	215.04	213.76	213.27	212.19	211.88	211.73	211.63	211.56	
2	211.63	211.66	211.97	212.92	214.29	213.50	213.25	212.17	211.88	211.73	211.62	211.55	
3	211.60	211.89	211.91	212.68	213.90	214.55	213.23	212.14	211.87	211.73	211.62	211.55	
4	211.60	211.86	211.91	212.58	214.91	216.01	213.04	212.15	211.87	211.73	211.62	211.55	
5	211.64	211.86	212.00	212.39	213.92	215.64	212.58	212.07	211.87	211.73	211.62	211.54	
6	211.67	211.82	212.12	212.26	213.43	214.34	212.55	212.02	211.82	211.73	211.62	211.55	
7	211.73	211.79	212.41	212.19	213.20	213.88	212.50	212.10	211.80	211.72	211.62	211.55	
8	211.78	211.82	212.46	212.18	212.95	213.75	212.48	212.09	211.80	211.71	211.62	211.55	
9	211.71	211.74	212.15	212.19	213.13	214.12	212.48	211.99	211.80	211.73	211.62	211.55	
10	211.68	211.68	212.04	212.22	213.50	214.18	212.46	211.97	211.79	211.76	211.61	211.54	
11	211.70	211.61	211.99	212.37	213.48	213.81	212.46	211.97	211.78	211.80	211.61	211.54	
12	211.70	211.63	212.03	214.88	213.20	213.54	212.48	211.97	211.78	211.80	211.60	211.55	
13	211.64	211.73	212.11	214.13	213.02	214.46	212.40	211.98	211.78	211.75	211.60	211.55	
14	211.58	211.71	212.06	212.92	213.04	213.72	212.41	211.99	211.77	211.72	211.60	211.55	
15	211.55	211.66	212.05	212.59	213.05	213.38	212.37	211.99	211.77	211.73	211.60	211.55	
16	211.56	211.68	212.06	212.44	212.87	213.23	212.40	211.99	211.77	211.72	211.60	211.54	
17	211.59	212.05	212.13	212.86	216.65	213.02	212.40	211.97	211.76	211.71	211.60	211.54	
18	211.62	212.00	212.46	213.31	221.32	215.60	212.35	211.96	211.76	211.70	211.64	211.54	
19	211.77	212.33	213.63	213.44	220.15	214.96	212.32	211.94	211.76	211.70	211.62	211.54	
20	211.97	212.40	214.53	215.81	216.46	214.02	212.31	211.93	211.76	211.70	211.62	211.54	
21	211.87	212.06	213.73	216.87	215.41	213.55	212.33	211.94	211.76	211.70	211.60	211.54	
22	211.78	211.99	212.85	217.73	214.96	213.43	212.87	211.92	211.75	211.70	211.58	211.53	
23	211.70	211.92	212.58	216.42	215.09	213.23	212.48	211.92	211.75	211.70	211.58	211.53	
24	211.65	211.90	213.25	214.85	214.75	213.07	212.40	211.91	211.75	211.69	211.58	211.53	
25	211.62	211.90	213.66	216.82	214.70	212.94	212.42	211.90	211.74	211.69	211.57	211.52	
26	211.74	211.88	214.59	217.07	214.49	212.79	212.40	211.90	211.74	211.65	211.57	211.52	
27	211.79	212.02	214.76	216.87	214.51	212.67	212.31	211.88	211.74	211.65	211.57	211.52	
28	211.75	211.94	214.64	217.24	214.54	212.66	212.28	211.88	211.73	211.64	211.56	211.54	
29	211.73	211.95	214.22	217.94	213.98	212.73	212.23	211.87	211.73	211.64		211.55	
30	211.67	211.95	213.61	216.68	213.90	212.71	212.23	211.88	211.74	211.63		211.54	
31		211.93		215.88	213.66		212.19		211.75	211.63		211.51	
Mean	211.69	211.87	212.80	214.31	214.56	213.77	212.51	211.99	211.78	211.71	211.60	211.54	
Max	211.97	212.40	214.76	217.94	221.32	216.01	213.27	212.19	211.88	211.80	211.64	211.56	221.32
Min	211.55	211.61	211.91	212.18	212.87	212.66	212.19	211.87	211.73	211.63	211.56	211.51	211.51

Annual Max Momentary Gage Height 221.85 m. (MSL.) , at 21.00 Hours , on Aug 18, 2018

Zero Gage at Bottom Elevation 210.90 m. (MSL.) , River Bed 210.81 m. (MSL.)

Left Bank Elevation 226.44 m. (MSL.) ,

Right Bank Elevation 224.11 m. (MSL.) , Drainage Are 3,476 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	13.30	11.90	38.50	157.80	364.00	224.20	179.30	63.88	31.84	19.81	12.60	8.66		
2	12.60	14.70	40.50	150.60	277.90	200.00	177.50	61.64	31.84	19.81	11.90	8.20		
3	10.50	32.67	34.50	131.40	238.00	306.50	175.70	58.28	31.01	19.81	11.90	8.20		
4	10.50	30.18	34.50	121.40	348.20	492.40	160.20	59.40	31.01	19.81	11.90	8.20		
5	13.30	30.18	43.50	89.70	240.00	441.40	121.40	50.71	31.01	19.81	11.90	7.74		
6	15.40	26.86	56.04	72.80	193.70	283.40	116.00	45.56	26.86	19.81	11.90	8.20		
7	19.81	24.43	92.60	63.88	173.00	236.00	107.00	53.80	25.20	19.04	11.90	8.20		
8	23.66	26.86	100.60	62.76	153.00	223.25	103.80	52.77	25.20	18.27	11.90	8.20		
9	18.27	20.58	59.40	63.88	167.40	260.00	103.80	42.50	25.20	19.81	11.90	8.20		
10	16.10	16.10	47.62	67.60	200.00	266.00	100.60	40.50	24.43	22.12	11.20	7.74		
11	17.50	11.20	42.50	87.10	198.20	229.00	100.60	40.50	23.66	25.20	11.20	7.74		
12	17.50	12.60	46.59	344.60	173.00	203.60	103.80	40.50	23.66	25.20	10.50	8.20		
13	13.30	19.81	54.92	261.00	158.60	296.60	91.00	41.50	23.66	21.35	10.50	8.20		
14	9.58	18.27	49.68	150.60	160.20	220.40	92.60	42.50	22.89	19.04	10.50	8.20		
15	8.20	14.70	48.65	123.20	161.00	189.20	87.10	42.50	22.89	19.81	10.50	8.20		
16	8.66	16.10	49.68	97.40	146.60	175.70	91.00	42.50	22.89	19.04	10.50	7.74		
17	10.04	48.65	57.16	145.80	585.50	158.60	91.00	40.50	22.12	18.27	10.50	7.74		
18	11.90	43.50	100.60	182.90	1387.40	436.00	84.50	39.50	22.12	17.50	13.30	7.74		
19	22.89	81.90	211.85	194.60	1165.00	354.20	80.60	37.50	22.12	17.50	11.90	7.74		
20	40.50	91.00	304.30	464.40	557.00	250.00	79.30	36.50	22.12	17.50	11.90	7.74		
21	31.01	49.68	221.35	618.85	410.35	204.50	81.90	37.50	22.12	17.50	10.50	7.74		
22	23.66	42.50	145.00	752.80	354.20	193.70	146.60	35.50	21.35	17.50	9.58	7.28		
23	17.50	35.50	121.40	551.00	370.25	175.70	103.80	35.50	21.35	17.50	9.58	7.28		
24	14.00	33.50	177.50	341.00	329.25	162.60	91.00	34.50	21.35	16.80	9.58	7.28		
25	11.90	33.50	214.70	611.10	323.50	152.20	94.20	33.50	20.58	16.80	9.12	6.82		
26	20.58	31.84	310.90	649.85	299.90	140.20	91.00	33.50	20.58	14.00	9.12	6.82		
27	24.43	45.56	330.40	618.85	302.10	130.60	79.30	31.84	20.58	14.00	9.12	6.82		
28	21.35	37.50	316.60	676.20	305.40	129.80	75.40	31.84	19.81	13.30	8.66	7.74		
29	19.81	38.50	270.20	786.40	246.00	135.40	68.90	31.01	19.81	13.30		8.20		
30	15.40	38.50	209.95	590.00	238.00	133.80	68.90	31.84	20.58	12.60		7.74		
31		36.50		474.20	214.70		63.88		21.35	12.60		6.36		
Total	513.15	1015.27	3831.69	9703.67	10441.35	7004.95	3211.68	1269.57	741.19	564.41	305.56	240.86	38843.35	CMSDAY
Mean	17.11	32.75	127.72	313.02	336.82	233.50	103.60	42.32	23.91	18.21	10.91	7.77	106.42	CMS
Max	40.50	91.00	330.40	786.40	1387.40	492.40	179.30	63.88	31.84	25.20	13.30	8.66	1387.40	CMS
Min	8.20	11.20	34.50	62.76	146.60	129.80	63.88	31.01	19.81	12.60	8.66	6.36	6.36	CMS
Runoff	44.34	87.72	331.06	838.40	902.13	605.23	277.49	109.69	64.04	48.77	26.40	20.81	3356.07	MCM

Momentary Peak 1493.00 CMS. at 221.85 m. (MSL.) at 21.00 Hours , on Aug 18 , 2018

Runoff Yield 30.62 Liters/Second/Square KM. Momentary Peak Yield 429.52 Liters/Second/Square KM.

WATER YEAR : 2018

NAN RIVER BASIN

Nam Yao at Ban Pang Sa , Nan (N.65)

Lat 19 - 13 - 47 N Long 100 - 45 - 27 E

Location : on right bank at the bridge on highway.

Ban Pang Sa **Amphoe** Tha Wang Pha **Changwat** Nan

Drainge Area	621 sq.km.
Type of Gage	Water - stage recorder.
Zero Gage at Bottom	+248.891 m. (MSL.)
Bench Mark	B.M.- H.D.
Location BM	On right bank about 20 meters from the top staff gage. **Elevation** +257.381 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	1996 to date
Rating Operation	
Period of Rating	1996 to date
Rated by Flot	-
Rated by Current Meter	1996 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. Stage-discharge relation defined by 33 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

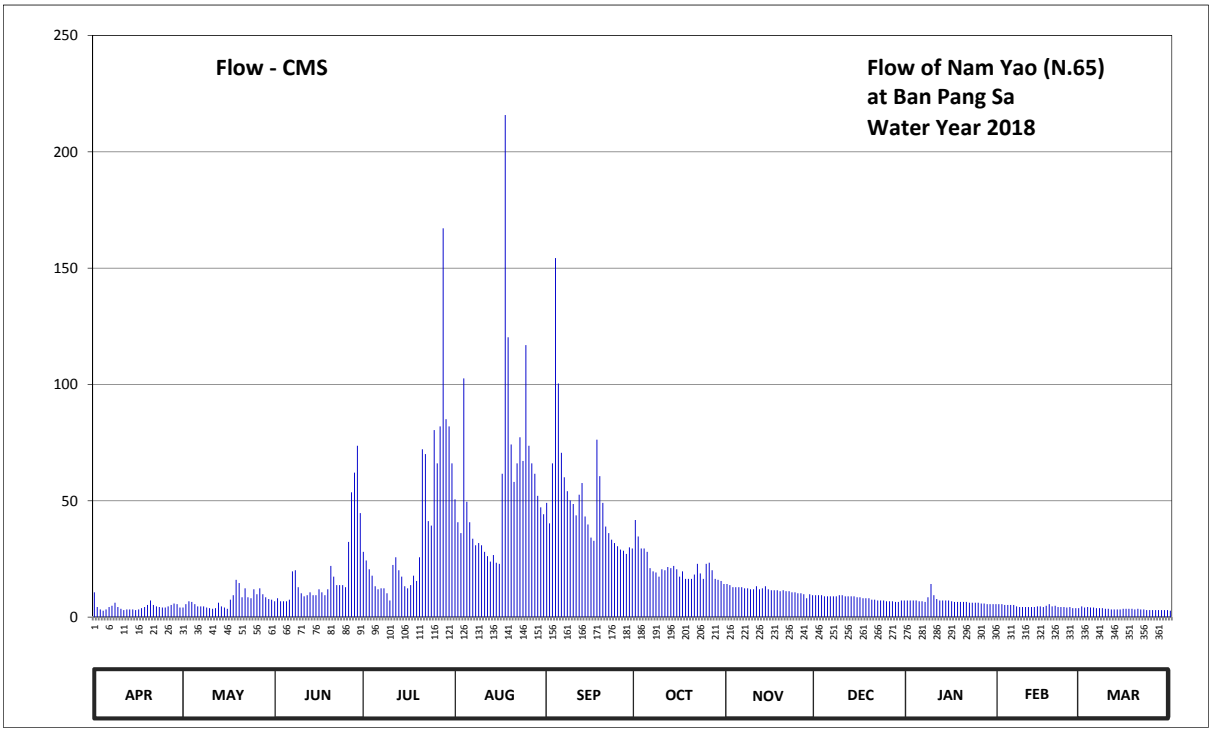
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	249.66	249.47	249.56	250.04	250.51	250.48	250.33	249.74	249.63	249.57	249.52	249.49	
2	249.48	249.52	249.60	249.96	250.31	250.30	250.18	249.73	249.63	249.57	249.52	249.47	
3	249.44	249.56	249.56	249.88	250.21	250.82	250.07	249.71	249.63	249.57	249.51	249.48	
4	249.42	249.55	249.56	249.82	251.52	252.44	250.07	249.71	249.62	249.57	249.51	249.47	
5	249.44	249.52	249.56	249.72	250.49	251.48	250.04	249.71	249.62	249.56	249.51	249.47	
6	249.48	249.49	249.58	249.69	250.31	250.91	249.89	249.71	249.62	249.56	249.51	249.46	
7	249.50	249.49	249.86	249.70	250.16	250.70	249.86	249.70	249.62	249.55	249.49	249.46	
8	249.54	249.49	249.87	249.70	250.10	250.58	249.85	249.70	249.62	249.61	249.48	249.46	
9	249.48	249.47	249.71	249.65	250.12	250.50	249.81	249.69	249.63	249.74	249.48	249.45	
10	249.45	249.46	249.65	249.57	250.10	250.47	249.88	249.69	249.63	249.63	249.48	249.45	
11	249.43	249.45	249.62	249.92	250.04	250.37	249.87	249.72	249.62	249.59	249.48	249.44	
12	249.44	249.46	249.63	249.99	250.00	250.55	249.90	249.69	249.62	249.57	249.48	249.44	
13	249.44	249.54	249.66	249.87	249.95	250.65	249.89	249.70	249.62	249.57	249.48	249.44	
14	249.44	249.49	249.63	249.81	250.01	250.36	249.91	249.72	249.62	249.57	249.49	249.44	
15	249.43	249.47	249.63	249.72	249.94	250.29	249.88	249.69	249.61	249.57	249.49	249.45	
16	249.44	249.45	249.69	249.70	249.93	250.17	249.81	249.68	249.61	249.56	249.48	249.45	
17	249.46	249.58	249.66	249.73	250.73	250.14	249.86	249.68	249.60	249.55	249.50	249.45	
18	249.48	249.63	249.63	249.82	253.50	251.02	249.79	249.68	249.60	249.55	249.52	249.45	
19	249.51	249.78	249.69	249.77	251.84	250.71	249.79	249.67	249.60	249.55	249.49	249.44	
20	249.57	249.75	249.91	249.99	250.98	250.48	249.79	249.68	249.58	249.55	249.50	249.45	
21	249.51	249.61	249.81	250.94	250.66	250.27	249.83	249.67	249.58	249.55	249.48	249.44	
22	249.49	249.70	249.73	250.90	250.82	250.21	249.93	249.67	249.57	249.54	249.48	249.44	
23	249.48	249.61	249.73	250.32	251.04	250.15	249.84	249.66	249.57	249.54	249.48	249.43	
24	249.47	249.60	249.73	250.28	250.84	250.12	249.79	249.66	249.57	249.54	249.47	249.43	
25	249.47	249.69	249.71	251.10	251.78	250.09	249.93	249.65	249.56	249.54	249.48	249.43	
26	249.49	249.64	250.13	250.82	250.97	250.06	249.94	249.65	249.56	249.53	249.46	249.43	
27	249.51	249.70	250.57	251.13	250.82	250.05	249.87	249.64	249.56	249.53	249.46	249.43	
28	249.53	249.64	250.74	252.66	250.73	250.02	249.79	249.60	249.55	249.52	249.46	249.43	
29	249.52	249.61	250.97	251.19	250.54	250.08	249.78	249.64	249.55	249.52		249.43	
30	249.47	249.59	250.39	251.13	250.44	250.07	249.77	249.63	249.57	249.52		249.43	
31		249.58		250.82	250.38		249.74		249.57	249.52		249.42	
Mean	249.48	249.57	249.83	250.24	250.64	250.48	249.89	249.68	249.60	249.56	249.49	249.45	
Max	249.66	249.78	250.97	252.66	253.50	252.44	250.33	249.74	249.63	249.74	249.52	249.49	253.50
Min	249.42	249.45	249.56	249.57	249.93	250.02	249.74	249.60	249.55	249.52	249.46	249.42	249.42

Annual Max Momentary Gage Height 254.15 m. (MSL.) , at 13.00 Hours , on Sep 4 , 2018

Zero Gage at Bottom Elevation 248.89 m. (MSL.) , River Bed 248.96 m. (MSL.)

Left Bank Elevation 256.73 m. (MSL.) ,

Right Bank Elevation 256.71 m. (MSL.) , Drainage Are 621 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	10.68	4.09	6.82	28.08	50.60	49.12	41.77	14.20	9.39	7.14	5.54	4.63		
2	4.36	5.54	8.10	24.32	40.79	40.30	34.66	13.75	9.39	7.14	5.54	4.09		
3	3.28	6.82	6.82	20.58	36.07	66.10	29.49	12.85	9.39	7.14	5.22	4.36		
4	2.74	6.50	6.82	17.82	102.60	154.32	29.49	12.85	8.96	7.14	5.22	4.09		
5	3.28	5.54	6.82	13.30	49.61	100.40	28.08	12.85	8.96	6.82	5.22	4.09		
6	4.36	4.63	7.46	11.97	40.79	70.61	21.04	12.85	8.96	6.82	5.22	3.82		
7	4.90	4.63	19.66	12.40	33.72	60.10	19.66	12.40	8.96	6.50	4.63	3.82		
8	6.18	4.63	20.12	12.40	30.90	54.10	19.20	12.40	8.96	8.53	4.36	3.82		
9	4.36	4.09	12.85	10.25	31.84	50.10	17.36	11.97	9.39	14.20	4.36	3.55		
10	3.55	3.82	10.25	7.14	30.90	48.63	20.58	11.97	9.39	9.39	4.36	3.55		
11	3.01	3.55	8.96	22.44	28.08	43.73	20.12	13.30	8.96	7.78	4.36	3.28		
12	3.28	3.82	9.39	25.73	26.20	52.60	21.50	11.97	8.96	7.14	4.36	3.28		
13	3.28	6.18	10.68	20.12	23.85	57.60	21.04	12.40	8.96	7.14	4.36	3.28		
14	3.28	4.63	9.39	17.36	26.67	43.24	21.97	13.30	8.96	7.14	4.63	3.28		
15	3.01	4.09	9.39	13.30	23.38	39.83	20.58	11.97	8.53	7.14	4.63	3.55		
16	3.28	3.55	11.97	12.40	22.91	34.19	17.36	11.54	8.53	6.82	4.36	3.55		
17	3.82	7.46	10.68	13.75	61.60	32.78	19.66	11.54	8.10	6.50	4.90	3.55		
18	4.36	9.39	9.39	17.82	215.80	76.24	16.45	11.54	8.10	6.50	5.54	3.55		
19	5.22	16.00	11.97	15.55	120.24	60.60	16.45	11.11	8.10	6.50	4.63	3.28		
20	7.14	14.65	21.97	25.73	74.18	49.12	16.45	11.54	7.46	6.50	4.90	3.55		
21	5.22	8.53	17.36	72.14	58.10	38.89	18.28	11.11	7.46	6.50	4.36	3.28		
22	4.63	12.40	13.75	70.10	66.10	36.07	22.91	11.11	7.14	6.18	4.36	3.28		
23	4.36	8.53	13.75	41.28	77.28	33.25	18.74	10.68	7.14	6.18	4.36	3.01		
24	4.09	8.10	13.75	39.36	67.10	31.84	16.45	10.68	7.14	6.18	4.09	3.01		
25	4.09	11.97	12.85	80.40	116.90	30.43	22.91	10.25	6.82	6.18	4.36	3.01		
26	4.63	9.82	32.31	66.10	73.67	29.02	23.38	10.25	6.82	5.86	3.82	3.01		
27	5.22	12.40	53.60	81.96	66.10	28.55	20.12	9.82	6.82	5.86	3.82	3.01		
28	5.86	9.82	62.10	167.08	61.60	27.14	16.45	8.10	6.50	5.54	3.82	3.01		
29	5.54	8.53	73.67	85.08	52.10	29.96	16.00	9.82	6.50	5.54		3.01		
30	4.09	7.78	44.71	81.96	47.16	29.49	15.55	9.39	7.14	5.54		3.01		
31		7.46		66.10	44.22		14.20		7.14	5.54		2.74		
Total	135.10	228.95	557.36	1194.02	1801.06	1498.35	657.90	349.51	253.03	215.08	129.33	107.35	7127.04	CMSDAY
Mean	4.50	7.39	18.58	38.52	58.10	49.95	21.22	11.65	8.16	6.94	4.62	3.46	19.53	CMS
Max	10.68	16.00	73.67	167.08	215.80	154.32	41.77	14.20	9.39	14.20	5.54	4.63	215.80	CMS
Min	2.74	3.55	6.82	7.14	22.91	27.14	14.20	8.10	6.50	5.54	3.82	2.74	2.74	CMS
Runoff	11.67	19.78	48.16	103.16	155.61	129.46	56.84	30.20	21.86	18.58	11.17	9.28	615.78	MCM

Momentary Peak 254.00 CMS. at 254.15 m. (MSL.) at 13.00 Hours , on Sep 4 , 2018

Runoff Yield 31.44 Liters/Second/Square KM. Momentary Peak Yield 409.02 Liters/Second/Square KM.

WATER YEAR : 2018

NAN RIVER BASIN

Huai Om Sing at Ban Noen Phoem , Phitsanulok (N.66)

Lat 17 - 07 - 22 N Long 100 - 53 - 58 E

Location : on right bank at Ban Om Sing.

	Ban Noen Phoem **Amphoe** Nakhon Thai **Changwat** Phitsanulok
Drainge Area	152 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+201.220 m. (MSL.)
Bench Mark	B.M.- H.D.
Location BM	On right bank about 8 meters from the top staff gage. **Elevation** +208.617 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic mean of 5 readings
Period of Available Gage Records	1995 to date
Rating Operation	
Period of Rating	1996 to date
Rated by Flot	-
Rated by Current Meter	1996 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Stage-discharge relation defined by 17 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

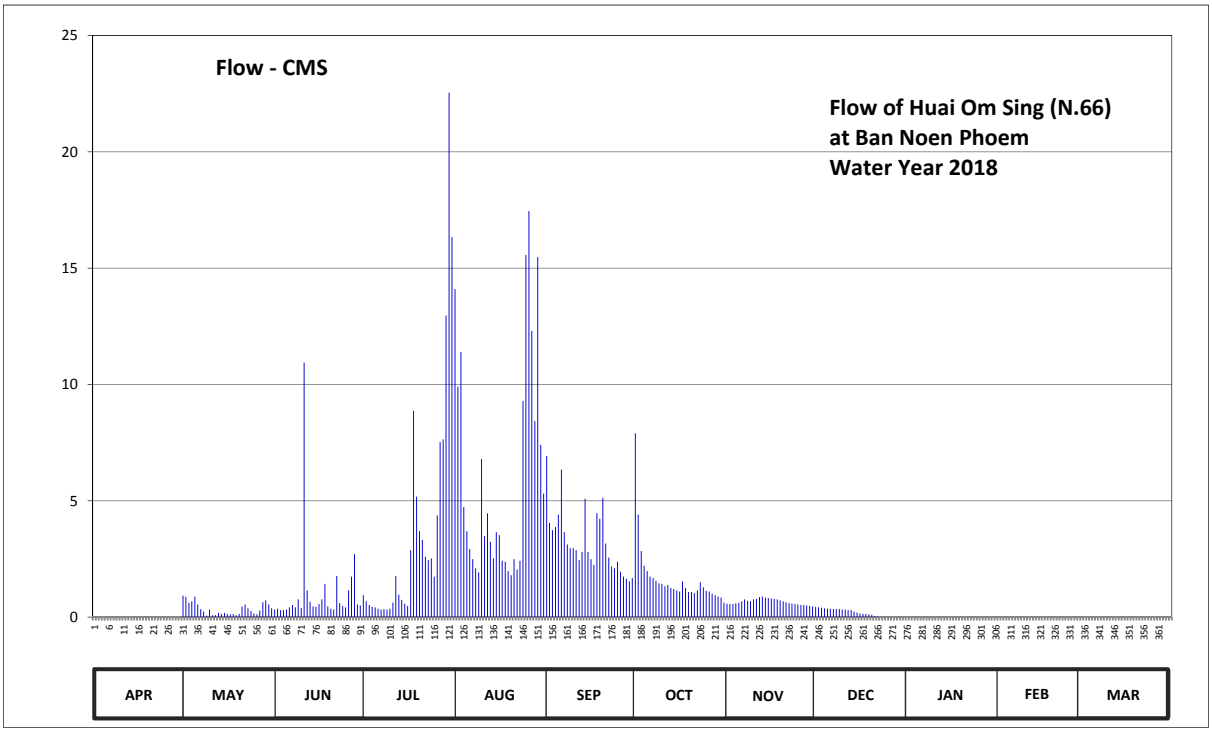
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	202.47	203.16	202.86	203.17	205.60	204.67	204.83	202.99	202.92	202.67	202.67	202.67	
2	202.47	203.14	202.88	203.04	205.13	204.10	204.18	202.98	202.91	202.67	202.67	202.67	
3	202.47	203.01	202.85	202.96	205.31	204.03	203.81	202.98	202.90	202.67	202.67	202.67	
4	202.48	203.04	202.85	202.92	204.25	204.06	203.63	203.00	202.89	202.67	202.67	202.67	
5	202.49	203.14	202.86	202.91	204.02	204.18	203.56	203.01	202.88	202.67	202.67	202.67	
6	202.50	202.97	202.91	202.88	203.83	204.57	203.48	203.04	202.88	202.67	202.67	202.67	
7	202.50	202.87	202.96	202.86	203.71	204.01	203.46	203.08	202.87	202.67	202.67	202.67	
8	202.51	202.82	202.91	202.87	203.60	203.88	203.42	203.05	202.87	202.67	202.67	202.67	
9	202.52	202.73	203.08	202.86	203.54	203.84	203.38	203.04	202.87	202.67	202.67	202.67	
10	202.53	202.86	202.90	202.88	204.65	203.84	203.37	203.08	202.86	202.67	202.67	202.67	
11	202.54	202.74	205.26	203.01	203.97	203.82	203.33	203.09	202.86	202.67	202.67	202.67	
12	202.56	202.74	203.26	203.49	204.19	203.70	203.35	203.13	202.85	202.67	202.67	202.67	
13	202.57	202.79	203.03	203.18	203.91	203.80	203.30	203.14	202.85	202.67	202.67	202.67	
14	202.60	202.77	202.93	203.07	203.72	204.33	203.28	203.12	202.82	202.67	202.67	202.67	
15	202.63	202.79	202.92	202.99	204.01	203.80	203.26	203.11	202.80	202.67	202.67	202.67	
16	202.59	202.77	202.98	202.94	203.98	203.71	203.24	203.10	202.78	202.67	202.67	202.67	
17	202.60	202.76	203.08	203.82	203.69	203.64	203.41	203.09	202.77	202.67	202.67	202.67	
18	202.60	202.76	203.37	204.98	203.68	204.19	203.30	203.08	202.77	202.67	202.67	202.67	
19	202.61	202.74	202.93	204.35	203.56	204.14	203.23	203.06	202.76	202.67	202.67	202.67	
20	202.61	202.77	202.88	204.02	203.50	204.34	203.23	203.04	202.75	202.67	202.67	202.67	
21	202.62	202.93	202.86	203.93	203.71	203.89	203.21	203.02	202.72	202.67	202.67	202.67	
22	202.63	202.97	203.49	203.74	203.58	203.73	203.26	203.00	202.71	202.67	202.67	202.67	
23	202.63	202.89	203.00	203.70	203.69	203.62	203.40	202.99	202.70	202.67	202.67	202.67	
24	202.62	202.83	202.94	203.72	205.04	203.60	203.31	202.98	202.69	202.67	202.67	202.67	
25	202.62	202.78	202.91	203.48	205.74	203.68	203.25	202.97	202.68	202.67	202.67	202.67	
26	202.62	202.76	203.26	204.17	205.90	203.55	203.24	202.96	202.67	202.67	202.67	202.67	
27	202.61	202.84	203.48	204.77	205.41	203.48	203.20	202.96	202.67	202.67	202.67	202.67	
28	202.61	203.02	203.77	204.79	204.91	203.45	203.17	202.95	202.67	202.67	202.67	202.67	
29	202.60	203.06	202.97	205.48	205.73	203.41	203.14	202.94	202.67	202.67		202.67	
30	202.60	202.97	202.95	206.28	204.75	203.46	203.12	202.93	202.67	202.67		202.67	
31		202.89		205.81	204.38		203.01		202.67	202.67		202.67	
Mean	202.57	202.88	203.11	203.71	204.34	203.88	203.40	203.03	202.79	202.67	202.67	202.67	
Max	202.63	203.16	205.26	206.28	205.90	204.67	204.83	203.14	202.92	202.67	202.67	202.67	206.28
Min	202.47	202.73	202.85	202.86	203.50	203.41	203.01	202.93	202.67	202.67	202.67	202.67	202.47

Annual Max Momentary Gage Height 206.34 m. (MSL.) , at 12.00 Hours , on Jul 30 , 2018

Zero Gage at Bottom Elevation 201.22 m. (MSL.) , River Bed 202.35 m. (MSL.)

Left Bank Elevation 207.41 m. (MSL.) ,

Right Bank Elevation 207.30 m. (MSL.) , Drainage Are 152 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.92	0.32	0.94	14.10	6.92	7.90	0.58	0.44	0.00	0.00	0.00		
2	0.00	0.88	0.36	0.68	9.91	4.05	4.41	0.56	0.42	0.00	0.00	0.00		
3	0.00	0.62	0.30	0.52	11.39	3.74	2.84	0.56	0.40	0.00	0.00	0.00		
4	0.00	0.68	0.30	0.44	4.73	3.87	2.21	0.60	0.38	0.00	0.00	0.00		
5	0.00	0.88	0.32	0.42	3.69	4.41	1.98	0.62	0.36	0.00	0.00	0.00		
6	0.00	0.54	0.42	0.36	2.92	6.34	1.74	0.68	0.36	0.00	0.00	0.00		
7	0.00	0.34	0.52	0.32	2.49	3.65	1.68	0.76	0.34	0.00	0.00	0.00		
8	0.00	0.24	0.42	0.34	2.10	3.12	1.56	0.70	0.34	0.00	0.00	0.00		
9	0.00	0.06	0.76	0.32	1.92	2.96	1.45	0.68	0.34	0.00	0.00	0.00		
10	0.00	0.32	0.40	0.36	6.80	2.96	1.43	0.76	0.32	0.00	0.00	0.00		
11	0.00	0.08	10.94	0.62	3.48	2.88	1.33	0.78	0.32	0.00	0.00	0.00		
12	0.00	0.08	1.15	1.77	4.46	2.45	1.38	0.86	0.30	0.00	0.00	0.00		
13	0.00	0.18	0.66	0.96	3.24	2.80	1.25	0.88	0.30	0.00	0.00	0.00		
14	0.00	0.14	0.46	0.74	2.52	5.09	1.20	0.84	0.24	0.00	0.00	0.00		
15	0.00	0.18	0.44	0.58	3.65	2.80	1.15	0.82	0.20	0.00	0.00	0.00		
16	0.00	0.14	0.56	0.48	3.52	2.49	1.10	0.80	0.16	0.00	0.00	0.00		
17	0.00	0.12	0.76	2.88	2.42	2.24	1.53	0.78	0.14	0.00	0.00	0.00		
18	0.00	0.12	1.43	8.87	2.38	4.46	1.25	0.76	0.14	0.00	0.00	0.00		
19	0.00	0.08	0.46	5.18	1.98	4.23	1.08	0.72	0.12	0.00	0.00	0.00		
20	0.00	0.14	0.36	3.69	1.80	5.13	1.08	0.68	0.10	0.00	0.00	0.00		
21	0.00	0.46	0.32	3.32	2.49	3.16	1.03	0.64	0.04	0.00	0.00	0.00		
22	0.00	0.54	1.77	2.59	2.04	2.56	1.15	0.60	0.02	0.00	0.00	0.00		
23	0.00	0.38	0.60	2.45	2.42	2.17	1.50	0.58	0.00	0.00	0.00	0.00		
24	0.00	0.26	0.48	2.52	9.28	2.10	1.28	0.56	0.00	0.00	0.00	0.00		
25	0.00	0.16	0.42	1.74	15.57	2.38	1.13	0.54	0.00	0.00	0.00	0.00		
26	0.00	0.12	1.15	4.37	17.45	1.95	1.10	0.52	0.00	0.00	0.00	0.00		
27	0.00	0.28	1.74	7.52	12.30	1.74	1.00	0.52	0.00	0.00	0.00	0.00		
28	0.00	0.64	2.70	7.64	8.42	1.65	0.94	0.50	0.00	0.00	0.00	0.00		
29	0.00	0.72	0.54	12.96	15.47	1.53	0.88	0.48	0.00	0.00		0.00		
30	0.00	0.54	0.50	22.54	7.40	1.68	0.84	0.46	0.00	0.00		0.00		
31		0.38		16.33	5.31		0.62		0.00	0.00		0.00		
Total	0.00	11.22	31.56	114.45	187.65	97.51	51.02	19.82	5.78	0.00	0.00	0.00	519.01	CMSDAY
Mean	0.00	0.36	1.05	3.69	6.05	3.25	1.65	0.66	0.19	0.00	0.00	0.00	1.42	CMS
Max	0.00	0.92	10.94	22.54	17.45	6.92	7.90	0.88	0.44	0.00	0.00	0.00	22.54	CMS
Min	0.00	0.06	0.30	0.32	1.80	1.53	0.62	0.46	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	0.00	0.97	2.73	9.89	16.21	8.42	4.41	1.71	0.50	0.00	0.00	0.00	44.84	MCM

Momentary Peak 23.47 CMS. at 206.34 m. (MSL.) at 12.00 Hours , on Jul 30 , 2018

Runoff Yield 9.35 Liters/Second/Square KM. Momentary Peak Yield 154.41 Liters/Second/Square KM.

WATER YEAR : 2018

NAN RIVER BASIN

Nan River at Ban Koei Chai, Nakhon Sawan (N.67)

Lat 15 - 52 - 05 N Long 100 - 16 - 07 E

Location : on right bank at the bridge near Wat Koei Chai Nua

	Ban Koei Chai	**Amphoe** Chum Saeng	**Changwat** Nakhon Sawan
Drainge Area	57,384 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank near the gage observe's house		**Elevation** +27.470 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	1997 to date		
Rating Operation			
Period of Rating	1997 to date		
Rated by Flot	-		
Rated by Current Meter	1997 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Flow effected by Mae Yom side flow.		
	Stage-discharge relation defined by 33 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

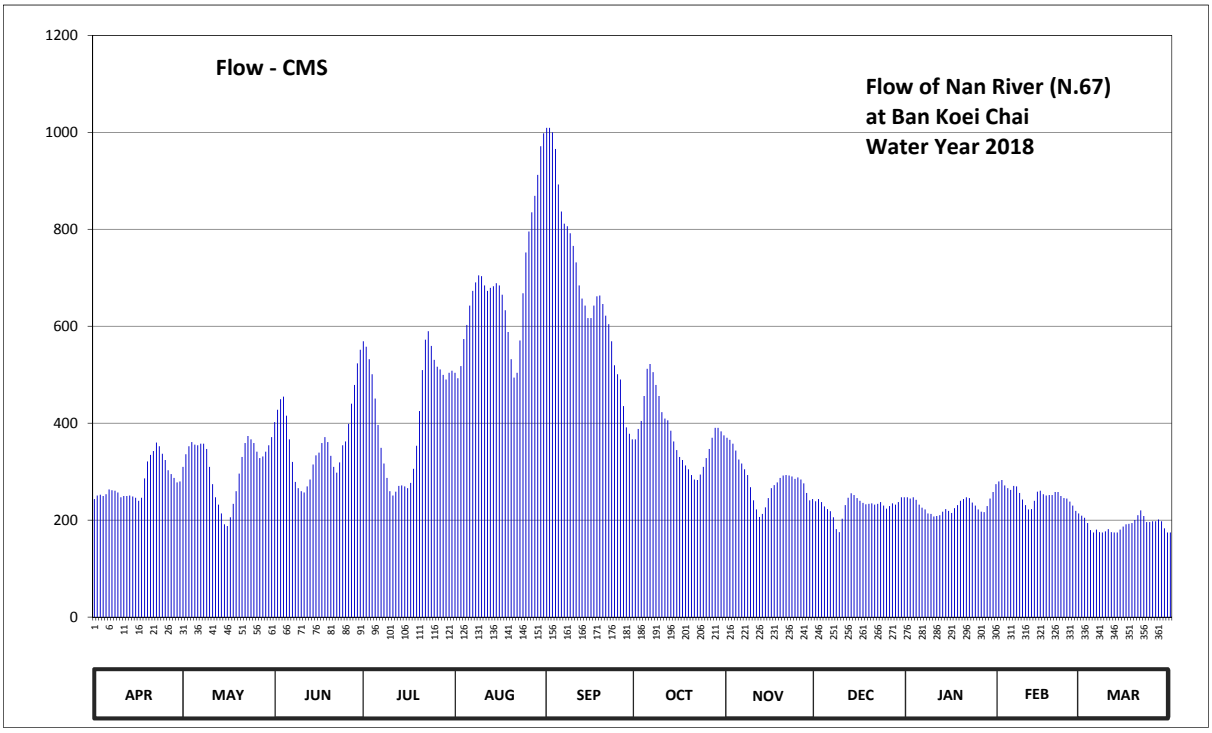
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	20.34	21.04	21.87	23.10	22.65	25.65	21.57	21.60	20.29	20.38	20.74	19.96	
2	20.42	21.29	22.08	23.03	22.57	25.65	21.75	21.56	20.34	20.35	20.77	19.91	
3	20.44	21.44	22.25	22.85	22.75	25.60	21.89	21.49	20.27	20.38	20.65	19.79	
4	20.41	21.52	22.29	22.63	23.13	25.42	22.30	21.36	20.17	20.32	20.59	19.63	
5	20.45	21.47	21.98	22.26	23.31	25.02	22.71	21.19	20.11	20.21	20.55	19.57	
6	20.56	21.46	21.57	21.82	23.56	24.71	22.78	21.11	20.06	20.14	20.64	19.64	
7	20.54	21.49	21.14	21.41	23.75	24.57	22.66	20.99	19.92	20.10	20.63	19.58	
8	20.53	21.49	20.73	21.11	23.86	24.54	22.47	20.87	19.65	20.01	20.48	19.57	
9	20.49	21.39	20.59	20.81	23.95	24.46	22.30	20.61	19.58	20.00	20.33	19.60	
10	20.38	21.04	20.52	20.52	23.94	24.31	22.04	20.31	19.89	19.94	20.20	19.65	
11	20.41	20.68	20.49	20.42	23.82	24.11	21.93	20.10	20.20	19.95	20.10	19.58	
12	20.41	20.38	20.63	20.51	23.75	23.82	21.90	19.93	20.37	19.97	20.11	19.57	
13	20.42	20.21	20.78	20.64	23.79	23.65	21.72	20.00	20.47	20.05	20.30	19.57	
14	20.40	20.01	21.09	20.65	23.81	23.56	21.53	20.15	20.43	20.11	20.51	19.64	
15	20.37	19.76	21.27	20.63	23.85	23.40	21.37	20.36	20.36	20.07	20.53	19.71	
16	20.30	19.72	21.32	20.59	23.82	23.40	21.24	20.59	20.30	20.02	20.45	19.76	
17	20.37	19.92	21.50	20.71	23.70	23.56	21.18	20.66	20.25	20.13	20.42	19.77	
18	20.80	20.23	21.61	21.00	23.50	23.68	21.07	20.72	20.22	20.20	20.43	19.79	
19	21.15	20.52	21.52	21.45	23.22	23.69	20.99	20.81	20.23	20.30	20.43	19.86	
20	21.28	20.90	21.26	22.06	22.85	23.58	20.87	20.86	20.24	20.34	20.50	19.97	
21	21.35	21.24	21.04	22.69	22.58	23.43	20.78	20.87	20.21	20.38	20.50	20.08	
22	21.51	21.50	20.92	23.12	22.65	23.32	20.77	20.86	20.23	20.36	20.41	19.95	
23	21.44	21.63	21.13	23.23	23.11	23.10	20.88	20.84	20.27	20.26	20.36	19.81	
24	21.30	21.57	21.46	23.04	23.72	22.76	21.04	20.79	20.19	20.19	20.35	19.81	
25	21.18	21.50	21.53	22.84	24.23	22.63	21.22	20.82	20.12	20.10	20.28	19.83	
26	20.97	21.34	21.84	22.74	24.48	22.55	21.39	20.78	20.18	20.05	20.19	19.83	
27	20.89	21.22	22.18	22.70	24.70	22.14	21.60	20.70	20.24	20.04	20.07	19.87	
28	20.81	21.25	22.47	22.62	24.89	21.78	21.77	20.48	20.21	20.18	20.01	19.83	
29	20.72	21.34	22.79	22.55	25.13	21.67	21.77	20.31	20.27	20.35		19.67	
30	20.74	21.46	22.99	22.65	25.45	21.57	21.71	20.34	20.38	20.50		19.57	
31		21.61		22.68	25.59		21.64		20.38	20.68		19.57	
Mean	20.71	21.02	21.49	21.91	23.75	23.71	21.64	20.74	20.19	20.20	20.41	19.74	
Max	21.51	21.63	22.99	23.23	25.59	25.65	22.78	21.60	20.47	20.68	20.77	20.08	25.65
Min	20.30	19.72	20.49	20.42	22.57	21.57	20.77	19.93	19.58	19.94	20.01	19.57	19.57

Annual Max Momentary Gage Height 25.65 m. (MSL.) , at 01.00 Hours , on Sep 1 , 2018

Zero Gage at Bottom Elevation 0.00 m. (MSL.) , River Bed 12.85 m. (MSL.)

Left Bank Elevation 28.92 m. (MSL.) ,

Right Bank Elevation 28.21 m. (MSL.) , Drainage Are 57,384 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	243.60	310.00	402.40	569.00	504.00	1009.50	366.70	370.00	239.10	247.20	280.00	209.40		
2	250.80	335.90	427.60	557.80	492.80	1009.50	388.00	365.60	243.60	244.50	283.00	204.90		
3	252.60	352.40	449.50	532.00	518.00	1000.00	404.80	357.90	237.30	247.20	271.50	194.10		
4	249.90	361.20	454.70	501.20	573.80	965.80	456.00	343.60	228.30	241.80	266.10	179.70		
5	253.50	355.70	415.60	450.80	602.60	892.60	512.40	325.00	222.90	231.90	262.50	174.60		
6	263.40	354.60	366.70	396.40	642.60	836.80	522.20	317.00	218.40	225.60	270.60	180.60		
7	261.60	357.90	320.00	349.10	673.00	811.60	505.40	305.00	205.80	222.00	269.70	175.40		
8	260.70	357.90	279.00	317.00	690.60	806.20	478.80	293.00	181.50	213.90	256.20	174.60		
9	257.10	346.90	266.10	287.00	705.00	791.80	456.00	267.90	175.40	213.00	242.70	177.00		
10	247.20	310.00	259.80	259.80	703.40	765.70	422.80	240.90	203.10	207.60	231.00	181.50		
11	249.90	274.20	257.10	250.80	684.20	731.70	409.60	222.00	231.00	208.50	222.00	175.40		
12	249.90	247.20	269.70	258.90	673.00	684.20	406.00	206.70	246.30	210.30	222.90	174.60		
13	250.80	231.90	284.00	270.60	679.40	657.00	384.40	213.00	255.30	217.50	240.00	174.60		
14	249.00	213.90	315.00	271.50	682.60	642.60	362.30	226.50	251.70	222.90	258.90	180.60		
15	246.30	191.40	333.70	269.70	689.00	617.00	344.70	245.40	245.40	219.30	260.70	186.90		
16	240.00	187.80	339.20	266.10	684.20	617.00	330.40	266.10	240.00	214.80	253.50	191.40		
17	246.30	205.80	359.00	277.00	665.00	642.60	324.00	272.40	235.50	224.70	250.80	192.30		
18	286.00	233.70	371.20	306.00	633.00	661.80	313.00	278.00	232.80	231.00	251.70	194.10		
19	321.00	259.80	361.20	353.50	588.20	663.40	305.00	287.00	233.70	240.00	251.70	200.40		
20	334.80	296.00	332.60	425.20	532.00	645.80	293.00	292.00	234.60	243.60	258.00	210.30		
21	342.50	330.40	310.00	509.60	494.20	621.80	284.00	293.00	231.90	247.20	258.00	220.20		
22	360.10	359.00	298.00	572.20	504.00	604.20	283.00	292.00	233.70	245.40	249.90	208.50		
23	352.40	373.60	319.00	589.80	570.60	569.00	294.00	290.00	237.30	236.40	245.40	195.90		
24	337.00	366.70	354.60	559.40	668.20	519.40	310.00	285.00	230.10	230.10	244.50	195.90		
25	324.00	359.00	362.30	530.60	752.10	501.20	328.20	288.00	223.80	222.00	238.20	197.70		
26	303.00	341.40	398.80	516.60	795.40	490.00	346.90	284.00	229.20	217.50	230.10	197.70		
27	295.00	328.20	440.40	511.00	835.00	435.20	370.00	276.00	234.60	216.60	219.30	201.30		
28	287.00	331.50	478.80	499.80	869.20	391.60	390.40	256.20	231.90	229.20	213.90	197.70		
29	278.00	341.40	523.60	490.00	912.40	378.40	390.40	240.90	237.30	244.50		183.30		
30	280.00	354.60	551.60	504.00	971.50	366.70	383.20	243.60	247.20	258.00		174.60		
31		371.20		508.20	998.10		374.80		247.20	274.20		174.60		
Total	8373.40	9641.20	10901.20	12960.60	20987.10	20330.10	11740.40	8443.70	7145.90	7148.40	7002.80	5879.80	130554.60	CMSDAY
Mean	279.11	311.01	363.37	418.08	677.00	677.67	378.72	281.46	230.51	230.59	250.10	189.67	357.68	CMS
Max	360.10	373.60	551.60	589.80	998.10	1009.50	522.20	370.00	255.30	274.20	283.00	220.20	1009.50	CMS
Min	240.00	187.80	257.10	250.80	492.80	366.70	283.00	206.70	175.40	207.60	213.90	174.60	174.60	CMS
Runoff	723.46	833.00	941.86	1119.80	1813.29	1756.52	1014.37	729.54	617.41	617.62	605.04	508.01	11279.92	MCM

Momentary Peak 1009.50 CMS. at 25.65 m. (MSL.) at 01.00 Hours , on Sep 1 , 2018

Runoff Yield 6.23 Liters/Second/Square KM. Momentary Peak Yield 17.59 Liters/Second/Square KM.

WATER YEAR : 2018

NAN RIVER BASIN

Nan River at Ban Tha Takhian , Phitsanulok (N.68)

Lat 16 - 52 - 15 N Long 100 - 14 - 36 E

Location : on right bank at Ban Tha Takhian.

Ban Tha Takhian **Amphoe** Mueang **Changwat** Phitsanulok

Drainge Area	25,018 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+35.000 m. (MSL.)
Bench Mark	B.M.- H.D.
Location BM	On right bank near the gage site. **Elevation** +48.820 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic mean of 5 readings
Period of Available Gage Records	1999 to date
Rating Operation	
Period of Rating	1999 to date
Rated by Flot	-
Rated by Current Meter	2004 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Flow effected by Mae Yom side flow.
	Stage-discharge relation defined by 34 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

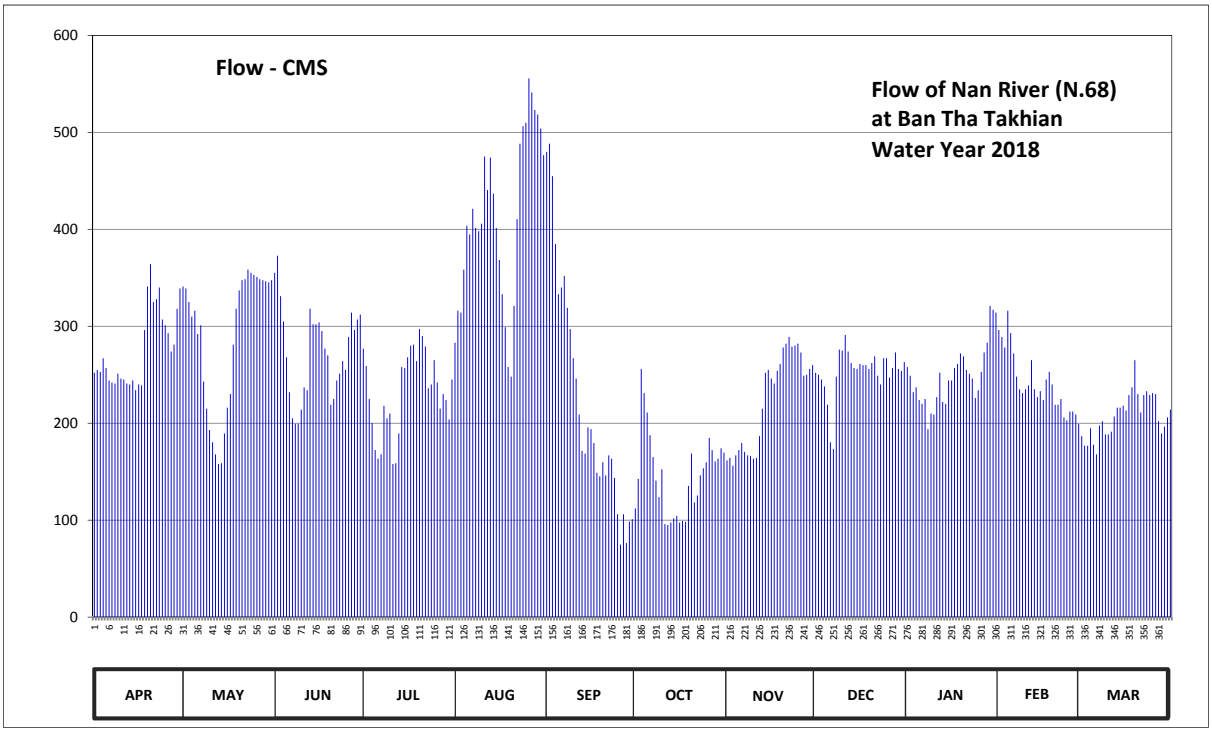
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	38.30	39.19	39.32	38.55	38.61	40.40	36.80	37.35	38.30	38.36	38.74	37.63	
2	38.33	39.17	39.48	38.37	38.94	40.47	37.14	37.38	38.28	38.27	38.67	37.52	
3	38.31	39.03	39.09	38.03	38.92	40.19	38.34	37.29	38.23	38.10	38.56	37.52	
4	38.45	38.88	38.83	37.78	39.35	39.59	38.09	37.41	38.16	38.15	38.94	37.72	
5	38.35	38.94	38.46	37.47	39.76	39.11	37.89	37.47	37.97	38.02	38.71	37.53	
6	38.22	38.70	38.10	37.37	39.68	39.18	37.64	37.55	37.56	37.98	38.50	37.42	
7	38.20	38.79	37.83	37.42	39.91	39.29	37.39	37.45	37.48	38.03	38.26	37.75	
8	38.19	38.21	37.77	37.96	39.74	38.97	37.12	37.41	38.26	37.71	38.13	37.80	
9	38.29	37.93	37.77	37.83	39.71	38.75	36.93	37.40	38.54	37.88	38.09	37.65	
10	38.24	37.70	37.92	37.88	39.78	38.45	37.25	37.37	38.53	37.87	38.13	37.65	
11	38.23	37.56	38.15	37.31	40.36	38.24	36.61	37.38	38.69	38.05	38.17	37.68	
12	38.19	37.42	38.12	37.32	40.07	37.87	36.60	37.63	38.52	38.30	38.43	37.85	
13	38.18	37.31	38.96	37.66	40.35	37.46	36.63	37.93	38.40	38.00	38.13	37.94	
14	38.22	37.32	38.80	38.36	40.04	37.43	36.68	38.30	38.35	37.98	38.05	37.94	
15	38.12	37.66	38.80	38.35	39.74	37.73	36.71	38.33	38.34	38.22	38.11	37.96	
16	38.18	37.94	38.82	38.46	39.44	37.71	36.63	38.24	38.39	38.22	38.02	37.91	
17	38.17	38.08	38.73	38.58	39.11	37.55	36.65	38.19	38.38	38.35	38.23	38.07	
18	38.74	38.59	38.55	38.59	38.77	37.21	36.64	38.32	38.38	38.39	38.31	38.15	
19	39.19	38.96	38.48	38.42	38.36	37.17	37.06	38.39	38.34	38.50	38.18	38.43	
20	39.40	39.15	37.97	38.75	38.26	37.33	37.43	38.56	38.40	38.47	37.97	38.08	
21	39.03	39.25	38.03	38.68	38.99	37.18	36.87	38.60	38.47	38.33	37.97	37.89	
22	39.06	39.26	38.22	38.57	39.82	37.41	36.95	38.67	38.27	38.29	38.03	38.07	
23	39.18	39.35	38.29	38.14	40.47	37.37	37.18	38.57	38.18	38.24	37.84	38.11	
24	38.85	39.32	38.42	38.18	40.62	37.15	37.26	38.58	38.45	38.04	37.81	38.07	
25	38.79	39.30	38.33	38.43	40.65	36.73	37.33	38.60	38.45	38.12	37.90	38.09	
26	38.71	39.28	38.67	38.20	41.03	36.36	37.61	38.51	38.25	38.31	37.90	38.08	
27	38.52	39.26	38.92	37.93	40.91	36.73	37.47	38.27	38.35	38.51	37.87	37.80	
28	38.59	39.25	38.74	38.08	40.76	36.38	37.34	38.28	38.51	38.61	37.77	37.66	
29	38.96	39.24	38.85	38.02	40.72	36.64	37.37	38.34	38.34	38.99		37.74	
30	39.17	39.23	38.90	37.82	40.60	36.67	37.49	38.38	38.32	38.95		37.84	
31		39.25		38.23	40.37		37.44		38.41	38.92		37.92	
Mean	38.55	38.66	38.51	38.09	39.80	37.96	37.18	38.01	38.31	38.26	38.19	37.85	
Max	39.40	39.35	39.48	38.75	41.03	40.47	38.34	38.67	38.69	38.99	38.94	38.43	41.03
Min	38.12	37.31	37.77	37.31	38.26	36.36	36.60	37.29	38.48	37.71	37.77	37.42	36.36

Annual Max Momentary Gage Height 41.05 m. (MSL.) , at 18.00 Hours , on Aug 26 , 2018

Zero Gage at Bottom Elevation 35.00 m. (MSL.) , River Bed 31.97 m. (MSL.)

Left Bank Elevation 45.54 m. (MSL.) ,

Right Bank Elevation 45.00 m. (MSL.) , Drainage Are 25,018 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	252.00	341.00	355.20	277.00	283.00	480.00	112.00	161.50	252.00	258.00	296.00	186.70		
2	255.00	339.00	372.80	259.00	316.00	488.40	142.60	164.20	250.00	249.00	289.00	176.80		
3	253.00	325.00	331.00	225.00	314.00	454.80	256.00	156.10	245.00	232.00	278.00	176.80		
4	267.00	310.00	305.00	200.20	358.50	384.90	231.00	166.90	238.00	237.00	316.00	194.80		
5	257.00	316.00	268.00	172.30	403.60	333.00	211.00	172.30	219.00	224.00	293.00	177.70		
6	244.00	292.00	232.00	163.30	394.80	340.00	187.60	179.50	180.40	220.00	272.00	167.80		
7	242.00	301.00	205.00	167.80	421.20	351.90	165.10	170.50	173.20	225.00	248.00	197.50		
8	241.00	243.00	199.30	218.00	401.40	319.00	140.80	166.90	248.00	193.90	235.00	202.00		
9	251.00	215.00	199.30	205.00	398.10	297.00	123.70	166.00	276.00	210.00	231.00	188.50		
10	246.00	193.00	214.00	210.00	405.80	267.00	152.50	163.30	275.00	209.00	235.00	188.50		
11	245.00	180.40	237.00	157.90	475.20	246.00	95.85	164.20	291.00	227.00	239.00	191.20		
12	241.00	167.80	234.00	158.80	440.40	209.00	95.00	186.70	274.00	252.00	265.00	207.00		
13	240.00	157.90	318.00	189.40	474.00	171.40	97.55	215.00	262.00	222.00	235.00	216.00		
14	244.00	158.80	302.00	258.00	436.80	168.70	101.80	252.00	257.00	220.00	227.00	216.00		
15	234.00	189.40	302.00	257.00	401.40	195.70	104.35	255.00	256.00	244.00	233.00	218.00		
16	240.00	216.00	304.00	268.00	368.40	193.90	97.55	246.00	261.00	244.00	224.00	213.00		
17	239.00	230.00	295.00	280.00	333.00	179.50	99.25	241.00	260.00	257.00	245.00	229.00		
18	296.00	281.00	277.00	281.00	299.00	148.90	98.40	254.00	260.00	261.00	253.00	237.00		
19	341.00	318.00	270.00	264.00	258.00	145.30	135.40	261.00	256.00	272.00	240.00	265.00		
20	364.00	337.00	219.00	297.00	248.00	159.70	168.70	278.00	262.00	269.00	219.00	230.00		
21	325.00	347.50	225.00	290.00	321.00	146.20	118.30	282.00	269.00	255.00	219.00	211.00		
22	328.00	348.60	244.00	279.00	410.40	166.90	125.50	289.00	249.00	251.00	225.00	229.00		
23	340.00	358.50	251.00	236.00	488.40	163.30	146.20	279.00	240.00	246.00	206.00	233.00		
24	307.00	355.20	264.00	240.00	506.40	143.50	153.40	280.00	267.00	226.00	203.00	229.00		
25	301.00	353.00	255.00	265.00	510.00	106.05	159.70	282.00	267.00	234.00	212.00	231.00		
26	293.00	350.80	289.00	242.00	555.60	74.80	184.90	273.00	247.00	253.00	212.00	230.00		
27	274.00	348.60	314.00	215.00	541.20	106.05	172.30	249.00	257.00	273.00	209.00	202.00		
28	281.00	347.50	296.00	230.00	523.20	76.40	160.60	250.00	273.00	283.00	199.30	189.40		
29	318.00	346.40	307.00	224.00	518.40	98.40	163.30	256.00	256.00	321.00		196.60		
30	339.00	345.30	312.00	204.00	504.00	100.95	174.10	260.00	254.00	317.00		206.00		
31		347.50		245.00	476.40		169.60		263.00	314.00		214.00		
Total	8298.00	8960.20	8196.60	7178.70	12785.60	6716.65	4544.05	6720.10	7837.60	7698.90	6758.30	6450.30	92145.00	CMSDAY
Mean	276.60	289.04	273.22	231.57	412.44	223.89	146.58	224.00	252.83	248.35	241.37	208.07	252.45	CMS
Max	364.00	358.50	372.80	297.00	555.60	488.40	256.00	289.00	291.00	321.00	316.00	265.00	555.60	CMS
Min	234.00	157.90	199.30	157.90	248.00	74.80	95.00	156.10	173.20	193.90	199.30	167.80	74.80	CMS
Runoff	716.95	774.16	708.19	620.24	1104.68	580.32	392.61	580.62	677.17	665.18	583.92	557.31	7961.33	MCM

Momentary Peak 558.00 CMS. at 41.05 m. (MSL.) at 18.00 Hours , on Aug 26 , 2018

Runoff Yield 10.09 Liters/Second/Square KM. Momentary Peak Yield 22.30 Liters/Second/Square KM.

WATER YEAR : 2018

NAN RIVER BASIN

Khek River at Ban Tan Tawan , Phetchabun (N.73)

Lat 16 - 33 - 24 N Long 100 - 53 - 44 E

Location : on right bank at Ban Tan Tawan.

	Ban Tan Tawan	**Amphoe** Khao Kho	**Changwat** Phetchabun
Drainge Area	212 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+684.529 m. (MSL.)		
Bench Mark	B.M.- H.D.		
Location BM	On right bank near the gage site.		**Elevation** +694.038 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic mean of 5 readings		
Period of Available Gage Records	2002 to date		
Rating Operation			
Period of Rating	2002 to date		
Rated by Flot	-		
Rated by Current Meter	2002 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 14 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

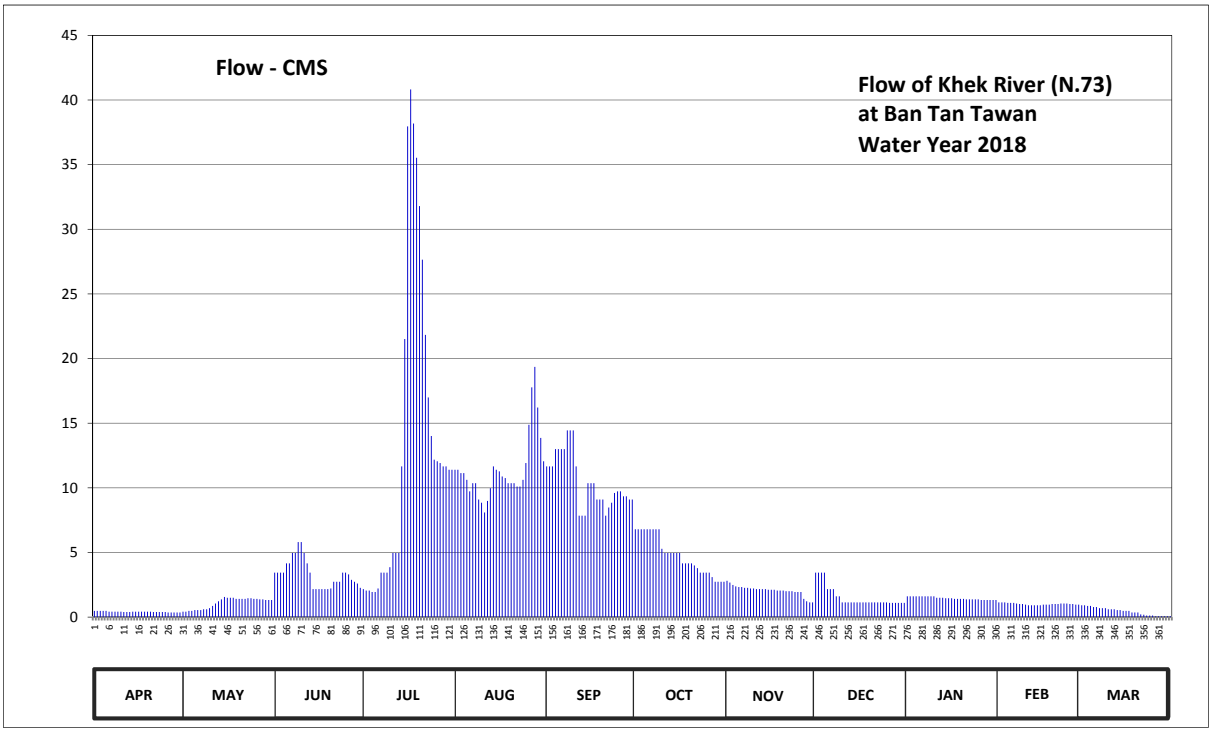
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	685.56	685.54	686.12	685.92	686.90	686.92	686.52	686.03	686.12	685.82	685.72	685.67	
2	685.56	685.54	686.12	685.90	686.90	686.92	686.52	686.01	686.12	685.82	685.72	685.67	
3	685.56	685.56	686.12	685.90	686.88	686.92	686.52	685.98	686.12	685.82	685.72	685.66	
4	685.56	685.56	686.12	685.88	686.88	687.02	686.52	685.96	686.12	685.82	685.71	685.66	
5	685.56	685.58	686.22	685.88	686.84	687.02	686.52	685.95	685.92	685.82	685.71	685.64	
6	685.54	685.58	686.22	685.93	686.77	687.02	686.52	685.95	685.92	685.82	685.71	685.64	
7	685.54	685.58	686.32	686.12	686.82	687.02	686.52	685.94	685.92	685.82	685.70	685.62	
8	685.54	685.60	686.32	686.12	686.82	687.12	686.52	685.94	685.82	685.82	685.69	685.62	
9	685.54	685.60	686.42	686.12	686.72	687.12	686.52	685.93	685.82	685.82	685.69	685.62	
10	685.54	685.62	686.42	686.18	686.70	687.12	686.36	685.93	685.72	685.82	685.68	685.60	
11	685.53	685.66	686.32	686.32	686.64	686.92	686.32	685.92	685.72	685.80	685.67	685.60	
12	685.53	685.70	686.22	686.32	686.71	686.62	686.32	685.92	685.72	685.80	685.67	685.60	
13	685.53	685.74	686.12	686.32	686.79	686.62	686.32	685.92	685.72	685.80	685.67	685.58	
14	685.54	685.77	685.92	686.92	686.92	686.62	686.32	685.92	685.72	685.79	685.67	685.58	
15	685.54	685.81	685.92	687.57	686.90	686.82	686.32	685.91	685.72	685.79	685.67	685.56	
16	685.54	685.80	685.92	688.38	686.89	686.82	686.32	685.91	685.72	685.79	685.68	685.56	
17	685.54	685.80	685.92	688.51	686.86	686.82	686.22	685.91	685.72	685.78	685.68	685.56	
18	685.54	685.80	685.92	688.39	686.85	686.72	686.22	685.90	685.72	685.78	685.68	685.52	
19	685.54	685.78	685.92	688.27	686.82	686.72	686.22	685.90	685.72	685.78	685.69	685.52	
20	685.54	685.78	685.93	688.10	686.82	686.72	686.22	685.90	685.72	685.78	685.69	685.52	
21	685.53	685.78	686.02	687.90	686.82	686.62	686.20	685.89	685.72	685.77	685.69	685.47	
22	685.53	685.78	686.02	687.59	686.80	686.67	686.17	685.89	685.72	685.77	685.70	685.46	
23	685.53	685.79	686.02	687.29	686.80	686.70	686.12	685.89	685.72	685.77	685.70	685.44	
24	685.53	685.79	686.12	687.09	686.84	686.76	686.12	685.88	685.72	685.77	685.70	685.44	
25	685.53	685.78	686.12	686.96	686.94	686.77	686.12	685.88	685.72	685.77	685.69	685.44	
26	685.52	685.78	686.10	686.95	687.15	686.77	686.12	685.88	685.71	685.76	685.69	685.42	
27	685.52	685.77	686.04	686.94	687.34	686.74	686.07	685.78	685.71	685.76	685.68	685.42	
28	685.52	685.77	686.02	686.92	687.44	686.74	686.02	685.74	685.71	685.76	685.68	685.42	
29	685.52	685.76	686.00	686.92	687.24	686.72	686.02	685.72	685.71	685.76		685.42	
30	685.52	685.76	685.94	686.90	687.08	686.72	686.02	685.72	685.71	685.76		685.42	
31		685.76		686.90	686.95		686.02		685.71	685.76		685.42	
Mean	685.54	685.71	686.10	686.88	686.90	686.83	686.29	685.90	685.80	685.79	685.69	685.54	
Max	685.56	685.81	686.42	688.51	687.44	687.12	686.52	686.03	686.12	685.82	685.72	685.67	688.51
Min	685.52	685.54	685.92	685.88	686.64	686.62	686.02	685.72	685.71	685.76	685.67	685.42	685.42

Annual Max Momentary Gage Height 688.52 m. (MSL.) , at 06.00 Hours , on Jul 17 , 2018

Zero Gage at Bottom Elevation 684.53 m. (MSL.) , River Bed 685.32 m. (MSL.)

Left Bank Elevation 691.82 m. (MSL.) ,

Right Bank Elevation 691.53 m. (MSL.) , Drainage Are 212 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.48	0.42	3.44	2.16	11.40	11.66	6.80	2.81	3.44	1.61	1.14	0.92		
2	0.48	0.42	3.44	2.05	11.40	11.66	6.80	2.67	3.44	1.61	1.14	0.92		
3	0.48	0.48	3.44	2.05	11.14	11.66	6.80	2.49	3.44	1.61	1.14	0.87		
4	0.48	0.48	3.44	1.94	11.14	12.99	6.80	2.38	3.44	1.61	1.10	0.87		
5	0.48	0.54	4.16	1.94	10.62	12.99	6.80	2.33	2.16	1.61	1.10	0.78		
6	0.42	0.54	4.16	2.22	9.73	12.99	6.80	2.33	2.16	1.61	1.10	0.78		
7	0.42	0.54	4.96	3.44	10.36	12.99	6.80	2.27	2.16	1.61	1.05	0.69		
8	0.42	0.60	4.96	3.44	10.36	14.44	6.80	2.27	1.61	1.61	1.01	0.69		
9	0.42	0.60	5.80	3.44	9.10	14.44	6.80	2.22	1.61	1.61	1.01	0.69		
10	0.42	0.69	5.80	3.86	8.85	14.44	5.28	2.22	1.14	1.61	0.96	0.60		
11	0.39	0.87	4.96	4.96	8.10	11.66	4.96	2.16	1.14	1.50	0.92	0.60		
12	0.39	1.05	4.16	4.96	8.98	7.85	4.96	2.16	1.14	1.50	0.92	0.60		
13	0.39	1.23	3.44	4.96	9.98	7.85	4.96	2.16	1.14	1.50	0.92	0.54		
14	0.42	1.37	2.16	11.66	11.66	7.85	4.96	2.16	1.14	1.46	0.92	0.54		
15	0.42	1.56	2.16	21.51	11.40	10.36	4.96	2.11	1.14	1.46	0.92	0.48		
16	0.42	1.50	2.16	37.96	11.27	10.36	4.96	2.11	1.14	1.46	0.96	0.48		
17	0.42	1.50	2.16	40.82	10.88	10.36	4.16	2.11	1.14	1.41	0.96	0.48		
18	0.42	1.50	2.16	38.18	10.75	9.10	4.16	2.05	1.14	1.41	0.96	0.36		
19	0.42	1.41	2.16	35.54	10.36	9.10	4.16	2.05	1.14	1.41	1.01	0.36		
20	0.42	1.41	2.22	31.80	10.36	9.10	4.16	2.05	1.14	1.41	1.01	0.36		
21	0.39	1.41	2.74	27.65	10.36	7.85	4.00	2.00	1.14	1.37	1.01	0.21		
22	0.39	1.41	2.74	21.84	10.10	8.48	3.79	2.00	1.14	1.37	1.05	0.18		
23	0.39	1.46	2.74	17.00	10.10	8.85	3.44	2.00	1.14	1.37	1.05	0.12		
24	0.39	1.46	3.44	14.01	10.62	9.60	3.44	1.94	1.14	1.37	1.05	0.12		
25	0.39	1.41	3.44	12.18	11.92	9.73	3.44	1.94	1.14	1.37	1.01	0.12		
26	0.36	1.41	3.30	12.05	14.88	9.73	3.44	1.94	1.10	1.32	1.01	0.06		
27	0.36	1.37	2.88	11.92	17.77	9.35	3.09	1.41	1.10	1.32	0.96	0.06		
28	0.36	1.37	2.74	11.66	19.36	9.35	2.74	1.23	1.10	1.32	0.96	0.06		
29	0.36	1.32	2.60	11.66	16.22	9.10	2.74	1.14	1.10	1.32		0.06		
30	0.36	1.32	2.27	11.40	13.86	9.10	2.74	1.14	1.10	1.32		0.06		
31		1.32		11.40	12.05		2.74		1.10	1.32		0.06		
Total	12.36	33.97	100.23	421.66	355.08	314.99	148.48	61.85	48.30	45.39	28.35	13.72	1584.38	CMSDAY
Mean	0.41	1.10	3.34	13.60	11.45	10.50	4.79	2.06	1.56	1.46	1.01	0.44	4.34	CMS
Max	0.48	1.56	5.80	40.82	19.36	14.44	6.80	2.81	3.44	1.61	1.14	0.92	40.82	CMS
Min	0.36	0.42	2.16	1.94	8.10	7.85	2.74	1.14	1.10	1.32	0.92	0.06	0.06	CMS
Runoff	1.07	2.94	8.66	36.43	30.68	27.22	12.83	5.34	4.17	3.92	2.45	1.19	136.89	MCM

Momentary Peak 41.04 CMS. at 688.52 m. (MSL.) at 06.00 Hours , on Jul 17, 2018

Runoff Yield 20.48 Liters/Second/Square KM. Momentary Peak Yield 193.58 Liters/Second/Square KM.

WATER YEAR : 2018

NAN RIVER BASIN

Nan River at Bang Krathum , Phitsanulok (N.74)

Lat 16 - 34 - 38 N Long 100 - 14 - 33 E

Location : on left bank at Bang Krathum.

	Ban -	**Amphoe**	Bang Krathum	**Changwat**	Phitsanulok
Drainge Area	25,489 sq.km.				
Type of Gage	Staff gage				
Zero Gage at Bottom	+29.360 m. (MSL.)				
Bench Mark	B.M.- H.D.				
Location BM	On left bank near the gage site.			**Elevation**	+44.315 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.				
Basis of Mean Daily Gage Height	Arithmetic mean of 5 readings				
Period of Available Gage Records	2001 to date				
Rating Operation					
Period of Rating	2001 to date				
Rated by Flot	-				
Rated by Current Meter	2001 to date				
Stability of Channel Regimes	Fairly stable.				
Overbank Flow Conditions	No overbank flow.				
General Description	Records good. Stage-discharge relation defined by 16 discharge measurements made in 2018.				

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

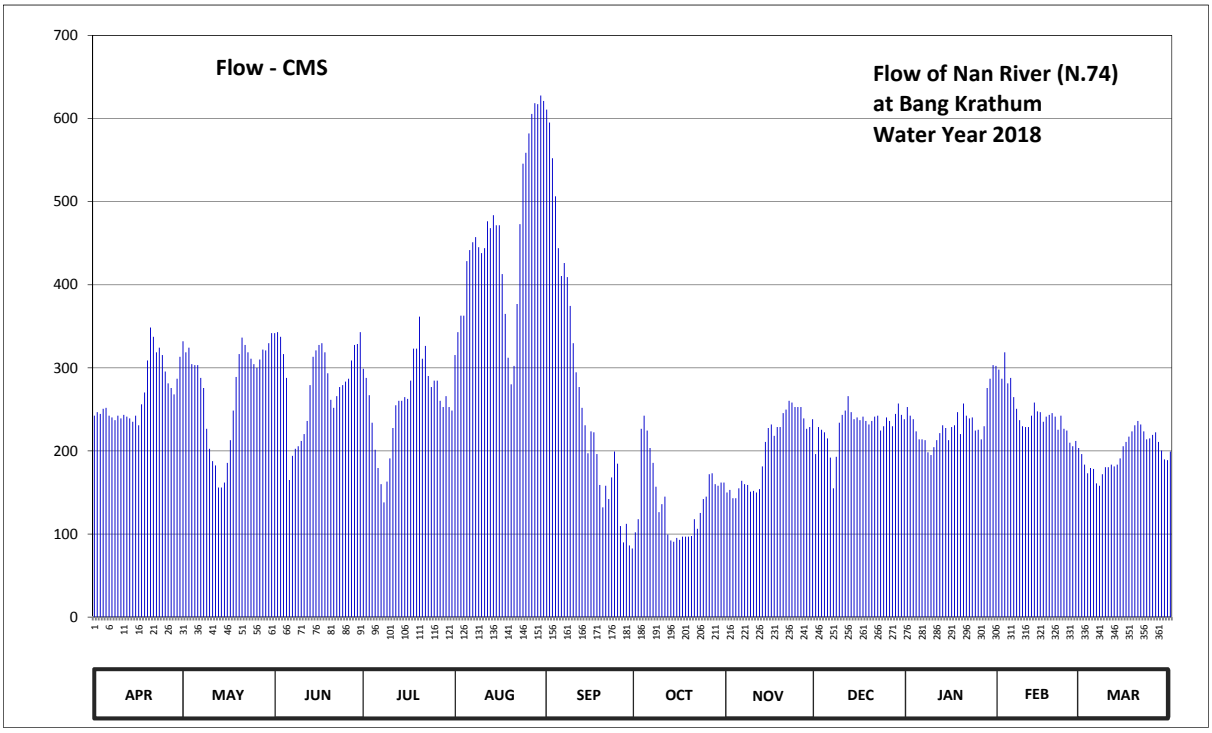
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	32.47	33.29	33.38	32.99	33.14	35.59	31.07	31.58	32.03	32.57	32.98	32.03	
2	32.51	33.17	33.39	32.89	33.39	35.47	31.25	31.61	32.34	32.47	32.88	31.91	
3	32.49	33.22	33.34	32.70	33.57	35.14	32.32	31.51	32.31	32.43	33.17	31.81	
4	32.55	33.04	33.15	32.39	33.57	34.77	32.47	31.51	32.28	32.29	32.83	31.87	
5	32.56	33.03	32.89	32.08	34.12	34.25	32.30	31.63	32.21	32.20	32.89	31.86	
6	32.47	33.03	31.73	31.87	34.23	33.97	32.10	31.72	31.99	32.20	32.68	31.69	
7	32.45	32.89	32.01	31.68	34.31	34.10	31.93	31.68	31.63	32.19	32.55	31.66	
8	32.42	32.78	32.09	31.46	34.36	33.96	31.65	31.67	32.00	32.05	32.42	31.80	
9	32.47	32.32	32.12	31.71	34.26	33.67	31.34	31.59	32.39	32.02	32.35	31.88	
10	32.44	32.09	32.18	31.98	34.20	33.27	31.44	31.60	32.48	32.11	32.34	31.88	
11	32.48	31.95	32.26	32.33	34.25	32.95	31.53	31.58	32.53	32.19	32.34	31.91	
12	32.46	31.90	32.41	32.59	34.52	32.79	31.04	31.62	32.69	32.27	32.47	31.89	
13	32.44	31.64	32.81	32.64	34.45	32.56	30.95	31.89	32.51	32.36	32.62	31.91	
14	32.40	31.64	33.12	32.64	34.58	32.36	30.93	32.17	32.43	32.33	32.52	31.98	
15	32.47	31.70	33.19	32.68	34.48	32.04	30.99	32.33	32.45	32.19	32.51	32.12	
16	32.36	31.93	33.25	32.66	34.48	32.29	30.96	32.37	32.42	32.34	32.40	32.17	
17	32.60	32.19	33.27	32.86	33.99	32.28	31.01	32.24	32.46	32.36	32.46	32.23	
18	32.73	32.53	33.17	33.21	33.59	32.03	31.01	32.34	32.41	32.51	32.48	32.29	
19	33.08	32.90	32.94	33.21	33.11	31.67	31.01	32.34	32.37	32.26	32.50	32.36	
20	33.44	33.15	32.65	33.56	32.82	31.40	31.02	32.50	32.41	32.61	32.46	32.41	
21	33.34	33.33	32.56	33.10	33.02	31.66	31.25	32.54	32.46	32.47	32.31	32.37	
22	33.17	33.25	32.69	33.24	33.69	31.50	31.12	32.64	32.47	32.44	32.47	32.29	
23	33.22	33.17	32.79	32.91	34.49	31.76	31.33	32.62	32.30	32.45	32.32	32.20	
24	33.14	33.10	32.81	32.79	35.09	32.06	31.50	32.57	32.35	32.30	32.30	32.21	
25	32.96	33.04	32.85	32.86	35.19	31.92	31.53	32.57	32.45	32.31	32.16	32.25	
26	32.83	33.00	32.88	32.86	35.37	31.16	31.80	32.57	32.41	32.20	32.12	32.28	
27	32.78	33.09	33.08	32.64	35.55	30.92	31.81	32.44	32.35	32.35	32.18	32.17	
28	32.71	33.20	33.25	32.57	35.65	31.19	31.68	32.32	32.49	32.78	32.10	32.07	
29	32.88	33.19	33.26	32.69	35.64	30.87	31.66	32.34	32.61	32.88		31.97	
30	33.12	33.27	33.39	32.57	35.72	30.82	31.70	32.43	32.48	33.03		31.96	
31		33.38		32.53	35.67		31.70		32.43	33.02		32.06	
Mean	32.71	32.76	32.83	32.61	34.34	32.68	31.46	32.08	32.36	32.39	32.49	32.05	
Max	33.44	33.38	33.39	33.56	35.72	35.59	32.47	32.64	32.69	33.03	33.17	32.41	35.72
Min	32.36	31.64	31.73	31.46	32.82	30.82	30.93	31.51	31.63	32.02	32.10	31.66	30.82

Annual Max Momentary Gage Height 35.72 m. (MSL.) , at 06.00 Hours , on Aug 30 , 2018

Zero Gage at Bottom Elevation 29.36 m. (MSL.) , River Bed 26.93 m. (MSL.)

Left Bank Elevation 37.59 m. (MSL.) ,

Right Bank Elevation 39.28 m. (MSL.) , Drainage Are 25,489 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	242.35	331.90	341.80	298.90	315.40	610.70	101.95	150.00	196.15	252.85	297.80	196.15		
2	246.55	318.70	342.90	287.90	342.90	595.10	117.75	153.00	228.70	242.35	286.80	183.55		
3	244.45	324.20	337.40	267.00	362.70	552.20	226.60	143.00	225.55	238.15	318.70	173.05		
4	250.75	304.40	316.50	233.95	362.70	506.40	242.35	143.00	222.40	223.45	281.30	179.35		
5	251.80	303.30	287.90	201.40	428.40	444.00	224.50	155.00	215.05	214.00	287.90	178.30		
6	242.35	303.30	165.00	179.35	441.60	410.40	203.50	164.00	191.95	214.00	264.80	161.00		
7	240.25	287.90	194.05	160.00	451.20	426.00	185.65	160.00	155.00	212.95	250.75	158.00		
8	237.10	275.80	202.45	138.00	457.20	409.20	157.00	159.00	193.00	198.25	237.10	172.00		
9	242.35	226.60	205.60	163.00	445.20	374.40	126.30	151.00	233.95	195.10	229.75	180.40		
10	239.20	202.45	211.90	190.90	438.00	329.70	136.00	152.00	243.40	204.55	228.70	180.40		
11	243.40	187.75	220.30	227.65	444.00	294.50	145.00	150.00	248.65	212.95	228.70	183.55		
12	241.30	182.50	236.05	254.95	476.40	276.90	99.40	154.00	265.90	221.35	242.35	181.45		
13	239.20	156.00	279.10	260.40	468.00	251.80	92.25	181.45	246.55	230.80	258.20	183.55		
14	235.00	156.00	313.20	260.40	483.60	230.80	90.75	210.85	238.15	227.65	247.60	190.90		
15	242.35	162.00	320.90	264.80	471.60	197.20	95.25	227.65	240.25	212.95	246.55	205.60		
16	230.80	185.65	327.50	262.60	471.60	223.45	93.00	231.85	237.10	228.70	235.00	210.85		
17	256.00	212.95	329.70	284.60	412.80	222.40	96.85	218.20	241.30	230.80	241.30	217.15		
18	270.30	248.65	318.70	323.10	364.90	196.15	96.85	228.70	236.05	246.55	243.40	223.45		
19	308.80	289.00	293.40	323.10	312.10	159.00	96.85	228.70	231.85	220.30	245.50	230.80		
20	348.40	316.50	261.50	361.60	280.20	132.00	97.70	245.50	236.05	257.10	241.30	236.05		
21	337.40	336.30	251.80	311.00	302.20	158.00	117.75	249.70	241.30	242.35	225.55	231.85		
22	318.70	327.50	265.90	326.40	376.80	142.00	106.20	260.40	242.35	239.20	242.35	223.45		
23	324.20	318.70	276.90	290.10	472.80	168.00	125.35	258.20	224.50	240.25	226.60	214.00		
24	315.40	311.00	279.10	276.90	545.70	199.30	142.00	252.85	229.75	224.50	224.50	215.05		
25	295.60	304.40	283.50	284.60	558.70	184.60	145.00	252.85	240.25	225.55	209.80	219.25		
26	281.30	300.00	286.80	284.60	582.10	109.60	172.00	252.85	236.05	214.00	205.60	222.40		
27	275.80	309.90	308.80	260.40	605.50	90.00	173.05	239.20	229.75	229.75	211.90	210.85		
28	268.10	322.00	327.50	252.85	618.50	112.15	160.00	226.60	244.45	275.80	203.50	200.35		
29	286.80	320.90	328.60	265.90	617.20	86.25	158.00	228.70	257.10	286.80		189.85		
30	313.20	329.70	342.90	252.85	627.60	82.50	162.00	238.15	243.40	303.30		188.80		
31		341.80		248.65	621.10		162.00		238.15	302.20		199.30		
Total	8069.20	8497.75	8457.65	7997.85	14158.70	8174.70	4348.85	6066.40	7154.05	7268.50	6863.30	6140.70	93197.65	CMSDAY
Mean	268.97	274.12	281.92	258.00	456.73	272.49	140.29	202.21	230.78	234.47	245.12	198.09	255.34	CMS
Max	348.40	341.80	342.90	361.60	627.60	610.70	242.35	260.40	265.90	303.30	318.70	236.05	627.60	CMS
Min	230.80	156.00	165.00	138.00	280.20	82.50	90.75	143.00	155.00	195.10	203.50	158.00	82.50	CMS
Runoff	697.18	734.21	730.74	691.01	1223.31	706.29	375.74	524.14	618.11	628.00	592.99	530.56	8052.28	MCM

Momentary Peak 627.60 CMS. at 35.72 m. (MSL.) at 06.00 Hours , on Aug 30 , 2018

Runoff Yield 10.02 Liters/Second/Square KM. Momentary Peak Yield 24.62 Liters/Second/Square KM.

WATER YEAR : 2018

NAN RIVER BASIN

Nam Wa at Tha Li Bridge , Nan (N.75)

Lat 18 - 33 - 00 N Long 100 - 48 - 41 E

Location : on left bank at the bridge.

	Ban Tha Li Bridge	**Amphoe** Wiang Sa	**Changwat** Nan
Drainge Area	2,170 sq.km.		
Type of Gage	Staff gage.		
Zero Gage at Bottom	+182.805 m. (MSL.)		
Bench Mark	B.M.- H.D.		
Location BM	On left bank at the approach of the bridge.		**Elevation** +196.616 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic mean of 3 readings		
Period of Available Gage Records	2006 to date		
Rating Operation			
Period of Rating	2006 to date		
Rated by Flot	-		
Rated by Current Meter	2006 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 38 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

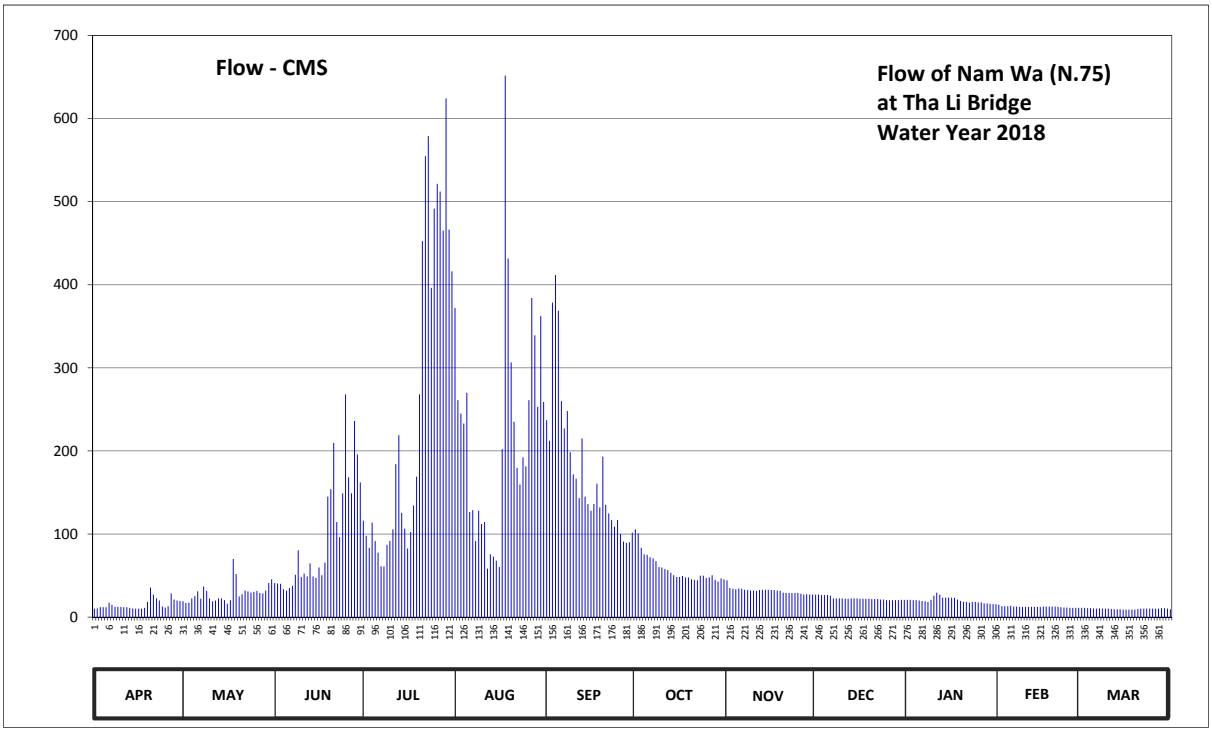
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	184.06	184.28	184.73	185.82	188.50	187.20	185.69	184.79	184.46	184.32	184.18	184.09	
2	184.07	184.23	184.72	185.59	187.44	186.95	185.63	184.62	184.46	184.32	184.14	184.09	
3	184.11	184.24	184.71	185.40	187.28	188.56	185.40	184.60	184.45	184.31	184.14	184.08	
4	184.11	184.36	184.59	185.79	187.16	188.86	185.29	184.59	184.45	184.31	184.14	184.08	
5	184.11	184.42	184.56	185.51	187.53	188.47	185.28	184.61	184.45	184.30	184.15	184.07	
6	184.24	184.54	184.62	185.32	185.95	187.43	185.24	184.60	184.43	184.29	184.13	184.06	
7	184.18	184.35	184.67	185.07	185.98	187.10	185.22	184.58	184.36	184.28	184.13	184.07	
8	184.12	184.65	184.91	185.07	185.51	187.31	185.17	184.57	184.36	184.26	184.12	184.07	
9	184.12	184.55	185.36	185.45	185.97	186.80	185.06	184.56	184.36	184.32	184.12	184.06	
10	184.12	184.36	184.86	185.51	185.77	186.50	185.05	184.56	184.36	184.43	184.12	184.06	
11	184.11	184.28	184.93	185.69	185.80	186.44	185.02	184.55	184.35	184.51	184.12	184.05	
12	184.11	184.30	184.87	186.64	185.03	186.16	185.00	184.57	184.35	184.46	184.12	184.04	
13	184.09	184.36	185.13	187.02	185.29	186.98	184.95	184.58	184.36	184.38	184.12	184.04	
14	184.07	184.36	184.87	185.94	185.25	186.18	184.90	184.58	184.36	184.38	184.12	184.04	
15	184.06	184.31	184.84	185.70	185.18	186.07	184.86	184.58	184.36	184.38	184.12	184.03	
16	184.06	184.21	185.05	185.39	185.06	185.97	184.86	184.57	184.35	184.38	184.13	184.03	
17	184.06	184.31	184.90	185.65	186.84	186.07	184.88	184.57	184.35	184.37	184.13	184.03	
18	184.09	185.21	185.14	186.05	190.94	186.37	184.85	184.56	184.35	184.33	184.13	184.03	
19	184.26	184.92	186.18	186.47	189.04	186.02	184.85	184.55	184.35	184.29	184.13	184.03	
20	184.63	184.41	186.29	187.51	187.89	186.74	184.81	184.51	184.34	184.26	184.13	184.05	
21	184.46	184.47	186.92	189.23	187.18	186.06	184.80	184.50	184.34	184.26	184.12	184.06	
22	184.36	184.56	185.80	190.12	186.59	185.93	184.79	184.50	184.34	184.24	184.11	184.06	
23	184.30	184.54	185.57	190.33	186.36	185.83	184.89	184.50	184.33	184.26	184.10	184.06	
24	184.13	184.51	186.23	188.72	186.73	185.73	184.89	184.50	184.33	184.26	184.10	184.06	
25	184.10	184.53	187.51	189.57	186.61	185.83	184.84	184.50	184.31	184.25	184.09	184.06	
26	184.14	184.55	186.46	189.83	187.44	185.62	184.85	184.48	184.31	184.25	184.09	184.06	
27	184.49	184.50	186.23	189.75	188.61	185.50	184.90	184.46	184.31	184.22	184.09	184.06	
28	184.33	184.49	187.19	189.34	188.20	185.48	184.80	184.47	184.31	184.22	184.09	184.08	
29	184.30	184.56	186.77	190.71	187.36	185.49	184.76	184.46	184.31	184.21		184.08	
30	184.29	184.73	186.39	189.35	188.41	185.64	184.83	184.46	184.32	184.20		184.06	
31		184.81		188.90	187.42		184.81		184.32	184.20		184.04	
Mean	184.19	184.48	185.50	187.18	186.91	186.51	185.01	184.55	184.36	184.30	184.12	184.06	
Max	184.63	185.21	187.51	190.71	190.94	188.86	185.69	184.79	184.46	184.51	184.18	184.09	190.94
Min	184.06	184.21	184.56	185.07	185.03	185.48	184.76	184.46	184.31	184.20	184.09	184.03	184.03

Annual Max Momentary Gage Height 191.40 m. (MSL.) , at 11.00 Hours , on Aug 18 , 2018

Zero Gage at Bottom Elevation 182.81 m. (MSL.) , River Bed 181.19 m. (MSL.)

Left Bank Elevation 196.62 m. (MSL.) ,

Right Bank Elevation 196.57 m. (MSL.) , Drainage Are 2,170 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	10.10	19.08	41.05	116.00	372.00	237.00	105.66	44.35	27.12	20.82	14.78	11.15		
2	10.45	16.91	40.50	97.74	261.00	212.38	100.89	35.08	27.12	20.82	13.14	11.15		
3	11.91	17.34	39.95	83.30	245.00	378.60	83.30	34.00	26.65	20.39	13.14	10.80		
4	11.91	22.56	33.50	113.61	233.00	411.60	75.55	33.50	26.65	20.39	13.14	10.80		
5	11.91	25.24	32.00	91.66	270.00	368.70	74.84	34.54	26.65	19.95	13.55	10.45		
6	17.34	31.00	35.08	77.66	126.40	260.00	72.02	34.00	25.71	19.52	12.73	10.10		
7	14.78	22.13	37.78	60.95	128.80	227.00	70.61	33.00	22.56	19.08	12.73	10.45		
8	12.32	36.70	51.10	60.95	91.66	248.00	67.30	32.50	22.56	18.21	12.32	10.45		
9	12.32	31.50	80.48	87.10	128.00	198.50	60.31	32.00	22.56	20.82	12.32	10.10		
10	12.32	22.56	48.26	91.66	112.02	171.75	59.68	32.00	22.56	25.71	12.32	10.10		
11	11.91	19.08	52.30	105.66	114.40	166.50	57.77	31.50	22.13	29.50	12.32	9.75		
12	11.91	19.95	48.82	184.10	58.41	143.28	56.50	32.50	22.13	27.12	12.32	9.40		
13	11.15	22.56	64.76	219.00	75.55	215.15	53.50	33.00	22.56	23.43	12.32	9.40		
14	10.45	22.56	48.82	125.60	72.73	144.89	50.50	33.00	22.56	23.43	12.32	9.40		
15	10.10	20.39	47.14	106.45	67.93	136.04	48.26	33.00	22.56	23.43	12.32	9.05		
16	10.10	16.04	59.68	82.60	60.31	128.00	48.26	32.50	22.13	23.43	12.73	9.05		
17	10.10	20.39	50.50	102.48	202.20	136.04	49.38	32.50	22.13	23.00	12.73	9.05		
18	11.15	69.91	65.39	134.43	651.80	160.53	47.70	32.00	22.13	21.26	12.73	9.05		
19	18.21	51.70	144.89	169.13	431.40	132.01	47.70	31.50	22.13	19.52	12.73	9.05		
20	35.62	24.77	153.93	268.00	306.45	193.10	45.46	29.50	21.69	18.21	12.73	9.75		
21	27.12	27.59	209.60	452.45	235.00	135.23	44.90	29.00	21.69	18.21	12.32	10.10		
22	22.56	32.00	114.40	554.80	179.63	124.80	44.35	29.00	21.69	17.34	11.91	10.10		
23	19.95	31.00	96.22	578.95	159.70	116.80	49.94	29.00	21.26	18.21	11.50	10.10		
24	12.73	29.50	148.98	396.20	192.20	108.84	49.94	29.00	21.26	18.21	11.50	10.10		
25	11.50	30.50	268.00	491.55	181.40	116.80	47.14	29.00	20.39	17.78	11.15	10.10		
26	13.14	31.50	168.25	521.45	261.00	100.09	47.70	28.06	20.39	17.78	11.15	10.10		
27	28.53	29.00	148.98	512.25	384.10	90.90	50.50	27.12	20.39	16.47	11.15	10.10		
28	21.26	28.53	236.00	465.10	339.00	89.38	44.90	27.59	20.39	16.47	11.15	10.80		
29	19.95	32.00	195.80	624.20	253.00	90.14	42.70	27.12	20.39	16.04		10.80		
30	19.52	41.05	162.18	466.25	362.10	101.68	46.58	27.12	20.82	15.60		10.10		
31		45.46		416.00	259.00		45.46		20.82	15.60		9.40		
Total	462.32	890.50	2924.34	7857.28	6815.19	5343.73	1789.30	947.98	701.78	625.75	347.25	310.30	29015.72	CMSDAY
Mean	15.41	28.73	97.48	253.46	219.84	178.12	57.72	31.60	22.64	20.19	12.40	10.01	79.50	CMS
Max	35.62	69.91	268.00	624.20	651.80	411.60	105.66	44.35	27.12	29.50	14.78	11.15	651.80	CMS
Min	10.10	16.04	32.00	60.95	58.41	89.38	42.70	27.12	20.39	15.60	11.15	9.05	9.05	CMS
Runoff	39.94	76.94	252.66	678.87	588.83	461.70	154.60	81.91	60.63	54.06	30.00	26.81	2506.96	MCM

Momentary Peak 709.00 CMS. at 191.40 m. (MSL.) at 11.00 Hours , on Aug 18 , 2018

Runoff Yield 36.63 Liters/Second/Square KM. Momentary Peak Yield 326.73 Liters/Second/Square KM.

WATER YEAR : 2018

NAN RIVER BASIN

Nam Khwae Noi at Ban Kaeng Bua Kham , Phitsanulok (N.81)

Lat 17 - 07 - 43 N Long 100 - 35 - 17 E

Location : on left bank at Ban Kaeng Bua Kham.

	Ban Kaeng Bua Kham	**Amphoe** Chat Trakan	**Changwat** Phitsanulok
Drainge Area	3,120 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+160.260 m. (MSL.)		
Bench Mark	B.M.- H.D.		
Location BM	On left bank near the gage site.		**Elevation** +167.275 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic mean of 5 readings		
Period of Available Gage Records	2012 to date		
Rating Operation			
Period of Rating	2012 to date		
Rated by Flot	-		
Rated by Current Meter	2012 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 12 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

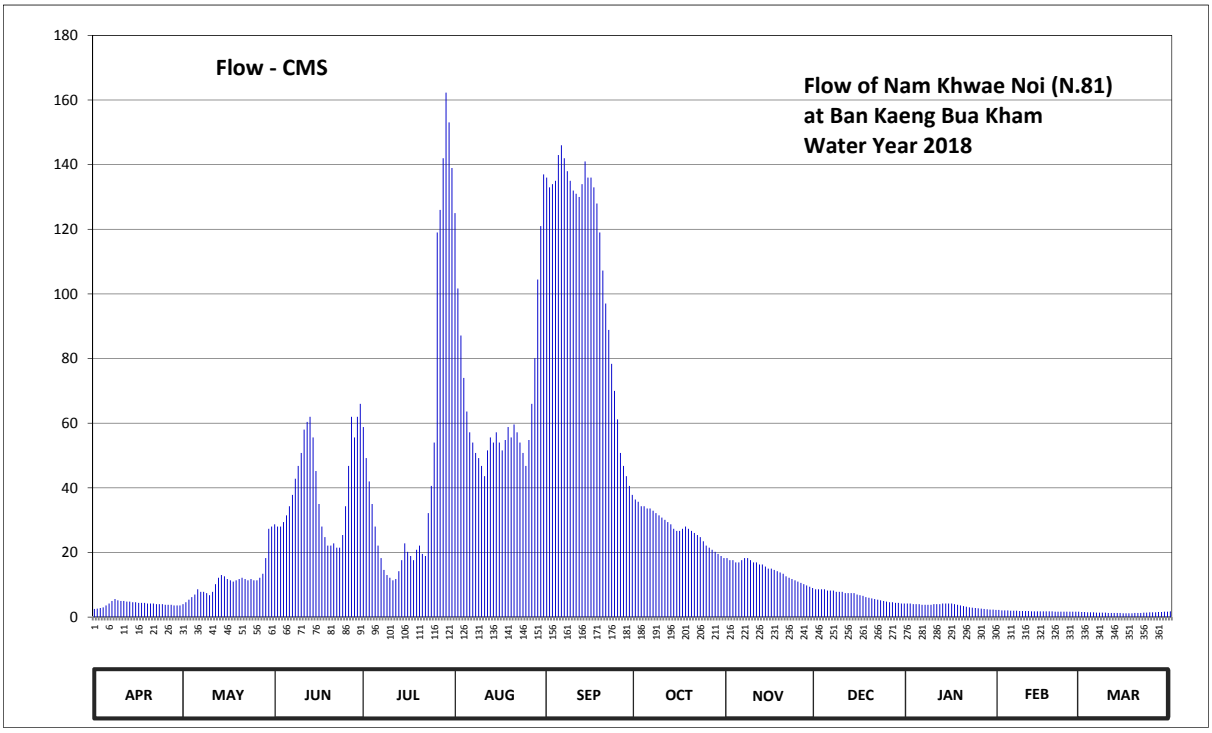
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	161.35	161.45	162.01	162.41	163.15	163.26	162.12	161.85	161.64	161.46	161.32	161.26	
2	161.36	161.48	162.00	162.29	162.91	163.23	162.11	161.84	161.64	161.46	161.31	161.26	
3	161.38	161.52	162.00	162.20	162.75	163.24	162.09	161.84	161.64	161.45	161.31	161.25	
4	161.40	161.56	162.02	162.10	162.60	163.25	162.09	161.83	161.64	161.45	161.31	161.25	
5	161.43	161.60	162.05	162.00	162.47	163.33	162.08	161.83	161.63	161.45	161.30	161.25	
6	161.46	161.64	162.09	161.91	162.39	163.36	162.08	161.84	161.63	161.44	161.30	161.24	
7	161.50	161.62	162.14	161.85	162.35	163.32	162.07	161.85	161.63	161.44	161.30	161.24	
8	161.53	161.62	162.21	161.79	162.31	163.28	162.06	161.85	161.62	161.44	161.29	161.24	
9	161.51	161.61	162.26	161.75	162.29	163.25	162.05	161.84	161.62	161.44	161.29	161.24	
10	161.50	161.59	162.31	161.73	162.26	163.22	162.04	161.83	161.62	161.45	161.29	161.23	
11	161.50	161.62	162.40	161.71	162.22	163.21	162.03	161.83	161.61	161.45	161.29	161.23	
12	161.49	161.68	162.43	161.72	162.32	163.20	162.02	161.82	161.61	161.45	161.28	161.23	
13	161.49	161.73	162.45	161.78	162.37	163.24	162.01	161.82	161.61	161.46	161.28	161.23	
14	161.48	161.75	162.37	161.84	162.35	163.31	161.99	161.81	161.61	161.46	161.28	161.23	
15	161.48	161.74	162.24	161.92	162.39	163.26	161.98	161.80	161.60	161.46	161.28	161.22	
16	161.47	161.72	162.10	161.88	162.35	163.26	161.98	161.80	161.59	161.46	161.28	161.22	
17	161.47	161.71	162.00	161.86	162.32	163.23	161.99	161.79	161.58	161.45	161.28	161.22	
18	161.47	161.70	161.95	161.84	162.36	163.18	162.00	161.78	161.56	161.44	161.28	161.22	
19	161.46	161.71	161.91	161.89	162.41	163.09	161.99	161.77	161.55	161.43	161.28	161.23	
20	161.46	161.72	161.91	161.91	162.37	162.97	161.98	161.76	161.54	161.42	161.27	161.23	
21	161.46	161.73	161.92	161.87	162.42	162.86	161.97	161.74	161.53	161.41	161.27	161.23	
22	161.45	161.72	161.90	161.86	162.39	162.77	161.96	161.73	161.52	161.40	161.27	161.24	
23	161.45	161.71	161.90	162.06	162.35	162.65	161.95	161.72	161.51	161.39	161.27	161.24	
24	161.45	161.72	161.96	162.18	162.31	162.55	161.93	161.71	161.50	161.38	161.27	161.25	
25	161.44	161.71	162.09	162.35	162.26	162.44	161.91	161.70	161.49	161.37	161.27	161.25	
26	161.44	161.71	162.26	163.09	162.36	162.31	161.90	161.69	161.48	161.36	161.27	161.25	
27	161.44	161.73	162.45	163.16	162.50	162.26	161.89	161.68	161.48	161.35	161.27	161.26	
28	161.43	161.76	162.37	163.32	162.67	162.22	161.88	161.67	161.47	161.34	161.27	161.26	
29	161.43	161.85	162.45	163.52	162.94	162.18	161.87	161.66	161.47	161.33		161.27	
30	161.43	161.99	162.50	163.43	163.11	162.14	161.86	161.65	161.46	161.33		161.27	
31		162.00		163.29	163.27		161.85		161.46	161.32		161.28	
Mean	161.45	161.69	162.15	162.21	162.50	162.97	161.99	161.78	161.57	161.42	161.29	161.24	
Max	161.53	162.00	162.50	163.52	163.27	163.36	162.12	161.85	161.64	161.46	161.32	161.28	163.52
Min	161.35	161.45	161.90	161.71	162.22	162.14	161.85	161.65	161.46	161.32	161.27	161.22	161.22

Annual Max Momentary Gage Height 163.54 m. (MSL.) , at 12.00 Hours , on Jul 29 , 2018

Zero Gage at Bottom Elevation 160.26 m. (MSL.) , River Bed 160.29 m. (MSL.)

Left Bank Elevation 165.34 m. (MSL.) ,

Right Bank Elevation 165.49 m. (MSL.) , Drainage Are 3,120 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.50	4.00	28.70	58.80	125.00	136.00	36.40	18.25	8.60	4.20	2.20	1.60		
2	2.60	4.60	28.00	49.20	101.68	133.00	35.70	17.60	8.60	4.20	2.10	1.60		
3	2.80	5.40	28.00	42.00	87.13	134.00	34.30	17.60	8.60	4.00	2.10	1.50		
4	3.00	6.20	29.40	35.00	74.00	135.00	34.30	16.95	8.60	4.00	2.10	1.50		
5	3.60	7.00	31.50	28.00	63.60	143.00	33.60	16.95	8.20	4.00	2.00	1.50		
6	4.20	8.60	34.30	22.15	57.20	146.00	33.60	17.60	8.20	3.80	2.00	1.40		
7	5.00	7.80	37.80	18.25	54.00	142.00	32.90	18.25	8.20	3.80	2.00	1.40		
8	5.60	7.80	42.80	14.60	50.80	138.00	32.20	18.25	7.80	3.80	1.90	1.40		
9	5.20	7.40	46.80	13.00	49.20	135.00	31.50	17.60	7.80	3.80	1.90	1.40		
10	5.00	6.80	50.80	12.20	46.80	132.00	30.80	16.95	7.80	4.00	1.90	1.30		
11	5.00	7.80	58.00	11.40	43.60	131.00	30.10	16.95	7.40	4.00	1.90	1.30		
12	4.80	10.20	60.40	11.80	51.60	130.00	29.40	16.30	7.40	4.00	1.80	1.30		
13	4.80	12.20	62.00	14.20	55.60	134.00	28.70	16.30	7.40	4.20	1.80	1.30		
14	4.60	13.00	55.60	17.60	54.00	141.00	27.35	15.65	7.40	4.20	1.80	1.30		
15	4.60	12.60	45.20	22.80	57.20	136.00	26.70	15.00	7.00	4.20	1.80	1.20		
16	4.40	11.80	35.00	20.20	54.00	136.00	26.70	15.00	6.80	4.20	1.80	1.20		
17	4.40	11.40	28.00	18.90	51.60	133.00	27.35	14.60	6.60	4.00	1.80	1.20		
18	4.40	11.00	24.75	17.60	54.80	128.00	28.00	14.20	6.20	3.80	1.80	1.20		
19	4.20	11.40	22.15	20.85	58.80	119.00	27.35	13.80	6.00	3.60	1.80	1.30		
20	4.20	11.80	22.15	22.15	55.60	107.23	26.70	13.40	5.80	3.40	1.70	1.30		
21	4.20	12.20	22.80	19.55	59.60	97.05	26.05	12.60	5.60	3.20	1.70	1.30		
22	4.00	11.80	21.50	18.90	57.20	88.88	25.40	12.20	5.40	3.00	1.70	1.40		
23	4.00	11.40	21.50	32.20	54.00	78.38	24.75	11.80	5.20	2.90	1.70	1.40		
24	4.00	11.80	25.40	40.60	50.80	70.00	23.45	11.40	5.00	2.80	1.70	1.50		
25	3.80	11.40	34.30	54.00	46.80	61.20	22.15	11.00	4.80	2.70	1.70	1.50		
26	3.80	11.40	46.80	119.00	54.80	50.80	21.50	10.60	4.60	2.60	1.70	1.50		
27	3.80	12.20	62.00	126.00	66.00	46.80	20.85	10.20	4.60	2.50	1.70	1.60		
28	3.60	13.40	55.60	142.00	80.13	43.60	20.20	9.80	4.40	2.40	1.70	1.60		
29	3.60	18.25	62.00	162.30	104.45	40.60	19.55	9.40	4.40	2.30		1.70		
30	3.60	27.35	66.00	153.08	121.00	37.80	18.90	9.00	4.20	2.30		1.70		
31		28.00		139.00	137.00		18.25		4.20	2.20		1.80		
Total	123.30	348.00	1189.25	1477.33	2077.99	3284.34	854.70	435.20	202.80	108.10	51.80	44.20	10197.01	CMSDAY
Mean	4.11	11.23	39.64	47.66	67.03	109.48	27.57	14.51	6.54	3.49	1.85	1.43	27.94	CMS
Max	5.60	28.00	66.00	162.30	137.00	146.00	36.40	18.25	8.60	4.20	2.20	1.80	162.30	CMS
Min	2.50	4.00	21.50	11.40	43.60	37.80	18.25	9.00	4.20	2.20	1.70	1.20	1.20	CMS
Runoff	10.65	30.07	102.75	127.64	179.54	283.77	73.85	37.60	17.52	9.34	4.48	3.82	881.02	MCM

Momentary Peak 164.35 CMS. at 163.54 m. (MSL.) at 12.00 Hours , on Jul 29 , 2018

Runoff Yield 8.95 Liters/Second/Square KM. Momentary Peak Yield 52.68 Liters/Second/Square KM.

WATER YEAR : 2018

NAN RIVER BASIN

Huai Nam Ree at Ban Kaeng Sai Ngam , Uttaradit (N.82)

Lat 17 - 52 - 25 N Long 100 - 17 - 49 E

Location : on right bank at Ban Kaeng Sai Ngam.

	Ban Kaeng Sai Ngam	**Amphoe** Tha Pla	**Changwat** Uttaradit
Drainge Area	83 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+0.00 m. (A.D.)		
Bench Mark	B.M.- H.D.		
Location BM	On left bank near the gage site.	**Elevation**	+6.312 m. (A.D.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic mean of 5 readings		
Period of Available Gage Records	2016 to date		
Rating Operation			
Period of Rating	2016 to date		
Rated by Flot	-		
Rated by Current Meter	2016 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 19 discharge measurements made in 2018.		

Gage Height in Meter (A.D.) Water Year April 1, 2018 to March 31, 2019

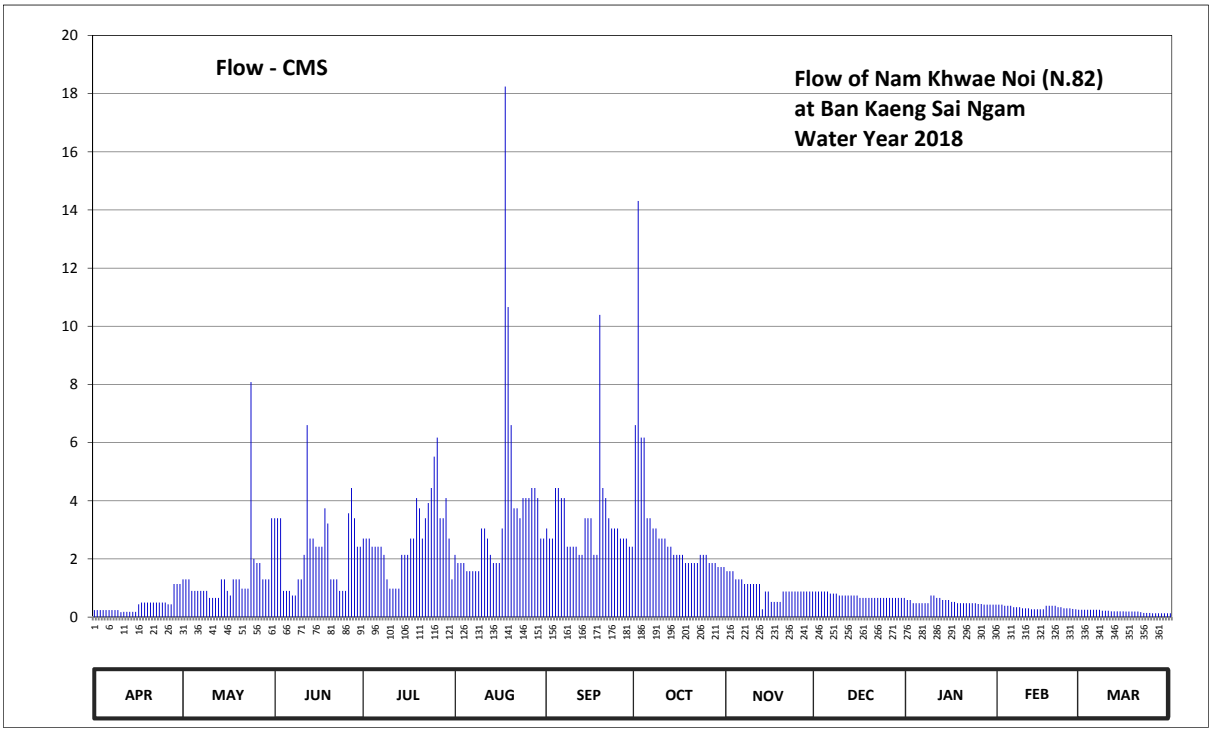
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.32	0.50	0.64	0.60	0.56	0.62	0.80	0.52	0.70	0.62	0.56	0.47	
2	0.32	0.50	0.64	0.60	0.54	0.60	1.08	0.52	0.70	0.62	0.56	0.47	
3	0.32	0.50	0.64	0.60	0.54	0.60	0.78	0.52	0.70	0.58	0.54	0.47	
4	0.32	0.45	0.45	0.58	0.54	0.70	0.78	0.50	0.70	0.58	0.54	0.47	
5	0.32	0.45	0.45	0.58	0.52	0.70	0.64	0.50	0.70	0.58	0.54	0.47	
6	0.32	0.45	0.45	0.58	0.52	0.68	0.64	0.50	0.68	0.58	0.52	0.47	
7	0.32	0.45	0.43	0.58	0.52	0.68	0.62	0.48	0.68	0.58	0.52	0.47	
8	0.32	0.45	0.43	0.56	0.52	0.58	0.62	0.48	0.68	0.58	0.52	0.45	
9	0.32	0.45	0.50	0.50	0.52	0.58	0.60	0.48	0.66	0.66	0.50	0.45	
10	0.29	0.42	0.50	0.46	0.62	0.58	0.60	0.48	0.66	0.66	0.50	0.45	
11	0.30	0.42	0.56	0.46	0.62	0.58	0.60	0.48	0.66	0.64	0.50	0.44	
12	0.30	0.42	0.80	0.46	0.60	0.56	0.58	0.48	0.66	0.64	0.48	0.44	
13	0.30	0.42	0.60	0.46	0.56	0.56	0.58	0.48	0.66	0.62	0.48	0.44	
14	0.30	0.50	0.60	0.56	0.54	0.64	0.56	0.70	0.66	0.62	0.48	0.44	
15	0.30	0.50	0.58	0.56	0.54	0.64	0.56	0.70	0.66	0.62	0.48	0.44	
16	0.38	0.45	0.58	0.56	0.54	0.64	0.56	0.60	0.64	0.60	0.48	0.43	
17	0.40	0.43	0.58	0.60	0.62	0.56	0.56	0.60	0.64	0.60	0.54	0.43	
18	0.40	0.50	0.66	0.60	1.20	0.56	0.54	0.60	0.64	0.58	0.54	0.43	
19	0.40	0.50	0.63	0.68	0.96	0.95	0.54	0.60	0.64	0.58	0.54	0.43	
20	0.40	0.50	0.50	0.66	0.80	0.70	0.54	0.70	0.64	0.58	0.54	0.43	
21	0.40	0.46	0.50	0.60	0.66	0.68	0.54	0.70	0.64	0.58	0.52	0.42	
22	0.40	0.46	0.50	0.64	0.66	0.64	0.54	0.70	0.64	0.58	0.52	0.40	
23	0.40	0.46	0.45	0.67	0.64	0.62	0.56	0.70	0.64	0.58	0.50	0.40	
24	0.40	0.86	0.45	0.70	0.68	0.62	0.56	0.70	0.64	0.58	0.50	0.40	
25	0.40	0.55	0.45	0.75	0.68	0.62	0.56	0.70	0.64	0.57	0.50	0.39	
26	0.38	0.54	0.65	0.78	0.68	0.60	0.54	0.70	0.64	0.57	0.49	0.39	
27	0.38	0.54	0.70	0.64	0.70	0.60	0.54	0.70	0.64	0.56	0.48	0.39	
28	0.48	0.50	0.64	0.64	0.70	0.60	0.54	0.70	0.64	0.56	0.47	0.39	
29	0.48	0.50	0.58	0.68	0.68	0.58	0.53	0.70	0.64	0.56		0.39	
30	0.48	0.50	0.58	0.60	0.60	0.58	0.53	0.70	0.64	0.56		0.39	
31		0.64		0.50	0.60		0.53		0.64	0.56		0.39	
Mean	0.36	0.49	0.56	0.59	0.63	0.63	0.60	0.60	0.66	0.59	0.51	0.43	
Max	0.48	0.86	0.80	0.78	1.20	0.95	1.08	0.70	0.70	0.66	0.56	0.47	1.20
Min	0.29	0.42	0.43	0.46	0.52	0.56	0.53	0.48	0.64	0.56	0.47	0.39	0.29

Annual Max Momentary Gage Height 1.20 m. (A.D.) , at 06.00 Hours , on Aug 18 , 2018

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed 0.02 m. (A.D.)

Left Bank Elevation 4.13 m. (A.D.) ,

Right Bank Elevation 5.74 m. (A.D.) , Drainage Are 83 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.24	1.30	3.40	2.70	2.14	3.05	6.60	1.58	0.88	0.59	0.43	0.25		
2	0.24	1.30	3.40	2.70	1.86	2.70	14.31	1.58	0.88	0.59	0.43	0.25		
3	0.24	1.30	3.40	2.70	1.86	2.70	6.17	1.58	0.88	0.48	0.39	0.25		
4	0.24	0.90	0.90	2.42	1.86	4.44	6.17	1.30	0.88	0.48	0.39	0.25		
5	0.24	0.90	0.90	2.42	1.58	4.44	3.40	1.30	0.88	0.48	0.39	0.25		
6	0.24	0.90	0.90	2.42	1.58	4.09	3.40	1.30	0.81	0.48	0.34	0.25		
7	0.24	0.90	0.74	2.42	1.58	4.09	3.05	1.14	0.81	0.48	0.34	0.25		
8	0.24	0.90	0.74	2.14	1.58	2.42	3.05	1.14	0.81	0.48	0.34	0.22		
9	0.24	0.90	1.30	1.30	1.58	2.42	2.70	1.14	0.74	0.74	0.30	0.22		
10	0.17	0.66	1.30	0.98	3.05	2.42	2.70	1.14	0.74	0.74	0.30	0.22		
11	0.18	0.66	2.14	0.98	3.05	2.42	2.70	1.14	0.74	0.66	0.30	0.20		
12	0.18	0.66	6.60	0.98	2.70	2.14	2.42	1.14	0.74	0.66	0.27	0.20		
13	0.18	0.66	2.70	0.98	2.14	2.14	2.42	0.27	0.74	0.59	0.27	0.20		
14	0.18	1.30	2.70	2.14	1.86	3.40	2.14	0.88	0.74	0.59	0.27	0.20		
15	0.18	1.30	2.42	2.14	1.86	3.40	2.14	0.88	0.74	0.59	0.27	0.20		
16	0.44	0.90	2.42	2.14	1.86	3.40	2.14	0.52	0.66	0.52	0.27	0.19		
17	0.50	0.74	2.42	2.70	3.05	2.14	2.14	0.52	0.66	0.52	0.39	0.19		
18	0.50	1.30	3.74	2.70	18.24	2.14	1.86	0.52	0.66	0.48	0.39	0.19		
19	0.50	1.30	3.22	4.09	10.66	10.39	1.86	0.52	0.66	0.48	0.39	0.19		
20	0.50	1.30	1.30	3.74	6.60	4.44	1.86	0.88	0.66	0.48	0.39	0.19		
21	0.50	0.98	1.30	2.70	3.74	4.09	1.86	0.88	0.66	0.48	0.34	0.17		
22	0.50	0.98	1.30	3.40	3.74	3.40	1.86	0.88	0.66	0.48	0.34	0.14		
23	0.50	0.98	0.90	3.92	3.40	3.05	2.14	0.88	0.66	0.48	0.30	0.14		
24	0.50	8.08	0.90	4.44	4.09	3.05	2.14	0.88	0.66	0.48	0.30	0.14		
25	0.50	2.00	0.90	5.52	4.09	3.05	2.14	0.88	0.66	0.45	0.30	0.13		
26	0.44	1.86	3.57	6.17	4.09	2.70	1.86	0.88	0.66	0.45	0.28	0.13		
27	0.44	1.86	4.44	3.40	4.44	2.70	1.86	0.88	0.66	0.43	0.27	0.13		
28	1.14	1.30	3.40	3.40	4.44	2.70	1.86	0.88	0.66	0.43	0.25	0.13		
29	1.14	1.30	2.42	4.09	4.09	2.42	1.72	0.88	0.66	0.43		0.13		
30	1.14	1.30	2.42	2.70	2.70	2.42	1.72	0.88	0.66	0.43		0.13		
31		3.40		1.30	2.70		1.72		0.66	0.43		0.13		
Total	12.47	44.12	68.19	85.83	112.21	98.36	94.11	29.27	22.57	16.08	9.24	5.86	598.31	CMSDAY
Mean	0.42	1.42	2.27	2.77	3.62	3.28	3.04	0.98	0.73	0.52	0.33	0.19	1.64	CMS
Max	1.14	8.08	6.60	6.17	18.24	10.39	14.31	1.58	0.88	0.74	0.43	0.25	18.24	CMS
Min	0.17	0.66	0.74	0.98	1.58	2.14	1.72	0.27	0.66	0.43	0.25	0.13	0.13	CMS
Runoff	1.08	3.81	5.89	7.42	9.69	8.50	8.13	2.53	1.95	1.39	0.80	0.51	51.69	MCM

Momentary Peak 18.24 CMS. at 1.20 m. (A.D.) at 06.00 Hours , on Aug 18 , 2018

Runoff Yield 19.75 Liters/Second/Square KM. Momentary Peak Yield 219.76 Liters/Second/Square KM.

WATER YEAR : 2018

NAN RIVER BASIN

Huai Nam Ree at Ban Kiw Kian , Uttaradit (N.83)

Lat 17 - 59 - 35 N Long 100 - 52 - 52 E

Location : on left bank at Ban Kiw kian.

Ban Kiw Kian **Amphoe** Tha Pla **Changwat** Uttaradit

Drainge Area	265 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+0.00 m. (A.D.)
Bench Mark	B.M.- H.D.
Location BM	On left bank near the gage site. **Elevation** - m. (A.D.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic mean of 5 readings
Period of Available Gage Records	2016 to date
Rating Operation	
Period of Rating	2016 to date
Rated by Flot	-
Rated by Current Meter	2016 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Stage-discharge relation defined by 18 discharge measurements made in 2018.

Gage Height in Meter (A.D.) Water Year April 1, 2018 to March 31, 2019

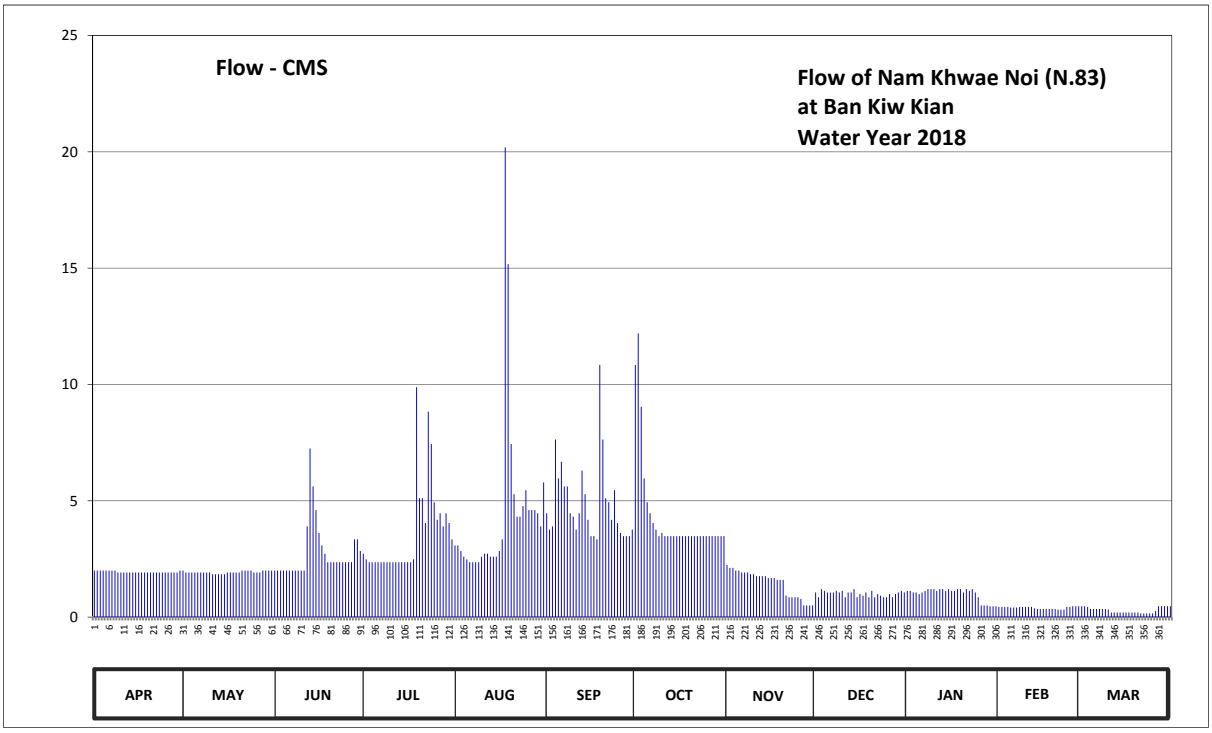
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.60	0.60	0.60	0.66	0.69	0.79	1.12	0.62	0.48	0.49	0.38	0.39	
2	0.60	0.59	0.60	0.64	0.69	0.74	1.17	0.61	0.45	0.49	0.38	0.39	
3	0.60	0.59	0.60	0.63	0.67	0.75	1.04	0.61	0.50	0.48	0.38	0.38	
4	0.60	0.59	0.60	0.63	0.65	0.97	0.88	0.60	0.49	0.48	0.38	0.35	
5	0.60	0.59	0.60	0.63	0.64	0.88	0.82	0.60	0.48	0.47	0.37	0.35	
6	0.60	0.59	0.60	0.63	0.63	0.92	0.79	0.59	0.48	0.48	0.37	0.35	
7	0.60	0.59	0.60	0.63	0.63	0.86	0.76	0.59	0.48	0.49	0.37	0.35	
8	0.60	0.59	0.60	0.63	0.63	0.86	0.74	0.59	0.49	0.50	0.38	0.35	
9	0.59	0.59	0.60	0.63	0.63	0.79	0.72	0.58	0.48	0.50	0.38	0.35	
10	0.59	0.59	0.60	0.63	0.65	0.78	0.73	0.58	0.49	0.50	0.38	0.34	
11	0.59	0.58	0.60	0.63	0.66	0.74	0.72	0.57	0.45	0.49	0.38	0.30	
12	0.59	0.58	0.75	0.63	0.66	0.79	0.72	0.57	0.48	0.50	0.38	0.30	
13	0.59	0.58	0.95	0.63	0.65	0.90	0.72	0.57	0.48	0.50	0.36	0.30	
14	0.59	0.58	0.86	0.63	0.65	0.84	0.72	0.57	0.50	0.49	0.35	0.30	
15	0.59	0.58	0.80	0.63	0.65	0.77	0.72	0.56	0.45	0.50	0.35	0.30	
16	0.59	0.59	0.73	0.63	0.67	0.72	0.72	0.56	0.47	0.49	0.35	0.30	
17	0.59	0.59	0.69	0.63	0.71	0.72	0.72	0.56	0.46	0.49	0.35	0.30	
18	0.59	0.59	0.66	0.64	1.41	0.71	0.72	0.55	0.48	0.50	0.35	0.30	
19	0.59	0.59	0.63	1.08	1.27	1.12	0.72	0.55	0.45	0.50	0.35	0.30	
20	0.59	0.59	0.63	0.83	0.96	0.97	0.72	0.55	0.49	0.48	0.35	0.30	
21	0.59	0.60	0.63	0.83	0.84	0.83	0.72	0.46	0.45	0.50	0.34	0.28	
22	0.59	0.60	0.63	0.76	0.78	0.82	0.72	0.45	0.47	0.49	0.34	0.28	
23	0.59	0.60	0.63	1.03	0.78	0.77	0.72	0.45	0.46	0.50	0.34	0.28	
24	0.59	0.60	0.63	0.96	0.81	0.85	0.72	0.45	0.45	0.48	0.38	0.28	
25	0.59	0.59	0.63	0.82	0.85	0.76	0.72	0.45	0.45	0.45	0.38	0.28	
26	0.59	0.59	0.63	0.77	0.80	0.73	0.72	0.44	0.47	0.40	0.39	0.32	
27	0.59	0.59	0.63	0.79	0.80	0.72	0.72	0.40	0.45	0.40	0.39	0.39	
28	0.59	0.60	0.71	0.75	0.80	0.72	0.72	0.40	0.47	0.40	0.39	0.39	
29	0.59	0.60	0.71	0.79	0.79	0.72	0.72	0.40	0.48	0.39		0.39	
30	0.60	0.60	0.67	0.76	0.75	0.74	0.72	0.40	0.49	0.39		0.39	
31		0.60		0.71	0.87		0.72		0.48	0.39		0.39	
Mean	0.59	0.59	0.66	0.72	0.76	0.81	0.77	0.53	0.47	0.47	0.37	0.33	
Max	0.60	0.60	0.95	1.08	1.41	1.12	1.17	0.62	0.50	0.50	0.39	0.39	1.41
Min	0.59	0.58	0.60	0.63	0.63	0.71	0.72	0.40	0.45	0.39	0.34	0.28	0.28

Annual Max Momentary Gage Height 1.62 m. (A.D.) , at 09.00 Hours , on Aug 18 , 2018

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed 0.19 m. (A.D.)

Left Bank Elevation 6.24 m. (A.D.) ,

Right Bank Elevation 6.28 m. (A.D.) , Drainage Are 265 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.00	2.00	2.00	2.72	3.08	4.46	10.84	2.24	1.06	1.13	0.44	0.47		
2	2.00	1.92	2.00	2.48	3.08	3.76	12.19	2.12	0.85	1.13	0.44	0.47		
3	2.00	1.92	2.00	2.36	2.84	3.90	9.04	2.12	1.20	1.06	0.44	0.44		
4	2.00	1.92	2.00	2.36	2.60	7.63	5.96	2.00	1.13	1.06	0.44	0.35		
5	2.00	1.92	2.00	2.36	2.48	5.96	4.94	2.00	1.06	0.99	0.41	0.35		
6	2.00	1.92	2.00	2.36	2.36	6.68	4.46	1.92	1.06	1.06	0.41	0.35		
7	2.00	1.92	2.00	2.36	2.36	5.62	4.04	1.92	1.06	1.13	0.41	0.35		
8	2.00	1.92	2.00	2.36	2.36	5.62	3.76	1.92	1.13	1.20	0.44	0.35		
9	1.92	1.92	2.00	2.36	2.36	4.46	3.48	1.84	1.06	1.20	0.44	0.35		
10	1.92	1.92	2.00	2.36	2.60	4.32	3.62	1.84	1.13	1.20	0.44	0.32		
11	1.92	1.84	2.00	2.36	2.72	3.76	3.48	1.76	0.85	1.13	0.44	0.20		
12	1.92	1.84	3.90	2.36	2.72	4.46	3.48	1.76	1.06	1.20	0.44	0.20		
13	1.92	1.84	7.25	2.36	2.60	6.30	3.48	1.76	1.06	1.20	0.38	0.20		
14	1.92	1.84	5.62	2.36	2.60	5.28	3.48	1.76	1.20	1.13	0.35	0.20		
15	1.92	1.84	4.60	2.36	2.60	4.18	3.48	1.68	0.85	1.20	0.35	0.20		
16	1.92	1.92	3.62	2.36	2.84	3.48	3.48	1.68	0.99	1.13	0.35	0.20		
17	1.92	1.92	3.08	2.36	3.34	3.48	3.48	1.68	0.92	1.13	0.35	0.20		
18	1.92	1.92	2.72	2.48	20.19	3.34	3.48	1.60	1.06	1.20	0.35	0.20		
19	1.92	1.92	2.36	9.88	15.17	10.84	3.48	1.60	0.85	1.20	0.35	0.20		
20	1.92	1.92	2.36	5.11	7.44	7.63	3.48	1.60	1.13	1.06	0.35	0.20		
21	1.92	2.00	2.36	5.11	5.28	5.11	3.48	0.92	0.85	1.20	0.32	0.16		
22	1.92	2.00	2.36	4.04	4.32	4.94	3.48	0.85	0.99	1.13	0.32	0.16		
23	1.92	2.00	2.36	8.83	4.32	4.18	3.48	0.85	0.92	1.20	0.32	0.16		
24	1.92	2.00	2.36	7.44	4.77	5.45	3.48	0.85	0.85	1.06	0.44	0.16		
25	1.92	1.92	2.36	4.94	5.45	4.04	3.48	0.85	0.85	0.85	0.44	0.16		
26	1.92	1.92	2.36	4.18	4.60	3.62	3.48	0.78	0.99	0.50	0.47	0.26		
27	1.92	1.92	2.36	4.46	4.60	3.48	3.48	0.50	0.85	0.50	0.47	0.47		
28	1.92	2.00	3.34	3.90	4.60	3.48	3.48	0.50	0.99	0.50	0.47	0.47		
29	1.92	2.00	3.34	4.46	4.46	3.48	3.48	0.50	1.06	0.47		0.47		
30	2.00	2.00	2.84	4.04	3.90	3.76	3.48	0.50	1.13	0.47		0.47		
31		2.00		3.34	5.79		3.48		1.06	0.47		0.47		
Total	58.32	59.84	83.55	112.81	140.43	146.70	135.41	43.90	31.25	31.09	11.27	9.21	863.78	CMSDAY
Mean	1.94	1.93	2.78	3.64	4.53	4.89	4.37	1.46	1.01	1.00	0.40	0.30	2.37	CMS
Max	2.00	2.00	7.25	9.88	20.19	10.84	12.19	2.24	1.20	1.20	0.47	0.47	20.19	CMS
Min	1.92	1.84	2.00	2.36	2.36	3.34	3.48	0.50	0.85	0.47	0.32	0.16	0.16	CMS
Runoff	5.04	5.17	7.22	9.75	12.13	12.67	11.70	3.79	2.70	2.69	0.97	0.80	74.63	MCM

Momentary Peak 29.00 CMS. at 1.62 m. (A.D.) at 09.00 Hours , on Aug 18 , 2018

Runoff Yield 8.93 Liters/Second/Square KM. Momentary Peak Yield 109.43 Liters/Second/Square KM.

WATER YEAR : 2018

NAN RIVER BASIN

Nam Pat at Ban Suan , Uttaradit (N.84)

Lat 17 - 44 - 29 N Long 100 - 40 - 45 E

Location : on right bank at Ban Suan.

Ban Suan **Amphoe** Nam Pat **Changwat** Uttaradit

Drainge Area	1,863 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+0.000 m. (A.D.)
Bench Mark	B.M.- H.D.
Location BM	On left bank near the gage site. **Elevation** +8.842 m. (A.D.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic mean of 5 readings
Period of Available Gage Records	2016 to date
Rating Operation	
Period of Rating	2016 to date
Rated by Flot	-
Rated by Current Meter	2016 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Stage-discharge relation defined by 18 discharge measurements made in 2018.

Gage Height in Meter (A.D.) Water Year April 1, 2018 to March 31, 2019

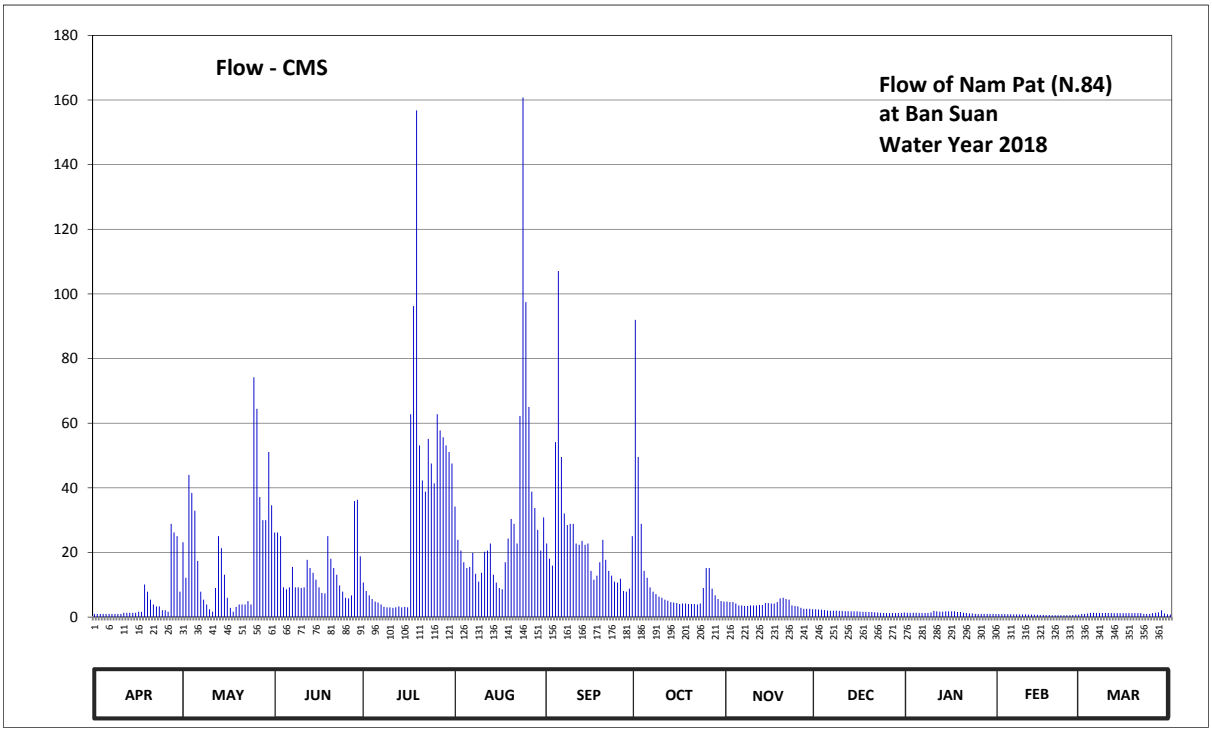
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.60	1.62	1.70	1.25	1.90	1.61	3.00	0.96	0.80	0.65	0.59	0.60	
2	0.60	1.30	1.70	1.14	1.64	1.48	2.25	0.95	0.79	0.65	0.59	0.60	
3	0.60	2.13	1.67	1.07	1.55	1.42	1.77	0.95	0.78	0.65	0.58	0.62	
4	0.60	2.00	1.20	1.01	1.45	2.34	1.37	0.92	0.77	0.65	0.58	0.64	
5	0.60	1.87	1.17	0.96	1.40	3.24	1.30	0.88	0.75	0.64	0.58	0.65	
6	0.60	1.46	1.20	0.94	1.41	2.25	1.20	0.88	0.74	0.64	0.57	0.64	
7	0.60	1.13	1.41	0.90	1.53	1.85	1.13	0.87	0.74	0.64	0.57	0.64	
8	0.60	1.00	1.20	0.85	1.34	1.76	1.09	0.87	0.74	0.64	0.57	0.64	
9	0.60	0.90	1.20	0.84	1.26	1.77	1.05	0.88	0.73	0.66	0.57	0.64	
10	0.60	0.80	1.19	0.84	1.35	1.77	1.03	0.88	0.73	0.73	0.57	0.64	
11	0.65	0.70	1.20	0.83	1.54	1.61	1.00	0.88	0.72	0.71	0.56	0.63	
12	0.65	1.19	1.47	0.84	1.55	1.60	0.98	0.89	0.72	0.70	0.56	0.63	
13	0.65	1.67	1.40	0.86	1.61	1.63	0.95	0.89	0.71	0.70	0.55	0.63	
14	0.65	1.57	1.35	0.84	1.33	1.60	0.94	0.93	0.71	0.71	0.55	0.63	
15	0.65	1.33	1.28	0.85	1.25	1.61	0.93	0.93	0.71	0.71	0.54	0.63	
16	0.70	1.03	1.20	0.84	1.19	1.37	0.91	0.92	0.70	0.71	0.54	0.63	
17	0.69	0.83	1.11	2.50	1.17	1.28	0.92	0.92	0.69	0.71	0.53	0.63	
18	1.23	0.70	1.10	3.07	1.45	1.32	0.92	0.95	0.69	0.68	0.53	0.63	
19	1.13	0.85	1.67	3.91	1.65	1.45	0.91	1.02	0.68	0.68	0.52	0.63	
20	1.00	0.90	1.48	2.32	1.81	1.64	0.91	1.03	0.68	0.65	0.52	0.63	
21	0.90	0.90	1.40	2.09	1.77	1.47	0.91	1.01	0.67	0.64	0.52	0.63	
22	0.86	0.90	1.33	2.01	1.61	1.37	0.90	1.00	0.66	0.62	0.52	0.60	
23	0.86	0.97	1.22	2.36	2.49	1.32	0.92	0.88	0.65	0.62	0.52	0.60	
24	0.76	0.90	1.13	2.21	3.96	1.26	1.19	0.87	0.64	0.60	0.52	0.60	
25	0.76	2.70	1.03	2.07	3.09	1.25	1.40	0.86	0.63	0.59	0.52	0.63	
26	0.70	2.53	1.02	2.50	2.54	1.29	1.40	0.83	0.63	0.60	0.53	0.65	
27	1.77	1.97	1.07	2.41	2.01	1.14	1.18	0.81	0.64	0.60	0.55	0.66	
28	1.70	1.80	1.94	2.37	1.89	1.13	1.07	0.81	0.63	0.60	0.55	0.76	
29	1.67	1.80	1.95	2.32	1.72	1.18	1.01	0.81	0.64	0.60		0.62	
30	1.13	2.28	1.50	2.28	1.55	1.67	0.97	0.80	0.64	0.60		0.58	
31		1.91		2.21	1.82		0.96		0.66	0.59		0.56	
Mean	0.84	1.41	1.35	1.66	1.74	1.59	1.18	0.90	0.70	0.65	0.55	0.63	
Max	1.77	2.70	1.95	3.91	3.96	3.24	3.00	1.03	0.80	0.73	0.59	0.76	3.96
Min	0.60	0.70	1.02	0.83	1.17	1.13	0.90	0.80	0.63	0.59	0.52	0.56	0.52

Annual Max Momentary Gage Height 4.30 m. (A.D.) , at 06.00 Hours , on Aug 24 , 2018

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed 0.08 m. (A.D.)

Left Bank Elevation 7.33 m. (A.D.) ,

Right Bank Elevation 7.29 m. (A.D.) , Drainage Are 1,863 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.00	23.16	26.20	10.70	34.20	22.78	92.00	4.80	2.40	1.35	0.95	1.00		
2	1.00	12.20	26.20	8.06	23.92	18.08	49.55	4.65	2.33	1.35	0.95	1.00		
3	1.00	43.99	25.06	6.73	20.60	15.92	28.86	4.65	2.26	1.35	0.90	1.14		
4	1.00	38.40	9.20	5.59	17.00	54.14	14.30	4.20	2.19	1.35	0.90	1.28		
5	1.00	32.94	8.63	4.80	15.20	107.08	12.20	3.60	2.05	1.28	0.90	1.35		
6	1.00	17.36	9.20	4.50	15.56	49.55	9.20	3.60	1.98	1.28	0.85	1.28		
7	1.00	7.87	15.56	3.90	19.88	32.10	7.87	3.45	1.98	1.28	0.85	1.28		
8	1.00	5.40	9.20	3.15	13.40	28.48	7.11	3.45	1.98	1.28	0.85	1.28		
9	1.00	3.90	9.20	3.00	11.00	28.86	6.35	3.60	1.91	1.42	0.85	1.28		
10	1.00	2.40	9.01	3.00	13.70	28.86	5.97	3.60	1.91	1.91	0.85	1.28		
11	1.35	1.70	9.20	2.85	20.24	22.78	5.40	3.60	1.84	1.77	0.80	1.21		
12	1.35	9.01	17.72	3.00	20.60	22.40	5.10	3.75	1.84	1.70	0.80	1.21		
13	1.35	25.06	15.20	3.30	22.78	23.54	4.65	3.75	1.77	1.70	0.75	1.21		
14	1.35	21.32	13.70	3.00	13.10	22.40	4.50	4.35	1.77	1.77	0.75	1.21		
15	1.35	13.10	11.60	3.15	10.70	22.78	4.35	4.35	1.77	1.77	0.70	1.21		
16	1.70	5.97	9.20	3.00	9.01	14.30	4.05	4.20	1.70	1.77	0.70	1.21		
17	1.63	2.85	7.49	62.80	8.63	11.60	4.20	4.20	1.63	1.77	0.65	1.21		
18	10.10	1.70	7.30	96.27	17.00	12.80	4.20	4.65	1.63	1.56	0.65	1.21		
19	7.87	3.15	25.06	156.80	24.30	17.00	4.05	5.78	1.56	1.56	0.60	1.21		
20	5.40	3.90	18.08	53.12	30.42	23.92	4.05	5.97	1.56	1.35	0.60	1.21		
21	3.90	3.90	15.20	42.27	28.86	17.72	4.05	5.59	1.49	1.28	0.60	1.21		
22	3.30	3.90	13.10	38.83	22.78	14.30	3.90	5.40	1.42	1.14	0.60	1.00		
23	3.30	4.95	9.80	55.16	62.24	12.80	4.20	3.60	1.35	1.14	0.60	1.00		
24	2.12	3.90	7.87	47.51	160.80	11.00	9.01	3.45	1.28	1.00	0.60	1.00		
25	2.12	74.20	5.97	41.41	97.49	10.70	15.20	3.30	1.21	0.95	0.60	1.21		
26	1.70	64.48	5.78	62.80	65.04	11.90	15.20	2.85	1.21	1.00	0.65	1.35		
27	28.86	37.14	6.73	57.76	38.83	8.06	8.82	2.55	1.28	1.00	0.75	1.42		
28	26.20	30.00	35.88	55.67	33.78	7.87	6.73	2.55	1.21	1.00	0.75	2.12		
29	25.06	30.00	36.30	53.12	26.96	8.82	5.59	2.55	1.28	1.00		1.14		
30	7.87	51.08	18.80	51.08	20.60	25.06	4.95	2.40	1.28	1.00		0.90		
31		34.62		47.51	30.84		4.80		1.42	0.95		0.80		
Total	147.88	613.55	437.44	993.84	949.46	707.60	360.41	118.44	52.49	42.03	21.00	37.42	4481.56	CMSDAY
Mean	4.93	19.79	14.58	32.06	30.63	23.59	11.63	3.95	1.69	1.36	0.75	1.21	12.28	CMS
Max	28.86	74.20	36.30	156.80	160.80	107.08	92.00	5.97	2.40	1.91	0.95	2.12	160.80	CMS
Min	1.00	1.70	5.78	2.85	8.63	7.87	3.90	2.40	1.21	0.95	0.60	0.80	0.60	CMS
Runoff	12.78	53.01	37.79	85.87	82.03	61.14	31.14	10.23	4.54	3.63	1.81	3.23	387.21	MCM

Momentary Peak 191.00 CMS. at 4.30 m. (A.D.) at 06.00 Hours , on Aug 24 , 2018

Runoff Yield 6.59 Liters/Second/Square KM. Momentary Peak Yield 102.52 Liters/Second/Square KM.

WATER YEAR : 2018

NAN RIVER BASIN

Nan River at Ban Saphan Khwae Yai Phatthana, Nakhon Sawan (N.85)

Lat 15 - 43 - 16 N Long 100 - 10 - 20 E

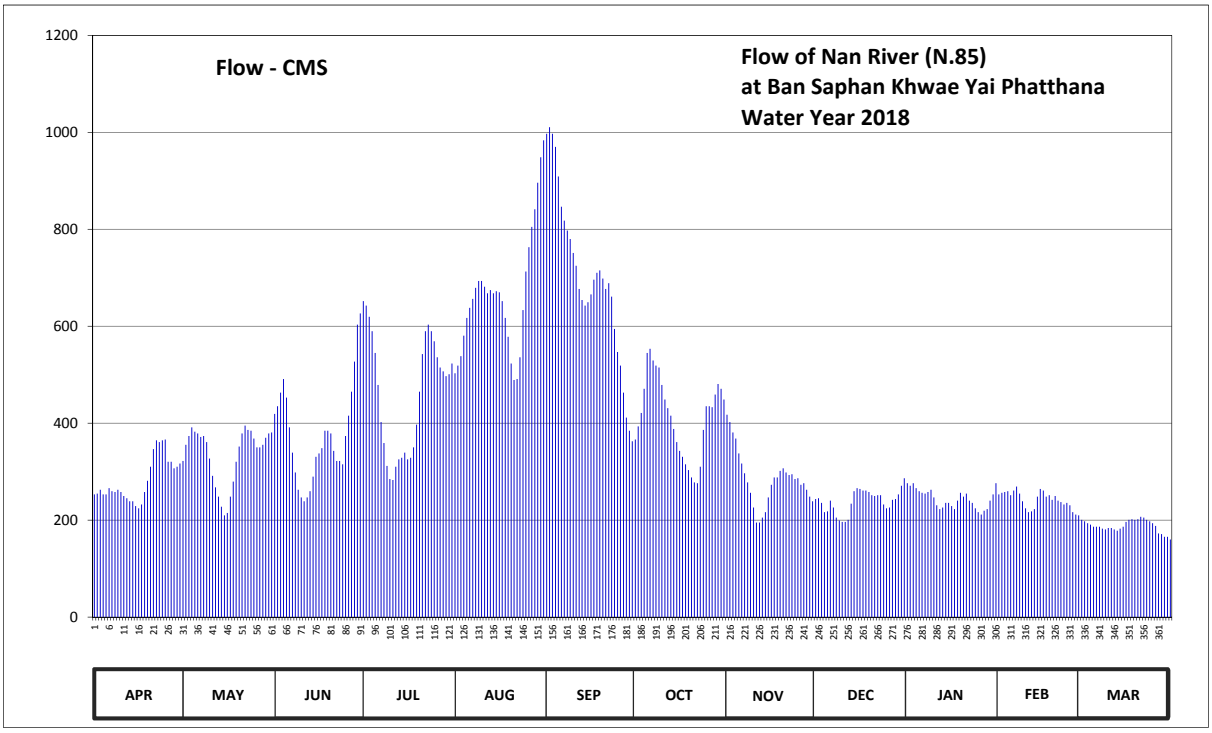
Location : on right bank at Khwae Yai Phatthana Bridge.

	Ban -	**Amphoe**	Mueang	**Changwat**	Nakhon Sawan
Drainge Area	58,663 sq.km.				
Type of Gage	Water - stage recorder				
Zero Gage at Bottom	+0.000 m. (MSL.)				
Bench Mark	B.M.-H.D.				
Location BM	On right bank near the gage observe's house			**Elevation**	+26.793 m. (MSL.)
Gage Reading Frequency	Recording				
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings				
Period of Available Gage Records	2017 to date				
Rating Operation					
Period of Rating	2017 to date				
Rated by Flot	-				
Rated by Current Meter	2017 to date				
Stability of Channel Regimes	Fairly stable.				
Overbank Flow Conditions	No overbank flow.				
General Description	Records good. Stage-discharge relation defined by 27 discharge measurements made in 2018.				

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	18.62	19.03	19.57	20.66	19.99	22.03	19.28	19.56	18.56	18.76	18.62	18.29	
2	18.63	19.22	19.65	20.62	20.07	22.08	19.43	19.48	18.57	18.73	18.64	18.27	
3	18.68	19.32	19.79	20.52	20.16	22.03	19.58	19.36	18.51	18.76	18.65	18.24	
4	18.62	19.42	19.93	20.39	20.35	21.93	19.83	19.29	18.39	18.70	18.66	18.22	
5	18.62	19.37	19.74	20.19	20.51	21.70	20.19	19.12	18.40	18.66	18.61	18.19	
6	18.70	19.35	19.42	19.87	20.60	21.46	20.23	19.00	18.54	18.64	18.67	18.19	
7	18.66	19.31	19.13	19.48	20.68	21.35	20.12	18.88	18.45	18.63	18.72	18.19	
8	18.65	19.32	18.89	19.24	20.78	21.27	20.07	18.77	18.32	18.65	18.63	18.16	
9	18.68	19.25	18.68	18.97	20.84	21.20	20.05	18.64	18.28	18.68	18.53	18.15	
10	18.65	19.06	18.58	18.81	20.84	21.08	19.87	18.45	18.26	18.58	18.44	18.17	
11	18.60	18.85	18.53	18.80	20.79	20.97	19.72	18.25	18.26	18.48	18.39	18.17	
12	18.57	18.71	18.58	18.96	20.73	20.77	19.63	18.25	18.29	18.43	18.40	18.15	
13	18.53	18.59	18.66	19.05	20.76	20.67	19.55	18.32	18.50	18.45	18.43	18.13	
14	18.53	18.46	18.84	19.07	20.73	20.62	19.40	18.39	18.66	18.51	18.59	18.16	
15	18.47	18.35	19.08	19.13	20.75	20.65	19.25	18.58	18.70	18.51	18.69	18.19	
16	18.44	18.38	19.12	19.05	20.74	20.72	19.15	18.74	18.69	18.47	18.67	18.26	
17	18.49	18.59	19.18	19.07	20.66	20.85	19.08	18.83	18.67	18.43	18.59	18.29	
18	18.65	18.78	19.38	19.19	20.51	20.91	18.99	18.83	18.67	18.54	18.61	18.30	
19	18.79	19.02	19.38	19.45	20.34	20.93	18.92	18.91	18.65	18.64	18.55	18.29	
20	18.96	19.20	19.35	19.80	20.09	20.86	18.83	18.94	18.61	18.59	18.60	18.30	
21	19.17	19.35	19.15	20.18	19.92	20.77	18.77	18.89	18.60	18.63	18.54	18.33	
22	19.27	19.44	19.03	20.39	19.93	20.82	18.76	18.86	18.61	18.54	18.52	18.32	
23	19.25	19.39	19.03	20.45	20.15	20.70	18.96	18.87	18.61	18.51	18.49	18.29	
24	19.27	19.38	18.99	20.39	20.58	20.41	19.39	18.81	18.49	18.44	18.51	18.27	
25	19.28	19.29	19.32	20.30	20.92	20.20	19.65	18.82	18.44	18.39	18.48	18.24	
26	19.02	19.19	19.55	20.15	21.13	20.07	19.65	18.74	18.45	18.36	18.39	18.20	
27	19.02	19.19	19.80	20.05	21.30	19.79	19.64	18.76	18.55	18.41	18.36	18.09	
28	18.94	19.22	20.11	20.01	21.44	19.53	19.77	18.68	18.56	18.43	18.35	18.08	
29	18.96	19.30	20.45	19.96	21.65	19.38	19.88	18.59	18.62	18.54		18.04	
30	19.00	19.35	20.55	19.98	21.85	19.26	19.83	18.53	18.73	18.62		18.04	
31		19.36		20.09	21.98		19.72		18.82	18.76		18.00	
Mean	18.79	19.10	19.32	19.75	20.70	20.83	19.52	18.80	18.53	18.56	18.55	18.20	
Max	19.28	19.44	20.55	20.66	21.98	22.08	20.23	19.56	18.82	18.76	18.72	18.33	22.08
Min	18.44	18.35	18.53	18.80	19.92	19.26	18.76	18.25	18.26	18.36	18.35	18.00	18.00

Annual Max Momentary Gage Height	22.09	m. (MSL.) ,	at 18.00 Hours , on Sep 2 , 2018		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	8.23	m. (MSL.)
Left Bank Elevation	26.79	m. (MSL.) ,			
Right Bank Elevation	26.70	m. (MSL.) ,	Drainage Are	58,663	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	253.20	322.10	419.30	651.80	503.00	997.10	366.40	417.40	243.60	276.20	253.20	200.60		
2	254.80	355.60	435.00	642.60	519.00	1010.60	393.40	402.40	245.20	271.10	256.40	197.80		
3	262.80	373.60	463.00	619.60	538.20	997.10	421.20	380.80	235.60	276.20	258.00	193.60		
4	253.20	391.60	491.00	589.70	580.50	970.10	471.00	368.20	216.40	266.00	259.60	190.80		
5	253.20	382.60	453.00	544.80	617.30	909.00	544.80	337.60	218.00	259.60	251.60	186.60		
6	266.00	379.00	391.60	479.00	638.00	846.60	553.60	317.00	240.40	256.40	261.20	186.60		
7	259.60	371.80	339.40	402.40	656.40	818.00	529.40	296.60	226.00	254.80	269.40	186.60		
8	258.00	373.60	298.30	359.20	679.40	797.50	519.00	277.90	205.20	258.00	254.80	182.40		
9	262.80	361.00	262.80	311.90	693.60	780.00	515.00	256.40	199.20	262.80	238.80	181.00		
10	258.00	327.20	246.80	284.70	693.60	751.20	479.00	226.00	196.40	246.80	224.40	183.80		
11	250.00	291.50	238.80	283.00	681.70	724.80	449.00	195.00	196.40	230.80	216.40	183.80		
12	245.20	267.70	246.80	310.20	667.90	677.10	431.00	195.00	200.60	222.80	218.00	181.00		
13	238.80	248.40	259.60	325.50	674.80	654.10	415.50	205.20	234.00	226.00	222.80	178.20		
14	238.80	227.60	289.80	328.90	667.90	642.60	388.00	216.40	259.60	235.60	248.40	182.40		
15	229.20	210.00	330.60	339.40	672.50	649.50	361.00	246.80	266.00	235.60	264.40	186.60		
16	224.40	214.80	337.60	325.50	670.20	665.60	343.00	272.80	264.40	229.20	261.20	196.40		
17	232.40	248.40	348.40	328.90	651.80	696.00	330.60	288.10	261.20	222.80	248.40	200.60		
18	258.00	279.60	384.40	350.20	617.30	710.40	315.30	288.10	261.20	240.40	251.60	202.00		
19	281.30	320.40	384.40	397.00	578.20	715.20	303.40	301.70	258.00	256.40	242.00	200.60		
20	310.20	352.00	379.00	465.00	523.00	698.40	288.10	306.80	251.60	248.40	250.00	202.00		
21	346.60	379.00	343.00	542.60	489.00	677.10	277.90	298.30	250.00	254.80	240.40	206.80		
22	364.60	395.20	322.10	589.70	491.00	688.80	276.20	293.20	251.60	240.40	237.20	205.20		
23	361.00	386.20	322.10	603.50	536.00	661.00	310.20	294.90	251.60	235.60	232.40	200.60		
24	364.60	384.40	315.30	589.70	633.40	594.30	386.20	284.70	232.40	224.40	235.60	197.80		
25	366.40	368.20	373.60	569.00	712.80	547.00	435.00	286.40	224.40	216.40	230.80	193.60		
26	320.40	350.20	415.50	536.00	763.20	519.00	435.00	272.80	226.00	211.60	216.40	188.00		
27	320.40	350.20	465.00	515.00	805.00	463.00	433.00	276.20	242.00	219.60	211.60	172.60		
28	306.80	355.60	527.20	507.00	841.40	411.70	459.00	262.80	243.60	222.80	210.00	171.20		
29	310.20	370.00	603.50	497.00	896.00	384.40	481.00	248.40	253.20	240.40		165.60		
30	317.00	379.00	626.50	501.00	948.50	362.80	471.00	238.80	271.10	253.20		165.60		
31		380.80		523.00	983.60		449.00		286.40	276.20		160.00		
Total	8467.90	10397.30	11313.40	14312.80	20624.20	21020.00	12831.20	8552.70	7411.30	7571.30	6765.00	5830.40	135097.50	CMSDAY
Mean	282.26	335.40	377.11	461.70	665.30	700.67	413.91	285.09	239.07	244.24	241.61	188.08	370.13	CMS
Max	366.40	395.20	626.50	651.80	983.60	1010.60	553.60	417.40	286.40	276.20	269.40	206.80	1010.60	CMS
Min	224.40	210.00	238.80	283.00	489.00	362.80	276.20	195.00	196.40	211.60	210.00	160.00	160.00	CMS
Runoff	731.63	898.33	977.48	1236.63	1781.93	1816.13	1108.62	738.95	640.34	654.16	584.50	503.75	11672.42	MCM

Momentary Peak 1013.30 CMS. at 22.09 m. (MSL.) at 18.00 Hours , on Sep 2 , 2018

Runoff Yield 6.31 Liters/Second/Square KM. Momentary Peak Yield 17.27 Liters/Second/Square KM.

WATER YEAR : 2018

CHAO PHRAYA RIVER BASIN

Chao Phraya River at Khai Chira Prawat, Nakhon Sawan (C.2)

Lat 15 - 40 - 15 N Long 100 - 06 - 49 E

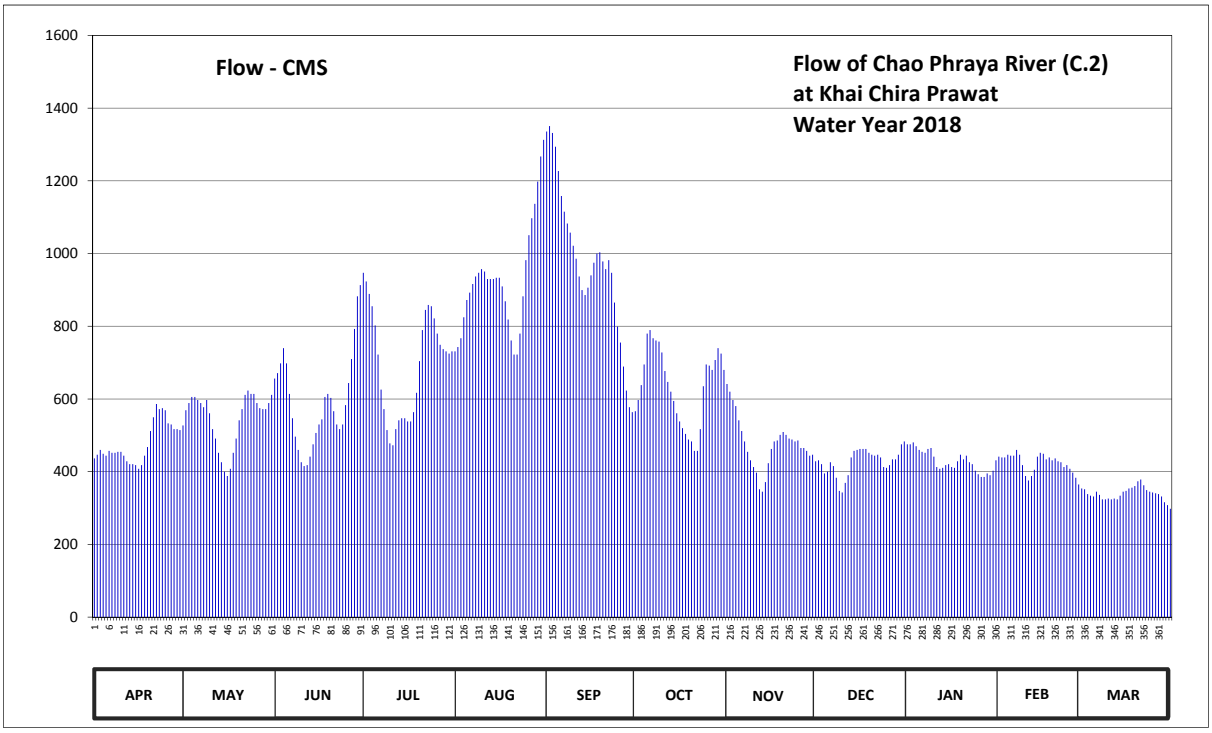
Location : on left bank at Ban Phai Lom

	Ban Phai Lom	**Amphoe** Mueang	**Changwat** Nakhon Sawan
Drainge Area	109,973 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	About 20.00 meters west of the gage site		**Elevation** +25.628 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	1914 to date		
Rating Operation			
Period of Rating	1956 to date		
Rated by Flot	-		
Rated by Current Meter	1956 to date		
Stability of Channel Regimes	Fairly stable		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Flow effected by Phumiphol Dam, Sirikit Dam and Phrom Phiram Dam. Stage-discharge relation defined by 32 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	18.44	18.79	19.24	20.15	19.49	21.22	18.93	19.19	18.41	18.59	18.46	18.10	
2	18.48	18.94	19.29	20.08	19.53	21.26	19.04	19.12	18.42	18.59	18.45	18.09	
3	18.53	19.01	19.38	19.98	19.61	21.21	19.18	19.04	18.38	18.61	18.45	18.03	
4	18.49	19.07	19.52	19.88	19.79	21.11	19.37	18.98	18.28	18.57	18.48	18.01	
5	18.47	19.07	19.38	19.72	19.93	20.93	19.65	18.84	18.30	18.53	18.47	18.00	
6	18.52	19.04	19.10	19.46	19.99	20.74	19.68	18.73	18.40	18.51	18.47	18.06	
7	18.50	19.01	18.86	19.14	20.06	20.62	19.61	18.62	18.36	18.50	18.53	18.02	
8	18.50	18.97	18.67	18.95	20.12	20.53	19.59	18.51	18.23	18.54	18.48	17.96	
9	18.51	19.04	18.53	18.74	20.15	20.46	19.58	18.42	18.07	18.55	18.37	17.96	
10	18.51	18.91	18.40	18.60	20.18	20.36	19.48	18.35	18.05	18.46	18.25	17.97	
11	18.47	18.75	18.36	18.58	20.16	20.26	19.31	18.29	18.17	18.35	18.20	17.96	
12	18.41	18.65	18.37	18.75	20.10	20.12	19.21	18.09	18.26	18.33	18.25	17.97	
13	18.38	18.50	18.46	18.84	20.10	20.01	19.12	18.06	18.45	18.34	18.32	17.96	
14	18.38	18.40	18.59	18.86	20.10	19.97	19.03	18.18	18.52	18.37	18.46	18.01	
15	18.37	18.30	18.71	18.86	20.11	20.03	18.91	18.39	18.53	18.38	18.50	18.06	
16	18.33	18.25	18.80	18.83	20.11	20.13	18.83	18.54	18.54	18.35	18.49	18.07	
17	18.37	18.33	18.85	18.83	20.04	20.23	18.76	18.62	18.54	18.34	18.43	18.10	
18	18.47	18.50	19.07	18.92	19.92	20.30	18.70	18.63	18.54	18.41	18.45	18.11	
19	18.56	18.65	19.10	19.11	19.77	20.31	18.64	18.69	18.50	18.48	18.42	18.13	
20	18.73	18.84	19.06	19.40	19.59	20.24	18.62	18.72	18.48	18.43	18.44	18.19	
21	18.87	18.95	18.93	19.68	19.46	20.18	18.52	18.69	18.47	18.47	18.41	18.21	
22	19.00	19.09	18.80	19.85	19.46	20.25	18.52	18.65	18.48	18.40	18.40	18.14	
23	18.95	19.13	18.75	19.89	19.65	20.15	18.75	18.64	18.45	18.38	18.35	18.08	
24	18.96	19.10	18.80	19.88	19.96	19.91	19.17	18.62	18.35	18.31	18.37	18.06	
25	18.94	19.10	18.99	19.78	20.25	19.71	19.37	18.63	18.34	18.27	18.33	18.05	
26	18.81	19.01	19.20	19.65	20.44	19.57	19.36	18.55	18.37	18.24	18.29	18.04	
27	18.80	18.96	19.42	19.55	20.57	19.35	19.32	18.55	18.43	18.24	18.23	18.03	
28	18.75	18.95	19.69	19.51	20.68	19.13	19.41	18.52	18.43	18.28	18.15	18.00	
29	18.75	18.95	19.96	19.49	20.85	18.97	19.52	18.47	18.48	18.26		17.92	
30	18.74	19.01	20.05	19.47	21.04	18.92	19.47	18.48	18.59	18.31		17.88	
31		19.09		19.49	21.16		19.32		18.62	18.42		17.83	
Mean	18.60	18.85	19.01	19.35	20.08	20.21	19.16	18.59	18.40	18.41	18.39	18.03	
Max	19.00	19.13	20.05	20.15	21.16	21.26	19.68	19.19	18.62	18.61	18.53	18.21	21.26
Min	18.33	18.25	18.36	18.58	19.46	18.92	18.52	18.06	18.05	18.24	18.15	17.83	17.83

Annual Max Momentary Gage Height	21.27	m. (MSL.) ,	at 10.00 Hours , on Sep 2 , 2018		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	13.29	m. (MSL.)
Left Bank Elevation	25.60	m. (MSL.) ,			
Right Bank Elevation	26.46	m. (MSL.) ,	Drainage Are	109,973	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	436.40	527.40	656.00	947.00	731.00	1335.60	566.40	641.00	428.60	475.40	441.60	354.00		
2	446.80	569.20	671.00	923.20	743.00	1350.80	597.20	620.00	431.20	475.40	439.00	351.80		
3	459.80	588.80	698.00	889.20	767.20	1331.80	638.00	597.20	420.80	480.60	439.00	338.60		
4	449.40	605.60	740.00	855.20	824.80	1293.80	695.00	580.40	395.20	470.20	446.80	334.20		
5	444.20	605.60	698.00	802.40	872.20	1226.80	780.00	541.20	400.00	459.80	444.20	332.00		
6	457.20	597.20	614.00	722.00	892.60	1158.40	789.60	511.80	426.00	454.60	444.20	345.20		
7	452.00	588.80	546.80	626.00	916.40	1115.20	767.20	483.20	415.60	452.00	459.80	336.40		
8	452.00	577.60	496.20	572.00	936.80	1082.80	761.00	454.60	383.20	462.40	446.80	324.00		
9	454.60	597.20	459.80	514.40	947.00	1057.60	758.00	431.20	347.40	465.00	418.20	324.00		
10	454.60	560.80	426.00	478.00	957.20	1021.60	728.00	413.00	343.00	441.60	388.00	326.00		
11	444.20	517.00	415.60	472.80	950.40	985.60	677.00	397.60	369.40	413.00	376.00	324.00		
12	428.60	491.00	418.20	517.00	930.00	936.80	647.00	351.80	390.40	407.80	388.00	326.00		
13	420.80	452.00	441.60	541.20	930.00	899.40	620.00	345.20	439.00	410.40	405.20	324.00		
14	420.80	426.00	475.40	546.80	930.00	885.80	594.40	371.60	457.20	418.20	441.60	334.20		
15	418.20	400.00	506.60	546.80	933.40	906.20	560.80	423.40	459.80	420.80	452.00	345.20		
16	407.80	388.00	530.00	538.40	933.40	940.20	538.40	462.40	462.40	413.00	449.40	347.40		
17	418.20	407.80	544.00	538.40	909.60	974.80	519.60	483.20	462.40	410.40	433.80	354.00		
18	444.20	452.00	605.60	563.60	868.80	1000.00	504.00	485.80	462.40	428.60	439.00	356.20		
19	467.60	491.00	614.00	617.00	818.40	1003.60	488.40	501.40	452.00	446.80	431.20	360.60		
20	511.80	541.20	602.80	704.00	761.00	978.40	483.20	509.20	446.80	433.80	436.40	373.80		
21	549.60	572.00	566.40	789.60	722.00	957.20	457.20	501.40	444.20	444.20	428.60	378.40		
22	586.00	611.20	530.00	845.00	722.00	982.00	457.20	491.00	446.80	426.00	426.00	362.80		
23	572.00	623.00	517.00	858.60	780.00	947.00	517.00	488.40	439.00	420.80	413.00	349.60		
24	574.80	614.00	530.00	855.20	882.40	865.40	635.00	483.20	413.00	402.60	418.20	345.20		
25	569.20	614.00	583.20	821.60	982.00	799.20	695.00	485.80	410.40	392.80	407.80	343.00		
26	532.80	588.80	644.00	780.00	1050.40	755.00	692.00	465.00	418.20	385.60	397.60	340.80		
27	530.00	574.80	710.00	749.00	1097.20	689.00	680.00	465.00	433.80	385.60	383.20	338.60		
28	517.00	572.00	792.80	737.00	1136.80	623.00	707.00	457.20	433.80	395.20	365.00	332.00		
29	517.00	572.00	882.40	731.00	1198.00	577.60	740.00	444.20	446.80	390.40		316.00		
30	514.40	588.80	913.00	725.00	1267.20	563.60	725.00	446.80	475.40	402.60		308.00		
31		611.20		731.00	1312.80		680.00		483.20	431.20		298.00		
Total	14352.00	16926.00	17828.40	21538.40	28704.00	29244.20	19698.60	14333.20	13237.40	13316.80	11859.60	10524.00	211562.60	CMSDAY
Mean	478.40	546.00	594.28	694.79	925.94	974.81	635.44	477.77	427.01	429.57	423.56	339.48	579.62	CMS
Max	586.00	623.00	913.00	947.00	1312.80	1350.80	789.60	641.00	483.20	480.60	459.80	378.40	1350.80	CMS
Min	407.80	388.00	415.60	472.80	722.00	563.60	457.20	345.20	343.00	385.60	365.00	298.00	298.00	CMS
Runoff	1240.01	1462.41	1540.37	1860.92	2480.03	2526.70	1701.96	1238.39	1143.71	1150.57	1024.67	909.27	18279.01	MCM

Momentary Peak 1354.60 CMS. at 21.27 m. (MSL.) at 10.00 Hours , on Sep 2 , 2018

Runoff Yield 5.27 Liters/Second/Square KM. Momentary Peak Yield 12.32 Liters/Second/Square KM.

WATER YEAR : 2018

CHAO PHRAYA RIVER BASIN

Chao Phraya River at Ban Bang Phutsa, Sing Buri (C.3)

Lat 14 - 53 - 50 N Long 100 - 24 - 18 E

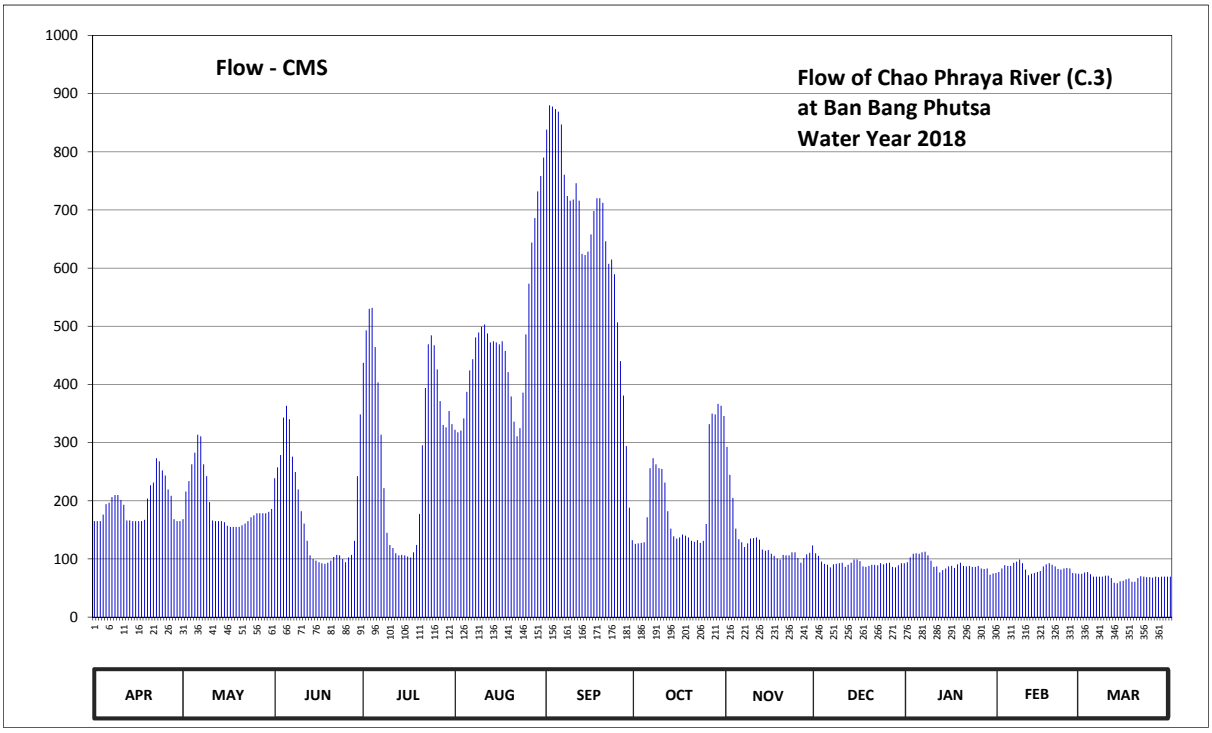
Location : on right bank at Ban Bang Phutsa

	Ban	Bang Phutsa	**Amphoe** Mueang	**Changwat**	Sing Buri
Drainge Area	118,752 sq.km.				
Type of Gage	Water - stage recorder				
Zero Gage at Bottom	+0.000 m. (MSL.)				
Bench Mark	B.M.-H.D.				
Location BM	On right bank at the bridge			**Elevation**	+11.880 m. (MSL.)
Gage Reading Frequency	Recording				
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings				
Period of Available Gage Records	1950 to date				
Rating Operation					
Period of Rating	1950 to date				
Rated by Flot	-				
Rated by Current Meter	1950 to date				
Stability of Channel Regimes	Fairly stable				
Overbank Flow Conditions	No overbank flow.				
General Description	Records good. Stage-discharge relation defined by 24 discharge measurements made in 2018.				

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	3.01	3.04	3.63	5.00	4.25	7.11	2.61	4.04	2.43	2.26	2.07	2.03	
2	3.01	3.44	3.78	5.34	4.22	7.30	2.62	3.68	2.38	2.35	2.14	2.06	
3	3.01	3.59	3.94	5.55	4.24	7.29	2.63	3.35	2.27	2.42	2.20	2.07	
4	3.11	3.82	4.40	5.56	4.39	7.27	2.64	2.88	2.23	2.43	2.19	2.02	
5	3.26	3.97	4.54	5.17	4.69	7.25	3.07	2.70	2.21	2.42	2.19	1.97	
6	3.28	4.19	4.38	4.79	4.92	7.15	3.77	2.64	2.16	2.45	2.25	1.97	
7	3.36	4.17	3.92	4.19	5.04	6.75	3.90	2.55	2.22	2.46	2.27	1.97	
8	3.39	3.82	3.72	3.49	5.27	6.57	3.82	2.62	2.23	2.39	2.31	1.97	
9	3.39	3.66	3.47	2.81	5.32	6.53	3.77	2.71	2.24	2.29	2.24	1.99	
10	3.32	3.29	3.16	2.59	5.38	6.54	3.76	2.72	2.25	2.17	2.12	1.99	
11	3.25	3.02	2.97	2.53	5.40	6.68	3.57	2.73	2.17	2.18	2.00	1.94	
12	3.02	3.01	2.67	2.43	5.31	6.53	3.16	2.69	2.21	2.06	2.03	1.84	
13	3.02	3.01	2.39	2.39	5.22	6.07	2.88	2.50	2.25	2.11	2.05	1.83	
14	3.01	3.01	2.32	2.40	5.23	6.06	2.75	2.48	2.31	2.14	2.07	1.87	
15	3.01	2.99	2.29	2.39	5.22	6.09	2.71	2.49	2.31	2.18	2.09	1.88	
16	3.01	2.93	2.26	2.37	5.20	6.24	2.73	2.42	2.28	2.19	2.18	1.91	
17	3.01	2.91	2.24	2.35	5.23	6.44	2.78	2.38	2.18	2.15	2.22	1.93	
18	3.03	2.91	2.23	2.45	5.13	6.55	2.76	2.33	2.17	2.22	2.24	1.86	
19	3.34	2.91	2.25	2.59	4.90	6.55	2.73	2.31	2.19	2.25	2.21	1.86	
20	3.53	2.91	2.29	3.12	4.64	6.51	2.67	2.40	2.21	2.19	2.18	1.94	
21	3.57	2.94	2.36	4.06	4.35	6.18	2.65	2.39	2.21	2.18	2.13	1.98	
22	3.90	2.97	2.40	4.73	4.17	5.98	2.68	2.39	2.20	2.19	2.12	1.97	
23	3.86	3.01	2.39	5.20	4.27	6.02	2.63	2.45	2.24	2.17	2.14	1.96	
24	3.74	3.07	2.32	5.29	4.68	5.88	2.67	2.45	2.22	2.17	2.15	1.96	
25	3.67	3.10	2.26	5.19	5.30	5.42	2.96	2.34	2.24	2.19	2.14	1.95	
26	3.47	3.13	2.35	4.93	5.79	5.02	4.32	2.25	2.25	2.14	2.05	1.97	
27	3.38	3.13	2.40	4.59	6.17	4.65	4.45	2.34	2.17	2.13	2.04	1.96	
28	3.04	3.13	2.67	4.31	6.38	4.05	4.44	2.41	2.16	2.14	2.03	1.97	
29	3.01	3.13	3.66	4.28	6.61	3.21	4.56	2.44	2.20	2.01		1.97	
30	3.01	3.15	4.44	4.48	6.74	2.68	4.54	2.58	2.24	2.04		1.97	
31		3.19		4.32	6.89		4.42		2.24	2.05		1.97	
Mean	3.27	3.24	3.00	3.90	5.18	6.09	3.28	2.62	2.23	2.22	2.14	1.95	
Max	3.90	4.19	4.54	5.56	6.89	7.30	4.56	4.04	2.43	2.46	2.31	2.07	7.30
Min	3.01	2.91	2.23	2.35	4.17	2.68	2.61	2.25	2.16	2.01	2.00	1.83	1.83

Annual Max Momentary Gage Height	7.32	m. (MSL.) ,	at 14.00 Hours , on Sep 2 , 2018		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	-2.25	m. (MSL.)
Left Bank Elevation	13.41	m. (MSL.) ,			
Right Bank Elevation	13.72	m. (MSL.) ,	Drainage Are	118,752	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	165.10	168.40	238.60	437.00	322.00	838.20	125.90	292.60	109.70	94.40	77.60	74.40		
2	165.10	215.80	257.40	492.80	317.80	880.00	126.80	244.60	105.20	102.50	83.60	76.80		
3	165.10	233.80	278.60	530.00	320.60	877.80	127.70	205.00	95.30	108.80	89.00	77.60		
4	176.20	262.60	343.00	531.80	341.60	873.40	128.60	152.00	91.70	109.70	88.10	73.60		
5	194.20	282.80	363.40	464.20	387.40	869.00	171.70	134.00	89.90	108.80	88.10	69.60		
6	196.60	313.60	340.20	403.40	424.20	847.00	256.10	128.60	85.40	111.50	93.50	69.60		
7	206.20	310.80	275.80	313.60	443.40	760.50	273.00	120.50	90.80	112.40	95.30	69.60		
8	209.80	262.60	249.60	221.80	480.90	724.00	262.60	126.80	91.70	106.10	98.90	69.60		
9	209.80	242.20	219.40	145.00	489.40	716.00	256.10	135.00	92.60	97.10	92.60	71.20		
10	201.40	197.80	182.20	124.10	499.60	718.00	254.80	136.00	93.50	86.30	81.80	71.20		
11	193.00	166.20	161.00	118.70	503.00	746.00	231.40	137.00	86.30	87.20	72.00	67.20		
12	166.20	165.10	131.30	109.70	487.70	716.00	182.20	133.10	89.90	76.80	74.40	59.20		
13	166.20	165.10	106.10	106.10	472.40	624.30	152.00	116.00	93.50	80.90	76.00	58.40		
14	165.10	165.10	99.80	107.00	474.10	622.40	139.00	114.20	98.90	83.60	77.60	61.60		
15	165.10	163.00	97.10	106.10	472.40	628.10	135.00	115.10	98.90	87.20	79.20	62.40		
16	165.10	157.00	94.40	104.30	469.00	658.00	137.00	108.80	96.20	88.10	87.20	64.80		
17	165.10	155.00	92.60	102.50	474.10	698.00	142.00	105.20	87.20	84.50	90.80	66.40		
18	167.30	155.00	91.70	111.50	457.80	720.00	140.00	100.70	86.30	90.80	92.60	60.80		
19	203.80	155.00	93.50	124.10	421.00	720.00	137.00	98.90	88.10	93.50	89.90	60.80		
20	226.60	155.00	97.10	177.40	379.40	712.00	131.30	107.00	89.90	88.10	87.20	67.20		
21	231.40	158.00	103.40	295.40	336.00	646.00	129.50	106.10	89.90	87.20	82.70	70.40		
22	273.00	161.00	107.00	393.80	310.80	607.40	132.20	106.10	89.00	88.10	81.80	69.60		
23	267.80	165.10	106.10	469.00	324.80	614.80	127.70	111.50	92.60	86.30	83.60	68.80		
24	252.20	171.70	99.80	484.30	385.80	589.40	131.30	111.50	90.80	86.30	84.50	68.80		
25	243.40	175.00	94.40	467.40	486.00	506.60	160.00	101.60	92.60	88.10	83.60	68.00		
26	219.40	178.60	102.50	425.80	573.20	440.20	331.80	93.50	93.50	83.60	76.00	69.60		
27	208.60	178.60	107.00	371.40	644.00	381.00	350.00	101.60	86.30	82.70	75.20	68.80		
28	168.40	178.60	131.30	330.40	686.00	294.00	348.60	107.90	85.40	83.60	74.40	69.60		
29	165.10	178.60	242.20	326.20	732.00	188.20	366.60	110.60	89.00	72.80		69.60		
30	165.10	181.00	348.60	354.20	758.40	132.20	363.40	123.20	92.60	75.20		69.60		
31		185.80		331.80	789.90		345.80		92.60	76.00		69.60		
Total	5867.40	6003.90	5255.10	9080.80	14664.70	19348.50	6297.10	3884.70	2855.30	2808.20	2357.20	2114.40	80537.30	CMSDAY
Mean	195.58	193.67	175.17	292.93	473.05	644.95	203.13	129.49	92.11	90.59	84.19	68.21	220.65	CMS
Max	273.00	313.60	363.40	531.80	789.90	880.00	366.60	292.60	109.70	112.40	98.90	77.60	880.00	CMS
Min	165.10	155.00	91.70	102.50	310.80	132.20	125.90	93.50	85.40	72.80	72.00	58.40	58.40	CMS
Runoff	506.94	518.74	454.04	784.58	1267.03	1671.71	544.07	335.64	246.70	242.63	203.66	182.68	6958.42	MCM

Momentary Peak 884.60 CMS. at 7.32 m. (MSL.) at 14.00 Hours , on Sep 2 , 2018

Runoff Yield 1.86 Liters/Second/Square KM. Momentary Peak Yield 7.45 Liters/Second/Square KM.

WATER YEAR : 2018

CHAO PHRAYA RIVER BASIN

Chao Phraya River at Ban Bang Kaeo, Ang Thong (C.7A)

Lat 14 - 35 - 05 N Long 100 - 27 - 12 E

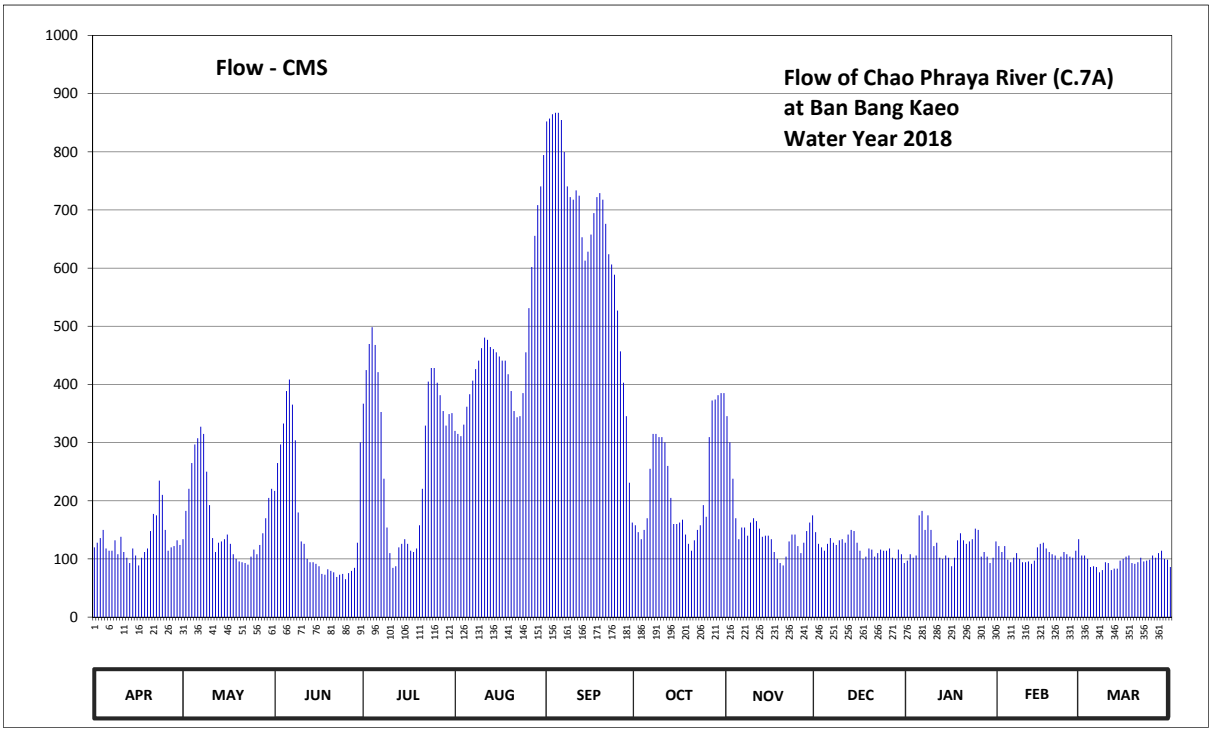
Location : on left bank at Ban Bang Kaco

	Ban	Bang Keao	**Amphoe** Mueang	**Changwat**	Ang Thong
Drainge Area	Flood Plain				
Type of Gage	Water - stage recorder				
Zero Gage at Bottom	+0.000 m. (MSL.)				
Bench Mark	B.M.-H.D.				
Location BM	On left bank near the gage site			**Elevation**	+8.481 m. (MSL.)
Gage Reading Frequency	Recording				
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings				
Period of Available Gage Records	2006 to date				
Rating Operation					
Period of Rating	2006 to date				
Rated by Flot	-				
Rated by Current Meter	2006 to date				
Stability of Channel Regimes	Fairly stable.				
Overbank Flow Conditions	No overbank flow.				
General Description	Records good. Stage-discharge relation defined by 33 discharge measurements made in 2018.				

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.90	0.97	1.32	1.90	1.64	4.20	1.09	1.78	1.03	0.78	0.91	0.83	
2	0.94	1.19	1.44	2.22	1.61	4.22	1.03	1.53	0.93	0.84	0.86	0.83	
3	0.98	1.33	1.51	2.47	1.59	4.25	0.97	1.38	0.90	0.81	0.91	0.80	
4	1.05	1.44	1.71	2.63	1.70	4.26	1.05	1.14	0.87	0.83	0.79	0.70	
5	0.89	1.51	2.02	2.46	1.87	4.26	1.14	0.97	0.93	1.16	0.76	0.71	
6	0.87	1.57	2.13	2.20	1.99	4.21	1.42	1.07	0.98	1.19	0.81	0.70	
7	0.87	1.68	1.89	1.82	2.12	3.99	1.61	1.07	0.94	1.05	0.85	0.63	
8	0.96	1.61	1.55	1.38	2.23	3.75	1.61	1.00	0.92	1.16	0.80	0.66	
9	0.84	1.41	1.18	1.07	2.31	3.67	1.58	1.11	0.96	1.05	0.76	0.76	
10	0.99	1.23	0.95	0.85	2.43	3.65	1.58	1.14	0.97	0.91	0.76	0.75	
11	0.86	0.98	0.93	0.69	2.53	3.72	1.53	1.12	0.94	0.94	0.77	0.66	
12	0.81	0.86	0.80	0.71	2.51	3.68	1.43	1.06	1.01	0.81	0.74	0.68	
13	0.75	0.94	0.76	0.90	2.44	3.37	1.28	0.99	1.05	0.80	0.78	0.68	
14	0.89	0.95	0.76	0.93	2.42	3.19	1.10	1.00	1.04	0.83	0.90	0.78	
15	0.83	0.97	0.74	0.97	2.39	3.26	1.10	1.00	0.94	0.81	0.93	0.80	
16	0.72	1.01	0.71	0.93	2.35	3.39	1.11	0.97	0.87	0.71	0.94	0.82	
17	0.81	0.93	0.61	0.87	2.31	3.55	1.13	0.86	0.80	0.81	0.89	0.83	
18	0.86	0.84	0.60	0.86	2.31	3.67	1.01	0.80	0.82	0.96	0.86	0.75	
19	0.89	0.80	0.67	0.89	2.18	3.70	0.93	0.75	0.89	1.02	0.84	0.74	
20	1.04	0.77	0.65	1.09	2.02	3.65	0.87	0.72	0.88	0.96	0.83	0.76	
21	1.17	0.76	0.63	1.33	1.83	3.47	0.96	0.82	0.82	0.93	0.79	0.81	
22	1.16	0.75	0.57	1.69	1.77	3.24	1.05	0.95	0.85	0.95	0.82	0.77	
23	1.37	0.73	0.60	2.11	1.78	3.16	1.09	1.01	0.88	0.97	0.86	0.78	
24	1.30	0.82	0.61	2.24	2.00	3.08	1.23	1.01	0.87	1.06	0.84	0.79	
25	1.05	0.88	0.54	2.24	2.39	2.78	1.15	0.91	0.87	1.05	0.82	0.83	
26	0.87	0.84	0.62	2.10	2.80	2.40	1.58	0.85	0.89	0.82	0.81	0.81	
27	0.90	0.92	0.65	1.98	3.14	2.10	1.93	0.94	0.81	0.86	0.87	0.85	
28	0.91	1.02	0.69	1.83	3.38	1.78	1.94	1.04	0.80	0.82	0.97	0.87	
29	0.96	1.14	0.94	1.69	3.61	1.36	1.98	1.11	0.88	0.75		0.80	
30	0.92	1.28	1.53	1.80	3.75	1.11	2.00	1.16	0.84	0.81		0.79	
31		1.33		1.81	3.97		2.00		0.75	0.95		0.70	
Mean	0.95	1.08	1.01	1.57	2.37	3.34	1.34	1.04	0.90	0.92	0.84	0.76	
Max	1.37	1.68	2.13	2.63	3.97	4.26	2.00	1.78	1.05	1.19	0.97	0.87	4.26
Min	0.72	0.73	0.54	0.69	1.59	1.11	0.87	0.72	0.75	0.71	0.74	0.63	0.54

Annual Max Momentary Gage Height	4.28	m. (MSL.) ,	at 04.00 Hours , on Sep 5 , 2018		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	-6.58	m. (MSL.)
Left Bank Elevation	10.04	m. (MSL.) ,			
Right Bank Elevation	9.98	m. (MSL.) ,	Drainage Area	Square Kilometers	



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	120.00	134.00	217.00	367.00	320.20	852.00	158.00	345.40	146.00	97.20	122.00	106.00		
2	128.00	182.50	265.00	424.60	314.80	857.00	146.00	300.40	126.00	108.00	112.00	106.00		
3	136.00	220.50	296.80	469.60	311.20	864.50	134.00	238.00	120.00	102.00	122.00	100.00		
4	150.00	265.00	332.80	498.40	331.00	867.00	150.00	170.00	114.00	106.00	98.60	86.00		
5	118.00	296.80	388.60	467.80	361.60	867.00	170.00	134.00	126.00	175.00	94.40	87.40		
6	114.00	307.60	408.40	421.00	383.20	854.50	255.00	154.00	136.00	182.50	102.00	86.00		
7	114.00	327.40	365.20	352.60	406.60	799.50	314.80	154.00	128.00	150.00	110.00	76.90		
8	132.00	314.80	304.00	238.00	426.40	740.50	314.80	140.00	124.00	175.00	100.00	80.80		
9	108.00	250.00	180.00	154.00	440.80	722.10	309.40	162.50	132.00	150.00	94.40	94.40		
10	138.00	192.50	130.00	110.00	462.40	717.50	309.40	170.00	134.00	122.00	94.40	93.00		
11	112.00	136.00	126.00	84.70	480.40	733.60	300.40	165.00	128.00	128.00	95.80	80.80		
12	102.00	112.00	100.00	87.40	476.80	724.40	260.00	152.00	142.00	102.00	91.60	83.40		
13	93.00	128.00	94.40	120.00	464.20	653.10	205.00	138.00	150.00	100.00	97.20	83.40		
14	118.00	130.00	94.40	126.00	460.60	612.80	160.00	140.00	148.00	106.00	120.00	97.20		
15	106.00	134.00	91.60	134.00	455.20	628.20	160.00	140.00	128.00	102.00	126.00	100.00		
16	88.80	142.00	87.40	126.00	448.00	657.70	162.50	134.00	114.00	87.40	128.00	104.00		
17	102.00	126.00	74.30	114.00	440.80	694.50	167.50	112.00	100.00	102.00	118.00	106.00		
18	112.00	108.00	73.00	112.00	440.80	722.10	142.00	100.00	104.00	132.00	112.00	93.00		
19	118.00	100.00	82.10	118.00	417.40	729.00	126.00	93.00	118.00	144.00	108.00	91.60		
20	148.00	95.80	79.50	158.00	388.60	717.50	114.00	88.80	116.00	132.00	106.00	94.40		
21	177.50	94.40	76.90	220.50	354.40	676.10	132.00	104.00	104.00	126.00	98.60	102.00		
22	175.00	93.00	69.10	329.20	343.60	623.80	150.00	130.00	110.00	130.00	104.00	95.80		
23	234.50	90.20	73.00	404.80	345.40	606.20	158.00	142.00	116.00	134.00	112.00	97.20		
24	210.00	104.00	74.30	428.20	385.00	588.60	192.50	142.00	114.00	152.00	108.00	98.60		
25	150.00	116.00	65.20	428.20	455.20	527.00	172.50	122.00	114.00	150.00	104.00	106.00		
26	114.00	108.00	75.60	403.00	531.00	457.00	309.40	110.00	118.00	104.00	102.00	102.00		
27	120.00	124.00	79.50	381.40	601.80	403.00	372.40	128.00	102.00	112.00	114.00	110.00		
28	122.00	144.00	84.70	354.40	655.40	345.40	374.20	148.00	100.00	104.00	134.00	114.00		
29	132.00	170.00	128.00	329.20	708.30	231.00	381.40	162.50	116.00	93.00		100.00		
30	124.00	205.00	300.40	349.00	740.50	162.50	385.00	175.00	108.00	102.00		98.60		
31		220.50		350.80	794.50		385.00		93.00	130.00		86.00		
Total	3916.80	5172.00	4817.20	8661.80	14146.10	19635.10	7071.20	4594.60	3729.00	3840.10	3029.00	2960.50	81573.40	CMSDAY
Mean	130.56	166.84	160.57	279.41	456.33	654.50	228.10	153.15	120.29	123.87	108.18	95.50	223.49	CMS
Max	234.50	327.40	408.40	498.40	794.50	867.00	385.00	345.40	150.00	182.50	134.00	114.00	867.00	CMS
Min	88.80	90.20	65.20	84.70	311.20	162.50	114.00	88.80	93.00	87.40	91.60	76.90	65.20	CMS
Runoff	338.41	446.86	416.21	748.38	1222.22	1696.47	610.95	396.97	322.19	331.78	261.71	255.79	7047.94	MCM

Momentary Peak 872.00 CMS. at 4.28 m. (MSL.) at 04.00 Hours , on Sep 5 , 2018

Runoff Yield ***** Liters/Second/Square KM. Momentary Peak Yield ***** Liters/Second/Square KM.

WATER YEAR : 2018

CHAO PHRAYA RIVER BASIN

Chao Phraya River at Ban Bang Luang, Chai Nat (C.13)

Lat 15 - 10 - 07 N Long 100 - 11 - 48 E

Location : on left bank at Wat Pho Ngam about 1.5 kilometers downstream from Chao Phraya Diversion Dam

Ban Bang Luang **Amphoe** Sanphaya **Changwat** Chai Nat

Drainge Area	117,187 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+0.000 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	B.M.2 - on right bank about 400 meters from the B.M.1 **Elevation** +18.355 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	1947 to date
Rating Operation	
Period of Rating	1953 - 1962, 1965 - 1968, 1972 - 1975 to date
Rated by Flot	-
Rated by Current Meter	1953 - 1962, 1965 - 1968, 1972 - 1975 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Flow regulated by Chao Phraya Dam above gage site. Stage-discharge relation defined by 31 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

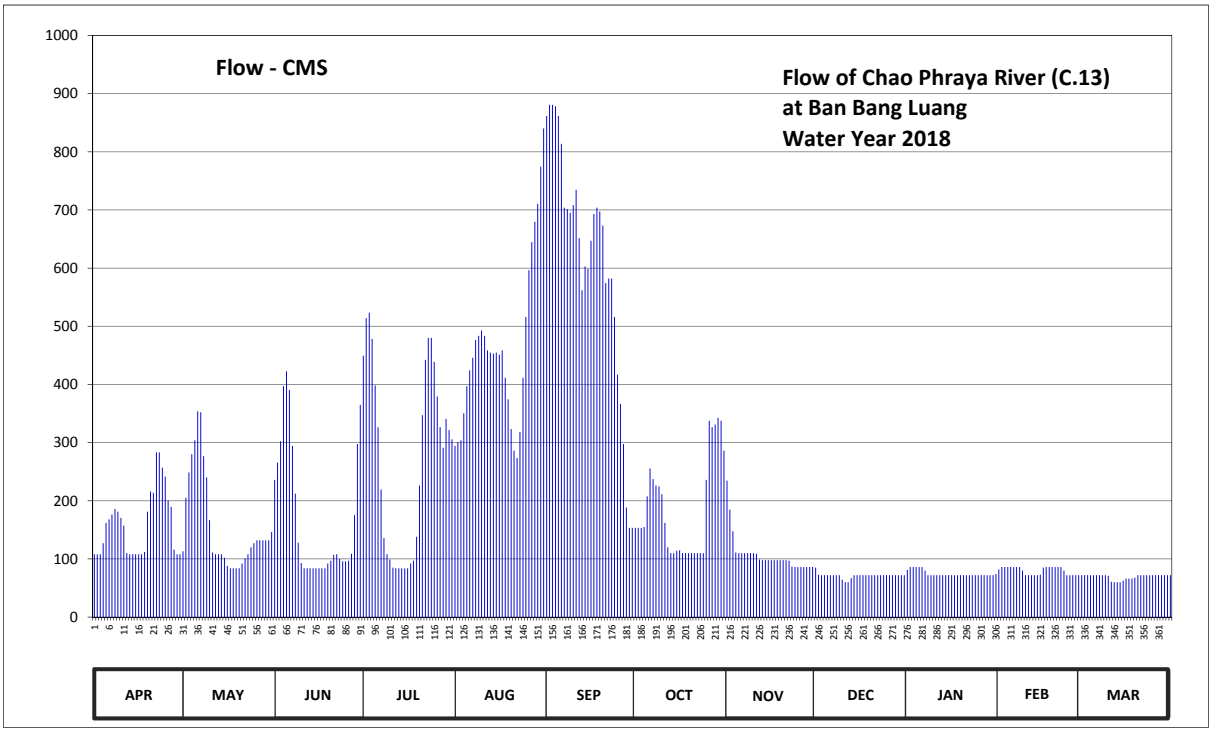
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	6.00	6.05	7.10	8.43	7.49	10.39	6.43	7.09	5.77	5.73	5.74	5.64	
2	6.00	6.86	7.31	8.79	7.53	10.47	6.43	6.69	5.65	5.78	5.78	5.64	
3	6.00	7.19	7.54	8.84	7.55	10.47	6.43	6.38	5.64	5.78	5.78	5.64	
4	6.19	7.40	8.13	8.59	7.84	10.46	6.44	6.03	5.64	5.78	5.78	5.64	
5	6.50	7.55	8.28	8.14	8.13	10.39	6.88	6.02	5.64	5.78	5.78	5.64	
6	6.55	7.86	8.09	7.69	8.29	10.19	7.24	6.02	5.64	5.78	5.78	5.64	
7	6.62	7.85	7.49	6.98	8.41	9.70	7.11	6.02	5.64	5.72	5.78	5.64	
8	6.70	7.38	6.92	6.28	8.58	9.69	7.03	6.02	5.64	5.64	5.78	5.64	
9	6.66	7.13	6.20	6.00	8.62	9.66	7.02	6.02	5.64	5.64	5.72	5.64	
10	6.57	6.54	5.85	5.91	8.67	9.72	6.91	6.02	5.56	5.64	5.64	5.63	
11	6.46	6.03	5.76	5.77	8.62	9.84	6.50	6.01	5.51	5.64	5.64	5.52	
12	6.02	6.00	5.76	5.76	8.48	9.46	6.12	5.91	5.51	5.64	5.64	5.51	
13	6.00	6.00	5.76	5.76	8.46	9.04	6.02	5.90	5.59	5.64	5.64	5.51	
14	6.00	6.00	5.76	5.76	8.45	9.24	6.02	5.90	5.64	5.64	5.64	5.51	
15	6.00	5.94	5.76	5.76	8.46	9.22	6.06	5.90	5.64	5.64	5.65	5.54	
16	6.00	5.80	5.76	5.76	8.44	9.44	6.07	5.90	5.64	5.64	5.77	5.58	
17	6.00	5.76	5.76	5.84	8.48	9.65	6.02	5.90	5.64	5.64	5.78	5.58	
18	6.04	5.76	5.76	5.89	8.22	9.70	6.02	5.90	5.64	5.64	5.78	5.58	
19	6.66	5.76	5.84	6.30	7.99	9.67	6.02	5.90	5.64	5.64	5.78	5.60	
20	6.95	5.76	5.89	7.03	7.67	9.56	6.02	5.90	5.64	5.64	5.78	5.64	
21	6.93	5.84	5.99	7.82	7.44	9.10	6.02	5.90	5.64	5.64	5.78	5.64	
22	7.42	5.93	6.00	8.39	7.36	9.14	6.02	5.89	5.64	5.64	5.78	5.64	
23	7.42	6.00	5.92	8.60	7.64	9.14	6.02	5.79	5.64	5.64	5.72	5.64	
24	7.25	6.12	5.88	8.60	8.22	8.80	6.02	5.78	5.64	5.64	5.64	5.64	
25	7.14	6.19	5.88	8.37	8.80	8.25	7.10	5.78	5.64	5.64	5.64	5.64	
26	6.82	6.24	5.89	8.02	9.21	7.94	7.76	5.78	5.64	5.64	5.64	5.64	
27	6.73	6.24	6.01	7.69	9.43	7.51	7.69	5.78	5.64	5.64	5.64	5.64	
28	6.08	6.24	6.61	7.47	9.59	6.72	7.72	5.78	5.64	5.64	5.64	5.64	
29	6.00	6.24	7.51	7.78	9.73	6.43	7.79	5.78	5.64	5.64		5.64	
30	6.00	6.24	7.93	7.66	10.02	6.43	7.76	5.78	5.64	5.64		5.64	
31		6.37		7.56	10.30		7.44		5.64	5.66		5.64	
Mean	6.46	6.40	6.48	7.20	8.46	9.18	6.65	5.98	5.63	5.67	5.72	5.61	
Max	7.42	7.86	8.28	8.84	10.30	10.47	7.79	7.09	5.77	5.78	5.78	5.64	10.47
Min	6.00	5.76	5.76	5.76	7.36	6.43	6.02	5.78	5.51	5.64	5.64	5.51	5.51

Annual Max Momentary Gage Height 10.54 m. (MSL.) , at 07.00 Hours , on Sep 2 , 2018

Zero Gage at Bottom Elevation 0.00 m. (MSL.) , River Bed 1.48 m. (MSL.)

Left Bank Elevation 17.52 m. (MSL.) ,

Right Bank Elevation 18.36 m. (MSL.) , Drainage Are 117,187 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	108.00	113.00	236.00	449.40	294.40	861.60	153.60	234.60	85.00	81.00	82.00	72.00		
2	108.00	205.20	265.60	514.20	300.80	880.80	153.60	184.80	73.00	86.00	86.00	72.00		
3	108.00	248.60	302.40	523.20	304.00	880.80	153.60	147.60	72.00	86.00	86.00	72.00		
4	127.00	280.00	396.80	478.20	350.40	878.40	154.80	111.00	72.00	86.00	86.00	72.00		
5	162.00	304.00	422.40	398.40	396.80	861.60	207.60	110.00	72.00	86.00	86.00	72.00		
6	168.00	353.60	390.40	326.40	424.20	813.60	255.60	110.00	72.00	86.00	86.00	72.00		
7	176.40	352.00	294.40	219.60	445.80	704.00	237.40	110.00	72.00	80.00	86.00	72.00		
8	186.00	276.80	212.40	136.00	476.40	701.80	226.20	110.00	72.00	72.00	86.00	72.00		
9	181.20	240.20	128.00	108.00	483.60	695.20	224.80	110.00	72.00	72.00	80.00	72.00		
10	170.40	166.80	93.00	99.00	492.60	708.40	211.20	110.00	64.40	72.00	72.00	71.00		
11	157.20	111.00	84.00	85.00	483.60	734.80	162.00	109.00	59.90	72.00	72.00	60.80		
12	110.00	108.00	84.00	84.00	458.40	651.20	120.00	99.00	59.90	72.00	72.00	59.90		
13	108.00	108.00	84.00	84.00	454.80	562.00	110.00	98.00	67.10	72.00	72.00	59.90		
14	108.00	108.00	84.00	84.00	453.00	602.80	110.00	98.00	72.00	72.00	72.00	59.90		
15	108.00	102.00	84.00	84.00	454.80	598.40	114.00	98.00	72.00	72.00	73.00	62.60		
16	108.00	88.00	84.00	84.00	451.20	646.80	115.00	98.00	72.00	72.00	85.00	66.20		
17	108.00	84.00	84.00	92.00	458.40	693.00	110.00	98.00	72.00	72.00	86.00	66.20		
18	112.00	84.00	84.00	97.00	411.60	704.00	110.00	98.00	72.00	72.00	86.00	66.20		
19	181.20	84.00	92.00	138.00	374.40	697.40	110.00	98.00	72.00	72.00	86.00	68.00		
20	216.00	84.00	97.00	226.20	323.20	673.20	110.00	98.00	72.00	72.00	86.00	72.00		
21	213.60	92.00	107.00	347.20	286.40	574.00	110.00	98.00	72.00	72.00	86.00	72.00		
22	283.20	101.00	108.00	442.20	273.60	582.00	110.00	97.00	72.00	72.00	86.00	72.00		
23	283.20	108.00	100.00	480.00	318.40	582.00	110.00	87.00	72.00	72.00	80.00	72.00		
24	257.00	120.00	96.00	480.00	411.60	516.00	110.00	86.00	72.00	72.00	72.00	72.00		
25	241.60	127.00	96.00	438.60	516.00	417.00	236.00	86.00	72.00	72.00	72.00	72.00		
26	200.40	132.00	97.00	379.20	596.20	366.40	337.60	86.00	72.00	72.00	72.00	72.00		
27	189.60	132.00	109.00	326.40	644.60	297.60	326.40	86.00	72.00	72.00	72.00	72.00		
28	116.00	132.00	175.20	291.20	679.80	188.40	331.20	86.00	72.00	72.00	72.00	72.00		
29	108.00	132.00	297.60	340.80	710.60	153.60	342.40	86.00	72.00	72.00		72.00		
30	108.00	132.00	364.80	321.60	774.40	153.60	337.60	86.00	72.00	72.00		72.00		
31		146.40		305.60	840.00		286.40		72.00	74.00		72.00		
Total	4812.00	4855.60	5153.00	8463.40	14344.00	18380.40	5787.00	3214.00	2209.30	2321.00	2238.00	2152.70	73930.40	CMSDAY
Mean	160.40	156.63	171.77	273.01	462.71	612.68	186.68	107.13	71.27	74.87	79.93	69.44	202.55	CMS
Max	283.20	353.60	422.40	523.20	840.00	880.80	342.40	234.60	85.00	86.00	86.00	72.00	880.80	CMS
Min	108.00	84.00	84.00	84.00	273.60	153.60	110.00	86.00	59.90	72.00	72.00	59.90	59.90	CMS
Runoff	415.76	419.52	445.22	731.24	1239.32	1588.07	500.00	277.69	190.88	200.53	193.36	185.99	6387.59	MCM

Momentary Peak 898.40 CMS. at 10.54 m. (MSL.) at 07.00 Hours , on Sep 2 , 2018

Runoff Yield 1.73 Liters/Second/Square KM. Momentary Peak Yield 7.67 Liters/Second/Square KM.

WATER YEAR : 2018

CHAO PHRAYA RIVER BASIN

Chao Phraya River at Ban Pom, Phra Nakhon Si Ayutthaya (C.35)

Lat 14 - 22 - 02 N Long 100 - 31 - 58 E

Location : on right bank at Ban Pom

Ban Pom **Amphoe** Phra Nakhon Si Ayutthaya **Changwat** Phra Nakhon Si Ayutthaya

Drainge Area	Flood Plain
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+0.000 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On right bank near the gage site. **Elevation** +7.125 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	1997 to date
Rating Operation	
Period of Rating	1997 to date
Rated by Flot	-
Rated by Current Meter	1998 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Stage-discharge relation defined by 30 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

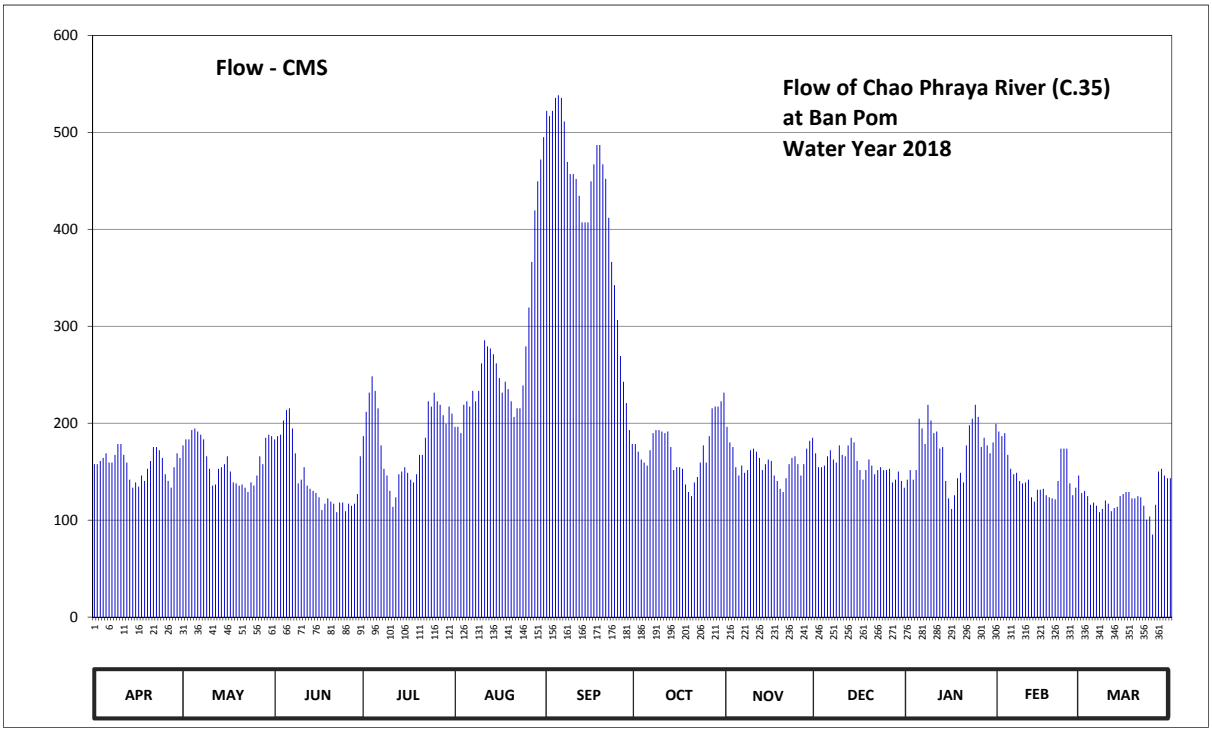
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.83	0.95	0.99	1.01	1.07	2.53	0.96	1.07	0.90	0.72	1.04	0.60	
2	0.83	0.99	1.01	1.16	1.07	2.51	0.91	0.97	0.81	0.79	1.01	0.62	
3	0.85	0.99	1.02	1.27	1.03	2.53	0.86	0.94	0.81	0.72	1.03	0.57	
4	0.87	1.05	1.11	1.36	1.20	2.58	0.84	0.81	0.82	0.79	0.89	0.49	
5	0.90	1.06	1.17	1.28	1.22	2.59	0.82	0.75	0.88	1.12	0.80	0.51	
6	0.84	1.04	1.18	1.18	1.19	2.58	0.92	0.82	0.92	1.06	0.76	0.48	
7	0.84	1.02	1.06	0.95	1.28	2.49	1.03	0.77	0.86	0.96	0.77	0.42	
8	0.89	0.99	0.90	0.80	1.22	2.33	1.05	0.79	0.84	1.20	0.71	0.45	
9	0.96	0.88	0.69	0.75	1.28	2.28	1.05	0.92	0.95	1.11	0.69	0.53	
10	0.96	0.80	0.72	0.62	1.43	2.28	1.04	0.93	0.89	1.03	0.70	0.50	
11	0.89	0.67	0.81	0.47	1.55	2.26	1.03	0.91	0.88	1.04	0.72	0.43	
12	0.84	0.68	0.67	0.56	1.52	2.19	1.04	0.87	0.95	0.93	0.56	0.46	
13	0.72	0.80	0.64	0.76	1.51	2.08	0.94	0.79	1.00	0.94	0.52	0.47	
14	0.65	0.81	0.62	0.78	1.48	2.08	0.79	0.83	0.97	0.71	0.63	0.57	
15	0.70	0.83	0.60	0.81	1.43	2.08	0.81	0.86	0.85	0.55	0.63	0.59	
16	0.66	0.88	0.56	0.77	1.35	2.25	0.81	0.85	0.79	0.45	0.64	0.61	
17	0.75	0.78	0.44	0.72	1.27	2.32	0.80	0.75	0.72	0.58	0.58	0.61	
18	0.71	0.70	0.50	0.70	1.33	2.40	0.68	0.71	0.79	0.73	0.56	0.55	
19	0.80	0.69	0.55	0.76	1.29	2.40	0.61	0.64	0.86	0.77	0.55	0.55	
20	0.85	0.67	0.52	0.89	1.22	2.32	0.57	0.61	0.82	0.70	0.54	0.57	
21	0.94	0.68	0.50	0.89	1.13	2.26	0.70	0.73	0.76	0.95	0.71	0.56	
22	0.94	0.65	0.42	1.00	1.18	2.10	0.74	0.83	0.79	1.08	0.93	0.48	
23	0.92	0.61	0.51	1.22	1.18	1.91	0.84	0.87	0.81	1.12	0.93	0.35	
24	0.87	0.70	0.51	1.19	1.31	1.81	0.95	0.88	0.79	1.20	0.93	0.38	
25	0.76	0.67	0.43	1.27	1.52	1.65	0.84	0.83	0.79	1.13	0.69	0.21	
26	0.71	0.75	0.50	1.22	1.71	1.47	1.01	0.75	0.80	0.94	0.58	0.49	
27	0.65	0.88	0.48	1.20	1.91	1.33	1.18	0.83	0.70	1.00	0.65	0.78	
28	0.81	0.83	0.50	1.14	2.13	1.21	1.19	0.93	0.72	0.95	0.75	0.80	
29	0.90	1.00	0.59	1.09	2.25	1.05	1.19	0.98	0.78	0.90		0.75	
30	0.87	1.02	0.88	1.19	2.34	0.96	1.22	1.00	0.71	0.97		0.73	
31		1.01		1.15	2.43		1.27		0.65	1.09		0.73	
Mean	0.82	0.84	0.70	0.97	1.45	2.09	0.93	0.84	0.83	0.91	0.73	0.54	
Max	0.96	1.06	1.18	1.36	2.43	2.59	1.27	1.07	1.00	1.20	1.04	0.80	2.59
Min	0.65	0.61	0.42	0.47	1.03	0.96	0.57	0.61	0.65	0.45	0.52	0.21	0.21

Annual Max Momentary Gage Height 2.67 m. (MSL.) , at 22.00 Hours , on Sep 6 , 2018

Zero Gage at Bottom Elevation 0.00 m. (MSL.) , River Bed -8.76 m. (MSL.)

Left Bank Elevation 5.29 m. (MSL.) ,

Right Bank Elevation 6.76 m. (MSL.) , Drainage Area Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	157.80	177.00	183.40	186.60	196.20	522.10	178.60	196.20	169.00	141.80	191.40	128.00		
2	157.80	183.40	186.60	211.80	196.20	516.70	170.60	180.20	154.60	151.60	186.60	130.20		
3	161.00	183.40	188.20	231.60	189.80	522.10	162.60	175.40	154.60	141.80	189.80	124.70		
4	164.20	193.00	202.80	248.40	219.00	535.60	159.40	154.60	156.20	151.60	167.40	115.90		
5	169.00	194.60	213.60	233.40	222.60	538.30	156.20	146.00	165.80	204.60	153.00	118.10		
6	159.40	191.40	215.40	215.40	217.20	535.60	172.20	156.20	172.20	194.60	147.40	114.80		
7	159.40	188.20	194.60	177.00	233.40	511.30	189.80	148.80	162.60	178.60	148.80	108.20		
8	167.40	183.40	169.00	153.00	222.60	469.50	193.00	151.60	159.40	219.00	140.40	111.50		
9	178.60	165.80	137.90	146.00	233.40	457.00	193.00	172.20	177.00	202.80	137.90	120.30		
10	178.60	153.00	141.80	130.20	261.70	457.00	191.40	173.80	167.40	189.80	139.00	117.00		
11	167.40	135.70	154.60	113.70	285.50	452.00	189.80	170.60	165.80	191.40	141.80	109.30		
12	159.40	136.80	135.70	123.60	279.20	434.50	191.40	164.20	177.00	173.80	123.60	112.60		
13	141.80	153.00	132.40	147.40	277.10	407.20	175.40	151.60	185.00	175.40	119.20	113.70		
14	133.50	154.60	130.20	150.20	271.20	407.20	151.60	157.80	180.20	140.40	131.30	124.70		
15	139.00	157.80	128.00	154.60	261.70	407.20	154.60	162.60	161.00	122.50	131.30	126.90		
16	134.60	165.80	123.60	148.80	246.50	449.50	154.60	161.00	151.60	111.50	132.40	129.10		
17	146.00	150.20	110.40	141.80	231.60	467.00	153.00	146.00	141.80	125.80	125.80	129.10		
18	140.40	139.00	117.00	139.00	242.70	487.00	136.80	140.40	151.60	143.20	123.60	122.50		
19	153.00	137.90	122.50	147.40	235.20	487.00	129.10	132.40	162.60	148.80	122.50	122.50		
20	161.00	135.70	119.20	167.40	222.60	467.00	124.70	129.10	156.20	139.00	121.40	124.70		
21	175.40	136.80	117.00	167.40	206.40	452.00	139.00	143.20	147.40	177.00	140.40	123.60		
22	175.40	133.50	108.20	185.00	215.40	412.00	144.60	157.80	151.60	197.80	173.80	114.80		
23	172.20	129.10	118.10	222.60	215.40	366.40	159.40	164.20	154.60	204.60	173.80	100.50		
24	164.20	139.00	118.10	217.20	238.90	342.40	177.00	165.80	151.60	219.00	173.80	103.80		
25	147.40	135.70	109.30	231.60	279.20	306.50	159.40	157.80	151.60	206.40	137.90	85.10		
26	140.40	146.00	117.00	222.60	319.30	269.30	186.60	146.00	153.00	175.40	125.80	115.90		
27	133.50	165.80	114.80	219.00	366.40	242.70	215.40	157.80	139.00	185.00	133.50	150.20		
28	154.60	157.80	117.00	208.20	419.50	220.80	217.20	173.80	141.80	177.00	146.00	153.00		
29	169.00	185.00	126.90	199.40	449.50	193.00	217.20	181.80	150.20	169.00		146.00		
30	164.20	188.20	165.80	217.20	472.00	178.60	222.60	185.00	140.40	180.20		143.20		
31		186.60		210.00	495.10		231.60		133.50	199.40		143.20		
Total	4725.60	4983.20	4319.10	5667.50	8422.50	12514.50	5397.80	4803.90	4886.30	5338.80	4079.60	3783.10	68921.90	CMSDAY
Mean	157.52	160.75	143.97	182.82	271.69	417.15	174.12	160.13	157.62	172.22	145.70	122.04	188.83	CMS
Max	178.60	194.60	215.40	248.40	495.10	538.30	231.60	196.20	185.00	219.00	191.40	153.00	538.30	CMS
Min	133.50	129.10	108.20	113.70	189.80	178.60	124.70	129.10	133.50	111.50	119.20	85.10	85.10	CMS
Runoff	408.29	430.55	373.17	489.67	727.70	1081.25	466.37	415.06	422.18	461.27	352.48	326.86	5954.85	MCM

Momentary Peak 561.30 CMS. at 2.67 m. (MSL.) at 22.00 Hours , on Sep 6 , 2018

Runoff Yield ***** Liters/Second/Square KM. Momentary Peak Yield ***** Liters/Second/Square KM.

WATER YEAR : 2018

CHAO PHRAYA RIVER BASIN

Khlong Bang Luang at Ban Bang Luang Dod, Phra Nakhon Si Ayutthaya (C.36)

Lat 14 - 24 - 50 N Long 100 - 26 - 37 E

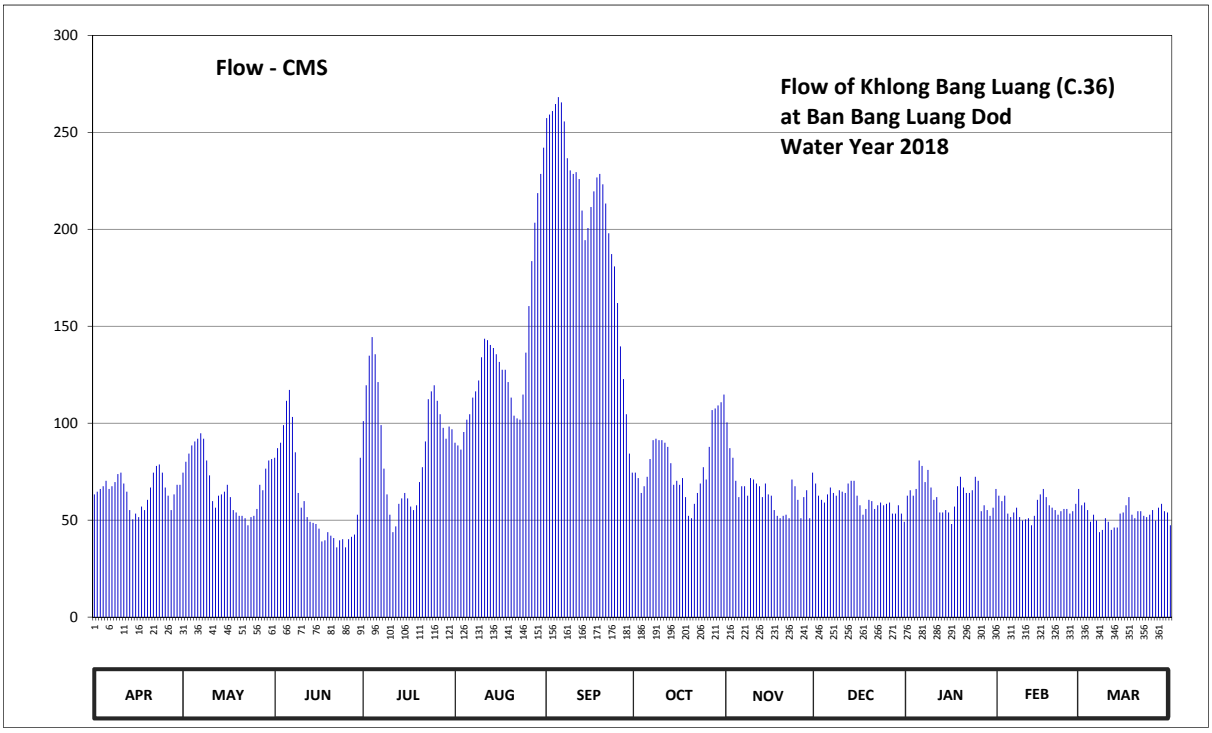
Location : on right bank at the bridge.

	Ban Bang Luang Dod	**Amphoe** Bang Ban		**Changwat** Phra Nakhon Si Ayutthaya	
Drainge Area	Flood Plain				
Type of Gage	Water - stage recorder				
Zero Gage at Bottom	+0.000 m. (MSL.)				
Bench Mark	B.M.-H.D.				
Location BM	On right bank near the top staff gage			**Elevation**	+7.500 m. (MSL.)
Gage Reading Frequency	Recording				
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings				
Period of Available Gage Records	1982 to date				
Rating Operation					
Period of Rating	1983 to date				
Rated by Flot	-				
Rated by Current Meter	1983 to date				
Stability of Channel Regimes	Fairly stable.				
Overbank Flow Conditions	No overbank flow.				
General Description	Records fair. Stage-discharge relation defined by 30 discharge measurements made in 2018.				

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.49	0.65	0.76	1.03	0.87	2.86	0.65	1.02	0.57	0.48	0.48	0.41	
2	0.51	0.73	0.83	1.27	0.85	2.88	0.61	0.83	0.48	0.52	0.44	0.43	
3	0.53	0.79	0.87	1.46	0.82	2.90	0.50	0.76	0.45	0.48	0.48	0.37	
4	0.55	0.85	1.00	1.58	0.95	2.94	0.55	0.59	0.43	0.53	0.34	0.27	
5	0.59	0.88	1.17	1.47	1.04	2.98	0.62	0.47	0.49	0.74	0.31	0.33	
6	0.53	0.90	1.24	1.29	1.08	2.95	0.75	0.55	0.54	0.70	0.35	0.28	
7	0.55	0.94	1.06	1.00	1.19	2.84	0.89	0.55	0.50	0.58	0.39	0.18	
8	0.58	0.90	0.80	0.68	1.23	2.63	0.90	0.48	0.48	0.67	0.31	0.20	
9	0.64	0.74	0.50	0.49	1.30	2.56	0.89	0.61	0.52	0.54	0.28	0.30	
10	0.65	0.63	0.39	0.33	1.45	2.54	0.89	0.60	0.51	0.45	0.29	0.27	
11	0.57	0.44	0.44	0.18	1.57	2.55	0.87	0.57	0.50	0.47	0.30	0.20	
12	0.51	0.39	0.31	0.23	1.56	2.51	0.84	0.55	0.57	0.35	0.24	0.22	
13	0.37	0.48	0.27	0.42	1.53	2.33	0.72	0.47	0.59	0.35	0.32	0.22	
14	0.29	0.49	0.26	0.46	1.51	2.16	0.56	0.57	0.59	0.37	0.45	0.34	
15	0.34	0.51	0.25	0.50	1.47	2.23	0.59	0.49	0.48	0.35	0.49	0.35	
16	0.31	0.56	0.21	0.46	1.42	2.35	0.56	0.48	0.41	0.25	0.53	0.41	
17	0.40	0.47	0.10	0.40	1.37	2.44	0.61	0.37	0.33	0.40	0.47	0.47	
18	0.37	0.37	0.11	0.37	1.37	2.52	0.47	0.32	0.38	0.55	0.41	0.33	
19	0.45	0.35	0.18	0.41	1.29	2.54	0.32	0.30	0.45	0.62	0.39	0.30	
20	0.54	0.32	0.15	0.58	1.19	2.48	0.30	0.32	0.44	0.54	0.37	0.36	
21	0.65	0.32	0.13	0.69	1.07	2.37	0.42	0.33	0.38	0.50	0.33	0.36	
22	0.70	0.30	0.05	0.88	1.05	2.20	0.50	0.30	0.41	0.50	0.36	0.32	
23	0.71	0.24	0.11	1.18	1.04	2.08	0.57	0.60	0.43	0.52	0.38	0.31	
24	0.65	0.31	0.12	1.23	1.21	2.01	0.69	0.55	0.41	0.62	0.38	0.33	
25	0.54	0.32	0.05	1.27	1.48	1.80	0.60	0.45	0.42	0.59	0.34	0.37	
26	0.48	0.38	0.12	1.17	1.78	1.52	0.84	0.30	0.43	0.36	0.36	0.28	
27	0.37	0.56	0.14	1.08	2.04	1.31	1.11	0.47	0.34	0.41	0.42	0.39	
28	0.49	0.52	0.16	0.98	2.26	1.08	1.12	0.52	0.34	0.37	0.53	0.42	
29	0.56	0.68	0.33	0.90	2.43	0.79	1.14	0.30	0.41	0.32		0.36	
30	0.56	0.74	0.76	0.99	2.54	0.65	1.16	0.65	0.34	0.39		0.35	
31		0.75		0.97	2.69		1.21		0.27	0.53		0.24	
Mean	0.52	0.56	0.43	0.84	1.44	2.27	0.72	0.51	0.45	0.49	0.38	0.32	
Max	0.71	0.94	1.24	1.58	2.69	2.98	1.21	1.02	0.59	0.74	0.53	0.47	2.98
Min	0.29	0.24	0.05	0.18	0.82	0.65	0.30	0.30	0.27	0.25	0.24	0.18	0.05

Annual Max Momentary Gage Height	3.00	m. (MSL.) ,	at 04.00 Hours , on Sep 5 , 2018		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	-5.79	m. (MSL.)
Left Bank Elevation	7.06	m. (MSL.) ,			
Right Bank Elevation	7.46	m. (MSL.) ,	Drainage Area	Square Kilometers	



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	63.30	74.50	82.20	101.10	89.90	257.40	74.50	100.40	68.90	62.60	62.60	57.70		
2	64.70	80.10	87.10	119.60	88.50	259.20	71.70	87.10	62.60	65.40	59.80	59.10		
3	66.10	84.30	89.90	134.80	86.40	261.00	64.00	82.20	60.50	62.60	62.60	55.20		
4	67.50	88.50	99.00	144.40	95.50	264.60	67.50	70.30	59.10	66.10	53.40	49.20		
5	70.30	90.60	111.60	135.60	101.80	268.20	72.40	61.90	63.30	80.80	51.60	52.80		
6	66.10	92.00	117.20	121.20	104.60	265.50	81.50	67.50	66.80	78.00	54.00	49.80		
7	67.50	94.80	103.20	99.00	113.20	255.60	91.30	67.50	64.00	69.60	56.40	43.80		
8	69.60	92.00	85.00	76.60	116.40	236.70	92.00	62.60	62.60	75.90	51.60	45.00		
9	73.80	80.80	64.00	63.30	122.00	230.40	91.30	71.70	65.40	66.80	49.80	51.00		
10	74.50	73.10	56.40	52.80	134.00	228.60	91.30	71.00	64.70	60.50	50.40	49.20		
11	68.90	59.80	59.80	43.80	143.60	229.50	89.90	68.90	64.00	61.90	51.00	45.00		
12	64.70	56.40	51.60	46.80	142.80	225.90	87.80	67.50	68.90	54.00	47.40	46.20		
13	55.20	62.60	49.20	58.40	140.40	209.70	79.40	61.90	70.30	54.00	52.20	46.20		
14	50.40	63.30	48.60	61.20	138.80	194.40	68.20	68.90	70.30	55.20	60.50	53.40		
15	53.40	64.70	48.00	64.00	135.60	200.70	70.30	63.30	62.60	54.00	63.30	54.00		
16	51.60	68.20	45.60	61.20	131.60	211.50	68.20	62.60	57.70	48.00	66.10	57.70		
17	57.00	61.90	39.00	57.00	127.60	219.60	71.70	55.20	52.80	57.00	61.90	61.90		
18	55.20	55.20	39.60	55.20	127.60	226.80	61.90	52.20	55.80	67.50	57.70	52.80		
19	60.50	54.00	43.80	57.70	121.20	228.60	52.20	51.00	60.50	72.40	56.40	51.00		
20	66.80	52.20	42.00	69.60	113.20	223.20	51.00	52.20	59.80	66.80	55.20	54.60		
21	74.50	52.20	40.80	77.30	103.90	213.30	58.40	52.80	55.80	64.00	52.80	54.60		
22	78.00	51.00	36.00	90.60	102.50	198.00	64.00	51.00	57.70	64.00	54.60	52.20		
23	78.70	47.40	39.60	112.40	101.80	187.20	68.90	71.00	59.10	65.40	55.80	51.60		
24	74.50	51.60	40.20	116.40	114.80	180.90	77.30	67.50	57.70	72.40	55.80	52.80		
25	66.80	52.20	36.00	119.60	136.40	162.00	71.00	60.50	58.40	70.30	53.40	55.20		
26	62.60	55.80	40.20	111.60	160.40	139.60	87.80	51.00	59.10	54.60	54.60	49.80		
27	55.20	68.20	41.40	104.60	183.60	122.80	106.80	61.90	53.40	57.70	58.40	56.40		
28	63.30	65.40	42.60	97.60	203.40	104.60	107.60	65.40	53.40	55.20	66.10	58.40		
29	68.20	76.60	52.80	92.00	218.70	84.30	109.20	51.00	57.70	52.20		54.60		
30	68.20	80.80	82.20	98.30	228.60	74.50	110.80	74.50	53.40	56.40		54.00		
31		81.50		96.90	242.10		114.80		49.20	66.10		47.40		
Total	1957.10	2131.70	1814.60	2740.60	4170.90	6164.30	2474.70	1952.50	1875.50	1957.40	1575.40	1622.60	30437.30	CMSDAY
Mean	65.24	68.76	60.49	88.41	134.55	205.48	79.83	65.08	60.50	63.14	56.26	52.34	83.39	CMS
Max	78.70	94.80	117.20	144.40	242.10	268.20	114.80	100.40	70.30	80.80	66.10	61.90	268.20	CMS
Min	50.40	47.40	36.00	43.80	86.40	74.50	51.00	51.00	49.20	48.00	47.40	43.80	36.00	CMS
Runoff	169.09	184.18	156.78	236.79	360.37	532.60	213.81	168.70	162.04	169.12	136.11	140.19	2629.78	MCM

Momentary Peak 270.00 CMS. at 3.00 m. (MSL.) at 04.00 Hours , on Sep 5 , 2018

Runoff Yield ***** Liters/Second/Square KM. Momentary Peak Yield ***** Liters/Second/Square KM.

WATER YEAR : 2018

CHAO PHRAYA RIVER BASIN

Khlong Bang Ban at Ban Bang Ban, Phra Nakhon Si Ayutthaya (C.37)

Lat 14 - 21 - 28 N Long 100 - 29 - 03 E

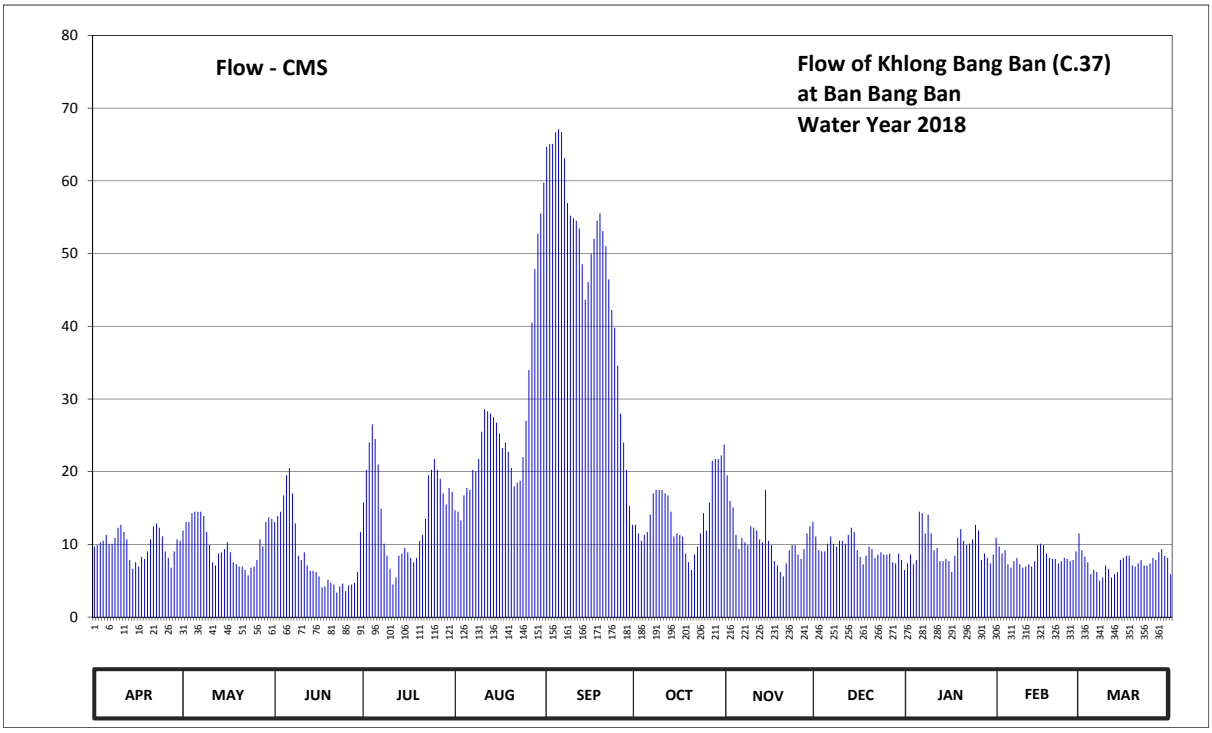
Location : on left bank at the bridge.

	Ban Bang Ban	**Amphoe** Bang Ban	**Changwat** Phra Nakhon Si Ayutthaya		
Drainge Area	Flood Plain				
Type of Gage	Water - stage recorder				
Zero Gage at Bottom	+0.000 m. (MSL.)				
Bench Mark	B.M.-H.D.				
Location BM	On left bank near the top staff gage		**Elevation** +7.703 m. (MSL.)		
Gage Reading Frequency	Recording				
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings				
Period of Available Gage Records	1982 to date				
Rating Operation					
Period of Rating	1983 to date				
Rated by Flot	-				
Rated by Current Meter	1983 to date				
Stability of Channel Regimes	Fairly stable.				
Overbank Flow Conditions	No overbank flow.				
General Description	Records good. Stage-discharge relation defined by 28 discharge measurements made in 2018.				

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.51	0.62	0.68	0.81	0.76	2.38	0.66	0.96	0.58	0.36	0.51	0.48	
2	0.52	0.68	0.72	0.99	0.75	2.39	0.60	0.82	0.48	0.44	0.45	0.42	
3	0.54	0.68	0.75	1.14	0.69	2.39	0.55	0.78	0.47	0.35	0.48	0.37	
4	0.55	0.74	0.85	1.24	0.85	2.43	0.59	0.59	0.47	0.39	0.35	0.26	
5	0.59	0.75	0.96	1.16	0.89	2.44	0.61	0.49	0.53	0.75	0.32	0.30	
6	0.53	0.75	1.00	1.02	0.88	2.43	0.73	0.57	0.58	0.74	0.38	0.28	
7	0.53	0.75	0.86	0.77	0.99	2.34	0.86	0.54	0.53	0.60	0.41	0.20	
8	0.57	0.72	0.67	0.53	0.98	2.17	0.88	0.52	0.51	0.73	0.35	0.23	
9	0.64	0.61	0.43	0.43	1.05	2.12	0.88	0.65	0.55	0.60	0.32	0.34	
10	0.66	0.52	0.39	0.31	1.20	2.11	0.88	0.64	0.55	0.48	0.33	0.31	
11	0.61	0.37	0.46	0.16	1.32	2.10	0.86	0.62	0.53	0.50	0.35	0.23	
12	0.56	0.34	0.34	0.23	1.31	2.07	0.85	0.56	0.59	0.38	0.33	0.26	
13	0.39	0.45	0.29	0.43	1.30	1.93	0.75	0.54	0.64	0.38	0.38	0.28	
14	0.31	0.46	0.29	0.45	1.28	1.79	0.58	0.88	0.61	0.40	0.52	0.39	
15	0.37	0.49	0.28	0.50	1.25	1.86	0.60	0.55	0.48	0.38	0.53	0.41	
16	0.33	0.54	0.24	0.46	1.19	1.97	0.59	0.52	0.42	0.28	0.52	0.43	
17	0.42	0.46	0.13	0.41	1.11	2.03	0.58	0.38	0.35	0.43	0.45	0.43	
18	0.40	0.37	0.14	0.37	1.14	2.10	0.45	0.34	0.43	0.57	0.41	0.34	
19	0.47	0.35	0.21	0.41	1.09	2.13	0.37	0.28	0.51	0.63	0.40	0.33	
20	0.56	0.33	0.18	0.55	1.00	2.06	0.30	0.24	0.49	0.55	0.40	0.36	
21	0.65	0.33	0.16	0.59	0.90	2.00	0.44	0.36	0.41	0.52	0.36	0.39	
22	0.67	0.30	0.07	0.70	0.92	1.87	0.51	0.48	0.44	0.53	0.38	0.34	
23	0.64	0.25	0.14	0.96	0.93	1.75	0.60	0.52	0.46	0.56	0.41	0.34	
24	0.58	0.32	0.17	0.99	1.06	1.68	0.74	0.52	0.44	0.66	0.40	0.36	
25	0.47	0.33	0.09	1.05	1.26	1.52	0.62	0.44	0.44	0.62	0.38	0.41	
26	0.41	0.39	0.15	0.99	1.50	1.30	0.81	0.40	0.45	0.39	0.39	0.39	
27	0.32	0.56	0.16	0.94	1.70	1.14	1.04	0.49	0.37	0.45	0.47	0.46	
28	0.47	0.51	0.18	0.86	1.91	0.99	1.05	0.60	0.36	0.41	0.60	0.49	
29	0.56	0.68	0.28	0.80	2.05	0.79	1.05	0.65	0.45	0.36		0.43	
30	0.55	0.71	0.61	0.89	2.13	0.66	1.07	0.68	0.39	0.44		0.41	
31		0.70		0.87	2.25		1.13		0.30	0.57		0.26	
Mean	0.51	0.52	0.40	0.71	1.21	1.90	0.72	0.55	0.48	0.50	0.41	0.35	
Max	0.67	0.75	1.00	1.24	2.25	2.44	1.13	0.96	0.64	0.75	0.60	0.49	2.44
Min	0.31	0.25	0.07	0.16	0.69	0.66	0.30	0.24	0.30	0.28	0.32	0.20	0.07

Annual Max Momentary Gage Height	2.47	m. (MSL.) ,	at 04.00 Hours , on Sep 4 , 2018		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	-3.11	m. (MSL.)
Left Bank Elevation	6.79	m. (MSL.) ,			
Right Bank Elevation	6.77	m. (MSL.) ,	Drainage Area	Square Kilometers	



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	9.70	11.90	13.10	15.75	14.70	64.70	12.70	19.50	11.10	7.40	9.70	9.20		
2	9.90	13.10	13.90	20.25	14.50	65.10	11.50	16.00	9.20	8.60	8.75	8.30		
3	10.30	13.10	14.50	24.00	13.30	65.10	10.50	15.10	9.05	7.25	9.20	7.55		
4	10.50	14.30	16.75	26.50	16.75	66.70	11.30	11.30	9.05	7.85	7.25	5.90		
5	11.30	14.50	19.50	24.50	17.75	67.10	11.70	9.35	10.10	14.50	6.80	6.50		
6	10.10	14.50	20.50	21.00	17.50	66.70	14.10	10.90	11.10	14.30	7.70	6.20		
7	10.10	14.50	17.00	14.90	20.25	63.10	17.00	10.30	10.10	11.50	8.15	5.00		
8	10.90	13.90	12.90	10.10	20.00	56.95	17.50	9.90	9.70	14.10	7.25	5.45		
9	12.30	11.70	8.45	8.45	21.75	55.20	17.50	12.50	10.50	11.50	6.80	7.10		
10	12.70	9.90	7.85	6.65	25.50	54.85	17.50	12.30	10.50	9.20	6.95	6.65		
11	11.70	7.55	8.90	4.48	28.60	54.50	17.00	11.90	10.10	9.50	7.25	5.45		
12	10.70	7.10	7.10	5.45	28.30	53.45	16.75	10.70	11.30	7.70	6.95	5.90		
13	7.85	8.75	6.35	8.45	28.00	48.55	14.50	10.30	12.30	7.70	7.70	6.20		
14	6.65	8.90	6.35	8.75	27.50	43.65	11.10	17.50	11.70	8.00	9.90	7.85		
15	7.55	9.35	6.20	9.50	26.75	46.10	11.50	10.50	9.20	7.70	10.10	8.15		
16	6.95	10.30	5.60	8.90	25.25	49.95	11.30	9.90	8.30	6.20	9.90	8.45		
17	8.30	8.90	4.09	8.15	23.25	52.05	11.10	7.70	7.25	8.45	8.75	8.45		
18	8.00	7.55	4.22	7.55	24.00	54.50	8.75	7.10	8.45	10.90	8.15	7.10		
19	9.05	7.25	5.15	8.15	22.75	55.55	7.55	6.20	9.70	12.10	8.00	6.95		
20	10.70	6.95	4.74	10.50	20.50	53.10	6.50	5.60	9.35	10.50	8.00	7.40		
21	12.50	6.95	4.48	11.30	18.00	51.00	8.60	7.40	8.15	9.90	7.40	7.85		
22	12.90	6.50	3.37	13.50	18.50	46.45	9.70	9.20	8.60	10.10	7.70	7.10		
23	12.30	5.75	4.22	19.50	18.75	42.25	11.50	9.90	8.90	10.70	8.15	7.10		
24	11.10	6.80	4.61	20.25	22.00	39.80	14.30	9.90	8.60	12.70	8.00	7.40		
25	9.05	6.95	3.59	21.75	27.00	34.60	11.90	8.60	8.60	11.90	7.70	8.15		
26	8.15	7.85	4.35	20.25	34.00	28.00	15.75	8.00	8.75	7.85	7.85	7.85		
27	6.80	10.70	4.48	19.00	40.50	24.00	21.50	9.35	7.55	8.75	9.05	8.90		
28	9.05	9.70	4.74	17.00	47.85	20.25	21.75	11.50	7.40	8.15	11.50	9.35		
29	10.70	13.10	6.20	15.50	52.75	15.30	21.75	12.50	8.75	7.40		8.45		
30	10.50	13.70	11.70	17.75	55.55	12.70	22.25	13.10	7.85	8.60		8.15		
31		13.50		17.25	59.75		23.75		6.50	10.90		5.90		
Total	298.30	315.50	254.89	445.03	831.55	1451.25	440.10	324.00	287.70	301.90	230.60	225.95	5406.77	CMSDAY
Mean	9.94	10.18	8.50	14.36	26.82	48.37	14.20	10.80	9.28	9.74	8.24	7.29	14.81	CMS
Max	12.90	14.50	20.50	26.50	59.75	67.10	23.75	19.50	12.30	14.50	11.50	9.35	67.10	CMS
Min	6.65	5.75	3.37	4.48	13.30	12.70	6.50	5.60	6.50	6.20	6.80	5.00	3.37	CMS
Runoff	25.77	27.26	22.02	38.45	71.85	125.39	38.02	27.99	24.86	26.08	19.92	19.52	467.14	MCM

Momentary Peak 68.30 CMS. at 2.47 m. (MSL.) at 04.00 Hours , on Sep 4 , 2018

Runoff Yield ***** Liters/Second/Square KM. Momentary Peak Yield ***** Liters/Second/Square KM.

WATER YEAR : 2018

CHAO PHRAYA RIVER BASIN

Chao Phraya River at Ban In Buri, Sing Buri (C.44)

Lat 15 - 00 - 18 N Long 100 - 19 - 48 E

Location : on right bank at the bridge

	Ban In Buri	**Amphoe** In Buri	**Changwat** Sing Buri
Drainge Area	118,510 sq.km.		
Type of Gage	Staff gage.		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank near the gage site		**Elevation** +13.856 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic mean of 3 readings		
Period of Available Gage Records	2005 to date		
Rating Operation			
Period of Rating	2005 to date		
Rated by Flot	-		
Rated by Current Meter	2005 to date		
Stability of Channel Regimes	Fairly stable		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 23 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

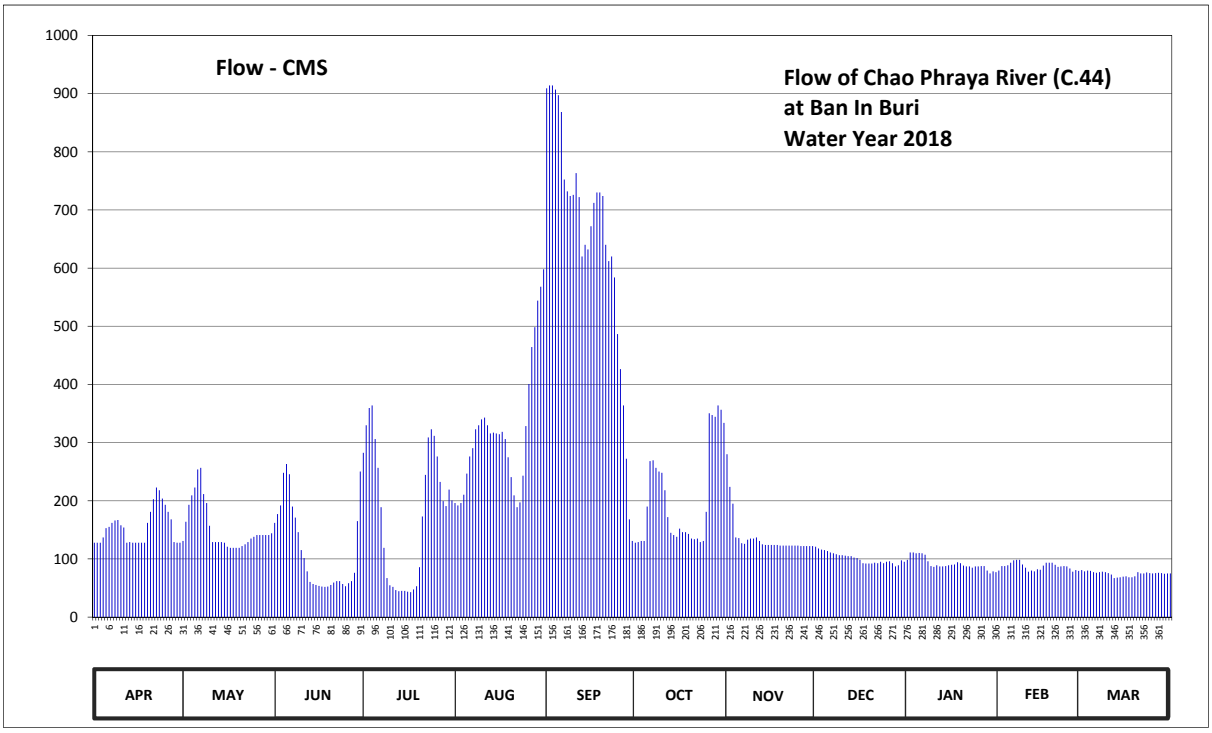
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	4.32	4.35	4.66	5.72	5.00	9.08	4.32	5.70	4.25	3.98	3.73	3.74	
2	4.32	4.68	4.81	6.07	4.96	9.10	4.33	5.25	4.22	4.14	3.84	3.71	
3	4.32	4.97	4.96	6.27	5.00	9.10	4.35	4.99	4.20	4.14	3.84	3.73	
4	4.41	5.12	5.45	6.30	5.13	9.07	4.35	4.41	4.19	4.12	3.86	3.72	
5	4.57	5.24	5.57	5.90	5.44	9.03	4.94	4.40	4.17	4.13	3.92	3.69	
6	4.59	5.50	5.43	5.52	5.67	8.91	5.61	4.31	4.14	4.12	3.97	3.67	
7	4.66	5.52	4.94	4.93	5.78	8.41	5.62	4.30	4.12	4.09	3.98	3.69	
8	4.70	5.14	4.75	4.23	6.02	8.31	5.52	4.37	4.10	3.95	3.98	3.70	
9	4.71	5.00	4.50	3.52	6.07	8.27	5.47	4.39	4.08	3.84	3.88	3.69	
10	4.62	4.61	4.19	3.31	6.14	8.28	5.45	4.39	4.08	3.82	3.80	3.66	
11	4.58	4.33	4.02	3.26	6.16	8.46	5.20	4.41	4.07	3.86	3.70	3.62	
12	4.32	4.33	3.71	3.15	6.07	8.26	4.76	4.35	4.06	3.83	3.73	3.52	
13	4.33	4.33	3.41	3.11	5.97	7.75	4.49	4.29	4.06	3.83	3.71	3.53	
14	4.32	4.33	3.35	3.12	5.98	7.85	4.45	4.28	4.03	3.84	3.76	3.54	
15	4.32	4.32	3.32	3.12	5.97	7.81	4.42	4.28	4.02	3.86	3.75	3.56	
16	4.32	4.25	3.29	3.09	5.96	8.01	4.56	4.28	3.98	3.87	3.85	3.57	
17	4.32	4.23	3.27	3.07	5.99	8.21	4.50	4.28	3.91	3.88	3.92	3.54	
18	4.32	4.23	3.26	3.17	5.90	8.30	4.50	4.28	3.90	3.93	3.92	3.54	
19	4.66	4.23	3.27	3.28	5.66	8.30	4.47	4.27	3.90	3.91	3.92	3.57	
20	4.85	4.23	3.32	3.81	5.39	8.27	4.39	4.27	3.90	3.85	3.87	3.69	
21	5.06	4.26	3.39	4.77	5.12	7.85	4.38	4.27	3.92	3.83	3.82	3.65	
22	5.24	4.29	3.43	5.42	4.93	7.71	4.39	4.27	3.91	3.83	3.83	3.65	
23	5.20	4.33	3.43	5.92	5.01	7.75	4.33	4.27	3.94	3.80	3.84	3.68	
24	5.07	4.39	3.35	6.02	5.41	7.57	4.35	4.27	3.91	3.83	3.83	3.66	
25	4.97	4.42	3.28	5.94	6.06	7.05	4.85	4.27	3.94	3.83	3.78	3.65	
26	4.85	4.45	3.37	5.67	6.53	6.69	6.21	4.26	3.95	3.84	3.70	3.66	
27	4.72	4.45	3.43	5.32	6.92	6.30	6.19	4.26	3.91	3.84	3.74	3.67	
28	4.33	4.45	3.67	5.03	7.12	5.64	6.17	4.26	3.83	3.73	3.72	3.66	
29	4.32	4.45	4.69	4.95	7.37	4.72	6.30	4.26	3.86	3.65		3.64	
30	4.32	4.45	5.47	5.21	7.49	4.35	6.25	4.26	3.97	3.71		3.65	
31		4.48		5.04	7.64		6.10		3.94	3.69		3.65	
Mean	4.59	4.56	4.03	4.62	5.93	7.81	5.01	4.41	4.01	3.89	3.83	3.64	
Max	5.24	5.52	5.57	6.30	7.64	9.10	6.30	5.70	4.25	4.14	3.98	3.74	9.10
Min	4.32	4.23	3.26	3.07	4.93	4.35	4.32	4.26	3.83	3.65	3.70	3.52	3.07

Annual Max Momentary Gage Height 9.11 m. (MSL.) , at 12.00 Hours , on Sep 2 , 2018

Zero Gage at Bottom Elevation 0.00 m. (MSL.) , River Bed 1.99 m. (MSL.)

Left Bank Elevation 16.00 m. (MSL.) ,

Right Bank Elevation 15.84 m. (MSL.) , Drainage Are 118,510 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	128.00	131.00	162.00	282.60	196.00	909.20	128.00	280.00	121.00	98.40	80.10	80.80		
2	128.00	164.00	177.00	329.80	192.00	914.00	129.00	224.00	118.00	111.20	87.80	78.70		
3	128.00	193.00	192.00	359.50	196.00	914.00	131.00	195.00	116.00	111.20	87.80	80.10		
4	137.00	209.20	248.00	364.00	210.30	906.80	131.00	137.00	115.20	109.60	89.20	79.40		
5	153.00	222.80	263.10	306.00	246.80	897.20	190.00	136.00	113.60	110.40	93.60	77.40		
6	155.00	254.00	245.60	256.60	276.10	868.40	268.30	127.00	111.20	109.60	97.60	76.20		
7	162.00	256.60	190.00	189.00	290.40	752.20	269.60	126.00	109.60	107.20	98.40	77.40		
8	166.00	211.40	171.00	119.00	322.80	732.00	256.60	133.00	108.00	96.00	98.40	78.00		
9	167.00	196.00	146.00	67.20	329.80	724.00	250.40	135.00	106.40	87.80	90.60	77.40		
10	158.00	157.00	115.20	54.60	340.00	726.00	248.00	135.00	106.40	86.40	85.00	75.60		
11	154.00	129.00	101.60	52.00	343.00	763.20	218.00	137.00	105.60	89.20	78.00	73.20		
12	128.00	129.00	78.70	46.50	329.80	722.00	172.00	131.00	104.80	87.10	80.10	67.20		
13	129.00	129.00	60.60	44.50	315.80	620.00	145.00	125.00	104.80	87.10	78.70	67.80		
14	128.00	129.00	57.00	45.00	317.20	640.00	141.00	124.00	102.40	87.80	82.20	68.40		
15	128.00	128.00	55.20	45.00	315.80	632.00	138.00	124.00	101.60	89.20	81.50	69.60		
16	128.00	121.00	53.50	43.60	314.40	672.00	152.00	124.00	98.40	89.90	88.50	70.20		
17	128.00	119.00	52.50	42.80	318.60	712.00	146.00	124.00	92.80	90.60	93.60	68.40		
18	128.00	119.00	52.00	47.50	306.00	730.00	146.00	124.00	92.00	94.40	93.60	68.40		
19	162.00	119.00	52.50	53.00	274.80	730.00	143.00	123.00	92.00	92.80	93.60	70.20		
20	181.00	119.00	55.20	85.70	240.80	724.00	135.00	123.00	92.00	88.50	89.90	77.40		
21	202.60	122.00	59.40	173.00	209.20	640.00	134.00	123.00	93.60	87.10	86.40	75.00		
22	222.80	125.00	61.80	244.40	189.00	612.00	135.00	123.00	92.80	87.10	87.10	75.00		
23	218.00	129.00	61.80	308.80	197.10	620.00	129.00	123.00	95.20	85.00	87.80	76.80		
24	203.70	135.00	57.00	322.80	243.20	584.00	131.00	123.00	92.80	87.10	87.10	75.60		
25	193.00	138.00	53.00	311.60	328.40	486.50	181.00	123.00	95.20	87.10	83.60	75.00		
26	181.00	141.00	58.20	276.10	400.80	426.40	350.50	122.00	96.00	87.80	78.00	75.60		
27	168.00	141.00	61.80	232.40	464.40	364.00	347.50	122.00	92.80	87.80	80.80	76.20		
28	129.00	141.00	76.20	199.30	498.40	272.20	344.50	122.00	87.10	80.10	79.40	75.60		
29	128.00	141.00	165.00	191.00	544.00	168.00	364.00	122.00	89.20	75.00		74.40		
30	128.00	141.00	250.40	219.20	568.00	131.00	356.50	122.00	97.60	78.70		75.00		
31		144.00		200.40	598.00		334.00		95.20	77.40		75.00		
Total	4650.10	4734.00	3433.30	5512.90	9916.90	19593.10	6344.90	4112.00	3139.30	2844.60	2438.40	2311.00	69030.50	CMSDAY
Mean	155.00	152.71	114.44	177.84	319.90	653.10	204.67	137.07	101.27	91.76	87.09	74.55	189.12	CMS
Max	222.80	256.60	263.10	364.00	598.00	914.00	364.00	280.00	121.00	111.20	98.40	80.80	914.00	CMS
Min	128.00	119.00	52.00	42.80	189.00	131.00	128.00	122.00	87.10	75.00	78.00	67.20	42.80	CMS
Runoff	401.77	409.02	296.64	476.31	856.82	1692.84	548.20	355.28	271.24	245.77	210.68	199.67	5964.24	MCM

Momentary Peak 916.60 CMS. at 9.11 m. (MSL.) at 12.00 Hours , on Sep 2 , 2018

Runoff Yield 1.60 Liters/Second/Square KM. Momentary Peak Yield 7.73 Liters/Second/Square KM.

WATER YEAR : 2018

CHAO PHRAYA RIVER BASIN

Chao Phraya River at Ban Bang Nam Chieo, Sing Buri (C.45)

Lat 14 - 48 - 31 N Long 100 - 27 - 09 E

Location : on left bank at Ban Bang Nam Chieo

	Ban	Bang Nam Chieo	**Amphoe** Prom Buri	**Changwat**	Sing Buri
Drainge Area	Flood Plain				
Type of Gage	Staff gage.				
Zero Gage at Bottom	+0.000 m. (MSL.)				
Bench Mark	B.M.-H.D.				
Location BM	On left bank near the gage site			**Elevation**	+10.460 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.				
Basis of Mean Daily Gage Height	Arithmetic mean of 3 readings				
Period of Available Gage Records	2012 to date				
Rating Operation					
Period of Rating	2012 to date				
Rated by Flot	-				
Rated by Current Meter	2012 to date				
Stability of Channel Regimes	Fairly stable				
Overbank Flow Conditions	No overbank flow.				
General Description	Records good. Stage-discharge relation defined by 23 discharge measurements made in 2018.				

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

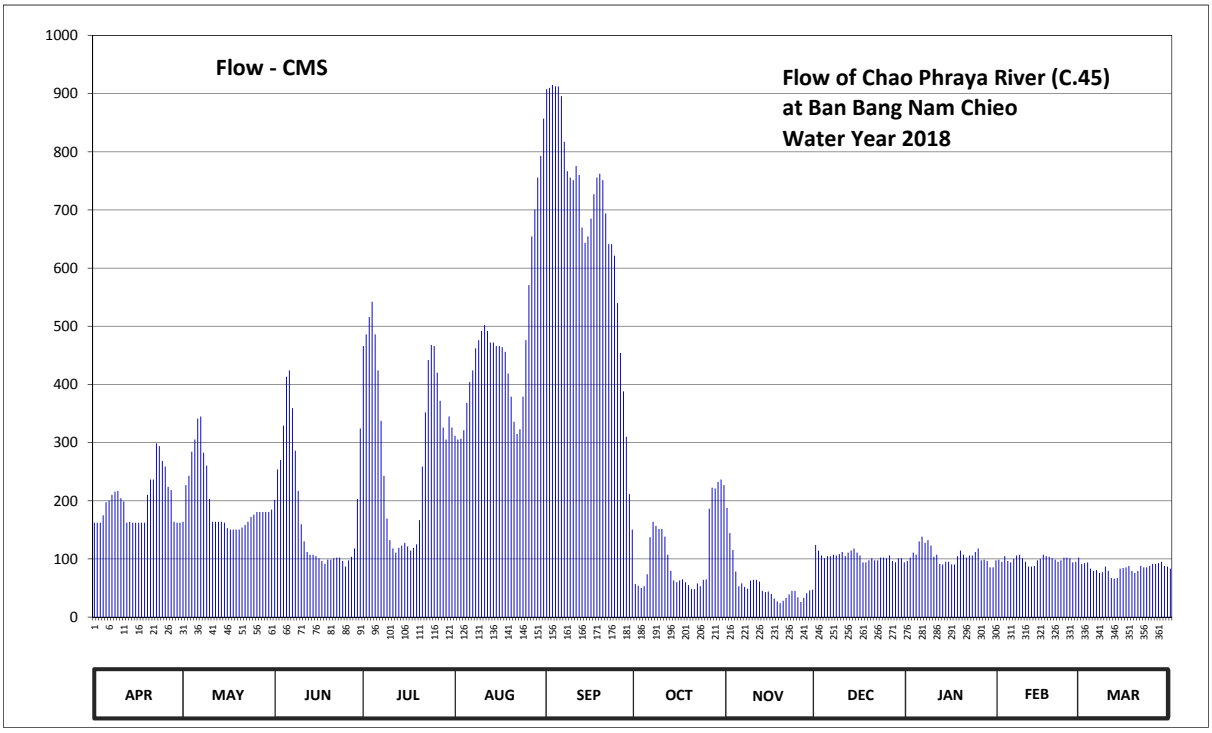
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	1.46	1.47	1.74	3.32	2.46	5.34	0.57	1.64	1.15	0.92	0.94	0.88	
2	1.46	1.92	2.10	3.42	2.42	5.35	0.54	1.32	1.07	0.97	0.91	0.89	
3	1.46	2.03	2.20	3.57	2.43	5.37	0.50	1.08	1.00	1.04	0.99	0.90	
4	1.55	2.29	2.57	3.70	2.52	5.36	0.53	0.77	0.96	1.01	0.92	0.81	
5	1.71	2.42	3.04	3.42	2.79	5.36	0.73	0.53	0.99	1.20	0.90	0.78	
6	1.73	2.64	3.10	3.10	2.99	5.29	1.26	0.58	0.99	1.27	0.95	0.79	
7	1.80	2.66	2.74	2.62	3.10	4.96	1.47	0.52	1.01	1.18	1.00	0.75	
8	1.84	2.28	2.30	2.03	3.30	4.73	1.42	0.49	1.00	1.22	1.01	0.76	
9	1.85	2.14	1.85	1.51	3.37	4.68	1.38	0.63	1.02	1.14	0.96	0.84	
10	1.76	1.75	1.44	1.22	3.45	4.66	1.38	0.64	1.05	0.98	0.91	0.78	
11	1.72	1.47	1.20	1.10	3.50	4.77	1.27	0.64	0.99	1.01	0.84	0.67	
12	1.46	1.47	1.05	1.04	3.45	4.70	1.01	0.61	1.04	0.88	0.84	0.66	
13	1.47	1.47	1.01	1.11	3.35	4.29	0.78	0.45	1.07	0.87	0.85	0.67	
14	1.46	1.47	1.01	1.14	3.35	4.17	0.63	0.43	1.10	0.91	0.93	0.81	
15	1.46	1.46	0.99	1.18	3.32	4.22	0.60	0.44	1.04	0.91	0.95	0.82	
16	1.46	1.39	0.96	1.13	3.32	4.36	0.63	0.40	1.00	0.87	1.01	0.83	
17	1.46	1.37	0.92	1.07	3.31	4.55	0.65	0.32	0.90	0.87	0.99	0.85	
18	1.46	1.37	0.88	1.11	3.27	4.68	0.60	0.27	0.90	0.99	0.98	0.78	
19	1.80	1.37	0.94	1.16	3.07	4.71	0.55	0.24	0.93	1.07	0.96	0.75	
20	1.99	1.37	0.94	1.49	2.85	4.66	0.48	0.28	0.96	1.01	0.94	0.78	
21	1.99	1.40	0.96	2.13	2.61	4.40	0.48	0.33	0.93	0.97	0.91	0.85	
22	2.38	1.43	0.97	2.70	2.48	4.16	0.58	0.39	0.93	1.00	0.93	0.83	
23	2.35	1.47	0.97	3.20	2.53	4.16	0.53	0.45	0.97	1.00	0.97	0.83	
24	2.19	1.53	0.92	3.33	2.85	4.07	0.64	0.45	0.97	1.05	0.97	0.85	
25	2.13	1.56	0.84	3.32	3.37	3.69	0.65	0.34	0.96	1.10	0.96	0.88	
26	1.90	1.59	0.93	3.08	3.84	3.26	1.63	0.26	1.00	0.93	0.90	0.88	
27	1.86	1.59	0.98	2.81	4.22	2.90	1.89	0.33	0.92	0.94	0.91	0.89	
28	1.47	1.59	1.10	2.55	4.43	2.45	1.88	0.41	0.90	0.92	0.97	0.91	
29	1.46	1.59	1.75	2.42	4.68	1.81	1.96	0.46	0.96	0.83		0.85	
30	1.46	1.59	2.54	2.66	4.85	1.37	1.99	0.47	0.96	0.83		0.84	
31		1.62		2.55	5.13		1.92		0.90	0.93		0.81	
Mean	1.72	1.70	1.50	2.26	3.31	4.28	1.00	0.54	0.99	0.99	0.94	0.81	
Max	2.38	2.66	3.10	3.70	5.13	5.37	1.99	1.64	1.15	1.27	1.01	0.91	5.37
Min	1.46	1.37	0.84	1.04	2.42	1.37	0.48	0.24	0.90	0.83	0.84	0.66	0.24

Annual Max Momentary Gage Height 5.38 m. (MSL.) , at 06.00 Hours , on Sep 3 , 2018

Zero Gage at Bottom Elevation 0.00 m. (MSL.) , River Bed -2.46 m. (MSL.)

Left Bank Elevation 10.87 m. (MSL.) ,

Right Bank Elevation 11.01 m. (MSL.) , Drainage Area Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	162.40	163.80	201.60	466.00	311.60	907.60	57.00	187.60	124.00	96.40	98.80	91.60		
2	162.40	226.80	254.00	486.00	305.20	910.00	54.00	144.40	114.40	102.40	95.20	92.80		
3	162.40	242.80	270.00	516.00	306.80	914.80	50.00	115.60	106.00	110.80	104.80	94.00		
4	175.00	284.40	329.20	542.00	321.20	912.40	53.00	78.40	101.20	107.20	96.40	83.20		
5	197.40	305.20	413.20	486.00	368.20	912.40	73.60	53.00	104.80	130.00	94.00	79.60		
6	200.20	341.20	424.00	424.00	404.20	895.60	137.20	58.00	104.80	138.40	100.00	80.80		
7	210.00	344.80	359.20	337.60	424.00	817.20	163.80	52.00	107.20	127.60	106.00	76.00		
8	215.60	282.80	286.00	242.80	462.00	766.60	156.80	49.00	106.00	132.40	107.20	77.20		
9	217.00	260.40	217.00	169.40	476.00	755.60	151.60	63.00	108.40	122.80	101.20	86.80		
10	204.40	203.00	159.60	132.40	492.00	751.20	151.60	64.00	112.00	103.60	95.20	79.60		
11	198.80	163.80	130.00	118.00	502.00	775.40	138.40	64.00	104.80	107.20	86.80	67.00		
12	162.40	163.80	112.00	110.80	492.00	760.00	107.20	61.00	110.80	91.60	86.80	66.00		
13	163.80	163.80	107.20	119.20	472.00	669.80	79.60	45.00	114.40	90.40	88.00	67.00		
14	162.40	163.80	107.20	122.80	472.00	643.40	63.00	43.00	118.00	95.20	97.60	83.20		
15	162.40	162.40	104.80	127.60	466.00	654.40	60.00	44.00	110.80	95.20	100.00	84.40		
16	162.40	152.80	101.20	121.60	466.00	685.20	63.00	40.00	106.00	90.40	107.20	85.60		
17	162.40	150.40	96.40	114.40	464.00	727.00	65.00	32.00	94.00	90.40	104.80	88.00		
18	162.40	150.40	91.60	119.20	456.00	755.60	60.00	27.00	94.00	104.80	103.60	79.60		
19	210.00	150.40	98.80	125.20	418.60	762.20	55.00	24.00	97.60	114.40	101.20	76.00		
20	236.60	150.40	98.80	166.60	379.00	751.20	48.00	28.00	101.20	107.20	98.80	79.60		
21	236.60	154.00	101.20	258.80	335.80	694.00	48.00	33.00	97.60	102.40	95.20	88.00		
22	298.80	158.20	102.40	352.00	314.80	641.20	58.00	39.00	97.60	106.00	97.60	85.60		
23	294.00	163.80	102.40	442.00	322.80	641.20	53.00	45.00	102.40	106.00	102.40	85.60		
24	268.40	172.20	96.40	468.00	379.00	621.40	64.00	45.00	102.40	112.00	102.40	88.00		
25	258.80	176.40	86.80	466.00	476.00	540.00	65.00	34.00	101.20	118.00	101.20	91.60		
26	224.00	180.60	97.60	420.40	570.80	454.00	186.20	26.00	106.00	97.60	94.00	91.60		
27	218.40	180.60	103.60	371.80	654.40	388.00	222.60	33.00	96.40	98.80	95.20	92.80		
28	163.80	180.60	118.00	326.00	700.60	310.00	221.20	41.00	94.00	96.40	102.40	95.20		
29	162.40	180.60	203.00	305.20	755.60	211.40	232.40	46.00	101.20	85.60		88.00		
30	162.40	180.60	324.40	344.80	793.00	150.40	236.60	47.00	101.20	85.60		86.80		
31		184.80		326.00	857.20		226.80		94.00	97.60		83.20		
Total	5978.00	6139.60	5297.60	9128.60	14618.80	20379.20	3401.60	1662.00	3234.40	3264.40	2764.00	2594.40	78462.60	CMSDAY
Mean	199.27	198.05	176.59	294.47	471.57	679.31	109.73	55.40	104.34	105.30	98.71	83.69	214.97	CMS
Max	298.80	344.80	424.00	542.00	857.20	914.80	236.60	187.60	124.00	138.40	107.20	95.20	914.80	CMS
Min	162.40	150.40	86.80	110.80	305.20	150.40	48.00	24.00	94.00	85.60	86.80	66.00	24.00	CMS
Runoff	516.50	530.46	457.71	788.71	1263.06	1760.76	293.90	143.60	279.45	282.04	238.81	224.16	6779.17	MCM

Momentary Peak 917.20 CMS. at 5.38 m. (MSL.) at 06.00 Hours , on Sep 3 , 2018

Runoff Yield ***** Liters/Second/Square KM. Momentary Peak Yield ***** Liters/Second/Square KM.

WATER YEAR : 2018

CHAO PHRAYA RIVER BASIN

Chao Phraya River at Ban Chaiyo, Ang Thong (C.46)

Lat 14 - 42 - 59 N Long 100 - 26 - 22 E

Location : on right bank at Ban Chaiyo

	Ban Chaiyo	**Amphoe** Chaiyo	**Changwat** Ang Thong
Drainge Area	Flood Plain		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank near the gage site		**Elevation** +10.660 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	2012 to date		
Rating Operation			
Period of Rating	2012 to date		
Rated by Flot	-		
Rated by Current Meter	2012 to date		
Stability of Channel Regimes	Fairly stable		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 23 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

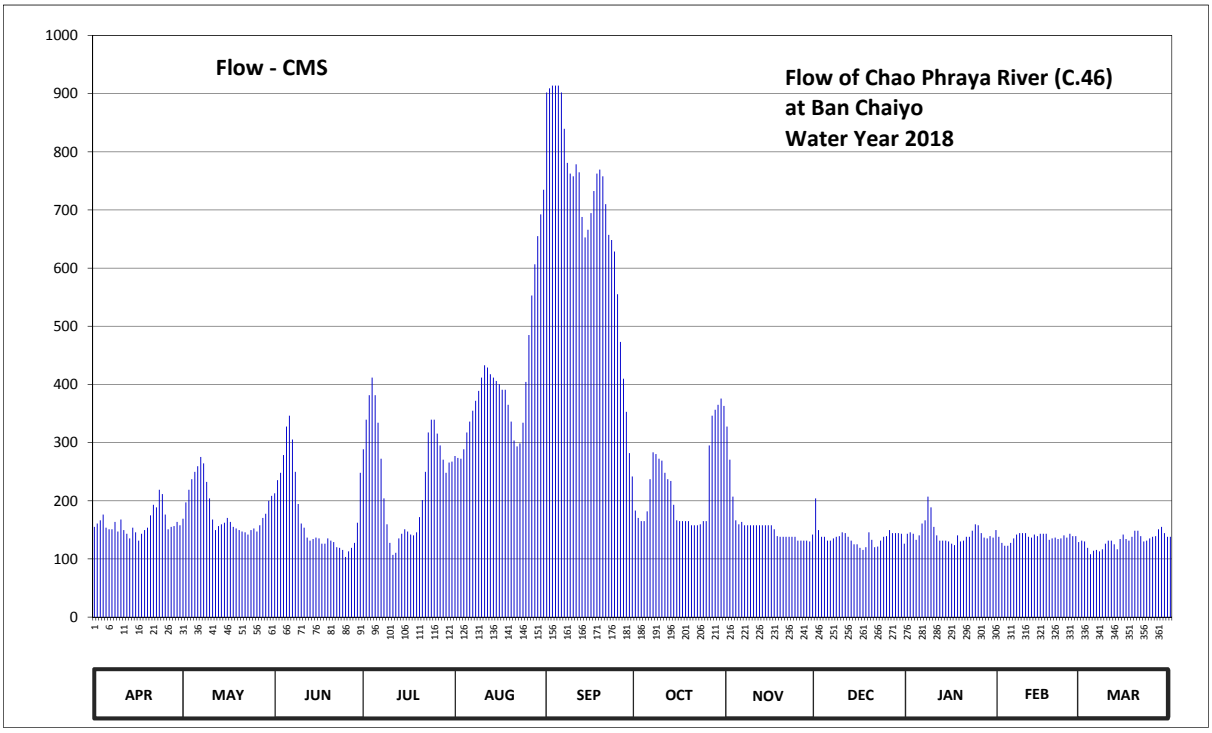
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.93	1.03	1.34	1.82	1.75	4.77	1.13	2.05	1.28	0.84	0.80	0.75	
2	0.97	1.23	1.49	2.12	1.73	4.80	1.04	1.71	0.89	0.86	0.72	0.74	
3	1.01	1.38	1.57	2.36	1.72	4.82	1.00	1.30	0.80	0.84	0.68	0.65	
4	1.08	1.50	1.76	2.52	1.82	4.82	1.00	1.01	0.80	0.76	0.68	0.56	
5	0.92	1.58	2.05	2.36	1.99	4.82	1.12	0.96	0.75	0.82	0.72	0.61	
6	0.90	1.64	2.16	2.09	2.10	4.77	1.50	0.99	0.75	0.97	0.78	0.62	
7	0.90	1.74	1.92	1.72	2.21	4.51	1.79	0.95	0.78	1.01	0.83	0.60	
8	0.99	1.67	1.58	1.28	2.31	4.26	1.77	0.95	0.80	1.30	0.85	0.63	
9	0.87	1.47	1.21	0.96	2.40	4.18	1.72	0.95	0.81	1.17	0.85	0.71	
10	1.02	1.28	0.97	0.72	2.52	4.16	1.70	0.95	0.86	0.93	0.85	0.75	
11	0.89	1.02	0.92	0.55	2.63	4.25	1.57	0.95	0.85	0.82	0.80	0.75	
12	0.84	0.89	0.79	0.58	2.61	4.19	1.50	0.95	0.80	0.75	0.79	0.70	
13	0.78	0.94	0.75	0.78	2.55	3.85	1.48	0.95	0.75	0.75	0.83	0.63	
14	0.92	0.96	0.77	0.84	2.52	3.69	1.20	0.95	0.70	0.75	0.81	0.77	
15	0.86	0.98	0.79	0.90	2.49	3.75	1.01	0.95	0.70	0.74	0.84	0.83	
16	0.75	1.04	0.78	0.87	2.46	3.88	1.00	0.95	0.65	0.71	0.84	0.77	
17	0.84	0.99	0.71	0.83	2.41	4.05	1.00	0.90	0.62	0.69	0.84	0.75	
18	0.89	0.93	0.71	0.82	2.41	4.18	1.00	0.81	0.66	0.82	0.76	0.80	
19	0.92	0.91	0.78	0.86	2.27	4.21	1.00	0.80	0.86	0.74	0.78	0.88	
20	1.07	0.89	0.75	1.05	2.10	4.16	0.95	0.80	0.76	0.75	0.79	0.88	
21	1.20	0.87	0.73	1.26	1.91	3.95	0.95	0.80	0.66	0.80	0.77	0.81	
22	1.17	0.86	0.66	1.58	1.85	3.71	0.95	0.80	0.67	0.80	0.78	0.74	
23	1.38	0.83	0.65	1.99	1.88	3.67	0.96	0.80	0.75	0.88	0.82	0.75	
24	1.33	0.89	0.62	2.12	2.09	3.58	1.00	0.80	0.80	0.96	0.79	0.78	
25	1.08	0.91	0.52	2.12	2.48	3.24	1.00	0.75	0.81	0.95	0.84	0.80	
26	0.90	0.87	0.60	1.98	2.89	2.83	1.86	0.75	0.89	0.85	0.81	0.81	
27	0.93	0.95	0.65	1.86	3.23	2.51	2.16	0.75	0.85	0.79	0.81	0.90	
28	0.94	1.04	0.72	1.71	3.48	2.20	2.22	0.75	0.85	0.78	0.73	0.93	
29	0.99	1.09	0.98	1.57	3.70	1.78	2.27	0.74	0.85	0.81		0.85	
30	0.95	1.25	1.57	1.68	3.87	1.53	2.33	0.83	0.84	0.79		0.80	
31		1.31		1.69	4.06		2.26		0.71	0.89		0.80	
Mean	0.97	1.13	1.05	1.47	2.47	3.84	1.40	0.95	0.79	0.85	0.79	0.75	
Max	1.38	1.74	2.16	2.52	4.06	4.82	2.33	2.05	1.28	1.30	0.85	0.93	4.82
Min	0.75	0.83	0.52	0.55	1.72	1.53	0.95	0.74	0.62	0.69	0.68	0.56	0.52

Annual Max Momentary Gage Height 4.85 m. (MSL.) , at 21.00 Hours , on Sep 3 , 2018

Zero Gage at Bottom Elevation 0.00 m. (MSL.) , River Bed -3.95 m. (MSL.)

Left Bank Elevation 10.66 m. (MSL.) ,

Right Bank Elevation 10.37 m. (MSL.) , Drainage Area Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	155.20	169.20	213.00	288.40	277.00	901.80	183.20	327.50	204.20	143.20	138.00	131.50		
2	160.80	197.20	235.50	339.40	273.80	909.00	170.60	270.60	149.70	145.80	127.60	130.20		
3	166.40	219.00	248.20	381.40	272.20	913.80	165.00	207.00	138.00	143.20	122.60	119.00		
4	176.20	237.00	278.60	411.80	288.40	913.80	165.00	166.40	138.00	132.80	122.60	108.20		
5	153.80	249.80	327.50	381.40	317.30	913.80	181.80	159.40	131.50	140.60	127.60	114.20		
6	151.00	259.40	346.20	334.30	336.00	901.80	237.00	163.60	131.50	160.80	135.40	115.40		
7	151.00	275.40	305.40	272.20	354.70	839.40	283.40	158.00	135.40	166.40	141.90	113.00		
8	163.60	264.20	249.80	204.20	371.90	780.80	280.20	158.00	138.00	207.00	144.50	116.60		
9	147.10	232.50	194.40	159.40	389.00	762.40	272.20	158.00	139.30	188.80	144.50	126.30		
10	167.80	204.20	160.80	127.60	411.80	757.80	269.00	158.00	145.80	155.20	144.50	131.50		
11	149.70	167.80	153.80	107.00	433.00	778.50	248.20	158.00	144.50	140.60	138.00	131.50		
12	143.20	149.70	136.70	110.60	429.00	764.70	237.00	158.00	138.00	131.50	136.70	125.00		
13	135.40	156.60	131.50	135.40	417.50	688.00	234.00	158.00	131.50	131.50	141.90	116.60		
14	153.80	159.40	134.10	143.20	411.80	652.80	193.00	158.00	125.00	131.50	139.30	134.10		
15	145.80	162.20	136.70	151.00	406.10	666.00	166.40	158.00	125.00	130.20	143.20	141.90		
16	131.50	170.60	135.40	147.10	400.40	694.60	165.00	158.00	119.00	126.30	143.20	134.10		
17	143.20	163.60	126.30	141.90	390.90	732.50	165.00	151.00	115.40	123.80	143.20	131.50		
18	149.70	155.20	126.30	140.60	390.90	762.40	165.00	139.30	120.20	140.60	132.80	138.00		
19	153.80	152.40	135.40	145.80	364.90	769.30	165.00	138.00	145.80	130.20	135.40	148.40		
20	174.80	149.70	131.50	172.00	336.00	757.80	158.00	138.00	132.80	131.50	136.70	148.40		
21	193.00	147.10	128.90	201.40	303.70	710.00	158.00	138.00	120.20	138.00	134.10	139.30		
22	188.80	145.80	120.20	249.80	293.50	657.20	158.00	138.00	121.40	138.00	135.40	130.20		
23	219.00	141.90	119.00	317.30	298.60	648.40	159.40	138.00	131.50	148.40	140.60	131.50		
24	211.50	149.70	115.40	339.40	334.30	628.60	165.00	138.00	138.00	159.40	136.70	135.40		
25	176.20	152.40	103.40	339.40	404.20	555.00	165.00	131.50	139.30	158.00	143.20	138.00		
26	151.00	147.10	113.00	315.60	485.00	473.00	295.20	131.50	149.70	144.50	139.30	139.30		
27	155.20	158.00	119.00	295.20	553.00	409.90	346.20	131.50	144.50	136.70	139.30	151.00		
28	156.60	170.60	127.60	270.60	606.60	353.00	356.40	131.50	144.50	135.40	128.90	155.20		
29	163.60	177.60	162.20	248.20	655.00	281.80	364.90	130.20	144.50	139.30		144.50		
30	158.00	200.00	248.20	265.80	692.40	241.80	375.70	141.90	143.20	136.70		138.00		
31		208.50		267.40	734.80		363.20		126.30	149.70		138.00		
Total	4846.70	5693.80	5264.00	7404.80	12633.70	20819.70	7011.00	4790.90	4251.70	4485.60	3837.10	4095.80	85134.80	CMSDAY
Mean	161.56	183.67	175.47	238.86	407.54	693.99	226.16	159.70	137.15	144.70	137.04	132.12	233.25	CMS
Max	219.00	275.40	346.20	411.80	734.80	913.80	375.70	327.50	204.20	207.00	144.50	155.20	913.80	CMS
Min	131.50	141.90	103.40	107.00	272.20	241.80	158.00	130.20	115.40	123.80	122.60	108.20	103.40	CMS
Runoff	418.75	491.94	454.81	639.77	1091.55	1798.82	605.75	413.93	367.35	387.56	331.53	353.88	7355.65	MCM

Momentary Peak 921.00 CMS. at 4.85 m. (MSL.) at 21.00 Hours , on Sep 3 , 2018

Runoff Yield ***** Liters/Second/Square KM. Momentary Peak Yield ***** Liters/Second/Square KM.

WATER YEAR : 2018

CHAO PHRAYA RIVER BASIN

Chao Phraya River at Ban Pa Mok, Ang Thong (C.47)

Lat 14 - 30 - 54 N Long 100 - 27 - 59 E

Location : on right bank at Ban Pa Mok

	Ban Pa Mok	**Amphoe** Pa Mok	**Changwat** Ang Thong
Drainge Area	Flood Plain		
Type of Gage	Staff gage		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank near the gage site		**Elevation** +10.850 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic mean of 3 readings		
Period of Available Gage Records	2012 to date		
Rating Operation			
Period of Rating	2012 to date		
Rated by Flot	-		
Rated by Current Meter	2012 to date		
Stability of Channel Regimes	Fairly stable		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 30 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

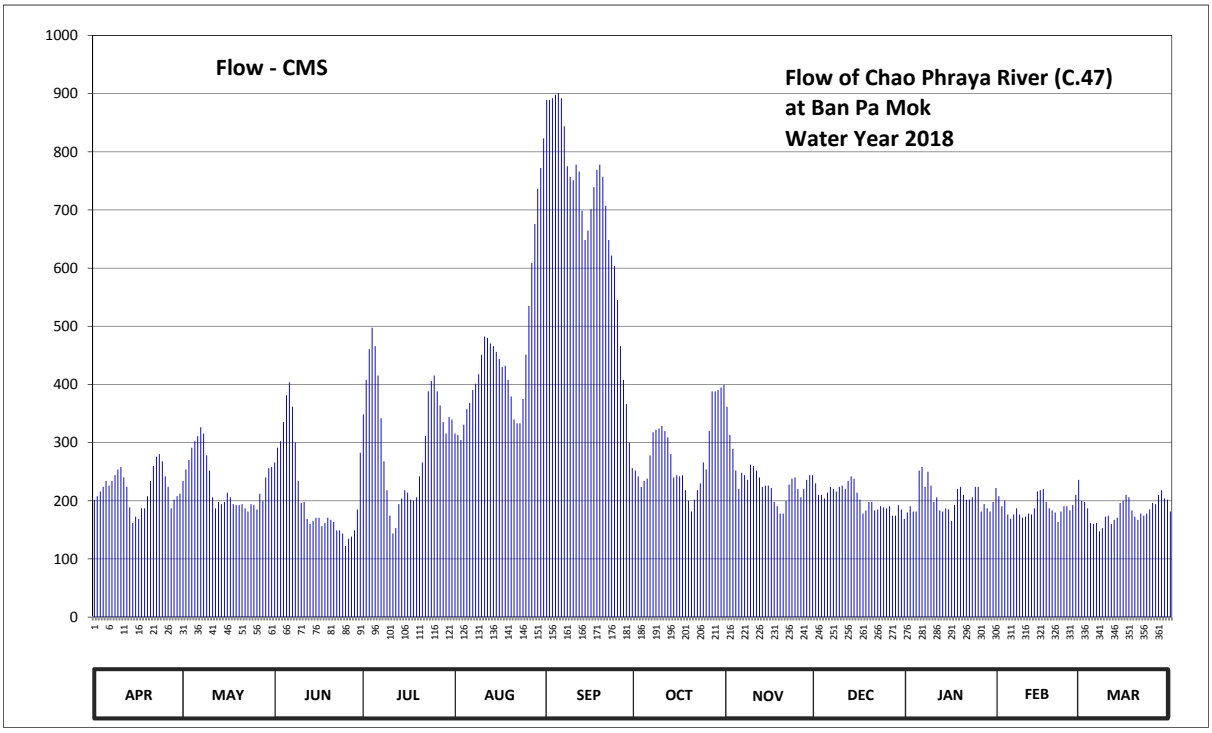
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	1.23	1.39	1.55	1.93	1.78	3.98	1.48	1.99	1.37	1.11	1.26	1.22	
2	1.26	1.49	1.67	2.20	1.77	3.98	1.43	1.77	1.27	1.17	1.17	1.21	
3	1.30	1.57	1.72	2.42	1.73	3.99	1.34	1.66	1.27	1.12	1.22	1.15	
4	1.34	1.67	1.87	2.57	1.85	4.01	1.39	1.48	1.24	1.12	1.09	1.01	
5	1.39	1.72	2.08	2.44	1.97	4.02	1.41	1.32	1.29	1.48	1.05	1.00	
6	1.35	1.76	2.18	2.23	2.02	3.99	1.61	1.46	1.34	1.51	1.09	1.01	
7	1.39	1.83	1.99	1.90	2.12	3.83	1.79	1.44	1.32	1.34	1.15	0.93	
8	1.44	1.78	1.71	1.56	2.17	3.60	1.81	1.40	1.30	1.47	1.09	0.96	
9	1.49	1.61	1.39	1.31	2.24	3.54	1.82	1.53	1.34	1.35	1.06	1.07	
10	1.51	1.48	1.20	1.08	2.38	3.52	1.84	1.52	1.35	1.21	1.07	1.08	
11	1.42	1.25	1.21	0.91	2.51	3.61	1.80	1.48	1.32	1.25	1.10	1.00	
12	1.34	1.15	1.05	0.96	2.50	3.57	1.75	1.42	1.39	1.13	1.09	1.04	
13	1.16	1.21	1.00	1.19	2.46	3.34	1.62	1.34	1.43	1.12	1.15	1.06	
14	1.01	1.19	1.03	1.24	2.44	3.16	1.42	1.35	1.41	1.15	1.30	1.20	
15	1.07	1.21	1.06	1.31	2.40	3.22	1.44	1.35	1.29	1.14	1.31	1.22	
16	1.05	1.29	1.06	1.29	2.35	3.35	1.43	1.33	1.23	1.03	1.32	1.27	
17	1.15	1.25	0.98	1.23	2.29	3.48	1.44	1.21	1.10	1.18	1.21	1.25	
18	1.15	1.19	1.01	1.22	2.30	3.58	1.31	1.17	1.13	1.32	1.15	1.13	
19	1.26	1.18	1.06	1.25	2.20	3.61	1.22	1.10	1.21	1.34	1.13	1.07	
20	1.39	1.18	1.04	1.43	2.07	3.54	1.12	1.10	1.21	1.27	1.11	1.04	
21	1.52	1.19	1.02	1.55	1.89	3.37	1.23	1.22	1.13	1.23	1.02	1.10	
22	1.60	1.15	0.94	1.76	1.86	3.16	1.31	1.36	1.14	1.23	1.12	1.08	
23	1.62	1.12	0.94	2.11	1.86	3.06	1.37	1.41	1.17	1.25	1.17	1.10	
24	1.56	1.19	0.91	2.19	2.05	2.99	1.55	1.42	1.16	1.34	1.17	1.14	
25	1.43	1.18	0.79	2.23	2.38	2.76	1.49	1.32	1.15	1.34	1.13	1.20	
26	1.34	1.14	0.86	2.11	2.72	2.44	1.80	1.25	1.17	1.12	1.18	1.19	
27	1.15	1.28	0.88	2.00	3.01	2.20	2.11	1.32	1.08	1.19	1.27	1.27	
28	1.23	1.22	0.94	1.87	3.26	2.01	2.11	1.40	1.08	1.15	1.40	1.31	
29	1.26	1.42	1.14	1.78	3.47	1.71	2.12	1.44	1.18	1.12		1.24	
30	1.28	1.50	1.63	1.91	3.59	1.50	2.14	1.44	1.14	1.21		1.23	
31		1.51		1.89	3.76		2.16		1.05	1.33		1.12	
Mean	1.32	1.36	1.26	1.71	2.37	3.27	1.61	1.40	1.23	1.24	1.16	1.13	
Max	1.62	1.83	2.18	2.57	3.76	4.02	2.16	1.99	1.43	1.51	1.40	1.31	4.02
Min	1.01	1.12	0.79	0.91	1.73	1.50	1.12	1.10	1.05	1.03	1.02	0.93	0.79

Annual Max Momentary Gage Height 4.04 m. (MSL.) , at 06.00 Hours , on Sep 5 , 2018

Zero Gage at Bottom Elevation 0.00 m. (MSL.) , River Bed -11.11 m. (MSL.)

Left Bank Elevation 10.03 m. (MSL.) ,

Right Bank Elevation 10.85 m. (MSL.) , Drainage Area Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	202.00	234.00	266.00	348.60	315.60	889.00	252.00	361.80	230.00	179.80	208.00	200.00		
2	208.00	254.00	291.40	408.00	313.40	889.00	242.00	313.40	210.00	190.60	190.60	198.00		
3	216.00	270.00	302.40	460.80	304.60	892.00	224.00	289.20	210.00	181.60	200.00	187.00		
4	224.00	291.40	335.40	497.50	331.00	898.00	234.00	252.00	204.00	181.60	176.20	161.80		
5	234.00	302.40	381.60	465.60	357.40	901.00	238.00	220.00	214.00	252.00	169.00	160.00		
6	226.00	311.20	403.60	415.20	368.40	892.00	278.20	248.00	224.00	258.00	176.20	161.80		
7	234.00	326.60	361.80	342.00	390.40	844.00	317.80	244.00	220.00	224.00	187.00	147.40		
8	244.00	315.60	300.20	268.00	401.40	775.00	322.20	236.00	216.00	250.00	176.20	152.80		
9	254.00	278.20	234.00	218.00	417.60	757.00	324.40	262.00	224.00	226.00	170.80	172.60		
10	258.00	252.00	196.00	174.40	451.20	751.00	328.80	260.00	226.00	198.00	172.60	174.40		
11	240.00	206.00	198.00	143.80	482.50	778.00	320.00	252.00	220.00	206.00	178.00	160.00		
12	224.00	187.00	169.00	152.80	480.00	766.00	309.00	240.00	234.00	183.40	176.20	167.20		
13	188.80	198.00	160.00	194.20	470.40	698.60	280.40	224.00	242.00	181.60	187.00	170.80		
14	161.80	194.20	165.40	204.00	465.60	648.20	240.00	226.00	238.00	187.00	216.00	196.00		
15	172.60	198.00	170.80	218.00	456.00	664.60	244.00	226.00	214.00	185.20	218.00	200.00		
16	169.00	214.00	170.80	214.00	444.00	701.50	242.00	222.00	202.00	165.40	220.00	210.00		
17	187.00	206.00	156.40	202.00	429.60	739.20	244.00	198.00	178.00	192.40	198.00	206.00		
18	187.00	194.20	161.80	200.00	432.00	769.00	218.00	190.60	183.40	220.00	187.00	183.40		
19	208.00	192.40	170.80	206.00	408.00	778.00	200.00	178.00	198.00	224.00	183.40	172.60		
20	234.00	192.40	167.20	242.00	379.40	757.00	181.60	178.00	198.00	210.00	179.80	167.20		
21	260.00	194.20	163.60	266.00	339.80	707.30	202.00	200.00	183.40	202.00	163.60	178.00		
22	276.00	187.00	149.20	311.20	333.20	648.20	218.00	228.00	185.20	202.00	181.60	174.40		
23	280.40	181.60	149.20	388.20	333.20	621.60	230.00	238.00	190.60	206.00	190.60	178.00		
24	268.00	194.20	143.80	405.80	375.00	603.40	266.00	240.00	188.80	224.00	190.60	185.20		
25	242.00	192.40	122.40	415.20	451.20	545.00	254.00	220.00	187.00	224.00	183.40	196.00		
26	224.00	185.20	134.80	388.20	535.00	465.60	320.00	206.00	190.60	181.60	192.40	194.20		
27	187.00	212.00	138.40	364.00	608.60	408.00	388.20	220.00	174.40	194.20	210.00	210.00		
28	202.00	200.00	149.20	335.40	675.80	366.20	388.20	236.00	174.40	187.00	236.00	218.00		
29	208.00	240.00	185.20	315.60	736.30	300.20	390.40	244.00	192.40	181.60		204.00		
30	212.00	256.00	282.60	344.20	772.00	256.00	394.80	244.00	185.20	198.00		202.00		
31		258.00		339.80	823.00		399.20		169.00	222.00		181.60		
Total	6631.60	7118.20	6381.00	9448.50	14081.60	20709.60	8691.20	7097.00	6306.40	6319.00	5318.20	5670.40	103772.70	CMSDAY
Mean	221.05	229.62	212.70	304.79	454.25	690.32	280.36	236.57	203.43	203.84	189.94	182.92	284.31	CMS
Max	280.40	326.60	403.60	497.50	823.00	901.00	399.20	361.80	242.00	258.00	236.00	218.00	901.00	CMS
Min	161.80	181.60	122.40	143.80	304.60	256.00	181.60	178.00	169.00	165.40	163.60	147.40	122.40	CMS
Runoff	572.97	615.01	551.32	816.35	1216.65	1789.31	750.92	613.18	544.87	545.96	459.49	489.92	8965.96	MCM

Momentary Peak 907.00 CMS. at 4.04 m. (MSL.) at 06.00 Hours , on Sep 5 , 2018

Runoff Yield ***** Liters/Second/Square KM. Momentary Peak Yield ***** Liters/Second/Square KM.

WATER YEAR : 2018

CHAO PHRAYA RIVER BASIN

Huai Khun Kaeo at Ban Kud Jok, Chai Nat (C.51)

Lat 15 - 17 - 22 N Long 99 - 54 - 07 E

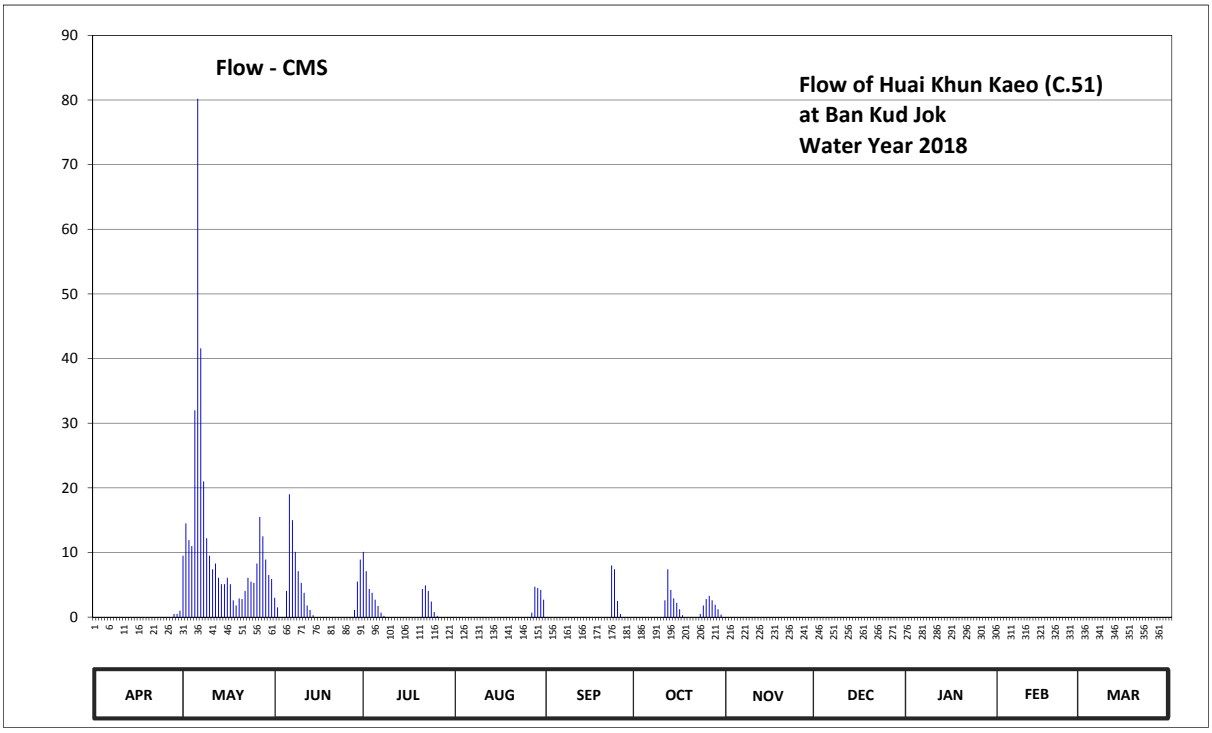
Location : on left bank at the bridge

	Ban	Kud Jok	**Amphoe** Nong Mamong	**Changwat**	Chai Nat
Drainge Area	-	sq.km.			
Type of Gage	Water - stage recorder				
Zero Gage at Bottom	+0.000	m. (MSL.)			
Bench Mark	B.M.-H.D.				
Location BM	On left bank at the bridge			**Elevation**	+37.426 m. (MSL.)
Gage Reading Frequency	Recording				
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings				
Period of Available Gage Records	2008 to date				
Rating Operation					
Period of Rating	2008 to date				
Rated by Flot	-				
Rated by Current Meter	2008 to date				
Stability of Channel Regimes	Fairly stable.				
Overbank Flow Conditions	No overbank flow.				
General Description	Records good. Stage-discharge relation defined by 2 discharge measurements made in 2018.				

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	31.42	32.20	31.90	32.22	31.33	31.59	31.07	31.52	30.81	29.86	29.72	29.54	
2	31.39	32.34	31.75	32.12	31.43	31.30	31.08	31.43	30.73	29.86	29.71	29.54	
3	31.36	32.28	31.49	31.99	31.43	31.21	31.19	31.36	30.70	29.85	29.70	29.54	
4	31.33	32.25	31.43	31.95	31.37	31.17	31.21	31.29	30.68	29.84	29.69	29.54	
5	31.31	32.64	31.97	31.87	31.33	31.31	31.14	31.24	30.64	29.83	29.68	29.54	
6	31.29	33.12	32.43	31.77	31.30	31.56	30.99	31.23	30.59	29.82	29.67	29.54	
7	31.25	32.76	32.35	31.67	31.29	31.49	30.93	31.22	30.54	29.81	29.66	29.54	
8	31.22	32.47	32.22	31.62	31.29	31.42	31.11	31.19	30.49	29.80	29.65	29.54	
9	31.19	32.29	32.12	31.48	31.27	31.36	31.45	31.14	30.45	29.79	29.64	29.54	
10	31.18	32.20	32.04	31.39	31.25	31.27	31.58	31.07	30.38	29.78	29.63	29.54	
11	31.19	32.13	31.95	31.39	31.24	31.19	31.86	31.00	30.33	29.78	29.63	29.54	
12	31.28	32.16	31.78	31.35	31.21	31.12	32.13	31.01	30.31	29.77	29.62	29.54	
13	31.34	32.08	31.71	31.31	31.20	31.03	31.98	31.13	30.26	29.76	29.61	29.54	
14	31.43	32.03	31.63	31.30	31.16	30.99	31.89	31.35	30.18	29.75	29.60	29.54	
15	31.50	32.03	31.59	31.24	31.12	31.03	31.82	31.48	30.11	29.74	29.59	29.54	
16	31.50	32.08	31.48	31.19	31.07	31.10	31.72	31.55	30.05	29.73	29.58	29.54	
17	31.50	32.03	31.43	31.15	31.04	31.18	31.63	31.51	30.00	29.73	29.57	29.54	
18	31.50	31.86	31.42	31.12	31.05	31.26	31.56	31.43	29.99	29.73	29.56	29.54	
19	31.50	31.78	31.39	31.23	31.05	31.24	31.47	31.36	29.98	29.73	29.55	29.54	
20	31.50	31.89	31.32	31.48	31.07	31.19	31.39	31.29	29.97	29.73	29.54	29.54	
21	31.51	31.88	31.26	31.99	31.09	31.13	31.32	31.22	29.96	29.73	29.54	29.54	
22	31.51	31.97	31.19	32.02	31.14	31.40	31.39	31.20	29.95	29.73	29.54	29.54	
23	31.51	32.08	31.14	31.97	31.19	32.15	31.65	31.17	29.94	29.73	29.54	29.54	
24	31.52	32.05	31.07	31.84	31.27	32.13	31.78	31.15	29.93	29.73	29.54	29.54	
25	31.52	32.04	30.99	31.68	31.34	31.85	31.88	31.07	29.92	29.73	29.54	29.54	
26	31.56	32.16	30.87	31.62	31.45	31.65	31.92	30.99	29.91	29.73	29.54	29.54	
27	31.60	32.36	31.21	31.51	31.67	31.45	31.86	30.94	29.90	29.73	29.54	29.54	
28	31.65	32.30	31.71	31.47	32.01	31.28	31.79	30.89	29.89	29.73	29.54	29.54	
29	31.65	32.18	32.05	31.39	32.00	31.19	31.72	30.84	29.88	29.73		29.54	
30	31.70	32.10	32.18	31.33	31.98	31.17	31.64	30.86	29.87	29.73		29.54	
31		32.07		31.29	31.87		31.59		29.86	29.73		29.54	
Mean	31.43	32.19	31.64	31.58	31.34	31.35	31.54	31.20	30.20	29.77	29.60	29.54	
Max	31.70	33.12	32.43	32.22	32.01	32.15	32.13	31.55	30.81	29.86	29.72	29.54	33.12
Min	31.18	31.78	30.87	31.12	31.04	30.99	30.93	30.84	29.86	29.73	29.54	29.54	29.54

Annual Max Momentary Gage Height	33.25	m. (MSL.) ,	at 18.00 Hours , on May 6 , 2018		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	28.43	m. (MSL.)
Left Bank Elevation	37.41	m. (MSL.) ,			
Right Bank Elevation	37.35	m. (MSL.) ,	Drainage Area	Square Kilometers	



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	9.50	3.00	10.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2	0.00	14.50	1.50	7.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
3	0.00	11.90	0.00	4.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4	0.00	11.00	0.00	3.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
5	0.00	32.00	4.05	2.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
6	0.00	80.20	19.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7	0.00	41.60	15.00	0.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
8	0.00	21.00	10.10	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
9	0.00	12.20	7.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
10	0.00	9.50	5.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
11	0.00	7.40	3.75	0.00	0.00	0.00	2.60	0.00	0.00	0.00	0.00	0.00		
12	0.00	8.30	1.80	0.00	0.00	0.00	7.40	0.00	0.00	0.00	0.00	0.00		
13	0.00	6.10	1.10	0.00	0.00	0.00	4.20	0.00	0.00	0.00	0.00	0.00		
14	0.00	5.10	0.30	0.00	0.00	0.00	2.90	0.00	0.00	0.00	0.00	0.00		
15	0.00	5.10	0.00	0.00	0.00	0.00	2.20	0.00	0.00	0.00	0.00	0.00		
16	0.00	6.10	0.00	0.00	0.00	0.00	1.20	0.00	0.00	0.00	0.00	0.00		
17	0.00	5.10	0.00	0.00	0.00	0.00	0.30	0.00	0.00	0.00	0.00	0.00		
18	0.00	2.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
19	0.00	1.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
20	0.00	2.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
21	0.00	2.80	0.00	4.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
22	0.00	4.05	0.00	4.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
23	0.00	6.10	0.00	4.05	0.00	8.00	0.50	0.00	0.00	0.00	0.00	0.00		
24	0.00	5.50	0.00	2.40	0.00	7.40	1.80	0.00	0.00	0.00	0.00	0.00		
25	0.00	5.30	0.00	0.80	0.00	2.50	2.80	0.00	0.00	0.00	0.00	0.00		
26	0.00	8.30	0.00	0.20	0.00	0.50	3.30	0.00	0.00	0.00	0.00	0.00		
27	0.00	15.50	0.00	0.00	0.70	0.00	2.60	0.00	0.00	0.00	0.00	0.00		
28	0.50	12.50	1.10	0.00	4.70	0.00	1.90	0.00	0.00	0.00	0.00	0.00		
29	0.50	8.90	5.50	0.00	4.50	0.00	1.20	0.00	0.00	0.00		0.00		
30	1.00	6.50	8.90	0.00	4.20	0.00	0.40	0.00	0.00	0.00		0.00		
31		5.90		0.00	2.70		0.00		0.00	0.00		0.00		
Total	2.00	375.25	87.50	47.30	16.80	18.40	35.30	0.00	0.00	0.00	0.00	0.00	582.55	CMSDAY
Mean	0.07	12.10	2.92	1.53	0.54	0.61	1.14	0.00	0.00	0.00	0.00	0.00	1.60	CMS
Max	1.00	80.20	19.00	10.10	4.70	8.00	7.40	0.00	0.00	0.00	0.00	0.00	80.20	CMS
Min	0.00	1.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	0.17	32.42	7.56	4.09	1.45	1.59	3.05	0.00	0.00	0.00	0.00	0.00	50.33	MCM

Momentary Peak 98.25 CMS. at 33.25 m. (MSL.) at 18.00 Hours , on May 6 , 2018

Runoff Yield ***** Liters/Second/Square KM. Momentary Peak Yield ***** Liters/Second/Square KM.

WATER YEAR : 2018

CHAO PHRAYA RIVER BASIN

Chao Phraya River at Ban Tha Nam Ooy, Nakhon Sawan (C.56)

Lat 15 - 25 - 13 N Long 100 - 08 - 08 E

Location : on left bank at Ban Tha Nam Ooy

	Ban Tha Nam Ooy	**Amphoe**	Phayuha Khiti	**Changwat**	Nakhon Sawan
Drainge Area	Flood Plain				
Type of Gage	Water - stage recorder.				
Zero Gage at Bottom	+0.000 m. (MSL.)				
Bench Mark	B.M.-H.D.				
Location BM	On left bank at the bridge			**Elevation**	+21.898 m. (MSL.)
Gage Reading Frequency	Recording				
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings				
Period of Available Gage Records	2008 to date				
Rating Operation					
Period of Rating	2008 to date				
Rated by Flot	-				
Rated by Current Meter	2008 to date				
Stability of Channel Regimes	Fairly stable because of backwater effect.				
Overbank Flow Conditions	No overbank flow				
General Description	Records good. Stage-discharge relation defined by 22 discharge measurements made in 2018.				

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

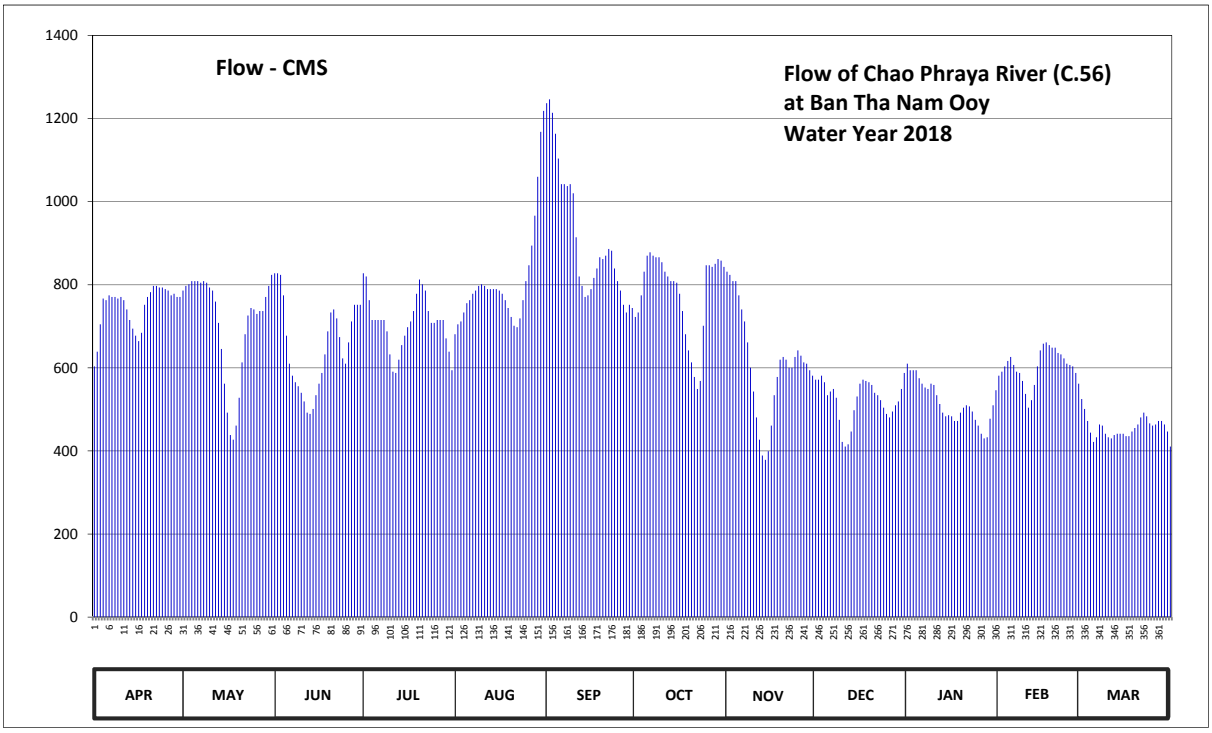
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	16.08	16.61	16.72	16.72	16.32	17.68	16.44	16.73	15.98	16.10	16.01	15.83	
2	16.19	16.64	16.72	16.70	16.39	17.70	16.47	16.71	15.98	16.05	16.04	15.75	
3	16.39	16.65	16.71	16.55	16.41	17.63	16.58	16.67	16.01	16.05	16.08	15.65	
4	16.56	16.67	16.58	16.42	16.47	17.52	16.73	16.67	15.96	16.05	16.12	15.55	
5	16.55	16.67	16.31	16.42	16.53	17.39	16.83	16.58	15.86	15.99	16.15	15.47	
6	16.58	16.67	16.10	16.42	16.55	17.25	16.85	16.49	15.89	15.95	16.09	15.51	
7	16.57	16.66	16.01	16.42	16.59	17.25	16.83	16.41	15.91	15.92	16.04	15.62	
8	16.57	16.67	15.96	16.42	16.61	17.24	16.82	16.26	15.84	15.91	16.03	15.61	
9	16.56	16.66	15.93	16.34	16.64	17.25	16.82	16.07	15.66	15.95	15.97	15.54	
10	16.57	16.63	15.88	16.17	16.65	17.20	16.79	15.89	15.47	15.94	15.87	15.51	
11	16.55	16.61	15.81	16.04	16.64	16.94	16.73	15.68	15.43	15.86	15.76	15.50	
12	16.49	16.54	15.72	16.03	16.62	16.70	16.70	15.49	15.45	15.79	15.82	15.53	
13	16.42	16.40	15.71	16.13	16.62	16.64	16.67	15.35	15.56	15.72	15.94	15.54	
14	16.36	16.21	15.75	16.24	16.62	16.57	16.67	15.31	15.74	15.69	16.08	15.54	
15	16.31	15.95	15.86	16.31	16.62	16.58	16.66	15.39	15.85	15.70	16.20	15.54	
16	16.27	15.72	15.95	16.37	16.61	16.62	16.59	15.61	15.95	15.69	16.25	15.52	
17	16.33	15.53	16.03	16.41	16.59	16.69	16.48	15.86	15.98	15.65	16.26	15.52	
18	16.52	15.49	16.17	16.48	16.55	16.75	16.32	16.00	15.97	15.65	16.24	15.56	
19	16.57	15.61	16.34	16.59	16.50	16.82	16.20	16.13	15.96	15.72	16.22	15.59	
20	16.60	15.84	16.47	16.68	16.44	16.81	16.11	16.15	15.94	15.76	16.22	15.62	
21	16.64	16.11	16.49	16.65	16.38	16.83	16.00	16.13	15.88	15.78	16.18	15.68	
22	16.64	16.32	16.43	16.61	16.37	16.87	15.91	16.07	15.86	15.77	16.17	15.72	
23	16.63	16.45	16.30	16.48	16.43	16.86	15.97	16.07	15.82	15.73	16.14	15.69	
24	16.63	16.50	16.14	16.40	16.55	16.75	16.38	16.15	15.76	15.66	16.10	15.63	
25	16.62	16.49	16.10	16.40	16.67	16.67	16.77	16.20	15.71	15.61	16.09	15.61	
26	16.61	16.46	16.26	16.42	16.77	16.61	16.77	16.16	15.68	15.54	16.08	15.62	
27	16.58	16.48	16.41	16.42	16.89	16.52	16.76	16.11	15.73	15.50	16.03	15.65	
28	16.59	16.48	16.52	16.42	17.07	16.47	16.78	16.10	15.78	15.51	15.95	15.65	
29	16.57	16.57	16.52	16.29	17.29	16.52	16.81	16.05	15.81	15.67		15.62	
30	16.57	16.64	16.52	16.19	17.53	16.50	16.80	16.01	15.91	15.78		15.56	
31		16.71		16.05	17.64		16.76		16.03	15.90		15.43	
Mean	16.50	16.38	16.21	16.39	16.66	16.93	16.58	16.08	15.82	15.79	16.08	15.59	
Max	16.64	16.71	16.72	16.72	17.64	17.70	16.85	16.73	16.03	16.10	16.26	15.83	17.70
Min	16.08	15.49	15.71	16.03	16.32	16.47	15.91	15.31	15.43	15.50	15.76	15.43	15.31

Annual Max Momentary Gage Height 17.71 m. (MSL.) , at 12.00 Hours , on Sep 2 , 2018

Zero Gage at Bottom Elevation 0.00 m. (MSL.) , River Bed 7.90 m. (MSL.)

Left Bank Elevation 23.09 m. (MSL.) ,

Right Bank Elevation 23.55 m. (MSL.) , Drainage Area Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	603.60	785.80	827.60	827.60	680.80	1236.80	722.40	831.40	571.60	610.00	581.20	525.00		
2	638.80	797.20	827.60	820.00	704.60	1246.00	733.20	823.80	571.60	594.00	590.80	501.00		
3	704.60	801.00	823.80	763.00	711.60	1213.80	774.40	808.60	581.20	594.00	603.60	472.00		
4	766.80	808.60	774.40	715.20	733.20	1163.20	831.40	808.60	565.20	594.00	616.40	444.00		
5	763.00	808.60	677.40	715.20	755.40	1103.60	870.00	774.40	534.00	574.80	626.00	421.60		
6	774.40	808.60	610.00	715.20	763.00	1042.00	878.00	740.40	543.00	562.00	606.80	432.80		
7	770.60	804.80	581.20	715.20	778.20	1042.00	870.00	711.60	549.20	552.40	590.80	463.60		
8	770.60	808.60	565.20	715.20	785.80	1037.60	866.00	661.20	528.00	549.20	587.60	460.80		
9	766.80	804.80	555.60	687.60	797.20	1042.00	866.00	600.40	474.80	562.00	568.40	441.20		
10	770.60	793.40	540.00	632.40	801.00	1020.00	854.20	543.00	421.60	558.80	537.00	432.80		
11	763.00	785.80	519.00	590.80	797.20	914.00	831.40	480.40	410.40	534.00	504.00	430.00		
12	740.40	759.20	492.00	587.60	789.60	820.00	820.00	427.20	416.00	513.00	522.00	438.40		
13	715.20	708.00	489.00	619.60	789.60	797.20	808.60	389.00	446.80	492.00	558.80	441.20		
14	694.40	645.20	501.00	654.80	789.60	770.60	808.60	378.60	498.00	483.20	603.60	441.20		
15	677.40	562.00	534.00	677.40	789.60	774.40	804.80	399.40	531.00	486.00	642.00	441.20		
16	664.40	492.00	562.00	697.80	785.80	789.60	778.20	460.80	562.00	483.20	658.00	435.60		
17	684.20	438.40	587.60	711.60	778.20	816.20	736.80	534.00	571.60	472.00	661.20	435.60		
18	751.60	427.20	632.40	736.80	763.00	839.00	680.80	578.00	568.40	472.00	654.80	446.80		
19	770.60	460.80	687.60	778.20	744.00	866.00	642.00	619.60	565.20	492.00	648.40	455.20		
20	782.00	528.00	733.20	812.40	722.40	862.00	613.20	626.00	558.80	504.00	648.40	463.60		
21	797.20	613.20	740.40	801.00	701.20	870.00	578.00	619.60	540.00	510.00	635.60	480.40		
22	797.20	680.80	718.80	785.80	697.80	886.00	549.20	600.40	534.00	507.00	632.40	492.00		
23	793.40	726.00	674.00	736.80	718.80	882.00	568.40	600.40	522.00	495.00	622.80	483.20		
24	793.40	744.00	622.80	708.00	763.00	839.00	701.20	626.00	504.00	474.80	610.00	466.40		
25	789.60	740.40	610.00	708.00	808.60	808.60	846.60	642.00	489.00	460.80	606.80	460.80		
26	785.80	729.60	661.20	715.20	846.60	785.80	846.60	629.20	480.40	441.20	603.60	463.60		
27	774.40	736.80	711.60	715.20	894.00	751.60	842.80	613.20	495.00	430.00	587.60	472.00		
28	778.20	736.80	751.60	715.20	966.00	733.20	850.40	610.00	510.00	432.80	562.00	472.00		
29	770.60	770.60	751.60	670.80	1059.60	751.60	862.00	594.00	519.00	477.60		463.60		
30	770.60	797.20	751.60	638.80	1167.80	744.00	858.00	581.20	549.20	510.00		446.80		
31		823.80		594.00	1218.40		842.80		587.60	546.00		410.40		
Total	22423.40	21927.20	19514.20	21962.40	25101.60	27447.80	24136.00	18312.40	16198.60	15967.80	16870.60	14134.80	243996.80	CMSDAY
Mean	747.45	707.33	650.47	708.46	809.73	914.93	778.58	610.41	522.54	515.09	602.52	455.96	668.48	CMS
Max	797.20	823.80	827.60	827.60	1218.40	1246.00	878.00	831.40	587.60	610.00	661.20	525.00	1246.00	CMS
Min	603.60	427.20	489.00	587.60	680.80	733.20	549.20	378.60	410.40	430.00	504.00	410.40	378.60	CMS
Runoff	1937.38	1894.51	1686.03	1897.55	2168.78	2371.49	2085.35	1582.19	1399.56	1379.62	1457.62	1221.25	21081.32	MCM

Momentary Peak 1250.60 CMS. at 17.71 m. (MSL.) at 12.00 Hours , on Sep 2 , 2018

Runoff Yield ***** Liters/Second/Square KM. Momentary Peak Yield ***** Liters/Second/Square KM.

WATER YEAR : 2018

CHAO PHRAYA RIVER BASIN

Khlong Kratong at Ban Nong Bua, Chai Nat (C.58)

Lat 15 - 18 - 30 N Long 100 - 02 - 57 E

Location : on right bank at Ban Nong Bua.

	Ban Nong Bua	**Amphoe** Wat Sing	**Changwat** Chai Nat
Drainge Area	Flood Plain		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank at the bridge		**Elevation** +21.898 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	2008 to date		
Rating Operation			
Period of Rating	2008 to date		
Rated by Flot	-		
Rated by Current Meter	2008 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow		
General Description	Records fair. Stage-discharge relation defined by 2 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

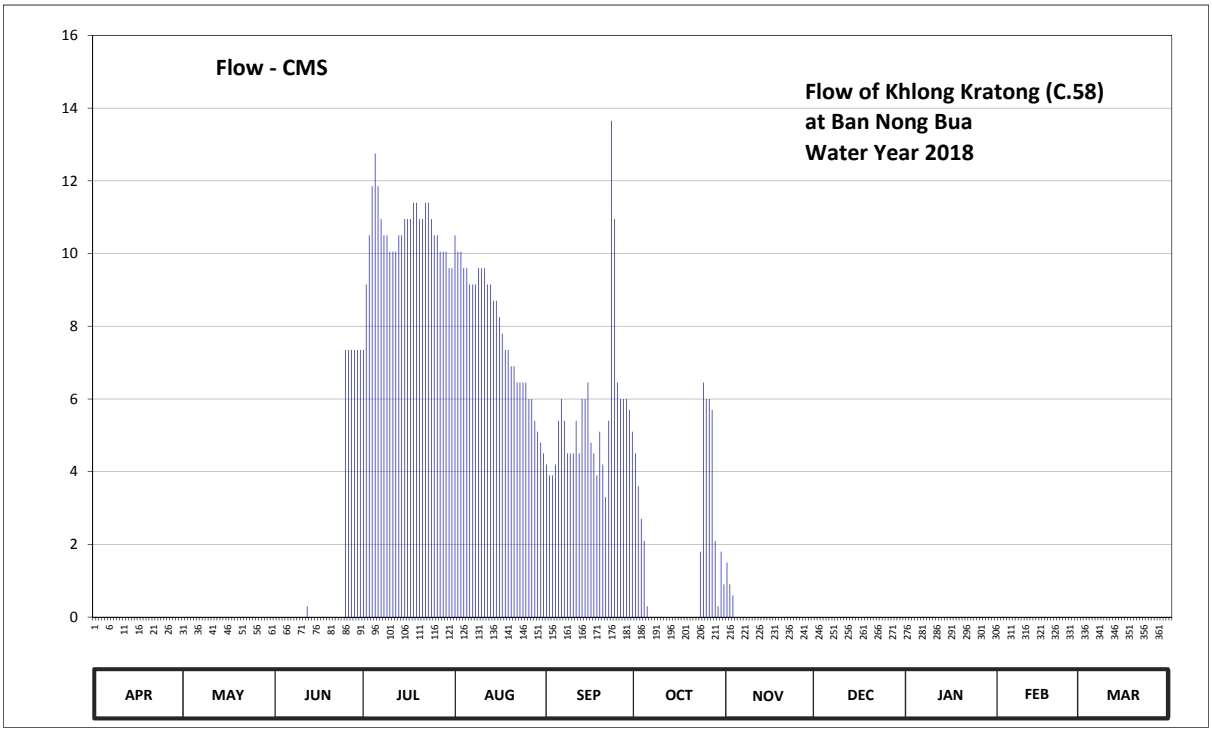
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	16.92	16.55	16.47	18.03	18.10	17.94	17.95	17.85	16.95	16.57	15.82	15.95	
2	16.84	16.65	16.39	18.07	18.09	17.93	17.92	17.83	16.87	16.53	15.82	15.90	
3	16.80	16.74	17.45	18.10	18.09	17.93	17.89	17.82	16.85	16.43	15.82	15.87	
4	16.76	16.63	17.52	18.13	18.08	17.94	17.87	17.80	16.82	16.34	15.81	15.85	
5	16.74	16.62	17.48	18.15	18.08	17.98	17.81	17.74	16.80	16.28	15.81	15.80	
6	16.73	17.20	17.50	18.13	18.07	18.00	17.79	17.68	16.78	16.26	15.81	15.77	
7	16.68	16.75	17.50	18.11	18.07	17.98	17.71	17.60	16.76	16.26	15.81	15.75	
8	16.65	16.38	17.50	18.10	18.07	17.95	17.72	17.57	16.76	16.24	15.81	15.73	
9	16.58	16.15	17.50	18.10	18.08	17.95	17.72	17.52	16.70	16.23	15.80	15.70	
10	16.53	16.02	17.50	18.09	18.08	17.95	17.69	17.50	16.68	16.20	15.80	15.68	
11	16.53	16.06	17.62	18.09	18.08	17.98	17.68	17.48	16.67	16.17	15.80	15.68	
12	16.49	16.08	17.81	18.09	18.07	17.95	17.61	17.46	16.65	16.15	15.80	15.67	
13	16.42	16.06	17.78	18.10	18.07	18.00	17.61	17.43	16.63	16.13	15.79	15.64	
14	16.35	15.98	17.68	18.10	18.06	18.00	17.62	17.38	16.61	16.10	15.79	15.63	
15	16.29	15.98	17.57	18.11	18.06	18.01	17.58	17.33	16.60	16.10	15.79	15.62	
16	16.25	15.99	17.48	18.11	18.05	17.96	17.58	17.30	16.58	16.09	15.79	15.61	
17	16.31	15.98	17.42	18.11	18.04	17.95	17.58	17.27	16.57	16.08	15.78	15.60	
18	16.52	15.87	17.34	18.12	18.03	17.93	17.57	17.25	16.56	16.07	15.78	15.59	
19	16.58	15.81	17.28	18.12	18.03	17.97	17.57	17.21	16.55	16.06	15.78	15.58	
20	16.58	15.75	16.95	18.11	18.02	17.94	17.56	17.19	16.54	16.05	15.79	15.57	
21	16.58	15.76	16.83	18.11	18.02	17.91	17.41	17.17	16.53	16.03	15.80	15.56	
22	16.57	15.78	16.84	18.12	18.01	17.98	17.40	17.15	16.52	16.02	15.84	15.53	
23	16.57	15.83	16.87	18.12	18.01	18.17	17.86	17.12	16.50	16.00	15.89	15.51	
24	16.57	15.81	17.12	18.11	18.01	18.11	18.01	17.10	16.49	15.98	15.95	15.49	
25	16.55	15.77	18.03	18.10	18.01	18.01	18.00	17.05	16.47	15.97	15.98	15.47	
26	16.55	15.82	18.03	18.10	18.00	18.00	18.00	16.99	16.45	15.95	15.97	15.45	
27	16.54	15.82	18.03	18.09	18.00	18.00	17.99	16.97	16.45	15.93	15.95	15.43	
28	16.55	15.82	18.03	18.09	17.98	18.00	17.87	16.95	16.43	15.90	15.95	15.42	
29	16.54	15.83	18.03	18.09	17.97	17.99	17.81	16.93	16.40	15.88		15.41	
30	16.53	15.95	18.03	18.08	17.96	17.97	17.86	16.98	16.38	15.88		15.40	
31		15.96		18.08	17.95		17.83		16.37	15.83		15.40	
Mean	16.57	16.11	17.45	18.10	18.04	17.98	17.74	17.35	16.61	16.12	15.83	15.62	
Max	16.92	17.20	18.03	18.15	18.10	18.17	18.01	17.85	16.95	16.57	15.98	15.95	18.17
Min	16.25	15.75	16.39	18.03	17.95	17.91	17.40	16.93	16.37	15.83	15.78	15.40	15.40

Annual Max Momentary Gage Height 18.27 m. (MSL.) , at 18.00 Hours , on Oct 23 , 2018

Zero Gage at Bottom Elevation 0.00 m. (MSL.) , River Bed 14.75 m. (MSL.)

Left Bank Elevation 20.09 m. (MSL.) ,

Right Bank Elevation 20.05 m. (MSL.) , Drainage Area Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	0.00	7.35	10.50	4.20	4.50	1.50	0.00	0.00	0.00	0.00		
2	0.00	0.00	0.00	9.15	10.05	3.90	3.60	0.90	0.00	0.00	0.00	0.00		
3	0.00	0.00	0.00	10.50	10.05	3.90	2.70	0.60	0.00	0.00	0.00	0.00		
4	0.00	0.00	0.00	11.85	9.60	4.20	2.10	0.00	0.00	0.00	0.00	0.00		
5	0.00	0.00	0.00	12.75	9.60	5.40	0.30	0.00	0.00	0.00	0.00	0.00		
6	0.00	0.00	0.00	11.85	9.15	6.00	0.00	0.00	0.00	0.00	0.00	0.00		
7	0.00	0.00	0.00	10.95	9.15	5.40	0.00	0.00	0.00	0.00	0.00	0.00		
8	0.00	0.00	0.00	10.50	9.15	4.50	0.00	0.00	0.00	0.00	0.00	0.00		
9	0.00	0.00	0.00	10.50	9.60	4.50	0.00	0.00	0.00	0.00	0.00	0.00		
10	0.00	0.00	0.00	10.05	9.60	4.50	0.00	0.00	0.00	0.00	0.00	0.00		
11	0.00	0.00	0.00	10.05	9.60	5.40	0.00	0.00	0.00	0.00	0.00	0.00		
12	0.00	0.00	0.30	10.05	9.15	4.50	0.00	0.00	0.00	0.00	0.00	0.00		
13	0.00	0.00	0.00	10.50	9.15	6.00	0.00	0.00	0.00	0.00	0.00	0.00		
14	0.00	0.00	0.00	10.50	8.70	6.00	0.00	0.00	0.00	0.00	0.00	0.00		
15	0.00	0.00	0.00	10.95	8.70	6.45	0.00	0.00	0.00	0.00	0.00	0.00		
16	0.00	0.00	0.00	10.95	8.25	4.80	0.00	0.00	0.00	0.00	0.00	0.00		
17	0.00	0.00	0.00	10.95	7.80	4.50	0.00	0.00	0.00	0.00	0.00	0.00		
18	0.00	0.00	0.00	11.40	7.35	3.90	0.00	0.00	0.00	0.00	0.00	0.00		
19	0.00	0.00	0.00	11.40	7.35	5.10	0.00	0.00	0.00	0.00	0.00	0.00		
20	0.00	0.00	0.00	10.95	6.90	4.20	0.00	0.00	0.00	0.00	0.00	0.00		
21	0.00	0.00	0.00	10.95	6.90	3.30	0.00	0.00	0.00	0.00	0.00	0.00		
22	0.00	0.00	0.00	11.40	6.45	5.40	0.00	0.00	0.00	0.00	0.00	0.00		
23	0.00	0.00	0.00	11.40	6.45	13.65	1.80	0.00	0.00	0.00	0.00	0.00		
24	0.00	0.00	0.00	10.95	6.45	10.95	6.45	0.00	0.00	0.00	0.00	0.00		
25	0.00	0.00	7.35	10.50	6.45	6.45	6.00	0.00	0.00	0.00	0.00	0.00		
26	0.00	0.00	7.35	10.50	6.00	6.00	6.00	0.00	0.00	0.00	0.00	0.00		
27	0.00	0.00	7.35	10.05	6.00	6.00	5.70	0.00	0.00	0.00	0.00	0.00		
28	0.00	0.00	7.35	10.05	5.40	6.00	2.10	0.00	0.00	0.00	0.00	0.00		
29	0.00	0.00	7.35	10.05	5.10	5.70	0.30	0.00	0.00	0.00		0.00		
30	0.00	0.00	7.35	9.60	4.80	5.10	1.80	0.00	0.00	0.00		0.00		
31		0.00		9.60	4.50		0.90		0.00	0.00		0.00		
Total	0.00	0.00	44.40	328.20	243.90	165.90	44.25	3.00	0.00	0.00	0.00	0.00	829.65	CMSDAY
Mean	0.00	0.00	1.48	10.59	7.87	5.53	1.43	0.10	0.00	0.00	0.00	0.00	2.27	CMS
Max	0.00	0.00	7.35	12.75	10.50	13.65	6.45	1.50	0.00	0.00	0.00	0.00	13.65	CMS
Min	0.00	0.00	0.00	7.35	4.50	3.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	0.00	0.00	3.84	28.36	21.07	14.33	3.82	0.26	0.00	0.00	0.00	0.00	71.68	MCM

Momentary Peak 18.50 CMS. at 18.27 m. (MSL.) at 18.00 Hours , on Oct 23 , 2018

Runoff Yield ***** Liters/Second/Square KM. Momentary Peak Yield ***** Liters/Second/Square KM.

WATER YEAR : 2018

CHAO PHRAYA RIVER BASIN

Khlong Bung Boraphet at Mueang, Nakhon Sawan (C.64)

Lat 15 - 41 - 14 N Long 100 - 07 - 46 E

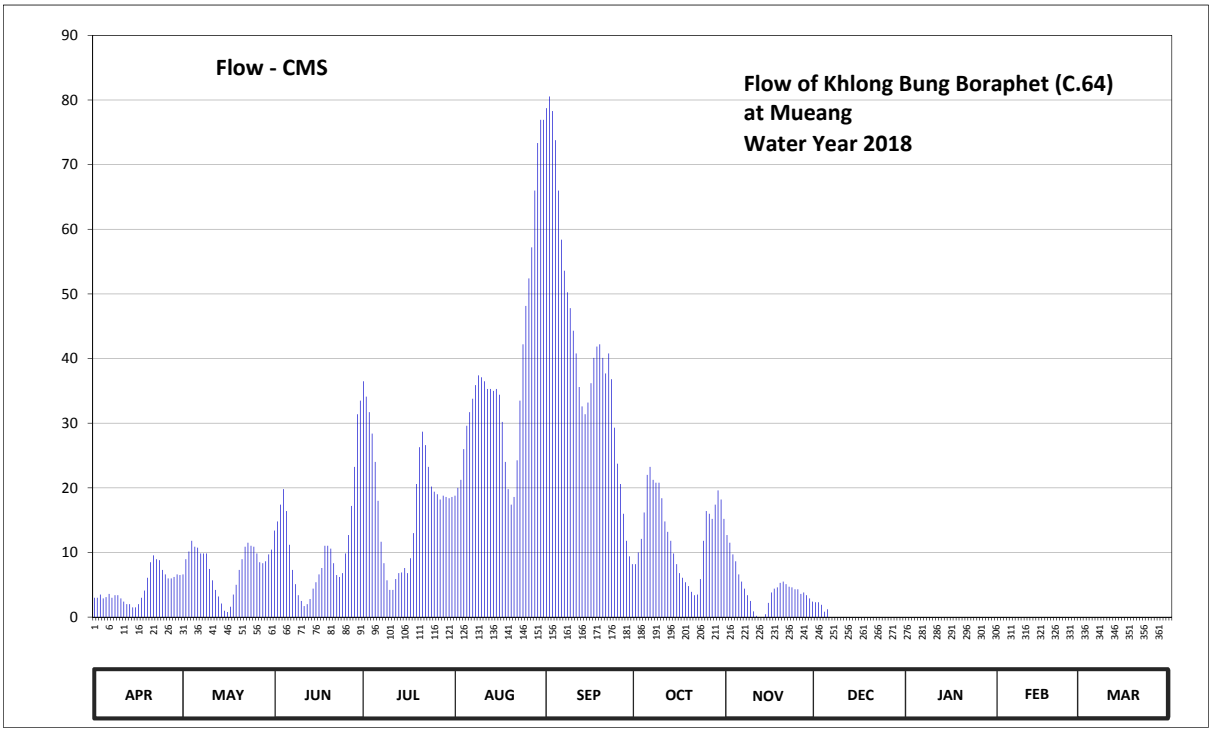
Location : on right bank at Mueang.

	Ban -	**Amphoe**	Mueang	**Changwat**	Nakhon Sawan
Drainge Area	Flood Plain				
Type of Gage	Water - stage recorder				
Zero Gage at Bottom	+0.000 m. (MSL.)				
Bench Mark	B.M.-H.D.				
Location BM	On right bank at the bridge			**Elevation**	+27.394 m. (MSL.)
Gage Reading Frequency	Recording				
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings				
Period of Available Gage Records	2017 to date				
Rating Operation					
Period of Rating	2017 to date				
Rated by Flot	-				
Rated by Current Meter	2017 to date				
Stability of Channel Regimes	Fairly stable.				
Overbank Flow Conditions	No overbank flow				
General Description	Records fair. Stage-discharge relation defined by 3 discharge measurements made in 2018.				
Remark	No record 6 Dec.- 31 Mar.				

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	18.40	18.76	19.22	20.15	19.49	21.25	18.88	19.18	18.33				
2	18.40	18.93	19.29	20.07	19.55	21.29	19.00	19.10	18.33				
3	18.45	19.01	19.42	19.99	19.61	21.24	19.14	18.98	18.29				
4	18.39	19.12	19.54	19.88	19.80	21.14	19.36	18.91	18.17				
5	18.41	19.06	19.37	19.72	19.92	20.95	19.64	18.76	18.22				
6	18.46	19.05	19.08	19.45	19.99	20.76	19.69	18.65					
7	18.40	18.99	18.82	19.11	20.06	20.64	19.61	18.54					
8	18.44	18.99	18.61	18.89	20.13	20.55	19.59	18.44					
9	18.44	18.99	18.44	18.67	20.18	20.48	19.59	18.35					
10	18.39	18.83	18.35	18.52	20.17	20.38	19.47	18.18					
11	18.34	18.67	18.27	18.52	20.15	20.28	19.29	18.04					
12	18.30	18.52	18.30	18.69	20.11	20.12	19.21	17.96					
13	18.30	18.42	18.38	18.78	20.11	20.02	19.12	17.98					
14	18.25	18.31	18.54	18.79	20.10	19.98	18.99	18.09					
15	18.25	18.20	18.64	18.84	20.11	20.04	18.88	18.32					
16	18.30	18.16	18.76	18.78	20.08	20.14	18.78	18.48					
17	18.40	18.26	18.84	18.94	19.94	20.26	18.71	18.54					
18	18.51	18.45	19.07	19.20	19.72	20.31	18.64	18.56					
19	18.71	18.60	19.07	19.58	19.54	20.32	18.58	18.63					
20	18.90	18.82	19.04	19.81	19.42	20.26	18.49	18.65					
21	18.97	18.93	18.89	19.89	19.48	20.19	18.44	18.61					
22	18.93	19.06	18.75	19.82	19.73	20.28	18.45	18.57					
23	18.92	19.10	18.72	19.69	20.05	20.16	18.69	18.56					
24	18.82	19.07	18.78	19.56	20.32	19.91	19.12	18.53					
25	18.76	19.06	18.99	19.52	20.49	19.71	19.37	18.53					
26	18.70	18.99	19.18	19.50	20.61	19.58	19.35	18.46					
27	18.70	18.90	19.41	19.46	20.73	19.35	19.31	18.48					
28	18.72	18.89	19.69	19.49	20.95	19.12	19.42	18.44					
29	18.76	18.91	19.98	19.48	21.13	18.96	19.53	18.39					
30	18.75	18.98	20.05	19.47	21.21	18.88	19.46	18.34					
31		19.03		19.48	21.21		19.31						
Mean	18.55	18.81	18.98	19.35	20.13	20.22	19.13	18.51	18.27				
Max	18.97	19.12	20.05	20.15	21.21	21.29	19.69	19.18	18.33				21.29
Min	18.25	18.16	18.27	18.52	19.42	18.88	18.44	17.96	18.17				17.96

Annual Max Momentary Gage Height	21.29	m. (MSL.) ,	at 06.00 Hours , on Sep 2 , 2018		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	14.70	m. (MSL.)
Left Bank Elevation	27.14	m. (MSL.) ,			
Right Bank Elevation	27.17	m. (MSL.) ,	Drainage Area		Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	3.00	6.60	13.40	36.50	18.80	78.75	8.20	12.70	2.30					
2	3.00	8.95	14.80	34.10	20.00	80.55	10.00	11.50	2.30					
3	3.50	10.15	17.40	31.70	21.25	78.30	12.10	9.70	1.90					
4	2.90	11.80	19.80	28.40	26.00	73.80	16.20	8.65	0.85					
5	3.10	10.90	16.40	24.00	29.60	66.00	22.00	6.60	1.20					
6	3.60	10.75	11.20	18.00	31.70	58.40	23.25	5.50						
7	3.00	9.85	7.30	11.65	33.80	53.60	21.25	4.40						
8	3.40	9.85	5.10	8.35	35.90	50.25	20.80	3.40						
9	3.40	9.85	3.40	5.70	37.40	47.80	20.80	2.50						
10	2.90	7.45	2.50	4.20	37.10	44.30	18.40	0.90						
11	2.40	5.70	1.70	4.20	36.50	40.80	14.80	0.20						
12	2.00	4.20	2.00	5.90	35.30	35.60	13.20	0.00						
13	2.00	3.20	2.80	6.80	35.30	32.60	11.80	0.00						
14	1.50	2.10	4.40	6.90	35.00	31.40	9.85	0.45						
15	1.50	1.00	5.40	7.60	35.30	33.20	8.20	2.20						
16	2.00	0.80	6.60	6.80	34.40	36.20	6.80	3.80						
17	3.00	1.60	7.60	9.10	30.20	40.10	6.10	4.40						
18	4.10	3.50	11.05	13.00	24.00	41.85	5.40	4.60						
19	6.10	5.00	11.05	20.60	19.80	42.20	4.80	5.30						
20	8.50	7.30	10.60	26.30	17.40	40.10	3.90	5.50						
21	9.55	8.95	8.35	28.70	18.60	37.70	3.40	5.10						
22	8.95	10.90	6.50	26.60	24.25	40.80	3.50	4.70						
23	8.80	11.50	6.20	23.25	33.50	36.80	5.90	4.60						
24	7.30	11.05	6.80	20.20	42.20	29.30	11.80	4.30						
25	6.60	10.90	9.85	19.40	48.15	23.75	16.40	4.30						
26	6.00	9.85	12.70	19.00	52.40	20.60	16.00	3.60						
27	6.00	8.50	17.20	18.20	57.20	16.00	15.20	3.80						
28	6.20	8.35	23.25	18.80	66.00	11.80	17.40	3.40						
29	6.60	8.65	31.40	18.60	73.35	9.40	19.60	2.90						
30	6.50	9.70	33.50	18.40	76.95	8.20	18.20	2.40						
31		10.45		18.60	76.95		15.20							
Total	137.40	239.35	330.25	539.55	1164.30	1240.15	400.45	131.40	8.55				4191.40	CMSDAY
Mean	4.58	7.72	11.01	17.40	37.56	41.34	12.92	4.38	1.71				16.83	CMS
Max	9.55	11.80	33.50	36.50	76.95	80.55	23.25	12.70	2.30				80.55	CMS
Min	1.50	0.80	1.70	4.20	17.40	8.20	3.40	0.00	0.85				0.00	CMS
Runoff	11.87	20.68	28.53	46.62	100.60	107.15	34.60	11.35	0.74				362.14	MCM

Momentary Peak 80.55 CMS. at 21.29 m. (MSL.) at 06.00 Hours , on Sep 2 , 2018

Runoff Yield ***** Liters/Second/Square KM. Momentary Peak Yield ***** Liters/Second/Square KM.

WATER YEAR : 2018

CHAO PHRAYA RIVER BASIN

Khlong Bang Pramung at Ban Bang Pramung, Nakhon Sawan (C.65)

Lat 15 - 39 - 47 N Long 100 - 03 - 31 E

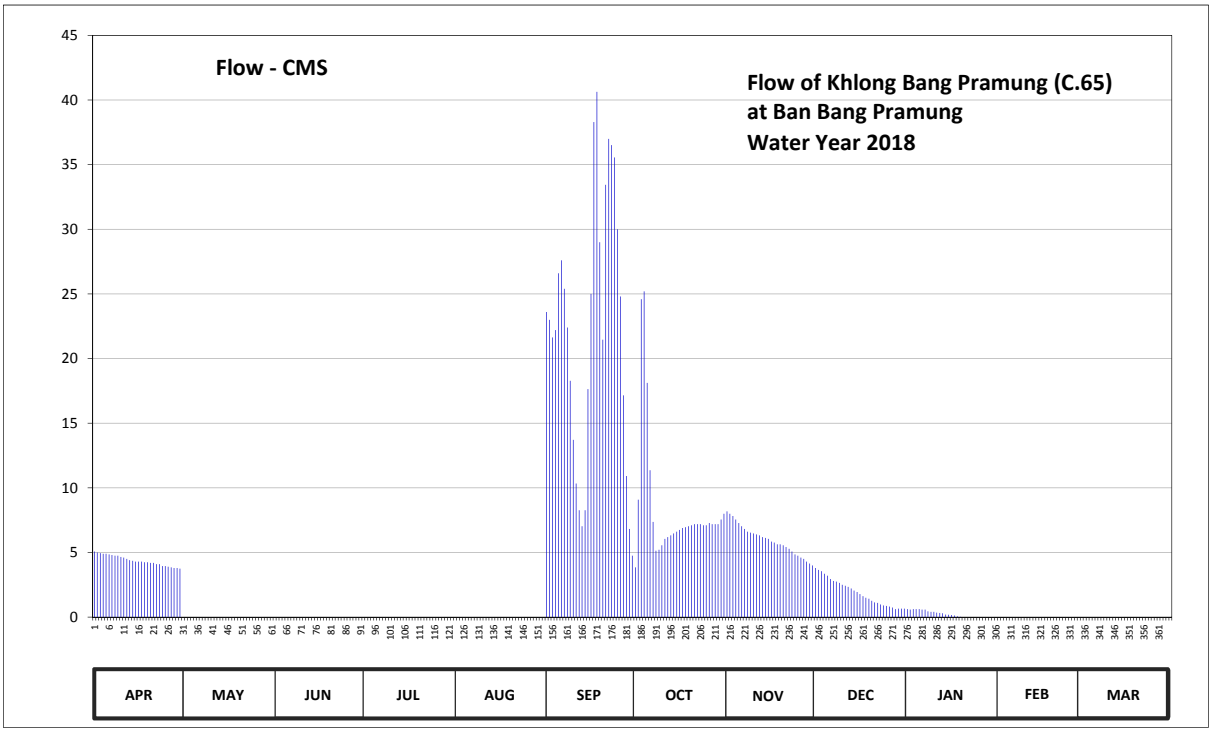
Location : on right bank at Ban Bang Pramung.

	Ban Bang Pramung	**Amphoe** Krok Phra		**Changwat** Nakhon Sawan	
Drainge Area	Flood Plain				
Type of Gage	Water - stage recorder				
Zero Gage at Bottom	+0.000 m. (MSL.)				
Bench Mark	B.M.-H.D.				
Location BM	On right bank at the bridge			**Elevation**	+25.375 m. (MSL.)
Gage Reading Frequency	Recording				
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings				
Period of Available Gage Records	2017 to date				
Rating Operation					
Period of Rating	2017 to date				
Rated by Flot	-				
Rated by Current Meter	2017 to date				
Stability of Channel Regimes	Fairly stable.				
Overbank Flow Conditions	No overbank flow				
General Description	Records fair. Stage-discharge relation defined by 2 discharge measurements made in 2018.				
Remark	No record May- Aug., Feb. - Mar.				

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	19.21					20.78	18.97	19.62	18.96	18.23			
2	19.20					20.75	19.72	19.60	18.93	18.22			
3	19.19					20.68	20.83	19.58	18.91	18.23			
4	19.18					20.71	20.86	19.55	18.87	18.23			
5	19.18					20.93	20.47	19.52	18.84	18.23			
6	19.17					20.98	19.96	19.49	18.79	18.22			
7	19.16					20.87	19.53	19.46	18.76	18.22			
8	19.15					20.72	19.22	19.43	18.75	18.18			
9	19.15					20.48	19.23	19.42	18.73	18.17			
10	19.13					20.16	19.28	19.41	18.70	18.17			
11	19.12					19.86	19.35	19.40	18.68	18.15			
12	19.10					19.63	19.37	19.39	18.66	18.14			
13	19.08					19.49	19.39	19.37	18.63	18.13			
14	19.07					19.63	19.41	19.36	18.59	18.10			
15	19.06					20.44	19.43	19.35	18.56	18.09			
16	19.06					20.85	19.45	19.32	18.52	18.08			
17	19.06					21.45	19.47	19.31	18.48	18.06			
18	19.05					21.54	19.48	19.29	18.45	18.03			
19	19.05					21.05	19.49	19.29	18.43	18.01			
20	19.04					20.67	19.50	19.28	18.39				
21	19.04					21.25	19.51	19.26	18.36				
22	19.02					21.40	19.51	19.24	18.35				
23	19.02					21.38	19.51	19.21	18.32				
24	18.99					21.34	19.50	19.17	18.30				
25	18.99					21.10	19.50	19.15	18.29				
26	18.98					20.84	19.52	19.12	18.28				
27	18.97					20.41	19.51	19.10	18.26				
28	18.96					19.92	19.51	19.06	18.23				
29	18.96					19.46	19.51	19.03	18.24				
30	18.95					19.15	19.55	19.00	18.24				
31							19.60		18.24				
Mean	19.08					20.60	19.59	19.33	18.54	11.13			
Max	19.21					21.54	20.86	19.62	18.96	18.23			21.54
Min	18.95					19.15	18.97	19.00	18.23	18.01			18.01

Annual Max Momentary Gage Height	21.24	m. (MSL.) ,	at 11.00 Hours , on Sep 21 , 2018		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	17.07	m. (MSL.)
Left Bank Elevation	25.38	m. (MSL.) ,			
Right Bank Elevation	25.45	m. (MSL.) ,	Drainage Area	Square Kilometers	



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	5.07					23.60	3.85	8.18	3.80	0.62				
2	5.00					23.00	9.08	8.00	3.65	0.58				
3	4.95					21.64	24.60	7.82	3.55	0.62				
4	4.90					22.20	25.20	7.55	3.35	0.62				
5	4.90					26.60	18.12	7.28	3.20	0.62				
6	4.85					27.60	11.36	7.03	2.95	0.58				
7	4.80					25.40	7.37	6.82	2.80	0.58				
8	4.75					22.40	5.14	6.61	2.75	0.44				
9	4.75					18.28	5.21	6.54	2.65	0.41				
10	4.65					13.72	5.56	6.47	2.50	0.41				
11	4.60					10.34	6.05	6.40	2.42	0.35				
12	4.50					8.27	6.19	6.33	2.34	0.32				
13	4.40					7.03	6.33	6.19	2.22	0.29				
14	4.35					8.27	6.47	6.12	2.06	0.20				
15	4.30					17.64	6.61	6.05	1.94	0.18				
16	4.30					25.00	6.75	5.84	1.78	0.16				
17	4.30					38.30	6.89	5.77	1.62	0.12				
18	4.25					40.64	6.96	5.63	1.50	0.06				
19	4.25					29.00	7.03	5.63	1.42	0.02				
20	4.20					21.46	7.10	5.56	1.26					
21	4.20					33.45	7.19	5.42	1.14					
22	4.10					37.00	7.19	5.28	1.10					
23	4.10					36.52	7.19	5.07	0.98					
24	3.95					35.56	7.10	4.85	0.90					
25	3.95					30.00	7.10	4.75	0.86					
26	3.90					24.80	7.28	4.60	0.82					
27	3.85					17.16	7.19	4.50	0.74					
28	3.80					10.92	7.19	4.30	0.62					
29	3.80					6.82	7.19	4.15	0.66					
30	3.75					4.75	7.55	4.00	0.66					
31							8.00		0.66					
Total	131.47					667.37	262.04	178.74	58.90	7.18			1305.70	CMSDAY
Mean	4.38					22.25	8.45	5.96	1.90	0.38			7.64	CMS
Max	5.07					40.64	25.20	8.18	3.80	0.62			40.64	CMS
Min	3.75					4.75	3.85	4.00	0.62	0.02			0.02	CMS
Runoff	11.36					57.66	22.64	15.44	5.09	0.62			112.81	MCM

Momentary Peak 41.94 CMS. at 21.59 m. (MSL.) at 02.00 Hours , on Sep 18 , 2018

Runoff Yield ***** Liters/Second/Square KM. Momentary Peak Yield ***** Liters/Second/Square KM.

WATER YEAR : 2018

CHAO PHRAYA RIVER BASIN

Chao Phraya River at Amphoe Sapphaya ,Chainat (C.66)

Lat 15 - 06 - 32 N Long 100 - 16 - 04 E

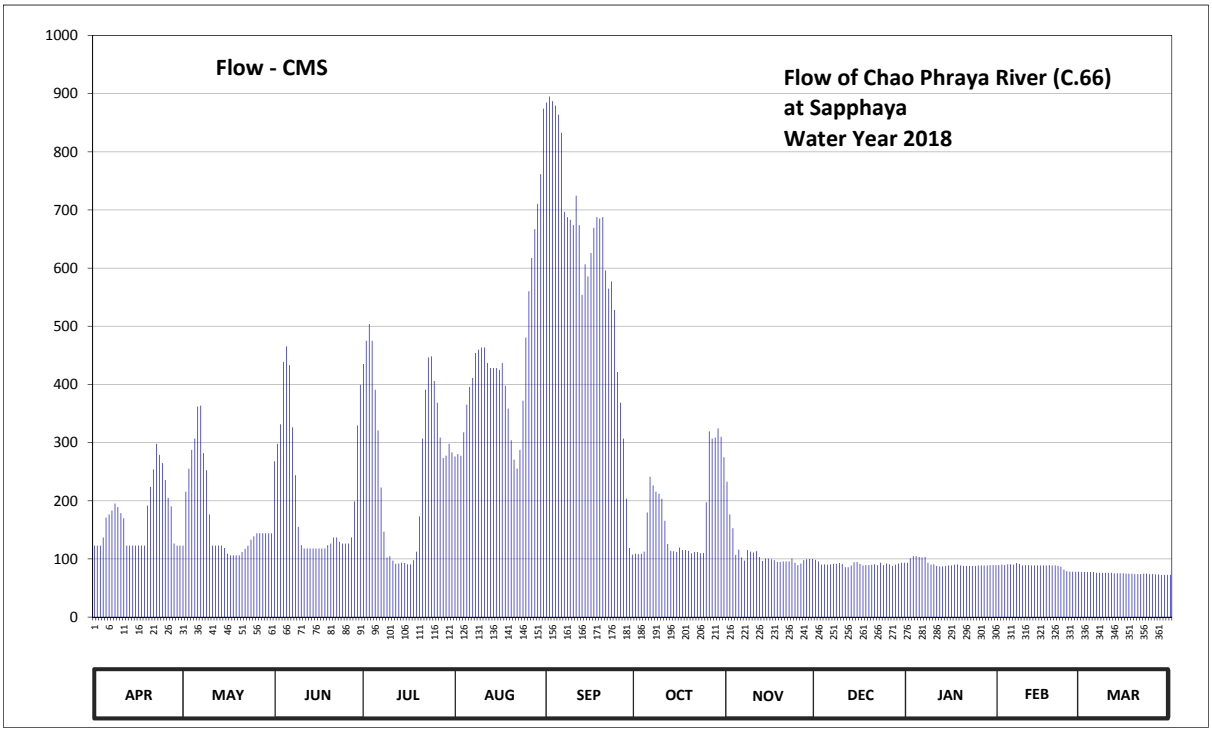
Location : on right bank at Amphoe Sapphaya.

	Ban -	**Amphoe**	Sapphaya	**Changwat**	Chai Nat
Drainge Area	Flood Plain				
Type of Gage	Water - stage recorder				
Zero Gage at Bottom	+0.000 m. (MSL.)				
Bench Mark	B.M.-H.D.				
Location BM	On right bank at the bridge			**Elevation**	+15.164 m. (MSL.)
Gage Reading Frequency	Recording				
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings				
Period of Available Gage Records	2017 to date				
Rating Operation					
Period of Rating	2017 to date				
Rated by Flot	-				
Rated by Current Meter	2017 to date				
Stability of Channel Regimes	Fairly stable.				
Overbank Flow Conditions	No overbank flow.				
General Description	Records good. Stage-discharge relation defined by 24 discharge measurements made in 2018.				

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	5.40	5.40	6.67	7.70	6.73	9.71	5.20	6.42	5.05	4.98	4.92	4.75	
2	5.40	6.28	6.88	7.91	6.76	9.75	5.19	5.95	5.01	5.09	4.93	4.75	
3	5.40	6.58	7.09	8.06	6.74	9.72	5.20	5.73	4.93	5.14	4.92	4.75	
4	5.57	6.81	7.72	7.91	7.01	9.69	5.25	5.17	4.94	5.14	4.94	4.75	
5	5.90	6.94	7.86	7.44	7.29	9.63	5.98	5.30	4.93	5.12	4.94	4.75	
6	5.95	7.27	7.69	7.03	7.47	9.51	6.48	5.11	4.94	5.11	4.93	4.73	
7	6.01	7.28	7.06	6.34	7.56	8.96	6.37	5.03	4.95	5.12	4.97	4.73	
8	6.11	6.77	6.50	5.67	7.80	8.92	6.28	5.29	4.95	4.98	4.95	4.73	
9	6.06	6.56	5.75	5.11	7.83	8.90	6.25	5.25	4.97	4.93	4.91	4.73	
10	5.97	5.95	5.41	5.14	7.85	8.86	6.18	5.23	4.95	4.94	4.92	4.73	
11	5.89	5.40	5.33	5.03	7.85	9.08	5.85	5.26	4.87	4.90	4.92	4.73	
12	5.40	5.40	5.33	4.95	7.71	8.86	5.44	5.12	4.87	4.89	4.91	4.72	
13	5.40	5.40	5.33	4.96	7.66	8.31	5.27	5.02	4.91	4.89	4.91	4.72	
14	5.40	5.40	5.33	4.98	7.66	8.56	5.26	5.08	4.99	4.90	4.91	4.72	
15	5.40	5.34	5.33	4.97	7.66	8.46	5.24	5.08	5.00	4.91	4.91	4.72	
16	5.40	5.20	5.33	4.94	7.64	8.65	5.35	5.06	4.95	4.91	4.91	4.71	
17	5.40	5.16	5.33	4.94	7.71	8.84	5.29	5.04	4.91	4.93	4.91	4.71	
18	5.40	5.16	5.33	5.04	7.48	8.92	5.29	5.00	4.92	4.94	4.92	4.71	
19	6.08	5.16	5.41	5.25	7.25	8.91	5.27	5.00	4.92	4.91	4.91	4.70	
20	6.35	5.16	5.45	5.92	6.92	8.92	5.21	5.01	4.93	4.90	4.91	4.70	
21	6.57	5.24	5.57	6.94	6.69	8.51	5.24	5.01	4.94	4.90	4.90	4.70	
22	6.88	5.32	5.57	7.44	6.58	8.36	5.24	5.01	4.92	4.90	4.88	4.71	
23	6.75	5.40	5.49	7.76	6.81	8.42	5.21	5.08	4.98	4.90	4.81	4.71	
24	6.65	5.53	5.45	7.77	7.33	8.18	5.22	4.98	4.92	4.90	4.77	4.70	
25	6.44	5.59	5.45	7.53	7.94	7.62	6.13	4.92	4.96	4.91	4.76	4.70	
26	6.19	5.64	5.45	7.31	8.34	7.31	7.02	4.96	4.94	4.91	4.76	4.69	
27	6.07	5.64	5.57	6.95	8.61	6.94	6.94	5.04	4.90	4.91	4.76	4.69	
28	5.45	5.64	6.14	6.71	8.83	6.18	6.95	5.06	4.93	4.91	4.76	4.68	
29	5.40	5.64	7.08	6.74	9.02	5.34	7.05	5.07	4.96	4.92		4.68	
30	5.40	5.64	7.49	6.88	9.23	5.18	6.96	5.07	4.98	4.92		4.68	
31		5.64		6.78	9.67		6.72		4.98	4.92		4.68	
Mean	5.86	5.79	6.05	6.39	7.67	8.44	5.82	5.18	4.95	4.96	4.89	4.71	
Max	6.88	7.28	7.86	8.06	9.67	9.75	7.05	6.42	5.05	5.14	4.97	4.75	9.75
Min	5.40	5.16	5.33	4.94	6.58	5.18	5.19	4.92	4.87	4.89	4.76	4.68	4.68

Annual Max Momentary Gage Height	9.76	m. (MSL.) ,	at 12.00 Hours , on Sep 2 , 2018		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	1.44	m. (MSL.)
Left Bank Elevation	15.42	m. (MSL.) ,			
Right Bank Elevation	15.70	m. (MSL.) ,	Drainage Area	Square Kilometers	



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	123.00	123.00	267.80	435.00	276.20	884.60	109.00	232.80	98.50	93.60	89.40	77.50		
2	123.00	215.60	298.00	474.90	280.40	895.00	108.30	176.50	95.70	101.30	90.10	77.50		
3	123.00	255.20	331.30	504.00	277.60	887.20	109.00	153.00	90.10	104.80	89.40	77.50		
4	137.00	287.50	438.80	474.90	317.70	879.40	112.50	106.90	90.80	104.80	90.80	77.50		
5	171.00	307.00	465.40	390.80	365.30	863.80	179.80	116.00	90.10	103.40	90.80	77.50		
6	176.50	361.90	433.30	321.10	395.90	832.60	241.20	102.70	90.80	102.70	90.10	76.10		
7	183.20	363.60	326.20	222.80	411.20	696.80	226.40	97.10	91.50	103.40	92.90	76.10		
8	195.20	281.80	244.00	147.00	454.00	687.60	215.60	115.30	91.50	93.60	91.50	76.10		
9	189.20	252.40	155.00	102.70	459.70	683.00	212.00	112.50	92.90	90.10	88.70	76.10		
10	178.70	176.50	123.70	104.80	463.50	673.80	203.60	111.10	91.50	90.80	89.40	76.10		
11	169.90	123.00	118.10	97.10	463.50	724.40	165.50	113.20	85.90	88.00	89.40	76.10		
12	123.00	123.00	118.10	91.50	436.90	673.80	125.80	103.40	85.90	87.30	88.70	75.40		
13	123.00	123.00	118.10	92.20	428.20	554.10	113.90	96.40	88.70	87.30	88.70	75.40		
14	123.00	123.00	118.10	93.60	428.20	606.60	113.20	100.60	94.30	88.00	88.70	75.40		
15	123.00	118.80	118.10	92.90	428.20	585.60	111.80	100.60	95.00	88.70	88.70	75.40		
16	123.00	109.00	118.10	90.80	424.80	626.00	119.50	99.20	91.50	88.70	88.70	74.70		
17	123.00	106.20	118.10	90.80	436.90	669.20	115.30	97.80	88.70	90.10	88.70	74.70		
18	123.00	106.20	118.10	97.80	397.60	687.60	115.30	95.00	89.40	90.80	89.40	74.70		
19	191.60	106.20	123.70	112.50	358.50	685.30	113.90	95.00	89.40	88.70	88.70	74.00		
20	224.00	106.20	126.50	173.20	304.00	687.60	109.70	95.70	90.10	88.00	88.70	74.00		
21	253.80	111.80	137.00	307.00	270.60	596.10	111.80	95.70	90.80	88.00	88.00	74.00		
22	298.00	117.40	137.00	390.80	255.20	564.60	111.80	95.70	89.40	88.00	86.60	74.70		
23	279.00	123.00	129.30	446.40	287.50	577.20	109.70	100.60	93.60	88.00	81.70	74.70		
24	265.00	133.00	126.50	448.30	372.10	528.00	110.40	93.60	89.40	88.00	78.90	74.00		
25	235.60	139.00	126.50	406.10	480.60	421.40	197.60	89.40	92.20	88.70	78.20	74.00		
26	204.80	144.00	126.50	368.70	560.40	368.70	319.40	92.20	90.80	88.70	78.20	73.30		
27	190.40	144.00	137.00	308.50	617.20	307.00	307.00	97.80	88.00	88.70	78.20	73.30		
28	126.50	144.00	198.80	273.40	666.90	203.60	308.50	99.20	90.10	88.70	78.20	72.60		
29	123.00	144.00	329.60	277.60	710.60	118.80	324.50	99.90	92.20	89.40		72.60		
30	123.00	144.00	399.30	298.00	761.50	107.60	310.00	99.90	93.60	89.40		72.60		
31		144.00		283.20	874.20		274.80		93.60	89.40		72.60		
Total	5145.40	5257.30	6126.00	8018.40	13665.10	18277.00	5406.80	3284.80	2826.00	2849.10	2439.50	2326.20	75621.60	CMSDAY
Mean	171.51	169.59	204.20	258.66	440.81	609.23	174.41	109.49	91.16	91.91	87.12	75.04	207.18	CMS
Max	298.00	363.60	465.40	504.00	874.20	895.00	324.50	232.80	98.50	104.80	92.90	77.50	895.00	CMS
Min	123.00	106.20	118.10	90.80	255.20	107.60	108.30	89.40	85.90	87.30	78.20	72.60	72.60	CMS
Runoff	444.56	454.23	529.29	692.79	1180.66	1579.13	467.15	283.81	244.17	246.16	210.77	200.98	6533.71	MCM

Momentary Peak 897.60 CMS. at 9.76 m. (MSL.) at 12.00 Hours , on Sep 2 , 2018

Runoff Yield ***** Liters/Second/Square KM. Momentary Peak Yield ***** Liters/Second/Square KM.

WATER YEAR : 2018

SAKAE KRANG RIVER BASIN

Sakae Krang River at Ban Hat Tanong, Uthai Thani (Ct.2A)

Lat 15 - 24 - 39 N Long 100 - 03 - 29 E

Location : on left bank at Ban Hat Tanong.

	Ban Hat Tanong	**Amphoe** Mueang	**Changwat** Uthai Thani
Drainge Area	3,641 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank at the abutment of the bridge		**Elevation** +20.130 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	2008 to date		
Rating Operation			
Period of Rating	2008 to date		
Rated by Flot	-		
Rated by Current Meter	2008 to date		
Stability of Channel Regimes	Fairly stable because of backwater effect.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 2 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

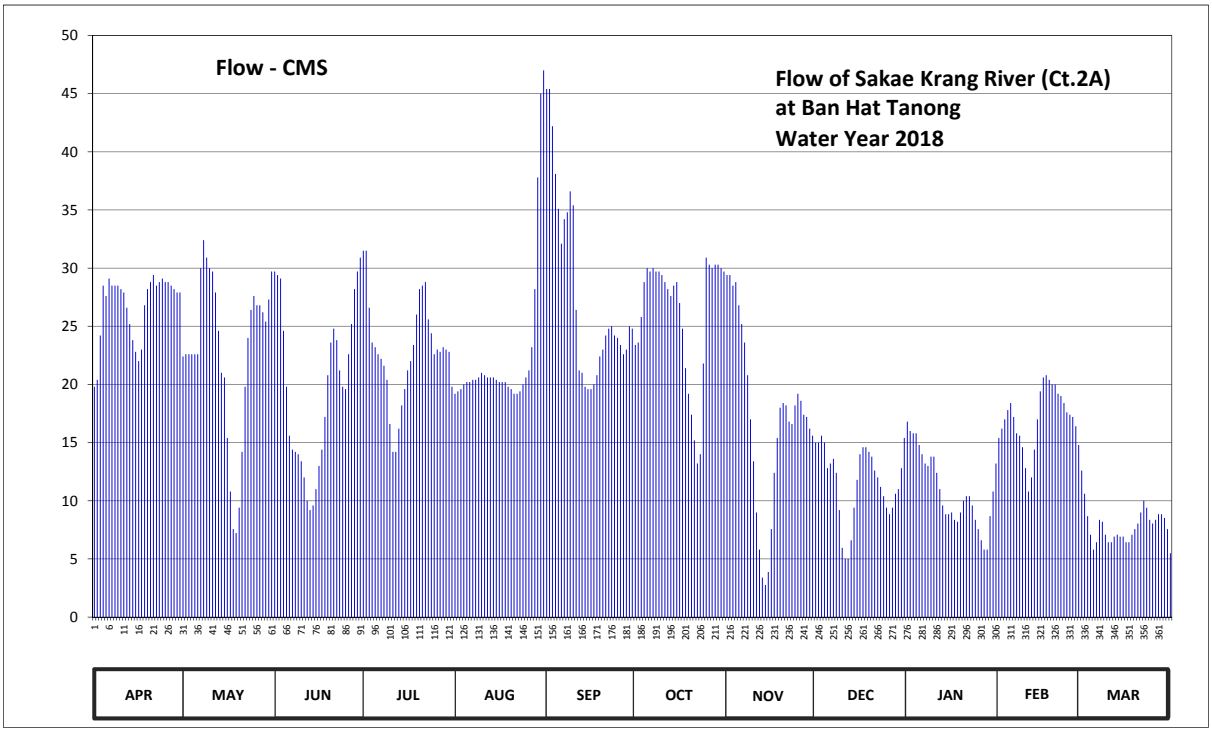
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	16.14	16.27	16.59	16.65	16.11	17.06	16.32	16.58	15.90	15.99	15.92	15.78	
2	16.17	16.28	16.58	16.65	16.12	17.06	16.33	16.58	15.90	15.95	15.96	15.68	
3	16.36	16.28	16.57	16.48	16.13	16.98	16.44	16.55	15.93	15.94	16.00	15.58	
4	16.55	16.28	16.38	16.33	16.15	16.87	16.56	16.56	15.90	15.94	16.04	15.48	
5	16.52	16.28	16.14	16.31	16.16	16.77	16.60	16.49	15.79	15.89	16.07	15.40	
6	16.57	16.28	15.93	16.28	16.16	16.67	16.59	16.41	15.81	15.85	16.01	15.44	
7	16.55	16.60	15.87	16.26	16.17	16.74	16.60	16.33	15.83	15.81	15.94	15.56	
8	16.55	16.68	15.86	16.23	16.17	16.76	16.59	16.19	15.77	15.80	15.93	15.55	
9	16.55	16.63	15.85	16.17	16.18	16.82	16.59	16.00	15.61	15.84	15.88	15.48	
10	16.54	16.60	15.82	15.98	16.20	16.78	16.58	15.82	15.41	15.84	15.79	15.44	
11	16.53	16.59	15.75	15.86	16.19	16.47	16.56	15.60	15.35	15.77	15.69	15.44	
12	16.48	16.53	15.65	15.86	16.18	16.21	16.54	15.40	15.35	15.70	15.75	15.47	
13	16.41	16.38	15.61	15.96	16.18	16.20	16.52	15.25	15.45	15.63	15.87	15.48	
14	16.34	16.20	15.63	16.06	16.18	16.14	16.55	15.21	15.62	15.59	16.00	15.47	
15	16.29	16.18	15.70	16.13	16.17	16.13	16.56	15.28	15.74	15.59	16.12	15.47	
16	16.25	15.92	15.80	16.21	16.16	16.13	16.50	15.51	15.85	15.60	16.18	15.44	
17	16.30	15.69	15.87	16.25	16.16	16.15	16.39	15.77	15.88	15.56	16.19	15.44	
18	16.49	15.51	16.01	16.32	16.16	16.19	16.22	15.92	15.88	15.55	16.17	15.48	
19	16.54	15.49	16.19	16.45	16.14	16.27	16.11	16.05	15.86	15.60	16.15	15.51	
20	16.56	15.62	16.33	16.54	16.13	16.30	16.02	16.07	15.84	15.65	16.15	15.54	
21	16.58	15.86	16.39	16.55	16.11	16.36	15.91	16.06	15.78	15.67	16.11	15.60	
22	16.55	16.14	16.34	16.56	16.11	16.39	15.81	15.99	15.75	15.67	16.10	15.65	
23	16.56	16.35	16.21	16.43	16.12	16.40	15.85	15.98	15.71	15.63	16.07	15.62	
24	16.57	16.47	16.14	16.37	16.15	16.36	16.24	16.06	15.67	15.56	16.03	15.56	
25	16.56	16.52	16.13	16.28	16.18	16.35	16.63	16.11	15.62	15.51	16.02	15.54	
26	16.56	16.49	16.28	16.30	16.21	16.32	16.61	16.08	15.59	15.45	16.01	15.56	
27	16.55	16.49	16.41	16.29	16.31	16.28	16.60	16.02	15.62	15.40	15.97	15.59	
28	16.54	16.46	16.54	16.31	16.54	16.30	16.61	16.01	15.68	15.40	15.89	15.59	
29	16.53	16.42	16.59	16.30	16.86	16.40	16.61	15.96	15.70	15.58		15.57	
30	16.53	16.51	16.63	16.29	17.05	16.39	16.60	15.93	15.79	15.69		15.51	
31		16.59		16.14	17.10		16.59		15.92	15.81		15.38	
Mean	16.47	16.28	16.13	16.28	16.26	16.47	16.43	15.99	15.73	15.69	16.00	15.53	
Max	16.58	16.68	16.63	16.65	17.10	17.06	16.63	16.58	15.93	15.99	16.19	15.78	17.10
Min	16.14	15.49	15.61	15.86	16.11	16.13	15.81	15.21	15.35	15.40	15.69	15.38	15.21

Annual Max Momentary Gage Height 17.12 m. (MSL.) , at 20.00 Hours , on Aug 30 , 2018

Zero Gage at Bottom Elevation 0.00 m. (MSL.) , River Bed 11.55 m. (MSL.)

Left Bank Elevation 21.36 m. (MSL.) ,

Right Bank Elevation 21.40 m. (MSL.) , Drainage Are 3,641 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	19.80	22.40	29.70	31.50	19.20	45.40	23.40	29.40	15.00	16.80	15.40	12.60		
2	20.40	22.60	29.40	31.50	19.40	45.40	23.60	29.40	15.00	16.00	16.20	10.60		
3	24.20	22.60	29.10	26.60	19.60	42.20	25.80	28.50	15.60	15.80	17.00	8.68		
4	28.50	22.60	24.60	23.60	20.00	38.10	28.80	28.80	15.00	15.80	17.80	7.08		
5	27.60	22.60	19.80	23.20	20.20	35.10	30.00	26.80	12.80	14.80	18.40	5.80		
6	29.10	22.60	15.60	22.60	20.20	32.10	29.70	25.20	13.20	14.00	17.20	6.44		
7	28.50	30.00	14.40	22.20	20.40	34.20	30.00	23.60	13.60	13.20	15.80	8.36		
8	28.50	32.40	14.20	21.60	20.40	34.80	29.70	20.80	12.40	13.00	15.60	8.20		
9	28.50	30.90	14.00	20.40	20.60	36.60	29.70	17.00	9.20	13.80	14.60	7.08		
10	28.20	30.00	13.40	16.60	21.00	35.40	29.40	13.40	5.96	13.80	12.80	6.44		
11	27.90	29.70	12.00	14.20	20.80	26.40	28.80	9.00	5.00	12.40	10.80	6.44		
12	26.60	27.90	10.00	14.20	20.60	21.20	28.20	5.80	5.00	11.00	12.00	6.92		
13	25.20	24.60	9.20	16.20	20.60	21.00	27.60	3.40	6.60	9.60	14.40	7.08		
14	23.80	21.00	9.60	18.20	20.60	19.80	28.50	2.76	9.40	8.84	17.00	6.92		
15	22.80	20.60	11.00	19.60	20.40	19.60	28.80	3.88	11.80	8.84	19.40	6.92		
16	22.00	15.40	13.00	21.20	20.20	19.60	27.00	7.56	14.00	9.00	20.60	6.44		
17	23.00	10.80	14.40	22.00	20.20	20.00	24.80	12.40	14.60	8.36	20.80	6.44		
18	26.80	7.56	17.20	23.40	20.20	20.80	21.40	15.40	14.60	8.20	20.40	7.08		
19	28.20	7.24	20.80	26.00	19.80	22.40	19.20	18.00	14.20	9.00	20.00	7.56		
20	28.80	9.40	23.60	28.20	19.60	23.00	17.40	18.40	13.80	10.00	20.00	8.04		
21	29.40	14.20	24.80	28.50	19.20	24.20	15.20	18.20	12.60	10.40	19.20	9.00		
22	28.50	19.80	23.80	28.80	19.20	24.80	13.20	16.80	12.00	10.40	19.00	10.00		
23	28.80	24.00	21.20	25.60	19.40	25.00	14.00	16.60	11.20	9.60	18.40	9.40		
24	29.10	26.40	19.80	24.40	20.00	24.20	21.80	18.20	10.40	8.36	17.60	8.36		
25	28.80	27.60	19.60	22.60	20.60	24.00	30.90	19.20	9.40	7.56	17.40	8.04		
26	28.80	26.80	22.60	23.00	21.20	23.40	30.30	18.60	8.84	6.60	17.20	8.36		
27	28.50	26.80	25.20	22.80	23.20	22.60	30.00	17.40	9.40	5.80	16.40	8.84		
28	28.20	26.20	28.20	23.20	28.20	23.00	30.30	17.20	10.60	5.80	14.80	8.84		
29	27.90	25.40	29.70	23.00	37.80	25.00	30.30	16.20	11.00	8.68		8.52		
30	27.90	27.30	30.90	22.80	45.00	24.80	30.00	15.60	12.80	10.80		7.56		
31		29.70		19.80	47.00		29.70		15.40	13.20		5.48		
Total	804.30	707.10	590.80	707.50	704.80	834.10	807.50	513.50	360.40	339.44	476.20	243.52	7089.16	CMSDAY
Mean	26.81	22.81	19.69	22.82	22.74	27.80	26.05	17.12	11.63	10.95	17.01	7.86	19.42	CMS
Max	29.40	32.40	30.90	31.50	47.00	45.40	30.90	29.40	15.60	16.80	20.80	12.60	47.00	CMS
Min	19.80	7.24	9.20	14.20	19.20	19.60	13.20	2.76	5.00	5.80	10.80	5.48	2.76	CMS
Runoff	69.49	61.09	51.05	61.13	60.89	72.07	69.77	44.37	31.14	29.33	41.14	21.04	612.50	MCM

Momentary Peak 47.80 CMS. at 17.12 m. (MSL.) at 20.00 Hours , on Aug 30 , 2018

Runoff Yield 5.34 Liters/Second/Square KM. Momentary Peak Yield 13.13 Liters/Second/Square KM.

WATER YEAR : 2018

SAKAE KRANG RIVER BASIN

Nam Mae Wong at Ban San Chao Kai To, Nakhon Sawan (Ct.4)

Lat 15 - 46 - 58 N Long 99 - 40 - 57 E

Location : on left bank at Ban San Chao Kai To.

	Ban San Chao Kai To	**Amphoe** Lat Yao	**Changwat** Nakhon Sawan
Drainge Area	1,386 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.- Highways Dept.		
Location BM	On left bank at the bridge		**Elevation** +72.250 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	1987 to date		
Rating Operation			
Period of Rating	1987 to date		
Rated by Flot	-		
Rated by Current Meter	1987 to date		
Stability of Channel Regimes	Fairly stable		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 17 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

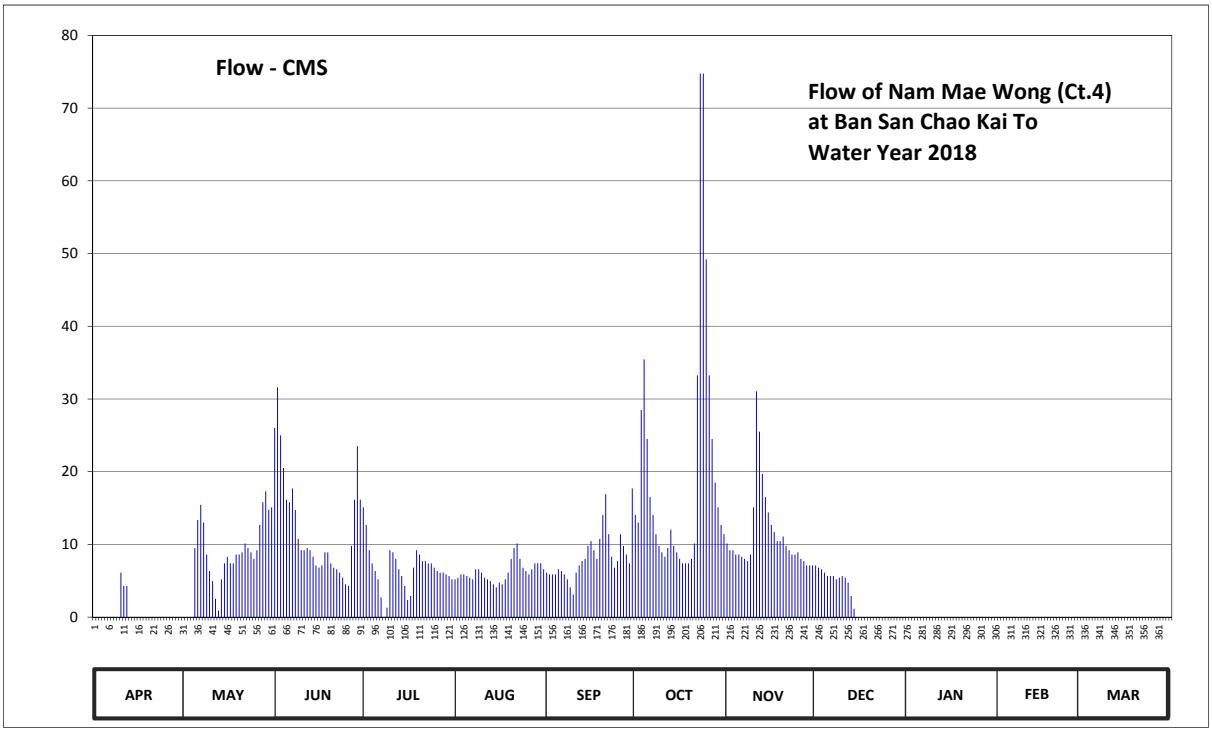
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	66.51	67.06	68.71	68.46	68.13	68.17	68.43	68.31	68.21	67.01	66.58	66.58	
2	66.51	67.38	68.82	68.39	68.14	68.16	68.40	68.28	68.20	66.94	66.58	66.58	
3	66.51	67.57	68.69	68.28	68.16	68.16	68.76	68.28	68.19	66.89	66.58	66.58	
4	66.51	67.61	68.60	68.22	68.16	68.16	68.89	68.26	68.17	66.84	66.58	66.58	
5	66.51	68.29	68.49	68.18	68.15	68.19	68.68	68.26	68.15	66.79	66.58	66.58	
6	66.51	68.41	68.48	68.13	68.14	68.18	68.50	68.25	68.15	66.76	66.58	66.58	
7	66.62	68.47	68.53	68.01	68.13	68.16	68.43	68.24	68.15	66.79	66.58	66.58	
8	66.64	68.40	68.45	67.63	68.19	68.13	68.35	68.23	68.13	66.79	66.58	66.58	
9	67.62	68.26	68.33	67.92	68.19	68.08	68.30	68.26	68.14	67.10	66.58	66.58	
10	68.17	68.18	68.28	68.28	68.17	68.03	68.27	68.46	68.15	67.06	66.58	66.58	
11	68.09	68.12	68.28	68.27	68.14	68.17	68.25	68.81	68.14	66.96	66.58	66.58	
12	68.09	68.00	68.29	68.24	68.13	68.21	68.29	68.70	68.11	66.90	66.58	66.58	
13	67.41	67.89	68.28	68.19	68.12	68.23	68.37	68.58	68.02	66.88	66.58	66.58	
14	66.90	68.13	68.25	68.15	68.10	68.24	68.30	68.50	67.91	66.85	66.58	66.58	
15	66.74	68.22	68.21	68.09	68.08	68.30	68.27	68.44	67.70	66.85	66.58	66.58	
16	66.69	68.25	68.20	67.99	68.11	68.32	68.24	68.39	67.44	66.83	66.58	66.58	
17	66.61	68.22	68.21	68.02	68.10	68.28	68.22	68.36	67.25	66.79	66.58	66.58	
18	66.65	68.22	68.27	68.20	68.13	68.24	68.22	68.32	67.07	66.75	66.58	66.58	
19	66.52	68.26	68.27	68.28	68.17	68.33	68.22	68.32	66.99	66.68	66.58	66.58	
20	66.52	68.26	68.22	68.26	68.24	68.43	68.24	68.34	66.96	66.63	66.58	66.58	
21	66.51	68.27	68.20	68.23	68.29	68.51	68.31	68.30	66.93	66.60	66.58	66.58	
22	66.51	68.31	68.19	68.23	68.31	68.35	68.85	68.28	66.90	66.60	66.58	66.58	
23	66.51	68.29	68.17	68.22	68.24	68.25	69.45	68.26	66.90	66.59	66.58	66.58	
24	66.50	68.27	68.14	68.22	68.20	68.20	69.45	68.26	66.92	66.59	66.58	66.58	
25	66.50	68.24	68.10	68.20	68.18	68.23	69.11	68.27	66.91	66.58	66.58	66.58	
26	66.50	68.28	68.09	68.18	68.16	68.35	68.85	68.24	66.87	66.58	66.58	66.58	
27	66.50	68.39	68.30	68.17	68.19	68.30	68.68	68.23	66.88	66.58	66.58	66.58	
28	66.50	68.48	68.49	68.17	68.22	68.26	68.55	68.21	66.89	66.58	66.58	66.58	
29	66.53	68.52	68.66	68.16	68.22	68.22	68.46	68.21	66.92	66.58		66.58	
30	66.82	68.45	68.49	68.15	68.22	68.53	68.39	68.21	66.96	66.58		66.58	
31		68.46		68.13	68.19		68.35		67.00	66.58		66.58	
Mean	66.79	68.17	68.36	68.17	68.17	68.25	68.52	68.34	67.53	66.76	66.58	66.58	
Max	68.17	68.52	68.82	68.46	68.31	68.53	69.45	68.81	68.21	67.10	66.58	66.58	69.45
Min	66.50	67.06	68.09	67.63	68.08	68.03	68.22	68.21	66.87	66.58	66.58	66.58	66.50

Annual Max Momentary Gage Height 69.63 m. (MSL.) , at 20.00 Hours , on Oct 23 , 2018

Zero Gage at Bottom Elevation 0.00 m. (MSL.) , River Bed 65.65 m. (MSL.)

Left Bank Elevation 72.18 m. (MSL.) ,

Right Bank Elevation 71.96 m. (MSL.) , Drainage Are 1,386 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	26.00	15.10	5.19	6.11	14.05	10.12	7.10	0.00	0.00	0.00		
2	0.00	0.00	31.60	12.68	5.42	5.88	13.00	9.20	6.80	0.00	0.00	0.00		
3	0.00	0.00	25.00	9.20	5.88	5.88	28.50	9.20	6.57	0.00	0.00	0.00		
4	0.00	0.00	20.50	7.40	5.88	5.88	35.45	8.60	6.11	0.00	0.00	0.00		
5	0.00	9.50	16.15	6.34	5.65	6.57	24.50	8.60	5.65	0.00	0.00	0.00		
6	0.00	13.35	15.80	5.19	5.42	6.34	16.50	8.30	5.65	0.00	0.00	0.00		
7	0.00	15.45	17.70	2.70	5.19	5.88	14.05	8.00	5.65	0.00	0.00	0.00		
8	0.00	13.00	14.75	0.00	6.57	5.19	11.40	7.70	5.19	0.00	0.00	0.00		
9	0.00	8.60	10.76	1.30	6.57	4.10	9.80	8.60	5.42	0.00	0.00	0.00		
10	6.11	6.34	9.20	9.20	6.11	3.10	8.90	15.10	5.65	0.00	0.00	0.00		
11	4.30	4.96	9.20	8.90	5.42	6.11	8.30	31.05	5.42	0.00	0.00	0.00		
12	4.30	2.50	9.50	8.00	5.19	7.10	9.50	25.50	4.73	0.00	0.00	0.00		
13	0.00	0.90	9.20	6.57	4.96	7.70	12.04	19.70	2.90	0.00	0.00	0.00		
14	0.00	5.19	8.30	5.65	4.50	8.00	9.80	16.50	1.15	0.00	0.00	0.00		
15	0.00	7.40	7.10	4.30	4.10	9.80	8.90	14.40	0.00	0.00	0.00	0.00		
16	0.00	8.30	6.80	2.35	4.73	10.44	8.00	12.68	0.00	0.00	0.00	0.00		
17	0.00	7.40	7.10	2.90	4.50	9.20	7.40	11.72	0.00	0.00	0.00	0.00		
18	0.00	7.40	8.90	6.80	5.19	8.00	7.40	10.44	0.00	0.00	0.00	0.00		
19	0.00	8.60	8.90	9.20	6.11	10.76	7.40	10.44	0.00	0.00	0.00	0.00		
20	0.00	8.60	7.40	8.60	8.00	14.05	8.00	11.08	0.00	0.00	0.00	0.00		
21	0.00	8.90	6.80	7.70	9.50	16.90	10.12	9.80	0.00	0.00	0.00	0.00		
22	0.00	10.12	6.57	7.70	10.12	11.40	33.25	9.20	0.00	0.00	0.00	0.00		
23	0.00	9.50	6.11	7.40	8.00	8.30	74.75	8.60	0.00	0.00	0.00	0.00		
24	0.00	8.90	5.42	7.40	6.80	6.80	74.75	8.60	0.00	0.00	0.00	0.00		
25	0.00	8.00	4.50	6.80	6.34	7.70	49.20	8.90	0.00	0.00	0.00	0.00		
26	0.00	9.20	4.30	6.34	5.88	11.40	33.25	8.00	0.00	0.00	0.00	0.00		
27	0.00	12.68	9.80	6.11	6.57	9.80	24.50	7.70	0.00	0.00	0.00	0.00		
28	0.00	15.80	16.15	6.11	7.40	8.60	18.50	7.10	0.00	0.00	0.00	0.00		
29	0.00	17.30	23.50	5.88	7.40	7.40	15.10	7.10	0.00	0.00		0.00		
30	0.00	14.75	16.15	5.65	7.40	17.70	12.68	7.10	0.00	0.00		0.00		
31		15.10		5.19	6.57		11.40		0.00	0.00		0.00		
Total	14.71	257.74	369.16	204.66	192.56	252.09	620.39	339.03	73.99	0.00	0.00	0.00	2324.33	CMSDAY
Mean	0.49	8.31	12.31	6.60	6.21	8.40	20.01	11.30	2.39	0.00	0.00	0.00	6.37	CMS
Max	6.11	17.30	31.60	15.10	10.12	17.70	74.75	31.05	7.10	0.00	0.00	0.00	74.75	CMS
Min	0.00	0.00	4.30	0.00	4.10	3.10	7.40	7.10	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	1.27	22.27	31.90	17.68	16.64	21.78	53.60	29.29	6.39	0.00	0.00	0.00	200.82	MCM

Momentary Peak 90.35 CMS. at 69.63 m. (MSL.) at 20.00 Hours , on Oct 23 , 2018

Runoff Yield 4.59 Liters/Second/Square KM. Momentary Peak Yield 65.19 Liters/Second/Square KM.

WATER YEAR : 2018

SAKAE KRANG RIVER BASIN

Nam Mae Wong at Ban Pang Makha, Kamphaeng Phet (Ct.5A)

Lat 15 - 55 - 33 N Long 99 - 30 - 22 E

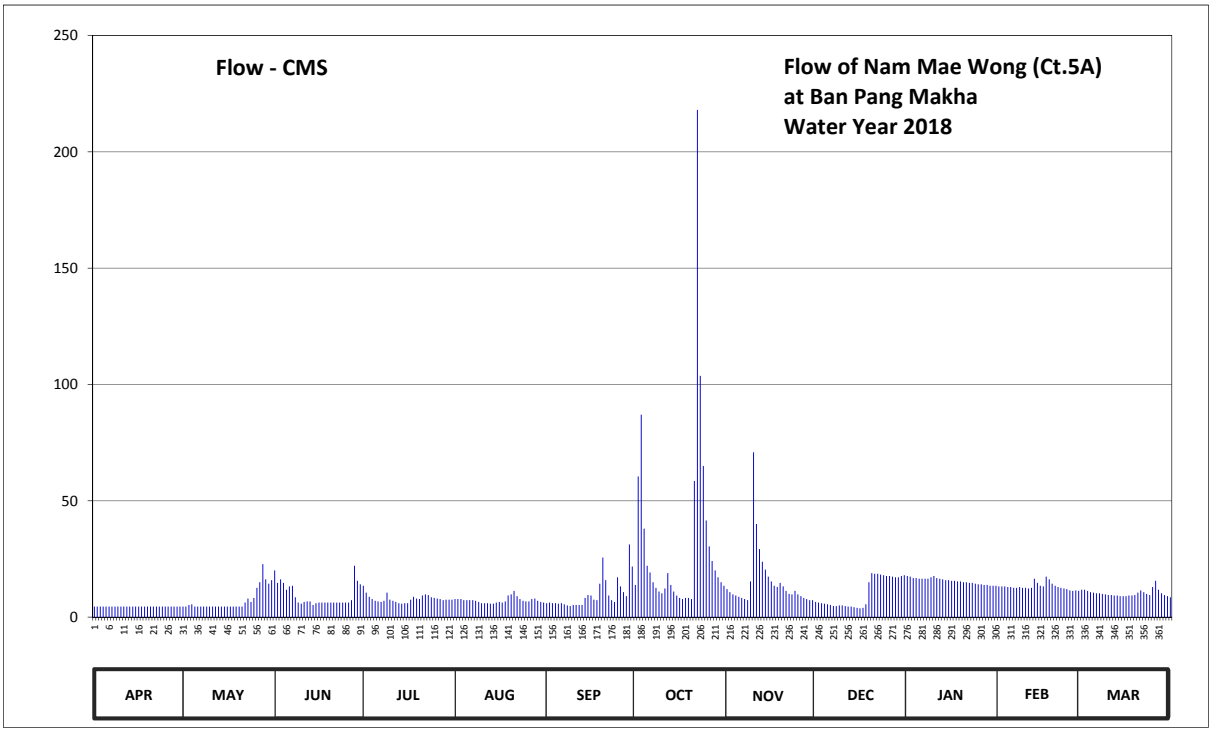
Location : on left bank behind Wat Pang Makha.

	Ban	Pang Makha	**Amphoe** Khanu Woralaksaburi	**Changwat**	Kamphaeng Phet
Drainge Area	977	sq.km.			
Type of Gage	Water - stage recorder				
Zero Gage at Bottom	+0.000	m. (MSL.)			
Bench Mark	B.M.-H.D.				
Location BM	In front of the station office			**Elevation**	+108.090 m. (MSL.)
Gage Reading Frequency	Recording				
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings				
Period of Available Gage Records	1969 to date				
Rating Operation					
Period of Rating	1969 to date				
Rated by Flot	-				
Rated by Current Meter	1969 to date				
Stability of Channel Regimes	Fairly stable				
Overbank Flow Conditions	No overbank flow.				
General Description	Records good. Flow effected by the local weir above gage site estimated by recession equation. Stage-discharge relation defined by 15 discharge measurements made in 2018.				

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	103.20	103.20	103.77	103.55	103.33	103.26	103.56	103.50	103.28	103.69	103.54	103.49	
2	103.20	103.20	103.59	103.44	103.33	103.27	104.63	103.45	103.27	103.68	103.54	103.49	
3	103.20	103.23	103.64	103.37	103.33	103.26	105.02	103.41	103.26	103.66	103.54	103.47	
4	103.20	103.24	103.59	103.33	103.31	103.26	104.23	103.39	103.25	103.66	103.53	103.45	
5	103.20	103.20	103.49	103.30	103.31	103.25	103.83	103.37	103.24	103.65	103.53	103.44	
6	103.20	103.20	103.54	103.29	103.31	103.26	103.74	103.35	103.23	103.65	103.52	103.43	
7	103.20	103.20	103.55	103.28	103.31	103.24	103.60	103.33	103.21	103.65	103.52	103.43	
8	103.20	103.20	103.36	103.30	103.30	103.22	103.52	103.31	103.21	103.65	103.53	103.42	
9	103.20	103.20	103.27	103.44	103.28	103.21	103.46	103.61	103.22	103.67	103.52	103.41	
10	103.20	103.20	103.25	103.32	103.26	103.23	103.43	104.79	103.22	103.69	103.52	103.40	
11	103.20	103.20	103.28	103.30	103.26	103.23	103.51	104.27	103.21	103.66	103.51	103.40	
12	103.20	103.20	103.29	103.28	103.26	103.23	103.73	104.03	103.20	103.65	103.52	103.39	
13	103.20	103.20	103.29	103.26	103.25	103.23	103.56	103.88	103.20	103.64	103.65	103.39	
14	103.20	103.20	103.23	103.25	103.25	103.35	103.46	103.78	103.19	103.63	103.59	103.38	
15	103.20	103.20	103.26	103.26	103.27	103.40	103.39	103.68	103.18	103.63	103.55	103.38	
16	103.20	103.20	103.27	103.26	103.28	103.39	103.35	103.61	103.17	103.62	103.54	103.38	
17	103.20	103.20	103.27	103.32	103.27	103.32	103.33	103.55	103.18	103.62	103.68	103.39	
18	103.20	103.20	103.27	103.37	103.29	103.31	103.35	103.53	103.24	103.61	103.64	103.39	
19	103.20	103.20	103.27	103.34	103.39	103.58	103.35	103.59	103.60	103.61	103.58	103.40	
20	103.20	103.20	103.27	103.33	103.41	103.93	103.33	103.54	103.73	103.60	103.55	103.44	
21	103.20	103.20	103.27	103.39	103.47	103.63	104.60	103.47	103.72	103.60	103.53	103.48	
22	103.20	103.27	103.27	103.41	103.38	103.39	106.48	103.42	103.72	103.59	103.52	103.45	
23	103.20	103.34	103.27	103.40	103.33	103.31	105.24	103.41	103.71	103.59	103.51	103.42	
24	103.20	103.28	103.27	103.36	103.30	103.28	104.70	103.47	103.70	103.58	103.50	103.40	
25	103.20	103.35	103.27	103.35	103.29	103.67	104.30	103.41	103.69	103.57	103.48	103.53	
26	103.20	103.52	103.27	103.34	103.29	103.54	104.06	103.38	103.69	103.57	103.47	103.62	
27	103.20	103.60	103.31	103.33	103.33	103.45	103.89	103.35	103.68	103.56	103.48	103.49	
28	103.20	103.85	103.83	103.31	103.34	103.38	103.77	103.33	103.67	103.56	103.47	103.43	
29	103.20	103.64	103.62	103.32	103.30	104.08	103.67	103.31	103.67	103.55		103.40	
30	103.20	103.58	103.57	103.32	103.28	103.82	103.60	103.31	103.69	103.55		103.38	
31		103.63		103.32	103.27		103.55		103.70	103.55		103.36	
Mean	103.20	103.30	103.39	103.34	103.31	103.40	103.91	103.56	103.42	103.62	103.54	103.43	
Max	103.20	103.85	103.83	103.55	103.47	104.08	106.48	104.79	103.73	103.69	103.68	103.62	106.48
Min	103.20	103.20	103.23	103.25	103.25	103.21	103.33	103.31	103.17	103.55	103.47	103.36	103.17

Annual Max Momentary Gage Height	106.95	m. (MSL.) ,	at 07.00 Hours , on Oct 22 , 2018		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	102.64	m. (MSL.)
Left Bank Elevation	110.71	m. (MSL.) ,			
Right Bank Elevation	110.72	m. (MSL.) ,	Drainage Are	977	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	4.50	4.50	20.10	13.50	7.75	6.00	13.80	12.00	6.50	17.70	13.20	11.75		
2	4.50	4.50	14.70	10.50	7.75	6.25	60.45	10.75	6.25	17.40	13.20	11.75		
3	4.50	5.25	16.20	8.75	7.75	6.00	87.00	9.75	6.00	16.80	13.20	11.25		
4	4.50	5.50	14.70	7.75	7.25	6.00	38.00	9.25	5.75	16.80	12.90	10.75		
5	4.50	4.50	11.75	7.00	7.25	5.75	22.05	8.75	5.50	16.50	12.90	10.50		
6	4.50	4.50	13.20	6.75	7.25	6.00	19.20	8.25	5.25	16.50	12.60	10.25		
7	4.50	4.50	13.50	6.50	7.25	5.50	15.00	7.75	4.75	16.50	12.60	10.25		
8	4.50	4.50	8.50	7.00	7.00	5.00	12.60	7.25	4.75	16.50	12.90	10.00		
9	4.50	4.50	6.25	10.50	6.50	4.75	11.00	15.30	5.00	17.10	12.60	9.75		
10	4.50	4.50	5.75	7.50	6.00	5.25	10.25	70.85	5.00	17.70	12.60	9.50		
11	4.50	4.50	6.50	7.00	6.00	5.25	12.30	40.00	4.75	16.80	12.30	9.50		
12	4.50	4.50	6.75	6.50	6.00	5.25	18.90	29.20	4.50	16.50	12.60	9.25		
13	4.50	4.50	6.75	6.00	5.75	5.25	13.80	23.80	4.50	16.20	16.50	9.25		
14	4.50	4.50	5.25	5.75	5.75	8.25	11.00	20.40	4.25	15.90	14.70	9.00		
15	4.50	4.50	6.00	6.00	6.25	9.50	9.25	17.40	4.00	15.90	13.50	9.00		
16	4.50	4.50	6.25	6.00	6.50	9.25	8.25	15.30	3.75	15.60	13.20	9.00		
17	4.50	4.50	6.25	7.50	6.25	7.50	7.75	13.50	4.00	15.60	17.40	9.25		
18	4.50	4.50	6.25	8.75	6.75	7.25	8.25	12.90	5.50	15.30	16.20	9.25		
19	4.50	4.50	6.25	8.00	9.25	14.40	8.25	14.70	15.00	15.30	14.40	9.50		
20	4.50	4.50	6.25	7.75	9.75	25.55	7.75	13.20	18.90	15.00	13.50	10.50		
21	4.50	4.50	6.25	9.25	11.25	15.90	58.50	11.25	18.60	15.00	12.90	11.50		
22	4.50	6.25	6.25	9.75	9.00	9.25	218.00	10.00	18.60	14.70	12.60	10.75		
23	4.50	8.00	6.25	9.50	7.75	7.25	103.70	9.75	18.30	14.70	12.30	10.00		
24	4.50	6.50	6.25	8.50	7.00	6.50	65.00	11.25	18.00	14.40	12.00	9.50		
25	4.50	8.25	6.25	8.25	6.75	17.10	41.50	9.75	17.70	14.10	11.50	12.90		
26	4.50	12.60	6.25	8.00	6.75	13.20	30.40	9.00	17.70	14.10	11.25	15.60		
27	4.50	15.00	7.25	7.75	7.75	10.75	24.15	8.25	17.40	13.80	11.50	11.75		
28	4.50	22.75	22.05	7.25	8.00	9.00	20.10	7.75	17.10	13.80	11.25	10.25		
29	4.50	16.20	15.60	7.50	7.00	31.20	17.10	7.25	17.10	13.50		9.50		
30	4.50	14.40	14.10	7.50	6.50	21.70	15.00	7.25	17.70	13.50		9.00		
31		15.90		7.50	6.25		13.50		18.00	13.50		8.50		
Total	135.00	222.10	283.65	245.75	224.00	295.80	1001.80	451.80	320.10	482.70	368.30	318.50	4349.50	CMSDAY
Mean	4.50	7.16	9.46	7.93	7.23	9.86	32.32	15.06	10.33	15.57	13.15	10.27	11.92	CMS
Max	4.50	22.75	22.05	13.50	11.25	31.20	218.00	70.85	18.90	17.70	17.40	15.60	218.00	CMS
Min	4.50	4.50	5.25	5.75	5.75	4.75	7.75	7.25	3.75	13.50	11.25	8.50	3.75	CMS
Runoff	11.66	19.19	24.51	21.23	19.35	25.56	86.56	39.04	27.66	41.71	31.82	27.52	375.80	MCM

Momentary Peak 266.50 CMS. at 106.95 m. (MSL.) at 07.00 Hours , on Oct 22 , 2018

Runoff Yield 12.20 Liters/Second/Square KM. Momentary Peak Yield 272.86 Liters/Second/Square KM.

WATER YEAR : 2018

SAKAE KRANG RIVER BASIN

Nam Mae Wong at Ban Khok Mo, Uthai Thani (Ct.8)

Lat 15 - 29 - 50 N Long 99 - 56 - 28 E

Location : on left bank at Ban Khok Mo.

	Ban Khok Mo	**Amphoe** Thap Than	**Changwat** Uthai Thani
Drainge Area	3,207 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	Near the sling pole		**Elevation** +34.285 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	1975 - 1978, 2008 to date		
Rating Operation			
Period of Rating	1975 - 1978, 2008 to date		
Rated by Flot	-		
Rated by Current Meter	1975 - 1978, 2008 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 5 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

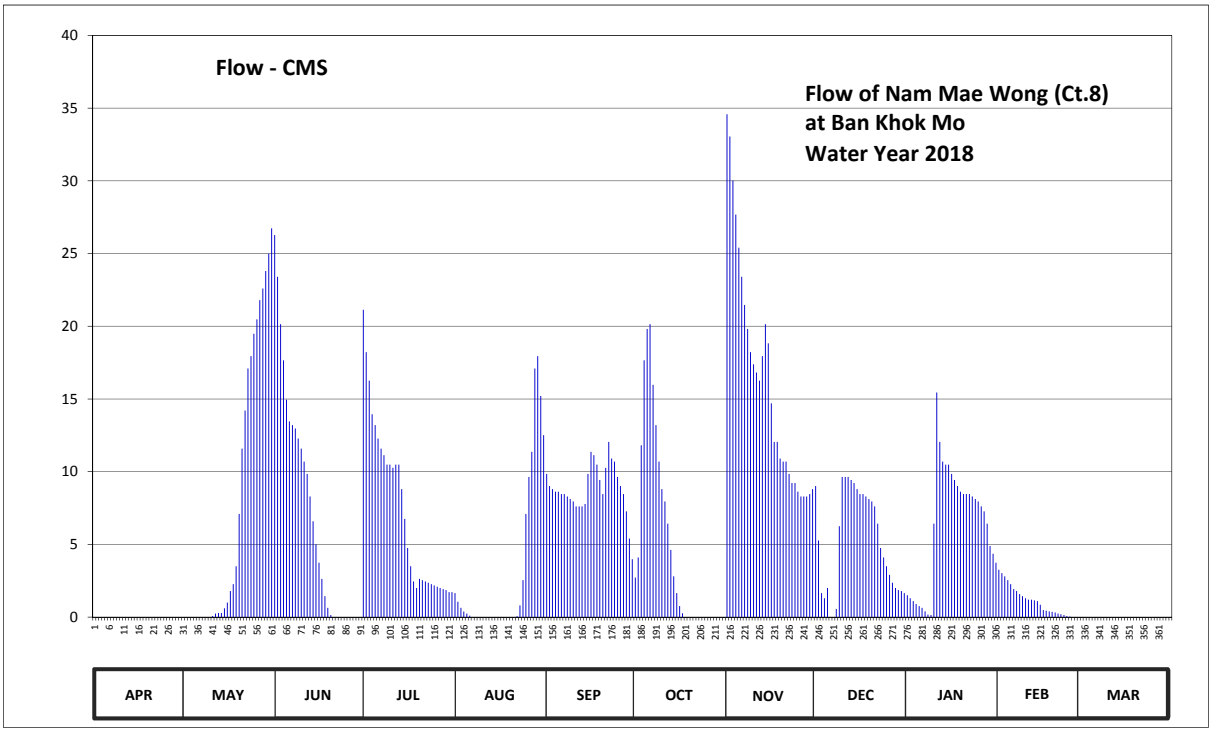
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	28.43	28.48	30.61	30.48	29.45	30.05	29.58	30.78	30.01	29.43	29.63	28.92	
2	28.43	28.44	30.54	30.39	29.35	30.01	29.70	30.75	29.79	29.40	29.61	28.90	
3	28.43	27.80	30.45	30.32	29.26	30.00	30.14	30.69	29.45	29.36	29.59	28.87	
4	28.43	28.57	30.37	30.23	29.19	29.99	30.37	30.64	29.40	29.32	29.56	28.85	
5	28.43	28.63	30.27	30.20	29.12	29.99	30.44	30.59	29.50	29.29	29.53	28.82	
6	28.44	28.67	30.21	30.16	29.05	29.98	30.45	30.54	28.78	29.26	29.49	28.79	
7	28.44	28.72	30.20	30.13	28.98	29.98	30.31	30.49	28.95	29.20	29.47	28.74	
8	28.44	28.75	30.19	30.11	28.96	29.97	30.20	30.44	29.24	29.09	29.44	28.69	
9	28.44	28.87	30.16	30.08	28.95	29.96	30.09	30.39	29.85	29.07	29.42	28.64	
10	28.44	28.96	30.13	30.08	28.90	29.95	30.00	30.36	30.04	29.86	29.40	28.61	
11	28.45	29.04	30.09	30.07	28.85	29.93	29.95	30.34	30.04	30.29	29.38	28.58	
12	28.45	29.12	30.05	30.08	28.82	29.93	29.86	30.32	30.04	30.15	29.38	28.56	
13	28.45	29.14	29.97	30.08	28.76	29.93	29.74	30.38	30.03	30.09	29.37	28.53	
14	28.45	29.14	29.87	30.00	28.71	29.94	29.59	30.45	30.02	30.08	29.36	28.50	
15	28.45	29.25	29.77	29.88	28.71	30.05	29.45	30.41	30.00	30.08	29.31	28.50	
16	28.45	29.34	29.67	29.75	28.62	30.12	29.29	30.26	29.98	30.05	29.22	28.49	
17	28.45	29.47	29.57	29.65	28.55	30.11	29.13	30.15	29.98	30.03	29.21	28.47	
18	28.45	29.53	29.42	29.55	28.50	30.08	28.99	30.15	29.97	30.01	29.20	28.42	
19	28.45	29.65	29.26	29.50	28.50	30.03	28.85	30.10	29.96	29.99	29.18	28.39	
20	28.45	29.90	29.07	29.57	28.62	29.98	28.70	30.09	29.95	29.98	29.16	28.36	
21	28.46	30.13	28.89	29.56	28.78	30.07	28.57	30.09	29.93	29.98	29.12	28.34	
22	28.46	30.24	28.71	29.55	29.03	30.15	28.47	30.05	29.86	29.98	29.10	28.33	
23	28.48	30.35	28.54	29.54	29.30	30.10	28.40	30.02	29.75	29.97	29.07	27.85	
24	28.49	30.38	28.35	29.53	29.56	30.09	28.41	30.02	29.70	29.96	29.04	27.55	
25	28.49	30.43	27.99	29.52	29.90	30.04	28.37	29.99	29.65	29.95	29.02	27.55	
26	28.49	30.46	27.86	29.51	30.04	30.01	27.99	29.97	29.60	29.93	28.99	27.55	
27	28.50	30.50	27.90	29.50	30.12	29.98	27.86	29.97	29.54	29.91	28.97	27.55	
28	28.50	30.52	27.99	29.49	30.35	29.91	27.90	29.97	29.50	29.86	28.94	27.55	
29	28.52	30.55	28.06	29.48	30.38	29.80	27.99	29.98	29.48	29.76		27.55	
30	28.52	30.58	28.49	29.46	30.28	29.69	28.06	30.00	29.47	29.72		27.56	
31		30.62		29.46	30.17		28.11		29.45	29.67		27.56	
Mean	28.46	29.49	29.42	29.84	29.22	29.99	29.19	30.28	29.71	29.77	29.29	28.31	
Max	28.52	30.62	30.61	30.48	30.38	30.15	30.45	30.78	30.04	30.29	29.63	28.92	30.78
Min	28.43	27.80	27.86	29.46	28.50	29.69	27.86	29.97	28.78	29.07	28.94	27.55	27.55

Annual Max Momentary Gage Height 30.78 m. (MSL.) , at 01.00 Hours , on Nov 1 , 2018

Zero Gage at Bottom Elevation 0.00 m. (MSL.) , River Bed 25.64 m. (MSL.)

Left Bank Elevation 34.29 m. (MSL.) ,

Right Bank Elevation 34.29 m. (MSL.) , Drainage Are 3,207 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	26.27	21.14	1.65	9.85	2.72	34.58	9.01	1.51	3.26	0.00		
2	0.00	0.00	23.40	18.22	1.05	9.01	4.10	33.05	5.27	1.30	3.02	0.00		
3	0.00	0.00	20.15	16.26	0.64	8.80	11.82	30.03	1.65	1.10	2.81	0.00		
4	0.00	0.00	17.66	13.95	0.38	8.63	17.66	27.68	1.30	0.90	2.54	0.00		
5	0.00	0.00	14.95	13.20	0.24	8.63	19.82	25.40	2.00	0.76	2.27	0.00		
6	0.00	0.00	13.45	12.28	0.10	8.46	20.15	23.40	0.00	0.64	1.93	0.00		
7	0.00	0.00	13.20	11.59	0.00	8.46	15.98	21.47	0.00	0.40	1.79	0.00		
8	0.00	0.00	12.97	11.13	0.00	8.29	13.20	19.82	0.56	0.18	1.58	0.00		
9	0.00	0.00	12.28	10.48	0.00	8.12	10.69	18.22	6.25	0.14	1.44	0.00		
10	0.00	0.00	11.59	10.48	0.00	7.95	8.80	17.38	9.64	6.42	1.30	0.00		
11	0.00	0.08	10.69	10.27	0.00	7.61	7.95	16.82	9.64	15.45	1.20	0.00		
12	0.00	0.24	9.85	10.48	0.00	7.61	6.42	16.26	9.64	12.05	1.20	0.00		
13	0.00	0.28	8.29	10.48	0.00	7.61	4.62	17.94	9.43	10.69	1.15	0.00		
14	0.00	0.28	6.59	8.80	0.00	7.78	2.81	20.15	9.22	10.48	1.10	0.00		
15	0.00	0.60	5.01	6.76	0.00	9.85	1.65	18.83	8.80	10.48	0.85	0.00		
16	0.00	1.00	3.74	4.75	0.00	11.36	0.76	14.70	8.46	9.85	0.48	0.00		
17	0.00	1.79	2.63	3.50	0.00	11.13	0.26	12.05	8.46	9.43	0.44	0.00		
18	0.00	2.27	1.44	2.45	0.00	10.48	0.00	12.05	8.29	9.01	0.40	0.00		
19	0.00	3.50	0.64	2.00	0.00	9.43	0.00	10.90	8.12	8.63	0.36	0.00		
20	0.00	7.10	0.14	2.63	0.00	8.46	0.00	10.69	7.95	8.46	0.32	0.00		
21	0.00	11.59	0.00	2.54	0.00	10.27	0.00	10.69	7.61	8.46	0.24	0.00		
22	0.00	14.20	0.00	2.45	0.06	12.05	0.00	9.85	6.42	8.46	0.20	0.00		
23	0.00	17.10	0.00	2.36	0.80	10.90	0.00	9.22	4.75	8.29	0.14	0.00		
24	0.00	17.94	0.00	2.27	2.54	10.69	0.00	9.22	4.10	8.12	0.08	0.00		
25	0.00	19.49	0.00	2.18	7.10	9.64	0.00	8.63	3.50	7.95	0.04	0.00		
26	0.00	20.48	0.00	2.09	9.64	9.01	0.00	8.29	2.90	7.61	0.00	0.00		
27	0.00	21.80	0.00	2.00	11.36	8.46	0.00	8.29	2.36	7.27	0.00	0.00		
28	0.00	22.60	0.00	1.93	17.10	7.27	0.00	8.29	2.00	6.42	0.00	0.00		
29	0.00	23.80	0.00	1.86	17.94	5.40	0.00	8.46	1.86	4.88		0.00		
30	0.00	25.00	0.00	1.72	15.20	3.98	0.00	8.80	1.79	4.36		0.00		
31		26.74		1.72	12.51		0.00		1.65	3.74		0.00		
Total	0.00	237.88	214.94	223.97	98.31	265.19	149.41	491.16	162.63	193.44	30.14	0.00	2067.07	CMSDAY
Mean	0.00	7.67	7.16	7.22	3.17	8.84	4.82	16.37	5.25	6.24	1.08	0.00	5.66	CMS
Max	0.00	26.74	26.27	21.14	17.94	12.05	20.15	34.58	9.64	15.45	3.26	0.00	34.58	CMS
Min	0.00	0.00	0.00	1.72	0.00	3.98	0.00	8.29	0.00	0.14	0.00	0.00	0.00	CMS
Runoff	0.00	20.55	18.57	19.35	8.49	22.91	12.91	42.44	14.05	16.71	2.60	0.00	178.59	MCM

Momentary Peak 34.58 CMS. at 30.78 m. (MSL.) at 01.00 Hours , on Nov 1 , 2018

Runoff Yield 1.77 Liters/Second/Square KM. Momentary Peak Yield 10.78 Liters/Second/Square KM.

WATER YEAR : 2018

SAKAE KRANG RIVER BASIN

Huai Tak Dad at Ban Don Yai, Uthai Thani (Ct.19)

Lat 15 - 27 - 07 N Long 100 - 02 - 00 E

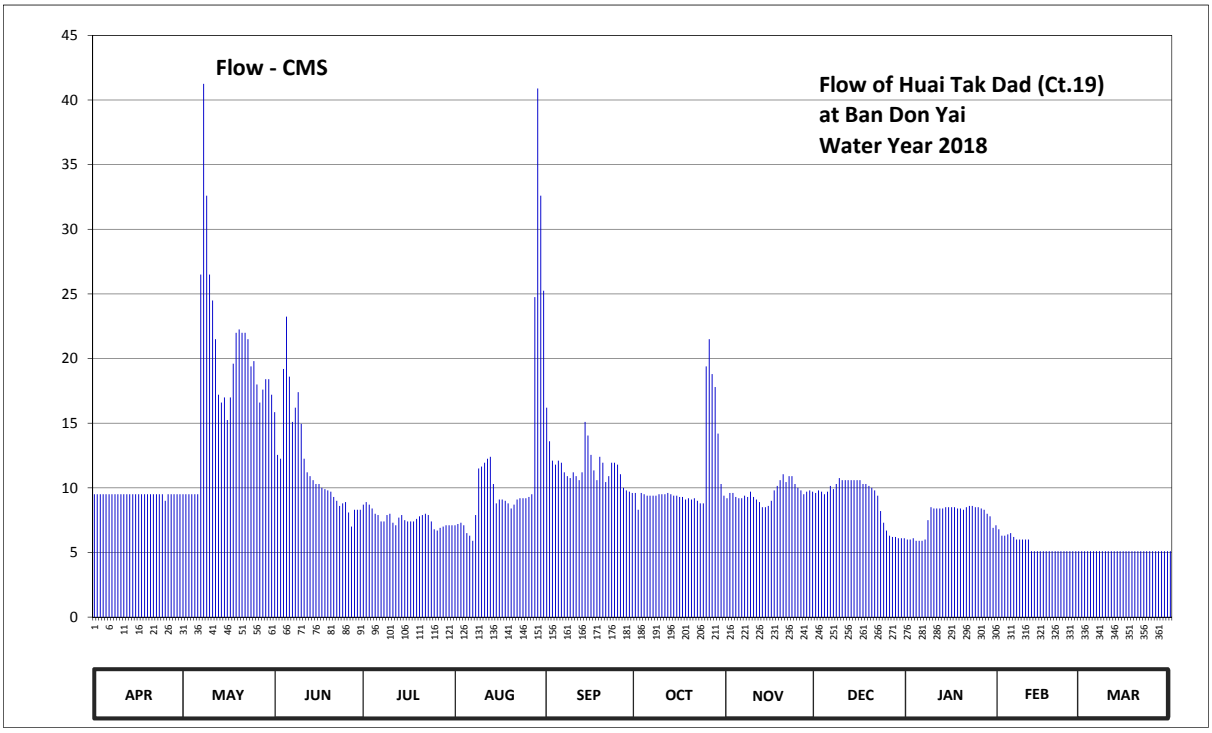
Location : on right bank at Ban Don Yai

	Ban Don Yai	**Amphoe** Mueang	**Changwat** Uthai Thani
Drainge Area	3,455 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank about 5.00 meters from the top staff gage.		**Elevation** +24.379 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	1998 to date		
Rating Operation			
Period of Rating	1998 to date		
Rated by Flot	-		
Rated by Current Meter	1998 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 1 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	17.55	17.55	17.99	17.47	17.31	18.01	17.56	17.52	17.56	17.20	17.28	17.11	
2	17.55	17.55	17.77	17.49	17.32	17.84	17.43	17.56	17.58	17.20	17.23	17.11	
3	17.55	17.55	17.75	17.47	17.33	17.74	17.56	17.56	17.57	17.21	17.23	17.11	
4	17.55	17.55	18.16	17.44	17.31	17.72	17.55	17.53	17.55	17.19	17.24	17.11	
5	17.55	17.55	18.33	17.40	17.25	17.74	17.54	17.52	17.57	17.19	17.25	17.11	
6	17.55	17.55	18.13	17.39	17.23	17.73	17.54	17.52	17.61	17.19	17.22	17.11	
7	17.55	18.46	17.94	17.34	17.19	17.68	17.54	17.54	17.59	17.20	17.20	17.11	
8	17.55	18.95	18.01	17.34	17.39	17.66	17.54	17.53	17.62	17.35	17.20	17.11	
9	17.55	18.67	18.07	17.39	17.70	17.65	17.55	17.57	17.65	17.45	17.20	17.11	
10	17.55	18.46	17.93	17.40	17.71	17.68	17.55	17.53	17.64	17.44	17.20	17.11	
11	17.55	18.38	17.75	17.33	17.73	17.66	17.55	17.51	17.64	17.44	17.20	17.11	
12	17.55	18.26	17.68	17.31	17.75	17.64	17.56	17.49	17.64	17.44	17.11	17.11	
13	17.55	18.06	17.66	17.37	17.76	17.68	17.55	17.45	17.64	17.44	17.11	17.11	
14	17.55	18.03	17.64	17.39	17.62	17.94	17.54	17.45	17.64	17.45	17.11	17.11	
15	17.55	18.05	17.62	17.35	17.48	17.87	17.54	17.46	17.64	17.45	17.11	17.11	
16	17.55	17.95	17.62	17.34	17.51	17.77	17.53	17.50	17.64	17.45	17.11	17.11	
17	17.55	18.05	17.60	17.34	17.51	17.69	17.53	17.58	17.62	17.45	17.11	17.11	
18	17.55	18.18	17.59	17.34	17.50	17.64	17.51	17.61	17.62	17.44	17.11	17.11	
19	17.55	18.28	17.58	17.36	17.48	17.76	17.52	17.64	17.61	17.44	17.11	17.11	
20	17.55	18.29	17.57	17.38	17.44	17.73	17.51	17.67	17.60	17.43	17.11	17.11	
21	17.55	18.28	17.53	17.39	17.47	17.63	17.52	17.63	17.58	17.45	17.11	17.11	
22	17.55	18.28	17.50	17.40	17.51	17.66	17.50	17.66	17.54	17.46	17.11	17.11	
23	17.55	18.26	17.46	17.39	17.52	17.73	17.48	17.66	17.42	17.46	17.11	17.11	
24	17.55	18.17	17.48	17.34	17.52	17.73	17.48	17.62	17.33	17.45	17.11	17.11	
25	17.50	18.19	17.49	17.28	17.52	17.72	18.17	17.60	17.27	17.45	17.11	17.11	
26	17.55	18.10	17.41	17.27	17.53	17.67	18.26	17.58	17.23	17.44	17.11	17.11	
27	17.55	18.03	17.30	17.29	17.55	17.60	18.14	17.55	17.22	17.43	17.11	17.11	
28	17.55	18.08	17.43	17.30	18.39	17.58	18.09	17.57	17.22	17.40	17.11	17.11	
29	17.55	18.12	17.43	17.31	18.94	17.57	17.88	17.58	17.21	17.38		17.11	
30	17.55	18.12	17.43	17.31	18.67	17.56	17.62	17.57	17.21	17.29		17.11	
31		18.06		17.31	18.41		17.54		17.21	17.31		17.11	
Mean	17.55	18.10	17.69	17.36	17.63	17.71	17.63	17.56	17.51	17.37	17.15	17.11	
Max	17.55	18.95	18.33	17.49	18.94	18.01	18.26	17.67	17.65	17.46	17.28	17.11	18.95
Min	17.50	17.55	17.30	17.27	17.19	17.56	17.43	17.45	17.21	17.19	17.11	17.11	17.11

Annual Max Momentary Gage Height	19.08	m. (MSL.) ,	at 04.00 Hours , on Aug 29 , 2018		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	15.83	m. (MSL.)
Left Bank Elevation	24.36	m. (MSL.) ,			
Right Bank Elevation	24.35	m. (MSL.) ,	Drainage Are	3,455	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	9.50	9.50	15.85	8.70	7.10	16.20	9.60	9.20	9.60	6.00	6.80	5.10		
2	9.50	9.50	12.55	8.90	7.20	13.60	8.30	9.60	9.80	6.00	6.30	5.10		
3	9.50	9.50	12.25	8.70	7.30	12.10	9.60	9.60	9.70	6.10	6.30	5.10		
4	9.50	9.50	19.20	8.40	7.10	11.80	9.50	9.30	9.50	5.90	6.40	5.10		
5	9.50	9.50	23.25	8.00	6.50	12.10	9.40	9.20	9.70	5.90	6.50	5.10		
6	9.50	9.50	18.60	7.90	6.30	11.95	9.40	9.20	10.15	5.90	6.20	5.10		
7	9.50	26.50	15.10	7.40	5.90	11.20	9.40	9.40	9.90	6.00	6.00	5.10		
8	9.50	41.25	16.20	7.40	7.90	10.90	9.40	9.30	10.30	7.50	6.00	5.10		
9	9.50	32.60	17.40	7.90	11.50	10.75	9.50	9.70	10.75	8.50	6.00	5.10		
10	9.50	26.50	14.95	8.00	11.65	11.20	9.50	9.30	10.60	8.40	6.00	5.10		
11	9.50	24.50	12.25	7.30	11.95	10.90	9.50	9.10	10.60	8.40	6.00	5.10		
12	9.50	21.50	11.20	7.10	12.25	10.60	9.60	8.90	10.60	8.40	5.10	5.10		
13	9.50	17.20	10.90	7.70	12.40	11.20	9.50	8.50	10.60	8.40	5.10	5.10		
14	9.50	16.60	10.60	7.90	10.30	15.10	9.40	8.50	10.60	8.50	5.10	5.10		
15	9.50	17.00	10.30	7.50	8.80	14.05	9.40	8.60	10.60	8.50	5.10	5.10		
16	9.50	15.25	10.30	7.40	9.10	12.55	9.30	9.00	10.60	8.50	5.10	5.10		
17	9.50	17.00	10.00	7.40	9.10	11.35	9.30	9.80	10.30	8.50	5.10	5.10		
18	9.50	19.60	9.90	7.40	9.00	10.60	9.10	10.15	10.30	8.40	5.10	5.10		
19	9.50	22.00	9.80	7.60	8.80	12.40	9.20	10.60	10.15	8.40	5.10	5.10		
20	9.50	22.25	9.70	7.80	8.40	11.95	9.10	11.05	10.00	8.30	5.10	5.10		
21	9.50	22.00	9.30	7.90	8.70	10.45	9.20	10.45	9.80	8.50	5.10	5.10		
22	9.50	22.00	9.00	8.00	9.10	10.90	9.00	10.90	9.40	8.60	5.10	5.10		
23	9.50	21.50	8.60	7.90	9.20	11.95	8.80	10.90	8.20	8.60	5.10	5.10		
24	9.50	19.40	8.80	7.40	9.20	11.95	8.80	10.30	7.30	8.50	5.10	5.10		
25	9.00	19.80	8.90	6.80	9.20	11.80	19.40	10.00	6.70	8.50	5.10	5.10		
26	9.50	18.00	8.10	6.70	9.30	11.05	21.50	9.80	6.30	8.40	5.10	5.10		
27	9.50	16.60	7.00	6.90	9.50	10.00	18.80	9.50	6.20	8.30	5.10	5.10		
28	9.50	17.60	8.30	7.00	24.75	9.80	17.80	9.70	6.20	8.00	5.10	5.10		
29	9.50	18.40	8.30	7.10	40.90	9.70	14.20	9.80	6.10	7.80		5.10		
30	9.50	18.40	8.30	7.10	32.60	9.60	10.30	9.70	6.10	6.90		5.10		
31		17.20		7.10	25.25		9.40		6.10	7.10		5.10		
Total	284.50	587.65	354.90	236.30	366.25	349.70	334.20	289.05	282.75	239.70	155.20	158.10	3638.30	CMSDAY
Mean	9.48	18.96	11.83	7.62	11.81	11.66	10.78	9.63	9.12	7.73	5.54	5.10	9.97	CMS
Max	9.50	41.25	23.25	8.90	40.90	16.20	21.50	11.05	10.75	8.60	6.80	5.10	41.25	CMS
Min	9.00	9.50	7.00	6.70	5.90	9.60	8.30	8.50	6.10	5.90	5.10	5.10	5.10	CMS
Runoff	24.58	50.77	30.66	20.42	31.64	30.21	28.87	24.97	24.43	20.71	13.41	13.66	314.35	MCM

Momentary Peak 45.80 CMS. at 19.08 m. (MSL.) at 04.00 Hours , on Aug 29 , 2018

Runoff Yield 2.89 Liters/Second/Square KM. Momentary Peak Yield 13.26 Liters/Second/Square KM.

WATER YEAR : 2018

SAKAE KRANG RIVER BASIN

Lower Huai Thap Salao at Ban Saphan Leak, Uthai Thani (Ct.20)

Lat 15 - 26 - 43 N Long 99 - 35 - 24 E

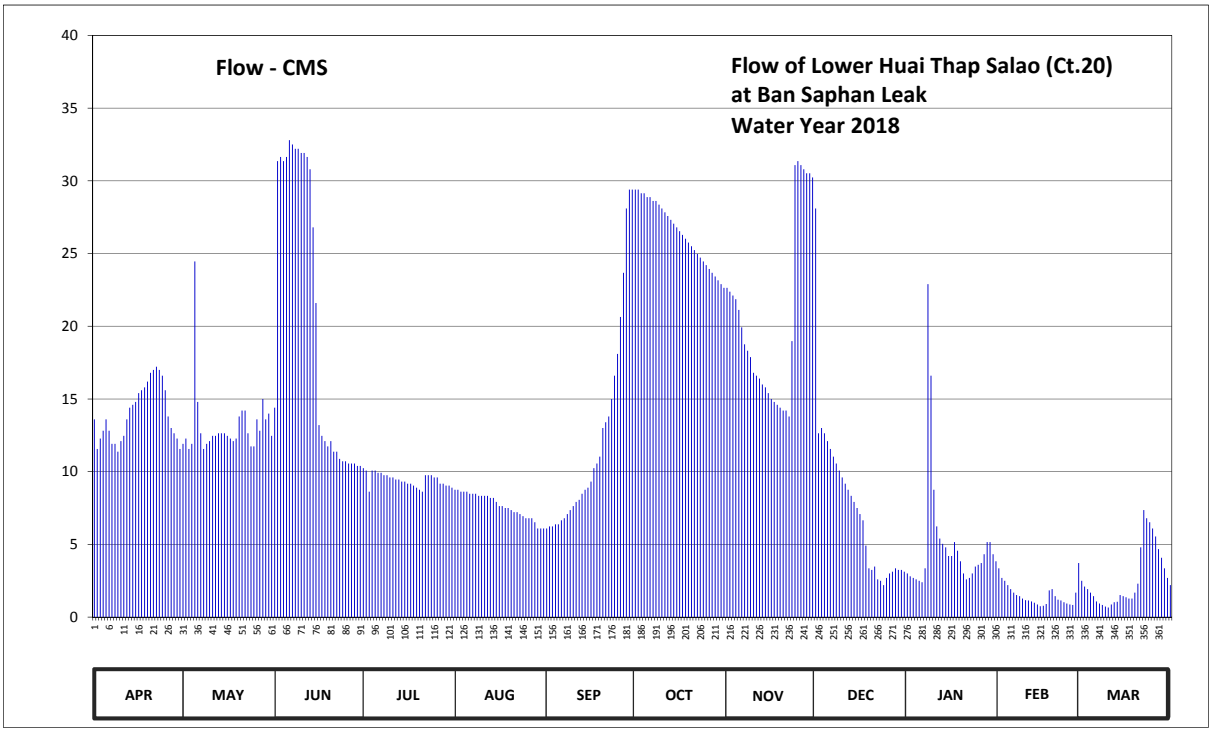
Location : on right bank at Ban Saphan Leak

	Ban Saphan Leak	**Amphoe** Lan Sak	**Changwat** Uthai Thani
Drainge Area	683 sq.km.		
Type of Gage	Staff gage.		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank near the automatic gage buiding		**Elevation** +101.800 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic mean of 3 readings		
Period of Available Gage Records	1999 to date		
Rating Operation			
Period of Rating	2007 to date		
Rated by Flot	-		
Rated by Current Meter	2007 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow		
General Description	Records good. Stage-discharge relation defined by 5 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	99.13	99.04	99.17	98.94	98.84	98.65	99.80	99.54	99.75	98.40	98.43	98.35	
2	99.02	99.06	99.87	98.93	98.84	98.66	99.80	99.53	99.08	98.38	98.37	98.31	
3	99.06	99.02	99.88	98.83	98.83	98.66	99.79	99.52	99.10	98.37	98.35	98.29	
4	99.09	99.04	99.87	98.93	98.83	98.67	99.79	99.51	99.08	98.36	98.32	98.26	
5	99.13	99.61	99.88	98.93	98.83	98.67	99.78	99.48	99.05	98.35	98.29	98.23	
6	99.09	99.19	99.92	98.92	98.82	98.69	99.78	99.43	99.02	98.34	98.26	98.16	
7	99.04	99.08	99.91	98.92	98.82	98.70	99.77	99.38	98.99	98.43	98.24	98.11	
8	99.04	99.02	99.90	98.91	98.82	98.72	99.77	99.36	98.96	99.55	98.23	98.08	
9	99.01	99.04	99.90	98.91	98.81	98.74	99.76	99.34	98.93	99.28	98.21	98.04	
10	99.05	99.05	99.89	98.90	98.81	98.76	99.75	99.29	98.90	98.84	98.19	98.02	
11	99.07	99.07	99.89	98.90	98.81	98.78	99.74	99.28	98.87	98.66	98.18	98.09	
12	99.13	99.07	99.88	98.89	98.81	98.79	99.73	99.27	98.84	98.60	98.16	98.14	
13	99.17	99.08	99.85	98.89	98.80	98.82	99.72	99.25	98.81	98.57	98.13	98.15	
14	99.18	99.08	99.70	98.88	98.80	98.84	99.71	99.24	98.78	98.55	98.09	98.24	
15	99.19	99.08	99.50	98.88	98.78	98.85	99.70	99.22	98.75	98.50	98.05	98.23	
16	99.22	99.07	99.11	98.87	98.76	98.88	99.69	99.20	98.72	98.50	98.06	98.22	
17	99.23	99.06	99.07	98.87	98.76	98.94	99.68	99.19	98.69	98.58	98.10	98.21	
18	99.24	99.05	99.05	98.86	98.75	98.96	99.67	99.18	98.56	98.53	98.28	98.21	
19	99.26	99.06	99.03	98.85	98.75	98.99	99.66	99.17	98.43	98.47	98.29	98.26	
20	99.29	99.14	99.05	98.84	98.74	99.10	99.65	99.16	98.42	98.40	98.23	98.33	
21	99.30	99.16	99.01	98.83	98.73	99.12	99.64	99.16	98.44	98.36	98.20	98.55	
22	99.31	99.16	99.01	98.91	98.73	99.14	99.63	99.14	98.36	98.37	98.18	98.74	
23	99.30	99.08	98.98	98.91	98.72	99.20	99.62	99.39	98.35	98.40	98.14	98.70	
24	99.28	99.03	98.97	98.91	98.71	99.28	99.61	99.86	98.32	98.44	98.11	98.68	
25	99.23	99.03	98.97	98.90	98.70	99.35	99.60	99.87	98.37	98.45	98.09	98.65	
26	99.14	99.13	98.96	98.90	98.70	99.46	99.59	99.86	98.40	98.46	98.08	98.61	
27	99.10	99.09	98.96	98.87	98.70	99.58	99.58	99.85	98.41	98.51	98.26	98.54	
28	99.08	99.20	98.96	98.87	98.68	99.75	99.57	99.84	98.43	98.58	98.46	98.49	
29	99.06	99.13	98.95	98.86	98.65	99.80	99.56	99.84	98.42	98.58		98.43	
30	99.02	99.15	98.95	98.86	98.65	99.80	99.55	99.83	98.42	98.51		98.37	
31		99.07		98.85	98.65		99.54		98.41	98.47		98.32	
Mean	99.15	99.10	99.40	98.89	98.76	99.01	99.68	99.44	98.71	98.54	98.21	98.32	
Max	99.31	99.61	99.92	98.94	98.84	99.80	99.80	99.87	99.75	99.55	98.46	98.74	99.92
Min	99.01	99.02	98.95	98.83	98.65	98.65	99.54	99.14	98.32	98.34	98.05	98.02	98.02

Annual Max Momentary Gage Height	99.93	m. (MSL.) ,	at 12.00 Hours , on May 5 , 2018			
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	97.22	m. (MSL.)	
Left Bank Elevation	104.36	m. (MSL.) ,				
Right Bank Elevation	104.34	m. (MSL.) ,	Drainage Are	683	Square Kilometers	



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	13.60	11.92	14.40	10.24	8.76	6.10	29.40	22.64	28.10	3.00	3.36	2.50		
2	11.56	12.28	31.36	10.08	8.76	6.24	29.40	22.38	12.64	2.80	2.70	2.10		
3	12.28	11.56	31.64	8.62	8.62	6.24	29.14	22.12	13.00	2.70	2.50	1.92		
4	12.82	11.92	31.36	10.08	8.62	6.38	29.14	21.86	12.64	2.60	2.20	1.68		
5	13.60	24.46	31.64	10.08	8.62	6.38	28.88	21.12	12.10	2.50	1.92	1.44		
6	12.82	14.80	32.80	9.92	8.48	6.66	28.88	19.92	11.56	2.40	1.68	1.08		
7	11.92	12.64	32.50	9.92	8.48	6.80	28.62	18.76	11.04	3.36	1.52	0.93		
8	11.92	11.56	32.20	9.76	8.48	7.08	28.62	18.32	10.56	22.90	1.44	0.84		
9	11.38	11.92	32.20	9.76	8.34	7.36	28.36	17.88	10.08	16.60	1.28	0.72		
10	12.10	12.10	31.92	9.60	8.34	7.64	28.10	16.80	9.60	8.76	1.17	0.66		
11	12.46	12.46	31.92	9.60	8.34	7.92	27.84	16.60	9.18	6.24	1.14	0.87		
12	13.60	12.46	31.64	9.46	8.34	8.06	27.58	16.40	8.76	5.40	1.08	1.02		
13	14.40	12.64	30.80	9.46	8.20	8.48	27.32	16.00	8.34	5.04	0.99	1.05		
14	14.60	12.64	26.80	9.32	8.20	8.76	27.06	15.80	7.92	4.80	0.87	1.52		
15	14.80	12.64	21.60	9.32	7.92	8.90	26.80	15.40	7.50	4.20	0.75	1.44		
16	15.40	12.46	13.20	9.18	7.64	9.32	26.54	15.00	7.08	4.20	0.78	1.36		
17	15.60	12.28	12.46	9.18	7.64	10.24	26.28	14.80	6.66	5.16	0.90	1.28		
18	15.80	12.10	12.10	9.04	7.50	10.56	26.02	14.60	4.92	4.56	1.84	1.28		
19	16.20	12.28	11.74	8.90	7.50	11.04	25.76	14.40	3.36	3.84	1.92	1.68		
20	16.80	13.80	12.10	8.76	7.36	13.00	25.50	14.20	3.24	3.00	1.44	2.30		
21	17.00	14.20	11.38	8.62	7.22	13.40	25.24	14.20	3.48	2.60	1.20	4.80		
22	17.22	14.20	11.38	9.76	7.22	13.80	24.98	13.80	2.60	2.70	1.14	7.36		
23	17.00	12.64	10.88	9.76	7.08	15.00	24.72	18.98	2.50	3.00	1.02	6.80		
24	16.60	11.74	10.72	9.76	6.94	16.60	24.46	31.08	2.20	3.48	0.93	6.52		
25	15.60	11.74	10.72	9.60	6.80	18.10	24.20	31.36	2.70	3.60	0.87	6.10		
26	13.80	13.60	10.56	9.60	6.80	20.64	23.94	31.08	3.00	3.72	0.84	5.54		
27	13.00	12.82	10.56	9.18	6.80	23.68	23.68	30.80	3.12	4.32	1.68	4.68		
28	12.64	15.00	10.56	9.18	6.52	28.10	23.42	30.52	3.36	5.16	3.72	4.08		
29	12.28	13.60	10.40	9.04	6.10	29.40	23.16	30.52	3.24	5.16		3.36		
30	11.56	14.00	10.40	9.04	6.10	29.40	22.90	30.24	3.24	4.32		2.70		
31		12.46		8.90	6.10		22.64		3.12	3.84		2.20		
Total	420.36	406.92	613.94	292.72	237.82	371.28	818.58	617.58	230.84	155.96	42.88	81.81	4290.69	CMSDAY
Mean	14.01	13.13	20.46	9.44	7.67	12.38	26.41	20.59	7.45	5.03	1.53	2.64	11.76	CMS
Max	17.22	24.46	32.80	10.24	8.76	29.40	29.40	31.36	28.10	22.90	3.72	7.36	32.80	CMS
Min	11.38	11.56	10.40	8.62	6.10	6.10	22.64	13.80	2.20	2.40	0.75	0.66	0.66	CMS
Runoff	36.32	35.16	53.04	25.29	20.55	32.08	70.73	53.36	19.94	13.47	3.70	7.07	370.72	MCM

Momentary Peak 33.10 CMS. at 99.93 m. (MSL.) at 12.00 Hours , on May 5 , 2018

Runoff Yield 17.01 Liters/Second/Square KM. Momentary Peak Yield 47.89 Liters/Second/Square KM.

WATER YEAR : 2018

SAKAE KRANG RIVER BASIN

Lower Wang Rom Klao Dam at Wang Rom Klao Bridge, Uthai Thani (Ct.25)

Lat 15 - 30 - 10 N Long 99 - 58 - 01 E

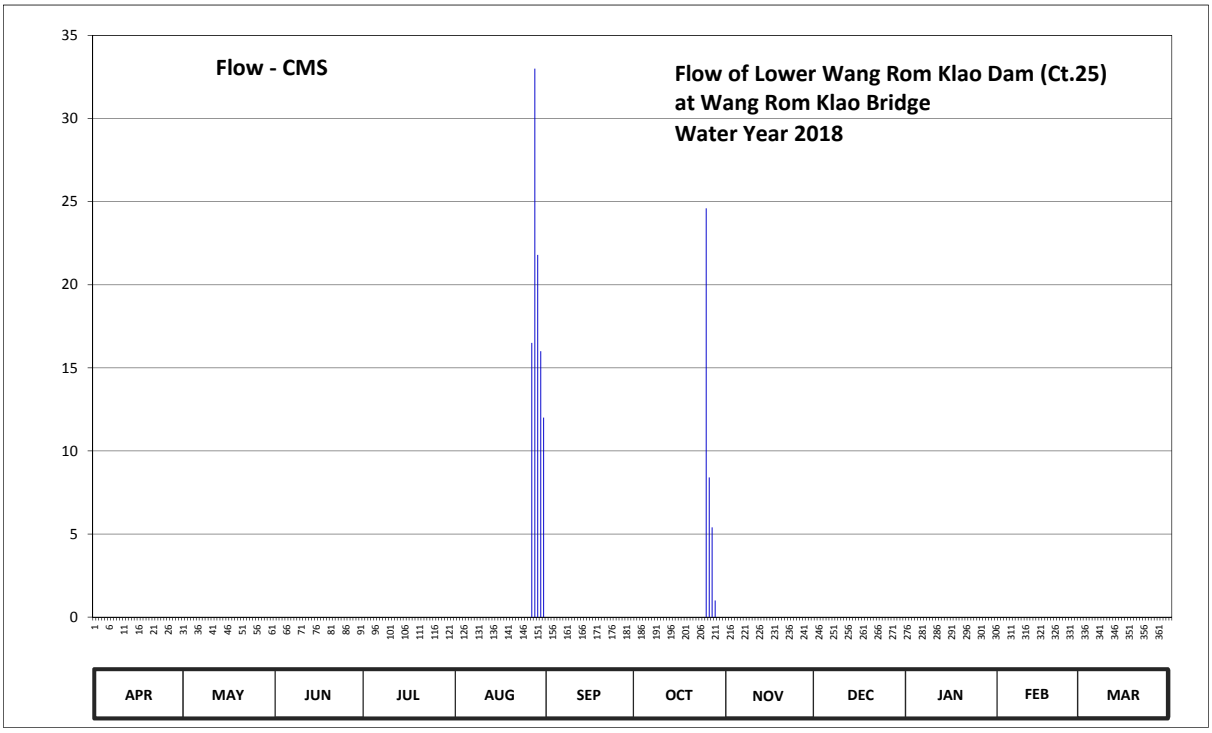
Location : on right bank at Wang Rom Klao Bridge.

	Ban -	**Amphoe** Thap Than	**Changwat** Uthai Thani
Drainge Area	4,119 sq.km.		
Type of Gage	Staff gage.		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank near the automatic gage buiding		**Elevation** +32.250 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic mean of 3 readings		
Period of Available Gage Records	2018 to date		
Rating Operation			
Period of Rating	2018 to date		
Rated by Flot	-		
Rated by Current Meter	2018 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow		
General Description	Records poor. Stage-discharge relation defined by 1 discharge measurements made in 2018.		
Remark	Collecting data at certain times		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1					22.03	22.61	22.46	22.38	22.49	22.33	22.31	22.31	
2					22.09	22.61	22.49	22.35	22.48	22.33	22.31	22.31	
3					22.21	22.53	22.57	22.29	22.48	22.25	22.32	22.30	
4					22.26	22.51	22.58	22.18	22.49	22.30	22.32	22.28	
5					22.20	22.50	22.58	21.97	22.53	22.33	22.32	22.29	
6					22.12	22.50	22.57	21.87	22.54	22.33	22.31	22.30	
7					22.15	22.49	22.57	21.30	22.50	22.33	22.32	22.30	
8					22.29	22.48	22.56	22.05	22.53	22.32	22.32	22.30	
9					22.36	22.47	22.52	22.56	22.53	22.32	22.31	22.29	
10					22.39	22.47	22.51	22.50	22.53	22.32	22.31	22.29	
11					22.41	22.47	22.49	22.49	22.53	22.34	22.30	22.30	
12					22.39	22.47	22.48	22.49	22.53	22.35	22.31	22.29	
13					22.39	22.48	22.46	22.50	22.53	22.34	22.32	22.28	
14					22.39	22.51	22.43	22.52	22.53	22.34	22.31	22.28	
15					22.39	22.47	22.42	22.54	22.54	22.34	22.31	22.29	
16					22.26	22.47	22.41	22.54	22.54	22.34	22.31	22.28	
17					22.11	22.46	22.38	22.53	22.53	22.33	22.31	22.30	
18					22.01	22.46	22.37	22.52	22.53	22.33	22.31	22.29	
19					22.07	22.79	22.39	22.53	22.53	22.33	22.32	22.29	
20					22.32	22.58	22.46	22.53	22.52	22.32	22.33	22.30	
21					22.44	22.56	22.35	22.53	22.49	22.32	22.32	22.31	
22					22.49	22.56	22.26	22.52	22.50	22.32	22.31	22.30	
23					22.55	22.55	22.36	22.52	22.51	22.32	22.30	22.29	
24					22.51	22.77	22.32	22.51	22.45	22.32	22.30	22.28	
25					22.49	22.53	24.68	22.51	22.28	22.32	22.30	22.30	
26					22.87	22.53	24.36	22.49	22.25	22.32	22.31	22.31	
27					24.55	22.53	24.27	22.49	22.32	22.32	22.32	22.30	
28					24.77	22.52	24.05	22.49	22.27	22.32	22.31	22.30	
29					24.64	22.52	22.85	22.50	22.32	22.31		22.30	
30					24.54	22.52	22.44	22.50	22.33	22.31		22.31	
31					24.45		22.37		22.33	22.31		22.31	
Mean					22.68	22.53	22.71	22.39	22.47	22.32	22.31	22.30	
Max					24.77	22.79	24.68	22.56	22.54	22.35	22.33	22.31	24.77
Min					22.01	22.46	22.26	21.30	22.25	22.25	22.30	22.28	21.30

Annual Max Momentary Gage Height	24.82	m. (MSL.) ,	at 06.00 Hours , on Aug 28 , 2018			
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	20.55	m. (MSL.)	
Left Bank Elevation	30.67	m. (MSL.) ,				
Right Bank Elevation	31.21	m. (MSL.) ,	Drainage Are	4,119	Square Kilometers	



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
3					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
5					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
6					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
8					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
9					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
10					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
11					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
13					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
14					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
15					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
16					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
17					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
18					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
19					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
20					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
21					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
22					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
23					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
24					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
25					0.00	0.00	24.60	0.00	0.00	0.00	0.00	0.00		
26					0.00	0.00	8.40	0.00	0.00	0.00	0.00	0.00		
27					16.50	0.00	5.40	0.00	0.00	0.00	0.00	0.00		
28					33.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00		
29					21.80	0.00	0.00	0.00	0.00	0.00		0.00		
30					16.00	0.00	0.00	0.00	0.00	0.00		0.00		
31					12.00		0.00		0.00	0.00		0.00		
Total					99.30	0.00	39.40	0.00	0.00	0.00	0.00	0.00	138.70	CMSDAY
Mean					3.20	0.00	1.27	0.00	0.00	0.00	0.00	0.00	0.57	CMS
Max					33.00	0.00	24.60	0.00	0.00	0.00	0.00	0.00	33.00	CMS
Min					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	CMS
Runoff					8.58	0.00	3.40	0.00	0.00	0.00	0.00	0.00	11.98	MCM

Momentary Peak 38.60 CMS. at 24.82 m. (MSL.) at 06.00 Hours , on Aug 28 , 2018

Runoff Yield 0.09 Liters/Second/Square KM. Momentary Peak Yield 9.37 Liters/Second/Square KM.

WATER YEAR : 2018

PASAK RIVER BASIN

Pasak River at Ban Tan Dieo , Phetchabun (S.3)

Lat 16 - 46 - 51 N Long 101 - 14 - 57 E

Location : on left bank near the bridge of Samakkhichai - Nonthakit Road.

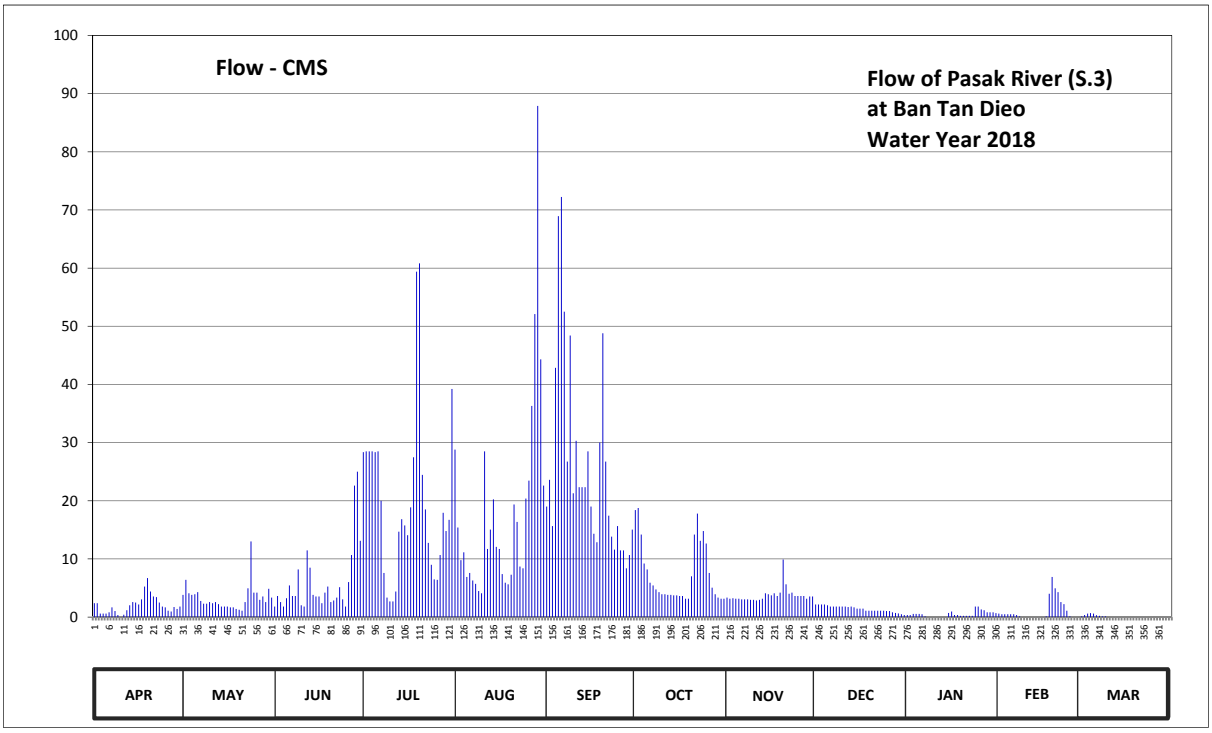
Ban Tan Dieo **Amphoe** Lom Sak **Changwat** Phetchabun

Drainge Area	1,037 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+136.630 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On right bank at the staff gage. **Elevation** +142.630 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings
Period of Available Gage Records	1950 to date
Rating Operation	
Period of Rating	1996 to date
Rated by Flot	-
Rated by Current Meter	1996 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Flow regulated by the concrete weir about 150 meters downstream from the gage site. Stage-discharge relation defined by 19 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	140.01	140.16	139.93	142.23	142.26	141.55	141.50	140.11	139.98	139.68	139.73	139.63	
2	140.01	140.43	140.14	142.24	141.25	141.90	141.53	140.09	139.98	139.68	139.71	139.68	
3	139.73	140.19	140.03	142.24	140.77	141.27	141.15	140.10	139.98	139.72	139.71	139.73	
4	139.73	140.16	139.93	142.24	140.89	143.11	140.71	140.09	139.98	139.72	139.71	139.75	
5	139.73	140.17	140.10	142.23	140.48	144.41	140.61	140.09	139.96	139.72	139.71	139.73	
6	139.78	140.21	140.33	142.24	140.55	144.56	140.38	140.08	139.93	139.71	139.71	139.67	
7	139.91	140.05	140.14	141.63	140.42	143.62	140.33	140.08	139.93	139.63	139.68	139.65	
8	139.82	140.00	140.14	140.55	140.36	142.12	140.26	140.08	139.93	139.53	139.63	139.63	
9	139.68	140.00	140.61	140.11	140.23	143.41	140.21	140.07	139.93	139.53	139.58	139.63	
10	139.57	140.03	139.96	140.04	140.19	141.73	140.17	140.07	139.93	139.53	139.58	139.58	
11	139.69	140.01	139.93	140.04	142.24	142.36	140.17	140.06	139.93	139.53	139.58	139.53	
12	139.84	140.03	140.92	140.22	140.94	141.81	140.16	140.07	139.92	139.53	139.58	139.53	
13	139.96	139.99	140.64	141.19	141.22	141.81	140.16	140.09	139.93	139.53	139.58	139.53	
14	140.03	139.93	140.16	141.37	141.65	141.81	140.15	140.19	139.91	139.55	139.58	139.53	
15	140.02	139.93	140.13	141.28	140.97	142.24	140.15	140.17	139.88	139.76	139.58	139.53	
16	139.98	139.93	140.13	141.14	140.94	141.55	140.14	140.15	139.88	139.81	139.58	139.53	
17	140.08	139.91	140.01	141.54	140.53	141.16	140.14	140.19	139.88	139.68	139.63	139.53	
18	140.31	139.91	140.20	142.17	140.38	141.04	140.09	140.14	139.83	139.68	140.18	139.53	
19	140.46	139.87	140.31	143.96	140.35	142.34	140.09	140.20	139.83	139.65	140.48	139.53	
20	140.22	139.85	140.03	144.03	140.52	143.43	140.49	140.78	139.83	139.65	140.28	139.53	
21	140.13	139.83	140.06	141.96	141.58	142.12	141.15	140.35	139.83	139.65	140.21	139.53	
22	140.12	140.03	140.11	141.51	141.33	141.42	141.45	140.18	139.83	139.65	140.03	139.53	
23	140.02	140.28	140.30	141.03	140.66	141.12	141.06	140.20	139.83	139.65	139.99	139.53	
24	139.93	141.05	140.08	140.69	140.63	140.93	141.20	140.14	139.83	139.93	139.83	139.48	
25	139.91	140.20	139.93	140.44	141.66	141.27	141.02	140.14	139.82	139.93	139.63	139.48	
26	139.83	140.20	140.39	140.43	141.89	140.92	140.55	140.14	139.82	139.86	139.58	139.48	
27	139.81	140.07	140.85	140.85	142.74	140.92	140.29	140.14	139.78	139.84	139.53	139.48	
28	139.92	140.13	141.83	141.46	143.60	140.63	140.17	140.09	139.76	139.78	139.48	139.53	
29	139.87	140.03	142.00	141.20	145.22	140.85	140.11	140.13	139.74	139.78		139.53	
30	139.93	140.27	141.06	141.36	143.19	141.22	140.09	140.13	139.71	139.78		139.53	
31		140.11		142.91	141.83		140.09		139.68	139.75		139.53	
Mean	139.93	140.10	140.35	141.50	141.34	141.95	140.51	140.15	139.87	139.69	139.75	139.57	
Max	140.46	141.05	142.00	144.03	145.22	144.56	141.53	140.78	139.98	139.93	140.48	139.75	145.22
Min	139.57	139.83	139.93	140.04	140.19	140.63	140.09	140.06	139.68	139.53	139.48	139.48	139.48

Annual Max Momentary Gage Height	145.31	m. (MSL.) ,	at 09.00 Hours , on Aug 29 , 2018		
Zero Gage at Bottom Elevation	136.63	m. (MSL.) ,	River Bed	139.22	m. (MSL.)
Left Bank Elevation	146.24	m. (MSL.) ,			
Right Bank Elevation	145.94	m. (MSL.) ,	Drainage Are	1,037	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.40	3.82	1.81	28.35	28.80	19.00	18.40	3.35	2.16	0.36	0.59	0.14		
2	2.40	6.40	3.63	28.50	15.40	23.60	18.76	3.16	2.16	0.36	0.50	0.36		
3	0.59	4.11	2.59	28.50	9.80	15.64	14.20	3.25	2.16	0.54	0.50	0.59		
4	0.59	3.82	1.81	28.50	11.14	42.84	9.20	3.16	2.16	0.54	0.50	0.68		
5	0.59	3.92	3.25	28.35	6.90	68.92	8.20	3.16	2.02	0.54	0.50	0.59		
6	0.81	4.30	5.44	28.50	7.60	72.22	5.91	3.06	1.81	0.50	0.50	0.32		
7	1.67	2.78	3.63	19.99	6.30	52.50	5.44	3.06	1.81	0.14	0.36	0.23		
8	1.04	2.30	3.63	7.60	5.72	26.74	4.77	3.06	1.81	0.00	0.14	0.14		
9	0.36	2.30	8.20	3.35	4.49	48.40	4.30	2.97	1.81	0.00	0.00	0.14		
10	0.00	2.59	2.02	2.68	4.11	21.29	3.92	2.97	1.81	0.00	0.00	0.00		
11	0.41	2.40	1.81	2.68	28.50	30.30	3.92	2.87	1.81	0.00	0.00	0.00		
12	1.18	2.59	11.48	4.39	11.71	22.34	3.82	2.97	1.74	0.00	0.00	0.00		
13	2.02	2.23	8.50	14.68	15.04	22.34	3.82	3.16	1.81	0.00	0.00	0.00		
14	2.59	1.81	3.82	16.84	20.25	22.34	3.73	4.11	1.67	0.00	0.00	0.00		
15	2.49	1.81	3.54	15.76	12.06	28.50	3.73	3.92	1.46	0.72	0.00	0.00		
16	2.16	1.81	3.54	14.08	11.71	19.00	3.63	3.73	1.46	0.97	0.00	0.00		
17	3.06	1.67	2.40	18.88	7.40	14.32	3.63	4.11	1.46	0.36	0.14	0.00		
18	5.25	1.67	4.20	27.47	5.91	12.88	3.16	3.63	1.11	0.36	4.01	0.00		
19	6.70	1.39	5.25	59.38	5.63	30.00	3.16	4.20	1.11	0.23	6.90	0.00		
20	4.39	1.25	2.59	60.82	7.30	48.79	7.00	9.90	1.11	0.23	4.96	0.00		
21	3.54	1.11	2.87	24.44	19.36	26.74	14.20	5.63	1.11	0.23	4.30	0.00		
22	3.44	2.59	3.35	18.52	16.36	17.44	17.80	4.01	1.11	0.23	2.59	0.00		
23	2.49	4.96	5.15	12.76	8.70	13.84	13.12	4.20	1.11	0.23	2.23	0.00		
24	1.81	13.00	3.06	9.00	8.40	11.60	14.80	3.63	1.11	1.81	1.11	0.00		
25	1.67	4.20	1.81	6.50	20.38	15.64	12.64	3.63	1.04	1.81	0.14	0.00		
26	1.11	4.20	6.01	6.40	23.46	11.48	7.60	3.63	1.04	1.32	0.00	0.00		
27	0.97	2.97	10.68	10.68	36.31	11.48	5.06	3.63	0.81	1.18	0.00	0.00		
28	1.74	3.54	22.62	17.92	52.10	8.40	3.92	3.16	0.72	0.81	0.00	0.00		
29	1.39	2.59	25.00	14.80	87.87	10.68	3.35	3.54	0.63	0.81		0.00		
30	1.81	4.87	13.12	16.72	44.32	15.04	3.16	3.54	0.50	0.81		0.00		
31		3.35		39.23	22.62		3.16		0.36	0.68		0.00		
Total	60.67	102.35	176.81	616.27	565.65	784.30	231.51	112.40	43.99	15.77	29.97	3.19	2742.88	CMSDAY
Mean	2.02	3.30	5.89	19.88	18.25	26.14	7.47	3.75	1.42	0.51	1.07	0.10	7.51	CMS
Max	6.70	13.00	25.00	60.82	87.87	72.22	18.76	9.90	2.16	1.81	6.90	0.68	87.87	CMS
Min	0.00	1.11	1.81	2.68	4.11	8.40	3.16	2.87	0.36	0.00	0.00	0.00	0.00	CMS
Runoff	5.24	8.84	15.28	53.25	48.87	67.76	20.00	9.71	3.80	1.36	2.59	0.28	236.98	MCM

Momentary Peak 90.44 CMS. at 145.31 m. (MSL.) at 09.00 Hours , on Aug 29 , 2018

Runoff Yield 7.25 Liters/Second/Square KM. Momentary Peak Yield 87.21 Liters/Second/Square KM.

WATER YEAR : 2018

PASAK RIVER BASIN

Pasak River at Mueang , Phetchabun (S.4B)

Lat 16 - 25 - 16 N Long 101 - 10 - 08 E

Location : on left bank about 300 meters downstream, Phatthana Phak Nua 2 bridge.

Ban Nai Mueang **Amphoe** Mueang **Changwat** Phetchabun

Drainge Area	3,459 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+106.500 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank in front of town - hall Changwat Phetchabun. **Elevation** +116.728 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	1996 to date
Rating Operation	
Period of Rating	1996 to date
Rated by Flot	-
Rated by Current Meter	1996 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	Overbank flow starts at elevation +114.590 m.(MSL.), records are channel flow only.
General Description	Records good. Flow effected by the local weir about 400 meters downstream from the gage site. Stage-discharge relation defined by 15 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

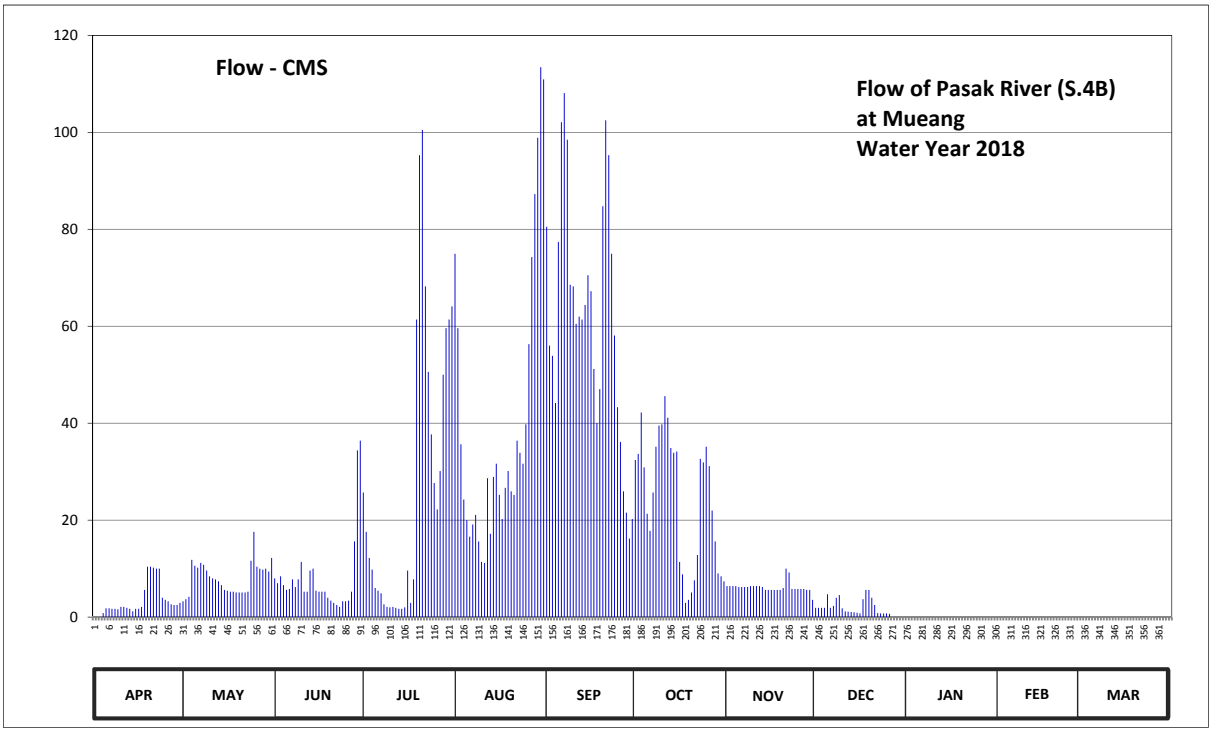
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	110.40	110.75	111.01	111.85	113.57	113.73	112.12	110.93	110.64	110.23	109.85	109.60	
2	110.39	110.78	110.96	111.49	113.09	112.97	112.17	110.93	110.64	110.23	109.84	109.59	
3	110.40	110.81	111.03	111.22	112.25	112.90	112.50	110.93	110.64	110.22	109.84	109.58	
4	110.51	111.20	110.94	111.10	111.79	112.57	112.06	110.93	110.64	110.22	109.84	109.57	
5	110.63	111.14	110.89	110.91	111.60	113.64	111.66	110.92	110.84	110.22	109.84	109.56	
6	110.63	111.12	110.90	110.88	111.44	114.30	111.50	110.92	110.64	110.22	109.84	109.55	
7	110.62	111.17	111.00	110.85	111.56	114.45	111.85	110.92	110.68	110.22	109.83	109.54	
8	110.62	111.15	110.92	110.71	111.65	114.21	112.23	110.92	110.80	110.21	109.83	109.53	
9	110.61	111.09	111.00	110.66	111.39	113.38	112.40	110.93	110.83	110.21	109.83	109.52	
10	110.66	111.03	111.18	110.65	111.18	113.37	112.41	110.93	110.63	110.19	109.80	109.51	
11	110.66	111.01	110.87	110.66	111.17	113.12	112.62	110.93	110.56	110.17	109.77	109.50	
12	110.64	111.00	110.87	110.64	111.97	113.17	112.46	110.93	110.55	110.15	109.74	109.49	
13	110.62	110.98	111.09	110.62	111.47	113.15	112.22	110.92	110.54	110.13	109.73	109.48	
14	110.56	110.94	111.11	110.62	111.98	113.25	112.18	110.89	110.53	110.12	109.72	109.47	
15	110.62	110.89	110.88	110.65	112.09	113.44	112.19	110.89	110.52	110.11	109.61	109.46	
16	110.62	110.88	110.87	111.09	111.83	113.34	111.18	110.89	110.50	110.13	109.65	109.45	
17	110.66	110.87	110.87	110.73	111.61	112.81	111.05	110.89	110.78	109.93	109.67	109.50	
18	110.89	110.87	110.87	111.00	111.89	112.42	110.73	110.89	110.89	109.91	109.67	109.55	
19	111.13	110.86	110.80	113.15	112.03	112.67	110.77	110.89	110.89	109.89	109.67	109.61	
20	111.13	110.86	110.76	114.13	111.86	113.85	110.86	110.91	110.80	109.87	109.66	109.81	
21	111.12	110.86	110.73	114.26	111.83	114.31	110.99	111.11	110.70	109.86	109.66	110.08	
22	111.11	110.86	110.70	113.37	112.28	114.13	111.25	111.07	110.51	109.85	109.65	110.10	
23	111.11	110.87	110.66	112.79	112.18	113.57	112.13	110.90	110.50	109.85	109.65	110.15	
24	110.80	111.19	110.75	112.33	112.09	113.04	112.10	110.90	110.50	109.84	109.66	110.15	
25	110.77	111.49	110.75	111.93	112.41	112.54	112.23	110.90	110.50	109.82	109.62	110.16	
26	110.75	111.13	110.76	111.70	112.98	112.27	112.07	110.90	110.49	109.85	109.61	110.16	
27	110.71	111.11	110.87	112.03	113.55	111.86	111.69	110.90	110.26	109.86	109.61	110.18	
28	110.70	111.10	111.39	112.77	113.92	111.67	111.39	110.89	110.25	109.86	109.61	110.19	
29	110.70	111.11	112.20	113.09	114.22	111.42	111.06	110.89	110.25	109.83		110.20	
30	110.73	111.08	112.28	113.15	114.58	111.61	111.03	110.77	110.23	109.83		110.20	
31		111.22		113.24	114.52		110.98		110.22	109.85		110.20	
Mean	110.72	111.01	111.00	111.75	112.32	113.11	111.74	110.92	110.58	110.03	109.73	109.76	
Max	111.13	111.49	112.28	114.26	114.58	114.45	112.62	111.11	110.89	110.23	109.85	110.20	114.58
Min	110.39	110.75	110.66	110.62	111.17	111.42	110.73	110.77	110.22	109.82	109.61	109.45	109.45

Annual Max Momentary Gage Height 114.63 m. (MSL.) , at 06.00 Hours , on Aug 31 , 2018

Zero Gage at Bottom Elevation 106.50 m. (MSL.) , River Bed 108.47 m. (MSL.)

Left Bank Elevation 115.69 m. (MSL.) ,

Right Bank Elevation 114.58 m. (MSL.) , Drainage Are 3,459 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	3.25	8.00	25.70	74.95	80.55	32.40	6.40	1.90	0.00	0.00	0.00		
2	0.00	3.70	7.00	17.60	59.60	56.00	33.65	6.40	1.90	0.00	0.00	0.00		
3	0.00	4.18	8.40	12.20	35.65	53.90	42.20	6.40	1.90	0.00	0.00	0.00		
4	0.83	11.80	6.60	9.80	24.27	44.16	30.90	6.40	1.90	0.00	0.00	0.00		
5	1.80	10.60	5.62	6.00	20.00	77.40	21.32	6.20	4.72	0.00	0.00	0.00		
6	1.80	10.20	5.80	5.44	16.60	102.10	17.80	6.20	1.90	0.00	0.00	0.00		
7	1.70	11.20	7.80	4.90	19.12	108.10	25.70	6.20	2.30	0.00	0.00	0.00		
8	1.70	10.80	6.20	2.65	21.10	98.50	35.15	6.20	4.00	0.00	0.00	0.00		
9	1.60	9.60	7.80	2.10	15.60	68.54	39.50	6.40	4.54	0.00	0.00	0.00		
10	2.10	8.40	11.40	2.00	11.40	68.21	39.77	6.40	1.80	0.00	0.00	0.00		
11	2.10	8.00	5.26	2.10	11.20	60.50	45.58	6.40	1.20	0.00	0.00	0.00		
12	1.90	7.80	5.26	1.90	28.65	62.00	41.12	6.40	1.13	0.00	0.00	0.00		
13	1.70	7.40	9.60	1.70	17.20	61.40	34.90	6.20	1.05	0.00	0.00	0.00		
14	1.20	6.60	10.00	1.70	28.90	64.40	33.90	5.62	0.98	0.00	0.00	0.00		
15	1.70	5.62	5.44	2.00	31.65	70.52	34.15	5.62	0.90	0.00	0.00	0.00		
16	1.70	5.44	5.26	9.60	25.22	67.22	11.40	5.62	0.75	0.00	0.00	0.00		
17	2.10	5.26	5.26	2.95	20.22	51.20	8.80	5.62	3.70	0.00	0.00	0.00		
18	5.62	5.26	5.26	7.80	26.66	40.04	2.95	5.62	5.62	0.00	0.00	0.00		
19	10.40	5.08	4.00	61.40	30.15	47.03	3.55	5.62	5.62	0.00	0.00	0.00		
20	10.40	5.08	3.40	95.30	25.94	84.75	5.08	6.00	4.00	0.00	0.00	0.00		
21	10.20	5.08	2.95	100.50	25.22	102.50	7.60	10.00	2.50	0.00	0.00	0.00		
22	10.00	5.08	2.50	68.21	36.40	95.30	12.80	9.20	0.83	0.00	0.00	0.00		
23	10.00	5.26	2.10	50.60	33.90	74.95	32.65	5.80	0.75	0.00	0.00	0.00		
24	4.00	11.60	3.25	37.68	31.65	58.10	31.90	5.80	0.75	0.00	0.00	0.00		
25	3.55	17.60	3.25	27.65	39.77	43.32	35.15	5.80	0.75	0.00	0.00	0.00		
26	3.25	10.40	3.40	22.20	56.30	36.15	31.15	5.80	0.68	0.00	0.00	0.00		
27	2.65	10.00	5.26	30.15	74.25	25.94	21.98	5.80	0.00	0.00	0.00	0.00		
28	2.50	9.80	15.60	50.00	87.26	21.54	15.60	5.62	0.00	0.00	0.00	0.00		
29	2.50	10.00	34.40	59.60	98.90	16.20	9.00	5.62	0.00	0.00		0.00		
30	2.95	9.40	36.40	61.40	113.46	20.22	8.40	3.55	0.00	0.00		0.00		
31		12.20		64.10	110.94		7.40		0.00	0.00		0.00		
Total	101.95	251.69	242.47	846.93	1252.13	1860.74	753.45	184.91	58.07	0.00	0.00	0.00	5552.34	CMSDAY
Mean	3.40	8.12	8.08	27.32	40.39	62.02	24.30	6.16	1.87	0.00	0.00	0.00	15.21	CMS
Max	10.40	17.60	36.40	100.50	113.46	108.10	45.58	10.00	5.62	0.00	0.00	0.00	113.46	CMS
Min	0.00	3.25	2.10	1.70	11.20	16.20	2.95	3.55	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	8.81	21.75	20.95	73.17	108.18	160.77	65.10	15.98	5.02	0.00	0.00	0.00	479.72	MCM

Momentary Peak 115.59 CMS. at 114.63 m. (MSL.) at 06.00 Hours , on Aug 31 , 2018

Runoff Yield 4.40 Liters/Second/Square KM. Momentary Peak Yield 33.42 Liters/Second/Square KM.

WATER YEAR : 2018

PASAK RIVER BASIN

Lam Muak Lek at Ban Tharahad , Saraburi (S.7A)

Lat 14 - 47 - 17 N Long 101 - 07 - 18 E

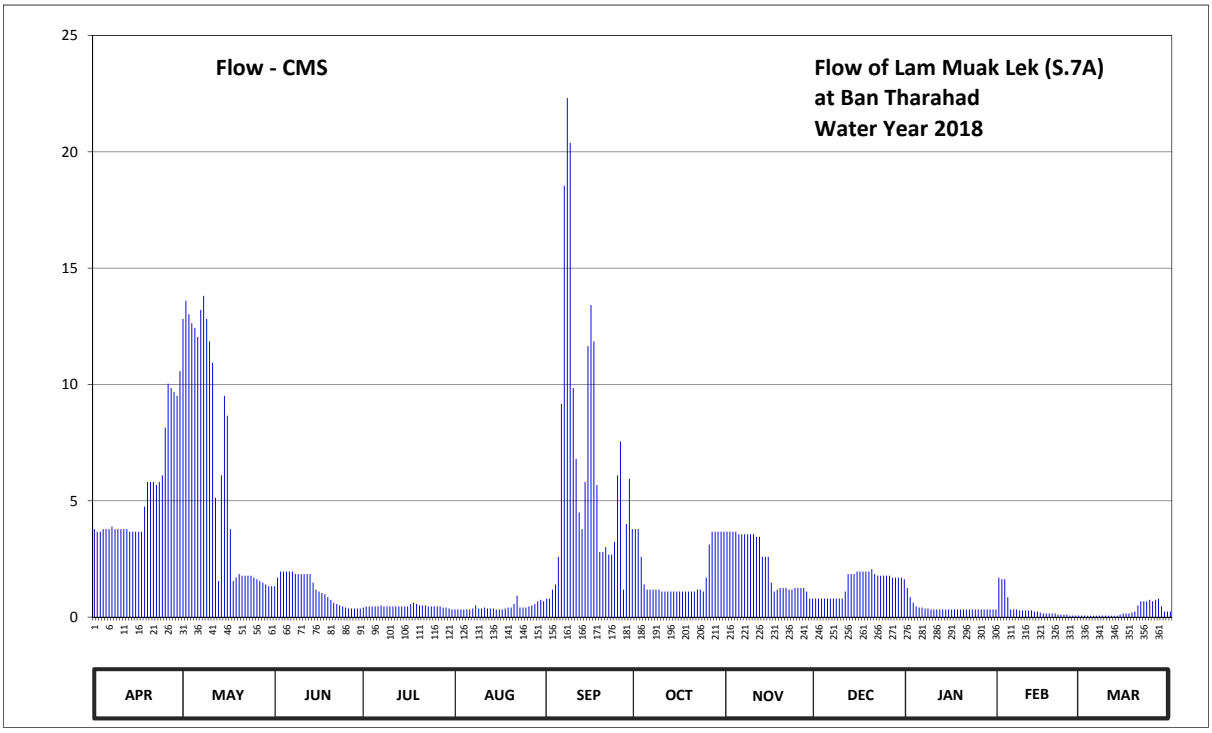
Location : on right bank at Ban Tharahad.

	Ban Tharahad	**Amphoe** Wang Muang	**Changwat** Saraburi		
Drainge Area	580 sq.km.				
Type of Gage	Water - stage recorder				
Zero Gage at Bottom	+0.000 m. (MSL.)				
Bench Mark	B.M.-H.D.				
Location BM	On right bank near the bridge.		**Elevation** +52.984. (MSL.)		
Gage Reading Frequency	Recording				
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings				
Period of Available Gage Records	2003 to date				
Rating Operation					
Period of Rating	2003 to date				
Rated by Flot	-				
Rated by Current Meter	2003 to date				
Stability of Channel Regimes	Fairly stable.				
Overbank Flow Conditions	No overbank flow.				
General Description	Records good. Stage-discharge relation defined by 18 discharge measurements made in 2018.				

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	42.58	43.16	42.33	42.18	42.16	42.25	42.58	42.57	42.25	42.32	42.38	42.10	
2	42.57	43.20	42.38	42.19	42.16	42.25	42.58	42.57	42.25	42.26	42.37	42.10	
3	42.57	43.17	42.41	42.19	42.16	42.31	42.47	42.57	42.25	42.22	42.37	42.09	
4	42.58	43.15	42.41	42.19	42.16	42.34	42.34	42.57	42.25	42.19	42.26	42.09	
5	42.58	43.14	42.41	42.19	42.16	42.47	42.31	42.56	42.25	42.18	42.16	42.09	
6	42.58	43.12	42.41	42.19	42.16	42.96	42.31	42.56	42.25	42.18	42.16	42.09	
7	42.59	43.18	42.41	42.20	42.17	43.43	42.31	42.56	42.25	42.17	42.16	42.09	
8	42.58	43.21	42.40	42.19	42.20	43.59	42.31	42.56	42.25	42.17	42.15	42.10	
9	42.58	43.16	42.40	42.19	42.17	43.51	42.31	42.56	42.25	42.16	42.15	42.09	
10	42.58	43.11	42.40	42.19	42.17	43.00	42.30	42.56	42.25	42.16	42.15	42.09	
11	42.58	43.06	42.40	42.19	42.18	42.81	42.30	42.55	42.30	42.16	42.15	42.09	
12	42.58	42.69	42.40	42.19	42.17	42.64	42.30	42.55	42.40	42.16	42.15	42.09	
13	42.57	42.36	42.40	42.19	42.17	42.58	42.30	42.47	42.40	42.16	42.14	42.09	
14	42.57	42.76	42.35	42.19	42.17	42.74	42.30	42.47	42.40	42.16	42.14	42.11	
15	42.57	42.98	42.31	42.19	42.16	43.10	42.30	42.47	42.41	42.16	42.13	42.12	
16	42.57	42.93	42.30	42.19	42.16	43.19	42.30	42.35	42.41	42.16	42.12	42.12	
17	42.57	42.58	42.29	42.21	42.16	43.11	42.30	42.30	42.41	42.16	42.12	42.12	
18	42.66	42.36	42.28	42.22	42.17	42.73	42.30	42.31	42.41	42.16	42.12	42.13	
19	42.74	42.38	42.26	42.21	42.18	42.49	42.30	42.32	42.41	42.16	42.12	42.14	
20	42.74	42.40	42.24	42.20	42.18	42.49	42.30	42.32	42.42	42.16	42.12	42.20	
21	42.74	42.39	42.22	42.20	42.21	42.51	42.30	42.32	42.40	42.16	42.11	42.23	
22	42.73	42.39	42.21	42.20	42.27	42.48	42.31	42.31	42.39	42.16	42.11	42.23	
23	42.74	42.39	42.20	42.19	42.18	42.48	42.31	42.31	42.39	42.16	42.11	42.23	
24	42.76	42.39	42.19	42.19	42.18	42.53	42.30	42.32	42.39	42.16	42.11	42.24	
25	42.90	42.38	42.18	42.19	42.18	42.76	42.38	42.32	42.39	42.16	42.10	42.23	
26	43.01	42.37	42.17	42.19	42.19	42.86	42.52	42.32	42.39	42.16	42.10	42.24	
27	43.00	42.36	42.17	42.19	42.20	42.31	42.57	42.32	42.38	42.16	42.10	42.25	
28	42.99	42.35	42.17	42.18	42.21	42.60	42.57	42.30	42.38	42.16	42.10	42.19	
29	42.98	42.34	42.17	42.18	42.23	42.75	42.57	42.25	42.38	42.16		42.14	
30	43.04	42.33	42.17	42.17	42.24	42.58	42.57	42.25	42.38	42.16		42.14	
31		42.33		42.16	42.23		42.57		42.37	42.16		42.14	
Mean	42.69	42.71	42.30	42.19	42.18	42.73	42.38	42.43	42.35	42.17	42.16	42.14	
Max	43.04	43.21	42.41	42.22	42.27	43.59	42.58	42.57	42.42	42.32	42.38	42.25	43.59
Min	42.57	42.33	42.17	42.16	42.16	42.25	42.30	42.25	42.25	42.16	42.10	42.09	42.09

Annual Max Momentary Gage Height	43.62	m. (MSL.) ,	at 09.00 Hours , on Sep 8 , 2018		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	41.72	m. (MSL.)
Left Bank Elevation	52.80	m. (MSL.) ,			
Right Bank Elevation	52.94	m. (MSL.) ,	Drainage Are	580	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	3.78	12.82	1.33	0.41	0.33	0.80	3.78	3.67	0.80	1.25	1.70	0.07		
2	3.67	13.60	1.70	0.46	0.33	0.80	3.78	3.67	0.80	0.86	1.63	0.07		
3	3.67	13.02	1.96	0.46	0.33	1.18	2.59	3.67	0.80	0.62	1.63	0.06		
4	3.78	12.63	1.96	0.46	0.33	1.40	1.40	3.67	0.80	0.46	0.86	0.06		
5	3.78	12.43	1.96	0.46	0.33	2.59	1.18	3.56	0.80	0.41	0.33	0.06		
6	3.78	12.04	1.96	0.46	0.33	9.17	1.18	3.56	0.80	0.41	0.33	0.06		
7	3.89	13.21	1.96	0.50	0.37	18.54	1.18	3.56	0.80	0.37	0.33	0.06		
8	3.78	13.81	1.85	0.46	0.50	22.31	1.18	3.56	0.80	0.37	0.29	0.07		
9	3.78	12.82	1.85	0.46	0.37	20.39	1.18	3.56	0.80	0.33	0.29	0.06		
10	3.78	11.85	1.85	0.46	0.37	9.85	1.10	3.56	0.80	0.33	0.29	0.06		
11	3.78	10.93	1.85	0.46	0.41	6.80	1.10	3.45	1.10	0.33	0.29	0.06		
12	3.78	5.13	1.85	0.46	0.37	4.50	1.10	3.45	1.85	0.33	0.29	0.06		
13	3.67	1.55	1.85	0.46	0.37	3.78	1.10	2.59	1.85	0.33	0.24	0.06		
14	3.67	6.09	1.48	0.46	0.37	5.81	1.10	2.59	1.85	0.33	0.24	0.11		
15	3.67	9.51	1.18	0.46	0.33	11.65	1.10	2.59	1.96	0.33	0.20	0.16		
16	3.67	8.66	1.10	0.46	0.33	13.41	1.10	1.48	1.96	0.33	0.16	0.16		
17	3.67	3.78	1.04	0.56	0.33	11.85	1.10	1.10	1.96	0.33	0.16	0.16		
18	4.75	1.55	0.98	0.62	0.37	5.67	1.10	1.18	1.96	0.33	0.16	0.20		
19	5.81	1.70	0.86	0.56	0.41	2.80	1.10	1.25	1.96	0.33	0.16	0.24		
20	5.81	1.85	0.74	0.50	0.41	2.80	1.10	1.25	2.06	0.33	0.16	0.50		
21	5.81	1.78	0.62	0.50	0.56	3.01	1.10	1.25	1.85	0.33	0.11	0.68		
22	5.67	1.78	0.56	0.50	0.92	2.69	1.18	1.18	1.78	0.33	0.11	0.68		
23	5.81	1.78	0.50	0.46	0.41	2.69	1.18	1.18	1.78	0.33	0.11	0.68		
24	6.09	1.78	0.46	0.46	0.41	3.23	1.10	1.25	1.78	0.33	0.11	0.74		
25	8.15	1.70	0.41	0.46	0.41	6.09	1.70	1.25	1.78	0.33	0.07	0.68		
26	10.03	1.63	0.37	0.46	0.46	7.55	3.12	1.25	1.78	0.33	0.07	0.74		
27	9.85	1.55	0.37	0.46	0.50	1.18	3.67	1.25	1.70	0.33	0.07	0.80		
28	9.68	1.48	0.37	0.41	0.56	4.00	3.67	1.10	1.70	0.33	0.07	0.46		
29	9.51	1.40	0.37	0.41	0.68	5.95	3.67	0.80	1.70	0.33		0.24		
30	10.57	1.33	0.37	0.37	0.74	3.78	3.67	0.80	1.70	0.33		0.24		
31		1.33		0.33	0.68		3.67		1.63	0.33		0.24		
Total	161.14	196.52	35.71	14.41	13.62	196.27	57.28	68.28	45.69	12.34	10.46	8.52	820.24	CMSDAY
Mean	5.37	6.34	1.19	0.46	0.44	6.54	1.85	2.28	1.47	0.40	0.37	0.27	2.25	CMS
Max	10.57	13.81	1.96	0.62	0.92	22.31	3.78	3.67	2.06	1.25	1.70	0.80	22.31	CMS
Min	3.67	1.33	0.37	0.33	0.33	0.80	1.10	0.80	0.80	0.33	0.07	0.06	0.06	CMS
Runoff	13.92	16.98	3.09	1.25	1.18	16.96	4.95	5.90	3.95	1.07	0.90	0.74	70.87	MCM

Momentary Peak 23.03 CMS. at 43.62 m. (MSL.) at 09.00 Hours , on Sep 8, 2018

Runoff Yield 3.87 Liters/Second/Square KM. Momentary Peak Yield 39.70 Liters/Second/Square KM.

WATER YEAR : 2018

PASAK RIVER BASIN

Pasak River at Ban Pa , Saraburi (S.9)

Lat 14 - 37 - 39 N Long 101 - 01 - 02 E

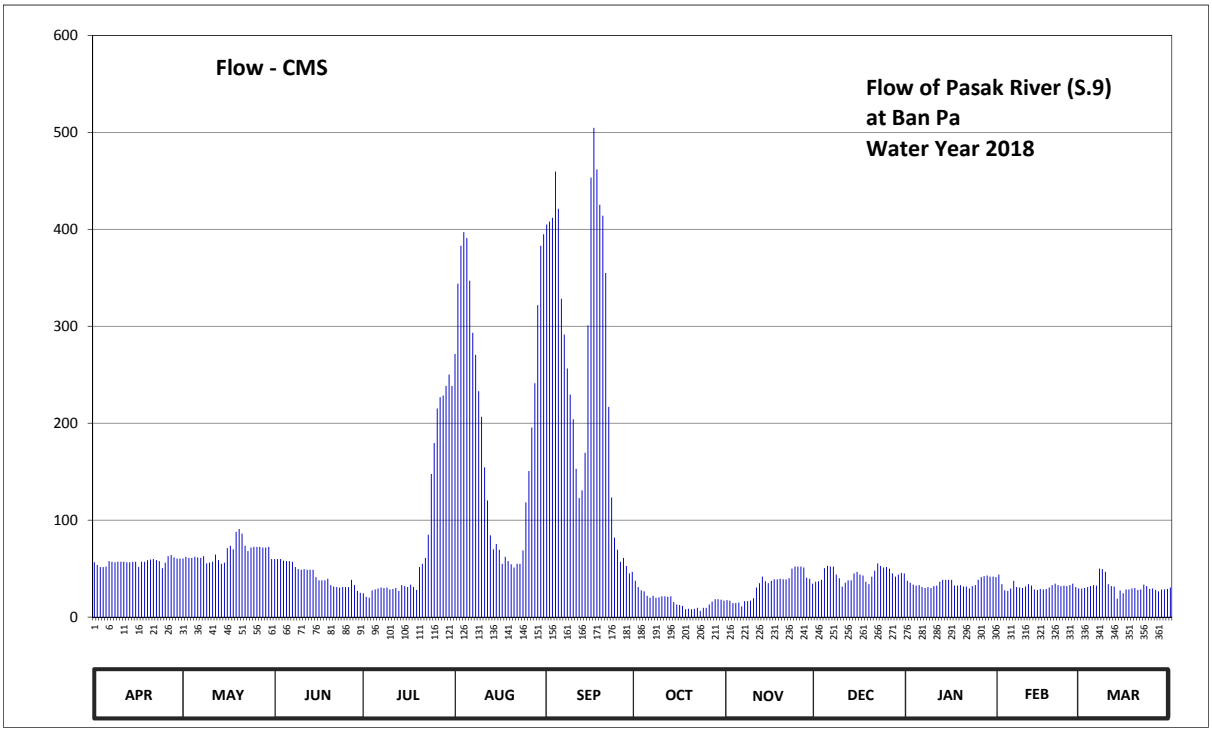
Location : on left bank at Ban Mueang Nua railway bridge.

	Ban Pa	**Amphoe** Kaeng Khoi	**Changwat** Saraburi
Drainge Area	14,233 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank under tamarind tree along the measuring line.	**Elevation**	+23.099 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	1973 to date		
Rating Operation			
Period of Rating	1973 to date		
Rated by Flot	-		
Rated by Current Meter	1973 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Flow regulated by Pasak Dam above gage site.		
	Stage-discharge relation defined by 20 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	9.52	9.59	9.58	8.91	12.41	13.78	9.17	8.77	9.15	9.17	9.29	9.01	
2	9.47	9.62	9.58	8.84	13.17	13.81	9.04	8.76	9.16	9.13	9.10	9.02	
3	9.43	9.60	9.58	8.82	13.56	13.85	8.97	8.71	9.19	9.09	8.97	9.04	
4	9.43	9.60	9.55	8.97	13.70	14.31	8.95	8.71	9.41	9.07	8.96	9.06	
5	9.44	9.62	9.54	8.99	13.64	13.94	8.86	8.72	9.45	9.08	9.01	9.08	
6	9.54	9.61	9.54	9.01	13.20	13.01	8.82	8.64	9.44	9.04	9.17	9.07	
7	9.53	9.60	9.53	9.03	12.64	12.62	8.86	8.75	9.44	9.02	9.04	9.40	
8	9.52	9.63	9.43	9.02	12.40	12.25	8.82	8.75	9.29	9.04	9.03	9.39	
9	9.53	9.50	9.39	9.03	11.99	11.95	8.83	8.76	9.22	9.02	9.02	9.34	
10	9.53	9.51	9.38	8.99	11.69	11.66	8.85	8.81	9.05	9.06	9.05	9.10	
11	9.53	9.53	9.39	9.00	11.04	11.02	8.85	9.03	9.13	9.07	9.10	9.06	
12	9.52	9.66	9.38	9.02	10.55	10.59	8.84	9.12	9.18	9.15	9.07	9.05	
13	9.52	9.56	9.38	8.96	9.99	10.71	8.85	9.25	9.18	9.19	8.99	8.80	
14	9.53	9.49	9.38	9.08	9.75	11.24	8.73	9.16	9.31	9.19	8.98	8.97	
15	9.53	9.51	9.24	9.06	9.84	12.72	8.68	9.12	9.34	9.19	9.00	8.91	
16	9.43	9.77	9.18	9.04	9.74	14.25	8.67	9.17	9.29	9.19	8.99	8.99	
17	9.53	9.81	9.18	9.09	9.49	14.71	8.65	9.20	9.27	9.07	9.00	8.99	
18	9.53	9.75	9.18	9.04	9.62	14.33	8.58	9.20	9.15	9.07	9.03	9.01	
19	9.56	10.05	9.21	8.98	9.54	13.98	8.59	9.21	9.10	9.08	9.08	9.02	
20	9.57	10.10	9.08	9.43	9.48	13.87	8.58	9.20	9.25	9.05	9.11	8.98	
21	9.58	10.02	9.05	9.49	9.42	13.28	8.59	9.20	9.36	9.05	9.08	8.99	
22	9.56	9.81	9.04	9.60	9.49	11.81	8.61	9.22	9.50	9.01	9.06	9.09	
23	9.54	9.72	9.03	10.00	9.49	10.60	8.55	9.40	9.45	9.06	9.07	9.06	
24	9.41	9.78	9.04	10.95	9.73	9.95	8.61	9.44	9.42	9.08	9.06	9.00	
25	9.51	9.79	9.04	11.37	10.52	9.74	8.61	9.44	9.43	9.19	9.08	9.01	
26	9.63	9.79	9.04	11.79	10.99	9.53	8.68	9.44	9.40	9.24	9.11	8.98	
27	9.65	9.79	9.19	11.92	11.56	9.60	8.74	9.42	9.31	9.26	9.04	8.95	
28	9.61	9.78	9.08	11.94	12.08	9.45	8.79	9.23	9.25	9.27	9.01	8.99	
29	9.59	9.78	8.96	12.05	12.94	9.31	8.79	9.21	9.29	9.25		8.99	
30	9.59	9.79	8.92	12.18	13.56	9.34	8.78	9.11	9.32	9.25		9.00	
31		9.58		12.05	13.68		8.76		9.31	9.24		9.03	
Mean	9.53	9.70	9.27	9.80	11.32	12.04	8.76	9.07	9.29	9.12	9.05	9.04	
Max	9.65	10.10	9.58	12.18	13.70	14.71	9.17	9.44	9.50	9.27	9.29	9.40	14.71
Min	9.41	9.49	8.92	8.82	9.42	9.31	8.55	8.64	9.05	9.01	8.96	8.80	8.55

Annual Max Momentary Gage Height	14.79	m. (MSL.) ,	at 14.00 Hours , on Sep 17 , 2018		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	5.27	m. (MSL.)
Left Bank Elevation	23.10	m. (MSL.) ,			
Right Bank Elevation	22.57	m. (MSL.) ,	Drainage Are	14,233	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	56.60	60.45	59.90	24.50	271.45	405.00	37.50	17.50	36.50	37.50	43.95	29.50		
2	53.85	62.20	59.90	21.00	344.00	408.00	31.00	17.00	37.00	35.50	34.00	30.00		
3	51.65	61.00	59.90	20.00	383.00	412.00	27.50	14.50	38.50	33.50	27.50	31.00		
4	51.65	61.00	58.25	27.50	397.00	459.64	26.50	14.50	50.55	32.50	27.00	32.00		
5	52.20	62.20	57.70	28.50	391.00	421.16	22.00	15.00	52.75	33.00	29.50	33.00		
6	57.70	61.60	57.70	29.50	347.00	328.45	20.00	11.00	52.20	31.00	37.50	32.50		
7	57.15	61.00	57.15	30.50	293.30	291.40	22.00	16.50	52.20	30.00	31.00	50.00		
8	56.60	62.80	51.65	30.00	270.50	256.50	20.00	16.50	43.95	31.00	30.50	49.45		
9	57.15	55.50	49.45	30.50	233.10	229.50	20.50	17.00	40.10	30.00	30.00	46.70		
10	57.15	56.05	48.90	28.50	206.65	204.10	21.50	19.50	31.50	32.00	31.50	34.00		
11	57.15	57.15	49.45	29.00	154.50	153.00	21.50	30.50	35.50	32.50	34.00	32.00		
12	56.60	64.60	48.90	30.00	120.25	122.85	21.00	35.00	38.00	36.50	32.50	31.50		
13	56.60	58.80	48.90	27.00	84.40	130.70	21.50	41.75	38.00	38.50	28.50	19.00		
14	57.15	54.95	48.90	33.00	70.00	169.50	15.50	37.00	45.05	38.50	28.00	27.50		
15	57.15	56.05	41.20	32.00	75.40	300.90	13.00	35.00	46.70	38.50	29.00	24.50		
16	51.65	71.20	38.00	31.00	69.40	453.40	12.50	37.50	43.95	38.50	28.50	28.50		
17	57.15	73.60	38.00	33.50	54.95	504.65	11.50	39.00	42.85	32.50	29.00	28.50		
18	57.15	70.00	38.00	31.00	62.20	461.72	8.00	39.00	36.50	32.50	30.50	29.50		
19	58.80	88.00	39.55	28.00	57.70	425.32	8.50	39.55	34.00	33.00	33.00	30.00		
20	59.35	91.00	33.00	51.65	54.40	414.00	8.00	39.00	41.75	31.50	34.50	28.00		
21	59.90	86.20	31.50	54.95	51.10	355.00	8.50	39.00	47.80	31.50	33.00	28.50		
22	58.80	73.60	31.00	61.00	54.95	216.90	9.50	40.10	55.50	29.50	32.00	33.50		
23	57.70	68.20	30.50	85.00	54.95	123.50	6.50	50.00	52.75	32.00	32.50	32.00		
24	50.55	71.80	31.00	147.75	68.80	82.00	9.50	52.20	51.10	33.00	32.00	29.00		
25	56.05	72.40	31.00	179.60	118.30	69.40	9.50	52.20	51.65	38.50	33.00	29.50		
26	62.80	72.40	31.00	215.15	150.75	57.15	13.00	52.20	50.00	41.20	34.50	28.00		
27	64.00	72.40	38.50	226.80	195.60	61.00	16.00	51.10	45.05	42.30	31.00	26.50		
28	61.60	71.80	33.00	228.60	241.20	52.75	18.50	40.65	41.75	42.85	29.50	28.50		
29	60.45	71.80	27.00	238.50	321.80	45.05	18.50	39.55	43.95	41.75		28.50		
30	60.45	72.40	25.00	250.20	383.00	46.70	18.00	34.50	45.60	41.75		29.00		
31		59.90		238.50	395.00		17.00		45.05	41.20		30.50		
Total	1712.75	2082.05	1293.90	2522.70	5975.65	7661.24	534.00	983.80	1367.75	1094.05	887.45	970.65	27085.99	CMSDAY
Mean	57.09	67.16	43.13	81.38	192.76	255.37	17.23	32.79	44.12	35.29	31.69	31.31	74.21	CMS
Max	64.00	91.00	59.90	250.20	397.00	504.65	37.50	52.20	55.50	42.85	43.95	50.00	504.65	CMS
Min	50.55	54.95	25.00	20.00	51.10	45.05	6.50	11.00	31.50	29.50	27.00	19.00	6.50	CMS
Runoff	147.98	179.89	111.79	217.96	516.30	661.93	46.14	85.00	118.17	94.53	76.68	83.86	2340.23	MCM

Momentary Peak 513.85 CMS. at 14.79 m. (MSL.) at 14.00 Hours , on Sep 17 , 2018

Runoff Yield 5.21 Liters/Second/Square KM. Momentary Peak Yield 36.10 Liters/Second/Square KM.

WATER YEAR : 2018

PASAK RIVER BASIN

Lam Sonthi at Ban Tha Ruak , Lop Buri (S.14)

Lat 15 - 13 - 24 N Long 101 - 16 - 52 E

Location : on right bank at the bridge.

	Ban Tha Ruak	**Amphoe** Chai Badan	**Changwat** Lop Buri
Drainge Area	1,263 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank at the abutment of the bridge.		**Elevation** +63.824 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	2005 to date		
Rating Operation			
Period of Rating	2005 to date		
Rated by Flot	-		
Rated by Current Meter	2005 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 23 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

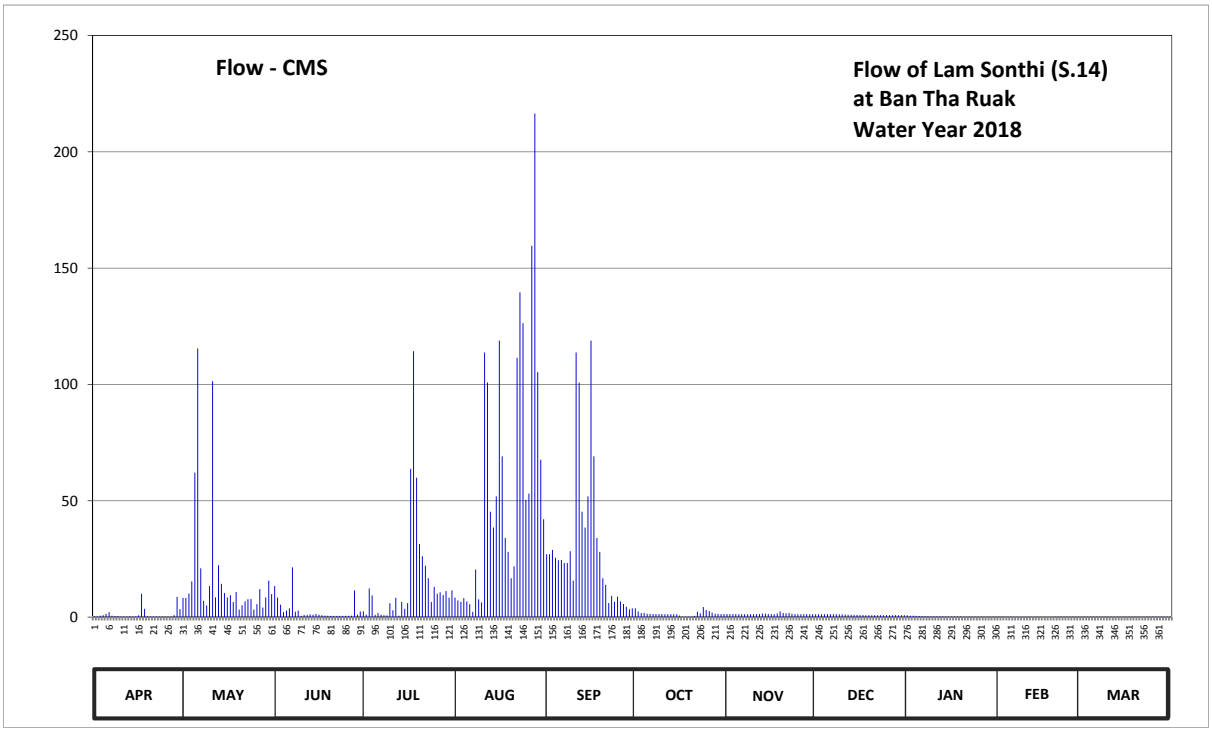
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	54.36	56.01	56.72	54.90	56.03	58.08	55.15	54.65	54.64	54.51	54.25	54.26	
2	54.33	56.01	56.03	54.59	55.83	58.08	54.88	54.65	54.64	54.48	54.25	54.26	
3	54.46	56.30	55.47	56.59	55.70	58.22	54.74	54.65	54.64	54.47	54.25	54.26	
4	54.53	56.97	54.83	56.18	56.00	57.96	54.75	54.65	54.64	54.45	54.25	54.26	
5	54.67	59.73	54.96	54.57	55.75	57.87	54.69	54.64	54.64	54.43	54.25	54.26	
6	54.83	60.91	55.16	54.74	55.51	57.88	54.66	54.64	54.64	54.40	54.24	54.26	
7	54.47	57.56	57.60	54.59	54.85	57.77	54.65	54.64	54.64	54.38	54.24	54.26	
8	54.39	55.80	54.87	54.53	57.50	57.77	54.65	54.64	54.63	54.36	54.24	54.26	
9	54.40	55.40	54.96	54.51	55.91	58.18	54.65	54.64	54.62	54.35	54.24	54.26	
10	54.31	56.72	54.45	55.59	55.67	57.01	54.65	54.64	54.61	54.35	54.24	54.26	
11	54.31	60.66	54.54	54.99	60.88	60.88	54.64	54.64	54.60	54.34	54.23	54.26	
12	54.30	56.04	54.57	56.02	60.65	60.65	54.64	54.65	54.59	54.33	54.23	54.26	
13	54.33	57.69	54.62	54.46	59.13	59.13	54.64	54.70	54.58	54.32	54.22	54.27	
14	54.30	56.84	54.58	55.70	58.81	58.81	54.64	54.70	54.57	54.31	54.22	54.27	
15	54.30	56.33	54.66	55.12	59.39	59.39	54.64	54.66	54.56	54.30	54.22	54.27	
16	54.52	56.04	54.59	55.61	60.97	60.97	54.49	54.64	54.55	54.30	54.21	54.27	
17	56.28	56.19	54.53	59.78	59.93	59.93	54.28	54.64	54.54	54.29	54.21	54.27	
18	55.12	55.69	54.49	60.89	58.56	58.56	54.28	54.72	54.53	54.29	54.21	54.27	
19	54.36	56.38	54.48	59.66	58.16	58.16	54.28	54.90	54.53	54.29	54.23	54.27	
20	54.30	55.04	54.45	58.39	57.13	57.13	54.28	54.75	54.53	54.28	54.26	54.27	
21	54.30	55.42	54.45	58.01	57.64	56.79	54.45	54.73	54.53	54.28	54.26	54.27	
22	54.30	55.76	54.45	57.67	60.84	55.61	54.86	54.75	54.53	54.28	54.26	54.27	
23	54.30	55.92	54.45	57.13	61.27	56.15	54.72	54.69	54.53	54.27	54.27	54.27	
24	54.30	55.93	54.44	55.70	61.09	55.72	55.27	54.65	54.53	54.27	54.27	54.28	
25	54.30	55.05	54.44	56.67	59.33	56.10	55.00	54.64	54.53	54.27	54.28	54.28	
26	54.30	55.51	54.44	56.28	59.43	55.75	54.92	54.64	54.53	54.26	54.28	54.28	
27	54.30	56.55	54.46	56.36	61.52	55.52	54.79	54.64	54.53	54.26	54.27	54.28	
28	54.53	55.22	56.48	56.20	62.07	55.29	54.69	54.64	54.53	54.26	54.26	54.28	
29	56.09	56.04	54.59	56.44	60.73	55.07	54.66	54.64	54.53	54.26		54.28	
30	55.09	57.01	54.88	56.02	59.89	55.15	54.65	54.64	54.53	54.25		54.28	
31		56.26		56.48	58.98		54.65		54.53	54.25		54.28	
Mean	54.56	56.55	54.92	56.27	58.55	57.65	54.68	54.67	54.57	54.33	54.24	54.27	
Max	56.28	60.91	57.60	60.89	62.07	60.97	55.27	54.90	54.64	54.51	54.28	54.28	62.07
Min	54.30	55.04	54.44	54.46	54.85	55.07	54.28	54.64	54.53	54.25	54.21	54.26	54.21

Annual Max Momentary Gage Height 62.41 m. (MSL.) , at 02.00 Hours , on Aug 28 , 2018

Zero Gage at Bottom Elevation 0.00 m. (MSL.) , River Bed 53.33 m. (MSL.)

Left Bank Elevation 63.82 m. (MSL.) ,

Right Bank Elevation 63.84 m. (MSL.) , Drainage Are 1,263 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.32	8.26	13.36	2.50	8.38	27.04	3.75	1.30	1.26	0.74	0.10	0.12		
2	0.26	8.26	8.38	1.06	7.18	27.04	2.40	1.30	1.26	0.64	0.10	0.12		
3	0.58	10.20	5.35	12.32	6.50	28.90	1.70	1.30	1.26	0.61	0.10	0.12		
4	0.82	15.36	2.15	9.36	8.20	25.52	1.75	1.30	1.26	0.55	0.10	0.12		
5	1.38	62.09	2.80	0.98	6.75	24.44	1.46	1.26	1.26	0.49	0.10	0.12		
6	2.15	115.44	3.80	1.70	5.55	24.56	1.34	1.26	1.26	0.40	0.08	0.12		
7	0.61	21.00	21.40	1.06	2.25	23.24	1.30	1.26	1.26	0.36	0.08	0.12		
8	0.38	7.00	2.35	0.82	20.40	23.24	1.30	1.26	1.22	0.32	0.08	0.12		
9	0.40	5.00	2.80	0.74	7.66	28.34	1.30	1.26	1.18	0.30	0.08	0.12		
10	0.22	13.36	0.55	5.95	6.35	15.68	1.30	1.26	1.14	0.30	0.08	0.12		
11	0.22	101.38	0.86	2.95	113.75	113.75	1.26	1.26	1.10	0.28	0.06	0.12		
12	0.20	8.44	0.98	8.32	100.81	100.81	1.26	1.30	1.06	0.26	0.06	0.12		
13	0.26	22.30	1.18	0.58	45.32	45.32	1.26	1.50	1.02	0.24	0.04	0.14		
14	0.20	14.32	1.02	6.50	38.51	38.51	1.26	1.50	0.98	0.22	0.04	0.14		
15	0.20	10.41	1.34	3.60	51.94	51.94	1.26	1.34	0.94	0.20	0.04	0.14		
16	0.78	8.44	1.06	6.05	118.81	118.81	0.67	1.26	0.90	0.20	0.02	0.14		
17	10.06	9.43	0.82	63.74	69.08	69.08	0.16	1.26	0.86	0.18	0.02	0.14		
18	3.60	6.45	0.67	114.31	34.06	34.06	0.16	1.60	0.82	0.18	0.02	0.14		
19	0.32	10.76	0.64	59.86	28.08	28.08	0.16	2.50	0.82	0.18	0.06	0.14		
20	0.20	3.20	0.55	31.45	16.70	16.70	0.16	1.75	0.82	0.16	0.12	0.14		
21	0.20	5.10	0.55	26.13	21.80	13.92	0.55	1.65	0.82	0.16	0.12	0.14		
22	0.20	6.80	0.55	22.10	111.50	6.05	2.30	1.75	0.82	0.16	0.12	0.14		
23	0.20	7.72	0.55	16.70	139.60	9.15	1.60	1.46	0.82	0.14	0.14	0.14		
24	0.20	7.78	0.52	6.50	126.35	6.60	4.35	1.30	0.82	0.14	0.14	0.16		
25	0.20	3.25	0.52	12.96	50.38	8.80	3.00	1.26	0.82	0.14	0.16	0.16		
26	0.20	5.55	0.52	10.06	53.07	6.75	2.60	1.26	0.82	0.12	0.16	0.16		
27	0.20	12.00	0.58	10.62	159.60	5.60	1.95	1.26	0.82	0.12	0.14	0.16		
28	0.82	4.10	11.46	9.50	216.40	4.45	1.46	1.26	0.82	0.12	0.12	0.16		
29	8.74	8.44	1.06	11.18	105.31	3.35	1.34	1.26	0.82	0.12		0.16		
30	3.45	15.68	2.40	8.32	67.64	3.75	1.30	1.26	0.82	0.10		0.16		
31		9.92		11.46	42.08		1.30		0.82	0.10		0.16		
Total	37.57	547.44	90.77	479.38	1790.01	933.48	46.96	41.75	30.70	8.23	2.48	4.26	4013.03	CMSDAY
Mean	1.25	17.66	3.03	15.46	57.74	31.12	1.51	1.39	0.99	0.27	0.09	0.14	10.99	CMS
Max	10.06	115.44	21.40	114.31	216.40	118.81	4.35	2.50	1.26	0.74	0.16	0.16	216.40	CMS
Min	0.20	3.20	0.52	0.58	2.25	3.35	0.16	1.26	0.82	0.10	0.02	0.12	0.02	CMS
Runoff	3.25	47.30	7.84	41.42	154.66	80.65	4.06	3.61	2.65	0.71	0.21	0.37	346.73	MCM

Momentary Peak 257.40 CMS. at 62.41 m. (MSL.) at 02.00 Hours , on Aug 28 , 2018

Runoff Yield 8.70 Liters/Second/Square KM. Momentary Peak Yield 203.78 Liters/Second/Square KM.

WATER YEAR : 2018

PASAK RIVER BASIN

Pasak River at Ban Tha Rua , Phra Nakhon Si Ayutthaya (S.26)

Lat 14 - 33 - 22 N Long 100 - 43 - 38 E

Location : on right bank at Ban Tha Rua

	Ban Tha Rua	**Amphoe** Tha Rua	**Changwat** Phra Nakhon Si Ayutthaya
Drainge Area	15,425 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank near the automatic gage buiding		**Elevation** +7.647 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	1984 to date		
Rating Operation			
Period of Rating	1998 , 2009 to date		
Rated by Flot	-		
Rated by Current Meter	1998, 2009 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Flow effected by Pasak Cholasit Dam.		
	Stage-discharge relation defined by 16 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

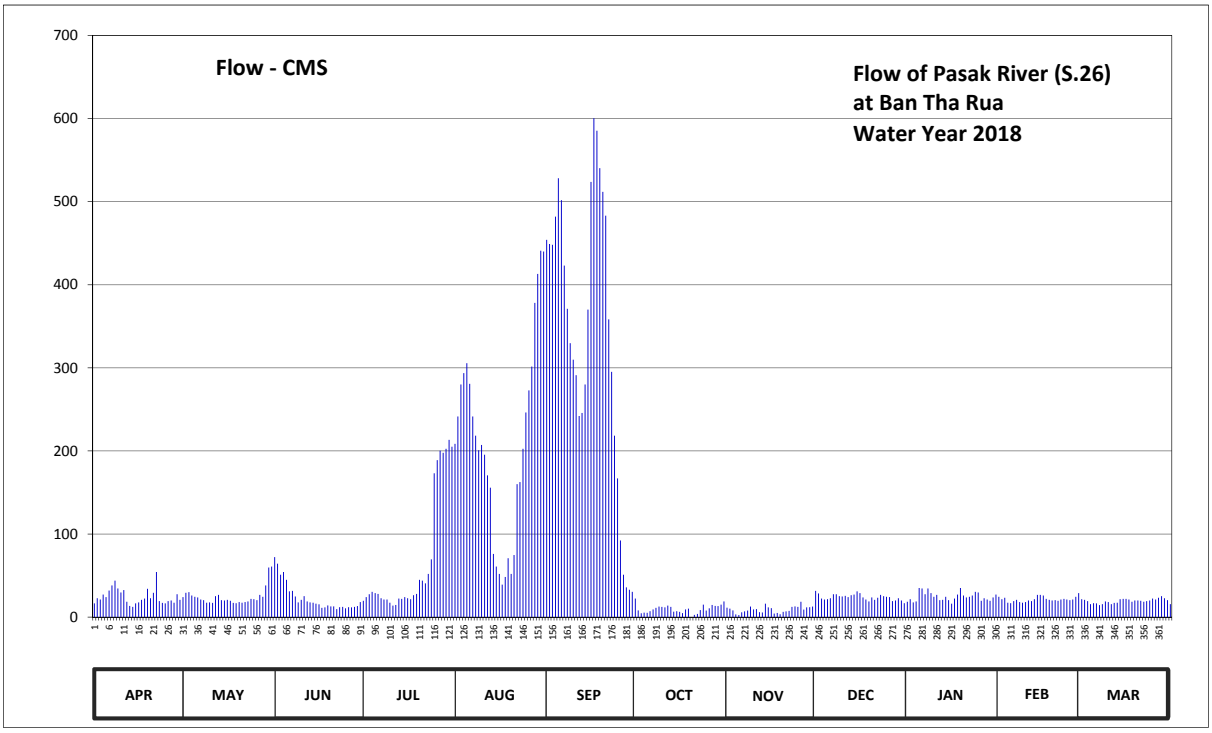
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.45	0.65	1.27	0.54	2.45	5.34	0.61	0.28	0.83	0.51	0.66	0.59	
2	0.62	0.78	1.21	0.65	2.92	5.29	0.17	0.24	0.76	0.59	0.59	0.57	
3	0.58	0.80	1.09	0.74	3.45	5.28	0.03	0.17	0.61	0.49	0.63	0.53	
4	0.73	0.70	1.12	0.81	3.62	5.60	0.07	-0.04	0.58	0.52	0.48	0.42	
5	0.65	0.66	1.02	0.77	3.77	6.02	0.06	-0.08	0.59	0.90	0.46	0.46	
6	0.84	0.64	0.82	0.75	3.46	5.78	0.14	0.09	0.62	0.89	0.53	0.45	
7	0.94	0.58	0.83	0.62	2.92	5.03	0.21	0.13	0.74	0.74	0.57	0.38	
8	1.01	0.56	0.67	0.58	2.59	4.50	0.27	0.16	0.74	0.89	0.50	0.42	
9	0.89	0.48	0.49	0.58	2.33	4.04	0.32	0.32	0.68	0.77	0.48	0.52	
10	0.79	0.49	0.57	0.48	2.43	3.82	0.31	0.21	0.67	0.66	0.50	0.50	
11	0.85	0.47	0.68	0.36	2.24	3.59	0.29	0.22	0.69	0.72	0.55	0.42	
12	0.51	0.68	0.52	0.39	1.81	2.93	0.36	0.10	0.65	0.56	0.53	0.47	
13	0.35	0.72	0.49	0.61	1.59	2.98	0.31	0.08	0.71	0.57	0.59	0.48	
14	0.31	0.56	0.48	0.60	1.30	3.45	0.12	0.44	0.73	0.66	0.72	0.59	
15	0.45	0.55	0.44	0.65	1.18	4.49	0.14	0.29	0.82	0.56	0.72	0.60	
16	0.49	0.57	0.41	0.62	1.10	5.98	0.11	0.26	0.77	0.44	0.70	0.60	
17	0.57	0.54	0.27	0.59	0.95	6.67	0.04	0.01	0.64	0.61	0.60	0.58	
18	0.61	0.47	0.29	0.71	1.06	6.54	0.21	0.05	0.58	0.73	0.57	0.51	
19	0.88	0.46	0.37	0.75	1.26	6.13	0.24	-0.03	0.52	0.90	0.55	0.55	
20	0.62	0.50	0.33	1.02	1.10	5.87	-0.24	0.11	0.64	0.70	0.56	0.55	
21	0.78	0.48	0.33	1.01	1.29	5.61	-0.07	0.13	0.57	0.64	0.54	0.54	
22	1.12	0.50	0.22	0.97	1.60	4.36	-0.01	0.15	0.63	0.66	0.58	0.51	
23	0.53	0.52	0.30	1.10	1.65	3.64	0.18	0.31	0.72	0.70	0.60	0.53	
24	0.47	0.60	0.31	1.25	2.36	2.59	0.40	0.33	0.68	0.81	0.58	0.55	
25	0.45	0.59	0.25	1.86	2.99	1.74	0.16	0.31	0.66	0.79	0.56	0.61	
26	0.53	0.56	0.30	2.13	3.36	1.39	0.25	0.51	0.65	0.54	0.58	0.58	
27	0.55	0.72	0.29	2.32	3.72	1.09	0.39	0.20	0.53	0.62	0.66	0.63	
28	0.48	0.66	0.31	2.28	4.58	0.91	0.35	0.29	0.55	0.58	0.77	0.68	
29	0.74	0.94	0.34	2.36	4.93	0.86	0.34	0.30	0.62	0.54		0.62	
30	0.57	1.17	0.50	2.52	5.21	0.81	0.40	0.32	0.55	0.64		0.56	
31		1.18		2.40	5.20		0.52		0.46	0.73		0.42	
Mean	0.65	0.64	0.55	1.07	2.59	4.08	0.22	0.20	0.65	0.67	0.58	0.53	
Max	1.12	1.18	1.27	2.52	5.21	6.67	0.61	0.51	0.83	0.90	0.77	0.68	6.67
Min	0.31	0.46	0.22	0.36	0.95	0.81	-0.24	-0.08	0.46	0.44	0.46	0.38	-0.24

Annual Max Momentary Gage Height 6.74 m. (MSL.) , at 11.00 Hours , on Sep 17 , 2018

Zero Gage at Bottom Elevation 0.00 m. (MSL.) , River Bed -4.60 m. (MSL.)

Left Bank Elevation 10.13 m. (MSL.) ,

Right Bank Elevation 9.64 m. (MSL.) , Drainage Are 15,425 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	16.50	24.00	72.10	19.60	208.50	454.00	22.40	11.40	31.50	18.40	24.40	21.60		
2	22.80	29.20	64.30	24.00	241.40	449.00	8.10	10.20	28.40	21.60	21.60	20.80		
3	21.20	30.00	51.10	27.60	280.00	448.00	4.60	8.10	22.40	17.70	23.20	19.20		
4	27.20	26.00	54.20	30.50	293.60	482.00	5.40	3.20	21.20	18.80	17.40	15.60		
5	24.00	24.40	44.80	28.80	305.60	528.20	5.20	2.40	21.60	35.00	16.80	16.80		
6	32.00	23.60	31.00	28.00	280.80	501.80	7.20	5.80	22.80	34.50	19.20	16.50		
7	38.20	21.20	31.50	22.80	241.40	423.00	9.30	6.90	27.60	27.60	20.80	14.40		
8	43.90	20.40	24.80	21.20	218.30	371.00	11.10	7.80	27.60	34.50	18.00	15.60		
9	34.50	17.40	17.70	21.20	200.80	329.60	12.60	12.60	25.20	28.80	17.40	18.80		
10	29.60	17.70	20.80	17.40	207.10	309.80	12.30	9.30	24.80	24.40	18.00	18.00		
11	32.50	17.10	25.20	13.80	195.40	291.20	11.70	9.60	25.60	26.80	20.00	15.60		
12	18.40	25.20	18.80	14.70	170.50	242.10	13.80	6.00	24.00	20.40	19.20	17.10		
13	13.50	26.80	17.70	22.40	155.80	245.60	12.30	5.60	26.40	20.80	21.60	17.40		
14	12.30	20.40	17.40	22.00	76.00	280.00	6.60	16.20	27.20	24.40	26.80	21.60		
15	16.50	20.00	16.20	24.00	60.80	370.10	7.20	11.70	31.00	20.40	26.80	22.00		
16	17.70	20.80	15.30	22.80	52.00	523.80	6.30	10.80	28.80	16.20	26.00	22.00		
17	20.80	19.60	11.10	21.60	39.00	600.40	4.80	4.20	23.60	22.40	22.00	21.20		
18	22.40	17.10	11.70	26.40	48.40	585.40	9.30	5.00	21.20	27.20	20.80	18.40		
19	34.00	16.80	14.10	28.00	70.80	540.30	10.20	3.40	18.80	35.00	20.00	20.00		
20	22.80	18.00	12.90	44.80	52.00	511.70	0.00	6.30	23.60	26.00	20.40	20.00		
21	29.20	17.40	12.90	43.90	74.70	483.10	2.60	6.90	20.80	23.60	19.60	19.60		
22	54.20	18.00	9.60	40.60	160.00	358.40	3.80	7.50	23.20	24.40	21.20	18.40		
23	19.20	18.80	12.00	52.00	162.50	295.20	8.40	12.30	26.80	26.00	22.00	19.20		
24	17.10	22.00	12.30	69.50	202.60	218.30	15.00	12.90	25.20	30.50	21.20	20.00		
25	16.50	21.60	10.50	173.00	246.30	167.00	7.80	12.30	24.40	29.60	20.40	22.40		
26	19.20	20.40	12.00	188.80	272.80	92.20	10.50	18.40	24.00	19.60	21.20	21.20		
27	20.00	26.80	11.70	200.20	301.60	51.10	14.70	9.00	19.20	22.80	24.40	23.20		
28	17.40	24.40	12.30	197.80	378.20	35.80	13.50	11.70	20.00	21.20	28.80	25.20		
29	27.60	38.20	13.20	202.60	413.00	33.00	13.20	12.00	22.80	19.60		22.80		
30	20.80	59.70	18.00	213.40	441.00	30.50	15.00	12.60	20.00	23.60		20.40		
31		60.80		205.00	440.00		18.80		16.80	27.20		15.60		
Total	742.00	763.80	697.20	2068.40	6490.90	10251.60	303.70	272.10	746.50	769.00	599.20	600.60	24305.00	CMSDAY
Mean	24.73	24.64	23.24	66.72	209.38	341.72	9.80	9.07	24.08	24.81	21.40	19.37	66.59	CMS
Max	54.20	60.80	72.10	213.40	441.00	600.40	22.40	18.40	31.50	35.00	28.80	25.20	600.40	CMS
Min	12.30	16.80	9.60	13.80	39.00	30.50	0.00	2.40	16.80	16.20	16.80	14.40	0.00	CMS
Runoff	64.11	65.99	60.24	178.71	560.81	885.74	26.24	23.51	64.50	66.44	51.77	51.89	2099.95	MCM

Momentary Peak 608.80 CMS. at 6.74 m. (MSL.) at 11.00 Hours , on Sep 17 , 2018

Runoff Yield 4.32 Liters/Second/Square KM. Momentary Peak Yield 39.47 Liters/Second/Square KM.

WATER YEAR : 2018

PASAK RIVER BASIN

Pasak River at Ban Nong Bua , Lop Buri (S.28)

Lat 14 - 50 - 21 N Long 101 - 04 - 08 E

Location : on left bank at Ban Nong Bua.

Ban Nong Bua **Amphoe** Phatthana Nikhom **Changwat** Lop Buri

Drainge Area	8,778 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+0.000 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank near the automatic gage buiding **Elevation** +32.571 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	1986 to date
Rating Operation	
Period of Rating	1998 to date
Rated by Flot	-
Rated by Current Meter	1998 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Flow effected by Pasak Cholasit Dam. Stage-discharge relation defined by 21 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

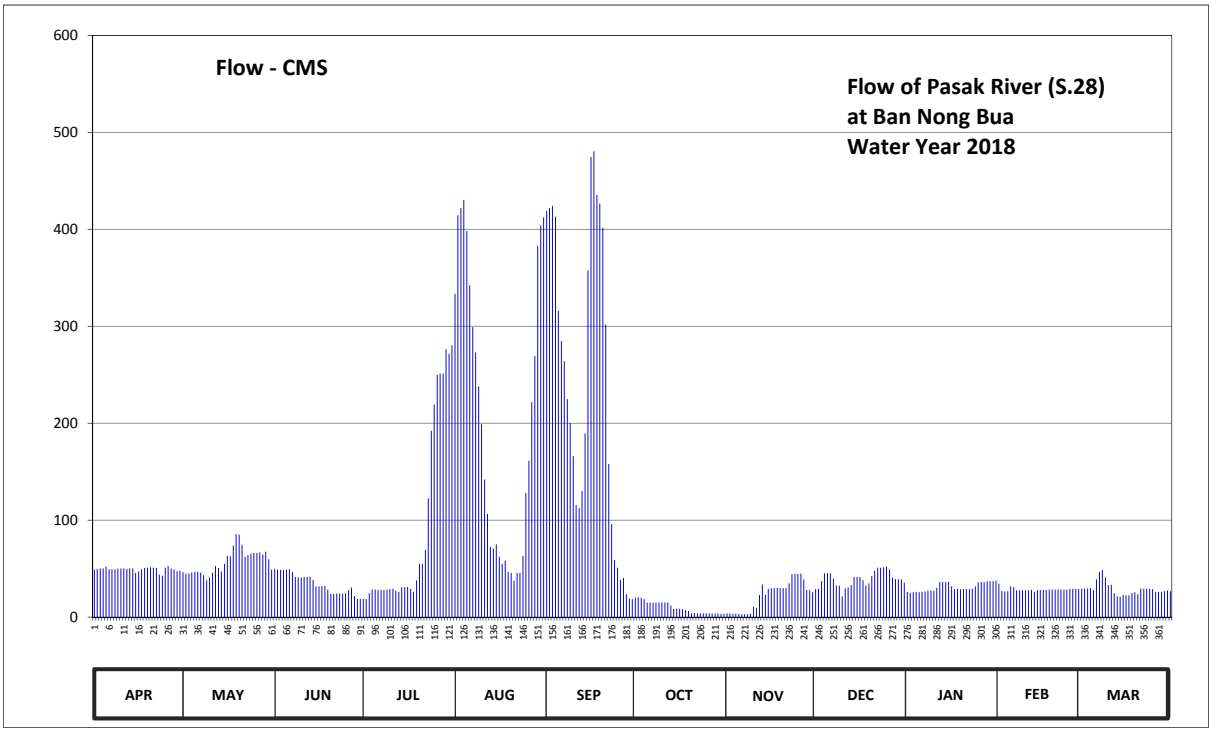
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	18.25	18.18	18.27	17.36	23.43	24.64	17.40	16.77	17.68	17.60	17.84	17.70	
2	18.27	18.14	18.25	17.36	24.58	24.68	17.41	16.77	17.69	17.57	17.63	17.70	
3	18.28	18.14	18.24	17.55	24.68	24.71	17.39	16.76	17.92	17.59	17.61	17.70	
4	18.28	18.17	18.24	17.67	24.79	24.56	17.35	16.76	18.15	17.60	17.62	17.71	
5	18.33	18.19	18.25	17.67	24.36	23.16	17.22	16.76	18.15	17.59	17.76	17.65	
6	18.26	18.19	18.26	17.66	23.56	22.68	17.22	16.74	18.15	17.60	17.74	17.97	
7	18.26	18.17	18.19	17.66	22.90	22.36	17.22	16.74	17.99	17.61	17.65	18.19	
8	18.26	18.09	18.04	17.66	22.50	21.72	17.22	16.74	17.79	17.63	17.65	18.24	
9	18.27	17.94	18.03	17.67	21.94	21.31	17.23	16.76	17.78	17.64	17.65	18.03	
10	18.28	18.02	18.02	17.68	21.29	20.72	17.22	17.05	17.45	17.63	17.65	17.80	
11	18.28	18.17	18.04	17.69	20.28	19.75	17.22	17.00	17.70	17.72	17.65	17.81	
12	18.27	18.34	18.04	17.63	19.57	19.69	17.22	17.49	17.73	17.89	17.66	17.55	
13	18.28	18.29	18.05	17.60	18.82	20.04	17.10	17.82	17.80	17.89	17.60	17.45	
14	18.28	18.20	17.95	17.74	18.78	21.13	16.96	17.50	18.04	17.89	17.65	17.43	
15	18.16	18.40	17.76	17.74	18.88	23.78	16.96	17.69	18.04	17.90	17.66	17.49	
16	18.20	18.60	17.76	17.75	18.58	25.38	16.96	17.71	18.04	17.76	17.66	17.48	
17	18.26	18.59	17.77	17.69	18.40	25.46	16.94	17.71	17.94	17.68	17.66	17.48	
18	18.29	18.85	17.77	17.60	18.48	24.86	16.91	17.72	17.79	17.69	17.67	17.56	
19	18.30	19.11	17.67	17.94	18.19	24.74	16.88	17.71	17.85	17.68	17.67	17.59	
20	18.31	19.10	17.54	18.40	18.16	24.41	16.78	17.71	18.07	17.68	17.67	17.52	
21	18.30	18.87	17.53	18.40	17.93	22.94	16.79	17.71	18.22	17.68	17.67	17.70	
22	18.29	18.58	17.54	18.75	18.16	20.57	16.78	17.85	18.30	17.68	17.67	17.69	
23	18.11	18.62	17.54	19.89	18.16	19.34	16.78	18.12	18.30	17.69	17.67	17.69	
24	18.08	18.66	17.54	21.18	18.60	18.49	16.78	18.13	18.31	17.76	17.67	17.69	
25	18.30	18.68	17.55	21.63	20.00	18.30	16.78	18.13	18.33	17.88	17.69	17.68	
26	18.34	18.68	17.65	22.14	20.63	17.96	16.78	18.14	18.25	17.89	17.69	17.60	
27	18.28	18.69	17.73	22.16	21.67	18.01	16.77	17.97	18.02	17.89	17.69	17.60	
28	18.26	18.64	17.46	22.16	22.44	17.52	16.76	17.66	17.98	17.91	17.68	17.60	
29	18.21	18.71	17.36	22.55	24.14	17.37	16.77	17.65	17.97	17.92		17.62	
30	18.22	18.52	17.36	22.48	24.44	17.35	16.76	17.59	17.97	17.92		17.64	
31		18.25		22.61	24.55		16.76		17.87	17.93		17.62	
Mean	18.26	18.44	17.85	18.96	21.06	21.59	17.01	17.43	17.98	17.74	17.67	17.68	
Max	18.34	19.11	18.27	22.61	24.79	25.46	17.41	18.14	18.33	17.93	17.84	18.24	25.46
Min	18.08	17.94	17.36	17.36	17.93	17.35	16.76	16.74	17.45	17.57	17.60	17.43	16.74

Annual Max Momentary Gage Height 25.75 m. (MSL.) , at 09.00 Hours , on Sep 17 , 2018

Zero Gage at Bottom Elevation 0.00 m. (MSL.) , River Bed 15.17 m. (MSL.)

Left Bank Elevation 32.02 m. (MSL.) ,

Right Bank Elevation 31.81 m. (MSL.) , Drainage Are 8,778 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	49.00	46.30	49.80	18.80	333.45	419.00	20.00	3.75	28.80	26.00	34.40	29.50		
2	49.80	44.90	49.00	18.80	414.50	422.00	20.30	3.75	29.15	25.10	27.05	29.50		
3	50.20	44.90	48.60	24.50	422.00	424.25	19.70	3.50	37.20	25.70	26.35	29.50		
4	50.20	45.95	48.60	28.45	430.25	413.00	18.50	3.50	45.25	26.00	26.70	29.85		
5	52.20	46.65	49.00	28.45	398.20	315.90	15.00	3.50	45.25	25.70	31.60	27.75		
6	49.40	46.65	49.40	28.10	342.20	284.70	15.00	3.00	45.25	26.00	30.90	38.95		
7	49.40	45.95	46.65	28.10	299.00	263.90	15.00	3.00	39.65	26.35	27.75	46.65		
8	49.40	43.15	41.40	28.10	273.00	224.70	15.00	3.00	32.65	27.05	27.75	48.60		
9	49.80	37.90	41.05	28.45	237.90	200.10	15.25	3.50	32.30	27.40	27.75	41.05		
10	50.20	40.70	40.70	28.80	198.90	166.10	15.00	10.75	21.50	27.05	27.75	33.00		
11	50.20	45.95	41.40	29.15	142.00	115.50	15.00	9.50	29.50	30.20	27.75	33.35		
12	49.80	52.60	41.40	27.05	106.50	112.50	15.00	22.70	30.55	36.15	28.10	24.50		
13	50.20	50.60	41.75	26.00	72.40	130.00	12.00	33.70	33.00	36.15	26.00	21.50		
14	50.20	47.00	38.25	30.90	70.60	189.30	8.50	23.00	41.40	36.15	27.75	20.90		
15	45.60	55.00	31.60	30.90	75.10	357.60	8.50	29.15	41.40	36.50	28.10	22.70		
16	47.00	63.00	31.60	31.25	62.20	474.50	8.50	29.85	41.40	31.60	28.10	22.40		
17	49.40	62.60	31.95	29.15	55.00	480.50	8.00	29.85	37.90	28.80	28.10	22.40		
18	50.60	73.75	31.95	26.00	58.20	435.50	7.25	30.20	32.65	29.15	28.45	24.80		
19	51.00	85.45	28.45	37.90	46.65	426.50	6.50	29.85	34.75	28.80	28.45	25.70		
20	51.40	85.00	24.20	55.00	45.60	401.75	4.00	29.85	42.45	28.80	28.45	23.60		
21	51.00	74.65	23.90	55.00	37.55	301.60	4.25	29.85	47.80	28.80	28.45	29.50		
22	50.60	62.20	24.20	69.25	45.60	157.85	4.00	34.75	51.00	28.80	28.45	29.15		
23	43.85	63.80	24.20	122.50	45.60	95.80	4.00	44.20	51.00	29.15	28.45	29.15		
24	42.80	65.40	24.20	192.30	63.00	58.60	4.00	44.55	51.40	31.60	28.45	29.15		
25	51.00	66.20	24.50	219.30	128.00	51.00	4.00	44.55	52.20	35.80	29.15	28.80		
26	52.60	66.20	27.75	249.90	161.15	38.60	4.00	44.90	49.00	36.15	29.15	26.00		
27	50.20	66.60	30.55	251.10	221.70	40.35	3.75	38.95	40.70	36.15	29.15	26.00		
28	49.40	64.60	21.80	251.10	269.10	23.60	3.50	28.10	39.30	36.85	28.80	26.00		
29	47.40	67.45	18.80	276.25	382.80	19.10	3.75	27.75	38.95	37.20		26.70		
30	47.80	59.80	18.80	271.70	404.00	18.50	3.50	25.70	38.95	37.20		27.40		
31		49.00		280.15	412.25		3.50		35.45	37.55		26.70		
Total	1481.65	1769.90	1045.45	2822.40	6254.40	7062.30	304.25	672.20	1217.75	959.90	797.30	900.75	25288.25	CMSDAY
Mean	49.39	57.09	34.85	91.05	201.75	235.41	9.81	22.41	39.28	30.96	28.48	29.06	69.28	CMS
Max	52.60	85.45	49.80	280.15	430.25	480.50	20.30	44.90	52.20	37.55	34.40	48.60	480.50	CMS
Min	42.80	37.90	18.80	18.80	37.55	18.50	3.50	3.00	21.50	25.10	26.00	20.90	3.00	CMS
Runoff	128.01	152.92	90.33	243.86	540.38	610.18	26.29	58.08	105.21	82.94	68.89	77.82	2184.90	MCM

Momentary Peak 502.25 CMS. at 25.75 m. (MSL.) at 09.00 Hours , on Sep 17 , 2018

Runoff Yield 7.89 Liters/Second/Square KM. Momentary Peak Yield 57.22 Liters/Second/Square KM.

WATER YEAR : 2018

PASAK RIVER BASIN

Pasak River at Mueang , Saraburi (S.32)

Lat 14 - 31 - 28 N Long 100 - 59 - 48 E

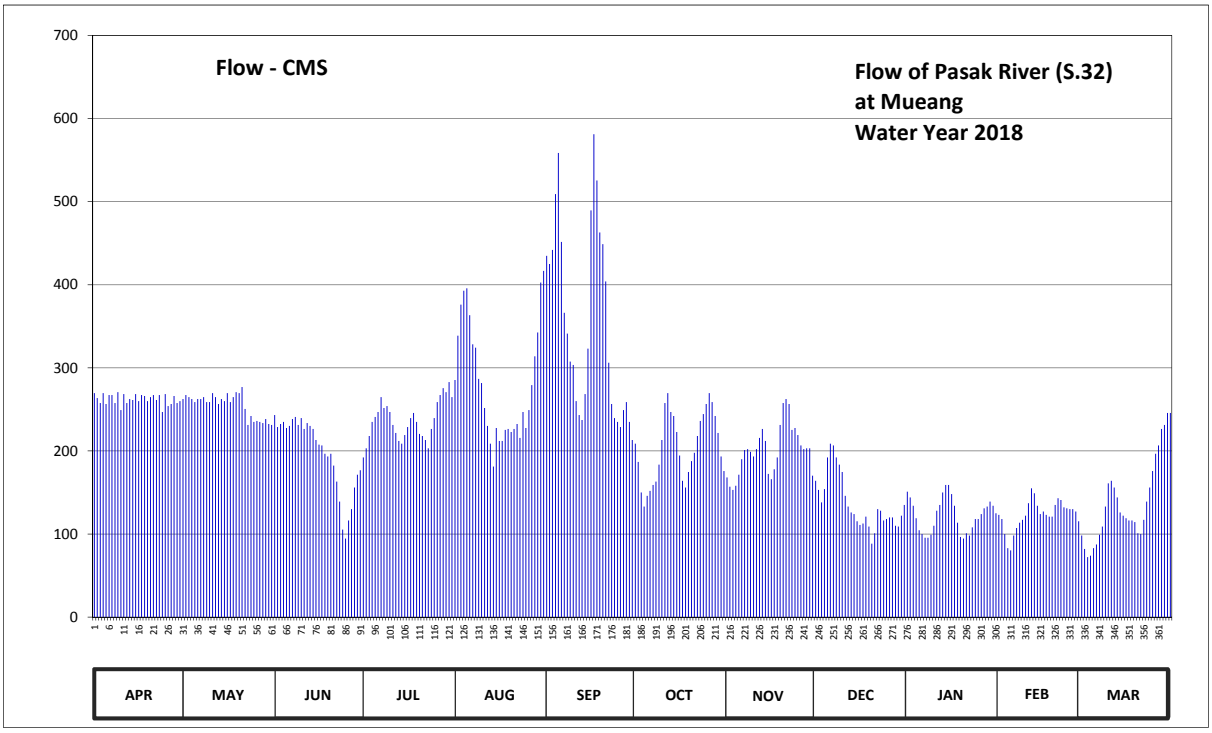
Location : on right bank at Mueang.

	Ban -	**Amphoe** Mueang	**Changwat** Saraburi
Drainge Area	425 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank near the Staff gage.		**Elevation** +17.093 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic mean of 3 readings		
Period of Available Gage Records	1990 to date		
Rating Operation			
Period of Rating	2012 to date		
Rated by Flot	-		
Rated by Current Meter	2012 to date		
Stability of Channel Regimes	Fairly stable because of backwater effect.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 10 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	7.98	7.92	7.76	7.32	8.11	9.22	7.47	7.10	7.06	6.93	6.65	6.38	
2	7.93	7.96	7.64	7.42	8.52	9.15	7.27	6.99	6.95	6.86	6.60	6.20	
3	7.88	7.94	7.67	7.55	8.80	9.27	6.92	6.95	6.80	6.76	6.40	6.09	
4	7.98	7.92	7.69	7.69	8.92	9.74	6.75	7.00	6.96	6.61	6.21	6.11	
5	7.87	7.89	7.63	7.74	8.94	10.07	6.88	7.13	7.32	6.45	6.18	6.21	
6	7.96	7.92	7.65	7.79	8.71	9.34	6.94	7.30	7.47	6.40	6.38	6.26	
7	7.96	7.92	7.72	7.94	8.44	8.73	7.01	7.40	7.45	6.35	6.48	6.39	
8	7.88	7.94	7.74	7.83	8.41	8.54	7.05	7.41	7.32	6.35	6.55	6.50	
9	7.99	7.89	7.66	7.85	8.12	8.28	7.24	7.38	7.24	6.39	6.59	6.75	
10	7.81	7.89	7.73	7.79	8.08	8.25	7.51	7.33	7.16	6.51	6.64	7.03	
11	7.97	7.98	7.62	7.66	7.83	7.90	7.88	7.41	6.88	6.70	6.79	7.06	
12	7.88	7.94	7.68	7.58	7.65	7.76	7.98	7.53	6.75	6.77	6.97	6.98	
13	7.92	7.87	7.65	7.50	7.47	7.71	7.79	7.62	6.68	6.92	6.91	6.86	
14	7.91	7.92	7.62	7.47	7.22	7.97	7.75	7.50	6.66	7.01	6.76	6.68	
15	7.97	7.90	7.51	7.56	7.63	8.40	7.59	7.14	6.57	7.01	6.66	6.64	
16	7.90	7.98	7.46	7.64	7.50	9.61	7.34	7.08	6.52	6.90	6.69	6.61	
17	7.96	7.89	7.45	7.73	7.50	10.22	7.06	7.19	6.54	6.76	6.65	6.58	
18	7.95	7.94	7.36	7.78	7.61	9.85	6.98	7.32	6.63	6.55	6.63	6.58	
19	7.90	7.99	7.33	7.69	7.62	9.42	7.16	7.66	6.50	6.36	6.63	6.56	
20	7.94	7.98	7.36	7.57	7.59	9.32	7.28	7.88	6.27	6.34	6.77	6.41	
21	7.96	8.04	7.23	7.55	7.62	9.00	7.37	7.92	6.41	6.41	6.85	6.40	
22	7.91	7.82	7.05	7.51	7.67	8.27	7.55	7.87	6.72	6.38	6.83	6.59	
23	7.96	7.66	6.81	7.42	7.53	7.87	7.70	7.61	6.70	6.49	6.74	6.81	
24	7.79	7.75	6.46	7.62	7.79	7.73	7.77	7.63	6.58	6.60	6.73	6.98	
25	7.97	7.69	6.34	7.73	7.63	7.69	7.87	7.56	6.60	6.60	6.72	7.17	
26	7.85	7.70	6.58	7.89	7.81	7.64	7.98	7.45	6.62	6.66	6.72	7.36	
27	7.87	7.69	6.72	7.96	8.06	7.81	7.89	7.41	6.62	6.73	6.69	7.45	
28	7.95	7.68	6.98	8.03	8.33	7.89	7.75	7.42	6.51	6.75	6.57	7.62	
29	7.88	7.72	7.13	7.99	8.55	7.69	7.58	7.42	6.50	6.81		7.66	
30	7.90	7.67	7.18	8.09	8.99	7.51	7.33	7.12	6.64	6.76		7.78	
31		7.66		7.94	9.09		7.17		6.77	6.67		7.78	
Mean	7.92	7.86	7.35	7.70	8.06	8.59	7.41	7.39	6.79	6.64	6.64	6.79	
Max	7.99	8.04	7.76	8.09	9.09	10.22	7.98	7.92	7.47	7.01	6.97	7.78	10.22
Min	7.79	7.66	6.34	7.32	7.22	7.51	6.75	6.95	6.27	6.34	6.18	6.09	6.09

Annual Max Momentary Gage Height	10.26	m. (MSL.) ,	at 06.00 Hours , on Sep 5 , 2018		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	1.28	m. (MSL.)
Left Bank Elevation	17.09	m. (MSL.) ,			
Right Bank Elevation	17.11	m. (MSL.) ,	Drainage Are	425	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	269.60	262.40	243.20	192.20	285.30	434.80	208.70	168.00	164.00	151.00	123.00	98.20		
2	263.60	267.20	228.80	203.20	338.60	425.00	186.70	157.00	153.00	144.00	118.00	82.00		
3	257.60	264.80	232.40	218.00	376.00	441.80	150.00	153.00	138.00	134.00	100.00	72.20		
4	269.60	262.40	234.80	234.80	392.80	509.00	133.00	158.00	154.00	119.00	82.90	73.90		
5	256.40	258.80	227.60	240.80	395.60	558.50	146.00	171.30	192.20	104.50	80.20	82.90		
6	267.20	262.40	230.00	246.80	363.40	451.60	152.00	190.00	208.70	100.00	98.20	87.40		
7	267.20	262.40	238.40	264.80	328.20	366.20	159.00	201.00	206.50	95.50	107.20	99.10		
8	257.60	264.80	240.80	251.60	324.30	341.20	163.00	202.10	192.20	95.50	113.50	109.00		
9	270.80	258.80	231.20	254.00	286.60	307.40	183.40	198.80	183.40	99.10	117.10	133.00		
10	249.20	258.80	239.60	246.80	281.60	303.50	213.20	193.30	174.60	109.90	122.00	161.00		
11	268.40	269.60	226.40	231.20	251.60	260.00	257.60	202.10	146.00	128.00	137.00	164.00		
12	257.60	264.80	233.60	221.60	230.00	243.20	269.60	215.60	133.00	135.00	155.00	156.00		
13	262.40	256.40	230.00	212.00	208.70	237.20	246.80	226.40	126.00	150.00	149.00	144.00		
14	261.20	262.40	226.40	208.70	181.20	268.40	242.00	212.00	124.00	159.00	134.00	126.00		
15	268.40	260.00	213.20	219.20	227.60	323.00	222.80	172.40	115.30	159.00	124.00	122.00		
16	260.00	269.60	207.60	228.80	212.00	489.50	194.40	166.00	110.80	148.00	127.00	119.00		
17	267.20	258.80	206.50	239.60	212.00	581.00	164.00	177.90	112.60	134.00	123.00	116.20		
18	266.00	264.80	196.60	245.60	225.20	525.50	156.00	192.20	121.00	113.50	121.00	116.20		
19	260.00	270.80	193.30	234.80	226.40	462.80	174.60	231.20	109.00	96.40	121.00	114.40		
20	264.80	269.60	196.60	220.40	222.80	448.80	187.80	257.60	88.30	94.60	135.00	100.90		
21	267.20	276.80	182.30	218.00	226.40	404.00	197.70	262.40	100.90	100.90	143.00	100.00		
22	261.20	250.40	163.00	213.20	232.40	306.10	218.00	256.40	130.00	98.20	141.00	117.10		
23	267.20	231.20	139.00	203.20	215.60	256.40	236.00	225.20	128.00	108.10	132.00	139.00		
24	246.80	242.00	105.40	226.40	246.80	239.60	244.40	227.60	116.20	118.00	131.00	156.00		
25	268.40	234.80	94.60	239.60	227.60	234.80	256.40	219.20	118.00	118.00	130.00	175.70		
26	254.00	236.00	116.20	258.80	249.20	228.80	269.60	206.50	120.00	124.00	130.00	196.60		
27	256.40	234.80	130.00	267.20	279.20	249.20	258.80	202.10	120.00	131.00	127.00	206.50		
28	266.00	233.60	156.00	275.60	313.90	258.80	242.00	203.20	109.90	133.00	115.30	226.40		
29	257.60	238.40	171.30	270.80	342.50	234.80	221.60	203.20	109.00	139.00		231.20		
30	260.00	232.40	176.80	282.80	402.60	213.20	193.30	170.20	122.00	134.00		245.60		
31		231.20		264.80	416.60		175.70		135.00	125.00		245.60		
Total	7869.60	7911.20	5911.60	7335.30	8722.70	10604.10	6324.10	6021.90	4261.60	3799.20	3437.40	4317.10	76515.80	CMSDAY
Mean	262.32	255.20	197.05	236.62	281.38	353.47	204.00	200.73	137.47	122.55	122.76	139.26	209.63	CMS
Max	270.80	276.80	243.20	282.80	416.60	581.00	269.60	262.40	208.70	159.00	155.00	245.60	581.00	CMS
Min	246.80	231.20	94.60	192.20	181.20	213.20	133.00	153.00	88.30	94.60	80.20	72.20	72.20	CMS
Runoff	679.93	683.53	510.76	633.77	753.64	916.19	546.40	520.29	368.20	328.25	296.99	373.00	6610.97	MCM

Momentary Peak 587.00 CMS. at 10.26 m. (MSL.) at 06.00 Hours , on Sep 5 , 2018

Runoff Yield 493.25 Liters/Second/Square KM. Momentary Peak Yield 1381.18 Liters/Second/Square KM.

WATER YEAR : 2018

PASAK RIVER BASIN

Pasak River at Ban Tha Hi Yong , Phetchabun (S.33)

Lat 17 - 00 - 10 N Long 101 - 21 - 23 E

Location : on left bank at Ban Tha Hai Yong

	Ban Tha Hai Yong	**Amphoe** Lom Kao	**Changwat** Phetchabun
Drainge Area	521 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+190.090 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank near the gage site.		**Elevation** +198.009 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic mean of 5 readings		
Period of Available Gage Records	1999 to date		
Rating Operation			
Period of Rating	1999 to date		
Rated by Flot	-		
Rated by Current Meter	1999 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	Non overbank flow.		
General Description	Records good. Stage-discharge relation defined by 19 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

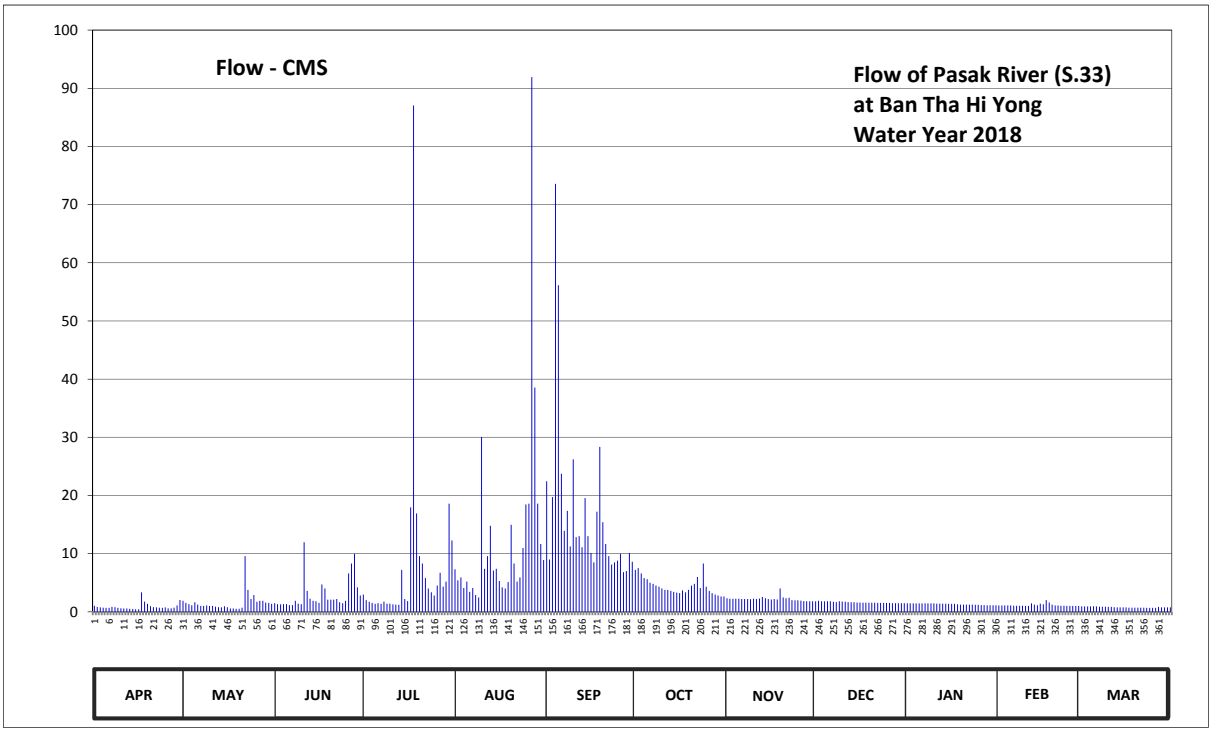
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	191.26	191.47	191.37	191.67	192.13	193.19	192.12	191.58	191.45	191.36	191.27	191.23	
2	191.21	191.38	191.33	191.50	191.94	192.30	192.15	191.56	191.47	191.36	191.27	191.23	
3	191.19	191.33	191.32	191.43	191.99	193.02	192.06	191.56	191.45	191.36	191.27	191.23	
4	191.18	191.28	191.33	191.38	191.81	195.16	191.98	191.56	191.45	191.36	191.27	191.23	
5	191.17	191.41	191.33	191.34	191.92	194.59	191.96	191.56	191.45	191.36	191.27	191.24	
6	191.17	191.31	191.29	191.37	191.73	193.26	191.90	191.55	191.45	191.36	191.26	191.23	
7	191.21	191.25	191.29	191.34	191.81	192.64	191.88	191.55	191.43	191.36	191.26	191.22	
8	191.20	191.25	191.47	191.44	191.66	192.87	191.85	191.55	191.42	191.36	191.26	191.22	
9	191.17	191.27	191.35	191.35	191.61	192.46	191.83	191.54	191.45	191.36	191.26	191.22	
10	191.15	191.25	191.33	191.35	193.57	193.39	191.80	191.56	191.44	191.36	191.25	191.21	
11	191.14	191.25	192.51	191.32	192.14	192.57	191.77	191.55	191.43	191.35	191.25	191.21	
12	191.14	191.22	191.75	191.31	192.34	192.58	191.77	191.57	191.42	191.35	191.36	191.20	
13	191.13	191.20	191.56	191.30	192.70	192.45	191.75	191.62	191.41	191.35	191.31	191.19	
14	191.12	191.19	191.47	192.12	192.11	193.01	191.73	191.58	191.41	191.35	191.28	191.19	
15	191.11	191.24	191.45	191.55	192.14	192.58	191.71	191.55	191.40	191.34	191.35	191.19	
16	191.11	191.20	191.38	191.46	191.93	192.38	191.70	191.53	191.40	191.34	191.32	191.19	
17	191.72	191.14	191.87	192.91	191.82	192.25	191.76	191.55	191.39	191.34	191.50	191.18	
18	191.44	191.14	191.80	195.55	191.80	192.86	191.72	191.53	191.39	191.32	191.40	191.18	
19	191.34	191.13	191.52	192.84	191.91	193.49	191.77	191.80	191.39	191.31	191.31	191.18	
20	191.24	191.13	191.52	192.34	192.71	192.74	191.85	191.61	191.39	191.31	191.27	191.18	
21	191.20	191.18	191.52	192.23	192.23	192.49	191.88	191.58	191.39	191.31	191.27	191.18	
22	191.19	192.34	191.55	191.98	191.92	192.34	192.00	191.60	191.38	191.31	191.26	191.18	
23	191.18	191.77	191.41	191.80	191.99	192.21	191.81	191.50	191.38	191.31	191.26	191.17	
24	191.17	191.55	191.37	191.72	192.44	192.25	192.23	191.49	191.38	191.30	191.25	191.17	
25	191.19	191.66	191.47	191.65	192.94	192.28	191.83	191.49	191.38	191.30	191.25	191.17	
26	191.15	191.43	192.06	191.85	192.95	192.37	191.75	191.48	191.38	191.29	191.25	191.17	
27	191.15	191.47	192.23	192.07	195.68	192.08	191.70	191.46	191.37	191.29	191.25	191.21	
28	191.18	191.47	192.37	191.83	193.94	192.10	191.67	191.45	191.37	191.28	191.25	191.19	
29	191.27	191.40	191.82	191.92	192.95	192.38	191.65	191.45	191.37	191.28		191.19	
30	191.51	191.38	191.65	192.95	192.49	192.26	191.63	191.45	191.37	191.28		191.19	
31		191.34		192.53	192.29		191.63		191.37	191.28		191.19	
Mean	191.22	191.36	191.59	191.92	192.37	192.75	191.83	191.55	191.41	191.33	191.29	191.20	
Max	191.72	192.34	192.51	195.55	195.68	195.16	192.23	191.80	191.47	191.36	191.50	191.24	195.68
Min	191.11	191.13	191.29	191.30	191.61	192.08	191.63	191.45	191.37	191.28	191.25	191.17	191.11

Annual Max Momentary Gage Height 197.18 m. (MSL.) , at 12.00 Hours , on Jul 18 , 2018

Zero Gage at Bottom Elevation 190.09 m. (MSL.) , River Bed 191.20 m. (MSL.)

Left Bank Elevation 197.88 m. (MSL.) ,

Right Bank Elevation 197.94 m. (MSL.) , Drainage Are 521 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.04	1.88	1.48	2.96	7.30	22.44	7.20	2.32	1.80	1.44	1.08	0.92		
2	0.84	1.52	1.32	2.00	5.40	9.00	7.50	2.24	1.88	1.44	1.08	0.92		
3	0.76	1.32	1.28	1.72	5.90	19.72	6.60	2.24	1.80	1.44	1.08	0.92		
4	0.72	1.12	1.32	1.52	4.10	73.56	5.80	2.24	1.80	1.44	1.08	0.92		
5	0.68	1.64	1.32	1.36	5.20	56.12	5.60	2.24	1.80	1.44	1.08	0.96		
6	0.68	1.24	1.16	1.48	3.44	23.74	5.00	2.20	1.80	1.44	1.04	0.92		
7	0.84	1.00	1.16	1.36	4.10	13.90	4.80	2.20	1.72	1.44	1.04	0.88		
8	0.80	1.00	1.88	1.76	2.88	17.35	4.50	2.20	1.68	1.44	1.04	0.88		
9	0.68	1.08	1.40	1.40	2.48	11.24	4.30	2.16	1.80	1.44	1.04	0.88		
10	0.60	1.00	1.32	1.40	30.06	26.21	4.00	2.24	1.76	1.44	1.00	0.84		
11	0.56	1.00	11.95	1.28	7.40	12.85	3.76	2.20	1.72	1.40	1.00	0.84		
12	0.56	0.88	3.60	1.24	9.56	13.00	3.76	2.28	1.68	1.40	1.44	0.80		
13	0.52	0.80	2.24	1.20	14.80	11.10	3.60	2.56	1.64	1.40	1.24	0.76		
14	0.48	0.76	1.88	7.20	7.10	19.56	3.44	2.32	1.64	1.40	1.12	0.76		
15	0.44	0.96	1.80	2.20	7.40	13.00	3.28	2.20	1.60	1.36	1.40	0.76		
16	0.44	0.80	1.52	1.84	5.30	10.12	3.20	2.12	1.60	1.36	1.28	0.76		
17	3.36	0.56	4.70	17.96	4.20	8.50	3.68	2.20	1.56	1.36	2.00	0.72		
18	1.76	0.56	4.00	87.05	4.00	17.20	3.36	2.12	1.56	1.28	1.60	0.72		
19	1.36	0.52	2.08	16.90	5.10	28.34	3.76	4.00	1.56	1.24	1.24	0.72		
20	0.96	0.52	2.08	9.56	14.95	15.40	4.50	2.48	1.56	1.24	1.08	0.72		
21	0.80	0.72	2.08	8.30	8.30	11.66	4.80	2.32	1.56	1.24	1.08	0.72		
22	0.76	9.56	2.20	5.80	5.20	9.56	6.00	2.40	1.52	1.24	1.04	0.72		
23	0.72	3.76	1.64	4.00	5.90	8.10	4.10	2.00	1.52	1.24	1.04	0.68		
24	0.68	2.20	1.48	3.36	10.96	8.50	8.30	1.96	1.52	1.20	1.00	0.68		
25	0.76	2.88	1.88	2.80	18.44	8.80	4.30	1.96	1.52	1.20	1.00	0.68		
26	0.60	1.72	6.60	4.50	18.60	9.98	3.60	1.92	1.52	1.16	1.00	0.68		
27	0.60	1.88	8.30	6.70	91.92	6.80	3.20	1.84	1.48	1.16	1.00	0.84		
28	0.72	1.88	9.98	4.30	38.56	7.00	2.96	1.80	1.48	1.12	1.00	0.76		
29	1.08	1.60	4.20	5.20	18.60	10.12	2.80	1.80	1.48	1.12		0.76		
30	2.04	1.52	2.80	18.60	11.66	8.60	2.64	1.80	1.48	1.12		0.76		
31		1.36		12.25	8.90		2.64		1.48	1.12		0.76		
Total	26.84	49.24	90.65	239.20	387.71	511.47	136.98	66.56	50.52	40.76	32.12	24.64	1656.69	CMSDAY
Mean	0.89	1.59	3.02	7.72	12.51	17.05	4.42	2.22	1.63	1.31	1.15	0.79	4.54	CMS
Max	3.36	9.56	11.95	87.05	91.92	73.56	8.30	4.00	1.88	1.44	2.00	0.96	91.92	CMS
Min	0.44	0.52	1.16	1.20	2.48	6.80	2.64	1.80	1.48	1.12	1.00	0.68	0.44	CMS
Runoff	2.32	4.25	7.83	20.67	33.50	44.19	11.84	5.75	4.36	3.52	2.78	2.13	143.14	MCM

Momentary Peak 171.40 CMS. at 197.18 m. (MSL.) at 12.00 Hours , on Jul 18 , 2018

Runoff Yield 8.71 Liters/Second/Square KM. Momentary Peak Yield 328.98 Liters/Second/Square KM.

WATER YEAR : 2018

PASAK RIVER BASIN

Pasak River at Ban Non Thong , Phetchabun (S.36)

Lat 16 - 43 - 42 N Long 101 - 14 - 32 E

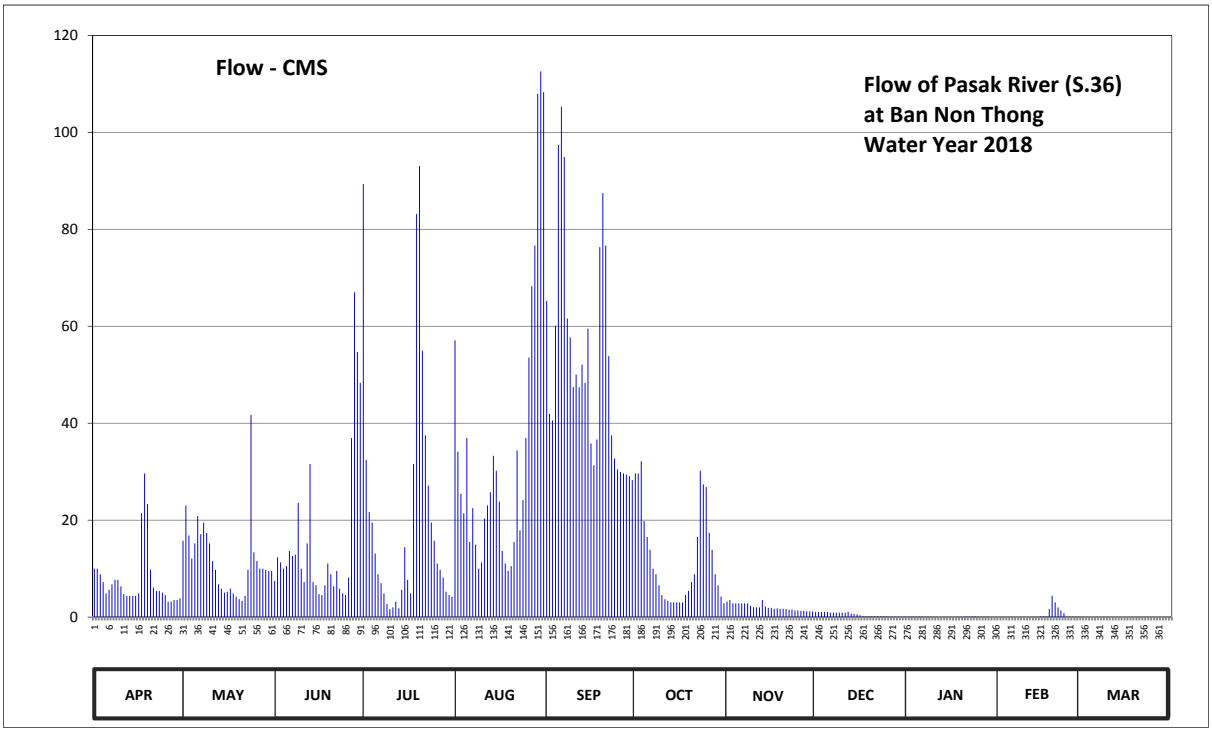
Location : on right bank at Ban Non Thong.

	Ban Non Thong	**Amphoe** Lom Sak	**Changwat** Phetchabun
Drainge Area	1,775 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+130.950 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank near the gage site.		**Elevation** +143.140 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic mean of 5 readings		
Period of Available Gage Records	1999 to date		
Rating Operation			
Period of Rating	1999 to date		
Rated by Flot	-		
Rated by Current Meter	1999 to date		
Stability of Channel Regimes	Rather unstable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 16 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	135.60	135.82	135.49	138.34	137.29	137.56	136.33	135.27	135.10	134.88	134.80	134.82	
2	135.60	136.09	135.69	136.43	136.49	136.77	136.33	135.29	135.10	134.90	134.80	134.76	
3	135.55	135.86	135.65	136.04	136.18	136.72	136.42	135.25	135.10	134.90	134.80	134.79	
4	135.48	135.68	135.60	135.96	136.03	137.39	135.97	135.25	135.10	134.90	134.80	134.79	
5	135.37	135.80	135.62	135.72	136.59	138.60	135.85	135.25	135.10	134.90	134.79	134.78	
6	135.41	136.01	135.74	135.55	135.81	138.84	135.75	135.25	135.08	134.89	134.79	134.78	
7	135.46	135.87	135.70	135.47	136.07	138.52	135.60	135.25	135.08	134.88	134.79	134.77	
8	135.50	135.96	135.71	135.37	135.79	137.44	135.55	135.25	135.08	134.87	134.78	134.77	
9	135.50	135.88	136.11	135.24	135.60	137.31	135.45	135.22	135.08	134.86	134.78	134.77	
10	135.44	135.80	135.60	135.16	135.65	136.96	135.35	135.20	135.08	134.85	134.78	134.77	
11	135.36	135.66	135.48	135.20	135.99	137.05	135.30	135.20	135.08	134.82	134.78	134.76	
12	135.34	135.59	135.80	135.27	136.09	136.96	135.28	135.20	135.10	134.80	134.82	134.76	
13	135.34	135.46	136.40	135.18	136.19	137.12	135.26	135.29	135.06	134.79	134.82	134.75	
14	135.34	135.42	135.48	135.41	136.46	136.99	135.26	135.21	135.05	134.78	134.86	134.74	
15	135.34	135.38	135.45	135.77	136.35	137.37	135.26	135.19	135.04	134.77	134.96	134.74	
16	135.37	135.39	135.36	135.50	136.12	136.55	135.26	135.19	135.02	134.76	134.96	134.74	
17	136.03	135.42	135.35	135.37	135.74	136.39	135.26	135.17	135.00	134.75	134.95	134.74	
18	136.33	135.37	135.45	136.40	135.64	136.58	135.35	135.18	135.00	134.86	135.16	134.74	
19	136.10	135.33	135.64	138.14	135.58	137.92	135.40	135.17	134.99	134.86	135.34	134.74	
20	135.59	135.30	135.55	138.46	135.62	138.28	135.48	135.17	134.99	134.86	135.26	134.74	
21	135.43	135.28	135.44	137.22	135.81	137.93	135.55	135.16	134.98	134.89	135.20	134.74	
22	135.40	135.34	135.58	136.61	136.50	137.18	135.85	135.15	134.98	134.90	135.13	134.74	
23	135.40	135.59	135.42	136.24	135.90	136.61	136.35	135.15	134.97	134.92	135.07	134.73	
24	135.38	136.76	135.37	135.96	136.13	136.44	136.25	135.13	134.96	134.92	134.91	134.72	
25	135.35	135.73	135.35	135.82	136.59	136.36	136.23	135.13	134.95	134.87	134.89	134.71	
26	135.27	135.66	135.52	135.64	137.17	136.34	135.88	135.12	134.90	134.87	134.89	134.71	
27	135.27	135.60	136.59	135.59	137.66	136.33	135.75	135.12	134.90	134.87	134.87	134.71	
28	135.29	135.60	137.62	135.52	137.93	136.32	135.55	135.11	134.89	134.87	134.85	134.75	
29	135.29	135.59	137.21	135.39	138.92	136.31	135.45	135.11	134.89	134.81		134.78	
30	135.31	135.58	136.99	135.35	139.06	136.28	135.33	135.11	134.89	134.81		134.82	
31		135.58		135.33	138.93		135.25		134.89	134.80		134.85	
Mean	135.48	135.66	135.80	135.96	136.51	137.11	135.65	135.19	135.01	134.85	134.92	134.76	
Max	136.33	136.76	137.62	138.46	139.06	138.84	136.42	135.29	135.10	134.92	135.34	134.85	139.06
Min	135.27	135.28	135.35	135.16	135.58	136.28	135.25	135.11	134.89	134.75	134.78	134.71	134.71

Annual Max Momentary Gage Height	139.07	m. (MSL.) ,	at 09.00 Hours , on Aug 30 , 2018		
Zero Gage at Bottom Elevation	130.95	m. (MSL.) ,	River Bed	134.01	m. (MSL.)
Left Bank Elevation	138.95	m. (MSL.) ,			
Right Bank Elevation	140.11	m. (MSL.) ,	Drainage Are	1,775	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	10.00	15.74	7.47	89.34	57.10	65.20	29.64	3.19	1.10	0.08	0.00	0.02		
2	10.00	23.03	12.34	32.44	34.12	41.96	29.64	3.53	1.10	0.10	0.00	0.00		
3	8.85	16.82	11.30	21.68	25.46	40.56	32.16	2.85	1.10	0.10	0.00	0.00		
4	7.24	12.08	10.00	19.52	21.41	60.10	19.79	2.85	1.10	0.10	0.00	0.00		
5	4.89	15.20	10.52	13.12	36.92	97.40	16.55	2.85	1.10	0.10	0.00	0.00		
6	5.63	20.87	13.64	8.85	15.47	105.32	13.90	2.85	0.92	0.09	0.00	0.00		
7	6.78	17.09	12.60	7.01	22.49	94.92	10.00	2.85	0.92	0.08	0.00	0.00		
8	7.70	19.52	12.86	4.89	14.94	61.60	8.85	2.85	0.92	0.07	0.00	0.00		
9	7.70	17.36	23.57	2.68	10.00	57.70	6.55	2.34	0.92	0.06	0.00	0.00		
10	6.32	15.20	10.00	1.64	11.30	47.44	4.55	2.00	0.92	0.05	0.00	0.00		
11	4.72	11.56	7.24	2.00	20.33	50.05	3.70	2.00	0.92	0.02	0.00	0.00		
12	4.38	9.77	15.20	3.19	23.03	47.44	3.36	2.00	1.10	0.00	0.02	0.00		
13	4.38	6.78	31.60	1.82	25.73	52.08	3.02	3.53	0.74	0.00	0.02	0.00		
14	4.38	5.86	7.24	5.63	33.28	48.31	3.02	2.17	0.65	0.00	0.06	0.00		
15	4.38	5.06	6.55	14.42	30.20	59.50	3.02	1.91	0.56	0.00	0.16	0.00		
16	4.89	5.23	4.72	7.70	23.84	35.80	3.02	1.91	0.38	0.00	0.16	0.00		
17	21.41	5.86	4.55	4.89	13.64	31.32	3.02	1.73	0.20	0.00	0.15	0.00		
18	29.64	4.89	6.55	31.60	11.04	36.64	4.55	1.82	0.20	0.06	1.64	0.00		
19	23.30	4.21	11.04	83.14	9.54	76.32	5.40	1.73	0.19	0.06	4.38	0.00		
20	9.77	3.70	8.85	93.06	10.52	87.48	7.24	1.73	0.19	0.06	3.02	0.00		
21	6.09	3.36	6.32	55.00	15.47	76.63	8.85	1.64	0.18	0.09	2.00	0.00		
22	5.40	4.38	9.54	37.48	34.40	53.82	16.55	1.55	0.18	0.10	1.37	0.00		
23	5.40	9.77	5.86	27.12	17.90	37.48	30.20	1.55	0.17	0.12	0.83	0.00		
24	5.06	41.68	4.89	19.52	24.11	32.72	27.40	1.37	0.16	0.12	0.11	0.00		
25	4.55	13.38	4.55	15.74	36.92	30.48	26.84	1.37	0.15	0.07	0.09	0.00		
26	3.19	11.56	8.16	11.04	53.53	29.92	17.36	1.28	0.10	0.07	0.09	0.00		
27	3.19	10.00	36.92	9.77	68.26	29.64	13.90	1.28	0.10	0.07	0.07	0.00		
28	3.53	10.00	67.02	8.16	76.63	29.36	8.85	1.19	0.09	0.07	0.05	0.00		
29	3.53	9.77	54.70	5.23	107.96	29.08	6.55	1.19	0.09	0.01		0.00		
30	3.87	9.54	48.31	4.55	112.58	28.24	4.21	1.19	0.09	0.01		0.02		
31		9.54		4.21	108.29		2.85		0.09	0.00		0.05		
Total	230.17	368.81	474.11	646.44	1106.41	1574.51	374.54	62.30	16.63	1.76	14.22	0.09	4869.99	CMSDAY
Mean	7.67	11.90	15.80	20.85	35.69	52.48	12.08	2.08	0.54	0.06	0.51	0.00	13.34	CMS
Max	29.64	41.68	67.02	93.06	112.58	105.32	32.16	3.53	1.10	0.12	4.38	0.05	112.58	CMS
Min	3.19	3.36	4.55	1.64	9.54	28.24	2.85	1.19	0.09	0.00	0.00	0.00	0.00	CMS
Runoff	19.89	31.87	40.96	55.85	95.59	136.04	32.36	5.38	1.44	0.15	1.23	0.01	420.77	MCM

Momentary Peak 112.91 CMS. at 139.07 m. (MSL.) at 09.00 Hours , on Aug 30 , 2018

Runoff Yield 7.52 Liters/Second/Square KM. Momentary Peak Yield 63.61 Liters/Second/Square KM.

WATER YEAR : 2018

PASAK RIVER BASIN

Pasak River at Ban Bo Rang , Phetchabun (S.42)

Lat 15 - 34 - 35 N Long 101 - 05 - 28 E

Location : on left bank at the bridge.

	Ban Bo Rang	**Amphoe** Wichian Buri	**Changwat** Phetchabun
Drainge Area	7,233 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+51.796 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank near the gage site.		**Elevation** +63.900 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic mean of 5 readings		
Period of Available Gage Records	2005 to date		
Rating Operation			
Period of Rating	2005 to date		
Rated by Flot	-		
Rated by Current Meter	2005 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	Overbank flow starts at elevation +61.700 m.(MSL.), records are channel flow only.		
General Description	Records very good. Stage-discharge relation defined by 15 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

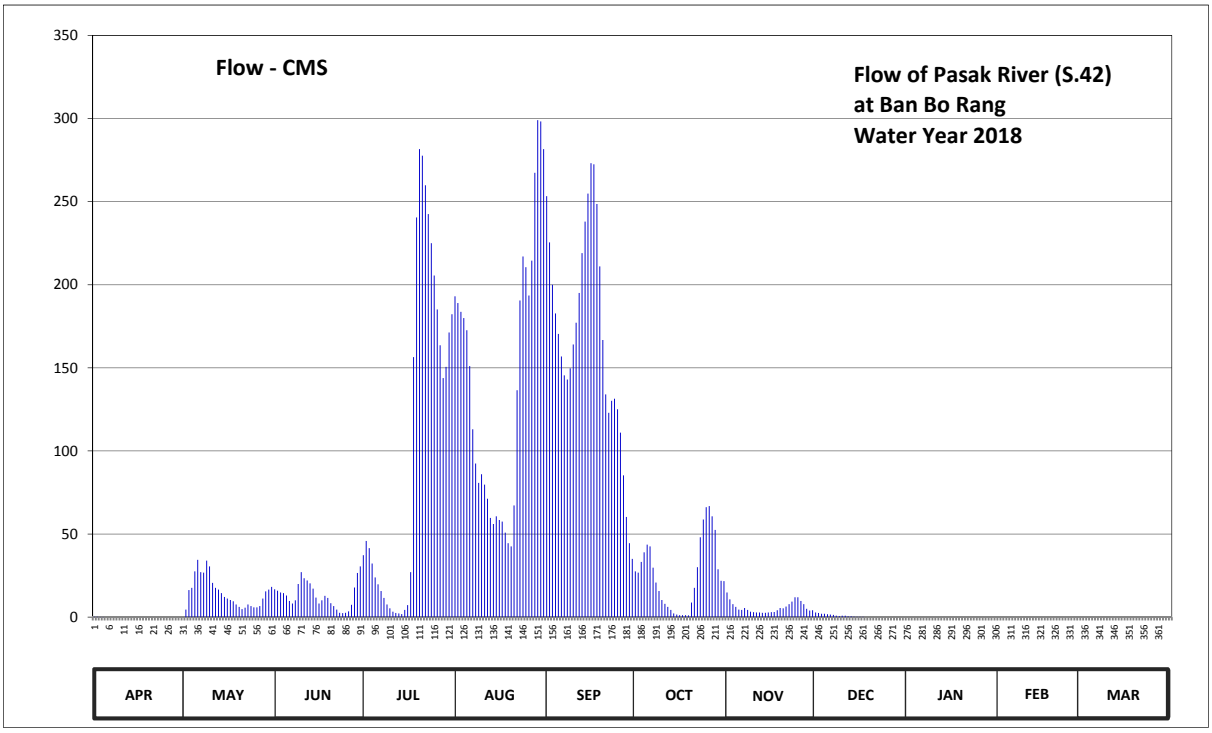
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	54.88	54.78	55.93	56.81	60.91	62.11	56.42	55.84	55.21	54.60	54.33	54.10	
2	54.87	55.31	55.89	57.14	60.83	61.56	56.39	55.64	55.19	54.60	54.32	54.10	
3	54.85	55.91	55.84	56.98	60.72	61.05	56.65	55.49	55.14	54.60	54.30	54.08	
4	54.83	55.97	55.82	56.61	60.64	60.70	56.88	55.41	55.14	54.59	54.31	54.07	
5	54.81	56.42	55.75	56.26	60.48	60.43	57.06	55.31	55.12	54.58	54.30	54.06	
6	54.79	56.70	55.59	56.07	60.00	60.13	57.02	55.30	55.10	54.57	54.30	54.05	
7	54.76	56.40	55.51	55.88	59.10	59.87	56.51	55.37	55.08	54.57	54.30	54.04	
8	54.73	56.39	55.61	55.68	58.57	59.81	56.12	55.30	55.03	54.56	54.28	54.03	
9	54.70	56.68	56.08	55.48	58.25	59.97	55.88	55.24	55.01	54.56	54.26	54.02	
10	54.69	56.54	56.40	55.36	58.40	60.29	55.62	55.22	55.03	54.56	54.25	54.01	
11	54.67	56.11	56.24	55.24	58.22	60.58	55.50	55.21	55.03	54.56	54.23	54.01	
12	54.66	55.97	56.18	55.19	57.97	60.95	55.41	55.21	54.99	54.55	54.23	54.00	
13	54.65	55.92	56.10	55.16	57.62	61.43	55.30	55.20	54.97	54.54	54.26	53.99	
14	54.65	55.82	55.95	55.13	57.50	61.81	55.16	55.20	54.92	54.54	54.26	53.98	
15	54.65	55.71	55.69	55.30	57.65	62.14	55.10	55.21	54.88	54.53	54.26	53.97	
16	54.67	55.66	55.51	55.46	57.58	62.44	55.06	55.22	54.87	54.53	54.26	53.96	
17	54.68	55.62	55.61	56.40	57.55	62.43	55.06	55.23	54.86	54.53	54.26	53.95	
18	54.71	55.58	55.74	60.12	57.32	62.02	55.06	55.29	54.78	54.51	54.26	53.94	
19	54.71	55.48	55.68	61.86	57.09	61.27	55.05	55.37	54.76	54.51	54.25	53.93	
20	54.70	55.41	55.52	62.57	57.02	60.35	55.54	55.36	54.74	54.50	54.24	53.90	
21	54.69	55.33	55.43	62.51	57.85	59.60	55.97	55.42	54.73	54.49	54.23	53.88	
22	54.69	55.38	55.31	62.23	59.66	59.34	56.52	55.49	54.74	54.48	54.23	53.86	
23	54.68	55.48	55.20	61.90	60.86	59.51	57.22	55.57	54.73	54.45	54.21	53.85	
24	54.68	55.43	55.18	61.55	61.39	59.54	57.59	55.70	54.72	54.44	54.17	53.84	
25	54.67	55.39	55.20	61.16	61.26	59.39	57.82	55.70	54.72	54.43	54.14	53.83	
26	54.67	55.39	55.25	60.75	60.92	59.05	57.84	55.59	54.68	54.42	54.13	53.82	
27	54.70	55.43	55.47	60.28	61.34	58.38	57.65	55.49	54.68	54.42	54.13	53.81	
28	54.65	55.66	55.98	59.83	62.35	57.64	57.38	55.34	54.65	54.42	54.12	53.80	
29	54.73	55.87	56.38	59.99	62.82	57.09	56.47	55.28	54.62	54.41		53.80	
30	54.75	55.92	56.54	60.45	62.81	56.72	56.17	55.29	54.62	54.35		53.80	
31		56.00		60.69	62.57		56.16		54.61	54.34		53.80	
Mean	54.72	55.80	55.75	58.26	59.59	60.25	56.24	55.38	54.88	54.51	54.24	53.94	
Max	54.88	56.70	56.54	62.57	62.82	62.44	57.84	55.84	55.21	54.60	54.33	54.10	62.82
Min	54.65	54.78	55.18	55.13	57.02	56.72	55.05	55.20	54.61	54.34	54.12	53.80	53.80

Annual Max Momentary Gage Height 62.87 m. (MSL.) , at 20.00 Hours , on Aug 29 , 2018

Zero Gage at Bottom Elevation 51.80 m. (MSL.) , River Bed 51.69 m. (MSL.)

Left Bank Elevation 63.10 m. (MSL.) ,

Right Bank Elevation 61.69 m. (MSL.) , Drainage Are 7,233 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.20	0.00	16.73	37.25	193.00	253.28	27.50	14.84	2.77	0.00	0.00	0.00		
2	0.18	4.47	15.89	45.85	189.00	225.50	26.78	10.72	2.50	0.00	0.00	0.00		
3	0.13	16.31	14.84	41.50	183.70	200.00	33.25	7.76	1.97	0.00	0.00	0.00		
4	0.08	17.57	14.42	32.25	179.90	182.75	39.00	6.20	1.97	0.00	0.00	0.00		
5	0.03	27.50	12.98	23.85	172.60	170.35	43.65	4.47	1.76	0.00	0.00	0.00		
6	0.00	34.50	9.71	19.71	151.00	156.85	42.55	4.30	1.55	0.00	0.00	0.00		
7	0.00	27.00	8.15	15.68	113.00	145.48	29.75	5.49	1.34	0.00	0.00	0.00		
8	0.00	26.78	10.11	11.54	92.38	142.93	20.78	4.30	0.82	0.00	0.00	0.00		
9	0.00	34.00	19.92	7.56	80.75	149.73	15.68	3.28	0.61	0.00	0.00	0.00		
10	0.00	30.50	27.00	5.32	86.00	164.05	10.31	2.94	0.82	0.00	0.00	0.00		
11	0.00	20.57	23.40	3.28	79.70	177.10	7.95	2.77	0.82	0.00	0.00	0.00		
12	0.00	17.57	22.07	2.50	71.20	195.00	6.20	2.77	0.48	0.00	0.00	0.00		
13	0.00	16.52	20.35	2.18	59.65	219.00	4.30	2.60	0.43	0.00	0.00	0.00		
14	0.00	14.42	17.15	1.87	56.00	238.00	2.18	2.60	0.30	0.00	0.00	0.00		
15	0.00	12.16	11.75	4.30	60.63	254.85	1.55	2.77	0.20	0.00	0.00	0.00		
16	0.00	11.13	8.15	7.17	58.40	273.10	1.13	2.94	0.18	0.00	0.00	0.00		
17	0.00	10.31	10.11	27.00	57.50	272.45	1.13	3.11	0.15	0.00	0.00	0.00		
18	0.00	9.51	12.77	156.40	50.80	248.55	1.13	4.13	0.00	0.00	0.00	0.00		
19	0.00	7.56	11.54	240.50	44.48	211.00	1.03	5.49	0.00	0.00	0.00	0.00		
20	0.00	6.20	8.34	281.55	42.55	166.75	8.73	5.32	0.00	0.00	0.00	0.00		
21	0.00	4.81	6.59	277.65	67.18	134.00	17.57	6.39	0.00	0.00	0.00	0.00		
22	0.00	5.66	4.47	259.88	136.55	122.95	30.00	7.76	0.00	0.00	0.00	0.00		
23	0.00	7.56	2.60	242.50	190.50	130.18	48.05	9.32	0.00	0.00	0.00	0.00		
24	0.00	6.59	2.39	225.00	217.00	131.45	58.70	11.95	0.00	0.00	0.00	0.00		
25	0.00	5.83	2.60	205.50	210.50	125.08	66.17	11.95	0.00	0.00	0.00	0.00		
26	0.00	5.83	3.45	185.13	193.50	111.00	66.84	9.71	0.00	0.00	0.00	0.00		
27	0.00	6.59	7.37	163.60	214.50	85.30	60.63	7.76	0.00	0.00	0.00	0.00		
28	0.00	11.13	17.78	143.78	267.38	60.30	52.45	4.98	0.00	0.00	0.00	0.00		
29	0.00	15.47	26.55	150.58	299.00	44.48	28.75	3.96	0.00	0.00		0.00		
30	0.00	16.52	30.50	171.25	298.25	35.00	21.86	4.13	0.00	0.00		0.00		
31		18.20		182.28	281.55		21.64		0.00	0.00		0.00		
Total	0.62	448.77	399.68	3174.41	4398.15	5026.46	797.24	176.71	18.67	0.00	0.00	0.00	14440.71	CMSDAY
Mean	0.02	14.48	13.32	102.40	141.88	167.55	25.72	5.89	0.60	0.00	0.00	0.00	39.56	CMS
Max	0.20	34.50	30.50	281.55	299.00	273.10	66.84	14.84	2.77	0.00	0.00	0.00	299.00	CMS
Min	0.00	0.00	2.39	1.87	42.55	35.00	1.03	2.60	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	0.05	38.77	34.53	274.27	380.00	434.29	68.88	15.27	1.61	0.00	0.00	0.00	1247.68	MCM

Momentary Peak 302.75 CMS. at 62.87 m. (MSL.) at 20.00 Hours , on Aug 29 , 2018

Runoff Yield 5.47 Liters/Second/Square KM. Momentary Peak Yield 41.86 Liters/Second/Square KM.

WATER YEAR : 2018

PASAK RIVER BASIN

Pasak River at Ban Sao Hai , Saraburi (S.44)

Lat 14 - 32 - 48 N Long 100 - 53 - 25 E

Location : on right bank at Ban Sao Hai.

	Ban Sao Hai	**Amphoe** Sao Hai	**Changwat** Saraburi
Drainge Area	15,587 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank at the abutment of the bridge.		**Elevation** +16.762 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	2014 to date		
Rating Operation			
Period of Rating	2014 to date		
Rated by Flot	-		
Rated by Current Meter	2014 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 8 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

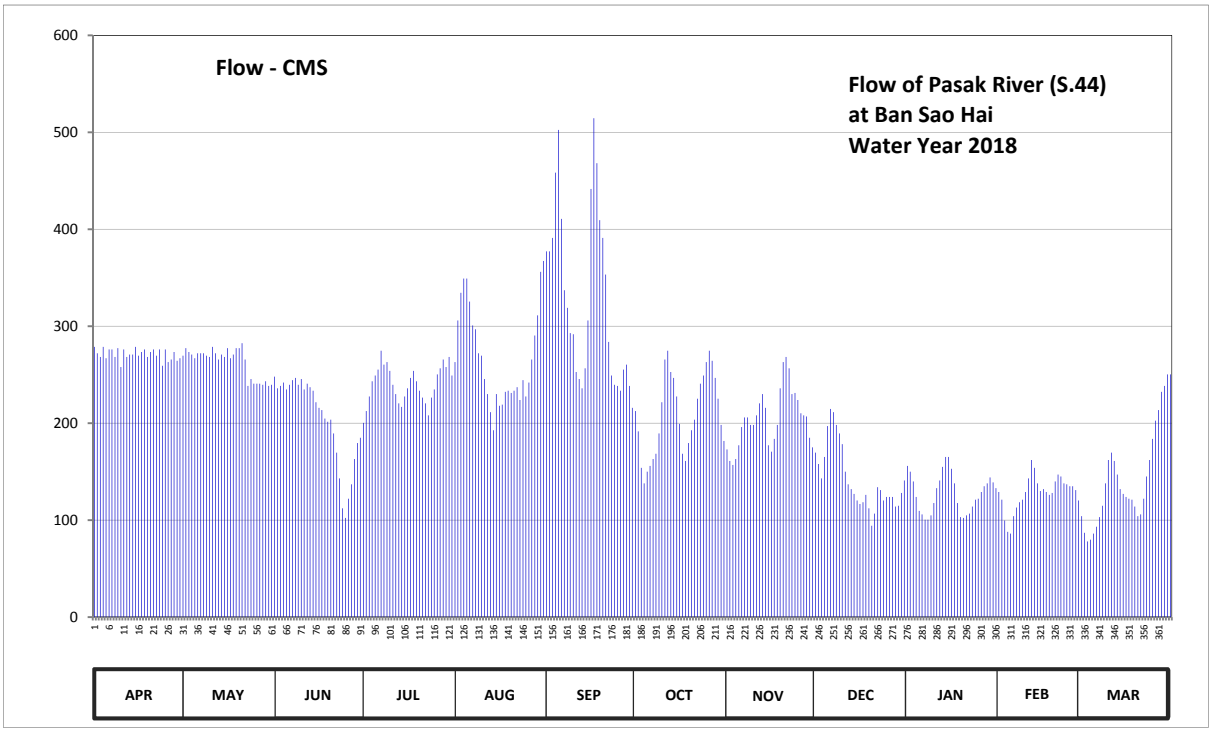
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	7.89	7.82	7.65	7.24	7.77	8.63	7.35	6.99	6.96	6.83	6.56	6.29	
2	7.84	7.88	7.55	7.35	8.10	8.63	7.16	6.88	6.85	6.77	6.48	6.10	
3	7.81	7.85	7.57	7.48	8.32	8.73	6.81	6.84	6.70	6.67	6.24	6.00	
4	7.89	7.83	7.60	7.61	8.43	9.21	6.65	6.90	6.92	6.51	6.11	6.02	
5	7.80	7.80	7.54	7.66	8.43	9.51	6.77	7.03	7.21	6.35	6.09	6.09	
6	7.87	7.84	7.58	7.71	8.25	8.87	6.83	7.20	7.37	6.31	6.29	6.17	
7	7.87	7.84	7.62	7.86	8.06	8.34	6.90	7.29	7.34	6.25	6.39	6.28	
8	7.81	7.84	7.64	7.75	8.03	8.20	6.95	7.29	7.22	6.25	6.45	6.41	
9	7.88	7.82	7.58	7.77	7.84	8.00	7.14	7.22	7.14	6.30	6.48	6.65	
10	7.73	7.81	7.63	7.70	7.82	7.99	7.43	7.22	7.04	6.44	6.56	6.89	
11	7.87	7.89	7.54	7.58	7.63	7.69	7.79	7.31	6.77	6.60	6.70	6.96	
12	7.81	7.84	7.59	7.50	7.50	7.63	7.86	7.42	6.64	6.68	6.89	6.88	
13	7.83	7.79	7.56	7.42	7.34	7.55	7.69	7.50	6.59	6.82	6.81	6.74	
14	7.83	7.83	7.53	7.39	7.17	7.72	7.64	7.38	6.54	6.92	6.65	6.59	
15	7.89	7.81	7.43	7.48	7.50	8.10	7.48	7.03	6.47	6.92	6.57	6.54	
16	7.82	7.88	7.38	7.55	7.40	9.09	7.23	6.97	6.43	6.80	6.59	6.51	
17	7.85	7.80	7.36	7.64	7.41	9.59	6.95	7.09	6.45	6.65	6.56	6.49	
18	7.87	7.83	7.28	7.70	7.52	9.28	6.88	7.22	6.53	6.44	6.53	6.48	
19	7.81	7.88	7.25	7.61	7.53	8.86	7.05	7.55	6.38	6.28	6.55	6.40	
20	7.85	7.88	7.27	7.53	7.51	8.73	7.17	7.77	6.18	6.27	6.67	6.29	
21	7.87	7.92	7.14	7.47	7.53	8.46	7.27	7.81	6.32	6.30	6.74	6.31	
22	7.82	7.79	6.96	7.42	7.56	7.93	7.46	7.72	6.61	6.32	6.72	6.49	
23	7.87	7.57	6.70	7.31	7.45	7.66	7.59	7.50	6.58	6.40	6.65	6.72	
24	7.74	7.63	6.38	7.47	7.62	7.58	7.66	7.51	6.47	6.48	6.64	6.89	
25	7.87	7.59	6.27	7.54	7.48	7.57	7.77	7.45	6.51	6.49	6.62	7.09	
26	7.77	7.59	6.49	7.67	7.60	7.53	7.86	7.33	6.51	6.56	6.62	7.26	
27	7.79	7.59	6.64	7.72	7.79	7.71	7.78	7.31	6.51	6.62	6.58	7.36	
28	7.85	7.58	6.90	7.79	7.98	7.75	7.64	7.30	6.40	6.65	6.47	7.52	
29	7.78	7.61	7.05	7.73	8.14	7.57	7.46	7.10	6.41	6.71		7.57	
30	7.80	7.57	7.10	7.81	8.48	7.38	7.22	7.01	6.55	6.66		7.67	
31		7.58		7.66	8.56		7.07		6.68	6.60		7.67	
Mean	7.83	7.77	7.26	7.58	7.80	8.25	7.31	7.27	6.69	6.54	6.54	6.69	
Max	7.89	7.92	7.65	7.86	8.56	9.59	7.86	7.81	7.37	6.92	6.89	7.67	9.59
Min	7.73	7.57	6.27	7.24	7.17	7.38	6.65	6.84	6.18	6.25	6.09	6.00	6.00

Annual Max Momentary Gage Height 9.70 m. (MSL.) , at 04.00 Hours , on Sep 5 , 2018

Zero Gage at Bottom Elevation 0.00 m. (MSL.) , River Bed 0.09 m. (MSL)

Left Bank Elevation 16.50 m. (MSL.) ,

Right Bank Elevation 16.54 m. (MSL.) , Drainage Are 15,587 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	278.70	269.60	248.00	200.40	263.10	377.20	212.50	172.90	169.60	156.00	129.00	104.10		
2	272.20	277.40	236.00	212.50	306.00	377.20	191.60	161.00	158.00	150.00	121.20	87.00		
3	268.30	273.50	238.40	227.60	334.60	391.20	154.00	157.00	143.00	140.00	99.60	78.00		
4	278.70	270.90	242.00	243.20	349.20	458.40	138.00	163.00	165.20	124.00	87.90	79.80		
5	267.00	267.00	234.80	249.20	349.20	502.50	150.00	177.30	197.10	109.50	86.10	86.10		
6	276.10	272.20	239.60	255.30	325.50	410.80	156.00	196.00	214.70	105.90	104.10	93.30		
7	276.10	272.20	244.40	274.80	300.80	337.20	163.00	205.90	211.40	100.50	113.10	103.20		
8	268.30	272.20	246.80	260.50	296.90	319.00	168.50	205.90	198.20	100.50	118.50	114.90		
9	277.40	269.60	239.60	263.10	272.20	293.00	189.40	198.20	189.40	105.00	121.20	138.00		
10	257.90	268.30	245.60	254.00	269.60	291.70	221.60	198.20	178.40	117.60	129.00	162.00		
11	276.10	278.70	234.80	239.60	245.60	252.80	265.70	208.10	150.00	133.00	143.00	169.60		
12	268.30	272.20	240.80	230.00	230.00	245.60	274.80	220.40	137.00	141.00	162.00	161.00		
13	270.90	265.70	237.20	220.40	211.40	236.00	252.80	230.00	132.00	155.00	154.00	147.00		
14	270.90	270.90	233.60	216.90	192.70	256.60	246.80	215.80	127.00	165.20	138.00	132.00		
15	278.70	268.30	221.60	227.60	230.00	306.00	227.60	177.30	120.30	165.20	130.00	127.00		
16	269.60	277.40	215.80	236.00	218.00	441.60	199.30	170.70	116.70	153.00	132.00	124.00		
17	273.50	267.00	213.60	246.80	219.20	514.50	168.50	183.90	118.50	138.00	129.00	122.10		
18	276.10	270.90	204.80	254.00	232.40	468.20	161.00	198.20	126.00	117.60	126.00	121.20		
19	268.30	277.40	201.50	243.20	233.60	409.40	179.50	236.00	112.20	103.20	128.00	114.00		
20	273.50	277.40	203.70	233.60	231.20	391.20	192.70	263.10	94.20	102.30	140.00	104.10		
21	276.10	282.60	189.40	226.40	233.60	353.40	203.70	268.30	106.80	105.00	147.00	105.90		
22	269.60	265.70	169.60	220.40	237.20	283.90	225.20	256.60	134.00	106.80	145.00	122.10		
23	276.10	238.40	143.00	208.10	224.00	249.20	240.80	230.00	131.00	114.00	138.00	145.00		
24	259.20	245.60	112.20	226.40	244.40	239.60	249.20	231.20	120.30	121.20	137.00	162.00		
25	276.10	240.80	102.30	234.80	227.60	238.40	263.10	224.00	124.00	122.10	135.00	183.90		
26	263.10	240.80	122.10	250.40	242.00	233.60	274.80	210.30	124.00	129.00	135.00	202.60		
27	265.70	240.80	137.00	256.60	265.70	255.30	264.40	208.10	124.00	135.00	131.00	213.60		
28	273.50	239.60	163.00	265.70	290.40	260.50	246.80	207.00	114.00	138.00	120.30	232.40		
29	264.40	243.20	179.50	257.90	311.20	238.40	225.20	185.00	114.90	144.00		238.40		
30	267.00	238.40	185.00	268.30	356.20	215.80	198.20	175.10	128.00	139.00		250.40		
31		239.60		249.20	367.40		181.70		141.00	133.00		250.40		
Total	8137.40	8154.30	6125.70	7452.90	8310.90	9848.20	6486.40	6134.50	4420.90	3969.60	3580.00	4475.10	77095.90	CMSDAY
Mean	271.25	263.04	204.19	240.42	268.09	328.27	209.24	204.48	142.61	128.05	127.86	144.36	211.22	CMS
Max	278.70	282.60	248.00	274.80	367.40	514.50	274.80	268.30	214.70	165.20	162.00	250.40	514.50	CMS
Min	257.90	238.40	102.30	200.40	192.70	215.80	138.00	157.00	94.20	100.50	86.10	78.00	78.00	CMS
Runoff	703.07	704.53	529.26	643.93	718.06	850.88	560.42	530.02	381.97	342.97	309.31	386.65	6661.09	MCM

Momentary Peak 531.00 CMS. at 9.70 m. (MSL.) at 04.00 Hours , on Sep 5 , 2018

Runoff Yield 13.55 Liters/Second/Square KM. Momentary Peak Yield 34.07 Liters/Second/Square KM.

WATER YEAR : 2018

PASAK RIVER BASIN

Huai Leng at Ban Wang Tian , Phetchabun (S.45)

Lat 15 - 46 - 54 N Long 101 - 12 - 57 E

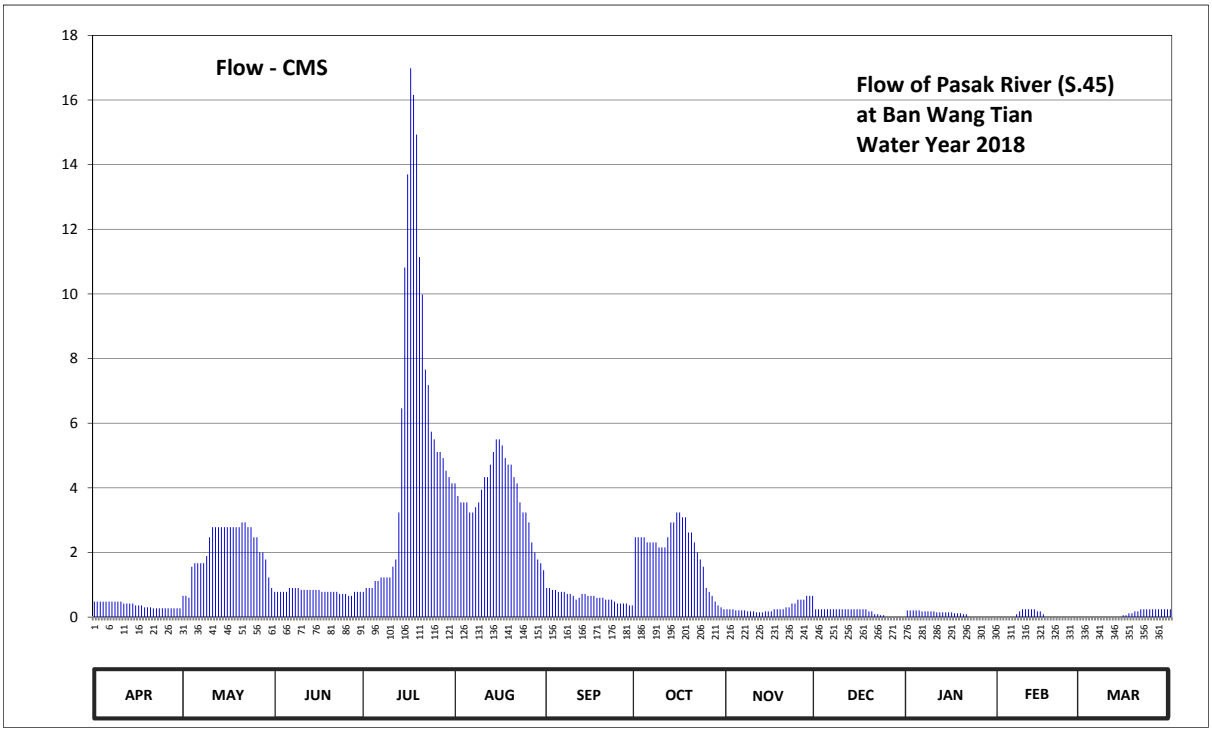
Location : on left bank at the bridge.

	Ban Wang Tian	**Amphoe** Wichian Buri	**Changwat** Phetchabun
Drainge Area	75 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+95.875 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank near the gage site.	**Elevation** +103.031 m. (MSL.)	
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic mean of 5 readings		
Period of Available Gage Records	2016 to date		
Rating Operation			
Period of Rating	2016 to date		
Rated by Flot	-		
Rated by Current Meter	2016 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 16 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	97.13	97.16	97.18	97.18	97.43	97.20	97.33	97.08	97.08	97.07	96.78	96.88	
2	97.13	97.16	97.18	97.20	97.41	97.20	97.33	97.08	97.08	97.07	96.78	96.88	
3	97.13	97.15	97.18	97.20	97.40	97.19	97.33	97.08	97.08	97.07	96.88	96.88	
4	97.13	97.26	97.18	97.20	97.40	97.19	97.33	97.07	97.08	97.07	96.88	96.88	
5	97.13	97.27	97.18	97.22	97.40	97.18	97.32	97.07	97.08	97.07	96.88	96.88	
6	97.13	97.27	97.20	97.22	97.38	97.18	97.32	97.07	97.08	97.06	96.88	96.88	
7	97.13	97.27	97.20	97.23	97.38	97.18	97.32	97.07	97.08	97.06	97.03	96.88	
8	97.13	97.27	97.20	97.23	97.39	97.17	97.32	97.06	97.08	97.06	97.06	96.88	
9	97.13	97.29	97.20	97.23	97.40	97.17	97.31	97.06	97.08	97.06	97.08	96.88	
10	97.13	97.33	97.19	97.23	97.42	97.16	97.31	97.06	97.08	97.06	97.08	96.88	
11	97.12	97.35	97.19	97.26	97.44	97.14	97.31	97.05	97.08	97.05	97.08	96.98	
12	97.12	97.35	97.19	97.28	97.44	97.15	97.33	97.05	97.08	97.05	97.08	96.98	
13	97.12	97.35	97.19	97.38	97.46	97.17	97.36	97.05	97.08	97.05	97.08	96.98	
14	97.12	97.35	97.19	97.54	97.48	97.17	97.36	97.06	97.08	97.05	97.06	96.98	
15	97.11	97.35	97.19	97.71	97.50	97.16	97.38	97.06	97.08	97.05	97.06	97.02	
16	97.11	97.35	97.19	97.80	97.50	97.16	97.38	97.06	97.08	97.05	97.03	97.02	
17	97.11	97.35	97.18	97.88	97.49	97.16	97.37	97.08	97.08	97.04	96.98	97.04	
18	97.10	97.35	97.18	97.86	97.47	97.15	97.37	97.08	97.08	97.04	96.88	97.04	
19	97.10	97.35	97.18	97.83	97.46	97.15	97.34	97.08	97.06	97.04	96.88	97.06	
20	97.10	97.35	97.18	97.72	97.46	97.15	97.34	97.08	97.06	97.03	96.88	97.06	
21	97.09	97.36	97.18	97.68	97.44	97.14	97.32	97.10	97.03	97.03	96.88	97.08	
22	97.09	97.36	97.18	97.59	97.43	97.14	97.30	97.10	97.03	97.00	96.88	97.08	
23	97.09	97.35	97.17	97.57	97.40	97.14	97.28	97.12	97.02	97.00	96.88	97.08	
24	97.09	97.35	97.17	97.51	97.38	97.13	97.26	97.12	97.02	96.93	96.88	97.08	
25	97.09	97.33	97.17	97.50	97.38	97.12	97.20	97.14	97.00	96.93	96.88	97.08	
26	97.09	97.33	97.16	97.48	97.36	97.12	97.18	97.14	96.98	96.88	96.88	97.08	
27	97.09	97.30	97.16	97.48	97.32	97.12	97.16	97.14	96.98	96.78	96.88	97.08	
28	97.09	97.30	97.18	97.47	97.30	97.12	97.13	97.16	96.98	96.78	96.88	97.08	
29	97.09	97.28	97.18	97.45	97.28	97.11	97.11	97.16	96.98	96.78		97.08	
30	97.09	97.23	97.18	97.44	97.27	97.11	97.10	97.16	96.98	96.68		97.08	
31		97.20		97.43	97.25		97.08		96.98	96.68		97.08	
Mean	97.11	97.30	97.18	97.45	97.40	97.15	97.29	97.09	97.05	96.99	96.94	96.99	
Max	97.13	97.36	97.20	97.88	97.50	97.20	97.38	97.16	97.08	97.07	97.08	97.08	97.88
Min	97.09	97.15	97.16	97.18	97.25	97.11	97.08	97.05	96.98	96.68	96.78	96.88	96.68

Annual Max Momentary Gage Height	97.88	m. (MSL.) ,	at 06.00 Hours , on Jul 17 , 2018		
Zero Gage at Bottom Elevation	95.88	m. (MSL.) ,	River Bed	96.81	m. (MSL.)
Left Bank Elevation	100.75	m. (MSL.) ,			
Right Bank Elevation	100.27	m. (MSL.) ,	Drainage Are	75	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.48	0.66	0.78	0.78	4.14	0.90	2.47	0.24	0.24	0.21	0.00	0.00		
2	0.48	0.66	0.78	0.90	3.75	0.90	2.47	0.24	0.24	0.21	0.00	0.00		
3	0.48	0.60	0.78	0.90	3.55	0.84	2.47	0.24	0.24	0.21	0.00	0.00		
4	0.48	1.56	0.78	0.90	3.55	0.84	2.47	0.21	0.24	0.21	0.00	0.00		
5	0.48	1.67	0.78	1.12	3.55	0.78	2.31	0.21	0.24	0.21	0.00	0.00		
6	0.48	1.67	0.90	1.12	3.24	0.78	2.31	0.21	0.24	0.18	0.00	0.00		
7	0.48	1.67	0.90	1.23	3.24	0.78	2.31	0.21	0.24	0.18	0.09	0.00		
8	0.48	1.67	0.90	1.23	3.40	0.72	2.31	0.18	0.24	0.18	0.18	0.00		
9	0.48	1.89	0.90	1.23	3.55	0.72	2.16	0.18	0.24	0.18	0.24	0.00		
10	0.48	2.47	0.84	1.23	3.94	0.66	2.16	0.18	0.24	0.18	0.24	0.00		
11	0.42	2.78	0.84	1.56	4.33	0.54	2.16	0.15	0.24	0.15	0.24	0.00		
12	0.42	2.78	0.84	1.78	4.33	0.60	2.47	0.15	0.24	0.15	0.24	0.00		
13	0.42	2.78	0.84	3.24	4.72	0.72	2.93	0.15	0.24	0.15	0.24	0.00		
14	0.42	2.78	0.84	6.46	5.11	0.72	2.93	0.18	0.24	0.15	0.18	0.00		
15	0.36	2.78	0.84	10.82	5.50	0.66	3.24	0.18	0.24	0.15	0.18	0.06		
16	0.36	2.78	0.84	13.70	5.50	0.66	3.24	0.18	0.24	0.15	0.09	0.06		
17	0.36	2.78	0.78	16.98	5.31	0.66	3.09	0.24	0.24	0.12	0.00	0.12		
18	0.30	2.78	0.78	16.16	4.92	0.60	3.09	0.24	0.24	0.12	0.00	0.12		
19	0.30	2.78	0.78	14.93	4.72	0.60	2.62	0.24	0.18	0.12	0.00	0.18		
20	0.30	2.78	0.78	11.14	4.72	0.60	2.62	0.24	0.18	0.09	0.00	0.18		
21	0.27	2.93	0.78	9.98	4.33	0.54	2.31	0.30	0.09	0.09	0.00	0.24		
22	0.27	2.93	0.78	7.66	4.14	0.54	2.00	0.30	0.09	0.00	0.00	0.24		
23	0.27	2.78	0.72	7.18	3.55	0.54	1.78	0.42	0.06	0.00	0.00	0.24		
24	0.27	2.78	0.72	5.74	3.24	0.48	1.56	0.42	0.06	0.00	0.00	0.24		
25	0.27	2.47	0.72	5.50	3.24	0.42	0.90	0.54	0.00	0.00	0.00	0.24		
26	0.27	2.47	0.66	5.11	2.93	0.42	0.78	0.54	0.00	0.00	0.00	0.24		
27	0.27	2.00	0.66	5.11	2.31	0.42	0.66	0.54	0.00	0.00	0.00	0.24		
28	0.27	2.00	0.78	4.92	2.00	0.42	0.48	0.66	0.00	0.00	0.00	0.24		
29	0.27	1.78	0.78	4.53	1.78	0.36	0.36	0.66	0.00	0.00		0.24		
30	0.27	1.23	0.78	4.33	1.67	0.36	0.30	0.66	0.00	0.00		0.24		
31		0.90		4.14	1.45		0.24		0.00	0.00		0.24		
Total	11.16	66.59	23.88	171.61	115.71	18.78	63.20	9.09	4.98	3.39	1.92	3.36	493.67	CMSDAY
Mean	0.37	2.15	0.80	5.54	3.73	0.63	2.04	0.30	0.16	0.11	0.07	0.11	1.35	CMS
Max	0.48	2.93	0.90	16.98	5.50	0.90	3.24	0.66	0.24	0.21	0.24	0.24	16.98	CMS
Min	0.27	0.60	0.66	0.78	1.45	0.36	0.24	0.15	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	0.96	5.75	2.06	14.83	10.00	1.62	5.46	0.79	0.43	0.29	0.17	0.29	42.65	MCM

Momentary Peak 16.98 CMS. at 97.88 m. (MSL.) at 06.00 Hours , on Jul 17 , 2018

Runoff Yield 18.03 Liters/Second/Square KM. Momentary Peak Yield 226.40 Liters/Second/Square KM.

WATER YEAR : 2018

PASAK RIVER BASIN

Huai Leng at Ban Yang Sao , Phetchabun (S.46)

Lat 15 - 48 - 54 N Long 101 - 17 - 14 E

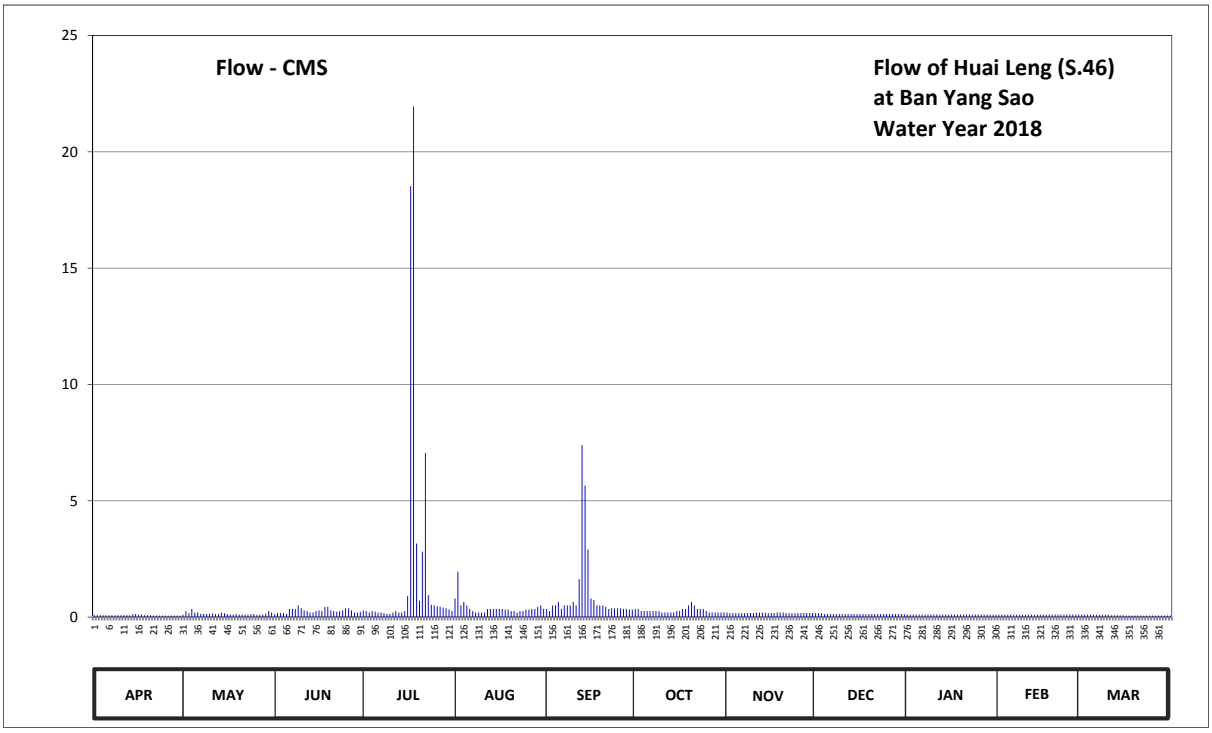
Location : on left bank at the bridge.

	Ban Yang Sao	**Amphoe** Wichian Buri	**Changwat** Phetchabun
Drainge Area	4 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+0.000 m. (A.D.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank near the gage site.	**Elevation**	+4.216 m. (A.D.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic mean of 5 readings		
Period of Available Gage Records	2016 to date		
Rating Operation			
Period of Rating	2016 to date		
Rated by Flot	-		
Rated by Current Meter	2016 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 13 discharge measurements made in 2018.		

Gage Height in Meter (A.D.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.02	0.03	0.05	0.13	0.30	0.15	0.15	0.09	0.08	0.04	0.03	0.04	
2	0.02	0.12	0.08	0.12	0.50	0.12	0.15	0.08	0.08	0.04	0.03	0.04	
3	0.02	0.08	0.08	0.10	0.20	0.20	0.12	0.08	0.08	0.04	0.03	0.04	
4	0.02	0.15	0.08	0.12	0.25	0.20	0.12	0.08	0.05	0.04	0.03	0.03	
5	0.02	0.09	0.06	0.11	0.20	0.25	0.12	0.08	0.05	0.04	0.03	0.03	
6	0.02	0.10	0.15	0.10	0.15	0.15	0.12	0.08	0.05	0.04	0.03	0.03	
7	0.02	0.06	0.15	0.10	0.12	0.20	0.12	0.08	0.05	0.04	0.03	0.03	
8	0.02	0.06	0.15	0.08	0.10	0.20	0.12	0.08	0.05	0.04	0.03	0.03	
9	0.02	0.06	0.20	0.06	0.10	0.20	0.12	0.08	0.05	0.04	0.03	0.03	
10	0.02	0.06	0.16	0.06	0.10	0.25	0.10	0.08	0.05	0.04	0.03	0.03	
11	0.02	0.07	0.13	0.10	0.10	0.20	0.10	0.09	0.05	0.04	0.03	0.02	
12	0.02	0.05	0.12	0.12	0.15	0.45	0.10	0.09	0.05	0.04	0.03	0.02	
13	0.02	0.05	0.10	0.10	0.15	0.91	0.10	0.09	0.05	0.04	0.03	0.02	
14	0.05	0.09	0.10	0.10	0.15	0.80	0.10	0.09	0.05	0.04	0.03	0.02	
15	0.05	0.08	0.12	0.12	0.15	0.60	0.12	0.08	0.05	0.04	0.03	0.02	
16	0.04	0.05	0.13	0.32	0.15	0.30	0.12	0.08	0.05	0.04	0.04	0.01	
17	0.04	0.04	0.12	1.38	0.15	0.28	0.15	0.08	0.05	0.04	0.04	0.01	
18	0.02	0.04	0.18	1.49	0.14	0.20	0.15	0.10	0.05	0.04	0.04	0.01	
19	0.02	0.05	0.18	0.62	0.14	0.20	0.20	0.10	0.05	0.04	0.04	0.01	
20	0.02	0.04	0.13	0.27	0.12	0.20	0.25	0.10	0.05	0.04	0.04	0.01	
21	0.01	0.04	0.12	0.59	0.12	0.18	0.20	0.08	0.05	0.04	0.04	0.01	
22	0.01	0.04	0.11	0.89	0.10	0.15	0.15	0.08	0.05	0.04	0.04	0.01	
23	0.01	0.03	0.12	0.33	0.12	0.16	0.15	0.08	0.05	0.04	0.04	0.01	
24	0.01	0.05	0.13	0.21	0.12	0.16	0.15	0.08	0.05	0.04	0.04	0.01	
25	0.01	0.05	0.16	0.20	0.14	0.16	0.12	0.08	0.05	0.04	0.04	0.01	
26	0.01	0.03	0.16	0.19	0.14	0.16	0.10	0.08	0.05	0.04	0.04	0.01	
27	0.01	0.03	0.13	0.18	0.15	0.15	0.10	0.08	0.05	0.04	0.04	0.01	
28	0.01	0.03	0.10	0.17	0.15	0.15	0.10	0.08	0.05	0.04	0.04	0.01	
29	0.01	0.07	0.09	0.16	0.18	0.14	0.10	0.08	0.05	0.03		0.01	
30	0.01	0.12	0.11	0.14	0.20	0.14	0.10	0.08	0.05	0.03		0.01	
31		0.10		0.12	0.15		0.10		0.05	0.03		0.01	
Mean	0.02	0.06	0.12	0.28	0.16	0.25	0.13	0.08	0.05	0.04	0.03	0.02	
Max	0.05	0.15	0.20	1.49	0.50	0.91	0.25	0.10	0.08	0.04	0.04	0.04	1.49
Min	0.01	0.03	0.05	0.06	0.10	0.12	0.10	0.08	0.05	0.03	0.03	0.01	0.01

Annual Max Momentary Gage Height	1.52	m. (A.D.) ,	at 15.00 Hours , on Jul 17, 2018		
Zero Gage at Bottom Elevation	0.00	m. (A.D.) ,	River Bed	-0.44	m. (A.D.)
Left Bank Elevation	4.06	m. (A.D.) ,			
Right Bank Elevation	1.71	m. (A.D.) ,	Drainage Are	4	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.08	0.10	0.13	0.29	0.80	0.35	0.35	0.19	0.17	0.11	0.10	0.11		
2	0.08	0.26	0.17	0.26	1.95	0.26	0.35	0.17	0.17	0.11	0.10	0.11		
3	0.08	0.17	0.17	0.20	0.50	0.50	0.26	0.17	0.17	0.11	0.10	0.11		
4	0.08	0.35	0.17	0.26	0.65	0.50	0.26	0.17	0.13	0.11	0.10	0.10		
5	0.08	0.19	0.14	0.23	0.50	0.65	0.26	0.17	0.13	0.11	0.10	0.10		
6	0.08	0.20	0.35	0.20	0.35	0.35	0.26	0.17	0.13	0.11	0.10	0.10		
7	0.08	0.14	0.35	0.20	0.26	0.50	0.26	0.17	0.13	0.11	0.10	0.10		
8	0.08	0.14	0.35	0.17	0.20	0.50	0.26	0.17	0.13	0.11	0.10	0.10		
9	0.08	0.14	0.50	0.14	0.20	0.50	0.26	0.17	0.13	0.11	0.10	0.10		
10	0.08	0.14	0.38	0.14	0.20	0.65	0.20	0.17	0.13	0.11	0.10	0.10		
11	0.08	0.16	0.29	0.20	0.20	0.50	0.20	0.19	0.13	0.11	0.10	0.08		
12	0.08	0.13	0.26	0.26	0.35	1.63	0.20	0.19	0.13	0.11	0.10	0.08		
13	0.08	0.13	0.20	0.20	0.35	7.39	0.20	0.19	0.13	0.11	0.10	0.08		
14	0.13	0.19	0.20	0.20	0.35	5.65	0.20	0.19	0.13	0.11	0.10	0.08		
15	0.13	0.17	0.26	0.26	0.35	2.90	0.26	0.17	0.13	0.11	0.10	0.08		
16	0.11	0.13	0.29	0.90	0.35	0.80	0.26	0.17	0.13	0.11	0.11	0.07		
17	0.11	0.11	0.26	18.52	0.35	0.74	0.35	0.17	0.13	0.11	0.11	0.07		
18	0.08	0.11	0.44	21.94	0.32	0.50	0.35	0.20	0.13	0.11	0.11	0.07		
19	0.08	0.13	0.44	3.16	0.32	0.50	0.50	0.20	0.13	0.11	0.11	0.07		
20	0.08	0.11	0.29	0.71	0.26	0.50	0.65	0.20	0.13	0.11	0.11	0.07		
21	0.07	0.11	0.26	2.81	0.26	0.44	0.50	0.17	0.13	0.11	0.11	0.07		
22	0.07	0.11	0.23	7.05	0.20	0.35	0.35	0.17	0.13	0.11	0.11	0.07		
23	0.07	0.10	0.26	0.95	0.26	0.38	0.35	0.17	0.13	0.11	0.11	0.07		
24	0.07	0.13	0.29	0.53	0.26	0.38	0.35	0.17	0.13	0.11	0.11	0.07		
25	0.07	0.13	0.38	0.50	0.32	0.38	0.26	0.17	0.13	0.11	0.11	0.07		
26	0.07	0.10	0.38	0.47	0.32	0.38	0.20	0.17	0.13	0.11	0.11	0.07		
27	0.07	0.10	0.29	0.44	0.35	0.35	0.20	0.17	0.13	0.11	0.11	0.07		
28	0.07	0.10	0.20	0.41	0.35	0.35	0.20	0.17	0.13	0.11	0.11	0.07		
29	0.07	0.16	0.19	0.38	0.44	0.32	0.20	0.17	0.13	0.10		0.07		
30	0.07	0.26	0.23	0.32	0.50	0.32	0.20	0.17	0.13	0.10		0.07		
31		0.20		0.26	0.35		0.20		0.13	0.10		0.07		
Total	2.46	4.70	8.35	62.56	12.42	29.52	8.90	5.29	4.15	3.38	2.93	2.55	147.21	CMSDAY
Mean	0.08	0.15	0.28	2.02	0.40	0.98	0.29	0.18	0.13	0.11	0.10	0.08	0.40	CMS
Max	0.13	0.35	0.50	21.94	1.95	7.39	0.65	0.20	0.17	0.11	0.11	0.11	21.94	CMS
Min	0.07	0.10	0.13	0.14	0.20	0.26	0.20	0.17	0.13	0.10	0.10	0.07	0.07	CMS
Runoff	0.21	0.41	0.72	5.41	1.07	2.55	0.77	0.46	0.36	0.29	0.25	0.22	12.72	MCM

Momentary Peak 22.90 CMS. at 1.52 m. (A.D.) at 15.00 Hours , on Jul 17 , 2018

Runoff Yield 100.83 Liters/Second/Square KM. Momentary Peak Yield 5725.00 Liters/Second/Square KM.

WATER YEAR : 2018

THA CHIN BASIN

Lower Huai Kra Sieo at Ban Thap Man, Suphan Buri (T.12A)

Lat 15 - 00 - 45 N Long 99 - 37 - 12 E

Location : on left bank at Ban Thap Man.

	Ban	Thap Man	**Amphoe**	Dan Chang	**Changwat** Suphan Buri
Drainge Area	686	sq.km.			
Type of Gage	Water - stage recorder				
Zero Gage at Bottom	+0.000	m. (MSL.)			
Bench Mark	B.M.-H.D.				
Location BM	On left bank near the bridge				**Elevation** +103.545 m. (MSL.)
Gage Reading Frequency	Recording				
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings				
Period of Available Gage Records	2006 to date				
Rating Operation					
Period of Rating	2006 to date				
Rated by Flot	-				
Rated by Current Meter	2006 to date				
Stability of Channel Regimes	Fairly stable.				
Overbank Flow Conditions	No overbank flow				
General Description	Records good. Stage-discharge relation defined by 14 discharge measurements made in 2018.				

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

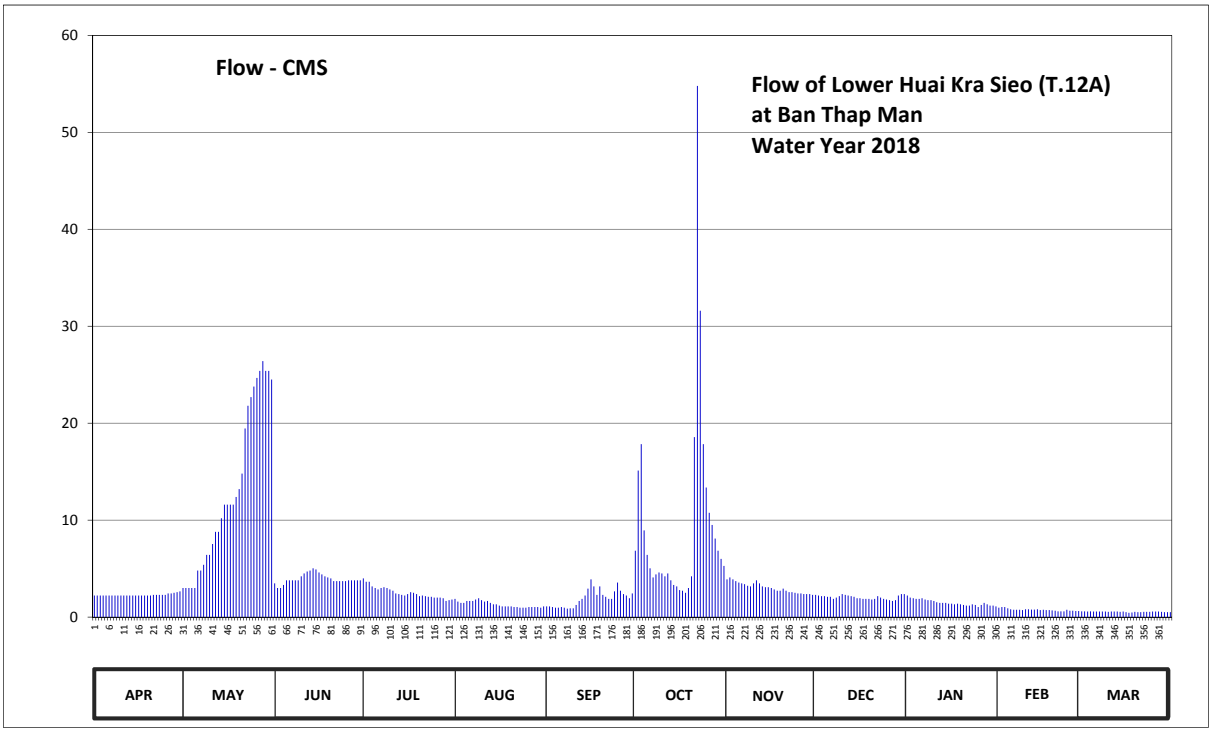
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	97.89	98.00	98.06	98.12	97.84	97.73	98.36	98.11	97.90	97.89	97.71	97.60	
2	97.89	98.00	98.00	98.08	97.80	97.73	98.92	98.13	97.89	97.86	97.72	97.60	
3	97.89	98.00	98.00	98.08	97.78	97.72	99.08	98.11	97.88	97.85	97.72	97.59	
4	97.89	98.00	98.04	98.02	97.78	97.71	98.51	98.09	97.88	97.84	97.70	97.60	
5	97.89	98.00	98.10	98.00	97.81	97.71	98.33	98.07	97.87	97.84	97.67	97.59	
6	97.89	98.20	98.10	97.98	97.81	97.72	98.22	98.06	97.87	97.85	97.65	97.59	
7	97.89	98.20	98.10	98.00	97.81	97.71	98.13	98.05	97.84	97.83	97.65	97.59	
8	97.89	98.25	98.10	98.01	97.83	97.69	98.16	98.03	97.86	97.82	97.65	97.59	
9	97.89	98.33	98.10	98.00	97.85	97.70	98.18	98.02	97.88	97.82	97.64	97.59	
10	97.89	98.33	98.14	97.98	97.82	97.70	98.17	98.06	97.91	97.81	97.67	97.58	
11	97.89	98.41	98.17	97.96	97.80	97.75	98.14	98.10	97.90	97.79	97.67	97.59	
12	97.89	98.50	98.19	97.92	97.81	97.81	98.17	98.06	97.89	97.78	97.66	97.59	
13	97.89	98.50	98.20	97.91	97.78	97.84	98.10	98.02	97.88	97.78	97.66	97.59	
14	97.89	98.60	98.22	97.90	97.76	97.89	98.04	98.01	97.87	97.78	97.67	97.58	
15	97.89	98.70	98.21	97.89	97.76	97.99	98.02	98.01	97.85	97.77	97.64	97.59	
16	97.89	98.70	98.18	97.91	97.74	98.11	97.97	98.00	97.85	97.77	97.65	97.57	
17	97.89	98.70	98.16	97.94	97.73	98.02	97.96	97.98	97.84	97.76	97.64	97.55	
18	97.89	98.70	98.14	97.93	97.73	97.90	97.93	97.96	97.84	97.77	97.64	97.56	
19	97.89	98.75	98.13	97.91	97.73	98.02	98.00	97.96	97.84	97.76	97.63	97.58	
20	97.89	98.80	98.12	97.88	97.73	97.90	98.14	97.99	97.83	97.75	97.62	97.57	
21	97.90	98.90	98.09	97.89	97.72	97.87	99.12	97.96	97.84	97.74	97.60	97.57	
22	97.90	99.17	98.09	97.88	97.72	97.84	100.75	97.94	97.88	97.74	97.60	97.58	
23	97.90	99.30	98.09	97.87	97.71	97.84	99.80	97.94	97.86	97.76	97.60	97.58	
24	97.90	99.35	98.09	97.87	97.71	97.95	99.08	97.93	97.84	97.75	97.65	97.58	
25	97.90	99.41	98.09	97.86	97.71	98.07	98.81	97.92	97.83	97.72	97.62	97.59	
26	97.92	99.46	98.10	97.86	97.72	97.96	98.64	97.92	97.82	97.75	97.62	97.59	
27	97.92	99.50	98.10	97.86	97.72	97.91	98.55	97.91	97.81	97.78	97.61	97.59	
28	97.93	99.55	98.10	97.85	97.72	97.89	98.45	97.91	97.82	97.76	97.61	97.58	
29	97.94	99.50	98.10	97.81	97.72	97.85	98.36	97.91	97.89	97.74		97.57	
30	97.95	99.50	98.10	97.82	97.71	97.92	98.30	97.90	97.91	97.74		97.57	
31		99.45		97.83	97.73		98.24		97.91	97.73		97.57	
Mean	97.90	98.73	98.11	97.93	97.76	97.85	98.47	98.00	97.86	97.78	97.65	97.58	
Max	97.95	99.55	98.22	98.12	97.85	98.11	100.75	98.13	97.91	97.89	97.72	97.60	100.75
Min	97.89	98.00	98.00	97.81	97.71	97.69	97.93	97.90	97.81	97.72	97.60	97.55	97.55

Annual Max Momentary Gage Height 101.14 m. (MSL.) , at 18.00 Hours , on Oct 22 , 2018

Zero Gage at Bottom Elevation 0.00 m. (MSL.) , River Bed 97.47 m. (MSL.)

Left Bank Elevation 103.24 m. (MSL.) ,

Right Bank Elevation 103.26 m. (MSL.) , Drainage Are 686 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.23	3.00	3.48	4.00	1.88	1.11	6.84	3.90	2.30	2.23	0.97	0.60		
2	2.23	3.00	3.00	3.64	1.60	1.11	15.12	4.10	2.23	2.02	1.04	0.60		
3	2.23	3.00	3.00	3.64	1.46	1.04	17.84	3.90	2.16	1.95	1.04	0.57		
4	2.23	3.00	3.32	3.16	1.46	0.97	8.94	3.72	2.16	1.88	0.90	0.60		
5	2.23	3.00	3.80	3.00	1.67	0.97	6.42	3.56	2.09	1.88	0.81	0.57		
6	2.23	4.80	3.80	2.86	1.67	1.04	5.04	3.48	2.09	1.95	0.75	0.57		
7	2.23	4.80	3.80	3.00	1.67	0.97	4.10	3.40	1.88	1.81	0.75	0.57		
8	2.23	5.40	3.80	3.08	1.81	0.87	4.40	3.24	2.02	1.74	0.75	0.57		
9	2.23	6.42	3.80	3.00	1.95	0.90	4.60	3.16	2.16	1.74	0.72	0.57		
10	2.23	6.42	4.20	2.86	1.74	0.90	4.50	3.48	2.37	1.67	0.81	0.54		
11	2.23	7.54	4.50	2.72	1.60	1.25	4.20	3.80	2.30	1.53	0.81	0.57		
12	2.23	8.80	4.70	2.44	1.67	1.67	4.50	3.48	2.23	1.46	0.78	0.57		
13	2.23	8.80	4.80	2.37	1.46	1.88	3.80	3.16	2.16	1.46	0.78	0.57		
14	2.23	10.20	5.04	2.30	1.32	2.23	3.32	3.08	2.09	1.46	0.81	0.54		
15	2.23	11.60	4.92	2.23	1.32	2.93	3.16	3.08	1.95	1.39	0.72	0.57		
16	2.23	11.60	4.60	2.37	1.18	3.90	2.79	3.00	1.95	1.39	0.75	0.51		
17	2.23	11.60	4.40	2.58	1.11	3.16	2.72	2.86	1.88	1.32	0.72	0.45		
18	2.23	11.60	4.20	2.51	1.11	2.30	2.51	2.72	1.88	1.39	0.72	0.48		
19	2.23	12.40	4.10	2.37	1.11	3.16	3.00	2.72	1.88	1.32	0.69	0.54		
20	2.23	13.20	4.00	2.16	1.11	2.30	4.20	2.93	1.81	1.25	0.66	0.51		
21	2.30	14.80	3.72	2.23	1.04	2.09	18.56	2.72	1.88	1.18	0.60	0.51		
22	2.30	19.46	3.72	2.16	1.04	1.88	54.80	2.58	2.16	1.18	0.60	0.54		
23	2.30	21.80	3.72	2.09	0.97	1.88	31.60	2.58	2.02	1.32	0.60	0.54		
24	2.30	22.70	3.72	2.09	0.97	2.65	17.84	2.51	1.88	1.25	0.75	0.54		
25	2.30	23.78	3.72	2.02	0.97	3.56	13.36	2.44	1.81	1.04	0.66	0.57		
26	2.44	24.68	3.80	2.02	1.04	2.72	10.76	2.44	1.74	1.25	0.66	0.57		
27	2.44	25.40	3.80	2.02	1.04	2.37	9.50	2.37	1.67	1.46	0.63	0.57		
28	2.51	26.40	3.80	1.95	1.04	2.23	8.10	2.37	1.74	1.32	0.63	0.54		
29	2.58	25.40	3.80	1.67	1.04	1.95	6.84	2.37	2.23	1.18		0.51		
30	2.65	25.40	3.80	1.74	0.97	2.44	6.00	2.30	2.37	1.18		0.51		
31		24.50		1.81	1.11		5.28		2.37	1.11		0.51		
Total	68.72	404.50	118.86	78.09	41.13	58.43	294.64	91.45	63.46	46.31	21.11	16.98	1303.68	CMSDAY
Mean	2.29	13.05	3.96	2.52	1.33	1.95	9.50	3.05	2.05	1.49	0.75	0.55	3.57	CMS
Max	2.65	26.40	5.04	4.00	1.95	3.90	54.80	4.10	2.37	2.23	1.04	0.60	54.80	CMS
Min	2.23	3.00	3.00	1.67	0.97	0.87	2.51	2.30	1.67	1.04	0.60	0.45	0.45	CMS
Runoff	5.94	34.95	10.27	6.75	3.55	5.05	25.46	7.90	5.48	4.00	1.82	1.47	112.64	MCM

Momentary Peak 66.20 CMS. at 101.14 m. (MSL.) at 18.00 Hours , on Oct 22 , 2018

Runoff Yield 5.20 Liters/Second/Square KM. Momentary Peak Yield 96.43 Liters/Second/Square KM.

WATER YEAR : 2018

MAE KLONG RIVER BASIN

Khwae Noi River at Ban Lum Sum , Kanchanaburi (K.10)

Lat 14 - 05 - 38 N Long 99 - 10 - 40 E

Location : on left bank about 100 meters upstream from Ban Lum Sum railway station

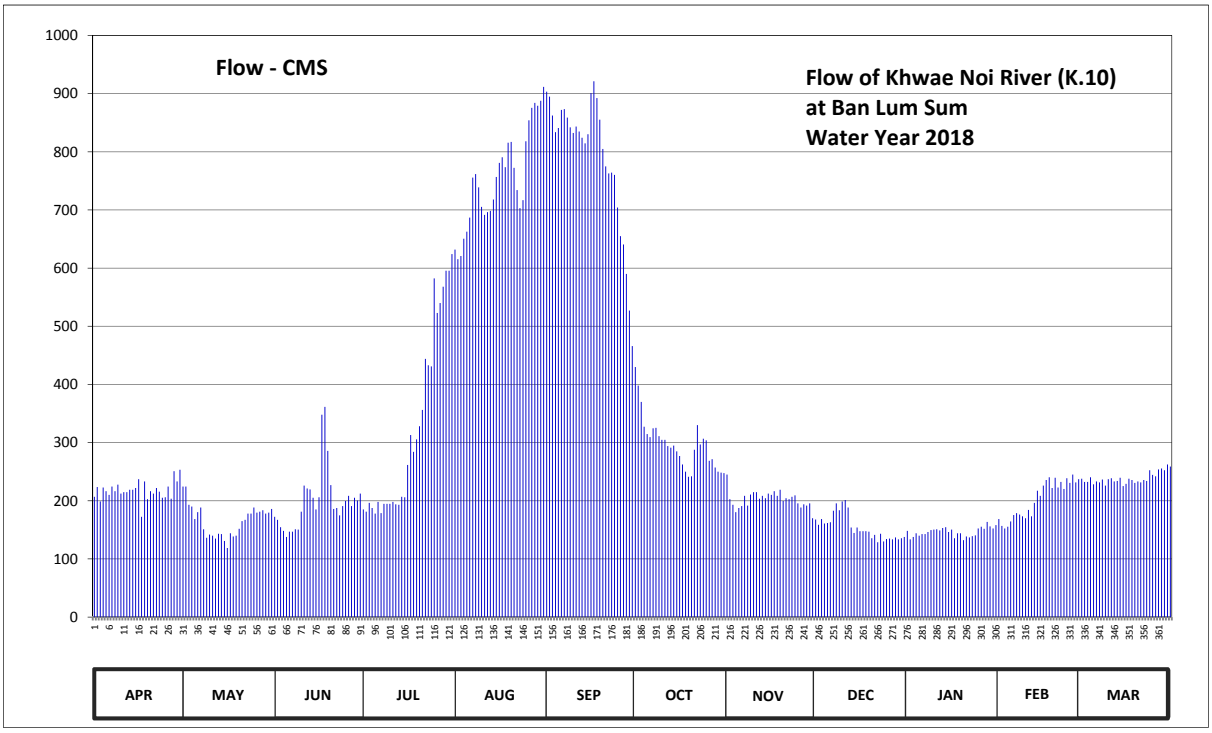
Ban Lum Sum **Amphoe** Sai Yok **Changwat** Kanchanaburi

Drainge Area	6,991 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+30.400 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank near the gage site. **Elevation** +52.089 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	1965 to date
Rating Operation	
Period of Rating	1965 to date
Rated by Flot	-
Rated by Current Meter	1965 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Flow regulated by Khao Laem Dam. Stage-discharge relation defined by 30 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	33.56	33.78	33.13	33.29	37.99	40.31	36.04	34.04	33.07	32.79	33.08	33.95	
2	33.77	33.78	33.06	33.24	37.84	40.24	35.72	33.51	32.94	32.58	32.91	33.88	
3	33.46	33.39	32.88	33.43	37.89	39.97	35.44	33.39	33.08	32.64	32.85	33.88	
4	33.76	33.35	32.79	33.32	38.16	39.73	34.97	33.23	32.97	32.73	32.89	33.98	
5	33.68	33.08	32.64	33.20	38.27	39.79	34.83	33.32	32.98	32.67	33.02	33.83	
6	33.60	33.23	32.77	33.45	38.49	40.05	34.77	33.36	33.00	32.71	33.17	33.89	
7	33.78	33.33	32.77	33.21	39.08	40.06	34.94	33.58	33.26	32.71	33.21	33.87	
8	33.68	32.83	32.83	33.41	39.13	39.94	34.95	33.37	33.42	32.76	33.18	33.93	
9	33.82	32.62	32.82	33.41	38.94	39.80	34.79	33.61	33.27	32.81	33.14	33.80	
10	33.63	32.70	33.24	33.41	38.65	39.72	34.72	33.66	33.46	32.82	33.10	33.94	
11	33.66	32.67	33.80	33.45	38.53	39.81	34.72	33.66	33.49	32.83	33.28	33.96	
12	33.66	32.60	33.74	33.40	38.57	39.74	34.60	33.52	33.33	32.80	33.14	33.89	
13	33.71	32.72	33.72	33.39	38.59	39.65	34.57	33.58	32.87	32.86	33.43	33.90	
14	33.71	32.71	33.54	33.56	38.76	39.57	34.61	33.53	32.74	32.88	33.69	33.97	
15	33.75	32.54	33.29	33.55	39.09	39.70	34.50	33.63	32.87	32.76	33.58	33.79	
16	33.94	32.37	33.55	34.24	39.29	40.29	34.41	33.60	32.78	32.82	33.80	33.84	
17	33.13	32.73	35.20	34.81	39.37	40.46	34.25	33.68	32.78	32.61	33.92	33.95	
18	33.89	32.65	35.35	34.49	39.23	40.22	34.10	33.58	32.78	32.73	33.98	33.92	
19	33.51	32.67	34.51	34.73	39.58	39.91	33.99	33.71	32.77	32.73	33.75	33.86	
20	33.68	32.84	33.81	34.98	39.59	39.49	34.00	33.47	32.61	32.56	33.97	33.89	
21	33.63	33.03	33.30	35.29	39.22	39.24	34.53	33.53	32.69	32.65	33.76	33.87	
22	33.75	33.06	33.32	36.18	38.90	39.14	35.00	33.51	32.51	32.63	33.88	33.92	
23	33.67	33.20	33.16	36.07	38.63	39.15	34.63	33.56	32.72	32.66	33.73	33.90	
24	33.54	33.20	33.36	36.05	38.75	39.12	34.74	33.59	32.53	32.68	33.96	34.13	
25	33.55	33.33	33.47	37.54	39.60	38.64	34.71	33.42	32.59	32.85	33.86	34.03	
26	33.78	33.22	33.58	36.97	39.90	38.20	34.32	33.33	32.60	32.89	34.04	34.00	
27	33.52	33.24	33.36	37.14	40.08	38.07	34.35	33.40	32.58	32.84	33.87	34.15	
28	34.11	33.27	33.54	37.41	40.15	37.61	34.19	33.37	32.63	33.01	33.94	34.17	
29	33.89	33.20	33.48	37.66	40.11	37.01	34.10	33.42	32.58	32.90		34.13	
30	34.14	33.22	33.63	37.66	40.18	36.40	34.08	33.10	32.61	32.85		34.25	
31		33.30		37.92	40.38		34.07		32.64	32.93		34.21	
Mean	33.70	33.03	33.45	34.83	39.06	39.37	34.63	33.51	32.88	32.76	33.50	33.96	
Max	34.14	33.78	35.35	37.92	40.38	40.46	36.04	34.04	33.49	33.01	34.04	34.25	40.46
Min	33.13	32.37	32.64	33.20	37.84	36.40	33.99	33.10	32.51	32.56	32.85	33.79	32.37

Annual Max Momentary Gage Height	40.49	m. (MSL.) ,	at 05.00 Hours , on Sep 17 , 2018		
Zero Gage at Bottom Elevation	30.40	m. (MSL.) ,	River Bed	30.03	m. (MSL.)
Left Bank Elevation	41.78	m. (MSL.) ,			
Right Bank Elevation	46.38	m. (MSL.) ,	Drainage Are	6,991	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	206.80	224.40	172.40	185.20	631.90	903.20	430.00	245.20	167.90	148.30	168.60	238.00		
2	223.60	224.40	167.20	181.20	615.40	894.80	398.00	202.80	158.80	133.60	156.70	232.40		
3	198.80	193.20	154.60	196.40	620.90	862.40	370.00	193.20	168.60	137.80	152.50	232.40		
4	222.80	190.00	148.30	187.60	650.60	833.60	327.30	180.40	160.90	144.10	155.30	240.40		
5	216.40	168.60	137.80	178.00	662.70	840.80	314.70	187.60	161.60	139.90	164.40	228.40		
6	210.00	180.40	146.90	198.00	686.90	872.00	309.30	190.80	163.00	142.70	175.60	233.20		
7	224.40	188.40	146.90	178.80	755.60	873.20	324.60	208.40	182.80	142.70	178.80	231.60		
8	216.40	151.10	151.10	194.80	761.60	858.80	325.50	191.60	195.60	146.20	176.40	236.40		
9	227.60	136.40	150.40	194.80	738.80	842.00	311.10	210.80	183.60	149.70	173.20	226.00		
10	212.40	142.00	181.20	194.80	705.25	832.40	304.80	214.80	198.80	150.40	170.00	237.20		
11	214.80	139.90	226.00	198.00	691.45	843.20	304.80	214.80	201.20	151.10	184.40	238.80		
12	214.80	135.00	221.20	194.00	696.05	834.80	294.00	203.60	188.40	149.00	173.20	233.20		
13	218.80	143.40	219.60	193.20	698.35	824.00	291.30	208.40	153.90	153.20	196.40	234.00		
14	218.80	142.70	205.20	206.80	717.90	814.40	294.90	204.40	144.80	154.60	217.20	239.60		
15	222.00	130.80	185.20	206.00	756.80	830.00	285.00	212.40	153.90	146.20	208.40	225.20		
16	237.20	118.90	206.00	261.60	780.80	900.80	276.90	210.00	147.60	150.40	226.00	229.20		
17	172.40	144.10	348.00	312.90	790.40	921.20	262.50	216.40	147.60	135.70	235.60	238.00		
18	233.20	138.50	361.50	284.10	773.60	892.40	250.00	208.40	147.60	144.10	240.40	235.60		
19	202.80	139.90	285.90	305.70	815.60	855.20	241.20	218.80	146.90	144.10	222.00	230.80		
20	216.40	151.80	226.80	328.20	816.80	804.80	242.00	199.60	135.70	132.20	239.60	233.20		
21	212.40	165.10	186.00	356.10	772.40	774.80	287.70	204.40	141.30	138.50	222.80	231.60		
22	222.00	167.20	187.60	444.00	734.00	762.80	330.00	202.80	128.70	137.10	232.40	235.60		
23	215.60	178.00	174.80	433.00	702.95	764.00	296.70	206.80	143.40	139.20	220.40	234.00		
24	205.20	178.00	190.80	431.00	716.75	760.40	306.60	209.20	130.10	140.60	238.80	252.40		
25	206.00	188.40	199.60	582.40	818.00	704.10	303.90	195.60	134.30	152.50	230.80	244.40		
26	224.40	179.60	208.40	523.00	854.00	655.00	268.80	188.40	135.00	155.30	245.20	242.00		
27	203.60	181.20	190.80	540.00	875.60	640.70	271.50	194.00	133.60	151.80	231.60	254.00		
28	250.80	183.60	205.20	568.10	884.00	590.10	257.20	191.60	137.10	163.70	237.20	255.60		
29	233.20	178.00	200.40	595.60	879.20	527.00	250.00	195.60	133.60	156.00		252.40		
30	253.20	179.60	212.40	595.60	887.60	466.00	248.40	170.00	135.70	152.50		262.50		
31		186.00		624.20	911.60		247.60		137.80	158.10		258.90		
Total	6536.80	5148.60	5998.20	10073.10	23403.50	23778.90	9226.30	6080.80	4799.80	4541.30	5673.90	7397.00	112658.20	CMSDAY
Mean	217.89	166.08	199.94	324.94	754.95	792.63	297.62	202.69	154.83	146.49	202.64	238.61	308.65	CMS
Max	253.20	224.40	361.50	624.20	911.60	921.20	430.00	245.20	201.20	163.70	245.20	262.50	921.20	CMS
Min	172.40	118.90	137.80	178.00	615.40	466.00	241.20	170.00	128.70	132.20	152.50	225.20	118.90	CMS
Runoff	564.78	444.84	518.24	870.32	2022.06	2054.50	797.15	525.38	414.70	392.37	490.22	639.10	9733.67	MCM

Momentary Peak 924.80 CMS. at 40.49 m. (MSL.) at 05.00 Hours , on Sep 17 , 2018

Runoff Yield 44.15 Liters/Second/Square KM. Momentary Peak Yield 132.28 Liters/Second/Square KM.

WATER YEAR : 2018

MAE KLONG RIVER BASIN

Mae Klong River at Ban Wang Khanai , Kanchanaburi (K.11A)

Lat 13 - 56 - 55 N Long 99 - 38 - 42 E

Location : on left bank at Ban Wang Khanai.

	Ban Wang Khanai	**Amphoe** Tha Muang	**Changwat** Kanchanaburi
Drainge Area	26,449 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+9.700 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank near the gage site.		**Elevation** +17.820 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	1993 to date		
Rating Operation			
Period of Rating	1993 - 1999 , 2005 to date		
Rated by Flot	-		
Rated by Current Meter	1993 - 1999 , 2005 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 23 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

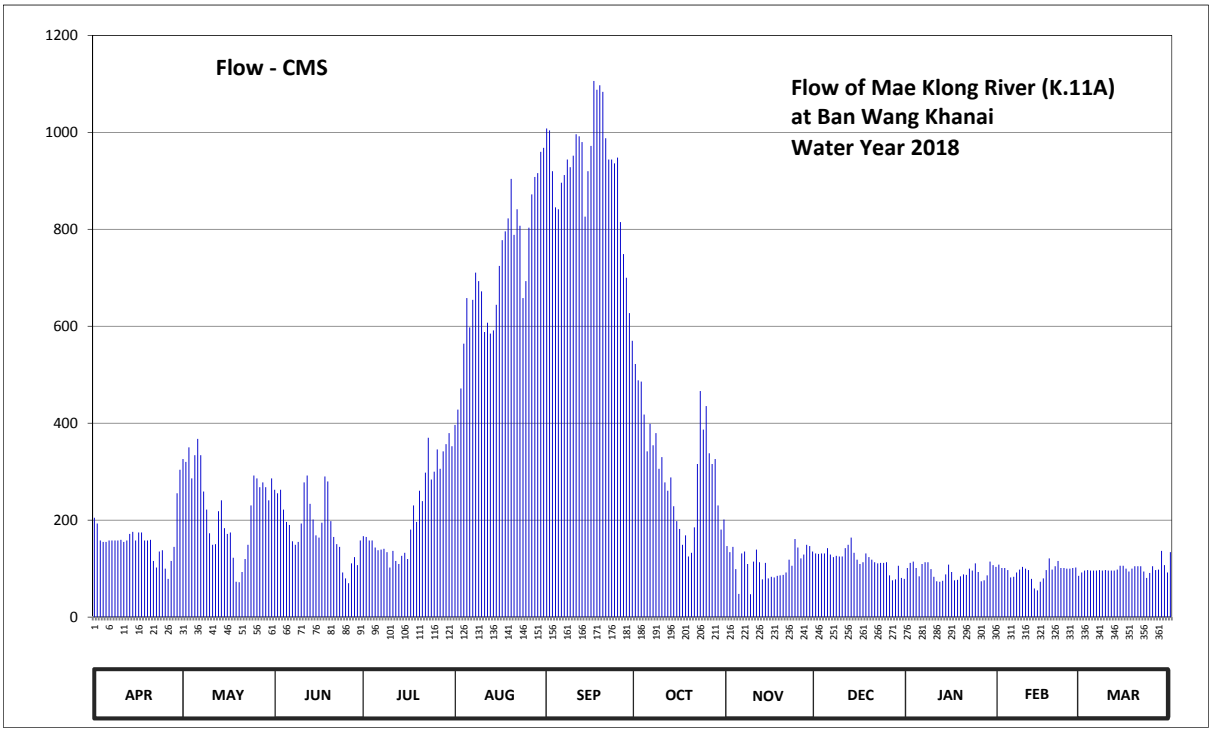
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	12.04	12.69	12.37	11.80	13.01	14.85	13.49	11.66	11.55	11.31	11.37	11.22	
2	11.97	12.66	12.33	11.79	13.14	14.84	13.37	11.57	11.54	11.40	11.31	11.26	
3	11.74	12.81	12.37	11.74	13.31	14.63	13.36	11.65	11.55	11.42	11.31	11.27	
4	11.72	12.49	12.14	11.74	13.63	14.44	13.10	11.29	11.55	11.31	11.27	11.26	
5	11.72	12.73	11.99	11.64	13.92	14.43	12.77	10.74	11.63	11.14	11.12	11.26	
6	11.74	12.89	11.95	11.60	13.74	14.57	13.02	11.55	11.53	11.38	11.13	11.26	
7	11.74	12.73	11.73	11.61	13.91	14.61	12.83	11.58	11.49	11.41	11.22	11.27	
8	11.74	12.35	11.68	11.62	14.07	14.69	12.94	11.38	11.51	11.41	11.28	11.26	
9	11.74	12.14	11.72	11.57	14.02	14.65	12.59	10.73	11.50	11.29	11.33	11.27	
10	11.75	11.84	11.97	11.32	13.96	14.71	12.71	11.42	11.50	11.13	11.30	11.26	
11	11.72	11.68	12.45	11.59	13.71	14.82	12.45	11.61	11.63	11.04	11.27	11.26	
12	11.74	11.69	12.52	11.43	13.77	14.81	12.36	11.41	11.68	11.03	11.09	11.26	
13	11.83	12.12	12.21	11.38	13.70	14.78	12.50	11.08	11.78	11.05	10.89	11.28	
14	11.86	12.25	12.02	11.51	13.72	14.39	12.18	11.40	11.56	11.18	10.84	11.35	
15	11.74	11.91	11.81	11.56	13.88	14.63	12.00	11.10	11.45	11.37	11.03	11.35	
16	11.85	11.83	11.78	11.46	14.11	14.76	11.90	11.13	11.38	11.23	11.10	11.30	
17	11.85	11.85	11.98	11.89	14.26	15.08	11.68	11.12	11.41	11.06	11.27	11.24	
18	11.74	11.48	12.51	12.19	14.31	15.04	11.81	11.15	11.55	11.07	11.47	11.30	
19	11.74	11.03	12.46	11.99	14.38	15.06	11.50	11.16	11.49	11.14	11.28	11.34	
20	11.75	11.02	12.00	12.36	14.59	15.03	11.56	11.17	11.45	11.18	11.34	11.34	
21	11.43	11.23	11.79	12.24	14.29	14.80	11.92	11.22	11.41	11.17	11.43	11.34	
22	11.32	11.46	11.69	12.55	14.43	14.69	12.64	11.45	11.39	11.30	11.31	11.24	
23	11.58	11.68	11.65	12.90	14.34	14.69	13.29	11.35	11.40	11.26	11.31	11.11	
24	11.60	12.19	11.22	12.48	13.92	14.67	12.97	11.76	11.40	11.39	11.30	11.21	
25	11.30	12.52	11.10	12.56	14.02	14.70	13.17	11.64	11.41	11.23	11.30	11.34	
26	11.09	12.49	11.00	12.79	14.33	14.36	12.75	11.47	11.16	11.04	11.31	11.27	
27	11.43	12.40	11.39	12.59	14.51	14.18	12.64	11.53	11.06	11.06	11.32	11.28	
28	11.65	12.45	11.49	12.77	14.60	14.04	12.69	11.68	11.08	11.16	11.15	11.59	
29	12.33	12.40	11.36	12.84	14.62	13.83	12.19	11.66	11.35	11.42		11.36	
30	12.58	12.25	11.74	12.94	14.73	13.65	11.89	11.58	11.11	11.36		11.22	
31		12.49		12.82	14.75		12.02		11.09	11.33		11.57	
Mean	11.73	12.12	11.88	12.04	14.05	14.61	12.53	11.37	11.44	11.23	11.24	11.29	
Max	12.58	12.89	12.52	12.94	14.75	15.08	13.49	11.76	11.78	11.42	11.47	11.59	15.08
Min	11.09	11.02	11.00	11.32	13.01	13.65	11.50	10.73	11.06	11.03	10.84	11.11	10.73

Annual Max Momentary Gage Height 15.24 m. (MSL.) , at 24.00 Hours , on Sep 17 , 2018

Zero Gage at Bottom Elevation 9.70 m. (MSL.) , River Bed 8.27 m. (MSL.)

Left Bank Elevation 22.49 m. (MSL.) ,

Right Bank Elevation 21.72 m. (MSL.) , Drainage Are 26,449 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	204.80	326.00	262.60	167.00	396.40	1008.00	522.20	146.40	131.50	101.20	108.40	92.00		
2	193.20	320.00	255.40	165.50	428.00	1004.00	488.60	134.10	130.20	112.00	101.20	96.00		
3	158.00	350.20	262.60	158.00	471.80	920.00	485.80	145.00	131.50	114.60	101.20	97.00		
4	155.00	286.00	221.80	158.00	564.00	845.20	418.00	99.00	131.50	101.20	97.00	96.00		
5	155.00	334.00	196.40	143.60	658.00	841.40	342.00	47.80	142.20	84.00	82.00	96.00		
6	158.00	367.80	190.00	138.00	597.80	896.00	398.80	131.50	128.90	109.60	83.00	96.00		
7	158.00	334.00	156.50	139.40	654.50	912.00	354.60	135.40	123.70	113.30	92.00	97.00		
8	158.00	259.00	149.20	140.80	710.50	944.00	379.60	109.60	126.30	113.30	98.00	96.00		
9	158.00	221.80	155.00	134.10	693.00	928.00	306.00	47.10	125.00	99.00	103.60	97.00		
10	159.50	173.00	193.20	102.40	672.00	952.00	330.00	114.60	125.00	83.00	100.00	96.00		
11	155.00	149.20	278.00	136.70	588.20	996.00	278.00	139.40	142.20	74.00	97.00	96.00		
12	158.00	150.60	292.00	115.90	607.40	992.00	260.80	113.30	149.20	73.00	79.00	96.00		
13	171.50	218.40	233.80	109.60	585.00	980.00	288.00	78.00	164.00	75.00	59.20	98.00		
14	176.00	241.00	201.40	126.30	591.40	826.20	228.60	112.00	132.80	88.00	55.20	106.00		
15	158.00	183.60	168.50	132.80	644.20	920.00	198.00	80.00	118.50	108.40	73.00	106.00		
16	174.50	171.50	164.00	119.80	724.50	972.00	182.00	83.00	109.60	93.00	80.00	100.00		
17	174.50	174.50	194.80	180.50	777.60	1106.00	149.20	82.00	113.30	76.00	97.00	94.00		
18	158.00	122.40	290.00	230.30	795.80	1088.00	168.50	85.00	131.50	77.00	121.10	100.00		
19	158.00	73.00	280.00	196.40	822.40	1097.00	125.00	86.00	123.70	84.00	98.00	104.80		
20	159.50	72.00	198.00	260.80	904.00	1083.50	132.80	87.00	118.50	88.00	104.80	104.80		
21	115.90	93.00	165.50	239.20	788.40	988.00	185.20	92.00	113.30	87.00	115.90	104.80		
22	102.40	119.80	150.60	298.00	841.40	944.00	316.00	118.50	110.80	100.00	101.20	94.00		
23	135.40	149.20	145.00	370.00	807.20	944.00	466.40	106.00	112.00	96.00	101.20	81.00		
24	138.00	230.30	92.00	284.00	658.00	936.00	386.80	161.00	112.00	110.80	100.00	91.00		
25	100.00	292.00	80.00	300.00	693.00	948.00	435.50	143.60	113.30	93.00	100.00	104.80		
26	79.00	286.00	70.00	346.00	803.40	814.80	338.00	121.10	86.00	74.00	101.20	97.00		
27	115.90	268.00	110.80	306.00	872.00	749.00	316.00	128.90	76.00	76.00	102.40	98.00		
28	145.00	278.00	123.70	342.00	908.00	700.00	326.00	149.20	78.00	86.00	85.00	136.70		
29	255.40	268.00	107.20	356.80	916.00	627.20	230.30	146.40	106.00	114.60		107.20		
30	304.00	241.00	158.00	379.60	960.00	570.00	180.50	135.40	81.00	107.20		92.00		
31		286.00		352.40	968.00		201.40		79.00	103.60		134.10		
Total	4791.50	7039.30	5546.00	6629.90	22101.90	27532.30	9418.60	3358.30	3666.50	2915.80	2637.60	3105.20	98742.90	CMSDAY
Mean	159.72	227.07	184.87	213.87	712.96	917.74	303.83	111.94	118.27	94.06	94.20	100.17	270.53	CMS
Max	304.00	367.80	292.00	379.60	968.00	1106.00	522.20	161.00	164.00	114.60	121.10	136.70	1106.00	CMS
Min	79.00	72.00	70.00	102.40	396.40	570.00	125.00	47.10	76.00	73.00	55.20	81.00	47.10	CMS
Runoff	413.99	608.20	479.17	572.82	1909.60	2378.79	813.77	290.16	316.79	251.93	227.89	268.29	8531.39	MCM

Momentary Peak 1178.00 CMS. at 15.24 m. (MSL.) at 24.00 Hours , on Sep 17, 2018

Runoff Yield 10.23 Liters/Second/Square KM. Momentary Peak Yield 44.54 Liters/Second/Square KM.

WATER YEAR : 2018

MAE KLONG RIVER BASIN

Lam Ta Phoen at Ban Thung Na Nang Rok , Kanchanaburi (K.12)

Lat 14 - 09 - 17 N Long 99 - 25 - 07 E

Location : on left bank about 50 meters downstream from Wat Thung Na Nang Rok.

Ban Thung Na Nang Rok **Amphoe** Mueang **Changwat** Kanchanaburi

Drainge Area	2,375 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+39.700 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank about 6 meters from the top staff gage. **Elevation** +49.135 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	1965 to date
Rating Operation	
Period of Rating	1965 - 1968 , 1995 to date
Rated by Flot	-
Rated by Current Meter	1965 - 1968 , 1995 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Stage-discharge relation defined by 31 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

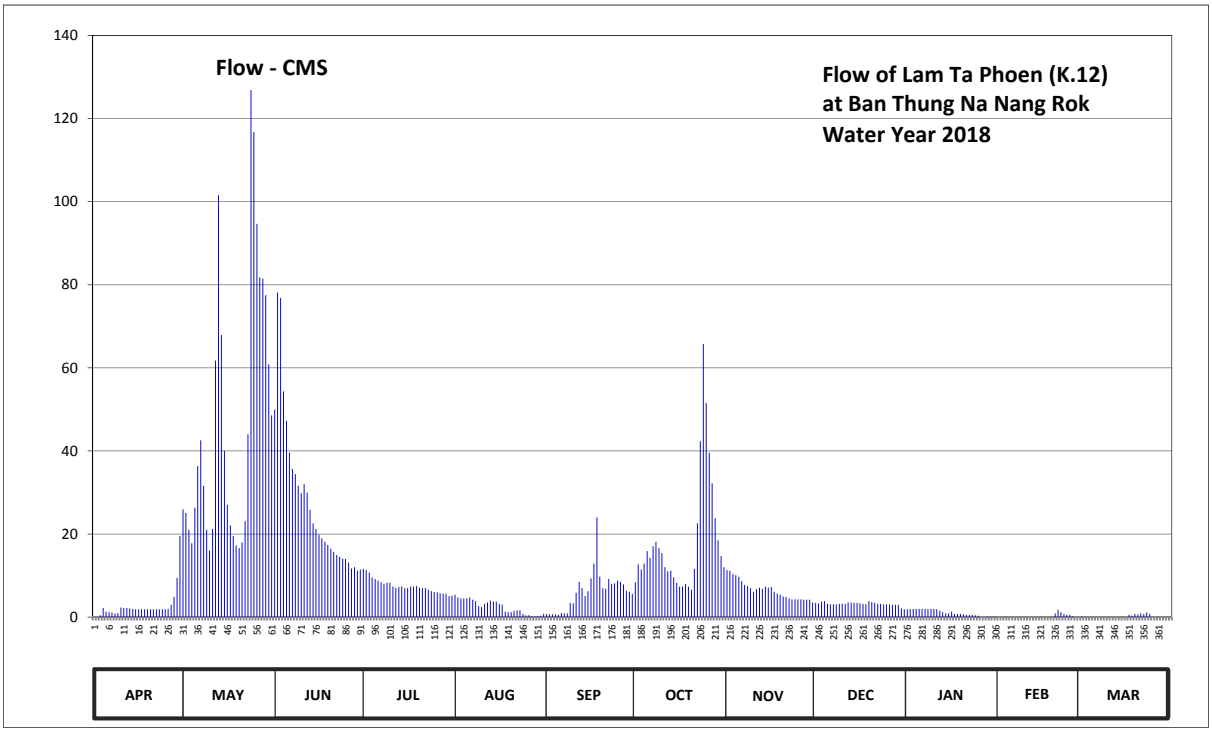
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	39.79	41.67	42.77	40.77	40.29	39.87	40.53	40.75	40.11	39.97	39.80	39.81	
2	39.79	41.62	43.71	40.75	40.23	39.86	40.85	40.74	40.10	39.98	39.80	39.78	
3	39.84	41.39	43.67	40.71	40.21	39.86	40.76	40.68	40.14	39.98	39.77	39.78	
4	40.00	41.20	42.93	40.62	40.21	39.86	40.86	40.66	40.15	39.98	39.76	39.79	
5	39.92	41.69	42.67	40.59	40.21	39.85	41.07	40.63	40.09	39.98	39.76	39.79	
6	39.91	42.20	42.35	40.56	40.23	39.89	40.96	40.55	40.08	39.98	39.76	39.78	
7	39.90	42.48	42.17	40.53	40.18	39.88	41.15	40.48	40.08	39.98	39.75	39.77	
8	39.88	41.97	42.11	40.50	40.15	39.88	41.22	40.46	40.08	39.98	39.75	39.74	
9	39.89	41.39	41.97	40.52	40.04	40.11	41.12	40.42	40.09	39.98	39.75	39.74	
10	40.01	41.08	41.88	40.52	40.02	40.10	41.04	40.35	40.09	39.98	39.75	39.72	
11	40.00	41.40	41.99	40.45	40.09	40.33	40.80	40.40	40.09	39.97	39.75	39.72	
12	40.00	43.19	41.89	40.43	40.12	40.54	40.73	40.43	40.12	39.94	39.75	39.72	
13	39.99	44.38	41.66	40.44	40.16	40.42	40.74	40.41	40.12	39.91	39.75	39.70	
14	39.98	43.39	41.48	40.45	40.14	40.26	40.62	40.45	40.11	39.88	39.75	39.70	
15	39.97	42.37	41.40	40.42	40.14	40.36	40.52	40.43	40.11	39.88	39.75	39.70	
16	39.97	41.73	41.32	40.42	40.09	40.60	40.45	40.44	40.10	39.92	39.74	39.70	
17	39.97	41.45	41.27	40.45	40.07	40.86	40.45	40.35	40.09	39.87	39.74	39.85	
18	39.97	41.30	41.22	40.45	39.92	41.56	40.50	40.31	40.08	39.87	39.74	39.83	
19	39.97	41.16	41.17	40.46	39.91	40.63	40.45	40.29	40.15	39.87	39.77	39.87	
20	39.97	41.12	41.11	40.43	39.91	40.42	40.39	40.25	40.13	39.86	39.88	39.86	
21	39.97	41.21	41.06	40.42	39.94	40.41	40.77	40.24	40.11	39.85	39.96	39.88	
22	39.97	41.51	41.01	40.42	39.95	40.59	41.48	40.21	40.09	39.85	39.91	39.87	
23	39.97	42.54	40.98	40.39	39.95	40.50	42.47	40.19	40.09	39.85	39.87	39.90	
24	39.97	45.02	40.95	40.36	39.87	40.51	43.32	40.19	40.08	39.84	39.85	39.87	
25	39.97	44.77	40.94	40.35	39.84	40.56	42.83	40.19	40.08	39.83	39.85	39.80	
26	39.98	44.19	40.88	40.34	39.84	40.54	42.35	40.19	40.08	39.80	39.82	39.75	
27	40.07	43.82	40.78	40.32	39.82	40.49	42.00	40.18	40.07	39.80	39.78	39.72	
28	40.24	43.81	40.80	40.31	39.81	40.37	41.55	40.18	40.07	39.81	39.79	39.71	
29	40.61	43.69	40.74	40.31	39.82	40.35	41.24	40.18	40.07	39.81		39.72	
30	41.30	43.16	40.76	40.26	39.83	40.31	40.99	40.12	39.99	39.81		39.72	
31		42.72		40.27	39.87		40.80		39.97	39.81		39.72	
Mean	40.03	42.41	41.65	40.46	40.03	40.33	41.13	40.38	40.09	39.90	39.79	39.77	
Max	41.30	45.02	43.71	40.77	40.29	41.56	43.32	40.75	40.15	39.98	39.96	39.90	45.02
Min	39.79	41.08	40.74	40.26	39.81	39.85	40.39	40.12	39.97	39.80	39.74	39.70	39.70

Annual Max Momentary Gage Height 45.24 m. (MSL.) , at 10.00 Hours , on May 24 , 2018

Zero Gage at Bottom Elevation 39.70 m. (MSL.) , River Bed 39.67 m. (MSL.)

Left Bank Elevation 48.64 m. (MSL.) ,

Right Bank Elevation 45.83 m. (MSL.) , Drainage Are 2,375 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	25.96	49.89	11.58	5.39	0.77	8.39	11.30	3.41	1.87	0.00	0.11		
2	0.00	25.06	78.13	11.30	4.73	0.66	12.70	11.16	3.30	1.98	0.00	0.00		
3	0.44	21.03	76.84	10.74	4.51	0.66	11.44	10.34	3.74	1.98	0.00	0.00		
4	2.20	17.80	54.34	9.56	4.51	0.66	12.84	10.08	3.85	1.98	0.00	0.00		
5	1.32	26.32	47.25	9.17	4.51	0.55	15.85	9.69	3.19	1.98	0.00	0.00		
6	1.21	36.30	39.60	8.78	4.73	0.99	14.24	8.65	3.08	1.98	0.00	0.00		
7	1.10	42.54	35.67	8.39	4.18	0.88	17.05	7.74	3.08	1.98	0.00	0.00		
8	0.88	31.60	34.41	8.00	3.85	0.88	18.14	7.48	3.08	1.98	0.00	0.00		
9	0.99	21.03	31.60	8.26	2.64	3.41	16.60	6.96	3.19	1.98	0.00	0.00		
10	2.31	16.00	29.82	8.26	2.42	3.30	15.40	6.10	3.19	1.98	0.00	0.00		
11	2.20	21.20	32.00	7.35	3.19	5.86	12.00	6.70	3.19	1.87	0.00	0.00		
12	2.20	61.71	30.01	7.09	3.52	8.52	11.02	7.09	3.52	1.54	0.00	0.00		
13	2.09	101.56	25.78	7.22	3.96	6.96	11.16	6.83	3.52	1.21	0.00	0.00		
14	1.98	67.89	22.56	7.35	3.74	5.06	9.56	7.35	3.41	0.88	0.00	0.00		
15	1.87	40.04	21.20	6.96	3.74	6.22	8.26	7.09	3.41	0.88	0.00	0.00		
16	1.87	27.04	19.84	6.96	3.19	9.30	7.35	7.22	3.30	1.32	0.00	0.00		
17	1.87	22.05	18.99	7.35	2.97	12.84	7.35	6.10	3.19	0.77	0.00	0.55		
18	1.87	19.50	18.14	7.35	1.32	23.98	8.00	5.62	3.08	0.77	0.00	0.33		
19	1.87	17.20	17.35	7.48	1.21	9.69	7.35	5.39	3.85	0.77	0.00	0.77		
20	1.87	16.60	16.45	7.09	1.21	6.96	6.58	4.95	3.63	0.66	0.88	0.66		
21	1.87	17.97	15.70	6.96	1.54	6.83	11.58	4.84	3.41	0.55	1.76	0.88		
22	1.87	23.08	14.95	6.96	1.65	9.17	22.56	4.51	3.19	0.55	1.21	0.77		
23	1.87	44.00	14.52	6.58	1.65	8.00	42.31	4.29	3.19	0.55	0.77	1.10		
24	1.87	126.86	14.10	6.22	0.77	8.13	65.72	4.29	3.08	0.44	0.55	0.77		
25	1.87	116.80	13.96	6.10	0.44	8.78	51.54	4.29	3.08	0.33	0.55	0.00		
26	1.98	94.65	13.12	5.98	0.44	8.52	39.60	4.29	3.08	0.00	0.22	0.00		
27	2.97	81.78	11.72	5.74	0.22	7.87	32.20	4.18	2.97	0.00	0.00	0.00		
28	4.84	81.44	12.00	5.62	0.11	6.34	23.80	4.18	2.97	0.11	0.00	0.00		
29	9.43	77.48	11.16	5.62	0.22	6.10	18.48	4.18	2.97	0.11		0.00		
30	19.50	60.84	11.44	5.06	0.33	5.62	14.66	3.52	2.09	0.11		0.00		
31		48.54		5.17	0.77		12.00		1.87	0.11		0.00		
Total	78.21	1431.87	832.54	232.25	77.66	183.51	565.73	196.41	99.11	33.22	5.94	5.94	3742.39	CMSDAY
Mean	2.61	46.19	27.75	7.49	2.51	6.12	18.25	6.55	3.20	1.07	0.21	0.19	10.25	CMS
Max	19.50	126.86	78.13	11.58	5.39	23.98	65.72	11.30	3.85	1.98	1.76	1.10	126.86	CMS
Min	0.00	16.00	11.16	5.06	0.11	0.55	6.58	3.52	1.87	0.00	0.00	0.00	0.00	CMS
Runoff	6.76	123.71	71.93	20.07	6.71	15.86	48.88	16.97	8.56	2.87	0.51	0.51	323.34	MCM

Momentary Peak 136.32 CMS. at 45.24 m. (MSL.) at 10.00 Hours , on May 24, 2018

Runoff Yield 4.32 Liters/Second/Square KM. Momentary Peak Yield 57.40 Liters/Second/Square KM.

WATER YEAR : 2018

MAE KLONG RIVER BASIN

Lam Phachi at Ban Bo , Ratchaburi (K.17)

Lat 13 - 32 - 31 N Long 99 - 21 - 24 E

Location : on left bank oppositeto the 'Sai Ngam' fronter police station.

Ban Bo **Amphoe** Suan Phung **Changwat** Ratchaburi

Drainge Area	1,344 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+97.500 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	Along the measuring line. **Elevation** +108.062 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	1966 to date
Rating Operation	
Period of Rating	1966 - 1988 , 1993 to date
Rated by Flot	-
Rated by Current Meter	1966 - 1988 , 1993 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Stage-discharge relation defined by 25 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

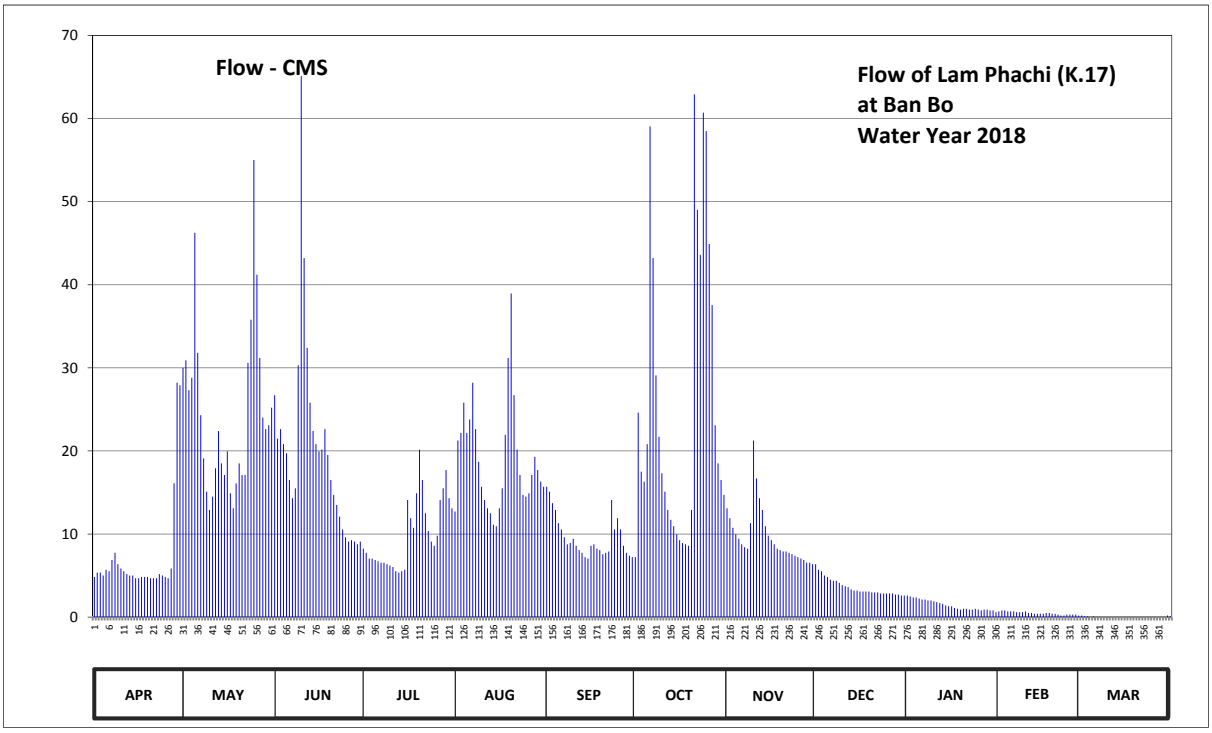
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	97.62	98.80	98.69	97.82	98.06	98.21	97.76	98.08	97.71	97.45	97.27	97.22	
2	97.65	98.83	98.49	97.79	98.48	98.18	98.62	98.02	97.67	97.44	97.28	97.21	
3	97.65	98.71	98.54	97.75	98.52	98.11	98.30	97.96	97.66	97.43	97.28	97.21	
4	97.63	98.76	98.46	97.75	98.66	98.07	98.24	97.92	97.63	97.43	97.27	97.20	
5	97.67	99.25	98.41	97.74	98.52	97.99	98.46	97.89	97.62	97.42	97.27	97.21	
6	97.66	98.86	98.25	97.73	98.59	97.95	99.51	97.85	97.60	97.41	97.27	97.20	
7	97.74	98.61	98.14	97.72	98.74	97.90	99.18	97.83	97.59	97.41	97.26	97.20	
8	97.79	98.38	98.20	97.72	98.54	97.85	98.77	97.82	97.59	97.40	97.26	97.19	
9	97.71	98.18	98.81	97.71	98.36	97.86	98.50	97.99	97.57	97.40	97.26	97.19	
10	97.68	98.07	99.62	97.70	98.21	97.89	98.29	98.48	97.55	97.39	97.27	97.19	
11	97.66	98.15	99.18	97.69	98.13	97.84	98.18	98.26	97.54	97.38	97.25	97.19	
12	97.64	98.32	98.88	97.66	98.08	97.81	98.07	98.14	97.53	97.37	97.25	97.19	
13	97.63	98.53	98.66	97.65	98.05	97.79	98.01	98.07	97.51	97.36	97.24	97.19	
14	97.63	98.35	98.53	97.66	97.98	97.76	97.97	97.97	97.50	97.34	97.24	97.19	
15	97.61	98.28	98.46	97.67	97.97	97.75	97.92	97.91	97.50	97.33	97.24	97.19	
16	97.61	98.42	98.42	98.13	98.08	97.84	97.88	97.88	97.49	97.33	97.24	97.19	
17	97.62	98.17	98.43	98.02	98.20	97.85	97.86	97.85	97.49	97.31	97.25	97.19	
18	97.62	98.08	98.54	97.96	98.51	97.82	97.85	97.82	97.49	97.30	97.25	97.19	
19	97.62	98.23	98.40	98.17	98.84	97.81	97.84	97.81	97.49	97.29	97.24	97.19	
20	97.61	98.35	98.25	98.43	99.07	97.78	98.07	97.80	97.48	97.30	97.24	97.20	
21	97.61	98.28	98.16	98.25	98.69	97.79	99.58	97.80	97.48	97.30	97.23	97.20	
22	97.61	98.28	98.10	98.05	98.43	97.80	99.31	97.79	97.48	97.29	97.22	97.20	
23	97.64	98.82	98.03	97.94	98.28	98.13	99.19	97.78	97.47	97.29	97.22	97.19	
24	97.63	98.98	97.95	97.87	98.16	97.95	99.54	97.77	97.47	97.30	97.23	97.18	
25	97.62	99.43	97.90	97.84	98.15	98.02	99.50	97.76	97.47	97.29	97.23	97.20	
26	97.61	99.13	97.87	97.91	98.17	97.95	99.22	97.75	97.47	97.28	97.23	97.19	
27	97.68	98.84	97.88	98.13	98.28	97.84	99.03	97.74	97.47	97.29	97.23	97.18	
28	98.23	98.60	97.87	98.20	98.39	97.79	98.56	97.72	97.46	97.29	97.22	97.18	
29	98.74	98.54	97.85	98.31	98.31	97.77	98.35	97.72	97.46	97.28		97.20	
30	98.73	98.56	97.87	98.14	98.24	97.76	98.25	97.71	97.45	97.28		97.22	
31		98.64		98.08	98.21		98.16		97.45	97.26		97.21	
Mean	97.74	98.56	98.36	97.91	98.35	97.90	98.52	97.90	97.53	97.34	97.25	97.20	
Max	98.74	99.43	99.62	98.43	99.07	98.21	99.58	98.48	97.71	97.45	97.28	97.22	99.62
Min	97.61	98.07	97.85	97.65	97.97	97.75	97.76	97.71	97.45	97.26	97.22	97.18	97.18

Annual Max Momentary Gage Height 100.11 m. (MSL.) , at 01.00 Hours , on May 25, 2018

Zero Gage at Bottom Elevation 97.50 m. (MSL.) , River Bed 96.92 m. (MSL.)

Left Bank Elevation 108.41 m. (MSL.) ,

Right Bank Elevation 103.32 m. (MSL.) , Drainage Are 1,344 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	4.84	30.00	26.70	8.24	12.70	15.70	7.22	13.10	6.37	2.60	0.70	0.20		
2	5.35	30.90	21.48	7.73	21.26	15.10	24.60	11.90	5.69	2.48	0.80	0.10		
3	5.35	27.30	22.62	7.05	22.16	13.70	17.50	10.74	5.52	2.36	0.80	0.10		
4	5.01	28.80	20.82	7.05	25.80	12.90	16.30	9.98	5.01	2.36	0.70	0.00		
5	5.69	46.25	19.72	6.88	22.16	11.31	20.82	9.43	4.84	2.24	0.70	0.10		
6	5.52	31.80	16.50	6.71	23.77	10.55	59.05	8.75	4.50	2.12	0.70	0.00		
7	6.88	24.30	14.30	6.54	28.20	9.60	43.20	8.41	4.37	2.12	0.60	0.00		
8	7.73	19.10	15.50	6.54	22.62	8.75	29.10	8.24	4.37	2.00	0.60	0.00		
9	6.37	15.10	30.30	6.37	18.70	8.92	21.70	11.31	4.11	2.00	0.60	0.00		
10	5.86	12.90	65.10	6.20	15.70	9.43	17.30	21.26	3.85	1.90	0.70	0.00		
11	5.52	14.50	43.20	6.03	14.10	8.58	15.10	16.70	3.72	1.80	0.50	0.00		
12	5.18	17.90	32.40	5.52	13.10	8.07	12.90	14.30	3.59	1.70	0.50	0.00		
13	5.01	22.39	25.80	5.35	12.50	7.73	11.70	12.90	3.33	1.60	0.40	0.00		
14	5.01	18.50	22.39	5.52	11.12	7.22	10.93	10.93	3.20	1.40	0.40	0.00		
15	4.67	17.10	20.82	5.69	10.93	7.05	9.98	9.79	3.20	1.30	0.40	0.00		
16	4.67	19.94	19.94	14.10	13.10	8.58	9.26	9.26	3.08	1.30	0.40	0.00		
17	4.84	14.90	20.16	11.90	15.50	8.75	8.92	8.75	3.08	1.10	0.50	0.00		
18	4.84	13.10	22.62	10.74	21.93	8.24	8.75	8.24	3.08	1.00	0.50	0.00		
19	4.84	16.10	19.50	14.90	31.20	8.07	8.58	8.07	3.08	0.90	0.40	0.00		
20	4.67	18.50	16.50	20.16	38.95	7.56	12.90	7.90	2.96	1.00	0.40	0.00		
21	4.67	17.10	14.70	16.50	26.70	7.73	62.90	7.90	2.96	1.00	0.30	0.00		
22	4.67	17.10	13.50	12.50	20.16	7.90	49.00	7.73	2.96	0.90	0.20	0.00		
23	5.18	30.60	12.10	10.36	17.10	14.10	43.60	7.56	2.84	0.90	0.20	0.00		
24	5.01	35.80	10.55	9.09	14.70	10.55	60.70	7.39	2.84	1.00	0.30	0.00		
25	4.84	55.00	9.60	8.58	14.50	11.90	58.50	7.22	2.84	0.90	0.30	0.00		
26	4.67	41.20	9.09	9.79	14.90	10.55	44.90	7.05	2.84	0.80	0.30	0.00		
27	5.86	31.20	9.26	14.10	17.10	8.58	37.55	6.88	2.84	0.90	0.30	0.00		
28	16.10	24.00	9.09	15.50	19.30	7.73	23.08	6.54	2.72	0.90	0.20	0.00		
29	28.20	22.62	8.75	17.70	17.70	7.39	18.50	6.54	2.72	0.80		0.00		
30	27.90	23.08	9.09	14.30	16.30	7.22	16.50	6.37	2.60	0.80		0.20		
31		25.20		13.10	15.70		14.70		2.60	0.60		0.10		
Total	214.95	762.28	602.10	310.74	589.66	289.46	795.74	291.14	111.71	44.78	13.40	0.80	4026.76	CMSDAY
Mean	7.17	24.59	20.07	10.02	19.02	9.65	25.67	9.70	3.60	1.44	0.48	0.03	11.03	CMS
Max	28.20	55.00	65.10	20.16	38.95	15.70	62.90	21.26	6.37	2.60	0.80	0.20	65.10	CMS
Min	4.67	12.90	8.75	5.35	10.93	7.05	7.22	6.37	2.60	0.60	0.20	0.00	0.00	CMS
Runoff	18.57	65.86	52.02	26.85	50.95	25.01	68.75	25.15	9.65	3.87	1.16	0.07	347.91	MCM

Momentary Peak 96.70 CMS. at 100.11 m. (MSL.) at 01.00 Hours , on May 25, 2018

Runoff Yield 8.21 Liters/Second/Square KM. Momentary Peak Yield 71.95 Liters/Second/Square KM.

WATER YEAR : 2018

MAE KLONG RIVER BASIN

Huai Mae Nam Noi at Ban Mae Nam Noi , Kanchanaburi (K.22C)

Lat 14 - 26 - 59 N Long 98 - 48 - 08 E

Location : on right bank about 640 meters upstream from station K.22A

	Ban Mae Nam Noi	**Amphoe** Sai Yok	**Changwat** Kanchanaburi
Drainge Area	311 sq.km.		
Type of Gage	Staff gage.		
Zero Gage at Bottom	+66.200 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank about 10 meters from the top staff gage.	**Elevation** +78.516 m. (MSL.)	
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic mean of 5 readings		
Period of Available Gage Records	1989 to date		
Rating Operation			
Period of Rating	1989 to date		
Rated by Flot	-		
Rated by Current Meter	1989 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 32 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

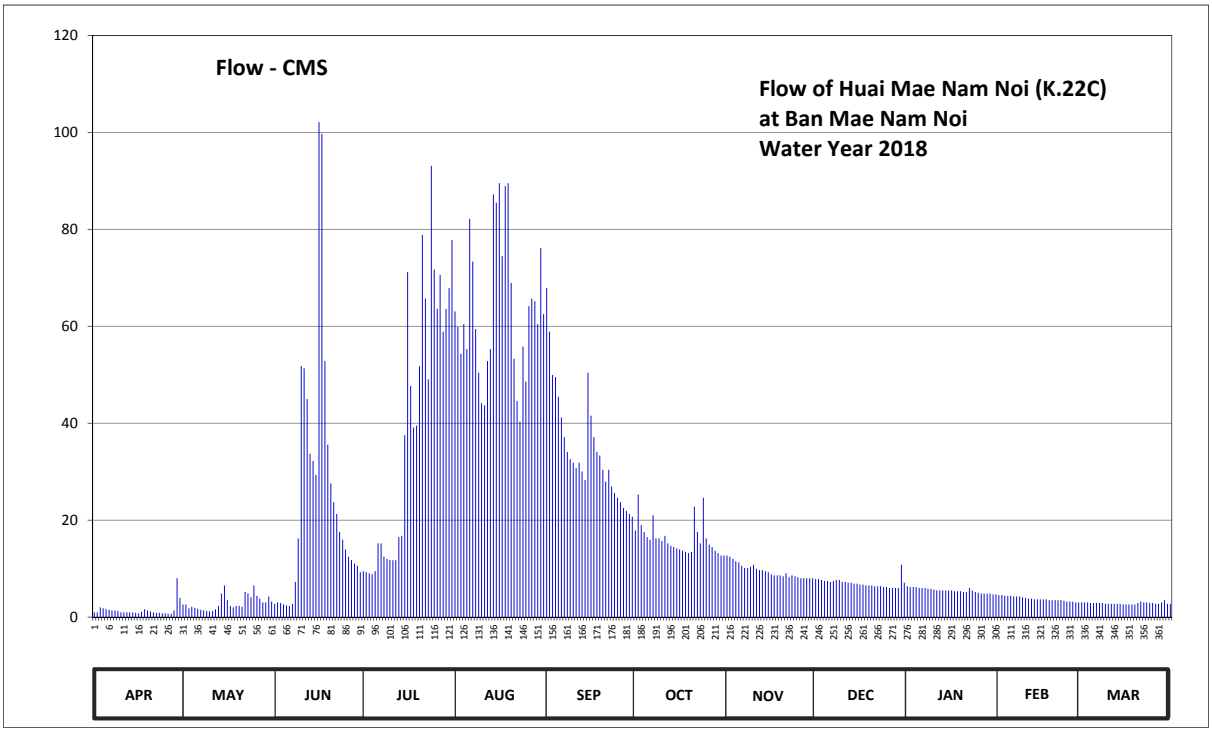
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	67.30	67.44	67.45	67.84	69.32	69.41	68.18	67.98	67.76	67.68	67.57	67.47	
2	67.30	67.44	67.47	67.83	69.26	69.24	68.43	67.97	67.76	67.67	67.57	67.47	
3	67.40	67.38	67.46	67.82	69.15	69.06	68.22	67.95	67.75	67.67	67.56	67.47	
4	67.38	67.41	67.44	67.81	69.27	69.05	68.17	67.93	67.74	67.67	67.56	67.46	
5	67.36	67.39	67.43	67.84	69.17	68.96	68.13	67.92	67.74	67.66	67.56	67.46	
6	67.35	67.37	67.42	68.08	69.67	68.86	68.11	67.89	67.73	67.66	67.55	67.46	
7	67.34	67.35	67.45	68.08	69.51	68.76	68.29	67.87	67.74	67.66	67.55	67.46	
8	67.34	67.34	67.73	67.97	69.25	68.68	68.12	67.87	67.75	67.65	67.55	67.46	
9	67.33	67.33	68.12	67.95	69.07	68.64	68.12	67.88	67.75	67.65	67.54	67.45	
10	67.30	67.32	69.10	67.94	68.93	68.62	68.10	67.90	67.73	67.64	67.53	67.45	
11	67.30	67.33	69.09	67.94	68.92	68.59	68.14	67.86	67.73	67.63	67.52	67.45	
12	67.30	67.36	68.95	67.94	69.12	68.62	68.08	67.85	67.72	67.63	67.52	67.45	
13	67.30	67.42	68.67	68.13	69.17	68.57	68.06	67.85	67.72	67.63	67.51	67.45	
14	67.30	67.59	68.63	68.14	69.76	68.52	68.05	67.84	67.71	67.63	67.51	67.45	
15	67.29	67.69	68.55	68.77	69.73	69.07	68.04	67.83	67.71	67.63	67.51	67.44	
16	67.28	67.50	70.01	69.47	69.80	68.87	68.03	67.81	67.70	67.63	67.51	67.44	
17	67.31	67.42	69.97	69.01	69.53	68.76	68.02	67.80	67.70	67.62	67.51	67.44	
18	67.36	67.40	69.12	68.81	69.79	68.68	68.01	67.80	67.69	67.62	67.50	67.44	
19	67.34	67.42	68.72	68.82	69.80	68.66	68.00	67.80	67.69	67.62	67.50	67.44	
20	67.32	67.42	68.50	69.10	69.43	68.58	68.01	67.79	67.69	67.61	67.50	67.46	
21	67.30	67.41	68.38	69.61	69.13	68.51	68.35	67.82	67.68	67.61	67.50	67.48	
22	67.29	67.61	68.30	69.37	68.94	68.58	68.17	67.78	67.68	67.66	67.50	67.47	
23	67.29	67.59	68.17	69.04	68.84	68.48	68.08	67.80	67.68	67.63	67.49	67.47	
24	67.28	67.54	68.11	69.86	69.18	68.44	68.41	67.79	67.67	67.61	67.48	67.46	
25	67.28	67.69	68.03	69.48	69.03	68.41	68.12	67.78	67.67	67.60	67.48	67.46	
26	67.27	67.56	67.97	69.33	69.34	68.38	68.07	67.77	67.66	67.59	67.48	67.45	
27	67.27	67.52	67.94	69.46	69.37	68.34	68.05	67.77	67.66	67.59	67.47	67.45	
28	67.34	67.47	67.91	69.24	69.36	68.32	68.02	67.77	67.66	67.59	67.47	67.47	
29	67.77	67.47	67.89	69.33	69.27	68.30	68.00	67.77	67.66	67.59		67.50	
30	67.53	67.55	67.83	69.41	69.56	68.28	67.98	67.77	67.90	67.58		67.45	
31		67.48		69.59	69.31		67.98		67.72	67.58		67.45	
Mean	67.34	67.46	68.26	68.68	69.32	68.67	68.11	67.84	67.71	67.63	67.52	67.46	
Max	67.77	67.69	70.01	69.86	69.80	69.41	68.43	67.98	67.90	67.68	67.57	67.50	70.01
Min	67.27	67.32	67.42	67.81	68.84	68.28	67.98	67.77	67.66	67.58	67.47	67.44	67.27

Annual Max Momentary Gage Height 70.74 m. (MSL.) , at 12.00 Hours , on Jun 16 , 2018

Zero Gage at Bottom Elevation 66.20 m. (MSL.) , River Bed 66.69 m. (MSL.)

Left Bank Elevation 78.70 m. (MSL.) ,

Right Bank Elevation 71.94 m. (MSL.) , Drainage Are 311 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.00	2.60	2.75	9.48	63.06	67.85	17.86	12.72	7.84	6.36	4.55	3.05		
2	1.00	2.60	3.05	9.26	59.92	58.88	25.29	12.48	7.84	6.19	4.55	3.05		
3	2.00	1.80	2.90	9.04	54.30	49.96	18.98	12.00	7.65	6.19	4.40	3.05		
4	1.80	2.15	2.60	8.82	60.44	49.50	17.59	11.52	7.46	6.19	4.40	2.90		
5	1.60	1.90	2.45	9.48	55.30	45.44	16.51	11.28	7.46	6.02	4.40	2.90		
6	1.50	1.70	2.30	15.20	82.15	41.16	15.97	10.58	7.27	6.02	4.25	2.90		
7	1.40	1.50	2.75	15.20	73.35	37.14	21.01	10.14	7.46	6.02	4.25	2.90		
8	1.40	1.40	7.27	12.48	59.40	34.06	16.24	10.14	7.65	5.85	4.25	2.90		
9	1.30	1.30	16.24	12.00	50.42	32.58	16.24	10.36	7.65	5.85	4.10	2.75		
10	1.00	1.20	51.80	11.76	44.12	31.84	15.70	10.80	7.27	5.68	3.95	2.75		
11	1.00	1.30	51.34	11.76	43.68	30.75	16.78	9.92	7.27	5.51	3.80	2.75		
12	1.00	1.60	45.00	11.76	52.80	31.84	15.20	9.70	7.08	5.51	3.80	2.75		
13	1.00	2.30	33.69	16.51	55.30	30.05	14.70	9.70	7.08	5.51	3.65	2.75		
14	1.00	4.85	32.21	16.78	87.22	28.30	14.45	9.48	6.89	5.51	3.65	2.75		
15	0.90	6.53	29.35	37.53	85.51	50.42	14.20	9.26	6.89	5.51	3.65	2.60		
16	0.80	3.50	102.11	71.15	89.50	41.57	13.95	8.82	6.70	5.51	3.65	2.60		
17	1.10	2.30	99.70	47.66	74.45	37.14	13.70	8.60	6.70	5.34	3.65	2.60		
18	1.60	2.00	52.80	39.11	88.93	34.06	13.45	8.60	6.53	5.34	3.50	2.60		
19	1.40	2.30	35.58	39.52	89.50	33.32	13.20	8.60	6.53	5.34	3.50	2.60		
20	1.20	2.30	27.60	51.80	68.95	30.40	13.45	8.41	6.53	5.17	3.50	2.90		
21	1.00	2.15	23.70	78.85	53.30	27.95	22.80	9.04	6.36	5.17	3.50	3.20		
22	0.90	5.17	21.30	65.71	44.56	30.40	17.59	8.22	6.36	6.02	3.50	3.05		
23	0.90	4.85	17.59	49.04	40.34	26.94	15.20	8.60	6.36	5.51	3.35	3.05		
24	0.80	4.10	15.97	93.10	55.80	25.62	24.63	8.41	6.19	5.17	3.20	2.90		
25	0.80	6.53	13.95	71.70	48.58	24.63	16.24	8.22	6.19	5.00	3.20	2.90		
26	0.70	4.40	12.48	63.59	64.12	23.70	14.95	8.03	6.02	4.85	3.20	2.75		
27	0.70	3.80	11.76	70.60	65.71	22.50	14.45	8.03	6.02	4.85	3.05	2.75		
28	1.40	3.05	11.04	58.88	65.18	21.90	13.70	8.03	6.02	4.85	3.05	3.05		
29	8.03	3.05	10.58	63.59	60.44	21.30	13.20	8.03	6.02	4.85		3.50		
30	3.95	4.25	9.26	67.85	76.10	20.72	12.72	8.03	10.80	4.70		2.75		
31		3.20		77.75	62.53		12.72		7.08	4.70		2.75		
Total	44.18	91.68	751.12	1216.96	1974.96	1041.92	502.67	285.75	217.17	170.29	105.50	88.70	6490.90	CMSDAY
Mean	1.47	2.96	25.04	39.26	63.71	34.73	16.22	9.52	7.01	5.49	3.77	2.86	17.78	CMS
Max	8.03	6.53	102.11	93.10	89.50	67.85	25.29	12.72	10.80	6.36	4.55	3.50	102.11	CMS
Min	0.70	1.20	2.30	8.82	40.34	20.72	12.72	8.03	6.02	4.70	3.05	2.60	0.70	CMS
Runoff	3.82	7.92	64.90	105.15	170.64	90.02	43.43	24.69	18.76	14.71	9.12	7.66	560.81	MCM

Momentary Peak 148.10 CMS. at 70.74 m. (MSL.) at 12.00 Hours , on Jun 16, 2018

Runoff Yield 57.18 Liters/Second/Square KM. Momentary Peak Yield 476.21 Liters/Second/Square KM.

WATER YEAR : 2018

MAE KLONG RIVER BASIN

Huai Tha Khoei at Ban Kha , Ratchaburi (K.25A)

Lat 13 - 24 - 07 N Long 99 - 25 - 14 E

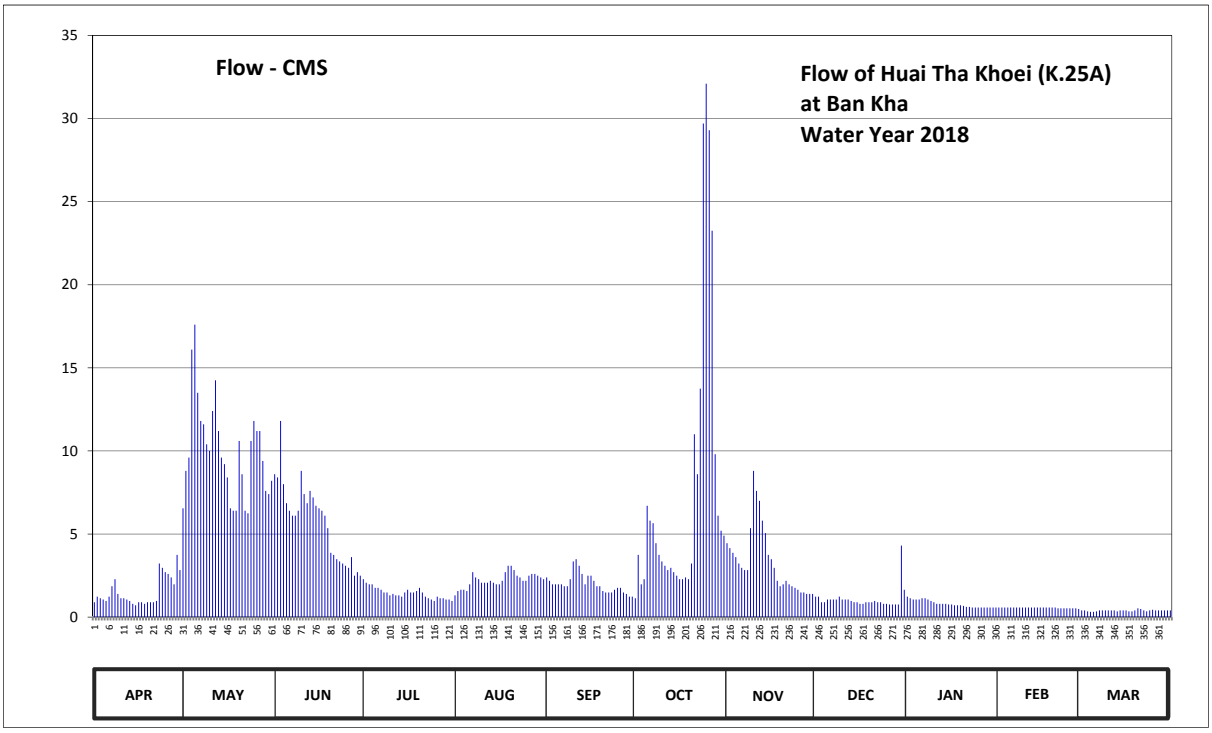
Location : on right bank about 8 kilometers upstream from station K.25

	Ban Kha	**Amphoe** Ban Kha	**Changwat** Ratchaburi
Drainge Area	367 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+152.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank about 1 meter from the top staff gage.		**Elevation** +159.346 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	1994 to date		
Rating Operation			
Period of Rating	1994 to date		
Rated by Flot	-		
Rated by Current Meter	1994 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 22 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	152.31	152.77	152.88	152.46	152.36	152.47	152.34	152.63	152.35	152.35	152.25	152.21	
2	152.35	152.89	152.87	152.44	152.39	152.45	152.58	152.61	152.35	152.34	152.25	152.21	
3	152.34	152.93	153.04	152.43	152.40	152.43	152.43	152.59	152.31	152.33	152.25	152.20	
4	152.33	153.22	152.85	152.43	152.40	152.43	152.46	152.57	152.31	152.33	152.25	152.19	
5	152.32	153.27	152.79	152.41	152.39	152.43	152.78	152.54	152.33	152.33	152.25	152.19	
6	152.35	153.12	152.76	152.41	152.43	152.43	152.72	152.52	152.33	152.34	152.25	152.20	
7	152.42	153.04	152.74	152.40	152.50	152.42	152.71	152.51	152.33	152.34	152.25	152.21	
8	152.46	153.03	152.74	152.38	152.47	152.42	152.63	152.51	152.33	152.33	152.25	152.21	
9	152.37	152.97	152.76	152.38	152.46	152.46	152.58	152.69	152.35	152.32	152.25	152.21	
10	152.34	152.95	152.89	152.36	152.44	152.55	152.55	152.89	152.33	152.31	152.25	152.21	
11	152.34	153.07	152.82	152.37	152.44	152.56	152.53	152.83	152.33	152.30	152.25	152.21	
12	152.33	153.15	152.79	152.36	152.44	152.53	152.51	152.80	152.33	152.30	152.25	152.21	
13	152.32	153.01	152.83	152.36	152.45	152.49	152.52	152.72	152.32	152.30	152.25	152.20	
14	152.30	152.93	152.81	152.35	152.44	152.43	152.50	152.67	152.31	152.30	152.25	152.21	
15	152.28	152.91	152.78	152.38	152.43	152.48	152.48	152.58	152.31	152.29	152.25	152.21	
16	152.31	152.87	152.77	152.40	152.43	152.48	152.46	152.56	152.30	152.29	152.25	152.21	
17	152.31	152.77	152.76	152.38	152.45	152.45	152.46	152.52	152.30	152.28	152.25	152.20	
18	152.30	152.76	152.74	152.38	152.50	152.42	152.47	152.45	152.31	152.28	152.25	152.20	
19	152.31	152.76	152.69	152.39	152.53	152.42	152.46	152.42	152.31	152.28	152.25	152.21	
20	152.31	152.98	152.59	152.41	152.53	152.39	152.54	152.43	152.31	152.27	152.25	152.24	
21	152.31	152.88	152.58	152.38	152.51	152.38	153.00	152.45	152.32	152.26	152.24	152.23	
22	152.32	152.76	152.56	152.35	152.48	152.38	152.88	152.43	152.31	152.26	152.24	152.21	
23	152.54	152.75	152.55	152.34	152.47	152.38	153.13	152.42	152.31	152.25	152.24	152.20	
24	152.52	152.98	152.54	152.33	152.45	152.40	153.63	152.41	152.30	152.25	152.24	152.21	
25	152.50	153.04	152.53	152.32	152.45	152.41	153.69	152.40	152.30	152.25	152.24	152.22	
26	152.49	153.01	152.52	152.35	152.48	152.41	153.62	152.38	152.29	152.25	152.24	152.21	
27	152.47	153.01	152.57	152.34	152.49	152.38	153.45	152.38	152.29	152.25	152.24	152.21	
28	152.43	152.92	152.48	152.34	152.49	152.37	152.94	152.37	152.29	152.25	152.23	152.21	
29	152.58	152.83	152.50	152.33	152.48	152.35	152.74	152.37	152.29	152.25		152.21	
30	152.51	152.82	152.48	152.33	152.47	152.35	152.68	152.37	152.62	152.25		152.21	
31		152.86		152.32	152.46		152.66		152.40	152.25		152.21	
Mean	152.38	152.94	152.71	152.37	152.46	152.43	152.75	152.53	152.33	152.29	152.25	152.21	
Max	152.58	153.27	153.04	152.46	152.53	152.56	153.69	152.89	152.62	152.35	152.25	152.24	153.69
Min	152.28	152.75	152.48	152.32	152.36	152.35	152.34	152.37	152.29	152.25	152.23	152.19	152.19

Annual Max Momentary Gage Height	154.16	m. (MSL.) ,	at 18.00 Hours , on Oct 24, 2018		
Zero Gage at Bottom Elevation	152.00	m. (MSL.) ,	River Bed	151.80	m. (MSL.)
Left Bank Elevation	159.09	m. (MSL.) ,			
Right Bank Elevation	159.07	m. (MSL.) ,	Drainage Are	367	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.89	6.55	8.60	2.28	1.31	2.39	1.14	4.45	1.23	1.23	0.58	0.40		
2	1.23	8.80	8.40	2.07	1.57	2.18	3.74	4.15	1.23	1.14	0.58	0.40		
3	1.14	9.60	11.80	1.97	1.65	1.97	1.97	3.87	0.89	1.06	0.58	0.35		
4	1.06	16.10	8.00	1.97	1.65	1.97	2.28	3.61	0.89	1.06	0.58	0.32		
5	0.97	17.60	6.85	1.76	1.57	1.97	6.70	3.22	1.06	1.06	0.58	0.32		
6	1.23	13.50	6.40	1.76	1.97	1.97	5.80	2.96	1.06	1.14	0.58	0.35		
7	1.86	11.80	6.10	1.65	2.70	1.86	5.65	2.83	1.06	1.14	0.58	0.40		
8	2.28	11.60	6.10	1.48	2.39	1.86	4.45	2.83	1.06	1.06	0.58	0.40		
9	1.40	10.40	6.40	1.48	2.28	2.28	3.74	5.35	1.23	0.97	0.58	0.40		
10	1.14	10.00	8.80	1.31	2.07	3.35	3.35	8.80	1.06	0.89	0.58	0.40		
11	1.14	12.40	7.40	1.40	2.07	3.48	3.09	7.60	1.06	0.80	0.58	0.40		
12	1.06	14.25	6.85	1.31	2.07	3.09	2.83	7.00	1.06	0.80	0.58	0.40		
13	0.97	11.20	7.60	1.31	2.18	2.60	2.96	5.80	0.97	0.80	0.58	0.35		
14	0.80	9.60	7.20	1.23	2.07	1.97	2.70	5.05	0.89	0.80	0.58	0.40		
15	0.71	9.20	6.70	1.48	1.97	2.49	2.49	3.74	0.89	0.76	0.58	0.40		
16	0.89	8.40	6.55	1.65	1.97	2.49	2.28	3.48	0.80	0.76	0.58	0.40		
17	0.89	6.55	6.40	1.48	2.18	2.18	2.28	2.96	0.80	0.71	0.58	0.35		
18	0.80	6.40	6.10	1.48	2.70	1.86	2.39	2.18	0.89	0.71	0.58	0.35		
19	0.89	6.40	5.35	1.57	3.09	1.86	2.28	1.86	0.89	0.71	0.58	0.40		
20	0.89	10.60	3.87	1.76	3.09	1.57	3.22	1.97	0.89	0.67	0.58	0.53		
21	0.89	8.60	3.74	1.48	2.83	1.48	11.00	2.18	0.97	0.62	0.53	0.49		
22	0.97	6.40	3.48	1.23	2.49	1.48	8.60	1.97	0.89	0.62	0.53	0.40		
23	3.22	6.25	3.35	1.14	2.39	1.48	13.75	1.86	0.89	0.58	0.53	0.35		
24	2.96	10.60	3.22	1.06	2.18	1.65	29.70	1.76	0.80	0.58	0.53	0.40		
25	2.70	11.80	3.09	0.97	2.18	1.76	32.10	1.65	0.80	0.58	0.53	0.44		
26	2.60	11.20	2.96	1.23	2.49	1.76	29.30	1.48	0.76	0.58	0.53	0.40		
27	2.39	11.20	3.61	1.14	2.60	1.48	23.25	1.48	0.76	0.58	0.53	0.40		
28	1.97	9.40	2.49	1.14	2.60	1.40	9.80	1.40	0.76	0.58	0.49	0.40		
29	3.74	7.60	2.70	1.06	2.49	1.23	6.10	1.40	0.76	0.58		0.40		
30	2.83	7.40	2.49	1.06	2.39	1.23	5.20	1.40	4.30	0.58		0.40		
31		8.20		0.97	2.28		4.90		1.65	0.58		0.40		
Total	46.51	309.60	172.60	44.88	69.47	60.34	239.04	100.29	33.25	24.73	15.80	12.20	1128.71	CMSDAY
Mean	1.55	9.99	5.75	1.45	2.24	2.01	7.71	3.34	1.07	0.80	0.56	0.39	3.09	CMS
Max	3.74	17.60	11.80	2.28	3.09	3.48	32.10	8.80	4.30	1.23	0.58	0.53	32.10	CMS
Min	0.71	6.25	2.49	0.97	1.31	1.23	1.14	1.40	0.76	0.58	0.49	0.32	0.32	CMS
Runoff	4.02	26.75	14.91	3.88	6.00	5.21	20.65	8.67	2.87	2.14	1.37	1.05	97.52	MCM

Momentary Peak 54.00 CMS. at 154.16 m. (MSL.) at 18.00 Hours , on Oct 24, 2018

Runoff Yield 8.43 Liters/Second/Square KM. Momentary Peak Yield 147.14 Liters/Second/Square KM.

WATER YEAR : 2018

MAE KLONG RIVER BASIN

Huai Mae Nam Lo at Ban Sai Yok , Kanchanaburi (K.30)

Lat 14 - 26 - 27 N Long 98 - 47 - 48 E

Location : on left bank about 1 kilometer downstream from station K.22A

	Ban Sai Yok	**Amphoe** Sai Yok	**Changwat** Kanchanaburi
Drainge Area	466 sq.km.		
Type of Gage	Staff gage.		
Zero Gage at Bottom	+68.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank about 30 meters from the top staff gage.	**Elevation**	+77.312 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic mean of 5 readings		
Period of Available Gage Records	1983 to date		
Rating Operation			
Period of Rating	1994 to date		
Rated by Flot	-		
Rated by Current Meter	1994 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 30 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

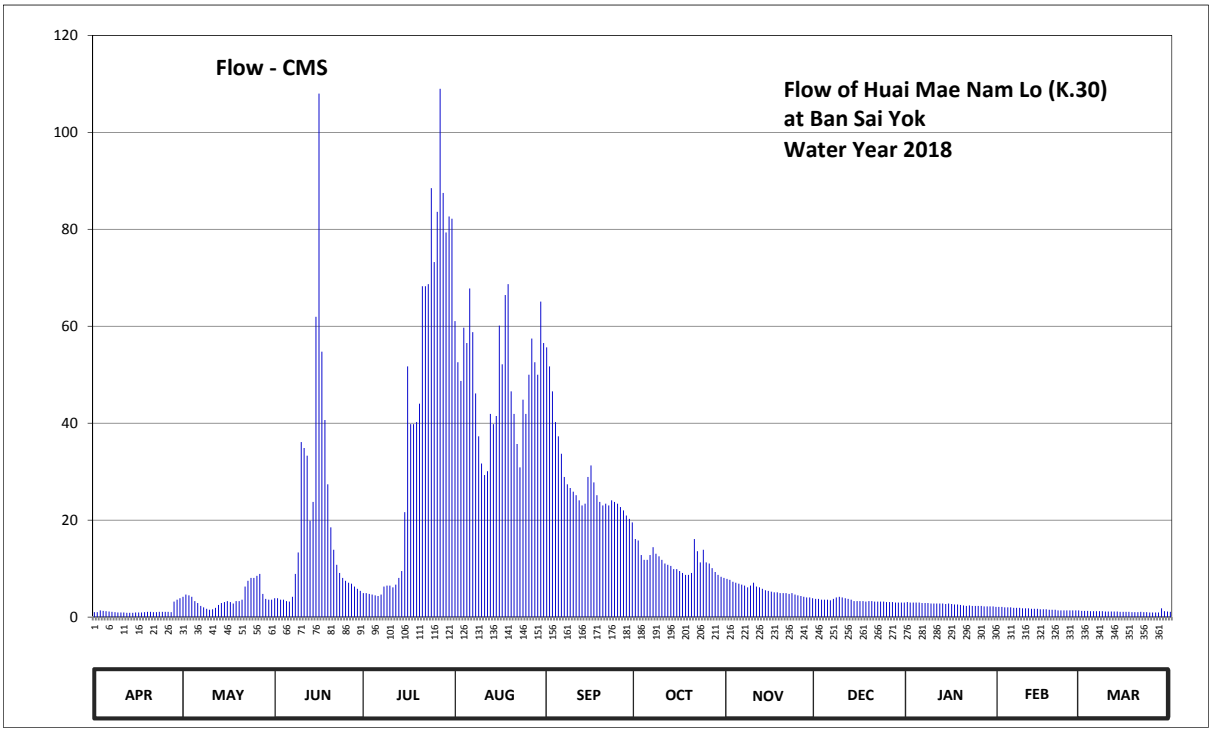
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	67.96	68.26	68.24	68.31	69.95	69.83	68.82	68.48	68.23	68.18	68.08	68.00	
2	67.96	68.29	68.24	68.31	69.76	69.74	68.81	68.47	68.23	68.17	68.08	68.00	
3	68.01	68.28	68.22	68.30	69.67	69.62	68.70	68.45	68.22	68.17	68.07	68.00	
4	68.00	68.26	68.22	68.29	69.92	69.47	68.66	68.44	68.22	68.17	68.07	67.99	
5	67.99	68.20	68.20	68.28	69.85	69.40	68.66	68.43	68.22	68.17	68.07	67.99	
6	67.98	68.16	68.19	68.27	70.10	69.31	68.70	68.42	68.21	68.16	68.06	67.99	
7	67.97	68.10	68.26	68.29	69.90	69.19	68.76	68.41	68.23	68.16	68.06	67.99	
8	67.96	68.07	68.53	68.40	69.61	69.15	68.71	68.39	68.25	68.16	68.06	67.99	
9	67.95	68.04	68.72	68.41	69.40	69.13	68.69	68.41	68.26	68.15	68.05	67.98	
10	67.95	68.02	69.37	68.41	69.26	69.11	68.66	68.44	68.25	68.15	68.05	67.98	
11	67.95	68.03	69.34	68.39	69.20	69.09	68.63	68.40	68.24	68.15	68.05	67.98	
12	67.94	68.06	69.30	68.42	69.22	69.06	68.62	68.39	68.23	68.15	68.04	67.98	
13	67.94	68.12	68.94	68.49	69.51	69.03	68.61	68.37	68.22	68.15	68.04	67.98	
14	67.94	68.16	69.05	68.56	69.46	69.04	68.58	68.35	68.20	68.14	68.04	67.97	
15	67.95	68.18	69.97	68.99	69.50	69.19	68.58	68.34	68.20	68.15	68.03	67.97	
16	67.95	68.20	70.93	69.74	69.93	69.25	68.56	68.33	68.20	68.14	68.03	67.97	
17	67.95	68.18	69.81	69.46	69.75	69.16	68.54	68.32	68.20	68.13	68.03	67.97	
18	67.96	68.15	69.48	69.46	70.07	69.09	68.52	68.32	68.19	68.13	68.02	67.96	
19	67.97	68.20	69.15	69.47	70.12	69.05	68.52	68.31	68.20	68.12	68.02	67.96	
20	67.97	68.20	68.90	69.56	69.62	69.03	68.54	68.31	68.20	68.11	68.02	67.96	
21	67.96	68.22	68.74	70.11	69.51	69.04	68.82	68.31	68.19	68.10	68.01	67.97	
22	67.96	68.40	68.62	70.11	69.36	69.03	68.73	68.30	68.19	68.11	68.01	67.96	
23	67.97	68.46	68.54	70.12	69.24	69.06	68.64	68.31	68.19	68.10	68.01	67.96	
24	67.97	68.49	68.49	70.54	69.58	69.05	68.74	68.29	68.19	68.10	68.01	67.95	
25	67.97	68.49	68.46	70.22	69.51	69.04	68.64	68.28	68.18	68.10	68.01	67.95	
26	67.97	68.51	68.44	70.44	69.70	69.02	68.63	68.27	68.18	68.10	68.01	67.95	
27	67.96	68.53	68.43	70.95	69.87	69.00	68.59	68.26	68.18	68.09	68.01	67.95	
28	68.19	68.30	68.40	70.52	69.76	68.97	68.55	68.25	68.17	68.09	68.01	68.05	
29	68.22	68.23	68.37	70.35	69.70	68.95	68.52	68.25	68.17	68.09		67.99	
30	68.24	68.22	68.34	70.42	70.04	68.93	68.50	68.24	68.17	68.09		67.98	
31		68.22		70.41	69.85		68.49		68.17	68.08		67.97	
Mean	67.99	68.23	68.80	69.29	69.67	69.17	68.64	68.35	68.21	68.13	68.04	67.98	
Max	68.24	68.53	70.93	70.95	70.12	69.83	68.82	68.48	68.26	68.18	68.08	68.05	70.95
Min	67.94	68.02	68.19	68.27	69.20	68.93	68.49	68.24	68.17	68.08	68.01	67.95	67.94

Annual Max Momentary Gage Height 71.59 m. (MSL.) , at 12.00 Hours , on Jun 16, 2018

Zero Gage at Bottom Elevation 68.00 m. (MSL.) , River Bed 67.36 m. (MSL.)

Left Bank Elevation 76.06 m. (MSL.) ,

Right Bank Elevation 79.76 m. (MSL.) , Drainage Are 466 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.02	4.20	3.90	4.95	61.05	55.65	16.10	7.90	3.75	3.10	2.10	1.30		
2	1.02	4.65	3.90	4.95	52.58	51.72	15.80	7.70	3.75	3.00	2.10	1.30		
3	1.40	4.50	3.60	4.80	48.71	46.56	12.80	7.30	3.60	3.00	2.00	1.30		
4	1.30	4.20	3.60	4.65	59.70	40.24	11.80	7.10	3.60	3.00	2.00	1.23		
5	1.23	3.30	3.30	4.50	56.55	37.30	11.80	6.90	3.60	3.00	2.00	1.23		
6	1.16	2.90	3.20	4.35	67.80	33.70	12.80	6.70	3.45	2.90	1.90	1.23		
7	1.09	2.30	4.20	4.65	58.80	28.92	14.42	6.50	3.75	2.90	1.90	1.23		
8	1.02	2.00	8.90	6.30	46.13	27.40	13.07	6.15	4.05	2.90	1.90	1.23		
9	0.95	1.70	13.34	6.50	37.30	26.64	12.55	6.50	4.20	2.80	1.80	1.16		
10	0.95	1.50	36.10	6.50	31.70	25.88	11.80	7.10	4.05	2.80	1.80	1.16		
11	0.95	1.60	34.90	6.15	29.30	25.15	11.05	6.30	3.90	2.80	1.80	1.16		
12	0.88	1.90	33.30	6.70	30.10	24.10	10.80	6.15	3.75	2.80	1.70	1.16		
13	0.88	2.50	19.90	8.10	41.92	23.05	10.55	5.85	3.60	2.80	1.70	1.16		
14	0.88	2.90	23.75	9.50	39.82	23.40	9.90	5.55	3.30	2.70	1.70	1.09		
15	0.95	3.10	61.95	21.65	41.50	28.92	9.90	5.40	3.30	2.80	1.60	1.09		
16	0.95	3.30	108.00	51.72	60.15	31.30	9.50	5.25	3.30	2.70	1.60	1.09		
17	0.95	3.10	54.75	39.82	52.15	27.78	9.10	5.10	3.30	2.60	1.60	1.09		
18	1.02	2.80	40.66	39.82	66.45	25.15	8.70	5.10	3.20	2.60	1.50	1.02		
19	1.09	3.30	27.40	40.24	68.70	23.75	8.70	4.95	3.30	2.50	1.50	1.02		
20	1.09	3.30	18.50	44.02	46.56	23.05	9.10	4.95	3.30	2.40	1.50	1.02		
21	1.02	3.60	13.88	68.25	41.92	23.40	16.10	4.95	3.20	2.30	1.40	1.09		
22	1.02	6.30	10.80	68.25	35.70	23.05	13.61	4.80	3.20	2.40	1.40	1.02		
23	1.09	7.50	9.10	68.70	30.90	24.10	11.30	4.95	3.20	2.30	1.40	1.02		
24	1.09	8.10	8.10	88.50	44.86	23.75	13.88	4.65	3.20	2.30	1.40	0.95		
25	1.09	8.10	7.50	73.24	41.92	23.40	11.30	4.50	3.10	2.30	1.40	0.95		
26	1.09	8.50	7.10	83.62	50.00	22.70	11.05	4.35	3.10	2.30	1.40	0.95		
27	1.02	8.90	6.90	109.00	57.45	22.00	10.10	4.20	3.10	2.20	1.40	0.95		
28	3.20	4.80	6.30	87.50	52.58	20.95	9.30	4.05	3.00	2.20	1.40	1.80		
29	3.60	3.75	5.85	79.35	50.00	20.25	8.70	4.05	3.00	2.20		1.23		
30	3.90	3.60	5.40	82.66	65.10	19.55	8.30	3.90	3.00	2.20		1.16		
31		3.60		82.18	56.55		8.10		3.00	2.10		1.09		
Total	38.90	125.80	588.08	1211.12	1523.95	852.81	351.98	168.85	106.15	80.90	46.90	35.48	5130.92	CMSDAY
Mean	1.30	4.06	19.60	39.07	49.16	28.43	11.35	5.63	3.42	2.61	1.67	1.14	14.06	CMS
Max	3.90	8.90	108.00	109.00	68.70	55.65	16.10	7.90	4.20	3.10	2.10	1.80	109.00	CMS
Min	0.88	1.50	3.20	4.35	29.30	19.55	8.10	3.90	3.00	2.10	1.40	0.95	0.88	CMS
Runoff	3.36	10.87	50.81	104.64	131.67	73.68	30.41	14.59	9.17	6.99	4.05	3.07	443.31	MCM

Momentary Peak 141.98 CMS. at 71.59 m. (MSL.) at 12.00 Hours , on Jun 16, 2018

Runoff Yield 30.17 Liters/Second/Square KM. Momentary Peak Yield 304.68 Liters/Second/Square KM.

WATER YEAR : 2018

MAE KLONG RIVER BASIN

Huai Mae Nam Noi at Ban Nam Chon , Kanchanaburi (K.31)

Lat 14 - 26 - 04 N Long 98 - 49 - 20 E

Location : on right bank about 2 kilometers downstream from station K.22A

	Ban Nam Chon	**Amphoe** Sai Yok	**Changwat** Kanchanaburi
Drainge Area	799 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+54.200 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank about 5 meters from the top staff gage.		**Elevation** +70.630 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	1983 to date		
Rating Operation			
Period of Rating	1989 to date		
Rated by Flot	-		
Rated by Current Meter	1989 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 38 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

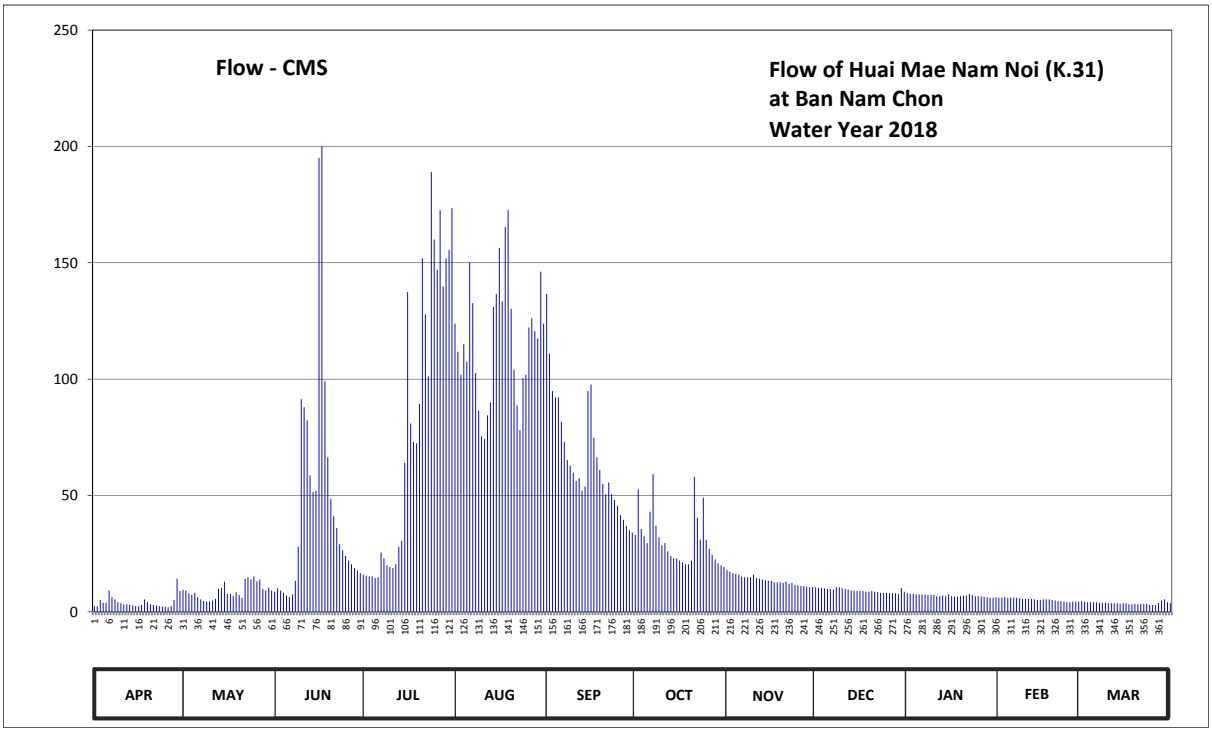
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	57.22	57.51	57.48	57.74	59.56	59.72	58.12	57.80	57.56	57.45	57.37	57.31	
2	57.22	57.50	57.54	57.73	59.41	59.40	58.51	57.78	57.55	57.44	57.37	57.30	
3	57.33	57.45	57.50	57.72	59.27	59.17	58.17	57.76	57.55	57.44	57.38	57.29	
4	57.28	57.42	57.46	57.72	59.45	59.13	58.11	57.75	57.54	57.43	57.37	57.29	
5	57.28	57.46	57.41	57.70	59.35	59.13	58.05	57.74	57.53	57.43	57.37	57.29	
6	57.50	57.38	57.38	57.71	59.89	58.98	58.32	57.72	57.53	57.43	57.37	57.29	
7	57.38	57.34	57.43	57.97	59.67	58.85	58.62	57.71	57.52	57.43	57.37	57.28	
8	57.34	57.31	57.66	57.92	59.28	58.72	58.20	57.71	57.56	57.42	57.36	57.28	
9	57.29	57.30	58.02	57.85	59.05	58.68	58.10	57.71	57.56	57.42	57.35	57.28	
10	57.27	57.30	59.12	57.83	58.89	58.63	58.03	57.74	57.54	57.42	57.35	57.27	
11	57.25	57.32	59.07	57.82	58.87	58.57	58.05	57.70	57.53	57.40	57.35	57.27	
12	57.25	57.35	58.99	57.86	59.02	58.59	57.98	57.69	57.52	57.40	57.35	57.27	
13	57.24	57.53	58.61	58.02	59.10	58.50	57.94	57.68	57.50	57.41	57.34	57.27	
14	57.23	57.55	58.49	58.07	59.65	58.53	57.92	57.67	57.50	57.40	57.33	57.26	
15	57.22	57.65	58.50	58.70	59.72	59.17	57.92	57.66	57.49	57.43	57.33	57.27	
16	57.22	57.44	60.38	59.73	59.96	59.21	57.90	57.66	57.49	57.40	57.34	57.27	
17	57.24	57.44	60.43	58.97	59.68	58.88	57.88	57.64	57.49	57.39	57.34	57.25	
18	57.34	57.40	59.23	58.85	60.06	58.74	57.86	57.64	57.48	57.39	57.34	57.25	
19	57.29	57.47	58.74	58.84	60.14	58.65	57.86	57.64	57.48	57.40	57.33	57.26	
20	57.25	57.42	58.43	59.09	59.64	58.55	57.90	57.63	57.49	57.41	57.32	57.25	
21	57.24	57.37	58.28	59.91	59.30	58.47	58.60	57.65	57.48	57.41	57.31	57.26	
22	57.23	57.69	58.18	59.61	59.08	58.56	58.27	57.62	57.47	57.44	57.31	57.26	
23	57.22	57.71	58.04	59.26	58.93	58.47	58.08	57.63	57.46	57.42	57.30	57.26	
24	57.21	57.68	57.99	60.32	59.25	58.42	58.44	57.60	57.46	57.40	57.29	57.24	
25	57.21	57.72	57.94	60.00	59.27	58.37	58.08	57.59	57.46	57.40	57.29	57.24	
26	57.20	57.65	57.90	59.85	59.54	58.29	58.00	57.58	57.45	57.39	57.30	57.24	
27	57.22	57.68	57.86	60.14	59.59	58.25	57.95	57.58	57.45	57.39	57.30	57.27	
28	57.33	57.53	57.82	59.76	59.52	58.20	57.91	57.57	57.45	57.38	57.30	57.32	
29	57.69	57.50	57.79	59.91	59.48	58.16	57.87	57.56	57.44	57.37		57.34	
30	57.49	57.55	57.76	59.95	59.84	58.14	57.85	57.56	57.55	57.37		57.29	
31		57.50		60.15	59.56		57.83		57.48	57.38		57.27	
Mean	57.29	57.49	58.25	58.80	59.45	58.70	58.07	57.67	57.50	57.41	57.34	57.27	
Max	57.69	57.72	60.43	60.32	60.14	59.72	58.62	57.80	57.56	57.45	57.38	57.34	60.43
Min	57.20	57.30	57.38	57.70	58.87	58.14	57.83	57.56	57.44	57.37	57.29	57.24	57.20

Annual Max Momentary Gage Height 61.25 m. (MSL.) , at 15.00 Hours , on Jun 16 , 2018

Zero Gage at Bottom Elevation 54.20 m. (MSL.) , River Bed 56.38 m. (MSL.)

Left Bank Elevation 69.06 m. (MSL.) ,

Right Bank Elevation 69.23 m. (MSL.) , Drainage Are 799 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.48	9.36	8.65	15.90	123.80	136.60	33.00	18.00	10.55	7.94	6.04	4.61		
2	2.48	9.13	10.08	15.55	111.80	111.00	52.60	17.30	10.31	7.70	6.04	4.38		
3	5.09	7.94	9.13	15.20	101.90	94.90	35.50	16.60	10.31	7.70	6.28	4.14		
4	3.90	7.23	8.18	15.20	115.00	92.10	32.50	16.25	10.08	7.46	6.04	4.14		
5	3.90	8.18	6.99	14.50	107.50	92.10	29.50	15.90	9.84	7.46	6.04	4.14		
6	9.13	6.28	6.28	14.85	150.20	81.60	43.00	15.20	9.84	7.46	6.04	4.14		
7	6.28	5.33	7.46	25.50	132.60	73.00	59.20	14.85	9.60	7.46	6.04	3.90		
8	5.33	4.61	13.30	23.00	102.60	65.20	37.00	14.85	10.55	7.23	5.80	3.90		
9	4.14	4.38	28.00	20.00	86.50	62.80	32.00	14.85	10.55	7.23	5.56	3.90		
10	3.66	4.38	91.40	19.20	75.40	59.80	28.50	15.90	10.08	7.23	5.56	3.66		
11	3.19	4.85	87.90	18.80	74.20	56.20	29.50	14.50	9.84	6.75	5.56	3.66		
12	3.19	5.56	82.30	20.40	84.40	57.40	26.00	14.20	9.60	6.75	5.56	3.66		
13	2.95	9.84	58.60	28.00	90.00	52.00	24.00	13.90	9.13	6.99	5.33	3.66		
14	2.71	10.31	51.50	30.50	131.00	53.80	23.00	13.60	9.13	6.75	5.09	3.43		
15	2.48	13.00	52.00	64.00	136.60	94.90	23.00	13.30	8.89	7.46	5.09	3.66		
16	2.48	7.70	195.00	137.40	156.40	97.70	22.00	13.30	8.89	6.75	5.33	3.66		
17	2.95	7.70	200.00	80.90	133.40	74.80	21.20	12.70	8.89	6.51	5.33	3.19		
18	5.33	6.75	99.10	73.00	165.40	66.40	20.40	12.70	8.65	6.51	5.33	3.19		
19	4.14	8.41	66.40	72.40	172.60	61.00	20.40	12.70	8.65	6.75	5.09	3.43		
20	3.19	7.23	48.50	89.30	130.20	55.00	22.00	12.40	8.89	6.99	4.85	3.19		
21	2.95	6.04	41.00	151.90	104.00	50.50	58.00	13.00	8.65	6.99	4.61	3.43		
22	2.71	14.20	36.00	127.80	88.60	55.60	40.50	12.10	8.41	7.70	4.61	3.43		
23	2.48	14.85	29.00	101.20	78.10	50.50	31.00	12.40	8.18	7.23	4.38	3.43		
24	2.24	13.90	26.50	189.00	100.50	48.00	49.00	11.50	8.18	6.75	4.14	2.95		
25	2.24	15.20	24.00	160.00	101.90	45.50	31.00	11.26	8.18	6.75	4.14	2.95		
26	2.00	13.00	22.00	147.00	122.20	41.50	27.00	11.03	7.94	6.51	4.38	2.95		
27	2.48	13.90	20.40	172.60	126.20	39.50	24.50	11.03	7.94	6.51	4.38	3.66		
28	5.09	9.84	18.80	139.80	120.60	37.00	22.50	10.79	7.94	6.28	4.38	4.85		
29	14.20	9.13	17.65	151.90	117.40	35.00	20.80	10.55	7.70	6.04		5.33		
30	8.89	10.31	16.60	155.50	146.20	34.00	20.00	10.55	10.31	6.04		4.14		
31		9.13		173.50	123.80		19.20		8.65	6.28		3.66		
Total	124.28	277.67	1382.72	2463.80	3611.00	1975.40	957.80	407.21	284.35	216.16	147.02	116.42	11963.83	CMSDAY
Mean	4.14	8.96	46.09	79.48	116.48	65.85	30.90	13.57	9.17	6.97	5.25	3.76	32.78	CMS
Max	14.20	15.20	200.00	189.00	172.60	136.60	59.20	18.00	10.55	7.94	6.28	5.33	200.00	CMS
Min	2.00	4.38	6.28	14.50	74.20	34.00	19.20	10.55	7.70	6.04	4.14	2.95	2.00	CMS
Runoff	10.74	23.99	119.47	212.87	311.99	170.67	82.75	35.18	24.57	18.68	12.70	10.06	1033.67	MCM

Momentary Peak 293.50 CMS. at 61.25 m. (MSL.) at 15.00 Hours , on Jun 16 , 2018

Runoff Yield 41.02 Liters/Second/Square KM. Momentary Peak Yield 367.33 Liters/Second/Square KM.

WATER YEAR : 2018

MAE KLONG RIVER BASIN

Huai Bong Ti at Ban Bong Ti , Kanchanaburi (K.32A)

Lat 14 - 16 - 27 N Long 98 - 56 - 04 E

Location : on right bank at Ban Bong Ti.

	Ban Bong Ti	**Amphoe** Sai Yok	**Changwat** Kanchanaburi
Drainge Area	518 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+84.200 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank about 6.50 meters from the top staff gage.	**Elevation**	+90.239 m. (MSL.)
Gage Reading Frequency	16-time daily readings at 03.00, 06.00 - 18.00, 21.00 and 24.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic mean of 16 readings		
Period of Available Gage Records	1984 to date		
Rating Operation			
Period of Rating	1984 to date		
Rated by Flot	-		
Rated by Current Meter	1984 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 29 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

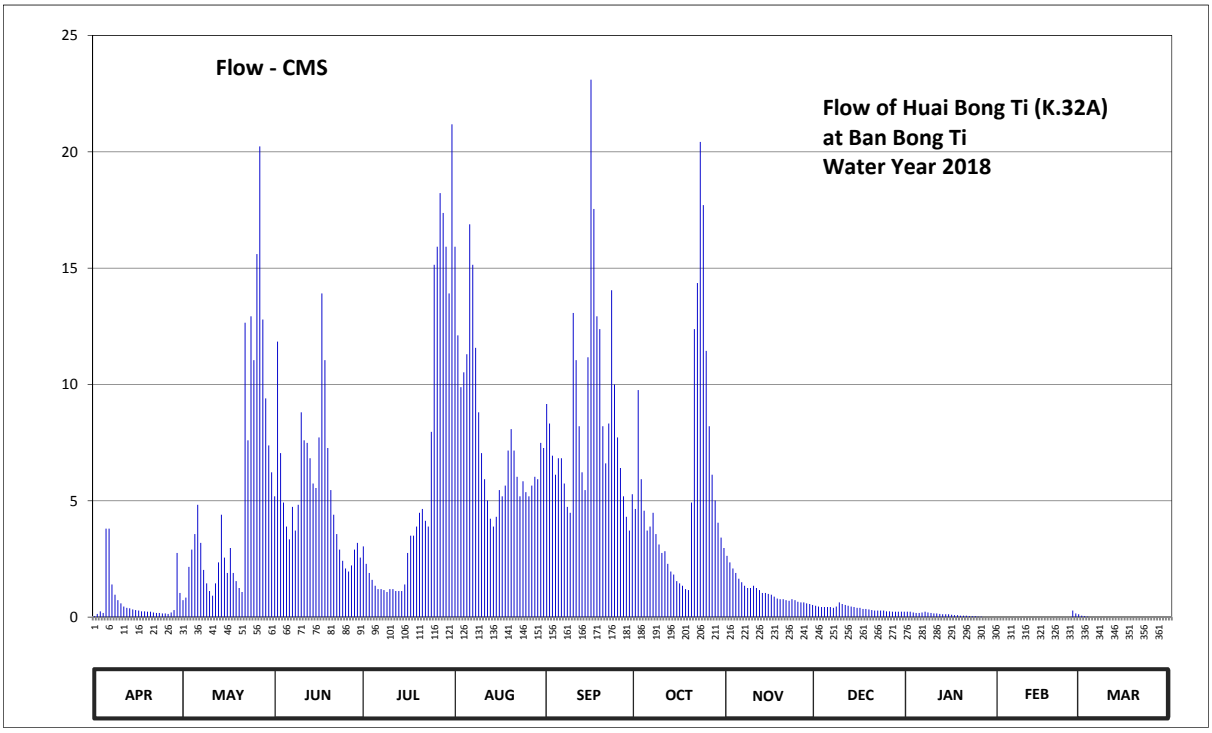
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	84.72	84.98	85.66	85.40	86.52	86.03	85.60	85.34	84.91	84.81	84.68	84.73	
2	84.77	85.01	86.24	85.29	86.26	85.96	86.08	85.30	84.90	84.81	84.68	84.72	
3	84.82	85.27	85.85	85.23	86.09	85.84	85.74	85.26	84.89	84.80	84.68	84.71	
4	84.79	85.38	85.63	85.18	86.14	85.76	85.59	85.23	84.89	84.79	84.67	84.69	
5	85.50	85.47	85.51	85.13	86.20	85.83	85.49	85.19	84.89	84.79	84.66	84.68	
6	85.50	85.62	85.44	85.10	86.58	85.83	85.51	85.16	84.89	84.80	84.67	84.68	
7	85.14	85.42	85.61	85.10	86.47	85.72	85.58	85.13	84.88	84.81	84.67	84.67	
8	85.04	85.25	85.49	85.09	86.22	85.61	85.47	85.11	84.90	84.80	84.66	84.66	
9	84.98	85.15	85.62	85.07	86.00	85.58	85.41	85.11	84.95	84.79	84.66	84.65	
10	84.94	85.08	86.00	85.10	85.85	86.33	85.36	85.13	84.93	84.78	84.66	84.65	
11	84.90	85.03	85.90	85.10	85.74	86.18	85.37	85.11	84.92	84.78	84.66	84.65	
12	84.88	85.15	85.89	85.08	85.64	85.95	85.29	85.09	84.91	84.77	84.66	84.65	
13	84.87	85.30	85.83	85.08	85.55	85.77	85.24	85.06	84.90	84.76	84.65	84.65	
14	84.85	85.57	85.72	85.08	85.51	85.69	85.22	85.06	84.89	84.76	84.65	84.64	
15	84.84	85.33	85.70	85.14	85.56	86.19	85.17	85.05	84.88	84.76	84.65	84.64	
16	84.83	85.23	85.91	85.36	85.69	86.92	85.15	85.04	84.88	84.75	84.65	84.64	
17	84.82	85.39	86.39	85.46	85.66	86.62	85.13	85.02	84.86	84.74	84.65	84.64	
18	84.82	85.23	86.18	85.46	85.71	86.32	85.10	85.00	84.86	84.74	84.65	84.64	
19	84.81	85.17	85.87	85.51	85.86	86.28	85.09	84.99	84.85	84.73	84.65	84.64	
20	84.81	85.11	85.69	85.58	85.94	85.95	85.63	84.99	84.84	84.73	84.64	84.63	
21	84.80	85.07	85.57	85.60	85.86	85.81	86.28	84.98	84.83	84.73	84.64	84.63	
22	84.79	86.30	85.47	85.54	85.75	85.96	86.42	84.97	84.83	84.72	84.64	84.63	
23	84.79	85.90	85.38	85.51	85.66	86.40	86.78	84.99	84.83	84.72	84.64	84.63	
24	84.78	86.32	85.31	85.93	85.73	86.10	86.63	84.98	84.83	84.72	84.64	84.63	
25	84.78	86.18	85.26	86.47	85.68	85.91	86.21	84.96	84.82	84.71	84.64	84.63	
26	84.77	86.50	85.24	86.52	85.66	85.79	85.95	84.95	84.82	84.71	84.83	84.63	
27	84.80	86.77	85.28	86.66	85.71	85.66	85.76	84.95	84.81	84.70	84.78	84.63	
28	84.84	86.31	85.38	86.61	85.75	85.56	85.64	84.94	84.81	84.69	84.76	84.63	
29	85.36	86.05	85.42	86.52	85.74	85.49	85.53	84.93	84.81	84.69		84.63	
30	85.06	85.88	85.33	86.39	85.89	85.67	85.45	84.92	84.81	84.69		84.63	
31		85.77		86.82	85.87		85.39		84.81	84.69		84.63	
Mean	84.91	85.55	85.66	85.58	85.89	85.96	85.62	85.06	84.87	84.75	84.67	84.65	
Max	85.50	86.77	86.39	86.82	86.58	86.92	86.78	85.34	84.95	84.81	84.83	84.73	86.92
Min	84.72	84.98	85.24	85.07	85.51	85.49	85.09	84.92	84.81	84.69	84.64	84.63	84.63

Annual Max Momentary Gage Height 87.82 m. (MSL.) , at 03.00 Hours , on Oct 23 , 2018

Zero Gage at Bottom Elevation 84.20 m. (MSL.) , River Bed 84.79 m. (MSL.)

Left Bank Elevation 90.33 m. (MSL.) ,

Right Bank Elevation 90.23 m. (MSL.) , Drainage Are 518 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.04	0.73	5.19	3.04	15.92	9.16	4.65	2.63	0.49	0.23	0.00	0.06		
2	0.14	0.84	11.84	2.29	12.11	8.32	9.76	2.35	0.45	0.23	0.00	0.04		
3	0.25	2.16	7.05	1.90	9.88	6.94	5.93	2.09	0.43	0.20	0.00	0.02		
4	0.18	2.90	4.92	1.60	10.52	6.12	4.57	1.90	0.43	0.18	0.00	0.00		
5	3.80	3.57	3.89	1.35	11.30	6.83	3.72	1.65	0.43	0.18	0.00	0.00		
6	3.80	4.83	3.34	1.20	16.88	6.83	3.89	1.50	0.43	0.20	0.00	0.00		
7	1.40	3.19	4.74	1.20	15.14	5.74	4.48	1.35	0.40	0.23	0.00	0.00		
8	0.96	2.03	3.72	1.16	11.57	4.74	3.57	1.25	0.45	0.20	0.00	0.00		
9	0.73	1.45	4.83	1.08	8.80	4.48	3.12	1.25	0.63	0.18	0.00	0.00		
10	0.59	1.12	8.80	1.20	7.05	13.07	2.76	1.35	0.56	0.16	0.00	0.00		
11	0.45	0.92	7.60	1.20	5.93	11.04	2.83	1.25	0.52	0.16	0.00	0.00		
12	0.40	1.45	7.49	1.12	5.01	8.20	2.29	1.16	0.49	0.14	0.00	0.00		
13	0.38	2.35	6.83	1.12	4.23	6.22	1.96	1.04	0.45	0.12	0.00	0.00		
14	0.33	4.40	5.74	1.12	3.89	5.46	1.83	1.04	0.43	0.12	0.00	0.00		
15	0.30	2.56	5.55	1.40	4.31	11.17	1.55	1.00	0.40	0.12	0.00	0.00		
16	0.28	1.90	7.72	2.76	5.46	23.10	1.45	0.96	0.40	0.10	0.00	0.00		
17	0.25	2.97	13.91	3.50	5.19	17.54	1.35	0.88	0.35	0.08	0.00	0.00		
18	0.25	1.90	11.04	3.50	5.65	12.93	1.20	0.80	0.35	0.08	0.00	0.00		
19	0.23	1.55	7.27	3.89	7.16	12.38	1.16	0.77	0.33	0.06	0.00	0.00		
20	0.23	1.25	5.46	4.48	8.08	8.20	4.92	0.77	0.30	0.06	0.00	0.00		
21	0.20	1.08	4.40	4.65	7.16	6.61	12.38	0.73	0.28	0.06	0.00	0.00		
22	0.18	12.65	3.57	4.14	6.03	8.32	14.36	0.70	0.28	0.04	0.00	0.00		
23	0.18	7.60	2.90	3.89	5.19	14.05	20.42	0.77	0.28	0.04	0.00	0.00		
24	0.16	12.93	2.42	7.96	5.84	10.00	17.71	0.73	0.28	0.04	0.00	0.00		
25	0.16	11.04	2.09	15.14	5.37	7.72	11.44	0.66	0.25	0.02	0.00	0.00		
26	0.14	15.60	1.96	15.92	5.19	6.41	8.20	0.63	0.25	0.02	0.28	0.00		
27	0.20	20.23	2.22	18.22	5.65	5.19	6.12	0.63	0.23	0.00	0.16	0.00		
28	0.30	12.79	2.90	17.37	6.03	4.31	5.01	0.59	0.23	0.00	0.12	0.00		
29	2.76	9.40	3.19	15.92	5.93	3.72	4.06	0.56	0.23	0.00		0.00		
30	1.04	7.38	2.56	13.91	7.49	5.28	3.42	0.52	0.23	0.00		0.00		
31		6.22		21.18	7.27		2.97		0.23	0.00		0.00		
Total	20.31	160.99	165.14	178.41	241.23	260.08	173.08	33.51	11.49	3.25	0.56	0.12	1248.17	CMSDAY
Mean	0.68	5.19	5.50	5.76	7.78	8.67	5.58	1.12	0.37	0.10	0.02	0.00	3.42	CMS
Max	3.80	20.23	13.91	21.18	16.88	23.10	20.42	2.63	0.63	0.23	0.28	0.06	23.10	CMS
Min	0.04	0.73	1.96	1.08	3.89	3.72	1.16	0.52	0.23	0.00	0.00	0.00	0.00	CMS
Runoff	1.75	13.91	14.27	15.41	20.84	22.47	14.95	2.90	0.99	0.28	0.05	0.01	107.84	MCM

Momentary Peak 44.04 CMS. at 87.82 m. (MSL.) at 03.00 Hours , on Oct 23 , 2018

Runoff Yield 6.60 Liters/Second/Square KM. Momentary Peak Yield 85.02 Liters/Second/Square KM.

WATER YEAR : 2018

MAE KLONG RIVER BASIN

Khwae Yai River at Ban Nong Bua , Kanchanaburi (K.35A)

Lat 14 - 03 - 22 N Long 99 - 27 - 32 E

Location : on left bank at Ban Nong Bua.

Ban Nong Bua **Amphoe** Mueang **Changwat** Kanchanaburi

Drainge Area	14,444 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+21.500 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank about 3 meters from the third staff gage. **Elevation** +26.975 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	1984 to date
Rating Operation	
Period of Rating	1984 - 1985 , 1987 to date
Rated by Flot	-
Rated by Current Meter	1984 - 1985 , 1987 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Flow regulated by Sri Nakarindra Dam. Stage-discharge relation defined by 22 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

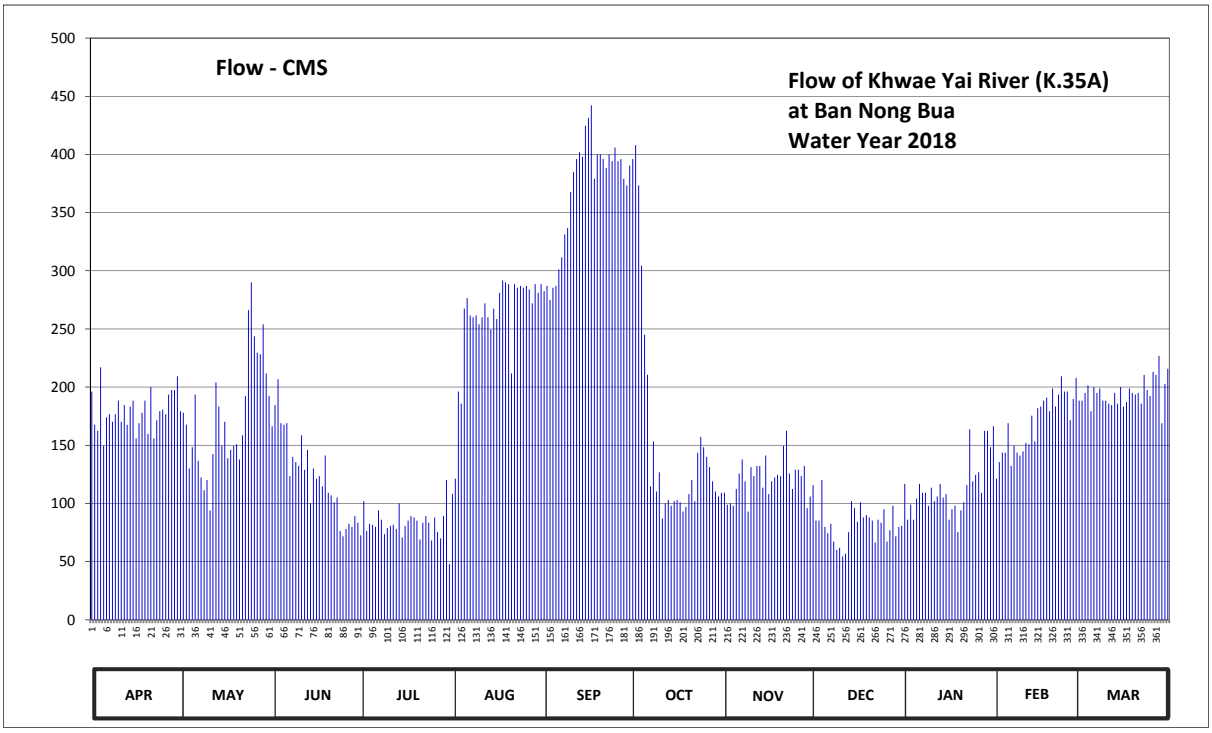
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	25.54	25.41	25.31	24.44	24.81	26.15	26.79	24.82	24.88	24.89	24.93	25.48	
2	25.32	25.40	25.45	24.75	24.93	26.18	26.85	24.72	24.58	24.59	25.06	25.48	
3	25.28	25.32	25.62	24.48	25.54	26.10	26.67	24.73	24.58	24.72	25.13	25.53	
4	25.70	25.01	25.33	24.55	25.46	26.17	26.29	24.71	24.92	24.59	25.13	25.58	
5	25.18	25.17	25.32	24.54	26.05	26.18	25.90	24.85	24.52	24.77	25.33	25.41	
6	25.37	25.52	25.33	24.52	26.11	26.27	25.65	24.97	24.46	24.89	25.03	25.57	
7	25.39	25.07	24.95	24.67	26.01	26.33	24.87	25.08	24.55	24.82	25.18	25.53	
8	25.34	24.94	25.10	24.59	26.00	26.44	25.21	24.91	24.38	24.82	25.13	25.56	
9	25.39	24.84	25.06	24.45	26.01	26.47	24.83	24.66	24.30	24.71	25.11	25.48	
10	25.48	24.92	25.03	24.51	25.96	26.64	24.98	25.02	24.32	24.86	25.14	25.48	
11	25.34	24.67	25.25	24.53	26.00	26.73	24.60	24.95	24.23	24.75	25.20	25.46	
12	25.45	25.12	25.00	24.54	26.08	26.79	24.73	25.03	24.26	24.79	25.19	25.45	
13	25.32	25.60	25.15	24.50	26.00	26.82	24.76	25.03	24.47	24.89	25.38	25.53	
14	25.44	25.44	24.73	24.73	25.93	26.80	24.71	24.86	24.75	24.78	25.21	25.46	
15	25.48	25.18	25.01	24.42	26.05	26.93	24.75	25.11	24.69	24.81	25.43	25.57	
16	25.23	25.34	24.93	24.53	25.99	26.96	24.76	24.81	24.57	24.59	25.44	25.44	
17	25.33	25.09	24.95	24.58	26.14	27.01	24.74	24.91	24.74	24.68	25.48	25.47	
18	25.40	25.15	24.87	24.62	26.21	26.70	24.66	24.94	24.61	24.71	25.50	25.56	
19	25.48	25.18	25.11	24.61	26.20	26.81	24.70	24.96	24.63	24.47	25.41	25.53	
20	25.26	25.19	24.82	24.58	26.19	26.81	24.81	24.95	24.61	24.67	25.56	25.52	
21	25.57	25.08	24.80	24.40	25.66	26.79	24.92	25.18	24.58	24.74	25.44	25.53	
22	25.23	25.25	24.74	24.56	26.19	26.75	24.75	25.28	24.37	24.88	25.52	25.46	
23	25.35	25.51	24.78	24.62	26.17	26.81	25.13	24.97	24.59	25.29	25.64	25.65	
24	25.41	26.04	24.48	24.56	26.18	26.78	25.24	24.85	24.56	24.91	25.54	25.55	
25	25.42	26.20	24.43	24.39	26.17	26.84	25.17	25.00	24.68	24.96	25.54	25.51	
26	25.39	25.89	24.50	24.61	26.18	26.78	25.10	25.00	24.38	24.98	25.35	25.67	
27	25.52	25.79	24.55	24.47	26.16	26.79	25.02	24.95	24.49	24.82	25.49	25.65	
28	25.55	25.78	24.52	24.41	26.08	26.70	24.91	25.03	24.71	25.28	25.63	25.77	
29	25.55	25.96	24.62	24.62	26.19	26.67	24.83	24.69	24.43	25.28		25.33	
30	25.64	25.66	24.56	24.92	26.14	26.76	24.79	24.79	24.52	25.17		25.59	
31		25.51		24.14	26.19		24.82		24.53	25.31		25.69	
Mean	25.41	25.36	24.94	24.54	25.97	26.63	25.16	24.93	24.54	24.85	25.33	25.53	
Max	25.70	26.20	25.62	24.92	26.21	27.01	26.85	25.28	24.92	25.31	25.64	25.77	27.01
Min	25.18	24.67	24.43	24.14	24.81	26.10	24.60	24.66	24.23	24.47	24.93	25.33	24.14

Annual Max Momentary Gage Height 27.09 m. (MSL.) , at 22.00 Hours , on Sep 15 , 2018

Zero Gage at Bottom Elevation 21.50 m. (MSL.) , River Bed 22.61 m. (MSL.)

Left Bank Elevation 31.16 m. (MSL.) ,

Right Bank Elevation 30.90 m. (MSL.) , Drainage Are 14,444 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	196.20	179.30	166.30	72.60	108.10	282.50	396.10	109.20	115.80	116.90	121.30	188.40		
2	167.60	178.00	184.50	102.00	121.30	287.00	408.00	99.00	85.20	86.10	135.60	188.40		
3	162.40	167.60	206.60	76.20	196.20	275.00	373.30	100.00	85.20	99.00	143.60	194.90		
4	217.00	130.10	168.90	82.50	185.80	285.50	304.40	98.00	120.20	86.10	143.60	201.40		
5	149.60	148.40	167.60	81.60	267.50	287.00	245.00	112.50	79.80	104.00	168.90	179.30		
6	174.10	193.60	168.90	79.80	276.50	301.20	210.50	125.70	74.40	116.90	132.30	200.10		
7	176.70	136.70	123.50	94.00	261.50	311.40	114.70	137.80	82.50	109.20	149.60	194.90		
8	170.20	122.40	140.00	86.10	260.00	331.20	153.30	119.10	67.20	109.20	143.60	198.80		
9	176.70	111.40	135.60	73.50	261.50	336.60	110.30	93.00	60.00	98.00	141.20	188.40		
10	188.40	120.20	132.30	78.90	254.00	367.60	126.80	131.20	61.80	113.60	144.80	188.40		
11	170.20	94.00	158.50	80.70	260.00	384.70	87.00	123.50	54.40	102.00	152.00	185.80		
12	184.50	142.40	129.00	81.60	272.00	396.10	100.00	132.30	56.80	106.00	150.80	184.50		
13	167.60	204.00	146.00	78.00	260.00	402.00	103.00	132.30	75.30	116.90	175.40	194.90		
14	183.20	183.20	100.00	100.00	249.50	398.00	98.00	113.60	102.00	105.00	153.30	185.80		
15	188.40	149.60	130.10	70.80	267.50	424.60	102.00	141.20	96.00	108.10	181.90	200.10		
16	155.90	170.20	121.30	80.70	258.50	431.20	103.00	108.10	84.30	86.10	183.20	183.20		
17	168.90	138.90	123.50	85.20	281.00	442.20	101.00	119.10	101.00	95.00	188.40	187.10		
18	178.00	146.00	114.70	89.00	291.60	379.00	93.00	122.40	88.00	98.00	191.00	198.80		
19	188.40	149.60	141.20	88.00	290.00	400.00	97.00	124.60	90.00	75.30	179.30	194.90		
20	159.80	150.80	109.20	85.20	288.50	400.00	108.10	123.50	88.00	94.00	198.80	193.60		
21	200.10	137.80	107.00	69.00	211.80	396.10	120.20	149.60	85.20	101.00	183.20	194.90		
22	155.90	158.50	101.00	83.40	288.50	388.50	102.00	162.40	66.30	115.80	193.60	185.80		
23	171.50	192.30	105.00	89.00	285.50	400.00	143.60	125.70	86.10	163.70	209.20	210.50		
24	179.30	266.00	76.20	83.40	287.00	394.20	157.20	112.50	83.40	119.10	196.20	197.50		
25	180.60	290.00	71.70	68.10	285.50	406.00	148.40	129.00	95.00	124.60	196.20	192.30		
26	176.70	243.60	78.00	88.00	287.00	394.20	140.00	129.00	67.20	126.80	171.50	213.10		
27	193.60	229.60	82.50	75.30	284.00	396.10	131.20	123.50	77.10	109.20	189.70	210.50		
28	197.50	228.20	79.80	69.90	272.00	379.00	119.10	132.30	98.00	162.40	207.90	226.80		
29	197.50	254.00	89.00	89.00	288.50	373.30	110.30	96.00	71.70	162.40		168.90		
30	209.20	211.80	83.40	120.20	281.00	390.40	106.00	106.00	79.80	148.40		202.70		
31		192.3		47.80	288.50		109.20		80.70	166.30		215.70		
Total	5385.70	5420.50	3741.30	2549.50	7970.30	11040.60	4821.70	3632.10	2558.40	3525.10	4726.10	6050.40	61421.70	CMSDAY
Mean	179.52	174.85	124.71	82.24	257.11	368.02	155.54	121.07	82.53	113.71	168.79	195.17	168.28	CMS
Max	217.00	290.00	206.60	120.20	291.60	442.20	408.00	162.40	120.20	166.30	209.20	226.80	442.20	CMS
Min	149.60	94.00	71.70	47.80	108.10	275.00	87.00	93.00	54.40	75.30	121.30	168.90	47.80	CMS
Runoff	465.32	468.33	323.25	220.28	688.63	953.91	416.59	313.81	221.05	304.57	408.34	522.75	5306.83	MCM

Momentary Peak 459.80 CMS. at 27.09 m. (MSL.) at 22.00 Hours , on Sep 15 , 2018

Runoff Yield 11.65 Liters/Second/Square KM. Momentary Peak Yield 31.83 Liters/Second/Square KM.

WATER YEAR : 2018

MAE KLONG RIVER BASIN

Khwae Noi River at Ban Wang Yen , Kanchanaburi (K.37)

Lat 13 - 55 - 54 N Long 99 - 25 - 38 E

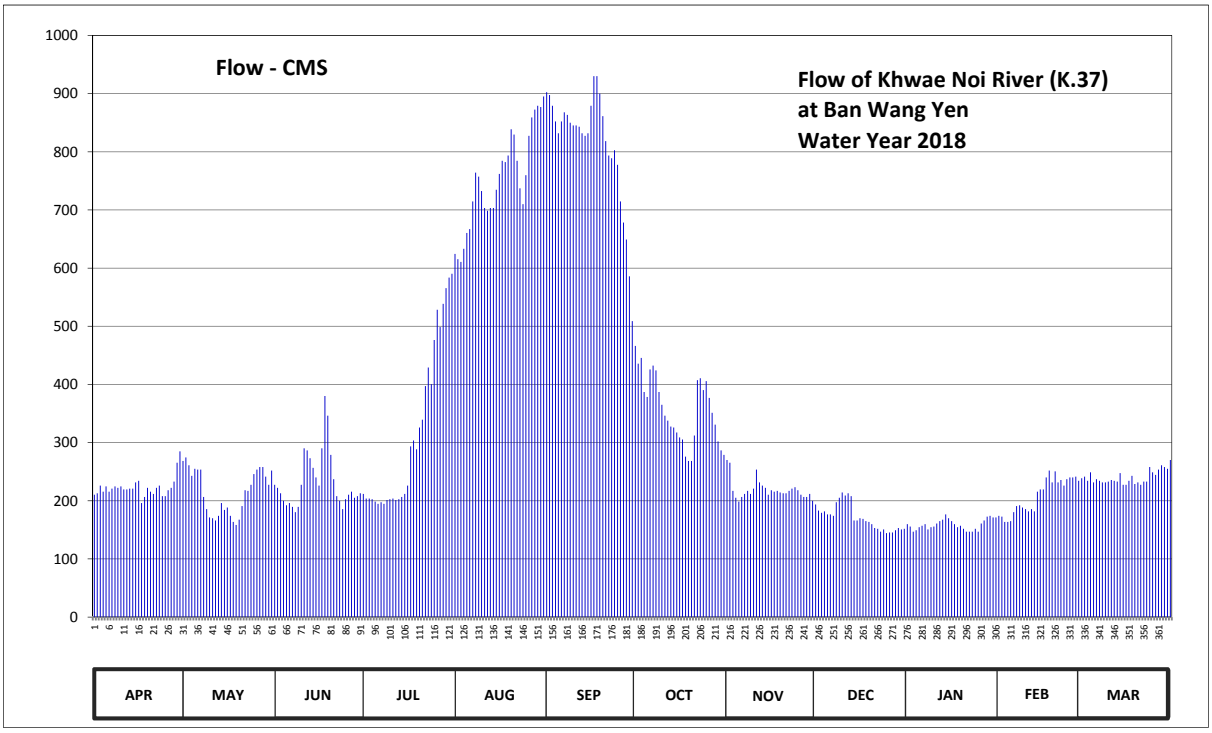
Location : on left bank at Ban Wang Yen.

	Ban Wang Yen	**Amphoe** Mueang	**Changwat** Kanchanaburi
Drainge Area	10,557 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+19.800 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank about 5 meters from the automatic gage building.	**Elevation**	+29.237 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings.		
Period of Available Gage Records	1984 to date		
Rating Operation			
Period of Rating	1984 to date		
Rated by Flot	-		
Rated by Current Meter	1984 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Flow regulated by Khao Laem Dam.		
	Stage-discharge relation defined by 29 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	24.08	24.49	24.21	24.09	26.40	27.63	25.66	24.50	23.95	23.69	23.80	24.29	
2	24.10	24.53	24.17	24.03	26.36	27.61	25.49	24.47	23.87	23.66	23.79	24.31	
3	24.20	24.44	24.10	24.03	26.34	27.53	25.55	24.13	23.84	23.59	23.72	24.26	
4	24.12	24.32	24.00	24.02	26.44	27.41	25.20	24.04	23.86	23.61	23.72	24.36	
5	24.19	24.40	23.94	23.99	26.56	27.32	25.15	23.99	23.82	23.65	23.73	24.24	
6	24.12	24.39	23.97	23.96	26.59	27.41	25.43	24.05	23.82	23.67	23.85	24.28	
7	24.16	24.39	23.92	23.98	26.80	27.48	25.47	24.09	23.80	23.69	23.93	24.26	
8	24.19	24.05	23.85	23.96	27.02	27.46	25.42	24.13	23.98	23.62	23.94	24.24	
9	24.17	23.89	23.92	24.01	26.99	27.40	25.20	24.09	24.04	23.65	23.91	24.24	
10	24.19	23.78	24.21	24.02	26.88	27.38	25.07	24.16	24.11	23.66	23.89	24.25	
11	24.15	23.77	24.63	24.03	26.75	27.38	24.96	24.39	24.07	23.70	23.86	24.27	
12	24.15	23.74	24.61	24.01	26.73	27.37	24.91	24.24	24.10	23.73	23.89	24.26	
13	24.16	23.80	24.52	24.02	26.75	27.32	24.85	24.20	24.06	23.75	23.86	24.25	
14	24.16	23.97	24.41	24.05	26.75	27.30	24.84	24.17	23.74	23.82	24.12	24.35	
15	24.24	23.88	24.30	24.09	26.89	27.32	24.79	24.08	23.74	23.77	24.15	24.21	
16	24.26	23.91	24.20	24.20	27.01	27.53	24.74	24.14	23.77	23.73	24.15	24.21	
17	23.97	23.80	24.63	24.65	27.11	27.74	24.72	24.12	23.76	23.69	24.30	24.26	
18	24.05	23.72	25.16	24.71	27.10	27.74	24.54	24.13	23.73	23.65	24.38	24.32	
19	24.17	23.68	24.96	24.62	27.15	27.62	24.49	24.11	23.72	23.67	24.24	24.22	
20	24.12	23.75	24.56	24.84	27.35	27.45	24.49	24.10	23.69	23.63	24.37	24.24	
21	24.09	23.93	24.28	24.92	27.31	27.26	24.76	24.10	23.64	23.59	24.24	24.21	
22	24.17	24.14	24.06	25.26	27.11	27.15	25.32	24.13	23.63	23.59	24.27	24.25	
23	24.20	24.13	24.00	25.45	26.90	27.13	25.34	24.16	23.59	23.59	24.20	24.25	
24	24.06	24.21	23.89	25.28	26.78	27.19	25.22	24.18	23.62	23.63	24.28	24.42	
25	24.06	24.34	24.02	25.71	27.00	27.08	25.31	24.14	23.57	23.59	24.30	24.36	
26	24.14	24.39	24.08	25.97	27.30	26.80	25.14	24.08	23.58	23.70	24.30	24.33	
27	24.17	24.42	24.12	25.82	27.44	26.64	24.99	24.05	23.58	23.74	24.31	24.39	
28	24.25	24.42	24.04	26.02	27.50	26.51	24.87	24.05	23.61	23.79	24.26	24.44	
29	24.47	24.31	24.06	26.14	27.53	26.23	24.70	24.09	23.64	23.80		24.42	
30	24.60	24.21	24.10	26.22	27.52	25.87	24.61	24.00	23.62	23.78		24.40	
31		24.38		26.25	27.60		24.56		23.63	23.78		24.50	
Mean	24.17	24.12	24.23	24.72	26.97	27.24	25.03	24.14	23.78	23.68	24.06	24.30	
Max	24.60	24.53	25.16	26.25	27.60	27.74	25.66	24.50	24.11	23.82	24.38	24.50	27.74
Min	23.97	23.68	23.85	23.96	26.34	25.87	24.49	23.99	23.57	23.59	23.72	24.21	23.57

Annual Max Momentary Gage Height	27.79	m. (MSL.) ,	at 24.00 Hours , on Sep 17 , 2018		
Zero Gage at Bottom Elevation	19.80	m. (MSL.) ,	River Bed	19.21	m. (MSL.)
Left Bank Elevation	32.48	m. (MSL.) ,			
Right Bank Elevation	32.38	m. (MSL.) ,	Drainage Are	10,557	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	210.40	268.50	227.40	211.70	624.25	902.50	466.20	270.00	193.50	159.70	174.00	238.60		
2	213.00	274.50	222.10	203.90	615.23	897.50	435.67	265.50	183.10	155.80	172.70	241.50		
3	226.00	261.00	213.00	203.90	610.71	879.21	445.67	216.90	179.20	146.80	163.60	234.40		
4	215.60	243.00	200.00	202.60	633.28	852.13	387.00	205.20	181.80	149.30	163.60	249.00		
5	224.70	255.00	192.20	198.70	660.35	831.83	378.50	198.70	176.60	154.50	164.90	231.60		
6	215.60	253.50	196.10	194.80	667.12	852.13	425.67	206.50	176.60	157.10	180.50	237.20		
7	220.80	253.50	189.60	197.40	714.50	867.93	432.33	211.70	174.00	159.70	190.90	234.40		
8	224.70	206.50	180.50	194.80	764.14	863.41	424.00	216.90	197.40	150.60	192.20	231.60		
9	222.10	185.70	189.60	201.30	757.37	849.88	387.00	211.70	205.20	154.50	188.30	231.60		
10	224.70	171.40	227.40	202.60	732.55	845.36	364.90	220.80	214.30	155.80	185.70	233.00		
11	219.50	170.10	290.10	203.90	703.22	845.36	346.20	253.50	209.10	161.00	181.80	235.80		
12	219.50	166.20	286.70	201.30	698.71	843.11	337.70	231.60	213.00	164.90	185.70	234.40		
13	220.80	174.00	273.00	202.60	703.22	831.83	327.50	226.00	207.80	167.50	181.80	233.00		
14	220.80	196.10	256.50	206.50	703.22	827.31	325.80	222.10	166.20	176.60	215.60	247.50		
15	231.60	184.40	240.00	211.70	734.81	831.83	317.30	210.40	166.20	170.10	219.50	227.40		
16	234.40	188.30	226.00	226.00	761.88	879.21	308.80	218.20	170.10	164.90	219.50	227.40		
17	196.10	174.00	290.10	293.50	784.44	930.00	305.40	215.60	168.80	159.70	240.00	234.40		
18	206.50	163.60	380.20	303.70	782.19	930.00	276.00	216.90	164.90	154.50	252.00	243.00		
19	222.10	158.40	346.20	288.40	793.47	900.00	268.50	214.30	163.60	157.10	231.60	228.80		
20	215.60	167.50	279.00	325.80	838.59	861.16	268.50	213.00	159.70	151.90	250.50	231.60		
21	211.70	190.90	237.20	339.40	829.57	818.29	312.20	213.00	153.20	146.80	231.60	227.40		
22	222.10	218.20	207.80	397.20	784.44	793.47	407.33	216.90	151.90	146.80	235.80	233.00		
23	226.00	216.90	200.00	429.00	737.06	788.96	410.67	220.80	146.80	146.80	226.00	233.00		
24	207.80	227.40	185.70	400.60	709.99	802.49	390.40	223.40	150.60	151.90	237.20	258.00		
25	207.80	246.00	202.60	476.37	759.63	777.68	405.67	218.20	144.40	146.80	240.00	249.00		
26	218.20	253.50	210.40	528.30	827.31	714.50	376.80	210.40	145.60	161.00	240.00	244.50		
27	222.10	258.00	215.60	498.73	858.90	678.40	351.30	206.50	145.60	166.20	241.50	253.50		
28	233.00	258.00	205.20	538.51	872.44	649.07	330.90	206.50	149.30	172.70	234.40	261.00		
29	265.50	241.50	207.80	565.59	879.21	585.89	302.00	211.70	153.20	174.00		258.00		
30	285.00	227.40	213.00	583.64	876.95	508.90	286.70	200.00	150.60	171.40		255.00		
31		252.00		590.41	895.00		279.00		151.90	171.40		270.00		
Total	6683.70	6705.00	6991.00	9822.85	23313.75	24439.34	11081.61	6572.90	5314.20	4927.80	5840.90	7448.60	119141.65	CMSDAY
Mean	222.79	216.29	233.03	316.87	752.06	814.64	357.47	219.10	171.43	158.96	208.60	240.28	326.42	CMS
Max	285.00	274.50	380.20	590.41	895.00	930.00	466.20	270.00	214.30	176.60	252.00	270.00	930.00	CMS
Min	196.10	158.40	180.50	194.80	610.71	508.90	268.50	198.70	144.40	146.80	163.60	227.40	144.40	CMS
Runoff	577.47	579.31	604.02	848.69	2014.31	2111.56	957.45	567.90	459.15	425.76	504.65	643.56	10293.84	MCM

Momentary Peak 942.50 CMS. at 27.79 m. (MSL.) at 24.00 Hours , on Sep 17 , 2018

Runoff Yield 30.92 Liters/Second/Square KM. Momentary Peak Yield 89.28 Liters/Second/Square KM.

WATER YEAR : 2018

MAE KLONG RIVER BASIN

Huai Lin Thin at Ban Nong Bang , Kanchanaburi (K.38A)

Lat 14 - 34 - 28 N Long 98 - 49 - 07 E

Location : on left bank at KM. 95+700 on Kanchanaburi - Thong Pha Phum Highway.

Ban Nong Bang **Amphoe** Thong Pha Phum **Changwat** Kanchanaburi

Drainge Area	122 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+90.000 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank at the abutment of the bridge. **Elevation** +95.432 m. (MSL.)
Gage Reading Frequency	5-time daily reading at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic mean of 5 readings.
Period of Available Gage Records	2001 to date
Rating Operation	
Period of Rating	2001 to date
Rated by Flot	-
Rated by Current Meter	2001 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Stage-discharge relation defined by 28 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

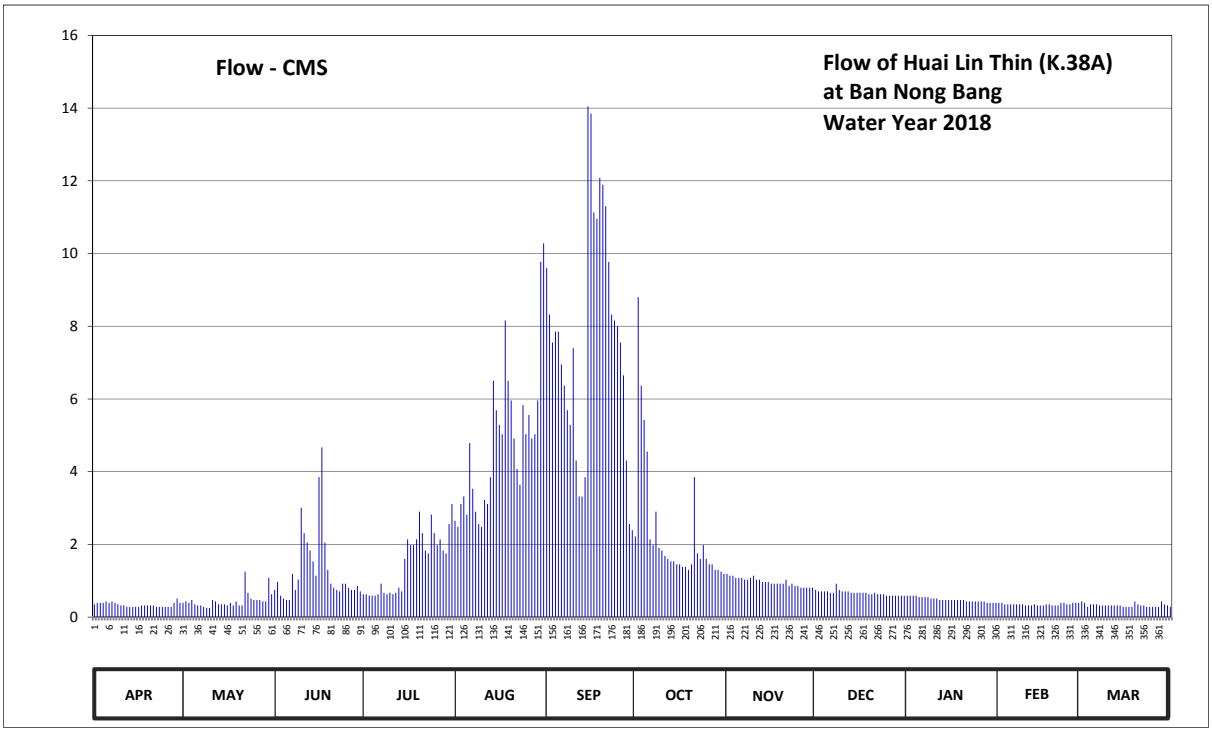
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	90.60	90.61	90.70	90.67	90.97	91.50	90.92	90.78	90.70	90.66	90.61	90.62	
2	90.61	90.62	90.74	90.67	90.95	91.42	91.45	90.77	90.69	90.66	90.61	90.61	
3	90.61	90.61	90.66	90.66	91.02	91.37	91.29	90.77	90.69	90.66	90.60	90.58	
4	90.61	90.63	90.64	90.66	91.04	91.39	91.22	90.76	90.69	90.66	90.60	90.60	
5	90.62	90.60	90.63	90.66	90.99	91.39	91.15	90.76	90.69	90.65	90.60	90.60	
6	90.61	90.59	90.63	90.67	91.17	91.33	90.91	90.76	90.68	90.65	90.60	90.60	
7	90.62	90.59	90.78	90.73	91.06	91.29	90.89	90.75	90.68	90.65	90.60	90.59	
8	90.61	90.58	90.70	90.68	91.00	91.24	91.00	90.75	90.73	90.65	90.60	90.59	
9	90.60	90.57	90.75	90.67	90.96	91.21	90.88	90.76	90.70	90.64	90.60	90.59	
10	90.59	90.57	91.01	90.68	90.95	91.36	90.87	90.77	90.69	90.64	90.59	90.59	
11	90.59	90.63	90.93	90.67	91.03	91.13	90.85	90.75	90.69	90.64	90.59	90.59	
12	90.58	90.62	90.90	90.68	91.02	91.04	90.84	90.75	90.69	90.63	90.59	90.59	
13	90.58	90.60	90.87	90.71	91.09	91.04	90.83	90.74	90.68	90.63	90.60	90.59	
14	90.58	90.60	90.83	90.69	91.30	91.09	90.83	90.74	90.68	90.63	90.59	90.59	
15	90.58	90.60	90.77	90.84	91.24	91.74	90.82	90.74	90.68	90.63	90.59	90.58	
16	90.58	90.59	91.09	90.91	91.21	91.73	90.82	90.73	90.68	90.63	90.59	90.58	
17	90.59	90.61	91.16	90.89	91.19	91.59	90.81	90.73	90.68	90.63	90.60	90.58	
18	90.59	90.59	90.90	90.89	91.41	91.58	90.81	90.73	90.68	90.63	90.60	90.58	
19	90.59	90.62	90.80	90.91	91.30	91.64	90.80	90.73	90.67	90.63	90.59	90.62	
20	90.59	90.59	90.73	91.00	91.26	91.63	90.82	90.73	90.67	90.63	90.59	90.60	
21	90.59	90.59	90.71	90.93	91.18	91.60	91.09	90.75	90.68	90.62	90.59	90.59	
22	90.58	90.79	90.70	90.87	91.11	91.51	90.86	90.72	90.67	90.62	90.61	90.59	
23	90.58	90.68	90.69	90.86	91.07	91.42	90.84	90.73	90.67	90.62	90.61	90.58	
24	90.58	90.64	90.73	90.99	91.25	91.41	90.89	90.72	90.67	90.62	90.60	90.58	
25	90.58	90.63	90.73	90.93	91.19	91.40	90.84	90.72	90.66	90.62	90.60	90.58	
26	90.58	90.63	90.71	90.89	91.23	91.37	90.82	90.71	90.66	90.62	90.61	90.58	
27	90.58	90.63	90.70	90.91	91.18	91.31	90.82	90.71	90.66	90.62	90.61	90.58	
28	90.61	90.62	90.70	90.87	91.19	91.13	90.80	90.71	90.66	90.61	90.61	90.62	
29	90.64	90.62	90.72	90.86	91.26	90.96	90.80	90.71	90.66	90.61		90.60	
30	90.61	90.76	90.69	90.96	91.51	90.94	90.79	90.71	90.66	90.61		90.59	
31		90.67		91.02	91.54		90.78		90.66	90.61		90.58	
Mean	90.60	90.62	90.78	90.81	91.16	91.36	90.91	90.74	90.68	90.63	90.60	90.59	
Max	90.64	90.79	91.16	91.02	91.54	91.74	91.45	90.78	90.73	90.66	90.61	90.62	91.74
Min	90.58	90.57	90.63	90.66	90.95	90.94	90.78	90.71	90.66	90.61	90.59	90.58	90.57

Annual Max Momentary Gage Height 92.05 m. (MSL.) , at 09.00 Hours , on Sep 15 , 2018

Zero Gage at Bottom Elevation 90.00 m. (MSL.) , River Bed 90.34 m. (MSL.)

Left Bank Elevation 95.43 m. (MSL.) ,

Right Bank Elevation 95.43 m. (MSL.) , Drainage Are 122 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.35	0.39	0.75	0.63	2.65	9.60	2.22	1.19	0.75	0.59	0.39	0.43		
2	0.39	0.43	0.97	0.63	2.48	8.32	8.80	1.14	0.71	0.59	0.39	0.39		
3	0.39	0.39	0.59	0.59	3.11	7.55	6.37	1.14	0.71	0.59	0.35	0.28		
4	0.39	0.47	0.51	0.59	3.32	7.85	5.42	1.08	0.71	0.59	0.35	0.35		
5	0.43	0.35	0.47	0.59	2.82	7.85	4.55	1.08	0.71	0.55	0.35	0.35		
6	0.39	0.32	0.47	0.63	4.79	6.95	2.14	1.08	0.67	0.55	0.35	0.35		
7	0.43	0.32	1.19	0.92	3.53	6.37	1.98	1.03	0.67	0.55	0.35	0.32		
8	0.39	0.28	0.75	0.67	2.90	5.69	2.90	1.03	0.92	0.55	0.35	0.32		
9	0.35	0.25	1.03	0.63	2.56	5.29	1.90	1.08	0.75	0.51	0.35	0.32		
10	0.32	0.25	3.01	0.67	2.48	7.40	1.83	1.14	0.71	0.51	0.32	0.32		
11	0.32	0.47	2.31	0.63	3.22	4.31	1.68	1.03	0.71	0.51	0.32	0.32		
12	0.28	0.43	2.05	0.67	3.11	3.32	1.60	1.03	0.71	0.47	0.32	0.32		
13	0.28	0.35	1.83	0.81	3.85	3.32	1.53	0.97	0.67	0.47	0.35	0.32		
14	0.28	0.35	1.53	0.71	6.50	3.85	1.53	0.97	0.67	0.47	0.32	0.32		
15	0.28	0.35	1.14	1.60	5.69	14.05	1.45	0.97	0.67	0.47	0.32	0.28		
16	0.28	0.32	3.85	2.14	5.29	13.85	1.45	0.92	0.67	0.47	0.32	0.28		
17	0.32	0.39	4.67	1.98	5.03	11.13	1.38	0.92	0.67	0.47	0.35	0.28		
18	0.32	0.32	2.05	1.98	8.16	10.96	1.38	0.92	0.67	0.47	0.35	0.28		
19	0.32	0.43	1.30	2.14	6.50	12.08	1.30	0.92	0.63	0.47	0.32	0.43		
20	0.32	0.32	0.92	2.90	5.96	11.89	1.45	0.92	0.63	0.47	0.32	0.35		
21	0.32	0.32	0.81	2.31	4.91	11.30	3.85	1.03	0.67	0.43	0.32	0.32		
22	0.28	1.25	0.75	1.83	4.07	9.77	1.75	0.86	0.63	0.43	0.39	0.32		
23	0.28	0.67	0.71	1.75	3.64	8.32	1.60	0.92	0.63	0.43	0.39	0.28		
24	0.28	0.51	0.92	2.82	5.83	8.16	1.98	0.86	0.63	0.43	0.35	0.28		
25	0.28	0.47	0.92	2.31	5.03	8.00	1.60	0.86	0.59	0.43	0.35	0.28		
26	0.28	0.47	0.81	1.98	5.56	7.55	1.45	0.81	0.59	0.43	0.39	0.28		
27	0.28	0.47	0.75	2.14	4.91	6.65	1.45	0.81	0.59	0.43	0.39	0.28		
28	0.39	0.43	0.75	1.83	5.03	4.31	1.30	0.81	0.59	0.39	0.39	0.43		
29	0.51	0.43	0.86	1.75	5.96	2.56	1.30	0.81	0.59	0.39		0.35		
30	0.39	1.08	0.71	2.56	9.77	2.39	1.25	0.81	0.59	0.39		0.32		
31		0.63		3.11	10.28		1.19		0.59	0.39		0.28		
Total	10.12	13.91	39.38	46.50	148.94	230.64	71.58	29.14	20.70	14.89	9.81	10.03	645.64	CMSDAY
Mean	0.34	0.45	1.31	1.50	4.80	7.69	2.31	0.97	0.67	0.48	0.35	0.32	1.77	CMS
Max	0.51	1.25	4.67	3.11	10.28	14.05	8.80	1.19	0.92	0.59	0.39	0.43	14.05	CMS
Min	0.28	0.25	0.47	0.59	2.48	2.39	1.19	0.81	0.59	0.39	0.32	0.28	0.25	CMS
Runoff	0.87	1.20	3.40	4.02	12.87	19.93	6.18	2.52	1.79	1.29	0.85	0.87	55.78	MCM

Momentary Peak 20.60 CMS. at 92.05 m. (MSL.) at 09.00 Hours , on Sep 15 , 2018

Runoff Yield 14.50 Liters/Second/Square KM. Momentary Peak Yield 168.85 Liters/Second/Square KM.

WATER YEAR : 2018

MAE KLONG RIVER BASIN

Huai Ong Thi at Ban Ong Thi , Kanchanaburi (K.39)

Lat 14 - 42 - 21 N Long 98 - 40 - 19 E

Location : on right bank at KM. 121+600 on Kanchanaburi - Thong Pha Phum Highway.

Ban Ong Thi **Amphoe** Thong Pha Phum **Changwat** Kanchanaburi

Drainge Area	51 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+81.800 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On right bank about 16 meters from the third staff gage. **Elevation** +90.228 m. (MSL.)
Gage Reading Frequency	5-time daily reading at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic mean of 5 readings
Period of Available Gage Records	1984 to date
Rating Operation	
Period of Rating	1985 - 1990 , 1996 to date
Rated by Flot	-
Rated by Current Meter	1985 - 1990 , 1996 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Stage-discharge relation defined by 26 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

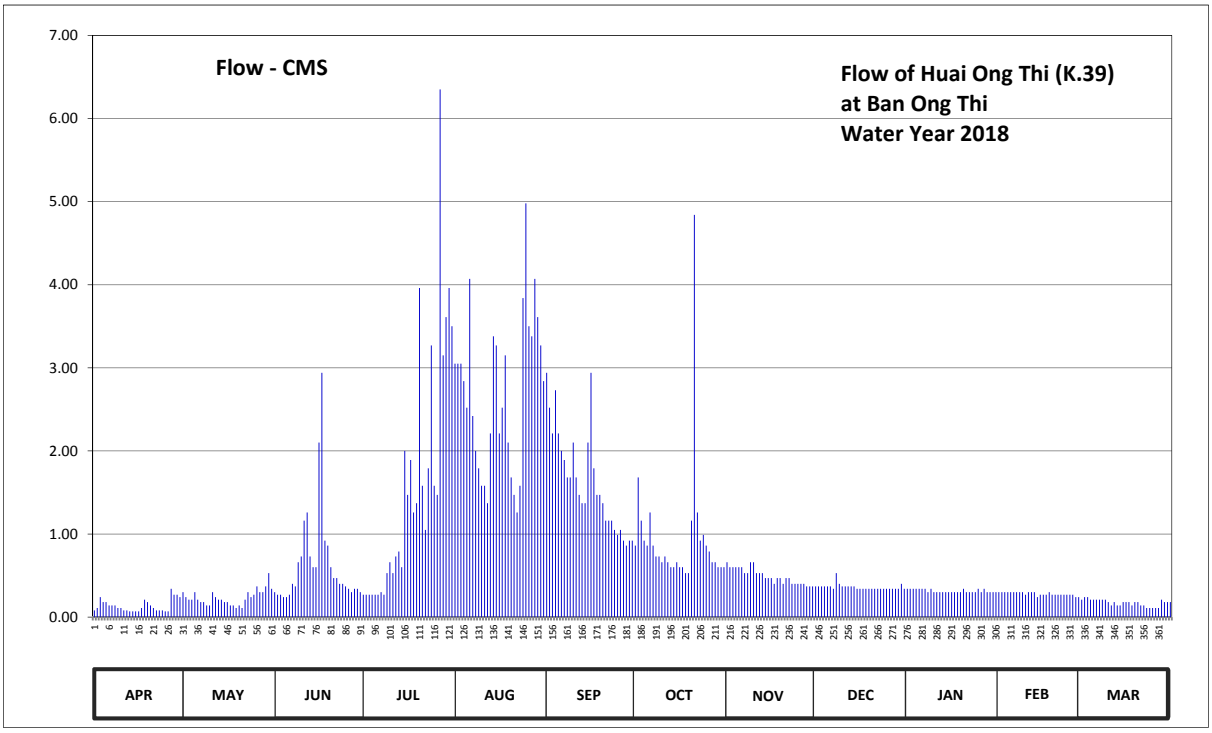
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	81.90	81.97	81.97	81.96	82.29	82.28	82.07	82.04	81.99	81.98	81.97	81.94	
2	81.91	81.95	81.96	81.96	82.29	82.24	82.16	82.03	81.99	81.98	81.97	81.95	
3	81.95	81.94	81.96	81.96	82.29	82.21	82.11	82.03	81.99	81.98	81.97	81.95	
4	81.93	81.94	81.95	81.96	82.27	82.26	82.08	82.03	81.99	81.98	81.97	81.94	
5	81.93	81.97	81.95	81.96	82.24	82.21	82.07	82.03	81.99	81.98	81.97	81.94	
6	81.92	81.94	81.96	81.96	82.38	82.19	82.12	82.03	81.99	81.98	81.97	81.94	
7	81.92	81.93	82.00	81.97	82.23	82.18	82.07	82.02	81.98	81.98	81.97	81.94	
8	81.92	81.93	81.99	81.96	82.19	82.16	82.05	82.02	82.02	81.97	81.97	81.94	
9	81.91	81.92	82.04	82.02	82.17	82.16	82.05	82.04	82.00	81.98	81.97	81.94	
10	81.91	81.92	82.05	82.04	82.15	82.20	82.04	82.04	81.99	81.97	81.96	81.93	
11	81.90	81.97	82.11	82.02	82.15	82.16	82.05	82.02	81.99	81.97	81.97	81.92	
12	81.90	81.95	82.12	82.05	82.13	82.14	82.04	82.02	81.99	81.97	81.97	81.93	
13	81.89	81.94	82.05	82.06	82.21	82.13	82.03	82.02	81.99	81.97	81.97	81.92	
14	81.89	81.94	82.03	82.03	82.32	82.13	82.03	82.01	81.99	81.97	81.95	81.92	
15	81.89	81.93	82.03	82.19	82.31	82.20	82.04	82.01	81.98	81.97	81.96	81.93	
16	81.89	81.93	82.20	82.14	82.21	82.28	82.03	82.01	81.98	81.97	81.96	81.93	
17	81.91	81.92	82.28	82.18	82.24	82.17	82.03	82.00	81.98	81.97	81.96	81.93	
18	81.94	81.92	82.08	82.12	82.30	82.14	82.02	82.01	81.98	81.97	81.97	81.92	
19	81.93	81.91	82.07	82.13	82.20	82.14	82.02	82.01	81.98	81.97	81.96	81.93	
20	81.92	81.92	82.03	82.37	82.16	82.13	82.11	82.00	81.98	81.98	81.96	81.93	
21	81.91	81.91	82.01	82.15	82.14	82.11	82.44	82.01	81.98	81.97	81.96	81.92	
22	81.90	81.94	82.01	82.10	82.12	82.11	82.12	82.01	81.98	81.97	81.96	81.92	
23	81.90	81.97	82.00	82.17	82.15	82.11	82.08	82.00	81.98	81.97	81.96	81.91	
24	81.90	81.95	82.00	82.31	82.36	82.10	82.09	82.00	81.98	81.97	81.96	81.91	
25	81.89	81.96	81.99	82.15	82.45	82.09	82.07	82.00	81.98	81.98	81.96	81.91	
26	81.89	81.99	81.98	82.14	82.33	82.10	82.06	82.00	81.98	81.97	81.96	81.91	
27	81.98	81.97	81.97	82.55	82.32	82.08	82.04	82.00	81.98	81.98	81.95	81.91	
28	81.96	81.97	81.98	82.30	82.38	82.07	82.04	81.99	81.98	81.97	81.95	81.94	
29	81.96	81.99	81.98	82.34	82.34	82.08	82.03	81.99	81.98	81.97		81.93	
30	81.95	82.02	81.97	82.37	82.31	82.08	82.03	81.99	82.00	81.97		81.93	
31		81.98		82.33	82.27		82.03		81.98	81.97		81.93	
Mean	81.92	81.95	82.02	82.13	82.25	82.15	82.07	82.01	81.99	81.97	81.96	81.93	
Max	81.98	82.02	82.28	82.55	82.45	82.28	82.44	82.04	82.02	81.98	81.97	81.95	82.55
Min	81.89	81.91	81.95	81.96	82.12	82.07	82.02	81.99	81.98	81.97	81.95	81.91	81.89

Annual Max Momentary Gage Height 82.94 m. (MSL.) , at 06.00 Hours , on Oct 21 , 2018

Zero Gage at Bottom Elevation 81.80 m. (MSL.) , River Bed 81.62 m. (MSL.)

Left Bank Elevation 90.31 m. (MSL.) ,

Right Bank Elevation 90.22 m. (MSL.) , Drainage Are 51 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.08	0.30	0.30	0.27	3.05	2.94	0.86	0.66	0.37	0.34	0.30	0.21		
2	0.11	0.24	0.27	0.27	3.05	2.52	1.68	0.60	0.37	0.34	0.30	0.24		
3	0.24	0.21	0.27	0.27	3.05	2.21	1.16	0.60	0.37	0.34	0.30	0.24		
4	0.18	0.21	0.24	0.27	2.84	2.73	0.92	0.60	0.37	0.34	0.30	0.21		
5	0.18	0.30	0.24	0.27	2.52	2.21	0.86	0.60	0.37	0.34	0.30	0.21		
6	0.14	0.21	0.27	0.27	4.07	2.00	1.26	0.60	0.37	0.34	0.30	0.21		
7	0.14	0.18	0.40	0.30	2.42	1.89	0.86	0.53	0.34	0.34	0.30	0.21		
8	0.14	0.18	0.37	0.27	2.00	1.68	0.73	0.53	0.53	0.30	0.30	0.21		
9	0.11	0.14	0.66	0.53	1.79	1.68	0.73	0.66	0.40	0.34	0.30	0.21		
10	0.11	0.14	0.73	0.66	1.58	2.10	0.66	0.66	0.37	0.30	0.27	0.18		
11	0.08	0.30	1.16	0.53	1.58	1.68	0.73	0.53	0.37	0.30	0.30	0.14		
12	0.08	0.24	1.26	0.73	1.37	1.47	0.66	0.53	0.37	0.30	0.30	0.18		
13	0.07	0.21	0.73	0.79	2.21	1.37	0.60	0.53	0.37	0.30	0.30	0.14		
14	0.07	0.21	0.60	0.60	3.38	1.37	0.60	0.47	0.37	0.30	0.24	0.14		
15	0.07	0.18	0.60	2.00	3.27	2.10	0.66	0.47	0.34	0.30	0.27	0.18		
16	0.07	0.18	2.10	1.47	2.21	2.94	0.60	0.47	0.34	0.30	0.27	0.18		
17	0.11	0.14	2.94	1.89	2.52	1.79	0.60	0.40	0.34	0.30	0.27	0.18		
18	0.21	0.14	0.92	1.26	3.15	1.47	0.53	0.47	0.34	0.30	0.30	0.14		
19	0.18	0.11	0.86	1.37	2.10	1.47	0.53	0.47	0.34	0.30	0.27	0.18		
20	0.14	0.14	0.60	3.96	1.68	1.37	1.16	0.40	0.34	0.34	0.27	0.18		
21	0.11	0.11	0.47	1.58	1.47	1.16	4.84	0.47	0.34	0.30	0.27	0.14		
22	0.08	0.21	0.47	1.05	1.26	1.16	1.26	0.47	0.34	0.30	0.27	0.14		
23	0.08	0.30	0.40	1.79	1.58	1.16	0.92	0.40	0.34	0.30	0.27	0.11		
24	0.08	0.24	0.40	3.27	3.84	1.05	0.99	0.40	0.34	0.30	0.27	0.11		
25	0.07	0.27	0.37	1.58	4.98	0.99	0.86	0.40	0.34	0.34	0.27	0.11		
26	0.07	0.37	0.34	1.47	3.50	1.05	0.79	0.40	0.34	0.30	0.27	0.11		
27	0.34	0.30	0.30	6.35	3.38	0.92	0.66	0.40	0.34	0.34	0.24	0.11		
28	0.27	0.30	0.34	3.15	4.07	0.86	0.66	0.37	0.34	0.30	0.24	0.21		
29	0.27	0.37	0.34	3.61	3.61	0.92	0.60	0.37	0.34	0.30		0.18		
30	0.24	0.53	0.30	3.96	3.27	0.92	0.60	0.37	0.40	0.30		0.18		
31		0.34		3.50	2.84		0.60		0.34	0.30		0.18		
Total	4.12	7.30	19.25	49.29	83.64	49.18	29.17	14.83	11.18	9.74	7.86	5.35	290.91	CMSDAY
Mean	0.14	0.24	0.64	1.59	2.70	1.64	0.94	0.49	0.36	0.31	0.28	0.17	0.80	CMS
Max	0.34	0.53	2.94	6.35	4.98	2.94	4.84	0.66	0.53	0.34	0.30	0.24	6.35	CMS
Min	0.07	0.11	0.24	0.27	1.26	0.86	0.53	0.37	0.34	0.30	0.24	0.11	0.07	CMS
Runoff	0.36	0.63	1.66	4.26	7.23	4.25	2.52	1.28	0.97	0.84	0.68	0.46	25.13	MCM

Momentary Peak 12.90 CMS. at 82.94 m. (MSL.) at 06.00 Hours , on Oct 21 , 2018

Runoff Yield 15.63 Liters/Second/Square KM. Momentary Peak Yield 252.94 Liters/Second/Square KM.

WATER YEAR : 2018

MAE KLONG RIVER BASIN

Huai Diso at Ban Hin Laem , Kanchanaburi (K.50)

Lat 14 - 38 - 39 N Long 98 - 42 - 04 E

Location : on right bank at the bridge on Kanchanaburi - Thong Pha Phum Highway from Tambon Tha Khanun.

Ban Hin Laem **Amphoe** Thong Pha Phum **Changwat** Kanchanaburi

Drainge Area	123 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+79.800 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank at the abutment of the bridge. **Elevation** +84.513 m. (MSL.)
Gage Reading Frequency	5-time daily reading at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic mean of 5 readings
Period of Available Gage Records	1986 to date
Rating Operation	
Period of Rating	1987 , 1996 to date
Rated by Flot	-
Rated by Current Meter	1987, 1996 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	Overbank flow starts at elevation + 81.830 m.(MSL.), records are channel flow only.
General Description	Records good. Stage-discharge relation defined by 27 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

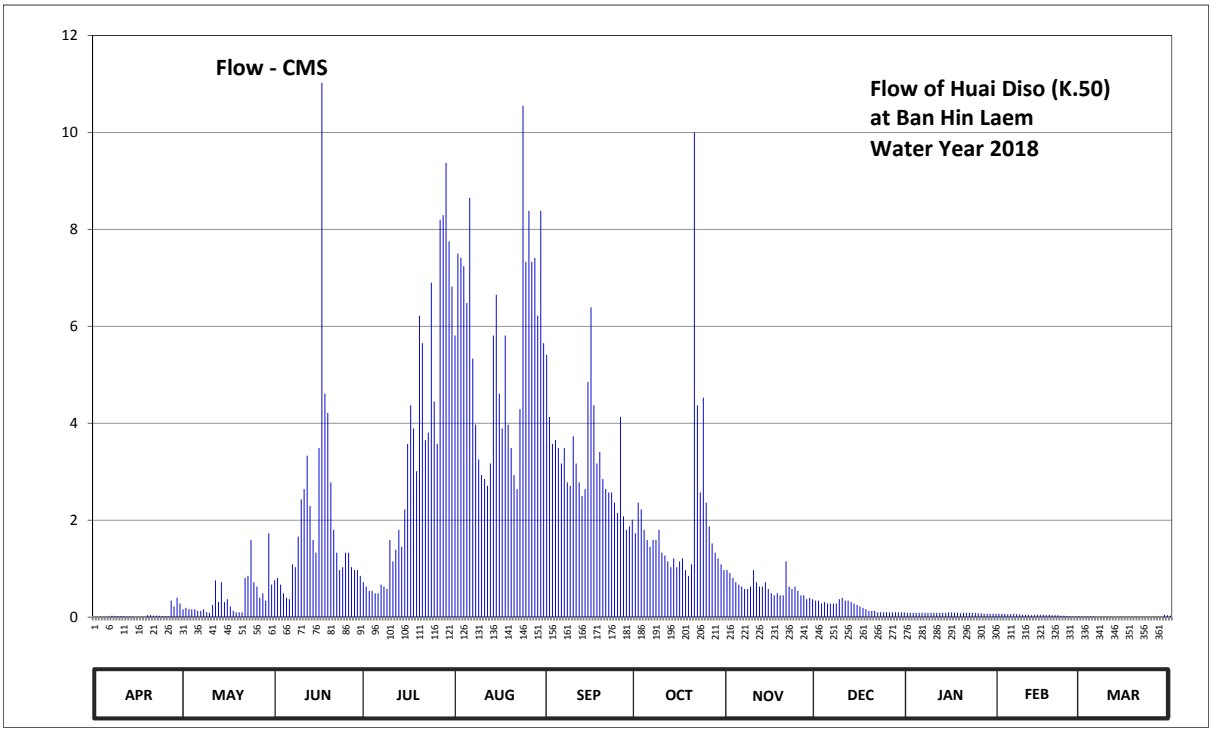
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	80.03	80.32	80.48	80.47	81.17	81.12	80.64	80.52	80.38	80.28	80.23	80.12	
2	80.03	80.33	80.49	80.45	81.37	80.96	80.73	80.51	80.38	80.28	80.23	80.11	
3	80.03	80.32	80.46	80.43	81.36	80.89	80.71	80.49	80.36	80.27	80.23	80.11	
4	80.03	80.32	80.42	80.43	81.34	80.90	80.65	80.47	80.37	80.27	80.22	80.11	
5	80.04	80.32	80.40	80.42	81.25	80.88	80.62	80.46	80.36	80.28	80.22	80.11	
6	80.11	80.31	80.39	80.42	81.50	80.84	80.60	80.45	80.36	80.28	80.23	80.10	
7	80.15	80.31	80.54	80.46	81.11	80.88	80.62	80.44	80.36	80.28	80.22	80.10	
8	80.14	80.32	80.53	80.45	80.94	80.79	80.62	80.44	80.36	80.28	80.21	80.10	
9	80.14	80.29	80.63	80.44	80.85	80.78	80.65	80.45	80.39	80.27	80.19	80.09	
10	80.14	80.27	80.74	80.62	80.81	80.91	80.58	80.52	80.40	80.27	80.19	80.09	
11	80.13	80.35	80.77	80.55	80.80	80.84	80.57	80.47	80.38	80.28	80.19	80.08	
12	80.12	80.48	80.86	80.59	80.78	80.79	80.55	80.45	80.38	80.27	80.18	80.08	
13	80.12	80.37	80.72	80.65	80.84	80.75	80.53	80.45	80.37	80.28	80.19	80.07	
14	80.11	80.47	80.62	80.60	81.17	80.77	80.56	80.47	80.36	80.27	80.19	80.07	
15	80.10	80.37	80.58	80.71	81.27	81.05	80.53	80.44	80.35	80.29	80.19	80.07	
16	80.08	80.39	80.88	80.89	81.02	81.24	80.55	80.42	80.34	80.29	80.19	80.07	
17	80.07	80.34	81.76	80.99	80.93	80.99	80.56	80.41	80.33	80.28	80.19	80.07	
18	80.10	80.31	81.02	80.93	81.17	80.84	80.52	80.42	80.32	80.28	80.20	80.07	
19	80.18	80.30	80.97	80.82	80.94	80.87	80.50	80.41	80.31	80.26	80.18	80.07	
20	80.17	80.29	80.79	81.22	80.88	80.80	80.54	80.41	80.31	80.28	80.18	80.07	
21	80.16	80.29	80.65	81.15	80.81	80.77	81.65	80.55	80.31	80.27	80.17	80.07	
22	80.15	80.49	80.58	80.90	80.77	80.76	80.99	80.45	80.30	80.27	80.15	80.07	
23	80.15	80.50	80.52	80.92	80.98	80.76	80.76	80.44	80.30	80.27	80.15	80.07	
24	80.14	80.62	80.53	81.30	81.71	80.73	81.01	80.45	80.30	80.27	80.14	80.07	
25	80.14	80.47	80.58	81.00	81.35	80.70	80.73	80.43	80.30	80.26	80.14	80.07	
26	80.13	80.45	80.58	80.89	81.47	80.96	80.66	80.41	80.29	80.26	80.12	80.07	
27	80.38	80.40	80.53	81.45	81.35	80.69	80.61	80.41	80.29	80.24	80.12	80.07	
28	80.34	80.42	80.52	81.46	81.36	80.65	80.58	80.39	80.29	80.24	80.13	80.07	
29	80.40	80.38	80.52	81.58	81.22	80.66	80.56	80.40	80.29	80.24		80.20	
30	80.36	80.64	80.50	81.40	81.47	80.68	80.54	80.39	80.30	80.23		80.17	
31		80.46		81.29	81.15		80.52		80.29	80.23		80.15	
Mean	80.15	80.38	80.65	80.83	81.13	80.84	80.66	80.45	80.34	80.27	80.18	80.09	
Max	80.40	80.64	81.76	81.58	81.71	81.24	81.65	80.55	80.40	80.29	80.23	80.20	81.76
Min	80.03	80.27	80.39	80.42	80.77	80.65	80.50	80.39	80.29	80.23	80.12	80.07	80.03

Annual Max Momentary Gage Height 81.99 m. (MSL.) , at 06.00 Hours , on Jun 17 , 2018

Zero Gage at Bottom Elevation 79.80 m. (MSL.) , River Bed 79.93 m. (MSL.)

Left Bank Elevation 81.82 m. (MSL.) ,

Right Bank Elevation 82.38 m. (MSL.) , Drainage Are 123 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.16	0.76	0.72	5.81	5.41	1.73	0.97	0.34	0.09	0.07	0.01		
2	0.00	0.19	0.81	0.63	7.50	4.13	2.36	0.91	0.34	0.09	0.07	0.01		
3	0.00	0.16	0.67	0.54	7.41	3.57	2.22	0.81	0.28	0.09	0.07	0.01		
4	0.00	0.16	0.49	0.54	7.24	3.65	1.80	0.72	0.31	0.09	0.06	0.01		
5	0.00	0.16	0.40	0.49	6.48	3.49	1.59	0.67	0.28	0.09	0.06	0.01		
6	0.01	0.13	0.37	0.49	8.65	3.17	1.45	0.63	0.28	0.09	0.07	0.00		
7	0.03	0.13	1.09	0.67	5.33	3.49	1.59	0.58	0.28	0.09	0.06	0.00		
8	0.02	0.16	1.03	0.63	3.97	2.78	1.59	0.58	0.28	0.09	0.06	0.00		
9	0.02	0.10	1.66	0.58	3.25	2.71	1.80	0.63	0.37	0.09	0.05	0.00		
10	0.02	0.09	2.43	1.59	2.93	3.73	1.33	0.97	0.40	0.09	0.05	0.00		
11	0.02	0.25	2.64	1.15	2.85	3.17	1.27	0.72	0.34	0.09	0.05	0.00		
12	0.01	0.76	3.33	1.39	2.71	2.78	1.15	0.63	0.34	0.09	0.04	0.00		
13	0.01	0.31	2.29	1.80	3.17	2.50	1.03	0.63	0.31	0.09	0.05	0.00		
14	0.01	0.72	1.59	1.45	5.81	2.64	1.21	0.72	0.28	0.09	0.05	0.00		
15	0.00	0.31	1.33	2.22	6.65	4.85	1.03	0.58	0.25	0.10	0.05	0.00		
16	0.00	0.37	3.49	3.57	4.61	6.39	1.15	0.49	0.22	0.10	0.05	0.00		
17	0.00	0.22	11.02	4.37	3.89	4.37	1.21	0.45	0.19	0.09	0.05	0.00		
18	0.00	0.13	4.61	3.89	5.81	3.17	0.97	0.49	0.16	0.09	0.05	0.00		
19	0.04	0.10	4.21	3.01	3.97	3.41	0.85	0.45	0.13	0.08	0.04	0.00		
20	0.04	0.10	2.78	6.22	3.49	2.85	1.09	0.45	0.13	0.09	0.04	0.00		
21	0.03	0.10	1.80	5.65	2.93	2.64	10.00	1.15	0.13	0.09	0.04	0.00		
22	0.03	0.81	1.33	3.65	2.64	2.57	4.37	0.63	0.10	0.09	0.03	0.00		
23	0.03	0.85	0.97	3.81	4.29	2.57	2.57	0.58	0.10	0.09	0.03	0.00		
24	0.02	1.59	1.03	6.90	10.55	2.36	4.53	0.63	0.10	0.09	0.02	0.00		
25	0.02	0.72	1.33	4.45	7.33	2.15	2.36	0.54	0.10	0.08	0.02	0.00		
26	0.02	0.63	1.33	3.57	8.38	4.13	1.87	0.45	0.10	0.08	0.01	0.00		
27	0.34	0.40	1.03	8.20	7.33	2.08	1.52	0.45	0.10	0.07	0.01	0.00		
28	0.22	0.49	0.97	8.29	7.41	1.80	1.33	0.37	0.10	0.07	0.02	0.00		
29	0.40	0.34	0.97	9.37	6.22	1.87	1.21	0.40	0.10	0.07		0.05		
30	0.28	1.73	0.85	7.75	8.38	2.01	1.09	0.37	0.10	0.07		0.04		
31		0.67		6.82	5.65		0.97		0.10	0.07		0.03		
Total	1.62	13.04	58.61	104.41	172.64	96.44	60.24	18.65	6.64	2.68	1.27	0.17	536.41	CMSDAY
Mean	0.05	0.42	1.95	3.37	5.57	3.21	1.94	0.62	0.21	0.09	0.05	0.01	1.47	CMS
Max	0.40	1.73	11.02	9.37	10.55	6.39	10.00	1.15	0.40	0.10	0.07	0.05	11.02	CMS
Min	0.00	0.09	0.37	0.49	2.64	1.80	0.85	0.37	0.10	0.07	0.01	0.00	0.00	CMS
Runoff	0.14	1.13	5.06	9.02	14.92	8.33	5.20	1.61	0.57	0.23	0.11	0.01	46.35	MCM

Momentary Peak 13.21 CMS. at 81.99 m. (MSL.) at 06.00 Hours , on Jun 17 , 2018

Runoff Yield 11.95 Liters/Second/Square KM. Momentary Peak Yield 107.40 Liters/Second/Square KM.

WATER YEAR : 2018

MAE KLONG RIVER BASIN

Khwae Noi River at Ban Lin Thin , Kanchanaburi (K.54)

Lat 14 - 32 - 04 N Long 98 - 47 - 30 E

Location : on right bank at the bridge on road.

Ban Lin Thin **Amphoe** Thong Pha Phum **Changwat** Kanchanaburi

Drainge Area	4,774 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+60.600 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On right bank about 40 meters from the gage observer's house. **Elevation** +74.394 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	1996 to date
Rating Operation	
Period of Rating	1996 to date
Rated by Flot	-
Rated by Current Meter	1996 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Flow regulated by Khao Laem Dam. Stage-discharge relation defined by 28 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

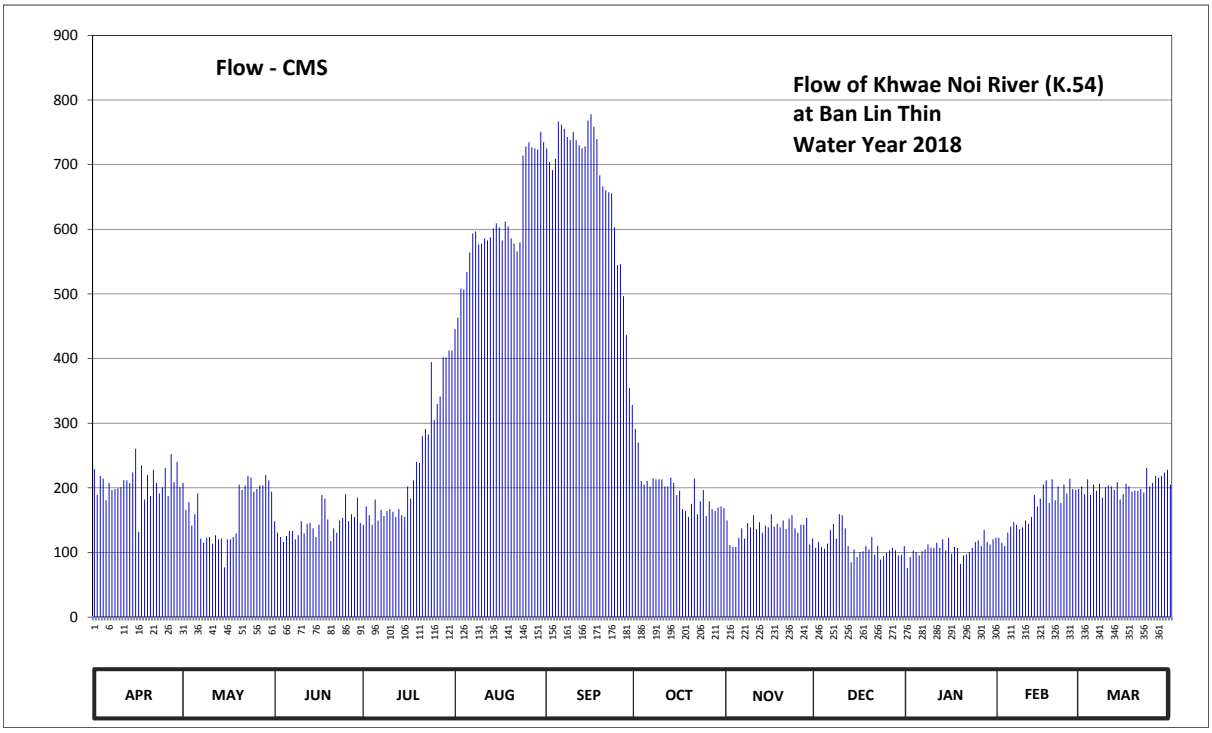
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	63.75	63.59	63.15	63.11	65.25	67.07	64.20	63.16	62.84	62.58	62.96	63.55	
2	63.45	63.28	63.02	63.32	65.37	66.94	64.05	62.87	62.91	62.73	62.90	63.46	
3	63.67	63.37	62.97	63.22	65.67	66.86	63.61	62.85	62.85	62.81	62.86	63.63	
4	63.64	63.10	62.91	63.11	65.66	66.97	63.57	62.85	62.83	62.79	63.02	63.45	
5	63.39	63.23	62.98	63.40	65.84	67.33	63.61	62.96	62.89	62.75	63.09	63.57	
6	63.59	63.47	63.04	63.16	66.04	67.30	63.55	63.07	63.05	62.80	63.14	63.50	
7	63.51	62.95	63.04	63.28	66.23	67.26	63.64	62.95	63.12	62.82	63.11	63.58	
8	63.52	62.90	62.94	63.21	66.25	67.18	63.63	63.13	62.95	62.88	63.06	63.42	
9	63.53	62.96	62.99	63.27	66.12	67.15	63.63	63.08	63.23	62.84	63.08	63.54	
10	63.54	62.97	63.15	63.29	66.13	67.23	63.63	63.22	63.22	62.84	63.16	63.56	
11	63.62	62.89	63.01	63.26	66.18	67.15	63.55	63.06	63.07	62.90	63.12	63.55	
12	63.62	62.99	63.12	63.20	66.16	67.10	63.55	63.14	62.86	62.84	63.20	63.51	
13	63.59	62.94	63.13	63.29	66.19	67.07	63.65	63.02	62.66	62.94	63.45	63.60	
14	63.71	62.95	63.07	63.22	66.28	67.09	63.59	63.10	62.82	62.81	63.32	63.40	
15	63.98	62.59	62.97	63.20	66.33	67.34	63.45	63.08	62.73	62.96	63.41	63.46	
16	63.03	62.94	63.11	63.55	66.29	67.40	63.50	63.23	62.79	62.77	63.57	63.58	
17	63.79	62.94	63.45	63.41	66.16	67.28	63.29	63.09	62.80	62.85	63.62	63.55	
18	63.40	62.97	63.41	63.62	66.35	67.16	63.27	63.12	62.86	62.84	63.36	63.49	
19	63.68	63.01	63.17	63.83	66.30	66.81	63.20	63.08	62.82	62.64	63.63	63.50	
20	63.44	63.57	62.92	63.82	66.18	66.70	63.35	63.16	62.97	62.75	63.39	63.50	
21	63.74	63.51	63.07	64.12	66.13	66.66	63.64	63.06	62.76	62.76	63.55	63.52	
22	63.59	63.56	63.02	64.20	66.05	66.64	63.23	63.18	62.86	62.79	63.36	63.48	
23	63.47	63.67	63.16	64.14	66.14	66.63	63.38	63.22	62.70	62.84	63.57	63.76	
24	63.54	63.65	63.19	64.91	67.00	66.29	63.51	63.07	62.74	62.91	63.47	63.55	
25	63.76	63.49	63.46	64.30	67.09	65.91	63.21	63.02	62.78	62.93	63.64	63.59	
26	63.44	63.52	63.15	64.47	67.13	65.92	63.38	63.11	62.81	62.86	63.52	63.67	
27	63.92	63.56	63.23	64.55	67.08	65.59	63.29	63.11	62.84	63.05	63.51	63.65	
28	63.60	63.56	63.20	64.96	67.07	65.19	63.27	63.19	62.81	62.91	63.52	63.67	
29	63.83	63.68	63.42	64.96	67.06	64.64	63.31	62.88	62.75	62.88		63.71	
30	63.54	63.62	63.13	65.03	67.23	64.46	63.32	62.95	62.76	62.94		63.74	
31		63.49		65.03	67.13		63.30		62.86	62.96		63.57	
Mean	63.60	63.26	63.12	63.79	66.33	66.68	63.50	63.07	62.87	62.84	63.31	63.56	
Max	63.98	63.68	63.46	65.03	67.23	67.40	64.20	63.23	63.23	63.05	63.64	63.76	67.40
Min	63.03	62.59	62.91	63.11	65.25	64.46	63.20	62.85	62.66	62.58	62.86	63.40	62.58

Annual Max Momentary Gage Height 67.43 m. (MSL.) , at 14.00 Hours , on Sep 16 , 2018

Zero Gage at Bottom Elevation 60.60 m. (MSL.) , River Bed 60.38 m. (MSL.)

Left Bank Elevation 68.51 m. (MSL.) ,

Right Bank Elevation 75.73 m. (MSL.) , Drainage Are 4,774 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	229.25	207.65	148.25	142.85	445.50	725.20	291.00	149.60	107.20	76.00	122.80	202.25		
2	188.75	165.80	130.70	171.20	463.50	704.40	270.00	111.10	116.30	92.90	115.00	190.10		
3	218.45	177.95	124.10	157.70	508.50	691.60	210.35	108.50	108.50	103.30	109.80	213.05		
4	214.40	141.50	116.30	142.85	507.00	709.20	204.95	108.50	105.90	100.70	130.70	188.75		
5	180.65	159.05	125.40	182.00	534.00	766.80	210.35	122.80	113.70	95.50	140.15	204.95		
6	207.65	191.45	133.40	149.60	564.20	762.00	202.25	137.45	134.75	102.00	146.90	195.50		
7	196.85	121.50	133.40	165.80	593.65	755.60	214.40	121.50	144.20	104.60	142.85	206.30		
8	198.20	115.00	120.20	156.35	596.75	742.80	213.05	145.55	121.50	112.40	136.10	184.70		
9	199.55	122.80	126.70	164.45	576.60	738.00	213.05	138.80	159.05	107.20	138.80	200.90		
10	200.90	124.10	148.25	167.15	578.15	750.80	213.05	157.70	157.70	107.20	149.60	203.60		
11	211.70	113.70	129.35	163.10	585.90	738.00	202.25	136.10	137.45	115.00	144.20	202.25		
12	211.70	126.70	144.20	155.00	582.80	730.00	202.25	146.90	109.80	107.20	155.00	196.85		
13	207.65	120.20	145.55	167.15	587.45	725.20	215.75	130.70	84.60	120.20	188.75	209.00		
14	223.85	121.50	137.45	157.70	601.40	728.40	207.65	141.50	104.60	103.30	171.20	182.00		
15	260.30	77.00	124.10	155.00	609.15	768.40	188.75	138.80	92.90	122.80	183.35	190.10		
16	132.05	120.20	142.85	202.25	602.95	778.00	195.50	159.05	100.70	98.10	204.95	206.30		
17	234.65	120.20	188.75	183.35	582.80	758.80	167.15	140.15	102.00	108.50	211.70	202.25		
18	182.00	124.10	183.35	211.70	612.25	739.60	164.45	144.20	109.80	107.20	176.60	194.15		
19	219.80	129.35	150.95	240.05	604.50	683.60	155.00	138.80	104.60	82.40	213.05	195.50		
20	187.40	204.95	117.60	238.70	585.90	666.50	175.25	149.60	124.10	95.50	180.65	195.50		
21	227.90	196.85	137.45	279.80	578.15	660.30	214.40	136.10	96.80	96.80	202.25	198.20		
22	207.65	203.60	130.70	291.00	565.75	657.20	159.05	152.30	109.80	100.70	176.60	192.80		
23	191.45	218.45	149.60	282.60	579.70	655.65	179.30	157.70	89.00	107.20	204.95	230.60		
24	200.90	215.75	153.65	394.50	714.00	602.95	196.85	137.45	94.20	116.30	191.45	202.25		
25	230.60	194.15	190.10	305.00	728.40	544.50	156.35	130.70	99.40	118.90	214.40	207.65		
26	187.40	198.20	148.25	329.65	734.80	546.00	179.30	142.85	103.30	109.80	198.20	218.45		
27	252.20	203.60	159.05	341.25	726.80	496.50	167.15	142.85	107.20	134.75	196.85	215.75		
28	209.00	203.60	155.00	402.00	725.20	436.50	164.45	153.65	103.30	116.30	198.20	218.45		
29	240.05	219.80	184.70	402.00	723.60	354.30	169.85	112.40	95.50	112.40		223.85		
30	200.90	211.70	145.55	412.50	750.80	328.20	171.20	121.50	96.80	120.20		227.90		
31		194.15		412.50	734.80		168.50		109.80	122.80		204.95		
Total	6253.80	5044.55	4324.90	7326.75	18884.95	19945.00	6042.85	4114.80	3444.45	3318.15	4745.05	6304.85	89750.10	CMSDAY
Mean	208.46	162.73	144.16	236.35	609.19	664.83	194.93	137.16	111.11	107.04	169.47	203.38	245.89	CMS
Max	260.30	219.80	190.10	412.50	750.80	778.00	291.00	159.05	159.05	134.75	214.40	230.60	778.00	CMS
Min	132.05	77.00	116.30	142.85	445.50	328.20	155.00	108.50	84.60	76.00	109.80	182.00	76.00	CMS
Runoff	540.33	435.85	373.67	633.03	1631.66	1723.25	522.10	355.52	297.60	286.69	409.97	544.74	7754.41	MCM

Momentary Peak 782.80 CMS. at 67.43 m. (MSL.) at 14.00 Hours , on Sep 16 , 2018

Runoff Yield 51.51 Liters/Second/Square KM. Momentary Peak Yield 163.97 Liters/Second/Square KM.

WATER YEAR : 2018

MAE KLONG RIVER BASIN

Mae Klong River at Khai Luang Bridge, Ratchaburi (K.55A)

Lat 13 - 49 - 07 N Long 99 - 51 - 53 E

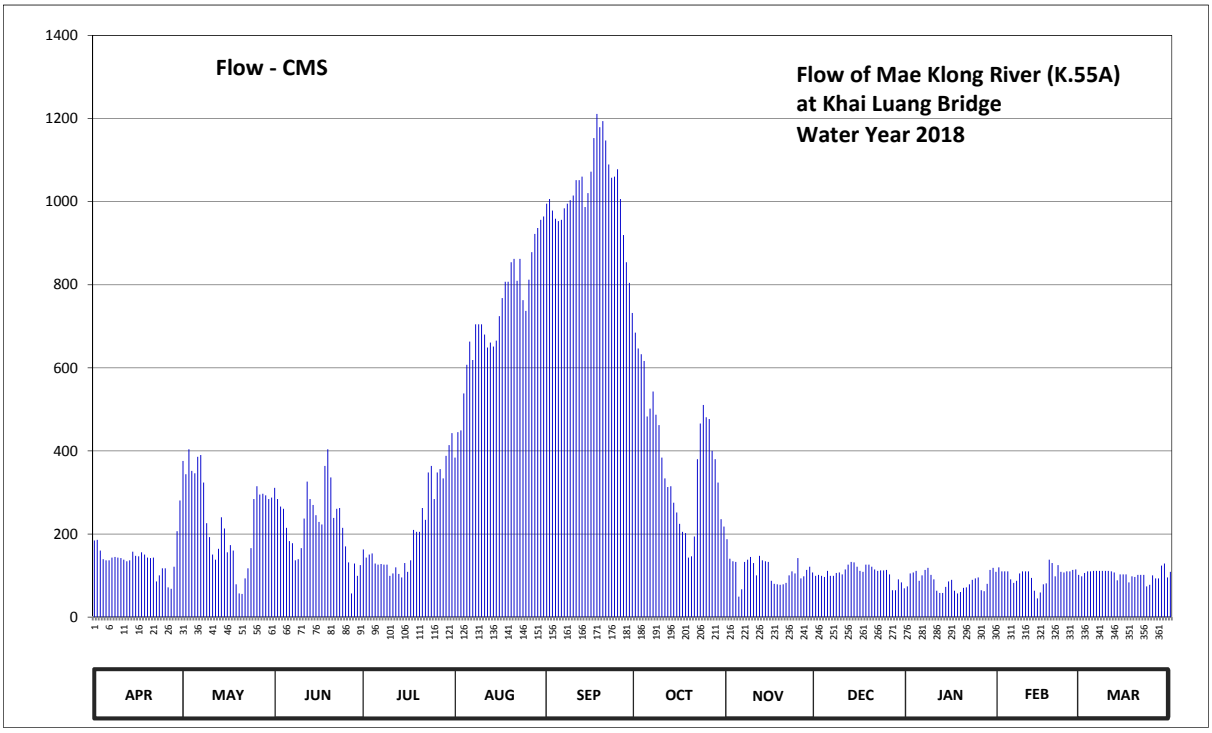
Location : on right bank at the bridge on road.

	Ban Khai Luang Bridge	**Amphoe** Ban Pong	**Changwat** Ratchaburi
Drainge Area	- sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank at the abutment of the bridge.		**Elevation** +12.065 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	2018 to date		
Rating Operation			
Period of Rating	2018 to date		
Rated by Flot	-		
Rated by Current Meter	2018 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Flow regulated by Khao Laem Dam.		
	Stage-discharge relation defined by 17 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	2.89	3.97	3.64	2.75	4.01	6.54	5.37	2.91	2.26	2.05	2.43	2.25	
2	2.90	3.81	3.49	2.61	4.31	6.58	5.21	2.59	2.28	2.31	2.35	2.32	
3	2.73	4.11	3.39	2.66	4.33	6.48	5.15	2.54	2.26	2.33	2.35	2.35	
4	2.58	3.85	3.36	2.68	4.74	6.41	5.08	2.53	2.24	2.36	2.35	2.35	
5	2.56	3.82	3.08	2.50	5.04	6.39	4.49	1.83	2.36	2.16	2.19	2.36	
6	2.56	4.02	2.88	2.48	5.28	6.40	4.58	1.99	2.26	2.27	2.12	2.36	
7	2.61	4.04	2.85	2.49	5.09	6.50	4.76	2.53	2.26	2.38	2.16	2.36	
8	2.62	3.71	2.56	2.48	5.45	6.54	4.51	2.57	2.32	2.42	2.31	2.36	
9	2.61	3.15	2.58	2.48	5.45	6.57	4.39	2.62	2.33	2.28	2.35	2.36	
10	2.60	2.94	2.77	2.26	5.45	6.61	4.01	2.51	2.29	2.19	2.35	2.36	
11	2.57	2.66	3.22	2.31	5.35	6.74	3.76	2.27	2.39	1.96	2.35	2.35	
12	2.54	2.57	3.72	2.43	5.22	6.74	3.65	2.64	2.48	1.91	2.22	2.33	
13	2.56	2.76	3.49	2.30	5.27	6.77	3.66	2.56	2.53	1.91	1.96	2.17	
14	2.71	3.24	3.41	2.23	5.23	6.51	3.44	2.54	2.52	2.04	1.79	2.29	
15	2.64	3.07	3.27	2.51	5.29	6.63	3.31	2.53	2.44	2.15	1.92	2.29	
16	2.63	2.70	3.17	2.34	5.53	6.81	3.14	2.16	2.36	2.18	2.09	2.29	
17	2.70	2.82	3.13	2.56	5.70	7.09	3.02	2.10	2.34	1.96	2.11	2.13	
18	2.66	2.73	3.91	3.05	5.85	7.29	3.00	2.09	2.48	1.90	2.57	2.25	
19	2.61	2.09	4.11	3.02	5.85	7.18	2.61	2.08	2.48	1.93	2.51	2.24	
20	2.60	1.90	3.77	3.02	6.03	7.23	2.63	2.09	2.44	2.02	2.25	2.28	
21	2.61	1.89	3.23	3.37	6.06	7.07	2.95	2.12	2.39	2.03	2.47	2.28	
22	2.15	2.21	3.36	3.20	5.86	6.87	3.99	2.27	2.36	2.09	2.34	2.28	
23	2.27	2.41	3.37	3.83	6.06	6.76	4.41	2.35	2.37	2.18	2.33	2.05	
24	2.41	2.77	3.08	3.91	5.68	6.77	4.62	2.31	2.37	2.21	2.35	2.08	
25	2.41	3.49	2.80	3.49	5.58	6.83	4.48	2.60	2.38	2.23	2.35	2.27	
26	2.03	3.66	2.52	3.83	5.87	6.58	4.46	2.21	2.29	1.97	2.38	2.21	
27	2.00	3.55	1.90	3.87	6.12	6.27	4.09	2.25	1.97	1.95	2.39	2.21	
28	2.44	3.56	2.50	3.76	6.28	6.03	3.99	2.38	1.97	2.10	2.28	2.46	
29	3.03	3.54	2.26	4.03	6.33	5.84	3.71	2.44	2.19	2.38		2.50	
30	3.47	3.49	2.47	4.16	6.40	5.56	3.21	2.33	2.13	2.42		2.23	
31		3.51		4.30	6.43		3.10		2.01	2.34		2.34	
Mean	2.59	3.16	3.11	3.00	5.52	6.62	3.96	2.36	2.31	2.15	2.27	2.29	
Max	3.47	4.11	4.11	4.30	6.43	7.29	5.37	2.91	2.53	2.42	2.57	2.50	7.29
Min	2.00	1.89	1.90	2.23	4.01	5.56	2.61	1.83	1.97	1.90	1.79	2.05	1.79

Annual Max Momentary Gage Height	7.38	m. (MSL.) ,	at 08.00 Hours , on Sep 18 , 2018		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	-0.59	m. (MSL.)
Left Bank Elevation	11.77	m. (MSL.) ,			
Right Bank Elevation	11.85	m. (MSL.) ,	Drainage Are	-	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	184.40	376.00	311.20	163.00	384.00	995.20	684.80	187.60	99.20	74.00	119.90	98.00		
2	186.00	344.00	284.20	143.40	445.10	1006.40	646.40	140.70	101.60	105.20	110.00	106.40		
3	160.20	404.00	266.20	150.40	449.30	978.40	632.50	134.20	99.20	107.60	110.00	110.00		
4	139.40	352.00	260.80	153.20	538.20	958.80	616.40	132.90	96.80	111.20	110.00	110.00		
5	136.80	346.00	214.80	129.00	607.20	953.20	482.90	49.30	111.20	87.20	90.80	111.20		
6	136.80	386.00	182.80	126.40	663.20	956.00	501.80	66.90	99.20	100.40	82.40	111.20		
7	143.40	390.00	178.00	127.70	618.70	984.00	542.80	132.90	99.20	113.60	87.20	111.20		
8	144.80	324.00	136.80	126.40	704.50	995.20	487.10	138.10	106.40	118.60	105.20	111.20		
9	143.40	226.00	139.40	126.40	704.50	1003.60	461.90	144.80	107.60	101.60	110.00	111.20		
10	142.00	192.40	165.80	99.20	704.50	1014.80	384.00	130.30	102.80	90.80	110.00	111.20		
11	138.10	150.40	237.20	105.20	680.00	1051.60	334.00	100.40	114.80	63.60	110.00	110.00		
12	134.20	138.10	326.00	119.90	648.80	1051.60	313.00	147.60	126.40	58.10	94.40	107.60		
13	136.80	164.40	284.20	104.00	660.80	1060.30	314.80	136.80	132.90	58.10	63.60	88.40		
14	157.40	240.40	269.80	95.60	651.20	986.80	275.20	134.20	131.60	72.80	45.00	102.80		
15	147.60	213.20	245.20	130.30	665.60	1020.40	251.80	132.90	121.20	86.00	59.20	102.80		
16	146.20	156.00	229.20	108.80	724.50	1071.90	224.40	87.20	111.20	89.60	78.80	102.80		
17	156.00	173.20	222.80	136.80	768.00	1153.10	205.20	80.00	108.80	63.60	81.20	83.60		
18	150.40	160.20	364.00	210.00	807.00	1211.10	202.00	78.80	126.40	57.00	138.10	98.00		
19	143.40	78.80	404.00	205.20	807.00	1179.20	143.40	77.60	126.40	60.30	130.30	96.80		
20	142.00	57.00	336.00	205.20	854.10	1193.70	146.20	78.80	121.20	70.40	98.00	101.60		
21	143.40	55.90	238.80	262.60	862.20	1147.30	194.00	82.40	114.80	71.60	125.10	101.60		
22	86.00	93.20	260.80	234.00	809.60	1089.30	380.00	100.40	111.20	78.80	108.80	101.60		
23	100.40	117.30	262.60	348.00	862.20	1057.40	466.10	110.00	112.40	89.60	107.60	74.00		
24	117.30	165.80	214.80	364.00	762.80	1060.30	510.60	105.20	112.40	93.20	110.00	77.60		
25	117.30	284.20	170.00	284.20	737.00	1077.70	480.80	142.00	113.60	95.60	110.00	100.40		
26	71.60	314.80	131.60	348.00	812.20	1006.40	476.60	93.20	102.80	64.70	113.60	93.20		
27	68.00	295.00	57.00	356.00	878.40	919.60	400.00	98.00	64.70	62.50	114.80	93.20		
28	121.20	296.80	129.00	334.00	922.40	854.10	380.00	113.60	64.70	80.00	101.60	123.80		
29	206.80	293.20	99.20	388.00	936.40	804.40	324.00	121.20	90.80	113.60		129.00		
30	280.60	284.20	125.10	414.00	956.00	732.00	235.60	107.60	83.60	118.60		95.60		
31		287.80		443.00	964.40		218.00		69.20	108.80		108.80		
Total	4281.90	7360.30	6747.30	6541.90	22589.80	30573.80	11916.30	3385.60	3284.30	2666.70	2825.60	3184.80	105358.30	CMSDAY
Mean	142.73	237.43	224.91	211.03	728.70	1019.13	384.40	112.85	105.95	86.02	100.91	102.74	288.65	CMS
Max	280.60	404.00	404.00	443.00	964.40	1211.10	684.80	187.60	132.90	118.60	138.10	129.00	1211.10	CMS
Min	68.00	55.90	57.00	95.60	384.00	732.00	143.40	49.30	64.70	57.00	45.00	74.00	45.00	CMS
Runoff	369.96	635.93	582.97	565.22	1951.76	2641.58	1029.57	292.52	283.76	230.40	244.13	275.17	9102.96	MCM

Momentary Peak 1237.20 CMS. at 7.38 m. (MSL.) at 08.00 Hours , on Sep 18 , 2018

Runoff Yield ***** Liters/Second/Square KM. Momentary Peak Yield ***** Liters/Second/Square KM.

WATER YEAR : 2018

MAE KLONG RIVER BASIN

Khwae Noi River at Ban Pak Saeng , Kanchanaburi (K.58)

Lat 14 - 12 - 46 N Long 99 - 03 - 39 E

Location : on left bank at Ban Pak Saeng.

Ban Pak Saeng **Amphoe** Sai Yok **Changwat** Kanchanaburi

Drainge Area	6,725 sq.km.
Type of Gage	Water - stage recorder.
Zero Gage at Bottom	+39.500 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On right bank about 40 meters from the gage observer's house. **Elevation** +57.998 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	1998 to date
Rating Operation	
Period of Rating	2006 to date
Rated by Flot	-
Rated by Current Meter	2006 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Stage-discharge relation defined by 33 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

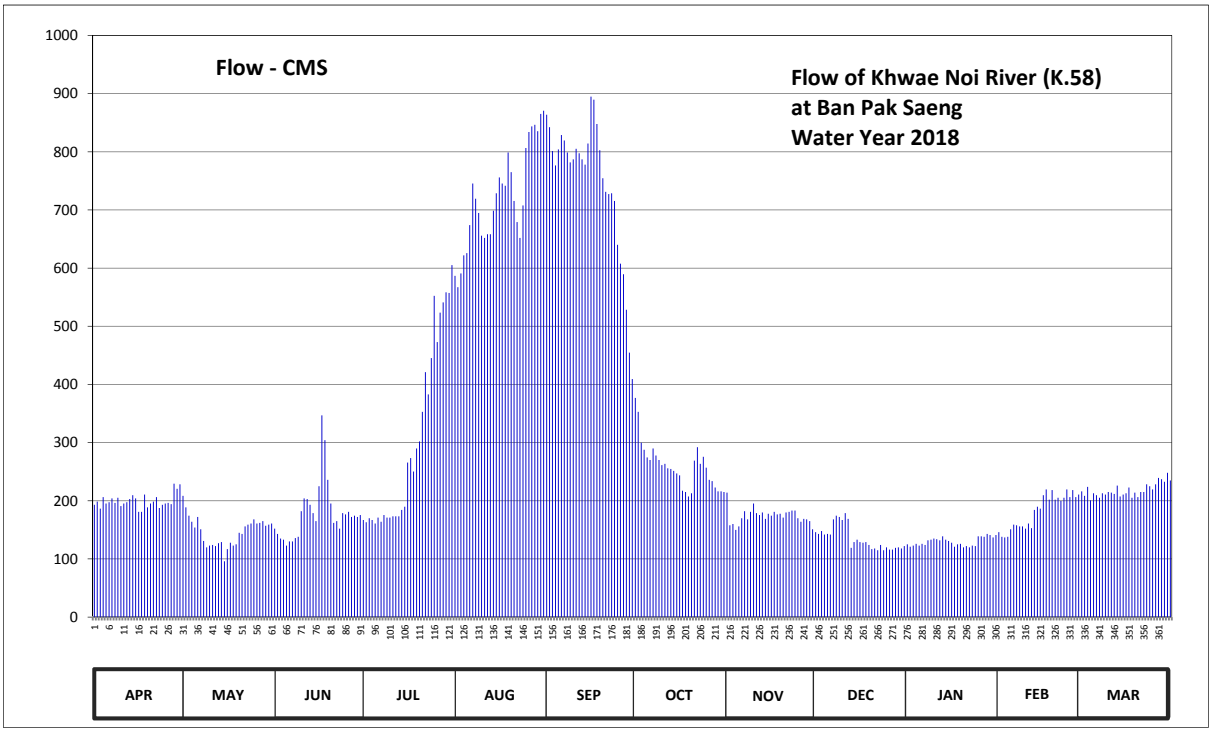
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	42.41	42.55	42.02	42.17	45.76	47.88	44.04	42.60	41.96	41.75	41.96	42.62	
2	42.46	42.37	41.93	42.13	45.61	47.72	43.84	42.08	41.93	41.71	41.88	42.55	
3	42.35	42.24	41.85	42.20	45.79	47.41	43.38	42.10	41.98	41.73	41.87	42.69	
4	42.53	42.14	41.83	42.17	46.03	47.22	43.27	42.00	41.92	41.76	41.88	42.48	
5	42.43	42.04	41.73	42.11	46.06	47.43	43.15	42.06	41.93	41.73	42.01	42.59	
6	42.45	42.22	41.80	42.21	46.43	47.62	43.11	42.20	41.92	41.76	42.09	42.56	
7	42.51	42.01	41.80	42.14	46.98	47.55	43.29	42.31	42.18	41.74	42.08	42.52	
8	42.44	41.81	41.86	42.25	46.78	47.39	43.18	42.18	42.24	41.82	42.06	42.59	
9	42.52	41.70	41.88	42.21	46.59	47.26	43.11	42.30	42.22	41.83	42.06	42.57	
10	42.39	41.73	42.31	42.21	46.29	47.30	43.03	42.43	42.17	41.85	42.02	42.61	
11	42.43	41.74	42.51	42.23	46.26	47.44	43.05	42.28	42.28	41.84	42.11	42.60	
12	42.45	41.72	42.50	42.23	46.31	47.38	42.98	42.25	42.19	41.82	42.03	42.58	
13	42.50	41.77	42.41	42.23	46.31	47.30	42.97	42.29	41.69	41.89	42.33	42.71	
14	42.56	41.79	42.28	42.33	46.62	47.23	42.94	42.19	41.79	41.83	42.38	42.54	
15	42.51	41.46	42.15	42.38	46.85	47.51	42.90	42.27	41.83	41.81	42.35	42.57	
16	42.30	41.67	42.70	43.07	47.06	48.11	42.87	42.24	41.79	41.78	42.56	42.59	
17	42.30	41.78	43.79	43.14	46.98	48.07	42.63	42.30	41.78	41.71	42.65	42.68	
18	42.57	41.73	43.42	42.93	46.95	47.76	42.61	42.26	41.79	41.75	42.49	42.52	
19	42.37	41.75	42.80	43.29	47.39	47.42	42.54	42.27	41.74	41.76	42.64	42.60	
20	42.43	41.95	42.43	43.40	47.13	47.05	42.59	42.21	41.67	41.70	42.49	42.53	
21	42.46	41.93	42.12	43.84	46.75	46.87	43.10	42.29	41.68	41.72	42.52	42.61	
22	42.53	42.06	42.15	44.41	46.47	46.84	43.31	42.30	41.65	41.70	42.47	42.61	
23	42.36	42.09	42.02	44.09	46.26	46.85	43.05	42.32	41.74	41.73	42.52	42.73	
24	42.41	42.11	42.28	44.61	46.69	46.75	43.16	42.32	41.65	41.72	42.65	42.70	
25	42.43	42.18	42.26	45.49	47.45	46.17	42.99	42.20	41.70	41.89	42.53	42.65	
26	42.44	42.11	42.30	44.84	47.66	45.92	42.80	42.14	41.66	41.89	42.64	42.73	
27	42.42	42.12	42.22	45.26	47.73	45.78	42.78	42.19	41.66	41.88	42.53	42.83	
28	42.74	42.15	42.24	45.40	47.75	45.30	42.68	42.18	41.69	41.93	42.57	42.81	
29	42.66	42.07	42.22	45.54	47.67	44.69	42.62	42.15	41.70	41.91		42.77	
30	42.73	42.09	42.25	45.53	47.89	44.31	42.62	42.01	41.68	41.87		42.91	
31		42.11		45.90	47.93		42.61		41.72	41.91		42.79	
Mean	42.47	41.97	42.27	43.35	46.79	46.98	43.01	42.23	41.86	41.80	42.30	42.64	
Max	42.74	42.55	43.79	45.90	47.93	48.11	44.04	42.60	42.28	41.93	42.65	42.91	48.11
Min	42.30	41.46	41.73	42.11	45.61	44.31	42.54	42.00	41.65	41.70	41.87	42.48	41.46

Annual Max Momentary Gage Height 48.20 m. (MSL.) , at 22.00 Hours , on Sep 16 , 2018

Zero Gage at Bottom Elevation 39.50 m. (MSL.) , River Bed 37.84 m. (MSL)

Left Bank Elevation 57.76 m. (MSL.) ,

Right Bank Elevation 56.87 m. (MSL.) , Drainage Are 6,725 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	193.10	208.50	152.00	167.00	586.80	863.80	376.80	214.00	146.00	125.00	146.00	216.20		
2	198.60	188.70	143.00	163.00	567.30	842.20	352.80	158.00	143.00	121.00	138.00	208.50		
3	186.50	174.40	135.00	170.00	590.70	801.30	299.80	160.00	148.00	123.00	137.00	223.90		
4	206.30	164.00	133.00	167.00	621.90	776.60	287.70	150.00	142.00	126.00	138.00	200.80		
5	195.30	154.00	123.00	161.00	625.80	803.90	274.50	156.00	143.00	123.00	151.00	212.90		
6	197.50	172.20	130.00	171.10	673.90	828.70	270.10	170.00	142.00	126.00	159.00	209.60		
7	204.10	151.00	130.00	164.00	745.40	819.50	289.90	182.10	168.00	124.00	158.00	205.20		
8	196.40	131.00	136.00	175.50	719.40	798.70	277.80	168.00	174.40	132.00	156.00	212.90		
9	205.20	120.00	138.00	171.10	694.70	781.80	270.10	181.00	172.20	133.00	156.00	210.70		
10	190.90	123.00	182.10	171.10	655.70	787.00	261.30	195.30	167.00	135.00	152.00	215.10		
11	195.30	124.00	204.10	173.30	651.80	805.20	263.50	178.80	178.80	134.00	161.00	214.00		
12	197.50	122.00	203.00	173.30	658.30	797.40	255.80	175.50	169.00	132.00	153.00	211.80		
13	203.00	127.00	193.10	173.30	658.30	787.00	254.70	179.90	119.00	139.00	184.30	226.10		
14	209.60	129.00	178.80	184.30	698.60	777.90	251.40	169.00	129.00	133.00	189.80	207.40		
15	204.10	96.00	165.00	189.80	728.50	814.30	247.00	177.70	133.00	131.00	186.50	210.70		
16	181.00	117.00	225.00	265.70	755.80	894.85	243.70	174.40	129.00	128.00	209.60	212.90		
17	181.00	128.00	346.80	273.40	745.40	889.45	217.30	181.00	128.00	121.00	219.50	222.80		
18	210.70	123.00	304.20	250.30	741.50	847.60	215.10	176.60	129.00	125.00	201.90	205.20		
19	188.70	125.00	236.00	289.90	798.70	802.60	207.40	177.70	124.00	126.00	218.40	214.00		
20	195.30	145.00	195.30	302.00	764.90	754.50	212.90	171.10	117.00	120.00	201.90	206.30		
21	198.60	143.00	162.00	352.80	715.50	731.10	269.00	179.90	118.00	122.00	205.20	215.10		
22	206.30	156.00	165.00	421.20	679.10	727.20	292.10	181.00	115.00	120.00	199.70	215.10		
23	187.60	159.00	152.00	382.80	651.80	728.50	263.50	183.20	124.00	123.00	205.20	228.30		
24	193.10	161.00	178.80	445.20	707.70	715.50	275.60	183.20	115.00	122.00	219.50	225.00		
25	195.30	168.00	176.60	552.25	806.50	640.10	256.90	170.00	120.00	139.00	206.30	219.50		
26	196.40	161.00	181.00	472.80	834.10	607.60	236.00	164.00	116.00	139.00	218.40	228.30		
27	194.20	162.00	172.20	523.50	843.55	589.40	233.80	169.00	116.00	138.00	206.30	239.30		
28	229.40	165.00	174.40	541.00	846.25	528.50	222.80	168.00	119.00	143.00	210.70	237.10		
29	220.60	157.00	172.20	558.50	835.45	454.80	216.20	165.00	120.00	141.00		232.70		
30	228.30	159.00	175.50	557.25	865.15	409.20	216.20	151.00	118.00	137.00		248.10		
31		161.00		605.00	870.55		215.10		122.00	141.00		234.90		
Total	5989.90	4574.80	5363.10	9368.40	22339.05	22406.20	8026.80	5210.40	4204.40	4022.00	5088.20	6770.40	103363.65	CMSDAY
Mean	199.66	147.57	178.77	302.21	720.61	746.87	258.93	173.68	135.63	129.74	181.72	218.40	283.19	CMS
Max	229.40	208.50	346.80	605.00	870.55	894.85	376.80	214.00	178.80	143.00	219.50	248.10	894.85	CMS
Min	181.00	96.00	123.00	161.00	567.30	409.20	207.40	150.00	115.00	120.00	137.00	200.80	96.00	CMS
Runoff	517.53	395.26	463.37	809.43	1930.09	1935.90	693.52	450.18	363.26	347.50	439.62	584.96	8930.62	MCM

Momentary Peak 907.00 CMS. at 48.20 m. (MSL.) at 22.00 Hours , on Sep 16 , 2018

Runoff Yield 42.11 Liters/Second/Square KM. Momentary Peak Yield 134.87 Liters/Second/Square KM.

WATER YEAR : 2018

MAE KLONG RIVER BASIN

Huai Kui Mang at Ban Kui Mang , Kanchanaburi (K.60)

Lat 14 - 37 - 32 N Long 98 - 43 - 50 E

Location : on right bank at the bridge on road.

Ban Kui Mang **Amphoe** Thong Pha Phum **Changwat** Kanchanaburi

Drainge Area	128 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+73.700 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On right bank about 15 meters from the top staff gage. **Elevation** +82.468 m. (MSL.)
Gage Reading Frequency	5-time daily reading at 06.00, 09.00, 12.00, 15.00 and 18.00 hours
Basis of Mean Daily Gage Height	Arithmetic mean of 5 readings.
Period of Available Gage Records	2000 to date
Rating Operation	
Period of Rating	2000 to date
Rated by Flot	-
Rated by Current Meter	2000 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Stage-discharge relation defined by 28 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

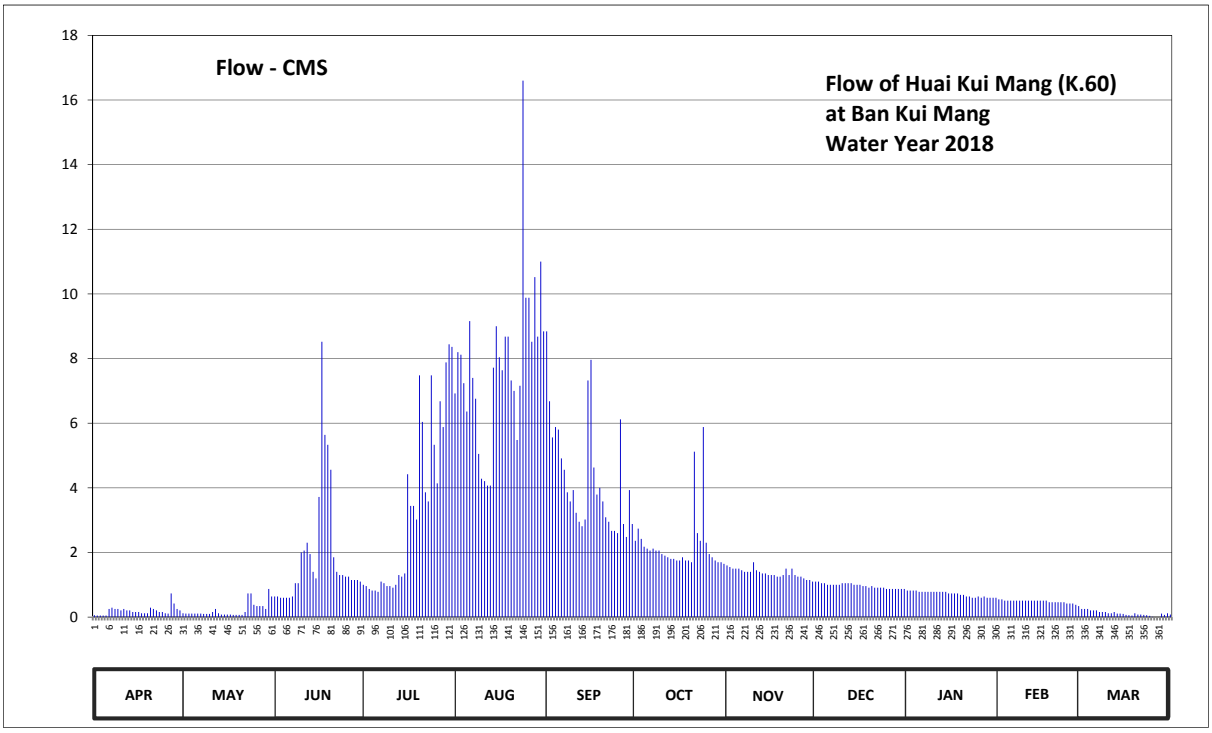
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	74.35	74.40	74.52	74.60	75.49	75.73	74.86	74.72	74.62	74.56	74.50	74.43	
2	74.34	74.39	74.52	74.59	75.65	75.46	74.92	74.71	74.62	74.56	74.50	74.43	
3	74.34	74.39	74.51	74.57	75.64	75.32	74.87	74.70	74.61	74.56	74.49	74.43	
4	74.34	74.39	74.51	74.56	75.53	75.36	74.83	74.70	74.61	74.56	74.49	74.42	
5	74.34	74.39	74.51	74.56	75.42	75.35	74.82	74.70	74.60	74.55	74.49	74.42	
6	74.43	74.39	74.51	74.55	75.77	75.23	74.81	74.69	74.60	74.55	74.49	74.42	
7	74.44	74.39	74.52	74.62	75.55	75.18	74.82	74.68	74.60	74.55	74.49	74.41	
8	74.43	74.38	74.61	74.61	75.47	75.08	74.81	74.68	74.60	74.55	74.49	74.41	
9	74.43	74.38	74.61	74.59	75.25	75.04	74.81	74.68	74.60	74.55	74.49	74.41	
10	74.42	74.38	74.80	74.59	75.14	75.09	74.79	74.74	74.61	74.55	74.49	74.40	
11	74.43	74.41	74.81	74.58	75.13	74.99	74.78	74.69	74.61	74.55	74.49	74.40	
12	74.42	74.43	74.85	74.60	75.11	74.95	74.77	74.68	74.61	74.55	74.49	74.41	
13	74.42	74.40	74.79	74.66	75.11	74.93	74.76	74.67	74.61	74.55	74.49	74.39	
14	74.41	74.37	74.68	74.65	75.59	74.96	74.76	74.67	74.60	74.55	74.49	74.39	
15	74.41	74.37	74.64	74.67	75.75	75.54	74.75	74.66	74.60	74.54	74.49	74.38	
16	74.41	74.37	75.06	75.16	75.63	75.62	74.75	74.66	74.60	74.54	74.49	74.36	
17	74.40	74.37	75.69	75.02	75.58	75.19	74.77	74.66	74.59	74.54	74.49	74.35	
18	74.40	74.36	75.33	75.02	75.71	75.07	74.75	74.65	74.59	74.54	74.48	74.34	
19	74.40	74.36	75.29	74.96	75.71	75.10	74.75	74.65	74.58	74.53	74.48	74.40	
20	74.44	74.36	75.18	75.56	75.54	75.04	74.74	74.66	74.59	74.53	74.48	74.37	
21	74.43	74.36	74.77	75.38	75.50	74.97	75.26	74.70	74.58	74.52	74.48	74.37	
22	74.42	74.41	74.68	75.08	75.31	74.95	74.90	74.66	74.58	74.52	74.48	74.36	
23	74.41	74.54	74.66	75.04	75.52	74.91	74.86	74.70	74.58	74.51	74.48	74.35	
24	74.41	74.54	74.66	75.56	76.58	74.91	75.36	74.66	74.58	74.51	74.47	74.33	
25	74.40	74.46	74.65	75.29	75.86	74.90	74.85	74.65	74.57	74.52	74.47	74.31	
26	74.39	74.45	74.65	75.12	75.86	75.39	74.79	74.65	74.57	74.51	74.47	74.30	
27	74.54	74.45	74.63	75.46	75.69	74.94	74.77	74.64	74.57	74.52	74.46	74.29	
28	74.47	74.45	74.63	75.36	75.94	74.88	74.75	74.63	74.57	74.51	74.45	74.39	
29	74.43	74.43	74.63	75.61	75.71	75.09	74.74	74.63	74.57	74.51		74.36	
30	74.42	74.57	74.62	75.68	76.00	74.94	74.74	74.62	74.57	74.51		74.40	
31		74.52		75.67	75.73		74.73		74.57	74.51		74.37	
Mean	74.41	74.41	74.75	74.97	75.60	75.14	74.83	74.67	74.59	74.54	74.48	74.38	
Max	74.54	74.57	75.69	75.68	76.58	75.73	75.36	74.74	74.62	74.56	74.50	74.43	76.58
Min	74.34	74.36	74.51	74.55	75.11	74.88	74.73	74.62	74.57	74.51	74.45	74.29	74.29

Annual Max Momentary Gage Height 76.93 m. (MSL.) , at 15.00 Hours , on Aug 24 , 2018

Zero Gage at Bottom Elevation 73.70 m. (MSL.) , River Bed 73.59 m. (MSL.)

Left Bank Elevation 82.05 m. (MSL.) ,

Right Bank Elevation 82.06 m. (MSL.) , Drainage Are 128 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.06	0.12	0.64	1.00	6.92	8.84	2.36	1.60	1.10	0.82	0.55	0.25		
2	0.05	0.11	0.64	0.96	8.20	6.68	2.74	1.55	1.10	0.82	0.55	0.25		
3	0.05	0.11	0.60	0.87	8.12	5.56	2.42	1.50	1.05	0.82	0.51	0.25		
4	0.05	0.11	0.60	0.82	7.24	5.88	2.18	1.50	1.05	0.82	0.51	0.21		
5	0.05	0.11	0.60	0.82	6.36	5.80	2.12	1.50	1.00	0.78	0.51	0.21		
6	0.25	0.11	0.60	0.78	9.16	4.91	2.06	1.45	1.00	0.78	0.51	0.21		
7	0.29	0.11	0.64	1.10	7.40	4.56	2.12	1.40	1.00	0.78	0.51	0.16		
8	0.25	0.10	1.05	1.05	6.76	3.86	2.06	1.40	1.00	0.78	0.51	0.16		
9	0.25	0.10	1.05	0.96	5.05	3.58	2.06	1.40	1.00	0.78	0.51	0.16		
10	0.21	0.10	2.00	0.96	4.28	3.93	1.95	1.70	1.05	0.78	0.51	0.12		
11	0.25	0.16	2.06	0.91	4.21	3.23	1.90	1.45	1.05	0.78	0.51	0.12		
12	0.21	0.25	2.30	1.00	4.07	2.95	1.85	1.40	1.05	0.78	0.51	0.16		
13	0.21	0.12	1.95	1.30	4.07	2.81	1.80	1.35	1.05	0.78	0.51	0.11		
14	0.16	0.08	1.40	1.25	7.72	3.02	1.80	1.35	1.00	0.78	0.51	0.11		
15	0.16	0.08	1.20	1.35	9.00	7.32	1.75	1.30	1.00	0.73	0.51	0.10		
16	0.16	0.08	3.72	4.42	8.04	7.96	1.75	1.30	1.00	0.73	0.51	0.07		
17	0.12	0.08	8.52	3.44	7.64	4.63	1.85	1.30	0.96	0.73	0.51	0.06		
18	0.12	0.07	5.64	3.44	8.68	3.79	1.75	1.25	0.96	0.73	0.46	0.05		
19	0.12	0.07	5.33	3.02	8.68	4.00	1.75	1.25	0.91	0.69	0.46	0.12		
20	0.29	0.07	4.56	7.48	7.32	3.58	1.70	1.30	0.96	0.69	0.46	0.08		
21	0.25	0.07	1.85	6.04	7.00	3.09	5.12	1.50	0.91	0.64	0.46	0.08		
22	0.21	0.16	1.40	3.86	5.48	2.95	2.60	1.30	0.91	0.64	0.46	0.07		
23	0.16	0.73	1.30	3.58	7.16	2.67	2.36	1.50	0.91	0.60	0.46	0.06		
24	0.16	0.73	1.30	7.48	16.60	2.67	5.88	1.30	0.91	0.60	0.42	0.04		
25	0.12	0.38	1.25	5.33	9.88	2.60	2.30	1.25	0.87	0.64	0.42	0.01		
26	0.11	0.34	1.25	4.14	9.88	6.12	1.95	1.25	0.87	0.60	0.42	0.00		
27	0.73	0.34	1.15	6.68	8.52	2.88	1.85	1.20	0.87	0.64	0.38	0.00		
28	0.42	0.34	1.15	5.88	10.52	2.48	1.75	1.15	0.87	0.60	0.34	0.11		
29	0.25	0.25	1.15	7.88	8.68	3.93	1.70	1.15	0.87	0.60		0.07		
30	0.21	0.87	1.10	8.44	11.00	2.88	1.70	1.10	0.87	0.60		0.12		
31		0.64		8.36	8.84		1.65		0.87	0.60		0.08		
Total	5.93	6.99	58.00	104.60	242.48	129.16	68.83	40.95	30.02	22.14	13.49	3.60	726.19	CMSDAY
Mean	0.20	0.23	1.93	3.37	7.82	4.31	2.22	1.36	0.97	0.71	0.48	0.12	1.99	CMS
Max	0.73	0.87	8.52	8.44	16.60	8.84	5.88	1.70	1.10	0.82	0.55	0.25	16.60	CMS
Min	0.05	0.07	0.60	0.78	4.07	2.48	1.65	1.10	0.87	0.60	0.34	0.00	0.00	CMS
Runoff	0.51	0.60	5.01	9.04	20.95	11.16	5.95	3.54	2.59	1.91	1.17	0.31	62.74	MCM

Momentary Peak 20.10 CMS. at 76.93 m. (MSL.) at 15.00 Hours , on Aug 24 , 2018

Runoff Yield 15.54 Liters/Second/Square KM. Momentary Peak Yield 157.03 Liters/Second/Square KM.

WATER YEAR : 2018

MAE KLONG RIVER BASIN

Lam Phachi at Ban Nong Phai , Kanchanaburi (K.62)

Lat 13 - 46 - 52 N Long 99 - 25 - 15 E

Location : on left bank at Ban Nong Phai.

	Ban Nong Phai	**Amphoe** Dan Makham Tia	**Changwat** Kanchanaburi
Drainge Area	1,725 sq.km.		
Type of Gage	Water - stage recorder.		
Zero Gage at Bottom	+49.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank near the gage site.		**Elevation** +55.243 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	2006 to date		
Rating Operation			
Period of Rating	2006 to date		
Rated by Flot	-		
Rated by Current Meter	2006 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 28 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

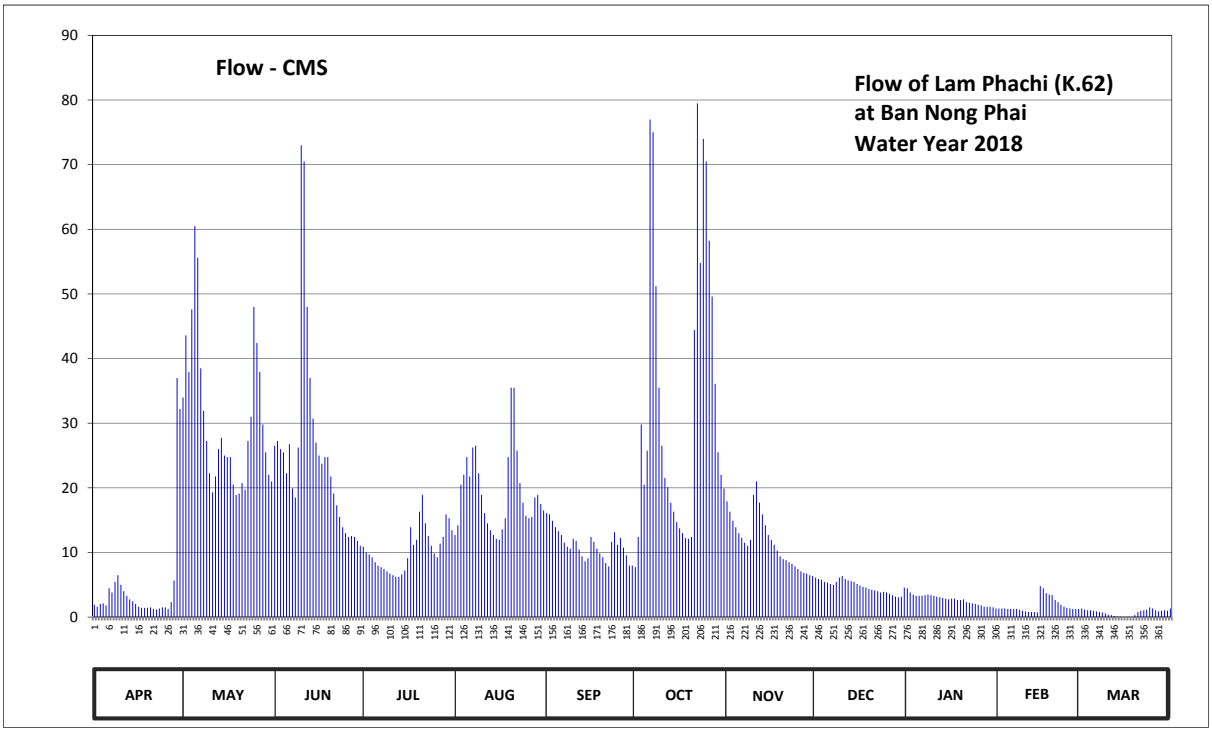
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	49.12	50.90	50.64	49.86	49.98	50.18	49.64	50.27	49.51	49.36	49.06	49.06	
2	49.09	51.19	50.67	49.80	50.08	50.17	49.96	50.19	49.49	49.30	49.06	49.04	
3	49.13	51.03	50.62	49.78	50.40	50.12	50.76	50.12	49.48	49.27	49.06	49.03	
4	49.14	51.29	50.60	49.75	50.46	50.06	50.40	50.06	49.45	49.25	49.05	49.03	
5	49.11	51.60	50.47	49.70	50.57	50.02	50.61	50.00	49.44	49.25	49.05	49.02	
6	49.36	51.49	50.65	49.66	50.45	49.98	51.94	49.95	49.42	49.25	49.05	49.01	
7	49.30	51.05	50.37	49.64	50.63	49.90	51.90	49.90	49.41	49.26	49.05	49.00	
8	49.45	50.83	50.30	49.62	50.64	49.86	51.38	49.87	49.45	49.27	49.04	48.99	
9	49.54	50.67	50.63	49.59	50.47	49.84	50.95	49.93	49.51	49.26	49.02	48.97	
10	49.41	50.47	51.86	49.56	50.32	49.94	50.64	50.32	49.53	49.25	49.01	48.95	
11	49.32	50.34	51.81	49.54	50.18	49.92	50.44	50.42	49.49	49.24	49.00	48.94	
12	49.25	50.45	51.30	49.52	50.10	49.83	50.38	50.26	49.47	49.23	49.00	48.92	
13	49.20	50.62	51.00	49.52	50.03	49.76	50.26	50.17	49.46	49.22	49.00	48.91	
14	49.17	50.69	50.79	49.55	49.98	49.71	50.19	50.08	49.45	49.21	48.99	48.91	
15	49.13	50.58	50.66	49.60	49.94	49.74	50.11	49.98	49.42	49.20	49.39	48.90	
16	49.09	50.57	50.58	49.74	49.93	49.96	50.05	49.93	49.40	49.21	49.36	48.90	
17	49.07	50.57	50.53	50.06	50.04	49.91	50.00	49.88	49.38	49.21	49.29	48.90	
18	49.07	50.40	50.57	49.88	50.14	49.84	49.95	49.82	49.37	49.19	49.27	48.89	
19	49.07	50.32	50.57	49.93	50.57	49.79	49.94	49.76	49.35	49.19	49.26	48.94	
20	49.08	50.33	50.45	50.19	50.95	49.75	49.96	49.73	49.34	49.20	49.19	49.00	
21	49.05	50.41	50.33	50.32	50.95	49.69	51.21	49.72	49.33	49.16	49.16	49.02	
22	49.04	50.36	50.24	50.10	50.61	49.65	51.99	49.70	49.32	49.15	49.12	49.03	
23	49.06	50.67	50.15	49.97	50.41	49.91	51.47	49.68	49.30	49.14	49.09	49.04	
24	49.08	50.80	50.06	49.87	50.26	50.01	51.88	49.65	49.31	49.13	49.07	49.08	
25	49.08	51.30	50.00	49.79	50.16	49.88	51.81	49.62	49.30	49.12	49.06	49.06	
26	49.05	51.16	49.96	49.75	50.14	49.95	51.55	49.59	49.28	49.11	49.05	49.03	
27	49.16	51.03	49.97	49.89	50.15	49.85	51.34	49.57	49.26	49.09	49.05	49.01	
28	49.47	50.76	49.96	49.96	50.30	49.77	50.97	49.56	49.24	49.09	49.05	49.02	
29	51.00	50.60	49.92	50.17	50.32	49.66	50.60	49.54	49.23	49.09		49.03	
30	50.84	50.46	49.87	50.14	50.25	49.66	50.46	49.53	49.24	49.08		49.02	
31		50.42		50.03	50.20		50.37		49.37	49.06		49.06	
Mean	49.30	50.75	50.52	49.82	50.31	49.88	50.75	49.89	49.39	49.19	49.10	48.99	
Max	51.00	51.60	51.86	50.32	50.95	50.18	51.99	50.42	49.53	49.36	49.39	49.08	51.99
Min	49.04	50.32	49.87	49.52	49.93	49.65	49.64	49.53	49.23	49.06	48.99	48.89	48.89

Annual Max Momentary Gage Height 52.11 m. (MSL.) , at 07.00 Hours , on Oct 22 , 2018

Zero Gage at Bottom Elevation 49.00 m. (MSL.) , River Bed 48.42 m. (MSL.)

Left Bank Elevation 55.01 m. (MSL.) ,

Right Bank Elevation 55.04 m. (MSL.) , Drainage Are 1,725 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.91	34.00	26.50	10.90	12.70	16.10	7.72	17.90	6.12	4.46	1.34	1.34		
2	1.61	43.60	27.25	10.00	14.20	15.90	12.40	16.30	5.89	3.80	1.34	1.16		
3	2.02	37.90	26.00	9.70	20.50	14.90	29.80	14.90	5.78	3.49	1.34	1.07		
4	2.12	47.60	25.50	9.25	22.00	13.90	20.50	13.90	5.45	3.28	1.25	1.07		
5	1.81	60.50	22.25	8.50	24.75	13.30	25.75	13.00	5.34	3.28	1.25	0.98		
6	4.46	55.60	26.75	7.98	21.75	12.70	77.00	12.25	5.12	3.28	1.25	0.89		
7	3.80	38.50	19.90	7.72	26.25	11.50	75.00	11.50	5.01	3.38	1.25	0.80		
8	5.45	31.90	18.50	7.46	26.50	10.90	51.20	11.05	5.45	3.49	1.16	0.72		
9	6.48	27.25	26.25	7.08	22.25	10.60	35.50	11.95	6.12	3.38	0.98	0.56		
10	5.01	22.25	73.00	6.72	18.90	12.10	26.50	18.90	6.36	3.28	0.89	0.40		
11	4.02	19.30	70.50	6.48	16.10	11.80	21.50	21.00	5.89	3.17	0.80	0.32		
12	3.28	21.75	48.00	6.24	14.50	10.45	20.10	17.70	5.67	3.07	0.80	0.16		
13	2.75	26.00	37.00	6.24	13.45	9.40	17.70	15.90	5.56	2.96	0.80	0.08		
14	2.44	27.75	30.70	6.60	12.70	8.65	16.30	14.20	5.45	2.86	0.72	0.08		
15	2.02	25.00	27.00	7.20	12.10	9.10	14.70	12.70	5.12	2.75	4.79	0.00		
16	1.61	24.75	25.00	9.10	11.95	12.40	13.75	11.95	4.90	2.86	4.46	0.00		
17	1.43	24.75	23.75	13.90	13.60	11.65	13.00	11.20	4.68	2.86	3.70	0.00		
18	1.43	20.50	24.75	11.20	15.30	10.60	12.25	10.30	4.57	2.65	3.49	0.00		
19	1.43	18.90	24.75	11.95	24.75	9.85	12.10	9.40	4.35	2.65	3.38	0.32		
20	1.52	19.10	21.75	16.30	35.50	9.25	12.40	8.95	4.24	2.75	2.65	0.80		
21	1.25	20.75	19.10	18.90	35.50	8.37	44.40	8.80	4.13	2.33	2.33	0.98		
22	1.16	19.70	17.30	14.50	25.75	7.85	79.50	8.50	4.02	2.23	1.91	1.07		
23	1.34	27.25	15.50	12.55	20.75	11.65	54.80	8.24	3.80	2.12	1.61	1.16		
24	1.52	31.00	13.90	11.05	17.70	13.15	74.00	7.85	3.91	2.02	1.43	1.52		
25	1.52	48.00	13.00	9.85	15.70	11.20	70.50	7.46	3.80	1.91	1.34	1.34		
26	1.25	42.40	12.40	9.25	15.30	12.25	58.25	7.08	3.59	1.81	1.25	1.07		
27	2.33	37.90	12.55	11.35	15.50	10.75	49.60	6.84	3.38	1.61	1.25	0.89		
28	5.67	29.80	12.40	12.40	18.50	9.55	36.10	6.72	3.17	1.61	1.25	0.98		
29	37.00	25.50	11.80	15.90	18.90	7.98	25.50	6.48	3.07	1.61		1.07		
30	32.20	22.00	11.05	15.30	17.50	7.98	22.00	6.36	3.17	1.52		0.98		
31		21.00		13.45	16.50		19.90		4.57	1.34		1.34		
Total	141.84	952.20	764.10	325.02	597.35	335.78	1049.72	349.28	147.68	83.81	50.01	23.15	4819.94	CMSDAY
Mean	4.73	30.72	25.47	10.48	19.27	11.19	33.86	11.64	4.76	2.70	1.79	0.75	13.21	CMS
Max	37.00	60.50	73.00	18.90	35.50	16.10	79.50	21.00	6.36	4.46	4.79	1.52	79.50	CMS
Min	1.16	18.90	11.05	6.24	11.95	7.85	7.72	6.36	3.07	1.34	0.72	0.00	0.00	CMS
Runoff	12.25	82.27	66.02	28.08	51.61	29.01	90.70	30.18	12.76	7.24	4.32	2.00	416.44	MCM

Momentary Peak 85.55 CMS. at 52.11 m. (MSL.) at 07.00 Hours , on Oct 22 , 2018

Runoff Yield 7.66 Liters/Second/Square KM. Momentary Peak Yield 49.59 Liters/Second/Square KM.

WATER YEAR : 2018

PRACHIN BURI RIVER BASIN

Prachin Buri River at Ban Kabin Buri , Prachin Buri (Kgt.3)

Lat 13 - 59 - 00 N Long 101 - 42 - 26 E

Location : on left bank in front of Amphoe Kabin Buri Office and about 500 meters downstream from the confluence of Lam Phra Prong.

Ban Kabin Buri **Amphoe** Kabin Buri **Changwat** Prachin Buri

Drainge Area	7,425 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	0.000 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank about 5 meters from the top staff gage. **Elevation** +11.410 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00,12.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic mean of 3 readings
Period of Available Gage Records	1941 to date
Rating Operation	
Period of Rating	1941 - 1943 , 1945, 1964 to date
Rated by Flot	-
Rated by Current Meter	1941 - 1943 , 1945, 1964 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	Overbank flow starts at elevation + 9.700 m.(MSL.), records are channel flow only.
General Description	Records very good. Stage-discharge relation defined by 47 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

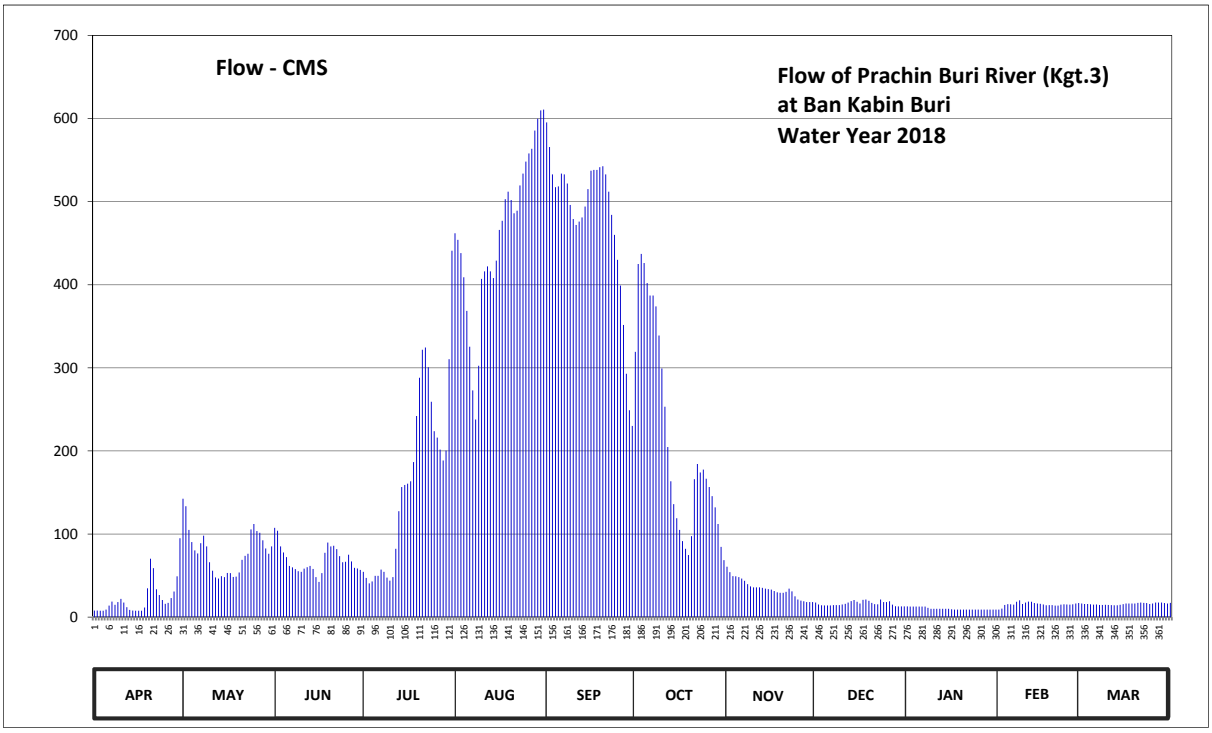
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.39	4.13	3.43	2.08	8.28	9.54	6.79	2.29	0.85	0.64	0.45	0.81	
2	0.39	3.95	3.36	1.84	8.20	9.27	7.91	2.07	0.76	0.63	0.51	0.79	
3	0.38	3.38	2.95	1.62	8.04	8.97	8.03	1.91	0.71	0.63	0.73	0.79	
4	0.38	3.08	2.77	1.70	7.75	8.83	7.92	1.90	0.70	0.63	0.78	0.77	
5	0.45	2.83	2.63	1.92	7.34	8.84	7.68	1.87	0.70	0.63	0.77	0.75	
6	0.69	2.74	2.32	1.92	6.86	8.98	7.53	1.81	0.70	0.63	0.75	0.76	
7	0.89	3.05	2.26	2.17	6.21	8.97	7.53	1.72	0.72	0.63	0.88	0.73	
8	0.74	3.24	2.19	2.08	5.74	8.87	7.40	1.59	0.72	0.56	0.94	0.73	
9	0.87	2.95	2.11	1.85	6.58	8.62	7.01	1.50	0.72	0.50	0.79	0.74	
10	1.00	2.47	2.08	1.73	7.73	8.45	6.54	1.46	0.76	0.50	0.85	0.73	
11	0.85	2.13	2.21	1.87	7.82	8.38	5.96	1.46	0.80	0.50	0.89	0.72	
12	0.60	1.86	2.27	2.88	7.88	8.42	5.26	1.46	0.85	0.50	0.88	0.71	
13	0.43	1.81	2.32	3.83	7.82	8.47	4.55	1.44	0.91	0.50	0.83	0.71	
14	0.39	1.91	2.20	4.41	7.74	8.60	4.00	1.41	0.95	0.50	0.81	0.74	
15	0.38	1.87	1.87	4.46	7.95	8.81	3.66	1.39	0.88	0.50	0.80	0.78	
16	0.38	2.04	1.68	4.49	8.32	9.01	3.38	1.37	0.81	0.47	0.76	0.81	
17	0.38	2.03	2.03	4.55	8.43	9.02	3.11	1.31	0.96	0.45	0.71	0.81	
18	0.58	1.88	2.76	4.96	8.69	9.02	2.88	1.26	0.97	0.45	0.72	0.81	
19	1.42	1.89	3.07	5.80	8.78	9.05	2.69	1.24	0.92	0.45	0.72	0.81	
20	2.58	2.06	2.95	6.40	8.68	9.06	3.23	1.24	0.84	0.45	0.69	0.84	
21	2.23	2.55	2.97	6.82	8.52	8.97	4.60	1.28	0.78	0.45	0.69	0.85	
22	1.38	2.67	2.87	6.85	8.55	8.78	4.92	1.41	0.77	0.45	0.75	0.84	
23	1.15	2.73	2.66	6.56	8.85	8.50	4.75	1.30	0.97	0.45	0.77	0.83	
24	0.95	3.39	2.47	6.04	8.98	8.26	4.81	1.10	0.87	0.45	0.76	0.79	
25	0.80	3.52	2.49	5.54	9.11	7.96	4.61	0.97	0.87	0.45	0.75	0.81	
26	0.84	3.35	2.70	5.43	9.20	7.65	4.41	0.93	0.90	0.45	0.77	0.85	
27	1.03	3.31	2.50	5.21	9.25	7.15	4.19	0.90	0.75	0.45	0.81	0.85	
28	1.29	3.13	2.24	4.99	9.45	6.46	3.92	0.87	0.65	0.45	0.83	0.85	
29	1.90	2.89	2.22	5.19	9.58	5.90	3.52	0.87	0.64	0.45		0.83	
30	3.18	2.73	2.16	6.68	9.67	5.63	2.94	0.87	0.64	0.45		0.81	
31		2.95		8.07	9.68		2.54		0.64	0.45		0.84	
Mean	0.96	2.73	2.49	4.19	8.25	8.41	5.11	1.41	0.80	0.51	0.76	0.79	
Max	3.18	4.13	3.43	8.07	9.68	9.54	8.03	2.29	0.97	0.64	0.94	0.85	9.68
Min	0.38	1.81	1.68	1.62	5.74	5.63	2.54	0.87	0.64	0.45	0.45	0.71	0.38

Annual Max Momentary Gage Height 9.71 m. (MSL.) , at 01.00 Hours, on Aug 31, 2018

Zero Gage at Bottom Elevation 0.00 m. (MSL.) , River Bed -1.11 m. (MSL.)

Left Bank Elevation 10.32 m. (MSL.) ,

Right Bank Elevation 9.69 m. (MSL.) , Drainage Are 7,425 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	7.80	142.50	107.50	54.40	462.00	595.40	319.20	60.70	17.50	12.80	9.00	16.30		
2	7.80	133.50	104.00	47.20	454.00	565.70	425.00	54.10	15.20	12.60	10.20	15.80		
3	7.60	105.00	85.00	40.60	438.00	532.70	437.00	49.30	14.20	12.60	14.60	15.80		
4	7.60	90.20	77.80	43.00	409.00	517.30	426.00	49.00	14.00	12.60	15.60	15.40		
5	9.00	80.20	72.20	49.60	368.60	518.40	402.00	48.10	14.00	12.60	15.40	15.00		
6	13.80	76.60	61.60	49.60	325.40	533.80	387.00	46.30	14.00	12.60	15.00	15.20		
7	18.70	89.00	59.80	57.10	272.80	532.70	387.00	43.60	14.40	12.60	18.40	14.60		
8	14.80	98.00	57.70	54.40	237.80	521.70	374.00	39.70	14.40	11.20	20.20	14.60		
9	18.10	85.00	55.30	47.50	302.40	496.00	338.90	37.00	14.40	10.00	15.80	14.80		
10	22.00	66.10	54.40	43.90	407.00	479.00	299.20	35.80	15.20	10.00	17.50	14.60		
11	17.50	55.90	58.30	48.10	416.00	472.00	253.20	35.80	16.00	10.00	18.70	14.40		
12	12.00	47.80	60.10	82.20	422.00	476.00	204.60	35.80	17.50	10.00	18.40	14.20		
13	8.60	46.30	61.60	127.50	416.00	481.00	163.50	35.20	19.30	10.00	16.90	14.20		
14	7.80	49.30	58.00	156.50	408.00	494.00	136.00	34.30	20.50	10.00	16.30	14.80		
15	7.60	48.10	48.10	159.00	429.00	515.10	119.00	33.70	18.40	10.00	16.00	15.60		
16	7.60	53.20	42.40	160.50	466.00	537.10	105.00	33.10	16.30	9.40	15.20	16.30		
17	7.60	52.90	52.90	163.50	477.00	538.20	91.50	31.30	20.80	9.00	14.20	16.30		
18	11.60	48.40	77.40	186.60	503.00	538.20	82.20	29.80	21.10	9.00	14.40	16.30		
19	34.60	48.70	89.80	242.00	512.00	541.50	74.60	29.20	19.60	9.00	14.40	16.30		
20	70.20	53.80	85.00	288.00	502.00	542.60	97.50	29.20	17.20	9.00	13.80	17.20		
21	58.90	69.00	85.80	321.80	486.00	532.70	166.00	30.40	15.60	9.00	13.80	17.50		
22	33.40	73.80	81.80	324.50	489.00	512.00	184.20	34.30	15.40	9.00	15.00	17.20		
23	26.50	76.20	73.40	300.80	519.50	484.00	174.00	31.00	21.10	9.00	15.40	16.90		
24	20.50	105.50	66.10	259.20	533.80	460.00	177.60	25.00	18.10	9.00	15.20	15.80		
25	16.00	112.00	66.70	223.80	548.10	430.00	166.50	21.10	18.10	9.00	15.00	16.30		
26	17.20	103.50	75.00	216.10	558.00	399.00	156.50	19.90	19.00	9.00	15.40	17.50		
27	22.90	101.50	67.00	201.60	563.50	351.50	145.50	19.00	15.00	9.00	16.30	17.50		
28	30.70	92.50	59.20	188.40	585.50	292.80	132.00	18.10	13.00	9.00	16.90	17.50		
29	49.00	82.60	58.60	200.40	599.80	249.00	112.00	18.10	12.80	9.00		16.90		
30	95.00	76.20	56.80	310.40	609.70	230.10	84.60	18.10	12.80	9.00		16.30		
31		85.00		441.00	610.80		68.60		12.80	9.00		17.20		
Total	682.40	2448.30	2059.30	5089.20	14331.70	14369.50	6689.90	1026.00	507.70	314.00	433.00	494.30	48445.30	CMSDAY
Mean	22.75	78.98	68.64	164.17	462.31	478.98	215.80	34.20	16.38	10.13	15.46	15.95	132.73	CMS
Max	95.00	142.50	107.50	441.00	610.80	595.40	437.00	60.70	21.10	12.80	20.20	17.50	610.80	CMS
Min	7.60	46.30	42.40	40.60	237.80	230.10	68.60	18.10	12.80	9.00	9.00	14.20	7.60	CMS
Runoff	58.96	211.53	177.92	439.71	1238.26	1241.52	578.01	88.65	43.87	27.13	37.41	42.71	4185.67	MCM

Momentary Peak 614.10 CMS, at 9.71 m. (MSL.), at 01.00 Hours, on Aug 31, 2018

Runoff Yield 17.88 Liters/Second/Square KM. Momentary Peak Yield 82.71 Liters/Second/Square KM.

WATER YEAR : 2018

PRACHIN BURI RIVER BASIN

Khlong Phra Sathung at Ban Khao Chakan , Sa Kaeo (Kgt.9)

Lat 13 - 40 - 11 N Long 102 - 04 - 38 E

Location : on right bank near Wat Khao Chakan.

Ban Khao Chakan **Amphoe** Khao Chakan **Changwat** Sa Kaeo

Drainge Area	2,264 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+39.566 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On right bank about 10 meters from the automatic gage building. **Elevation** +50.745 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	1972 to date
Rating Operation	
Period of Rating	1972 - 1987 , 1989 to date
Rated by Flot	-
Rated by Current Meter	1972 - 1987 , 1989 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records very good. Stage-discharge relation defined by 42 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

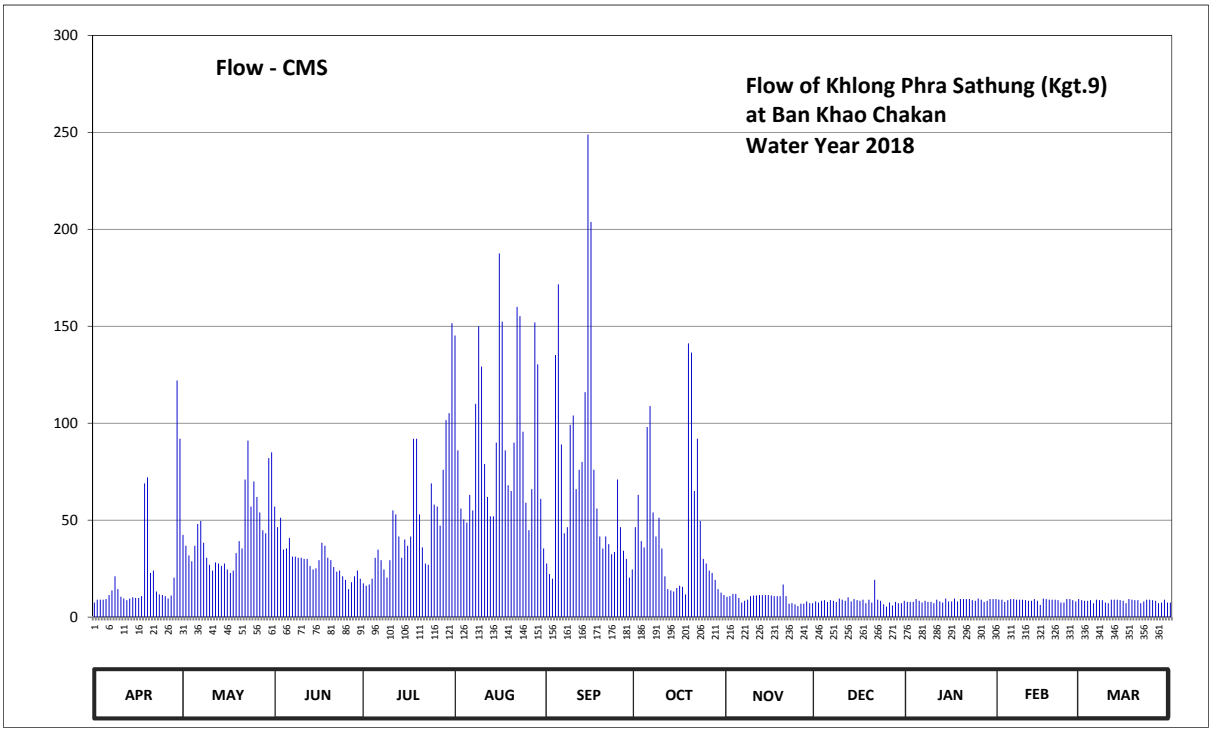
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	43.25	43.88	44.05	43.49	44.93	43.66	43.93	43.35	43.27	43.26	43.30	43.29	
2	43.30	43.81	43.93	43.47	44.34	43.57	44.11	43.36	43.25	43.26	43.30	43.28	
3	43.30	43.73	43.99	43.48	44.04	43.53	43.84	43.40	43.28	43.26	43.26	43.28	
4	43.30	43.68	43.78	43.53	43.98	44.76	43.80	43.40	43.29	43.31	43.29	43.29	
5	43.31	43.81	43.79	43.71	43.96	45.59	44.45	43.33	43.26	43.28	43.31	43.24	
6	43.38	43.95	43.86	43.78	44.11	44.37	44.54	43.25	43.29	43.25	43.31	43.30	
7	43.43	43.97	43.72	43.69	44.03	43.89	44.02	43.28	43.28	43.28	43.30	43.29	
8	43.55	43.83	43.72	43.61	44.55	43.93	43.87	43.30	43.26	43.26	43.30	43.29	
9	43.44	43.71	43.71	43.54	45.05	44.46	43.99	43.36	43.32	43.26	43.30	43.25	
10	43.35	43.65	43.71	43.69	44.71	44.50	43.79	43.37	43.30	43.24	43.29	43.24	
11	43.32	43.60	43.70	44.03	44.27	44.14	43.55	43.37	43.28	43.30	43.28	43.30	
12	43.29	43.67	43.70	44.01	44.10	44.24	43.44	43.38	43.34	43.27	43.28	43.30	
13	43.32	43.66	43.64	43.87	44.00	44.28	43.43	43.38	43.27	43.25	43.31	43.30	
14	43.34	43.64	43.61	43.71	44.00	44.60	43.42	43.38	43.31	43.32	43.28	43.29	
15	43.33	43.66	43.62	43.85	44.38	46.87	43.45	43.38	43.29	43.27	43.21	43.28	
16	43.33	43.61	43.69	43.81	45.91	46.18	43.47	43.37	43.28	43.27	43.32	43.24	
17	43.36	43.58	43.83	43.87	45.11	44.24	43.46	43.36	43.30	43.32	43.31	43.31	
18	44.17	43.60	43.81	44.40	44.34	44.04	43.39	43.36	43.24	43.27	43.30	43.30	
19	44.20	43.75	43.71	44.40	44.16	43.87	44.83	43.36	43.30	43.31	43.30	43.29	
20	43.58	43.84	43.69	44.01	44.13	43.79	44.77	43.48	43.25	43.31	43.30	43.29	
21	43.60	43.79	43.63	43.80	44.38	43.87	44.13	43.36	43.52	43.31	43.29	43.24	
22	43.42	44.19	43.59	43.66	45.30	43.82	44.40	43.23	43.30	43.31	43.25	43.27	
23	43.39	44.39	43.60	43.65	45.18	43.74	43.97	43.24	43.28	43.29	43.25	43.30	
24	43.38	44.05	43.55	44.17	44.43	43.76	43.70	43.22	43.22	43.28	43.31	43.30	
25	43.36	44.18	43.52	44.06	44.07	44.19	43.66	43.19	43.18	43.32	43.31	43.29	
26	43.32	44.10	43.44	44.05	43.91	43.93	43.60	43.23	43.25	43.30	43.29	43.28	
27	43.37	44.02	43.50	43.94	44.14	43.77	43.58	43.23	43.20	43.26	43.27	43.24	
28	43.54	43.91	43.55	44.24	45.10	43.70	43.52	43.27	43.26	43.28	43.31	43.25	
29	44.65	43.89	43.60	44.48	44.72	43.54	43.44	43.24	43.24	43.31		43.30	
30	44.40	44.30	43.53	44.51	44.09	43.61	43.41	43.24	43.24	43.31		43.25	
31		44.33		45.09	43.79		43.38		43.28	43.31		43.25	
Mean	43.51	43.86	43.69	43.92	44.43	44.21	43.82	43.32	43.28	43.28	43.29	43.28	
Max	44.65	44.39	44.05	45.09	45.91	46.87	44.83	43.48	43.52	43.32	43.32	43.31	46.87
Min	43.25	43.58	43.44	43.47	43.79	43.53	43.38	43.19	43.18	43.24	43.21	43.24	43.18

Annual Max Momentary Gage Height 47.73 m. (MSL.) , at 24.00 Hours, on Sep 15, 2018

Zero Gage at Bottom Elevation 39.57 m. (MSL.) , River Bed 38.73 m. (MSL.)

Left Bank Elevation 50.68 m. (MSL.) ,

Right Bank Elevation 50.59 m. (MSL.) , Drainage Are 2,264 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	7.50	42.40	57.00	17.40	145.20	27.60	46.40	10.50	8.10	7.80	9.00	8.70		
2	9.00	36.80	46.40	16.20	86.00	22.20	63.00	10.80	7.50	7.80	9.00	8.40		
3	9.00	31.80	51.20	16.80	56.00	19.80	39.20	12.00	8.40	7.80	7.80	8.40		
4	9.00	28.80	34.80	19.80	50.40	135.20	36.00	12.00	8.70	9.30	8.70	8.70		
5	9.30	36.80	35.40	30.60	48.80	171.60	98.00	9.90	7.80	8.40	9.30	7.20		
6	11.40	48.00	40.80	34.80	63.00	89.00	108.80	7.50	8.70	7.50	9.30	9.00		
7	13.80	49.60	31.20	29.40	55.00	43.20	54.00	8.40	8.40	8.40	9.00	8.70		
8	21.00	38.40	31.20	24.60	110.00	46.40	41.60	9.00	7.80	7.80	9.00	8.70		
9	14.40	30.60	30.60	20.40	150.00	99.20	51.20	10.80	9.60	7.80	9.00	7.50		
10	10.50	27.00	30.60	29.40	129.20	104.00	35.40	11.10	9.00	7.20	8.70	7.20		
11	9.60	24.00	30.00	55.00	79.00	66.00	21.00	11.10	8.40	9.00	8.40	9.00		
12	8.70	28.20	30.00	53.00	62.00	76.00	14.40	11.40	10.20	8.10	8.40	9.00		
13	9.60	27.60	26.40	41.60	52.00	80.00	13.80	11.40	8.10	7.50	9.30	9.00		
14	10.20	26.40	24.60	30.60	52.00	116.00	13.20	11.40	9.30	9.60	8.40	8.70		
15	9.90	27.60	25.20	40.00	90.00	248.90	15.00	11.40	8.70	8.10	6.30	8.40		
16	9.90	24.60	29.40	36.80	187.60	203.80	16.20	11.10	8.40	8.10	9.60	7.20		
17	10.80	22.80	38.40	41.60	152.40	76.00	15.60	10.80	9.00	9.60	9.30	9.30		
18	69.00	24.00	36.80	92.00	86.00	56.00	11.70	10.80	7.20	8.10	9.00	9.00		
19	72.00	33.00	30.60	92.00	68.00	41.60	141.20	10.80	9.00	9.30	9.00	8.70		
20	22.80	39.20	29.40	53.00	65.00	35.40	136.40	16.80	7.50	9.30	9.00	8.70		
21	24.00	35.40	25.80	36.00	90.00	41.60	65.00	10.80	19.20	9.30	8.70	7.20		
22	13.20	71.00	23.40	27.60	160.00	37.60	92.00	6.90	9.00	9.30	7.50	8.10		
23	11.70	91.00	24.00	27.00	155.20	32.40	49.60	7.20	8.40	8.70	7.50	9.00		
24	11.40	57.00	21.00	69.00	95.60	33.60	30.00	6.60	6.60	8.40	9.30	9.00		
25	10.80	70.00	19.20	58.00	59.00	71.00	27.60	5.70	5.40	9.60	9.30	8.70		
26	9.60	62.00	14.40	57.00	44.80	46.40	24.00	6.90	7.50	9.00	8.70	8.40		
27	11.10	54.00	18.00	47.20	66.00	34.20	22.80	6.90	6.00	7.80	8.10	7.20		
28	20.40	44.80	21.00	76.00	152.00	30.00	19.20	8.10	7.80	8.40	9.30	7.50		
29	122.00	43.20	24.00	101.60	130.40	20.40	14.40	7.20	7.20	9.30		9.00		
30	92.00	82.00	19.80	105.20	61.00	24.60	12.60	7.20	7.20	9.30		7.50		
31		85.00		151.60	35.40		11.40		8.40	9.30		7.50		
Total	673.60	1343.00	900.60	1531.20	2837.00	2129.70	1340.70	292.50	262.50	264.90	243.90	258.60	12078.20	CMSDAY
Mean	22.45	43.32	30.02	49.39	91.52	70.99	43.25	9.75	8.47	8.55	8.71	8.34	33.09	CMS
Max	122.00	91.00	57.00	151.60	187.60	248.90	141.20	16.80	19.20	9.60	9.60	9.30	248.90	CMS
Min	7.50	22.80	14.40	16.20	35.40	19.80	11.40	5.70	5.40	7.20	6.30	7.20	5.40	CMS
Runoff	58.20	116.04	77.81	132.30	245.12	184.01	115.84	25.27	22.68	22.89	21.07	22.34	1043.56	MCM

Momentary Peak 320.70 CMS, at 47.73 m. (MSL.), at 24.00 Hours, on Sep 15, 2018

Runoff Yield 14.62 Liters/Second/Square KM. Momentary Peak Yield 141.65 Liters/Second/Square KM.

WATER YEAR : 2018

PRACHIN BURI RIVER BASIN

Khlong Phra Prong at Ban Kaeng , Sa Kaeo (Kgt.12)

Lat 13 - 56 - 10 N Long 101 - 58 - 27 E

Location : on left bank near the railway station at Ban Kaeng at about 200 meters upstream from Thot Saphon Sawmill.

Ban Kaeng **Amphoe** Mueang **Changwat** Sa Kaeo

Drainge Area	1,478 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+13.835 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank in front of the gage observer's house. **Elevation** +23.522 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	1966 to date
Rating Operation	
Period of Rating	1966 to date
Rated by Flot	-
Rated by Current Meter	1966 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records very good. The concrete weir situated about 7 kilometers downstream from the gage site. Stage-discharge relation defined by 54 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

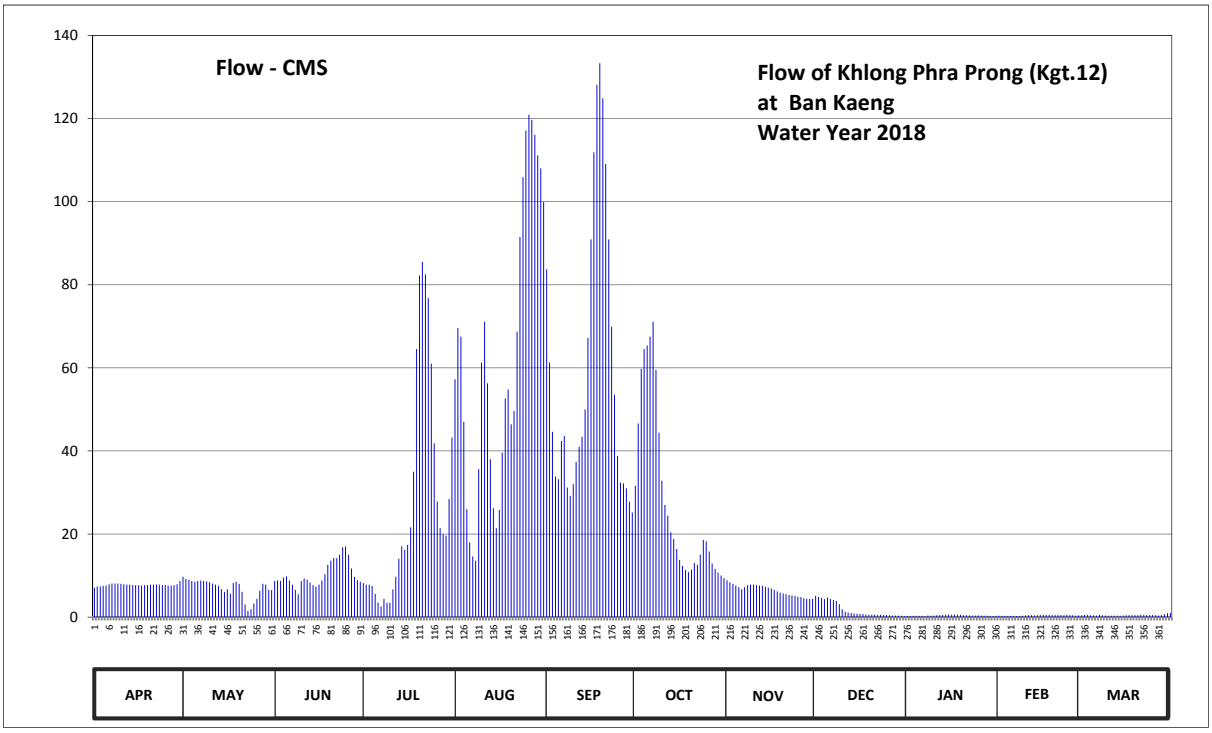
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	16.11	16.37	16.27	16.22	18.87	19.79	17.63	16.29	15.91	14.95	14.98	15.03	
2	16.14	16.32	16.28	16.18	19.32	19.03	18.38	16.24	15.88	14.94	14.96	15.06	
3	16.14	16.30	16.27	16.18	19.25	18.28	18.97	16.20	15.86	14.95	14.96	15.07	
4	16.15	16.27	16.35	16.15	18.40	17.74	19.15	16.16	15.83	14.95	14.95	15.02	
5	16.16	16.25	16.38	15.96	17.35	17.71	19.18	16.12	15.87	14.96	14.96	15.01	
6	16.19	16.27	16.28	15.74	16.95	18.17	19.25	16.07	15.84	14.96	14.96	15.00	
7	16.21	16.28	16.18	15.62	16.78	18.23	19.37	16.12	15.81	14.92	14.94	15.06	
8	16.21	16.27	16.06	15.84	16.73	17.61	18.96	16.17	15.79	14.99	14.93	15.03	
9	16.21	16.26	15.95	15.73	17.83	17.51	18.27	16.18	15.69	14.97	14.97	15.00	
10	16.20	16.24	16.27	15.73	19.03	17.65	17.69	16.18	15.50	14.99	15.01	14.98	
11	16.19	16.21	16.33	16.07	19.37	17.92	17.40	16.17	15.37	15.02	15.02	14.97	
12	16.18	16.18	16.30	16.37	18.83	18.10	17.27	16.16	15.33	15.05	15.02	14.97	
13	16.18	16.15	16.23	16.75	17.95	18.22	17.07	16.15	15.30	15.07	15.00	14.97	
14	16.17	16.07	16.17	16.90	17.36	18.55	16.99	16.13	15.25	15.09	15.02	14.97	
15	16.17	16.01	16.13	16.86	17.12	19.24	16.87	16.11	15.21	15.10	15.07	14.99	
16	16.17	16.07	16.18	16.92	17.34	20.03	16.74	16.09	15.19	15.09	15.07	15.02	
17	16.16	15.96	16.28	17.13	18.03	20.71	16.63	16.06	15.16	15.10	15.08	15.03	
18	16.17	16.22	16.43	17.80	18.68	21.14	16.53	16.02	15.11	15.09	15.08	15.02	
19	16.17	16.25	16.66	19.15	18.77	21.27	16.48	15.99	15.08	15.07	15.06	15.02	
20	16.18	16.20	16.73	19.74	18.37	21.06	16.54	15.97	15.09	15.03	15.04	15.03	
21	16.18	16.01	16.76	19.85	18.53	20.63	16.70	15.95	15.08	15.02	15.04	15.06	
22	16.18	15.68	16.76	19.75	19.29	20.03	16.66	15.93	15.06	15.01	15.04	15.07	
23	16.18	15.41	16.80	19.56	20.05	19.33	16.80	15.92	15.07	14.99	15.05	15.04	
24	16.17	15.50	16.89	19.02	20.53	18.72	16.98	15.91	15.05	14.99	15.07	15.05	
25	16.17	15.71	16.90	18.14	20.86	17.99	16.96	15.89	15.04	15.01	15.06	15.05	
26	16.16	15.84	16.80	17.44	20.96	17.67	16.84	15.88	15.03	15.00	15.02	15.02	
27	16.16	16.03	16.57	17.12	20.93	17.66	16.69	15.85	15.00	14.98	15.00	14.99	
28	16.17	16.20	16.37	17.05	20.83	17.60	16.56	15.84	15.00	14.98	15.01	15.05	
29	16.19	16.18	16.29	17.03	20.69	17.44	16.47	15.84	14.98	14.96		15.15	
30	16.27	16.06	16.25	17.47	20.60	17.31	16.40	15.84	14.95	14.94		15.26	
31		16.05		18.21	20.33		16.34		14.94	14.96		15.30	
Mean	16.18	16.09	16.40	17.22	18.90	18.74	17.38	16.05	15.33	15.00	15.01	15.04	
Max	16.27	16.37	16.90	19.85	20.96	21.27	19.37	16.29	15.91	15.10	15.08	15.30	21.27
Min	16.11	15.41	15.95	15.62	16.73	17.31	16.34	15.84	14.94	14.92	14.93	14.97	14.92

Annual Max Momentary Gage Height 21.31 m. (MSL.) , at 04.00 Hours, on Sep 19, 2018

Zero Gage at Bottom Elevation 13.84 m. (MSL.) , River Bed 13.31 m. (MSL.)

Left Bank Elevation 23.48 m. (MSL.) ,

Right Bank Elevation 22.32 m. (MSL.) , Drainage Are 1,478 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	7.10	9.70	8.70	8.20	57.25	83.70	31.60	8.90	5.10	0.30	0.36	0.46		
2	7.40	9.20	8.80	7.80	69.60	61.25	46.60	8.40	4.80	0.28	0.32	0.52		
3	7.40	9.00	8.70	7.80	67.50	44.60	59.75	8.00	4.60	0.30	0.32	0.54		
4	7.50	8.70	9.50	7.50	47.00	33.80	64.50	7.60	4.30	0.30	0.30	0.44		
5	7.60	8.50	9.80	5.60	26.00	33.20	65.40	7.20	4.70	0.32	0.32	0.42		
6	7.90	8.70	8.80	3.52	18.00	42.40	67.50	6.70	4.40	0.32	0.32	0.40		
7	8.10	8.80	7.80	2.56	14.60	43.60	71.10	7.20	4.10	0.24	0.28	0.52		
8	8.10	8.70	6.60	4.40	13.60	31.20	59.50	7.70	3.92	0.38	0.26	0.46		
9	8.10	8.60	5.50	3.44	35.60	29.20	44.40	7.80	3.12	0.34	0.34	0.40		
10	8.00	8.40	8.70	3.44	61.25	32.00	32.80	7.80	1.90	0.38	0.42	0.36		
11	7.90	8.10	9.30	6.70	71.10	37.40	27.00	7.70	1.28	0.44	0.44	0.34		
12	7.80	7.80	9.00	9.70	56.25	41.00	24.40	7.60	1.12	0.50	0.44	0.34		
13	7.80	7.50	8.30	14.00	38.00	43.40	20.40	7.50	1.00	0.54	0.40	0.34		
14	7.70	6.70	7.70	17.00	26.20	50.00	18.80	7.30	0.90	0.58	0.44	0.34		
15	7.70	6.10	7.30	16.20	21.40	67.20	16.40	7.10	0.82	0.60	0.54	0.38		
16	7.70	6.70	7.80	17.40	25.80	90.90	13.80	6.90	0.78	0.58	0.54	0.44		
17	7.60	5.60	8.80	21.60	39.60	111.85	12.30	6.60	0.72	0.60	0.56	0.46		
18	7.70	8.20	10.30	35.00	52.60	128.10	11.30	6.20	0.62	0.58	0.56	0.44		
19	7.70	8.50	12.60	64.50	54.75	133.30	10.80	5.90	0.56	0.54	0.52	0.44		
20	7.80	8.00	13.60	82.20	46.40	124.90	11.40	5.70	0.58	0.46	0.48	0.46		
21	7.80	6.10	14.20	85.50	49.60	109.05	13.00	5.50	0.56	0.44	0.48	0.52		
22	7.80	3.04	14.20	82.50	68.70	90.90	12.60	5.30	0.52	0.42	0.48	0.54		
23	7.80	1.45	15.00	76.80	91.50	69.90	15.00	5.20	0.54	0.38	0.50	0.48		
24	7.70	1.90	16.80	61.00	105.90	53.50	18.60	5.10	0.50	0.38	0.54	0.50		
25	7.70	3.28	17.00	41.80	117.10	38.80	18.20	4.90	0.48	0.42	0.52	0.50		
26	7.60	4.40	15.00	27.80	120.90	32.40	15.80	4.80	0.46	0.40	0.44	0.44		
27	7.60	6.30	11.70	21.40	119.70	32.20	12.90	4.50	0.40	0.36	0.40	0.38		
28	7.70	8.00	9.70	20.00	116.05	31.00	11.60	4.40	0.40	0.36	0.42	0.50		
29	7.90	7.80	8.90	19.60	111.15	27.80	10.70	4.40	0.36	0.32		0.70		
30	8.70	6.60	8.50	28.40	108.00	25.20	10.00	4.40	0.30	0.28		0.92		
31		6.50		43.20	99.90		9.40		0.28	0.32		1.00		
Total	232.90	216.87	308.60	846.56	1951.00	1773.75	857.55	194.30	54.12	12.66	11.94	14.98	6475.23	CMSDAY
Mean	7.76	7.00	10.29	27.31	62.94	59.13	27.66	6.48	1.75	0.41	0.43	0.48	17.74	CMS
Max	8.70	9.70	17.00	85.50	120.90	133.30	71.10	8.90	5.10	0.60	0.56	1.00	133.30	CMS
Min	7.10	1.45	5.50	2.56	13.60	25.20	9.40	4.40	0.28	0.24	0.26	0.34	0.24	CMS
Runoff	20.12	18.74	26.66	73.14	168.57	153.25	74.09	16.79	4.68	1.09	1.03	1.29	559.46	MCM

Momentary Peak 134.90 CMS, at 21.31 m. (MSL.), at 04.00 Hours, on Sep 19, 2018

Runoff Yield 12.00 Liters/Second/Square KM. Momentary Peak Yield 91.27 Liters/Second/Square KM.

WATER YEAR : 2018

PRACHIN BURI RIVER BASIN

Khlong Phra Prong at Ban Non Suk Phum , Prachin Buri (Kgt.13A)

Lat 13 - 54 - 29 N Long 101 - 50 - 32 E

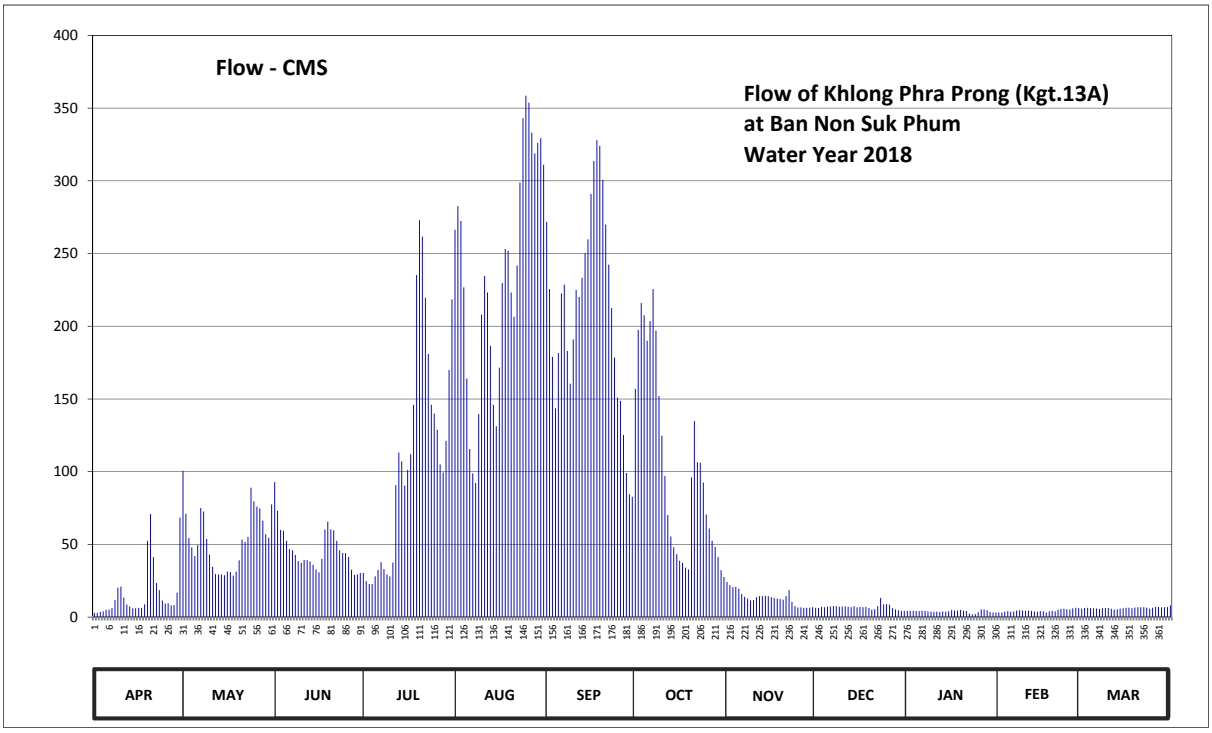
Location : on left bank about 21 kilometers upstream from station Kgt.13

	Ban Non Suk Phum	**Amphoe** Kabin Buri	**Changwat** Prachin Buri
Drainge Area	4,906 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank at the top staff gage.		**Elevation** +17.571 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 3 readings		
Period of Available Gage Records	1997 to date		
Rating Operation			
Period of Rating	1999 to date		
Rated by Flot	-		
Rated by Current Meter	1999 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records very good. Stage-discharge relation defined by 38 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	5.90	10.03	9.81	7.62	13.44	13.53	11.44	7.31	6.24	6.03	5.92	6.18	
2	5.90	9.17	9.24	7.34	13.71	12.76	12.25	7.20	6.23	6.03	5.92	6.23	
3	5.95	8.61	8.80	7.24	13.54	11.88	12.60	7.13	6.29	6.03	5.98	6.24	
4	5.99	8.36	8.78	7.24	12.78	11.14	12.45	7.14	6.28	6.02	6.02	6.22	
5	6.11	8.12	8.54	7.50	11.58	11.93	12.10	7.08	6.32	6.02	5.96	6.20	
6	6.12	8.42	8.31	7.72	10.44	12.71	12.37	6.90	6.33	6.03	5.99	6.19	
7	6.22	9.30	8.28	7.95	9.98	12.81	12.76	6.80	6.36	6.03	6.05	6.16	
8	6.69	9.22	8.15	7.75	9.79	11.96	12.24	6.74	6.35	6.00	6.07	6.22	
9	7.11	8.59	7.98	7.57	11.04	11.51	11.34	6.67	6.31	5.97	6.05	6.23	
10	7.15	8.16	7.93	7.50	12.46	12.12	10.67	6.69	6.32	5.96	6.04	6.23	
11	6.77	7.82	8.01	7.94	12.91	12.75	9.93	6.79	6.34	5.97	6.04	6.17	
12	6.47	7.58	8.01	9.75	12.72	12.67	9.14	6.82	6.30	5.95	6.03	6.10	
13	6.34	7.57	7.97	10.38	12.03	12.89	8.65	6.82	6.28	5.98	5.99	6.14	
14	6.20	7.57	7.88	10.22	11.20	13.17	8.36	6.83	6.35	5.97	5.96	6.18	
15	6.20	7.54	7.74	9.74	10.83	13.33	8.17	6.82	6.27	5.99	6.02	6.20	
16	6.24	7.67	7.64	10.05	11.73	13.85	7.99	6.79	6.29	6.08	5.99	6.24	
17	6.24	7.65	8.04	10.35	12.83	14.21	7.93	6.76	6.28	6.05	5.92	6.25	
18	6.48	7.53	8.81	11.20	13.22	14.43	7.80	6.74	6.30	6.05	6.00	6.22	
19	8.54	7.66	8.99	12.92	13.20	14.37	7.74	6.72	6.23	6.09	6.03	6.26	
20	9.16	8.00	8.81	13.55	12.72	14.01	9.90	6.70	6.12	6.04	6.00	6.28	
21	8.09	8.57	8.79	13.36	12.43	13.50	10.92	6.82	6.14	6.02	6.10	6.27	
22	7.27	8.51	8.54	12.66	13.03	13.04	10.20	7.03	6.36	5.84	6.16	6.28	
23	7.03	8.64	8.28	11.92	13.98	12.54	10.19	6.63	6.76	5.79	6.17	6.25	
24	6.67	9.70	8.20	11.20	14.66	11.87	9.80	6.36	6.48	5.81	6.14	6.18	
25	6.53	9.43	8.20	11.05	14.88	11.32	9.15	6.26	6.49	5.94	6.13	6.24	
26	6.56	9.33	8.09	10.77	14.81	11.27	8.83	6.27	6.46	6.13	6.20	6.30	
27	6.41	9.29	7.73	10.16	14.51	10.68	8.54	6.24	6.21	6.13	6.24	6.29	
28	6.42	9.01	7.55	10.00	14.29	9.99	8.37	6.24	6.13	6.07	6.21	6.27	
29	6.94	8.70	7.57	10.58	14.40	9.57	8.09	6.25	6.07	5.96		6.27	
30	9.08	8.62	7.62	11.70	14.45	9.52	7.71	6.28	6.03	5.92		6.28	
31		9.37		12.64	14.17		7.48		6.03	5.92		6.40	
Mean	6.76	8.51	8.28	9.92	12.83	12.38	9.84	6.73	6.29	5.99	6.05	6.23	
Max	9.16	10.03	9.81	13.55	14.88	14.43	12.76	7.31	6.76	6.13	6.24	6.40	14.88
Min	5.90	7.53	7.55	7.24	9.79	9.52	7.48	6.24	6.03	5.79	5.92	6.10	5.79

Annual Max Momentary Gage Height	14.90	m. (MSL.) ,	at 15.00 Hours, on Aug 25, 2018		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	4.91	m. (MSL.)
Left Bank Elevation	17.66	m. (MSL.) ,			
Right Bank Elevation	16.75	m. (MSL.) ,	Drainage Are	4,906	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	3.00	100.55	92.85	30.40	266.40	271.80	157.00	24.20	6.40	4.30	3.20	5.80		
2	3.00	71.10	73.20	24.80	282.60	225.60	197.50	22.00	6.30	4.30	3.20	6.30		
3	3.50	54.30	60.00	22.80	272.40	179.00	216.00	20.60	6.90	4.30	3.80	6.40		
4	3.90	48.00	59.40	22.80	226.80	143.60	207.50	20.80	6.80	4.20	4.20	6.20		
5	5.10	42.00	52.50	28.00	164.00	181.50	190.00	19.60	7.20	4.20	3.60	6.00		
6	5.20	49.50	46.75	32.40	115.60	222.60	203.50	16.00	7.30	4.30	3.90	5.90		
7	6.20	75.00	46.00	37.75	98.80	228.60	225.60	14.00	7.60	4.30	4.50	5.60		
8	11.80	72.60	42.75	33.00	92.15	183.00	197.00	12.80	7.50	4.00	4.70	6.20		
9	20.20	53.75	38.50	29.40	139.60	160.50	152.00	11.40	7.10	3.70	4.50	6.30		
10	21.00	43.00	37.25	28.00	208.00	191.00	124.80	11.80	7.20	3.60	4.40	6.30		
11	13.40	34.50	39.25	37.50	234.60	225.00	97.05	13.80	7.40	3.70	4.40	5.70		
12	8.70	29.60	39.25	90.75	223.20	220.20	70.20	14.40	7.00	3.50	4.30	5.00		
13	7.40	29.40	38.25	113.20	186.50	233.40	55.50	14.40	6.80	3.80	3.90	5.40		
14	6.00	29.40	36.00	107.20	146.00	250.20	48.00	14.60	7.50	3.70	3.60	5.80		
15	6.00	28.80	32.80	90.40	131.20	259.80	43.25	14.40	6.70	3.90	4.20	6.00		
16	6.40	31.40	30.80	101.25	171.50	291.00	38.75	13.80	6.90	4.80	3.90	6.40		
17	6.40	31.00	40.00	112.00	229.80	313.65	37.25	13.20	6.80	4.50	3.20	6.50		
18	8.80	28.60	60.30	146.00	253.20	327.95	34.00	12.80	7.00	4.50	4.00	6.20		
19	52.50	31.20	65.70	235.20	252.00	324.05	32.80	12.40	6.30	4.90	4.30	6.60		
20	70.80	39.00	60.30	273.00	223.20	300.65	96.00	12.00	5.20	4.40	4.00	6.80		
21	41.25	53.25	59.70	261.60	206.50	270.00	134.80	14.40	5.40	4.20	5.00	6.70		
22	23.40	51.75	52.50	219.60	241.80	242.40	106.50	18.60	7.60	2.40	5.60	6.80		
23	18.60	55.20	46.00	181.00	298.80	212.40	106.15	10.60	13.20	1.90	5.70	6.50		
24	11.40	89.00	44.00	146.00	343.20	178.50	92.50	7.60	8.80	2.10	5.40	5.80		
25	9.30	79.55	44.00	140.00	358.60	151.00	70.50	6.60	8.90	3.40	5.30	6.40		
26	9.60	76.05	41.25	128.80	353.70	148.80	60.90	6.70	8.60	5.30	6.00	7.00		
27	8.10	74.70	32.60	105.10	333.15	125.20	52.50	6.40	6.10	5.30	6.40	6.90		
28	8.20	66.30	29.00	99.50	318.85	99.15	48.25	6.40	5.30	4.70	6.10	6.70		
29	16.80	57.00	29.40	121.20	326.00	84.45	41.25	6.50	4.70	3.60		6.70		
30	68.40	54.60	30.40	170.00	329.25	82.70	32.20	6.80	4.30	3.20		6.80		
31		77.45		218.40	311.05		27.60		4.30	3.20		8.00		
Total	484.35	1657.55	1400.70	3387.05	7338.45	6327.70	3196.85	399.60	215.10	122.20	125.30	195.70	24850.55	CMSDAY
Mean	16.14	53.47	46.69	109.26	236.72	210.92	103.12	13.32	6.94	3.94	4.47	6.31	68.08	CMS
Max	70.80	100.55	92.85	273.00	358.60	327.95	225.60	24.20	13.20	5.30	6.40	8.00	358.60	CMS
Min	3.00	28.60	29.00	22.80	92.15	82.70	27.60	6.40	4.30	1.90	3.20	5.00	1.90	CMS
Runoff	41.85	143.21	121.02	292.64	634.04	546.71	276.21	34.53	18.58	10.56	10.83	16.91	2147.09	MCM

Momentary Peak 360.00 CMS, at 14.90 m. (MSL.), at 15.00 Hours, on Aug 25, 2018

Runoff Yield 13.88 Liters/Second/Square KM. Momentary Peak Yield 73.38 Liters/Second/Square KM.

WATER YEAR : 2018

PRACHIN BURI RIVER BASIN

Khlong Yang at Ban Thung Faek , Prachin Buri (Kgt.14)

Lat 14 - 09 - 29 N Long 101 - 52 - 50 E

Location : on left bank about 2 kilometers from Kabin Buri - Nakhon Ratchasima Highway.

Ban Thung Faek **Amphoe** Na Di **Changwat** Prachin Buri

Drainge Area	354 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+34.600 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	Near the automatic gage building. **Elevation** +41.721 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	1966 to date
Rating Operation	
Period of Rating	1966 - 1981 , 1986 to date
Rated by Flot	-
Rated by Current Meter	1966 - 1981 , 1986 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Stage-discharge relation defined by 24 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

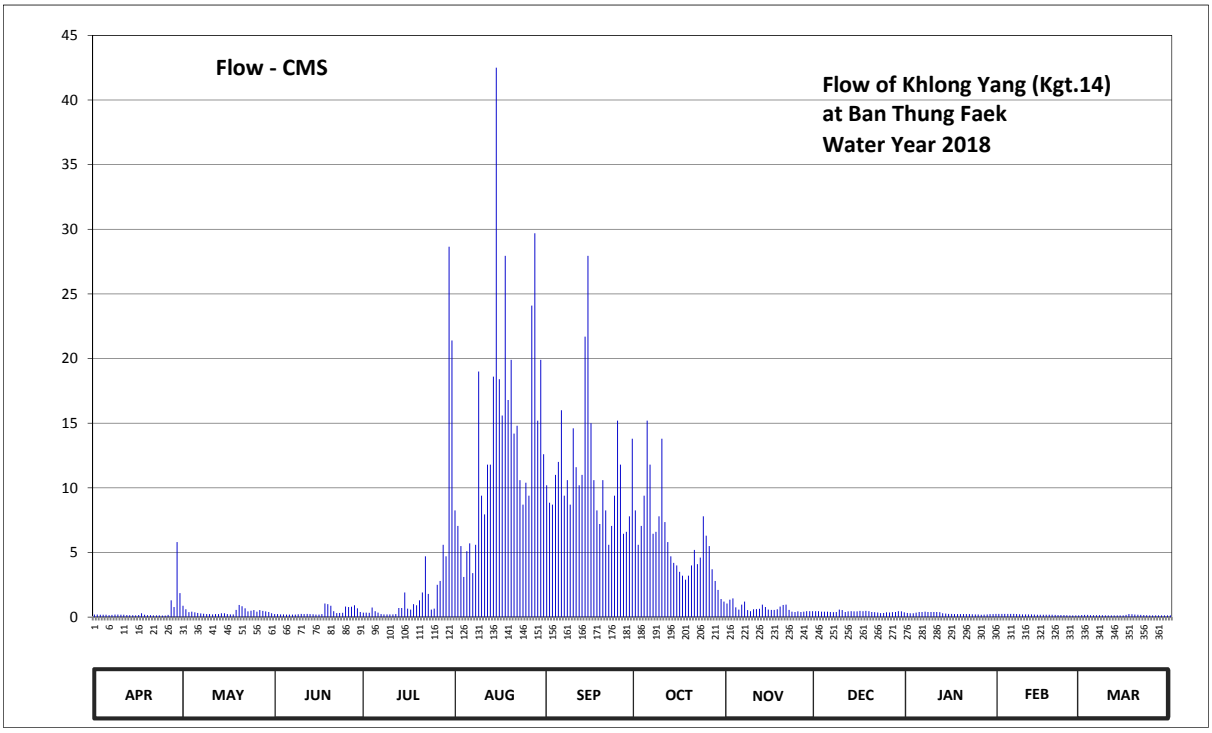
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	35.30	35.74	35.33	35.44	36.55	36.66	36.55	35.81	35.53	35.42	35.35	35.26	
2	35.30	35.60	35.34	35.44	36.47	36.59	36.36	35.87	35.53	35.40	35.35	35.27	
3	35.29	35.48	35.31	35.43	36.35	36.58	36.47	35.89	35.51	35.39	35.35	35.27	
4	35.28	35.51	35.31	35.67	36.11	36.70	36.62	35.68	35.51	35.44	35.35	35.25	
5	35.28	35.47	35.30	35.53	36.31	36.75	36.91	35.59	35.51	35.50	35.35	35.25	
6	35.25	35.42	35.30	35.45	36.37	36.95	36.74	35.78	35.50	35.50	35.35	35.25	
7	35.27	35.38	35.30	35.33	36.14	36.62	36.43	35.84	35.48	35.51	35.33	35.25	
8	35.30	35.36	35.30	35.31	36.36	36.68	36.44	35.57	35.49	35.50	35.32	35.25	
9	35.30	35.34	35.32	35.31	37.10	36.58	36.52	35.53	35.59	35.50	35.31	35.24	
10	35.29	35.33	35.35	35.31	36.62	36.88	36.84	35.60	35.57	35.50	35.31	35.24	
11	35.28	35.31	35.34	35.31	36.53	36.73	36.49	35.61	35.50	35.50	35.31	35.24	
12	35.26	35.33	35.35	35.33	36.74	36.66	36.38	35.62	35.52	35.48	35.31	35.24	
13	35.25	35.34	35.34	35.65	36.74	36.70	36.27	35.78	35.53	35.40	35.30	35.24	
14	35.25	35.39	35.32	35.65	37.08	37.19	36.22	35.69	35.52	35.37	35.29	35.24	
15	35.24	35.39	35.30	35.98	37.75	37.37	36.20	35.59	35.52	35.35	35.29	35.24	
16	35.26	35.34	35.30	35.63	37.07	36.90	36.15	35.58	35.54	35.35	35.29	35.27	
17	35.40	35.31	35.33	35.59	36.93	36.68	36.12	35.58	35.53	35.33	35.29	35.33	
18	35.28	35.31	35.81	35.80	37.37	36.55	36.09	35.60	35.54	35.33	35.29	35.32	
19	35.25	35.58	35.80	35.76	36.99	36.48	36.12	35.71	35.53	35.33	35.29	35.30	
20	35.25	35.77	35.74	35.86	37.13	36.68	36.20	35.77	35.50	35.33	35.27	35.28	
21	35.24	35.72	35.53	35.98	36.86	36.55	36.32	35.78	35.48	35.33	35.26	35.27	
22	35.23	35.64	35.41	36.27	36.89	36.36	36.21	35.58	35.46	35.33	35.26	35.26	
23	35.23	35.52	35.42	35.96	36.68	36.47	36.26	35.51	35.41	35.32	35.26	35.25	
24	35.22	35.55	35.43	35.59	36.58	36.62	36.52	35.50	35.42	35.31	35.25	35.24	
25	35.22	35.57	35.71	35.63	36.67	36.91	36.42	35.52	35.47	35.31	35.24	35.24	
26	35.27	35.51	35.69	36.05	36.62	36.74	36.35	35.50	35.46	35.29	35.24	35.24	
27	35.86	35.57	35.70	36.08	37.26	36.43	36.17	35.51	35.48	35.30	35.24	35.24	
28	35.69	35.54	35.76	36.36	37.42	36.44	36.08	35.53	35.50	35.31	35.24	35.24	
29	36.38	35.52	35.64	36.27	36.91	36.52	36.01	35.53	35.53	35.33		35.24	
30	35.97	35.49	35.49	37.39	37.13	36.84	35.88	35.53	35.52	35.33		35.23	
31		35.39		37.18	36.78		35.84		35.47	35.35		35.23	
Mean	35.36	35.47	35.45	35.79	36.79	36.69	36.33	35.64	35.50	35.39	35.30	35.26	
Max	36.38	35.77	35.81	37.39	37.75	37.37	36.91	35.89	35.59	35.51	35.35	35.33	37.75
Min	35.22	35.31	35.30	35.31	36.11	36.36	35.84	35.50	35.41	35.29	35.24	35.23	35.22

Annual Max Momentary Gage Height 37.96 m. (MSL.) , at 15.00 Hours, on Aug 15, 2018

Zero Gage at Bottom Elevation 34.60 m. (MSL.) , River Bed 33.08 m. (MSL.)

Left Bank Elevation 38.56 m. (MSL.) ,

Right Bank Elevation 38.46 m. (MSL.) , Drainage Are 354 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.20	0.88	0.23	0.34	8.25	10.20	8.25	1.05	0.46	0.32	0.25	0.16		
2	0.20	0.60	0.24	0.34	7.05	8.85	5.60	1.35	0.46	0.30	0.25	0.17		
3	0.19	0.38	0.21	0.33	5.50	8.70	7.05	1.45	0.42	0.29	0.25	0.17		
4	0.18	0.42	0.21	0.74	3.10	11.00	9.40	0.76	0.42	0.34	0.25	0.15		
5	0.18	0.37	0.20	0.46	5.10	12.00	15.20	0.58	0.42	0.40	0.25	0.15		
6	0.15	0.32	0.20	0.35	5.70	16.00	11.80	0.96	0.40	0.40	0.25	0.15		
7	0.17	0.28	0.20	0.23	3.40	9.40	6.45	1.20	0.38	0.42	0.23	0.15		
8	0.20	0.26	0.20	0.21	5.60	10.60	6.60	0.54	0.39	0.40	0.22	0.15		
9	0.20	0.24	0.22	0.21	19.00	8.70	7.80	0.46	0.58	0.40	0.21	0.14		
10	0.19	0.23	0.25	0.21	9.40	14.60	13.80	0.60	0.54	0.40	0.21	0.14		
11	0.18	0.21	0.24	0.21	7.95	11.60	7.35	0.62	0.40	0.40	0.21	0.14		
12	0.16	0.23	0.25	0.23	11.80	10.20	5.80	0.64	0.44	0.38	0.21	0.14		
13	0.15	0.24	0.24	0.70	11.80	11.00	4.70	0.96	0.46	0.30	0.20	0.14		
14	0.15	0.29	0.22	0.70	18.60	21.70	4.20	0.78	0.44	0.27	0.19	0.14		
15	0.14	0.29	0.20	1.90	42.50	27.95	4.00	0.58	0.44	0.25	0.19	0.14		
16	0.16	0.24	0.20	0.66	18.40	15.00	3.50	0.56	0.48	0.25	0.19	0.17		
17	0.30	0.21	0.23	0.58	15.60	10.60	3.20	0.56	0.46	0.23	0.19	0.23		
18	0.18	0.21	1.05	1.00	27.95	8.25	2.90	0.60	0.48	0.23	0.19	0.22		
19	0.15	0.56	1.00	0.92	16.80	7.20	3.20	0.82	0.46	0.23	0.19	0.20		
20	0.15	0.94	0.88	1.30	19.90	10.60	4.00	0.94	0.40	0.23	0.17	0.18		
21	0.14	0.84	0.46	1.90	14.20	8.25	5.20	0.96	0.38	0.23	0.16	0.17		
22	0.13	0.68	0.31	4.70	14.80	5.60	4.10	0.56	0.36	0.23	0.16	0.16		
23	0.13	0.44	0.32	1.80	10.60	7.05	4.60	0.42	0.31	0.22	0.16	0.15		
24	0.12	0.50	0.33	0.58	8.70	9.40	7.80	0.40	0.32	0.21	0.15	0.14		
25	0.12	0.54	0.82	0.66	10.40	15.20	6.30	0.44	0.37	0.21	0.14	0.14		
26	0.17	0.42	0.78	2.50	9.40	11.80	5.50	0.40	0.36	0.19	0.14	0.14		
27	1.30	0.54	0.80	2.80	24.10	6.45	3.70	0.42	0.38	0.20	0.14	0.14		
28	0.78	0.48	0.92	5.60	29.70	6.60	2.80	0.46	0.40	0.21	0.14	0.14		
29	5.80	0.44	0.68	4.70	15.20	7.80	2.10	0.46	0.46	0.23		0.14		
30	1.85	0.39	0.39	28.65	19.90	13.80	1.40	0.46	0.44	0.23		0.13		
31		0.29		21.40	12.60		1.20		0.37	0.25		0.13		
Total	14.12	12.96	12.48	86.91	433.00	336.10	179.50	20.99	13.08	8.85	5.49	4.81	1128.29	CMSDAY
Mean	0.47	0.42	0.42	2.80	13.97	11.20	5.79	0.70	0.42	0.29	0.20	0.16	3.09	CMS
Max	5.80	0.94	1.05	28.65	42.50	27.95	15.20	1.45	0.58	0.42	0.25	0.23	42.50	CMS
Min	0.12	0.21	0.20	0.21	3.10	5.60	1.20	0.40	0.31	0.19	0.14	0.13	0.12	CMS
Runoff	1.22	1.12	1.08	7.51	37.41	29.04	15.51	1.81	1.13	0.76	0.47	0.42	97.48	MCM

Momentary Peak 51.70 CMS, at 37.96 m. (MSL.), at 15.00 Hours, on Aug 15, 2018

Runoff Yield 8.73 Liters/Second/Square KM. Momentary Peak Yield 146.05 Liters/Second/Square KM.

WATER YEAR : 2018

PRACHIN BURI RIVER BASIN

Huai Samong at Ban Kaeng Din So , Prachin Buri (Kgt.15A)

Lat 14 - 03 - 47 N Long 101 - 55 - 39 E

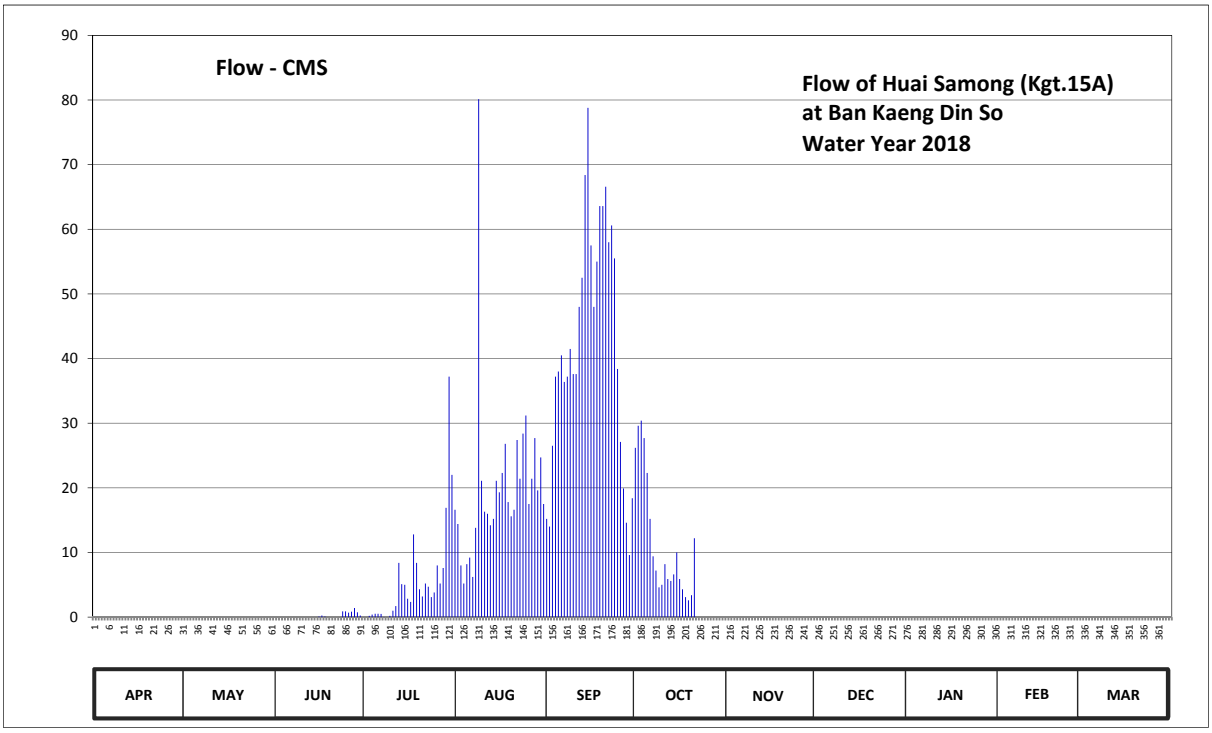
Location : on right bank at Ban Kaeng Din So about 1 kilometer upstream from the Kgt.15 Station.

	Ban Kaeng Din So	**Amphoe** Na Di	**Changwat** Prachin Buri
Drainge Area	548 sq.km.		
Type of Gage	Water - stage recorder.		
Zero Gage at Bottom	+12.800 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	In front of the station office and near the rain gage.	**Elevation** +22.396 m. (MSL.)	
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	1968 to date		
Rating Operation			
Period of Rating	1968 to date		
Rated by Flot	-		
Rated by Current Meter	1968 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Flow effected by the local weir.		
	Stage-discharge relation defined by 47 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	14.83	15.56	15.72	13.91	15.62	15.56	15.94	15.58	15.40	15.40	15.47	15.77	
2	14.77	15.56	15.73	13.91	15.52	15.50	16.04	15.57	14.98	15.39	15.66	15.77	
3	14.51	15.58	15.76	14.08	15.20	15.95	16.06	15.57	14.98	15.39	15.67	15.77	
4	14.44	15.59	15.74	14.16	15.02	16.23	15.99	15.57	14.98	15.39	15.67	15.77	
5	14.51	15.61	15.71	14.21	15.21	16.25	15.81	15.56	14.98	15.39	15.67	15.77	
6	15.53	15.61	15.69	14.21	15.26	16.31	15.56	15.55	14.74	15.39	15.65	15.77	
7	14.71	15.62	15.66	14.20	15.11	16.21	15.27	15.56	14.71	15.39	15.65	15.77	
8	14.55	15.63	15.64	14.01	15.49	16.23	15.16	15.56	14.80	15.39	15.52	15.77	
9	14.48	15.62	15.60	13.82	17.17	16.33	14.96	15.56	14.78	15.39	15.61	15.77	
10	14.46	15.62	15.59	14.08	15.77	16.24	15.00	15.56	14.76	15.39	15.62	15.77	
11	14.45	15.63	15.51	14.39	15.61	16.24	15.21	15.55	14.75	15.39	15.75	15.77	
12	14.45	15.65	15.22	14.54	15.60	16.46	15.09	15.55	14.75	15.38	15.78	15.77	
13	14.45	15.69	14.89	15.22	15.51	16.55	15.06	15.55	14.74	15.39	15.78	15.78	
14	14.44	15.69	14.61	15.01	15.56	16.84	15.13	15.55	14.74	15.39	15.77	15.79	
15	14.44	15.67	14.18	15.00	15.77	17.04	15.30	15.56	14.81	15.39	15.73	15.79	
16	14.45	15.66	14.04	14.77	15.71	16.65	15.09	15.54	15.39	15.40	15.73	15.79	
17	14.53	15.66	14.10	14.67	15.81	16.46	14.93	15.53	15.39	15.39	15.73	15.78	
18	14.64	15.66	14.04	15.44	15.96	16.60	14.81	15.53	15.39	15.39	15.73	15.78	
19	14.79	15.66	13.99	15.22	15.66	16.76	14.72	15.54	15.39	15.39	15.73	15.78	
20	14.94	15.66	13.96	14.93	15.58	16.76	14.84	15.59	15.39	15.39	15.74	15.78	
21	15.08	15.67	13.96	14.82	15.62	16.81	15.41	15.54	15.39	15.39	15.77	15.78	
22	15.22	15.67	13.94	15.02	15.98	16.66	15.61	15.53	15.39	15.38	15.77	15.78	
23	15.34	15.67	13.92	14.97	15.78	16.71	15.61	15.53	15.39	15.38	15.77	15.78	
24	15.47	15.67	14.36	14.81	16.01	16.61	15.61	15.53	15.39	15.38	15.77	15.79	
25	15.48	15.68	14.35	14.88	16.08	16.26	15.61	15.53	15.39	15.38	15.77	15.80	
26	15.52	15.68	14.27	15.20	15.65	15.97	15.61	15.52	15.39	15.38	15.77	15.80	
27	15.55	15.68	14.34	15.02	15.78	15.73	15.60	15.52	15.39	15.38	15.77	15.80	
28	15.60	15.71	14.48	15.18	15.99	15.53	15.59	15.52	15.39	15.38	15.77	15.80	
29	15.58	15.72	14.29	15.63	15.72	15.28	15.59	15.52	15.39	15.38		15.80	
30	15.55	15.72	14.10	16.23	15.89	15.68	15.58	15.52	15.39	15.38		15.80	
31		15.72		15.80	15.65		15.57		15.39	15.38		15.80	
Mean	14.89	15.65	14.78	14.75	15.69	16.28	15.40	15.55	15.13	15.39	15.71	15.78	
Max	15.60	15.72	15.76	16.23	17.17	17.04	16.06	15.59	15.40	15.40	15.78	15.80	17.17
Min	14.44	15.56	13.92	13.82	15.02	15.28	14.72	15.52	14.71	15.38	15.47	15.77	13.82

Annual Max Momentary Gage Height	18.31	m. (MSL.) ,	at 09.00 Hours, on Aug 9, 2018		
Zero Gage at Bottom Elevation	12.80	m. (MSL.) ,	River Bed	12.61	m. (MSL.)
Left Bank Elevation	20.23	m. (MSL.) ,			
Right Bank Elevation	20.72	m. (MSL.) ,	Drainage Are	548	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	0.00	0.00	16.60	15.20	26.20	0.00	0.00	0.00	0.00	0.00		
2	0.00	0.00	0.00	0.00	14.40	14.00	29.60	0.00	0.00	0.00	0.00	0.00		
3	0.00	0.00	0.00	0.20	8.00	26.50	30.40	0.00	0.00	0.00	0.00	0.00		
4	0.00	0.00	0.00	0.40	5.20	37.20	27.70	0.00	0.00	0.00	0.00	0.00		
5	0.00	0.00	0.00	0.53	8.20	38.00	22.30	0.00	0.00	0.00	0.00	0.00		
6	0.00	0.00	0.00	0.53	9.20	40.50	15.20	0.00	0.00	0.00	0.00	0.00		
7	0.00	0.00	0.00	0.50	6.20	36.40	9.40	0.00	0.00	0.00	0.00	0.00		
8	0.00	0.00	0.00	0.03	13.80	37.20	7.20	0.00	0.00	0.00	0.00	0.00		
9	0.00	0.00	0.00	0.00	80.14	41.50	4.60	0.00	0.00	0.00	0.00	0.00		
10	0.00	0.00	0.00	0.20	21.10	37.60	5.00	0.00	0.00	0.00	0.00	0.00		
11	0.00	0.00	0.00	0.98	16.30	37.60	8.20	0.00	0.00	0.00	0.00	0.00		
12	0.00	0.00	0.00	1.70	16.00	48.00	5.90	0.00	0.00	0.00	0.00	0.00		
13	0.00	0.00	0.00	8.40	14.20	52.50	5.60	0.00	0.00	0.00	0.00	0.00		
14	0.00	0.00	0.00	5.10	15.20	68.40	6.60	0.00	0.00	0.00	0.00	0.00		
15	0.00	0.00	0.00	5.00	21.10	78.80	10.00	0.00	0.00	0.00	0.00	0.00		
16	0.00	0.00	0.10	2.85	19.30	57.50	5.90	0.00	0.00	0.00	0.00	0.00		
17	0.00	0.00	0.25	2.35	22.30	48.00	4.30	0.00	0.00	0.00	0.00	0.00		
18	0.00	0.00	0.10	12.80	26.80	55.00	3.10	0.00	0.00	0.00	0.00	0.00		
19	0.00	0.00	0.00	8.40	17.80	63.60	2.60	0.00	0.00	0.00	0.00	0.00		
20	0.00	0.00	0.00	4.30	15.60	63.60	3.40	0.00	0.00	0.00	0.00	0.00		
21	0.00	0.00	0.00	3.20	16.60	66.60	12.20	0.00	0.00	0.00	0.00	0.00		
22	0.00	0.00	0.00	5.20	27.40	58.00	0.00	0.00	0.00	0.00	0.00	0.00		
23	0.00	0.00	0.00	4.70	21.40	60.60	0.00	0.00	0.00	0.00	0.00	0.00		
24	0.00	0.00	0.90	3.10	28.40	55.50	0.00	0.00	0.00	0.00	0.00	0.00		
25	0.00	0.00	0.88	3.80	31.20	38.40	0.00	0.00	0.00	0.00	0.00	0.00		
26	0.00	0.00	0.68	8.00	17.50	27.10	0.00	0.00	0.00	0.00	0.00	0.00		
27	0.00	0.00	0.85	5.20	21.40	19.90	0.00	0.00	0.00	0.00	0.00	0.00		
28	0.00	0.00	1.40	7.60	27.70	14.60	0.00	0.00	0.00	0.00	0.00	0.00		
29	0.00	0.00	0.73	16.90	19.60	9.60	0.00	0.00	0.00	0.00		0.00		
30	0.00	0.00	0.25	37.20	24.70	18.40	0.00	0.00	0.00	0.00		0.00		
31		0.00		22.00	17.50		0.00		0.00	0.00		0.00		
Total	0.00	0.00	6.14	171.17	620.84	1265.80	245.40	0.00	0.00	0.00	0.00	0.00	2309.35	CMSDAY
Mean	0.00	0.00	0.20	5.52	20.03	42.19	7.92	0.00	0.00	0.00	0.00	0.00	6.33	CMS
Max	0.00	0.00	1.40	37.20	80.14	78.80	30.40	0.00	0.00	0.00	0.00	0.00	80.14	CMS
Min	0.00	0.00	0.00	0.00	5.20	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	0.00	0.00	0.53	14.79	53.64	109.37	21.20	0.00	0.00	0.00	0.00	0.00	199.53	MCM

Momentary Peak 86.94 CMS, at 18.31 m. (MSL.), at 09.00 Hours, on Aug 9, 2018

Runoff Yield 11.55 Liters/Second/Square KM. Momentary Peak Yield 158.65 Liters/Second/Square KM.

WATER YEAR : 2018

PRACHIN BURI RIVER BASIN

Khlong Luang at Ban Tha Bun Mee , Chon Buri (Kgt.19A)

Lat 13 - 23 - 46 N Long 101 - 21 - 06 E

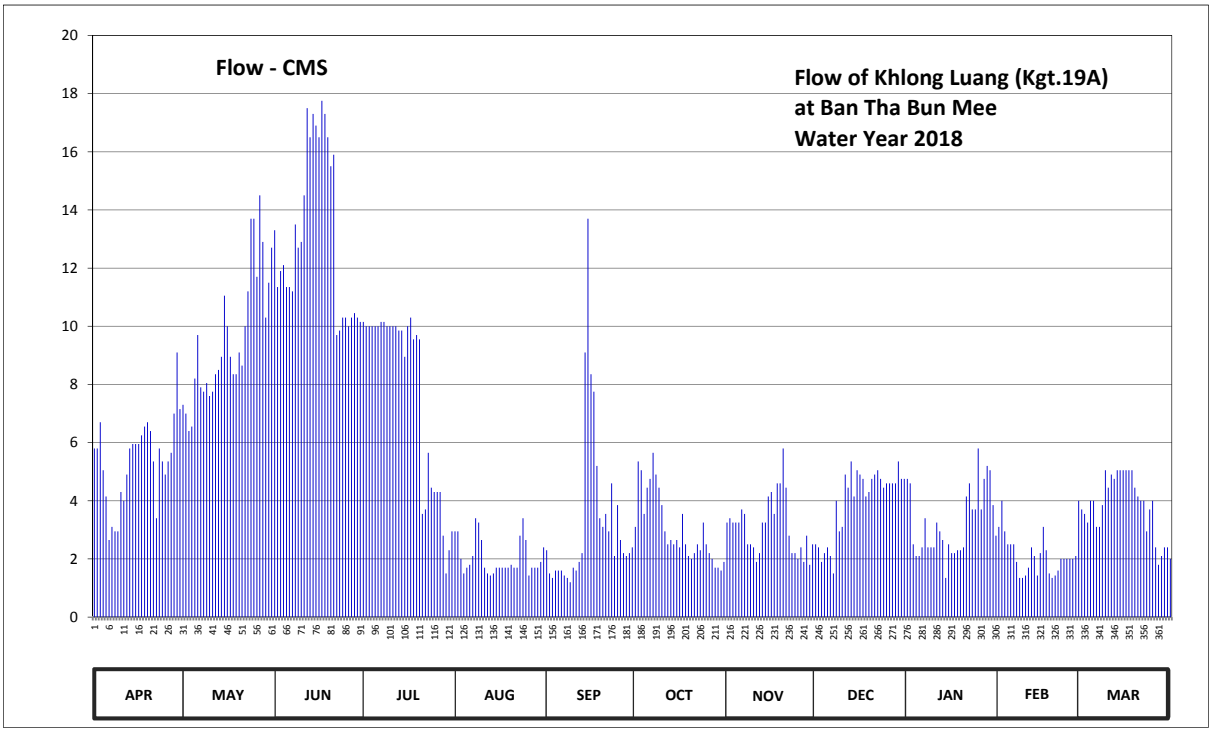
Location : on right bank at Ban Tha Bun Mee.

	Ban Tha Bun Mee	**Amphoe** Phanat Nikhom	**Changwat** Chon Buri
Drainge Area	571 sq.km.		
Type of Gage	Water - stage recorder.		
Zero Gage at Bottom	+13.570 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	In front of the station office and near the rain gage.		**Elevation** +19.603 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	2015 to date		
Rating Operation			
Period of Rating	2015 to date		
Rated by Flot	-		
Rated by Current Meter	2015 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 4 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	15.52	15.62	15.99	15.81	15.33	15.28	15.34	15.35	15.30	15.45	15.34	15.38	
2	15.52	15.60	15.89	15.80	15.33	15.20	15.49	15.36	15.29	15.44	15.40	15.37	
3	15.58	15.56	15.92	15.80	15.25	15.18	15.47	15.35	15.24	15.30	15.33	15.35	
4	15.47	15.57	15.93	15.80	15.20	15.21	15.37	15.35	15.27	15.26	15.30	15.40	
5	15.41	15.68	15.89	15.80	15.22	15.21	15.43	15.35	15.29	15.26	15.30	15.40	
6	15.31	15.78	15.89	15.80	15.23	15.21	15.45	15.38	15.26	15.29	15.30	15.34	
7	15.34	15.66	15.88	15.81	15.26	15.19	15.51	15.37	15.20	15.36	15.24	15.34	
8	15.33	15.65	16.00	15.81	15.36	15.18	15.46	15.30	15.40	15.29	15.18	15.39	
9	15.33	15.67	15.96	15.80	15.35	15.16	15.43	15.30	15.33	15.29	15.18	15.47	
10	15.42	15.64	15.97	15.80	15.31	15.22	15.39	15.29	15.34	15.29	15.19	15.43	
11	15.40	15.65	16.05	15.80	15.22	15.21	15.33	15.24	15.46	15.35	15.22	15.46	
12	15.46	15.69	16.20	15.80	15.20	15.24	15.30	15.27	15.43	15.33	15.29	15.45	
13	15.52	15.70	16.15	15.79	15.19	15.27	15.31	15.35	15.49	15.31	15.26	15.47	
14	15.53	15.73	16.19	15.79	15.20	15.74	15.30	15.35	15.41	15.18	15.19	15.47	
15	15.53	15.87	16.17	15.73	15.22	16.01	15.31	15.41	15.47	15.30	15.27	15.47	
16	15.53	15.80	16.15	15.80	15.22	15.69	15.29	15.42	15.46	15.27	15.34	15.47	
17	15.55	15.73	16.21	15.82	15.22	15.65	15.37	15.37	15.45	15.27	15.28	15.47	
18	15.57	15.69	16.19	15.77	15.22	15.48	15.30	15.44	15.41	15.28	15.20	15.47	
19	15.58	15.69	16.15	15.78	15.22	15.36	15.26	15.44	15.42	15.28	15.18	15.43	
20	15.56	15.74	16.10	15.77	15.23	15.34	15.25	15.52	15.45	15.29	15.19	15.41	
21	15.49	15.71	16.12	15.37	15.22	15.37	15.27	15.43	15.46	15.41	15.21	15.40	
22	15.36	15.80	15.78	15.38	15.22	15.33	15.30	15.32	15.47	15.44	15.25	15.40	
23	15.52	15.88	15.79	15.51	15.32	15.44	15.28	15.27	15.45	15.38	15.25	15.33	
24	15.49	16.01	15.82	15.43	15.36	15.26	15.35	15.27	15.43	15.38	15.25	15.38	
25	15.46	16.01	15.82	15.42	15.31	15.39	15.30	15.25	15.44	15.52	15.25	15.40	
26	15.49	15.91	15.80	15.42	15.19	15.31	15.27	15.29	15.44	15.38	15.25	15.29	
27	15.51	16.05	15.82	15.42	15.22	15.27	15.25	15.24	15.44	15.45	15.26	15.23	
28	15.60	15.97	15.83	15.32	15.22	15.26	15.22	15.32	15.44	15.48	15.40	15.26	
29	15.74	15.82	15.82	15.20	15.22	15.27	15.22	15.23	15.49	15.47		15.29	
30	15.61	15.90	15.81	15.28	15.24	15.29	15.21	15.30	15.45	15.39		15.29	
31		15.96		15.33	15.29		15.24		15.45	15.32		15.25	
Mean	15.49	15.77	15.98	15.64	15.25	15.34	15.33	15.34	15.40	15.35	15.26	15.39	
Max	15.74	16.05	16.21	15.82	15.36	16.01	15.51	15.52	15.49	15.52	15.40	15.47	16.21
Min	15.31	15.56	15.78	15.20	15.19	15.16	15.21	15.23	15.20	15.18	15.18	15.23	15.16

Annual Max Momentary Gage Height	16.29	m. (MSL.) ,	at 09.00 Hours, on Jun 14, 2018		
Zero Gage at Bottom Elevation	13.57	m. (MSL.) ,	River Bed	13.42	m. (MSL.)
Left Bank Elevation	18.56	m. (MSL.) ,			
Right Bank Elevation	18.65	m. (MSL.) ,	Drainage Are	571	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	5.80	7.30	13.30	10.15	2.95	2.30	3.10	3.25	2.50	4.75	3.10	3.70		
2	5.80	7.00	11.35	10.00	2.95	1.50	5.35	3.40	2.40	4.60	4.00	3.55		
3	6.70	6.40	11.90	10.00	2.00	1.35	5.05	3.25	1.90	2.50	2.95	3.25		
4	5.05	6.55	12.10	10.00	1.50	1.60	3.55	3.25	2.20	2.10	2.50	4.00		
5	4.15	8.20	11.35	10.00	1.70	1.60	4.45	3.25	2.40	2.10	2.50	4.00		
6	2.65	9.70	11.35	10.00	1.80	1.60	4.75	3.70	2.10	2.40	2.50	3.10		
7	3.10	7.90	11.20	10.15	2.10	1.43	5.65	3.55	1.50	3.40	1.90	3.10		
8	2.95	7.75	13.50	10.15	3.40	1.35	4.90	2.50	4.00	2.40	1.35	3.85		
9	2.95	8.05	12.70	10.00	3.25	1.20	4.45	2.50	2.95	2.40	1.35	5.05		
10	4.30	7.60	12.90	10.00	2.65	1.70	3.85	2.40	3.10	2.40	1.43	4.45		
11	4.00	7.75	14.50	10.00	1.70	1.60	2.95	1.90	4.90	3.25	1.70	4.90		
12	4.90	8.35	17.50	10.00	1.50	1.90	2.50	2.20	4.45	2.95	2.40	4.75		
13	5.80	8.50	16.50	9.85	1.43	2.20	2.65	3.25	5.35	2.65	2.10	5.05		
14	5.95	8.95	17.30	9.85	1.50	9.10	2.50	3.25	4.15	1.35	1.43	5.05		
15	5.95	11.05	16.90	8.95	1.70	13.70	2.65	4.15	5.05	2.50	2.20	5.05		
16	5.95	10.00	16.50	10.00	1.70	8.35	2.40	4.30	4.90	2.20	3.10	5.05		
17	6.25	8.95	17.75	10.30	1.70	7.75	3.55	3.55	4.75	2.20	2.30	5.05		
18	6.55	8.35	17.30	9.55	1.70	5.20	2.50	4.60	4.15	2.30	1.50	5.05		
19	6.70	8.35	16.50	9.70	1.70	3.40	2.10	4.60	4.30	2.30	1.35	4.45		
20	6.40	9.10	15.50	9.55	1.80	3.10	2.00	5.80	4.75	2.40	1.43	4.15		
21	5.35	8.65	15.90	3.55	1.70	3.55	2.20	4.45	4.90	4.15	1.60	4.00		
22	3.40	10.00	9.70	3.70	1.70	2.95	2.50	2.80	5.05	4.60	2.00	4.00		
23	5.80	11.20	9.85	5.65	2.80	4.60	2.30	2.20	4.75	3.70	2.00	2.95		
24	5.35	13.70	10.30	4.45	3.40	2.10	3.25	2.20	4.45	3.70	2.00	3.70		
25	4.90	13.70	10.30	4.30	2.65	3.85	2.50	2.00	4.60	5.80	2.00	4.00		
26	5.35	11.70	10.00	4.30	1.43	2.65	2.20	2.40	4.60	3.70	2.00	2.40		
27	5.65	14.50	10.30	4.30	1.70	2.20	2.00	1.90	4.60	4.75	2.10	1.80		
28	7.00	12.90	10.45	2.80	1.70	2.10	1.70	2.80	4.60	5.20	4.00	2.10		
29	9.10	10.30	10.30	1.50	1.70	2.20	1.70	1.80	5.35	5.05		2.40		
30	7.15	11.50	10.15	2.30	1.90	2.40	1.60	2.50	4.75	3.85		2.40		
31		12.70		2.95	2.40		1.90		4.75	2.80		2.00		
Total	160.95	296.65	395.15	238.00	63.81	100.53	94.75	93.70	124.20	100.45	60.79	118.35	1847.33	CMSDAY
Mean	5.37	9.57	13.17	7.68	2.06	3.35	3.06	3.12	4.01	3.24	2.17	3.82	5.06	CMS
Max	9.10	14.50	17.75	10.30	3.40	13.70	5.65	5.80	5.35	5.80	4.00	5.05	17.75	CMS
Min	2.65	6.40	9.70	1.50	1.43	1.20	1.60	1.80	1.50	1.35	1.35	1.80	1.20	CMS
Runoff	13.91	25.63	34.14	20.56	5.51	8.69	8.19	8.10	10.73	8.68	5.25	10.23	159.61	MCM

Momentary Peak 19.75 CMS, at 16.29 m. (MSL.), at 09.00 Hours, on Jun 14, 2018

Runoff Yield 8.86 Liters/Second/Square KM. Momentary Peak Yield 34.59 Liters/Second/Square KM.

WATER YEAR : 2018

PRACHIN BURI RIVER BASIN

Khwae Nam Sai at Ban Saphan Hin , Prachin Buri (Kgt.33)

Lat 14 - 07 - 55 N Long 101 - 43 - 52 E

Location : on left bank at Ban Saphan Hin.

	Ban Saphan Hin	**Amphoe** Na Di	**Changwat** Prachin Buri
Drainge Area	617 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+3.400 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank near the top staff gage.		**Elevation** +14.019 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	1997 to date		
Rating Operation			
Period of Rating	2001 to date		
Rated by Flot	-		
Rated by Current Meter	2001 to date		
Stability of Channel Regimes	Rather unstable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 33 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

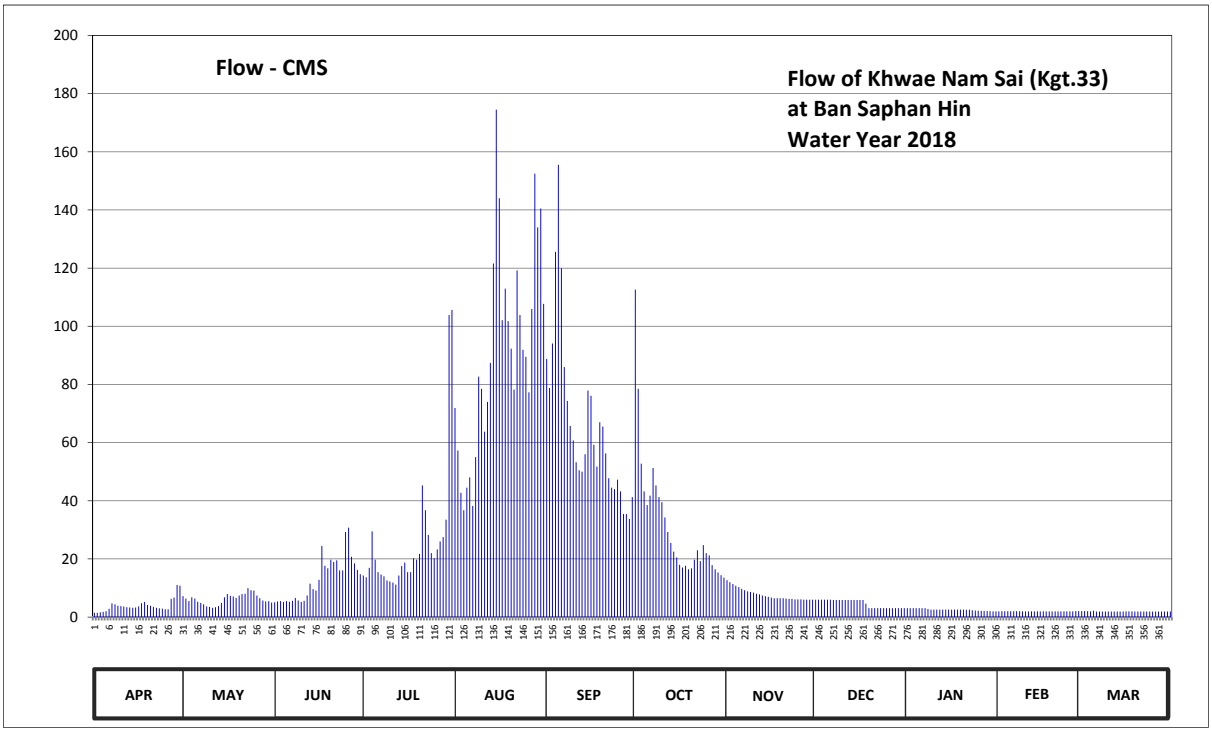
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	4.10	4.80	4.61	5.39	7.83	8.38	9.06	5.26	4.70	4.41	4.20	4.22	
2	4.10	4.73	4.64	5.34	7.27	8.06	8.05	5.20	4.70	4.41	4.21	4.22	
3	4.13	4.65	4.65	5.61	6.69	8.53	7.09	5.15	4.70	4.41	4.21	4.21	
4	4.16	4.77	4.62	6.16	6.45	9.39	6.71	5.10	4.70	4.41	4.21	4.20	
5	4.21	4.73	4.65	5.77	6.76	10.05	6.52	5.06	4.70	4.41	4.21	4.24	
6	4.37	4.63	4.63	5.49	6.90	9.25	6.65	5.01	4.70	4.41	4.21	4.18	
7	4.57	4.59	4.66	5.42	6.51	8.30	7.03	4.97	4.69	4.41	4.21	4.18	
8	4.54	4.54	4.75	5.37	7.18	7.91	6.79	4.94	4.69	4.36	4.21	4.18	
9	4.49	4.47	4.67	5.25	8.19	7.61	6.63	4.92	4.69	4.32	4.20	4.18	
10	4.48	4.45	4.62	5.22	8.05	7.41	6.56	4.90	4.69	4.32	4.20	4.18	
11	4.46	4.42	4.66	5.19	7.53	7.11	6.35	4.87	4.69	4.32	4.20	4.18	
12	4.44	4.44	4.82	5.13	7.90	7.00	6.15	4.85	4.69	4.32	4.20	4.18	
13	4.43	4.48	5.16	5.39	8.34	6.98	6.00	4.82	4.69	4.32	4.20	4.18	
14	4.42	4.59	5.00	5.66	9.29	7.22	5.88	4.80	4.69	4.32	4.20	4.18	
15	4.43	4.77	4.96	5.73	10.43	8.03	5.80	4.78	4.69	4.32	4.20	4.18	
16	4.47	4.86	5.27	5.49	9.82	7.97	5.70	4.76	4.69	4.32	4.20	4.19	
17	4.58	4.81	5.96	5.49	8.76	7.35	5.62	4.74	4.69	4.32	4.20	4.19	
18	4.62	4.79	5.67	5.79	9.07	7.05	5.67	4.74	4.56	4.32	4.20	4.19	
19	4.52	4.75	5.60	5.77	8.75	7.66	5.57	4.74	4.41	4.32	4.20	4.18	
20	4.49	4.82	5.77	5.85	8.48	7.60	5.60	4.74	4.41	4.32	4.20	4.18	
21	4.45	4.86	5.74	6.79	8.04	7.23	5.77	4.73	4.41	4.31	4.20	4.18	
22	4.42	4.87	5.76	6.45	9.23	6.89	5.90	4.72	4.41	4.30	4.20	4.18	
23	4.40	5.03	5.54	6.11	8.81	6.76	5.75	4.72	4.41	4.27	4.20	4.18	
24	4.38	4.97	5.54	5.86	8.47	6.74	5.97	4.71	4.41	4.25	4.20	4.18	
25	4.34	4.96	6.15	5.79	8.40	6.87	5.86	4.71	4.41	4.24	4.20	4.18	
26	4.34	4.82	6.21	5.91	8.01	6.71	5.83	4.71	4.41	4.23	4.20	4.18	
27	4.72	4.74	5.81	6.02	8.87	6.40	5.69	4.70	4.41	4.23	4.22	4.18	
28	4.76	4.67	5.72	6.08	9.99	6.40	5.57	4.70	4.41	4.22	4.22	4.18	
29	5.12	4.64	5.55	6.32	9.60	6.33	5.48	4.70	4.41	4.21		4.18	
30	5.10	4.65	5.43	8.81	9.75	6.63	5.40	4.70	4.41	4.20		4.18	
31		4.60		8.86	8.92		5.33		4.41	4.20		4.18	
Mean	4.47	4.71	5.23	5.92	8.33	7.53	6.19	4.85	4.57	4.31	4.20	4.19	
Max	5.12	5.03	6.21	8.86	10.43	10.05	9.06	5.26	4.70	4.41	4.22	4.24	10.43
Min	4.10	4.42	4.61	5.13	6.45	6.33	5.33	4.70	4.41	4.20	4.20	4.18	4.10

Annual Max Momentary Gage Height 10.90 m. (MSL.), at 06.00 Hours, on Aug 15, 2018

Zero Gage at Bottom Elevation 3.40 m. (MSL.), River Bed 2.84 m. (MSL.)

Left Bank Elevation 12.95 m. (MSL.),

Right Bank Elevation 13.83 m. (MSL.), Drainage Are 617 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.50	7.20	5.10	14.28	71.90	88.80	112.60	12.72	6.00	3.10	2.00	2.10		
2	1.50	6.36	5.40	13.68	57.25	78.80	78.50	12.00	6.00	3.10	2.05	2.10		
3	1.65	5.50	5.50	16.92	42.75	94.05	52.75	11.40	6.00	3.10	2.05	2.05		
4	1.80	6.84	5.20	29.50	36.75	125.60	43.25	10.80	6.00	3.10	2.05	2.00		
5	2.05	6.36	5.50	19.75	44.50	155.50	38.50	10.32	6.00	3.10	2.05	2.20		
6	2.85	5.30	5.30	15.48	48.00	120.00	41.75	9.72	6.00	3.10	2.05	1.90		
7	4.70	4.90	5.60	14.64	38.25	86.00	51.25	9.24	5.90	3.10	2.05	1.90		
8	4.40	4.40	6.60	14.04	55.00	74.30	45.25	8.88	5.90	2.80	2.05	1.90		
9	3.90	3.70	5.70	12.60	82.70	65.75	41.25	8.64	5.90	2.60	2.00	1.90		
10	3.80	3.50	5.20	12.24	78.50	60.75	39.50	8.40	5.90	2.60	2.00	1.90		
11	3.60	3.20	5.60	11.88	63.75	53.25	34.25	8.04	5.90	2.60	2.00	1.90		
12	3.40	3.40	7.44	11.16	74.00	50.50	29.25	7.80	5.90	2.60	2.00	1.90		
13	3.30	3.80	11.52	14.28	87.40	50.00	25.50	7.44	5.90	2.60	2.00	1.90		
14	3.20	4.90	9.60	17.52	121.60	56.00	22.50	7.20	5.90	2.60	2.00	1.90		
15	3.30	6.84	9.12	18.75	174.50	77.90	20.50	6.96	5.90	2.60	2.00	1.90		
16	3.70	7.92	12.84	15.48	144.00	76.10	18.00	6.72	5.90	2.60	2.00	1.95		
17	4.80	7.32	24.50	15.48	102.10	59.25	17.04	6.48	5.90	2.60	2.00	1.95		
18	5.20	7.08	17.64	20.25	112.95	51.75	17.64	6.48	4.60	2.60	2.00	1.95		
19	4.20	6.60	16.80	19.75	101.75	67.00	16.44	6.48	3.10	2.60	2.00	1.90		
20	3.90	7.44	19.75	21.75	92.30	65.50	16.80	6.48	3.10	2.60	2.00	1.90		
21	3.50	7.92	19.00	45.25	78.20	56.25	19.75	6.36	3.10	2.55	2.00	1.90		
22	3.20	8.04	19.50	36.75	119.20	47.75	23.00	6.24	3.10	2.50	2.00	1.90		
23	3.00	9.96	16.08	28.25	103.85	44.50	19.25	6.24	3.10	2.35	2.00	1.90		
24	2.90	9.24	16.08	22.00	91.95	44.00	24.75	6.12	3.10	2.25	2.00	1.90		
25	2.70	9.12	29.25	20.25	89.50	47.25	22.00	6.12	3.10	2.20	2.00	1.90		
26	2.70	7.44	30.75	23.25	77.30	43.25	21.25	6.12	3.10	2.15	2.00	1.90		
27	6.24	6.48	20.75	26.00	105.95	35.50	17.88	6.00	3.10	2.15	2.10	1.90		
28	6.72	5.70	18.50	27.50	152.50	35.50	16.44	6.00	3.10	2.10	2.10	1.90		
29	11.04	5.40	16.20	33.50	134.00	33.75	15.36	6.00	3.10	2.05		1.90		
30	10.80	5.50	14.76	103.85	140.50	41.25	14.40	6.00	3.10	2.00		1.90		
31		5.00		105.60	107.70		13.56		3.10	2.00		1.90		
Total	119.55	192.36	390.78	801.63	2830.60	1985.80	970.16	233.40	145.80	80.00	56.55	60.00	7866.63	CMSDAY
Mean	3.99	6.21	13.03	25.86	91.31	66.19	31.30	7.78	4.70	2.58	2.02	1.94	21.55	CMS
Max	11.04	9.96	30.75	105.60	174.50	155.50	112.60	12.72	6.00	3.10	2.10	2.20	174.50	CMS
Min	1.50	3.20	5.10	11.16	36.75	33.75	13.56	6.00	3.10	2.00	2.00	1.90	1.50	CMS
Runoff	10.33	16.62	33.76	69.26	244.56	171.57	83.82	20.17	12.60	6.91	4.89	5.18	679.68	MCM

Momentary Peak 200.00 CMS, at 10.90 m. (MSL.), at 06.00 Hours, on Aug 15, 2018

Runoff Yield 34.93 Liters/Second/Square KM. Momentary Peak Yield 324.15 Liters/Second/Square KM.

WATER YEAR : 2018

PRACHIN BURI RIVER BASIN

Khwae Hanuman at Ban Wang Man , Prachin Buri (Kgt.34)

Lat 13 - 28 - 29 N Long 101 - 44 - 55 E

Location : on left bank at the bridge.

	Ban Wang Man	**Amphoe** Na Di	**Changwat** Prachin Buri
Drainge Area	1,210 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+3.560 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank at the abutment of the bridge.		**Elevation** +12.474 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic mean of 3 readings		
Period of Available Gage Records	2006 to date		
Rating Operation			
Period of Rating	2006 to date		
Rated by Flot	-		
Rated by Current Meter	2006 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 33 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

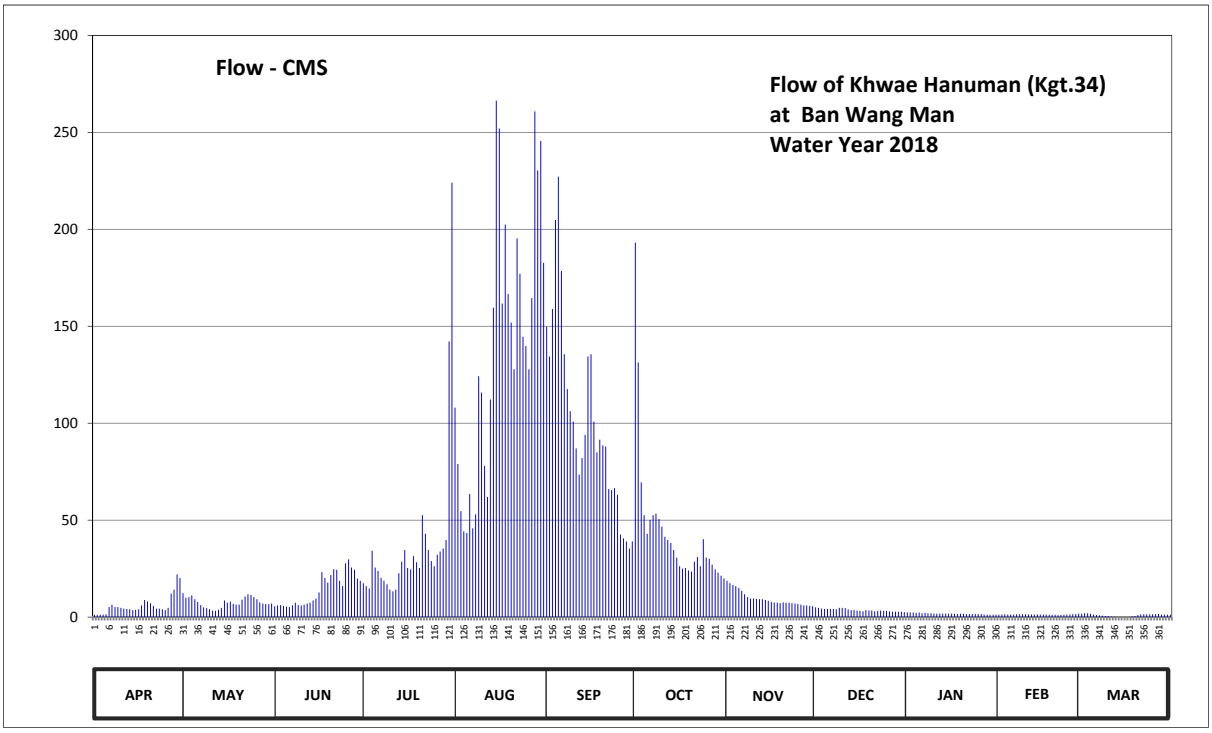
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	4.63	5.28	4.98	5.45	7.55	8.24	8.86	5.49	4.95	4.82	4.65	4.77	
2	4.63	5.20	5.00	5.40	7.00	7.99	7.94	5.45	4.94	4.82	4.68	4.79	
3	4.65	5.21	5.01	5.36	6.49	8.37	6.81	5.42	4.92	4.82	4.70	4.79	
4	4.66	5.24	4.99	5.98	6.23	9.01	6.44	5.40	4.91	4.81	4.66	4.73	
5	4.69	5.16	4.97	5.72	6.21	9.29	6.20	5.37	4.91	4.82	4.67	4.67	
6	4.96	5.09	4.96	5.66	6.69	8.65	6.38	5.32	4.91	4.80	4.67	4.62	
7	5.02	5.01	5.00	5.54	6.27	8.01	6.44	5.26	4.91	4.81	4.68	4.58	
8	4.96	4.95	5.07	5.49	6.45	7.71	6.46	5.21	4.90	4.79	4.69	4.55	
9	4.96	4.93	5.01	5.43	7.82	7.52	6.39	5.18	4.94	4.79	4.70	4.52	
10	4.94	4.90	5.00	5.34	7.68	7.43	6.29	5.18	4.94	4.77	4.69	4.52	
11	4.92	4.87	5.02	5.31	6.98	7.16	6.16	5.17	4.93	4.75	4.68	4.46	
12	4.91	4.86	5.05	5.34	6.66	6.89	6.12	5.16	4.90	4.77	4.66	4.44	
13	4.90	4.89	5.07	5.62	7.62	7.06	6.08	5.16	4.88	4.76	4.67	4.38	
14	4.88	4.94	5.13	5.82	8.38	7.30	5.99	5.14	4.88	4.76	4.68	4.27	
15	4.89	5.13	5.18	5.99	9.78	7.99	5.89	5.12	4.87	4.75	4.66	4.22	
16	4.90	5.07	5.29	5.71	9.60	8.01	5.74	5.09	4.86	4.76	4.66	4.34	
17	5.00	5.10	5.64	5.69	8.41	7.43	5.70	5.08	4.85	4.75	4.66	4.38	
18	5.14	5.04	5.54	5.91	8.98	7.12	5.71	5.07	4.88	4.71	4.65	4.46	
19	5.10	5.02	5.46	5.81	8.48	7.25	5.67	5.06	4.87	4.74	4.65	4.52	
20	5.06	5.02	5.59	5.71	8.27	7.19	5.65	5.08	4.87	4.75	4.64	4.61	
21	4.99	5.15	5.69	6.44	7.88	7.18	5.82	5.07	4.85	4.72	4.62	4.68	
22	4.92	5.22	5.68	6.20	8.89	6.74	5.90	5.07	4.86	4.72	4.63	4.70	
23	4.92	5.26	5.49	5.99	8.63	6.73	5.74	5.06	4.87	4.72	4.64	4.70	
24	4.90	5.25	5.40	5.83	8.16	6.75	6.13	5.05	4.86	4.73	4.67	4.68	
25	4.88	5.21	5.79	5.74	8.08	6.68	5.89	5.04	4.86	4.72	4.68	4.69	
26	4.94	5.16	5.86	5.93	7.88	6.19	5.87	5.02	4.85	4.71	4.70	4.71	
27	5.27	5.08	5.72	5.97	8.45	6.14	5.77	5.00	4.84	4.67	4.72	4.73	
28	5.34	5.05	5.68	6.01	9.71	6.10	5.69	5.00	4.84	4.64	4.76	4.67	
29	5.60	5.04	5.53	6.12	9.33	6.01	5.63	4.99	4.84	4.63		4.67	
30	5.54	5.03	5.49	8.12	9.52	6.10	5.58	4.98	4.84	4.65		4.65	
31		5.05		9.25	8.71		5.53		4.83	4.66		4.64	
Mean	4.97	5.08	5.31	5.93	7.96	7.34	6.14	5.16	4.88	4.75	4.67	4.59	
Max	5.60	5.28	5.86	9.25	9.78	9.29	8.86	5.49	4.95	4.82	4.76	4.79	9.78
Min	4.63	4.86	4.96	5.31	6.21	6.01	5.53	4.98	4.83	4.63	4.62	4.22	4.22

Annual Max Momentary Gage Height 9.91 m. (MSL.) , at 06.00 Hours, on Aug 15, 2018

Zero Gage at Bottom Elevation 3.56 m. (MSL.) , River Bed 1.27 m. (MSL.)

Left Bank Elevation 11.64 m. (MSL.) ,

Right Bank Elevation 11.17 m. (MSL.) , Drainage Are 1,210 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.15	12.40	5.60	17.50	108.00	149.80	193.20	18.70	5.00	2.40	1.25	1.85		
2	1.15	10.00	6.00	16.00	79.00	134.40	131.40	17.50	4.80	2.40	1.40	1.95		
3	1.25	10.30	6.20	14.80	54.60	158.90	69.50	16.60	4.40	2.40	1.50	1.95		
4	1.30	11.20	5.80	34.20	44.20	204.80	52.60	16.00	4.20	2.20	1.30	1.65		
5	1.45	9.20	5.40	25.60	43.40	227.20	43.00	15.10	4.20	2.40	1.35	1.35		
6	5.20	7.80	5.20	23.80	63.50	178.50	50.20	13.60	4.20	2.00	1.35	1.10		
7	6.40	6.20	6.00	20.20	45.80	135.60	52.60	11.80	4.20	2.20	1.40	0.90		
8	5.20	5.00	7.40	18.70	53.00	117.60	53.40	10.30	4.00	1.95	1.45	0.75		
9	5.20	4.60	6.20	16.90	124.20	106.20	50.60	9.60	4.80	1.95	1.50	0.60		
10	4.80	4.00	6.00	14.20	115.80	100.80	46.60	9.60	4.80	1.85	1.45	0.60		
11	4.40	3.40	6.40	13.30	78.00	87.00	41.40	9.40	4.60	1.75	1.40	0.30		
12	4.20	3.20	7.00	14.20	62.00	73.50	39.80	9.20	4.00	1.85	1.30	0.20		
13	4.00	3.80	7.40	22.60	112.20	82.00	38.20	9.20	3.60	1.80	1.35	0.00		
14	3.60	4.80	8.60	28.60	159.60	94.00	34.60	8.80	3.60	1.80	1.40	0.00		
15	3.80	8.60	9.60	34.60	266.40	134.40	30.70	8.40	3.40	1.75	1.30	0.00		
16	4.00	7.40	12.70	25.30	252.00	135.60	26.20	7.80	3.20	1.80	1.30	0.00		
17	6.00	8.00	23.20	24.70	161.70	100.80	25.00	7.60	3.00	1.75	1.30	0.00		
18	8.80	6.80	20.20	31.40	202.40	85.00	25.30	7.40	3.60	1.55	1.25	0.30		
19	8.00	6.40	17.80	28.30	166.60	91.50	24.10	7.20	3.40	1.70	1.25	0.60		
20	7.20	6.40	21.70	25.30	151.90	88.50	23.50	7.60	3.40	1.75	1.20	1.05		
21	5.80	9.00	24.70	52.60	127.80	88.00	28.60	7.40	3.00	1.60	1.10	1.40		
22	4.40	10.60	24.40	43.00	195.30	66.00	31.00	7.40	3.20	1.60	1.15	1.50		
23	4.40	11.80	18.70	34.60	177.10	65.50	26.20	7.20	3.40	1.60	1.20	1.50		
24	4.00	11.50	16.00	28.90	144.60	66.50	40.20	7.00	3.20	1.65	1.35	1.40		
25	3.60	10.30	27.70	26.20	139.80	63.00	30.70	6.80	3.20	1.60	1.40	1.45		
26	4.80	9.20	29.80	32.20	127.80	42.60	30.10	6.40	3.00	1.55	1.50	1.55		
27	12.10	7.60	25.60	33.80	164.50	40.60	27.10	6.00	2.80	1.35	1.60	1.65		
28	14.20	7.00	24.40	35.40	260.80	39.00	24.70	6.00	2.80	1.20	1.80	1.35		
29	22.00	6.80	19.90	39.80	230.40	35.40	22.90	5.80	2.80	1.15		1.35		
30	20.20	6.60	18.70	142.20	245.60	39.00	21.40	5.60	2.80	1.25		1.25		
31		7.00		224.00	182.70		19.90		2.60	1.30		1.20		
Total	182.60	236.90	424.30	1142.90	4340.70	3031.70	1354.70	287.00	113.20	55.10	38.10	30.75	11237.95	CMSDAY
Mean	6.09	7.64	14.14	36.87	140.02	101.06	43.70	9.57	3.65	1.78	1.36	0.99	30.79	CMS
Max	22.00	12.40	29.80	224.00	266.40	227.20	193.20	18.70	5.00	2.40	1.80	1.95	266.40	CMS
Min	1.15	3.20	5.20	13.30	43.40	35.40	19.90	5.60	2.60	1.15	1.10	0.00	0.00	CMS
Runoff	15.78	20.47	36.66	98.75	375.04	261.94	117.05	24.80	9.78	4.76	3.29	2.66	970.96	MCM

Momentary Peak 276.80 CMS, at 9.91 m. (MSL.), at 06.00 Hours, on Aug 15, 2018

Runoff Yield 25.45 Liters/Second/Square KM. Momentary Peak Yield 228.76 Liters/Second/Square KM.

WATER YEAR : 2018

PRACHIN BURI RIVER BASIN

Khlong Phra Phloeng Yai at Ban Phu Ngoen , Sa Kaeo (Kgt.38)

Lat 13 - 36 - 03 N Long 102 - 02 - 07 E

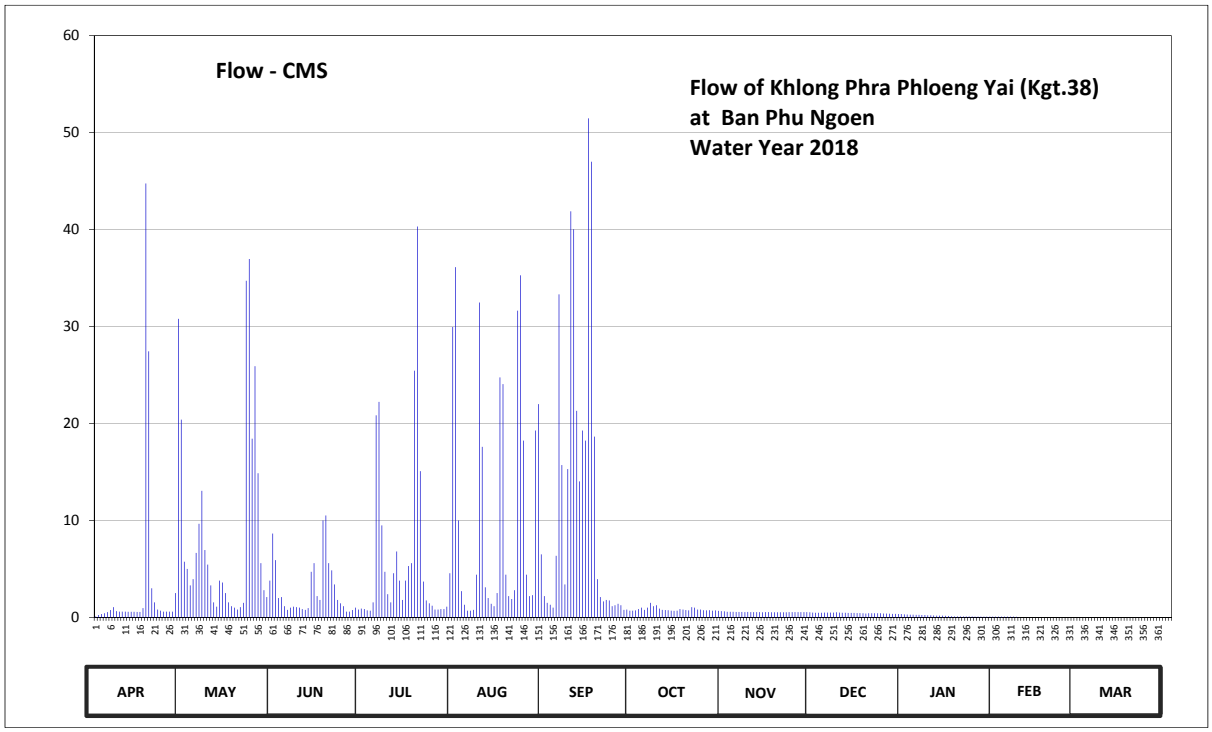
Location : on left bank at the bridge.

	Ban Phu Ngoen	**Amphoe** Khao Chakan	**Changwat** Sa Kaeo
Drainge Area	289 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+0.000 m. (A.D.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank at the abutment of the bridge.	**Elevation**	+9.483 m. (A.D.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 3 readings		
Period of Available Gage Records	2008 to date		
Rating Operation			
Period of Rating	2008 to date		
Rated by Flot	-		
Rated by Current Meter	2008 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records very good. Stage-discharge relation defined by 32 discharge measurements made in 2018.		

Gage Height in Meter (A.D.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	1.45	2.33	2.34	1.81	3.74	1.94	1.76	1.69	1.64	1.55	1.44	1.09	
2	1.52	2.28	2.02	1.76	2.60	1.90	1.81	1.69	1.64	1.54	1.44	1.04	
3	1.57	2.15	2.03	1.75	2.09	1.84	1.84	1.69	1.64	1.54	1.44	0.99	
4	1.61	2.21	1.87	1.95	1.90	2.37	1.79	1.68	1.65	1.53	1.44	0.94	
5	1.67	2.39	1.79	3.15	1.75	3.64	1.84	1.68	1.65	1.53	1.44	0.89	
6	1.78	2.58	1.84	3.21	1.75	2.91	1.94	1.68	1.65	1.52	1.44	0.84	
7	1.85	2.78	1.86	2.57	1.79	2.16	1.87	1.67	1.65	1.52	1.43	0.81	
8	1.72	2.41	1.85	2.26	2.24	2.89	1.89	1.68	1.66	1.51	1.41	0.79	
9	1.70	2.31	1.84	2.06	3.61	3.94	1.82	1.67	1.65	1.51	1.38	0.77	
10	1.70	2.15	1.81	1.95	3.00	3.88	1.79	1.67	1.64	1.50	1.34	0.75	
11	1.70	1.95	1.79	2.25	2.13	3.17	1.78	1.67	1.64	1.49	1.31	0.73	
12	1.69	1.86	1.83	2.40	2.02	2.83	1.77	1.67	1.63	1.49	1.29	0.69	
13	1.69	2.20	2.26	2.20	1.92	3.08	1.75	1.66	1.63	1.49	1.27	0.66	
14	1.69	2.18	2.32	2.00	1.87	3.03	1.74	1.67	1.63	1.48	1.27	0.63	
15	1.68	2.07	2.04	2.20	2.07	4.24	1.75	1.67	1.62	1.47	1.26	0.61	
16	1.68	1.95	2.00	2.30	3.32	4.10	1.81	1.66	1.62	1.46	1.24	0.60	
17	1.83	1.87	2.60	2.32	3.29	3.05	1.80	1.66	1.61	1.45	1.23	0.60	
18	4.03	1.84	2.63	3.35	2.24	2.21	1.78	1.66	1.60	1.45	1.21	0.60	
19	3.43	1.80	2.32	3.89	2.04	2.03	1.76	1.66	1.61	1.45	1.20	0.61	
20	2.12	1.85	2.27	2.88	2.01	1.97	1.85	1.66	1.61	1.45	1.18	0.61	
21	1.95	1.94	2.16	2.19	2.10	2.00	1.84	1.66	1.61	1.45	1.16	0.62	
22	1.80	3.69	2.00	1.99	3.58	1.99	1.80	1.67	1.61	1.45	1.14	0.62	
23	1.75	3.77	1.93	1.93	3.71	1.87	1.80	1.67	1.61	1.45	1.13	0.62	
24	1.70	3.04	1.87	1.88	3.03	1.89	1.77	1.67	1.60	1.44	1.12	0.63	
25	1.70	3.37	1.70	1.80	2.24	1.92	1.76	1.67	1.60	1.44	1.12	0.63	
26	1.70	2.87	1.70	1.80	2.04	1.89	1.77	1.67	1.59	1.44	1.11	0.63	
27	1.70	2.32	1.78	1.81	2.05	1.79	1.75	1.67	1.58	1.44	1.11	0.64	
28	2.07	2.10	1.84	1.81	3.08	1.80	1.76	1.67	1.58	1.44	1.10	0.64	
29	3.55	2.03	1.80	1.86	3.20	1.75	1.74	1.66	1.57	1.44		0.64	
30	3.13	2.20	1.82	2.25	2.38	1.75	1.72	1.65	1.57	1.44		0.64	
31		2.52		3.52	2.04		1.71		1.56	1.44		0.64	
Mean	1.97	2.36	2.00	2.29	2.48	2.53	1.79	1.67	1.62	1.48	1.27	0.72	
Max	4.03	3.77	2.63	3.89	3.74	4.24	1.94	1.69	1.66	1.55	1.44	1.09	4.24
Min	1.45	1.80	1.70	1.75	1.75	1.75	1.71	1.65	1.56	1.44	1.10	0.60	0.60

Annual Max Momentary Gage Height	4.42	m. (A.D.) ,	at 06.00 Hours, on Sep 16, 2018		
Zero Gage at Bottom Elevation	0.00	m. (A.D.) ,	River Bed	-0.24	m. (A.D.) ,
Left Bank Elevation	8.45	m. (A.D.) ,			
Right Bank Elevation	7.62	m. (A.D.) ,	Drainage Are	289	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.10	5.75	5.90	0.85	36.12	1.50	0.72	0.58	0.48	0.30	0.08	0.00		
2	0.24	5.00	2.00	0.72	10.00	1.30	0.85	0.58	0.48	0.28	0.08	0.00		
3	0.34	3.30	2.10	0.70	2.70	1.00	1.00	0.58	0.48	0.28	0.08	0.00		
4	0.42	3.95	1.15	1.55	1.30	6.35	0.78	0.56	0.50	0.26	0.08	0.00		
5	0.54	6.65	0.78	20.85	0.70	33.32	1.00	0.56	0.50	0.26	0.08	0.00		
6	0.76	9.66	1.00	22.23	0.70	15.71	1.50	0.56	0.50	0.24	0.08	0.00		
7	1.05	13.06	1.10	9.49	0.78	3.40	1.15	0.54	0.50	0.24	0.06	0.00		
8	0.64	6.95	1.05	4.70	4.40	15.29	1.25	0.56	0.52	0.22	0.02	0.00		
9	0.60	5.45	1.00	2.40	32.48	41.88	0.90	0.54	0.50	0.22	0.00	0.00		
10	0.60	3.30	0.85	1.55	17.60	40.04	0.78	0.54	0.48	0.20	0.00	0.00		
11	0.60	1.55	0.78	4.55	3.10	21.31	0.76	0.54	0.48	0.18	0.00	0.00		
12	0.58	1.10	0.95	6.80	2.00	14.03	0.74	0.54	0.46	0.18	0.00	0.00		
13	0.58	3.80	4.70	3.80	1.40	19.28	0.70	0.52	0.46	0.18	0.00	0.00		
14	0.58	3.60	5.60	1.80	1.15	18.23	0.68	0.54	0.46	0.16	0.00	0.00		
15	0.56	2.50	2.20	3.80	2.50	51.48	0.70	0.54	0.44	0.14	0.00	0.00		
16	0.56	1.55	1.80	5.30	24.76	47.00	0.85	0.52	0.44	0.12	0.00	0.00		
17	0.95	1.15	10.00	5.60	24.07	18.65	0.80	0.52	0.42	0.10	0.00	0.00		
18	44.76	1.00	10.51	25.45	4.40	3.95	0.76	0.52	0.40	0.10	0.00	0.00		
19	27.44	0.80	5.60	40.32	2.20	2.10	0.72	0.52	0.42	0.10	0.00	0.00		
20	3.00	1.05	4.85	15.08	1.90	1.65	1.05	0.52	0.42	0.10	0.00	0.00		
21	1.55	1.50	3.40	3.70	2.80	1.80	1.00	0.52	0.42	0.10	0.00	0.00		
22	0.80	34.72	1.80	1.75	31.64	1.75	0.80	0.54	0.42	0.10	0.00	0.00		
23	0.70	36.96	1.45	1.45	35.28	1.15	0.80	0.54	0.42	0.10	0.00	0.00		
24	0.60	18.44	1.15	1.20	18.23	1.25	0.74	0.54	0.40	0.08	0.00	0.00		
25	0.60	25.91	0.60	0.80	4.40	1.40	0.72	0.54	0.40	0.08	0.00	0.00		
26	0.60	14.87	0.60	0.80	2.20	1.25	0.74	0.54	0.38	0.08	0.00	0.00		
27	0.60	5.60	0.76	0.85	2.30	0.78	0.70	0.54	0.36	0.08	0.00	0.00		
28	2.50	2.80	1.00	0.85	19.28	0.80	0.72	0.54	0.36	0.08	0.00	0.00		
29	30.80	2.10	0.80	1.10	22.00	0.70	0.68	0.52	0.34	0.08		0.00		
30	20.39	3.80	0.90	4.55	6.50	0.70	0.64	0.50	0.34	0.08		0.00		
31		8.64		29.96	2.20		0.62		0.32	0.08		0.00		
Total	144.04	236.51	76.38	224.55	321.09	369.05	25.85	16.20	13.50	4.80	0.56	0.00	1432.53	CMSDAY
Mean	4.80	7.63	2.55	7.24	10.36	12.30	0.83	0.54	0.44	0.15	0.02	0.00	3.92	CMS
Max	44.76	36.96	10.51	40.32	36.12	51.48	1.50	0.58	0.52	0.30	0.08	0.00	51.48	CMS
Min	0.10	0.80	0.60	0.70	0.70	0.70	0.62	0.50	0.32	0.08	0.00	0.00	0.00	CMS
Runoff	12.45	20.43	6.60	19.40	27.74	31.89	2.23	1.40	1.17	0.41	0.05	0.00	123.77	MCM

Momentary Peak 57.48 CMS, at 4.42 m. (A.D), at 06.00 Hours, on Sep 16, 2018

Runoff Yield 13.58 Liters/Second/Square KM. Momentary Peak Yield 198.89 Liters/Second/Square KM.

WATER YEAR : 2018

PRACHIN BURI RIVER BASIN

Upper Khlong Phra Sathung at Ban Thung Kabin , Sa Kaeo (Kgt.40)

Lat 13 - 25 - 45 N Long 102 - 05 - 00 E

Location : on left bank at the bridge on highway.

	Ban Thung Kabin	**Amphoe** Wang Sombun	**Changwat** Sa Kaeo
Drainge Area	574 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+77.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank near the top staff gage.		**Elevation** +85.575 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic mean of 3 readings		
Period of Available Gage Records	2007 to date		
Rating Operation			
Period of Rating	2007 to date		
Rated by Flot	-		
Rated by Current Meter	2007 to date		
Stability of Channel Regimes	Fairly stable with variable water surface slope.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 49 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

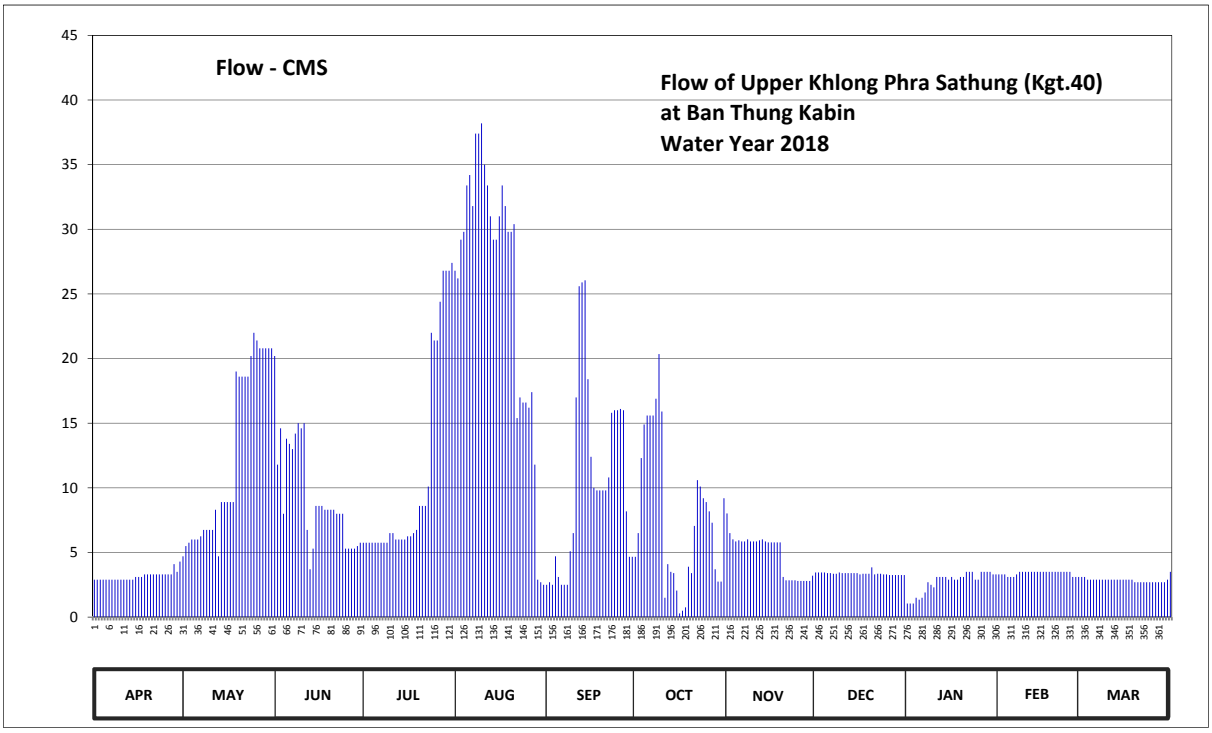
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	79.37	79.46	79.92	79.51	80.03	79.35	78.32	78.74	78.09	79.27	79.39	79.38	
2	79.37	79.50	79.72	79.51	80.02	79.36	78.55	78.55	78.09	79.27	79.39	79.38	
3	79.37	79.51	79.79	79.51	80.07	79.35	79.18	78.49	78.09	79.27	79.39	79.37	
4	79.37	79.52	79.60	79.51	80.08	79.46	79.44	78.47	78.09	79.30	79.38	79.37	
5	79.37	79.52	79.77	79.51	80.13	79.38	79.51	78.48	78.08	79.29	79.38	79.37	
6	79.37	79.52	79.76	79.51	80.14	79.35	79.51	78.47	78.08	79.30	79.38	79.37	
7	79.37	79.53	79.75	79.51	80.11	79.35	79.51	78.47	78.07	79.32	79.39	79.37	
8	79.37	79.55	79.78	79.51	80.18	79.35	79.64	78.49	78.07	79.36	79.40	79.37	
9	79.37	79.55	79.80	79.51	80.18	79.48	79.89	78.47	78.09	79.35	79.40	79.37	
10	79.37	79.55	79.79	79.54	80.19	79.54	79.54	78.47	78.08	79.34	79.40	79.37	
11	79.37	79.55	79.80	79.54	80.15	79.85	77.70	78.47	78.08	79.38	79.40	79.37	
12	79.37	79.61	79.55	79.52	80.13	80.01	78.22	78.48	78.08	79.38	79.40	79.37	
13	79.37	79.46	79.41	79.52	80.10	80.26	78.10	78.49	78.08	79.38	79.40	79.37	
14	79.37	79.63	79.49	79.52	80.07	80.27	78.08	78.47	78.08	79.38	79.40	79.37	
15	79.38	79.63	79.62	79.52	80.07	79.76	77.81	78.46	78.08	79.37	79.40	79.37	
16	79.38	79.63	79.62	79.53	80.10	79.19	77.41	78.46	78.06	79.38	79.40	79.37	
17	79.38	79.63	79.62	79.53	80.13	78.95	77.50	78.46	78.07	79.37	79.40	79.37	
18	79.39	79.63	79.61	79.54	80.11	78.93	77.55	78.46	78.07	79.37	79.40	79.37	
19	79.39	79.90	79.61	79.55	80.08	78.93	78.18	78.46	78.07	79.38	79.40	79.36	
20	79.39	79.89	79.61	79.62	80.08	78.93	78.08	78.02	78.17	79.38	79.40	79.36	
21	79.39	79.89	79.61	79.62	80.09	78.93	78.62	77.97	78.06	79.40	79.40	79.36	
22	79.39	79.89	79.60	79.62	79.81	79.03	79.01	77.97	78.07	79.40	79.40	79.36	
23	79.39	79.89	79.60	79.67	79.85	79.53	78.96	77.97	78.07	79.40	79.40	79.36	
24	79.39	79.92	79.60	79.95	79.84	79.55	78.87	77.97	78.06	79.37	79.40	79.36	
25	79.39	79.95	79.49	79.94	79.84	79.55	78.84	77.96	78.06	79.37	79.40	79.36	
26	79.39	79.94	79.49	79.94	79.83	79.56	78.76	77.96	78.05	79.40	79.38	79.36	
27	79.39	79.93	79.49	79.99	79.86	79.55	78.65	77.96	78.05	79.40	79.38	79.36	
28	79.43	79.93	79.49	80.03	79.72	78.76	78.14	77.96	78.05	79.40	79.38	79.36	
29	79.40	79.93	79.50	80.03	79.37	78.32	77.95	77.96	78.05	79.40		79.36	
30	79.44	79.93	79.51	80.03	79.36	78.32	77.95	78.04	78.05	79.39		79.37	
31		79.93		80.04	79.35		78.87		78.05	79.39		79.40	
Mean	79.38	79.71	79.63	79.66	79.97	79.34	78.59	78.30	78.07	79.36	79.39	79.37	
Max	79.44	79.95	79.92	80.04	80.19	80.27	79.89	78.74	78.17	79.40	79.40	79.40	80.27
Min	79.37	79.46	79.41	79.51	79.35	78.32	77.41	77.96	78.05	79.27	79.38	79.36	77.41

Annual Max Momentary Gage Height 80.20 m. (MSL.) , at 18.00 Hours, on Aug 8, 2018

Zero Gage at Bottom Elevation 77.00 m. (MSL.) , River Bed 76.89 m. (MSL.)

Left Bank Elevation 86.28 m. (MSL.) ,

Right Bank Elevation 86.05 m. (MSL.) , Drainage Are 574 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.90	4.70	20.20	5.75	26.80	2.50	4.66	8.02	3.45	1.05	3.30	3.10		
2	2.90	5.50	11.80	5.75	26.20	2.70	6.50	6.50	3.45	1.05	3.30	3.10		
3	2.90	5.75	14.60	5.75	29.20	2.50	12.30	6.02	3.45	1.05	3.30	2.90		
4	2.90	6.00	8.00	5.75	29.80	4.70	14.90	5.86	3.45	1.50	3.10	2.90		
5	2.90	6.00	13.80	5.75	33.40	3.10	15.60	5.94	3.40	1.35	3.10	2.90		
6	2.90	6.00	13.40	5.75	34.20	2.50	15.60	5.86	3.40	1.50	3.10	2.90		
7	2.90	6.25	13.00	5.75	31.80	2.50	15.60	5.86	3.35	1.90	3.30	2.90		
8	2.90	6.75	14.20	5.75	37.40	2.50	16.90	6.02	3.35	2.70	3.50	2.90		
9	2.90	6.75	15.00	5.75	37.40	5.10	20.35	5.86	3.45	2.50	3.50	2.90		
10	2.90	6.75	14.60	6.50	38.20	6.50	15.90	5.86	3.40	2.30	3.50	2.90		
11	2.90	6.75	15.00	6.50	35.00	17.00	1.50	5.86	3.40	3.10	3.50	2.90		
12	2.90	8.30	6.75	6.00	33.40	25.60	4.10	5.94	3.40	3.10	3.50	2.90		
13	2.90	4.70	3.70	6.00	31.00	25.90	3.50	6.02	3.40	3.10	3.50	2.90		
14	2.90	8.90	5.30	6.00	29.20	26.05	3.40	5.86	3.40	3.10	3.50	2.90		
15	3.10	8.90	8.60	6.00	29.20	18.40	2.05	5.78	3.40	2.90	3.50	2.90		
16	3.10	8.90	8.60	6.25	31.00	12.40	0.28	5.78	3.30	3.10	3.50	2.90		
17	3.10	8.90	8.60	6.25	33.40	10.00	0.50	5.78	3.35	2.90	3.50	2.90		
18	3.30	8.90	8.30	6.50	31.80	9.80	0.75	5.78	3.35	2.90	3.50	2.90		
19	3.30	19.00	8.30	6.75	29.80	9.80	3.90	5.78	3.35	3.10	3.50	2.70		
20	3.30	18.60	8.30	8.60	29.80	9.80	3.40	3.10	3.85	3.10	3.50	2.70		
21	3.30	18.60	8.30	8.60	30.40	9.80	7.06	2.85	3.30	3.50	3.50	2.70		
22	3.30	18.60	8.00	8.60	15.40	10.80	10.60	2.85	3.35	3.50	3.50	2.70		
23	3.30	18.60	8.00	10.10	17.00	15.80	10.10	2.85	3.35	3.50	3.50	2.70		
24	3.30	20.20	8.00	22.00	16.60	16.00	9.20	2.85	3.30	2.90	3.50	2.70		
25	3.30	22.00	5.30	21.40	16.60	16.00	8.90	2.80	3.30	2.90	3.50	2.70		
26	3.30	21.40	5.30	21.40	16.20	16.10	8.18	2.80	3.25	3.50	3.10	2.70		
27	3.30	20.80	5.30	24.40	17.40	16.00	7.30	2.80	3.25	3.50	3.10	2.70		
28	4.10	20.80	5.30	26.80	11.80	8.18	3.70	2.80	3.25	3.50	3.10	2.70		
29	3.50	20.80	5.50	26.80	2.90	4.66	2.75	2.80	3.25	3.50		2.70		
30	4.30	20.80	5.75	26.80	2.70	4.66	2.75	3.20	3.25	3.30		2.90		
31		20.80		27.40	2.50		9.20		3.25	3.30		3.50		
Total	94.80	385.70	284.80	347.40	787.50	317.35	241.43	146.08	104.45	84.20	94.80	88.70	2977.21	CMSDAY
Mean	3.16	12.44	9.49	11.21	25.40	10.58	7.79	4.87	3.37	2.72	3.39	2.86	8.16	CMS
Max	4.30	22.00	20.20	27.40	38.20	26.05	20.35	8.02	3.85	3.50	3.50	3.50	38.20	CMS
Min	2.90	4.70	3.70	5.75	2.50	2.50	0.28	2.80	3.25	1.05	3.10	2.70	0.28	CMS
Runoff	8.19	33.32	24.61	30.02	68.04	27.42	20.86	12.62	9.02	7.27	8.19	7.66	257.23	MCM

Momentary Peak 39.00 CMS, at 80.20 m. (MSL.), at 18.00 Hours, on Aug 8, 2018

Runoff Yield 14.21 Liters/Second/Square KM. Momentary Peak Yield 67.94 Liters/Second/Square KM.

WATER YEAR : 2018

PRACHIN BURI RIVER BASIN

Khlong Phra Sathung at Ban Tharapha , Sa Kaeo (Kgt.42)

Lat 13 - 59 - 21 N Long 101 - 57 - 30 E

Location : on left bank at the bridge.

	Ban Tharapha	**Amphoe** Mueang	**Changwat** Sa Kaeo
Drainge Area	2,558 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+14.500 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank near the top staff gage.		**Elevation** +26.947 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	2005 to date		
Rating Operation			
Period of Rating	2005 to date		
Rated by Flot	-		
Rated by Current Meter	2005 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 60 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

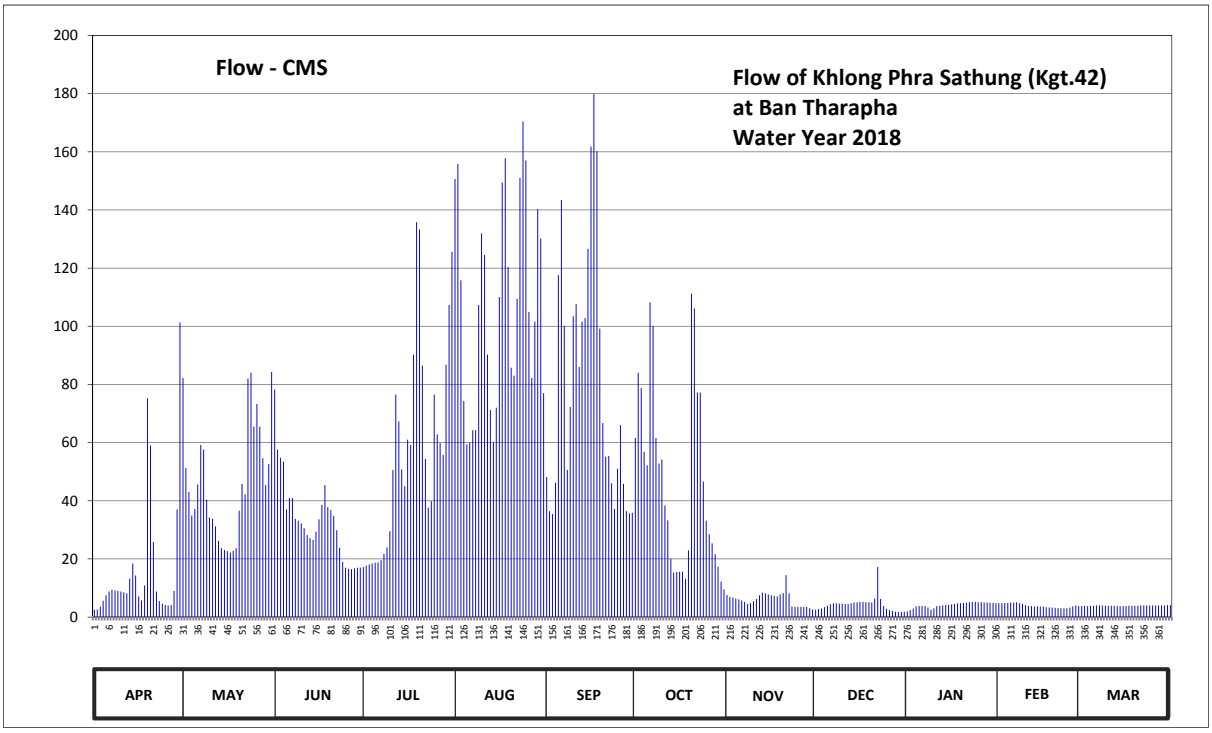
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	14.70	19.73	19.57	16.22	21.84	18.21	18.88	15.26	14.70	14.59	14.98	14.88	
2	14.73	18.36	18.68	16.27	21.97	17.62	19.80	15.20	14.75	14.68	14.98	14.88	
3	14.86	17.95	18.54	16.31	20.88	17.56	19.59	15.17	14.79	14.79	14.99	14.88	
4	15.06	17.53	18.47	16.34	19.41	18.11	18.64	15.14	14.84	14.87	14.99	14.89	
5	15.25	17.66	17.65	16.37	18.77	20.93	18.41	15.11	14.89	14.88	15.00	14.89	
6	15.38	18.08	17.85	16.38	18.80	21.66	20.64	15.07	14.94	14.88	15.00	14.90	
7	15.44	18.76	17.85	16.46	19.01	20.37	20.37	15.02	14.97	14.88	15.01	14.90	
8	15.42	18.68	17.45	16.65	19.01	18.33	18.88	14.95	14.97	14.83	14.98	14.90	
9	15.40	17.82	17.41	16.80	20.61	19.33	18.44	14.98	14.96	14.71	14.95	14.89	
10	15.38	17.48	17.35	17.17	21.34	20.48	18.51	15.05	14.96	14.80	14.91	14.89	
11	15.35	17.45	17.24	18.33	21.13	20.62	17.72	15.12	14.95	14.88	14.88	14.89	
12	15.32	17.28	17.08	19.50	20.04	19.88	17.42	15.25	14.95	14.89	14.88	14.89	
13	15.82	16.95	17.01	19.13	19.29	20.42	16.51	15.34	14.97	14.90	14.87	14.88	
14	16.34	16.78	16.97	18.34	18.80	20.46	16.03	15.32	15.00	14.92	14.87	14.88	
15	15.93	16.74	17.16	18.05	19.32	21.19	16.05	15.28	15.01	14.92	14.86	14.88	
16	15.21	16.71	17.44	18.85	20.70	22.12	16.06	15.25	15.02	14.94	14.86	14.88	
17	15.07	16.68	17.73	18.76	21.81	22.53	16.06	15.23	15.02	14.95	14.84	14.89	
18	15.59	16.72	18.07	20.04	22.02	22.08	15.82	15.21	15.01	14.97	14.83	14.89	
19	19.45	16.78	17.69	21.45	21.01	20.34	16.73	15.28	15.01	14.98	14.83	14.89	
20	18.75	17.63	17.64	21.38	19.87	19.11	20.74	15.33	15.00	14.99	14.82	14.89	
21	16.92	18.09	17.52	19.90	19.76	18.56	20.57	15.94	15.14	15.00	14.81	14.90	
22	15.38	17.91	17.19	18.52	20.68	18.57	19.53	15.32	16.22	15.01	14.81	14.90	
23	15.05	19.72	16.79	17.68	21.85	18.10	19.53	14.86	15.12	15.02	14.80	14.90	
24	14.96	19.80	16.40	17.79	22.32	17.66	18.13	14.85	14.88	15.02	14.80	14.90	
25	14.92	19.06	16.20	19.50	22.00	18.35	17.41	14.85	14.77	15.01	14.83	14.90	
26	14.90	19.37	16.16	18.94	20.53	19.08	17.10	14.85	14.68	15.01	14.87	14.90	
27	14.91	19.06	16.15	18.79	19.73	18.09	16.89	14.85	14.62	15.00	14.90	14.90	
28	15.40	18.53	16.17	18.59	20.42	17.62	16.64	14.85	14.56	15.00	14.88	14.90	
29	17.65	18.07	16.20	19.91	21.58	17.58	16.24	14.81	14.55	14.99		14.90	
30	20.41	18.43	16.20	20.61	21.29	17.59	15.72	14.73	14.55	14.99		14.91	
31		19.81		21.16	19.52		15.45		14.57	14.98		14.91	
Mean	15.83	18.05	17.33	18.39	20.49	19.42	17.89	15.12	14.92	14.91	14.89	14.89	
Max	20.41	19.81	19.57	21.45	22.32	22.53	20.74	15.94	16.22	15.02	15.01	14.91	22.53
Min	14.70	16.68	16.15	16.22	18.77	17.56	15.45	14.73	14.55	14.59	14.80	14.88	14.55

Annual Max Momentary Gage Height 22.60 m. (MSL.) , at 18.00 Hours, on Sep 17, 2018

Zero Gage at Bottom Elevation 14.50 m. (MSL.) , River Bed 14.23 m. (MSL.)

Left Bank Elevation 25.93 m. (MSL.) ,

Right Bank Elevation 25.86 m. (MSL.) , Drainage Are 2,558 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.50	82.25	78.25	17.20	150.60	48.20	61.60	7.60	2.50	1.95	4.80	3.80		
2	2.65	51.20	57.60	17.70	155.80	36.40	84.00	7.00	2.75	2.40	4.80	3.80		
3	3.60	43.00	54.80	18.10	115.80	35.40	78.75	6.70	2.95	2.95	4.90	3.80		
4	5.60	34.95	53.40	18.40	74.25	46.20	56.80	6.40	3.40	3.70	4.90	3.90		
5	7.50	37.20	37.00	18.70	59.40	117.55	52.20	6.10	3.90	3.80	5.00	3.90		
6	8.80	45.60	41.00	18.80	60.00	143.40	108.20	5.70	4.40	3.80	5.00	4.00		
7	9.40	59.20	41.00	19.60	64.25	100.10	100.10	5.20	4.70	3.80	5.10	4.00		
8	9.20	57.60	33.75	21.75	64.25	50.60	61.60	4.50	4.70	3.30	4.80	4.00		
9	9.00	40.40	33.15	24.00	107.30	72.25	52.80	4.80	4.60	2.55	4.50	3.90		
10	8.80	34.20	32.25	29.55	131.90	103.40	54.20	5.50	4.60	3.00	4.10	3.90		
11	8.50	33.75	30.60	50.60	124.55	107.60	38.40	6.20	4.50	3.80	3.80	3.90		
12	8.20	31.20	28.20	76.50	90.20	86.00	33.30	7.50	4.50	3.90	3.80	3.90		
13	13.20	26.25	27.15	67.25	71.25	101.60	20.10	8.40	4.70	4.00	3.70	3.80		
14	18.40	23.70	26.55	50.80	60.00	102.80	15.30	8.20	5.00	4.20	3.70	3.80		
15	14.30	23.10	29.40	45.00	72.00	126.65	15.50	7.80	5.10	4.20	3.60	3.80		
16	7.10	22.65	33.60	61.00	110.00	161.80	15.60	7.50	5.20	4.40	3.60	3.80		
17	5.70	22.20	38.60	59.20	149.40	179.85	15.60	7.30	5.20	4.50	3.40	3.90		
18	10.90	22.80	45.40	90.20	157.80	160.20	13.20	7.10	5.10	4.70	3.30	3.90		
19	75.25	23.70	37.80	135.75	120.35	99.20	22.95	7.80	5.10	4.80	3.30	3.90		
20	59.00	36.60	36.80	133.30	85.75	66.75	111.20	8.30	5.00	4.90	3.20	3.90		
21	25.80	45.80	34.80	86.50	83.00	55.20	106.10	14.40	6.40	5.00	3.10	4.00		
22	8.80	42.20	29.85	54.40	109.40	55.40	77.25	8.20	17.20	5.10	3.10	4.00		
23	5.50	82.00	23.85	37.60	151.00	46.00	77.25	3.60	6.20	5.20	3.00	4.00		
24	4.60	84.00	19.00	39.80	170.40	37.20	46.60	3.50	3.80	5.20	3.00	4.00		
25	4.20	65.50	17.00	76.50	157.00	51.00	33.15	3.50	2.85	5.10	3.30	4.00		
26	4.00	73.25	16.60	62.80	104.90	66.00	28.50	3.50	2.40	5.10	3.70	4.00		
27	4.10	65.50	16.50	59.80	82.25	45.80	25.35	3.50	2.10	5.00	4.00	4.00		
28	9.00	54.60	16.70	55.80	101.60	36.40	21.60	3.50	1.80	5.00	3.80	4.00		
29	37.00	45.40	17.00	86.75	140.30	35.70	17.40	3.10	1.75	4.90		4.00		
30	101.30	52.60	17.00	107.30	130.15	35.85	12.20	2.65	1.75	4.90		4.10		
31		84.25		125.60	77.00		9.50		1.85	4.80		4.10		
Total	491.90	1446.65	1004.60	1766.25	3331.85	2410.50	1466.30	185.05	136.00	129.95	110.30	121.80	12601.15	CMSDAY
Mean	16.40	46.67	33.49	56.98	107.48	80.35	47.30	6.17	4.39	4.19	3.94	3.93	34.52	CMS
Max	101.30	84.25	78.25	135.75	170.40	179.85	111.20	14.40	17.20	5.20	5.10	4.10	179.85	CMS
Min	2.50	22.20	16.50	17.20	59.40	35.40	9.50	2.65	1.75	1.95	3.00	3.80	1.75	CMS
Runoff	42.50	124.99	86.80	152.60	287.87	208.27	126.69	15.99	11.75	11.23	9.53	10.52	1088.74	MCM

Momentary Peak 183.00 CMS, at 22.60 m. (MSL.), at 18.00 Hours, on Sep 17, 2018

Runoff Yield 13.50 Liters/Second/Square KM. Momentary Peak Yield 71.54 Liters/Second/Square KM.

WATER YEAR : 2018

PRACHIN BURI RIVER BASIN

Khwae Hanuman at Ban Wang Man , Prachin Buri (Kgt.43A)

Lat 13 - 59 - 36 N Long 101 - 42 - 52 E

Location : on left bank at the bridge.

Ban Na Tan **Amphoe** Kabin Buri **Changwat** Prachin Buri

Drainge Area	2,142 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+2.070 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank near the top staff gage. **Elevation** +14.431 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings
Period of Available Gage Records	2016 to date
Rating Operation	
Period of Rating	2016 to date
Rated by Flot	-
Rated by Current Meter	2016 to date
Stability of Channel Regimes	Fairly stable because of backwater effect.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Stage-discharge relation defined by 48 discharge measurements made in 2018.
Ramark	Telemetry failure 8 Dec - 14 Feb.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

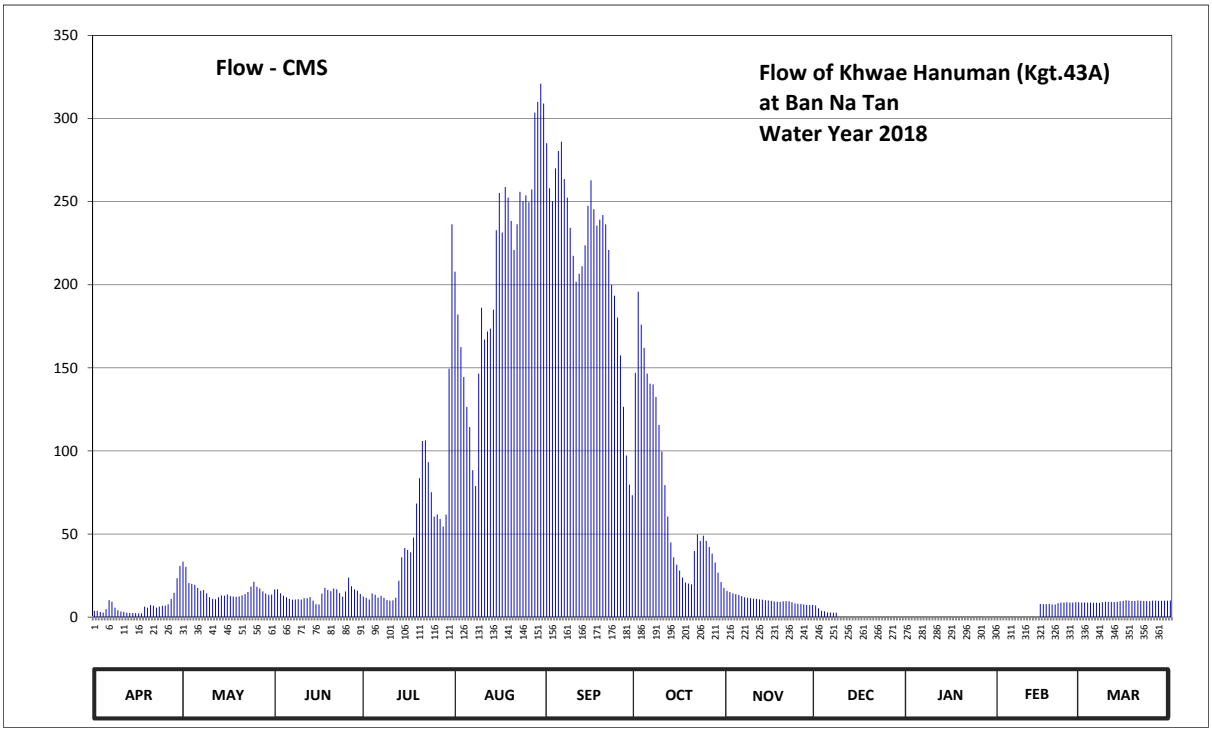
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	3.17	5.37	4.44	4.03	9.88	10.94	8.80	4.38	3.50			3.68	
2	3.18	5.21	4.45	3.96	9.45	10.60	9.68	4.30	3.33			3.68	
3	3.11	4.70	4.23	3.86	9.11	10.49	9.35	4.22	3.17			3.68	
4	3.07	4.67	4.09	4.22	8.75	10.75	9.10	4.19	3.16			3.68	
5	3.28	4.63	3.99	4.15	8.39	10.88	8.79	4.13	3.08			3.67	
6	3.82	4.50	3.90	3.97	8.11	10.95	8.67	4.06	3.08			3.67	
7	3.72	4.39	3.85	4.08	7.46	10.67	8.66	3.99	3.07			3.66	
8	3.37	4.42	3.86	3.96	7.16	10.52	8.51	3.96				3.69	
9	3.21	4.23	3.88	3.82	8.79	10.26	8.14	3.94				3.72	
10	3.14	3.99	3.86	3.79	9.52	10.02	7.74	3.91				3.71	
11	3.12	3.90	3.94	3.81	9.20	9.78	7.18	3.90				3.71	
12	3.07	3.88	3.94	3.96	9.28	9.86	6.55	3.87				3.70	
13	3.05	3.99	4.00	4.79	9.31	9.93	5.95	3.85				3.71	
14	3.05	4.11	3.79	5.50	9.50	10.11	5.50	3.81				3.75	
15	3.04	4.09	3.58	5.78	10.24	10.45	5.28	3.80			3.59	3.77	
16	3.03	4.16	3.56	5.72	10.56	10.66	5.10	3.78			3.58	3.81	
17	3.03	4.06	4.21	5.65	10.22	10.42	4.89	3.74			3.58	3.79	
18	3.43	4.03	4.51	6.09	10.61	10.28	4.72	3.72			3.59	3.77	
19	3.37	4.02	4.42	6.81	10.52	10.33	4.68	3.71			3.56	3.77	
20	3.52	4.04	4.36	7.32	10.32	10.37	4.65	3.75			3.56	3.80	
21	3.48	4.11	4.48	7.90	10.07	10.29	5.69	3.76			3.64	3.78	
22	3.37	4.19	4.45	7.91	10.29	10.07	6.19	3.75			3.68	3.77	
23	3.43	4.31	4.24	7.58	10.57	9.75	5.99	3.69			3.68	3.76	
24	3.48	4.56	4.03	7.04	10.49	9.64	6.15	3.63			3.69	3.76	
25	3.49	4.75	4.34	6.55	10.54	9.42	5.99	3.61			3.68	3.79	
26	3.57	4.55	4.89	6.59	10.48	9.01	5.81	3.59			3.68	3.79	
27	3.90	4.48	4.57	6.50	10.59	8.39	5.61	3.56			3.69	3.78	
28	4.26	4.35	4.44	6.35	11.15	7.68	5.34	3.53			3.69	3.78	
29	4.87	4.21	4.39	6.59	11.22	7.19	5.04	3.53				3.79	
30	5.24	4.14	4.20	8.85	11.33	6.98	4.74	3.53				3.79	
31		4.16		10.29	11.21		4.51					3.80	
Mean	3.46	4.33	4.16	5.72	9.82	9.89	6.55	3.84	3.20		3.64	3.74	
Max	5.24	5.37	4.89	10.29	11.33	10.95	9.68	4.38	3.50		3.69	3.81	11.33
Min	3.03	3.88	3.56	3.79	7.16	6.98	4.51	3.53	3.07		3.56	3.66	3.03

Annual Max Momentary Gage Height 11.36 m. (MSL.) , at 13.00 Hours, on Aug 30, 2018

Zero Gage at Bottom Elevation 2.07 m. (MSL.) , River Bed 1.45 m. (MSL.)

Left Bank Elevation 13.29 m. (MSL.) ,

Right Bank Elevation 13.66 m. (MSL.) , Drainage Are 2,142 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	3.70	33.40	16.60	12.30	207.80	285.20	147.00	15.80	7.00			8.80		
2	3.80	30.20	16.75	11.60	182.00	258.00	195.80	15.00	5.30			8.80		
3	3.10	20.50	14.30	10.60	162.50	250.30	176.00	14.20	3.70			8.80		
4	2.70	20.05	12.90	14.20	144.50	270.00	162.00	13.90	3.60			8.80		
5	4.80	19.45	11.90	13.50	126.50	280.40	146.50	13.30	2.80			8.70		
6	10.20	17.50	11.00	11.70	114.40	286.00	140.50	12.60	2.80			8.70		
7	9.20	15.90	10.50	12.80	88.40	263.60	140.00	11.90	2.70			8.60		
8	5.70	16.30	10.60	11.60	78.80	252.40	132.50	11.60	2.70			8.90		
9	4.10	14.30	10.80	10.20	146.50	234.20	115.60	11.40				9.20		
10	3.40	11.90	10.60	9.90	186.20	217.40	99.60	11.10				9.10		
11	3.20	11.00	11.40	10.10	167.00	201.80	79.40	11.00				9.10		
12	2.70	10.80	11.40	11.60	171.80	206.60	60.50	10.70				9.00		
13	2.50	11.90	12.00	21.85	173.60	211.10	45.00	10.50				9.10		
14	2.50	13.10	9.90	36.00	185.00	223.70	36.00	10.10				9.50		
15	2.40	12.90	7.80	41.60	232.80	247.50	31.60	10.00			7.90	9.70		
16	2.30	13.60	7.60	40.40	255.20	262.80	28.00	9.80			7.80	10.10		
17	2.30	12.60	14.10	39.00	231.40	245.40	23.80	9.40			7.80	9.90		
18	6.30	12.30	17.65	47.80	258.80	235.60	20.80	9.20			7.90	9.70		
19	5.70	12.20	16.30	68.30	252.40	239.10	20.20	9.10			7.60	9.70		
20	7.20	12.40	15.60	83.60	238.40	241.90	19.75	9.50			7.60	10.00		
21	6.80	13.10	17.20	106.00	220.90	236.30	39.80	9.60			8.40	9.80		
22	5.70	13.90	16.75	106.40	236.30	220.90	49.80	9.50			8.80	9.70		
23	6.30	15.10	14.40	93.20	255.90	200.00	45.80	8.90			8.80	9.60		
24	6.80	18.40	12.30	75.20	250.30	193.40	49.00	8.30			8.90	9.60		
25	6.90	21.25	15.40	60.50	253.80	180.20	45.80	8.10			8.80	9.90		
26	7.70	18.25	23.80	61.70	249.60	157.50	42.20	7.90			8.80	9.90		
27	11.00	17.20	18.55	59.00	257.30	126.50	38.20	7.60			8.90	9.80		
28	14.60	15.50	16.60	54.50	303.50	97.20	32.80	7.30			8.90	9.80		
29	23.40	14.10	15.90	61.70	310.00	79.70	26.80	7.30				9.90		
30	30.80	13.40	14.00	149.50	321.00	73.40	21.10	7.30				9.90		
31		13.60		236.30	309.00		17.65					10.00		
Total	207.80	496.10	414.60	1582.65	6571.60	6478.10	2229.50	311.90	30.60		116.90	292.10	18731.85	CMSDAY
Mean	6.93	16.00	13.82	51.05	211.99	215.94	71.92	10.40	3.83		8.35	9.42	63.07	CMS
Max	30.80	33.40	23.80	236.30	321.00	286.00	195.80	15.80	7.00		8.90	10.10	321.00	CMS
Min	2.30	10.80	7.60	9.90	78.80	73.40	17.65	7.30	2.70		7.60	8.60	2.30	CMS
Runoff	17.95	42.86	35.82	136.74	567.79	559.71	192.63	26.95	2.64		10.10	25.24	1618.43	MCM

Momentary Peak 324.00 CMS, at 11.36 m. (MSL.), at 13.00 Hours, on Aug 30, 2018

Runoff Yield 23.96 Liters/Second/Square KM. Momentary Peak Yield 151.26 Liters/Second/Square KM.

WATER YEAR : 2018

PRACHIN BURI RIVER BASIN

Khlong Phra Prong at Ban Kaeng Sai , Sa Kaeo (Kgt.44)

Lat 13 - 51 - 21 N Long 102 - 08 - 30 E

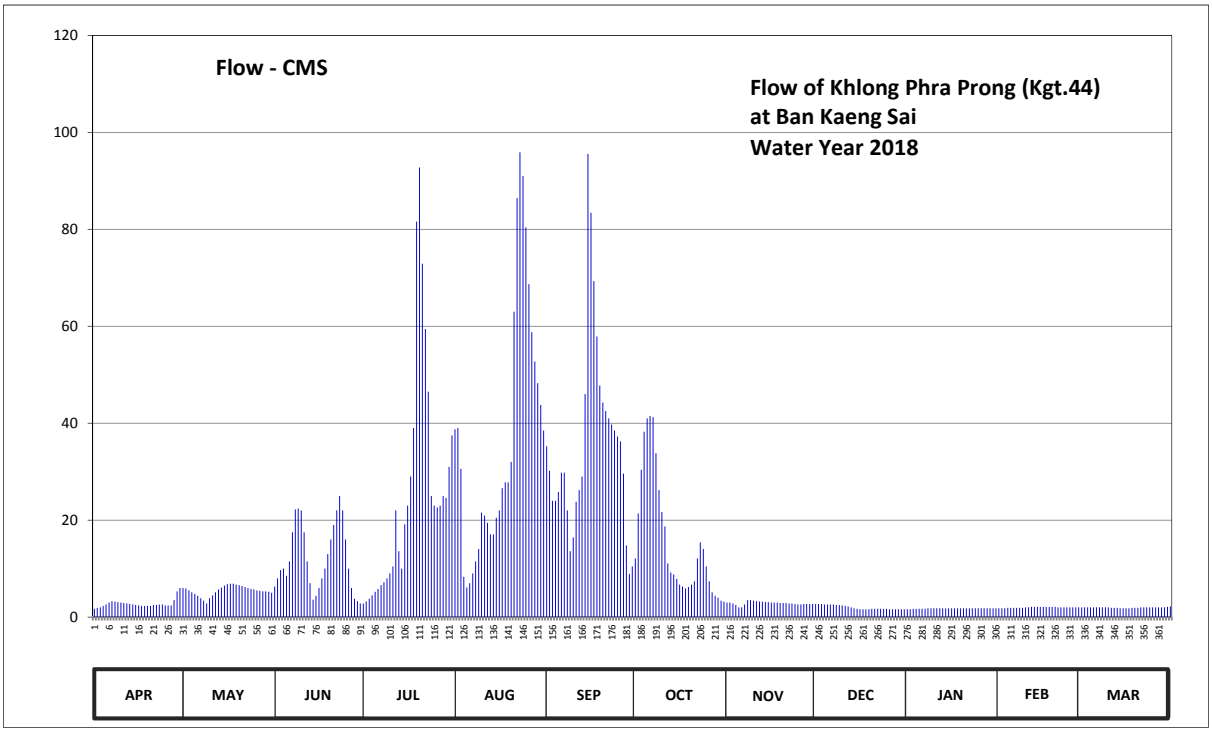
Location : on left bank at the bridge.

	Ban Kaeng Sai	**Amphoe** Mueang	**Changwat** Sa Kaeo
Drainge Area	1,071 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+27.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank near the top staff gage.		**Elevation** +33.898 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	2014 to date		
Rating Operation			
Period of Rating	2014 to date		
Rated by Flot	-		
Rated by Current Meter	2014 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 54 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	27.37	27.80	27.83	27.48	29.79	29.65	28.34	27.50	27.47	27.36	27.38	27.40	
2	27.39	27.79	28.00	27.52	29.80	29.41	28.96	27.50	27.47	27.36	27.38	27.40	
3	27.40	27.75	28.17	27.58	29.43	29.10	29.42	27.48	27.47	27.37	27.38	27.40	
4	27.43	27.71	28.20	27.65	28.03	29.10	29.77	27.45	27.46	27.37	27.39	27.40	
5	27.46	27.68	28.05	27.72	27.81	29.19	29.88	27.40	27.46	27.37	27.39	27.40	
6	27.50	27.64	28.30	27.78	27.90	29.39	29.90	27.40	27.46	27.37	27.39	27.40	
7	27.53	27.59	28.70	27.86	28.10	29.39	29.89	27.46	27.46	27.37	27.39	27.40	
8	27.52	27.54	29.01	27.92	28.30	29.00	29.59	27.55	27.45	27.38	27.39	27.40	
9	27.51	27.48	29.02	28.00	28.47	28.44	29.21	27.55	27.45	27.38	27.39	27.40	
10	27.50	27.59	29.00	28.10	28.97	28.63	28.98	27.54	27.44	27.38	27.40	27.40	
11	27.49	27.65	28.70	28.23	28.93	29.09	28.78	27.53	27.43	27.38	27.40	27.39	
12	27.48	27.71	28.30	29.00	28.83	29.21	28.27	27.52	27.42	27.38	27.41	27.39	
13	27.47	27.77	27.90	28.44	28.67	29.35	28.12	27.52	27.40	27.38	27.41	27.39	
14	27.46	27.81	27.56	28.20	28.67	30.08	28.08	27.51	27.38	27.38	27.41	27.38	
15	27.45	27.85	27.64	28.81	28.90	31.73	27.99	27.51	27.37	27.38	27.41	27.38	
16	27.44	27.88	27.80	29.05	29.00	31.38	27.87	27.50	27.36	27.38	27.41	27.38	
17	27.43	27.89	28.00	29.35	29.23	30.91	27.83	27.50	27.36	27.38	27.41	27.38	
18	27.43	27.89	28.20	29.80	29.29	30.53	27.79	27.50	27.36	27.38	27.41	27.39	
19	27.43	27.87	28.40	31.32	29.29	30.15	27.82	27.49	27.36	27.38	27.41	27.39	
20	27.43	27.86	28.60	31.65	29.50	30.01	27.87	27.49	27.37	27.38	27.41	27.39	
21	27.45	27.84	28.80	31.03	30.70	29.94	27.94	27.49	27.37	27.38	27.40	27.40	
22	27.45	27.82	29.00	30.58	31.47	29.88	28.34	27.48	27.37	27.38	27.40	27.40	
23	27.46	27.80	29.15	30.10	31.74	29.83	28.56	27.48	27.37	27.38	27.40	27.40	
24	27.46	27.78	29.00	29.15	31.60	29.78	28.47	27.47	27.37	27.38	27.40	27.40	
25	27.44	27.77	28.60	29.05	31.28	29.73	28.23	27.46	27.37	27.38	27.40	27.40	
26	27.44	27.75	28.20	29.03	30.89	29.69	27.94	27.46	27.36	27.38	27.40	27.40	
27	27.44	27.74	27.80	29.05	30.56	29.38	27.71	27.47	27.36	27.38	27.40	27.40	
28	27.55	27.73	27.58	29.15	30.35	28.52	27.64	27.47	27.36	27.38	27.40	27.40	
29	27.73	27.73	27.53	29.13	30.17	28.09	27.60	27.47	27.36	27.38		27.40	
30	27.80	27.72	27.48	29.45	29.99	28.23	27.54	27.47	27.36	27.38		27.41	
31		27.70		29.74	29.78		27.52		27.36	27.38		27.42	
Mean	27.48	27.75	28.28	28.93	29.53	29.56	28.45	27.49	27.40	27.38	27.40	27.40	
Max	27.80	27.89	29.15	31.65	31.74	31.73	29.90	27.55	27.47	27.38	27.41	27.42	31.74
Min	27.37	27.48	27.48	27.48	27.81	28.09	27.52	27.40	27.36	27.36	27.38	27.38	27.36

Annual Max Momentary Gage Height	31.80	m. (MSL.) ,	at 18.00 Hours, on Aug 23, 2018		
Zero Gage at Bottom Elevation	27.00	m. (MSL.) ,	River Bed	25.04	m. (MSL.)
Left Bank Elevation	33.20	m. (MSL.) ,			
Right Bank Elevation	33.13	m. (MSL.) ,	Drainage Are	1,071	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.70	6.00	6.30	2.80	38.75	35.25	12.10	3.00	2.70	1.60	1.80	2.00		
2	1.90	5.90	8.00	3.20	39.00	30.20	21.40	3.00	2.70	1.60	1.80	2.00		
3	2.00	5.50	9.70	3.80	30.60	24.00	30.40	2.80	2.70	1.70	1.80	2.00		
4	2.30	5.10	10.00	4.50	8.30	24.00	38.25	2.50	2.60	1.70	1.90	2.00		
5	2.60	4.80	8.50	5.20	6.10	25.80	41.00	2.00	2.60	1.70	1.90	2.00		
6	3.00	4.40	11.50	5.80	7.00	29.80	41.50	2.00	2.60	1.70	1.90	2.00		
7	3.30	3.90	17.50	6.60	9.00	29.80	41.25	2.60	2.60	1.70	1.90	2.00		
8	3.20	3.40	22.20	7.20	11.50	22.00	33.80	3.50	2.50	1.80	1.90	2.00		
9	3.10	2.80	22.40	8.00	14.05	13.60	26.20	3.50	2.50	1.80	1.90	2.00		
10	3.00	3.90	22.00	9.00	21.55	16.45	21.70	3.40	2.40	1.80	2.00	2.00		
11	2.90	4.50	17.50	10.45	20.95	23.80	18.70	3.30	2.30	1.80	2.00	1.90		
12	2.80	5.10	11.50	22.00	19.45	26.20	11.05	3.20	2.20	1.80	2.10	1.90		
13	2.70	5.70	7.00	13.60	17.05	29.00	9.20	3.20	2.00	1.80	2.10	1.90		
14	2.60	6.10	3.60	10.00	17.05	46.00	8.80	3.10	1.80	1.80	2.10	1.80		
15	2.50	6.50	4.40	19.15	20.50	95.55	7.90	3.10	1.70	1.80	2.10	1.80		
16	2.40	6.80	6.00	23.00	22.00	83.40	6.70	3.00	1.60	1.80	2.10	1.80		
17	2.30	6.90	8.00	29.00	26.60	69.30	6.30	3.00	1.60	1.80	2.10	1.80		
18	2.30	6.90	10.00	39.00	27.80	57.90	5.90	3.00	1.60	1.80	2.10	1.90		
19	2.30	6.70	13.00	81.60	27.80	47.75	6.20	2.90	1.60	1.80	2.10	1.90		
20	2.30	6.60	16.00	92.75	32.00	44.25	6.70	2.90	1.70	1.80	2.10	1.90		
21	2.50	6.40	19.00	72.90	63.00	42.50	7.40	2.90	1.70	1.80	2.00	2.00		
22	2.50	6.20	22.00	59.40	86.45	41.00	12.10	2.80	1.70	1.80	2.00	2.00		
23	2.60	6.00	25.00	46.50	95.90	39.75	15.40	2.80	1.70	1.80	2.00	2.00		
24	2.60	5.80	22.00	25.00	91.00	38.50	14.05	2.70	1.70	1.80	2.00	2.00		
25	2.40	5.70	16.00	23.00	80.40	37.25	10.45	2.60	1.70	1.80	2.00	2.00		
26	2.40	5.50	10.00	22.60	68.70	36.25	7.40	2.60	1.60	1.80	2.00	2.00		
27	2.40	5.40	6.00	23.00	58.80	29.60	5.10	2.70	1.60	1.80	2.00	2.00		
28	3.50	5.30	3.80	25.00	52.75	14.80	4.40	2.70	1.60	1.80	2.00	2.00		
29	5.30	5.30	3.30	24.60	48.25	8.90	4.00	2.70	1.60	1.80		2.00		
30	6.00	5.20	2.80	31.00	43.75	10.45	3.40	2.70	1.60	1.80		2.10		
31		5.00		37.50	38.50		3.20		1.60	1.80		2.20		
Total	83.40	169.30	365.00	787.15	1144.55	1073.05	481.95	86.20	62.10	54.90	55.70	60.90	4424.20	CMSDAY
Mean	2.78	5.46	12.17	25.39	36.92	35.77	15.55	2.87	2.00	1.77	1.99	1.96	12.12	CMS
Max	6.00	6.90	25.00	92.75	95.90	95.55	41.50	3.50	2.70	1.80	2.10	2.20	95.90	CMS
Min	1.70	2.80	2.80	2.80	6.10	8.90	3.20	2.00	1.60	1.60	1.80	1.80	1.60	CMS
Runoff	7.21	14.63	31.54	68.01	98.89	92.71	41.64	7.45	5.37	4.74	4.81	5.26	382.25	MCM

Momentary Peak 98.00 CMS, at 31.80 m. (MSL.), at 18.00 Hours, on Aug 23, 2018

Runoff Yield 11.32 Liters/Second/Square KM. Momentary Peak Yield 91.50 Liters/Second/Square KM.

WATER YEAR : 2018

PRACHIN BURI RIVER BASIN

Khlong Phra Sathung at Ban Ta Ruang , Chanthaburi (Kgt.45)

Lat 13 - 12 - 30 N Long 102 - 10 - 07 E

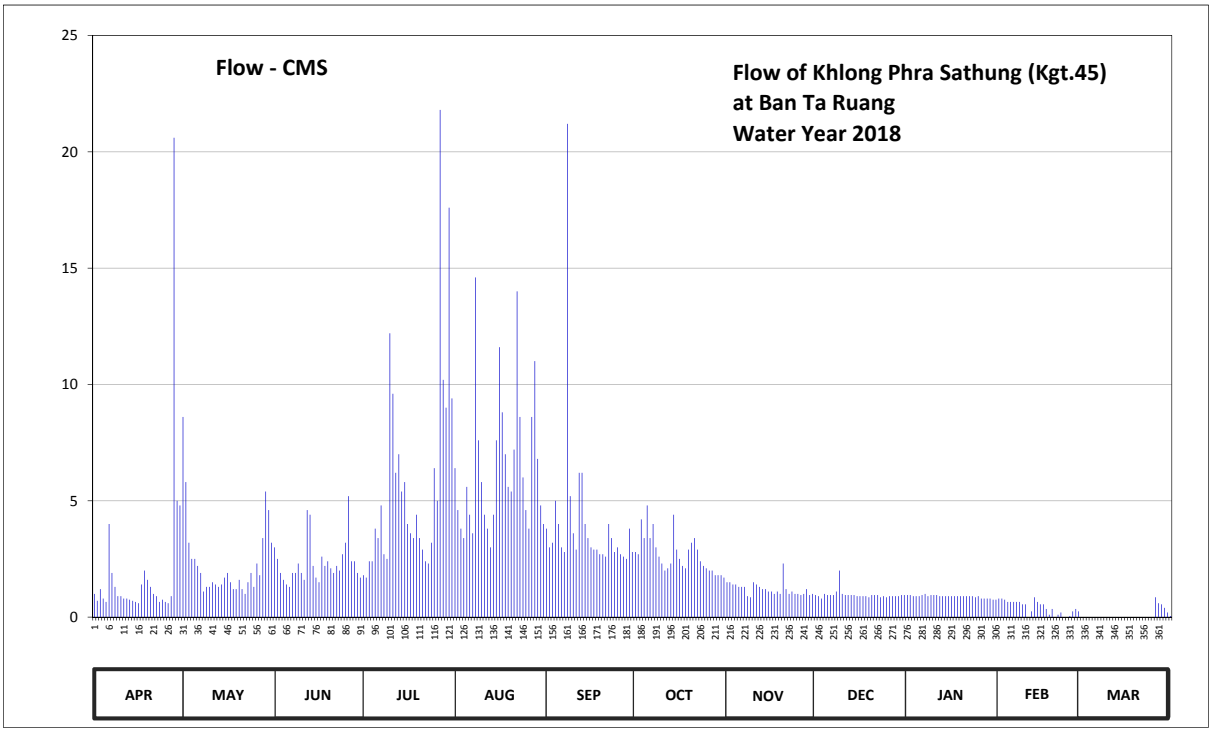
Location : on right bank at the bridge.

	Ban Ta Ruang	**Amphoe** Soi Dao	**Changwat** Chanthaburi
Drainge Area	103 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+167.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank near the top staff gage.		**Elevation** +172.248 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 3 readings		
Period of Available Gage Records	2013 to date		
Rating Operation			
Period of Rating	2013 to date		
Rated by Flot	-		
Rated by Current Meter	2013 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 25 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	169.10	169.58	169.30	169.18	169.47	169.34	169.28	169.15	169.09	169.09	169.06	168.86	
2	169.04	169.44	169.25	169.17	169.38	169.30	169.27	169.15	169.08	169.09	169.06	168.90	
3	169.12	169.31	169.19	169.24	169.34	169.31	169.36	169.14	169.06	169.08	169.05	168.90	
4	169.06	169.25	169.16	169.24	169.32	169.40	169.32	169.14	169.10	169.08	169.03	168.89	
5	169.03	169.25	169.14	169.34	169.43	169.35	169.39	169.13	169.09	169.08	169.03	168.80	
6	169.35	169.22	169.13	169.32	169.37	169.30	169.32	169.13	169.09	169.09	169.03	168.85	
7	169.19	169.19	169.19	169.39	169.33	169.28	169.35	169.13	169.09	169.10	169.03	168.86	
8	169.13	169.11	169.19	169.27	169.82	170.04	169.30	169.08	169.11	169.08	169.03	168.85	
9	169.08	169.13	169.23	169.25	169.53	169.41	169.26	169.07	169.20	169.09	169.01	168.81	
10	169.08	169.13	169.19	169.74	169.44	169.33	169.23	169.15	169.10	169.09	169.01	168.72	
11	169.06	169.15	169.16	169.63	169.37	169.29	169.20	169.14	169.09	169.09	168.90	168.70	
12	169.06	169.14	169.38	169.46	169.34	169.46	169.21	169.13	169.09	169.08	168.95	168.70	
13	169.05	169.13	169.37	169.50	169.30	169.46	169.23	169.12	169.09	169.08	169.07	168.59	
14	169.04	169.14	169.22	169.42	169.37	169.35	169.37	169.12	169.09	169.08	169.03	168.61	
15	169.03	169.17	169.17	169.44	169.53	169.32	169.29	169.11	169.08	169.08	169.01	168.60	
16	169.02	169.19	169.15	169.35	169.72	169.30	169.25	169.11	169.08	169.08	169.01	168.63	
17	169.14	169.15	169.26	169.33	169.59	169.29	169.22	169.10	169.08	169.08	168.97	168.66	
18	169.20	169.12	169.22	169.32	169.50	169.29	169.21	169.11	169.08	169.08	168.92	168.53	
19	169.16	169.12	169.24	169.37	169.43	169.27	169.29	169.10	169.07	169.08	168.97	168.55	
20	169.13	169.16	169.21	169.32	169.42	169.27	169.31	169.23	169.09	169.08	168.90	168.51	
21	169.10	169.12	169.19	169.29	169.51	169.26	169.32	169.12	169.09	169.08	168.92	168.61	
22	169.08	169.10	169.22	169.24	169.80	169.35	169.29	169.10	169.09	169.08	168.94	168.50	
23	169.03	169.15	169.20	169.23	169.58	169.32	169.24	169.11	169.07	169.08	168.89	168.44	
24	169.05	169.19	169.27	169.31	169.45	169.28	169.22	169.10	169.08	169.07	168.90	168.56	
25	169.03	169.13	169.31	169.47	169.38	169.30	169.21	169.10	169.07	169.08	168.91	168.72	
26	169.02	169.23	169.41	169.40	169.34	169.27	169.20	169.09	169.08	169.06	168.95	169.07	
27	169.08	169.18	169.24	170.06	169.58	169.26	169.20	169.10	169.08	169.06	168.97	169.02	
28	170.02	169.32	169.24	169.66	169.70	169.25	169.18	169.12	169.08	169.06	168.95	169.01	
29	169.40	169.42	169.19	169.60	169.49	169.34	169.18	169.09	169.08	169.06		168.98	
30	169.39	169.38	169.17	169.92	169.39	169.28	169.18	169.10	169.09	169.05		168.94	
31		169.31		169.62	169.35		169.17		169.09	169.05		168.91	
Mean	169.14	169.21	169.23	169.42	169.47	169.34	169.26	169.12	169.09	169.08	168.98	168.75	
Max	170.02	169.58	169.41	170.06	169.82	170.04	169.39	169.23	169.20	169.10	169.07	169.07	170.06
Min	169.02	169.10	169.13	169.17	169.30	169.25	169.17	169.07	169.06	169.05	168.89	168.44	168.44

Annual Max Momentary Gage Height	171.53	m. (MSL.) ,	at 18.00 Hours, on Jul 27, 2018		
Zero Gage at Bottom Elevation	167.00	m. (MSL.) ,	River Bed	166.59	m. (MSL.)
Left Bank Elevation	172.11	m. (MSL.) ,			
Right Bank Elevation	172.20	m. (MSL.) ,	Drainage Are	103	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.00	8.60	3.00	1.80	6.40	3.80	2.80	1.50	0.95	0.95	0.80	0.00		
2	0.70	5.80	2.50	1.70	4.60	3.00	2.70	1.50	0.90	0.95	0.80	0.00		
3	1.20	3.20	1.90	2.40	3.80	3.20	4.20	1.40	0.80	0.90	0.75	0.00		
4	0.80	2.50	1.60	2.40	3.40	5.00	3.40	1.40	1.00	0.90	0.65	0.00		
5	0.65	2.50	1.40	3.80	5.60	4.00	4.80	1.30	0.95	0.90	0.65	0.00		
6	4.00	2.20	1.30	3.40	4.40	3.00	3.40	1.30	0.95	0.95	0.65	0.00		
7	1.90	1.90	1.90	4.80	3.60	2.80	4.00	1.30	0.95	1.00	0.65	0.00		
8	1.30	1.10	1.90	2.70	14.60	21.20	3.00	0.90	1.10	0.90	0.65	0.00		
9	0.90	1.30	2.30	2.50	7.60	5.20	2.60	0.85	2.00	0.95	0.55	0.00		
10	0.90	1.30	1.90	12.20	5.80	3.60	2.30	1.50	1.00	0.95	0.55	0.00		
11	0.80	1.50	1.60	9.60	4.40	2.90	2.00	1.40	0.95	0.95	0.00	0.00		
12	0.80	1.40	4.60	6.20	3.80	6.20	2.10	1.30	0.95	0.90	0.25	0.00		
13	0.75	1.30	4.40	7.00	3.00	6.20	2.30	1.20	0.95	0.90	0.85	0.00		
14	0.70	1.40	2.20	5.40	4.40	4.00	4.40	1.20	0.95	0.90	0.65	0.00		
15	0.65	1.70	1.70	5.80	7.60	3.40	2.90	1.10	0.90	0.90	0.55	0.00		
16	0.60	1.90	1.50	4.00	11.60	3.00	2.50	1.10	0.90	0.90	0.55	0.00		
17	1.40	1.50	2.60	3.60	8.80	2.90	2.20	1.00	0.90	0.90	0.35	0.00		
18	2.00	1.20	2.20	3.40	7.00	2.90	2.10	1.10	0.90	0.90	0.10	0.00		
19	1.60	1.20	2.40	4.40	5.60	2.70	2.90	1.00	0.85	0.90	0.35	0.00		
20	1.30	1.60	2.10	3.40	5.40	2.70	3.20	2.30	0.95	0.90	0.00	0.00		
21	1.00	1.20	1.90	2.90	7.20	2.60	3.40	1.20	0.95	0.90	0.10	0.00		
22	0.90	1.00	2.20	2.40	14.00	4.00	2.90	1.00	0.95	0.90	0.20	0.00		
23	0.65	1.50	2.00	2.30	8.60	3.40	2.40	1.10	0.85	0.90	0.00	0.00		
24	0.75	1.90	2.70	3.20	6.00	2.80	2.20	1.00	0.90	0.85	0.00	0.00		
25	0.65	1.30	3.20	6.40	4.60	3.00	2.10	1.00	0.85	0.90	0.05	0.00		
26	0.60	2.30	5.20	5.00	3.80	2.70	2.00	0.95	0.90	0.80	0.25	0.85		
27	0.90	1.80	2.40	21.80	8.60	2.60	2.00	1.00	0.90	0.80	0.35	0.60		
28	20.60	3.40	2.40	10.20	11.00	2.50	1.80	1.20	0.90	0.80	0.25	0.55		
29	5.00	5.40	1.90	9.00	6.80	3.80	1.80	0.95	0.90	0.80		0.40		
30	4.80	4.60	1.70	17.60	4.80	2.80	1.80	1.00	0.95	0.75		0.20		
31		3.20		9.40	4.00		1.70		0.95	0.75		0.05		
Total	59.80	72.70	70.60	180.70	200.80	121.90	83.90	36.05	29.80	27.55	11.55	2.65	898.00	CMSDAY
Mean	1.99	2.35	2.35	5.83	6.48	4.06	2.71	1.20	0.96	0.89	0.41	0.09	2.46	CMS
Max	20.60	8.60	5.20	21.80	14.60	21.20	4.80	2.30	2.00	1.00	0.85	0.85	21.80	CMS
Min	0.60	1.00	1.30	1.70	3.00	2.50	1.70	0.85	0.80	0.75	0.00	0.00	0.00	CMS
Runoff	5.17	6.28	6.10	15.61	17.35	10.53	7.25	3.11	2.57	2.38	1.00	0.23	77.59	MCM

Momentary Peak 101.10 CMS, at 171.53 m. (MSL.), at 18.00 Hours, on Jul 27, 2018

Runoff Yield 23.89 Liters/Second/Square KM. Momentary Peak Yield 981.55 Liters/Second/Square KM.

WATER YEAR : 2018

PRACHIN BURI RIVER BASIN

Khlong Phra Sathung at Ban Dan Chai Phatthana , Sa Kaeo (Kgt.47)

Lat 13 - 33 - 16 N Long 102 - 02 - 43 E

Location : on right bank at the bridge.

Ban Dan Chaiphatthana **Amphoe** Khao Chakan **Changwat** Sa Kaeo

Drainge Area	1,436 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+52.000 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank near the top staff gage. **Elevation** +62.000 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings
Period of Available Gage Records	2013 to date
Rating Operation	
Period of Rating	2013 to date
Rated by Flot	-
Rated by Current Meter	2013 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Stage-discharge relation defined by 54 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

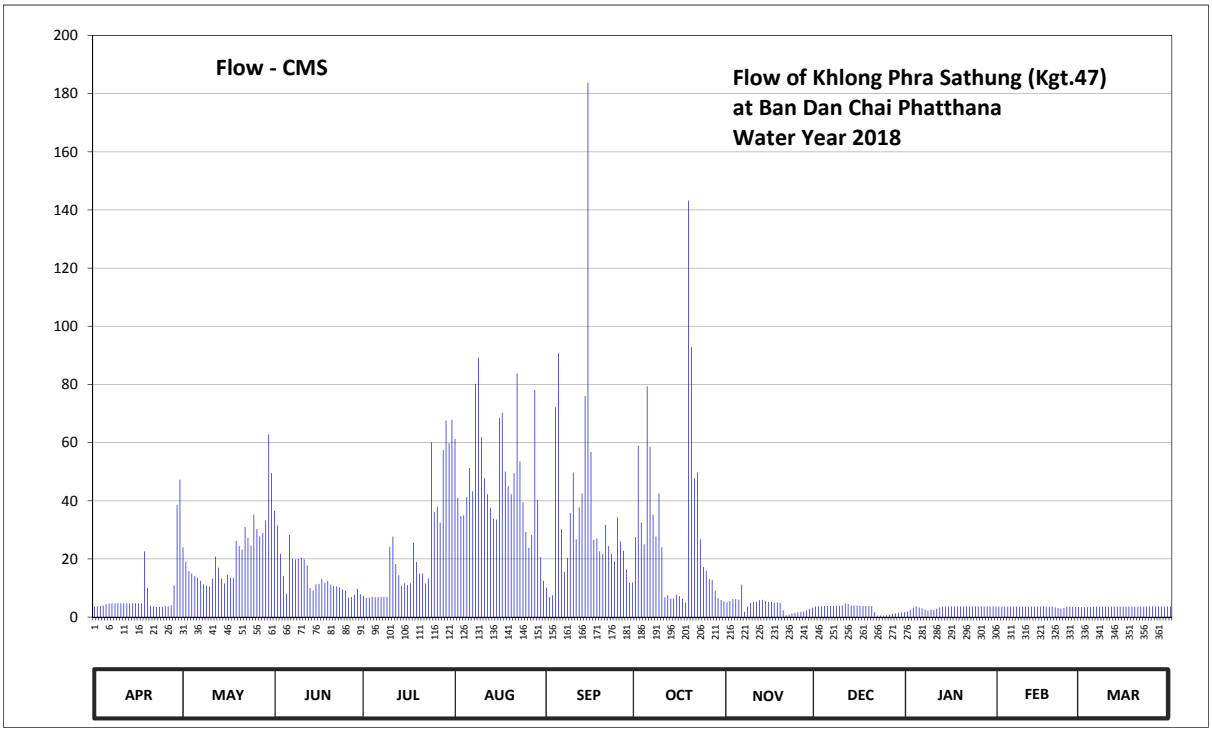
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	54.94	54.50	55.02	53.53	55.96	53.74	54.66	53.31	54.94	54.51	54.93	54.88	
2	54.95	54.25	54.82	53.46	55.20	53.49	55.88	53.36	54.95	54.71	54.93	54.88	
3	54.97	54.09	54.39	53.47	54.95	53.55	54.86	53.42	54.96	54.85	54.93	54.88	
4	55.00	54.05	54.01	53.50	54.96	56.32	54.55	53.42	54.97	54.94	54.92	54.88	
5	55.03	54.01	53.60	53.48	55.21	56.94	56.56	53.40	54.97	54.87	54.92	54.91	
6	55.05	53.97	54.69	53.50	55.61	54.77	55.87	53.81	54.97	54.80	54.92	54.92	
7	55.05	53.90	54.30	53.50	55.29	54.08	54.97	54.48	54.97	54.72	54.93	54.92	
8	55.05	53.82	54.29	53.50	56.59	54.32	54.67	54.92	54.99	54.66	54.93	54.92	
9	55.05	53.79	54.30	53.50	56.89	54.99	55.26	55.06	54.98	54.73	54.93	54.93	
10	55.05	53.77	54.32	54.51	55.98	55.55	54.50	55.08	55.00	54.69	54.93	54.92	
11	55.05	53.95	54.29	54.67	55.47	54.63	53.48	55.09	55.05	54.77	54.93	54.92	
12	55.05	54.34	54.19	54.21	55.25	55.07	53.55	55.12	55.03	54.87	54.93	54.91	
13	55.05	54.15	53.73	54.02	55.06	55.26	53.44	55.13	55.00	54.92	54.93	54.91	
14	55.05	53.95	53.68	53.79	54.91	56.45	53.44	55.10	55.00	54.94	54.93	54.91	
15	55.05	53.84	53.82	53.84	54.90	59.68	53.57	55.08	54.99	54.94	54.92	54.92	
16	55.05	54.03	53.83	53.80	56.20	55.81	53.52	55.08	54.98	54.94	54.92	54.93	
17	55.05	53.97	53.94	53.84	56.26	54.62	53.43	55.06	54.97	54.94	54.92	54.93	
18	55.79	53.97	53.85	54.58	55.56	54.64	53.30	55.07	54.97	54.94	54.92	54.93	
19	55.40	54.61	53.90	54.25	55.36	54.43	58.52	55.06	54.97	54.94	54.92	54.92	
20	54.98	54.52	53.81	54.05	55.25	54.39	57.01	54.66	54.96	54.94	54.87	54.92	
21	54.94	54.46	53.78	54.05	55.54	54.83	55.47	53.18	54.29	54.95	54.82	54.93	
22	54.90	54.80	53.77	53.84	56.71	54.52	55.55	53.44	53.15	54.94	54.78	54.93	
23	54.90	54.65	53.75	53.95	55.70	54.39	54.63	53.79	53.14	54.94	54.83	54.93	
24	54.90	54.53	53.70	55.92	55.14	54.26	54.16	54.07	53.14	54.94	54.89	54.94	
25	54.95	54.97	53.67	55.01	54.73	54.93	54.10	54.27	53.22	54.93	54.91	54.94	
26	54.95	54.77	53.47	55.08	54.49	54.60	53.94	54.42	53.44	54.94	54.91	54.94	
27	55.00	54.67	53.49	54.86	54.69	54.44	53.92	54.56	53.68	54.94	54.90	54.94	
28	55.43	54.72	53.57	55.83	56.52	54.12	53.67	54.66	53.94	54.94	54.89	54.94	
29	56.15	54.89	53.72	56.17	55.17	53.85	53.45	54.77	54.14	54.94		54.93	
30	55.45	56.01	53.58	55.91	54.33	53.86	53.39	54.85	54.27	54.94		54.93	
31		55.54		56.18	53.90		53.34		54.36	54.93		54.94	
Mean	55.11	54.37	53.98	54.32	55.41	54.88	54.54	54.42	54.53	54.87	54.91	54.92	
Max	56.15	56.01	55.02	56.18	56.89	59.68	58.52	55.13	55.05	54.95	54.93	54.94	59.68
Min	54.90	53.77	53.47	53.46	53.90	53.49	53.30	53.18	53.14	54.51	54.78	54.88	53.14

Annual Max Momentary Gage Height 59.97 m. (MSL.) , at 12.00 Hours, on Sep 15, 2018

Zero Gage at Bottom Elevation 52.00 m. (MSL.) , River Bed 52.99 m. (MSL.)

Left Bank Elevation 63.65 m. (MSL.) ,

Right Bank Elevation 63.76 m. (MSL.) , Drainage Are 1,436 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	3.70	24.00	36.50	7.30	61.30	10.10	27.50	5.10	3.70	1.91	3.65	3.40		
2	3.75	19.00	31.50	6.60	41.00	6.90	58.90	5.60	3.75	2.55	3.65	3.40		
3	3.85	15.80	21.80	6.70	34.75	7.50	32.50	6.20	3.80	3.25	3.65	3.40		
4	4.00	15.00	14.20	7.00	35.00	72.10	25.00	6.20	3.85	3.70	3.60	3.40		
5	4.45	14.20	8.00	6.80	41.25	90.70	79.30	6.00	3.85	3.35	3.60	3.55		
6	4.75	13.55	28.25	7.00	51.25	30.25	58.60	11.15	3.85	3.00	3.60	3.60		
7	4.75	12.50	20.00	7.00	43.25	15.60	35.25	1.88	3.85	2.60	3.65	3.60		
8	4.75	11.30	19.80	7.00	80.20	20.40	27.75	3.60	3.95	2.30	3.65	3.60		
9	4.75	10.85	20.00	7.00	89.20	35.75	42.50	4.90	3.90	2.65	3.65	3.65		
10	4.75	10.55	20.40	24.20	61.90	49.75	24.00	5.20	4.00	2.45	3.65	3.60		
11	4.75	13.25	19.80	27.75	47.75	26.75	6.80	5.35	4.75	2.85	3.65	3.60		
12	4.75	20.80	17.80	18.20	42.25	37.75	7.50	5.80	4.45	3.35	3.65	3.55		
13	4.75	17.00	9.95	14.40	37.50	42.50	6.40	5.95	4.00	3.60	3.65	3.55		
14	4.75	13.25	9.20	10.85	33.75	76.00	6.40	5.50	4.00	3.70	3.65	3.55		
15	4.75	11.60	11.30	11.60	33.50	183.80	7.70	5.20	3.95	3.70	3.60	3.60		
16	4.75	14.60	11.45	11.00	68.50	56.80	7.20	5.20	3.90	3.70	3.60	3.65		
17	4.75	13.55	13.10	11.60	70.30	26.50	6.30	4.90	3.85	3.70	3.60	3.65		
18	22.60	13.55	11.75	25.60	50.00	27.00	5.00	5.05	3.85	3.70	3.60	3.65		
19	10.00	26.25	12.50	19.00	45.00	22.60	143.20	4.90	3.85	3.70	3.60	3.60		
20	3.90	24.40	11.15	15.00	42.25	21.80	92.80	2.30	3.80	3.70	3.35	3.60		
21	3.70	23.20	10.70	15.00	49.50	31.75	47.75	0.58	1.69	3.75	3.10	3.65		
22	3.50	31.00	10.55	11.60	83.80	24.40	49.75	0.84	0.55	3.70	2.90	3.65		
23	3.50	27.25	10.25	13.25	53.50	21.80	26.75	1.19	0.54	3.70	3.15	3.65		
24	3.50	24.60	9.50	60.10	39.50	19.20	17.20	1.47	0.54	3.70	3.45	3.70		
25	3.75	35.25	9.05	36.25	29.25	34.25	16.00	1.67	0.62	3.65	3.55	3.70		
26	3.75	30.25	6.70	38.00	23.80	26.00	13.10	1.82	0.84	3.70	3.55	3.70		
27	4.00	27.75	6.90	32.50	28.25	22.80	12.80	1.96	1.08	3.70	3.50	3.70		
28	10.90	29.00	7.70	57.40	78.10	16.40	9.05	2.30	1.34	3.70	3.45	3.70		
29	38.50	33.25	9.80	67.60	40.25	11.75	6.50	2.85	1.54	3.70		3.65		
30	47.25	62.80	7.80	59.80	20.60	11.90	5.90	3.25	1.67	3.70		3.65		
31		49.50		67.90	12.50		5.40		1.76	3.65		3.70		
Total	235.60	688.85	437.40	711.00	1468.95	1080.80	910.80	123.91	91.07	104.11	98.95	111.65	6063.09	CMSDAY
Mean	7.85	22.22	14.58	22.94	47.39	36.03	29.38	4.13	2.94	3.36	3.53	3.60	16.61	CMS
Max	47.25	62.80	36.50	67.90	89.20	183.80	143.20	11.15	4.75	3.75	3.65	3.70	183.80	CMS
Min	3.50	10.55	6.70	6.60	12.50	6.90	5.00	0.58	0.54	1.91	2.90	3.40	0.54	CMS
Runoff	20.36	59.52	37.79	61.43	126.92	93.38	78.69	10.71	7.87	9.00	8.55	9.65	523.85	MCM

Momentary Peak 193.95 CMS, at 59.97 m. (MSL.), at 12.00 Hours, on Sep 15, 2018

Runoff Yield 11.57 Liters/Second/Square KM. Momentary Peak Yield 135.06 Liters/Second/Square KM.

WATER YEAR : 2018

PRACHIN BURI RIVER BASIN

Huai Samong at Ban Kaeng Din So , Prachin Buri (Kgt.66)

Lat 14 - 04 - 16 N Long 101 - 57 - 41 E

Location : on right bank at the bridge.

	Ban Kaeng Din So	**Amphoe** Na Di	**Changwat** Prachin Buri
Drainge Area	529 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+17.318 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank near the top staff gage.		**Elevation** +25.000 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	2018 to date		
Rating Operation			
Period of Rating	2018 to date		
Rated by Flot	-		
Rated by Current Meter	2018 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 46 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

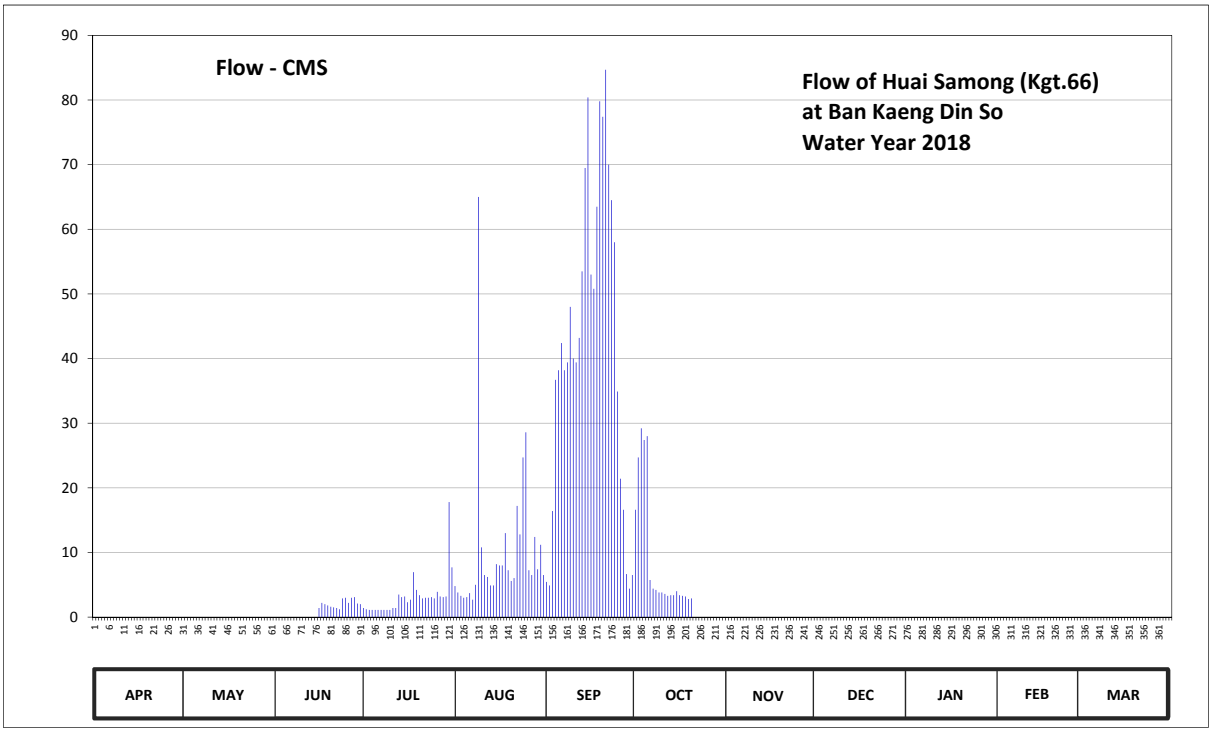
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	18.16	18.51	18.65	17.64	17.98	18.03	18.63	18.22	18.07	18.15	18.55	18.62	
2	18.08	18.50	18.65	17.62	17.88	17.99	18.99	18.22	17.70	18.15	18.99	18.61	
3	18.05	18.54	18.72	17.61	17.83	18.62	19.14	18.22	17.69	18.15	18.91	18.61	
4	18.05	18.55	18.72	17.61	17.80	19.39	19.08	18.22	17.66	18.15	18.84	18.61	
5	18.05	18.60	18.62	17.61	17.81	19.44	19.10	18.22	17.65	18.15	18.84	18.61	
6	18.35	18.60	18.62	17.61	17.87	19.56	18.05	18.22	17.65	18.15	18.84	18.61	
7	18.09	18.60	18.55	17.61	17.77	19.44	17.94	18.22	17.65	18.15	18.79	18.61	
8	18.06	18.62	18.53	17.61	18.00	19.48	17.92	18.22	17.65	18.15	18.42	18.62	
9	18.04	18.62	18.48	17.61	20.06	19.70	17.88	18.21	17.65	18.15	18.68	18.61	
10	18.03	18.62	18.46	17.61	18.34	19.50	17.88	18.21	17.65	18.15	18.68	18.61	
11	18.03	18.62	18.42	17.64	18.10	19.48	17.86	18.21	17.65	18.15	18.70	18.61	
12	18.02	18.67	18.25	17.64	18.08	19.58	17.83	18.21	17.65	18.15	18.69	18.61	
13	18.02	18.70	18.07	17.85	17.99	19.83	17.84	18.21	17.65	18.15	18.63	18.61	
14	18.02	18.70	17.97	17.81	17.99	20.15	17.84	18.21	17.65	18.15	18.60	18.61	
15	18.02	18.69	17.69	17.82	18.21	20.34	17.90	18.21	17.73	18.15	18.50	18.61	
16	18.02	18.69	17.64	17.73	18.20	19.82	17.84	18.21	18.15	18.16	18.50	18.64	
17	18.06	18.68	17.72	17.77	18.20	19.77	17.83	18.21	18.15	18.15	18.50	18.64	
18	18.08	18.68	17.70	18.13	18.45	20.03	17.82	18.21	18.18	18.15	18.50	18.64	
19	18.08	18.68	17.68	17.92	18.15	20.33	17.78	18.23	18.15	18.15	18.50	18.64	
20	18.14	18.68	17.66	17.84	18.04	20.29	17.79	18.26	18.15	18.15	18.52	18.64	
21	18.23	18.67	17.65	17.79	18.07	20.41	17.88	18.20	18.15	18.15	18.55	18.64	
22	18.32	18.67	17.64	17.80	18.66	20.16	18.21	18.20	18.15	18.15	18.55	18.64	
23	18.36	18.67	17.62	17.80	18.44	20.05	18.22	18.20	18.15	18.15	18.55	18.64	
24	18.42	18.67	17.79	17.81	18.99	19.92	18.23	18.20	18.15	18.15	18.55	18.64	
25	18.42	18.67	17.80	17.79	19.12	19.33	18.24	18.20	18.15	18.15	18.55	18.64	
26	18.48	18.67	17.72	17.89	18.15	18.87	18.24	18.20	18.15	18.15	18.55	18.65	
27	18.50	18.67	17.80	17.82	18.10	18.63	18.22	18.20	18.15	18.15	18.55	18.65	
28	18.59	18.67	17.81	17.81	18.42	18.11	18.22	18.20	18.15	18.15	18.55	18.67	
29	18.54	18.66	17.71	17.82	18.16	17.94	18.22	18.20	18.15	18.15		18.66	
30	18.52	18.66	17.70	18.69	18.36	18.10	18.21	18.20	18.15	18.15		18.66	
31		18.66		18.18	18.10		18.20		18.15	18.15		18.65	
Mean	18.19	18.64	18.07	17.79	18.24	19.41	18.16	18.21	17.93	18.15	18.63	18.63	
Max	18.59	18.70	18.72	18.69	20.06	20.41	19.14	18.26	18.18	18.16	18.99	18.67	20.41
Min	18.02	18.50	17.62	17.61	17.77	17.94	17.78	18.20	17.65	18.15	18.42	18.61	17.61

Annual Max Momentary Gage Height 20.62 m. (MSL.) , at 06.00 Hours, on Sep 15, 2018

Zero Gage at Bottom Elevation 17.32 m. (MSL.) , River Bed 15.00 m. (MSL.)

Left Bank Elevation 23.09 m. (MSL.) ,

Right Bank Elevation 23.19 m. (MSL.) , Drainage Are 529 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	0.00	1.40	4.80	5.45	16.60	0.00	0.00	0.00	0.00	0.00		
2	0.00	0.00	0.00	1.20	3.80	4.90	24.70	0.00	0.00	0.00	0.00	0.00		
3	0.00	0.00	0.00	1.10	3.30	16.40	29.20	0.00	0.00	0.00	0.00	0.00		
4	0.00	0.00	0.00	1.10	3.00	36.70	27.40	0.00	0.00	0.00	0.00	0.00		
5	0.00	0.00	0.00	1.10	3.10	38.20	28.00	0.00	0.00	0.00	0.00	0.00		
6	0.00	0.00	0.00	1.10	3.70	42.40	5.75	0.00	0.00	0.00	0.00	0.00		
7	0.00	0.00	0.00	1.10	2.70	38.20	4.40	0.00	0.00	0.00	0.00	0.00		
8	0.00	0.00	0.00	1.10	5.00	39.40	4.20	0.00	0.00	0.00	0.00	0.00		
9	0.00	0.00	0.00	1.10	65.00	48.00	3.80	0.00	0.00	0.00	0.00	0.00		
10	0.00	0.00	0.00	1.10	10.80	40.00	3.80	0.00	0.00	0.00	0.00	0.00		
11	0.00	0.00	0.00	1.40	6.50	39.40	3.60	0.00	0.00	0.00	0.00	0.00		
12	0.00	0.00	0.00	1.40	6.20	43.20	3.30	0.00	0.00	0.00	0.00	0.00		
13	0.00	0.00	0.00	3.50	4.90	53.50	3.40	0.00	0.00	0.00	0.00	0.00		
14	0.00	0.00	0.00	3.10	4.90	69.50	3.40	0.00	0.00	0.00	0.00	0.00		
15	0.00	0.00	0.00	3.20	8.20	80.40	4.00	0.00	0.00	0.00	0.00	0.00		
16	0.00	0.00	1.40	2.30	8.00	53.00	3.40	0.00	0.00	0.00	0.00	0.00		
17	0.00	0.00	2.20	2.70	8.00	50.80	3.30	0.00	0.00	0.00	0.00	0.00		
18	0.00	0.00	2.00	6.95	13.00	63.50	3.20	0.00	0.00	0.00	0.00	0.00		
19	0.00	0.00	1.80	4.20	7.25	79.80	2.80	0.00	0.00	0.00	0.00	0.00		
20	0.00	0.00	1.60	3.40	5.60	77.40	2.90	0.00	0.00	0.00	0.00	0.00		
21	0.00	0.00	1.50	2.90	6.05	84.70	0.00	0.00	0.00	0.00	0.00	0.00		
22	0.00	0.00	1.40	3.00	17.20	70.00	0.00	0.00	0.00	0.00	0.00	0.00		
23	0.00	0.00	1.20	3.00	12.80	64.50	0.00	0.00	0.00	0.00	0.00	0.00		
24	0.00	0.00	2.90	3.10	24.70	58.00	0.00	0.00	0.00	0.00	0.00	0.00		
25	0.00	0.00	3.00	2.90	28.60	34.90	0.00	0.00	0.00	0.00	0.00	0.00		
26	0.00	0.00	2.20	3.90	7.25	21.40	0.00	0.00	0.00	0.00	0.00	0.00		
27	0.00	0.00	3.00	3.20	6.50	16.60	0.00	0.00	0.00	0.00	0.00	0.00		
28	0.00	0.00	3.10	3.10	12.40	6.65	0.00	0.00	0.00	0.00	0.00	0.00		
29	0.00	0.00	2.10	3.20	7.40	4.40	0.00	0.00	0.00	0.00		0.00		
30	0.00	0.00	2.00	17.80	11.20	6.50	0.00	0.00	0.00	0.00		0.00		
31		0.00		7.70	6.50		0.00		0.00	0.00		0.00		
Total	0.00	0.00	31.40	97.35	318.35	1287.80	181.15	0.00	0.00	0.00	0.00	0.00	1916.05	CMSDAY
Mean	0.00	0.00	1.05	3.14	10.27	42.93	5.84	0.00	0.00	0.00	0.00	0.00	5.25	CMS
Max	0.00	0.00	3.10	17.80	65.00	84.70	29.20	0.00	0.00	0.00	0.00	0.00	84.70	CMS
Min	0.00	0.00	0.00	1.10	2.70	4.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	0.00	0.00	2.71	8.41	27.51	111.27	15.65	0.00	0.00	0.00	0.00	0.00	165.55	MCM

Momentary Peak 99.40 CMS, at 20.62 m. (MSL.), at 06.00 Hours, on Sep 15, 2018

Runoff Yield 9.92 Liters/Second/Square KM. Momentary Peak Yield 187.90 Liters/Second/Square KM.

WATER YEAR : 2018

BANG PAKONG RIVER BASIN

Nakhon Nayok River at Ban Khao Nang Buat , Nakhon Nayok (Ny.1B)

Lat 14 - 14 - 38 N Long 101 - 16 - 14 E

Location : on right bank about 700 meters upstream from Ny.1

	Ban Khao Nang Buat	**Amphoe** Mueang	**Changwat** Nakhon Nayok
Drainge Area	521 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank about 200 meters from the staff gage.		**Elevation** +8.758 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic mean of 3 readings		
Period of Available Gage Records	1973 to date		
Rating Operation			
Period of Rating	1973 - 1980 , 1991 to date		
Rated by Flot	-		
Rated by Current Meter	1973 - 1980 , 1991 to date		
Stability of Channel Regimes	Rather unstable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 55 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

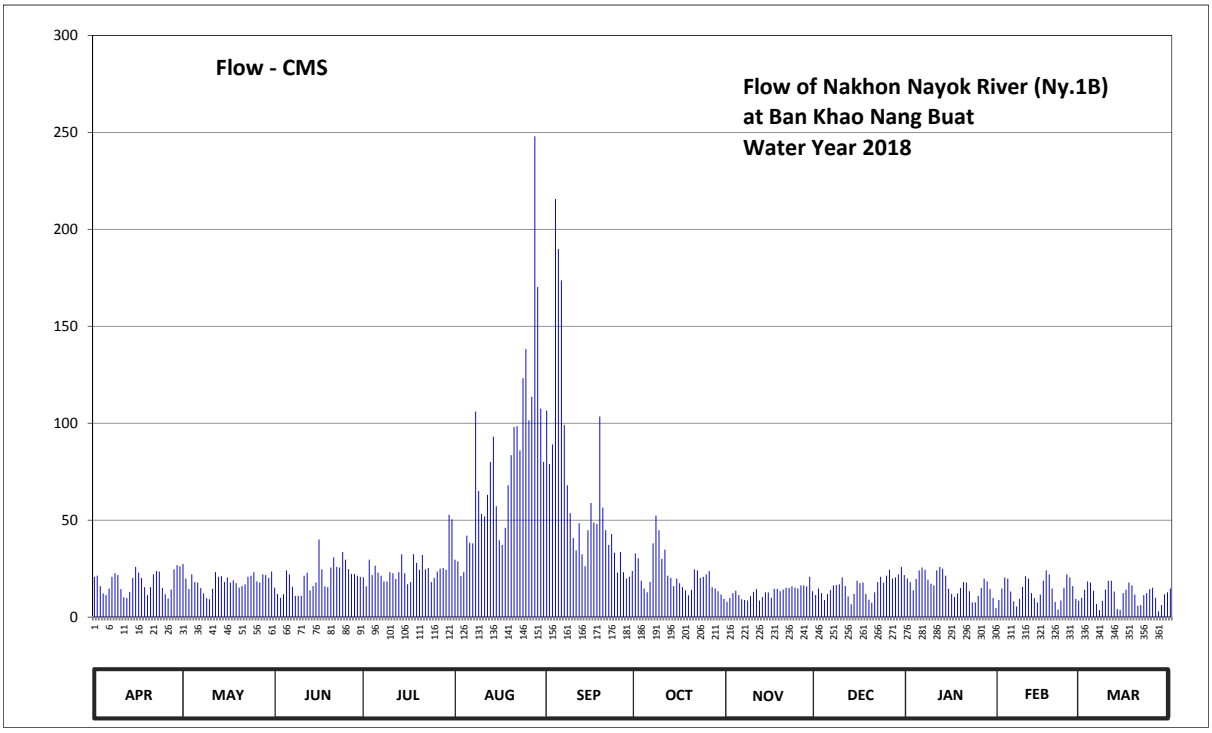
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	4.76	4.98	4.56	4.75	5.04	6.73	5.12	4.19	4.37	4.73	4.24	4.30	
2	4.78	4.73	4.40	4.59	5.02	6.18	5.06	4.29	4.54	4.67	4.54	4.50	
3	4.60	4.52	4.30	5.04	4.77	6.38	4.69	4.42	4.42	4.49	4.75	4.68	
4	4.41	4.80	4.39	4.79	4.84	8.41	4.54	4.48	4.24	4.72	4.73	4.66	
5	4.37	4.67	4.87	4.95	5.35	8.04	4.44	4.37	4.40	4.87	4.46	4.48	
6	4.54	4.66	4.80	4.83	5.26	7.81	4.67	4.26	4.50	4.92	4.21	4.14	
7	4.76	4.55	4.58	4.78	5.25	6.58	5.25	4.24	4.61	4.88	4.07	3.96	
8	4.82	4.41	4.35	4.68	6.72	5.96	5.61	4.23	4.62	4.71	4.27	4.22	
9	4.79	4.29	4.35	4.68	5.90	5.64	5.42	4.34	4.63	4.64	4.58	4.51	
10	4.52	4.26	4.35	4.84	5.63	5.32	5.05	4.45	4.75	4.61	4.77	4.69	
11	4.31	4.53	4.78	4.82	5.60	5.16	5.17	4.52	4.60	4.87	4.73	4.69	
12	4.29	4.84	4.83	4.72	5.86	5.51	4.78	4.23	4.33	4.93	4.42	4.46	
13	4.45	4.76	4.49	4.84	6.20	5.11	4.74	4.32	4.13	4.90	4.29	4.01	
14	4.74	4.77	4.60	5.11	6.46	4.94	4.60	4.44	4.40	4.78	4.18	3.97	
15	4.93	4.67	4.66	4.82	5.73	5.42	4.73	4.44	4.69	4.53	4.38	4.42	
16	4.83	4.75	5.30	4.63	5.29	5.77	4.65	4.30	4.65	4.40	4.69	4.51	
17	4.74	4.66	4.89	4.67	5.23	5.52	4.57	4.53	4.66	4.32	4.87	4.66	
18	4.57	4.70	4.59	5.11	5.45	5.50	4.49	4.53	4.40	4.41	4.80	4.61	
19	4.37	4.65	4.57	5.00	5.96	6.67	4.36	4.47	4.25	4.55	4.54	4.38	
20	4.57	4.56	4.92	4.88	6.27	5.71	4.50	4.51	4.17	4.67	4.19	4.09	
21	4.80	4.60	5.07	5.10	6.56	5.42	4.89	4.56	4.44	4.66	3.99	4.11	
22	4.86	4.63	4.93	4.89	6.57	5.23	4.87	4.55	4.67	4.47	4.23	4.37	
23	4.85	4.76	4.92	4.91	6.32	5.37	4.74	4.59	4.76	4.18	4.55	4.42	
24	4.55	4.78	5.14	4.67	7.02	5.13	4.76	4.56	4.66	4.18	4.80	4.52	
25	4.39	4.84	5.04	4.74	7.27	4.83	4.80	4.54	4.78	4.35	4.75	4.56	
26	4.28	4.68	4.89	4.85	6.63	5.14	4.86	4.61	4.88	4.55	4.60	4.30	
27	4.51	4.66	4.81	4.90	6.86	4.84	4.57	4.61	4.73	4.73	4.27	3.90	
28	4.89	4.80	4.81	4.91	8.85	4.73	4.54	4.59	4.75	4.68	4.22	4.11	
29	4.96	4.79	4.78	4.88	7.76	4.76	4.47	4.76	4.80	4.52		4.39	
30	4.94	4.74	4.76	5.62	6.75	4.86	4.38	4.47	4.93	4.29		4.44	
31		4.85		5.56	6.20		4.27		4.79	4.03		4.54	
Mean	4.64	4.67	4.72	4.89	6.08	5.76	4.76	4.45	4.57	4.59	4.47	4.37	
Max	4.96	4.98	5.30	5.62	8.85	8.41	5.61	4.76	4.93	4.93	4.87	4.69	8.85
Min	4.28	4.26	4.30	4.59	4.77	4.73	4.27	4.19	4.13	4.03	3.99	3.90	3.90

Annual Max Momentary Gage Height 9.37 m. (MSL.) , at 04.00 Hours , on Aug 28, 2018

Zero Gage at Bottom Elevation 0.00 m. (MSL.) , River Bed 2.84 m. (MSL.)

Left Bank Elevation 11.13 m. (MSL.) ,

Right Bank Elevation 10.57 m. (MSL.) , Drainage Are 521 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	20.80	27.40	15.20	20.50	29.60	106.50	32.80	7.80	11.40	19.90	8.80	10.00		
2	21.40	19.90	12.00	15.80	28.80	79.00	30.40	9.80	14.80	18.10	14.80	14.00		
3	16.00	14.40	10.00	29.60	21.10	89.00	18.70	12.40	12.40	13.80	20.50	18.40		
4	12.20	22.00	11.80	21.70	23.20	215.70	14.80	13.60	8.80	19.60	19.90	17.80		
5	11.40	18.10	24.10	26.50	42.00	189.80	12.80	11.40	12.00	24.10	13.20	13.60		
6	14.80	17.80	22.00	22.90	38.40	173.70	18.10	9.20	14.00	25.60	8.20	6.80		
7	20.80	15.00	15.60	21.40	38.00	99.00	38.00	8.80	16.30	24.40	5.40	3.60		
8	22.60	12.20	11.00	18.40	106.00	68.00	52.40	8.60	16.60	19.30	9.40	8.40		
9	21.70	9.80	11.00	18.40	65.00	53.60	44.80	10.80	16.90	17.20	15.60	14.20		
10	14.40	9.20	11.00	23.20	53.20	40.80	30.00	13.00	20.50	16.30	21.10	18.70		
11	10.20	14.60	21.40	22.60	52.00	34.40	34.80	14.40	16.00	24.10	19.90	18.70		
12	9.80	23.20	22.90	19.60	63.00	48.40	21.40	8.60	10.60	25.90	12.40	13.20		
13	13.00	20.80	13.80	23.20	80.00	32.40	20.20	10.40	6.60	25.00	9.80	4.20		
14	20.20	21.10	16.00	32.40	93.00	26.20	16.00	12.80	12.00	21.40	7.60	3.70		
15	25.90	18.10	17.80	22.60	57.20	44.80	19.90	12.80	18.70	14.60	11.60	12.40		
16	22.90	20.50	40.00	16.90	39.60	58.80	17.50	10.00	17.50	12.00	18.70	14.20		
17	20.20	17.80	24.70	18.10	37.20	48.80	15.40	14.60	17.80	10.40	24.10	17.80		
18	15.40	19.00	15.80	32.40	46.00	48.00	13.80	14.60	12.00	12.20	22.00	16.30		
19	11.40	17.50	15.40	28.00	68.00	103.50	11.20	13.40	9.00	15.00	14.80	11.60		
20	15.40	15.20	25.60	24.40	83.50	56.40	14.00	14.20	7.40	18.10	7.80	5.80		
21	22.00	16.00	30.80	32.00	98.00	44.80	24.70	15.20	12.80	17.80	3.90	6.20		
22	23.80	16.90	25.90	24.70	98.50	37.20	24.10	15.00	18.10	13.40	8.60	11.40		
23	23.50	20.80	25.60	25.30	86.00	42.80	20.20	15.80	20.80	7.60	15.00	12.40		
24	15.00	21.40	33.60	18.10	123.20	33.20	20.80	15.20	17.80	7.60	22.00	14.40		
25	11.80	23.20	29.60	20.20	138.20	22.90	22.00	14.80	21.40	11.00	20.50	15.20		
26	9.60	18.40	24.70	23.50	101.50	33.60	23.80	16.30	24.40	15.00	16.00	10.00		
27	14.20	17.80	22.30	25.00	113.60	23.20	15.40	16.30	19.90	19.90	9.40	3.00		
28	24.70	22.00	22.30	25.30	248.00	19.90	14.80	15.80	20.50	18.40	8.40	6.20		
29	26.80	21.70	21.40	24.40	170.20	20.80	13.40	20.80	22.00	14.40		11.80		
30	26.20	20.20	20.80	52.80	107.50	23.80	11.60	13.40	25.90	9.80		12.80		
31		23.50		50.40	80.00		9.40		21.70	4.60		14.80		
Total	538.10	575.50	614.10	780.30	2429.50	1919.00	677.20	389.80	496.60	516.50	389.40	361.60	9687.60	CMSDAY
Mean	17.94	18.56	20.47	25.17	78.37	63.97	21.85	12.99	16.02	16.66	13.91	11.66	26.54	CMS
Max	26.80	27.40	40.00	52.80	248.00	215.70	52.40	20.80	25.90	25.90	24.10	18.70	248.00	CMS
Min	9.60	9.20	10.00	15.80	21.10	19.90	9.40	7.80	6.60	4.60	3.90	3.00	3.00	CMS
Runoff	46.49	49.72	53.06	67.42	209.91	165.80	58.51	33.68	42.91	44.63	33.64	31.24	837.01	MCM

Momentary Peak 289.60 CMS. at 9.37 m. (MSL.) at 04.00 Hours , on Aug 28, 2018

Runoff Yield 50.94 Liters/Second/Square KM. Momentary Peak Yield 555.85 Liters/Second/Square KM.

WATER YEAR : 2018

BANG PAKONG RIVER BASIN

Lower Khlong Ban Na at Ban Pa Kha , Nakhon Nayok (Ny.3)

Lat 14 - 17 - 04 N Long 101 - 04 - 28 E

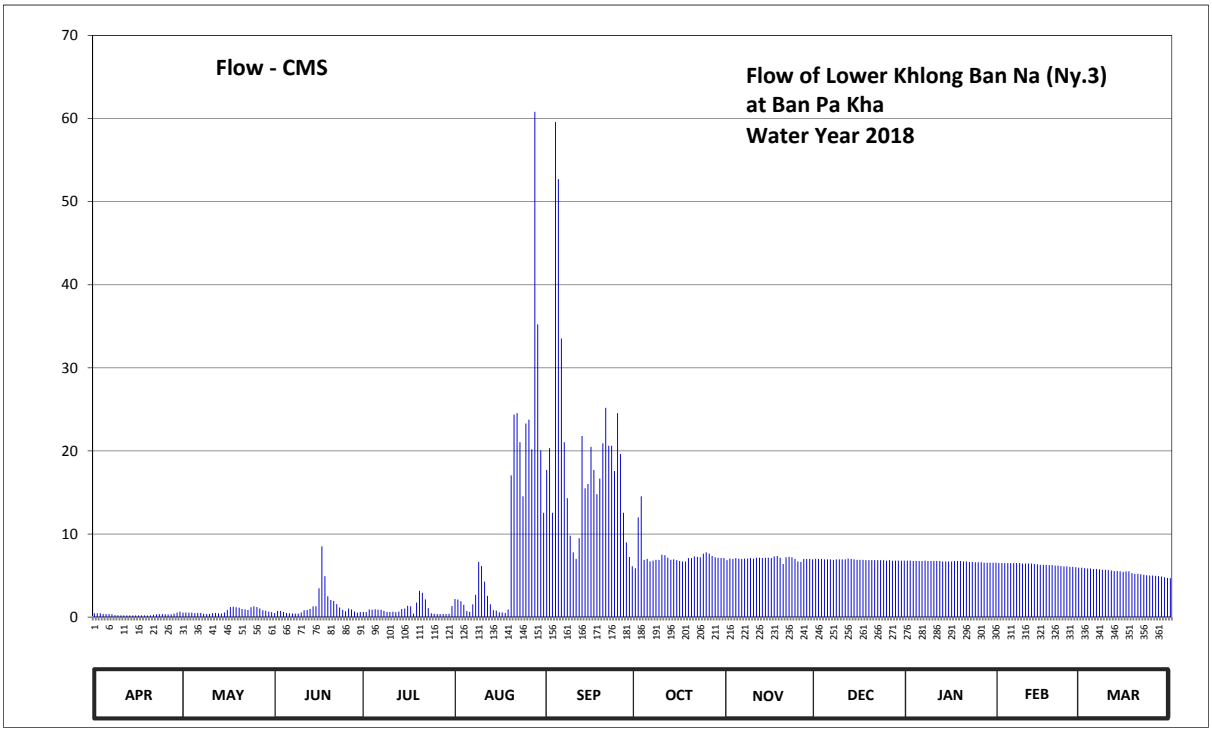
Location : on left bank near Wat Ban Pa Kha.

	Ban Pa Kha	**Amphoe** Ban Na	**Changwat** Nakhon Nayok
Drainge Area	203 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+6.330 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	About 10 meters from the top staff gage.		**Elevation** +12.695 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	1977 to date		
Rating Operation			
Period of Rating	1977 - 1978 , 1980, 1988 to date		
Rated by Flot	-		
Rated by Current Meter	1977 - 1978 , 1980, 1988 to date		
Stability of Channel Regimes	Rather unstable with variable water surface slope.		
Overbank Flow Conditions	Overbank flow starts at elevation +11.680 m.(MSL.), and is including overbank flow.		
General Description	Records good. Flow effected by the local weir.		
	Stage-discharge relation defined by 27 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	7.46	7.51	7.50	7.54	8.89	9.67	8.56	10.07	10.10	10.06	10.00	9.89	
2	7.46	7.52	7.58	7.54	8.87	9.86	9.20	10.11	10.10	10.06	10.00	9.88	
3	7.46	7.51	7.58	7.64	8.80	9.25	9.42	10.10	10.10	10.05	10.00	9.87	
4	7.39	7.51	7.54	7.63	8.63	11.72	10.08	10.12	10.09	10.05	10.00	9.87	
5	7.37	7.48	7.50	7.65	8.33	11.49	10.10	10.11	10.09	10.05	10.00	9.86	
6	7.37	7.50	7.46	7.63	8.28	10.67	10.04	10.10	10.09	10.05	10.00	9.86	
7	7.34	7.49	7.44	7.63	8.65	9.91	10.06	10.11	10.08	10.06	10.00	9.85	
8	7.25	7.41	7.42	7.58	9.06	9.40	10.08	10.11	10.09	10.05	10.00	9.84	
9	7.23	7.37	7.43	7.54	10.03	9.00	10.08	10.12	10.09	10.05	9.99	9.84	
10	7.22	7.39	7.52	7.54	9.93	8.80	10.20	10.11	10.09	10.05	9.99	9.83	
11	7.21	7.48	7.61	7.55	9.52	8.70	10.19	10.13	10.09	10.05	9.99	9.82	
12	7.21	7.49	7.62	7.53	9.02	8.97	10.13	10.13	10.11	10.05	9.99	9.81	
13	7.21	7.47	7.66	7.56	8.65	9.96	10.08	10.12	10.10	10.04	9.98	9.81	
14	7.21	7.45	7.76	7.66	8.37	9.50	10.09	10.13	10.09	10.04	9.97	9.80	
15	7.21	7.52	7.77	7.68	8.35	9.54	10.07	10.13	10.08	10.04	9.96	9.79	
16	7.21	7.62	8.21	7.79	8.16	9.87	10.05	10.12	10.08	10.04	9.96	9.80	
17	7.21	7.74	8.87	7.77	8.12	9.67	10.04	10.16	10.08	10.05	9.96	9.80	
18	7.21	7.75	8.44	7.85	7.97	9.44	10.04	10.17	10.07	10.05	9.95	9.76	
19	7.20	7.73	8.02	8.74	8.41	9.59	10.12	10.13	10.07	10.05	9.95	9.74	
20	7.21	7.71	7.93	9.22	9.62	9.90	10.12	9.98	10.07	10.04	9.94	9.74	
21	7.28	7.66	7.91	9.14	10.13	10.18	10.16	10.14	10.07	10.04	9.94	9.73	
22	7.33	7.65	7.83	8.88	10.14	9.88	10.15	10.15	10.07	10.03	9.93	9.72	
23	7.36	7.62	7.72	8.47	9.91	9.88	10.14	10.14	10.07	10.03	9.92	9.71	
24	7.36	7.73	7.62	7.94	9.42	9.66	10.23	10.10	10.07	10.02	9.92	9.70	
25	7.34	7.76	7.57	7.79	10.06	10.14	10.26	10.04	10.06	10.02	9.91	9.70	
26	7.33	7.74	7.68	7.72	10.09	9.81	10.23	10.03	10.07	10.02	9.91	9.69	
27	7.32	7.68	7.64	7.73	9.85	9.25	10.17	10.10	10.06	10.01	9.90	9.68	
28	7.41	7.61	7.56	7.78	11.76	8.92	10.14	10.10	10.06	10.01	9.89	9.67	
29	7.51	7.59	7.51	7.73	10.76	8.73	10.13	10.10	10.06	10.01		9.65	
30	7.55	7.55	7.54	7.82	9.84	8.59	10.12	10.09	10.06	10.01		9.63	
31		7.53		8.57	9.25		10.12		10.06	10.01		9.62	
Mean	7.31	7.57	7.71	7.90	9.25	9.66	10.02	10.11	10.08	10.04	9.96	9.77	
Max	7.55	7.76	8.87	9.22	11.76	11.72	10.26	10.17	10.11	10.06	10.00	9.89	11.76
Min	7.20	7.37	7.42	7.53	7.97	8.59	8.56	9.98	10.06	10.01	9.89	9.62	7.20

Annual Max Momentary Gage Height	12.55	m. (MSL.) ,	at 10.00 Hours , on Sep 4, 2018		
Zero Gage at Bottom Elevation	6.33	m. (MSL.) ,	River Bed	5.26	m. (MSL.)
Left Bank Elevation	11.67	m. (MSL.) ,			
Right Bank Elevation	11.69	m. (MSL.) ,	Drainage Are	203	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.46	0.53	0.50	0.62	2.17	17.71	5.88	6.85	7.00	6.80	6.50	5.95		
2	0.46	0.56	0.74	0.62	2.11	20.34	12.00	7.05	7.00	6.80	6.50	5.90		
3	0.46	0.53	0.74	0.92	1.90	12.55	14.54	7.00	7.00	6.75	6.50	5.85		
4	0.39	0.53	0.62	0.89	1.48	59.60	6.90	7.10	6.95	6.75	6.50	5.85		
5	0.37	0.48	0.50	0.95	0.73	52.70	7.00	7.05	6.95	6.75	6.50	5.80		
6	0.37	0.50	0.46	0.89	0.64	33.53	6.70	7.00	6.95	6.75	6.50	5.80		
7	0.34	0.49	0.44	0.89	1.53	21.05	6.80	7.05	6.90	6.80	6.50	5.75		
8	0.25	0.41	0.42	0.74	2.68	14.30	6.90	7.05	6.95	6.75	6.50	5.70		
9	0.23	0.37	0.43	0.62	6.65	9.80	6.90	7.10	6.95	6.75	6.45	5.70		
10	0.22	0.39	0.56	0.62	6.15	7.80	7.50	7.05	6.95	6.75	6.45	5.65		
11	0.21	0.48	0.83	0.65	4.28	7.00	7.45	7.15	6.95	6.75	6.45	5.60		
12	0.21	0.49	0.86	0.59	2.56	9.50	7.15	7.15	7.05	6.75	6.45	5.55		
13	0.21	0.47	0.98	0.68	1.53	21.80	6.90	7.10	7.00	6.70	6.40	5.55		
14	0.21	0.45	1.28	0.98	0.83	15.50	6.95	7.15	6.95	6.70	6.35	5.50		
15	0.21	0.56	1.31	1.04	0.78	16.02	6.85	7.15	6.90	6.70	6.30	5.45		
16	0.21	0.86	3.46	1.37	0.58	20.48	6.75	7.10	6.90	6.70	6.30	5.50		
17	0.21	1.22	8.50	1.31	0.56	17.71	6.70	7.30	6.90	6.75	6.30	5.50		
18	0.21	1.25	4.92	0.43	0.49	14.78	6.70	7.35	6.85	6.75	6.25	5.30		
19	0.20	1.19	2.50	1.75	0.93	16.67	7.10	7.15	6.85	6.75	6.25	5.20		
20	0.21	1.13	2.05	3.16	17.06	20.90	7.10	6.40	6.85	6.70	6.20	5.20		
21	0.28	0.98	1.95	2.92	24.38	25.18	7.30	7.20	6.85	6.70	6.20	5.15		
22	0.33	0.95	1.55	2.14	24.54	20.62	7.25	7.25	6.85	6.65	6.15	5.10		
23	0.36	0.86	1.16	1.08	21.05	20.62	7.20	7.20	6.85	6.65	6.10	5.05		
24	0.36	1.19	0.86	0.47	14.54	17.58	7.65	7.00	6.85	6.60	6.10	5.00		
25	0.34	1.28	0.71	0.40	23.30	24.54	7.80	6.70	6.80	6.60	6.05	5.00		
26	0.33	1.22	1.04	0.36	23.75	19.64	7.65	6.65	6.85	6.60	6.05	4.96		
27	0.32	1.04	0.92	0.37	20.20	12.55	7.35	7.00	6.80	6.55	6.00	4.92		
28	0.41	0.83	0.68	0.39	60.80	9.00	7.20	7.00	6.80	6.55	5.95	4.88		
29	0.53	0.77	0.53	0.37	35.24	7.24	7.15	7.00	6.80	6.55		4.80		
30	0.65	0.65	0.62	0.41	20.06	6.12	7.10	6.95	6.80	6.55		4.72		
31		0.59		1.33	12.55		7.10		6.80	6.55		4.68		
Total	9.55	23.25	42.12	29.96	336.05	572.83	231.52	211.25	213.85	207.45	176.75	166.56	2221.14	CMSDAY
Mean	0.32	0.75	1.40	0.97	10.84	19.09	7.47	7.04	6.90	6.69	6.31	5.37	6.09	CMS
Max	0.65	1.28	8.50	3.16	60.80	59.60	14.54	7.35	7.05	6.80	6.50	5.95	60.80	CMS
Min	0.20	0.37	0.42	0.36	0.49	6.12	5.88	6.40	6.80	6.55	5.95	4.68	0.20	CMS
Runoff	0.83	2.01	3.64	2.59	29.03	49.49	20.00	18.25	18.48	17.92	15.27	14.39	191.91	MCM

Momentary Peak 93.50 CMS. at 12.55 m. (MSL.) at 10.00 Hours , on Sep 4, 2018

Runoff Yield 29.98 Liters/Second/Square KM. Momentary Peak Yield 460.59 Liters/Second/Square KM.

WATER YEAR : 2018

BANG PAKONG RIVER BASIN

Khlong Samo Pun at Ban Noen Hom , Prachin Buri (Ny.4)

Lat 14 - 17 - 27 N Long 101 - 24 - 25 E

Location : on left bank at the bridge of Prachin Buri - Khao Yai Highway.

Ban Noen Hom **Amphoe** Mueang **Changwat** Prachin Buri

Drainge Area	128 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+376.100 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank at the abutment of the bridge. **Elevation** +382.580 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	1986 to date
Rating Operation	
Period of Rating	1986 to date
Rated by Flot	-
Rated by Current Meter	1986 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Stage-discharge relation defined by 32 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

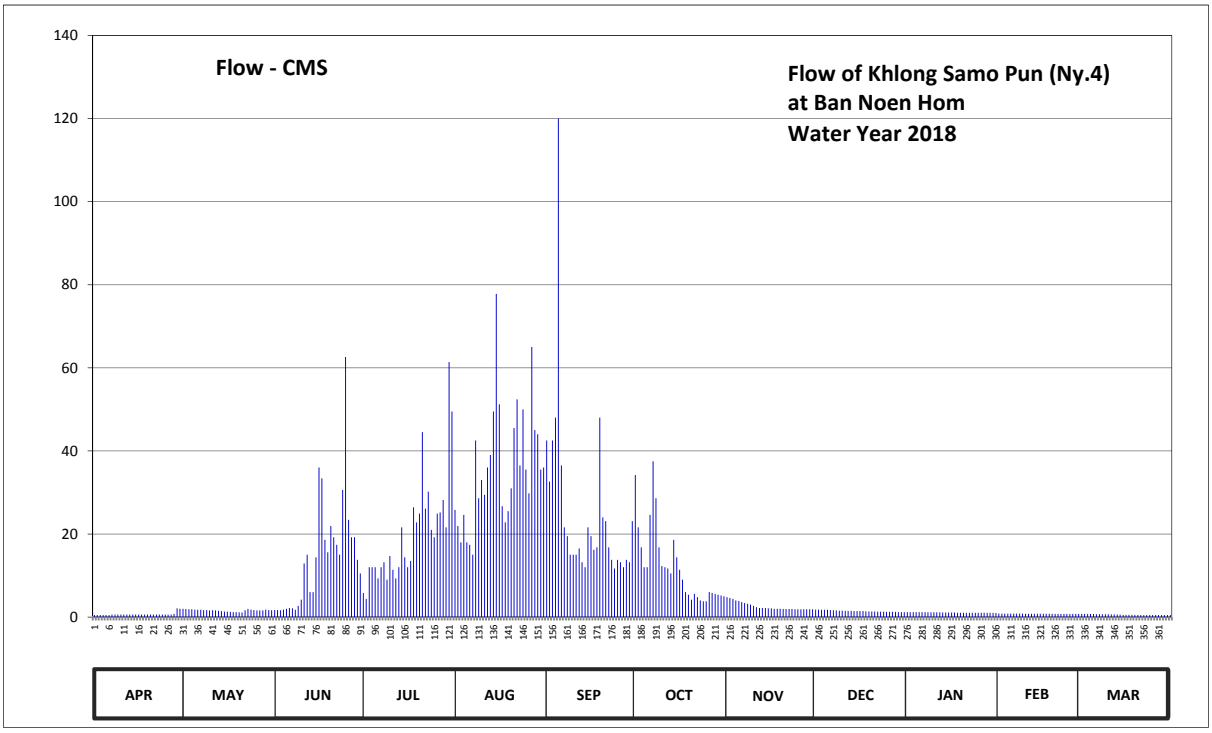
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	376.30	376.60	376.54	376.89	377.56	377.95	377.78	376.84	376.56	376.44	376.37	376.35	
2	376.30	376.59	376.54	376.82	377.43	377.74	377.42	376.83	376.56	376.44	376.37	376.35	
3	376.30	376.58	376.53	377.10	377.30	377.95	377.26	376.82	376.55	376.44	376.37	376.35	
4	376.30	376.58	376.56	377.10	377.52	378.06	377.10	376.80	376.55	376.44	376.37	376.35	
5	376.30	376.56	376.60	377.10	377.30	379.04	377.10	376.79	376.55	376.44	376.37	376.35	
6	376.30	376.55	376.62	377.01	377.28	377.83	377.52	376.76	376.54	376.44	376.37	376.34	
7	376.32	376.55	376.61	377.10	377.20	377.42	377.85	376.74	376.53	376.44	376.37	376.34	
8	376.32	376.54	376.55	377.14	377.95	377.35	377.64	376.72	376.52	376.43	376.37	376.34	
9	376.32	376.54	376.67	377.00	377.64	377.20	377.26	376.70	376.51	376.43	376.37	376.34	
10	376.32	376.52	376.81	377.19	377.75	377.20	377.11	376.67	376.51	376.43	376.36	376.34	
11	376.32	376.53	377.13	377.08	377.66	377.20	377.10	376.64	376.50	376.43	376.36	376.33	
12	376.32	376.52	377.20	377.01	377.82	377.25	377.09	376.62	376.50	376.43	376.36	376.33	
13	376.32	376.51	376.90	377.10	377.88	377.14	377.05	376.62	376.50	376.42	376.36	376.32	
14	376.32	376.49	376.90	377.42	378.09	377.10	377.32	376.62	376.49	376.42	376.36	376.32	
15	376.32	376.47	377.18	377.18	378.54	377.42	377.18	376.61	376.49	376.42	376.36	376.31	
16	376.32	376.46	377.82	377.10	378.12	377.35	377.08	376.61	376.49	376.42	376.36	376.31	
17	376.32	376.45	377.76	377.15	377.59	377.24	377.00	376.60	376.49	376.42	376.36	376.31	
18	376.32	376.44	377.32	377.58	377.46	377.26	376.90	376.60	376.48	376.41	376.36	376.31	
19	376.32	376.44	377.22	377.46	377.55	378.06	376.87	376.60	376.47	376.41	376.36	376.31	
20	376.32	376.43	377.43	377.53	377.70	377.50	376.81	376.59	376.47	376.41	376.35	376.31	
21	376.32	376.42	377.34	377.99	378.01	377.47	376.88	376.59	376.47	376.41	376.35	376.30	
22	376.32	376.53	377.28	377.57	378.14	377.26	376.84	376.59	376.46	376.41	376.35	376.30	
23	376.32	376.59	377.20	377.68	377.83	377.16	376.80	376.59	376.46	376.41	376.35	376.30	
24	376.32	376.56	377.69	377.40	378.10	377.09	376.78	376.58	376.46	376.41	376.35	376.30	
25	376.32	376.54	378.31	377.34	377.81	377.16	376.78	376.58	376.45	376.41	376.35	376.30	
26	376.32	376.52	377.48	377.53	377.67	377.14	376.90	376.58	376.45	376.41	376.35	376.30	
27	376.32	376.52	377.34	377.54	378.35	377.10	376.89	376.58	376.45	376.41	376.35	376.30	
28	376.35	376.52	377.34	377.63	378.00	377.16	376.88	376.58	376.45	376.41	376.35	376.30	
29	376.61	376.56	377.16	377.42	377.98	377.14	376.87	376.58	376.44	376.41		376.30	
30	376.60	376.54	377.05	378.29	377.81	377.47	376.86	376.58	376.44	376.41		376.30	
31		376.53		378.09	377.82		376.85		376.44	376.40		376.30	
Mean	376.34	376.52	377.10	377.34	377.77	377.45	377.09	376.65	376.49	376.42	376.36	376.32	
Max	376.61	376.60	378.31	378.29	378.54	379.04	377.85	376.84	376.56	376.44	376.37	376.35	379.04
Min	376.30	376.42	376.53	376.82	377.20	377.09	376.78	376.58	376.44	376.40	376.35	376.30	376.30

Annual Max Momentary Gage Height 379.16 m. (MSL.) , at 09.00 Hours , on Sep 5, 2018

Zero Gage at Bottom Elevation 376.10 m. (MSL.) , River Bed 374.41 m. (MSL.)

Left Bank Elevation 382.16 m. (MSL.) ,

Right Bank Elevation 383.13 m. (MSL.) , Drainage Are 128 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.50	2.00	1.70	5.80	25.80	42.50	34.20	4.80	1.80	1.20	0.85	0.75		
2	0.50	1.95	1.70	4.40	21.90	32.60	21.60	4.60	1.80	1.20	0.85	0.75		
3	0.50	1.90	1.65	12.00	18.00	42.50	16.80	4.40	1.75	1.20	0.85	0.75		
4	0.50	1.90	1.80	12.00	24.60	48.00	12.00	4.00	1.75	1.20	0.85	0.75		
5	0.50	1.80	2.00	12.00	18.00	120.00	12.00	3.90	1.75	1.20	0.85	0.75		
6	0.50	1.75	2.20	9.30	17.40	36.50	24.60	3.60	1.70	1.20	0.85	0.70		
7	0.60	1.75	2.10	12.00	15.00	21.60	37.50	3.40	1.65	1.20	0.85	0.70		
8	0.60	1.70	1.75	13.20	42.50	19.50	28.60	3.20	1.60	1.15	0.85	0.70		
9	0.60	1.70	2.70	9.00	28.60	15.00	16.80	3.00	1.55	1.15	0.85	0.70		
10	0.60	1.60	4.20	14.70	33.00	15.00	12.30	2.70	1.55	1.15	0.80	0.70		
11	0.60	1.65	12.90	11.40	29.40	15.00	12.00	2.40	1.50	1.15	0.80	0.65		
12	0.60	1.60	15.00	9.30	36.00	16.50	11.70	2.20	1.50	1.15	0.80	0.65		
13	0.60	1.55	6.00	12.00	39.00	13.20	10.50	2.20	1.50	1.10	0.80	0.60		
14	0.60	1.45	6.00	21.60	49.50	12.00	18.60	2.20	1.45	1.10	0.80	0.60		
15	0.60	1.35	14.40	14.40	77.80	21.60	14.40	2.10	1.45	1.10	0.80	0.55		
16	0.60	1.30	36.00	12.00	51.20	19.50	11.40	2.10	1.45	1.10	0.80	0.55		
17	0.60	1.25	33.40	13.50	26.70	16.20	9.00	2.00	1.45	1.10	0.80	0.55		
18	0.60	1.20	18.60	26.40	22.80	16.80	6.00	2.00	1.40	1.05	0.80	0.55		
19	0.60	1.20	15.60	22.80	25.50	48.00	5.40	2.00	1.35	1.05	0.80	0.55		
20	0.60	1.15	21.90	24.90	31.00	24.00	4.20	1.95	1.35	1.05	0.75	0.55		
21	0.60	1.10	19.20	44.50	45.50	23.10	5.60	1.95	1.35	1.05	0.75	0.50		
22	0.60	1.65	17.40	26.10	52.40	16.80	4.80	1.95	1.30	1.05	0.75	0.50		
23	0.60	1.95	15.00	30.20	36.50	13.80	4.00	1.95	1.30	1.05	0.75	0.50		
24	0.60	1.80	30.60	21.00	50.00	11.70	3.80	1.90	1.30	1.05	0.75	0.50		
25	0.60	1.70	62.60	19.20	35.50	13.80	3.80	1.90	1.25	1.05	0.75	0.50		
26	0.60	1.60	23.40	24.90	29.80	13.20	6.00	1.90	1.25	1.05	0.75	0.50		
27	0.60	1.60	19.20	25.20	65.00	12.00	5.80	1.90	1.25	1.05	0.75	0.50		
28	0.75	1.60	19.20	28.20	45.00	13.80	5.60	1.90	1.25	1.05	0.75	0.50		
29	2.10	1.80	13.80	21.60	44.00	13.20	5.40	1.90	1.20	1.05		0.50		
30	2.00	1.70	10.50	61.40	35.50	23.10	5.20	1.90	1.20	1.05		0.50		
31		1.65		49.50	36.00		5.00		1.20	1.00		0.50		
Total	20.45	49.90	432.50	624.50	1108.90	750.50	374.60	77.90	45.15	34.30	22.40	18.55	3559.65	CMSDAY
Mean	0.68	1.61	14.42	20.15	35.77	25.02	12.08	2.60	1.46	1.11	0.80	0.60	9.75	CMS
Max	2.10	2.00	62.60	61.40	77.80	120.00	37.50	4.80	1.80	1.20	0.85	0.75	120.00	CMS
Min	0.50	1.10	1.65	4.40	15.00	11.70	3.80	1.90	1.20	1.00	0.75	0.50	0.50	CMS
Runoff	1.77	4.31	37.37	53.96	95.81	64.84	32.37	6.73	3.90	2.96	1.94	1.60	307.55	MCM

Momentary Peak 132.00 CMS. at 379.16 m. (MSL.) at 09.00 Hours , on Sep 5, 2018

Runoff Yield 76.19 Liters/Second/Square KM. Momentary Peak Yield 1031.25 Liters/Second/Square KM.

WATER YEAR : 2018

BANG PAKONG RIVER BASIN

Upper Khlong Ban Na at Ban Cha Om , Saraburi (Ny.6)

Lat 14 - 24 - 34 N Long 101 - 07 - 30 E

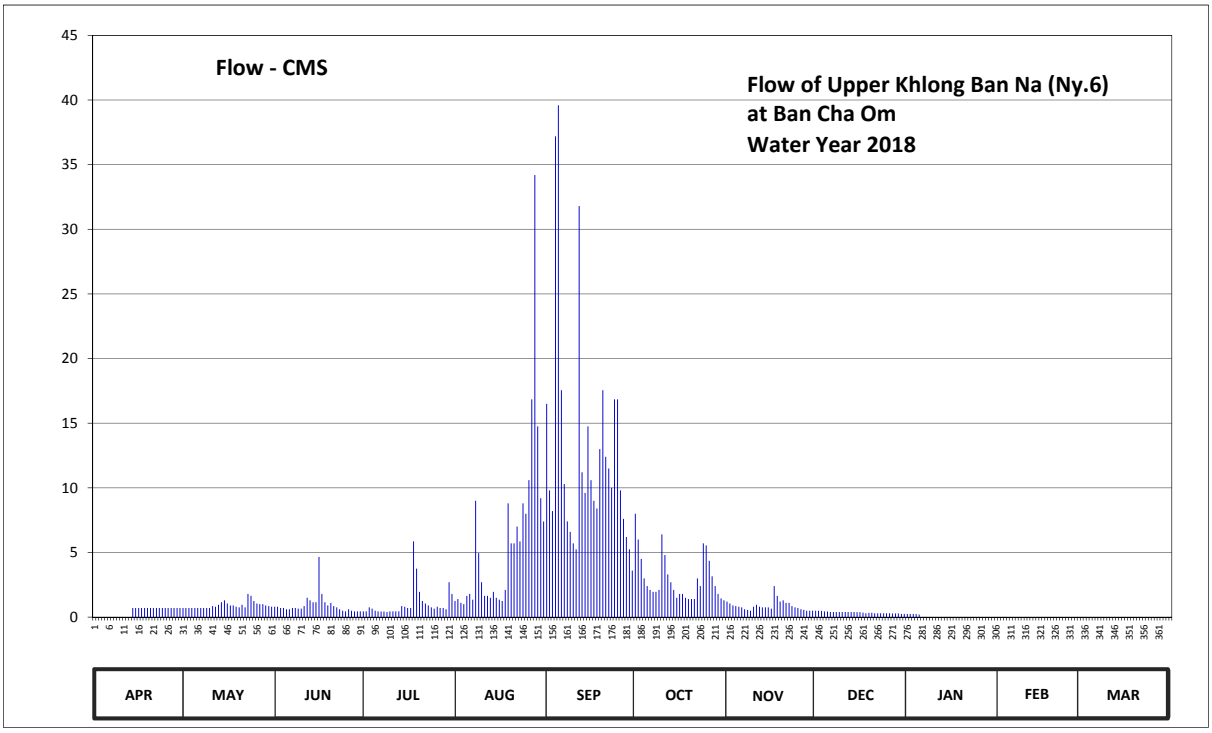
Location : on left bank about 50 meters from the top staff gage.

	Ban Cha Om	**Amphoe** Kaeng Khoi	**Changwat** Saraburi
Drainge Area	126 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+29.600 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank about 50 meters from the top staff gage.	**Elevation**	+34.960 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic mean of 3 readings		
Period of Available Gage Records	1988 to date		
Rating Operation			
Period of Rating	1988 to date		
Rated by Flot	-		
Rated by Current Meter	1988 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 38 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	30.24	30.24	30.26	30.18	30.35	31.10	30.80	30.34	30.20	30.10	30.58	30.79	
2	30.24	30.24	30.26	30.18	30.38	30.89	30.70	30.31	30.20	30.10	30.58	30.75	
3	30.24	30.24	30.24	30.25	30.32	30.81	30.60	30.28	30.19	30.10	30.58	30.73	
4	30.24	30.24	30.24	30.23	30.30	31.52	30.50	30.27	30.18	30.09	30.56	30.72	
5	30.24	30.24	30.22	30.20	30.41	31.56	30.46	30.26	30.17	30.08	30.56	30.72	
6	30.24	30.24	30.22	30.18	30.42	31.13	30.44	30.25	30.16	30.19	30.55	30.72	
7	30.24	30.24	30.24	30.17	30.37	30.91	30.43	30.22	30.16	30.36	30.53	30.72	
8	30.24	30.24	30.24	30.17	30.85	30.77	30.43	30.21	30.16	30.37	30.79	30.70	
9	30.24	30.24	30.23	30.16	30.63	30.73	30.44	30.20	30.16	30.37	30.92	30.70	
10	30.24	30.24	30.23	30.18	30.48	30.68	30.72	30.26	30.16	30.37	30.92	30.68	
11	30.24	30.27	30.27	30.18	30.41	30.65	30.62	30.29	30.16	30.37	30.91	30.68	
12	30.24	30.26	30.40	30.18	30.41	31.43	30.52	30.26	30.16	30.45	30.91	30.67	
13	30.24	30.29	30.36	30.18	30.40	30.94	30.48	30.25	30.16	30.60	30.90	30.65	
14	30.24	30.33	30.33	30.27	30.43	30.88	30.44	30.25	30.16	30.60	30.90	30.65	
15	30.24	30.36	30.33	30.26	30.40	31.05	30.40	30.25	30.15	30.60	30.90	30.64	
16	30.24	30.31	30.61	30.24	30.37	30.92	30.42	30.23	30.15	30.60	30.90	30.62	
17	30.24	30.28	30.42	30.24	30.35	30.85	30.42	30.46	30.14	30.60	30.90	30.60	
18	30.24	30.28	30.33	30.69	30.44	30.82	30.40	30.41	30.12	30.60	30.89	30.58	
19	30.24	30.26	30.28	30.55	30.84	31.00	30.38	30.34	30.13	30.60	30.89	30.58	
20	30.24	30.25	30.32	30.43	30.68	31.13	30.38	30.36	30.13	30.60	30.89	30.57	
21	30.24	30.29	30.27	30.35	30.68	30.98	30.38	30.32	30.12	30.60	30.89	30.57	
22	30.24	30.25	30.25	30.31	30.75	30.95	30.50	30.32	30.12	30.59	30.88	30.56	
23	30.24	30.42	30.22	30.28	30.69	30.90	30.46	30.27	30.12	30.58	30.86	30.54	
24	30.24	30.41	30.20	30.25	30.84	31.11	30.68	30.25	30.12	30.58	30.84	30.53	
25	30.24	30.35	30.18	30.23	30.80	31.11	30.67	30.24	30.12	30.58	30.82	30.51	
26	30.24	30.31	30.22	30.26	30.92	30.89	30.59	30.22	30.12	30.58	30.82	30.40	
27	30.24	30.30	30.20	30.24	31.11	30.78	30.51	30.21	30.11	30.58	30.81	30.38	
28	30.24	30.30	30.18	30.24	31.47	30.71	30.46	30.20	30.11	30.59	30.80	30.37	
29	30.24	30.28	30.18	30.22	31.05	30.65	30.42	30.20	30.11	30.58		30.37	
30	30.24	30.27	30.18	30.48	30.86	30.54	30.39	30.20	30.10	30.58		30.37	
31		30.26		30.42	30.77		30.36		30.10	30.58		30.37	
Mean	30.24	30.28	30.27	30.27	30.62	30.95	30.50	30.27	30.14	30.46	30.80	30.59	
Max	30.24	30.42	30.61	30.69	31.47	31.56	30.80	30.46	30.20	30.60	30.92	30.79	31.56
Min	30.24	30.24	30.18	30.16	30.30	30.54	30.36	30.20	30.10	30.08	30.53	30.37	30.08

Annual Max Momentary Gage Height	32.12	m. (MSL.) ,	at 06.00 Hours , on Sep 4, 2018		
Zero Gage at Bottom Elevation	29.60	m. (MSL.) ,	River Bed	29.82	m. (MSL.)
Left Bank Elevation	33.78	m. (MSL.) ,			
Right Bank Elevation	34.11	m. (MSL.) ,	Drainage Are	126	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.70	0.80	0.45	1.25	16.50	8.00	1.20	0.50	0.25	0.00	0.00		
2	0.00	0.70	0.80	0.45	1.40	9.80	6.00	1.05	0.50	0.25	0.00	0.00		
3	0.00	0.70	0.70	0.75	1.10	8.20	4.50	0.90	0.48	0.25	0.00	0.00		
4	0.00	0.70	0.70	0.65	1.00	37.20	3.00	0.85	0.45	0.23	0.00	0.00		
5	0.00	0.70	0.60	0.50	1.65	39.60	2.40	0.80	0.43	0.20	0.00	0.00		
6	0.00	0.70	0.60	0.45	1.80	17.55	2.10	0.75	0.40	0.00	0.00	0.00		
7	0.00	0.70	0.70	0.43	1.35	10.30	1.95	0.60	0.40	0.00	0.00	0.00		
8	0.00	0.70	0.70	0.43	9.00	7.40	1.95	0.55	0.40	0.00	0.00	0.00		
9	0.00	0.70	0.65	0.40	4.95	6.60	2.10	0.50	0.40	0.00	0.00	0.00		
10	0.00	0.70	0.65	0.45	2.70	5.70	6.40	0.80	0.40	0.00	0.00	0.00		
11	0.00	0.85	0.85	0.45	1.65	5.25	4.80	0.95	0.40	0.00	0.00	0.00		
12	0.00	0.80	1.50	0.45	1.65	31.80	3.30	0.80	0.40	0.00	0.00	0.00		
13	0.00	0.95	1.30	0.45	1.50	11.20	2.70	0.75	0.40	0.00	0.00	0.00		
14	0.70	1.15	1.15	0.85	1.95	9.60	2.10	0.75	0.40	0.00	0.00	0.00		
15	0.70	1.30	1.15	0.80	1.50	14.75	1.50	0.75	0.38	0.00	0.00	0.00		
16	0.70	1.05	4.65	0.70	1.35	10.60	1.80	0.65	0.38	0.00	0.00	0.00		
17	0.70	0.90	1.80	0.70	1.25	9.00	1.80	2.40	0.35	0.00	0.00	0.00		
18	0.70	0.90	1.15	5.85	2.10	8.40	1.50	1.65	0.30	0.00	0.00	0.00		
19	0.70	0.80	0.90	3.75	8.80	13.00	1.40	1.20	0.33	0.00	0.00	0.00		
20	0.70	0.75	1.10	1.95	5.70	17.55	1.40	1.30	0.33	0.00	0.00	0.00		
21	0.70	0.95	0.85	1.25	5.70	12.40	1.40	1.10	0.30	0.00	0.00	0.00		
22	0.70	0.75	0.75	1.05	7.00	11.50	3.00	1.10	0.30	0.00	0.00	0.00		
23	0.70	1.80	0.60	0.90	5.85	10.00	2.40	0.85	0.30	0.00	0.00	0.00		
24	0.70	1.65	0.50	0.75	8.80	16.85	5.70	0.75	0.30	0.00	0.00	0.00		
25	0.70	1.25	0.45	0.65	8.00	16.85	5.55	0.70	0.30	0.00	0.00	0.00		
26	0.70	1.05	0.60	0.80	10.60	9.80	4.35	0.60	0.30	0.00	0.00	0.00		
27	0.70	1.00	0.50	0.70	16.85	7.60	3.15	0.55	0.28	0.00	0.00	0.00		
28	0.70	1.00	0.45	0.70	34.20	6.20	2.40	0.50	0.28	0.00	0.00	0.00		
29	0.70	0.90	0.45	0.60	14.75	5.25	1.80	0.50	0.28	0.00		0.00		
30	0.70	0.85	0.45	2.70	9.20	3.60	1.45	0.50	0.25	0.00		0.00		
31		0.80		1.80	7.40		1.30		0.25	0.00		0.00		
Total	11.90	28.45	28.05	32.81	182.00	390.05	93.20	26.35	11.17	1.18	0.00	0.00	805.16	CMSDAY
Mean	0.40	0.92	0.94	1.06	5.87	13.00	3.01	0.88	0.36	0.04	0.00	0.00	2.21	CMS
Max	0.70	1.80	4.65	5.85	34.20	39.60	8.00	2.40	0.50	0.25	0.00	0.00	39.60	CMS
Min	0.00	0.70	0.45	0.40	1.00	3.60	1.30	0.50	0.25	0.00	0.00	0.00	0.00	CMS
Runoff	1.03	2.46	2.42	2.83	15.72	33.70	8.05	2.28	0.97	0.10	0.00	0.00	69.57	MCM

Momentary Peak 102.20 CMS. at 32.12 m. (MSL.) at 06.00 Hours , on Sep 4, 2018

Runoff Yield 17.51 Liters/Second/Square KM. Momentary Peak Yield 811.11 Liters/Second/Square KM.

WATER YEAR : 2018

TONLE SAP BASIN

Khlong Phra Phut at Ban Pang Ngon , Chanthaburi (TI.3)

Lat 12 - 58 - 12 N Long 102 - 17 - 20 E

Location : on left bank downstream from the bridge of Pong Nam Ron -Wang Nam Yen Highway.

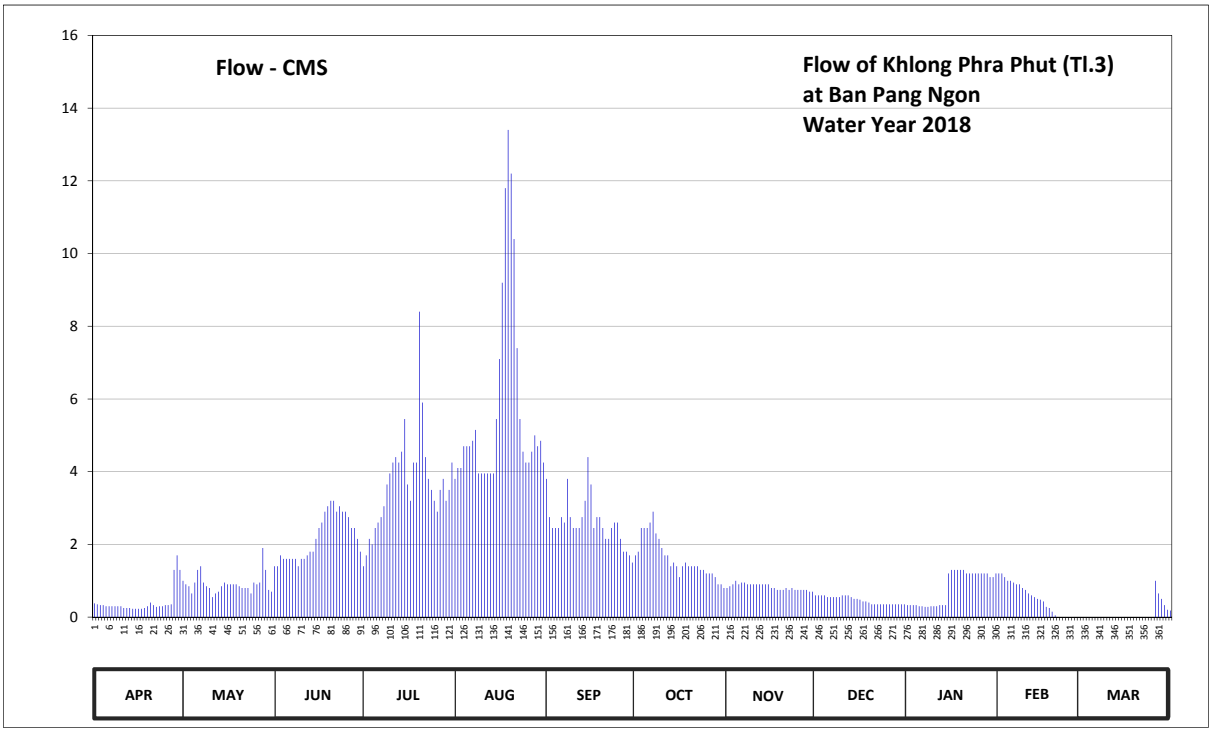
Ban Pang Ngon **Amphoe** Pong Nam Ron **Changwat** Chanthaburi

Drainge Area	71 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+190.680 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank about 6 meters from the top staff gage. **Elevation** +195.973 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	1983 to date
Rating Operation	
Period of Rating	1986 to date
Rated by Flot	-
Rated by Current Meter	1986 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Flow effected by the local weir.
	Stage-discharge relation defined by 29 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	191.05	191.20	191.24	191.24	191.42	191.42	191.27	191.16	191.12	191.03	191.22	190.82	
2	191.04	191.18	191.24	191.27	191.44	191.35	191.28	191.17	191.12	191.03	191.22	190.82	
3	191.03	191.17	191.27	191.31	191.44	191.33	191.33	191.18	191.12	191.03	191.21	190.82	
4	191.03	191.13	191.26	191.30	191.48	191.33	191.33	191.20	191.12	191.03	191.20	190.81	
5	191.02	191.19	191.26	191.33	191.48	191.33	191.33	191.18	191.11	191.02	191.20	190.81	
6	191.02	191.23	191.26	191.34	191.48	191.35	191.34	191.19	191.11	191.02	191.19	190.81	
7	191.02	191.24	191.26	191.35	191.49	191.34	191.36	191.19	191.11	191.01	191.18	190.80	
8	191.02	191.19	191.26	191.37	191.51	191.42	191.32	191.18	191.11	191.01	191.18	190.80	
9	191.02	191.17	191.24	191.41	191.43	191.35	191.31	191.18	191.11	191.02	191.16	190.80	
10	191.02	191.16	191.26	191.43	191.43	191.33	191.29	191.18	191.12	191.02	191.15	190.80	
11	191.00	191.11	191.26	191.45	191.43	191.33	191.27	191.18	191.12	191.02	191.13	190.80	
12	191.00	191.13	191.27	191.46	191.43	191.33	191.27	191.18	191.12	191.03	191.12	190.80	
13	191.00	191.14	191.28	191.45	191.43	191.35	191.24	191.18	191.11	191.03	191.11	190.80	
14	190.99	191.17	191.28	191.47	191.43	191.38	191.25	191.18	191.10	191.03	191.10	190.80	
15	190.99	191.19	191.31	191.53	191.53	191.46	191.24	191.18	191.10	191.22	191.09	190.80	
16	190.99	191.18	191.33	191.41	191.64	191.41	191.21	191.16	191.09	191.23	191.07	190.80	
17	190.99	191.18	191.34	191.38	191.76	191.33	191.24	191.16	191.07	191.23	191.01	190.80	
18	191.00	191.18	191.36	191.45	191.89	191.35	191.25	191.15	191.07	191.23	191.00	190.80	
19	191.02	191.18	191.37	191.45	191.97	191.35	191.24	191.15	191.06	191.23	190.96	190.80	
20	191.06	191.17	191.38	191.72	191.91	191.33	191.24	191.15	191.04	191.23	190.92	190.80	
21	191.03	191.16	191.38	191.56	191.82	191.31	191.24	191.16	191.04	191.22	190.90	190.80	
22	191.01	191.16	191.36	191.46	191.66	191.31	191.24	191.15	191.04	191.22	190.86	190.80	
23	191.02	191.16	191.37	191.42	191.53	191.33	191.23	191.16	191.04	191.22	190.85	190.80	
24	191.02	191.13	191.36	191.40	191.47	191.34	191.23	191.15	191.04	191.22	190.84	190.82	
25	191.03	191.19	191.36	191.38	191.45	191.34	191.22	191.15	191.04	191.22	190.83	190.86	
26	191.03	191.18	191.35	191.36	191.45	191.31	191.22	191.15	191.04	191.22	190.83	191.20	
27	191.04	191.19	191.33	191.40	191.47	191.28	191.22	191.15	191.04	191.22	190.83	191.13	
28	191.23	191.29	191.33	191.42	191.50	191.28	191.21	191.15	191.04	191.22	190.82	191.10	
29	191.27	191.23	191.31	191.38	191.48	191.27	191.18	191.14	191.04	191.21		191.03	
30	191.23	191.15	191.28	191.40	191.49	191.25	191.18	191.14	191.04	191.21		190.98	
31		191.14		191.45	191.45		191.16		191.04	191.22		190.97	
Mean	191.04	191.18	191.31	191.41	191.54	191.34	191.26	191.17	191.08	191.13	191.04	190.86	
Max	191.27	191.29	191.38	191.72	191.97	191.46	191.36	191.20	191.12	191.23	191.22	191.20	191.97
Min	190.99	191.11	191.24	191.24	191.42	191.25	191.16	191.14	191.04	191.01	190.82	190.80	190.80

Annual Max Momentary Gage Height	191.98	m. (MSL.) ,	at 18.00 Hours , on Jul 20, 2018		
Zero Gage at Bottom Elevation	190.68	m. (MSL.) ,	River Bed	190.77	m. (MSL.)
Left Bank Elevation	195.64	m. (MSL.) ,			
Right Bank Elevation	195.57	m. (MSL.) ,	Drainage Are	71	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.38	1.00	1.40	1.40	3.80	3.80	1.70	0.80	0.60	0.33	1.20	0.00		
2	0.35	0.90	1.40	1.70	4.10	2.75	1.80	0.85	0.60	0.33	1.20	0.00		
3	0.33	0.85	1.70	2.15	4.10	2.45	2.45	0.90	0.60	0.33	1.10	0.00		
4	0.33	0.65	1.60	2.00	4.70	2.45	2.45	1.00	0.60	0.33	1.00	0.00		
5	0.30	0.95	1.60	2.45	4.70	2.45	2.45	0.90	0.55	0.30	1.00	0.00		
6	0.30	1.30	1.60	2.60	4.70	2.75	2.60	0.95	0.55	0.30	0.95	0.00		
7	0.30	1.40	1.60	2.75	4.85	2.60	2.90	0.95	0.55	0.28	0.90	0.00		
8	0.30	0.95	1.60	3.05	5.15	3.80	2.30	0.90	0.55	0.28	0.90	0.00		
9	0.30	0.85	1.40	3.65	3.95	2.75	2.15	0.90	0.55	0.30	0.80	0.00		
10	0.30	0.80	1.60	3.95	3.95	2.45	1.90	0.90	0.60	0.30	0.75	0.00		
11	0.25	0.55	1.60	4.25	3.95	2.45	1.70	0.90	0.60	0.30	0.65	0.00		
12	0.25	0.65	1.70	4.40	3.95	2.45	1.70	0.90	0.60	0.33	0.60	0.00		
13	0.25	0.70	1.80	4.25	3.95	2.75	1.40	0.90	0.55	0.33	0.55	0.00		
14	0.23	0.85	1.80	4.55	3.95	3.20	1.50	0.90	0.50	0.33	0.50	0.00		
15	0.23	0.95	2.15	5.45	5.45	4.40	1.40	0.90	0.50	1.20	0.48	0.00		
16	0.23	0.90	2.45	3.65	7.10	3.65	1.10	0.80	0.48	1.30	0.43	0.00		
17	0.23	0.90	2.60	3.20	9.20	2.45	1.40	0.80	0.43	1.30	0.28	0.00		
18	0.25	0.90	2.90	4.25	11.80	2.75	1.50	0.75	0.43	1.30	0.25	0.00		
19	0.30	0.90	3.05	4.25	13.40	2.75	1.40	0.75	0.40	1.30	0.15	0.00		
20	0.40	0.85	3.20	8.40	12.20	2.45	1.40	0.75	0.35	1.30	0.05	0.00		
21	0.33	0.80	3.20	5.90	10.40	2.15	1.40	0.80	0.35	1.20	0.00	0.00		
22	0.28	0.80	2.90	4.40	7.40	2.15	1.40	0.75	0.35	1.20	0.00	0.00		
23	0.30	0.80	3.05	3.80	5.45	2.45	1.30	0.80	0.35	1.20	0.00	0.00		
24	0.30	0.65	2.90	3.50	4.55	2.60	1.30	0.75	0.35	1.20	0.00	0.00		
25	0.33	0.95	2.90	3.20	4.25	2.60	1.20	0.75	0.35	1.20	0.00	0.00		
26	0.33	0.90	2.75	2.90	4.25	2.15	1.20	0.75	0.35	1.20	0.00	1.00		
27	0.35	0.95	2.45	3.50	4.55	1.80	1.20	0.75	0.35	1.20	0.00	0.65		
28	1.30	1.90	2.45	3.80	5.00	1.80	1.10	0.75	0.35	1.20	0.00	0.50		
29	1.70	1.30	2.15	3.20	4.70	1.70	0.90	0.70	0.35	1.10		0.33		
30	1.30	0.75	1.80	3.50	4.85	1.50	0.90	0.70	0.35	1.10		0.20		
31		0.70		4.25	4.25		0.80		0.35	1.20		0.18		
Total	12.33	28.30	65.30	114.30	178.60	78.45	49.90	24.90	14.44	25.07	13.74	2.86	608.19	CMSDAY
Mean	0.41	0.91	2.18	3.69	5.76	2.61	1.61	0.83	0.47	0.81	0.49	0.09	1.67	CMS
Max	1.70	1.90	3.20	8.40	13.40	4.40	2.90	1.00	0.60	1.30	1.20	1.00	13.40	CMS
Min	0.23	0.55	1.40	1.40	3.80	1.50	0.80	0.70	0.35	0.28	0.00	0.00	0.00	CMS
Runoff	1.07	2.45	5.64	9.88	15.43	6.78	4.31	2.15	1.25	2.17	1.19	0.25	52.55	MCM

Momentary Peak 13.60 CMS. at 191.98 m. (MSL.) at 18.00 Hours, on Jul 20, 2018

Runoff Yield 23.47 Liters/Second/Square KM. Momentary Peak Yield 191.55 Liters/Second/Square KM.

WATER YEAR : 2018

TONLE SAP BASIN

Khlong Ta Kong at Ban Khlong Ta Kong , Chanthaburi (Tl.4)

Lat 12 - 55 - 02 N Long 102 - 19 - 30 E

Location : on left bank downstream from the bridge of Amphoe Pong Nam Ron - Ban Pong Nam Ron.

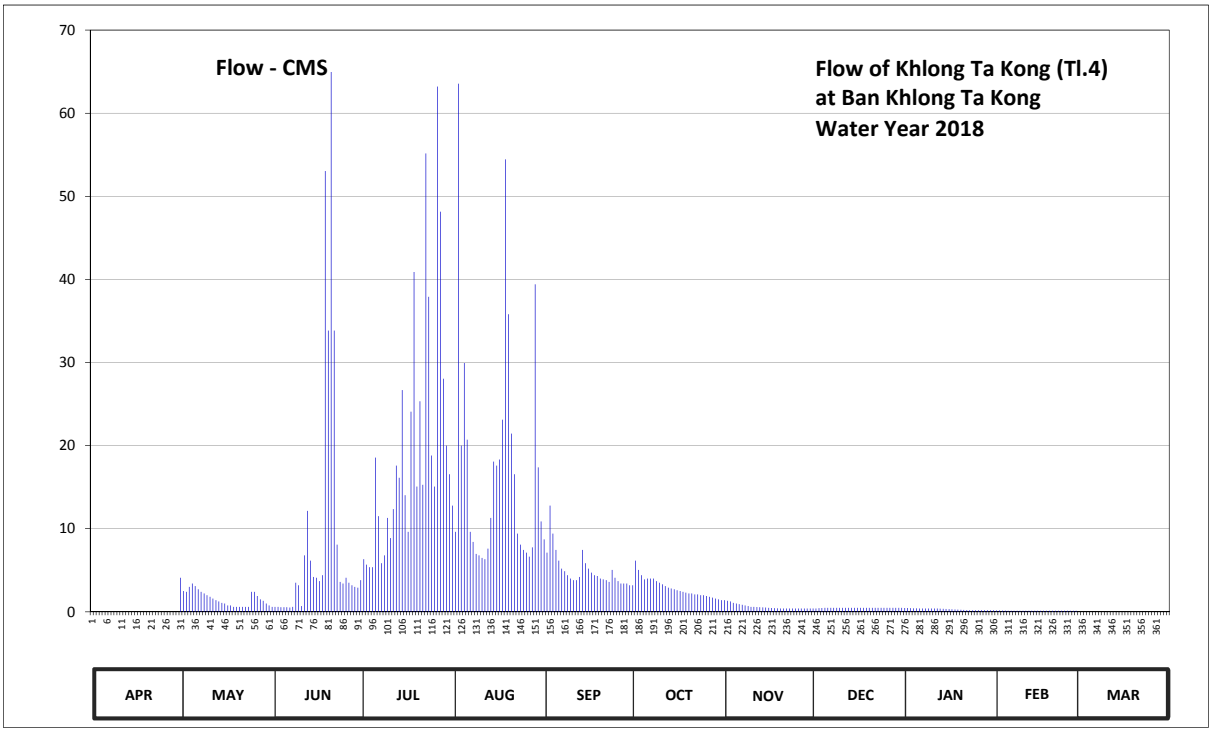
Ban Khlong Ta Kong **Amphoe** Pong Nam Ron **Changwat** Chanthaburi

Drainge Area	86 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+176.800 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank about 30 meters from the top staff gage. **Elevation** +184.723 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	1984 to date
Rating Operation	
Period of Rating	1986 to date
Rated by Flot	-
Rated by Current Meter	1986 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	No overbank flow
General Description	Records good. Flow effected by the local weir.
	Stage-discharge relation defined by 22 discharge measurements made in 2018.
Ramark	Telemetry failure 1-30 Apr.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1		178.17	177.80	178.14	178.67	178.47	178.08	177.90	177.70	177.73	177.57	176.80	
2		178.01	177.80	178.32	178.52	178.37	178.31	177.89	177.70	177.73	177.56	176.80	
3		178.00	177.80	178.28	180.43	178.67	178.24	177.88	177.72	177.72	177.55	176.80	
4		178.06	177.78	178.26	179.00	178.51	178.20	177.86	177.73	177.71	177.54	176.80	
5		178.10	177.78	178.26	179.39	178.39	178.15	177.85	177.74	177.71	177.53	176.80	
6		178.07	177.78	178.94	179.03	178.31	178.16	177.84	177.74	177.70	177.52	176.80	
7		178.03	177.76	178.61	178.52	178.25	178.16	177.83	177.74	177.70	177.52	176.80	
8		178.00	177.80	178.29	178.45	178.23	178.16	177.82	177.74	177.70	177.52	176.80	
9		177.98	178.11	178.35	178.36	178.20	178.13	177.81	177.74	177.70	177.52	176.80	
10		177.96	178.08	178.60	178.35	178.16	178.11	177.80	177.74	177.70	177.52	176.80	
11		177.94	177.81	178.48	178.33	178.14	178.09	177.80	177.74	177.70	177.52	176.80	
12		177.92	178.35	178.65	178.32	178.14	178.07	177.79	177.74	177.70	177.52	176.80	
13		177.90	178.64	178.90	178.40	178.18	178.05	177.78	177.74	177.69	177.52	176.80	
14		177.88	178.31	178.83	178.60	178.39	178.04	177.77	177.74	177.68	177.52	176.80	
15		177.86	178.18	179.27	178.92	178.29	178.03	177.76	177.74	177.67	177.52	176.80	
16		177.85	178.17	178.73	178.90	178.25	178.02	177.74	177.74	177.66	177.52	176.80	
17		177.82	178.13	178.52	178.93	178.22	178.01	177.73	177.74	177.65	177.52	176.80	
18		177.82	178.20	179.17	179.13	178.20	178.00	177.72	177.74	177.64	177.52	176.80	
19		177.80	180.13	179.77	180.17	178.19	177.99	177.71	177.74	177.63	177.52	176.80	
20		177.80	179.53	178.78	179.60	178.16	177.98	177.70	177.74	177.62	177.52	176.80	
21		177.80	180.47	179.22	179.06	178.15	177.98	177.70	177.74	177.61	177.52	176.80	
22		177.80	179.53	178.79	178.85	178.14	177.97	177.70	177.74	177.60	177.52	176.80	
23		177.80	178.43	180.19	178.51	178.12	177.97	177.70	177.74	177.59	177.52	176.80	
24		177.80	178.12	179.67	178.43	178.24	177.96	177.70	177.74	177.58	177.52	176.80	
25		178.00	178.10	178.95	178.39	178.17	177.96	177.70	177.74	177.58	177.52	176.80	
26		178.00	178.17	178.78	178.37	178.13	177.95	177.70	177.74	177.58	177.52	176.80	
27		177.95	178.11	180.42	178.34	178.10	177.94	177.70	177.74	177.58	177.52	176.80	
28		177.91	178.08	179.99	178.41	178.10	177.93	177.70	177.74	177.58	177.52	176.80	
29		177.89	178.06	179.32	179.72	178.10	177.92	177.70	177.74	177.58		176.80	
30		177.85	178.05	179.00	178.89	178.08	177.91	177.70	177.74	177.58		176.80	
31		177.82		178.85	178.58		177.90		177.74	177.58		176.80	
Mean		177.92	178.30	178.91	178.82	178.24	178.04	177.77	177.74	177.65	177.53	176.80	
Max		178.17	180.47	180.42	180.43	178.67	178.31	177.90	177.74	177.73	177.57	176.80	180.47
Min		177.80	177.76	178.14	178.32	178.08	177.90	177.70	177.70	177.58	177.52	176.80	176.80

Annual Max Momentary Gage Height	181.00	m. (MSL.) ,	at 18.00 Hours , on Jul 23, 2018		
Zero Gage at Bottom Elevation	176.80	m. (MSL.) ,	River Bed	176.10	m. (MSL.)
Left Bank Elevation	183.60	m. (MSL.) ,			
Right Bank Elevation	183.49	m. (MSL.) ,	Drainage Are	86	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1		4.10	0.60	3.80	12.77	8.72	3.20	1.40	0.40	0.46	0.17	0.00		
2		2.50	0.60	6.32	9.62	7.12	6.16	1.32	0.40	0.46	0.16	0.00		
3		2.40	0.60	5.68	63.55	12.77	5.04	1.24	0.44	0.44	0.15	0.00		
4		3.00	0.56	5.36	20.00	9.41	4.40	1.08	0.46	0.42	0.14	0.00		
5		3.40	0.56	5.36	29.93	7.44	3.90	1.00	0.48	0.42	0.13	0.00		
6		3.10	0.56	18.56	20.72	6.16	4.00	0.92	0.48	0.40	0.12	0.00		
7		2.70	0.52	11.51	9.62	5.20	4.00	0.84	0.48	0.40	0.12	0.00		
8		2.40	0.60	5.84	8.40	4.88	4.00	0.76	0.48	0.40	0.12	0.00		
9		2.20	3.50	6.80	6.96	4.40	3.70	0.68	0.48	0.40	0.12	0.00		
10		2.00	3.20	11.30	6.80	4.00	3.50	0.60	0.48	0.40	0.12	0.00		
11		1.80	0.68	8.88	6.48	3.80	3.30	0.60	0.48	0.40	0.12	0.00		
12		1.60	6.80	12.35	6.32	3.80	3.10	0.58	0.48	0.40	0.12	0.00		
13		1.40	12.14	17.60	7.60	4.20	2.90	0.56	0.48	0.38	0.12	0.00		
14		1.24	6.16	16.13	11.30	7.44	2.80	0.54	0.48	0.36	0.12	0.00		
15		1.08	4.20	26.69	18.08	5.84	2.70	0.52	0.48	0.34	0.12	0.00		
16		1.00	4.10	14.03	17.60	5.20	2.60	0.48	0.48	0.32	0.12	0.00		
17		0.76	3.70	9.62	18.32	4.72	2.50	0.46	0.48	0.30	0.12	0.00		
18		0.76	4.40	24.08	23.12	4.40	2.40	0.44	0.48	0.28	0.12	0.00		
19		0.60	53.05	40.90	54.45	4.30	2.30	0.42	0.48	0.26	0.12	0.00		
20		0.60	33.84	15.08	35.80	4.00	2.20	0.40	0.48	0.24	0.12	0.00		
21		0.60	64.95	25.34	21.44	3.90	2.20	0.40	0.48	0.22	0.12	0.00		
22		0.60	33.84	15.29	16.55	3.80	2.10	0.40	0.48	0.20	0.12	0.00		
23		0.60	8.08	55.15	9.41	3.60	2.10	0.40	0.48	0.19	0.12	0.00		
24		0.60	3.60	37.90	8.08	5.04	2.00	0.40	0.48	0.18	0.12	0.00		
25		2.40	3.40	18.80	7.44	4.10	2.00	0.40	0.48	0.18	0.12	0.00		
26		2.40	4.10	15.08	7.12	3.70	1.90	0.40	0.48	0.18	0.12	0.00		
27		1.90	3.50	63.20	6.64	3.40	1.80	0.40	0.48	0.18	0.12	0.00		
28		1.50	3.20	48.15	7.76	3.40	1.70	0.40	0.48	0.18	0.12	0.00		
29		1.32	3.00	28.04	39.40	3.40	1.60	0.40	0.48	0.18		0.00		
30		1.00	2.90	20.00	17.39	3.20	1.50	0.40	0.48	0.18		0.00		
31		0.76		16.55	10.88		1.40		0.48	0.18		0.00		
Total		52.32	270.94	609.39	539.55	155.34	89.00	18.84	14.66	9.53	3.51	0.00	1763.08	CMSDAY
Mean		1.69	9.03	19.66	17.40	5.18	2.87	0.63	0.47	0.31	0.13	0.00	5.26	CMS
Max		4.10	64.95	63.20	63.55	12.77	6.16	1.40	0.48	0.46	0.17	0.00	64.95	CMS
Min		0.60	0.52	3.80	6.32	3.20	1.40	0.40	0.40	0.18	0.12	0.00	0.00	CMS
Runoff		4.52	23.41	52.65	46.62	13.42	7.69	1.63	1.27	0.82	0.30	0.00	152.33	MCM

Momentary Peak 83.50 CMS. at 181.00 m. (MSL.) at 18.00 Hours , on Jul 23, 2018

Runoff Yield 56.17 Liters/Second/Square KM. Momentary Peak Yield 970.93 Liters/Second/Square KM.

WATER YEAR : 2018

TONLE SAP BASIN

Khlong Thung Krang at Ban Thung Krang , Chanthaburi (Tl.6)

Lat 13 - 01 - 36 N Long 102 - 16 - 21 E

Location : on right bank at the bridge of Chanthaburi - Sa Kaeo Highway.

Ban Thung Krang **Amphoe** Pong Nam Ron **Changwat** Chanthaburi

Drainge Area	42 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+182.500 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On right bank about 20 meters from the top staff gage. **Elevation** +187.100 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic mean of 3 readings
Period of Available Gage Records	1987 to date
Rating Operation	
Period of Rating	1987 to date
Rated by Flot	-
Rated by Current Meter	1987 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	No overbank flow
General Description	Records good. Stage-discharge relation defined by 27 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

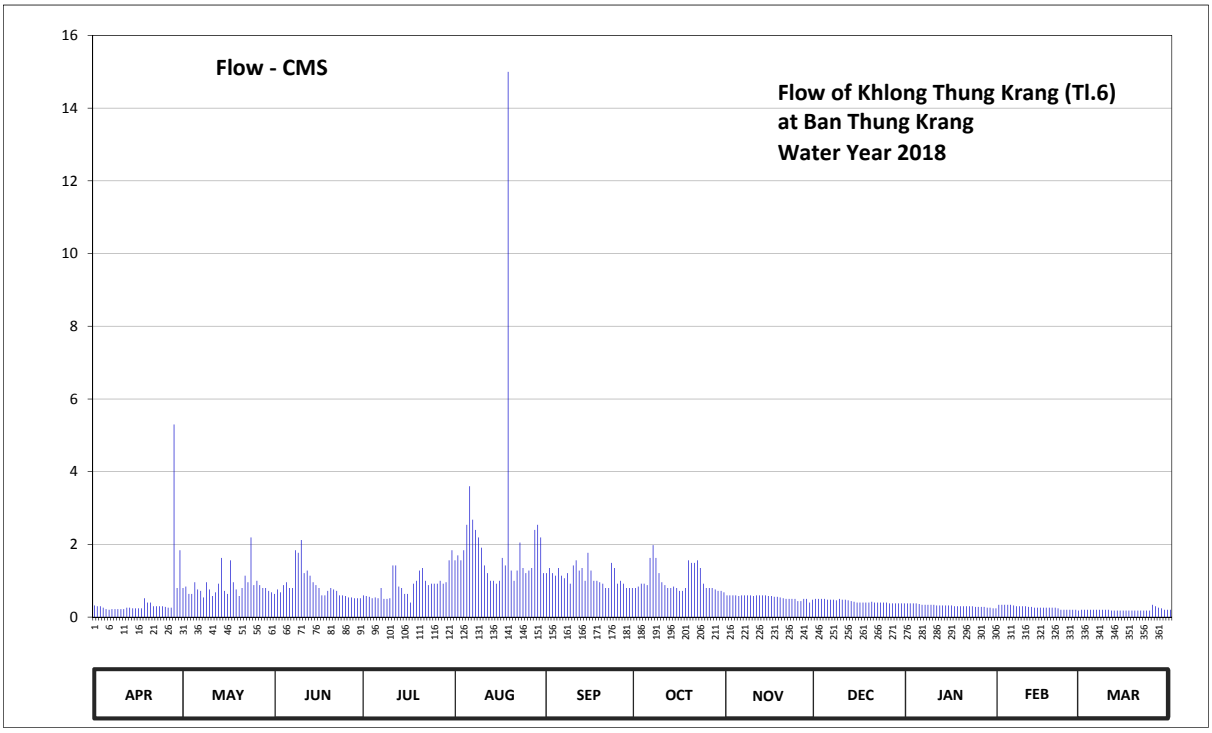
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	183.16	183.35	183.31	183.30	183.48	183.43	183.35	183.30	183.25	183.19	183.17	183.10	
2	183.15	183.36	183.34	183.29	183.50	183.45	183.36	183.30	183.25	183.19	183.17	183.10	
3	183.15	183.31	183.32	183.28	183.48	183.43	183.38	183.30	183.25	183.19	183.17	183.10	
4	183.13	183.31	183.37	183.26	183.52	183.42	183.38	183.30	183.25	183.19	183.17	183.10	
5	183.11	183.39	183.39	183.27	183.62	183.45	183.37	183.29	183.24	183.18	183.17	183.10	
6	183.10	183.34	183.35	183.26	183.75	183.42	183.49	183.30	183.24	183.17	183.16	183.10	
7	183.11	183.33	183.35	183.35	183.64	183.41	183.54	183.30	183.24	183.17	183.15	183.10	
8	183.11	183.27	183.52	183.25	183.60	183.43	183.49	183.30	183.23	183.17	183.15	183.10	
9	183.11	183.39	183.51	183.25	183.57	183.38	183.43	183.30	183.25	183.17	183.15	183.10	
10	183.11	183.34	183.56	183.26	183.53	183.46	183.39	183.29	183.24	183.17	183.15	183.10	
11	183.11	183.29	183.43	183.46	183.46	183.48	183.37	183.30	183.24	183.16	183.14	183.09	
12	183.13	183.32	183.44	183.46	183.43	183.44	183.35	183.30	183.23	183.16	183.14	183.09	
13	183.13	183.38	183.42	183.36	183.40	183.45	183.35	183.30	183.22	183.16	183.13	183.09	
14	183.12	183.49	183.39	183.35	183.40	183.40	183.36	183.30	183.21	183.16	183.13	183.09	
15	183.12	183.33	183.37	183.31	183.38	183.51	183.35	183.29	183.20	183.16	183.13	183.09	
16	183.12	183.31	183.35	183.31	183.40	183.44	183.33	183.29	183.20	183.16	183.13	183.09	
17	183.12	183.48	183.30	183.20	183.49	183.40	183.33	183.28	183.20	183.15	183.13	183.09	
18	183.26	183.39	183.30	183.38	183.46	183.40	183.35	183.28	183.20	183.15	183.13	183.09	
19	183.20	183.34	183.33	183.40	184.41	183.39	183.48	183.27	183.20	183.15	183.13	183.09	
20	183.20	183.29	183.35	183.44	183.44	183.38	183.47	183.26	183.21	183.15	183.13	183.09	
21	183.15	183.35	183.34	183.45	183.40	183.35	183.47	183.25	183.20	183.15	183.12	183.09	
22	183.15	183.42	183.33	183.40	183.44	183.35	183.48	183.25	183.20	183.15	183.10	183.09	
23	183.15	183.39	183.30	183.37	183.55	183.47	183.45	183.25	183.20	183.15	183.10	183.09	
24	183.15	183.57	183.30	183.38	183.45	183.45	183.38	183.25	183.20	183.14	183.10	183.09	
25	183.14	183.37	183.29	183.38	183.43	183.38	183.35	183.22	183.20	183.14	183.10	183.17	
26	183.13	183.40	183.27	183.38	183.44	183.40	183.35	183.22	183.19	183.14	183.10	183.15	
27	183.13	183.37	183.27	183.40	183.45	183.38	183.35	183.25	183.19	183.14	183.10	183.13	
28	183.90	183.35	183.26	183.38	183.60	183.35	183.34	183.25	183.19	183.13	183.09	183.12	
29	183.35	183.35	183.26	183.39	183.62	183.35	183.33	183.20	183.19	183.13		183.10	
30	183.52	183.33	183.26	183.48	183.57	183.35	183.33	183.24	183.19	183.12		183.10	
31		183.32		183.52	183.43		183.32		183.19	183.12		183.10	
Mean	183.18	183.36	183.35	183.35	183.53	183.41	183.39	183.27	183.22	183.16	183.13	183.10	
Max	183.90	183.57	183.56	183.52	184.41	183.51	183.54	183.30	183.25	183.19	183.17	183.17	184.41
Min	183.10	183.27	183.26	183.20	183.38	183.35	183.32	183.20	183.19	183.12	183.09	183.09	183.09

Annual Max Momentary Gage Height 184.62 m. (MSL.) , at 12.00 Hours , on Aug 19, 2018

Zero Gage at Bottom Elevation 182.50 m. (MSL.) , River Bed 181.66 m. (MSL.)

Left Bank Elevation 186.50 m. (MSL.) ,

Right Bank Elevation 186.51 m. (MSL.) , Drainage Are 42 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.32	0.80	0.64	0.60	1.56	1.21	0.80	0.60	0.50	0.38	0.34	0.20		
2	0.30	0.84	0.76	0.58	1.70	1.35	0.84	0.60	0.50	0.38	0.34	0.20		
3	0.30	0.64	0.68	0.56	1.56	1.21	0.92	0.60	0.50	0.38	0.34	0.20		
4	0.26	0.64	0.88	0.52	1.84	1.14	0.92	0.60	0.50	0.38	0.34	0.20		
5	0.22	0.96	0.96	0.54	2.54	1.35	0.88	0.58	0.48	0.36	0.34	0.20		
6	0.20	0.76	0.80	0.52	3.60	1.14	1.63	0.60	0.48	0.34	0.32	0.20		
7	0.22	0.72	0.80	0.80	2.68	1.07	1.98	0.60	0.48	0.34	0.30	0.20		
8	0.22	0.54	1.84	0.50	2.40	1.21	1.63	0.60	0.46	0.34	0.30	0.20		
9	0.22	0.96	1.77	0.50	2.19	0.92	1.21	0.60	0.50	0.34	0.30	0.20		
10	0.22	0.76	2.12	0.52	1.91	1.42	0.96	0.58	0.48	0.34	0.30	0.20		
11	0.22	0.58	1.21	1.42	1.42	1.56	0.88	0.60	0.48	0.32	0.28	0.18		
12	0.26	0.68	1.28	1.42	1.21	1.28	0.80	0.60	0.46	0.32	0.28	0.18		
13	0.26	0.92	1.14	0.84	1.00	1.35	0.80	0.60	0.44	0.32	0.26	0.18		
14	0.24	1.63	0.96	0.80	1.00	1.00	0.84	0.60	0.42	0.32	0.26	0.18		
15	0.24	0.72	0.88	0.64	0.92	1.77	0.80	0.58	0.40	0.32	0.26	0.18		
16	0.24	0.64	0.80	0.64	1.00	1.28	0.72	0.58	0.40	0.32	0.26	0.18		
17	0.24	1.56	0.60	0.40	1.63	1.00	0.72	0.56	0.40	0.30	0.26	0.18		
18	0.52	0.96	0.60	0.92	1.42	1.00	0.80	0.56	0.40	0.30	0.26	0.18		
19	0.40	0.76	0.72	1.00	15.00	0.96	1.56	0.54	0.40	0.30	0.26	0.18		
20	0.40	0.58	0.80	1.28	1.28	0.92	1.49	0.52	0.42	0.30	0.26	0.18		
21	0.30	0.80	0.76	1.35	1.00	0.80	1.49	0.50	0.40	0.30	0.24	0.18		
22	0.30	1.14	0.72	1.00	1.28	0.80	1.56	0.50	0.40	0.30	0.20	0.18		
23	0.30	0.96	0.60	0.88	2.05	1.49	1.35	0.50	0.40	0.30	0.20	0.18		
24	0.30	2.19	0.60	0.92	1.35	1.35	0.92	0.50	0.40	0.28	0.20	0.18		
25	0.28	0.88	0.58	0.92	1.21	0.92	0.80	0.44	0.40	0.28	0.20	0.34		
26	0.26	1.00	0.54	0.92	1.28	1.00	0.80	0.44	0.38	0.28	0.20	0.30		
27	0.26	0.88	0.54	1.00	1.35	0.92	0.80	0.50	0.38	0.28	0.20	0.26		
28	5.30	0.80	0.52	0.92	2.40	0.80	0.76	0.50	0.38	0.26	0.18	0.24		
29	0.80	0.80	0.52	0.96	2.54	0.80	0.72	0.40	0.38	0.26		0.20		
30	1.84	0.72	0.52	1.56	2.19	0.80	0.72	0.48	0.38	0.24		0.20		
31		0.68		1.84	1.21		0.68		0.38	0.24		0.20		
Total	15.44	27.50	26.14	27.27	65.72	33.82	31.78	16.46	13.38	9.72	7.48	6.26	280.97	CMSDAY
Mean	0.51	0.89	0.87	0.88	2.12	1.13	1.03	0.55	0.43	0.31	0.27	0.20	0.77	CMS
Max	5.30	2.19	2.12	1.84	15.00	1.77	1.98	0.60	0.50	0.38	0.34	0.34	15.00	CMS
Min	0.20	0.54	0.52	0.40	0.92	0.80	0.68	0.40	0.38	0.24	0.18	0.18	0.18	CMS
Runoff	1.33	2.38	2.26	2.36	5.68	2.92	2.75	1.42	1.16	0.84	0.65	0.54	24.28	MCM

Momentary Peak 21.60 CMS. at 184.62 m. (MSL.) at 12.00 Hours , on Aug 19, 2018

Runoff Yield 18.33 Liters/Second/Square KM. Momentary Peak Yield 514.29 Liters/Second/Square KM.

WATER YEAR : 2018

EAST COAST - GULF BASIN

Khlong Yai at Ban Si Bua Thong , Trat (Z.10)

Lat 12 - 28 - 24 N Long 102 - 28 - 49 E

Location : on left bank at Ban Si Bua Thong

	Ban Si Bua Thong	**Amphoe** Khao Saming	**Changwat** Trat
Drainge Area	779 sq.km.		
Type of Gage	Water - stage recorder.		
Zero Gage at Bottom	+1.901 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	Near automatic gage building.		**Elevation** +13.181 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	1970 to date		
Rating Operation			
Period of Rating	1973 - 1978 , 1999 to date		
Rated by Flot	-		
Rated by Current Meter	1973 - 1978 , 1999 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow		
General Description	Records very good. Stage-discharge relation defined by 54 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

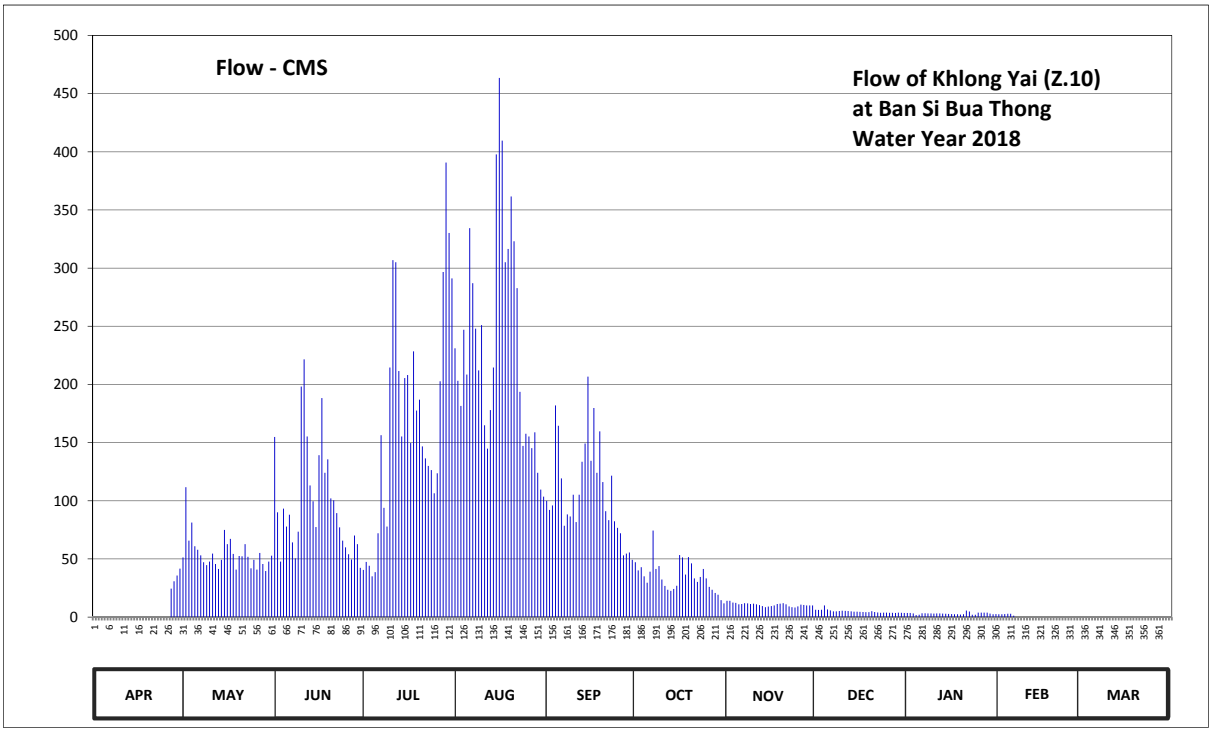
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	5.91	5.41	8.27	5.05	9.94	6.90	5.27	4.04	3.63	3.36	3.25	5.29	
2	6.05	7.19	6.63	5.28	9.37	6.69	5.04	4.04	3.62	3.35	3.25	5.28	
3	6.21	5.89	5.29	5.17	8.89	6.80	5.13	3.98	3.63	3.31	3.26	5.29	
4	6.19	6.38	6.72	4.87	10.26	8.90	4.87	3.97	3.88	3.18	3.29	5.29	
5	5.96	5.73	6.28	4.99	9.49	8.51	4.66	3.92	3.66	3.20	3.29	5.28	
6	5.85	5.63	6.57	6.10	11.74	7.38	5.00	3.93	3.58	3.33	3.12	5.28	
7	5.85	5.47	5.84	8.31	10.95	6.30	6.18	3.96	3.49	3.33	3.00	5.16	
8	5.92	5.27	5.38	6.74	10.28	6.58	5.08	3.95	3.49	3.32	3.36	4.99	
9	5.75	5.19	6.15	6.28	9.56	6.53	5.16	3.93	3.52	3.32	3.37	4.90	
10	5.57	5.29	9.26	9.61	10.34	7.03	4.77	3.94	3.55	3.30	3.45	4.85	
11	5.42	5.52	9.75	11.28	8.52	6.39	4.55	3.92	3.53	3.31	3.50	4.83	
12	5.40	5.22	8.28	11.25	8.02	7.03	4.42	3.89	3.52	3.31	3.89	4.81	
13	5.50	5.08	7.23	9.55	8.81	7.74	4.38	3.86	3.50	3.30	4.84	4.87	
14	5.53	5.34	6.89	8.28	9.61	8.13	4.45	3.82	3.47	3.29	5.50	5.10	
15	5.57	6.20	6.27	9.42	12.71	9.45	4.56	3.84	3.47	3.28	5.57	5.09	
16	5.64	5.79	7.88	9.48	13.65	7.76	5.48	3.86	3.45	3.26	5.46	5.09	
17	5.91	5.94	9.04	8.14	12.88	8.85	5.41	3.88	3.44	3.25	5.19	5.10	
18	6.87	5.51	7.50	9.89	11.25	7.50	4.92	3.93	3.43	3.24	5.07	5.10	
19	5.55	5.06	7.79	8.80	11.44	8.39	5.42	3.94	3.42	3.22	5.28	5.08	
20	5.35	5.45	6.95	9.01	12.17	7.30	5.24	3.96	3.51	3.24	5.37	5.04	
21	5.00	5.44	6.91	8.07	11.55	6.66	4.81	3.92	3.44	3.56	5.11	5.02	
22	4.94	5.79	6.61	7.81	10.88	6.44	4.69	3.85	3.40	3.48	5.24	5.01	
23	4.92	5.43	6.26	7.65	9.16	7.44	4.85	3.82	3.37	3.20	5.43	5.02	
24	4.65	5.10	5.89	7.56	8.08	6.41	5.08	3.81	3.39	3.21	5.48	5.13	
25	4.51	5.34	5.70	7.06	8.34	6.25	4.81	3.85	3.38	3.39	5.46	5.19	
26	4.43	5.06	5.50	7.49	8.28	6.10	4.52	3.91	3.37	3.39	5.36	5.34	
27	4.46	5.54	5.35	9.36	8.03	5.47	4.42	3.90	3.37	3.39	5.30	5.41	
28	4.71	5.22	6.04	11.11	8.37	5.52	4.31	3.88	3.36	3.39	5.29	5.45	
29	4.89	5.02	5.79	12.61	7.50	5.55	4.25	3.88	3.38	3.30		5.43	
30	5.09	5.29	5.11	11.67	7.14	5.34	4.06	3.88	3.37	3.25		5.19	
31		5.46		11.02	6.99		3.95		3.36	3.26		4.99	
Mean	5.45	5.52	6.77	8.35	9.81	7.04	4.83	3.91	3.48	3.31	4.46	5.13	
Max	6.87	7.19	9.75	12.61	13.65	9.45	6.18	4.04	3.88	3.56	5.57	5.45	13.65
Min	4.43	5.02	5.11	4.87	6.99	5.34	3.95	3.81	3.36	3.18	3.00	4.81	3.00

Annual Max Momentary Gage Height 13.72 m. (MSL.) , at 07.00 Hours, on Aug 16, 2018

Zero Gage at Bottom Elevation 1.90 m. (MSL.) , River Bed 1.90 m. (MSL.)

Left Bank Elevation 14.22 m. (MSL.) ,

Right Bank Elevation 13.88 m. (MSL.) , Drainage Are 779 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	51.30	154.80	40.50	231.00	100.00	47.10	14.00	6.30	3.60	2.50	0.00		
2	0.00	111.60	90.05	47.40	203.15	92.15	40.20	14.00	6.20	3.50	2.50	0.00		
3	0.00	65.70	47.70	44.10	181.55	96.00	42.90	12.50	6.30	3.10	2.60	0.00		
4	0.00	81.30	93.20	35.10	247.00	182.00	35.10	12.25	10.00	1.80	2.90	0.00		
5	0.00	60.90	77.80	38.70	208.55	164.45	29.50	11.00	6.60	2.00	2.90	0.00		
6	0.00	57.90	87.95	72.00	334.40	119.20	39.00	11.25	5.80	3.30	1.20	0.00		
7	0.00	53.10	64.20	156.40	287.00	78.50	74.40	12.00	4.90	3.30	0.00	0.00		
8	0.00	47.10	50.40	93.90	248.00	88.30	41.40	11.75	4.90	3.20	0.00	0.00		
9	0.00	44.70	73.50	77.80	212.00	86.55	43.80	11.25	5.20	3.20	0.00	0.00		
10	0.00	47.70	198.20	214.50	251.00	105.20	32.25	11.50	5.50	3.00	0.00	0.00		
11	0.00	54.60	221.50	306.80	164.90	81.65	26.75	11.00	5.30	3.10	0.00	0.00		
12	0.00	45.60	155.20	305.00	144.80	105.20	23.50	10.25	5.20	3.10	0.00	0.00		
13	0.00	41.40	113.20	211.50	177.95	133.60	22.50	9.50	5.00	3.00	0.00	0.00		
14	0.00	49.20	99.60	155.20	214.50	149.20	24.25	8.50	4.70	2.90	0.00	0.00		
15	0.00	75.00	77.45	205.40	397.70	206.75	27.00	9.00	4.70	2.80	0.00	0.00		
16	0.00	62.70	139.20	208.10	463.50	134.40	53.40	9.50	4.50	2.60	0.00	0.00		
17	0.00	67.20	188.30	149.60	409.60	179.75	51.30	10.00	4.40	2.50	0.00	0.00		
18	0.00	54.30	124.00	228.50	305.00	124.00	36.60	11.25	4.30	2.40	0.00	0.00		
19	0.00	40.80	135.60	177.50	316.40	159.60	51.60	11.50	4.20	2.20	0.00	0.00		
20	0.00	52.50	102.00	186.95	361.55	116.00	46.20	12.00	5.10	2.40	0.00	0.00		
21	0.00	52.20	100.40	146.80	323.00	91.10	33.30	11.00	4.40	5.60	0.00	0.00		
22	0.00	62.70	89.35	136.40	282.80	83.40	30.25	9.25	4.00	4.80	0.00	0.00		
23	0.00	51.90	77.10	130.00	193.70	121.60	34.50	8.50	3.70	2.00	0.00	0.00		
24	0.00	42.00	65.70	126.40	147.20	82.35	41.40	8.25	3.90	2.10	0.00	0.00		
25	0.00	49.20	60.00	106.40	157.60	76.75	33.30	9.25	3.80	3.90	0.00	0.00		
26	0.00	40.80	54.00	123.60	155.20	72.00	26.00	10.75	3.70	3.90	0.00	0.00		
27	24.50	55.20	49.50	202.70	145.20	53.10	23.50	10.50	3.70	3.90	0.00	0.00		
28	30.75	45.60	70.20	296.60	158.80	54.60	20.75	10.00	3.60	3.90	0.00	0.00		
29	35.70	39.60	62.70	390.70	124.00	55.50	19.25	10.00	3.80	3.00		0.00		
30	41.70	47.70	42.30	330.20	109.60	49.20	14.50	10.00	3.70	2.50		0.00		
31		52.80		291.20	103.60		11.75		3.60	2.60		0.00		
Total	132.65	1704.30	2965.10	5235.95	7260.25	3242.10	1077.25	321.50	151.00	95.20	14.60	0.00	22199.90	CMSDAY
Mean	4.42	54.98	98.84	168.90	234.20	108.07	34.75	10.72	4.87	3.07	0.52	0.00	60.82	CMS
Max	41.70	111.60	221.50	390.70	463.50	206.75	74.40	14.00	10.00	5.60	2.90	0.00	463.50	CMS
Min	0.00	39.60	42.30	35.10	103.60	49.20	11.75	8.25	3.60	1.80	0.00	0.00	0.00	CMS
Runoff	11.46	147.25	256.18	452.39	627.29	280.12	93.07	27.78	13.05	8.23	1.26	0.00	1918.07	MCM

Momentary Peak 468.40 CMS, at 13.72 m. (MSL.), at 07.00 Hours, on Aug 16, 2018

Runoff Yield 78.08 Liters/Second/Square KM. Momentary Peak Yield 601.28 Liters/Second/Square KM.

WATER YEAR : 2018

EAST COAST - GULF BASIN

Khlong Prasae at Ban Khao Chik , Rayong (Z.11)

Lat 12 - 51 - 20 N Long 101 - 37 - 09 E

Location : on left bank near the Meteorological Station.

Ban Khao Chik **Amphoe** Klaeng **Changwat** Rayong

Drainge Area	1,236 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+2.630 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank near the Meteorological Station. **Elevation** +13.420 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	1965 - 1974 , 1989 to date
Rating Operation	
Period of Rating	1989 to date
Rated by Flot	-
Rated by Current Meter	1989 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	No overbank flow
General Description	Records good. Flow effectedn by the concrete weir about 7 kilometers downstream and 5 kilometers above gage site. Stage-discharge relation defined by 35 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

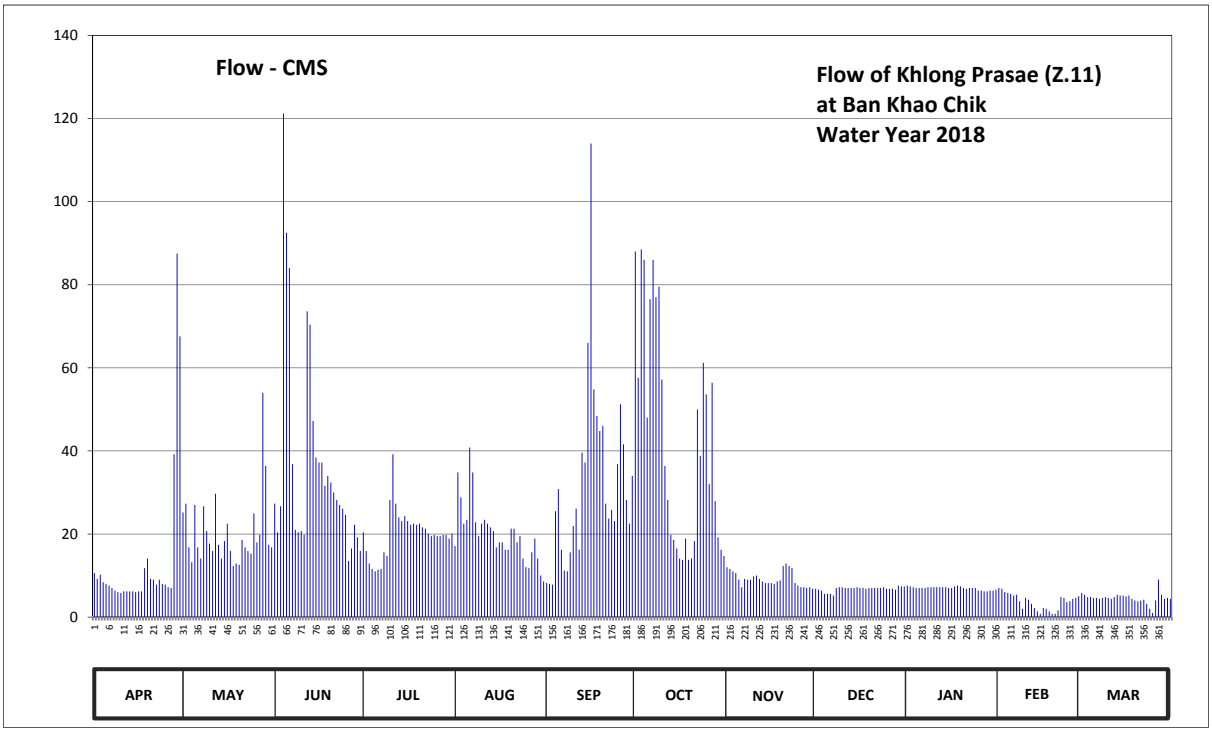
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	4.93	5.44	5.51	5.28	5.17	4.81	6.98	5.00	4.74	4.78	4.75	4.69	
2	4.86	5.51	5.28	5.13	5.72	4.80	6.29	4.98	4.73	4.77	4.74	4.67	
3	4.91	5.16	5.49	5.03	5.56	4.79	6.99	4.95	4.72	4.76	4.70	4.64	
4	4.82	5.04	7.62	4.98	5.35	5.45	6.94	4.93	4.68	4.75	4.69	4.64	
5	4.80	5.50	7.07	4.95	5.38	5.62	6.05	4.85	4.68	4.75	4.68	4.63	
6	4.78	5.16	6.90	4.97	5.87	5.14	6.75	4.76	4.68	4.75	4.66	4.63	
7	4.75	5.07	5.77	4.98	5.72	4.96	6.94	4.86	4.66	4.75	4.67	4.62	
8	4.72	5.49	5.30	5.12	5.36	4.95	6.76	4.85	4.75	4.76	4.59	4.63	
9	4.70	5.29	5.28	5.09	5.25	5.12	6.81	4.85	4.76	4.76	4.50	4.64	
10	4.69	5.19	5.29	5.54	5.35	5.33	6.28	4.89	4.76	4.76	4.63	4.63	
11	4.71	5.13	5.26	5.83	5.38	5.47	5.76	4.90	4.75	4.76	4.61	4.62	
12	4.71	5.59	6.69	5.51	5.35	5.14	5.54	4.86	4.75	4.76	4.56	4.64	
13	4.71	5.18	6.61	5.40	5.32	5.84	5.26	4.83	4.75	4.76	4.51	4.67	
14	4.71	5.07	6.03	5.37	5.29	5.78	5.22	4.81	4.75	4.76	4.47	4.66	
15	4.70	5.21	5.81	5.41	5.16	6.50	5.15	4.81	4.76	4.75	4.44	4.66	
16	4.71	5.35	5.78	5.37	5.20	7.50	5.07	4.81	4.75	4.75	4.51	4.65	
17	4.71	5.13	5.78	5.34	5.20	6.22	5.06	4.80	4.75	4.77	4.50	4.66	
18	4.99	5.01	5.64	5.35	5.14	6.06	5.23	4.83	4.74	4.78	4.47	4.62	
19	5.07	5.03	5.70	5.34	5.14	5.97	5.06	4.84	4.75	4.77	4.44	4.60	
20	4.86	5.02	5.66	5.35	5.31	6.00	5.07	5.01	4.75	4.75	4.44	4.59	
21	4.85	5.22	5.60	5.32	5.31	5.51	5.21	5.03	4.75	4.74	4.48	4.60	
22	4.79	5.16	5.54	5.31	5.20	5.39	6.10	5.01	4.75	4.75	4.64	4.61	
23	4.85	5.13	5.50	5.27	5.25	5.46	5.82	4.99	4.75	4.75	4.63	4.56	
24	4.80	5.11	5.47	5.25	5.07	5.37	6.38	4.81	4.76	4.75	4.58	4.50	
25	4.79	5.43	5.42	5.26	5.00	5.77	6.19	4.78	4.74	4.72	4.59	4.45	
26	4.76	5.20	5.05	5.25	4.99	6.13	5.65	4.76	4.74	4.72	4.62	4.60	
27	4.75	5.26	5.15	5.25	5.12	5.89	6.26	4.76	4.74	4.71	4.63	4.85	
28	5.83	6.20	5.34	5.26	5.23	5.54	5.53	4.75	4.73	4.71	4.65	4.67	
29	6.97	5.76	5.24	5.26	5.07	5.35	5.24	4.76	4.78	4.72		4.62	
30	6.54	5.18	5.13	5.23	4.90	5.70	5.14	4.74	4.77	4.72		4.63	
31		5.16		5.27	4.83		5.09		4.77	4.73		4.62	
Mean	4.96	5.27	5.73	5.27	5.26	5.59	5.87	4.86	4.74	4.75	4.58	4.63	
Max	6.97	6.20	7.62	5.83	5.87	7.50	6.99	5.03	4.78	4.78	4.75	4.85	7.62
Min	4.69	5.01	5.05	4.95	4.83	4.79	5.06	4.74	4.66	4.71	4.44	4.45	4.44

Annual Max Momentary Gage Height 7.99 m. (MSL.) , at 08.00 Hours, on Sep 16, 2018

Zero Gage at Bottom Elevation 2.63 m. (MSL.) , River Bed 3.32 m. (MSL.)

Left Bank Elevation 9.95 m. (MSL.) ,

Right Bank Elevation 9.85 m. (MSL.) , Drainage Are 1,236 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	10.60	25.20	27.30	20.40	17.10	8.20	88.00	12.00	6.80	7.60	7.00	5.80		
2	9.20	27.30	20.40	15.90	34.80	8.00	57.60	11.60	6.60	7.40	6.80	5.40		
3	10.20	16.80	26.70	12.90	28.80	7.80	88.50	11.00	6.40	7.20	6.00	4.80		
4	8.40	13.20	121.20	11.60	22.50	25.50	86.00	10.60	5.60	7.00	5.80	4.80		
5	8.00	27.00	92.50	11.00	23.40	30.80	48.00	9.00	5.60	7.00	5.60	4.60		
6	7.60	16.80	84.00	11.40	40.80	16.20	76.50	7.20	5.60	7.00	5.20	4.60		
7	7.00	14.10	36.80	11.60	34.80	11.20	86.00	9.20	5.20	7.00	5.40	4.40		
8	6.40	26.70	21.00	15.60	22.80	11.00	77.00	9.00	7.00	7.20	3.80	4.60		
9	6.00	20.70	20.40	14.70	19.50	15.60	79.50	9.00	7.20	7.20	2.00	4.80		
10	5.80	17.70	20.70	28.20	22.50	21.90	57.20	9.80	7.20	7.20	4.60	4.60		
11	6.20	15.90	19.80	39.20	23.40	26.10	36.40	10.00	7.00	7.20	4.20	4.40		
12	6.20	29.70	73.60	27.30	22.50	16.20	28.20	9.20	7.00	7.20	3.20	4.80		
13	6.20	17.40	70.40	24.00	21.60	39.60	19.80	8.60	7.00	7.20	2.20	5.40		
14	6.20	14.10	47.20	23.10	20.70	37.20	18.60	8.20	7.00	7.20	1.40	5.20		
15	6.00	18.30	38.40	24.30	16.80	66.00	16.50	8.20	7.20	7.00	0.80	5.20		
16	6.20	22.50	37.20	23.10	18.00	114.00	14.10	8.20	7.00	7.00	2.20	5.00		
17	6.20	15.90	37.20	22.20	18.00	54.80	13.80	8.00	7.00	7.40	2.00	5.20		
18	11.80	12.30	31.60	22.50	16.20	48.40	18.90	8.60	6.80	7.60	1.40	4.40		
19	14.10	12.90	34.00	22.20	16.20	44.80	13.80	8.80	7.00	7.40	0.80	4.00		
20	9.20	12.60	32.40	22.50	21.30	46.00	14.10	12.30	7.00	7.00	0.80	3.80		
21	9.00	18.60	30.00	21.60	21.30	27.30	18.30	12.90	7.00	6.80	1.60	4.00		
22	7.80	16.80	28.20	21.30	18.00	23.70	50.00	12.30	7.00	7.00	4.80	4.20		
23	9.00	15.90	27.00	20.10	19.50	25.80	38.80	11.80	7.00	7.00	4.60	3.20		
24	8.00	15.30	26.10	19.50	14.10	23.10	61.20	8.20	7.20	7.00	3.60	2.00		
25	7.80	24.90	24.60	19.80	12.00	36.80	53.60	7.60	6.80	6.40	3.80	1.00		
26	7.20	18.00	13.50	19.50	11.80	51.20	32.00	7.20	6.80	6.40	4.40	4.00		
27	7.00	19.80	16.50	19.50	15.60	41.60	56.40	7.20	6.80	6.20	4.60	9.00		
28	39.20	54.00	22.20	19.80	18.90	28.20	27.90	7.00	6.60	6.20	5.00	5.40		
29	87.50	36.40	19.20	19.80	14.10	22.50	19.20	7.20	7.60	6.40		4.40		
30	67.60	17.40	15.90	18.90	10.00	34.00	16.20	6.80	7.40	6.40		4.60		
31		16.80		20.10	8.60		14.70		7.40	6.60		4.40		
Total	407.60	631.00	1116.00	623.60	625.60	963.50	1326.80	276.70	210.80	216.40	103.60	142.00	6643.60	CMSDAY
Mean	13.59	20.35	37.20	20.12	20.18	32.12	42.80	9.22	6.80	6.98	3.70	4.58	18.20	CMS
Max	87.50	54.00	121.20	39.20	40.80	114.00	88.50	12.90	7.60	7.60	7.00	9.00	121.20	CMS
Min	5.80	12.30	13.50	11.00	8.60	7.80	13.80	6.80	5.20	6.20	0.80	1.00	0.80	CMS
Runoff	35.22	54.52	96.42	53.88	54.05	83.25	114.64	23.91	18.21	18.70	8.95	12.27	574.01	MCM

Momentary Peak 143.40 CMS, at 7.99 m. (MSL.), at 08.00 Hours, on Sep 16, 2018

Runoff Yield 14.73 Liters/Second/Square KM. Momentary Peak Yield 116.02 Liters/Second/Square KM.

WATER YEAR : 2018

EAST COAST - GULF BASIN

Chanthaburi River at Ban Puk , Chanthaburi (Z.13)

Lat 12 - 45 - 38 N Long 102 - 08 - 33 E

Location : on left bank at Ban Puk

	Ban Puk	**Amphoe** Makham	**Changwat** Chanthaburi
Drainge Area	647 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+6.300 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank near the gage site.		**Elevation** +14.789 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	1968 to date		
Rating Operation			
Period of Rating	1969 to date		
Rated by Flot	-		
Rated by Current Meter	1969 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow		
General Description	Records good. Stage-discharge relation defined by 32 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

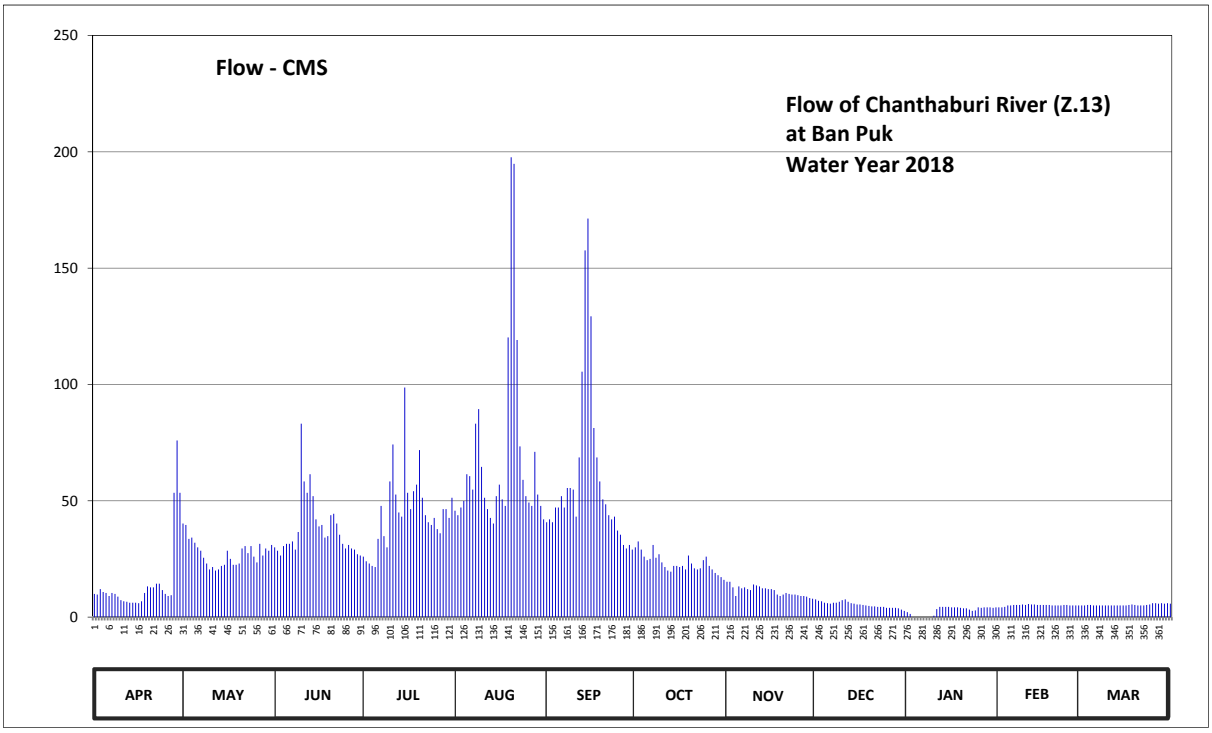
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	8.70	9.32	9.14	9.06	9.41	9.33	9.14	8.83	8.62	8.34	8.46	8.50	
2	8.69	9.31	9.11	9.02	9.38	9.35	9.19	8.83	8.60	8.29	8.46	8.50	
3	8.75	9.21	9.07	9.00	9.43	9.33	9.12	8.77	8.59	8.20	8.47	8.51	
4	8.72	9.22	9.15	8.98	9.47	9.43	9.06	8.67	8.56	8.15	8.50	8.51	
5	8.71	9.18	9.17	8.97	9.63	9.43	9.03	8.78	8.55	8.08	8.50	8.50	
6	8.67	9.14	9.17	9.21	9.62	9.50	9.04	8.76	8.54	8.02	8.51	8.50	
7	8.71	9.11	9.19	9.44	9.54	9.43	9.16	8.77	8.56	7.97	8.51	8.50	
8	8.70	9.05	9.12	9.23	9.89	9.55	9.05	8.75	8.56	7.97	8.51	8.50	
9	8.66	9.00	9.26	9.14	9.96	9.55	9.08	8.74	8.58	8.12	8.52	8.50	
10	8.61	8.95	9.89	9.59	9.67	9.54	9.01	8.80	8.61	8.24	8.51	8.50	
11	8.59	8.97	9.59	9.79	9.49	9.37	8.97	8.79	8.62	8.42	8.53	8.50	
12	8.58	8.94	9.52	9.51	9.42	9.72	8.94	8.78	8.58	8.47	8.52	8.50	
13	8.56	8.95	9.63	9.40	9.36	10.11	8.93	8.76	8.55	8.47	8.52	8.50	
14	8.56	8.98	9.50	9.37	9.32	10.57	8.98	8.76	8.54	8.47	8.51	8.50	
15	8.56	8.99	9.35	10.05	9.50	11.01	8.98	8.75	8.52	8.47	8.51	8.50	
16	8.55	9.11	9.30	9.52	9.57	10.32	8.97	8.75	8.52	8.46	8.51	8.50	
17	8.59	9.04	9.31	9.42	9.48	9.87	8.98	8.74	8.51	8.46	8.51	8.51	
18	8.71	8.99	9.22	9.53	9.44	9.72	8.95	8.69	8.50	8.46	8.51	8.52	
19	8.78	8.99	9.23	9.57	10.24	9.59	9.07	8.67	8.49	8.45	8.50	8.51	
20	8.77	9.00	9.38	9.76	11.74	9.48	9.00	8.69	8.48	8.44	8.50	8.50	
21	8.77	9.13	9.39	9.49	11.67	9.45	8.96	8.71	8.48	8.44	8.50	8.50	
22	8.81	9.15	9.32	9.38	10.23	9.38	8.95	8.70	8.47	8.41	8.50	8.50	
23	8.81	9.09	9.24	9.33	9.78	9.35	8.96	8.69	8.47	8.38	8.51	8.51	
24	8.74	9.15	9.17	9.31	9.60	9.37	9.03	8.69	8.47	8.39	8.51	8.52	
25	8.70	9.06	9.13	9.36	9.50	9.27	9.06	8.68	8.45	8.46	8.50	8.55	
26	8.67	9.01	9.16	9.28	9.46	9.24	8.98	8.67	8.45	8.45	8.50	8.55	
27	8.68	9.17	9.13	9.25	9.44	9.16	8.95	8.67	8.45	8.46	8.50	8.54	
28	9.52	9.07	9.12	9.42	9.75	9.13	8.92	8.66	8.45	8.46	8.50	8.55	
29	9.81	9.13	9.08	9.42	9.51	9.16	8.90	8.64	8.44	8.46		8.54	
30	9.52	9.11	9.07	9.36	9.44	9.12	8.88	8.63	8.41	8.45		8.55	
31		9.16		9.49	9.35		8.85		8.38	8.46		8.54	
Mean	8.77	9.09	9.27	9.38	9.72	9.56	9.00	8.73	8.52	8.35	8.50	8.51	
Max	9.81	9.32	9.89	10.05	11.74	11.01	9.19	8.83	8.62	8.47	8.53	8.55	11.74
Min	8.55	8.94	9.07	8.97	9.32	9.12	8.85	8.63	8.38	7.97	8.46	8.50	7.97

Annual Max Momentary Gage Height 11.89 m. (MSL.) , at 22.00 Hours, on Aug 20, 2018

Zero Gage at Bottom Elevation 6.30 m. (MSL.) , River Bed 5.84 m. (MSL.)

Left Bank Elevation 12.77 m. (MSL.) ,

Right Bank Elevation 14.70 m. (MSL.) , Drainage Are 647 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	10.00	40.20	30.00	26.00	45.70	40.80	30.00	15.20	7.60	2.10	4.20	5.00		
2	9.70	39.60	28.50	24.00	43.80	42.00	32.50	15.20	7.00	1.35	4.20	5.00		
3	12.00	33.60	26.50	23.00	47.10	40.80	29.00	12.80	6.80	0.00	4.40	5.20		
4	10.80	34.20	30.50	22.00	49.90	47.10	26.00	9.10	6.20	0.00	5.00	5.20		
5	10.40	32.00	31.50	21.50	61.40	47.10	24.50	13.20	6.00	0.00	5.00	5.00		
6	9.10	30.00	31.50	33.60	60.60	52.00	25.00	12.40	5.80	0.00	5.20	5.00		
7	10.40	28.50	32.50	47.80	54.80	47.10	31.00	12.80	6.20	0.00	5.20	5.00		
8	10.00	25.50	29.00	34.80	83.10	55.50	25.50	12.00	6.20	0.00	5.20	5.00		
9	8.80	23.00	36.60	30.00	89.40	55.50	27.00	11.60	6.60	0.00	5.40	5.00		
10	7.30	20.50	83.10	58.30	64.60	54.80	23.50	14.00	7.30	0.60	5.20	5.00		
11	6.80	21.50	58.30	74.20	51.30	43.20	21.50	13.60	7.60	3.40	5.60	5.00		
12	6.60	20.00	53.40	52.70	46.40	68.60	20.00	13.20	6.60	4.40	5.40	5.00		
13	6.20	20.50	61.40	45.00	42.60	105.47	19.50	12.40	6.00	4.40	5.40	5.00		
14	6.20	22.00	52.00	43.20	40.20	157.60	22.00	12.40	5.80	4.40	5.20	5.00		
15	6.20	22.50	42.00	98.67	52.00	171.30	22.00	12.00	5.40	4.40	5.20	5.00		
16	6.00	28.50	39.00	53.40	56.90	129.27	21.50	12.00	5.40	4.20	5.20	5.00		
17	6.80	25.00	39.60	46.40	50.60	81.30	22.00	11.60	5.20	4.20	5.20	5.20		
18	10.40	22.50	34.20	54.10	47.80	68.60	20.50	9.70	5.00	4.20	5.20	5.40		
19	13.20	22.50	34.80	56.90	120.20	58.30	26.50	9.10	4.80	4.00	5.00	5.20		
20	12.80	23.00	43.80	71.80	197.60	50.60	23.00	9.70	4.60	3.80	5.00	5.00		
21	12.80	29.50	44.40	51.30	194.80	48.50	21.00	10.40	4.60	3.80	5.00	5.00		
22	14.40	30.50	40.20	43.80	119.07	43.80	20.50	10.00	4.40	3.20	5.00	5.00		
23	14.40	27.50	35.40	40.80	73.40	42.00	21.00	9.70	4.40	2.70	5.20	5.20		
24	11.60	30.50	31.50	39.60	59.00	43.20	24.50	9.70	4.40	2.85	5.20	5.40		
25	10.00	26.00	29.50	42.60	52.00	37.20	26.00	9.40	4.00	4.20	5.00	6.00		
26	9.10	23.50	31.00	37.80	49.20	35.40	22.00	9.10	4.00	4.00	5.00	6.00		
27	9.40	31.50	29.50	36.00	47.80	31.00	20.50	9.10	4.00	4.20	5.00	5.80		
28	53.40	26.50	29.00	46.40	71.00	29.50	19.00	8.80	4.00	4.20	5.00	6.00		
29	75.90	29.50	27.00	46.40	52.70	31.00	18.00	8.20	3.80	4.20		5.80		
30	53.40	28.50	26.50	42.60	47.80	29.00	17.20	7.90	3.20	4.00		6.00		
31		31.00		51.30	42.00		16.00		2.70	4.20		5.80		
Total	444.10	849.60	1142.20	1395.97	2114.77	1787.54	718.20	336.30	165.60	87.00	141.80	163.20	9346.28	CMSDAY
Mean	14.80	27.41	38.07	45.03	68.22	59.58	23.17	11.21	5.34	2.81	5.06	5.26	25.61	CMS
Max	75.90	40.20	83.10	98.67	197.60	171.30	32.50	15.20	7.60	4.40	5.60	6.00	197.60	CMS
Min	6.00	20.00	26.50	21.50	40.20	29.00	16.00	7.90	2.70	0.00	4.20	5.00	0.00	CMS
Runoff	38.37	73.41	98.69	120.61	182.72	154.44	62.05	29.06	14.31	7.52	12.25	14.10	807.52	MCM

Momentary Peak 203.60 CMS, at 11.89 m. (MSL.), at 22.00 Hours, on Aug 20, 2018

Runoff Yield 39.58 Liters/Second/Square KM. Momentary Peak Yield 314.68 Liters/Second/Square KM.

WATER YEAR : 2018

EAST COAST - GULF BASIN

Khlong Phayat at Ban Chaman , Chanthaburi (Z.14)

Lat 12 - 44 - 34 N Long 102 - 12 - 35 E

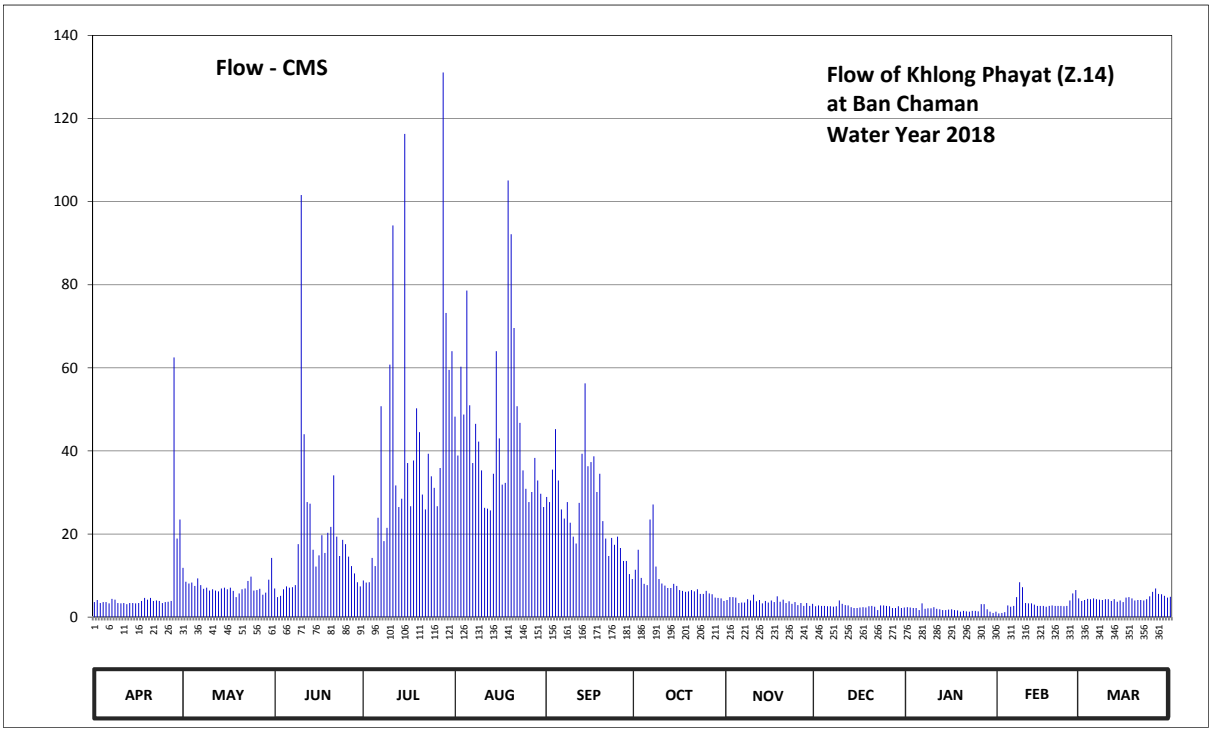
Location : on left bank at the bridge of Khlong Prayat near Wat Chaman.

	Ban Chaman	**Amphoe** Makham	**Changwat** Chanthaburi
Drainge Area	229 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+5.400 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank about 30 meters from the top staff gage.		**Elevation** +13.690 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	1968 to date		
Rating Operation			
Period of Rating	1986 to date		
Rated by Flot	-		
Rated by Current Meter	1986 to date		
Stability of Channel Regimes	Rather unstable.		
Overbank Flow Conditions	Overbank flow starts at elevation + 11.110 m.(MSL.), records are channel flow only.		
General Description	Records good. Stage-discharge relation defined by 45 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	6.56	7.29	6.89	7.08	9.15	8.27	7.26	6.61	6.46	6.44	6.29	6.59	
2	6.61	7.05	6.68	7.03	8.77	8.21	7.58	6.68	6.48	6.43	6.30	6.61	
3	6.54	7.01	6.71	7.04	9.63	8.60	7.13	6.68	6.47	6.42	6.32	6.64	
4	6.56	7.03	6.87	7.45	9.17	9.03	7.00	6.67	6.47	6.42	6.48	6.63	
5	6.56	6.95	6.94	7.32	10.27	8.47	6.97	6.54	6.46	6.37	6.45	6.65	
6	6.53	7.12	6.91	8.02	9.26	8.12	8.00	6.55	6.46	6.53	6.47	6.63	
7	6.64	6.97	6.92	9.25	8.68	8.01	8.18	6.55	6.45	6.40	6.68	6.62	
8	6.62	6.88	6.97	7.72	9.08	8.21	7.31	6.63	6.46	6.41	7.04	6.61	
9	6.54	6.91	7.67	7.90	8.91	7.96	7.11	6.60	6.60	6.41	6.92	6.63	
10	6.53	6.84	10.96	9.65	8.59	7.79	7.01	6.74	6.52	6.44	6.54	6.63	
11	6.54	6.87	8.98	10.75	8.14	7.68	6.96	6.58	6.49	6.40	6.53	6.59	
12	6.51	6.84	8.21	8.41	8.13	8.20	6.90	6.61	6.48	6.39	6.53	6.63	
13	6.54	6.82	8.19	8.15	8.11	8.79	6.90	6.53	6.44	6.37	6.50	6.57	
14	6.54	6.89	7.58	8.25	8.55	9.47	7.00	6.59	6.42	6.37	6.47	6.60	
15	6.53	6.91	7.31	11.37	9.78	8.64	6.95	6.55	6.42	6.38	6.47	6.56	
16	6.54	6.87	7.49	8.68	8.94	8.69	6.85	6.60	6.43	6.39	6.47	6.67	
17	6.59	6.91	7.81	8.16	8.42	8.76	6.83	6.56	6.44	6.37	6.45	6.68	
18	6.66	6.83	7.53	8.71	8.44	8.33	6.81	6.70	6.43	6.36	6.47	6.65	
19	6.62	6.68	7.84	9.23	11.06	8.55	6.82	6.57	6.46	6.33	6.48	6.60	
20	6.66	6.77	7.91	9.00	10.69	7.98	6.85	6.62	6.47	6.35	6.47	6.61	
21	6.59	6.87	8.53	8.30	9.97	7.76	6.82	6.54	6.45	6.34	6.47	6.61	
22	6.60	6.89	7.79	8.12	9.25	7.48	6.87	6.58	6.37	6.33	6.47	6.60	
23	6.59	7.07	7.48	8.79	9.09	7.77	6.76	6.52	6.48	6.35	6.46	6.63	
24	6.54	7.15	7.74	8.52	8.59	7.66	6.76	6.56	6.48	6.35	6.47	6.70	
25	6.56	6.84	7.67	8.38	8.37	7.79	6.83	6.49	6.47	6.34	6.60	6.81	
26	6.57	6.85	7.47	8.16	8.21	7.61	6.77	6.54	6.46	6.51	6.77	6.89	
27	6.59	6.88	7.32	8.62	8.33	7.40	6.75	6.47	6.42	6.51	6.85	6.76	
28	9.72	6.74	7.20	11.74	8.74	7.40	6.67	6.54	6.42	6.39	6.65	6.75	
29	7.76	6.79	7.04	10.09	8.47	7.19	6.66	6.47	6.46	6.33		6.71	
30	8.00	7.10	6.94	9.60	8.31	7.11	6.65	6.52	6.42	6.30		6.67	
31		7.45		9.78	8.15		6.59		6.43	6.33		6.69	
Mean	6.76	6.94	7.58	8.69	8.94	8.10	6.99	6.58	6.46	6.39	6.54	6.65	
Max	9.72	7.45	10.96	11.74	11.06	9.47	8.18	6.74	6.60	6.53	7.04	6.89	11.74
Min	6.51	6.68	6.68	7.03	8.11	7.11	6.59	6.47	6.37	6.30	6.29	6.56	6.29

Annual Max Momentary Gage Height	13.22	m. (MSL.) ,	at 07.00 Hours, on Jul 15, 2018		
Zero Gage at Bottom Elevation	5.40	m. (MSL.) ,	River Bed	5.28	m. (MSL.)
Left Bank Elevation	11.21	m. (MSL.) ,			
Right Bank Elevation	11.10	m. (MSL.) ,	Drainage Are	229	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	3.60	11.85	6.90	8.80	48.25	28.90	11.40	4.10	2.60	2.40	0.90	3.90		
2	4.10	8.50	4.80	8.30	38.90	27.70	16.20	4.80	2.80	2.30	1.00	4.10		
3	3.40	8.10	5.10	8.40	60.25	35.50	9.45	4.80	2.70	2.20	1.20	4.40		
4	3.60	8.30	6.70	14.25	48.75	45.25	8.00	4.70	2.70	2.20	2.80	4.30		
5	3.60	7.50	7.40	12.30	78.60	32.90	7.70	3.40	2.60	1.70	2.50	4.50		
6	3.30	9.30	7.10	23.90	51.00	25.90	23.50	3.50	2.60	3.30	2.70	4.30		
7	4.40	7.70	7.20	50.75	37.10	23.70	27.10	3.50	2.50	2.00	4.80	4.20		
8	4.20	6.80	7.70	18.30	46.50	27.70	12.15	4.30	2.60	2.10	8.40	4.10		
9	3.40	7.10	17.55	21.50	42.25	22.70	9.15	4.00	4.00	2.10	7.20	4.30		
10	3.30	6.40	101.60	60.75	35.30	19.35	8.10	5.40	3.20	2.40	3.40	4.30		
11	3.40	6.70	44.00	94.25	26.30	17.70	7.60	3.80	2.90	2.00	3.30	3.90		
12	3.10	6.40	27.70	31.70	26.10	27.50	7.00	4.10	2.80	1.90	3.30	4.30		
13	3.40	6.20	27.30	26.50	25.70	39.30	7.00	3.30	2.40	1.70	3.00	3.70		
14	3.40	6.90	16.20	28.50	34.50	56.25	8.00	3.90	2.20	1.70	2.70	4.00		
15	3.30	7.10	12.15	116.30	64.00	36.30	7.50	3.50	2.20	1.80	2.70	3.60		
16	3.40	6.70	14.85	37.10	43.00	37.30	6.50	4.00	2.30	1.90	2.70	4.70		
17	3.90	7.10	19.70	26.70	31.90	38.70	6.30	3.60	2.40	1.70	2.50	4.80		
18	4.60	6.30	15.45	37.70	32.30	30.10	6.10	5.00	2.30	1.60	2.70	4.50		
19	4.20	4.80	20.30	50.25	105.10	34.50	6.20	3.70	2.60	1.30	2.80	4.00		
20	4.60	5.70	21.70	44.50	92.15	23.10	6.50	4.20	2.70	1.50	2.70	4.10		
21	3.90	6.70	34.10	29.50	69.60	18.90	6.20	3.40	2.50	1.40	2.70	4.10		
22	4.00	6.90	19.35	25.90	50.75	14.70	6.70	3.80	1.70	1.30	2.70	4.00		
23	3.90	8.70	14.70	39.30	46.75	19.05	5.60	3.20	2.80	1.50	2.60	4.30		
24	3.40	9.75	18.60	33.90	35.30	17.40	5.60	3.60	2.80	1.50	2.70	5.00		
25	3.60	6.40	17.55	31.10	30.90	19.35	6.30	2.90	2.70	1.40	4.00	6.10		
26	3.70	6.50	14.55	26.70	27.70	16.65	5.70	3.40	2.60	3.10	5.70	6.90		
27	3.90	6.80	12.30	35.90	30.10	13.50	5.50	2.70	2.20	3.10	6.50	5.60		
28	62.50	5.40	10.50	131.10	38.30	13.50	4.70	3.40	2.20	1.90	4.50	5.50		
29	18.90	5.90	8.40	73.20	32.90	10.35	4.60	2.70	2.60	1.30		5.10		
30	23.50	9.00	7.40	59.50	29.70	9.15	4.50	3.20	2.20	1.00		4.70		
31		14.25		64.00	26.50		3.90		2.30	1.30		4.90		
Total	205.50	231.75	548.85	1270.85	1386.45	782.90	260.75	113.90	79.70	58.60	94.70	140.20	5174.15	CMSDAY
Mean	6.85	7.48	18.30	41.00	44.72	26.10	8.41	3.80	2.57	1.89	3.38	4.52	14.18	CMS
Max	62.50	14.25	101.60	131.10	105.10	56.25	27.10	5.40	4.00	3.30	8.40	6.90	131.10	CMS
Min	3.10	4.80	4.80	8.30	25.70	9.15	3.90	2.70	1.70	1.00	0.90	3.60	0.90	CMS
Runoff	17.76	20.02	47.42	109.80	119.79	67.64	22.53	9.84	6.89	5.06	8.18	12.11	447.05	MCM

Momentary Peak 202.20 CMS, at 13.22 m. (MSL.), at 07.00 Hours, on Jul 15, 2018

Runoff Yield 61.90 Liters/Second/Square KM. Momentary Peak Yield 882.97 Liters/Second/Square KM.

WATER YEAR : 2018

EAST COAST - GULF BASIN

Khlong Phlo at Ban Chamkho , Rayong (Z.18)

Lat 12 - 57 - 18 N Long 101 - 40 - 32 E

Location : on right bank at the bridge on road.

Ban Chamkho **Amphoe** Khao Chamao **Changwat** Rayong

Drainge Area	201 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+28.146 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On right bank near the top staff gage. **Elevation** +35.314 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic mean of 3 readings
Period of Available Gage Records	1982 to date
Rating Operation	
Period of Rating	1983 to date
Rated by Flot	-
Rated by Current Meter	1983 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Flow regulated by the concrete weir about 1.5 kilometers downstream from the gage site. Stage-discharge relation defined by 28 discharge measurements made in 2018.
Ramark	Telemetry failure 1 - 31 Mar.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

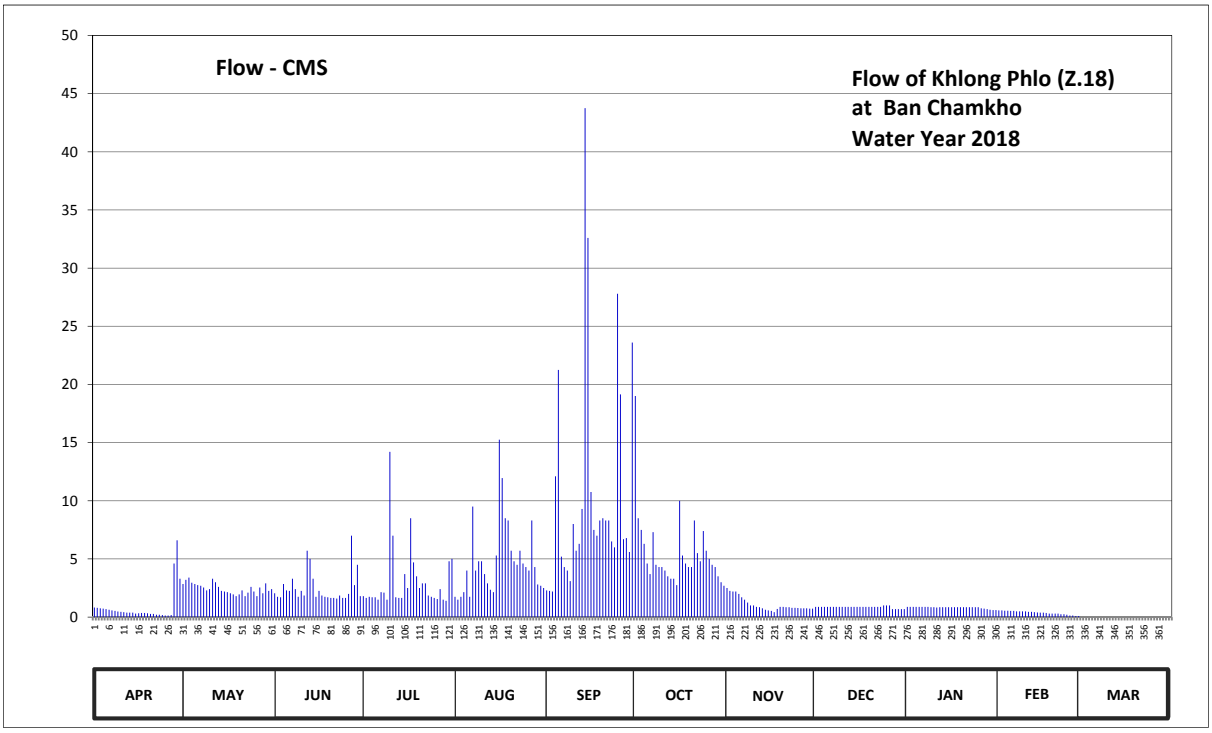
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	29.13	29.57	29.41	29.36	29.35	29.46	30.90	29.50	29.15	29.15	29.03		
2	29.12	29.62	29.35	29.33	29.30	29.45	30.15	29.45	29.15	29.15	29.03		
3	29.10	29.64	29.34	29.35	29.35	29.44	30.05	29.44	29.15	29.15	29.02		
4	29.09	29.59	29.57	29.34	29.43	30.44	29.93	29.44	29.15	29.15	29.02		
5	29.07	29.57	29.46	29.34	29.70	31.05	29.76	29.40	29.15	29.15	29.01		
6	29.05	29.55	29.45	29.30	29.35	29.82	29.67	29.34	29.15	29.15	29.01		
7	29.03	29.54	29.63	29.43	30.25	29.73	30.03	29.30	29.15	29.15	29.00		
8	29.01	29.51	29.48	29.42	29.70	29.70	29.75	29.25	29.15	29.15	29.00		
9	28.99	29.46	29.35	29.30	29.78	29.61	29.73	29.20	29.15	29.14	29.00		
10	28.98	29.48	29.45	30.58	29.78	30.10	29.73	29.20	29.15	29.14	29.00		
11	28.97	29.63	29.37	30.00	29.67	29.87	29.70	29.15	29.15	29.13	28.98		
12	28.95	29.60	29.87	29.34	29.58	29.93	29.65	29.14	29.15	29.14	28.98		
13	28.95	29.52	29.80	29.33	29.47	30.23	29.63	29.10	29.15	29.14	28.97		
14	28.95	29.45	29.63	29.33	29.43	32.15	29.63	29.05	29.15	29.14	28.96		
15	28.92	29.44	29.35	29.67	29.83	31.63	29.55	29.03	29.15	29.14	28.95		
16	28.93	29.43	29.45	29.50	30.65	30.35	30.30	29.01	29.15	29.14	28.95		
17	28.94	29.41	29.37	30.15	30.43	30.05	29.83	28.97	29.15	29.14	28.94		
18	28.94	29.39	29.35	29.77	30.15	30.00	29.76	29.08	29.15	29.14	28.92		
19	28.93	29.36	29.34	29.65	30.13	30.13	29.73	29.15	29.15	29.14	28.92		
20	28.91	29.39	29.33	29.50	29.87	30.15	29.73	29.15	29.15	29.14	28.92		
21	28.91	29.46	29.33	29.58	29.78	30.13	30.13	29.14	29.15	29.14	28.92		
22	28.88	29.36	29.32	29.58	29.75	30.13	29.85	29.14	29.15	29.14	28.90		
23	28.88	29.42	29.37	29.37	29.87	29.95	29.78	29.12	29.15	29.14	28.90		
24	28.87	29.52	29.33	29.35	29.76	29.90	30.04	29.12	29.20	29.14	28.88		
25	28.85	29.44	29.33	29.33	29.73	31.39	29.87	29.11	29.20	29.14	28.85		
26	28.85	29.36	29.40	29.31	29.70	30.91	29.80	29.10	29.20	29.10	28.85		
27	28.87	29.51	30.00	29.48	30.13	29.97	29.75	29.10	29.07	29.09	28.84		
28	29.76	29.41	29.55	29.30	29.73	29.98	29.73	29.10	29.07	29.07	28.84		
29	29.96	29.58	29.75	29.28	29.56	29.86	29.65	29.09	29.07	29.05			
30	29.63	29.45	29.36	29.78	29.54	31.18	29.60	29.09	29.07	29.04			
31		29.48		29.80	29.50		29.54		29.07	29.04			
Mean	29.05	29.49	29.47	29.52	29.75	30.22	29.84	29.18	29.14	29.13	28.95		
Max	29.96	29.64	30.00	30.58	30.65	32.15	30.90	29.50	29.20	29.15	29.03		32.15
Min	28.85	29.36	29.32	29.28	29.30	29.44	29.54	28.97	29.07	29.04	28.84		28.84

Annual Max Momentary Gage Height 32.15 m. (MSL.) , at 06.00 Hours, on Sep 14, 2018

Zero Gage at Bottom Elevation 28.15 m. (MSL.) , River Bed 28.21 m. (MSL.)

Left Bank Elevation 33.38 m. (MSL.) ,

Right Bank Elevation 34.79 m. (MSL.) , Drainage Are 201 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.83	2.85	2.05	1.80	1.75	2.30	19.00	2.50	0.88	0.88	0.58			
2	0.80	3.20	1.75	1.65	1.50	2.25	8.50	2.25	0.88	0.88	0.58			
3	0.75	3.40	1.70	1.75	1.75	2.20	7.50	2.20	0.88	0.88	0.55			
4	0.73	2.95	2.85	1.70	2.15	12.10	6.30	2.20	0.88	0.88	0.55			
5	0.68	2.85	2.30	1.70	4.00	21.25	4.60	2.00	0.88	0.88	0.53			
6	0.63	2.75	2.25	1.50	1.75	5.20	3.70	1.70	0.88	0.88	0.53			
7	0.58	2.70	3.30	2.15	9.50	4.30	7.30	1.50	0.88	0.88	0.50			
8	0.53	2.55	2.40	2.10	4.00	4.00	4.50	1.25	0.88	0.88	0.50			
9	0.48	2.30	1.75	1.50	4.80	3.10	4.30	1.00	0.88	0.85	0.50			
10	0.45	2.40	2.25	14.20	4.80	8.00	4.30	1.00	0.88	0.85	0.50			
11	0.43	3.30	1.85	7.00	3.70	5.70	4.00	0.88	0.88	0.83	0.45			
12	0.38	3.00	5.70	1.70	2.90	6.30	3.50	0.85	0.88	0.85	0.45			
13	0.38	2.60	5.00	1.65	2.35	9.30	3.30	0.75	0.88	0.85	0.43			
14	0.38	2.25	3.30	1.65	2.15	43.75	3.30	0.63	0.88	0.85	0.40			
15	0.30	2.20	1.75	3.70	5.30	32.60	2.75	0.58	0.88	0.85	0.38			
16	0.33	2.15	2.25	2.50	15.25	10.75	10.00	0.53	0.88	0.85	0.38			
17	0.35	2.05	1.85	8.50	11.95	7.50	5.30	0.43	0.88	0.85	0.35			
18	0.35	1.95	1.75	4.70	8.50	7.00	4.60	0.70	0.88	0.85	0.30			
19	0.33	1.80	1.70	3.50	8.30	8.30	4.30	0.88	0.88	0.85	0.30			
20	0.28	1.95	1.65	2.50	5.70	8.50	4.30	0.88	0.88	0.85	0.30			
21	0.28	2.30	1.65	2.90	4.80	8.30	8.30	0.85	0.88	0.85	0.30			
22	0.20	1.80	1.60	2.90	4.50	8.30	5.50	0.85	0.88	0.85	0.25			
23	0.20	2.10	1.85	1.85	5.70	6.50	4.80	0.80	0.88	0.85	0.25			
24	0.18	2.60	1.65	1.75	4.60	6.00	7.40	0.80	1.00	0.85	0.20			
25	0.13	2.20	1.65	1.65	4.30	27.80	5.70	0.78	1.00	0.85	0.13			
26	0.13	1.80	2.00	1.55	4.00	19.15	5.00	0.75	1.00	0.75	0.13			
27	0.18	2.55	7.00	2.40	8.30	6.70	4.50	0.75	0.68	0.73	0.10			
28	4.60	2.05	2.75	1.50	4.30	6.80	4.30	0.75	0.68	0.68	0.10			
29	6.60	2.90	4.50	1.40	2.80	5.60	3.50	0.73	0.68	0.63				
30	3.30	2.25	1.80	4.80	2.70	23.60	3.00	0.73	0.68	0.60				
31		2.40		5.00	2.50		2.70		0.68	0.60				
Total	25.77	76.15	75.85	95.15	150.60	323.15	170.05	32.50	26.64	25.46	10.52		1011.84	CMSDAY
Mean	0.86	2.46	2.53	3.07	4.86	10.77	5.49	1.08	0.86	0.82	0.38		3.03	CMS
Max	6.60	3.40	7.00	14.20	15.25	43.75	19.00	2.50	1.00	0.88	0.58		43.75	CMS
Min	0.13	1.80	1.60	1.40	1.50	2.20	2.70	0.43	0.68	0.60	0.10		0.10	CMS
Runoff	2.23	6.58	6.55	8.22	13.01	27.92	14.69	2.81	2.30	2.20	0.91		87.42	MCM

Momentary Peak 43.75 CMS, at 32.15 m. (MSL.), at 06.00 Hours, on Sep 14, 2018

Runoff Yield 13.79 Liters/Second/Square KM. Momentary Peak Yield 217.66 Liters/Second/Square KM.

WATER YEAR : 2018

EAST COAST - GULF BASIN

Khlong Hin Dat at Ban Pong Rong Sen , Chanthaburi (Z.21)

Lat 12 - 47 - 15 N Long 102 - 15 - 33 E

Location : on left bank at the bridge on highway.

	Ban Pong Rong Sen	**Amphoe** Makham	**Changwat** Chanthaburi
Drainge Area	78 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+21.200 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank about 40 meters from the top staff gage.	**Elevation** +29.932 m. (MSL.)	
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	1983 to date		
Rating Operation			
Period of Rating	1984 to date		
Rated by Flot	-		
Rated by Current Meter	1984 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 40 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

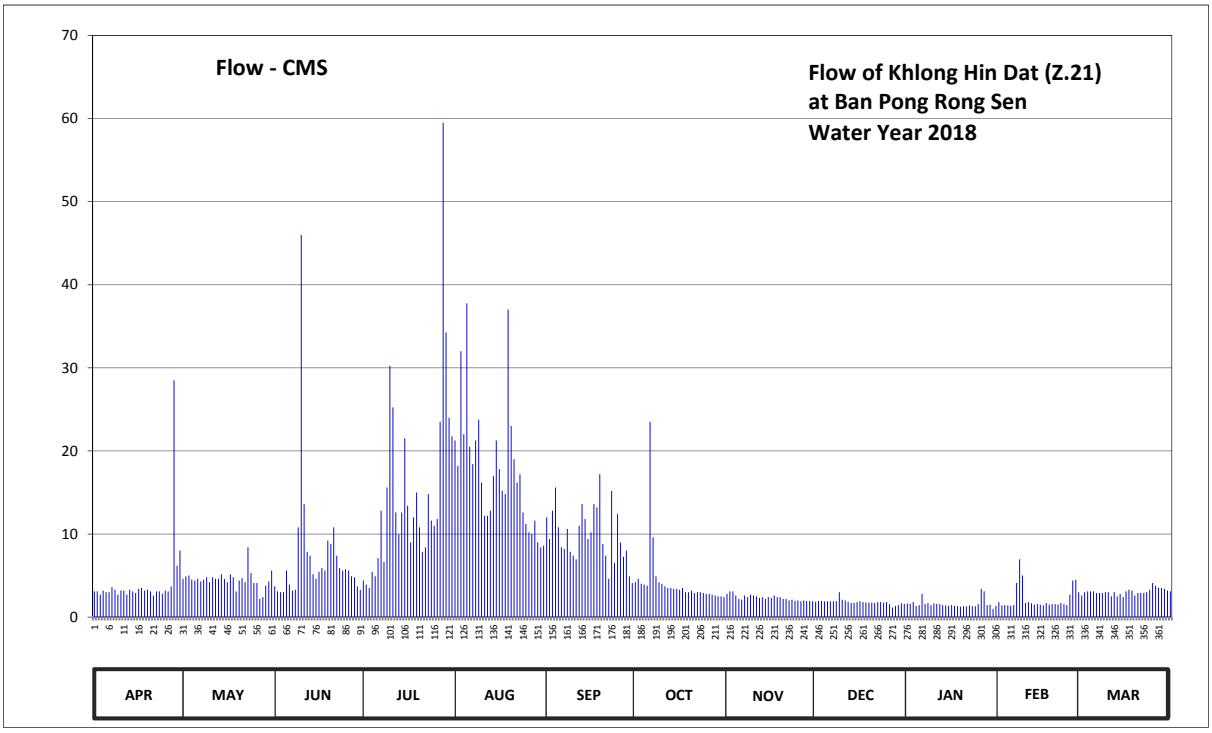
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	22.11	22.26	22.17	22.24	23.15	22.70	22.22	22.08	21.97	21.93	21.96	22.06	
2	22.11	22.29	22.11	22.19	23.01	22.57	22.26	22.11	21.99	21.92	21.88	22.10	
3	22.07	22.30	22.10	22.15	23.58	22.74	22.20	22.11	21.99	21.96	21.89	22.11	
4	22.12	22.25	22.10	22.33	23.18	22.88	22.19	22.06	21.98	21.87	21.88	22.11	
5	22.10	22.24	22.34	22.29	23.81	22.64	22.18	22.02	21.98	21.89	21.87	22.11	
6	22.10	22.26	22.19	22.44	23.12	22.52	23.24	22.01	21.98	22.08	21.89	22.09	
7	22.16	22.23	22.12	22.74	23.02	22.51	22.58	22.06	21.98	21.91	22.21	22.09	
8	22.13	22.25	22.13	22.41	23.15	22.63	22.29	22.04	21.98	21.94	22.43	22.09	
9	22.07	22.28	22.64	22.88	23.25	22.49	22.22	22.07	22.10	21.89	22.30	22.10	
10	22.12	22.22	24.14	23.51	22.91	22.46	22.20	22.06	22.01	21.93	21.94	22.10	
11	22.12	22.28	22.78	23.31	22.71	22.43	22.17	22.05	22.00	21.92	21.96	22.05	
12	22.07	22.26	22.49	22.73	22.71	22.65	22.15	22.03	21.97	21.91	21.93	22.10	
13	22.13	22.26	22.46	22.60	22.74	22.78	22.15	22.04	21.94	21.89	21.90	22.05	
14	22.11	22.31	22.31	22.73	22.95	22.69	22.14	22.02	21.94	21.88	21.91	22.08	
15	22.09	22.26	22.26	23.16	23.15	22.57	22.14	22.04	21.96	21.87	21.90	22.04	
16	22.14	22.22	22.33	22.77	22.99	22.61	22.13	22.03	21.98	21.89	21.88	22.11	
17	22.15	22.31	22.36	22.55	22.86	22.78	22.15	22.06	21.96	21.87	21.94	22.13	
18	22.12	22.28	22.34	22.70	22.84	22.76	22.10	22.04	21.95	21.86	21.90	22.12	
19	22.13	22.11	22.56	22.85	23.78	22.96	22.10	22.04	21.95	21.85	21.91	22.06	
20	22.11	22.24	22.54	22.64	23.22	22.54	22.12	22.02	21.95	21.86	21.91	22.09	
21	22.06	22.27	22.64	22.49	23.05	22.46	22.09	22.02	21.94	21.86	21.90	22.09	
22	22.11	22.22	22.46	22.52	22.91	22.26	22.10	22.00	21.96	21.88	21.94	22.09	
23	22.11	22.52	22.36	22.84	22.96	22.86	22.10	22.01	21.96	21.86	21.91	22.10	
24	22.08	22.32	22.34	22.68	22.73	22.40	22.09	21.99	21.95	21.86	21.89	22.13	
25	22.12	22.21	22.35	22.65	22.66	22.72	22.08	22.00	21.96	21.91	22.07	22.21	
26	22.11	22.21	22.34	22.69	22.61	22.55	22.08	21.98	21.91	22.14	22.24	22.18	
27	22.17	22.02	22.29	23.24	22.60	22.45	22.07	22.00	21.83	22.11	22.25	22.15	
28	23.44	22.04	22.28	24.68	22.68	22.50	22.06	21.99	21.87	21.89	22.10	22.15	
29	22.38	22.18	22.17	23.67	22.55	22.29	22.05	21.99	21.89	21.90		22.14	
30	22.50	22.23	22.13	23.26	22.52	22.21	22.05	21.98	21.93	21.80		22.12	
31		22.34		23.17	22.53		22.04		21.92	21.87		22.11	
Mean	22.18	22.25	22.39	22.81	22.97	22.59	22.19	22.03	21.96	21.91	21.99	22.11	
Max	23.44	22.52	24.14	24.68	23.81	22.96	23.24	22.11	22.10	22.14	22.43	22.21	24.68
Min	22.06	22.02	22.10	22.15	22.52	22.21	22.04	21.98	21.83	21.80	21.87	22.04	21.80

Annual Max Momentary Gage Height 27.00 m. (MSL.) , at 06.00 Hours, on Jul 28, 2018

Zero Gage at Bottom Elevation 21.20 m. (MSL.) , River Bed 21.00 m. (MSL.)

Left Bank Elevation 28.70 m. (MSL.) ,

Right Bank Elevation 28.65 m. (MSL.) , Drainage Are 78 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	3.10	4.60	3.70	4.40	21.25	12.00	4.20	2.80	1.85	1.65	1.80	2.60		
2	3.10	4.90	3.10	3.90	18.20	9.40	4.60	3.10	1.95	1.60	1.40	3.00		
3	2.70	5.00	3.00	3.50	32.00	12.80	4.00	3.10	1.95	1.80	1.45	3.10		
4	3.20	4.50	3.00	5.45	22.00	15.60	3.90	2.60	1.90	1.35	1.40	3.10		
5	3.00	4.40	5.60	4.90	37.75	10.80	3.80	2.20	1.90	1.45	1.35	3.10		
6	3.00	4.60	3.90	7.10	20.50	8.40	23.50	2.10	1.90	2.80	1.45	2.90		
7	3.60	4.30	3.20	12.80	18.40	8.20	9.60	2.60	1.90	1.55	4.10	2.90		
8	3.30	4.50	3.30	6.65	21.25	10.60	4.90	2.40	1.90	1.70	6.95	2.90		
9	2.70	4.80	10.80	15.60	23.75	7.85	4.20	2.70	3.00	1.45	5.00	3.00		
10	3.20	4.20	46.00	30.25	16.20	7.40	4.00	2.60	2.10	1.65	1.70	3.00		
11	3.20	4.80	13.60	25.25	12.20	6.95	3.70	2.50	2.00	1.60	1.80	2.50		
12	2.70	4.60	7.85	12.60	12.20	11.00	3.50	2.30	1.85	1.55	1.65	3.00		
13	3.30	4.60	7.40	10.00	12.80	13.60	3.50	2.40	1.70	1.45	1.50	2.50		
14	3.10	5.15	5.15	12.60	17.00	11.80	3.40	2.20	1.70	1.40	1.55	2.80		
15	2.90	4.60	4.60	21.50	21.25	9.40	3.40	2.40	1.80	1.35	1.50	2.40		
16	3.40	4.20	5.45	13.40	17.80	10.20	3.30	2.30	1.90	1.45	1.40	3.10		
17	3.50	5.15	5.90	9.00	15.20	13.60	3.50	2.60	1.80	1.35	1.70	3.30		
18	3.20	4.80	5.60	12.00	14.80	13.20	3.00	2.40	1.75	1.30	1.50	3.20		
19	3.30	3.10	9.20	15.00	37.00	17.20	3.00	2.40	1.75	1.25	1.55	2.60		
20	3.10	4.40	8.80	10.80	23.00	8.80	3.20	2.20	1.75	1.30	1.55	2.90		
21	2.60	4.70	10.80	7.85	19.00	7.40	2.90	2.20	1.70	1.30	1.50	2.90		
22	3.10	4.20	7.40	8.40	16.20	4.60	3.00	2.00	1.80	1.40	1.70	2.90		
23	3.10	8.40	5.90	14.80	17.20	15.20	3.00	2.10	1.80	1.30	1.55	3.00		
24	2.80	5.30	5.60	11.60	12.60	6.50	2.90	1.95	1.75	1.30	1.45	3.30		
25	3.20	4.10	5.75	11.00	11.20	12.40	2.80	2.00	1.80	1.55	2.70	4.10		
26	3.10	4.10	5.60	11.80	10.20	9.00	2.80	1.90	1.55	3.40	4.40	3.80		
27	3.70	2.20	4.90	23.50	10.00	7.25	2.70	2.00	1.15	3.10	4.50	3.50		
28	28.50	2.40	4.80	59.50	11.60	8.00	2.60	1.95	1.35	1.45	3.00	3.50		
29	6.20	3.80	3.70	34.25	9.00	4.90	2.50	1.95	1.45	1.50		3.40		
30	8.00	4.30	3.30	24.00	8.40	4.10	2.50	1.90	1.65	1.00		3.20		
31		5.60		21.75	8.60		2.40		1.60	1.35		3.10		
Total	126.90	140.30	216.90	465.15	548.55	298.15	130.30	69.85	55.95	49.65	63.10	94.60	2259.40	CMSDAY
Mean	4.23	4.53	7.23	15.00	17.70	9.94	4.20	2.33	1.80	1.60	2.25	3.05	6.19	CMS
Max	28.50	8.40	46.00	59.50	37.75	17.20	23.50	3.10	3.00	3.40	6.95	4.10	59.50	CMS
Min	2.60	2.20	3.00	3.50	8.40	4.10	2.40	1.90	1.15	1.00	1.35	2.40	1.00	CMS
Runoff	10.96	12.12	18.74	40.19	47.39	25.76	11.26	6.04	4.83	4.29	5.45	8.17	195.21	MCM

Momentary Peak 127.00 CMS, at 27.00 m. (MSL.), at 06.00 Hours, on Jul 28, 2018

Runoff Yield 79.36 Liters/Second/Square KM. Momentary Peak Yield 1628.21 Liters/Second/Square KM.

WATER YEAR : 2018

EAST COAST - GULF BASIN

Upper Khlong Tanot at Ban Khun Song , Chanthaburi (Z.28)

Lat 13 - 04 - 31 N Long 101 - 56 - 55 E

Location : on right bank near Wat Khun Song.

Ban Khun Song **Amphoe** Kaeng Hang Maeo **Changwat** Chanthaburi

Drainge Area	280 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+32.600 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On right bank about 10 meters from the top staff gage. **Elevation** +40.318 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	1986 to date
Rating Operation	
Period of Rating	1986 to date
Rated by Flot	-
Rated by Current Meter	1986 to date
Stability of Channel Regimes	Fairly stable because of backwater effect.
Overbank Flow Conditions	Overbank flow starts at elevation + 38.970 m.(MSL.), records are channel flow only.
General Description	Records fair. Stage-discharge relation defined by 29 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

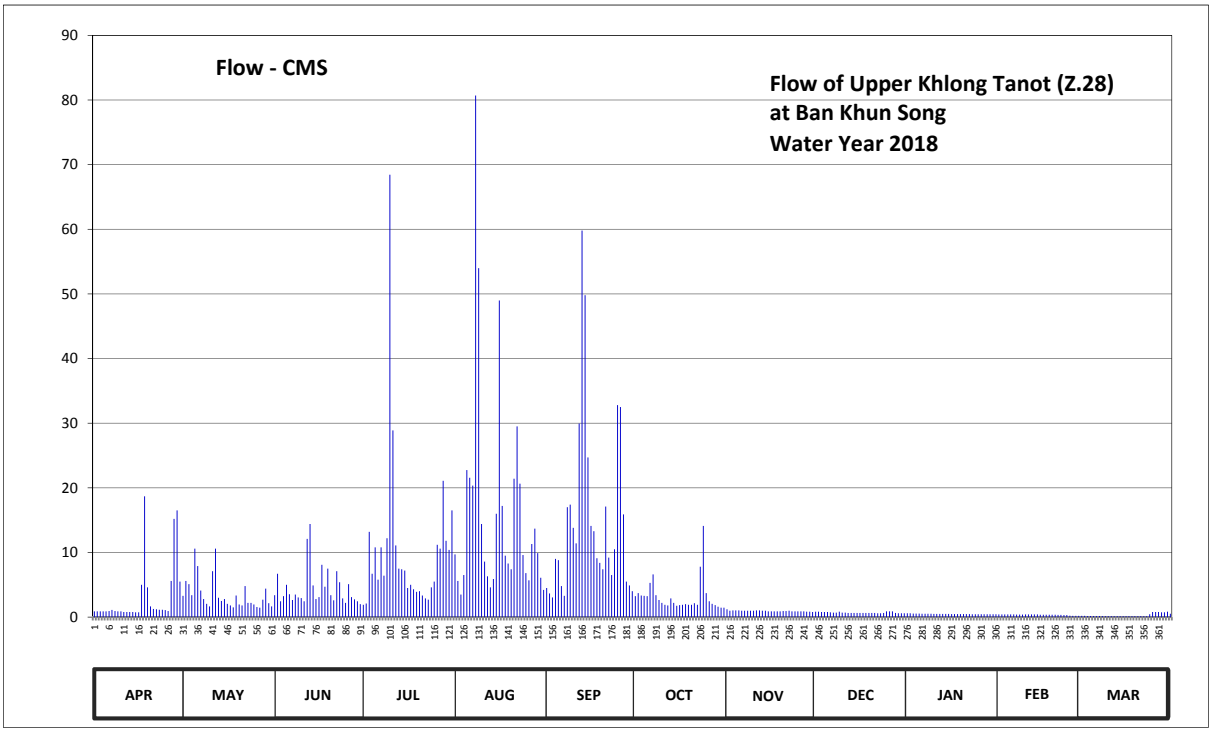
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	33.48	34.02	34.04	33.74	34.70	34.18	34.01	33.60	33.46	33.35	33.28	33.13	
2	33.47	34.29	34.40	33.78	34.29	34.09	34.10	33.51	33.45	33.35	33.28	33.13	
3	33.47	34.24	33.85	35.05	34.06	33.97	34.03	33.54	33.44	33.34	33.28	33.12	
4	33.47	34.04	34.01	34.40	34.38	34.63	34.02	33.54	33.43	33.34	33.27	33.12	
5	33.47	34.79	34.23	34.81	35.87	34.61	34.01	33.53	33.43	33.34	33.27	33.12	
6	33.50	34.52	34.07	34.31	35.79	34.21	34.26	33.52	33.42	33.33	33.27	33.11	
7	33.56	34.14	33.89	34.81	35.71	34.02	34.39	33.52	33.40	33.33	33.26	33.11	
8	33.50	33.92	34.06	34.37	38.88	35.43	34.04	33.52	33.39	33.33	33.26	33.11	
9	33.47	33.77	33.97	34.95	37.74	35.47	33.89	33.52	33.46	33.33	33.26	33.10	
10	33.47	33.69	33.95	38.39	35.17	35.11	33.80	33.52	33.40	33.32	33.27	33.10	
11	33.44	34.44	33.85	36.28	34.59	34.87	33.74	33.54	33.39	33.32	33.27	33.10	
12	33.43	34.79	34.94	34.84	34.36	36.35	33.72	33.53	33.38	33.32	33.27	33.10	
13	33.44	33.96	35.17	34.48	34.19	38.03	33.94	33.51	33.38	33.32	33.27	33.10	
14	33.43	33.86	34.22	34.47	34.32	37.53	33.80	33.52	33.38	33.32	33.27	33.10	
15	33.42	33.92	33.92	34.45	35.33	36.00	33.71	33.48	33.38	33.32	33.25	33.10	
16	33.41	33.77	33.98	34.18	37.49	35.14	33.73	33.48	33.38	33.31	33.24	33.10	
17	34.23	33.72	34.54	34.23	35.45	35.06	33.74	33.48	33.38	33.31	33.24	33.10	
18	35.60	33.66	34.20	34.16	34.68	34.64	33.76	33.48	33.37	33.31	33.24	33.10	
19	34.19	34.03	34.48	34.12	34.56	34.57	33.74	33.48	33.37	33.31	33.24	33.10	
20	33.69	33.75	34.04	34.13	34.47	34.47	33.74	33.50	33.37	33.31	33.24	33.10	
21	33.61	33.72	33.88	34.03	35.78	35.44	33.79	33.50	33.37	33.31	33.23	33.10	
22	33.60	34.21	34.44	33.94	36.32	34.65	33.74	33.52	33.36	33.31	33.23	33.10	
23	33.57	33.80	34.27	33.90	35.73	34.38	34.51	33.48	33.36	33.30	33.22	33.10	
24	33.57	33.80	33.94	34.19	34.69	34.78	35.14	33.48	33.38	33.30	33.21	33.30	
25	33.55	33.75	33.80	34.28	34.41	36.54	34.10	33.47	33.47	33.30	33.14	33.44	
26	33.49	33.67	34.24	34.85	34.30	36.52	33.85	33.47	33.47	33.30	33.13	33.44	
27	34.29	33.65	33.98	34.79	34.86	35.32	33.77	33.47	33.47	33.29	33.13	33.43	
28	35.25	33.90	33.91	35.76	35.10	34.28	33.73	33.46	33.37	33.29	33.13	33.41	
29	35.38	34.17	33.85	34.91	34.72	34.22	33.68	33.46	33.36	33.29		33.41	
30	34.28	33.79	33.76	34.77	34.34	34.13	33.65	33.44	33.36	33.29		33.46	
31		33.69		35.38	34.15		33.65		33.36	33.29		33.33	
Mean	33.79	33.98	34.13	34.67	35.18	35.09	33.93	33.50	33.40	33.32	33.24	33.18	
Max	35.60	34.79	35.17	38.39	38.88	38.03	35.14	33.60	33.47	33.35	33.28	33.46	38.88
Min	33.41	33.65	33.76	33.74	34.06	33.97	33.65	33.44	33.36	33.29	33.13	33.10	33.10

Annual Max Momentary Gage Height 39.37 m. (MSL.) , at 17.00 Hours, on Aug 8, 2018

Zero Gage at Bottom Elevation 32.60 m. (MSL.) , River Bed 33.16 m. (MSL.)

Left Bank Elevation 38.96 m. (MSL.) ,

Right Bank Elevation 39.21 m. (MSL.) , Drainage Are 280 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.90	3.30	3.40	1.90	9.70	4.50	3.25	1.20	0.85	0.58	0.42	0.20		
2	0.88	5.60	6.70	2.10	5.60	3.65	3.70	0.98	0.83	0.58	0.42	0.20		
3	0.88	5.10	2.45	13.20	3.50	3.05	3.35	1.05	0.80	0.55	0.42	0.18		
4	0.88	3.40	3.25	6.70	6.50	9.00	3.30	1.05	0.78	0.55	0.41	0.18		
5	0.88	10.60	5.00	10.80	22.75	8.80	3.25	1.03	0.78	0.55	0.41	0.18		
6	0.95	7.90	3.55	5.80	21.55	4.80	5.30	1.00	0.75	0.53	0.41	0.17		
7	1.10	4.10	2.65	10.80	20.35	3.30	6.60	1.00	0.70	0.53	0.39	0.17		
8	0.95	2.80	3.50	6.40	80.70	17.00	3.40	1.00	0.68	0.53	0.39	0.17		
9	0.88	2.05	3.05	12.20	54.00	17.40	2.65	1.00	0.85	0.53	0.39	0.15		
10	0.88	1.65	2.95	68.45	14.40	13.80	2.20	1.00	0.70	0.50	0.41	0.15		
11	0.80	7.10	2.45	28.90	8.60	11.40	1.90	1.05	0.68	0.50	0.41	0.15		
12	0.78	10.60	12.10	11.10	6.30	29.95	1.80	1.03	0.65	0.50	0.41	0.15		
13	0.80	3.00	14.40	7.50	4.60	59.80	2.90	0.98	0.65	0.50	0.41	0.15		
14	0.78	2.50	4.90	7.40	5.90	49.80	2.20	1.00	0.65	0.50	0.41	0.15		
15	0.75	2.80	2.80	7.20	16.00	24.70	1.75	0.90	0.65	0.50	0.38	0.15		
16	0.73	2.05	3.10	4.50	49.00	14.10	1.85	0.90	0.65	0.48	0.36	0.15		
17	5.00	1.80	8.10	5.00	17.20	13.30	1.90	0.90	0.65	0.48	0.36	0.15		
18	18.70	1.50	4.70	4.30	9.50	9.10	2.00	0.90	0.63	0.48	0.36	0.15		
19	4.60	3.35	7.50	3.90	8.30	8.40	1.90	0.90	0.63	0.48	0.36	0.15		
20	1.65	1.95	3.40	4.00	7.40	7.40	1.90	0.95	0.63	0.48	0.36	0.15		
21	1.25	1.80	2.60	3.35	21.40	17.10	2.15	0.95	0.63	0.48	0.35	0.15		
22	1.20	4.80	7.10	2.90	29.50	9.20	1.90	1.00	0.60	0.48	0.35	0.15		
23	1.13	2.20	5.40	2.70	20.65	6.50	7.80	0.90	0.60	0.45	0.33	0.15		
24	1.13	2.20	2.90	4.60	9.60	10.50	14.10	0.90	0.65	0.45	0.32	0.45		
25	1.08	1.95	2.20	5.50	6.80	32.80	3.70	0.88	0.88	0.45	0.21	0.80		
26	0.93	1.55	5.10	11.20	5.70	32.50	2.45	0.88	0.88	0.45	0.20	0.80		
27	5.60	1.45	3.10	10.60	11.30	15.90	2.05	0.88	0.88	0.44	0.20	0.78		
28	15.20	2.70	2.75	21.10	13.70	5.50	1.85	0.85	0.63	0.44	0.20	0.73		
29	16.50	4.40	2.45	11.80	9.90	4.90	1.60	0.85	0.60	0.44		0.73		
30	5.50	2.15	2.00	10.40	6.10	4.00	1.45	0.80	0.60	0.44		0.85		
31		1.65		16.50	4.20		1.45		0.60	0.44		0.53		
Total	93.29	110.00	135.55	322.80	510.70	452.15	97.60	28.71	21.74	15.29	10.05	9.37	1807.25	CMSDAY
Mean	3.11	3.55	4.52	10.41	16.47	15.07	3.15	0.96	0.70	0.49	0.36	0.30	4.95	CMS
Max	18.70	10.60	14.40	68.45	80.70	59.80	14.10	1.20	0.88	0.58	0.42	0.85	80.70	CMS
Min	0.73	1.45	2.00	1.90	3.50	3.05	1.45	0.80	0.60	0.44	0.20	0.15	0.15	CMS
Runoff	8.06	9.50	11.71	27.89	44.12	39.07	8.43	2.48	1.88	1.32	0.87	0.81	156.15	MCM

Momentary Peak 93.80 CMS, at 39.37 m. (MSL.), at 17.00 Hours, on Aug 8, 2018

Runoff Yield 17.68 Liters/Second/Square KM. Momentary Peak Yield 335.00 Liters/Second/Square KM.

WATER YEAR : 2018

EAST COAST - GULF BASIN

Khlong Sato at Ban Nong Bua , Trat (Z.30)

Lat 12 - 32 - 22 N Long 102 - 26 - 58 E

Location : on right bank at Ban Nong Bua.

	Ban Nong Bua	**Amphoe** Khao Saming	**Changwat** Trat
Drainge Area	316 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+9.200 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank next tall pole for eletric cable near dwelling.	**Elevation**	+20.777 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	1987 to date		
Rating Operation			
Period of Rating	1999 to date		
Rated by Flot	-		
Rated by Current Meter	1999 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 27 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

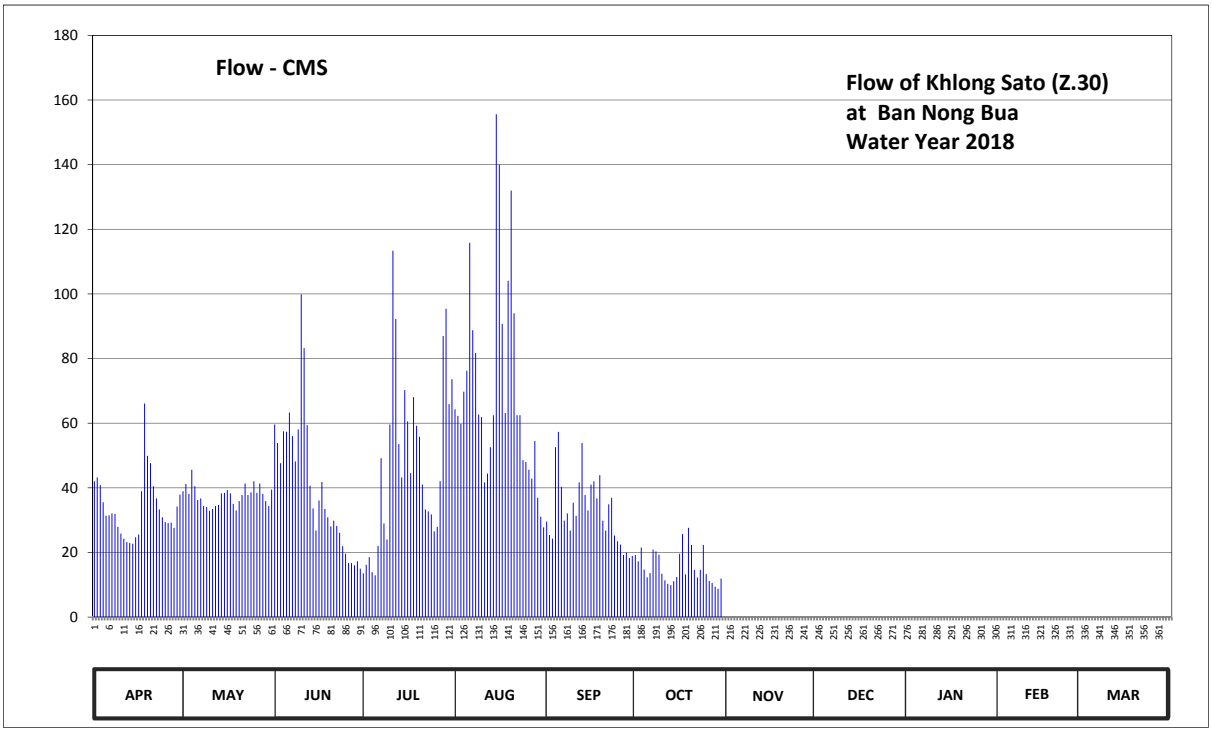
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	14.16	13.98	15.11	12.14	15.35	13.39	12.63	13.62	12.84	12.53	11.98	11.42	
2	14.23	14.11	14.81	12.39	15.25	13.10	12.48	13.58	12.83	12.51	11.94	11.37	
3	14.09	13.93	14.48	12.58	15.12	13.02	12.81	13.51	12.83	12.48	11.91	11.33	
4	13.78	14.37	15.00	12.18	15.62	14.74	12.26	13.43	12.83	12.47	11.89	11.29	
5	13.51	14.07	14.99	12.08	15.89	14.99	12.02	13.35	12.80	12.46	11.91	11.24	
6	13.52	13.82	15.30	12.85	17.36	14.06	12.15	13.36	12.70	12.44	11.91	11.15	
7	13.56	13.85	14.92	14.56	16.39	13.41	12.76	13.33	12.55	12.45	11.98	11.06	
8	13.55	13.71	14.51	13.35	16.11	13.56	12.72	13.31	12.53	12.46	12.29	11.03	
9	13.28	13.69	15.03	13.00	15.27	13.20	12.64	13.27	12.56	12.44	12.22	11.07	
10	13.13	13.61	16.81	15.11	15.23	13.77	12.13	13.26	12.77	12.43	12.17	11.13	
11	13.02	13.65	16.17	17.28	14.14	13.51	11.92	13.25	12.84	12.43	12.12	11.25	
12	12.94	13.71	15.10	16.53	14.30	14.14	11.80	13.22	12.84	12.43	12.07	11.27	
13	12.92	13.73	14.08	14.79	14.74	14.81	11.75	13.14	12.82	12.41	11.93	11.32	
14	12.90	13.94	13.66	14.23	15.26	13.91	11.89	13.04	12.78	12.38	11.88	11.37	
15	13.05	13.95	13.20	15.64	18.63	13.62	12.03	13.17	12.75	12.35	11.86	11.36	
16	13.11	14.00	13.81	15.16	18.15	14.10	12.66	13.25	12.73	12.33	11.83	11.33	
17	13.98	13.94	14.15	14.31	16.47	14.16	13.12	13.28	12.69	12.29	11.80	11.26	
18	15.44	13.75	13.65	15.54	15.29	13.85	12.11	13.32	12.68	12.29	11.77	11.19	
19	14.60	13.62	13.48	15.09	16.96	14.27	13.26	13.44	12.67	12.28	11.75	11.22	
20	14.48	13.80	13.29	14.91	17.90	13.41	12.87	13.49	12.65	12.25	11.71	11.13	
21	14.07	13.91	13.41	14.10	16.60	13.20	12.25	13.38	12.64	12.23	11.67	11.03	
22	13.85	14.12	13.30	13.64	15.26	13.74	12.02	13.25	12.63	12.20	11.63	10.96	
23	13.64	13.91	13.15	13.60	15.26	13.86	12.25	13.15	12.63	12.17	11.59	10.99	
24	13.48	13.96	12.84	13.54	14.53	13.09	12.87	13.10	12.60	12.18	11.54	11.06	
25	13.38	14.16	12.66	13.18	14.50	12.96	12.12	13.09	12.58	12.21	11.50	11.19	
26	13.36	13.95	12.44	13.28	14.37	12.88	11.90	13.07	12.55	12.22	11.51	11.26	
27	13.37	14.12	12.43	14.16	14.21	12.63	11.83	12.98	12.54	12.20	11.51	11.52	
28	13.26	13.93	12.38	16.32	14.84	12.69	11.69	12.88	12.54	12.16	11.46	12.10	
29	13.70	13.80	12.48	16.65	13.86	12.56	11.61	12.85	12.56	12.11		12.61	
30	13.92	13.71	12.29	15.43	13.49	12.61	11.98	12.84	12.54	12.06		12.72	
31		14.01		15.78	13.27		13.39		12.52	12.01		12.79	
Mean	13.64	13.90	13.96	14.30	15.47	13.57	12.32	13.24	12.68	12.32	11.83	11.39	
Max	15.44	14.37	16.81	17.28	18.63	14.99	13.39	13.62	12.84	12.53	12.29	12.79	18.63
Min	12.90	13.61	12.29	12.08	13.27	12.56	11.61	12.84	12.52	12.01	11.46	10.96	10.96

Annual Max Momentary Gage Height 18.95 m. (MSL.) , at 15.00 Hours, on Aug 15, 2018

Zero Gage at Bottom Elevation 9.20 m. (MSL.) , River Bed 9.02 m. (MSL.)

Left Bank Elevation 19.44 m. (MSL.) ,

Right Bank Elevation 19.52 m. (MSL.) , Drainage Are 316 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	42.02	38.96	59.59	13.50	64.30	29.55	19.19	0.00	0.00	0.00	0.00	0.00		
2	43.21	41.17	53.89	16.18	62.30	25.40	17.26	0.00	0.00	0.00	0.00	0.00		
3	40.83	38.11	47.62	18.54	59.78	24.28	21.53	0.00	0.00	0.00	0.00	0.00		
4	35.56	45.59	57.50	13.90	69.78	52.56	14.70	0.00	0.00	0.00	0.00	0.00		
5	31.35	40.49	57.31	12.90	76.26	57.31	12.30	0.00	0.00	0.00	0.00	0.00		
6	31.50	36.24	63.30	22.05	115.80	40.32	13.60	0.00	0.00	0.00	0.00	0.00		
7	32.10	36.75	55.98	49.14	88.75	29.85	20.88	0.00	0.00	0.00	0.00	0.00		
8	31.95	34.37	48.19	28.95	81.75	32.10	20.36	0.00	0.00	0.00	0.00	0.00		
9	27.92	34.05	58.07	24.00	62.70	26.80	19.32	0.00	0.00	0.00	0.00	0.00		
10	25.82	32.85	99.88	59.59	61.90	35.39	13.40	0.00	0.00	0.00	0.00	0.00		
11	24.28	33.45	83.25	113.40	41.68	31.35	11.38	0.00	0.00	0.00	0.00	0.00		
12	23.22	34.37	59.40	92.25	44.40	41.68	10.30	0.00	0.00	0.00	0.00	0.00		
13	22.96	34.71	40.66	53.51	52.56	53.89	9.90	0.00	0.00	0.00	0.00	0.00		
14	22.70	38.28	33.60	43.21	62.50	37.77	11.11	0.00	0.00	0.00	0.00	0.00		
15	24.70	38.45	26.80	70.26	155.62	33.00	12.40	0.00	0.00	0.00	0.00	0.00		
16	25.54	39.30	36.07	60.54	140.00	41.00	19.58	0.00	0.00	0.00	0.00	0.00		
17	38.96	38.28	41.85	44.57	90.75	42.02	25.68	0.00	0.00	0.00	0.00	0.00		
18	66.10	35.05	33.45	68.10	63.10	36.75	13.20	0.00	0.00	0.00	0.00	0.00		
19	49.90	33.00	30.90	59.21	104.08	43.89	27.64	0.00	0.00	0.00	0.00	0.00		
20	47.62	35.90	28.06	55.79	132.00	29.85	22.31	0.00	0.00	0.00	0.00	0.00		
21	40.49	37.77	29.85	41.00	94.00	26.80	14.60	0.00	0.00	0.00	0.00	0.00		
22	36.75	41.34	28.20	33.30	62.50	34.88	12.30	0.00	0.00	0.00	0.00	0.00		
23	33.30	37.77	26.10	32.70	62.50	36.92	14.60	0.00	0.00	0.00	0.00	0.00		
24	30.90	38.62	21.92	31.80	48.57	25.26	22.31	0.00	0.00	0.00	0.00	0.00		
25	29.40	42.02	19.58	26.52	48.00	23.48	13.30	0.00	0.00	0.00	0.00	0.00		
26	29.10	38.45	16.78	27.92	45.59	22.44	11.20	0.00	0.00	0.00	0.00	0.00		
27	29.25	41.34	16.66	42.02	42.87	19.19	10.57	0.00	0.00	0.00	0.00	0.00		
28	27.64	38.11	16.06	87.00	54.46	19.97	9.42	0.00	0.00	0.00	0.00	0.00		
29	34.20	35.90	17.26	95.40	36.92	18.28	8.78	0.00	0.00	0.00		0.00		
30	37.94	34.37	15.00	65.90	31.05	18.93	11.92	0.00	0.00	0.00		0.00		
31		39.47		73.62	27.78		0.00		0.00	0.00		0.00		
Total	1017.21	1164.53	1222.78	1476.77	2184.25	990.91	465.04	0.00	0.00	0.00	0.00	0.00	8521.49	CMSDAY
Mean	33.91	37.57	40.76	47.64	70.46	33.03	15.00	0.00	0.00	0.00	0.00	0.00	23.35	CMS
Max	66.10	45.59	99.88	113.40	155.62	57.31	27.64	0.00	0.00	0.00	0.00	0.00	155.62	CMS
Min	22.70	32.85	15.00	12.90	27.78	18.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	87.89	100.62	105.65	127.59	188.72	85.61	40.18	0.00	0.00	0.00	0.00	0.00	736.26	MCM

Momentary Peak 166.50 CMS, at 18.95 m. (MSL.), at 15.00 Hours, on Aug 15, 2018

Runoff Yield 73.88 Liters/Second/Square KM. Momentary Peak Yield 526.90 Liters/Second/Square KM.

WATER YEAR : 2018

EAST COAST - GULF BASIN

Khlong Thapma at Ban Khao Bot , Rayong (Z.38)

Lat 12 - 44 - 09 N Long 101 - 13 - 54 E

Location : on left bank at Ban Khao Bot.

Ban Khao Bot **Amphoe** Mueang **Changwat** Rayong

Drainge Area	150 sq.km.
Type of Gage	Water - stage recorder.
Zero Gage at Bottom	+8.100 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank next tall pole for eletric cable near dwelling. **Elevation** +13.100 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings
Period of Available Gage Records	2008 to date
Rating Operation	
Period of Rating	2008 to date
Rated by Flot	-
Rated by Current Meter	2008 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Stage-discharge relation defined by 16 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

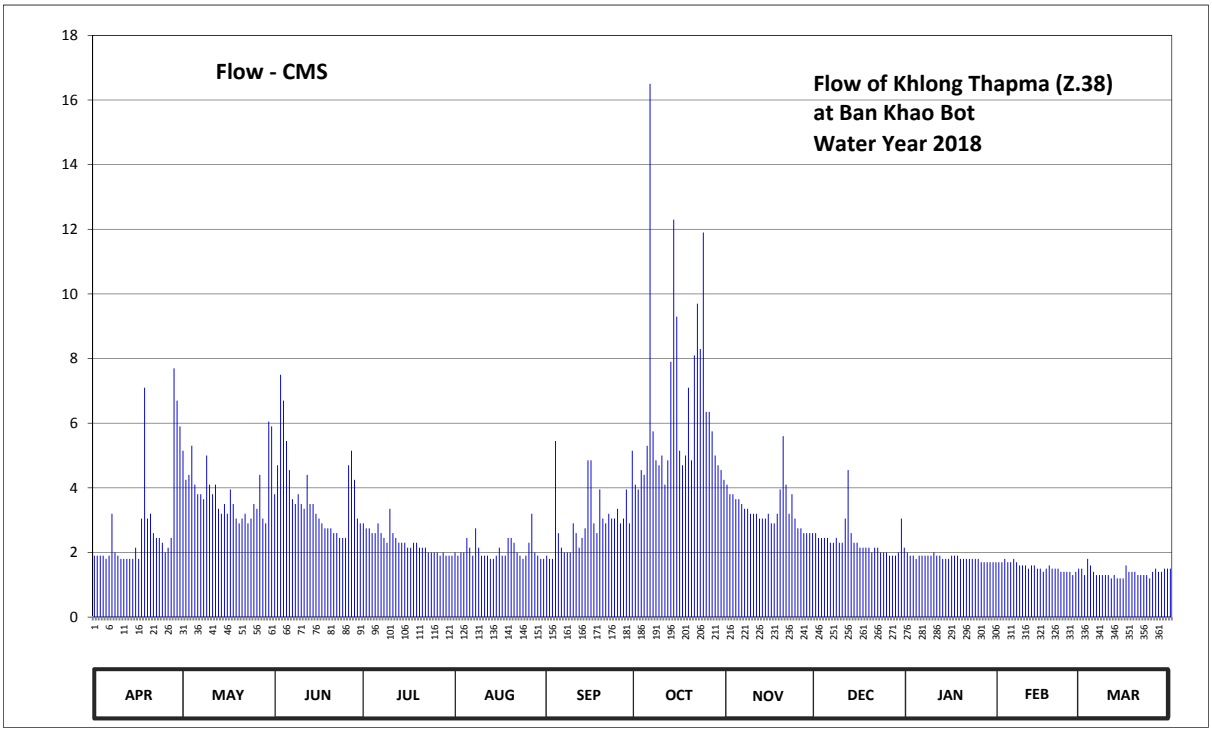
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	8.79	9.01	8.92	8.86	8.80	8.79	8.94	8.94	8.84	8.80	8.77	8.75	
2	8.79	8.95	8.98	8.85	8.79	8.78	8.93	8.92	8.83	8.79	8.77	8.73	
3	8.79	8.96	9.15	8.85	8.80	8.78	8.97	8.92	8.83	8.79	8.78	8.78	
4	8.79	9.02	9.11	8.84	8.80	9.03	8.96	8.91	8.83	8.78	8.77	8.76	
5	8.78	8.94	9.03	8.84	8.83	8.84	9.02	8.91	8.83	8.79	8.77	8.74	
6	8.79	8.92	8.97	8.86	8.81	8.81	9.56	8.90	8.82	8.79	8.78	8.73	
7	8.88	8.92	8.91	8.84	8.79	8.80	9.05	8.89	8.82	8.79	8.77	8.73	
8	8.80	8.91	8.90	8.83	8.85	8.80	8.99	8.89	8.83	8.79	8.76	8.73	
9	8.79	9.00	8.92	8.82	8.81	8.80	8.98	8.88	8.82	8.79	8.76	8.73	
10	8.78	8.94	8.90	8.89	8.79	8.86	9.00	8.88	8.82	8.80	8.76	8.73	
11	8.78	8.92	8.89	8.84	8.79	8.84	8.94	8.88	8.87	8.79	8.75	8.72	
12	8.78	8.94	8.96	8.83	8.79	8.81	8.99	8.87	8.97	8.79	8.76	8.73	
13	8.78	8.89	8.90	8.82	8.78	8.83	9.17	8.87	8.84	8.78	8.76	8.72	
14	8.78	8.88	8.90	8.82	8.78	8.85	9.39	8.87	8.82	8.78	8.75	8.72	
15	8.81	8.90	8.88	8.82	8.79	8.99	9.24	8.88	8.82	8.78	8.75	8.72	
16	8.78	8.88	8.87	8.81	8.81	8.99	9.01	8.86	8.81	8.79	8.74	8.76	
17	8.87	8.93	8.86	8.81	8.79	8.86	8.98	8.86	8.81	8.79	8.75	8.74	
18	9.13	8.90	8.85	8.82	8.79	8.84	9.00	8.88	8.81	8.79	8.76	8.74	
19	8.87	8.87	8.85	8.82	8.83	8.93	9.13	8.93	8.81	8.78	8.75	8.74	
20	8.88	8.86	8.85	8.81	8.83	8.87	8.99	9.04	8.80	8.78	8.75	8.73	
21	8.84	8.87	8.84	8.81	8.82	8.86	9.18	8.94	8.81	8.78	8.75	8.73	
22	8.83	8.88	8.84	8.81	8.80	8.88	9.26	8.88	8.81	8.78	8.74	8.73	
23	8.83	8.86	8.83	8.80	8.79	8.87	9.19	8.92	8.80	8.78	8.74	8.73	
24	8.82	8.87	8.83	8.80	8.78	8.87	9.37	8.87	8.80	8.78	8.74	8.72	
25	8.80	8.90	8.83	8.80	8.79	8.89	9.09	8.85	8.80	8.78	8.74	8.74	
26	8.81	8.89	8.98	8.80	8.82	8.86	9.09	8.85	8.79	8.77	8.73	8.75	
27	8.83	8.96	9.01	8.79	8.88	8.87	9.05	8.84	8.79	8.77	8.74	8.74	
28	9.16	8.87	8.95	8.80	8.80	8.93	9.00	8.84	8.79	8.77	8.75	8.74	
29	9.11	8.86	8.87	8.79	8.79	8.86	8.98	8.84	8.80	8.77		8.75	
30	9.06	9.07	8.86	8.79	8.78	9.01	8.97	8.84	8.87	8.77		8.75	
31		9.06		8.79	8.78		8.95		8.81	8.77		8.75	
Mean	8.85	8.92	8.91	8.82	8.80	8.87	9.08	8.89	8.82	8.78	8.76	8.74	
Max	9.16	9.07	9.15	8.89	8.88	9.03	9.56	9.04	8.97	8.80	8.78	8.78	9.56
Min	8.78	8.86	8.83	8.79	8.78	8.78	8.93	8.84	8.79	8.77	8.73	8.72	8.72

Annual Max Momentary Gage Height 9.96 m. (MSL.) , at 06.00 Hours, on Oct 6, 2018

Zero Gage at Bottom Elevation 8.10 m. (MSL.) , River Bed 7.50 m. (MSL.)

Left Bank Elevation 10.87 m. (MSL.) ,

Right Bank Elevation 10.74 m. (MSL.) , Drainage Are 150 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.90	5.15	3.80	2.90	2.00	1.90	4.10	4.10	2.60	2.00	1.70	1.50		
2	1.90	4.25	4.70	2.75	1.90	1.80	3.95	3.80	2.45	1.90	1.70	1.30		
3	1.90	4.40	7.50	2.75	2.00	1.80	4.55	3.80	2.45	1.90	1.80	1.80		
4	1.90	5.30	6.70	2.60	2.00	5.45	4.40	3.65	2.45	1.80	1.70	1.60		
5	1.80	4.10	5.45	2.60	2.45	2.60	5.30	3.65	2.45	1.90	1.70	1.40		
6	1.90	3.80	4.55	2.90	2.15	2.15	16.50	3.50	2.30	1.90	1.80	1.30		
7	3.20	3.80	3.65	2.60	1.90	2.00	5.75	3.35	2.30	1.90	1.70	1.30		
8	2.00	3.65	3.50	2.45	2.75	2.00	4.85	3.35	2.45	1.90	1.60	1.30		
9	1.90	5.00	3.80	2.30	2.15	2.00	4.70	3.20	2.30	1.90	1.60	1.30		
10	1.80	4.10	3.50	3.35	1.90	2.90	5.00	3.20	2.30	2.00	1.60	1.30		
11	1.80	3.80	3.35	2.60	1.90	2.60	4.10	3.20	3.05	1.90	1.50	1.20		
12	1.80	4.10	4.40	2.45	1.90	2.15	4.85	3.05	4.55	1.90	1.60	1.30		
13	1.80	3.35	3.50	2.30	1.80	2.45	7.90	3.05	2.60	1.80	1.60	1.20		
14	1.80	3.20	3.50	2.30	1.80	2.75	12.30	3.05	2.30	1.80	1.50	1.20		
15	2.15	3.50	3.20	2.30	1.90	4.85	9.30	3.20	2.30	1.80	1.50	1.20		
16	1.80	3.20	3.05	2.15	2.15	4.85	5.15	2.90	2.15	1.90	1.40	1.60		
17	3.05	3.95	2.90	2.15	1.90	2.90	4.70	2.90	2.15	1.90	1.50	1.40		
18	7.10	3.50	2.75	2.30	1.90	2.60	5.00	3.20	2.15	1.90	1.60	1.40		
19	3.05	3.05	2.75	2.30	2.45	3.95	7.10	3.95	2.15	1.80	1.50	1.40		
20	3.20	2.90	2.75	2.15	2.45	3.05	4.85	5.60	2.00	1.80	1.50	1.30		
21	2.60	3.05	2.60	2.15	2.30	2.90	8.10	4.10	2.15	1.80	1.50	1.30		
22	2.45	3.20	2.60	2.15	2.00	3.20	9.70	3.20	2.15	1.80	1.40	1.30		
23	2.45	2.90	2.45	2.00	1.90	3.05	8.30	3.80	2.00	1.80	1.40	1.30		
24	2.30	3.05	2.45	2.00	1.80	3.05	11.90	3.05	2.00	1.80	1.40	1.20		
25	2.00	3.50	2.45	2.00	1.90	3.35	6.35	2.75	2.00	1.80	1.40	1.40		
26	2.15	3.35	4.70	2.00	2.30	2.90	6.35	2.75	1.90	1.70	1.30	1.50		
27	2.45	4.40	5.15	1.90	3.20	3.05	5.75	2.60	1.90	1.70	1.40	1.40		
28	7.70	3.05	4.25	2.00	2.00	3.95	5.00	2.60	1.90	1.70	1.50	1.40		
29	6.70	2.90	3.05	1.90	1.90	2.90	4.70	2.60	2.00	1.70		1.50		
30	5.90	6.05	2.90	1.90	1.80	5.15	4.55	2.60	3.05	1.70		1.50		
31		5.90		1.90	1.80		4.25		2.15	1.70		1.50		
Total	84.45	119.45	111.90	72.10	64.25	90.25	199.30	99.75	72.65	56.80	43.40	42.60	1056.90	CMSDAY
Mean	2.82	3.85	3.73	2.33	2.07	3.01	6.43	3.32	2.34	1.83	1.55	1.37	2.90	CMS
Max	7.70	6.05	7.50	3.35	3.20	5.45	16.50	5.60	4.55	2.00	1.80	1.80	16.50	CMS
Min	1.80	2.90	2.45	1.90	1.80	1.80	3.95	2.60	1.90	1.70	1.30	1.20	1.20	CMS
Runoff	7.30	10.32	9.67	6.23	5.55	7.80	17.22	8.62	6.28	4.91	3.75	3.68	91.32	MCM

Momentary Peak 27.80 CMS, at 9.96 m. (MSL.), at 06.00 Hours, on Oct 6, 2018

Runoff Yield 19.30 Liters/Second/Square KM. Momentary Peak Yield 185.33 Liters/Second/Square KM.

WATER YEAR : 2018

EAST COAST - GULF BASIN

Khlong Aeng at Ban Kho Lae , Trat (Z.45)

Lat 12 - 36 - 58 N Long 102 - 28 - 42 E

Location : on right bank near the highway bridge, Tambon Nong Bon.

Ban Kho Lae **Amphoe** Bo Rai **Changwat** Trat

Drainge Area	58 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+30.000 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On right bank about 15 meters from the top staff gage. **Elevation** +36.550 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	1999 to date
Rating Operation	
Period of Rating	1999 to date
Rated by Flot	-
Rated by Current Meter	1999 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Stage-discharge relation defined by 42 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

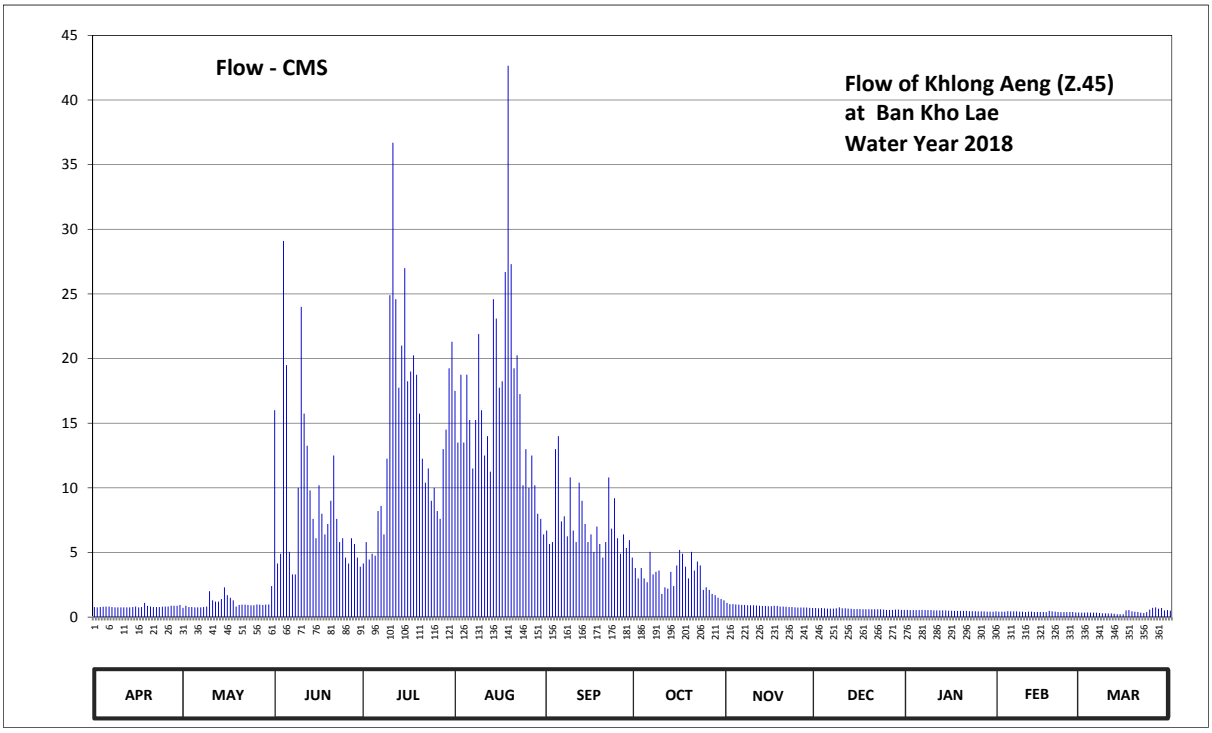
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	30.49	30.46	31.50	30.91	31.56	31.08	30.88	30.61	30.45	30.38	30.31	30.27	
2	30.48	30.54	30.91	31.02	31.40	31.01	30.80	30.60	30.44	30.37	30.31	30.27	
3	30.49	30.49	30.96	30.93	31.61	31.02	30.88	30.60	30.45	30.37	30.31	30.28	
4	30.50	30.49	31.97	30.96	31.40	31.38	30.80	30.59	30.44	30.37	30.33	30.27	
5	30.51	30.48	31.64	30.95	31.61	31.42	30.77	30.58	30.43	30.37	30.32	30.27	
6	30.51	30.48	30.97	31.16	31.47	31.12	30.97	30.57	30.43	30.38	30.32	30.27	
7	30.49	30.48	30.83	31.18	31.32	31.14	30.83	30.57	30.43	30.37	30.32	30.26	
8	30.48	30.49	30.83	31.06	31.47	31.05	30.85	30.56	30.44	30.37	30.31	30.25	
9	30.48	30.51	31.25	31.35	31.73	31.29	30.86	30.56	30.48	30.37	30.31	30.25	
10	30.48	30.70	31.80	31.83	31.50	31.08	30.68	30.56	30.44	30.36	30.30	30.24	
11	30.48	30.63	31.49	32.22	31.36	31.02	30.73	30.55	30.44	30.36	30.31	30.24	
12	30.48	30.62	31.39	31.82	31.42	31.27	30.72	30.54	30.43	30.36	30.31	30.23	
13	30.48	30.62	31.24	31.57	31.31	31.20	30.85	30.53	30.42	30.36	30.30	30.21	
14	30.49	30.64	31.13	31.70	31.82	31.11	30.74	30.53	30.41	30.36	30.30	30.21	
15	30.51	30.73	31.04	31.90	31.77	31.02	30.90	30.52	30.41	30.35	30.30	30.21	
16	30.48	30.67	31.26	31.59	31.57	31.06	30.98	30.52	30.41	30.35	30.30	30.36	
17	30.49	30.65	31.15	31.62	31.59	30.97	30.96	30.54	30.40	30.34	30.29	30.37	
18	30.61	30.63	31.06	31.67	31.89	31.10	30.89	30.53	30.40	30.34	30.34	30.32	
19	30.53	30.51	31.11	31.61	32.39	31.01	30.80	30.51	30.40	30.34	30.32	30.31	
20	30.51	30.57	31.20	31.49	31.91	30.94	30.97	30.51	30.40	30.34	30.31	30.30	
21	30.49	30.58	31.36	31.35	31.63	31.02	30.86	30.50	30.40	30.34	30.30	30.27	
22	30.49	30.58	31.13	31.27	31.67	31.29	30.92	30.49	30.40	30.33	30.29	30.26	
23	30.49	30.57	31.02	31.32	31.55	31.09	30.90	30.49	30.40	30.33	30.29	30.29	
24	30.50	30.56	31.04	31.20	31.26	31.21	30.71	30.48	30.39	30.33	30.29	30.39	
25	30.51	30.56	30.94	31.25	31.38	31.04	30.73	30.47	30.38	30.32	30.30	30.46	
26	30.51	30.59	30.91	31.16	31.25	30.96	30.71	30.47	30.38	30.32	30.30	30.48	
27	30.54	30.58	31.04	31.13	31.36	31.06	30.68	30.47	30.38	30.32	30.28	30.43	
28	30.54	30.57	31.01	31.38	31.26	30.99	30.67	30.47	30.39	30.31	30.28	30.45	
29	30.54	30.58	30.94	31.44	31.15	31.03	30.65	30.46	30.39	30.31		30.36	
30	30.57	30.59	30.89	31.63	31.13	30.94	30.64	30.45	30.38	30.31		30.37	
31		30.74		31.71	31.06		30.63		30.38	30.32		30.35	
Mean	30.50	30.58	31.17	31.40	31.51	31.10	30.81	30.53	30.41	30.35	30.31	30.31	
Max	30.61	30.74	31.97	32.22	32.39	31.42	30.98	30.61	30.48	30.38	30.34	30.48	32.39
Min	30.48	30.46	30.83	30.91	31.06	30.94	30.63	30.45	30.38	30.31	30.28	30.21	30.21

Annual Max Momentary Gage Height 33.80 m. (MSL.) , at 17.00 Hours, on Aug 9, 2018

Zero Gage at Bottom Elevation 30.00 m. (MSL.) , River Bed 28.50 m. (MSL.)

Left Bank Elevation 34.83 m. (MSL.) ,

Right Bank Elevation 34.81 m. (MSL.) , Drainage Are 58 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.78	0.72	16.00	4.15	17.50	6.70	3.80	1.10	0.70	0.56	0.42	0.34		
2	0.76	0.88	4.15	5.80	13.50	5.65	3.00	1.00	0.68	0.54	0.42	0.34		
3	0.78	0.78	4.90	4.45	18.75	5.80	3.80	1.00	0.70	0.54	0.42	0.36		
4	0.80	0.78	29.10	4.90	13.50	13.00	3.00	0.98	0.68	0.54	0.46	0.34		
5	0.82	0.76	19.50	4.75	18.75	14.00	2.70	0.96	0.66	0.54	0.44	0.34		
6	0.82	0.76	5.05	8.20	15.25	7.40	5.05	0.94	0.66	0.56	0.44	0.34		
7	0.78	0.76	3.30	8.60	11.50	7.80	3.30	0.94	0.66	0.54	0.44	0.32		
8	0.76	0.78	3.30	6.40	15.25	6.25	3.50	0.92	0.68	0.54	0.42	0.30		
9	0.76	0.82	10.00	12.25	21.90	10.80	3.60	0.92	0.76	0.54	0.42	0.30		
10	0.76	2.00	24.00	24.90	16.00	6.70	1.80	0.92	0.68	0.52	0.40	0.28		
11	0.76	1.30	15.75	36.70	12.50	5.80	2.30	0.90	0.68	0.52	0.42	0.28		
12	0.76	1.20	13.25	24.60	14.00	10.40	2.20	0.88	0.66	0.52	0.42	0.26		
13	0.76	1.20	9.80	17.75	11.25	9.00	3.50	0.86	0.64	0.52	0.40	0.22		
14	0.78	1.40	7.60	21.00	24.60	7.20	2.40	0.86	0.62	0.52	0.40	0.22		
15	0.82	2.30	6.10	27.00	23.10	5.80	4.00	0.84	0.62	0.50	0.40	0.22		
16	0.76	1.70	10.20	18.25	17.75	6.40	5.20	0.84	0.62	0.50	0.40	0.52		
17	0.78	1.50	8.00	19.00	18.25	5.05	4.90	0.88	0.60	0.48	0.38	0.54		
18	1.10	1.30	6.40	20.25	26.70	7.00	3.90	0.86	0.60	0.48	0.48	0.44		
19	0.86	0.82	7.20	18.75	42.65	5.65	3.00	0.82	0.60	0.48	0.44	0.42		
20	0.82	0.94	9.00	15.75	27.30	4.60	5.05	0.82	0.60	0.48	0.42	0.40		
21	0.78	0.96	12.50	12.25	19.25	5.80	3.60	0.80	0.60	0.48	0.40	0.34		
22	0.78	0.96	7.60	10.40	20.25	10.80	4.30	0.78	0.60	0.46	0.38	0.32		
23	0.78	0.94	5.80	11.50	17.25	6.85	4.00	0.78	0.60	0.46	0.38	0.38		
24	0.80	0.92	6.10	9.00	10.20	9.20	2.10	0.76	0.58	0.46	0.38	0.58		
25	0.82	0.92	4.60	10.00	13.00	6.10	2.30	0.74	0.56	0.44	0.40	0.72		
26	0.82	0.98	4.15	8.20	10.00	4.90	2.10	0.74	0.56	0.44	0.40	0.76		
27	0.88	0.96	6.10	7.60	12.50	6.40	1.80	0.74	0.56	0.44	0.36	0.66		
28	0.88	0.94	5.65	13.00	10.20	5.35	1.70	0.74	0.58	0.42	0.36	0.70		
29	0.88	0.96	4.60	14.50	8.00	5.95	1.50	0.72	0.58	0.42		0.52		
30	0.94	0.98	3.90	19.25	7.60	4.60	1.40	0.70	0.56	0.42		0.54		
31		2.40		21.30	6.40		1.30		0.56	0.44		0.50		
Total	24.38	34.62	273.60	440.45	514.65	216.95	96.10	25.74	19.44	15.30	11.50	12.80	1685.53	CMSDAY
Mean	0.81	1.12	9.12	14.21	16.60	7.23	3.10	0.86	0.63	0.49	0.41	0.41	4.62	CMS
Max	1.10	2.40	29.10	36.70	42.65	14.00	5.20	1.10	0.76	0.56	0.48	0.76	42.65	CMS
Min	0.76	0.72	3.30	4.15	6.40	4.60	1.30	0.70	0.56	0.42	0.36	0.22	0.22	CMS
Runoff	2.11	2.99	23.64	38.05	44.47	18.74	8.30	2.22	1.68	1.32	0.99	1.11	145.63	MCM

Momentary Peak 102.00 CMS, at 33.80 m. (MSL.), at 17.00 Hours, on Aug 9, 2018

Runoff Yield 79.62 Liters/Second/Square KM. Momentary Peak Yield 1758.62 Liters/Second/Square KM.

WATER YEAR : 2018

EAST COAST - GULF BASIN

Khlong Sano at Ban Nonthee , Trat (Z.46)

Lat 12 - 31 - 05 N Long 102 - 35 - 00 E

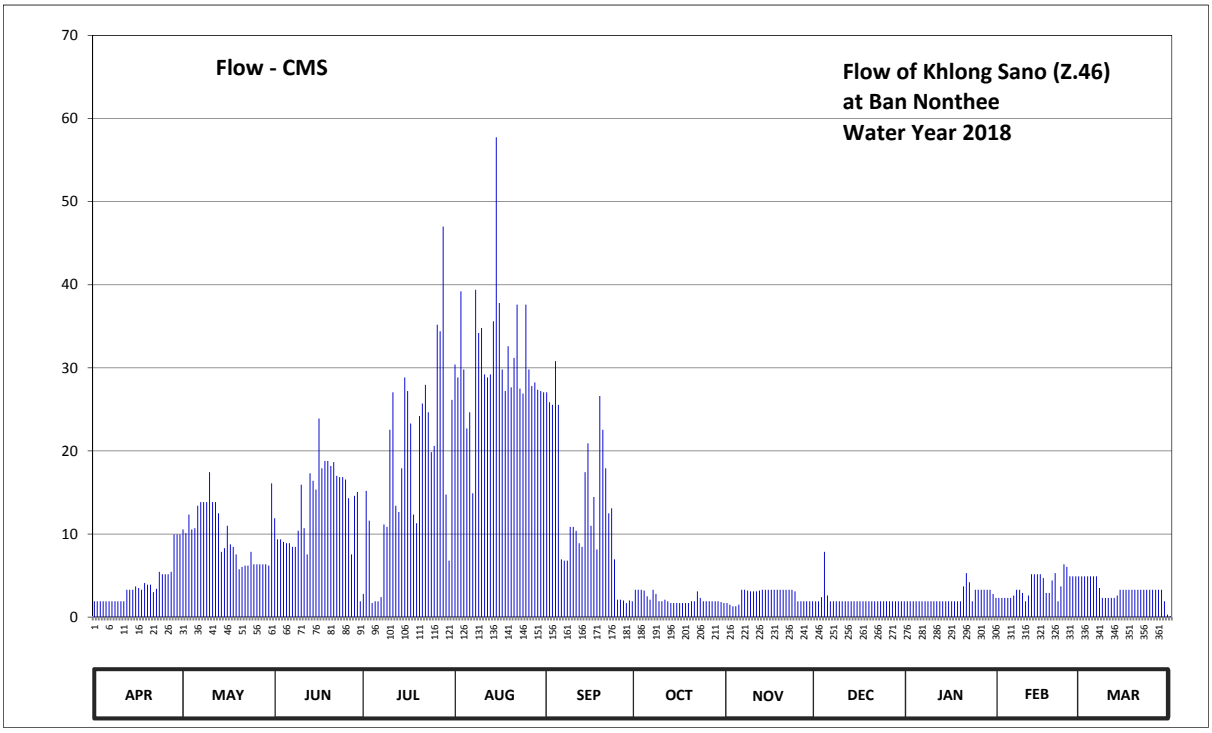
Location : on right bank at Ban Nonthee.

	Ban Nonthee	**Amphoe** Bo Rai	**Changwat** Trat
Drainge Area	92 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+20.130 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank about 50 meters from the top staff gage.		**Elevation** +27.928 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic mean of 3 readings		
Period of Available Gage Records	1997 to date		
Rating Operation			
Period of Rating	2000 to date		
Rated by Flot	-		
Rated by Current Meter	2000 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 43 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	19.99	20.67	20.76	20.08	21.97	21.77	20.13	19.97	19.99	19.99	20.03	20.29	
2	19.99	20.64	20.59	20.98	21.89	21.69	20.13	19.95	19.99	19.99	20.03	20.29	
3	19.99	20.79	20.59	20.74	22.41	21.67	20.13	19.93	20.04	19.99	20.03	20.29	
4	19.99	20.67	20.57	19.97	21.94	21.99	20.12	19.93	20.49	19.99	20.03	20.29	
5	19.99	20.68	20.56	19.99	21.48	21.67	20.05	19.95	20.06	19.99	20.03	20.29	
6	19.99	20.86	20.56	19.99	21.61	20.43	20.01	20.13	19.99	19.99	20.06	20.29	
7	19.99	20.89	20.53	20.04	20.96	20.42	20.13	20.13	19.99	19.99	20.13	20.15	
8	19.99	20.89	20.53	20.71	22.42	20.42	20.08	20.12	19.99	19.99	20.13	20.03	
9	19.99	20.89	20.66	20.69	22.16	20.69	19.99	20.11	19.99	19.99	20.09	20.03	
10	19.99	21.13	21.03	21.47	22.19	20.69	19.99	20.11	19.99	19.99	19.99	20.03	
11	19.99	20.89	20.68	21.77	21.91	20.66	20.01	20.11	19.99	19.99	20.06	20.03	
12	20.13	20.89	20.47	20.86	21.89	20.56	19.99	20.12	19.99	19.99	20.31	20.03	
13	20.13	20.80	21.12	20.81	21.91	20.53	19.97	20.13	19.99	19.99	20.31	20.06	
14	20.13	20.49	21.06	21.16	22.23	21.13	19.97	20.13	19.99	19.99	20.31	20.13	
15	20.17	20.52	20.99	21.89	23.27	21.36	19.97	20.13	19.99	19.99	20.31	20.13	
16	20.15	20.70	21.56	21.78	22.34	20.70	19.97	20.13	19.99	19.99	20.27	20.13	
17	20.13	20.55	21.16	21.52	21.94	20.93	19.97	20.13	19.99	19.99	20.09	20.13	
18	20.21	20.53	21.22	20.79	21.78	20.51	19.97	20.13	19.99	19.99	20.09	20.13	
19	20.19	20.47	21.22	20.72	22.08	21.74	19.97	20.13	19.99	19.99	20.24	20.13	
20	20.19	20.35	21.18	21.58	21.81	21.47	19.99	20.13	19.99	20.17	20.32	20.13	
21	20.10	20.37	21.21	21.68	22.01	21.16	19.99	20.13	19.99	20.32	19.99	20.13	
22	20.14	20.38	21.10	21.83	22.33	20.80	20.11	20.13	19.99	20.22	20.17	20.13	
23	20.33	20.38	21.09	21.61	21.80	20.84	20.03	20.13	19.99	19.99	20.39	20.13	
24	20.31	20.49	21.09	21.29	21.76	20.43	19.99	20.11	19.99	20.13	20.37	20.13	
25	20.31	20.39	21.07	21.34	22.33	20.01	19.99	19.99	19.99	20.13	20.29	20.13	
26	20.31	20.39	20.92	22.21	21.94	20.01	19.99	19.99	19.99	20.13	20.29	20.13	
27	20.33	20.39	20.47	22.17	21.82	20.00	19.99	19.99	19.99	20.13	20.29	20.13	
28	20.63	20.39	20.94	22.80	21.85	19.97	19.99	19.99	19.99	20.13	20.29	20.13	
29	20.63	20.39	20.97	20.95	21.79	20.00	19.99	19.99	19.99	20.13		19.99	
30	20.63	20.38	19.99	20.42	21.78	19.99	19.98	19.99	19.99	20.08		19.83	
31		21.04		21.71	21.77		19.97		19.99	20.03		19.81	
Mean	20.17	20.62	20.86	21.15	21.98	20.81	20.02	20.07	20.01	20.05	20.18	20.12	
Max	20.63	21.13	21.56	22.80	23.27	21.99	20.13	20.13	20.49	20.32	20.39	20.29	23.27
Min	19.99	20.35	19.99	19.97	20.96	19.97	19.97	19.93	19.99	19.99	19.99	19.81	19.81

Annual Max Momentary Gage Height	25.20	m. (MSL.) ,	at 06.00 Hours, on Jul 28, 2018		
Zero Gage at Bottom Elevation	19.13	m. (MSL.) ,	River Bed	19.06	m. (MSL.)
Left Bank Elevation	28.02	m. (MSL.) ,			
Right Bank Elevation	26.92	m. (MSL.) ,	Drainage Are	92	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.90	10.55	11.90	2.80	30.40	27.05	3.30	1.70	1.90	1.90	2.30	4.90		
2	1.90	10.10	9.35	15.20	28.85	25.85	3.30	1.50	1.90	1.90	2.30	4.90		
3	1.90	12.35	9.35	11.60	39.20	25.55	3.30	1.30	2.40	1.90	2.30	4.90		
4	1.90	10.55	9.05	1.70	29.80	30.80	3.20	1.30	7.85	1.90	2.30	4.90		
5	1.90	10.70	8.90	1.90	22.70	25.55	2.50	1.50	2.60	1.90	2.30	4.90		
6	1.90	13.40	8.90	1.90	24.65	6.95	2.10	3.30	1.90	1.90	2.60	4.90		
7	1.90	13.85	8.45	2.40	14.90	6.80	3.30	3.30	1.90	1.90	3.30	3.50		
8	1.90	13.85	8.45	11.15	39.40	6.80	2.80	3.20	1.90	1.90	3.30	2.30		
9	1.90	13.85	10.40	10.85	34.20	10.85	1.90	3.10	1.90	1.90	2.90	2.30		
10	1.90	17.45	15.95	22.55	34.80	10.85	1.90	3.10	1.90	1.90	1.90	2.30		
11	1.90	13.85	10.70	27.05	29.20	10.40	2.10	3.10	1.90	1.90	2.60	2.30		
12	3.30	13.85	7.55	13.40	28.85	8.90	1.90	3.20	1.90	1.90	5.15	2.30		
13	3.30	12.50	17.30	12.65	29.20	8.45	1.70	3.30	1.90	1.90	5.15	2.60		
14	3.30	7.85	16.40	17.90	35.60	17.45	1.70	3.30	1.90	1.90	5.15	3.30		
15	3.70	8.30	15.35	28.85	57.75	20.90	1.70	3.30	1.90	1.90	5.15	3.30		
16	3.50	11.00	23.90	27.20	37.80	11.00	1.70	3.30	1.90	1.90	4.70	3.30		
17	3.30	8.75	17.90	23.30	29.80	14.45	1.70	3.30	1.90	1.90	2.90	3.30		
18	4.10	8.45	18.80	12.35	27.20	8.15	1.70	3.30	1.90	1.90	2.90	3.30		
19	3.90	7.55	18.80	11.30	32.60	26.60	1.70	3.30	1.90	1.90	4.40	3.30		
20	3.90	5.75	18.20	24.20	27.65	22.55	1.90	3.30	1.90	3.70	5.30	3.30		
21	3.00	6.05	18.65	25.70	31.20	17.90	1.90	3.30	1.90	5.30	1.90	3.30		
22	3.40	6.20	17.00	27.95	37.60	12.50	3.10	3.30	1.90	4.20	3.70	3.30		
23	5.45	6.20	16.85	24.65	27.50	13.10	2.30	3.30	1.90	1.90	6.35	3.30		
24	5.15	7.85	16.85	19.85	26.90	6.95	1.90	3.10	1.90	3.30	6.05	3.30		
25	5.15	6.35	16.55	20.60	37.60	2.10	1.90	1.90	1.90	3.30	4.90	3.30		
26	5.15	6.35	14.30	35.20	29.80	2.10	1.90	1.90	1.90	3.30	4.90	3.30		
27	5.45	6.35	7.55	34.40	27.80	2.00	1.90	1.90	1.90	3.30	4.90	3.30		
28	9.95	6.35	14.60	47.00	28.25	1.70	1.90	1.90	1.90	3.30	4.90	3.30		
29	9.95	6.35	15.05	14.75	27.35	2.00	1.90	1.90	1.90	3.30		1.90		
30	9.95	6.20	1.90	6.80	27.20	1.90	1.80	1.90	1.90	2.80		0.30		
31		16.10		26.15	27.05		1.70		1.90	2.30		0.10		
Total	115.80	304.85	404.90	563.30	962.80	388.15	67.60	80.40	66.05	76.10	106.50	98.80	3235.25	CMSDAY
Mean	3.86	9.83	13.50	18.17	31.06	12.94	2.18	2.68	2.13	2.45	3.80	3.19	8.86	CMS
Max	9.95	17.45	23.90	47.00	57.75	30.80	3.30	3.30	7.85	5.30	6.35	4.90	57.75	CMS
Min	1.90	5.75	1.90	1.70	14.90	1.70	1.70	1.30	1.90	1.90	1.90	0.10	0.10	CMS
Runoff	10.01	26.34	34.98	48.67	83.19	33.54	5.84	6.95	5.71	6.58	9.20	8.54	279.53	MCM

Momentary Peak 112.00 CMS, at 25.20 m. (MSL.), at 06.00 Hours, on Jul 28, 2018

Runoff Yield 96.34 Liters/Second/Square KM. Momentary Peak Yield 1217.39 Liters/Second/Square KM.

WATER YEAR : 2018

EAST COAST - GULF BASIN

Khlong Chanthi at Ban Khlong Khwang , Trat (Z.47A)

Lat 12 - 20 - 00 N Long 102 - 38 - 37 E

Location : on left bank at Ban Khlong Khwang, Tambon Tha Kum.

Ban Khlong Khwang **Amphoe** Mueang **Changwat** Trat

Drainge Area	27 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+18.000 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	3-time daily readings at 06.00,12.00 and 18.00 hours. **Elevation** +23.608 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	2011 to date
Rating Operation	
Period of Rating	2011 to date
Rated by Flot	-
Rated by Current Meter	2011 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Stage-discharge relation defined by 46 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

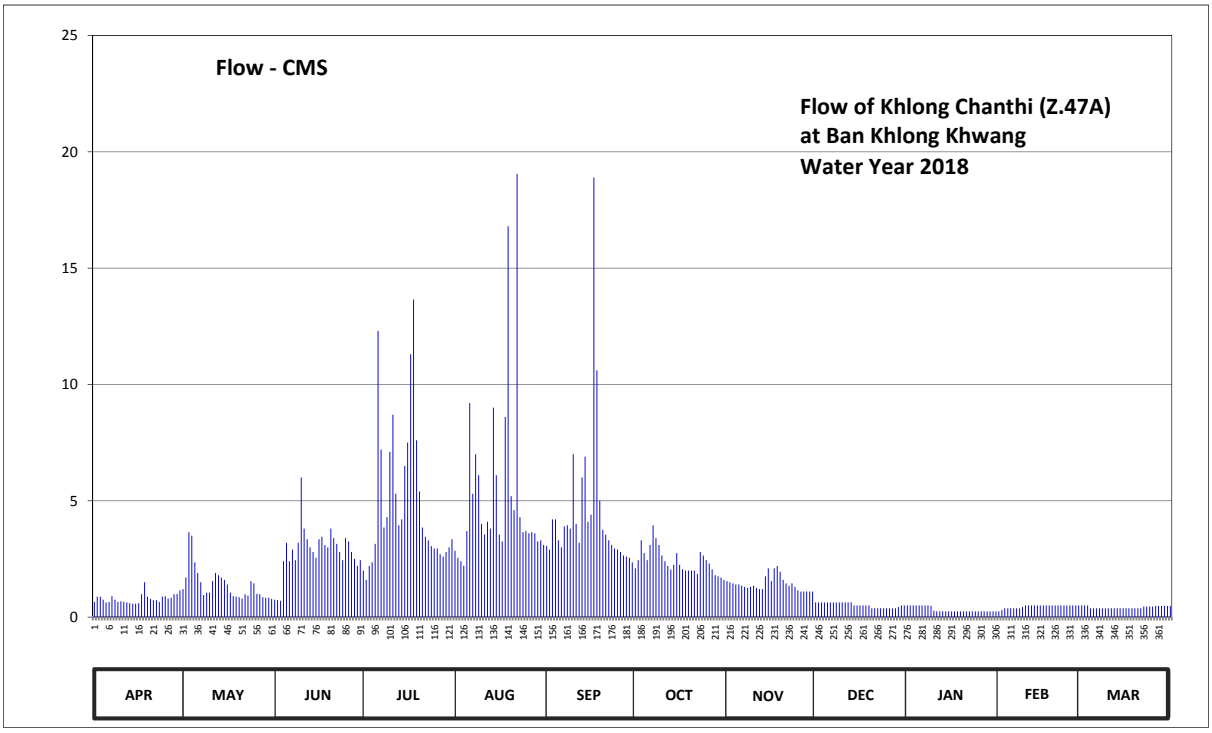
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	18.46	18.64	18.50	18.80	18.97	19.01	18.82	18.71	18.45	18.40	18.30	18.40	
2	18.55	18.74	18.49	18.72	18.91	18.98	18.89	18.70	18.45	18.40	18.32	18.40	
3	18.55	19.13	18.48	18.84	18.88	19.22	19.06	18.69	18.45	18.40	18.35	18.40	
4	18.50	19.10	18.88	18.87	18.84	19.22	18.95	18.68	18.45	18.40	18.35	18.35	
5	18.45	18.87	19.04	19.03	19.14	19.06	18.89	18.68	18.45	18.40	18.35	18.35	
6	18.46	18.78	18.88	20.02	19.72	19.00	19.02	18.67	18.45	18.40	18.35	18.35	
7	18.56	18.70	18.98	19.52	19.33	19.18	19.19	18.66	18.45	18.40	18.35	18.35	
8	18.50	18.58	18.89	19.17	19.50	19.19	19.08	18.65	18.45	18.40	18.35	18.35	
9	18.46	18.61	19.04	19.23	19.41	19.16	19.02	18.66	18.45	18.39	18.37	18.35	
10	18.47	18.61	19.40	19.51	19.20	19.50	18.93	18.67	18.45	18.31	18.40	18.35	
11	18.46	18.71	19.16	19.67	19.11	19.20	18.88	18.65	18.45	18.30	18.40	18.35	
12	18.45	18.78	19.07	19.33	19.21	19.04	18.84	18.64	18.45	18.30	18.40	18.35	
13	18.44	18.76	19.00	19.19	19.16	19.40	18.81	18.64	18.45	18.30	18.40	18.35	
14	18.43	18.74	18.96	19.22	19.70	19.49	18.85	18.75	18.40	18.30	18.40	18.35	
15	18.43	18.72	18.91	19.45	19.41	19.21	18.95	18.82	18.40	18.30	18.40	18.35	
16	18.44	18.68	19.07	19.55	19.11	19.24	18.85	18.71	18.40	18.30	18.40	18.35	
17	18.59	18.61	19.09	19.93	19.05	20.46	18.81	18.82	18.40	18.30	18.40	18.35	
18	18.70	18.56	19.02	20.11	19.66	19.86	18.80	18.84	18.40	18.30	18.40	18.35	
19	18.55	18.55	19.00	19.56	20.32	19.30	18.80	18.79	18.40	18.30	18.40	18.35	
20	18.51	18.54	19.16	19.34	19.32	19.15	18.80	18.72	18.35	18.30	18.40	18.35	
21	18.49	18.52	19.08	19.17	19.26	19.11	18.80	18.69	18.35	18.30	18.40	18.35	
22	18.49	18.59	19.03	19.09	20.47	19.06	18.77	18.67	18.35	18.30	18.40	18.38	
23	18.46	18.57	18.96	19.06	19.23	19.02	18.96	18.69	18.35	18.30	18.40	18.38	
24	18.55	18.71	18.89	19.01	19.13	18.99	18.93	18.66	18.35	18.30	18.40	18.38	
25	18.56	18.69	19.08	18.99	19.14	18.98	18.89	18.63	18.35	18.30	18.40	18.38	
26	18.52	18.60	19.05	18.99	19.12	18.96	18.86	18.62	18.35	18.30	18.40	18.39	
27	18.53	18.59	18.96	18.94	19.13	18.93	18.81	18.62	18.35	18.30	18.40	18.39	
28	18.59	18.54	18.90	18.92	19.12	18.92	18.76	18.62	18.35	18.30	18.40	18.39	
29	18.60	18.53	18.84	18.96	19.05	18.91	18.75	18.62	18.37	18.30		18.39	
30	18.63	18.53	18.89	19.00	19.06	18.87	18.74	18.62	18.40	18.30		18.39	
31		18.51		19.07	19.02		18.72		18.40	18.30		18.39	
Mean	18.51	18.67	18.96	19.23	19.28	19.19	18.88	18.69	18.41	18.33	18.38	18.37	
Max	18.70	19.13	19.40	20.11	20.47	20.46	19.19	18.84	18.45	18.40	18.40	18.40	20.47
Min	18.43	18.51	18.48	18.72	18.84	18.87	18.72	18.62	18.35	18.30	18.30	18.35	18.30

Annual Max Momentary Gage Height 22.00 m. (MSL.) , at 06.00 Hours, on Aug 22, 2018

Zero Gage at Bottom Elevation 18.00 m. (MSL.) , River Bed 18.50 m. (MSL.)

Left Bank Elevation 23.08 m. (MSL.) ,

Right Bank Elevation 23.52 m. (MSL.) , Drainage Are 27 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.65	1.20	0.75	2.00	2.85	3.05	2.10	1.55	0.63	0.50	0.25	0.50		
2	0.88	1.70	0.73	1.60	2.55	2.90	2.45	1.50	0.63	0.50	0.30	0.50		
3	0.88	3.65	0.70	2.20	2.40	4.20	3.30	1.45	0.63	0.50	0.38	0.50		
4	0.75	3.50	2.40	2.35	2.20	4.20	2.75	1.40	0.63	0.50	0.38	0.38		
5	0.63	2.35	3.20	3.15	3.70	3.30	2.45	1.40	0.63	0.50	0.38	0.38		
6	0.65	1.90	2.40	12.30	9.20	3.00	3.10	1.35	0.63	0.50	0.38	0.38		
7	0.90	1.50	2.90	7.20	5.30	3.90	3.95	1.30	0.63	0.50	0.38	0.38		
8	0.75	0.95	2.45	3.85	7.00	3.95	3.40	1.25	0.63	0.50	0.38	0.38		
9	0.65	1.05	3.20	4.30	6.10	3.80	3.10	1.30	0.63	0.48	0.43	0.38		
10	0.68	1.05	6.00	7.10	4.00	7.00	2.65	1.35	0.63	0.28	0.50	0.38		
11	0.65	1.55	3.80	8.70	3.55	4.00	2.40	1.25	0.63	0.25	0.50	0.38		
12	0.63	1.90	3.35	5.30	4.10	3.20	2.20	1.20	0.63	0.25	0.50	0.38		
13	0.60	1.80	3.00	3.95	3.80	6.00	2.05	1.20	0.63	0.25	0.50	0.38		
14	0.58	1.70	2.80	4.20	9.00	6.90	2.25	1.75	0.50	0.25	0.50	0.38		
15	0.58	1.60	2.55	6.50	6.10	4.10	2.75	2.10	0.50	0.25	0.50	0.38		
16	0.60	1.40	3.35	7.50	3.55	4.40	2.25	1.55	0.50	0.25	0.50	0.38		
17	0.98	1.05	3.45	11.30	3.25	18.90	2.05	2.10	0.50	0.25	0.50	0.38		
18	1.50	0.90	3.10	13.65	8.60	10.60	2.00	2.20	0.50	0.25	0.50	0.38		
19	0.88	0.88	3.00	7.60	16.80	5.00	2.00	1.95	0.50	0.25	0.50	0.38		
20	0.78	0.85	3.80	5.40	5.20	3.75	2.00	1.60	0.38	0.25	0.50	0.38		
21	0.73	0.80	3.40	3.85	4.60	3.55	2.00	1.45	0.38	0.25	0.50	0.38		
22	0.73	0.98	3.15	3.45	19.05	3.30	1.85	1.35	0.38	0.25	0.50	0.45		
23	0.65	0.93	2.80	3.30	4.30	3.10	2.80	1.45	0.38	0.25	0.50	0.45		
24	0.88	1.55	2.45	3.05	3.65	2.95	2.65	1.30	0.38	0.25	0.50	0.45		
25	0.90	1.45	3.40	2.95	3.70	2.90	2.45	1.15	0.38	0.25	0.50	0.45		
26	0.80	1.00	3.25	2.95	3.60	2.80	2.30	1.10	0.38	0.25	0.50	0.48		
27	0.83	0.98	2.80	2.70	3.65	2.65	2.05	1.10	0.38	0.25	0.50	0.48		
28	0.98	0.85	2.50	2.60	3.60	2.60	1.80	1.10	0.38	0.25	0.50	0.48		
29	1.00	0.83	2.20	2.80	3.25	2.55	1.75	1.10	0.43	0.25		0.48		
30	1.15	0.83	2.45	3.00	3.30	2.35	1.70	1.10	0.50	0.25		0.48		
31		0.78		3.35	3.10		1.60		0.50	0.25		0.48		
Total	23.85	43.46	85.33	154.15	165.05	134.90	74.15	42.95	16.04	10.01	12.76	13.02	775.67	CMSDAY
Mean	0.79	1.40	2.84	4.97	5.32	4.50	2.39	1.43	0.52	0.32	0.46	0.42	2.13	CMS
Max	1.50	3.65	6.00	13.65	19.05	18.90	3.95	2.20	0.63	0.50	0.50	0.50	19.05	CMS
Min	0.58	0.78	0.70	1.60	2.20	2.35	1.60	1.10	0.38	0.25	0.25	0.38	0.25	CMS
Runoff	2.06	3.75	7.37	13.32	14.26	11.66	6.41	3.71	1.39	0.86	1.10	1.12	67.02	MCM

Momentary Peak 46.00 CMS, at 22.00 m. (MSL.), at 06.00 Hours, on Aug 22, 2018

Runoff Yield 78.71 Liters/Second/Square KM. Momentary Peak Yield 1703.70 Liters/Second/Square KM.

WATER YEAR : 2018

EAST COAST - GULF BASIN

Khlong Pran Bun at Ban Khlong Yai Tai , Chanthaburi (Z.52)

Lat 13 - 05 - 10 N Long 101 - 56 - 25 E

Location : on left bank at Ban Khlong Yai Tai.

Ban Khlong Yai Tai **Amphoe** Kaeng Hang Maeo **Changwat** Chanthaburi

Drainge Area	60 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+37.740 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank at the abutment of the bridge. **Elevation** +42.415 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00,12.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic mean of 3 readings
Period of Available Gage Records	2001 to date
Rating Operation	
Period of Rating	2001 to date
Rated by Flot	-
Rated by Current Meter	2001 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	Overbank flow starts at elevation + 41.070 m.(MSL.), records are channel flow only.
General Description	Records good. Stage-discharge relation defined by 26 discharge measurements made in 2018.
Ramark	Telemetry failure 1 Jan - 31 Mar.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

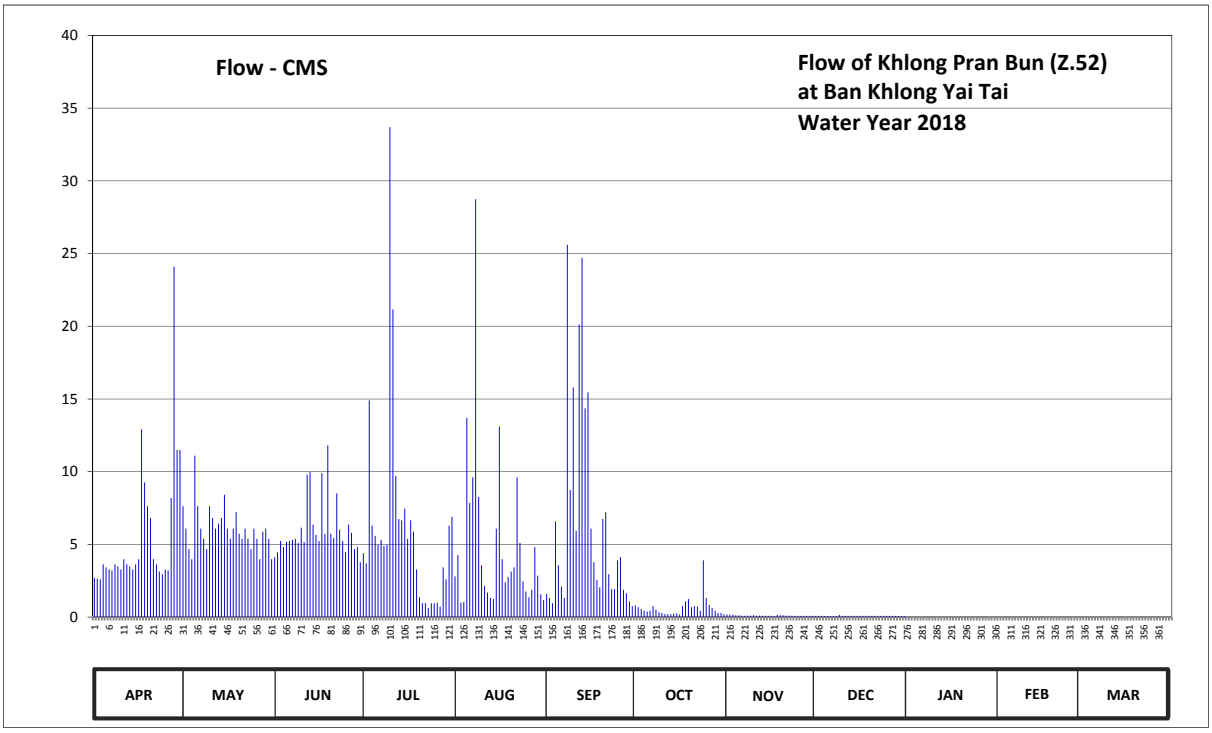
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	38.54	39.24	38.76	38.80	38.56	38.30	38.10	37.89	37.77				
2	38.53	39.04	38.81	38.70	38.78	38.23	38.07	37.89	37.77				
3	38.52	38.84	38.92	40.01	38.15	38.14	38.04	37.87	37.77				
4	38.69	38.74	38.86	39.07	38.16	39.11	38.01	37.83	37.76				
5	38.66	39.64	38.91	38.97	39.90	38.68	37.99	37.83	37.76				
6	38.64	39.24	38.92	38.88	39.27	38.42	38.01	37.80	37.76				
7	38.63	39.04	38.93	38.93	39.48	38.23	38.09	37.79	37.76				
8	38.69	38.94	38.94	38.87	41.04	40.84	38.03	37.79	37.76				
9	38.67	38.84	38.90	38.88	39.32	39.38	37.97	37.80	37.85				
10	38.64	39.24	39.05	41.31	38.68	40.09	37.94	37.83	37.79				
11	38.74	39.14	38.91	40.52	38.43	39.02	37.91	37.79	37.77				
12	38.69	39.04	39.50	39.49	38.32	40.44	37.90	37.79	37.77				
13	38.67	39.09	39.52	39.13	38.23	40.78	37.90	37.79	37.77				
14	38.64	39.14	39.08	39.12	38.21	39.96	37.92	37.79	37.77				
15	38.69	39.34	38.98	39.22	39.04	40.06	37.93	37.79	37.77				
16	38.74	39.04	38.92	38.94	39.84	39.04	37.89	37.78	37.77				
17	39.82	38.94	39.51	39.12	38.74	38.71	38.09	37.78	37.77				
18	39.44	39.04	38.99	39.01	38.48	38.51	38.17	37.85	37.77				
19	39.24	39.19	39.71	38.64	38.55	38.41	38.21	37.83	37.77				
20	39.14	38.99	38.99	38.24	38.62	39.13	38.07	37.83	37.77				
21	38.74	38.94	38.95	38.14	38.66	39.19	38.09	37.81	37.77				
22	38.69	39.04	39.35	38.14	39.48	38.59	38.08	37.80	37.77				
23	38.62	38.94	39.03	38.06	38.90	38.38	38.01	37.79	37.77				
24	38.59	38.84	38.92	38.14	38.49	38.38	38.73	37.78	37.77				
25	38.64	39.04	38.81	38.14	38.34	38.73	38.23	37.78	37.77				
26	38.63	38.94	39.08	38.15	38.24	38.76	38.11	37.78	37.77				
27	39.31	38.74	39.00	38.08	38.37	38.37	38.06	37.78	37.77				
28	40.74	39.01	38.84	38.66	38.86	38.31	38.01	37.78	37.76				
29	39.68	39.04	38.86	38.52	38.57	38.17	37.94	37.78	37.76				
30	39.68	38.94	38.71	39.07	38.29	38.09	37.94	37.78	37.75				
31		38.74		39.15	38.19		37.90		37.75				
Mean	38.91	39.03	39.02	38.91	38.78	38.95	38.04	37.81	37.77				
Max	40.74	39.64	39.71	41.31	41.04	40.84	38.73	37.89	37.85				41.31
Min	38.52	38.74	38.71	38.06	38.15	38.09	37.89	37.78	37.75				37.75

Annual Max Momentary Gage Height 41.74 m. (MSL.) , at 06.00 Hours, on Aug 8, 2018

Zero Gage at Bottom Elevation 37.74 m. (MSL.) , River Bed 38.47 m. (MSL.)

Left Bank Elevation 41.16 m. (MSL.) ,

Right Bank Elevation 41.06 m. (MSL.) , Drainage Are 60 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.70	7.62	4.12	4.40	2.80	1.60	0.80	0.19	0.09					
2	2.65	6.08	4.47	3.70	4.26	1.32	0.68	0.19	0.09					
3	2.60	4.68	5.24	14.91	1.00	0.96	0.56	0.17	0.09					
4	3.63	3.98	4.82	6.29	1.04	6.58	0.44	0.13	0.08					
5	3.42	11.10	5.17	5.59	13.70	3.56	0.38	0.13	0.08					
6	3.28	7.62	5.24	4.96	7.86	2.10	0.44	0.10	0.08					
7	3.21	6.08	5.31	5.31	9.62	1.32	0.76	0.10	0.08					
8	3.63	5.38	5.38	4.89	28.74	25.60	0.52	0.10	0.08					
9	3.49	4.68	5.10	4.96	8.26	8.74	0.34	0.10	0.15					
10	3.28	7.62	6.15	33.69	3.56	15.79	0.28	0.13	0.10					
11	3.98	6.82	5.17	21.16	2.15	5.94	0.22	0.10	0.09					
12	3.63	6.08	9.80	9.71	1.68	20.12	0.20	0.10	0.09					
13	3.49	6.43	9.98	6.74	1.32	24.70	0.20	0.10	0.09					
14	3.28	6.82	6.36	6.66	1.24	14.36	0.24	0.10	0.09					
15	3.63	8.42	5.66	7.46	6.08	15.46	0.26	0.10	0.09					
16	3.98	6.08	5.24	5.38	13.10	6.08	0.19	0.09	0.09					
17	12.90	5.38	9.89	6.66	3.98	3.77	0.76	0.09	0.09					
18	9.26	6.08	5.73	5.87	2.40	2.55	1.08	0.15	0.09					
19	7.62	7.22	11.80	3.28	2.75	2.05	1.24	0.13	0.09					
20	6.82	5.73	5.73	1.36	3.14	6.74	0.68	0.13	0.09					
21	3.98	5.38	5.45	0.96	3.42	7.22	0.76	0.11	0.09					
22	3.63	6.08	8.50	0.96	9.62	2.95	0.72	0.10	0.09					
23	3.14	5.38	6.01	0.64	5.10	1.92	0.44	0.10	0.09					
24	2.95	4.68	5.24	0.96	2.45	1.92	3.91	0.09	0.09					
25	3.28	6.08	4.47	0.96	1.76	3.91	1.32	0.09	0.09					
26	3.21	5.38	6.36	1.00	1.36	4.12	0.84	0.09	0.09					
27	8.18	3.98	5.80	0.72	1.88	1.88	0.64	0.09	0.09					
28	24.10	5.87	4.68	3.42	4.82	1.64	0.44	0.09	0.08					
29	11.50	6.08	4.82	2.60	2.85	1.08	0.28	0.09	0.08					
30	11.50	5.38	3.77	6.29	1.56	0.76	0.28	0.09	0.08					
31		3.98		6.90	1.16		0.20		0.08					
Total	165.95	188.17	181.46	188.39	154.66	196.74	20.10	3.37	2.77				1101.61	CMSDAY
Mean	5.53	6.07	6.05	6.08	4.99	6.56	0.65	0.11	0.09				4.01	CMS
Max	24.10	11.10	11.80	33.69	28.74	25.60	3.91	0.19	0.15				33.69	CMS
Min	2.60	3.98	3.77	0.64	1.00	0.76	0.19	0.09	0.08				0.08	CMS
Runoff	14.34	16.26	15.68	16.28	13.36	17.00	1.74	0.29	0.24				95.18	MCM

Momentary Peak 42.54 CMS, at 41.74 m. (MSL.), at 06.00 Hours, on Aug 8, 2018

Runoff Yield 50.30 Liters/Second/Square KM. Momentary Peak Yield 709.00 Liters/Second/Square KM.

WATER YEAR : 2018

EAST COAST - GULF BASIN

Chanthaburi River at Ban Thung Ta In , Chanthaburi (Z.53)

Lat 12 - 50 - 23 N Long 102 - 05 - 04 E

Location : on left bank at the bridge on highway.

Ban Thung Ta In **Amphoe** Khao Kitchakut **Changwat** Chanthaburi

Drainge Area	475 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+14.260 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank near the gage site. **Elevation** +21.404 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic means of 3 readings
Period of Available Gage Records	2007 to date
Rating Operation	
Period of Rating	2007 to date
Rated by Flot	-
Rated by Current Meter	2007 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	Overbank flow starts at elevation + 20.560 m.(MSL.), records are channel flow only.
General Description	Records good. Stage-discharge relation defined by 27 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

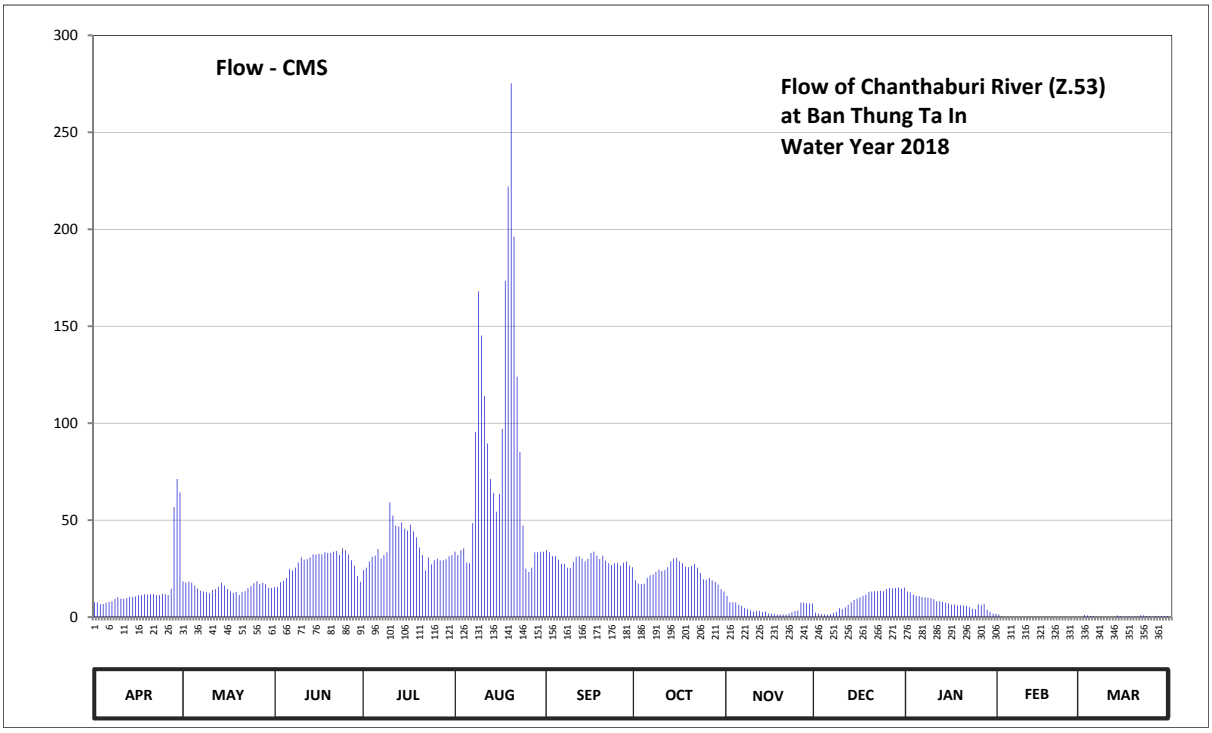
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	15.68	16.20	16.07	16.43	16.75	16.77	16.22	15.85	15.23	15.96	15.07	14.26	
2	15.67	16.17	16.08	16.48	16.70	16.74	16.15	15.68	15.16	15.94	14.88	15.02	
3	15.61	16.19	16.18	16.59	16.77	16.68	16.14	15.68	15.11	15.88	14.68	14.97	
4	15.62	16.17	16.21	16.67	16.80	16.68	16.15	15.67	15.10	15.85	14.43	14.93	
5	15.66	16.11	16.27	16.69	16.57	16.62	16.27	15.59	15.06	15.84	14.35	14.89	
6	15.69	16.04	16.45	16.79	16.56	16.55	16.32	15.55	15.11	15.82	14.31	14.81	
7	15.71	15.98	16.42	16.64	17.16	16.55	16.34	15.48	15.21	15.81	14.31	14.81	
8	15.77	15.96	16.48	16.70	18.29	16.48	16.39	15.41	15.26	15.80	14.31	14.76	
9	15.81	15.94	16.57	16.74	19.60	16.47	16.44	15.35	15.46	15.79	14.31	14.73	
10	15.78	15.92	16.66	17.43	19.22	16.58	16.41	15.29	15.41	15.76	14.31	14.68	
11	15.77	16.00	16.62	17.26	18.66	16.67	16.43	15.32	15.50	15.71	14.31	14.69	
12	15.79	16.02	16.63	17.13	18.17	16.68	16.49	15.32	15.59	15.71	14.31	14.77	
13	15.82	16.08	16.66	17.12	17.73	16.64	16.59	15.26	15.67	15.69	14.31	14.96	
14	15.82	16.17	16.71	17.17	17.55	16.59	16.64	15.30	15.74	15.66	14.31	14.91	
15	15.83	16.11	16.71	17.09	17.31	16.64	16.65	15.19	15.78	15.64	14.31	14.84	
16	15.86	16.02	16.72	17.06	17.54	16.73	16.59	15.15	15.81	15.60	14.31	14.84	
17	15.87	15.97	16.71	17.14	18.32	16.75	16.56	15.11	15.85	15.60	14.31	14.86	
18	15.89	15.92	16.74	17.05	19.69	16.69	16.50	15.07	15.88	15.57	14.31	14.83	
19	15.88	15.95	16.73	16.96	20.43	16.63	16.49	15.06	15.95	15.58	14.31	14.85	
20	15.89	15.87	16.73	16.81	21.19	16.69	16.51	15.06	15.96	15.56	14.31	14.85	
21	15.89	15.95	16.75	16.70	20.06	16.60	16.55	15.07	15.97	15.55	14.31	14.98	
22	15.87	15.97	16.76	16.42	18.86	16.56	16.48	15.16	15.97	15.51	14.31	14.99	
23	15.87	16.05	16.70	16.66	18.08	16.53	16.37	15.26	15.98	15.44	14.31	14.92	
24	15.90	16.10	16.80	16.54	17.13	16.56	16.24	15.31	15.97	15.41	14.31	14.89	
25	15.89	16.16	16.77	16.61	16.46	16.56	16.23	15.34	16.02	15.61	14.31	14.84	
26	15.87	16.20	16.71	16.64	16.39	16.52	16.27	15.66	16.05	15.58	14.31	14.93	
27	16.03	16.14	16.61	16.61	16.48	16.57	16.22	15.66	16.04	15.61	14.31	14.90	
28	17.37	16.17	16.52	16.61	16.74	16.59	16.19	15.64	16.05	15.39	14.31	14.88	
29	17.73	16.14	16.31	16.63	16.74	16.52	16.13	15.64	16.06	15.27		14.91	
30	17.56	16.06	16.19	16.68	16.75	16.49	16.02	15.64	16.03	15.16		14.91	
31		16.05		16.70	16.75		15.96		16.06	15.15		14.61	
Mean	15.98	16.06	16.55	16.80	17.79	16.61	16.35	15.39	15.68	15.63	14.38	14.84	
Max	17.73	16.20	16.80	17.43	21.19	16.77	16.65	15.85	16.06	15.96	15.07	15.02	21.19
Min	15.61	15.87	16.07	16.42	16.39	16.47	15.96	15.06	15.06	15.15	14.31	14.26	14.26

Annual Max Momentary Gage Height 21.26 m. (MSL.) , at 06.00 Hours, on Aug 20, 2018

Zero Gage at Bottom Elevation 14.26 m. (MSL.) , River Bed 13.48 m. (MSL.)

Left Bank Elevation 20.55 m. (MSL.) ,

Right Bank Elevation 21.40 m. (MSL.) , Drainage Are 475 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	7.70	18.50	15.40	24.25	33.75	34.45	19.00	11.00	2.30	13.20	1.35	0.00		
2	7.55	17.75	15.60	25.50	32.00	33.40	17.25	7.70	1.80	12.80	0.40	1.10		
3	6.65	18.25	18.00	28.70	34.45	31.40	17.00	7.70	1.55	11.60	0.00	0.85		
4	6.80	17.75	18.75	31.10	35.50	31.40	17.25	7.55	1.50	11.00	0.00	0.65		
5	7.40	16.25	20.25	31.70	28.10	29.60	20.25	6.35	1.30	10.80	0.00	0.45		
6	7.85	14.80	24.75	35.15	27.80	27.50	21.50	5.75	1.55	10.40	0.00	0.05		
7	8.20	13.60	24.00	30.20	48.40	27.50	22.00	4.80	2.10	10.20	0.00	0.05		
8	9.40	13.20	25.50	32.00	95.50	25.50	23.25	4.10	2.60	10.00	0.00	0.00		
9	10.20	12.80	28.10	33.40	168.00	25.25	24.50	3.50	4.60	9.80	0.00	0.00		
10	9.60	12.40	30.80	59.20	145.20	28.40	23.75	2.90	4.10	9.20	0.00	0.00		
11	9.40	14.00	29.60	52.40	114.00	31.10	24.25	3.20	5.00	8.20	0.00	0.00		
12	9.80	14.40	29.90	47.20	89.50	31.40	25.75	3.20	6.35	8.20	0.00	0.00		
13	10.40	15.60	30.80	46.80	71.20	30.20	28.70	2.60	7.55	7.85	0.00	0.80		
14	10.40	17.75	32.35	48.80	64.00	28.70	30.20	3.00	8.80	7.40	0.00	0.55		
15	10.60	16.25	32.35	45.65	54.40	30.20	30.50	1.95	9.60	7.10	0.00	0.20		
16	11.20	14.40	32.70	44.60	63.60	33.05	28.70	1.75	10.20	6.50	0.00	0.20		
17	11.40	13.40	32.35	47.60	97.00	33.75	27.80	1.55	11.00	6.50	0.00	0.30		
18	11.80	12.40	33.40	44.25	173.40	31.70	26.00	1.35	11.60	6.05	0.00	0.15		
19	11.60	13.00	33.05	41.10	222.10	29.90	25.75	1.30	13.00	6.20	0.00	0.25		
20	11.80	11.40	33.05	35.85	275.30	31.70	26.30	1.30	13.20	5.90	0.00	0.25		
21	11.80	13.00	33.75	32.00	196.20	29.00	27.50	1.35	13.40	5.75	0.00	0.90		
22	11.40	13.40	34.10	24.00	124.00	27.80	25.50	1.80	13.40	5.15	0.00	0.95		
23	11.40	15.00	32.00	30.80	85.20	26.90	22.75	2.60	13.60	4.40	0.00	0.60		
24	12.00	16.00	35.50	27.20	47.20	27.80	19.50	3.10	13.40	4.10	0.00	0.45		
25	11.80	17.50	34.45	29.30	25.00	27.80	19.25	3.40	14.40	6.65	0.00	0.20		
26	11.40	18.50	32.35	30.20	23.25	26.60	20.25	7.40	15.00	6.20	0.00	0.65		
27	14.60	17.00	29.30	29.30	25.50	28.10	19.00	7.40	14.80	6.65	0.00	0.50		
28	56.80	17.75	26.60	29.30	33.40	28.70	18.25	7.10	15.00	3.90	0.00	0.40		
29	71.20	17.00	21.25	29.90	33.40	26.60	16.75	7.10	15.20	2.70		0.55		
30	64.40	15.20	18.25	31.40	33.75	25.75	14.40	7.10	14.60	1.80		0.55		
31		15.00		32.00	33.75		13.20		15.20	1.75		0.00		
Total	466.55	473.25	838.25	1110.85	2533.85	881.15	696.05	130.90	277.70	227.95	1.75	11.60	7649.85	CMSDAY
Mean	15.55	15.27	27.94	35.83	81.74	29.37	22.45	4.36	8.96	7.35	0.06	0.37	20.96	CMS
Max	71.20	18.50	35.50	59.20	275.30	34.45	30.50	11.00	15.20	13.20	1.35	1.10	275.30	CMS
Min	6.65	11.40	15.40	24.00	23.25	25.25	13.20	1.30	1.30	1.75	0.00	0.00	0.00	CMS
Runoff	40.31	40.89	72.42	95.98	218.92	76.13	60.14	11.31	23.99	19.69	0.15	1.00	660.95	MCM

Momentary Peak 280.20 CMS, at 21.26 m. (MSL.), at 06.00 Hours, on Aug 20, 2018

Runoff Yield 44.12 Liters/Second/Square KM. Momentary Peak Yield 589.89 Liters/Second/Square KM.

WATER YEAR : 2018

EAST COAST - GULF BASIN

Chanthaburi River at Ban Wang Cha Ai , Chanthaburi (Z.55)

Lat 12 - 42 - 26 N Long 102 - 10 - 53 E

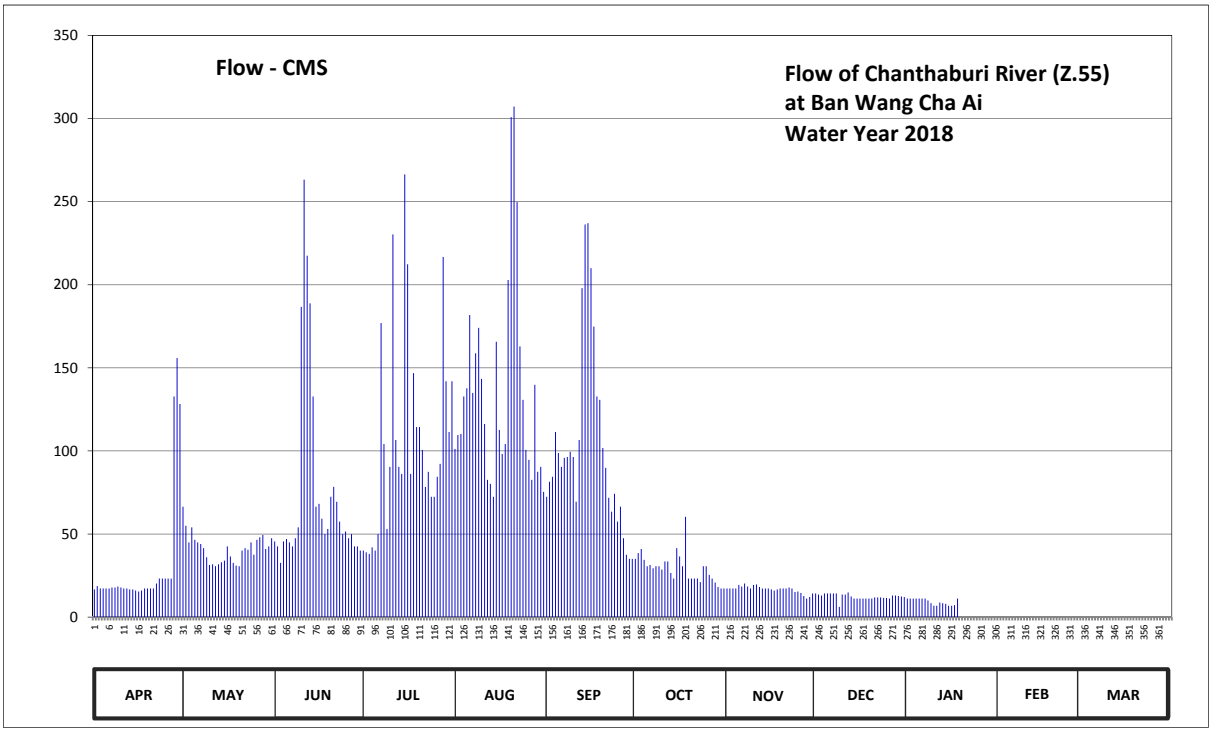
Location : on left bank at the bridge on highway.

	Ban Bang Cha Ai	**Amphoe** Makham	**Changwat** Chanthaburi
Drainge Area	956 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+1.739 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank near the gage site.		**Elevation** +9.723 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00,12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic mean of 3 readings		
Period of Available Gage Records	2008 to date		
Rating Operation			
Period of Rating	2008 to date		
Rated by Flot	-		
Rated by Current Meter	2008 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 29 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	2.52	3.64	3.25	3.14	4.22	3.74	3.04	2.54	2.44	2.34	3.34	2.74	
2	2.59	3.44	3.19	3.12	4.36	3.89	3.11	2.54	2.42	2.34	3.14	2.72	
3	2.54	3.24	2.99	3.10	4.37	3.94	3.16	2.54	2.40	2.34	2.94	2.70	
4	2.54	3.42	3.25	3.18	4.74	4.39	3.03	2.54	2.44	2.34	2.74	2.70	
5	2.54	3.27	3.28	3.14	4.81	4.18	2.94	2.61	2.44	2.34	2.74	2.68	
6	2.54	3.24	3.24	3.34	5.44	4.04	2.96	2.58	2.44	2.34	2.74	2.67	
7	2.56	3.22	3.19	5.37	4.77	4.13	2.91	2.64	2.44	2.34	3.14	2.67	
8	2.56	3.17	3.29	4.27	5.11	4.14	2.94	2.58	2.44	2.30	3.34	2.66	
9	2.58	3.06	3.42	3.40	5.33	4.19	2.94	2.54	2.11	2.22	3.34	2.64	
10	2.56	2.96	5.51	4.04	4.89	4.14	2.89	2.61	2.42	2.14	2.84	2.64	
11	2.54	2.97	6.54	6.11	4.47	3.69	3.01	2.62	2.42	2.14	2.84	2.64	
12	2.54	2.94	5.94	4.31	3.91	4.31	3.01	2.57	2.46	2.24	3.51	2.64	
13	2.52	2.97	5.54	4.04	3.87	5.67	2.84	2.54	2.38	2.22	3.39	2.64	
14	2.52	3.00	4.74	3.97	3.74	6.19	2.74	2.54	2.34	2.20	3.07	2.64	
15	2.50	3.02	3.64	6.58	5.21	6.20	3.17	2.54	2.34	2.14	2.84	2.62	
16	2.48	3.19	3.67	5.87	4.41	5.84	3.07	2.52	2.34	2.14	2.74	2.62	
17	2.50	3.07	3.52	3.97	4.17	5.34	2.94	2.50	2.34	2.16	2.74	2.61	
18	2.54	2.99	3.34	4.94	4.27	4.74	3.54	2.52	2.34	2.34	2.74	2.64	
19	2.54	2.95	3.40	4.44	5.74	4.71	2.74	2.54	2.34	2.44	2.74	2.64	
20	2.54	2.94	3.74	4.44	7.01	4.23	2.74	2.54	2.34	2.34	2.74	2.63	
21	2.54	3.14	3.84	4.21	7.09	4.03	2.74	2.54	2.36	3.34	2.74	2.64	
22	2.64	3.17	3.69	3.84	6.37	3.73	2.74	2.56	2.36	3.34	2.74	2.64	
23	2.74	3.15	3.49	3.99	5.17	3.59	2.67	2.54	2.36	3.34	2.74	2.64	
24	2.74	3.24	3.34	3.74	4.71	3.77	2.94	2.47	2.35	3.34	2.74	2.64	
25	2.74	3.09	3.37	3.74	4.21	3.49	2.94	2.48	2.35	2.64	2.74	2.64	
26	2.74	3.27	3.29	3.94	4.11	3.64	2.81	2.45	2.34	2.64	2.74	2.74	
27	2.74	3.30	3.34	4.07	3.91	3.29	2.74	2.39	2.40	3.34	2.74	2.74	
28	4.74	3.33	3.19	5.93	4.84	3.09	2.66	2.34	2.40	3.24	2.74	2.72	
29	5.07	3.16	3.19	4.87	3.99	3.04	2.57	2.37	2.39	3.14		2.64	
30	4.67	3.19	3.14	4.39	4.04	3.04	2.54	2.44	2.38	3.34		2.64	
31		3.29		4.87	3.79		2.54		2.37	3.34		2.87	
Mean	2.80	3.16	3.75	4.27	4.74	4.21	2.89	2.52	2.38	2.59	2.91	2.67	
Max	5.07	3.64	6.54	6.58	7.09	6.20	3.54	2.64	2.46	3.34	3.51	2.87	7.09
Min	2.48	2.94	2.99	3.10	3.74	3.04	2.54	2.34	2.11	2.14	2.74	2.61	2.11

Annual Max Momentary Gage Height	7.24	m. (MSL.) ,	at 18.00 Hours, on Aug 20, 2018		
Zero Gage at Bottom Elevation	1.74	m. (MSL.) ,	River Bed	-1.45	m. (MSL.)
Left Bank Elevation	8.52	m. (MSL.) ,			
Right Bank Elevation	9.11	m. (MSL.) ,	Drainage Are	956	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	16.60	66.40	45.50	40.00	101.20	72.40	35.00	17.20	14.20	11.20	0.00	0.00		
2	18.70	55.00	42.50	39.00	109.60	81.40	38.50	17.20	13.60	11.20	0.00	0.00		
3	17.20	45.00	32.60	38.00	110.20	84.40	41.00	17.20	13.00	11.20	0.00	0.00		
4	17.20	54.00	45.50	42.00	132.80	111.40	34.50	17.20	14.20	11.20	0.00	0.00		
5	17.20	46.50	47.00	40.00	137.70	98.80	30.60	19.30	14.20	11.20	0.00	0.00		
6	17.20	45.00	45.00	50.00	181.80	90.40	31.40	18.40	14.20	11.20	0.00	0.00		
7	17.80	44.00	42.50	176.90	134.90	95.80	29.40	20.20	14.20	11.20	0.00	0.00		
8	17.80	41.50	47.50	104.20	158.70	96.40	30.60	18.40	14.20	10.00	0.00	0.00		
9	18.40	36.00	54.00	53.00	174.10	99.40	30.60	17.20	6.20	8.40	0.00	0.00		
10	17.80	31.40	186.70	90.40	143.30	96.40	28.60	19.30	13.60	6.80	0.00	0.00		
11	17.20	31.80	263.20	230.25	116.20	69.40	33.50	19.60	13.60	6.80	0.00	0.00		
12	17.20	30.60	217.50	106.60	82.60	106.60	33.50	18.10	14.80	8.80	0.00	0.00		
13	16.60	31.80	188.80	90.40	80.20	197.90	26.60	17.20	12.40	8.40	0.00	0.00		
14	16.60	33.00	132.80	86.20	72.40	236.25	23.20	17.20	11.20	8.00	0.00	0.00		
15	16.00	34.00	66.40	266.40	165.70	237.00	41.50	17.20	11.20	6.80	0.00	0.00		
16	15.40	42.50	68.20	212.25	112.60	210.00	36.50	16.60	11.20	6.80	0.00	0.00		
17	16.00	36.50	59.20	86.20	98.20	174.80	30.60	16.00	11.20	7.20	0.00	0.00		
18	17.20	32.60	50.00	146.80	104.20	132.80	60.40	16.60	11.20	11.20	0.00	0.00		
19	17.20	31.00	53.00	114.40	202.80	130.70	23.20	17.20	11.20	0.00	0.00	0.00		
20	17.20	30.60	72.40	114.40	300.80	101.80	23.20	17.20	11.20	0.00	0.00	0.00		
21	17.20	40.00	78.40	100.60	307.20	89.80	23.20	17.20	11.80	0.00	0.00	0.00		
22	20.20	41.50	69.40	78.40	249.75	71.80	23.20	17.80	11.80	0.00	0.00	0.00		
23	23.20	40.50	57.50	87.40	162.90	63.40	21.10	17.20	11.80	0.00	0.00	0.00		
24	23.20	45.00	50.00	72.40	130.70	74.20	30.60	15.10	11.50	0.00	0.00	0.00		
25	23.20	37.50	51.50	72.40	100.60	57.50	30.60	15.40	11.50	0.00	0.00	0.00		
26	23.20	46.50	47.50	84.40	94.60	66.40	25.40	14.50	11.20	0.00	0.00	0.00		
27	23.20	48.00	50.00	92.20	82.60	47.50	23.20	12.70	13.00	0.00	0.00	0.00		
28	132.80	49.50	42.50	216.75	139.80	37.50	20.80	11.20	13.00	0.00	0.00	0.00		
29	155.90	41.00	42.50	141.90	87.40	35.00	18.10	12.10	12.70	0.00		0.00		
30	128.20	42.50	40.00	111.40	90.40	35.00	17.20	14.20	12.40	0.00		0.00		
31		47.50		141.90	75.40		17.20		12.10	0.00		0.00		
Total	912.80	1278.70	2289.60	3327.15	4241.35	3102.15	913.00	501.90	383.60	167.60	0.00	0.00	17117.85	CMSDAY
Mean	30.43	41.25	76.32	107.33	136.82	103.41	29.45	16.73	12.37	5.41	0.00	0.00	46.90	CMS
Max	155.90	66.40	263.20	266.40	307.20	237.00	60.40	20.20	14.80	11.20	0.00	0.00	307.20	CMS
Min	15.40	30.60	32.60	38.00	72.40	35.00	17.20	11.20	6.20	0.00	0.00	0.00	0.00	CMS
Runoff	78.87	110.48	197.82	287.47	366.45	268.03	78.88	43.36	33.14	14.48	0.00	0.00	1478.98	MCM

Momentary Peak 319.20 CMS, at 7.24 m. (MSL.), at 18.00 Hours, on Aug 20, 2018

Runoff Yield 49.06 Liters/Second/Square KM. Momentary Peak Yield 333.89 Liters/Second/Square KM.

WATER YEAR : 2018

EAST COAST - GULF BASIN

Khlong Thung Plae at Ban Ta Bok Tia , Chanthaburi (Z.56)

Lat 12 - 49 - 09 N Long 102 - 14 - 20 E

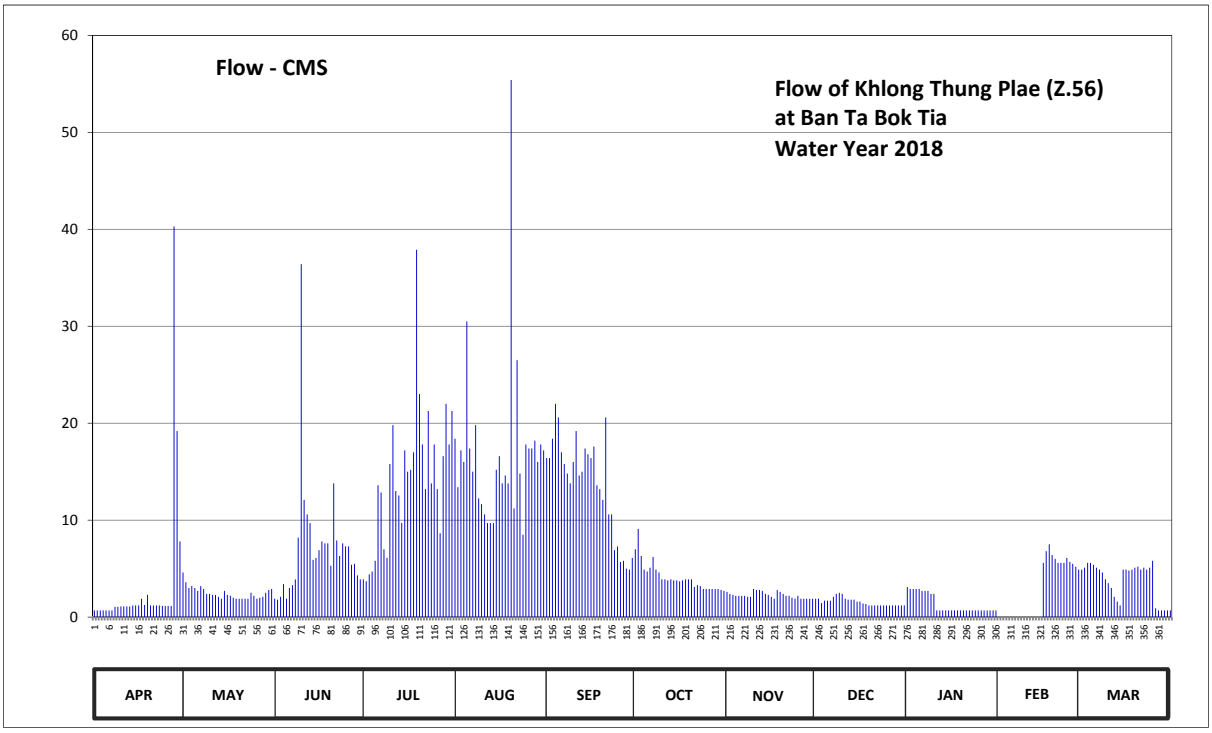
Location : on left bank at the bridge on highway.

	Ban Ta Bok Tia	**Amphoe** Makham	**Changwat** Chanthaburi
Drainge Area	100 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+24.743 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank near the gage site.		**Elevation** +32.738 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic mean of 3 readings		
Period of Available Gage Records	2007 to date		
Rating Operation			
Period of Rating	2007 to date		
Rated by Flot	-		
Rated by Current Meter	2007 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 26 discharge measurements made in 2018.		
Raemark	1 - 15 Feb. With the effect of overflowing weirs		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	24.74	25.21	24.94	25.14	26.17	26.07	25.45	25.01	24.94	25.06		25.24	
2	24.74	25.11	24.93	25.12	25.92	26.07	25.64	24.99	24.94	25.04		25.26	
3	24.74	25.05	24.96	25.19	26.11	26.17	25.38	24.98	24.89	25.04		25.31	
4	24.74	25.07	25.09	25.22	26.05	26.34	25.24	24.97	24.92	25.04		25.31	
5	24.74	25.05	24.94	25.33	26.68	26.28	25.22	24.97	24.92	25.04		25.29	
6	24.74	25.02	25.05	25.93	26.12	26.10	25.26	24.97	24.92	25.02		25.26	
7	24.74	25.07	25.08	25.89	26.00	26.04	25.37	24.97	24.96	25.02		25.24	
8	24.81	25.04	25.14	25.45	26.24	25.99	25.24	24.96	24.99	25.02		25.21	
9	24.81	24.99	25.57	25.36	25.85	25.94	25.21	24.96	25.00	24.99		25.14	
10	24.82	24.99	26.88	26.04	25.81	26.05	25.14	25.04	24.99	24.99		25.10	
11	24.82	24.98	25.84	26.24	25.74	26.21	25.14	25.03	24.94	24.74		25.05	
12	24.82	24.98	25.74	25.90	25.68	25.98	25.13	25.03	24.93	24.74		24.96	
13	24.82	24.96	25.68	25.87	25.68	26.00	25.14	25.02	24.93	24.74		24.91	
14	24.84	24.94	25.34	25.68	25.68	26.12	25.13	24.99	24.93	24.74		24.84	
15	24.84	25.02	25.36	26.11	26.01	26.09	25.13	24.98	24.91	24.74		25.24	
16	24.84	24.98	25.44	26.00	26.08	26.07	25.12	24.96	24.91	24.74	25.31	25.24	
17	24.94	24.97	25.53	26.01	25.94	26.13	25.13	24.94	24.88	24.74	25.43	25.23	
18	24.85	24.95	25.51	26.10	25.98	25.93	25.14	25.03	24.87	24.74	25.50	25.24	
19	24.98	24.94	25.51	26.93	25.94	25.91	25.14	25.01	24.84	24.74	25.39	25.26	
20	24.84	24.94	25.28	26.38	27.41	25.84	25.14	24.99	24.84	24.74	25.35	25.27	
21	24.84	24.94	25.94	26.14	25.78	26.28	25.06	24.97	24.84	24.74	25.31	25.24	
22	24.84	24.94	25.54	25.91	26.52	25.74	25.08	24.97	24.84	24.74	25.31	25.26	
23	24.84	24.94	25.38	26.31	25.99	25.74	25.07	24.95	24.84	24.74	25.31	25.24	
24	24.83	25.00	25.51	25.94	25.60	25.44	25.04	24.94	24.84	24.74	25.36	25.26	
25	24.83	24.97	25.48	26.14	26.14	25.48	25.04	24.97	24.84	24.74	25.32	25.33	
26	24.83	24.94	25.48	25.91	26.12	25.32	25.04	24.94	24.84	24.74	25.30	24.78	
27	24.83	24.95	25.29	25.61	26.12	25.33	25.04	24.94	24.84	24.74	25.27	24.74	
28	27.01	24.96	25.30	26.08	26.16	25.25	25.04	24.94	24.84	24.74	25.24	24.74	
29	26.21	25.00	25.18	26.34	26.05	25.24	25.04	24.94	24.84	24.74		24.74	
30	25.53	25.03	25.14	26.14	26.14	25.36	25.03	24.94	24.84	24.74		24.74	
31		25.04		26.31	26.11		25.02		24.84	24.74		24.74	
Mean	24.96	25.00	25.40	25.89	26.06	25.88	25.16	24.98	24.89	24.83	25.02	25.11	
Max	27.01	25.21	26.88	26.93	27.41	26.34	25.64	25.04	25.00	25.06	25.50	25.33	27.41
Min	24.74	24.94	24.93	25.12	25.60	25.24	25.02	24.94	24.84	24.74	25.24	24.74	24.74

Annual Max Momentary Gage Height	28.24	m. (MSL.) ,	at 12.00 Hours, on Aug 20, 2018		
Zero Gage at Bottom Elevation	24.74	m. (MSL.) ,	River Bed	24.54	m. (MSL.)
Left Bank Elevation	31.44	m. (MSL.) ,			
Right Bank Elevation	30.88	m. (MSL.) ,	Drainage Are	100	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.70	4.60	1.90	3.90	18.40	16.40	7.00	2.60	1.90	3.10		4.90		
2	0.70	3.60	1.80	3.70	13.40	16.40	9.10	2.40	1.90	2.90		5.10		
3	0.70	3.00	2.10	4.40	17.20	18.40	6.30	2.30	1.45	2.90		5.60		
4	0.70	3.20	3.40	4.70	16.00	22.00	4.90	2.20	1.70	2.90		5.60		
5	0.70	3.00	1.90	5.80	30.50	20.60	4.70	2.20	1.70	2.90		5.40		
6	0.70	2.70	3.00	13.60	17.40	17.00	5.10	2.20	1.70	2.70		5.10		
7	0.70	3.20	3.30	12.85	15.00	15.80	6.20	2.20	2.10	2.70		4.90		
8	1.05	2.90	3.90	7.00	19.80	14.80	4.90	2.10	2.40	2.70		4.60		
9	1.05	2.40	8.20	6.10	12.25	13.80	4.60	2.10	2.50	2.40		3.90		
10	1.10	2.40	36.40	15.80	11.65	16.00	3.90	2.90	2.40	2.40		3.50		
11	1.10	2.30	12.10	19.80	10.60	19.20	3.90	2.80	1.90	0.70		3.00		
12	1.10	2.30	10.60	13.00	9.70	14.60	3.80	2.80	1.80	0.70		2.10		
13	1.10	2.10	9.70	12.55	9.70	15.00	3.90	2.70	1.80	0.70		1.60		
14	1.20	1.90	5.90	9.70	9.70	17.40	3.80	2.40	1.80	0.70		1.20		
15	1.20	2.70	6.10	17.20	15.20	16.80	3.80	2.30	1.60	0.70		4.90		
16	1.20	2.30	6.90	15.00	16.60	16.40	3.70	2.10	1.60	0.70	5.60	4.90		
17	1.90	2.20	7.80	15.20	13.80	17.60	3.80	1.90	1.40	0.70	6.80	4.80		
18	1.25	2.00	7.60	17.00	14.60	13.60	3.90	2.80	1.35	0.70	7.50	4.90		
19	2.30	1.90	7.60	37.90	13.80	13.20	3.90	2.60	1.20	0.70	6.40	5.10		
20	1.20	1.90	5.30	23.00	55.40	12.10	3.90	2.40	1.20	0.70	6.00	5.20		
21	1.20	1.90	13.80	17.80	11.20	20.60	3.10	2.20	1.20	0.70	5.60	4.90		
22	1.20	1.90	7.90	13.20	26.50	10.60	3.30	2.20	1.20	0.70	5.60	5.10		
23	1.20	1.90	6.30	21.25	14.80	10.60	3.20	2.00	1.20	0.70	5.60	4.90		
24	1.15	2.50	7.60	13.80	8.50	6.90	2.90	1.90	1.20	0.70	6.10	5.10		
25	1.15	2.20	7.30	17.80	17.80	7.30	2.90	2.20	1.20	0.70	5.70	5.80		
26	1.15	1.90	7.30	13.20	17.40	5.70	2.90	1.90	1.20	0.70	5.50	0.90		
27	1.15	2.00	5.40	8.65	17.40	5.80	2.90	1.90	1.20	0.70	5.20	0.70		
28	40.30	2.10	5.50	16.60	18.20	5.00	2.90	1.90	1.20	0.70	4.90	0.70		
29	19.20	2.50	4.30	22.00	16.00	4.90	2.90	1.90	1.20	0.70		0.70		
30	7.80	2.80	3.90	17.80	17.80	6.10	2.80	1.90	1.20	0.70		0.70		
31		2.90		21.25	17.20		2.70		1.20	0.70		0.70		
Total	97.15	77.20	214.80	441.55	523.50	410.60	127.60	68.00	48.60	42.30	76.50	116.50	2244.30	CMSDAY
Mean	3.24	2.49	7.16	14.24	16.89	13.69	4.12	2.27	1.57	1.36	5.88	3.76	6.41	CMS
Max	40.30	4.60	36.40	37.90	55.40	22.00	9.10	2.90	2.50	3.10	7.50	5.80	55.40	CMS
Min	0.70	1.90	1.80	3.70	8.50	4.90	2.70	1.90	1.20	0.70	4.90	0.70	0.70	CMS
Runoff	8.39	6.67	18.56	38.15	45.23	35.48	11.02	5.88	4.20	3.65	6.61	10.07	193.91	MCM

Momentary Peak 92.00 CMS, at 28.24 m. (MSL.), at 12.00 Hours, on Aug 20, 2018

Runoff Yield 61.49 Liters/Second/Square KM. Momentary Peak Yield 920.00 Liters/Second/Square KM.

WATER YEAR : 2018

EAST COAST - GULF BASIN

Khlong Nak at Ban Bo Rai , Trat (Z.59)

Lat 12 - 21 - 45 N Long 102 - 32 - 38 E

Location : on left bank at the bridge on highway.

Ban Bo Rai **Amphoe** Bo Rai **Changwat** Trat

Drainge Area	87 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+16.570 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank near the gage site. **Elevation** +25.570 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	2010 to date
Rating Operation	
Period of Rating	2010 to date
Rated by Flot	-
Rated by Current Meter	2010 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	Overbank flow starts at elevation + 24.340 m.(MSL.), records are channel flow only.
General Description	Records good. Stage-discharge relation defined by 27 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

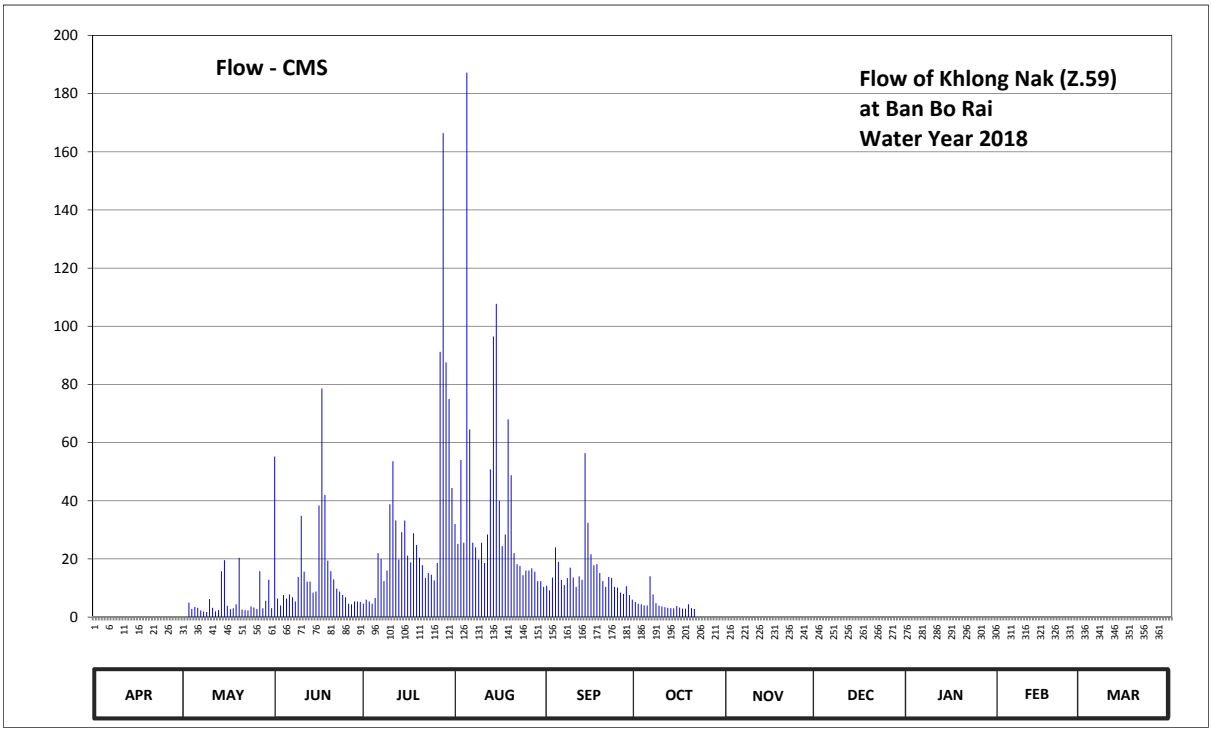
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	21.89	22.01	21.68	20.03	21.10	20.34	20.06	21.96	21.93	21.90	21.88	21.82	
2	21.89	20.47	20.12	20.10	20.93	20.26	20.03	21.95	21.93	21.90	21.88	21.81	
3	21.90	20.05	20.00	20.07	21.65	20.48	20.02	21.95	21.92	21.90	21.88	21.81	
4	21.89	19.88	20.18	20.03	20.94	20.90	20.00	21.95	21.92	21.90	21.89	21.80	
5	21.88	19.95	20.12	20.13	23.69	20.75	20.00	21.95	21.92	21.91	21.89	21.79	
6	21.88	19.92	20.19	20.85	21.89	20.44	20.50	21.95	21.92	21.91	21.89	21.78	
7	21.89	19.83	20.14	20.80	20.94	20.35	20.19	21.95	21.92	21.91	21.89	21.77	
8	21.88	19.78	20.07	20.42	20.90	20.47	20.04	21.95	21.92	21.91	21.89	21.77	
9	21.88	19.75	20.49	20.60	20.79	20.65	19.99	21.95	21.94	21.91	21.88	21.76	
10	21.88	20.11	21.17	21.27	20.94	20.48	19.97	21.95	21.93	21.91	21.87	21.75	
11	21.88	19.92	20.58	21.64	20.73	20.32	19.94	21.95	21.93	21.91	21.87	21.74	
12	21.87	19.79	20.41	21.13	21.01	20.50	19.92	21.95	21.92	21.90	21.87	21.72	
13	21.87	19.84	20.41	20.79	21.57	20.44	19.91	21.95	21.92	21.90	21.86	21.71	
14	21.87	20.59	20.22	21.03	22.45	21.71	19.90	21.95	21.92	21.90	21.86	21.69	
15	21.88	20.78	20.24	21.13	22.61	21.11	19.98	21.94	21.92	21.90	21.85	21.64	
16	21.88	19.99	21.26	20.83	21.30	20.84	19.93	21.94	21.92	21.90	21.83	21.58	
17	22.03	19.87	22.16	20.74	20.91	20.69	19.89	21.94	21.91	21.90	21.83	21.57	
18	22.03	19.90	21.35	21.02	21.01	20.71	19.89	21.94	21.92	21.90	21.82	21.56	
19	21.93	20.02	20.77	20.92	21.96	20.56	20.02	21.94	21.91	21.90	21.82	21.55	
20	21.91	20.81	20.59	20.81	21.52	20.42	19.91	21.94	21.91	21.89	21.82	21.53	
21	21.90	19.86	20.45	20.69	20.85	20.32	19.88	21.93	21.91	21.89	21.84	21.51	
22	21.92	19.84	20.29	20.47	20.71	20.49	20.28	21.93	21.91	21.89	21.84	21.49	
23	21.92	19.83	20.24	20.56	20.68	20.47	21.99	21.93	21.91	21.89	21.85	21.53	
24	21.90	19.97	20.18	20.53	20.52	20.32	21.98	21.93	21.91	21.89	21.86	21.74	
25	21.90	19.93	20.14	20.43	20.60	20.31	21.98	21.93	21.91	21.89	21.86	21.94	
26	21.89	19.88	20.03	20.73	20.60	20.22	21.98	21.93	21.91	21.89	21.84	21.94	
27	21.89	20.59	20.02	22.37	20.64	20.20	21.97	21.93	21.91	21.89	21.83	21.92	
28	21.89	19.90	20.07	23.43	20.58	20.33	21.97	21.93	21.91	21.88	21.83	21.91	
29	21.89	20.08	20.07	22.31	20.42	20.18	21.97	21.93	21.91	21.88		21.90	
30	21.92	20.44	20.06	22.10	20.42	20.10	21.97	21.93	21.91	21.88		21.89	
31		19.91		21.41	20.32		21.96		21.90	21.88		21.90	
Mean	21.90	20.11	20.46	20.95	21.13	20.51	20.58	21.94	21.92	21.90	21.86	21.74	
Max	22.03	22.01	22.16	23.43	23.69	21.71	21.99	21.96	21.94	21.91	21.89	21.94	23.69
Min	21.87	19.75	20.00	20.03	20.32	20.10	19.88	21.93	21.90	21.88	21.82	21.49	19.75

Annual Max Momentary Gage Height 25.50 m. (MSL.) , at 06.00 Hours, on Jul 28, 2018

Zero Gage at Bottom Elevation 16.57 m. (MSL.) , River Bed 16.42 m. (MSL.)

Left Bank Elevation 24.71 m. (MSL.) ,

Right Bank Elevation 24.33 m. (MSL.) , Drainage Area 87 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	55.20	4.60	32.00	10.80	5.20	0.00	0.00	0.00	0.00	0.00		
2	0.00	0.00	6.40	6.00	25.20	9.20	4.60	0.00	0.00	0.00	0.00	0.00		
3	0.00	5.00	4.00	5.40	54.00	13.60	4.40	0.00	0.00	0.00	0.00	0.00		
4	0.00	2.80	7.60	4.60	25.60	24.00	4.00	0.00	0.00	0.00	0.00	0.00		
5	0.00	3.50	6.40	6.60	187.20	19.00	4.00	0.00	0.00	0.00	0.00	0.00		
6	0.00	3.20	7.80	22.00	64.50	12.80	14.00	0.00	0.00	0.00	0.00	0.00		
7	0.00	2.30	6.80	20.00	25.60	11.00	7.80	0.00	0.00	0.00	0.00	0.00		
8	0.00	1.90	5.40	12.40	24.00	13.40	4.80	0.00	0.00	0.00	0.00	0.00		
9	0.00	1.75	13.80	16.00	19.80	17.00	3.90	0.00	0.00	0.00	0.00	0.00		
10	0.00	6.20	34.80	38.80	25.60	13.60	3.70	0.00	0.00	0.00	0.00	0.00		
11	0.00	3.20	15.60	53.60	18.60	10.40	3.40	0.00	0.00	0.00	0.00	0.00		
12	0.00	1.95	12.20	33.20	28.40	14.00	3.20	0.00	0.00	0.00	0.00	0.00		
13	0.00	2.40	12.20	19.80	50.80	12.80	3.10	0.00	0.00	0.00	0.00	0.00		
14	0.00	15.80	8.40	29.20	96.50	56.40	3.00	0.00	0.00	0.00	0.00	0.00		
15	0.00	19.60	8.80	33.20	107.70	32.40	3.80	0.00	0.00	0.00	0.00	0.00		
16	0.00	3.90	38.40	21.20	40.00	21.60	3.30	0.00	0.00	0.00	0.00	0.00		
17	0.00	2.70	78.60	18.80	24.40	17.80	2.90	0.00	0.00	0.00	0.00	0.00		
18	0.00	3.00	42.00	28.80	28.40	18.20	2.90	0.00	0.00	0.00	0.00	0.00		
19	0.00	4.40	19.40	24.80	68.00	15.20	4.40	0.00	0.00	0.00	0.00	0.00		
20	0.00	20.40	15.80	20.40	48.80	12.40	3.10	0.00	0.00	0.00	0.00	0.00		
21	0.00	2.60	13.00	17.80	22.00	10.40	2.80	0.00	0.00	0.00	0.00	0.00		
22	0.00	2.40	9.80	13.40	18.20	13.80	0.00	0.00	0.00	0.00	0.00	0.00		
23	0.00	2.30	8.80	15.20	17.60	13.40	0.00	0.00	0.00	0.00	0.00	0.00		
24	0.00	3.70	7.60	14.60	14.40	10.40	0.00	0.00	0.00	0.00	0.00	0.00		
25	0.00	3.30	6.80	12.60	16.00	10.20	0.00	0.00	0.00	0.00	0.00	0.00		
26	0.00	2.80	4.60	18.60	16.00	8.40	0.00	0.00	0.00	0.00	0.00	0.00		
27	0.00	15.80	4.40	91.20	16.80	8.00	0.00	0.00	0.00	0.00	0.00	0.00		
28	0.00	3.00	5.40	166.40	15.60	10.60	0.00	0.00	0.00	0.00	0.00	0.00		
29	0.00	5.60	5.40	87.60	12.40	7.60	0.00	0.00	0.00	0.00		0.00		
30	0.00	12.80	5.20	75.00	12.40	6.00	0.00	0.00	0.00	0.00		0.00		
31		3.10		44.40	10.40		0.00		0.00	0.00		0.00		
Total	0.00	161.40	470.60	976.20	1166.90	454.40	92.30	0.00	0.00	0.00	0.00	0.00	3321.80	CMSDAY
Mean	0.00	5.21	15.69	31.49	37.64	15.15	2.98	0.00	0.00	0.00	0.00	0.00	9.10	CMS
Max	0.00	20.40	78.60	166.40	187.20	56.40	14.00	0.00	0.00	0.00	0.00	0.00	187.20	CMS
Min	0.00	0.00	4.00	4.60	10.40	6.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	0.00	13.94	40.66	84.34	100.82	39.26	7.97	0.00	0.00	0.00	0.00	0.00	287.00	MCM

Momentary Peak 375.00 CMS, at 25.50 m. (MSL.), at 06.00 Hours, on Jul 28, 2018

Runoff Yield 104.61 Liters/Second/Square KM. Momentary Peak Yield 4310.34 Liters/Second/Square KM.

WATER YEAR : 2018

EAST COAST - GULF BASIN

Khlong Yai at Ban Khai , Rayong (Z.62)

Lat 12 - 47 - 01 N Long 101 - 17 - 45 E

Location : on right bank at the bridge on highway.

	Ban Khai	**Amphoe** Ban Khai	**Changwat** Rayong
Drainge Area	1,220 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank near the gage site.		**Elevation** +11.134 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic mean of 3 readings		
Period of Available Gage Records	2015 to date		
Rating Operation			
Period of Rating	2015 to date		
Rated by Flot	-		
Rated by Current Meter	2015 to date		
Stability of Channel Regimes	Rather unstable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 19 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

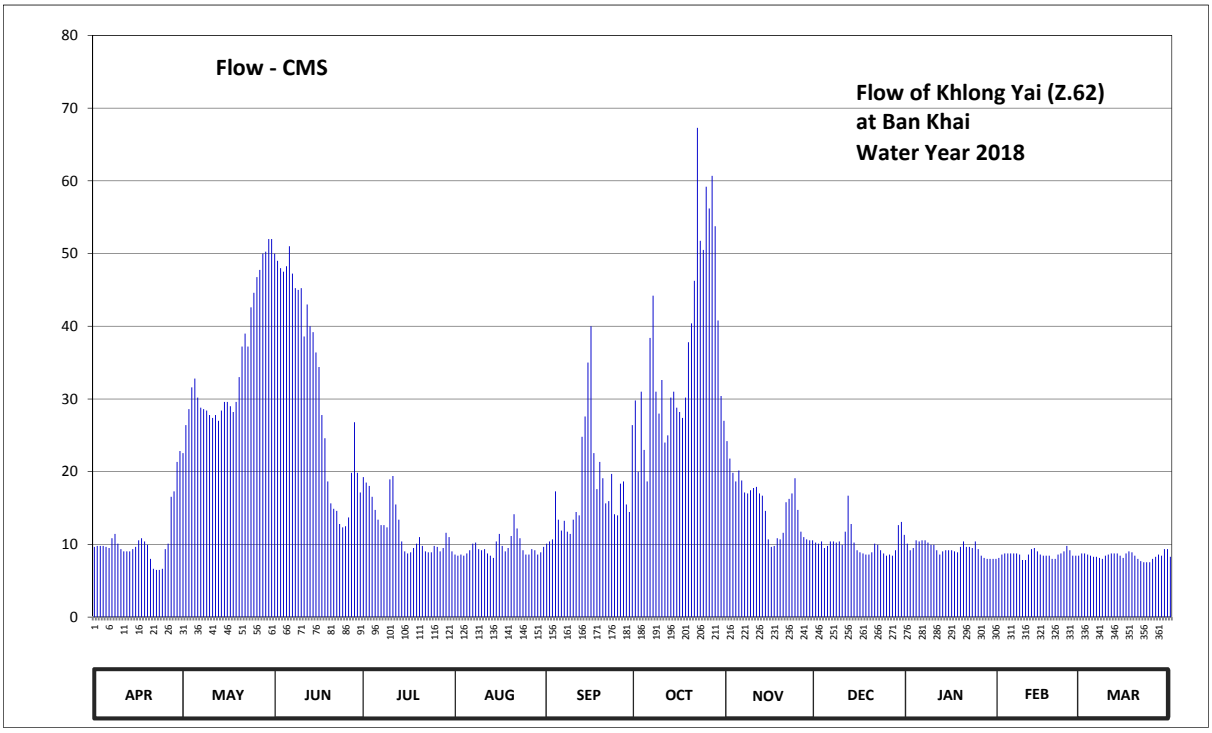
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	2.51	3.37	4.70	3.15	2.44	2.54	3.74	3.46	2.55	2.54	2.41	2.45	
2	2.52	3.57	4.66	3.10	2.43	2.56	3.20	3.32	2.54	2.48	2.44	2.45	
3	2.52	3.68	4.62	3.07	2.44	2.58	3.80	3.19	2.56	2.50	2.45	2.44	
4	2.52	3.83	4.60	2.97	2.43	3.02	3.40	3.11	2.50	2.57	2.45	2.43	
5	2.51	3.89	4.63	2.85	2.45	2.76	3.11	3.21	2.52	2.56	2.45	2.42	
6	2.50	3.76	4.74	2.76	2.48	2.66	4.17	3.12	2.56	2.57	2.45	2.42	
7	2.59	3.69	4.59	2.71	2.54	2.75	4.46	3.01	2.56	2.57	2.45	2.41	
8	2.63	3.68	4.51	2.71	2.55	2.65	3.80	3.00	2.55	2.55	2.44	2.40	
9	2.54	3.67	4.50	2.69	2.49	2.63	3.65	3.03	2.56	2.53	2.39	2.43	
10	2.49	3.64	4.51	3.13	2.48	2.76	3.88	3.05	2.53	2.53	2.39	2.44	
11	2.47	3.62	4.18	3.16	2.49	2.83	3.45	3.06	2.65	2.48	2.44	2.45	
12	2.47	3.64	4.40	2.90	2.45	2.80	3.50	3.00	2.98	2.44	2.49	2.45	
13	2.47	3.60	4.25	2.76	2.43	3.49	3.76	2.98	2.72	2.47	2.50	2.45	
14	2.49	3.67	4.21	2.56	2.41	3.63	3.80	2.84	2.55	2.48	2.47	2.43	
15	2.51	3.73	4.07	2.47	2.56	4.00	3.69	2.58	2.48	2.48	2.44	2.41	
16	2.57	3.73	3.97	2.45	2.63	4.25	3.66	2.51	2.46	2.48	2.43	2.45	
17	2.59	3.70	3.64	2.46	2.52	3.37	3.62	2.52	2.45	2.47	2.43	2.47	
18	2.56	3.66	3.48	2.50	2.47	3.04	3.76	2.59	2.44	2.46	2.43	2.46	
19	2.53	3.73	3.11	2.54	2.50	3.29	4.14	2.58	2.44	2.51	2.40	2.43	
20	2.40	3.90	2.91	2.60	2.61	3.14	4.27	2.64	2.46	2.56	2.40	2.40	
21	2.31	4.11	2.86	2.52	2.81	2.91	4.55	2.92	2.54	2.51	2.44	2.38	
22	2.30	4.20	2.84	2.47	2.68	2.93	5.31	2.95	2.53	2.51	2.45	2.37	
23	2.30	4.11	2.72	2.46	2.59	3.18	4.77	3.00	2.48	2.50	2.47	2.37	
24	2.31	4.38	2.69	2.46	2.48	2.81	4.72	3.14	2.45	2.56	2.52	2.37	
25	2.49	4.48	2.70	2.52	2.44	2.80	5.04	2.85	2.43	2.49	2.48	2.40	
26	2.54	4.57	2.78	2.51	2.44	3.09	4.94	2.65	2.44	2.43	2.43	2.42	
27	2.97	4.61	3.19	2.47	2.49	3.11	5.09	2.60	2.43	2.41	2.43	2.44	
28	3.02	4.70	3.59	2.50	2.48	2.90	4.85	2.58	2.48	2.40	2.43	2.43	
29	3.29	4.71	3.19	2.64	2.44	2.83	4.29	2.57	2.71	2.40		2.49	
30	3.39	4.78	3.01	2.60	2.46	3.57	3.77	2.57	2.74	2.40		2.49	
31		4.78		2.47	2.51		3.60		2.62	2.40		2.42	
Mean	2.58	3.97	3.79	2.68	2.50	3.03	4.06	2.89	2.55	2.49	2.44	2.43	
Max	3.39	4.78	4.74	3.16	2.81	4.25	5.31	3.46	2.98	2.57	2.52	2.49	5.31
Min	2.30	3.37	2.69	2.45	2.41	2.54	3.11	2.51	2.43	2.40	2.39	2.37	2.30

Annual Max Momentary Gage Height 6.19 m. (MSL.) , at 11.00 Hours, on Oct 22, 2018

Zero Gage at Bottom Elevation 0.00 m. (MSL.) , River Bed 2.86 m. (MSL.)

Left Bank Elevation 10.61 m. (MSL.) ,

Right Bank Elevation 8.76 m. (MSL.) , Drainage Are 1,220 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	9.65	22.55	50.00	19.25	8.60	10.10	29.80	24.20	10.25	10.10	8.15	8.75		
2	9.80	26.40	49.00	18.50	8.45	10.40	20.00	21.80	10.10	9.20	8.60	8.75		
3	9.80	28.60	48.00	18.05	8.60	10.70	31.00	19.85	10.40	9.50	8.75	8.60		
4	9.80	31.60	47.50	16.55	8.45	17.30	23.00	18.65	9.50	10.55	8.75	8.45		
5	9.65	32.80	48.25	14.75	8.75	13.40	18.65	20.15	9.80	10.40	8.75	8.30		
6	9.50	30.20	51.00	13.40	9.20	11.90	38.40	18.80	10.40	10.55	8.75	8.30		
7	10.85	28.80	47.25	12.65	10.10	13.25	44.20	17.15	10.40	10.55	8.75	8.15		
8	11.45	28.60	45.25	12.65	10.25	11.75	31.00	17.00	10.25	10.25	8.60	8.00		
9	10.10	28.40	45.00	12.35	9.35	11.45	28.00	17.45	10.40	9.95	7.85	8.45		
10	9.35	27.80	45.25	18.95	9.20	13.40	32.60	17.75	9.95	9.95	7.85	8.60		
11	9.05	27.40	38.60	19.40	9.35	14.45	24.00	17.90	11.75	9.20	8.60	8.75		
12	9.05	27.80	43.00	15.50	8.75	14.00	25.00	17.00	16.70	8.60	9.35	8.75		
13	9.05	27.00	40.00	13.40	8.45	24.80	30.20	16.70	12.80	9.05	9.50	8.75		
14	9.35	28.40	39.20	10.40	8.15	27.60	31.00	14.60	10.25	9.20	9.05	8.45		
15	9.65	29.60	36.40	9.05	10.40	35.00	28.80	10.70	9.20	9.20	8.60	8.15		
16	10.55	29.60	34.40	8.75	11.45	40.00	28.20	9.65	8.90	9.20	8.45	8.75		
17	10.85	29.00	27.80	8.90	9.80	22.55	27.40	9.80	8.75	9.05	8.45	9.05		
18	10.40	28.20	24.60	9.50	9.05	17.60	30.20	10.85	8.60	8.90	8.45	8.90		
19	9.95	29.60	18.65	10.10	9.50	21.35	37.80	10.70	8.60	9.65	8.00	8.45		
20	8.00	33.00	15.65	11.00	11.15	19.10	40.40	11.60	8.90	10.40	8.00	8.00		
21	6.65	37.20	14.90	9.80	14.15	15.65	46.25	15.80	10.10	9.65	8.60	7.70		
22	6.50	39.00	14.60	9.05	12.20	15.95	67.30	16.25	9.95	9.65	8.75	7.55		
23	6.50	37.20	12.80	8.90	10.85	19.70	51.75	17.00	9.20	9.50	9.05	7.55		
24	6.65	42.60	12.35	8.90	9.20	14.15	50.50	19.10	8.75	10.40	9.80	7.55		
25	9.35	44.60	12.50	9.80	8.60	14.00	59.20	14.75	8.45	9.35	9.20	8.00		
26	10.10	46.75	13.70	9.65	8.60	18.35	56.20	11.75	8.60	8.45	8.45	8.30		
27	16.55	47.75	19.85	9.05	9.35	18.65	60.70	11.00	8.45	8.15	8.45	8.60		
28	17.30	50.00	26.80	9.50	9.20	15.50	53.75	10.70	9.20	8.00	8.45	8.45		
29	21.35	50.25	19.85	11.60	8.60	14.45	40.80	10.55	12.65	8.00		9.35		
30	22.85	52.00	17.15	11.00	8.90	26.40	30.40	10.55	13.10	8.00		9.35		
31		52.00		9.05	9.65		27.00		11.30	8.00		8.30		
Total	319.65	1074.70	959.30	379.40	296.30	532.90	1143.50	459.75	315.65	290.60	242.00	261.05	6274.80	CMSDAY
Mean	10.66	34.67	31.98	12.24	9.56	17.76	36.89	15.33	10.18	9.37	8.64	8.42	17.19	CMS
Max	22.85	52.00	51.00	19.40	14.15	40.00	67.30	24.20	16.70	10.55	9.80	9.35	67.30	CMS
Min	6.50	22.55	12.35	8.75	8.15	10.10	18.65	9.65	8.45	8.00	7.85	7.55	6.50	CMS
Runoff	27.62	92.85	82.88	32.78	25.60	46.04	98.80	39.72	27.27	25.11	20.91	22.55	542.14	MCM

Momentary Peak 95.15 CMS, at 6.19 m. (MSL.), at 11.00 Hours, on Oct 22, 2018

Runoff Yield 14.09 Liters/Second/Square KM. Momentary Peak Yield 77.99 Liters/Second/Square KM.

WATER YEAR : 2018

EAST COAST - GULF BASIN

Khlong Wang Suan Luang at Ban Pra Gad , Chanthaburi (Z.63)

Lat 12 - 56 - 47 N Long 101 - 52 - 30 E

Location : on right bank at the bridge on highway.

Ban Pra Gad **Amphoe** Kaeng Hang Maeo **Changwat** Chanthaburi

Drainge Area	1,106 sq.km.
Type of Gage	Water - stage recorder.
Zero Gage at Bottom	+0.000 m. (A.D.)
Bench Mark	B.M.-H.D.
Location BM	On right bank near the gage site. **Elevation** +7.000 m. (A.D.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	2018 to date
Rating Operation	
Period of Rating	2018 to date
Rated by Flot	-
Rated by Current Meter	2018 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	Overbank flow starts at elevation + 6.160 m.(A.D.), records are channel flow only.
General Description	Records good. Stage-discharge relation defined by 22 discharge measurements made in 2018.

Gage Height in Meter (A.D.) Water Year April 1, 2018 to March 31, 2019

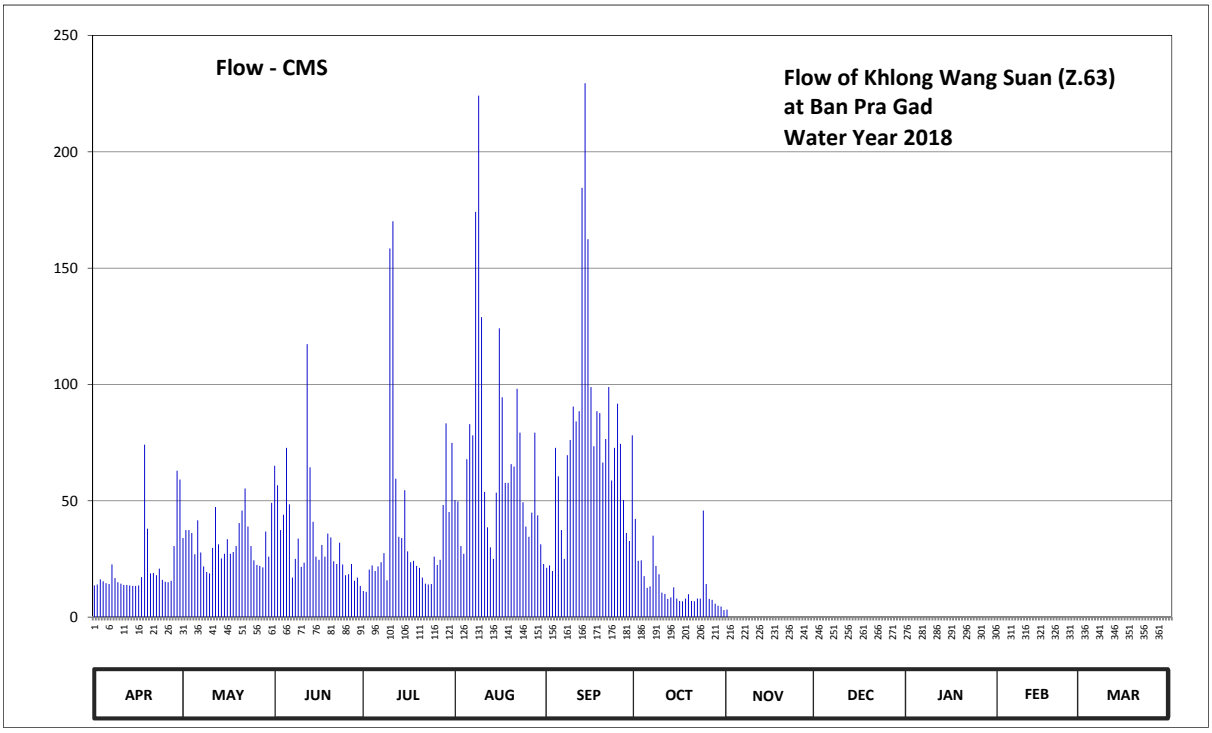
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	1.23	2.16	3.13	1.11	2.71	1.61	2.44	0.52	1.24	1.15	0.73	1.33	
2	1.25	2.28	2.89	1.09	2.69	1.66	1.76	0.95	1.24	1.14	0.71	1.33	
3	1.36	2.28	2.28	1.57	2.02	1.54	1.77	1.20	1.24	1.13	0.69	1.33	
4	1.32	2.24	2.50	1.66	1.89	3.35	1.43	1.19	1.23	1.12	0.67	1.33	
5	1.28	1.88	3.35	1.54	3.21	3.00	1.18	1.17	1.20	1.12	0.66	1.33	
6	1.26	2.42	2.65	1.64	3.61	2.28	1.21	1.22	1.20	1.11	0.63	1.33	
7	1.68	1.91	1.40	1.73	3.49	1.80	2.20	1.24	1.20	1.10	0.61	1.33	
8	1.39	1.64	1.80	1.90	5.77	3.26	1.65	1.24	1.20	1.10	0.60	1.33	
9	1.30	1.52	2.15	1.34	6.88	3.44	1.47	1.24	1.24	1.08	1.05	1.33	
10	1.27	1.49	1.63	5.42	4.76	3.80	1.07	1.25	1.28	1.07	1.46	1.33	
11	1.24	1.99	1.72	5.68	2.81	3.64	1.03	1.25	1.25	1.06	1.33	1.33	
12	1.24	2.61	4.47	2.97	2.32	3.75	0.89	1.23	1.23	1.05	1.21	1.33	
13	1.23	2.05	3.11	2.18	2.00	6.00	0.93	1.22	1.23	1.03	1.18	1.33	
14	1.22	1.81	2.40	2.16	1.80	7.00	1.19	1.25	1.23	1.02	1.17	1.33	
15	1.22	1.89	1.84	2.83	2.80	5.51	0.90	1.27	1.22	1.00	1.15	1.33	
16	1.23	2.14	1.78	1.93	4.64	4.01	0.83	1.27	1.22	0.99	1.12	1.34	
17	1.41	1.89	2.04	1.73	3.90	3.37	0.82	1.28	1.22	0.97	1.10	1.33	
18	3.39	1.92	1.84	1.76	2.92	3.75	0.90	1.28	1.21	0.96	1.08	1.33	
19	2.30	2.02	2.23	1.65	2.92	3.73	1.02	1.28	1.21	0.95	1.05	1.33	
20	1.49	2.38	2.17	1.61	3.15	3.17	0.83	1.39	1.22	0.93	1.22	1.32	
21	1.50	2.56	1.75	1.40	3.12	3.45	0.82	1.31	1.22	0.92	1.27	1.32	
22	1.45	2.85	1.69	1.27	3.99	4.01	0.90	1.28	1.22	0.90	1.29	1.32	
23	1.59	2.33	2.08	1.25	3.52	2.95	0.90	1.27	1.21	0.88	1.37	1.32	
24	1.35	2.02	1.68	1.26	2.68	3.35	2.56	1.27	1.20	0.87	1.27	1.33	
25	1.31	1.77	1.45	1.84	2.33	3.83	1.26	1.26	1.19	0.85	1.27	1.34	
26	1.30	1.67	1.47	1.67	2.18	3.40	0.89	1.25	1.19	0.83	1.33	1.25	
27	1.33	1.65	1.69	1.78	2.53	2.71	0.86	1.25	1.18	0.81	1.33	1.20	
28	2.02	1.62	1.33	2.64	3.52	2.24	0.75	1.24	1.17	0.80	1.36	1.19	
29	3.07	2.26	1.40	3.62	2.49	2.11	0.69	1.24	1.17	0.78		1.18	
30	2.96	1.84	1.22	2.54	2.05	3.49	0.65	1.24	1.17	0.77		1.21	
31		2.67		3.41	1.69		0.50		1.16	0.75		1.18	
Mean	1.57	2.06	2.10	2.13	3.11	3.37	1.17	1.22	1.21	0.98	1.07	1.30	
Max	3.39	2.85	4.47	5.68	6.88	7.00	2.56	1.39	1.28	1.15	1.46	1.34	7.00
Min	1.22	1.49	1.22	1.09	1.69	1.54	0.50	0.52	1.16	0.75	0.60	1.18	0.50

Annual Max Momentary Gage Height 7.27 m. (A.D.) , at 13.00 Hours, on Sep 14, 2018

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed -3.12 m. (A.D.)

Left Bank Elevation 6.15 m. (A.D.) ,

Right Bank Elevation 6.16 m. (A.D.) , Drainage Are 1,106 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	13.60	34.00	65.05	11.20	50.35	21.20	42.20	3.20	0.00	0.00	0.00	0.00		
2	14.00	37.40	56.65	10.85	49.70	22.20	24.20	0.00	0.00	0.00	0.00	0.00		
3	16.20	37.40	37.40	20.40	30.50	19.80	24.40	0.00	0.00	0.00	0.00	0.00		
4	15.40	36.20	44.00	22.20	27.25	72.75	17.60	0.00	0.00	0.00	0.00	0.00		
5	14.60	27.00	72.75	19.80	67.85	60.50	12.60	0.00	0.00	0.00	0.00	0.00		
6	14.20	41.60	48.50	21.80	82.90	37.40	13.20	0.00	0.00	0.00	0.00	0.00		
7	22.60	27.75	17.00	23.60	78.10	25.00	35.00	0.00	0.00	0.00	0.00	0.00		
8	16.80	21.80	25.00	27.50	174.15	69.60	22.00	0.00	0.00	0.00	0.00	0.00		
9	15.00	19.40	33.75	15.80	224.10	76.10	18.40	0.00	0.00	0.00	0.00	0.00		
10	14.40	18.80	21.60	158.40	128.90	90.50	10.55	0.00	0.00	0.00	0.00	0.00		
11	13.80	29.75	23.40	170.10	53.85	84.10	9.95	0.00	0.00	0.00	0.00	0.00		
12	13.80	47.30	117.30	59.45	38.60	88.50	7.85	0.00	0.00	0.00	0.00	0.00		
13	13.60	31.25	64.35	34.50	30.00	184.50	8.45	0.00	0.00	0.00	0.00	0.00		
14	13.40	25.25	41.00	34.00	25.00	229.50	12.80	0.00	0.00	0.00	0.00	0.00		
15	13.40	27.25	26.00	54.55	53.50	162.45	8.00	0.00	0.00	0.00	0.00	0.00		
16	13.60	33.50	24.60	28.25	124.10	98.90	6.95	0.00	0.00	0.00	0.00	0.00		
17	17.20	27.25	31.00	23.60	94.50	73.45	6.80	0.00	0.00	0.00	0.00	0.00		
18	74.15	28.00	26.00	24.20	57.70	88.50	8.00	0.00	0.00	0.00	0.00	0.00		
19	38.00	30.50	35.90	22.00	57.70	87.70	9.80	0.00	0.00	0.00	0.00	0.00		
20	18.80	40.40	34.25	21.20	65.75	66.45	6.95	0.00	0.00	0.00	0.00	0.00		
21	19.00	45.80	24.00	17.00	64.70	76.50	6.80	0.00	0.00	0.00	0.00	0.00		
22	18.00	55.25	22.80	14.40	98.10	98.90	8.00	0.00	0.00	0.00	0.00	0.00		
23	20.80	38.90	32.00	14.00	79.30	58.75	8.00	0.00	0.00	0.00	0.00	0.00		
24	16.00	30.50	22.60	14.20	49.40	72.75	45.80	0.00	0.00	0.00	0.00	0.00		
25	15.20	24.40	18.00	26.00	38.90	91.70	14.20	0.00	0.00	0.00	0.00	0.00		
26	15.00	22.40	18.40	22.40	34.50	74.50	7.85	0.00	0.00	0.00	0.00	0.00		
27	15.60	22.00	22.80	24.60	44.90	50.35	7.40	0.00	0.00	0.00	0.00	0.00		
28	30.50	21.40	15.60	48.20	79.30	36.20	5.75	0.00	0.00	0.00	0.00	0.00		
29	62.95	36.80	17.00	83.30	43.70	32.75	4.90	0.00	0.00	0.00		0.00		
30	59.10	26.00	13.40	45.20	31.25	78.10	4.50	0.00	0.00	0.00		0.00		
31		49.10		74.90	22.80		3.00		0.00	0.00		0.00		
Total	658.70	994.35	1052.10	1187.60	2101.35	2329.60	421.90	3.20	0.00	0.00	0.00	0.00	8748.80	CMSDAY
Mean	21.96	32.08	35.07	38.31	67.79	77.65	13.61	0.11	0.00	0.00	0.00	0.00	23.97	CMS
Max	74.15	55.25	117.30	170.10	224.10	229.50	45.80	3.20	0.00	0.00	0.00	0.00	229.50	CMS
Min	13.40	18.80	13.40	10.85	22.80	19.80	3.00	0.00	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	56.91	85.91	90.90	102.61	181.56	201.28	36.45	0.28	0.00	0.00	0.00	0.00	755.90	MCM

Momentary Peak 241.65 CMS, at 7.27 m. (A.D.), at 13.00 Hours, on Sep 14, 2018

Runoff Yield 21.67 Liters/Second/Square KM. Momentary Peak Yield 218.49 Liters/Second/Square KM.

WATER YEAR : 2018

EAST COAST - GULF BASIN

Chanthaburi River at Ban Tha Luang , Chanthaburi (Z.64)

Lat 12 - 39 - 26 N Long 102 - 09 - 15 E

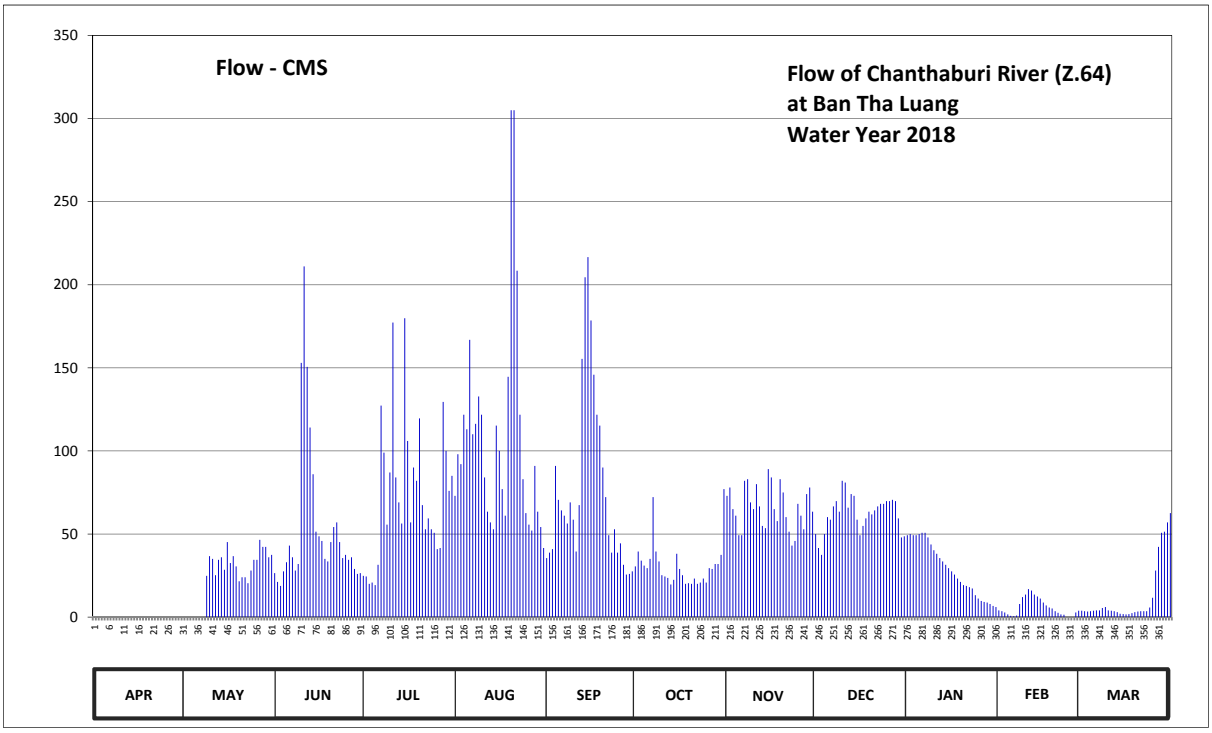
Location : on right bank at the bridge on highway.

	Ban Tha Luang	**Amphoe** Makham	**Changwat** Chanthaburi
Drainge Area	968 sq.km.		
Type of Gage	Water - stage recorder.		
Zero Gage at Bottom	+0.000 m. (A.D.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank near the gage site.		**Elevation** +9.000 m. (A.D.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	2018 to date		
Rating Operation			
Period of Rating	2018 to date		
Rated by Flot	-		
Rated by Current Meter	2018 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 31 discharge measurements made in 2018.		
Remark	Began the survey on May 9, 2018		

Gage Height in Meter (A.D.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1			3.21	3.17	3.90	3.39	3.29	3.90	3.60	3.59	2.60	2.59	
2			3.08	3.16	4.15	3.44	3.45	3.95	3.48	3.60	2.58	2.58	
3			3.02	3.05	4.09	3.47	3.36	3.80	3.42	3.59	2.54	2.57	
4			3.23	3.07	4.38	4.08	3.30	3.75	3.60	3.59	2.48	2.58	
5			3.34	3.03	4.30	3.87	3.27	3.59	3.74	3.60	2.44	2.59	
6			3.50	3.31	4.76	3.79	3.38	3.59	3.72	3.61	2.43	2.60	
7			3.40	4.43	4.27	3.75	3.89	3.99	3.82	3.61	2.45	2.60	
8			3.24	4.16	4.33	3.69	3.45	4.00	3.86	3.57	2.73	2.65	
9		3.17	3.32	3.68	4.48	3.85	3.35	3.85	3.78	3.51	2.85	2.67	
10		3.41	4.65	4.04	4.38	3.72	3.18	3.80	3.99	3.46	2.89	2.60	
11		3.38	5.10	4.84	4.01	3.45	3.16	3.97	3.98	3.43	2.97	2.59	
12		3.18	4.63	4.01	3.78	3.83	3.14	3.82	3.81	3.39	2.95	2.58	
13		3.37	4.31	3.85	3.70	4.67	3.04	3.67	3.91	3.35	2.89	2.55	
14		3.40	4.03	3.69	3.64	5.05	3.11	3.65	3.90	3.31	2.86	2.50	
15		3.25	3.62	4.86	4.32	5.14	3.43	4.06	3.72	3.27	2.83	2.49	
16		3.53	3.58	4.23	4.17	4.85	3.26	4.01	3.59	3.23	2.76	2.48	
17		3.33	3.54	3.70	3.94	4.59	3.18	3.80	3.67	3.19	2.70	2.49	
18		3.41	3.38	4.07	3.75	4.38	3.05	3.71	3.73	3.13	2.66	2.52	
19		3.29	3.35	3.99	4.58	4.32	3.06	4.00	3.78	3.08	2.64	2.55	
20		3.09	3.53	4.36	5.75	4.07	3.05	3.92	3.76	3.03	2.58	2.57	
21		3.15	3.66	3.83	5.75	3.89	3.13	3.74	3.79	3.02	2.53	2.58	
22		3.15	3.70	3.64	5.08	3.59	3.05	3.62	3.82	3.00	2.48	2.58	
23		3.06	3.53	3.73	4.38	3.44	3.07	3.50	3.84	2.98	2.47	2.58	
24		3.24	3.39	3.64	4.00	3.64	3.13	3.54	3.84	2.88	2.39	2.66	
25		3.37	3.42	3.61	3.77	3.44	3.07	3.84	3.86	2.83	2.37	2.84	
26		3.37	3.37	3.47	3.68	3.52	3.27	3.75	3.86	2.79	2.35	3.24	
27		3.55	3.40	3.48	3.63	3.31	3.26	3.64	3.87	2.77	2.54	3.49	
28		3.49	3.26	4.45	4.08	3.19	3.32	3.91	3.86	2.76	2.59	3.61	
29		3.49	3.20	4.17	3.78	3.20	3.32	3.95	3.73	2.73		3.62	
30		3.40	3.21	3.93	3.66	3.23	3.42	3.78	3.57	2.69		3.70	
31		3.42		4.02	3.48		3.94		3.58	2.67		3.77	
Mean		2.47	3.57	3.83	4.19	3.86	3.27	3.80	3.76	3.20	2.63	2.77	
Max		3.55	5.10	4.86	5.75	5.14	3.94	4.06	3.99	3.61	2.97	3.77	5.75
Min		3.06	3.02	3.03	3.48	3.19	3.04	3.50	3.42	2.67	2.35	2.48	2.35

Annual Max Momentary Gage Height	5.90	m. (A.D.) ,	at 23.00 Hours, on Aug 20, 2018		
Zero Gage at Bottom Elevation	0.00	m. (A.D.) ,	River Bed	-2.24	m. (A.D.)
Left Bank Elevation	7.61	m. (A.D.) ,			
Right Bank Elevation	7.88	m. (A.D.) ,	Drainage Are	968	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1			26.50	24.80	73.00	35.50	30.50	73.00	50.00	49.30	4.00	3.80		
2			21.20	24.40	98.00	38.80	39.50	78.00	41.60	50.00	3.60	3.60		
3			18.80	20.00	92.00	40.90	34.00	65.00	37.40	49.30	2.80	3.40		
4			27.50	20.80	121.80	91.00	31.00	61.00	50.00	49.30	1.60	3.60		
5			33.00	19.20	113.00	70.60	29.50	49.30	60.20	50.00	0.80	3.80		
6			43.00	31.50	166.80	64.20	35.00	49.30	58.60	50.70	0.60	4.00		
7			36.00	127.30	110.00	61.00	72.20	82.00	66.60	50.70	1.00	4.00		
8			28.00	99.00	116.30	56.30	39.50	83.00	69.80	47.90	7.90	5.50		
9		24.80	32.00	55.60	132.80	69.00	33.50	69.00	63.40	43.70	12.00	6.10		
10		36.70	153.00	87.00	121.80	58.60	25.20	65.00	82.00	40.20	13.60	4.00		
11		35.00	211.00	177.20	84.00	39.50	24.40	80.00	81.00	38.10	16.80	3.80		
12		25.20	150.60	84.00	63.40	67.40	23.60	66.60	65.80	35.50	16.00	3.60		
13		34.50	114.10	69.00	57.00	155.40	19.60	54.90	74.00	33.50	13.60	3.00		
14		36.00	86.00	56.30	52.80	204.50	22.40	53.50	73.00	31.50	12.40	2.00		
15		28.50	51.40	179.80	115.20	216.60	38.10	89.00	58.60	29.50	11.20	1.80		
16		45.10	48.60	106.00	100.00	178.50	29.00	84.00	49.30	27.50	8.80	1.60		
17		32.50	45.80	57.00	77.00	145.80	25.20	65.00	54.90	25.60	7.00	1.80		
18		36.70	35.00	90.00	61.00	121.80	20.00	57.80	59.40	23.20	5.80	2.40		
19		30.50	33.50	82.00	144.60	115.20	20.40	83.00	63.40	21.20	5.20	3.00		
20		21.60	45.10	119.60	305.00	90.00	20.00	75.00	61.80	19.20	3.60	3.40		
21		24.00	54.20	67.40	305.00	72.20	23.20	60.20	64.20	18.80	2.60	3.60		
22		24.00	57.00	52.80	208.40	49.30	20.00	51.40	66.60	18.00	1.60	3.60		
23		20.40	45.10	59.40	121.80	38.80	20.80	43.00	68.20	17.20	1.40	3.60		
24		28.00	35.50	52.80	83.00	52.80	23.20	45.80	68.20	13.20	0.00	5.80		
25		34.50	37.40	50.70	62.60	38.80	20.80	68.20	69.80	11.20	0.00	11.60		
26		34.50	34.50	40.90	55.60	44.40	29.50	61.00	69.80	9.70	0.00	28.00		
27		46.50	36.00	41.60	52.10	31.50	29.00	52.80	70.60	9.10	2.80	42.30		
28		42.30	29.00	129.50	91.00	25.60	32.00	74.00	69.80	8.80	3.80	50.70		
29		42.30	26.00	100.00	63.40	26.00	32.00	78.00	59.40	7.90		51.40		
30		36.00	26.50	76.00	54.20	27.50	37.40	63.40	47.90	6.70		57.00		
31		37.40		85.00	41.60		77.00		48.60	6.10		62.60		
Total		757.00	1621.30	2286.60	3344.20	2327.50	957.50	1981.20	1923.90	892.60	160.50	388.40	16640.70	CMSDAY
Mean		32.91	54.04	73.76	107.88	77.58	30.89	66.04	62.06	28.79	5.73	12.53	50.89	CMS
Max		46.50	211.00	179.80	305.00	216.60	77.00	89.00	82.00	50.70	16.80	62.60	305.00	CMS
Min		20.40	18.80	19.20	41.60	25.60	19.60	43.00	37.40	6.10	0.00	1.60	0.00	CMS
Runoff		65.40	140.08	197.56	288.94	201.10	82.73	171.18	166.22	77.12	13.87	33.56	1437.76	MCM

Momentary Peak 330.00 CMS, at 5.90 m. (A.D.), at 23.00 Hours, on Aug 20, 2018

Runoff Yield 47.10 Liters/Second/Square KM. Momentary Peak Yield 340.91 Liters/Second/Square KM.

WATER YEAR : 2018

PHETCHABURI RIVER BASIN

Phetchaburi River at Ban Song Phi Nong , Phetchaburi (B.3A)

Lat 12 - 51 - 47 N Long 99 - 40 - 42 E

Location : on left bank at Ban Song Phi Nong.

Ban Song Phi Nong **Amphoe** Kaeng Krachan **Changwat** Phetchaburi

Drainge Area	2,244 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+41.000 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank about 24 meters from the top staff gage. **Elevation** +49.188 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	1930 - 1942 , 1954 to date
Rating Operation	
Period of Rating	1954 - 1959 , 1968 to date
Rated by Flot	-
Rated by Current Meter	1954 - 1959 , 1968 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Flow regulated by Kaeng Krachan Reservoir. Stage-discharge relation defined by 41 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

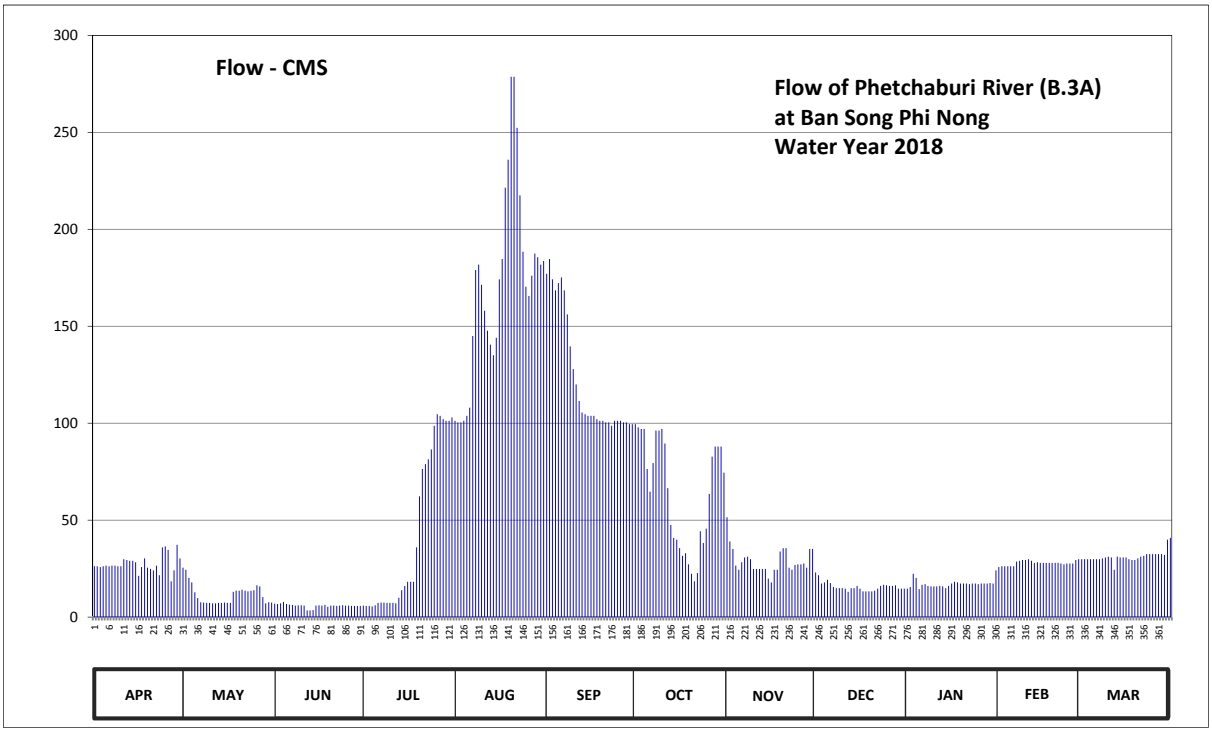
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	42.42	42.40	41.74	41.68	43.75	44.59	43.73	43.00	42.33	42.07	42.41	42.52	
2	42.42	42.37	41.73	41.67	43.74	44.67	43.71	42.73	42.29	42.10	42.42	42.52	
3	42.41	42.25	41.75	41.67	43.74	44.56	43.70	42.64	42.16	42.31	42.42	42.52	
4	42.42	42.18	41.79	41.66	43.75	44.50	43.70	42.43	42.18	42.25	42.42	42.52	
5	42.43	42.00	41.73	41.69	43.78	44.54	43.41	42.37	42.22	42.06	42.42	42.52	
6	42.42	41.89	41.71	41.76	43.83	44.57	43.22	42.48	42.17	42.14	42.42	42.52	
7	42.43	41.78	41.70	41.77	44.25	44.50	43.46	42.54	42.10	42.15	42.49	42.52	
8	42.43	41.77	41.68	41.77	44.61	44.37	43.69	42.55	42.08	42.12	42.50	42.53	
9	42.42	41.76	41.69	41.76	44.64	44.19	43.69	42.52	42.08	42.11	42.51	42.54	
10	42.42	41.76	41.69	41.76	44.53	44.06	43.70	42.38	42.08	42.11	42.51	42.55	
11	42.52	41.75	41.68	41.76	44.39	43.97	43.60	42.38	42.07	42.11	42.52	42.54	
12	42.51	41.75	41.53	41.75	44.28	43.87	43.25	42.38	42.01	42.12	42.50	42.37	
13	42.50	41.76	41.53	41.90	44.20	43.80	42.92	42.38	42.08	42.11	42.47	42.55	
14	42.50	41.76	41.54	42.04	44.14	43.79	42.77	42.38	42.08	42.08	42.48	42.54	
15	42.48	41.77	41.68	42.12	44.24	43.78	42.75	42.24	42.12	42.12	42.47	42.54	
16	42.28	41.76	41.69	42.19	44.56	43.78	42.65	42.18	42.07	42.16	42.47	42.54	
17	42.41	41.76	41.68	42.19	44.67	43.78	42.56	42.37	42.02	42.19	42.47	42.52	
18	42.53	42.01	41.70	42.19	45.04	43.76	42.59	42.37	42.02	42.18	42.47	42.51	
19	42.40	42.03	41.65	42.66	45.18	43.75	42.45	42.61	42.02	42.16	42.47	42.51	
20	42.38	42.03	41.68	43.18	45.57	43.75	42.31	42.65	42.02	42.16	42.47	42.53	
21	42.36	42.05	41.68	43.41	45.57	43.74	42.20	42.65	42.03	42.16	42.47	42.55	
22	42.43	42.03	41.67	43.45	45.33	43.74	42.32	42.40	42.07	42.15	42.46	42.56	
23	42.29	42.02	41.68	43.49	45.00	43.72	42.85	42.37	42.12	42.16	42.45	42.58	
24	42.66	42.03	41.69	43.56	44.71	43.75	42.71	42.44	42.14	42.16	42.46	42.58	
25	42.67	42.04	41.68	43.72	44.52	43.75	42.88	42.45	42.13	42.15	42.46	42.58	
26	42.63	42.13	41.68	43.79	44.47	43.75	43.20	42.45	42.12	42.16	42.46	42.58	
27	42.20	42.11	41.67	43.78	44.58	43.74	43.51	42.46	42.12	42.16	42.51	42.58	
28	42.36	41.91	41.67	43.76	44.70	43.74	43.58	42.40	42.13	42.16	42.52	42.58	
29	42.69	41.75	41.67	43.75	44.68	43.73	43.58	42.64	42.07	42.17		42.57	
30	42.53	41.78	41.67	43.75	44.64	43.73	43.58	42.64	42.07	42.16		42.75	
31		41.77		43.77	44.66		43.38		42.07	42.36		42.77	
Mean	42.45	41.94	41.68	42.56	44.51	44.00	43.15	42.48	42.11	42.15	42.47	42.55	
Max	42.69	42.40	41.79	43.79	45.57	44.67	43.73	43.00	42.33	42.36	42.52	42.77	45.57
Min	42.20	41.75	41.53	41.66	43.74	43.72	42.20	42.18	42.01	42.06	42.41	42.37	41.53

Annual Max Momentary Gage Height 45.64 m. (MSL.) , at 21.00 Hours , on Aug 20 , 2018

Zero Gage at Bottom Elevation 41.00 m. (MSL.) , River Bed 40.86 m. (MSL.)

Left Bank Elevation 48.69 m. (MSL.) ,

Right Bank Elevation 48.96 m. (MSL.) , Drainage Are 2,244 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	26.20	25.50	6.95	5.90	101.25	177.05	99.55	51.50	23.05	14.68	25.85	29.88		
2	26.20	24.45	6.78	5.73	100.40	184.65	97.85	39.06	21.65	15.50	26.20	29.88		
3	25.85	20.25	7.13	5.73	100.40	174.20	97.00	35.13	17.30	22.35	26.20	29.88		
4	26.20	17.90	7.83	5.55	101.25	168.50	97.00	26.55	17.90	20.25	26.20	29.88		
5	26.55	12.75	6.78	6.08	103.80	172.30	76.38	24.45	19.20	14.40	26.20	29.88		
6	26.20	9.80	6.43	7.30	108.05	175.15	64.70	28.30	17.60	16.70	26.20	29.88		
7	26.55	7.65	6.25	7.48	145.00	168.50	79.50	30.75	15.50	17.00	28.65	29.88		
8	26.55	7.48	5.90	7.48	178.95	156.15	96.25	31.19	14.95	16.10	29.00	30.31		
9	26.20	7.30	6.08	7.30	181.80	139.60	96.25	29.88	14.95	15.80	29.44	30.75		
10	26.20	7.30	6.08	7.30	171.35	127.90	97.00	24.80	14.95	15.80	29.44	31.19		
11	29.88	7.13	5.90	7.30	158.05	119.95	89.50	24.80	14.68	15.80	29.88	30.75		
12	29.44	7.13	3.45	7.13	147.70	111.45	66.50	24.80	13.03	16.10	29.00	24.45		
13	29.00	7.30	3.45	10.00	140.50	105.50	47.50	24.80	14.95	15.80	27.95	31.19		
14	29.00	7.30	3.60	13.85	135.10	104.65	40.81	24.80	14.95	14.95	28.30	30.75		
15	28.30	7.48	5.90	16.10	144.10	103.80	39.94	19.90	16.10	16.10	27.95	30.75		
16	21.30	7.30	6.08	18.20	174.20	103.80	35.56	17.90	14.68	17.30	27.95	30.75		
17	25.85	7.30	5.90	18.20	184.65	103.80	31.63	24.45	13.30	18.20	27.95	29.88		
18	30.31	13.03	6.25	18.20	221.50	102.10	32.94	24.45	13.30	17.90	27.95	29.44		
19	25.50	13.58	5.38	36.00	235.90	101.25	27.25	33.81	13.30	17.30	27.95	29.44		
20	24.80	13.58	5.90	62.30	278.70	101.25	22.35	35.56	13.30	17.30	27.95	30.31		
21	24.10	14.13	5.90	76.38	278.70	100.40	18.50	35.56	13.58	17.30	27.95	31.19		
22	26.55	13.58	5.73	78.88	252.30	100.40	22.70	25.50	14.68	17.00	27.60	31.63		
23	21.65	13.30	5.90	81.38	217.50	98.70	44.31	24.45	16.10	17.30	27.25	32.50		
24	36.00	13.58	6.08	86.50	188.50	101.25	38.19	26.90	16.70	17.30	27.60	32.50		
25	36.44	13.85	5.90	98.70	170.40	101.25	45.63	27.25	16.40	17.00	27.60	32.50		
26	34.69	16.40	5.90	104.65	165.65	101.25	63.50	27.25	16.10	17.30	27.60	32.50		
27	18.50	15.80	5.73	103.80	176.10	100.40	82.75	27.60	16.10	17.30	29.44	32.50		
28	24.10	10.28	5.73	102.10	187.50	100.40	88.00	25.50	16.40	17.30	29.88	32.50		
29	37.31	7.13	5.73	101.25	185.60	99.55	88.00	35.13	14.68	17.60		32.06		
30	30.31	7.65	5.73	101.25	181.80	99.55	88.00	35.13	14.68	17.30		39.94		
31		7.48		102.95	183.70		74.50		14.68	24.10		40.81		
Total	825.73	364.69	176.35	1310.97	5300.40	3704.70	1989.54	867.15	488.74	532.13	781.13	969.75	17311.28	CMSDAY
Mean	27.52	11.76	5.88	42.29	170.98	123.49	64.18	28.90	15.77	17.17	27.90	31.28	47.43	CMS
Max	37.31	25.50	7.83	104.65	278.70	184.65	99.55	51.50	23.05	24.10	29.88	40.81	278.70	CMS
Min	18.50	7.13	3.45	5.55	100.40	98.70	18.50	17.90	13.03	14.40	25.85	24.45	3.45	CMS
Runoff	71.34	31.51	15.24	113.27	457.95	320.09	171.90	74.92	42.23	45.98	67.49	83.79	1495.69	MCM

Momentary Peak 286.40 CMS. at 45.64 m. (MSL.) at 21.00 Hours , on Aug 20 , 2018

Runoff Yield 21.14 Liters/Second/Square KM. Momentary Peak Yield 127.63 Liters/Second/Square KM.

WATER YEAR : 2018

PHETCHABURI RIVER BASIN

Huai Mae Prachan at at Ban Wang Chan , Phetchaburi (B.6A)

Lat 12 - 57 - 50 N Long 99 - 45 - 52 E

Location : on left bank about 250 meters upstream from the bridge of Khuan Phet - Kaeng Krachan Reservoir Road.

Ban Wang Chan **Amphoe** Kaeng Krachan **Changwat** Phetchaburi

Drainge Area	1,003 sq.km.
Type of Gage	Water - stage recorder.
Zero Gage at Bottom	+26.800 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	Near the automatic gage buiding. **Elevation** +37.402 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	2017 to date
Rating Operation	
Period of Rating	2017 to date
Rated by Flot	-
Rated by Current Meter	2017 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Stage-discharge relation defined by 19 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

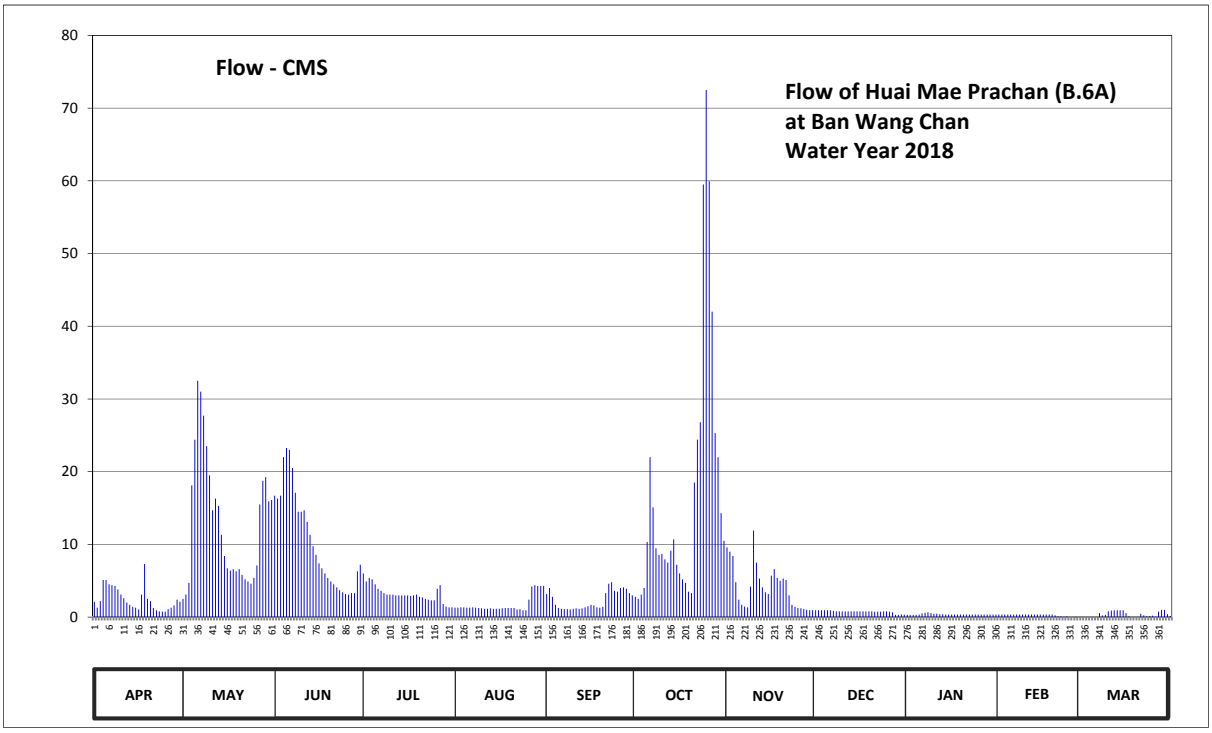
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	27.56	27.60	28.61	27.95	27.46	27.67	27.63	28.24	27.39	27.26	27.27	27.20	
2	27.46	27.66	28.59	27.84	27.46	27.75	27.60	28.20	27.39	27.26	27.27	27.20	
3	27.57	27.82	28.61	27.89	27.47	27.63	27.66	28.16	27.39	27.26	27.27	27.20	
4	27.86	28.68	28.84	27.87	27.47	27.52	27.75	27.83	27.39	27.26	27.27	27.20	
5	27.86	28.93	28.89	27.80	27.46	27.45	28.29	27.59	27.39	27.27	27.27	27.20	
6	27.80	29.20	28.88	27.74	27.46	27.43	28.84	27.52	27.39	27.30	27.27	27.20	
7	27.79	29.15	28.78	27.71	27.47	27.42	28.53	27.49	27.37	27.32	27.27	27.31	
8	27.78	29.04	28.63	27.68	27.46	27.42	28.23	27.47	27.36	27.33	27.27	27.25	
9	27.73	28.90	28.50	27.66	27.45	27.41	28.17	27.77	27.36	27.31	27.27	27.26	
10	27.66	28.74	28.50	27.66	27.44	27.43	28.18	28.37	27.36	27.29	27.27	27.36	
11	27.61	28.51	28.51	27.66	27.43	27.44	28.13	28.10	27.36	27.29	27.27	27.38	
12	27.55	28.59	28.43	27.65	27.43	27.43	28.10	27.88	27.36	27.28	27.27	27.39	
13	27.52	28.54	28.34	27.65	27.44	27.44	28.21	27.76	27.36	27.28	27.27	27.39	
14	27.48	28.34	28.25	27.65	27.43	27.47	28.31	27.69	27.36	27.27	27.27	27.39	
15	27.46	28.16	28.17	27.65	27.43	27.50	28.07	27.67	27.36	27.27	27.27	27.39	
16	27.41	28.02	28.09	27.65	27.43	27.52	27.95	27.92	27.36	27.27	27.27	27.31	
17	27.66	27.99	28.02	27.64	27.44	27.51	27.87	28.01	27.36	27.27	27.27	27.22	
18	28.08	28.01	27.95	27.65	27.45	27.47	27.82	27.89	27.36	27.27	27.27	27.20	
19	27.60	27.98	27.89	27.66	27.45	27.46	27.70	27.85	27.36	27.27	27.27	27.20	
20	27.57	28.01	27.84	27.63	27.45	27.48	27.68	27.88	27.36	27.27	27.25	27.20	
21	27.45	27.93	27.80	27.62	27.45	27.68	28.70	27.86	27.35	27.27	27.22	27.29	
22	27.39	27.87	27.76	27.60	27.41	27.81	28.93	27.65	27.35	27.27	27.22	27.25	
23	27.36	27.84	27.72	27.59	27.42	27.83	29.01	27.52	27.35	27.27	27.21	27.22	
24	27.35	27.81	27.69	27.58	27.39	27.71	29.90	27.48	27.36	27.27	27.22	27.23	
25	27.35	27.89	27.67	27.58	27.39	27.70	30.18	27.45	27.36	27.27	27.20	27.24	
26	27.42	28.06	27.66	27.74	27.59	27.75	29.91	27.44	27.35	27.27	27.20	27.21	
27	27.46	28.55	27.68	27.79	27.77	27.76	29.50	27.42	27.33	27.27	27.21	27.35	
28	27.51	28.71	27.68	27.53	27.79	27.74	28.96	27.40	27.26	27.27	27.20	27.40	
29	27.59	28.73	27.98	27.49	27.78	27.68	28.84	27.39	27.26	27.27		27.40	
30	27.56	28.57	28.07	27.47	27.78	27.65	28.49	27.39	27.27	27.27		27.28	
31		28.58		27.47	27.78		28.30		27.27	27.27		27.23	
Mean	27.58	28.34	28.20	27.67	27.50	27.57	28.43	27.74	27.35	27.28	27.25	27.28	
Max	28.08	29.20	28.89	27.95	27.79	27.83	30.18	28.37	27.39	27.33	27.27	27.40	30.18
Min	27.35	27.60	27.66	27.47	27.39	27.41	27.60	27.39	27.26	27.26	27.20	27.20	27.20

Annual Max Momentary Gage Height 30.29 m. (MSL.) , at 21.00 Hours , on Oct 24 , 2018

Zero Gage at Bottom Elevation 26.80 m. (MSL.) , River Bed 26.90 m. (MSL.)

Left Bank Elevation 37.08 m. (MSL.) ,

Right Bank Elevation 36.95 m. (MSL.) , Drainage Are 1,003 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.10	2.50	16.70	6.00	1.30	3.20	2.80	9.60	0.95	0.30	0.35	0.00		
2	1.30	3.10	16.30	4.90	1.30	4.00	2.50	9.00	0.95	0.30	0.35	0.00		
3	2.20	4.70	16.70	5.40	1.35	2.80	3.10	8.40	0.95	0.30	0.35	0.00		
4	5.10	18.10	22.00	5.20	1.35	1.70	4.00	4.80	0.95	0.30	0.35	0.00		
5	5.10	24.40	23.25	4.50	1.30	1.25	10.35	2.40	0.95	0.35	0.35	0.00		
6	4.50	32.50	23.00	3.90	1.30	1.15	22.00	1.70	0.95	0.50	0.35	0.00		
7	4.40	31.00	20.50	3.60	1.35	1.10	15.10	1.45	0.85	0.60	0.35	0.55		
8	4.30	27.70	17.10	3.30	1.30	1.10	9.45	1.35	0.80	0.65	0.35	0.25		
9	3.80	23.50	14.50	3.10	1.25	1.05	8.55	4.20	0.80	0.55	0.35	0.30		
10	3.10	19.50	14.50	3.10	1.20	1.15	8.70	11.90	0.80	0.45	0.35	0.80		
11	2.60	14.70	14.70	3.10	1.15	1.20	7.95	7.50	0.80	0.45	0.35	0.90		
12	2.00	16.30	13.10	3.00	1.15	1.15	7.50	5.30	0.80	0.40	0.35	0.95		
13	1.70	15.30	11.30	3.00	1.20	1.20	9.15	4.10	0.80	0.40	0.35	0.95		
14	1.40	11.30	9.75	3.00	1.15	1.35	10.70	3.40	0.80	0.35	0.35	0.95		
15	1.30	8.40	8.55	3.00	1.15	1.50	7.20	3.20	0.80	0.35	0.35	0.95		
16	1.05	6.70	7.40	3.00	1.15	1.70	6.00	5.70	0.80	0.35	0.35	0.55		
17	3.10	6.40	6.70	2.90	1.20	1.60	5.20	6.60	0.80	0.35	0.35	0.10		
18	7.30	6.60	6.00	3.00	1.25	1.35	4.70	5.40	0.80	0.35	0.35	0.00		
19	2.50	6.30	5.40	3.10	1.25	1.30	3.50	5.00	0.80	0.35	0.35	0.00		
20	2.20	6.60	4.90	2.80	1.25	1.40	3.30	5.30	0.80	0.35	0.25	0.00		
21	1.25	5.80	4.50	2.70	1.25	3.30	18.50	5.10	0.75	0.35	0.10	0.45		
22	0.95	5.20	4.10	2.50	1.05	4.60	24.40	3.00	0.75	0.35	0.10	0.25		
23	0.80	4.90	3.70	2.40	1.10	4.80	26.80	1.70	0.75	0.35	0.05	0.10		
24	0.75	4.60	3.40	2.30	0.95	3.60	59.50	1.40	0.80	0.35	0.10	0.15		
25	0.75	5.40	3.20	2.30	0.95	3.50	72.50	1.25	0.80	0.35	0.00	0.20		
26	1.10	7.10	3.10	3.90	2.40	4.00	59.95	1.20	0.75	0.35	0.00	0.05		
27	1.30	15.50	3.30	4.40	4.20	4.10	42.00	1.10	0.65	0.35	0.05	0.75		
28	1.60	18.75	3.30	1.80	4.40	3.90	25.30	1.00	0.30	0.35	0.00	1.00		
29	2.40	19.25	6.30	1.45	4.30	3.30	22.00	0.95	0.30	0.35		1.00		
30	2.10	15.90	7.20	1.35	4.30	3.00	14.30	0.95	0.35	0.35		0.40		
31		16.10		1.35	4.30		10.50		0.35	0.35		0.15		
Total	74.05	404.10	314.45	99.35	54.10	70.35	527.50	123.95	23.50	11.85	7.30	11.75	1722.25	CMSDAY
Mean	2.47	13.04	10.48	3.20	1.75	2.34	17.02	4.13	0.76	0.38	0.26	0.38	4.72	CMS
Max	7.30	32.50	23.25	6.00	4.40	4.80	72.50	11.90	0.95	0.65	0.35	1.00	72.50	CMS
Min	0.75	2.50	3.10	1.35	0.95	1.05	2.50	0.95	0.30	0.30	0.00	0.00	0.00	CMS
Runoff	6.40	34.91	27.17	8.58	4.67	6.08	45.58	10.71	2.03	1.02	0.63	1.02	148.80	MCM

Momentary Peak 78.00 CMS. at 30.29 m. (MSL.) at 21.00 Hours , on Oct 24 , 2018

Runoff Yield 4.70 Liters/Second/Square KM. Momentary Peak Yield 77.77 Liters/Second/Square KM.

WATER YEAR : 2018

PHETCHABURI RIVER BASIN

Phetchaburi River at Ban Sarahed , Phetchaburi (B.9)

Lat 12 - 48 - 18 N Long 99 - 46 - 27 E

Location : on left bank at Ban Sarahed.

	Ban Sarahed	**Amphoe** Tha Yang	**Changwat** Phetchaburi
Drainge Area	2,617 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+25.200 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	Near the automatic gage building.		**Elevation** +32.653 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	2003 to date		
Rating Operation			
Period of Rating	2003 to date		
Rated by Flot	-		
Rated by Current Meter	2003 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 44 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

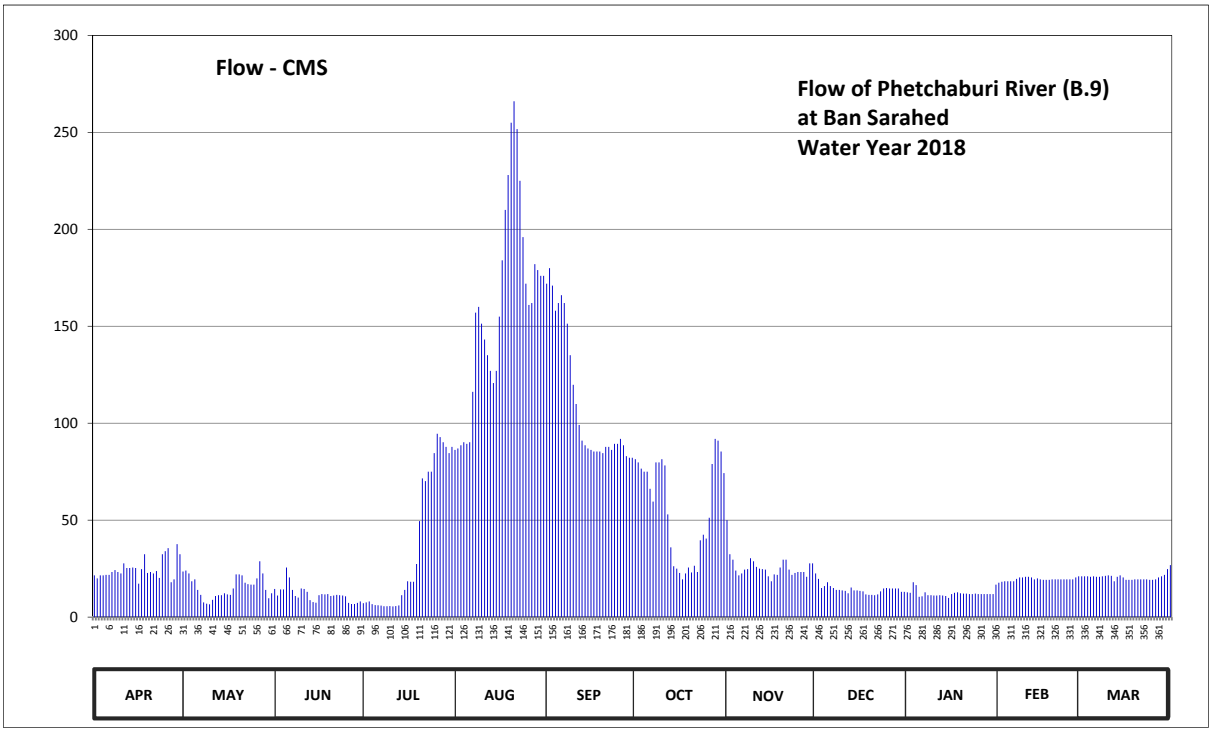
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	27.86	27.94	27.58	27.21	29.14	30.08	29.08	28.60	27.90	27.51	27.71	27.84	
2	27.80	27.96	27.43	27.24	29.15	30.16	29.06	28.21	27.79	27.50	27.73	27.84	
3	27.86	27.90	27.57	27.27	29.17	30.07	29.02	28.14	27.60	27.72	27.74	27.84	
4	27.86	27.74	27.57	27.17	29.19	29.94	29.00	27.96	27.64	27.66	27.74	27.83	
5	27.87	27.78	28.02	27.12	29.18	29.98	29.00	27.86	27.72	27.40	27.74	27.84	
6	27.87	27.56	27.82	27.11	29.19	30.02	28.87	27.90	27.64	27.41	27.74	27.83	
7	27.93	27.45	27.56	27.09	29.48	29.98	28.76	27.98	27.60	27.51	27.79	27.83	
8	27.97	27.24	27.42	27.06	29.93	29.87	29.06	27.99	27.56	27.44	27.82	27.84	
9	27.93	27.19	27.38	27.06	29.96	29.69	29.06	28.16	27.56	27.44	27.82	27.85	
10	27.90	27.16	27.59	27.07	29.87	29.52	29.08	28.12	27.55	27.43	27.83	27.86	
11	28.09	27.32	27.58	27.05	29.78	29.41	29.04	28.03	27.54	27.43	27.83	27.85	
12	28.01	27.42	27.52	27.07	29.69	29.29	28.65	28.00	27.49	27.44	27.82	27.74	
13	28.01	27.44	27.31	27.10	29.60	29.20	28.30	27.99	27.61	27.43	27.78	27.83	
14	28.02	27.44	27.25	27.44	29.53	29.17	28.04	27.98	27.55	27.42	27.80	27.86	
15	28.01	27.49	27.23	27.56	29.60	29.15	28.00	27.84	27.55	27.37	27.78	27.82	
16	27.69	27.46	27.44	27.74	29.91	29.14	27.91	27.74	27.54	27.47	27.77	27.77	
17	27.99	27.45	27.47	27.73	30.20	29.13	27.78	27.88	27.53	27.50	27.77	27.77	
18	28.21	27.59	27.46	27.73	30.46	29.13	27.90	27.87	27.46	27.51	27.77	27.77	
19	27.91	27.88	27.47	28.08	30.64	29.13	28.02	28.02	27.45	27.49	27.78	27.78	
20	27.93	27.88	27.42	28.59	30.90	29.12	27.92	28.14	27.45	27.48	27.78	27.78	
21	27.90	27.86	27.43	28.95	31.00	29.16	28.05	28.14	27.44	27.48	27.78	27.78	
22	27.95	27.71	27.45	28.93	30.87	29.16	27.93	27.98	27.46	27.47	27.78	27.78	
23	27.81	27.68	27.44	29.00	30.61	29.14	28.39	27.87	27.53	27.47	27.78	27.78	
24	28.21	27.67	27.43	29.00	30.32	29.18	28.45	27.91	27.59	27.48	27.78	27.77	
25	28.25	27.67	27.41	29.12	30.08	29.18	28.41	27.93	27.60	27.47	27.78	27.77	
26	28.29	27.80	27.22	29.24	29.97	29.21	28.62	27.93	27.59	27.47	27.78	27.78	
27	27.72	28.12	27.18	29.22	29.98	29.17	29.05	27.93	27.59	27.47	27.82	27.82	
28	27.78	27.90	27.18	29.19	30.18	29.10	29.21	27.83	27.59	27.47	27.84	27.84	
29	28.34	27.56	27.22	29.16	30.15	29.09	29.20	28.09	27.59	27.47		27.87	
30	28.21	27.36	27.27	29.12	30.12	29.09	29.13	28.09	27.52	27.47		27.99	
31		27.49		29.16	30.12		28.99		27.52	27.67		28.06	
Mean	27.97	27.62	27.44	27.99	29.93	29.42	28.61	28.00	27.57	27.48	27.78	27.83	
Max	28.34	28.12	28.02	29.24	31.00	30.16	29.21	28.60	27.90	27.72	27.84	28.06	31.00
Min	27.69	27.16	27.18	27.05	29.14	29.09	27.78	27.74	27.44	27.37	27.71	27.74	27.05

Annual Max Momentary Gage Height 31.03 m. (MSL.) , at 04.00 Hours , on Aug 21 , 2018

Zero Gage at Bottom Elevation 25.20 m. (MSL.) , River Bed 25.82 m. (MSL.)

Left Bank Elevation 32.22 m. (MSL.) ,

Right Bank Elevation 32.77 m. (MSL.) , Drainage Are 2,617 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	21.50	23.50	14.50	7.15	86.20	172.00	81.40	50.00	22.50	12.75	17.75	21.00		
2	20.00	24.00	11.10	7.60	87.00	180.00	79.80	32.40	19.75	12.50	18.25	21.00		
3	21.50	22.50	14.25	8.05	88.60	171.00	76.60	29.60	15.00	18.00	18.50	21.00		
4	21.50	18.50	14.25	6.70	90.20	158.00	75.00	24.00	16.00	16.50	18.50	20.75		
5	21.75	19.50	25.60	6.20	89.40	162.00	75.00	21.50	18.00	10.50	18.50	21.00		
6	21.75	14.00	20.50	6.10	90.20	166.00	66.20	22.50	16.00	10.70	18.50	20.75		
7	23.25	11.50	14.00	5.90	116.20	162.00	59.60	24.50	15.00	12.75	19.75	20.75		
8	24.25	7.60	10.90	5.60	157.00	151.30	79.80	24.75	14.00	11.30	20.50	21.00		
9	23.25	6.90	10.10	5.60	160.00	135.10	79.80	30.40	14.00	11.30	20.50	21.25		
10	22.50	6.60	14.75	5.70	151.30	119.80	81.40	28.80	13.75	11.10	20.75	21.50		
11	27.70	8.90	14.50	5.50	143.20	109.90	78.20	25.90	13.50	11.10	20.75	21.25		
12	25.30	10.90	13.00	5.70	135.10	99.10	53.00	25.00	12.30	11.30	20.50	18.50		
13	25.30	11.30	8.70	6.00	127.00	91.00	36.00	24.75	15.25	11.10	19.50	20.75		
14	25.60	11.30	7.75	11.30	120.70	88.60	26.20	24.50	13.75	10.90	20.00	21.50		
15	25.30	12.30	7.45	14.00	127.00	87.00	25.00	21.00	13.75	9.90	19.50	20.50		
16	17.25	11.70	11.30	18.50	155.00	86.20	22.75	18.50	13.50	11.90	19.25	19.25		
17	24.75	11.50	11.90	18.25	184.00	85.40	19.50	22.00	13.25	12.50	19.25	19.25		
18	32.40	14.75	11.70	18.25	210.00	85.40	22.50	21.75	11.70	12.75	19.25	19.25		
19	22.75	22.00	11.90	27.40	228.00	85.40	25.60	25.60	11.50	12.30	19.50	19.50		
20	23.25	22.00	10.90	49.50	255.00	84.60	23.00	29.60	11.50	12.10	19.50	19.50		
21	22.50	21.50	11.10	71.50	266.00	87.80	26.50	29.60	11.30	12.10	19.50	19.50		
22	23.75	17.75	11.50	70.10	251.70	87.80	23.25	24.50	11.70	11.90	19.50	19.50		
23	20.25	17.00	11.30	75.00	225.00	86.20	39.60	21.75	13.25	11.90	19.50	19.50		
24	32.40	16.75	11.10	75.00	196.00	89.40	42.50	22.75	14.75	12.10	19.50	19.25		
25	34.00	16.75	10.70	84.60	172.00	89.40	40.50	23.25	15.00	11.90	19.50	19.25		
26	35.60	20.00	7.30	94.60	161.00	91.90	51.20	23.25	14.75	11.90	19.50	19.50		
27	18.00	28.80	6.80	92.80	162.00	88.60	79.00	23.25	14.75	11.90	20.50	20.50		
28	19.50	22.50	6.80	90.20	182.00	83.00	91.90	20.75	14.75	11.90	21.00	21.00		
29	37.60	14.00	7.30	87.80	179.00	82.20	91.00	27.70	14.75	11.90		21.75		
30	32.40	9.70	8.05	84.60	176.00	82.20	85.40	27.70	13.00	11.90		24.75		
31		12.30		87.80	176.00		74.30		13.00	16.75		26.80		
Total	746.85	488.30	351.00	1153.00	4947.80	3348.30	1731.50	771.55	445.00	379.40	547.00	640.55	15550.25	CMSDAY
Mean	24.89	15.75	11.70	37.19	159.61	111.61	55.85	25.72	14.35	12.24	19.54	20.66	42.60	CMS
Max	37.60	28.80	25.60	94.60	266.00	180.00	91.90	50.00	22.50	18.00	21.00	26.80	266.00	CMS
Min	17.25	6.60	6.80	5.50	86.20	82.20	19.50	18.50	11.30	9.90	17.75	18.50	5.50	CMS
Runoff	64.53	42.19	30.33	99.62	427.49	289.29	149.60	66.66	38.45	32.78	47.26	55.34	1343.54	MCM

Momentary Peak 269.30 CMS. at 31.03 m. (MSL.) at 04.00 Hours , on Aug 21 , 2018

Runoff Yield 16.28 Liters/Second/Square KM. Momentary Peak Yield 102.90 Liters/Second/Square KM.

WATER YEAR : 2018

PHETCHABURI RIVER BASIN

Phetchaburi River at Ban Tha Yang , Phetchaburi (B.10)

Lat 12 - 58 - 21 N Long 99 - 53 - 07 E

Location : on left bank at the bridge of Ban Tha Yang.

	Ban Tha Yang	**Amphoe** Tha Yang	**Changwat** Phetchaburi
Drainge Area	4,076 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+5.400 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank about 2 meters from the top staff gage.	**Elevation**	+16.332 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	1983 to date		
Rating Operation			
Period of Rating	1985 to date		
Rated by Flot	-		
Rated by Current Meter	1985 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Flow regulated by Phet Dam.		
	Stage-discharge relation defined by 112 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

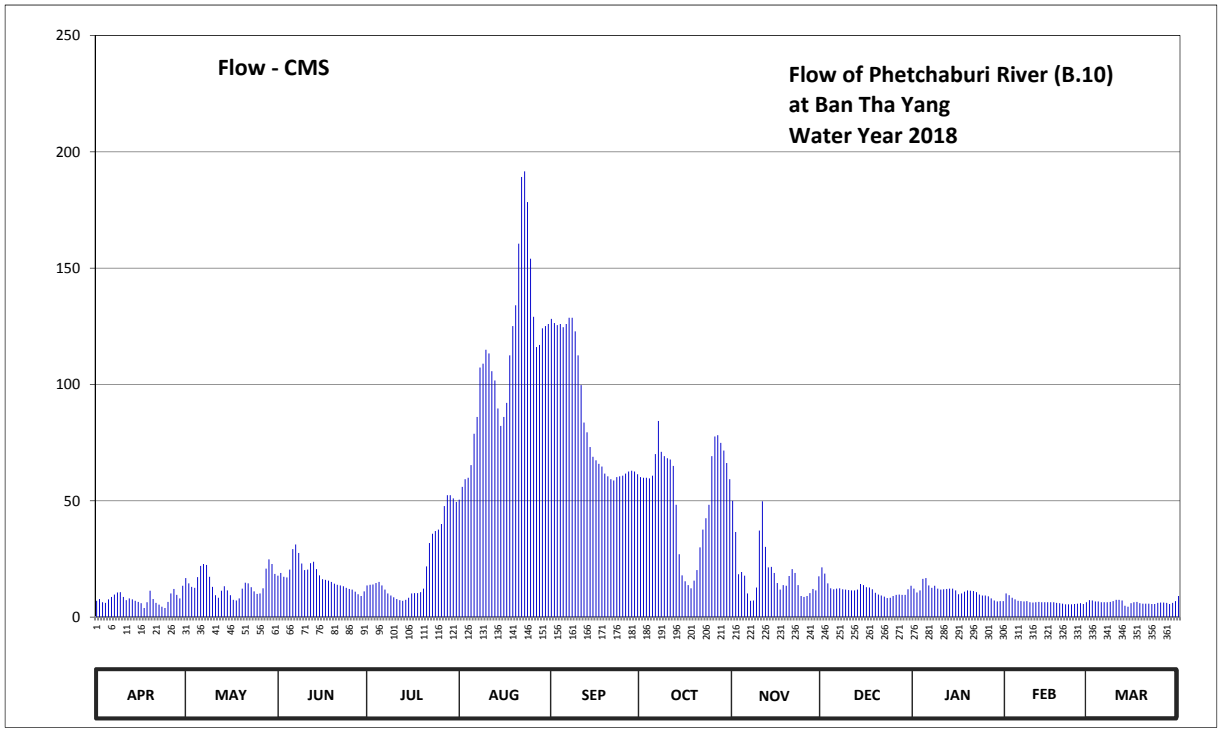
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	6.00	6.65	6.72	6.44	8.26	10.46	8.59	8.24	6.92	6.35	6.21	6.02	
2	6.05	6.50	6.80	6.46	8.45	10.42	8.58	7.68	6.78	6.24	6.16	6.01	
3	5.96	6.40	6.69	6.47	8.56	10.40	8.58	6.76	6.50	6.30	6.09	5.98	
4	5.94	6.37	6.67	6.51	8.58	10.41	8.57	6.82	6.36	6.63	6.04	5.98	
5	6.04	6.68	6.87	6.54	8.76	10.38	8.61	6.72	6.33	6.65	6.00	5.96	
6	6.11	6.95	7.31	6.44	9.21	10.41	8.92	6.21	6.35	6.44	5.99	5.96	
7	6.18	6.99	7.41	6.32	9.43	10.47	9.38	6.00	6.36	6.37	5.98	5.96	
8	6.24	6.97	7.23	6.21	9.97	10.47	8.95	6.01	6.33	6.43	5.99	5.97	
9	6.25	6.69	7.00	6.15	10.01	10.34	8.89	6.38	6.32	6.35	5.96	5.99	
10	6.11	6.40	6.86	6.10	10.16	10.10	8.86	7.71	6.31	6.32	5.95	6.03	
11	6.02	6.16	6.87	6.05	10.12	9.78	8.84	8.23	6.30	6.33	5.96	6.03	
12	6.07	6.09	7.01	6.02	9.93	9.36	8.75	7.36	6.30	6.34	5.97	6.01	
13	6.04	6.29	7.04	6.00	9.83	9.23	8.17	6.92	6.32	6.35	5.96	5.86	
14	6.00	6.42	6.88	6.03	9.53	9.02	7.20	6.93	6.48	6.35	5.96	5.83	
15	5.97	6.30	6.73	6.09	9.32	8.88	6.73	6.80	6.45	6.30	5.96	5.93	
16	5.93	6.16	6.62	6.21	9.43	8.83	6.56	6.51	6.39	6.19	5.96	5.96	
17	5.79	6.03	6.60	6.22	9.59	8.78	6.45	6.32	6.38	6.21	5.96	5.97	
18	5.96	6.01	6.58	6.22	10.10	8.74	6.36	6.45	6.33	6.26	5.94	5.93	
19	6.29	6.07	6.54	6.25	10.39	8.64	6.58	6.43	6.23	6.30	5.93	5.92	
20	6.05	6.35	6.49	6.35	10.59	8.60	6.86	6.71	6.18	6.29	5.92	5.92	
21	5.94	6.52	6.46	6.94	11.13	8.56	7.35	6.88	6.15	6.28	5.90	5.92	
22	5.89	6.50	6.44	7.44	11.62	8.54	7.73	6.80	6.12	6.25	5.90	5.91	
23	5.83	6.39	6.42	7.64	11.66	8.59	7.94	6.45	6.08	6.18	5.90	5.91	
24	5.79	6.27	6.37	7.70	11.44	8.60	8.17	6.14	6.09	6.15	5.91	5.94	
25	5.97	6.20	6.34	7.73	11.00	8.61	8.89	6.11	6.14	6.15	5.92	5.95	
26	6.21	6.21	6.32	7.84	10.48	8.64	9.17	6.14	6.17	6.13	5.93	5.95	
27	6.34	6.36	6.26	8.15	10.19	8.67	9.19	6.22	6.18	6.07	5.91	5.94	
28	6.17	6.89	6.19	8.33	10.21	8.68	9.08	6.34	6.17	6.01	5.96	5.91	
29	6.07	7.09	6.14	8.33	10.37	8.67	8.97	6.30	6.17	5.98		5.94	
30	6.43	6.99	6.27	8.28	10.39	8.63	8.79	6.70	6.33	5.99		5.99	
31		6.77		8.22	10.41		8.56		6.43	5.99		6.14	
Mean	6.05	6.47	6.67	6.83	9.97	9.33	8.20	6.71	6.32	6.26	5.97	5.96	
Max	6.43	7.09	7.41	8.33	11.66	10.47	9.38	8.24	6.92	6.65	6.21	6.14	11.66
Min	5.79	6.01	6.14	6.00	8.26	8.54	6.36	6.00	6.08	5.98	5.90	5.83	5.79

Annual Max Momentary Gage Height 11.70 m. (MSL.) , at 20.00 Hours , on Aug 22 , 2018

Zero Gage at Bottom Elevation 5.40 m. (MSL.) , River Bed 4.87 m. (MSL.)

Left Bank Elevation 15.07 m. (MSL.) ,

Right Bank Elevation 14.90 m. (MSL.) , Drainage Are 4,076 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	7.00	16.75	17.80	13.60	50.50	128.20	60.20	50.00	21.40	12.25	10.15	7.30		
2	7.75	14.50	19.00	13.90	56.00	126.40	59.90	36.60	18.70	10.60	9.40	7.15		
3	6.40	13.00	17.35	14.05	59.30	125.50	59.90	18.40	14.50	11.50	8.35	6.70		
4	6.10	12.55	17.05	14.65	59.90	125.95	59.60	19.40	12.40	16.45	7.60	6.70		
5	7.60	17.20	20.40	15.10	65.30	124.60	60.80	17.80	11.95	16.75	7.00	6.40		
6	8.65	22.00	29.20	13.60	78.80	125.95	70.10	10.15	12.25	13.60	6.85	6.40		
7	9.70	22.80	31.20	11.80	86.05	128.65	84.30	7.00	12.40	12.55	6.70	6.40		
8	10.60	22.40	27.60	10.15	107.30	128.65	71.00	7.15	11.95	13.45	6.85	6.55		
9	10.75	17.35	23.00	9.25	108.90	122.80	69.20	12.70	11.80	12.25	6.40	6.85		
10	8.65	13.00	20.20	8.50	114.90	112.50	68.30	37.20	11.65	11.80	6.25	7.45		
11	7.30	9.40	20.40	7.75	113.30	99.70	67.70	49.75	11.50	11.95	6.40	7.45		
12	8.05	8.35	23.20	7.30	105.70	83.60	65.00	30.20	11.50	12.10	6.55	7.15		
13	7.60	11.35	23.80	7.00	101.70	79.40	48.25	21.40	11.80	12.25	6.40	4.90		
14	7.00	13.30	20.60	7.45	89.70	73.10	27.00	21.60	14.20	12.25	6.40	4.45		
15	6.55	11.50	17.95	8.35	82.20	68.90	17.95	19.00	13.75	11.50	6.40	5.95		
16	5.95	9.40	16.30	10.15	86.05	67.40	15.40	14.65	12.85	9.85	6.40	6.40		
17	3.90	7.45	16.00	10.30	92.10	65.90	13.75	11.80	12.70	10.15	6.40	6.55		
18	6.40	7.15	15.70	10.30	112.50	64.70	12.40	13.75	11.95	10.90	6.10	5.95		
19	11.35	8.05	15.10	10.75	125.05	61.70	15.70	13.45	10.45	11.50	5.95	5.80		
20	7.75	12.25	14.35	12.25	134.05	60.50	20.20	17.65	9.70	11.35	5.80	5.80		
21	6.10	14.80	13.90	21.80	160.50	59.30	30.00	20.60	9.25	11.20	5.50	5.80		
22	5.35	14.50	13.60	31.80	189.20	58.70	37.60	19.00	8.80	10.75	5.50	5.65		
23	4.45	12.85	13.30	35.80	191.60	60.20	42.50	13.75	8.20	9.70	5.50	5.65		
24	3.90	11.05	12.55	37.00	178.40	60.50	48.25	9.10	8.35	9.25	5.65	6.10		
25	6.55	10.00	12.10	37.60	154.00	60.80	69.20	8.65	9.10	9.25	5.80	6.25		
26	10.15	10.15	11.80	40.00	129.10	61.70	77.60	9.10	9.55	8.95	5.95	6.25		
27	12.10	12.40	10.90	47.75	116.10	62.60	78.20	10.30	9.70	8.05	5.65	6.10		
28	9.55	20.80	9.85	52.40	116.95	62.90	74.90	12.10	9.55	7.15	6.40	5.65		
29	8.05	24.80	9.10	52.40	124.15	62.60	71.60	11.50	9.55	6.70		6.10		
30	13.45	22.80	11.05	51.00	125.05	61.40	66.20	17.50	11.95	6.85		6.85		
31		18.55		49.50	125.95		59.30		13.45	6.85		9.10		
Total	234.70	442.45	524.35	673.25	3440.30	2584.80	1622.00	561.25	366.85	339.70	184.30	197.80	11171.75	CMSDAY
Mean	7.82	14.27	17.48	21.72	110.98	86.16	52.32	18.71	11.83	10.96	6.58	6.38	30.61	CMS
Max	13.45	24.80	31.20	52.40	191.60	128.65	84.30	50.00	21.40	16.75	10.15	9.10	191.60	CMS
Min	3.90	7.15	9.10	7.00	50.50	58.70	12.40	7.00	8.20	6.70	5.50	4.45	3.90	CMS
Runoff	20.28	38.23	45.30	58.17	297.24	223.33	140.14	48.49	31.70	29.35	15.92	17.09	965.24	MCM

Momentary Peak 194.00 CMS. at 11.70 m. (MSL.) at 20.00 Hours , on Aug 22 , 2018

Runoff Yield 7.51 Liters/Second/Square KM. Momentary Peak Yield 47.60 Liters/Second/Square KM.

WATER YEAR : 2018

PHETCHABURI RIVER BASIN

Phetchaburi River at Ban Lat Bridge , Phetchaburi (B.16)

Lat 13 - 02 - 56 N Long 99 - 55 - 06 E

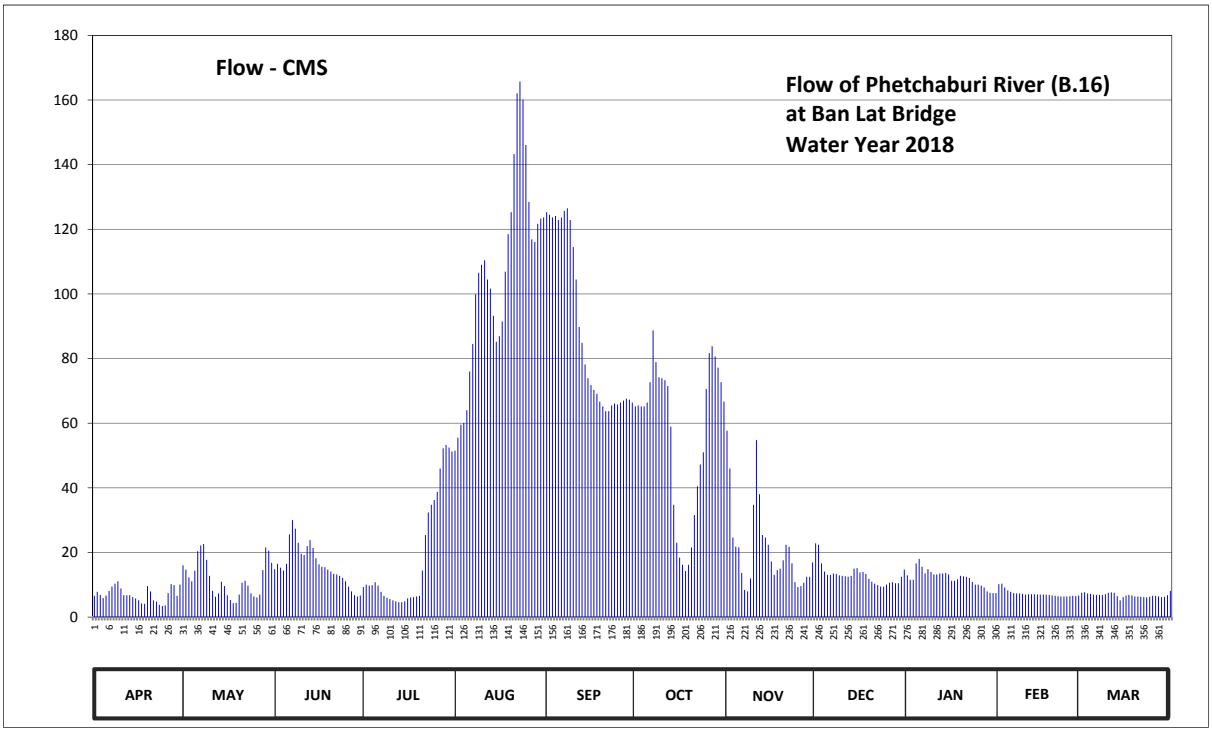
Location : on right bank at the bridge .

	Ban -	**Amphoe** Ban Lat	**Changwat** Phetchaburi
Drainge Area	4,470 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	Near the automatic gage buiding.		**Elevation** +11.440 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	2018 to date		
Rating Operation			
Period of Rating	2018 to date		
Rated by Flot	-		
Rated by Current Meter	2018 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 59 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	2.91	3.57	3.49	3.12	5.20	7.42	5.69	5.44	3.94	3.36	3.18	3.00	
2	3.02	3.48	3.60	3.17	5.36	7.40	5.70	4.98	3.92	3.27	3.19	3.01	
3	2.94	3.32	3.52	3.15	5.50	7.38	5.69	4.03	3.61	3.27	3.11	2.98	
4	2.84	3.24	3.46	3.16	5.52	7.39	5.69	3.89	3.44	3.61	3.05	2.97	
5	2.92	3.46	3.60	3.22	5.65	7.36	5.73	3.88	3.37	3.70	3.02	2.95	
6	3.04	3.82	4.08	3.15	6.05	7.38	5.94	3.41	3.37	3.54	2.99	2.94	
7	3.13	3.91	4.30	3.02	6.30	7.43	6.42	3.06	3.40	3.40	2.98	2.94	
8	3.19	3.93	4.17	2.91	6.74	7.45	6.14	3.03	3.39	3.49	2.98	2.94	
9	3.24	3.68	3.95	2.85	6.93	7.36	5.99	3.30	3.36	3.43	2.97	2.96	
10	3.09	3.35	3.78	2.81	7.00	7.15	5.98	4.53	3.35	3.38	2.95	3.00	
11	2.93	3.04	3.76	2.77	7.04	6.87	5.96	5.33	3.34	3.38	2.96	3.01	
12	2.93	2.88	3.90	2.74	6.87	6.45	5.90	4.66	3.33	3.40	2.96	3.00	
13	2.93	2.98	3.99	2.71	6.79	6.31	5.48	4.07	3.35	3.40	2.96	2.90	
14	2.87	3.23	3.87	2.71	6.55	6.12	4.53	4.03	3.50	3.41	2.95	2.77	
15	2.83	3.14	3.71	2.74	6.32	5.98	3.95	3.92	3.51	3.38	2.95	2.87	
16	2.77	2.93	3.59	2.83	6.37	5.91	3.72	3.65	3.42	3.25	2.95	2.92	
17	2.67	2.78	3.54	2.86	6.50	5.86	3.58	3.37	3.43	3.25	2.95	2.94	
18	2.66	2.68	3.53	2.87	6.94	5.82	3.45	3.47	3.39	3.28	2.94	2.92	
19	3.14	2.69	3.48	2.89	7.25	5.74	3.58	3.50	3.29	3.35	2.92	2.89	
20	3.03	2.95	3.44	2.91	7.42	5.69	3.88	3.67	3.23	3.34	2.91	2.89	
21	2.77	3.21	3.39	3.46	7.87	5.64	4.38	3.92	3.19	3.33	2.90	2.88	
22	2.73	3.25	3.38	4.07	8.34	5.64	4.76	3.89	3.16	3.31	2.89	2.87	
23	2.63	3.15	3.35	4.42	8.43	5.70	5.03	3.61	3.13	3.23	2.89	2.86	
24	2.59	2.98	3.31	4.53	8.29	5.72	5.18	3.22	3.13	3.17	2.89	2.88	
25	2.61	2.89	3.24	4.59	7.94	5.71	5.87	3.12	3.17	3.17	2.90	2.91	
26	2.99	2.86	3.13	4.69	7.50	5.73	6.22	3.14	3.21	3.15	2.91	2.91	
27	3.18	2.95	3.03	4.98	7.21	5.75	6.28	3.21	3.22	3.11	2.90	2.89	
28	3.16	3.47	2.93	5.23	7.19	5.77	6.19	3.33	3.20	3.03	2.92	2.87	
29	2.91	3.88	2.89	5.27	7.33	5.76	6.09	3.33	3.20	3.00		2.88	
30	3.17	3.83	2.92	5.24	7.37	5.73	5.94	3.63	3.33	2.99		2.93	
31		3.62		5.19	7.38		5.74		3.48	2.99		3.04	
Mean	2.93	3.26	3.54	3.56	6.88	6.39	5.31	3.79	3.37	3.30	2.97	2.93	
Max	3.24	3.93	4.30	5.27	8.43	7.45	6.42	5.44	3.94	3.70	3.19	3.04	8.43
Min	2.59	2.68	2.89	2.71	5.20	5.64	3.45	3.03	3.13	2.99	2.89	2.77	2.59

Annual Max Momentary Gage Height	8.44	m. (MSL.) ,	at 06.00 Hours , on Aug 23 , 2018		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	1.32	m. (MSL.)
Left Bank Elevation	8.95	m. (MSL.) ,			
Right Bank Elevation	9.44	m. (MSL.) ,	Drainage Are	4,470	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	6.60	16.05	14.85	9.30	51.50	125.30	65.20	57.70	22.80	12.90	10.20	7.50		
2	7.80	14.70	16.50	10.05	55.50	124.50	65.50	46.00	22.40	11.55	10.35	7.65		
3	6.90	12.30	15.30	9.75	59.50	123.70	65.20	24.60	16.65	11.55	9.15	7.30		
4	5.90	11.10	14.40	9.90	60.10	124.10	65.20	21.80	14.10	16.65	8.25	7.20		
5	6.70	14.40	16.50	10.80	64.00	122.90	66.40	21.60	13.05	18.00	7.80	7.00		
6	8.10	20.40	25.60	9.75	76.00	123.70	72.70	13.65	13.05	15.60	7.40	6.90		
7	9.45	22.20	30.00	7.80	84.50	125.70	88.70	8.40	13.50	13.50	7.30	6.90		
8	10.35	22.60	27.40	6.60	99.90	126.50	78.90	7.95	13.35	14.85	7.30	6.90		
9	11.10	17.70	23.00	6.00	106.55	122.90	74.20	12.00	12.90	13.95	7.20	7.10		
10	8.85	12.75	19.60	5.60	109.00	114.50	73.90	34.75	12.75	13.20	7.00	7.50		
11	6.80	8.10	19.20	5.20	110.40	104.45	73.30	54.75	12.60	13.20	7.10	7.65		
12	6.80	6.30	22.00	4.90	104.45	89.75	71.50	38.00	12.45	13.50	7.10	7.50		
13	6.80	7.30	23.80	4.60	101.65	84.85	58.90	25.40	12.75	13.50	7.10	6.50		
14	6.20	10.95	21.40	4.60	93.25	78.20	34.75	24.60	15.00	13.65	7.00	5.20		
15	5.80	9.60	18.20	4.90	85.20	73.90	23.00	22.40	15.15	13.20	7.00	6.20		
16	5.20	6.80	16.35	5.80	86.95	71.80	18.40	17.25	13.80	11.25	7.00	6.70		
17	4.20	5.30	15.60	6.10	91.50	70.30	16.20	13.05	13.95	11.25	7.00	6.90		
18	4.10	4.30	15.45	6.20	106.90	69.10	14.25	14.55	13.35	11.70	6.90	6.70		
19	9.60	4.40	14.70	6.40	118.50	66.70	16.20	15.00	11.85	12.75	6.70	6.40		
20	7.95	7.00	14.10	6.60	125.30	65.20	21.60	17.55	10.95	12.60	6.60	6.40		
21	5.20	10.65	13.35	14.40	143.30	63.70	31.60	22.40	10.35	12.45	6.50	6.30		
22	4.80	11.25	13.20	25.40	162.10	63.70	40.50	21.80	9.90	12.15	6.40	6.20		
23	3.80	9.75	12.75	32.40	165.70	65.50	47.25	16.65	9.45	10.95	6.40	6.10		
24	3.40	7.30	12.15	34.75	160.10	66.10	51.00	10.80	9.45	10.05	6.40	6.30		
25	3.60	6.40	11.10	36.25	146.10	65.80	70.60	9.30	10.05	10.05	6.50	6.60		
26	7.40	6.10	9.45	38.75	128.50	66.40	81.70	9.60	10.65	9.75	6.60	6.60		
27	10.20	7.00	7.95	46.00	116.90	67.00	83.80	10.65	10.80	9.15	6.50	6.40		
28	9.90	14.55	6.80	52.25	116.10	67.60	80.65	12.45	10.50	7.95	6.70	6.20		
29	6.60	21.60	6.40	53.25	121.70	67.30	77.20	12.45	10.50	7.50		6.30		
30	10.05	20.60	6.70	52.50	123.30	66.40	72.70	16.95	12.45	7.40		6.80		
31		16.80		51.25	123.70		66.70		14.70	7.40		8.10		
Total	210.15	366.25	483.80	578.05	3298.15	2667.55	1767.70	634.05	405.20	373.15	203.45	210.00	11197.50	CMSDAY
Mean	7.00	11.81	16.13	18.65	106.39	88.92	57.02	21.14	13.07	12.04	7.27	6.77	30.68	CMS
Max	11.10	22.60	30.00	53.25	165.70	126.50	88.70	57.70	22.80	18.00	10.35	8.10	165.70	CMS
Min	3.40	4.30	6.40	4.60	51.50	63.70	14.25	7.95	9.45	7.40	6.40	5.20	3.40	CMS
Runoff	18.16	31.64	41.80	49.94	284.96	230.48	152.73	54.78	35.01	32.24	17.58	18.14	967.46	MCM

Momentary Peak 166.10 CMS. at 8.44 m. (MSL.) at 06.00 Hours , on Aug 23 , 2018

Runoff Yield 6.86 Liters/Second/Square KM. Momentary Peak Yield 37.16 Liters/Second/Square KM.

WATER YEAR : 2018

WEST COAST - GULF BASIN

Khlong Bang Saphan Yai at Ban Wang Yao, Prachuap Khiri Khan (Gt.7)

Lat 11 - 14 - 02 N Long 99 - 26 - 35 E

Location : on left bank near the bridge of Phet Kasem Highway at Ban Wang Yao.

Ban Wang Yao **Amphoe** Bang Saphan **Changwat** Prachuap Khiri Khan

Drainge Area	346 sq.km.
Type of Gage	Water - stage recorder.
Zero Gage at Bottom	+11.800 m. (MSL.)
Bench Mark	B.M.- Highways Dept.
Location BM	on left bank at the abutment of the bridge. **Elevation** +19.908 m. (MSL.)
Gage Reading Frequency	Recordings.
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	1978 to date
Rating Operation	
Period of Rating	1980 to date
Rated by Flot	-
Rated by Current Meter	1980 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Flow regulated by the concrete weir about 2 kilometer downstream from the gage site. Stage-discharge relation defined by 19 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 20018 to March 31, 2019

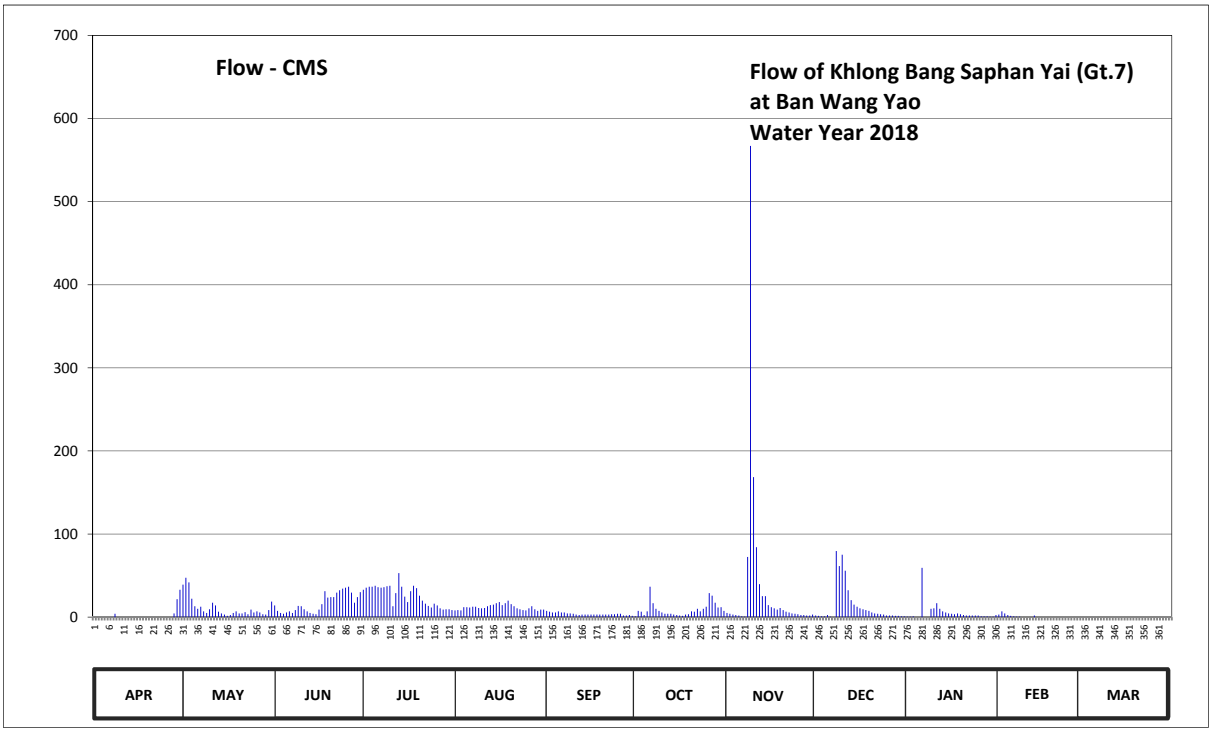
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	13.58	14.30	13.88	14.20	13.76	13.75	13.62	13.70	13.64	13.61	13.66	13.53	
2	13.56	14.42	13.75	14.24	13.77	13.73	13.75	13.68	13.63	13.61	13.74	13.53	
3	13.53	14.34	13.70	14.26	13.76	13.71	13.73	13.66	13.62	13.62	13.69	13.53	
4	13.50	14.02	13.68	14.26	13.84	13.71	13.65	13.65	13.62	13.34	13.65	13.52	
5	13.50	13.86	13.71	14.28	13.84	13.74	13.74	13.64	13.65	13.25	13.63	13.52	
6	13.51	13.80	13.74	14.25	13.83	13.71	14.26	13.62	13.61	14.59	13.62	13.51	
7	13.54	13.85	13.70	14.24	13.85	13.71	13.93	13.61	13.60	13.31	13.61	13.51	
8	13.68	13.74	13.77	14.25	13.85	13.69	13.80	14.76	14.84	13.39	13.61	13.50	
9	13.59	13.70	13.87	14.27	13.82	13.69	13.75	17.45	14.62	13.80	13.60	13.49	
10	13.56	13.79	13.86	14.28	13.81	13.68	13.71	15.59	14.79	13.81	13.60	13.49	
11	13.55	13.94	13.79	13.86	13.82	13.66	13.68	14.89	14.54	13.93	13.59	13.46	
12	13.54	13.88	13.74	14.13	13.86	13.65	13.68	14.31	14.19	13.80	13.60	13.41	
13	13.53	13.73	13.70	14.50	13.89	13.66	13.68	14.07	13.99	13.74	13.64	13.36	
14	13.52	13.69	13.68	14.26	13.90	13.66	13.66	14.07	13.90	13.71	13.60	13.31	
15	13.51	13.66	13.67	14.06	13.93	13.66	13.65	13.89	13.85	13.69	13.59	13.26	
16	13.48	13.63	13.78	13.95	13.95	13.66	13.64	13.84	13.81	13.68	13.59	13.20	
17	13.45	13.65	13.91	14.17	13.89	13.66	13.63	13.81	13.79	13.67	13.58	13.17	
18	13.43	13.70	14.17	14.28	13.93	13.66	13.66	13.78	13.77	13.69	13.58	13.14	
19	13.41	13.74	14.04	14.23	13.98	13.66	13.67	13.82	13.75	13.67	13.57	13.14	
20	13.55	13.69	14.05	14.08	13.91	13.66	13.74	13.77	13.71	13.65	13.57	13.13	
21	13.54	13.69	14.05	13.98	13.86	13.66	13.73	13.73	13.69	13.64	13.56	13.10	
22	13.53	13.72	14.14	13.92	13.81	13.66	13.80	13.71	13.68	13.64	13.56	13.10	
23	13.52	13.67	14.19	13.87	13.79	13.67	13.74	13.69	13.67	13.64	13.56	13.09	
24	13.55	13.78	14.22	13.83	13.77	13.67	13.80	13.68	13.66	13.64	13.55	13.06	
25	13.55	13.71	14.24	13.92	13.76	13.68	13.85	13.67	13.64	13.64	13.55	13.28	
26	13.60	13.74	14.26	13.88	13.81	13.68	14.13	13.65	13.64	13.62	13.55	13.55	
27	13.56	13.71	14.14	13.81	13.86	13.64	14.08	13.65	13.64	13.62	13.54	13.55	
28	13.69	13.67	13.94	13.78	13.79	13.64	13.94	13.64	13.63	13.62	13.54	13.53	
29	14.01	13.66	14.05	13.79	13.75	13.65	13.83	13.64	13.63	13.61		13.56	
30	14.20	13.77	14.15	13.79	13.78	13.63	13.84	13.66	13.62	13.61		13.57	
31		13.96		13.77	13.78		13.75		13.62	13.65		13.55	
Mean	13.58	13.81	13.92	14.08	13.84	13.68	13.78	14.01	13.84	13.66	13.60	13.38	
Max	14.20	14.42	14.26	14.50	13.98	13.75	14.26	17.45	14.84	14.59	13.74	13.57	17.45
Min	13.41	13.63	13.67	13.77	13.75	13.63	13.62	13.61	13.60	13.25	13.54	13.06	13.06

Annual Max Momentary Gage Height 19.80 m. (MSL.) , at 16.00 Hours , on Nov 9, 2018

Zero Gage at Bottom Elevation 11.80 m. (MSL.) , River Bed 10.03 m. (MSL.)

Left Bank Elevation 21.29 m. (MSL.) ,

Right Bank Elevation 20.77 m. (MSL.) , Drainage Are 346 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	39.00	14.00	33.00	8.00	7.50	1.00	5.00	2.00	0.50	3.00	0.00		
2	0.00	47.40	7.50	35.40	8.50	6.50	7.50	4.00	1.50	0.50	7.00	0.00		
3	0.00	41.80	5.00	36.60	8.00	5.50	6.50	3.00	1.00	1.00	4.50	0.00		
4	0.00	22.20	4.00	36.60	12.00	5.50	2.50	2.50	1.00	0.00	2.50	0.00		
5	0.00	13.00	5.50	37.80	12.00	7.00	7.00	2.00	2.50	0.00	1.50	0.00		
6	0.00	10.00	7.00	36.00	11.50	5.50	36.60	1.00	0.50	59.30	1.00	0.00		
7	0.00	12.50	5.00	35.40	12.50	5.50	16.80	0.50	0.00	0.00	0.50	0.00		
8	4.00	7.00	8.50	36.00	12.50	4.50	10.00	72.40	79.60	0.00	0.50	0.00		
9	0.00	5.00	13.50	37.20	11.00	4.50	7.50	567.00	61.40	10.00	0.00	0.00		
10	0.00	9.50	13.00	37.80	10.50	4.00	5.50	168.50	75.10	10.50	0.00	0.00		
11	0.00	17.40	9.50	13.00	11.00	3.00	4.00	84.10	55.80	16.80	0.00	0.00		
12	0.00	14.00	7.00	28.80	13.00	2.50	4.00	39.70	32.40	10.00	0.00	0.00		
13	0.00	6.50	5.00	53.00	14.50	3.00	4.00	25.20	20.40	7.00	2.00	0.00		
14	0.00	4.50	4.00	36.60	15.00	3.00	3.00	25.20	15.00	5.50	0.00	0.00		
15	0.00	3.00	3.50	24.60	16.80	3.00	2.50	14.50	12.50	4.50	0.00	0.00		
16	0.00	1.50	9.00	18.00	18.00	3.00	2.00	12.00	10.50	4.00	0.00	0.00		
17	0.00	2.50	15.60	31.20	14.50	3.00	1.50	10.50	9.50	3.50	0.00	0.00		
18	0.00	5.00	31.20	37.80	16.80	3.00	3.00	9.00	8.50	4.50	0.00	0.00		
19	0.00	7.00	23.40	34.80	19.80	3.00	3.50	11.00	7.50	3.50	0.00	0.00		
20	0.00	4.50	24.00	25.80	15.60	3.00	7.00	8.50	5.50	2.50	0.00	0.00		
21	0.00	4.50	24.00	19.80	13.00	3.00	6.50	6.50	4.50	2.00	0.00	0.00		
22	0.00	6.00	29.40	16.20	10.50	3.00	10.00	5.50	4.00	2.00	0.00	0.00		
23	0.00	3.50	32.40	13.50	9.50	3.50	7.00	4.50	3.50	2.00	0.00	0.00		
24	0.00	9.00	34.20	11.50	8.50	3.50	10.00	4.00	3.00	2.00	0.00	0.00		
25	0.00	5.50	35.40	16.20	8.00	4.00	12.50	3.50	2.00	2.00	0.00	0.00		
26	0.00	7.00	36.60	14.00	10.50	4.00	28.80	2.50	2.00	1.00	0.00	0.00		
27	0.00	5.50	29.40	10.50	13.00	2.00	25.80	2.50	2.00	1.00	0.00	0.00		
28	4.50	3.50	17.40	9.00	9.50	2.00	17.40	2.00	1.50	1.00	0.00	0.00		
29	21.60	3.00	24.00	9.50	7.50	2.50	11.50	2.00	1.50	0.50		0.00		
30	33.00	8.50	30.00	9.50	9.00	1.50	12.00	3.00	1.00	0.50		0.00		
31		18.60		8.50	9.00		7.50		1.00	2.50		0.00		
Total	63.10	347.90	508.00	803.60	369.50	114.50	284.40	1101.60	428.20	160.10	22.50	0.00	4203.40	CMSDAY
Mean	2.10	11.22	16.93	25.92	11.92	3.82	9.17	36.72	13.81	5.16	0.80	0.00	11.52	CMS
Max	33.00	47.40	36.60	53.00	19.80	7.50	36.60	567.00	79.60	59.30	7.00	0.00	567.00	CMS
Min	0.00	1.50	3.50	8.50	7.50	1.50	1.00	0.50	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	5.45	30.06	43.89	69.43	31.92	9.89	24.57	95.18	37.00	13.83	1.94	0.00	363.17	MCM

Momentary Peak 1250.00 CMS. at 19.80 m. (MSL.) at 16.00 Hours , on Nov 9, 2018

Runoff Yield 33.28 Liters/Second/Square KM. Momentary Peak Yield 3612.72 Liters/Second/Square KM.

WATER YEAR : 2018

WEST COAST - GULF BASIN

Khlong Thap Sakae at Ban Klang , Prachuap Khiri Khan (Gt.9)

Lat 11 - 29 - 40 N Long 99 - 36 - 20 E

Location : on right bank at Ban Klang.

	Ban Klang	**Amphoe** Thap Sakae	**Changwat** Prachuap Khiri Khan
Drainge Area	125 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+6.900 m. (MSL.)		
Bench Mark	B.M.- Highways Dept.		
Location BM	On right bank at the abutment of the bridge.		**Elevation** +12.272 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	1979 to date		
Rating Operation			
Period of Rating	1980 to date		
Rated by Flot	-		
Rated by Current Meter	1980 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 27 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

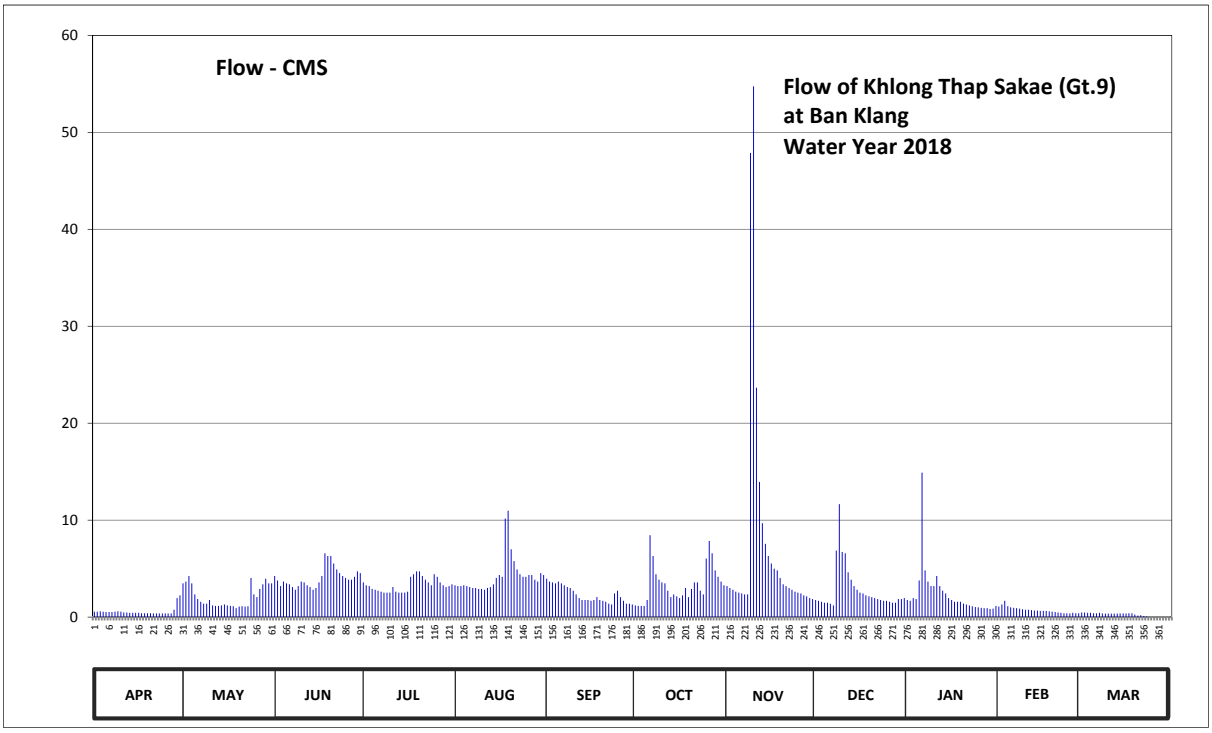
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	7.34	7.74	7.82	7.75	7.72	7.79	7.50	7.71	7.56	7.56	7.47	7.32	
2	7.34	7.76	7.77	7.72	7.71	7.76	7.49	7.69	7.55	7.55	7.51	7.32	
3	7.35	7.82	7.71	7.71	7.71	7.75	7.49	7.67	7.54	7.58	7.55	7.31	
4	7.34	7.74	7.76	7.68	7.72	7.74	7.49	7.65	7.53	7.57	7.48	7.31	
5	7.33	7.62	7.74	7.67	7.71	7.76	7.56	7.64	7.53	7.77	7.45	7.30	
6	7.33	7.57	7.73	7.66	7.70	7.74	8.15	7.63	7.52	8.53	7.44	7.30	
7	7.33	7.54	7.70	7.65	7.69	7.72	8.00	7.62	7.50	7.88	7.43	7.31	
8	7.34	7.52	7.67	7.64	7.69	7.70	7.84	7.62	8.04	7.76	7.42	7.29	
9	7.35	7.52	7.71	7.64	7.68	7.69	7.78	9.93	8.35	7.71	7.40	7.28	
10	7.34	7.56	7.76	7.64	7.68	7.66	7.75	10.18	8.03	7.71	7.39	7.28	
11	7.32	7.50	7.75	7.70	7.67	7.62	7.74	8.96	8.02	7.82	7.39	7.28	
12	7.32	7.49	7.72	7.65	7.69	7.58	7.66	8.48	7.86	7.71	7.38	7.28	
13	7.31	7.49	7.70	7.64	7.70	7.56	7.59	8.23	7.78	7.66	7.37	7.28	
14	7.31	7.50	7.67	7.64	7.73	7.56	7.62	8.09	7.71	7.63	7.37	7.29	
15	7.31	7.51	7.69	7.64	7.80	7.56	7.60	8.00	7.67	7.58	7.36	7.29	
16	7.31	7.50	7.75	7.65	7.83	7.55	7.58	7.94	7.64	7.56	7.36	7.29	
17	7.30	7.49	7.82	7.81	7.81	7.56	7.61	7.90	7.63	7.54	7.36	7.30	
18	7.30	7.48	8.02	7.84	8.26	7.59	7.69	7.88	7.61	7.54	7.35	7.30	
19	7.30	7.43	8.00	7.87	8.31	7.56	7.59	7.80	7.60	7.54	7.34	7.23	
20	7.30	7.47	8.00	7.87	8.05	7.55	7.68	7.73	7.59	7.52	7.33	7.18	
21	7.29	7.48	7.94	7.82	7.96	7.54	7.75	7.71	7.58	7.51	7.32	7.20	
22	7.29	7.47	7.89	7.78	7.89	7.52	7.75	7.69	7.57	7.50	7.31	7.16	
23	7.29	7.48	7.85	7.75	7.84	7.51	7.66	7.67	7.56	7.48	7.30	7.13	
24	7.29	7.80	7.82	7.72	7.81	7.63	7.62	7.65	7.55	7.46	7.30	7.10	
25	7.29	7.62	7.80	7.84	7.81	7.66	7.98	7.64	7.55	7.45	7.29	7.09	
26	7.29	7.59	7.78	7.81	7.83	7.59	8.11	7.63	7.54	7.44	7.31	7.07	
27	7.29	7.68	7.78	7.75	7.83	7.55	8.02	7.61	7.53	7.43	7.30	7.05	
28	7.39	7.73	7.81	7.72	7.78	7.52	7.88	7.60	7.53	7.43	7.30	7.06	
29	7.58	7.79	7.87	7.70	7.76	7.52	7.81	7.58	7.57	7.41		7.07	
30	7.61	7.74	7.85	7.71	7.85	7.51	7.76	7.57	7.57	7.42		7.10	
31		7.74		7.73	7.83		7.72		7.58	7.49		7.12	
Mean	7.34	7.59	7.80	7.72	7.81	7.62	7.72	7.96	7.66	7.60	7.38	7.22	
Max	7.61	7.82	8.02	7.87	8.31	7.79	8.15	10.18	8.35	8.53	7.55	7.32	10.18
Min	7.29	7.43	7.67	7.64	7.67	7.51	7.49	7.57	7.50	7.41	7.29	7.05	7.05

Annual Max Momentary Gage Height 12.21 m. (MSL.) , at 18.00 Hours , on Nov 9, 2018

Zero Gage at Bottom Elevation 6.90 m. (MSL.) , River Bed 6.99 m. (MSL.)

Left Bank Elevation 12.35 m. (MSL.) ,

Right Bank Elevation 12.30 m. (MSL.) , Drainage Are 125 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.56	3.48	4.24	3.58	3.29	3.96	1.20	3.20	1.77	1.77	1.08	0.48		
2	0.56	3.67	3.77	3.29	3.20	3.67	1.16	3.01	1.68	1.68	1.30	0.48		
3	0.60	4.24	3.20	3.20	3.20	3.58	1.16	2.82	1.58	1.96	1.68	0.44		
4	0.56	3.48	3.67	2.91	3.29	3.48	1.16	2.63	1.49	1.87	1.12	0.44		
5	0.52	2.34	3.48	2.82	3.20	3.67	1.77	2.53	1.49	3.77	1.00	0.40		
6	0.52	1.87	3.39	2.72	3.10	3.48	8.45	2.44	1.39	14.90	0.96	0.40		
7	0.52	1.58	3.10	2.63	3.01	3.29	6.30	2.34	1.20	4.81	0.92	0.44		
8	0.56	1.39	2.82	2.53	3.01	3.10	4.43	2.34	6.86	3.67	0.88	0.38		
9	0.60	1.39	3.20	2.53	2.91	3.01	3.86	47.88	11.65	3.20	0.80	0.36		
10	0.56	1.77	3.67	2.53	2.91	2.72	3.58	54.74	6.72	3.20	0.76	0.36		
11	0.48	1.20	3.58	3.10	2.82	2.34	3.48	23.66	6.58	4.24	0.76	0.36		
12	0.48	1.16	3.29	2.63	3.01	1.96	2.72	13.94	4.62	3.20	0.72	0.36		
13	0.44	1.16	3.10	2.53	3.10	1.77	2.06	9.68	3.86	2.72	0.68	0.36		
14	0.44	1.20	2.82	2.53	3.39	1.77	2.34	7.56	3.20	2.44	0.68	0.38		
15	0.44	1.30	3.01	2.53	4.05	1.77	2.15	6.30	2.82	1.96	0.64	0.38		
16	0.44	1.20	3.58	2.63	4.34	1.68	1.96	5.52	2.53	1.77	0.64	0.38		
17	0.40	1.16	4.24	4.15	4.15	1.77	2.25	5.00	2.44	1.58	0.64	0.40		
18	0.40	1.12	6.58	4.43	10.16	2.06	3.01	4.81	2.25	1.58	0.60	0.40		
19	0.40	0.92	6.30	4.72	10.97	1.77	2.06	4.05	2.15	1.58	0.56	0.26		
20	0.40	1.08	6.30	4.72	7.00	1.68	2.91	3.39	2.06	1.39	0.52	0.16		
21	0.38	1.12	5.52	4.24	5.78	1.58	3.58	3.20	1.96	1.30	0.48	0.20		
22	0.38	1.08	4.91	3.86	4.91	1.39	3.58	3.01	1.87	1.20	0.44	0.12		
23	0.38	1.12	4.53	3.58	4.43	1.30	2.72	2.82	1.77	1.12	0.40	0.06		
24	0.38	4.05	4.24	3.29	4.15	2.44	2.34	2.63	1.68	1.04	0.40	0.00		
25	0.38	2.34	4.05	4.43	4.15	2.72	6.04	2.53	1.68	1.00	0.38	0.00		
26	0.38	2.06	3.86	4.15	4.34	2.06	7.85	2.44	1.58	0.96	0.44	0.00		
27	0.38	2.91	3.86	3.58	4.34	1.68	6.58	2.25	1.49	0.92	0.40	0.00		
28	0.76	3.39	4.15	3.29	3.86	1.39	4.81	2.15	1.49	0.92	0.40	0.00		
29	1.96	3.96	4.72	3.10	3.67	1.39	4.15	1.96	1.87	0.84		0.00		
30	2.25	3.48	4.53	3.20	4.53	1.30	3.67	1.87	1.87	0.88		0.00		
31		3.48		3.39	4.34		3.29		1.96	1.16		0.04		
Total	17.51	65.70	121.71	102.82	132.61	69.78	106.62	232.70	87.56	74.63	20.28	8.04	1039.96	CMSDAY
Mean	0.58	2.12	4.06	3.32	4.28	2.33	3.44	7.76	2.82	2.41	0.72	0.26	2.85	CMS
Max	2.25	4.24	6.58	4.72	10.97	3.96	8.45	54.74	11.65	14.90	1.68	0.48	54.74	CMS
Min	0.38	0.92	2.82	2.53	2.82	1.30	1.16	1.87	1.20	0.84	0.38	0.00	0.00	CMS
Runoff	1.51	5.68	10.52	8.88	11.46	6.03	9.21	20.11	7.57	6.45	1.75	0.69	89.85	MCM

Momentary Peak 113.81 CMS. at 12.21 m. (MSL.) at 18.00 Hours , on Nov 9, 2018

Runoff Yield 22.79 Liters/Second/Square KM. Momentary Peak Yield 910.48 Liters/Second/Square KM.

WATER YEAR : 2018

WEST COAST - GULF BASIN

Khlong Krut at Ban Nong Ya Plong , Prachuap Khiri Khan (Gt.10)

Lat 11 - 24 - 08 N Long 99 - 31 - 18 E

Location : on right bank at the bridge of Phet Kasem Highway near the guidepost 379.

Ban Nong Ya Plong **Amphoe** Bang Saphan **Changwat** Prachuap Khiri Khan

Drainge Area	113 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+25.400 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On right bank at the abutment of the bridge. **Elevation** +30.730 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	1979 to date
Rating Operation	
Period of Rating	1980 to date
Rated by Flot	-
Rated by Current Meter	1980 to date
Stability of Channel Regimes	Rather unstable by some scouring.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. Stage-discharge relation defined by 33 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

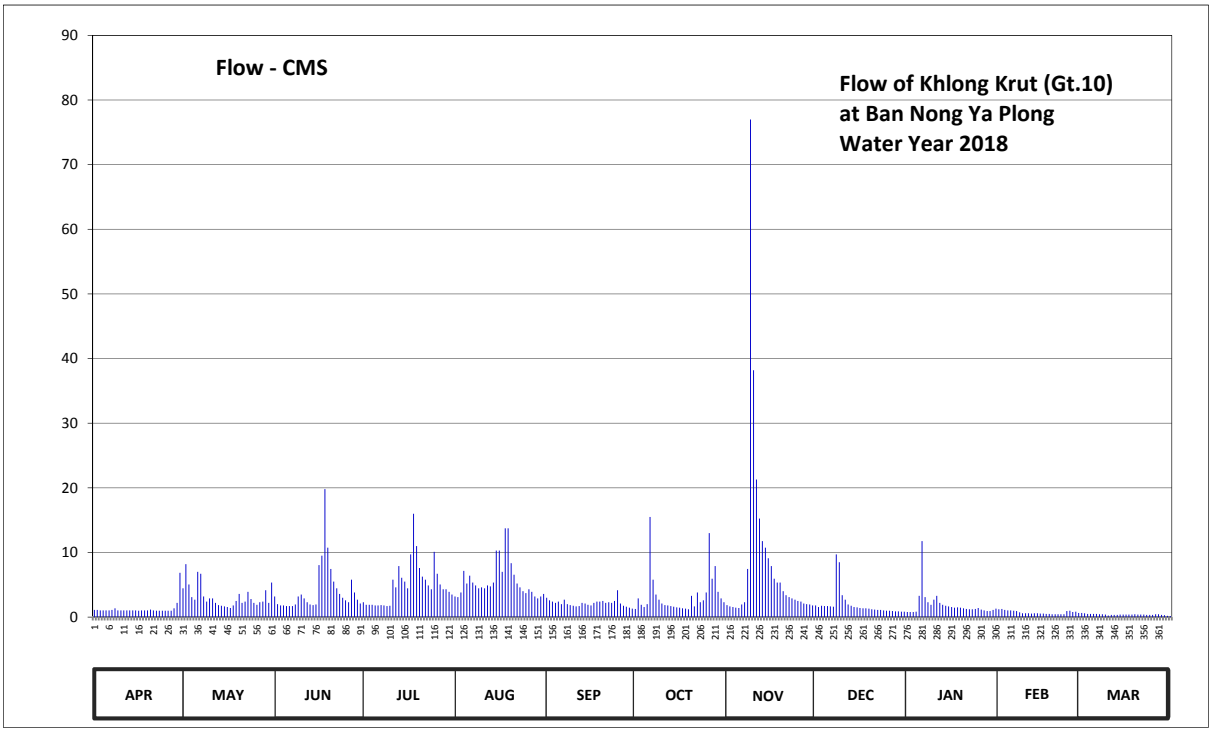
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	24.22	24.63	24.52	24.43	24.52	24.50	24.25	24.37	24.36	24.16	24.24	24.13	
2	24.22	24.88	24.40	24.38	24.51	24.46	24.49	24.33	24.31	24.16	24.25	24.12	
3	24.21	24.67	24.36	24.38	24.58	24.44	24.38	24.31	24.35	24.16	24.22	24.10	
4	24.21	24.51	24.36	24.38	24.81	24.42	24.31	24.29	24.34	24.17	24.21	24.10	
5	24.21	24.47	24.34	24.36	24.68	24.44	24.40	24.28	24.34	24.53	24.21	24.10	
6	24.21	24.80	24.34	24.36	24.76	24.40	25.20	24.39	24.33	25.05	24.20	24.10	
7	24.22	24.78	24.34	24.37	24.69	24.47	24.72	24.43	24.32	24.51	24.19	24.09	
8	24.27	24.52	24.39	24.36	24.66	24.40	24.55	24.83	24.96	24.43	24.15	24.09	
9	24.21	24.44	24.52	24.34	24.63	24.37	24.47	26.72	24.90	24.38	24.12	24.08	
10	24.21	24.49	24.55	24.35	24.64	24.35	24.41	25.88	24.54	24.47	24.12	24.05	
11	24.21	24.49	24.49	24.72	24.63	24.33	24.37	25.41	24.47	24.53	24.12	24.07	
12	24.21	24.42	24.43	24.64	24.66	24.34	24.36	25.19	24.39	24.42	24.11	24.07	
13	24.21	24.37	24.39	24.86	24.65	24.42	24.34	25.05	24.35	24.38	24.12	24.07	
14	24.21	24.35	24.37	24.74	24.69	24.41	24.32	25.01	24.31	24.35	24.12	24.08	
15	24.21	24.33	24.39	24.70	24.99	24.38	24.30	24.93	24.30	24.33	24.11	24.08	
16	24.20	24.31	24.87	24.63	24.99	24.36	24.29	24.86	24.28	24.31	24.11	24.08	
17	24.21	24.28	24.95	24.96	24.80	24.42	24.27	24.73	24.27	24.29	24.10	24.08	
18	24.21	24.36	25.36	25.22	25.13	24.44	24.26	24.69	24.27	24.30	24.10	24.08	
19	24.21	24.45	25.01	25.02	25.13	24.44	24.24	24.69	24.26	24.29	24.09	24.09	
20	24.23	24.56	24.83	24.84	24.89	24.45	24.53	24.60	24.24	24.27	24.09	24.08	
21	24.21	24.42	24.70	24.75	24.77	24.42	24.33	24.54	24.23	24.25	24.09	24.08	
22	24.20	24.44	24.63	24.72	24.68	24.43	24.58	24.51	24.22	24.24	24.09	24.08	
23	24.20	24.59	24.56	24.66	24.64	24.42	24.43	24.49	24.22	24.24	24.09	24.07	
24	24.20	24.48	24.50	24.62	24.60	24.45	24.46	24.47	24.21	24.25	24.19	24.07	
25	24.20	24.42	24.46	24.98	24.57	24.61	24.58	24.45	24.20	24.28	24.20	24.07	
26	24.20	24.38	24.43	24.78	24.62	24.41	25.10	24.44	24.20	24.23	24.16	24.09	
27	24.20	24.43	24.72	24.67	24.59	24.35	24.73	24.41	24.19	24.21	24.17	24.09	
28	24.27	24.44	24.58	24.62	24.52	24.32	24.86	24.40	24.18	24.19	24.13	24.07	
29	24.42	24.61	24.47	24.62	24.49	24.29	24.59	24.39	24.18	24.19		24.06	
30	24.79	24.42	24.41	24.59	24.52	24.26	24.49	24.36	24.17	24.22		24.04	
31		24.69		24.55	24.56		24.43		24.17	24.26		24.03	
Mean	24.24	24.50	24.56	24.63	24.70	24.41	24.49	24.72	24.32	24.32	24.15	24.08	
Max	24.79	24.88	25.36	25.22	25.13	24.61	25.20	26.72	24.96	25.05	24.25	24.13	26.72
Min	24.20	24.28	24.34	24.34	24.49	24.26	24.24	24.28	24.17	24.16	24.09	24.03	24.03

Annual Max Momentary Gage Height 27.83 m. (MSL.) , at 17.00 Hours , on Nov 9 , 2018

Zero Gage at Bottom Elevation 25.40 m. (MSL.) , River Bed 24.12 m. (MSL.)

Left Bank Elevation 30.80 m. (MSL.) ,

Right Bank Elevation 30.80 m. (MSL.) , Drainage Are 113 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.10	4.45	3.20	2.30	3.20	3.00	1.25	1.85	1.80	0.80	1.20	0.65		
2	1.10	8.20	2.00	1.90	3.10	2.60	2.90	1.65	1.55	0.80	1.25	0.60		
3	1.05	5.05	1.80	1.90	3.80	2.40	1.90	1.55	1.75	0.80	1.10	0.50		
4	1.05	3.10	1.80	1.90	7.15	2.20	1.55	1.45	1.70	0.85	1.05	0.50		
5	1.05	2.70	1.70	1.80	5.20	2.40	2.00	1.40	1.70	3.30	1.05	0.50		
6	1.05	7.00	1.70	1.80	6.40	2.00	15.50	1.95	1.65	11.75	1.00	0.50		
7	1.10	6.70	1.70	1.85	5.35	2.70	5.80	2.30	1.60	3.10	0.95	0.45		
8	1.35	3.20	1.95	1.80	4.90	2.00	3.50	7.45	9.70	2.30	0.75	0.45		
9	1.05	2.40	3.20	1.70	4.45	1.85	2.70	77.00	8.50	1.90	0.60	0.40		
10	1.05	2.90	3.50	1.75	4.60	1.75	2.10	38.20	3.40	2.70	0.60	0.25		
11	1.05	2.90	2.90	5.80	4.45	1.65	1.85	21.30	2.70	3.30	0.60	0.35		
12	1.05	2.20	2.30	4.60	4.90	1.70	1.80	15.25	1.95	2.20	0.55	0.35		
13	1.05	1.85	1.95	7.90	4.75	2.20	1.70	11.75	1.75	1.90	0.60	0.35		
14	1.05	1.75	1.85	6.10	5.35	2.10	1.60	10.75	1.55	1.75	0.60	0.40		
15	1.05	1.65	1.95	5.50	10.30	1.90	1.50	9.10	1.50	1.65	0.55	0.40		
16	1.00	1.55	8.05	4.45	10.30	1.80	1.45	7.90	1.40	1.55	0.55	0.40		
17	1.05	1.40	9.50	9.70	7.00	2.20	1.35	5.95	1.35	1.45	0.50	0.40		
18	1.05	1.80	19.80	16.00	13.75	2.40	1.30	5.35	1.35	1.50	0.50	0.40		
19	1.05	2.50	10.75	11.00	13.75	2.40	1.20	5.35	1.30	1.45	0.45	0.45		
20	1.15	3.60	7.45	7.60	8.35	2.50	3.30	4.00	1.20	1.35	0.45	0.40		
21	1.05	2.20	5.50	6.25	6.55	2.20	1.65	3.40	1.15	1.25	0.45	0.40		
22	1.00	2.40	4.45	5.80	5.20	2.30	3.80	3.10	1.10	1.20	0.45	0.40		
23	1.00	3.90	3.60	4.90	4.60	2.20	2.30	2.90	1.10	1.20	0.45	0.35		
24	1.00	2.80	3.00	4.30	4.00	2.50	2.60	2.70	1.05	1.25	0.95	0.35		
25	1.00	2.20	2.60	10.10	3.70	4.15	3.80	2.50	1.00	1.40	1.00	0.35		
26	1.00	1.90	2.30	6.70	4.30	2.10	13.00	2.40	1.00	1.15	0.80	0.45		
27	1.00	2.30	5.80	5.05	3.90	1.75	5.95	2.10	0.95	1.05	0.85	0.45		
28	1.35	2.40	3.80	4.30	3.20	1.60	7.90	2.00	0.90	0.95	0.65	0.35		
29	2.20	4.15	2.70	4.30	2.90	1.45	3.90	1.95	0.90	0.95		0.30		
30	6.85	2.20	2.10	3.90	3.20	1.30	2.90	1.80	0.85	1.10		0.20		
31		5.35		3.50	3.60		2.30		0.85	1.30		0.15		
Total	38.95	98.70	124.90	156.45	176.20	65.30	106.35	256.35	60.25	59.20	20.50	12.45	1175.60	CMSDAY
Mean	1.30	3.18	4.16	5.05	5.68	2.18	3.43	8.54	1.94	1.91	0.73	0.40	3.22	CMS
Max	6.85	8.20	19.80	16.00	13.75	4.15	15.50	77.00	9.70	11.75	1.25	0.65	77.00	CMS
Min	1.00	1.40	1.70	1.70	2.90	1.30	1.20	1.40	0.85	0.80	0.45	0.15	0.15	CMS
Runoff	3.37	8.53	10.79	13.52	15.22	5.64	9.19	22.15	5.21	5.11	1.77	1.08	101.57	MCM

Momentary Peak 138.95 CMS. at 27.83 m. (MSL.) at 17.00 Hours , on Nov 9, 2018

Runoff Yield 28.50 Liters/Second/Square KM. Momentary Peak Yield 1229.65 Liters/Second/Square KM.

WATER YEAR : 2018

WEST COAST - GULF BASIN

Khlong Yai at Ban Chang Laek , Prachuap Khiri Khan (Gt.11)

Lat 11 - 03 - 44 N Long 99 - 22 - 30 E

Location : on right bank at the bridge of Phet Kasem Highway near the guidepost 423.

Ban Chang Laek **Amphoe** Bang Saphan Noi **Changwat** Prachuap Khiri Khan

Drainge Area	61 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+37.600 m. (MSL.)
Bench Mark	B.M.- Highways Dept.
Location BM	On right bank at the abutment of the bridge. **Elevation** +45.340 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	1979 to date
Rating Operation	
Period of Rating	1980 to date
Rated by Flot	-
Rated by Current Meter	1980 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Stage-discharge relation defined by 27 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

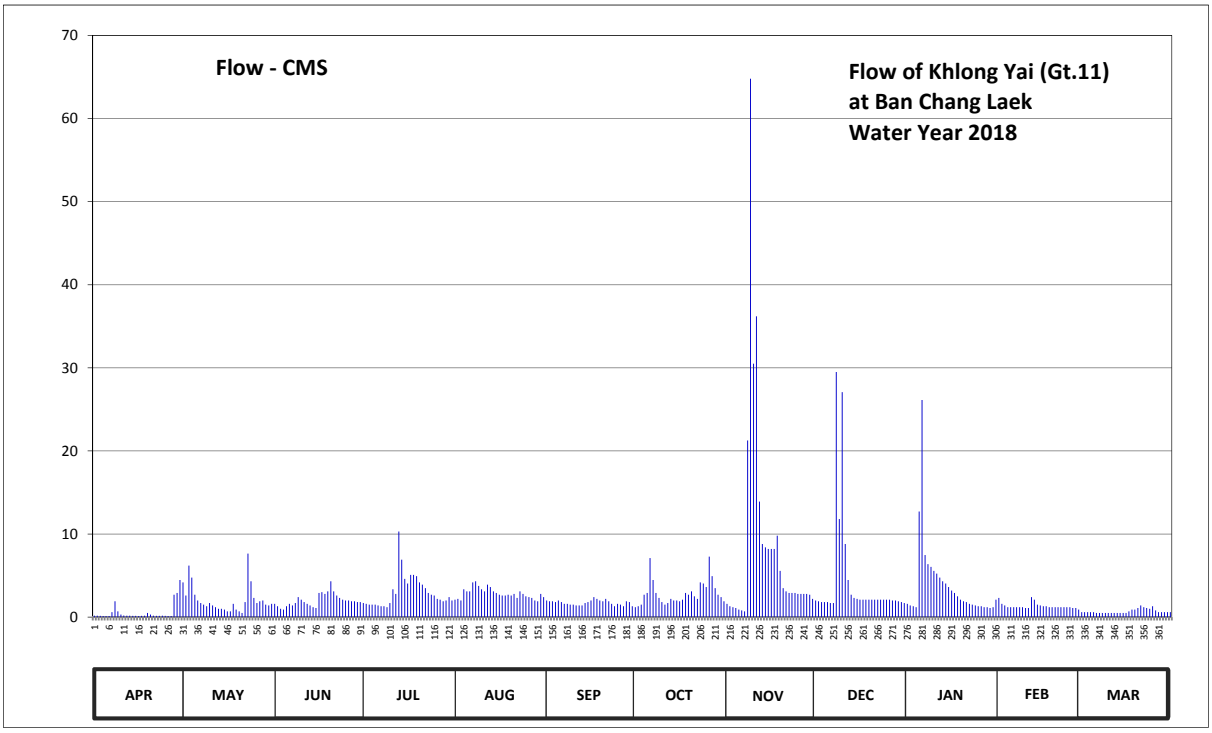
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	37.99	38.37	38.14	38.15	38.19	38.18	38.10	38.14	38.18	38.14	38.21	38.04	
2	37.99	38.24	38.11	38.14	38.20	38.17	38.11	38.11	38.17	38.12	38.14	38.04	
3	37.98	38.50	38.08	38.13	38.18	38.17	38.13	38.10	38.16	38.11	38.12	38.04	
4	37.97	38.41	38.07	38.13	38.31	38.16	38.25	38.09	38.16	38.10	38.10	38.04	
5	37.97	38.25	38.11	38.13	38.29	38.18	38.27	38.07	38.16	38.79	38.10	38.04	
6	37.97	38.18	38.14	38.12	38.29	38.16	38.55	38.06	38.15	39.14	38.10	38.03	
7	38.04	38.15	38.12	38.11	38.37	38.14	38.39	38.05	38.15	38.57	38.10	38.03	
8	38.17	38.13	38.15	38.11	38.38	38.14	38.27	39.03	39.21	38.51	38.10	38.03	
9	38.05	38.11	38.22	38.10	38.34	38.13	38.21	39.82	38.76	38.49	38.10	38.03	
10	38.01	38.15	38.19	38.15	38.31	38.13	38.16	39.23	39.16	38.46	38.09	38.03	
11	38.00	38.12	38.16	38.31	38.29	38.12	38.13	39.34	38.64	38.44	38.09	38.03	
12	37.99	38.10	38.14	38.26	38.35	38.12	38.15	38.83	38.39	38.41	38.22	38.03	
13	37.99	38.08	38.12	38.71	38.33	38.12	38.20	38.64	38.25	38.38	38.19	38.03	
14	37.98	38.08	38.10	38.54	38.29	38.15	38.18	38.62	38.21	38.36	38.13	38.03	
15	37.98	38.07	38.09	38.40	38.27	38.16	38.18	38.61	38.20	38.33	38.12	38.03	
16	37.97	38.05	38.27	38.36	38.25	38.18	38.17	38.61	38.19	38.30	38.11	38.03	
17	37.98	38.05	38.28	38.43	38.24	38.22	38.19	38.61	38.19	38.27	38.11	38.05	
18	37.99	38.14	38.26	38.43	38.24	38.20	38.27	38.69	38.19	38.23	38.10	38.07	
19	38.03	38.07	38.29	38.42	38.25	38.18	38.25	38.46	38.19	38.19	38.10	38.07	
20	38.01	38.05	38.38	38.37	38.24	38.17	38.29	38.32	38.19	38.17	38.10	38.09	
21	37.99	38.03	38.29	38.35	38.26	38.20	38.23	38.29	38.19	38.16	38.10	38.12	
22	37.98	38.16	38.24	38.32	38.21	38.17	38.20	38.27	38.19	38.14	38.10	38.10	
23	37.98	38.58	38.21	38.27	38.29	38.14	38.37	38.27	38.19	38.13	38.10	38.09	
24	37.99	38.38	38.19	38.25	38.26	38.11	38.36	38.27	38.19	38.12	38.10	38.08	
25	37.98	38.21	38.18	38.24	38.23	38.14	38.33	38.26	38.19	38.11	38.10	38.11	
26	37.97	38.15	38.18	38.20	38.22	38.13	38.56	38.26	38.19	38.11	38.09	38.06	
27	37.97	38.17	38.17	38.19	38.21	38.11	38.42	38.26	38.18	38.10	38.09	38.04	
28	38.25	38.18	38.17	38.17	38.18	38.17	38.32	38.26	38.18	38.10	38.07	38.04	
29	38.27	38.13	38.16	38.18	38.17	38.16	38.25	38.25	38.17	38.09		38.04	
30	38.39	38.12	38.16	38.22	38.26	38.11	38.22	38.20	38.16	38.10		38.04	
31		38.14		38.18	38.22		38.17		38.15	38.19		38.04	
Mean	38.03	38.18	38.18	38.26	38.26	38.15	38.25	38.47	38.29	38.29	38.11	38.05	
Max	38.39	38.58	38.38	38.71	38.38	38.22	38.56	39.82	39.21	39.14	38.22	38.12	39.82
Min	37.97	38.03	38.07	38.10	38.17	38.11	38.10	38.05	38.15	38.09	38.07	38.03	37.97

Annual Max Momentary Gage Height 40.44 m. (MSL.) , at 18.00 Hours , on Nov 8, 2018

Zero Gage at Bottom Elevation 37.60 m. (MSL.) , River Bed 37.53 m. (MSL.)

Left Bank Elevation 47.12 m. (MSL.) ,

Right Bank Elevation 47.16 m. (MSL.) , Drainage Are 61 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.18	4.18	1.60	1.70	2.10	2.00	1.20	1.60	2.00	1.60	2.30	0.60		
2	0.18	2.60	1.30	1.60	2.20	1.90	1.30	1.30	1.90	1.40	1.60	0.60		
3	0.16	6.20	1.00	1.50	2.00	1.90	1.50	1.20	1.80	1.30	1.40	0.60		
4	0.14	4.76	0.90	1.50	3.34	1.80	2.70	1.10	1.80	1.20	1.20	0.60		
5	0.14	2.70	1.30	1.50	3.10	2.00	2.90	0.90	1.80	12.70	1.20	0.60		
6	0.14	2.00	1.60	1.40	3.10	1.80	7.10	0.80	1.70	26.12	1.20	0.50		
7	0.60	1.70	1.40	1.30	4.18	1.60	4.46	0.70	1.70	7.46	1.20	0.50		
8	1.90	1.50	1.70	1.30	4.32	1.60	2.90	21.26	29.50	6.38	1.20	0.50		
9	0.70	1.30	2.40	1.20	3.76	1.50	2.30	64.80	11.80	6.04	1.20	0.50		
10	0.30	1.70	2.10	1.70	3.34	1.50	1.80	30.50	27.08	5.56	1.10	0.50		
11	0.20	1.40	1.80	3.34	3.10	1.40	1.50	36.20	8.80	5.24	1.10	0.50		
12	0.18	1.20	1.60	2.80	3.90	1.40	1.70	13.90	4.46	4.76	2.40	0.50		
13	0.18	1.00	1.40	10.30	3.62	1.40	2.20	8.80	2.70	4.32	2.10	0.50		
14	0.16	1.00	1.20	6.92	3.10	1.70	2.00	8.40	2.30	4.04	1.50	0.50		
15	0.16	0.90	1.10	4.60	2.90	1.80	2.00	8.20	2.20	3.62	1.40	0.50		
16	0.14	0.70	2.90	4.04	2.70	2.00	1.90	8.20	2.10	3.20	1.30	0.50		
17	0.16	0.70	3.00	5.08	2.60	2.40	2.10	8.20	2.10	2.90	1.30	0.70		
18	0.18	1.60	2.80	5.08	2.60	2.20	2.90	9.80	2.10	2.50	1.20	0.90		
19	0.50	0.90	3.10	4.92	2.70	2.00	2.70	5.56	2.10	2.10	1.20	0.90		
20	0.30	0.70	4.32	4.18	2.60	1.90	3.10	3.48	2.10	1.90	1.20	1.10		
21	0.18	0.50	3.10	3.90	2.80	2.20	2.50	3.10	2.10	1.80	1.20	1.40		
22	0.16	1.80	2.60	3.48	2.30	1.90	2.20	2.90	2.10	1.60	1.20	1.20		
23	0.16	7.64	2.30	2.90	3.10	1.60	4.18	2.90	2.10	1.50	1.20	1.10		
24	0.18	4.32	2.10	2.70	2.80	1.30	4.04	2.90	2.10	1.40	1.20	1.00		
25	0.16	2.30	2.00	2.60	2.50	1.60	3.62	2.80	2.10	1.30	1.20	1.30		
26	0.14	1.70	2.00	2.20	2.40	1.50	7.28	2.80	2.10	1.30	1.10	0.80		
27	0.14	1.90	1.90	2.10	2.30	1.30	4.92	2.80	2.00	1.20	1.10	0.60		
28	2.70	2.00	1.90	1.90	2.00	1.90	3.48	2.80	2.00	1.20	0.90	0.60		
29	2.90	1.50	1.80	2.00	1.90	1.80	2.70	2.70	1.90	1.10		0.60		
30	4.46	1.40	1.80	2.40	2.80	1.30	2.40	2.20	1.80	1.20		0.60		
31		1.60		2.00	2.40		1.90		1.70	2.10		0.60		
Total	17.78	65.40	60.02	94.14	88.56	52.20	89.48	262.80	134.04	120.04	37.40	21.90	1043.76	CMSDAY
Mean	0.59	2.11	2.00	3.04	2.86	1.74	2.89	8.76	4.32	3.87	1.34	0.71	2.86	CMS
Max	4.46	7.64	4.32	10.30	4.32	2.40	7.28	64.80	29.50	26.12	2.40	1.40	64.80	CMS
Min	0.14	0.50	0.90	1.20	1.90	1.30	1.20	0.70	1.70	1.10	0.90	0.50	0.14	CMS
Runoff	1.54	5.65	5.19	8.13	7.65	4.51	7.73	22.71	11.58	10.37	3.23	1.89	90.18	MCM

Momentary Peak 109.70 CMS. at 40.44 m. (MSL.) at 18.00 Hours , on Nov 8, 2018

Runoff Yield 46.88 Liters/Second/Square KM. Momentary Peak Yield 1798.36 Liters/Second/Square KM.

WATER YEAR : 2018

WEST COAST - GULF BASIN

Huai Yang at Ban Huai Yang , Prachuap Khiri Khan (Gt.17)

Lat 11 - 36 - 48 N Long 99 - 40 - 09 E

Location : on right bank at the bridge of Phet Kasem Highway near the guidepost 349.

Ban Huai Yang **Amphoe** Thap Sakae **Changwat** Prachuap Khiri Khan

Drainge Area	48 sq.km.
Type of Gage	Staff gage.
Zero Gage at Bottom	+8.800 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On right bank at the abutment of the bridge. **Elevation** +14.491 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic mean of 5 readings.
Period of Available Gage Records	1987 to date
Rating Operation	
Period of Rating	1987 to date
Rated by Flot	-
Rated by Current Meter	1987 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Flow effected by the local weir about 200 meters downstream from the gage site. Stage-discharge relation defined by 16 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

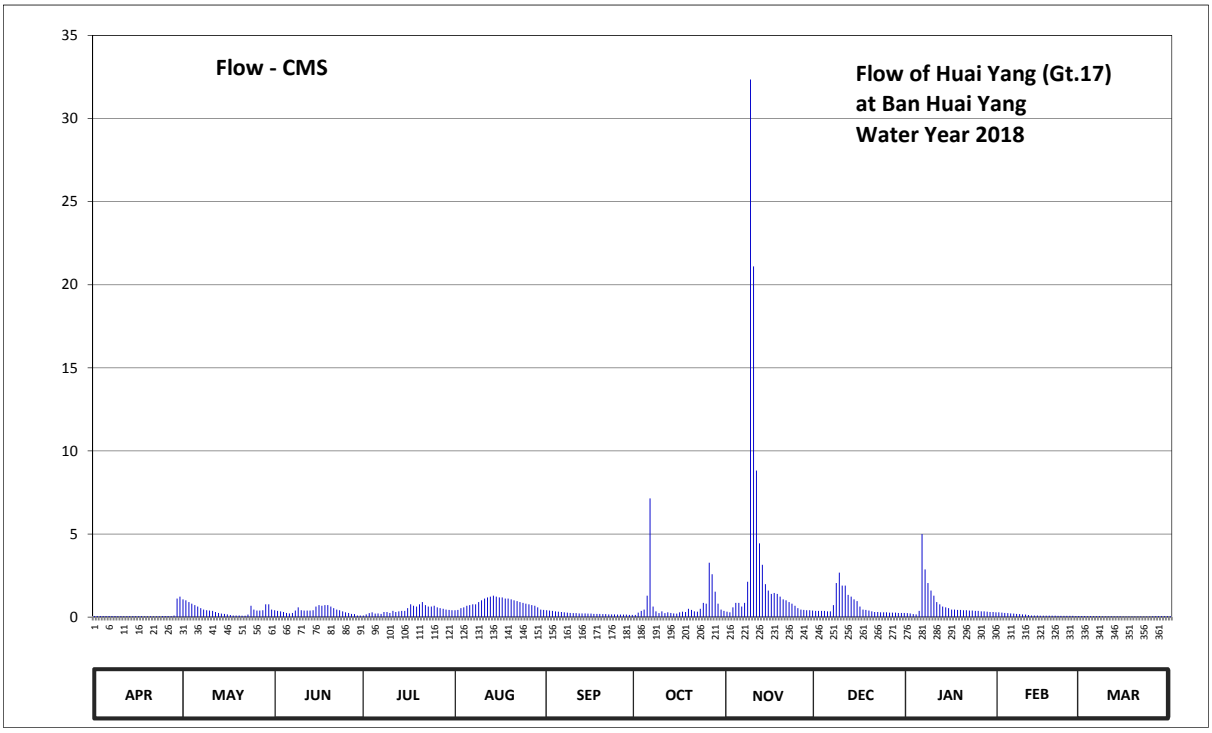
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	9.03	9.43	9.28	9.09	9.28	9.28	9.12	9.24	9.26	9.19	9.22	9.03	
2	9.03	9.42	9.26	9.14	9.29	9.27	9.21	9.22	9.26	9.18	9.21	9.03	
3	9.03	9.40	9.25	9.19	9.32	9.26	9.26	9.33	9.26	9.15	9.20	9.02	
4	9.03	9.38	9.23	9.22	9.33	9.25	9.30	9.39	9.26	9.14	9.19	9.02	
5	9.03	9.36	9.20	9.17	9.35	9.24	9.47	9.39	9.25	9.26	9.18	9.01	
6	9.03	9.34	9.18	9.18	9.36	9.23	9.99	9.34	9.25	9.85	9.17	9.01	
7	9.03	9.32	9.20	9.16	9.37	9.22	9.34	9.39	9.36	9.67	9.16	9.01	
8	9.03	9.30	9.27	9.23	9.37	9.21	9.25	9.59	9.58	9.58	9.15	9.00	
9	9.02	9.28	9.33	9.23	9.40	9.20	9.19	10.93	9.65	9.52	9.14	9.00	
10	9.02	9.27	9.28	9.20	9.42	9.19	9.25	10.57	9.56	9.47	9.13	9.00	
11	9.02	9.26	9.27	9.26	9.44	9.19	9.19	10.08	9.56	9.40	9.11	8.99	
12	9.02	9.23	9.27	9.23	9.45	9.18	9.22	9.81	9.48	9.37	9.10	8.99	
13	9.02	9.20	9.27	9.25	9.46	9.18	9.20	9.70	9.46	9.34	9.09	8.99	
14	9.01	9.17	9.28	9.26	9.47	9.18	9.18	9.57	9.43	9.33	9.09	8.99	
15	9.01	9.16	9.34	9.26	9.46	9.17	9.17	9.52	9.41	9.32	9.08	8.98	
16	9.01	9.14	9.36	9.32	9.45	9.17	9.22	9.49	9.34	9.30	9.08	8.98	
17	9.01	9.11	9.35	9.37	9.45	9.16	9.24	9.50	9.30	9.30	9.08	8.98	
18	9.00	9.09	9.36	9.35	9.44	9.16	9.23	9.49	9.29	9.29	9.07	8.98	
19	9.00	9.09	9.36	9.34	9.44	9.16	9.31	9.46	9.27	9.29	9.07	8.98	
20	9.00	9.09	9.34	9.37	9.43	9.15	9.29	9.43	9.25	9.28	9.07	8.98	
21	9.00	9.08	9.32	9.40	9.42	9.15	9.25	9.42	9.23	9.28	9.06	8.97	
22	8.99	9.08	9.30	9.36	9.41	9.14	9.24	9.40	9.23	9.27	9.06	8.97	
23	9.00	9.13	9.28	9.34	9.40	9.14	9.31	9.38	9.22	9.27	9.06	8.97	
24	9.04	9.35	9.25	9.34	9.39	9.14	9.39	9.35	9.22	9.26	9.05	8.97	
25	9.03	9.30	9.22	9.35	9.38	9.13	9.38	9.32	9.22	9.26	9.05	8.99	
26	9.03	9.27	9.20	9.33	9.37	9.13	9.71	9.30	9.21	9.25	9.05	9.02	
27	9.02	9.27	9.16	9.32	9.36	9.13	9.64	9.29	9.21	9.25	9.04	9.02	
28	9.09	9.28	9.15	9.31	9.35	9.13	9.51	9.28	9.21	9.24	9.04	9.02	
29	9.44	9.37	9.10	9.30	9.33	9.12	9.38	9.28	9.20	9.23		9.01	
30	9.46	9.37	9.09	9.29	9.30	9.12	9.30	9.27	9.20	9.23		9.01	
31		9.30		9.28	9.29		9.26		9.20	9.22		9.00	
Mean	9.05	9.25	9.26	9.27	9.39	9.18	9.32	9.52	9.32	9.32	9.11	9.00	
Max	9.46	9.43	9.36	9.40	9.47	9.28	9.99	10.93	9.65	9.85	9.22	9.03	10.93
Min	8.99	9.08	9.09	9.09	9.28	9.12	9.12	9.22	9.20	9.14	9.04	8.97	8.97

Annual Max Momentary Gage Height 11.90 m. (MSL.) , at 15.00 Hours , on Nov 9 , 2018

Zero Gage at Bottom Elevation 8.80 m. (MSL.) , River Bed 8.96 m. (MSL.)

Left Bank Elevation 14.54 m. (MSL.) ,

Right Bank Elevation 14.56 m. (MSL.) , Drainage Are 48 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.07	1.07	0.41	0.10	0.41	0.41	0.13	0.33	0.37	0.24	0.29	0.07		
2	0.07	1.01	0.37	0.16	0.43	0.39	0.27	0.29	0.37	0.22	0.27	0.07		
3	0.07	0.90	0.35	0.24	0.54	0.37	0.37	0.59	0.37	0.18	0.25	0.06		
4	0.07	0.81	0.31	0.29	0.59	0.35	0.45	0.86	0.37	0.16	0.24	0.06		
5	0.07	0.72	0.25	0.21	0.68	0.33	1.29	0.86	0.35	0.37	0.22	0.06		
6	0.07	0.63	0.22	0.22	0.72	0.31	7.14	0.63	0.35	5.00	0.21	0.06		
7	0.07	0.54	0.25	0.19	0.77	0.29	0.63	0.86	0.72	2.87	0.19	0.06		
8	0.07	0.45	0.39	0.31	0.77	0.27	0.35	2.13	2.05	2.05	0.18	0.05		
9	0.06	0.41	0.59	0.31	0.90	0.25	0.24	32.35	2.68	1.60	0.16	0.05		
10	0.06	0.39	0.41	0.25	1.01	0.24	0.35	21.10	1.90	1.29	0.15	0.05		
11	0.06	0.37	0.39	0.37	1.12	0.24	0.24	8.82	1.90	0.90	0.12	0.05		
12	0.06	0.31	0.39	0.31	1.18	0.22	0.29	4.44	1.34	0.77	0.10	0.05		
13	0.06	0.25	0.39	0.35	1.23	0.22	0.25	3.15	1.23	0.63	0.10	0.05		
14	0.06	0.21	0.41	0.37	1.29	0.22	0.22	1.98	1.07	0.59	0.10	0.05		
15	0.06	0.19	0.63	0.37	1.23	0.21	0.21	1.60	0.96	0.54	0.09	0.04		
16	0.06	0.16	0.72	0.54	1.18	0.21	0.29	1.40	0.63	0.45	0.09	0.04		
17	0.06	0.12	0.68	0.77	1.18	0.19	0.33	1.45	0.45	0.45	0.09	0.04		
18	0.05	0.10	0.72	0.68	1.12	0.19	0.31	1.40	0.43	0.43	0.09	0.04		
19	0.05	0.10	0.72	0.63	1.12	0.19	0.50	1.23	0.39	0.43	0.09	0.04		
20	0.05	0.10	0.63	0.77	1.07	0.18	0.43	1.07	0.35	0.41	0.09	0.04		
21	0.05	0.09	0.54	0.90	1.01	0.18	0.35	1.01	0.31	0.41	0.08	0.04		
22	0.05	0.09	0.45	0.72	0.96	0.16	0.33	0.90	0.31	0.39	0.08	0.04		
23	0.05	0.15	0.41	0.63	0.90	0.16	0.50	0.81	0.29	0.39	0.08	0.04		
24	0.07	0.68	0.35	0.63	0.86	0.16	0.86	0.68	0.29	0.37	0.08	0.04		
25	0.07	0.45	0.29	0.68	0.81	0.15	0.81	0.54	0.29	0.37	0.08	0.05		
26	0.07	0.39	0.25	0.59	0.77	0.15	3.27	0.45	0.27	0.35	0.08	0.06		
27	0.06	0.39	0.19	0.54	0.72	0.15	2.58	0.43	0.27	0.35	0.07	0.06		
28	0.10	0.41	0.18	0.50	0.68	0.15	1.53	0.41	0.27	0.33	0.07	0.06		
29	1.12	0.77	0.10	0.45	0.59	0.13	0.81	0.41	0.25	0.31		0.06		
30	1.23	0.77	0.10	0.43	0.45	0.13	0.45	0.39	0.25	0.31		0.06		
31		0.45		0.41	0.43		0.37		0.25	0.29		0.05		
Total	4.12	13.48	12.09	13.92	26.72	6.80	26.15	92.57	21.33	23.45	3.74	1.59	245.96	CMSDAY
Mean	0.14	0.43	0.40	0.45	0.86	0.23	0.84	3.09	0.69	0.76	0.13	0.05	0.67	CMS
Max	1.23	1.07	0.72	0.90	1.29	0.41	7.14	32.35	2.68	5.00	0.29	0.07	32.35	CMS
Min	0.05	0.09	0.10	0.10	0.41	0.13	0.13	0.29	0.25	0.16	0.07	0.04	0.04	CMS
Runoff	0.36	1.16	1.04	1.20	2.31	0.59	2.26	8.00	1.84	2.03	0.32	0.14	21.25	MCM

Momentary Peak 71.60 CMS. at 11.90 m. (MSL.) at 15.00 Hours , on Nov 9, 2018

Runoff Yield 14.04 Liters/Second/Square KM. Momentary Peak Yield 1491.67 Liters/Second/Square KM.

WATER YEAR : 2018

WEST COAST - GULF BASIN

Khlong Cha Kra at Ban Cha Kra Bon , Prachuap Khiri Khan (Gt.18)

Lat 11 - 26 - 48 N Long 99 - 34 - 09 E

Location : on left bank at the bridge of Phet Kasem Highway.

Ban Cha Kra Bon **Amphoe** Thap Sakae **Changwat** Prachuap Khiri Khan

Drainge Area	88 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+11.700 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank at the abutment of the bridge. **Elevation** +17.220 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic mean of 5 readings
Period of Available Gage Records	1987 to date
Rating Operation	
Period of Rating	1987 to date
Rated by Flot	-
Rated by Current Meter	1987 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Stage-discharge relation defined by 34 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

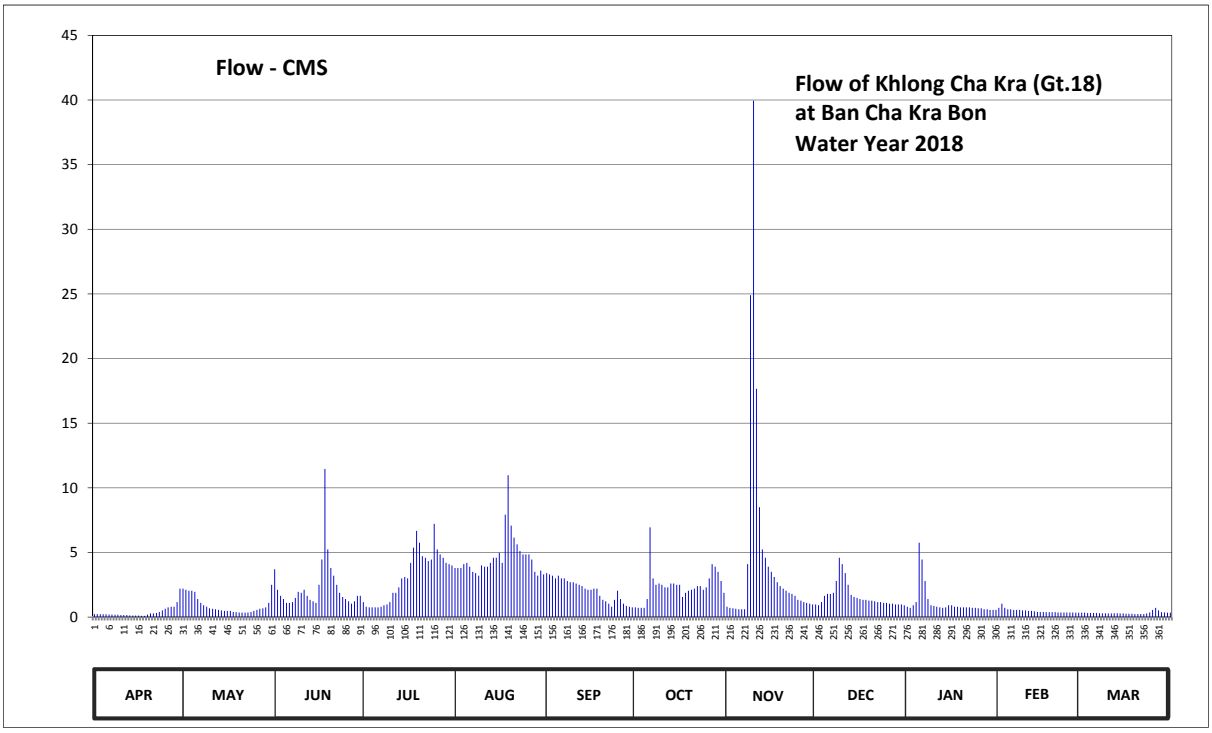
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	12.52	12.90	13.05	12.76	13.06	13.02	12.69	12.70	12.73	12.70	12.68	12.57	
2	12.52	12.89	12.89	12.70	13.06	13.01	12.68	12.68	12.72	12.68	12.74	12.57	
3	12.51	12.88	12.83	12.69	13.06	13.00	12.68	12.67	12.76	12.72	12.68	12.56	
4	12.51	12.88	12.80	12.69	13.09	12.98	12.68	12.66	12.83	12.76	12.65	12.56	
5	12.51	12.87	12.75	12.69	13.10	13.00	12.80	12.65	12.85	13.22	12.65	12.56	
6	12.50	12.80	12.75	12.69	13.07	12.98	13.31	12.65	12.85	13.12	12.64	12.56	
7	12.50	12.75	12.76	12.70	13.03	12.98	12.98	12.65	12.86	12.96	12.64	12.55	
8	12.49	12.72	12.81	12.72	13.02	12.96	12.93	13.09	12.96	12.80	12.64	12.55	
9	12.49	12.70	12.87	12.73	13.00	12.95	12.94	14.37	13.13	12.72	12.63	12.55	
10	12.48	12.67	12.86	12.76	13.08	12.95	12.93	15.05	13.09	12.71	12.63	12.54	
11	12.48	12.66	12.89	12.86	13.07	12.94	12.91	13.98	13.02	12.70	12.62	12.54	
12	12.48	12.65	12.83	12.86	13.07	12.93	12.91	13.42	12.93	12.69	12.62	12.55	
13	12.47	12.64	12.79	12.91	13.10	12.92	12.94	13.18	12.84	12.68	12.61	12.55	
14	12.46	12.63	12.77	12.98	13.13	12.90	12.94	13.13	12.82	12.69	12.60	12.54	
15	12.46	12.62	12.75	12.99	13.13	12.89	12.93	13.07	12.81	12.72	12.60	12.54	
16	12.46	12.62	12.93	12.98	13.16	12.89	12.93	13.03	12.80	12.72	12.60	12.53	
17	12.45	12.62	13.12	13.10	13.10	12.90	12.82	12.99	12.79	12.70	12.59	12.53	
18	12.45	12.60	13.61	13.19	13.38	12.90	12.86	12.95	12.79	12.70	12.59	12.53	
19	12.50	12.59	13.18	13.29	13.58	12.83	12.88	12.92	12.78	12.69	12.59	12.52	
20	12.54	12.58	13.06	13.22	13.32	12.79	12.89	12.90	12.78	12.69	12.59	12.52	
21	12.54	12.57	13.00	13.14	13.25	12.77	12.90	12.88	12.77	12.69	12.58	12.52	
22	12.56	12.57	12.93	13.13	13.21	12.74	12.92	12.86	12.76	12.69	12.58	12.52	
23	12.60	12.58	12.86	13.11	13.17	12.70	12.92	12.85	12.76	12.68	12.58	12.54	
24	12.63	12.60	12.82	13.12	13.15	12.79	12.89	12.83	12.75	12.68	12.58	12.58	
25	12.66	12.62	12.80	13.33	13.15	12.88	12.91	12.79	12.75	12.67	12.58	12.64	
26	12.69	12.64	12.77	13.18	13.15	12.80	12.98	12.78	12.74	12.67	12.58	12.68	
27	12.70	12.66	12.74	13.15	13.12	12.74	13.09	12.76	12.74	12.65	12.57	12.63	
28	12.70	12.67	12.77	13.13	13.03	12.71	13.07	12.75	12.73	12.65	12.57	12.59	
29	12.76	12.69	12.83	13.10	13.00	12.70	13.03	12.74	12.73	12.64		12.58	
30	12.90	12.75	12.83	13.09	13.04	12.69	12.96	12.73	12.73	12.64		12.57	
31		12.93		13.08	13.01		12.86		12.72	12.64		12.57	
Mean	12.55	12.70	12.89	12.97	13.13	12.87	12.91	13.02	12.82	12.73	12.61	12.56	
Max	12.90	12.93	13.61	13.33	13.58	13.02	13.31	15.05	13.13	13.22	12.74	12.68	15.05
Min	12.45	12.57	12.74	12.69	13.00	12.69	12.68	12.65	12.72	12.64	12.57	12.52	12.45

Annual Max Momentary Gage Height 15.31 m. (MSL.) , at 09.00 Hours , on Nov 10, 2018

Zero Gage at Bottom Elevation 11.70 m. (MSL.) , River Bed 12.21 m. (MSL.)

Left Bank Elevation 17.26 m. (MSL.) ,

Right Bank Elevation 17.28 m. (MSL.) , Drainage Are 88 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.24	2.20	3.70	1.16	3.80	3.40	0.76	0.80	0.98	0.80	0.72	0.34		
2	0.24	2.12	2.12	0.80	3.80	3.30	0.72	0.72	0.92	0.72	1.04	0.34		
3	0.22	2.04	1.64	0.76	3.80	3.20	0.72	0.68	1.16	0.92	0.72	0.32		
4	0.22	2.04	1.40	0.76	4.10	3.00	0.72	0.64	1.64	1.16	0.60	0.32		
5	0.22	1.96	1.10	0.76	4.20	3.20	1.40	0.60	1.80	5.76	0.60	0.32		
6	0.20	1.40	1.10	0.76	3.90	3.00	6.94	0.60	1.80	4.46	0.56	0.32		
7	0.20	1.10	1.16	0.80	3.50	3.00	3.00	0.60	1.88	2.80	0.56	0.30		
8	0.18	0.92	1.48	0.92	3.40	2.80	2.50	4.10	2.80	1.40	0.56	0.30		
9	0.18	0.80	1.96	0.98	3.20	2.70	2.60	24.90	4.59	0.92	0.52	0.30		
10	0.16	0.68	1.88	1.16	4.00	2.70	2.50	39.95	4.10	0.86	0.52	0.28		
11	0.16	0.64	2.12	1.88	3.90	2.60	2.30	17.66	3.40	0.80	0.48	0.28		
12	0.16	0.60	1.64	1.88	3.90	2.50	2.30	8.50	2.50	0.76	0.48	0.30		
13	0.14	0.56	1.34	2.30	4.20	2.40	2.60	5.24	1.72	0.72	0.44	0.30		
14	0.12	0.52	1.22	3.00	4.59	2.20	2.60	4.59	1.56	0.76	0.40	0.28		
15	0.12	0.48	1.10	3.10	4.59	2.12	2.50	3.90	1.48	0.92	0.40	0.28		
16	0.12	0.48	2.50	3.00	4.98	2.12	2.50	3.50	1.40	0.92	0.40	0.26		
17	0.10	0.48	4.46	4.20	4.20	2.20	1.56	3.10	1.34	0.80	0.38	0.26		
18	0.10	0.40	11.46	5.37	7.92	2.20	1.88	2.70	1.34	0.80	0.38	0.26		
19	0.20	0.38	5.24	6.67	10.98	1.64	2.04	2.40	1.28	0.76	0.38	0.24		
20	0.28	0.36	3.80	5.76	7.08	1.34	2.12	2.20	1.28	0.76	0.38	0.24		
21	0.28	0.34	3.20	4.72	6.15	1.22	2.20	2.04	1.22	0.76	0.36	0.24		
22	0.32	0.34	2.50	4.59	5.63	1.04	2.40	1.88	1.16	0.76	0.36	0.24		
23	0.40	0.36	1.88	4.33	5.11	0.80	2.40	1.80	1.16	0.72	0.36	0.28		
24	0.52	0.40	1.56	4.46	4.85	1.34	2.12	1.64	1.10	0.72	0.36	0.36		
25	0.64	0.48	1.40	7.22	4.85	2.04	2.30	1.34	1.10	0.68	0.36	0.56		
26	0.76	0.56	1.22	5.24	4.85	1.40	3.00	1.28	1.04	0.68	0.36	0.72		
27	0.80	0.64	1.04	4.85	4.46	1.04	4.10	1.16	1.04	0.60	0.34	0.52		
28	0.80	0.68	1.22	4.59	3.50	0.86	3.90	1.10	0.98	0.60	0.34	0.38		
29	1.16	0.76	1.64	4.20	3.20	0.80	3.50	1.04	0.98	0.56		0.36		
30	2.20	1.10	1.64	4.10	3.60	0.76	2.80	0.98	0.98	0.56		0.34		
31		2.50		4.00	3.30		1.88		0.92	0.56		0.34		
Total	11.44	28.32	69.72	98.32	143.54	62.92	74.86	141.64	50.65	35.00	13.36	10.18	739.95	CMSDAY
Mean	0.38	0.91	2.32	3.17	4.63	2.10	2.41	4.72	1.63	1.13	0.48	0.33	2.03	CMS
Max	2.20	2.50	11.46	7.22	10.98	3.40	6.94	39.95	4.59	5.76	1.04	0.72	39.95	CMS
Min	0.10	0.34	1.04	0.76	3.20	0.76	0.72	0.60	0.92	0.56	0.34	0.24	0.10	CMS
Runoff	0.99	2.45	6.02	8.49	12.40	5.44	6.47	12.24	4.38	3.02	1.15	0.88	63.93	MCM

Momentary Peak 46.45 CMS. at 15.31 m. (MSL.) at 09.00 Hours , on Nov 10, 2018

Runoff Yield 23.04 Liters/Second/Square KM. Momentary Peak Yield 527.84 Liters/Second/Square KM.

WATER YEAR : 2018

WEST COAST - GULF BASIN

Khlong Bang Saphan at Anuban Bang Saphan School , Prachuap Khiri Khan (Gt.20)

Lat 11 - 12 - 20 N Long 99 - 30 - 30 E

Location : on left bank at the bridge.

	Ban - **Amphoe** Bang Saphan **Changwat** Prachuap Khiri Khan
Drainge Area	467 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	-2.300 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank at the abutment of the bridge. **Elevation** +4.944 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic mean of 5 readings
Period of Available Gage Records	2018 to date
Rating Operation	
Period of Rating	2018 to date
Rated by Flot	-
Rated by Current Meter	2018 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	Overbank flow starts at elevation + 4.430 m.(MSL.), records are channel flow only.
General Description	Records good. Stage-discharge relation defined by 29 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

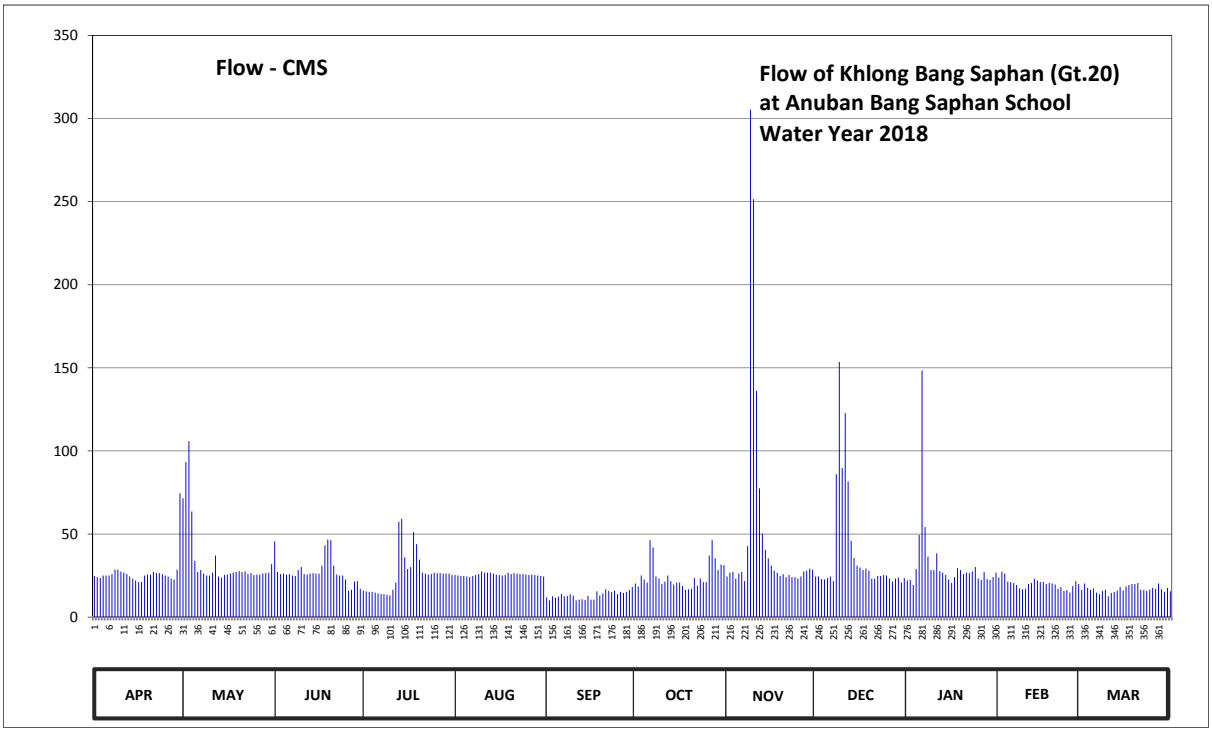
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.54	1.72	1.15	0.24	0.56	0.07	0.39	0.53	0.53	0.45	0.51	0.26	
2	0.52	2.13	0.62	0.22	0.55	-0.01	0.33	0.61	0.53	0.46	0.63	0.39	
3	0.50	2.32	0.58	0.21	0.54	0.10	0.55	0.62	0.48	0.36	0.59	0.30	
4	0.55	1.56	0.59	0.21	0.54	0.06	0.47	0.49	0.47	0.68	0.43	0.26	
5	0.55	0.84	0.57	0.19	0.53	0.09	0.41	0.59	0.50	1.25	0.42	0.29	
6	0.55	0.62	0.58	0.17	0.52	0.16	1.17	0.62	0.53	2.87	0.40	0.19	
7	0.58	0.66	0.55	0.16	0.54	0.10	1.06	0.44	0.44	1.36	0.36	0.15	
8	0.67	0.59	0.54	0.15	0.56	0.11	0.53	1.08	2.00	0.91	0.29	0.23	
9	0.67	0.55	0.66	0.14	0.58	0.15	0.49	4.44	2.93	0.66	0.27	0.26	
10	0.63	0.55	0.72	0.12	0.63	0.12	0.38	3.95	2.07	0.66	0.28	0.10	
11	0.61	0.61	0.58	0.26	0.61	-0.01	0.43	2.72	2.55	0.97	0.38	0.18	
12	0.58	0.93	0.57	0.41	0.61	0.01	0.55	1.84	1.92	0.64	0.40	0.21	
13	0.53	0.53	0.59	1.43	0.61	0.02	0.44	1.27	1.16	0.61	0.49	0.24	
14	0.49	0.51	0.60	1.47	0.59	0.00	0.37	1.02	0.89	0.56	0.45	0.32	
15	0.45	0.56	0.59	0.90	0.57	0.11	0.41	0.88	0.75	0.47	0.42	0.24	
16	0.42	0.57	0.59	0.68	0.56	0.01	0.41	0.75	0.71	0.40	0.42	0.33	
17	0.42	0.59	0.75	0.72	0.55	0.01	0.34	0.65	0.66	0.52	0.38	0.36	
18	0.55	0.61	1.09	1.29	0.56	0.22	0.26	0.61	0.69	0.70	0.40	0.38	
19	0.57	0.62	1.18	1.11	0.61	0.12	0.27	0.54	0.65	0.66	0.39	0.38	
20	0.57	0.64	1.17	0.86	0.58	0.17	0.28	0.58	0.49	0.58	0.37	0.40	
21	0.62	0.62	0.75	0.61	0.60	0.27	0.50	0.52	0.49	0.61	0.28	0.26	
22	0.60	0.63	0.57	0.59	0.59	0.23	0.35	0.56	0.54	0.60	0.32	0.25	
23	0.60	0.58	0.55	0.57	0.58	0.20	0.49	0.52	0.54	0.63	0.23	0.23	
24	0.58	0.60	0.55	0.58	0.58	0.24	0.42	0.52	0.56	0.72	0.25	0.26	
25	0.55	0.56	0.47	0.61	0.57	0.15	0.42	0.49	0.55	0.49	0.19	0.30	
26	0.53	0.57	0.24	0.60	0.56	0.21	0.93	0.53	0.49	0.46	0.34	0.28	
27	0.49	0.57	0.26	0.60	0.57	0.18	1.17	0.63	0.43	0.62	0.44	0.39	
28	0.47	0.59	0.43	0.59	0.56	0.21	0.88	0.65	0.49	0.48	0.38	0.27	
29	0.67	0.60	0.44	0.59	0.55	0.25	0.66	0.69	0.51	0.46		0.21	
30	1.78	0.61	0.28	0.59	0.54	0.32	0.77	0.67	0.41	0.52		0.30	
31		0.78		0.56	0.53		0.76		0.50	0.61		0.22	
Mean	0.59	0.79	0.63	0.56	0.57	0.13	0.54	1.00	0.85	0.71	0.38	0.27	
Max	1.78	2.32	1.18	1.47	0.63	0.32	1.17	4.44	2.93	2.87	0.63	0.40	4.44
Min	0.42	0.51	0.24	0.12	0.52	-0.01	0.26	0.44	0.41	0.36	0.19	0.10	-0.01

Annual Max Momentary Gage Height 5.55 m. (MSL.) , at 20.00 Hours , on Nov 9, 2018

Zero Gage at Bottom Elevation -2.30 m. (MSL.) , River Bed -2.04 m. (MSL.)

Left Bank Elevation 4.42 m. (MSL.) ,

Right Bank Elevation 4.92 m. (MSL.) , Drainage Are 467 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	24.70	71.50	45.50	16.00	25.30	11.84	20.20	24.40	24.40	22.00	23.80	16.50		
2	24.10	93.30	27.10	15.50	25.00	10.10	18.40	26.80	24.40	22.30	27.40	20.20		
3	23.50	105.90	25.90	15.25	24.70	12.50	25.00	27.10	22.90	19.30	26.20	17.50		
4	25.00	63.50	26.20	15.25	24.70	11.62	22.60	23.20	22.60	28.90	21.40	16.50		
5	25.00	33.90	25.60	14.75	24.40	12.28	20.80	26.20	23.50	49.50	21.10	17.25		
6	25.00	27.10	25.90	14.25	24.10	14.00	46.30	27.10	24.40	148.45	20.50	14.75		
7	25.90	28.30	25.00	14.00	24.70	12.50	41.90	21.70	21.70	54.20	19.30	13.75		
8	28.60	26.20	24.70	13.75	25.30	12.75	24.40	42.70	86.00	36.35	17.25	15.75		
9	28.60	25.00	28.30	13.50	25.90	13.75	23.20	305.40	153.55	28.30	16.75	16.50		
10	27.40	25.00	30.10	13.00	27.40	13.00	19.90	251.50	89.85	28.30	17.00	12.50		
11	26.80	26.80	25.90	16.50	26.80	10.10	21.40	136.10	122.75	38.45	19.90	14.50		
12	25.90	37.05	25.60	20.80	26.80	10.52	25.00	77.50	81.60	27.70	20.50	15.25		
13	24.40	24.40	26.20	57.35	26.80	10.74	21.70	50.30	45.90	26.80	23.20	16.00		
14	23.20	23.80	26.50	59.15	26.20	10.30	19.60	40.30	35.65	25.30	22.00	18.10		
15	22.00	25.30	26.20	36.00	25.60	12.75	20.80	35.30	31.00	22.60	21.10	16.00		
16	21.10	25.60	26.20	28.90	25.30	10.52	20.80	31.00	29.80	20.50	21.10	18.40		
17	21.10	26.20	31.00	30.10	25.00	10.52	18.70	28.00	28.30	24.10	19.90	19.30		
18	25.00	26.80	43.10	51.10	25.30	15.50	16.50	26.80	29.20	29.50	20.50	19.90		
19	25.60	27.10	46.70	43.90	26.80	13.00	16.75	24.70	28.00	28.30	20.20	19.90		
20	25.60	27.70	46.30	34.60	25.90	14.25	17.00	25.90	23.20	25.90	19.60	20.50		
21	27.10	27.10	31.00	26.80	26.50	16.75	23.50	24.10	23.20	26.80	17.00	16.50		
22	26.50	27.40	25.60	26.20	26.20	15.75	19.00	25.30	24.70	26.50	18.10	16.25		
23	26.50	25.90	25.00	25.60	25.90	15.00	23.20	24.10	24.70	27.40	15.75	15.75		
24	25.90	26.50	25.00	25.90	25.90	16.00	21.10	24.10	25.30	30.10	16.25	16.50		
25	25.00	25.30	22.60	26.80	25.60	13.75	21.10	23.20	25.00	23.20	14.75	17.50		
26	24.40	25.60	16.00	26.50	25.30	15.25	37.05	24.40	23.20	22.30	18.70	17.00		
27	23.20	25.60	16.50	26.50	25.60	14.50	46.30	27.40	21.40	27.10	21.70	20.20		
28	22.60	26.20	21.40	26.20	25.30	15.25	35.30	28.00	23.20	22.90	19.90	16.75		
29	28.60	26.50	21.70	26.20	25.00	16.25	28.30	29.20	23.80	22.30		15.25		
30	74.50	26.80	17.00	26.20	24.70	18.10	31.60	28.60	20.80	24.10		17.50		
31		31.90		25.30	24.40		31.30		23.50	26.80		15.50		
Total	802.80	1065.25	829.80	811.85	792.40	399.14	778.70	1510.40	1207.50	986.25	560.85	523.75	10268.69	CMSDAY
Mean	26.76	34.36	27.66	26.19	25.56	13.30	25.12	50.35	38.95	31.81	20.03	16.90	28.13	CMS
Max	74.50	105.90	46.70	59.15	27.40	18.10	46.30	305.40	153.55	148.45	27.40	20.50	305.40	CMS
Min	21.10	23.80	16.00	13.00	24.10	10.10	16.50	21.70	20.80	19.30	14.75	12.50	10.10	CMS
Runoff	69.36	92.04	71.69	70.14	68.46	34.49	67.28	130.50	104.33	85.21	48.46	45.25	887.21	MCM

Momentary Peak 443.50 CMS. at 5.55 m. (MSL.) at 20.00 Hours , on Nov 9, 2018

Runoff Yield 60.24 Liters/Second/Square KM. Momentary Peak Yield 949.68 Liters/Second/Square KM.

WATER YEAR : 2018

KUI BURI RIVER BASIN

Kui Buri River at Ban Thung Faek , Prachuap Khiri Khan (Ky.3)

Lat 12 - 05 - 46 N Long 99 - 47 - 26 E

Location : on left bank at Bunchuai Bamrungrat Bridge near Wat Udom Wararam.

Ban Thung Faek **Amphoe** Kui Buri **Changwat** Prachuap Khiri Khan

Drainge Area	537 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+19.789 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank about 1 meter from the top staff gage. **Elevation** +25.925 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	1997 to date
Rating Operation	
Period of Rating	1997 to date
Rated by Flot	-
Rated by Current Meter	1997 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Stage-discharge relation defined by 18 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

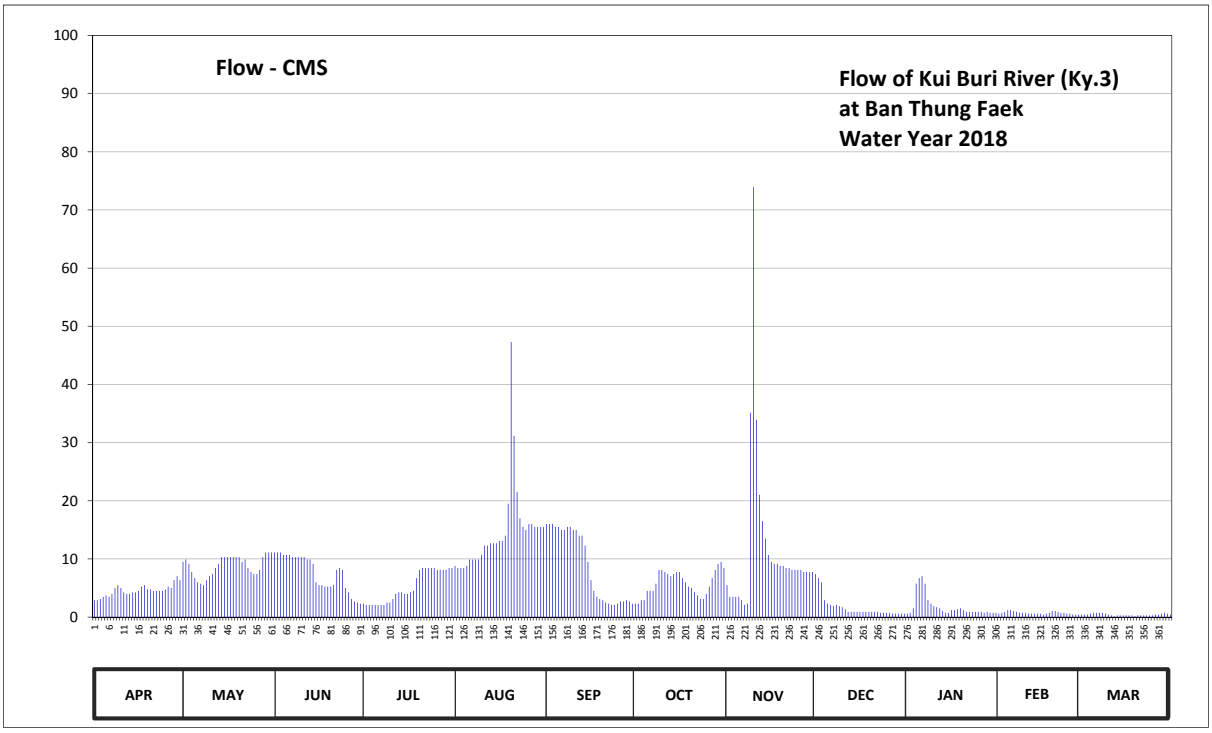
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	20.87	21.10	21.14	20.84	21.08	21.25	20.84	20.98	21.04	20.74	20.74	20.73	
2	20.87	21.11	21.14	20.83	21.07	21.25	20.84	20.90	21.02	20.75	20.75	20.73	
3	20.88	21.09	21.14	20.83	21.07	21.25	20.87	20.90	21.00	20.80	20.76	20.73	
4	20.90	21.05	21.13	20.83	21.07	21.24	20.87	20.90	20.87	20.99	20.78	20.74	
5	20.91	21.02	21.13	20.83	21.08	21.24	20.94	20.90	20.84	21.02	20.78	20.75	
6	20.90	21.00	21.13	20.83	21.11	21.23	20.94	20.87	20.83	21.03	20.77	20.75	
7	20.92	20.99	21.12	20.83	21.11	21.23	20.94	20.83	20.82	20.99	20.76	20.75	
8	20.96	20.98	21.12	20.83	21.11	21.24	20.99	20.84	20.83	20.87	20.75	20.75	
9	20.98	21.01	21.12	20.85	21.11	21.24	21.06	21.61	20.82	20.84	20.75	20.74	
10	20.96	21.03	21.12	20.85	21.13	21.23	21.06	22.14	20.81	20.82	20.75	20.73	
11	20.93	21.04	21.12	20.88	21.17	21.23	21.05	21.59	20.79	20.81	20.74	20.72	
12	20.92	21.07	21.11	20.92	21.17	21.21	21.04	21.35	20.76	20.80	20.74	20.71	
13	20.92	21.09	21.11	20.93	21.18	21.21	21.03	21.26	20.76	20.77	20.74	20.72	
14	20.93	21.12	21.09	20.93	21.18	21.17	21.04	21.20	20.76	20.75	20.74	20.72	
15	20.93	21.12	21.00	20.92	21.18	21.10	21.05	21.13	20.76	20.75	20.74	20.72	
16	20.94	21.12	20.98	20.92	21.19	21.01	21.05	21.10	20.76	20.78	20.73	20.72	
17	20.97	21.12	20.98	20.93	21.19	20.94	21.02	21.09	20.76	20.78	20.74	20.72	
18	20.98	21.12	20.97	20.94	21.21	20.90	21.00	21.09	20.76	20.79	20.75	20.72	
19	20.95	21.12	20.97	21.02	21.32	20.88	20.97	21.08	20.76	20.80	20.77	20.71	
20	20.95	21.12	20.97	21.06	21.79	20.87	20.96	21.08	20.76	20.78	20.77	20.72	
21	20.94	21.10	20.98	21.07	21.54	20.85	20.93	21.07	20.76	20.76	20.76	20.72	
22	20.94	21.11	21.06	21.07	21.36	20.84	20.91	21.07	20.76	20.76	20.75	20.72	
23	20.94	21.07	21.07	21.07	21.27	20.83	20.88	21.06	20.75	20.76	20.75	20.72	
24	20.94	21.05	21.06	21.07	21.24	20.83	20.88	21.06	20.75	20.76	20.74	20.72	
25	20.95	21.04	20.96	21.07	21.23	20.84	20.92	21.06	20.75	20.76	20.74	20.72	
26	20.97	21.04	20.93	21.06	21.25	20.86	20.97	21.06	20.75	20.76	20.73	20.73	
27	20.96	21.06	20.88	21.06	21.25	20.86	21.02	21.05	20.74	20.75	20.73	20.73	
28	21.01	21.12	20.86	21.06	21.24	20.87	21.06	21.05	20.74	20.76	20.73	20.74	
29	21.03	21.14	20.85	21.06	21.24	20.86	21.09	21.05	20.74	20.75		20.75	
30	21.01	21.14	20.84	21.07	21.24	20.84	21.10	21.05	20.74	20.75		20.74	
31		21.14		21.07	21.24		21.07		20.74	20.75		20.73	
Mean	20.94	21.08	21.04	20.95	21.21	21.05	20.98	21.11	20.80	20.81	20.75	20.73	
Max	21.03	21.14	21.14	21.07	21.79	21.25	21.10	22.14	21.04	21.03	20.78	20.75	22.14
Min	20.87	20.98	20.84	20.83	21.07	20.83	20.84	20.83	20.74	20.74	20.73	20.71	20.71

Annual Max Momentary Gage Height 22.40 m. (MSL.) , at 06.00 Hours , on Nov 10 , 2018

Zero Gage at Bottom Elevation 19.79 m. (MSL.) , River Bed 19.12 m. (MSL.)

Left Bank Elevation 25.60 m. (MSL.) ,

Right Bank Elevation 25.22 m. (MSL.) , Drainage Are 537 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.90	9.50	11.10	2.30	8.80	16.00	2.30	5.50	7.40	0.60	0.60	0.45		
2	2.90	9.90	11.10	2.10	8.45	16.00	2.30	3.50	6.70	0.75	0.75	0.45		
3	3.10	9.15	11.10	2.10	8.45	16.00	2.90	3.50	6.00	1.50	0.90	0.45		
4	3.50	7.75	10.70	2.10	8.45	15.50	2.90	3.50	2.90	5.75	1.20	0.60		
5	3.75	6.70	10.70	2.10	8.80	15.50	4.50	3.50	2.30	6.70	1.20	0.75		
6	3.50	6.00	10.70	2.10	9.90	15.00	4.50	2.90	2.10	7.05	1.05	0.75		
7	4.00	5.75	10.30	2.10	9.90	15.00	4.50	2.10	1.90	5.75	0.90	0.75		
8	5.00	5.50	10.30	2.10	9.90	15.50	5.75	2.30	2.10	2.90	0.75	0.75		
9	5.50	6.35	10.30	2.50	9.90	15.50	8.10	35.15	1.90	2.30	0.75	0.60		
10	5.00	7.05	10.30	2.50	10.70	15.00	8.10	73.90	1.70	1.90	0.75	0.45		
11	4.25	7.40	10.30	3.10	12.30	15.00	7.75	33.95	1.35	1.70	0.60	0.30		
12	4.00	8.45	9.90	4.00	12.30	14.00	7.40	21.00	0.90	1.50	0.60	0.15		
13	4.00	9.15	9.90	4.25	12.70	14.00	7.05	16.50	0.90	1.05	0.60	0.30		
14	4.25	10.30	9.15	4.25	12.70	12.30	7.40	13.50	0.90	0.75	0.60	0.30		
15	4.25	10.30	6.00	4.00	12.70	9.50	7.75	10.70	0.90	0.75	0.60	0.30		
16	4.50	10.30	5.50	4.00	13.10	6.35	7.75	9.50	0.90	1.20	0.45	0.30		
17	5.25	10.30	5.50	4.25	13.10	4.50	6.70	9.15	0.90	1.20	0.60	0.30		
18	5.50	10.30	5.25	4.50	14.00	3.50	6.00	9.15	0.90	1.35	0.75	0.30		
19	4.75	10.30	5.25	6.70	19.50	3.10	5.25	8.80	0.90	1.50	1.05	0.15		
20	4.75	10.30	5.25	8.10	47.30	2.90	5.00	8.80	0.90	1.20	1.05	0.30		
21	4.50	9.50	5.50	8.45	31.20	2.50	4.25	8.45	0.90	0.90	0.90	0.30		
22	4.50	9.90	8.10	8.45	21.50	2.30	3.75	8.45	0.90	0.90	0.75	0.30		
23	4.50	8.45	8.45	8.45	17.00	2.10	3.10	8.10	0.75	0.90	0.75	0.30		
24	4.50	7.75	8.10	8.45	15.50	2.10	3.10	8.10	0.75	0.90	0.60	0.30		
25	4.75	7.40	5.00	8.45	15.00	2.30	4.00	8.10	0.75	0.90	0.60	0.30		
26	5.25	7.40	4.25	8.10	16.00	2.70	5.25	8.10	0.75	0.90	0.45	0.45		
27	5.00	8.10	3.10	8.10	16.00	2.70	6.70	7.75	0.60	0.75	0.45	0.45		
28	6.35	10.30	2.70	8.10	15.50	2.90	8.10	7.75	0.60	0.90	0.45	0.60		
29	7.05	11.10	2.50	8.10	15.50	2.70	9.15	7.75	0.60	0.75		0.75		
30	6.35	11.10	2.30	8.45	15.50	2.30	9.50	7.75	0.60	0.75		0.60		
31		11.10		8.45	15.50		8.45		0.60	0.75		0.45		
Total	137.40	272.85	228.60	160.70	457.15	264.75	179.25	357.20	52.25	56.70	20.70	13.50	2201.05	CMSDAY
Mean	4.58	8.80	7.62	5.18	14.75	8.82	5.78	11.91	1.69	1.83	0.74	0.44	6.03	CMS
Max	7.05	11.10	11.10	8.45	47.30	16.00	9.50	73.90	7.40	7.05	1.20	0.75	73.90	CMS
Min	2.90	5.50	2.30	2.10	8.45	2.10	2.30	2.10	0.60	0.60	0.45	0.15	0.15	CMS
Runoff	11.87	23.57	19.75	13.88	39.50	22.87	15.49	30.86	4.51	4.90	1.79	1.17	190.17	MCM

Momentary Peak 98.50 CMS. at 22.40 m. (MSL.) at 06.00 Hours , on Nov 10 , 2018

Runoff Yield 11.23 Liters/Second/Square KM. Momentary Peak Yield 183.43 Liters/Second/Square KM.

WATER YEAR : 2018

SOUTHERN PENINSULA EAST COAST

Khlong Chumphon at Ban Wang Phai , Chumphon (X.53A)

Lat 10 - 30 - 20 N Long 99 - 07 - 15 E

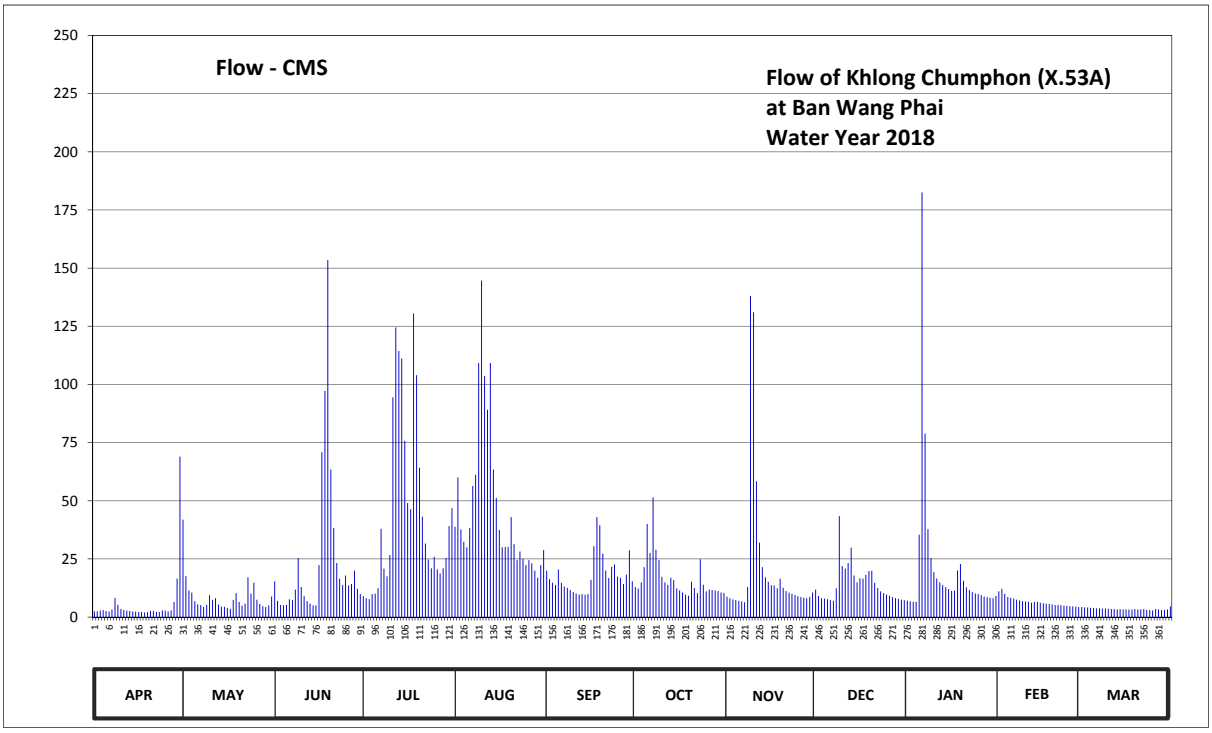
Location : on left bank about 9.50 kilometers downstream from X.53 station.

	Ban Wang Phai	**Amphoe** Mueang	**Changwat** Chumphon
Drainge Area	296 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+2.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank about 3.30 meters from the top staff gage.		**Elevation** +10.624 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	1991 to date		
Rating Operation			
Period of Rating	1991 to date		
Rated by Flot	-		
Rated by Current Meter	1991 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	Overbank flow starts at elevation + 9.350 m.(MSL.), records are channel flow only.		
General Description	Records good. Stage-discharge relation defined by 25 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	2.25	5.39	3.53	2.90	5.19	3.93	3.29	2.88	3.18	2.71	3.11	2.43	
2	2.25	3.76	2.70	2.81	6.30	3.63	3.23	2.81	2.91	2.68	3.22	2.42	
3	2.28	3.14	2.52	2.77	5.11	3.48	3.49	2.76	2.81	2.66	3.00	2.41	
4	2.30	3.05	2.51	2.99	4.76	3.38	4.03	2.73	2.80	2.66	2.86	2.40	
5	2.26	2.69	2.53	3.01	4.60	3.96	5.27	2.70	2.77	4.96	2.83	2.39	
6	2.24	2.55	2.76	3.24	5.15	3.47	4.44	2.67	2.73	9.45	2.80	2.38	
7	2.32	2.52	2.73	5.13	6.12	3.31	5.87	2.64	2.70	7.23	2.75	2.38	
8	2.83	2.44	3.18	3.99	6.36	3.26	4.53	3.29	3.24	5.12	2.72	2.37	
9	2.53	2.53	4.29	3.75	8.18	3.16	4.23	8.80	5.47	4.29	2.69	2.37	
10	2.35	2.94	3.29	4.38	8.91	3.07	3.73	8.66	4.06	3.89	2.67	2.36	
11	2.30	2.74	2.90	7.75	8.04	3.02	3.49	6.22	3.99	3.66	2.65	2.35	
12	2.28	2.81	2.69	8.53	7.57	2.97	3.38	4.73	4.15	3.50	2.62	2.34	
13	2.26	2.54	2.58	8.31	8.18	2.99	3.69	4.03	4.59	3.38	2.65	2.33	
14	2.24	2.45	2.50	8.23	6.47	2.96	3.59	3.71	3.79	3.29	2.66	2.34	
15	2.23	2.44	2.50	7.09	5.86	2.99	3.24	3.52	3.49	3.20	2.62	2.33	
16	2.22	2.39	4.09	5.75	5.10	3.60	3.15	3.37	3.67	3.13	2.60	2.33	
17	2.22	2.36	6.84	5.62	4.60	4.63	3.06	3.36	3.66	3.14	2.58	2.32	
18	2.20	2.74	7.84	8.65	4.61	5.45	2.97	3.24	3.81	3.94	2.56	2.32	
19	2.21	3.03	9.05	8.05	4.61	5.23	2.92	3.65	3.92	4.12	2.54	2.34	
20	2.27	2.65	6.47	6.51	5.45	4.42	3.52	3.26	3.93	3.56	2.52	2.33	
21	2.26	2.49	5.15	5.46	4.69	3.93	3.25	3.12	3.47	3.28	2.52	2.33	
22	2.22	2.58	4.15	4.71	4.23	3.68	3.03	3.05	3.25	3.16	2.51	2.35	
23	2.22	3.71	3.65	4.25	4.48	4.04	4.26	3.00	3.11	3.07	2.49	2.31	
24	2.29	3.01	3.38	4.00	4.27	4.11	3.39	2.95	3.03	3.02	2.48	2.30	
25	2.28	3.48	3.79	4.33	4.09	3.74	3.11	2.90	2.97	2.99	2.47	2.29	
26	2.25	2.75	3.36	3.97	4.23	3.69	3.18	2.86	2.92	2.94	2.46	2.35	
27	2.29	2.56	3.42	3.85	4.14	3.42	3.16	2.83	2.86	2.89	2.45	2.33	
28	2.65	2.47	3.93	4.00	3.93	3.82	3.15	2.81	2.82	2.86	2.43	2.31	
29	3.66	2.43	3.22	4.29	3.69	4.51	3.12	2.86	2.78	2.83		2.31	
30	6.75	2.50	3.00	5.21	4.09	3.54	3.06	3.06	2.75	2.81		2.33	
31		2.89		5.64	4.52		3.04		2.73	2.91		2.46	
Mean	2.50	2.84	3.82	5.13	5.40	3.71	3.58	3.62	3.37	3.66	2.66	2.35	
Max	6.75	5.39	9.05	8.65	8.91	5.45	5.87	8.80	5.47	9.45	3.22	2.46	9.45
Min	2.20	2.36	2.50	2.77	3.69	2.96	2.92	2.64	2.70	2.66	2.43	2.29	2.20

Annual Max Momentary Gage Height	10.02	m. (MSL.) ,	at 10.00 Hours , on Nov 9, 2018		
Zero Gage at Bottom Elevation	2.00	m. (MSL.) ,	River Bed	1.92	m. (MSL.)
Left Bank Elevation	9.34	m. (MSL.) ,			
Right Bank Elevation	10.38	m. (MSL.) ,	Drainage Are	296	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.50	41.85	15.30	9.00	38.85	19.95	12.90	8.80	11.80	7.10	11.10	4.30		
2	2.50	17.60	7.00	8.10	60.00	16.30	12.30	8.10	9.10	6.80	12.20	4.20		
3	2.80	11.40	5.20	7.70	37.65	14.80	14.90	7.60	8.10	6.60	10.00	4.10		
4	3.00	10.50	5.10	9.90	32.40	13.80	21.45	7.30	8.00	6.60	8.60	4.00		
5	2.60	6.90	5.30	10.10	30.00	20.40	40.05	7.00	7.70	35.40	8.30	3.90		
6	2.40	5.50	7.60	12.40	38.25	14.70	27.60	6.70	7.30	182.50	8.00	3.80		
7	3.20	5.20	7.30	37.95	56.40	13.10	51.40	6.40	7.00	78.90	7.50	3.80		
8	8.30	4.40	11.80	20.85	61.20	12.60	28.95	12.90	12.40	37.80	7.20	3.70		
9	5.30	5.30	25.35	17.50	109.20	11.60	24.45	138.00	43.40	25.35	6.90	3.70		
10	3.50	9.40	12.90	26.70	144.60	10.70	17.30	131.00	21.90	19.35	6.70	3.60		
11	3.00	7.40	9.00	94.50	103.60	10.20	14.90	58.40	20.85	16.60	6.50	3.50		
12	2.80	8.10	6.90	124.50	89.10	9.70	13.80	31.95	23.25	15.00	6.20	3.40		
13	2.60	5.40	5.80	114.40	109.20	9.90	16.90	21.45	29.85	13.80	6.50	3.30		
14	2.40	4.50	5.00	111.20	63.40	9.60	15.90	17.10	17.90	12.90	6.60	3.40		
15	2.30	4.40	5.00	75.80	51.20	9.90	12.40	15.20	14.90	12.00	6.20	3.30		
16	2.20	3.90	22.35	49.00	37.50	16.00	11.50	13.70	16.70	11.30	6.00	3.30		
17	2.20	3.60	70.80	46.40	30.00	30.45	10.60	13.60	16.60	11.40	5.80	3.20		
18	2.00	7.40	97.20	130.50	30.15	43.00	9.70	12.40	18.15	20.10	5.60	3.20		
19	2.10	10.30	153.50	104.00	30.15	39.45	9.20	16.50	19.80	22.80	5.40	3.40		
20	2.70	6.50	63.40	64.20	43.00	27.30	15.20	12.60	19.95	15.60	5.20	3.30		
21	2.60	4.90	38.25	43.20	31.35	19.95	12.50	11.20	14.70	12.80	5.20	3.30		
22	2.20	5.80	23.25	31.65	24.45	16.80	10.30	10.50	12.50	11.60	5.10	3.50		
23	2.20	17.10	16.50	24.75	28.20	21.60	24.90	10.00	11.10	10.70	4.90	3.10		
24	2.90	10.10	13.80	21.00	25.05	22.65	13.90	9.50	10.30	10.20	4.80	3.00		
25	2.80	14.80	17.90	25.95	22.35	17.40	11.10	9.00	9.70	9.90	4.70	2.90		
26	2.50	7.50	13.60	20.55	24.45	16.90	11.80	8.60	9.20	9.40	4.60	3.50		
27	2.90	5.60	14.20	18.75	23.10	14.20	11.60	8.30	8.60	8.90	4.50	3.30		
28	6.50	4.70	19.95	21.00	19.95	18.30	11.50	8.10	8.20	8.60	4.30	3.10		
29	16.60	4.30	12.20	25.35	16.90	28.65	11.20	8.60	7.80	8.30		3.10		
30	69.00	5.00	10.00	39.15	22.35	15.40	10.60	10.60	7.50	8.10		3.30		
31		8.90		46.80	28.80		10.40		7.30	9.10		4.60		
Total	170.60	268.25	721.45	1392.85	1462.80	545.30	521.20	641.10	441.55	665.50	184.60	109.10	7124.30	CMSDAY
Mean	5.69	8.65	24.05	44.93	47.19	18.18	16.81	21.37	14.24	21.47	6.59	3.52	19.52	CMS
Max	69.00	41.85	153.50	130.50	144.60	43.00	51.40	138.00	43.40	182.50	12.20	4.60	182.50	CMS
Min	2.00	3.60	5.00	7.70	16.90	9.60	9.20	6.40	7.00	6.60	4.30	2.90	2.00	CMS
Runoff	14.74	23.18	62.33	120.34	126.39	47.11	45.03	55.39	38.15	57.50	15.95	9.43	615.54	MCM

Momentary Peak 246.00 CMS. at 10.02 m. (MSL.) at 10.00 Hours , on Nov 9, 2018

Runoff Yield 65.94 Liters/Second/Square KM. Momentary Peak Yield 831.08 Liters/Second/Square KM.

WATER YEAR : 2018

SOUTHERN PENINSULA EAST COAST

Khlong Tha Di at Ban Tha Yai , Nakhon Si Thammarat (X.55)

Lat 08 - 23 - 52 N Long 99 - 50 - 14 E

Location : on left bank at the bridge.

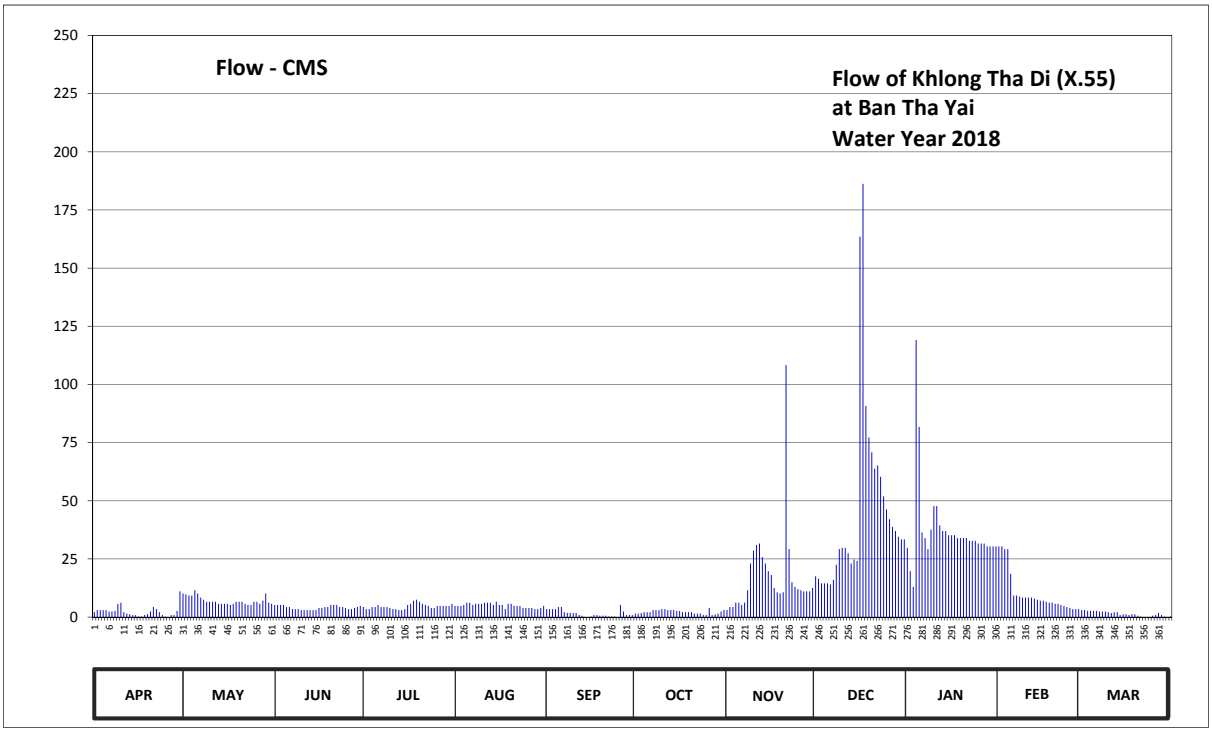
Ban Tha Yai **Amphoe** Lan Saka **Changwat** Nakhon Si Thammar

Drainge Area	105 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+0.000 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank about 63.60 meters from fourth staff gage. **Elevation** +24.748 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic mean of 5 readings
Period of Available Gage Records	1967 to date
Rating Operation	
Period of Rating	1967 - 1971 , 1989 to date
Rated by Flot	-
Rated by Current Meter	1967 - 1971 , 1989 to date
Stability of Channel Regimes	Rather unstable.
Overbank Flow Conditions	Overbank flow starts at elevation + 22.240 m.(MSL.), records are channel flow only.
General Description	Records fair. Stage-discharge relation defined by 24 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	18.87	19.06	18.95	18.93	18.94	18.91	18.85	18.90	19.21	19.43	19.44	18.90	
2	18.90	19.05	18.95	18.91	18.94	18.91	18.85	18.93	19.19	19.25	19.44	18.90	
3	18.90	19.04	18.95	18.91	18.94	18.91	18.86	18.93	19.15	19.12	19.42	18.89	
4	18.90	19.04	18.95	18.93	18.95	18.91	18.87	18.97	19.15	20.64	19.42	18.89	
5	18.90	19.09	18.93	18.93	18.97	18.93	18.87	18.97	19.15	20.19	19.23	18.89	
6	18.88	19.06	18.93	18.95	18.97	18.93	18.87	18.95	19.14	19.54	19.04	18.89	
7	18.88	19.02	18.91	18.93	18.95	18.87	18.90	18.97	19.18	19.50	19.04	18.88	
8	18.89	19.00	18.91	18.93	18.96	18.86	18.90	19.09	19.30	19.42	19.03	18.88	
9	18.96	18.98	18.91	18.93	18.96	18.86	18.90	19.31	19.42	19.56	19.02	18.88	
10	18.97	18.98	18.90	18.92	18.96	18.86	18.91	19.41	19.43	19.71	19.02	18.87	
11	18.87	18.98	18.90	18.91	18.97	18.86	18.91	19.45	19.43	19.71	19.02	18.86	
12	18.85	18.98	18.90	18.91	18.97	18.83	18.90	19.46	19.39	19.59	19.02	18.87	
13	18.84	18.96	18.90	18.90	18.97	18.82	18.90	19.36	19.31	19.55	19.01	18.87	
14	18.83	18.96	18.90	18.90	18.95	18.80	18.90	19.31	19.34	19.55	19.00	18.83	
15	18.83	18.96	18.90	18.91	18.98	18.80	18.89	19.25	19.33	19.52	18.99	18.84	
16	18.81	18.96	18.92	18.95	18.95	18.81	18.89	19.22	21.11	19.52	18.99	18.84	
17	18.81	18.95	18.92	18.96	18.95	18.83	18.87	19.11	21.32	19.52	18.98	18.83	
18	18.83	18.96	18.93	18.99	18.91	18.83	18.87	19.07	20.31	19.50	18.97	18.84	
19	18.84	18.98	18.93	19.00	18.96	18.82	18.87	19.06	20.13	19.50	18.97	18.84	
20	18.88	18.98	18.95	18.98	18.96	18.82	18.87	19.07	20.04	19.50	18.96	18.82	
21	18.93	18.98	18.95	18.96	18.94	18.82	18.85	20.52	19.94	19.50	18.96	18.81	
22	18.91	18.96	18.95	18.95	18.94	18.81	18.85	19.42	19.96	19.48	18.95	18.78	
23	18.87	18.95	18.93	18.94	18.94	18.81	18.85	19.16	19.89	19.48	18.94	18.74	
24	18.83	18.95	18.93	18.92	18.92	18.81	18.83	19.12	19.77	19.48	18.93	18.80	
25	18.81	18.98	18.92	18.92	18.92	18.80	18.83	19.10	19.69	19.46	18.92	18.82	
26	18.80	18.98	18.91	18.94	18.92	18.95	18.92	19.09	19.63	19.46	18.91	18.83	
27	18.83	18.96	18.91	18.94	18.92	18.88	18.83	19.08	19.58	19.46	18.91	18.86	
28	18.83	18.99	18.92	18.94	18.91	18.83	18.84	19.08	19.55	19.44	18.91	18.83	
29	18.89	19.06	18.93	18.94	18.91	18.83	18.85	19.08	19.51	19.44		18.81	
30	19.08	18.97	18.94	18.94	18.92	18.83	18.88	19.11	19.49	19.44		18.79	
31		18.96		18.96	18.94		18.90		19.49	19.44		18.81	
Mean	18.87	18.99	18.92	18.94	18.94	18.85	18.87	19.19	19.63	19.55	19.05	18.84	
Max	19.08	19.09	18.95	19.00	18.98	18.95	18.92	20.52	21.32	20.64	19.44	18.90	21.32
Min	18.80	18.95	18.90	18.90	18.91	18.80	18.83	18.90	19.14	19.12	18.91	18.74	18.74

Annual Max Momentary Gage Height	23.09	m. (MSL.) ,	at 21.00 Hours , on Jan 4 , 2019		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	16.90	m. (MSL.)
Left Bank Elevation	22.23	m. (MSL.) ,			
Right Bank Elevation	22.43	m. (MSL.) ,	Drainage Are	105	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.10	10.20	5.25	4.35	4.80	3.45	1.50	3.00	17.55	29.80	30.40	3.00		
2	3.00	9.75	5.25	3.45	4.80	3.45	1.50	4.35	16.50	19.75	30.40	3.00		
3	3.00	9.30	5.25	3.45	4.80	3.45	1.80	4.35	14.50	13.00	29.20	2.70		
4	3.00	9.30	5.25	4.35	5.25	3.45	2.10	6.15	14.50	119.10	29.20	2.70		
5	3.00	11.55	4.35	4.35	6.15	4.35	2.10	6.15	14.50	81.75	18.65	2.70		
6	2.40	10.20	4.35	5.25	6.15	4.35	2.10	5.25	14.00	36.40	9.30	2.70		
7	2.40	8.40	3.45	4.35	5.25	2.10	3.00	6.15	16.00	34.00	9.30	2.40		
8	2.70	7.50	3.45	4.35	5.70	1.80	3.00	11.55	22.50	29.20	8.85	2.40		
9	5.70	6.60	3.45	4.35	5.70	1.80	3.00	23.05	29.20	37.60	8.40	2.40		
10	6.15	6.60	3.00	3.90	5.70	1.80	3.45	28.60	29.80	47.70	8.40	2.10		
11	2.10	6.60	3.00	3.45	6.15	1.80	3.45	31.00	29.80	47.70	8.40	1.80		
12	1.50	6.60	3.00	3.45	6.15	0.90	3.00	31.60	27.45	39.40	8.40	2.10		
13	1.20	5.70	3.00	3.00	6.15	0.60	3.00	25.80	23.05	37.00	7.95	2.10		
14	0.90	5.70	3.00	3.00	5.25	0.00	3.00	23.05	24.70	37.00	7.50	0.90		
15	0.90	5.70	3.00	3.45	6.60	0.00	2.70	19.75	24.15	35.20	7.05	1.20		
16	0.30	5.70	3.90	5.25	5.25	0.30	2.70	18.10	163.55	35.20	7.05	1.20		
17	0.30	5.25	3.90	5.70	5.25	0.90	2.10	12.50	186.20	35.20	6.60	0.90		
18	0.90	5.70	4.35	7.05	3.45	0.90	2.10	10.65	90.75	34.00	6.15	1.20		
19	1.20	6.60	4.35	7.50	5.70	0.60	2.10	10.20	77.25	34.00	6.15	1.20		
20	2.40	6.60	5.25	6.60	5.70	0.60	2.10	10.65	70.80	34.00	5.70	0.60		
21	4.35	6.60	5.25	5.70	4.80	0.60	1.50	108.30	63.80	34.00	5.70	0.30		
22	3.45	5.70	5.25	5.25	4.80	0.30	1.50	29.20	65.20	32.80	5.25	0.00		
23	2.10	5.25	4.35	4.80	4.80	0.30	1.50	15.00	60.30	32.80	4.80	0.00		
24	0.90	5.25	4.35	3.90	3.90	0.30	0.90	13.00	51.90	32.80	4.35	0.00		
25	0.30	6.60	3.90	3.90	3.90	0.00	0.90	12.00	46.30	31.60	3.90	0.60		
26	0.00	6.60	3.45	4.80	3.90	5.25	3.90	11.55	42.10	31.60	3.45	0.90		
27	0.90	5.70	3.45	4.80	3.90	2.40	0.90	11.10	38.80	31.60	3.45	1.80		
28	0.90	7.05	3.90	4.80	3.45	0.90	1.20	11.10	37.00	30.40	3.45	0.90		
29	2.70	10.20	4.35	4.80	3.45	0.90	1.50	11.10	34.60	30.40		0.30		
30	11.10	6.15	4.80	4.80	3.90	0.90	2.40	12.50	33.40	30.40		0.00		
31		5.70		5.70	4.80		3.00		33.40	30.40		0.30		
Total	71.85	220.35	122.85	143.85	155.55	48.45	69.00	526.75	1413.55	1165.80	287.40	44.40	4269.80	CMSDAY
Mean	2.40	7.11	4.09	4.64	5.02	1.61	2.23	17.56	45.60	37.61	10.26	1.43	11.70	CMS
Max	11.10	11.55	5.25	7.50	6.60	5.25	3.90	108.30	186.20	119.10	30.40	3.00	186.20	CMS
Min	0.00	5.25	3.00	3.00	3.45	0.00	0.90	3.00	14.00	13.00	3.45	0.00	0.00	CMS
Runoff	6.21	19.04	10.61	12.43	13.44	4.19	5.96	45.51	122.13	100.73	24.83	3.84	368.91	MCM

Momentary Peak 445.20 CMS. at 23.09 m. (MSL.) at 21.00 Hours , on Jan 4 , 2019

Runoff Yield 111.41 Liters/Second/Square KM. Momentary Peak Yield 4240.00 Liters/Second/Square KM.

WATER YEAR : 2018

SOUTHERN PENINSULA EAST COAST

Khlong Tha Sae at Ban Tha Sae , Chumphon (X.64)

Lat 10 - 39 - 51 N Long 99 - 10 - 26 E

Location : on left bank near the Land Cooperation Office.

Ban Tha Sae **Amphoe** Tha Sae **Changwat** Chumphon

Drainge Area	946 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+6.000 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank about 6 meters from the top staff gage. **Elevation** +19.207 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings
Period of Available Gage Records	1973 to date
Rating Operation	
Period of Rating	1974 - 1975 , 1982 to date
Rated by Flot	-
Rated by Current Meter	1974 - 1975 , 1982 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	Overbank flow starts at elevation + 17.140 m.(MSL.), records are channel flow only.
General Description	Records good. Stage-discharge relation defined by 25 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

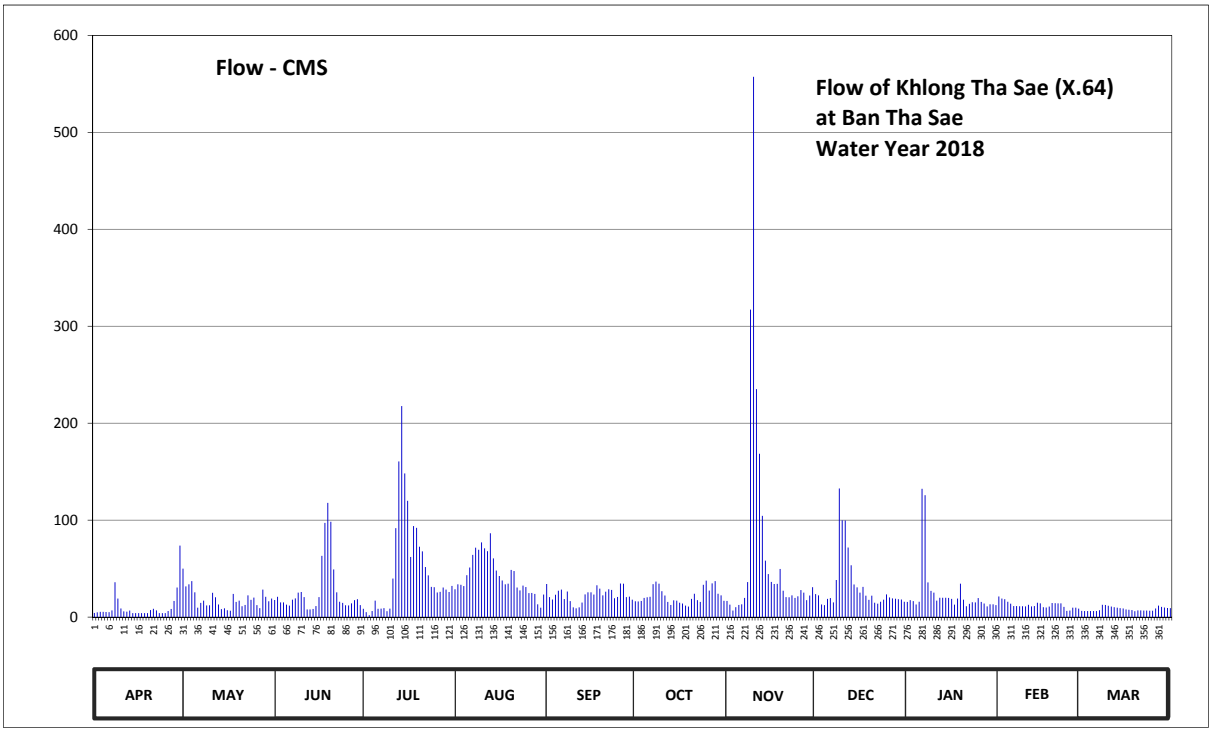
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	7.69	10.55	8.58	7.97	9.31	9.68	8.49	8.51	8.98	8.44	8.82	7.83	
2	7.73	9.51	8.80	7.74	9.66	8.78	8.48	8.26	8.90	8.57	8.68	7.82	
3	7.76	9.65	8.41	7.53	9.62	8.61	8.51	7.85	8.27	8.50	8.63	7.82	
4	7.76	9.88	8.41	7.82	9.53	8.94	8.72	8.08	8.22	8.27	8.45	7.82	
5	7.75	9.10	8.26	8.53	10.21	9.21	8.76	8.23	8.65	8.45	8.32	7.82	
6	7.74	8.05	8.19	7.97	10.61	9.29	8.80	8.28	8.71	13.71	8.16	7.82	
7	7.86	8.38	8.60	7.98	11.26	8.64	9.67	8.72	8.41	13.49	8.16	7.87	
8	9.80	8.53	8.69	8.02	11.63	9.16	9.84	9.81	9.95	9.79	8.15	8.25	
9	8.68	8.20	9.08	7.81	11.52	8.50	9.70	16.17	13.72	9.20	8.15	8.24	
10	7.99	8.21	9.13	7.98	11.87	8.07	9.18	17.47	12.63	9.08	8.14	8.18	
11	7.79	9.07	8.77	10.04	11.60	8.00	8.88	15.59	12.62	8.53	8.25	8.12	
12	7.77	8.76	7.93	12.36	11.45	8.07	8.44	14.59	11.64	8.73	8.14	8.08	
13	7.85	8.27	7.93	14.43	12.18	8.40	8.24	12.78	10.72	8.73	8.16	8.05	
14	7.67	7.95	7.96	15.37	11.08	8.96	8.55	10.96	9.64	8.73	8.39	8.02	
15	7.67	8.00	8.16	14.18	10.45	9.11	8.53	10.27	9.45	8.72	8.34	7.99	
16	7.67	7.87	8.77	13.30	10.17	9.10	8.39	9.82	9.08	8.65	8.08	7.93	
17	7.67	7.84	11.21	11.15	9.92	8.95	8.33	9.68	9.48	8.26	8.06	7.90	
18	7.67	8.99	12.54	12.43	9.65	9.59	8.19	9.69	8.87	8.68	8.12	7.88	
19	7.67	8.44	13.23	12.37	9.70	9.36	8.13	10.53	8.59	9.70	8.37	7.81	
20	7.88	8.53	12.58	11.68	10.48	8.90	8.65	9.22	8.87	8.60	8.36	7.86	
21	7.97	8.15	10.51	11.44	10.43	9.15	9.01	8.78	8.39	8.15	8.35	7.86	
22	7.86	8.23	9.11	10.63	9.43	9.31	8.57	8.76	8.32	8.31	8.35	7.85	
23	7.67	8.90	8.46	10.20	9.24	9.27	8.44	8.90	8.45	8.42	8.10	7.85	
24	7.67	8.59	8.38	9.48	9.57	8.70	9.62	8.72	8.60	8.41	7.83	7.84	
25	7.67	8.74	8.21	9.46	9.47	8.79	9.91	8.83	8.96	8.71	7.85	7.84	
26	7.82	8.22	8.20	9.09	9.05	9.71	9.23	9.26	8.75	8.44	8.05	7.99	
27	7.96	8.01	8.35	9.14	9.06	9.70	9.72	9.08	8.69	8.33	8.05	8.19	
28	8.51	9.29	8.57	9.44	8.99	8.78	9.87	8.56	8.66	8.14	7.98	8.10	
29	9.44	8.80	8.63	9.29	8.28	8.81	9.01	8.89	8.63	8.28		8.06	
30	11.74	8.49	8.22	9.13	8.05	8.60	8.90	9.46	8.61	8.28		8.03	
31		8.68		9.54	8.95		8.52		8.45	8.22		8.02	
Mean	8.08	8.64	9.06	10.11	10.08	8.94	8.88	10.12	9.35	8.92	8.23	7.96	
Max	11.74	10.55	13.23	15.37	12.18	9.71	9.91	17.47	13.72	13.71	8.82	8.25	17.47
Min	7.67	7.84	7.93	7.53	8.05	8.00	8.13	7.85	8.22	8.14	7.83	7.81	7.53

Annual Max Momentary Gage Height 17.84 m. (MSL.) , at 04.00 Hours , on Nov 10, 2018

Zero Gage at Bottom Elevation 6.00 m. (MSL.) , River Bed 6.16 m. (MSL.)

Left Bank Elevation 17.49 m. (MSL.) ,

Right Bank Elevation 17.13 m. (MSL.) , Drainage Are 946 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	4.35	50.00	17.70	8.55	28.65	34.20	16.35	16.65	23.70	15.60	21.30	6.45		
2	4.95	31.65	21.00	5.10	33.90	20.70	16.20	12.90	22.50	17.55	19.20	6.30		
3	5.40	33.75	15.15	1.95	33.30	18.15	16.65	6.75	13.05	16.50	18.45	6.30		
4	5.40	37.20	15.15	6.30	31.95	23.10	19.80	10.20	12.30	13.05	15.75	6.30		
5	5.25	25.50	12.90	16.95	43.20	27.15	20.40	12.45	18.75	15.75	13.80	6.30		
6	5.10	9.75	11.85	8.55	51.20	28.35	21.00	13.20	19.65	132.30	11.40	6.30		
7	6.90	14.70	18.00	8.70	64.20	18.60	34.05	19.80	15.15	125.70	11.40	7.05		
8	36.00	16.95	19.35	9.30	71.60	26.40	36.60	36.15	38.25	35.85	11.25	12.75		
9	19.20	12.00	25.20	6.15	69.40	16.50	34.50	317.20	132.60	27.00	11.25	12.60		
10	8.85	12.15	25.95	8.70	77.10	10.05	26.70	557.40	99.90	25.20	11.10	11.70		
11	5.85	25.05	20.55	39.80	71.00	9.00	22.20	235.20	99.60	16.95	12.75	10.80		
12	5.55	20.40	7.95	91.80	68.00	10.05	15.60	168.50	71.80	19.95	11.10	10.20		
13	6.75	13.05	7.95	160.50	86.40	15.00	12.60	104.40	53.40	19.95	11.40	9.75		
14	4.05	8.25	8.40	217.75	60.60	23.40	17.25	58.20	33.60	19.95	14.85	9.30		
15	4.05	9.00	11.40	148.20	48.00	25.65	16.95	44.40	30.75	19.80	14.10	8.85		
16	4.05	7.05	20.55	120.00	42.40	25.50	14.85	36.30	25.20	18.75	10.20	7.95		
17	4.05	6.60	63.20	62.00	37.80	23.25	13.95	34.20	31.20	12.90	9.90	7.50		
18	4.05	23.85	97.20	93.90	33.75	32.85	11.85	34.35	22.05	19.20	10.80	7.20		
19	4.05	15.60	117.90	92.10	34.50	29.40	10.95	49.60	17.85	34.50	14.55	6.15		
20	7.20	16.95	98.40	72.60	48.60	22.50	18.75	27.30	22.05	18.00	14.40	6.90		
21	8.55	11.25	49.20	67.80	47.60	26.25	24.15	20.70	14.85	11.25	14.25	6.90		
22	6.90	12.45	25.65	51.60	30.45	28.65	17.55	20.40	13.80	13.65	14.25	6.75		
23	4.05	22.50	15.90	43.00	27.60	28.05	15.60	22.50	15.75	15.30	10.50	6.75		
24	4.05	17.85	14.70	31.20	32.55	19.50	33.30	19.80	18.00	15.15	6.45	6.60		
25	4.05	20.10	12.15	30.90	31.05	20.85	37.65	21.45	23.40	19.65	6.75	6.60		
26	6.30	12.30	12.00	25.35	24.75	34.65	27.45	27.90	20.25	15.60	9.75	8.85		
27	8.40	9.15	14.25	26.10	24.90	34.50	34.80	25.20	19.35	13.95	9.75	11.85		
28	16.65	28.35	17.55	30.60	23.85	20.70	37.05	17.40	18.90	11.10	8.70	10.50		
29	30.60	21.00	18.45	28.35	13.20	21.15	24.15	22.35	18.45	13.20		9.90		
30	73.80	16.35	12.30	25.95	9.75	18.00	22.50	30.90	18.15	13.20		9.45		
31		19.20		32.10	23.25		16.80		15.75	12.30		9.30		
Total	314.40	579.95	827.90	1571.85	1324.50	692.10	688.20	2023.75	1000.00	778.80	349.35	260.10	10410.90	CMSDAY
Mean	10.48	18.71	27.60	50.70	42.73	23.07	22.20	67.46	32.26	25.12	12.48	8.39	28.52	CMS
Max	73.80	50.00	117.90	217.75	86.40	34.65	37.65	557.40	132.60	132.30	21.30	12.75	557.40	CMS
Min	4.05	6.60	7.95	1.95	9.75	9.00	10.95	6.75	12.30	11.10	6.45	6.15	1.95	CMS
Runoff	27.16	50.11	71.53	135.81	114.44	59.80	59.46	174.85	86.40	67.29	30.18	22.47	899.50	MCM

Momentary Peak 640.00 CMS. at 17.84 m. (MSL.) at 04.00 Hours , on Nov 10, 2018

Runoff Yield 30.15 Liters/Second/Square KM. Momentary Peak Yield 676.53 Liters/Second/Square KM.

WATER YEAR : 2018

SOUTHERN PENINSULA EAST COAST

Khlong Ban Tan at Ban Wang Kong , Nakhon Si Thammarat (X.70)

Lat 08 - 25 - 34 N Long 99 - 51 - 47 E

Location : on left bank upstream side of the bridge.

Ban Wang Kong **Amphoe** Mueang **Changwat** Nakhon Si Thammar

Drainge Area	39 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+0.000 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank about 10 meters from the top staff gage. **Elevation** +21.985 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	1967 to date
Rating Operation	
Period of Rating	1967 - 1971 , 1980 , 1989 to date
Rated by Flot	-
Rated by Current Meter	1967 - 1971 , 1980 , 1989 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	Overbank flow starts at elevation + 18.230 m.(MSL.), records are channel flow only.
General Description	Records good. Stage-discharge relation defined by 25 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

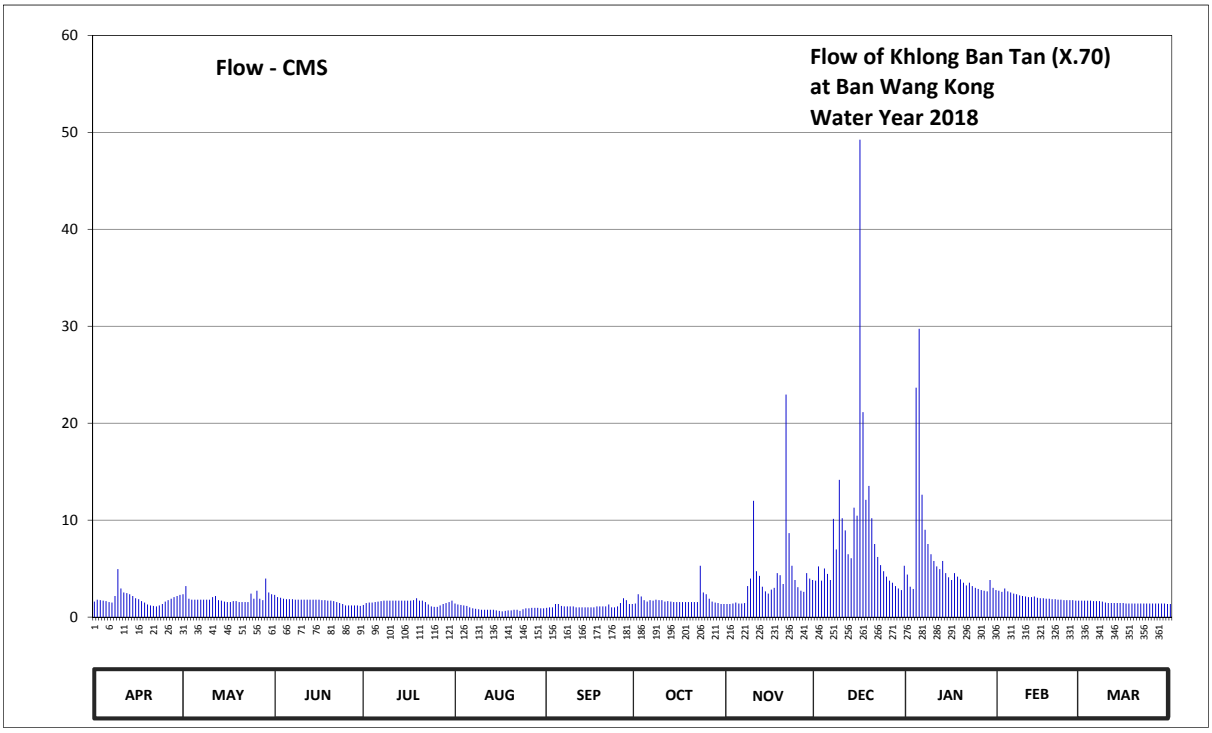
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	15.82	15.96	15.95	15.75	15.78	15.69	15.78	15.77	16.18	16.27	16.02	15.84	
2	15.86	16.10	15.91	15.79	15.76	15.70	15.96	15.77	16.39	16.09	16.00	15.84	
3	15.85	15.88	15.90	15.80	15.75	15.70	15.92	15.78	16.18	16.05	16.06	15.84	
4	15.84	15.86	15.88	15.80	15.74	15.77	15.85	15.80	16.36	18.34	16.01	15.84	
5	15.83	15.86	15.87	15.81	15.73	15.77	15.82	15.78	16.28	18.72	15.99	15.83	
6	15.81	15.86	15.87	15.82	15.70	15.73	15.85	15.78	16.19	17.37	15.97	15.83	
7	15.80	15.86	15.87	15.83	15.68	15.72	15.84	15.79	17.09	16.93	15.96	15.83	
8	15.93	15.86	15.86	15.84	15.67	15.72	15.86	16.10	16.64	16.72	15.94	15.82	
9	16.35	15.86	15.86	15.84	15.66	15.72	15.85	16.21	17.54	16.57	15.93	15.80	
10	16.06	15.86	15.86	15.84	15.65	15.72	15.85	17.30	17.10	16.47	15.92	15.79	
11	15.99	15.91	15.86	15.84	15.65	15.70	15.82	16.32	16.92	16.39	15.91	15.79	
12	15.98	15.93	15.86	15.84	15.65	15.70	15.83	16.25	16.57	16.35	15.91	15.79	
13	15.96	15.85	15.86	15.84	15.65	15.70	15.82	16.09	16.51	16.47	15.92	15.79	
14	15.93	15.84	15.86	15.84	15.65	15.70	15.81	16.01	17.22	16.29	15.90	15.79	
15	15.89	15.82	15.86	15.84	15.64	15.70	15.81	15.97	17.13	16.23	15.89	15.79	
16	15.87	15.81	15.86	15.84	15.63	15.70	15.81	16.04	19.69	16.19	15.89	15.78	
17	15.83	15.81	15.85	15.84	15.62	15.70	15.81	16.07	18.16	16.29	15.88	15.78	
18	15.80	15.83	15.85	15.85	15.63	15.72	15.81	16.29	17.31	16.24	15.88	15.78	
19	15.76	15.83	15.84	15.89	15.64	15.72	15.81	16.26	17.47	16.20	15.87	15.78	
20	15.74	15.81	15.84	15.84	15.64	15.72	15.81	16.13	17.10	16.15	15.87	15.78	
21	15.73	15.81	15.83	15.84	15.65	15.72	15.81	18.29	16.72	16.11	15.86	15.78	
22	15.72	15.81	15.81	15.81	15.65	15.76	15.81	16.88	16.53	16.15	15.86	15.78	
23	15.74	15.81	15.79	15.76	15.63	15.70	16.40	16.40	16.41	16.10	15.85	15.78	
24	15.77	15.97	15.77	15.72	15.66	15.70	15.99	16.19	16.32	16.07	15.85	15.78	
25	15.82	15.88	15.74	15.71	15.68	15.72	15.96	16.08	16.24	16.05	15.85	15.78	
26	15.85	16.02	15.74	15.71	15.68	15.79	15.88	16.02	16.18	16.03	15.85	15.78	
27	15.88	15.88	15.74	15.74	15.69	15.89	15.82	16.00	16.15	16.02	15.84	15.78	
28	15.91	15.85	15.74	15.77	15.69	15.85	15.80	16.29	16.10	16.01	15.84	15.78	
29	15.93	16.21	15.74	15.79	15.69	15.77	15.79	16.21	16.06	16.19		15.78	
30	15.95	15.99	15.73	15.81	15.68	15.77	15.77	16.19	16.03	16.07		15.77	
31		15.96		15.84	15.68		15.77		16.40	16.03		15.77	
Mean	15.87	15.89	15.83	15.81	15.67	15.73	15.86	16.20	16.75	16.42	15.91	15.80	
Max	16.35	16.21	15.95	15.89	15.78	15.89	16.40	18.29	19.69	18.72	16.06	15.84	19.69
Min	15.72	15.81	15.73	15.71	15.62	15.69	15.77	15.77	16.03	16.01	15.84	15.77	15.62

Annual Max Momentary Gage Height 22.26 m. (MSL.) , at 19.00 Hours , on Jan 4, 2019

Zero Gage at Bottom Elevation 0.00 m. (MSL.) , River Bed 15.44 m. (MSL.)

Left Bank Elevation 21.12 m. (MSL.) ,

Right Bank Elevation 18.22 m. (MSL.) , Drainage Are 39 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.60	2.36	2.30	1.25	1.40	0.95	1.40	1.35	3.76	4.39	2.72	1.70		
2	1.80	3.20	2.06	1.45	1.30	1.00	2.36	1.35	5.23	3.14	2.60	1.70		
3	1.75	1.90	2.00	1.50	1.25	1.00	2.12	1.40	3.76	2.90	2.96	1.70		
4	1.70	1.80	1.90	1.50	1.20	1.35	1.75	1.50	5.02	23.66	2.66	1.70		
5	1.65	1.80	1.85	1.55	1.15	1.35	1.60	1.40	4.46	29.74	2.54	1.65		
6	1.55	1.80	1.85	1.60	1.00	1.15	1.75	1.40	3.83	12.63	2.42	1.65		
7	1.50	1.80	1.85	1.65	0.90	1.10	1.70	1.45	10.13	9.01	2.36	1.65		
8	2.18	1.80	1.80	1.70	0.85	1.10	1.80	3.20	6.98	7.54	2.24	1.60		
9	4.95	1.80	1.80	1.70	0.80	1.10	1.75	3.97	14.16	6.49	2.18	1.50		
10	2.96	1.80	1.80	1.70	0.75	1.10	1.75	12.00	10.20	5.79	2.12	1.45		
11	2.54	2.06	1.80	1.70	0.75	1.00	1.60	4.74	8.94	5.23	2.06	1.45		
12	2.48	2.18	1.80	1.70	0.75	1.00	1.65	4.25	6.49	4.95	2.06	1.45		
13	2.36	1.75	1.80	1.70	0.75	1.00	1.60	3.14	6.07	5.79	2.12	1.45		
14	2.18	1.70	1.80	1.70	0.75	1.00	1.55	2.66	11.28	4.53	2.00	1.45		
15	1.95	1.60	1.80	1.70	0.70	1.00	1.55	2.42	10.47	4.11	1.95	1.45		
16	1.85	1.55	1.80	1.70	0.65	1.00	1.55	2.84	49.25	3.83	1.95	1.40		
17	1.65	1.55	1.75	1.70	0.60	1.00	1.55	3.02	21.14	4.53	1.90	1.40		
18	1.50	1.65	1.75	1.75	0.65	1.10	1.55	4.53	12.09	4.18	1.90	1.40		
19	1.30	1.65	1.70	1.95	0.70	1.10	1.55	4.32	13.53	3.90	1.85	1.40		
20	1.20	1.55	1.70	1.70	0.70	1.10	1.55	3.41	10.20	3.55	1.85	1.40		
21	1.15	1.55	1.65	1.70	0.75	1.10	1.55	22.96	7.54	3.27	1.80	1.40		
22	1.10	1.55	1.55	1.55	0.75	1.30	1.55	8.66	6.21	3.55	1.80	1.40		
23	1.20	1.55	1.45	1.30	0.65	1.00	5.30	5.30	5.37	3.20	1.75	1.40		
24	1.35	2.42	1.35	1.10	0.80	1.00	2.54	3.83	4.74	3.02	1.75	1.40		
25	1.60	1.90	1.20	1.05	0.90	1.10	2.36	3.08	4.18	2.90	1.75	1.40		
26	1.75	2.72	1.20	1.05	0.90	1.45	1.90	2.72	3.76	2.78	1.75	1.40		
27	1.90	1.90	1.20	1.20	0.95	1.95	1.60	2.60	3.55	2.72	1.70	1.40		
28	2.06	1.75	1.20	1.35	0.95	1.75	1.50	4.53	3.20	2.66	1.70	1.40		
29	2.18	3.97	1.20	1.45	0.95	1.35	1.45	3.97	2.96	3.83		1.40		
30	2.30	2.54	1.15	1.55	0.90	1.35	1.35	3.83	2.78	3.02		1.35		
31		2.36		1.70	0.90		1.35		5.30	2.78		1.35		
Total	57.24	61.51	50.06	47.90	27.00	34.85	56.13	125.83	266.58	183.62	58.44	45.85	1015.01	CMSDAY
Mean	1.91	1.98	1.67	1.55	0.87	1.16	1.81	4.19	8.60	5.92	2.09	1.48	2.78	CMS
Max	4.95	3.97	2.30	1.95	1.40	1.95	5.30	22.96	49.25	29.74	2.96	1.70	49.25	CMS
Min	1.10	1.55	1.15	1.05	0.60	0.95	1.35	1.35	2.78	2.66	1.70	1.35	0.60	CMS
Runoff	4.95	5.31	4.33	4.14	2.33	3.01	4.85	10.87	23.03	15.86	5.05	3.96	87.70	MCM

Momentary Peak 169.87 CMS. at 22.26 m. (MSL.) at 19.00 Hours , on Jan 4, 2019

Runoff Yield 71.30 Liters/Second/Square KM. Momentary Peak Yield 4355.64 Liters/Second/Square KM.

WATER YEAR : 2018

SOUTHERN PENINSULA EAST COAST

Kolok River at Lantu Bridge , Narathiwat (X.119A)

Lat 06 - 01 - 13 N Long 101 - 58 - 40 E

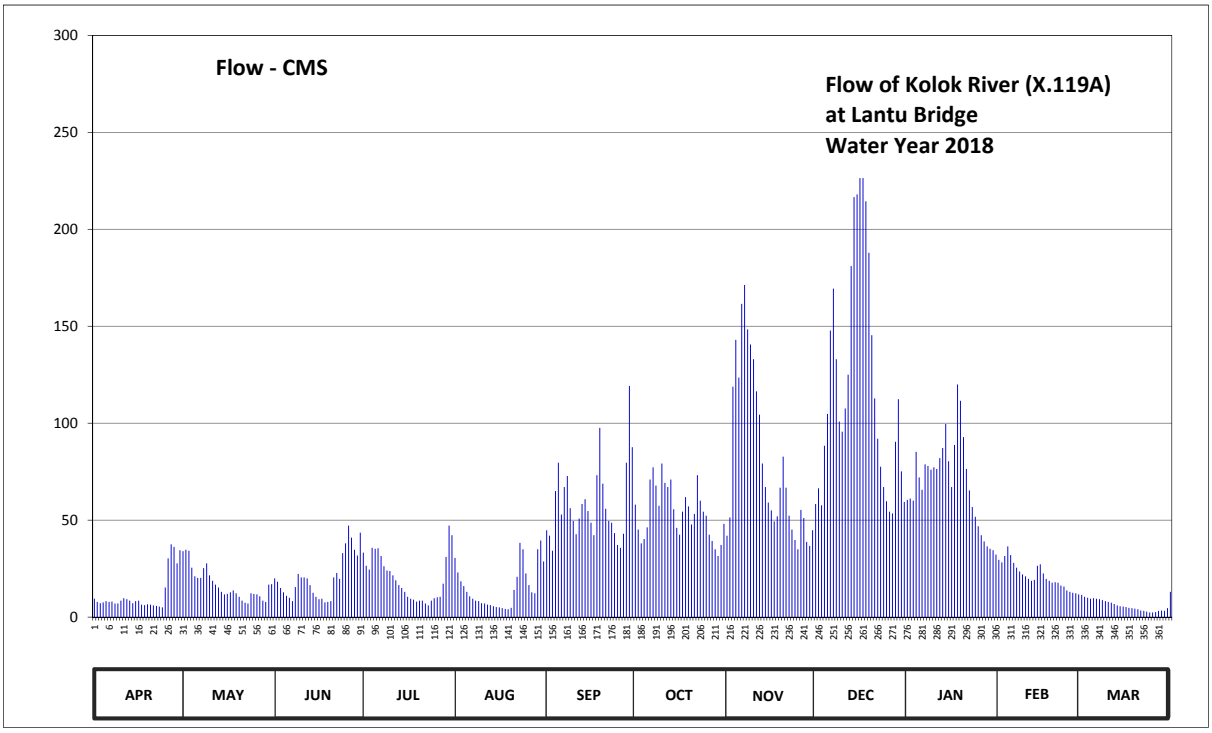
Location : on left bank at the bridge.

	Ban -	**Amphoe**	Sungai Kolok	**Changwat**	Narathiwat
Drainge Area	1,358 sq.km.				
Type of Gage	Water - stage recorder				
Zero Gage at Bottom	+0.000 m. (MSL.)				
Bench Mark	B.M.-H.D.				
Location BM	On left bank in front of gage observer's house.			**Elevation**	+10.686 m. (MSL.)
Gage Reading Frequency	Recording				
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings				
Period of Available Gage Records	1988 to date				
Rating Operation					
Period of Rating	1988 to date				
Rated by Flot	-				
Rated by Current Meter	2004 to date				
Stability of Channel Regimes	Fairly stable.				
Overbank Flow Conditions	No overbank flow.				
General Description	Records good. Stage-discharge relation defined by 18 discharge measurements made in 2018.				

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	3.36	4.34	3.78	4.31	4.20	4.76	5.20	4.66	5.21	5.27	4.16	3.44	
2	3.29	4.37	3.71	4.04	3.90	4.66	4.77	4.98	5.44	5.29	4.11	3.40	
3	3.26	4.35	3.58	3.96	3.72	4.35	4.50	6.77	5.19	5.26	4.24	3.38	
4	3.28	4.00	3.49	4.41	3.62	5.40	4.59	7.25	6.01	5.93	4.44	3.36	
5	3.31	3.82	3.42	4.39	3.50	5.79	4.81	6.87	6.42	5.60	4.26	3.37	
6	3.29	3.79	3.38	4.40	3.41	5.03	5.57	7.56	7.33	5.42	4.10	3.36	
7	3.30	3.79	3.31	4.24	3.36	5.46	5.73	7.72	7.69	5.77	4.00	3.35	
8	3.25	3.99	3.60	4.03	3.32	5.62	5.48	7.34	7.06	5.75	3.92	3.33	
9	3.25	4.09	3.87	3.94	3.31	5.14	5.18	7.21	6.32	5.70	3.86	3.31	
10	3.32	3.84	3.80	3.93	3.26	4.92	5.78	7.06	6.19	5.73	3.82	3.29	
11	3.37	3.73	3.80	3.84	3.25	4.69	5.52	6.71	6.49	5.71	3.77	3.27	
12	3.35	3.65	3.78	3.74	3.22	4.96	5.46	6.41	6.90	5.85	3.73	3.24	
13	3.32	3.59	3.64	3.64	3.21	5.21	5.57	5.78	7.87	5.98	3.75	3.20	
14	3.26	3.50	3.48	3.58	3.18	5.28	5.12	5.46	8.38	6.29	4.04	3.18	
15	3.31	3.45	3.40	3.50	3.16	5.09	4.80	5.23	8.40	5.81	4.07	3.17	
16	3.32	3.46	3.35	3.40	3.15	4.89	4.68	5.10	8.52	5.46	3.88	3.16	
17	3.22	3.49	3.36	3.36	3.13	4.67	5.08	4.91	8.52	6.02	3.77	3.14	
18	3.21	3.53	3.28	3.34	3.11	5.63	5.31	5.00	8.35	6.80	3.73	3.13	
19	3.23	3.47	3.29	3.30	3.10	6.24	5.17	5.45	7.97	6.59	3.69	3.12	
20	3.22	3.40	3.31	3.32	3.14	5.51	4.86	5.87	7.29	6.12	3.70	3.10	
21	3.20	3.32	3.80	3.32	3.54	5.13	5.04	5.45	6.62	5.71	3.69	3.07	
22	3.19	3.27	3.89	3.25	3.81	4.92	5.63	5.01	6.10	5.41	3.63	3.06	
23	3.17	3.25	3.77	3.20	4.51	4.89	5.26	4.77	5.74	5.16	3.61	3.04	
24	3.15	3.47	4.30	3.32	4.38	4.71	5.08	4.57	5.46	4.99	3.53	3.02	
25	3.59	3.46	4.50	3.37	3.88	4.47	5.01	4.38	5.25	4.83	3.50	3.02	
26	4.19	3.45	4.84	3.39	3.64	4.41	4.68	5.11	5.08	4.67	3.48	3.03	
27	4.48	3.41	4.62	3.40	3.49	4.70	4.55	4.97	5.05	4.54	3.47	3.06	
28	4.43	3.32	4.37	3.67	3.47	5.79	4.38	4.53	6.06	4.44	3.45	3.07	
29	4.09	3.29	4.25	4.22	4.38	6.78	4.24	4.45	6.61	4.39		3.06	
30	4.36	3.65	4.72	4.84	4.56	5.99	4.47	4.76	5.68	4.36		3.13	
31		3.66		4.67	4.13		4.87		5.24	4.27		3.50	
Mean	3.45	3.65	3.79	3.78	3.58	5.17	5.04	5.71	6.59	5.46	3.84	3.21	
Max	4.48	4.37	4.84	4.84	4.56	6.78	5.78	7.72	8.52	6.80	4.44	3.50	8.52
Min	3.15	3.25	3.28	3.20	3.10	4.35	4.24	4.38	5.05	4.27	3.45	3.02	3.02

Annual Max Momentary Gage Height	8.56	m. (MSL.) ,	at 20.00 Hours , on Dec 16, 2018		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	1.15	m. (MSL.)
Left Bank Elevation	9.28	m. (MSL.) ,			
Right Bank Elevation	9.75	m. (MSL.) ,	Drainage Are	1,358	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	9.50	34.00	20.00	33.25	30.50	44.80	58.00	42.00	58.35	60.45	29.50	11.50		
2	7.80	34.75	18.25	26.50	23.00	42.00	45.10	51.40	66.40	61.15	28.25	10.50		
3	7.20	34.25	15.00	24.50	18.50	34.25	38.00	118.80	57.70	60.10	31.50	10.00		
4	7.60	25.50	12.75	35.75	16.00	65.00	40.25	143.00	88.40	85.20	36.50	9.50		
5	8.25	21.00	11.00	35.25	13.00	79.60	46.30	123.50	104.80	72.00	32.00	9.75		
6	7.80	20.25	10.00	35.50	10.75	52.90	70.95	161.60	147.80	65.70	28.00	9.50		
7	8.00	20.25	8.25	31.50	9.50	67.10	77.20	171.30	169.40	78.80	25.50	9.25		
8	7.00	25.25	15.50	26.25	8.50	72.80	67.80	148.40	133.00	78.00	23.50	8.75		
9	7.00	27.75	22.25	24.00	8.25	56.20	57.40	140.60	100.80	76.00	22.00	8.25		
10	8.50	21.50	20.50	23.75	7.20	49.60	79.20	133.00	95.60	77.20	21.00	7.80		
11	9.75	18.75	20.50	21.50	7.00	42.75	69.20	116.40	107.60	76.40	19.75	7.40		
12	9.25	16.75	20.00	19.00	6.40	50.80	67.10	104.40	125.00	82.00	18.75	6.80		
13	8.50	15.25	16.50	16.50	6.20	58.35	70.95	79.20	181.05	87.20	19.25	6.00		
14	7.20	13.00	12.50	15.00	5.60	60.80	55.60	67.10	216.60	99.60	26.50	5.60		
15	8.25	11.75	10.50	13.00	5.20	54.70	46.00	59.05	218.00	80.40	27.25	5.40		
16	8.50	12.00	9.25	10.50	5.00	48.70	42.50	55.00	226.40	67.10	22.50	5.20		
17	6.40	12.75	9.50	9.50	4.60	42.25	54.40	49.30	226.40	88.80	19.75	4.80		
18	6.20	13.75	7.60	9.00	4.20	73.20	61.85	52.00	214.50	120.00	18.75	4.60		
19	6.60	12.25	7.80	8.00	4.00	97.60	57.10	66.75	187.90	111.60	17.75	4.40		
20	6.40	10.50	8.25	8.50	4.80	68.85	47.80	82.80	145.40	92.80	18.00	4.00		
21	6.00	8.50	20.50	8.50	14.00	55.90	53.20	66.75	112.80	76.40	17.75	3.40		
22	5.80	7.40	22.75	7.00	20.75	49.60	73.20	52.30	92.00	65.35	16.25	3.20		
23	5.40	7.00	19.75	6.00	38.25	48.70	60.10	45.10	77.60	56.80	15.75	2.80		
24	5.00	12.25	33.00	8.50	35.00	43.30	54.40	39.75	67.10	51.70	13.75	2.40		
25	15.25	12.00	38.00	9.75	22.50	37.25	52.30	35.00	59.75	46.90	13.00	2.40		
26	30.25	11.75	47.20	10.25	16.50	35.75	42.50	55.30	54.40	42.25	12.50	2.60		
27	37.50	10.75	41.00	10.50	12.75	43.00	39.25	51.10	53.50	39.00	12.25	3.20		
28	36.25	8.50	34.75	17.25	12.25	79.60	35.00	38.75	90.40	36.50	11.75	3.40		
29	27.75	7.80	31.75	31.00	35.00	119.20	31.50	36.75	112.40	35.25		3.20		
30	34.50	16.75	43.60	47.20	39.50	87.60	37.25	44.80	75.20	34.50		4.60		
31		17.00		42.25	28.75		48.10		59.40	32.25		13.00		
Total	359.40	520.95	608.20	624.95	473.45	1762.15	1679.50	2431.20	3725.65	2137.40	599.00	193.20	15115.05	CMSDAY
Mean	11.98	16.80	20.27	20.16	15.27	58.74	54.18	81.04	120.18	68.95	21.39	6.23	41.41	CMS
Max	37.50	34.75	47.20	47.20	39.50	119.20	79.20	171.30	226.40	120.00	36.50	13.00	226.40	CMS
Min	5.00	7.00	7.60	6.00	4.00	34.25	31.50	35.00	53.50	32.25	11.75	2.40	2.40	CMS
Runoff	31.05	45.01	52.55	54.00	40.91	152.25	145.11	210.06	321.90	184.67	51.75	16.69	1305.94	MCM

Momentary Peak 229.20 CMS. at 8.56 m. (MSL.) at 20.00 Hours , on Dec 16, 2018

Runoff Yield 30.49 Liters/Second/Square KM. Momentary Peak Yield 168.78 Liters/Second/Square KM.

WATER YEAR : 2018

SOUTHERN PENINSULA EAST COAST

Khlong Klai at Ban Hua Na , Nakhon Si Thammarat (X.149)

Lat 08 - 43 - 46 N Long 99 - 44 - 53 E

Location : on left bank at Ban Hua Na.

Ban Hua Na **Amphoe** Nopphitam **Changwat** Nakhon Si Thammar

Drainge Area	475 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+0.000 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank near the station office. **Elevation** +34.588 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	1984 to date.
Rating Operation	
Period of Rating	1984 to date.
Rated by Flot	-
Rated by Current Meter	1984 to date.
Stability of Channel Regimes	Fairly stable by some scouring.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. Stage-discharge relation defined by 22 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

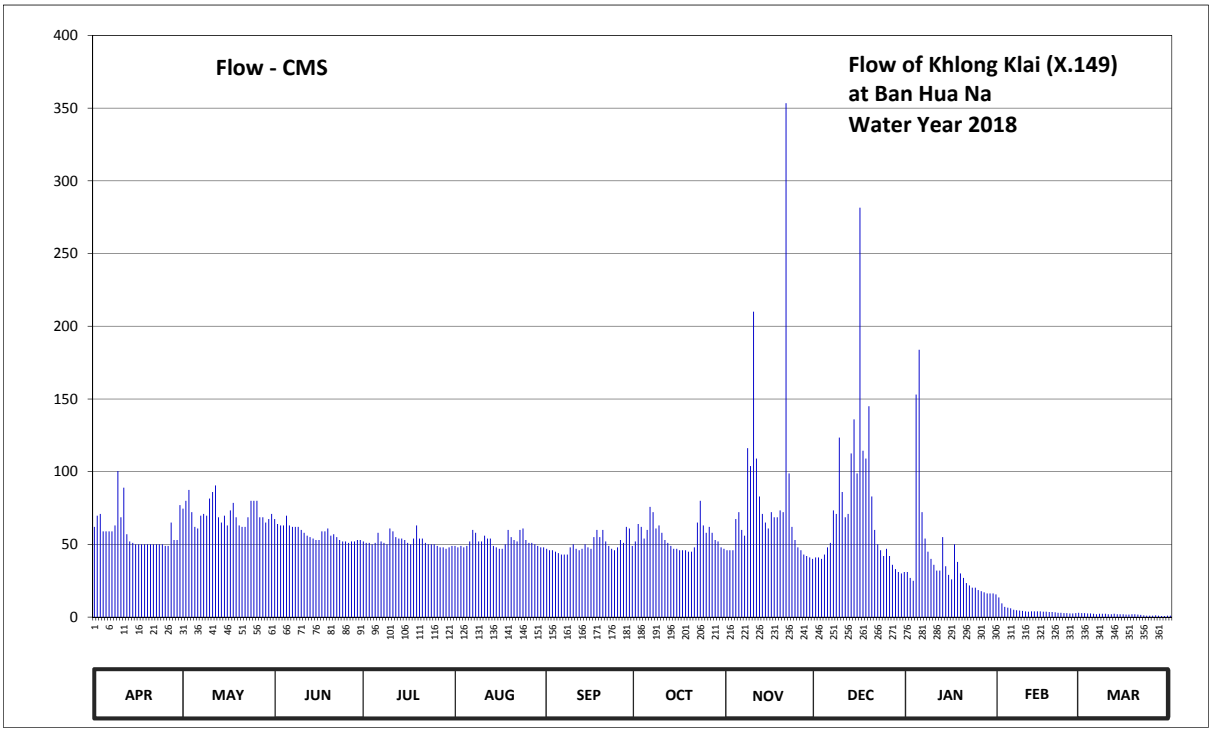
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	29.17	29.28	29.22	29.07	29.04	29.02	29.07	29.01	28.96	28.86	28.65	28.41	
2	29.24	29.32	29.19	29.06	29.03	29.01	29.19	29.01	28.96	28.82	28.59	28.41	
3	29.25	29.37	29.18	29.06	29.04	29.01	29.17	29.01	28.95	28.80	28.54	28.40	
4	29.14	29.26	29.18	29.05	29.03	29.00	29.09	29.22	28.98	29.74	28.53	28.40	
5	29.14	29.17	29.24	29.06	29.04	28.99	29.15	29.26	29.03	29.89	28.52	28.39	
6	29.14	29.16	29.18	29.13	29.07	28.98	29.29	29.15	29.06	29.26	28.50	28.38	
7	29.14	29.24	29.17	29.07	29.15	28.98	29.26	29.11	29.27	29.09	28.49	28.39	
8	29.18	29.25	29.17	29.06	29.13	28.98	29.16	29.54	29.25	29.00	28.48	28.39	
9	29.45	29.24	29.17	29.05	29.07	29.03	29.18	29.47	29.58	28.95	28.47	28.39	
10	29.23	29.33	29.15	29.16	29.07	29.05	29.13	30.00	29.36	28.91	28.46	28.38	
11	29.38	29.36	29.13	29.14	29.11	29.02	29.08	29.50	29.23	28.87	28.45	28.38	
12	29.12	29.39	29.11	29.10	29.09	29.01	29.06	29.34	29.25	28.87	28.46	28.39	
13	29.07	29.23	29.10	29.09	29.09	29.02	29.04	29.25	29.52	29.10	28.46	28.38	
14	29.06	29.20	29.09	29.09	29.04	29.05	29.02	29.20	29.65	28.90	28.46	28.38	
15	29.05	29.24	29.08	29.08	29.03	29.03	29.02	29.16	29.44	28.84	28.46	28.38	
16	29.05	29.18	29.08	29.06	29.02	29.02	29.01	29.26	30.29	28.81	28.45	28.37	
17	29.05	29.27	29.14	29.05	29.02	29.10	29.01	29.23	29.53	29.05	28.45	28.37	
18	29.05	29.31	29.14	29.09	29.05	29.15	29.01	29.23	29.50	28.93	28.44	28.38	
19	29.05	29.23	29.16	29.18	29.15	29.10	29.00	29.27	29.70	28.85	28.44	28.38	
20	29.05	29.18	29.11	29.09	29.10	29.15	29.00	29.26	29.34	28.82	28.43	28.37	
21	29.05	29.17	29.12	29.09	29.08	29.07	29.03	30.54	29.15	28.78	28.42	28.36	
22	29.05	29.17	29.10	29.06	29.07	29.04	29.20	29.44	29.05	28.76	28.42	28.35	
23	29.05	29.23	29.08	29.05	29.15	29.02	29.32	29.17	29.01	28.74	28.41	28.34	
24	29.05	29.32	29.07	29.05	29.16	29.01	29.18	29.08	28.97	28.74	28.41	28.34	
25	29.04	29.32	29.07	29.05	29.08	29.03	29.13	29.03	29.02	28.72	28.40	28.34	
26	29.04	29.32	29.06	29.04	29.06	29.08	29.17	29.01	28.97	28.71	28.40	28.35	
27	29.20	29.23	29.07	29.03	29.06	29.06	29.13	28.98	28.91	28.70	28.41	28.34	
28	29.08	29.23	29.07	29.03	29.05	29.17	29.08	28.97	28.88	28.69	28.42	28.33	
29	29.08	29.20	29.08	29.02	29.04	29.16	29.07	28.96	28.86	28.69		28.33	
30	29.30	29.22	29.08	29.03	29.03	29.04	29.03	28.95	28.85	28.69		28.34	
31		29.25		29.04	29.03		29.02		28.86	28.68		28.34	
Mean	29.13	29.25	29.13	29.07	29.07	29.05	29.11	29.25	29.21	28.91	28.46	28.37	
Max	29.45	29.39	29.24	29.18	29.16	29.17	29.32	30.54	30.29	29.89	28.65	28.41	30.54
Min	29.04	29.16	29.06	29.02	29.02	28.98	29.00	28.95	28.85	28.68	28.40	28.33	28.33

Annual Max Momentary Gage Height 32.10 m. (MSL.) , at 12.00 Hours , on Nov 21, 2018

Zero Gage at Bottom Elevation 0.00 m. (MSL.) , River Bed 23.57 m. (MSL.)

Left Bank Elevation 35.53 m. (MSL.) ,

Right Bank Elevation 33.96 m. (MSL.) , Drainage Are 475 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	62.00	74.60	67.40	52.00	49.00	47.00	52.00	46.00	41.00	31.00	13.50	2.75		
2	69.80	80.00	64.00	51.00	48.00	46.00	64.00	46.00	41.00	27.00	9.50	2.75		
3	71.00	87.50	63.00	51.00	49.00	46.00	62.00	46.00	40.00	25.00	7.00	2.50		
4	59.00	72.20	63.00	50.00	48.00	45.00	54.00	67.40	43.00	153.00	6.50	2.50		
5	59.00	62.00	69.80	51.00	49.00	44.00	60.00	72.20	48.00	183.90	6.00	2.25		
6	59.00	61.00	63.00	58.00	52.00	43.00	75.80	60.00	51.00	72.20	5.00	2.00		
7	59.00	69.80	62.00	52.00	60.00	43.00	72.20	56.00	73.40	54.00	4.75	2.25		
8	63.00	71.00	62.00	51.00	58.00	43.00	61.00	116.20	71.00	45.00	4.50	2.25		
9	100.50	69.80	62.00	50.00	52.00	48.00	63.00	103.90	123.40	40.00	4.25	2.25		
10	68.60	81.50	60.00	61.00	52.00	50.00	58.00	210.00	86.00	36.00	4.00	2.00		
11	89.00	86.00	58.00	59.00	56.00	47.00	53.00	109.00	68.60	32.00	3.75	2.00		
12	57.00	90.50	56.00	55.00	54.00	46.00	51.00	83.00	71.00	32.00	4.00	2.25		
13	52.00	68.60	55.00	54.00	54.00	47.00	49.00	71.00	112.60	55.00	4.00	2.00		
14	51.00	65.00	54.00	54.00	49.00	50.00	47.00	65.00	136.00	35.00	4.00	2.00		
15	50.00	69.80	53.00	53.00	48.00	48.00	47.00	61.00	98.80	29.00	4.00	2.00		
16	50.00	63.00	53.00	51.00	47.00	47.00	46.00	72.20	281.50	26.00	3.75	1.75		
17	50.00	73.40	59.00	50.00	47.00	55.00	46.00	68.60	114.40	50.00	3.75	1.75		
18	50.00	78.50	59.00	54.00	50.00	60.00	46.00	68.60	109.00	38.00	3.50	2.00		
19	50.00	68.60	61.00	63.00	60.00	55.00	45.00	73.40	145.00	30.00	3.50	2.00		
20	50.00	63.00	56.00	54.00	55.00	60.00	45.00	72.20	83.00	27.00	3.25	1.75		
21	50.00	62.00	57.00	54.00	53.00	52.00	48.00	353.40	60.00	23.40	3.00	1.50		
22	50.00	62.00	55.00	51.00	52.00	49.00	65.00	98.80	50.00	21.80	3.00	1.25		
23	50.00	68.60	53.00	50.00	60.00	47.00	80.00	62.00	46.00	20.20	2.75	1.00		
24	50.00	80.00	52.00	50.00	61.00	46.00	63.00	53.00	42.00	20.20	2.75	1.00		
25	49.00	80.00	52.00	50.00	53.00	48.00	58.00	48.00	47.00	18.60	2.50	1.00		
26	49.00	80.00	51.00	49.00	51.00	53.00	62.00	46.00	42.00	17.80	2.50	1.25		
27	65.00	68.60	52.00	48.00	51.00	51.00	58.00	43.00	36.00	17.00	2.75	1.00		
28	53.00	68.60	52.00	48.00	50.00	62.00	53.00	42.00	33.00	16.30	3.00	0.75		
29	53.00	65.00	53.00	47.00	49.00	61.00	52.00	41.00	31.00	16.30		0.75		
30	77.00	67.40	53.00	48.00	48.00	49.00	48.00	40.00	30.00	16.30		1.00		
31		71.00		49.00	48.00		47.00		31.00	15.60		1.00		
Total	1765.90	2229.00	1730.20	1618.00	1613.00	1488.00	1731.00	2394.90	2285.70	1224.60	124.75	54.50	18259.55	CMSDAY
Mean	58.86	71.90	57.67	52.19	52.03	49.60	55.84	79.83	73.73	39.50	4.46	1.76	50.03	CMS
Max	100.50	90.50	69.80	63.00	61.00	62.00	80.00	353.40	281.50	183.90	13.50	2.75	353.40	CMS
Min	49.00	61.00	51.00	47.00	47.00	43.00	45.00	40.00	30.00	15.60	2.50	0.75	0.75	CMS
Runoff	152.57	192.59	149.49	139.80	139.36	128.56	149.56	206.92	197.48	105.81	10.78	4.71	1577.63	MCM

Momentary Peak 995.00 CMS. at 32.10 m. (MSL.) at 12.00 Hours , on Nov 21, 2018

Runoff Yield 105.32 Liters/Second/Square KM. Momentary Peak Yield 2094.74 Liters/Second/Square KM.

WATER YEAR : 2018

SOUTHERN PENINSULA EAST COAST

Khlong Tha Taphao at Ban Wang Khrok , Chumphon (X.158)

Lat 10 - 35 - 34 N Long 99 - 08 - 43 E

Location : on right bank at the bridge on Chumphon - Prachuap Khiri Khan Highway.

	Ban Wang Khrok	**Amphoe** Tha Sae	**Changwat** Chumphon
Drainge Area	1,814 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank about 1 meters from the top staff gage.	**Elevation** +11.796 m. (MSL.)	
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	1984 to date		
Rating Operation			
Period of Rating	1990 to date		
Rated by Flot	-		
Rated by Current Meter	1990 to date		
Stability of Channel Regimes	Stable because of backwater effect.		
Overbank Flow Conditions	Overbank flow starts at elevation + 11.510 m.(MSL.), records are channel flow only.		
General Description	Records good. Stage-discharge relation defined by 26 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

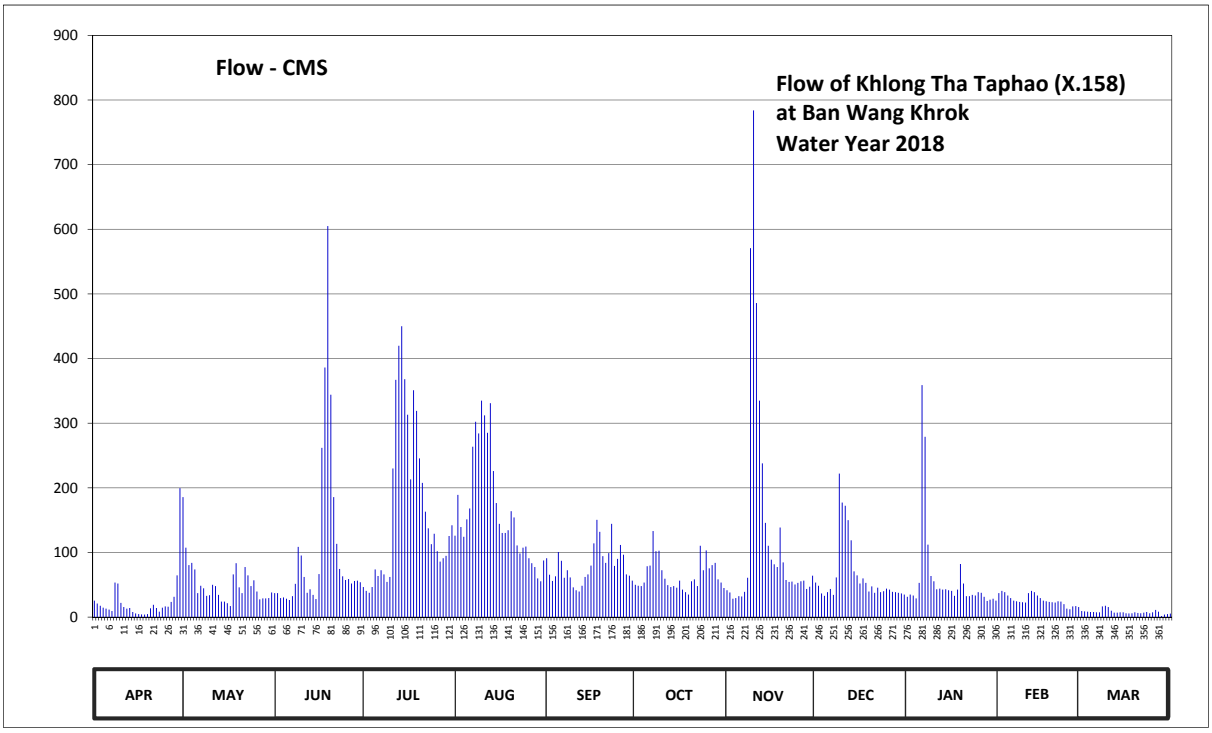
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	3.59	6.28	3.82	4.01	5.40	4.82	4.08	3.91	4.15	3.71	3.82	3.27	
2	3.50	5.09	3.82	3.89	6.33	4.39	4.05	3.84	4.05	3.78	3.89	3.26	
3	3.43	4.64	3.67	3.83	5.62	4.20	4.04	3.65	3.81	3.75	3.85	3.25	
4	3.37	4.70	3.69	4.01	5.37	4.34	4.15	3.67	3.74	3.66	3.75	3.24	
5	3.34	4.53	3.65	4.53	5.79	4.98	4.61	3.73	3.85	4.14	3.67	3.24	
6	3.31	3.82	3.61	4.35	6.03	4.75	4.63	3.72	3.95	8.25	3.59	3.23	
7	3.27	4.05	3.73	4.51	7.24	4.30	5.52	3.86	3.77	7.41	3.57	3.23	
8	4.15	3.97	4.11	4.40	7.67	4.51	5.00	4.30	4.31	5.17	3.55	3.41	
9	4.12	3.74	5.11	4.17	7.47	4.31	5.01	10.02	6.75	4.35	3.54	3.43	
10	3.52	3.76	4.89	4.32	8.01	4.00	4.51	12.01	6.16	4.19	3.53	3.39	
11	3.39	4.08	4.32	6.85	7.78	3.91	4.27	10.53	6.09	3.94	3.82	3.28	
12	3.34	4.04	3.83	8.33	7.48	3.87	4.07	8.40	5.77	3.96	3.89	3.22	
13	3.36	3.77	3.94	9.86	7.97	4.05	4.01	6.95	5.28	3.93	3.85	3.22	
14	3.24	3.56	3.77	10.21	6.80	4.32	4.04	5.71	4.48	3.94	3.75	3.23	
15	3.19	3.56	3.64	9.10	6.15	4.40	3.99	5.14	4.37	3.91	3.67	3.23	
16	3.16	3.51	4.41	7.79	5.69	4.63	4.21	4.78	4.12	3.89	3.59	3.20	
17	3.14	3.42	7.22	6.64	5.47	5.20	3.93	4.66	4.28	3.74	3.57	3.19	
18	3.13	4.40	8.51	8.17	5.47	5.78	3.85	4.59	4.14	3.93	3.55	3.20	
19	3.16	4.69	10.26	7.85	5.54	5.50	3.78	5.61	3.87	4.67	3.54	3.23	
20	3.35	4.00	8.10	7.04	5.97	4.87	4.19	4.71	4.03	4.12	3.53	3.21	
21	3.46	3.82	6.28	6.57	5.83	4.70	4.25	4.23	3.83	3.73	3.57	3.20	
22	3.36	4.59	5.19	5.96	5.15	4.95	4.04	4.17	3.99	3.73	3.56	3.22	
23	3.25	4.37	4.54	5.59	4.94	5.69	5.14	4.18	3.85	3.77	3.48	3.24	
24	3.37	4.04	4.34	5.18	5.09	4.62	4.51	4.09	3.88	3.75	3.34	3.20	
25	3.41	4.22	4.23	5.45	5.12	4.80	5.02	4.14	3.96	3.85	3.32	3.23	
26	3.40	3.87	4.26	5.00	4.82	5.16	4.56	4.19	3.93	3.83	3.41	3.30	
27	3.55	3.63	4.12	4.73	4.69	4.91	4.64	4.21	3.86	3.71	3.42	3.25	
28	3.71	3.66	4.20	4.82	4.59	4.40	4.70	3.95	3.85	3.58	3.39	3.06	
29	4.37	3.66	4.21	4.88	4.28	4.36	4.25	4.02	3.83	3.62		3.13	
30	6.47	3.67	4.16	5.39	4.19	4.21	4.15	4.36	3.81	3.65		3.16	
31		3.84		5.66	4.76		3.98		3.78	3.59		3.18	
Mean	3.55	4.10	4.79	5.91	5.89	4.63	4.36	5.18	4.31	4.17	3.61	3.24	
Max	6.47	6.28	10.26	10.21	8.01	5.78	5.52	12.01	6.75	8.25	3.89	3.43	12.01
Min	3.13	3.42	3.61	3.83	4.19	3.87	3.78	3.65	3.74	3.58	3.32	3.06	3.06

Annual Max Momentary Gage Height 12.37 m. (MSL.) , at 23.00 Hours , on Nov 9, 2018

Zero Gage at Bottom Elevation 0.00 m. (MSL.) , River Bed 0.27 m. (MSL.)

Left Bank Elevation 11.50 m. (MSL.) ,

Right Bank Elevation 11.80 m. (MSL.) , Drainage Are 1,814 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	25.50	185.60	37.00	46.50	126.00	91.20	50.00	41.50	53.50	31.50	37.00	9.50		
2	21.00	107.40	37.00	40.50	189.10	65.50	48.50	38.00	48.50	35.00	40.50	9.00		
3	17.50	80.40	29.50	37.50	139.40	56.00	48.00	28.50	36.50	33.50	38.50	8.50		
4	14.50	84.00	30.50	46.50	124.20	63.00	53.50	29.50	33.00	29.00	33.50	8.00		
5	13.00	73.80	28.50	73.80	151.30	100.80	78.60	32.50	38.50	53.00	29.50	8.00		
6	11.50	37.00	26.50	63.50	168.10	87.00	79.80	32.00	43.50	359.00	25.50	7.50		
7	9.50	48.50	32.50	72.60	263.60	61.00	133.20	39.00	34.50	278.90	24.50	7.50		
8	53.50	44.50	51.50	66.00	302.30	72.60	102.00	61.00	61.50	112.20	23.50	16.50		
9	52.00	33.00	108.60	54.50	284.30	61.50	102.60	570.80	222.00	63.50	23.00	17.50		
10	22.00	34.00	95.40	62.00	335.00	46.00	72.60	784.00	177.20	55.50	22.50	15.50		
11	15.50	50.00	62.00	230.00	312.20	41.50	59.50	485.90	172.30	43.00	37.00	10.00		
12	13.00	48.00	37.50	367.00	285.20	39.50	49.50	335.00	149.90	44.00	40.50	7.00		
13	14.00	34.50	43.00	419.80	331.00	48.50	46.50	238.00	118.80	42.50	38.50	7.00		
14	8.00	24.00	34.50	450.00	226.00	62.00	48.00	145.70	70.80	43.00	33.50	7.50		
15	5.70	24.00	28.00	368.00	176.50	66.00	45.50	110.40	64.50	41.50	29.50	7.50		
16	4.80	21.50	66.60	313.10	144.30	79.80	56.50	88.80	52.00	40.50	25.50	6.00		
17	4.20	17.00	261.80	213.20	130.20	114.00	42.50	81.60	60.00	33.00	24.50	5.70		
18	3.90	66.00	386.10	351.00	130.20	150.60	38.50	77.40	53.00	42.50	23.50	6.00		
19	4.80	83.40	605.00	319.00	134.40	132.00	35.00	138.70	39.50	82.20	23.00	7.50		
20	13.50	46.00	344.00	245.60	163.90	94.20	55.50	84.60	47.50	52.00	22.50	6.50		
21	19.00	37.00	185.60	207.60	154.10	84.00	58.50	57.50	37.50	32.50	24.50	6.00		
22	14.00	77.40	113.40	163.20	111.00	99.00	48.00	54.50	45.50	32.50	24.00	7.00		
23	8.50	64.50	74.40	137.40	98.40	144.30	110.40	55.00	38.50	34.50	20.00	8.00		
24	14.50	48.00	63.00	112.80	107.40	79.20	72.60	50.50	40.00	33.50	13.00	6.00		
25	16.50	57.00	57.50	129.00	109.20	90.00	103.20	53.00	44.00	38.50	12.00	7.50		
26	16.00	39.50	59.00	102.00	91.20	111.60	75.60	55.50	42.50	37.50	16.50	11.00		
27	23.50	27.50	52.00	85.80	83.40	96.60	80.40	56.50	39.00	31.50	17.00	8.50		
28	31.50	29.00	56.00	91.20	77.40	66.00	84.00	43.50	38.50	25.00	15.50	1.80		
29	64.50	29.00	56.50	94.80	60.00	64.00	58.50	47.00	37.50	27.00		3.90		
30	199.60	29.50	54.00	125.40	55.50	56.50	53.50	64.00	36.50	28.50		4.80		
31		38.00		142.20	87.60		45.00		35.00	25.50		5.40		
Total	735.00	1619.00	3116.90	5231.50	5152.40	2423.90	2035.50	3979.90	2011.50	1861.80	738.50	248.10	29154.00	CMSDAY
Mean	24.50	52.23	103.90	168.76	166.21	80.80	65.66	132.66	64.89	60.06	26.38	8.00	79.87	CMS
Max	199.60	185.60	605.00	450.00	335.00	150.60	133.20	784.00	222.00	359.00	40.50	17.50	784.00	CMS
Min	3.90	17.00	26.50	37.50	55.50	39.50	35.00	28.50	33.00	25.00	12.00	1.80	1.80	CMS
Runoff	63.50	139.88	269.30	452.00	445.17	209.42	175.87	343.86	173.79	160.86	63.81	21.44	2518.91	MCM

Momentary Peak 966.30 CMS. at 12.37 m. (MSL.) at 23.00 Hours , on Nov 9, 2018

Runoff Yield 44.03 Liters/Second/Square KM. Momentary Peak Yield 532.69 Liters/Second/Square KM.

WATER YEAR : 2018

SOUTHERN PENINSULA EAST COAST

Khlong Sao Thong at Ban Sao Thong , Nakhon Si Thammarat (X.167)

Lat 08 - 16 - 44 N Long 99 - 54 - 30 E

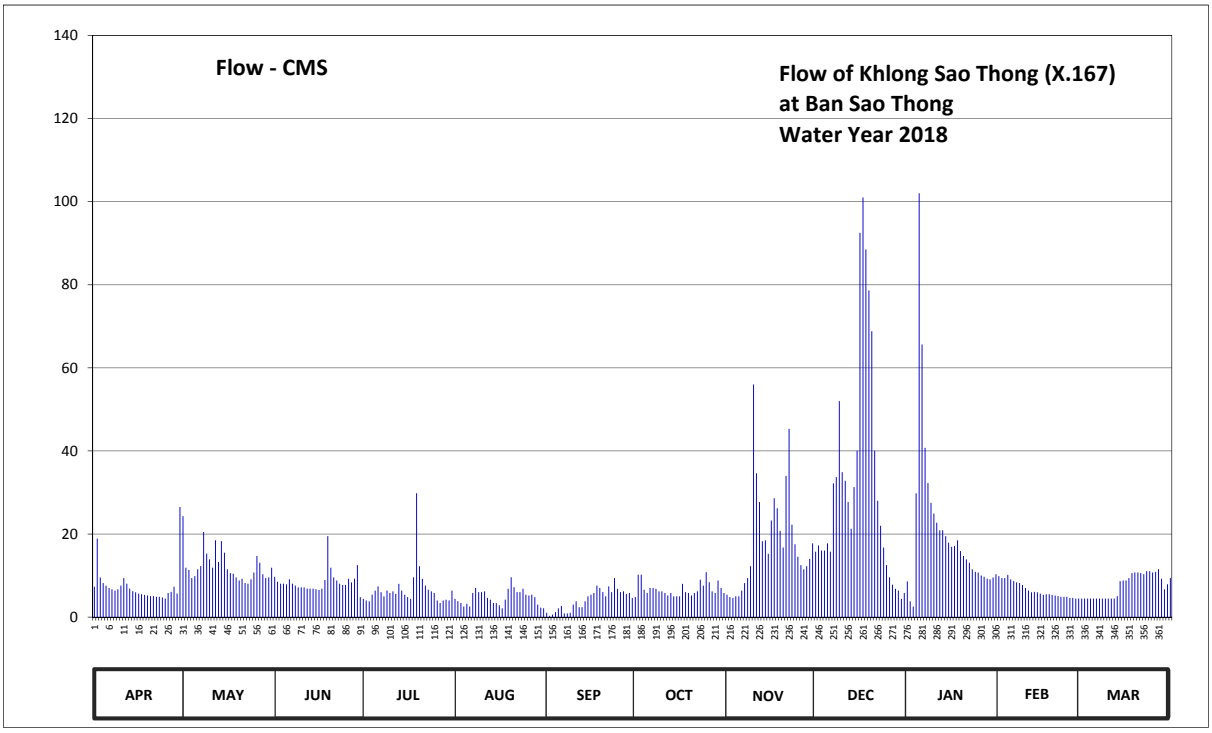
Location : on right bank at the bridge.

	Ban Sao Thong	**Amphoe** Ron Phibun	**Changwat** Nakhon Si Thammar
Drainge Area	252 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank about 4.50 meters from the top staff gage.	**Elevation** +12.456 m. (MSL.)	
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	1986 to date		
Rating Operation			
Period of Rating	1989 to date		
Rated by Flot	-		
Rated by Current Meter	1989 to date		
Stability of Channel Regimes	Stable because of backwater effect.		
Overbank Flow Conditions	Overbank flow starts at elevation + 11.360 m.(MSL.), records are channel flow only.		
General Description	Records good. Stage-discharge relation defined by 23 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2017 to March 31, 2018

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	8.32	9.24	8.48	8.97	8.97	8.77	8.99	9.02	9.49	9.18	8.49	8.13	
2	8.97	8.62	8.40	8.95	8.94	8.72	9.26	8.99	9.55	8.94	8.46	8.13	
3	8.47	8.59	8.37	8.94	8.92	8.74	9.26	8.98	9.50	8.87	8.46	8.13	
4	8.38	8.46	8.37	9.02	8.87	8.78	9.08	9.00	9.50	10.01	8.51	8.13	
5	8.34	8.49	8.36	9.07	8.91	8.84	9.04	9.00	9.57	11.76	8.44	8.13	
6	8.30	8.60	8.44	9.12	8.87	8.88	9.10	9.07	9.49	10.91	8.41	8.13	
7	8.28	8.64	8.37	9.05	9.04	8.76	9.10	9.16	10.09	9.95	8.39	8.13	
8	8.26	9.05	8.34	9.00	9.10	8.76	9.09	9.22	10.14	9.61	8.38	8.13	
9	8.28	8.79	8.31	9.07	9.05	8.77	9.06	9.35	10.65	9.40	8.35	8.13	
10	8.34	8.72	8.31	9.04	9.05	8.90	9.06	10.75	10.18	9.27	8.30	8.13	
11	8.46	8.62	8.31	9.06	9.06	8.94	9.04	10.17	10.11	9.16	8.26	8.13	
12	8.37	8.95	8.29	9.03	8.98	8.86	9.01	9.94	9.94	9.07	8.23	8.13	
13	8.29	8.69	8.29	9.15	8.96	8.86	9.04	9.59	9.71	9.07	8.24	8.17	
14	8.25	8.94	8.29	9.07	8.92	8.94	9.00	9.60	10.06	9.00	8.23	8.41	
15	8.23	8.80	8.28	9.02	8.92	9.00	9.00	9.47	10.33	8.92	8.21	8.42	
16	8.21	8.60	8.27	8.99	8.89	9.02	9.00	9.79	11.57	8.87	8.19	8.42	
17	8.20	8.54	8.29	8.97	8.84	9.04	9.15	9.97	11.74	8.88	8.20	8.46	
18	8.19	8.53	8.43	9.23	8.96	9.13	9.05	9.89	11.49	8.95	8.20	8.54	
19	8.18	8.47	9.00	10.01	9.09	9.10	9.04	9.69	11.28	8.82	8.19	8.55	
20	8.17	8.42	8.62	9.35	9.23	9.05	9.01	9.53	11.06	8.76	8.18	8.55	
21	8.17	8.45	8.47	9.21	9.11	9.00	9.04	10.15	10.33	8.72	8.17	8.54	
22	8.16	8.38	8.42	9.13	9.05	9.12	9.06	10.48	9.95	8.68	8.16	8.52	
23	8.16	8.37	8.37	9.08	9.05	9.05	9.20	9.75	9.74	8.60	8.16	8.57	
24	8.15	8.44	8.35	9.06	9.09	9.22	9.13	9.56	9.53	8.56	8.16	8.57	
25	8.13	8.55	8.35	9.04	9.02	9.09	9.29	9.44	9.36	8.55	8.14	8.55	
26	8.22	8.76	8.45	8.95	9.01	9.05	9.17	9.36	9.23	8.50	8.14	8.56	
27	8.24	8.68	8.39	8.92	9.02	9.06	9.06	9.32	9.14	8.48	8.13	8.60	
28	8.32	8.52	8.45	8.95	8.99	9.03	9.04	9.35	9.09	8.45	8.13	8.45	
29	8.21	8.46	8.65	8.96	8.90	9.04	9.19	9.42	9.07	8.44		8.28	
30	9.35	8.47	8.99	8.95	8.85	8.98	9.10	9.57	8.97	8.47		8.36	
31		8.62		9.07	8.84		9.04		9.04	8.52		8.46	
Mean	8.32	8.63	8.42	9.08	8.98	8.95	9.09	9.55	9.96	9.08	8.27	8.34	
Max	9.35	9.24	9.00	10.01	9.23	9.22	9.29	10.75	11.74	11.76	8.51	8.60	11.76
Min	8.13	8.37	8.27	8.92	8.84	8.72	8.99	8.98	8.97	8.44	8.13	8.13	8.13

Annual Max Momentary Gage Height	11.80	m. (MSL.) ,	at 09.00 Hours , on Jan 5, 2019		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	7.08	m. (MSL.)
Left Bank Elevation	11.35	m. (MSL.) ,			
Right Bank Elevation	11.66	m. (MSL.) ,	Drainage Are	252	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	7.30	24.30	9.70	4.40	4.40	1.05	4.80	5.40	15.75	8.60	9.85	4.45		
2	18.90	11.90	8.50	4.00	3.80	0.30	10.20	4.80	17.25	3.80	9.40	4.45		
3	9.55	11.35	8.05	3.80	3.40	0.60	10.20	4.60	16.00	2.55	9.40	4.45		
4	8.20	9.40	8.05	5.40	2.55	1.20	6.60	5.00	16.00	29.80	10.15	4.45		
5	7.60	9.85	7.90	6.40	3.20	2.10	5.80	5.00	17.75	102.00	9.10	4.45		
6	7.00	11.50	9.10	7.40	2.55	2.70	7.00	6.40	15.75	65.63	8.65	4.45		
7	6.70	12.30	8.05	6.00	5.80	0.90	7.00	8.20	32.20	40.75	8.35	4.45		
8	6.40	20.50	7.60	5.00	7.00	0.90	6.80	9.40	33.70	32.25	8.20	4.45		
9	6.70	15.30	7.15	6.40	6.00	1.05	6.20	12.25	52.00	27.50	7.75	4.45		
10	7.60	13.90	7.15	5.80	6.00	3.00	6.20	56.00	34.90	24.90	7.00	4.45		
11	9.40	11.90	7.15	6.20	6.20	3.80	5.80	34.60	32.80	22.70	6.40	4.45		
12	8.05	18.50	6.85	5.60	4.60	2.40	5.20	27.70	27.70	20.90	5.95	4.45		
13	6.85	13.30	6.85	8.00	4.20	2.40	5.80	18.25	21.25	20.90	6.10	5.05		
14	6.25	18.30	6.85	6.40	3.40	3.80	5.00	18.50	31.30	19.50	5.95	8.65		
15	5.95	15.50	6.70	5.40	3.40	5.00	5.00	15.25	40.05	17.90	5.65	8.80		
16	5.65	11.50	6.55	4.80	2.85	5.40	5.00	23.25	92.50	16.90	5.35	8.80		
17	5.50	10.60	6.85	4.40	2.10	5.80	8.00	28.60	101.00	17.10	5.50	9.40		
18	5.35	10.45	8.95	9.60	4.20	7.60	6.00	26.20	88.51	18.50	5.50	10.60		
19	5.20	9.55	19.50	29.80	6.80	7.00	5.80	20.75	78.65	15.90	5.35	10.75		
20	5.05	8.80	11.90	12.25	9.60	6.00	5.20	16.75	68.83	14.70	5.20	10.75		
21	5.05	9.25	9.55	9.20	7.20	5.00	5.80	34.00	40.05	13.90	5.05	10.60		
22	4.90	8.20	8.80	7.60	6.00	7.40	6.20	45.30	28.00	13.10	4.90	10.30		
23	4.90	8.05	8.05	6.60	6.00	6.00	9.00	22.25	22.00	11.50	4.90	11.05		
24	4.75	9.10	7.75	6.20	6.80	9.40	7.60	17.50	16.75	10.90	4.90	11.05		
25	4.45	10.75	7.75	5.80	5.40	6.80	10.80	14.50	12.50	10.75	4.60	10.75		
26	5.80	14.70	9.25	4.00	5.20	6.00	8.40	12.50	9.60	10.00	4.60	10.90		
27	6.10	13.10	8.35	3.40	5.40	6.20	6.20	11.50	7.80	9.70	4.45	11.50		
28	7.30	10.30	9.25	4.00	4.80	5.60	5.80	12.25	6.80	9.25	4.45	9.25		
29	5.65	9.40	12.50	4.20	3.00	5.80	8.80	14.00	6.40	9.10		6.70		
30	26.50	9.55	4.80	4.00	2.25	4.60	7.00	17.75	4.40	9.55		7.90		
31		11.90		6.40	2.10		5.80		5.80	10.30		9.40		
Total	224.60	383.00	255.45	208.45	146.20	125.80	209.00	548.45	993.99	640.83	182.65	235.60	4154.02	CMSDAY
Mean	7.49	12.35	8.52	6.72	4.72	4.19	6.74	18.28	32.06	20.67	6.52	7.60	11.38	CMS
Max	26.50	24.30	19.50	29.80	9.60	9.40	10.80	56.00	101.00	102.00	10.15	11.50	102.00	CMS
Min	4.45	8.05	4.80	3.40	2.10	0.30	4.80	4.60	4.40	2.55	4.45	4.45	0.30	CMS
Runoff	19.41	33.09	22.07	18.01	12.63	10.87	18.06	47.39	85.88	55.37	15.78	20.36	358.91	MCM

Momentary Peak 104.00 CMS. at 11.80 m. (MSL.) at 09.00 Hours , on Jan 5, 2019

Runoff Yield 45.16 Liters/Second/Square KM. Momentary Peak Yield 412.70 Liters/Second/Square KM.

WATER YEAR : 2018

SOUTHERN PENINSULA EAST COAST

Khlong Tha Taphao at Mueang , Chumphon (X.180)

Lat 10 - 29 - 42 N Long 99 - 10 - 23 E

Location : on left bank at the bridge.

	Ban -	**Amphoe**	Mueang	**Changwat**	Chumphon
Drainge Area	2,045 sq.km.				
Type of Gage	Water - stage recorder				
Zero Gage at Bottom	+0.000 m. (MSL.)				
Bench Mark	B.M.-H.D.				
Location BM	On left bank at the abutment of the bridge.			**Elevation**	+5.896 m. (MSL.)
Gage Reading Frequency	Recording				
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings				
Period of Available Gage Records	1995 to date				
Rating Operation					
Period of Rating	1995 to date				
Rated by Flot	-				
Rated by Current Meter	1995 to date				
Stability of Channel Regimes	Stable because of backwater effect.				
Overbank Flow Conditions	Overbank flow starts at elevation + 3.810 m.(MSL.), records are channel flow only.				
General Description	Records very good. Stage-discharge relation defined by 27 discharge measurements made in 2018.				

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

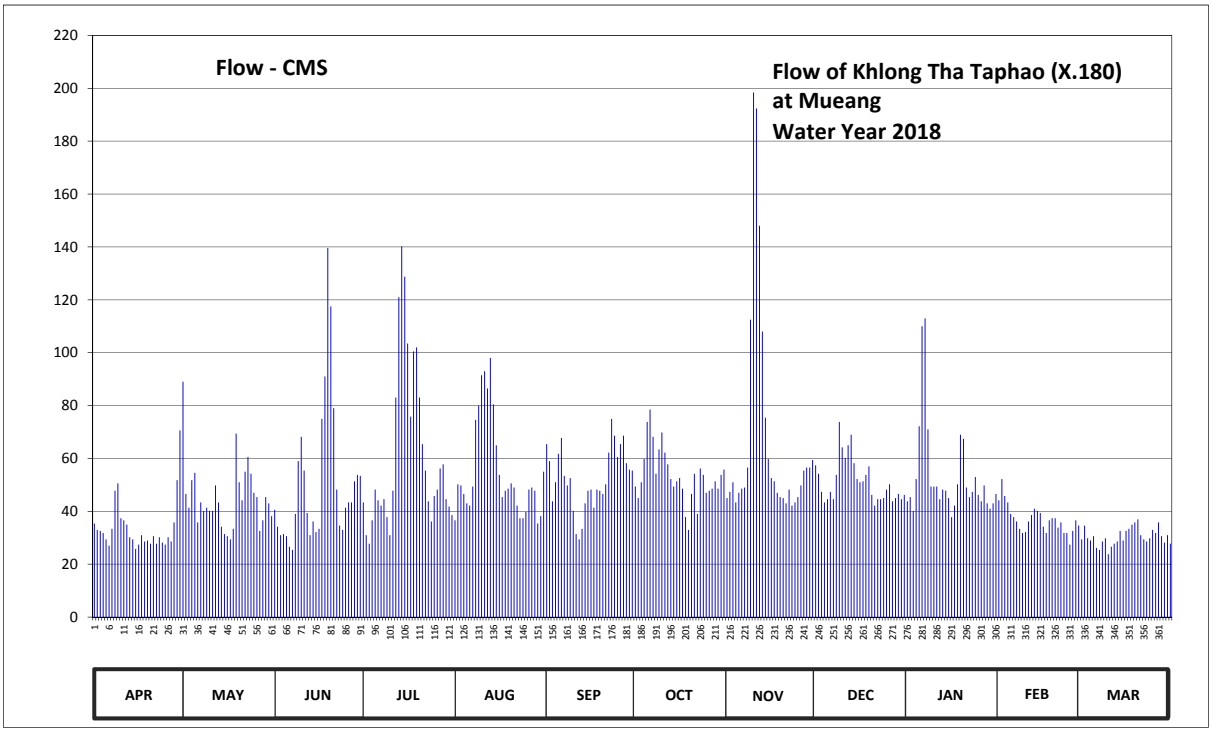
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.56	1.84	0.69	0.76	0.59	1.31	0.91	0.80	1.11	0.77	0.78	0.41	
2	0.50	0.84	0.53	0.45	0.93	1.15	0.80	0.86	1.03	0.81	0.98	0.54	
3	0.49	0.71	0.45	0.37	0.92	0.77	0.95	0.95	0.86	0.68	0.82	0.42	
4	0.47	0.97	0.46	0.59	0.84	0.95	1.17	0.76	0.76	0.98	0.76	0.40	
5	0.41	1.04	0.44	0.88	0.75	1.22	1.52	0.85	0.79	1.48	0.65	0.44	
6	0.35	0.57	0.34	0.78	0.73	1.37	1.63	0.89	0.86	2.26	0.62	0.33	
7	0.51	0.76	0.31	0.73	0.91	1.01	1.38	0.90	0.79	2.32	0.58	0.31	
8	0.87	0.68	0.65	0.79	1.54	0.92	1.03	1.09	1.02	1.45	0.51	0.39	
9	0.94	0.71	1.15	0.62	1.66	0.99	1.26	2.31	1.52	0.91	0.47	0.42	
10	0.61	0.68	1.38	0.45	1.89	0.68	1.42	3.79	1.28	0.91	0.48	0.27	
11	0.59	0.68	1.06	0.87	1.92	0.46	1.23	3.69	1.18	0.91	0.58	0.34	
12	0.55	0.92	0.66	1.72	1.79	0.41	1.12	2.95	1.30	0.79	0.64	0.37	
13	0.43	0.76	0.45	2.48	2.02	0.51	0.98	2.22	1.40	0.88	0.70	0.39	
14	0.41	0.53	0.58	2.82	1.67	0.75	0.91	1.56	1.13	0.87	0.68	0.49	
15	0.32	0.46	0.48	2.63	1.30	0.87	0.96	1.17	0.98	0.80	0.66	0.40	
16	0.36	0.44	0.51	2.13	1.02	0.88	0.99	0.99	0.95	0.62	0.53	0.49	
17	0.45	0.41	1.55	1.57	0.81	0.71	0.89	0.96	0.96	0.73	0.47	0.51	
18	0.39	0.51	1.88	2.07	0.87	0.88	0.62	0.85	1.02	0.93	0.59	0.55	
19	0.40	1.41	2.81	2.10	0.89	0.87	0.50	0.81	1.10	1.40	0.61	0.57	
20	0.37	0.95	2.41	1.72	0.94	0.84	0.84	0.80	0.83	1.36	0.61	0.60	
21	0.44	0.78	1.64	1.31	0.90	0.93	1.03	0.75	0.73	0.90	0.52	0.45	
22	0.37	1.05	0.88	1.06	0.73	1.23	0.65	0.88	0.79	0.81	0.57	0.41	
23	0.43	1.19	0.54	0.77	0.61	1.55	1.08	0.73	0.79	0.86	0.47	0.39	
24	0.38	1.03	0.50	0.58	0.61	1.39	1.02	0.76	0.80	1.00	0.47	0.42	
25	0.36	0.85	0.71	0.82	0.67	1.19	0.85	0.81	0.88	0.83	0.36	0.50	
26	0.43	0.81	0.76	0.88	0.88	1.31	0.87	0.92	0.93	0.77	0.49	0.47	
27	0.39	0.49	0.76	1.08	0.90	1.39	0.89	1.06	0.77	0.92	0.59	0.57	
28	0.57	0.59	0.96	1.12	0.87	1.13	0.96	1.09	0.80	0.75	0.54	0.44	
29	0.97	0.81	1.02	0.79	0.56	1.07	0.89	1.09	0.84	0.70		0.38	
30	1.44	0.75	1.01	0.72	0.63	1.06	1.02	1.16	0.79	0.75		0.45	
31		0.63		0.64	1.05		1.07		0.83	0.84		0.37	
Mean	0.53	0.80	0.92	1.17	1.05	0.99	1.01	1.28	0.96	1.00	0.60	0.44	
Max	1.44	1.84	2.81	2.82	2.02	1.55	1.63	3.79	1.52	2.32	0.98	0.60	3.79
Min	0.32	0.41	0.31	0.37	0.56	0.41	0.50	0.73	0.73	0.62	0.36	0.27	0.27

Annual Max Momentary Gage Height 4.11 m. (MSL.) , at 21.00 Hours , on Nov 10, 2018

Zero Gage at Bottom Elevation 0.00 m. (MSL.) , River Bed -5.20 m. (MSL.)

Left Bank Elevation 3.80 m. (MSL.) ,

Right Bank Elevation 3.90 m. (MSL.) , Drainage Are 2,045 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	35.40	89.00	40.60	43.40	36.60	65.40	49.40	45.00	57.40	43.80	44.20	29.40		
2	33.00	46.60	34.20	31.00	50.20	59.00	45.00	47.40	54.20	45.40	52.20	34.60		
3	32.60	41.40	31.00	27.80	49.80	43.80	51.00	51.00	47.40	40.20	45.80	29.80		
4	31.80	51.80	31.40	36.60	46.60	51.00	59.80	43.40	43.40	52.20	43.40	29.00		
5	29.40	54.60	30.60	48.20	43.00	61.80	73.80	47.00	44.60	72.20	39.00	30.60		
6	27.00	35.80	26.60	44.20	42.20	67.80	78.50	48.60	47.40	110.00	37.80	26.20		
7	33.40	43.40	25.40	42.20	49.40	53.40	68.20	49.00	44.60	113.00	36.20	25.40		
8	47.80	40.20	39.00	44.60	74.60	49.80	54.20	56.60	53.80	71.00	33.40	28.60		
9	50.60	41.40	59.00	37.80	80.00	52.60	63.40	112.50	73.80	49.40	31.80	29.80		
10	37.40	40.20	68.20	31.00	91.50	40.20	69.80	198.40	64.20	49.40	32.20	23.80		
11	36.60	40.20	55.40	47.80	93.00	31.40	62.20	192.40	60.20	49.40	36.20	26.60		
12	35.00	49.80	39.40	83.00	86.50	29.40	57.80	148.00	65.00	44.60	38.60	27.80		
13	30.20	43.40	31.00	121.00	98.00	33.40	52.20	108.00	69.00	48.20	41.00	28.60		
14	29.40	34.20	36.20	140.20	80.50	43.00	49.40	75.40	58.20	47.80	40.20	32.60		
15	25.80	31.40	32.20	128.80	65.00	47.80	51.40	59.80	52.20	45.00	39.40	29.00		
16	27.40	30.60	33.40	103.50	53.80	48.20	52.60	52.60	51.00	37.80	34.20	32.60		
17	31.00	29.40	75.00	75.80	45.40	41.40	48.60	51.40	51.40	42.20	31.80	33.40		
18	28.60	33.40	91.00	100.50	47.80	48.20	37.80	47.00	53.80	50.20	36.60	35.00		
19	29.00	69.40	139.60	102.00	48.60	47.80	33.00	45.40	57.00	69.00	37.40	35.80		
20	27.80	51.00	117.50	83.00	50.60	46.60	46.60	45.00	46.20	67.40	37.40	37.00		
21	30.60	44.20	79.00	65.40	49.00	50.20	54.20	43.00	42.20	49.00	33.80	31.00		
22	27.80	55.00	48.20	55.40	42.20	62.20	39.00	48.20	44.60	45.40	35.80	29.40		
23	30.20	60.60	34.60	43.80	37.40	75.00	56.20	42.20	44.60	47.40	31.80	28.60		
24	28.20	54.20	33.00	36.20	37.40	68.60	53.80	43.40	45.00	53.00	31.80	29.80		
25	27.40	47.00	41.40	45.80	39.80	60.60	47.00	45.40	48.20	46.20	27.40	33.00		
26	30.20	45.40	43.40	48.20	48.20	65.40	47.80	49.80	50.20	43.80	32.60	31.80		
27	28.60	32.60	43.40	56.20	49.00	68.60	48.60	55.40	43.80	49.80	36.60	35.80		
28	35.80	36.60	51.40	57.80	47.80	58.20	51.40	56.60	45.00	43.00	34.60	30.60		
29	51.80	45.40	53.80	44.60	35.40	55.80	48.60	56.60	46.60	41.00		28.20		
30	70.60	43.00	53.40	41.80	38.20	55.40	53.80	59.40	44.60	43.00		31.00		
31		38.20		38.60	55.00		55.80		46.20	46.60		27.80		
Total	1020.40	1399.40	1518.30	1906.20	1712.50	1582.00	1660.90	2023.90	1595.80	1656.40	1033.20	942.60	18051.60	CMSDAY
Mean	34.01	45.14	50.61	61.49	55.24	52.73	53.58	67.46	51.48	53.43	36.90	30.41	49.46	CMS
Max	70.60	89.00	139.60	140.20	98.00	75.00	78.50	198.40	73.80	113.00	52.20	37.00	198.40	CMS
Min	25.80	29.40	25.40	27.80	35.40	29.40	33.00	42.20	42.20	37.80	27.40	23.80	23.80	CMS
Runoff	88.16	120.91	131.18	164.70	147.96	136.68	143.50	174.86	137.88	143.11	89.27	81.44	1559.66	MCM

Momentary Peak 217.60 CMS. at 4.11 m. (MSL.) at 21.00 Hours , on Nov 10, 2018

Runoff Yield 24.18 Liters/Second/Square KM. Momentary Peak Yield 106.41 Liters/Second/Square KM.

WATER YEAR : 2018

SOUTHERN PENINSULA EAST COAST

Upper Khlong Thadee at Ban Wang Sai , Nakhon Si Thammarat (X.200)

Lat 08 - 24 - 32 N Long 99 - 47 - 54 E

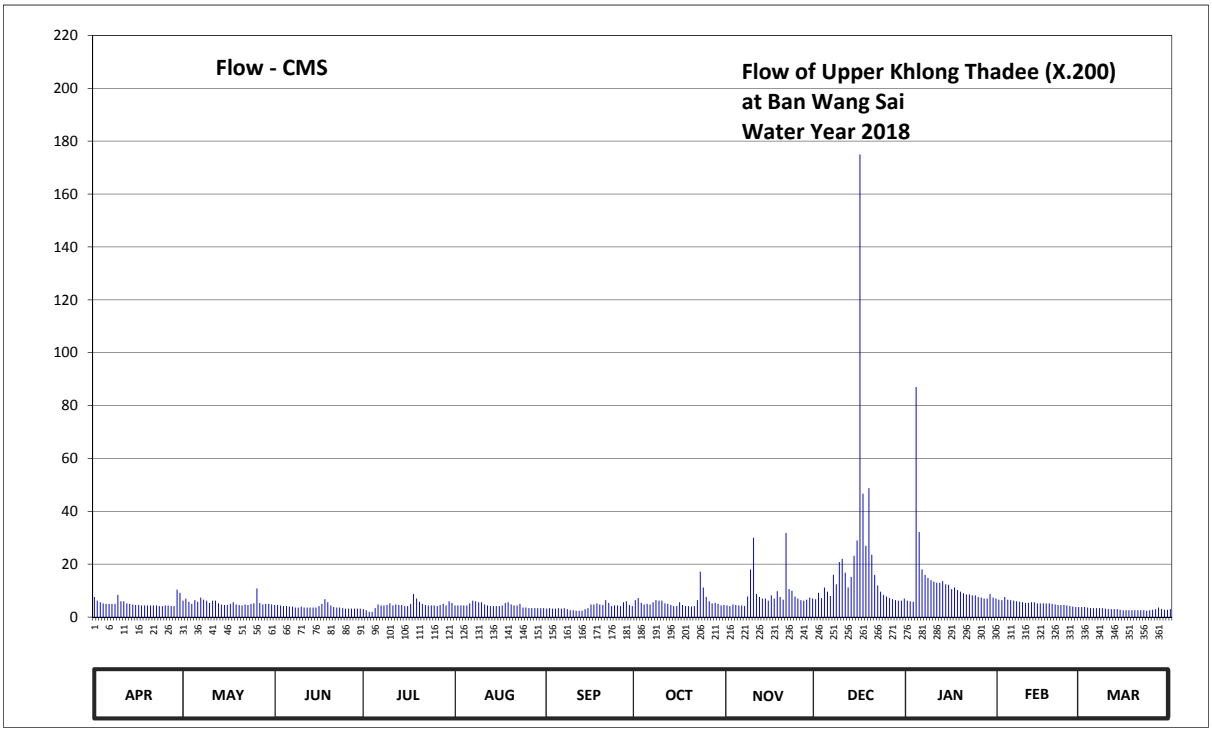
Location : on right bank at Ban Wang Sai.

	Ban Wang Sai	**Amphoe** Lan Saka	**Changwat** Nakhon Si Thammar
Drainge Area	83 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank near the gage site.		**Elevation** +36.394 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	2006 to date		
Rating Operation			
Period of Rating	2006 to date		
Rated by Flot	-		
Rated by Current Meter	2006 to date		
Stability of Channel Regimes	Fairly stable because of backwater effect.		
Overbank Flow Conditions	Overbank flow starts at elevation + 34.800 m.(MSL.), records are channel flow only.		
General Description	Records fair. Stage-discharge relation defined by 25 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	31.68	31.61	31.53	31.45	31.52	31.46	31.62	31.52	31.64	31.61	31.68	31.54	
2	31.61	31.65	31.53	31.43	31.52	31.47	31.66	31.51	31.73	31.60	31.67	31.54	
3	31.58	31.59	31.52	31.40	31.52	31.46	31.57	31.54	31.66	31.59	31.73	31.53	
4	31.56	31.55	31.51	31.40	31.52	31.46	31.54	31.53	31.78	33.02	31.68	31.52	
5	31.55	31.62	31.51	31.47	31.52	31.47	31.55	31.52	31.74	32.63	31.67	31.52	
6	31.55	31.59	31.50	31.54	31.56	31.46	31.54	31.52	31.70	32.25	31.66	31.52	
7	31.55	31.67	31.50	31.52	31.61	31.47	31.58	31.51	31.90	32.15	31.65	31.52	
8	31.55	31.63	31.48	31.52	31.60	31.45	31.62	31.69	31.81	32.09	31.64	31.52	
9	31.71	31.61	31.48	31.53	31.58	31.43	31.61	31.95	32.02	32.05	31.63	31.51	
10	31.60	31.57	31.50	31.56	31.58	31.43	31.61	32.22	32.05	32.02	31.62	31.50	
11	31.60	31.61	31.48	31.52	31.54	31.42	31.56	31.79	31.92	32.00	31.62	31.50	
12	31.56	31.61	31.48	31.54	31.52	31.42	31.55	31.73	31.78	32.00	31.63	31.50	
13	31.55	31.56	31.48	31.53	31.51	31.42	31.53	31.70	31.88	32.03	31.63	31.50	
14	31.54	31.54	31.48	31.53	31.51	31.45	31.51	31.70	32.08	31.97	31.61	31.49	
15	31.53	31.53	31.48	31.51	31.51	31.47	31.51	31.66	32.20	31.96	31.61	31.48	
16	31.53	31.53	31.51	31.51	31.51	31.54	31.58	31.76	33.80	31.88	31.61	31.48	
17	31.52	31.55	31.55	31.55	31.52	31.54	31.53	31.70	32.51	31.91	31.61	31.48	
18	31.52	31.58	31.64	31.72	31.57	31.56	31.51	31.84	32.16	31.86	31.61	31.48	
19	31.52	31.54	31.58	31.65	31.58	31.54	31.51	31.73	32.54	31.83	31.60	31.48	
20	31.52	31.53	31.52	31.59	31.54	31.53	31.50	31.68	32.09	31.80	31.59	31.48	
21	31.52	31.52	31.49	31.55	31.52	31.62	31.51	32.62	31.90	31.78	31.58	31.48	
22	31.52	31.54	31.48	31.53	31.52	31.57	31.62	31.88	31.80	31.78	31.58	31.48	
23	31.51	31.53	31.48	31.52	31.55	31.51	31.93	31.75	31.74	31.76	31.58	31.47	
24	31.51	31.55	31.47	31.52	31.48	31.52	31.78	31.69	31.71	31.76	31.57	31.48	
25	31.52	31.56	31.46	31.52	31.48	31.52	31.68	31.65	31.69	31.73	31.56	31.49	
26	31.52	31.77	31.46	31.51	31.47	31.51	31.60	31.62	31.66	31.72	31.55	31.50	
27	31.51	31.57	31.46	31.53	31.47	31.58	31.56	31.61	31.64	31.70	31.54	31.53	
28	31.51	31.54	31.46	31.55	31.47	31.60	31.57	31.63	31.62	31.70	31.54	31.50	
29	31.76	31.55	31.46	31.52	31.47	31.53	31.55	31.67	31.61	31.79		31.49	
30	31.73	31.55	31.46	31.60	31.47	31.51	31.52	31.65	31.61	31.72		31.49	
31		31.54		31.57	31.47		31.53		31.65	31.70		31.50	
Mean	31.56	31.58	31.50	31.53	31.52	31.50	31.58	31.72	31.92	31.92	31.62	31.50	
Max	31.76	31.77	31.64	31.72	31.61	31.62	31.93	32.62	33.80	33.02	31.73	31.54	33.80
Min	31.51	31.52	31.46	31.40	31.47	31.42	31.50	31.51	31.61	31.59	31.54	31.47	31.40

Annual Max Momentary Gage Height	35.65	m. (MSL.) ,	at 20.00 Hours , on Jan 4, 2019		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	29.93	m. (MSL.)
Left Bank Elevation	34.79	m. (MSL.) ,			
Right Bank Elevation	35.06	m. (MSL.) ,	Drainage Are	83	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	7.60	6.20	4.60	3.00	4.40	3.20	6.40	4.40	6.80	6.20	6.60	3.80		
2	6.20	7.00	4.60	2.60	4.40	3.40	7.20	4.20	9.20	6.00	6.40	3.80		
3	5.60	5.80	4.40	2.00	4.40	3.20	5.40	4.80	7.20	5.80	7.60	3.60		
4	5.20	5.00	4.20	2.00	4.40	3.20	4.80	4.60	11.20	87.00	6.60	3.40		
5	5.00	6.40	4.20	3.40	4.40	3.40	5.00	4.40	9.60	32.20	6.40	3.40		
6	5.00	5.80	4.00	4.80	5.20	3.20	4.80	4.40	8.00	18.00	6.20	3.40		
7	5.00	7.40	4.00	4.40	6.20	3.40	5.60	4.20	16.00	16.00	6.00	3.40		
8	5.00	6.60	3.60	4.40	6.00	3.00	6.40	7.80	12.40	14.80	5.80	3.40		
9	8.40	6.20	3.60	4.60	5.60	2.60	6.20	18.00	20.80	14.00	5.60	3.20		
10	6.00	5.40	4.00	5.20	5.60	2.60	6.20	30.00	22.00	13.40	5.40	3.00		
11	6.00	6.20	3.60	4.40	4.80	2.40	5.20	8.80	16.80	13.00	5.40	3.00		
12	5.20	6.20	3.60	4.80	4.40	2.40	5.00	7.60	11.20	13.00	5.60	3.00		
13	5.00	5.20	3.60	4.60	4.20	2.40	4.60	7.00	15.20	13.60	5.60	3.00		
14	4.80	4.80	3.60	4.60	4.20	3.00	4.20	7.00	23.20	12.40	5.20	2.80		
15	4.60	4.60	3.60	4.20	4.20	3.40	4.20	6.20	29.00	12.20	5.20	2.60		
16	4.60	4.60	4.20	4.20	4.20	4.80	5.60	8.20	175.00	10.60	5.20	2.60		
17	4.40	5.00	5.00	5.00	4.40	4.80	4.60	7.00	46.70	11.20	5.20	2.60		
18	4.40	5.60	6.80	8.80	5.40	5.20	4.20	9.80	27.00	10.20	5.20	2.60		
19	4.40	4.80	5.60	7.00	5.60	4.80	4.20	7.60	48.80	9.60	5.00	2.60		
20	4.40	4.60	4.40	5.80	4.80	4.60	4.00	6.60	23.60	9.00	4.80	2.60		
21	4.40	4.40	3.80	5.00	4.40	6.40	4.20	31.80	16.00	8.60	4.60	2.60		
22	4.40	4.80	3.60	4.60	4.40	5.40	6.40	10.60	12.00	8.60	4.60	2.60		
23	4.20	4.60	3.60	4.40	5.00	4.20	17.20	10.00	9.60	8.20	4.60	2.40		
24	4.20	5.00	3.40	4.40	3.60	4.40	11.20	7.80	8.40	8.20	4.40	2.60		
25	4.40	5.20	3.20	4.40	3.60	4.40	7.60	7.00	7.80	7.60	4.20	2.80		
26	4.40	10.80	3.20	4.20	3.40	4.20	6.00	6.40	7.20	7.40	4.00	3.00		
27	4.20	5.40	3.20	4.60	3.40	5.60	5.20	6.20	6.80	7.00	3.80	3.60		
28	4.20	4.80	3.20	5.00	3.40	6.00	5.40	6.60	6.40	7.00	3.80	3.00		
29	10.40	5.00	3.20	4.40	3.40	4.60	5.00	7.40	6.20	8.80		2.80		
30	9.20	5.00	3.20	6.00	3.40	4.20	4.40	7.00	6.20	7.40		2.80		
31		4.80		5.40	3.40		4.60		7.00	7.00		3.00		
Total	160.80	173.20	118.80	142.20	138.20	118.40	181.00	263.40	633.30	414.00	149.00	93.00	2585.30	CMSDAY
Mean	5.36	5.59	3.96	4.59	4.46	3.95	5.84	8.78	20.43	13.35	5.32	3.00	7.08	CMS
Max	10.40	10.80	6.80	8.80	6.20	6.40	17.20	31.80	175.00	87.00	7.60	3.80	175.00	CMS
Min	4.20	4.40	3.20	2.00	3.40	2.40	4.00	4.20	6.20	5.80	3.80	2.40	2.00	CMS
Runoff	13.89	14.96	10.26	12.29	11.94	10.23	15.64	22.76	54.72	35.77	12.87	8.04	223.37	MCM

Momentary Peak 539.50 CMS. at 35.65 m. (MSL.) at 20.00 Hours , on Jan 4, 2019

Runoff Yield 85.33 Liters/Second/Square KM. Momentary Peak Yield 6499.22 Liters/Second/Square KM.

WATER YEAR : 2018

SOUTHERN PENINSULA EAST COAST

Upper Khlong Chumphon at Ban Tha Mai Lai , Chumphon (X.201A)

Lat 10 - 30 - 12 N Long 98 - 57 - 52 E

Location : on right bank at the bridge.

	Ban Tha Mai Lai	**Amphoe** Mueang	**Changwat** Chumphon
Drainge Area	133 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+36.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank at the abutment of the bridge.		**Elevation** +42.715 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	2009 to date		
Rating Operation			
Period of Rating	2009 to date		
Rated by Flot	-		
Rated by Current Meter	2009 to date		
Stability of Channel Regimes	Fairly stable because of backwater effect.		
Overbank Flow Conditions	Overbank flow starts at elevation + 41.000 m.(MSL.), records are channel flow only.		
General Description	Records fair. Stage-discharge relation defined by 21 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

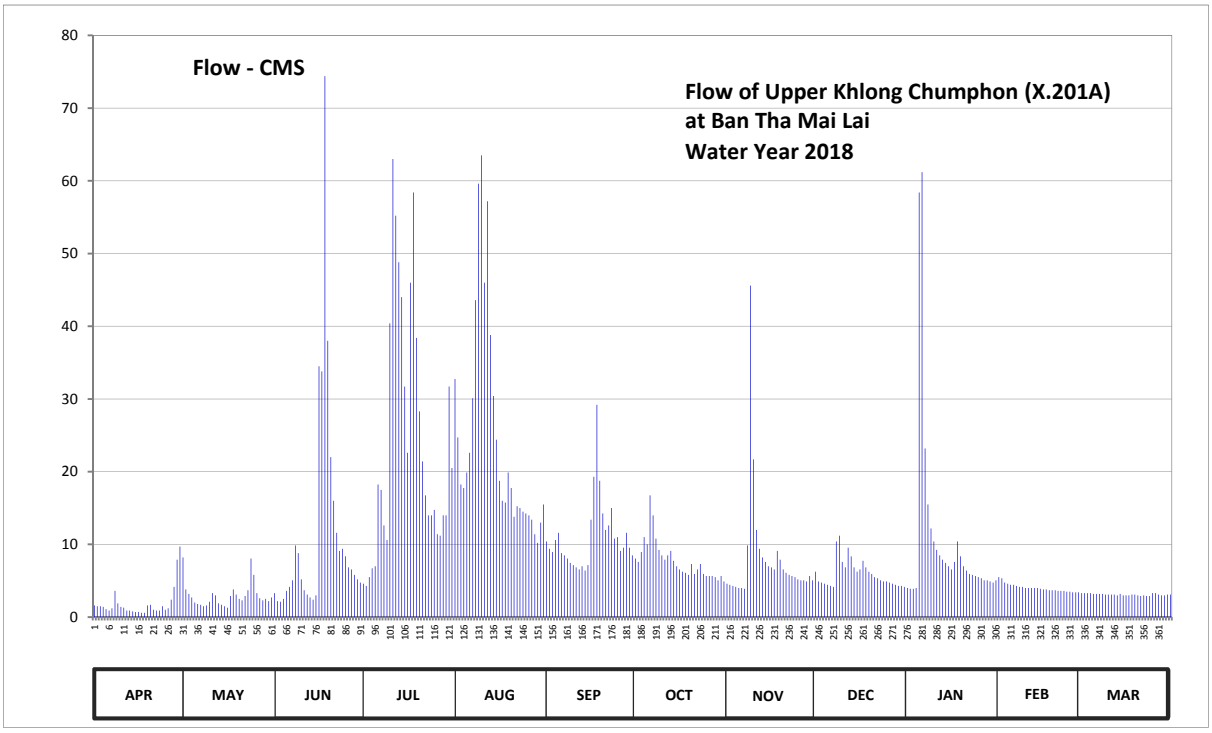
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	37.16	37.68	37.33	37.44	38.65	37.82	37.67	37.44	37.55	37.40	37.50	37.33	
2	37.15	37.38	37.22	37.42	38.39	37.76	37.64	37.43	37.46	37.39	37.49	37.33	
3	37.15	37.32	37.21	37.50	38.17	37.73	37.73	37.42	37.45	37.39	37.45	37.33	
4	37.14	37.27	37.25	37.58	38.15	37.83	37.85	37.41	37.44	37.40	37.44	37.33	
5	37.11	37.20	37.36	37.60	38.23	37.88	37.80	37.40	37.43	39.31	37.43	37.32	
6	37.09	37.18	37.41	38.17	38.32	37.72	38.11	37.40	37.42	39.38	37.43	37.32	
7	37.12	37.17	37.47	38.14	38.57	37.70	38.00	37.39	37.41	38.34	37.42	37.32	
8	37.36	37.15	37.79	37.93	38.94	37.67	37.84	37.79	37.82	38.06	37.41	37.32	
9	37.19	37.16	37.72	37.83	39.34	37.63	37.75	38.99	37.86	37.91	37.41	37.31	
10	37.14	37.21	37.48	38.86	39.43	37.61	37.70	38.29	37.64	37.82	37.40	37.31	
11	37.13	37.33	37.37	39.42	39.00	37.59	37.66	37.90	37.59	37.75	37.40	37.31	
12	37.09	37.30	37.31	39.23	39.28	37.57	37.70	37.76	37.77	37.70	37.40	37.31	
13	37.09	37.19	37.27	39.07	38.82	37.60	37.74	37.68	37.69	37.66	37.40	37.30	
14	37.08	37.17	37.24	38.95	38.58	37.56	37.65	37.64	37.59	37.63	37.40	37.32	
15	37.07	37.15	37.30	38.62	38.38	37.61	37.60	37.60	37.55	37.60	37.39	37.30	
16	37.07	37.13	38.70	38.32	38.19	37.97	37.57	37.59	37.57	37.57	37.38	37.30	
17	37.06	37.29	38.68	39.00	38.08	38.21	37.55	37.57	37.65	37.64	37.38	37.30	
18	37.06	37.38	39.64	39.31	38.07	38.54	37.54	37.74	37.59	37.82	37.37	37.31	
19	37.16	37.31	38.80	38.81	38.23	38.19	37.52	37.66	37.55	37.69	37.37	37.31	
20	37.17	37.25	38.30	38.51	38.15	38.01	37.62	37.57	37.53	37.60	37.37	37.30	
21	37.10	37.23	38.08	38.28	37.99	37.90	37.53	37.54	37.50	37.56	37.36	37.29	
22	37.09	37.29	37.88	38.11	38.05	37.93	37.57	37.52	37.49	37.53	37.36	37.30	
23	37.09	37.37	37.74	38.00	38.04	38.04	37.62	37.51	37.47	37.52	37.36	37.29	
24	37.15	37.67	37.76	38.00	38.02	37.84	37.53	37.50	37.46	37.51	37.35	37.29	
25	37.10	37.52	37.69	38.03	38.01	37.85	37.51	37.48	37.46	37.50	37.35	37.33	
26	37.12	37.33	37.59	37.87	38.00	37.74	37.51	37.47	37.45	37.49	37.34	37.33	
27	37.24	37.26	37.57	37.86	37.97	37.77	37.51	37.47	37.44	37.47	37.34	37.31	
28	37.41	37.23	37.52	38.00	37.87	37.88	37.50	37.46	37.43	37.47	37.34	37.30	
29	37.66	37.25	37.48	38.00	37.81	37.77	37.47	37.51	37.42	37.46		37.30	
30	37.78	37.22	37.45	38.62	37.95	37.70	37.51	37.47	37.42	37.45		37.31	
31		37.27		38.25	38.06		37.46		37.41	37.47		37.31	
Mean	37.18	37.29	37.72	38.28	38.35	37.82	37.64	37.62	37.53	37.73	37.39	37.31	
Max	37.78	37.68	39.64	39.42	39.43	38.54	38.11	38.99	37.86	39.38	37.50	37.33	39.64
Min	37.06	37.13	37.21	37.42	37.81	37.56	37.46	37.39	37.41	37.39	37.34	37.29	37.06

Annual Max Momentary Gage Height 42.91 m. (MSL.) , at 16.00 Hours , on Jan 5, 2019

Zero Gage at Bottom Elevation 36.00 m. (MSL.) , River Bed 36.06 m. (MSL.)

Left Bank Elevation 41.02 m. (MSL.) ,

Right Bank Elevation 40.99 m. (MSL.) , Drainage Are 133 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.60	8.20	3.30	4.60	32.75	10.40	8.05	4.60	6.25	4.00	5.50	3.30		
2	1.50	3.80	2.20	4.30	24.70	9.40	7.60	4.45	4.90	3.90	5.35	3.30		
3	1.50	3.20	2.10	5.50	18.25	8.95	8.95	4.30	4.75	3.90	4.75	3.30		
4	1.40	2.70	2.50	6.70	17.75	10.60	11.00	4.15	4.60	4.00	4.60	3.30		
5	1.10	2.00	3.60	7.00	19.90	11.60	10.00	4.00	4.45	58.40	4.45	3.20		
6	0.90	1.80	4.15	18.25	22.60	8.80	16.75	4.00	4.30	61.20	4.45	3.20		
7	1.20	1.70	5.05	17.50	30.10	8.50	14.00	3.90	4.15	23.20	4.30	3.20		
8	3.60	1.50	9.85	12.60	43.60	8.05	10.80	9.85	10.40	15.50	4.15	3.20		
9	1.90	1.60	8.80	10.60	59.60	7.45	9.25	45.60	11.20	12.20	4.15	3.10		
10	1.40	2.10	5.20	40.40	63.50	7.15	8.50	21.70	7.60	10.40	4.00	3.10		
11	1.30	3.30	3.70	63.00	46.00	6.85	7.90	12.00	6.85	9.25	4.00	3.10		
12	0.90	3.00	3.10	55.20	57.20	6.55	8.50	9.40	9.55	8.50	4.00	3.10		
13	0.90	1.90	2.70	48.80	38.80	7.00	9.10	8.20	8.35	7.90	4.00	3.00		
14	0.80	1.70	2.40	44.00	30.40	6.40	7.75	7.60	6.85	7.45	4.00	3.20		
15	0.70	1.50	3.00	31.70	24.40	7.15	7.00	7.00	6.25	7.00	3.90	3.00		
16	0.70	1.30	34.50	22.60	18.75	13.40	6.55	6.85	6.55	6.55	3.80	3.00		
17	0.60	2.90	33.80	46.00	16.00	19.30	6.25	6.55	7.75	7.60	3.80	3.00		
18	0.60	3.80	74.40	58.40	15.75	29.20	6.10	9.10	6.85	10.40	3.70	3.10		
19	1.60	3.10	38.00	38.40	19.90	18.75	5.80	7.90	6.25	8.35	3.70	3.10		
20	1.70	2.50	22.00	28.30	17.75	14.25	7.30	6.55	5.95	7.00	3.70	3.00		
21	1.00	2.30	16.00	21.40	13.80	12.00	5.95	6.10	5.50	6.40	3.60	2.90		
22	0.90	2.90	11.60	16.75	15.25	12.60	6.55	5.80	5.35	5.95	3.60	3.00		
23	0.90	3.70	9.10	14.00	15.00	15.00	7.30	5.65	5.05	5.80	3.60	2.90		
24	1.50	8.05	9.40	14.00	14.50	10.80	5.95	5.50	4.90	5.65	3.50	2.90		
25	1.00	5.80	8.35	14.75	14.25	11.00	5.65	5.20	4.90	5.50	3.50	3.30		
26	1.20	3.30	6.85	11.40	14.00	9.10	5.65	5.05	4.75	5.35	3.40	3.30		
27	2.40	2.60	6.55	11.20	13.40	9.55	5.65	5.05	4.60	5.05	3.40	3.10		
28	4.15	2.30	5.80	14.00	11.40	11.60	5.50	4.90	4.45	5.05	3.40	3.00		
29	7.90	2.50	5.20	14.00	10.20	9.55	5.05	5.65	4.30	4.90		3.00		
30	9.70	2.20	4.75	31.70	13.00	8.50	5.65	5.05	4.30	4.75		3.10		
31		2.70		20.50	15.50		4.90		4.15	5.05		3.10		
Total	56.55	91.95	347.95	747.55	768.00	329.45	240.95	241.65	186.05	336.15	112.30	96.40	3554.95	CMSDAY
Mean	1.89	2.97	11.60	24.11	24.77	10.98	7.77	8.06	6.00	10.84	4.01	3.11	9.74	CMS
Max	9.70	8.20	74.40	63.00	63.50	29.20	16.75	45.60	11.20	61.20	5.50	3.30	74.40	CMS
Min	0.60	1.30	2.10	4.30	10.20	6.40	4.90	3.90	4.15	3.90	3.40	2.90	0.60	CMS
Runoff	4.89	7.94	30.06	64.59	66.36	28.46	20.82	20.88	16.07	29.04	9.70	8.33	307.15	MCM

Momentary Peak 339.00 CMS. at 42.91 m. (MSL.) at 16.00 Hours , on Jan 5, 2019

Runoff Yield 73.23 Liters/Second/Square KM. Momentary Peak Yield 2548.87 Liters/Second/Square KM.

WATER YEAR : 2018

SOUTHERN PENINSULA EAST COAST

Khlong Thadee at Ban Na Pa , Nakhon Si Thammarat (X.203)

Lat 08 - 23 - 39 N Long 99 - 54 - 55 E

Location : on left bank at Ban Na Pa.

	Ban Na Pa	**Amphoe** Mueang	**Changwat** Nakhon Si Thammar
Drainge Area	120 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank near the gage site.		**Elevation** +11.529 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	2000 to date		
Rating Operation			
Period of Rating	2000 to date		
Rated by Flot	-		
Rated by Current Meter	2000 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 23 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

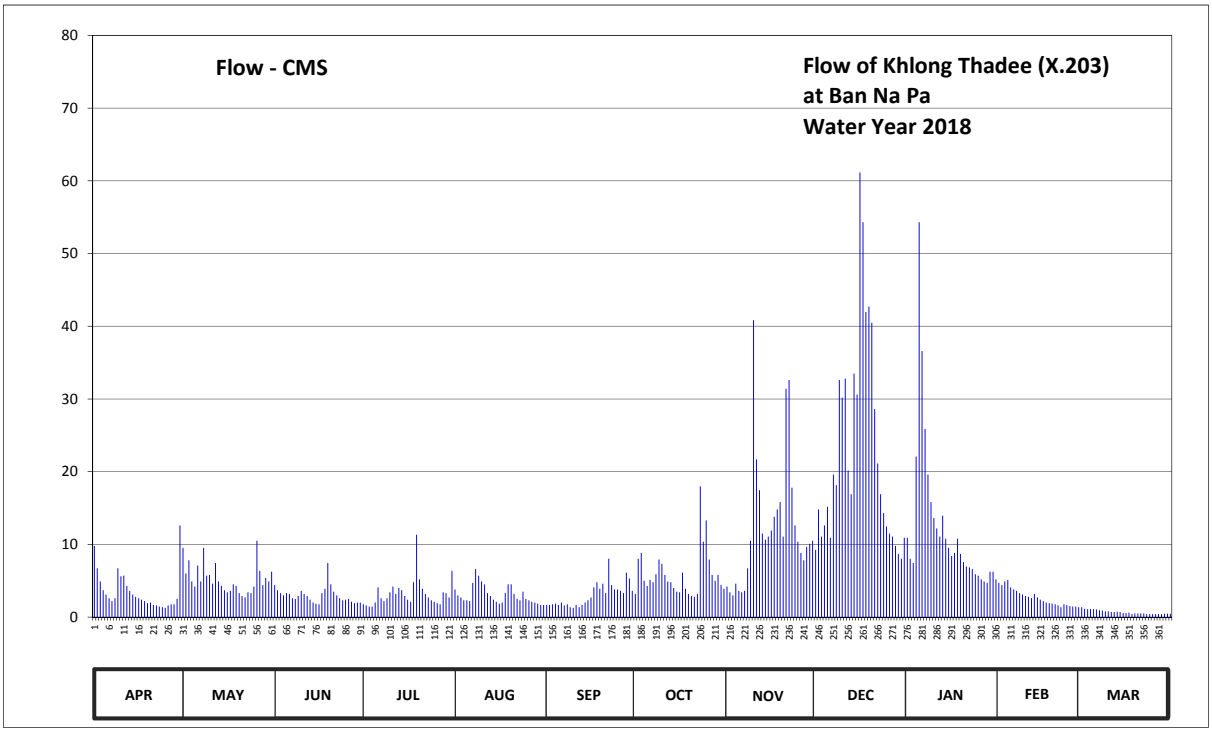
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	8.90	8.88	8.44	8.17	8.38	8.16	8.32	8.42	8.86	8.98	8.47	8.12	
2	8.66	8.60	8.37	8.15	8.30	8.16	8.77	8.34	9.23	8.77	8.44	8.09	
3	8.49	8.75	8.33	8.13	8.27	8.17	8.83	8.30	8.99	8.72	8.49	8.08	
4	8.37	8.49	8.30	8.13	8.23	8.18	8.50	8.46	9.10	9.63	8.51	8.08	
5	8.31	8.42	8.33	8.20	8.23	8.16	8.43	8.36	9.25	10.70	8.41	8.08	
6	8.26	8.69	8.32	8.41	8.22	8.20	8.51	8.34	8.98	10.32	8.38	8.07	
7	8.22	8.49	8.26	8.26	8.47	8.15	8.48	8.36	9.50	9.83	8.36	8.05	
8	8.26	8.88	8.25	8.22	8.65	8.17	8.59	8.66	9.42	9.50	8.33	8.04	
9	8.66	8.57	8.29	8.26	8.57	8.12	8.76	8.95	10.17	9.29	8.31	8.02	
10	8.56	8.58	8.36	8.34	8.49	8.11	8.71	10.45	10.05	9.16	8.29	8.02	
11	8.57	8.46	8.32	8.42	8.45	8.16	8.58	9.61	10.18	9.07	8.28	8.00	
12	8.43	8.72	8.29	8.32	8.33	8.12	8.49	9.38	9.53	8.99	8.26	8.00	
13	8.36	8.49	8.24	8.40	8.29	8.16	8.48	9.02	9.35	9.18	8.32	8.01	
14	8.31	8.43	8.20	8.37	8.24	8.20	8.40	8.96	10.21	8.97	8.27	8.00	
15	8.28	8.37	8.18	8.29	8.21	8.23	8.35	8.99	10.07	8.88	8.24	7.97	
16	8.26	8.34	8.17	8.24	8.18	8.27	8.34	9.05	10.75	8.80	8.22	7.96	
17	8.24	8.36	8.33	8.21	8.20	8.41	8.61	9.17	10.70	8.83	8.20	7.98	
18	8.22	8.45	8.39	8.48	8.33	8.48	8.39	9.23	10.48	8.97	8.19	7.93	
19	8.19	8.43	8.72	9.01	8.45	8.39	8.32	9.29	10.50	8.82	8.18	7.95	
20	8.20	8.33	8.45	8.52	8.45	8.46	8.29	8.99	10.44	8.73	8.17	7.95	
21	8.16	8.29	8.35	8.39	8.32	8.33	8.28	10.11	9.97	8.68	8.15	7.95	
22	8.15	8.27	8.30	8.32	8.25	8.77	8.32	10.17	9.58	8.67	8.12	7.95	
23	8.13	8.34	8.26	8.27	8.23	8.44	9.41	9.40	9.35	8.65	8.17	7.93	
24	8.12	8.33	8.23	8.23	8.35	8.38	8.94	9.10	9.20	8.59	8.16	7.93	
25	8.11	8.42	8.24	8.21	8.25	8.38	9.14	8.94	9.09	8.57	8.14	7.93	
26	8.15	8.95	8.25	8.19	8.23	8.36	8.76	8.83	9.02	8.52	8.13	7.93	
27	8.17	8.63	8.21	8.17	8.21	8.33	8.58	8.75	8.99	8.49	8.13	7.93	
28	8.17	8.44	8.19	8.34	8.20	8.61	8.50	8.89	8.90	8.47	8.12	7.93	
29	8.25	8.54	8.20	8.33	8.18	8.53	8.58	8.92	8.82	8.62		7.94	
30	9.10	8.49	8.20	8.27	8.16	8.36	8.44	8.95	8.77	8.62		7.94	
31		8.62		8.63	8.16		8.39		8.98	8.52		7.94	
Mean	8.34	8.52	8.30	8.32	8.31	8.30	8.56	9.01	9.56	8.99	8.27	7.99	
Max	9.10	8.95	8.72	9.01	8.65	8.77	9.41	10.45	10.75	10.70	8.51	8.12	10.75
Min	8.11	8.27	8.17	8.13	8.16	8.11	8.28	8.30	8.77	8.47	8.12	7.93	7.93

Annual Max Momentary Gage Height 10.80 m. (MSL.) , at 01.00 Hours , on Jan 5, 2019

Zero Gage at Bottom Elevation 0.00 m. (MSL.) , River Bed 7.27 m. (MSL.)

Left Bank Elevation 11.23 m. (MSL.) ,

Right Bank Elevation 10.80 m. (MSL.) , Drainage Are 120 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	9.80	9.52	4.40	1.76	3.80	1.68	3.20	4.20	9.24	10.92	4.70	1.36		
2	6.72	6.00	3.70	1.60	3.00	1.68	8.04	3.40	14.81	8.04	4.40	1.15		
3	4.90	7.80	3.30	1.44	2.70	1.76	8.82	3.00	11.06	7.44	4.90	1.10		
4	3.70	4.90	3.00	1.44	2.30	1.84	5.00	4.60	12.60	22.07	5.10	1.10		
5	3.10	4.20	3.30	2.00	2.30	1.68	4.30	3.60	15.15	54.30	4.10	1.10		
6	2.60	7.08	3.20	4.10	2.20	2.00	5.10	3.40	10.92	36.60	3.80	1.05		
7	2.20	4.90	2.60	2.60	4.70	1.60	4.80	3.60	19.60	25.87	3.60	0.95		
8	2.60	9.52	2.50	2.20	6.60	1.76	5.90	6.72	18.16	19.60	3.30	0.90		
9	6.72	5.70	2.90	2.60	5.70	1.36	7.92	10.50	32.60	15.83	3.10	0.80		
10	5.60	5.80	3.60	3.40	4.90	1.28	7.32	40.85	30.20	13.62	2.90	0.80		
11	5.70	4.60	3.20	4.20	4.50	1.68	5.80	21.69	32.80	12.18	2.80	0.70		
12	4.30	7.44	2.90	3.20	3.30	1.36	4.90	17.44	20.17	11.06	2.60	0.70		
13	3.60	4.90	2.40	4.00	2.90	1.68	4.80	11.48	16.90	13.96	3.20	0.75		
14	3.10	4.30	2.00	3.70	2.40	2.00	4.00	10.64	33.48	10.78	2.70	0.70		
15	2.80	3.70	1.84	2.90	2.10	2.30	3.50	11.06	30.60	9.52	2.40	0.58		
16	2.60	3.40	1.76	2.40	1.84	2.70	3.40	11.90	61.15	8.40	2.20	0.54		
17	2.40	3.60	3.30	2.10	2.00	4.10	6.12	13.79	54.30	8.82	2.00	0.62		
18	2.20	4.50	3.90	4.80	3.30	4.80	3.90	14.81	41.96	10.78	1.92	0.42		
19	1.92	4.30	7.44	11.34	4.50	3.90	3.20	15.83	42.70	8.68	1.84	0.50		
20	2.00	3.30	4.50	5.20	4.50	4.60	2.90	11.06	40.48	7.56	1.76	0.50		
21	1.68	2.90	3.50	3.90	3.20	3.30	2.80	31.40	28.60	6.96	1.60	0.50		
22	1.60	2.70	3.00	3.20	2.50	8.04	3.20	32.60	21.12	6.84	1.36	0.50		
23	1.44	3.40	2.60	2.70	2.30	4.40	17.98	17.80	16.90	6.60	1.76	0.42		
24	1.36	3.30	2.30	2.30	3.50	3.80	10.36	12.60	14.30	5.90	1.68	0.42		
25	1.28	4.20	2.40	2.10	2.50	3.80	13.28	10.36	12.46	5.70	1.52	0.42		
26	1.60	10.50	2.50	1.92	2.30	3.60	7.92	8.82	11.48	5.20	1.44	0.42		
27	1.76	6.36	2.10	1.76	2.10	3.30	5.80	7.80	11.06	4.90	1.44	0.42		
28	1.76	4.40	1.92	3.40	2.00	6.12	5.00	9.66	9.80	4.70	1.36	0.42		
29	2.50	5.40	2.00	3.30	1.84	5.30	5.80	10.08	8.68	6.24		0.46		
30	12.60	4.90	2.00	2.70	1.68	3.60	4.40	10.50	8.04	6.24		0.46		
31		6.24		6.36	1.68		3.90		10.92	5.20		0.46		
Total	106.14	163.76	90.06	100.62	95.14	91.02	183.36	375.19	702.24	380.51	75.48	21.22	2384.74	CMSDAY
Mean	3.54	5.28	3.00	3.25	3.07	3.03	5.91	12.51	22.65	12.27	2.70	0.68	6.53	CMS
Max	12.60	10.50	7.44	11.34	6.60	8.04	17.98	40.85	61.15	54.30	5.10	1.36	61.15	CMS
Min	1.28	2.70	1.76	1.44	1.68	1.28	2.80	3.00	8.04	4.70	1.36	0.42	0.42	CMS
Runoff	9.17	14.15	7.78	8.69	8.22	7.86	15.84	32.42	60.67	32.88	6.52	1.83	206.04	MCM

Momentary Peak 68.00 CMS. at 10.80 m. (MSL.) at 01.00 Hours , on Jan 5, 2019

Runoff Yield 54.45 Liters/Second/Square KM. Momentary Peak Yield 566.67 Liters/Second/Square KM.

WATER YEAR : 2018

SOUTHERN PENINSULA EAST COAST

Lower Khlong Lang Suan at Thanon Luk Suea , Chumphon (X.212)

Lat 09 - 57 - 17 N Long 99 - 04 - 48 E

Location : on left bank at the bridge.

	Ban -		**Amphoe** Lang Suan	**Changwat**	Chumphon
Drainge Area	1,406 sq.km.				
Type of Gage	Water - stage recorder				
Zero Gage at Bottom	+0.000 m. (MSL.)				
Bench Mark	B.M.-H.D.				
Location BM	On left bank at the abutment of the bridge.			**Elevation**	+9.486 m. (MSL.)
Gage Reading Frequency	Recording				
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings				
Period of Available Gage Records	2009 to date				
Rating Operation					
Period of Rating	2009 to date				
Rated by Flot	-				
Rated by Current Meter	2009 to date				
Stability of Channel Regimes	Fairly stable because of backwater effect.				
Overbank Flow Conditions	Overbank flow starts at elevation + 4.950 m.(MSL.), records are channel flow only.				
General Description	Records good. Stage-discharge relation defined by 22 discharge measurements made in 2018.				

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

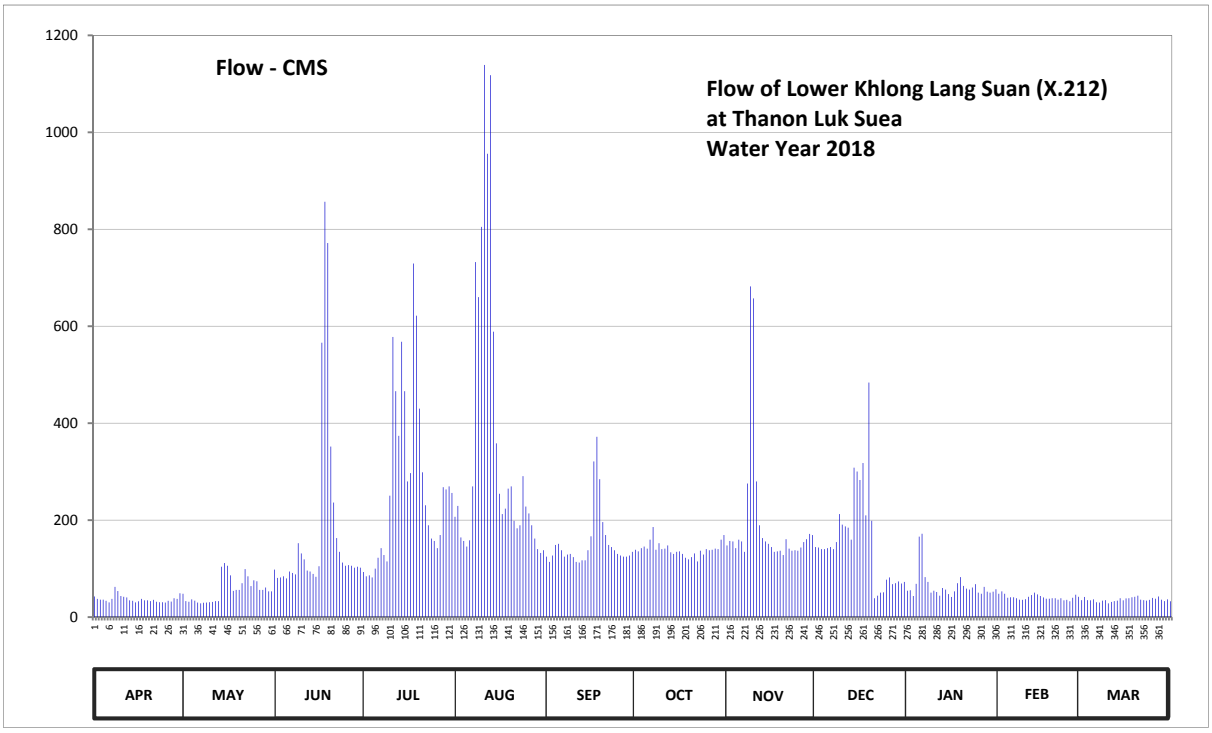
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.41	0.49	0.12	0.07	1.05	0.37	0.50	0.58	0.55	0.58	0.49	0.26	
2	0.31	0.22	-0.05	-0.02	1.21	0.27	0.47	0.66	0.54	0.59	0.56	0.39	
3	0.28	0.19	-0.04	0.00	0.72	0.39	0.53	0.65	0.51	0.42	0.49	0.26	
4	0.28	0.29	-0.02	-0.04	0.66	0.59	0.56	0.53	0.51	0.78	0.36	0.25	
5	0.23	0.24	-0.06	0.14	0.56	0.61	0.52	0.68	0.53	1.80	0.38	0.29	
6	0.16	0.15	0.08	0.35	0.67	0.49	0.68	0.65	0.55	1.85	0.38	0.17	
7	0.31	0.11	0.05	0.53	1.49	0.37	0.89	0.46	0.51	0.94	0.34	0.15	
8	0.69	0.14	0.02	0.40	3.83	0.41	0.50	1.53	0.64	0.83	0.28	0.24	
9	0.57	0.15	0.62	0.28	3.55	0.42	0.62	3.64	1.09	0.52	0.27	0.26	
10	0.42	0.17	0.43	1.36	4.09	0.36	0.51	3.54	0.93	0.58	0.30	0.11	
11	0.40	0.18	0.32	3.19	5.14	0.27	0.52	1.56	0.90	0.54	0.40	0.18	
12	0.37	0.22	0.10	2.63	4.60	0.26	0.58	0.92	0.88	0.43	0.45	0.22	
13	0.25	0.22	0.08	2.14	5.08	0.30	0.45	0.71	0.68	0.66	0.52	0.24	
14	0.23	0.18	0.03	3.14	3.24	0.30	0.42	0.65	1.74	0.61	0.47	0.34	
15	0.16	0.25	-0.03	2.63	2.05	0.49	0.46	0.61	1.69	0.48	0.42	0.25	
16	0.21	0.20	0.19	1.56	1.39	0.74	0.47	0.55	1.58	0.39	0.37	0.33	
17	0.31	0.00	3.13	1.67	1.09	1.82	0.42	0.46	1.80	0.56	0.32	0.34	
18	0.25	-0.32	4.27	3.82	1.17	2.13	0.35	0.47	1.07	0.80	0.32	0.38	
19	0.25	-0.30	3.97	3.39	1.46	1.59	0.32	0.48	2.72	0.94	0.34	0.40	
20	0.22	-0.30	2.01	2.45	1.49	0.97	0.36	0.40	0.99	0.72	0.34	0.43	
21	0.27	-0.16	1.26	1.68	0.99	0.76	0.43	0.69	0.34	0.64	0.28	0.28	
22	0.19	0.13	0.71	1.22	0.87	0.59	0.28	0.52	0.43	0.61	0.34	0.26	
23	0.17	-0.02	0.46	0.92	0.92	0.55	0.48	0.48	0.52	0.67	0.25	0.24	
24	0.17	-0.22	0.26	0.70	1.63	0.49	0.41	0.49	0.53	0.77	0.27	0.27	
25	0.15	-0.10	0.20	0.66	1.20	0.42	0.51	0.48	0.88	0.52	0.21	0.35	
26	0.23	-0.12	0.21	0.53	1.10	0.39	0.49	0.54	0.93	0.49	0.36	0.32	
27	0.20	-0.30	0.20	0.76	0.92	0.37	0.50	0.64	0.77	0.69	0.46	0.41	
28	0.34	-0.30	0.16	1.48	0.70	0.37	0.52	0.69	0.80	0.55	0.40	0.28	
29	0.31	-0.25	0.18	1.45	0.51	0.39	0.51	0.78	0.84	0.52		0.22	
30	0.50	-0.33	0.16	1.49	0.44	0.46	0.68	0.76	0.79	0.55		0.29	
31		-0.33		1.40	0.49		0.76		0.83	0.62		0.21	
Mean	0.29	0.02	0.63	1.35	1.75	0.60	0.51	0.86	0.91	0.70	0.37	0.28	
Max	0.69	0.49	4.27	3.82	5.14	2.13	0.89	3.64	2.72	1.85	0.56	0.43	5.14
Min	0.15	-0.33	-0.06	-0.04	0.44	0.26	0.28	0.40	0.34	0.39	0.21	0.11	-0.33

Annual Max Momentary Gage Height 5.33 m. (MSL.) , at 06.00 Hours , on Aug 13, 2018

Zero Gage at Bottom Elevation 0.00 m. (MSL.) , River Bed -5.01 m. (MSL.)

Left Bank Elevation 6.00 m. (MSL.) ,

Right Bank Elevation 4.94 m. (MSL.) , Drainage Are 1,406 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	42.70	48.30	98.00	93.00	207.00	124.70	139.00	147.80	144.50	54.60	48.30	35.00		
2	37.50	33.00	81.00	84.00	229.40	113.70	135.70	157.20	143.40	55.30	53.20	41.50		
3	36.00	31.60	82.00	86.00	164.40	126.90	142.30	156.00	140.10	43.40	48.30	35.00		
4	36.00	36.50	84.00	82.00	157.20	148.90	145.60	142.30	140.10	68.60	40.00	34.50		
5	33.50	34.00	80.00	100.00	145.60	151.20	141.20	159.60	142.30	166.00	41.00	36.50		
6	30.40	30.00	94.00	122.50	158.40	137.90	159.60	156.00	144.50	172.00	41.00	30.80		
7	37.50	28.40	91.00	142.30	269.50	124.70	185.70	134.60	140.10	82.60	39.00	30.00		
8	62.30	29.60	88.00	128.00	732.40	129.10	139.00	275.50	154.80	72.70	36.00	34.00		
9	53.90	30.00	152.40	114.80	660.00	130.20	152.40	682.40	212.60	50.40	35.50	35.00		
10	43.40	30.80	131.30	250.40	805.20	123.60	140.10	657.60	190.90	54.60	37.00	28.40		
11	42.00	31.20	119.20	578.00	1139.00	113.70	141.20	280.00	187.00	51.80	42.00	31.20		
12	40.50	33.00	96.00	466.00	956.00	112.60	147.80	189.60	184.40	44.10	45.50	33.00		
13	34.50	33.00	94.00	373.80	1118.00	117.00	133.50	163.20	159.60	60.20	50.40	34.00		
14	33.50	104.00	89.00	568.00	588.80	117.00	130.20	156.00	308.40	56.70	46.90	39.00		
15	30.40	111.50	83.00	466.00	358.50	137.90	134.60	151.20	300.40	47.60	43.40	34.50		
16	32.50	106.00	105.00	280.00	254.60	166.80	135.70	144.50	283.00	41.50	40.50	38.50		
17	37.50	86.00	566.00	297.20	212.60	321.20	130.20	134.60	318.00	53.20	38.00	39.00		
18	34.50	54.00	857.00	729.60	223.80	372.10	122.50	135.70	209.80	70.00	38.00	41.00		
19	34.50	56.00	771.60	621.80	265.00	284.50	119.20	136.80	484.00	82.60	39.00	42.00		
20	33.00	56.00	351.70	430.00	269.50	196.10	123.60	128.00	198.70	64.40	39.00	44.10		
21	35.50	70.00	236.40	298.80	198.70	169.20	131.30	160.80	39.00	58.80	36.00	36.00		
22	31.60	99.00	163.20	230.80	183.10	148.90	114.80	141.20	44.10	56.70	39.00	35.00		
23	30.80	84.00	134.60	189.60	189.60	144.50	136.80	136.80	50.40	60.90	34.50	34.00		
24	30.80	64.00	112.60	162.00	290.80	137.90	129.10	137.90	51.10	67.90	35.50	35.50		
25	30.00	76.00	106.00	157.20	228.00	130.20	140.10	136.80	77.20	50.40	32.50	39.50		
26	33.50	74.00	107.10	142.30	214.00	126.90	137.90	143.40	81.70	48.30	40.00	38.00		
27	32.00	56.00	106.00	169.20	189.60	124.70	139.00	154.80	67.90	62.30	46.20	42.70		
28	39.00	56.00	102.00	268.00	162.00	124.70	141.20	160.80	70.00	52.50	42.00	36.00		
29	37.50	61.00	104.00	263.50	140.10	126.90	140.10	171.60	73.60	50.40		33.00		
30	49.00	53.00	102.00	269.50	132.40	134.60	159.60	169.20	69.30	52.50		36.50		
31		53.00		256.00	137.90		169.20		72.70	57.40		32.50		
Total	1115.80	1748.90	5388.10	8420.30	10981.10	4618.30	4338.20	5801.90	4883.60	2010.40	1147.70	1115.70	51570.00	CMSDAY
Mean	37.19	56.42	179.60	271.62	354.23	153.94	139.94	193.40	157.54	64.85	40.99	35.99	141.29	CMS
Max	62.30	111.50	857.00	729.60	1139.00	372.10	185.70	682.40	484.00	172.00	53.20	44.10	1139.00	CMS
Min	30.00	28.40	80.00	82.00	132.40	112.60	114.80	128.00	39.00	41.50	32.50	28.40	28.40	CMS
Runoff	96.41	151.10	465.53	727.51	948.77	399.02	374.82	501.28	421.94	173.70	99.16	96.40	4455.65	MCM

Momentary Peak 1205.50 CMS. at 5.33 m. (MSL.) at 06.00 Hours , on Aug 13, 2018

Runoff Yield 100.49 Liters/Second/Square KM. Momentary Peak Yield 857.40 Liters/Second/Square KM.

WATER YEAR : 2018

SOUTHERN PENINSULA EAST COAST

Khlong Rap Ro at Ban Hat Nai , Chumphon (X.248)

Lat 10 - 38 - 16 N Long 99 - 03 - 01 E

Location : on left bank at Ban Hat Nai.

	Ban Hat Nai	**Amphoe** Tha Sae	**Changwat** Chumphon
Drainge Area	691 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+16.734 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	Near the automatic gage building.		**Elevation** +31.337 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	2006 to date		
Rating Operation			
Period of Rating	2006 to date		
Rated by Flot	-		
Rated by Current Meter	2006 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	Overbank flow starts at elevation + 23.900 m.(MSL.), records are channel flow only.		
General Description	Records fair. Stage-discharge relation defined by 25 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

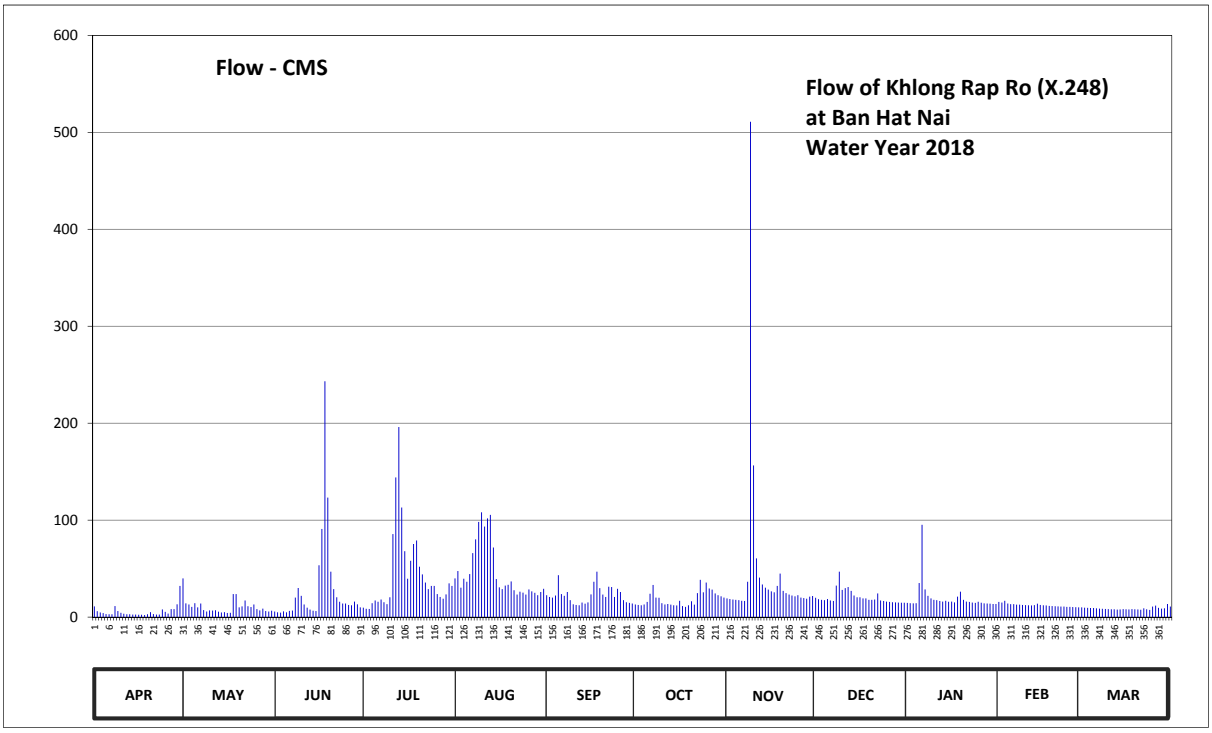
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	18.35	19.35	18.05	18.29	19.35	18.82	18.45	18.71	18.73	18.53	18.58	18.30	
2	18.07	18.51	18.00	18.23	19.54	18.76	18.43	18.69	18.68	18.52	18.55	18.29	
3	17.98	18.45	17.96	18.22	19.08	18.74	18.41	18.67	18.66	18.51	18.63	18.28	
4	17.91	18.33	18.06	18.52	19.34	18.81	18.45	18.66	18.65	18.52	18.50	18.27	
5	17.82	18.52	18.00	18.64	19.26	19.43	18.58	18.65	18.69	19.23	18.47	18.27	
6	17.79	18.30	18.10	18.59	19.46	18.86	18.87	18.63	18.64	20.42	18.47	18.25	
7	17.79	18.50	18.12	18.67	19.92	18.80	19.17	18.62	18.62	19.02	18.44	18.24	
8	18.37	18.15	18.74	18.57	20.17	18.93	18.74	19.26	19.15	18.80	18.44	18.23	
9	18.08	18.05	19.07	18.47	20.47	18.65	18.73	23.89	19.52	18.71	18.43	18.22	
10	17.94	18.13	18.80	18.75	20.63	18.46	18.52	21.25	19.00	18.66	18.42	18.21	
11	17.84	18.12	18.45	20.26	20.39	18.43	18.45	19.81	19.06	18.65	18.41	18.20	
12	17.80	18.14	18.29	21.10	20.53	18.41	18.48	19.37	19.10	18.62	18.40	18.20	
13	17.79	18.04	18.18	21.66	20.59	18.55	18.44	19.19	18.97	18.60	18.42	18.18	
14	17.77	17.98	18.11	20.70	20.03	18.49	18.41	19.08	18.81	18.63	18.49	18.19	
15	17.76	18.01	18.08	19.96	19.33	18.56	18.40	19.01	18.75	18.59	18.43	18.21	
16	17.75	17.93	19.67	19.34	19.09	18.85	18.63	18.95	18.75	18.60	18.41	18.20	
17	17.74	17.95	20.35	19.76	19.03	19.26	18.37	18.92	18.71	18.56	18.40	18.19	
18	17.72	18.86	22.12	20.09	19.15	19.52	18.33	19.14	18.71	18.77	18.38	18.21	
19	17.79	18.86	20.84	20.15	19.18	19.06	18.41	19.47	18.66	18.94	18.37	18.20	
20	18.01	18.30	19.52	19.64	19.27	18.84	18.61	18.97	18.66	18.66	18.36	18.19	
21	17.82	18.35	19.03	19.45	18.99	18.76	18.44	18.89	18.67	18.60	18.35	18.17	
22	17.77	18.64	18.75	19.24	18.84	19.11	18.89	18.84	18.88	18.58	18.34	18.25	
23	17.77	18.36	18.59	19.03	18.94	19.10	19.31	18.81	18.64	18.55	18.34	18.20	
24	18.19	18.32	18.50	19.14	18.91	18.76	18.92	18.78	18.62	18.53	18.33	18.16	
25	18.03	18.45	18.50	19.14	18.84	19.04	19.24	18.82	18.60	18.59	18.33	18.34	
26	17.86	18.21	18.43	18.86	19.02	18.93	19.05	18.74	18.58	18.54	18.32	18.39	
27	18.21	18.13	18.41	18.76	18.95	18.65	19.01	18.72	18.57	18.51	18.31	18.28	
28	18.21	18.24	18.60	18.70	18.90	18.57	18.88	18.70	18.56	18.50	18.30	18.24	
29	18.46	18.08	18.46	18.85	18.82	18.53	18.82	18.77	18.55	18.49		18.25	
30	19.14	18.05	18.30	19.22	18.93	18.50	18.78	18.79	18.54	18.48		18.48	
31		18.11		19.14	19.04		18.74		18.54	18.48		18.34	
Mean	17.98	18.30	18.74	19.26	19.42	18.81	18.68	19.16	18.75	18.69	18.41	18.25	
Max	19.14	19.35	22.12	21.66	20.63	19.52	19.31	23.89	19.52	20.42	18.63	18.48	23.89
Min	17.72	17.93	17.96	18.22	18.82	18.41	18.33	18.62	18.54	18.48	18.30	18.16	17.72

Annual Max Momentary Gage Height 25.54 m. (MSL.) , at 08.00 Hours , on Nov 9, 2018

Zero Gage at Bottom Elevation 16.73 m. (MSL.) , River Bed 16.51 m. (MSL.)

Left Bank Elevation 27.09 m. (MSL.) ,

Right Bank Elevation 23.89 m. (MSL.) , Drainage Are 691 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	11.00	40.00	5.75	9.80	40.00	22.60	13.00	19.30	19.90	14.60	15.60	10.00		
2	6.05	14.20	5.00	8.60	47.60	20.80	12.60	18.70	18.40	14.40	15.00	9.80		
3	4.80	13.00	4.60	8.40	30.40	20.20	12.20	18.10	17.80	14.20	16.90	9.60		
4	4.10	10.60	5.90	14.40	39.60	22.30	13.00	17.80	17.50	14.40	14.00	9.40		
5	3.20	14.40	5.00	17.20	36.40	43.20	15.60	17.50	18.70	35.20	13.40	9.40		
6	2.90	10.00	6.50	15.80	44.40	23.80	24.10	16.90	17.20	95.20	13.40	9.00		
7	2.90	14.00	6.80	18.10	66.00	22.00	33.10	16.60	16.60	28.60	12.80	8.80		
8	11.40	7.25	20.20	15.40	80.20	25.90	20.20	36.40	32.50	22.00	12.80	8.60		
9	6.20	5.75	30.10	13.40	98.20	17.50	19.90	510.90	46.80	19.30	12.60	8.40		
10	4.40	6.95	22.00	20.50	108.10	13.20	14.40	156.50	28.00	17.80	12.40	8.20		
11	3.40	6.80	13.00	85.60	93.40	12.60	13.00	60.50	29.80	17.50	12.20	8.00		
12	3.00	7.10	9.80	144.00	101.80	12.20	13.60	40.80	31.00	16.60	12.00	8.00		
13	2.90	5.60	7.70	196.00	105.40	15.00	12.80	33.70	27.10	16.00	12.40	7.70		
14	2.70	4.80	6.65	113.00	71.80	13.80	12.20	30.40	22.30	16.90	13.80	7.85		
15	2.60	5.15	6.20	68.00	39.20	15.20	12.00	28.30	20.50	15.80	12.60	8.20		
16	2.50	4.30	53.50	39.60	30.70	23.50	16.90	26.50	20.50	16.00	12.20	8.00		
17	2.40	4.50	91.00	58.00	28.90	36.40	11.40	25.60	19.30	15.20	12.00	7.85		
18	2.20	23.80	243.20	75.40	32.50	46.80	10.60	32.20	19.30	21.10	11.60	8.20		
19	2.90	23.80	123.20	79.00	33.40	29.80	12.20	44.80	17.80	26.20	11.40	8.00		
20	5.15	10.00	46.80	52.00	36.80	23.20	16.30	27.10	17.80	17.80	11.20	7.85		
21	3.20	11.00	28.90	44.00	27.70	20.80	12.80	24.70	18.10	16.00	11.00	7.55		
22	2.70	17.20	20.50	35.60	23.20	31.30	24.70	23.20	24.40	15.60	10.80	9.00		
23	2.70	11.20	15.80	28.90	26.20	31.00	38.40	22.30	17.20	15.00	10.80	8.00		
24	7.85	10.40	14.00	32.20	25.30	20.80	25.60	21.40	16.60	14.60	10.60	7.40		
25	5.45	13.00	14.00	32.20	23.20	29.20	35.60	22.60	16.00	15.80	10.60	10.80		
26	3.60	8.20	12.60	23.80	28.60	25.90	29.50	20.20	15.60	14.80	10.40	11.80		
27	8.20	6.95	12.20	20.80	26.50	17.50	28.30	19.60	15.40	14.20	10.20	9.60		
28	8.20	8.80	16.00	19.00	25.00	15.40	24.40	19.00	15.20	14.00	10.00	8.80		
29	13.20	6.20	13.20	23.50	22.60	14.60	22.60	21.10	15.00	13.80		9.00		
30	32.20	5.75	10.00	34.80	25.90	14.00	21.40	21.70	14.80	13.60		13.60		
31		6.65		32.20	29.20		20.20		14.80	13.60		10.80		
Total	174.00	337.35	870.10	1379.20	1448.20	680.50	592.60	1394.40	641.90	615.80	344.70	277.20	8755.95	CMSDAY
Mean	5.80	10.88	29.00	44.49	46.72	22.68	19.12	46.48	20.71	19.86	12.31	8.94	23.99	CMS
Max	32.20	40.00	243.20	196.00	108.10	46.80	38.40	510.90	46.80	95.20	16.90	13.60	510.90	CMS
Min	2.20	4.30	4.60	8.40	22.60	12.20	10.60	16.60	14.80	13.60	10.00	7.40	2.20	CMS
Runoff	15.03	29.15	75.18	119.16	125.12	58.80	51.20	120.48	55.46	53.21	29.78	23.95	756.51	MCM

Momentary Peak 930.80 CMS. at 25.54 m. (MSL.) at 08.00 Hours , on Nov 9, 2018

Runoff Yield 34.72 Liters/Second/Square KM. Momentary Peak Yield 1347.03 Liters/Second/Square KM.

WATER YEAR : 2018

SOUTHERN PENINSULA EAST COAST

Kolok River at Ban Bu Kae Ta , Narathiwat (X.274)

Lat 05 - 50 - 21 N Long 101 - 53 - 07 E

Location : on left bank at Ban Bu Kae Ta.

	Ban Bu Kae Ta	**Amphoe** Waeng	**Changwat** Narathiwat
Drainge Area	86 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	Near the automatic gage building.		**Elevation** 28.193 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	2013 to date		
Rating Operation			
Period of Rating	2013 to date		
Rated by Flot	-		
Rated by Current Meter	2013 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 15 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

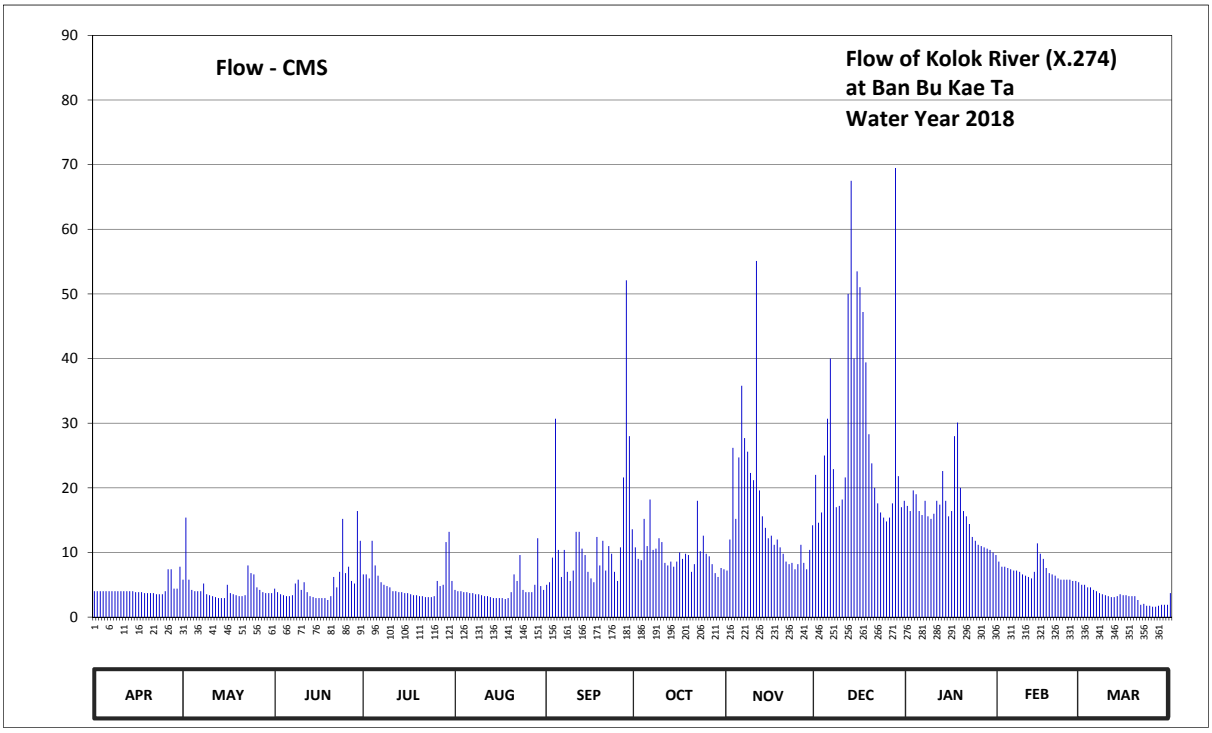
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	18.50	18.59	18.52	18.63	18.51	18.55	18.84	18.66	19.40	19.16	18.73	18.55	
2	18.50	19.07	18.49	18.63	18.50	18.57	18.75	18.90	19.03	19.12	18.69	18.55	
3	18.50	18.59	18.47	18.60	18.50	18.76	18.74	19.54	19.11	19.28	18.69	18.53	
4	18.50	18.51	18.46	18.89	18.49	19.69	19.06	19.06	19.50	19.25	18.68	18.53	
5	18.50	18.50	18.45	18.70	18.49	18.82	18.85	19.49	19.69	19.12	18.67	18.51	
6	18.50	18.50	18.45	18.62	18.48	18.61	19.21	19.86	20.00	19.09	18.66	18.50	
7	18.50	18.50	18.46	18.57	18.48	18.82	18.82	19.59	19.43	19.20	18.66	18.48	
8	18.50	18.56	18.56	18.55	18.47	18.65	18.83	19.52	19.15	19.08	18.65	18.47	
9	18.50	18.47	18.59	18.54	18.47	18.58	18.91	19.41	19.16	19.06	18.63	18.46	
10	18.50	18.46	18.51	18.53	18.46	18.66	18.88	19.36	19.21	19.10	18.62	18.45	
11	18.50	18.45	18.57	18.50	18.45	18.96	18.72	20.44	19.38	19.20	18.61	18.44	
12	18.50	18.44	18.49	18.50	18.45	18.96	18.70	19.28	20.30	19.17	18.60	18.44	
13	18.50	18.43	18.45	18.49	18.44	18.83	18.73	19.08	20.71	19.42	18.65	18.45	
14	18.50	18.43	18.44	18.49	18.43	18.78	18.69	18.99	20.00	19.20	18.87	18.47	
15	18.49	18.43	18.43	18.48	18.43	18.65	18.73	18.91	20.40	19.08	18.79	18.46	
16	18.49	18.55	18.43	18.48	18.43	18.60	18.80	18.93	20.33	19.12	18.75	18.46	
17	18.49	18.48	18.43	18.47	18.43	18.57	18.75	18.86	20.22	19.60	18.68	18.45	
18	18.48	18.47	18.43	18.46	18.42	18.92	18.79	18.90	19.98	19.67	18.64	18.45	
19	18.48	18.46	18.41	18.46	18.43	18.70	18.78	18.84	19.61	19.30	18.63	18.45	
20	18.48	18.45	18.45	18.45	18.49	18.89	18.65	18.79	19.46	19.12	18.62	18.41	
21	18.48	18.45	18.61	18.45	18.63	18.66	18.71	18.73	19.30	19.08	18.60	18.36	
22	18.47	18.46	18.53	18.44	18.58	18.85	19.20	18.71	19.18	19.02	18.59	18.37	
23	18.47	18.70	18.65	18.44	18.78	18.79	18.81	18.72	19.11	18.92	18.59	18.35	
24	18.47	18.64	19.06	18.44	18.51	18.65	18.93	18.67	19.07	18.89	18.59	18.35	
25	18.50	18.63	18.64	18.45	18.49	18.58	18.79	18.71	19.04	18.86	18.59	18.34	
26	18.67	18.53	18.69	18.58	18.49	18.84	18.77	18.86	19.07	18.85	18.58	18.34	
27	18.67	18.51	18.58	18.54	18.49	19.38	18.71	18.72	19.18	18.84	18.58	18.35	
28	18.52	18.49	18.56	18.55	18.55	20.36	18.64	18.67	20.75	18.83	18.57	18.36	
29	18.52	18.48	19.12	18.88	18.91	19.60	18.61	18.82	19.39	18.82		18.36	
30	18.69	18.48	18.89	18.96	18.54	18.98	18.68	19.01	19.15	18.80		18.36	
31		18.48		18.58	18.51		18.67		19.20	18.78		18.48	
Mean	18.51	18.52	18.56	18.56	18.51	18.88	18.80	19.07	19.56	19.10	18.65	18.44	
Max	18.69	19.07	19.12	18.96	18.91	20.36	19.21	20.44	20.75	19.67	18.87	18.55	20.75
Min	18.47	18.43	18.41	18.44	18.42	18.55	18.61	18.66	19.03	18.78	18.57	18.34	18.34

Annual Max Momentary Gage Height 21.77 m. (MSL.) , at 01.00 Hours , on Sep 28, 2018

Zero Gage at Bottom Elevation 0.00 m. (MSL.) , River Bed 18.07 m. (MSL.)

Left Bank Elevation 24.18 m. (MSL.) ,

Right Bank Elevation 24.03 m. (MSL.) , Drainage Are 86 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	4.00	5.80	4.40	6.60	4.20	5.00	10.80	7.20	22.00	17.20	8.60	5.00		
2	4.00	15.40	3.85	6.60	4.00	5.40	9.00	12.00	14.60	16.40	7.80	5.00		
3	4.00	5.80	3.55	6.00	4.00	9.20	8.80	26.20	16.20	19.60	7.80	4.60		
4	4.00	4.20	3.40	11.80	3.85	30.70	15.20	15.20	25.00	19.00	7.60	4.60		
5	4.00	4.00	3.25	8.00	3.85	10.40	11.00	24.70	30.70	16.40	7.40	4.20		
6	4.00	4.00	3.25	6.40	3.70	6.20	18.20	35.80	40.00	15.80	7.20	4.00		
7	4.00	4.00	3.40	5.40	3.70	10.40	10.40	27.70	22.90	18.00	7.20	3.70		
8	4.00	5.20	5.20	5.00	3.55	7.00	10.60	25.60	17.00	15.60	7.00	3.55		
9	4.00	3.55	5.80	4.80	3.55	5.60	12.20	22.30	17.20	15.20	6.60	3.40		
10	4.00	3.40	4.20	4.60	3.40	7.20	11.60	21.20	18.20	16.00	6.40	3.25		
11	4.00	3.25	5.40	4.00	3.25	13.20	8.40	55.10	21.60	18.00	6.20	3.10		
12	4.00	3.10	3.85	4.00	3.25	13.20	8.00	19.60	50.00	17.40	6.00	3.10		
13	4.00	2.95	3.25	3.85	3.10	10.60	8.60	15.60	67.50	22.60	7.00	3.25		
14	4.00	2.95	3.10	3.85	2.95	9.60	7.80	13.80	40.00	18.00	11.40	3.55		
15	3.85	2.95	2.95	3.70	2.95	7.00	8.60	12.20	53.50	15.60	9.80	3.40		
16	3.85	5.00	2.95	3.70	2.95	6.00	10.00	12.60	51.05	16.40	9.00	3.40		
17	3.85	3.70	2.95	3.55	2.95	5.40	9.00	11.20	47.20	28.00	7.60	3.25		
18	3.70	3.55	2.95	3.40	2.80	12.40	9.80	12.00	39.40	30.10	6.80	3.25		
19	3.70	3.40	2.65	3.40	2.95	8.00	9.60	10.80	28.30	20.00	6.60	3.25		
20	3.70	3.25	3.25	3.25	3.85	11.80	7.00	9.80	23.80	16.40	6.40	2.65		
21	3.70	3.25	6.20	3.25	6.60	7.20	8.20	8.60	20.00	15.60	6.00	1.90		
22	3.55	3.40	4.60	3.10	5.60	11.00	18.00	8.20	17.60	14.40	5.80	2.05		
23	3.55	8.00	7.00	3.10	9.60	9.80	10.20	8.40	16.20	12.40	5.80	1.75		
24	3.55	6.80	15.20	3.10	4.20	7.00	12.60	7.40	15.40	11.80	5.80	1.75		
25	4.00	6.60	6.80	3.25	3.85	5.60	9.80	8.20	14.80	11.20	5.80	1.60		
26	7.40	4.60	7.80	5.60	3.85	10.80	9.40	11.20	15.40	11.00	5.60	1.60		
27	7.40	4.20	5.60	4.80	3.85	21.60	8.20	8.40	17.60	10.80	5.60	1.75		
28	4.40	3.85	5.20	5.00	5.00	52.10	6.80	7.40	69.50	10.60	5.40	1.90		
29	4.40	3.70	16.40	11.60	12.20	28.00	6.20	10.40	21.80	10.40		1.90		
30	7.80	3.70	11.80	13.20	4.80	13.60	7.60	14.20	17.00	10.00		1.90		
31		3.70		5.60	4.20		7.40		18.00	9.60		3.70		
Total	128.40	141.25	160.20	163.50	132.55	361.00	309.00	483.00	889.45	499.50	196.20	95.30	3559.35	CMSDAY
Mean	4.28	4.56	5.34	5.27	4.28	12.03	9.97	16.10	28.69	16.11	7.01	3.07	9.75	CMS
Max	7.80	15.40	16.40	13.20	12.20	52.10	18.20	55.10	69.50	30.10	11.40	5.00	69.50	CMS
Min	3.55	2.95	2.65	3.10	2.80	5.00	6.20	7.20	14.60	9.60	5.40	1.60	1.60	CMS
Runoff	11.09	12.20	13.84	14.13	11.45	31.19	26.70	41.73	76.85	43.16	16.95	8.23	307.53	MCM

Momentary Peak 132.90 CMS. at 21.77 m. (MSL.) at 01.00 Hours , on Sep 28, 2018

Runoff Yield 113.39 Liters/Second/Square KM. Momentary Peak Yield 1545.35 Liters/Second/Square KM.

WATER YEAR : 2018

TAPI RIVER BASIN

Khlong Phum Duang at Ban Tha Khanon , Surat Thani (X.36)

Lat 09 - 01 - 44 N Long 98 - 58 - 00 E

Location : on left bank at Ban Tha Khanon.

	Ban Tha Khanon	**Amphoe** Khiri Ratnikhom	**Changwat** Surat Thani
Drainge Area	3,012 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank near the sixth staff gage.		**Elevation** +10.520 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	1963 to date		
Rating Operation			
Period of Rating	1989 to date		
Rated by Flot	-		
Rated by Current Meter	1989 to date		
Stability of Channel Regimes	Fairly stable because of backwater effect.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Flow regulated by Ratcha Prapha Dam.		
	Stage-discharge relation defined by 21 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

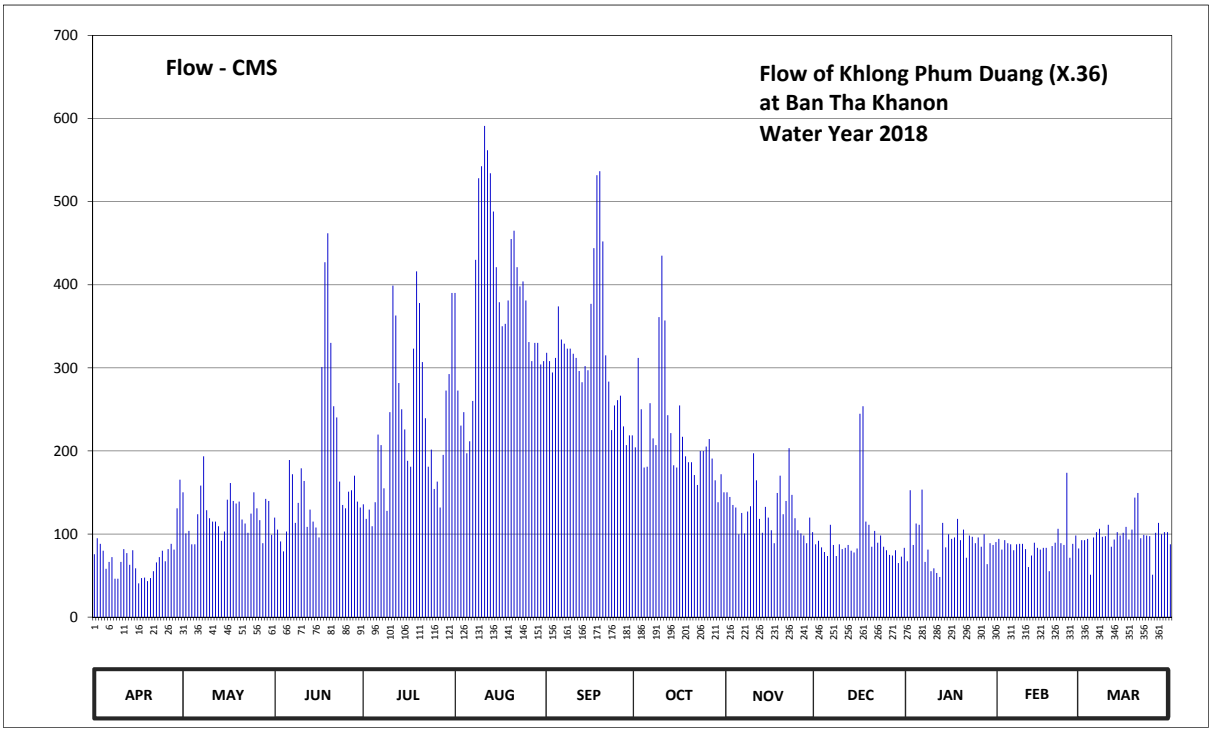
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	1.98	2.94	2.56	2.76	5.53	4.81	3.57	2.94	2.15	1.86	2.24	2.22	
2	2.25	2.32	2.38	2.54	4.33	4.71	4.75	2.87	2.21	2.97	2.06	2.22	
3	2.16	2.36	2.20	2.68	3.86	4.57	4.08	2.75	2.10	2.14	2.22	2.24	
4	2.04	2.15	2.03	2.43	4.04	4.75	3.30	2.71	2.02	2.47	2.17	1.63	
5	1.73	2.15	2.35	2.79	3.49	5.37	3.31	2.31	1.95	2.45	2.15	2.26	
6	1.85	2.61	3.40	3.74	3.65	4.97	4.16	2.63	2.45	2.98	2.05	2.34	
7	1.93	3.04	3.21	3.60	4.19	4.92	3.69	2.32	2.14	1.85	2.15	2.39	
8	1.56	3.45	2.48	3.00	5.93	4.86	3.60	2.65	1.95	2.06	2.16	2.27	
9	1.56	2.67	2.78	2.66	6.86	4.86	5.24	2.73	2.15	1.69	2.16	2.28	
10	1.85	2.55	3.29	4.04	6.98	4.80	5.98	3.49	2.07	1.74	2.07	2.45	
11	2.07	2.50	3.11	5.62	7.37	4.75	5.20	3.12	2.09	1.66	1.76	2.11	
12	2.00	2.50	2.42	5.26	7.14	4.59	4.00	2.54	2.14	1.59	1.96	2.23	
13	1.80	2.43	2.68	4.43	6.91	4.44	3.76	2.33	2.04	2.48	2.18	2.34	
14	2.05	2.21	2.50	4.08	6.50	4.65	3.33	2.72	2.01	2.10	2.09	2.29	
15	1.74	2.35	2.41	3.81	5.84	4.60	3.30	2.56	2.08	2.31	2.06	2.33	
16	1.48	2.83	2.26	3.39	5.42	5.40	4.13	2.37	4.02	2.24	2.09	2.42	
17	1.57	3.08	4.64	3.31	5.13	6.07	3.71	2.17	4.12	2.26	2.09	2.23	
18	1.58	2.81	5.90	4.86	5.16	6.89	3.45	2.93	2.50	2.54	1.69	2.38	
19	1.52	2.77	6.25	5.79	5.44	6.93	3.37	3.19	2.45	2.22	2.12	2.86	
20	1.57	2.80	4.93	5.41	6.18	6.15	3.37	2.61	2.11	2.38	2.18	2.93	
21	1.69	2.53	4.12	4.70	6.28	4.78	3.20	2.81	2.36	1.92	2.39	2.25	
22	1.84	2.47	3.97	3.96	5.84	4.45	3.05	3.56	2.18	2.29	2.17	2.30	
23	1.93	2.33	3.10	3.31	5.61	3.80	3.52	2.90	2.29	2.27	2.14	2.29	
24	2.04	2.62	2.75	3.54	5.67	4.13	3.52	2.55	2.11	2.17	3.23	2.28	
25	1.86	2.94	2.70	2.99	5.44	4.20	3.58	2.37	2.05	2.26	1.92	1.63	
26	2.07	2.70	2.95	3.10	4.94	4.26	3.68	2.32	1.97	2.11	2.16	2.33	
27	2.16	2.52	2.97	2.71	4.71	3.85	3.42	2.29	1.96	2.31	2.29	2.48	
28	2.06	2.17	3.19	3.47	4.93	3.60	3.12	2.17	2.05	1.81	2.08	2.31	
29	2.70	2.84	2.80	4.33	4.93	3.73	2.79	2.56	1.83	2.17		2.34	
30	3.13	2.81	2.71	4.55	4.67	3.73	3.21	2.34	1.94	2.14		2.34	
31		2.30		5.53	4.71		2.94		2.09	2.19		2.15	
Mean	1.93	2.60	3.17	3.82	5.41	4.79	3.72	2.66	2.24	2.18	2.14	2.29	
Max	3.13	3.45	6.25	5.79	7.37	6.93	5.98	3.56	4.12	2.98	3.23	2.93	7.37
Min	1.48	2.15	2.03	2.43	3.49	3.60	2.79	2.17	1.83	1.59	1.69	1.63	1.48

Annual Max Momentary Gage Height 7.50 m. (MSL.) , at 19.00 Hours , on Aug 11, 2018

Zero Gage at Bottom Elevation 0.00 m. (MSL.) , River Bed -1.79 m. (MSL.)

Left Bank Elevation 10.21 m. (MSL.) ,

Right Bank Elevation 11.30 m. (MSL.) , Drainage Are 3,012 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	75.60	150.20	119.80	135.80	390.00	318.00	204.30	150.20	87.50	67.20	94.20	92.60		
2	95.00	100.60	105.40	118.20	272.70	308.00	312.00	144.60	91.80	152.60	81.20	92.60		
3	88.20	103.80	91.00	129.40	230.40	294.30	250.20	135.00	84.00	86.80	92.60	94.20		
4	79.80	87.50	79.10	109.40	246.60	312.00	180.00	131.80	78.40	112.60	88.90	51.10		
5	58.10	87.50	103.00	138.20	197.10	374.00	180.90	99.80	73.50	111.00	87.50	95.80		
6	66.50	123.80	189.00	219.60	211.50	334.00	257.40	125.40	111.00	153.40	80.50	102.20		
7	72.10	158.20	171.90	207.00	260.10	329.00	215.10	100.60	86.80	66.50	87.50	106.20		
8	46.20	193.50	113.40	155.00	430.00	323.00	207.00	127.00	73.50	81.20	88.20	96.60		
9	46.20	128.60	137.40	127.80	528.20	323.00	361.00	133.40	87.50	55.30	88.20	97.40		
10	66.50	119.00	179.10	246.60	542.60	317.00	435.00	197.10	81.90	58.80	81.90	111.00		
11	81.90	115.00	163.80	399.00	591.10	312.00	357.00	164.60	83.30	53.20	60.20	84.70		
12	77.00	115.00	108.60	363.00	561.80	296.10	243.00	118.20	86.80	48.30	74.20	93.40		
13	63.00	109.40	129.40	281.70	534.20	282.60	221.40	101.40	79.80	113.40	89.60	102.20		
14	80.50	91.80	115.00	250.20	488.00	302.00	182.70	132.60	77.70	84.00	83.30	98.20		
15	58.80	103.00	107.80	225.90	421.00	297.00	180.00	119.80	82.60	99.80	81.20	101.40		
16	40.60	141.40	95.80	188.10	379.00	377.00	254.70	104.60	244.80	94.20	83.30	108.60		
17	46.90	161.40	301.00	180.90	350.00	444.00	216.90	88.90	253.80	95.80	83.30	93.40		
18	47.60	139.80	427.00	323.00	353.00	531.80	193.50	149.40	115.00	118.20	55.30	105.40		
19	43.40	136.60	462.00	416.00	381.00	536.60	186.30	170.20	111.00	92.60	85.40	143.80		
20	46.90	139.00	330.00	378.00	455.00	452.00	186.30	123.80	84.70	105.40	89.60	149.40		
21	55.30	117.40	253.80	307.00	465.00	315.00	171.00	139.80	103.80	71.40	106.20	95.00		
22	65.80	112.60	240.30	239.40	421.00	283.50	159.00	203.40	89.60	98.20	88.90	99.00		
23	72.10	101.40	163.00	180.90	398.00	225.00	199.80	147.00	98.20	96.60	86.80	98.20		
24	79.80	124.60	135.00	201.60	404.00	254.70	199.80	119.00	84.70	88.90	173.70	97.40		
25	67.20	150.20	131.00	154.20	381.00	261.00	205.20	104.60	80.50	95.80	71.40	51.10		
26	81.90	131.00	151.00	163.00	331.00	266.40	214.20	100.60	74.90	84.70	88.20	101.40		
27	88.20	116.60	152.60	131.80	308.00	229.50	190.80	98.20	74.20	99.80	98.20	113.40		
28	81.20	88.90	170.20	195.30	330.00	207.00	164.60	88.90	80.50	63.70	82.60	99.80		
29	131.00	142.20	139.00	272.70	330.00	218.70	138.20	119.80	65.10	88.90		102.20		
30	165.40	139.80	131.80	292.50	304.00	218.70	171.90	102.20	72.80	86.80		102.20		
31		99.00		390.00	308.00		150.20		83.30	90.30		87.50		
Total	2168.70	3828.80	5197.20	7121.20	11803.30	9542.90	6789.40	3841.90	2983.00	2815.40	2452.10	3067.40	61611.30	CMSDAY
Mean	72.29	123.51	173.24	229.72	380.75	318.10	219.01	128.06	96.23	90.82	87.57	98.95	168.80	CMS
Max	165.40	193.50	462.00	416.00	591.10	536.60	435.00	203.40	253.80	153.40	173.70	149.40	591.10	CMS
Min	40.60	87.50	79.10	109.40	197.10	207.00	138.20	88.90	65.10	48.30	55.30	51.10	40.60	CMS
Runoff	187.38	330.81	449.04	615.27	1019.81	824.51	586.60	331.94	257.73	243.25	211.86	265.02	5323.22	MCM

Momentary Peak 608.00 CMS. at 7.50 m. (MSL.) at 19.00 Hours , on Aug 11, 2018

Runoff Yield 56.04 Liters/Second/Square KM. Momentary Peak Yield 201.86 Liters/Second/Square KM.

WATER YEAR : 2018

TAPI RIVER BASIN

Tapi River at Ban Yan Din Daeng , Surat Thani (X.37A)

Lat 08 - 34 - 03 N Long 99 - 15 - 15 E

Location : on left bank at Tambon Yan Din Daeng.

	Ban Yan Din Daeng	**Amphoe** Phrasaeng	**Changwat** Surat Thani
Drainge Area	5,200 sq.km.		
Type of Gage	Water - stage recorder.		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	Near the automatic gage building.		**Elevation** +12.682 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	1969 to date		
Rating Operation			
Period of Rating	1969 to date		
Rated by Flot	-		
Rated by Current Meter	1969 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 19 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

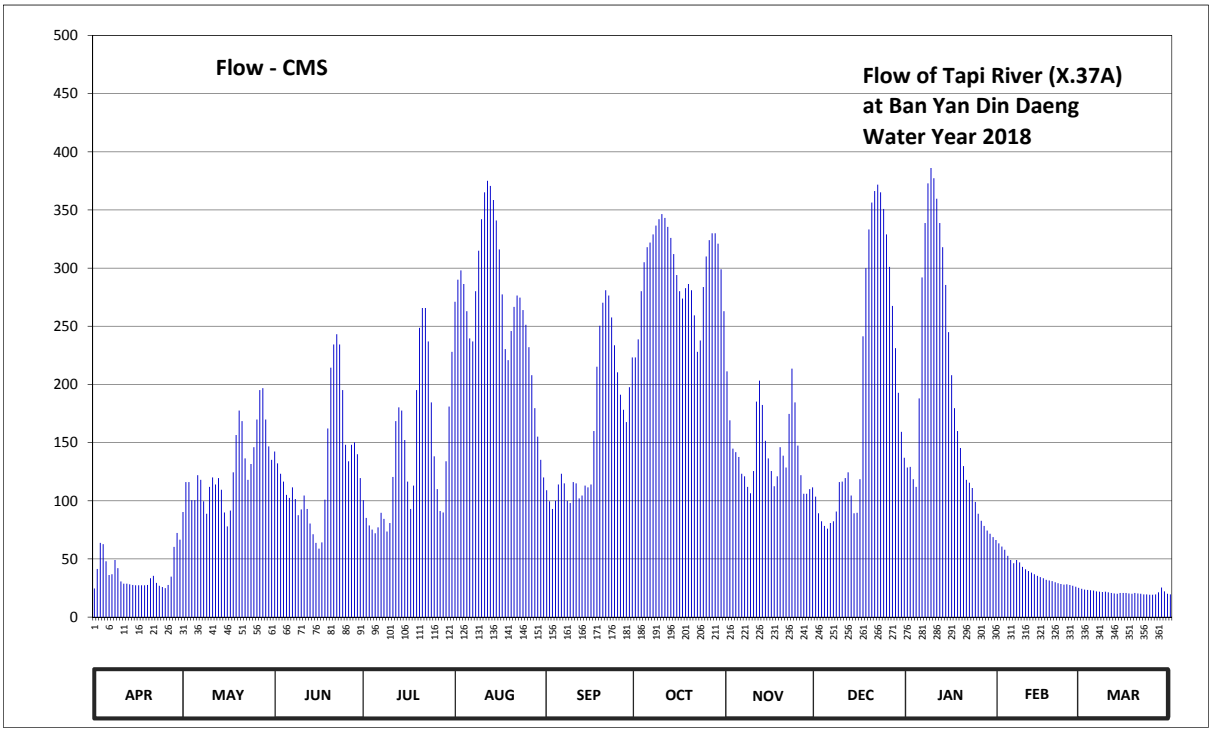
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	4.92	6.76	7.74	6.97	9.39	7.14	8.84	8.69	7.03	7.51	6.07	4.91	
2	5.44	7.28	7.57	6.63	9.60	6.95	9.03	8.13	6.73	7.52	5.99	4.89	
3	6.08	7.28	7.42	6.47	9.68	6.82	9.49	7.78	6.56	7.33	5.91	4.88	
4	6.05	6.97	7.29	6.38	9.56	6.96	9.75	7.73	6.46	7.20	5.76	4.87	
5	5.63	6.97	7.06	6.30	9.30	7.24	9.88	7.66	6.40	8.40	5.66	4.86	
6	5.29	7.40	7.01	6.43	9.04	7.42	9.92	7.42	6.52	9.62	5.58	4.84	
7	5.31	7.32	7.19	6.74	9.01	7.26	9.99	7.38	6.56	10.08	5.66	4.83	
8	5.66	6.95	6.99	6.61	9.49	6.96	10.06	7.20	6.77	10.39	5.60	4.82	
9	5.46	6.72	6.69	6.34	9.85	6.92	10.11	7.09	7.28	10.51	5.49	4.83	
10	5.12	7.20	6.81	6.52	10.11	7.28	10.15	7.46	7.29	10.43	5.43	4.81	
11	5.06	7.36	7.05	7.37	10.32	7.26	10.12	8.36	7.35	10.27	5.39	4.79	
12	5.06	7.24	6.82	8.12	10.41	7.00	10.05	8.59	7.44	10.08	5.35	4.78	
13	5.04	7.35	6.51	8.29	10.37	7.05	9.96	8.32	7.05	9.88	5.31	4.77	
14	5.02	7.15	6.28	8.25	10.26	7.22	9.82	7.88	6.73	9.55	5.27	4.79	
15	5.01	6.75	6.08	7.89	10.10	7.19	9.64	7.64	6.74	9.10	5.24	4.79	
16	5.01	6.45	5.94	7.29	9.86	7.24	9.49	7.46	7.33	8.65	5.21	4.79	
17	5.01	6.79	6.09	6.82	9.46	8.00	9.42	7.21	9.06	8.28	5.17	4.78	
18	5.01	7.44	6.98	7.22	8.93	8.74	9.52	7.38	9.70	8.00	5.15	4.77	
19	5.02	7.95	8.03	8.49	8.81	9.16	9.56	7.80	10.03	7.79	5.13	4.79	
20	5.21	8.25	8.73	9.14	9.11	9.38	9.50	7.68	10.24	7.53	5.10	4.78	
21	5.27	8.12	8.98	9.33	9.34	9.50	9.26	7.51	10.33	7.32	5.07	4.77	
22	5.08	7.64	9.08	9.33	9.45	9.45	8.90	8.21	10.38	7.27	5.05	4.75	
23	5.00	7.32	8.98	9.01	9.43	9.24	9.02	8.72	10.32	7.18	5.03	4.75	
24	4.96	7.56	8.49	8.35	9.31	8.97	9.53	8.35	10.19	6.94	5.04	4.74	
25	4.93	7.80	7.83	7.67	9.17	8.68	9.80	7.82	9.99	6.72	5.02	4.74	
26	5.02	8.14	7.60	7.16	8.95	8.44	9.94	7.40	9.71	6.57	5.00	4.75	
27	5.25	8.49	7.83	6.78	8.65	8.26	10.00	7.08	9.35	6.46	4.97	4.81	
28	5.98	8.51	7.86	6.75	8.28	8.11	10.00	7.08	8.94	6.36	4.94	4.95	
29	6.31	8.14	7.70	7.60	7.93	8.52	9.91	7.16	8.46	6.29		4.84	
30	6.16	7.81	7.35	8.30	7.62	8.84	9.69	7.19	7.99	6.22		4.77	
31		7.62		8.90	7.36		9.30		7.65	6.15		4.75	
Mean	5.31	7.44	7.40	7.53	9.30	7.91	9.67	7.71	8.15	8.12	5.34	4.81	
Max	6.31	8.51	9.08	9.33	10.41	9.50	10.15	8.72	10.38	10.51	6.07	4.95	10.51
Min	4.92	6.45	5.94	6.30	7.36	6.82	8.84	7.08	6.40	6.15	4.94	4.74	4.74

Annual Max Momentary Gage Height 10.53 m. (MSL.) , at 14.00 Hours , on Jan 9, 2019

Zero Gage at Bottom Elevation 0.00 m. (MSL.) , River Bed 3.37 m. (MSL.)

Left Bank Elevation 10.91 m. (MSL.) ,

Right Bank Elevation 10.76 m. (MSL.) , Drainage Are 5,200 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	24.60	90.40	142.40	100.50	271.10	109.00	223.20	211.20	103.50	128.60	63.45	24.30		
2	41.40	116.00	132.20	85.20	290.00	99.50	238.70	169.10	89.20	129.20	60.65	23.70		
3	63.80	116.00	123.20	78.80	298.00	93.00	280.10	144.80	82.40	118.50	57.85	23.40		
4	62.75	100.50	116.50	75.20	286.40	100.00	305.00	141.80	78.40	112.00	52.60	23.10		
5	48.05	100.50	105.00	72.00	263.00	114.00	318.00	137.60	76.00	188.00	49.10	22.80		
6	36.15	122.00	102.50	77.20	239.60	123.20	322.00	123.20	80.80	292.00	46.30	22.20		
7	36.85	118.00	111.50	89.60	236.90	115.00	329.00	121.00	82.40	338.80	49.10	21.90		
8	49.10	99.50	101.50	84.40	280.10	100.00	336.60	112.00	90.80	372.90	47.00	21.60		
9	42.10	88.80	87.60	73.60	315.00	98.00	342.10	106.50	116.00	386.10	43.15	21.90		
10	30.60	112.00	92.50	80.80	342.10	116.00	346.50	125.60	116.50	377.30	41.05	21.30		
11	28.80	120.00	104.50	120.50	365.20	115.00	343.20	185.20	119.50	359.70	39.65	20.70		
12	28.80	114.00	93.00	168.40	375.10	102.00	335.50	203.20	124.40	338.80	38.25	20.40		
13	28.20	119.50	80.40	180.30	370.70	104.50	326.00	182.40	104.50	318.00	36.85	20.10		
14	27.60	109.50	71.20	177.50	358.60	113.00	312.00	151.60	89.20	285.50	35.45	20.70		
15	27.30	90.00	63.80	152.30	341.00	111.50	294.00	136.40	89.60	245.00	34.40	20.70		
16	27.30	78.00	58.90	116.50	316.00	114.00	280.10	125.60	118.50	208.00	33.35	20.70		
17	27.30	91.60	64.15	93.00	277.40	160.00	273.80	112.50	241.40	179.60	32.10	20.40		
18	27.30	124.40	101.00	113.00	230.40	215.20	282.80	121.00	300.00	160.00	31.50	20.10		
19	27.60	156.50	162.10	195.20	220.80	250.40	286.40	146.00	333.30	145.40	30.90	20.70		
20	33.35	177.50	214.40	248.60	245.90	270.20	281.00	138.80	356.40	129.80	30.00	20.40		
21	35.45	168.40	234.40	265.70	266.60	281.00	259.40	128.60	366.30	118.00	29.10	20.10		
22	29.40	136.40	243.20	265.70	276.50	276.50	228.00	174.70	371.80	115.50	28.50	19.50		
23	27.00	118.00	234.40	236.90	274.70	257.60	237.80	213.60	365.20	111.00	27.90	19.50		
24	25.80	131.60	195.20	184.50	263.90	233.60	283.70	184.50	350.90	99.00	28.20	19.20		
25	24.90	146.00	148.10	138.20	251.30	210.40	310.00	147.40	329.00	88.80	27.60	19.20		
26	27.60	169.80	134.00	110.00	232.00	191.20	324.00	122.00	301.00	82.80	27.00	19.50		
27	34.75	195.20	148.10	91.20	208.00	178.20	330.00	106.00	267.50	78.40	26.10	21.30		
28	60.30	196.80	150.20	90.00	179.60	167.70	330.00	106.00	231.20	74.40	25.20	25.50		
29	72.40	169.80	140.00	134.00	155.10	197.60	321.00	110.00	192.80	71.60		22.20		
30	66.60	146.70	119.50	181.00	135.20	223.20	299.00	111.50	159.30	68.80		20.10		
31		135.20		228.00	120.00		263.00		137.00	66.25		19.50		
Total	1,123.15	3,958.60	3,875.45	4307.80	8286.20	4840.50	9241.90	4299.80	5864.80	5787.75	1072.30	656.70	53314.95	CMSDAY
Mean	37.44	127.70	129.18	138.96	267.30	161.35	298.13	143.33	189.19	186.70	38.30	21.18	146.07	CMS
Max	72.40	196.80	243.20	265.70	375.10	281.00	346.50	213.60	371.80	386.10	63.45	25.50	386.10	CMS
Min	24.60	78.00	58.90	72.00	120.00	93.00	223.20	106.00	76.00	66.25	25.20	19.20	19.20	CMS
Runoff	97.04	342.02	334.84	372.19	715.93	418.22	798.50	371.50	506.72	500.06	92.65	56.74	4606.41	MCM

Momentary Peak 388.30 CMS, at 10.53 m. (MSL), at 14.00 Hours, on Jan 9, 2019

Runoff Yield 28.09 Liters/Second/Square KM. Momentary Peak Yield 74.67 Liters/Second/Square KM.

WATER YEAR : 2018

TAPI RIVER BASIN

Tapi River at Ban Tha Pho , Nakhon Si Thammarat (X.195)

Lat 08 - 30 - 24 N Long 99 - 30 - 39 E

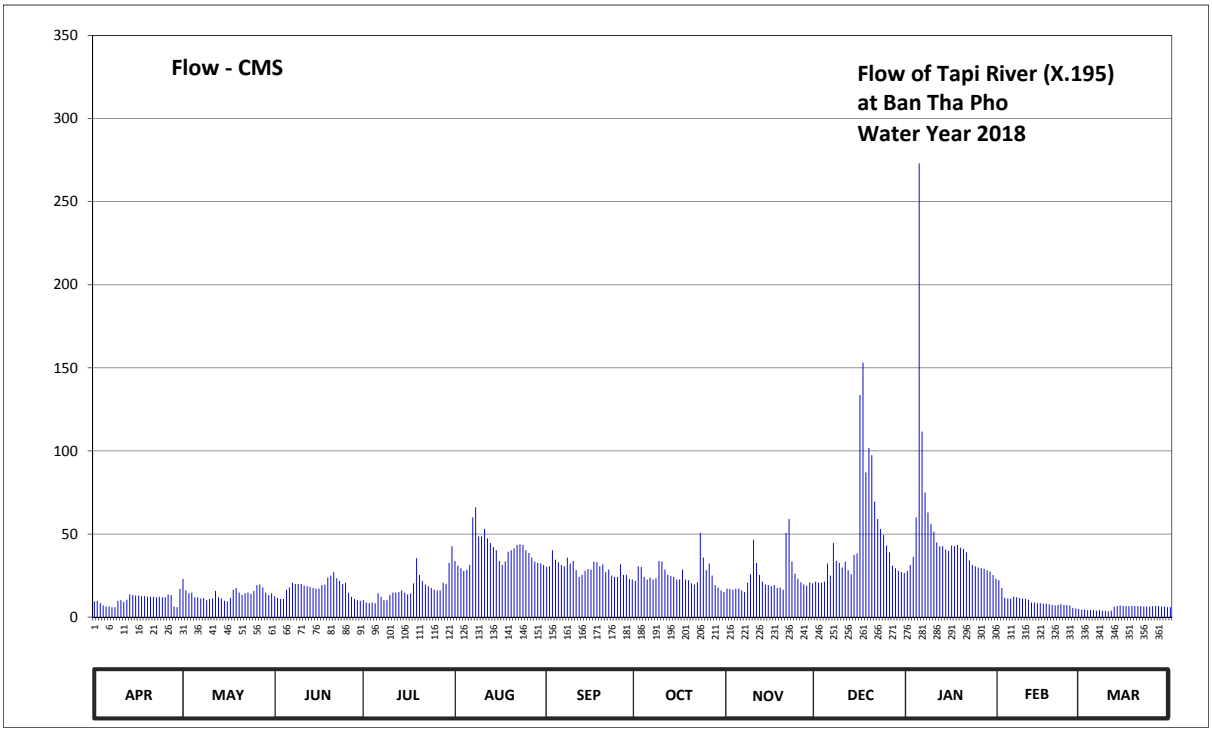
Location : on left bank at Ban Tha Pho.

	Ban Tha Pho	**Amphoe** Chawang	**Changwat** Nakhon Si Thammar
Drainge Area	488 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	Near the top staff gage.		**Elevation** +40.509 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	1998 - 2006, 2011 to date		
Rating Operation			
Period of Rating	1998 - 2006, 2011 to date		
Rated by Flot	-		
Rated by Current Meter	1998 - 2006, 2011 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	Overbank flow starts at elevation + 38.010 m.(MSL.), records are channel flow only.		
General Description	Records fair. Stage-discharge relation defined by 20 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	32.47	32.85	32.56	32.49	33.12	33.03	32.82	32.69	32.81	32.97	32.83	32.33	
2	32.48	32.66	32.53	32.45	33.05	33.04	33.04	32.68	32.79	33.06	32.70	32.33	
3	32.44	32.61	32.51	32.44	33.01	33.28	33.03	32.67	32.79	33.18	32.53	32.32	
4	32.40	32.62	32.51	32.45	32.97	33.14	32.88	32.69	32.81	33.74	32.52	32.32	
5	32.38	32.54	32.67	32.44	32.99	33.10	32.84	32.69	33.08	37.05	32.52	32.32	
6	32.38	32.54	32.71	32.61	33.06	33.06	32.87	32.66	32.90	34.74	32.55	32.31	
7	32.37	32.52	32.79	32.55	33.74	33.04	32.84	32.63	33.39	34.04	32.54	32.32	
8	32.37	32.53	32.77	32.49	33.86	33.17	32.86	32.79	33.12	33.80	32.53	32.31	
9	32.48	32.49	32.77	32.49	33.49	33.08	33.12	32.92	33.09	33.66	32.52	32.31	
10	32.49	32.51	32.77	32.58	33.49	33.12	33.11	33.44	33.02	33.56	32.52	32.30	
11	32.46	32.52	32.74	32.62	33.60	32.98	32.99	33.09	33.11	33.40	32.50	32.31	
12	32.50	32.65	32.73	32.62	33.46	32.88	32.91	32.91	32.98	33.34	32.45	32.38	
13	32.59	32.54	32.72	32.63	33.39	32.91	32.89	32.81	32.92	33.34	32.45	32.39	
14	32.58	32.52	32.70	32.66	33.33	32.97	32.88	32.76	33.21	33.29	32.44	32.40	
15	32.57	32.48	32.69	32.62	33.28	33.00	32.84	32.75	33.23	33.27	32.44	32.39	
16	32.57	32.47	32.69	32.59	33.12	32.99	32.84	32.73	35.11	33.35	32.43	32.39	
17	32.56	32.53	32.75	32.61	33.06	33.11	32.99	32.75	35.43	33.34	32.43	32.39	
18	32.56	32.67	32.76	32.78	33.11	33.10	32.84	32.70	34.28	33.36	32.42	32.39	
19	32.55	32.70	32.87	33.16	33.26	33.04	32.83	32.71	34.56	33.32	32.41	32.39	
20	32.55	32.62	32.90	32.91	33.28	33.07	32.78	32.67	34.48	33.30	32.40	32.39	
21	32.55	32.58	32.95	32.82	33.31	32.95	32.76	33.54	33.93	33.25	32.41	32.39	
22	32.54	32.61	32.86	32.76	33.36	32.99	32.80	33.72	33.72	33.13	32.42	32.38	
23	32.55	32.62	32.82	32.73	33.37	32.90	33.54	33.11	33.60	33.06	32.41	32.38	
24	32.54	32.60	32.77	32.70	33.36	32.88	33.17	32.93	33.51	33.04	32.41	32.38	
25	32.54	32.65	32.79	32.67	33.28	32.88	32.98	32.85	33.35	33.02	32.40	32.39	
26	32.59	32.75	32.62	32.66	33.24	33.07	33.08	32.80	33.25	33.01	32.36	32.39	
27	32.58	32.76	32.55	32.66	33.17	32.91	32.90	32.76	33.05	33.00	32.35	32.39	
28	32.38	32.71	32.51	32.79	33.11	32.91	32.75	32.74	33.01	32.98	32.34	32.38	
29	32.37	32.62	32.49	32.77	33.09	32.85	32.71	32.80	32.97	32.96		32.38	
30	32.69	32.58	32.48	33.09	33.08	32.84	32.66	32.78	32.95	32.91		32.37	
31		32.61		33.34	33.06		32.63		32.94	32.85		32.37	
Mean	32.50	32.60	32.70	32.68	33.26	33.01	32.91	32.86	33.40	33.43	32.47	32.36	
Max	32.69	32.85	32.95	33.34	33.86	33.28	33.54	33.72	35.43	37.05	32.83	32.40	37.05
Min	32.37	32.47	32.48	32.44	32.97	32.84	32.63	32.63	32.79	32.85	32.34	32.30	32.30

Annual Max Momentary Gage Height	38.13	m. (MSL.) ,	at 06.00 Hours , on Jan 5, 2019		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	30.75	m. (MSL.)
Left Bank Elevation	40.32	m. (MSL.) ,			
Right Bank Elevation	38.00	m. (MSL.) ,	Drainage Are	488	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	9.45	23.00	12.60	10.15	33.80	30.20	21.80	17.15	21.40	27.80	22.20	4.55		
2	9.80	16.10	11.55	8.75	31.00	30.60	30.60	16.80	20.65	31.40	17.50	4.55		
3	8.40	14.35	10.85	8.40	29.40	40.20	30.20	16.45	20.65	36.20	11.55	4.20		
4	7.00	14.70	10.85	8.75	27.80	34.60	24.20	17.15	21.40	60.00	11.20	4.20		
5	6.30	11.90	16.45	8.40	28.60	33.00	22.60	17.15	32.20	273.00	11.20	4.20		
6	6.30	11.90	17.85	14.35	31.40	31.40	23.80	16.10	25.00	111.70	12.25	3.85		
7	5.95	11.20	20.65	12.25	60.00	30.60	22.60	15.05	44.60	75.00	11.90	4.20		
8	5.95	11.55	19.95	10.15	66.00	35.80	23.40	20.65	33.80	63.00	11.55	3.85		
9	9.80	10.15	19.95	10.15	48.60	32.20	33.80	25.80	32.60	56.00	11.20	3.85		
10	10.15	10.85	19.95	13.30	48.60	33.80	33.40	46.60	29.80	51.40	11.20	3.50		
11	9.10	11.20	18.90	14.70	53.00	28.20	28.60	32.60	33.40	45.00	10.50	3.85		
12	10.50	15.75	18.55	14.70	47.40	24.20	25.40	25.40	28.20	42.60	8.75	6.30		
13	13.65	11.90	18.20	15.05	44.60	25.40	24.60	21.40	25.80	42.60	8.75	6.65		
14	13.30	11.20	17.50	16.10	42.20	27.80	24.20	19.60	37.40	40.60	8.40	7.00		
15	12.95	9.80	17.15	14.70	40.20	29.00	22.60	19.25	38.20	39.80	8.40	6.65		
16	12.95	9.45	17.15	13.65	33.80	28.60	22.60	18.55	133.60	43.00	8.05	6.65		
17	12.60	11.55	19.25	14.35	31.40	33.40	28.60	19.25	153.10	42.60	8.05	6.65		
18	12.60	16.45	19.60	20.30	33.40	33.00	22.60	17.50	87.00	43.40	7.70	6.65		
19	12.25	17.50	23.80	35.40	39.40	30.60	22.20	17.85	101.80	41.80	7.35	6.65		
20	12.25	14.70	25.00	25.40	40.20	31.80	20.30	16.45	97.40	41.00	7.00	6.65		
21	12.25	13.30	27.00	21.80	41.40	27.00	19.60	50.60	69.50	39.00	7.35	6.65		
22	11.90	14.35	23.40	19.60	43.40	28.60	21.00	59.00	59.00	34.20	7.70	6.30		
23	12.25	14.70	21.80	18.55	43.80	25.00	50.60	33.40	53.00	31.40	7.35	6.30		
24	11.90	14.00	19.95	17.50	43.40	24.20	35.80	26.20	49.40	30.60	7.35	6.30		
25	11.90	15.75	20.65	16.45	40.20	24.20	28.20	23.00	43.00	29.80	7.00	6.65		
26	13.65	19.25	14.70	16.10	38.60	31.80	32.20	21.00	39.00	29.40	5.60	6.65		
27	13.30	19.60	12.25	16.10	35.80	25.40	25.00	19.60	31.00	29.00	5.25	6.65		
28	6.30	17.85	10.85	20.65	33.40	25.40	19.25	18.90	29.40	28.20	4.90	6.30		
29	5.95	14.70	10.15	19.95	32.60	23.00	17.85	21.00	27.80	27.40		6.30		
30	17.15	13.30	9.80	32.60	32.20	22.60	16.10	20.30	27.00	25.40		5.95		
31		14.35		42.60	31.40		15.05		26.60	23.00		5.95		
Total	317.80	436.35	526.30	530.90	1227.00	881.60	788.75	709.75	1472.70	1535.30	267.20	174.65	8868.30	CMSDAY
Mean	10.59	14.08	17.54	17.13	39.58	29.39	25.44	23.66	47.51	49.53	9.54	5.63	24.30	CMS
Max	17.15	23.00	27.00	42.60	66.00	40.20	50.60	59.00	153.10	273.00	22.20	7.00	273.00	CMS
Min	5.95	9.45	9.80	8.40	27.80	22.60	15.05	15.05	20.65	23.00	4.90	3.50	3.50	CMS
Runoff	27.46	37.70	45.47	45.87	106.01	76.17	68.15	61.32	127.24	132.65	23.09	15.09	766.22	MCM

Momentary Peak 368.70 CMS, at 38.13 m. (MSL.), at 06.00 Hours, on Jan 5, 2019

Runoff Yield 49.79 Liters/Second/Square KM. Momentary Peak Yield 755.53 Liters/Second/Square KM.

WATER YEAR : 2018

TAPI RIVER BASIN

Khlong Sin Pun at Ban Bang Rup , Surat Thani (X.198)

Lat 08 - 24 - 24 N Long 99 - 15 - 05 E

Location : on right bank at Ban Bang Rup.

	Ban Bang Rup	**Amphoe** Phrasaeng	**Changwat** Surat Thani
Drainge Area	866 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+9.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank at the footpath of the bridge.	**Elevation**	+19.252 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic mean of 5 readings		
Period of Available Gage Records	2007 to date		
Rating Operation			
Period of Rating	2007 to date		
Rated by Flot	-		
Rated by Current Meter	2007 to date		
Stability of Channel Regimes	Fairly stable because of backwater effect.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 19 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

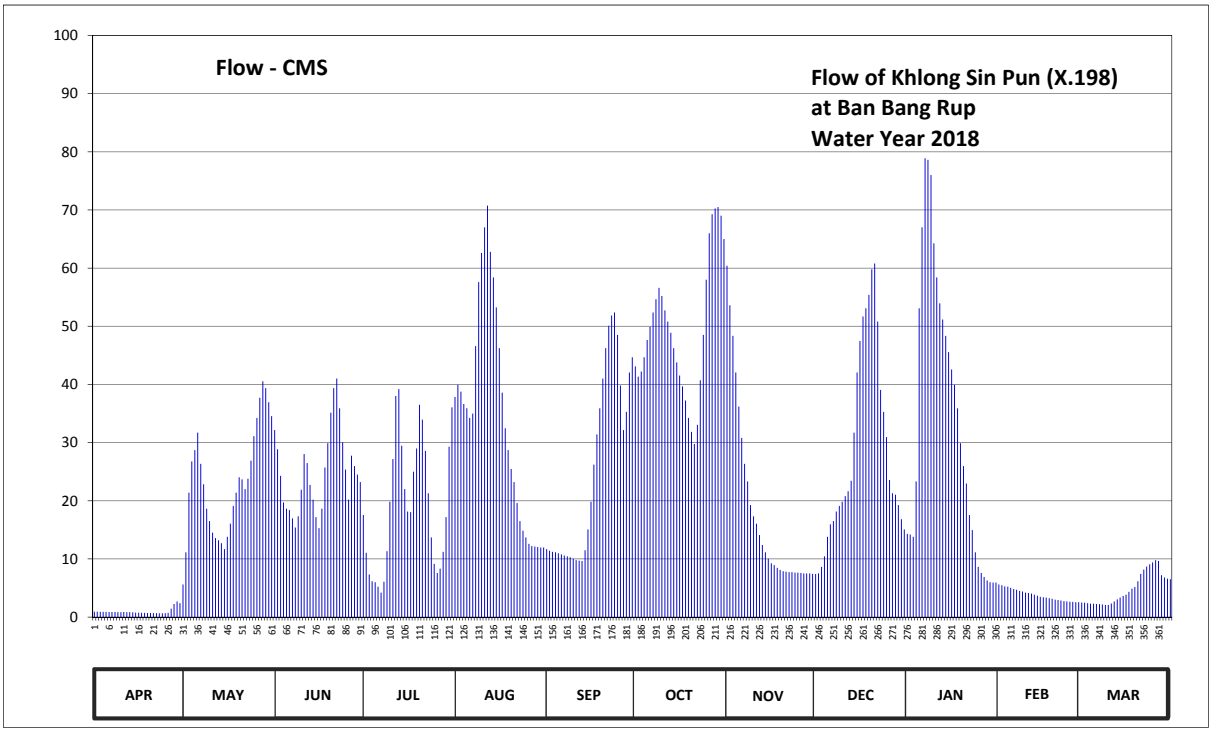
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	10.01	10.94	13.41	12.28	13.79	11.72	14.12	15.07	11.19	11.99	10.94	10.40	
2	10.01	11.66	13.19	11.65	13.93	11.69	14.02	14.72	11.20	11.98	10.92	10.39	
3	10.00	12.60	12.84	11.18	13.85	11.67	14.07	14.42	11.35	11.94	10.89	10.37	
4	10.00	13.04	12.46	11.02	13.71	11.66	14.21	14.06	11.58	12.76	10.88	10.35	
5	10.00	13.18	12.37	11.00	13.66	11.64	14.38	13.68	11.94	14.69	10.85	10.35	
6	9.99	13.38	12.35	10.88	13.55	11.62	14.51	13.32	12.14	15.36	10.82	10.34	
7	9.99	13.01	12.23	10.72	13.60	11.60	14.65	13.01	12.19	15.83	10.80	10.33	
8	9.99	12.72	12.09	11.01	14.32	11.58	14.78	12.76	12.33	15.82	10.77	10.32	
9	9.98	12.37	12.26	11.68	14.93	11.56	14.88	12.42	12.41	15.72	10.75	10.30	
10	9.98	12.19	12.64	12.47	15.18	11.53	14.81	12.26	12.47	15.25	10.72	10.30	
11	9.99	12.01	13.13	13.07	15.36	11.50	14.67	12.15	12.55	14.97	10.71	10.36	
12	9.98	11.92	13.02	13.80	15.51	11.49	14.56	11.97	12.62	14.74	10.69	10.44	
13	9.98	11.88	12.71	13.88	15.19	11.48	14.45	11.80	12.77	14.58	10.66	10.51	
14	9.97	11.83	12.50	13.23	14.97	11.70	14.30	11.66	13.38	14.42	10.63	10.57	
15	9.96	11.72	12.25	12.65	14.70	12.06	14.16	11.53	14.06	14.26	10.60	10.62	
16	9.96	11.94	12.08	12.33	14.30	12.47	14.03	11.43	14.37	14.09	10.58	10.66	
17	9.95	12.15	12.37	12.32	13.84	13.00	13.91	11.39	14.61	13.93	10.57	10.74	
18	9.95	12.41	12.96	12.90	13.43	13.36	13.75	11.33	14.69	13.66	10.55	10.83	
19	9.94	12.60	13.26	13.20	13.18	13.66	13.55	11.28	14.82	13.26	10.53	10.87	
20	9.94	12.82	13.61	13.70	12.94	14.00	13.39	11.25	15.04	12.98	10.50	11.02	
21	9.93	12.79	13.89	13.53	12.75	14.30	13.25	11.24	15.09	12.73	10.49	11.19	
22	9.93	12.65	14.00	13.17	12.45	14.52	13.47	11.23	14.56	12.28	10.47	11.29	
23	9.92	12.80	13.66	12.59	12.19	14.62	13.98	11.23	13.87	12.05	10.45	11.36	
24	9.92	13.05	13.27	11.93	12.04	14.65	14.43	11.22	13.62	11.66	10.44	11.41	
25	9.93	13.34	12.93	11.42	11.93	14.43	14.95	11.22	13.33	11.35	10.43	11.45	
26	9.95	13.55	12.50	11.21	11.82	13.92	15.32	11.21	12.78	11.21	10.42	11.50	
27	10.14	13.78	13.11	11.31	11.78	13.41	15.45	11.20	12.59	11.12	10.41	11.48	
28	10.34	13.97	12.98	11.67	11.77	13.62	15.49	11.20	12.57	11.04	10.41	11.16	
29	10.44	13.89	12.86	12.25	11.76	14.06	15.50	11.20	12.42	11.00		11.11	
30	10.37	13.73	12.75	13.22	11.75	14.21	15.44	11.19	12.22	10.99		11.08	
31		13.57		13.67	11.75		15.28		12.06	10.99		11.07	
Mean	10.01	12.69	12.86	12.29	13.42	12.76	14.44	12.12	12.99	13.18	10.64	10.78	
Max	10.44	13.97	14.00	13.88	15.51	14.65	15.50	15.07	15.09	15.83	10.94	11.50	15.83
Min	9.92	10.94	12.08	10.72	11.75	11.48	13.25	11.19	11.19	10.99	10.41	10.30	9.92

Annual Max Momentary Gage Height 15.91 m. (MSL.) , at 18.00 Hours , on Jan 7, 2019

Zero Gage at Bottom Elevation 9.00 m. (MSL.) , River Bed 8.96 m. (MSL.)

Left Bank Elevation 16.81 m. (MSL.) ,

Right Bank Elevation 16.62 m. (MSL.) , Drainage Are 866 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.94	5.61	32.15	17.56	37.85	11.68	43.10	60.40	7.43	14.30	5.61	2.50		
2	0.94	11.14	28.86	11.05	39.95	11.41	41.35	53.60	7.50	14.20	5.48	2.46		
3	0.90	21.40	24.28	7.35	38.75	11.23	42.23	48.35	8.63	13.80	5.29	2.38		
4	0.90	26.76	19.72	6.15	36.65	11.14	44.68	42.05	10.44	23.32	5.22	2.30		
5	0.90	28.72	18.64	6.00	35.90	10.96	47.65	36.20	13.80	53.08	5.03	2.30		
6	0.87	31.70	18.40	5.22	34.25	10.78	49.93	30.80	15.94	67.00	4.83	2.26		
7	0.87	26.34	16.96	4.22	35.00	10.60	52.38	26.34	16.49	78.90	4.70	2.22		
8	0.87	22.84	15.39	6.08	46.60	10.44	54.65	23.32	18.16	78.60	4.52	2.18		
9	0.84	18.64	17.32	11.32	57.60	10.28	56.60	19.24	19.12	76.00	4.40	2.10		
10	0.84	16.49	21.88	19.84	62.60	10.04	55.20	17.32	19.84	64.25	4.22	2.10		
11	0.87	14.51	28.02	27.18	67.00	9.80	52.73	16.05	20.80	58.40	4.16	2.34		
12	0.84	13.60	26.48	38.00	70.75	9.72	50.80	14.10	21.64	53.95	4.04	2.70		
13	0.84	13.20	22.72	39.20	62.80	9.64	48.88	12.40	23.44	51.15	3.86	3.05		
14	0.81	12.70	20.20	29.45	58.40	11.50	46.25	11.14	31.70	48.35	3.68	3.35		
15	0.78	11.68	17.20	22.00	53.25	15.06	43.80	10.04	42.05	45.55	3.50	3.62		
16	0.78	13.80	15.28	18.16	46.25	19.84	41.53	9.24	47.48	42.58	3.40	3.86		
17	0.75	16.05	18.64	18.04	38.60	26.20	39.65	8.93	51.68	39.95	3.35	4.34		
18	0.75	19.12	25.72	25.00	32.45	31.40	37.25	8.48	53.08	35.90	3.25	4.90		
19	0.72	21.40	29.90	29.00	28.72	35.90	34.25	8.10	55.40	29.90	3.15	5.16		
20	0.72	24.04	35.15	36.50	25.48	41.00	31.85	7.88	59.80	25.96	3.00	6.15		
21	0.69	23.68	39.35	33.95	23.20	46.25	29.75	7.80	60.80	22.96	2.95	7.43		
22	0.69	22.00	41.00	28.58	19.60	50.10	33.05	7.73	50.80	17.56	2.85	8.18		
23	0.66	23.80	35.90	21.28	16.49	51.85	40.70	7.73	39.05	14.95	2.75	8.70		
24	0.66	26.90	30.05	13.70	14.84	52.38	48.53	7.65	35.30	11.14	2.70	9.08		
25	0.69	31.10	25.36	9.16	13.70	48.53	58.00	7.65	30.95	8.63	2.65	9.40		
26	0.75	34.25	20.20	7.58	12.60	39.80	66.00	7.58	23.56	7.58	2.60	9.80		
27	1.46	37.70	27.74	8.33	12.22	32.15	69.25	7.50	21.28	6.90	2.55	9.64		
28	2.26	40.55	25.96	11.23	12.13	35.30	70.25	7.50	21.04	6.30	2.55	7.20		
29	2.70	39.35	24.52	17.20	12.04	42.05	70.50	7.50	19.24	6.00		6.83		
30	2.38	36.95	23.20	29.30	11.95	44.68	69.00	7.43	16.84	5.94		6.60		
31		34.55		36.05	11.95		65.00		15.06	5.94		6.53		
Total	29.67	720.57	746.19	593.68	1069.57	761.71	1534.79	540.05	878.34	1029.04	106.29	151.66	8161.56	CMSDAY
Mean	0.99	23.24	24.87	19.15	34.50	25.39	49.51	18.00	28.33	33.19	3.80	4.89	22.36	CMS
Max	2.70	40.55	41.00	39.20	70.75	52.38	70.50	60.40	60.80	78.90	5.61	9.80	78.90	CMS
Min	0.66	5.61	15.28	4.22	11.95	9.64	29.75	7.43	7.43	5.94	2.55	2.10	0.66	CMS
Runoff	2.56	62.26	64.47	51.29	92.41	65.81	132.61	46.66	75.89	88.91	9.18	13.10	705.16	MCM

Momentary Peak 81.30 CMS, at 15.91 m. (MSL.), at 18.00 Hours, on Jan 7, 2019

Runoff Yield 25.82 Liters/Second/Square KM. Momentary Peak Yield 93.88 Liters/Second/Square KM.

WATER YEAR : 2018

TAPI RIVER BASIN

Tapi River at Ban Khian Sa , Surat Thani (X.217)

Lat 08 - 50 - 54 N Long 99 - 12 - 03 E

Location : on left bank at Ban Khian Sa.

	Ban Khian Sa	**Amphoe** Khian Sa	**Changwat** Surat Thani
Drainge Area	6,697 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank at the abutment of the bridge.	**Elevation**	+9.801 m. (MSL.)
Gage Reading Frequency	Recording.		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	2003 to date		
Rating Operation			
Period of Rating	2003 to date		
Rated by Flot	-		
Rated by Current Meter	2003 to date		
Stability of Channel Regimes	Fairly stable because of backwater effect.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 18 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

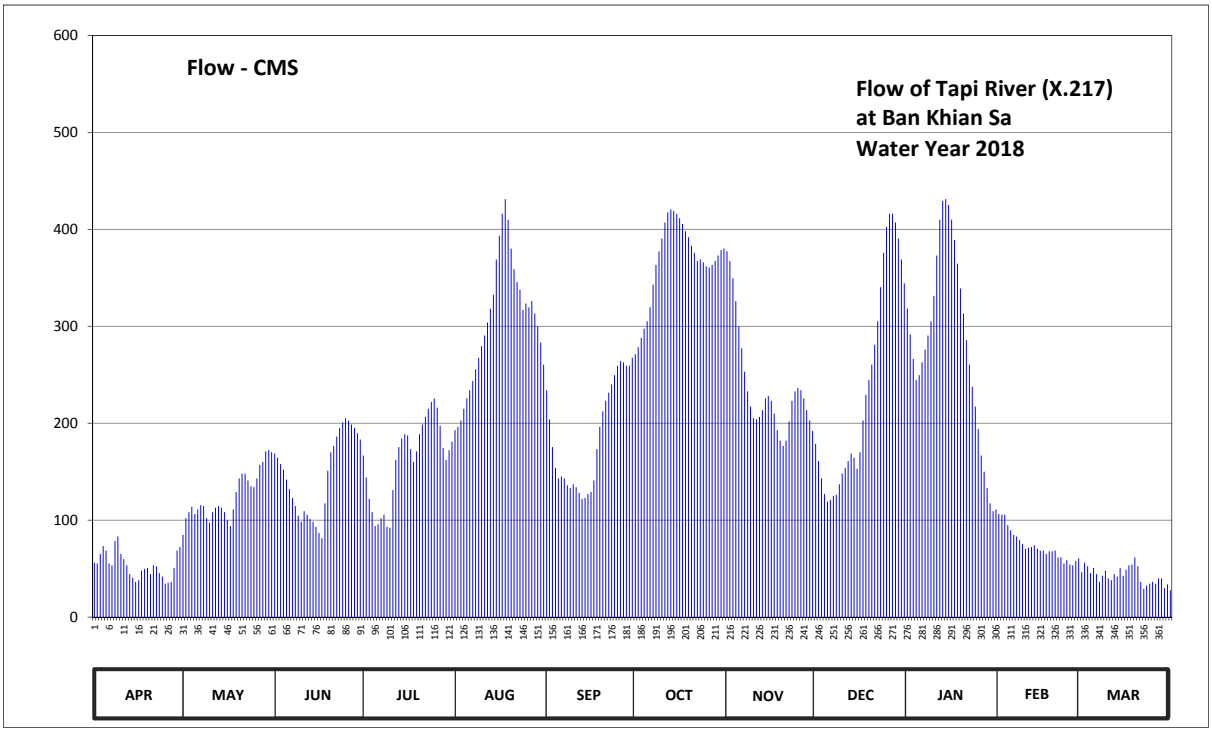
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.49	0.81	1.68	1.66	1.90	2.25	2.56	3.38	1.77	2.94	1.05	0.38	
2	0.48	1.00	1.64	1.44	1.93	2.00	2.62	3.31	1.61	2.73	1.04	0.49	
3	0.59	1.07	1.58	1.22	1.99	1.74	2.70	3.18	1.43	2.52	1.04	0.45	
4	0.68	1.13	1.52	1.07	2.09	1.54	2.78	3.00	1.27	2.34	0.92	0.37	
5	0.63	1.05	1.42	0.91	2.18	1.43	2.84	2.80	1.19	2.38	0.86	0.43	
6	0.48	1.10	1.32	0.93	2.25	1.45	2.95	2.61	1.21	2.49	0.81	0.36	
7	0.46	1.15	1.23	1.00	2.33	1.43	3.13	2.41	1.25	2.60	0.79	0.27	
8	0.74	1.14	1.14	1.04	2.43	1.36	3.28	2.24	1.26	2.72	0.75	0.34	
9	0.79	1.00	1.03	0.90	2.53	1.33	3.38	2.11	1.37	2.84	0.70	0.40	
10	0.59	0.95	0.96	0.89	2.63	1.37	3.47	2.01	1.48	3.04	0.65	0.31	
11	0.53	1.07	1.08	1.31	2.72	1.34	3.58	2.00	1.54	3.35	0.66	0.29	
12	0.46	1.12	1.04	1.62	2.83	1.28	3.65	2.02	1.61	3.60	0.67	0.36	
13	0.36	1.14	0.99	1.74	2.94	1.22	3.67	2.08	1.68	3.73	0.69	0.33	
14	0.32	1.12	0.96	1.82	3.05	1.23	3.66	2.18	1.64	3.74	0.65	0.43	
15	0.27	1.07	0.90	1.86	3.32	1.27	3.64	2.20	1.53	3.70	0.63	0.34	
16	0.29	0.98	0.83	1.85	3.49	1.29	3.61	2.16	1.69	3.60	0.63	0.41	
17	0.40	0.91	0.77	1.72	3.64	1.41	3.57	2.05	1.99	3.46	0.59	0.46	
18	0.42	1.10	1.17	1.60	3.74	1.72	3.52	1.90	2.21	3.29	0.62	0.47	
19	0.43	1.29	1.51	1.70	3.60	1.93	3.48	1.80	2.34	3.10	0.62	0.55	
20	0.36	1.43	1.69	1.86	3.40	2.07	3.42	1.75	2.47	2.90	0.63	0.45	
21	0.46	1.48	1.75	1.95	3.25	2.16	3.37	1.80	2.64	2.68	0.55	0.27	
22	0.45	1.48	1.84	2.02	3.15	2.23	3.31	1.98	2.84	2.47	0.55	0.19	
23	0.37	1.41	1.92	2.09	3.09	2.30	3.32	2.16	3.11	2.28	0.48	0.23	
24	0.33	1.35	1.97	2.15	2.93	2.38	3.30	2.24	3.37	2.11	0.52	0.25	
25	0.25	1.34	2.01	2.18	2.98	2.46	3.27	2.27	3.55	1.91	0.47	0.27	
26	0.26	1.43	1.99	2.10	2.95	2.50	3.26	2.25	3.64	1.66	0.46	0.25	
27	0.27	1.57	1.95	1.94	3.00	2.49	3.28	2.18	3.64	1.50	0.51	0.31	
28	0.43	1.60	1.92	1.73	2.90	2.46	3.31	2.08	3.58	1.33	0.54	0.31	
29	0.63	1.70	1.87	1.62	2.80	2.46	3.35	1.99	3.47	1.17		0.20	
30	0.67	1.71	1.81	1.71	2.66	2.53	3.39	1.89	3.32	1.08		0.24	
31		1.69		1.79	2.47		3.40		3.14	1.10		0.17	
Mean	0.46	1.24	1.45	1.59	2.81	1.82	3.29	2.27	2.22	2.59	0.68	0.34	
Max	0.79	1.71	2.01	2.18	3.74	2.53	3.67	3.38	3.64	3.74	1.05	0.55	3.74
Min	0.25	0.81	0.77	0.89	1.90	1.22	2.56	1.75	1.19	1.08	0.46	0.17	0.17

Annual Max Momentary Gage Height 3.77 m. (MSL.) , at 15.00 Hours , on Aug 18, 2018

Zero Gage at Bottom Elevation 0.00 m. (MSL.) , River Bed -4.11 m. (MSL.)

Left Bank Elevation 3.81 m. (MSL.) ,

Right Bank Elevation 4.03 m. (MSL.) , Drainage Are 6,697 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	56.10	84.90	168.80	166.60	193.00	234.00	271.20	377.20	178.70	318.20	106.50	46.20		
2	55.20	102.00	164.40	144.00	196.30	204.00	278.40	367.40	161.10	291.60	105.60	56.10		
3	65.10	108.30	158.00	122.00	202.90	175.40	288.00	349.40	143.00	266.40	105.60	52.50		
4	73.20	113.70	152.00	108.30	214.80	154.00	297.60	326.00	127.00	244.80	94.80	45.30		
5	68.70	106.50	142.00	93.90	225.60	143.00	305.20	300.00	119.10	249.60	89.40	50.70		
6	55.20	111.00	132.00	95.70	234.00	145.00	319.50	277.20	121.00	262.80	84.90	44.40		
7	53.40	115.50	123.00	102.00	243.60	143.00	342.90	253.20	125.00	276.00	83.10	36.30		
8	78.60	114.60	114.60	105.60	255.60	136.00	363.20	232.80	126.00	290.40	79.50	42.60		
9	83.10	102.00	104.70	93.00	267.60	133.00	377.20	217.20	137.00	305.20	75.00	48.00		
10	65.10	97.50	98.40	92.10	279.60	137.00	390.50	205.20	148.00	331.20	70.50	39.90		
11	59.70	108.30	109.20	131.00	290.40	134.00	407.00	204.00	154.00	373.00	71.40	38.10		
12	53.40	112.80	105.60	162.20	303.90	128.00	417.50	206.40	161.10	410.00	72.30	44.40		
13	44.40	114.60	101.10	175.40	318.20	122.00	420.50	213.60	168.80	429.50	74.10	41.70		
14	40.80	112.80	98.40	184.20	332.50	123.00	419.00	225.60	164.40	431.00	70.50	50.70		
15	36.30	108.30	93.00	188.60	368.80	127.00	416.00	228.00	153.00	425.00	68.70	42.60		
16	38.10	100.20	86.70	187.50	393.50	129.00	411.50	223.20	169.90	410.00	68.70	48.90		
17	48.00	93.90	81.30	173.20	416.00	141.00	405.50	210.00	202.90	389.00	65.10	53.40		
18	49.80	111.00	117.30	160.00	431.00	173.20	398.00	193.00	229.20	364.60	67.80	54.30		
19	50.70	129.00	151.00	171.00	410.00	196.30	392.00	182.00	244.80	339.00	67.80	61.50		
20	44.40	143.00	169.90	188.60	380.00	212.40	383.00	176.50	260.40	313.00	68.70	52.50		
21	53.40	148.00	176.50	198.50	359.00	223.20	375.80	182.00	280.80	285.60	61.50	36.30		
22	52.50	148.00	186.40	206.40	345.50	231.60	367.40	201.80	305.20	260.40	61.50	29.25		
23	45.30	141.00	195.20	214.80	337.70	240.00	368.80	223.20	340.30	237.60	55.20	32.70		
24	41.70	135.00	200.70	222.00	316.90	249.60	366.00	232.80	375.80	217.20	58.80	34.50		
25	34.50	134.00	205.20	225.60	323.40	259.20	361.80	236.40	402.50	194.10	54.30	36.30		
26	35.40	143.00	202.90	216.00	319.50	264.00	360.40	234.00	416.00	166.60	53.40	34.50		
27	36.30	157.00	198.50	197.40	326.00	262.80	363.20	225.60	416.00	150.00	57.90	39.90		
28	50.70	160.00	195.20	174.30	313.00	259.20	367.40	213.60	407.00	133.00	60.60	39.90		
29	68.70	171.00	189.70	162.20	300.00	259.20	373.00	202.90	390.50	117.30		30.00		
30	72.30	172.10	183.10	172.10	283.20	267.60	378.60	191.90	368.80	109.20		33.60		
31		169.90		180.90	260.40		380.00		344.20	111.00		27.75		
Total	1610.10	3868.90	4404.80	5015.10	9441.90	5606.70	11366.10	7112.10	7341.50	8702.30	2053.20	1324.80	67847.50	CMSDAY
Mean	53.67	124.80	146.83	161.78	304.58	186.89	366.65	237.07	236.82	280.72	73.33	42.74	185.88	CMS
Max	83.10	172.10	205.20	225.60	431.00	267.60	420.50	377.20	416.00	431.00	106.50	61.50	431.00	CMS
Min	34.50	84.90	81.30	92.10	193.00	122.00	271.20	176.50	119.10	109.20	53.40	27.75	27.75	CMS
Runoff	139.11	334.27	380.57	433.30	815.78	484.42	982.03	614.49	634.31	751.88	177.40	114.46	5862.02	MCM

Momentary Peak 435.50 CMS. at 3.77 m. (MSL.) at 15.00 Hours , on Aug 18, 2018

Runoff Yield 27.76 Liters/Second/Square KM. Momentary Peak Yield 65.03 Liters/Second/Square KM.

WATER YEAR : 2018

TAPI RIVER BASIN

Tapi River at Ban Khuan Klang (1) , Nakhon Si Thammarat (X.243)

Lat 08 - 33 - 35 N Long 99 - 32 - 10 E

Location : on left bank at Ban Khuan Klang (1).

	Ban Khuan Klang (1)	**Amphoe** Phi Pun	**Changwat** Nakhon Si Thammarat
Drainge Area	343 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank at the abutment of the bridge.		**Elevation** - m. (MSL.)
Gage Reading Frequency	Recording.		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	2006 to date		
Rating Operation			
Period of Rating	2006 to date		
Rated by Flot	-		
Rated by Current Meter	2006 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	Overbank flow starts at elevation + 43.590 m.(MSL.), records are channel flow only.		
General Description	Records fair. Stage-discharge relation defined by 18 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

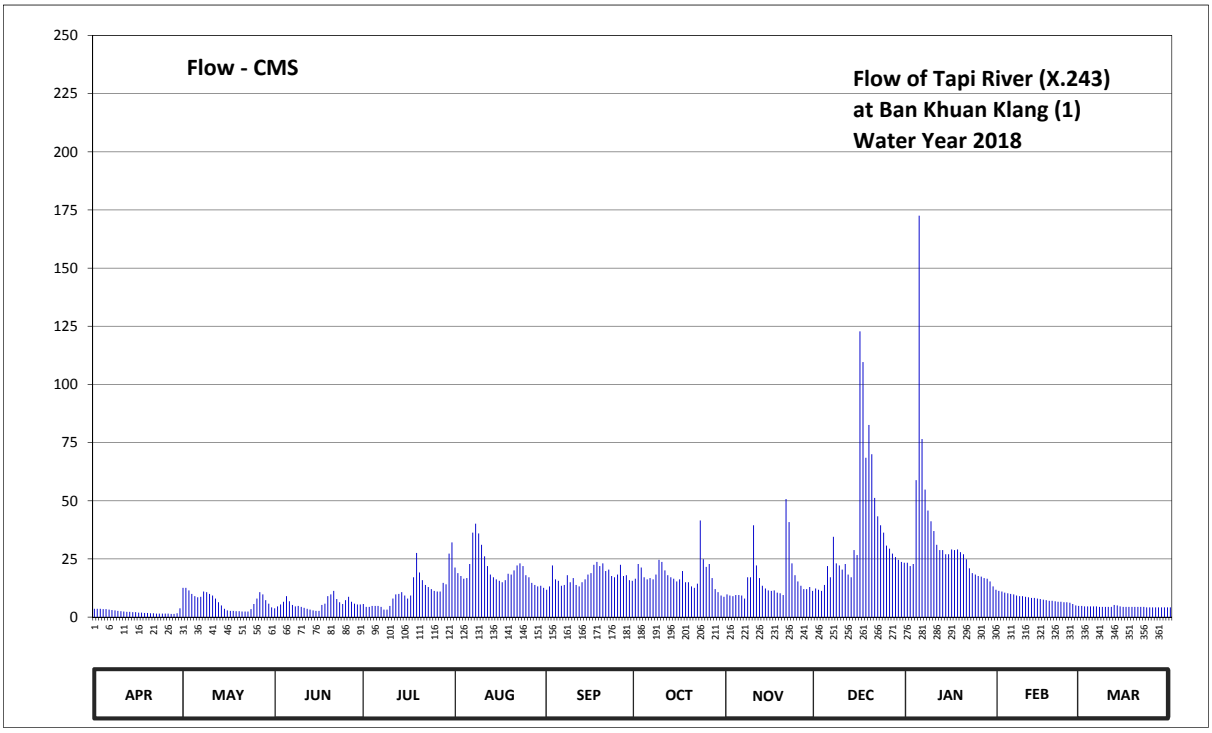
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	39.63	40.02	39.64	39.73	40.31	39.99	40.15	39.91	40.01	40.38	39.97	39.69	
2	39.63	40.02	39.68	39.67	40.23	40.04	40.36	39.89	39.99	40.33	39.96	39.68	
3	39.63	39.98	39.72	39.67	40.19	40.34	40.31	39.88	39.97	40.36	39.94	39.68	
4	39.62	39.92	39.78	39.69	40.15	40.14	40.17	39.90	40.06	41.33	39.93	39.68	
5	39.62	39.88	39.88	39.69	40.16	40.12	40.14	39.90	40.33	43.25	39.92	39.68	
6	39.61	39.86	39.79	39.69	40.36	40.05	40.16	39.89	40.17	41.69	39.91	39.68	
7	39.60	39.87	39.71	39.67	40.78	40.06	40.14	39.84	40.73	41.24	39.89	39.67	
8	39.59	39.96	39.68	39.61	40.89	40.20	40.21	40.17	40.37	41.04	39.88	39.67	
9	39.58	39.95	39.69	39.61	40.77	40.10	40.42	40.17	40.34	40.92	39.88	39.67	
10	39.57	39.92	39.67	39.69	40.63	40.16	40.39	40.87	40.28	40.80	39.87	39.67	
11	39.56	39.89	39.65	39.84	40.47	40.06	40.27	40.34	40.36	40.63	39.86	39.67	
12	39.55	39.84	39.63	39.91	40.33	40.04	40.20	40.16	40.21	40.56	39.85	39.71	
13	39.55	39.77	39.61	39.92	40.21	40.10	40.17	40.05	40.17	40.56	39.85	39.70	
14	39.54	39.70	39.59	39.95	40.17	40.14	40.15	40.01	40.56	40.50	39.84	39.68	
15	39.54	39.63	39.58	39.89	40.14	40.21	40.11	39.98	40.49	40.50	39.83	39.67	
16	39.53	39.59	39.58	39.84	40.12	40.23	40.14	39.97	42.48	40.57	39.82	39.67	
17	39.53	39.58	39.71	39.89	40.10	40.35	40.26	39.98	42.26	40.56	39.81	39.67	
18	39.52	39.58	39.74	40.17	40.13	40.39	40.10	39.94	41.53	40.57	39.80	39.67	
19	39.52	39.57	39.88	40.52	40.22	40.33	40.10	39.93	41.81	40.53	39.80	39.67	
20	39.51	39.57	39.91	40.24	40.21	40.37	40.04	39.90	41.56	40.50	39.79	39.67	
21	39.51	39.56	39.97	40.13	40.27	40.26	40.02	41.15	41.16	40.43	39.78	39.67	
22	39.50	39.56	39.83	40.06	40.34	40.28	40.08	40.91	40.98	40.30	39.78	39.67	
23	39.50	39.56	39.77	40.03	40.37	40.19	40.93	40.37	40.87	40.23	39.77	39.66	
24	39.50	39.62	39.73	40.00	40.33	40.17	40.43	40.20	40.78	40.21	39.77	39.66	
25	39.50	39.73	39.81	39.97	40.20	40.21	40.32	40.11	40.62	40.19	39.76	39.66	
26	39.50	39.84	39.87	39.96	40.17	40.35	40.36	40.05	40.58	40.18	39.73	39.66	
27	39.49	39.95	39.78	39.96	40.09	40.19	40.16	40.00	40.51	40.16	39.70	39.66	
28	39.49	39.91	39.74	40.09	40.06	40.20	40.00	40.00	40.46	40.15	39.69	39.66	
29	39.51	39.81	39.72	40.07	40.04	40.13	39.95	40.03	40.42	40.11		39.66	
30	39.64	39.74	39.72	40.51	40.05	40.12	39.89	39.97	40.39	40.04		39.66	
31		39.66		40.66	40.02		39.87		40.38	39.99		39.66	
Mean	39.55	39.78	39.74	39.95	40.27	40.18	40.19	40.12	40.67	40.61	39.84	39.67	
Max	39.64	40.02	39.97	40.66	40.89	40.39	40.93	41.15	42.48	43.25	39.97	39.71	43.25
Min	39.49	39.56	39.58	39.61	40.02	39.99	39.87	39.84	39.97	39.99	39.69	39.66	39.49

Annual Max Momentary Gage Height 44.24 m. (MSL.) , at 02.00 Hours , on Jan 5, 2019

Zero Gage at Bottom Elevation 0.00 m. (MSL.) , River Bed 38.11 m. (MSL.)

Left Bank Elevation 43.58 m. (MSL.) ,

Right Bank Elevation 44.52 m. (MSL.) , Drainage Are 343 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	3.60	12.60	3.80	5.60	21.30	11.75	16.50	9.75	12.30	23.40	11.25	4.80		
2	3.60	12.60	4.60	4.40	18.90	13.20	22.80	9.25	11.75	21.90	11.00	4.60		
3	3.60	11.50	5.40	4.40	17.70	22.20	21.30	9.00	11.25	22.80	10.50	4.60		
4	3.40	10.00	6.60	4.80	16.50	16.20	17.10	9.50	13.80	58.85	10.25	4.60		
5	3.40	9.00	9.00	4.80	16.80	15.60	16.20	9.50	21.90	172.50	10.00	4.60		
6	3.20	8.50	6.80	4.80	22.80	13.50	16.80	9.25	17.10	76.50	9.75	4.60		
7	3.00	8.75	5.20	4.40	36.30	13.80	16.20	8.00	34.55	54.80	9.25	4.40		
8	2.85	11.00	4.60	3.20	40.15	18.00	18.30	17.10	23.10	45.80	9.00	4.40		
9	2.70	10.75	4.80	3.20	35.95	15.00	24.60	17.10	22.20	41.20	9.00	4.40		
10	2.55	10.00	4.40	4.80	31.05	16.80	23.70	39.45	20.40	37.00	8.75	4.40		
11	2.40	9.25	4.00	8.00	26.10	13.80	20.10	22.20	22.80	31.05	8.50	4.40		
12	2.25	8.00	3.60	9.75	21.90	13.20	18.00	16.80	18.30	28.80	8.25	5.20		
13	2.25	6.40	3.20	10.00	18.30	15.00	17.10	13.50	17.10	28.80	8.25	5.00		
14	2.10	5.00	2.85	10.75	17.10	16.20	16.50	12.30	28.80	27.00	8.00	4.60		
15	2.10	3.60	2.70	9.25	16.20	18.30	15.30	11.50	26.70	27.00	7.75	4.40		
16	1.95	2.85	2.70	8.00	15.60	18.90	16.20	11.25	122.80	29.10	7.50	4.40		
17	1.95	2.70	5.20	9.25	15.00	22.50	19.80	11.50	109.60	28.80	7.25	4.40		
18	1.80	2.70	5.80	17.10	15.90	23.70	15.00	10.50	68.50	29.10	7.00	4.40		
19	1.80	2.55	9.00	27.60	18.60	21.90	15.00	10.25	82.60	27.90	7.00	4.40		
20	1.65	2.55	9.75	19.20	18.30	23.10	13.20	9.50	70.00	27.00	6.80	4.40		
21	1.65	2.40	11.25	15.90	20.10	19.80	12.60	50.75	51.20	24.90	6.60	4.40		
22	1.50	2.40	7.75	13.80	22.20	20.40	14.40	40.85	43.30	21.00	6.60	4.40		
23	1.50	2.40	6.40	12.90	23.10	17.70	41.55	23.10	39.45	18.90	6.40	4.20		
24	1.50	3.40	5.60	12.00	21.90	17.10	24.90	18.00	36.30	18.30	6.40	4.20		
25	1.50	5.60	7.25	11.25	18.00	18.30	21.60	15.30	30.70	17.70	6.20	4.20		
26	1.50	8.00	8.75	11.00	17.10	22.50	22.80	13.50	29.40	17.40	5.60	4.20		
27	1.35	10.75	6.60	11.00	14.70	17.70	16.80	12.00	27.30	16.80	5.00	4.20		
28	1.35	9.75	5.80	14.70	13.80	18.00	12.00	12.00	25.80	16.50	4.80	4.20		
29	1.65	7.25	5.40	14.10	13.20	15.90	10.75	12.90	24.60	15.30		4.20		
30	3.80	5.80	5.40	27.30	13.50	15.60	9.25	11.25	23.70	13.20		4.20		
31		4.20		32.10	12.60		8.75		23.40	11.75		4.20		
Total	69.45	212.25	174.20	349.35	630.65	525.65	555.10	476.85	1110.70	1031.05	222.65	137.60	5495.50	CMSDAY
Mean	2.31	6.85	5.81	11.27	20.34	17.52	17.91	15.90	35.83	33.26	7.95	4.44	15.06	CMS
Max	3.80	12.60	11.25	32.10	40.15	23.70	41.55	50.75	122.80	172.50	11.25	5.20	172.50	CMS
Min	1.35	2.40	2.70	3.20	12.60	11.75	8.75	8.00	11.25	11.75	4.80	4.20	1.35	CMS
Runoff	6.00	18.34	15.05	30.18	54.49	45.42	47.96	41.20	95.96	89.08	19.24	11.89	474.81	MCM

Momentary Peak 248.20 CMS. at 44.24 m. (MSL.) at 02.00 Hours , on Jan 5, 2019

Runoff Yield 43.90 Liters/Second/Square KM. Momentary Peak Yield 723.62 Liters/Second/Square KM.

WATER YEAR : 2018

TAPI RIVER BASIN

Lower Khlong I - Pan at Ban Arpart , Surat Thani (X.260)

Lat 08 - 32 - 28 N Long 99 - 13 - 25 E

Location : on left bank at Ban Arpart.

Ban Arpart **Amphoe** Phrasaeng **Changwat** Surat Thani

Drainge Area	2,076 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+3.000 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank near the top staff gage. **Elevation** +13.658 m. (MSL.)
Gage Reading Frequency	Recording.
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	2007 to date
Rating Operation	
Period of Rating	2007 to date
Rated by Flot	-
Rated by Current Meter	2007 to date
Stability of Channel Regimes	Fairly stable because of backwater effect.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Stage-discharge relation defined by 19 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

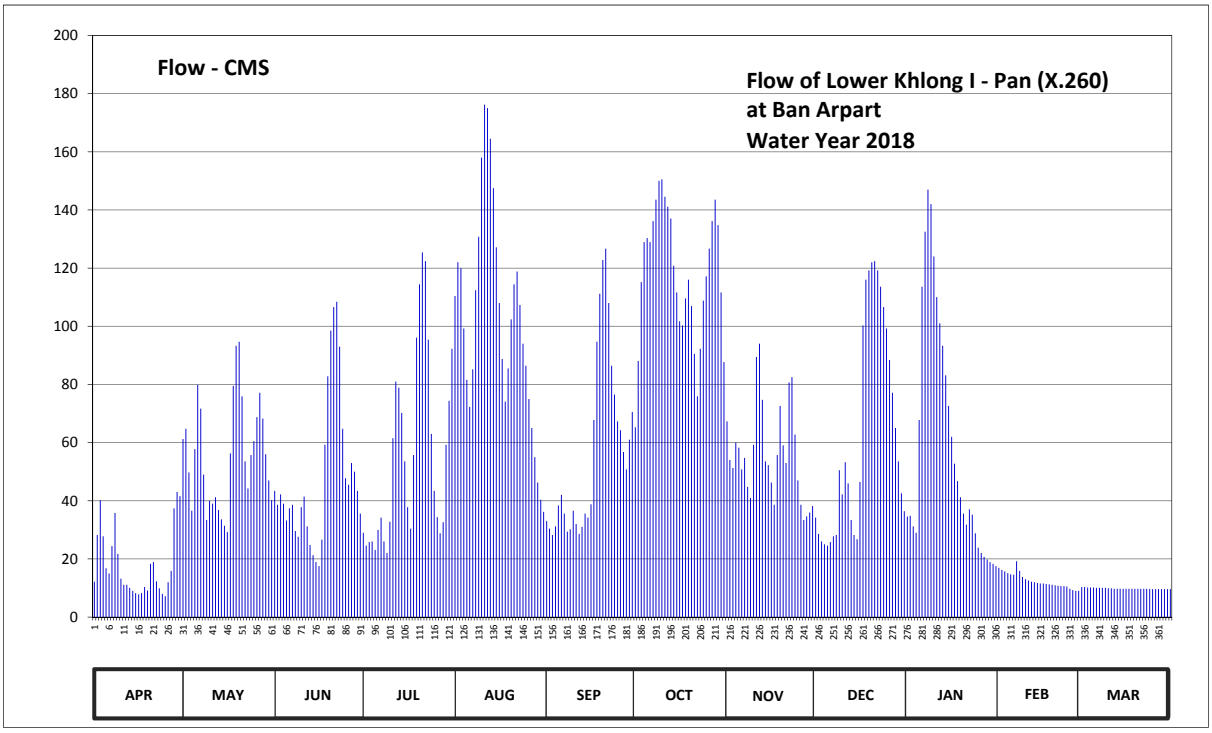
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	6.01	8.49	7.77	7.05	10.06	7.25	8.65	8.73	7.31	7.33	6.33	5.89	
2	7.01	8.63	7.53	6.83	10.35	7.12	9.43	8.20	7.03	7.34	6.28	5.89	
3	7.61	8.03	7.71	6.89	10.30	7.01	10.18	8.09	6.90	7.16	6.25	5.88	
4	6.99	7.43	7.55	6.90	9.75	7.16	10.51	8.44	6.85	7.05	6.21	5.88	
5	6.32	8.35	7.26	6.74	9.22	7.52	10.54	8.37	6.83	8.75	6.18	5.88	
6	6.20	9.16	7.47	7.10	8.91	7.70	10.51	8.07	6.89	10.14	6.17	5.87	
7	6.82	8.89	7.53	7.31	9.34	7.38	10.67	8.23	6.99	10.59	6.48	5.87	
8	7.39	8.00	7.08	6.90	10.11	7.07	10.83	7.83	7.01	10.90	6.26	5.87	
9	6.65	7.27	6.98	6.67	10.55	7.11	10.96	7.65	8.06	10.80	6.12	5.87	
10	6.08	7.60	7.49	7.24	11.12	7.43	10.97	8.41	7.71	10.40	6.07	5.86	
11	5.94	7.55	7.67	8.50	11.47	7.20	10.85	9.47	8.17	10.05	6.04	5.86	
12	5.94	7.66	7.16	9.20	11.45	7.03	10.78	9.60	7.88	9.80	6.01	5.85	
13	5.87	7.44	6.84	9.13	11.25	7.15	10.69	8.99	7.27	9.58	6.00	5.85	
14	5.80	7.28	6.62	8.84	10.91	7.38	10.32	8.18	7.01	9.27	5.98	5.85	
15	5.75	7.17	6.46	8.18	10.47	7.31	10.09	8.13	6.94	8.92	5.97	5.85	
16	5.72	7.06	6.37	7.49	10.00	7.54	9.82	7.89	7.90	8.52	5.97	5.85	
17	5.75	8.29	6.93	7.12	9.45	8.75	9.78	7.53	9.78	8.15	5.96	5.85	
18	5.89	9.15	8.41	8.27	8.97	9.62	10.04	8.27	10.20	7.91	5.95	5.85	
19	5.81	9.58	9.26	9.66	9.35	10.08	10.20	8.92	10.28	7.66	5.94	5.85	
20	6.42	9.62	9.73	10.16	9.84	10.37	9.97	8.40	10.35	7.38	5.93	5.85	
21	6.46	9.03	9.96	10.43	10.16	10.46	9.50	8.16	10.36	7.19	5.92	5.85	
22	6.02	8.18	10.01	10.36	10.27	10.00	9.03	9.19	10.28	7.45	5.91	5.85	
23	5.86	7.81	9.57	9.64	9.98	9.38	9.55	9.25	10.14	7.36	5.91	5.85	
24	5.73	8.27	8.63	8.56	9.60	9.05	10.02	8.55	9.96	7.04	5.90	5.84	
25	5.68	8.46	7.95	7.77	9.38	8.73	10.23	7.92	9.75	6.79	5.85	5.84	
26	6.00	8.79	7.86	7.32	9.00	8.61	10.46	7.53	9.44	6.67	5.82	5.84	
27	6.26	9.07	8.16	7.04	8.64	8.31	10.67	7.27	9.07	6.58	5.80	5.84	
28	7.47	8.77	8.04	7.23	8.24	8.07	10.83	7.33	8.64	6.52	5.80	5.84	
29	7.75	8.28	7.77	8.41	7.89	8.48	10.64	7.40	8.18	6.46		5.84	
30	7.68	7.92	7.38	8.98	7.62	8.85	10.09	7.51	7.73	6.42		5.84	
31		7.61		9.55	7.41		9.42		7.42	6.37		5.84	
Mean	6.36	8.22	7.84	8.11	9.71	8.17	10.20	8.25	8.33	8.15	6.04	5.86	
Max	7.75	9.62	10.01	10.43	11.47	10.46	10.97	9.60	10.36	10.90	6.48	5.89	11.47
Min	5.68	7.06	6.37	6.67	7.41	7.01	8.65	7.27	6.83	6.37	5.80	5.84	5.68

Annual Max Momentary Gage Height 11.50 m. (MSL.) , at 22.00 Hours , on Aug 11, 2018

Zero Gage at Bottom Elevation 3.00 m. (MSL.) , River Bed 2.96 m. (MSL.)

Left Bank Elevation 12.04 m. (MSL.) ,

Right Bank Elevation 12.41 m. (MSL.) , Drainage Are 2,076 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	12.15	61.25	43.40	29.00	110.40	33.00	65.25	67.25	34.20	34.60	16.95	10.35		
2	28.20	64.75	38.60	24.60	122.00	30.40	88.05	54.00	28.60	34.80	16.20	10.35		
3	40.20	49.75	42.20	25.80	120.00	28.20	115.20	51.25	26.00	31.20	15.75	10.20		
4	27.80	36.60	39.00	26.00	99.25	31.20	128.95	60.00	25.00	29.00	15.15	10.20		
5	16.80	57.75	33.20	23.10	81.60	38.40	130.30	58.25	24.60	67.75	14.70	10.20		
6	15.00	79.80	37.40	30.00	72.30	42.00	128.95	50.75	25.80	113.60	14.55	10.05		
7	24.40	71.70	38.60	34.20	85.20	35.60	136.15	54.75	27.80	132.55	19.20	10.05		
8	35.80	49.00	29.60	26.00	112.40	29.40	143.50	44.75	28.20	147.00	15.90	10.05		
9	21.75	33.40	27.60	22.05	130.75	30.20	150.00	41.00	50.50	142.00	13.80	10.05		
10	13.20	40.00	37.80	32.80	158.00	36.60	150.50	59.25	42.20	124.00	13.05	9.90		
11	11.10	39.00	41.40	61.50	176.20	32.00	144.50	89.45	53.25	110.00	12.60	9.90		
12	11.10	41.20	31.20	81.00	175.00	28.60	141.10	94.00	46.00	101.00	12.15	9.75		
13	10.05	36.80	24.80	78.90	164.50	31.00	137.05	74.70	33.40	93.30	12.00	9.75		
14	9.00	33.60	21.30	70.20	147.50	35.60	120.80	53.50	28.20	83.10	11.70	9.75		
15	8.25	31.40	18.90	53.50	127.15	34.20	111.60	52.25	26.80	72.60	11.55	9.75		
16	7.80	29.20	17.55	37.80	108.00	38.80	101.70	46.25	46.50	62.00	11.55	9.75		
17	8.25	56.25	26.60	30.40	88.75	67.75	100.30	38.60	100.30	52.75	11.40	9.75		
18	10.35	79.50	59.25	55.75	74.10	94.70	109.60	55.75	116.00	46.75	11.25	9.75		
19	9.15	93.30	82.80	96.10	85.50	111.20	116.00	72.60	119.20	41.20	11.10	9.75		
20	18.30	94.70	98.55	114.40	102.40	122.80	106.95	59.00	122.00	35.60	10.95	9.75		
21	18.90	75.90	106.60	125.35	114.40	126.70	90.50	53.00	122.40	31.80	10.80	9.75		
22	12.30	53.50	108.40	122.40	118.80	108.00	75.90	80.70	119.20	37.00	10.65	9.75		
23	9.90	44.25	92.95	95.40	107.30	86.40	92.25	82.50	113.60	35.20	10.65	9.75		
24	7.95	55.75	64.75	63.00	94.00	76.50	108.80	62.75	106.60	28.80	10.50	9.60		
25	7.20	60.50	47.75	43.40	86.40	67.25	117.20	47.00	99.25	23.85	9.75	9.60		
26	12.00	68.75	45.50	34.40	75.00	64.25	126.70	38.60	88.40	22.05	9.30	9.60		
27	15.90	77.10	53.00	28.80	65.00	56.75	136.15	33.40	77.10	20.70	9.00	9.60		
28	37.40	68.25	50.00	32.60	55.00	50.75	143.50	34.60	65.00	19.80	9.00	9.60		
29	43.00	56.00	43.40	59.25	46.25	61.00	134.80	36.00	53.50	18.90		9.60		
30	41.60	47.00	35.60	74.40	40.40	70.50	111.60	38.20	42.60	18.30		9.60		
31		40.20		92.25	36.20		87.70		36.40	17.55		9.60		
Total	544.80	1726.15	1437.70	1724.35	3179.75	1699.75	3651.55	1684.10	1928.60	1828.75	351.15	305.10	20061.75	CMSDAY
Mean	18.16	55.68	47.92	55.62	102.57	56.66	117.79	56.14	62.21	58.99	12.54	9.84	54.96	CMS
Max	43.00	94.70	108.40	125.35	176.20	126.70	150.50	94.00	122.40	147.00	19.20	10.35	176.20	CMS
Min	7.20	29.20	17.55	22.05	36.20	28.20	65.25	33.40	24.60	17.55	9.00	9.60	7.20	CMS
Runoff	47.07	149.14	124.22	148.98	274.73	146.86	315.49	145.51	166.63	158.00	30.34	26.36	1733.34	MCM

Momentary Peak 178.00 CMS. at 11.50 m. (MSL.) at 22.00 Hours , on Aug 11, 2018

Runoff Yield 26.48 Liters/Second/Square KM. Momentary Peak Yield 85.74 Liters/Second/Square KM.

WATER YEAR : 2018

THALE SAP SONGKHLA

Khlong U - Taphao at Ban Hat Yai Nai , Songkhla (X.44)

Lat 07 - 00 - 02 N Long 100 - 27 - 32 E

Location : on left bank at the bridge of Hat Yai - Rattaphum Highway.

	Ban Hat Yai Nai	**Amphoe** Hat Yai	**Changwat** Songkhla
Drainge Area	1,740 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank about 200 meters from the top staff gage.	**Elevation**	+7.341 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	1967 to date		
Rating Operation			
Period of Rating	1967 - 1972 , 1983 - 1988 , 1999 to date		
Rated by Flot	-		
Rated by Current Meter	1967 - 1972 , 1983 - 1988 , 1999 to date		
Stability of Channel Regimes	Stable because of backwater effect.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 17 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

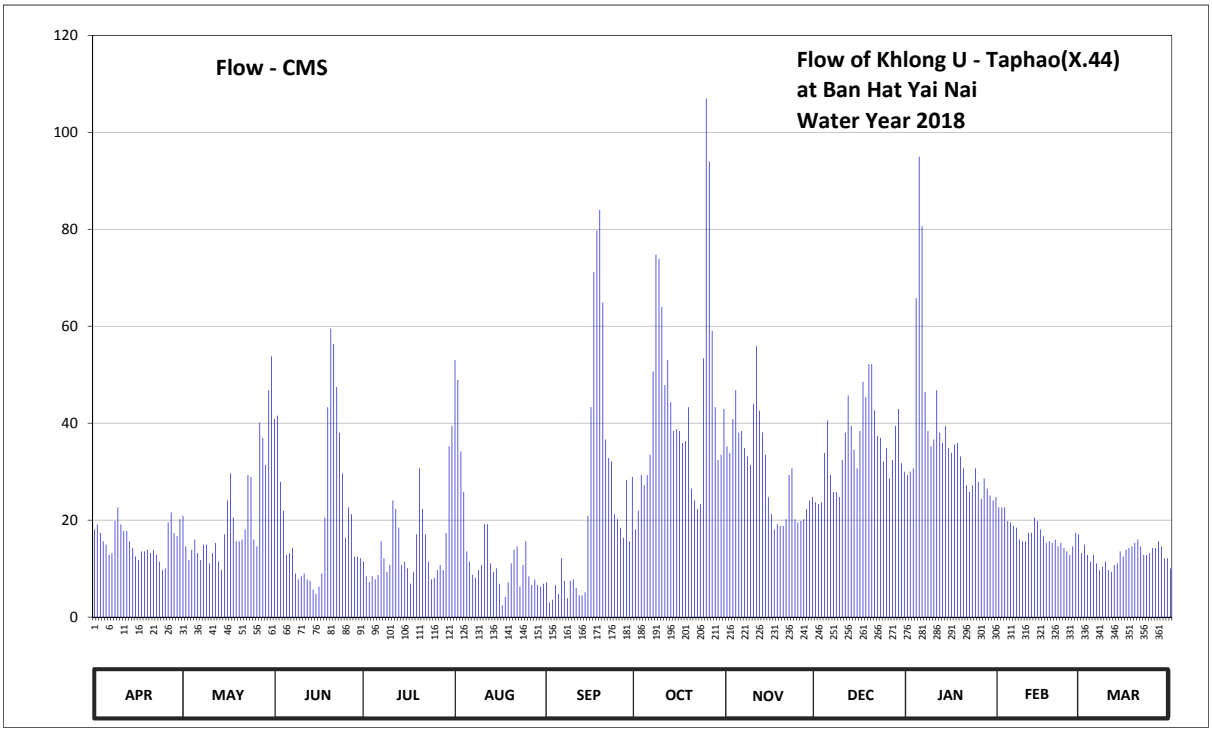
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.36	0.44	1.01	0.17	1.35	0.04	0.36	0.85	0.52	0.68	0.49	0.22	
2	0.39	0.26	1.03	0.08	1.24	-0.10	0.47	0.81	0.51	0.70	0.49	0.27	
3	0.34	0.18	0.64	0.04	0.82	-0.08	0.68	1.01	0.52	0.72	0.49	0.21	
4	0.29	0.24	0.47	0.08	0.58	0.02	0.62	1.18	0.81	1.64	0.41	0.17	
5	0.27	0.30	0.21	0.06	0.23	-0.04	0.68	0.93	1.00	2.26	0.40	0.21	
6	0.21	0.22	0.22	0.09	0.17	0.19	0.80	0.94	0.68	1.97	0.38	0.16	
7	0.22	0.18	0.25	0.29	0.09	0.05	1.29	0.84	0.58	1.17	0.37	0.12	
8	0.41	0.27	0.10	0.19	0.07	-0.07	1.84	0.79	0.58	0.94	0.30	0.14	
9	0.49	0.27	0.06	0.11	0.12	0.05	1.82	0.74	0.55	0.85	0.29	0.17	
10	0.39	0.16	0.08	0.15	0.15	0.06	1.60	1.10	0.77	0.89	0.29	0.12	
11	0.35	0.22	0.10	0.53	0.39	0.00	1.21	1.42	0.93	1.18	0.34	0.11	
12	0.35	0.28	0.06	0.48	0.39	-0.05	1.35	1.06	1.15	0.93	0.34	0.15	
13	0.29	0.17	0.05	0.37	0.16	-0.05	1.11	0.93	0.97	0.87	0.43	0.16	
14	0.25	0.12	-0.01	0.15	0.11	-0.03	0.94	0.80	0.83	0.97	0.41	0.23	
15	0.20	0.33	-0.04	0.17	0.13	0.44	0.95	0.55	0.72	0.84	0.36	0.20	
16	0.18	0.53	0.01	0.13	0.03	1.08	0.94	0.45	0.94	0.81	0.32	0.24	
17	0.23	0.69	0.10	0.03	-0.12	1.76	0.87	0.36	1.23	0.86	0.28	0.25	
18	0.23	0.43	0.43	0.11	-0.06	1.95	0.88	0.39	1.14	0.87	0.29	0.26	
19	0.24	0.29	1.08	0.33	0.04	2.04	1.08	0.38	1.33	0.79	0.28	0.28	
20	0.22	0.29	1.50	0.72	0.16	1.62	0.60	0.38	1.33	0.72	0.30	0.30	
21	0.24	0.30	1.43	0.48	0.24	0.89	0.53	0.42	1.06	0.62	0.26	0.26	
22	0.21	0.36	1.20	0.33	0.26	0.78	0.48	0.68	0.91	0.58	0.28	0.21	
23	0.17	0.68	0.93	0.17	0.01	0.76	0.51	0.72	0.90	0.62	0.25	0.21	
24	0.12	0.67	0.69	0.06	0.15	0.45	1.36	0.42	0.76	0.72	0.23	0.22	
25	0.13	0.30	0.31	0.07	0.29	0.42	2.50	0.40	0.84	0.64	0.21	0.25	
26	0.40	0.26	0.49	0.12	0.08	0.37	2.24	0.41	0.66	0.54	0.26	0.25	
27	0.46	0.99	0.45	0.15	0.02	0.31	1.49	0.42	0.77	0.66	0.34	0.29	
28	0.34	0.90	0.20	0.12	0.06	0.65	1.08	0.48	0.97	0.60	0.33	0.26	
29	0.32	0.74	0.20	0.34	0.02	0.29	0.77	0.53	1.07	0.56		0.19	
30	0.42	1.18	0.19	0.85	0.01	0.67	0.80	0.55	0.75	0.53		0.19	
31		1.37		0.97	0.03		1.07		0.70	0.55		0.13	
Mean	0.29	0.44	0.45	0.26	0.23	0.48	1.06	0.70	0.85	0.88	0.34	0.21	
Max	0.49	1.37	1.50	0.97	1.35	2.04	2.50	1.42	1.33	2.26	0.49	0.30	2.50
Min	0.12	0.12	-0.04	0.03	-0.12	-0.10	0.36	0.36	0.51	0.53	0.21	0.11	-0.12

Annual Max Momentary Gage Height 2.79 m. (MSL.) , at 18.00 Hours , on Oct 25, 2018

Zero Gage at Bottom Elevation 0.00 m. (MSL.) , River Bed -1.86 m. (MSL.)

Left Bank Elevation 7.40 m. (MSL.) ,

Right Bank Elevation 8.30 m. (MSL.) , Drainage Are 1,740 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	18.10	20.90	40.85	11.45	53.00	7.20	18.10	35.25	23.70	29.30	22.65	13.20		
2	19.15	14.60	41.55	8.40	48.90	3.00	21.95	33.85	23.35	30.00	22.65	14.95		
3	17.40	11.80	27.90	7.20	34.20	3.60	29.30	40.85	23.70	30.70	22.65	12.85		
4	15.65	13.90	21.95	8.40	25.80	6.60	27.20	46.80	33.85	65.80	19.85	11.45		
5	14.95	16.00	12.85	7.80	13.55	4.80	29.30	38.05	40.50	95.00	19.50	12.85		
6	12.85	13.20	13.20	8.70	11.45	12.15	33.50	38.40	29.30	80.65	18.80	11.10		
7	13.20	11.80	14.25	15.65	8.70	7.50	50.65	34.90	25.80	46.45	18.45	9.70		
8	19.85	14.95	9.00	12.15	8.10	3.90	74.80	33.15	25.80	38.40	16.00	10.40		
9	22.65	14.95	7.80	9.35	9.70	7.50	73.90	31.40	24.75	35.25	15.65	11.45		
10	19.15	11.10	8.40	10.75	10.75	7.80	64.00	44.00	32.45	36.65	15.65	9.70		
11	17.75	13.20	9.00	24.05	19.15	6.00	47.85	55.90	38.05	46.80	17.40	9.35		
12	17.75	15.30	7.80	22.30	19.15	4.50	53.00	42.60	45.75	38.05	17.40	10.75		
13	15.65	11.45	7.50	18.45	11.10	4.50	44.35	38.05	39.45	35.95	20.55	11.10		
14	14.25	9.70	5.70	10.75	9.35	5.10	38.40	33.50	34.55	39.45	19.85	13.55		
15	12.50	17.05	4.80	11.45	10.05	20.90	38.75	24.75	30.70	34.90	18.10	12.50		
16	11.80	24.05	6.30	10.05	6.90	43.30	38.40	21.25	38.40	33.85	16.70	13.90		
17	13.55	29.65	9.00	6.90	2.40	71.20	35.95	18.10	48.55	35.60	15.30	14.25		
18	13.55	20.55	20.55	9.35	4.20	79.75	36.30	19.15	45.40	35.95	15.65	14.60		
19	13.90	15.65	43.30	17.05	7.20	84.00	43.30	18.80	52.20	33.15	15.30	15.30		
20	13.20	15.65	59.50	30.70	11.10	64.90	26.50	18.80	52.20	30.70	16.00	16.00		
21	13.90	16.00	56.35	22.30	13.90	36.65	24.05	20.20	42.60	27.20	14.60	14.60		
22	12.85	18.10	47.50	17.05	14.60	32.80	22.30	29.30	37.35	25.80	15.30	12.85		
23	11.45	29.30	38.05	11.45	6.30	32.10	23.35	30.70	37.00	27.20	14.25	12.85		
24	9.70	28.95	29.65	7.80	10.75	21.25	53.40	20.20	32.10	30.70	13.55	13.20		
25	10.05	16.00	16.35	8.10	15.65	20.20	107.00	19.50	34.90	27.90	12.85	14.25		
26	19.50	14.60	22.65	9.70	8.40	18.45	94.00	19.85	28.60	24.40	14.60	14.25		
27	21.60	40.15	21.25	10.75	6.60	16.35	59.05	20.20	32.45	28.60	17.40	15.65		
28	17.40	37.00	12.50	9.70	7.80	28.25	43.30	22.30	39.45	26.50	17.05	14.60		
29	16.70	31.40	12.50	17.40	6.60	15.65	32.45	24.05	42.95	25.10		12.15		
30	20.20	46.80	12.15	35.25	6.30	28.95	33.50	24.75	31.75	24.05		12.15		
31		53.80		39.45	6.90		42.95		30.00	24.75		10.05		
Total	470.20	647.55	640.15	449.85	428.55	698.85	1360.85	898.60	1097.60	1144.80	483.70	395.55	8716.25	CMSDAY
Mean	15.67	20.89	21.34	14.51	13.82	23.30	43.90	29.95	35.41	36.93	17.28	12.76	23.88	CMS
Max	22.65	53.80	59.50	39.45	53.00	84.00	107.00	55.90	52.20	95.00	22.65	16.00	107.00	CMS
Min	9.70	9.70	4.80	6.90	2.40	3.00	18.10	18.10	23.35	24.05	12.85	9.35	2.40	CMS
Runoff	40.63	55.95	55.31	38.87	37.03	60.38	117.58	77.64	94.83	98.91	41.79	34.18	753.08	MCM

Momentary Peak 121.50 CMS. at 2.79 m. (MSL.) at 18.00 Hours , on Oct 25, 2018

Runoff Yield 13.72 Liters/Second/Square KM. Momentary Peak Yield 69.83 Liters/Second/Square KM.

WATER YEAR : 2018

THALE SAP SONGKHLA

Khlong Ratthaphum at Ban Nasithong , Songkhla (X.67A)

Lat 07 - 06 - 50 N Long 100 - 12 - 15 E

Location : on right bank at Ban Nasithong.

	Ban Nasithong	**Amphoe** Ratthaphum	**Changwat** Songkhla		
Drainge Area	272 sq.km.				
Type of Gage	Water - stage recorder				
Zero Gage at Bottom	+0.000 m. (A.D.)				
Bench Mark	B.M.-H.D.				
Location BM	On right bank near the gage site.		**Elevation** +5.845 m. (A.D.)		
Gage Reading Frequency	Recording				
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings				
Period of Available Gage Records	2006 to date				
Rating Operation					
Period of Rating	2006 to date				
Rated by Flot	-				
Rated by Current Meter	2006 to date				
Stability of Channel Regimes	Fairly stable.				
Overbank Flow Conditions	No overbank flow.				
General Description	Records good. Stage-discharge relation defined by 16 discharge measurements made in 2018.				

Gage Height in Meter (A.D.) Water Year April 1, 2018 to March 31, 2019

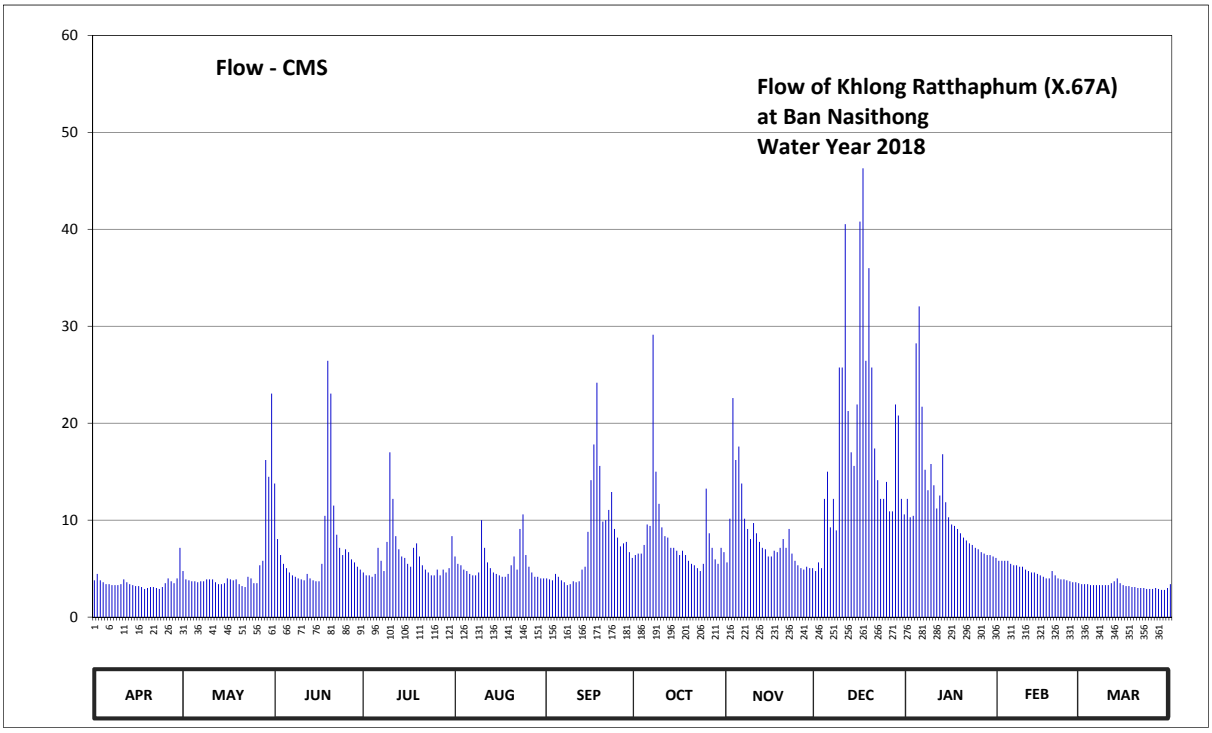
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	-0.12	-0.05	0.53	-0.06	0.05	-0.10	0.06	0.01	-0.05	0.44	0.02	-0.16	
2	-0.07	-0.11	0.17	-0.08	0.00	-0.11	0.07	0.31	0.01	0.32	0.02	-0.16	
3	-0.12	-0.12	0.06	-0.08	-0.01	-0.12	0.07	0.96	-0.03	0.33	0.02	-0.16	
4	-0.14	-0.13	0.00	-0.09	-0.04	-0.07	0.13	0.66	0.44	1.21	0.02	-0.17	
5	-0.16	-0.13	-0.03	-0.07	-0.05	-0.09	0.27	0.73	0.60	1.38	0.00	-0.17	
6	-0.16	-0.14	-0.06	0.11	-0.07	-0.12	0.26	0.53	0.25	0.92	-0.01	-0.17	
7	-0.17	-0.13	-0.08	0.02	-0.08	-0.14	1.25	0.31	0.44	0.61	-0.01	-0.17	
8	-0.17	-0.13	-0.09	-0.05	-0.08	-0.17	0.60	0.24	0.23	0.49	-0.02	-0.17	
9	-0.17	-0.11	-0.10	0.15	-0.06	-0.16	0.41	0.17	1.10	0.64	-0.02	-0.17	
10	-0.16	-0.11	-0.11	0.70	0.30	-0.13	0.25	0.28	1.10	0.52	-0.04	-0.17	
11	-0.11	-0.11	-0.12	0.44	0.11	-0.14	0.19	0.21	1.71	0.38	-0.05	-0.15	
12	-0.14	-0.14	-0.07	0.19	0.01	-0.13	0.18	0.15	0.90	0.46	-0.06	-0.13	
13	-0.16	-0.16	-0.10	0.10	-0.03	-0.04	0.11	0.11	0.70	0.69	-0.06	-0.10	
14	-0.17	-0.16	-0.12	0.05	-0.06	-0.02	0.11	0.10	0.63	0.42	-0.07	-0.15	
15	-0.18	-0.15	-0.13	0.04	-0.07	0.22	0.09	0.05	0.93	0.32	-0.08	-0.17	
16	-0.18	-0.10	-0.13	0.00	-0.08	0.55	0.06	0.05	1.72	0.27	-0.09	-0.18	
17	-0.19	-0.11	0.00	-0.02	-0.09	0.74	0.09	0.09	1.92	0.26	-0.10	-0.18	
18	-0.21	-0.12	0.33	0.11	-0.09	1.03	0.06	0.08	1.13	0.24	-0.10	-0.19	
19	-0.20	-0.11	1.13	0.14	-0.07	0.63	0.02	0.11	1.54	0.21	-0.05	-0.19	
20	-0.19	-0.16	0.98	0.05	-0.01	0.29	0.00	0.17	1.10	0.18	-0.08	-0.20	
21	-0.19	-0.18	0.40	-0.01	0.05	0.30	-0.01	0.11	0.72	0.16	-0.10	-0.20	
22	-0.20	-0.19	0.20	-0.04	-0.04	0.37	-0.03	0.24	0.55	0.14	-0.11	-0.20	
23	-0.21	-0.09	0.11	-0.06	0.24	0.48	-0.05	0.07	0.44	0.13	-0.11	-0.21	
24	-0.19	-0.10	0.06	-0.08	0.34	0.24	0.00	0.02	0.44	0.11	-0.12	-0.21	
25	-0.15	-0.15	0.10	-0.08	0.06	0.18	0.50	-0.01	0.54	0.10	-0.13	-0.21	
26	-0.10	-0.15	0.08	-0.04	-0.02	0.12	0.21	-0.03	0.36	0.08	-0.14	-0.20	
27	-0.13	-0.01	0.03	-0.08	-0.06	0.14	0.11	-0.04	0.36	0.07	-0.14	-0.21	
28	-0.15	0.02	0.01	-0.04	-0.09	0.15	0.03	-0.02	0.93	0.06	-0.15	-0.22	
29	-0.10	0.66	-0.02	-0.06	-0.09	0.08	0.00	-0.03	0.88	0.06		-0.22	
30	0.11	0.57	-0.04	-0.03	-0.10	0.04	0.11	-0.03	0.44	0.05		-0.20	
31		0.98		0.19	-0.10		0.08		0.34	0.04		-0.16	
Mean	-0.15	-0.04	0.10	0.04	-0.01	0.13	0.17	0.19	0.72	0.36	-0.06	-0.18	
Max	0.11	0.98	1.13	0.70	0.34	1.03	1.25	0.96	1.92	1.38	0.02	-0.10	1.92
Min	-0.21	-0.19	-0.13	-0.09	-0.10	-0.17	-0.05	-0.04	-0.05	0.04	-0.15	-0.22	-0.22

Annual Max Momentary Gage Height 2.24 m. (A.D.) , at 08.00 Hours , on Dec 17, 2018

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed -0.64 m. (A.D.)

Left Bank Elevation 6.28 m. (A.D.) ,

Right Bank Elevation 6.29 m. (A.D.) , Drainage Are 272 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	3.80	4.75	13.78	4.60	6.25	4.00	6.40	5.65	4.75	12.20	5.80	3.40		
2	4.45	3.90	8.05	4.30	5.50	3.90	6.55	10.15	5.65	10.30	5.80	3.40		
3	3.80	3.80	6.40	4.30	5.35	3.80	6.55	22.60	5.05	10.45	5.80	3.40		
4	3.60	3.70	5.50	4.15	4.90	4.45	7.45	16.20	12.20	28.23	5.80	3.30		
5	3.40	3.70	5.05	4.45	4.75	4.15	9.55	17.60	15.00	32.05	5.50	3.30		
6	3.40	3.60	4.60	7.15	4.45	3.80	9.40	13.78	9.25	21.70	5.35	3.30		
7	3.30	3.70	4.30	5.80	4.30	3.60	29.13	10.15	12.20	15.20	5.35	3.30		
8	3.30	3.70	4.15	4.75	4.30	3.30	15.00	9.10	8.95	13.08	5.20	3.30		
9	3.30	3.90	4.00	7.75	4.60	3.40	11.68	8.05	25.75	15.80	5.20	3.30		
10	3.40	3.90	3.90	17.00	10.00	3.70	9.25	9.70	25.75	13.60	4.90	3.30		
11	3.90	3.90	3.80	12.20	7.15	3.60	8.35	8.65	40.53	11.20	4.75	3.50		
12	3.60	3.60	4.45	8.35	5.65	3.70	8.20	7.75	21.25	12.55	4.60	3.70		
13	3.40	3.40	4.00	7.00	5.05	4.90	7.15	7.15	17.00	16.80	4.60	4.00		
14	3.30	3.40	3.80	6.25	4.60	5.20	7.15	7.00	15.60	11.85	4.45	3.50		
15	3.20	3.50	3.70	6.10	4.45	8.80	6.85	6.25	21.93	10.30	4.30	3.30		
16	3.20	4.00	3.70	5.50	4.30	14.13	6.40	6.25	40.80	9.55	4.15	3.20		
17	3.10	3.90	5.50	5.20	4.15	17.80	6.85	6.85	46.30	9.40	4.00	3.20		
18	2.90	3.80	10.45	7.15	4.15	24.18	6.40	6.70	26.43	9.10	4.00	3.10		
19	3.00	3.90	26.43	7.60	4.45	15.60	5.80	7.15	36.00	8.65	4.75	3.10		
20	3.10	3.40	23.05	6.25	5.35	9.85	5.50	8.05	25.75	8.20	4.30	3.00		
21	3.10	3.20	11.50	5.35	6.25	10.00	5.35	7.15	17.40	7.90	4.00	3.00		
22	3.00	3.10	8.50	4.90	4.90	11.05	5.05	9.10	14.13	7.60	3.90	3.00		
23	2.90	4.15	7.15	4.60	9.10	12.90	4.75	6.55	12.20	7.45	3.90	2.90		
24	3.10	4.00	6.40	4.30	10.60	9.10	5.50	5.80	12.20	7.15	3.80	2.90		
25	3.50	3.50	7.00	4.30	6.40	8.20	13.25	5.35	13.95	7.00	3.70	2.90		
26	4.00	3.50	6.70	4.90	5.20	7.30	8.65	5.05	10.90	6.70	3.60	3.00		
27	3.70	5.35	5.95	4.30	4.60	7.60	7.15	4.90	10.90	6.55	3.60	2.90		
28	3.50	5.80	5.65	4.90	4.15	7.75	5.95	5.20	21.93	6.40	3.50	2.80		
29	4.00	16.20	5.20	4.60	4.15	6.70	5.50	5.05	20.80	6.40		2.80		
30	7.15	14.48	4.90	5.05	4.00	6.10	7.15	5.05	12.20	6.25		3.00		
31		23.05		8.35	4.00		6.70		10.60	6.10		3.40		
Total	106.40	161.78	217.56	191.40	167.05	232.56	254.61	253.98	573.35	355.71	128.60	99.50	2742.50	CMSDAY
Mean	3.55	5.22	7.25	6.17	5.39	7.75	8.21	8.47	18.50	11.47	4.59	3.21	7.51	CMS
Max	7.15	23.05	26.43	17.00	10.60	24.18	29.13	22.60	46.30	32.05	5.80	4.00	46.30	CMS
Min	2.90	3.10	3.70	4.15	4.00	3.30	4.75	4.90	4.75	6.10	3.50	2.80	2.80	CMS
Runoff	9.19	13.98	18.80	16.54	14.43	20.09	22.00	21.94	49.54	30.73	11.11	8.60	236.95	MCM

Momentary Peak 55.70 CMS. at 2.24 m. (A.D.) at 08.00 Hours , on Dec 17, 2018

Runoff Yield 27.62 Liters/Second/Square KM. Momentary Peak Yield 204.78 Liters/Second/Square KM.

WATER YEAR : 2018

THALE SAP SONGKHLA

Khlong Tha Khae at Ban Tha Khae , Phatthalung (X.68)

Lat 07 - 34 - 01 N Long 100 - 03 - 05 E

Location : on left bank downstream side of the bridge of Phatthalung - Hat Yai Highway.

	Ban Tha Khae	**Amphoe** Mueang	**Changwat** Phatthalung
Drainge Area	Flood Plain		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank near the gage observer's house.		**Elevation** +15.966 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	1967 to date		
Rating Operation			
Period of Rating	1967 - 1972 , 1983 to date		
Rated by Flot	-		
Rated by Current Meter	1967 - 1972 , 1983 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	Overbank flow starts at elevation + 15.610 m.(MSL.), records are channel flow only.		
General Description	Records fair. Flow regulated by Tha Khae Weir. Stage-discharge relation defined by 20 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

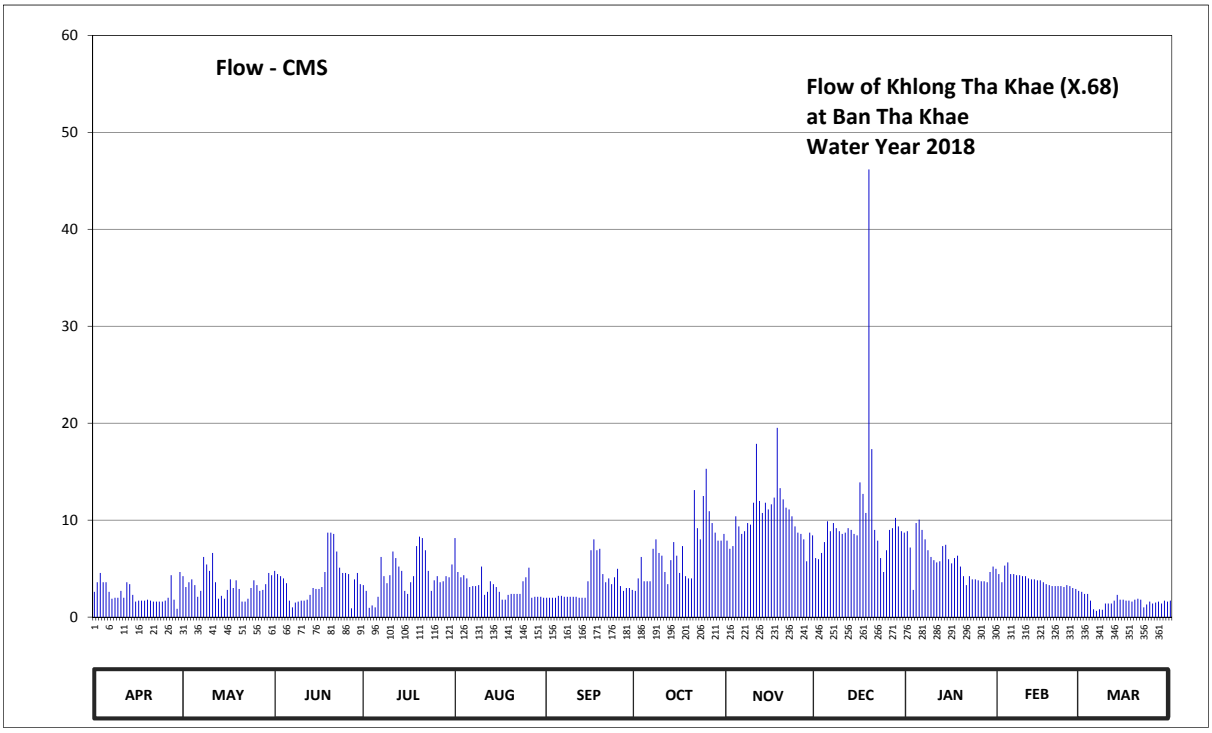
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	13.46	13.62	13.67	13.53	13.94	13.40	13.47	13.92	13.79	13.99	13.64	13.46	
2	13.56	13.51	13.64	13.47	13.66	13.40	13.60	13.86	13.78	13.87	13.56	13.44	
3	13.65	13.56	13.62	13.29	13.61	13.40	13.80	13.88	13.83	13.48	13.72	13.44	
4	13.56	13.59	13.60	13.32	13.63	13.40	13.57	14.08	13.91	14.04	13.75	13.37	
5	13.56	13.53	13.55	13.30	13.60	13.42	13.57	14.02	14.05	14.06	13.64	13.26	
6	13.46	13.41	13.37	13.41	13.51	13.42	13.57	13.97	13.99	14.00	13.64	13.23	
7	13.39	13.47	13.30	13.80	13.52	13.41	13.86	13.99	14.04	13.93	13.63	13.26	
8	13.40	13.80	13.35	13.62	13.52	13.41	13.93	14.04	14.01	13.85	13.63	13.25	
9	13.40	13.73	13.36	13.55	13.53	13.41	13.83	14.03	13.99	13.80	13.62	13.34	
10	13.47	13.67	13.37	13.63	13.71	13.41	13.81	14.16	13.97	13.77	13.62	13.34	
11	13.40	13.83	13.37	13.84	13.43	13.41	13.66	14.45	13.98	13.75	13.60	13.34	
12	13.56	13.56	13.38	13.79	13.46	13.40	13.54	14.17	14.01	13.76	13.59	13.37	
13	13.54	13.39	13.43	13.71	13.57	13.40	13.77	14.10	14.00	13.88	13.59	13.43	
14	13.43	13.42	13.50	13.67	13.54	13.40	13.91	14.16	13.97	13.89	13.58	13.38	
15	13.36	13.39	13.49	13.47	13.51	13.57	13.81	14.12	13.96	13.78	13.58	13.38	
16	13.37	13.48	13.49	13.44	13.46	13.85	13.65	14.15	14.27	13.74	13.56	13.37	
17	13.37	13.59	13.51	13.56	13.38	13.93	13.88	14.19	14.21	13.79	13.54	13.37	
18	13.37	13.50	13.66	13.62	13.38	13.85	13.62	14.51	14.10	13.81	13.53	13.36	
19	13.38	13.58	13.98	13.88	13.43	13.86	13.60	14.24	15.39	13.71	13.52	13.38	
20	13.37	13.49	13.98	13.95	13.44	13.64	13.60	14.18	14.43	13.62	13.52	13.39	
21	13.36	13.36	13.97	13.94	13.44	13.56	14.23	14.13	14.00	13.53	13.52	13.38	
22	13.36	13.36	13.84	13.85	13.44	13.60	14.01	14.12	13.92	13.62	13.52	13.30	
23	13.36	13.39	13.70	13.67	13.44	13.54	13.93	14.08	13.79	13.59	13.51	13.33	
24	13.36	13.50	13.65	13.47	13.57	13.61	14.20	14.02	13.66	13.59	13.53	13.36	
25	13.37	13.58	13.65	13.58	13.61	13.69	14.34	13.98	13.85	13.58	13.52	13.34	
26	13.40	13.53	13.64	13.62	13.70	13.52	14.11	13.97	14.00	13.57	13.50	13.35	
27	13.63	13.47	13.28	13.56	13.40	13.47	14.04	13.93	14.01	13.57	13.49	13.36	
28	13.38	13.48	13.59	13.57	13.41	13.50	13.98	13.76	14.07	13.56	13.47	13.34	
29	13.27	13.54	13.65	13.62	13.41	13.50	13.92	13.98	14.02	13.66		13.37	
30	13.66	13.65	13.54	13.61	13.41	13.48	13.92	13.96	13.99	13.71		13.36	
31		13.63		13.73	13.40		13.97		13.98	13.69		13.37	
Mean	13.44	13.54	13.57	13.62	13.52	13.53	13.83	14.07	14.03	13.75	13.58	13.36	
Max	13.66	13.83	13.98	13.95	13.94	13.93	14.34	14.51	15.39	14.06	13.75	13.46	15.39
Min	13.27	13.36	13.28	13.29	13.38	13.40	13.47	13.76	13.66	13.48	13.47	13.23	13.23

Annual Max Momentary Gage Height 16.13 m. (MSL.) , at 16.00 Hours , on Dec 19, 2018

Zero Gage at Bottom Elevation 0.00 m. (MSL.) , River Bed 12.11 m. (MSL.)

Left Bank Elevation 15.60 m. (MSL.) ,

Right Bank Elevation 16.25 m. (MSL.) , Drainage Area Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.60	4.22	4.77	3.30	8.16	2.00	2.70	7.88	6.09	8.86	4.44	2.60		
2	3.60	3.10	4.44	2.70	4.66	2.00	4.00	7.04	5.98	7.18	3.60	2.40		
3	4.55	3.60	4.22	0.95	4.11	2.00	6.20	7.32	6.62	2.80	5.32	2.40		
4	3.60	3.90	4.00	1.20	4.33	2.00	3.70	10.40	7.74	9.70	5.65	1.70		
5	3.60	3.30	3.50	1.00	4.00	2.20	3.70	9.35	9.88	10.05	4.44	0.80		
6	2.60	2.10	1.70	2.10	3.10	2.20	3.70	8.58	8.86	9.00	4.44	0.65		
7	1.90	2.70	1.00	6.20	3.20	2.10	7.04	8.86	9.70	8.02	4.33	0.80		
8	2.00	6.20	1.50	4.22	3.20	2.10	8.02	9.70	9.18	6.90	4.33	0.75		
9	2.00	5.43	1.60	3.50	3.30	2.10	6.62	9.53	8.86	6.20	4.22	1.40		
10	2.70	4.77	1.70	4.33	5.21	2.10	6.34	11.80	8.58	5.87	4.22	1.40		
11	2.00	6.62	1.70	6.76	2.30	2.10	4.66	17.88	8.72	5.65	4.00	1.40		
12	3.60	3.60	1.80	6.09	2.60	2.00	3.40	11.98	9.18	5.76	3.90	1.70		
13	3.40	1.90	2.30	5.21	3.70	2.00	5.87	10.75	9.00	7.32	3.90	2.30		
14	2.30	2.20	3.00	4.77	3.40	2.00	7.74	11.80	8.58	7.46	3.80	1.80		
15	1.60	1.90	2.90	2.70	3.10	3.70	6.34	11.10	8.44	5.98	3.80	1.80		
16	1.70	2.80	2.90	2.40	2.60	6.90	4.55	11.63	13.90	5.54	3.60	1.70		
17	1.70	3.90	3.10	3.60	1.80	8.02	7.32	12.33	12.70	6.09	3.40	1.70		
18	1.70	3.00	4.66	4.22	1.80	6.90	4.22	19.53	10.75	6.34	3.30	1.60		
19	1.80	3.80	8.72	7.32	2.30	7.04	4.00	13.30	46.18	5.21	3.20	1.80		
20	1.70	2.90	8.72	8.30	2.40	4.44	4.00	12.15	17.33	4.22	3.20	1.90		
21	1.60	1.60	8.58	8.16	2.40	3.60	13.10	11.28	9.00	3.30	3.20	1.80		
22	1.60	1.60	6.76	6.90	2.40	4.00	9.18	11.10	7.88	4.22	3.20	1.00		
23	1.60	1.90	5.10	4.77	2.40	3.40	8.02	10.40	6.09	3.90	3.10	1.30		
24	1.60	3.00	4.55	2.70	3.70	4.11	12.50	9.35	4.66	3.90	3.30	1.60		
25	1.70	3.80	4.55	3.80	4.11	4.99	15.30	8.72	6.90	3.80	3.20	1.40		
26	2.00	3.30	4.44	4.22	5.10	3.20	10.93	8.58	9.00	3.70	3.00	1.50		
27	4.33	2.70	0.90	3.60	2.00	2.70	9.70	8.02	9.18	3.70	2.90	1.60		
28	1.80	2.80	3.90	3.70	2.10	3.00	8.72	5.76	10.23	3.60	2.70	1.40		
29	0.85	3.40	4.55	4.22	2.10	3.00	7.88	8.72	9.35	4.66		1.70		
30	4.66	4.55	3.40	4.11	2.10	2.80	7.88	8.44	8.86	5.21		1.60		
31		4.33		5.43	2.00		8.58		8.72	4.99		1.70		
Total	72.39	104.92	114.96	132.48	99.68	100.70	215.91	313.28	316.14	179.13	105.69	49.20	1804.48	CMSDAY
Mean	2.41	3.38	3.83	4.27	3.22	3.36	6.96	10.44	10.20	5.78	3.77	1.59	4.94	CMS
Max	4.66	6.62	8.72	8.30	8.16	8.02	15.30	19.53	46.18	10.05	5.65	2.60	46.18	CMS
Min	0.85	1.60	0.90	0.95	1.80	2.00	2.70	5.76	4.66	2.80	2.70	0.65	0.65	CMS
Runoff	6.25	9.07	9.93	11.45	8.61	8.70	18.65	27.07	27.31	15.48	9.13	4.25	155.91	MCM

Momentary Peak 73.70 CMS. at 16.13 m. (MSL.) at 16.00 Hours , on Dec 19, 2018

Runoff Yield ***** Liters/Second/Square KM. Momentary Peak Yield ***** Liters/Second/Square KM.

WATER YEAR : 2018

THALE SAP SONGKHLA

Khlong Tam at Ban Khuan Lang , Songkhla (X.71B)

Lat 06 - 59 - 15 N Long 100 - 25 - 27 E

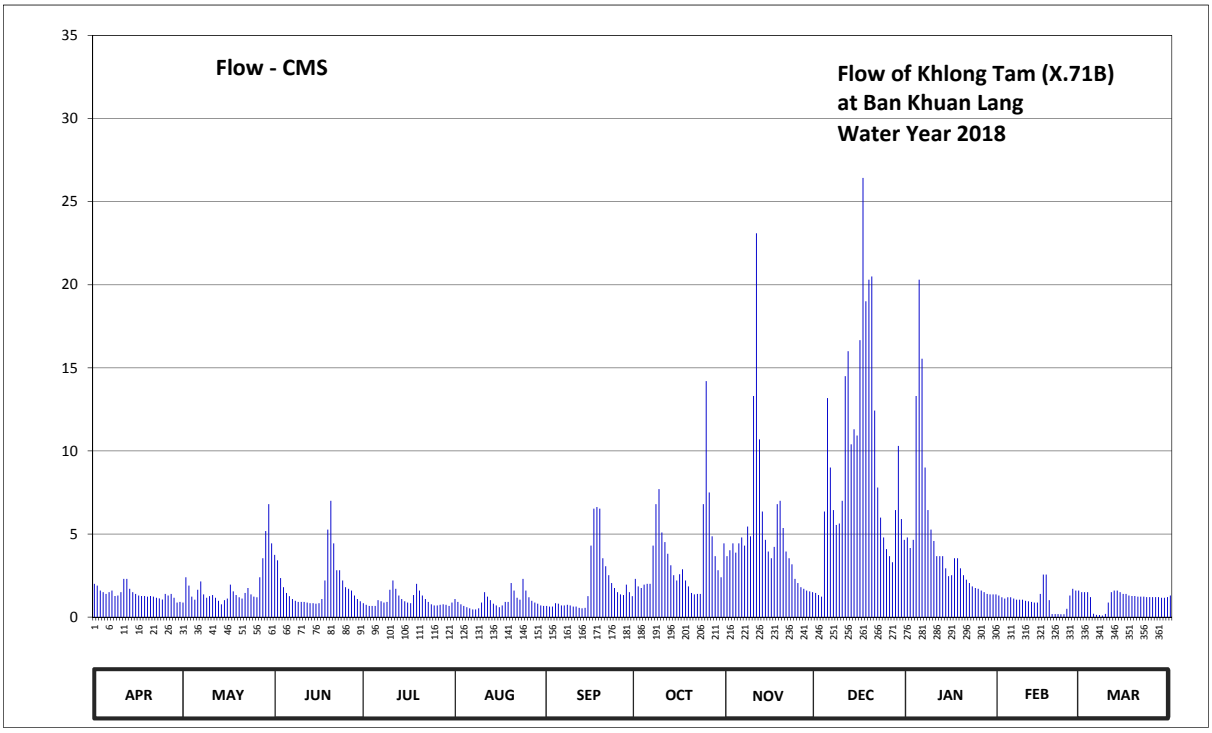
Location : on left bank at the bridge.

	Ban Khuan Lang	**Amphoe** Hat Yai	**Changwat** Songkhla
Drainge Area	148 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank near the top staff gage.		**Elevation** +11.204 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	2004 to date		
Rating Operation			
Period of Rating	2004 to date		
Rated by Flot	-		
Rated by Current Meter	2004 to date		
Stability of Channel Regimes	Fairly stable because of backwater effect.		
Overbank Flow Conditions	Overbank flow starts at elevation + 6.370 m.(MSL.), records are channel flow only.		
General Description	Records fair. Stage-discharge relation defined by 17 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	5.67	5.25	5.82	5.24	5.31	5.19	5.58	5.81	5.41	5.97	5.37	5.62	
2	5.66	5.60	5.77	5.21	5.26	5.18	5.49	5.86	5.38	5.88	5.34	5.62	
3	5.63	5.50	5.59	5.19	5.22	5.18	5.47	5.92	5.35	5.95	5.32	5.62	
4	5.62	5.35	5.48	5.19	5.19	5.24	5.51	5.84	6.15	6.80	5.34	5.57	
5	5.61	5.30	5.41	5.19	5.17	5.23	5.52	5.92	6.79	7.22	5.34	5.20	
6	5.62	5.45	5.36	5.29	5.15	5.20	5.52	5.97	6.42	6.95	5.32	5.13	
7	5.63	5.55	5.31	5.27	5.13	5.20	5.90	5.90	6.16	6.42	5.30	5.12	
8	5.59	5.39	5.28	5.25	5.13	5.21	6.20	6.05	6.06	6.16	5.30	5.10	
9	5.60	5.33	5.26	5.26	5.15	5.20	6.29	5.98	6.07	6.03	5.30	5.19	
10	5.62	5.36	5.26	5.45	5.25	5.18	6.01	6.80	6.22	5.94	5.28	5.48	
11	5.70	5.38	5.26	5.56	5.42	5.18	5.93	7.36	6.88	5.81	5.27	5.62	
12	5.70	5.33	5.25	5.46	5.35	5.16	5.83	6.59	6.98	5.81	5.26	5.63	
13	5.64	5.28	5.24	5.37	5.29	5.15	5.72	6.15	6.56	5.81	5.25	5.63	
14	5.62	5.22	5.24	5.31	5.23	5.16	5.62	5.95	6.64	5.69	5.25	5.62	
15	5.61	5.29	5.23	5.27	5.20	5.36	5.56	5.85	6.61	5.61	5.40	5.61	
16	5.60	5.32	5.24	5.25	5.17	5.90	5.63	5.79	7.02	5.62	5.72	5.61	
17	5.59	5.51	5.31	5.24	5.20	6.17	5.68	5.89	7.51	5.79	5.72	5.60	
18	5.59	5.43	5.56	5.38	5.26	6.18	5.56	6.20	7.15	5.79	5.52	5.59	
19	5.58	5.38	6.03	5.52	5.26	6.17	5.49	6.22	7.22	5.69	5.18	5.59	
20	5.59	5.34	6.22	5.44	5.53	5.79	5.41	6.04	7.23	5.62	5.18	5.58	
21	5.58	5.32	5.92	5.37	5.44	5.71	5.39	5.85	6.73	5.57	5.18	5.58	
22	5.56	5.41	5.67	5.31	5.33	5.62	5.40	5.79	6.30	5.53	5.17	5.58	
23	5.55	5.47	5.67	5.26	5.30	5.53	5.40	5.73	6.11	5.49	5.17	5.57	
24	5.53	5.39	5.56	5.22	5.58	5.47	6.20	5.58	5.97	5.47	5.35	5.57	
25	5.61	5.35	5.48	5.20	5.44	5.42	6.86	5.53	5.87	5.46	5.60	5.57	
26	5.60	5.34	5.46	5.20	5.34	5.39	6.27	5.48	5.81	5.44	5.64	5.57	
27	5.61	5.60	5.44	5.21	5.28	5.38	5.98	5.46	5.75	5.42	5.63	5.57	
28	5.33	5.79	5.37	5.22	5.25	5.51	5.81	5.44	6.16	5.40	5.63	5.56	
29	5.25	6.02	5.31	5.21	5.23	5.42	5.67	5.43	6.55	5.39		5.56	
30	5.26	6.20	5.27	5.19	5.20	5.36	5.60	5.42	6.10	5.39		5.57	
31		5.92		5.25	5.19		5.92		5.95	5.39		5.60	
Mean	5.58	5.46	5.48	5.29	5.27	5.43	5.76	5.93	6.36	5.82	5.37	5.52	
Max	5.70	6.20	6.22	5.56	5.58	6.18	6.86	7.36	7.51	7.22	5.72	5.63	7.51
Min	5.25	5.22	5.23	5.19	5.13	5.15	5.39	5.42	5.35	5.39	5.17	5.10	5.10

Annual Max Momentary Gage Height	7.56	m. (MSL.) ,	at 09.00 Hours , on Dec 17, 2018		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	4.45	m. (MSL.)
Left Bank Elevation	8.98	m. (MSL.) ,			
Right Bank Elevation	6.36	m. (MSL.) ,	Drainage Are	148	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.00	0.88	3.74	0.84	1.09	0.67	2.30	3.67	1.45	4.79	1.30	1.50		
2	1.90	2.40	3.42	0.74	0.91	0.63	1.85	4.02	1.33	4.16	1.19	1.50		
3	1.60	1.90	2.35	0.67	0.77	0.63	1.75	4.44	1.23	4.65	1.12	1.50		
4	1.50	1.23	1.80	0.67	0.67	0.84	1.95	3.88	6.35	13.30	1.19	1.20		
5	1.40	1.05	1.45	0.67	0.60	0.81	2.00	4.44	13.18	20.30	1.19	0.20		
6	1.50	1.65	1.26	1.02	0.53	0.70	2.00	4.79	9.00	15.55	1.12	0.13		
7	1.60	2.15	1.09	0.95	0.46	0.70	4.30	4.30	6.44	9.00	1.05	0.12		
8	1.27	1.37	0.98	0.88	0.46	0.74	6.80	5.45	5.54	6.44	1.05	0.10		
9	1.30	1.16	0.91	0.91	0.53	0.70	7.70	4.86	5.63	5.27	1.05	0.19		
10	1.50	1.26	0.91	1.65	0.88	0.63	5.09	13.30	7.00	4.58	0.98	0.88		
11	2.30	1.33	0.91	2.20	1.50	0.63	4.51	23.10	14.50	3.67	0.95	1.50		
12	2.30	1.16	0.88	1.70	1.23	0.56	3.81	10.70	16.00	3.67	0.91	1.60		
13	1.70	0.98	0.84	1.30	1.02	0.53	3.12	6.35	10.40	3.67	0.88	1.60		
14	1.50	0.77	0.84	1.09	0.81	0.56	2.52	4.65	11.30	2.94	0.88	1.50		
15	1.40	1.02	0.81	0.95	0.70	1.26	2.20	3.95	10.93	2.46	1.40	1.40		
16	1.30	1.12	0.84	0.88	0.60	4.30	2.58	3.54	16.66	2.52	2.56	1.40		
17	1.27	1.95	1.09	0.84	0.70	6.53	2.88	4.23	26.43	3.54	2.56	1.30		
18	1.27	1.55	2.20	1.33	0.91	6.62	2.20	6.80	19.00	3.54	1.02	1.27		
19	1.23	1.33	5.27	2.00	0.91	6.53	1.85	7.00	20.30	2.94	0.18	1.27		
20	1.27	1.19	7.00	1.60	2.05	3.54	1.45	5.36	20.50	2.52	0.18	1.23		
21	1.23	1.12	4.44	1.30	1.60	3.06	1.37	3.95	12.43	2.25	0.18	1.23		
22	1.16	1.45	2.82	1.09	1.16	2.52	1.40	3.54	7.80	2.05	0.17	1.23		
23	1.13	1.75	2.82	0.91	1.05	2.05	1.40	3.18	5.99	1.85	0.17	1.20		
24	1.06	1.37	2.20	0.77	2.30	1.75	6.80	2.30	4.79	1.75	0.50	1.20		
25	1.40	1.23	1.80	0.70	1.60	1.50	14.20	2.05	4.09	1.70	1.30	1.20		
26	1.30	1.19	1.70	0.70	1.19	1.37	7.50	1.80	3.67	1.60	1.70	1.20		
27	1.40	2.40	1.60	0.74	0.98	1.33	4.86	1.70	3.30	1.50	1.60	1.20		
28	1.16	3.54	1.30	0.77	0.88	1.95	3.67	1.60	6.44	1.40	1.60	1.16		
29	0.88	5.18	1.09	0.74	0.81	1.50	2.82	1.55	10.30	1.37		1.16		
30	0.91	6.80	0.95	0.67	0.70	1.26	2.40	1.50	5.90	1.37		1.20		
31		4.44		0.88	0.67		4.44		4.65	1.37		1.30		
Total	42.74	57.92	59.31	32.16	30.27	56.40	113.72	152.00	292.53	137.72	29.98	34.67	1039.42	CMSDAY
Mean	1.42	1.87	1.98	1.04	0.98	1.88	3.67	5.07	9.44	4.44	1.07	1.12	2.85	CMS
Max	2.30	6.80	7.00	2.20	2.30	6.62	14.20	23.10	26.43	20.30	2.56	1.60	26.43	CMS
Min	0.88	0.77	0.81	0.67	0.46	0.53	1.37	1.50	1.23	1.37	0.17	0.10	0.10	CMS
Runoff	3.69	5.00	5.12	2.78	2.62	4.87	9.83	13.13	25.27	11.90	2.59	3.00	89.81	MCM

Momentary Peak 27.58 CMS. at 7.56 m. (MSL.) at 09.00 Hours , on Dec 17, 2018

Runoff Yield 19.24 Liters/Second/Square KM. Momentary Peak Yield 186.35 Liters/Second/Square KM.

WATER YEAR : 2018

THALE SAP SONGKHLA

Khlong U - Taphao at Ban Bang Sala , Songkhla (X.90)

Lat 06 - 55 - 39 N Long 100 - 26 - 37 E

Location : on left bank at the bridge near Wat Bang Sala, Tambon Thung Lan.

Ban Bang Sala **Amphoe** Khlong Hoi Khong **Changwat** Songkhla

Drainge Area	1,547 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+0.000 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank about 20 meters from the top staff gage. **Elevation** +11.201 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	1971 to date
Rating Operation	
Period of Rating	1971 - 1972 , 1979 to date
Rated by Flot	-
Rated by Current Meter	1971 - 1972 , 1979 to date
Stability of Channel Regimes	Fairly stable because of backwater effect.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. Stage-discharge relation defined by 16 discharge measurements made in 2018.

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

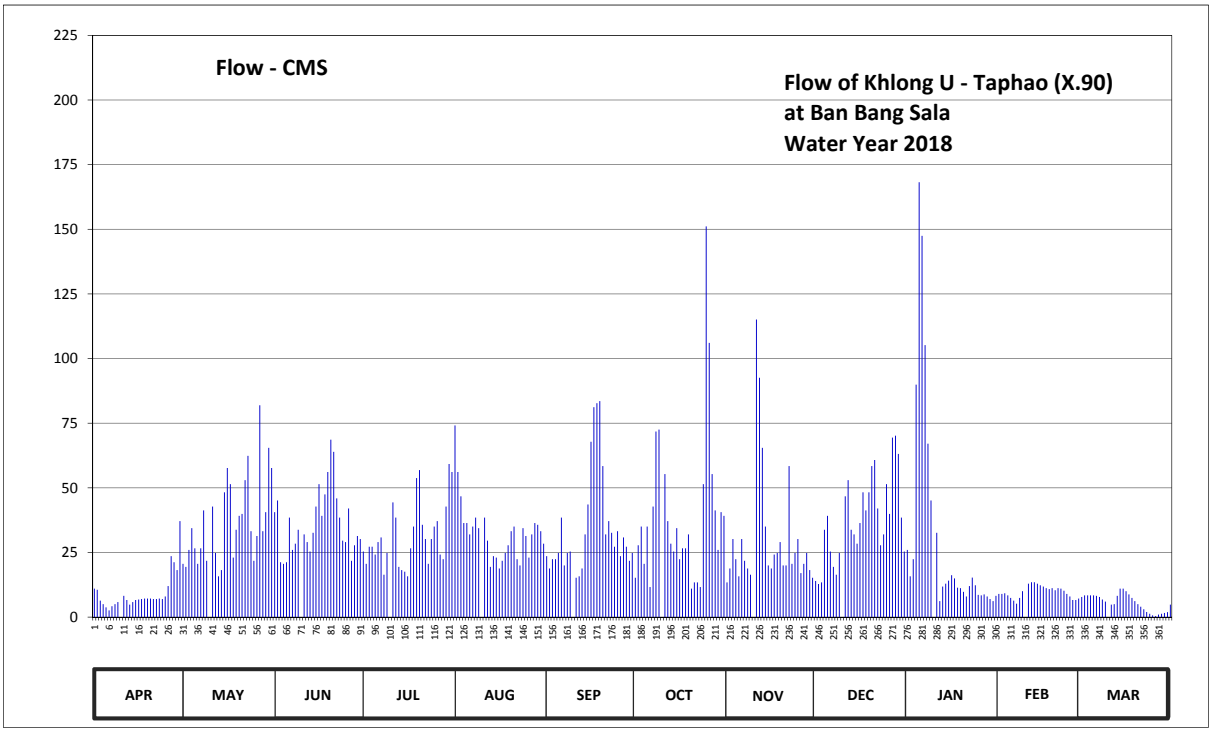
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	2.95	2.66	2.98	2.74	3.41	2.71	2.57	2.54	2.55	2.75	2.85	2.79	
2	2.93	2.64	3.04	2.66	3.18	2.63	2.78	2.63	2.53	2.58	2.85	2.82	
3	2.72	2.75	2.67	2.77	3.06	2.69	2.90	2.82	2.54	2.69	2.86	2.82	
4	2.65	2.89	2.66	2.77	2.92	2.69	2.66	2.69	2.88	3.61	2.82	2.82	
5	2.59	2.76	2.67	2.72	2.92	2.73	2.90	2.58	2.96	4.48	2.77	2.82	
6	2.53	2.66	2.95	2.80	2.85	2.95	2.51	2.82	2.74	4.25	2.72	2.81	
7	2.61	2.76	2.75	2.83	2.90	2.65	3.01	2.68	2.64	3.78	2.66	2.79	
8	2.65	2.99	2.79	2.59	2.95	2.73	3.38	2.63	2.59	3.32	2.77	2.74	
9	2.69	2.68	2.88	2.73	2.89	2.74	3.39	2.59	2.73	3.04	2.90	2.70	
10	2.74	2.75	2.88	2.86	2.70	2.55	3.36	3.50	2.94	2.98	2.97	2.67	
11	2.81	3.01	2.85	3.03	2.95	2.57	3.17	3.89	3.06	2.86	3.03	2.64	
12	2.73	2.73	2.80	2.95	2.81	2.58	2.93	3.64	3.14	2.71	3.05	2.65	
13	2.64	2.58	2.74	2.64	2.64	2.63	2.79	3.30	2.88	2.99	3.05	2.81	
14	2.69	2.62	2.86	2.62	2.71	2.85	2.74	2.90	2.85	3.03	3.03	2.95	
15	2.73	3.08	3.01	2.61	2.70	3.02	2.89	2.65	2.79	3.07	3.01	2.95	
16	2.74	3.20	3.12	2.58	2.63	3.33	2.69	2.63	2.92	3.14	2.99	2.90	
17	2.75	3.12	2.96	2.76	2.68	3.50	2.76	2.72	3.08	3.10	2.96	2.84	
18	2.76	2.70	3.07	2.90	2.73	3.52	2.76	2.73	2.99	2.97	2.94	2.77	
19	2.76	2.88	3.18	3.15	2.78	3.53	2.85	2.80	3.08	2.96	2.96	2.71	
20	2.76	2.96	3.34	3.19	2.87	3.21	2.50	2.65	3.21	2.89	2.92	2.65	
21	2.75	2.97	3.28	2.91	2.90	2.85	2.54	2.65	3.24	2.80	2.96	2.60	
22	2.75	3.14	3.05	2.82	2.69	2.93	2.54	3.21	3.00	3.00	2.95	2.55	
23	2.76	3.26	2.95	2.66	2.65	2.86	2.51	2.66	2.78	3.11	2.91	2.50	
24	2.75	2.87	2.81	2.82	2.89	2.77	3.12	2.73	2.85	3.01	2.85	2.43	
25	2.80	2.68	2.80	2.90	2.84	2.87	4.29	2.82	3.12	2.83	2.80	2.37	
26	3.00	2.84	3.00	2.93	2.70	2.71	3.79	2.60	2.97	2.82	2.73	2.34	
27	2.71	3.51	2.68	2.72	2.85	2.83	3.17	2.66	3.35	2.84	2.73	2.40	
28	2.67	2.87	2.78	2.69	2.92	2.77	2.99	2.73	3.36	2.80	2.76	2.43	
29	2.62	2.98	2.84	3.01	2.91	2.68	2.75	2.62	3.27	2.75		2.46	
30	2.93	3.30	2.82	3.22	2.87	2.73	2.98	2.57	2.95	2.71		2.49	
31		3.20		3.18	2.79		2.96		2.74	2.81		2.64	
Mean	2.74	2.90	2.91	2.83	2.85	2.86	2.94	2.82	2.93	3.05	2.89	2.67	
Max	3.00	3.51	3.34	3.22	3.41	3.53	4.29	3.89	3.36	4.48	3.05	2.95	4.48
Min	2.53	2.58	2.66	2.58	2.63	2.55	2.50	2.54	2.53	2.58	2.66	2.34	2.34

Annual Max Momentary Gage Height 4.53 m. (MSL.) , at 14.00 Hours , on Oct 25, 2018

Zero Gage at Bottom Elevation 0.00 m. (MSL.) , River Bed 0.44 m. (MSL.)

Left Bank Elevation 9.53 m. (MSL.) ,

Right Bank Elevation 9.10 m. (MSL.) , Drainage Are 1,547 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	11.00	20.60	40.60	25.40	74.12	23.60	15.20	13.40	14.00	26.00	9.00	7.80		
2	10.60	19.40	45.13	20.60	56.10	18.80	27.80	18.80	12.80	15.80	9.00	8.40		
3	6.40	26.00	21.20	27.20	46.70	22.40	35.00	30.20	13.40	22.40	9.20	8.40		
4	5.00	34.40	20.60	27.20	36.40	22.40	20.60	22.40	33.80	89.90	8.40	8.40		
5	3.80	26.60	21.20	24.20	36.40	24.80	35.00	15.80	39.20	168.20	7.40	8.40		
6	2.60	20.60	38.50	29.00	32.00	38.50	11.60	30.20	25.40	147.50	6.40	8.20		
7	4.20	26.60	26.00	30.80	35.00	20.00	42.78	21.80	19.40	105.20	5.20	7.80		
8	5.00	41.30	28.40	16.40	38.50	24.80	71.77	18.80	16.40	67.07	7.40	6.80		
9	5.80	21.80	33.80	24.80	34.40	25.40	72.55	16.40	24.80	45.13	10.00	6.00		
10														
	6.80	26.00	33.80	32.60	23.00	14.00	70.20	81.17	37.80	40.60	11.40	5.40		
11	8.20	42.78	32.00	44.35	38.50	15.20	55.32	115.10	46.70	32.60	12.90	4.80		
12	6.60	24.80	29.00	38.50	29.60	15.80	37.10	92.60	52.97	6.20	13.50	5.00		
13	4.80	15.80	25.40	19.40	19.40	18.80	28.40	65.50	33.80	11.80	13.50	8.20		
14	5.80	18.20	32.60	18.20	23.60	32.00	25.40	35.00	32.00	12.90	12.90	11.00		
15	6.60	48.27	42.78	17.60	23.00	43.57	34.40	20.00	28.40	14.10	12.30	11.00		
16	6.80	57.67	51.40	15.80	18.80	67.85	22.40	18.80	36.40	16.20	11.80	10.00		
17	7.00	51.40	39.20	26.60	21.80	81.17	26.60	24.20	48.27	15.00	11.20	8.80		
18	7.20	23.00	47.48	35.00	24.80	82.73	26.60	24.80	41.30	11.40	10.80	7.40		
19	7.20	33.80	56.10	53.75	27.80	83.52	32.00	29.00	48.27	11.20	11.20	6.20		
20	7.20	39.20	68.63	56.88	33.20	58.45	11.00	20.00	58.45	9.80	10.40	5.00		
21	7.00	39.90	63.93	35.70	35.00	32.00	13.40	20.00	60.80	8.00	11.20	4.00		
22	7.00	52.97	45.92	30.20	22.40	37.10	13.40	58.45	42.00	12.00	11.00	3.00		
23	7.20	62.37	38.50	20.60	20.00	32.60	11.60	20.60	27.80	15.30	10.20	2.00		
24	7.00	33.20	29.60	30.20	34.40	27.20	51.40	24.80	32.00	12.30	9.00	1.30		
25	8.00	21.80	29.00	35.00	31.40	33.20	151.10	30.20	51.40	8.60	8.00	0.70		
26	12.00	31.40	42.00	37.10	23.00	23.60	106.10	17.00	39.90	8.40	6.60	0.40		
27	23.60	81.95	21.80	24.20	32.00	30.80	55.32	20.60	69.42	8.80	6.60	1.00		
28	21.20	33.20	27.80	22.40	36.40	27.20	41.30	24.80	70.20	8.00	7.20	1.30		
29	18.20	40.60	31.40	42.78	35.70	21.80	26.00	18.20	63.15	7.00		1.60		
30	37.10	65.50	30.20	59.23	33.20	24.80	40.60	15.20	38.50	6.20		1.90		
31		57.67		56.10	28.40		39.20		25.40	8.20		4.80		
Total	276.90	1138.78	1093.97	977.79	1005.02	1024.09	1251.14	963.82	1184.13	971.80	273.70	175.00	10336.14	CMSDAY
Mean	9.23	36.73	36.47	31.54	32.42	34.14	40.36	32.13	38.20	31.35	9.78	5.65	28.32	CMS
Max	37.10	81.95	68.63	59.23	74.12	83.52	151.10	115.10	70.20	168.20	13.50	11.00	168.20	CMS
Min	2.60	15.80	20.60	15.80	18.80	14.00	11.00	13.40	12.80	6.20	5.20	0.40	0.40	CMS
Runoff	23.92	98.39	94.52	84.48	86.83	88.48	108.10	83.27	102.31	83.96	23.65	15.12	893.04	MCM

Momentary Peak 172.70 CMS. at 4.53 m. (MSL.) at 14.00 Hours , on Oct 25, 2018

Runoff Yield 18.31 Liters/Second/Square KM. Momentary Peak Yield 111.64 Liters/Second/Square KM.

WATER YEAR : 2018

THALE SAP SONGKHLA

Khlong Bang Kaeo at Ban Khuan In No Mo , Phutthalung (X.109)

Lat 07 - 20 - 29 N Long 100 - 03 - 35 E

Location : on left bank at Ban Khuan In No Mo.

	Ban Khuan In No Mo	**Amphoe** Ta Mot	**Changwat** Phatthalung
Drainge Area	131 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank near the Meteorological Station.	**Elevation**	+32.764 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic mean of 5 readings		
Period of Available Gage Records	1979 to date.		
Rating Operation			
Period of Rating	1979 to date.		
Rated by Flot	-		
Rated by Current Meter	1979 to date.		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	Overbank flow starts at elevation + 30.800 m.(MSL.), records are channel flow only.		
General Description	Records fair. Stage-discharge relation defined by 15 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

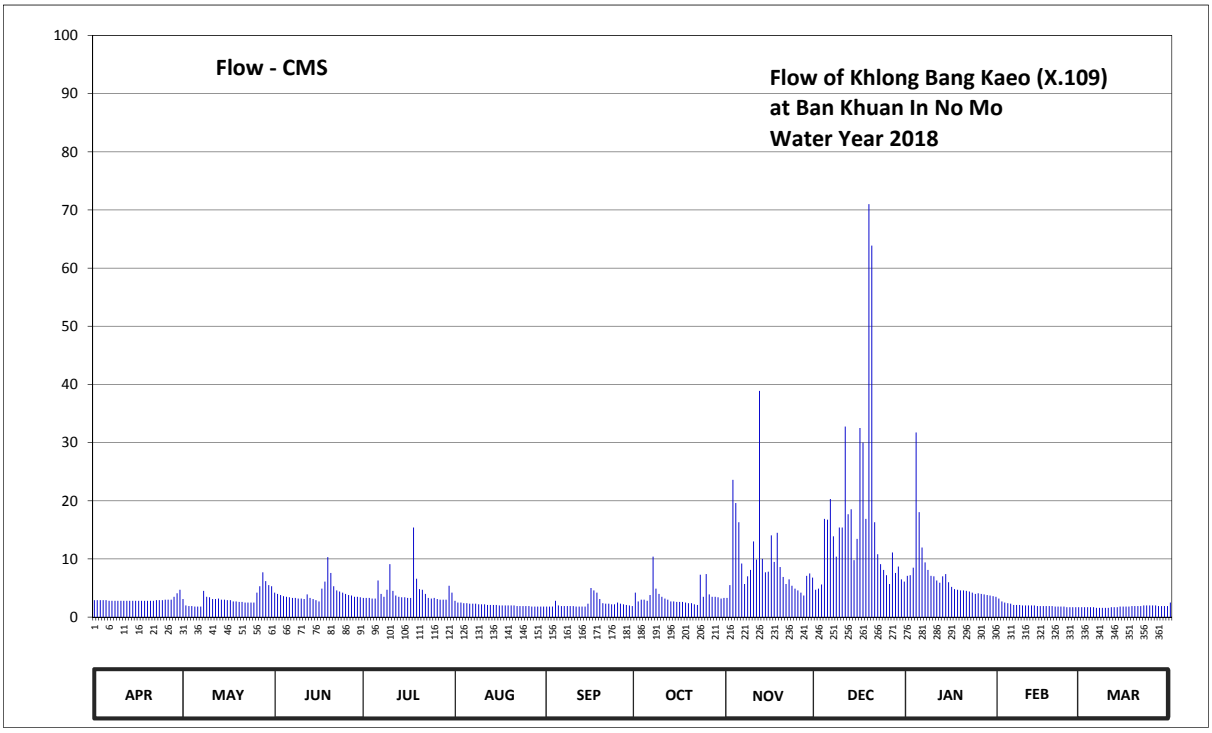
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	26.34	26.36	26.47	26.38	26.33	26.23	26.47	26.38	26.52	26.76	26.37	26.22	
2	26.34	26.25	26.45	26.38	26.30	26.23	26.32	26.60	26.54	26.77	26.32	26.22	
3	26.34	26.24	26.43	26.38	26.30	26.23	26.35	27.93	26.61	26.90	26.30	26.22	
4	26.34	26.24	26.41	26.37	26.29	26.33	26.35	27.72	27.56	28.29	26.29	26.22	
5	26.34	26.23	26.40	26.37	26.29	26.25	26.33	27.52	27.55	27.63	26.28	26.22	
6	26.33	26.23	26.39	26.68	26.28	26.24	26.43	26.97	27.76	27.23	26.26	26.21	
7	26.33	26.23	26.38	26.45	26.28	26.24	27.09	26.62	27.36	26.99	26.26	26.21	
8	26.33	26.50	26.38	26.40	26.28	26.24	26.54	26.75	27.09	26.86	26.26	26.21	
9	26.33	26.40	26.37	26.52	26.27	26.24	26.45	26.86	27.46	26.76	26.25	26.21	
10	26.33	26.39	26.37	26.96	26.27	26.24	26.40	27.30	27.46	26.75	26.25	26.21	
11	26.33	26.36	26.36	26.50	26.27	26.23	26.37	27.04	28.33	26.68	26.25	26.22	
12	26.33	26.36	26.44	26.42	26.26	26.23	26.35	28.56	27.61	26.64	26.25	26.22	
13	26.33	26.37	26.38	26.40	26.26	26.23	26.32	27.05	27.66	26.75	26.25	26.22	
14	26.33	26.35	26.36	26.39	26.26	26.23	26.32	26.82	27.03	26.79	26.24	26.23	
15	26.33	26.35	26.34	26.39	26.26	26.28	26.31	26.83	27.33	26.65	26.24	26.23	
16	26.33	26.34	26.32	26.38	26.25	26.55	26.31	27.37	28.32	26.57	26.24	26.23	
17	26.33	26.34	26.54	26.38	26.25	26.51	26.31	27.00	28.22	26.53	26.24	26.23	
18	26.33	26.32	26.66	27.46	26.25	26.47	26.30	27.40	27.56	26.52	26.24	26.24	
19	26.33	26.32	27.08	26.71	26.25	26.36	26.29	26.91	29.52	26.51	26.24	26.24	
20	26.33	26.31	26.81	26.53	26.25	26.29	26.29	26.74	29.33	26.51	26.23	26.24	
21	26.33	26.31	26.58	26.52	26.25	26.28	26.27	26.62	27.52	26.50	26.23	26.24	
22	26.34	26.30	26.51	26.45	26.24	26.28	26.26	26.70	27.13	26.49	26.23	26.25	
23	26.34	26.30	26.49	26.38	26.24	26.27	26.78	26.59	26.96	26.47	26.23	26.25	
24	26.34	26.30	26.47	26.37	26.24	26.27	26.40	26.54	26.86	26.45	26.22	26.25	
25	26.35	26.30	26.45	26.38	26.24	26.30	26.79	26.51	26.77	26.46	26.22	26.25	
26	26.35	26.47	26.43	26.36	26.24	26.28	26.44	26.47	26.62	26.45	26.22	26.25	
27	26.35	26.58	26.42	26.35	26.23	26.27	26.40	26.42	27.16	26.44	26.22	26.24	
28	26.40	26.82	26.40	26.35	26.23	26.26	26.40	26.76	26.81	26.43	26.22	26.24	
29	26.46	26.67	26.40	26.35	26.23	26.25	26.39	26.80	26.92	26.42		26.24	
30	26.52	26.60	26.39	26.59	26.23	26.24	26.37	26.73	26.70	26.41		26.24	
31		26.58		26.47	26.23		26.38		26.66	26.40		26.30	
Mean	26.35	26.38	26.46	26.48	26.26	26.28	26.41	26.95	27.38	26.71	26.25	26.23	
Max	26.52	26.82	27.08	27.46	26.33	26.55	27.09	28.56	29.52	28.29	26.37	26.30	29.52
Min	26.33	26.23	26.32	26.35	26.23	26.23	26.26	26.38	26.52	26.40	26.22	26.21	26.21

Annual Max Momentary Gage Height 30.99 m. (MSL.) , at 24.00 Hours , on Dec 19, 2018

Zero Gage at Bottom Elevation 0.00 m. (MSL.) , River Bed 25.91 m. (MSL.)

Left Bank Elevation 30.79 m. (MSL.) ,

Right Bank Elevation 33.13 m. (MSL.) , Drainage Are 131 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.90	3.10	4.20	3.30	2.80	1.80	4.20	3.30	4.70	7.10	3.20	1.70		
2	2.90	2.00	4.00	3.30	2.50	1.80	2.70	5.50	4.90	7.20	2.70	1.70		
3	2.90	1.90	3.80	3.30	2.50	1.80	3.00	23.60	5.60	8.50	2.50	1.70		
4	2.90	1.90	3.60	3.20	2.40	2.80	3.00	19.60	16.90	31.75	2.40	1.70		
5	2.90	1.80	3.50	3.20	2.40	2.00	2.80	16.30	16.75	18.03	2.30	1.70		
6	2.80	1.80	3.40	6.30	2.30	1.90	3.80	9.20	20.30	11.95	2.10	1.60		
7	2.80	1.80	3.30	4.00	2.30	1.90	10.40	5.70	13.90	9.40	2.10	1.60		
8	2.80	4.50	3.30	3.50	2.30	1.90	4.90	7.00	10.40	8.10	2.10	1.60		
9	2.80	3.50	3.20	4.70	2.20	1.90	4.00	8.10	15.40	7.10	2.00	1.60		
10	2.80	3.40	3.20	9.10	2.20	1.90	3.50	13.00	15.40	7.00	2.00	1.60		
11	2.80	3.10	3.10	4.50	2.20	1.80	3.20	9.90	32.75	6.30	2.00	1.70		
12	2.80	3.10	3.90	3.70	2.10	1.80	3.00	38.90	17.68	5.90	2.00	1.70		
13	2.80	3.20	3.30	3.50	2.10	1.80	2.70	10.00	18.55	7.00	2.00	1.70		
14	2.80	3.00	3.10	3.40	2.10	1.80	2.70	7.70	9.80	7.40	1.90	1.80		
15	2.80	3.00	2.90	3.40	2.10	2.30	2.60	7.80	13.45	6.00	1.90	1.80		
16	2.80	2.90	2.70	3.30	2.00	5.00	2.60	14.05	32.50	5.20	1.90	1.80		
17	2.80	2.90	4.90	3.30	2.00	4.60	2.60	9.50	30.00	4.80	1.90	1.80		
18	2.80	2.70	6.10	15.40	2.00	4.20	2.50	14.50	16.90	4.70	1.90	1.90		
19	2.80	2.70	10.30	6.60	2.00	3.10	2.40	8.60	71.00	4.60	1.90	1.90		
20	2.80	2.60	7.60	4.80	2.00	2.40	2.40	6.90	63.88	4.60	1.80	1.90		
21	2.80	2.60	5.30	4.70	2.00	2.30	2.20	5.70	16.30	4.50	1.80	1.90		
22	2.90	2.50	4.60	4.00	1.90	2.30	2.10	6.50	10.80	4.40	1.80	2.00		
23	2.90	2.50	4.40	3.30	1.90	2.20	7.30	5.40	9.10	4.20	1.80	2.00		
24	2.90	2.50	4.20	3.20	1.90	2.20	3.50	4.90	8.10	4.00	1.70	2.00		
25	3.00	2.50	4.00	3.30	1.90	2.50	7.40	4.60	7.20	4.10	1.70	2.00		
26	3.00	4.20	3.80	3.10	1.90	2.30	3.90	4.20	5.70	4.00	1.70	2.00		
27	3.00	5.30	3.70	3.00	1.80	2.20	3.50	3.70	11.10	3.90	1.70	1.90		
28	3.50	7.70	3.50	3.00	1.80	2.10	3.50	7.10	7.60	3.80	1.70	1.90		
29	4.10	6.20	3.50	3.00	1.80	2.00	3.40	7.50	8.70	3.70		1.90		
30	4.70	5.50	3.40	5.40	1.80	1.90	3.20	6.80	6.50	3.60		1.90		
31		5.30		4.20	1.80		3.30		6.10	3.50		2.50		
Total	89.30	101.70	123.80	136.00	65.00	70.50	112.30	295.55	527.96	216.33	56.50	56.50	1851.44	CMSDAY
Mean	2.98	3.28	4.13	4.39	2.10	2.35	3.62	9.85	17.03	6.98	2.02	1.82	5.07	CMS
Max	4.70	7.70	10.30	15.40	2.80	5.00	10.40	38.90	71.00	31.75	3.20	2.50	71.00	CMS
Min	2.80	1.80	2.70	3.00	1.80	1.80	2.10	3.30	4.70	3.50	1.70	1.60	1.60	CMS
Runoff	7.72	8.79	10.70	11.75	5.62	6.09	9.70	25.54	45.62	18.69	4.88	4.88	159.96	MCM

Momentary Peak 138.45 CMS. at 30.99 m. (MSL.) at 24.00 Hours , on Dec 19, 2018

Runoff Yield 38.72 Liters/Second/Square KM. Momentary Peak Yield 1056.87 Liters/Second/Square KM.

WATER YEAR : 2018

THALE SAP SONGKHLA

Khlong U - Taphao at Ban Takian Pao , Songkhla (X.112)

Lat 06 - 42 - 11 N Long 100 - 26 - 10 E

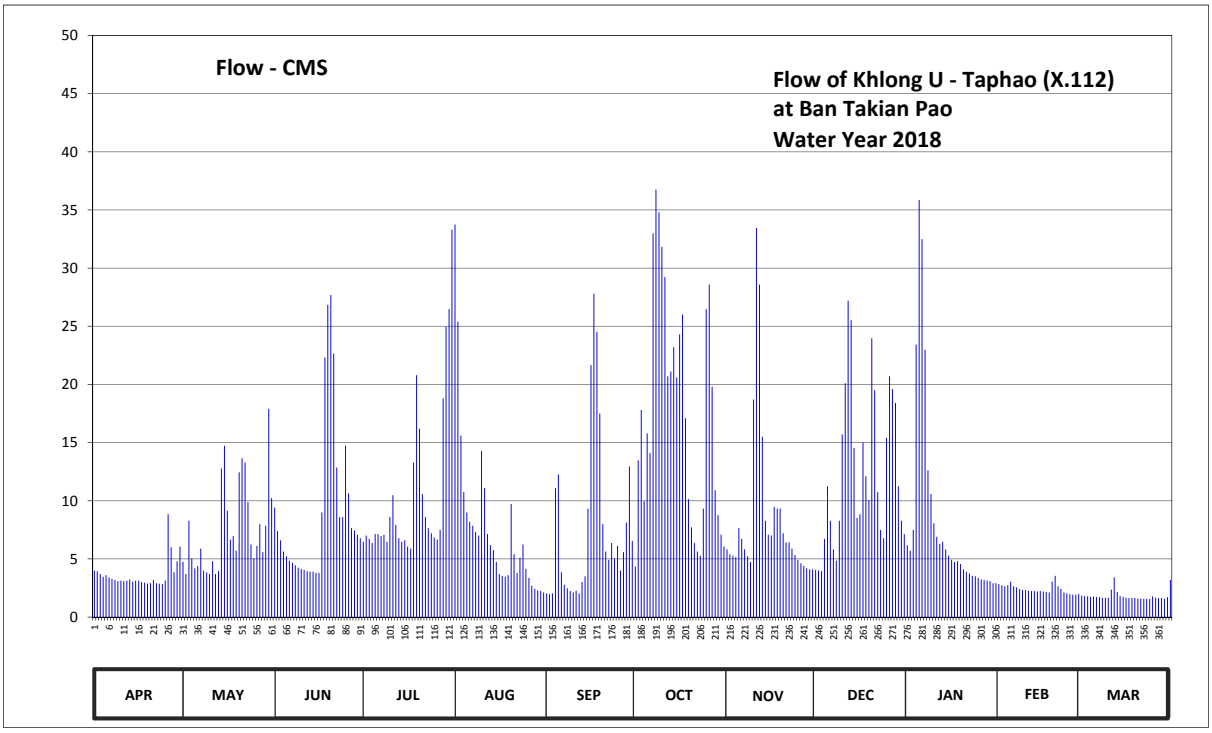
Location : on right bank at Ban Takian Pao.

	Ban Takian Pao	**Amphoe** Sadao	**Changwat** Songkhla
Drainge Area	493 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	Near the top staff gage.		**Elevation** +24.515 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	1979 - 1996 , 2006 to date		
Rating Operation			
Period of Rating	1979 - 1996 , 2006 to date		
Rated by Flot	-		
Rated by Current Meter	1979 - 1996 , 2006 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 17 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	21.10	21.24	21.95	21.53	24.25	20.66	21.17	21.42	21.11	21.48	20.85	20.61	
2	21.09	21.04	21.68	21.62	23.60	20.64	22.43	21.35	21.10	21.40	20.83	20.60	
3	21.04	21.81	21.55	21.57	22.66	20.66	22.88	21.33	21.09	21.70	20.81	20.60	
4	20.99	21.29	21.39	21.51	22.11	22.15	22.02	21.31	21.57	23.42	20.83	20.58	
5	21.02	21.14	21.32	21.64	21.90	22.29	22.68	21.72	22.17	24.39	20.90	20.59	
6	20.98	21.18	21.26	21.64	21.80	21.07	22.50	21.57	21.81	24.16	20.81	20.58	
7	20.95	21.43	21.23	21.61	21.75	20.84	24.20	21.42	21.42	23.38	20.79	20.57	
8	20.93	21.10	21.19	21.63	21.67	20.77	24.45	21.32	21.26	22.33	20.75	20.56	
9	20.91	21.07	21.15	21.53	21.62	20.71	24.32	21.24	21.81	22.09	20.73	20.56	
10	20.92	21.04	21.13	21.85	22.52	20.68	24.11	22.97	22.67	21.78	20.73	20.56	
11	20.91	21.25	21.11	22.08	22.15	20.72	23.91	24.23	23.11	21.60	20.72	20.74	
12	20.92	21.04	21.09	21.76	21.64	20.66	23.17	23.86	23.75	21.50	20.71	20.98	
13	20.94	21.09	21.08	21.58	21.48	20.89	23.21	22.65	23.61	21.53	20.71	20.69	
14	20.90	22.35	21.08	21.53	21.41	21.00	23.40	21.81	22.55	21.42	20.70	20.60	
15	20.92	22.57	21.06	21.55	21.24	21.94	23.16	21.63	21.84	21.33	20.71	20.58	
16	20.92	21.92	21.06	21.46	21.04	23.26	23.50	21.62	21.88	21.27	20.70	20.56	
17	20.89	21.56	21.90	21.43	21.01	23.80	23.65	21.96	22.60	21.24	20.69	20.55	
18	20.88	21.61	23.32	22.41	20.99	23.52	22.81	21.94	22.27	21.25	20.68	20.55	
19	20.86	21.40	23.72	23.18	21.02	22.85	22.04	21.94	22.03	21.21	20.90	20.55	
20	20.87	22.31	23.79	22.72	21.99	21.77	21.73	21.65	23.47	21.12	21.01	20.54	
21	20.93	22.45	23.35	22.09	21.35	21.39	21.51	21.52	23.05	21.08	20.81	20.54	
22	20.87	22.41	22.36	21.85	21.06	21.27	21.39	21.52	22.11	21.05	20.76	20.53	
23	20.86	22.01	21.85	21.72	21.30	21.51	21.33	21.43	21.70	21.01	20.68	20.53	
24	20.85	21.49	21.85	21.65	21.49	21.29	21.94	21.34	21.58	21.00	20.66	20.53	
25	20.92	21.29	22.57	21.59	21.13	21.47	23.69	21.27	22.64	20.97	20.64	20.59	
26	21.88	21.47	22.10	21.56	20.97	21.10	23.86	21.22	23.17	20.94	20.63	20.56	
27	21.45	21.77	21.72	21.70	20.82	21.38	23.08	21.18	23.06	20.93	20.63	20.55	
28	21.07	21.38	21.69	22.98	20.76	21.79	22.13	21.14	22.94	20.92	20.65	20.55	
29	21.25	21.75	21.63	23.56	20.72	22.37	21.87	21.12	22.17	20.91		20.53	
30	21.46	22.89	21.58	23.69	20.71	21.54	21.63	21.12	21.81	20.87		20.57	
31		22.05		24.22	20.68		21.46		21.64	20.87		20.93	
Mean	21.02	21.63	21.79	22.01	21.58	21.53	22.75	21.73	22.23	21.62	20.75	20.60	
Max	21.88	22.89	23.79	24.22	24.25	23.80	24.45	24.23	23.75	24.39	21.01	20.98	24.45
Min	20.85	21.04	21.06	21.43	20.68	20.64	21.17	21.12	21.09	20.87	20.63	20.53	20.53

Annual Max Momentary Gage Height	24.51	m. (MSL.) ,	at 20.00 Hours , on Oct 7, 2018		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	19.98	m. (MSL.)
Left Bank Elevation	25.80	m. (MSL.) ,			
Right Bank Elevation	25.05	m. (MSL.) ,	Drainage Are	493	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	4.00	4.74	9.40	6.48	33.75	2.04	4.35	5.82	4.05	6.18	2.83	1.84		
2	3.95	3.70	7.38	7.02	25.40	1.96	13.47	5.40	4.00	5.70	2.74	1.80		
3	3.70	8.28	6.60	6.72	15.60	2.04	17.80	5.28	3.95	7.50	2.65	1.80		
4	3.46	5.04	5.64	6.36	10.74	11.08	9.97	5.16	6.72	23.42	2.74	1.73		
5	3.60	4.20	5.22	7.14	9.00	12.27	15.80	7.64	11.25	35.85	3.05	1.77		
6	3.41	4.40	4.86	7.14	8.20	3.85	14.10	6.72	8.28	32.48	2.65	1.73		
7	3.28	5.88	4.68	6.96	7.85	2.78	33.00	5.82	5.82	22.98	2.56	1.70		
8	3.19	4.00	4.45	7.08	7.32	2.48	36.75	5.22	4.86	12.61	2.40	1.66		
9	3.10	3.85	4.25	6.48	7.02	2.24	34.80	4.74	8.28	10.57	2.32	1.66		
10	3.14	3.70	4.15	8.60	14.28	2.12	31.83	18.70	15.70	8.06	2.32	1.66		
11	3.10	4.80	4.05	10.48	11.08	2.28	29.23	33.45	20.10	6.90	2.28	2.36		
12	3.14	3.70	3.95	7.92	7.14	2.04	20.70	28.58	27.20	6.30	2.24	3.41		
13	3.23	3.95	3.90	6.78	6.18	3.01	21.11	15.50	25.52	6.48	2.24	2.16		
14	3.05	12.78	3.90	6.48	5.76	3.50	23.20	8.28	14.55	5.82	2.20	1.80		
15	3.14	14.73	3.80	6.60	4.74	9.32	20.60	7.08	8.52	5.28	2.24	1.73		
16	3.14	9.16	3.80	6.06	3.70	21.66	24.30	7.02	8.84	4.92	2.20	1.66		
17	3.01	6.66	9.00	5.88	3.55	27.80	26.00	9.48	15.00	4.74	2.16	1.63		
18	2.96	6.96	22.32	13.29	3.46	24.52	17.10	9.32	12.10	4.80	2.12	1.63		
19	2.87	5.70	26.84	20.80	3.60	17.50	10.14	9.32	10.06	4.56	3.05	1.63		
20	2.92	12.44	27.68	16.20	9.72	7.99	7.71	7.20	23.97	4.10	3.55	1.59		
21	3.19	13.65	22.65	10.57	5.40	5.64	6.36	6.42	19.50	3.90	2.65	1.59		
22	2.92	13.29	12.86	8.60	3.80	4.92	5.64	6.42	10.74	3.75	2.44	1.56		
23	2.87	9.89	8.60	7.64	5.10	6.36	5.28	5.88	7.50	3.55	2.12	1.56		
24	2.83	6.24	8.60	7.20	6.24	5.04	9.32	5.34	6.78	3.50	2.04	1.56		
25	3.14	5.04	14.73	6.84	4.15	6.12	26.48	4.92	15.40	3.37	1.96	1.77		
26	8.84	6.12	10.65	6.66	3.37	4.00	28.58	4.62	20.70	3.23	1.92	1.66		
27	6.00	7.99	7.64	7.50	2.69	5.58	19.80	4.40	19.60	3.19	1.92	1.63		
28	3.85	5.58	7.44	18.80	2.44	8.13	10.91	4.20	18.40	3.14	2.00	1.63		
29	4.80	7.85	7.08	24.96	2.28	12.95	8.76	4.10	11.25	3.10		1.56		
30	6.06	17.90	6.78	26.48	2.24	6.54	7.08	4.10	8.28	2.92		1.70		
31		10.23		33.30	2.12		6.06		7.14	2.92		3.19		
Total	109.89	232.45	272.90	329.02	237.92	227.76	546.23	256.13	384.06	255.82	67.59	56.36	2976.13	CMSDAY
Mean	3.66	7.50	9.10	10.61	7.67	7.59	17.62	8.54	12.39	8.25	2.41	1.82	8.15	CMS
Max	8.84	17.90	27.68	33.30	33.75	27.80	36.75	33.45	27.20	35.85	3.55	3.41	36.75	CMS
Min	2.83	3.70	3.80	5.88	2.12	1.96	4.35	4.10	3.95	2.92	1.92	1.56	1.56	CMS
Runoff	9.49	20.08	23.58	28.43	20.56	19.68	47.19	22.13	33.18	22.10	5.84	4.87	257.14	MCM

Momentary Peak 37.65 CMS. at 24.51 m. (MSL.) at 20.00 Hours , on Oct 7, 2018

Runoff Yield 16.54 Liters/Second/Square KM. Momentary Peak Yield 76.37 Liters/Second/Square KM.

WATER YEAR : 2018

THALE SAP SONGKHLA

Khlong La Pang at Ban Thung Prap , Songkhla (X.113)

Lat 06 - 37 - 59 N Long 100 - 23 - 46 E

Location : on right bank at Ban Thung Prap.

	Ban Thung Prap	**Amphoe** Sadao	**Changwat** Songkhla
Drainge Area	129 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	About 15 meters from the gage observer's house.		**Elevation** +37.552 m. (MSL.)
Gage Reading Frequency	13-time daily readings at 06.00 - 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic mean of 13 readings		
Period of Available Gage Records	1979 to date		
Rating Operation			
Period of Rating	1979 to date		
Rated by Flot	-		
Rated by Current Meter	1979 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 12 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

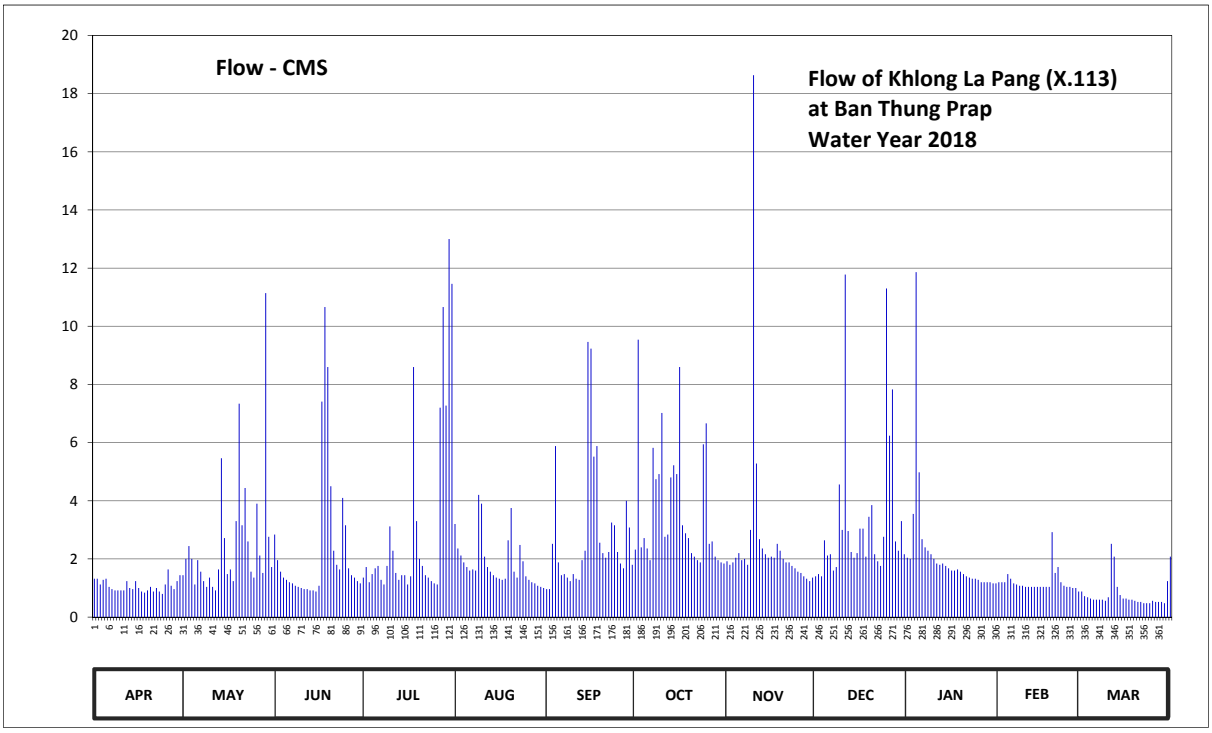
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	31.73	31.76	32.11	31.74	32.20	31.64	31.98	31.88	31.75	31.91	31.70	31.62	
2	31.73	31.90	31.89	31.83	31.99	31.64	33.23	31.85	31.77	31.90	31.70	31.58	
3	31.68	32.01	31.79	31.70	31.93	32.03	32.00	31.87	31.75	32.27	31.70	31.57	
4	31.72	31.90	31.74	31.77	31.87	32.68	32.08	31.91	32.06	33.52	31.77	31.56	
5	31.73	31.68	31.72	31.82	31.83	31.87	31.99	31.95	31.93	32.53	31.73	31.55	
6	31.66	31.89	31.70	31.84	31.80	31.76	31.89	31.89	31.94	32.07	31.69	31.55	
7	31.64	31.79	31.69	31.72	31.81	31.77	32.67	31.90	31.80	32.00	31.68	31.55	
8	31.63	31.71	31.67	31.68	31.80	31.74	32.49	31.85	31.83	31.97	31.67	31.55	
9	31.63	31.66	31.66	31.84	32.40	31.71	32.52	32.15	32.46	31.94	31.67	31.54	
10	31.63	31.74	31.65	32.18	32.34	31.77	32.87	34.17	32.15	31.90	31.66	31.57	
11	31.63	31.66	31.64	31.97	31.92	31.73	32.09	32.58	33.51	31.86	31.66	32.03	
12	31.71	31.63	31.64	31.78	31.83	31.72	32.11	32.07	32.14	31.85	31.66	31.92	
13	31.65	31.81	31.63	31.72	31.79	31.89	32.50	31.99	31.96	31.86	31.66	31.66	
14	31.64	32.61	31.63	31.76	31.76	31.97	32.57	31.94	31.91	31.84	31.66	31.59	
15	31.71	32.08	31.62	31.76	31.74	33.22	32.52	31.91	31.95	31.82	31.66	31.56	
16	31.65	31.77	31.67	31.68	31.73	33.19	33.10	31.92	32.16	31.80	31.66	31.56	
17	31.62	31.81	32.93	31.75	31.72	32.62	32.19	31.91	32.16	31.80	31.66	31.55	
18	31.61	31.71	33.37	33.10	31.73	32.68	32.12	32.03	31.92	31.81	31.66	31.55	
19	31.63	32.22	33.10	32.22	32.06	32.04	32.08	31.97	32.25	31.79	32.13	31.54	
20	31.66	32.92	32.45	31.90	32.31	31.95	31.95	31.90	32.33	31.77	31.78	31.53	
21	31.62	32.19	31.97	31.84	31.79	31.91	31.92	31.87	31.94	31.75	31.83	31.53	
22	31.65	32.44	31.85	31.76	31.74	31.96	31.89	31.87	31.88	31.74	31.70	31.52	
23	31.62	32.05	31.81	31.74	32.02	32.21	31.87	31.84	31.84	31.73	31.67	31.52	
24	31.60	31.79	32.38	31.71	31.88	32.19	32.69	31.82	32.09	31.73	31.66	31.52	
25	31.68	31.74	32.19	31.69	31.75	31.96	32.81	31.79	33.45	31.72	31.66	31.54	
26	31.81	32.34	31.82	31.68	31.72	31.86	32.03	31.78	32.74	31.70	31.65	31.53	
27	31.67	31.93	31.76	32.90	31.70	31.82	32.05	31.75	32.99	31.70	31.65	31.53	
28	31.64	31.78	31.74	33.37	31.69	32.36	31.92	31.73	32.05	31.70	31.62	31.53	
29	31.71	33.43	31.71	32.91	31.67	32.17	31.89	31.71	31.97	31.70		31.52	
30	31.76	32.09	31.69	33.65	31.66	31.85	31.87	31.74	32.22	31.69		31.71	
31		31.83		33.47	31.65		31.86		31.94	31.69		31.92	
Mean	31.67	32.00	31.94	32.08	31.87	32.06	32.25	31.98	32.16	31.91	31.70	31.60	
Max	31.81	33.43	33.37	33.65	32.40	33.22	33.23	34.17	33.51	33.52	32.13	32.03	34.17
Min	31.60	31.63	31.62	31.68	31.65	31.64	31.86	31.71	31.75	31.69	31.62	31.52	31.52

Annual Max Momentary Gage Height 34.59 m. (MSL.) , at 23.00 Hours , on Jul 27, 2018

Zero Gage at Bottom Elevation 0.00 m. (MSL.) , River Bed 31.65 m. (MSL.)

Left Bank Elevation 34.75 m. (MSL.) ,

Right Bank Elevation 36.48 m. (MSL.) , Drainage Are 129 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.32	1.44	2.84	1.36	3.20	0.96	2.32	1.92	1.40	2.04	1.20	0.88		
2	1.32	2.00	1.96	1.72	2.36	0.96	9.54	1.80	1.48	2.00	1.20	0.72		
3	1.12	2.44	1.56	1.20	2.12	2.52	2.40	1.88	1.40	3.55	1.20	0.68		
4	1.28	2.00	1.36	1.48	1.88	5.88	2.72	2.04	2.64	11.86	1.48	0.64		
5	1.32	1.12	1.28	1.68	1.72	1.88	2.36	2.20	2.12	4.98	1.32	0.60		
6	1.04	1.96	1.20	1.76	1.60	1.44	1.96	1.96	2.16	2.68	1.16	0.60		
7	0.96	1.56	1.16	1.28	1.64	1.48	5.82	2.00	1.60	2.40	1.12	0.60		
8	0.92	1.24	1.08	1.12	1.60	1.36	4.74	1.80	1.72	2.28	1.08	0.60		
9	0.92	1.04	1.04	1.76	4.20	1.24	4.92	3.00	4.56	2.16	1.08	0.56		
10	0.92	1.36	1.00	3.12	3.90	1.48	7.02	18.63	3.00	2.00	1.04	0.68		
11	0.92	1.04	0.96	2.28	2.08	1.32	2.76	5.28	11.78	1.84	1.04	2.52		
12	1.24	0.92	0.96	1.52	1.72	1.28	2.84	2.68	2.96	1.80	1.04	2.08		
13	1.00	1.64	0.92	1.28	1.56	1.96	4.80	2.36	2.24	1.84	1.04	1.04		
14	0.96	5.46	0.92	1.44	1.44	2.28	5.22	2.16	2.04	1.76	1.04	0.76		
15	1.24	2.72	0.88	1.44	1.36	9.46	4.92	2.04	2.20	1.68	1.04	0.64		
16	1.00	1.48	1.08	1.12	1.32	9.23	8.60	2.08	3.04	1.60	1.04	0.64		
17	0.88	1.64	7.41	1.40	1.28	5.52	3.16	2.04	3.04	1.60	1.04	0.60		
18	0.84	1.24	10.66	8.60	1.32	5.88	2.88	2.52	2.08	1.64	1.04	0.60		
19	0.92	3.30	8.60	3.30	2.64	2.56	2.72	2.28	3.45	1.56	2.92	0.56		
20	1.04	7.34	4.50	2.00	3.75	2.20	2.20	2.00	3.85	1.48	1.52	0.52		
21	0.88	3.16	2.28	1.76	1.56	2.04	2.08	1.88	2.16	1.40	1.72	0.52		
22	1.00	4.44	1.80	1.44	1.36	2.24	1.96	1.88	1.92	1.36	1.20	0.48		
23	0.88	2.60	1.64	1.36	2.48	3.25	1.88	1.76	1.76	1.32	1.08	0.48		
24	0.80	1.56	4.10	1.24	1.92	3.16	5.94	1.68	2.76	1.32	1.04	0.48		
25	1.12	1.36	3.16	1.16	1.40	2.24	6.66	1.56	11.30	1.28	1.04	0.56		
26	1.64	3.90	1.68	1.12	1.28	1.84	2.52	1.52	6.24	1.20	1.00	0.52		
27	1.08	2.12	1.44	7.20	1.20	1.68	2.60	1.40	7.83	1.20	1.00	0.52		
28	0.96	1.52	1.36	10.66	1.16	4.00	2.08	1.32	2.60	1.20	0.88	0.52		
29	1.24	11.14	1.24	7.27	1.08	3.08	1.96	1.24	2.28	1.20		0.48		
30	1.44	2.76	1.16	13.00	1.04	1.80	1.88	1.36	3.30	1.16		1.24		
31		1.72		11.46	1.00		1.84		2.16	1.16		2.08		
Total	32.20	79.22	71.23	98.53	58.17	86.22	115.30	78.27	103.07	66.55	33.60	24.40	846.76	CMSDAY
Mean	1.07	2.56	2.37	3.18	1.88	2.87	3.72	2.61	3.32	2.15	1.20	0.79	2.32	CMS
Max	1.64	11.14	10.66	13.00	4.20	9.46	9.54	18.63	11.78	11.86	2.92	2.52	18.63	CMS
Min	0.80	0.92	0.88	1.12	1.00	0.96	1.84	1.24	1.40	1.16	0.88	0.48	0.48	CMS
Runoff	2.78	6.84	6.15	8.51	5.03	7.45	9.96	6.76	8.91	5.75	2.90	2.11	73.16	MCM

Momentary Peak 25.80 CMS. at 34.59 m. (MSL.) at 23.00 Hours , on Jul 27, 2018

Runoff Yield 17.98 Liters/Second/Square KM. Momentary Peak Yield 200.00 Liters/Second/Square KM.

WATER YEAR : 2018

THALE SAP SONGKHLA

Khlong Lam at Ban Khlong Lam , Phatthalung (X.170)

Lat 07 - 33 - 22 N Long 99 - 59 - 31 E

Location : on left bank at the bridge.

	Ban Khlong Lam	**Amphoe** Srinagarindra	**Changwat** Phatthalung
Drainge Area	269 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank about 21 meters from the top staff gage.	**Elevation** +27.274 m. (MSL.)	
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	1987 to date		
Rating Operation			
Period of Rating	1989 to date		
Rated by Flot	-		
Rated by Current Meter	1989 to date		
Stability of Channel Regimes	Stable because of backwater effect.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 20 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

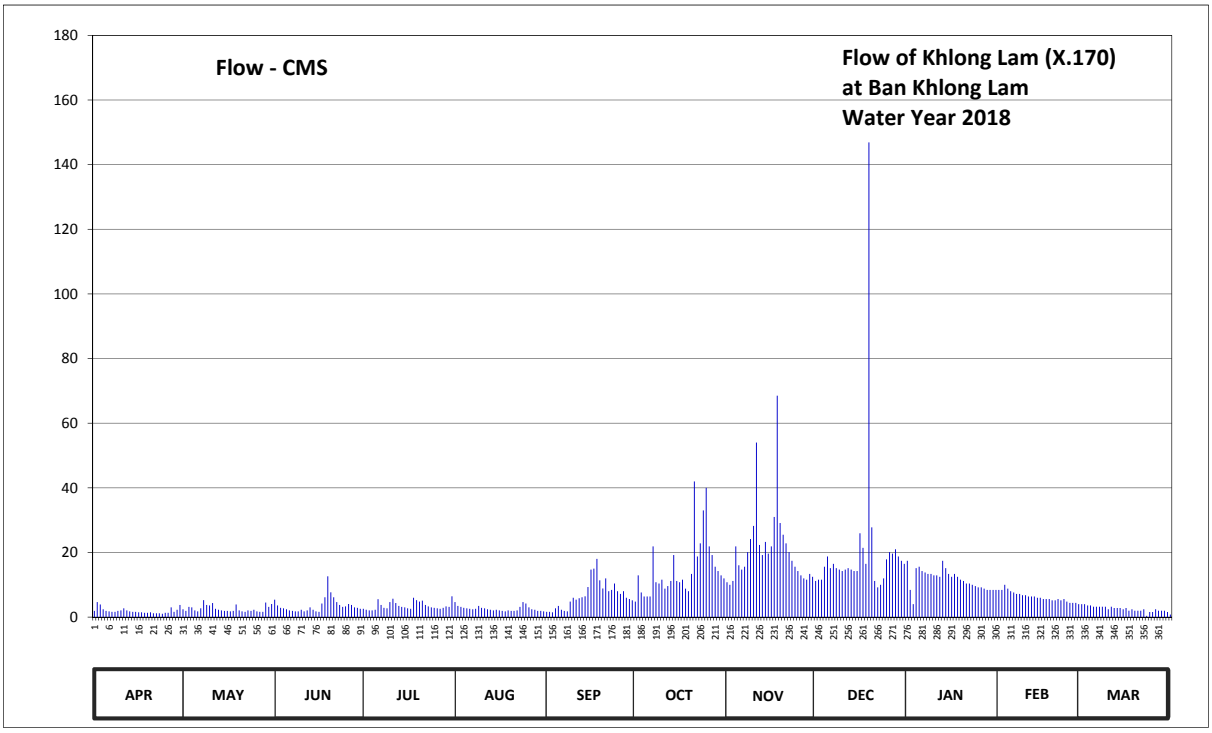
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	20.13	20.16	20.36	20.17	20.31	20.11	20.82	20.97	20.98	21.12	20.91	20.80	
2	20.31	20.13	20.24	20.15	20.23	20.11	21.02	20.95	20.99	20.91	20.91	20.80	
3	20.26	20.21	20.19	20.14	20.21	20.10	20.89	20.98	20.99	20.80	20.95	20.79	
4	20.16	20.20	20.18	20.14	20.19	20.18	20.86	21.22	21.08	21.07	20.92	20.79	
5	20.13	20.14	20.16	20.15	20.18	20.23	20.86	21.09	21.15	21.08	20.90	20.78	
6	20.12	20.12	20.14	20.37	20.17	20.15	20.86	21.06	21.07	21.05	20.89	20.78	
7	20.11	20.18	20.13	20.25	20.16	20.13	21.22	21.08	21.10	21.04	20.88	20.78	
8	20.11	20.35	20.12	20.19	20.17	20.12	20.97	21.18	21.07	21.03	20.88	20.78	
9	20.13	20.25	20.12	20.18	20.23	20.32	20.96	21.27	21.06	21.03	20.87	20.78	
10	20.14	20.24	20.15	20.31	20.19	20.40	20.99	21.36	21.05	21.02	20.87	20.76	
11	20.18	20.29	20.12	20.38	20.18	20.36	20.92	21.88	21.06	21.02	20.86	20.78	
12	20.14	20.17	20.14	20.29	20.16	20.39	20.94	21.23	21.07	21.01	20.86	20.77	
13	20.12	20.15	20.20	20.23	20.15	20.41	20.98	21.16	21.06	21.12	20.86	20.77	
14	20.11	20.14	20.15	20.21	20.14	20.43	21.16	21.25	21.05	21.07	20.85	20.77	
15	20.11	20.13	20.12	20.20	20.15	20.61	20.98	21.17	21.05	21.03	20.85	20.76	
16	20.10	20.13	20.11	20.18	20.14	20.79	20.97	21.22	21.31	21.01	20.84	20.77	
17	20.10	20.12	20.28	20.17	20.13	20.80	20.99	21.42	21.21	21.03	20.84	20.75	
18	20.09	20.13	20.41	20.40	20.12	20.90	20.92	22.17	21.10	21.01	20.84	20.76	
19	20.09	20.26	20.72	20.35	20.14	20.68	20.90	21.38	23.46	20.99	20.83	20.75	
20	20.10	20.14	20.51	20.32	20.13	20.59	21.03	21.30	21.35	20.98	20.83	20.75	
21	20.08	20.12	20.41	20.34	20.13	20.70	21.64	21.24	20.98	20.96	20.84	20.75	
22	20.08	20.11	20.31	20.25	20.14	20.90	21.15	21.18	20.93	20.96	20.83	20.76	
23	20.08	20.14	20.25	20.22	20.21	20.91	21.24	21.12	20.95	20.95	20.84	20.71	
24	20.07	20.13	20.21	20.20	20.31	20.96	21.46	21.08	21.00	20.94	20.82	20.74	
25	20.09	20.15	20.22	20.19	20.28	20.90	21.60	21.05	21.13	20.93	20.81	20.74	
26	20.09	20.12	20.27	20.18	20.20	20.88	21.22	21.02	21.18	20.93	20.81	20.76	
27	20.20	20.11	20.25	20.17	20.16	20.90	21.16	21.00	21.17	20.92	20.81	20.75	
28	20.11	20.11	20.20	20.19	20.15	20.85	21.08	20.99	21.20	20.91	20.80	20.75	
29	20.15	20.30	20.19	20.22	20.13	20.84	21.05	21.03	21.15	20.91		20.75	
30	20.25	20.21	20.17	20.21	20.13	20.83	21.02	21.01	21.12	20.91		20.74	
31		20.27		20.43	20.12		21.00		21.10	20.91		20.72	
Mean	20.13	20.17	20.23	20.24	20.18	20.55	21.06	21.20	21.17	20.99	20.86	20.76	
Max	20.31	20.35	20.72	20.43	20.31	20.96	21.64	22.17	23.46	21.12	20.95	20.80	23.46
Min	20.07	20.11	20.11	20.14	20.12	20.10	20.82	20.95	20.93	20.80	20.80	20.71	20.07

Annual Max Momentary Gage Height 25.42 m. (MSL.) , at 11.00 Hours , on Dec 19, 2018

Zero Gage at Bottom Elevation 0.00 m. (MSL.) , River Bed 18.99 m. (MSL.)

Left Bank Elevation 28.64 m. (MSL.) ,

Right Bank Elevation 27.38 m. (MSL.) , Drainage Are 269 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.95	2.40	5.40	2.55	4.65	1.65	4.80	10.80	11.20	17.40	8.40	4.00		
2	4.65	1.95	3.60	2.25	3.45	1.65	12.90	10.00	11.60	8.40	8.40	4.00		
3	3.90	3.15	2.85	2.10	3.15	1.50	7.60	11.20	11.60	4.00	10.00	3.60		
4	2.40	3.00	2.70	2.10	2.85	2.70	6.40	21.90	15.60	15.15	8.80	3.60		
5	1.95	2.10	2.40	2.25	2.70	3.45	6.40	16.05	18.75	15.60	8.00	3.20		
6	1.80	1.80	2.10	5.55	2.55	2.25	6.40	14.70	15.15	14.25	7.60	3.20		
7	1.65	2.70	1.95	3.75	2.40	1.95	21.90	15.60	16.50	13.80	7.20	3.20		
8	1.65	5.25	1.80	2.85	2.55	1.80	10.80	20.10	15.15	13.35	7.20	3.20		
9	1.95	3.75	1.80	2.70	3.45	4.80	10.40	24.15	14.70	13.35	6.80	3.20		
10	2.10	3.60	2.25	4.65	2.85	6.00	11.60	28.20	14.25	12.90	6.80	2.40		
11	2.70	4.35	1.80	5.70	2.70	5.40	8.80	54.00	14.70	12.90	6.40	3.20		
12	2.10	2.55	2.10	4.35	2.40	5.85	9.60	22.35	15.15	12.45	6.40	2.80		
13	1.80	2.25	3.00	3.45	2.25	6.15	11.20	19.20	14.70	17.40	6.40	2.80		
14	1.65	2.10	2.25	3.15	2.10	6.45	19.20	23.25	14.25	15.15	6.00	2.80		
15	1.65	1.95	1.80	3.00	2.25	9.30	11.20	19.65	14.25	13.35	6.00	2.40		
16	1.50	1.95	1.65	2.70	2.10	14.70	10.80	21.90	25.95	12.45	5.60	2.80		
17	1.50	1.80	4.20	2.55	1.95	15.00	11.60	31.00	21.45	13.35	5.60	2.00		
18	1.35	1.95	6.15	6.00	1.80	18.00	8.80	68.50	16.50	12.45	5.60	2.40		
19	1.35	3.90	12.60	5.25	2.10	11.40	8.00	29.10	146.90	11.60	5.20	2.00		
20	1.50	2.10	7.65	4.80	1.95	8.85	13.35	25.50	27.75	11.20	5.20	2.00		
21	1.20	1.80	6.15	5.10	1.95	12.00	42.00	22.80	11.20	10.40	5.60	2.00		
22	1.20	1.65	4.65	3.75	2.10	8.00	18.75	20.10	9.20	10.40	5.20	2.40		
23	1.20	2.10	3.75	3.30	3.15	8.40	22.80	17.40	10.00	10.00	5.60	0.40		
24	1.05	1.95	3.15	3.00	4.65	10.40	33.00	15.60	12.00	9.60	4.80	1.60		
25	1.35	2.25	3.30	2.85	4.20	8.00	40.00	14.25	17.85	9.20	4.40	1.60		
26	1.35	1.80	4.05	2.70	3.00	7.20	21.90	12.90	20.10	9.20	4.40	2.40		
27	3.00	1.65	3.75	2.55	2.40	8.00	19.20	12.00	19.65	8.80	4.40	2.00		
28	1.65	1.65	3.00	2.85	2.25	6.00	15.60	11.60	21.00	8.40	4.00	2.00		
29	2.25	4.50	2.85	3.30	1.95	5.60	14.25	13.35	18.75	8.40		2.00		
30	3.75	3.15	2.55	3.15	1.95	5.20	12.90	12.45	17.40	8.40		1.60		
31		4.05		6.45	1.80		12.00		16.50	8.40		0.80		
Total	59.10	81.15	107.25	110.70	81.60	207.65	464.15	639.60	629.75	361.70	176.00	77.60	2996.25	CMSDAY
Mean	1.97	2.62	3.58	3.57	2.63	6.92	14.97	21.32	20.31	11.67	6.29	2.50	8.21	CMS
Max	4.65	5.25	12.60	6.45	4.65	18.00	42.00	68.50	146.90	17.40	10.00	4.00	146.90	CMS
Min	1.05	1.65	1.65	2.10	1.80	1.50	4.80	10.00	9.20	4.00	4.00	0.40	0.40	CMS
Runoff	5.11	7.01	9.27	9.56	7.05	17.94	40.10	55.26	54.41	31.25	15.21	6.70	258.88	MCM

Momentary Peak 312.00 CMS. at 25.42 m. (MSL.) at 11.00 Hours , on Dec 19, 2018

Runoff Yield 30.52 Liters/Second/Square KM. Momentary Peak Yield 1159.85 Liters/Second/Square KM.

WATER YEAR : 2018

THALE SAP SONGKHLA

Khlong U - Taphao at Ban Muang Kong , Songkhla (X.173A)

Lat 06 - 49 - 26 N Long 100 - 26 - 17 E

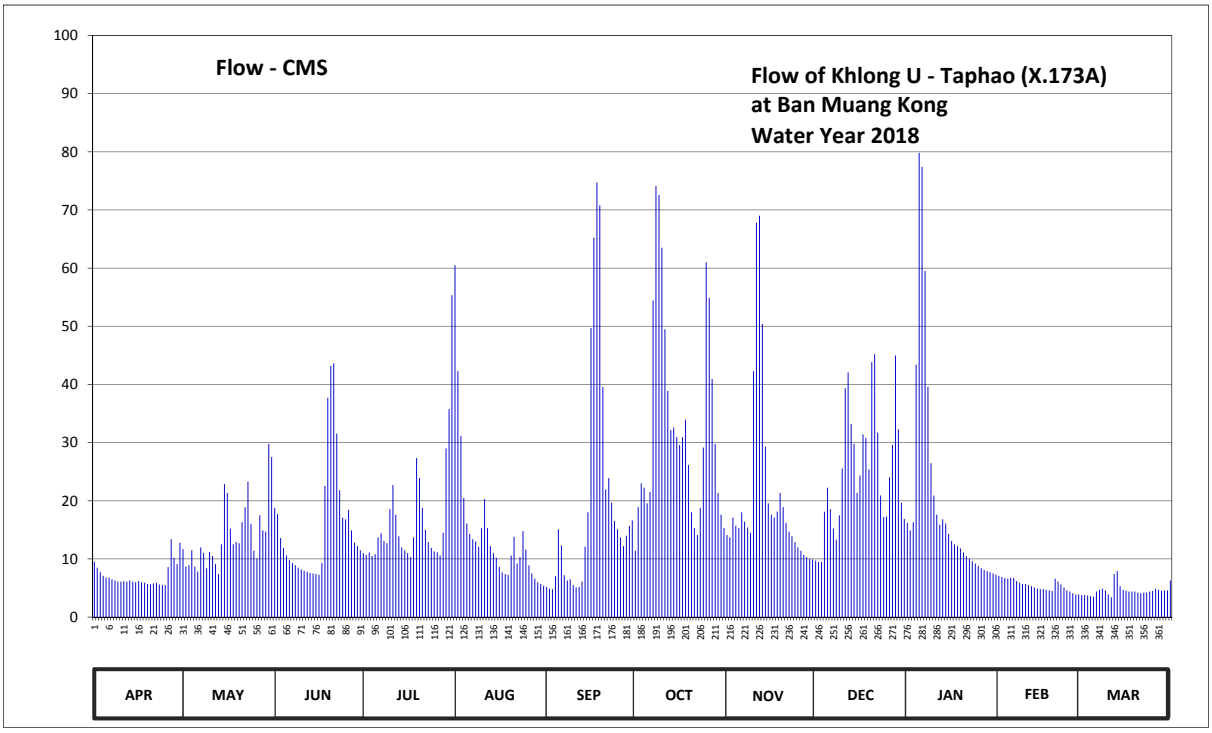
Location : on right bank at the bridge on Hat Yai - Sadao Highway.

	Ban Muang Kong	**Amphoe** Sadao	**Changwat** Songkhla
Drainge Area	1,064 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank about 1.13 meters from the top staff gage.		**Elevation** +16.125 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	2006 to date		
Rating Operation			
Period of Rating	2006 to date		
Rated by Flot	-		
Rated by Current Meter	2006 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	Overbank flow starts at elevation + 14.120 m.(MSL.), records are channel flow only.		
General Description	Records good. Stage-discharge relation defined by 17 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	10.17	10.39	11.09	10.32	13.38	9.74	10.36	10.63	10.19	10.84	9.93	9.60	
2	10.07	10.09	10.99	10.29	12.59	9.71	11.10	10.59	10.17	10.71	9.91	9.60	
3	9.99	10.11	10.58	10.33	11.94	9.70	11.40	10.93	10.17	10.85	9.89	9.59	
4	9.93	10.37	10.41	10.27	11.23	9.92	11.35	10.79	11.03	12.64	9.88	9.58	
5	9.90	10.09	10.28	10.30	10.83	10.73	11.16	10.75	11.35	14.06	9.90	9.57	
6	9.90	10.00	10.20	10.59	10.65	10.45	11.30	11.02	11.07	13.98	9.89	9.66	
7	9.87	10.42	10.15	10.66	10.56	9.94	13.13	10.86	10.74	13.34	9.84	9.69	
8	9.85	10.32	10.11	10.53	10.52	9.85	13.87	10.76	10.55	12.47	9.81	9.71	
9	9.83	10.06	10.07	10.49	10.43	9.87	13.82	10.67	10.97	11.63	9.79	9.68	
10	9.83	10.34	10.04	11.07	10.75	9.77	13.50	12.59	11.57	11.26	9.79	9.61	
11	9.84	10.27	10.02	11.38	11.22	9.73	12.91	13.66	12.46	10.98	9.77	9.56	
12	9.83	10.13	10.00	10.98	10.75	9.74	12.44	13.70	12.58	10.81	9.75	9.96	
13	9.85	9.96	9.98	10.61	10.44	9.83	12.01	12.95	12.08	10.90	9.73	10.01	
14	9.83	10.47	9.97	10.42	10.32	10.43	12.04	11.82	11.85	10.83	9.71	9.75	
15	9.82	11.39	9.96	10.37	10.24	11.02	11.93	11.16	11.29	10.65	9.70	9.69	
16	9.84	11.29	9.95	10.32	10.08	12.92	11.84	10.98	11.49	10.53	9.70	9.67	
17	9.82	10.74	10.15	10.25	9.99	13.57	11.93	10.93	11.96	10.47	9.69	9.66	
18	9.81	10.47	11.37	10.59	9.96	13.89	12.13	11.03	11.92	10.44	9.68	9.66	
19	9.79	10.51	12.38	11.69	9.95	13.76	11.61	11.29	11.56	10.40	9.67	9.66	
20	9.78	10.49	12.63	11.46	10.28	12.47	11.02	11.10	12.66	10.33	9.88	9.64	
21	9.80	10.85	12.65	11.09	10.60	11.33	10.75	10.84	12.72	10.27	9.83	9.63	
22	9.81	11.10	11.97	10.72	10.14	11.46	10.63	10.69	11.98	10.22	9.78	9.64	
23	9.78	11.42	11.32	10.51	10.25	11.17	11.09	10.61	11.26	10.18	9.73	9.64	
24	9.77	10.82	10.93	10.41	10.70	10.87	11.81	10.51	10.94	10.14	9.68	9.66	
25	9.77	10.36	10.90	10.35	10.38	10.73	13.40	10.42	10.95	10.10	9.66	9.67	
26	10.08	10.23	11.06	10.33	10.11	10.59	13.15	10.36	11.47	10.06	9.63	9.71	
27	10.56	10.97	10.71	10.28	9.97	10.44	12.53	10.29	11.84	10.03	9.61	9.69	
28	10.24	10.71	10.50	10.67	9.88	10.62	11.85	10.25	12.71	10.01	9.61	9.67	
29	10.13	10.69	10.44	11.80	9.82	10.79	11.29	10.22	12.02	9.99		9.68	
30	10.50	11.85	10.37	12.25	9.79	10.88	10.98	10.21	11.17	9.97		9.68	
31		11.70		13.17	9.76		10.75		10.91	9.95		9.85	
Mean	9.93	10.60	10.71	10.79	10.56	10.86	11.91	11.09	11.47	10.94	9.77	9.68	
Max	10.56	11.85	12.65	13.17	13.38	13.89	13.87	13.70	12.72	14.06	9.93	10.01	14.06
Min	9.77	9.96	9.95	10.25	9.76	9.70	10.36	10.21	10.17	9.95	9.61	9.56	9.56

Annual Max Momentary Gage Height	14.16	m. (MSL.) ,	at 15.00 Hours , on Jan 5, 2019		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	8.93	m. (MSL.)
Left Bank Elevation	14.11	m. (MSL.) ,			
Right Bank Elevation	16.13	m. (MSL.) ,	Drainage Are	1,064	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	9.50	11.70	18.79	11.00	60.50	5.20	11.40	14.10	9.70	16.20	7.10	3.80		
2	8.50	8.70	17.70	10.70	42.28	4.90	18.90	13.70	9.50	14.90	6.90	3.80		
3	7.70	8.90	13.60	11.10	31.10	4.80	23.00	17.10	9.50	16.30	6.70	3.70		
4	7.10	11.50	11.90	10.50	20.45	7.00	22.25	15.70	18.13	43.40	6.60	3.60		
5	6.80	8.70	10.60	10.80	16.10	15.10	19.56	15.30	22.25	79.80	6.80	3.50		
6	6.80	7.80	9.80	13.70	14.30	12.30	21.50	18.02	18.57	77.40	6.70	4.40		
7	6.50	12.00	9.30	14.40	13.40	7.20	54.43	16.40	15.20	59.50	6.20	4.70		
8	6.30	11.00	8.90	13.10	13.00	6.30	74.10	15.40	13.30	39.58	5.90	4.90		
9	6.10	8.40	8.50	12.70	12.10	6.50	72.60	14.50	17.50	26.45	5.70	4.60		
10	6.10	11.20	8.20	18.57	15.30	5.50	63.50	42.28	25.55	20.90	5.70	3.90		
11	6.20	10.50	8.00	22.70	20.30	5.10	49.48	67.80	39.35	17.60	5.50	3.40		
12	6.10	9.10	7.80	17.60	15.30	5.20	38.90	69.00	42.05	15.90	5.30	7.40		
13	6.30	7.40	7.60	13.90	12.20	6.10	32.15	50.38	33.20	16.80	5.10	7.90		
14	6.10	12.50	7.50	12.00	11.00	12.10	32.60	29.30	29.75	16.10	4.90	5.30		
15	6.00	22.85	7.40	11.50	10.20	18.02	30.95	19.56	21.35	14.30	4.80	4.70		
16	6.20	21.35	7.30	11.00	8.60	49.70	29.60	17.60	24.35	13.10	4.80	4.50		
17	6.00	15.20	9.30	10.30	7.70	65.25	30.95	17.10	31.40	12.50	4.70	4.40		
18	5.90	12.50	22.55	13.70	7.40	74.70	33.95	18.13	30.80	12.20	4.60	4.40		
19	5.70	12.90	37.70	27.35	7.30	70.80	26.15	21.35	25.40	11.80	4.50	4.40		
20	5.60	12.70	43.18	23.90	10.60	39.58	18.02	18.90	43.85	11.10	6.60	4.20		
21	5.80	16.30	43.63	18.79	13.80	21.95	15.30	16.20	45.20	10.50	6.10	4.10		
22	5.90	18.90	31.55	15.00	9.20	23.90	14.10	14.70	31.70	10.00	5.60	4.20		
23	5.60	23.30	21.80	12.90	10.30	19.67	18.79	13.90	20.90	9.60	5.10	4.20		
24	5.50	16.00	17.10	11.90	14.80	16.50	29.15	12.90	17.20	9.20	4.60	4.40		
25	5.50	11.40	16.80	11.30	11.60	15.10	61.00	12.00	17.30	8.80	4.40	4.50		
26	8.60	10.10	18.46	11.10	8.90	13.70	54.88	11.40	24.05	8.40	4.10	4.90		
27	13.40	17.50	14.90	10.60	7.50	12.20	40.93	10.70	29.60	8.10	3.90	4.70		
28	10.20	14.90	12.80	14.50	6.60	14.00	29.75	10.30	44.98	7.90	3.90	4.50		
29	9.10	14.70	12.20	29.00	6.00	15.70	21.35	10.00	32.30	7.70		4.60		
30	12.80	29.75	11.50	35.75	5.70	16.60	17.60	9.90	19.67	7.50		4.60		
31		27.50		55.33	5.40		15.30		16.90	7.30		6.30		
Total	213.90	437.25	476.36	516.69	448.93	590.67	1022.14	633.62	780.50	630.83	152.80	142.50	6046.19	CMSDAY
Mean	7.13	14.10	15.88	16.67	14.48	19.69	32.97	21.12	25.18	20.35	5.46	4.60	16.56	CMS
Max	13.40	29.75	43.63	55.33	60.50	74.70	74.10	69.00	45.20	79.80	7.10	7.90	79.80	CMS
Min	5.50	7.40	7.30	10.30	5.40	4.80	11.40	9.90	9.50	7.30	3.90	3.40	3.40	CMS
Runoff	18.48	37.78	41.16	44.64	38.79	51.03	88.31	54.74	67.44	54.50	13.20	12.31	522.39	MCM

Momentary Peak 82.80 CMS. at 14.16 m. (MSL.) at 15.00 Hours , on Jan 5, 2019

Runoff Yield 15.57 Liters/Second/Square KM. Momentary Peak Yield 77.82 Liters/Second/Square KM.

WATER YEAR : 2018

THALE SAP SONGKHLA

Khlong Wa at Ban Khlong Wa , Songkhla (X.174)

Lat 06 - 59 - 42 N Long 100 - 29 - 05 E

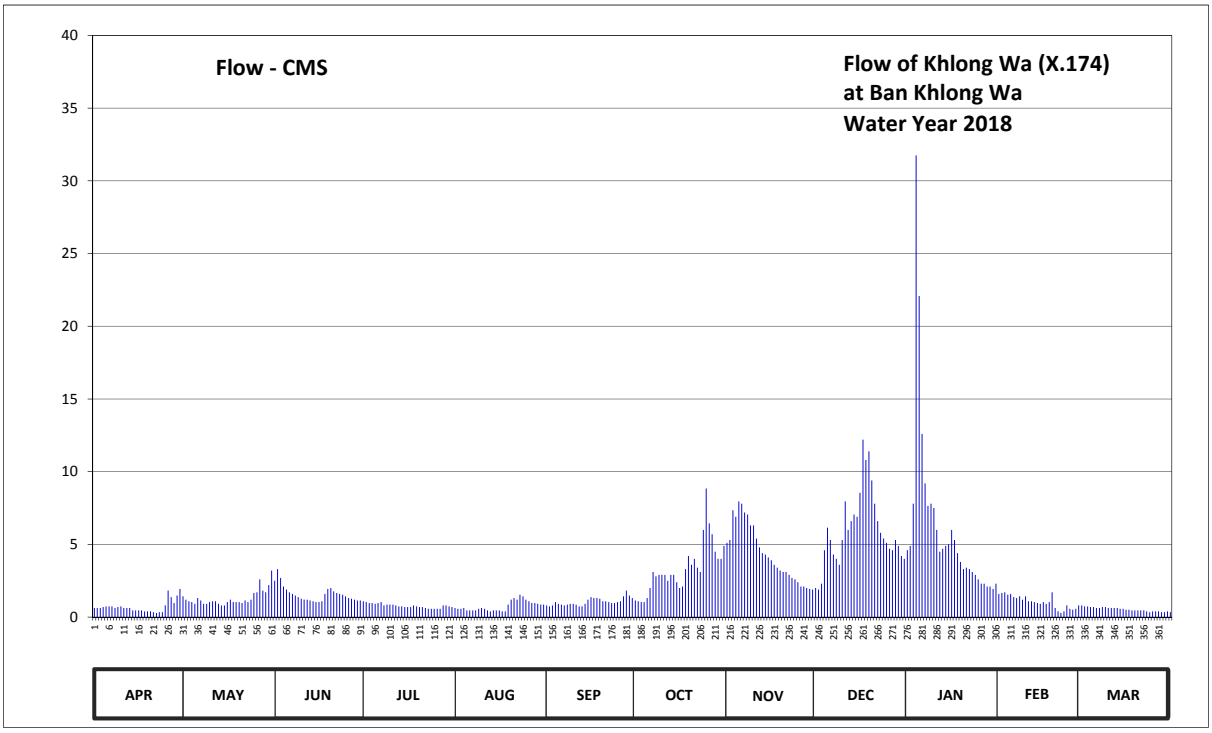
Location : on right bank at the bridge.

	Ban Khlong Wa	**Amphoe** Hat Yai	**Changwat** Songkhla
Drainge Area	116 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank at the abutment of the bridge.		**Elevation** +10.954 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	1989 to date		
Rating Operation			
Period of Rating	1989 to date		
Rated by Flot	-		
Rated by Current Meter	1989 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 16 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	4.16	4.30	4.45	4.24	4.16	4.19	4.25	4.71	4.40	4.66	4.33	4.19	
2	4.16	4.26	4.53	4.23	4.15	4.18	4.24	4.73	4.38	4.69	4.34	4.18	
3	4.16	4.24	4.47	4.22	4.15	4.19	4.23	4.89	4.43	4.92	4.35	4.18	
4	4.17	4.23	4.41	4.22	4.16	4.23	4.23	4.86	4.66	5.85	4.32	4.17	
5	4.18	4.21	4.38	4.21	4.13	4.21	4.28	4.93	4.81	5.53	4.33	4.17	
6	4.18	4.28	4.35	4.22	4.13	4.20	4.40	4.92	4.73	5.18	4.29	4.16	
7	4.18	4.25	4.33	4.23	4.13	4.19	4.51	4.88	4.63	5.01	4.28	4.16	
8	4.16	4.21	4.31	4.19	4.13	4.20	4.48	4.87	4.60	4.91	4.30	4.17	
9	4.17	4.21	4.29	4.20	4.15	4.21	4.49	4.82	4.56	4.92	4.26	4.17	
10	4.18	4.23	4.27	4.20	4.16	4.21	4.49	4.82	4.73	4.90	4.30	4.16	
11	4.16	4.24	4.26	4.20	4.15	4.20	4.49	4.74	4.93	4.80	4.24	4.16	
12	4.16	4.24	4.26	4.19	4.13	4.18	4.45	4.68	4.80	4.65	4.24	4.16	
13	4.16	4.21	4.25	4.18	4.12	4.18	4.49	4.64	4.84	4.67	4.23	4.16	
14	4.13	4.19	4.24	4.18	4.13	4.21	4.49	4.63	4.87	4.69	4.22	4.15	
15	4.13	4.19	4.23	4.17	4.13	4.26	4.44	4.61	4.86	4.70	4.21	4.15	
16	4.13	4.23	4.23	4.17	4.13	4.29	4.40	4.59	4.97	4.80	4.23	4.14	
17	4.13	4.26	4.24	4.17	4.12	4.28	4.41	4.56	5.16	4.73	4.21	4.14	
18	4.12	4.23	4.33	4.19	4.12	4.28	4.53	4.54	5.09	4.64	4.23	4.13	
19	4.12	4.23	4.39	4.18	4.20	4.27	4.62	4.52	5.12	4.58	4.35	4.13	
20	4.12	4.23	4.40	4.17	4.26	4.24	4.56	4.51	5.02	4.53	4.16	4.13	
21	4.11	4.22	4.36	4.17	4.28	4.24	4.60	4.51	4.92	4.54	4.12	4.13	
22	4.10	4.25	4.34	4.16	4.26	4.23	4.54	4.49	4.84	4.53	4.10	4.13	
23	4.11	4.23	4.33	4.15	4.32	4.22	4.51	4.47	4.78	4.51	4.12	4.12	
24	4.11	4.26	4.32	4.15	4.30	4.22	4.80	4.46	4.74	4.49	4.19	4.11	
25	4.19	4.34	4.30	4.15	4.26	4.23	4.99	4.44	4.71	4.46	4.15	4.12	
26	4.37	4.35	4.28	4.15	4.24	4.24	4.83	4.41	4.67	4.43	4.14	4.12	
27	4.29	4.46	4.27	4.15	4.22	4.30	4.77	4.41	4.66	4.43	4.15	4.12	
28	4.22	4.37	4.26	4.19	4.22	4.37	4.65	4.40	4.73	4.41	4.19	4.11	
29	4.31	4.35	4.25	4.19	4.21	4.31	4.60	4.39	4.69	4.41		4.11	
30	4.39	4.42	4.25	4.18	4.20	4.28	4.60	4.38	4.62	4.39		4.12	
31		4.52		4.17	4.20		4.69		4.60	4.43		4.11	
Mean	4.18	4.27	4.32	4.19	4.18	4.23	4.52	4.63	4.76	4.72	4.24	4.14	
Max	4.39	4.52	4.53	4.24	4.32	4.37	4.99	4.93	5.16	5.85	4.35	4.19	5.85
Min	4.10	4.19	4.23	4.15	4.12	4.18	4.23	4.38	4.38	4.39	4.10	4.11	4.10

Annual Max Momentary Gage Height	6.10	m. (MSL.) ,	at 16.00 Hours , on Jan 4, 2019		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	3.74	m. (MSL.)
Left Bank Elevation	9.00	m. (MSL.) ,			
Right Bank Elevation	8.88	m. (MSL.) ,	Drainage Are	116	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.63	1.43	2.50	1.09	0.63	0.80	1.14	5.10	2.00	4.60	1.60	0.80		
2	0.63	1.20	3.30	1.03	0.57	0.74	1.09	5.30	1.89	4.90	1.66	0.74		
3	0.63	1.09	2.70	0.97	0.57	0.80	1.03	7.35	2.30	7.80	1.71	0.74		
4	0.69	1.03	2.10	0.97	0.63	1.03	1.03	6.90	4.60	31.75	1.54	0.69		
5	0.74	0.91	1.89	0.91	0.46	0.91	1.31	7.95	6.15	22.08	1.60	0.69		
6	0.74	1.31	1.71	0.97	0.46	0.86	2.00	7.80	5.30	12.60	1.37	0.63		
7	0.74	1.14	1.60	1.03	0.46	0.80	3.10	7.20	4.30	9.20	1.31	0.63		
8	0.63	0.91	1.49	0.80	0.46	0.86	2.80	7.05	4.00	7.65	1.43	0.69		
9	0.69	0.91	1.37	0.86	0.57	0.91	2.90	6.30	3.60	7.80	1.20	0.69		
10	0.74	1.03	1.26	0.86	0.63	0.91	2.90	6.30	5.30	7.50	1.43	0.63		
11	0.63	1.09	1.20	0.86	0.57	0.86	2.90	5.40	7.95	6.00	1.09	0.63		
12	0.63	1.09	1.20	0.80	0.46	0.74	2.50	4.80	6.00	4.50	1.09	0.63		
13	0.63	0.91	1.14	0.74	0.40	0.74	2.90	4.40	6.60	4.70	1.03	0.63		
14	0.46	0.80	1.09	0.74	0.46	0.91	2.90	4.30	7.05	4.90	0.97	0.57		
15	0.46	0.80	1.03	0.69	0.46	1.20	2.40	4.10	6.90	5.00	0.91	0.57		
16	0.46	1.03	1.03	0.69	0.46	1.37	2.00	3.90	8.55	6.00	1.03	0.51		
17	0.46	1.20	1.09	0.69	0.40	1.31	2.10	3.60	12.20	5.30	0.91	0.51		
18	0.40	1.03	1.60	0.80	0.40	1.31	3.30	3.40	10.80	4.40	1.03	0.46		
19	0.40	1.03	1.94	0.74	0.86	1.26	4.20	3.20	11.40	3.80	1.71	0.46		
20	0.40	1.03	2.00	0.69	1.20	1.09	3.60	3.10	9.40	3.30	0.63	0.46		
21	0.34	0.97	1.77	0.69	1.31	1.09	4.00	3.10	7.80	3.40	0.40	0.46		
22	0.29	1.14	1.66	0.63	1.20	1.03	3.40	2.90	6.60	3.30	0.29	0.46		
23	0.34	1.03	1.60	0.57	1.54	0.97	3.10	2.70	5.80	3.10	0.40	0.40		
24	0.34	1.20	1.54	0.57	1.43	0.97	6.00	2.60	5.40	2.90	0.80	0.34		
25	0.80	1.66	1.43	0.57	1.20	1.03	8.85	2.40	5.10	2.60	0.57	0.40		
26	1.83	1.71	1.31	0.57	1.09	1.09	6.45	2.10	4.70	2.30	0.51	0.40		
27	1.37	2.60	1.26	0.57	0.97	1.43	5.70	2.10	4.60	2.30	0.57	0.40		
28	0.97	1.83	1.20	0.80	0.97	1.83	4.50	2.00	5.30	2.10	0.80	0.34		
29	1.49	1.71	1.14	0.80	0.91	1.49	4.00	1.94	4.90	2.10		0.34		
30	1.94	2.20	1.14	0.74	0.86	1.31	4.00	1.89	4.20	1.94		0.40		
31		3.20		0.69	0.86		4.90		4.00	2.30		0.34		
Total	21.50	40.22	47.29	24.13	23.45	31.65	103.00	131.18	184.69	192.12	29.59	16.64	845.46	CMSDAY
Mean	0.72	1.30	1.58	0.78	0.76	1.05	3.32	4.37	5.96	6.20	1.06	0.54	2.32	CMS
Max	1.94	3.20	3.30	1.09	1.54	1.83	8.85	7.95	12.20	31.75	1.71	0.80	31.75	CMS
Min	0.29	0.80	1.03	0.57	0.40	0.74	1.03	1.89	1.89	1.94	0.29	0.34	0.29	CMS
Runoff	1.86	3.48	4.09	2.08	2.03	2.73	8.90	11.33	15.96	16.60	2.56	1.44	73.05	MCM

Momentary Peak 40.75 CMS. at 6.10 m. (MSL.) at 16.00 Hours , on Jan 4, 2019

Runoff Yield 19.97 Liters/Second/Square KM. Momentary Peak Yield 351.29 Liters/Second/Square KM.

WATER YEAR : 2018

THALE SAP SONGKHLA

Khlong Pa Bon at Ban Lo Han , Phatthalung (X.266)

Lat 07 - 01 - 35 N Long 100 - 05 - 51 E

Location : on left bank at Ban Lo Han.

	Ban Lo Han	**Amphoe** Pa Bon	**Changwat** Phatthalung
Drainge Area	38 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+0.000 m. (A.D.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank near the top staff gage.		**Elevation** +7.165 m. (A.D.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	2007 to date		
Rating Operation			
Period of Rating	2007 to date		
Rated by Flot	-		
Rated by Current Meter	2007 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 14 discharge measurements made in 2018.		

Gage Height in Meter (A.D.) Water Year April 1, 2018 to March 31, 2019

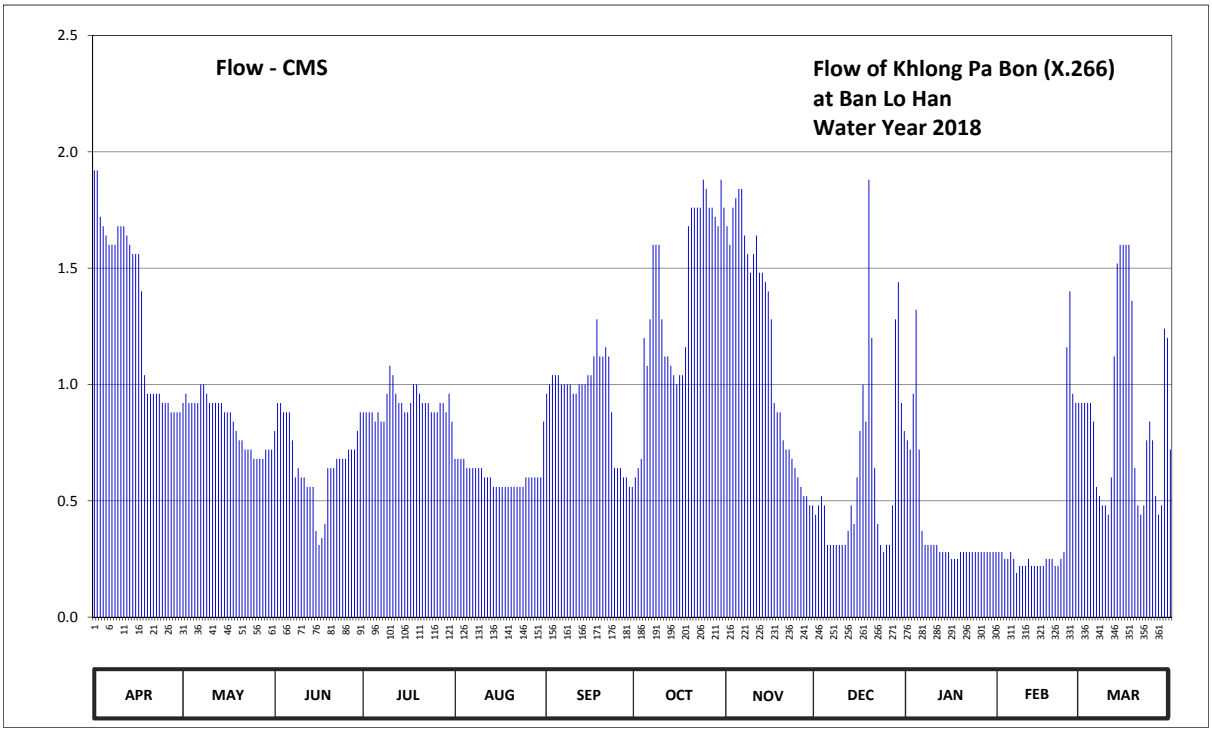
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.58	0.33	0.30	0.32	0.27	0.34	0.25	0.52	0.21	0.29	0.16	0.33	
2	0.58	0.34	0.33	0.32	0.27	0.35	0.26	0.50	0.22	0.28	0.16	0.33	
3	0.53	0.33	0.33	0.32	0.27	0.36	0.27	0.54	0.23	0.34	0.15	0.33	
4	0.52	0.33	0.32	0.32	0.27	0.36	0.40	0.55	0.22	0.43	0.15	0.33	
5	0.51	0.33	0.32	0.31	0.26	0.36	0.37	0.56	0.17	0.28	0.16	0.31	
6	0.50	0.33	0.32	0.32	0.26	0.35	0.42	0.56	0.17	0.19	0.15	0.24	
7	0.50	0.35	0.29	0.31	0.26	0.35	0.50	0.51	0.17	0.17	0.13	0.23	
8	0.50	0.35	0.25	0.31	0.26	0.35	0.50	0.49	0.17	0.17	0.14	0.22	
9	0.52	0.34	0.26	0.34	0.26	0.35	0.50	0.47	0.17	0.17	0.14	0.22	
10	0.52	0.33	0.25	0.37	0.26	0.34	0.42	0.49	0.17	0.17	0.14	0.21	
11	0.52	0.33	0.25	0.36	0.25	0.34	0.38	0.51	0.17	0.17	0.15	0.25	
12	0.51	0.33	0.24	0.34	0.25	0.35	0.38	0.47	0.19	0.16	0.14	0.38	
13	0.50	0.33	0.24	0.33	0.25	0.35	0.37	0.47	0.22	0.16	0.14	0.48	
14	0.49	0.33	0.24	0.33	0.24	0.35	0.36	0.46	0.20	0.16	0.14	0.50	
15	0.49	0.32	0.19	0.32	0.24	0.36	0.35	0.45	0.25	0.16	0.14	0.50	
16	0.49	0.32	0.17	0.32	0.24	0.36	0.36	0.42	0.30	0.15	0.14	0.50	
17	0.45	0.32	0.18	0.33	0.24	0.38	0.36	0.33	0.35	0.15	0.15	0.50	
18	0.36	0.31	0.20	0.35	0.24	0.42	0.39	0.32	0.31	0.15	0.15	0.44	
19	0.34	0.30	0.26	0.35	0.24	0.38	0.52	0.32	0.57	0.16	0.15	0.26	
20	0.34	0.29	0.26	0.34	0.24	0.38	0.54	0.29	0.40	0.16	0.14	0.22	
21	0.34	0.29	0.26	0.33	0.24	0.39	0.54	0.28	0.26	0.16	0.14	0.21	
22	0.34	0.28	0.27	0.33	0.24	0.38	0.54	0.28	0.20	0.16	0.15	0.22	
23	0.34	0.28	0.27	0.33	0.24	0.32	0.54	0.27	0.17	0.16	0.16	0.29	
24	0.33	0.28	0.27	0.32	0.24	0.26	0.57	0.26	0.16	0.16	0.39	0.31	
25	0.33	0.27	0.27	0.32	0.25	0.26	0.56	0.25	0.17	0.16	0.45	0.29	
26	0.33	0.27	0.28	0.32	0.25	0.26	0.54	0.24	0.17	0.16	0.34	0.23	
27	0.32	0.27	0.28	0.33	0.25	0.25	0.54	0.23	0.22	0.16	0.33	0.21	
28	0.32	0.27	0.28	0.33	0.25	0.25	0.53	0.23	0.42	0.16	0.33	0.22	
29	0.32	0.28	0.30	0.32	0.25	0.24	0.52	0.22	0.46	0.16		0.41	
30	0.32	0.28	0.32	0.34	0.25	0.24	0.57	0.22	0.33	0.16		0.40	
31		0.28		0.31	0.31		0.54		0.30	0.16		0.28	
Mean	0.43	0.31	0.27	0.33	0.25	0.33	0.45	0.39	0.25	0.19	0.19	0.32	
Max	0.58	0.35	0.33	0.37	0.31	0.42	0.57	0.56	0.57	0.43	0.45	0.50	0.58
Min	0.32	0.27	0.17	0.31	0.24	0.24	0.25	0.22	0.16	0.15	0.13	0.21	0.13

Annual Max Momentary Gage Height 0.90 m. (A.D.) , at 14.00 Hours , on Dec 19, 2018

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed -0.14 m. (A.D.)

Left Bank Elevation 4.80 m. (A.D.) ,

Right Bank Elevation 6.01 m. (A.D.) , Drainage Are 38 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.92	0.92	0.80	0.88	0.68	0.96	0.60	1.68	0.44	0.76	0.28	0.92		
2	1.92	0.96	0.92	0.88	0.68	1.00	0.64	1.60	0.48	0.72	0.28	0.92		
3	1.72	0.92	0.92	0.88	0.68	1.04	0.68	1.76	0.52	0.96	0.25	0.92		
4	1.68	0.92	0.88	0.88	0.68	1.04	1.20	1.80	0.48	1.32	0.25	0.92		
5	1.64	0.92	0.88	0.84	0.64	1.04	1.08	1.84	0.31	0.72	0.28	0.84		
6	1.60	0.92	0.88	0.88	0.64	1.00	1.28	1.84	0.31	0.37	0.25	0.56		
7	1.60	1.00	0.76	0.84	0.64	1.00	1.60	1.64	0.31	0.31	0.19	0.52		
8	1.60	1.00	0.60	0.84	0.64	1.00	1.60	1.56	0.31	0.31	0.22	0.48		
9	1.68	0.96	0.64	0.96	0.64	1.00	1.60	1.48	0.31	0.31	0.22	0.48		
10	1.68	0.92	0.60	1.08	0.64	0.96	1.28	1.56	0.31	0.31	0.22	0.44		
11	1.68	0.92	0.60	1.04	0.60	0.96	1.12	1.64	0.31	0.31	0.25	0.60		
12	1.64	0.92	0.56	0.96	0.60	1.00	1.12	1.48	0.37	0.28	0.22	1.12		
13	1.60	0.92	0.56	0.92	0.60	1.00	1.08	1.48	0.48	0.28	0.22	1.52		
14	1.56	0.92	0.56	0.92	0.56	1.00	1.04	1.44	0.40	0.28	0.22	1.60		
15	1.56	0.88	0.37	0.88	0.56	1.04	1.00	1.40	0.60	0.28	0.22	1.60		
16	1.56	0.88	0.31	0.88	0.56	1.04	1.04	1.28	0.80	0.25	0.22	1.60		
17	1.40	0.88	0.34	0.92	0.56	1.12	1.04	0.92	1.00	0.25	0.25	1.60		
18	1.04	0.84	0.40	1.00	0.56	1.28	1.16	0.88	0.84	0.25	0.25	1.36		
19	0.96	0.80	0.64	1.00	0.56	1.12	1.68	0.88	1.88	0.28	0.25	0.64		
20	0.96	0.76	0.64	0.96	0.56	1.12	1.76	0.76	1.20	0.28	0.22	0.48		
21	0.96	0.76	0.64	0.92	0.56	1.16	1.76	0.72	0.64	0.28	0.22	0.44		
22	0.96	0.72	0.68	0.92	0.56	1.12	1.76	0.72	0.40	0.28	0.25	0.48		
23	0.96	0.72	0.68	0.92	0.56	0.88	1.76	0.68	0.31	0.28	0.28	0.76		
24	0.92	0.72	0.68	0.88	0.56	0.64	1.88	0.64	0.28	0.28	1.16	0.84		
25	0.92	0.68	0.68	0.88	0.60	0.64	1.84	0.60	0.31	0.28	1.40	0.76		
26	0.92	0.68	0.72	0.88	0.60	0.64	1.76	0.56	0.31	0.28	0.96	0.52		
27	0.88	0.68	0.72	0.92	0.60	0.60	1.76	0.52	0.48	0.28	0.92	0.44		
28	0.88	0.68	0.72	0.92	0.60	0.60	1.72	0.52	1.28	0.28	0.92	0.48		
29	0.88	0.72	0.80	0.88	0.60	0.56	1.68	0.48	1.44	0.28		1.24		
30	0.88	0.72	0.88	0.96	0.60	0.56	1.88	0.48	0.92	0.28		1.20		
31		0.72		0.84	0.84		1.76		0.80	0.28		0.72		
Total	40.16	25.96	20.06	28.36	18.96	28.12	43.16	34.84	18.83	11.91	10.87	27.00	308.23	CMSDAY
Mean	1.34	0.84	0.67	0.91	0.61	0.94	1.39	1.16	0.61	0.38	0.39	0.87	0.84	CMS
Max	1.92	1.00	0.92	1.08	0.84	1.28	1.88	1.84	1.88	1.32	1.40	1.60	1.92	CMS
Min	0.88	0.68	0.31	0.84	0.56	0.56	0.60	0.48	0.28	0.25	0.19	0.44	0.19	CMS
Runoff	3.47	2.24	1.73	2.45	1.64	2.43	3.73	3.01	1.63	1.03	0.94	2.33	26.63	MCM

Momentary Peak 3.70 CMS. at 0.90 m. (A.D.) at 14.00 Hours , on Dec 19, 2018

Runoff Yield 22.22 Liters/Second/Square KM. Momentary Peak Yield 97.37 Liters/Second/Square KM.

WATER YEAR : 2018

THALE SAP SONGKHLA

Khlong Tha Cheat at Ban Mae Khree , Phatthalung (X.267)

Lat 07 - 20 - 18 N Long 100 - 06 - 36 E

Location : on left bank at Ban Mae Khree.

	Ban Mae Khree	**Amphoe** Tamot	**Changwat** Phatthalung
Drainge Area	295 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank near the top staff gage.		**Elevation** +27.878 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	2007 to date		
Rating Operation			
Period of Rating	2007 to date		
Rated by Flot	-		
Rated by Current Meter	2007 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 16 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

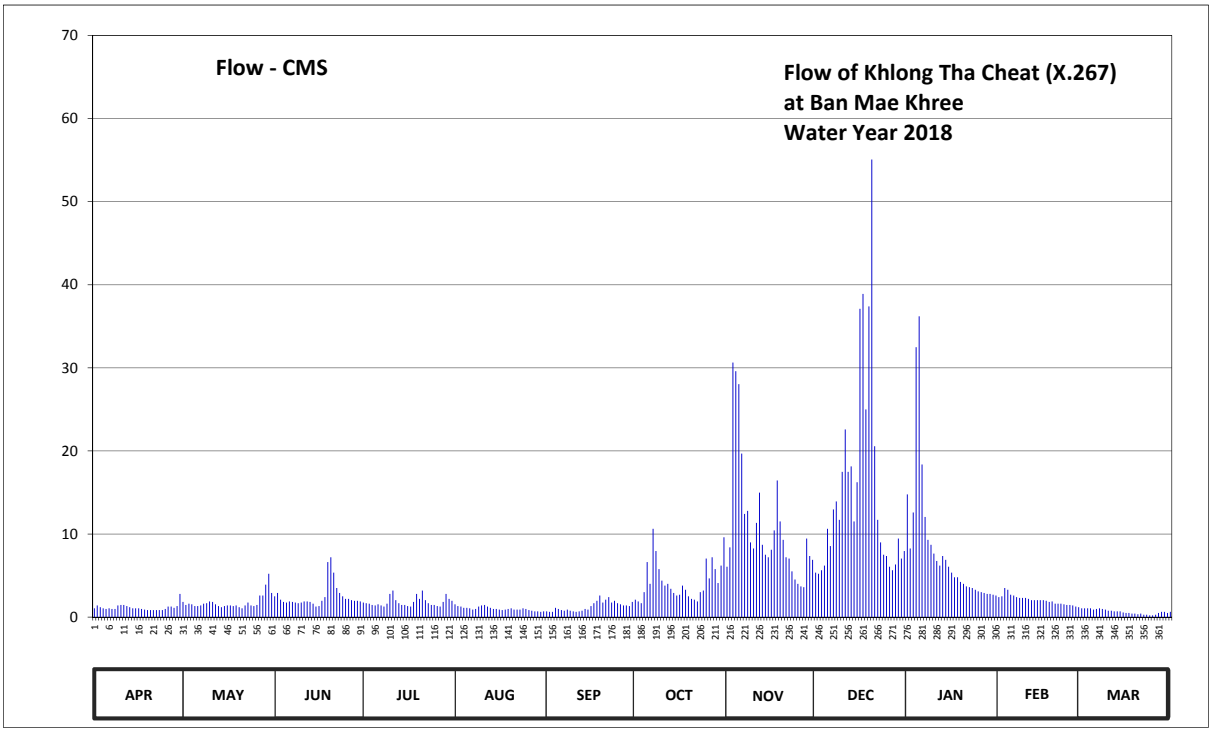
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	21.85	21.96	22.04	21.95	21.92	21.80	22.00	22.34	22.29	22.86	22.03	21.85	
2	21.90	21.91	22.08	21.94	21.89	21.79	21.97	22.50	22.28	22.49	22.04	21.85	
3	21.87	21.93	22.00	21.93	21.88	21.79	21.94	23.54	22.31	22.75	22.14	21.85	
4	21.85	21.92	21.96	21.91	21.86	21.86	22.09	23.50	22.35	23.61	22.12	21.85	
5	21.84	21.89	21.95	21.90	21.86	21.84	22.38	23.44	22.64	23.74	22.06	21.83	
6	21.85	21.89	21.97	21.92	21.85	21.82	22.19	23.09	22.51	23.03	22.05	21.84	
7	21.84	21.90	21.96	21.90	21.83	21.81	22.64	22.74	22.77	22.72	22.03	21.85	
8	21.84	21.93	21.95	21.88	21.84	21.83	22.47	22.76	22.82	22.56	22.02	21.84	
9	21.90	21.94	21.94	21.93	21.88	21.81	22.32	22.54	22.70	22.52	22.02	21.83	
10	21.91	21.97	21.95	22.07	21.90	21.80	22.22	22.49	22.99	22.45	22.02	21.81	
11	21.91	21.96	21.97	22.11	21.91	21.79	22.17	22.68	23.22	22.39	22.01	21.81	
12	21.89	21.92	21.97	21.99	21.88	21.80	22.19	22.87	22.99	22.35	21.99	21.80	
13	21.87	21.89	21.96	21.94	21.86	21.81	22.13	22.52	23.02	22.43	21.99	21.80	
14	21.85	21.87	21.93	21.91	21.84	21.84	22.08	22.44	22.69	22.40	21.99	21.80	
15	21.85	21.89	21.88	21.91	21.84	21.83	22.05	22.42	22.93	22.34	21.99	21.78	
16	21.85	21.90	21.89	21.89	21.83	21.89	22.06	22.48	23.77	22.29	21.99	21.77	
17	21.84	21.90	21.98	21.88	21.82	21.94	22.17	22.63	23.83	22.25	21.98	21.77	
18	21.83	21.89	22.03	21.96	21.83	21.98	22.12	22.94	23.32	22.25	21.96	21.76	
19	21.82	21.90	22.38	22.07	21.84	22.05	22.04	22.69	23.78	22.21	21.97	21.76	
20	21.82	21.87	22.42	22.01	21.85	21.95	22.01	22.56	24.33	22.19	21.93	21.75	
21	21.82	21.85	22.29	22.11	21.83	22.00	22.00	22.42	23.13	22.16	21.93	21.76	
22	21.82	21.90	22.14	21.99	21.83	22.03	21.97	22.41	22.70	22.15	21.93	21.74	
23	21.82	21.95	22.08	21.94	21.83	21.95	22.09	22.30	22.54	22.14	21.92	21.74	
24	21.82	21.90	22.04	21.91	21.85	21.98	22.11	22.23	22.44	22.12	21.91	21.73	
25	21.84	21.89	22.01	21.91	21.84	21.94	22.41	22.19	22.43	22.10	21.91	21.73	
26	21.88	21.91	22.01	21.89	21.82	21.92	22.24	22.16	22.34	22.09	21.90	21.74	
27	21.88	22.05	21.99	21.88	21.81	21.90	22.42	22.15	22.31	22.08	21.88	21.77	
28	21.86	22.05	21.98	21.96	21.80	21.90	22.32	22.57	22.36	22.07	21.87	21.79	
29	21.89	22.18	21.98	22.07	21.80	21.89	22.20	22.43	22.57	22.07		21.79	
30	22.07	22.28	21.97	22.01	21.79	21.96	22.35	22.40	22.41	22.06		21.77	
31		22.08		21.98	21.80		22.58		22.47	22.05		21.79	
Mean	21.86	21.94	22.02	21.96	21.85	21.88	22.19	22.61	22.81	22.42	21.99	21.79	
Max	22.07	22.28	22.42	22.11	21.92	22.05	22.64	23.54	24.33	23.74	22.14	21.85	24.33
Min	21.82	21.85	21.88	21.88	21.79	21.79	21.94	22.15	22.28	22.05	21.87	21.73	21.73

Annual Max Momentary Gage Height 24.70 m. (MSL.) , at 04.00 Hours , on Dec 20, 2018

Zero Gage at Bottom Elevation 0.00 m. (MSL.) , River Bed 20.78 m. (MSL.)

Left Bank Elevation 26.67 m. (MSL.) ,

Right Bank Elevation 26.52 m. (MSL.) , Drainage Are 295 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.05	1.82	2.50	1.75	1.54	0.70	2.10	6.06	5.36	14.76	2.40	1.05		
2	1.40	1.47	2.90	1.68	1.33	0.63	1.89	8.40	5.22	8.25	2.50	1.05		
3	1.19	1.61	2.10	1.61	1.26	0.63	1.68	30.64	5.64	12.60	3.50	1.05		
4	1.05	1.54	1.82	1.47	1.12	1.12	3.00	29.60	6.20	32.48	3.30	1.05		
5	0.98	1.33	1.75	1.40	1.12	0.98	6.62	28.04	10.62	36.20	2.70	0.91		
6	1.05	1.33	1.89	1.54	1.05	0.84	4.00	19.68	8.55	18.36	2.60	0.98		
7	0.98	1.40	1.82	1.40	0.91	0.77	10.62	12.42	12.96	12.06	2.40	1.05		
8	0.98	1.61	1.75	1.26	0.98	0.91	7.95	12.78	13.92	9.30	2.30	0.98		
9	1.40	1.68	1.68	1.61	1.26	0.77	5.78	9.00	11.70	8.70	2.30	0.91		
10	1.47	1.89	1.75	2.80	1.40	0.70	4.38	8.25	17.49	7.65	2.30	0.77		
11	1.47	1.82	1.89	3.20	1.47	0.63	3.80	11.34	22.58	6.76	2.20	0.77		
12	1.33	1.54	1.89	2.03	1.26	0.70	4.00	14.97	17.49	6.20	2.03	0.70		
13	1.19	1.33	1.82	1.68	1.12	0.77	3.40	8.70	18.14	7.35	2.03	0.70		
14	1.05	1.19	1.61	1.47	0.98	0.98	2.90	7.50	11.52	6.90	2.03	0.70		
15	1.05	1.33	1.26	1.47	0.98	0.91	2.60	7.20	16.23	6.06	2.03	0.56		
16	1.05	1.40	1.33	1.33	0.91	1.33	2.70	8.10	37.10	5.36	2.03	0.49		
17	0.98	1.40	1.96	1.26	0.84	1.68	3.80	10.44	38.90	4.80	1.96	0.49		
18	0.91	1.33	2.40	1.82	0.91	1.96	3.30	16.44	25.00	4.80	1.82	0.42		
19	0.84	1.40	6.62	2.80	0.98	2.60	2.50	11.52	37.40	4.24	1.89	0.42		
20	0.84	1.19	7.20	2.20	1.05	1.75	2.20	9.30	55.07	4.00	1.61	0.35		
21	0.84	1.05	5.36	3.20	0.91	2.10	2.10	7.20	20.56	3.70	1.61	0.42		
22	0.84	1.40	3.50	2.03	0.91	2.40	1.89	7.05	11.70	3.60	1.61	0.28		
23	0.84	1.75	2.90	1.68	0.91	1.75	3.00	5.50	9.00	3.50	1.54	0.28		
24	0.84	1.40	2.50	1.47	1.05	1.96	3.20	4.52	7.50	3.30	1.47	0.21		
25	0.98	1.33	2.20	1.47	0.98	1.68	7.05	4.00	7.35	3.10	1.47	0.21		
26	1.26	1.47	2.20	1.33	0.84	1.54	4.66	3.70	6.06	3.00	1.40	0.28		
27	1.26	2.60	2.03	1.26	0.77	1.40	7.20	3.60	5.64	2.90	1.26	0.49		
28	1.12	2.60	1.96	1.82	0.70	1.40	5.78	9.45	6.34	2.80	1.19	0.63		
29	1.33	3.90	1.96	2.80	0.70	1.33	4.10	7.35	9.45	2.80		0.63		
30	2.80	5.22	1.89	2.20	0.63	1.82	6.20	6.90	7.05	2.70		0.49		
31		2.90		1.96	0.70		9.60		7.95	2.60		0.63		
Total	34.37	55.23	74.44	57.00	31.57	38.74	134.00	329.65	475.69	250.83	57.48	19.95	1558.95	CMSDAY
Mean	1.15	1.78	2.48	1.84	1.02	1.29	4.32	10.99	15.34	8.09	2.05	0.64	4.27	CMS
Max	2.80	5.22	7.20	3.20	1.54	2.60	10.62	30.64	55.07	36.20	3.50	1.05	55.07	CMS
Min	0.84	1.05	1.26	1.26	0.63	0.63	1.68	3.60	5.22	2.60	1.19	0.21	0.21	CMS
Runoff	2.97	4.77	6.43	4.92	2.73	3.35	11.58	28.48	41.10	21.67	4.97	1.72	134.69	MCM

Momentary Peak 69.25 CMS. at 24.70 m. (MSL.) at 04.00 Hours , on Dec 20, 2018

Runoff Yield 14.48 Liters/Second/Square KM. Momentary Peak Yield 234.75 Liters/Second/Square KM.

WATER YEAR : 2018

THALE SAP SONGKHLA

Upper Khlong Tha Nae at Ban Khao Pu , Phatthalung (X.276)

Lat 07 - 42 - 25 N Long 99 - 50 - 29 E

Location : on right bank at the bridge.

	Ban Khao Pu	**Amphoe** Si Banphot	**Changwat** Phatthalung
Drainge Area	47 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank at the abutment of the bridge.		**Elevation** +55.054 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	2009 to date		
Rating Operation			
Period of Rating	2009 to date		
Rated by Flot	-		
Rated by Current Meter	2009 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	Overbank flow starts at elevation + 53.880 m.(MSL.), records are channel flow only.		
General Description	Records fair. Stage-discharge relation defined by 16 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

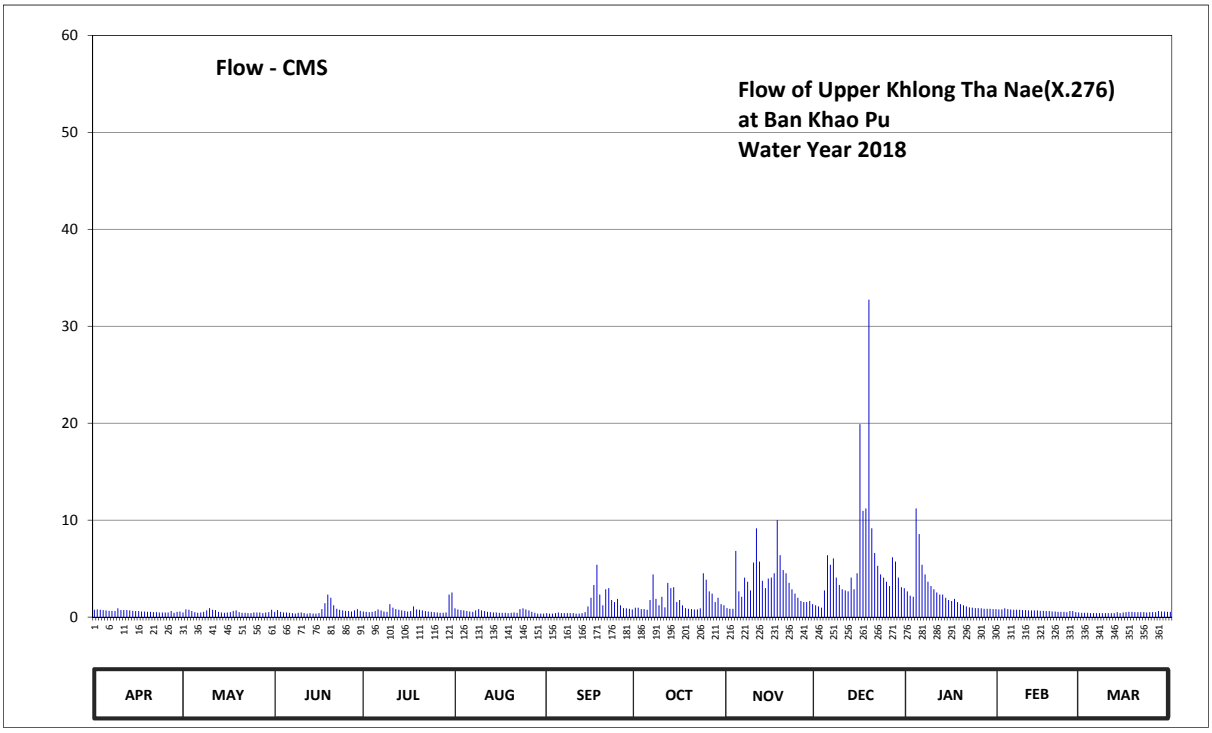
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	50.53	50.45	50.47	50.48	50.57	50.43	50.59	50.58	50.62	50.75	50.54	50.44	
2	50.54	50.54	50.52	50.47	50.54	50.42	50.59	50.56	50.61	50.71	50.54	50.44	
3	50.53	50.53	50.47	50.46	50.52	50.42	50.55	50.56	50.59	50.70	50.57	50.44	
4	50.52	50.49	50.45	50.47	50.51	50.43	50.55	51.13	50.76	51.50	50.55	50.43	
5	50.51	50.46	50.45	50.49	50.49	50.45	50.53	50.75	51.09	51.28	50.54	50.43	
6	50.50	50.44	50.44	50.54	50.48	50.43	50.67	50.70	51.00	51.00	50.53	50.43	
7	50.50	50.45	50.43	50.51	50.47	50.43	50.91	50.88	51.06	50.91	50.53	50.43	
8	50.49	50.47	50.42	50.48	50.51	50.43	50.68	50.84	50.88	50.84	50.53	50.43	
9	50.57	50.51	50.44	50.47	50.55	50.43	50.62	50.76	50.81	50.80	50.52	50.43	
10	50.52	50.58	50.45	50.63	50.51	50.43	50.70	51.02	50.77	50.77	50.52	50.43	
11	50.52	50.53	50.43	50.59	50.49	50.42	50.60	51.33	50.76	50.74	50.51	50.43	
12	50.52	50.52	50.42	50.55	50.47	50.42	50.83	51.03	50.75	50.72	50.51	50.43	
13	50.51	50.47	50.43	50.53	50.46	50.43	50.78	50.85	50.88	50.72	50.51	50.46	
14	50.50	50.45	50.42	50.51	50.45	50.46	50.79	50.78	50.77	50.69	50.51	50.43	
15	50.49	50.44	50.42	50.50	50.45	50.61	50.65	50.87	50.92	50.67	50.50	50.45	
16	50.49	50.45	50.43	50.48	50.44	50.69	50.67	50.88	52.09	50.66	50.50	50.46	
17	50.48	50.46	50.55	50.49	50.44	50.81	50.62	50.92	51.48	50.68	50.49	50.47	
18	50.48	50.49	50.64	50.61	50.44	51.00	50.58	51.40	51.50	50.65	50.49	50.47	
19	50.47	50.51	50.72	50.54	50.43	50.72	50.56	51.09	52.74	50.63	50.48	50.46	
20	50.47	50.46	50.69	50.53	50.44	50.62	50.55	50.95	51.33	50.62	50.48	50.46	
21	50.46	50.44	50.62	50.51	50.45	50.77	50.54	50.92	51.11	50.61	50.47	50.46	
22	50.46	50.44	50.56	50.49	50.44	50.78	50.54	50.83	50.99	50.60	50.47	50.46	
23	50.45	50.43	50.53	50.48	50.55	50.67	50.57	50.77	50.91	50.59	50.47	50.45	
24	50.45	50.43	50.51	50.47	50.57	50.65	50.92	50.73	50.88	50.58	50.46	50.46	
25	50.45	50.45	50.50	50.46	50.54	50.68	50.86	50.69	50.84	50.58	50.49	50.46	
26	50.45	50.45	50.49	50.45	50.51	50.62	50.75	50.66	50.80	50.57	50.49	50.46	
27	50.49	50.45	50.48	50.44	50.47	50.58	50.73	50.65	51.07	50.56	50.46	50.49	
28	50.44	50.43	50.51	50.44	50.44	50.57	50.65	50.65	51.03	50.56	50.45	50.48	
29	50.47	50.45	50.55	50.45	50.42	50.56	50.69	50.66	50.88	50.56		50.48	
30	50.48	50.46	50.50	50.72	50.42	50.54	50.63	50.63	50.79	50.55		50.47	
31		50.53		50.74	50.42		50.62		50.78	50.55		50.47	
Mean	50.49	50.47	50.50	50.52	50.48	50.56	50.66	50.84	51.02	50.72	50.50	50.45	
Max	50.57	50.58	50.72	50.74	50.57	51.00	50.92	51.40	52.74	51.50	50.57	50.49	52.74
Min	50.44	50.43	50.42	50.44	50.42	50.42	50.53	50.56	50.59	50.55	50.45	50.43	50.42

Annual Max Momentary Gage Height 54.62 m. (MSL.) , at 04.00 Hours , on Dec 19, 2018

Zero Gage at Bottom Elevation 0.00 m. (MSL.) , River Bed 49.71 m. (MSL.)

Left Bank Elevation 54.21 m. (MSL.) ,

Right Bank Elevation 53.87 m. (MSL.) , Drainage Are 47 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.76	0.48	0.55	0.58	0.90	0.41	0.97	0.93	1.22	2.65	0.79	0.44		
2	0.79	0.79	0.72	0.55	0.79	0.37	0.97	0.86	1.11	2.21	0.79	0.44		
3	0.76	0.76	0.55	0.51	0.72	0.37	0.83	0.86	0.97	2.10	0.90	0.44		
4	0.72	0.62	0.48	0.55	0.69	0.41	0.83	6.83	2.76	11.20	0.83	0.41		
5	0.69	0.51	0.48	0.62	0.62	0.48	0.76	2.65	6.39	8.56	0.79	0.41		
6	0.65	0.44	0.44	0.79	0.58	0.41	1.77	2.10	5.40	5.40	0.76	0.41		
7	0.65	0.48	0.41	0.69	0.55	0.41	4.41	4.08	6.06	4.41	0.76	0.41		
8	0.62	0.55	0.37	0.58	0.69	0.41	1.88	3.64	4.08	3.64	0.76	0.41		
9	0.90	0.69	0.44	0.55	0.83	0.41	1.22	2.76	3.31	3.20	0.72	0.41		
10	0.72	0.93	0.48	1.33	0.69	0.41	2.10	5.62	2.87	2.87	0.72	0.41		
11	0.72	0.76	0.41	0.97	0.62	0.37	1.00	9.16	2.76	2.54	0.69	0.41		
12	0.72	0.72	0.37	0.83	0.55	0.37	3.53	5.73	2.65	2.32	0.69	0.41		
13	0.69	0.55	0.41	0.76	0.51	0.41	2.98	3.75	4.08	2.32	0.69	0.51		
14	0.65	0.48	0.37	0.69	0.48	0.51	3.09	2.98	2.87	1.99	0.69	0.41		
15	0.62	0.44	0.37	0.65	0.48	1.11	1.55	3.97	4.52	1.77	0.65	0.48		
16	0.62	0.48	0.41	0.58	0.44	1.99	1.77	4.08	19.91	1.66	0.65	0.51		
17	0.58	0.51	0.83	0.62	0.44	3.31	1.22	4.52	10.96	1.88	0.62	0.55		
18	0.58	0.62	1.44	1.11	0.44	5.40	0.93	10.00	11.20	1.55	0.62	0.55		
19	0.55	0.69	2.32	0.79	0.41	2.32	0.86	6.39	32.74	1.33	0.58	0.51		
20	0.55	0.51	1.99	0.76	0.44	1.22	0.83	4.85	9.16	1.22	0.58	0.51		
21	0.51	0.44	1.22	0.69	0.48	2.87	0.79	4.52	6.61	1.11	0.55	0.51		
22	0.51	0.44	0.86	0.62	0.44	2.98	0.79	3.53	5.29	1.00	0.55	0.51		
23	0.48	0.41	0.76	0.58	0.83	1.77	0.90	2.87	4.41	0.97	0.55	0.48		
24	0.48	0.41	0.69	0.55	0.90	1.55	4.52	2.43	4.08	0.93	0.51	0.51		
25	0.48	0.48	0.65	0.51	0.79	1.88	3.86	1.99	3.64	0.93	0.62	0.51		
26	0.48	0.48	0.62	0.48	0.69	1.22	2.65	1.66	3.20	0.90	0.62	0.51		
27	0.62	0.48	0.58	0.44	0.55	0.93	2.43	1.55	6.17	0.86	0.51	0.62		
28	0.44	0.41	0.69	0.44	0.44	0.90	1.55	1.55	5.73	0.86	0.48	0.58		
29	0.55	0.48	0.83	0.48	0.37	0.86	1.99	1.66	4.08	0.86		0.58		
30	0.58	0.51	0.65	2.32	0.37	0.79	1.33	1.33	3.09	0.83		0.55		
31		0.76		2.54	0.37		1.22		2.98	0.83		0.55		
Total	18.67	17.31	21.39	24.16	18.10	36.85	55.53	108.85	184.30	74.90	18.67	14.95	593.68	CMSDAY
Mean	0.62	0.56	0.71	0.78	0.58	1.23	1.79	3.63	5.95	2.42	0.67	0.48	1.63	CMS
Max	0.90	0.93	2.32	2.54	0.90	5.40	4.52	10.00	32.74	11.20	0.90	0.62	32.74	CMS
Min	0.44	0.41	0.37	0.44	0.37	0.37	0.76	0.86	0.97	0.83	0.48	0.41	0.37	CMS
Runoff	1.61	1.50	1.85	2.09	1.56	3.18	4.80	9.40	15.92	6.47	1.61	1.29	51.29	MCM

Momentary Peak 83.88 CMS. at 54.62 m. (MSL.) at 04.00 Hours , on Dec 19, 2018

Runoff Yield 34.61 Liters/Second/Square KM. Momentary Peak Yield 1784.68 Liters/Second/Square KM.

WATER YEAR : 2018

PATTANI RIVER BASIN

Pattani River at Ban Tha Sap, Yala (X.40A)

Lat 06 - 33 - 03 N Long 101 - 16 - 10 E

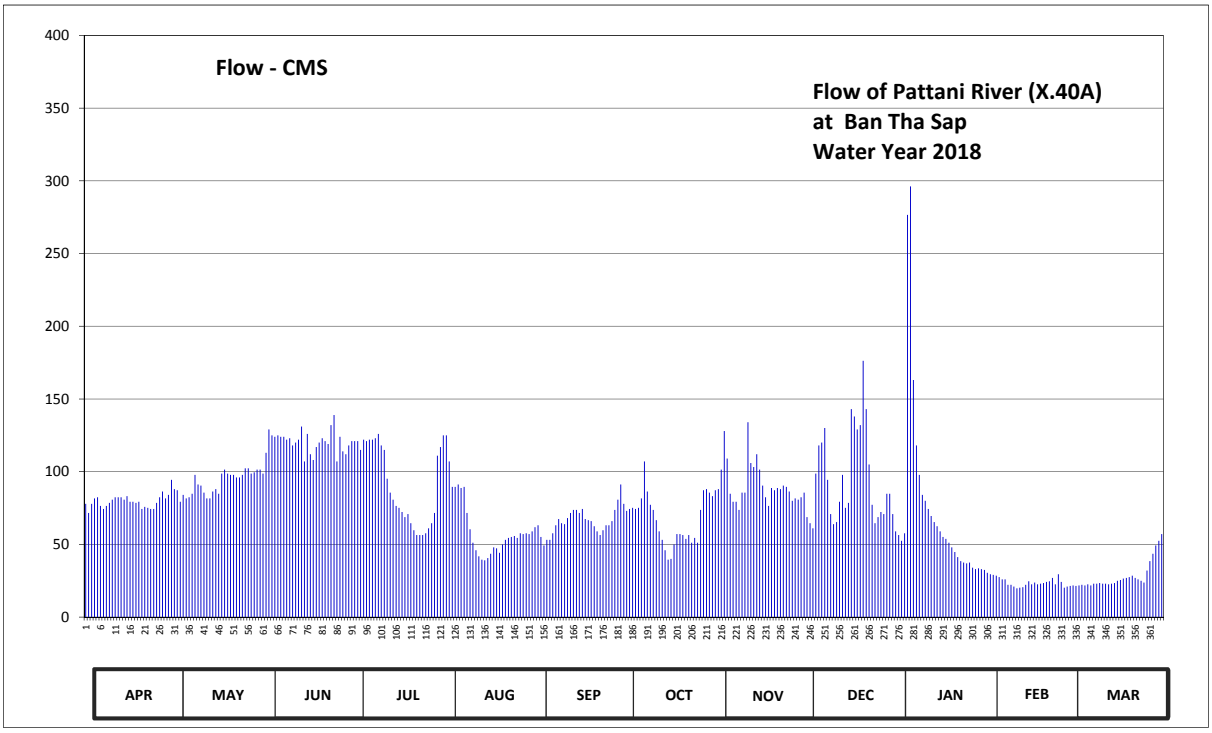
Location : on left bank at the bridge of Yala - Ban Niang Road.

	Ban Tha Sap	**Amphoe** Mueang	**Changwat** Yala
Drainge Area	3,288 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank between the fourth and the fifth staff gage.		**Elevation** +22.740 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	1988 to date		
Rating Operation			
Period of Rating	1989 to date		
Rated by Flot	-		
Rated by Current Meter	1989 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Flow regulated by Bang Lang Dam upstream.		
	Stage-discharge relation defined by 9 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	13.57	13.70	13.98	14.06	14.10	13.36	13.50	13.70	13.44	13.26	12.79	12.62	
2	13.48	13.69	14.14	14.06	13.92	13.24	13.52	13.86	13.38	13.20	12.78	12.61	
3	13.57	13.59	14.10	14.00	13.72	13.15	13.53	14.13	13.33	13.28	12.77	12.62	
4	13.62	13.65	14.09	14.07	13.72	13.21	13.52	13.94	13.83	15.34	12.75	12.63	
5	13.63	13.62	14.10	14.06	13.74	13.21	13.53	13.66	14.03	15.48	12.72	12.62	
6	13.55	13.63	14.09	14.07	13.71	13.28	13.62	13.59	14.05	14.48	12.72	12.64	
7	13.52	13.66	14.09	14.07	13.72	13.36	13.92	13.59	14.15	14.03	12.63	12.62	
8	13.55	13.82	14.07	14.08	13.48	13.42	13.68	13.51	13.78	13.82	12.63	12.65	
9	13.58	13.74	14.08	14.11	13.32	13.38	13.56	13.67	13.47	13.65	12.60	12.65	
10	13.61	13.73	14.03	14.03	13.18	13.37	13.51	13.67	13.37	13.60	12.57	12.66	
11	13.63	13.67	14.05	14.00	13.10	13.43	13.41	14.19	13.39	13.52	12.58	12.65	
12	13.63	13.62	14.07	13.79	13.03	13.48	13.30	13.91	13.59	13.45	12.59	12.65	
13	13.63	13.62	14.16	13.67	12.99	13.51	13.21	13.88	13.82	13.39	12.63	12.64	
14	13.61	13.68	13.92	13.61	12.98	13.51	13.10	13.97	13.53	13.35	12.69	12.65	
15	13.64	13.70	14.11	13.55	13.01	13.48	12.99	13.86	13.58	13.30	12.64	12.66	
16	13.59	13.66	13.97	13.53	13.06	13.52	13.00	13.73	14.28	13.24	12.67	12.70	
17	13.59	13.83	13.93	13.49	13.13	13.42	13.16	13.63	14.23	13.22	12.64	12.71	
18	13.58	13.86	14.02	13.44	13.12	13.41	13.27	13.55	14.14	13.18	12.65	12.73	
19	13.59	13.83	14.05	13.47	13.07	13.40	13.27	13.71	14.17	13.13	12.66	12.74	
20	13.52	13.82	14.08	13.38	13.16	13.35	13.26	13.69	14.61	13.08	12.68	12.75	
21	13.54	13.82	14.06	13.31	13.21	13.30	13.22	13.71	14.28	13.02	12.69	12.77	
22	13.53	13.80	14.04	13.26	13.23	13.26	13.26	13.70	13.90	12.97	12.74	12.74	
23	13.52	13.80	14.17	13.26	13.24	13.31	13.18	13.73	13.56	12.95	12.64	12.72	
24	13.52	13.82	14.24	13.26	13.25	13.36	13.23	13.72	13.38	12.94	12.79	12.70	
25	13.58	13.87	13.92	13.28	13.23	13.36	13.18	13.68	13.44	12.95	12.68	12.67	
26	13.63	13.87	14.09	13.33	13.28	13.40	13.51	13.60	13.49	12.88	12.58	12.84	
27	13.68	13.83	13.99	13.38	13.27	13.51	13.69	13.62	13.47	12.86	12.60	12.97	
28	13.62	13.84	13.97	13.48	13.28	13.61	13.70	13.61	13.66	12.87	12.61	13.06	
29	13.65	13.86	14.03	13.96	13.27	13.74	13.67	13.63	13.66	12.86		13.15	
30	13.78	13.86	14.06	14.02	13.30	13.57	13.64	13.67	13.47	12.85		13.20	
31		13.83		14.10	13.34		13.69		13.30	12.81		13.27	
Mean	13.59	13.75	14.06	13.72	13.33	13.40	13.41	13.74	13.73	13.39	12.67	12.75	
Max	13.78	13.87	14.24	14.11	14.10	13.74	13.92	14.19	14.61	15.48	12.79	13.27	15.48
Min	13.48	13.59	13.92	13.26	12.98	13.15	12.99	13.51	13.30	12.81	12.57	12.61	12.57

Annual Max Momentary Gage Height	15.76	m. (MSL.) ,	at 21.00 Hours , on Jan 4, 2019		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	10.49	m. (MSL.)
Left Bank Elevation	16.50	m. (MSL.) ,			
Right Bank Elevation	18.70	m. (MSL.) ,	Drainage Are	3,288	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	77.90	88.00	113.00	121.00	125.00	63.20	73.00	88.00	68.80	56.40	29.50	21.80		
2	71.60	87.20	129.00	121.00	107.00	55.10	74.40	101.40	64.60	52.50	29.00	21.40		
3	77.90	79.30	125.00	115.00	89.60	49.25	75.10	128.00	61.10	57.70	28.50	21.80		
4	81.60	84.00	124.00	122.00	89.60	53.15	74.40	109.00	98.70	276.60	27.50	22.20		
5	82.40	81.60	125.00	121.00	91.20	53.15	75.10	84.80	118.00	296.20	26.00	21.80		
6	76.50	82.40	124.00	122.00	88.80	57.70	81.60	79.30	120.00	163.00	26.00	22.60		
7	74.40	84.80	124.00	122.00	89.60	63.20	107.00	79.30	130.00	118.00	22.20	21.80		
8	76.50	97.80	122.00	123.00	71.60	67.40	86.40	73.70	94.40	97.80	22.20	23.00		
9	78.60	91.20	123.00	126.00	60.40	64.60	77.20	85.60	70.90	84.00	21.00	23.00		
10	80.80	90.40	118.00	118.00	51.20	63.90	73.70	85.60	63.90	80.00	19.80	23.40		
11	82.40	85.60	120.00	115.00	46.00	68.10	66.70	134.00	65.30	74.40	20.20	23.00		
12	82.40	81.60	122.00	95.20	41.80	71.60	59.00	106.00	79.30	69.50	20.60	23.00		
13	82.40	81.60	131.00	85.60	39.50	73.70	53.15	103.20	97.80	65.30	22.20	22.60		
14	80.80	86.40	107.00	80.80	39.00	73.70	46.00	112.00	75.10	62.50	24.60	23.00		
15	83.20	88.00	126.00	76.50	40.60	71.60	39.50	101.40	78.60	59.00	22.60	23.40		
16	79.30	84.80	112.00	75.10	43.60	74.40	40.00	90.40	143.00	55.10	23.80	25.00		
17	79.30	98.70	108.00	72.30	47.95	67.40	49.90	82.40	138.00	53.80	22.60	25.50		
18	78.60	101.40	117.00	68.80	47.30	66.70	57.05	76.50	129.00	51.20	23.00	26.50		
19	79.30	98.70	120.00	70.90	44.20	66.00	57.05	88.80	132.00	47.95	23.40	27.00		
20	74.40	97.80	123.00	64.60	49.90	62.50	56.40	87.20	176.20	44.80	24.20	27.50		
21	75.80	97.80	121.00	59.70	53.15	59.00	53.80	88.80	143.00	41.20	24.60	28.50		
22	75.10	96.00	119.00	56.40	54.45	56.40	56.40	88.00	105.00	38.50	27.00	27.00		
23	74.40	96.00	132.00	56.40	55.10	59.70	51.20	90.40	77.20	37.50	22.60	26.00		
24	74.40	97.80	139.00	56.40	55.75	63.20	54.45	89.60	64.60	37.00	29.50	25.00		
25	78.60	102.30	107.00	57.70	54.45	63.20	51.20	86.40	68.80	37.50	24.20	23.80		
26	82.40	102.30	124.00	61.10	57.70	66.00	73.70	80.00	72.30	34.00	20.20	32.00		
27	86.40	98.70	114.00	64.60	57.05	73.70	87.20	81.60	70.90	33.00	21.00	38.50		
28	81.60	99.60	112.00	71.60	57.70	80.80	88.00	80.80	84.80	33.50	21.40	43.60		
29	84.00	101.40	118.00	111.00	57.05	91.20	85.60	82.40	84.80	33.00		49.25		
30	94.40	101.40	121.00	117.00	59.00	77.90	83.20	85.60	70.90	32.50		52.50		
31		98.70		125.00	61.80		87.20		59.00	30.50		57.05		
Total	2387.40	2863.30	3620.00	2852.70	1927.05	1977.45	2094.60	2750.20	2906.00	2253.95	669.40	872.50	27174.55	CMSDAY
Mean	79.58	92.36	120.67	92.02	62.16	65.92	67.57	91.67	93.74	72.71	23.91	28.15	74.45	CMS
Max	94.40	102.30	139.00	126.00	125.00	91.20	107.00	134.00	176.20	296.20	29.50	57.05	296.20	CMS
Min	71.60	79.30	107.00	56.40	39.00	49.25	39.50	73.70	59.00	30.50	19.80	21.40	19.80	CMS
Runoff	206.27	247.39	312.77	246.47	166.50	170.85	180.97	237.62	251.08	194.74	57.84	75.38	2347.88	MCM

Momentary Peak 337.60 CMS. at 15.76 m. (MSL.) at 21.00 Hours , on Jan 4, 2019

Runoff Yield 22.64 Liters/Second/Square KM. Momentary Peak Yield 102.68 Liters/Second/Square KM.

WATER YEAR : 2018

SOUTHERN PENINSULA WEST COAST

Trang River at Ban Tha Pradu , Trang (X.56)

Lat 07 - 46 - 01 N Long 99 - 32 - 25 E

Location : on left bank at Ban Tha Pradu.

	Ban Tha Pradu	**Amphoe** Huai Yot	**Changwat** Trang
Drainge Area	1,801 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank near the top staff gage.		**Elevation** +19.353 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	2004 to date		
Rating Operation			
Period of Rating	2004 to date		
Rated by Flot	-		
Rated by Current Meter	2004 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	Overbank flow starts at elevation + 13.080 m.(MSL.), records are channel flow only.		
General Description	Records good. Stage-discharge relation defined by 19 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

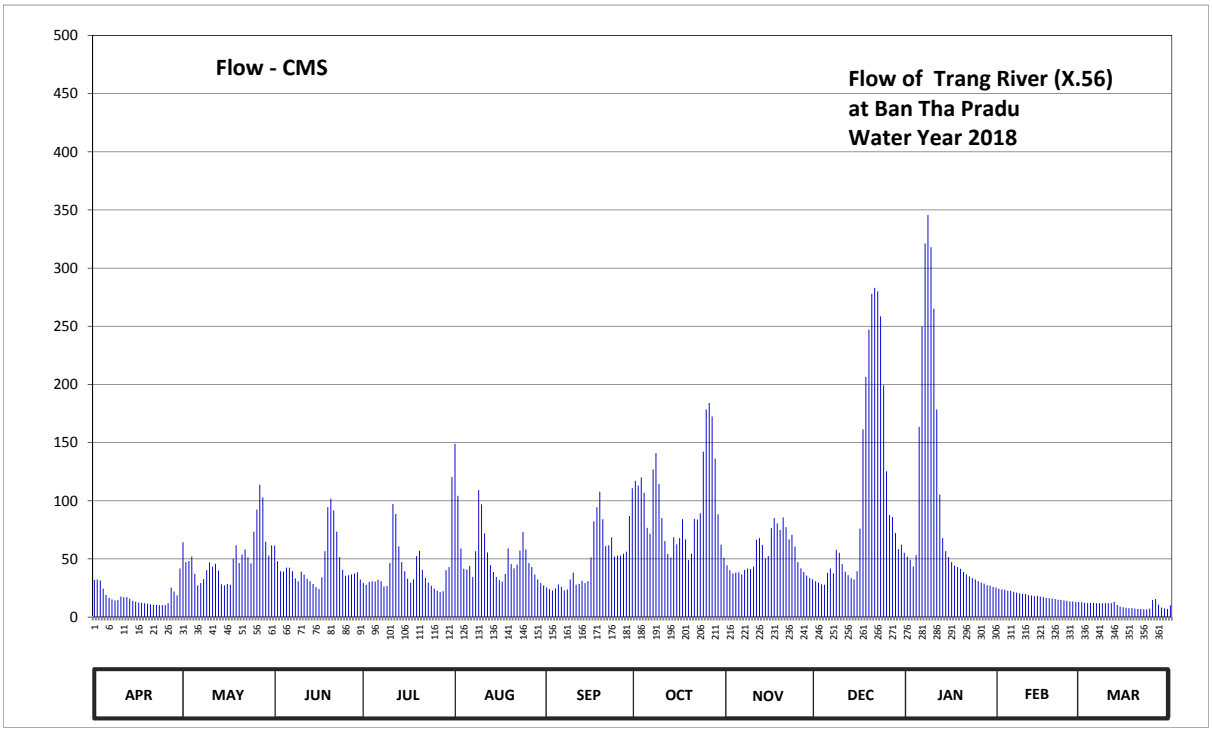
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	8.24	9.48	9.38	8.13	11.95	7.98	11.12	8.74	8.19	9.04	7.94	7.47	
2	8.25	8.85	8.88	8.07	10.75	7.92	11.00	8.57	8.14	8.93	7.91	7.45	
3	8.22	8.89	8.54	8.17	9.30	7.88	11.20	8.46	8.09	8.70	7.90	7.45	
4	7.94	9.04	8.53	8.19	8.62	7.95	10.83	8.49	8.07	9.09	7.87	7.45	
5	7.72	8.45	8.66	8.18	8.60	8.08	9.89	8.50	8.48	12.25	7.86	7.45	
6	7.62	8.05	8.66	8.24	8.72	8.00	9.72	8.43	8.63	13.61	7.83	7.44	
7	7.57	8.13	8.54	8.19	8.34	7.88	11.40	8.58	8.46	14.32	7.80	7.44	
8	7.53	8.27	8.29	8.01	9.22	7.91	11.75	8.63	9.26	14.53	7.78	7.44	
9	7.54	8.57	8.19	8.03	10.89	8.25	11.04	8.61	9.17	14.29	7.76	7.44	
10	7.67	8.84	8.52	8.82	10.54	8.49	10.17	8.69	8.78	13.77	7.75	7.44	
11	7.64	8.70	8.42	10.55	9.73	8.07	9.51	9.55	8.52	12.55	7.72	7.44	
12	7.65	8.79	8.28	10.29	9.18	8.10	9.13	9.60	8.40	10.78	7.70	7.49	
13	7.59	8.56	8.20	9.36	8.75	8.21	9.01	9.40	8.30	9.60	7.68	7.38	
14	7.52	8.09	8.10	8.85	8.51	8.13	9.62	8.98	8.25	9.22	7.69	7.32	
15	7.49	8.05	7.99	8.54	8.34	8.20	9.42	9.06	8.54	9.02	7.67	7.30	
16	7.46	8.10	7.92	8.28	8.23	9.01	9.60	9.88	9.87	8.85	7.65	7.28	
17	7.45	8.07	8.33	8.14	8.18	10.08	10.14	10.17	12.21	8.73	7.62	7.27	
18	7.44	8.97	9.22	8.26	8.44	10.47	9.56	10.02	13.04	8.68	7.61	7.27	
19	7.42	9.39	10.47	9.06	9.30	10.85	8.92	9.83	13.58	8.62	7.60	7.25	
20	7.40	8.82	10.68	9.23	8.78	10.14	9.14	10.19	13.90	8.51	7.58	7.24	
21	7.39	9.11	10.39	8.58	8.64	9.37	10.15	9.91	13.95	8.43	7.56	7.24	
22	7.38	9.27	9.78	8.31	8.76	9.39	10.13	9.56	13.92	8.36	7.55	7.23	
23	7.37	9.01	9.02	8.15	9.24	9.62	10.31	9.69	13.70	8.30	7.53	7.23	
24	7.37	8.81	8.58	8.04	9.77	9.04	11.78	9.36	12.92	8.25	7.52	7.25	
25	7.37	9.78	8.38	7.94	9.27	9.08	12.55	8.85	11.35	8.20	7.50	7.55	
26	7.44	10.41	8.40	7.86	8.82	9.08	12.66	8.64	10.26	8.14	7.50	7.58	
27	7.97	11.02	8.43	7.82	8.68	9.14	12.43	8.51	10.20	8.11	7.48	7.39	
28	7.84	10.71	8.46	7.85	8.42	9.21	11.63	8.39	9.74	8.06	7.48	7.29	
29	7.71	9.49	8.50	8.57	8.25	10.23	10.28	8.30	9.28	8.04		7.26	
30	8.63	9.08	8.25	8.68	8.13	10.94	9.41	8.26	9.41	8.00		7.24	
31		9.39		11.21	8.05		9.00		9.17	7.98		7.36	
Mean	7.66	8.97	8.73	8.57	9.05	8.89	10.40	9.06	10.12	9.77	7.68	7.37	
Max	8.63	11.02	10.68	11.21	11.95	10.94	12.66	10.19	13.95	14.53	7.94	7.58	14.53
Min	7.37	8.05	7.92	7.82	8.05	7.88	8.92	8.26	8.07	7.98	7.48	7.23	7.23

Annual Max Momentary Gage Height 14.56 m. (MSL.) , at 06.00 Hours , on Jan 8, 2019

Zero Gage at Bottom Elevation 0.00 m. (MSL.) , River Bed 2.86 m. (MSL.)

Left Bank Elevation 13.07 m. (MSL.) ,

Right Bank Elevation 15.00 m. (MSL.) , Drainage Are 1,801 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	32.00	64.40	61.40	29.25	149.00	25.50	117.20	44.50	30.75	52.00	24.50	12.75		
2	32.25	47.25	48.00	27.75	104.25	24.00	113.00	40.25	29.50	49.25	23.75	12.25		
3	31.50	48.25	39.50	30.25	59.00	23.00	120.00	37.50	28.25	43.50	23.50	12.25		
4	24.50	52.00	39.25	30.75	41.50	24.75	107.05	38.25	27.75	53.25	22.75	12.25		
5	19.00	37.25	42.50	30.50	41.00	28.00	76.70	38.50	38.00	163.50	22.50	12.25		
6	16.50	27.25	42.50	32.00	44.00	26.00	71.60	36.75	41.75	249.95	21.75	12.00		
7	15.25	29.25	39.50	30.75	34.50	23.00	127.00	40.50	37.50	321.20	21.00	12.00		
8	14.25	32.75	33.25	26.25	56.60	23.75	141.00	41.75	57.80	345.60	20.50	12.00		
9	14.50	40.25	30.75	26.75	109.15	32.25	114.40	41.25	55.25	317.90	20.00	12.00		
10	17.75	47.00	39.00	46.50	96.90	38.25	85.10	43.25	45.50	265.15	19.75	12.00		
11	17.00	43.50	36.50	97.25	71.90	27.75	65.30	66.50	39.00	178.50	19.00	12.00		
12	17.25	45.75	33.00	88.70	55.50	28.50	54.25	68.00	36.00	105.30	18.50	13.25		
13	15.75	40.00	31.00	60.80	44.75	31.25	51.25	62.00	33.50	68.00	18.00	10.50		
14	14.00	28.25	28.50	47.25	38.75	29.25	68.60	50.50	32.25	56.60	18.25	9.00		
15	13.25	27.25	25.75	39.50	34.50	31.00	62.60	52.50	39.50	51.50	17.75	8.50		
16	12.50	28.50	24.00	33.00	31.75	51.25	68.00	76.40	76.10	47.25	17.25	8.00		
17	12.25	27.75	34.25	29.50	30.50	82.40	84.20	85.10	161.50	44.25	16.50	7.75		
18	12.00	50.25	56.60	32.50	37.00	94.45	66.80	80.60	206.40	43.00	16.25	7.75		
19	11.50	61.70	94.45	52.50	59.00	107.75	49.00	74.90	247.10	41.50	16.00	7.25		
20	11.00	46.50	101.80	56.90	45.50	84.20	54.50	85.70	278.00	38.75	15.50	7.00		
21	10.75	53.75	91.70	40.50	42.00	61.10	84.50	77.30	283.00	36.75	15.00	7.00		
22	10.50	58.10	73.40	33.75	45.00	61.70	83.90	66.80	280.00	35.00	14.75	6.75		
23	10.25	51.25	51.50	29.75	57.20	68.60	89.30	70.70	258.50	33.50	14.25	6.75		
24	10.25	46.25	40.50	27.00	73.10	52.00	142.20	60.80	199.20	32.25	14.00	7.25		
25	10.25	73.40	35.50	24.50	58.10	53.00	178.50	47.25	125.25	31.00	13.50	14.75		
26	12.00	92.35	36.00	22.50	46.50	53.00	184.00	42.00	87.80	29.50	13.50	15.50		
27	25.25	113.70	36.75	21.50	43.00	54.50	172.50	38.75	86.00	28.75	13.00	10.75		
28	22.00	102.85	37.50	22.25	36.50	56.30	136.20	35.75	72.20	27.50	13.00	8.25		
29	18.75	64.70	38.50	40.25	32.25	86.90	88.40	33.50	58.40	27.00		7.50		
30	41.75	53.00	32.25	43.00	29.25	110.90	62.30	32.50	62.30	26.00		7.00		
31		61.70		120.35	27.25		51.00		55.25	25.50		10.00		
Total	525.75	1596.15	1355.10	1274.00	1675.20	1494.30	2970.35	1610.05	3109.30	2868.70	504.00	314.25	19297.15	CMSDAY
Mean	17.52	51.49	45.17	41.10	54.04	49.81	95.82	53.67	100.30	92.54	18.00	10.14	52.87	CMS
Max	41.75	113.70	101.80	120.35	149.00	110.90	184.00	85.70	283.00	345.60	24.50	15.50	345.60	CMS
Min	10.25	27.25	24.00	21.50	27.25	23.00	49.00	32.50	27.75	25.50	13.00	6.75	6.75	CMS
Runoff	45.42	137.91	117.08	110.07	144.74	129.11	256.64	139.11	268.64	247.86	43.55	27.15	1667.27	MCM

Momentary Peak 349.20 CMS. at 14.56 m. (MSL.) at 06.00 Hours , on Jan 8, 2019

Runoff Yield 29.36 Liters/Second/Square KM. Momentary Peak Yield 193.89 Liters/Second/Square KM.

WATER YEAR : 2018

SOUTHERN PENINSULA WEST COAST

Khlong Palian at Ban Palian Nai , Trang (X.139A)

Lat 07 - 18 - 55 N Long 99 - 49 - 32 E

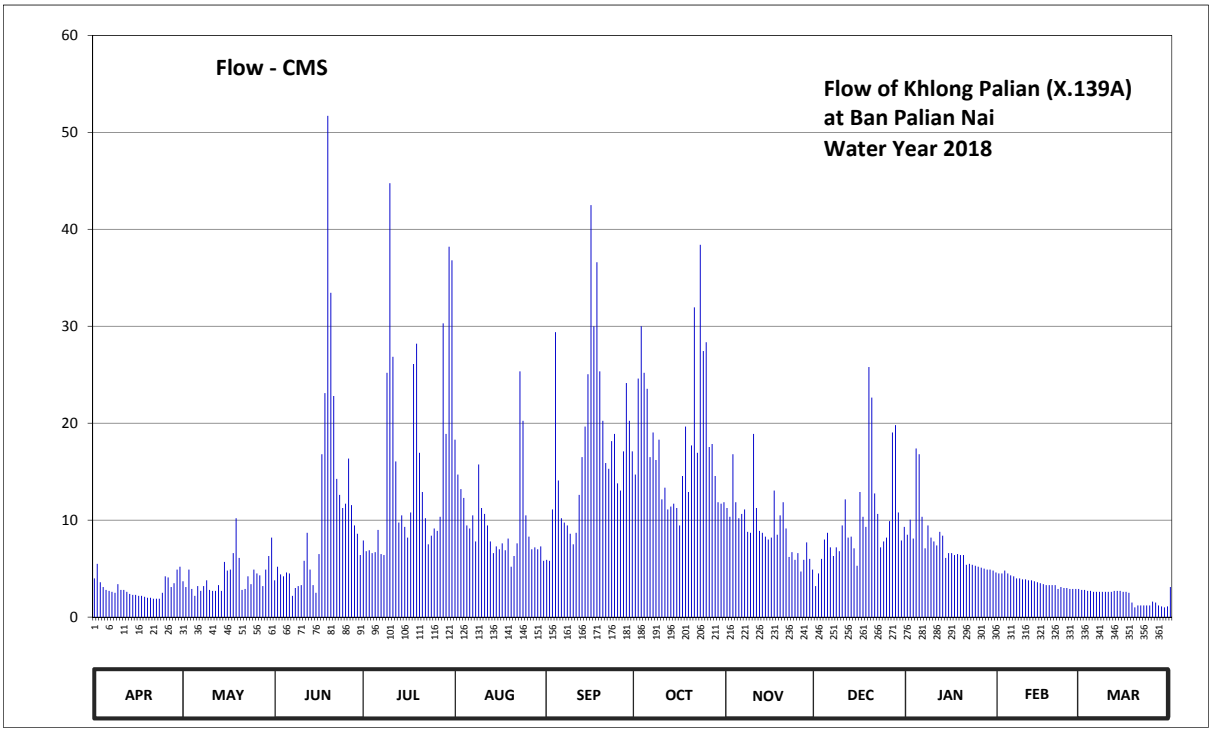
Location : on left bank at the bridge.

	Ban Palian Nai	**Amphoe** Palian	**Changwat** Trang
Drainge Area	160 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+0.000 m. (A.D.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank at the abutment of the bridge.	**Elevation**	+6.999 m. (A.D.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	2009 to date		
Rating Operation			
Period of Rating	2009 to date		
Rated by Flot	-		
Rated by Current Meter	2009 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 15 discharge measurements made in 2018.		

Gage Height in Meter (A.D.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.90	0.87	0.88	1.29	2.02	1.09	1.78	1.55	0.82	1.35	0.95	0.78	
2	1.05	0.81	1.02	1.18	1.78	1.08	2.44	1.49	0.95	1.47	0.95	0.78	
3	0.86	0.99	0.94	1.19	1.68	1.54	2.80	1.92	1.10	1.31	0.98	0.77	
4	0.81	0.79	0.92	1.16	1.62	2.76	2.48	1.59	1.30	1.96	0.95	0.77	
5	0.78	0.72	0.96	1.17	1.43	1.74	2.37	1.48	1.37	1.92	0.93	0.76	
6	0.77	0.82	0.95	1.40	1.41	1.48	1.90	1.51	1.22	1.49	0.92	0.76	
7	0.76	0.77	0.72	1.15	1.50	1.45	2.07	1.54	1.13	1.21	0.90	0.76	
8	0.75	0.82	0.80	1.14	1.28	1.43	1.88	1.38	1.22	1.43	0.90	0.76	
9	0.84	0.88	0.82	2.48	1.85	1.36	2.02	1.37	1.18	1.32	0.89	0.76	
10	0.78	0.78	0.83	3.59	1.55	1.25	1.61	2.06	1.43	1.28	0.89	0.76	
11	0.78	0.77	1.08	2.59	1.51	1.37	1.69	1.55	1.61	1.24	0.88	0.76	
12	0.76	0.77	1.37	1.87	1.43	1.64	1.54	1.39	1.32	1.38	0.88	0.77	
13	0.74	0.83	0.99	1.45	1.28	1.90	1.56	1.37	1.33	1.34	0.87	0.77	
14	0.73	0.77	0.83	1.50	1.16	2.11	1.58	1.33	1.21	1.11	0.86	0.77	
15	0.73	1.07	0.75	1.42	1.23	2.47	1.55	1.30	1.03	1.16	0.85	0.76	
16	0.72	0.98	1.15	1.32	1.20	3.50	1.43	1.32	1.66	1.16	0.84	0.76	
17	0.72	0.99	1.92	1.52	1.26	2.80	1.77	1.67	1.49	1.14	0.83	0.75	
18	0.71	1.16	2.34	2.54	1.19	3.23	2.11	1.35	1.42	1.15	0.83	0.65	
19	0.70	1.48	3.82	2.68	1.31	2.49	1.66	1.50	2.52	1.14	0.83	0.60	
20	0.70	1.11	3.03	1.93	1.02	2.15	1.98	1.59	2.31	1.14	0.83	0.62	
21	0.69	0.78	2.32	1.66	1.13	1.86	2.93	1.41	1.65	1.04	0.79	0.62	
22	0.69	0.79	1.75	1.48	1.26	1.82	1.93	1.12	1.51	1.05	0.81	0.62	
23	0.69	0.92	1.64	1.25	2.49	2.01	3.32	1.17	1.22	1.04	0.80	0.62	
24	0.75	0.84	1.55	1.34	2.15	2.06	2.63	1.09	1.28	1.03	0.80	0.62	
25	0.92	0.99	1.58	1.41	1.50	1.72	2.69	1.16	1.32	1.02	0.79	0.66	
26	0.91	0.95	1.89	1.39	1.33	1.67	1.97	0.97	1.46	1.01	0.79	0.65	
27	0.81	0.93	1.57	1.49	1.20	1.94	1.99	1.09	2.07	1.00	0.79	0.62	
28	0.85	0.82	1.43	2.82	1.22	2.41	1.77	1.27	2.12	0.99	0.79	0.61	
29	0.99	0.99	1.36	2.06	1.20	2.15	1.59	1.10	1.52	0.99		0.60	
30	1.02	1.13	1.14	3.31	1.23	1.94	1.58	0.99	1.29	0.98		0.61	
31		1.32		3.24	1.08		1.59		1.42	0.96		0.81	
Mean	0.80	0.92	1.41	1.81	1.44	1.95	2.01	1.39	1.43	1.22	0.86	0.71	
Max	1.05	1.48	3.82	3.59	2.49	3.50	3.32	2.06	2.52	1.96	0.98	0.81	3.82
Min	0.69	0.72	0.72	1.14	1.02	1.08	1.43	0.97	0.82	0.96	0.79	0.60	0.60

Annual Max Momentary Gage Height	4.33	m. (A.D.) ,	at 17.00 Hours , on Jul 10, 2018		
Zero Gage at Bottom Elevation	0.00	m. (A.D.) ,	River Bed	-0.55	m. (A.D.)
Left Bank Elevation	5.06	m. (A.D.) ,			
Right Bank Elevation	4.95	m. (A.D.) ,	Drainage Are	160	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	4.00	3.70	3.80	7.90	18.30	5.90	14.70	11.25	3.20	8.50	4.50	2.80		
2	5.50	3.10	5.20	6.80	14.70	5.80	24.60	10.35	4.50	10.05	4.50	2.80		
3	3.60	4.90	4.40	6.90	13.20	11.10	30.00	16.80	6.00	8.10	4.80	2.70		
4	3.10	2.90	4.20	6.60	12.30	29.40	25.20	11.85	8.00	17.40	4.50	2.70		
5	2.80	2.20	4.60	6.70	9.45	14.10	23.55	10.20	8.70	16.80	4.30	2.60		
6	2.70	3.20	4.50	9.00	9.15	10.20	16.50	10.65	7.20	10.35	4.20	2.60		
7	2.60	2.70	2.20	6.50	10.50	9.75	19.05	11.10	6.30	7.10	4.00	2.60		
8	2.50	3.20	3.00	6.40	7.80	9.45	16.20	8.80	7.20	9.45	4.00	2.60		
9	3.40	3.80	3.20	25.20	15.75	8.60	18.30	8.70	6.80	8.20	3.90	2.60		
10	2.80	2.80	3.30	44.75	11.25	7.50	12.15	18.90	9.45	7.80	3.90	2.60		
11	2.80	2.70	5.80	26.85	10.65	8.70	13.35	11.25	12.15	7.40	3.80	2.60		
12	2.60	2.70	8.70	16.05	9.45	12.60	11.10	8.90	8.20	8.80	3.80	2.70		
13	2.40	3.30	4.90	9.75	7.80	16.50	11.40	8.70	8.30	8.40	3.70	2.70		
14	2.30	2.70	3.30	10.50	6.60	19.65	11.70	8.30	7.10	6.10	3.60	2.70		
15	2.30	5.70	2.50	9.30	7.30	25.05	11.25	8.00	5.30	6.60	3.50	2.60		
16	2.20	4.80	6.50	8.20	7.00	42.50	9.45	8.20	12.90	6.60	3.40	2.60		
17	2.20	4.90	16.80	10.80	7.60	30.00	14.55	13.05	10.35	6.40	3.30	2.50		
18	2.10	6.60	23.10	26.10	6.90	36.60	19.65	8.50	9.30	6.50	3.30	1.50		
19	2.00	10.20	51.70	28.20	8.10	25.35	12.90	10.50	25.80	6.40	3.30	1.00		
20	2.00	6.10	33.45	16.95	5.20	20.25	17.70	11.85	22.65	6.40	3.30	1.20		
21	1.90	2.80	22.80	12.90	6.30	15.90	31.95	9.15	12.75	5.40	2.90	1.20		
22	1.90	2.90	14.25	10.20	7.60	15.30	16.95	6.20	10.65	5.50	3.10	1.20		
23	1.90	4.20	12.60	7.50	25.35	18.15	38.40	6.70	7.20	5.40	3.00	1.20		
24	2.50	3.40	11.25	8.40	20.25	18.90	27.45	5.90	7.80	5.30	3.00	1.20		
25	4.20	4.90	11.70	9.15	10.50	13.80	28.35	6.60	8.20	5.20	2.90	1.60		
26	4.10	4.50	16.35	8.90	8.30	13.05	17.55	4.70	9.90	5.10	2.90	1.50		
27	3.10	4.30	11.55	10.35	7.00	17.10	17.85	5.90	19.05	5.00	2.90	1.20		
28	3.50	3.20	9.45	30.30	7.20	24.15	14.55	7.70	19.80	4.90	2.90	1.10		
29	4.90	4.90	8.60	18.90	7.00	20.25	11.85	6.00	10.80	4.90		1.00		
30	5.20	6.30	6.40	38.20	7.30	17.10	11.70	4.90	7.90	4.80		1.10		
31		8.20		36.80	5.80		11.85		9.30	4.60		3.10		
Total	89.10	131.80	320.10	481.05	311.60	522.70	561.75	279.60	312.75	229.45	101.20	64.10	3405.20	CMSDAY
Mean	2.97	4.25	10.67	15.52	10.05	17.42	18.12	9.32	10.09	7.40	3.61	2.07	9.33	CMS
Max	5.50	10.20	51.70	44.75	25.35	42.50	38.40	18.90	25.80	17.40	4.80	3.10	51.70	CMS
Min	1.90	2.20	2.20	6.40	5.20	5.80	9.45	4.70	3.20	4.60	2.90	1.00	1.00	CMS
Runoff	7.70	11.39	27.66	41.56	26.92	45.16	48.54	24.16	27.02	19.82	8.74	5.54	294.21	MCM

Momentary Peak 71.85 CMS. at 4.33 m. (A.D.) at 17.00 Hours , on Jul 10, 2018

Runoff Yield 58.31 Liters/Second/Square KM. Momentary Peak Yield 449.06 Liters/Second/Square KM.

WATER YEAR : 2018

SOUTHERN PENINSULA WEST COAST

Khlong Langu at Ban Wang Pa Khian , Satun (X.150)

Lat 06 - 56 - 30 N Long 99 - 52 - 33 E

Location : on right bank at Ban Wang Pa Khian.

	Ban Wang Pa Khian	**Amphoe** Langu	**Changwat** Satun
Drainge Area	480 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank about 5 meters from the top staff gage.		**Elevation** +16.164 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	1984 to date		
Rating Operation			
Period of Rating	1984 to date		
Rated by Flot	-		
Rated by Current Meter	1984 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 16 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

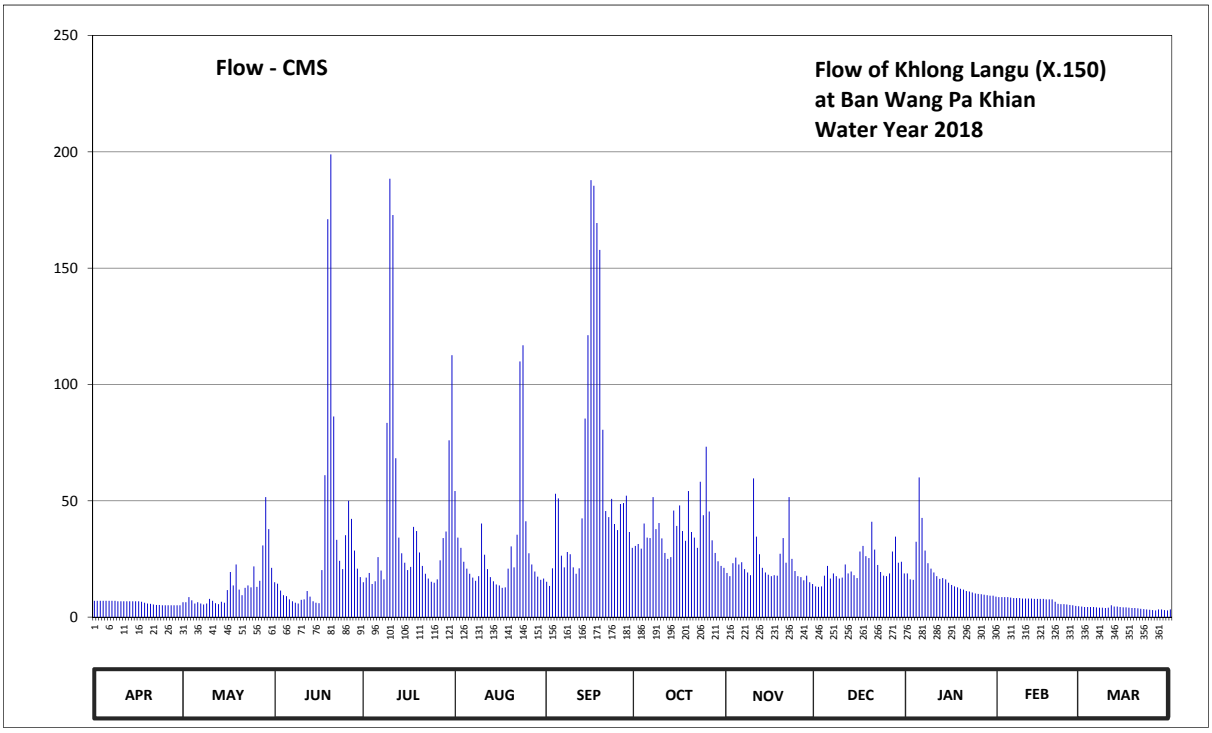
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	5.45	5.42	5.85	5.85	7.81	5.86	6.63	6.05	5.76	6.04	5.53	5.30	
2	5.45	5.42	5.82	5.95	6.81	5.77	6.67	5.98	5.75	5.91	5.53	5.29	
3	5.45	5.53	5.67	6.05	6.59	6.15	6.57	6.26	5.76	5.90	5.53	5.29	
4	5.45	5.46	5.57	5.81	6.29	7.75	7.11	6.38	5.99	6.72	5.53	5.29	
5	5.45	5.39	5.55	5.87	6.14	7.65	6.81	6.23	6.20	8.10	5.52	5.29	
6	5.45	5.42	5.48	6.39	6.03	6.42	6.80	6.28	5.93	7.23	5.51	5.28	
7	5.45	5.39	5.44	6.10	5.95	6.17	7.68	6.13	6.04	6.53	5.51	5.27	
8	5.45	5.36	5.41	5.91	5.88	6.50	6.99	6.06	5.98	6.26	5.51	5.27	
9	5.44	5.39	5.39	9.05	5.98	6.45	7.12	6.00	5.93	6.14	5.50	5.26	
10	5.44	5.49	5.47	11.69	7.11	6.17	6.79	8.08	5.95	6.06	5.50	5.27	
11	5.44	5.45	5.48	11.43	6.44	6.03	6.48	6.83	6.23	5.98	5.50	5.34	
12	5.44	5.40	5.66	8.49	6.13	6.15	6.35	6.45	6.04	5.92	5.50	5.30	
13	5.44	5.37	5.54	6.81	5.96	7.22	6.39	6.16	6.08	5.94	5.49	5.30	
14	5.44	5.43	5.44	6.47	5.87	9.11	7.39	6.06	6.00	5.91	5.49	5.29	
15	5.44	5.41	5.41	6.27	5.80	10.29	7.06	6.01	5.94	5.84	5.49	5.28	
16	5.44	5.68	5.40	6.11	5.78	11.68	7.50	5.98	6.51	5.79	5.49	5.28	
17	5.43	6.07	6.11	6.18	5.73	11.64	6.95	6.00	6.63	5.76	5.48	5.27	
18	5.41	5.78	8.15	7.04	5.74	11.37	6.74	5.99	6.41	5.74	5.48	5.26	
19	5.39	6.23	11.40	6.95	6.14	11.16	7.81	6.46	6.37	5.71	5.48	5.26	
20	5.38	5.69	11.86	6.49	6.62	8.95	6.93	6.80	7.15	5.69	5.43	5.25	
21	5.36	5.57	9.14	6.20	6.17	7.38	6.81	6.27	6.55	5.66	5.38	5.24	
22	5.35	5.73	6.76	6.03	6.87	7.25	6.59	7.68	6.22	5.65	5.37	5.23	
23	5.35	5.78	6.31	5.93	9.93	7.64	8.01	6.35	6.07	5.63	5.37	5.22	
24	5.34	5.74	6.13	5.86	10.16	7.10	7.29	6.09	5.99	5.61	5.36	5.21	
25	5.34	6.19	6.86	5.84	7.16	6.97	8.69	5.98	5.98	5.60	5.35	5.20	
26	5.34	5.75	7.60	5.91	6.47	7.53	7.37	5.96	6.04	5.59	5.34	5.19	
27	5.34	5.88	7.21	6.32	6.23	7.55	6.75	5.89	6.51	5.58	5.32	5.22	
28	5.34	6.64	6.53	6.80	6.08	7.71	6.48	5.99	6.83	5.57	5.31	5.22	
29	5.34	7.68	6.14	6.94	5.97	6.93	6.30	5.85	6.27	5.56		5.20	
30	5.34	6.99	5.96	8.80	5.90	6.59	6.20	5.81	6.29	5.56		5.19	
31		6.16		10.02	5.93		6.16		6.04	5.54		5.22	
Mean	5.41	5.77	6.49	6.95	6.51	7.70	6.95	6.27	6.18	5.96	5.46	5.26	
Max	5.45	7.68	11.86	11.69	10.16	11.68	8.69	8.08	7.15	8.10	5.53	5.34	11.86
Min	5.34	5.36	5.39	5.81	5.73	5.77	6.16	5.81	5.75	5.54	5.31	5.19	5.19

Annual Max Momentary Gage Height 12.14 m. (MSL.) , at 06.00 Hours , on Jun 20, 2018

Zero Gage at Bottom Elevation 0.00 m. (MSL.) , River Bed 4.56 m. (MSL.)

Left Bank Elevation 12.80 m. (MSL.) ,

Right Bank Elevation 12.97 m. (MSL.) , Drainage Are 480 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	7.00	6.40	15.00	15.00	54.20	15.20	30.60	19.00	13.20	18.80	8.60	4.50		
2	7.00	6.40	14.40	17.00	34.20	13.40	31.40	17.60	13.00	16.20	8.60	4.35		
3	7.00	8.60	11.40	19.00	29.80	21.00	29.40	23.20	13.20	16.00	8.60	4.35		
4	7.00	7.20	9.40	14.20	23.80	53.00	40.20	25.60	17.80	32.40	8.60	4.35		
5	7.00	5.85	9.00	15.40	20.80	51.00	34.20	22.60	22.00	60.00	8.40	4.35		
6	7.00	6.40	7.60	25.80	18.60	26.40	34.00	23.60	16.60	42.60	8.20	4.20		
7	7.00	5.85	6.80	20.00	17.00	21.40	51.60	20.60	18.80	28.60	8.20	4.05		
8	7.00	5.40	6.20	16.20	15.60	28.00	37.80	19.20	17.60	23.20	8.20	4.05		
9	6.80	5.85	5.85	83.50	17.60	27.00	40.40	18.00	16.60	20.80	8.00	3.90		
10	6.80	7.80	7.40	188.40	40.20	21.40	33.80	59.60	17.00	19.20	8.00	4.05		
11	6.80	7.00	7.60	172.80	26.80	18.60	27.60	34.60	22.60	17.60	8.00	5.10		
12	6.80	6.00	11.20	68.25	20.60	21.00	25.00	27.00	18.80	16.40	8.00	4.50		
13	6.80	5.55	8.80	34.20	17.20	42.40	25.80	21.20	19.60	16.80	7.80	4.50		
14	6.80	6.60	6.80	27.40	15.40	85.30	45.80	19.20	18.00	16.20	7.80	4.35		
15	6.80	6.20	6.20	23.40	14.00	121.15	39.20	18.20	16.80	14.80	7.80	4.20		
16	6.80	11.60	6.00	20.20	13.60	187.80	48.00	17.60	28.20	13.80	7.80	4.20		
17	6.60	19.40	20.20	21.60	12.60	185.40	37.00	18.00	30.60	13.20	7.60	4.05		
18	6.20	13.60	61.00	38.80	12.80	169.35	32.80	17.80	26.20	12.80	7.60	3.90		
19	5.85	22.60	171.00	37.00	20.80	157.80	54.20	27.20	25.40	12.20	7.60	3.90		
20	5.70	11.80	198.90	27.80	30.40	80.50	36.60	34.00	41.00	11.80	6.60	3.75		
21	5.40	9.40	86.20	22.00	21.40	45.60	34.20	23.40	29.00	11.20	5.70	3.60		
22	5.25	12.60	33.20	18.60	35.40	43.00	29.80	51.60	22.40	11.00	5.55	3.45		
23	5.25	13.60	24.20	16.60	109.90	50.80	58.20	25.00	19.40	10.60	5.55	3.30		
24	5.10	12.80	20.60	15.20	116.80	40.00	43.80	19.80	17.80	10.20	5.40	3.15		
25	5.10	21.80	35.20	14.80	41.20	37.40	73.25	17.60	17.60	10.00	5.25	3.00		
26	5.10	13.00	50.00	16.20	27.40	48.60	45.40	17.20	18.80	9.80	5.10	2.85		
27	5.10	15.60	42.20	24.40	22.60	49.00	33.00	15.80	28.20	9.60	4.80	3.30		
28	5.10	30.80	28.60	34.00	19.60	52.20	27.60	17.80	34.60	9.40	4.65	3.30		
29	5.10	51.60	20.80	36.80	17.40	36.60	24.00	15.00	23.40	9.20		3.00		
30	5.10	37.80	17.20	76.00	16.00	29.80	22.00	14.20	23.80	9.20		2.85		
31		21.20		112.60	16.60		21.20		18.80	8.80		3.30		
Total	186.35	416.30	948.95	1273.15	900.30	1780.10	1147.85	701.20	666.80	532.40	202.00	119.70	8875.10	CMSDAY
Mean	6.21	13.43	31.63	41.07	29.04	59.34	37.03	23.37	21.51	17.17	7.21	3.86	24.32	CMS
Max	7.00	51.60	198.90	188.40	116.80	187.80	73.25	59.60	41.00	60.00	8.60	5.10	198.90	CMS
Min	5.10	5.40	5.85	14.20	12.60	13.40	21.20	14.20	13.00	8.80	4.65	2.85	2.85	CMS
Runoff	16.10	35.97	81.99	110.00	77.79	153.80	99.17	60.58	57.61	46.00	17.45	10.34	766.81	MCM

Momentary Peak 217.80 CMS. at 12.14 m. (MSL.) at 06.00 Hours , on Jun 20, 2018

Runoff Yield 50.66 Liters/Second/Square KM. Momentary Peak Yield 453.75 Liters/Second/Square KM.

WATER YEAR : 2018

SOUTHERN PENINSULA WEST COAST

Khlong Ta Kuaw Pa at Ban Talat Kao , Phangnga (X.186)

Lat 08 - 49 - 47 N Long 98 - 22 - 17 E

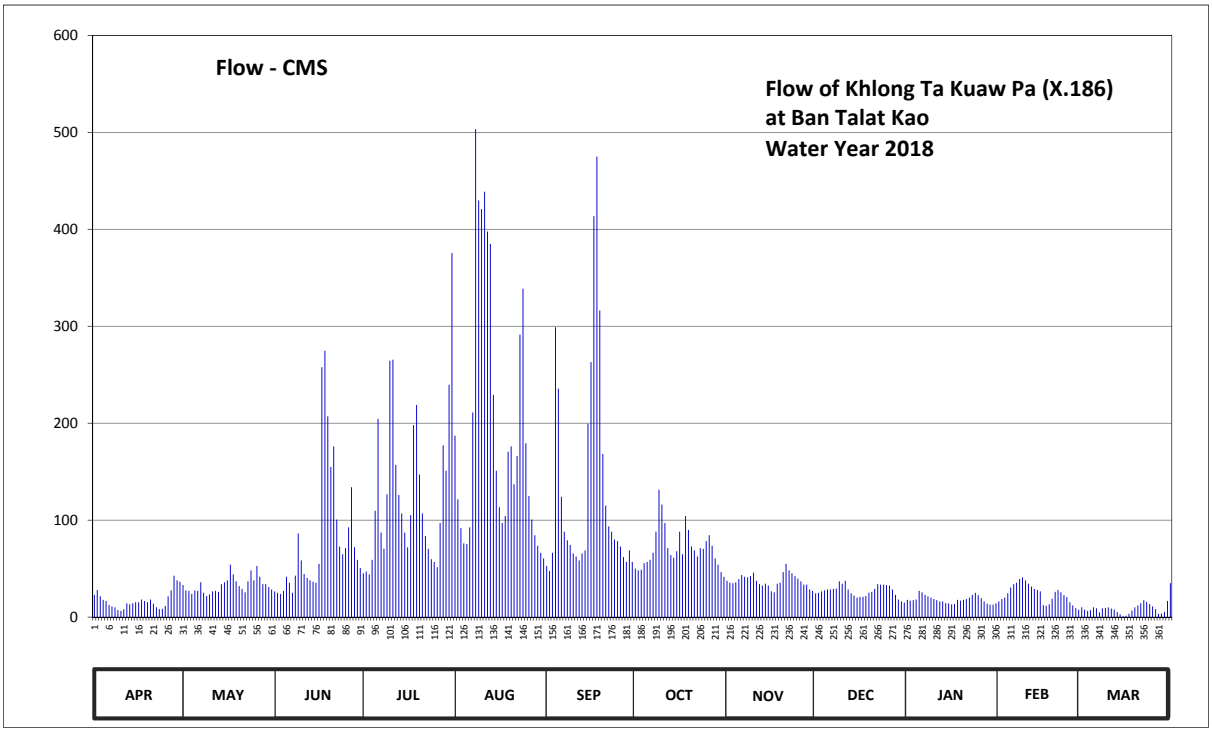
Location : on left bank at Ban Talat Kao.

	Ban	Talat Kao	**Amphoe** Ta Kuaw Pa	**Changwat**	Phangnga
Drainge Area	726	sq.km.			
Type of Gage	Water - stage recorder				
Zero Gage at Bottom	+0.000	m. (MSL.)			
Bench Mark	B.M.-H.D.				
Location BM	On left bank about 10 meters from the top staff gage.			**Elevation**	+4.980 m. (MSL.)
Gage Reading Frequency	Recording				
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings				
Period of Available Gage Records	1996 to date				
Rating Operation					
Period of Rating	2003 to date				
Rated by Flot	-				
Rated by Current Meter	2003 to date				
Stability of Channel Regimes	Fairly stable because of backwater effect.				
Overbank Flow Conditions	Overbank flow starts at elevation + 3.340 m.(MSL.), records are channel flow only.				
General Description	Records good. Stage-discharge relation defined by 16 discharge measurements made in 2018.				

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	-0.70	-0.50	-0.63	-0.28	1.31	-0.16	-0.20	-0.41	-0.67	-0.83	-0.87	-1.08	
2	-0.60	-0.61	-0.66	-0.25	0.66	-0.24	-0.23	-0.45	-0.66	-0.85	-0.81	-1.17	
3	-0.74	-0.62	-0.68	-0.30	0.33	0.03	-0.22	-0.46	-0.63	-0.84	-0.77	-1.22	
4	-0.83	-0.68	-0.62	-0.07	0.15	2.16	-0.12	-0.44	-0.61	-0.82	-0.67	-1.19	
5	-0.86	-0.61	-0.34	0.53	0.14	1.69	-0.10	-0.38	-0.59	-0.62	-0.55	-1.08	
6	-0.98	-0.62	-0.45	1.45	0.34	0.69	-0.07	-0.31	-0.59	-0.65	-0.48	-1.12	
7	-1.04	-0.44	-0.66	0.28	1.50	0.29	0.03	-0.34	-0.58	-0.70	-0.45	-1.28	
8	-1.08	-0.66	-0.32	0.08	3.34	0.19	0.29	-0.35	-0.57	-0.74	-0.38	-1.12	
9	-1.19	-0.73	0.27	0.72	2.96	0.13	0.77	-0.33	-0.42	-0.77	-0.35	-1.10	
10	-1.22	-0.69	-0.08	1.91	2.91	0.02	0.60	-0.27	-0.47	-0.81	-0.40	-1.08	
11	-1.16	-0.63	-0.29	1.92	3.01	-0.02	0.39	-0.41	-0.41	-0.84	-0.47	-1.13	
12	-0.93	-0.62	-0.36	1.03	2.78	-0.08	0.09	-0.48	-0.59	-0.87	-0.53	-1.17	
13	-0.96	-0.64	-0.40	0.71	2.70	0.02	0.00	-0.51	-0.67	-0.87	-0.58	-1.27	
14	-0.92	-0.48	-0.43	0.50	1.64	0.06	-0.04	-0.47	-0.72	-0.92	-0.60	-1.36	
15	-0.89	-0.44	-0.45	0.28	0.97	1.41	0.05	-0.51	-0.77	-0.93	-0.63	-1.45	
16	-0.89	-0.40	-0.13	0.10	0.57	1.90	0.29	-0.63	-0.75	-0.96	-0.99	-1.43	
17	-0.82	-0.14	1.86	0.48	0.39	2.87	0.01	-0.65	-0.75	-0.95	-1.01	-1.34	
18	-0.86	-0.30	1.99	1.40	0.47	3.20	0.47	-0.47	-0.73	-0.83	-0.96	-1.21	
19	-0.89	-0.42	1.47	1.56	1.16	2.27	0.31	-0.45	-0.66	-0.85	-0.80	-1.08	
20	-0.82	-0.52	1.01	0.93	1.21	1.14	0.11	-0.26	-0.64	-0.83	-0.64	-1.00	
21	-0.94	-0.58	1.21	0.50	0.83	0.59	0.06	-0.13	-0.58	-0.81	-0.60	-0.92	
22	-1.07	-0.65	0.43	0.24	1.12	0.35	-0.02	-0.23	-0.48	-0.77	-0.65	-0.84	
23	-1.15	-0.42	0.11	0.08	2.11	0.29	0.09	-0.28	-0.49	-0.70	-0.71	-0.88	
24	-1.14	-0.23	0.01	-0.06	2.41	0.20	0.08	-0.33	-0.49	-0.66	-0.76	-0.95	
25	-1.02	-0.40	0.09	-0.10	1.24	0.18	0.18	-0.37	-0.50	-0.71	-0.89	-1.04	
26	-0.74	-0.16	0.34	-0.18	0.70	0.11	0.25	-0.42	-0.51	-0.79	-1.00	-1.15	
27	-0.61	-0.34	0.80	0.39	0.43	-0.03	0.12	-0.49	-0.59	-0.87	-1.11	-1.34	
28	-0.32	-0.48	0.10	1.22	0.25	-0.10	-0.05	-0.49	-0.70	-0.94	-1.18	-1.33	
29	-0.40	-0.48	-0.07	0.97	0.12	0.06	-0.14	-0.59	-0.82	-0.97		-1.26	
30	-0.43	-0.54	-0.19	1.72	0.03	-0.10	-0.26	-0.62	-0.87	-0.97		-0.86	
31		-0.59		2.64	-0.05		-0.34		-0.90	-0.93		-0.46	
Mean	-0.87	-0.50	0.10	0.66	1.22	0.64	0.08	-0.42	-0.63	-0.83	-0.71	-1.13	
Max	-0.32	-0.14	1.99	2.64	3.34	3.20	0.77	-0.13	-0.41	-0.62	-0.35	-0.46	3.34
Min	-1.22	-0.73	-0.68	-0.30	-0.05	-0.24	-0.34	-0.65	-0.90	-0.97	-1.18	-1.45	-1.45

Annual Max Momentary Gage Height	3.47	m. (MSL.) ,	at 17.00 Hours , on Aug 8, 2018		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	-3.07	m. (MSL.)
Left Bank Elevation	4.40	m. (MSL.) ,			
Right Bank Elevation	3.33	m. (MSL.) ,	Drainage Are	726	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	23.00	33.00	26.50	45.20	187.20	52.80	50.00	37.50	24.50	17.80	16.20	10.00		
2	28.00	27.50	25.00	47.00	121.40	47.60	48.20	35.50	25.00	17.00	18.60	7.75		
3	21.40	27.00	24.00	44.00	91.70	66.40	48.80	35.00	26.50	17.40	20.20	6.50		
4	17.80	24.00	27.00	59.10	76.00	299.00	55.60	36.00	27.50	18.20	24.50	7.25		
5	16.60	27.50	41.60	109.70	75.20	235.70	57.00	39.20	28.50	27.00	30.50	10.00		
6	12.60	27.00	35.50	204.50	92.60	124.10	59.10	43.40	28.50	25.50	34.00	9.00		
7	11.00	36.00	25.00	87.20	211.00	88.10	66.40	41.60	29.00	23.00	35.50	5.00		
8	10.00	25.00	42.80	70.40	503.40	79.20	88.10	41.00	29.50	21.40	39.20	9.00		
9	7.25	21.80	86.30	126.80	429.80	74.40	131.30	42.20	37.00	20.20	41.00	9.50		
10	6.50	23.50	58.40	264.30	420.80	65.60	116.00	45.80	34.50	18.60	38.00	10.00		
11	8.00	26.50	44.60	265.60	438.90	62.60	97.10	37.50	37.50	17.40	34.50	8.75		
12	14.10	27.00	40.40	157.00	397.80	58.40	71.20	34.00	28.50	16.20	31.50	7.75		
13	13.20	26.00	38.00	125.90	385.00	65.60	64.00	32.50	24.50	16.20	29.00	5.25		
14	14.40	34.00	36.50	107.00	229.20	68.80	61.20	34.50	22.20	14.40	28.00	3.00		
15	15.40	36.00	35.50	87.20	151.00	199.30	68.00	32.50	20.20	14.10	26.50	1.00		
16	15.40	38.00	54.90	72.00	113.30	263.00	88.10	26.50	21.00	13.20	12.30	1.40		
17	18.20	54.20	257.80	105.20	97.10	413.60	64.80	25.50	21.00	13.50	11.75	3.50		
18	16.60	44.00	274.70	198.00	104.30	475.00	104.30	34.50	21.80	17.80	13.20	6.75		
19	15.40	37.00	207.10	218.80	170.60	316.20	89.90	35.50	25.00	17.00	19.00	10.00		
20	18.20	32.00	155.00	147.00	176.10	168.40	72.80	46.40	26.00	17.80	26.00	12.00		
21	13.80	29.00	176.10	107.00	137.00	115.10	68.80	54.90	29.00	18.60	28.00	14.40		
22	10.25	25.50	100.70	83.60	166.20	93.50	62.60	48.20	34.00	20.20	25.50	17.40		
23	8.25	37.00	72.80	70.40	291.50	88.10	71.20	45.20	33.50	23.00	22.60	15.80		
24	8.50	48.20	64.80	59.80	338.60	80.00	70.40	42.20	33.50	25.00	20.60	13.50		
25	11.50	38.00	71.20	57.00	179.40	78.40	78.40	39.80	33.00	22.60	15.40	11.00		
26	21.40	52.80	92.60	51.40	125.00	72.80	84.50	37.00	32.50	19.40	12.00	8.25		
27	27.50	41.60	134.00	97.10	100.70	61.90	73.60	33.50	28.50	16.20	9.25	3.50		
28	42.80	34.00	72.00	177.20	84.50	57.00	60.50	33.50	23.00	13.80	7.50	3.75		
29	38.00	34.00	59.10	151.00	73.60	68.80	54.20	28.50	18.20	12.90		5.50		
30	36.50	31.00	50.70	239.60	66.40	57.00	46.40	27.00	16.20	12.90		16.60		
31		28.50		375.40	60.50		41.60		15.00	14.10		35.00		
Total	521.55	1026.60	2430.60	4011.40	6095.80	3996.40	2214.10	1126.40	834.60	562.40	670.30	288.10	23778.25	CMSDAY
Mean	17.38	33.12	81.02	129.40	196.64	133.21	71.42	37.55	26.92	18.14	23.94	9.29	65.15	CMS
Max	42.80	54.20	274.70	375.40	503.40	475.00	131.30	54.90	37.50	27.00	41.00	35.00	503.40	CMS
Min	6.50	21.80	24.00	44.00	60.50	47.60	41.60	25.50	15.00	12.90	7.50	1.00	1.00	CMS
Runoff	45.06	88.70	210.00	346.58	526.68	345.29	191.30	97.32	72.11	48.59	57.91	24.89	2054.44	MCM

Momentary Peak 531.40 CMS. at 3.47 m. (MSL.) at 17.00 Hours , on Aug 8, 2018

Runoff Yield 89.73 Liters/Second/Square KM. Momentary Peak Yield 731.96 Liters/Second/Square KM.

WATER YEAR : 2018

SOUTHERN PENINSULA WEST COAST

Khlong Ta Kuaw Pa at Ban Hin Dan , Phangnga (X.187)

Lat 08 - 46 - 25 N Long 98 - 23 - 36 E

Location : on left bank at the bridge on Surat Thanu - Phang Nga Highway.

	Ban Hin Dan	**Amphoe** Ta Kuaw Pa	**Changwat** Phangnga
Drainge Area	539 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank about 4 meters from the top staff gage.	**Elevation**	+9.230 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings		
Period of Available Gage Records	1996 to date		
Rating Operation			
Period of Rating	1996 to date		
Rated by Flot	-		
Rated by Current Meter	1996 to date		
Stability of Channel Regimes	Fairly stable because of backwater effect.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 18 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

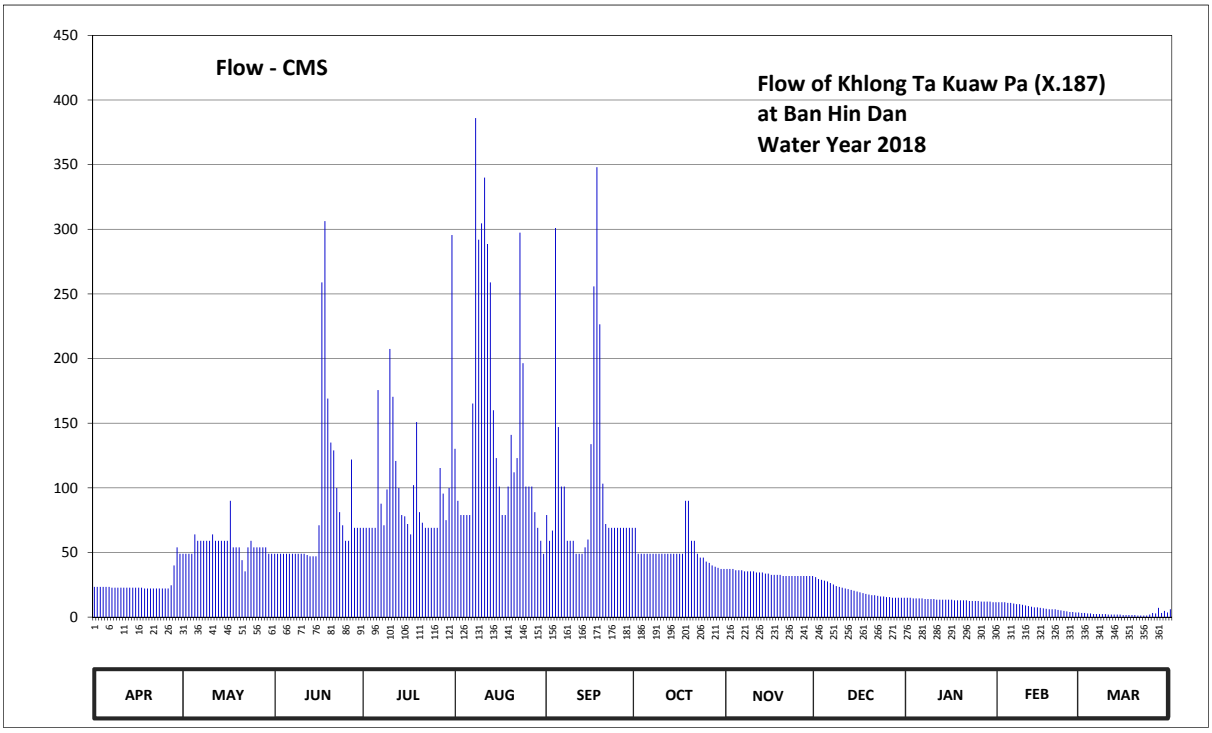
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	4.29	4.60	4.60	4.80	5.36	4.90	4.80	4.48	4.41	4.14	4.07	3.88	
2	4.29	4.60	4.60	4.80	5.00	4.70	4.60	4.48	4.39	4.14	4.07	3.88	
3	4.29	4.60	4.60	4.80	4.90	4.78	4.60	4.48	4.38	4.13	4.07	3.87	
4	4.29	4.60	4.60	4.80	4.90	6.55	4.60	4.47	4.37	4.13	4.06	3.87	
5	4.29	4.75	4.60	4.80	4.90	5.50	4.60	4.47	4.36	4.13	4.06	3.86	
6	4.29	4.70	4.60	5.72	4.90	5.10	4.60	4.47	4.34	4.13	4.05	3.86	
7	4.28	4.70	4.60	4.98	5.64	5.10	4.60	4.46	4.32	4.12	4.04	3.86	
8	4.28	4.70	4.60	4.82	6.98	4.70	4.60	4.46	4.30	4.12	4.04	3.86	
9	4.28	4.70	4.60	5.08	6.50	4.70	4.60	4.46	4.29	4.12	4.03	3.86	
10	4.28	4.70	4.60	5.96	6.57	4.70	4.60	4.46	4.28	4.12	4.02	3.85	
11	4.28	4.75	4.60	5.68	6.75	4.60	4.60	4.45	4.27	4.11	4.01	3.85	
12	4.28	4.70	4.59	5.28	6.48	4.60	4.60	4.45	4.26	4.11	4.00	3.85	
13	4.28	4.70	4.58	5.09	6.30	4.60	4.60	4.45	4.25	4.11	3.99	3.85	
14	4.28	4.70	4.58	4.90	5.60	4.65	4.60	4.44	4.24	4.11	3.99	3.85	
15	4.28	4.70	4.58	4.89	5.30	4.71	4.60	4.44	4.23	4.11	3.98	3.84	
16	4.28	4.70	4.82	4.83	5.10	5.39	4.60	4.43	4.22	4.11	3.97	3.84	
17	4.28	5.00	6.30	4.75	4.90	6.28	4.60	4.43	4.21	4.10	3.96	3.84	
18	4.27	4.65	6.58	5.11	4.90	6.79	5.00	4.43	4.20	4.10	3.95	3.84	
19	4.27	4.65	5.67	5.53	5.10	6.09	5.00	4.43	4.19	4.10	3.95	3.84	
20	4.27	4.65	5.40	4.92	5.45	5.12	4.70	4.42	4.18	4.10	3.95	3.83	
21	4.27	4.55	5.35	4.84	5.20	4.83	4.70	4.42	4.18	4.10	3.94	3.83	
22	4.27	4.46	5.09	4.80	5.30	4.80	4.60	4.42	4.17	4.09	3.93	3.83	
23	4.27	4.65	4.92	4.80	6.53	4.80	4.57	4.42	4.16	4.09	3.92	3.83	
24	4.27	4.70	4.82	4.80	5.88	4.80	4.57	4.42	4.16	4.09	3.91	3.85	
25	4.27	4.65	4.70	4.80	5.10	4.80	4.54	4.42	4.15	4.09	3.90	3.88	
26	4.27	4.65	4.70	4.80	5.10	4.80	4.53	4.42	4.15	4.08	3.90	3.87	
27	4.31	4.65	5.29	5.23	5.10	4.80	4.51	4.42	4.14	4.08	3.89	3.98	
28	4.51	4.65	4.80	5.05	4.92	4.80	4.50	4.42	4.14	4.08	3.89	3.88	
29	4.65	4.65	4.80	4.86	4.80	4.80	4.49	4.42	4.14	4.08		3.92	
30	4.60	4.60	4.80	5.09	4.70	4.80	4.48	4.42	4.14	4.07		3.89	
31		4.60		6.52	4.60		4.48		4.14	4.07		3.95	
Mean	4.31	4.67	4.90	5.07	5.44	5.05	4.62	4.44	4.24	4.11	3.98	3.86	
Max	4.65	5.00	6.58	6.52	6.98	6.79	5.00	4.48	4.41	4.14	4.07	3.98	6.98
Min	4.27	4.46	4.58	4.75	4.60	4.60	4.48	4.42	4.14	4.07	3.89	3.83	3.83

Annual Max Momentary Gage Height 7.20 m. (MSL.) , at 15.00 Hours , on Aug 23, 2018

Zero Gage at Bottom Elevation 0.00 m. (MSL.) , River Bed 2.93 m. (MSL.)

Left Bank Elevation 8.25 m. (MSL.) ,

Right Bank Elevation 8.50 m. (MSL.) , Drainage Are 539 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	23.40	49.00	49.00	69.00	130.20	79.00	69.00	37.20	30.90	15.00	11.50	3.20		
2	23.40	49.00	49.00	69.00	90.00	59.00	49.00	37.20	29.40	15.00	11.50	3.20		
3	23.40	49.00	49.00	69.00	79.00	67.00	49.00	37.20	28.80	14.50	11.50	2.80		
4	23.40	49.00	49.00	69.00	79.00	301.00	49.00	36.30	28.20	14.50	11.00	2.80		
5	23.40	64.00	49.00	69.00	79.00	147.00	49.00	36.30	27.60	14.50	11.00	2.40		
6	23.40	59.00	49.00	175.60	79.00	101.00	49.00	36.30	26.40	14.50	10.50	2.40		
7	22.80	59.00	49.00	87.80	165.20	101.00	49.00	35.40	25.20	14.00	10.00	2.40		
8	22.80	59.00	49.00	71.00	386.00	59.00	49.00	35.40	24.00	14.00	10.00	2.40		
9	22.80	59.00	49.00	98.80	292.00	59.00	49.00	35.40	23.40	14.00	9.50	2.40		
10	22.80	59.00	49.00	207.40	304.60	59.00	49.00	35.40	22.80	14.00	9.00	2.00		
11	22.80	64.00	49.00	170.40	340.00	49.00	49.00	34.50	22.20	13.50	8.50	2.00		
12	22.80	59.00	48.00	120.80	288.60	49.00	49.00	34.50	21.60	13.50	8.00	2.00		
13	22.80	59.00	47.00	99.90	259.00	49.00	49.00	34.50	21.00	13.50	7.60	2.00		
14	22.80	59.00	47.00	79.00	160.00	54.00	49.00	33.60	20.40	13.50	7.60	2.00		
15	22.80	59.00	47.00	78.00	123.00	60.00	49.00	33.60	19.80	13.50	7.20	1.60		
16	22.80	59.00	71.00	72.00	101.00	133.80	49.00	32.70	19.20	13.50	6.80	1.60		
17	22.80	90.00	259.00	64.00	79.00	255.80	49.00	32.70	18.60	13.00	6.40	1.60		
18	22.20	54.00	306.40	102.10	79.00	348.00	90.00	32.70	18.00	13.00	6.00	1.60		
19	22.20	54.00	169.10	150.90	101.00	226.50	90.00	32.70	17.50	13.00	6.00	1.60		
20	22.20	54.00	135.00	81.20	141.00	103.20	59.00	31.80	17.00	13.00	6.00	1.20		
21	22.20	44.00	129.00	73.00	112.00	72.00	59.00	31.80	17.00	13.00	5.60	1.20		
22	22.20	35.40	99.90	69.00	123.00	69.00	49.00	31.80	16.50	12.50	5.20	1.20		
23	22.20	54.00	81.20	69.00	297.40	69.00	46.00	31.80	16.00	12.50	4.80	1.20		
24	22.20	59.00	71.00	69.00	196.40	69.00	46.00	31.80	16.00	12.50	4.40	2.00		
25	22.20	54.00	59.00	69.00	101.00	69.00	43.00	31.80	15.50	12.50	4.00	3.20		
26	22.20	54.00	59.00	69.00	101.00	69.00	42.00	31.80	15.50	12.00	4.00	2.80		
27	24.60	54.00	121.90	115.30	101.00	69.00	40.00	31.80	15.00	12.00	3.60	7.20		
28	40.00	54.00	69.00	95.50	81.20	69.00	39.00	31.80	15.00	12.00	3.60	3.20		
29	54.00	54.00	69.00	75.00	69.00	69.00	38.10	31.80	15.00	12.00		4.80		
30	49.00	49.00	69.00	99.90	59.00	69.00	37.20	31.80	15.00	11.50		3.60		
31		49.00		295.60	49.00		37.20		15.00	11.50		6.00		
Total	758.60	1726.40	2496.50	3103.20	4645.60	3053.30	1568.50	1013.40	633.50	411.00	210.80	79.60	19700.40	CMSDAY
Mean	25.29	55.69	83.22	100.10	149.86	101.78	50.60	33.78	20.44	13.26	7.53	2.57	53.97	CMS
Max	54.00	90.00	306.40	295.60	386.00	348.00	90.00	37.20	30.90	15.00	11.50	7.20	386.00	CMS
Min	22.20	35.40	47.00	64.00	49.00	49.00	37.20	31.80	15.00	11.50	3.60	1.20	1.20	CMS
Runoff	65.54	149.16	215.70	268.12	401.38	263.81	135.52	87.56	54.73	35.51	18.21	6.88	1702.11	MCM

Momentary Peak 434.00 CMS. at 7.20 m. (MSL.) at 15.00 Hours , on Aug 23, 2018

Runoff Yield 100.14 Liters/Second/Square KM. Momentary Peak Yield 805.19 Liters/Second/Square KM.

WATER YEAR : 2018

SOUTHERN PENINSULA WEST COAST

Khlong Rommanee at Ban Rommanee , Phangnga (X.188A)

Lat 08 - 45 - 50 N Long 98 - 27 - 35 E

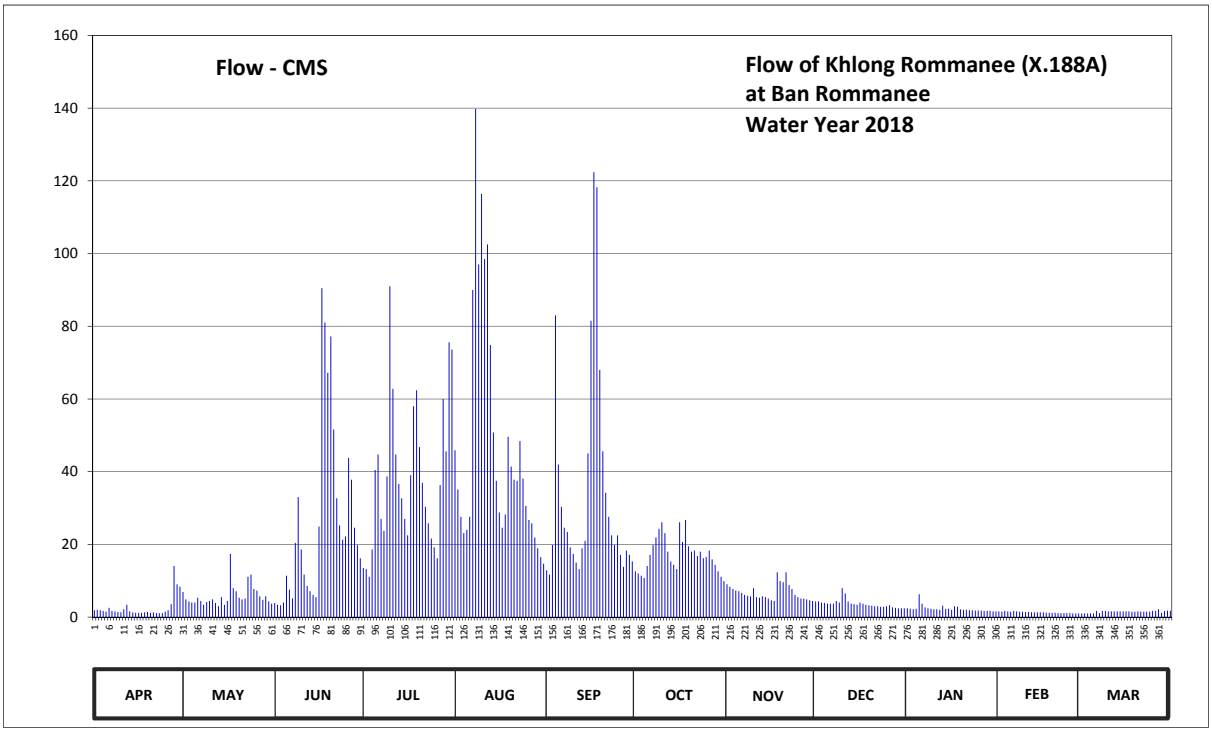
Location : on left bank at the bridge.

	Ban Rommanee	**Amphoe** Kapong	**Changwat** Phangnga
Drainge Area	232 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank at the abutmentof the bridge.		**Elevation** +18.740 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	2009 to date		
Rating Operation			
Period of Rating	2009 to date		
Rated by Flot	-		
Rated by Current Meter	2009 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 17 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	13.19	13.50	13.33	13.75	14.83	13.73	13.72	13.60	13.36	13.23	13.16	13.10	
2	13.20	13.40	13.30	13.74	14.47	13.69	13.70	13.57	13.36	13.22	13.15	13.10	
3	13.19	13.36	13.29	13.67	14.22	13.96	13.68	13.54	13.34	13.21	13.17	13.10	
4	13.17	13.34	13.34	13.92	14.07	15.76	13.66	13.52	13.33	13.22	13.16	13.10	
5	13.15	13.34	13.68	14.65	14.10	14.70	13.77	13.51	13.32	13.47	13.15	13.10	
6	13.24	13.42	13.53	14.79	14.22	14.31	13.87	13.49	13.32	13.32	13.17	13.17	
7	13.17	13.37	13.41	14.20	15.90	14.12	13.96	13.46	13.32	13.25	13.16	13.11	
8	13.16	13.30	13.98	14.09	16.78	14.08	14.03	13.45	13.37	13.23	13.15	13.17	
9	13.14	13.35	14.40	14.59	16.04	13.94	14.11	13.44	13.34	13.22	13.15	13.17	
10	13.13	13.37	13.92	15.92	16.39	13.88	14.17	13.55	13.55	13.21	13.14	13.16	
11	13.21	13.40	13.69	15.27	16.07	13.80	14.07	13.43	13.48	13.21	13.14	13.16	
12	13.30	13.33	13.58	14.79	16.15	13.74	13.90	13.42	13.36	13.20	13.13	13.16	
13	13.16	13.27	13.51	14.52	15.57	13.93	13.81	13.44	13.32	13.28	13.13	13.16	
14	13.13	13.43	13.46	14.39	14.97	14.00	13.78	13.43	13.31	13.22	13.13	13.16	
15	13.12	13.30	13.43	14.20	14.55	14.80	13.74	13.41	13.30	13.22	13.13	13.16	
16	13.12	13.37	14.13	14.05	14.26	15.73	14.17	13.38	13.34	13.20	13.13	13.16	
17	13.12	13.88	15.91	14.60	14.12	16.49	13.99	13.37	13.32	13.27	13.12	13.16	
18	13.13	13.55	15.72	15.15	14.24	16.42	14.19	13.71	13.30	13.26	13.12	13.15	
19	13.14	13.51	15.38	15.26	14.94	15.40	13.95	13.63	13.29	13.21	13.12	13.15	
20	13.12	13.42	15.63	14.86	14.68	14.82	13.90	13.62	13.28	13.20	13.12	13.16	
21	13.13	13.40	14.99	14.53	14.56	14.44	13.91	13.71	13.27	13.20	13.11	13.15	
22	13.11	13.41	14.39	14.31	14.55	14.22	13.86	13.59	13.27	13.19	13.11	13.15	
23	13.11	13.67	14.14	14.16	14.91	14.05	13.90	13.54	13.26	13.19	13.11	13.15	
24	13.11	13.69	14.01	14.02	14.57	13.96	13.84	13.46	13.26	13.18	13.11	13.15	
25	13.15	13.54	14.04	13.94	14.32	14.05	13.85	13.43	13.27	13.18	13.11	13.17	
26	13.19	13.52	14.76	13.84	14.19	13.87	13.91	13.41	13.29	13.18	13.10	13.17	
27	13.31	13.44	14.56	14.51	14.16	13.76	13.83	13.41	13.25	13.17	13.10	13.21	
28	13.77	13.39	14.12	15.20	14.03	13.91	13.78	13.40	13.24	13.17	13.10	13.12	
29	13.60	13.44	13.96	14.82	13.93	13.87	13.72	13.38	13.23	13.17		13.17	
30	13.57	13.36	13.84	15.59	13.85	13.81	13.67	13.37	13.23	13.16		13.18	
31		13.32		15.54	13.79		13.63		13.23	13.16		13.17	
Mean	13.21	13.43	14.11	14.54	14.76	14.37	13.87	13.49	13.31	13.22	13.13	13.15	
Max	13.77	13.88	15.91	15.92	16.78	16.49	14.19	13.71	13.55	13.47	13.17	13.21	16.78
Min	13.11	13.27	13.29	13.67	13.79	13.69	13.63	13.37	13.23	13.16	13.10	13.10	13.10

Annual Max Momentary Gage Height	17.25	m. (MSL.) ,	at 21.00 Hours , on Aug 7, 2018		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	12.57	m. (MSL.)
Left Bank Elevation	17.46	m. (MSL.) ,			
Right Bank Elevation	17.72	m. (MSL.) ,	Drainage Are	232	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.90	6.90	3.85	13.50	45.90	12.90	12.60	9.00	4.30	2.42	1.60	1.00		
2	2.00	4.90	3.40	13.20	35.10	11.70	12.00	8.37	4.30	2.28	1.50	1.00		
3	1.90	4.30	3.26	11.10	27.60	19.80	11.40	7.74	4.00	2.14	1.70	1.00		
4	1.70	4.00	4.00	18.60	23.10	83.00	10.80	7.32	3.85	2.28	1.60	1.00		
5	1.50	4.00	11.40	40.50	24.00	42.00	14.10	7.11	3.70	6.30	1.50	1.00		
6	2.56	5.30	7.53	44.70	27.60	30.30	17.10	6.70	3.70	3.70	1.70	1.70		
7	1.70	4.45	5.10	27.00	90.00	24.60	19.80	6.10	3.70	2.70	1.60	1.10		
8	1.60	3.40	20.40	23.70	139.80	23.40	21.90	5.90	4.45	2.42	1.50	1.70		
9	1.40	4.15	33.00	38.70	97.00	19.20	24.30	5.70	4.00	2.28	1.50	1.70		
10	1.30	4.45	18.60	91.00	116.40	17.40	26.10	7.95	7.95	2.14	1.40	1.60		
11	2.14	4.90	11.70	62.80	98.50	15.00	23.10	5.50	6.50	2.14	1.40	1.60		
12	3.40	3.85	8.58	44.70	102.50	13.20	18.00	5.30	4.30	2.00	1.30	1.60		
13	1.60	2.98	7.11	36.60	74.80	18.90	15.30	5.70	3.70	3.12	1.30	1.60		
14	1.30	5.50	6.10	32.70	50.80	21.00	14.40	5.50	3.55	2.28	1.30	1.60		
15	1.20	3.40	5.50	27.00	37.50	45.00	13.20	5.10	3.40	2.28	1.30	1.60		
16	1.20	4.45	24.90	22.50	28.80	81.50	26.10	4.60	4.00	2.00	1.30	1.60		
17	1.20	17.40	90.50	39.00	24.60	122.40	20.70	4.45	3.70	2.98	1.20	1.60		
18	1.30	7.95	81.00	58.00	28.20	118.20	26.70	12.30	3.40	2.84	1.20	1.50		
19	1.40	7.11	67.20	62.40	49.60	68.00	19.50	9.90	3.26	2.14	1.20	1.50		
20	1.20	5.30	77.20	46.80	41.40	45.60	18.00	9.60	3.12	2.00	1.20	1.60		
21	1.30	4.90	51.60	36.90	37.80	34.20	18.30	12.30	2.98	2.00	1.10	1.50		
22	1.10	5.10	32.70	30.30	37.50	27.60	16.80	8.79	2.98	1.90	1.10	1.50		
23	1.10	11.10	25.20	25.80	48.40	22.50	18.00	7.74	2.84	1.90	1.10	1.50		
24	1.10	11.70	21.30	21.60	38.10	19.80	16.20	6.10	2.84	1.80	1.10	1.50		
25	1.50	7.74	22.20	19.20	30.60	22.50	16.50	5.50	2.98	1.80	1.10	1.70		
26	1.90	7.32	43.80	16.20	26.70	17.10	18.30	5.10	3.26	1.80	1.00	1.70		
27	3.55	5.70	37.80	36.30	25.80	13.80	15.90	5.10	2.70	1.70	1.00	2.14		
28	14.10	4.75	24.60	60.00	21.90	18.30	14.40	4.90	2.56	1.70	1.00	1.20		
29	9.00	5.70	19.80	45.60	18.90	17.10	12.60	4.60	2.42	1.70		1.70		
30	8.37	4.30	16.20	75.60	16.50	15.30	11.10	4.45	2.42	1.60		1.80		
31		3.70		73.60	14.70		9.90		2.42	1.60		1.70		
Total	76.52	180.70	785.53	1195.60	1480.10	1041.30	533.10	204.42	113.28	71.94	36.80	46.54	5765.83	CMSDAY
Mean	2.55	5.83	26.18	38.57	47.75	34.71	17.20	6.81	3.65	2.32	1.31	1.50	15.80	CMS
Max	14.10	17.40	90.50	91.00	139.80	122.40	26.70	12.30	7.95	6.30	1.70	2.14	139.80	CMS
Min	1.10	2.98	3.26	11.10	14.70	11.70	9.90	4.45	2.42	1.60	1.00	1.00	1.00	CMS
Runoff	6.61	15.61	67.87	103.30	127.88	89.97	46.06	17.66	9.79	6.22	3.18	4.02	498.17	MCM

Momentary Peak 172.00 CMS. at 17.25 m. (MSL.) at 21.00 Hours , on Aug 7, 2018

Runoff Yield 68.09 Liters/Second/Square KM. Momentary Peak Yield 741.38 Liters/Second/Square KM.

WATER YEAR : 2018

SOUTHERN PENINSULA WEST COAST

Khlong Bang Yai at Ban Ket Ho , Phuket (X.190A)

Lat 07 - 54 - 13 N Long 98 - 21 - 02 E

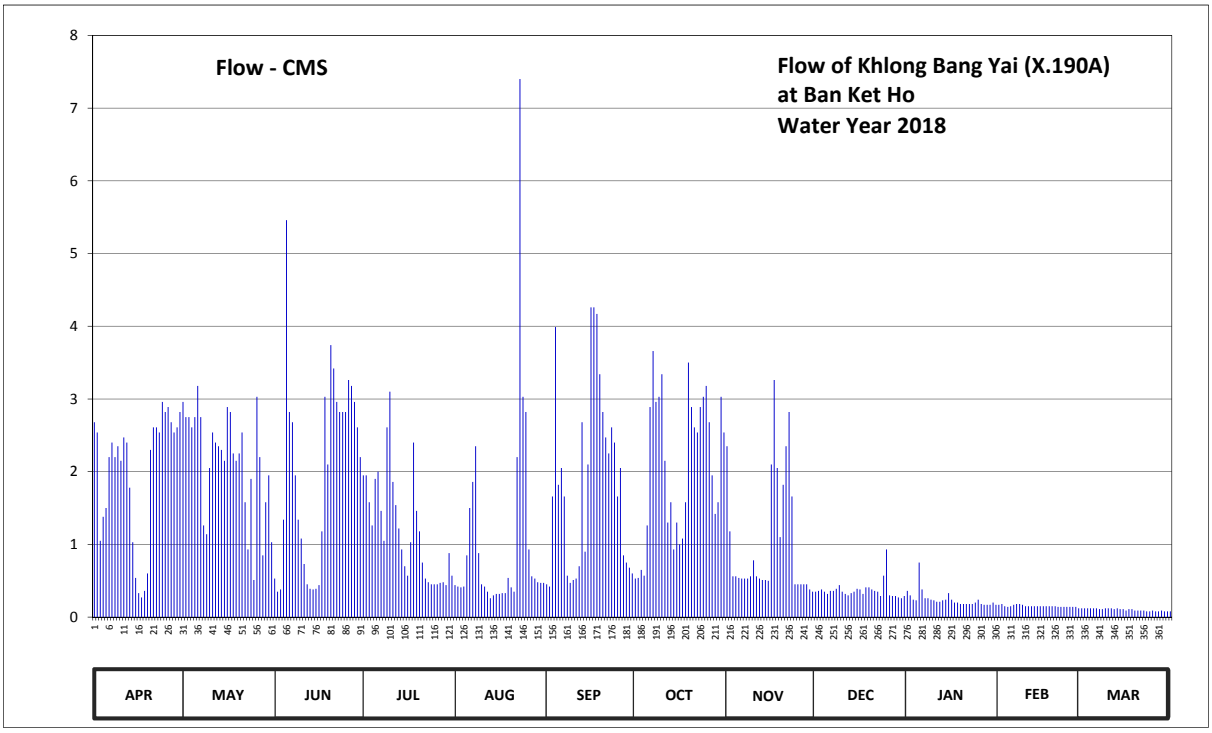
Location : on left bank at Ban Ket Ho.

	Ban Ket Ho	**Amphoe** Kathu	**Changwat** Phuket
Drainge Area	28 sq.km.		
Type of Gage	Water - stage recorder.		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	Near the gage site.		**Elevation** +17.360 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	2006 to date		
Rating Operation			
Period of Rating	2006 to date		
Rated by Flot	-		
Rated by Current Meter	2006 to date		
Stability of Channel Regimes	Fairly stable because of backwater effect.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 14 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	15.14	15.18	14.55	15.01	14.49	14.50	14.55	15.09	14.43	14.44	14.31	14.28	
2	15.12	15.15	14.43	15.01	14.48	14.48	14.56	14.82	14.44	14.40	14.32	14.28	
3	14.78	15.15	14.45	14.92	14.47	14.94	14.62	14.57	14.45	14.36	14.30	14.28	
4	14.87	15.13	14.86	14.84	14.48	15.31	14.58	14.57	14.43	14.35	14.29	14.28	
5	14.90	15.15	15.46	15.00	14.70	14.98	14.84	14.56	14.41	14.66	14.30	14.28	
6	15.06	15.21	15.16	15.02	14.90	15.03	15.17	14.55	14.44	14.45	14.31	14.28	
7	15.10	15.15	15.14	14.89	14.99	14.94	15.27	14.55	14.44	14.37	14.32	14.27	
8	15.06	14.84	15.01	14.78	15.09	14.58	15.18	14.55	14.46	14.37	14.32	14.27	
9	15.09	14.81	14.86	15.13	14.71	14.51	15.19	14.57	14.49	14.36	14.31	14.28	
10	15.05	15.03	14.79	15.20	14.50	14.54	15.23	14.67	14.43	14.35	14.30	14.28	
11	15.11	15.12	14.65	14.99	14.48	14.55	15.05	14.57	14.41	14.34	14.30	14.28	
12	15.10	15.10	14.50	14.91	14.43	14.64	14.85	14.55	14.40	14.34	14.30	14.27	
13	14.97	15.09	14.46	14.83	14.37	15.14	14.92	14.54	14.42	14.35	14.30	14.28	
14	14.77	15.08	14.45	14.73	14.40	14.72	14.73	14.54	14.43	14.36	14.30	14.27	
15	14.56	15.05	14.46	14.64	14.41	15.04	14.85	14.53	14.46	14.42	14.30	14.27	
16	14.42	15.17	14.49	14.58	14.41	15.34	14.76	15.04	14.45	14.36	14.30	14.26	
17	14.38	15.16	14.82	14.77	14.42	15.34	14.79	15.22	14.41	14.33	14.30	14.27	
18	14.44	15.07	15.19	15.10	14.42	15.33	14.92	15.03	14.47	14.33	14.30	14.27	
19	14.60	15.05	15.04	14.89	14.56	15.23	15.25	14.80	14.47	14.32	14.30	14.26	
20	15.08	15.07	15.28	14.82	14.47	15.16	15.17	14.98	14.45	14.32	14.30	14.26	
21	15.13	15.12	15.24	14.66	14.43	15.11	15.13	15.09	14.44	14.32	14.29	14.26	
22	15.13	14.92	15.18	14.55	15.06	15.07	15.12	15.16	14.43	14.32	14.29	14.26	
23	15.12	14.73	15.16	14.52	15.62	15.13	15.17	14.94	14.39	14.32	14.29	14.25	
24	15.18	15.00	15.16	14.50	15.19	15.10	15.19	14.50	14.58	14.33	14.29	14.25	
25	15.16	14.54	15.16	14.50	15.16	14.94	15.21	14.50	14.73	14.36	14.29	14.26	
26	15.17	15.19	15.22	14.50	14.73	15.03	15.14	14.50	14.40	14.32	14.29	14.25	
27	15.14	15.06	15.21	14.51	14.57	14.70	15.01	14.50	14.39	14.31	14.29	14.25	
28	15.12	14.70	15.18	14.52	14.55	14.66	14.88	14.50	14.39	14.31	14.28	14.26	
29	15.13	14.92	15.13	14.49	14.52	14.63	14.92	14.45	14.38	14.31		14.25	
30	15.16	15.01	15.06	14.71	14.51	14.60	15.19	14.43	14.37	14.33		14.25	
31		14.77		14.58	14.51		15.12		14.39	14.31		14.25	
Mean	14.97	15.02	14.93	14.78	14.65	14.91	14.99	14.70	14.44	14.36	14.30	14.27	
Max	15.18	15.21	15.46	15.20	15.62	15.34	15.27	15.22	14.73	14.66	14.32	14.28	15.62
Min	14.38	14.54	14.43	14.49	14.37	14.48	14.55	14.43	14.37	14.31	14.28	14.25	14.25

Annual Max Momentary Gage Height	16.48	m. (MSL.) ,	at 08.00 Hours , on Aug 23, 2018		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	14.15	m. (MSL.)
Left Bank Elevation	17.13	m. (MSL.) ,			
Right Bank Elevation	17.23	m. (MSL.) ,	Drainage Are	28	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.68	2.96	0.53	1.95	0.44	0.45	0.53	2.35	0.35	0.36	0.17	0.12		
2	2.54	2.75	0.35	1.95	0.42	0.42	0.54	1.18	0.36	0.30	0.18	0.12		
3	1.05	2.75	0.38	1.58	0.41	1.66	0.65	0.56	0.38	0.24	0.15	0.12		
4	1.38	2.61	1.34	1.26	0.42	3.99	0.57	0.56	0.35	0.23	0.14	0.12		
5	1.50	2.75	5.46	1.90	0.85	1.82	1.26	0.54	0.32	0.75	0.15	0.12		
6	2.20	3.18	2.82	2.00	1.50	2.05	2.89	0.53	0.36	0.38	0.17	0.12		
7	2.40	2.75	2.68	1.46	1.86	1.66	3.66	0.53	0.36	0.26	0.18	0.11		
8	2.20	1.26	1.95	1.05	2.35	0.57	2.96	0.53	0.39	0.26	0.18	0.11		
9	2.35	1.14	1.34	2.61	0.88	0.47	3.03	0.56	0.44	0.24	0.17	0.12		
10	2.15	2.05	1.08	3.10	0.45	0.51	3.34	0.78	0.35	0.23	0.15	0.12		
11	2.47	2.54	0.73	1.86	0.42	0.53	2.15	0.56	0.32	0.21	0.15	0.12		
12	2.40	2.40	0.45	1.54	0.35	0.70	1.30	0.53	0.30	0.21	0.15	0.11		
13	1.78	2.35	0.39	1.22	0.26	2.68	1.58	0.51	0.33	0.23	0.15	0.12		
14	1.03	2.30	0.38	0.93	0.30	0.90	0.93	0.51	0.35	0.24	0.15	0.11		
15	0.54	2.15	0.39	0.70	0.32	2.10	1.30	0.50	0.39	0.33	0.15	0.11		
16	0.33	2.89	0.44	0.57	0.32	4.26	1.00	2.10	0.38	0.24	0.15	0.09		
17	0.27	2.82	1.18	1.03	0.33	4.26	1.08	3.26	0.32	0.20	0.15	0.11		
18	0.36	2.25	3.03	2.40	0.33	4.17	1.58	2.05	0.41	0.20	0.15	0.11		
19	0.60	2.15	2.10	1.46	0.54	3.34	3.50	1.10	0.41	0.18	0.15	0.09		
20	2.30	2.25	3.74	1.18	0.41	2.82	2.89	1.82	0.38	0.18	0.15	0.09		
21	2.61	2.54	3.42	0.75	0.35	2.47	2.61	2.35	0.36	0.18	0.14	0.09		
22	2.61	1.58	2.96	0.53	2.20	2.25	2.54	2.82	0.35	0.18	0.14	0.09		
23	2.54	0.93	2.82	0.48	7.40	2.61	2.89	1.66	0.29	0.18	0.14	0.08		
24	2.96	1.90	2.82	0.45	3.03	2.40	3.03	0.45	0.57	0.20	0.14	0.08		
25	2.82	0.51	2.82	0.45	2.82	1.66	3.18	0.45	0.93	0.24	0.14	0.09		
26	2.89	3.03	3.26	0.45	0.93	2.05	2.68	0.45	0.30	0.18	0.14	0.08		
27	2.68	2.20	3.18	0.47	0.56	0.85	1.95	0.45	0.29	0.17	0.14	0.08		
28	2.54	0.85	2.96	0.48	0.53	0.75	1.42	0.45	0.29	0.17	0.12	0.09		
29	2.61	1.58	2.61	0.44	0.48	0.68	1.58	0.38	0.27	0.17		0.08		
30	2.82	1.95	2.20	0.88	0.47	0.60	3.03	0.35	0.26	0.20		0.08		
31		1.03		0.57	0.47		2.54		0.29	0.17		0.08		
Total	59.61	66.40	59.81	37.70	32.40	55.68	64.19	30.87	11.45	7.51	4.24	3.16	433.02	CMSDAY
Mean	1.99	2.14	1.99	1.22	1.05	1.86	2.07	1.03	0.37	0.24	0.15	0.10	1.19	CMS
Max	2.96	3.18	5.46	3.10	7.40	4.26	3.66	3.26	0.93	0.75	0.18	0.12	7.40	CMS
Min	0.27	0.51	0.35	0.44	0.26	0.42	0.53	0.35	0.26	0.17	0.12	0.08	0.08	CMS
Runoff	5.15	5.74	5.17	3.26	2.80	4.81	5.55	2.67	0.99	0.65	0.37	0.27	37.41	MCM

Momentary Peak 26.02 CMS. at 16.48 m. (MSL.) at 08.00 Hours , on Aug 23, 2018

Runoff Yield 42.37 Liters/Second/Square KM. Momentary Peak Yield 929.29 Liters/Second/Square KM.

WATER YEAR : 2018

SOUTHERN PENINSULA WEST COAST

Khlong Bang Yai at Satree Phuket School , Phuket (X.191)

Lat 07 - 53 - 20 N Long 98 - 23 - 40 E

Location : on left bank at Satree Phuket School.

	Ban -		**Amphoe** Mueang	**Changwat** Phuket	
Drainge Area	55 sq.km.				
Type of Gage	Water - stage recorder.				
Zero Gage at Bottom	+0.000 m. (MSL.)				
Bench Mark	B.M.-H.D.				
Location BM	On left bank about 8 meters from the top staff gage.			**Elevation**	+4.964 m. (MSL.)
Gage Reading Frequency	Recording				
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings				
Period of Available Gage Records	1996 to date				
Rating Operation					
Period of Rating	1996 to date				
Rated by Flot	-				
Rated by Current Meter	1996 to date				
Stability of Channel Regimes	Fairly stable by some scouring.				
Overbank Flow Conditions	No overbank flow.				
General Description	Records fair. Stage-discharge relation defined by 15 discharge measurements made in 2018.				

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

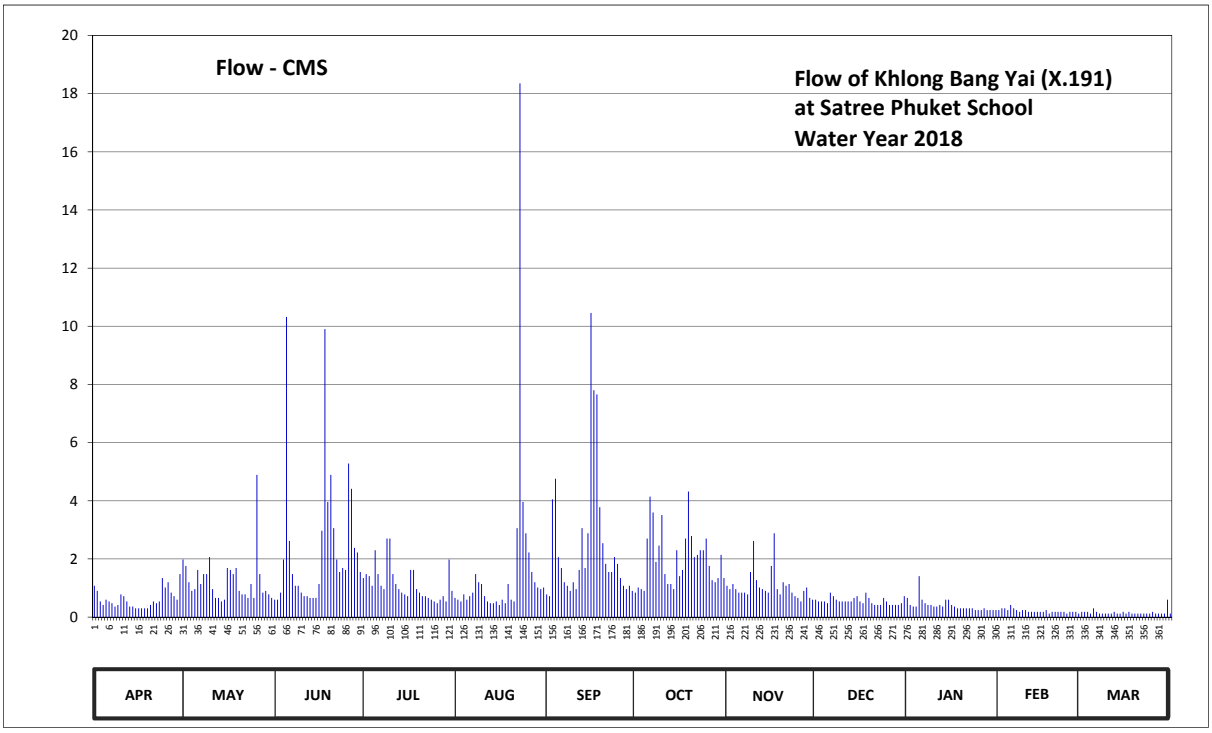
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	1.58	1.71	1.50	1.62	1.51	1.53	1.54	1.58	1.50	1.51	1.44	1.43	
2	1.55	1.68	1.50	1.64	1.50	1.52	1.57	1.56	1.49	1.47	1.45	1.43	
3	1.49	1.60	1.54	1.63	1.49	1.95	1.56	1.59	1.49	1.46	1.45	1.43	
4	1.47	1.55	1.71	1.58	1.53	2.02	1.55	1.56	1.49	1.46	1.44	1.42	
5	1.50	1.56	2.43	1.75	1.50	1.72	1.80	1.54	1.48	1.63	1.47	1.45	
6	1.49	1.66	1.79	1.64	1.52	1.67	1.96	1.54	1.54	1.50	1.45	1.43	
7	1.48	1.59	1.64	1.58	1.54	1.60	1.90	1.54	1.52	1.48	1.44	1.42	
8	1.46	1.64	1.58	1.56	1.64	1.58	1.70	1.53	1.50	1.47	1.43	1.42	
9	1.47	1.64	1.58	1.80	1.60	1.55	1.77	1.65	1.49	1.47	1.44	1.42	
10	1.53	1.72	1.54	1.80	1.59	1.60	1.89	1.79	1.49	1.46	1.44	1.42	
11	1.52	1.56	1.52	1.64	1.52	1.56	1.64	1.61	1.49	1.46	1.43	1.42	
12	1.49	1.51	1.52	1.59	1.49	1.66	1.59	1.57	1.49	1.47	1.43	1.43	
13	1.46	1.51	1.51	1.56	1.48	1.84	1.59	1.56	1.49	1.46	1.43	1.42	
14	1.46	1.49	1.51	1.54	1.48	1.67	1.56	1.55	1.51	1.50	1.43	1.42	
15	1.45	1.50	1.51	1.53	1.49	1.82	1.75	1.54	1.52	1.50	1.43	1.43	
16	1.45	1.67	1.59	1.52	1.47	2.44	1.63	1.68	1.49	1.47	1.43	1.42	
17	1.45	1.66	1.83	1.66	1.50	2.25	1.66	1.82	1.48	1.46	1.44	1.43	
18	1.45	1.64	2.40	1.66	1.48	2.24	1.80	1.56	1.54	1.45	1.42	1.42	
19	1.45	1.67	1.94	1.56	1.59	1.92	1.98	1.53	1.51	1.45	1.43	1.42	
20	1.47	1.55	2.03	1.54	1.50	1.78	1.81	1.60	1.48	1.45	1.43	1.42	
21	1.49	1.53	1.84	1.52	1.49	1.69	1.72	1.58	1.47	1.45	1.43	1.42	
22	1.48	1.53	1.71	1.52	1.84	1.65	1.73	1.59	1.47	1.45	1.43	1.42	
23	1.49	1.51	1.65	1.51	2.97	1.65	1.75	1.54	1.47	1.45	1.43	1.42	
24	1.62	1.59	1.67	1.50	1.94	1.72	1.75	1.52	1.51	1.44	1.42	1.42	
25	1.57	1.51	1.66	1.49	1.82	1.69	1.80	1.51	1.49	1.44	1.43	1.43	
26	1.60	2.03	2.06	1.48	1.74	1.62	1.68	1.49	1.47	1.44	1.43	1.42	
27	1.54	1.64	1.99	1.50	1.65	1.58	1.61	1.55	1.47	1.45	1.43	1.42	
28	1.52	1.54	1.76	1.52	1.60	1.56	1.60	1.57	1.47	1.44	1.42	1.42	
29	1.50	1.55	1.74	1.49	1.57	1.58	1.62	1.51	1.47	1.44		1.42	
30	1.64	1.53	1.65	1.71	1.56	1.55	1.73	1.50	1.48	1.44		1.50	
31		1.51		1.55	1.57		1.62		1.52	1.44		1.42	
Mean	1.50	1.60	1.73	1.59	1.62	1.74	1.71	1.58	1.49	1.47	1.43	1.43	
Max	1.64	2.03	2.43	1.80	2.97	2.44	1.98	1.82	1.54	1.63	1.47	1.50	2.97
Min	1.45	1.49	1.50	1.48	1.47	1.52	1.54	1.49	1.47	1.44	1.42	1.42	1.42

Annual Max Momentary Gage Height 4.45 m. (MSL.) , at 09.00 Hours , on Aug 23, 2018

Zero Gage at Bottom Elevation 0.00 m. (MSL.) , River Bed 1.26 m. (MSL.)

Left Bank Elevation 4.90 m. (MSL.) ,

Right Bank Elevation 4.89 m. (MSL.) , Drainage Are 55 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.08	1.98	0.60	1.34	0.66	0.78	0.84	1.08	0.60	0.66	0.24	0.18		
2	0.90	1.76	0.60	1.48	0.60	0.72	1.02	0.96	0.54	0.42	0.30	0.18		
3	0.54	1.20	0.84	1.41	0.54	4.05	0.96	1.14	0.54	0.36	0.30	0.18		
4	0.42	0.90	1.98	1.08	0.78	4.76	0.90	0.96	0.54	0.36	0.24	0.12		
5	0.60	0.96	10.32	2.30	0.60	2.06	2.70	0.84	0.48	1.41	0.42	0.30		
6	0.54	1.62	2.62	1.48	0.72	1.69	4.14	0.84	0.84	0.60	0.30	0.18		
7	0.48	1.14	1.48	1.08	0.84	1.20	3.60	0.84	0.72	0.48	0.24	0.12		
8	0.36	1.48	1.08	0.96	1.48	1.08	1.90	0.78	0.60	0.42	0.18	0.12		
9	0.42	1.48	1.08	2.70	1.20	0.90	2.46	1.55	0.54	0.42	0.24	0.12		
10	0.78	2.06	0.84	2.70	1.14	1.20	3.51	2.62	0.54	0.36	0.24	0.12		
11	0.72	0.96	0.72	1.48	0.72	0.96	1.48	1.27	0.54	0.36	0.18	0.12		
12	0.54	0.66	0.72	1.14	0.54	1.62	1.14	1.02	0.54	0.42	0.18	0.18		
13	0.36	0.66	0.66	0.96	0.48	3.06	1.14	0.96	0.54	0.36	0.18	0.12		
14	0.36	0.54	0.66	0.84	0.48	1.69	0.96	0.90	0.66	0.60	0.18	0.12		
15	0.30	0.60	0.66	0.78	0.54	2.88	2.30	0.84	0.72	0.60	0.18	0.18		
16	0.30	1.69	1.14	0.72	0.42	10.46	1.41	1.76	0.54	0.42	0.18	0.12		
17	0.30	1.62	2.97	1.62	0.60	7.80	1.62	2.88	0.48	0.36	0.24	0.18		
18	0.30	1.48	9.90	1.62	0.48	7.66	2.70	0.96	0.84	0.30	0.12	0.12		
19	0.30	1.69	3.96	0.96	1.14	3.78	4.32	0.78	0.66	0.30	0.18	0.12		
20	0.42	0.90	4.89	0.84	0.60	2.54	2.79	1.20	0.48	0.30	0.18	0.12		
21	0.54	0.78	3.06	0.72	0.54	1.83	2.06	1.08	0.42	0.30	0.18	0.12		
22	0.48	0.78	1.98	0.72	3.06	1.55	2.14	1.14	0.42	0.30	0.18	0.12		
23	0.54	0.66	1.55	0.66	18.35	1.55	2.30	0.84	0.42	0.30	0.18	0.12		
24	1.34	1.14	1.69	0.60	3.96	2.06	2.30	0.72	0.66	0.24	0.12	0.12		
25	1.02	0.66	1.62	0.54	2.88	1.83	2.70	0.66	0.54	0.24	0.18	0.18		
26	1.20	4.89	5.28	0.48	2.22	1.34	1.76	0.54	0.42	0.24	0.18	0.12		
27	0.84	1.48	4.41	0.60	1.55	1.08	1.27	0.90	0.42	0.30	0.18	0.12		
28	0.72	0.84	2.38	0.72	1.20	0.96	1.20	1.02	0.42	0.24	0.12	0.12		
29	0.60	0.90	2.22	0.54	1.02	1.08	1.34	0.66	0.42	0.24		0.12		
30	1.48	0.78	1.55	1.98	0.96	0.90	2.14	0.60	0.48	0.24		0.60		
31		0.66		0.90	1.02		1.34		0.72	0.24		0.12		
Total	18.78	38.95	73.46	35.95	51.32	75.07	62.44	32.34	17.28	12.39	5.82	4.86	428.66	CMSDAY
Mean	0.63	1.26	2.45	1.16	1.66	2.50	2.01	1.08	0.56	0.40	0.21	0.16	1.17	CMS
Max	1.48	4.89	10.32	2.70	18.35	10.46	4.32	2.88	0.84	1.41	0.42	0.60	18.35	CMS
Min	0.30	0.54	0.60	0.48	0.42	0.72	0.84	0.54	0.42	0.24	0.12	0.12	0.12	CMS
Runoff	1.62	3.37	6.35	3.11	4.43	6.49	5.39	2.79	1.49	1.07	0.50	0.42	37.04	MCM

Momentary Peak 43.30 CMS. at 4.45 m. (MSL.) at 09.00 Hours , on Aug 23, 2018

Runoff Yield 21.72 Liters/Second/Square KM. Momentary Peak Yield 800.96 Liters/Second/Square KM.

WATER YEAR : 2018

SOUTHERN PENINSULA WEST COAST

Khlong Kapong at Ban Tha Na , Phang Nga (X.196)

Lat 08 - 42 - 02 N Long 98 - 24 - 42 E

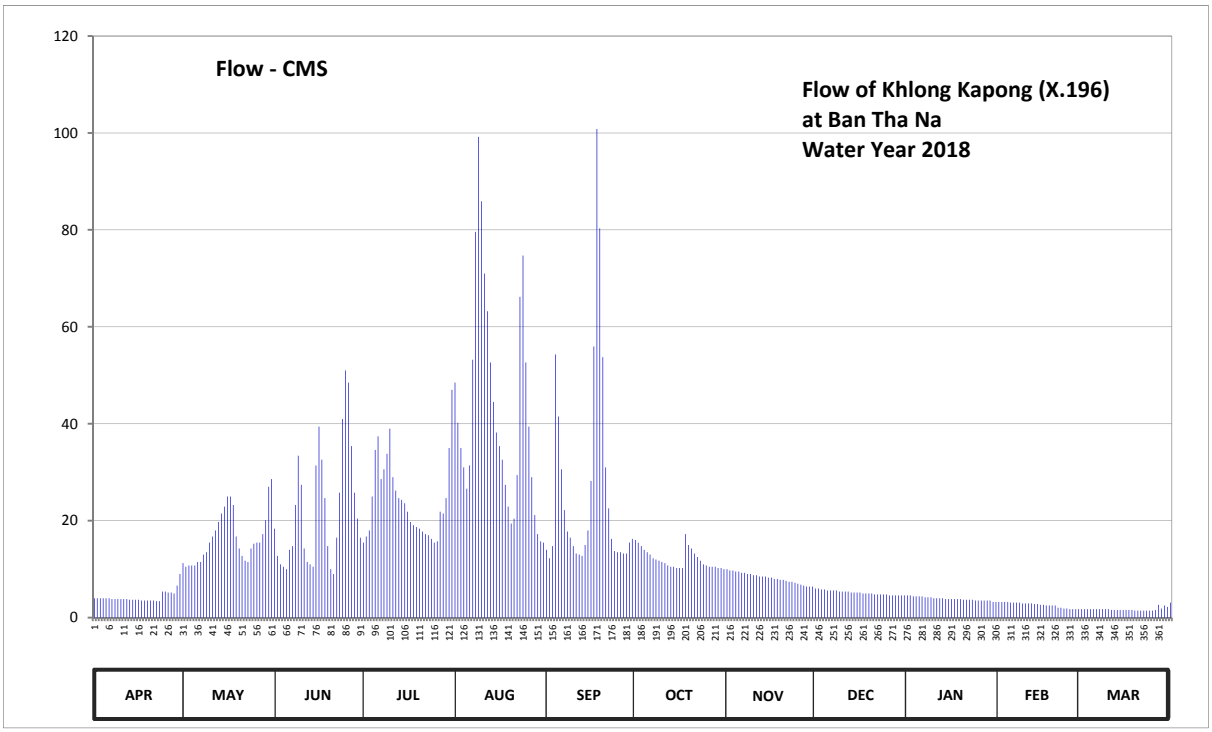
Location : on left bank at the bridge.

	Ban Tha Na	**Amphoe** Kapong	**Changwat** Phang Nga
Drainge Area	139 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	Near the top staff gage.		**Elevation** +20.086 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings		
Period of Available Gage Records	1999 to date		
Rating Operation			
Period of Rating	2003 to date		
Rated by Flot	-		
Rated by Current Meter	2003 to date		
Stability of Channel Regimes	Fairly stable by some scouring.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 18 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	15.00	15.33	15.61	15.50	16.35	15.44	15.52	15.28	15.10	15.03	14.95	14.85	
2	15.00	15.30	15.39	15.55	16.18	15.37	15.50	15.27	15.10	15.03	14.95	14.85	
3	15.00	15.31	15.32	15.60	16.05	15.47	15.47	15.27	15.09	15.02	14.95	14.85	
4	15.00	15.31	15.30	15.80	15.95	16.46	15.44	15.26	15.09	15.02	14.95	14.85	
5	15.00	15.31	15.28	16.04	15.84	16.21	15.42	15.26	15.08	15.02	14.94	14.85	
6	15.00	15.34	15.44	16.11	15.96	15.94	15.40	15.25	15.08	15.02	14.94	14.85	
7	14.99	15.34	15.47	15.89	16.44	15.72	15.37	15.25	15.08	15.01	14.94	14.85	
8	14.99	15.40	15.75	15.94	16.88	15.59	15.36	15.24	15.08	15.01	14.94	14.85	
9	14.99	15.42	16.01	16.02	17.14	15.54	15.35	15.24	15.07	15.01	14.93	14.85	
10	14.99	15.50	15.86	16.15	16.97	15.47	15.34	15.23	15.07	15.00	14.93	14.85	
11	14.99	15.55	15.45	15.90	16.75	15.41	15.33	15.23	15.07	15.00	14.93	14.84	
12	14.99	15.60	15.34	15.83	16.62	15.40	15.31	15.22	15.07	15.00	14.93	14.84	
13	14.98	15.65	15.32	15.79	16.43	15.39	15.30	15.22	15.06	15.00	14.92	14.84	
14	14.98	15.70	15.30	15.78	16.27	15.48	15.30	15.22	15.06	14.99	14.92	14.84	
15	14.98	15.74	15.96	15.76	16.13	15.60	15.29	15.21	15.06	14.99	14.91	14.84	
16	14.98	15.80	16.16	15.71	16.06	15.88	15.29	15.21	15.06	14.99	14.91	14.84	
17	14.97	15.80	15.99	15.65	15.99	16.49	15.29	15.20	15.05	14.99	14.90	14.84	
18	14.97	15.75	15.79	15.63	15.86	17.16	15.57	15.20	15.05	14.99	14.90	14.84	
19	14.97	15.55	15.47	15.62	15.74	16.89	15.48	15.19	15.05	14.99	14.90	14.83	
20	14.97	15.45	15.28	15.61	15.64	16.45	15.45	15.19	15.05	14.98	14.90	14.83	
21	14.97	15.39	15.24	15.59	15.67	15.95	15.41	15.18	15.04	14.98	14.87	14.83	
22	14.96	15.35	15.54	15.57	15.91	15.73	15.38	15.17	15.04	14.98	14.87	14.83	
23	14.96	15.34	15.82	15.56	16.67	15.53	15.35	15.17	15.04	14.98	14.86	14.83	
24	15.07	15.45	16.20	15.53	16.81	15.43	15.32	15.16	15.04	14.97	14.86	14.83	
25	15.07	15.49	16.40	15.50	16.43	15.42	15.31	15.15	15.04	14.97	14.85	14.83	
26	15.06	15.50	16.35	15.51	16.16	15.42	15.30	15.14	15.03	14.97	14.85	14.84	
27	15.06	15.50	16.06	15.71	15.90	15.41	15.30	15.13	15.03	14.97	14.85	14.91	
28	15.05	15.57	15.82	15.70	15.69	15.41	15.30	15.12	15.03	14.97	14.85	14.86	
29	15.13	15.66	15.67	15.79	15.57	15.50	15.29	15.12	15.03	14.97		14.90	
30	15.24	15.85	15.54	16.05	15.51	15.53	15.29	15.12	15.03	14.95		14.88	
31		15.89		16.32	15.50		15.28		15.03	14.95		14.94	
Mean	15.01	15.52	15.67	15.76	16.16	15.76	15.36	15.20	15.06	14.99	14.91	14.85	
Max	15.24	15.89	16.40	16.32	17.14	17.16	15.57	15.28	15.10	15.03	14.95	14.94	17.16
Min	14.96	15.30	15.24	15.50	15.50	15.37	15.28	15.12	15.03	14.95	14.85	14.83	14.83

Annual Max Momentary Gage Height	17.22	m. (MSL.) ,	at 18.00 Hours , on Aug 9, 2018		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	13.24	m. (MSL)
Left Bank Elevation	18.54	m. (MSL.) ,			
Right Bank Elevation	19.18	m. (MSL.) ,	Drainage Are	139	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	4.00	11.25	18.35	15.50	48.50	14.00	16.00	10.00	6.00	4.60	3.25	1.75		
2	4.00	10.50	12.75	16.75	40.20	12.25	15.50	9.75	6.00	4.60	3.25	1.75		
3	4.00	10.75	11.00	18.00	35.00	14.75	14.75	9.75	5.80	4.40	3.25	1.75		
4	4.00	10.75	10.50	25.00	31.00	54.30	14.00	9.50	5.80	4.40	3.25	1.75		
5	4.00	10.75	10.00	34.60	26.60	41.50	13.50	9.50	5.60	4.40	3.10	1.75		
6	4.00	11.50	14.00	37.40	31.40	30.60	13.00	9.25	5.60	4.40	3.10	1.75		
7	3.85	11.50	14.75	28.60	53.20	22.20	12.25	9.25	5.60	4.20	3.10	1.75		
8	3.85	13.00	23.25	30.60	79.60	17.75	12.00	9.00	5.60	4.20	3.10	1.75		
9	3.85	13.50	33.40	33.80	99.20	16.50	11.75	9.00	5.40	4.20	2.95	1.75		
10	3.85	15.50	27.40	39.00	85.90	14.75	11.50	8.75	5.40	4.00	2.95	1.75		
11	3.85	16.75	14.25	29.00	71.00	13.25	11.25	8.75	5.40	4.00	2.95	1.60		
12	3.85	18.00	11.50	26.20	63.20	13.00	10.75	8.50	5.40	4.00	2.95	1.60		
13	3.70	19.75	11.00	24.65	52.65	12.75	10.50	8.50	5.20	4.00	2.80	1.60		
14	3.70	21.50	10.50	24.30	44.50	15.00	10.50	8.50	5.20	3.85	2.80	1.60		
15	3.70	22.90	31.40	23.60	38.20	18.00	10.25	8.25	5.20	3.85	2.65	1.60		
16	3.70	25.00	39.40	21.85	35.40	28.20	10.25	8.25	5.20	3.85	2.65	1.60		
17	3.55	25.00	32.60	19.75	32.60	55.95	10.25	8.00	5.00	3.85	2.50	1.60		
18	3.55	23.25	24.65	19.05	27.40	100.80	17.25	8.00	5.00	3.85	2.50	1.60		
19	3.55	16.75	14.75	18.70	22.90	80.30	15.00	7.80	5.00	3.85	2.50	1.45		
20	3.55	14.25	10.00	18.35	19.40	53.75	14.25	7.80	5.00	3.70	2.50	1.45		
21	3.55	12.75	9.00	17.75	20.45	31.00	13.25	7.60	4.80	3.70	2.05	1.45		
22	3.40	11.75	16.50	17.25	29.40	22.55	12.50	7.40	4.80	3.70	2.05	1.45		
23	3.40	11.50	25.80	17.00	66.20	16.25	11.75	7.40	4.80	3.70	1.90	1.45		
24	5.40	14.25	41.00	16.25	74.70	13.75	11.00	7.20	4.80	3.55	1.90	1.45		
25	5.40	15.25	51.00	15.50	52.65	13.50	10.75	7.00	4.80	3.55	1.75	1.45		
26	5.20	15.50	48.50	15.75	39.40	13.50	10.50	6.80	4.60	3.55	1.75	1.60		
27	5.20	15.50	35.40	21.85	29.00	13.25	10.50	6.60	4.60	3.55	1.75	2.65		
28	5.00	17.25	25.80	21.50	21.15	13.25	10.50	6.40	4.60	3.55	1.75	1.90		
29	6.60	20.10	20.45	24.65	17.25	15.50	10.25	6.40	4.60	3.55		2.50		
30	9.00	27.00	16.50	35.00	15.75	16.25	10.25	6.40	4.60	3.25		2.20		
31		28.60		47.00	15.50		10.00		4.60	3.25		3.10		
Total	128.25	511.60	665.40	754.20	1319.30	798.40	375.75	245.30	160.00	121.10	73.00	54.40	5206.70	CMSDAY
Mean	4.28	16.50	22.18	24.33	42.56	26.61	12.12	8.18	5.16	3.91	2.61	1.75	14.26	CMS
Max	9.00	28.60	51.00	47.00	99.20	100.80	17.25	10.00	6.00	4.60	3.25	3.10	100.80	CMS
Min	3.40	10.50	9.00	15.50	15.50	12.25	10.00	6.40	4.60	3.25	1.75	1.45	1.45	CMS
Runoff	11.08	44.20	57.49	65.16	113.99	68.98	32.46	21.19	13.82	10.46	6.31	4.70	449.86	MCM

Momentary Peak 105.80 CMS. at 17.22 m. (MSL.) at 18.00 Hours , on Aug 9, 2018

Runoff Yield 102.63 Liters/Second/Square KM. Momentary Peak Yield 761.15 Liters/Second/Square KM.

WATER YEAR : 2018

SOUTHERN PENINSULA WEST COAST

Trang River at Ban Klang , Trang (X.228)

Lat 07 - 38 - 45 N Long 99 - 31 - 59 E

Location : on left bank at Ban Klang.

	Ban Klang	**Amphoe** Mueang	**Changwat** Trang
Drainge Area	1,374 sq.km.		
Type of Gage	Water - stage recorder.		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	Near the gage site.		**Elevation** +11.741 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	2003 to date		
Rating Operation			
Period of Rating	2003 to date		
Rated by Flot	-		
Rated by Current Meter	2003 to date		
Stability of Channel Regimes	Fairly stable by some scouring.		
Overbank Flow Conditions	Overbank flow starts at elevation + 7.050 m.(MSL.), records are channel flow only.		
General Description	Records good. Stage-discharge relation defined by 18 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

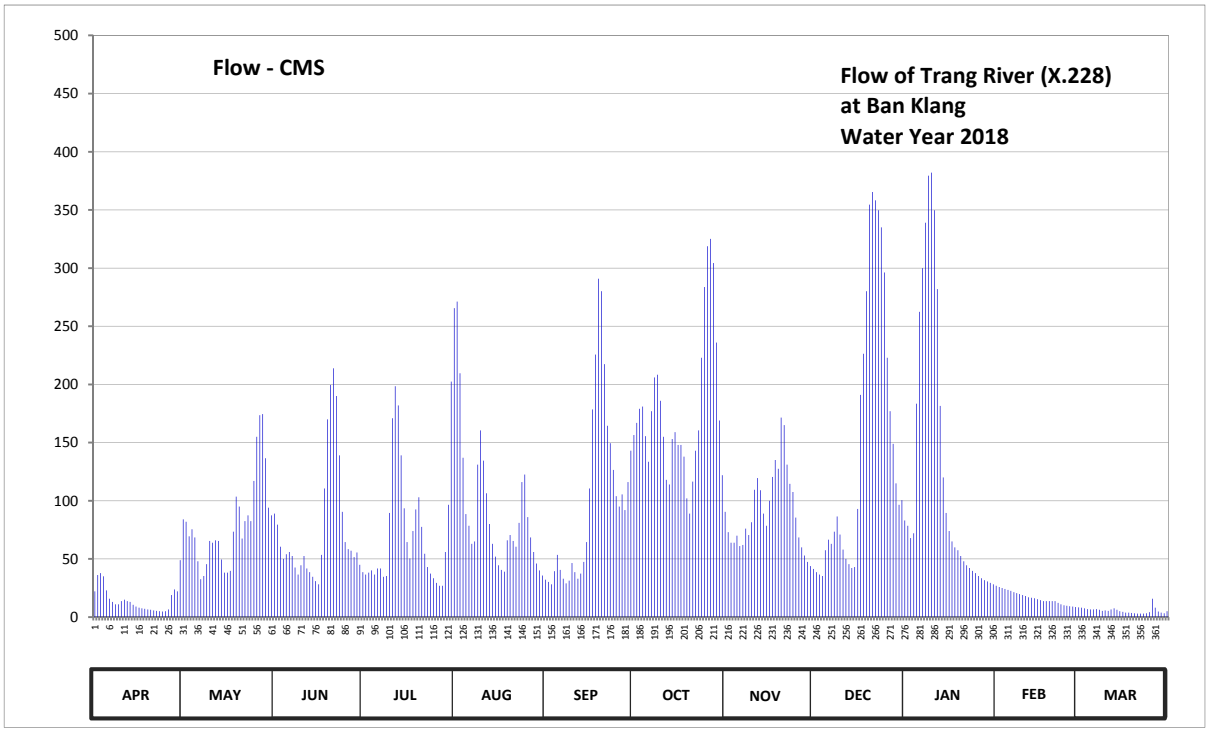
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	2.53	3.88	3.98	2.94	7.12	2.78	5.33	4.01	3.01	3.86	2.65	2.18	
2	2.88	3.84	3.79	2.89	7.19	2.73	5.54	3.66	2.94	3.77	2.62	2.17	
3	2.92	3.59	3.41	2.93	6.36	2.68	5.78	3.48	2.89	3.56	2.60	2.15	
4	2.85	3.71	3.20	2.98	4.94	2.96	5.82	3.48	2.86	3.64	2.58	2.13	
5	2.55	3.57	3.28	2.89	3.97	3.27	5.31	3.60	3.35	5.87	2.56	2.12	
6	2.37	3.16	3.32	3.02	3.77	2.99	4.87	3.42	3.53	7.08	2.54	2.12	
7	2.30	2.79	3.25	3.02	3.46	2.80	5.74	3.44	3.46	7.51	2.51	2.13	
8	2.25	2.86	3.04	2.84	3.50	2.70	6.30	3.72	3.67	7.94	2.49	2.11	
9	2.25	3.11	2.89	2.86	4.82	2.76	6.34	3.61	3.93	8.28	2.47	2.08	
10	2.32	3.51	3.09	3.99	5.41	3.13	5.92	3.83	3.62	8.30	2.45	2.09	
11	2.35	3.48	3.25	5.62	4.89	2.94	5.30	4.39	3.36	8.04	2.43	2.08	
12	2.32	3.52	3.02	6.17	4.33	2.80	4.56	4.59	3.20	7.31	2.40	2.12	
13	2.30	3.51	2.94	5.84	3.80	2.91	4.48	4.38	3.11	5.83	2.39	2.15	
14	2.24	3.19	2.84	4.98	3.46	3.15	5.26	3.98	3.03	4.60	2.38	2.11	
15	2.20	2.93	2.75	4.07	3.24	3.49	5.38	3.77	3.05	3.99	2.36	2.07	
16	2.17	2.93	2.68	3.49	3.09	4.41	5.16	4.20	4.06	3.68	2.34	2.05	
17	2.15	2.97	3.27	3.21	2.99	5.77	5.16	4.61	6.02	3.50	2.32	2.03	
18	2.14	3.67	4.41	3.68	2.95	6.61	4.96	4.90	6.62	3.40	2.32	2.03	
19	2.12	4.27	5.60	4.05	3.52	7.41	4.24	4.75	7.29	3.35	2.32	2.02	
20	2.11	4.10	6.19	4.26	3.61	7.29	3.98	5.63	8.08	3.25	2.32	2.01	
21	2.09	3.55	6.43	3.75	3.51	6.49	4.53	5.50	8.17	3.16	2.32	2.00	
22	2.08	3.85	6.00	3.29	3.41	5.49	5.06	4.82	8.11	3.09	2.28	2.00	
23	2.07	3.95	4.98	3.05	3.82	5.19	5.41	4.49	8.04	3.03	2.25	2.00	
24	2.06	3.85	4.01	2.91	4.52	4.73	6.57	4.35	7.90	2.97	2.23	2.01	
25	2.07	4.54	3.49	2.81	4.65	4.28	7.33	3.91	7.47	2.92	2.22	2.04	
26	2.12	5.30	3.37	2.71	3.92	4.10	7.72	3.57	6.57	2.86	2.21	2.37	
27	2.45	5.67	3.34	2.65	3.57	4.31	7.79	3.40	5.74	2.81	2.20	2.17	
28	2.57	5.69	3.23	2.65	3.32	4.04	7.56	3.26	5.18	2.77	2.19	2.06	
29	2.53	4.93	3.31	3.32	3.12	4.52	6.75	3.15	4.50	2.74		2.03	
30	3.18	4.08	3.10	4.13	2.98	5.06	5.58	3.07	4.13	2.71		2.01	
31		3.95		6.24	2.87		4.64		4.21	2.68		2.07	
Mean	2.35	3.80	3.72	3.65	4.07	4.13	5.62	4.03	4.87	4.47	2.39	2.09	
Max	3.18	5.69	6.43	6.24	7.19	7.41	7.79	5.63	8.17	8.30	2.65	2.37	8.30
Min	2.06	2.79	2.68	2.65	2.87	2.68	3.98	3.07	2.86	2.68	2.19	2.00	2.00

Annual Max Momentary Gage Height 8.34 m. (MSL.) , at 20.00 Hours , on Jan 9, 2019

Zero Gage at Bottom Elevation 0.00 m. (MSL.) , River Bed -0.12 m. (MSL.)

Left Bank Elevation 9.00 m. (MSL.) ,

Right Bank Elevation 7.04 m. (MSL.) , Drainage Are 1,374 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	22.20	84.00	89.00	38.60	265.60	32.20	156.50	90.50	41.40	83.00	27.00	8.40		
2	36.20	82.00	79.50	36.60	271.20	30.20	167.00	73.00	38.60	78.50	25.80	8.10		
3	37.80	69.50	60.50	38.20	209.60	28.20	179.00	64.00	36.60	68.00	25.00	7.50		
4	35.00	75.50	50.00	40.20	137.00	39.40	181.00	64.00	35.40	72.00	24.20	6.90		
5	23.00	68.50	54.00	36.60	88.50	53.50	155.50	70.00	57.50	183.50	23.40	6.60		
6	15.80	48.00	56.00	41.80	78.50	40.60	133.50	61.00	66.50	262.40	22.60	6.60		
7	13.00	32.60	52.50	41.80	63.00	33.00	177.00	62.00	63.00	299.90	21.40	6.90		
8	11.00	35.40	42.60	34.60	65.00	29.00	206.00	76.00	73.50	339.00	20.60	6.30		
9	11.00	45.50	36.60	35.40	131.00	31.40	208.40	70.50	86.50	379.40	19.80	5.40		
10	13.80	65.50	44.60	89.50	160.50	46.50	186.00	81.50	71.00	382.00	19.00	5.70		
11	15.00	64.00	52.50	171.00	134.50	38.60	155.00	109.50	58.00	349.80	18.20	5.40		
12	13.80	66.00	41.80	198.50	106.50	33.00	118.00	119.50	50.00	281.90	17.00	6.60		
13	13.00	65.50	38.60	182.00	80.00	37.40	114.00	109.00	45.50	181.50	16.60	7.50		
14	10.60	49.50	34.60	139.00	63.00	47.50	153.00	89.00	42.20	120.00	16.20	6.30		
15	9.00	38.20	31.00	93.50	52.00	64.50	159.00	78.50	43.00	89.50	15.40	5.10		
16	8.10	38.20	28.20	64.50	44.60	110.50	148.00	100.00	93.00	74.00	14.60	4.50		
17	7.50	39.80	53.50	50.50	40.60	178.50	148.00	120.50	191.00	65.00	13.80	3.90		
18	7.20	73.50	110.50	74.00	39.00	225.70	138.00	135.00	226.40	60.00	13.80	3.90		
19	6.60	103.50	170.00	92.50	66.00	290.90	102.00	127.50	280.10	57.50	13.80	3.60		
20	6.30	95.00	199.50	103.00	70.50	280.10	89.00	171.50	354.60	52.50	13.80	3.30		
21	5.70	67.50	213.80	77.50	65.50	217.40	116.50	165.00	365.40	48.00	13.80	3.00		
22	5.40	82.50	190.00	54.50	60.50	164.50	143.00	131.00	358.20	44.60	12.20	3.00		
23	5.10	87.50	139.00	43.00	81.00	149.50	160.50	114.50	349.80	42.20	11.00	3.00		
24	4.80	82.50	90.50	37.40	116.00	126.50	222.90	107.50	335.00	39.80	10.20	3.30		
25	5.10	117.00	64.50	33.40	122.50	104.00	283.70	85.50	296.30	37.80	9.80	4.20		
26	6.60	155.00	58.50	29.40	86.00	95.00	318.80	68.50	222.90	35.40	9.40	15.80		
27	19.00	173.50	57.00	27.00	68.50	105.50	325.10	60.00	177.00	33.40	9.00	8.10		
28	23.80	174.50	51.50	27.00	56.00	92.00	304.40	53.00	149.00	31.80	8.70	4.80		
29	22.20	136.50	55.50	56.00	46.00	116.00	236.00	47.50	115.00	30.60		3.90		
30	49.00	94.00	45.00	96.50	40.20	143.00	169.00	43.80	96.50	29.40		3.30		
31		87.50		202.40	35.80		122.00		100.50	28.20		5.10		
Total	462.60	2497.70	2290.80	2285.90	2944.60	2984.10	5475.80	2748.80	4519.40	3880.60	466.10	176.00	30732.40	CMSDAY
Mean	15.42	80.57	76.36	73.74	94.99	99.47	176.64	91.63	145.79	125.18	16.65	5.68	84.20	CMS
Max	49.00	174.50	213.80	202.40	271.20	290.90	325.10	171.50	365.40	382.00	27.00	15.80	382.00	CMS
Min	4.80	32.60	28.20	27.00	35.80	28.20	89.00	43.80	35.40	28.20	8.70	3.00	3.00	CMS
Runoff	39.97	215.80	197.93	197.50	254.41	257.83	473.11	237.50	390.48	335.28	40.27	15.21	2655.28	MCM

Momentary Peak 387.20 CMS. at 8.34 m. (MSL.) at 20.00 Hours , on Jan 9 , 2019

Runoff Yield 61.28 Liters/Second/Square KM. Momentary Peak Yield 281.80 Liters/Second/Square KM.

WATER YEAR : 2018

SOUTHERN PENINSULA WEST COAST

Lower Trang River at Ban Pa Mak , Trang (X.234)

Lat 07 - 35 - 21 N Long 99 - 34 - 39 E

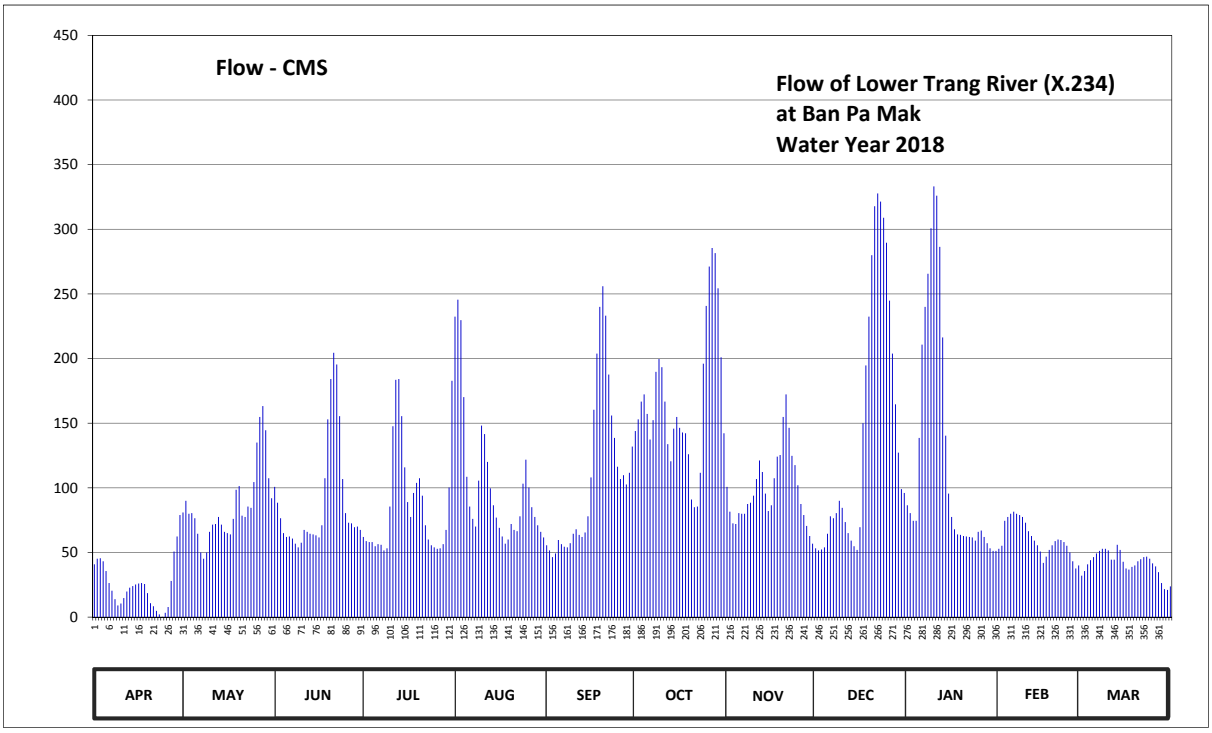
Location : on left bank at Ban Pa Mak.

	Ban Pa Mak	**Amphoe** Mueang	**Changwat** Trang
Drainge Area	2,809 sq.km.		
Type of Gage	Water - stage recorder.		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank near the top staff gage.		**Elevation** +6.388 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	2004 to date		
Rating Operation			
Period of Rating	2004 to date		
Rated by Flot	-		
Rated by Current Meter	2004 to date		
Stability of Channel Regimes	Stable because of backwater effect.		
Overbank Flow Conditions	Overbank flow starts at elevation + 4.960 m.(MSL.), records are channel flow only.		
General Description	Records good. Stage-discharge relation defined by 16 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.72	1.64	2.03	1.25	4.05	1.09	2.75	2.03	1.03	1.75	1.02	0.50	
2	0.83	1.82	1.79	1.17	4.22	0.99	2.90	1.65	0.99	1.63	1.08	0.59	
3	0.84	1.62	1.55	1.15	4.01	0.86	3.11	1.47	1.01	1.51	1.51	0.72	
4	0.78	1.63	1.32	1.15	3.16	0.93	3.19	1.46	1.05	1.51	1.57	0.80	
5	0.59	1.55	1.25	1.07	2.16	1.19	2.97	1.63	1.31	2.66	1.62	0.86	
6	0.36	1.31	1.26	1.11	1.73	1.11	2.64	1.62	1.58	3.74	1.65	0.93	
7	0.18	0.95	1.22	1.10	1.54	1.06	2.89	1.62	1.55	4.15	1.62	0.98	
8	-0.04	0.83	1.12	0.99	1.42	1.05	3.44	1.77	1.63	4.47	1.60	1.02	
9	-0.20	0.95	1.05	1.03	2.11	1.13	3.58	1.79	1.82	4.91	1.57	1.02	
10	-0.15	1.34	1.14	1.73	2.82	1.31	3.49	1.90	1.71	5.28	1.48	0.99	
11	-0.01	1.45	1.37	2.81	2.71	1.38	3.11	2.13	1.49	5.20	1.35	0.81	
12	0.16	1.46	1.34	3.35	2.35	1.29	2.58	2.37	1.32	4.73	1.27	0.81	
13	0.26	1.57	1.31	3.36	2.01	1.25	2.36	2.22	1.18	3.82	1.18	1.10	
14	0.30	1.45	1.30	2.94	1.75	1.33	2.78	1.93	1.07	2.69	1.09	1.00	
15	0.33	1.34	1.28	2.28	1.56	1.58	2.93	1.66	1.00	1.93	0.97	0.77	
16	0.35	1.32	1.24	1.80	1.40	2.15	2.79	1.75	1.41	1.57	0.75	0.64	
17	0.36	1.30	1.44	1.57	1.26	3.02	2.73	2.14	2.85	1.38	0.87	0.62	
18	0.34	1.54	2.14	1.94	1.12	3.64	2.72	2.42	3.51	1.30	1.00	0.67	
19	0.12	1.99	2.90	2.08	1.20	4.15	2.45	2.44	4.05	1.29	1.09	0.70	
20	-0.14	2.04	3.36	2.14	1.46	4.35	1.84	2.93	4.65	1.27	1.17	0.78	
21	-0.22	1.59	3.65	1.90	1.37	4.06	1.72	3.19	5.11	1.26	1.20	0.82	
22	-0.34	1.57	3.52	1.44	1.35	3.41	1.73	2.79	5.22	1.25	1.19	0.86	
23	-0.43	1.73	2.94	1.20	1.58	2.95	2.21	2.43	5.15	1.24	1.15	0.87	
24	-0.49	1.71	2.13	1.09	2.07	2.66	3.53	2.31	5.01	1.18	1.08	0.83	
25	-0.39	2.09	1.63	1.05	2.38	2.29	4.16	2.05	4.77	1.34	0.95	0.74	
26	-0.24	2.60	1.48	1.02	2.02	2.13	4.54	1.77	4.21	1.36	0.78	0.68	
27	0.40	2.93	1.47	1.03	1.72	2.18	4.72	1.60	3.64	1.25	0.64	0.57	
28	0.97	3.06	1.41	1.11	1.57	2.06	4.67	1.43	3.08	1.13	0.70	0.36	
29	1.26	2.76	1.42	1.37	1.44	2.21	4.33	1.27	2.47	1.03		0.22	
30	1.60	2.14	1.37	2.02	1.34	2.55	3.60	1.12	2.00	0.98		0.20	
31		1.86		3.34	1.24		2.72		1.94	0.98		0.29	
Mean	0.27	1.71	1.75	1.70	2.00	2.05	3.07	1.96	2.54	2.25	1.18	0.73	
Max	1.60	3.06	3.65	3.36	4.22	4.35	4.72	3.19	5.22	5.28	1.65	1.10	5.28
Min	-0.49	0.83	1.05	0.99	1.12	0.86	1.72	1.12	0.99	0.98	0.64	0.20	-0.49

Annual Max Momentary Gage Height	5.33	m. (MSL.) ,	at 16.00 Hours , on Jan 10, 2019		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	-1.14	m. (MSL.)
Left Bank Elevation	6.40	m. (MSL.) ,			
Right Bank Elevation	4.95	m. (MSL.) ,	Drainage Are	2,809	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	40.80	81.00	100.80	62.00	232.50	55.60	144.00	100.80	53.20	86.50	52.80	32.00		
2	45.20	90.00	88.50	58.80	245.60	51.60	153.00	81.50	51.60	80.50	55.20	35.60		
3	45.60	80.00	76.50	58.00	229.70	46.40	166.70	72.50	52.40	74.50	74.50	40.80		
4	43.20	80.50	65.00	58.00	170.20	49.20	172.30	72.00	54.00	74.50	77.50	44.00		
5	35.60	76.50	62.00	54.80	108.60	59.60	157.20	80.50	64.50	138.60	80.00	46.40		
6	26.40	64.50	62.40	56.40	85.50	56.40	137.40	80.00	78.00	210.80	81.50	49.20		
7	20.40	50.00	60.80	56.00	76.00	54.40	152.40	80.00	76.50	240.00	80.00	51.20		
8	13.80	45.20	56.80	51.60	70.00	54.00	189.80	87.50	80.50	265.60	79.00	52.80		
9	9.00	50.00	54.00	53.20	105.60	57.20	199.60	88.50	90.00	300.80	77.50	52.80		
10	10.50	66.00	57.60	85.50	148.20	64.50	193.30	94.00	84.50	333.20	73.00	51.60		
11	14.70	71.50	67.50	147.60	141.60	68.00	166.70	106.80	73.50	326.00	66.50	44.40		
12	19.80	72.00	66.00	183.50	120.00	63.60	133.80	121.20	65.00	286.40	62.80	44.40		
13	22.80	77.50	64.50	184.20	99.60	62.00	120.60	112.20	59.20	216.40	59.20	56.00		
14	24.00	71.50	64.00	155.40	86.50	65.50	145.80	95.50	54.80	140.40	55.60	52.00		
15	25.20	66.00	63.20	115.80	77.00	78.00	154.80	82.00	52.00	95.50	50.80	42.80		
16	26.00	65.00	61.60	89.00	69.00	108.00	146.40	86.50	69.50	77.50	42.00	37.60		
17	26.40	64.00	71.00	77.50	62.40	160.40	142.80	107.40	150.00	68.00	46.80	36.80		
18	25.60	76.00	107.40	96.00	56.80	203.80	142.20	124.20	194.70	64.00	52.00	38.80		
19	18.60	98.50	153.00	103.80	60.00	240.00	126.00	125.40	232.50	63.60	55.60	40.00		
20	10.80	101.40	184.20	107.40	72.00	256.00	91.00	154.80	280.00	62.80	58.80	43.20		
21	8.40	78.50	204.50	94.00	67.50	233.20	85.00	172.30	317.90	62.40	60.00	44.80		
22	4.80	77.50	195.40	71.00	66.50	187.70	85.50	146.40	327.80	62.00	59.60	46.40		
23	2.10	85.50	155.40	60.00	78.00	156.00	111.60	124.80	321.50	61.60	58.00	46.80		
24	0.30	84.50	106.80	55.60	103.20	138.60	196.10	117.60	308.90	59.20	55.20	45.20		
25	3.30	104.40	80.50	54.00	121.80	116.40	240.80	102.00	289.60	66.00	50.00	41.60		
26	7.80	135.00	73.00	52.80	100.20	106.80	271.20	87.50	244.80	67.00	43.20	39.20		
27	28.00	154.80	72.50	53.20	85.00	109.80	285.60	79.00	203.80	62.00	37.60	34.80		
28	50.80	163.20	69.50	56.40	77.50	102.60	281.60	70.50	164.60	57.20	40.00	26.40		
29	62.40	144.60	70.00	67.50	71.00	111.60	254.40	62.80	127.20	53.20		21.60		
30	79.00	107.40	67.50	100.20	66.00	132.00	201.00	56.80	99.00	51.20		21.00		
31		92.00		182.80	61.60		142.20		96.00	51.20		23.70		
Total	751.30	2674.50	2681.90	2702.00	3215.10	3248.90	5190.80	2973.00	4417.50	3858.60	1684.70	1283.90	34682.20	CMSDAY
Mean	25.04	86.27	89.40	87.16	103.71	108.30	167.45	99.10	142.50	124.47	60.17	41.42	95.02	CMS
Max	79.00	163.20	204.50	184.20	245.60	256.00	285.60	172.30	327.80	333.20	81.50	56.00	333.20	CMS
Min	0.30	45.20	54.00	51.60	56.80	46.40	85.00	56.80	51.60	51.20	37.60	21.00	0.30	CMS
Runoff	64.91	231.08	231.72	233.45	277.78	280.70	448.49	256.87	381.67	333.38	145.56	110.93	2996.54	MCM

Momentary Peak 338.00 CMS. at 5.33 m. (MSL.) at 16.00 Hours , on Jan 10, 2019

Runoff Yield 33.83 Liters/Second/Square KM. Momentary Peak Yield 120.33 Liters/Second/Square KM.

WATER YEAR : 2018

SOUTHERN PENINSULA WEST COAST

Lower Khlong Palian at Ban Yan Ta Khaow , Trang (X.236)

Lat 07 - 22 - 20 N Long 99 - 40 - 39 E

Location : on right bank at Ban Yan Ta Khaow.

	Ban Yan Ta Khaow	**Amphoe** Yan Ta Khaow	**Changwat** Trang		
Drainge Area	588 sq.km.				
Type of Gage	Water - stage recorder				
Zero Gage at Bottom	+0.000 m. (MSL.)				
Bench Mark	B.M.-H.D.				
Location BM	Near the gage site.		**Elevation** +5.628 m. (MSL.)		
Gage Reading Frequency	Recording				
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings				
Period of Available Gage Records	2004 to date				
Rating Operation					
Period of Rating	2004 to date				
Rated by Flot	-				
Rated by Current Meter	2004 to date				
Stability of Channel Regimes	Fairly stable because of backwater effect.				
Overbank Flow Conditions	No overbank flow.				
General Description	Records good. Stage-discharge relation defined by 17 discharge measurements made in 2018.				

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

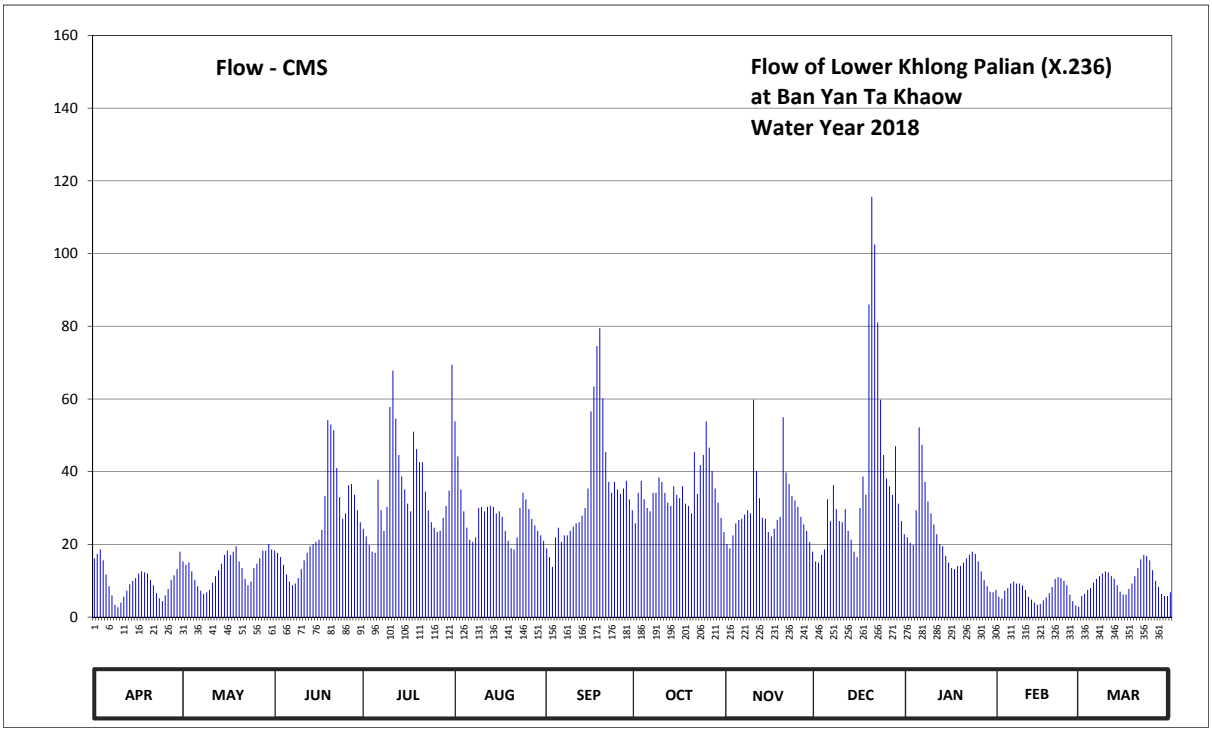
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.54	0.51	0.61	0.81	1.67	0.63	0.86	0.67	0.51	0.73	0.13	0.14	
2	0.58	0.48	0.59	0.74	1.43	0.55	1.14	0.63	0.50	0.68	0.10	0.17	
3	0.62	0.50	0.55	0.66	1.17	0.46	1.25	0.75	0.57	0.66	0.21	0.22	
4	0.52	0.42	0.48	0.60	0.97	0.73	1.08	0.86	0.62	0.98	0.24	0.24	
5	0.39	0.33	0.39	0.59	0.82	0.82	1.00	0.89	1.08	1.63	0.29	0.30	
6	0.26	0.26	0.31	1.26	0.71	0.69	0.97	0.90	0.88	1.51	0.31	0.34	
7	0.15	0.21	0.27	0.98	0.69	0.75	1.14	0.94	1.21	1.24	0.29	0.37	
8	0.02	0.17	0.29	0.79	0.73	0.75	1.14	0.98	0.99	1.06	0.29	0.40	
9	-0.02	0.19	0.35	1.01	1.00	0.79	1.28	0.95	0.88	0.95	0.27	0.42	
10	0.05	0.22	0.44	1.77	1.01	0.83	1.24	1.82	0.87	0.85	0.22	0.41	
11	0.13	0.30	0.52	2.02	0.97	0.86	1.14	1.33	0.99	0.76	0.13	0.37	
12	0.21	0.37	0.59	1.69	1.01	0.87	1.05	1.09	0.79	0.67	0.09	0.34	
13	0.28	0.43	0.65	1.44	1.02	0.93	1.02	0.91	0.71	0.65	0.05	0.27	
14	0.32	0.49	0.67	1.29	1.01	1.00	1.20	0.90	0.60	0.56	0.02	0.20	
15	0.35	0.57	0.69	1.17	0.95	1.18	1.12	0.78	0.55	0.50	0.03	0.16	
16	0.40	0.61	0.71	1.04	0.97	1.74	1.09	0.74	1.00	0.45	0.08	0.16	
17	0.42	0.57	0.80	0.97	0.92	1.91	1.20	0.81	1.29	0.44	0.12	0.23	
18	0.41	0.60	1.11	1.60	0.79	2.19	1.04	0.89	1.12	0.47	0.18	0.29	
19	0.40	0.65	1.68	1.48	0.70	2.29	1.02	0.92	2.42	0.47	0.25	0.37	
20	0.33	0.51	1.65	1.39	0.63	1.83	0.95	1.70	3.01	0.50	0.34	0.45	
21	0.27	0.45	1.61	1.39	0.62	1.46	1.46	1.32	2.75	0.54	0.36	0.53	
22	0.18	0.34	1.35	1.15	0.73	1.24	1.13	1.22	2.32	0.57	0.35	0.57	
23	0.11	0.27	1.10	0.98	1.00	1.14	1.37	1.11	1.82	0.60	0.32	0.56	
24	0.07	0.31	0.90	0.87	1.14	1.24	1.44	1.07	1.44	0.58	0.27	0.52	
25	0.15	0.45	0.95	0.82	1.08	1.17	1.67	1.01	1.27	0.51	0.16	0.43	
26	0.23	0.49	1.21	0.78	0.99	1.13	1.49	0.92	1.20	0.42	0.07	0.32	
27	0.33	0.54	1.22	0.79	0.90	1.18	1.33	0.85	1.12	0.33	0.01	0.25	
28	0.38	0.61	1.12	0.91	0.84	1.25	1.18	0.79	1.50	0.26	-0.01	0.17	
29	0.44	0.61	0.98	1.02	0.79	1.08	1.05	0.69	1.04	0.20		0.14	
30	0.60	0.67	0.87	1.16	0.75	0.98	0.91	0.60	0.88	0.19		0.14	
31		0.62		2.06	0.70		0.78		0.76	0.22		0.19	
Mean	0.30	0.44	0.82	1.14	0.93	1.12	1.15	0.97	1.18	0.65	0.18	0.31	
Max	0.62	0.67	1.68	2.06	1.67	2.29	1.67	1.82	3.01	1.63	0.36	0.57	3.01
Min	-0.02	0.17	0.27	0.59	0.62	0.46	0.78	0.60	0.50	0.19	-0.01	0.14	-0.02

Annual Max Momentary Gage Height 3.78 m. (MSL.) , at 23.00 Hours , on Dec 19, 2018

Zero Gage at Bottom Elevation 0.00 m. (MSL.) , River Bed -0.80 m. (MSL.)

Left Bank Elevation 5.70 m. (MSL.) ,

Right Bank Elevation 5.10 m. (MSL.) , Drainage Are 588 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	16.20	15.30	18.30	24.30	53.80	18.90	25.80	20.10	15.30	21.90	5.60	5.80		
2	17.40	14.40	17.70	22.20	44.20	16.50	34.20	18.90	15.00	20.40	5.00	6.40		
3	18.60	15.00	16.50	19.80	35.10	13.80	37.50	22.50	17.10	19.80	7.25	7.50		
4	15.60	12.60	14.40	18.00	29.10	21.90	32.40	25.80	18.60	29.40	8.00	8.00		
5	11.75	10.25	11.75	17.70	24.60	24.60	30.00	26.70	32.40	52.20	9.25	9.50		
6	8.50	8.50	9.75	37.80	21.30	20.70	29.10	27.00	26.40	47.40	9.75	10.50		
7	6.00	7.25	8.75	29.40	20.70	22.50	34.20	28.20	36.30	37.20	9.25	11.25		
8	3.40	6.40	9.25	23.70	21.90	22.50	34.20	29.40	29.70	31.80	9.25	12.00		
9	2.70	6.80	10.75	30.30	30.00	23.70	38.40	28.50	26.40	28.50	8.75	12.60		
10	4.00	7.50	13.20	57.80	30.30	24.90	37.20	59.80	26.10	25.50	7.50	12.30		
11	5.60	9.50	15.60	67.80	29.10	25.80	34.20	40.20	29.70	22.80	5.60	11.25		
12	7.25	11.25	17.70	54.60	30.30	26.10	31.50	32.70	23.70	20.10	4.80	10.50		
13	9.00	12.90	19.50	44.60	30.60	27.90	30.60	27.30	21.30	19.50	4.00	8.75		
14	10.00	14.70	20.10	38.70	30.30	30.00	36.00	27.00	18.00	16.80	3.40	7.00		
15	10.75	17.10	20.70	35.10	28.50	35.40	33.60	23.40	16.50	15.00	3.60	6.20		
16	12.00	18.30	21.30	31.20	29.10	56.60	32.70	22.20	30.00	13.50	4.60	6.20		
17	12.60	17.10	24.00	29.10	27.60	63.40	36.00	24.30	38.70	13.20	5.40	7.75		
18	12.30	18.00	33.30	51.00	23.70	74.60	31.20	26.70	33.60	14.10	6.60	9.25		
19	12.00	19.50	54.20	46.20	21.00	79.50	30.60	27.60	86.00	14.10	8.25	11.25		
20	10.25	15.30	53.00	42.60	18.90	60.20	28.50	55.00	115.60	15.00	10.50	13.50		
21	8.75	13.50	51.40	42.60	18.60	45.40	45.40	39.80	102.50	16.20	11.00	15.90		
22	6.60	10.50	41.00	34.50	21.90	37.20	33.90	36.60	81.00	17.10	10.75	17.10		
23	5.20	8.75	33.00	29.40	30.00	34.20	41.80	33.30	59.80	18.00	10.00	16.80		
24	4.40	9.75	27.00	26.10	34.20	37.20	44.60	32.10	44.60	17.40	8.75	15.60		
25	6.00	13.50	28.50	24.60	32.40	35.10	53.80	30.30	38.10	15.30	6.20	12.90		
26	7.75	14.70	36.30	23.40	29.70	33.90	46.60	27.60	36.00	12.60	4.40	10.00		
27	10.25	16.20	36.60	23.70	27.00	35.40	40.20	25.50	33.60	10.25	3.20	8.25		
28	11.50	18.30	33.60	27.30	25.20	37.50	35.40	23.70	47.00	8.50	2.85	6.40		
29	13.20	18.30	29.40	30.60	23.70	32.40	31.50	20.70	31.20	7.00		5.80		
30	18.00	20.10	26.10	34.80	22.50	29.40	27.30	18.00	26.40	6.80		5.80		
31		18.60		69.40	21.00		23.40		22.80	7.50		6.80		
Total	297.55	419.85	752.65	1088.30	866.30	1047.20	1081.80	880.90	1179.40	614.85	193.50	308.85	8731.15	CMSDAY
Mean	9.92	13.54	25.09	35.11	27.95	34.91	34.90	29.36	38.05	19.83	6.91	9.96	23.92	CMS
Max	18.60	20.10	54.20	69.40	53.80	79.50	53.80	59.80	115.60	52.20	11.00	17.10	115.60	CMS
Min	2.70	6.40	8.75	17.70	18.60	13.80	23.40	18.00	15.00	6.80	2.85	5.80	2.70	CMS
Runoff	25.71	36.28	65.03	94.03	74.85	90.48	93.47	76.11	101.90	53.12	16.72	26.68	754.37	MCM

Momentary Peak 163.70 CMS. at 3.78 m. (MSL.) at 23.00 Hours , on Dec 19, 2018

Runoff Yield 40.68 Liters/Second/Square KM. Momentary Peak Yield 278.40 Liters/Second/Square KM.

WATER YEAR : 2018

SOUTHERN PENINSULA WEST COAST

Khlong Phangnga at Ban Bang Tong , Phangnga (X.245)

Lat 08 - 30 - 49 N Long 98 - 30 - 15 E

Location : on right bank at Ban Bang Tong.

	Ban Bang Tong	**Amphoe** Mueang	**Changwat** Phangnga
Drainge Area	242 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	Near the gage site.		**Elevation** +16.857 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings		
Period of Available Gage Records	2006 to date		
Rating Operation			
Period of Rating	2006 to date		
Rated by Flot	-		
Rated by Current Meter	2006 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 18 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

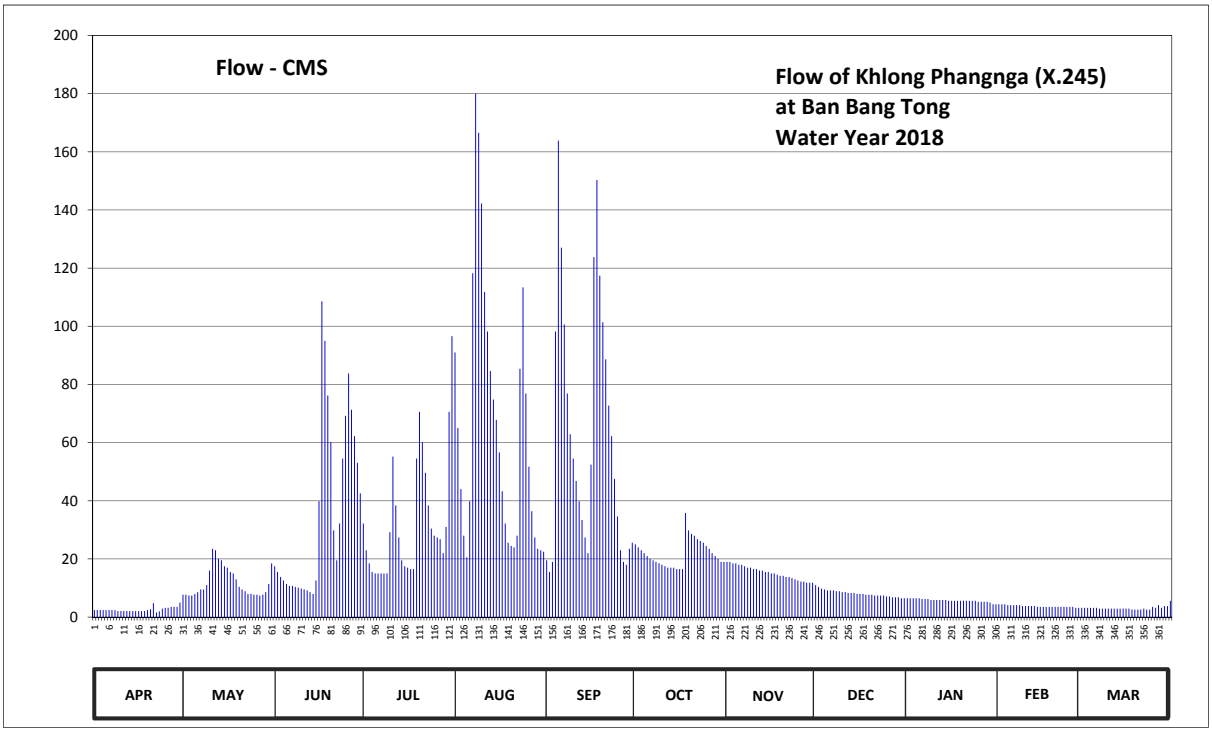
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	7.58	7.99	8.25	8.52	9.35	8.29	8.40	8.28	8.10	7.95	7.88	7.84	
2	7.58	7.99	8.21	8.36	9.00	8.21	8.38	8.28	8.08	7.95	7.88	7.84	
3	7.58	7.98	8.17	8.27	8.70	8.28	8.36	8.27	8.06	7.95	7.88	7.84	
4	7.58	7.98	8.14	8.21	8.45	9.44	8.34	8.27	8.05	7.95	7.87	7.84	
5	7.58	8.00	8.11	8.20	8.31	10.22	8.32	8.26	8.04	7.95	7.87	7.84	
6	7.58	8.02	8.09	8.20	8.64	9.80	8.30	8.26	8.04	7.94	7.87	7.84	
7	7.58	8.05	8.09	8.20	9.69	9.47	8.29	8.25	8.04	7.94	7.87	7.83	
8	7.58	8.05	8.08	8.20	10.40	9.17	8.28	8.24	8.03	7.94	7.87	7.83	
9	7.57	8.10	8.07	8.20	10.25	8.97	8.27	8.24	8.03	7.93	7.86	7.83	
10	7.57	8.22	8.06	8.47	9.98	8.85	8.26	8.23	8.02	7.93	7.86	7.83	
11	7.57	8.37	8.05	8.86	9.61	8.74	8.25	8.23	8.02	7.93	7.86	7.83	
12	7.57	8.36	8.04	8.62	9.44	8.64	8.24	8.22	8.01	7.93	7.86	7.83	
13	7.57	8.30	8.02	8.44	9.27	8.54	8.24	8.22	8.01	7.93	7.86	7.83	
14	7.57	8.29	8.00	8.29	9.14	8.44	8.24	8.21	8.01	7.93	7.85	7.83	
15	7.57	8.25	8.14	8.25	9.04	8.34	8.23	8.21	8.00	7.92	7.85	7.83	
16	7.57	8.24	8.64	8.24	8.88	8.82	8.23	8.20	8.00	7.92	7.85	7.83	
17	7.57	8.21	9.57	8.23	8.69	9.76	8.23	8.20	8.00	7.92	7.85	7.83	
18	7.57	8.20	9.40	8.23	8.52	10.07	8.58	8.19	7.99	7.92	7.85	7.82	
19	7.58	8.15	9.16	8.85	8.41	9.68	8.48	8.18	7.99	7.92	7.85	7.82	
20	7.59	8.08	8.93	9.08	8.39	9.48	8.46	8.18	7.99	7.92	7.85	7.82	
21	7.66	8.05	8.48	8.93	8.38	9.32	8.45	8.17	7.98	7.92	7.85	7.82	
22	7.78	8.03	8.29	8.78	8.45	9.11	8.43	8.17	7.98	7.92	7.85	7.83	
23	7.80	8.00	8.52	8.62	9.28	8.96	8.42	8.16	7.98	7.92	7.85	7.82	
24	7.83	8.00	8.85	8.49	9.63	8.75	8.41	8.15	7.98	7.92	7.85	7.82	
25	7.84	7.99	9.06	8.45	9.17	8.56	8.39	8.14	7.97	7.91	7.85	7.85	
26	7.84	7.99	9.26	8.44	8.81	8.36	8.37	8.13	7.97	7.91	7.85	7.84	
27	7.85	7.98	9.09	8.43	8.59	8.28	8.34	8.13	7.96	7.91	7.84	7.87	
28	7.85	7.99	8.96	8.34	8.44	8.26	8.32	8.12	7.96	7.91	7.84	7.84	
29	7.85	8.02	8.83	8.50	8.37	8.37	8.30	8.12	7.96	7.90		7.86	
30	7.90	8.11	8.68	9.08	8.36	8.41	8.28	8.12	7.95	7.88		7.86	
31		8.27		9.42	8.35		8.28		7.95	7.88		7.92	
Mean	7.66	8.11	8.51	8.50	8.97	8.92	8.33	8.20	8.00	7.92	7.86	7.84	
Max	7.90	8.37	9.57	9.42	10.40	10.22	8.58	8.28	8.10	7.95	7.88	7.92	10.40
Min	7.57	7.98	8.00	8.20	8.31	8.21	8.23	8.12	7.95	7.88	7.84	7.82	7.57

Annual Max Momentary Gage Height 10.60 m. (MSL.) , at 18.00 Hours , on Aug 8, 2018

Zero Gage at Bottom Elevation 0.00 m. (MSL.) , River Bed 6.57 m. (MSL.)

Left Bank Elevation 15.24 m. (MSL.) ,

Right Bank Elevation 16.31 m. (MSL.) , Drainage Are 242 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.40	7.70	17.50	32.20	91.00	19.50	25.00	19.00	11.00	6.50	4.40	3.20		
2	2.40	7.70	15.50	23.00	65.00	15.50	24.00	19.00	10.40	6.50	4.40	3.20		
3	2.40	7.40	13.80	18.50	44.00	19.00	23.00	18.50	9.80	6.50	4.40	3.20		
4	2.40	7.40	12.60	15.50	28.00	98.20	22.00	18.50	9.50	6.50	4.10	3.20		
5	2.40	8.00	11.40	15.00	20.50	163.80	21.00	18.00	9.20	6.50	4.10	3.20		
6	2.40	8.60	10.70	15.00	39.80	127.00	20.00	18.00	9.20	6.20	4.10	3.20		
7	2.40	9.50	10.70	15.00	118.20	100.60	19.50	17.50	9.20	6.20	4.10	2.90		
8	2.40	9.50	10.40	15.00	180.00	76.90	19.00	17.00	8.90	6.20	4.10	2.90		
9	2.10	11.00	10.10	15.00	166.50	62.90	18.50	17.00	8.90	5.90	3.80	2.90		
10	2.10	16.00	9.80	29.20	142.20	54.50	18.00	16.50	8.60	5.90	3.80	2.90		
11	2.10	23.50	9.50	55.20	111.80	46.80	17.50	16.50	8.60	5.90	3.80	2.90		
12	2.10	23.00	9.20	38.40	98.20	39.80	17.00	16.00	8.30	5.90	3.80	2.90		
13	2.10	20.00	8.60	27.40	84.60	33.40	17.00	16.00	8.30	5.90	3.80	2.90		
14	2.10	19.50	8.00	19.50	74.80	27.40	17.00	15.50	8.30	5.90	3.50	2.90		
15	2.10	17.50	12.60	17.50	67.80	22.00	16.50	15.50	8.00	5.60	3.50	2.90		
16	2.10	17.00	39.80	17.00	56.60	52.40	16.50	15.00	8.00	5.60	3.50	2.90		
17	2.10	15.50	108.60	16.50	43.30	123.80	16.50	15.00	8.00	5.60	3.50	2.90		
18	2.10	15.00	95.00	16.50	32.20	150.30	35.80	14.60	7.70	5.60	3.50	2.60		
19	2.40	13.00	76.20	54.50	25.60	117.40	29.80	14.20	7.70	5.60	3.50	2.60		
20	2.70	10.40	60.10	70.60	24.50	101.40	28.60	14.20	7.70	5.60	3.50	2.60		
21	4.80	9.50	29.80	60.10	24.00	88.60	28.00	13.80	7.40	5.60	3.50	2.60		
22	1.60	8.90	19.50	49.60	28.00	72.70	26.80	13.80	7.40	5.60	3.50	2.90		
23	2.00	8.00	32.20	38.40	85.40	62.20	26.20	13.40	7.40	5.60	3.50	2.60		
24	2.90	8.00	54.50	30.40	113.40	47.50	25.60	13.00	7.40	5.60	3.50	2.60		
25	3.20	7.70	69.20	28.00	76.90	34.60	24.50	12.60	7.10	5.30	3.50	3.50		
26	3.20	7.70	83.80	27.40	51.70	23.00	23.50	12.20	7.10	5.30	3.50	3.20		
27	3.50	7.40	71.30	26.80	36.40	19.00	22.00	12.20	6.80	5.30	3.20	4.10		
28	3.50	7.70	62.20	22.00	27.40	18.00	21.00	11.80	6.80	5.30	3.20	3.20		
29	3.50	8.60	53.10	31.00	23.50	23.50	20.00	11.80	6.80	5.00		3.80		
30	5.00	11.40	42.60	70.60	23.00	25.60	19.00	11.80	6.50	4.40		3.80		
31		18.50		96.60	22.50		19.00		6.50	4.40		5.60		
Total	78.50	370.60	1068.30	1007.40	2026.80	1867.30	677.80	457.90	252.50	177.50	104.60	96.80	8186.00	CMSDAY
Mean	2.62	11.95	35.61	32.50	65.38	62.24	21.86	15.26	8.15	5.73	3.74	3.12	22.43	CMS
Max	5.00	23.50	108.60	96.60	180.00	163.80	35.80	19.00	11.00	6.50	4.40	5.60	180.00	CMS
Min	1.60	7.40	8.00	15.00	20.50	15.50	16.50	11.80	6.50	4.40	3.20	2.60	1.60	CMS
Runoff	6.78	32.02	92.30	87.04	175.12	161.33	58.56	39.56	21.82	15.34	9.04	8.36	707.27	MCM

Momentary Peak 198.00 CMS. at 10.60 m. (MSL.) at 18.00 Hours , on Aug 8, 2018

Runoff Yield 92.68 Liters/Second/Square KM. Momentary Peak Yield 818.18 Liters/Second/Square KM.

WATER YEAR : 2018

SOUTHERN PENINSULA WEST COAST

Upper Khlong Tha Prae at Ban Karakat , Satun (X.261)

Lat 06 - 50 - 19 N Long 100 - 04 - 10 E

Location : on right bank at Ban Karakat.

	Ban Karakat	**Amphoe** Khuan Kalong	**Changwat** Satun
Drainge Area	99 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank near the top staff gage.		**Elevation** +30.451 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	2007 to date		
Rating Operation			
Period of Rating	2007 to date		
Rated by Flot	-		
Rated by Current Meter	2007 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 15 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

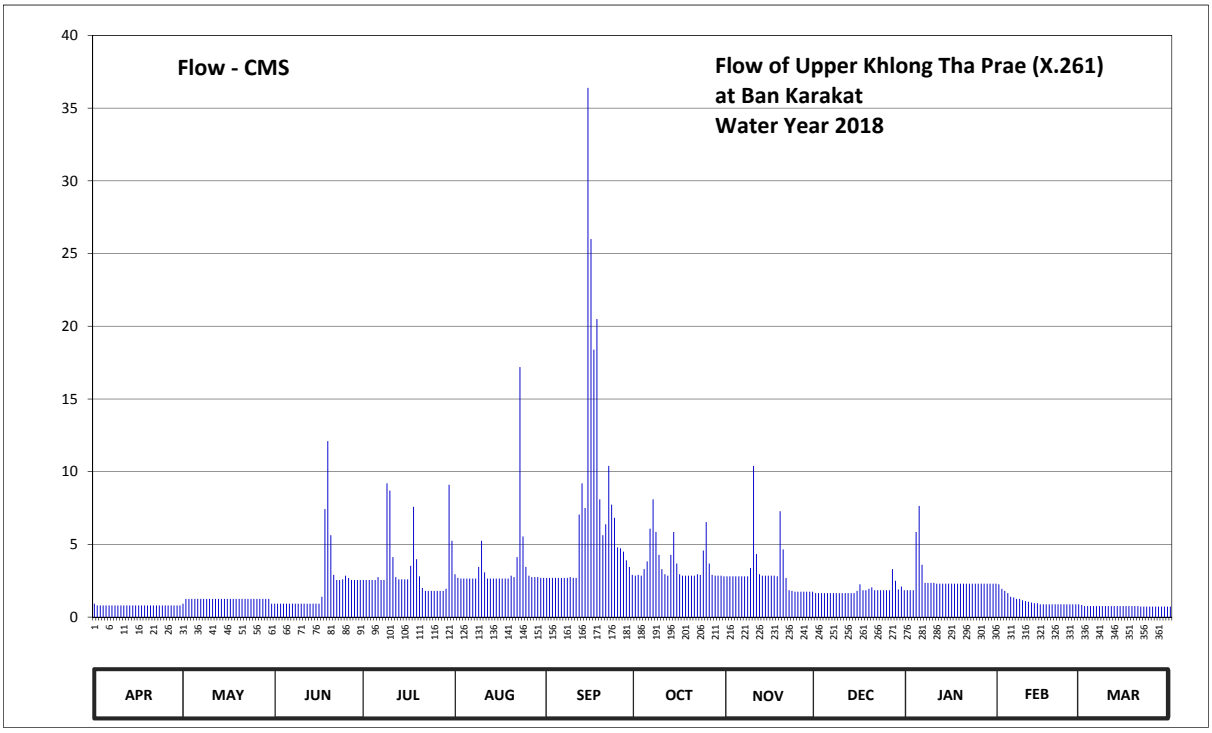
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	26.78	26.78	26.78	27.11	27.19	27.14	27.17	27.16	26.93	26.97	27.05	26.76	
2	26.75	26.85	26.78	27.11	27.14	27.14	27.18	27.16	26.93	26.97	26.99	26.74	
3	26.75	26.85	26.78	27.11	27.13	27.14	27.17	27.16	26.93	26.97	26.96	26.74	
4	26.75	26.85	26.78	27.11	27.13	27.14	27.24	27.16	26.93	27.58	26.93	26.74	
5	26.75	26.85	26.78	27.11	27.13	27.14	27.31	27.16	26.93	27.82	26.88	26.74	
6	26.75	26.85	26.78	27.15	27.13	27.14	27.61	27.16	26.93	27.28	26.87	26.74	
7	26.75	26.85	26.78	27.11	27.13	27.14	27.88	27.16	26.93	27.07	26.85	26.74	
8	26.75	26.85	26.78	27.11	27.13	27.14	27.58	27.16	26.93	27.07	26.85	26.74	
9	26.75	26.85	26.78	28.02	27.26	27.15	27.37	27.25	26.93	27.07	26.83	26.74	
10	26.75	26.85	26.78	27.96	27.50	27.14	27.24	28.14	26.93	27.07	26.82	26.74	
11	26.75	26.85	26.78	27.35	27.21	27.14	27.19	27.38	26.93	27.06	26.81	26.74	
12	26.75	26.85	26.78	27.15	27.13	27.74	27.17	27.19	26.93	27.06	26.80	26.74	
13	26.75	26.85	26.78	27.12	27.13	28.02	27.37	27.17	26.93	27.06	26.79	26.74	
14	26.75	26.85	26.78	27.12	27.13	27.80	27.58	27.17	26.93	27.06	26.79	26.74	
15	26.75	26.85	26.78	27.12	27.13	29.68	27.29	27.17	26.96	27.06	26.77	26.74	
16	26.75	26.85	26.78	27.12	27.13	29.25	27.19	27.17	27.05	27.06	26.77	26.74	
17	26.75	26.85	26.88	27.27	27.13	28.76	27.17	27.17	26.97	27.06	26.77	26.74	
18	26.75	26.85	27.79	27.81	27.13	28.90	27.17	27.16	26.97	27.06	26.77	26.74	
19	26.75	26.85	28.31	27.33	27.13	27.88	27.17	27.77	26.99	27.06	26.77	26.74	
20	26.75	26.85	27.55	27.16	27.17	27.55	27.17	27.42	27.01	27.06	26.77	26.74	
21	26.75	26.85	27.18	27.00	27.15	27.65	27.17	27.14	26.97	27.06	26.77	26.73	
22	26.75	26.85	27.11	26.96	27.35	28.14	27.19	26.97	26.97	27.06	26.77	26.73	
23	26.75	26.85	27.11	26.96	28.68	27.83	27.18	26.96	26.97	27.06	26.77	26.73	
24	26.75	26.85	27.12	26.96	27.54	27.71	27.41	26.95	26.97	27.06	26.77	26.73	
25	26.75	26.85	27.17	26.96	27.26	27.44	27.67	26.95	26.97	27.06	26.77	26.73	
26	26.75	26.85	27.14	26.96	27.17	27.43	27.29	26.95	26.97	27.06	26.77	26.73	
27	26.75	26.85	27.11	26.96	27.15	27.40	27.18	26.95	27.24	27.06	26.77	26.73	
28	26.75	26.85	27.11	26.96	27.15	27.32	27.17	26.95	27.10	27.06	26.77	26.73	
29	26.75	26.85	27.11	26.99	27.15	27.26	27.17	26.95	26.98	27.06		26.73	
30	26.75	26.85	27.11	28.01	27.14	27.18	27.17	26.95	27.02	27.06		26.73	
31		26.78		27.50	27.14		27.16		26.97	27.06		26.73	
Mean	26.75	26.85	27.01	27.22	27.23	27.65	27.29	27.17	26.97	27.10	26.82	26.74	
Max	26.78	26.85	28.31	28.02	28.68	29.68	27.88	28.14	27.24	27.82	27.05	26.76	29.68
Min	26.75	26.78	26.78	26.96	27.13	27.14	27.16	26.95	26.93	26.97	26.77	26.73	26.73

Annual Max Momentary Gage Height 30.33 m. (MSL.) , at 13.00 Hours , on Sep 15, 2018

Zero Gage at Bottom Elevation 0.00 m. (MSL.) , River Bed 26.44 m. (MSL.)

Left Bank Elevation 30.56 m. (MSL.) ,

Right Bank Elevation 31.23 m. (MSL.) , Drainage Are 99 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.92	0.92	0.92	2.55	2.95	2.70	2.85	2.80	1.65	1.85	2.25	0.84		
2	0.80	1.25	0.92	2.55	2.70	2.70	2.90	2.80	1.65	1.85	1.95	0.76		
3	0.80	1.25	0.92	2.55	2.65	2.70	2.85	2.80	1.65	1.85	1.80	0.76		
4	0.80	1.25	0.92	2.55	2.65	2.70	3.30	2.80	1.65	5.85	1.65	0.76		
5	0.80	1.25	0.92	2.55	2.65	2.70	3.83	2.80	1.65	7.65	1.40	0.76		
6	0.80	1.25	0.92	2.75	2.65	2.70	6.08	2.80	1.65	3.60	1.35	0.76		
7	0.80	1.25	0.92	2.55	2.65	2.70	8.10	2.80	1.65	2.35	1.25	0.76		
8	0.80	1.25	0.92	2.55	2.65	2.70	5.85	2.80	1.65	2.35	1.25	0.76		
9	0.80	1.25	0.92	9.20	3.45	2.75	4.28	3.38	1.65	2.35	1.15	0.76		
10	0.80	1.25	0.92	8.70	5.25	2.70	3.30	10.40	1.65	2.35	1.10	0.76		
11	0.80	1.25	0.92	4.13	3.08	2.70	2.95	4.35	1.65	2.30	1.05	0.76		
12	0.80	1.25	0.92	2.75	2.65	7.05	2.85	2.95	1.65	2.30	1.00	0.76		
13	0.80	1.25	0.92	2.60	2.65	9.20	4.28	2.85	1.65	2.30	0.96	0.76		
14	0.80	1.25	0.92	2.60	2.65	7.50	5.85	2.85	1.65	2.30	0.96	0.76		
15	0.80	1.25	0.92	2.60	2.65	36.40	3.68	2.85	1.80	2.30	0.88	0.76		
16	0.80	1.25	0.92	2.60	2.65	26.00	2.95	2.85	2.25	2.30	0.88	0.76		
17	0.80	1.25	1.40	3.53	2.65	18.40	2.85	2.85	1.85	2.30	0.88	0.76		
18	0.80	1.25	7.43	7.58	2.65	20.50	2.85	2.80	1.85	2.30	0.88	0.76		
19	0.80	1.25	12.10	3.98	2.65	8.10	2.85	7.28	1.95	2.30	0.88	0.76		
20	0.80	1.25	5.63	2.80	2.85	5.63	2.85	4.65	2.05	2.30	0.88	0.76		
21	0.80	1.25	2.90	2.00	2.75	6.38	2.85	2.70	1.85	2.30	0.88	0.72		
22	0.80	1.25	2.55	1.80	4.13	10.40	2.95	1.85	1.85	2.30	0.88	0.72		
23	0.80	1.25	2.55	1.80	17.20	7.73	2.90	1.80	1.85	2.30	0.88	0.72		
24	0.80	1.25	2.60	1.80	5.55	6.83	4.58	1.75	1.85	2.30	0.88	0.72		
25	0.80	1.25	2.85	1.80	3.45	4.80	6.53	1.75	1.85	2.30	0.88	0.72		
26	0.80	1.25	2.70	1.80	2.85	4.73	3.68	1.75	1.85	2.30	0.88	0.72		
27	0.80	1.25	2.55	1.80	2.75	4.50	2.90	1.75	3.30	2.30	0.88	0.72		
28	0.80	1.25	2.55	1.80	2.75	3.90	2.85	1.75	2.50	2.30	0.88	0.72		
29	0.80	1.25	2.55	1.95	2.75	3.45	2.85	1.75	1.90	2.30		0.72		
30	0.80	1.25	2.55	9.10	2.70	2.90	2.85	1.75	2.10	2.30		0.72		
31		0.92		5.25	2.70		2.80		1.85	2.30		0.72		
Total	24.12	38.09	67.63	104.57	106.96	224.15	115.04	91.06	57.60	80.35	31.44	23.20	964.21	CMSDAY
Mean	0.80	1.23	2.25	3.37	3.45	7.47	3.71	3.04	1.86	2.59	1.12	0.75	2.64	CMS
Max	0.92	1.25	12.10	9.20	17.20	36.40	8.10	10.40	3.30	7.65	2.25	0.84	36.40	CMS
Min	0.80	0.92	0.92	1.80	2.65	2.70	2.80	1.75	1.65	1.85	0.88	0.72	0.72	CMS
Runoff	2.08	3.29	5.84	9.03	9.24	19.37	9.94	7.87	4.98	6.94	2.72	2.00	83.31	MCM

Momentary Peak 57.20 CMS. at 30.33 m. (MSL.) at 13.00 Hours , on Sep 15, 2018

Runoff Yield 26.68 Liters/Second/Square KM. Momentary Peak Yield 577.78 Liters/Second/Square KM.

WATER YEAR : 2018

SOUTHERN PENINSULA WEST COAST

Khlong Duson at Ban Panjor , Satun (X.279)

Lat 06 - 46 - 39 N Long 100 - 04 - 16 E

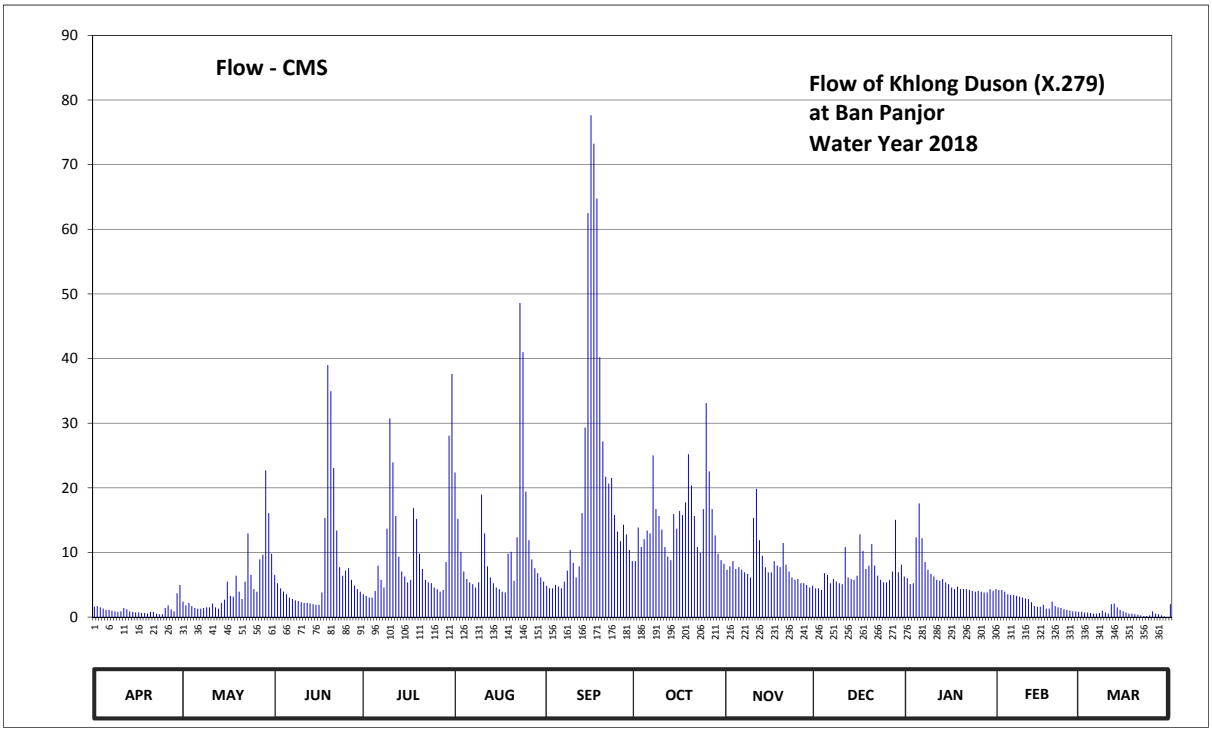
Location : on right bank at Ban Panjor.

	Ban Panjor	**Amphoe** Khuan Don	**Changwat** Satun
Drainge Area	262 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+18.423 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank near the top staff gage.		**Elevation** +25.537 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	2011 to date		
Rating Operation			
Period of Rating	2011 to date		
Rated by Flot	-		
Rated by Current Meter	2011 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 16 discharge measurements made in 2018.		

Gage Height in Meter (MSL.) Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	19.27	19.35	19.68	19.45	20.74	19.55	19.84	19.74	19.52	19.64	19.50	19.19	
2	19.28	19.29	19.58	19.43	20.28	19.52	20.19	19.78	19.52	19.57	19.50	19.18	
3	19.26	19.33	19.52	19.41	19.94	19.52	19.99	19.84	19.50	19.58	19.48	19.18	
4	19.24	19.28	19.48	19.41	19.72	19.56	20.07	19.75	19.70	20.09	19.45	19.17	
5	19.22	19.25	19.45	19.49	19.63	19.54	20.16	19.77	19.68	20.44	19.44	19.16	
6	19.22	19.24	19.41	19.79	19.59	19.52	20.13	19.74	19.58	20.08	19.44	19.16	
7	19.21	19.24	19.39	19.62	19.57	19.60	20.89	19.71	19.63	19.83	19.43	19.17	
8	19.20	19.25	19.37	19.53	19.53	19.73	20.38	19.69	19.60	19.74	19.42	19.21	
9	19.19	19.26	19.36	20.18	19.59	19.96	20.31	19.65	19.58	19.69	19.41	19.18	
10	19.20	19.26	19.34	21.21	20.53	19.82	20.17	20.29	19.57	19.66	19.40	19.16	
11	19.25	19.32	19.33	20.83	20.13	19.65	19.99	20.59	19.99	19.62	19.39	19.31	
12	19.23	19.26	19.33	20.31	19.78	19.78	19.89	20.06	19.65	19.61	19.34	19.32	
13	19.20	19.24	19.32	19.89	19.65	20.34	19.85	19.90	19.63	19.63	19.28	19.26	
14	19.19	19.33	19.31	19.72	19.58	21.13	20.33	19.77	19.62	19.59	19.27	19.22	
15	19.18	19.38	19.30	19.66	19.53	22.74	20.18	19.71	19.67	19.57	19.27	19.20	
16	19.18	19.60	19.30	19.59	19.51	23.35	20.36	19.71	20.12	19.53	19.30	19.18	
17	19.17	19.43	19.47	19.62	19.48	23.17	20.32	19.84	19.95	19.51	19.24	19.16	
18	19.17	19.42	20.29	20.39	19.47	22.83	20.45	19.79	19.75	19.54	19.24	19.16	
19	19.16	19.67	21.65	20.28	19.92	21.71	20.90	19.77	19.79	19.51	19.35	19.15	
20	19.19	19.48	21.44	19.92	19.94	21.01	20.62	20.03	20.02	19.51	19.28	19.14	
21	19.19	19.39	20.78	19.75	19.61	20.70	20.31	19.80	19.79	19.51	19.26	19.13	
22	19.16	19.60	20.16	19.62	20.09	20.64	19.99	19.72	19.67	19.50	19.25	19.12	
23	19.15	20.13	19.77	19.59	22.13	20.69	19.93	19.65	19.62	19.49	19.23	19.12	
24	19.15	19.68	19.67	19.58	21.75	20.32	20.38	19.62	19.59	19.48	19.22	19.13	
25	19.25	19.51	19.73	19.53	20.56	20.15	21.34	19.63	19.59	19.49	19.21	19.20	
26	19.29	19.48	19.76	19.51	20.06	20.05	20.75	19.58	19.62	19.48	19.20	19.16	
27	19.23	19.86	19.62	19.48	19.86	20.22	20.38	19.58	19.72	19.47	19.20	19.15	
28	19.20	19.91	19.55	19.50	19.76	20.12	20.11	19.56	20.27	19.47	19.19	19.13	
29	19.46	20.76	19.51	19.83	19.70	19.96	19.92	19.53	19.71	19.51		19.11	
30	19.56	20.34	19.48	21.06	19.65	19.84	19.85	19.55	19.80	19.49		19.10	
31		19.92		21.58	19.60		19.81		19.66	19.51		19.31	
Mean	19.23	19.53	19.71	19.90	19.96	20.49	20.25	19.78	19.71	19.62	19.33	19.18	
Max	19.56	20.76	21.65	21.58	22.13	23.35	21.34	20.59	20.27	20.44	19.50	19.32	23.35
Min	19.15	19.24	19.30	19.41	19.47	19.52	19.81	19.53	19.50	19.47	19.19	19.10	19.10

Annual Max Momentary Gage Height	23.68	m. (MSL.) ,	at 19.00 Hours , on Sep 15, 2018		
Zero Gage at Bottom Elevation	18.42	m. (MSL.) ,	River Bed	18.56	m. (MSL.)
Left Bank Elevation	24.10	m. (MSL.) ,			
Right Bank Elevation	23.96	m. (MSL.) ,	Drainage Are	262	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2018 to March 31, 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.60	2.40	6.54	3.55	22.38	4.85	8.66	7.32	4.46	6.02	4.20	0.81		
2	1.70	1.80	5.24	3.29	15.20	4.46	13.85	7.84	4.46	5.11	4.20	0.72		
3	1.50	2.20	4.46	3.03	10.10	4.46	10.85	8.66	4.20	5.24	3.94	0.72		
4	1.30	1.70	3.94	3.03	7.06	4.98	12.05	7.45	6.80	12.35	3.55	0.63		
5	1.10	1.40	3.55	4.07	5.89	4.72	13.40	7.71	6.54	17.60	3.42	0.54		
6	1.10	1.30	3.03	7.97	5.37	4.46	12.95	7.32	5.24	12.20	3.42	0.54		
7	1.00	1.30	2.80	5.76	5.11	5.50	25.02	6.93	5.89	8.52	3.29	0.63		
8	0.90	1.40	2.60	4.59	4.59	7.19	16.70	6.67	5.50	7.32	3.16	1.00		
9	0.81	1.50	2.50	13.70	5.37	10.40	15.65	6.15	5.24	6.67	3.03	0.72		
10	0.90	1.50	2.30	30.78	18.95	8.38	13.55	15.35	5.11	6.28	2.90	0.54		
11	1.40	2.10	2.20	23.94	12.95	6.15	10.85	19.85	10.85	5.76	2.80	2.00		
12	1.20	1.50	2.20	15.65	7.84	7.84	9.36	11.90	6.15	5.63	2.30	2.10		
13	0.90	1.30	2.10	9.36	6.15	16.10	8.80	9.50	5.89	5.89	1.70	1.50		
14	0.81	2.20	2.00	7.06	5.24	29.34	15.95	7.71	5.76	5.37	1.60	1.10		
15	0.72	2.70	1.90	6.28	4.59	62.50	13.70	6.93	6.41	5.11	1.60	0.90		
16	0.72	5.50	1.90	5.37	4.33	77.65	16.40	6.93	12.80	4.59	1.90	0.72		
17	0.63	3.29	3.81	5.76	3.94	73.25	15.80	8.66	10.25	4.33	1.30	0.54		
18	0.63	3.16	15.35	16.85	3.81	64.75	17.75	7.97	7.45	4.72	1.30	0.54		
19	0.54	6.41	39.00	15.20	9.80	40.20	25.20	7.71	7.97	4.33	2.40	0.45		
20	0.81	3.94	34.96	9.80	10.10	27.18	20.34	11.45	11.30	4.33	1.70	0.36		
21	0.81	2.80	23.06	7.45	5.63	21.70	15.65	8.10	7.97	4.33	1.50	0.27		
22	0.54	5.50	13.40	5.76	12.35	20.68	10.85	7.06	6.41	4.20	1.40	0.18		
23	0.45	12.95	7.71	5.37	48.60	21.53	9.95	6.15	5.76	4.07	1.20	0.18		
24	0.45	6.54	6.41	5.24	41.00	15.80	16.70	5.76	5.37	3.94	1.10	0.27		
25	1.40	4.33	7.19	4.59	19.40	13.25	33.12	5.89	5.37	4.07	1.00	0.90		
26	1.80	3.94	7.58	4.33	11.90	11.75	22.55	5.24	5.76	3.94	0.90	0.54		
27	1.20	8.94	5.76	3.94	8.94	14.30	16.70	5.24	7.06	3.81	0.90	0.45		
28	0.90	9.65	4.85	4.20	7.58	12.80	12.65	4.98	15.05	3.81	0.81	0.27		
29	3.68	22.72	4.33	8.52	6.80	10.40	9.80	4.59	6.93	4.33		0.09		
30	4.98	16.10	3.94	28.08	6.15	8.66	8.80	4.85	8.10	4.07		0.00		
31		9.80		37.62	5.50		8.24		6.28	4.33		2.00		
Total	36.48	151.87	226.61	310.14	342.62	615.23	461.84	237.87	218.33	182.27	62.52	22.21	2867.99	CMSDAY
Mean	1.22	4.90	7.55	10.00	11.05	20.51	14.90	7.93	7.04	5.88	2.23	0.72	7.86	CMS
Max	4.98	22.72	39.00	37.62	48.60	77.65	33.12	19.85	15.05	17.60	4.20	2.10	77.65	CMS
Min	0.45	1.30	1.90	3.03	3.81	4.46	8.24	4.59	4.20	3.81	0.81	0.00	0.00	CMS
Runoff	3.15	13.12	19.58	26.80	29.60	53.16	39.90	20.55	18.86	15.75	5.40	1.92	247.79	MCM

Momentary Peak 86.74 CMS. at 23.68 m. (MSL.) at 19.00 Hours , on Sep 15, 2018

Runoff Yield 29.99 Liters/Second/Square KM. Momentary Peak Yield 331.07 Liters/Second/Square KM.

Suspended Sediment Station

Water Year 2018

WATER YEAR : 2018

KHONG RIVER BASIN

Huai Mong at Ban Na Ang , Udon Thani (Kh.18)

Lat 17 - 34 - 41 N Long 102 - 20 - 22 E

Location : on right bank between Phu Pha Dang and Phu Phan about 2 kilometers from Ban Na Ang.

Ban Na Ang **Amphoe** Ban Phu **Changwat** Udon Thani

Drainge Area	1,309 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1999-Cont'd
Actual Measurement	1999-Cont'd
Using Rating Curve Water Year	1999 - 2018
Number of observation	285
R-Square	0.8601
Remarks	Continued Sediment Station

$$QS = 3.8605\ QW^{1.19150}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.25	7.01	80.22	22.25	61.72	93.18	1112.87	59.71	3.63	3.63	0.00	0.00		
2	0.40	7.26	71.90	21.34	49.85	116.08	1193.34	55.73	4.09	2.74	0.00	0.00		
3	0.57	7.26	61.72	21.34	40.57	132.96	1193.34	49.85	4.32	2.10	0.00	0.00		
4	0.74	7.52	53.76	21.34	32.64	125.68	1006.84	44.62	4.56	1.49	0.00	0.00		
5	0.92	7.78	45.99	21.34	26.90	99.90	617.96	41.91	4.80	0.74	0.00	0.00		
6	1.11	8.03	40.57	22.25	21.34	69.84	354.88	37.89	5.04	0.25	0.00	0.00		
7	1.30	8.29	35.25	22.25	16.88	73.97	111.33	35.25	5.52	0.00	0.00	0.00		
8	1.49	8.55	30.71	22.25	12.61	67.80	40.57	32.64	5.52	0.00	0.00	0.00		
9	1.69	8.55	26.90	22.25	14.29	78.12	15.15	30.71	5.28	0.00	0.00	0.00		
10	1.89	8.82	23.17	20.44	16.88	97.65	8.82	27.84	5.28	0.00	0.00	0.00		
11	2.10	9.34	19.54	18.65	18.65	145.23	4.56	25.96	5.04	0.00	0.00	0.00		
12	2.31	9.88	16.88	16.88	21.34	203.74	5.76	24.09	5.04	0.00	0.00	0.00		
13	2.52	10.41	13.17	15.15	24.09	266.93	5.04	21.34	5.04	0.00	0.00	0.00		
14	2.74	10.96	10.41	13.17	25.96	295.80	4.80	19.54	4.80	0.00	0.00	0.00		
15	2.96	10.96	8.82	12.05	28.79	331.70	3.86	17.76	4.80	0.00	0.00	0.00		
16	3.18	11.50	9.34	13.17	31.67	351.55	3.86	15.15	4.56	0.00	0.00	0.00		
17	3.41	11.50	9.34	16.01	32.64	398.58	7.01	13.73	4.56	0.00	0.00	0.00		
18	3.63	12.05	9.88	19.54	33.95	515.42	16.88	12.61	4.56	0.00	0.00	0.00		
19	3.86	12.61	9.88	23.17	35.25	687.19	6.26	11.50	4.32	0.00	0.00	0.00		
20	4.09	12.61	10.41	26.90	35.25	754.35	8.55	8.82	4.32	0.00	0.00	0.00		
21	4.32	13.17	10.41	30.71	36.57	491.27	53.76	7.78	4.32	0.00	0.00	0.00		
22	4.56	14.29	10.96	35.25	37.89	364.89	183.04	7.26	4.09	0.00	0.00	0.00		
23	5.04	16.01	10.96	40.57	39.23	344.92	299.03	6.76	4.09	0.00	0.00	0.00		
24	5.28	17.76	11.50	35.25	40.57	247.96	273.31	6.26	4.09	0.00	0.00	0.00		
25	5.52	19.54	11.50	27.84	41.91	86.55	224.79	5.76	3.86	0.00	0.00	0.00		
26	5.76	21.34	29.75	21.34	43.26	84.43	183.04	5.28	3.86	0.00	0.00	0.00		
27	6.26	22.25	177.92	15.15	45.99	150.19	145.23	4.80	3.86	0.00	0.00	0.00		
28	6.51	27.84	335.00	21.34	49.85	224.79	106.68	4.09	3.86	0.00	0.00	0.00		
29	6.76	47.92	206.36	28.79	55.73	315.30	73.97	3.86	3.86	0.00		0.00		
30	7.01	61.72	78.12	39.23	61.72	543.83	65.76	3.63	3.86	0.00		0.00		
31		76.04		51.80	76.04		63.73		3.86	0.00		0.00		
Total	98.18	528.77	1470.34	739.01	1110.03	7759.80	7394.02	642.13	138.69	10.95	0.00	0.00	19891.92	Tonday
Mean	3.27	17.06	49.01	23.84	35.81	258.66	238.52	21.40	4.47	0.35	0.00	0.00	54.50	Ton/day
Max	7.01	76.04	335.00	51.80	76.04	754.35	1193.34	59.71	5.52	3.63	0.00	0.00	1193.34	Ton/day
Min	0.25	7.01	8.82	12.05	12.61	67.80	3.86	3.63	3.63	0.00	0.00	0.00	0.00	Ton/day

WATER YEAR : 2018

KHONG RIVER BASIN

Loei River at Ban Na Lak , Loei (Kh.28A)

Lat 17 - 18 - 32 N Long 101 - 46 - 25 E

Location : on right bank at the bridge of Wang Saphung - Loei Highway.

Ban Na Lak **Amphoe** Wang Saphung **Changwat** Loei

Drainge Area	1,271 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1998-Cont'd
Actual Measurement	1998-Cont'd
Using Rating Curve Water Year	2018
Number of observation	20
R-Square	0.9138
Remarks	Continued Sediment Station

$$QS = 0.9134\ QW^{1.77070}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	21.80	27.21	465.49	161.65	847.15	250.13	567.45	18.09	12.59	60.73	33.14	54.83		
2	24.44	70.06	465.49	129.36	436.63	535.94	535.94	15.79	11.59	60.73	28.65	54.83		
3	20.53	46.48	250.13	109.15	265.21	280.67	242.73	15.79	10.63	60.73	24.44	51.98		
4	18.09	66.89	187.09	97.75	180.58	2864.78	174.17	13.62	10.63	66.89	23.11	49.19		
5	16.92	137.85	149.55	90.45	105.29	20550.97	143.65	18.09	10.63	101.49	27.21	46.48		
6	15.79	105.29	155.55	83.41	90.45	7851.45	90.45	20.53	9.71	63.78	25.81	46.48		
7	15.79	79.98	137.85	76.61	94.07	1116.59	63.78	20.53	9.71	60.73	57.75	49.19		
8	15.79	46.48	125.20	73.30	117.05	621.69	54.83	20.53	8.82	54.83	63.78	49.19		
9	15.79	33.14	117.05	79.98	105.29	822.00	97.75	21.80	8.82	54.83	79.98	43.83		
10	14.69	24.44	113.07	86.90	228.23	1211.05	79.98	21.80	8.82	54.83	70.06	46.48		
11	14.69	25.81	228.23	86.90	265.21	847.15	36.29	23.11	7.98	54.83	63.78	38.73		
12	21.80	31.61	320.99	83.41	312.74	772.69	31.61	23.11	7.98	54.83	70.06	31.61		
13	137.85	109.15	193.70	79.98	304.58	643.99	27.21	24.44	7.98	51.98	54.83	34.70		
14	109.15	320.99	155.55	97.75	304.58	1032.37	25.81	25.81	7.98	51.98	51.98	38.73		
15	121.09	242.73	137.85	109.15	228.23	924.58	24.44	25.81	7.16	51.98	51.98	46.48		
16	117.05	174.17	125.20	94.07	200.41	964.40	23.11	19.30	6.39	51.98	51.98	46.48		
17	133.57	113.07	121.09	174.17	180.58	578.12	25.81	21.80	6.39	49.19	57.75	43.83		
18	121.09	117.05	143.65	872.63	167.86	436.63	25.81	23.11	13.62	46.48	63.78	43.83		
19	113.07	60.73	137.85	3299.85	155.55	3396.55	25.81	27.21	90.45	43.83	60.73	38.73		
20	121.09	54.83	143.65	2046.41	137.85	5271.61	30.11	28.65	70.06	41.25	57.75	36.29		
21	117.05	54.83	143.65	1711.00	137.85	2263.00	38.73	25.81	66.89	38.73	57.75	34.70		
22	117.05	427.19	113.07	911.47	133.57	712.92	73.30	23.11	63.78	38.73	57.75	33.14		
23	105.29	1563.48	125.20	399.41	117.05	354.92	155.55	19.30	63.78	34.70	57.75	34.70		
24	101.49	809.55	143.65	193.70	109.15	272.89	133.57	19.30	63.78	34.70	57.75	33.14		
25	79.98	588.89	90.45	200.41	129.36	228.23	109.15	16.92	63.78	34.70	54.83	34.70		
26	34.70	399.41	129.36	117.05	167.86	193.70	83.41	15.79	63.78	33.14	54.83	34.70		
27	23.11	320.99	125.20	701.22	446.16	161.65	66.89	14.69	63.78	33.14	60.73	31.61		
28	27.21	329.33	320.99	834.54	2834.74	137.85	57.75	7.98	60.73	31.61	57.75	31.61		
29	25.81	304.58	363.63	446.16	1689.57	174.17	54.83	8.82	60.73	31.61		28.65		
30	34.70	515.37	228.23	578.12	465.49	174.17	34.70	14.69	60.73	129.36		30.11		
31		772.69		1192.63	235.44		20.53		60.73	83.41		28.65		
Total	1856.47	7974.27	5657.66	15218.59	11193.78	55646.86	3155.15	595.33	1020.43	1661.73	1477.69	1247.60	106705.56	Tonday
Mean	61.88	257.23	188.59	490.92	361.09	1854.90	101.78	19.84	32.92	53.60	52.77	40.25	292.34	Ton/day
Max	137.85	1563.48	465.49	3299.85	2834.74	20550.97	567.45	28.65	90.45	129.36	79.98	54.83	20550.97	Ton/day
Min	14.69	24.44	90.45	73.30	90.45	137.85	20.53	7.98	6.39	31.61	23.11	28.65	6.39	Ton/day

WATER YEAR : 2018

KHONG RIVER BASIN

Loei River at Ban Fak loei , Loei (Kh.58A)

Lat 17 - 29 - 36 N Long 101 - 44 - 17 E

Location : on left bank at the bridge on road.

Ban Fak Loei **Amphoe** Mueang **Changwat** Loei

Drainge Area	3,093 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1998-Cont'd
Actual Measurement	1998-Cont'd
Using Rating Curve Water Year	2018
Number of observation	36
R-Square	0.8999
Remarks	Continued Sediment Station

$$QS = 0.4648\ QW^{1.71280}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.43	434.73	975.61	434.73	809.18	249.79	525.75	5.43	4.57	2.08	8.35	8.35		
2	1.40	220.89	615.74	312.18	518.93	317.58	631.68	13.67	4.57	1.79	3.05	7.83		
3	0.39	171.69	328.62	155.08	356.82	280.26	422.32	10.87	4.17	1.52	1.15	7.83		
4	0.25	113.13	202.39	123.99	193.39	472.86	239.96	6.35	4.17	1.52	1.52	7.32		
5	0.17	259.79	171.69	76.84	131.49	4185.44	188.91	4.99	3.78	1.40	2.71	3.78		
6	0.12	264.90	398.08	65.10	106.09	4587.48	143.04	6.35	3.05	1.27	2.71	7.83		
7	0.11	202.39	392.02	54.18	99.25	1097.70	99.25	8.89	3.05	2.39	1.79	4.99		
8	0.10	123.99	306.71	44.11	116.68	512.31	83.00	6.82	3.05	2.08	1.04	6.82		
9	0.12	56.86	184.56	39.40	147.04	615.74	67.92	5.88	3.05	1.52	0.55	6.82		
10	0.11	34.97	147.04	54.18	193.39	747.99	59.54	6.82	3.41	1.04	0.93	6.35		
11	0.10	49.04	175.91	51.61	362.66	639.72	28.69	7.32	2.71	0.93	9.44	5.43		
12	0.19	70.87	386.12	51.61	323.14	546.10	7.32	8.35	3.41	1.15	7.32	4.17		
13	20.03	139.18	275.14	44.11	264.90	592.14	4.17	12.71	4.17	0.93	10.87	3.05		
14	10.00	295.99	188.91	41.76	275.14	909.35	0.46	23.58	4.57	1.04	8.89	2.08		
15	12.71	290.75	150.99	62.32	235.16	946.97	0.35	21.19	5.88	1.04	7.83	3.41		
16	17.80	230.29	127.76	49.04	202.39	722.38	0.35	14.66	4.99	1.04	7.32	2.71		
17	27.37	193.39	106.09	49.04	188.91	518.93	2.08	10.00	4.17	0.73	8.35	3.05		
18	28.69	163.30	135.35	827.03	180.17	392.02	4.57	10.87	4.17	0.35	10.00	1.79		
19	23.58	83.00	163.30	3337.76	163.30	1196.29	4.57	13.67	3.78	0.73	10.00	2.08		
20	54.18	56.86	264.90	3029.90	155.08	3894.04	7.83	14.66	3.78	0.93	10.87	5.43		
21	37.16	65.10	184.56	1859.90	143.04	2257.90	11.78	27.37	3.78	0.73	9.44	4.99		
22	28.69	244.91	135.35	1134.26	127.76	937.51	51.61	11.78	3.41	0.43	8.89	4.17		
23	24.82	1875.00	131.49	615.74	123.99	546.10	216.15	8.35	3.41	0.25	9.44	1.40		
24	18.90	827.03	102.61	312.18	127.76	380.13	317.58	7.32	2.71	0.14	9.44	4.99		
25	13.67	872.36	83.00	225.57	150.99	254.82	275.14	7.32	2.08	0.43	8.35	6.82		
26	6.82	773.97	89.37	188.91	197.82	216.15	143.04	6.35	3.41	0.43	8.35	6.82		
27	1.79	1298.40	211.56	264.90	254.82	188.91	73.79	5.88	2.39	0.46	8.35	8.35		
28	4.99	994.89	472.86	576.62	809.18	167.43	59.54	4.99	1.40	1.27	9.44	8.35		
29	14.66	631.68	747.99	532.45	1122.01	180.17	44.11	4.99	1.40	3.78		8.89		
30	135.35	525.75	553.67	525.75	441.06	184.56	28.69	4.57	1.52	18.90		8.89		
31		966.02		809.18	275.14		8.35		1.79	20.03		7.83		
Total	484.70	12531.12	8409.39	15949.43	8796.68	28738.77	3751.54	302.00	105.80	72.33	186.39	172.62	79500.77	Tonday
Mean	16.16	404.23	280.31	514.50	283.76	957.96	121.02	10.07	3.41	2.33	6.66	5.57	217.81	Ton/day
Max	135.35	1875.00	975.61	3337.76	1122.01	4587.48	631.68	27.37	5.88	20.03	10.87	8.89	4587.48	Ton/day
Min	0.10	34.97	83.00	39.40	99.25	167.43	0.35	4.57	1.40	0.14	0.55	1.40	0.10	Ton/day

WATER YEAR : 2018

KHONG RIVER BASIN

Loei River at Ban Keng Bong , Loei (Kh.61)

Lat 17 - 07 - 44 N Long 101 - 40 - 56 E

Location : on right bank at the bridge of Amphoe Wang Saphung - Ban Nong Khan Road.

Ban Keng Bong **Amphoe** Phu Luang **Changwat** Loei

Drainge Area	549 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1998-Cont'd
Actual Measurement	1998-Cont'd
Using Rating Curve Water Year	2018
Number of observation	20
R-Square	0.8793
Remarks	Continued Sediment Station

$$QS = 6.6152\ QW^{1.16210}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	3.65	7.39	141.47	74.14	313.94	198.00	164.22	10.60	14.80	8.97	1.63	14.80	
2	2.96	7.39	121.64	74.14	205.80	339.10	177.16	8.97	13.95	8.97	0.46	14.80	
3	2.96	5.85	107.11	73.06	171.94	227.06	154.03	9.78	14.80	8.97	0.00	15.67	
4	2.96	14.80	97.54	73.06	159.17	1600.25	146.55	12.26	14.80	8.97	0.00	15.67	
5	2.96	20.98	97.54	71.99	104.62	2651.03	138.99	24.64	13.95	8.97	0.00	15.67	
6	2.28	6.62	102.25	71.99	99.89	989.69	85.67	21.89	14.80	8.97	1.63	17.41	
7	3.65	9.78	88.09	71.99	119.22	409.27	78.79	20.08	14.80	9.78	21.89	17.41	
8	3.65	6.62	85.67	71.99	146.55	282.56	74.14	20.08	14.80	9.78	17.41	18.30	
9	2.96	5.10	83.37	71.99	143.94	403.81	64.53	13.95	14.80	9.78	10.60	17.41	
10	9.78	4.37	78.79	71.99	203.19	543.21	27.43	20.98	14.80	9.78	10.60	12.26	
11	88.09	7.39	81.07	71.99	306.05	339.10	20.98	20.08	13.95	9.78	10.60	11.42	
12	74.14	41.94	81.07	71.99	221.78	267.69	12.26	20.08	13.95	8.97	9.78	14.80	
13	73.06	76.40	81.07	70.91	251.40	290.36	11.42	20.98	13.95	9.78	9.78	14.80	
14	74.14	161.69	81.07	70.91	240.58	658.53	10.60	20.98	13.10	8.97	12.26	15.67	
15	71.99	104.62	81.07	70.91	205.80	333.78	10.60	21.89	13.10	8.18	14.80	18.30	
16	71.99	67.71	78.79	71.99	198.00	302.12	10.60	20.08	13.10	8.18	14.80	17.41	
17	71.99	65.59	74.14	71.99	195.28	211.15	9.78	20.08	13.10	7.39	16.54	15.67	
18	61.38	63.48	74.14	151.53	190.11	240.58	10.60	19.19	13.10	7.39	18.30	11.42	
19	69.85	63.48	74.14	1202.89	171.94	1234.72	14.80	21.89	11.42	6.62	14.80	11.42	
20	65.59	63.48	74.14	398.36	164.22	830.82	26.49	20.98	11.42	6.62	15.67	11.42	
21	63.48	64.53	74.14	606.26	164.22	436.73	21.89	20.08	12.26	6.62	15.67	13.95	
22	63.48	95.08	73.06	267.69	154.03	229.83	39.96	19.19	11.42	6.62	15.67	13.10	
23	63.48	166.87	73.06	171.94	146.55	190.11	34.09	17.41	11.42	5.85	15.67	11.42	
24	53.07	136.53	71.99	119.22	146.55	182.28	62.43	17.41	10.60	5.85	15.67	10.60	
25	11.42	211.15	71.99	97.54	151.53	177.16	58.24	16.54	10.60	5.85	15.67	10.60	
26	22.80	111.89	74.14	109.49	195.28	171.94	53.07	15.67	9.78	5.85	15.67	11.42	
27	4.37	171.94	76.40	294.27	420.23	164.22	41.94	13.95	9.78	5.10	16.54	10.60	
28	8.97	154.03	141.47	290.36	1428.03	161.69	37.99	14.80	9.78	4.37	15.67	10.60	
29	7.39	151.53	92.74	237.79	492.37	166.87	34.09	14.80	9.78	29.31		10.60	
30	37.01	270.40	83.37	306.05	262.29	159.17	15.67	14.80	8.97	4.37		10.60	
31		224.41		537.53	213.77		10.60		8.97	8.97		10.60	
Total	1095.50	2563.04	2616.53	6017.95	7588.27	14392.83	1659.61	534.11	389.85	263.58	327.78	425.82	37874.87 Tonday
Mean	36.52	82.68	87.22	194.13	244.78	479.76	53.54	17.80	12.58	8.50	11.71	13.74	103.77 Ton/day
Max	88.09	270.40	141.47	1202.89	1428.03	2651.03	177.16	24.64	14.80	29.31	21.89	18.30	2651.03 Ton/day
Min	2.28	4.37	71.99	70.91	99.89	159.17	9.78	8.97	8.97	4.37	0.00	10.60	0.00 Ton/day

WATER YEAR : 2018

KHONG RIVER BASIN

Nam Mae Kham at Ban Mae Kham Lak Chet , Chiang Rai (Kh.72)

Lat 20 - 13 - 01 N Long 99 - 51 - 38 E

Location : on right bank at the bridge of Mae Chan - Mae Sai Highway from Tambon Mae Kham.

Ban Mae Kham Lak Chet **Amphoe** Mae Chan **Changwat** Chiang Rai

Drainge Area	667 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1997-Cont'd
Actual Measurement	1997-Cont'd
Using Rating Curve Water Year	2018
Number of observation	33
R-Square	0.8880
Remarks	Continued Sediment Station

$$QS = 0.3750\ QW^{2.28400}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.50	1.85	22.03	41.01	412.99	958.47	764.86	284.94	116.14	35.14	14.54	2.85		
2	0.43	3.81	33.52	49.62	364.19	1025.33	1458.19	276.81	112.09	35.14	14.54	2.85		
3	0.50	14.54	27.44	39.00	268.80	2394.91	1669.81	268.80	100.42	33.52	14.54	2.85		
4	0.67	85.97	19.65	19.65	202.64	2693.90	1669.81	260.93	85.97	31.93	12.73	2.85		
5	1.85	31.93	15.49	15.49	260.93	1516.88	915.31	253.19	85.97	28.89	10.38	2.85		
6	6.82	12.73	15.49	16.48	393.05	958.47	617.24	245.58	85.97	28.89	8.49	2.56		
7	5.34	15.49	15.49	17.50	383.30	836.23	713.67	238.10	85.97	30.39	6.82	2.04		
8	4.54	11.88	19.65	18.56	216.44	1142.42	586.83	230.75	85.97	54.28	6.30	2.04		
9	2.56	4.93	27.44	18.56	189.35	1002.76	530.11	209.48	85.97	82.74	6.30	2.04		
10	1.18	3.15	11.88	20.78	713.67	980.48	557.28	238.10	85.97	54.28	6.30	2.04		
11	0.90	3.81	13.62	782.37	505.17	936.75	664.47	393.05	79.57	43.07	6.30	2.04		
12	0.57	6.30	18.56	230.75	354.84	936.75	664.47	336.56	64.76	35.14	6.30	1.66		
13	0.78	8.49	15.49	79.57	268.80	1241.24	1318.40	310.15	67.59	31.93	6.30	1.18		
14	0.90	5.34	13.62	37.04	1191.26	1373.02	571.95	276.81	76.47	28.89	6.82	1.18		
15	0.57	6.30	23.32	30.39	3016.84	836.23	412.99	245.58	85.97	27.44	6.30	0.90		
16	0.78	15.49	47.38	27.44	782.37	782.37	434.38	230.75	85.97	26.02	5.81	0.78		
17	3.47	5.81	19.65	26.02	1071.31	730.51	571.95	209.48	82.74	23.32	5.34	0.78		
18	19.65	4.54	31.93	27.44	2874.99	3113.09	383.30	195.93	79.57	23.32	5.34	0.78		
19	17.50	4.54	28.89	33.52	7180.29	2001.74	354.84	176.57	82.74	22.03	5.34	0.78		
20	7.91	4.17	28.89	782.37	3064.08	1487.82	327.62	176.57	82.74	22.03	5.34	0.78		
21	5.34	6.82	31.93	1191.26	1487.82	915.31	505.17	176.57	73.44	20.78	4.54	0.90		
22	3.47	20.78	26.02	505.17	1191.26	747.58	1142.42	176.57	56.69	20.78	4.54	0.90		
23	1.18	39.00	13.62	124.49	1700.80	730.51	836.23	165.33	49.62	19.65	4.17	0.90		
24	0.57	327.62	15.49	1638.18	1373.02	713.67	697.05	154.51	43.07	19.65	4.17	0.90		
25	0.90	41.01	22.03	4705.89	4197.77	713.67	648.51	149.25	43.07	18.56	4.17	0.90		
26	1.18	22.03	76.47	1292.39	1373.02	617.24	571.95	144.09	41.01	18.56	4.54	0.90		
27	1.18	31.93	1764.75	3896.68	1547.17	571.95	445.76	139.04	41.01	18.56	4.93	0.90		
28	1.49	31.93	1400.80	505.17	1318.40	542.83	402.95	124.49	41.01	17.50	4.17	0.90		
29	2.04	30.39	373.67	393.05	915.31	557.28	364.19	120.27	41.01	16.48		0.90		
30	1.49	20.78	165.33	505.17	782.37	617.24	318.82	116.14	39.00	15.49		0.90		
31		18.56		632.76	854.63		293.21		35.14	15.49		0.90		
Total	96.26	841.92	4339.54	17703.77	40456.88	33676.65	21413.74	6524.39	2222.63	899.89	195.36	45.73	128416.76	Tonday
Mean	3.21	27.16	144.65	571.09	1305.06	1122.56	690.77	217.48	71.70	29.03	6.98	1.48	351.83	Ton/day
Max	19.65	327.62	1764.75	4705.89	7180.29	3113.09	1669.81	393.05	116.14	82.74	14.54	2.85	7180.29	Ton/day
Min	0.43	1.85	11.88	15.49	189.35	542.83	293.21	116.14	35.14	15.49	4.17	0.78	0.43	Ton/day

WATER YEAR : 2018

KHONG RIVER BASIN

Songkhram River at Ban Tha Huai Lua , Sakon Nakhon (Kh.74)

Lat 17 - 49 - 07 N Long 103 - 23 - 16 E

Location : on left bank at Ban Tha Huai Lua.

Ban Tha Huai Lua **Amphoe** Ban Muang **Changwat** Sakon Nakhon

Drainge Area	2,199 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1998-Cont'd
Actual Measurement	1998-Cont'd
Using Rating Curve Water Year	2012-2018
Number of observation	192
R-Square	0.5335
Remarks	Continued Sediment Station

$$QS = 2.1785\ QW^{1.14200}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	43.64	78.21	466.15	605.20	64.39	40.05	26.11	12.45	0.00	0.00		
2	0.00	0.00	41.48	80.54	483.64	574.25	60.61	40.05	25.43	11.83	0.00	0.00		
3	0.00	0.00	40.05	78.99	489.49	554.39	56.87	38.62	24.76	11.22	0.00	0.00		
4	0.00	0.35	40.05	75.11	474.89	543.51	53.89	37.91	24.76	10.61	0.00	0.00		
5	0.00	41.48	42.20	69.72	460.34	558.36	51.67	36.50	24.76	9.41	0.00	0.00		
6	0.00	43.64	46.54	62.12	460.34	558.36	50.20	36.50	24.08	8.81	0.00	0.00		
7	0.00	42.20	54.63	54.63	450.18	540.05	48.00	35.79	24.08	8.22	0.00	0.00		
8	0.00	39.34	63.63	51.67	438.14	519.36	47.27	35.09	24.08	7.06	0.00	0.00		
9	0.00	37.91	71.26	51.67	452.60	495.35	45.81	34.38	25.43	7.64	0.00	0.00		
10	0.00	35.79	75.88	65.15	486.57	466.15	44.36	33.68	25.43	10.61	0.00	0.00		
11	0.00	34.38	77.43	82.10	546.97	430.93	42.92	32.99	25.43	10.61	0.00	0.00		
12	0.00	33.68	75.11	98.91	578.23	405.10	42.20	32.99	24.76	10.01	0.00	0.00		
13	0.00	34.38	71.26	120.16	590.20	381.60	41.48	32.29	24.08	9.41	0.00	0.00		
14	0.00	34.38	68.20	138.76	600.19	349.85	40.76	31.59	23.41	8.81	0.00	0.00		
15	0.00	32.99	64.39	157.68	600.19	316.37	40.05	31.59	23.41	8.22	0.00	0.00		
16	0.00	31.59	62.88	183.78	590.20	284.24	39.34	31.59	22.08	7.64	0.00	0.00		
17	0.00	31.59	62.12	220.48	570.27	250.99	38.62	31.59	21.42	6.49	0.00	0.00		
18	0.00	31.59	62.12	260.44	540.05	229.78	37.91	30.90	20.10	5.36	0.00	0.00		
19	0.00	31.59	63.63	300.25	510.03	216.51	36.50	30.21	18.80	3.73	0.00	0.00		
20	0.00	31.59	63.63	338.65	489.49	196.79	35.79	29.52	18.80	3.73	0.00	0.00		
21	0.00	30.90	65.15	368.86	480.72	173.67	36.50	29.52	18.80	3.73	0.00	0.00		
22	0.00	31.59	66.67	387.99	486.57	153.45	38.62	28.83	18.15	2.68	0.00	0.00		
23	0.00	32.99	65.91	398.67	492.42	137.72	39.34	28.83	18.15	2.18	0.00	0.00		
24	0.00	33.68	67.43	398.67	489.49	128.39	40.05	28.15	16.86	1.22	0.00	0.00		
25	0.00	35.09	68.96	394.40	501.22	118.11	40.76	28.15	16.22	1.22	0.00	0.00		
26	0.00	32.99	68.20	387.99	526.24	104.93	40.76	27.47	15.58	1.22	0.00	0.00		
27	0.00	30.90	67.43	392.26	558.36	93.92	40.76	26.79	14.95	0.35	0.00	0.00		
28	0.00	29.52	67.43	400.81	590.20	84.45	41.48	26.11	14.32	0.00	0.00	0.00		
29	0.00	29.52	69.72	409.39	610.21	76.66	41.48	26.11	13.69	0.00		0.00		
30	0.00	35.09	73.57	421.34	625.27	69.72	40.76	26.11	13.07	0.00		0.00		
31		40.05		442.95	625.27		40.76		13.07	0.00		0.00		
Total	0.00	930.79	1870.60	6972.35	16264.13	9618.16	1359.91	959.90	644.07	184.47	0.00	0.00	38804.38	Tonday
Mean	0.00	30.03	62.35	224.91	524.65	320.61	43.87	32.00	20.78	5.95	0.00	0.00	106.31	Ton/day
Max	0.00	43.64	77.43	442.95	625.27	605.20	64.39	40.05	26.11	12.45	0.00	0.00	625.27	Ton/day
Min	0.00	0.00	40.05	51.67	438.14	69.72	35.79	26.11	13.07	0.00	0.00	0.00	0.00	Ton/day

WATER YEAR : 2018

KHONG RIVER BASIN

Lam Nam Phung at Ban Tong Khop , Sakon Nakhon (Kh.90)

Lat 17 - 04 - 05 N Long 104 - 15 - 32 E

Location : on right bank at the bridge on highway.

Ban Tong Khop **Amphoe** Khok Si Suphan **Changwat** Sakon Nakhon

Drainge Area	861 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1998-Cont'd
Actual Measurement	1998-Cont'd
Using Rating Curve Water Year	1998-2018
Number of observation	420
R-Square	0.8330
Remarks	Continued Sediment Station

$$QS = 3.1226\ QW^{1.28120}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	39.17	39.17	50.65	56.62	1633.03	327.79	105.47	11.15	9.08	19.63	6.87	22.06	
2	39.17	44.83	50.65	46.27	777.82	294.84	63.51	9.59	14.98	19.63	17.27	22.06	
3	40.57	43.40	181.21	46.27	605.56	271.18	49.18	9.59	12.76	13.86	11.68	22.06	
4	39.17	78.60	63.51	44.83	507.87	288.34	49.18	9.59	9.59	8.08	8.57	22.06	
5	33.68	85.15	115.10	44.83	436.27	281.88	35.04	9.59	9.08	6.63	7.11	27.09	
6	36.40	54.37	81.86	44.83	395.31	266.92	27.09	10.10	17.27	6.16	17.27	39.17	
7	41.98	46.27	58.90	44.83	537.78	237.55	29.69	10.10	13.86	5.93	12.76	36.40	
8	40.57	41.98	56.62	47.72	389.53	215.02	23.30	9.59	9.08	5.70	7.35	33.68	
9	39.17	39.17	56.62	50.65	382.05	279.73	19.63	9.59	9.59	5.25	6.63	37.78	
10	39.17	43.40	50.65	433.32	412.76	256.35	18.44	9.08	11.15	5.25	17.27	35.04	
11	37.78	44.83	29.69	749.73	363.76	213.00	18.44	8.57	11.15	5.93	18.44	33.68	
12	39.17	43.40	22.06	842.86	314.52	210.98	17.27	8.57	9.59	6.63	12.22	35.04	
13	37.78	47.72	22.06	433.32	299.19	239.63	17.27	8.08	9.08	18.44	8.08	33.68	
14	36.40	52.13	19.63	439.23	475.09	245.87	14.98	9.08	18.44	12.22	6.40	35.04	
15	37.78	37.78	81.86	531.10	551.19	225.20	14.98	23.30	12.76	7.11	6.63	35.04	
16	39.17	47.72	108.95	547.83	398.21	223.16	17.27	20.84	9.59	6.16	17.27	35.04	
17	37.78	108.95	50.65	1298.91	370.59	229.30	16.12	17.27	8.08	11.15	19.63	33.68	
18	37.78	49.18	47.72	777.82	352.43	406.92	17.27	20.84	14.98	13.86	20.84	33.68	
19	37.78	36.40	37.78	412.76	305.74	433.32	24.55	24.55	13.86	7.59	16.12	33.68	
20	39.17	36.40	28.39	314.52	264.80	336.71	31.01	20.84	9.08	6.87	8.08	31.01	
21	39.17	28.39	32.34	266.92	481.61	284.03	25.81	11.68	8.08	17.27	7.11	35.04	
22	39.17	39.17	33.68	231.36	917.37	235.49	24.55	11.15	14.98	17.27	17.27	35.04	
23	37.78	47.72	47.72	231.36	846.96	233.42	24.55	10.10	13.86	7.59	18.44	35.04	
24	39.17	46.27	47.72	217.05	1143.68	223.16	23.30	19.63	8.08	7.11	19.63	35.04	
25	37.78	46.27	49.18	254.24	859.30	189.05	18.44	12.22	7.35	18.44	19.63	35.04	
26	39.17	52.13	58.90	430.37	1082.66	187.09	17.27	9.08	18.44	16.12	22.06	35.04	
27	50.65	54.37	140.38	1645.06	1009.42	191.02	13.86	10.10	13.86	7.59	19.63	35.04	
28	43.40	52.13	215.02	2525.61	981.35	202.95	12.76	19.63	7.35	6.63	20.84	35.04	
29	41.98	50.65	198.95	2065.13	602.13	198.95	12.22	14.98	7.35	18.44		35.04	
30	41.98	49.18	98.60	2266.89	448.14	183.17	12.76	9.08	12.76	12.76		39.17	
31		46.27		2430.01	368.31		11.68		19.63	8.08		39.17	
Total	1179.89	1533.40	2137.05	19772.25	18514.43	7612.02	806.89	387.56	364.79	329.38	391.10	1030.67	54059.43 Tonday
Mean	39.33	49.46	71.24	637.81	597.24	253.73	26.03	12.92	11.77	10.63	13.97	33.25	148.11 Ton/day
Max	50.65	108.95	215.02	2525.61	1633.03	433.32	105.47	24.55	19.63	19.63	22.06	39.17	2525.61 Ton/day
Min	33.68	28.39	19.63	44.83	264.80	183.17	11.68	8.08	7.35	5.25	6.40	22.06	5.25 Ton/day

WATER YEAR : 2018

KHONG RIVER BASIN

Huai Chanot at Ban Don Sawan , Nakhon Phanom (Kh.91)

Lat 16 - 47 - 48 N Long 104 - 39 - 45 E

Location : on left bank at the bridge on highway.

Ban Don Sawan **Amphoe** That Phanom **Changwat** Nakhon Phanom

Drainge Area	172 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1998-Cont'd
Actual Measurement	1998-Cont'd
Using Rating Curve Water Year	2018
Number of observation	24
R-Square	0.8708
Remarks	Continued Sediment Station

$$QS = 2.1623\ QW^{1.02650}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.76	3.80	2.01	3.32	73.78	14.54	5.90	2.07	0.25	0.93	0.54	0.56		
2	1.61	3.17	1.70	2.63	42.79	14.68	5.38	2.01	0.35	1.02	0.61	0.56		
3	1.46	3.32	1.30	2.16	28.97	22.96	5.38	2.01	0.48	1.04	0.74	0.56		
4	1.24	3.10	1.24	2.01	20.35	55.63	5.58	2.01	0.46	0.97	0.74	0.56		
5	1.15	3.26	1.76	2.16	17.15	38.67	5.29	2.01	0.46	0.89	0.69	0.56		
6	0.93	3.26	3.80	2.23	17.72	23.74	5.18	2.01	0.46	0.89	0.63	0.56		
7	1.70	3.17	7.23	2.54	21.66	16.71	5.18	1.92	0.46	0.80	0.61	0.59		
8	1.70	2.63	19.33	4.97	21.80	12.37	4.16	1.76	0.50	0.80	0.56	0.59		
9	1.30	2.54	13.37	12.37	23.36	9.94	3.32	1.70	0.59	0.89	0.56	0.59		
10	1.15	2.85	6.68	39.15	30.92	8.21	2.85	1.70	0.76	0.89	0.56	0.59		
11	1.00	3.95	4.77	115.79	29.75	15.26	2.79	1.54	0.78	0.87	0.56	0.59		
12	0.93	3.41	4.97	92.78	24.52	6.68	2.79	1.61	0.67	0.84	0.56	0.56		
13	0.84	2.47	4.88	66.13	22.39	11.21	2.79	1.54	0.78	0.82	0.67	0.56		
14	0.84	1.76	3.95	35.09	36.04	14.82	2.70	1.46	0.80	0.84	0.71	0.56		
15	0.80	1.39	5.58	32.94	43.65	13.37	2.54	1.39	0.80	1.13	0.71	0.56		
16	0.67	1.30	12.09	37.47	35.09	11.79	2.79	1.30	0.80	1.02	0.61	0.56		
17	0.76	2.16	7.94	74.29	27.62	43.65	2.79	1.24	0.80	0.95	0.61	0.56		
18	0.84	1.70	5.08	70.72	25.30	80.94	3.01	1.24	0.80	0.84	0.61	0.56		
19	0.84	1.70	3.57	39.15	24.90	59.55	3.48	1.08	0.97	0.82	0.61	0.56		
20	0.84	1.39	3.17	23.93	24.52	40.58	3.89	1.15	0.93	0.82	0.56	0.56		
21	1.00	1.30	3.01	13.23	24.33	26.46	4.16	1.24	0.80	0.80	0.56	0.56		
22	1.08	1.70	1.70	10.22	27.03	16.57	3.95	1.30	0.80	0.80	0.56	0.56		
23	0.84	2.38	0.71	10.22	25.30	15.70	3.80	0.12	0.76	0.80	0.56	0.56		
24	0.84	2.63	2.16	10.94	27.24	17.58	3.64	0.12	0.76	0.74	0.56	0.56		
25	1.00	2.07	3.41	15.54	24.12	13.81	3.57	0.12	0.76	0.54	0.56	0.59		
26	1.92	1.70	4.56	22.39	19.90	10.94	3.26	0.12	0.78	0.61	0.61	0.56		
27	1.54	2.79	4.36	101.94	22.18	8.79	2.85	0.16	0.80	0.61	0.56	0.56		
28	1.76	3.17	3.73	123.13	28.78	8.08	2.54	0.16	0.82	0.61	0.56	0.54		
29	2.94	5.90	3.41	138.18	25.49	7.36	2.38	0.16	0.82	0.56		0.52		
30	3.48	3.57	3.80	169.90	19.17	7.36	2.38	0.16	0.87	0.54		0.52		
31		2.70		125.05	15.40		2.23		0.91	0.54		0.52		
Total	38.76	82.24	145.27	1402.57	851.22	647.95	112.55	36.41	21.78	25.22	16.98	17.40	3398.35	Tonday
Mean	1.29	2.65	4.84	45.24	27.46	21.60	3.63	1.21	0.70	0.81	0.61	0.56	9.31	Ton/day
Max	3.48	5.90	19.33	169.90	73.78	80.94	5.90	2.07	0.97	1.13	0.74	0.59	169.90	Ton/day
Min	0.67	1.30	0.71	2.01	15.40	6.68	2.23	0.12	0.25	0.54	0.54	0.52	0.12	Ton/day

WATER YEAR : 2018

KHONG RIVER BASIN

Huai Bang Sai at Ban Kan Luang Dong , Muk Dahan (Kh.92)

Lat 16 - 44 - 06 N Long 104 - 31 - 23 E

Location : on left bank at the bridge on highway.

Ban Kan Luang Dong **Amphoe** Dong Luang **Changwat** Muk Dahan

Drainge Area	1,119 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1998-Cont'd
Actual Measurement	1998-Cont'd
Using Rating Curve Water Year	1998-2018
Number of observation	385
R-Square	0.8286
Remarks	Continued Sediment Station

$$QS = 2.8948\ QW^{1.24670}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	11.86	17.43	32.17	36.29	2258.57	319.21	80.49	27.59	12.87	15.29	13.21	9.57	
2	11.86	16.35	36.29	35.10	999.28	310.45	72.08	26.46	11.86	15.29	12.53	9.57	
3	13.56	27.02	42.95	46.67	773.58	483.66	57.53	25.35	11.86	13.56	11.86	9.57	
4	13.56	22.07	34.51	48.87	603.60	1039.36	53.65	24.80	10.22	13.56	11.86	8.62	
5	13.56	18.88	34.51	37.48	535.87	420.14	43.56	23.15	10.22	13.56	10.22	8.62	
6	15.29	20.99	47.92	29.29	1039.36	281.59	41.72	21.53	9.57	13.56	10.22	8.62	
7	15.29	25.91	44.18	24.80	895.77	242.17	41.72	20.46	9.57	12.87	10.22	8.62	
8	15.29	19.93	68.62	32.75	799.84	316.28	40.50	19.93	9.57	12.87	10.22	8.00	
9	13.56	18.88	42.33	38.68	729.35	382.22	38.68	18.88	8.62	12.87	10.22	8.00	
10	11.86	25.91	35.10	132.67	531.41	220.19	38.68	17.07	10.22	12.87	9.57	7.08	
11	11.86	28.15	30.43	1750.95	378.81	180.32	38.68	17.07	14.59	11.86	9.57	7.08	
12	11.86	22.07	29.86	1679.21	278.74	220.19	35.69	16.35	17.43	11.86	9.57	7.08	
13	11.86	16.71	26.46	487.24	455.21	1327.43	35.69	16.35	18.51	11.86	10.22	7.08	
14	11.86	15.29	24.25	1361.25	895.77	472.95	35.69	15.29	18.51	11.86	10.22	6.49	
15	11.86	19.40	79.10	966.35	960.89	236.64	35.69	15.29	20.99	10.22	10.22	6.49	
16	10.22	24.80	62.46	794.57	483.66	162.11	35.69	15.29	20.46	10.22	11.86	6.49	
17	10.22	20.99	304.63	1913.12	361.85	253.32	36.88	14.94	18.88	10.22	11.86	6.49	
18	10.22	28.15	209.36	1102.16	345.78	1083.24	41.72	13.56	18.88	10.22	11.86	6.49	
19	10.22	22.61	54.61	757.91	385.64	691.60	41.72	13.56	19.40	9.57	11.86	6.49	
20	9.57	21.53	39.89	351.74	295.95	190.59	38.68	12.87	19.93	10.54	11.20	5.61	
21	9.57	18.88	34.51	247.73	348.76	168.14	35.69	11.86	17.79	12.53	11.20	5.61	
22	9.57	18.88	35.69	198.89	476.52	172.18	35.69	11.86	16.00	13.90	10.22	5.61	
23	8.62	18.88	35.69	188.53	743.60	217.48	32.75	11.86	15.29	13.56	10.22	5.61	
24	8.62	26.46	33.33	190.59	1204.11	182.36	31.01	12.20	15.29	13.56	8.62	5.61	
25	8.94	36.88	32.17	508.83	1026.89	168.14	29.86	12.53	15.29	13.56	8.62	5.61	
26	11.86	23.15	63.46	2665.44	999.28	140.41	31.01	12.87	15.29	13.56	8.62	5.61	
27	14.59	38.68	182.36	6518.00	1045.61	128.83	31.59	13.21	15.29	12.87	8.62	5.61	
28	43.56	45.42	91.79	9240.71	933.64	146.26	31.01	13.56	15.29	12.87	9.57	7.08	
29	31.01	28.15	61.47	8192.71	663.56	170.16	30.43	12.87	15.29	13.56		8.31	
30	23.15	60.48	47.30	8633.37	382.22	101.54	29.29	12.87	15.29	13.56		7.08	
31		43.56		7497.37	328.02		28.15		15.29	13.56		7.08	
Total	414.93	792.49	1897.40	55709.27	22161.14	10429.16	1231.22	501.48	463.56	391.82	294.26	220.88	94507.61 Tonday
Mean	13.83	25.56	63.25	1797.07	714.88	347.64	39.72	16.72	14.95	12.64	10.51	7.13	258.92 Ton/day
Max	43.56	60.48	304.63	9240.71	2258.57	1327.43	80.49	27.59	20.99	15.29	13.21	9.57	9240.71 Ton/day
Min	8.62	15.29	24.25	24.80	278.74	101.54	28.15	11.86	8.62	9.57	8.62	5.61	5.61 Ton/day

WATER YEAR : 2018

KHONG RIVER BASIN

Songkhram River at Ban Khok Kham Lai, Udon Thani (Kh.93)

Lat 17 - 33 - 22 N Long 103 - 20 - 20 E

Location : on left bank at the bridge of Amphoe Ban Duang - Amphoe Sawang Daen Din Highway.

Ban Khok Kham Lai **Amphoe** Ban Dung **Changwat** Udon Thani

Drainge Area	760 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1998-Cont'd
Actual Measurement	1998-Cont'd
Using Rating Curve Water Year	1998-2018
Number of observation	205
R-Square	0.7604
Remarks	Continued Sediment Station

$$QS = 7.8256\ QW^{0.91920}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	16.42	10.38	31.82	130.75	196.31	20.16	10.94	6.37	0.00	0.00	0.00		
2	0.00	12.61	11.50	21.75	140.82	186.54	16.96	9.82	6.37	0.00	0.00	0.00		
3	0.00	9.25	12.61	14.80	148.34	168.49	14.80	9.25	6.96	0.00	0.00	0.00		
4	0.00	11.50	13.71	10.94	162.99	145.84	12.61	8.68	6.96	0.00	0.00	0.00		
5	0.00	8.11	13.71	8.68	176.99	129.91	10.94	8.11	6.37	0.00	0.00	0.00		
6	0.00	14.25	12.61	7.54	175.62	118.91	9.82	7.54	6.37	0.00	0.00	0.00		
7	0.00	15.34	10.94	6.37	169.59	107.82	9.82	6.96	5.79	0.00	0.00	0.00		
8	0.00	12.05	10.94	6.37	153.05	99.50	9.82	6.37	5.79	0.00	0.00	0.00		
9	0.00	9.82	15.34	6.96	145.00	86.77	8.11	6.37	6.37	0.00	0.00	0.00		
10	0.00	8.68	20.69	15.88	156.37	67.95	6.96	5.79	6.37	0.00	0.00	0.00		
11	0.00	6.96	19.10	22.80	178.36	49.87	6.37	5.79	5.79	0.00	0.00	0.00		
12	0.00	7.54	14.80	51.10	185.18	44.34	6.37	5.19	5.19	0.00	0.00	0.00		
13	0.00	9.82	10.94	89.10	179.72	48.04	5.79	5.79	4.59	0.00	0.00	0.00		
14	0.00	12.61	8.68	116.35	175.62	47.42	5.79	5.79	4.59	0.00	0.00	0.00		
15	0.00	15.34	10.38	150.00	171.79	44.96	5.19	6.37	3.99	0.00	0.00	0.00		
16	0.00	12.05	10.94	170.69	162.99	38.13	4.59	6.37	3.99	0.00	0.00	0.00		
17	0.00	8.68	10.94	188.17	150.00	30.55	6.37	6.37	3.99	0.00	0.00	0.00		
18	0.00	6.37	12.61	197.94	134.95	29.27	6.37	6.37	3.99	0.00	0.00	0.00		
19	0.00	5.79	24.88	201.18	120.60	35.62	6.96	6.37	3.37	0.00	0.00	0.00		
20	0.00	6.96	23.32	206.05	122.30	66.76	9.25	6.37	2.75	0.00	0.00	0.00		
21	0.00	5.79	16.96	206.05	130.75	93.74	9.82	5.79	2.11	0.00	0.00	0.00		
22	0.00	6.96	13.71	199.56	144.17	105.24	10.94	5.19	1.45	0.00	0.00	0.00		
23	0.00	6.96	11.50	188.17	151.94	105.24	13.71	4.59	1.45	0.00	0.00	0.00		
24	0.00	5.79	9.82	169.59	158.58	90.84	15.34	3.99	0.00	0.00	0.00	0.00		
25	0.00	5.19	10.38	150.84	164.10	61.98	16.96	3.99	0.00	0.00	0.00	0.00		
26	0.00	8.68	13.71	129.91	174.25	34.99	15.88	3.99	0.00	0.00	0.00	0.00		
27	0.00	8.68	27.47	115.50	191.43	26.44	14.80	3.99	0.00	0.00	0.00	0.00		
28	0.00	8.68	46.81	109.53	197.94	23.84	12.61	3.99	0.00	0.00	0.00	0.00		
29	0.00	10.38	49.87	106.96	199.56	24.88	11.50	5.19	0.00	0.00		0.00		
30	10.38	13.71	40.63	106.96	201.18	22.80	11.50	5.79	0.00	0.00		0.00		
31		11.50		118.06	202.81		10.94		0.00	0.00		0.00		
Total	10.38	302.47	519.88	3125.62	5057.74	2332.99	327.05	187.11	110.97	0.00	0.00	0.00	11974.21	Tonday
Mean	0.35	9.76	17.33	100.83	163.15	77.77	10.55	6.24	3.58	0.00	0.00	0.00	32.81	Ton/day
Max	10.38	16.42	49.87	206.05	202.81	196.31	20.16	10.94	6.96	0.00	0.00	0.00	206.05	Ton/day
Min	0.00	5.19	8.68	6.37	120.60	22.80	4.59	3.99	0.00	0.00	0.00	0.00	0.00	Ton/day

WATER YEAR : 2018

KHONG RIVER BASIN

Songkhram River at Ban Tha Kok Daeng , Bueng Kan (Kh.98)

Lat 17 - 51 - 04 N Long 103 - 46 - 52 E

Location : on right bank at the bridge.

Ban Tha Kok Daeng **Amphoe** Se Ka **Changwat** Bueng Kan

Drainge Area	5,089 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1998-Cont'd
Actual Measurement	1998-Cont'd
Using Rating Curve Water Year	2018
Number of observation	20
R-Square	0.7967
Remarks	Continued Sediment Station

$$QS = 2.1574\ QW^{1.18060}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	1.07	1.20	30.40	1011.53	2613.55	4689.85	2310.02	18.17	1.78	1.00	0.56	0.86	
2	0.93	1.86	46.19	951.77	2704.94	4591.00	2182.48	46.19	1.78	1.00	0.52	0.86	
3	0.93	2.39	56.11	877.24	2783.24	4518.71	2057.52	105.17	1.78	0.93	0.48	0.93	
4	0.80	2.70	61.18	791.76	2832.83	4518.71	1918.58	106.56	1.71	0.93	0.52	0.93	
5	0.48	3.10	72.37	690.47	2883.70	4495.74	1760.70	92.82	1.63	0.93	0.52	0.86	
6	0.32	3.51	86.07	598.21	2927.42	4404.06	1530.15	72.37	1.56	0.93	0.60	0.73	
7	0.32	3.76	134.83	587.39	2949.31	4292.32	1339.89	67.17	1.49	1.13	1.07	0.69	
8	0.32	4.21	222.36	663.23	2973.54	4271.97	1061.31	65.45	1.49	1.34	1.07	0.69	
9	0.25	5.77	307.25	833.98	3005.89	4211.03	812.74	66.31	1.49	1.49	0.80	0.65	
10	0.25	9.15	382.51	1019.37	3110.23	4129.98	607.02	63.74	1.34	1.42	0.69	0.52	
11	0.32	9.47	426.86	1196.68	3184.37	4077.43	451.67	57.79	1.34	1.42	0.65	0.44	
12	0.48	9.79	457.91	1372.65	3242.78	4109.76	272.44	46.19	1.27	1.34	0.65	0.44	
13	0.48	8.20	493.49	1485.47	3263.06	3996.78	84.73	36.59	1.20	1.42	0.60	0.36	
14	0.48	8.52	555.10	1579.21	3273.21	3852.25	56.95	27.37	1.07	1.27	0.56	0.25	
15	0.48	9.79	574.44	1625.42	3273.21	3747.58	42.96	21.03	1.00	1.93	0.73	0.25	
16	0.48	9.47	542.26	1692.29	3252.92	3625.89	36.59	17.71	1.07	4.43	0.86	0.25	
17	0.25	9.15	491.39	1796.69	3222.51	3507.99	36.59	17.71	0.86	31.93	0.93	0.25	
18	0.32	8.20	445.45	1878.92	3193.70	3466.98	44.57	15.01	0.80	38.17	0.93	0.32	
19	0.44	5.77	410.44	1945.09	3175.04	3405.61	56.11	8.52	0.80	23.06	1.00	0.40	
20	0.44	4.32	424.80	2023.51	3252.92	3324.04	60.33	3.67	0.80	12.37	0.80	0.52	
21	0.52	3.76	482.99	2068.87	3313.86	3263.06	56.95	2.94	0.73	8.20	0.65	0.52	
22	0.60	3.26	546.54	2111.31	3518.25	3156.39	59.48	2.94	0.73	4.55	0.65	0.52	
23	0.69	3.18	580.91	2138.94	3666.39	3056.83	62.88	2.70	0.73	3.10	0.52	0.48	
24	0.86	3.02	615.96	2178.51	3804.25	2965.46	62.88	2.47	0.69	2.31	0.86	0.44	
25	1.00	3.18	699.59	2214.22	3980.68	2869.15	62.03	2.23	0.69	1.71	1.07	0.40	
26	1.07	3.18	796.42	2246.04	4150.22	2776.39	54.44	1.93	0.69	1.20	0.93	0.36	
27	1.07	3.26	915.67	2284.28	4271.97	2674.63	43.76	1.78	0.69	0.93	0.93	0.32	
28	1.07	3.98	1021.98	2318.62	4358.33	2587.92	35.03	1.78	0.60	0.93	0.86	0.40	
29	0.93	5.77	1066.58	2378.89	4449.87	2490.86	24.09	1.78	0.73	0.73		0.36	
30	0.93	8.52	1066.58	2435.07	4615.68	2400.48	20.02	1.78	1.07	0.69		0.36	
31		17.26		2511.24	4689.85		17.71		1.07	0.65		0.25	
Total	18.58	178.70	14014.63	49506.87	105937.72	109478.85	17222.62	977.87	34.68	153.44	21.01	15.61	297560.58 Tonday
Mean	0.62	5.76	467.15	1597.00	3417.35	3649.29	555.57	32.60	1.12	4.95	0.75	0.50	815.23 Ton/day
Max	1.07	17.26	1066.58	2511.24	4689.85	4689.85	2310.02	106.56	1.78	38.17	1.07	0.93	4689.85 Ton/day
Min	0.25	1.20	30.40	587.39	2613.55	2400.48	17.71	1.78	0.60	0.65	0.48	0.25	0.25 Ton/day

WATER YEAR : 2018

KHONG RIVER BASIN

Huai Luang at Ban Non Toom , Udon Thani (Kh.103)

Lat 17 - 28 - 56 N Long 102 - 47 - 49 E

Location : on right bank at the bridge on highway.

Ban Non Toom **Amphoe** Mueang **Changwat** Udon Thani

Drainge Area	1,235 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2004-Cont'd
Actual Measurement	2004-Cont'd
Using Rating Curve Water Year	2018
Number of observation	24
R-Square	0.7021
Remarks	Continued Sediment Station

$$QS = 10.1150\ QW^{1.08080}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	5.20	10.33	98.57	396.55	37.00	338.64	270.96	28.41	2.16	2.75	0.84	1.87	
2	4.89	22.09	81.20	396.55	31.97	304.66	372.87	23.72	2.16	2.65	0.84	1.87	
3	4.47	11.43	53.63	396.55	29.12	245.89	416.44	20.70	2.07	2.56	0.84	1.78	
4	4.89	9.68	24.88	381.47	29.83	192.38	448.57	18.86	2.07	2.46	0.84	1.78	
5	5.72	8.81	11.43	281.46	29.83	175.94	405.19	17.27	1.97	2.36	0.84	1.68	
6	5.72	7.73	12.76	156.40	31.25	164.47	332.25	15.56	1.97	2.26	0.84	1.68	
7	8.81	6.88	12.32	128.43	33.40	152.38	237.57	14.33	1.87	2.16	0.84	1.59	
8	12.32	5.72	22.09	192.38	37.72	135.05	153.72	13.21	1.87	2.07	0.93	1.59	
9	11.87	5.30	50.17	252.14	45.74	123.15	83.50	12.32	1.87	1.97	0.93	1.49	
10	9.90	5.51	37.72	241.73	65.86	102.21	37.72	10.33	1.87	1.87	0.93	1.49	
11	8.59	5.82	23.72	160.43	96.24	86.96	17.61	5.82	1.87	1.78	0.93	1.40	
12	6.67	6.46	17.27	135.05	119.20	83.50	13.65	4.16	1.87	1.68	0.93	1.40	
13	5.61	6.24	12.76	156.40	140.37	110.03	12.10	4.06	1.87	1.68	0.93	1.30	
14	5.20	5.51	10.33	190.47	160.43	155.06	11.43	4.06	1.87	1.59	1.02	1.30	
15	5.09	5.30	8.59	323.74	179.47	149.71	11.43	3.96	1.87	1.59	1.02	1.21	
16	5.51	5.20	6.88	419.03	217.29	145.70	10.77	3.96	1.87	1.49	1.02	1.21	
17	13.21	5.20	6.46	501.05	221.14	135.05	10.12	3.96	1.87	1.40	1.02	1.12	
18	47.22	5.20	12.54	549.22	225.14	128.43	8.81	3.86	1.87	1.30	1.02	1.12	
19	31.97	5.30	47.22	581.12	207.68	168.92	8.16	3.86	1.97	1.21	1.02	1.12	
20	18.41	5.20	42.82	559.84	194.28	250.05	7.31	3.76	1.97	1.12	1.12	1.12	
21	15.23	4.89	27.82	526.86	215.37	351.45	9.46	3.76	1.97	1.02	1.12	1.12	
22	12.99	5.51	29.12	488.18	250.05	396.55	26.64	3.55	1.97	0.93	1.12	1.12	
23	10.33	7.31	25.47	437.26	268.86	478.55	104.81	3.35	1.97	0.84	1.21	1.12	
24	10.12	9.24	17.61	390.08	277.25	559.84	233.42	3.15	1.97	0.84	1.40	1.21	
25	10.77	13.65	14.33	300.43	302.54	513.94	285.66	2.95	1.97	0.84	1.59	1.21	
26	8.16	22.09	25.47	188.56	342.90	460.19	256.31	2.75	1.97	0.84	1.78	1.21	
27	6.03	27.23	132.40	93.92	381.47	396.55	177.70	2.56	2.07	0.84	1.87	1.21	
28	5.82	29.83	315.25	52.76	398.71	315.25	110.03	2.36	2.26	0.84	1.87	1.30	
29	6.67	37.72	387.93	43.55	392.24	211.52	63.22	2.26	2.46	0.84		1.30	
30	5.82	63.22	396.55	40.63	377.17	175.94	40.63	2.16	2.65	0.84		1.30	
31		89.28		39.90	351.45		33.40		2.75	0.84		1.30	
Total	313.21	458.88	1965.31	9002.14	5690.97	7207.96	4211.46	245.02	62.79	47.46	30.66	42.52	29278.38 Tonday
Mean	10.44	14.80	65.51	290.39	183.58	240.27	135.85	8.17	2.03	1.53	1.10	1.37	80.21 Ton/day
Max	47.22	89.28	396.55	581.12	398.71	559.84	448.57	28.41	2.75	2.75	1.87	1.87	581.12 Ton/day
Min	4.47	4.89	6.46	39.90	29.12	83.50	7.31	2.16	1.87	0.84	0.84	1.12	0.84 Ton/day

WATER YEAR : 2018

NAM MAE ING RIVER BASIN

Nam Mae Ing at Ban Nam Ing , Chiang Rai (I.14)

Lat 19 - 49 - 56 N Long 100 - 12 - 15 E

Location : on right bank at the bridge on the road about 2 kilometers from Amphoe Khun Tan.

Ban Nam Ing **Amphoe** Khun Tan **Changwat** Chiang Rai

Drainge Area	6,266 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1994-Cont'd
Actual Measurement	1994-Cont'd
Using Rating Curve Water Year	2018
Number of observation	31
R-Square	0.9390
Remarks	Continued Sediment Station

$$QS = 1.2030\ QW^{1.41200}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	4.44	14.61	1926.72	508.91	2473.52	3863.58	2231.70	1486.70	83.25	0.45	12.34	0.14	
2	0.57	46.47	1762.11	451.87	2059.65	4063.05	2104.54	1382.03	78.61	0.40	10.89	0.49	
3	5.25	297.20	1446.18	438.99	1848.21	4313.46	2086.55	1210.10	71.80	1.12	12.34	0.28	
4	7.51	880.02	1358.20	421.99	1446.18	4500.59	2407.70	990.40	78.61	8.16	15.78	0.30	
5	9.50	1342.37	1287.42	239.00	1134.19	4831.89	2597.12	861.69	67.36	8.16	12.34	0.26	
6	10.89	1568.71	1202.45	199.00	849.57	5142.68	2616.29	762.81	46.47	10.19	10.89	0.25	
7	15.78	1601.87	1149.26	164.93	802.17	4993.34	2530.35	469.21	42.57	7.51	10.19	0.22	
8	19.46	1568.71	1111.70	130.93	664.33	4925.88	2342.41	301.02	38.96	20.73	8.16	0.20	
9	20.73	1366.13	1156.81	52.49	384.46	4858.69	2250.04	443.27	37.29	388.58	4.84	0.19	
10	10.89	1287.42	892.26	29.24	364.06	4791.78	2158.77	380.35	37.29	508.91	2.25	0.19	
11	9.50	1295.23	664.33	29.24	360.02	4725.13	2296.09	301.02	35.63	563.28	1.76	0.18	
12	7.51	1318.74	540.43	24.69	606.14	4592.66	2361.01	263.45	32.39	540.43	1.59	0.16	
13	6.88	1287.42	464.85	44.51	581.75	4461.29	2388.99	225.43	32.39	486.74	0.04	0.15	
14	6.27	1303.06	368.11	115.21	586.40	4337.53	2277.64	141.94	29.24	401.01	0.02	0.15	
15	2.59	1248.59	301.02	186.30	1156.81	4217.55	2140.65	144.75	23.35	328.17	0.03	0.16	
16	1.93	1210.10	267.14	282.05	1217.77	4098.56	2023.95	161.94	23.35	235.58	0.14	0.17	
17	1.76	1179.57	232.19	360.02	1511.16	4157.93	1926.72	278.30	22.03	144.75	0.07	0.18	
18	2.93	1342.37	192.55	336.05	2314.58	3980.56	1891.71	252.80	20.73	112.64	0.04	0.19	
19	4.84	1568.71	167.94	270.85	3863.58	3933.65	1848.21	249.32	19.46	105.05	0.03	0.19	
20	7.51	1552.20	177.05	189.42	4422.10	4039.43	1813.62	232.19	18.21	97.62	0.03	0.19	
21	8.82	1366.13	380.35	242.43	4672.01	4193.67	1762.11	212.10	15.78	83.25	0.97	0.15	
22	26.18	1210.10	586.40	621.85	4711.83	4051.24	1745.03	192.55	13.46	67.36	1.43	0.16	
23	24.69	1104.24	658.97	1430.06	4858.69	3793.88	1736.51	186.30	10.89	37.29	1.12	0.17	
24	10.19	1187.18	632.39	2095.54	4818.51	3406.03	1719.51	177.05	8.82	29.24	0.83	0.18	
25	8.16	1256.33	581.75	2597.12	4805.14	3139.74	1711.02	170.96	7.51	26.18	0.40	0.18	
26	15.78	1470.45	572.49	2998.17	4858.69	2879.88	1694.09	164.93	6.27	24.69	0.45	0.17	
27	259.78	1502.99	637.68	3350.03	4993.34	2699.83	1736.51	112.64	2.25	23.35	0.40	0.16	
28	242.43	1610.19	685.87	3552.88	5169.97	2379.66	1753.56	105.05	1.12	22.03	0.35	0.16	
29	37.29	1830.89	632.39	3496.19	5375.98	2305.33	1779.23	97.62	0.83	22.03		0.17	
30	19.46	2023.95	554.11	3095.97	4605.86	2286.86	1805.01	90.35	0.70	18.21		0.18	
31		2059.65		2858.52	4487.48		1543.97		0.57	15.78		0.19	
Total	809.52	39901.60	22591.12	30814.45	82004.15	119965.35	63280.61	12048.27	907.19	4338.89	109.72	6.11	376776.98 Tonday
Mean	26.98	1287.15	753.04	994.01	2645.30	3998.85	2041.31	401.61	29.26	139.96	3.92	0.20	1032.27 Ton/day
Max	259.78	2059.65	1926.72	3552.88	5375.98	5142.68	2616.29	1486.70	83.25	563.28	15.78	0.49	5375.98 Ton/day
Min	0.57	14.61	167.94	24.69	360.02	2286.86	1543.97	90.35	0.57	0.40	0.02	0.14	0.02 Ton/day

WATER YEAR : 2018

NAM MAE KOK RIVER BASIN

Nam Mae Lao at Ban Ton Yang , Chiang Rai (G.8)

Lat 19 - 47 - 32 N Long 99 - 45 - 11 E

Location : on left bank at the bridge of Chiang Rai - Phayao Highway, Tambon Bua Sali.

Ban Ton Yang **Amphoe** Mae Lao **Changwat** Chiang Rai

Drainge Area	2,909 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1997-Cont'd
Actual Measurement	1997-Cont'd
Using Rating Curve Water Year	2018
Number of observation	34
R-Square	0.8690
Remarks	Continued Sediment Station

$$QS = 0.6190\ QW^{1.90000}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.17	7.67	113.20	435.78	161.83	1033.40	763.67	830.07	243.09	7.25	8.99	3.80		
2	1.41	17.47	103.83	177.28	103.83	725.10	3223.44	737.85	217.66	8.10	8.99	3.80		
3	1.53	103.83	44.60	86.47	81.18	750.71	6847.41	663.23	243.09	8.10	8.99	3.80		
4	1.93	344.24	36.51	54.93	63.91	712.45	7762.41	604.30	270.05	7.25	8.10	3.80		
5	3.80	494.52	33.49	36.51	54.93	515.64	5413.70	559.14	256.40	8.10	6.84	4.09		
6	4.99	211.65	38.07	29.19	59.34	368.10	2939.63	526.50	243.09	13.17	5.31	4.68		
7	4.38	116.41	63.91	32.03	78.59	256.40	1646.53	494.52	223.75	13.17	5.31	4.68		
8	5.31	61.60	94.83	33.49	54.93	352.03	1129.10	453.54	223.75	32.03	4.68	4.38		
9	4.99	22.97	97.79	38.07	66.26	941.73	789.91	427.15	223.75	182.81	4.09	4.38		
10	4.09	10.16	54.93	68.65	194.11	857.36	843.66	392.97	217.66	305.86	3.80	3.53		
11	4.09	8.99	48.61	119.67	305.86	699.91	1161.89	559.14	217.66	182.81	3.80	2.53		
12	4.09	12.39	41.27	113.20	199.87	725.10	1301.00	1002.40	211.65	71.07	4.68	0.95		
13	6.05	21.82	41.27	86.47	94.83	687.47	1759.20	1540.75	217.66	36.51	4.68	1.89		
14	8.99	34.99	38.07	66.26	76.05	789.91	1301.00	1145.64	223.75	20.69	4.68	2.20		
15	6.44	41.27	38.07	68.65	73.54	913.19	816.58	737.85	223.75	13.99	4.68	2.20		
16	6.44	46.59	25.38	100.78	68.65	776.74	537.18	639.41	217.66	9.46	4.68	2.10		
17	11.62	78.59	33.49	30.59	76.05	581.51	298.57	687.47	199.87	8.10	4.68	1.99		
18	18.51	182.81	68.65	17.47	1479.25	843.66	199.87	639.41	194.11	9.46	4.68	2.20		
19	36.51	152.76	41.27	39.66	12339.40	1876.97	223.75	604.30	171.83	14.82	4.68	1.99		
20	32.03	66.26	76.05	148.32	10434.00	2072.46	223.75	526.50	166.46	16.56	4.68	2.20		
21	19.58	41.27	277.00	763.67	5931.64	1805.77	328.67	435.78	166.46	15.68	4.38	1.89		
22	12.39	59.34	559.14	1212.12	2259.89	971.84	663.23	401.26	103.83	13.99	4.38	2.20		
23	9.46	131.16	344.24	699.91	1520.27	581.51	1499.46	384.51	44.60	12.39	4.09	2.20		
24	7.25	166.46	199.87	463.76	1603.92	368.10	4590.04	368.10	68.65	10.88	3.80	2.20		
25	7.25	291.15	119.67	515.64	1805.77	199.87	7298.62	352.03	46.59	10.16	3.53	2.20		
26	8.10	122.96	119.67	725.10	2072.46	139.61	5142.42	336.30	27.89	8.99	3.80	2.10		
27	8.54	83.81	194.11	699.91	3879.69	122.96	3115.89	328.67	21.82	8.99	3.53	1.89		
28	8.99	110.03	593.00	515.64	3482.97	139.61	1690.68	313.45	15.68	8.99	3.80	2.20		
29	10.88	135.36	843.66	392.97	1540.75	131.16	1212.12	305.86	8.10	8.99		2.10		
30	10.16	103.83	725.10	344.24	789.91	188.42	1002.40	277.00	7.25	8.99		1.99		
31		139.61		291.15	651.11		899.07		7.25	8.99		1.89		
Total	270.97	3421.97	5108.75	8407.58	51604.79	21128.69	66624.85	17275.10	4924.81	1086.35	142.33	84.05	180080.24	Tonday
Mean	9.03	110.39	170.29	271.21	1664.67	704.29	2149.19	575.84	158.86	35.04	5.08	2.71	493.37	Ton/day
Max	36.51	494.52	843.66	1212.12	12339.40	2072.46	7762.41	1540.75	270.05	305.86	8.99	4.68	12339.40	Ton/day
Min	1.17	7.67	25.38	17.47	54.93	122.96	199.87	277.00	7.25	7.25	3.53	0.95	0.95	Ton/day

WATER YEAR : 2018

NAM MAE KOK RIVER BASIN

Nam Mae Suai at Ban Kariang Thung Phrao , Chiang Rai (G.9)

Lat 19 - 44 - 51 N Long 99 - 30 - 27 E

Location : on right bank at the bridge on road.

Ban Kariang Thung Phrao **Amphoe** Mae Suai **Changwat** Chiang Rai

Drainge Area	386 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1998-Cont'd
Actual Measurement	1998-Cont'd
Using Rating Curve Water Year	2018
Number of observation	32
R-Square	0.7080
Remarks	Continued Sediment Station

$$QS = 0.1390\ QW^{2.81000}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.51	5.08	18.49	55.72	39.99	209.44	548.12	130.33	68.43	39.99	6.84	1.09		
2	2.08	5.08	13.53	27.92	31.64	174.90	2767.93	130.33	68.43	39.99	6.84	1.09		
3	2.51	8.94	13.53	27.92	27.92	174.90	1441.46	117.31	68.43	39.99	6.84	1.09		
4	1.70	24.50	13.53	27.92	27.92	144.26	629.37	107.97	68.43	39.99	5.08	1.09		
5	1.09	27.92	13.53	27.92	27.92	144.26	375.37	99.12	68.43	39.99	5.08	1.09		
6	1.09	24.50	13.53	21.36	31.64	130.33	209.44	82.86	68.43	39.99	4.33	1.09		
7	1.37	21.36	13.53	21.36	55.72	144.26	209.44	82.86	68.43	39.99	3.65	1.09		
8	2.51	13.53	13.53	21.36	27.92	317.64	209.44	82.86	68.43	39.99	3.05	1.09		
9	3.05	6.84	13.53	21.36	27.92	818.47	209.44	90.76	68.43	49.99	2.51	1.09		
10	3.05	24.50	13.53	21.36	27.92	673.67	209.44	107.97	68.43	49.99	2.08	1.09		
11	2.51	99.12	13.53	21.36	27.92	673.67	209.44	117.31	61.87	49.99	1.70	1.09		
12	2.51	6.84	13.53	21.36	27.92	673.67	248.10	117.31	61.87	44.65	1.37	1.09		
13	2.51	6.84	13.53	21.36	27.92	719.93	269.03	107.97	61.87	44.65	1.09	1.37		
14	2.51	6.84	13.53	21.36	317.64	719.93	317.64	99.12	61.87	39.99	1.37	1.70		
15	2.51	8.94	13.53	21.36	75.42	719.93	291.07	99.12	61.87	39.99	2.08	1.37		
16	2.51	10.12	11.41	21.36	49.99	719.93	269.03	99.12	61.87	39.99	3.05	1.37		
17	3.05	13.53	11.41	18.49	35.65	768.18	248.10	99.12	61.87	35.65	4.33	1.09		
18	4.33	13.53	10.12	15.89	5250.76	1842.17	209.44	99.12	55.72	35.65	5.92	1.09		
19	5.08	13.53	10.12	13.53	1756.93	870.83	174.90	99.12	55.72	35.65	7.84	1.09		
20	5.08	13.53	11.41	13.53	629.37	818.47	174.90	99.12	49.99	31.64	10.12	1.09		
21	5.08	13.53	18.49	15.89	439.45	629.37	174.90	107.97	49.99	27.92	13.53	1.09		
22	4.33	13.53	24.50	21.36	291.07	406.59	174.90	107.97	49.99	27.92	13.53	1.09		
23	3.05	13.53	13.53	27.92	1441.46	291.07	174.90	117.31	49.99	27.92	5.92	1.09		
24	2.51	510.17	13.53	27.92	473.96	248.10	174.90	117.31	49.99	27.92	2.51	1.09		
25	3.05	27.92	13.53	27.92	473.96	209.44	174.90	130.33	44.65	24.50	1.70	1.09		
26	4.33	27.92	61.87	27.92	473.96	159.10	191.67	130.33	44.65	24.50	1.37	1.09		
27	5.08	27.92	1230.60	27.92	473.96	144.26	209.44	130.33	44.65	21.36	1.09	1.09		
28	4.33	27.92	159.10	35.65	406.59	144.26	228.24	107.97	39.99	21.36	1.09	1.09		
29	4.33	24.50	82.86	44.65	317.64	159.10	228.24	82.86	39.99	18.49		1.09		
30	4.33	21.36	82.86	49.99	317.64	228.24	248.10	75.42	39.99	15.89		1.09		
31		21.36		49.99	291.07		248.10		39.99	13.53		1.09		
Total	93.98	1084.73	1963.25	820.93	13926.79	14078.37	11449.39	3176.60	1772.69	1069.06	125.91	35.24	49596.94	Tonday
Mean	3.13	34.99	65.44	26.48	449.25	469.28	369.34	105.89	57.18	34.49	4.50	1.14	135.88	Ton/day
Max	5.08	510.17	1230.60	55.72	5250.76	1842.17	2767.93	130.33	68.43	49.99	13.53	1.70	5250.76	Ton/day
Min	1.09	5.08	10.12	13.53	27.92	130.33	174.90	75.42	39.99	13.53	1.09	1.09	1.09	Ton/day

WATER YEAR : 2018

CHI RIVER BASIN

Lam Nam Phong at Ban Tha Mao , Khon Kaen (E.22B)

Lat 16 - 39 - 13 N Long 102 - 49 - 39 E

Location : on right bank at Ban Tha Mao.

Ban Tha Mao **Amphoe** Nam Phong **Changwat** Khon Kaen

Drainge Area	13,638 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2004-Cont'd
Actual Measurement	2004-Cont'd
Using Rating Curve Water Year	2018
Number of observation	16
R-Square	0.8770
Remarks	Continued Sediment Station

$$QS = 0.5028\ QW^{1.57670}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	259.78	384.28	1046.02	806.98	1663.25	21.98	21.23	10.57	7.93	5.58	2.83	1.87		
2	247.74	460.34	1004.83	729.96	1663.25	16.92	16.92	10.57	7.93	5.58	3.54	1.87		
3	209.11	500.72	984.46	655.82	1440.91	16.92	16.92	10.57	7.93	5.58	3.54	1.87		
4	245.75	457.37	984.46	588.92	1173.17	25.89	16.92	10.57	7.93	5.58	3.54	1.87		
5	253.73	460.34	1030.50	572.19	934.22	75.44	16.92	10.57	7.93	5.58	3.54	1.87		
6	243.77	416.48	964.25	562.24	794.63	132.16	15.56	10.57	7.93	5.58	3.54	1.87		
7	343.06	343.06	884.94	552.36	749.96	103.05	10.57	10.57	7.93	5.58	3.92	1.87		
8	356.61	301.43	1151.61	539.27	722.02	86.88	10.57	10.57	7.93	5.58	4.32	1.87		
9	284.50	218.54	1375.86	558.94	671.19	86.88	11.15	10.57	7.93	5.58	2.83	1.87		
10	295.04	178.88	1401.75	568.87	722.02	92.16	10.57	10.57	7.93	5.58	2.83	1.87		
11	226.20	265.89	1362.98	599.36	737.94	69.33	10.57	10.57	7.93	5.58	3.92	2.49		
12	150.87	182.29	1311.21	606.78	698.39	58.84	10.02	10.57	7.43	5.58	4.32	2.83		
13	74.20	175.50	1233.22	572.19	659.65	76.68	10.02	11.15	6.48	5.58	3.18	1.87		
14	74.20	274.10	1189.44	454.40	621.72	84.29	10.02	10.57	6.48	5.58	2.17	1.87		
15	104.44	361.16	1082.55	314.36	595.66	58.84	10.02	10.57	6.48	3.92	1.87	1.87		
16	120.20	433.83	994.63	259.78	516.66	39.88	10.57	10.57	6.02	4.72	1.87	1.87		
17	121.67	410.76	984.46	343.06	345.30	22.75	10.57	10.57	5.58	5.58	1.87	1.87		
18	98.91	419.36	989.54	798.74	290.81	32.61	10.57	10.57	5.58	5.58	1.87	1.87		
19	124.63	582.21	959.22	1872.12	189.18	85.58	10.57	7.93	5.58	4.72	1.87	1.87		
20	241.79	549.08	806.98	2147.79	52.19	121.67	10.57	7.93	5.58	4.72	1.87	1.87		
21	251.73	460.34	648.18	1732.91	39.88	167.14	10.57	7.93	6.48	5.58	1.87	1.87		
22	220.45	405.52	552.36	1333.81	55.48	226.20	11.75	7.93	7.93	4.72	1.87	1.87		
23	257.76	410.76	430.92	1072.07	129.13	439.67	13.61	7.93	6.95	4.72	1.87	1.87		
24	280.33	442.61	363.45	865.51	272.04	352.07	13.61	7.93	5.58	4.72	1.87	1.87		
25	265.89	552.36	329.70	762.05	358.88	205.38	13.61	7.93	5.58	4.72	1.87	1.87		
26	233.95	733.95	340.82	741.94	280.33	89.51	13.61	7.93	5.58	4.32	1.87	1.87		
27	194.41	823.55	513.46	794.63	175.50	72.97	13.61	7.43	5.58	3.18	1.87	1.87		
28	249.73	875.21	811.11	860.67	110.08	88.19	12.98	7.93	5.58	2.83	1.87	2.49		
29	312.19	899.62	984.46	969.29	69.33	22.75	12.36	7.93	5.58	2.83		2.83		
30	363.45	969.29	919.33	1401.75	50.04	22.75	11.75	7.93	5.58	2.83		2.17		
31		1020.21		1414.76	36.18		10.57		5.58	2.83		2.17		
Total	6706.09	14969.04	27636.70	26053.52	16818.99	2995.38	388.86	285.50	208.44	150.64	74.20	61.73	96349.09	Tonday
Mean	223.54	482.87	921.22	840.44	542.55	99.85	12.54	9.52	6.72	4.86	2.65	1.99	263.97	Ton/day
Max	363.45	1020.21	1401.75	2147.79	1663.25	439.67	21.23	11.15	7.93	5.58	4.32	2.83	2147.79	Ton/day
Min	74.20	175.50	329.70	259.78	36.18	16.92	10.02	7.43	5.58	2.83	1.87	1.87	1.87	Ton/day

WATER YEAR : 2018

CHI RIVER BASIN

Chi River at Ban Khai , Chaiyaphum (E.23)

Lat 15 - 40 - 49 N Long 102 - 00 - 46 E

Location : on left bank at the bridge on highway.

Ban Khai **Amphoe** Mueang **Changwat** Chaiyaphum

Drainge Area	6,282 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1998-Cont'd
Actual Measurement	1998-Cont'd
Using Rating Curve Water Year	1998-2018
Number of observation	352
R-Square	0.7724
Remarks	Continued Sediment Station

$$QS = 5.8850\ QW^{1.11500}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	3.21	1.77	147.70	175.40	843.40	811.28	377.88	201.19	59.80	45.01	2.36	0.66		
2	3.21	1.77	127.27	122.77	912.68	861.82	417.60	168.43	59.80	41.78	2.36	0.66		
3	3.02	1.83	116.06	111.60	966.04	922.17	420.46	159.18	59.80	35.41	2.18	0.45		
4	2.90	1.94	98.36	85.29	975.82	961.16	377.88	163.80	59.80	29.15	2.18	0.26		
5	2.72	1.94	109.38	93.98	956.28	966.04	283.27	152.28	56.47	23.79	1.94	0.30		
6	2.66	1.83	134.04	98.36	894.15	980.71	203.56	136.31	56.47	18.55	1.65	0.16		
7	2.54	1.65	113.83	91.80	838.81	1029.77	163.80	118.29	58.13	12.04	1.31	0.00		
8	2.54	1.59	140.85	80.98	820.44	1079.08	152.28	113.83	58.13	9.25	1.31	0.03		
9	2.30	1.48	134.04	71.58	754.55	1113.73	177.73	109.38	54.82	8.56	1.42	0.08		
10	2.00	1.42	118.29	64.82	687.75	1108.77	134.04	104.96	54.82	8.22	1.25	0.08		
11	1.83	1.31	93.98	54.82	622.47	1108.77	122.77	102.75	53.17	7.88	0.92	0.03		
12	1.77	1.31	83.13	45.01	569.22	1103.82	107.17	107.17	51.53	8.56	1.14	0.00		
13	1.65	1.25	74.98	36.99	471.72	1088.97	98.36	102.75	51.53	10.29	1.31	0.00		
14	1.59	1.25	73.28	46.63	319.11	1088.97	91.80	100.55	56.47	9.94	1.65	0.00		
15	1.59	1.25	74.98	46.63	205.92	1093.91	87.45	96.17	54.82	8.22	1.42	0.00		
16	1.59	2.30	64.82	51.53	221.03	1128.61	87.45	96.17	54.82	4.46	1.14	0.00		
17	1.59	11.69	63.14	66.50	203.56	1183.36	89.62	91.80	53.17	3.83	1.25	0.00		
18	1.48	45.01	83.13	107.17	156.88	1218.57	91.80	87.45	54.82	3.52	1.42	0.00		
19	1.42	63.14	76.69	245.20	100.55	1223.80	100.55	85.29	54.82	2.90	1.25	0.00		
20	1.42	74.98	71.58	434.75	100.55	1203.34	107.17	85.29	54.82	2.54	0.87	0.00		
21	1.42	74.98	64.82	479.15	168.43	1183.36	122.77	100.55	56.47	2.48	0.87	0.00		
22	1.31	73.28	36.99	426.17	366.61	1148.49	229.06	96.17	56.47	2.30	0.92	4.59		
23	1.31	71.58	12.39	352.57	411.91	1103.82	445.81	87.45	54.82	2.18	1.09	4.59		
24	1.31	73.28	14.18	363.80	420.46	1049.47	561.66	83.13	54.82	2.00	0.98	3.52		
25	1.65	91.80	64.82	386.36	397.69	970.93	546.56	73.28	49.89	2.18	1.09	3.64		
26	1.83	111.60	143.13	449.50	453.20	779.28	531.50	61.47	45.01	2.48	0.87	3.83		
27	1.65	89.62	131.78	409.06	497.79	453.20	516.49	64.82	36.99	2.54	0.87	3.52		
28	1.59	83.13	194.12	482.87	618.65	333.01	471.72	66.50	24.55	2.48	0.71	2.18		
29	1.65	102.75	372.24	603.39	676.18	286.02	386.36	63.14	21.53	2.48		0.40		
30	1.77	145.41	358.18	707.08	730.35	316.34	335.80	63.14	26.07	2.54		0.12		
31		154.58		783.84	758.67		280.54		36.99	2.36		0.08		
Total	58.52	1292.72	3392.18	7575.60	17120.87	28900.57	8120.91	3142.69	1581.62	319.92	37.73	29.18	71572.51	Tonday
Mean	1.95	41.70	113.07	244.37	552.29	963.35	261.96	104.76	51.02	10.32	1.35	0.94	196.09	Ton/day
Max	3.21	154.58	372.24	783.84	975.82	1223.80	561.66	201.19	59.80	45.01	2.36	4.59	1223.80	Ton/day
Min	1.31	1.25	12.39	36.99	100.55	286.02	87.45	61.47	21.53	2.00	0.71	0.00	0.00	Ton/day

WATER YEAR : 2018

CHI RIVER BASIN

Chi River at Ban Nong O , Chaiyaphum (E.32A)

Lat 15 - 54 - 41 N Long 101 - 42 - 42 E

Location : on right bank about 500 meters north of Ban Nong O from about 600 meters upstream from E.32 gaging station.

Ban Nong O **Amphoe** Ban Khwao **Changwat** Chaiyaphum

Drainge Area	2,906 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1968-Cont'd
Actual Measurement	1968-Cont'd
Using Rating Curve Water Year	2018
Number of observation	12
R-Square	0.8819
Remarks	Continued Sediment Station

$$QS = 2.1858\ QW^{1.45310}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	1.79	6.25	122.16	177.08	3064.19	381.18	667.70	93.90	23.19	12.12	4.33	1.79	
2	2.06	28.26	71.83	120.83	2027.10	274.99	511.60	84.22	23.19	12.12	4.69	1.52	
3	2.64	92.67	54.88	85.41	1266.08	207.61	405.71	70.79	22.60	12.12	4.69	1.25	
4	2.95	205.77	43.81	79.50	910.17	298.23	259.07	64.68	22.60	11.63	4.33	1.25	
5	3.98	331.74	37.72	81.85	524.88	1012.49	171.86	61.69	21.42	11.63	4.33	1.25	
6	5.47	180.60	59.72	72.87	416.77	1893.74	149.78	58.74	21.42	11.16	4.33	1.25	
7	7.47	143.18	123.50	56.80	349.22	1410.29	128.90	54.88	21.42	11.16	4.33	1.02	
8	7.47	100.12	105.18	44.70	252.34	760.38	110.32	50.17	20.84	11.16	3.98	1.02	
9	7.94	62.68	73.91	36.87	216.87	948.75	98.87	45.60	20.84	10.68	3.98	1.02	
10	10.17	38.57	61.69	31.92	194.85	1232.97	89.02	41.16	20.84	10.68	3.98	1.02	
11	8.81	28.89	49.25	29.54	161.55	997.67	74.96	42.92	20.84	10.17	3.98	0.80	
12	7.06	26.93	43.81	30.33	138.52	958.47	68.73	50.17	20.27	9.71	3.98	0.80	
13	5.47	26.93	45.60	29.54	148.12	914.96	58.74	48.33	20.27	9.26	3.64	0.80	
14	4.69	26.93	44.70	27.62	216.87	1151.40	51.10	52.04	20.27	8.81	3.64	0.80	
15	4.33	27.62	40.29	28.26	178.84	1777.61	44.70	52.04	19.63	8.37	3.64	0.80	
16	4.33	28.89	44.70	31.12	144.82	1784.80	42.92	52.04	19.63	7.94	3.64	0.69	
17	4.33	35.20	44.70	91.45	131.63	1032.36	54.88	51.10	19.07	7.47	3.31	0.69	
18	4.33	52.98	44.70	534.92	106.46	631.33	66.70	52.04	19.07	7.47	3.31	0.58	
19	4.33	54.88	38.57	1517.05	95.14	582.50	74.96	56.80	18.51	7.06	3.31	0.58	
20	4.33	55.84	28.26	1699.11	317.24	582.50	85.41	62.68	18.51	7.06	3.31	0.58	
21	5.05	54.88	21.42	1022.41	1119.26	419.55	103.91	54.88	17.96	6.65	2.95	0.48	
22	6.25	53.93	17.41	649.06	638.40	339.07	447.65	50.17	17.41	6.65	2.95	0.48	
23	5.85	52.04	17.96	760.38	508.30	279.59	1227.48	46.50	16.86	6.25	2.95	0.38	
24	5.47	51.10	18.51	561.95	585.95	261.33	725.18	44.70	16.27	6.25	3.31	0.38	
25	4.69	52.98	30.33	405.71	853.24	245.67	422.33	44.70	15.73	6.25	3.31	0.29	
26	3.98	57.77	126.19	427.92	744.67	209.45	317.24	40.29	15.21	5.85	3.64	0.29	
27	2.95	65.68	470.54	671.49	1124.60	196.66	239.05	34.37	14.69	5.85	3.64	0.21	
28	4.33	81.85	820.17	1077.51	1103.30	182.36	194.85	34.37	13.11	5.47	3.31	0.29	
29	7.47	86.61	780.15	2343.70	1007.54	211.29	153.12	28.26	12.61	5.05		0.69	
30	6.65	106.46	357.13	2779.83	963.34	422.33	128.90	23.19	12.12	4.69		1.25	
31		139.92		3092.51	579.06		110.32		12.12	4.33		1.79	
Total	156.64	2358.15	3838.79	18599.24	20089.32	21601.53	7285.96	1547.42	578.52	261.07	104.79	26.04	76447.47 Tonday
Mean	5.22	76.07	127.96	599.98	648.04	720.05	235.03	51.58	18.66	8.42	3.74	0.84	209.45 Ton/day
Max	10.17	331.74	820.17	3092.51	3064.19	1893.74	1227.48	93.90	23.19	12.12	4.69	1.79	3092.51 Ton/day
Min	1.79	6.25	17.41	27.62	95.14	182.36	42.92	23.19	12.12	4.33	2.95	0.21	0.21 Ton/day

WATER YEAR : 2018

CHI RIVER BASIN

Nam Yang at Ban Kaeng Yao , Kalasin (E.54)

Lat 16 - 26 - 28 N Long 104 - 02 - 05 E

Location : on left bank at Ban Kaeng Yao about 2 kilometers downstream from proposed of USBR Damsite.

Ban Kaeng Yao **Amphoe** Kuchinarai **Changwat** Kalasin

Drainge Area	1,548 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1998-Cont'd
Actual Measurement	1998-Cont'd
Using Rating Curve Water Year	2018
Number of observation	12
R-Square	0.9434
Remarks	Continued Sediment Station

$$QS = 7.6017\ QW^{1.26090}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	15.97	57.91	96.56	678.36	19596.08	888.49	200.72	57.91	25.39	15.97	22.95	25.39		
2	15.97	57.91	88.51	403.20	15270.01	712.55	151.14	57.91	27.88	15.97	22.95	25.39		
3	15.97	57.91	100.63	343.10	8695.35	678.36	130.09	54.28	25.39	18.24	22.95	25.39		
4	15.97	57.91	151.14	357.93	3632.55	1558.98	104.74	50.71	25.39	20.57	22.95	25.39		
5	15.97	57.91	140.53	328.39	481.02	1826.09	84.55	50.71	25.39	22.95	20.57	25.39		
6	15.97	57.91	140.53	235.29	33.64	1805.23	76.73	47.18	25.39	25.39	20.57	25.39		
7	15.97	54.28	189.45	178.33	15.97	1418.89	72.88	47.18	22.95	27.88	20.57	22.95		
8	15.97	54.28	189.45	145.81	4.00	1090.72	65.31	47.18	22.95	30.41	25.39	22.95		
9	15.97	47.18	124.93	151.14	151.14	979.35	57.91	47.18	22.95	33.64	25.39	22.95		
10	15.97	47.18	96.56	328.39	1952.23	781.96	54.28	47.18	20.57	33.64	25.39	20.57		
11	15.97	47.18	156.50	781.96	1458.64	661.39	54.28	47.18	20.57	33.64	25.39	20.57		
12	13.77	47.18	114.74	2406.80	924.61	627.73	54.28	43.71	20.57	33.64	22.95	20.57		
13	13.77	47.18	88.51	4469.25	764.49	695.41	54.28	43.71	15.97	33.64	22.95	20.57		
14	13.77	43.71	72.88	4977.48	834.88	747.09	50.71	43.71	15.97	33.64	20.57	20.57		
15	15.97	43.71	65.31	7401.68	1147.31	594.44	47.18	43.71	15.97	33.64	20.57	20.57		
16	13.77	43.71	69.07	8476.78	1185.37	465.23	47.18	36.94	13.77	33.64	20.57	20.57		
17	13.77	57.91	212.12	8321.36	1262.24	418.54	50.71	33.64	13.77	30.41	18.24	18.24		
18	11.63	92.52	695.41	8820.77	997.74	1359.70	61.58	33.64	15.97	30.41	18.24	18.24		
19	11.63	100.63	661.39	8695.35	852.67	2788.49	76.73	33.64	15.97	30.41	18.24	20.57		
20	11.63	80.62	387.99	6860.84	695.41	2144.63	96.56	33.64	18.24	30.41	20.57	20.57		
21	11.63	69.07	223.64	4219.47	747.09	1185.37	130.09	30.41	18.24	30.41	20.57	18.24		
22	9.58	61.58	151.14	2428.93	979.35	764.49	109.72	30.41	18.24	30.41	20.57	15.97		
23	9.58	72.88	130.09	1888.94	1579.21	465.23	100.63	25.39	20.57	30.41	22.95	18.24		
24	9.58	80.62	135.29	1722.32	2742.99	481.02	100.63	25.39	20.57	30.41	22.95	20.57		
25	9.58	69.07	200.72	2384.72	3801.85	594.44	96.56	22.95	18.24	30.41	22.95	20.57		
26	9.58	65.31	764.49	4849.37	3753.32	529.02	92.52	22.95	18.24	30.41	22.95	22.95		
27	9.58	80.62	1681.17	8820.77	3322.47	387.99	88.51	25.39	15.97	27.88	22.95	22.95		
28	18.24	104.74	1931.09	14689.16	2675.03	299.39	76.73	25.39	15.97	27.88	25.39	22.95		
29	40.29	109.72	577.94	20094.48	1973.42	299.39	69.07	25.39	13.77	27.88		22.95		
30	65.31	114.74	997.74	21515.47	1438.73	247.07	69.07	25.39	13.77	25.39		20.57		
31		109.72		20684.11	1128.38		65.31		13.77	25.39		20.57		
Total	488.33	2092.80	10635.52	######	84097.19	27496.68	2590.68	1160.00	598.37	885.02	619.25	669.33	298993.12	Tonday
Mean	16.28	67.51	354.52	5408.39	2712.81	916.56	83.57	38.67	19.30	28.55	22.12	21.59	819.16	Ton/day
Max	65.31	114.74	1931.09	21515.47	19596.08	2788.49	200.72	57.91	27.88	33.64	25.39	25.39	21515.47	Ton/day
Min	9.58	43.71	65.31	145.81	4.00	247.07	47.18	22.95	13.77	15.97	18.24	15.97	4.00	Ton/day

WATER YEAR : 2018

CHI RIVER BASIN

Chi River at Ban Muang Lat , Roi Et (E.66A)

Lat 16 - 12 - 08 N Long 103 - 31 - 41 E

Location : on right bank at the bridge.

Ban Muang Lat **Amphoe** Chang Han **Changwat** Roi Et

Drainge Area	31,879 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2004-Cont'd
Actual Measurement	2004-Cont'd
Using Rating Curve Water Year	2004-2018
Number of observation	288
R-Square	0.7912
Remarks	Continued Sediment Station

$$QS = 7.4012\ QW^{1.01240}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	527.16	1213.24	1400.05	1708.05	2457.89	1371.29	1457.59	811.39	109.00	35.46	30.88	20.23	
2	527.16	1229.20	1371.29	1668.81	2487.66	1280.26	1313.79	683.74	89.66	35.46	27.07	21.75	
3	621.99	1181.35	1347.33	1607.17	2487.66	1201.28	1193.31	536.63	79.24	34.70	22.51	24.03	
4	795.52	1153.44	1356.91	1579.16	2421.69	1181.35	1065.80	443.56	87.73	31.64	17.20	28.59	
5	555.59	1193.31	1352.12	1419.23	2309.11	1201.28	986.21	565.07	80.78	28.59	11.91	33.93	
6	498.75	1145.47	1400.05	1229.20	2180.53	1318.58	922.59	593.52	82.33	27.07	7.40	31.64	
7	612.50	1097.66	1462.39	1073.77	2109.85	1517.56	874.91	443.56	87.73	26.31	9.65	24.79	
8	831.23	986.21	1590.36	1022.02	2077.74	1736.08	823.29	353.87	97.39	25.55	15.69	17.96	
9	922.59	866.97	1584.76	966.32	2071.31	1831.44	584.04	335.02	89.66	27.07	20.23	19.47	
10	894.77	726.52	1495.97	898.75	2129.13	1924.86	335.02	347.58	91.59	28.59	21.75	20.99	
11	803.45	791.55	1495.97	942.47	2141.98	2141.98	297.36	412.06	87.73	30.88	22.51	20.99	
12	726.52	791.55	1511.96	1045.90	2186.96	2378.26	141.19	335.02	73.07	33.17	23.27	19.47	
13	631.49	795.52	1471.98	1121.56	2199.81	2495.71	105.13	242.55	65.37	36.22	21.75	17.96	
14	427.80	791.55	1361.70	1323.37	2135.55	2457.89	91.59	191.01	54.61	40.81	18.71	17.20	
15	242.55	631.49	1245.15	1371.29	2001.64	2428.93	83.87	309.90	54.61	45.40	17.96	17.96	
16	186.33	479.81	1149.46	1400.05	1942.43	2328.41	79.24	272.28	73.07	48.47	18.71	18.71	
17	209.73	740.79	1053.86	1443.20	1854.61	2097.01	82.33	131.87	73.07	53.07	18.71	19.47	
18	200.36	874.91	1010.08	1462.39	1708.05	1907.30	83.87	118.68	69.99	57.68	19.47	20.23	
19	125.66	894.77	974.28	1668.81	1428.82	1860.47	103.19	109.00	68.45	60.76	25.55	16.44	
20	118.68	906.69	914.64	2186.96	1201.28	1895.59	176.98	110.94	76.16	57.68	20.99	11.16	
21	214.41	962.35	906.69	2753.36	1061.82	2199.81	223.79	150.52	73.07	34.70	11.91	11.91	
22	536.63	970.30	795.52	3075.84	982.23	2713.08	259.76	144.30	79.24	20.99	4.41	14.93	
23	565.07	998.14	726.52	3027.44	1010.08	3249.34	451.44	110.94	79.24	21.75	5.90	16.44	
24	584.04	978.25	697.99	2680.86	1157.43	3533.65	783.61	76.16	74.61	25.55	6.65	19.47	
25	536.63	974.28	740.79	2342.08	1438.41	3560.32	640.98	59.22	71.53	30.88	7.40	20.99	
26	565.07	998.14	795.52	2077.74	1786.56	3347.04	669.48	59.22	73.07	33.93	8.90	21.75	
27	799.48	1117.58	839.17	1895.59	2013.52	2882.30	831.23	68.45	73.07	30.12	14.93	17.20	
28	843.14	1237.17	1157.43	1948.29	2032.78	2244.81	859.02	89.66	62.29	29.36	19.47	18.71	
29	934.51	1332.95	1424.02	2064.89	1895.59	1820.22	866.97	120.62	48.47	30.12		26.31	
30	1085.71	1347.33	1635.18	2257.67	1685.62	1607.17	882.85	105.13	37.75	30.88		36.99	
31		1347.33		2356.55	1481.57		859.02		34.70	32.41		62.29	
Total	17124.52	30755.82	36269.14	53618.79	58079.31	63713.27	18129.45	8331.47	2298.28	1085.27	471.49	689.96	290566.77
Mean	570.82	992.12	1208.97	1729.64	1873.53	2123.78	584.82	277.72	74.14	35.01	16.84	22.26	796.07
Max	1085.71	1347.33	1635.18	3075.84	2487.66	3560.32	1457.59	811.39	109.00	60.76	30.88	62.29	3560.32
Min	118.68	479.81	697.99	898.75	982.23	1181.35	79.24	59.22	34.70	20.99	4.41	11.16	4.41

WATER YEAR : 2018

CHI RIVER BASIN

Lam Nam Yang at Ban Kut Kwang , Roi Et (E.70)

Lat 16 - 17 - 14 N Long 104 - 00 - 34 E

Location : on right bank at the bridge on highway.

Ban Kut Kwang **Amphoe** Phon Thong **Changwat** Roi Et

Drainge Area	2,647 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1998-Cont'd
Actual Measurement	1998-Cont'd
Using Rating Curve Water Year	1998-2018
Number of observation	207
R-Square	0.8537
Remarks	Continued Sediment Station

$$QS = 6.4752\ QW^{1.17680}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	31.16	8.82	45.07	479.72	15742.46	912.38	207.06	26.39	6.48	4.26	0.00	0.00		
2	27.33	8.82	41.01	269.90	13084.29	848.63	150.64	25.45	6.48	4.26	0.00	0.00		
3	24.52	8.82	39.01	187.96	9294.77	1015.79	118.21	23.59	6.48	4.26	0.00	0.00		
4	24.52	8.02	51.25	187.96	5285.87	1220.96	101.88	21.75	6.48	3.55	0.00	0.00		
5	22.67	8.02	66.09	184.80	2939.40	1909.58	63.94	20.84	7.24	3.55	0.00	0.00		
6	21.75	6.48	74.82	126.50	2108.03	1793.73	41.01	19.93	7.24	3.55	0.00	0.00		
7	19.93	6.48	83.70	99.58	2117.12	1435.92	32.12	18.14	6.48	2.86	0.00	0.00		
8	20.84	5.72	104.19	77.02	1811.48	1143.98	28.28	18.14	5.72	2.86	0.00	0.00		
9	19.03	5.72	118.21	85.94	1679.00	912.38	23.59	17.26	5.72	2.86	0.00	0.00		
10	15.50	5.72	169.15	213.48	2490.57	918.80	19.93	16.38	5.72	2.20	0.00	0.00		
11	16.38	4.98	246.05	603.25	2135.32	785.58	18.14	14.64	5.72	2.20	0.00	0.00		
12	15.50	4.98	285.99	1028.83	1270.33	743.76	17.26	12.93	5.72	2.20	0.00	0.00		
13	15.50	5.72	318.57	1793.73	867.68	944.52	16.38	11.26	4.98	2.20	0.00	0.00		
14	15.50	5.72	355.82	3297.11	829.64	918.80	16.38	10.43	4.98	1.57	0.00	0.00		
15	14.64	4.26	397.91	3597.26	1227.99	722.67	15.50	9.62	4.98	1.57	0.00	0.00		
16	12.93	4.26	436.38	4145.15	1220.96	537.25	14.64	9.62	4.98	1.57	0.00	0.00		
17	13.78	6.48	471.00	5131.81	1123.12	453.64	13.78	8.82	4.98	0.97	0.00	0.00		
18	14.64	11.26	497.23	5752.07	970.35	835.96	15.50	8.82	4.26	0.97	0.43	0.00		
19	13.78	12.93	562.50	5642.77	738.48	1900.63	19.03	8.02	4.26	0.97	0.43	0.00		
20	12.93	11.26	457.97	5239.58	623.78	1873.82	29.24	10.43	4.26	0.97	0.00	0.00		
21	11.26	12.09	427.78	3991.08	791.85	1199.89	39.01	11.26	4.98	0.97	0.00	0.00		
22	10.43	12.09	414.94	2873.03	1377.09	727.93	61.79	11.26	4.98	0.97	0.00	0.00		
23	8.02	12.93	453.64	2675.31	2415.09	484.09	61.79	10.43	4.98	0.43	0.00	0.00		
24	4.98	13.78	562.50	2523.03	3609.87	462.31	59.66	10.43	4.98	0.43	0.00	0.00		
25	2.86	14.64	649.59	2199.19	4106.55	547.33	57.54	9.62	4.26	0.43	0.00	0.00		
26	3.55	18.14	848.63	2098.95	3965.49	512.18	51.25	9.62	4.26	0.00	0.00	0.00		
27	2.20	29.24	1137.02	3673.00	3433.98	385.21	41.01	9.62	4.26	0.00	0.00	0.00		
28	1.57	51.25	1137.02	6066.09	2653.47	298.14	32.12	8.82	4.26	0.00	0.00	0.00		
29	2.20	57.54	1074.67	9901.82	2026.49	364.18	29.24	8.82	4.26	0.00		0.00		
30	6.48	57.54	798.13	13227.86	1453.09	290.03	26.39	8.82	4.26	0.00		0.00		
31		53.33		17078.19	1213.93		24.52		4.26	0.00		0.00		
Total	426.38	477.04	12325.84	######	94607.54	27100.07	1446.83	411.16	162.90	52.63	0.86	0.00	241463.22	Tonday
Mean	14.21	15.39	410.86	3369.42	3051.86	903.34	46.67	13.71	5.25	1.70	0.03	0.00	661.54	Ton/day
Max	31.16	57.54	1137.02	17078.19	15742.46	1909.58	207.06	26.39	7.24	4.26	0.43	0.00	17078.19	Ton/day
Min	1.57	4.26	39.01	77.02	623.78	290.03	13.78	8.02	4.26	0.00	0.00	0.00	0.00	Ton/day

WATER YEAR : 2018

CHI RIVER BASIN

Lam Chiang at Ban Chiang , Chaiyaphum (E.72)

Lat 16 - 01 - 26 N Long 101 - 30 - 12 E

Location : on left bank at Ban Chiang School.

Ban Chiang **Amphoe** Phak Di Chumphc **Changwat** Chaiyaphum

Drainge Area	323 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2004-Cont'd
Actual Measurement	2004-Cont'd
Using Rating Curve Water Year	2007-2018
Number of observation	225
R-Square	0.8096
Remarks	Continued Sediment Station

$$QS = 6.0600\ QW^{1.33650}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.86	18.02	6.88	13.89	317.12	53.19	16.33	12.32	6.22	3.69	1.90	0.90		
2	2.66	64.38	5.26	12.32	147.93	56.58	15.51	11.93	4.80	3.69	2.46	0.90		
3	2.66	58.29	4.80	12.32	82.12	44.17	15.51	11.55	4.35	3.69	2.66	0.75		
4	2.66	40.99	4.35	11.93	68.83	28.08	15.10	11.17	4.13	3.69	3.27	0.75		
5	2.66	28.08	4.13	11.55	45.77	176.27	15.10	10.79	3.91	3.69	4.13	0.75		
6	2.66	17.59	3.69	11.55	37.36	74.56	14.69	10.42	3.91	3.69	4.80	0.61		
7	2.46	14.69	3.69	11.17	34.20	42.57	14.69	10.05	3.91	3.69	5.03	0.61		
8	2.46	12.32	17.17	10.79	30.49	36.72	14.29	9.68	3.69	3.69	5.26	0.61		
9	2.46	11.93	11.93	9.32	23.99	33.57	14.29	8.61	3.69	3.48	5.90	0.48		
10	2.27	10.79	7.22	9.68	28.08	31.72	13.89	8.25	3.69	3.48	6.22	0.48		
11	2.27	10.05	4.80	10.42	27.49	29.89	13.10	7.90	3.48	3.48	6.55	0.00		
12	2.27	8.96	4.13	17.17	26.90	28.08	12.70	7.56	3.48	3.69	6.55	0.00		
13	2.27	8.61	7.90	37.36	26.31	43.37	11.93	7.56	3.48	3.91	6.88	0.00		
14	2.08	8.61	23.42	62.63	25.73	242.37	8.96	7.56	3.48	4.13	6.88	0.00		
15	2.08	8.25	33.57	73.49	32.95	104.84	11.17	7.22	3.48	4.35	6.55	0.00		
16	2.08	7.90	31.10	49.04	32.33	40.21	10.79	7.22	3.27	4.57	5.90	0.00		
17	2.46	6.88	23.99	29.89	30.49	26.90	10.42	8.96	3.27	4.57	5.90	0.00		
18	3.69	5.90	17.17	23.42	28.68	27.49	10.42	12.32	3.27	4.35	5.58	0.00		
19	4.80	5.26	13.49	49.04	36.72	57.43	16.75	11.55	3.27	4.35	5.26	0.00		
20	5.58	4.57	9.68	144.68	278.26	34.20	15.92	11.55	3.27	4.13	5.03	0.00		
21	4.80	4.13	8.61	62.63	135.04	27.49	32.95	11.17	3.48	3.91	5.03	0.00		
22	3.91	4.13	8.25	38.65	86.52	28.08	69.72	10.42	3.69	3.69	4.80	0.00		
23	3.06	6.55	7.56	31.10	122.46	27.49	39.42	9.32	3.91	3.48	4.80	0.00		
24	2.66	6.22	7.56	27.49	95.65	22.29	26.90	8.61	4.13	3.27	5.03	0.00		
25	2.46	4.13	7.90	29.28	68.83	19.74	23.99	8.61	4.35	3.06	5.03	0.00		
26	1.72	4.13	15.92	63.50	220.09	18.02	20.18	7.90	4.35	2.86	4.80	0.06		
27	1.55	6.55	21.73	188.29	108.84	16.33	16.33	7.22	4.57	2.86	4.80	0.36		
28	5.58	5.90	17.17	444.66	75.63	15.51	15.51	7.22	4.57	2.66	4.80	0.36		
29	8.61	6.22	12.70	413.41	95.65	15.51	14.69	7.22	4.35	2.46		0.24		
30	7.22	8.96	7.90	728.30	55.73	20.62	13.89	7.22	4.13	2.27		0.00		
31		10.42		475.49	37.36		12.70		3.91	2.27		0.00		
Total	96.96	419.41	353.67	3114.46	2463.55	1423.29	557.84	279.08	121.49	110.80	141.80	7.86	9090.21	Tonday
Mean	3.23	13.53	11.79	100.47	79.47	47.44	17.99	9.30	3.92	3.57	5.06	0.25	24.90	Ton/day
Max	8.61	64.38	33.57	728.30	317.12	242.37	69.72	12.32	6.22	4.57	6.88	0.90	728.30	Ton/day
Min	1.55	4.13	3.69	9.32	23.99	15.51	8.96	7.22	3.27	2.27	1.90	0.00	0.00	Ton/day

WATER YEAR : 2018

CHI RIVER BASIN

Lam Saphung at Ban Na Charoen , Chaiyaphum (E.83)

Lat 16 - 09 - 21 N Long 101 - 39 - 13 E

Location : on left bank at Ban Na Charoen.

Ban Na Charoen **Amphoe** Nong Bua Daeng **Changwat** Chaiyaphum

Drainge Area	744 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2004-Cont'd
Actual Measurement	2004-Cont'd
Using Rating Curve Water Year	2004-2018
Number of observation	252
R-Square	0.7814
Remarks	Continued Sediment Station

$$QS = 3.4626\ QW^{1.11780}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.18	0.48	26.47	83.32	149.82	42.58	96.30	36.98	7.51	2.70	3.15	1.60		
2	0.18	0.54	18.88	59.43	119.21	38.17	109.30	34.99	6.89	2.70	3.50	1.60		
3	0.15	1.45	16.95	48.27	94.71	43.79	95.75	29.51	6.27	2.81	3.73	1.60		
4	0.15	2.51	16.63	35.79	77.28	214.84	79.11	25.47	6.06	2.81	3.85	1.60		
5	0.12	2.59	26.81	33.02	67.42	271.90	65.73	23.14	5.65	2.70	3.85	1.60		
6	0.07	2.93	45.01	32.63	60.68	162.25	58.18	22.48	5.65	2.70	4.01	1.56		
7	0.04	4.32	34.99	29.51	54.44	89.84	54.02	22.48	5.29	2.81	3.73	1.56		
8	0.04	10.08	31.46	26.81	55.27	90.77	49.50	22.15	4.96	2.81	3.27	1.56		
9	0.04	11.91	30.29	29.17	60.27	157.61	45.01	22.48	4.96	2.81	2.66	1.52		
10	0.04	12.22	23.14	33.02	54.02	192.01	40.97	23.47	4.80	2.81	2.47	1.45		
11	0.02	7.30	14.41	21.82	46.23	162.25	37.37	22.48	4.64	2.81	2.29	1.45		
12	0.02	6.68	13.46	13.78	43.39	154.32	34.21	20.51	4.32	2.81	2.07	1.42		
13	0.02	6.27	15.99	11.91	63.62	162.25	32.63	18.56	4.01	2.70	1.88	1.35		
14	0.02	6.06	16.31	11.60	54.02	162.89	31.85	17.27	4.01	2.70	1.63	1.35		
15	0.21	6.06	15.99	11.30	45.82	182.88	28.83	17.59	4.01	2.81	1.60	1.31		
16	0.38	5.45	15.35	12.84	40.57	140.07	27.48	18.23	3.85	2.70	1.45	1.24		
17	0.38	4.32	13.78	23.47	37.37	119.71	27.48	18.23	3.73	2.70	1.45	1.17		
18	0.38	2.93	10.99	93.12	35.39	115.34	27.48	18.56	3.73	2.70	1.49	1.14		
19	0.38	2.70	10.38	143.10	40.97	131.64	29.90	18.88	3.73	2.70	1.49	1.11		
20	0.42	2.66	9.82	126.82	171.51	93.61	36.18	18.56	3.62	2.81	1.49	1.11		
21	0.42	2.70	9.30	129.20	84.73	87.50	48.27	17.27	3.62	2.81	1.45	1.04		
22	0.42	2.93	9.30	177.54	63.62	78.68	75.89	16.63	3.50	2.81	1.45	1.04		
23	0.42	4.80	9.56	162.89	61.94	71.30	104.97	15.04	3.39	2.81	1.45	0.94		
24	0.42	16.63	9.04	115.34	69.12	70.39	104.42	13.78	3.27	2.81	1.49	0.94		
25	0.42	20.83	8.27	82.83	61.94	69.12	87.06	12.84	3.15	2.81	1.60	0.90		
26	0.42	26.81	85.65	78.20	69.12	69.12	73.59	11.91	3.04	2.81	1.67	0.87		
27	0.42	27.82	190.60	102.26	72.68	79.11	65.31	10.08	3.04	2.81	1.67	0.83		
28	0.45	28.16	166.90	133.46	74.07	81.92	50.73	8.27	2.93	2.81	1.67	0.83		
29	0.45	28.83	112.04	160.28	69.54	84.24	45.01	7.77	2.81	2.81		0.80		
30	0.45	30.68	99.55	157.61	58.18	83.75	41.78	7.77	2.70	2.81		0.77		
31		32.63		146.77	47.86		38.57		2.70	2.81		0.77		
Total	7.53	322.28	1107.32	2327.11	2104.81	3503.85	1742.88	573.38	131.84	86.01	63.51	38.03	12008.55	Tonday
Mean	0.25	10.40	36.91	75.07	67.90	116.80	56.22	19.11	4.25	2.77	2.27	1.23	32.90	Ton/day
Max	0.45	32.63	190.60	177.54	171.51	271.90	109.30	36.98	7.51	2.81	4.01	1.60	271.90	Ton/day
Min	0.02	0.48	8.27	11.30	35.39	38.17	27.48	7.77	2.70	2.70	1.45	0.77	0.02	Ton/day

WATER YEAR : 2018

CHI RIVER BASIN

Chi River at Ban Nang Dad Khok , Chaiyaphum (E.84)

Lat 16 - 09 - 08 N Long 101 - 35 - 07 E

Location : on left bank at Ban Nang Dad Khok.

Ban Nang Dad Khok **Amphoe** Nong Bua Daeng **Changwat** Chaiyaphum

Drainge Area	508 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2004-Cont'd
Actual Measurement	2004-Cont'd
Using Rating Curve Water Year	2004-2018
Number of observation	286
R-Square	0.8012
Remarks	Continued Sediment Station

$$QS = 3.8101\ QW^{1.40510}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.98	23.05	41.80	22.51	472.15	51.72	258.98	21.89	12.28	4.92	1.77	1.77	
2	2.31	15.87	18.51	21.36	228.80	42.88	237.92	22.51	10.88	4.92	1.77	1.52	
3	1.05	61.03	13.81	17.42	182.84	141.22	132.20	23.05	9.95	4.92	2.31	1.28	
4	1.05	251.78	14.83	19.10	109.30	264.06	59.85	22.51	9.46	4.52	2.31	1.52	
5	13.81	121.61	23.05	15.87	70.77	585.27	38.64	23.05	9.04	4.52	2.59	1.28	
6	11.83	52.86	48.35	12.81	75.80	256.46	32.52	22.51	8.57	4.19	2.31	1.77	
7	7.70	21.89	51.72	11.32	63.43	98.20	28.24	22.51	8.16	4.19	2.59	1.52	
8	5.27	16.93	30.55	9.95	48.35	63.43	22.51	21.89	8.16	3.81	2.31	1.52	
9	3.81	15.30	23.05	10.38	43.96	15.87	21.36	22.51	8.16	4.19	2.04	1.28	
10	2.59	14.27	17.42	12.81	58.67	5.69	20.22	22.51	7.70	3.81	1.77	1.05	
11	0.98	12.28	16.35	12.28	65.85	19.10	18.01	22.51	7.70	3.49	2.04	1.52	
12	2.31	12.28	26.72	11.83	64.64	112.13	16.35	22.51	7.70	3.49	2.31	1.28	
13	1.05	14.27	23.05	11.83	68.30	150.40	15.87	21.89	7.31	3.18	2.59	1.28	
14	1.05	15.30	24.50	11.32	55.16	329.79	14.83	21.89	7.31	3.18	2.59	0.98	
15	13.81	15.87	37.60	11.83	38.64	178.93	14.83	21.89	6.86	3.18	3.49	1.05	
16	11.83	14.27	20.22	12.81	58.67	123.36	14.83	22.51	6.86	2.88	3.81	1.05	
17	7.70	11.83	11.32	94.13	29.00	105.10	14.27	21.89	6.86	2.88	3.49	1.52	
18	5.27	9.95	9.04	562.09	31.53	59.85	14.83	21.36	6.48	2.88	2.59	2.31	
19	3.81	9.46	7.70	702.20	75.80	61.03	20.22	21.89	6.48	2.59	2.31	1.77	
20	2.59	10.38	6.48	550.61	338.15	62.23	21.89	21.89	6.05	2.59	2.04	1.77	
21	2.59	32.52	5.27	224.28	228.80	52.86	82.21	23.05	6.05	2.31	2.04	1.52	
22	2.31	27.48	9.46	155.99	202.75	38.64	468.72	23.05	6.05	2.31	1.05	0.98	
23	1.77	33.52	16.93	210.88	182.84	33.52	154.12	23.05	6.05	2.31	0.91	1.05	
24	1.52	25.23	16.35	146.71	176.98	29.78	73.27	22.51	5.69	2.04	0.98	1.05	
25	1.52	19.62	16.93	148.55	154.12	26.72	63.43	22.51	5.27	2.31	0.98	0.91	
26	12.28	20.22	37.60	184.80	167.35	28.24	40.74	21.36	4.52	2.31	1.28	0.91	
27	24.50	41.80	178.93	178.93	154.12	28.24	24.50	18.51	3.49	2.31	1.28	1.05	
28	27.48	31.53	100.94	141.22	121.61	26.72	21.89	14.83	3.49	2.31	2.31	3.49	
29	27.48	40.74	46.14	269.16	100.94	36.56	23.05	13.27	4.19	2.04		2.59	
30	33.52	107.89	14.83	418.09	78.34	448.27	21.89	13.27	4.92	2.04		2.04	
31		72.02		680.62	61.03		20.74		4.92	1.77		2.31	
Total	235.77	1173.05	909.45	4893.69	3808.69	3476.27	2012.93	640.58	216.61	98.39	59.86	46.94	17572.23 Tonday
Mean	7.86	37.84	30.32	157.86	122.86	115.88	64.93	21.35	6.99	3.17	2.14	1.51	48.14 Ton/day
Max	33.52	251.78	178.93	702.20	472.15	585.27	468.72	23.05	12.28	4.92	3.81	3.49	702.20 Ton/day
Min	0.98	9.46	5.27	9.95	29.00	5.69	14.27	13.27	3.49	1.77	0.91	0.91	0.91 Ton/day

WATER YEAR : 2018

CHI RIVER BASIN

Lam Nam Choen at Ban Non Han , Khon Kaen (E.85)

Lat 16 - 35 - 28 N Long 101 - 59 - 02 E

Location : on left bank at Ban Non Han.

Ban Non Han **Amphoe** Chum Pae **Changwat** Khon Kaen

Drainge Area	1,218 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2005-Cont'd
Actual Measurement	2005-Cont'd
Using Rating Curve Water Year	2006-2018
Number of observation	193
R-Square	0.7404
Remarks	Continued Sediment Station

$$QS = 4.6903\ QW^{1.19900}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	5.26	69.21	324.42	74.52	130.30	33.70	52.19	5.89	5.26	18.85	2.85	5.26	
2	4.97	127.96	339.93	72.39	130.30	31.84	58.29	9.24	5.26	4.97	3.75	5.89	
3	4.35	114.07	339.93	69.21	130.30	29.54	64.49	15.02	4.97	0.00	3.75	4.97	
4	3.16	98.22	332.16	65.02	135.59	27.34	71.86	13.53	4.97	3.16	4.02	3.75	
5	3.16	149.16	320.56	72.39	148.07	25.24	72.39	11.74	4.63	13.94	5.26	2.85	
6	7.57	123.30	312.87	72.39	148.07	26.51	70.27	10.32	4.35	34.64	6.25	2.85	
7	11.03	63.45	301.38	69.21	128.74	32.77	62.41	9.93	4.02	29.99	5.26	3.16	
8	15.43	61.90	297.80	61.90	147.17	36.06	61.38	9.24	3.75	15.77	4.97	2.85	
9	24.06	61.38	279.97	34.17	148.07	39.88	47.20	8.92	3.75	12.07	5.26	4.63	
10	22.81	58.80	230.21	11.35	147.17	42.78	44.74	9.62	3.43	8.24	6.25	7.20	
11	16.19	67.11	155.78	8.55	137.36	33.70	41.81	7.57	3.16	5.26	10.64	12.47	
12	15.77	100.46	124.85	7.57	122.53	43.27	40.36	7.20	2.85	4.63	12.80	14.27	
13	15.77	127.96	117.13	7.20	120.98	46.71	29.99	21.21	2.59	3.75	9.62	15.02	
14	15.77	178.88	110.26	24.43	117.90	62.41	12.07	15.02	2.29	3.75	14.27	11.74	
15	15.77	203.43	93.76	68.69	114.84	70.80	11.03	15.77	2.29	3.75	12.80	8.55	
16	15.77	143.59	98.22	120.98	112.54	104.96	12.80	16.53	2.29	4.02	13.20	6.25	
17	15.43	90.08	104.21	132.06	104.96	103.46	14.68	15.43	2.29	4.02	11.74	1.02	
18	14.27	108.74	102.71	149.16	108.74	110.26	20.06	13.94	3.16	3.43	9.93	0.00	
19	13.20	115.60	90.08	180.53	129.52	95.99	41.81	13.53	5.60	2.85	9.24	0.00	
20	12.07	119.44	77.20	320.56	130.30	100.46	48.69	12.07	9.24	2.85	10.64	0.00	
21	11.74	123.30	74.52	316.71	130.30	67.63	53.20	11.03	20.06	2.29	12.07	0.33	
22	11.35	127.18	69.74	256.63	130.30	32.77	56.76	10.32	32.77	2.29	14.27	1.02	
23	12.47	141.80	61.38	180.53	117.13	26.06	58.29	9.93	36.06	2.29	15.02	1.24	
24	13.53	180.53	56.76	164.37	83.51	24.06	48.69	9.62	37.48	2.04	13.20	1.52	
25	14.27	197.14	50.19	151.36	71.33	20.42	41.33	9.24	37.96	1.75	11.35	2.29	
26	13.20	225.06	66.58	144.48	61.90	27.34	32.30	8.55	37.96	2.04	9.93	3.43	
27	11.03	241.41	132.94	149.16	56.25	49.19	15.77	8.55	34.17	2.29	8.24	4.97	
28	7.87	265.84	150.26	140.91	48.19	49.19	13.20	8.24	28.17	2.29	6.54	5.89	
29	6.25	283.52	153.57	129.52	41.81	48.19	11.03	7.57	27.71	2.59		6.90	
30	8.55	287.08	125.63	119.44	36.06	48.69	8.55	7.20	25.24	2.59		7.20	
31		301.38		120.21	30.92		7.57		23.61	2.59		6.54	
Total	362.07	4556.98	5095.00	3495.60	3401.15	1491.22	1225.21	331.97	421.34	204.99	253.12	154.06	20992.71 Tonday
Mean	12.07	147.00	169.83	112.76	109.71	49.71	39.52	11.07	13.59	6.61	9.04	4.97	57.51 Ton/day
Max	24.06	301.38	339.93	320.56	148.07	110.26	72.39	21.21	37.96	34.64	15.02	15.02	339.93 Ton/day
Min	3.16	58.80	50.19	7.20	30.92	20.42	7.57	5.89	2.29	0.00	2.85	0.00	0.00 Ton/day

WATER YEAR : 2018

CHI RIVER BASIN

Chi River at Ban Kui Chuak , Maha Sarakham (E.91)

Lat 16 - 21 - 58 N Long 102 - 56 - 59 E

Location : on left bank at Ban Kui Chuak.

Ban Kui Chuak **Amphoe** Kosum Phisai **Changwat** Maha Sarakham

Drainge Area	29,265 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2004-Cont'd
Actual Measurement	2004-Cont'd
Using Rating Curve Water Year	2005-2018
Number of observation	286
R-Square	0.8194
Remarks	Continued Sediment Station

$$QS = 5.0149\ QW^{1.06410}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	563.02	844.80	1196.48	1389.87	1953.07	796.92	1130.98	523.39	112.18	29.28	19.02	21.05		
2	523.39	835.21	1151.11	1405.60	2048.60	787.36	1071.91	429.60	89.80	33.45	25.15	21.05		
3	472.14	372.91	1146.08	1452.86	2006.77	782.59	1033.03	389.53	72.14	29.28	25.15	21.05		
4	419.56	372.91	1206.57	1262.19	1923.27	864.00	950.70	422.91	72.14	29.28	25.15	23.09		
5	460.37	336.49	1257.12	1037.88	1804.37	1120.93	835.21	460.37	72.14	29.28	25.15	25.15		
6	436.86	333.19	1211.62	892.84	1685.94	1292.58	725.43	422.91	72.14	29.28	27.21	25.15		
7	464.29	480.01	1211.62	777.81	1626.91	1431.85	701.69	362.95	83.15	29.28	29.28	25.15		
8	570.96	222.32	1130.98	734.93	1605.75	1431.85	531.30	356.32	103.19	29.28	29.28	25.15		
9	551.11	191.48	1267.25	773.04	1638.70	1479.15	432.95	336.49	100.95	29.28	29.28	25.15		
10	480.01	133.46	1395.12	744.45	1650.51	1595.18	409.54	372.91	96.48	29.28	29.28	25.15		
11	480.01	130.73	1395.12	859.19	1739.17	1792.51	406.20	356.32	87.58	33.45	29.28	25.15		
12	444.69	152.66	1282.45	792.14	1703.67	1828.11	402.86	316.73	78.73	33.45	29.28	25.15		
13	372.91	138.93	1171.26	825.63	1632.81	1798.44	389.53	253.43	74.33	31.36	29.28	25.15		
14	256.27	116.69	1106.00	936.22	1547.65	1816.24	376.23	259.11	69.94	31.36	29.28	25.15		
15	270.90	191.48	965.20	840.00	1531.83	1715.50	369.59	244.92	78.73	29.28	25.15	25.15		
16	274.16	227.96	941.04	692.20	1526.55	1605.75	382.87	213.89	63.40	29.28	25.15	21.05		
17	277.42	280.69	912.10	618.78	1374.15	1531.83	396.19	194.27	65.57	29.28	23.09	15.00		
18	303.59	306.87	907.29	1023.32	1257.12	1489.68	409.54	183.12	72.14	29.28	23.09	15.00		
19	323.31	598.83	902.47	1798.44	1018.47	1616.33	422.91	188.69	67.76	29.28	21.05	15.00		
20	274.16	974.87	854.39	2427.26	787.36	2006.77	436.86	199.86	65.57	29.28	21.05	19.02		
21	376.23	840.00	777.81	2530.31	844.80	2457.47	452.52	202.66	72.14	41.89	21.05	17.00		
22	436.86	753.97	720.67	2270.52	730.18	2877.55	468.22	185.90	72.14	74.33	19.02	15.00		
23	366.27	720.67	644.91	1970.96	487.88	3150.82	476.08	133.46	65.57	85.36	21.05	15.00		
24	456.44	725.43	692.20	1697.76	682.73	2966.36	432.95	92.02	56.89	85.36	21.05	17.00		
25	483.94	744.45	594.84	1521.28	1115.90	2580.65	412.88	100.95	69.94	69.94	21.05	17.00		
26	480.01	844.80	630.77	1437.10	1348.43	2198.39	426.25	123.47	65.57	31.36	21.05	17.00		
27	448.60	984.55	892.84	1463.37	1312.87	1839.99	515.48	125.74	74.33	19.02	23.09	17.00		
28	519.44	1125.96	1033.03	1589.89	1191.43	1452.86	559.05	160.93	65.57	21.05	23.09	15.00		
29	659.08	1136.01	1307.80	1739.17	999.08	1277.38	582.89	158.17	37.66	21.05		13.01		
30	787.36	1221.72	1374.15	1822.18	892.84	1176.30	590.86	136.20	27.21	19.02		13.01		
31		1257.12		1887.55	859.19		555.08		29.28	19.02		13.01		
Total	13233.36	17597.17	31280.29	41214.74	42528.00	50761.34	17287.78	7907.22	2234.36	1089.67	690.10	616.99	226441.02	Tonday
Mean	441.11	567.65	1042.68	1329.51	1371.87	1692.04	557.67	263.57	72.08	35.15	24.65	19.90	620.39	Ton/day
Max	787.36	1257.12	1395.12	2530.31	2048.60	3150.82	1130.98	523.39	112.18	85.36	29.28	25.15	3150.82	Ton/day
Min	256.27	116.69	594.84	618.78	487.88	782.59	369.59	92.02	27.21	19.02	19.02	13.01	13.01	Ton/day

WATER YEAR : 2018

MUN RIVER BASIN

Mun River at Ban Dan Taka, Nakhon Ratchasima (M.2A)

Lat 14 - 57 - 57 N Long 102 - 14 - 38 E

Location : on left bank at Ban Dan Taka.

Ban Dan Taka **Amphoe** Chaloem Phra Kia **Changwat** Nakhon Ratchasima

Drainge Area	4,724 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2002-Cont'd
Actual Measurement	2002-Cont'd
Using Rating Curve Water Year	2018
Number of observation	20
R-Square	0.7898
Remarks	Continued Sediment Station

$$QS = 4.2576\ QW^{0.95670}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	24.39	121.64	160.75	21.37	43.68	59.51	61.32	87.27	14.11	3.36	1.69	0.00		
2	25.14	135.77	163.86	18.33	42.21	47.71	59.51	77.47	11.40	3.36	7.07	0.00		
3	25.90	147.25	138.91	16.80	39.27	39.27	61.32	68.52	8.66	2.74	5.47	0.00		
4	24.39	151.41	114.63	17.57	33.36	40.75	67.62	60.42	7.47	2.11	4.05	0.00		
5	25.14	154.52	99.67	16.80	27.39	55.89	71.21	53.17	4.66	1.77	3.56	0.00		
6	26.65	147.25	85.49	16.04	21.37	64.02	66.72	45.88	5.87	1.56	2.40	0.00		
7	28.89	132.12	70.31	12.57	19.09	56.80	61.32	42.95	7.07	1.04	1.35	0.00		
8	31.87	118.13	63.12	11.01	27.39	52.26	62.22	41.48	6.28	0.60	1.04	0.00		
9	40.01	104.96	55.89	9.84	32.62	55.89	58.61	41.48	5.07	0.60	0.60	0.00		
10	54.08	95.25	46.79	8.66	32.62	68.52	54.99	52.26	7.47	0.38	0.00	0.00		
11	54.08	69.42	38.54	9.05	27.39	76.58	57.70	69.42	7.07	0.00	0.00	0.00		
12	50.44	59.51	32.62	7.47	21.37	79.26	54.99	77.47	5.47	0.00	0.00	0.00		
13	50.44	54.99	28.89	5.47	14.89	86.38	46.79	80.15	3.97	0.00	0.00	0.00		
14	50.44	54.08	25.14	10.23	15.27	115.50	46.79	80.15	5.47	0.00	0.00	0.00		
15	48.62	50.44	23.64	14.11	15.65	165.93	45.15	74.79	4.66	0.00	0.00	0.00		
16	44.42	45.15	19.09	9.05	16.04	194.81	43.68	64.92	3.85	0.00	0.00	0.00		
17	40.75	47.71	16.04	13.73	16.04	206.10	37.80	51.35	4.26	0.00	0.00	0.00		
18	40.75	45.88	12.57	19.09	16.04	202.00	37.80	41.48	4.18	0.00	0.00	0.00		
19	42.95	45.15	11.01	31.87	16.80	179.37	53.17	39.27	3.85	0.00	0.00	0.00		
20	40.75	45.15	10.62	37.80	17.57	156.60	73.00	39.27	4.05	0.00	0.00	0.00		
21	37.06	47.71	10.62	37.80	21.37	149.33	82.82	32.62	3.77	0.00	1.90	0.00		
22	36.32	54.99	8.26	36.32	29.64	140.99	94.36	27.39	3.64	0.00	3.03	0.00		
23	31.87	67.62	9.84	34.10	39.27	126.01	108.48	23.64	3.64	0.00	2.32	0.00		
24	27.39	98.78	9.45	33.36	45.15	119.89	120.76	17.57	3.44	0.00	1.13	0.00		
25	21.37	116.38	7.87	32.62	55.89	117.26	126.01	16.04	2.82	0.00	0.38	0.00		
26	22.88	126.88	7.87	31.87	66.72	112.87	131.24	16.04	2.53	0.00	0.00	0.00		
27	22.13	134.73	9.05	40.01	75.69	100.55	132.99	16.04	2.11	0.00	0.00	0.00		
28	28.89	138.91	13.34	43.68	81.93	80.15	131.24	15.27	2.11	0.00	0.00	0.00		
29	51.35	139.95	26.65	39.27	80.15	73.90	122.51	14.89	3.77	0.00		0.00		
30	79.26	140.99	25.14	40.75	74.79	64.92	111.99	15.65	4.66	0.00		0.00		
31		150.37		43.68	68.52		99.67		3.97	0.00		0.00		
Total	1128.62	3043.09	1345.67	720.32	1135.18	3089.02	2383.78	1384.32	161.35	17.52	35.99	0.00	14444.86	Tonday
Mean	37.62	98.16	44.86	23.24	36.62	102.97	76.90	46.14	5.20	0.57	1.29	0.00	39.57	Ton/day
Max	79.26	154.52	163.86	43.68	81.93	206.10	132.99	87.27	14.11	3.36	7.07	0.00	206.10	Ton/day
Min	21.37	45.15	7.87	5.47	14.89	39.27	37.80	14.89	2.11	0.00	0.00	0.00	0.00	Ton/day

WATER YEAR : 2018

MUN RIVER BASIN

Mun River at Ban Phong Sawai, Surin (M.4)

Lat 15 - 19 - 30 N Long 103 - 40 - 59 E

Location : on left bank at the bridge on highway.

Ban Phong Sawai **Amphoe** Tha Tum **Changwat** Surin

Drainge Area	34,654 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1997-Cont'd
Actual Measurement	1997-Cont'd
Using Rating Curve Water Year	2018
Number of observation	16
R-Square	0.9545
Remarks	Continued Sediment Station

$$QS = 8.1359\ QW^{1.04170}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	38.08	41.69	134.73	26.44	19.37	28.22	1055.77	266.64	0.00	0.00	0.00	0.00		
2	36.28	41.69	208.44	30.90	18.50	63.60	867.01	335.18	0.00	0.00	0.00	0.00		
3	36.28	41.69	315.53	34.48	17.62	82.11	850.67	379.55	0.00	0.00	0.00	0.00		
4	34.48	39.88	347.98	34.48	16.75	114.88	787.47	399.34	0.00	0.00	0.00	0.00		
5	34.48	39.88	437.05	30.90	16.31	95.16	673.83	419.17	0.00	0.00	0.00	0.00		
6	32.69	39.88	560.95	22.01	16.31	80.25	546.90	439.04	0.00	0.00	0.00	0.00		
7	30.90	39.88	631.40	18.50	16.31	80.25	448.98	419.17	0.00	0.00	0.00	0.00		
8	30.90	38.08	638.47	16.75	16.31	82.11	371.65	286.15	0.00	0.00	0.00	0.00		
9	30.90	65.45	603.18	16.31	17.62	76.54	256.90	384.50	0.00	0.00	0.00	0.00		
10	29.11	222.93	371.65	15.88	19.37	87.69	169.03	448.98	0.00	0.00	0.00	0.00		
11	29.11	353.89	315.53	15.44	18.50	92.36	184.37	458.94	0.00	0.00	0.00	0.00		
12	29.11	462.92	437.05	15.01	17.62	72.83	176.69	444.01	0.00	0.00	0.00	0.00		
13	29.11	553.93	539.88	15.88	16.75	67.29	137.58	414.21	0.00	0.00	0.00	0.00		
14	27.33	610.23	603.18	20.25	16.75	114.88	149.94	286.15	0.00	0.00	0.00	0.00		
15	29.11	603.18	638.47	19.37	17.62	232.62	149.94	269.56	0.00	0.00	0.00	0.00		
16	30.90	575.02	666.75	17.62	19.37	330.26	109.23	300.83	0.00	0.00	0.00	0.00		
17	32.69	589.09	666.75	16.75	20.25	389.44	72.83	330.26	0.00	0.00	0.00	0.00		
18	38.08	603.18	638.47	17.62	21.13	476.88	61.77	345.02	0.00	0.00	0.00	0.00		
19	39.88	624.34	560.95	19.37	20.25	532.87	59.93	349.95	0.00	0.00	0.00	0.00		
20	39.88	617.29	431.09	17.62	19.37	425.13	38.98	349.95	0.00	0.00	0.00	0.00		
21	38.08	589.09	237.46	16.31	18.50	431.09	49.87	310.63	0.00	0.00	0.00	0.00		
22	41.69	532.87	131.89	15.44	19.37	511.84	61.77	340.10	0.00	0.00	0.00	0.00		
23	45.32	300.83	82.11	15.01	18.50	610.23	69.14	364.74	0.00	0.00	0.00	0.00		
24	45.32	146.13	76.54	14.14	19.37	687.99	74.68	374.61	0.00	0.00	0.00	0.00		
25	43.50	189.17	95.16	14.14	19.37	744.77	76.54	320.44	0.00	0.00	0.00	0.00		
26	43.50	325.35	114.88	15.01	22.01	794.60	59.93	340.10	0.00	0.00	0.00	0.00		
27	41.69	377.58	126.21	15.44	29.11	858.84	54.43	369.67	0.00	0.00	0.00	0.00		
28	41.69	336.16	106.41	15.88	35.38	916.11	98.91	379.55	0.00	0.00	0.00	0.00		
29	41.69	295.93	74.68	16.75	32.69	965.31	134.73	374.61	0.00	0.00		0.00		
30	41.69	256.90	59.93	18.50	30.90	998.16	157.56	335.18	0.00	0.00		0.00		
31		180.53		20.25	29.11		196.87		0.00	0.00		0.00		
Total	1083.47	9734.66	10852.77	598.45	636.39	11044.31	8203.90	10836.23	0.00	0.00	0.00	0.00	52990.18	Tonday
Mean	36.12	314.02	361.76	19.30	20.53	368.14	264.64	361.21	0.00	0.00	0.00	0.00	145.18	Ton/day
Max	45.32	624.34	666.75	34.48	35.38	998.16	1055.77	458.94	0.00	0.00	0.00	0.00	1055.77	Ton/day
Min	27.33	38.08	59.93	14.14	16.31	28.22	38.98	266.64	0.00	0.00	0.00	0.00	0.00	Ton/day

WATER YEAR : 2018

MUN RIVER BASIN

Mun River at Ban Satuk, Buri Ram (M.6A)

Lat 15 - 17 - 53 N Long 103 - 17 - 46 E

Location : on right bank at Satuk.

Ban Satuk **Amphoe** Satuk **Changwat** Buri Ram

Drainge Area	28,458 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2000-Cont'd
Actual Measurement	2000-Cont'd
Using Rating Curve Water Year	2018
Number of observation	20
R-Square	0.8363
Remarks	Continued Sediment Station

$$QS = 4.6299\ QW^{1.18020}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	3.82	6.89	291.00	14.95	3.82	3.82	475.13	701.58	19.63	0.61	0.00	0.00		
2	3.82	6.89	202.84	12.37	3.30	2.78	311.68	694.53	14.95	0.49	0.00	0.00		
3	3.82	6.89	242.31	10.49	2.78	1.95	137.54	708.64	12.37	0.49	0.00	0.00		
4	3.56	6.31	354.71	8.06	2.53	1.95	71.77	751.24	5.74	0.42	0.00	0.00		
5	3.56	6.89	424.58	6.31	2.04	1.48	38.37	751.24	3.04	0.31	0.00	0.00		
6	3.30	14.95	495.14	5.18	1.95	1.03	55.47	737.00	2.78	0.31	0.00	0.00		
7	3.56	515.27	495.14	3.82	1.80	0.69	58.68	779.84	3.56	0.23	0.00	0.00		
8	3.30	455.24	515.27	3.30	1.71	0.61	32.40	823.05	2.78	0.13	0.00	0.00		
9	3.30	295.12	528.76	2.53	1.34	0.49	30.94	715.71	3.04	0.00	0.00	0.00		
10	3.30	413.71	542.31	2.04	1.12	0.61	55.47	596.99	2.04	0.00	0.00	0.00		
11	3.04	596.99	576.39	1.80	0.90	0.49	57.07	495.14	3.04	0.00	0.00	0.00		
12	3.04	624.63	624.63	1.57	0.69	0.82	44.47	397.48	4.63	0.00	0.00	0.00		
13	3.04	569.55	659.44	1.48	0.49	1.71	30.94	307.53	3.56	0.00	0.00	0.00		
14	2.78	468.49	680.46	1.71	0.42	4.09	18.95	222.44	3.56	0.00	0.00	0.00		
15	3.82	455.24	673.44	1.80	0.31	7.47	16.93	195.08	3.56	0.00	0.00	0.00		
16	5.18	508.55	631.57	1.80	0.31	5.18	16.93	214.57	3.30	0.00	0.00	0.00		
17	4.63	562.72	481.78	1.95	0.31	3.82	19.63	222.44	2.78	0.00	0.00	0.00		
18	4.63	617.70	270.55	3.30	0.61	4.09	23.08	238.32	2.04	0.00	0.00	0.00		
19	4.63	549.10	137.54	12.37	1.03	3.82	16.93	242.31	2.29	0.00	0.00	0.00		
20	4.63	448.65	81.83	11.11	1.03	4.63	16.93	222.44	2.78	0.00	0.00	0.00		
21	4.63	307.53	60.29	8.66	0.90	9.88	21.69	175.88	2.78	0.00	0.00	0.00		
22	4.63	154.20	50.71	5.74	0.69	16.27	26.61	179.70	2.29	0.00	0.00	0.00		
23	4.63	113.13	47.58	4.36	0.42	14.95	28.76	218.50	1.95	0.00	0.00	0.00		
24	4.63	222.44	44.47	3.56	0.31	13.01	36.86	222.44	1.57	0.00	0.00	0.00		
25	5.18	230.36	39.88	3.30	0.23	29.48	66.81	168.29	1.34	0.00	0.00	0.00		
26	5.74	140.30	30.94	4.09	0.31	151.40	129.32	168.29	1.12	0.00	0.00	0.00		
27	5.74	76.77	26.61	3.56	0.61	230.36	157.00	113.13	1.03	0.00	0.00	0.00		
28	6.89	44.47	23.78	4.36	0.49	307.53	226.40	53.88	0.90	0.00	0.00	0.00		
29	6.89	33.88	20.31	4.09	0.49	360.02	299.25	42.93	0.82	0.00		0.00		
30	6.89	61.91	17.60	4.63	0.49	488.45	488.45	35.37	0.82	0.00		0.00		
31		226.40		4.63	1.25		596.99		0.82	0.00		0.00		
Total	130.61	8741.17	9271.86	158.92	34.68	1672.88	3607.45	11395.98	116.91	2.99	0.00	0.00	35133.45	Tonday
Mean	4.35	281.97	309.06	5.13	1.12	55.76	116.37	379.87	3.77	0.10	0.00	0.00	96.26	Ton/day
Max	6.89	624.63	680.46	14.95	3.82	488.45	596.99	823.05	19.63	0.61	0.00	0.00	823.05	Ton/day
Min	2.78	6.31	17.60	1.48	0.23	0.49	16.93	35.37	0.82	0.00	0.00	0.00	0.00	Ton/day

WATER YEAR : 2018

MUN RIVER BASIN

Mun River at Ban Chumchondeengam, Ubon Ratchathani (M.7)

Lat 15 - 13 - 15 N Long 104 - 51 - 41 E

Location : on left bank at Seri Prachathipatai Bridge.

Ban Chumchondeengam **Amphoe** Mueang **Changwat** Ubon Ratchathani

Drainge Area	107,345 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2010-Cont'd
Actual Measurement	2010-Cont'd
Using Rating Curve Water Year	2010-2018
Number of observation	251
R-Square	0.8141
Remarks	Continued Sediment Station

$$QS = 3.5142\ QW^{1.02250}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	389.79	529.78	990.71	650.44	5051.85	4925.38	4296.25	397.76	94.45	207.59	109.93	94.45	
2	379.83	539.82	1027.34	808.03	5051.85	4712.66	4050.61	349.98	86.74	254.87	106.06	67.51	
3	349.98	569.94	1051.77	1002.91	5030.77	4599.01	3767.58	445.67	90.59	302.34	106.06	54.12	
4	349.98	610.16	1100.68	1149.63	5009.68	4731.60	3271.87	493.70	90.59	254.87	106.06	33.99	
5	389.79	640.37	1149.63	1149.63	4988.61	4925.38	2788.21	207.59	106.06	207.59	102.19	27.58	
6	439.68	698.85	1137.39	1149.63	5051.85	4925.38	2285.67	94.45	254.87	160.55	102.19	26.83	
7	489.69	735.20	1125.15	1137.39	5115.11	4788.46	1750.55	71.34	397.76	113.81	106.06	26.45	
8	519.75	759.46	1076.22	1112.91	5220.58	4845.32	1051.77	102.19	302.34	102.19	102.19	26.08	
9	509.73	783.74	1100.68	1039.55	5516.15	4826.36	710.96	302.34	302.34	113.81	106.06	24.20	
10	479.68	844.50	1125.15	1002.91	5685.20	4864.28	662.54	106.06	113.81	254.87	109.93	20.83	
11	449.67	905.36	1186.38	1100.68	5642.93	5136.20	674.64	109.93	160.55	302.34	160.55	17.10	
12	449.67	917.54	1284.50	1125.15	5516.15	5220.58	640.37	113.81	254.87	254.87	302.34	13.39	
13	469.67	808.03	1370.48	1210.89	5368.32	5347.21	569.94	113.81	109.93	207.59	349.98	10.81	
14	479.68	674.64	1370.48	1395.07	5304.99	5727.48	419.71	106.06	109.93	160.55	302.34	9.70	
15	489.69	590.04	1296.77	1764.97	5304.99	5981.31	419.71	109.93	102.19	207.59	254.87	10.07	
16	479.68	519.75	1259.95	2097.31	5262.78	6065.97	449.67	109.93	90.59	302.34	207.59	10.07	
17	429.69	549.85	1333.61	2314.68	5115.11	6002.47	389.79	106.06	86.74	349.98	160.55	10.07	
18	379.83	747.33	1321.33	2655.09	5030.77	5938.98	429.69	109.93	82.88	254.87	160.55	9.34	
19	359.92	844.50	1125.15	3238.46	5199.48	5896.67	509.73	109.93	73.26	160.55	160.55	8.97	
20	379.83	832.34	941.91	3447.39	5157.29	5727.48	650.44	109.93	65.59	113.81	113.81	8.60	
21	409.73	820.18	868.83	3597.99	5051.85	5473.90	941.91	106.06	69.42	109.93	113.81	8.60	
22	429.69	868.83	832.34	3616.82	4845.32	5304.99	493.70	113.81	71.34	349.98	113.81	8.60	
23	389.79	941.91	795.88	3560.32	4750.55	5178.39	590.04	113.81	82.88	397.76	160.55	8.97	
24	330.11	990.71	735.20	3485.02	5030.77	5220.58	590.04	113.81	94.45	349.98	160.55	9.34	
25	290.46	1039.55	640.37	3522.67	5178.39	5304.99	658.50	109.93	90.59	349.98	160.55	8.60	
26	290.46	1039.55	579.99	3692.19	5241.68	5283.88	727.12	113.81	109.93	349.98	254.87	7.87	
27	320.19	1051.77	559.90	3786.44	5326.10	5115.11	864.77	207.59	254.87	349.98	207.59	7.14	
28	389.79	1039.55	590.04	4126.16	5452.78	4925.38	1002.91	160.55	254.87	207.59	160.55	6.41	
29	439.68	1027.34	590.04	4504.35	5431.66	4712.66	1072.14	109.93	254.87	113.81		5.32	
30	489.69	1027.34	579.99	4750.55	5283.88	4523.28	590.04	98.32	160.55	109.93		4.96	
31		1051.77		4946.45	5115.11		445.67		160.55	109.93		4.23	
Total	12444.82	24999.70	30147.86	74141.68	161332.55	156231.34	37766.54	4918.02	4580.40	7085.83	4562.14	590.20	518801.08
Mean	414.83	806.44	1004.93	2391.67	5204.28	5207.71	1218.28	163.93	147.75	228.58	162.93	19.04	1421.37
Max	519.75	1051.77	1370.48	4946.45	5685.20	6065.97	4296.25	493.70	397.76	397.76	349.98	94.45	6065.97
Min	290.46	519.75	559.90	650.44	4750.55	4523.28	389.79	71.34	65.59	102.19	102.19	4.23	4.23

WATER YEAR : 2018

MUN RIVER BASIN

Huai Samran at Ban Nongyaplong, Si Sa ket (M.9)

Lat 15 - 06 - 58 N Long 104 - 19 - 21 E

Location : on right bank at the bridge on Highway.

Ban Nongyaplong **Amphoe** Mueang **Changwat** Si Sa Ket

Drainge Area	2,988 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1998-Cont'd
Actual Measurement	1998-Cont'd
Using Rating Curve Water Year	1998-2018
Number of observation	623
R-Square	0.9156
Remarks	Continued Sediment Station

$$QS = 4.5057\ QW^{0.96100}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	0.00	4.25	12.12	66.64	189.32	34.83	43.56	9.82	4.42	0.00		
2	0.00	0.00	0.00	3.64	12.33	58.04	171.42	30.04	41.58	9.82	4.25	0.00		
3	0.00	0.00	0.00	3.20	11.08	76.32	156.08	25.21	39.60	9.82	4.33	0.00		
4	0.00	0.00	0.00	3.02	9.61	100.31	145.75	19.94	38.02	9.82	4.33	0.00		
5	0.00	0.00	0.00	2.85	10.24	125.95	135.40	16.25	38.41	9.61	4.25	0.00		
6	0.00	0.00	0.00	2.76	9.61	129.73	124.06	14.19	39.21	9.61	4.16	0.00		
7	0.00	0.00	0.00	2.67	9.82	115.53	102.22	16.66	40.00	9.61	4.07	0.00		
8	0.00	0.00	0.00	2.67	8.77	97.44	85.95	29.64	40.40	9.61	3.81	0.00		
9	0.00	0.00	0.00	3.11	8.56	97.44	71.49	41.98	41.19	9.40	3.64	0.00		
10	0.00	0.00	0.00	4.07	12.74	157.95	62.76	49.07	41.58	9.19	3.46	0.00		
11	0.00	0.00	0.00	3.72	15.22	151.39	53.19	35.63	41.98	9.19	3.20	0.00		
12	0.00	0.00	0.00	3.46	15.64	143.87	46.67	32.44	41.98	9.19	3.20	0.00		
13	0.00	0.00	23.59	3.64	15.84	135.40	42.61	30.84	41.98	9.40	3.11	0.00		
14	0.00	0.00	21.97	4.07	16.87	152.33	53.19	28.83	41.98	8.98	3.11	0.00		
15	0.00	0.00	16.66	3.81	22.38	187.08	84.99	27.23	42.37	8.77	3.02	0.00		
16	0.00	0.00	12.54	3.46	30.44	211.59	0.15	25.61	44.35	8.35	2.76	0.00		
17	0.00	0.00	9.82	3.37	51.43	212.70	10.87	24.00	44.74	7.93	2.58	0.00		
18	0.00	0.00	7.71	4.42	61.59	193.78	35.23	21.97	44.74	7.50	2.40	0.00		
19	0.00	0.00	5.58	8.35	127.84	173.66	54.56	21.16	44.74	7.29	2.40	0.00		
20	0.00	0.00	4.42	6.23	92.66	151.39	59.25	25.61	41.98	7.29	2.23	0.00		
21	0.00	0.00	3.90	4.72	81.14	137.28	61.59	32.44	28.83	7.08	2.23	0.00		
22	0.00	0.00	3.55	4.07	72.46	149.51	60.03	33.24	15.84	6.87	2.23	0.00		
23	0.00	0.00	3.29	3.81	68.58	190.43	50.65	35.63	10.45	6.87	2.31	0.00		
24	0.00	0.00	3.11	3.64	65.67	206.03	55.35	37.62	10.03	7.08	2.31	0.00		
25	0.00	0.00	3.02	3.81	64.70	208.25	56.91	39.21	10.03	6.65	2.58	0.00		
26	0.00	0.00	3.11	4.07	68.58	213.81	56.13	40.40	9.82	6.23	0.00	0.00		
27	0.00	0.00	3.55	4.42	77.29	212.70	52.21	41.58	10.03	5.80	0.00	0.00		
28	0.00	0.00	3.55	8.98	98.40	203.80	56.13	42.77	10.24	5.37	0.00	0.00		
29	0.00	0.00	3.55	9.40	95.53	201.58	63.15	43.95	10.45	4.94		0.00		
30	0.00	0.00	4.25	10.03	85.95	198.24	42.77	44.74	10.24	4.51		0.00		
31		0.00		11.29	74.39		38.81		10.03	4.51		0.00		
Total	0.00	0.00	137.17	145.01	1407.48	4660.17	2278.89	942.71	970.38	246.11	80.39	0.00	10868.31	Tonday
Mean	0.00	0.00	4.57	4.68	45.40	155.34	73.51	31.42	31.30	7.94	2.87	0.00	29.78	Ton/day
Max	0.00	0.00	23.59	11.29	127.84	213.81	189.32	49.07	44.74	9.82	4.42	0.00	213.81	Ton/day
Min	0.00	0.00	0.00	2.67	8.56	58.04	0.15	14.19	9.82	4.51	0.00	0.00	0.00	Ton/day

WATER YEAR : 2018

MUN RIVER BASIN

Lam Se Bai at Ban Chiang Pheng, Yasothon (M.32)

Lat 15 - 50 - 18 N Long 104 - 27 - 35 E

Location : on right bank at Phawaphutanon bridge.

Ban Chiang Pheng **Amphoe** Pa Tiu **Changwat** Yasothon

Drainge Area	1,654 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1998-Cont'd
Actual Measurement	1998-Cont'd
Using Rating Curve Water Year	2018
Number of observation	20
R-Square	0.8515
Remarks	Continued Sediment Station

$$QS = 1.9943\ QW^{1.22790}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	16.54	44.76	2530.18	147.09	173.62	16.54	3.55	0.00	0.00	0.00		
2	0.00	0.00	18.00	37.05	2738.34	100.78	108.95	16.54	3.01	0.00	0.00	0.00		
3	0.00	0.00	15.10	29.61	2456.58	92.73	77.01	15.10	2.49	0.00	0.00	0.00		
4	0.00	0.00	24.84	24.84	1879.69	134.15	60.95	15.10	2.24	0.00	0.00	0.00		
5	0.00	0.00	47.40	20.24	1036.29	178.12	50.06	13.69	1.99	0.00	0.00	0.00		
6	0.00	0.00	69.36	16.54	367.61	182.64	42.16	13.69	1.52	0.00	0.00	0.00		
7	0.00	0.00	60.95	15.10	252.79	147.09	37.05	12.30	1.29	0.00	0.00	0.00		
8	0.00	0.00	60.95	29.61	182.64	210.19	34.53	12.30	0.85	0.00	0.00	0.00		
9	0.00	0.00	80.89	77.01	155.85	433.11	29.61	10.94	0.65	0.00	0.00	0.00		
10	0.00	0.00	69.36	80.89	281.96	419.85	24.84	10.94	0.45	0.00	0.00	0.00		
11	0.00	0.00	50.06	121.43	336.90	316.71	20.24	10.94	0.12	0.00	0.00	0.00		
12	0.00	0.00	44.76	400.11	214.85	426.47	18.00	10.94	0.00	0.00	0.00	0.00		
13	0.00	0.00	42.16	712.55	125.64	690.74	16.54	9.61	0.00	0.00	0.00	0.00		
14	0.00	0.00	34.53	756.55	117.24	698.00	15.10	9.61	0.00	0.00	0.00	0.00		
15	0.00	0.00	29.61	734.49	134.15	590.68	13.69	8.32	0.00	0.00	0.00	0.00		
16	0.00	0.00	39.59	712.55	134.15	367.61	15.10	8.32	0.00	0.00	0.00	0.00		
17	0.00	0.00	69.36	763.93	113.08	224.23	13.69	8.32	0.00	0.00	0.00	0.00		
18	0.00	0.00	108.95	1140.40	92.73	336.90	15.10	8.32	0.00	0.00	0.00	0.00		
19	0.00	0.00	84.80	1383.53	84.80	393.57	22.52	7.06	0.00	0.00	0.00	0.00		
20	0.00	0.00	60.95	1413.28	88.75	374.07	39.59	7.06	0.00	0.00	0.00	0.00		
21	0.00	0.00	47.40	1246.30	92.73	210.19	44.76	7.06	0.00	0.00	0.00	0.00		
22	0.00	0.00	34.53	763.93	155.85	117.24	44.76	5.84	0.00	0.00	0.00	0.00		
23	0.00	0.00	27.21	380.55	341.99	125.64	42.16	4.67	0.00	0.00	0.00	0.00		
24	0.00	0.00	22.52	233.67	771.32	151.46	37.05	4.39	0.00	0.00	0.00	0.00		
25	0.00	0.00	18.00	138.44	1055.08	169.15	32.06	4.39	0.00	0.00	0.00	0.00		
26	0.00	0.00	37.05	129.88	1140.40	147.09	29.61	4.10	0.00	0.00	0.00	0.00		
27	0.00	4.39	58.19	169.15	1159.52	117.24	24.84	3.83	0.00	0.00	0.00	0.00		
28	0.00	47.40	55.45	326.78	1083.38	92.73	22.52	3.83	0.00	0.00	0.00	0.00		
29	0.00	50.06	55.45	823.43	756.55	196.33	22.52	3.55	0.00	0.00		0.00		
30	0.00	37.05	55.45	1493.17	374.07	247.98	20.24	3.55	0.00	0.00		0.00		
31		24.84		1965.59	228.94		18.00		0.00	0.00		0.00		
Total	0.00	163.74	1439.41	16185.36	20484.05	8039.78	1166.87	270.85	18.16	0.00	0.00	0.00	47768.22	Tonday
Mean	0.00	5.28	47.98	522.11	660.78	267.99	37.64	9.03	0.59	0.00	0.00	0.00	130.87	Ton/day
Max	0.00	50.06	108.95	1965.59	2738.34	698.00	173.62	16.54	3.55	0.00	0.00	0.00	2738.34	Ton/day
Min	0.00	0.00	15.10	15.10	84.80	92.73	13.69	3.55	0.00	0.00	0.00	0.00	0.00	Ton/day

WATER YEAR : 2018

MUN RIVER BASIN

Huai Thap Than at Ban Huai Thap Than, Si Sa Ket (M.42)

Lat 15 - 02 - 48 N Long 104 - 01 - 31 E

Location : on right bank at the bridge on highway.

Ban Huai Thap Than **Amphoe** Huai Thap Thun **Changwat** Si Sa Ket

Drainge Area	2,832 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1997-Cont'd
Actual Measurement	1997-Cont'd
Using Rating Curve Water Year	2018
Number of observation	20
R-Square	0.9597
Remarks	Continued Sediment Station

$$QS = 1.3234\ QW^{1.25210}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	0.00	0.00	4.38	17.33	203.54	36.68	0.00	0.00	0.00	0.00		
2	0.00	0.00	0.00	0.00	4.59	15.13	201.72	31.58	0.00	0.00	0.00	0.00		
3	0.00	0.00	0.00	0.00	4.59	17.33	186.34	26.65	0.00	0.00	0.00	0.00		
4	0.00	0.00	0.00	0.00	4.59	17.33	85.07	21.88	0.00	0.00	0.00	0.00		
5	0.00	0.00	0.00	0.00	4.80	19.58	21.88	15.13	0.00	0.00	0.00	0.00		
6	0.00	0.00	0.00	0.00	4.80	19.58	31.58	14.06	0.00	0.00	0.00	0.00		
7	0.00	0.00	0.00	0.00	4.59	19.58	31.58	13.00	0.00	0.00	0.00	0.00		
8	0.00	0.00	0.00	0.00	4.59	17.33	26.65	10.93	0.00	0.00	0.00	0.00		
9	0.00	0.00	0.00	0.00	4.80	21.88	24.24	9.93	0.00	0.00	0.00	0.00		
10	0.00	0.00	0.00	0.00	4.80	31.58	17.33	9.93	0.00	0.00	0.00	0.00		
11	0.00	0.00	0.00	0.00	4.80	34.11	14.06	7.04	0.00	0.00	0.00	0.00		
12	0.00	0.00	0.00	0.00	5.02	42.93	13.00	7.04	0.00	0.00	0.00	0.00		
13	0.00	0.00	0.00	0.00	5.24	66.00	11.96	7.04	0.00	0.00	0.00	0.00		
14	0.00	0.00	0.00	0.00	5.24	135.84	10.93	7.04	0.00	0.00	0.00	0.00		
15	0.00	0.00	0.00	0.00	5.24	182.75	13.00	6.13	0.00	0.00	0.00	0.00		
16	0.00	0.00	0.00	0.00	5.24	217.33	15.13	6.13	0.00	0.00	0.00	0.00		
17	0.00	0.00	0.00	0.00	5.02	236.00	19.58	6.13	0.00	0.00	0.00	0.00		
18	0.00	0.00	0.00	0.00	5.24	250.20	21.88	5.24	0.00	0.00	0.00	0.00		
19	0.00	0.00	0.00	2.20	7.04	256.89	24.24	5.24	0.00	0.00	0.00	0.00		
20	0.00	0.00	0.00	2.20	7.04	262.64	26.65	5.24	0.00	0.00	0.00	0.00		
21	0.00	0.00	0.00	2.20	7.98	268.42	29.09	5.24	0.00	0.00	0.00	0.00		
22	0.00	0.00	0.00	2.20	9.93	275.20	39.29	5.02	0.00	0.00	0.00	0.00		
23	0.00	0.00	0.00	2.38	10.93	303.39	46.63	5.02	0.00	0.00	0.00	0.00		
24	0.00	0.00	0.00	2.76	14.06	349.85	42.93	5.02	0.00	0.00	0.00	0.00		
25	0.00	0.00	0.00	3.35	13.00	393.67	42.93	5.02	0.00	0.00	0.00	0.00		
26	0.00	0.00	0.00	3.35	13.00	412.01	42.93	4.80	0.00	0.00	0.00	0.00		
27	0.00	0.00	0.00	3.55	15.13	366.48	42.93	4.80	0.00	0.00	0.00	0.00		
28	0.00	0.00	0.00	3.55	19.58	312.07	42.93	4.80	0.00	0.00	0.00	0.00		
29	0.00	0.00	0.00	3.55	19.58	273.99	42.93	4.80	0.00	0.00		0.00		
30	0.00	0.00	0.00	3.96	17.33	212.72	42.93	4.59	0.00	0.00		0.00		
31		0.00		4.38	15.13		42.93		0.00	0.00		0.00		
Total	0.00	0.00	0.00	39.63	257.30	5049.14	1458.81	301.15	0.00	0.00	0.00	0.00	7106.03	Tonday
Mean	0.00	0.00	0.00	1.28	8.30	168.30	47.06	10.04	0.00	0.00	0.00	0.00	19.47	Ton/day
Max	0.00	0.00	0.00	4.38	19.58	412.01	203.54	36.68	0.00	0.00	0.00	0.00	412.01	Ton/day
Min	0.00	0.00	0.00	0.00	4.38	15.13	10.93	4.59	0.00	0.00	0.00	0.00	0.00	Ton/day

WATER YEAR : 2018

MUN RIVER BASIN

Huai Khayung at Ban Wang Chom Pu, Si Sa Ket (M.66)

Lat 14 - 38 - 27 N Long 104 - 39 - 50 E

Location : on right bank about 50 meters upstream from the bridge of Kantharalak - Det Udom Road.

Ban Wang Chom Pu **Amphoe** Kantharalak **Changwat** Si Sa Ket

Drainge Area	562 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2002-Cont'd
Actual Measurement	2002-Cont'd
Using Rating Curve Water Year	2018
Number of observation	21
R-Square	0.7376
Remarks	Continued Sediment Station

$$QS = 2.8610\ QW^{0.73970}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.69	2.29	3.35	1.43	8.27	11.29	19.08	5.38	4.24	0.00	0.00	0.00		
2	1.74	2.29	3.29	1.66	9.41	9.69	17.53	5.38	4.09	0.00	0.00	0.00		
3	1.79	2.29	3.21	1.94	9.41	10.50	16.17	5.60	3.84	0.00	0.00	0.00		
4	1.84	2.27	3.17	2.13	9.96	9.69	14.53	5.60	3.84	0.00	0.00	0.00		
5	1.89	2.27	3.11	2.17	11.03	9.69	13.07	5.82	3.73	0.00	0.00	0.00		
6	1.98	2.27	3.05	2.20	12.07	11.03	11.29	6.03	3.59	0.00	0.00	0.00		
7	2.08	2.27	3.01	2.20	12.32	9.41	10.23	6.24	3.47	0.00	0.00	0.00		
8	2.13	2.27	2.92	2.15	13.57	7.98	9.69	6.24	3.33	0.00	0.00	0.00		
9	2.15	2.24	2.86	2.17	12.32	6.76	9.41	6.45	3.21	0.00	0.00	0.00		
10	2.17	2.24	2.82	2.15	11.03	7.98	8.85	6.45	3.09	0.00	0.00	0.00		
11	2.17	2.24	2.73	2.13	10.50	10.77	10.23	6.24	3.05	0.00	0.00	0.00		
12	2.17	2.24	2.67	2.08	9.96	12.57	11.29	6.24	2.97	0.00	0.00	0.00		
13	2.17	2.24	2.58	2.13	9.41	11.55	10.50	6.24	2.88	0.00	0.00	0.00		
14	2.15	2.27	2.45	2.20	8.85	10.77	9.96	6.03	2.80	0.00	0.00	0.00		
15	2.15	2.27	2.36	3.43	8.56	12.32	9.41	6.03	2.73	0.00	0.00	0.00		
16	2.15	2.27	2.29	2.38	8.27	16.17	8.85	6.03	2.65	0.00	0.00	0.00		
17	2.15	2.29	2.24	2.56	7.98	15.24	8.27	5.82	2.56	0.00	0.00	0.00		
18	2.15	2.29	2.17	3.03	7.38	14.29	7.38	5.82	2.47	0.00	0.00	0.00		
19	2.15	2.29	2.10	3.67	7.98	12.82	7.68	5.60	2.40	0.00	0.00	0.00		
20	2.15	2.29	2.03	4.20	9.13	11.81	7.68	5.60	2.34	0.00	0.00	0.00		
21	2.13	2.31	1.96	5.60	8.85	15.01	7.38	5.38	2.31	0.00	0.00	0.00		
22	2.13	2.31	1.89	6.03	9.41	20.58	7.38	5.38	2.29	0.00	0.00	0.00		
23	2.13	2.31	1.79	6.24	9.69	26.24	7.07	5.38	2.29	0.00	0.00	0.00		
24	2.13	2.34	1.74	6.24	9.96	32.98	7.07	5.38	2.29	0.00	0.00	0.00		
25	2.15	2.40	1.64	6.45	10.50	30.94	7.07	5.16	2.27	0.00	0.00	0.00		
26	2.15	2.47	1.56	6.76	11.29	28.15	7.07	5.16	2.27	0.00	0.00	0.00		
27	2.15	2.58	1.48	6.76	12.07	26.48	6.76	5.16	2.24	0.00	0.00	0.00		
28	2.17	2.84	1.45	7.07	12.07	24.27	6.76	4.94	0.00	0.00	0.00	0.00		
29	2.22	3.39	1.34	7.07	12.57	22.04	6.45	4.94	0.00	0.00		0.00		
30	2.27	3.41	1.32	7.38	12.32	20.79	6.03	4.71	0.00	0.00		0.00		
31		3.37		7.98	12.07		5.38		0.00	0.00		0.00		
Total	62.65	75.12	70.58	121.59	318.21	469.81	295.52	170.43	79.24	0.00	0.00	0.00	1663.15	Tonday
Mean	2.09	2.42	2.35	3.92	10.26	15.66	9.53	5.68	2.56	0.00	0.00	0.00	4.56	Ton/day
Max	2.27	3.41	3.35	7.98	13.57	32.98	19.08	6.45	4.24	0.00	0.00	0.00	32.98	Ton/day
Min	1.69	2.24	1.32	1.43	7.38	6.76	5.38	4.71	0.00	0.00	0.00	0.00	0.00	Ton/day

WATER YEAR : 2018

MUN RIVER BASIN

Lam Takhong at Vaccine Serum Office, Nakhon Ratchasima (M.89)

Lat 14 - 41 - 39 N Long 101 - 25 - 00 E

Location : on left bank at the bridge infront of Vaccine Serum Office.

Ban - **Amphoe** Pak Chong **Changwat** Nakhon Ratchasima

Drainge Area	713 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1981 - 1988,1991,1997 - Cont'd
Actual Measurement	1981 - 1988,1991,1997 - Cont'd
Using Rating Curve Water Year	2018
Number of observation	36
R-Square	0.7494
Remarks	Continued Sediment Station

$$QS = 2.0614\ QW^{1.57220}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	1.75	13.15	19.68	25.89	80.02	198.21	669.97	17.16	5.65	2.06	1.05	1.45	
2	1.75	9.54	25.89	19.68	50.00	193.96	351.01	16.12	4.97	2.57	1.12	1.39	
3	1.90	9.54	24.28	25.89	43.94	130.65	153.32	14.12	5.65	2.06	1.12	1.39	
4	2.57	38.16	19.68	40.05	34.48	361.58	109.33	14.12	4.97	2.06	1.12	1.26	
5	5.65	76.98	19.68	29.22	32.69	361.58	86.25	13.15	4.32	2.06	1.05	1.26	
6	3.11	27.53	14.12	52.09	165.15	237.96	71.01	12.21	4.32	2.57	1.12	1.26	
7	5.65	19.68	11.29	38.16	73.97	145.62	62.40	12.21	3.70	2.06	1.18	1.31	
8	4.97	10.40	11.29	25.89	116.28	116.28	59.62	11.29	4.97	2.06	1.31	1.45	
9	2.06	15.11	10.40	19.68	189.74	181.40	56.89	11.29	4.97	3.11	1.39	1.45	
10	3.11	11.29	9.54	17.16	92.64	153.32	50.00	11.29	7.12	2.57	1.45	1.39	
11	2.06	7.12	10.40	16.12	71.01	99.19	43.94	11.29	5.65	2.57	1.45	1.39	
12	1.90	10.40	38.16	13.15	95.89	119.81	40.05	13.15	4.97	3.11	1.39	1.31	
13	1.90	14.12	38.16	11.29	123.39	95.89	34.48	11.29	4.32	2.57	1.26	1.05	
14	2.57	54.20	21.17	12.21	224.42	185.55	30.94	13.15	4.32	2.06	1.18	0.81	
15	5.65	80.02	17.16	18.23	145.62	366.90	30.94	11.29	3.70	2.00	1.31	0.88	
16	3.11	65.23	21.17	14.12	95.89	228.90	34.48	9.54	3.11	1.90	1.39	0.92	
17	2.57	54.20	41.98	19.68	68.10	153.32	52.09	11.29	2.57	2.00	1.26	1.12	
18	1.90	34.48	30.94	30.94	62.40	165.15	47.95	14.12	2.57	1.90	1.26	1.05	
19	1.84	47.95	19.68	54.20	224.42	219.97	47.95	19.68	2.57	1.90	1.31	0.92	
20	1.90	32.69	19.68	41.98	242.54	388.49	32.69	14.12	2.06	1.90	1.26	0.92	
21	2.00	43.94	34.48	52.09	161.17	224.42	43.94	13.15	2.06	1.84	1.18	1.05	
22	3.70	95.89	47.95	47.95	280.29	165.15	52.09	12.21	2.06	1.90	1.12	1.00	
23	3.11	138.06	29.22	34.48	256.46	130.65	50.00	9.54	2.57	1.90	1.18	1.31	
24	1.84	215.55	25.89	27.53	270.67	130.65	73.97	8.71	2.57	1.90	1.26	1.26	
25	1.75	54.20	102.53	21.17	410.53	177.29	56.89	7.90	2.06	1.90	1.39	1.18	
26	1.69	36.30	127.00	21.17	285.15	116.28	41.98	7.12	2.06	1.54	1.31	1.18	
27	2.57	25.89	76.98	22.71	219.97	92.64	34.48	6.37	2.00	1.18	1.26	1.05	
28	24.28	21.17	76.98	18.23	461.71	99.19	29.22	6.37	2.06	1.18	1.45	1.05	
29	92.64	21.17	54.20	21.17	584.32	80.02	24.28	6.37	2.06	1.18		1.05	
30	22.71	25.89	36.30	50.00	228.90	157.23	21.17	5.65	2.00	1.12		1.05	
31		29.22		138.06	149.45		19.68		2.06	1.12		1.00	
Total	214.21	1339.07	1035.88	980.19	5541.21	5477.25	2513.01	345.27	110.04	61.85	35.13	36.16	17689.27 Tonday
Mean	7.14	43.20	34.53	31.62	178.75	182.57	81.06	11.51	3.55	2.00	1.25	1.17	48.46 Ton/day
Max	92.64	215.55	127.00	138.06	584.32	388.49	669.97	19.68	7.12	3.11	1.45	1.45	669.97 Ton/day
Min	1.69	7.12	9.54	11.29	32.69	80.02	19.68	5.65	2.00	1.12	1.05	0.81	0.81 Ton/day

WATER YEAR : 2018

MUN RIVER BASIN

Mun River at Ban Wang Prat, Buri Ram (M.104)

Lat 15 - 26 - 02 N Long 103 - 00 - 59 E

Location : on left bank at the bridge.

Ban Wang Prat **Amphoe** Khu Mueang **Changwat** Buri Ram

Drainge Area	24,841 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2005-Cont'd
Actual Measurement	2005-Cont'd
Using Rating Curve Water Year	2013-2018
Number of observation	138
R-Square	0.6910
Remarks	Continued Sediment Station

$$QS = 16.3920\ QW^{0.77310}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	127.49	196.19	137.10	46.94	0.00	215.49	451.07	0.00	0.00	0.00	0.00		
2	0.00	143.85	312.05	133.01	45.07	0.00	199.24	462.53	0.00	0.00	0.00	0.00		
3	0.00	157.72	349.82	130.25	43.18	0.00	238.06	466.33	0.00	0.00	0.00	0.00		
4	0.00	199.24	337.37	123.30	41.26	0.00	261.98	466.33	0.00	0.00	0.00	0.00		
5	0.00	227.88	362.91	119.08	39.31	0.00	258.04	460.62	0.00	0.00	0.00	0.00		
6	0.00	223.77	364.70	116.23	37.33	0.00	227.88	445.31	0.00	0.00	0.00	0.00		
7	0.00	252.10	368.26	111.93	41.26	0.00	250.11	425.71	0.00	0.00	0.00	0.00		
8	0.00	308.04	371.82	106.12	42.22	0.00	269.82	385.93	0.00	0.00	0.00	0.00		
9	0.00	335.80	382.42	97.21	42.22	0.00	267.86	362.91	0.00	0.00	0.00	0.00		
10	0.00	321.08	398.16	91.15	42.22	0.00	244.10	330.31	0.00	0.00	0.00	0.00		
11	0.00	308.04	415.44	83.39	40.29	0.00	244.10	315.51	0.00	0.00	0.00	0.00		
12	0.00	308.04	424.01	77.03	22.43	0.00	244.10	296.72	0.00	0.00	0.00	0.00		
13	0.00	324.78	399.90	70.51	13.79	0.00	244.10	289.11	0.00	0.00	0.00	0.00		
14	0.00	339.45	382.42	65.50	13.79	0.00	250.11	294.83	0.00	0.00	0.00	0.00		
15	0.00	352.14	341.28	60.37	13.79	2.76	252.10	304.28	0.00	0.00	0.00	0.00		
16	0.00	350.34	260.02	55.12	15.11	4.72	254.08	313.65	0.00	0.00	0.00	0.00		
17	0.00	311.78	240.08	58.64	16.39	4.72	252.10	224.95	0.00	0.00	0.00	0.00		
18	0.00	242.09	163.56	62.09	16.39	15.11	252.10	213.11	0.00	0.00	0.00	0.00		
19	0.00	217.57	164.85	60.37	17.65	34.31	250.11	208.32	0.00	0.00	0.00	0.00		
20	0.00	145.18	164.85	53.33	16.39	67.18	254.08	203.49	0.00	0.00	0.00	0.00		
21	0.00	153.14	160.97	46.94	9.59	120.49	260.02	198.02	0.00	0.00	0.00	0.00		
22	0.00	158.37	163.56	43.18	2.76	169.97	263.95	183.22	0.00	0.00	0.00	0.00		
23	23.57	120.49	159.67	40.29	0.00	291.02	269.82	126.10	0.00	0.00	0.00	0.00		
24	42.22	73.79	157.07	30.15	0.00	285.28	306.16	92.67	0.00	0.00	0.00	0.00		
25	58.64	67.18	154.45	30.15	0.00	291.02	337.63	58.64	0.00	0.00	0.00	0.00		
26	66.34	88.07	153.14	28.01	0.00	302.40	371.82	41.26	0.00	0.00	0.00	0.00		
27	68.85	133.01	151.82	31.21	0.00	311.78	391.19	33.29	0.00	0.00	0.00	0.00		
28	76.22	147.85	149.18	46.01	0.00	332.14	405.10	26.92	0.00	0.00	0.00	0.00		
29	106.12	179.47	145.18	56.89	0.00	319.23	412.00	22.43	0.00	0.00		0.00		
30	112.65	163.56	141.16	53.33	0.00	273.71	418.87	21.26	0.00	0.00		0.00		
31		159.67		49.71	0.00		429.12		0.00	0.00		0.00		
Total	554.61	6640.98	7936.31	2267.60	619.38	2825.84	8795.24	7724.83	0.00	0.00	0.00	0.00	37364.79	Tonday
Mean	18.49	214.23	264.54	73.15	19.98	94.19	283.72	257.49	0.00	0.00	0.00	0.00	102.37	Ton/day
Max	112.65	352.14	424.01	137.10	46.94	332.14	429.12	466.33	0.00	0.00	0.00	0.00	466.33	Ton/day
Min	0.00	67.18	141.16	28.01	0.00	0.00	199.24	21.26	0.00	0.00	0.00	0.00	0.00	Ton/day

WATER YEAR : 2018

MUN RIVER BASIN

Huai Ta Thieo at Ban Na Hai, Ubon Ratchathani (M.127)

Lat 15 - 38 - 37 N Long 104 - 55 - 57 E

Location : on left bank at the bridge on road.

Ban Na Hai **Amphoe** Trakan Phutphon **Changwat** Ubon Ratchathani

Drainge Area	424 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1997-Cont'd
Actual Measurement	1997-Cont'd
Using Rating Curve Water Year	2018
Number of observation	36
R-Square	0.8575
Remarks	Continued Sediment Station

$$QS = 2.3572\ QW^{1.22430}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	3.87	5.51	393.00	29.15	10.55	2.30	0.00	0.00	0.00	0.00		
2	0.00	0.00	3.25	4.84	139.36	16.50	8.68	2.24	0.00	0.00	0.00	0.00		
3	0.00	0.00	2.36	4.19	66.23	30.06	7.95	2.13	0.00	0.00	0.00	0.00		
4	0.00	0.00	14.46	3.25	43.41	35.67	5.51	2.13	0.00	0.00	0.00	0.00		
5	0.00	0.00	12.08	2.24	28.23	32.85	4.84	2.13	0.00	0.00	0.00	0.00		
6	0.00	0.00	10.55	2.30	81.14	22.88	4.51	2.13	0.00	0.00	0.00	0.00		
7	0.00	0.00	12.87	2.13	103.73	15.68	3.56	2.07	0.00	0.00	0.00	0.00		
8	0.00	0.00	11.31	2.30	77.02	42.43	3.25	2.02	0.00	0.00	0.00	0.00		
9	0.00	0.00	16.50	8.31	218.32	50.40	2.19	1.90	0.00	0.00	0.00	0.00		
10	0.00	0.00	7.95	25.53	451.22	30.99	1.85	1.90	0.00	0.00	0.00	0.00		
11	0.00	0.00	5.51	125.78	179.95	24.64	2.36	1.79	0.00	0.00	0.00	0.00		
12	0.00	0.00	4.84	122.80	88.09	86.69	2.24	2.02	0.00	0.00	0.00	0.00		
13	0.00	0.00	4.84	308.61	61.74	122.80	2.13	2.02	0.00	0.00	0.00	0.00		
14	0.00	0.00	3.25	236.31	93.72	218.32	2.13	0.00	0.00	0.00	0.00	0.00		
15	0.00	0.00	1.79	428.66	142.42	105.18	2.13	0.00	0.00	0.00	0.00	0.00		
16	0.00	0.00	1.79	302.28	99.42	57.57	2.13	0.00	0.00	0.00	0.00	0.00		
17	0.00	0.00	1.79	340.63	51.41	40.48	2.13	0.00	0.00	0.00	0.00	0.00		
18	0.00	0.00	1.74	932.44	44.40	77.02	2.13	0.00	0.00	0.00	0.00	0.00		
19	0.00	0.00	1.74	1008.52	55.50	50.40	2.19	0.00	0.00	0.00	0.00	0.00		
20	0.00	0.00	1.74	750.80	54.48	33.79	11.31	0.00	0.00	0.00	0.00	0.00		
21	0.00	0.00	1.74	362.28	100.86	22.01	11.31	0.00	0.00	0.00	0.00	0.00		
22	0.00	0.00	1.74	162.55	128.78	82.52	10.55	0.00	0.00	0.00	0.00	0.00		
23	0.00	0.00	1.79	95.14	501.59	153.20	10.17	0.00	0.00	0.00	0.00	0.00		
24	0.00	0.00	1.74	62.79	1211.66	86.69	9.79	0.00	0.00	0.00	0.00	0.00		
25	0.00	0.00	1.79	55.50	878.78	60.69	9.05	0.00	0.00	0.00	0.00	0.00		
26	0.00	4.19	2.24	97.99	469.43	47.38	7.24	0.00	0.00	0.00	0.00	0.00		
27	0.00	5.85	9.79	168.84	242.37	33.79	5.51	0.00	0.00	0.00	0.00	0.00		
28	0.00	4.84	7.59	349.26	128.78	24.64	3.56	0.00	0.00	0.00	0.00	0.00		
29	0.00	4.84	6.54	810.96	92.31	16.50	3.56	0.00	0.00	0.00		0.00		
30	0.00	4.51	5.51	1684.67	64.91	12.08	3.25	0.00	0.00	0.00		0.00		
31		4.51		987.11	52.43		2.95		0.00	0.00		0.00		
Total	0.00	28.74	164.70	9454.52	6344.69	1663.00	160.71	26.78	0.00	0.00	0.00	0.00	17843.14	Tonday
Mean	0.00	0.93	5.49	304.98	204.67	55.43	5.18	0.89	0.00	0.00	0.00	0.00	48.89	Ton/day
Max	0.00	5.85	16.50	1684.67	1211.66	218.32	11.31	2.30	0.00	0.00	0.00	0.00	1684.67	Ton/day
Min	0.00	0.00	1.74	2.13	28.23	12.08	1.85	0.00	0.00	0.00	0.00	0.00	0.00	Ton/day

WATER YEAR : 2018

MUN RIVER BASIN

Lam Phra Phloeng at Ban Wang Takian Thong, Nakhon Ratchasima (M.145)

Lat 14 - 29 - 24 N Long 101 - 41 - 14 E

Location : on right bank at Ban Wang Takian Thong.

Ban Wang Takian Thong **Amphoe** Pak Chong **Changwat** Nakhon Ratchasima

Drainge Area	335 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1996-Cont'd
Actual Measurement	1996-Cont'd
Using Rating Curve Water Year	2018
Number of observation	41
R-Square	0.8956
Remarks	Continued Sediment Station

$$QS = 8.2916\ QW^{1.72150}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.11	37.43	22.81	8.29	2.51	170.95	34208.15	2.96	1.17	0.43	0.03	0.00		
2	0.11	7.59	58.15	6.27	2.34	114.70	1970.93	2.34	1.29	0.43	0.02	0.00		
3	0.11	4.49	68.17	5.65	2.02	64.75	381.81	2.18	1.29	0.43	0.00	0.00		
4	0.11	64.75	90.17	5.65	1.86	1598.40	178.64	2.02	1.29	0.43	0.00	0.00		
5	0.11	11.35	42.96	5.05	3.95	403.38	96.07	1.86	1.29	0.43	0.00	0.00		
6	0.22	14.80	45.84	4.49	8.29	392.53	68.17	1.86	1.17	0.43	9.77	0.00		
7	1.57	6.27	13.03	5.05	3.95	170.95	102.13	1.86	1.17	0.35	0.52	0.00		
8	0.71	8.29	7.59	3.95	236.31	227.66	61.41	1.86	1.57	0.28	0.61	0.00		
9	1.29	4.49	6.27	3.95	227.66	219.14	71.66	1.86	1.29	0.16	0.82	0.00		
10	0.61	156.02	5.65	3.44	20.67	1247.45	51.84	2.02	1.71	0.22	0.71	0.00		
11	0.35	451.80	9.77	2.18	16.66	360.75	40.15	2.34	1.86	0.22	0.35	0.00		
12	0.28	580.61	16.66	2.02	13.03	194.42	32.22	2.34	1.71	0.22	0.28	0.00		
13	0.16	1342.27	9.77	1.86	27.34	704.22	22.81	3.95	1.29	0.16	0.13	0.00		
14	0.16	482.73	6.27	1.86	45.84	1534.21	16.66	2.96	1.17	0.16	0.09	0.00		
15	0.82	1502.53	5.05	1.86	25.03	3045.10	16.66	2.34	1.17	0.16	0.09	0.00		
16	0.35	263.06	29.74	1.86	29.74	1155.55	16.66	2.34	1.17	0.16	0.07	0.00		
17	0.28	291.01	20.67	2.18	13.03	281.56	13.03	2.34	1.17	0.16	0.07	0.00		
18	0.28	360.75	8.29	6.92	9.77	134.70	32.22	2.34	0.61	0.28	0.05	0.00		
19	1.29	798.55	6.92	11.35	236.31	219.14	148.76	6.27	0.61	0.16	0.02	0.00		
20	1.04	148.76	6.27	5.05	114.70	530.72	34.78	2.51	0.61	0.16	0.01	0.00		
21	0.52	114.70	16.66	4.49	54.95	685.95	68.17	2.02	0.61	0.16	0.00	0.00		
22	0.35	236.31	16.66	5.65	102.13	227.66	48.80	1.86	0.61	0.13	0.00	0.00		
23	0.28	360.75	9.77	3.95	61.41	451.80	16.66	2.02	0.61	0.11	0.00	0.00		
24	0.82	1088.57	7.59	2.96	210.76	392.53	11.35	1.71	0.61	0.11	0.00	0.00		
25	0.52	163.41	34.78	2.34	360.75	436.65	8.29	1.43	0.52	0.13	0.00	0.11		
26	0.28	90.17	22.81	2.18	121.22	281.56	8.29	1.43	0.52	0.16	0.00	0.09		
27	0.28	48.80	13.03	2.18	96.07	254.01	8.29	1.29	0.52	0.13	0.00	0.02		
28	1224.20	34.78	9.77	2.18	194.42	96.07	5.65	1.29	0.52	0.09	0.00	4.49		
29	1088.57	51.84	13.03	2.18	148.76	68.17	5.05	1.29	0.52	0.07		0.71		
30	108.34	27.34	9.77	2.02	96.07	1663.70	4.49	1.29	0.52	0.05		0.13		
31		16.66		2.18	54.95		3.95		0.52	0.05		1.71		
Total	2434.12	8770.88	633.92	121.24	2542.50	17328.38	37753.75	66.18	30.69	6.62	13.64	7.26	69709.18	Tonday
Mean	81.14	282.93	21.13	3.91	82.02	577.61	1217.86	2.21	0.99	0.21	0.49	0.23	190.98	Ton/day
Max	1224.20	1502.53	90.17	11.35	360.75	3045.10	34208.15	6.27	1.86	0.43	9.77	4.49	34208.15	Ton/day
Min	0.11	4.49	5.05	1.86	1.86	64.75	3.95	1.29	0.52	0.05	0.00	0.00	0.00	Ton/day

WATER YEAR : 2018

MUN RIVER BASIN

Lam Chi at Ban Lum Din, Surin (M.159)

Lat 15 - 08 - 24 N Long 103 - 25 - 57 E

Location : on right bank at Ban Lum Din.

Ban Lum Din **Amphoe** Chom Phra **Changwat** Surin

Drainge Area	4,806 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2008-Cont'd
Actual Measurement	2008-Cont'd
Using Rating Curve Water Year	2008-2018
Number of observation	367
R-Square	0.8275
Remarks	Continued Sediment Station

$$QS = 5.6142\ QW^{0.90840}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	12.91	6.63	0.00	7.13	134.49	16.15	9.09	0.00	0.00	0.00		
2	0.00	0.00	43.81	6.63	0.00	7.37	134.49	17.06	26.41	0.00	0.00	0.00		
3	0.00	0.00	42.36	5.61	0.00	7.62	132.64	23.78	26.41	0.00	0.00	0.00		
4	0.00	0.69	43.81	5.36	0.00	7.62	127.44	32.46	26.41	0.00	0.00	0.00		
5	0.00	0.69	43.81	3.53	0.00	7.62	119.04	39.44	21.12	0.00	0.00	0.00		
6	0.00	1.00	43.81	1.30	0.00	7.87	88.24	48.14	18.43	0.00	0.00	0.00		
7	0.00	1.30	42.36	0.00	0.00	9.09	37.97	58.11	15.23	0.00	0.00	0.00		
8	0.00	2.44	26.41	0.00	0.00	12.91	35.01	70.08	7.13	0.00	0.00	0.00		
9	0.00	71.66	14.30	0.00	0.00	16.61	30.74	73.23	7.13	0.00	0.00	0.00		
10	0.00	68.49	17.52	0.00	0.00	20.23	26.41	81.26	6.88	0.00	0.00	0.00		
11	0.00	65.31	46.70	0.00	0.00	28.15	13.37	102.04	6.37	0.00	0.00	0.00		
12	0.00	62.32	96.89	0.00	0.00	45.26	11.96	77.94	5.36	0.00	0.00	0.00		
13	0.00	58.11	86.50	0.00	0.00	65.31	7.87	53.86	4.32	0.00	0.00	0.00		
14	0.00	56.69	81.26	0.00	0.00	81.26	6.63	51.01	4.06	0.00	0.00	0.00		
15	0.00	48.14	71.66	0.00	0.00	96.89	3.53	59.51	4.06	0.00	0.00	0.00		
16	0.00	33.31	48.14	0.00	0.00	105.46	6.12	81.26	3.80	0.00	0.00	0.00		
17	0.00	23.78	40.90	0.00	0.00	108.87	14.30	84.76	4.06	0.00	0.00	0.00		
18	0.00	22.01	34.16	0.00	0.00	125.77	18.43	62.32	4.32	0.00	0.00	0.00		
19	0.00	17.52	12.44	0.00	0.00	134.49	20.23	56.69	3.53	0.00	0.00	0.00		
20	0.00	14.77	7.87	0.00	0.00	159.27	14.30	49.58	3.26	0.00	0.00	0.00		
21	0.00	11.49	1.59	0.00	0.00	181.14	9.58	45.26	2.99	0.00	0.00	0.00		
22	0.00	5.61	4.06	0.00	0.00	179.16	6.37	43.81	2.99	0.00	0.00	0.00		
23	0.00	11.96	8.60	0.00	0.00	177.19	2.99	40.90	2.72	0.00	0.00	0.00		
24	0.00	16.15	11.49	0.00	0.00	143.72	1.59	39.44	2.44	0.00	0.00	0.00		
25	0.00	22.01	15.23	0.00	0.00	119.04	0.00	36.49	2.44	0.00	0.00	0.00		
26	0.00	26.41	11.49	0.00	0.00	110.57	0.00	34.16	1.88	0.00	0.00	0.00		
27	0.00	22.01	11.96	0.00	1.00	120.72	4.84	32.46	0.00	0.00	0.00	0.00		
28	0.00	16.15	8.11	0.00	1.59	122.41	17.52	17.52	0.00	0.00	0.00	0.00		
29	0.00	11.96	3.80	0.00	1.88	129.12	16.61	12.44	0.00	0.00		0.00		
30	0.00	5.61	6.12	0.00	3.53	138.19	15.23	10.06	0.00	0.00		0.00		
31		2.16		0.00	7.13		14.77		0.00	0.00		0.00		
Total	0.00	699.75	940.07	29.06	15.13	2476.06	1072.71	1451.22	222.84	0.00	0.00	0.00	6906.84	Tonday
Mean	0.00	22.57	31.34	0.94	0.49	82.54	34.60	48.37	7.19	0.00	0.00	0.00	18.92	Ton/day
Max	0.00	71.66	96.89	6.63	7.13	181.14	134.49	102.04	26.41	0.00	0.00	0.00	181.14	Ton/day
Min	0.00	0.00	1.59	0.00	0.00	7.13	0.00	10.06	0.00	0.00	0.00	0.00	0.00	Ton/day

WATER YEAR : 2018

MUN RIVER BASIN

Lam Dom Yai at Ban Kham Samran, Ubon Ratchathani (M.170)

Lat 14 - 47 - 19 N Long 105 - 06 - 10 E

Location : on right bank at the bridge.

Ban Kham Samran **Amphoe** Det Udom **Changwat** Ubon Ratchathani

Drainge Area	1,745 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2002-Cont'd
Actual Measurement	2002-Cont'd
Using Rating Curve Water Year	2018
Number of observation	23
R-Square	0.7508
Remarks	Continued Sediment Station

$$QS = 13.2110\ QW^{0.66540}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	17.30	14.91	25.58	33.01	252.37	144.71	265.76	35.62	20.95	17.30	12.68	12.50	
2	17.30	14.91	26.52	28.88	233.67	125.59	203.65	36.26	20.60	16.92	12.68	12.50	
3	17.30	14.50	26.52	33.67	233.67	110.99	193.76	34.33	20.25	16.92	12.68	12.50	
4	17.30	13.65	37.52	41.77	228.67	110.08	164.36	26.83	20.25	16.53	12.68	12.50	
5	17.30	13.21	53.40	45.24	197.39	104.57	142.85	25.90	19.89	16.53	12.68	12.32	
6	17.30	16.13	67.49	40.58	191.93	96.00	129.53	25.58	19.89	16.13	12.68	12.32	
7	17.30	20.95	72.06	39.37	211.58	90.07	110.08	23.98	19.89	15.73	12.68	12.32	
8	17.30	21.30	57.84	34.33	198.29	84.28	104.57	22.32	19.89	15.33	12.68	12.32	
9	17.30	19.89	48.04	36.26	178.89	98.90	95.03	20.60	19.53	14.91	12.68	12.13	
10	17.30	18.81	39.37	84.98	180.78	149.29	85.66	19.17	19.53	14.91	12.50	12.13	
11	17.30	19.17	33.67	206.31	176.03	148.38	79.36	20.25	19.53	14.50	12.50	12.13	
12	17.30	17.30	30.98	190.10	158.24	145.63	75.75	24.31	19.53	14.50	12.50	12.13	
13	16.53	17.30	27.14	140.05	149.29	180.78	72.80	24.31	19.17	14.08	12.32	12.13	
14	16.53	17.30	25.58	114.58	152.90	232.84	74.29	23.66	19.17	14.08	12.32	12.13	
15	16.53	17.30	24.63	115.47	157.36	278.81	74.29	22.66	18.81	13.65	12.68	12.13	
16	16.53	20.25	24.63	115.47	179.84	277.29	61.14	22.99	18.81	13.65	12.86	11.95	
17	16.53	24.63	24.95	152.90	175.07	234.50	74.29	24.63	18.81	13.65	12.86	11.95	
18	16.53	32.34	24.31	271.94	175.07	191.93	69.03	22.32	18.44	13.21	12.86	11.95	
19	16.13	39.37	24.31	303.50	173.15	186.40	76.48	21.64	18.44	13.21	12.86	11.95	
20	15.73	38.14	23.66	352.29	179.84	207.19	88.05	21.30	18.44	13.21	12.68	11.95	
21	14.91	25.90	22.66	321.23	176.03	196.48	101.75	21.30	18.06	13.21	12.68	11.95	
22	14.50	22.66	22.32	249.17	174.11	187.33	81.49	20.95	17.68	13.21	12.68	11.76	
23	15.73	22.32	24.31	186.40	165.23	271.94	75.02	20.95	17.68	13.03	12.68	11.76	
24	15.33	20.95	25.58	180.78	158.24	317.25	68.26	20.95	17.30	13.03	12.68	11.58	
25	15.33	20.95	44.67	185.47	150.19	341.58	63.56	20.95	17.30	13.03	12.68	11.58	
26	15.33	20.95	44.67	202.77	129.53	356.83	55.99	20.60	17.30	13.03	12.68	11.58	
27	15.33	22.66	44.10	223.61	146.55	325.20	51.82	20.95	17.30	13.03	12.68	11.58	
28	15.33	21.99	38.14	267.31	189.17	265.76	41.17	22.32	17.30	12.86	12.68	11.58	
29	15.33	21.64	34.33	298.57	212.45	215.05	39.37	21.30	17.30	12.86		11.58	
30	14.91	20.95	38.76	296.92	208.07	212.45	37.52	20.95	17.30	12.86		11.58	
31		22.99		278.05	197.39		37.52		17.30	12.68		11.76	
Total	490.67	655.32	1057.74	5070.98	5690.99	5888.10	2894.20	709.88	581.64	441.78	354.50	372.23	24208.03 Tonday
Mean	16.36	21.14	35.26	163.58	183.58	196.27	93.36	23.66	18.76	14.25	12.66	12.01	66.32 Ton/day
Max	17.30	39.37	72.06	352.29	252.37	356.83	265.76	36.26	20.95	17.30	12.86	12.50	356.83 Ton/day
Min	14.50	13.21	22.32	28.88	129.53	84.28	37.52	19.17	17.30	12.68	12.32	11.58	11.58 Ton/day

WATER YEAR : 2018

MUN RIVER BASIN

Lam Phra Phloeng at Ban Non Sao - E, Nakhon Ratchasima (M.171)

Lat 14 - 29 - 58 N Long 101 - 46 - 22 E

Location : on right bank at Ban Non Sao - E.

Ban Non Sao - E **Amphoe** Wang Nam Khieo **Changwat** Nakhon Ratchasima

Drainge Area	554 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2001-Cont'd
Actual Measurement	2001-Cont'd
Using Rating Curve Water Year	2018
Number of observation	33
R-Square	0.8594
Remarks	Continued Sediment Station

$$QS = 5.7080\ QW^{1.62760}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.89	88.82	25.36	48.01	16.22	217.06	24833.04	3.57	0.42	0.00	0.00	0.42		
2	0.42	25.36	13.54	48.01	17.64	161.61	1324.05	1.85	0.42	0.00	0.00	0.42		
3	0.42	33.20	182.32	38.87	14.86	94.24	520.37	1.85	0.42	0.00	0.00	0.42		
4	0.89	38.87	380.48	38.87	11.04	1234.21	258.11	1.85	0.42	0.00	0.00	0.42		
5	0.89	51.21	83.53	48.01	14.86	748.24	161.61	1.85	0.42	0.00	0.00	0.42		
6	1.50	68.42	151.61	25.36	54.50	430.96	105.44	1.85	1.03	0.00	11.04	0.42		
7	1.50	41.83	54.50	25.36	38.87	217.06	105.44	1.85	1.03	0.00	0.00	0.42		
8	1.50	38.87	25.36	25.36	1463.33	171.84	105.44	1.85	1.03	0.00	0.00	0.42		
9	2.16	14.86	25.36	25.36	448.32	785.12	123.13	1.67	1.34	0.00	0.00	0.42		
10	3.19	630.33	17.64	23.73	78.37	430.96	78.37	1.67	1.03	0.00	0.00	0.42		
11	3.97	822.67	54.50	16.22	78.37	785.12	54.50	1.85	1.85	0.00	0.00	0.42		
12	0.89	860.91	54.50	11.04	54.50	380.48	54.50	1.85	1.67	0.00	0.00	0.42		
13	0.89	563.37	25.36	11.04	54.50	563.37	54.50	1.85	1.50	0.00	1.50	0.42		
14	0.42	1510.95	11.04	11.04	132.37	1369.88	54.50	1.85	1.50	0.00	1.03	0.42		
15	0.64	1324.05	11.04	11.04	78.37	2027.57	54.50	1.85	1.50	0.00	0.89	0.42		
16	2.49	465.94	54.50	11.04	78.37	1061.92	38.87	1.67	1.03	0.00	0.89	0.42		
17	1.50	430.96	44.88	11.04	54.50	448.32	14.86	1.67	1.03	0.00	0.42	0.42		
18	1.50	822.67	25.36	33.20	54.50	272.40	11.04	1.67	0.89	0.00	0.42	0.42		
19	1.67	2551.82	25.36	51.21	272.40	272.40	193.04	1.85	0.89	0.00	0.42	0.42		
20	3.57	676.56	25.36	35.99	244.12	939.36	16.22	2.83	0.89	0.00	0.42	0.42		
21	1.85	332.46	25.36	25.36	105.44	653.28	94.24	1.85	0.89	0.00	0.42	0.42		
22	1.50	203.99	54.50	38.87	151.61	364.20	41.83	1.85	0.89	0.00	0.42	0.42		
23	1.50	1146.82	48.01	25.36	123.13	724.04	22.14	1.67	0.89	0.00	0.42	0.42		
24	1.50	1665.57	48.01	23.73	301.85	939.36	11.04	1.50	0.64	0.00	0.42	0.42		
25	1.50	380.48	48.01	22.14	397.03	822.67	11.04	1.50	0.64	0.00	0.42	0.42		
26	1.03	380.48	63.65	17.64	151.61	700.14	11.04	1.50	0.64	0.00	0.42	0.42		
27	1.03	230.44	78.37	17.64	161.61	630.33	11.04	1.03	0.13	0.00	0.42	0.42		
28	2416.42	68.42	48.01	14.86	151.61	301.85	8.75	0.42	0.00	0.00	0.42	0.42		
29	1843.14	73.33	41.83	11.04	272.40	193.04	8.21	0.42	0.00	0.00		2.49		
30	348.19	59.00	48.01	11.04	171.84	9160.21	5.71	0.42	0.00	0.00		0.42		
31		25.36		11.04	83.53		4.81		0.00	0.00		3.97		
Total	4648.56	15628.02	1795.36	768.52	5331.67	27101.24	28391.38	50.96	25.03	0.00	20.39	18.64	83779.77	Tonday
Mean	154.95	504.13	59.85	24.79	171.99	903.37	915.85	1.70	0.81	0.00	0.73	0.60	229.53	Ton/day
Max	2416.42	2551.82	380.48	51.21	1463.33	9160.21	24833.04	3.57	1.85	0.00	11.04	3.97	24833.04	Ton/day
Min	0.42	14.86	11.04	11.04	11.04	94.24	4.81	0.42	0.00	0.00	0.00	0.42	0.00	Ton/day

WATER YEAR : 2018

MUN RIVER BASIN

Huai Khayung at Ban Non Si Khlai, Si Sa Ket (M.176)

Lat 15 - 00 - 18 N Long 104 - 38 - 14 E

Location : on left bank at Ban Non Si Khlai.

Ban Non Si Khlai **Amphoe** Kanthararom **Changwat** Si Sa Ket

Drainge Area	3,131 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2002-Cont'd
Actual Measurement	2002-Cont'd
Using Rating Curve Water Year	2018
Number of observation	32
R-Square	0.9059
Remarks	Continued Sediment Station

$$QS = 5.9994\ QW^{0.90250}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	15.14	40.51	10.50	12.02	184.02	139.25	259.57	92.02	85.54	78.19	66.61	50.30		
2	15.14	40.51	12.77	12.77	240.58	114.32	232.38	92.02	85.54	78.19	65.77	50.30		
3	15.00	39.85	15.00	13.52	221.41	110.38	207.62	95.24	84.73	77.37	63.68	49.01		
4	15.00	39.19	18.10	14.41	193.72	137.70	186.27	93.63	85.54	77.37	62.42	49.01		
5	15.00	39.19	38.75	16.17	180.28	137.70	153.82	92.02	87.98	76.55	61.79	48.36		
6	15.14	40.51	57.99	17.62	165.21	131.51	126.85	90.40	87.98	76.55	61.79	47.71		
7	15.44	40.51	66.61	17.62	201.15	118.25	113.53	86.35	87.17	75.73	61.79	46.41		
8	15.59	41.83	84.73	19.06	297.14	107.21	104.03	80.65	87.17	75.73	61.16	46.41		
9	15.73	44.46	83.10	22.85	296.25	125.29	111.96	79.83	88.79	74.90	60.52	47.06		
10	15.59	44.46	47.06	36.08	247.83	544.14	115.11	83.92	88.79	74.90	59.26	47.06		
11	15.14	50.30	32.04	70.77	203.00	609.60	101.64	91.21	88.79	74.08	57.99	46.41		
12	17.14	49.01	22.38	96.84	163.70	472.74	87.98	93.63	88.79	74.08	58.62	46.41		
13	28.86	49.01	16.17	85.54	138.48	353.42	82.29	95.24	88.79	73.25	57.99	45.76		
14	32.49	56.08	15.14	75.73	115.11	394.99	92.02	96.84	89.60	73.25	57.35	45.76		
15	33.39	72.43	13.82	67.44	107.21	513.10	109.58	96.04	88.79	72.43	57.35	48.36		
16	41.17	96.04	13.07	52.24	104.83	528.14	116.68	95.24	88.79	72.43	56.72	52.88		
17	36.08	98.44	12.92	47.71	102.44	457.51	116.68	94.43	88.79	71.60	56.72	55.44		
18	36.52	85.54	13.07	43.80	123.73	362.82	122.17	91.21	88.79	71.60	56.08	54.80		
19	36.97	50.30	12.92	60.52	151.53	307.06	108.00	89.60	88.79	70.77	55.44	55.44		
20	37.41	34.29	12.62	59.26	156.86	257.77	111.17	87.98	87.98	70.77	55.44	57.35		
21	37.86	28.40	12.02	59.26	152.29	275.74	123.73	87.98	85.54	69.94	54.80	65.77		
22	37.86	26.10	11.42	57.99	140.02	272.16	123.73	87.98	85.54	69.94	54.16	66.61		
23	38.30	20.02	10.50	52.24	122.95	286.46	121.39	87.17	84.73	69.11	53.52	66.61		
24	38.30	14.41	9.89	45.11	176.52	370.11	119.82	87.17	83.92	68.28	52.88	68.28		
25	37.86	12.32	10.50	51.59	183.27	403.25	116.68	86.35	83.92	68.28	52.88	74.90		
26	38.30	11.11	12.77	57.35	153.82	414.58	114.32	85.54	83.92	67.44	52.24	73.25		
27	37.86	10.50	14.56	62.42	192.98	399.13	114.32	85.54	83.10	67.44	51.59	73.25		
28	38.75	9.89	12.62	83.92	220.50	329.28	106.41	85.54	80.65	67.44	50.95	70.77		
29	41.17	9.89	12.02	104.03	214.99	293.58	97.64	85.54	78.19	66.61		64.94		
30	40.51	10.35	11.87	113.53	197.44	277.53	96.84	85.54	78.19	66.61		64.94		
31		10.50		133.84	169.75		94.43		78.19	66.61		64.94		
Total	854.71	1215.95	716.93	1663.25	5519.01	9244.72	3888.66	2681.85	2663.02	2237.44	1617.51	1744.50	34047.55	Tonday
Mean	28.49	39.22	23.90	53.65	178.03	308.16	125.44	89.39	85.90	72.18	57.77	56.27	93.28	Ton/day
Max	41.17	98.44	84.73	133.84	297.14	609.60	259.57	96.84	89.60	78.19	66.61	74.90	609.60	Ton/day
Min	15.00	9.89	9.89	12.02	102.44	107.21	82.29	79.83	78.19	66.61	50.95	45.76	9.89	Ton/day

WATER YEAR : 2018

MUN RIVER BASIN

Lam Sa Bai at Ban Pa Kor, Ubon Ratchathani (M.179A)

Lat 15 - 30 - 12 N Long 104 - 35 - 41 E

Location : on right bank at the bridge.

Ban Pa Kor **Amphoe** Khueang Nai **Changwat** Ubon Ratchathani

Drainge Area	3,546 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2013-Cont'd
Actual Measurement	2013-Cont'd
Using Rating Curve Water Year	2018
Number of observation	22
R-Square	0.7541
Remarks	Continued Sediment Station

$$QS = 9.4629\ QW^{0.85410}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	0.00	185.06	812.83	878.12	446.53	73.36	0.00	0.00	0.00	0.00		
2	0.00	0.00	0.00	213.88	846.71	884.82	435.00	109.60	0.00	0.00	0.00	0.00		
3	0.00	0.00	0.00	267.37	900.44	875.88	355.08	85.72	0.00	0.00	0.00	0.00		
4	0.00	0.00	0.00	309.08	966.84	864.68	306.63	59.45	0.00	0.00	0.00	0.00		
5	0.00	0.00	0.00	251.30	1034.64	826.41	265.09	44.96	0.00	0.00	0.00	0.00		
6	0.00	0.00	0.00	244.36	1090.93	781.00	301.72	37.41	0.00	0.00	0.00	0.00		
7	0.00	0.00	0.00	167.90	1148.86	721.27	279.43	34.19	0.00	0.00	0.00	0.00		
8	0.00	0.00	0.00	96.70	1181.18	670.07	40.27	32.89	0.00	0.00	0.00	0.00		
9	0.00	0.00	0.00	81.27	1196.05	627.67	49.56	0.00	0.00	0.00	0.00	0.00		
10	0.00	0.00	98.87	90.14	1181.18	599.14	54.70	0.00	0.00	0.00	0.00	0.00		
11	0.00	0.00	253.61	119.63	1142.45	581.39	73.36	0.00	0.00	0.00	0.00	0.00		
12	0.00	0.00	286.89	209.12	1088.77	576.98	64.15	0.00	0.00	0.00	0.00	0.00		
13	0.00	0.00	299.26	289.37	1025.94	592.37	49.26	0.00	0.00	0.00	0.00	0.00		
14	0.00	0.00	274.43	357.47	958.03	620.56	47.42	0.00	0.00	0.00	0.00	0.00		
15	0.00	0.00	239.72	407.11	887.06	651.28	48.65	0.00	0.00	0.00	0.00	0.00		
16	0.00	0.00	162.95	458.01	817.36	679.43	49.26	0.00	0.00	0.00	0.00	0.00		
17	0.00	0.00	106.40	492.17	735.13	705.05	49.87	0.00	0.00	0.00	0.00	0.00		
18	0.00	0.00	21.40	534.86	660.69	721.27	49.26	0.00	0.00	0.00	0.00	0.00		
19	0.00	0.00	58.27	585.78	585.78	712.01	47.42	0.00	0.00	0.00	0.00	0.00		
20	0.00	0.00	122.25	653.64	492.17	698.08	43.72	0.00	0.00	0.00	0.00	0.00		
21	0.00	0.00	206.74	728.21	311.53	679.43	41.21	0.00	0.00	0.00	0.00	0.00		
22	0.00	0.00	213.88	794.67	326.16	599.14	38.69	0.00	0.00	0.00	0.00	0.00		
23	0.00	0.00	150.44	855.70	359.86	525.93	38.05	0.00	0.00	0.00	0.00	0.00		
24	0.00	0.00	54.10	895.98	451.13	510.22	40.90	0.00	0.00	0.00	0.00	0.00		
25	0.00	0.00	21.40	918.22	568.16	543.78	44.65	0.00	0.00	0.00	0.00	0.00		
26	0.00	0.00	43.09	929.31	615.81	514.72	48.95	0.00	0.00	0.00	0.00	0.00		
27	0.00	0.00	67.63	918.22	646.57	516.96	57.08	0.00	0.00	0.00	0.00	0.00		
28	0.00	0.00	106.40	891.52	702.73	496.69	64.15	0.00	0.00	0.00	0.00	0.00		
29	0.00	0.00	132.61	860.19	755.83	476.28	66.47	0.00	0.00	0.00		0.00		
30	0.00	0.00	157.96	824.15	803.76	458.01	68.78	0.00	0.00	0.00		0.00		
31		0.00		806.03	853.46		71.08		0.00	0.00		0.00		
Total	0.00	0.00	3078.30	15436.42	25148.04	19588.64	3636.39	477.58	0.00	0.00	0.00	0.00	67365.37	Tonday
Mean	0.00	0.00	102.61	497.95	811.23	652.95	117.30	15.92	0.00	0.00	0.00	0.00	184.56	Ton/day
Max	0.00	0.00	299.26	929.31	1196.05	884.82	446.53	109.60	0.00	0.00	0.00	0.00	1196.05	Ton/day
Min	0.00	0.00	0.00	81.27	311.53	458.01	38.05	0.00	0.00	0.00	0.00	0.00	0.00	Ton/day

WATER YEAR : 2018

MUN RIVER BASIN

Huai Hin Lap at Ban Khlong Hin Lap, Nakhon Ratchasima (M.183A)

Lat 14 - 43 - 26 N Long 101 - 34 - 19 E

Location : on left bank at the bridge on highway.

Ban Khlong Hin Lap **Amphoe** Pak Chong **Changwat** Nakhon Ratchasima

Drainge Area	- sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2008-Cont'd
Actual Measurement	2008-Cont'd
Using Rating Curve Water Year	2018
Number of observation	30
R-Square	0.9506
Remarks	Continued Sediment Station

$$QS = 6.7412\ QW^{1.73010}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.10	2.03	53.75	6.74	1.10	1.83	15.20	1.44	0.53	0.42	0.42	0.38		
2	1.10	2.79	19.36	3.64	1.10	1.83	5.09	1.10	0.53	0.42	0.53	0.35		
3	1.10	2.40	18.28	2.03	1.10	1.83	3.20	1.10	0.53	0.42	0.42	0.35		
4	1.10	3.20	7.46	1.63	1.10	1.83	1.83	0.94	0.53	0.42	0.42	0.35		
5	1.10	8.98	648.12	1.26	1.10	1.63	1.83	0.94	0.53	0.42	0.42	0.35		
6	1.10	5.62	53.75	1.26	0.94	1.83	1.83	0.79	0.53	0.42	0.42	0.38		
7	1.10	2.40	15.20	1.10	0.79	1.63	1.63	0.79	0.53	0.42	0.42	0.38		
8	1.10	1.63	8.20	1.26	1.26	1.44	2.03	0.94	0.53	0.38	0.42	0.38		
9	1.10	1.26	4.58	1.44	1.83	65.44	2.03	0.94	0.53	0.38	0.42	0.38		
10	1.26	1.10	4.10	1.10	1.44	6.17	1.63	0.79	0.42	0.38	0.42	0.38		
11	1.26	0.94	4.58	1.44	1.44	12.37	1.44	0.66	0.42	0.42	0.42	0.35		
12	1.26	0.94	4.58	1.44	1.44	43.04	1.44	0.53	0.42	0.42	0.42	0.35		
13	1.26	2.79	4.10	1.44	1.10	7.46	1.44	0.53	0.42	0.42	0.38	0.35		
14	1.26	23.93	2.79	1.26	1.10	82.40	1.44	0.66	0.42	0.42	0.38	0.35		
15	1.26	51.53	2.03	1.10	1.26	21.60	1.26	0.79	0.42	0.42	0.38	0.35		
16	1.26	5.62	2.03	1.26	1.44	9.78	1.44	0.79	0.42	0.42	0.35	0.35		
17	1.26	5.62	1.83	2.79	1.10	6.17	2.40	0.66	0.42	0.42	0.35	0.35		
18	1.44	2.03	1.63	10.61	1.10	4.10	2.40	0.66	0.42	0.42	0.35	0.35		
19	1.44	3.64	1.44	4.58	1.10	3.20	2.79	0.66	0.42	0.42	0.35	0.31		
20	1.44	11.48	1.10	2.79	1.26	2.79	3.20	0.66	0.42	0.42	0.35	0.28		
21	1.26	2.79	1.44	1.63	1.26	3.20	2.40	0.53	0.42	0.42	0.35	0.31		
22	1.26	8.20	1.44	1.44	1.63	2.79	2.03	0.53	0.42	0.42	0.35	0.35		
23	1.26	6.17	1.44	1.44	2.79	2.40	2.03	0.66	0.42	0.35	0.38	0.35		
24	1.26	6.17	1.44	1.26	1.83	2.03	2.03	0.53	0.42	0.35	0.38	0.35		
25	1.26	6.74	1.44	1.10	2.40	2.03	1.83	0.53	0.42	0.35	0.38	0.38		
26	1.26	49.35	1.26	0.94	3.20	2.03	1.26	0.53	0.42	0.38	0.38	0.42		
27	1.26	342.29	4.58	0.94	3.64	2.03	1.44	0.42	0.42	0.38	0.38	0.42		
28	1.83	85.44	395.30	0.94	3.20	9.78	1.44	0.42	0.42	0.42	0.38	0.42		
29	8.20	94.84	111.43	0.79	2.40	13.28	1.44	0.53	0.42	0.42		0.38		
30	3.20	91.66	17.23	1.10	1.83	60.65	1.44	0.53	0.42	0.42		0.38		
31		220.13		1.10	1.63		1.44		0.42	0.42		0.38		
Total	46.35	1053.71	1395.91	62.85	49.91	378.59	74.33	21.58	14.01	12.61	11.02	11.21	3132.08	Tonday
Mean	1.55	33.99	46.53	2.03	1.61	12.62	2.40	0.72	0.45	0.41	0.39	0.36	8.58	Ton/day
Max	8.20	342.29	648.12	10.61	3.64	82.40	15.20	1.44	0.53	0.42	0.53	0.42	648.12	Ton/day
Min	1.10	0.94	1.10	0.79	0.79	1.44	1.26	0.42	0.42	0.35	0.35	0.28	0.28	Ton/day

WATER YEAR : 2018

MUN RIVER BASIN

Mun River at Ban Cum, Nakhon Ratchasima (M.184)

Lat 15 - 13 - 12 N Long 102 - 25 - 41 E

Location : on right at the bridge on highway.

Ban Cum **Amphoe** Phimai **Changwat** Nakhon Ratchasima

Drainge Area	11,489 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2008-Cont'd
Actual Measurement	2008-Cont'd
Using Rating Curve Water Year	2018
Number of observation	22
R-Square	0.8031
Remarks	Continued Sediment Station

$$QS = 1.6269\ QW^{1.16250}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	97.77	189.14	33.81	35.55	57.28	81.55	191.71	18.25	0.00	0.00	0.00		
2	0.00	128.90	196.88	18.25	42.63	48.05	95.43	158.62	15.62	0.00	0.00	0.00		
3	0.00	141.18	209.88	25.31	37.31	35.55	97.77	131.35	11.80	0.00	0.00	0.00		
4	0.00	156.11	217.73	46.24	32.09	30.37	93.09	114.39	10.08	0.00	0.00	0.00		
5	0.00	166.18	222.99	55.41	26.98	28.67	95.43	100.12	9.59	0.00	0.00	0.00		
6	0.00	176.33	228.27	39.07	20.93	39.07	97.77	83.84	8.63	0.00	0.00	0.00		
7	0.00	181.44	228.27	32.09	15.62	55.41	88.45	70.22	7.68	0.00	0.00	0.00		
8	0.00	189.14	220.36	20.93	15.62	51.71	76.99	61.34	6.75	0.00	0.00	0.00		
9	0.00	191.71	199.47	10.57	19.58	49.88	70.22	57.28	6.75	0.00	0.00	0.00		
10	0.00	186.57	178.88	8.15	26.98	46.24	65.76	55.41	7.68	0.00	0.00	0.00		
11	0.00	176.33	136.25	6.75	28.67	63.54	59.15	61.34	8.15	0.00	0.00	0.00		
12	0.00	158.62	93.09	5.83	25.31	70.22	57.28	79.26	7.68	0.00	0.00	0.00		
13	0.00	131.35	67.98	4.94	19.58	76.99	53.56	88.45	7.68	0.00	0.00	0.00		
14	0.00	119.20	48.05	4.50	8.15	93.09	48.05	93.09	7.21	0.00	0.00	0.00		
15	0.00	114.39	26.98	4.07	6.29	119.20	44.43	93.09	7.21	0.00	0.00	0.00		
16	0.00	109.60	16.93	4.07	6.29	143.65	40.85	88.45	7.21	0.00	0.00	0.00		
17	0.00	93.09	15.62	4.50	6.29	166.18	35.55	81.55	6.75	0.00	0.00	0.00		
18	0.00	70.22	14.33	7.21	5.83	189.14	32.09	65.76	6.75	0.00	0.00	0.00		
19	0.00	61.34	9.59	39.07	5.16	215.11	39.07	51.71	6.75	0.00	0.00	0.00		
20	0.00	59.15	5.61	49.88	5.38	230.91	63.54	48.05	7.68	0.00	0.00	0.00		
21	0.00	61.34	4.72	55.41	8.15	236.21	100.12	46.24	7.68	0.00	0.00	0.00		
22	0.00	63.54	4.07	55.41	13.06	233.56	131.35	37.31	6.75	0.00	0.00	0.00		
23	0.00	70.22	3.43	40.85	8.63	228.27	156.11	28.67	5.83	0.00	0.00	0.00		
24	0.00	81.55	3.01	32.09	11.80	212.49	173.78	26.98	5.83	0.00	0.00	0.00		
25	0.00	102.48	2.81	25.31	44.43	191.71	184.00	23.65	5.83	0.00	0.00	0.00		
26	0.00	126.47	2.81	23.65	44.43	173.78	204.67	20.93	0.00	0.00	0.00	0.00		
27	0.00	148.62	2.61	22.28	48.05	158.62	222.99	19.58	0.00	0.00	0.00	0.00		
28	18.25	161.13	2.61	23.65	55.41	138.71	228.27	18.25	0.00	0.00	0.00	0.00		
29	39.07	173.78	4.07	23.65	59.15	104.85	230.91	16.93	0.00	0.00		0.00		
30	49.88	181.44	18.25	23.65	61.34	86.14	228.27	15.62	0.00	0.00		0.00		
31		189.14		26.98	63.54		217.73		0.00	0.00		0.00		
Total	107.20	4068.33	2574.69	773.58	808.23	3574.60	3414.23	2029.19	207.82	0.00	0.00	0.00	17557.87	Tonday
Mean	3.57	131.24	85.82	24.95	26.07	119.15	110.14	67.64	6.70	0.00	0.00	0.00	48.10	Ton/day
Max	49.88	191.71	228.27	55.41	63.54	236.21	230.91	191.71	18.25	0.00	0.00	0.00	236.21	Ton/day
Min	0.00	59.15	2.61	4.07	5.16	28.67	32.09	15.62	0.00	0.00	0.00	0.00	0.00	Ton/day

WATER YEAR : 2018

MUN RIVER BASIN

Lam Plai Mat at Ban Phai Noi, Buri Ram (M.185)

Lat 14 - 59 - 57 N Long 102 - 49 - 02 E

Location : on right at the bridge on highway.

Ban Phai Noi **Amphoe** Lam Plai Mat **Changwat** Buri Ram

Drainge Area	4,880 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2010-Cont'd
Actual Measurement	2010-Cont'd
Using Rating Curve Water Year	2010-2018
Number of observation	170
R-Square	0.7030
Remarks	Continued Sediment Station

$$QS = 3.6372\ QW^{0.94450}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	30.95	0.83	0.00	0.00	25.47	56.21	0.00	0.00	0.00	0.00		
2	0.00	0.00	30.04	0.72	0.00	0.00	21.56	59.42	0.00	0.00	0.00	0.00		
3	0.00	0.00	30.49	0.61	0.00	0.00	18.82	59.42	0.00	0.00	0.00	0.00		
4	0.00	0.00	26.38	0.49	0.00	0.00	19.17	51.37	0.00	0.00	0.00	0.00		
5	0.00	0.00	21.56	0.37	0.00	0.00	19.85	25.93	0.00	0.00	0.00	0.00		
6	0.00	0.00	18.48	0.21	0.00	0.00	18.14	20.88	0.00	0.00	0.00	0.00		
7	0.00	47.54	14.74	0.13	0.00	0.00	17.10	15.37	0.00	0.00	0.00	0.00		
8	0.00	47.54	12.83	0.72	0.00	0.00	17.10	14.74	0.00	0.00	0.00	0.00		
9	0.00	51.37	10.30	0.94	0.00	0.00	16.41	11.65	0.00	0.00	0.00	0.00		
10	0.00	70.58	7.49	1.13	0.00	0.00	15.37	9.46	0.00	0.00	0.00	0.00		
11	0.00	92.79	9.23	0.61	0.00	0.00	15.37	10.01	0.00	0.00	0.00	0.00		
12	0.00	90.40	9.46	0.09	0.00	0.00	15.37	9.46	0.00	0.00	0.00	0.00		
13	0.00	24.55	9.46	0.00	0.00	0.00	15.06	9.46	0.00	0.00	0.00	0.00		
14	0.00	17.45	8.25	0.00	0.00	0.00	13.47	9.23	0.00	0.00	0.00	0.00		
15	0.00	15.37	6.67	0.00	0.00	0.00	11.65	8.48	0.00	0.00	0.00	0.00		
16	0.00	30.04	6.34	0.00	0.00	0.00	9.46	8.74	0.00	0.00	0.00	0.00		
17	0.00	26.84	6.17	0.00	0.00	0.00	9.46	8.74	0.00	0.00	0.00	0.00		
18	0.00	26.38	6.50	0.00	0.00	0.00	8.97	7.49	0.00	0.00	0.00	0.00		
19	0.00	22.70	6.83	0.00	0.00	0.00	7.00	7.00	0.00	0.00	0.00	0.00		
20	0.00	17.45	7.00	0.00	0.00	0.00	7.00	7.00	0.00	0.00	0.00	0.00		
21	0.00	14.74	5.67	0.00	0.00	0.00	7.00	7.00	0.00	0.00	0.00	0.00		
22	0.00	11.10	2.39	0.00	0.00	0.00	7.00	6.67	0.00	0.00	0.00	0.00		
23	0.00	8.97	1.71	0.00	0.00	0.00	7.00	4.66	0.00	0.00	0.00	0.00		
24	0.00	7.00	1.39	0.00	0.00	0.00	7.00	3.36	0.00	0.00	0.00	0.00		
25	0.00	33.82	1.28	0.00	0.00	0.00	7.00	2.25	0.00	0.00	0.00	0.00		
26	0.00	59.42	1.06	0.00	0.00	12.83	7.00	2.25	0.00	0.00	0.00	0.00		
27	0.00	85.62	0.94	0.00	0.00	16.07	7.99	2.25	0.00	0.00	0.00	0.00		
28	0.00	36.23	0.91	0.00	0.00	21.22	14.11	2.03	0.00	0.00	0.00	0.00		
29	0.00	34.42	0.91	0.00	0.00	23.62	18.82	1.06	0.00	0.00		0.00		
30	0.00	31.40	0.83	0.00	0.00	27.76	51.37	0.68	0.00	0.00		0.00		
31		31.40		0.00	0.00		52.19		0.00	0.00		0.00		
Total	0.00	935.12	296.26	6.85	0.00	101.50	488.28	442.27	0.00	0.00	0.00	0.00	2270.28	Tonday
Mean	0.00	30.17	9.88	0.22	0.00	3.38	15.75	14.74	0.00	0.00	0.00	0.00	6.22	Ton/day
Max	0.00	92.79	30.95	1.13	0.00	27.76	52.19	59.42	0.00	0.00	0.00	0.00	92.79	Ton/day
Min	0.00	0.00	0.83	0.00	0.00	0.00	7.00	0.68	0.00	0.00	0.00	0.00	0.00	Ton/day

WATER YEAR : 2018

MUN RIVER BASIN

Huai Samran at Ban Khwaw, Si Sa Ket (M.190)

Lat 07 - 54 - 13 N Long 98 - 21 - 02 E

Location : on right at the bridge on highway.

Ban Khwaw **Amphoe** Uthumphon Phisa **Changwat** Si Sa Ket

Drainge Area	2,339 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2011-Cont'd
Actual Measurement	2011-Cont'd
Using Rating Curve Water Year	2015-2018
Number of observation	87
R-Square	0.7919
Remarks	Continued Sediment Station

$$QS = 1.2290\ QW^{1.22850}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	0.00	0.00	2.19	4.35	141.05	23.12	0.00	0.00	0.00	0.00		
2	0.00	0.00	0.00	0.00	2.19	2.88	125.17	21.31	0.00	0.00	0.00	0.00		
3	0.00	0.00	0.00	0.00	2.19	5.13	110.71	17.78	0.00	0.00	0.00	0.00		
4	0.00	0.00	0.00	0.00	2.11	3.60	100.34	12.72	0.00	0.00	0.00	0.00		
5	0.00	0.00	0.00	0.00	2.11	2.88	86.82	9.31	0.00	0.00	0.00	0.00		
6	0.00	0.00	0.00	0.00	2.02	2.88	73.69	9.31	0.00	0.00	0.00	0.00		
7	0.00	0.00	0.00	0.00	2.02	2.70	64.11	9.31	0.00	0.00	0.00	0.00		
8	0.00	0.00	0.00	0.00	2.11	2.79	52.05	7.59	0.00	0.00	0.00	0.00		
9	0.00	0.00	0.00	0.00	2.53	2.79	38.77	6.75	0.00	0.00	0.00	0.00		
10	0.00	0.00	0.00	0.00	2.44	5.93	28.71	6.75	0.00	0.00	0.00	0.00		
11	0.00	0.00	0.00	0.00	2.36	7.59	24.96	5.93	0.00	0.00	0.00	0.00		
12	0.00	0.00	0.00	0.00	2.44	8.44	21.31	4.35	0.00	0.00	0.00	0.00		
13	0.00	0.00	0.00	0.00	2.53	11.10	21.31	2.88	0.00	0.00	0.00	0.00		
14	0.00	0.00	0.00	0.00	2.53	31.17	23.12	2.79	0.00	0.00	0.00	0.00		
15	0.00	0.00	0.00	0.00	2.70	60.97	21.31	2.70	0.00	0.00	0.00	0.00		
16	0.00	0.00	0.00	0.00	2.44	73.69	17.78	2.62	0.00	0.00	0.00	0.00		
17	0.00	0.00	0.00	0.00	2.53	73.69	16.06	2.79	0.00	0.00	0.00	0.00		
18	0.00	0.00	0.00	0.00	5.93	64.11	16.06	2.62	0.00	0.00	0.00	0.00		
19	0.00	0.00	0.00	0.00	6.75	54.79	16.06	2.53	0.00	0.00	0.00	0.00		
20	0.00	0.00	0.00	0.16	3.60	49.34	14.37	2.44	0.00	0.00	0.00	0.00		
21	0.00	0.00	0.00	0.27	2.88	46.65	12.72	2.36	0.00	0.00	0.00	0.00		
22	0.00	0.00	0.00	0.34	5.13	60.97	14.37	2.27	0.00	0.00	0.00	0.00		
23	0.00	0.00	0.00	0.45	5.13	73.69	17.78	2.19	0.00	0.00	0.00	0.00		
24	0.00	0.00	0.00	0.52	3.60	83.50	24.96	2.19	0.00	0.00	0.00	0.00		
25	0.00	0.00	0.00	0.66	4.35	103.77	26.82	2.19	0.00	0.00	0.00	0.00		
26	0.00	0.00	0.00	1.15	3.60	129.11	26.82	2.19	0.00	0.00	0.00	0.00		
27	0.00	0.00	0.00	1.94	5.93	137.05	28.71	2.11	0.00	0.00	0.00	0.00		
28	0.00	0.00	0.00	2.11	8.44	145.07	31.17	0.00	0.00	0.00	0.00	0.00		
29	0.00	0.00	0.00	2.19	7.59	157.27	31.17	0.00	0.00	0.00		0.00		
30	0.00	0.00	0.00	2.19	5.93	157.27	26.82	0.00	0.00	0.00		0.00		
31		0.00		2.27	5.13		24.96		0.00	0.00		0.00		
Total	0.00	0.00	0.00	14.25	113.43	1565.17	1280.06	171.10	0.00	0.00	0.00	0.00	3144.01	Tonday
Mean	0.00	0.00	0.00	0.46	3.66	52.17	41.29	5.70	0.00	0.00	0.00	0.00	8.61	Ton/day
Max	0.00	0.00	0.00	2.27	8.44	157.27	141.05	23.12	0.00	0.00	0.00	0.00	157.27	Ton/day
Min	0.00	0.00	0.00	0.00	2.02	2.70	12.72	0.00	0.00	0.00	0.00	0.00	0.00	Ton/day

WATER YEAR : 2018

MUN RIVER BASIN

Lam Ta Khong at Ban Khok Kruad, Nakhon Ratchasima (M.191)

Lat 44 - 55 - 57 N Long 101 - 57 - 07 E

Location : on left bank at the bridge on road.

Ban Khok Kruad **Amphoe** Mueang **Changwat** Nakhon Ratchasima

Drainge Area	2,854 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2011-Cont'd
Actual Measurement	2011-Cont'd
Using Rating Curve Water Year	2013-2018
Number of observation	134
R-Square	0.8616
Remarks	Continued Sediment Station

$$QS = 2.8757\ QW^{1.23120}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.02	14.54	53.65	6.67	3.82	7.93	3.82	5.21	3.38	4.51	3.60	3.60		
2	0.17	15.65	53.65	5.21	4.05	7.42	1.08	3.82	3.82	4.05	2.53	3.16		
3	2.12	14.21	51.64	8.45	4.28	6.67	0.65	1.72	3.16	2.95	2.12	4.28		
4	4.28	17.62	50.97	9.06	3.38	7.93	0.82	1.92	3.38	1.72	2.73	4.51		
5	0.11	20.86	49.64	7.17	3.60	7.17	1.92	2.32	3.82	2.12	2.73	4.28		
6	0.01	21.27	40.38	6.17	2.12	6.17	3.82	2.95	4.51	0.99	1.53	3.16		
7	0.02	23.40	26.27	6.92	2.12	4.74	2.95	3.82	4.51	1.92	0.90	0.99		
8	0.05	23.40	14.54	7.17	4.05	5.93	2.95	4.05	7.42	1.44	0.90	1.92		
9	0.17	24.35	8.45	4.97	4.74	7.93	4.97	4.28	5.93	1.26	3.60	3.16		
10	4.05	27.73	4.51	4.05	6.17	7.42	6.17	4.74	3.38	0.99	4.51	2.73		
11	3.16	26.75	4.51	4.51	4.51	8.19	6.17	5.69	2.73	0.82	3.82	2.53		
12	2.12	23.88	4.28	5.21	4.74	8.45	4.05	5.45	2.53	1.16	3.16	3.38		
13	0.90	21.68	3.82	2.12	6.17	7.68	5.69	5.69	0.99	1.08	1.44	1.53		
14	1.26	16.04	1.16	5.21	5.45	12.88	8.19	5.45	1.44	2.32	2.32	2.32		
15	1.26	11.26	0.30	7.68	4.05	23.88	7.93	3.38	3.60	2.73	3.38	1.08		
16	1.16	10.94	0.21	5.93	4.74	23.88	7.42	3.38	3.60	4.05	2.12	2.53		
17	0.45	9.06	0.82	6.42	3.82	18.02	6.92	3.16	3.60	0.65	2.32	2.73		
18	0.90	11.58	1.53	6.92	5.21	12.55	5.69	2.53	4.05	0.73	1.72	3.16		
19	2.73	12.55	1.72	9.68	5.21	12.23	5.21	1.53	3.60	1.72	1.44	4.97		
20	1.53	10.31	3.60	10.62	5.21	12.23	5.45	1.35	2.95	3.82	3.16	3.82		
21	1.08	5.93	6.67	9.06	4.51	8.45	8.75	1.16	3.16	1.26	0.99	2.32		
22	0.73	9.68	4.51	6.17	4.97	7.42	8.19	1.44	3.16	1.72	1.44	4.97		
23	1.53	16.83	2.12	5.69	5.45	6.42	6.17	3.16	1.53	2.53	0.73	4.97		
24	2.95	22.10	0.30	5.69	4.97	5.21	6.92	2.53	1.53	4.28	1.16	6.17		
25	2.53	18.42	0.82	5.69	4.97	5.45	6.67	2.53	4.74	2.73	2.12	10.31		
26	1.53	20.04	0.73	5.45	6.17	6.67	6.42	2.73	3.16	3.82	2.12	3.60		
27	3.82	21.68	1.53	4.97	8.19	5.45	6.67	4.28	3.38	4.28	3.16	4.51		
28	7.68	24.83	3.16	5.45	7.93	3.82	5.93	4.51	3.16	3.38	3.16	3.82		
29	13.21	35.21	7.42	5.93	5.93	3.82	5.45	4.51	3.82	5.21		4.05		
30	14.21	48.37	7.42	5.21	4.74	4.28	4.97	3.16	1.53	4.74		1.72		
31		51.64		4.28	4.97		5.21		3.38	4.97		1.44		
Total	75.74	631.81	410.33	193.73	150.24	266.29	163.22	102.45	104.95	79.95	64.91	107.72	2351.34	Tonday
Mean	2.52	20.38	13.68	6.25	4.85	8.88	5.27	3.42	3.39	2.58	2.32	3.47	6.44	Ton/day
Max	14.21	51.64	53.65	10.62	8.19	23.88	8.75	5.69	7.42	5.21	4.51	10.31	53.65	Ton/day
Min	0.01	5.93	0.21	2.12	2.12	3.82	0.65	1.16	0.99	0.65	0.73	0.99	0.01	Ton/day

WATER YEAR : 2018

PING RIVER BASIN

Ping River at Nawarat Bridge , Chiang Mai (P.1)

Lat 18 - 47 - 10 N Long 99 - 00 - 27 E

Location : on left bank about 100 meters downstream from Nawarat Bridge.

Ban Nawarat Bridge **Amphoe** Mueang **Changwat** Chiang Mai

Drainge Area	6,350 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1993-Cont'd
Actual Measurement	1993-Cont'd
Using Rating Curve Water Year	2018
Number of observation	32
R-Square	0.7040
Remarks	Continued Sediment Station

$$QS = 0.8530\ QW^{1.41900}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	133.58	107.66	751.69	712.44	639.96	1163.03	960.73	832.76	247.02	341.41	73.22	13.30		
2	84.09	712.44	1373.34	542.07	832.76	917.23	2809.76	832.76	316.63	247.02	107.66	13.30		
3	133.58	542.07	1050.20	422.18	1963.32	751.69	14577.42	674.08	450.99	225.42	184.71	26.54		
4	394.16	204.64	751.69	316.63	1373.34	832.76	13679.73	606.59	184.71	133.58	269.43	26.54		
5	95.58	107.66	573.95	120.33	1301.64	1005.05	5661.78	639.96	269.43	95.58	120.33	20.80		
6	184.71	84.09	542.07	62.98	674.08	1005.05	2872.26	606.59	394.16	341.41	73.22	18.14		
7	73.22	84.09	542.07	53.39	639.96	639.96	2049.93	573.95	165.62	184.71	73.22	13.30		
8	120.33	44.46	422.18	62.98	712.44	510.94	1836.33	480.58	366.95	573.95	73.22	29.63		
9	95.58	23.60	510.94	165.62	292.64	639.96	1301.64	450.99	147.40	791.79	36.22	9.09		
10	147.40	107.66	639.96	120.33	316.63	1231.53	1878.27	573.95	269.43	366.95	26.54	5.19		
11	120.33	510.94	639.96	53.39	573.95	1963.32	1963.32	674.08	184.71	316.63	44.46	11.11		
12	204.64	204.64	674.08	84.09	573.95	1373.34	2273.16	791.79	341.41	95.58	20.80	15.64		
13	73.22	269.43	751.69	366.95	292.64	1373.34	2227.75	573.95	366.95	292.64	18.14	11.11		
14	53.39	422.18	791.79	341.41	204.64	917.23	2138.07	573.95	712.44	107.66	20.80	20.80		
15	62.98	341.41	606.59	366.95	147.40	917.23	1446.63	480.58	422.18	120.33	20.80	29.63		
16	84.09	247.02	450.99	120.33	184.71	917.23	917.23	480.58	165.62	147.40	23.60	44.46		
17	316.63	247.02	269.43	95.58	184.71	751.69	832.76	366.95	165.62	73.22	18.14	62.98		
18	120.33	133.58	204.64	450.99	1597.89	639.96	712.44	269.43	292.64	366.95	32.86	62.98		
19	165.62	165.62	225.42	874.57	12255.50	1963.32	639.96	366.95	84.09	120.33	18.14	53.39		
20	133.58	225.42	292.64	917.23	6671.49	2565.47	674.08	366.95	95.58	292.64	29.63	62.98		
21	133.58	316.63	366.95	791.79	3063.15	2006.43	751.69	542.07	204.64	225.42	32.86	44.46		
22	62.98	366.95	366.95	606.59	2446.79	1005.05	1096.17	394.16	84.09	73.22	26.54	36.22		
23	73.22	542.07	450.99	573.95	1675.85	751.69	2872.26	184.71	165.62	32.86	18.14	26.54		
24	366.95	1231.53	422.18	573.95	1301.64	542.07	5661.78	204.64	84.09	26.54	18.14	18.14		
25	53.39	1163.03	366.95	480.58	1373.34	450.99	4804.11	316.63	316.63	133.58	20.80	26.54		
26	165.62	573.95	394.16	712.44	1096.17	542.07	3259.10	225.42	480.58	394.16	23.60	32.86		
27	165.62	573.95	394.16	573.95	1597.89	422.18	2093.81	394.16	316.63	73.22	20.80	269.43		
28	165.62	917.23	960.73	450.99	2093.81	480.58	1597.89	450.99	133.58	316.63	20.80	269.43		
29	95.58	712.44	1836.33	674.08	1675.85	450.99	1163.03	341.41	107.66	225.42		422.18		
30	133.58	874.57	1163.03	542.07	1050.20	960.73	960.73	366.95	269.43	480.58		639.96		
31		791.79		639.96	832.76		1163.03		510.94	269.43		450.99		
Total	4213.18	12849.77	18787.75	12870.79	49641.10	29692.11	86876.85	14638.56	8317.47	7486.26	1466.82	2787.66	249628.32	Tonday
Mean	140.44	414.51	626.26	415.19	1601.33	989.74	2802.48	487.95	268.31	241.49	52.39	89.92	683.91	Ton/day
Max	394.16	1231.53	1836.33	917.23	12255.50	2565.47	14577.42	832.76	712.44	791.79	269.43	639.96	14577.42	Ton/day
Min	53.39	23.60	204.64	53.39	147.40	422.18	639.96	184.71	84.09	26.54	18.14	5.19	5.19	Ton/day

WATER YEAR : 2018

PING RIVER BASIN

Nam Mae Taeng at Ban Mae Taeng , Chiang Mai (P.4A)

Lat 19 - 07 - 15 N Long 98 - 56 - 53 E

Location : on right bank at the bridge of Chiang Mai from Fang Highway.

Ban Mae Taeng **Amphoe** Mae Taeng **Changwat** Chiang Mai

Drainge Area	1,930 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1992-Cont'd
Actual Measurement	1992-Cont'd
Using Rating Curve Water Year	2018
Number of observation	31
R-Square	0.8040
Remarks	Continued Sediment Station

$$QS = 3.8640\ QW^{1.34100}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.01	2.55	182.06	27.00	59.18	120.63	306.52	97.70	51.63	0.00	0.00	0.00		
2	0.01	2.55	554.64	9.53	37.85	120.63	8347.44	103.24	51.63	0.00	0.00	0.00		
3	0.01	2.55	256.39	4.33	37.85	120.63	13235.91	81.83	48.02	0.00	0.00	0.00		
4	0.01	2.55	165.73	4.33	37.85	120.63	4569.10	67.14	51.63	0.00	0.00	0.00		
5	0.01	2.55	150.04	4.33	29.28	135.01	1924.95	55.35	48.02	0.00	0.00	0.00		
6	0.01	2.55	120.63	2.60	9.53	280.99	832.43	63.10	48.02	0.00	0.00	0.00		
7	0.01	2.55	120.63	0.38	11.63	86.99	773.86	55.35	48.02	0.00	0.00	0.00		
8	0.05	2.55	120.63	0.38	29.28	63.10	773.86	44.52	48.02	0.00	0.00	0.00		
9	2.04	2.55	108.91	0.38	4.33	67.14	745.51	37.85	55.35	210.01	0.00	0.00		
10	2.24	1.10	108.91	0.57	1.58	142.44	692.81	41.13	63.10	2.98	0.00	0.00		
11	2.24	0.11	190.46	0.57	1.29	173.82	668.91	48.02	27.00	0.00	0.00	0.00		
12	2.24	0.21	182.06	0.38	3.63	92.28	1405.89	81.83	1.02	0.00	0.00	0.00		
13	2.44	0.21	319.63	0.57	41.13	67.14	717.06	63.10	1.02	0.00	0.00	0.00		
14	2.65	0.29	268.57	1.02	10.56	182.06	335.34	63.10	1.02	0.00	0.00	0.00		
15	2.65	0.82	199.01	1.02	10.56	114.71	306.52	63.10	1.02	0.00	0.00	0.00		
16	2.76	0.82	199.01	0.57	16.77	81.83	157.81	63.10	0.78	0.00	0.00	0.00		
17	2.98	0.34	199.01	0.57	13.25	51.63	182.06	51.63	0.23	0.00	0.00	0.00		
18	2.98	0.08	199.01	81.83	13989.56	41.13	199.01	31.64	0.19	0.00	0.00	0.00		
19	2.98	0.07	165.73	114.71	17067.50	44.52	199.01	22.67	0.14	0.00	0.00	0.00		
20	2.76	0.07	18.65	490.36	6984.54	150.04	150.04	20.62	0.10	0.00	0.00	0.00		
21	2.55	0.07	5.08	418.47	2752.63	142.44	67.14	16.77	0.10	0.00	0.00	0.00		
22	2.55	0.08	5.08	150.04	1151.18	59.18	165.73	16.77	0.10	0.00	0.00	0.00		
23	2.55	55.35	4.33	120.63	554.64	55.35	645.35	18.65	0.10	0.00	0.00	0.00		
24	2.55	63.10	2.98	103.24	532.85	51.63	3040.36	14.97	0.01	0.00	0.00	0.00		
25	2.55	67.14	1.90	59.18	532.85	55.35	892.76	22.67	0.00	0.00	0.19	0.00		
26	2.55	97.70	1.02	44.52	471.95	86.99	453.83	63.10	0.00	0.00	0.07	0.00		
27	2.55	453.83	11.63	44.52	384.31	3.63	280.99	76.80	0.00	0.00	0.00	0.00		
28	2.55	367.68	1117.73	44.52	306.52	1.58	280.99	67.14	0.00	0.00	0.00	0.00		
29	2.55	173.82	401.24	199.01	268.57	16.77	221.24	67.14	0.00	0.00		0.00		
30	2.55	165.73	97.70	120.63	210.01	401.24	182.06	67.14	0.00	0.00		0.00		
31		165.73		92.28	120.63		150.04		0.00	0.00		0.00		
Total	56.58	1637.30	5478.40	2142.47	45683.29	3131.51	42904.53	1587.17	546.27	212.99	0.26	0.00	103380.77	Tonday
Mean	1.89	52.82	182.61	69.11	1473.65	104.38	1384.02	52.91	17.62	6.87	0.01	0.00	283.23	Ton/day
Max	2.98	453.83	1117.73	490.36	17067.50	401.24	13235.91	103.24	63.10	210.01	0.19	0.00	17067.50	Ton/day
Min	0.01	0.07	1.02	0.38	1.29	1.58	67.14	14.97	0.00	0.00	0.00	0.00	0.00	Ton/day

WATER YEAR : 2018

PING RIVER BASIN

Nam Mae Kuang at Tha Nang Bridge , Lamphun (P.5)

Lat 18 - 34 - 32 N Long 99 - 00 - 44 E

Location : on right bank at the bridge of Chiang Mai from Fang Highway.

Ban Tha Nang **Amphoe** Mueang **Changwat** Lamphun

Drainge Area	1,569 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1992-Cont'd
Actual Measurement	1992-Cont'd
Using Rating Curve Water Year	2018
Number of observation	35
R-Square	0.8910
Remarks	Continued Sediment Station

$$QS = 0.9220\ QW^{1.50500}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.25	13.31	139.95	70.32	103.02	58.83	91.47	72.94	11.73	12.27	5.88	3.33		
2	1.15	21.60	106.38	41.90	71.60	50.03	195.16	62.61	11.21	8.67	4.81	3.61		
3	1.44	131.99	85.08	36.39	46.88	39.96	448.48	55.48	9.16	8.67	6.25	4.18		
4	1.01	104.67	70.32	27.08	44.87	40.93	579.95	53.28	11.21	8.19	6.25	3.07		
5	3.07	94.72	120.32	25.66	43.87	40.93	368.20	46.88	9.66	7.00	6.25	2.55		
6	12.84	63.85	86.69	24.26	78.28	55.48	207.39	36.39	5.51	5.51	6.62	2.06		
7	11.54	52.19	55.48	27.08	91.47	48.96	135.95	33.95	3.61	3.33	10.17	2.30		
8	16.18	38.04	38.04	27.08	72.94	43.87	99.69	33.15	4.18	8.19	9.16	2.30		
9	12.38	16.68	50.03	26.37	55.48	41.90	76.91	28.53	3.07	38.04	11.73	2.55		
10	17.87	13.77	101.32	29.26	57.71	66.41	63.85	16.83	1.52	56.02	11.21	2.06		
11	8.90	15.21	39.96	41.90	67.72	75.60	57.71	13.36	5.51	27.05	9.16	2.81		
12	6.15	16.18	52.19	39.96	60.10	65.15	56.59	24.19	5.51	23.26	4.81	2.06		
13	4.62	13.31	32.35	45.87	51.11	53.28	54.38	39.44	8.19	16.12	5.88	2.81		
14	3.93	14.72	23.57	106.38	50.03	39.96	60.10	54.20	12.27	14.72	3.61	1.67		
15	4.15	46.88	22.88	106.38	41.90	39.00	60.10	45.41	11.73	12.27	4.81	1.67		
16	4.85	42.89	17.87	82.33	37.21	41.90	56.59	38.04	13.36	14.04	5.88	1.67		
17	9.64	40.93	25.66	82.33	33.95	41.90	55.48	32.62	11.21	8.67	3.33	1.67		
18	7.00	33.95	17.27	253.70	167.31	38.04	53.28	26.08	12.81	7.79	3.61	1.52		
19	20.33	37.21	27.08	491.42	556.24	57.71	61.33	24.19	8.19	5.51	4.81	1.37		
20	20.96	30.00	23.57	640.76	610.13	89.89	54.38	24.19	8.19	7.39	3.33	1.52		
21	27.80	30.00	27.08	556.24	292.70	72.94	66.41	18.29	5.88	5.88	4.47	2.30		
22	17.27	25.66	17.27	371.99	192.79	58.83	234.32	16.83	6.62	7.00	3.89	1.83		
23	15.69	45.87	20.33	239.82	167.31	52.19	364.42	16.12	7.39	5.16	4.47	2.55		
24	11.93	204.72	14.72	192.79	129.99	44.87	1049.28	16.12	6.25	9.16	6.25	2.81		
25	15.21	394.99	27.08	165.05	89.89	40.93	1261.08	15.42	4.47	8.19	7.79	3.61		
26	7.30	210.01	22.88	171.86	79.60	34.76	1233.62	17.56	4.47	7.00	5.16	2.81		
27	11.93	158.31	58.83	174.15	70.32	31.56	671.83	17.56	5.16	10.68	4.81	3.61		
28	10.38	108.05	91.47	158.31	62.61	28.53	250.94	17.56	7.00	14.72	3.07	2.30		
29	19.71	139.95	118.37	220.70	83.72	33.95	124.17	11.21	5.51	10.68		4.47		
30	16.68	122.21	106.38	212.70	65.15	89.89	101.32	12.27	7.39	18.29		2.06		
31		202.32		156.26	61.33		83.72		9.16	4.18		2.06		
Total	324.16	2484.19	1640.42	4846.30	3637.23	1518.18	8278.10	920.70	237.13	393.65	167.47	77.19	24524.72	Tonday
Mean	10.81	80.14	54.68	156.33	117.33	50.61	267.04	30.69	7.65	12.70	5.98	2.49	67.19	Ton/day
Max	27.80	394.99	139.95	640.76	610.13	89.89	1261.08	72.94	13.36	56.02	11.73	4.47	1261.08	Ton/day
Min	1.01	13.31	14.72	24.26	33.95	28.53	53.28	11.21	1.52	3.33	3.07	1.37	1.01	Ton/day

WATER YEAR : 2018

PING RIVER BASIN

Ping River at Ban Tha Ngiu, Nakhon Sawan (P.17)

Lat 15 - 56 - 02 N Long 99 - 58 - 50 E

Location : on right bank at Som Sieo Market.

Ban Tha Ngiu **Amphoe** Banphot Phisai **Changwat** Nakhon Sawan

Drainge Area	45,297 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1954-Cont'd
Actual Measurement	1954-Cont'd
Using Rating Curve Water Year	2001-2018
Number of observation	331
R-Square	0.7518
Remarks	Continued Sediment Station

$$QS = 1.0465\ QW^{1.33700}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	1298.31	1663.88	1504.42	1745.10	953.26	1104.20	583.77	1007.43	1063.94	1452.18	774.66	789.49	
2	1323.66	1583.64	1663.88	1400.41	917.58	1063.94	667.17	864.70	1025.65	1557.12	834.41	730.60	
3	1349.12	1772.39	2022.68	1374.70	1063.94	953.26	667.17	804.40	917.58	1583.64	1025.65	774.66	
4	1206.47	1610.28	1772.39	1374.70	1227.19	804.40	819.37	759.90	899.86	1374.70	1043.95	804.40	
5	1206.47	1690.84	1504.42	1227.19	1104.20	716.06	834.41	703.75	1323.66	1478.24	1007.43	953.26	
6	1165.29	1583.64	1104.20	1025.65	1025.65	703.75	745.21	655.09	1248.01	1504.42	1124.47	935.38	
7	1104.20	1478.24	1025.65	953.26	953.26	631.09	834.41	607.31	1124.47	1557.12	1124.47	899.86	
8	1206.47	1663.88	989.29	899.86	989.29	548.91	1124.47	607.31	917.58	1799.78	1063.94	849.52	
9	1273.10	1426.24	849.52	849.52	917.58	492.03	1165.29	619.17	759.90	1610.28	882.24	804.40	
10	1227.19	1452.18	789.49	882.24	864.70	492.03	953.26	583.77	716.06	1349.12	819.37	789.49	
11	1248.01	1400.41	819.37	1165.29	804.40	525.97	774.66	560.47	679.31	1206.47	849.52	882.24	
12	1185.83	1400.41	917.58	1400.41	834.41	514.60	679.31	583.77	899.86	1206.47	953.26	882.24	
13	1007.43	1323.66	1025.65	1452.18	819.37	514.60	655.09	667.17	1124.47	1185.83	1025.65	935.38	
14	1007.43	1248.01	1104.20	1583.64	819.37	667.17	643.06	882.24	1165.29	1206.47	1144.83	899.86	
15	971.23	1185.83	1227.19	1530.71	834.41	1007.43	583.77	1144.83	1298.31	1185.83	1124.47	953.26	
16	935.38	1248.01	1248.01	1504.42	834.41	1185.83	560.47	1248.01	1349.12	1084.02	1063.94	935.38	
17	935.38	1557.12	1772.39	1504.42	759.90	1185.83	537.41	1206.47	1374.70	1104.20	1063.94	971.23	
18	819.37	1583.64	1745.10	1478.24	691.50	1063.94	525.97	1227.19	1400.41	1185.83	1007.43	953.26	
19	882.24	1717.92	1663.88	1530.71	655.09	989.29	503.28	1323.66	1323.66	1144.83	1104.20	1007.43	
20	1185.83	1827.28	1530.71	1583.64	667.17	1007.43	492.03	1206.47	1298.31	1165.29	882.24	1025.65	
21	1374.70	1772.39	1349.12	1349.12	730.60	1185.83	503.28	1124.47	1323.66	1063.94	953.26	882.24	
22	1530.71	1882.60	1349.12	1104.20	864.70	1504.42	643.06	1104.20	1298.31	1025.65	935.38	834.41	
23	1557.12	1637.02	1400.41	1227.19	935.38	1165.29	1530.71	1084.02	1084.02	1007.43	899.86	834.41	
24	1663.88	1799.78	1374.70	1323.66	1025.65	971.23	2339.51	1084.02	1104.20	953.26	953.26	804.40	
25	1400.41	1583.64	1478.24	1248.01	1043.95	849.52	2339.51	899.86	1124.47	953.26	917.58	804.40	
26	1557.12	1637.02	1478.24	1063.94	1025.65	691.50	1910.41	989.29	1185.83	953.26	971.23	819.37	
27	1478.24	1530.71	1772.39	989.29	971.23	643.06	1772.39	1043.95	1273.10	971.23	819.37	745.21	
28	1557.12	1478.24	2165.25	1063.94	989.29	560.47	1910.41	1084.02	1248.01	935.38	759.90	679.31	
29	1610.28	1530.71	2051.00	1007.43	1025.65	492.03	1854.89	1084.02	1504.42	730.60		691.50	
30	1637.02	1400.41	2051.00	935.38	1007.43	503.28	1557.12	1084.02	1610.28	864.70		679.31	
31		1717.92		971.23	1025.65		1227.19		1530.71	804.40		667.17	
Total	37905.01	48387.94	42749.49	38749.68	28381.86	24738.39	31938.06	27844.98	36197.16	37204.95	27129.91	26218.72	407446.15 Tonday
Mean	1263.50	1560.90	1424.98	1249.99	915.54	824.61	1030.26	928.17	1167.65	1200.16	968.93	845.77	1116.29 Ton/day
Max	1663.88	1882.60	2165.25	1745.10	1227.19	1504.42	2339.51	1323.66	1610.28	1799.78	1144.83	1025.65	2339.51 Ton/day
Min	819.37	1185.83	789.49	849.52	655.09	492.03	492.03	560.47	679.31	730.60	759.90	667.17	492.03 Ton/day

WATER YEAR : 2018

PING RIVER BASIN

Nam Mae Rim at Ban Mae Rim Tai , Chiang Mai (P.21)

Lat 18 - 55 - 45 N Long 98 - 56 - 40 E

Location : on left bank about 100 meters downstream from the bridge of Chiang Mai - Fang Highway.

Ban Mae Rim Tai **Amphoe** Mae Rim **Changwat** Chiang Mai

Drainge Area	452 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2001-Cont'd
Actual Measurement	2001-Cont'd
Using Rating Curve Water Year	2018
Number of observation	31
R-Square	0.8470
Remarks	Continued Sediment Station

$$QS = 4.3520\ QW^{1.53800}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.69	16.20	64.99	34.74	120.82	68.47	77.80	70.23	16.20	14.74	4.02	8.29		
2	3.21	152.52	70.23	140.61	169.08	53.33	169.08	53.33	16.20	10.93	4.35	7.30		
3	9.84	103.31	45.50	211.19	93.74	48.58	747.17	42.49	14.74	10.38	4.02	5.04		
4	6.52	31.08	28.84	193.25	59.89	96.11	651.46	33.50	16.94	9.84	3.45	4.69		
5	5.04	23.82	25.79	17.70	66.72	165.72	186.23	27.81	14.02	10.38	3.21	4.35		
6	8.29	14.02	42.49	17.70	91.40	72.01	91.40	24.80	14.02	9.84	2.97	2.97		
7	7.79	10.38	19.26	16.94	70.23	42.49	70.23	23.82	11.49	10.38	2.74	3.45		
8	6.90	10.38	18.47	48.58	54.94	38.55	64.99	33.50	12.06	66.72	2.97	3.45		
9	5.40	10.38	20.97	29.89	45.50	64.99	50.14	26.79	10.93	103.31	2.97	3.45		
10	4.69	11.49	26.79	41.16	162.39	93.74	36.00	45.50	12.06	38.55	3.70	3.21		
11	4.35	34.74	38.55	16.94	113.20	93.74	100.89	58.23	9.84	21.91	8.29	2.97		
12	3.70	16.94	45.50	27.81	70.23	84.51	100.89	54.94	14.02	15.46	8.29	2.97		
13	3.70	63.27	53.33	529.98	68.47	86.79	91.40	51.73	113.20	12.06	8.29	2.97		
14	2.97	41.16	34.74	226.20	64.99	93.74	200.36	47.03	152.52	11.49	7.79	2.74		
15	3.21	22.86	27.81	295.31	350.85	64.99	84.51	47.03	41.16	12.64	7.30	2.97		
16	5.40	13.32	25.79	48.58	43.99	34.74	66.72	38.55	31.08	10.38	7.79	4.35		
17	9.31	9.84	22.86	39.85	42.49	39.85	68.47	31.08	19.26	8.29	7.79	4.02		
18	12.64	14.74	15.46	272.23	544.41	113.20	64.99	28.84	16.94	7.79	7.30	4.02		
19	14.74	64.99	18.47	189.72	1254.50	410.63	64.99	28.84	16.20	7.79	7.30	3.70		
20	10.38	24.80	32.28	435.18	222.22	877.18	39.85	26.79	14.74	6.90	7.30	3.21		
21	6.90	50.14	19.26	110.70	134.79	254.79	54.94	23.82	14.02	6.52	6.90	3.45		
22	5.04	36.00	25.79	72.01	189.72	89.08	149.51	22.86	12.64	6.13	6.13	2.74		
23	4.02	131.91	19.26	84.51	110.70	63.27	447.98	22.86	12.64	5.76	5.76	2.74		
24	3.21	103.31	22.86	70.23	96.11	39.85	522.81	22.86	12.06	6.13	5.40	2.09		
25	2.51	123.40	15.46	73.80	126.21	32.28	250.64	20.05	10.93	6.52	5.40	1.69		
26	6.52	33.50	17.70	100.89	110.70	96.11	113.20	18.47	9.84	8.29	6.90	1.50		
27	12.06	110.70	25.79	61.57	234.25	48.58	75.61	18.47	8.79	7.30	8.29	1.50		
28	10.38	86.79	77.80	61.57	267.69	56.58	48.58	16.94	8.79	5.76	8.29	1.50		
29	10.38	53.33	179.30	110.70	146.53	152.52	45.50	16.94	9.31	5.76		1.88		
30	10.38	48.58	66.72	105.75	72.01	211.19	41.16	16.20	10.38	6.13		1.69		
31		38.55		113.20	64.99		131.91		16.94	4.69		1.50		
Total	201.17	1506.45	1148.06	3798.49	5263.76	3687.61	4909.41	994.30	693.96	468.77	164.91	102.40	22939.29	Tonday
Mean	6.71	48.60	38.27	122.53	169.80	122.92	158.37	33.14	22.39	15.12	5.89	3.30	62.85	Ton/day
Max	14.74	152.52	179.30	529.98	1254.50	877.18	747.17	70.23	152.52	103.31	8.29	8.29	1254.50	Ton/day
Min	1.69	9.84	15.46	16.94	42.49	32.28	36.00	16.20	8.79	4.69	2.74	1.50	1.50	Ton/day

WATER YEAR : 2018

PING RIVER BASIN

Nam Mae Ngat at Ban Sahakorn Romklao , Chiang Mai (P.56A)

Lat 19 - 17 - 04 N Long 99 - 11 - 23 E

Location : on left bank at the bridge near land Cooperative Office.

Ban Sahakorn Romklao **Amphoe** Phrao **Changwat** Chiang Mai

Drainge Area	546 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1997-Cont'd
Actual Measurement	1997-Cont'd
Using Rating Curve Water Year	2018
Number of observation	30
R-Square	0.9300
Remarks	Continued Sediment Station

$$QS = 4.0660\ QW^{1.35800}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.02	7.63	15.04	24.39	41.58	63.87	69.41	41.58	5.57	5.21	5.93	3.52		
2	1.02	8.83	45.91	16.78	40.16	57.12	208.63	40.16	6.30	4.86	5.93	3.52		
3	1.02	22.28	23.33	13.35	33.26	48.97	162.26	34.61	3.52	4.86	5.57	3.52		
4	1.02	22.28	13.35	12.01	27.63	60.47	317.25	33.26	3.52	4.51	5.57	3.52		
5	1.02	22.28	12.68	8.23	22.28	57.12	145.57	33.26	3.52	4.18	5.57	3.52		
6	1.17	32.11	12.01	7.05	27.63	57.12	137.55	32.11	3.52	3.52	5.57	3.52		
7	1.17	20.40	11.35	7.05	32.11	62.17	60.47	30.97	3.52	3.52	5.57	3.52		
8	1.81	20.40	11.35	7.05	17.67	137.55	45.91	29.85	3.52	4.18	5.57	3.52		
9	3.52	17.67	33.26	7.05	20.40	150.99	38.75	28.73	3.52	44.46	5.57	3.52		
10	3.52	27.63	22.28	7.05	41.58	251.16	37.36	29.85	3.26	20.40	5.57	3.52		
11	3.00	25.45	18.57	7.63	115.02	145.57	112.63	37.36	3.26	13.35	5.57	3.52		
12	3.00	8.23	14.19	8.23	53.82	89.46	73.17	62.17	3.26	13.35	5.57	3.52		
13	2.75	27.63	23.33	7.63	26.53	195.64	103.19	52.19	3.85	8.83	5.57	3.52		
14	2.75	19.48	24.39	5.57	19.48	110.25	65.71	40.16	6.67	3.52	5.57	3.52		
15	2.75	55.47	17.67	5.57	13.35	65.71	48.97	33.26	6.30	3.52	5.21	3.52		
16	2.75	75.07	6.67	6.30	14.19	62.17	41.58	32.11	6.30	3.52	3.52	3.52		
17	3.52	98.56	12.01	7.05	142.88	48.97	28.73	43.01	5.93	3.52	3.52	3.52		
18	3.52	53.82	13.35	27.63	1170.51	48.97	25.45	159.35	5.93	3.52	3.52	3.52		
19	3.52	33.26	13.35	57.12	1064.95	153.71	22.28	28.73	5.93	3.52	3.52	3.52		
20	4.18	25.45	12.68	40.16	440.05	229.31	22.28	21.34	5.57	3.52	3.52	3.52		
21	5.21	17.67	7.63	134.90	87.22	124.72	24.39	13.35	5.57	4.51	3.52	3.52		
22	5.21	15.90	27.63	100.87	76.98	91.71	32.11	13.35	5.57	7.05	3.52	3.52		
23	4.86	62.17	18.57	165.19	47.39	75.07	50.58	12.68	5.57	7.05	3.52	3.52		
24	4.51	57.12	13.35	100.87	52.19	38.75	768.46	10.07	5.57	7.05	3.52	3.52		
25	3.85	29.85	13.35	119.84	58.79	22.28	660.64	10.07	5.57	6.67	3.52	3.52		
26	5.21	17.67	13.35	85.00	50.58	22.28	247.40	10.07	5.57	6.67	3.52	3.52		
27	4.86	13.35	15.04	58.79	153.71	18.57	103.19	9.44	5.21	6.67	3.52	3.52		
28	4.86	14.19	67.55	63.87	145.57	6.67	69.41	7.63	5.21	6.30	3.52	3.52		
29	5.21	24.39	69.41	45.91	93.98	10.71	53.82	4.18	5.21	6.30		2.75		
30	5.21	14.19	43.01	37.36	62.17	45.91	47.39	3.52	5.21	6.30		2.51		
31		13.35		32.11	58.79		45.91		5.21	5.93		3.52		
Total	97.02	903.78	645.66	1227.61	4252.45	2552.97	3870.45	938.42	152.24	230.37	129.67	107.34	15107.98	Tonday
Mean	3.23	29.15	21.52	39.60	137.18	85.10	124.85	31.28	4.91	7.43	4.63	3.46	41.39	Ton/day
Max	5.21	98.56	69.41	165.19	1170.51	251.16	768.46	159.35	6.67	44.46	5.93	3.52	1170.51	Ton/day
Min	1.02	7.63	6.67	5.57	13.35	6.67	22.28	3.52	3.26	3.52	3.52	2.51	1.02	Ton/day

WATER YEAR : 2018

PING RIVER BASIN

Ping River at Ban Mae Tae , Chiang Mai (P.67)

Lat 19 - 01 - 11 N Long 98 - 57 - 43 E

Location : on left bank at the bridge on highway.

Ban Mae Tae **Amphoe** San Sai **Changwat** Chiang Mai

Drainge Area	5,323 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1997-Cont'd
Actual Measurement	1997-Cont'd
Using Rating Curve Water Year	2018
Number of observation	31
R-Square	0.9090
Remarks	Continued Sediment Station

$$QS = 1.1130\ QW^{1.74100}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	98.75	65.09	783.20	386.16	251.56	953.89	876.00	549.67	156.01	4.39	0.63	4.39	
2	108.22	113.16	1738.69	291.77	876.00	583.21	10916.52	455.16	163.06	3.59	1.04	3.98	
3	108.22	128.54	1034.58	261.37	1776.53	426.99	26520.56	426.99	144.75	2.86	13.43	14.68	
4	103.37	113.16	783.20	192.60	1554.69	600.30	20586.60	386.16	77.01	2.52	19.11	13.43	
5	98.75	103.37	600.30	55.04	1311.98	1149.45	8619.20	347.10	68.97	2.52	16.10	9.95	
6	98.75	103.37	533.21	38.02	192.60	583.21	4011.48	399.58	68.97	2.52	14.68	8.90	
7	103.37	58.14	469.54	29.43	901.65	386.16	2329.69	334.48	52.02	1.90	19.11	2.20	
8	98.75	32.95	413.18	35.44	216.11	359.93	1776.53	323.57	52.02	20.70	17.58	12.22	
9	103.37	18.47	516.97	55.04	85.43	583.21	1278.74	302.21	52.02	300.53	5.18	2.86	
10	98.75	31.16	635.10	35.44	85.43	1034.58	2108.48	312.81	58.14	45.25	5.18	2.86	
11	98.75	58.14	655.45	24.47	156.01	1896.74	2065.37	386.16	55.04	20.70	3.98	3.98	
12	94.22	113.16	696.96	22.90	192.60	718.11	1814.73	469.54	68.97	13.43	6.03	6.03	
13	94.22	144.75	980.48	139.26	118.19	583.21	2655.01	359.93	156.01	8.90	6.03	11.06	
14	108.22	281.48	805.43	77.01	98.75	696.96	1776.53	323.57	163.06	4.39	4.39	16.10	
15	108.22	251.56	500.95	49.07	81.18	718.11	953.89	312.81	98.75	2.86	3.59	42.30	
16	103.37	163.06	372.95	49.07	103.37	761.24	617.60	281.48	81.18	1.90	4.39	48.30	
17	94.22	98.75	200.31	49.07	94.22	347.10	500.95	232.42	68.97	1.90	16.10	57.93	
18	85.43	108.22	177.57	224.20	5774.87	323.57	440.98	216.11	55.04	1.90	17.58	61.30	
19	123.32	128.54	170.25	372.95	22824.80	1245.87	372.95	208.14	38.02	1.11	16.10	54.64	
20	89.78	177.57	177.57	291.77	9880.63	1311.98	323.57	192.60	40.67	9.95	17.58	57.93	
21	65.09	144.75	251.56	617.60	3888.93	1062.10	334.48	156.01	40.67	13.43	20.70	51.43	
22	58.14	144.75	302.21	334.48	2420.79	566.33	827.92	144.75	35.44	8.90	17.58	33.94	
23	58.14	359.93	302.21	399.58	1311.98	485.13	3599.02	150.33	27.73	13.43	9.95	22.34	
24	55.04	426.99	251.56	291.77	1213.36	359.93	9582.69	156.01	18.47	8.90	6.93	24.03	
25	52.02	600.30	232.42	291.77	1118.05	271.35	7891.71	208.14	18.47	8.90	6.93	22.34	
26	65.09	469.54	232.42	500.95	876.00	359.93	3888.93	208.14	24.47	0.82	4.39	24.03	
27	108.22	549.67	323.57	302.21	827.92	192.60	2108.48	261.37	24.47	4.39	5.18	27.58	
28	108.22	739.54	1413.85	281.48	1345.57	170.25	1379.53	216.11	15.92	8.90	4.39	24.03	
29	94.22	739.54	1938.33	413.18	1118.05	261.37	953.89	208.14	2.20	11.06		24.03	
30	65.09	876.00	827.92	312.81	676.07	927.62	739.54	208.14	8.90	9.95		33.94	
31		805.43		334.48	600.30		635.10		12.22	0.82		61.30	
Total	2749.32	8149.08	18321.94	6760.39	61973.62	19920.43	122486.67	8737.63	1947.64	543.32	283.86	784.03	252657.93 Tonday
Mean	91.64	262.87	610.73	218.08	1999.15	664.01	3951.18	291.25	62.83	17.53	10.14	25.29	692.21 Ton/day
Max	123.32	876.00	1938.33	617.60	22824.80	1896.74	26520.56	549.67	163.06	300.53	20.70	61.30	26520.56 Ton/day
Min	52.02	18.47	170.25	22.90	81.18	170.25	323.57	144.75	2.20	0.82	0.63	2.20	0.63 Ton/day

WATER YEAR : 2018

PING RIVER BASIN

Ping River at Ban Sop Soi , Chiang Mai (P.73)

Lat 18 - 17 - 25 N Long 98 - 39 - 01 E

Location : on left bank at Sop Soi Phatana Bridge.

Ban Sop Soi **Amphoe** Chom Thong **Changwat** Chiang Mai

Drainge Area	14,814 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1997-Cont'd
Actual Measurement	1997-Cont'd
Using Rating Curve Water Year	2018
Number of observation	31
R-Square	0.9170
Remarks	Continued Sediment Station

$$QS = 1.1620\ QW^{1.28200}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.05	19.82	5.79	118.04	6.43	11.93	1798.44	1.12	2.84	1.04	1.09	0.09		
2	3.08	14.05	1295.52	445.00	67.90	364.07	294.47	31.35	1.77	2.42	1.09	0.11		
3	3.63	17.22	598.99	694.11	49.18	43.26	1557.51	13.11	2.84	2.12	1.00	0.18		
4	3.65	12.75	771.61	392.79	1.50	65.75	890.15	0.96	3.88	0.94	0.76	0.42		
5	4.41	12.68	852.77	683.19	2.56	65.75	356.97	3.40	5.16	0.59	0.71	0.28		
6	5.45	11.04	1630.49	385.57	14.31	74.41	40.54	1.28	2.52	1.37	0.75	0.29		
7	7.72	9.15	705.07	224.52	17.44	39.21	11.36	1.45	1.72	0.49	0.79	0.47		
8	10.38	11.41	816.69	206.20	8.54	101.51	1.42	30.07	1.76	0.99	0.87	1.10		
9	13.82	9.60	590.18	249.47	13.11	35.22	23.91	20.35	1.87	1.06	0.67	1.67		
10	13.52	9.67	495.20	249.47	3.17	41.91	4.51	2.16	2.79	1.34	0.60	1.34		
11	12.60	8.27	694.11	342.85	36.55	13.72	1.10	49.18	1.67	0.76	0.31	0.79		
12	12.30	8.68	738.18	546.55	67.90	385.57	1.09	18.06	2.11	1.48	0.47	0.32		
13	11.78	14.68	639.89	495.20	672.31	4.98	1.12	5.45	1.02	0.72	0.57	0.18		
14	11.11	15.54	598.99	520.74	503.68	436.75	4.29	31.35	1.09	0.43	0.64	0.10		
15	11.33	13.44	782.83	478.34	392.79	39.21	1.41	18.06	2.47	0.29	0.67	0.10		
16	11.70	10.60	581.39	371.21	301.28	1.76	1.06	6.96	1.30	0.14	0.86	0.10		
17	11.93	9.29	342.85	294.47	249.47	349.89	0.83	4.51	0.90	0.44	0.82	0.10		
18	14.29	8.40	85.56	301.28	76.62	105.59	0.80	36.55	1.39	0.35	0.86	0.12		
19	14.75	11.41	661.46	590.18	301.28	572.64	0.85	5.94	1.13	0.39	0.83	0.45		
20	14.75	12.68	563.91	414.64	414.64	255.80	0.35	407.33	1.52	0.72	0.72	0.80		
21	15.07	9.52	618.48	782.83	152.63	1.92	0.94	335.84	2.52	0.64	0.70	0.86		
22	15.70	11.04	738.18	407.33	45.21	76.62	15.54	572.64	2.07	0.54	0.58	0.86		
23	15.23	9.45	335.84	35.22	520.74	4.05	49.18	335.84	1.47	0.57	0.72	0.90		
24	13.82	16.50	915.26	5.45	3.84	161.57	1262.15	12.53	0.59	0.80	0.74	1.00		
25	13.98	18.44	392.79	1.02	148.20	224.52	1082.13	1.89	1.21	0.76	0.90	0.97		
26	15.46	7.99	598.99	1.56	113.85	176.45	546.55	2.33	1.19	1.04	0.92	0.86		
27	12.53	14.29	495.20	2.16	17.44	89.49	135.09	4.51	2.31	1.30	0.58	0.70		
28	12.53	9.34	1043.08	5.22	5.71	57.34	27.56	3.63	1.37	1.09	0.23	0.74		
29	15.94	7.63	782.83	1.72	10.22	618.48	5.22	3.12	0.43	1.04		0.93		
30	16.74	7.09	537.92	8.01	4.75	650.66	1.59	2.65	0.79	1.07		1.13		
31		9.52		4.51	43.26		8.01		0.90	1.02		1.76		
Total	341.25	361.19	19910.05	9258.85	4266.51	5070.03	8126.14	1963.62	56.60	27.95	20.45	19.72	49422.36	Tonday
Mean	11.37	11.65	663.67	298.67	137.63	169.00	262.13	65.45	1.83	0.90	0.73	0.64	135.40	Ton/day
Max	16.74	19.82	1630.49	782.83	672.31	650.66	1798.44	572.64	5.16	2.42	1.09	1.76	1798.44	Ton/day
Min	2.05	7.09	5.79	1.02	1.50	1.76	0.35	0.96	0.43	0.14	0.23	0.09	0.09	Ton/day

WATER YEAR : 2018

PING RIVER BASIN

Ping River at Ban Sop Pae , Chiang Mai (P.73A)

Lat 18 - 15 - 12 N Long 98 - 38 - 29 E

Location : on right bank at Ban Sop Pae.

Ban Sop Pae **Amphoe** Chom Thong **Changwat** Chiang Mai

Drainge Area	14,887 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2017-Cont'd
Actual Measurement	2017-Cont'd
Using Rating Curve Water Year	2018
Number of observation	32
R-Square	0.9490
Remarks	Continued Sediment Station

$$QS = 1.8620\ QW^{1.18100}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.04	0.26	579.35	379.23	1374.01	241.35	738.38	980.81	0.90	0.35	0.35	0.26		
2	0.04	0.33	663.94	251.20	724.76	203.10	711.17	630.52	0.94	0.38	0.35	0.26		
3	0.04	1.82	643.86	226.68	236.44	203.10	2363.54	566.81	0.94	0.41	0.35	0.26		
4	0.04	3.53	573.10	50.81	535.67	216.98	3499.49	541.86	0.69	0.43	0.35	0.26		
5	0.04	3.58	492.48	59.38	193.92	276.57	3004.53	529.45	0.43	0.43	0.35	0.26		
6	0.04	2.72	456.24	50.81	324.45	246.27	1977.19	385.10	0.43	0.43	0.35	0.23		
7	0.04	0.94	408.61	116.03	335.24	203.10	1069.89	160.38	0.47	0.43	0.35	0.18		
8	0.04	0.94	402.69	78.65	340.66	203.10	690.87	160.38	0.59	0.47	0.35	0.18		
9	0.17	0.94	390.93	52.42	226.68	203.10	1184.93	125.66	0.56	0.59	0.35	0.18		
10	0.05	1.56	297.70	52.42	67.85	390.93	853.44	52.42	0.47	0.61	0.35	0.18		
11	0.04	2.68	297.70	52.42	308.36	529.45	529.45	67.85	0.59	0.61	0.35	0.18		
12	0.04	1.60	246.27	52.42	216.98	329.84	690.87	351.53	0.61	0.61	0.35	0.18		
13	0.05	3.53	281.83	52.42	261.12	203.10	717.96	146.03	0.56	0.61	0.31	0.18		
14	0.09	3.58	367.94	52.42	112.85	203.10	853.44	444.26	0.43	0.61	0.26	0.18		
15	0.11	3.58	351.53	52.42	128.90	271.33	560.58	480.36	0.47	0.61	0.26	0.18		
16	0.09	2.31	346.09	52.42	74.30	281.83	657.24	276.57	0.59	0.61	0.26	0.18		
17	0.04	0.43	297.70	57.30	128.90	226.68	256.15	548.11	0.56	0.61	0.26	0.14		
18	0.04	0.43	236.44	329.84	281.83	287.11	390.93	573.10	0.43	0.59	0.26	0.04		
19	0.04	0.40	98.36	637.18	1938.86	246.27	340.66	251.20	0.43	0.61	0.26	0.04		
20	0.04	0.35	95.86	1295.40	2476.05	767.51	340.66	292.40	0.43	0.61	0.26	0.04		
21	0.04	0.35	95.86	1488.77	1704.19	677.39	184.81	276.57	0.43	0.61	0.26	0.04		
22	0.12	0.36	100.87	1365.24	964.74	775.26	203.10	95.86	0.43	0.61	0.26	0.04		
23	0.33	59.38	122.44	885.02	711.17	340.66	308.36	198.50	0.43	0.61	0.26	0.04		
24	0.35	109.68	125.66	948.71	408.61	251.20	2092.85	142.48	0.43	0.61	0.26	0.04		
25	0.35	822.03	125.66	510.94	517.08	251.20	4369.31	128.90	0.43	0.61	0.26	0.04		
26	0.35	604.56	125.66	303.02	164.00	226.68	3731.06	109.68	0.43	0.61	0.26	0.04		
27	0.35	180.28	125.66	303.02	450.27	146.03	2151.05	72.14	0.43	0.67	0.26	0.04		
28	0.35	480.36	132.15	303.02	241.35	128.90	1506.55	0.61	0.40	0.61	0.26	0.04		
29	0.35	492.48	362.45	432.33	256.15	193.92	1013.06	0.67	0.35	0.35		0.04		
30	0.31	308.36	256.15	829.87	308.36	444.26	1029.25	0.65	0.35	0.35		0.04		
31		650.54		783.03	351.53		731.56		0.35	0.35		0.04		
Total	4.02	3743.89	9101.18	12104.84	16365.28	9169.32	38752.33	8590.86	15.98	16.60	8.41	4.03	97876.74	Tonday
Mean	0.13	120.77	303.37	390.48	527.91	305.64	1250.08	286.36	0.52	0.54	0.30	0.13	268.16	Ton/day
Max	0.35	822.03	663.94	1488.77	2476.05	775.26	4369.31	980.81	0.94	0.67	0.35	0.26	4369.31	Ton/day
Min	0.04	0.26	95.86	50.81	67.85	128.90	184.81	0.61	0.35	0.35	0.26	0.04	0.04	Ton/day

WATER YEAR : 2018

PING RIVER BASIN

Ping River at Ban Cho Lae , Chiang Mai (P.75)

Lat 19 - 08 - 58 N Long 99 - 00 - 43 E

Location : on left bank at the bridge on road.

Ban Cho Lae **Amphoe** Mae Teang **Changwat** Chiang Mai

Drainge Area	3,088 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2001-Cont'd
Actual Measurement	2001-Cont'd
Using Rating Curve Water Year	2018
Number of observation	30
R-Square	0.7440
Remarks	Continued Sediment Station

$$QS = 0.7920\ QW^{1.58700}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	106.87	84.32	229.14	116.03	52.79	112.94	229.14	109.89	32.96	17.22	17.22	29.16		
2	112.94	84.32	335.77	106.87	455.43	87.02	1089.50	98.13	32.96	17.22	18.17	29.16		
3	92.51	42.17	207.15	155.92	540.27	68.99	2436.04	84.32	35.60	21.13	17.22	29.16		
4	81.65	37.20	159.48	106.87	533.54	73.90	1870.10	84.32	35.60	20.13	24.35	32.96		
5	68.99	25.52	141.97	50.96	379.15	87.02	851.21	81.65	35.60	19.14	45.61	45.61		
6	92.51	22.16	135.18	22.16	79.01	76.41	443.36	92.51	35.60	20.13	49.15	38.83		
7	89.75	16.28	116.03	19.14	431.41	61.85	340.97	84.32	31.68	19.14	50.96	66.58		
8	92.51	14.48	119.14	22.16	43.88	79.01	261.43	81.65	21.13	37.20	52.79	61.85		
9	92.51	11.51	163.07	24.35	26.72	135.18	215.79	79.01	22.16	76.41	52.79	37.20		
10	92.51	15.37	138.56	20.13	40.49	131.91	178.29	79.01	18.17	47.37	47.37	35.60		
11	89.75	43.88	145.41	18.17	47.37	261.43	247.40	100.99	21.13	43.88	34.27	37.20		
12	95.31	49.15	178.29	21.13	43.88	145.41	190.47	95.31	49.15	37.20	31.68	42.17		
13	106.87	66.58	174.30	47.37	32.96	145.41	256.72	84.32	125.47	35.60	32.96	47.37		
14	103.87	68.99	145.41	26.72	25.52	128.67	242.79	87.02	32.96	26.72	34.27	55.00		
15	103.87	52.79	106.87	23.20	21.13	155.92	152.39	84.32	37.20	23.20	34.27	89.75		
16	103.87	42.17	98.13	23.20	27.93	224.66	122.29	76.41	30.41	22.16	34.27	95.31		
17	100.99	43.88	89.75	23.20	27.93	84.32	109.89	71.43	27.93	23.20	49.15	109.89		
18	103.87	71.43	87.02	29.16	540.27	119.14	98.13	66.58	27.93	26.72	47.37	109.89		
19	119.14	71.43	79.01	37.20	1203.00	186.38	87.02	64.20	22.16	20.13	49.15	103.87		
20	84.32	71.43	81.65	42.17	560.92	166.70	71.43	61.85	24.35	20.13	45.61	106.87		
21	73.90	64.20	95.31	40.49	266.17	135.18	66.58	49.15	23.20	20.13	47.37	100.99		
22	66.58	61.85	112.94	32.96	198.74	98.13	178.29	45.61	22.16	22.16	49.15	87.02		
23	64.20	92.51	103.87	43.88	138.56	84.32	346.19	61.85	23.20	35.60	47.37	68.99		
24	59.53	98.13	84.32	34.27	128.67	71.43	1034.32	47.37	21.13	18.17	42.17	68.99		
25	59.53	100.99	76.41	45.61	116.03	61.85	989.16	47.37	23.20	18.17	30.41	66.58		
26	71.43	119.14	87.02	47.37	87.02	112.94	473.76	43.88	22.16	22.16	31.68	68.99		
27	92.51	148.88	145.41	31.68	112.94	59.53	290.34	38.83	18.17	40.49	29.16	64.20		
28	89.75	178.29	266.17	42.17	131.91	76.41	220.21	35.60	21.13	38.83	29.16	64.20		
29	87.02	178.29	247.40	45.61	119.14	79.01	174.30	35.60	18.17	38.83		87.02		
30	81.65	170.35	152.39	45.61	87.02	207.15	145.41	34.27	18.17	38.83		98.13		
31		170.35		43.88	81.65		128.67		17.22	34.27		122.29		
Total	2680.71	2318.04	4302.57	1389.64	6581.45	3518.22	13541.59	2106.77	928.06	901.67	1075.10	2100.83	41444.65	Tonday
Mean	89.36	74.78	143.42	44.83	212.30	117.27	436.83	70.23	29.94	29.09	38.40	67.77	113.55	Ton/day
Max	119.14	178.29	335.77	155.92	1203.00	261.43	2436.04	109.89	125.47	76.41	52.79	122.29	2436.04	Ton/day
Min	59.53	11.51	76.41	18.17	21.13	59.53	66.58	34.27	17.22	17.22	17.22	29.16	11.51	Ton/day

WATER YEAR : 2018

PING RIVER BASIN

Nam Mae Li at Ban Mae E - Hai , Lamphun (P.76)

Lat 18 - 08 - 23 N Long 98 - 53 - 58 E

Location : on left bank near the bridge of Li - Ban Mae E - Hai road.

Ban Mae E - Hai **Amphoe** Li **Changwat** Lamphun

Drainge Area	1,544 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2001-Cont'd
Actual Measurement	2001-Cont'd
Using Rating Curve Water Year	2018
Number of observation	31
R-Square	0.9120
Remarks	Continued Sediment Station

$$QS = 2.5560\ QW^{1.28100}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.86	1.68	50.13	9.17	11.34	10.44	16.56	12.26	8.39	6.90	3.09	2.69		
2	1.98	1.68	32.05	15.09	10.89	10.89	25.37	13.19	8.39	6.53	3.09	2.69		
3	2.04	1.74	34.52	12.26	10.00	20.29	34.52	11.80	8.39	6.53	3.02	2.69		
4	1.92	1.86	18.05	9.17	9.56	13.19	28.00	11.34	8.39	6.17	3.02	2.62		
5	1.92	1.92	15.09	8.39	10.00	10.44	30.69	12.26	8.01	5.82	2.96	2.62		
6	1.98	1.86	12.26	8.01	9.56	11.34	20.29	11.80	8.01	5.54	2.96	2.62		
7	2.04	1.74	9.56	8.39	9.56	9.56	17.55	12.26	8.01	5.54	2.96	2.56		
8	2.11	1.68	9.17	9.17	10.00	8.01	15.58	12.26	7.64	5.01	2.89	2.56		
9	2.11	1.62	10.44	8.78	16.07	9.56	13.66	11.80	7.64	5.54	2.89	2.62		
10	2.04	1.68	10.89	8.78	14.61	10.89	12.72	12.26	7.26	5.54	2.89	2.56		
11	1.92	1.74	10.89	8.78	21.54	12.72	11.80	13.66	7.26	5.54	2.96	2.43		
12	1.92	17.05	11.34	8.78	20.29	11.34	11.80	32.05	7.64	5.82	2.82	2.43		
13	1.86	17.05	15.58	8.01	17.05	10.44	13.19	22.80	9.56	6.17	2.17	2.43		
14	1.86	19.06	15.58	7.64	15.09	10.00	12.26	29.34	8.78	6.90	2.82	2.43		
15	1.86	17.55	15.09	8.39	13.66	10.00	11.80	18.56	8.78	7.26	2.82	2.36		
16	1.86	14.13	14.13	8.01	12.26	11.34	11.34	17.05	8.39	7.26	2.82	2.62		
17	1.86	12.72	14.13	8.01	11.80	11.34	10.89	15.58	8.01	7.26	2.75	2.56		
18	1.80	9.56	15.09	8.78	13.66	10.44	10.44	12.26	8.01	6.90	2.75	2.49		
19	1.80	10.44	24.08	8.78	13.19	11.80	9.56	11.80	8.01	6.53	2.75	2.49		
20	1.80	10.00	18.56	9.17	11.34	17.55	8.78	12.72	7.64	5.54	2.82	2.43		
21	1.80	9.56	16.07	12.72	10.89	26.68	10.00	12.26	7.26	4.74	2.82	2.43		
22	1.74	18.05	15.09	12.72	10.44	14.61	14.13	11.34	7.26	4.74	2.82	2.36		
23	1.62	132.63	12.72	13.66	10.44	15.58	110.11	10.89	6.90	4.74	2.82	2.36		
24	1.62	28.00	11.34	9.56	11.34	13.66	886.94	12.26	6.90	5.01	2.82	2.30		
25	1.56	18.05	10.44	13.19	11.34	13.66	518.36	10.89	6.90	5.01	2.82	2.30		
26	1.62	17.05	10.00	13.19	11.34	13.19	271.58	9.17	6.90	5.01	2.89	2.36		
27	1.80	16.56	9.56	12.26	10.89	13.66	85.02	8.78	6.53	4.48	2.82	2.43		
28	1.86	14.61	8.39	12.26	11.80	14.13	39.58	8.39	6.17	5.27	2.82	2.43		
29	1.86	11.80	8.39	11.80	11.80	16.07	28.00	8.78	6.17	2.89		2.36		
30	1.62	16.56	8.78	12.72	11.34	14.61	16.07	8.39	6.53	3.16		2.36		
31		119.01		11.80	10.89		12.72		6.90	3.16		2.43		
Total	55.64	548.64	467.41	317.44	383.98	387.43	2319.31	408.20	236.63	172.51	79.88	77.02	5454.09	Tonday
Mean	1.85	17.70	15.58	10.24	12.39	12.91	74.82	13.61	7.63	5.56	2.85	2.48	14.94	Ton/day
Max	2.11	132.63	50.13	15.09	21.54	26.68	886.94	32.05	9.56	7.26	3.09	2.69	886.94	Ton/day
Min	1.56	1.62	8.39	7.64	9.56	8.01	8.78	8.39	6.17	2.89	2.17	2.30	1.56	Ton/day

WATER YEAR : 2018

PING RIVER BASIN

Nam Mae Tha at Ban Sop Mae Sapuad , Lamphun (P.77)

Lat 18 - 25 - 57 N Long 99 - 05 - 02 E

Location : on left bank at the bridge on road.

Ban Sop Mae Sapuad **Amphoe** Mae Tha **Changwat** Lamphun

Drainge Area	550 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2001-Cont'd
Actual Measurement	2001-Cont'd
Using Rating Curve Water Year	2018
Number of observation	32
R-Square	0.8570
Remarks	Continued Sediment Station

$$QS = 1.5700\ QW^{1.47300}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.14	0.05	1.57	5.02	6.97	1.93	5.53	221.04	84.78	54.12	40.60	0.16	
2	0.05	0.05	0.99	2.71	5.53	1.17	12.10	196.04	80.65	54.12	38.32	0.16	
3	0.05	0.05	0.36	1.37	4.52	0.99	335.95	187.92	80.65	54.12	36.09	0.15	
4	0.05	0.14	0.05	0.99	4.52	0.81	29.41	179.91	73.23	54.12	33.90	0.15	
5	0.04	0.36	0.05	0.65	6.97	0.81	9.94	172.02	69.91	51.12	29.64	0.14	
6	0.04	0.24	0.05	0.65	31.38	0.65	5.02	164.24	69.91	51.12	29.64	0.13	
7	0.04	0.14	0.14	0.50	9.94	0.50	3.58	164.24	69.91	48.17	2.85	0.12	
8	0.04	0.05	0.05	0.50	6.05	0.36	1.57	221.04	69.91	51.12	0.00	0.12	
9	0.04	0.05	0.05	0.65	5.53	0.36	0.99	141.61	69.91	80.65	0.00	0.12	
10	0.04	0.05	0.14	40.87	5.02	0.65	0.81	149.04	66.65	127.14	0.02	0.10	
11	0.04	0.05	0.05	5.53	4.52	1.37	1.37	172.02	60.28	110.90	0.02	0.10	
12	0.04	0.05	0.05	0.24	3.58	1.17	2.31	187.92	57.17	110.90	0.03	0.09	
13	0.04	0.05	0.05	0.14	3.14	1.57	2.71	372.85	60.28	101.94	0.07	0.06	
14	0.03	0.05	0.05	0.99	2.71	2.71	1.57	221.04	66.65	84.78	0.11	0.05	
15	0.02	0.05	0.05	0.81	2.31	2.31	1.37	172.02	73.23	84.78	0.12	0.05	
16	0.02	0.05	0.05	0.65	2.31	1.57	1.57	149.04	69.91	76.59	0.15	0.05	
17	0.05	0.05	0.05	11.00	4.04	1.17	3.14	141.61	69.91	66.65	0.17	0.05	
18	8.91	0.05	0.05	150.83	89.06	0.81	2.71	134.31	66.65	60.28	0.17	0.04	
19	4.04	0.05	0.05	124.21	176.01	4.04	1.37	115.46	63.44	57.17	0.17	0.04	
20	1.37	0.05	0.05	120.09	55.42	20.17	0.50	106.39	60.28	60.28	0.18	0.04	
21	2.31	0.14	0.05	33.40	23.73	6.97	35.46	97.56	63.44	57.17	0.18	0.03	
22	1.17	4.52	0.05	21.93	13.23	5.53	120.09	106.39	60.28	54.12	0.17	0.02	
23	0.36	0.36	0.05	14.39	6.05	5.53	838.54	106.39	57.17	54.12	0.16	0.02	
24	0.14	0.14	0.04	11.00	13.23	1.93	1616.82	110.90	57.17	54.12	0.15	0.02	
25	0.05	13.23	0.05	6.97	108.00	1.17	343.75	106.39	57.17	48.17	0.16	0.02	
26	0.14	23.73	0.05	6.97	21.93	0.65	116.02	101.94	57.17	40.60	0.16	0.01	
27	3.14	3.58	0.05	5.02	11.00	0.36	29.41	93.23	57.17	42.93	0.16	0.01	
28	1.17	1.17	0.14	4.52	5.02	0.14	11.00	88.97	57.17	42.93	0.16	0.01	
29	0.36	0.99	21.93	6.97	3.58	0.14	6.97	84.78	57.17	40.60		0.01	
30	0.14	2.31	7.92	9.94	4.04	1.17	4.52	84.78	57.17	40.60		0.01	
31		2.71		8.91	3.14		0.38		57.17	40.60		0.01	
Total	24.07	54.56	34.28	598.42	642.48	68.71	3546.48	4551.09	2021.56	1956.03	213.55	2.09	13713.32 Tonday
Mean	0.80	1.76	1.14	19.30	20.73	2.29	114.40	151.70	65.21	63.10	7.63	0.07	37.57 Ton/day
Max	8.91	23.73	21.93	150.83	176.01	20.17	1616.82	372.85	84.78	127.14	40.60	0.16	1616.82 Ton/day
Min	0.02	0.05	0.04	0.14	2.31	0.14	0.38	84.78	57.17	40.60	0.00	0.01	0.00 Ton/day

WATER YEAR : 2018

PING RIVER BASIN

Khlong Khlung at Ban Sam Ruean , Kamphaeng Phet (P.78)

Lat 16 - 11 - 03 N Long 99 - 36 - 09 E

Location : on left bank at Ban Sam Ruean.

Ban Sam Ruean **Amphoe** Khlong Khlung **Changwat** Kamphaeng Phet

Drainge Area	1,119 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2002-Cont'd
Actual Measurement	2002-Cont'd
Using Rating Curve Water Year	2002-2018
Number of observation	159
R-Square	0.9597
Remarks	Continued Sediment Station

$$QS = 12.1190\ QW^{1.09850}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.84	5.41	195.99	121.44	4.67	4.92	254.80	14.13	15.49	2.30	0.55	2.30		
2	10.79	22.27	161.42	118.99	4.67	4.67	173.55	4.67	13.46	4.43	1.62	2.30		
3	27.95	14.13	144.71	42.00	5.16	4.43	202.83	4.19	21.15	3.95	0.55	2.07		
4	10.14	12.12	109.22	37.56	16.85	87.54	104.37	3.95	6.91	3.95	1.62	2.07		
5	5.66	101.95	42.00	16.85	11.46	76.33	80.42	3.71	13.46	3.95	2.07	1.84		
6	5.41	289.99	62.16	12.79	9.48	43.49	52.52	3.47	5.41	4.43	2.30	2.07		
7	5.41	268.82	57.10	16.85	8.84	18.23	39.03	3.23	10.79	4.43	1.84	1.84		
8	12.79	118.99	62.16	12.79	7.55	10.14	31.71	2.99	5.41	4.19	1.84	1.84		
9	3.95	54.04	18.92	10.14	14.13	6.91	27.95	3.23	3.23	2.30	1.62	2.07		
10	3.71	39.03	14.13	11.46	11.46	5.16	21.15	5.41	2.07	1.62	1.40	1.62		
11	3.71	20.03	12.12	80.42	10.79	4.67	17.54	7.55	2.07	1.84	0.97	1.84		
12	3.71	10.79	8.84	23.40	16.17	12.79	15.49	5.16	2.76	1.62	3.71	1.84		
13	3.23	10.14	5.16	12.12	13.46	4.67	12.79	6.91	2.76	0.97	2.53	1.84		
14	2.53	10.14	4.92	24.53	10.14	5.16	10.14	5.66	2.53	1.18	12.12	1.84		
15	2.99	21.15	4.43	18.92	33.16	8.19	7.55	5.16	2.07	0.97	6.91	1.84		
16	4.19	42.00	3.95	16.85	9.48	5.66	4.92	6.28	2.07	0.76	4.43	1.84		
17	3.47	21.15	4.43	10.79	6.91	8.19	3.71	5.16	2.07	0.55	3.95	1.62		
18	2.76	13.46	14.13	10.79	15.49	7.55	2.30	4.92	1.84	0.65	3.95	1.62		
19	3.71	8.19	20.03	10.79	12.79	7.55	1.40	4.67	1.84	0.55	3.23	1.18		
20	3.23	6.91	11.46	8.84	10.79	128.83	1.18	4.43	1.84	0.55	2.53	2.99		
21	2.99	6.91	8.19	11.46	8.84	987.75	8.19	4.43	1.62	0.55	2.07	2.53		
22	2.30	5.41	5.66	9.48	4.19	425.89	1136.66	4.43	1.40	0.55	2.53	2.30		
23	1.84	5.41	4.92	8.19	3.95	164.45	848.82	4.67	2.07	0.65	2.07	2.30		
24	1.84	5.66	4.67	12.12	4.19	82.79	482.26	4.67	1.84	0.55	1.84	1.84		
25	1.84	5.66	4.67	4.92	44.98	101.95	425.89	5.16	1.18	0.55	1.84	2.53		
26	1.84	11.46	4.43	4.92	11.46	254.80	357.90	6.28	0.97	0.55	1.62	2.53		
27	2.07	9.48	8.19	4.92	6.91	99.54	161.42	3.95	1.84	0.55	1.84	2.07		
28	3.47	8.84	16.85	4.67	5.41	51.01	139.40	3.23	1.18	0.55	1.84	1.62		
29	3.23	15.49	300.63	4.67	12.12	24.53	80.42	3.71	1.62	0.55		1.62		
30	2.99	8.84	152.71	4.67	6.28	209.70	36.08	3.47	1.84	0.55		1.84		
31		12.12		4.67	8.84		22.27		1.84	0.55		1.84		
Total	145.59	1185.99	1468.20	693.01	350.62	2857.49	4764.66	148.88	136.63	51.34	75.39	61.49	11939.29	Tonday
Mean	4.85	38.26	48.94	22.36	11.31	95.25	153.70	4.96	4.41	1.66	2.69	1.98	32.71	Ton/day
Max	27.95	289.99	300.63	121.44	44.98	987.75	1136.66	14.13	21.15	4.43	12.12	2.99	1136.66	Ton/day
Min	1.84	5.41	3.95	4.67	3.95	4.43	1.18	2.99	0.97	0.55	0.55	1.18	0.55	Ton/day

WATER YEAR : 2018

PING RIVER BASIN

Nam Mae Kuang at Ban Mae Wan , Chiang Mai (P.79)

Lat 18 - 57 - 45 N Long 99 - 14 - 31 E

Location : on left bank at the bridge on road.

Ban Mae Wan **Amphoe** Doi Saket **Changwat** Chiang Mai

Drainge Area	136 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2006-Cont'd
Actual Measurement	2006-Cont'd
Using Rating Curve Water Year	2018
Number of observation	26
R-Square	0.7030
Remarks	Continued Sediment Station

$$QS = 4.6040\ QW^{1.73600}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.68	0.94	10.41	5.26	9.52	21.81	21.81	7.85	4.77	3.83	3.83	2.60		
2	1.68	90.49	10.41	5.26	11.33	17.39	29.23	7.85	4.77	3.83	3.83	2.99		
3	1.68	9.52	6.32	5.26	9.52	15.34	73.70	7.07	4.77	3.83	3.83	2.60		
4	1.68	5.26	5.26	4.77	7.85	15.34	31.91	7.07	4.77	3.83	3.40	2.60		
5	1.68	3.83	4.77	3.83	7.07	15.34	19.55	6.32	4.29	3.83	3.40	2.60		
6	1.68	3.83	4.77	3.83	7.07	13.27	15.34	6.32	4.29	3.83	3.40	2.60		
7	1.48	3.40	4.77	3.83	6.32	13.27	15.34	6.32	4.29	3.40	3.40	2.24		
8	1.48	3.40	4.77	4.77	5.78	14.29	13.27	6.32	4.29	3.83	3.40	1.90		
9	1.48	2.99	4.77	5.26	5.78	15.34	11.33	6.32	4.77	11.33	2.99	1.90		
10	1.48	2.99	5.26	4.29	7.07	113.65	11.33	7.07	4.77	5.26	2.99	1.90		
11	1.48	3.40	6.32	3.83	6.32	37.55	11.33	17.39	4.77	4.77	2.99	1.90		
12	1.48	4.29	5.26	3.83	6.32	26.66	11.33	73.70	4.77	4.77	2.99	1.90		
13	1.48	5.26	5.78	4.29	6.32	24.18	11.33	15.34	5.26	4.77	2.99	1.90		
14	1.48	2.60	5.26	3.83	5.78	29.23	10.41	11.33	5.26	4.77	2.99	1.90		
15	1.48	2.99	4.29	3.83	5.78	34.68	10.41	9.52	5.26	4.29	2.99	1.90		
16	1.48	3.40	9.52	4.29	5.78	19.55	10.41	8.67	5.26	4.29	2.99	1.90		
17	1.48	1.90	5.78	3.83	9.52	15.34	9.52	9.52	5.26	4.29	2.99	1.90		
18	1.48	1.90	5.78	2.99	1458.84	15.34	8.67	7.07	5.26	4.29	2.99	1.90		
19	1.48	1.90	12.28	17.39	78.42	19.55	8.67	6.32	5.26	3.83	2.99	1.90		
20	1.68	1.90	11.33	11.33	37.55	24.18	7.85	6.32	5.26	3.83	2.99	1.90		
21	2.24	1.90	9.52	7.85	31.91	19.55	8.67	6.32	4.29	3.83	2.60	1.90		
22	1.90	2.24	6.32	8.67	29.23	17.39	9.52	6.32	4.29	3.83	2.60	1.90		
23	1.48	4.29	5.26	13.27	21.81	17.39	60.28	6.32	3.83	3.40	2.60	1.90		
24	1.48	15.34	4.77	34.68	17.39	15.34	97.96	6.32	3.83	3.40	2.60	1.90		
25	1.48	7.85	5.78	26.66	19.55	15.34	29.23	6.32	3.83	3.40	2.60	1.90		
26	1.48	5.26	7.07	21.81	15.34	15.34	26.66	5.78	3.83	3.40	2.60	1.90		
27	1.48	4.77	7.85	14.29	105.68	13.27	19.55	5.26	3.83	3.40	2.60	1.90		
28	1.68	19.55	8.67	12.28	56.06	12.28	10.41	5.26	3.83	3.83	2.60	1.68		
29	1.90	8.67	7.07	11.33	37.55	12.28	10.41	5.26	3.83	3.83		1.48		
30	1.68	7.85	6.32	9.52	29.23	11.33	9.52	5.26	3.83	3.83		1.11		
31		7.85		9.52	26.66		9.52		3.83	3.83		1.11		
Total	47.80	241.76	201.74	275.68	2088.35	650.81	634.47	292.11	140.45	130.68	85.17	61.61	4850.63	Tonday
Mean	1.59	7.80	6.72	8.89	67.37	21.69	20.47	9.74	4.53	4.22	3.04	1.99	13.29	Ton/day
Max	2.24	90.49	12.28	34.68	1458.84	113.65	97.96	73.70	5.26	11.33	3.83	2.99	1458.84	Ton/day
Min	1.48	0.94	4.29	2.99	5.78	11.33	7.85	5.26	3.83	3.40	2.60	1.11	0.94	Ton/day

WATER YEAR : 2018

PING RIVER BASIN

Nam Mae Lai at Ban Pong Din , Chiang Mai (P.80)

Lat 18 - 54 - 49 N Long 99 - 14 - 17 E

Location : on left bank at the bridge on road.

Ban Pong Din **Amphoe** Doi Saket **Changwat** Chiang Mai

Drainge Area	129 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2006-Cont'd
Actual Measurement	2006-Cont'd
Using Rating Curve Water Year	2018
Number of observation	30
R-Square	0.7750
Remarks	Continued Sediment Station

$$QS = 1.9580\ QW^{1.76700}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.17	0.48	3.91	8.53	9.33	9.33	11.92	7.76	5.64	1.72	0.79	0.48		
2	0.11	18.28	3.91	7.02	8.53	7.76	11.03	7.76	5.64	1.38	0.79	0.48		
3	0.17	7.76	3.91	6.31	8.53	7.02	18.28	7.76	5.64	1.38	0.79	0.48		
4	0.48	5.00	3.91	4.44	8.53	8.53	7.76	7.76	5.64	1.38	0.79	0.48		
5	0.58	2.51	3.91	2.51	7.76	8.53	6.31	7.76	5.64	1.38	0.58	0.48		
6	0.58	2.10	3.42	2.51	7.02	8.53	5.64	7.02	5.00	1.38	0.58	0.39		
7	0.58	1.72	2.51	2.51	8.53	7.76	5.64	6.31	5.00	1.38	0.58	0.31		
8	0.58	1.72	3.91	2.51	7.02	9.33	7.02	6.31	5.00	1.38	0.58	0.31		
9	0.58	1.38	3.91	3.42	6.31	9.33	8.53	6.31	5.00	8.53	0.58	0.31		
10	0.48	0.79	2.51	2.95	7.76	294.25	7.76	6.31	5.00	6.31	0.58	0.31		
11	0.39	1.07	5.64	2.51	7.02	26.20	7.76	6.31	5.00	2.95	0.58	0.31		
12	0.31	1.72	2.95	2.10	7.02	18.28	8.53	9.33	5.00	2.51	0.48	0.31		
13	0.31	0.79	2.51	1.72	5.64	9.33	7.76	11.92	5.00	2.51	0.48	0.31		
14	0.31	0.79	2.51	1.72	5.00	9.33	7.02	9.33	5.00	2.51	0.48	0.31		
15	0.31	0.79	2.51	1.72	5.00	11.03	7.02	8.53	5.00	2.51	0.48	0.31		
16	0.31	0.68	5.64	1.72	4.44	9.33	7.02	8.53	5.00	2.51	0.58	0.31		
17	0.31	0.58	2.51	1.72	4.44	8.53	5.64	7.76	5.00	2.51	0.58	0.31		
18	0.31	0.58	2.51	9.33	733.18	8.53	5.00	7.02	5.00	2.10	0.58	0.31		
19	0.31	0.48	5.64	22.88	77.19	9.33	5.00	7.02	5.00	1.38	0.58	0.23		
20	0.23	0.48	11.92	14.13	22.88	21.30	5.64	7.02	3.91	1.38	0.58	0.23		
21	0.17	0.48	9.33	8.53	14.13	14.13	7.76	6.31	1.38	1.38	0.48	0.23		
22	0.17	11.03	10.17	9.33	11.92	16.84	9.33	6.31	1.38	1.38	0.48	0.23		
23	0.17	14.13	7.76	11.92	10.17	18.28	57.92	6.31	1.38	1.38	0.48	0.23		
24	0.17	127.34	5.00	11.03	19.76	14.13	136.81	6.31	1.07	1.38	0.48	0.23		
25	0.17	12.85	8.53	18.28	14.13	7.76	24.51	6.31	1.07	1.38	0.48	0.23		
26	0.17	3.91	15.46	18.28	10.17	6.31	16.84	5.64	1.07	1.38	0.48	0.23		
27	0.17	3.42	31.76	16.84	10.17	6.31	15.46	5.64	0.79	1.07	0.48	0.23		
28	0.17	7.76	19.76	19.76	40.07	6.31	12.85	5.64	0.79	0.79	0.48	0.23		
29	0.11	8.53	19.76	19.76	19.76	6.31	8.53	5.64	0.79	0.79		0.23		
30	0.17	8.53	16.84	15.46	14.13	6.31	8.53	5.64	1.07	0.79		0.23		
31		7.02		8.53	10.17		8.53		2.10	0.79		0.23		
Total	9.05	254.70	224.52	259.98	1125.71	604.25	463.35	213.58	115.00	61.60	15.88	9.50	3357.12	Tonday
Mean	0.30	8.22	7.48	8.39	36.31	20.14	14.95	7.12	3.71	1.99	0.57	0.31	9.20	Ton/day
Max	0.58	127.34	31.76	22.88	733.18	294.25	136.81	11.92	5.64	8.53	0.79	0.48	733.18	Ton/day
Min	0.11	0.48	2.51	1.72	4.44	6.31	5.00	5.64	0.79	0.79	0.48	0.23	0.11	Ton/day

WATER YEAR : 2018

PING RIVER BASIN

Nam Mae Wang at Ban Sop Win , Chiang Mai (P.82)

Lat 18 - 39 - 06 N Long 98 - 41 - 23 E

Location : on left bank at Ban Sop Win.

Ban Sop Win **Amphoe** Mae Wang **Changwat** Chiang Mai

Drainge Area	389 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2006-Cont'd
Actual Measurement	2006-Cont'd
Using Rating Curve Water Year	2018
Number of observation	30
R-Square	0.7300
Remarks	Continued Sediment Station

$$QS = 1.2500\ QW^{1.91400}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	3.89	4.27	27.63	14.66	14.66	15.69	92.02	59.73	17.84	13.67	5.36	2.55		
2	4.27	8.61	87.42	12.72	13.67	13.67	134.89	44.17	17.84	12.72	5.36	2.55		
3	31.08	27.63	27.63	10.90	11.79	12.72	182.12	36.63	17.84	11.79	4.80	2.55		
4	8.61	10.90	15.69	10.90	10.90	17.84	222.82	34.73	17.84	10.90	4.80	2.55		
5	7.22	16.75	10.90	10.90	10.11	24.37	50.12	29.33	16.75	10.11	5.36	2.25		
6	6.57	8.61	34.73	10.90	13.67	16.75	34.73	27.63	15.69	9.34	4.80	1.98		
7	5.36	4.80	12.72	10.11	15.69	13.67	29.33	25.97	15.69	9.34	3.89	1.98		
8	5.36	3.89	8.61	10.11	17.84	13.67	24.37	24.37	15.69	12.72	3.89	1.98		
9	5.36	3.53	11.79	10.11	16.75	101.56	24.37	24.37	17.84	24.37	3.89	1.98		
10	5.36	9.34	16.75	10.90	31.08	277.42	27.63	27.63	17.84	15.69	3.53	1.98		
11	4.27	12.72	50.12	10.11	29.33	56.44	56.44	36.63	15.69	13.67	3.18	1.98		
12	4.27	8.61	56.44	10.11	20.12	27.63	74.29	59.73	15.69	11.79	3.53	1.98		
13	3.89	10.11	38.57	18.96	16.75	36.63	231.42	106.51	20.12	10.90	3.89	1.98		
14	2.86	8.61	47.10	18.96	14.66	47.10	47.10	44.17	20.12	10.11	3.89	1.98		
15	2.86	5.36	34.73	10.90	16.75	36.63	31.08	34.73	17.84	8.61	3.89	1.98		
16	2.86	3.89	21.30	10.90	25.97	25.97	27.63	31.08	16.75	8.61	4.27	1.98		
17	3.89	3.53	17.84	10.90	21.30	22.81	31.08	25.97	15.69	8.61	3.89	1.98		
18	3.89	15.69	29.33	22.81	92.02	24.37	24.37	25.97	15.69	8.61	3.18	1.98		
19	3.18	5.95	36.63	31.08	82.93	174.96	21.30	22.81	14.66	8.61	3.18	1.98		
20	3.18	5.36	29.33	44.17	63.11	287.61	20.12	21.30	11.79	7.90	3.18	1.98		
21	2.86	4.80	18.96	27.63	31.08	56.44	25.97	20.12	14.66	6.57	3.18	1.98		
22	2.86	6.57	15.69	21.30	22.81	34.73	197.93	20.12	14.66	6.57	2.86	1.72		
23	2.86	5.36	14.66	20.12	17.84	25.97	425.04	20.12	13.67	6.57	2.86	1.72		
24	3.18	10.90	15.69	22.81	16.75	20.12	645.58	20.12	10.90	6.57	2.86	1.72		
25	6.57	38.57	16.75	25.97	16.75	18.96	934.25	20.12	10.90	6.57	2.55	1.72		
26	3.89	11.79	17.84	24.37	17.84	29.33	182.12	21.30	10.90	6.57	2.55	1.72		
27	4.27	20.12	78.55	20.12	17.84	18.96	96.74	20.12	10.90	6.57	2.55	1.72		
28	7.90	15.69	63.11	20.12	22.81	24.37	66.58	18.96	10.90	6.57	2.55	1.72		
29	7.90	15.69	41.33	18.96	20.12	38.57	56.44	17.84	10.90	6.57		1.72		
30	6.57	27.63	20.12	15.69	15.69	29.33	82.93	17.84	12.72	6.57		1.72		
31		10.90		14.66	14.66		267.41		13.67	6.57		1.98		
Total	167.09	346.18	917.96	532.86	753.29	1544.29	4368.22	940.12	469.68	300.34	103.72	61.59	10505.34	Tonday
Mean	5.57	11.17	30.60	17.19	24.30	51.48	140.91	31.34	15.15	9.69	3.70	1.99	28.78	Ton/day
Max	31.08	38.57	87.42	44.17	92.02	287.61	934.25	106.51	20.12	24.37	5.36	2.55	934.25	Ton/day
Min	2.86	3.53	8.61	10.11	10.11	12.72	20.12	17.84	10.90	6.57	2.55	1.72	1.72	Ton/day

WATER YEAR : 2018

PING RIVER BASIN

Nam Mae Wang at Ban Phan Ton , Chiang Mai (P.84)

Lat 18 - 35 - 19 N Long 98 - 47 - 58 E

Location : on left bank at Ban Phan Ton.

Ban Phan Ton **Amphoe** Mae Wang **Changwat** Chiang Mai

Drainge Area	491 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2005-Cont'd
Actual Measurement	2005-Cont'd
Using Rating Curve Water Year	2018
Number of observation	31
R-Square	0.8090
Remarks	Continued Sediment Station

$$QS = 4.4950\ QW^{1.21800}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.12	1.93	10.84	1.79	2.71	2.71	63.20	28.53	3.95	2.12	1.79	0.87		
2	2.91	3.32	44.76	1.79	2.32	2.12	56.93	15.41	3.74	2.12	1.79	0.87		
3	15.41	21.39	9.32	1.79	2.12	1.79	114.31	12.40	3.74	2.12	1.79	0.87		
4	3.32	10.33	5.61	1.79	1.93	1.79	112.84	11.87	3.74	1.93	1.79	0.87		
5	3.11	3.74	5.61	2.12	1.79	2.12	107.02	11.87	3.53	1.79	1.79	0.87		
6	2.91	2.32	12.40	2.12	1.79	4.28	12.99	11.87	3.32	1.79	1.79	0.87		
7	2.71	2.12	2.91	2.32	1.79	2.71	9.82	11.87	3.32	1.79	1.79	0.87		
8	2.71	2.12	2.71	2.32	1.79	2.51	9.32	11.35	3.11	2.71	1.00	1.00		
9	2.71	1.93	2.91	2.12	2.32	4.94	10.33	11.87	2.71	13.59	0.87	1.52		
10	1.93	2.12	3.74	2.12	6.30	22.12	14.19	18.54	2.32	7.37	0.87	1.52		
11	1.93	2.51	19.24	2.12	3.74	25.07	37.92	21.39	2.32	5.27	0.87	1.25		
12	2.12	3.53	20.67	2.12	2.51	13.59	45.76	30.37	3.32	3.95	0.87	0.87		
13	2.12	7.85	22.85	2.32	1.93	22.85	76.98	69.94	3.95	4.60	0.87	0.75		
14	2.12	2.91	21.39	18.54	2.32	29.45	28.53	29.45	5.96	4.60	0.87	0.87		
15	2.12	2.71	13.59	7.37	3.32	15.41	19.24	19.24	4.60	4.60	0.87	0.87		
16	2.12	2.51	5.61	2.32	11.87	8.83	15.41	15.41	2.71	4.28	0.87	0.87		
17	2.32	2.32	5.61	1.93	3.53	7.85	34.11	14.19	2.51	4.28	0.87	0.87		
18	2.32	2.32	10.33	2.71	22.85	6.65	16.03	11.87	2.32	3.74	0.87	0.87		
19	2.12	2.71	17.90	3.32	43.78	11.87	14.80	9.82	2.32	1.93	0.87	0.87		
20	2.12	2.32	17.90	15.41	49.77	114.31	13.59	9.32	2.12	1.79	1.00	0.87		
21	2.12	2.32	14.80	5.61	12.40	31.30	16.65	9.32	2.51	1.79	0.87	0.75		
22	2.12	2.71	3.11	2.32	3.95	17.27	74.62	7.85	3.74	1.79	0.87	0.63		
23	2.12	2.51	2.71	2.12	3.53	12.99	175.26	5.61	3.11	1.79	0.87	0.63		
24	2.12	5.27	2.71	1.93	3.32	5.27	327.07	5.27	2.91	1.79	0.87	0.63		
25	1.93	5.27	2.71	3.11	2.71	4.28	349.61	5.27	2.71	1.79	0.87	0.63		
26	1.79	5.27	2.91	4.60	2.91	8.83	94.13	5.27	2.71	1.79	0.87	0.63		
27	1.79	5.61	7.01	2.12	2.71	4.94	49.77	5.27	2.71	1.79	0.87	0.63		
28	1.79	6.30	32.23	2.12	4.94	6.30	31.30	5.27	2.51	1.79	0.87	0.63		
29	1.79	3.53	22.12	2.71	4.60	13.59	30.37	4.60	2.32	1.79		0.63		
30	1.79	7.85	3.74	2.91	2.91	10.33	12.99	4.60	1.93	1.79		0.63		
31		3.74		2.91	2.71		22.85		2.12	1.79		0.75		
Total	80.61	133.39	349.95	110.90	217.17	418.07	1997.94	434.91	94.89	96.06	31.06	26.26	3991.21	Tonday
Mean	2.69	4.30	11.67	3.58	7.01	13.94	64.45	14.50	3.06	3.10	1.11	0.85	10.93	Ton/day
Max	15.41	21.39	44.76	18.54	49.77	114.31	349.61	69.94	5.96	13.59	1.79	1.52	349.61	Ton/day
Min	1.79	1.93	2.71	1.79	1.79	1.79	9.32	4.60	1.93	1.79	0.87	0.63	0.63	Ton/day

WATER YEAR : 2018

PING RIVER BASIN

Nam Mae Taeng at Ban Mueang Kud, Chiang Mai (P.92)

Lat 19 - 13 - 15 N Long 98 - 50 - 51 E

Location : on left bank at Ban Mueang Kud.

Ban Mueang Kud **Amphoe** Mae Taeng **Changwat** Chiang Mai

Drainge Area	1,653 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2011-Cont'd
Actual Measurement	2011-Cont'd
Using Rating Curve Water Year	2018
Number of observation	30
R-Square	0.7610
Remarks	Continued Sediment Station

$$QS = 0.6500\ QW^{1.89600}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	11.26	19.42	245.72	234.44	408.12	376.62	1310.44	269.03	91.01	60.45	23.27	12.72		
2	11.26	56.52	234.44	102.81	376.62	318.62	15849.14	257.25	91.01	52.72	23.27	12.72		
3	10.01	115.29	234.44	79.89	305.85	318.62	6988.22	234.44	74.59	52.72	23.27	10.01		
4	10.01	74.59	245.72	64.50	281.05	548.64	3302.85	234.44	74.59	49.05	21.30	4.83		
5	10.01	64.50	129.79	74.59	245.72	880.72	2037.51	212.64	64.50	49.05	21.30	4.01		
6	11.26	56.52	146.53	60.45	269.03	628.60	1590.01	192.57	56.52	52.72	19.42	4.01		
7	10.01	42.07	102.81	56.52	245.72	408.12	1124.48	192.57	60.45	52.72	17.62	4.01		
8	11.26	38.77	96.82	56.52	223.42	376.62	880.72	182.89	45.50	52.72	17.62	4.01		
9	11.26	19.42	121.78	64.50	155.27	392.22	1212.53	192.57	45.50	257.25	15.90	4.01		
10	10.01	21.30	164.24	64.50	146.53	510.60	1990.19	182.89	32.56	96.82	17.62	4.01		
11	8.83	91.01	182.89	60.45	245.72	492.06	1039.57	281.05	45.50	42.07	17.62	4.01		
12	7.73	91.01	269.03	56.52	212.64	305.85	1011.97	346.33	79.89	42.07	15.90	4.01		
13	6.69	91.01	257.25	64.50	192.57	361.33	1039.57	305.85	155.27	42.07	14.27	4.01		
14	4.01	91.01	245.72	85.36	192.57	510.60	957.81	346.33	173.45	45.50	14.27	4.01		
15	4.01	79.89	234.44	91.01	192.57	346.33	855.95	305.85	115.29	42.07	14.27	4.01		
16	4.83	64.50	234.44	74.59	155.27	281.05	492.06	305.85	108.96	42.07	14.27	4.01		
17	15.90	52.72	202.49	49.05	164.24	293.33	457.59	245.72	79.89	42.07	14.27	4.01		
18	79.89	45.50	91.01	281.05	16915.86	510.60	361.33	182.89	74.59	38.77	14.27	3.26		
19	49.05	45.50	102.81	269.03	4799.77	670.50	331.63	155.27	64.50	38.77	14.27	1.98		
20	25.31	45.50	155.27	548.64	2991.72	1182.83	318.62	164.24	69.46	38.77	14.27	1.98		
21	15.90	29.65	138.04	529.46	1517.01	548.64	361.33	146.53	64.50	38.77	12.72	1.62		
22	15.90	38.77	173.45	424.31	1212.53	392.22	691.93	138.04	60.45	38.77	12.72	1.62		
23	8.83	102.81	138.04	510.60	628.60	346.33	737.11	129.79	60.45	32.56	12.72	1.98		
24	6.69	115.29	74.59	331.63	760.21	305.85	1446.57	121.78	60.45	32.56	12.72	1.98		
25	7.73	79.89	60.45	424.31	831.51	318.62	1212.53	115.29	56.52	32.56	12.72	1.98		
26	10.01	79.89	69.46	760.21	568.15	424.31	984.71	129.79	56.52	29.65	12.72	1.98		
27	35.60	269.03	376.62	670.50	587.98	293.33	649.39	121.78	56.52	29.65	12.72	1.98		
28	35.60	234.44	1153.48	408.12	737.11	331.63	529.46	115.29	52.72	25.31	12.72	1.98		
29	32.56	182.89	760.21	424.31	529.46	361.33	424.31	115.29	52.72	23.27		3.26		
30	23.27	212.64	568.15	457.59	440.80	905.83	492.06	102.81	56.52	23.27		3.26		
31		146.53		392.22	408.12		492.06		69.46	21.30		4.01		
Total	504.69	2697.88	7210.13	7772.18	36941.74	13941.95	51173.65	6027.06	2249.86	1518.12	450.03	125.28	130612.57	Tonday
Mean	16.82	87.03	240.34	250.72	1191.67	464.73	1650.76	200.90	72.58	48.97	16.07	4.04	357.84	Ton/day
Max	79.89	269.03	1153.48	760.21	16915.86	1182.83	15849.14	346.33	173.45	257.25	23.27	12.72	16915.86	Ton/day
Min	4.01	19.42	60.45	49.05	146.53	281.05	318.62	102.81	32.56	21.30	12.72	1.62	1.62	Ton/day

WATER YEAR : 2018

PING RIVER BASIN

Nam Mae Taeng at Ban Mueang Kud, Chiang Mai (P.92A)

Lat 19 - 13 - 15 N Long 98 - 50 - 51 E

Location : on left bank at Ban Mueang Kud.

Ban Mueang Kud **Amphoe** Mae Taeng **Changwat** Chiang Mai

Drainge Area	1,723 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2017-Cont'd
Actual Measurement	2017-Cont'd
Using Rating Curve Water Year	2013-2018
Number of observation	146
R-Square	0.7320
Remarks	Continued Sediment Station

$$QS = 0.5720\ QW^{1.97800}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	9.68	16.07	113.39	99.89	249.43	430.10	1212.79	457.43	162.82	77.34	38.88	20.06	
2	9.68	19.02	176.79	64.13	240.37	359.93	14152.64	430.10	162.82	77.34	38.88	20.06	
3	15.14	118.08	104.30	50.57	142.92	307.22	10070.49	405.06	162.82	77.34	38.88	19.02	
4	12.52	58.31	108.80	48.11	108.80	638.86	5112.80	382.16	137.77	77.34	36.72	16.07	
5	11.01	28.39	67.32	64.13	108.80	1319.87	3747.89	327.81	127.74	77.34	38.88	16.07	
6	11.01	26.85	70.58	36.72	137.77	575.06	1518.32	338.35	127.74	77.34	38.88	16.07	
7	11.01	20.06	64.13	38.88	206.44	382.16	996.16	338.35	118.08	77.34	38.88	14.24	
8	10.34	17.03	73.93	31.60	191.33	349.06	996.16	382.16	118.08	77.34	36.72	14.24	
9	8.44	22.49	176.79	38.88	113.39	382.16	907.60	317.43	122.86	393.53	36.72	14.24	
10	8.44	22.49	70.58	31.60	183.99	544.41	2737.67	370.96	137.77	149.41	36.72	14.24	
11	8.44	31.60	77.34	26.85	277.58	606.55	1292.94	349.06	137.77	118.08	34.97	12.52	
12	7.29	88.06	156.04	22.49	176.79	349.06	1607.16	471.41	137.77	118.08	28.39	11.70	
13	7.29	137.77	191.33	43.37	127.74	327.81	1488.89	416.75	162.82	113.39	25.36	11.70	
14	7.29	137.77	91.78	118.08	118.08	638.86	864.85	382.16	277.58	99.89	25.36	11.01	
15	7.29	99.89	64.13	70.58	99.89	416.75	672.00	338.35	176.79	88.06	25.36	10.34	
16	7.85	33.26	45.71	38.88	108.80	64.13	575.06	317.43	176.79	77.34	22.49	8.44	
17	12.52	28.39	34.97	43.37	8357.86	277.58	529.39	258.65	149.41	77.34	22.49	8.44	
18	48.11	20.06	29.97	162.82	4178.08	529.39	443.66	258.65	137.77	67.32	22.49	8.44	
19	43.37	12.52	58.31	206.44	20493.72	1160.93	430.10	258.65	118.08	43.37	22.49	8.44	
20	33.26	28.39	95.58	132.70	10889.65	1667.97	416.75	240.37	118.08	41.09	22.49	8.44	
21	28.39	28.39	84.41	471.41	4723.81	655.33	443.66	240.37	118.08	34.97	20.06	8.44	
22	28.39	19.02	99.89	307.22	951.37	457.43	1041.96	231.49	108.80	31.60	20.06	8.44	
23	25.36	58.31	64.13	393.53	672.00	405.06	1488.89	206.44	108.80	28.39	20.06	7.29	
24	8.44	38.88	34.97	287.30	782.42	359.93	4123.04	191.33	99.89	28.39	20.06	6.21	
25	7.85	77.34	28.39	277.58	843.86	672.00	1577.46	176.79	84.41	28.39	20.06	6.21	
26	8.44	61.02	38.88	622.60	529.39	430.10	1186.97	176.79	77.34	23.90	20.06	6.21	
27	9.68	198.81	317.43	349.06	529.39	327.81	843.86	176.79	77.34	25.36	20.06	6.21	
28	9.05	162.82	1319.87	382.16	907.60	297.18	688.88	162.82	77.34	28.39	20.06	6.21	
29	11.01	108.80	575.06	416.75	485.59	370.96	606.55	162.82	80.84	25.36		5.29	
30	18.01	137.77	258.65	287.30	370.96	802.64	514.58	162.82	84.41	23.90		5.29	
31		91.78		240.37	317.43		485.59		84.41	20.06		5.29	
Total	444.60	1949.44	4693.45	5405.37	57625.25	16106.30	62774.76	8929.75	3973.02	2304.33	792.53	334.87	165333.67 Tonday
Mean	14.82	62.89	156.45	174.37	1858.88	536.88	2024.99	297.66	128.16	74.33	28.30	10.80	452.97 Ton/day
Max	48.11	198.81	1319.87	622.60	20493.72	1667.97	14152.64	471.41	277.58	393.53	38.88	20.06	20493.72 Ton/day
Min	7.29	12.52	28.39	22.49	99.89	64.13	416.75	162.82	77.34	20.06	20.06	5.29	5.29 Ton/day

WATER YEAR : 2018

WANG RIVER BASIN

Wang River at Setuwaree Bridge , Lampang (W.1C)

Lat 18 - 17 - 51 N Long 99 - 30 - 56 E

Location : on left bank at the bridge.

Ban Setuwaree Bridge **Amphoe** Mueang **Changwat** Lampang

Drainge Area	3,478 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1996-Cont'd
Actual Measurement	1996-Cont'd
Using Rating Curve Water Year	2007-2018
Number of observation	372
R-Square	0.7990
Remarks	Continued Sediment Station

$$QS = 1.0730\ QW^{1.53300}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	2.12	30.62	0.16	37.51	446.28	54.09	33.73	163.19	16.01	306.24	11.51	1.46	
2	3.35	4.92	0.21	33.73	233.82	45.48	28.38	32.22	16.01	480.19	21.66	7.26	
3	111.52	4.64	0.21	30.09	141.63	43.44	400.67	23.07	14.64	285.81	18.03	2.55	
4	35.94	129.51	247.43	35.60	65.74	49.66	290.76	18.03	14.64	266.33	12.27	1.80	
5	15.47	402.22	242.87	138.14	35.60	54.09	73.10	15.47	35.60	211.75	16.30	10.15	
6	8.37	1000.10	186.77	128.04	35.60	75.68	41.43	32.22	23.46	138.14	23.07	4.11	
7	86.33	175.23	100.31	86.33	35.60	30.09	31.90	13.04	21.89	199.07	15.47	2.46	
8	20.27	1.88	276.01	86.33	25.06	17.42	28.38	2.29	18.87	317.35	9.54	9.54	
9	6.20	0.37	238.33	86.33	23.46	26.70	21.89	1.62	21.89	351.49	3.35	4.92	
10	3.85	0.30	211.75	174.74	100.31	26.70	25.06	10.76	18.87	271.15	0.49	1.62	
11	3.35	0.47	124.84	128.04	89.07	18.87	47.55	6.72	11.69	199.07	0.81	0.59	
12	2.87	0.62	56.36	94.63	43.44	23.46	60.99	5.69	5.20	473.34	23.07	2.38	
13	5.20	0.94	103.28	47.55	35.60	86.33	58.66	4.37	13.63	494.13	24.52	6.72	
14	8.95	0.37	56.36	37.51	31.90	60.99	56.36	9.54	14.64	567.04	8.37	3.11	
15	6.20	0.39	21.89	49.66	37.51	89.07	49.66	20.27	155.88	732.20	4.92	1.14	
16	4.64	16.30	17.42	51.86	60.99	63.35	49.66	10.76	145.15	306.24	1.62	1.57	
17	13.83	13.04	16.01	45.48	60.99	30.09	51.86	7.26	41.43	271.15	0.85	2.87	
18	42.49	16.30	31.90	155.88	134.69	23.46	49.66	3.11	9.86	295.73	1.62	2.87	
19	7.81	7.81	33.73	247.43	276.01	39.45	49.66	2.64	7.32	247.43	7.81	2.46	
20	1.04	3.11	23.46	141.63	508.34	51.86	45.48	14.64	4.64	141.63	3.11	0.68	
21	0.94	1.09	203.23	91.84	426.36	51.86	33.73	26.00	5.20	131.26	1.96	1.57	
22	0.85	94.48	664.01	100.31	407.01	63.35	78.30	33.84	4.11	300.73	8.95	7.81	
23	0.76	29.05	567.04	266.33	551.83	86.33	63.35	38.08	4.11	261.53	4.37	16.30	
24	0.59	7.26	41.43	166.88	280.89	60.99	51.86	24.52	5.20	141.63	1.88	4.92	
25	0.25	3.85	10.76	118.54	238.33	54.09	58.66	16.30	242.87	4.37	2.55	1.68	
26	1.68	4.64	11.69	152.28	300.73	31.90	31.90	10.15	194.94	15.47	13.04	0.62	
27	2.87	2.12	12.65	118.54	375.68	28.38	49.66	271.15	163.19	6.72	4.64	1.62	
28	0.52	1.80	17.42	339.98	345.72	28.38	211.75	242.87	45.48	3.35	1.88	0.99	
29	0.28	3.11	65.74	954.39	233.82	37.51	271.15	106.27	220.49	18.03		3.35	
30	0.65	2.46	70.62	923.18	203.23	45.48	207.42	25.06	216.10	14.64		12.27	
31		0.44		689.08	103.28		203.23		174.74	8.95		12.27	
Total	399.19	1959.44	3653.89	5757.86	5888.52	1398.55	2755.85	1191.15	1887.75	7462.16	247.66	133.66	32735.68 Tonday
Mean	13.31	63.21	121.80	185.74	189.95	46.62	88.90	39.70	60.90	240.71	8.85	4.31	89.69 Ton/day
Max	111.52	1000.10	664.01	954.39	551.83	89.07	400.67	271.15	242.87	732.20	24.52	16.30	1000.10 Ton/day
Min	0.25	0.30	0.16	30.09	23.46	17.42	21.89	1.62	4.11	3.35	0.49	0.59	0.16 Ton/day

WATER YEAR : 2018

WANG RIVER BASIN

Wang River at Ban Don Chai , Lampang (W.3A)

Lat 17 - 38 - 28 N Long 99 - 14 - 01 E

Location : on right bank about 30 meters upstream from Siriyong Bridge.

Ban Don Chai **Amphoe** Thoen **Changwat** Lampang

Drainge Area	8,924 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1997-Cont'd
Actual Measurement	1997-Cont'd
Using Rating Curve Water Year	2018
Number of observation	36
R-Square	0.8870
Remarks	Continued Sediment Station

$$QS = 0.2510\ QW^{1.72500}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	21.51	75.06	686.19	398.32	1506.59	466.96	72.28	382.54	36.45	9.66	7.03	7.03		
2	24.99	52.86	439.63	237.93	866.79	344.55	92.88	275.69	34.92	27.69	8.30	5.97		
3	46.98	45.08	208.41	186.16	709.25	282.21	608.06	202.75	29.08	237.93	7.03	5.47		
4	141.56	69.54	132.63	150.75	554.69	225.87	3223.61	175.43	26.33	128.25	5.97	3.26		
5	197.15	422.49	86.63	119.68	359.38	231.86	2891.83	208.41	24.99	34.92	11.87	4.09		
6	92.88	792.43	52.86	150.75	282.21	175.43	1082.96	160.17	24.99	31.94	13.44	4.53		
7	39.59	892.19	54.89	231.86	262.85	208.41	504.46	137.06	27.69	26.33	8.97	3.26		
8	112.71	854.20	59.04	150.75	288.88	150.75	309.27	109.30	22.65	30.50	7.65	2.87		
9	231.86	359.38	45.08	132.63	269.24	105.92	231.86	96.07	23.81	31.94	5.97	2.87		
10	96.07	86.63	30.50	119.68	295.61	92.88	186.16	61.59	22.65	99.31	5.47	2.51		
11	46.98	89.73	29.08	288.88	485.56	96.07	164.97	48.91	22.65	80.76	7.65	1.67		
12	43.22	208.41	29.08	302.41	575.79	123.93	191.62	89.73	21.51	50.87	8.97	1.67		
13	41.39	344.55	46.98	256.52	457.77	109.30	295.61	92.88	14.26	146.12	5.97	1.67		
14	54.89	231.86	80.76	225.87	351.80	186.16	256.52	146.12	11.87	309.27	4.99	1.87		
15	45.08	170.17	96.07	269.24	275.69	214.14	214.14	105.92	15.22	309.27	12.64	0.98		
16	29.08	89.73	77.89	244.06	244.06	202.75	180.76	66.85	41.39	295.61	8.97	0.53		
17	33.42	54.89	59.04	191.62	302.41	197.15	137.06	61.59	92.88	146.12	11.11	0.98		
18	45.08	34.92	52.86	275.69	351.80	99.31	132.63	61.59	72.28	46.98	13.44	3.66		
19	155.43	33.42	66.85	970.25	697.68	75.06	123.93	64.20	22.65	34.92	11.11	4.53		
20	175.43	39.59	105.92	2440.33	1342.87	262.85	102.59	61.59	13.44	30.50	7.65	6.49		
21	186.16	33.42	237.93	1731.14	1506.59	597.22	102.59	45.08	9.66	29.08	4.09	7.03		
22	164.97	197.15	275.69	930.88	1112.31	422.49	160.17	77.89	7.65	24.99	3.66	6.49		
23	128.25	164.97	608.06	697.68	854.20	256.52	1263.99	105.92	7.65	19.31	3.26	5.47		
24	116.18	214.14	709.25	1342.87	905.01	225.87	2891.83	128.25	6.49	22.65	3.26	4.99		
25	102.59	123.93	214.14	996.88	697.68	170.17	3994.89	146.12	5.97	22.65	5.97	5.47		
26	75.06	96.07	61.59	697.68	709.25	119.68	1987.45	146.12	4.99	23.81	7.65	5.97		
27	109.30	54.89	54.89	697.68	957.05	83.67	970.25	128.25	5.97	14.26	7.03	4.53		
28	302.41	39.59	75.06	533.93	1263.99	54.89	597.22	89.73	4.99	12.64	5.47	4.99		
29	219.93	38.01	175.43	641.06	1423.74	48.91	523.67	52.86	12.64	10.38		2.87		
30	102.59	504.46	575.79	1358.88	1053.93	64.20	544.27	39.59	6.49	7.65		2.87		
31		544.27		2006.33	744.42		430.68		4.99	4.99		2.29		
Total	3182.74	6958.03	5428.22	18978.39	21709.09	5895.18	24470.21	3568.20	679.20	2301.30	214.59	118.88	93504.03	Tonday
Mean	106.09	224.45	180.94	612.21	700.29	196.51	789.36	118.94	21.91	74.24	7.66	3.83	256.18	Ton/day
Max	302.41	892.19	709.25	2440.33	1506.59	597.22	3994.89	382.54	92.88	309.27	13.44	7.03	3994.89	Ton/day
Min	21.51	33.42	29.08	119.68	244.06	48.91	72.28	39.59	4.99	4.99	3.26	0.53	0.53	Ton/day

WATER YEAR : 2018

WANG RIVER BASIN

Wang River at Ban Wang Man , Tak (W.4A)

Lat 17 - 12 - 19 N Long 99 - 06 - 05 E

Location : on left bank about 200 meters upstream from the bridge on highway.

Ban Wang Man **Amphoe** Sam Ngao **Changwat** Tak

Drainge Area	10,439 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1989-Cont'd
Actual Measurement	1989-Cont'd
Using Rating Curve Water Year	2018
Number of observation	16
R-Square	0.8824
Remarks	Continued Sediment Station

$$QS = 0.1452\ QW^{1.92030}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.20	109.44	784.39	355.17	2156.43	793.85	75.71	518.31	57.35	6.09	5.44	2.72		
2	2.95	78.53	784.39	348.74	1759.54	510.60	102.86	429.51	54.93	5.76	4.25	2.08		
3	14.01	52.56	450.96	179.68	980.97	361.64	112.80	311.39	47.97	9.25	3.70	2.95		
4	18.69	41.45	242.79	141.81	719.71	281.81	565.69	226.92	43.57	93.37	3.44	2.72		
5	59.83	59.83	153.98	123.17	590.13	237.44	3327.57	202.51	39.38	106.13	3.19	2.28		
6	119.67	264.75	90.30	96.49	388.12	221.74	3763.71	212.02	33.48	47.97	3.19	1.44		
7	72.94	573.78	70.22	106.13	281.81	188.67	1552.37	179.68	28.04	35.40	5.76	1.05		
8	45.74	756.35	62.35	153.98	253.65	193.20	640.48	158.09	31.62	26.33	6.09	0.98		
9	52.56	756.35	64.92	119.67	242.79	166.55	381.42	137.90	28.04	24.02	5.13	0.98		
10	162.34	394.88	45.74	106.13	232.15	119.67	270.38	119.67	26.33	24.02	4.25	0.91		
11	81.40	126.73	41.45	99.65	242.79	106.13	232.15	96.49	24.02	64.92	3.44	0.84		
12	47.97	112.80	39.38	162.34	348.74	106.13	212.02	84.32	24.02	72.94	2.95	0.78		
13	35.40	162.34	41.45	202.51	480.34	119.67	216.90	119.67	21.81	57.35	2.95	0.78		
14	33.48	253.65	52.56	175.23	401.69	119.67	281.81	123.17	20.75	90.30	5.13	0.72		
15	31.62	212.02	70.22	170.90	293.47	162.34	253.65	137.90	18.69	193.20	3.19	0.55		
16	29.80	162.34	84.32	184.11	232.15	188.67	216.90	133.98	17.71	221.74	3.19	0.60		
17	28.04	93.37	84.32	170.90	207.28	193.20	175.23	102.86	19.71	226.92	8.55	0.51		
18	26.33	64.92	72.94	166.55	232.15	175.23	149.84	93.37	62.35	149.84	5.76	0.31		
19	37.37	43.57	64.92	237.44	276.07	123.17	133.98	90.30	67.54	72.94	8.55	0.11		
20	102.86	35.40	67.54	747.11	533.88	123.17	130.33	90.30	35.40	47.97	10.73	0.04		
21	119.67	39.38	90.30	2247.82	1157.86	253.65	123.17	84.32	22.90	39.38	7.50	0.51		
22	133.98	57.35	149.84	2084.63	1583.43	502.95	130.33	70.22	17.71	33.48	2.95	0.78		
23	126.73	116.21	197.87	1072.63	1233.39	408.57	226.92	90.30	14.01	29.80	1.70	1.52		
24	112.80	137.90	415.49	765.64	916.18	259.17	1259.08	112.80	11.51	25.16	1.52	1.44		
25	99.65	170.90	541.75	1259.08	905.68	216.90	4126.16	123.17	9.98	22.90	1.52	1.20		
26	90.30	99.65	242.79	1096.66	728.79	166.55	5714.79	137.90	6.43	21.81	1.44	0.66		
27	72.94	84.32	90.30	747.11	719.71	126.73	3530.95	137.90	6.09	21.81	1.36	0.60		
28	70.22	64.92	67.54	666.40	1003.03	106.13	1614.79	126.73	5.76	17.71	2.28	1.12		
29	202.51	50.24	70.22	541.75	1286.11	87.29	843.37	106.13	5.76	14.01		0.47		
30	184.11	145.84	130.33	615.06	1521.60	78.53	666.40	72.94	5.76	9.98		0.34		
31		631.95		1314.50	1182.78		657.71		6.78	7.13		0.22		
Total	2217.11	5953.72	5365.57	16458.99	23092.42	6699.02	31689.47	4630.77	815.40	1819.63	119.15	32.21	98893.46	Tonday
Mean	73.90	192.06	178.85	530.94	744.92	223.30	1022.24	154.36	26.30	58.70	4.26	1.04	270.94	Ton/day
Max	202.51	756.35	784.39	2247.82	2156.43	793.85	5714.79	518.31	67.54	226.92	10.73	2.95	5714.79	Ton/day
Min	1.20	35.40	39.38	96.49	207.28	78.53	75.71	70.22	5.76	5.76	1.36	0.04	0.04	Ton/day

WATER YEAR : 2018

WANG RIVER BASIN

Wang River at Ban Hai , Lampang (W.16A)

Lat 18 - 46 - 45 N Long 99 - 37 - 52 E

Location : on left bank at Ban Hai

Ban Hai **Amphoe** Chae Hom **Changwat** Lampang

Drainge Area	1,392 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2000-Cont'd
Actual Measurement	2000-Cont'd
Using Rating Curve Water Year	2018
Number of observation	34
R-Square	0.7320
Remarks	Continued Sediment Station

$$QS = 1.3720\ QW^{1.20000}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.08	4.78	4.40	17.89	0.32	5.96	1.05	13.45	0.60	83.87	1.88	1.37		
2	0.57	2.93	5.17	9.72	0.48	5.56	4.40	13.45	2.93	82.70	1.88	1.37		
3	0.64	3.65	4.02	0.27	0.89	5.56	12.02	8.43	3.28	82.70	1.88	1.37		
4	0.54	3.65	2.23	0.27	0.74	5.56	19.93	3.28	3.28	82.70	1.88	1.37		
5	18.91	2.58	3.65	0.27	0.54	5.56	58.65	2.93	3.28	82.70	1.88	1.71		
6	38.59	2.93	2.58	0.27	0.54	5.96	57.63	3.28	3.28	81.52	1.88	1.88		
7	13.45	1.71	1.88	5.56	0.38	6.36	57.63	3.65	4.02	79.19	1.88	13.45		
8	13.45	0.38	3.28	0.60	0.38	6.77	49.36	3.28	3.28	81.52	1.88	113.50		
9	15.40	1.71	3.65	0.32	2.05	7.18	24.89	4.40	3.28	81.52	2.05	121.69		
10	17.39	1.37	3.65	0.22	17.89	10.61	25.45	2.58	3.28	78.02	2.05	121.69		
11	16.89	0.22	0.74	0.22	18.91	10.61	27.31	5.56	2.58	63.76	6.36	70.18		
12	16.89	0.22	0.43	0.22	18.91	9.72	24.89	6.36	2.23	63.76	0.74	74.65		
13	16.89	0.09	3.65	11.54	18.91	10.15	24.89	2.23	2.23	63.76	2.23	120.30		
14	16.89	0.09	3.65	12.97	18.91	8.43	24.33	1.54	1.71	63.76	2.23	85.05		
15	16.89	0.08	1.71	0.74	18.40	7.18	23.77	1.37	1.05	53.88	2.23	1.37		
16	17.39	0.07	1.05	0.43	18.40	6.77	22.11	1.37	1.05	35.51	2.23	1.21		
17	17.39	0.06	16.89	0.38	21.56	6.36	24.33	1.21	1.05	3.65	2.23	1.05		
18	17.89	0.22	14.91	2.23	36.28	6.36	23.77	1.05	0.89	4.40	2.58	1.05		
19	19.42	0.54	16.89	3.65	21.56	9.72	17.89	1.05	0.89	0.22	2.93	1.05		
20	19.42	0.48	17.39	17.89	17.89	19.93	14.42	11.54	0.89	0.09	2.93	1.05		
21	19.42	0.43	14.91	1.37	25.45	43.44	14.42	29.19	0.89	0.18	2.93	1.05		
22	19.93	0.54	16.89	0.60	71.29	56.62	14.91	33.99	0.89	0.08	11.08	1.05		
23	16.89	1.05	17.39	0.48	102.15	57.63	13.93	31.09	0.89	0.08	2.58	1.05		
24	16.89	1.05	17.39	1.05	98.41	57.63	13.93	18.40	0.74	1.05	1.21	1.05		
25	17.89	1.21	17.39	0.54	94.70	40.18	12.02	14.42	0.89	5.56	1.54	1.05		
26	18.40	1.37	17.39	0.43	95.94	22.66	12.02	9.72	0.89	2.05	1.54	8.01		
27	18.91	1.21	17.89	11.54	37.05	1.37	12.02	1.88	0.89	2.23	1.37	14.91		
28	17.39	1.37	9.72	0.60	12.49	0.89	12.02	0.43	10.15	2.05	1.37	15.40		
29	17.89	1.37	14.91	0.48	7.59	1.05	11.54	0.38	37.82	1.88		15.40		
30	17.89	2.58	17.39	0.38	6.36	1.21	11.54	0.54	83.87	1.88		15.40		
31		3.65		0.38	5.96		12.97		98.41	1.88		15.40		
Total	477.48	43.59	273.09	103.51	791.33	442.99	680.04	232.05	281.41	1188.15	69.45	826.13	5409.22	Tonday
Mean	15.92	1.41	9.10	3.34	25.53	14.77	21.94	7.73	9.08	38.33	2.48	26.65	14.82	Ton/day
Max	38.59	4.78	17.89	17.89	102.15	57.63	58.65	33.99	98.41	83.87	11.08	121.69	121.69	Ton/day
Min	0.54	0.06	0.43	0.22	0.32	0.89	1.05	0.38	0.60	0.08	0.74	1.05	0.06	Ton/day

WATER YEAR : 2018

WANG RIVER BASIN

Nam Mae Soi at Ban Nong Nao , Lampang (W.17)

Lat 18 - 43 - 13 N Long 99 - 34 - 04 E

Location : on right at the bridge of Lampang - Wang Nua Road.

Ban Nong Nao **Amphoe** Chae Hom **Changwat** Lampang

Drainge Area	726 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1996-Cont'd
Actual Measurement	1996-Cont'd
Using Rating Curve Water Year	2018
Number of observation	35
R-Square	0.8120
Remarks	Continued Sediment Station

$$QS = 1.07700\ QW^{1.83300}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	2.70	17.24	28.48	19.24	45.41	38.03	70.52	90.84	13.92	11.73	3.70	2.67	
2	3.29	141.60	23.54	18.23	99.61	28.48	295.20	49.83	13.36	11.21	3.70	2.67	
3	6.92	357.39	17.24	15.68	45.41	27.01	861.09	43.27	12.81	11.21	3.43	2.67	
4	4.88	66.74	12.81	15.68	29.99	36.35	467.98	41.49	10.70	10.70	3.43	2.43	
5	3.56	39.74	12.26	13.36	27.01	25.83	135.85	38.03	10.20	9.72	3.43	2.43	
6	4.12	25.83	27.01	12.26	23.54	22.43	74.40	29.99	10.20	8.77	3.43	2.43	
7	4.42	19.24	33.10	11.21	23.54	21.34	59.22	28.48	9.72	8.32	3.43	2.43	
8	4.88	15.68	41.49	11.73	20.28	29.99	47.60	25.83	10.20	15.08	3.43	2.43	
9	3.70	12.26	64.19	13.36	23.54	45.41	41.49	25.83	10.20	70.52	3.70	2.43	
10	3.16	13.92	59.22	13.36	95.18	815.95	36.35	25.83	10.20	28.48	3.70	2.43	
11	2.61	28.48	66.74	13.92	59.22	331.86	47.60	49.83	9.24	13.36	2.91	2.43	
12	2.61	22.43	36.35	18.23	38.03	104.14	61.68	130.22	11.73	9.72	3.43	1.79	
13	2.70	29.99	21.34	22.43	28.48	104.14	47.60	130.22	20.28	8.32	3.43	1.41	
14	2.70	24.67	17.24	52.11	22.43	66.74	43.27	61.68	13.92	6.61	3.43	1.41	
15	2.61	16.28	15.68	61.68	19.24	43.27	39.74	56.80	12.26	6.21	3.43	1.41	
16	2.61	15.08	16.28	28.48	16.28	29.99	41.49	43.27	11.21	6.61	3.43	1.41	
17	3.43	13.36	21.34	38.03	24.67	22.43	47.60	34.71	10.20	5.52	3.43	1.41	
18	5.20	20.28	78.37	1620.89	7941.03	260.50	33.10	29.99	8.77	5.20	3.16	1.79	
19	3.98	15.08	36.35	907.34	2214.64	606.95	28.48	27.01	8.32	4.88	2.91	1.79	
20	3.43	12.81	78.37	173.33	370.47	707.76	43.27	24.67	8.32	4.27	2.67	1.60	
21	3.16	12.81	61.68	90.84	130.22	173.33	95.18	22.43	8.32	4.57	2.67	1.79	
22	2.97	16.28	24.67	61.68	70.52	64.19	173.33	20.28	7.44	4.27	2.67	1.60	
23	3.16	20.28	21.34	54.43	45.41	70.52	90.84	19.24	7.02	5.20	2.67	1.60	
24	2.61	16.28	49.83	61.68	36.35	27.01	1130.58	18.23	7.02	4.57	2.67	1.60	
25	2.61	27.01	28.48	99.61	31.53	31.53	439.06	17.24	7.02	3.70	2.67	1.60	
26	3.16	19.24	64.19	70.52	23.54	41.49	153.41	16.28	6.61	3.98	2.67	1.79	
27	4.57	17.24	147.45	61.68	31.53	39.74	86.59	15.08	7.87	3.98	2.67	1.79	
28	3.70	17.24	74.40	49.83	728.99	36.35	64.19	14.50	7.44	3.98	2.67	4.42	
29	3.70	31.53	70.52	78.37	119.27	39.74	54.43	14.50	12.81	3.70		2.02	
30	3.43	45.41	33.10	47.60	45.41	70.52	52.11	13.92	15.08	3.98		3.98	
31		47.60		41.49	39.74		86.59		12.26	3.70		3.98	
Total	106.58	1179.02	1283.06	3798.28	12470.51	3963.02	4949.84	1159.52	324.65	302.07	88.97	67.64	29693.16 Tonday
Mean	3.55	38.03	42.77	122.53	402.27	132.10	159.67	38.65	10.47	9.74	3.18	2.18	81.35 Ton/day
Max	6.92	357.39	147.45	1620.89	7941.03	815.95	1130.58	130.22	20.28	70.52	3.70	4.42	7941.03 Ton/day
Min	2.61	12.26	12.26	11.21	16.28	21.34	28.48	13.92	6.61	3.70	2.67	1.41	1.41 Ton/day

WATER YEAR : 2018

WANG RIVER BASIN

Wang River at Ban Chiang Rai , Tak (W.23)

Lat 17 - 22 - 01 N Long 99 - 06 - 55 E

Location : on left bank at Amphoe Sam Ngao.

Ban Chiang Rai **Amphoe** Sam Ngao **Changwat** Tak

Drainge Area	9,930 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2001-Cont'd
Actual Measurement	2001-Cont'd
Using Rating Curve Water Year	2018
Number of observation	13
R-Square	0.7600
Remarks	Continued Sediment Station

$$QS = 0.3164\ QW^{1.67070}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	52.84	67.15	380.86	235.52	779.98	216.31	25.08	124.83	16.73	2.44	1.46	1.66		
2	64.67	46.21	235.52	128.34	488.36	154.35	29.84	121.35	16.73	3.21	1.77	1.66		
3	59.82	44.08	124.83	85.78	278.70	117.92	59.82	88.81	16.73	19.82	1.87	1.46		
4	74.81	44.08	85.78	80.10	256.55	98.14	699.09	77.43	12.43	67.15	1.98	1.37		
5	131.90	91.88	59.82	69.66	184.28	88.81	2205.35	72.22	10.75	21.52	1.09	0.84		
6	117.92	193.22	32.85	57.45	128.34	82.79	922.14	74.81	10.75	11.86	2.69	0.56		
7	104.57	290.05	29.84	91.88	111.16	69.66	256.55	67.15	10.75	8.17	3.34	0.56		
8	82.79	290.05	28.86	85.78	111.16	80.10	142.79	57.45	10.75	8.17	2.69	0.56		
9	146.50	273.10	24.17	72.22	111.16	57.45	101.34	41.99	10.75	9.68	2.33	0.56		
10	128.34	101.34	18.18	67.15	104.57	35.97	80.10	34.92	10.75	14.82	1.77	0.56		
11	91.88	64.67	16.08	59.82	117.92	39.94	77.43	29.84	10.75	24.17	1.66	0.56		
12	80.10	80.10	14.82	128.34	202.33	37.94	67.15	31.83	8.17	19.82	1.87	0.56		
13	69.66	121.35	24.17	111.16	202.33	46.21	67.15	39.94	8.17	18.99	2.82	0.56		
14	80.10	121.35	29.84	104.57	150.24	46.21	94.99	39.94	5.29	62.22	1.98	0.56		
15	80.10	111.16	44.08	94.99	121.35	67.15	88.81	48.38	4.50	88.81	1.37	0.56		
16	74.81	85.78	39.94	111.16	107.85	74.81	69.66	34.92	5.63	98.14	3.76	0.37		
17	67.15	46.21	34.92	94.99	107.85	74.81	62.22	30.83	22.39	85.78	2.69	0.22		
18	67.15	34.92	34.92	101.34	121.35	50.59	55.13	29.84	27.89	26.94	3.21	0.22		
19	104.57	27.89	32.85	162.68	154.35	37.94	46.21	29.84	16.73	14.21	3.90	0.27		
20	117.92	28.86	44.08	571.59	325.18	55.13	44.08	29.84	9.17	10.75	3.21	0.62		
21	124.83	26.94	59.82	1130.96	606.33	142.79	44.08	24.17	4.20	10.75	1.87	2.21		
22	124.83	31.83	98.14	504.59	521.02	175.51	44.08	25.08	4.20	9.17	0.92	2.33		
23	98.14	80.10	131.90	301.59	337.25	107.85	188.73	37.94	3.76	6.76	0.77	1.87		
24	80.10	88.81	256.55	313.30	290.05	85.78	945.66	37.94	3.34	5.97	0.84	3.76		
25	80.10	72.22	216.31	460.49	284.36	72.22	3031.63	39.94	3.07	5.29	0.92	32.85		
26	80.10	50.59	67.15	319.22	221.05	48.38	2266.57	46.21	2.94	6.14	0.77	29.84		
27	80.10	41.99	41.99	256.55	313.30	44.08	739.09	41.99	2.44	4.97	1.87	29.84		
28	104.57	30.83	37.94	230.66	380.86	30.83	307.42	44.08	2.44	3.76	2.21	29.84		
29	80.10	24.17	57.45	188.73	512.78	26.01	184.28	26.94	2.44	3.21		28.86		
30	74.81	128.34	101.34	301.59	496.45	20.66	202.33	25.08	3.76	2.44		16.73		
31		278.70		669.68	319.22		184.28		3.34	2.09		28.86		
Total	2725.28	3017.97	2405.00	7191.88	8447.68	2286.34	13333.08	1455.53	281.74	677.22	57.63	221.28	42100.63	Tonday
Mean	90.84	97.35	80.17	232.00	272.51	76.21	430.10	48.52	9.09	21.85	2.06	7.14	115.34	Ton/day
Max	146.50	290.05	380.86	1130.96	779.98	216.31	3031.63	124.83	27.89	98.14	3.90	32.85	3031.63	Ton/day
Min	52.84	24.17	14.82	57.45	104.57	20.66	25.08	24.17	2.44	2.09	0.77	0.22	0.22	Ton/day

WATER YEAR : 2018

WANG RIVER BASIN

Wang River at Ban Huai Kod , Lampang (W.25)

Lat 19 - 02 - 09 N Long 99 - 37 - 10 E

Location : on right bank at Ban Huai Kod.

Ban Huai Kod **Amphoe** Wang Nua **Changwat** Lampang

Drainge Area	762 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2009-Cont'd
Actual Measurement	2009-Cont'd
Using Rating Curve Water Year	2018
Number of observation	29
R-Square	0.9490
Remarks	Continued Sediment Station

$$QS = 2.2092\ QW^{1.68100}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.15	2.21	25.25	2.75	63.16	77.48	173.34	41.68	11.01	9.76	2.21	1.85		
2	0.15	214.96	17.28	3.35	44.91	61.01	325.95	38.56	11.01	9.76	2.21	1.85		
3	0.15	334.71	12.47	0.81	40.11	61.01	2658.78	35.53	9.16	8.00	2.21	1.85		
4	0.15	105.09	9.76	0.47	23.10	85.16	4195.64	32.61	6.91	8.00	2.21	1.68		
5	0.15	56.80	3.98	0.47	19.03	46.81	388.28	29.79	5.88	6.91	2.21	1.52		
6	0.15	63.16	0.64	0.47	11.01	40.11	245.69	35.53	5.88	6.38	2.03	1.52		
7	0.15	29.79	0.64	0.47	8.00	24.16	156.30	28.62	5.88	5.88	2.03	1.52		
8	0.15	23.10	0.56	0.47	4.32	26.36	114.31	32.61	7.44	29.79	2.03	1.52		
9	0.15	16.44	0.51	0.47	200.22	105.09	114.31	31.19	8.00	58.89	2.03	1.52		
10	0.15	11.73	0.56	0.47	214.96	235.26	80.01	34.06	8.00	19.03	2.03	1.52		
11	0.15	285.21	1.36	2.03	63.16	302.98	137.99	48.74	6.38	14.00	2.03	1.52		
12	0.15	58.89	1.21	11.73	40.11	114.31	105.09	74.99	8.57	11.73	2.03	11.73		
13	0.15	52.71	0.56	4.67	22.05	137.99	134.44	70.10	11.01	11.01	1.85	17.28		
14	0.15	43.28	0.47	5.02	13.23	788.60	87.79	44.91	9.76	9.76	1.85	20.01		
15	0.15	26.36	0.33	5.88	8.57	397.36	54.74	46.81	9.16	8.57	1.85	23.10		
16	0.15	14.00	0.40	3.35	6.38	262.18	50.71	34.06	8.00	7.44	1.85	23.10		
17	0.15	11.01	0.60	1.52	35.53	96.20	41.68	28.62	8.00	6.38	1.85	22.05		
18	0.33	87.79	5.39	38.56	14326.48	7338.85	40.11	26.36	6.91	5.02	1.85	26.36		
19	10.38	35.53	24.16	90.44	3660.82	1875.41	35.53	23.10	5.02	3.04	1.85	26.36		
20	2.21	19.03	52.71	44.91	772.60	1426.44	54.74	19.03	4.67	2.48	1.85	27.48		
21	0.81	12.47	14.80	44.91	535.06	664.34	70.10	17.28	4.67	2.48	1.85	25.25		
22	0.29	11.01	6.38	262.18	881.07	256.55	425.76	11.73	5.02	2.48	1.85	24.16		
23	0.17	9.16	4.32	152.56	416.10	141.58	145.20	13.23	5.02	2.48	1.85	24.16		
24	0.17	8.00	1.85	137.99	195.63	72.53	1288.81	14.80	4.67	2.21	1.85	24.16		
25	0.15	24.16	0.69	484.57	210.00	65.35	464.63	14.80	4.67	2.21	1.85	24.16		
26	0.15	20.01	0.64	219.96	195.63	56.80	200.22	15.61	5.02	2.21	1.85	23.10		
27	0.15	14.80	0.60	127.46	273.60	40.11	120.62	14.80	5.39	2.21	1.85	23.10		
28	0.26	25.25	3.66	93.30	352.21	35.53	90.44	11.01	5.39	2.21	1.85	24.16		
29	0.40	38.56	1.07	200.22	267.87	225.02	70.10	11.01	7.44	2.48		24.16		
30	0.33	56.80	5.02	74.99	120.62	297.01	65.35	11.01	9.76	2.48		24.16		
31		43.28		141.58	72.53		63.16		9.76	2.48		24.16		
Total	18.35	1755.30	197.87	2158.03	23098.07	15357.59	12199.82	892.18	223.46	267.76	54.86	480.07	56703.36	Tonday
Mean	0.61	56.62	6.60	69.61	745.10	511.92	393.54	29.74	7.21	8.64	1.96	15.49	155.35	Ton/day
Max	10.38	334.71	52.71	484.57	14326.48	7338.85	4195.64	74.99	11.01	58.89	2.21	27.48	14326.48	Ton/day
Min	0.15	2.21	0.33	0.47	4.32	24.16	35.53	11.01	4.67	2.21	1.85	1.52	0.15	Ton/day

WATER YEAR : 2018

Yom RIVER BASIN

Yom River at Ban Nam Khong , Phrae (Y.1C)

Lat 18 - 07 - 57 N Long 100 - 07 - 42 E

Location : on right bank about 5 meters downstream from Phathana Phak Nua 8 Bridge.

Ban Nam Khong **Amphoe** Mueang **Changwat** Phrae

Drainge Area	7,749 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1997-Cont'd
Actual Measurement	1997-Cont'd
Using Rating Curve Water Year	2018
Number of observation	36
R-Square	0.9750
Remarks	Continued Sediment Station

$$QS = 0.9680\ QW^{1.61600}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	17.47	349.62	339.92	1960.56	5005.07	2737.02	2526.66	410.56	67.29	20.68	10.26	3.88		
2	24.10	190.31	330.33	1223.05	3529.66	2331.91	3180.09	389.42	63.78	20.68	9.39	3.88		
3	31.75	197.15	242.64	662.44	2554.97	1859.02	3601.24	250.79	53.68	19.05	9.39	3.44		
4	60.34	511.02	190.31	443.06	1614.29	2554.97	4435.72	259.03	53.68	17.47	8.55	3.44		
5	127.45	690.55	163.89	349.62	1183.31	5647.08	3248.89	234.60	51.03	17.47	8.55	3.02		
6	157.52	511.02	105.33	226.66	1638.16	5140.15	1934.98	242.64	38.57	14.46	7.74	3.02		
7	70.87	389.42	127.45	157.52	1183.31	3248.89	1475.89	204.08	31.75	15.94	6.96	3.02		
8	67.29	176.91	127.45	100.05	825.73	2414.65	1183.31	183.56	31.75	17.47	6.21	1.88		
9	359.41	74.52	85.89	127.45	733.54	5414.41	976.91	197.15	31.75	48.44	5.50	1.25		
10	399.94	157.52	121.77	157.52	3318.25	10514.95	841.77	226.66	31.75	67.29	5.50	1.88		
11	163.89	487.85	211.10	349.62	3423.33	9460.57	778.31	267.38	31.75	43.40	4.82	1.88		
12	89.81	841.77	204.08	976.91	1614.29	7243.75	690.55	275.83	31.75	38.57	4.34	1.88		
13	82.03	465.25	157.52	1012.99	1124.65	4871.36	762.75	330.33	27.71	38.57	4.34	1.88		
14	89.81	571.18	74.52	733.54	857.93	5414.41	762.75	339.92	27.71	36.24	3.88	1.88		
15	89.81	608.49	70.87	676.44	733.54	5185.48	676.44	275.83	27.71	31.75	3.88	3.02		
16	105.33	595.95	105.33	546.81	825.73	5185.48	534.78	275.83	29.59	27.71	4.82	3.02		
17	121.77	259.03	105.33	443.06	762.75	7351.90	499.30	267.38	27.71	24.10	6.21	2.62		
18	379.32	302.19	89.81	2304.58	4181.87	2923.80	465.25	226.66	25.88	25.88	5.50	2.24		
19	454.10	762.75	121.77	5794.93	29401.77	13087.61	443.06	197.15	25.88	22.36	5.50	1.88		
20	320.85	534.78	339.92	3565.38	46320.23	32879.41	499.30	259.03	22.36	22.36	5.50	3.02		
21	454.10	349.62	676.44	2498.48	15932.72	19087.94	432.12	226.66	24.10	17.47	5.50	3.88		
22	379.32	267.38	499.30	2829.82	6976.05	8125.91	499.30	183.56	19.05	15.94	5.50	4.82		
23	226.66	183.56	234.60	6817.29	6196.27	4651.60	1031.22	110.71	22.36	14.46	4.82	4.82		
24	204.08	197.15	127.45	14716.27	11237.54	4181.87	1367.51	121.77	25.88	15.94	4.82	3.88		
25	170.35	311.47	116.19	12806.78	11304.13	3115.25	1475.89	116.19	25.88	14.46	4.82	4.34		
26	204.08	443.06	100.05	7029.28	9580.26	2250.28	1710.60	105.33	24.10	14.46	4.34	3.88		
27	267.38	389.42	234.60	6452.28	7460.66	1759.55	1710.60	94.88	20.68	13.04	3.88	3.88		
28	369.31	302.19	1124.65	4915.78	5745.49	1590.54	841.77	85.89	19.05	10.26	3.44	3.88		
29	379.32	259.03	1475.89	12114.90	9760.86	1638.16	648.56	78.24	17.47	11.16		3.44		
30	621.12	250.79	1884.21	13799.80	6452.28	1662.18	534.78	74.52	19.05	11.16		3.02		
31		250.79		9046.20	3746.02		476.50		20.68	11.16		2.62		
Total	6488.58	11881.74	9788.61	114839.07	205224.66	183530.10	40246.80	6511.58	971.38	719.40	163.96	94.49	580460.37	Tonday
Mean	216.29	383.28	326.29	3704.49	6620.15	6117.67	1298.28	217.05	31.33	23.21	5.86	3.05	1590.30	Ton/day
Max	621.12	841.77	1884.21	14716.27	46320.23	32879.41	4435.72	410.56	67.29	67.29	10.26	4.82	46320.23	Ton/day
Min	17.47	74.52	70.87	100.05	733.54	1590.54	432.12	74.52	17.47	10.26	3.44	1.25	1.25	Ton/day

WATER YEAR : 2018

YOM RIVER BASIN

Yom River at Ban Kaeng Luang , Sukhothai (Y.6)

Lat 17 - 26 - 05 N Long 99 - 47 - 30 E

Location : on left bank about 150 meters upstream from Kaeng Luang.

Ban Kaeng Luang **Amphoe** Si Satchanalai **Changwat** Sukhothai

Drainge Area	12,769 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1963-1987,1997-Cont'd
Actual Measurement	1963-1987,1997-Cont'd
Using Rating Curve Water Year	1963-2018
Number of observation	774
R-Square	0.9183
Remarks	Continued Sediment Station

$$QS = 1.2588\ QW^{1.47820}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	59.64	3349.44	1658.94	7185.51	3750.54	4716.13	683.40	799.82	431.83	0.00	0.00		
2	0.00	107.43	2272.37	1185.15	4398.52	2997.80	5435.10	581.18	762.58	457.91	0.00	0.00		
3	0.00	242.23	2245.07	1293.24	3975.41	2217.87	7034.84	595.45	818.66	457.91	0.00	0.00		
4	2.52	212.75	1754.86	886.09	2466.48	2056.94	8403.25	525.22	954.42	444.81	0.00	0.00		
5	0.00	0.00	1206.52	391.87	1852.51	4089.43	5884.61	393.66	954.42	180.35	0.00	0.00		
6	0.00	0.00	643.83	234.62	1206.52	3639.70	5611.83	393.66	954.42	94.37	0.00	0.00		
7	4.59	107.43	240.19	181.28	1249.64	4476.92	4674.88	781.13	974.36	0.00	0.00	0.00		
8	59.64	100.83	342.86	135.13	1249.64	3493.60	4204.48	1161.36	994.43	0.00	0.00	0.00		
9	368.85	0.00	240.19	88.78	1359.55	2190.77	4320.56	1253.98	994.43	0.00	0.00	0.00		
10	457.91	0.00	151.48	92.12	1039.04	2004.18	3937.64	1076.02	994.43	0.00	0.00	0.00		
11	332.64	0.00	191.59	47.15	1564.78	4013.30	4204.48	1014.63	876.02	0.00	0.00	0.00		
12	457.91	0.00	288.43	67.58	3787.72	5884.61	4437.66	1034.96	818.66	0.00	0.00	0.00		
13	539.04	0.00	535.08	82.23	2625.87	4320.56	4437.66	1161.36	781.13	49.57	0.00	0.00		
14	381.19	0.00	812.62	334.90	1080.15	3750.54	4243.06	1014.63	744.17	188.29	0.00	0.00		
15	157.21	0.00	923.58	1080.15	830.79	3172.04	3899.98	994.43	698.44	263.96	0.00	0.00		
16	107.43	0.00	575.10	561.66	643.83	3349.44	4757.51	1055.43	653.65	444.81	0.00	0.00		
17	81.87	0.91	342.86	575.10	383.56	2692.30	4840.60	974.36	431.83	286.28	0.00	0.00		
18	54.53	94.37	375.30	375.30	420.81	3457.37	4166.02	683.40	164.81	128.01	0.00	0.00		
19	70.30	107.43	672.02	1495.33	904.77	2963.33	3566.40	668.47	31.34	31.34	0.00	0.00		
20	100.83	49.57	849.10	4716.13	5611.83	3602.99	4281.76	974.36	0.00	0.00	0.00	0.00		
21	457.91	212.75	794.57	3937.64	15603.19	12729.15	4127.66	1034.96	0.00	0.00	0.00	0.00		
22	511.52	638.94	706.35	2527.24	14074.15	14074.15	5611.83	1034.96	16.07	0.00	0.00	0.00		
23	393.66	320.84	483.20	2136.91	6254.78	8677.79	8622.65	1014.63	59.64	0.00	0.00	0.00		
24	567.02	94.37	942.52	4127.66	5391.90	5611.83	4320.56	974.36	88.05	0.00	0.00	0.00		
25	552.97	49.57	375.30	5348.82	6115.11	5976.47	5262.98	1096.74	114.16	0.00	0.00	0.00		
26	309.18	16.07	191.59	7649.92	7084.95	5566.77	5135.07	856.76	135.13	0.00	0.00	0.00		
27	94.37	107.43	181.28	5976.47	5793.22	4398.52	5305.84	1055.43	172.52	0.00	0.00	0.00		
28	49.57	381.19	470.50	4127.66	6068.78	4716.13	5435.10	1055.43	204.49	0.00	0.00	0.00		
29	212.75	653.65	602.29	3639.70	5008.18	3385.30	1372.94	1055.43	253.02	0.00		0.00		
30	149.73	713.58	1426.92	3457.37	5262.98	2759.27	974.36	994.43	297.66	0.00		0.00		
31		856.76		7185.51	5702.29		974.36		368.85	0.00		0.00		
Total	6475.14	5127.74	24187.01	65597.65	126196.46	136019.61	144201.80	27194.22	16111.61	3459.44	0.00	0.00	554570.68	Tonday
Mean	215.84	165.41	806.23	2116.05	4070.85	4533.99	4651.67	906.47	519.73	111.59	0.00	0.00	1519.37	Ton/day
Max	567.02	856.76	3349.44	7649.92	15603.19	14074.15	8622.65	1253.98	994.43	457.91	0.00	0.00	15603.19	Ton/day
Min	0.00	0.00	151.48	47.15	383.56	2004.18	974.36	393.66	0.00	0.00	0.00	0.00	0.00	Ton/day

WATER YEAR : 2018

YOM RIVER BASIN

Yom River at Ban Don Rabiang , Sukhothai (Y.14)

Lat 17 - 35 - 42 N Long 99 - 43 - 06 E

Location : on left bank about 50 meters from Si Satchanalai - Den Chai Highway No.101 at guidepost 44 th.

Ban Don Rabiang **Amphoe** Si Satchanalai **Changwat** Sukhothai

Drainge Area	12,100 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1964-Cont'd
Actual Measurement	1964-Cont'd
Using Rating Curve Water Year	2018
Number of observation	17
R-Square	0.7237
Remarks	Continued Sediment Station

$$QS = 0.2469\ QW^{1.75630}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	4.17	173.33	321.98	1418.72	7237.31	3204.97	2623.01	446.45	69.44	21.29	4.17	0.00		
2	4.17	219.43	201.60	1435.89	4035.07	2419.80	3146.30	385.36	66.51	25.44	4.17	0.00		
3	4.17	173.33	207.47	1268.19	3088.10	1831.90	6265.41	329.63	60.83	25.44	4.17	0.00		
4	4.17	201.60	167.90	784.09	2252.21	1789.84	6667.28	306.90	58.07	15.09	4.17	0.00		
5	4.17	207.47	134.92	474.77	1585.90	2648.90	3866.94	263.55	40.33	15.09	4.17	0.00		
6	4.17	195.80	108.65	314.40	1317.56	3088.10	3204.97	219.43	42.69	15.09	4.17	0.00		
7	4.17	250.59	112.25	257.04	1219.63	3636.74	2026.33	201.60	35.77	15.09	4.17	0.00		
8	4.17	277.69	78.53	184.42	1401.63	2806.57	1435.89	195.80	35.77	15.09	7.16	0.00		
9	4.17	178.84	72.42	108.65	1235.73	2026.33	1109.53	207.47	35.77	15.09	3.47	0.00		
10	4.17	157.26	66.51	101.59	1219.63	2345.42	945.66	201.60	35.77	15.09	3.47	0.00		
11	11.82	157.26	69.44	108.65	1917.27	4596.66	835.06	195.80	33.59	15.09	2.82	0.00		
12	9.84	119.61	72.42	146.92	3088.10	5466.77	945.66	201.60	35.77	15.09	2.52	0.00		
13	55.37	81.67	152.06	231.68	2048.46	4404.01	874.93	207.47	33.59	13.96	2.23	0.00		
14	27.38	138.87	173.33	686.33	1140.53	3669.25	698.24	219.43	52.72	19.98	2.23	0.00		
15	27.38	244.22	138.87	822.19	888.89	3059.18	628.09	250.59	31.46	47.59	1.23	0.00		
16	33.59	270.58	108.65	606.04	674.50	3293.85	564.19	250.59	31.46	47.59	1.03	0.00		
17	25.44	244.22	78.53	564.19	574.53	2571.54	503.84	263.55	29.39	47.59	1.46	0.00		
18	24.02	184.42	101.59	628.09	616.71	3866.94	410.39	201.60	25.44	47.59	1.03	0.00		
19	35.77	201.60	105.09	2806.57	1156.17	2727.25	385.36	195.80	25.44	25.44	0.83	0.00		
20	55.37	173.33	115.90	5554.09	9860.53	4519.18	369.06	219.43	24.02	18.70	0.37	0.00		
21	45.11	162.54	134.92	4252.46	24006.22	18132.23	377.17	167.90	24.02	18.70	0.25	0.00		
22	24.02	345.17	201.60	2701.02	15554.20	16073.60	1917.27	178.84	24.02	18.70	0.00	0.00		
23	21.29	284.87	329.63	2048.46	5165.86	6820.74	5251.09	173.33	21.29	17.46	0.00	0.00		
24	29.39	152.06	257.04	4792.85	3800.55	3353.68	1960.59	152.06	21.29	18.70	0.00	0.00		
25	27.38	178.84	142.87	7027.70	5081.24	2888.10	2093.02	134.92	21.29	18.70	0.00	0.00		
26	45.11	105.09	108.65	9205.41	6820.74	2469.94	1546.39	119.61	21.29	16.26	0.00	0.00		
27	45.11	162.54	146.92	6019.73	5642.01	1706.99	1453.15	119.61	21.29	12.87	0.00	0.00		
28	42.69	195.80	848.02	4103.19	6166.63	1367.73	1453.15	91.40	21.29	12.87	0.00	0.00		
29	66.51	270.58	931.33	3767.54	4792.85	1171.90	1109.53	91.40	21.29	12.87		0.00		
30	84.86	213.42	1686.54	5039.15	5208.40	1350.92	698.24	75.45	21.29	12.87		0.00		
31		616.71		8948.80	5208.40		533.64		21.29	8.01		0.00		
Total	779.15	6538.74	7375.63	76408.82	134005.56	119309.03	55899.38	6268.17	1043.48	644.43	59.29	0.00	408331.68	Tonday
Mean	25.97	210.93	245.85	2464.80	4322.76	3976.97	1803.21	208.94	33.66	20.79	2.12	0.00	1118.72	Ton/day
Max	84.86	616.71	1686.54	9205.41	24006.22	18132.23	6667.28	446.45	69.44	47.59	7.16	0.00	24006.22	Ton/day
Min	4.17	81.67	66.51	101.59	574.53	1171.90	369.06	75.45	21.29	8.01	0.00	0.00	0.00	Ton/day

WATER YEAR : 2018

YOM RIVER BASIN

Yom River at Ban Bang Rakam , Phitsanulok (Y.16)

Lat 16 - 45 - 26 N Long 100 - 07 - 15 E

Location : on right bank about 58 meters upstream from the old staff gage.

Ban Bang Rakam **Amphoe** Bang Rakam **Changwat** Phitsanulok

Drainge Area	20,201 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1995-Cont'd
Actual Measurement	1995-Cont'd
Using Rating Curve Water Year	2018
Number of observation	24
R-Square	0.8118
Remarks	Continued Sediment Station

$$QS = 2.0410\ QW^{1.48410}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	88.20	242.40	1694.52	2812.72	3936.60	3808.69	2513.42	13.10	8.43	16.15	0.00		
2	0.00	233.81	283.76	1828.33	2902.82	3968.80	3840.54	2490.31	11.10	8.43	7.39	0.00		
3	0.00	230.97	349.65	1770.22	3006.91	3888.48	4049.65	2152.18	9.16	71.97	7.39	0.00		
4	0.00	225.33	230.97	1521.70	3151.99	3840.54	4278.85	1986.24	7.03	80.55	7.39	0.00		
5	0.00	333.56	108.89	1513.85	3245.46	3824.61	4428.35	1946.37	7.03	60.38	7.39	0.00		
6	0.00	974.27	114.70	1513.85	3285.79	3776.93	4775.26	1240.17	7.39	23.91	6.71	0.00		
7	0.00	967.94	165.10	1352.04	3299.27	3635.08	5104.12	840.42	7.39	9.16	6.71	0.00		
8	0.00	781.75	128.84	1103.07	3138.70	3464.14	5252.56	623.48	7.39	7.39	6.71	0.00		
9	0.00	537.42	54.54	822.57	2902.82	2967.74	5289.89	438.08	7.39	7.72	6.71	0.00		
10	0.00	464.51	8.19	918.63	2467.27	2748.93	5233.74	374.25	7.39	8.43	6.71	0.00		
11	0.00	668.05	103.06	693.24	2285.50	2723.55	5030.43	145.56	7.39	8.43	6.36	0.00		
12	0.00	718.73	118.67	628.38	2501.70	2838.37	4811.44	62.04	7.39	8.43	7.03	0.00		
13	0.00	653.08	75.87	542.09	2490.31	3272.33	4596.42	134.38	7.72	8.43	8.43	0.00		
14	0.00	556.18	48.46	429.38	2597.81	2467.27	4345.09	142.77	8.82	8.43	8.82	0.00		
15	0.00	21.91	34.34	395.16	2698.25	2710.89	4082.14	138.55	8.82	8.43	176.65	0.00		
16	0.00	20.94	69.08	546.78	2748.93	2876.98	3824.61	128.25	8.82	7.72	286.79	0.00		
17	0.00	116.73	122.68	653.08	2455.63	3006.91	3464.14	128.25	7.39	7.72	231.68	0.00		
18	0.00	42.62	145.56	613.71	2097.26	3085.77	3138.70	136.52	7.39	7.72	249.63	0.00		
19	59.29	3.19	56.14	770.18	1986.24	3085.77	2375.82	136.52	7.39	78.85	302.13	0.00		
20	97.45	19.02	44.10	1210.87	1936.44	3112.20	1986.24	124.18	6.71	91.32	203.90	0.00		
21	132.95	23.91	37.04	1770.22	2087.08	3098.97	2141.04	118.10	6.71	63.61	425.05	0.00		
22	145.56	23.91	54.54	1799.20	2330.51	3098.97	2097.26	108.33	7.03	57.21	279.23	0.00		
23	118.67	27.02	65.76	1887.05	2993.84	3619.43	1986.24	98.74	7.39	55.69	200.51	0.00		
24	33.06	25.97	93.74	2056.66	3557.05	5048.62	2207.26	93.21	6.71	57.21	98.74	0.00		
25	0.00	23.91	309.89	2274.14	3666.45	3824.61	2851.22	89.55	6.36	55.69	71.97	0.00		
26	0.00	21.91	165.10	2341.66	3682.17	3808.69	2941.71	85.93	6.05	55.69	45.10	0.00		
27	0.00	6.80	500.53	2560.47	3713.67	3968.80	2787.15	80.55	6.05	55.69	43.69	0.00		
28	0.00	0.00	864.28	2524.85	3872.48	4065.89	2710.89	43.69	6.71	55.69	55.69	0.00		
29	0.00	33.06	1443.77	1521.70	3984.92	4033.44	3299.27	27.58	6.71	43.69		0.00		
30	22.91	103.06	1589.78	2490.31	4082.14	3920.54	3020.01	20.48	7.03	27.58		0.00		
31		130.83		2825.53	4033.44		3006.91		8.43	25.14		0.00		
Total	609.89	8078.59	7629.43	44573.44	92015.57	103719.85	112765.64	16648.10	237.39	1074.74	2780.66	0.00	390133.30	Tonday
Mean	20.33	260.60	254.31	1437.85	2968.24	3457.33	3637.60	554.94	7.66	34.67	99.31	0.00	1068.86	Ton/day
Max	145.56	974.27	1589.78	2825.53	4082.14	5048.62	5289.89	2513.42	13.10	91.32	425.05	0.00	5289.89	Ton/day
Min	0.00	0.00	8.19	395.16	1936.44	2467.27	1986.24	20.48	6.05	7.39	6.36	0.00	0.00	Ton/day

WATER YEAR : 2018

Yom RIVER BASIN

Yom River at Ban Huai Sak , Phrae (Y.20)

Lat 18 - 35 - 06 N Long 100 - 09 - 16 E

Location : on left bank about 1 kilometer downstream from Sop Ngao.

Ban Huai Sak **Amphoe** Song **Changwat** Phrae

Drainge Area	5,394 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1997-Cont'd
Actual Measurement	1997-Cont'd
Using Rating Curve Water Year	2018
Number of observation	34
R-Square	0.9670
Remarks	Continued Sediment Station

$$QS = 0.3820\ QW^{1.85200}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	8.24	51.20	128.08	1729.84	1629.20	1928.67	2942.74	268.93	62.79	29.48	8.24	4.10		
2	8.86	98.81	83.87	738.70	1226.86	1589.72	3190.54	232.58	62.79	29.48	8.86	4.10		
3	22.12	132.22	58.00	388.40	900.10	1311.80	4239.58	215.45	62.79	26.92	10.16	4.10		
4	19.93	124.00	46.97	268.93	617.24	4460.48	4371.50	198.93	58.00	20.99	8.86	3.79		
5	20.99	168.41	33.51	209.88	835.24	5412.62	2046.48	193.68	53.38	16.90	8.86	3.79		
6	30.80	128.08	33.51	154.03	715.87	3317.88	1436.27	178.32	51.20	15.95	7.06	3.79		
7	144.99	92.70	55.66	108.30	527.35	1998.97	1112.70	168.41	46.97	15.01	7.06	3.49		
8	209.88	67.76	60.37	86.77	396.13	2393.36	900.10	158.76	49.07	15.95	7.64	3.20		
9	95.73	49.07	62.79	81.02	596.24	9329.34	773.56	154.03	49.07	23.28	6.50	3.20		
10	55.66	33.51	67.76	105.09	2316.93	9928.63	649.37	154.03	46.97	40.95	5.96	2.66		
11	33.51	53.38	55.66	585.87	1346.44	8675.72	585.87	183.38	42.92	55.66	5.45	2.40		
12	23.28	188.50	60.37	913.49	750.24	3835.37	585.87	226.81	39.03	42.92	5.45	2.40		
13	19.93	250.31	70.31	606.70	481.07	4196.02	682.25	281.78	72.90	32.14	5.45	2.18		
14	16.90	256.36	72.90	660.25	396.13	5412.62	536.84	221.10	81.02	29.48	5.45	1.96		
15	15.01	101.93	67.76	420.81	329.07	3953.93	463.47	204.37	67.76	26.92	5.45	1.96		
16	14.11	62.79	65.25	294.90	288.31	9852.78	412.51	188.50	55.66	29.48	5.45	1.96		
17	25.68	168.41	105.09	226.81	490.16	3317.88	380.74	163.55	49.07	29.48	5.96	2.18		
18	81.02	546.40	188.50	1975.41	41608.82	7367.93	343.48	154.03	44.92	29.48	5.09	2.40		
19	65.25	294.90	412.51	1975.41	76524.70	42065.33	321.98	204.37	42.92	24.47	5.09	2.40		
20	112.13	116.03	994.96	1729.84	14853.67	18408.65	288.31	188.50	39.03	22.12	8.24	2.18		
21	119.98	81.02	822.39	1836.74	7367.93	8819.08	315.10	136.41	30.80	19.93	7.06	2.40		
22	70.31	65.25	308.30	4196.02	5106.34	4415.89	490.16	119.98	26.92	17.89	5.45	2.18		
23	46.97	53.38	158.76	10642.90	9329.34	3565.19	1311.80	108.30	25.68	15.95	5.45	1.96		
24	29.48	95.73	116.03	10315.75	12006.57	3003.82	1036.75	98.81	23.28	13.23	5.45	1.96		
25	20.99	308.30	95.73	4460.48	7180.26	2046.48	1492.98	95.73	20.99	10.16	5.09	1.96		
26	105.09	158.76	158.76	4283.35	6049.71	1609.40	2046.48	86.77	24.47	10.16	4.75	1.96		
27	173.33	101.93	860.97	3285.83	3565.19	1381.50	822.39	83.87	23.28	10.16	4.42	1.56		
28	89.71	92.70	1729.84	2316.93	8747.26	1473.96	536.84	78.22	19.93	11.55	4.75	1.56		
29	136.41	70.31	1998.97	3874.70	8182.48	1277.57	437.65	75.54	19.93	10.84		1.56		
30	83.87	78.22	2576.13	2942.74	3382.42	1729.84	373.14	67.76	22.12	8.86		1.56		
31		144.99		2710.45	2316.93		321.98		29.48	8.24		1.76		
Total	1900.16	4235.36	11549.71	64126.34	220064.20	178080.43	35449.43	4890.90	1345.14	694.03	178.70	78.66	522593.06	Tonday
Mean	63.34	136.62	384.99	2068.59	7098.85	5936.01	1143.53	163.03	43.39	22.39	6.38	2.54	1431.76	Ton/day
Max	209.88	546.40	2576.13	10642.90	76524.70	42065.33	4371.50	281.78	81.02	55.66	10.16	4.10	76524.70	Ton/day
Min	8.24	33.51	33.51	81.02	288.31	1277.57	288.31	67.76	19.93	8.24	4.42	1.56	1.56	Ton/day

WATER YEAR : 2018

Yom RIVER BASIN

Nam Pi at Ban Mang , Phayao (Y.24)

Lat 18 - 53 - 11 N Long 100 - 17 - 20 E

Location : on right bank upstream of the bridge from Pong Sanuk - Chiang Muan road.

Ban Mang **Amphoe** Chiang Muan **Changwat** Phayao

Drainge Area	590 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1997-Cont'd
Actual Measurement	1997-Cont'd
Using Rating Curve Water Year	2018
Number of observation	29
R-Square	0.9010
Remarks	Continued Sediment Station

$$QS = 3.3740\ QW^{1.60100}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.53	8.42	12.10	75.88	127.80	200.39	292.32	11.58	4.70	3.00	1.15	0.16		
2	1.73	6.88	8.42	34.21	96.65	160.03	141.16	11.07	5.07	2.70	1.91	0.20		
3	3.65	11.07	6.05	13.70	79.57	179.79	85.12	10.56	5.07	2.75	0.41	0.16		
4	3.65	19.59	5.46	16.55	55.20	621.61	65.23	11.07	3.37	2.27	0.44	0.18		
5	5.33	7.60	5.52	9.11	48.87	535.94	55.20	10.56	4.40	1.99	0.97	0.26		
6	6.39	7.60	13.16	4.70	55.20	259.88	52.00	10.56	1.61	1.86	0.54	0.37		
7	25.88	5.92	14.63	4.76	45.81	189.98	52.00	10.07	2.75	1.99	0.34	0.32		
8	90.82	4.22	48.87	4.34	45.81	416.61	48.87	10.07	3.21	2.70	0.63	0.30		
9	38.70	4.40	22.82	4.34	55.20	1681.06	29.94	10.07	3.06	3.37	0.46	0.28		
10	14.63	4.22	10.56	4.40	85.12	687.95	27.88	8.65	1.08	5.46	0.46	0.26		
11	9.59	4.16	13.16	864.58	72.27	455.13	29.94	10.07	3.00	4.70	0.39	0.18		
12	5.65	5.07	17.54	169.80	52.00	435.88	38.70	12.62	3.48	4.40	0.57	0.10		
13	4.70	6.88	27.88	121.31	41.02	599.56	27.88	11.58	4.58	4.22	0.69	0.13		
14	4.34	5.92	20.65	75.88	34.21	535.94	23.94	10.56	4.52	3.99	0.72	0.14		
15	4.05	4.76	13.16	58.48	23.94	343.48	20.65	9.59	4.76	3.82	0.81	0.14		
16	4.05	4.34	13.16	41.02	17.54	455.13	19.59	8.65	3.82	3.87	0.84	0.14		
17	4.34	5.07	10.07	52.00	244.06	292.32	18.55	8.42	3.65	3.82	0.91	0.18		
18	5.14	55.20	21.72	232.84	7289.28	8277.45	15.58	11.07	4.16	3.06	0.81	0.26		
19	6.88	23.94	127.80	102.62	1095.91	1533.45	11.58	11.07	5.14	3.00	0.66	0.24		
20	38.70	12.62	134.42	102.62	435.88	556.73	13.16	9.59	3.70	2.55	0.54	0.34		
21	32.05	7.89	38.70	169.80	308.93	379.38	13.16	7.89	2.46	1.91	0.49	0.24		
22	11.58	4.95	13.16	828.05	864.58	416.61	12.10	7.38	3.87	1.41	0.46	0.20		
23	6.12	6.05	8.65	416.61	1681.06	535.94	16.55	6.60	2.90	0.84	0.49	0.18		
24	5.26	361.42	7.09	756.78	722.06	308.93	121.31	6.39	2.85	0.60	0.41	0.16		
25	4.88	114.95	11.58	455.13	398.00	160.03	864.58	6.12	2.85	0.75	0.41	0.14		
26	5.46	58.48	27.88	326.19	275.78	121.31	85.12	6.05	2.46	3.00	0.41	0.14		
27	7.89	52.00	150.48	179.79	556.73	102.62	38.70	5.85	1.61	0.78	0.34	0.20		
28	22.82	38.70	232.84	121.31	1833.69	90.82	25.88	4.95	2.55	0.66	0.24	0.26		
29	43.39	27.88	398.00	121.31	578.18	90.82	20.65	5.14	2.04	0.75		0.13		
30	16.55	27.88	114.95	141.16	343.48	179.79	18.55	5.07	3.37	0.91		0.11		
31		22.82		232.84	232.84		14.63		1.53	0.84		0.13		
Total	435.75	930.90	1550.48	5742.11	17796.67	20804.56	2300.52	268.92	103.62	77.97	17.50	6.23	50035.23	Tonday
Mean	14.52	30.03	51.68	185.23	574.09	693.49	74.21	8.96	3.34	2.52	0.63	0.20	137.08	Ton/day
Max	90.82	361.42	398.00	864.58	7289.28	8277.45	864.58	12.62	5.14	5.46	1.91	0.37	8277.45	Ton/day
Min	1.53	4.16	5.46	4.34	17.54	90.82	11.58	4.95	1.08	0.60	0.24	0.10	0.10	Ton/day

WATER YEAR : 2018

Yom RIVER BASIN

Yom River at Ban Khlong Tan , Sukhothai (Y.33)

Lat 17 - 10 - 06 N Long 99 - 51 - 52 E

Location : on left bank at the bridge on road from Tambon Khlong Tan.

Ban Khlong Tan **Amphoe** Si Samrong **Changwat** Sukhothai

Drainge Area	13,948 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2016-Cont'd
Actual Measurement	2016-Cont'd
Using Rating Curve Water Year	2016-2018
Number of observation	41
R-Square	0.8657
Remarks	Continued Sediment Station

$$QS = 1.3886\ QW^{1.44700}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	10.32	218.71	1721.93	5307.30	2174.77	641.91	765.69	0.00	0.00	0.00	0.00		
2	0.00	0.00	100.64	1623.05	3503.54	1159.41	1822.59	576.78	0.00	0.00	0.00	0.00		
3	0.00	0.00	50.60	1365.34	1506.82	727.85	2846.56	394.98	0.00	0.00	0.00	0.00		
4	0.00	0.00	65.88	1040.96	1025.47	684.47	4926.39	374.43	0.00	0.00	0.00	0.00		
5	1.01	7.47	55.55	369.34	576.78	778.43	3557.89	259.10	0.00	0.00	0.00	0.00		
6	1.81	36.64	43.45	136.30	559.39	1374.64	2400.51	197.93	0.00	0.00	0.00	0.00		
7	0.00	236.18	45.79	89.89	447.81	1751.94	2509.81	151.03	0.00	0.00	0.00	0.00		
8	0.00	135.47	50.60	61.62	497.07	1863.35	2633.00	191.45	28.14	0.00	0.00	0.00		
9	0.00	149.33	96.52	77.42	508.23	1449.71	2400.51	191.45	36.09	0.00	0.00	0.00		
10	0.00	168.88	113.33	65.55	497.07	1095.75	784.83	169.32	56.81	0.00	0.00	0.00		
11	18.56	135.47	100.64	18.56	485.99	1506.82	778.43	191.45	33.37	0.00	0.00	0.00		
12	10.32	63.24	48.18	60.00	817.05	2485.39	856.24	217.75	23.20	0.00	0.00	0.00		
13	41.14	109.05	36.64	97.64	1095.75	2859.28	1064.34	291.52	43.15	0.00	0.00	0.00		
14	0.00	126.47	58.08	82.34	721.61	2388.46	934.04	641.91	13.24	0.00	0.00	0.00		
15	0.00	22.24	50.60	334.36	359.24	1914.68	817.05	919.06	5.53	0.00	0.00	0.00		
16	0.00	26.13	68.54	415.86	262.64	1853.13	576.78	1087.87	8.51	0.00	0.00	0.00		
17	0.00	48.18	53.06	287.86	269.77	1832.75	491.52	987.06	2.74	0.00	0.00	0.00		
18	0.00	26.13	48.18	474.98	287.86	1702.01	410.61	919.06	2.50	0.00	0.00	0.00		
19	0.00	30.20	100.64	641.91	791.24	1863.35	405.38	684.47	2.99	0.00	0.00	0.00		
20	0.00	20.38	144.66	2872.02	1853.13	1554.93	379.53	347.01	2.99	0.00	0.00	0.00		
21	0.00	0.00	135.47	3857.89	6378.26	3395.62	349.22	320.78	1.01	0.00	0.00	0.00		
22	0.00	11.85	168.88	2364.41	9562.86	8032.39	862.83	373.86	0.66	0.00	0.00	0.00		
23	0.00	117.66	168.88	1497.26	4832.54	5345.87	4410.54	511.97	0.66	0.00	0.00	0.00		
24	0.00	100.64	158.79	2198.21	2001.50	2633.00	3235.71	484.76	0.58	0.00	0.00	0.00		
25	0.00	65.88	149.33	3078.21	1761.98	1331.70	2047.27	373.86	0.58	0.00	0.00	0.00		
26	0.00	43.45	92.45	4342.79	2974.56	1111.56	1904.38	190.53	0.51	0.00	0.00	0.00		
27	0.00	34.45	63.24	4851.27	3091.24	817.05	1593.75	96.52	1.19	0.00	0.00	0.00		
28	0.00	30.20	196.07	3395.62	2974.56	502.64	1613.27	58.08	8.16	0.00	0.00	0.00		
29	0.00	63.24	684.47	2935.98	2833.86	431.75	1564.60	28.14	0.00	0.00		0.00		
30	0.37	104.82	1183.57	2571.18	2174.77	374.43	1135.41	8.86	0.00	0.00		0.00		
31		113.33		3626.19	2571.18		849.67		0.00	0.00		0.00		
Total	73.21	2037.30	4551.44	46555.94	62531.07	56997.13	50804.57	12006.68	272.61	0.00	0.00	0.00	235829.95	Tonday
Mean	2.44	65.72	151.71	1501.80	2017.13	1899.90	1638.86	400.22	8.79	0.00	0.00	0.00	646.11	Ton/day
Max	41.14	236.18	1183.57	4851.27	9562.86	8032.39	4926.39	1087.87	56.81	0.00	0.00	0.00	9562.86	Ton/day
Min	0.00	0.00	36.64	18.56	262.64	374.43	349.22	8.86	0.00	0.00	0.00	0.00	0.00	Ton/day

WATER YEAR : 2018

Yom RIVER BASIN

Yom River at Ban Wang Chin , Phrae (Y.37)

Lat 17 - 53 - 48 N Long 99 - 36 - 28 E

Location : on left bank at the bridge on road.

Ban Wang Chin **Amphoe** Wang Chin **Changwat** Phrae

Drainge Area	10,305 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2007-Cont'd
Actual Measurement	2007-Cont'd
Using Rating Curve Water Year	2018
Number of observation	34
R-Square	0.9680
Remarks	Continued Sediment Station

$$QS = 0.7870\ QW^{1.58500}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.77	447.13	284.39	1492.56	6838.22	3575.66	3383.03	526.25	77.92	23.83	8.66	2.36		
2	1.53	383.59	259.79	1608.84	4252.12	2570.26	3575.66	480.23	74.42	23.83	7.83	2.36		
3	1.53	251.78	251.78	1100.15	3276.98	2153.92	5362.61	414.91	64.26	23.83	7.83	2.36		
4	1.53	251.78	198.42	687.94	2311.59	3329.85	4472.94	345.73	64.26	25.39	7.03	2.25		
5	1.43	701.05	143.97	491.59	1668.50	3409.60	3945.34	327.76	57.80	22.31	7.03	2.14		
6	1.25	881.33	120.91	414.91	1530.76	4707.13	2915.71	327.76	54.66	19.39	7.03	1.98		
7	150.42	503.05	99.89	301.46	1454.72	4158.76	1810.78	318.90	49.28	17.98	6.26	1.98		
8	243.86	404.37	70.97	236.03	1306.98	2815.37	1398.63	318.90	44.76	17.98	5.76	1.88		
9	184.21	284.39	89.94	177.25	942.01	2427.18	1182.56	259.79	42.56	26.98	5.27	1.82		
10	163.63	120.91	74.42	131.97	1417.24	4441.15	972.91	284.39	44.76	38.29	4.35	1.77		
11	259.79	99.89	110.21	198.42	3303.24	7102.52	1051.76	310.14	44.76	94.87	3.49	1.72		
12	345.73	251.78	191.27	259.79	2991.68	6293.26	942.01	318.90	42.56	81.49	3.49	1.67		
13	213.11	636.11	267.90	714.41	1648.52	5288.23	809.85	327.76	40.41	64.26	2.71	1.58		
14	177.25	425.55	243.86	957.42	1165.90	4158.76	796.01	373.35	40.41	54.66	1.36	1.48		
15	170.39	393.93	150.42	768.45	942.01	4158.76	796.01	414.91	38.29	51.59	0.65	1.39		
16	170.39	383.59	105.00	727.70	796.01	3773.05	714.41	354.85	34.19	47.00	0.26	1.30		
17	156.98	373.35	120.91	610.76	837.94	4035.46	610.76	336.70	36.22	42.56	0.04	1.21		
18	177.25	284.39	156.98	1165.90	1067.80	4409.43	549.84	327.76	40.41	38.29	1.12	1.12		
19	150.42	243.86	156.98	6293.26	4600.97	3146.03	514.60	393.93	40.41	36.22	2.19	1.12		
20	404.37	447.13	126.39	6049.11	19482.27	12392.57	491.59	284.39	38.29	32.21	2.19	1.08		
21	284.39	447.13	191.27	3492.27	26151.34	19996.26	585.94	284.39	34.19	26.98	2.09	1.04		
22	228.29	284.39	447.13	2642.80	11021.88	12163.67	1810.78	276.10	32.21	23.83	2.19	1.04		
23	284.39	191.27	514.60	4600.97	5362.61	5663.95	1569.52	236.03	30.27	20.83	2.42	1.00		
24	177.25	156.98	243.86	7419.79	5214.23	3773.05	1549.99	191.27	26.98	16.62	2.42	0.96		
25	137.63	126.39	126.39	11936.35	8401.91	3303.24	1668.50	177.25	26.98	15.29	2.19	0.96		
26	120.91	177.25	105.00	9578.54	8116.72	2570.26	1530.76	156.98	25.39	16.62	2.03	0.92		
27	213.11	292.88	383.59	5971.33	7603.38	1936.13	1608.84	126.39	25.39	14.26	2.19	0.92		
28	327.76	414.91	661.84	4922.11	6293.26	1549.99	1530.76	110.21	25.39	13.26	2.42	0.88		
29	327.76	425.55	1380.12	4778.40	5588.05	1492.56	911.48	94.87	23.83	13.26		0.88		
30	404.37	585.94	1648.52	10239.36	7147.53	2109.63	687.94	85.12	23.83	11.33		0.84		
31		458.07		10969.05	4994.56		610.76		22.31	9.52		0.84		
Total	5482.70	11329.72	8926.72	100938.89	157730.93	142905.69	50362.28	8785.92	1267.40	964.76	102.50	44.85	488842.36	Tonday
Mean	182.76	365.47	297.56	3256.09	5088.09	4763.52	1624.59	292.86	40.88	31.12	3.66	1.45	1339.29	Ton/day
Max	404.37	881.33	1648.52	11936.35	26151.34	19996.26	5362.61	526.25	77.92	94.87	8.66	2.36	26151.34	Ton/day
Min	1.25	99.89	70.97	131.97	796.01	1492.56	491.59	85.12	22.31	9.52	0.04	0.84	0.04	Ton/day

WATER YEAR : 2018

Yom RIVER BASIN

Nam Pi at Ban Phi Tai , Nan (Y.65)

Lat 18 - 52 - 38 N Long 100 - 26 - 20 E

Location : on right bank at the bridge on road.

Ban Phi Tai **Amphoe** Ban Luang **Changwat** Nan

Drainge Area	131 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2018-Cont'd
Actual Measurement	2018-Cont'd
Using Rating Curve Water Year	2018
Number of observation	28
R-Square	0.8830
Remarks	Continued Sediment Station

$$QS = 2.0460\ QW^{1.55900}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.74	0.88	0.95	2.37	6.08	4.09	15.27	2.05	1.31	0.67	0.74	0.45		
2	0.74	0.88	0.88	1.59	4.85	0.88	11.70	2.05	1.31	0.61	0.61	0.45		
3	0.74	0.88	0.81	1.44	4.59	0.88	9.40	2.05	1.31	0.61	0.81	0.45		
4	0.74	1.02	0.74	1.02	3.15	1.02	8.17	1.74	1.17	0.61	0.55	0.49		
5	0.74	0.81	0.67	0.95	2.72	0.81	7.45	1.89	1.17	0.15	0.55	0.49		
6	0.74	0.81	0.74	0.88	2.21	0.81	6.75	1.74	1.10	0.42	0.55	0.45		
7	0.74	0.74	1.59	0.81	2.54	0.74	6.08	1.89	1.02	0.74	0.67	0.25		
8	0.74	0.67	6.08	0.74	1.74	0.67	4.85	2.05	0.95	0.74	0.38	0.49		
9	0.74	0.67	1.74	0.74	1.74	0.67	4.34	2.05	0.88	1.44	0.31	0.45		
10	0.74	0.61	1.74	1.02	4.59	0.61	4.09	1.89	0.81	1.02	0.31	0.45		
11	0.74	0.67	1.44	1.74	2.37	0.67	11.23	2.37	0.74	0.88	0.55	0.55		
12	0.74	0.74	1.74	1.89	2.05	0.61	12.67	2.72	0.95	0.88	0.55	0.45		
13	0.74	2.21	2.05	2.93	1.89	2.21	11.23	2.93	0.95	0.81	0.55	0.13		
14	0.74	0.95	1.59	2.05	1.74	0.95	10.30	2.93	0.95	0.81	0.45	0.22		
15	0.74	0.74	1.17	2.72	1.44	0.74	10.30	2.21	0.95	0.81	0.38	0.49		
16	0.74	0.67	1.10	1.02	1.17	0.67	7.80	2.05	0.88	0.81	0.22	0.15		
17	0.74	1.17	2.72	0.74	3.38	1.17	6.75	1.89	0.88	0.81	0.07	0.45		
18	0.74	1.74	1.59	8.97	453.07	2.93	5.43	1.89	0.81	0.81	0.11	0.42		
19	0.74	1.10	3.15	2.05	83.68	1.10	4.85	2.05	0.81	0.74	0.42	0.45		
20	0.74	0.88	2.05	3.61	41.18	0.88	4.59	1.74	0.81	0.74	0.25	0.45		
21	0.74	0.74	0.74	11.70	33.60	0.74	4.85	1.74	0.74	0.74	0.15	0.35		
22	0.74	0.74	0.74	69.77	114.26	0.74	4.85	1.74	0.74	0.74	0.13	0.42		
23	0.74	1.10	1.89	42.50	200.60	0.74	4.85	1.59	0.88	0.74	0.07	0.42		
24	0.67	62.24	62.24	65.96	64.09	71.70	9.85	1.59	0.88	0.67	0.19	0.38		
25	0.45	4.85	4.85	33.60	38.59	4.85	32.39	1.59	0.81	0.45	0.28	0.38		
26	0.81	2.93	2.54	17.49	29.02	2.54	5.12	1.44	0.74	0.10	0.35	0.06		
27	14.55	1.59	1.44	11.23	64.09	1.44	3.61	1.44	0.74	0.08	0.19	0.03		
28	51.93	1.10	1.10	10.30	142.36	1.10	1.74	1.44	0.74	0.31	0.38	0.03		
29	2.21	0.95	0.95	10.30	27.06	0.95	2.37	1.44	0.74	0.42		0.11		
30	1.02	0.95	0.88	10.76	17.49	0.88	2.54	1.31	0.74	0.28		0.09		
31		1.31		10.30	13.85		2.37		0.74	0.14		0.38		
Total	88.66	97.34	111.91	333.19	1371.19	108.79	237.79	57.50	28.25	19.78	10.77	10.83	2476.00	Tonday
Mean	2.96	3.14	3.73	10.75	44.23	3.63	7.67	1.92	0.91	0.64	0.38	0.35	6.78	Ton/day
Max	51.93	62.24	62.24	69.77	453.07	71.70	32.39	2.93	1.31	1.44	0.81	0.55	453.07	Ton/day
Min	0.45	0.61	0.67	0.74	1.17	0.61	1.74	1.31	0.74	0.08	0.07	0.03	0.03	Ton/day

WATER YEAR : 2018

NAN RIVER BASIN

Nan River at Forestry Office , Nan (N.1)

Lat 18 - 46 - 26 N Long 100 - 46 - 56 E

Location : on right bank in front of Forestry Office.

Ban Forestry Office **Amphoe** Mueang **Changwat** Nan

Drainge Area	4,560 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1979-Cont'd
Actual Measurement	1979-Cont'd
Using Rating Curve Water Year	2018
Number of observation	33
R-Square	0.8770
Remarks	Continued Sediment Station

$$QS = 0.0830\ QW^{1.98400}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	11.68	14.51	173.27	2776.64	18492.71	5853.87	3605.73	396.30	84.44	51.64	14.51	5.36		
2	17.88	13.46	154.54	1848.91	10359.08	4415.70	3866.68	374.61	84.44	48.88	13.46	6.42		
3	9.23	57.40	131.22	1297.60	6639.28	12506.86	2740.66	324.03	80.41	51.64	12.55	6.42		
4	6.42	101.57	106.10	1211.92	9746.87	26528.93	2052.47	305.39	80.41	48.88	11.68	5.79		
5	11.68	66.60	166.91	847.00	7991.98	31625.01	1713.38	287.30	76.47	39.41	10.83	4.94		
6	17.88	92.81	305.39	642.26	4321.69	11265.74	1437.81	278.47	69.81	31.21	10.83	4.53		
7	16.72	51.64	702.27	490.94	3605.73	7701.92	1343.55	244.92	69.81	29.30	10.02	4.15		
8	43.87	51.64	953.51	441.49	2776.64	6150.15	1211.92	237.18	66.60	31.21	9.23	4.15		
9	29.30	51.64	627.67	516.96	2960.05	8213.03	1068.96	229.57	69.81	73.10	8.48	4.15		
10	16.72	33.17	333.55	657.01	5117.51	6764.46	934.90	222.09	73.10	142.64	7.76	3.42		
11	10.83	14.51	244.92	1233.07	4558.60	6701.72	972.30	229.57	73.10	88.58	7.76	3.78		
12	7.76	10.83	278.47	17281.56	3648.59	5227.60	1068.96	244.92	69.81	57.40	7.76	3.09		
13	5.79	17.88	453.17	19462.84	2599.05	9919.90	953.51	237.18	69.81	46.19	7.08	3.09		
14	4.94	27.46	490.94	3735.08	2393.63	6150.15	847.00	252.77	80.41	43.87	7.76	3.09		
15	4.53	15.60	305.39	1820.70	2529.65	4275.06	749.02	261.20	73.10	39.41	8.48	3.42		
16	4.53	13.46	287.30	1254.40	2112.56	3822.56	642.26	214.72	66.60	41.61	7.76	2.77		
17	4.94	41.61	374.61	1739.62	34525.65	3072.89	613.25	214.72	54.48	37.27	8.48	2.47		
18	13.46	385.38	717.68	4801.79	176071.48	21123.83	584.90	200.36	51.64	37.27	12.55	2.19		
19	43.87	200.36	2142.93	2329.67	155959.91	25656.00	557.23	179.75	48.88	35.19	12.55	2.19		
20	84.44	830.26	6890.80	16756.33	61687.16	9833.20	516.96	160.66	51.64	31.21	10.02	1.56		
21	166.91	200.36	6764.46	38915.03	24981.82	5737.39	516.96	148.53	48.88	20.33	8.48	1.38		
22	63.45	120.27	2361.54	69542.97	16145.66	4703.76	1585.15	142.64	48.88	17.88	7.08	1.76		
23	31.21	120.27	1413.95	56477.59	17414.12	3911.05	1275.91	110.73	46.19	16.72	7.08	1.38		
24	16.72	106.10	1687.34	17814.82	16510.71	3231.26	863.92	110.73	41.61	16.72	7.08	1.38		
25	11.68	97.14	4368.57	34950.33	13741.96	2776.64	813.68	110.73	35.19	16.72	5.79	1.20		
26	15.60	97.14	3955.68	52316.65	13323.85	2298.01	863.92	110.73	37.27	16.72	5.36	1.20		
27	63.45	131.22	13636.83	43893.45	12810.23	2112.56	733.27	110.73	39.41	14.51	5.36	1.04		
28	37.27	200.36	9833.20	44875.40	14273.61	1993.24	598.99	97.14	39.41	14.51	5.36	1.38		
29	25.68	142.64	8065.33	67587.99	9069.86	2022.75	530.21	88.58	39.41	13.46		1.56		
30	19.09	154.54	5172.41	54513.22	7558.88	2495.29	516.96	88.58	46.19	13.46		1.56		
31		173.27		31422.65	6150.15		490.94		51.64	13.46		1.56		
Total	817.53	3635.10	73099.95	593455.89	670078.67	248090.53	36271.36	6214.83	1868.85	1180.40	251.14	92.38	1635056.63	Tonday
Mean	27.25	117.26	2436.67	19143.74	21615.44	8269.68	1170.04	207.16	60.29	38.08	8.97	2.98	4479.61	Ton/day
Max	166.91	830.26	13636.83	69542.97	176071.48	31625.01	3866.68	396.30	84.44	142.64	14.51	6.42	176071.48	Ton/day
Min	4.53	10.83	106.10	441.49	2112.56	1993.24	490.94	88.58	35.19	13.46	5.36	1.04	1.04	Ton/day

WATER YEAR : 2018

NAN RIVER BASIN

Nan River at Ban Rat Chang Khwan , Phichit (N.7A)

Lat 16 - 28 - 03 N Long 100 - 20 - 05 E

Location : on right bank in front of Phichit Phitthaya Khom School

Ban Rat Chang Khwan **Amphoe** Mueang **Changwat** Phichit

Drainge Area	27,897 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2001-Cont'd
Actual Measurement	2001-Cont'd
Using Rating Curve Water Year	2018
Number of observation	19
R-Square	0.7545
Remarks	Continued Sediment Station

$$QS = 1.3291\ QW^{1.23300}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	1110.42	1687.56	1944.02	1950.52	1906.42	4331.01	744.40	770.50	1141.47	1136.19	1444.73	885.46	
2	1173.27	1705.61	1970.04	1772.07	2114.28	4240.50	827.60	753.08	1070.82	1105.45	1375.04	823.18	
3	1199.90	1699.59	1970.04	1621.72	2260.40	3987.90	1253.49	727.10	1056.04	1036.39	1329.25	761.78	
4	1194.57	1615.76	1784.21	1351.96	2293.87	3632.01	1924.88	684.19	1026.60	1036.39	1285.86	761.78	
5	1242.74	1544.55	1580.08	1110.42	2620.06	3193.89	2187.11	709.88	994.16	1031.49	1444.73	818.77	
6	1189.24	1603.85	1380.82	944.05	2830.89	2955.89	1386.61	727.10	912.41	966.77	1340.44	748.74	
7	1141.47	1509.18	1183.91	872.05	2896.94	3015.06	1237.37	735.74	718.48	975.88	1226.64	701.30	
8	1141.47	1503.30	1056.04	748.74	2963.27	2970.66	1012.51	709.88	701.30	957.67	1110.42	818.77	
9	1115.39	1275.05	1070.82	667.17	2911.66	2808.94	836.46	675.67	1026.60	948.58	1046.21	840.89	
10	1125.63	1046.21	1075.75	637.58	2838.21	2140.71	753.08	671.42	1173.27	912.41	1017.10	774.86	
11	1152.05	894.43	1157.35	662.93	2801.63	2293.87	836.46	658.69	1232.00	998.74	1021.70	783.61	
12	1136.19	832.03	1237.37	783.61	2955.89	2540.91	709.88	671.42	1280.45	1080.69	1130.91	801.15	
13	1115.39	753.08	1357.72	796.76	2955.89	2041.92	679.93	792.37	1232.00	1003.33	1296.68	858.67	
14	1095.54	679.93	1669.56	766.13	3015.06	1851.23	675.67	948.58	1146.76	1100.49	1215.93	912.41	
15	1100.49	684.19	1747.85	796.76	3029.89	1657.57	671.42	1075.75	1105.45	1085.64	1120.36	921.43	
16	1085.64	823.18	1759.95	809.95	2919.02	1778.14	667.17	1100.49	1100.49	1125.63	1115.39	925.95	
17	1194.57	957.67	1778.14	880.99	2706.93	1814.62	646.01	1136.19	1100.49	1085.64	1095.54	921.43	
18	1307.52	1105.45	1705.61	1105.45	2433.72	1687.56	464.71	1115.39	1095.54	1125.63	1183.91	971.32	
19	1532.74	1409.80	1603.85	1415.61	2094.50	1386.61	454.33	1183.91	1095.54	1205.24	1178.59	1031.49	
20	1759.95	1766.01	1398.20	1741.80	1875.72	1205.24	529.46	1221.28	1085.64	1221.28	1125.63	1120.36	
21	1826.81	1900.27	1242.74	2114.28	1924.88	1199.90	583.30	1285.86	1120.36	1178.59	1026.60	985.02	
22	1759.95	1924.88	1296.68	2213.71	2341.54	1130.91	599.91	1285.86	1136.19	1120.36	998.74	912.41	
23	1705.61	1869.59	1369.26	2028.81	2978.05	1183.91	646.01	1307.52	1051.12	1095.54	1017.10	966.77	
24	1681.56	1820.71	1392.40	1875.72	3535.76	1242.74	744.40	1280.45	1065.89	1051.12	953.12	980.45	
25	1456.41	1705.61	1468.10	1869.59	3712.59	1318.38	792.37	1264.26	1141.47	985.02	1065.89	985.02	
26	1404.00	1657.57	1479.82	1881.85	3834.45	948.58	916.92	1141.47	1152.05	1012.51	930.47	980.45	
27	1404.00	1669.56	1645.61	1735.76	4013.59	709.88	989.59	1056.04	1080.69	1110.42	916.92	975.88	
28	1318.38	1735.76	1912.57	1609.80	4168.35	792.37	889.94	1041.30	1125.63	1221.28	894.43	863.12	
29	1351.96	1753.90	2041.92	1651.59	4267.61	709.88	832.03	1056.04	1183.91	1312.95		792.37	
30	1532.74	1826.81	2160.57	1657.57	4412.77	692.74	818.77	1100.49	1167.96	1491.55		801.15	
31		1918.72		1681.56	4394.58		845.33		1125.63	1503.30		845.33	
Total	39555.60	44879.81	46441.00	41756.51	92008.42	61463.53	27157.12	28887.92	33646.41	34222.17	31908.33	27271.32	509198.14 Tonday
Mean	1318.52	1447.74	1548.03	1346.98	2968.01	2048.78	876.04	962.93	1085.37	1103.94	1139.58	879.72	1395.06 Ton/day
Max	1826.81	1924.88	2160.57	2213.71	4412.77	4331.01	2187.11	1307.52	1280.45	1503.30	1444.73	1120.36	4412.77 Ton/day
Min	1085.64	679.93	1056.04	637.58	1875.72	692.74	454.33	658.69	701.30	912.41	894.43	701.30	454.33 Ton/day

WATER YEAR : 2018

NAN RIVER BASIN

Nan River at Ban Hor Krai , Phichit (N.8A)

Lat 16 - 04 - 45 N Long 100 - 24 - 00 E

Location : on right bank opposite to Wat Bang Mun Nak.

Ban Hor Krai **Amphoe** Bang Mun Nak **Changwat** Phichit

Drainge Area	31,472 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1997-Cont'd
Actual Measurement	1997-Cont'd
Using Rating Curve Water Year	2018
Number of observation	20
R-Square	0.7259
Remarks	Continued Sediment Station

$$QS = 0.1457\ QW^{1.60530}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	897.89	1337.01	1864.53	2409.86	2130.61	7246.44	884.74	893.50	884.74	911.12	1257.29	692.42		
2	942.26	1501.92	1841.01	2213.86	2180.41	7147.32	989.06	880.37	893.50	906.70	1179.43	684.46		
3	933.32	1476.08	1959.73	1999.93	2524.78	6926.19	1086.21	867.32	862.98	854.34	1097.70	614.44		
4	928.86	1482.53	1919.85	1737.97	2684.30	6143.22	1547.55	803.15	820.08	854.34	1053.33	561.97		
5	979.31	1380.70	1660.49	1431.27	2945.15	4999.28	1825.80	798.94	790.54	798.94	1069.05	569.36		
6	1008.67	1349.44	1424.91	1120.83	3318.75	4480.75	1796.34	820.08	740.87	786.36	1161.73	599.27		
7	960.23	1355.67	1179.43	937.79	3527.31	4349.08	1613.62	798.94	645.21	786.36	1048.33	511.29		
8	984.18	1318.45	979.31	824.33	3678.96	4362.18	1405.90	778.01	486.64	728.64	960.23	536.41		
9	911.12	1221.12	946.74	684.46	3750.31	4244.81	1215.13	704.41	580.51	753.17	884.74	633.61		
10	897.89	989.06	919.97	580.51	3632.04	4001.01	960.23	637.46	811.60	684.46	828.60	610.64		
11	906.70	798.94	911.12	573.07	3427.37	3667.21	955.73	591.74	924.42	732.71	803.15	565.66		
12	897.89	664.73	969.59	649.10	3449.26	3243.50	933.32	569.36	1008.67	790.54	841.43	543.67		
13	854.34	664.73	1008.67	716.49	3538.89	2580.66	794.74	599.27	998.85	815.84	974.44	591.74		
14	854.34	603.05	1215.13	720.53	3597.00	2847.47	696.41	720.53	951.23	757.29	1069.05	684.46		
15	845.72	532.79	1431.27	712.45	3655.47	3063.98	614.44	871.66	906.70	837.14	1003.75	704.41		
16	837.14	474.23	1495.45	740.87	3573.71	2627.58	424.89	1023.48	858.65	902.29	928.86	740.87		
17	889.12	511.29	1527.93	790.54	3362.04	2779.85	573.07	1028.43	858.65	837.14	937.79	684.46		
18	1245.19	603.05	1593.69	942.26	3084.46	2905.93	543.67	1080.48	845.72	902.29	858.65	704.41		
19	1324.62	740.87	1541.00	1281.62	2684.30	2789.47	500.67	1086.21	854.34	906.70	969.59	740.87		
20	1431.27	1245.19	1437.64	1781.68	2247.49	2618.17	486.64	1086.21	850.02	937.79	955.73	820.08		
21	1667.22	1521.42	1239.16	2383.94	2056.72	2427.20	504.20	1053.33	841.43	964.74	911.12	845.72		
22	1673.97	1647.05	1149.99	2837.78	2264.38	2289.81	576.79	1053.33	871.66	911.12	815.84	720.53		
23	1541.00	1660.49	1144.13	2837.78	2945.15	2048.57	625.91	1097.70	862.98	880.37	811.60	820.08		
24	1469.65	1633.65	1263.36	2497.02	3837.36	1737.97	692.42	1086.21	854.34	837.14	807.37	845.72		
25	1374.42	1567.26	1418.56	2289.81	4427.90	1709.06	782.18	1023.48	828.60	782.18	744.96	720.53		
26	1245.19	1444.02	1554.11	2230.65	4740.28	1580.46	850.02	960.23	807.37	761.42	708.43	732.71		
27	1167.62	1456.81	1833.19	2213.86	5151.94	1179.43	960.23	902.29	807.37	794.74	720.53	625.91		
28	1097.70	1456.81	2147.16	2089.44	5580.78	979.31	1008.67	876.01	841.43	897.89	696.41	587.99		
29	1048.33	1469.65	2358.12	2016.09	6205.59	951.23	951.23	832.86	928.86	974.44		603.05		
30	1144.13	1620.29	2427.20	2147.16	7073.32	871.66	902.29	841.43	933.32	1120.83		573.07		
31		1730.73		2180.41	7147.32		893.50		928.86	1233.13		573.07		
Total	32959.29	37459.03	44362.44	48573.36	114423.35	98798.80	28595.60	26366.42	26080.14	26642.16	26099.13	20442.88	530802.60	Tonday
Mean	1098.64	1208.36	1478.75	1566.88	3691.08	3293.29	922.44	878.88	841.29	859.42	932.11	659.45	1454.25	Ton/day
Max	1673.97	1730.73	2427.20	2837.78	7147.32	7246.44	1825.80	1097.70	1008.67	1233.13	1257.29	845.72	7246.44	Ton/day
Min	837.14	474.23	911.12	573.07	2056.72	871.66	424.89	569.36	486.64	684.46	696.41	511.29	424.89	Ton/day

WATER YEAR : 2018

NAN RIVER BASIN

Khek River at Ban Wang Nok Aen , Phitsanulok (N.24A)

Lat 16 - 50 - 36 N Long 100 - 31 - 20 E

Location : on right bank about 2 kilometers downstream from Sakunothayan Fall.

Ban Wang Nok Aen **Amphoe** Wang Thong **Changwat** Phitsanulok

Drainge Area	1,838 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1996-Cont'd
Actual Measurement	1996-Cont'd
Using Rating Curve Water Year	2018
Number of observation	28
R-Square	0.8515
Remarks	Continued Sediment Station

$$QS = 1.9125\ QW^{1.61510}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	3.92	80.11	115.97	318.74	1251.83	1401.02	1201.13	113.04	40.29	8.40	2.99	3.14		
2	38.34	72.56	189.28	244.03	894.76	1033.46	2119.30	101.58	38.34	8.13	2.85	2.85		
3	8.95	41.29	151.74	180.47	862.86	1033.46	1709.96	93.30	35.48	8.13	2.71	2.57		
4	16.87	128.00	200.06	140.47	621.20	1273.80	843.94	86.61	32.70	8.13	2.71	2.36		
5	18.68	143.66	440.07	153.38	672.28	4731.76	589.38	80.11	30.90	7.86	2.71	2.57		
6	17.59	324.18	271.41	220.40	820.51	5695.55	477.41	77.56	29.14	7.60	2.57	2.46		
7	22.49	146.87	281.68	176.99	720.44	2052.80	415.82	72.56	25.73	7.34	2.57	2.36		
8	19.42	70.11	198.25	143.66	548.84	1348.07	368.91	68.90	24.09	7.34	2.46	2.17		
9	16.17	65.31	397.98	123.44	480.70	1493.57	327.02	64.13	22.49	7.60	2.36	1.97		
10	16.17	38.34	212.92	239.54	592.95	1423.95	292.09	62.95	20.93	7.34	2.26	1.79		
11	11.89	45.34	207.37	187.51	446.21	2141.64	268.97	64.13	20.93	7.34	2.17	1.61		
12	8.13	102.99	194.64	187.51	604.52	1604.38	374.66	68.90	20.17	7.60	2.99	1.53		
13	6.34	115.97	129.53	200.06	586.10	1532.80	318.74	98.79	19.42	7.60	2.26	1.44		
14	4.94	159.99	105.82	198.25	1524.93	3638.28	239.54	110.13	17.59	7.34	2.17	1.36		
15	3.45	121.93	114.50	261.29	825.18	2289.03	212.92	148.49	16.52	6.83	2.07	1.28		
16	4.09	542.19	100.19	310.76	589.38	1718.19	201.88	110.13	15.48	6.34	1.97	1.20		
17	509.41	117.45	81.39	244.03	499.86	1151.24	222.29	104.40	14.47	6.10	3.60	1.13		
18	222.29	765.31	71.33	10736.94	596.25	999.75	237.60	82.69	13.80	5.67	3.14	1.13		
19	98.79	300.10	108.69	8208.84	1742.96	953.27	226.08	201.88	13.15	5.48	2.46	1.05		
20	105.82	239.54	81.39	3801.27	2485.00	858.12	286.86	120.43	12.52	5.30	2.36	1.05		
21	48.47	389.29	71.33	2677.27	2097.04	825.18	201.88	105.82	12.20	5.12	2.36	3.76		
22	16.52	281.68	131.07	1572.42	6389.94	672.28	216.65	89.27	11.58	4.77	3.92	4.42		
23	11.58	140.47	100.19	2130.46	3336.42	559.01	401.05	82.69	11.28	4.59	4.25	3.14		
24	8.95	117.45	97.41	1588.37	3244.14	1040.26	431.04	82.69	10.98	4.42	4.59	2.26		
25	7.34	81.39	97.41	979.73	2220.54	843.94	409.84	66.50	10.68	4.25	4.09	1.61		
26	6.10	73.80	182.22	811.21	3823.58	642.30	284.37	59.48	9.80	4.09	3.76	1.44		
27	5.86	412.95	920.59	927.09	3676.71	621.20	205.53	51.69	9.51	3.92	3.60	1.36		
28	6.34	464.84	1165.41	1109.12	4951.67	733.79	166.72	46.37	9.23	3.76	3.45	2.46		
29	6.83	452.39	869.21	1378.23	4072.25	1006.46	145.26	43.29	8.95	3.60		1.88		
30	142.06	166.72	528.99	2019.86	2407.28	1266.46	132.62	41.29	8.95	3.29		1.36		
31		124.95		1669.05	1556.52		120.43		8.67	3.14		1.36		
Total	1413.80	6327.17	7818.04	43140.39	55142.85	46585.02	13649.89	2599.80	575.97	188.42	81.40	62.07	177584.82	Tonday
Mean	47.13	204.10	260.60	1391.63	1778.80	1552.83	440.32	86.66	18.58	6.08	2.91	2.00	486.53	Ton/day
Max	509.41	765.31	1165.41	10736.94	6389.94	5695.55	2119.30	201.88	40.29	8.40	4.59	4.42	10736.94	Ton/day
Min	3.45	38.34	71.33	123.44	446.21	559.01	120.43	41.29	8.67	3.14	1.97	1.05	1.05	Ton/day

WATER YEAR : 2018

NAN RIVER BASIN

Nam Khwae Noi at Ban Nong Krathao , Phitsanulok (N.36)

Lat 17 - 04 - 59 N Long 100 - 49 - 44 E

Location : on left bank about 50 meters upstream from the bridge along Lom Sak - Nakhon Thai Road, Tambon Nong Krathao.

Ban Nong Krathao **Amphoe** Nakhon Thai **Changwat** Phitsanulok

Drainge Area	1,710 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2000-Cont'd
Actual Measurement	2000-Cont'd
Using Rating Curve Water Year	2018
Number of observation	23
R-Square	0.7422
Remarks	Continued Sediment Station

$$QS = 11.2094\ QW^{1.14050}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	451.96	37.75	357.14	866.59	2356.99	2622.38	915.91	121.47	75.42	37.90	0.00	0.00		
2	388.63	37.75	302.85	769.01	1793.91	2294.83	888.47	121.47	70.59	37.90	0.00	0.00		
3	314.38	43.75	265.16	651.80	1421.39	2040.29	850.23	118.73	70.59	36.86	0.00	0.00		
4	230.53	46.78	234.80	537.15	1269.44	1927.81	817.62	118.73	69.15	36.86	0.00	0.00		
5	151.03	40.74	208.21	405.50	1156.98	2383.69	785.17	116.00	67.71	35.83	0.00	0.00		
6	68.67	35.83	172.34	329.85	1032.23	2321.44	758.26	116.00	66.28	35.83	0.00	0.00		
7	52.93	33.92	163.42	251.61	893.95	2516.26	720.78	121.47	66.28	34.80	0.00	0.00		
8	56.04	32.02	154.91	172.34	779.78	2321.44	699.46	132.51	66.28	33.77	0.00	0.00		
9	43.75	30.13	160.58	116.00	683.53	2285.97	678.23	149.27	64.84	33.77	0.00	0.00		
10	40.74	28.26	178.80	101.12	998.82	2241.71	657.08	154.91	64.84	32.75	0.00	0.00		
11	37.75	33.92	333.73	113.28	1377.59	2175.54	630.76	152.09	64.84	31.73	0.00	0.00		
12	35.83	59.16	882.99	198.35	1245.66	2078.92	604.57	146.46	63.42	31.73	0.00	0.00		
13	33.92	78.50	430.45	188.54	1722.89	1927.81	578.52	143.66	63.42	30.71	0.00	0.00		
14	32.02	59.16	268.56	166.27	1538.03	1927.81	562.96	135.28	62.00	30.71	0.00	0.00		
15	30.13	52.93	228.12	372.84	1390.09	2055.34	573.33	129.74	60.58	29.70	0.00	0.00		
16	28.26	46.78	278.79	265.16	1578.89	1490.54	557.79	121.47	59.16	29.70	0.00	0.00		
17	26.41	43.75	322.11	231.45	1572.07	1076.98	537.15	116.00	57.75	28.70	0.00	0.00		
18	24.57	43.75	251.61	1681.59	1275.40	971.09	521.73	111.24	56.35	27.69	0.00	0.00		
19	22.75	49.84	221.46	4633.59	1151.10	1099.45	465.69	107.18	54.95	26.69	0.00	0.00		
20	20.94	65.48	228.12	3729.66	1004.38	1251.60	385.67	103.14	52.16	26.69	0.00	0.00		
21	19.16	151.03	261.76	3195.55	1121.97	1329.14	333.73	99.11	50.77	25.70	0.00	0.00		
22	18.21	151.03	322.11	2847.09	1477.94	1233.79	285.64	97.11	48.00	25.70	0.00	0.00		
23	17.26	119.25	465.69	2716.72	1823.56	1009.94	241.50	95.11	45.26	25.70	0.00	0.00		
24	16.32	98.61	506.37	2383.69	1736.68	976.63	204.92	93.12	44.20	24.71	0.00	0.00		
25	15.38	88.49	501.26	2111.07	2086.95	833.91	169.12	91.13	43.14	24.71	0.00	0.00		
26	15.38	154.91	726.12	1897.95	2558.14	688.84	149.27	89.15	42.09	24.01	0.00	0.00		
27	19.16	185.29	910.41	1980.20	3312.78	506.37	157.74	87.17	41.04	24.01	0.00	0.00		
28	32.02	405.50	1082.59	2151.33	3787.24	420.45	146.46	85.20	39.99	23.31	0.00	0.00		
29	33.92	455.59	1305.22	2119.11	3873.80	445.51	135.28	83.23	39.99	23.31		0.00		
30	40.74	400.53	987.72	2250.55	3529.03	965.55	132.51	81.27	38.94	22.61		0.00		
31		376.78		2933.74	3078.85		124.22		38.94	22.61		0.00		
Total	2318.79	3487.21	12713.40	42368.70	54630.06	47421.03	15269.77	3438.42	1748.97	916.70	0.00	0.00	184313.05	Tonday
Mean	77.29	112.49	423.78	1366.73	1762.26	1580.70	492.57	114.61	56.42	29.57	0.00	0.00	504.97	Ton/day
Max	451.96	455.59	1305.22	4633.59	3873.80	2622.38	915.91	154.91	75.42	37.90	0.00	0.00	4633.59	Ton/day
Min	15.38	28.26	154.91	101.12	683.53	420.45	124.22	81.27	38.94	22.61	0.00	0.00	0.00	Ton/day

WATER YEAR : 2018

NAN RIVER BASIN

Khlong Wang Pong at Ban Wang Pong , Phetchabun (N.54)

Lat 16 - 19 - 34 N Long 100 - 48 - 17 E

Location : on left bank at the bridge on road.

Ban Wang Pong **Amphoe** Chon Dan **Changwat** Phetchabun

Drainge Area	174 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1999-Cont'd
Actual Measurement	1999-Cont'd
Using Rating Curve Water Year	2009-2018
Number of observation	104
R-Square	0.7813
Remarks	Continued Sediment Station

$$QS = 5.8543\ QW^{1.45460}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	0.00	95.56	149.58	64.41	0.00	0.00	0.00	0.00	0.00	0.00		
2	0.00	0.00	0.00	112.73	91.52	64.41	0.00	0.00	0.00	0.00	0.00	0.00		
3	0.00	0.00	0.00	135.49	67.32	181.50	0.00	0.00	0.00	0.00	0.00	0.00		
4	0.00	0.00	0.00	159.29	67.32	108.46	0.00	0.00	0.00	0.00	0.00	0.00		
5	0.00	0.00	0.00	181.50	64.41	67.32	0.00	0.00	0.00	0.00	0.00	0.00		
6	0.00	0.00	0.00	220.04	64.41	64.41	0.00	0.00	0.00	0.00	0.00	0.00		
7	0.00	0.00	0.00	253.86	50.52	64.41	0.00	0.00	0.00	0.00	0.00	0.00		
8	0.00	0.00	0.00	253.86	32.95	64.41	0.00	0.00	0.00	0.00	0.00	0.00		
9	0.00	0.00	0.00	253.86	130.75	64.41	0.00	0.00	0.00	0.00	0.00	0.00		
10	0.00	0.00	0.00	260.81	213.45	64.41	0.00	0.00	0.00	0.00	0.00	0.00		
11	0.00	0.00	37.73	246.98	368.25	121.63	0.00	0.00	0.00	0.00	0.00	0.00		
12	0.00	0.00	18.19	246.98	567.53	260.81	0.00	0.00	0.00	0.00	0.00	0.00		
13	0.00	0.00	11.07	253.86	729.01	406.76	0.00	0.00	0.00	0.00	0.00	0.00		
14	0.00	0.00	4.23	226.68	940.23	253.86	0.00	0.00	0.00	0.00	0.00	0.00		
15	0.00	0.00	1.72	715.97	1229.94	200.48	0.00	0.00	0.00	0.00	0.00	0.00		
16	0.00	0.00	1.72	187.76	1377.51	112.73	0.00	0.00	0.00	0.00	0.00	0.00		
17	0.00	0.00	1.72	233.39	1396.32	67.32	0.00	0.00	0.00	0.00	0.00	0.00		
18	0.00	0.00	1.72	233.39	1435.61	64.41	0.00	0.00	0.00	0.00	0.00	0.00		
19	0.00	0.00	1.72	240.15	1415.21	64.41	0.00	0.00	0.00	0.00	0.00	0.00		
20	0.00	0.00	4.23	240.15	1642.00	64.41	0.00	0.00	0.00	0.00	0.00	0.00		
21	0.00	0.00	35.31	175.31	1748.14	47.87	0.00	0.00	0.00	0.00	0.00	0.00		
22	0.00	0.00	76.26	233.39	1284.67	13.77	0.00	0.00	0.00	0.00	0.00	0.00		
23	0.00	0.00	108.46	175.31	908.75	5.27	0.00	0.00	0.00	0.00	0.00	0.00		
24	0.00	0.00	135.49	164.33	690.49	5.27	0.00	0.00	0.00	0.00	0.00	0.00		
25	0.00	0.00	169.18	194.09	416.41	5.27	0.00	0.00	0.00	0.00	0.00	0.00		
26	0.00	0.00	175.31	240.15	267.81	5.27	0.00	0.00	0.00	0.00	0.00	0.00		
27	0.00	0.00	175.31	246.98	253.86	5.27	0.00	0.00	0.00	0.00	0.00	0.00		
28	0.00	0.00	175.31	220.04	206.94	1.02	0.00	0.00	0.00	0.00	0.00	0.00		
29	0.00	0.00	121.63	260.81	112.73	42.70	0.00	0.00	0.00	0.00		0.00		
30	0.00	0.00	91.52	67.32	64.41	64.41	0.00	0.00	0.00	0.00		0.00		
31		0.00		55.95	64.41		0.00		0.00	0.00		0.00		
Total	0.00	0.00	1347.83	6785.99	18052.46	2621.09	0.00	0.00	0.00	0.00	0.00	0.00	28807.37	Tonday
Mean	0.00	0.00	44.93	218.90	582.34	87.37	0.00	0.00	0.00	0.00	0.00	0.00	78.92	Ton/day
Max	0.00	0.00	175.31	715.97	1748.14	406.76	0.00	0.00	0.00	0.00	0.00	0.00	1748.14	Ton/day
Min	0.00	0.00	0.00	55.95	32.95	1.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Ton/day

WATER YEAR : 2018

NAN RIVER BASIN

Nam Phak at Ban Tha Sakae , Phitsanulok (N.55)

Lat 17 - 15 - 06 N Long 100 - 37 - 53 E

Location : on left bank at the bridge of Nakhon Thai - Chat Trakan Road , Tambon Pa Daeng.

Ban Tha Sakae **Amphoe** Chat Trakan **Changwat** Phitsanulok

Drainge Area	971 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1994-Cont'd
Actual Measurement	1994-Cont'd
Using Rating Curve Water Year	2018
Number of observation	23
R-Square	0.8287
Remarks	Continued Sediment Station

$$QS = 2.6522\ QW^{1.49280}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	7.02	23.89	49.37	82.49	240.88	146.61	168.25	76.41	36.58	22.59	0.00	0.00		
2	7.02	21.32	38.10	71.66	189.23	346.23	168.25	76.41	32.88	22.59	0.00	0.00		
3	7.35	19.46	32.88	56.06	137.77	292.35	166.54	76.41	29.31	21.95	0.00	0.00		
4	7.69	17.88	30.01	43.56	105.61	227.32	164.84	75.21	25.21	21.95	0.00	0.00		
5	8.03	16.34	36.58	37.34	87.46	279.36	164.84	77.61	21.95	22.59	0.00	0.00		
6	8.37	15.34	37.34	33.61	76.41	225.09	163.14	83.73	18.93	23.24	0.00	0.00		
7	9.08	14.85	40.41	31.44	81.26	171.69	161.44	87.46	16.34	23.89	0.00	0.00		
8	9.44	14.36	35.08	30.01	74.02	153.06	158.07	80.04	14.85	24.55	0.00	0.00		
9	10.23	13.88	27.92	27.24	69.32	212.85	156.40	76.41	12.93	25.88	0.00	0.00		
10	10.66	13.40	27.92	25.21	89.99	365.78	154.73	95.10	11.55	26.56	0.00	0.00		
11	10.23	13.40	62.01	25.21	130.54	392.88	153.06	122.04	10.66	27.92	0.00	0.00		
12	9.80	14.85	143.65	25.88	131.98	337.95	151.40	134.86	10.23	29.31	0.00	0.00		
13	9.80	16.84	171.69	27.92	140.70	316.22	153.06	137.77	9.80	30.01	0.00	0.00		
14	9.44	20.07	158.07	27.24	136.32	281.94	154.73	130.54	10.66	30.01	0.00	0.00		
15	9.44	19.46	153.06	26.56	143.65	252.37	151.40	124.85	11.55	30.01	0.00	0.00		
16	9.08	18.40	126.27	25.88	140.70	209.16	149.75	116.48	13.40	29.31	0.00	0.00		
17	9.08	17.88	102.95	25.21	122.04	194.60	148.11	109.64	14.36	29.31	0.00	0.00		
18	8.72	17.36	84.97	55.09	99.00	187.45	148.11	97.70	15.83	28.61	0.00	0.00		
19	8.72	18.93	71.66	545.37	101.63	209.16	140.70	86.21	16.84	28.61	0.00	0.00		
20	8.37	22.59	67.12	827.00	124.85	308.20	131.98	74.02	17.88	28.61	0.00	0.00		
21	8.37	25.88	67.12	836.50	99.00	287.13	122.04	64.04	18.40	30.01	0.00	0.00		
22	8.03	25.21	92.53	696.00	95.10	227.32	115.10	57.04	18.93	32.88	0.00	0.00		
23	8.03	23.89	109.64	572.93	84.97	218.43	106.95	52.20	19.46	38.86	0.00	0.00		
24	7.69	23.24	156.40	449.82	95.10	357.36	101.63	47.61	20.07	0.00	0.00	0.00		
25	7.69	24.55	252.37	362.97	137.77	346.23	96.40	44.36	20.69	0.00	0.00	0.00		
26	7.35	26.56	343.46	332.48	269.11	236.33	89.99	40.41	21.32	0.00	0.00	0.00		
27	9.44	62.01	362.97	310.87	201.84	189.23	86.21	39.63	21.32	0.00	0.00	0.00		
28	13.40	63.02	433.75	297.60	176.89	176.89	82.49	38.86	21.95	0.00	0.00	0.00		
29	20.07	57.04	392.88	284.53	153.06	173.42	81.26	38.10	21.95	0.00		0.00		
30	24.55	55.09	324.32	240.88	126.27	176.89	80.04	38.10	22.59	0.00		0.00		
31		54.12		279.36	116.48		77.61		22.59	0.00		0.00		
Total	292.19	791.11	4032.50	6713.92	3978.95	7499.50	4148.52	2399.25	581.01	629.25	0.00	0.00	31066.20	Tonday
Mean	9.74	25.52	134.42	216.58	128.35	249.98	133.82	79.97	18.74	20.30	0.00	0.00	85.11	Ton/day
Max	24.55	63.02	433.75	836.50	269.11	392.88	168.25	137.77	36.58	38.86	0.00	0.00	836.50	Ton/day
Min	7.02	13.40	27.92	25.21	69.32	146.61	77.61	38.10	9.80	0.00	0.00	0.00	0.00	Ton/day

WATER YEAR : 2018

NAN RIVER BASIN

Lam Nam Khan at Ban Na Pho Na Chan , Phitsanulok (N.59)

Lat 17 - 01 - 49 N Long 100 - 50 - 35 E

Location : on left bank at Ban Na Chan.

Ban Na Chan **Amphoe** Nakhon Thai **Changwat** Phitsanulok

Drainge Area	415 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2001-Cont'd
Actual Measurement	2001-Cont'd
Using Rating Curve Water Year	2018
Number of observation	27
R-Square	0.8621
Remarks	Continued Sediment Station

$$QS = 6.2871\ QW^{1.33990}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	3.75	2.48	5.62	85.27	501.89	238.87	33.94	22.62	8.48	3.53	2.62	2.09	
2	3.75	2.69	4.66	58.14	234.64	172.44	32.91	22.62	8.21	3.46	2.62	2.03	
3	3.75	2.89	4.35	45.77	142.33	566.35	30.88	24.03	7.94	3.31	2.62	1.90	
4	3.90	3.10	4.90	38.67	95.20	698.41	29.38	24.03	7.67	3.24	2.48	1.84	
5	3.90	3.31	5.62	32.91	93.19	381.84	30.88	23.56	7.67	3.24	2.48	1.84	
6	3.97	3.68	6.37	25.46	87.23	570.31	33.43	23.09	7.41	3.10	2.48	1.78	
7	3.97	3.90	5.38	19.19	64.45	683.70	31.89	22.62	7.41	3.03	2.48	1.78	
8	3.97	3.68	4.90	20.55	153.97	529.71	29.87	22.62	7.14	3.03	2.48	1.72	
9	4.12	3.53	6.37	16.88	128.20	378.74	28.38	23.09	6.88	2.89	2.42	1.72	
10	4.12	3.46	6.37	13.41	98.74	550.05	27.40	24.03	6.63	2.89	2.42	1.60	
11	3.97	3.31	6.12	21.58	114.46	290.62	27.89	24.98	6.37	2.89	2.42	1.60	
12	3.90	3.97	11.90	78.49	191.63	253.82	30.88	25.94	6.37	2.82	2.42	1.54	
13	3.53	5.87	8.75	63.54	188.03	390.70	35.50	24.98	6.12	2.82	1.84	1.54	
14	3.53	6.37	6.88	40.83	94.20	533.87	40.83	23.09	5.87	2.82	2.35	1.54	
15	3.31	5.62	9.03	63.54	95.20	366.88	42.46	21.58	5.62	2.69	2.35	1.60	
16	3.24	5.14	14.34	67.20	197.06	251.67	38.14	20.21	5.38	2.69	2.35	1.60	
17	3.03	4.90	19.53	179.11	73.73	170.88	33.94	18.52	5.14	2.62	2.35	1.72	
18	3.46	4.90	17.21	1933.22	174.00	116.93	32.91	17.21	4.90	2.62	2.22	1.84	
19	2.82	5.14	16.56	1193.01	108.35	87.23	30.88	15.60	4.66	2.62	2.22	2.16	
20	2.69	5.87	14.34	840.66	448.15	71.85	29.38	14.65	4.58	2.48	2.22	2.35	
21	2.62	5.87	17.21	688.69	545.86	52.87	28.88	13.41	4.43	2.48	2.22	2.62	
22	2.62	5.62	16.56	645.24	864.96	129.47	27.40	12.50	4.35	2.48	2.22	2.82	
23	2.48	5.38	16.56	360.98	505.73	119.41	25.94	11.60	4.20	2.62	2.22	3.10	
24	2.42	5.14	21.58	180.88	327.27	157.01	25.46	11.02	4.12	2.62	2.22	3.31	
25	2.35	5.38	32.40	198.88	335.56	125.67	25.46	10.44	4.12	2.62	2.16	3.75	
26	2.35	7.14	56.52	267.47	1124.98	88.22	24.98	9.87	3.97	2.48	2.16	4.43	
27	2.35	9.59	92.19	505.73	796.63	52.15	24.50	9.59	3.97	2.48	2.16	6.37	
28	2.42	13.72	184.45	599.30	1158.08	41.37	24.03	9.31	3.90	2.48	2.16	7.94	
29	2.42	10.44	164.68	620.00	938.58	39.21	24.03	9.03	3.75	2.48		8.48	
30	2.35	7.94	147.93	717.96	545.86	38.67	23.56	8.75	3.75	2.48		7.41	
31		5.87		945.18	297.77		23.09		3.68	2.48		6.63	
Total	97.06	165.90	929.28	10567.74	10725.93	8148.92	929.10	544.59	174.69	86.49	65.36	92.65	32527.71 Tonday
Mean	3.24	5.35	30.98	340.89	346.00	271.63	29.97	18.15	5.64	2.79	2.33	2.99	89.12 Ton/day
Max	4.12	13.72	184.45	1933.22	1158.08	698.41	42.46	25.94	8.48	3.53	2.62	8.48	1933.22 Ton/day
Min	2.35	2.48	4.35	13.41	64.45	38.67	23.09	8.75	3.68	2.48	1.84	1.54	1.54 Ton/day

WATER YEAR : 2018

NAN RIVER BASIN

Nan River at Ban Pha Khwang , Nan (N.64)

Lat 19 - 00 - 32 N Long 100 - 47 - 19 E

Location : on right bank at the bridge on highway from Tambon Bo.

Ban Pha Khwang **Amphoe** Mueang **Changwat** Nan

Drainge Area	3,476 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1994-Cont'd
Actual Measurement	1994-Cont'd
Using Rating Curve Water Year	2018
Number of observation	33
R-Square	0.9100
Remarks	Continued Sediment Station

$$QS = 0.0890\ QW^{2.10800}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	20.82	16.47	195.68	3828.24	22294.20	8026.57	5011.15	568.98	131.12	48.22	18.58	8.43	
2	18.58	25.71	217.72	3469.33	12621.39	6309.01	4905.69	527.74	131.12	48.22	16.47	7.51	
3	12.65	138.43	155.28	2602.49	9103.63	15516.21	4801.41	468.93	124.02	48.22	16.47	7.51	
4	12.65	117.12	155.28	2202.54	20303.23	42149.90	3952.02	488.13	124.02	48.22	16.47	7.51	
5	20.82	117.12	253.12	1163.80	9265.64	33473.16	2202.54	349.73	124.02	48.22	16.47	6.65	
6	28.36	91.61	431.74	749.49	5897.38	13153.73	2001.09	279.05	91.61	48.22	16.47	7.51	
7	48.22	75.01	1244.53	568.98	4647.20	8943.11	1687.84	396.17	80.08	44.35	16.47	7.51	
8	70.12	91.61	1482.06	548.16	3586.90	7955.04	1583.19	380.35	80.08	40.66	16.47	7.51	
9	40.66	52.26	488.13	568.98	4335.77	10968.67	1583.19	241.01	80.08	48.22	16.47	7.51	
10	31.14	31.14	306.32	641.09	6309.01	11509.08	1482.06	217.72	75.01	60.84	14.49	6.65	
11	37.13	14.49	241.01	1093.83	6189.91	8393.12	1482.06	217.72	70.12	80.08	14.49	6.65	
12	37.13	18.58	292.52	19863.27	4647.20	6550.79	1583.19	217.72	70.12	80.08	12.65	7.51	
13	20.82	48.22	413.75	11057.79	3869.27	14478.61	1199.64	229.21	70.12	56.46	12.65	7.51	
14	10.43	40.66	334.92	3469.33	3952.02	7742.48	1244.53	241.01	65.39	44.35	12.65	7.51	
15	7.51	25.71	320.45	2271.94	3993.73	5612.29	1093.83	241.01	65.39	48.22	12.65	7.51	
16	8.43	31.14	334.92	1384.43	3277.94	4801.41	1199.64	241.01	65.39	44.35	12.65	6.65	
17	11.51	320.45	450.13	3240.34	60720.71	3869.27	1199.64	217.72	60.84	40.66	12.65	6.65	
18	16.47	253.12	1482.06	5225.61	374240.98	32615.77	1026.13	206.55	60.84	37.13	20.82	6.65	
19	65.39	960.71	7122.92	5955.29	258943.63	21047.77	928.85	185.12	60.84	37.13	16.47	6.65	
20	217.72	1199.64	15282.37	37256.23	54657.90	10098.29	897.55	174.87	60.84	37.13	16.47	6.65	
21	124.02	334.92	7813.00	68242.07	28702.50	6611.98	960.71	185.12	60.84	37.13	12.65	6.65	
22	70.12	241.01	3202.98	103140.87	21047.77	5897.38	3277.94	164.92	56.46	37.13	10.43	5.84	
23	37.13	164.92	2202.54	53424.16	23108.82	4801.41	1583.19	164.92	56.46	37.13	10.43	5.84	
24	23.20	145.94	4905.69	19428.37	18044.07	4077.86	1199.64	155.28	56.46	34.07	10.43	5.84	
25	16.47	145.94	7326.42	66453.04	17386.22	3547.48	1290.30	145.94	52.26	34.07	9.40	5.09	
26	52.26	131.12	15989.49	75648.48	14820.28	2983.56	1199.64	145.94	52.26	23.20	9.40	5.09	
27	75.01	279.05	18177.18	68242.07	15050.39	2569.20	897.55	131.12	52.26	23.20	9.40	5.09	
28	56.46	185.12	16613.73	82259.98	15399.06	2536.14	807.03	131.12	48.22	20.82	8.43	6.65	
29	48.22	195.68	11895.50	113085.44	9760.71	2772.31	667.35	124.02	48.22	20.82		7.51	
30	28.36	195.68	6988.93	61708.67	9103.63	2703.71	667.35	131.12	52.26	18.58		6.65	
31		174.87		38932.93	7326.42		568.98		56.46	18.58		4.40	
Total	1267.81	5863.45	126320.37	857727.24	1052607.51	311715.31	54184.92	7569.25	2283.21	1293.71	389.55	208.89	2421431.22 Tonday
Mean	42.26	189.14	4210.68	27668.62	33955.08	10390.51	1747.90	252.31	73.65	41.73	13.91	6.74	6634.06 Ton/day
Max	217.72	1199.64	18177.18	113085.44	374240.98	42149.90	5011.15	568.98	131.12	80.08	20.82	8.43	374240.98 Ton/day
Min	7.51	14.49	155.28	548.16	3277.94	2536.14	568.98	124.02	48.22	18.58	8.43	4.40	4.40 Ton/day

WATER YEAR : 2018

NAN RIVER BASIN

Nam Yao at Ban Pang Sa , Nan (N.65)

Lat 19 - 13 - 47 N Long 100 - 45 - 27 E

Location : on right bank at the bridge on highway.

Ban Pang Sa **Amphoe** Tha Wang Pha **Changwat** Nan

Drainge Area	621 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1997-Cont'd
Actual Measurement	1997-Cont'd
Using Rating Curve Water Year	2018
Number of observation	30
R-Square	0.8350
Remarks	Continued Sediment Station

$$QS = 0.1080\ QW^{2.22000}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	20.74	2.46	7.66	177.36	655.60	613.79	428.29	39.04	15.59	8.48	4.83	3.24		
2	2.84	4.83	11.23	128.90	406.31	395.55	283.04	36.35	15.59	8.48	4.83	2.46		
3	1.51	7.66	7.66	88.98	309.23	1186.51	197.74	31.27	15.59	8.48	4.23	2.84		
4	1.01	6.89	7.66	64.63	3148.99	7793.30	197.74	31.27	14.05	8.48	4.23	2.46		
5	1.51	4.83	7.66	33.76	627.46	3001.05	177.36	31.27	14.05	7.66	4.23	2.46		
6	2.84	3.24	9.35	26.72	406.31	1373.75	93.45	31.27	14.05	7.66	4.23	2.12		
7	3.68	3.24	80.39	28.89	266.28	960.56	80.39	28.89	14.05	6.89	3.24	2.12		
8	6.16	3.24	84.62	28.89	219.35	760.54	76.27	28.89	14.05	12.59	2.84	2.12		
9	2.84	2.46	31.27	18.93	234.44	641.30	60.99	26.72	15.59	39.04	2.84	1.80		
10	1.80	2.12	18.93	8.48	219.35	600.28	88.98	26.72	15.59	15.59	2.84	1.80		
11	1.25	1.80	14.05	107.82	177.36	474.19	84.62	33.76	14.05	10.27	2.84	1.51		
12	1.51	2.12	15.59	146.08	152.07	714.52	98.05	26.72	14.05	8.48	2.84	1.51		
13	1.51	6.16	20.74	84.62	123.44	874.10	93.45	28.89	14.05	8.48	2.84	1.51		
14	1.51	3.24	15.59	60.99	158.20	462.48	102.87	33.76	14.05	8.48	3.24	1.51		
15	1.25	2.46	15.59	33.76	118.10	385.38	88.98	26.72	12.59	8.48	3.24	1.80		
16	1.51	1.80	26.72	28.89	112.90	274.59	60.99	24.63	12.59	7.66	2.84	1.80		
17	2.12	9.35	20.74	36.35	1014.60	250.08	80.39	24.63	11.23	6.89	3.68	1.80		
18	2.84	15.59	15.59	64.63	16406.58	1628.81	54.11	24.63	11.23	6.89	4.83	1.80		
19	4.23	50.88	26.72	47.76	4478.50	978.39	54.11	22.64	11.23	6.89	3.24	1.51		
20	8.48	41.84	102.87	146.08	1532.71	613.79	54.11	24.63	9.35	6.89	3.68	1.80		
21	4.23	12.59	60.99	1440.70	891.04	365.48	68.39	22.64	9.35	6.89	2.84	1.51		
22	3.24	28.89	36.35	1351.82	1186.51	309.23	112.90	22.64	8.48	6.16	2.84	1.51		
23	2.84	12.59	36.35	417.22	1678.54	258.11	72.27	20.74	8.48	6.16	2.84	1.25		
24	2.46	11.23	36.35	375.36	1226.73	234.44	54.11	20.74	8.48	6.16	2.46	1.25		
25	2.46	26.72	31.27	1832.70	4207.00	212.01	112.90	18.93	7.66	6.16	2.84	1.25		
26	3.24	17.22	242.19	1186.51	1509.42	190.81	118.10	18.93	7.66	5.47	2.12	1.25		
27	4.23	28.89	745.02	1912.58	1186.51	184.02	84.62	17.22	7.66	5.47	2.12	1.25		
28	5.47	17.22	1032.97	9296.43	1014.60	164.45	54.11	11.23	6.89	4.83	2.12	1.25		
29	4.83	12.59	1509.42	2077.98	699.53	204.81	50.88	17.22	6.89	4.83		1.25		
30	2.46	10.27	498.11	1912.58	560.73	197.74	47.76	15.59	8.48	4.83		1.25		
31		9.35		1186.51	486.07		39.04		8.48	4.83		1.01		
Total	106.60	363.77	4769.65	24352.91	45414.46	26304.06	3271.01	768.58	361.13	264.55	91.79	54.00	106122.51	Tonday
Mean	3.55	11.73	158.99	785.58	1464.98	876.80	105.52	25.62	11.65	8.53	3.28	1.74	290.75	Ton/day
Max	20.74	50.88	1509.42	9296.43	16406.58	7793.30	428.29	39.04	15.59	39.04	4.83	3.24	16406.58	Ton/day
Min	1.01	1.80	7.66	8.48	112.90	164.45	39.04	11.23	6.89	4.83	2.12	1.01	1.01	Ton/day

WATER YEAR : 2018

NAN RIVER BASIN

Huai Om Sing at Ban Noen Phoem , Phitsanulok (N.66)

Lat 17 - 07 - 22 N Long 100 - 53 - 58 E

Location : on right bank at Ban Noen Phoem.

Ban Noen Phoem **Amphoe** Nakhon Thai **Changwat** Phitsanulok

Drainge Area	152 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2001-Cont'd
Actual Measurement	2001-Cont'd
Using Rating Curve Water Year	2018
Number of observation	17
R-Square	0.7131
Remarks	Continued Sediment Station

$$QS = 16.2470\ QW^{1.60820}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.00	14.21	2.60	14.71	1145.37	364.61	451.17	6.77	4.34	0.00	0.00	0.00	
2	0.00	13.23	3.14	8.74	649.62	154.06	176.67	6.39	4.03	0.00	0.00	0.00	
3	0.00	7.53	2.34	5.68	812.60	135.54	87.06	6.39	3.72	0.00	0.00	0.00	
4	0.00	8.74	2.34	4.34	197.74	143.20	58.16	7.14	3.43	0.00	0.00	0.00	
5	0.00	13.23	2.60	4.03	132.64	176.67	48.74	7.53	3.14	0.00	0.00	0.00	
6	0.00	6.03	4.03	3.14	91.03	316.73	39.59	8.74	3.14	0.00	0.00	0.00	
7	0.00	2.87	5.68	2.60	70.46	130.33	37.42	10.45	2.87	0.00	0.00	0.00	
8	0.00	1.64	4.03	2.87	53.58	101.27	33.22	9.16	2.87	0.00	0.00	0.00	
9	0.00	0.18	10.45	2.60	46.39	93.05	29.53	8.74	2.87	0.00	0.00	0.00	
10	0.00	2.60	3.72	3.14	354.50	93.05	28.88	10.45	2.60	0.00	0.00	0.00	
11	0.00	0.28	761.59	7.53	120.71	89.04	25.70	10.90	2.60	0.00	0.00	0.00	
12	0.00	0.28	20.34	40.70	179.90	68.65	27.27	12.75	2.34	0.00	0.00	0.00	
13	0.00	1.03	8.33	15.21	107.60	85.09	23.26	13.23	2.34	0.00	0.00	0.00	
14	0.00	0.69	4.66	10.01	71.83	222.49	21.78	12.27	1.64	0.00	0.00	0.00	
15	0.00	1.03	4.34	6.77	130.33	85.09	20.34	11.81	1.22	0.00	0.00	0.00	
16	0.00	0.69	6.39	4.99	122.95	70.46	18.94	11.35	0.85	0.00	0.00	0.00	
17	0.00	0.54	10.45	89.04	67.30	59.43	32.20	10.90	0.69	0.00	0.00	0.00	
18	0.00	0.54	28.88	543.53	65.52	179.90	23.26	10.45	0.69	0.00	0.00	0.00	
19	0.00	0.28	4.66	228.85	48.74	165.22	18.39	9.58	0.54	0.00	0.00	0.00	
20	0.00	0.69	3.14	132.64	41.81	225.31	18.39	8.74	0.40	0.00	0.00	0.00	
21	0.00	4.66	2.60	111.91	70.46	103.36	17.04	7.93	0.09	0.00	0.00	0.00	
22	0.00	6.03	40.70	75.07	51.14	73.67	20.34	7.14	0.03	0.00	0.00	0.00	
23	0.00	3.43	7.14	68.65	67.30	56.48	31.19	6.77	0.00	0.00	0.00	0.00	
24	0.00	1.86	4.99	71.83	584.50	53.58	24.17	6.39	0.00	0.00	0.00	0.00	
25	0.00	0.85	4.03	39.59	1343.42	65.52	19.78	6.03	0.00	0.00	0.00	0.00	
26	0.00	0.54	20.34	174.10	1613.72	47.56	18.94	5.68	0.00	0.00	0.00	0.00	
27	0.00	2.10	39.59	416.78	919.51	39.59	16.25	5.68	0.00	0.00	0.00	0.00	
28	0.00	7.93	80.26	427.53	499.87	36.35	14.71	5.33	0.00	0.00	0.00	0.00	
29	0.00	9.58	6.03	1000.15	1329.57	32.20	13.23	4.99	0.00	0.00		0.00	
30	0.00	6.03	5.33	2435.53	406.14	37.42	12.27	4.66	0.00	0.00		0.00	
31		3.43		1450.43	238.16		7.53		0.00	0.00		0.00	
Total	0.00	122.75	1104.72	7402.69	11634.41	3504.92	1415.42	254.34	46.44	0.00	0.00	0.00	25485.69 Tonday
Mean	0.00	3.96	36.82	238.80	375.30	116.83	45.66	8.48	1.50	0.00	0.00	0.00	69.82 Ton/day
Max	0.00	14.21	761.59	2435.53	1613.72	364.61	451.17	13.23	4.34	0.00	0.00	0.00	2435.53 Ton/day
Min	0.00	0.18	2.34	2.60	41.81	32.20	7.53	4.66	0.00	0.00	0.00	0.00	0.00 Ton/day

WATER YEAR : 2018

NAN RIVER BASIN

Nan River at Ban Koei Chai, Nakhon Sawan (N.67)

Lat 15 - 52 - 05 N Long 100 - 16 - 07 E

Location : on right bank at the bridge near Wat Koei Chai Nua

Ban Koei Chai **Amphoe** Chum Saeng **Changwat** Nakhon Sawan

Drainge Area	57,384 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2005-Cont'd
Actual Measurement	2005-Cont'd
Using Rating Curve Water Year	2018
Number of observation	28
R-Square	0.7663
Remarks	Continued Sediment Station

$$QS = 1.4546\ QW^{1.38920}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	3008.26	4204.78	6041.36	9775.65	8259.62	21679.44	5309.87	5376.37	2931.34	3070.20	3650.36	2438.06		
2	3132.49	4700.61	6573.26	9509.36	8005.74	21679.44	5743.13	5287.76	3008.26	3023.71	3704.80	2365.58		
3	3163.76	5024.42	7045.56	8903.89	8580.06	21396.54	6091.47	5133.69	2900.73	3070.20	3497.33	2194.16		
4	3116.88	5199.56	7159.04	8195.94	9890.40	20386.79	7187.49	4850.97	2749.03	2977.43	3401.07	1971.34		
5	3179.43	5089.90	6318.41	7073.88	10586.68	18272.42	8451.47	4490.06	2659.12	2809.44	3337.32	1894.05		
6	3353.23	5068.05	5309.87	5916.58	11575.37	16705.12	8676.86	4337.26	2584.84	2703.97	3481.23	1985.07		
7	3321.44	5133.69	4394.38	4959.18	12343.04	16010.37	8291.51	4110.86	2380.03	2644.22	3465.16	1906.12		
8	3305.57	5133.69	3632.26	4337.26	12793.73	15862.58	7691.55	3887.91	1998.83	2511.15	3226.57	1894.05		
9	3242.33	4915.81	3401.07	3777.75	13165.82	15470.35	7187.49	3433.07	1906.12	2496.48	2992.83	1930.31		
10	3070.20	4204.78	3289.73	3289.73	13124.33	14766.51	6470.98	2962.04	2336.76	2408.99	2794.30	1998.83		
11	3116.88	3545.74	3242.33	3132.49	12629.32	13863.57	6192.04	2644.22	2794.30	2423.51	2644.22	1906.12		
12	3116.88	3070.20	3465.16	3273.91	12343.04	12629.32	6116.57	2394.50	3054.68	2452.63	2659.12	1894.05		
13	3132.49	2809.44	3723.00	3481.23	12506.40	11937.28	5669.24	2496.48	3210.84	2570.05	2946.68	1894.05		
14	3101.30	2511.15	4299.29	3497.33	12588.31	11575.37	5221.57	2718.97	3148.11	2659.12	3273.91	1985.07		
15	3054.68	2151.88	4657.90	3465.16	12752.57	10939.76	4872.56	3039.19	3039.19	2599.65	3305.57	2081.92		
16	2946.68	2095.86	4764.89	3401.07	12629.32	10939.76	4594.03	3401.07	2946.68	2525.84	3179.43	2151.88		
17	3054.68	2380.03	5155.62	3596.14	12139.68	11575.37	4470.88	3513.45	2870.21	2689.00	3132.49	2165.95		
18	3759.48	2839.78	5400.61	4129.60	11335.84	12058.61	4261.41	3614.19	2824.60	2794.30	3148.11	2194.16		
19	4413.47	3289.73	5199.56	5046.22	10236.88	12099.13	4110.86	3777.75	2839.78	2946.68	3148.11	2293.72		
20	4679.24	3943.32	4636.58	6522.07	8903.89	11655.52	3887.91	3869.49	2854.98	3008.26	3258.11	2452.63		
21	4829.41	4594.03	4204.78	8387.39	8037.36	11058.17	3723.00	3887.91	2809.44	3070.20	3258.11	2614.48		
22	5177.58	5155.62	3980.38	9852.10	8259.62	10625.75	3704.80	3869.49	2839.78	3039.19	3116.88	2423.51		
23	5024.42	5449.18	4375.32	10275.59	9813.85	9775.65	3906.35	3832.72	2900.73	2885.46	3039.19	2222.48		
24	4722.01	5309.87	5068.05	9547.28	12220.91	8612.29	4204.78	3741.23	2779.19	2779.19	3023.71	2222.48		
25	4470.88	5155.62	5221.57	8871.36	14403.42	8195.94	4551.59	3796.05	2674.05	2644.22	2916.02	2250.90		
26	4073.46	4807.88	5966.40	8547.86	15568.15	7942.62	4915.81	3723.00	2764.10	2570.05	2779.19	2250.90		
27	3924.82	4551.59	6848.20	8419.41	16655.22	6736.12	5376.37	3578.12	2854.98	2555.29	2599.65	2308.04		
28	3777.75	4615.29	7691.55	8164.16	17610.38	5817.29	5792.54	3226.57	2809.44	2764.10	2511.15	2250.90		
29	3614.19	4807.88	8709.19	7942.62	18837.92	5546.68	5792.54	2962.04	2900.73	3023.71		2026.42		
30	3650.36	5068.05	9362.85	8259.62	20554.13	5309.87	5644.67	3008.26	3070.20	3258.11		1894.05		
31		5400.61		8355.39	21340.08		5473.51		3070.20	3545.74		1894.05		
Total	109534.25	132228.04	159138.17	201907.22	389691.08	381123.63	173584.85	110964.69	86511.27	86520.09	87490.62	65955.33	1984649.24	Tonday
Mean	3651.14	4265.42	5304.61	6513.14	12570.68	12704.12	5599.51	3698.82	2790.69	2790.97	3124.67	2127.59	5437.40	Ton/day
Max	5177.58	5449.18	9362.85	10275.59	21340.08	21679.44	8676.86	5376.37	3210.84	3545.74	3704.80	2614.48	21679.44	Ton/day
Min	2946.68	2095.86	3242.33	3132.49	8005.74	5309.87	3704.80	2394.50	1906.12	2408.99	2511.15	1894.05	1894.05	Ton/day

WATER YEAR : 2018

NAN RIVER BASIN

Nam Wa at Tha Li Bridge , Nan (N.75)

Lat 18 - 33 - 00 N Long 100 - 48 - 41 E

Location : on left bank at the bridge.

Ban Tha Li Bridge **Amphoe** Wiang Sa **Changwat** Nan

Drainge Area	2,170 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2018-Cont'd
Actual Measurement	2018-Cont'd
Using Rating Curve Water Year	2018
Number of observation	31
R-Square	0.9040
Remarks	Continued Sediment Station

$$QS = 0.2020\ QW^{1.89000}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	15.98	53.17	226.21	1611.30	14577.31	6217.64	1350.65	261.81	103.34	62.70	32.81	19.26	
2	17.04	42.32	220.52	1165.70	7461.08	5053.54	1237.73	168.08	103.34	62.70	26.27	19.26	
3	21.82	44.38	214.89	861.73	6620.26	15069.98	861.73	158.43	99.98	60.28	26.27	18.14	
4	21.82	72.97	154.06	1549.13	6020.80	17648.58	716.50	154.06	99.98	60.28	26.27	18.14	
5	21.82	90.22	141.28	1032.46	7954.79	14333.87	703.82	163.22	99.98	57.84	27.84	17.04	
6	44.38	133.05	168.08	754.79	1895.19	7407.15	654.54	158.43	93.42	55.51	24.74	15.98	
7	32.81	70.37	193.36	477.48	1963.78	5731.13	630.53	149.74	72.97	53.17	24.74	17.04	
8	23.26	183.05	342.19	477.48	1032.46	6774.31	575.84	145.48	72.97	48.68	23.26	17.04	
9	23.26	137.14	807.42	937.53	1940.79	4447.53	468.04	141.28	72.97	62.70	23.26	15.98	
10	23.26	72.97	307.14	1032.46	1508.41	3383.03	458.85	141.28	72.97	93.42	23.26	15.98	
11	21.82	53.17	357.54	1350.65	1569.55	3190.25	431.49	137.14	70.37	121.15	23.26	14.95	
12	21.82	57.84	313.91	3857.47	440.57	2401.83	413.74	145.48	70.37	103.34	23.26	13.95	
13	19.26	72.97	535.45	5355.39	716.50	5178.84	373.20	149.74	72.97	78.38	23.26	13.95	
14	17.04	72.97	313.91	1872.59	666.79	2453.09	334.64	149.74	72.97	78.38	23.26	13.95	
15	15.98	60.28	293.80	1369.80	586.07	2177.62	307.14	149.74	72.97	78.38	23.26	12.98	
16	15.98	38.30	458.85	848.09	468.04	1940.79	307.14	145.48	70.37	78.38	24.74	12.98	
17	15.98	60.28	334.64	1274.85	4605.51	2177.62	320.75	145.48	70.37	75.69	24.74	12.98	
18	19.26	618.77	545.34	2129.16	42075.32	2977.51	300.44	141.28	70.37	65.23	24.74	12.98	
19	48.68	349.82	2453.09	3286.16	19287.45	2057.30	300.44	137.14	70.37	55.51	24.74	12.98	
20	173.00	87.07	2750.38	7843.79	10105.81	4221.63	274.33	121.15	67.75	48.68	24.74	14.95	
21	103.34	106.75	4929.25	21104.73	6118.85	2153.18	267.98	117.30	67.75	48.68	23.26	15.98	
22	72.97	141.28	1569.55	31029.10	3682.37	1850.11	261.81	117.30	67.75	44.38	21.82	15.98	
23	57.84	133.05	1131.68	33631.24	2948.48	1632.37	327.66	117.30	65.23	48.68	20.42	15.98	
24	24.74	121.15	2585.61	16421.38	4184.52	1428.50	327.66	117.30	65.23	48.68	20.42	15.98	
25	20.42	129.03	7843.79	24683.93	3751.25	1632.37	293.80	117.30	60.28	46.53	19.26	15.98	
26	26.27	137.14	3253.92	27598.36	7461.08	1219.24	300.44	110.21	60.28	46.53	19.26	15.98	
27	113.73	117.30	2585.61	26685.31	15486.42	1016.34	334.64	103.34	60.28	40.26	19.26	15.98	
28	65.23	113.73	6168.15	22233.81	12230.07	984.45	267.98	106.75	60.28	40.26	19.26	18.14	
29	57.84	141.28	4333.88	38771.56	7034.76	1000.34	243.70	103.34	60.28	38.30		18.14	
30	55.51	226.21	3035.61	22337.83	13852.79	1256.11	287.24	103.34	62.70	36.34		15.98	
31		274.33		18006.85	7353.40		274.33		62.70	36.34		13.95	
Total	1212.16	4012.36	48569.11	321592.11	215600.47	129016.25	14208.78	4177.66	2293.56	1875.38	661.68	488.58	743708.10 Tonday
Mean	40.41	129.43	1618.97	10373.94	6954.85	4300.54	458.35	139.26	73.99	60.50	23.63	15.76	2037.56 Ton/day
Max	173.00	618.77	7843.79	38771.56	42075.32	17648.58	1350.65	261.81	103.34	121.15	32.81	19.26	42075.32 Ton/day
Min	15.98	38.30	141.28	477.48	440.57	984.45	243.70	103.34	60.28	36.34	19.26	12.98	12.98 Ton/day

WATER YEAR : 2018

NAN RIVER BASIN

Nam Khwae Noi at Ban Kaeng Bua Kham , Phitsanulok (N.81)

Lat 17 - 07 - 43 N Long 100 - 35 - 17 E

Location : on left bank at Ban Kaeng Bua Kham.

Ban Kaeng Bua Kham **Amphoe** Chat Trakan **Changwat** Phitsanulok

Drainge Area	3,120 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2012-Cont'd
Actual Measurement	2012-Cont'd
Using Rating Curve Water Year	2018
Number of observation	28
R-Square	0.8872
Remarks	Continued Sediment Station

$$QS = 1.9300\ QW^{1.48680}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	7.54	15.16	283.88	824.65	2530.71	2868.82	404.21	144.81	47.31	16.30	6.23	3.88		
2	7.99	18.66	273.65	632.66	1861.72	2775.24	392.70	137.21	47.31	16.30	5.82	3.88		
3	8.92	23.69	273.65	500.04	1479.78	2806.32	370.03	137.21	47.31	15.16	5.82	3.53		
4	9.88	29.09	294.24	381.31	1160.73	2837.51	370.03	129.74	47.31	15.16	5.82	3.53		
5	12.96	34.84	326.02	273.65	926.70	3091.08	358.85	129.74	44.08	15.16	5.41	3.53		
6	16.30	47.31	370.03	193.13	791.50	3187.99	358.85	137.21	44.08	14.05	5.41	3.18		
7	21.12	40.92	427.54	144.81	726.57	3059.00	347.80	144.81	44.08	14.05	5.41	3.18		
8	25.00	40.92	514.27	103.92	663.49	2931.77	336.85	144.81	40.92	14.05	5.01	3.18		
9	22.39	37.84	587.33	87.45	632.66	2837.51	326.02	137.21	40.92	14.05	5.01	3.18		
10	21.12	33.37	663.49	79.57	587.33	2744.27	315.31	129.74	40.92	15.16	5.01	2.85		
11	21.12	40.92	808.02	71.94	528.62	2713.41	304.71	129.74	37.84	15.16	5.01	2.85		
12	19.88	60.97	858.23	75.72	679.09	2682.68	294.24	122.42	37.84	15.16	4.62	2.85		
13	19.88	79.57	892.25	99.72	758.81	2806.32	283.88	122.42	37.84	16.30	4.62	2.85		
14	18.66	87.45	758.81	137.21	726.57	3027.03	264.26	115.23	37.84	16.30	4.62	2.85		
15	18.66	83.48	557.72	201.62	791.50	2868.82	254.97	108.19	34.84	16.30	4.62	2.53		
16	17.47	75.72	381.31	168.40	726.57	2868.82	254.97	108.19	33.37	16.30	4.62	2.53		
17	17.47	71.94	273.65	152.55	679.09	2775.24	264.26	103.92	31.92	15.16	4.62	2.53		
18	17.47	68.22	227.78	137.21	742.64	2621.54	273.65	99.72	29.09	14.05	4.62	2.53		
19	16.30	71.94	193.13	176.52	824.65	2352.23	264.26	95.57	27.70	12.96	4.62	2.85		
20	16.30	75.72	193.13	193.13	758.81	2014.80	254.97	91.48	26.34	11.91	4.25	2.85		
21	16.30	79.57	201.62	160.41	841.38	1737.09	245.80	83.48	25.00	10.88	4.25	2.85		
22	15.16	75.72	184.77	152.55	791.50	1524.19	236.74	79.57	23.69	9.88	4.25	3.18		
23	15.16	71.94	184.77	336.85	726.57	1264.33	227.78	75.72	22.39	9.40	4.25	3.18		
24	15.16	75.72	236.74	475.46	663.49	1068.68	210.23	71.94	21.12	8.92	4.25	3.53		
25	14.05	71.94	370.03	726.57	587.33	875.18	193.13	68.22	19.88	8.45	4.25	3.53		
26	14.05	71.94	587.33	2352.23	742.64	663.49	184.77	64.56	18.66	7.99	4.25	3.53		
27	14.05	79.57	892.25	2560.87	979.16	587.33	176.52	60.97	18.66	7.54	4.25	3.88		
28	12.96	91.48	758.81	3059.00	1306.53	528.62	168.40	57.45	17.47	7.09	4.25	3.88		
29	12.96	144.81	892.25	3731.29	1937.63	475.46	160.41	54.00	17.47	6.66		4.25		
30	12.96	264.26	979.16	3420.53	2411.25	427.54	152.55	50.62	16.30	6.66		4.25		
31		273.65		2963.41	2900.24		144.81		16.30	6.23		4.62		
Total	479.24	2338.33	14445.86	24574.38	32465.26	65022.31	8395.96	3135.90	995.80	388.74	135.17	101.82	152478.77	Tonday
Mean	15.97	75.43	481.53	792.72	1047.27	2167.41	270.84	104.53	32.12	12.54	4.83	3.28	417.75	Ton/day
Max	25.00	273.65	979.16	3731.29	2900.24	3187.99	404.21	144.81	47.31	16.30	6.23	4.62	3731.29	Ton/day
Min	7.54	15.16	184.77	71.94	528.62	427.54	144.81	50.62	16.30	6.23	4.25	2.53	2.53	Ton/day

WATER YEAR : 2018

NAN RIVER BASIN

Huai Nam Ree at Ban Kaeng Sai Ngam , Uttaradit (N.82)

Lat 17 - 52 - 25 N Long 100 - 17 - 49 E

Location : on right bank at Ban Kaeng Sai Ngam.

Ban Kaeng Sai Ngam **Amphoe** Nam Pat **Changwat** Uttaradit

Drainge Area	- sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2016-Cont'd
Actual Measurement	2016-Cont'd
Using Rating Curve Water Year	2018
Number of observation	15
R-Square	0.7100
Remarks	Continued Sediment Station

$$QS = 1.1553\ QW^{1.30640}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.18	1.63	5.72	4.23	3.12	4.96	13.59	2.10	0.98	0.58	0.38	0.19		
2	0.18	1.63	5.72	4.23	2.60	4.23	37.36	2.10	0.98	0.58	0.38	0.19		
3	0.18	1.63	5.72	4.23	2.60	4.23	12.45	2.10	0.98	0.44	0.34	0.19		
4	0.18	1.01	1.01	3.67	2.60	8.10	12.45	1.63	0.98	0.44	0.34	0.19		
5	0.18	1.01	1.01	3.67	2.10	8.10	5.72	1.63	0.98	0.44	0.34	0.19		
6	0.18	1.01	1.01	3.67	2.10	7.28	5.72	1.63	0.88	0.44	0.28	0.19		
7	0.18	1.01	0.78	3.67	2.10	7.28	4.96	1.37	0.88	0.44	0.28	0.19		
8	0.18	1.01	0.78	3.12	2.10	3.67	4.96	1.37	0.88	0.44	0.28	0.16		
9	0.18	1.01	1.63	1.63	2.10	3.67	4.23	1.37	0.78	0.78	0.24	0.16		
10	0.11	0.67	1.63	1.13	4.96	3.67	4.23	1.37	0.78	0.78	0.24	0.16		
11	0.12	0.67	3.12	1.13	4.96	3.67	4.23	1.37	0.78	0.67	0.24	0.14		
12	0.12	0.67	13.59	1.13	4.23	3.12	3.67	1.37	0.78	0.67	0.21	0.14		
13	0.12	0.67	4.23	1.13	3.12	3.12	3.67	0.21	0.78	0.58	0.21	0.14		
14	0.12	1.63	4.23	3.12	2.60	5.72	3.12	0.98	0.78	0.58	0.21	0.14		
15	0.12	1.63	3.67	3.12	2.60	5.72	3.12	0.98	0.78	0.58	0.21	0.14		
16	0.40	1.01	3.67	3.12	2.60	5.72	3.12	0.49	0.67	0.49	0.21	0.13		
17	0.47	0.78	3.67	4.23	4.96	3.12	3.12	0.49	0.67	0.49	0.34	0.13		
18	0.47	1.63	6.47	4.23	51.30	3.12	2.60	0.49	0.67	0.44	0.34	0.13		
19	0.47	1.63	5.32	7.28	25.43	24.59	2.60	0.49	0.67	0.44	0.34	0.13		
20	0.47	1.63	1.63	6.47	13.59	8.10	2.60	0.98	0.67	0.44	0.34	0.13		
21	0.47	1.13	1.63	4.23	6.47	7.28	2.60	0.98	0.67	0.44	0.28	0.11		
22	0.47	1.13	1.63	5.72	6.47	5.72	2.60	0.98	0.67	0.44	0.28	0.09		
23	0.47	1.13	1.01	6.88	5.72	4.96	3.12	0.98	0.67	0.44	0.24	0.09		
24	0.47	17.71	1.01	8.10	7.28	4.96	3.12	0.98	0.67	0.44	0.24	0.09		
25	0.47	2.86	1.01	10.76	7.28	4.96	3.12	0.98	0.67	0.41	0.24	0.08		
26	0.40	2.60	6.09	12.45	7.28	4.23	2.60	0.98	0.67	0.41	0.22	0.08		
27	0.40	2.60	8.10	5.72	8.10	4.23	2.60	0.98	0.67	0.38	0.21	0.08		
28	1.37	1.63	5.72	5.72	8.10	4.23	2.60	0.98	0.67	0.38	0.19	0.08		
29	1.37	1.63	3.67	7.28	7.28	3.67	2.35	0.98	0.67	0.38		0.08		
30	1.37	1.63	3.67	4.23	4.23	3.67	2.35	0.98	0.67	0.38		0.08		
31		5.72		1.63	4.23		2.35		0.67	0.38		0.08		
Total	11.87	63.34	108.15	140.93	214.21	169.10	166.93	34.32	23.72	15.22	7.65	4.10	959.54	Tonday
Mean	0.40	2.04	3.61	4.55	6.91	5.64	5.38	1.14	0.77	0.49	0.27	0.13	2.63	Ton/day
Max	1.37	17.71	13.59	12.45	51.30	24.59	37.36	2.10	0.98	0.78	0.38	0.19	51.30	Ton/day
Min	0.11	0.67	0.78	1.13	2.10	3.12	2.35	0.21	0.67	0.38	0.19	0.08	0.08	Ton/day

WATER YEAR : 2018

NAN RIVER BASIN

Huai Nam Ree at Ban Kiw Kian , Uttaradit (N.83)

Lat 17 - 59 - 35 N Long 100 - 52 - 52 E

Location : on left bank at Ban Kiw kian.

Ban Kiw Kian **Amphoe** Nam Pat **Changwat** Uttaradit

Drainge Area	265 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2016-Cont'd
Actual Measurement	2016-Cont'd
Using Rating Curve Water Year	2018
Number of observation	15
R-Square	0.7732
Remarks	Continued Sediment Station

$$QS = 3.1891\ QW^{1.54160}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	9.28	9.28	9.28	14.91	18.06	31.97	125.68	11.06	3.49	3.85	0.90	1.00		
2	9.28	8.72	9.28	12.93	18.06	24.57	150.61	10.16	2.48	3.85	0.90	1.00		
3	9.28	8.72	9.28	11.98	15.94	25.99	94.99	10.16	4.22	3.49	0.90	0.90		
4	9.28	8.72	9.28	11.98	13.91	73.14	49.98	9.28	3.85	3.49	0.90	0.63		
5	9.28	8.72	9.28	11.98	12.93	49.98	37.42	9.28	3.49	3.14	0.81	0.63		
6	9.28	8.72	9.28	11.98	11.98	59.59	31.97	8.72	3.49	3.49	0.81	0.63		
7	9.28	8.72	9.28	11.98	11.98	45.65	27.45	8.72	3.49	3.85	0.81	0.63		
8	9.28	8.72	9.28	11.98	11.98	45.65	24.57	8.72	3.85	4.22	0.90	0.63		
9	8.72	8.72	9.28	11.98	11.98	31.97	21.81	8.16	3.49	4.22	0.90	0.63		
10	8.72	8.72	9.28	11.98	13.91	30.43	23.17	8.16	3.85	4.22	0.90	0.55		
11	8.72	8.16	9.28	11.98	14.91	24.57	21.81	7.62	2.48	3.85	0.90	0.27		
12	8.72	8.16	25.99	11.98	14.91	31.97	21.81	7.62	3.49	4.22	0.90	0.27		
13	8.72	8.16	67.60	11.98	13.91	54.44	21.81	7.62	3.49	4.22	0.72	0.27		
14	8.72	8.16	45.65	11.98	13.91	41.46	21.81	7.62	4.22	3.85	0.63	0.27		
15	8.72	8.16	33.53	11.98	13.91	28.93	21.81	7.10	2.48	4.22	0.63	0.27		
16	8.72	8.72	23.17	11.98	15.94	21.81	21.81	7.10	3.14	3.85	0.63	0.27		
17	8.72	8.72	18.06	11.98	20.47	21.81	21.81	7.10	2.80	3.85	0.63	0.27		
18	8.72	8.72	14.91	12.93	327.84	20.47	21.81	6.58	3.49	4.22	0.63	0.27		
19	8.72	8.72	11.98	108.94	211.00	125.68	21.81	6.58	2.48	4.22	0.63	0.27		
20	8.72	8.72	11.98	39.42	70.35	73.14	21.81	6.58	3.85	3.49	0.63	0.27		
21	8.72	9.28	11.98	39.42	41.46	39.42	21.81	2.80	2.48	4.22	0.55	0.19		
22	8.72	9.28	11.98	27.45	30.43	37.42	21.81	2.48	3.14	3.85	0.55	0.19		
23	8.72	9.28	11.98	91.61	30.43	28.93	21.81	2.48	2.80	4.22	0.55	0.19		
24	8.72	9.28	11.98	70.35	35.45	43.54	21.81	2.48	2.48	3.49	0.90	0.19		
25	8.72	8.72	11.98	37.42	43.54	27.45	21.81	2.48	2.48	2.48	0.90	0.19		
26	8.72	8.72	11.98	28.93	33.53	23.17	21.81	2.17	3.14	1.10	1.00	0.40		
27	8.72	8.72	11.98	31.97	33.53	21.81	21.81	1.10	2.48	1.10	1.00	1.00		
28	8.72	9.28	20.47	25.99	33.53	21.81	21.81	1.10	3.14	1.10	1.00	1.00		
29	8.72	9.28	20.47	31.97	31.97	21.81	21.81	1.10	3.49	1.00		1.00		
30	9.28	9.28	15.94	27.45	25.99	24.57	21.81	1.10	3.85	1.00		1.00		
31		9.28		20.47	47.80		21.81		3.49	1.00		1.00		
Total	266.64	272.56	495.69	801.86	1245.54	1153.15	1045.66	183.23	100.59	102.37	22.11	16.28	5705.68	Tonday
Mean	8.89	8.79	16.52	25.87	40.18	38.44	33.73	6.11	3.24	3.30	0.79	0.53	15.63	Ton/day
Max	9.28	9.28	67.60	108.94	327.84	125.68	150.61	11.06	4.22	4.22	1.00	1.00	327.84	Ton/day
Min	8.72	8.16	9.28	11.98	11.98	20.47	21.81	1.10	2.48	1.00	0.55	0.19	0.19	Ton/day

WATER YEAR : 2018

NAN RIVER BASIN

Nam Pat at Ban Suan , Uttaradit (N.84)

Lat 17 - 44 - 29 N Long 100 - 40 - 45 E

Location : on right bank at Ban Suan.

Ban Suan **Amphoe** Nam Pat **Changwat** Uttaradit

Drainge Area	1,863 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2016-Cont'd
Actual Measurement	2016-Cont'd
Using Rating Curve Water Year	2018
Number of observation	14
R-Square	0.8295
Remarks	Continued Sediment Station

$$QS = 3.4546\ QW^{1.33400}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	3.45	228.54	269.41	81.58	384.40	223.55	1439.10	28.00	11.11	5.16	3.23	3.45		
2	3.45	97.19	269.41	55.90	238.60	164.25	630.36	26.84	10.68	5.16	3.23	3.45		
3	3.45	537.81	253.89	43.95	195.48	138.61	306.50	26.84	10.25	5.16	3.00	4.11		
4	3.45	448.64	66.69	34.31	151.29	709.43	120.12	23.43	9.83	5.16	3.00	4.80		
5	3.45	365.63	61.24	28.00	130.31	1762.09	97.19	19.08	9.00	4.80	3.00	5.16		
6	3.45	155.58	66.69	25.69	134.44	630.36	66.69	19.08	8.59	4.80	2.78	4.80		
7	3.45	54.15	134.44	21.23	186.42	353.24	54.15	18.02	8.59	4.80	2.78	4.80		
8	3.45	32.77	66.69	15.96	110.14	301.13	47.29	18.02	8.59	4.80	2.78	4.80		
9	3.45	21.23	66.69	14.96	84.65	306.50	40.67	19.08	8.19	5.52	2.78	4.80		
10	3.45	11.11	64.86	14.96	113.44	306.50	37.46	19.08	8.19	8.19	2.78	4.80		
11	5.16	7.01	66.69	13.97	190.93	223.55	32.77	19.08	7.79	7.40	2.57	4.45		
12	5.16	64.86	159.90	14.96	195.48	218.59	30.36	20.14	7.79	7.01	2.57	4.45		
13	5.16	253.89	130.31	16.99	223.55	233.55	26.84	20.14	7.40	7.01	2.35	4.45		
14	5.16	204.64	113.44	14.96	106.87	218.59	25.69	24.56	7.40	7.40	2.35	4.45		
15	5.16	106.87	90.86	15.96	81.58	223.55	24.56	24.56	7.40	7.40	2.15	4.45		
16	7.01	37.46	66.69	14.96	64.86	120.12	22.32	23.43	7.01	7.40	2.15	4.45		
17	6.63	13.97	50.69	864.72	61.24	90.86	23.43	23.43	6.63	7.40	1.94	4.45		
18	75.54	7.01	48.99	1528.88	151.29	103.61	23.43	26.84	6.63	6.25	1.94	4.45		
19	54.15	15.96	253.89	2930.82	243.67	151.29	22.32	35.88	6.25	6.25	1.75	4.45		
20	32.77	21.23	164.25	691.66	328.80	238.60	22.32	37.46	6.25	5.16	1.75	4.45		
21	21.23	21.23	130.31	509.95	306.50	159.90	22.32	34.31	5.88	4.80	1.75	4.45		
22	16.99	21.23	106.87	455.35	223.55	120.12	21.23	32.77	5.52	4.11	1.75	3.45		
23	16.99	29.17	72.56	727.32	854.45	103.61	23.43	19.08	5.16	4.11	1.75	3.45		
24	9.41	21.23	54.15	595.98	3030.98	84.65	64.86	18.02	4.80	3.45	1.75	3.45		
25	9.41	1080.23	37.46	496.15	1554.79	81.58	130.31	16.99	4.45	3.23	1.75	4.45		
26	7.01	895.72	35.88	864.72	906.11	94.01	130.31	13.97	4.45	3.45	1.94	5.16		
27	306.50	429.11	43.95	773.41	455.35	55.90	63.05	12.04	4.80	3.45	2.35	5.52		
28	269.41	322.76	409.80	736.30	378.12	54.15	43.95	12.04	4.45	3.45	2.35	9.41		
29	253.89	322.76	416.21	691.66	279.88	63.05	34.31	12.04	4.80	3.45		4.11		
30	54.15	656.45	173.03	656.45	195.48	253.89	29.17	11.11	4.80	3.45		3.00		
31		390.71		595.98	334.87		28.00		5.52	3.23		2.57		
Total	1201.39	6876.15	3945.94	13547.69	11897.52	7788.83	3684.51	655.36	218.20	162.41	66.27	138.49	50182.76	Tonday
Mean	40.05	221.81	131.53	437.02	383.79	259.63	118.86	21.85	7.04	5.24	2.37	4.47	137.49	Ton/day
Max	306.50	1080.23	416.21	2930.82	3030.98	1762.09	1439.10	37.46	11.11	8.19	3.23	9.41	3030.98	Ton/day
Min	3.45	7.01	35.88	13.97	61.24	54.15	21.23	11.11	4.45	3.23	1.75	2.57	1.75	Ton/day

WATER YEAR : 2018

CHAO PHRAYA RIVER BASIN

Chao Phraya River at Khai Chira Prawat, Nakhon Sawan (C.2)

Lat 15 - 40 - 15 N Long 100 - 06 - 49 E

Location : on left bank at Ban Phai Lom

Ban Phai Lom **Amphoe** Mueang **Changwat** Nakhon Sawan

Drainge Area	109,973 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1956-Cont'd
Actual Measurement	1956-Cont'd
Using Rating Curve Water Year	2018
Number of observation	25
R-Square	0.7050
Remarks	Continued Sediment Station

$$QS = 0.9581\ QW^{1.38220}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	4268.35	5545.66	7497.83	12454.37	8707.98	20031.84	6120.37	7261.90	4163.26	4804.43	4338.80	3196.27	
2	4409.58	6162.23	7735.83	12023.83	8906.18	20347.63	6585.12	6935.13	4198.21	4804.43	4303.53	3168.84	
3	4587.90	6457.44	8169.36	11416.10	9309.61	19953.10	7214.96	6585.12	4058.90	4877.22	4303.53	3005.69	
4	4445.09	6713.49	8856.52	10817.20	10289.35	19170.51	8120.86	6330.45	3721.61	4731.95	4409.58	2951.84	
5	4374.15	6713.49	8169.36	9905.13	11115.54	17812.05	9524.98	5747.22	3784.24	4587.90	4374.15	2925.01	
6	4552.08	6585.12	6842.54	8560.14	11476.48	16454.18	9687.39	5320.22	4128.39	4516.34	4374.15	3086.97	
7	4480.67	6457.44	5829.58	7028.07	11901.59	15612.12	9309.61	4913.73	3989.74	4480.67	4587.90	2978.73	
8	4480.67	6288.28	5097.39	6204.17	12269.34	14988.68	9205.78	4516.34	3566.33	4623.79	4409.58	2828.04	
9	4516.34	6585.12	4587.90	5357.61	12454.37	14508.68	9155.66	4198.21	3114.20	4659.77	4024.28	2828.04	
10	4516.34	6036.89	4128.39	4840.79	12640.17	13830.53	8658.62	3955.28	3059.81	4338.80	3628.22	2852.20	
11	4374.15	5395.07	3989.74	4768.15	12516.22	13161.46	7831.60	3752.89	3390.04	3955.28	3474.05	2828.04	
12	4163.26	5023.70	4024.28	5395.07	12146.41	12269.34	7356.02	3168.84	3659.28	3886.61	3628.22	2852.20	
13	4058.90	4480.67	4338.80	5747.22	12146.41	11597.50	6935.13	3086.97	4303.53	3920.90	3852.40	2828.04	
14	4058.90	4128.39	4804.43	5829.58	12146.41	11355.81	6542.48	3417.98	4552.08	4024.28	4338.80	2951.84	
15	4024.28	3784.24	5245.65	5829.58	12207.83	11718.88	6036.89	4093.60	4587.90	4058.90	4480.67	3086.97	
16	3886.61	3628.22	5583.48	5706.16	12207.83	12330.93	5706.16	4623.79	4623.79	3955.28	4445.09	3114.20	
17	4024.28	3886.61	5788.36	5706.16	11779.69	12962.53	5432.61	4913.73	4623.79	3920.90	4233.24	3196.27	
18	4374.15	4480.67	6713.49	6078.59	11055.69	13427.99	5208.47	4950.31	4623.79	4163.26	4303.53	3223.76	
19	4695.82	5023.70	6842.54	6888.79	10179.16	13494.85	4986.97	5171.37	4480.67	4409.58	4198.21	3278.93	
20	5320.22	5747.22	6670.62	8266.58	9205.78	13028.75	4913.73	5282.90	4409.58	4233.24	4268.35	3445.98	
21	5870.88	6204.17	6120.37	9687.39	8560.14	12640.17	4552.08	5171.37	4374.15	4374.15	4163.26	3504.73	
22	6415.03	6799.45	5583.48	10639.28	8560.14	13095.06	4552.08	5023.70	4409.58	4128.39	4128.39	3306.61	
23	6204.17	6981.56	5395.07	10876.69	9524.98	12454.37	5395.07	4986.97	4303.53	4058.90	3955.28	3141.49	
24	6246.19	6842.54	5583.48	10817.20	11295.61	10995.93	7168.11	4913.73	3955.28	3818.28	4024.28	3086.97	
25	6162.23	6842.54	6372.71	10234.21	13095.06	9850.57	8120.86	4950.31	3920.90	3690.41	3886.61	3059.81	
26	5624.29	6457.44	7308.91	9524.98	14372.34	9105.61	8072.45	4659.77	4024.28	3597.24	3752.89	3032.72	
27	5583.48	6246.19	8364.12	9005.74	15264.90	8024.12	7879.61	4659.77	4233.24	3597.24	3566.33	3005.69	
28	5395.07	6204.17	9741.70	8806.93	16031.62	6981.56	8315.31	4552.08	4233.24	3721.61	3334.36	2925.01	
29	5395.07	6204.17	11295.61	8707.98	17236.69	6288.28	8856.52	4374.15	4409.58	3659.28		2731.99	
30	5357.61	6457.44	11840.60	8609.34	18627.88	6078.59	8609.34	4409.58	4804.43	3818.28		2636.85	
31		6799.45		8707.98	19560.72		7879.61		4913.73	4198.21		2519.26	
Total	145865.76	181162.77	198522.14	254441.01	376792.12	393571.62	223934.45	145927.41	128621.08	129615.52	114787.68	93578.99	2386820.55 Tonday
Mean	4862.19	5843.96	6617.40	8207.77	12154.58	13119.05	7223.69	4864.25	4149.07	4181.15	4099.56	3018.68	6539.23 Ton/day
Max	6415.03	6981.56	11840.60	12454.37	19560.72	20347.63	9687.39	7261.90	4913.73	4877.22	4587.90	3504.73	20347.63 Ton/day
Min	3886.61	3628.22	3989.74	4768.15	8560.14	6078.59	4552.08	3086.97	3059.81	3597.24	3334.36	2519.26	2519.26 Ton/day

WATER YEAR : 2018

CHAO PHRAYA RIVER BASIN

Chao Phraya River at Ban Bang Phutsa, Sing Buri (C.3)

Lat 14 - 53 - 50 N Long 100 - 24 - 18 E

Location : on right bank at Ban Bang Phutsa.

Ban Bang Phutsa **Amphoe** Mueang **Changwat** Sing Buri

Drainge Area	118,752 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1950-Cont'd
Actual Measurement	1950-Cont'd
Using Rating Curve Water Year	2018
Number of observation	23
R-Square	0.9468
Remarks	Continued Sediment Station

$$QS = 2.6214\ QW^{1.15930}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	976.26	998.92	1496.12	3017.47	2117.83	6420.52	713.01	1895.33	607.78	510.64	406.86	387.48		
2	976.26	1331.68	1633.62	3468.54	2085.84	6793.16	718.92	1539.82	578.97	561.78	443.55	402.01		
3	976.26	1461.28	1790.61	3773.86	2107.16	6773.48	724.84	1254.73	516.29	602.00	476.94	406.86		
4	1052.76	1671.94	2278.77	3788.73	2267.99	6734.13	730.76	887.04	493.75	607.78	471.35	382.65		
5	1178.42	1821.94	2436.62	3236.27	2624.14	6694.82	1021.65	766.45	482.53	602.00	471.35	358.65		
6	1195.32	2053.91	2257.21	2750.19	2915.25	6498.73	1624.06	730.76	454.64	619.35	505.00	358.65		
7	1263.25	2032.67	1769.76	2053.91	3068.76	5735.77	1748.95	677.68	488.14	625.15	516.29	358.65		
8	1288.85	1671.94	1576.37	1374.70	3371.63	5417.86	1671.94	718.92	493.75	584.72	538.97	358.65		
9	1288.85	1522.32	1357.47	839.86	3440.81	5348.52	1624.06	773.09	499.37	527.61	499.37	368.23		
10	1229.22	1203.78	1094.43	701.20	3524.08	5365.85	1614.51	779.73	505.00	460.20	432.50	368.23		
11	1169.98	983.81	948.21	665.95	3551.90	5609.18	1443.91	786.38	460.20	465.77	373.03	344.35		
12	983.81	976.26	748.58	607.78	3426.96	5348.52	1094.43	760.49	482.53	402.01	387.48	297.29		
13	983.81	976.26	584.72	584.72	3302.64	4562.81	887.04	648.42	505.00	426.99	397.16	292.64		
14	976.26	976.26	544.66	590.47	3316.42	4546.72	799.71	636.77	538.97	443.55	406.86	311.31		
15	976.26	961.88	527.61	584.72	3302.64	4595.03	773.09	642.60	538.97	465.77	416.61	316.00		
16	976.26	920.96	510.64	573.23	3275.09	4849.56	786.38	602.00	521.95	471.35	465.77	330.14		
17	976.26	907.37	499.37	561.78	3316.42	5192.96	819.75	578.97	465.77	449.09	488.14	339.60		
18	991.36	907.37	493.75	619.35	3184.60	5383.18	806.38	550.36	460.20	488.14	499.37	306.63		
19	1246.22	907.37	505.00	701.20	2889.77	5383.18	786.38	538.97	471.35	505.00	482.53	306.63		
20	1409.24	907.37	527.61	1061.07	2561.42	5313.90	748.58	590.47	482.53	471.35	465.77	344.35		
21	1443.91	927.76	567.50	1916.37	2224.94	4747.18	736.69	584.72	482.53	465.77	438.02	363.43		
22	1748.95	948.21	590.47	2674.46	2032.67	4419.93	754.53	584.72	476.94	471.35	432.50	358.65		
23	1710.39	976.26	584.72	3275.09	2139.19	4482.42	724.84	619.35	499.37	460.20	443.55	353.87		
24	1595.42	1021.65	544.66	3399.28	2611.58	4268.44	748.58	619.35	488.14	460.20	449.09	353.87		
25	1531.07	1044.45	510.64	3262.15	3413.11	3581.39	941.39	556.06	499.37	471.35	443.55	349.11		
26	1357.47	1069.40	561.78	2928.00	4132.74	3043.10	2192.73	505.00	505.00	443.55	397.16	358.65		
27	1280.31	1069.40	590.47	2498.91	4730.15	2573.95	2332.77	556.06	460.20	438.02	392.31	353.87		
28	998.92	1069.40	748.58	2182.01	5089.60	1905.85	2321.95	596.23	454.64	443.55	387.48	358.65		
29	976.26	1069.40	1522.32	2149.88	5487.33	1136.32	2461.51	613.56	476.94	377.83		358.65		
30	976.26	1086.08	2321.95	2365.25	5717.41	754.53	2436.62	695.31	499.37	392.31		358.65		
31		1119.54		2192.73	5993.61		2300.35		499.37	397.16		358.65		
Total	35733.87	36596.84	32124.22	60399.13	103223.68	143480.99	39090.31	22289.34	15389.56	15111.54	12528.56	10865.05	526833.09	Tonday
Mean	1191.13	1180.54	1070.81	1948.36	3329.80	4782.70	1260.98	742.98	496.44	487.47	447.45	350.49	1443.38	Ton/day
Max	1748.95	2053.91	2436.62	3788.73	5993.61	6793.16	2461.51	1895.33	607.78	625.15	538.97	406.86	6793.16	Ton/day
Min	976.26	907.37	493.75	561.78	2032.67	754.53	713.01	505.00	454.64	377.83	373.03	292.64	292.64	Ton/day

WATER YEAR : 2018

CHAO PHRAYA RIVER BASIN

Chao Phraya River at Ban Bang Kaeo, Ang Thong (C.7A)

at 14 - 35 - 05 N Long 100 - 27 - 12 E

Location : on left bank at Ban Bang Kaco.

Ban Bang Keao **Amphoe** Mueang **Changwat** Ang Thong

Drainge Area	Flood Plain
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2006-Cont'd
Actual Measurement	2006-Cont'd
Using Rating Curve Water Year	2018
Number of observation	29
R-Square	0.9647
Remarks	Continued Sediment Station

$$QS = 2.7634\ QW^{1.16400}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	727.13	826.79	1449.05	2671.25	2279.05	7119.93	1001.57	2489.15	913.59	568.97	741.25	629.36	
2	783.86	1184.55	1828.53	3165.28	2234.38	7168.59	913.59	2115.86	769.62	643.20	671.02	629.36	
3	841.17	1476.29	2086.37	3559.06	2204.66	7241.66	826.79	1613.54	727.13	601.80	741.25	588.09	
4	942.79	1828.53	2383.77	3814.39	2368.77	7266.04	942.79	1090.65	684.98	629.36	578.52	493.40	
5	713.04	2086.37	2855.12	3543.19	2625.56	7266.04	1090.65	826.79	769.62	1128.08	549.93	502.76	
6	684.98	2175.00	3025.15	3134.07	2809.00	7144.25	1748.46	972.12	841.17	1184.55	601.80	493.40	
7	684.98	2338.81	2656.01	2549.65	3009.64	6611.87	2234.38	972.12	783.86	942.79	657.09	433.17	
8	812.44	2234.38	2145.40	1613.54	3180.91	6047.43	2234.38	870.04	755.42	1128.08	588.09	458.85	
9	643.20	1708.62	1165.68	972.12	3306.29	5872.88	2189.83	1034.85	812.44	942.79	549.93	549.93	
10	855.58	1260.44	798.13	657.09	3495.62	5829.36	2189.83	1090.65	826.79	741.25	549.93	540.45	
11	671.02	841.17	769.62	484.73	3654.51	5981.89	2115.86	1053.40	783.86	783.86	559.44	458.85	
12	601.80	671.02	588.09	502.76	3622.66	5894.66	1788.43	957.44	884.52	601.80	530.99	476.08	
13	540.45	783.86	549.93	727.13	3511.47	5224.93	1356.20	855.58	942.79	588.09	568.97	476.08	
14	713.04	798.13	549.93	769.62	3479.79	4851.58	1016.34	870.04	928.17	629.36	727.13	568.97	
15	629.36	826.79	530.99	826.79	3432.35	4993.78	1016.34	870.04	783.86	601.80	769.62	588.09	
16	512.15	884.52	502.76	769.62	3369.24	5267.79	1034.85	826.79	684.98	502.76	783.86	615.56	
17	601.80	769.62	416.17	684.98	3306.29	5612.42	1072.01	671.02	588.09	601.80	713.04	629.36	
18	671.02	643.20	407.71	671.02	3306.29	5872.88	884.52	588.09	615.56	812.44	671.02	540.45	
19	713.04	588.09	467.45	713.04	3102.89	5938.25	769.62	540.45	713.04	899.04	643.20	530.99	
20	928.17	559.44	450.27	1001.57	2855.12	5829.36	684.98	512.15	698.99	812.44	629.36	549.93	
21	1146.86	549.93	433.17	1476.29	2564.81	5439.72	812.44	615.56	615.56	769.62	578.52	601.80	
22	1128.08	540.45	382.47	2353.79	2474.06	4953.09	942.79	798.13	657.09	798.13	615.56	559.44	
23	1585.95	521.56	407.71	2994.14	2489.15	4790.81	1001.57	884.52	698.99	826.79	671.02	568.97	
24	1394.78	615.56	416.17	3196.54	2824.36	4629.29	1260.44	884.52	684.98	957.44	643.20	578.52	
25	942.79	698.99	357.46	3196.54	3432.35	4070.35	1109.34	741.25	684.98	942.79	615.56	629.36	
26	684.98	643.20	424.66	2978.65	4106.33	3448.15	2189.83	657.09	713.04	615.56	601.80	601.80	
27	727.13	755.42	450.27	2793.64	4750.36	2978.65	2717.06	783.86	601.80	671.02	684.98	657.09	
28	741.25	899.04	484.73	2564.81	5246.35	2489.15	2732.35	928.17	588.09	615.56	826.79	684.98	
29	812.44	1090.65	783.86	2353.79	5742.44	1558.43	2793.64	1034.85	698.99	540.45		588.09	
30	755.42	1356.20	2115.86	2519.37	6047.43	1034.85	2824.36	1128.08	643.20	601.80		578.52	
31		1476.29		2534.51	6563.77		2824.36		540.45	798.13		493.40	
Total	24190.70	33632.91	31882.49	61792.97	107395.90	158428.08	48319.60	29276.80	22635.65	23481.55	18062.87	17295.10	576394.62 Tonday
Mean	806.36	1084.93	1062.75	1993.32	3464.38	5280.94	1558.70	975.89	730.18	757.47	645.10	557.91	1579.16 Ton/day
Max	1585.95	2338.81	3025.15	3814.39	6563.77	7266.04	2824.36	2489.15	942.79	1184.55	826.79	684.98	7266.04 Ton/day
Min	512.15	521.56	357.46	484.73	2204.66	1034.85	684.98	512.15	540.45	502.76	530.99	433.17	357.46 Ton/day

WATER YEAR : 2018

CHAO PHRAYA RIVER BASIN

Chao Phraya River at Ban Bang Luang, Chai Nat (C.13)

Lat 15 - 10 - 07 N Long 100 - 11 - 48 E

Location : on left bank at Wat Pho Ngam about 1.5 kilometers downstream from Chao Phraya Diversion Dam

Ban Bang Luang **Amphoe** Sanphaya **Changwat** Chai Nat

Drainge Area	117,187 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1953-Cont'd
Actual Measurement	1953-Cont'd
Using Rating Curve Water Year	2018
Number of observation	26
R-Square	0.9688
Remarks	Continued Sediment Station

$$QS = 3.0544\ QW^{1.11220}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	557.83	586.62	1330.70	2723.86	1701.68	5617.89	825.34	1321.92	427.39	405.08	410.65	355.35		
2	557.83	1139.02	1517.58	3164.08	1742.88	5757.30	825.34	1013.80	360.84	432.99	432.99	355.35		
3	557.83	1409.95	1753.19	3225.73	1763.51	5757.30	825.34	789.56	355.35	432.99	432.99	355.35		
4	668.00	1609.37	2371.69	2918.69	2065.33	5739.85	832.51	575.09	355.35	432.99	432.99	355.35		
5	875.69	1763.51	2542.47	2382.33	2371.69	5617.89	1153.84	569.33	355.35	432.99	432.99	355.35		
6	911.83	2086.32	2329.18	1908.62	2554.52	5270.90	1454.17	569.33	355.35	432.99	432.99	355.35		
7	962.68	2075.82	1701.68	1228.26	2699.60	4487.42	1339.48	569.33	355.35	399.52	432.99	355.35		
8	1021.12	1588.92	1183.55	720.86	2906.47	4471.82	1269.38	569.33	355.35	355.35	432.99	355.35		
9	991.86	1357.06	673.85	557.83	2955.37	4425.07	1260.65	569.33	355.35	355.35	399.52	355.35		
10	926.33	904.59	472.36	506.37	3016.60	4518.62	1176.12	569.33	313.88	355.35	355.35	349.86		
11	846.88	575.09	421.80	427.39	2955.37	4706.30	875.69	563.58	289.59	355.35	355.35	294.43		
12	569.33	557.83	421.80	421.80	2784.60	4114.71	627.18	506.37	289.59	355.35	355.35	289.59		
13	557.83	557.83	421.80	421.80	2760.28	3492.87	569.33	500.69	328.55	355.35	355.35	289.59		
14	557.83	557.83	421.80	421.80	2748.14	3776.02	569.33	500.69	355.35	355.35	355.35	289.59		
15	557.83	523.47	421.80	421.80	2760.28	3745.38	592.40	500.69	355.35	355.35	360.84	304.14		
16	557.83	444.20	421.80	421.80	2735.99	4083.80	598.18	500.69	355.35	355.35	427.39	323.66		
17	557.83	421.80	421.80	466.71	2784.60	4409.50	569.33	500.69	355.35	355.35	432.99	323.66		
18	580.85	421.80	421.80	495.01	2470.28	4487.42	569.33	500.69	355.35	355.35	432.99	323.66		
19	991.86	421.80	466.71	732.65	2223.26	4440.65	569.33	500.69	355.35	355.35	432.99	333.46		
20	1205.88	421.80	495.01	1269.38	1887.82	4269.61	569.33	500.69	355.35	355.35	432.99	355.35		
21	1190.99	466.71	552.09	2044.37	1650.33	3575.92	569.33	500.69	355.35	355.35	432.99	355.35		
22	1629.84	517.76	557.83	2675.37	1568.51	3631.39	569.33	495.01	355.35	355.35	432.99	355.35		
23	1629.84	557.83	512.07	2930.91	1856.66	3631.39	569.33	438.59	355.35	355.35	399.52	355.35		
24	1463.03	627.18	489.34	2930.91	2470.28	3176.40	569.33	432.99	355.35	355.35	355.35	355.35		
25	1365.86	668.00	489.34	2651.15	3176.40	2506.35	1330.70	432.99	355.35	355.35	355.35	355.35		
26	1109.42	697.31	495.01	2254.98	3730.07	2170.49	1981.60	432.99	355.35	355.35	355.35	355.35		
27	1043.13	697.31	563.58	1908.62	4068.35	1722.27	1908.62	432.99	355.35	355.35	355.35	355.35		
28	603.97	697.31	955.40	1681.12	4316.19	1035.79	1939.86	432.99	355.35	355.35	355.35	355.35		
29	557.83	697.31	1722.27	2002.50	4534.23	825.34	2012.96	432.99	355.35	355.35		355.35		
30	557.83	697.31	2159.95	1877.43	4989.23	825.34	1981.60	432.99	355.35	355.35		355.35		
31		782.42		1773.84	5461.47		1650.33		355.35	366.34		355.35		
Total	26166.69	26531.08	28709.25	49567.97	87709.99	116291.00	32154.59	16657.04	10893.59	11508.94	11180.29	10583.99	427954.42	Tonday
Mean	872.22	855.84	956.97	1598.97	2829.35	3876.37	1037.24	555.23	351.41	371.26	399.30	341.42	1172.48	Ton/day
Max	1629.84	2086.32	2542.47	3225.73	5461.47	5757.30	2012.96	1321.92	427.39	432.99	432.99	355.35	5757.30	Ton/day
Min	557.83	421.80	421.80	421.80	1568.51	825.34	569.33	432.99	289.59	355.35	355.35	289.59	289.59	Ton/day

WATER YEAR : 2018

CHAO PHRAYA RIVER BASIN

Chao Phraya River at Ban Pom, Phra Nakhon Si Ayutthaya (C.35)

Lat 14 - 22 - 02 N Long 100 - 31 - 58 E

Location : on right bank at Ban Pom

Ban Pom **Amphoe** Phra Nakhon Si Ayutthaya **Changwat** Phra Nakhon Si Ayutthaya

Drainge Area	Flood Plain
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1997-Cont'd
Actual Measurement	1997-Cont'd
Using Rating Curve Water Year	2018
Number of observation	27
R-Square	0.8985
Remarks	Continued Sediment Station

$$QS = 3.3930\ QW^{1.14650}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	1123.86	1281.99	1335.28	1362.02	1442.66	4430.86	1295.29	1442.66	1215.78	994.22	1402.27	884.10	
2	1123.86	1335.28	1362.02	1574.92	1442.66	4378.36	1228.99	1308.60	1097.77	1073.38	1362.02	901.54	
3	1150.03	1335.28	1375.42	1744.84	1388.83	4430.86	1163.14	1268.71	1097.77	994.22	1388.83	858.01	
4	1176.28	1415.71	1498.43	1890.71	1636.45	4562.47	1136.94	1097.77	1110.81	1073.38	1202.60	788.96	
5	1215.78	1429.18	1590.27	1760.40	1667.33	4588.84	1110.81	1028.05	1189.43	1513.69	1084.76	806.15	
6	1136.94	1402.27	1605.65	1605.65	1621.04	4562.47	1242.21	1110.81	1242.21	1429.18	1039.36	780.38	
7	1136.94	1375.42	1429.18	1281.99	1760.40	4325.94	1388.83	1050.69	1163.14	1295.29	1050.69	729.16	
8	1202.60	1335.28	1215.78	1084.76	1667.33	3922.96	1415.71	1073.38	1136.94	1636.45	982.97	754.72	
9	1295.29	1189.43	962.93	1028.05	1760.40	3803.45	1415.71	1242.21	1281.99	1498.43	962.93	823.40	
10	1295.29	1084.76	994.22	901.54	2007.22	3803.45	1402.27	1255.45	1202.60	1388.83	971.74	797.55	
11	1202.60	945.34	1097.77	771.81	2217.87	3755.78	1388.83	1228.99	1189.43	1402.27	994.22	737.67	
12	1136.94	954.13	945.34	849.34	2161.85	3589.54	1402.27	1176.28	1281.99	1255.45	849.34	763.26	
13	994.22	1084.76	919.03	1039.36	2143.22	3332.18	1268.71	1073.38	1348.64	1268.71	814.77	771.81	
14	927.79	1097.77	901.54	1062.03	2090.98	3332.18	1073.38	1123.86	1308.60	982.97	910.28	858.01	
15	971.74	1123.86	884.10	1097.77	2007.22	3332.18	1097.77	1163.14	1150.03	840.68	910.28	875.39	
16	936.56	1189.43	849.34	1050.69	1874.14	3731.97	1097.77	1150.03	1073.38	754.72	919.03	892.81	
17	1028.05	1062.03	746.19	994.22	1744.84	3899.02	1084.76	1028.05	994.22	866.70	866.70	892.81	
18	982.97	971.74	797.55	971.74	1841.05	4091.06	954.13	982.97	1073.38	1005.48	849.34	840.68	
19	1084.76	962.93	840.68	1039.36	1775.97	4091.06	892.81	919.03	1163.14	1050.69	840.68	840.68	
20	1150.03	945.34	814.77	1202.60	1667.33	3899.02	858.01	892.81	1110.81	971.74	832.03	858.01	
21	1268.71	954.13	797.55	1202.60	1528.97	3755.78	971.74	1005.48	1039.36	1281.99	982.97	849.34	
22	1268.71	927.79	729.16	1348.64	1605.65	3377.25	1016.76	1123.86	1073.38	1456.15	1255.45	780.38	
23	1242.21	892.81	806.15	1667.33	1605.65	2952.29	1136.94	1176.28	1097.77	1513.69	1255.45	669.99	
24	1176.28	971.74	806.15	1621.04	1808.04	2731.66	1281.99	1189.43	1073.38	1636.45	1255.45	695.27	
25	1039.36	945.34	737.67	1744.84	2161.85	2405.89	1136.94	1123.86	1073.38	1528.97	962.93	553.67	
26	982.97	1028.05	797.55	1667.33	2521.44	2074.20	1362.02	1028.05	1084.76	1268.71	866.70	788.96	
27	927.79	1189.43	780.38	1636.45	2952.29	1841.05	1605.65	1123.86	971.74	1348.64	927.79	1062.03	
28	1097.77	1123.86	797.55	1544.27	3447.83	1651.88	1621.04	1255.45	994.22	1281.99	1028.05	1084.76	
29	1215.78	1348.64	875.39	1469.67	3731.97	1415.71	1621.04	1321.93	1062.03	1215.78		1028.05	
30	1176.28	1375.42	1189.43	1621.04	3946.92	1295.29	1667.33	1348.64	982.97	1308.60		1005.48	
31		1362.02		1559.58	4169.17		1744.84		927.79	1469.67		1005.48	
Total	33668.39	35641.16	30482.47	41396.59	65398.57	103364.65	39084.63	34313.71	34812.84	38607.12	28769.63	25978.51	511518.27 Tonday
Mean	1122.28	1149.71	1016.08	1335.37	2109.63	3445.49	1260.79	1143.79	1122.99	1245.39	1027.49	838.02	1401.42 Ton/day
Max	1295.29	1429.18	1605.65	1890.71	4169.17	4588.84	1744.84	1442.66	1348.64	1636.45	1402.27	1084.76	4588.84 Ton/day
Min	927.79	892.81	729.16	771.81	1388.83	1295.29	858.01	892.81	927.79	754.72	814.77	553.67	553.67 Ton/day

WATER YEAR : 2018

SAKAE KRANG RIVER BASIN

Nam Mae Wong at Ban Pang Makha, Kamphaeng Phet (Ct.5A)

Lat 15 - 55 - 33 N Long 99 - 30 - 22 E

Location : on left bank behind Wat Pang Makha.

Ban Pang Makha **Amphoe** Khanu Woralaksaburi **Changwat** Kamphaeng Phet

Drainge Area	977 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1969-Cont'd
Actual Measurement	1969-Cont'd
Using Rating Curve Water Year	1983-2018
Number of observation	470
R-Square	0.7680
Remarks	Continued Sediment Station

$$QS = 4.1786\ QW^{1.31160}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	30.05	30.05	213.95	126.93	61.30	43.82	130.65	108.76	48.67	181.08	123.25	105.80	
2	30.05	30.05	141.93	91.29	61.30	46.23	906.80	94.15	46.23	177.07	123.25	105.80	
3	30.05	36.78	161.22	71.87	61.30	43.82	1461.85	82.83	43.82	169.10	123.25	99.94	
4	30.05	39.09	141.93	61.30	56.16	43.82	493.26	77.31	41.44	169.10	119.59	94.15	
5	30.05	30.05	105.80	53.64	56.16	41.44	241.57	71.87	39.09	165.15	119.59	91.29	
6	30.05	30.05	123.25	51.14	56.16	43.82	201.47	66.54	36.78	165.15	115.95	88.45	
7	30.05	30.05	126.93	48.67	56.16	39.09	145.74	61.30	32.25	165.15	115.95	88.45	
8	30.05	30.05	69.19	53.64	53.64	34.50	115.95	56.16	32.25	165.15	119.59	85.63	
9	30.05	30.05	46.23	91.29	48.67	32.25	97.03	149.58	34.50	173.07	115.95	82.83	
10	30.05	30.05	41.44	58.72	43.82	36.78	88.45	1116.70	34.50	181.08	115.95	80.06	
11	30.05	30.05	48.67	53.64	43.82	36.78	112.34	527.59	32.25	169.10	112.34	80.06	
12	30.05	30.05	51.14	48.67	43.82	36.78	197.35	349.16	30.05	165.15	115.95	77.31	
13	30.05	30.05	51.14	43.82	41.44	36.78	130.65	267.02	30.05	161.22	165.15	77.31	
14	30.05	30.05	36.78	41.44	41.44	66.54	97.03	218.14	27.88	157.32	141.93	74.58	
15	30.05	30.05	43.82	43.82	46.23	80.06	77.31	177.07	25.74	157.32	126.93	74.58	
16	30.05	30.05	46.23	43.82	48.67	77.31	66.54	149.58	23.66	153.44	123.25	74.58	
17	30.05	30.05	46.23	58.72	46.23	58.72	61.30	126.93	25.74	153.44	177.07	77.31	
18	30.05	30.05	46.23	71.87	51.14	56.16	66.54	119.59	39.09	149.58	161.22	77.31	
19	30.05	30.05	46.23	63.90	77.31	138.15	66.54	141.93	145.74	149.58	138.15	80.06	
20	30.05	30.05	46.23	61.30	82.83	293.07	61.30	123.25	197.35	145.74	126.93	91.29	
21	30.05	30.05	46.23	77.31	99.94	157.32	868.63	99.94	193.25	145.74	119.59	102.86	
22	30.05	46.23	46.23	82.83	74.58	77.31	4876.97	85.63	193.25	141.93	115.95	94.15	
23	30.05	63.90	46.23	80.06	61.30	56.16	1840.46	82.83	189.17	141.93	112.34	85.63	
24	30.05	48.67	46.23	69.19	53.64	48.67	997.35	99.94	185.12	138.15	108.76	80.06	
25	30.05	66.54	46.23	66.54	51.14	173.07	553.68	82.83	181.08	134.38	102.86	119.59	
26	30.05	115.95	46.23	63.90	51.14	123.25	368.10	74.58	181.08	134.38	99.94	153.44	
27	30.05	145.74	56.16	61.30	61.30	94.15	272.19	66.54	177.07	130.65	102.86	105.80	
28	30.05	251.68	241.57	56.16	63.90	74.58	213.95	61.30	173.07	130.65	99.94	88.45	
29	30.05	161.22	153.44	58.72	53.64	380.86	173.07	56.16	173.07	126.93		80.06	
30	30.05	138.15	134.38	58.72	48.67	236.55	145.74	56.16	181.08	126.93		74.58	
31		157.32		58.72	46.23		126.93		185.12	126.93		69.19	
Total	901.50	1842.22	2497.50	1972.94	1743.08	2707.84	15256.74	4851.37	2979.44	4751.59	3443.48	2760.60	45708.30 Tonday
Mean	30.05	59.43	83.25	63.64	56.23	90.26	492.15	161.71	96.11	153.28	122.98	89.05	125.23 Ton/day
Max	30.05	251.68	241.57	126.93	99.94	380.86	4876.97	1116.70	197.35	181.08	177.07	153.44	4876.97 Ton/day
Min	30.05	30.05	36.78	41.44	41.44	32.25	61.30	56.16	23.66	126.93	99.94	69.19	23.66 Ton/day

WATER YEAR : 2018

SAKAE KRANG RIVER BASIN

Nam Mae Wong at Ban Khok Mo, Uthai Thani (Ct.8)

Lat 15 - 29 - 50 N Long 99 - 56 - 28 E

Location : on left bank at Ban Khok Mo.

Ban Khok Mo **Amphoe** Thap Than **Changwat** Uthai Thani

Drainge Area	3,207 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2002-Cont'd
Actual Measurement	2002-Cont'd
Using Rating Curve Water Year	2011-2018
Number of observation	98
R-Square	0.7035
Remarks	Continued Sediment Station

$$QS = 6.9759\ QW^{1.09730}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	251.87	198.44	12.08	85.84	20.91	340.53	77.84	10.96	25.51	0.00		
2	0.00	0.00	221.84	168.58	7.36	77.84	32.81	324.03	43.22	9.30	23.46	0.00		
3	0.00	0.00	188.27	148.79	4.27	75.85	104.85	291.69	12.08	7.74	21.68	0.00		
4	0.00	0.00	162.90	125.76	2.41	74.25	162.90	266.74	9.30	6.21	19.40	0.00		
5	0.00	0.00	135.69	118.36	1.46	74.25	184.89	242.73	14.93	5.16	17.15	0.00		
6	0.00	0.00	120.82	109.34	0.56	72.64	188.27	221.84	0.00	4.27	14.35	0.00		
7	0.00	0.00	118.36	102.62	0.00	72.64	145.98	201.85	0.00	2.55	13.21	0.00		
8	0.00	0.00	116.10	98.16	0.00	71.04	118.36	184.89	3.69	1.06	11.52	0.00		
9	0.00	0.00	109.34	91.88	0.00	69.45	93.91	168.58	52.11	0.81	10.41	0.00		
10	0.00	0.00	102.62	91.88	0.00	67.85	75.85	160.07	83.84	53.67	9.30	0.00		
11	0.00	0.44	93.91	89.87	0.00	64.68	67.85	154.42	83.84	140.67	8.52	0.00		
12	0.00	1.46	85.84	91.88	0.00	64.68	53.67	148.79	83.84	107.09	8.52	0.00		
13	0.00	1.73	71.04	91.88	0.00	64.68	37.40	165.74	81.83	93.91	8.13	0.00		
14	0.00	1.73	55.23	75.85	0.00	66.26	21.68	188.27	79.84	91.88	7.74	0.00		
15	0.00	3.98	40.88	56.79	0.00	85.84	12.08	174.78	75.85	91.88	5.84	0.00		
16	0.00	6.98	29.66	38.56	0.00	100.38	5.16	133.20	72.64	85.84	3.12	0.00		
17	0.00	13.21	20.16	27.58	0.00	98.16	1.59	107.09	72.64	81.83	2.83	0.00		
18	0.00	17.15	10.41	18.65	0.00	91.88	0.00	107.09	71.04	77.84	2.55	0.00		
19	0.00	27.58	4.27	14.93	0.00	81.83	0.00	95.93	69.45	74.25	2.27	0.00		
20	0.00	59.94	0.81	20.16	0.00	72.64	0.00	93.91	67.85	72.64	2.00	0.00		
21	0.00	102.62	0.00	19.40	0.00	89.87	0.00	93.91	64.68	72.64	1.46	0.00		
22	0.00	128.23	0.00	18.65	0.32	107.09	0.00	85.84	53.67	72.64	1.19	0.00		
23	0.00	157.24	0.00	17.90	5.46	95.93	0.00	79.84	38.56	71.04	0.81	0.00		
24	0.00	165.74	0.00	17.15	19.40	93.91	0.00	79.84	32.81	69.45	0.44	0.00		
25	0.00	181.51	0.00	16.41	59.94	83.84	0.00	74.25	27.58	67.85	0.20	0.00		
26	0.00	191.66	0.00	15.66	83.84	77.84	0.00	71.04	22.44	64.68	0.00	0.00		
27	0.00	205.25	0.00	14.93	100.38	72.64	0.00	71.04	17.90	61.51	0.00	0.00		
28	0.00	213.53	0.00	14.35	157.24	61.51	0.00	71.04	14.93	53.67	0.00	0.00		
29	0.00	226.01	0.00	13.78	165.74	44.39	0.00	72.64	13.78	39.72		0.00		
30	0.00	238.54	0.00	12.65	138.18	31.76	0.00	75.85	13.21	35.10		0.00		
31		256.82		12.65	111.59		0.00		12.08	29.66		0.00		
Total	0.00	2201.35	1940.02	1953.49	870.23	2291.46	1328.16	4547.46	1367.47	1657.52	221.61	0.00	18378.77	Tonday
Mean	0.00	71.01	64.67	63.02	28.07	76.38	42.84	151.58	44.11	53.47	7.91	0.00	50.35	Ton/day
Max	0.00	256.82	251.87	198.44	165.74	107.09	188.27	340.53	83.84	140.67	25.51	0.00	340.53	Ton/day
Min	0.00	0.00	0.00	12.65	0.00	31.76	0.00	71.04	0.00	0.81	0.00	0.00	0.00	Ton/day

WATER YEAR : 2018

PASAK RIVER BASIN

Lam Muak Lek at Ban Tharahad , Saraburi (S.7A)

Lat 14 - 47 - 17 N Long 101 - 07 - 18 E

Location : on right bank at Ban Tharahad.

Ban Tharahad **Amphoe** Wang Muang **Changwat** Saraburi

Drainge Area	580 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2018-Cont'd
Actual Measurement	2018-Cont'd
Using Rating Curve Water Year	2018
Number of observation	14
R-Square	0.8783
Remarks	Continued Sediment Station

$$QS = 3.2671\ QW^{1.04920}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	13.18	47.49	4.41	1.28	1.02	2.59	13.18	12.78	2.59	4.13	5.70	0.20		
2	12.78	50.52	5.70	1.45	1.02	2.59	13.18	12.78	2.59	2.79	5.45	0.20		
3	12.78	48.26	6.62	1.45	1.02	3.89	8.87	12.78	2.59	1.98	5.45	0.17		
4	13.18	46.75	6.62	1.45	1.02	4.65	4.65	12.78	2.59	1.45	2.79	0.17		
5	13.18	45.97	6.62	1.45	1.02	8.87	3.89	12.38	2.59	1.28	1.02	0.17		
6	13.18	44.46	6.62	1.45	1.02	33.41	3.89	12.38	2.59	1.28	1.02	0.17		
7	13.59	49.00	6.62	1.58	1.15	69.93	3.89	12.38	2.59	1.15	1.02	0.17		
8	13.18	51.34	6.23	1.45	1.58	84.92	3.89	12.38	2.59	1.15	0.89	0.20		
9	13.18	47.49	6.23	1.45	1.15	77.27	3.89	12.38	2.59	1.02	0.89	0.17		
10	13.18	43.72	6.23	1.45	1.15	36.01	3.61	12.38	2.59	1.02	0.89	0.17		
11	13.18	40.17	6.23	1.45	1.28	24.41	3.61	11.98	3.61	1.02	0.89	0.17		
12	13.18	18.16	6.23	1.45	1.15	15.83	3.61	11.98	6.23	1.02	0.89	0.17		
13	12.78	5.17	6.23	1.45	1.15	13.18	3.61	8.87	6.23	1.02	0.73	0.17		
14	12.78	21.75	4.93	1.45	1.15	20.70	3.61	8.87	6.23	1.02	0.73	0.32		
15	12.78	34.71	3.89	1.45	1.02	42.95	3.61	8.87	6.62	1.02	0.60	0.48		
16	12.78	31.46	3.61	1.45	1.02	49.78	3.61	4.93	6.62	1.02	0.48	0.48		
17	12.78	13.18	3.40	1.78	1.02	43.72	3.61	3.61	6.62	1.02	0.48	0.48		
18	16.76	5.17	3.20	1.98	1.15	20.18	3.61	3.89	6.62	1.02	0.48	0.60		
19	20.70	5.70	2.79	1.78	1.28	9.62	3.61	4.13	6.62	1.02	0.48	0.73		
20	20.70	6.23	2.38	1.58	1.28	9.62	3.61	4.13	6.97	1.02	0.48	1.58		
21	20.70	5.98	1.98	1.58	1.78	10.38	3.61	4.13	6.23	1.02	0.32	2.18		
22	20.18	5.98	1.78	1.58	2.99	9.23	3.89	3.89	5.98	1.02	0.32	2.18		
23	20.70	5.98	1.58	1.45	1.28	9.23	3.89	3.89	5.98	1.02	0.32	2.18		
24	21.75	5.98	1.45	1.45	1.28	11.18	3.61	4.13	5.98	1.02	0.32	2.38		
25	29.52	5.70	1.28	1.45	1.28	21.75	5.70	4.13	5.98	1.02	0.20	2.18		
26	36.71	5.45	1.15	1.45	1.45	27.25	10.78	4.13	5.98	1.02	0.20	2.38		
27	36.01	5.17	1.15	1.45	1.58	3.89	12.78	4.13	5.70	1.02	0.20	2.59		
28	35.36	4.93	1.15	1.28	1.78	13.99	12.78	3.61	5.70	1.02	0.20	1.45		
29	34.71	4.65	1.15	1.28	2.18	21.22	12.78	2.59	5.70	1.02		0.73		
30	38.78	4.41	1.15	1.15	2.38	13.18	12.78	2.59	5.70	1.02		0.73		
31		4.41		1.02	2.18		12.78		5.45	1.02		0.73		
Total	574.25	715.34	118.61	45.42	42.81	715.42	194.42	233.88	152.65	38.67	33.44	26.68	2891.59	Tonday
Mean	19.14	23.08	3.95	1.47	1.38	23.85	6.27	7.80	4.92	1.25	1.19	0.86	7.92	Ton/day
Max	38.78	51.34	6.62	1.98	2.99	84.92	13.18	12.78	6.97	4.13	5.70	2.59	84.92	Ton/day
Min	12.78	4.41	1.15	1.02	1.02	2.59	3.61	2.59	2.59	1.02	0.20	0.17	0.17	Ton/day

WATER YEAR : 2018

PASAK RIVER BASIN

Pasak River at Ban Pa , Saraburi (S.9)

Lat 14 - 37 - 39 N Long 101 - 01 - 02 E

Location : on left bank at Ban Mueang Nua railway bridge.

Ban Pa **Amphoe** Kaeng Khoi **Changwat** Saraburi

Drainge Area	14,233 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1978-Cont'd
Actual Measurement	1978-Cont'd
Using Rating Curve Water Year	2018
Number of observation	18
R-Square	0.8012
Remarks	Continued Sediment Station

$$QS = 1.4660\ QW^{1.34540}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	334.48	365.45	360.98	108.42	2756.90	4722.85	192.24	68.95	185.37	192.24	238.00	139.20		
2	312.80	379.75	360.98	88.11	3791.57	4769.97	148.80	66.31	188.80	178.57	168.49	142.38		
3	295.73	369.93	360.98	82.52	4380.96	4833.00	126.65	53.54	199.16	165.17	126.65	148.80		
4	295.73	369.93	347.67	126.65	4597.76	5599.52	120.49	53.54	287.29	158.57	123.56	155.30		
5	299.98	379.75	343.26	132.89	4504.52	4978.12	93.81	56.03	304.24	161.86	139.20	161.86		
6	343.26	374.83	343.26	139.20	3836.13	3562.80	82.52	36.92	299.98	148.80	192.24	158.57		
7	338.86	369.93	338.86	145.58	3059.54	3032.90	93.81	63.70	299.98	142.38	148.80	283.09		
8	334.48	384.69	295.73	142.38	2743.92	2554.58	82.52	63.70	238.00	148.80	145.58	278.91		
9	338.86	325.77	278.91	145.58	2246.08	2199.54	85.30	66.31	210.38	142.38	142.38	258.25		
10	338.86	330.12	274.75	132.89	1910.08	1878.44	90.95	79.75	152.04	155.30	152.04	168.49		
11	338.86	338.86	278.91	136.03	1291.57	1274.73	90.95	145.58	178.57	158.57	168.49	155.30		
12	334.48	399.60	274.75	142.38	921.89	948.81	88.11	175.20	195.69	185.37	158.57	152.04		
13	334.48	352.09	274.75	123.56	572.58	1031.27	90.95	222.11	195.69	199.16	132.89	77.01		
14	338.86	321.43	274.75	161.86	445.17	1463.05	58.56	188.80	246.05	199.16	129.76	126.65		
15	338.86	330.12	218.18	155.30	491.98	3166.67	46.22	175.20	258.25	199.16	136.03	108.42		
16	295.73	455.47	195.69	148.80	440.05	5497.49	43.84	192.24	238.00	199.16	132.89	132.89		
17	338.86	476.25	195.69	165.17	321.43	6349.46	39.19	202.65	230.02	158.57	136.03	132.89		
18	338.86	445.17	195.69	148.80	379.75	5633.64	24.05	202.65	185.37	158.57	145.58	139.20		
19	352.09	605.68	206.51	129.76	343.26	5044.38	26.10	206.51	168.49	161.86	161.86	142.38		
20	356.53	633.62	161.86	295.73	317.11	4864.59	24.05	202.65	222.11	152.04	171.84	129.76		
21	360.98	589.07	152.04	321.43	291.50	3955.59	26.10	202.65	266.46	152.04	161.86	132.89		
22	352.09	476.25	148.80	369.93	321.43	2038.63	30.31	210.38	325.77	139.20	155.30	165.17		
23	343.26	429.84	145.58	578.06	321.43	955.57	18.19	283.09	304.24	155.30	158.57	155.30		
24	287.29	460.64	148.80	1216.23	434.94	550.78	30.31	299.98	291.50	161.86	155.30	136.03		
25	330.12	465.83	148.80	1581.53	901.84	440.05	30.31	299.98	295.73	199.16	161.86	139.20		
26	384.69	465.83	148.80	2016.53	1249.57	338.86	46.22	299.98	283.09	218.18	171.84	129.76		
27	394.61	465.83	199.16	2164.79	1773.95	369.93	61.12	291.50	246.05	226.05	148.80	120.49		
28	374.83	460.64	161.86	2187.94	2351.71	304.24	74.30	214.27	222.11	230.02	139.20	132.89		
29	365.45	460.64	123.56	2316.36	3466.09	246.05	74.30	206.51	238.00	222.11		132.89		
30	365.45	465.83	111.41	2470.53	4380.96	258.25	71.61	171.84	250.10	222.11		136.03		
31		360.98		2316.36	4566.63		66.31		246.05	218.18		145.58		
Total	10159.42	13109.82	7070.97	20391.30	59412.30	82863.76	2178.19	5002.52	7452.58	5509.90	4303.61	4717.62	222171.99	Tonday
Mean	338.65	422.90	235.70	657.78	1916.53	2762.13	70.26	166.75	240.41	177.74	153.70	152.18	608.69	Ton/day
Max	394.61	633.62	360.98	2470.53	4597.76	6349.46	192.24	299.98	325.77	230.02	238.00	283.09	6349.46	Ton/day
Min	287.29	321.43	111.41	82.52	291.50	246.05	18.19	36.92	152.04	139.20	123.56	77.01	18.19	Ton/day

WATER YEAR : 2018

PASAK RIVER BASIN

Lam Sonthi at Ban Tha Ruak , Lop Buri (S.14)

Lat 15 - 13 - 24 N Long 101 - 16 - 52 E

Location : on right bank at the bridge.

Ban Tha Ruak **Amphoe** Chai Badan **Changwat** Lop Buri

Drainge Area	1,263 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2005-Cont'd
Actual Measurement	2005-Cont'd
Using Rating Curve Water Year	2018
Number of observation	21
R-Square	0.8524
Remarks	Continued Sediment Station

$$QS = 6.7405\ QW^{1.44360}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.30	142.05	284.38	25.30	145.04	786.93	45.43	9.84	9.41	4.36	0.24	0.32		
2	0.96	142.05	145.04	7.33	116.04	786.93	23.85	9.84	9.41	3.54	0.24	0.32		
3	3.07	192.62	75.88	252.99	100.51	866.25	14.50	9.84	9.41	3.30	0.24	0.32		
4	5.06	347.83	20.35	170.15	140.56	723.88	15.12	9.84	9.41	2.84	0.24	0.32		
5	10.73	2612.75	29.80	6.55	106.14	680.07	11.64	9.41	9.41	2.41	0.24	0.32		
6	20.35	6396.02	46.31	14.50	80.01	684.90	10.28	9.41	9.41	1.80	0.18	0.32		
7	3.30	546.32	561.41	7.33	21.73	632.40	9.84	9.41	9.41	1.54	0.18	0.32		
8	1.67	111.86	23.14	5.06	523.93	632.40	9.84	9.41	8.98	1.30	0.18	0.32		
9	1.80	68.82	29.80	4.36	127.40	842.13	9.84	9.41	8.56	1.19	0.18	0.32		
10	0.76	284.38	2.84	88.47	97.18	358.34	9.84	9.41	8.14	1.19	0.18	0.32		
11	0.76	5302.55	5.42	32.13	6261.29	6261.29	9.41	9.41	7.73	1.07	0.12	0.32		
12	0.66	146.54	6.55	143.54	5259.57	5259.57	9.41	9.84	7.33	0.96	0.12	0.32		
13	0.96	595.81	8.56	3.07	1658.49	1658.49	9.41	12.10	6.94	0.86	0.06	0.39		
14	0.66	314.35	6.94	100.51	1311.07	1311.07	9.41	12.10	6.55	0.76	0.06	0.39		
15	0.66	198.37	10.28	42.83	2019.25	2019.25	9.41	10.28	6.16	0.66	0.06	0.39		
16	4.71	146.54	7.33	90.62	6667.30	6667.30	3.78	9.41	5.79	0.66	0.02	0.39		
17	188.82	171.99	5.06	2713.57	3047.76	3047.76	0.48	9.41	5.42	0.57	0.02	0.39		
18	42.83	99.40	3.78	6305.84	1098.10	1098.10	0.48	13.28	5.06	0.57	0.02	0.39		
19	1.30	208.07	3.54	2478.37	830.99	830.99	0.48	25.30	5.06	0.57	0.12	0.39		
20	0.66	36.13	2.84	978.72	392.47	392.47	0.48	15.12	5.06	0.48	0.32	0.39		
21	0.66	70.82	2.84	748.99	576.62	301.75	2.84	13.89	5.06	0.48	0.32	0.39		
22	0.66	107.28	2.84	588.11	6083.29	90.62	22.43	15.12	5.06	0.48	0.32	0.39		
23	0.66	128.84	2.84	392.47	8414.90	164.66	13.28	11.64	5.06	0.39	0.39	0.39		
24	0.66	130.29	2.62	100.51	7286.62	102.75	56.29	9.84	5.06	0.39	0.39	0.48		
25	0.66	36.95	2.62	272.18	1932.29	155.65	32.92	9.41	5.06	0.39	0.48	0.48		
26	0.66	80.01	2.62	188.82	2082.98	106.14	26.78	9.41	5.06	0.32	0.48	0.48		
27	0.66	243.56	3.07	204.18	10209.17	81.05	17.68	9.41	5.06	0.32	0.39	0.48		
28	5.06	51.68	227.89	173.83	15844.18	58.17	11.64	9.41	5.06	0.32	0.32	0.48		
29	154.12	146.54	7.33	219.90	5601.82	38.61	10.28	9.41	5.06	0.32		0.48		
30	40.28	358.34	23.85	143.54	2956.47	45.43	9.84	9.41	5.06	0.24		0.48		
31		185.04		227.89	1490.07		9.84		5.06	0.24		0.48		
Total	495.10	19603.80	1557.77	16731.66	92483.24	36685.35	426.75	329.02	208.31	34.52	6.11	11.97	168573.60	Tonday
Mean	16.50	632.38	51.93	539.73	2983.33	1222.85	13.77	10.97	6.72	1.11	0.22	0.39	461.85	Ton/day
Max	188.82	6396.02	561.41	6305.84	15844.18	6667.30	56.29	25.30	9.41	4.36	0.48	0.48	15844.18	Ton/day
Min	0.66	36.13	2.62	3.07	21.73	38.61	0.48	9.41	5.06	0.24	0.02	0.32	0.02	Ton/day

WATER YEAR : 2018

PASAK RIVER BASIN

Pasak River at Ban Nong Bua , Lop Buri (S.28)

Lat 14 - 50 - 21 N Long 101 - 04 - 08 E

Location : on left bank at Ban Nong Bua.

Ban Nong Bua **Amphoe** Phatthana Nikhor **Changwat** Lop Buri

Drainge Area	8,778 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1998-Cont'd
Actual Measurement	1998-Cont'd
Using Rating Curve Water Year	2018
Number of observation	18
R-Square	0.9478
Remarks	Continued Sediment Station

$$QS = 1.1388\ QW^{1.33110}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	202.43	187.72	206.84	56.56	2599.28	3522.71	61.41	6.62	99.78	87.08	126.40	103.02	
2	206.84	180.20	202.43	56.56	3472.44	3556.32	62.64	6.62	101.40	83.09	91.79	103.02	
3	209.05	180.20	200.23	80.46	3556.32	3581.58	60.19	6.03	140.28	85.75	88.64	103.02	
4	209.05	185.83	200.23	98.17	3649.16	3455.72	55.36	6.03	182.07	87.08	90.21	104.65	
5	220.21	189.61	202.43	98.17	3291.87	2418.79	41.87	6.03	182.07	85.75	112.90	94.97	
6	204.63	189.61	204.63	96.57	2690.47	2106.12	41.87	4.92	182.07	87.08	109.58	149.13	
7	204.63	185.83	189.61	96.57	2248.09	1903.82	41.87	4.92	152.71	88.64	94.97	189.61	
8	204.63	170.91	161.75	96.57	1991.70	1536.97	41.87	4.92	117.92	91.79	94.97	200.23	
9	206.84	143.81	159.93	98.17	1658.31	1317.16	42.81	6.03	116.24	93.38	94.97	159.93	
10	209.05	158.12	158.12	99.78	1306.65	1027.97	41.87	26.88	67.62	91.79	94.97	119.60	
11	209.05	185.83	161.75	101.40	834.37	633.80	41.87	22.80	103.02	106.29	94.97	121.29	
12	206.84	222.46	161.75	91.79	568.92	611.98	41.87	72.69	107.93	135.03	96.57	80.46	
13	209.05	211.27	163.57	87.08	340.37	741.85	31.11	122.99	119.60	135.03	87.08	67.62	
14	209.05	191.50	145.58	109.58	329.15	1223.38	19.66	73.97	161.75	135.03	94.97	65.12	
15	183.95	236.07	112.90	109.58	357.36	2852.82	19.66	101.40	161.75	136.78	96.57	72.69	
16	191.50	282.85	112.90	111.24	278.07	4157.05	19.66	104.65	161.75	112.90	96.57	71.41	
17	204.63	280.46	114.56	101.40	236.07	4227.17	18.14	104.65	143.81	99.78	96.57	71.41	
18	211.27	348.84	114.56	87.08	254.53	3708.55	15.91	106.29	117.92	101.40	98.17	81.77	
19	213.50	424.37	98.17	143.81	189.61	3606.89	13.76	104.65	128.12	99.78	98.17	85.75	
20	215.73	421.40	79.15	236.07	183.95	3330.99	7.21	104.65	167.23	99.78	98.17	76.55	
21	213.50	354.52	77.85	236.07	142.04	2274.15	7.81	104.65	195.85	99.78	98.17	103.02	
22	211.27	278.07	79.15	320.80	183.95	960.57	7.21	128.12	213.50	99.78	98.17	101.40	
23	174.61	287.64	79.15	685.43	183.95	494.13	7.21	176.47	213.50	101.40	98.17	101.40	
24	169.07	297.28	79.15	1249.26	282.85	256.86	7.21	178.33	215.73	112.90	98.17	101.40	
25	213.50	302.13	80.46	1488.00	726.70	213.50	7.21	178.33	220.21	133.30	101.40	99.78	
26	222.46	302.13	94.97	1770.57	987.40	147.35	7.21	180.20	202.43	135.03	101.40	87.08	
27	209.05	304.56	107.93	1781.90	1509.72	156.31	6.62	149.13	158.12	135.03	101.40	87.08	
28	204.63	292.45	68.88	1781.90	1953.91	76.55	6.03	96.57	150.92	138.53	99.78	87.08	
29	193.68	309.75	56.56	2023.32	3123.50	57.76	6.62	94.97	149.13	140.28		90.21	
30	195.85	263.88	56.56	1979.08	3355.84	55.36	6.03	85.75	149.13	140.28		93.38	
31		202.43		2061.43	3447.37		6.03		131.57	142.04		90.21	
Total	6139.55	7771.73	3931.75	17434.37	45933.92	54214.18	795.80	2370.26	4715.13	3421.58	2753.87	3163.29	152645.43 Tonday
Mean	204.65	250.70	131.06	562.40	1481.74	1807.14	25.67	79.01	152.10	110.37	98.35	102.04	418.21 Ton/day
Max	222.46	424.37	206.84	2061.43	3649.16	4227.17	62.64	180.20	220.21	142.04	126.40	200.23	4227.17 Ton/day
Min	169.07	143.81	56.56	56.56	142.04	55.36	6.03	4.92	67.62	83.09	87.08	65.12	4.92 Ton/day

WATER YEAR : 2018

PASAK RIVER BASIN

Pasak River at Ban Tha Hi Yong , Phetchabun (S.33)

Lat 17 - 00 - 10 N Long 101 - 21 - 23 E

Location : on left bank at Ban Tha Hai Yong

Ban Tha Hai Yong **Amphoe** Lom Kao **Changwat** Phetchabun

Drainge Area	521 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2001-Cont'd
Actual Measurement	2001-Cont'd
Using Rating Curve Water Year	2018
Number of observation	10
R-Square	0.7953
Remarks	Continued Sediment Station

$$QS = 41.6726\ QW^{1.44640}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	44.10	103.85	73.47	200.23	738.86	3749.47	724.26	140.76	97.52	70.62	46.58	36.94		
2	32.38	76.36	62.27	113.57	477.73	1000.15	768.31	133.80	103.85	70.62	46.58	36.94		
3	28.02	62.27	59.56	91.31	543.01	3110.31	638.61	133.80	97.52	70.62	46.58	36.94		
4	25.91	49.10	62.27	76.36	320.76	20881.48	529.75	133.80	97.52	70.62	46.58	36.94		
5	23.86	85.23	62.27	65.01	452.35	14118.04	503.54	133.80	97.52	70.62	46.58	39.28		
6	23.86	56.88	51.65	73.47	248.84	4067.67	427.41	130.36	97.52	70.62	44.10	36.94		
7	32.38	41.67	51.65	65.01	320.76	1875.46	402.90	130.36	91.31	70.62	44.10	34.64		
8	30.18	41.67	103.85	94.40	192.45	2584.48	366.99	130.36	88.25	70.62	44.10	34.64		
9	23.86	46.58	67.80	67.80	155.02	1379.36	343.64	126.94	97.52	70.62	44.10	34.64		
10	19.91	41.67	62.27	67.80	5722.87	4693.77	309.51	133.80	94.40	70.62	41.67	32.38		
11	18.01	41.67	1507.15	59.56	753.54	1674.05	283.01	130.36	91.31	67.80	41.67	32.38		
12	18.01	34.64	265.76	56.88	1091.40	1702.39	283.01	137.27	88.25	67.80	70.62	30.18		
13	16.18	30.18	133.80	54.25	2053.61	1354.58	265.76	162.30	85.23	67.80	56.88	28.02		
14	14.41	28.02	103.85	724.26	709.76	3073.88	248.84	140.76	85.23	67.80	49.10	28.02		
15	12.71	39.28	97.52	130.36	753.54	1702.39	232.28	130.36	82.24	65.01	67.80	28.02		
16	12.71	30.18	76.36	100.67	464.99	1185.07	224.13	123.56	82.24	65.01	59.56	28.02		
17	240.52	18.01	390.82	2716.94	332.14	920.79	274.34	130.36	79.28	65.01	113.57	25.91		
18	94.40	18.01	309.51	26639.88	309.51	2552.23	240.52	123.56	79.28	59.56	82.24	25.91		
19	65.01	16.18	120.20	2488.09	439.83	5255.35	283.01	309.51	79.28	56.88	56.88	25.91		
20	39.28	16.18	120.20	1091.40	2083.78	2175.11	366.99	155.02	79.28	56.88	46.58	25.91		
21	30.18	25.91	120.20	889.62	889.62	1454.53	402.90	140.76	79.28	56.88	46.58	25.91		
22	28.02	1091.40	130.36	529.75	452.35	1091.40	556.38	147.84	76.36	56.88	44.10	25.91		
23	25.91	283.01	85.23	309.51	543.01	858.78	320.76	113.57	76.36	56.88	44.10	23.86		
24	23.86	130.36	73.47	240.52	1329.94	920.79	889.62	110.30	76.36	54.25	41.67	23.86		
25	28.02	192.45	103.85	184.77	2822.59	968.17	343.64	110.30	76.36	54.25	41.67	23.86		
26	19.91	91.31	638.61	366.99	2858.08	1161.43	265.76	107.06	76.36	51.65	41.67	23.86		
27	19.91	103.85	889.62	652.66	28822.19	666.79	224.13	100.67	73.47	51.65	41.67	32.38		
28	25.91	103.85	1161.43	343.64	8204.26	695.35	200.23	97.52	73.47	49.10	41.67	28.02		
29	46.58	82.24	332.14	452.35	2858.08	1185.07	184.77	97.52	73.47	49.10		28.02		
30	116.87	76.36	184.77	2858.08	1454.53	936.50	169.69	97.52	73.47	49.10		28.02		
31		65.01		1562.18	984.12		169.69		73.47	49.10		28.02		
Total	1180.87	3123.38	7501.91	43367.32	69383.52	88994.84	11444.38	3993.90	2622.98	1924.59	1439.00	930.28	235906.97	Tonday
Mean	39.36	100.75	250.06	1398.95	2238.18	2966.49	369.17	133.13	84.61	62.08	51.39	30.01	646.32	Ton/day
Max	240.52	1091.40	1507.15	26639.88	28822.19	20881.48	889.62	309.51	103.85	70.62	113.57	39.28	28822.19	Ton/day
Min	12.71	16.18	51.65	54.25	155.02	666.79	169.69	97.52	73.47	49.10	41.67	23.86	12.71	Ton/day

WATER YEAR : 2018

PASAK RIVER BASIN

Pasak River at Ban Bo Rang , Phetchabun (S.42)

Lat 15 - 34 - 35 N Long 101 - 05 - 28 E

Location : on left bank at the bridge.

Ban Bo Rang **Amphoe** Wichian Buri **Changwat** Phetchabun

Drainge Area	7,233 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2005-Cont'd
Actual Measurement	2005-Cont'd
Using Rating Curve Water Year	2018
Number of observation	11
R-Square	0.8992
Remarks	Continued Sediment Station

$$QS = 156.2869\ QW^{1.10700}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	26.31	0.00	3534.54	8573.52	52970.55	71566.32	6127.22	3095.28	482.78	0.00	0.00	0.00		
2	23.42	820.00	3338.62	10790.09	51756.60	62929.71	5949.89	2159.47	430.97	0.00	0.00	0.00		
3	16.33	3436.44	3095.28	9662.77	50152.36	55101.41	7560.42	1510.08	331.05	0.00	0.00	0.00		
4	9.54	3731.51	2998.45	7309.12	49005.18	49865.32	9020.51	1177.88	331.05	0.00	0.00	0.00		
5	3.22	6127.22	2668.81	5233.62	46808.71	46133.70	10218.45	820.00	292.22	0.00	0.00	0.00		
6	0.00	7875.68	1935.42	4237.80	40369.19	42104.05	9933.78	785.55	253.87	0.00	0.00	0.00		
7	0.00	6004.02	1594.31	3289.81	29287.37	38738.76	6684.56	1029.51	216.09	0.00	0.00	0.00		
8	0.00	5949.89	2023.87	2343.07	23432.43	37987.80	4493.20	785.55	125.46	0.00	0.00	0.00		
9	0.00	7749.43	4287.81	1467.05	20189.67	39993.50	3289.81	582.10	90.42	0.00	0.00	0.00		
10	0.00	6871.36	6004.02	994.28	21647.73	44248.77	2068.23	515.68	125.46	0.00	0.00	0.00		
11	0.00	4442.96	5124.42	582.10	19899.26	48161.55	1551.06	482.78	125.46	0.00	0.00	0.00		
12	0.00	3731.51	4802.99	430.97	17563.77	53578.53	1177.88	482.78	69.35	0.00	0.00	0.00		
13	0.00	3485.46	4390.39	370.33	14438.54	60924.80	785.55	450.09	61.40	0.00	0.00	0.00		
14	0.00	2998.45	3632.90	312.50	13463.77	66802.57	370.33	450.09	41.22	0.00	0.00	0.00		
15	0.00	2482.81	2390.31	785.55	14701.36	72057.57	253.87	482.78	26.31	0.00	0.00	0.00		
16	0.00	2251.09	1594.31	1383.51	14103.98	77791.23	178.93	515.68	23.42	0.00	0.00	0.00		
17	0.00	2068.23	2023.87	6004.02	13863.56	77586.29	178.93	548.79	19.14	0.00	0.00	0.00		
18	0.00	1891.33	2621.05	41970.35	12086.86	70088.30	178.93	751.24	0.00	0.00	0.00	0.00		
19	0.00	1467.05	2343.07	67579.80	10433.76	58465.97	161.49	1029.51	0.00	0.00	0.00	0.00		
20	0.00	1177.88	1635.51	80460.08	9933.78	45055.66	1720.38	994.28	0.00	0.00	0.00	0.00		
21	0.00	889.32	1260.17	79227.22	16469.38	35369.39	3731.51	1217.90	0.00	0.00	0.00	0.00		
22	0.00	1064.85	820.00	73633.60	36115.23	32155.26	6746.77	1510.08	0.00	0.00	0.00	0.00		
23	0.00	1467.05	450.09	68202.20	52211.51	34254.92	11364.68	1849.55	0.00	0.00	0.00	0.00		
24	0.00	1260.17	410.02	62775.26	60309.18	34625.06	14184.20	2435.39	0.00	0.00	0.00	0.00		
25	0.00	1100.32	450.09	56781.28	58312.62	32772.49	16195.50	2435.39	0.00	0.00	0.00	0.00		
26	0.00	1100.32	615.59	50584.72	53122.48	28714.09	16377.13	1935.42	0.00	0.00	0.00	0.00		
27	0.00	1260.17	1426.29	44114.42	59540.51	21452.76	14701.36	1510.08	0.00	0.00	0.00	0.00		
28	0.00	2251.09	3780.92	38237.96	75989.61	14612.81	12522.20	924.18	0.00	0.00	0.00	0.00		
29	0.00	3241.07	5893.35	40244.90	85998.43	10433.76	6436.28	717.09	0.00	0.00		0.00		
30	0.00	3485.46	6871.36	46403.59	85759.66	8002.13	4752.42	751.24	0.00	0.00		0.00		
31		3879.91		49723.38	80460.08		4699.51		0.00	0.00		0.00		
Total	78.82	95562.05	84017.83	863708.87	1190397.12	1371574.48	183614.98	33935.44	3045.67	0.00	0.00	0.00	3825935.26	Tonday
Mean	2.63	3082.65	2800.59	27861.58	38399.91	45719.15	5923.06	1131.18	98.25	0.00	0.00	0.00	10482.01	Ton/day
Max	26.31	7875.68	6871.36	80460.08	85998.43	77791.23	16377.13	3095.28	482.78	0.00	0.00	0.00	85998.43	Ton/day
Min	0.00	0.00	410.02	312.50	9933.78	8002.13	161.49	450.09	0.00	0.00	0.00	0.00	0.00	Ton/day

WATER YEAR : 2018

PASAK RIVER BASIN

Huai Leng at Ban Wang Tian , Phetchabun (S.45)

Lat 15 - 46 - 54 N Long 101 - 12 - 57 E

Location : on left bank at the bridge.

Ban Wang Tian **Amphoe** Wichian Buri **Changwat** Phetchabun

Drainge Area	75 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2014-Cont'd
Actual Measurement	2014-Cont'd
Using Rating Curve Water Year	2014-2018
Number of observation	44
R-Square	0.7849
Remarks	Continued Sediment Station

$$QS = 7.2426\ QW^{1.19470}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	3.01	4.41	5.38	5.38	39.54	6.39	21.33	1.32	1.32	1.12	0.00	0.00		
2	3.01	4.41	5.38	6.39	35.13	6.39	21.33	1.32	1.32	1.12	0.00	0.00		
3	3.01	3.93	5.38	6.39	32.90	5.88	21.33	1.32	1.32	1.12	0.00	0.00		
4	3.01	12.32	5.38	6.39	32.90	5.88	21.33	1.12	1.32	1.12	0.00	0.00		
5	3.01	13.37	5.38	8.29	32.90	5.38	19.69	1.12	1.32	1.12	0.00	0.00		
6	3.01	13.37	6.39	8.29	29.50	5.38	19.69	1.12	1.32	0.93	0.00	0.00		
7	3.01	13.37	6.39	9.27	29.50	5.38	19.69	1.12	1.32	0.93	0.41	0.00		
8	3.01	13.37	6.39	9.27	31.25	4.89	19.69	0.93	1.32	0.93	0.93	0.00		
9	3.01	15.49	6.39	9.27	32.90	4.89	18.17	0.93	1.32	0.93	1.32	0.00		
10	3.01	21.33	5.88	9.27	37.27	4.41	18.17	0.93	1.32	0.93	1.32	0.00		
11	2.57	24.57	5.88	12.32	41.72	3.47	18.17	0.75	1.32	0.75	1.32	0.00		
12	2.57	24.57	5.88	14.42	41.72	3.93	21.33	0.75	1.32	0.75	1.32	0.00		
13	2.57	24.57	5.88	29.50	46.24	4.89	26.16	0.75	1.32	0.75	1.32	0.00		
14	2.57	24.57	5.88	67.28	50.84	4.89	26.16	0.93	1.32	0.75	0.93	0.00		
15	2.14	24.57	5.88	124.59	55.51	4.41	29.50	0.93	1.32	0.75	0.93	0.25		
16	2.14	24.57	5.88	165.17	55.51	4.41	29.50	0.93	1.32	0.75	0.41	0.25		
17	2.14	24.57	5.38	213.45	53.23	4.41	27.88	1.32	1.32	0.58	0.00	0.58		
18	1.72	24.57	5.38	201.20	48.59	3.93	27.88	1.32	1.32	0.58	0.00	0.58		
19	1.72	24.57	5.38	183.04	46.24	3.93	22.89	1.32	0.93	0.58	0.00	0.93		
20	1.72	24.57	5.38	129.01	46.24	3.93	22.89	1.32	0.93	0.41	0.00	0.93		
21	1.52	26.16	5.38	113.12	41.72	3.47	19.69	1.72	0.41	0.41	0.00	1.32		
22	1.52	26.16	5.38	82.47	39.54	3.47	16.58	1.72	0.41	0.00	0.00	1.32		
23	1.52	24.57	4.89	76.33	32.90	3.47	14.42	2.57	0.25	0.00	0.00	1.32		
24	1.52	24.57	4.89	58.42	29.50	3.01	12.32	2.57	0.25	0.00	0.00	1.32		
25	1.52	21.33	4.89	55.51	29.50	2.57	6.39	3.47	0.00	0.00	0.00	1.32		
26	1.52	21.33	4.41	50.84	26.16	2.57	5.38	3.47	0.00	0.00	0.00	1.32		
27	1.52	16.58	4.41	50.84	19.69	2.57	4.41	3.47	0.00	0.00	0.00	1.32		
28	1.52	16.58	5.38	48.59	16.58	2.57	3.01	4.41	0.00	0.00	0.00	1.32		
29	1.52	14.42	5.38	44.03	14.42	2.14	2.14	4.41	0.00	0.00		1.32		
30	1.52	9.27	5.38	41.72	13.37	2.14	1.72	4.41	0.00	0.00		1.32		
31		6.39		39.54	11.29		1.32		0.00	0.00		1.32		
Total	67.16	568.43	165.53	1879.60	1094.30	125.05	540.16	53.77	26.94	17.31	10.21	18.04	4566.50	Tonday
Mean	2.24	18.34	5.52	60.63	35.30	4.17	17.42	1.79	0.87	0.56	0.36	0.58	12.51	Ton/day
Max	3.01	26.16	6.39	213.45	55.51	6.39	29.50	4.41	1.32	1.12	1.32	1.32	213.45	Ton/day
Min	1.52	3.93	4.41	5.38	11.29	2.14	1.32	0.75	0.00	0.00	0.00	0.00	0.00	Ton/day

WATER YEAR : 2018

PASAK RIVER BASIN

Huai Leng at Ban Yang Sao , Phetchabun (S.46)

Lat 15 - 48 - 54 N Long 101 - 17 - 14 E

Location : on left bank at the bridge.

Ban Yang Sao **Amphoe** Wichian Buri **Changwat** Phetchabun

Drainge Area	4 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2014-Cont'd
Actual Measurement	2014-Cont'd
Using Rating Curve Water Year	2014-2018
Number of observation	39
R-Square	0.8267
Remarks	Continued Sediment Station

$$QS = 6.7822\ QW^{1.19430}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.33	0.43	0.59	1.55	5.20	1.94	1.94	0.93	0.82	0.49	0.43	0.49		
2	0.33	1.36	0.82	1.36	15.06	1.36	1.94	0.82	0.82	0.49	0.43	0.49		
3	0.33	0.82	0.82	0.99	2.96	2.96	1.36	0.82	0.82	0.49	0.43	0.49		
4	0.33	1.94	0.82	1.36	4.05	2.96	1.36	0.82	0.59	0.49	0.43	0.43		
5	0.33	0.93	0.65	1.17	2.96	4.05	1.36	0.82	0.59	0.49	0.43	0.43		
6	0.33	0.99	1.94	0.99	1.94	1.94	1.36	0.82	0.59	0.49	0.43	0.43		
7	0.33	0.65	1.94	0.99	1.36	2.96	1.36	0.82	0.59	0.49	0.43	0.43		
8	0.33	0.65	1.94	0.82	0.99	2.96	1.36	0.82	0.59	0.49	0.43	0.43		
9	0.33	0.65	2.96	0.65	0.99	2.96	1.36	0.82	0.59	0.49	0.43	0.43		
10	0.33	0.65	2.14	0.65	0.99	4.05	0.99	0.82	0.59	0.49	0.43	0.43		
11	0.33	0.76	1.55	0.99	0.99	2.96	0.99	0.93	0.59	0.49	0.43	0.33		
12	0.33	0.59	1.36	1.36	1.94	12.16	0.99	0.93	0.59	0.49	0.43	0.33		
13	0.33	0.59	0.99	0.99	1.94	73.93	0.99	0.93	0.59	0.49	0.43	0.33		
14	0.59	0.93	0.99	0.99	1.94	53.65	0.99	0.93	0.59	0.49	0.43	0.33		
15	0.59	0.82	1.36	1.36	1.94	24.19	1.36	0.82	0.59	0.49	0.43	0.33		
16	0.49	0.59	1.55	5.98	1.94	5.20	1.36	0.82	0.59	0.49	0.49	0.28		
17	0.49	0.49	1.36	221.47	1.94	4.73	1.94	0.82	0.59	0.49	0.49	0.28		
18	0.33	0.49	2.54	271.15	1.74	2.96	1.94	0.99	0.59	0.49	0.49	0.28		
19	0.33	0.59	2.54	26.80	1.74	2.96	2.96	0.99	0.59	0.49	0.49	0.28		
20	0.33	0.49	1.55	4.51	1.36	2.96	4.05	0.99	0.59	0.49	0.49	0.28		
21	0.28	0.49	1.36	23.29	1.36	2.54	2.96	0.82	0.59	0.49	0.49	0.28		
22	0.28	0.49	1.17	69.88	0.99	1.94	1.94	0.82	0.59	0.49	0.49	0.28		
23	0.28	0.43	1.36	6.38	1.36	2.14	1.94	0.82	0.59	0.49	0.49	0.28		
24	0.28	0.59	1.55	3.18	1.36	2.14	1.94	0.82	0.59	0.49	0.49	0.28		
25	0.28	0.59	2.14	2.96	1.74	2.14	1.36	0.82	0.59	0.49	0.49	0.28		
26	0.28	0.43	2.14	2.75	1.74	2.14	0.99	0.82	0.59	0.49	0.49	0.28		
27	0.28	0.43	1.55	2.54	1.94	1.94	0.99	0.82	0.59	0.49	0.49	0.28		
28	0.28	0.43	0.99	2.34	1.94	1.94	0.99	0.82	0.59	0.49	0.49	0.28		
29	0.28	0.76	0.93	2.14	2.54	1.74	0.99	0.82	0.59	0.43		0.28		
30	0.28	1.36	1.17	1.74	2.96	1.74	0.99	0.82	0.59	0.43		0.28		
31		0.99		1.36	1.94		0.99		0.59	0.43		0.28		
Total	10.24	22.40	44.77	664.69	73.84	234.24	48.04	25.66	18.98	15.01	12.82	10.61	1181.30	Tonday
Mean	0.34	0.72	1.49	21.44	2.38	7.81	1.55	0.86	0.61	0.48	0.46	0.34	3.24	Ton/day
Max	0.59	1.94	2.96	271.15	15.06	73.93	4.05	0.99	0.82	0.49	0.49	0.49	271.15	Ton/day
Min	0.28	0.43	0.59	0.65	0.99	1.36	0.99	0.82	0.59	0.43	0.43	0.28	0.28	Ton/day

WATER YEAR : 2018

THA CHIN BASIN

Lower Huai Kra Sieo at Ban Thap Man, Suphan Buri (T.12A)

Lat 15 - 00 - 45 N Long 99 - 37 - 12 E

Location : on left bank at Ban Thap Man.

Ban Thap Man **Amphoe** Dan Chang **Changwat** Suphan Buri

Drainge Area	686 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2003-Cont'd
Actual Measurement	2003-Cont'd
Using Rating Curve Water Year	2003-2018
Number of observation	156
R-Square	0.7965
Remarks	Continued Sediment Station

$$QS = 7.3485\ QW^{1.38350}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	22.29	33.60	41.25	50.02	17.60	8.49	105.07	48.30	23.26	22.29	7.05	3.62		
2	22.29	33.60	33.60	43.90	14.08	8.49	314.85	51.76	22.29	19.44	7.76	3.62		
3	22.29	33.60	33.60	43.90	12.40	7.76	395.83	48.30	21.33	18.51	7.76	3.38		
4	22.29	33.60	38.65	36.10	12.40	7.05	152.19	45.24	21.33	17.60	6.35	3.62		
5	22.29	33.60	46.59	33.60	14.94	7.05	96.26	42.57	20.38	17.60	5.49	3.38		
6	22.29	64.37	46.59	31.45	14.94	7.76	68.87	41.25	20.38	18.51	4.94	3.38		
7	22.29	64.37	46.59	33.60	14.94	7.05	51.76	39.95	17.60	16.70	4.94	3.38		
8	22.29	75.76	46.59	34.84	16.70	6.06	57.07	37.37	19.44	15.81	4.94	3.38		
9	22.29	96.26	46.59	33.60	18.51	6.35	60.69	36.10	21.33	15.81	4.66	3.38		
10	22.29	96.26	53.51	31.45	15.81	6.35	58.87	41.25	24.25	14.94	5.49	3.13		
11	22.29	120.24	58.87	29.34	14.08	10.01	53.51	46.59	23.26	13.23	5.49	3.38		
12	22.29	148.90	62.52	25.24	14.94	14.94	58.87	41.25	22.29	12.40	5.21	3.38		
13	22.29	148.90	64.37	24.25	12.40	17.60	46.59	36.10	21.33	12.40	5.21	3.38		
14	22.29	182.64	68.87	23.26	10.79	22.29	38.65	34.84	20.38	12.40	5.49	3.13		
15	22.29	218.21	66.61	22.29	10.79	32.52	36.10	34.84	18.51	11.59	4.66	3.38		
16	22.29	218.21	60.69	24.25	9.24	48.30	30.39	33.60	18.51	11.59	4.94	2.89		
17	22.29	218.21	57.07	27.27	8.49	36.10	29.34	31.45	17.60	10.79	4.66	2.43		
18	22.29	218.21	53.51	26.25	8.49	23.26	26.25	29.34	17.60	11.59	4.66	2.66		
19	22.29	239.30	51.76	24.25	8.49	36.10	33.60	29.34	17.60	10.79	4.40	3.13		
20	22.29	260.92	50.02	21.33	8.49	23.26	53.51	32.52	16.70	10.01	4.14	2.89		
21	23.26	305.67	45.24	22.29	7.76	20.38	418.10	29.34	17.60	9.24	3.62	2.89		
22	23.26	446.40	45.24	21.33	7.76	17.60	1869.83	27.27	21.33	9.24	3.62	3.13		
23	23.26	522.34	45.24	20.38	7.05	17.60	873.00	27.27	19.44	10.79	3.62	3.13		
24	23.26	552.41	45.24	20.38	7.05	28.30	395.83	26.25	17.60	10.01	4.94	3.13		
25	23.26	589.10	45.24	19.44	7.05	42.57	265.31	25.24	16.70	7.76	4.14	3.38		
26	25.24	620.17	46.59	19.44	7.76	29.34	196.66	25.24	15.81	10.01	4.14	3.38		
27	25.24	645.34	46.59	19.44	7.76	24.25	165.53	24.25	14.94	12.40	3.88	3.38		
28	26.25	680.75	46.59	18.51	7.76	22.29	132.77	24.25	15.81	10.79	3.88	3.13		
29	27.27	645.34	46.59	14.94	7.76	18.51	105.07	24.25	22.29	9.24		2.89		
30	28.30	645.34	46.59	15.81	7.05	25.24	87.65	23.26	24.25	9.24		2.89		
31		613.92		16.70	8.49		73.45		24.25	8.49		2.89		
Total	694.40	8805.54	1487.00	828.85	341.77	582.87	6351.47	1038.58	615.39	401.21	140.08	99.14	21386.30	Tonday
Mean	23.15	284.05	49.57	26.74	11.02	19.43	204.89	34.62	19.85	12.94	5.00	3.20	58.59	Ton/day
Max	28.30	680.75	68.87	50.02	18.51	48.30	1869.83	51.76	24.25	22.29	7.76	3.62	1869.83	Ton/day
Min	22.29	33.60	33.60	14.94	7.05	6.06	26.25	23.26	14.94	7.76	3.62	2.43	2.43	Ton/day

WATER YEAR : 2018

MAE KLONG RIVER BASIN

Lam Ta Phoen at Ban Thung Na Nang Rok , Kanchanaburi (K.12)

Lat 14 - 09 - 17 N Long 99 - 25 - 07 E

Location : on left bank about 50 meters downstream from Wat Thung Na Nang Rok.

Ban Thung Na Nang Rok **Amphoe** Mueang **Changwat** Kanchanaburi

Drainge Area	2,375 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1997-Cont'd
Actual Measurement	1997-Cont'd
Using Rating Curve Water Year	2018
Number of observation	26
R-Square	0.9768
Remarks	Continued Sediment Station

$$QS = 1.4535\ QW^{1.58870}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	256.64	724.52	71.18	21.12	0.96	42.66	68.46	10.20	3.93	0.00	0.04		
2	0.00	242.65	1477.52	68.46	17.16	0.75	82.42	67.12	9.69	4.30	0.00	0.00		
3	0.39	183.66	1438.96	63.15	15.91	0.75	69.81	59.45	11.82	4.30	0.00	0.00		
4	5.09	140.92	829.85	52.49	15.91	0.75	83.87	57.10	12.37	4.30	0.00	0.00		
5	2.26	262.32	664.56	49.13	15.91	0.56	117.19	53.63	9.18	4.30	0.00	0.00		
6	1.97	437.16	501.97	45.85	17.16	1.43	98.85	44.78	8.68	4.30	0.00	0.00		
7	1.69	562.45	425.17	42.66	14.10	1.19	131.60	37.53	8.68	4.30	0.00	0.00		
8	1.19	350.73	401.56	39.55	12.37	1.19	145.22	35.55	8.68	4.30	0.00	0.00		
9	1.43	183.66	350.73	41.61	6.80	10.20	126.12	31.70	9.18	4.30	0.00	0.00		
10	5.50	118.96	319.86	41.61	5.92	9.69	111.95	25.71	9.18	4.30	0.00	0.00		
11	5.09	186.02	357.81	34.57	9.18	24.12	75.32	29.84	9.18	3.93	0.00	0.00		
12	5.09	1015.67	323.11	32.65	10.73	43.71	65.79	32.65	10.73	2.89	0.00	0.00		
13	4.69	2241.28	253.82	33.60	12.94	31.70	67.12	30.77	10.73	1.97	0.00	0.00		
14	4.30	1181.97	205.34	34.57	11.82	19.10	52.49	34.57	10.20	1.19	0.00	0.00		
15	3.93	510.85	186.02	31.70	11.82	26.52	41.61	32.65	10.20	1.19	0.00	0.00		
16	3.93	273.81	167.42	31.70	9.18	50.24	34.57	33.60	9.69	2.26	0.00	0.00		
17	3.93	198.01	156.17	34.57	8.19	83.87	34.57	25.71	9.18	0.96	0.00	0.56		
18	3.93	162.89	145.22	34.57	2.26	226.25	39.55	22.57	8.68	0.96	0.00	0.25		
19	3.93	133.44	135.30	35.55	1.97	53.63	34.57	21.12	12.37	0.96	0.00	0.96		
20	3.93	126.12	124.32	32.65	1.97	31.70	29.00	18.45	11.27	0.75	1.19	0.75		
21	3.93	143.06	115.44	31.70	2.89	30.77	71.18	17.80	10.20	0.56	3.57	1.19		
22	3.93	212.91	106.80	31.70	3.22	49.13	205.34	15.91	9.18	0.56	1.97	0.96		
23	3.93	593.43	101.96	29.00	3.22	39.55	557.63	14.70	9.18	0.56	0.96	1.69		
24	3.93	3191.30	97.31	26.52	0.96	40.58	1122.51	14.70	8.68	0.39	0.56	0.96		
25	3.93	2798.73	95.78	25.71	0.39	45.85	762.96	14.70	8.68	0.25	0.56	0.00		
26	4.30	2003.91	86.79	24.91	0.39	43.71	501.97	14.70	8.68	0.00	0.13	0.00		
27	8.19	1588.68	72.55	23.34	0.13	38.53	361.36	14.10	8.19	0.00	0.00	0.00		
28	17.80	1578.20	75.32	22.57	0.04	27.33	223.55	14.10	8.19	0.04	0.00	0.00		
29	51.36	1458.04	67.12	22.57	0.13	25.71	149.56	14.10	8.19	0.04		0.00		
30	162.89	993.02	69.81	19.10	0.25	22.57	103.53	10.73	4.69	0.04		0.00		
31		693.62		19.77	0.96		75.32		3.93	0.04		0.00		
Total	326.46	24024.11	10078.11	1128.71	235.00	982.04	5619.19	908.50	287.68	62.17	8.94	7.36	43668.27	Tonday
Mean	10.88	774.97	335.94	36.41	7.58	32.73	181.26	30.28	9.28	2.01	0.32	0.24	119.64	Ton/day
Max	162.89	3191.30	1477.52	71.18	21.12	226.25	1122.51	68.46	12.37	4.30	3.57	1.69	3191.30	Ton/day
Min	0.00	118.96	67.12	19.10	0.04	0.56	29.00	10.73	3.93	0.00	0.00	0.00	0.00	Ton/day

WATER YEAR : 2018

MAE KLONG RIVER BASIN

Lam Phachi at Ban Bo , Ratchaburi (K.17)

Lat 13 - 32 - 31 N Long 99 - 21 - 24 E

Location : on left bank oppositeto the 'Sai Ngam' fronter police station.

Ban Bo **Amphoe** Suan Phung **Changwat** Ratchaburi

Drainge Area	1,344 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1999-Cont'd
Actual Measurement	1999-Cont'd
Using Rating Curve Water Year	2018
Number of observation	18
R-Square	0.8328
Remarks	Continued Sediment Station

$$QS = 0.1569\ QW^{2.02320}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	3.81	152.80	120.71	11.19	26.84	41.23	8.56	28.58	6.65	1.08	0.08	0.01		
2	4.67	162.22	77.73	9.83	76.13	38.10	102.27	23.53	5.29	0.99	0.10	0.00		
3	4.67	126.26	86.30	8.16	82.79	31.29	51.35	19.12	4.97	0.89	0.10	0.00		
4	4.09	140.69	72.97	8.16	112.62	27.71	44.48	16.48	4.09	0.89	0.08	0.00		
5	5.29	366.84	65.39	7.77	82.79	21.23	72.97	14.70	3.81	0.80	0.08	0.00		
6	4.97	171.92	45.59	7.38	95.41	18.44	601.39	12.63	3.29	0.72	0.08	0.00		
7	7.77	99.77	34.13	7.01	134.82	15.24	319.55	11.66	3.10	0.72	0.06	0.00		
8	9.83	61.29	40.17	7.01	86.30	12.63	143.67	11.19	3.10	0.64	0.06	0.00		
9	6.65	38.10	155.91	6.65	58.72	13.13	79.35	21.23	2.74	0.64	0.06	0.00		
10	5.61	27.71	732.59	6.29	41.23	14.70	50.17	76.13	2.40	0.57	0.08	0.00		
11	4.97	35.10	319.55	5.95	33.17	12.14	38.10	46.71	2.24	0.52	0.04	0.00		
12	4.37	53.75	178.55	4.97	28.58	10.73	27.71	34.13	2.08	0.46	0.04	0.00		
13	4.09	84.54	112.62	4.67	26.00	9.83	22.74	27.71	1.79	0.41	0.02	0.00		
14	4.09	57.46	84.54	4.97	20.52	8.56	19.81	19.81	1.65	0.31	0.02	0.00		
15	3.55	49.00	72.97	5.29	19.81	8.16	16.48	15.86	1.65	0.27	0.02	0.00		
16	3.55	66.87	66.87	33.17	28.58	12.14	14.17	14.17	1.53	0.27	0.02	0.00		
17	3.81	37.09	68.37	23.53	40.17	12.63	13.13	12.63	1.53	0.19	0.04	0.00		
18	3.81	28.58	86.30	19.12	81.06	11.19	12.63	11.19	1.53	0.16	0.04	0.00		
19	3.81	43.38	63.92	37.09	165.42	10.73	12.14	10.73	1.53	0.13	0.02	0.00		
20	3.55	57.46	45.59	68.37	259.14	9.40	27.71	10.27	1.41	0.16	0.02	0.00		
21	3.55	49.00	36.09	45.59	120.71	9.83	683.37	10.27	1.41	0.16	0.01	0.00		
22	3.55	49.00	30.37	26.00	68.37	10.27	412.31	9.83	1.41	0.13	0.01	0.00		
23	4.37	159.05	24.34	17.78	49.00	33.17	325.56	9.40	1.30	0.13	0.01	0.00		
24	4.09	218.49	18.44	13.65	36.09	18.44	635.87	8.98	1.30	0.16	0.01	0.00		
25	3.81	520.86	15.24	12.14	35.10	23.53	590.11	8.56	1.30	0.13	0.01	0.00		
26	3.55	290.32	13.65	15.86	37.09	18.44	345.50	8.16	1.30	0.10	0.01	0.00		
27	5.61	165.42	14.17	33.17	49.00	12.14	240.64	7.77	1.30	0.13	0.01	0.00		
28	43.38	97.29	13.65	40.17	62.60	9.83	89.89	7.01	1.19	0.13	0.01	0.00		
29	134.82	86.30	12.63	52.54	52.54	8.98	57.46	7.01	1.19	0.10		0.00		
30	131.94	89.89	13.65	34.13	44.48	8.56	45.59	6.65	1.08	0.10		0.01		
31		107.38		28.58	41.23		36.09		1.08	0.06		0.00		
Total	435.63	3693.83	2723.00	606.19	2096.31	492.40	5140.77	522.10	70.24	12.15	1.14	0.02	15793.78	Tonday
Mean	14.52	119.16	90.77	19.55	67.62	16.41	165.83	17.40	2.27	0.39	0.04	0.00	43.27	Ton/day
Max	134.82	520.86	732.59	68.37	259.14	41.23	683.37	76.13	6.65	1.08	0.10	0.01	732.59	Ton/day
Min	3.55	27.71	12.63	4.67	19.81	8.16	8.56	6.65	1.08	0.06	0.01	0.00	0.00	Ton/day

WATER YEAR : 2018

MAE KLONG RIVER BASIN

Huai Tha Khoei at Ban Kha , Ratchaburi (K.25A)

Lat 13 - 24 - 07 N Long 99 - 25 - 14 E

Location : on right bank about 8 kilometers upstream from station K.25

Ban Kha **Amphoe** Ban Kha **Changwat** Ratchaburi

Drainge Area	367 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1994-Cont'd
Actual Measurement	1994-Cont'd
Using Rating Curve Water Year	2018
Number of observation	20
R-Square	0.8568
Remarks	Continued Sediment Station

$$QS = 1.3375\ QW^{1.26270}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.15	14.35	20.24	3.79	1.88	4.02	1.58	8.81	1.74	1.74	0.67	0.42		
2	1.74	20.84	19.65	3.35	2.36	3.58	7.07	8.07	1.74	1.58	0.67	0.42		
3	1.58	23.26	30.18	3.15	2.52	3.15	3.15	7.39	1.15	1.44	0.67	0.36		
4	1.44	44.68	18.48	3.15	2.52	3.15	3.79	6.76	1.15	1.44	0.67	0.32		
5	1.29	50.00	15.19	2.73	2.36	3.15	14.77	5.86	1.44	1.44	0.67	0.32		
6	1.74	35.77	13.94	2.73	3.15	3.15	12.31	5.26	1.44	1.58	0.67	0.36		
7	2.93	30.18	13.12	2.52	4.69	2.93	11.91	4.97	1.44	1.58	0.67	0.42		
8	3.79	29.54	13.12	2.19	4.02	2.93	8.81	4.97	1.44	1.44	0.67	0.42		
9	2.05	25.73	13.94	2.19	3.79	3.79	7.07	11.12	1.74	1.29	0.67	0.42		
10	1.58	24.49	20.84	1.88	3.35	6.16	6.16	20.84	1.44	1.15	0.67	0.42		
11	1.58	32.13	16.74	2.05	3.35	6.46	5.56	17.32	1.44	1.01	0.67	0.42		
12	1.44	38.30	15.19	1.88	3.35	5.56	4.97	15.61	1.44	1.01	0.67	0.42		
13	1.29	28.26	17.32	1.88	3.58	4.47	5.26	12.31	1.29	1.01	0.67	0.36		
14	1.01	23.26	16.18	1.74	3.35	3.15	4.69	10.34	1.15	1.01	0.67	0.42		
15	0.87	22.04	14.77	2.19	3.15	4.23	4.23	7.07	1.15	0.95	0.67	0.42		
16	1.15	19.65	14.35	2.52	3.15	4.23	3.79	6.46	1.01	0.95	0.67	0.42		
17	1.15	14.35	13.94	2.19	3.58	3.58	3.79	5.26	1.01	0.87	0.67	0.36		
18	1.01	13.94	13.12	2.19	4.69	2.93	4.02	3.58	1.15	0.87	0.67	0.36		
19	1.15	13.94	11.12	2.36	5.56	2.93	3.79	2.93	1.15	0.87	0.67	0.42		
20	1.15	26.36	7.39	2.73	5.56	2.36	5.86	3.15	1.15	0.81	0.67	0.60		
21	1.15	20.24	7.07	2.19	4.97	2.19	27.62	3.58	1.29	0.73	0.60	0.54		
22	1.29	13.94	6.46	1.74	4.23	2.19	20.24	3.15	1.15	0.73	0.60	0.42		
23	5.86	13.53	6.16	1.58	4.02	2.19	36.61	2.93	1.15	0.67	0.60	0.36		
24	5.26	26.36	5.86	1.44	3.58	2.52	96.82	2.73	1.01	0.67	0.60	0.42		
25	4.69	30.18	5.56	1.29	3.58	2.73	106.80	2.52	1.01	0.67	0.60	0.47		
26	4.47	28.26	5.26	1.74	4.23	2.73	95.17	2.19	0.95	0.67	0.60	0.42		
27	4.02	28.26	6.76	1.58	4.47	2.19	71.07	2.19	0.95	0.67	0.60	0.42		
28	3.15	22.65	4.23	1.58	4.47	2.05	23.87	2.05	0.95	0.67	0.54	0.42		
29	7.07	17.32	4.69	1.44	4.23	1.74	13.12	2.05	0.95	0.67		0.42		
30	4.97	16.74	4.23	1.44	4.02	1.74	10.72	2.05	8.44	0.67		0.42		
31		19.06		1.29	3.79		9.95		2.52	0.67		0.42		
Total	73.02	767.61	375.10	66.72	115.55	98.18	634.57	193.52	47.03	31.53	18.14	12.81	2433.78	Tonday
Mean	2.43	24.76	12.50	2.15	3.73	3.27	20.47	6.45	1.52	1.02	0.65	0.41	6.67	Ton/day
Max	7.07	50.00	30.18	3.79	5.56	6.46	106.80	20.84	8.44	1.74	0.67	0.60	106.80	Ton/day
Min	0.87	13.53	4.23	1.29	1.88	1.74	1.58	2.05	0.95	0.67	0.54	0.32	0.32	Ton/day

WATER YEAR : 2018

MAE KLONG RIVER BASIN

Huai Mae Nam Noi at Ban Nam Chon , Kanchanaburi (K.31)

Lat 14 - 26 - 04 N Long 98 - 49 - 20 E

Location : on right bank about 2 kilometers downstream from station K.22A

Ban Nam Chon **Amphoe** Sai Yok **Changwat** Kanchanaburi

Drainge Area	799 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1997-Cont'd
Actual Measurement	1997-Cont'd
Using Rating Curve Water Year	2018
Number of observation	38
R-Square	0.9053
Remarks	Continued Sediment Station

$$QS = 0.2854\ QW^{1.64790}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.27	11.38	9.99	27.24	801.77	942.89	90.74	33.42	13.86	8.67	5.53	3.54		
2	1.27	10.92	12.85	26.26	677.77	669.79	195.64	31.31	13.34	8.25	5.53	3.25		
3	4.17	8.67	10.92	25.29	581.73	517.36	102.35	29.25	13.34	8.25	5.89	2.97		
4	2.69	7.43	9.11	25.29	710.03	492.44	88.49	28.24	12.85	7.83	5.53	2.97		
5	2.69	9.11	7.03	23.40	635.35	492.44	75.44	27.24	12.35	7.83	5.53	2.97		
6	10.92	5.89	5.89	24.34	1102.52	403.39	140.36	25.29	12.35	7.83	5.53	2.97		
7	5.89	4.50	7.83	59.33	897.83	335.76	237.72	24.34	11.86	7.83	5.53	2.69		
8	4.50	3.54	20.30	50.05	588.33	278.71	109.57	24.34	13.86	7.43	5.17	2.69		
9	2.97	3.25	69.22	39.76	444.08	262.01	86.26	24.34	13.86	7.43	4.82	2.69		
10	2.42	3.25	486.29	37.17	354.14	241.70	71.27	27.24	12.85	7.43	4.82	2.42		
11	1.93	3.85	455.99	35.90	344.90	218.19	75.44	23.40	12.35	6.64	4.82	2.42		
12	1.93	4.82	409.11	41.08	426.46	225.93	61.26	22.61	11.86	6.64	4.82	2.42		
13	1.70	12.35	233.76	69.22	474.08	191.98	53.69	21.83	10.92	7.03	4.50	2.42		
14	1.48	13.34	188.95	79.70	880.05	203.05	50.05	21.06	10.92	6.64	4.17	2.18		
15	1.27	19.55	191.98	270.31	942.89	517.36	50.05	20.30	10.45	7.83	4.17	2.42		
16	1.27	8.25	1695.13	952.01	1178.52	542.75	46.52	20.30	10.45	6.64	4.50	2.42		
17	1.70	8.25	1767.34	397.71	906.77	349.51	43.76	18.81	10.45	6.25	4.50	1.93		
18	4.50	6.64	555.63	335.76	1292.35	287.21	41.08	18.81	9.99	6.25	4.50	1.93		
19	2.97	9.54	287.21	331.22	1386.35	249.75	41.08	18.81	9.99	6.64	4.17	2.18		
20	1.93	7.43	171.15	468.02	871.21	210.57	46.52	18.08	10.45	7.03	3.85	1.93		
21	1.70	5.53	129.77	1123.16	601.62	182.94	229.83	19.55	9.99	7.03	3.54	2.18		
22	1.48	22.61	104.73	844.90	461.99	214.37	127.17	17.37	9.54	8.25	3.54	2.18		
23	1.27	24.34	73.34	575.16	375.28	182.94	81.86	18.08	9.11	7.43	3.25	2.18		
24	1.08	21.83	63.22	1610.04	568.62	168.26	174.07	15.97	9.11	6.64	2.97	1.70		
25	1.08	25.29	53.69	1223.55	581.73	154.06	81.86	15.43	9.11	6.64	2.97	1.70		
26	0.89	19.55	46.52	1064.08	784.76	132.38	65.19	14.91	8.67	6.25	3.25	1.70		
27	1.27	21.83	41.08	1386.35	827.54	122.04	55.55	14.91	8.67	6.25	3.25	2.42		
28	4.17	12.35	35.90	979.57	767.90	109.57	48.27	14.38	8.67	5.89	3.25	3.85		
29	22.61	10.92	32.36	1123.16	734.62	99.98	42.41	13.86	8.25	5.53		4.50		
30	10.45	13.34	29.25	1167.36	1054.56	95.32	39.76	13.86	13.34	5.53		2.97		
31		10.92		1398.28	801.77		37.17		9.99	5.89		2.42		
Total	105.47	350.47	7205.54	15814.67	23057.52	9094.65	2690.43	637.34	342.80	217.70	123.90	79.21	59719.70	Tonday
Mean	3.52	11.31	240.18	510.15	743.79	303.15	86.79	21.24	11.06	7.02	4.43	2.56	163.62	Ton/day
Max	22.61	25.29	1767.34	1610.04	1386.35	942.89	237.72	33.42	13.86	8.67	5.89	4.50	1767.34	Ton/day
Min	0.89	3.25	5.89	23.40	344.90	95.32	37.17	13.86	8.25	5.53	2.97	1.70	0.89	Ton/day

WATER YEAR : 2018

MAE KLONG RIVER BASIN

Huai Bong Ti at Ban Bong Ti , Kanchanaburi (K.32A)

Lat 14 - 16 - 27 N Long 98 - 56 - 04 E

Location : on right bank at Ban Bong Ti.

Ban Bong Ti **Amphoe** Sai Yok **Changwat** Kanchanaburi

Drainge Area	518 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1998-Cont'd
Actual Measurement	1998-Cont'd
Using Rating Curve Water Year	2018
Number of observation	22
R-Square	0.9053
Remarks	Continued Sediment Station

$$QS = 2.0386\ QW^{1.56780}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.01	1.24	26.95	11.65	156.22	65.67	22.69	9.28	0.67	0.20	0.00	0.02		
2	0.09	1.55	98.20	7.47	101.74	56.48	72.54	7.78	0.58	0.20	0.00	0.01		
3	0.23	6.82	43.56	5.58	73.95	42.50	33.21	6.48	0.54	0.16	0.00	0.00		
4	0.14	10.82	24.79	4.26	81.59	34.90	22.08	5.58	0.54	0.14	0.00	0.00		
5	16.53	14.99	17.15	3.26	91.27	41.45	15.99	4.47	0.54	0.14	0.00	0.00		
6	16.53	24.08	13.50	2.71	171.24	41.45	17.15	3.85	0.54	0.16	0.00	0.00		
7	3.45	12.57	23.38	2.71	144.39	31.56	21.40	3.26	0.48	0.20	0.00	0.00		
8	1.91	6.19	15.99	2.57	94.72	23.38	14.99	2.89	0.58	0.16	0.00	0.00		
9	1.24	3.65	24.08	2.30	61.67	21.40	12.14	2.89	0.99	0.14	0.00	0.00		
10	0.89	2.43	61.67	2.71	43.56	114.66	10.01	3.26	0.82	0.12	0.00	0.00		
11	0.58	1.79	49.01	2.71	33.21	88.00	10.41	2.89	0.73	0.12	0.00	0.00		
12	0.48	3.65	47.90	2.43	25.50	55.21	7.47	2.57	0.67	0.09	0.00	0.00		
13	0.45	7.78	41.45	2.43	19.56	35.80	5.86	2.17	0.58	0.07	0.00	0.00		
14	0.36	20.80	31.56	2.43	17.15	29.18	5.26	2.17	0.54	0.07	0.00	0.00		
15	0.31	8.90	29.94	3.45	20.14	89.63	4.05	2.04	0.48	0.07	0.00	0.00		
16	0.28	5.58	50.23	10.01	29.18	280.03	3.65	1.91	0.48	0.06	0.00	0.00		
17	0.23	11.23	126.43	14.53	26.95	181.85	3.26	1.67	0.39	0.04	0.00	0.00		
18	0.23	5.58	88.00	14.53	30.79	112.74	2.71	1.44	0.39	0.04	0.00	0.00		
19	0.20	4.05	45.71	17.15	44.63	105.32	2.57	1.35	0.36	0.02	0.00	0.00		
20	0.20	2.89	29.18	21.40	53.95	55.21	24.79	1.35	0.31	0.02	0.00	0.00		
21	0.16	2.30	20.80	22.69	44.63	39.38	105.32	1.24	0.28	0.02	0.00	0.00		
22	0.14	108.94	14.99	18.91	34.10	56.48	132.90	1.17	0.28	0.01	0.00	0.00		
23	0.14	49.01	10.82	17.15	26.95	128.43	230.80	1.35	0.28	0.01	0.00	0.00		
24	0.12	112.74	8.15	52.70	32.43	75.36	184.62	1.24	0.28	0.01	0.00	0.00		
25	0.12	88.00	6.48	144.39	28.43	50.23	93.05	1.06	0.23	0.00	0.00	0.00		
26	0.09	151.33	5.86	156.22	26.95	37.53	55.21	0.99	0.23	0.00	0.28	0.00		
27	0.16	227.44	7.12	193.03	30.79	26.95	34.90	0.99	0.20	0.00	0.12	0.00		
28	0.31	110.84	10.82	179.10	34.10	20.14	25.50	0.89	0.20	0.00	0.07	0.00		
29	10.01	68.39	12.57	156.22	33.21	15.99	18.34	0.82	0.20	0.00		0.00		
30	2.17	46.80	8.90	126.43	47.90	27.69	14.01	0.73	0.20	0.00		0.00		
31		35.80		244.41	45.71		11.23		0.20	0.00		0.00		
Total	57.76	1158.18	995.19	1447.54	1706.61	1984.60	1218.11	79.78	13.79	2.27	0.47	0.03	8664.33	Tonday
Mean	1.93	37.36	33.17	46.69	55.05	66.15	39.29	2.66	0.44	0.07	0.02	0.00	23.74	Ton/day
Max	16.53	227.44	126.43	244.41	171.24	280.03	230.80	9.28	0.99	0.20	0.28	0.02	280.03	Ton/day
Min	0.01	1.24	5.86	2.30	17.15	15.99	2.57	0.73	0.20	0.00	0.00	0.00	0.00	Ton/day

WATER YEAR : 2018

MAE KLONG RIVER BASIN

Khwae Noi River at Ban Wang Yen , Kanchanaburi (K.37)

Lat 13 - 55 - 54 N Long 99 - 25 - 38 E

Location : on left bank at Ban Wang Yen.

Ban Wang Yen **Amphoe** Mueang **Changwat** Kanchanaburi

Drainge Area	10,557 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1997-Cont'd
Actual Measurement	1997-Cont'd
Using Rating Curve Water Year	2018
Number of observation	21
R-Square	0.7210
Remarks	Continued Sediment Station

$$QS = 0.1034\ QW^{1.64490}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	685.01	1023.04	778.40	691.99	4098.32	7515.11	2535.45	1032.45	596.87	435.25	501.19	842.46	
2	698.99	1060.91	748.79	650.55	4001.37	7446.75	2268.15	1004.30	545.03	417.90	495.04	859.37	
3	770.54	976.46	698.99	650.55	3953.12	7198.77	2354.41	720.17	526.06	378.94	452.87	818.21	
4	713.08	868.17	630.21	643.74	4196.29	6837.69	1866.58	657.39	538.67	389.61	452.87	903.71	
5	763.26	939.81	590.29	623.49	4495.39	6571.81	1799.62	623.49	513.57	412.18	458.80	802.19	
6	713.08	930.73	610.12	603.48	4571.45	6837.69	2183.15	664.25	513.57	423.65	532.35	834.35	
7	741.59	930.73	577.21	616.79	5117.63	7047.48	2239.61	691.99	501.19	435.25	583.74	818.21	
8	763.26	664.25	532.35	603.48	5715.47	6987.21	2169.07	720.17	616.79	395.21	590.29	802.19	
9	748.79	557.81	577.21	636.96	5632.41	6808.02	1866.58	691.99	657.39	412.18	570.72	802.19	
10	763.26	488.93	778.40	643.74	5332.01	6748.56	1694.49	741.59	706.02	417.90	557.81	810.18	
11	734.42	482.84	1161.89	650.55	4985.41	6748.56	1554.03	930.73	678.06	441.09	538.67	826.26	
12	734.42	464.77	1139.58	636.96	4932.92	6719.04	1491.77	802.19	698.99	458.80	557.81	818.21	
13	741.59	501.19	1051.39	643.74	4985.41	6571.81	1418.38	770.54	671.14	470.76	538.67	810.18	
14	741.59	610.12	948.92	664.25	4985.41	6513.18	1406.29	748.79	464.77	513.57	713.08	894.77	
15	802.19	551.40	850.61	691.99	5359.10	6571.81	1346.44	685.01	464.77	482.84	734.42	778.40	
16	818.21	570.72	770.54	770.54	5687.69	7198.77	1287.63	727.28	482.84	458.80	734.42	778.40	
17	610.12	501.19	1161.89	1184.37	5967.35	7895.47	1264.39	713.08	476.79	435.25	850.61	818.21	
18	664.25	452.87	1812.94	1252.83	5939.22	7895.47	1070.46	720.17	458.80	412.18	921.69	868.17	
19	748.79	429.44	1554.03	1150.71	6080.76	7480.90	1023.04	706.02	452.87	423.65	802.19	786.30	
20	713.08	470.76	1089.67	1406.29	6659.89	6957.29	1023.04	698.99	435.25	400.83	912.68	802.19	
21	691.99	583.74	834.35	1504.14	6542.47	6396.78	1311.03	698.99	406.49	378.94	802.19	778.40	
22	748.79	727.28	671.14	1948.19	5967.35	6080.76	2030.59	720.17	400.83	378.94	826.26	810.18	
23	770.54	720.17	630.21	2211.31	5386.12	6024.02	2058.05	741.59	378.94	378.94	770.54	810.18	
24	671.14	778.40	557.81	1975.69	5064.60	6194.88	1893.63	756.01	395.21	400.83	834.35	958.06	
25	671.14	885.87	643.74	2627.07	5660.08	5883.00	2016.99	727.28	368.80	378.94	850.61	903.71	
26	727.28	930.73	685.01	3114.49	6513.18	5117.63	1786.34	685.01	373.86	441.09	850.61	877.00	
27	748.79	958.06	713.08	2832.95	6927.28	4699.28	1591.87	664.25	373.86	464.77	859.37	930.73	
28	810.18	958.06	657.39	3214.11	7107.82	4369.77	1442.68	664.25	389.61	495.04	818.21	976.46	
29	1004.30	859.37	671.14	3484.26	7198.77	3692.34	1241.32	691.99	406.49	501.19		958.06	
30	1128.48	778.40	698.99	3669.04	7168.36	2928.60	1139.58	630.21	395.21	488.93		939.81	
31		921.69		3739.31	7412.66		1089.67		400.83	488.93		1032.45	
Total	22642.15	22577.91	24826.29	45737.56	173645.31	191938.45	51464.33	22030.34	15289.57	13412.38	19112.06	26449.19	629125.54 Tonday
Mean	754.74	728.32	827.54	1475.41	5601.46	6397.95	1660.14	734.34	493.21	432.66	682.57	853.20	1723.63 Ton/day
Max	1128.48	1060.91	1812.94	3739.31	7412.66	7895.47	2535.45	1032.45	706.02	513.57	921.69	1032.45	7895.47 Ton/day
Min	610.12	429.44	532.35	603.48	3953.12	2928.60	1023.04	623.49	368.80	378.94	452.87	778.40	368.80 Ton/day

WATER YEAR : 2018

MAE KLONG RIVER BASIN

Huai Lin Thin at Ban Nong Bang , Kanchanaburi (K.38A)

Lat 14 - 34 - 28 N Long 98 - 49 - 07 E

Location : on left bank at KM. 95+700 on Kanchanaburi - Thong Pha Phum Highway.

Ban Nong Bang **Amphoe** Thong Pha Phum **Changwat** Kanchanaburi

Drainge Area	122 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2000-Cont'd
Actual Measurement	2000-Cont'd
Using Rating Curve Water Year	2018
Number of observation	19
R-Square	0.8421
Remarks	Continued Sediment Station

$$QS = 2.7355\ QW^{1.32650}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.68	0.78	1.87	1.48	9.96	54.96	7.88	3.45	1.87	1.36	0.78	0.89		
2	0.78	0.89	2.63	1.48	9.13	45.45	48.97	3.25	1.74	1.36	0.78	0.78		
3	0.78	0.78	1.36	1.36	12.32	39.96	31.90	3.25	1.74	1.36	0.68	0.51		
4	0.78	1.00	1.12	1.36	13.44	42.08	25.74	3.03	1.74	1.36	0.68	0.68		
5	0.89	0.68	1.00	1.36	10.82	42.08	20.41	3.03	1.74	1.24	0.68	0.68		
6	0.78	0.60	1.00	1.48	21.85	35.80	7.50	3.03	1.61	1.24	0.68	0.68		
7	0.89	0.60	3.45	2.45	14.58	31.90	6.77	2.84	1.61	1.24	0.68	0.60		
8	0.78	0.51	1.87	1.61	11.23	27.46	11.23	2.84	2.45	1.24	0.68	0.60		
9	0.68	0.43	2.84	1.48	9.52	24.93	6.41	3.03	1.87	1.12	0.68	0.60		
10	0.60	0.43	11.80	1.61	9.13	38.91	6.10	3.25	1.74	1.12	0.60	0.60		
11	0.60	1.00	8.31	1.48	12.90	19.00	5.44	2.84	1.74	1.12	0.60	0.60		
12	0.51	0.89	7.09	1.61	12.32	13.44	5.10	2.84	1.74	1.00	0.60	0.60		
13	0.51	0.68	6.10	2.07	16.35	13.44	4.81	2.63	1.61	1.00	0.68	0.60		
14	0.51	0.68	4.81	1.74	32.76	16.35	4.81	2.63	1.61	1.00	0.60	0.60		
15	0.51	0.68	3.25	5.10	27.46	91.08	4.48	2.63	1.61	1.00	0.60	0.51		
16	0.51	0.60	16.35	7.50	24.93	89.37	4.48	2.45	1.61	1.00	0.60	0.51		
17	0.60	0.78	21.13	6.77	23.32	66.87	4.19	2.45	1.61	1.00	0.68	0.51		
18	0.60	0.60	7.09	6.77	44.30	65.52	4.19	2.45	1.61	1.00	0.68	0.51		
19	0.60	0.89	3.87	7.50	32.76	74.54	3.87	2.45	1.48	1.00	0.60	0.89		
20	0.60	0.60	2.45	11.23	29.20	72.99	4.48	2.45	1.48	1.00	0.60	0.68		
21	0.60	0.60	2.07	8.31	22.58	68.23	16.35	2.84	1.61	0.89	0.60	0.60		
22	0.51	3.68	1.87	6.10	17.61	56.25	5.75	2.24	1.48	0.89	0.78	0.60		
23	0.51	1.61	1.74	5.75	15.18	45.45	5.10	2.45	1.48	0.89	0.78	0.51		
24	0.51	1.12	2.45	10.82	28.36	44.30	6.77	2.24	1.48	0.89	0.68	0.51		
25	0.51	1.00	2.45	8.31	23.32	43.15	5.10	2.24	1.36	0.89	0.68	0.51		
26	0.51	1.00	2.07	6.77	26.63	39.96	4.48	2.07	1.36	0.89	0.78	0.51		
27	0.51	1.00	1.87	7.50	22.58	33.77	4.48	2.07	1.36	0.89	0.78	0.51		
28	0.78	0.89	1.87	6.10	23.32	19.00	3.87	2.07	1.36	0.78	0.78	0.89		
29	1.12	0.89	2.24	5.75	29.20	9.52	3.87	2.07	1.36	0.78		0.68		
30	0.78	3.03	1.74	9.52	56.25	8.69	3.68	2.07	1.36	0.78		0.60		
31		1.48		12.32	60.18		3.45		1.36	0.78		0.51		
Total	19.53	30.40	129.76	154.69	703.49	1274.45	281.66	79.18	49.78	32.11	19.02	19.06	2793.13	Tonday
Mean	0.65	0.98	4.33	4.99	22.69	42.48	9.09	2.64	1.61	1.04	0.68	0.61	7.65	Ton/day
Max	1.12	3.68	21.13	12.32	60.18	91.08	48.97	3.45	2.45	1.36	0.78	0.89	91.08	Ton/day
Min	0.51	0.43	1.00	1.36	9.13	8.69	3.45	2.07	1.36	0.78	0.60	0.51	0.43	Ton/day

WATER YEAR : 2018

MAE KLONG RIVER BASIN

Huai Ong Thi at Ban Ong Thi , Kanchanaburi (K.39)

Lat 14 - 42 - 21 N Long 98 - 40 - 19 E

Location : on right bank at KM. 121+600 on Kanchanaburi - Thong Pha Phum Highway.

Ban Ong Thi **Amphoe** Thong Pha Phum **Changwat** Kanchanaburi

Drainge Area	51 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1998-Cont'd
Actual Measurement	1998-Cont'd
Using Rating Curve Water Year	1998-2018
Number of observation	455
R-Square	0.7600
Remarks	Continued Sediment Station

$$QS = 3.6700\ QW^{1.31640}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.13	0.75	0.75	0.65	15.93	15.18	3.01	2.12	0.99	0.89	0.75	0.47		
2	0.20	0.56	0.65	0.65	15.93	12.39	7.27	1.87	0.99	0.89	0.75	0.56		
3	0.56	0.47	0.65	0.65	15.93	10.42	4.46	1.87	0.99	0.89	0.75	0.56		
4	0.38	0.47	0.56	0.65	14.50	13.77	3.29	1.87	0.99	0.89	0.75	0.47		
5	0.38	0.75	0.56	0.65	12.39	10.42	3.01	1.87	0.99	0.89	0.75	0.47		
6	0.28	0.47	0.65	0.65	23.29	9.14	4.98	1.87	0.99	0.89	0.75	0.47		
7	0.28	0.38	1.10	0.75	11.75	8.48	3.01	1.59	0.89	0.89	0.75	0.47		
8	0.28	0.38	0.99	0.65	9.14	7.27	2.43	1.59	1.59	0.75	0.75	0.47		
9	0.20	0.28	2.12	1.59	7.90	7.27	2.43	2.12	1.10	0.89	0.75	0.47		
10	0.20	0.28	2.43	2.12	6.70	9.75	2.12	2.12	0.99	0.75	0.65	0.38		
11	0.13	0.75	4.46	1.59	6.70	7.27	2.43	1.59	0.99	0.75	0.75	0.28		
12	0.13	0.56	4.98	2.43	5.55	6.09	2.12	1.59	0.99	0.75	0.75	0.38		
13	0.11	0.47	2.43	2.69	10.42	5.55	1.87	1.59	0.99	0.75	0.75	0.28		
14	0.11	0.47	1.87	1.87	18.24	5.55	1.87	1.36	0.99	0.75	0.56	0.28		
15	0.11	0.38	1.87	9.14	17.46	9.75	2.12	1.36	0.89	0.75	0.65	0.38		
16	0.11	0.38	9.75	6.09	10.42	15.18	1.87	1.36	0.89	0.75	0.65	0.38		
17	0.20	0.28	15.18	8.48	12.39	7.90	1.87	1.10	0.89	0.75	0.65	0.38		
18	0.47	0.28	3.29	4.98	16.62	6.09	1.59	1.36	0.89	0.75	0.75	0.28		
19	0.38	0.20	3.01	5.55	9.75	6.09	1.59	1.36	0.89	0.75	0.65	0.38		
20	0.28	0.28	1.87	22.46	7.27	5.55	4.46	1.10	0.89	0.89	0.65	0.38		
21	0.20	0.20	1.36	6.70	6.09	4.46	29.25	1.36	0.89	0.75	0.65	0.28		
22	0.13	0.47	1.36	3.91	4.98	4.46	4.98	1.36	0.89	0.75	0.65	0.28		
23	0.13	0.75	1.10	7.90	6.70	4.46	3.29	1.10	0.89	0.75	0.65	0.20		
24	0.13	0.56	1.10	17.46	21.57	3.91	3.62	1.10	0.89	0.75	0.65	0.20		
25	0.11	0.65	0.99	6.70	30.37	3.62	3.01	1.10	0.89	0.89	0.65	0.20		
26	0.11	0.99	0.89	6.09	19.09	3.91	2.69	1.10	0.89	0.75	0.65	0.20		
27	0.89	0.75	0.75	41.83	18.24	3.29	2.12	1.10	0.89	0.89	0.56	0.20		
28	0.65	0.75	0.89	16.62	23.29	3.01	2.12	0.99	0.89	0.75	0.56	0.47		
29	0.65	0.99	0.89	19.89	19.89	3.29	1.87	0.99	0.89	0.75		0.38		
30	0.56	1.59	0.75	22.46	17.46	3.29	1.87	0.99	1.10	0.75		0.38		
31		0.89		19.09	14.50		1.87		0.89	0.75		0.38		
Total	8.48	17.43	69.25	242.94	430.46	216.81	114.49	43.85	29.81	24.79	19.23	11.36	1228.90	Tonday
Mean	0.28	0.56	2.31	7.84	13.89	7.23	3.69	1.46	0.96	0.80	0.69	0.37	3.37	Ton/day
Max	0.89	1.59	15.18	41.83	30.37	15.18	29.25	2.12	1.59	0.89	0.75	0.56	41.83	Ton/day
Min	0.11	0.20	0.56	0.65	4.98	3.01	1.59	0.99	0.89	0.75	0.56	0.20	0.11	Ton/day

WATER YEAR : 2018

MAE KLONG RIVER BASIN

Huai Diso at Ban Hin Laem , Kanchanaburi (K.50)

Lat 14 - 38 - 39 N Long 98 - 42 - 04 E

Location : on right bank at the bridge on Kanchanaburi - Thong Pha Phum Highway from Tambon Tha Khanun.

Ban Hin Laem **Amphoe** Thong Pha Phum **Changwat** Kanchanaburi

Drainge Area	123 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1998-Cont'd
Actual Measurement	1998-Cont'd
Using Rating Curve Water Year	2018
Number of observation	19
R-Square	0.7097
Remarks	Continued Sediment Station

$$QS = 1.5060\ QW^{1.50410}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.10	1.00	0.92	21.24	19.08	3.43	1.44	0.30	0.04	0.03	0.00		
2	0.00	0.12	1.10	0.75	31.19	12.71	5.48	1.31	0.30	0.04	0.03	0.00		
3	0.00	0.10	0.82	0.60	30.63	10.21	5.00	1.10	0.22	0.04	0.03	0.00		
4	0.00	0.10	0.52	0.60	29.58	10.56	3.65	0.92	0.26	0.04	0.02	0.00		
5	0.00	0.10	0.38	0.52	25.03	9.87	3.03	0.82	0.22	0.04	0.02	0.00		
6	0.00	0.07	0.34	0.52	38.65	8.54	2.63	0.75	0.22	0.04	0.03	0.00		
7	0.01	0.07	1.71	0.82	18.66	9.87	3.03	0.66	0.22	0.04	0.02	0.00		
8	0.00	0.10	1.57	0.75	11.98	7.01	3.03	0.66	0.22	0.04	0.02	0.00		
9	0.00	0.05	3.23	0.66	8.87	6.75	3.65	0.75	0.34	0.04	0.02	0.00		
10	0.00	0.04	5.73	3.03	7.59	10.91	2.31	1.44	0.38	0.04	0.02	0.00		
11	0.00	0.19	6.49	1.86	7.28	8.54	2.16	0.92	0.30	0.04	0.02	0.00		
12	0.00	1.00	9.20	2.47	6.75	7.01	1.86	0.75	0.30	0.04	0.01	0.00		
13	0.00	0.26	5.24	3.65	8.54	5.98	1.57	0.75	0.26	0.04	0.02	0.00		
14	0.00	0.92	3.03	2.63	21.24	6.49	2.01	0.92	0.22	0.04	0.02	0.00		
15	0.00	0.26	2.31	5.00	26.03	16.19	1.57	0.66	0.19	0.05	0.02	0.00		
16	0.00	0.34	9.87	10.21	15.00	24.51	1.86	0.52	0.15	0.05	0.02	0.00		
17	0.00	0.15	55.64	13.84	11.62	13.84	2.01	0.45	0.12	0.04	0.02	0.00		
18	0.00	0.07	15.00	11.62	21.24	8.54	1.44	0.52	0.10	0.04	0.02	0.00		
19	0.01	0.05	13.09	7.90	11.98	9.53	1.18	0.45	0.07	0.03	0.01	0.00		
20	0.01	0.05	7.01	23.54	9.87	7.28	1.71	0.45	0.07	0.04	0.01	0.00		
21	0.01	0.05	3.65	20.37	7.59	6.49	48.08	1.86	0.07	0.04	0.01	0.00		
22	0.01	1.10	2.31	10.56	6.49	6.23	13.84	0.75	0.05	0.04	0.01	0.00		
23	0.01	1.18	1.44	11.26	13.46	6.23	6.23	0.66	0.05	0.04	0.01	0.00		
24	0.00	3.03	1.57	27.51	52.11	5.48	14.61	0.75	0.05	0.04	0.00	0.00		
25	0.00	0.92	2.31	14.22	30.13	4.76	5.48	0.60	0.05	0.03	0.00	0.00		
26	0.00	0.75	2.31	10.21	36.85	12.71	3.86	0.45	0.05	0.03	0.00	0.00		
27	0.30	0.38	1.57	35.67	30.13	4.53	2.83	0.45	0.05	0.03	0.00	0.00		
28	0.15	0.52	1.44	36.26	30.63	3.65	2.31	0.34	0.05	0.03	0.00	0.00		
29	0.38	0.30	1.44	43.59	23.54	3.86	2.01	0.38	0.05	0.03		0.02		
30	0.22	3.43	1.18	32.77	36.85	4.30	1.71	0.34	0.05	0.03		0.01		
31		0.82		27.03	20.37		1.44		0.05	0.03		0.01		
Total	1.11	16.62	162.50	361.34	651.12	271.66	155.01	22.82	5.03	1.18	0.44	0.04	1648.87	Tonday
Mean	0.04	0.54	5.42	11.66	21.00	9.06	5.00	0.76	0.16	0.04	0.02	0.00	4.52	Ton/day
Max	0.38	3.43	55.64	43.59	52.11	24.51	48.08	1.86	0.38	0.05	0.03	0.02	55.64	Ton/day
Min	0.00	0.04	0.34	0.52	6.49	3.65	1.18	0.34	0.05	0.03	0.00	0.00	0.00	Ton/day

WATER YEAR : 2018

MAE KLONG RIVER BASIN

Khwae Noi River at Ban Lin Thin , Kanchanaburi (K.54)

Lat 14 - 32 - 04 N Long 98 - 47 - 30 E

Location : on right bank at the bridge on road.

Ban Lin Thin **Amphoe** Thong Pha Phum **Changwat** Kanchanaburi

Drainge Area	4,774 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1998-Cont'd
Actual Measurement	1998-Cont'd
Using Rating Curve Water Year	2018
Number of observation	22
R-Square	0.8264
Remarks	Continued Sediment Station

$$QS = 0.5153\ QW^{1.19310}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	337.40	299.83	200.57	191.89	745.42	1333.13	448.47	202.75	136.23	90.38	160.21	290.55		
2	267.56	229.22	172.58	238.15	781.49	1287.64	410.13	142.17	150.14	114.84	148.14	269.84		
3	318.52	249.40	162.23	215.92	872.84	1259.77	304.48	138.21	138.21	130.34	140.19	309.15		
4	311.49	189.73	150.14	191.89	869.77	1298.11	295.18	138.21	134.27	126.44	172.58	267.56		
5	253.92	218.13	164.26	256.18	925.31	1424.87	304.48	160.21	146.15	118.69	187.57	295.18		
6	299.83	272.13	176.84	202.75	988.09	1414.23	290.55	183.27	178.98	128.39	198.40	279.01		
7	281.32	158.19	176.84	229.22	1049.93	1400.07	311.49	158.19	194.05	132.30	191.89	297.50		
8	283.62	148.14	156.17	213.72	1056.47	1371.82	309.15	196.22	158.19	144.15	181.12	260.72		
9	285.92	160.21	166.30	226.99	1014.05	1361.25	309.15	185.42	218.13	136.23	185.42	288.23		
10	288.23	162.23	200.57	231.45	1017.30	1389.47	309.15	215.92	215.92	136.23	202.75	292.86		
11	306.82	146.15	170.45	224.77	1033.59	1361.25	290.55	181.12	183.27	148.14	194.05	290.55		
12	306.82	166.30	194.05	211.52	1027.07	1343.66	290.55	198.40	140.19	136.23	211.52	281.32		
13	299.83	156.17	196.22	231.45	1036.86	1333.13	313.83	172.58	102.71	156.17	267.56	302.15		
14	327.94	158.19	183.27	215.92	1066.30	1340.15	299.83	189.73	132.30	130.34	238.15	256.18		
15	392.61	91.80	162.23	211.52	1082.72	1428.41	267.56	185.42	114.84	160.21	258.45	269.84		
16	174.71	156.17	191.89	290.55	1069.58	1449.73	279.01	218.13	126.44	122.55	295.18	297.50		
17	346.90	156.17	267.56	258.45	1027.07	1407.15	231.45	187.57	128.39	138.21	306.82	290.55		
18	256.18	162.23	258.45	306.82	1089.29	1364.77	226.99	194.05	140.19	136.23	247.14	276.72		
19	320.87	170.45	204.94	356.45	1072.86	1242.40	211.52	185.42	132.30	99.53	309.15	279.01		
20	265.28	295.18	152.15	354.06	1033.59	1205.41	244.89	202.75	162.23	118.69	253.92	279.01		
21	335.03	281.32	183.27	427.95	1017.30	1192.05	311.49	181.12	120.62	120.62	290.55	283.62		
22	299.83	292.86	172.58	448.47	991.33	1185.37	218.13	207.13	140.19	126.44	247.14	274.42		
23	272.13	318.52	202.75	433.07	1020.56	1182.04	251.66	215.92	109.11	136.23	295.18	339.77		
24	288.23	313.83	209.32	644.77	1308.60	1069.58	281.32	183.27	116.76	150.14	272.13	290.55		
25	339.77	276.72	269.84	474.33	1340.15	947.06	213.72	172.58	124.49	154.16	311.49	299.83		
26	265.28	283.62	200.57	520.41	1354.21	950.18	251.66	191.89	130.34	140.19	283.62	318.52		
27	378.08	292.86	218.13	542.34	1336.64	848.32	231.45	191.89	136.23	178.98	281.32	313.83		
28	302.15	292.86	211.52	659.42	1333.13	727.49	226.99	209.32	130.34	150.14	283.62	318.52		
29	356.45	320.87	260.72	659.42	1329.62	567.17	235.91	144.15	118.69	144.15		327.94		
30	288.23	306.82	196.22	680.02	1389.47	517.68	238.15	158.19	120.62	156.17		335.03		
31		276.72		680.02	1354.21		233.68		140.19	160.21		295.18		
Total	9050.95	7003.02	5832.63	11029.89	33634.82	36203.36	8642.57	5491.20	4420.71	4221.72	6615.26	9070.64	141216.77	Tonday
Mean	301.70	225.90	194.42	355.80	1084.99	1206.78	278.79	183.04	142.60	136.18	236.26	292.60	386.90	Ton/day
Max	392.61	320.87	269.84	680.02	1389.47	1449.73	448.47	218.13	218.13	178.98	311.49	339.77	1449.73	Ton/day
Min	174.71	91.80	150.14	191.89	745.42	517.68	211.52	138.21	102.71	90.38	140.19	256.18	90.38	Ton/day

WATER YEAR : 2018

MAE KLONG RIVER BASIN

Huai Kui Mang at Ban Kui Mang , Kanchanaburi (K.60)

Lat 14 - 37 - 32 N Long 98 - 43 - 50 E

Location : on right bank at the bridge on road.

Ban Kui Mang **Amphoe** Thong Pha Phum **Changwat** Kanchanaburi

Drainge Area	128 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2002-Cont'd
Actual Measurement	2002-Cont'd
Using Rating Curve Water Year	2018
Number of observation	20
R-Square	0.8165
Remarks	Continued Sediment Station

$$QS = 2.5921\ QW^{1.60000}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.03	0.09	1.27	2.59	57.26	84.72	10.24	5.50	3.02	1.89	1.00	0.28		
2	0.02	0.08	1.27	2.43	75.12	54.11	13.00	5.23	3.02	1.89	1.00	0.28		
3	0.02	0.08	1.14	2.07	73.95	40.34	10.66	4.96	2.80	1.89	0.88	0.28		
4	0.02	0.08	1.14	1.89	61.55	44.12	9.02	4.96	2.80	1.89	0.88	0.21		
5	0.02	0.08	1.14	1.89	50.02	43.17	8.63	4.96	2.59	1.74	0.88	0.21		
6	0.28	0.08	1.14	1.74	89.68	33.07	8.24	4.70	2.59	1.74	0.88	0.21		
7	0.36	0.08	1.27	3.02	63.74	29.38	8.63	4.44	2.59	1.74	0.88	0.14		
8	0.28	0.07	2.80	2.80	55.15	22.50	8.24	4.44	2.59	1.74	0.88	0.14		
9	0.28	0.07	2.80	2.43	34.59	19.95	8.24	4.44	2.59	1.74	0.88	0.14		
10	0.21	0.07	7.86	2.43	26.54	23.16	7.55	6.06	2.80	1.74	0.88	0.09		
11	0.28	0.14	8.24	2.23	25.85	16.92	7.24	4.70	2.80	1.74	0.88	0.09		
12	0.21	0.28	9.83	2.59	24.49	14.63	6.94	4.44	2.80	1.74	0.88	0.14		
13	0.21	0.09	7.55	3.94	24.49	13.54	6.64	4.19	2.80	1.74	0.88	0.08		
14	0.14	0.05	4.44	3.70	68.21	15.19	6.64	4.19	2.59	1.74	0.88	0.08		
15	0.14	0.05	3.47	4.19	87.18	62.64	6.35	3.94	2.59	1.57	0.88	0.07		
16	0.14	0.05	21.21	27.95	72.79	71.63	6.35	3.94	2.59	1.57	0.88	0.04		
17	0.09	0.05	79.86	18.71	67.08	30.10	6.94	3.94	2.43	1.57	0.88	0.03		
18	0.09	0.04	41.28	18.71	82.28	21.85	6.35	3.70	2.43	1.57	0.75	0.02		
19	0.09	0.04	37.71	15.19	82.28	23.82	6.35	3.70	2.23	1.43	0.75	0.09		
20	0.36	0.04	29.38	64.85	62.64	19.95	6.06	3.94	2.43	1.43	0.75	0.05		
21	0.28	0.04	6.94	46.06	58.32	15.76	35.36	4.96	2.23	1.27	0.75	0.05		
22	0.21	0.14	4.44	22.50	39.42	14.63	11.96	3.94	2.23	1.27	0.75	0.04		
23	0.14	1.57	3.94	19.95	60.47	12.48	10.24	4.96	2.23	1.14	0.75	0.03		
24	0.14	1.57	3.94	64.85	232.18	12.48	44.12	3.94	2.23	1.14	0.65	0.02		
25	0.09	0.55	3.70	37.71	101.22	11.96	9.83	3.70	2.07	1.27	0.65	0.00		
26	0.08	0.46	3.70	25.17	101.22	47.04	7.55	3.70	2.07	1.14	0.65	0.00		
27	1.57	0.46	3.24	54.11	79.86	14.08	6.94	3.47	2.07	1.27	0.55	0.00		
28	0.65	0.46	3.24	44.12	111.91	11.09	6.35	3.24	2.07	1.14	0.46	0.08		
29	0.28	0.28	3.24	70.48	82.28	23.16	6.06	3.24	2.07	1.14		0.04		
30	0.21	2.07	3.02	78.67	120.19	14.08	6.06	3.02	2.07	1.14		0.09		
31		1.27		77.48	84.72		5.78		2.07	1.14		0.05		
Total	6.92	10.48	304.20	726.45	2256.68	861.55	308.56	128.54	76.49	47.16	22.66	3.07	4752.76	Tonday
Mean	0.23	0.34	10.14	23.43	72.80	28.72	9.95	4.28	2.47	1.52	0.81	0.10	13.02	Ton/day
Max	1.57	2.07	79.86	78.67	232.18	84.72	44.12	6.06	3.02	1.89	1.00	0.28	232.18	Ton/day
Min	0.02	0.04	1.14	1.74	24.49	11.09	5.78	3.02	2.07	1.14	0.46	0.00	0.00	Ton/day

WATER YEAR : 2018

MAE KLONG RIVER BASIN

Lam Phachi at Ban Nong Phai , Kanchanaburi (K.62)

Lat 13 - 46 - 52 N Long 99 - 25 - 15 E

Location : on left bank at Ban Nong Phai.

Ban Nong Phai **Amphoe** Dan Makham Tia **Changwat** Kanchanaburi

Drainge Area	1,725 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2006-Cont'd
Actual Measurement	2006-Cont'd
Using Rating Curve Water Year	2018
Number of observation	25
R-Square	0.9097
Remarks	Continued Sediment Station

$$QS = 0.5510\ QW^{1.64160}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.59	179.98	119.55	27.81	35.74	52.76	15.79	62.78	10.78	6.41	0.89	0.89		
2	1.20	270.73	125.16	24.14	42.93	51.69	34.36	53.84	10.12	4.93	0.89	0.70		
3	1.75	215.10	115.87	22.96	78.44	46.46	144.95	46.46	9.82	4.29	0.89	0.62		
4	1.89	312.69	112.23	21.24	88.08	41.45	78.44	41.45	8.91	3.87	0.79	0.62		
5	1.46	463.53	89.73	18.49	106.87	38.55	114.05	37.14	8.62	3.87	0.79	0.53		
6	6.41	403.52	121.41	16.67	86.44	35.74	688.68	33.68	8.04	3.87	0.79	0.46		
7	4.93	220.72	74.70	15.79	117.70	30.37	659.56	30.37	7.76	4.07	0.79	0.38		
8	8.91	162.10	66.27	14.92	119.55	27.81	352.44	28.44	8.91	4.29	0.70	0.32		
9	11.84	125.16	117.70	13.70	89.73	26.56	193.20	32.34	10.78	4.07	0.53	0.21		
10	7.76	89.73	630.93	12.57	68.64	33.01	119.55	68.64	11.48	3.87	0.46	0.12		
11	5.41	71.04	595.85	11.84	52.76	31.68	84.82	81.60	10.12	3.66	0.38	0.08		
12	3.87	86.44	317.01	11.13	44.43	25.95	75.94	61.63	9.51	3.47	0.38	0.03		
13	2.90	115.87	206.78	11.13	39.27	21.81	61.63	51.69	9.21	3.27	0.38	0.01		
14	2.38	128.95	152.21	12.20	35.74	19.03	53.84	42.93	8.91	3.09	0.32	0.01		
15	1.75	108.65	123.28	14.08	33.01	20.68	45.44	35.74	8.04	2.90	7.21	0.00		
16	1.20	106.87	108.65	20.68	32.34	34.36	40.72	32.34	7.48	3.09	6.41	0.00		
17	0.99	106.87	99.87	41.45	39.99	31.02	37.14	29.08	6.94	3.09	4.72	0.00		
18	0.99	78.44	106.87	29.08	48.52	26.56	33.68	25.34	6.68	2.73	4.29	0.00		
19	0.99	68.64	106.87	32.34	106.87	23.55	33.01	21.81	6.16	2.73	4.07	0.08		
20	1.10	69.84	86.44	53.84	193.20	21.24	34.36	20.12	5.90	2.90	2.73	0.38		
21	0.79	80.01	69.84	68.64	193.20	18.03	278.93	19.57	5.65	2.21	2.21	0.53		
22	0.70	73.48	59.36	44.43	114.05	16.22	725.76	18.49	5.41	2.06	1.59	0.62		
23	0.89	125.16	49.57	35.05	80.01	31.02	394.03	17.57	4.93	1.89	1.20	0.70		
24	1.10	154.66	41.45	28.44	61.63	37.84	645.18	16.22	5.17	1.75	0.99	1.10		
25	1.10	317.01	37.14	23.55	50.62	29.08	595.85	14.92	4.93	1.59	0.89	0.89		
26	0.79	258.60	34.36	21.24	48.52	33.68	435.57	13.70	4.49	1.46	0.79	0.62		
27	2.21	215.10	35.05	29.72	49.57	27.18	334.54	12.94	4.07	1.20	0.79	0.46		
28	9.51	144.95	34.36	34.36	66.27	22.38	198.59	12.57	3.66	1.20	0.79	0.53		
29	206.78	112.23	31.68	51.69	68.64	16.67	112.23	11.84	3.47	1.20		0.62		
30	164.61	88.08	28.44	48.52	60.50	16.67	88.08	11.48	3.66	1.10		0.53		
31		81.60		39.27	54.93		74.70		6.68	0.89		0.89		
Total	457.80	5035.75	3898.63	850.97	2308.19	889.05	6785.06	986.72	226.29	91.02	47.66	12.93	21590.07	Tonday
Mean	15.26	162.44	129.95	27.45	74.46	29.63	218.87	32.89	7.30	2.94	1.70	0.42	59.15	Ton/day
Max	206.78	463.53	630.93	68.64	193.20	52.76	725.76	81.60	11.48	6.41	7.21	1.10	725.76	Ton/day
Min	0.70	68.64	28.44	11.13	32.34	16.22	15.79	11.48	3.47	0.89	0.32	0.00	0.00	Ton/day

WATER YEAR : 2018

PRACHIN BURI RIVER BASIN

Khlong Phra Sathung at Ban Khao Chakan , Sa Kaeo (Kgt.9)

Lat 13 - 40 - 11 N Long 102 - 04 - 38 E

Location : on right bank near Wat Khao Chakan.

Ban Khao Chakan **Amphoe** Khao Chakan **Changwat** Sa Kaeo

Drainge Area	2,264 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1998-Cont'd
Actual Measurement	1998-Cont'd
Using Rating Curve Water Year	2018
Number of observation	31
R-Square	0.9356
Remarks	Continued Sediment Station

$$QS = 1.1387\ QW^{1.48440}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	22.66	296.53	460.08	79.05	1843.46	156.78	338.99	37.35	25.41	24.02	29.71	28.25		
2	29.71	240.30	338.99	71.09	847.19	113.48	533.77	38.94	22.66	24.02	29.71	26.82		
3	29.71	193.47	392.33	75.03	448.15	95.76	263.93	45.54	26.82	24.02	24.02	26.82		
4	29.71	167.01	221.17	95.76	383.26	1658.18	232.59	45.54	28.25	31.19	28.25	28.25		
5	31.19	240.30	226.86	182.73	365.34	2362.26	1028.46	34.22	24.02	26.82	31.19	21.33		
6	42.20	356.49	280.07	221.17	533.77	891.42	1201.11	22.66	28.25	22.66	31.19	29.71		
7	56.03	374.27	188.08	172.20	436.32	304.87	424.59	26.82	26.82	26.82	29.71	28.25		
8	104.50	255.97	188.08	132.16	1220.82	338.99	288.26	29.71	24.02	24.02	29.71	28.25		
9	59.69	182.73	182.73	100.10	1934.64	1047.20	392.33	38.94	32.70	24.02	29.71	22.66		
10	37.35	151.75	182.73	172.20	1550.13	1123.29	226.86	40.56	29.71	21.33	28.25	21.33		
11	32.70	127.41	177.44	436.32	746.87	571.93	104.50	40.56	26.82	29.71	26.82	29.71		
12	28.25	161.87	177.44	412.98	521.24	705.16	59.69	42.20	35.77	25.41	26.82	29.71		
13	32.70	156.78	146.77	288.26	401.46	760.95	56.03	42.20	25.41	22.66	31.19	29.71		
14	35.77	146.77	132.16	182.73	401.46	1320.96	52.46	42.20	31.19	32.70	26.82	28.25		
15	34.22	156.78	136.98	271.96	906.33	4102.69	63.42	42.20	28.25	25.41	17.50	26.82		
16	34.22	132.16	172.20	240.30	2696.47	3049.24	71.09	40.56	26.82	25.41	32.70	21.33		
17	38.94	118.07	255.97	288.26	1980.76	705.16	67.22	38.94	29.71	32.70	31.19	31.19		
18	610.94	127.41	240.30	936.39	847.19	448.15	43.86	38.94	21.33	25.41	29.71	29.71		
19	650.78	204.40	182.73	936.39	597.84	288.26	1768.58	38.94	29.71	31.19	29.71	28.25		
20	118.07	263.93	172.20	412.98	559.11	226.86	1680.07	75.03	22.66	31.19	29.71	28.25		
21	127.41	226.86	141.85	232.59	906.33	288.26	559.11	38.94	91.48	31.19	28.25	21.33		
22	52.46	637.41	122.71	156.78	2129.14	248.10	936.39	20.03	29.71	31.19	22.66	25.41		
23	43.86	921.32	127.41	151.75	2035.02	198.91	374.27	21.33	26.82	28.25	22.66	29.71		
24	42.20	460.08	104.50	610.94	991.29	209.95	177.44	18.75	18.75	26.82	31.19	29.71		
25	38.94	624.13	91.48	472.11	484.24	637.41	156.78	15.08	13.92	32.70	31.19	28.25		
26	32.70	521.24	59.69	460.08	321.79	338.99	127.41	20.03	22.66	29.71	28.25	26.82		
27	40.56	424.59	83.13	347.70	571.93	215.53	118.07	20.03	16.27	24.02	25.41	21.33		
28	100.10	321.79	104.50	705.16	1973.05	177.44	91.48	25.41	24.02	26.82	31.19	22.66		
29	1423.65	304.87	127.41	1085.03	1571.55	100.10	59.69	21.33	21.33	31.19		29.71		
30	936.39	789.36	95.76	1142.59	508.81	132.16	48.96	21.33	21.33	31.19		22.66		
31		832.60		1965.35	226.86		42.20		26.82	31.19		22.66		
Total	4897.61	10118.65	5513.75	13038.14	30941.82	22818.44	11589.61	1024.31	859.44	854.98	794.42	824.85	103276.02	Tonday
Mean	163.25	326.41	183.79	420.59	998.12	760.61	373.86	34.14	27.72	27.58	28.37	26.61	282.95	Ton/day
Max	1423.65	921.32	460.08	1965.35	2696.47	4102.69	1768.58	75.03	91.48	32.70	32.70	31.19	4102.69	Ton/day
Min	22.66	118.07	59.69	71.09	226.86	95.76	42.20	15.08	13.92	21.33	17.50	21.33	13.92	Ton/day

WATER YEAR : 2018

PPRACHIN BURI RIVER BASIN

Khlong Phra Prong at Ban Kaeng , Sa Kaeo (Kgt.12)

Lat 13 - 56 - 10 N Long 101 - 58 - 27 E

Location : on left bank near the railway station at Ban Kaeng at about 200 meters upstream from Thot Saphon Sawmill.

Ban Kaeng **Amphoe** Mueang **Changwat** Sa Kaeo

Drainge Area	1,478 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1998-Cont'd
Actual Measurement	1998-Cont'd
Using Rating Curve Water Year	2018
Number of observation	28
R-Square	0.8086
Remarks	Continued Sediment Station

$$QS = 9.4943\ QW^{0.84960}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	50.20	65.44	59.66	56.73	295.71	408.33	178.48	60.82	37.90	3.41	3.99	4.91		
2	52.00	62.56	60.24	54.37	349.10	313.18	248.27	57.91	36.00	3.22	3.61	5.45		
3	52.00	61.40	59.66	54.37	340.13	239.19	306.65	55.56	34.72	3.41	3.61	5.62		
4	52.59	59.66	64.29	52.59	250.08	188.99	327.24	53.19	32.78	3.41	3.41	4.73		
5	53.19	58.49	66.01	41.03	151.23	186.13	331.11	50.80	35.36	3.61	3.61	4.54		
6	54.97	59.66	60.24	27.66	110.65	229.13	340.13	47.79	33.43	3.61	3.61	4.36		
7	56.15	60.24	54.37	21.10	92.62	234.62	355.48	50.80	31.48	2.82	3.22	5.45		
8	56.15	59.66	47.18	33.43	87.20	176.56	305.56	53.78	30.31	4.17	3.02	4.91		
9	56.15	59.08	40.41	27.12	197.50	166.90	238.28	54.37	24.96	3.80	3.80	4.36		
10	55.56	57.91	59.66	27.12	313.18	180.40	184.23	54.37	16.38	4.17	4.54	3.99		
11	54.97	56.15	63.14	47.79	355.48	205.96	156.15	53.78	11.71	4.73	4.73	3.80		
12	54.37	54.37	61.40	65.44	291.32	222.68	143.28	53.19	10.45	5.27	4.73	3.80		
13	54.37	52.59	57.32	89.37	208.76	233.71	123.06	52.59	9.49	5.62	4.36	3.80		
14	53.78	47.79	53.78	105.40	152.21	263.58	114.81	51.40	8.68	5.98	4.73	3.80		
15	53.78	44.12	51.40	101.17	128.17	338.84	102.23	50.20	8.02	6.15	5.62	4.17		
16	53.78	47.79	54.37	107.51	150.24	437.98	88.29	48.99	7.69	5.98	5.62	4.73		
17	53.19	41.03	60.24	129.19	216.20	522.38	80.07	47.18	7.18	6.15	5.80	4.91		
18	53.78	56.73	68.86	194.67	275.18	586.19	74.50	44.74	6.33	5.98	5.80	4.73		
19	53.78	58.49	81.72	327.24	284.70	606.34	71.69	42.89	5.80	5.62	5.45	4.73		
20	54.37	55.56	87.20	402.10	247.36	573.72	75.06	41.65	5.98	4.91	5.09	4.91		
21	54.37	44.12	90.46	415.78	261.78	511.25	83.92	40.41	5.80	4.73	5.09	5.45		
22	54.37	24.42	90.46	403.35	345.26	437.98	81.72	39.16	5.45	4.54	5.09	5.62		
23	54.37	13.02	94.77	379.55	440.44	350.37	94.77	38.53	5.62	4.17	5.27	5.09		
24	53.78	16.38	104.35	312.09	498.67	279.17	113.77	37.90	5.27	4.17	5.62	5.27		
25	53.78	26.05	105.40	226.37	543.14	212.49	111.69	36.63	5.09	4.54	5.45	5.27		
26	53.19	33.43	94.77	160.07	558.07	182.31	99.05	36.00	4.91	4.36	4.73	4.73		
27	53.19	45.35	76.74	128.17	553.37	181.36	83.37	34.07	4.36	3.99	4.36	4.17		
28	53.78	55.56	65.44	121.01	539.00	175.60	76.18	33.43	4.36	3.99	4.54	5.27		
29	54.97	54.37	60.82	118.95	519.60	160.07	71.13	33.43	3.99	3.61		7.01		
30	59.66	47.18	58.49	163.01	507.06	147.26	67.15	33.43	3.41	3.22		8.84		
31		46.57		232.79	474.56		63.71		3.22	3.61		9.49		
Total	1624.59	1525.17	2052.85	4626.54	9737.97	8952.67	4791.03	1388.99	446.13	136.95	128.50	157.91	35569.30	Tonday
Mean	54.15	49.20	68.43	149.24	314.13	298.42	154.55	46.30	14.39	4.42	4.59	5.09	97.45	Ton/day
Max	59.66	65.44	105.40	415.78	558.07	606.34	355.48	60.82	37.90	6.15	5.80	9.49	606.34	Ton/day
Min	50.20	13.02	40.41	21.10	87.20	147.26	63.71	33.43	3.22	2.82	3.02	3.80	2.82	Ton/day

WATER YEAR : 2018

PRACHIN BURI RIVER BASIN

Khlong Phra Prong at Ban Non Suk Phum , Prachin Buri (Kgt.13A)

Lat 13 - 54 - 29 N Long 101 - 50 - 32 E

Location : on left bank about 21 kilometers upstream from station Kgt.13

Ban Non Suk Phum **Amphoe** Kabin Buri **Changwat** Prachin Buri

Drainge Area	4,906 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1998-Cont'd
Actual Measurement	1998-Cont'd
Using Rating Curve Water Year	2018
Number of observation	31
R-Square	0.9329
Remarks	Continued Sediment Station

$$QS = 2.3532\ QW^{1.39210}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	10.86	1442.70	1291.24	272.88	5600.73	5759.40	2682.69	198.64	31.18	17.93	11.88	27.19		
2	10.86	890.53	927.35	205.53	6080.45	4443.67	3692.48	173.96	30.51	17.93	11.88	30.51		
3	13.46	611.89	703.11	182.83	5777.11	3220.00	4182.65	158.74	34.63	17.93	15.09	31.18		
4	15.65	515.36	693.34	182.83	4476.61	2369.37	3955.30	160.89	33.93	17.35	17.35	29.84		
5	22.73	427.94	583.84	243.36	2850.64	3282.77	3498.74	148.12	36.74	17.35	14.00	28.51		
6	23.36	537.92	496.78	298.19	1751.87	4361.63	3849.56	111.66	37.45	17.93	15.65	27.85		
7	29.84	959.25	485.72	368.88	1407.86	4526.15	4443.67	92.72	39.61	17.93	19.10	25.89		
8	73.08	916.79	438.62	305.90	1277.71	3320.60	3679.47	81.85	38.89	16.21	20.29	29.84		
9	154.47	603.28	379.12	260.46	2278.00	2766.31	2564.50	69.66	36.03	14.54	19.10	30.51		
10	163.05	442.19	362.10	243.36	3968.58	3524.40	1948.94	73.08	36.74	14.00	18.51	30.51		
11	87.24	325.43	389.44	365.48	4692.37	4427.23	1373.27	90.88	38.17	14.54	18.51	26.54		
12	47.81	262.93	389.44	1250.77	4378.00	4296.30	874.87	96.43	35.33	13.46	17.93	22.12		
13	38.17	260.46	375.70	1701.45	3409.34	4658.99	630.80	96.43	33.93	15.09	15.65	24.62		
14	28.51	260.46	345.29	1577.22	2424.68	5132.33	515.36	98.30	38.89	14.54	14.00	27.19		
15	28.51	253.09	303.32	1244.06	2089.46	5408.51	445.77	96.43	33.24	15.65	17.35	28.51		
16	31.18	285.45	277.89	1456.70	3033.74	6333.51	382.55	90.88	34.63	20.89	15.65	31.18		
17	31.18	280.40	399.84	1676.39	4559.26	7030.08	362.10	85.43	33.93	19.10	11.88	31.87		
18	48.58	250.65	708.01	2424.68	5218.20	7480.22	318.88	81.85	35.33	19.10	16.21	29.84		
19	583.84	282.93	797.80	4709.09	5183.80	7356.68	303.32	78.31	30.51	21.50	17.93	32.55		
20	885.30	385.99	708.01	5794.83	4378.00	6627.78	1352.63	74.81	23.36	18.51	16.21	33.93		
21	417.34	595.48	698.22	5460.75	3928.79	5706.37	2169.70	96.43	24.62	17.35	22.12	33.24		
22	189.56	572.26	583.84	4280.01	4894.05	4910.96	1562.90	137.70	39.61	7.96	25.89	33.93		
23	137.70	626.05	485.72	3270.19	6571.07	4085.93	1555.76	62.95	85.43	5.75	26.54	31.87		
24	69.66	1217.32	456.57	2424.68	7968.82	3207.48	1284.47	39.61	48.58	6.61	24.62	27.19		
25	52.47	1041.21	456.57	2287.09	8470.94	2541.05	880.08	32.55	49.35	12.93	23.98	31.18		
26	54.84	978.00	417.34	2036.44	8310.24	2489.66	717.83	33.24	47.05	23.98	28.51	35.33		
27	43.29	953.91	300.75	1534.38	7645.85	1957.64	583.84	31.18	29.17	23.98	31.18	34.63		
28	44.03	807.96	255.54	1421.77	7192.86	1414.81	519.11	31.18	23.98	20.29	29.17	33.24		
29	119.51	654.65	260.46	1871.12	7418.38	1131.56	417.34	31.87	20.29	14.00		33.24		
30	843.80	616.60	272.88	2996.86	7521.53	1099.05	295.63	33.93	17.93	11.88		33.93		
31		1003.15		4247.49	6949.09		238.53		17.93	11.88		42.55		
Total	4299.88	19262.23	15243.85	56595.67	151708.03	124870.44	51282.74	2689.71	1096.97	498.09	536.18	950.51	429034.30	Tonday
Mean	143.33	621.36	508.13	1825.67	4893.81	4162.35	1654.28	89.66	35.39	16.07	19.15	30.66	1175.44	Ton/day
Max	885.30	1442.70	1291.24	5794.83	8470.94	7480.22	4443.67	198.64	85.43	23.98	31.18	42.55	8470.94	Ton/day
Min	10.86	250.65	255.54	182.83	1277.71	1099.05	238.53	31.18	17.93	5.75	11.88	22.12	5.75	Ton/day

WATER YEAR : 2018

PRACHIN BURI RIVER BASIN

Khlong Yang at Ban Thung Faek , Prachin Buri (Kgt.14)

Lat 14 - 09 - 29 N Long 101 - 52 - 50 E

Location : on left bank about 2 kilometers from Kabin Buri - Nakhon Ratchasima Highway.

Ban Thung Faek **Amphoe** Na Di **Changwat** Prachin Buri

Drainge Area	354 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1998-Cont'd
Actual Measurement	1998-Cont'd
Using Rating Curve Water Year	2018
Number of observation	23
R-Square	0.8222
Remarks	Continued Sediment Station

$$QS = 7.6682\ QW^{1.29790}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.95	6.50	1.14	1.89	118.62	156.23	118.62	8.17	2.80	1.75	1.27	0.71	
2	0.95	3.95	1.20	1.89	96.73	129.94	71.74	11.32	2.80	1.61	1.27	0.77	
3	0.89	2.18	1.01	1.82	70.08	127.09	96.73	12.42	2.49	1.54	1.27	0.77	
4	0.83	2.49	1.01	5.19	33.30	172.31	140.51	5.37	2.49	1.89	1.27	0.65	
5	0.83	2.11	0.95	2.80	63.54	192.91	262.19	3.78	2.49	2.33	1.27	0.65	
6	0.65	1.75	0.95	1.96	73.41	280.23	188.75	7.27	2.33	2.33	1.27	0.65	
7	0.77	1.47	0.95	1.14	37.54	140.51	86.18	9.72	2.18	2.49	1.14	0.65	
8	0.95	1.33	0.95	1.01	71.74	164.22	88.79	3.45	2.26	2.33	1.07	0.65	
9	0.95	1.20	1.07	1.01	350.26	127.09	110.29	2.80	3.78	2.33	1.01	0.60	
10	0.89	1.14	1.27	1.01	140.51	248.83	231.28	3.95	3.45	2.33	1.01	0.60	
11	0.83	1.01	1.20	1.01	113.05	184.61	102.11	4.12	2.33	2.33	1.01	0.60	
12	0.71	1.14	1.27	1.14	188.75	156.23	75.08	4.30	2.64	2.18	1.01	0.60	
13	0.65	1.20	1.20	4.83	188.75	172.31	57.15	7.27	2.80	1.61	0.95	0.60	
14	0.65	1.54	1.07	4.83	340.72	416.18	49.39	5.55	2.64	1.40	0.89	0.60	
15	0.60	1.54	0.95	17.64	995.82	578.03	46.36	3.78	2.64	1.27	0.89	0.60	
16	0.71	1.20	0.95	4.47	335.97	257.72	38.98	3.61	2.96	1.27	0.89	0.77	
17	1.61	1.01	1.14	3.78	271.18	164.22	34.70	3.61	2.80	1.14	0.89	1.14	
18	0.83	1.01	8.17	7.67	578.03	118.62	30.54	3.95	2.96	1.14	0.89	1.07	
19	0.65	3.61	7.67	6.88	298.55	99.41	34.70	5.93	2.80	1.14	0.89	0.95	
20	0.65	7.08	6.50	10.78	371.94	164.22	46.36	7.08	2.33	1.14	0.77	0.83	
21	0.60	6.12	2.80	17.64	240.02	118.62	65.16	7.27	2.18	1.14	0.71	0.77	
22	0.54	4.65	1.68	57.15	253.27	71.74	47.87	3.61	2.04	1.14	0.71	0.71	
23	0.54	2.64	1.75	16.44	164.22	96.73	55.58	2.49	1.68	1.07	0.71	0.65	
24	0.49	3.12	1.82	3.78	127.09	140.51	110.29	2.33	1.75	1.01	0.65	0.60	
25	0.49	3.45	5.93	4.47	160.21	262.19	83.59	2.64	2.11	1.01	0.60	0.60	
26	0.77	2.49	5.55	25.19	140.51	188.75	70.08	2.33	2.04	0.89	0.60	0.60	
27	10.78	3.45	5.74	29.18	476.88	86.18	41.90	2.49	2.18	0.95	0.60	0.60	
28	5.55	2.96	6.88	71.74	625.44	88.79	29.18	2.80	2.33	1.01	0.60	0.60	
29	75.08	2.64	4.65	57.15	262.19	110.29	20.09	2.80	2.80	1.14		0.60	
30	17.04	2.26	2.26	596.89	371.94	231.28	11.87	2.80	2.64	1.14		0.54	
31		1.54		408.73	205.52		9.72		2.11	1.27		0.54	
Total	128.43	79.78	79.68	1371.11	7765.78	5445.99	2455.78	149.01	77.83	47.32	26.11	21.27	17648.09 Tonday
Mean	4.28	2.57	2.66	44.23	250.51	181.53	79.22	4.97	2.51	1.53	0.93	0.69	48.35 Ton/day
Max	75.08	7.08	8.17	596.89	995.82	578.03	262.19	12.42	3.78	2.49	1.27	1.14	995.82 Ton/day
Min	0.49	1.01	0.95	1.01	33.30	71.74	9.72	2.33	1.68	0.89	0.60	0.54	0.49 Ton/day

WATER YEAR : 2018

PRACHIN BURI RIVER BASIN

Khlong Phra Sathung at Ban Tharapha , Sa Kaeo (Kgt.42)

Lat 13 - 59 - 21 N Long 101 - 57 - 30 E

Location : on left bank at the bridge.

Ban Tharapha **Amphoe** Mueang **Changwat** Sa Kaeo

Drainge Area	2,558 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2005-Cont'd
Actual Measurement	2005-Cont'd
Using Rating Curve Water Year	2018
Number of observation	31
R-Square	0.8743
Remarks	Continued Sediment Station

$$QS = 2.4358\ QW^{1.34760}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	8.37	927.85	867.56	112.63	2096.42	451.56	628.46	37.47	8.37	5.99	20.17	14.72		
2	9.06	489.84	574.10	117.06	2194.55	309.30	954.55	33.53	9.52	7.93	20.17	14.72		
3	13.69	387.17	536.81	120.64	1471.28	297.91	875.04	31.61	10.47	10.47	20.74	14.72		
4	24.83	292.81	518.41	123.34	808.34	426.49	563.38	29.72	12.67	14.20	20.74	15.25		
5	36.80	318.50	316.19	126.06	598.41	1501.32	502.78	27.86	15.25	14.72	21.31	15.25		
6	45.65	419.05	363.10	126.97	606.57	1962.49	1342.66	25.42	17.94	14.72	21.31	15.78		
7	49.89	595.69	363.10	134.30	665.17	1209.00	1209.00	22.47	19.60	14.72	21.89	15.78		
8	48.47	574.10	279.35	154.53	665.17	482.12	628.46	18.49	19.60	12.17	20.17	15.78		
9	47.05	355.96	272.67	176.45	1327.63	779.13	510.58	20.17	19.04	8.60	18.49	15.25		
10	45.65	284.38	262.75	233.54	1753.41	1263.02	528.91	24.23	19.04	10.71	16.31	15.25		
11	43.56	279.35	244.79	482.12	1623.03	1332.64	332.42	28.48	18.49	14.72	14.72	15.25		
12	41.50	251.28	219.28	841.52	1050.70	985.31	274.34	36.80	18.49	15.25	14.72	15.25		
13	78.84	199.09	208.35	707.36	764.64	1233.48	138.94	42.87	19.60	15.78	14.20	14.72		
14	123.34	173.48	202.17	484.69	606.57	1253.15	96.19	41.50	21.31	16.85	14.20	14.72		
15	87.82	167.59	231.95	411.63	775.50	1660.02	97.89	38.80	21.89	16.85	13.69	14.72		
16	34.18	163.20	277.67	620.23	1372.85	2309.20	98.74	36.80	22.47	17.94	13.69	14.72		
17	25.42	158.85	334.75	595.69	2073.94	2662.92	98.74	35.49	22.47	18.49	12.67	15.25		
18	60.91	164.66	416.57	1050.70	2232.60	2278.48	78.84	34.18	21.89	19.60	12.17	15.25		
19	823.04	173.48	325.44	1822.73	1549.71	1194.38	166.12	38.80	21.89	20.17	12.17	15.25		
20	592.98	311.59	313.89	1778.54	981.45	700.28	1393.07	42.19	21.31	20.74	11.68	15.25		
21	194.51	421.53	291.12	993.03	939.27	542.10	1307.66	88.64	29.72	21.31	11.19	15.78		
22	45.65	377.50	236.74	531.54	1362.77	544.75	852.66	41.50	112.63	21.89	11.19	15.78		
23	24.23	924.05	174.96	323.12	2103.93	424.01	852.66	13.69	28.48	22.47	10.71	15.78		
24	19.04	954.55	128.79	348.85	2476.11	318.50	431.48	13.18	14.72	22.47	10.71	15.78		
25	16.85	682.67	110.87	841.52	2217.36	487.26	272.67	13.18	9.99	21.89	12.17	15.78		
26	15.78	793.70	107.36	645.02	1287.77	689.70	222.43	13.18	7.93	21.89	14.20	15.78		
27	16.31	682.67	106.49	603.84	927.85	421.53	189.95	13.18	6.62	21.31	15.78	15.78		
28	47.05	534.17	108.24	550.05	1233.48	309.30	153.09	13.18	5.38	21.31	14.72	15.78		
29	316.19	416.57	110.87	996.90	1905.53	301.31	114.39	11.19	5.18	20.74		15.78		
30	1228.57	507.97	110.87	1327.63	1722.13	303.02	70.90	9.06	5.18	20.74		16.31		
31		958.38		1641.50	848.94		50.61		5.58	20.17		16.31		
Total	4165.23	13941.68	8615.21	19023.73	42243.08	28633.68	15037.61	876.86	592.72	526.81	435.88	477.52	134570.01	Tonday
Mean	138.84	449.73	287.17	613.67	1362.68	954.46	485.08	29.23	19.12	16.99	15.57	15.40	368.68	Ton/day
Max	1228.57	958.38	867.56	1822.73	2476.11	2662.92	1393.07	88.64	112.63	22.47	21.89	16.31	2662.92	Ton/day
Min	8.37	158.85	106.49	112.63	598.41	297.91	50.61	9.06	5.18	5.99	10.71	14.72	5.18	Ton/day

WATER YEAR : 2018

BANG PAKONG RIVER BASIN

Lower Khlong Ban Na at Ban Pa Kha , Nakhon Nayok (Ny.3)

Lat 14 - 17 - 04 N Long 101 - 04 - 28 E

Location : on left bank near Wat Ban Pa Kha.

Ban Pa Kha **Amphoe** Ban Na **Changwat** Nakhon Nayok

Drainge Area	203 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1999-Cont'd
Actual Measurement	1999-Cont'd
Using Rating Curve Water Year	2018
Number of observation	27
R-Square	0.9373
Remarks	Continued Sediment Station

$$QS = 1.6449\ QW^{1.59620}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.48	0.60	0.54	0.77	5.66	161.64	27.81	35.49	36.74	35.07	32.64	28.34	
2	0.48	0.65	1.02	0.77	5.42	201.62	86.84	37.16	36.74	35.07	32.64	27.96	
3	0.48	0.60	1.02	1.44	4.58	93.28	117.98	36.74	36.74	34.66	32.64	27.59	
4	0.37	0.60	0.77	1.37	3.08	1121.47	35.90	37.58	36.32	34.66	32.64	27.59	
5	0.34	0.51	0.54	1.52	1.00	921.50	36.74	37.16	36.32	34.66	32.64	27.21	
6	0.34	0.54	0.48	1.37	0.81	447.75	34.25	36.74	36.32	34.66	32.64	27.21	
7	0.29	0.53	0.44	1.37	3.24	212.97	35.07	37.16	35.90	35.07	32.64	26.84	
8	0.18	0.40	0.41	1.02	7.93	114.89	35.90	37.16	36.32	34.66	32.64	26.46	
9	0.16	0.34	0.43	0.77	33.85	62.85	35.90	37.58	36.32	34.66	32.24	26.46	
10	0.15	0.37	0.65	0.77	29.88	43.66	41.01	37.16	36.32	34.66	32.24	26.10	
11	0.14	0.51	1.22	0.83	16.75	36.74	40.58	38.00	36.32	34.66	32.24	25.73	
12	0.14	0.53	1.29	0.71	7.38	59.81	38.00	38.00	37.16	34.66	32.24	25.36	
13	0.14	0.49	1.59	0.89	3.24	225.21	35.90	37.58	36.74	34.25	31.84	25.36	
14	0.14	0.46	2.44	1.59	1.22	130.66	36.32	38.00	36.32	34.25	31.44	25.00	
15	0.14	0.65	2.53	1.75	1.11	137.73	35.49	38.00	35.90	34.25	31.05	24.64	
16	0.14	1.29	11.93	2.72	0.69	203.84	34.66	37.58	35.90	34.25	31.05	25.00	
17	0.14	2.26	50.08	2.53	0.65	161.64	34.25	39.28	35.90	34.66	31.05	25.00	
18	0.14	2.35	20.92	0.43	0.53	121.11	34.25	39.71	35.49	34.66	30.66	23.56	
19	0.13	2.17	7.10	4.02	1.46	146.76	37.58	38.00	35.49	34.66	30.66	22.86	
20	0.14	2.00	5.17	10.32	152.27	210.55	37.58	31.84	35.49	34.25	30.27	22.86	
21	0.22	1.59	4.78	9.10	269.23	283.47	39.28	38.42	35.49	34.25	30.27	22.51	
22	0.28	1.52	3.31	5.54	272.06	206.07	38.85	38.85	35.49	33.85	29.88	22.16	
23	0.32	1.29	2.08	1.86	212.97	206.07	38.42	38.42	35.49	33.85	29.49	21.81	
24	0.32	2.17	1.29	0.49	117.98	159.75	42.33	36.74	35.49	33.44	29.49	21.47	
25	0.29	2.44	0.95	0.38	250.45	272.06	43.66	34.25	35.07	33.44	29.11	21.47	
26	0.28	2.26	1.75	0.32	258.21	190.66	42.33	33.85	35.49	33.44	29.11	21.20	
27	0.27	1.75	1.44	0.34	199.41	93.28	39.71	36.74	35.07	33.04	28.72	20.92	
28	0.40	1.22	0.89	0.37	1157.73	54.87	38.42	36.74	35.07	33.04	28.34	20.65	
29	0.60	1.08	0.60	0.34	484.75	38.77	38.00	36.74	35.07	33.04		20.12	
30	0.83	0.83	0.77	0.40	197.21	29.65	37.58	36.32	35.07	33.04		19.58	
31		0.71		2.59	93.28		37.58		35.07	33.04		19.32	
Total	8.47	34.71	128.43	58.69	3794.03	6350.33	1288.17	1112.99	1112.62	1059.85	872.51	748.34	16569.14 Tonday
Mean	0.28	1.12	4.28	1.89	122.39	211.68	41.55	37.10	35.89	34.19	31.16	24.14	45.39 Ton/day
Max	0.83	2.44	50.08	10.32	1157.73	1121.47	117.98	39.71	37.16	35.07	32.64	28.34	1157.73 Ton/day
Min	0.13	0.34	0.41	0.32	0.53	29.65	27.81	31.84	35.07	33.04	28.34	19.32	0.13 Ton/day

WATER YEAR : 2018

BANG PAKONG RIVER BASIN

Khlong Samo Pun at Ban Noen Hom , Prachin Buri (Ny.4)

Lat 14 - 17 - 27 N Long 101 - 24 - 25 E

Location : on left bank at the bridge of Prachin Buri - Khao Yai Highway.

Ban Noen Hom **Amphoe** Mueang **Changwat** Prachin Buri

Drainge Area	128 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1986-Cont'd
Actual Measurement	1986-Cont'd
Using Rating Curve Water Year	2018
Number of observation	29
R-Square	0.8275
Remarks	Continued Sediment Station

$$QS = 1.3260\ QW^{1.66810}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.42	4.21	3.21	24.89	300.10	690.02	480.23	18.15	3.53	1.80	1.01	0.82		
2	0.42	4.04	3.21	15.70	228.32	443.34	223.12	16.91	3.53	1.80	1.01	0.82		
3	0.42	3.87	3.06	83.70	164.61	690.02	146.72	15.70	3.37	1.80	1.01	0.82		
4	0.42	3.87	3.53	83.70	277.18	845.32	83.70	13.39	3.37	1.80	1.01	0.82		
5	0.42	3.53	4.21	83.70	164.61	3897.86	83.70	12.84	3.37	1.80	1.01	0.82		
6	0.42	3.37	4.94	54.71	155.56	535.31	277.18	11.23	3.21	1.80	1.01	0.73		
7	0.57	3.37	4.57	83.70	121.45	223.12	560.00	10.21	3.06	1.80	1.01	0.73		
8	0.57	3.21	3.37	98.12	690.02	188.13	356.38	9.23	2.90	1.67	1.01	0.73		
9	0.57	3.21	6.95	51.80	356.38	121.45	146.72	8.29	2.75	1.67	1.01	0.73		
10	0.57	2.90	14.53	117.42	452.46	121.45	87.22	6.95	2.75	1.67	0.91	0.73		
11	0.57	3.06	94.43	76.84	373.16	121.45	83.70	5.71	2.61	1.67	0.91	0.65		
12	0.57	2.90	121.45	54.71	523.13	142.37	80.24	4.94	2.61	1.67	0.91	0.65		
13	0.57	2.75	26.34	83.70	597.86	98.12	66.99	4.94	2.61	1.55	0.91	0.57		
14	0.57	2.46	26.34	223.12	889.85	83.70	173.87	4.94	2.46	1.55	0.91	0.57		
15	0.57	2.19	113.45	113.45	1891.85	223.12	113.45	4.57	2.46	1.55	0.91	0.49		
16	0.57	2.05	523.13	83.70	941.41	188.13	76.84	4.57	2.46	1.55	0.91	0.49		
17	0.57	1.92	461.64	101.87	317.77	138.08	51.80	4.21	2.46	1.55	0.91	0.49		
18	0.57	1.80	173.87	311.83	244.18	146.72	26.34	4.21	2.32	1.44	0.91	0.49		
19	0.57	1.80	129.66	244.18	294.30	845.32	22.09	4.21	2.19	1.44	0.91	0.49		
20	0.57	1.67	228.32	282.84	407.65	266.00	14.53	4.04	2.19	1.44	0.82	0.49		
21	0.57	1.55	183.32	745.03	773.17	249.57	23.47	4.04	2.19	1.44	0.82	0.42		
22	0.57	3.06	155.56	305.94	978.50	146.72	18.15	4.04	2.05	1.44	0.82	0.42		
23	0.57	4.04	121.45	390.25	535.31	105.68	13.39	4.04	2.05	1.44	0.82	0.42		
24	0.57	3.53	398.91	212.88	904.89	80.24	12.29	3.87	2.05	1.44	0.82	0.42		
25	0.57	3.21	1316.46	183.32	511.07	105.68	12.29	3.87	1.92	1.44	0.82	0.42		
26	0.57	2.90	255.00	282.84	381.67	98.12	26.34	3.87	1.92	1.44	0.82	0.42		
27	0.57	2.90	183.32	288.55	1401.73	83.70	24.89	3.87	1.92	1.44	0.82	0.42		
28	0.82	2.90	183.32	348.10	759.04	105.68	23.47	3.87	1.92	1.44	0.82	0.42		
29	4.57	3.53	105.68	223.12	731.12	98.12	22.09	3.87	1.80	1.44		0.42		
30	4.21	3.21	66.99	1274.64	511.07	249.57	20.74	3.87	1.80	1.44		0.42		
31		3.06		889.85	523.13		19.43		1.80	1.33		0.42		
Total	24.09	92.07	4920.22	7418.20	17402.55	11332.11	3371.37	208.45	77.63	48.75	25.57	17.75	44938.76	Tonday
Mean	0.80	2.97	164.01	239.30	561.37	377.74	108.75	6.95	2.50	1.57	0.91	0.57	123.12	Ton/day
Max	4.57	4.21	1316.46	1274.64	1891.85	3897.86	560.00	18.15	3.53	1.80	1.01	0.82	3897.86	Ton/day
Min	0.42	1.55	3.06	15.70	121.45	80.24	12.29	3.87	1.80	1.33	0.82	0.42	0.42	Ton/day

WATER YEAR : 2018

BANG PAKONG RIVER BASIN

Upper Khlong Ban Na at Ban Cha Om , Saraburi (Ny.6)

Lat 14 - 24 - 34 N Long 101 - 07 - 30 E

Location : on left bank about 50 meters from the top staff gage.

Ban Cha Om **Amphoe** Kaeng Khoi **Changwat** Saraburi

Drainge Area	126 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1986-Cont'd
Actual Measurement	1986-Cont'd
Using Rating Curve Water Year	2018
Number of observation	26
R-Square	0.8556
Remarks	Continued Sediment Station

$$QS = 2.3711\ QW^{1.30370}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	1.49	1.77	0.84	3.17	91.66	35.67	3.01	0.96	0.39	0.00	0.00		
2	0.00	1.49	1.77	0.84	3.68	46.47	24.51	2.53	0.96	0.39	0.00	0.00		
3	0.00	1.49	1.49	1.63	2.68	36.84	16.85	2.07	0.91	0.39	0.00	0.00		
4	0.00	1.49	1.49	1.35	2.37	264.52	9.93	1.92	0.84	0.35	0.00	0.00		
5	0.00	1.49	1.22	0.96	4.55	286.99	7.42	1.77	0.79	0.29	0.00	0.00		
6	0.00	1.49	1.22	0.84	5.10	99.34	6.24	1.63	0.72	0.00	0.00	0.00		
7	0.00	1.49	1.49	0.79	3.51	49.59	5.66	1.22	0.72	0.00	0.00	0.00		
8	0.00	1.49	1.49	0.79	41.59	32.22	5.66	1.09	0.72	0.00	0.00	0.00		
9	0.00	1.49	1.35	0.72	19.08	27.76	6.24	0.96	0.72	0.00	0.00	0.00		
10	0.00	1.49	1.35	0.84	8.66	22.93	26.67	1.77	0.72	0.00	0.00	0.00		
11	0.00	1.92	1.92	0.84	4.55	20.60	18.33	2.22	0.72	0.00	0.00	0.00		
12	0.00	1.77	4.02	0.84	4.55	215.61	11.24	1.77	0.72	0.00	0.00	0.00		
13	0.00	2.22	3.34	0.84	4.02	55.31	8.66	1.63	0.72	0.00	0.00	0.00		
14	1.49	2.84	2.84	1.92	5.66	45.24	6.24	1.63	0.72	0.00	0.00	0.00		
15	1.49	3.34	2.84	1.77	4.02	79.20	4.02	1.63	0.67	0.00	0.00	0.00		
16	1.49	2.53	17.58	1.49	3.51	51.48	5.10	1.35	0.67	0.00	0.00	0.00		
17	1.49	2.07	5.10	1.49	3.17	41.59	5.10	7.42	0.60	0.00	0.00	0.00		
18	1.49	2.07	2.84	23.72	6.24	38.01	4.02	4.55	0.49	0.00	0.00	0.00		
19	1.49	1.77	2.07	13.28	40.39	67.17	3.68	3.01	0.56	0.00	0.00	0.00		
20	1.49	1.63	2.68	5.66	22.93	99.34	3.68	3.34	0.56	0.00	0.00	0.00		
21	1.49	2.22	1.92	3.17	22.93	63.16	3.68	2.68	0.49	0.00	0.00	0.00		
22	1.49	1.63	1.63	2.53	29.97	57.25	9.93	2.68	0.49	0.00	0.00	0.00		
23	1.49	5.10	1.22	2.07	23.72	47.71	7.42	1.92	0.49	0.00	0.00	0.00		
24	1.49	4.55	0.96	1.63	40.39	94.20	22.93	1.63	0.49	0.00	0.00	0.00		
25	1.49	3.17	0.84	1.35	35.67	94.20	22.15	1.49	0.49	0.00	0.00	0.00		
26	1.49	2.53	1.22	1.77	51.48	46.47	16.12	1.22	0.49	0.00	0.00	0.00		
27	1.49	2.37	0.96	1.49	94.20	33.36	10.58	1.09	0.45	0.00	0.00	0.00		
28	1.49	2.37	0.84	1.49	237.06	25.59	7.42	0.96	0.45	0.00	0.00	0.00		
29	1.49	2.07	0.84	1.22	79.20	20.60	5.10	0.96	0.45	0.00		0.00		
30	1.49	1.92	0.84	8.66	42.80	12.60	3.85	0.96	0.39	0.00		0.00		
31		1.77		5.10	32.22		3.34		0.39	0.00		0.00		
Total	25.33	66.76	71.14	91.93	883.07	2167.01	327.44	62.11	19.56	1.81	0.00	0.00	3716.16	Tonday
Mean	0.84	2.15	2.37	2.97	28.49	72.23	10.56	2.07	0.63	0.06	0.00	0.00	10.18	Ton/day
Max	1.49	5.10	17.58	23.72	237.06	286.99	35.67	7.42	0.96	0.39	0.00	0.00	286.99	Ton/day
Min	0.00	1.49	0.84	0.72	2.37	12.60	3.34	0.96	0.39	0.00	0.00	0.00	0.00	Ton/day

WATER YEAR : 2018

EAST COAST - GULF BASIN

Khlong Yai at Ban Si Bua Thong , Trat (Z.10)

Lat 12 - 28 - 24 N Long 102 - 28 - 49 E

Location : on left bank at Ban Si Bua Thong

Ban Si Bua Thong **Amphoe** Khao Saming **Changwat** Trat

Drainge Area	779 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1978-Cont'd
Actual Measurement	1978-Cont'd
Using Rating Curve Water Year	2018
Number of observation	39
R-Square	0.8191
Remarks	Continued Sediment Station

$$QS = 1.3331\ QW^{1.37020}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	293.81	1334.40	212.52	2309.32	733.27	261.36	49.58	16.60	7.71	4.68	0.00		
2	0.00	852.26	635.18	263.64	1936.57	655.56	210.36	49.58	16.24	7.42	4.68	0.00		
3	0.00	412.37	265.93	238.82	1660.12	693.38	229.96	42.45	16.60	6.28	4.94	0.00		
4	0.00	552.16	665.82	174.68	2531.26	1665.76	174.68	41.29	31.27	2.98	5.73	0.00		
5	0.00	371.66	519.86	199.68	2007.45	1449.68	137.66	35.63	17.69	3.45	5.73	0.00		
6	0.00	346.80	614.97	467.50	3833.65	932.77	201.81	36.74	14.82	6.84	1.71	0.00		
7	0.00	308.03	399.53	1353.34	3109.23	526.28	488.98	40.14	11.76	6.84	0.00	0.00		
8	0.00	261.36	286.77	672.68	2545.31	618.33	219.02	39.00	11.76	6.56	0.00	0.00		
9	0.00	243.28	480.89	519.86	2053.09	601.60	236.60	36.74	12.76	6.56	0.00	0.00		
10	0.00	265.93	1872.21	2086.34	2587.59	786.01	155.54	37.86	13.78	6.01	0.00	0.00		
11	0.00	320.01	2180.19	3406.84	1455.12	555.42	120.39	35.63	13.10	6.28	0.00	0.00		
12	0.00	250.02	1339.13	3379.48	1217.72	786.01	100.81	32.34	12.76	6.28	0.00	0.00		
13	0.00	219.02	869.05	2046.46	1615.18	1090.54	94.98	29.14	12.09	6.01	0.00	0.00		
14	0.00	277.46	729.25	1339.13	2086.34	1268.71	105.24	25.02	11.11	5.73	0.00	0.00		
15	0.00	494.39	516.65	1966.02	4861.54	1983.75	121.93	27.06	11.11	5.46	0.00	0.00		
16	0.00	386.79	1153.66	2001.52	5996.31	1099.50	310.41	29.14	10.47	4.94	0.00	0.00		
17	0.00	425.33	1745.27	1273.37	5061.96	1637.61	293.81	31.27	10.15	4.68	0.00	0.00		
18	0.00	317.60	984.62	2275.14	3379.48	984.62	184.99	36.74	9.84	4.42	0.00	0.00		
19	0.00	214.68	1112.97	1609.59	3553.75	1391.42	296.17	37.86	9.52	3.93	0.00	0.00		
20	0.00	303.27	753.44	1728.15	4266.43	898.63	254.54	40.14	12.43	4.42	0.00	0.00		
21	0.00	300.89	737.29	1240.83	3655.71	645.35	162.52	35.63	10.15	14.13	0.00	0.00		
22	0.00	386.79	628.42	1121.98	3047.05	571.80	142.48	28.10	8.91	11.44	0.00	0.00		
23	0.00	298.53	513.46	1050.48	1814.21	958.60	170.60	25.02	8.01	3.45	0.00	0.00		
24	0.00	223.38	412.37	1010.83	1245.46	561.96	219.02	24.02	8.60	3.68	0.00	0.00		
25	0.00	277.46	364.15	798.32	1367.59	510.27	162.52	28.10	8.30	8.60	0.00	0.00		
26	0.00	214.68	315.20	980.27	1339.13	467.50	115.79	34.52	8.01	8.60	0.00	0.00		
27	106.73	324.84	279.78	1930.70	1222.33	308.03	100.81	33.43	8.01	8.60	0.00	0.00		
28	145.72	250.02	451.56	3252.61	1381.87	320.01	85.00	31.27	7.71	8.60	0.00	0.00		
29	178.78	206.07	386.79	4744.68	984.62	327.26	76.70	31.27	8.30	6.01		0.00		
30	221.19	265.93	225.57	3767.83	831.40	277.46	52.02	31.27	8.01	4.68		0.00		
31		305.64		3171.74	769.68		39.00		7.71	4.94		0.00		
Total	652.42	10170.46	22774.38	50285.03	75726.47	25307.09	5525.70	1035.98	367.58	195.53	27.47	0.00	192068.11	Tonday
Mean	21.75	328.08	759.15	1622.10	2442.79	843.57	178.25	34.53	11.86	6.31	0.98	0.00	526.21	Ton/day
Max	221.19	852.26	2180.19	4744.68	5996.31	1983.75	488.98	49.58	31.27	14.13	5.73	0.00	5996.31	Ton/day
Min	0.00	206.07	225.57	174.68	769.68	277.46	39.00	24.02	7.71	2.98	0.00	0.00	0.00	Ton/day

WATER YEAR : 2018

EAST COAST - GULF BASIN

Khlong Prasae at Ban Khao Chik , Rayong (Z.11)

Lat 12 - 51 - 20 N Long 101 - 37 - 09 E

Location : on left bank near the Meteorological Station.

Ban Khao Chik **Amphoe** Klaeng **Changwat** Rayong

Drainge Area	1,236 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1996-Cont'd
Actual Measurement	1996-Cont'd
Using Rating Curve Water Year	2018
Number of observation	28
R-Square	0.8033
Remarks	Continued Sediment Station

$$QS = 0.9565\ QW^{1.51170}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	33.93	125.66	141.82	91.30	69.92	23.02	832.07	40.93	17.35	20.52	18.12	13.64		
2	27.39	141.82	91.30	62.64	204.69	22.18	438.45	38.89	16.58	19.71	17.35	12.24		
3	32.02	68.07	137.13	45.66	153.76	21.34	839.23	35.89	15.83	18.91	14.36	10.25		
4	23.87	47.28	1349.94	38.89	105.87	127.92	803.65	33.93	12.93	18.12	13.64	10.25		
5	22.18	139.47	897.23	35.89	112.34	170.19	332.83	26.50	12.93	18.12	12.93	9.61		
6	20.52	68.07	775.56	37.88	260.33	64.43	673.31	18.91	12.93	18.12	11.56	9.61		
7	18.12	52.23	222.73	38.89	204.69	36.88	803.65	27.39	11.56	18.12	12.24	8.98		
8	15.83	137.13	95.39	60.86	108.01	35.89	679.98	26.50	18.12	18.91	7.20	9.61		
9	14.36	93.33	91.30	55.63	85.28	60.86	713.62	26.50	18.91	18.91	2.73	10.25		
10	13.64	73.66	93.33	148.95	105.87	101.63	433.85	30.14	18.91	18.91	9.61	9.61		
11	15.08	62.64	87.27	245.05	112.34	132.50	219.08	31.07	18.12	18.91	8.37	8.98		
12	15.08	161.08	635.10	141.82	105.87	64.43	148.95	27.39	18.12	18.91	5.55	10.25		
13	15.08	71.78	593.83	116.72	99.54	248.84	87.27	24.74	18.12	18.91	3.15	12.24		
14	15.08	52.23	324.48	110.17	93.33	226.40	79.40	23.02	18.12	18.91	1.59	11.56		
15	14.36	77.47	237.53	118.93	68.07	538.63	66.25	23.02	18.91	18.12	0.68	11.56		
16	15.08	105.87	226.40	110.17	75.56	1230.58	52.23	23.02	18.12	18.12	3.15	10.90		
17	15.08	62.64	226.40	103.74	75.56	406.63	50.56	22.18	18.12	19.71	2.73	11.56		
18	39.91	42.49	176.91	105.87	64.43	337.03	81.34	24.74	17.35	20.52	1.59	8.98		
19	52.23	45.66	197.62	103.74	64.43	299.86	50.56	25.61	18.12	19.71	0.68	7.78		
20	27.39	44.07	183.73	105.87	97.45	312.09	52.23	42.49	18.12	18.12	0.68	7.20		
21	26.50	79.40	163.55	99.54	97.45	141.82	77.47	45.66	18.12	17.35	1.95	7.78		
22	21.34	68.07	148.95	97.45	75.56	114.52	354.01	42.49	18.12	18.12	10.25	8.37		
23	26.50	62.64	139.47	89.27	85.28	130.21	241.28	39.91	18.12	18.12	9.61	5.55		
24	22.18	59.10	132.50	85.28	52.23	110.17	480.53	23.02	18.91	18.12	6.63	2.73		
25	21.34	123.40	121.16	87.27	40.93	222.73	393.25	20.52	17.35	15.83	7.20	0.96		
26	18.91	75.56	48.91	85.28	39.91	366.93	180.31	18.91	17.35	15.83	8.98	7.78		
27	18.12	87.27	66.25	85.28	60.86	268.08	424.71	18.91	17.35	15.08	9.61	26.50		
28	245.05	397.69	103.74	87.27	81.34	148.95	146.56	18.12	16.58	15.08	10.90	12.24		
29	824.93	219.08	83.30	87.27	52.23	105.87	83.30	18.91	20.52	15.83		8.98		
30	558.49	71.78	62.64	81.34	31.07	197.62	64.43	17.35	19.71	15.83		9.61		
31		68.07		89.27	24.74		55.63		19.71	16.58		8.98		
Total	2229.59	2984.71	7855.47	2853.19	2908.94	6268.23	9939.99	836.66	539.11	560.06	213.04	304.54	37493.53	Tonday
Mean	74.32	96.28	261.85	92.04	93.84	208.94	320.64	27.89	17.39	18.07	7.61	9.82	102.72	Ton/day
Max	824.93	397.69	1349.94	245.05	260.33	1230.58	839.23	45.66	20.52	20.52	18.12	26.50	1349.94	Ton/day
Min	13.64	42.49	48.91	35.89	24.74	21.34	50.56	17.35	11.56	15.08	0.68	0.96	0.68	Ton/day

WATER YEAR : 2018

EAST COAST - GULF BASIN

Chanthaburi River at Ban Puk , Chanthaburi (Z.13)

Lat 12 - 45 - 38 N Long 102 - 08 - 33 E

Location : on left bank at Ban Puk

Ban Puk **Amphoe** Makham **Changwat** Chanthaburi

Drainge Area	647 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1978-Cont'd
Actual Measurement	1978-Cont'd
Using Rating Curve Water Year	2018
Number of observation	25
R-Square	0.8764
Remarks	Continued Sediment Station

$$QS = 0.9306\ QW^{1.45690}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	26.65	202.28	132.06	107.21	243.83	206.70	132.06	49.04	17.87	2.74	7.53	9.71		
2	25.49	197.90	122.55	95.41	229.21	215.61	148.40	49.04	15.85	1.44	7.53	9.71		
3	34.76	155.77	110.23	89.67	254.79	206.70	125.70	38.18	15.19	0.00	8.06	10.28		
4	29.81	159.84	135.28	84.05	277.16	254.79	107.21	23.23	13.28	0.00	9.71	10.28		
5	28.21	145.08	141.79	81.28	374.93	254.79	98.32	39.93	12.66	0.00	9.71	9.71		
6	23.23	132.06	141.79	155.77	367.83	294.31	101.26	36.46	12.05	0.00	10.28	9.71		
7	28.21	122.55	148.40	260.33	317.68	254.79	138.52	38.18	13.28	0.00	10.28	9.71		
8	26.65	104.22	125.70	163.94	582.68	323.61	104.22	34.76	13.28	0.00	10.28	9.71		
9	22.12	89.67	176.44	132.06	648.14	323.61	113.27	33.08	14.55	0.00	10.86	9.71		
10	16.85	75.83	582.68	347.67	403.73	317.68	92.53	43.51	16.85	0.44	10.28	9.71		
11	15.19	81.28	347.67	494.03	288.56	224.65	81.28	41.71	17.87	5.53	11.45	9.71		
12	14.55	73.15	305.93	300.10	249.29	440.66	73.15	39.93	14.55	8.06	10.86	9.71		
13	13.28	75.83	374.93	238.41	220.12	824.63	70.50	36.46	12.66	8.06	10.86	9.71		
14	13.28	84.05	294.31	224.65	202.28	1480.41	84.05	36.46	12.05	8.06	10.28	9.71		
15	13.28	86.85	215.61	748.33	294.31	1671.57	84.05	34.76	10.86	8.06	10.28	9.71		
16	12.66	122.55	193.55	305.93	335.57	1109.19	81.28	34.76	10.86	7.53	10.28	9.71		
17	15.19	101.26	197.90	249.29	282.84	564.38	84.05	33.08	10.28	7.53	10.28	10.28		
18	28.21	86.85	159.84	311.79	260.33	440.66	75.83	25.49	9.71	7.53	10.28	10.86		
19	39.93	86.85	163.94	335.57	997.64	347.67	110.23	23.23	9.15	7.01	9.71	10.28		
20	38.18	89.67	229.21	470.92	2058.24	282.84	89.67	25.49	8.60	6.51	9.71	9.71		
21	38.18	128.87	233.80	288.56	2015.88	265.90	78.54	28.21	8.60	6.51	9.71	9.71		
22	45.33	135.28	202.28	229.21	984.01	229.21	75.83	26.65	8.06	5.07	9.71	9.71		
23	45.33	116.34	168.08	206.70	486.29	215.61	78.54	25.49	8.06	3.96	10.28	10.28		
24	33.08	135.28	141.79	197.90	353.77	224.65	98.32	25.49	8.06	4.28	10.28	10.86		
25	26.65	107.21	128.87	220.12	294.31	180.67	107.21	24.35	7.01	7.53	9.71	12.66		
26	23.23	92.53	138.52	184.93	271.51	168.08	84.05	23.23	7.01	7.01	9.71	12.66		
27	24.35	141.79	128.87	172.24	260.33	138.52	75.83	23.23	7.01	7.53	9.71	12.05		
28	305.93	110.23	125.70	249.29	463.30	128.87	67.89	22.12	7.01	7.53	9.71	12.66		
29	510.61	128.87	113.27	249.29	300.10	138.52	62.74	19.96	6.51	7.53		12.05		
30	305.93	122.55	110.23	220.12	260.33	125.70	58.72	18.90	5.07	7.01		12.66		
31		138.52		288.56	215.61		52.85		3.96	7.53		12.05		
Total	1824.35	3631.01	5791.22	7703.33	14794.60	11854.98	2836.10	954.41	337.81	149.99	277.33	324.98	50480.11	Tonday
Mean	60.81	117.13	193.04	248.49	477.25	395.17	91.49	31.81	10.90	4.84	9.90	10.48	138.30	Ton/day
Max	510.61	202.28	582.68	748.33	2058.24	1671.57	148.40	49.04	17.87	8.06	11.45	12.66	2058.24	Ton/day
Min	12.66	73.15	110.23	81.28	202.28	125.70	52.85	18.90	3.96	0.00	7.53	9.71	0.00	Ton/day

WATER YEAR : 2018

EAST COAST - GULF BASIN

Khlong Phayat at Ban Chaman , Chanthaburi (Z.14)

Lat 12 - 44 - 34 N Long 102 - 12 - 35 E

Location : on left bank at the bridge of Khlong Prayat near Wat Chaman.

Ban Chaman **Amphoe** Makham **Changwat** Chanthaburi

Drainge Area	229 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1978-Cont'd
Actual Measurement	1978-Cont'd
Using Rating Curve Water Year	2018
Number of observation	27
R-Square	0.9078
Remarks	Continued Sediment Station

$$QS = 1.0463\ QW^{1.60870}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	8.21	55.84	23.39	34.60	534.44	234.32	52.47	10.13	4.87	4.28	0.88	9.34		
2	10.13	32.72	13.05	31.49	377.93	218.86	92.34	13.05	5.48	4.00	1.05	10.13		
3	7.49	30.28	14.39	32.10	763.96	326.22	38.80	13.05	5.17	3.72	1.40	11.34		
4	8.21	31.49	22.31	75.13	543.38	482.00	29.68	12.61	5.17	3.72	5.48	10.93		
5	8.21	26.75	26.18	59.29	1171.72	288.65	27.91	7.49	4.87	2.46	4.57	11.76		
6	7.14	37.81	24.49	172.62	584.28	196.44	167.99	7.85	4.87	7.14	5.17	10.93		
7	11.34	27.91	25.05	579.68	350.19	170.30	211.29	7.85	4.57	3.19	13.05	10.53		
8	10.53	22.85	27.91	112.35	503.60	218.86	58.13	10.93	4.87	3.45	32.10	10.13		
9	7.49	24.49	105.03	145.60	431.64	158.89	36.84	9.73	9.73	3.45	25.05	10.93		
10	7.14	20.73	1770.70	774.19	323.27	122.90	30.28	15.77	6.80	4.28	7.49	10.93		
11	7.49	22.31	460.76	1569.22	201.34	106.48	27.33	8.96	5.80	3.19	7.14	9.34		
12	6.46	20.73	218.86	271.90	198.89	216.33	23.94	10.13	5.48	2.94	7.14	10.93		
13	7.49	19.70	213.80	203.81	194.01	384.20	23.94	7.14	4.28	2.46	6.13	8.58		
14	7.49	23.39	92.34	229.12	311.56	684.04	29.68	9.34	3.72	2.46	5.17	9.73		
15	7.14	24.49	58.13	2200.67	841.90	338.13	26.75	7.85	3.72	2.69	5.17	8.21		
16	7.49	22.31	80.28	350.19	444.03	353.24	21.25	9.73	4.00	2.94	5.17	12.61		
17	9.34	24.49	126.49	206.29	274.67	374.81	20.21	8.21	4.28	2.46	4.57	13.05		
18	12.19	20.21	85.56	359.35	280.23	250.16	19.19	13.93	4.00	2.23	5.17	11.76		
19	10.53	13.05	132.75	570.52	1869.86	311.56	19.70	8.58	4.87	1.60	5.48	9.73		
20	12.19	17.20	147.78	469.22	1513.35	163.42	21.25	10.53	5.17	2.01	5.17	10.13		
21	9.34	22.31	305.77	242.19	963.52	118.33	19.70	7.49	4.57	1.80	5.17	10.13		
22	9.73	23.39	122.90	196.44	579.68	78.98	22.31	8.96	2.46	1.60	5.17	9.73		
23	9.34	33.97	78.98	384.20	507.97	119.85	16.72	6.80	5.48	2.01	4.87	10.93		
24	7.49	40.80	115.32	302.89	323.27	103.59	16.72	8.21	5.48	2.01	5.17	13.93		
25	8.21	20.73	105.03	263.67	260.95	122.90	20.21	5.80	5.17	1.80	9.73	19.19		
26	8.58	21.25	77.69	206.29	218.86	96.50	17.20	7.49	4.87	6.46	17.20	23.39		
27	9.34	22.85	59.29	332.15	250.16	68.87	16.24	5.17	3.72	6.46	21.25	16.72		
28	810.38	15.77	45.97	2668.36	368.59	68.87	12.61	7.49	3.72	2.94	11.76	16.24		
29	118.33	18.19	32.10	1044.95	288.65	44.91	12.19	5.17	4.87	1.60		14.39		
30	167.99	35.87	26.18	748.72	244.84	36.84	11.76	6.80	3.72	1.05		12.61		
31		75.13		841.90	203.81		9.34		4.00	1.60		13.49		
Total	1332.43	849.01	4638.48	15679.10	15924.55	6459.45	1153.97	272.24	149.78	94.00	232.87	371.77	47157.65	Tonday
Mean	44.41	27.39	154.62	505.78	513.70	215.31	37.22	9.07	4.83	3.03	8.32	11.99	129.20	Ton/day
Max	810.38	75.13	1770.70	2668.36	1869.86	684.04	211.29	15.77	9.73	7.14	32.10	23.39	2668.36	Ton/day
Min	6.46	13.05	13.05	31.49	194.01	36.84	9.34	5.17	2.46	1.05	0.88	8.21	0.88	Ton/day

WATER YEAR : 2018

EAST COAST - GULF BASIN

Khlong Phlo at Ban Chamkho , Rayong (Z.18)

Lat 12 - 57 - 18 N Long 101 - 40 - 32 E

Location : on right bank at the bridge on road.

Ban Chamkho **Amphoe** Khao Chamao **Changwat** Rayong

Drainge Area	201 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1988-Cont'd
Actual Measurement	1988-Cont'd
Using Rating Curve Water Year	2018
Number of observation	28
R-Square	0.8686
Remarks	Continued Sediment Station

$$QS = 1.9411\ QW^{1.46950}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	1.48	9.05	5.57	4.60	4.42	6.60	146.95	7.46	1.61	1.61	0.87		
2	1.40	10.72	4.42	4.05	3.52	6.39	45.06	6.39	1.61	1.61	0.87		
3	1.27	11.72	4.23	4.42	4.42	6.18	37.49	6.18	1.61	1.61	0.81		
4	1.22	9.52	9.05	4.23	5.98	75.72	29.02	6.18	1.61	1.61	0.81		
5	1.10	9.05	6.60	4.23	14.89	173.22	18.28	5.38	1.61	1.61	0.76		
6	0.98	8.58	6.39	3.52	4.42	21.89	13.27	4.23	1.61	1.61	0.76		
7	0.87	8.35	11.22	5.98	53.07	16.56	36.03	3.52	1.61	1.61	0.70		
8	0.76	7.68	7.03	5.77	14.89	14.89	17.70	2.69	1.61	1.61	0.70		
9	0.66	6.60	4.42	3.52	19.46	10.24	16.56	1.94	1.61	1.53	0.70		
10	0.60	7.03	6.39	95.79	19.46	41.22	16.56	1.94	1.61	1.53	0.70		
11	0.56	11.22	4.79	33.88	13.27	25.05	14.89	1.61	1.61	1.48	0.60		
12	0.47	9.75	25.05	4.23	9.28	29.02	12.23	1.53	1.61	1.53	0.60		
13	0.47	7.90	20.66	4.05	6.81	51.43	11.22	1.27	1.61	1.53	0.56		
14	0.47	6.39	11.22	4.05	5.98	500.57	11.22	0.98	1.61	1.53	0.50		
15	0.33	6.18	4.42	13.27	22.51	324.88	8.58	0.87	1.61	1.53	0.47		
16	0.38	5.98	6.39	7.46	106.38	63.64	57.22	0.76	1.61	1.53	0.47		
17	0.42	5.57	4.79	45.06	74.34	37.49	22.51	0.56	1.61	1.53	0.42		
18	0.42	5.18	4.42	18.87	45.06	33.88	18.28	1.15	1.61	1.53	0.33		
19	0.38	4.60	4.23	12.23	43.51	43.51	16.56	1.61	1.61	1.53	0.33		
20	0.30	5.18	4.05	7.46	25.05	45.06	16.56	1.61	1.61	1.53	0.33		
21	0.30	6.60	4.05	9.28	19.46	43.51	43.51	1.53	1.61	1.53	0.33		
22	0.18	4.60	3.87	9.28	17.70	43.51	23.77	1.53	1.61	1.53	0.25		
23	0.18	5.77	4.79	4.79	25.05	30.38	19.46	1.40	1.61	1.53	0.25		
24	0.16	7.90	4.05	4.42	18.28	27.01	36.76	1.40	1.94	1.53	0.18		
25	0.10	6.18	4.05	4.05	16.56	257.08	25.05	1.35	1.94	1.53	0.10		
26	0.10	4.60	5.38	3.70	14.89	148.66	20.66	1.27	1.94	1.27	0.10		
27	0.16	7.68	33.88	7.03	43.51	31.77	17.70	1.27	1.10	1.22	0.07		
28	18.28	5.57	8.58	3.52	16.56	32.47	16.56	1.27	1.10	1.10	0.07		
29	31.07	9.28	17.70	3.18	8.81	24.41	12.23	1.22	1.10	0.98			
30	11.22	6.39	4.60	19.46	8.35	202.09	9.75	1.22	1.10	0.92			
31		7.03		20.66	7.46		8.35		1.10	0.92			
Total	76.29	227.85	246.29	376.04	693.35	2368.33	799.99	71.32	48.35	45.25	13.64		4966.70 Tonday
Mean	2.54	7.35	8.21	12.13	22.37	78.94	25.81	2.38	1.56	1.46	0.49		14.87 Ton/day
Max	31.07	11.72	33.88	95.79	106.38	500.57	146.95	7.46	1.94	1.61	0.87		500.57 Ton/day
Min	0.10	4.60	3.87	3.18	3.52	6.18	8.35	0.56	1.10	0.92	0.07		0.07 Ton/day

WATER YEAR : 2018

EAST COAST - GULF BASIN

Khlong Hin Dat at Ban Pong Rong Sen , Chanthaburi (Z.21)

Lat 12 - 47 - 15 N Long 102 - 15 - 33 E

Location : on left bank at the bridge on highway.

Ban Pong Rong Sen **Amphoe** Makham **Changwat** Chanthaburi

Drainge Area	78 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1984-Cont'd
Actual Measurement	1984-Cont'd
Using Rating Curve Water Year	2018
Number of observation	25
R-Square	0.9171
Remarks	Continued Sediment Station

$$QS = 2.2400\ QW^{1.50110}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	12.24	22.14	15.97	20.71	220.16	93.37	19.31	10.51	5.64	4.75	5.41	9.40	
2	12.24	24.34	12.24	17.28	174.48	64.72	22.14	12.24	6.10	4.54	3.71	11.65	
3	9.95	25.09	11.65	14.69	407.03	102.87	17.95	12.24	6.10	5.41	3.91	12.24	
4	12.84	21.42	11.65	28.55	231.93	138.44	17.28	9.40	5.87	3.51	3.71	12.24	
5	11.65	20.71	29.74	24.34	521.62	79.71	16.62	7.32	5.87	3.91	3.51	12.24	
6	11.65	22.14	17.28	42.47	208.60	54.66	256.07	6.82	5.87	10.51	3.91	11.08	
7	15.32	20.01	12.84	102.87	177.36	52.72	66.79	9.40	5.87	4.32	18.63	11.08	
8	13.45	21.42	13.45	38.49	220.16	77.51	24.34	8.34	5.87	4.97	41.13	11.08	
9	9.95	23.60	79.71	138.44	260.17	49.38	19.31	9.95	11.65	3.91	25.09	11.65	
10	12.84	19.31	701.80	374.08	146.50	45.19	17.95	9.40	6.82	4.75	4.97	11.65	
11	12.84	23.60	112.67	285.22	95.72	41.13	15.97	8.86	6.34	4.54	5.41	8.86	
12	9.95	22.14	49.38	100.46	95.72	81.94	14.69	7.82	5.64	4.32	4.75	11.65	
13	13.45	22.14	45.19	71.01	102.87	112.67	14.69	8.34	4.97	3.91	4.12	8.86	
14	12.24	26.23	26.23	100.46	157.50	91.04	14.06	7.32	4.97	3.71	4.32	10.51	
15	11.08	22.14	22.14	224.06	220.16	64.72	14.06	8.34	5.41	3.51	4.12	8.34	
16	14.06	19.31	28.55	110.19	168.75	73.16	13.45	7.82	5.87	3.91	3.71	12.24	
17	14.69	26.23	32.16	60.63	133.14	112.67	14.69	9.40	5.41	3.51	4.97	13.45	
18	12.84	23.60	29.74	93.37	127.92	107.73	11.65	8.34	5.19	3.32	4.12	12.84	
19	13.45	12.24	62.66	130.52	506.15	160.29	11.65	8.34	5.19	3.13	4.32	9.40	
20	12.24	20.71	58.62	79.71	247.93	58.62	12.84	7.32	5.19	3.32	4.32	11.08	
21	9.40	22.86	79.71	49.38	186.12	45.19	11.08	7.32	4.97	3.32	4.12	11.08	
22	12.24	19.31	45.19	54.66	146.50	22.14	11.65	6.34	5.41	3.71	4.97	11.08	
23	12.24	54.66	32.16	127.92	160.29	133.14	11.65	6.82	5.41	3.32	4.32	11.65	
24	10.51	27.38	29.74	88.74	100.46	37.20	11.08	6.10	5.19	3.32	3.91	13.45	
25	12.84	18.63	30.94	81.94	84.18	98.08	10.51	6.34	5.41	4.32	9.95	18.63	
26	12.24	18.63	29.74	91.04	73.16	60.63	10.51	5.87	4.32	14.06	20.71	16.62	
27	15.97	7.32	24.34	256.07	71.01	43.82	9.95	6.34	2.76	12.24	21.42	14.69	
28	342.07	8.34	23.60	1032.70	88.74	50.80	9.40	6.10	3.51	3.91	11.65	14.69	
29	34.65	16.62	15.97	450.74	60.63	24.34	8.86	6.10	3.91	4.12		14.06	
30	50.80	20.01	13.45	264.29	54.66	18.63	8.86	5.87	4.75	2.24		12.84	
31		29.74		227.99	56.63		8.34		4.54	3.51		12.24	
Total	761.93	682.02	1698.51	4783.02	5506.25	2196.51	727.40	240.72	170.02	145.83	239.19	372.57	17523.97 Tonday
Mean	25.40	22.00	56.62	154.29	177.62	73.22	23.46	8.02	5.48	4.70	8.54	12.02	48.01 Ton/day
Max	342.07	54.66	701.80	1032.70	521.62	160.29	256.07	12.24	11.65	14.06	41.13	18.63	1032.70 Ton/day
Min	9.40	7.32	11.65	14.69	54.66	18.63	8.34	5.87	2.76	2.24	3.51	8.34	2.24 Ton/day

WATER YEAR : 2018

EAST COAST - GULF BASIN

Khlong Sato at Ban Nong Bua , Trat (Z.30)

Lat 12 - 32 - 22 N Long 102 - 26 - 58 E

Location : on right bank at Ban Nong Bua.

Ban Nong Bua **Amphoe** Khao Saming **Changwat** Trat

Drainge Area	316 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2005-Cont'd
Actual Measurement	2005-Cont'd
Using Rating Curve Water Year	2018
Number of observation	27
R-Square	0.8097
Remarks	Continued Sediment Station

$$QS = 0.2471\ QW^{2.02410}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	477.43	409.68	968.28	47.95	1129.46	234.11	97.71	0.00	0.00	0.00	0.00	0.00		
2	505.19	458.08	789.98	69.18	1059.49	172.34	78.84	0.00	0.00	0.00	0.00	0.00		
3	450.46	391.79	615.02	91.13	974.54	157.31	123.34	0.00	0.00	0.00	0.00	0.00		
4	340.55	563.11	900.78	50.87	1332.81	751.02	56.97	0.00	0.00	0.00	0.00	0.00		
5	263.88	442.90	894.76	43.73	1595.25	894.76	39.71	0.00	0.00	0.00	0.00	0.00		
6	266.44	353.86	1094.19	129.44	3715.57	439.14	48.67	0.00	0.00	0.00	0.00	0.00		
7	276.82	364.01	853.23	655.40	2168.51	238.95	115.91	0.00	0.00	0.00	0.00	0.00		
8	274.20	317.87	630.01	224.59	1836.28	276.82	110.15	0.00	0.00	0.00	0.00	0.00		
9	208.71	311.91	918.94	153.66	1073.30	192.11	99.06	0.00	0.00	0.00	0.00	0.00		
10	178.16	290.06	2754.34	968.28	1045.76	337.26	47.23	0.00	0.00	0.00	0.00	0.00		
11	157.31	300.89	1905.12	3561.35	469.64	263.88	33.93	0.00	0.00	0.00	0.00	0.00		
12	143.72	317.87	962.04	2345.10	533.75	469.64	27.73	0.00	0.00	0.00	0.00	0.00		
13	140.48	324.27	446.67	778.75	751.02	789.98	25.59	0.00	0.00	0.00	0.00	0.00		
14	137.28	395.34	303.62	505.19	1066.38	384.75	32.32	0.00	0.00	0.00	0.00	0.00		
15	162.87	398.90	192.11	1351.43	6758.22	292.75	40.37	0.00	0.00	0.00	0.00	0.00		
16	174.27	416.95	350.50	999.78	5455.70	454.26	101.77	0.00	0.00	0.00	0.00	0.00		
17	409.68	395.34	473.53	537.90	2268.56	477.43	176.21	0.00	0.00	0.00	0.00	0.00		
18	1194.38	330.73	300.89	1268.66	1087.21	364.01	45.82	0.00	0.00	0.00	0.00	0.00		
19	676.08	292.75	256.27	955.82	2993.82	521.42	204.50	0.00	0.00	0.00	0.00	0.00		
20	615.02	347.17	210.84	847.38	4843.14	238.95	132.55	0.00	0.00	0.00	0.00	0.00		
21	442.90	384.75	238.95	454.26	2436.02	192.11	56.19	0.00	0.00	0.00	0.00	0.00		
22	364.01	461.92	212.97	298.16	1066.38	327.49	39.71	0.00	0.00	0.00	0.00	0.00		
23	298.16	384.75	182.09	287.39	1066.38	367.42	56.19	0.00	0.00	0.00	0.00	0.00		
24	256.27	402.48	127.90	271.60	640.10	170.43	132.55	0.00	0.00	0.00	0.00	0.00		
25	231.72	477.43	101.77	188.07	624.99	147.00	46.52	0.00	0.00	0.00	0.00	0.00		
26	226.95	398.90	74.47	208.71	563.11	134.12	32.85	0.00	0.00	0.00	0.00	0.00		
27	229.33	461.92	73.39	477.43	497.18	97.71	29.22	0.00	0.00	0.00	0.00	0.00		
28	204.50	391.79	68.14	2082.83	806.99	105.92	23.14	0.00	0.00	0.00	0.00	0.00		
29	314.70	347.17	78.84	2510.02	367.42	88.56	20.07	0.00	0.00	0.00		0.00		
30	388.26	317.87	59.35	1187.08	258.79	95.05	37.27	0.00	0.00	0.00		0.00		
31		420.61		1485.45	206.60		0.00		0.00	0.00		0.00		
Total	10009.73	11873.07	17038.99	25036.59	50692.37	9676.70	2112.09	0.00	0.00	0.00	0.00	0.00	126439.54	Tonday
Mean	333.66	383.00	567.97	807.63	1635.24	322.56	68.13	0.00	0.00	0.00	0.00	0.00	346.41	Ton/day
Max	1194.38	563.11	2754.34	3561.35	6758.22	894.76	204.50	0.00	0.00	0.00	0.00	0.00	6758.22	Ton/day
Min	137.28	290.06	59.35	43.73	206.60	88.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Ton/day

WATER YEAR : 2018

EAST COAST - GULF BASIN

Khlong Aeng at Ban Kho Lae , Trat (Z.45)

Lat 12 - 36 - 58 N Long 102 - 28 - 42 E

Location : on right bank near the highway bridge, Tambon Nong Bon.

Ban Kho Lae **Amphoe** Bo Rai **Changwat** Trat

Drainge Area	58 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1999-Cont'd
Actual Measurement	1999-Cont'd
Using Rating Curve Water Year	2018
Number of observation	28
R-Square	0.8843
Remarks	Continued Sediment Station

$$QS = 1.0085\ QW^{1.89640}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.63	0.54	193.72	14.99	229.60	37.17	12.68	1.21	0.51	0.34	0.19	0.13	
2	0.60	0.79	14.99	28.28	140.36	26.91	8.10	1.01	0.49	0.31	0.19	0.13	
3	0.63	0.63	20.54	17.11	261.70	28.28	12.68	1.01	0.51	0.31	0.19	0.15	
4	0.66	0.63	602.29	20.54	140.36	130.66	8.10	0.97	0.49	0.31	0.23	0.13	
5	0.69	0.60	281.90	19.36	261.70	150.38	6.63	0.93	0.46	0.31	0.21	0.13	
6	0.69	0.60	21.75	54.53	176.86	44.88	21.75	0.90	0.46	0.34	0.21	0.13	
7	0.63	0.60	9.70	59.68	103.56	49.60	9.70	0.90	0.46	0.31	0.21	0.12	
8	0.60	0.63	9.70	34.08	176.86	32.58	10.85	0.86	0.49	0.31	0.19	0.10	
9	0.60	0.69	79.45	116.74	351.31	91.93	11.45	0.86	0.60	0.31	0.19	0.10	
10	0.60	3.75	417.93	448.16	193.72	37.17	3.07	0.86	0.49	0.29	0.18	0.09	
11	0.60	1.66	188.02	935.21	121.30	28.28	4.89	0.83	0.49	0.29	0.19	0.09	
12	0.60	1.43	135.47	437.97	150.38	85.58	4.50	0.79	0.46	0.29	0.19	0.08	
13	0.60	1.43	76.46	235.86	99.33	65.06	10.85	0.76	0.43	0.29	0.18	0.06	
14	0.63	1.91	47.21	324.44	437.97	42.61	5.31	0.76	0.41	0.29	0.18	0.06	
15	0.69	4.89	31.12	522.53	388.71	28.28	13.98	0.72	0.41	0.27	0.18	0.06	
16	0.60	2.76	82.49	248.62	235.86	34.08	22.99	0.72	0.41	0.27	0.18	0.29	
17	0.63	2.18	52.04	268.35	248.62	21.75	20.54	0.79	0.38	0.25	0.16	0.31	
18	1.21	1.66	34.08	302.82	511.58	40.39	13.32	0.76	0.38	0.25	0.25	0.21	
19	0.76	0.69	42.61	261.70	1243.52	26.91	8.10	0.69	0.38	0.25	0.21	0.19	
20	0.69	0.90	65.06	188.02	533.60	18.22	21.75	0.69	0.38	0.25	0.19	0.18	
21	0.63	0.93	121.30	116.74	275.09	28.28	11.45	0.66	0.38	0.25	0.18	0.13	
22	0.63	0.93	47.21	85.58	302.82	91.93	16.03	0.63	0.38	0.23	0.16	0.12	
23	0.63	0.90	28.28	103.56	223.42	38.77	13.98	0.63	0.38	0.23	0.16	0.16	
24	0.66	0.86	31.12	65.06	82.49	67.83	4.12	0.60	0.36	0.23	0.16	0.36	
25	0.69	0.86	18.22	79.45	130.66	31.12	4.89	0.57	0.34	0.21	0.18	0.54	
26	0.69	0.97	14.99	54.53	79.45	20.54	4.12	0.57	0.34	0.21	0.18	0.60	
27	0.79	0.93	31.12	47.21	121.30	34.08	3.07	0.57	0.34	0.21	0.15	0.46	
28	0.79	0.90	26.91	130.66	82.49	24.26	2.76	0.57	0.36	0.19	0.15	0.51	
29	0.79	0.93	18.22	160.73	52.04	29.68	2.18	0.54	0.36	0.19		0.29	
30	0.90	0.97	13.32	275.09	47.21	18.22	1.91	0.51	0.34	0.19		0.31	
31		5.31		333.28	34.08		1.66		0.34	0.21		0.27	
Total	20.54	43.46	2757.22	5990.88	7437.95	1405.43	297.41	22.87	13.01	8.19	5.22	6.49	18008.67 Tonday
Mean	0.68	1.40	91.91	193.25	239.93	46.85	9.59	0.76	0.42	0.26	0.19	0.21	49.34 Ton/day
Max	1.21	5.31	602.29	935.21	1243.52	150.38	22.99	1.21	0.60	0.34	0.25	0.60	1243.52 Ton/day
Min	0.60	0.54	9.70	14.99	34.08	18.22	1.66	0.51	0.34	0.19	0.15	0.06	0.06 Ton/day

WATER YEAR : 2018

EAST COAST - GULF BASIN

Khlong Wang Suan Luang at Ban Pra Gad , Chanthaburi (Z.63)

Lat 12 - 56 - 47 N Long 101 - 52 - 30 E

Location : on right bank at the bridge on highway.

Ban Pra Gad **Amphoe** Kaeng Hang Maeo **Changwat** Chanthaburi

Drainge Area	1,106 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2018-Cont'd
Actual Measurement	2018-Cont'd
Using Rating Curve Water Year	2018
Number of observation	26
R-Square	0.8332
Remarks	Continued Sediment Station

$$QS = 1.9797\ QW^{1.26760}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	54.13	172.94	393.62	42.32	284.48	95.03	227.43	8.65	0.00	0.00	0.00	0.00		
2	56.16	195.15	330.34	40.65	279.83	100.75	112.39	0.00	0.00	0.00	0.00	0.00		
3	67.57	195.15	195.15	90.51	150.69	87.15	113.57	0.00	0.00	0.00	0.00	0.00		
4	63.37	187.25	239.79	100.75	130.64	453.59	75.06	0.00	0.00	0.00	0.00	0.00		
5	59.23	129.12	453.59	87.15	415.21	359.05	49.14	0.00	0.00	0.00	0.00	0.00		
6	57.18	223.34	271.30	98.45	535.25	195.15	52.12	0.00	0.00	0.00	0.00	0.00		
7	103.05	133.68	71.83	108.87	496.28	117.12	179.42	0.00	0.00	0.00	0.00	0.00		
8	70.76	98.45	117.12	132.16	1371.49	428.84	99.60	0.00	0.00	0.00	0.00	0.00		
9	61.29	84.92	171.33	65.47	1888.08	480.22	79.41	0.00	0.00	0.00	0.00	0.00		
10	58.20	81.61	97.31	1216.21	936.60	598.20	39.24	0.00	0.00	0.00	0.00	0.00		
11	55.15	146.01	107.70	1331.19	309.78	545.09	36.43	0.00	0.00	0.00	0.00	0.00		
12	55.15	262.82	831.08	351.17	203.12	581.49	26.97	0.00	0.00	0.00	0.00	0.00		
13	54.13	155.41	388.25	176.17	147.57	1475.63	29.61	0.00	0.00	0.00	0.00	0.00		
14	53.13	118.61	219.26	172.94	117.12	1945.93	50.13	0.00	0.00	0.00	0.00	0.00		
15	53.13	130.64	123.09	314.89	307.23	1255.76	27.63	0.00	0.00	0.00	0.00	0.00		
16	54.13	169.73	114.75	136.74	892.62	669.44	23.12	0.00	0.00	0.00	0.00	0.00		
17	72.90	130.64	153.83	108.87	631.91	459.12	22.48	0.00	0.00	0.00	0.00	0.00		
18	464.68	135.21	123.09	112.39	338.12	581.49	27.63	0.00	0.00	0.00	0.00	0.00		
19	199.13	150.69	185.28	99.60	338.12	574.84	35.73	0.00	0.00	0.00	0.00	0.00		
20	81.61	215.20	174.56	95.03	398.99	404.38	23.12	0.00	0.00	0.00	0.00	0.00		
21	82.71	252.30	111.21	71.83	390.93	483.42	22.48	0.00	0.00	0.00	0.00	0.00		
22	77.23	320.02	104.21	58.20	662.58	669.44	27.63	0.00	0.00	0.00	0.00	0.00		
23	92.76	205.13	160.15	56.16	505.96	345.93	27.63	0.00	0.00	0.00	0.00	0.00		
24	66.52	150.69	103.05	57.18	277.69	453.59	252.30	0.00	0.00	0.00	0.00	0.00		
25	62.33	113.57	77.23	123.09	205.13	608.27	57.18	0.00	0.00	0.00	0.00	0.00		
26	61.29	101.90	79.41	101.90	176.17	467.46	26.97	0.00	0.00	0.00	0.00	0.00		
27	64.42	99.60	104.21	114.75	246.03	284.48	25.03	0.00	0.00	0.00	0.00	0.00		
28	150.69	96.17	64.42	269.17	505.96	187.25	18.18	0.00	0.00	0.00	0.00	0.00		
29	377.58	191.19	71.83	538.53	237.72	164.92	14.84	0.00	0.00	0.00		0.00		
30	348.55	123.09	53.13	248.11	155.41	496.28	13.32	0.00	0.00	0.00		0.00		
31		275.56		470.64	104.21		7.97		0.00	0.00		0.00		
Total	3178.16	5045.79	5691.12	6991.09	13640.92	15569.31	1823.76	8.65	0.00	0.00	0.00	0.00	51948.80	Tonday
Mean	105.94	162.77	189.70	225.52	440.03	518.98	58.83	0.29	0.00	0.00	0.00	0.00	142.33	Ton/day
Max	464.68	320.02	831.08	1331.19	1888.08	1945.93	252.30	8.65	0.00	0.00	0.00	0.00	1945.93	Ton/day
Min	53.13	81.61	53.13	40.65	104.21	87.15	7.97	0.00	0.00	0.00	0.00	0.00	0.00	Ton/day

WATER YEAR : 2018

PHETCHABURI RIVER BASIN

Phetchaburi River at Ban Song Phi Nong , Phetchaburi (B.3A)

Lat 12 - 51 - 47 N Long 99 - 40 - 42 E

Location : on left bank at Ban Song Phi Nong.

Ban Song Phi Nong **Amphoe** Kaeng Krachan **Changwat** Phetchaburi

Drainge Area	2,244 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1997-Cont'd
Actual Measurement	1997-Cont'd
Using Rating Curve Water Year	2004-2018
Number of observation	275
R-Square	0.7022
Remarks	Continued Sediment Station

$$QS = 0.8832\ QW^{1.23390}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	49.69	48.05	9.66	7.89	263.46	525.06	258.01	114.40	42.42	24.31	48.87	58.44	
2	49.69	45.62	9.37	7.61	260.73	553.01	252.59	81.33	39.27	26.00	49.69	58.44	
3	48.87	36.16	9.97	7.61	260.73	514.65	249.88	71.36	29.77	40.84	49.69	58.44	
4	49.69	31.05	11.19	7.32	263.46	493.95	249.88	50.51	31.05	36.16	49.69	58.44	
5	50.51	20.43	9.37	8.19	271.67	507.73	186.06	45.62	33.86	23.74	49.69	58.44	
6	49.69	14.76	8.78	10.27	285.46	518.12	151.61	54.65	30.41	28.50	49.69	58.44	
7	50.51	10.88	8.48	10.58	410.38	493.95	195.48	60.54	26.00	29.14	55.48	58.44	
8	50.51	10.58	7.89	10.58	532.02	449.67	247.50	61.61	24.86	27.24	56.32	59.48	
9	49.69	10.27	8.19	10.27	542.50	391.60	247.50	58.44	24.86	26.62	57.38	60.54	
10	49.69	10.27	8.19	10.27	504.28	351.51	249.88	46.43	24.86	26.62	57.38	61.61	
11	58.44	9.97	7.89	10.27	456.43	324.75	226.26	46.43	24.31	26.62	58.44	60.54	
12	57.38	9.97	4.07	9.97	419.83	296.59	156.83	46.43	20.98	27.24	56.32	45.62	
13	56.32	10.27	4.07	15.14	394.72	277.17	103.54	46.43	24.86	26.62	53.81	61.61	
14	56.32	10.27	4.29	22.63	376.09	274.42	85.85	46.43	24.86	24.86	54.65	60.54	
15	54.65	10.58	7.89	27.24	407.24	271.67	83.60	35.39	27.24	27.24	53.81	60.54	
16	38.48	10.27	8.19	31.69	514.65	271.67	72.43	31.05	24.31	29.77	53.81	60.54	
17	48.87	10.27	7.89	31.69	553.01	271.67	62.69	45.62	21.52	31.69	53.81	58.44	
18	59.48	20.98	8.48	31.69	692.23	266.19	65.91	45.62	21.52	31.05	53.81	57.38	
19	48.05	22.08	7.04	73.54	748.18	263.46	52.16	68.06	21.52	29.77	53.81	57.38	
20	46.43	22.08	7.89	144.70	919.09	263.46	40.84	72.43	21.52	29.77	53.81	59.48	
21	44.82	23.19	7.89	186.06	919.09	260.73	32.34	72.43	22.08	29.77	53.81	61.61	
22	50.51	22.08	7.61	193.60	812.88	260.73	41.63	48.05	24.31	29.14	52.98	62.69	
23	39.27	21.52	7.89	201.20	676.84	255.30	95.03	45.62	27.24	29.77	52.16	64.82	
24	73.54	22.08	8.19	216.94	567.27	263.46	79.10	51.33	28.50	29.77	52.98	64.82	
25	74.65	22.63	7.89	255.30	500.83	263.46	98.53	52.16	27.87	29.14	52.98	64.82	
26	70.25	27.87	7.89	274.42	483.66	263.46	148.14	52.16	27.24	29.77	52.98	64.82	
27	32.34	26.62	7.61	271.67	521.59	260.73	205.39	52.98	27.24	29.77	57.38	64.82	
28	44.82	15.66	7.61	266.19	563.56	260.73	221.59	48.05	27.87	29.77	58.44	64.82	
29	76.86	9.97	7.61	263.46	556.52	258.01	221.59	71.36	24.31	30.41		63.74	
30	59.48	10.88	7.61	263.46	542.50	258.01	221.59	71.36	24.31	29.77		83.60	
31		10.58		268.93	549.50		180.43		24.31	44.82		85.85	
Total	1589.50	587.89	236.59	3150.38	15770.40	10184.92	4783.86	1694.28	825.28	915.70	1503.67	1919.19	43161.66 Tonday
Mean	52.98	18.96	7.89	101.63	508.72	339.50	154.32	56.48	26.62	29.54	53.70	61.91	118.25 Ton/day
Max	76.86	48.05	11.19	274.42	919.09	553.01	258.01	114.40	42.42	44.82	58.44	85.85	919.09 Ton/day
Min	32.34	9.97	4.07	7.32	260.73	255.30	32.34	31.05	20.98	23.74	48.87	45.62	4.07 Ton/day

WATER YEAR : 2018

PHETCHABURI RIVER BASIN

Huai Mae Prachan at at Ban Wang Chan , Phetchaburi (B.6A)

Lat 12 - 57 - 50 N Long 99 - 45 - 52 E

Location : on left bank about 250 meters upstream from the bridge of Khuan Phet - Kaeng Krachan Reservoir Road.

Ban Wang Chan **Amphoe** Kaeng Krachan **Changwat** Phetchaburi

Drainge Area	1,003 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2017-Cont'd
Actual Measurement	2017-Cont'd
Using Rating Curve Water Year	2018
Number of observation	13
R-Square	0.9277
Remarks	Continued Sediment Station

$$QS = 1.2962\ QW^{1.42890}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	3.74	4.80	72.43	16.77	1.89	6.83	5.64	32.84	1.20	0.23	0.29	0.00		
2	1.89	6.53	69.97	12.56	1.89	9.40	4.80	29.94	1.20	0.23	0.29	0.00		
3	4.00	11.83	72.43	14.43	1.99	5.64	6.53	27.13	1.20	0.23	0.29	0.00		
4	13.30	81.26	107.40	13.67	1.99	2.77	9.40	12.19	1.20	0.23	0.29	0.00		
5	13.30	124.52	116.22	11.12	1.89	1.78	36.56	4.53	1.20	0.29	0.29	0.00		
6	11.12	187.57	114.44	9.06	1.89	1.58	107.40	2.77	1.20	0.48	0.29	0.00		
7	10.77	175.32	97.09	8.08	1.99	1.49	62.72	2.20	1.03	0.62	0.29	0.55		
8	10.42	149.27	74.92	7.14	1.89	1.49	32.10	1.99	0.94	0.70	0.29	0.18		
9	8.73	118.01	59.19	6.53	1.78	1.39	27.83	10.08	0.94	0.55	0.29	0.23		
10	6.53	90.39	59.19	6.53	1.68	1.58	28.53	44.63	0.94	0.41	0.29	0.94		
11	5.08	60.36	60.36	6.53	1.58	1.68	25.08	23.07	0.94	0.41	0.29	1.12		
12	3.49	69.97	51.20	6.23	1.58	1.58	23.07	14.05	0.94	0.35	0.29	1.20		
13	2.77	63.91	41.45	6.23	1.68	1.68	30.66	9.74	0.94	0.35	0.29	1.20		
14	2.10	41.45	33.57	6.23	1.58	1.99	38.34	7.45	0.94	0.29	0.29	1.20		
15	1.89	27.13	27.83	6.23	1.58	2.31	21.77	6.83	0.94	0.29	0.29	1.20		
16	1.39	19.64	22.64	6.23	1.58	2.77	16.77	15.59	0.94	0.29	0.29	0.55		
17	6.53	18.40	19.64	5.94	1.68	2.54	13.67	19.22	0.94	0.29	0.29	0.05		
18	22.20	19.22	16.77	6.23	1.78	1.99	11.83	14.43	0.94	0.29	0.29	0.00		
19	4.80	17.99	14.43	6.53	1.78	1.89	7.77	12.93	0.94	0.29	0.29	0.00		
20	4.00	19.22	12.56	5.64	1.78	2.10	7.14	14.05	0.94	0.29	0.18	0.00		
21	1.78	15.98	11.12	5.36	1.78	7.14	83.84	13.30	0.86	0.29	0.05	0.41		
22	1.20	13.67	9.74	4.80	1.39	11.48	124.52	6.23	0.86	0.29	0.05	0.18		
23	0.94	12.56	8.41	4.53	1.49	12.19	142.39	2.77	0.86	0.29	0.02	0.05		
24	0.86	11.48	7.45	4.26	1.20	8.08	445.10	2.10	0.94	0.29	0.05	0.09		
25	0.86	14.43	6.83	4.26	1.20	7.77	590.33	1.78	0.94	0.29	0.00	0.13		
26	1.49	21.34	6.53	9.06	4.53	9.40	449.92	1.68	0.86	0.29	0.00	0.02		
27	1.89	65.11	7.14	10.77	10.08	9.74	270.58	1.49	0.70	0.29	0.02	0.86		
28	2.54	85.47	7.14	3.00	10.77	9.06	131.14	1.30	0.23	0.29	0.00	1.30		
29	4.53	88.74	17.99	2.20	10.42	7.14	107.40	1.20	0.23	0.29		1.30		
30	3.74	67.53	21.77	1.99	10.42	6.23	58.03	1.20	0.29	0.29		0.35		
31		68.74		1.99	10.42		37.32		0.29	0.29		0.09		
Total	157.88	1771.84	1247.85	220.13	99.18	142.71	2958.18	338.71	27.51	10.30	5.88	13.20	6993.37	Tonday
Mean	5.26	57.16	41.60	7.10	3.20	4.76	95.43	11.29	0.89	0.33	0.21	0.43	19.16	Ton/day
Max	22.20	187.57	116.22	16.77	10.77	12.19	590.33	44.63	1.20	0.70	0.29	1.30	590.33	Ton/day
Min	0.86	4.80	6.53	1.99	1.20	1.39	4.80	1.20	0.23	0.23	0.00	0.00	0.00	Ton/day

WATER YEAR : 2018

PHETCHABURI RIVER BASIN

Phetchaburi River at Ban Sarahed , Phetchaburi (B.9)

Lat 12 - 48 - 18 N Long 99 - 46 - 27 E

Location : on left bank at Ban Sarahed.

Ban Sarahed **Amphoe** Tha Yang **Changwat** Phetchaburi

Drainge Area	2,617 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2008-Cont'd
Actual Measurement	2008-Cont'd
Using Rating Curve Water Year	2018
Number of observation	21
R-Square	0.9100
Remarks	Continued Sediment Station

$$QS = 0.9921\ QW^{1.18770}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	37.97	42.21	23.78	10.27	197.67	449.12	184.66	103.50	40.08	20.41	30.24	36.93	
2	34.85	43.28	17.31	11.04	199.85	474.04	180.36	61.81	34.33	19.94	31.26	36.93	
3	37.97	40.08	23.30	11.82	204.22	446.02	171.80	55.52	24.76	30.75	31.77	36.93	
4	37.97	31.77	23.30	9.50	208.61	406.03	167.54	43.28	26.73	27.73	31.77	36.41	
5	38.50	33.82	46.72	8.67	206.42	418.27	167.54	37.97	30.75	16.21	31.77	36.93	
6	38.50	22.81	35.89	8.50	208.61	430.57	144.46	40.08	26.73	16.58	31.77	36.41	
7	41.67	18.06	22.81	8.17	281.85	418.27	127.51	44.35	24.76	20.41	34.33	36.41	
8	43.81	11.04	16.94	7.68	402.98	385.66	180.36	44.89	22.81	17.69	35.89	36.93	
9	41.67	9.84	15.48	7.68	412.14	337.11	180.36	57.31	22.81	17.69	35.89	37.45	
10	40.08	9.34	24.27	7.84	385.66	292.26	184.66	53.74	22.33	17.31	36.41	37.97	
11	51.31	13.32	23.78	7.52	361.26	263.79	176.07	47.38	21.85	17.31	36.41	37.45	
12	46.07	16.94	20.89	7.84	337.11	233.29	110.92	45.43	19.56	17.69	35.89	31.77	
13	46.07	17.69	12.96	8.34	313.24	210.81	70.06	44.89	25.25	17.31	33.82	36.41	
14	46.72	17.69	11.30	17.69	294.87	204.22	48.03	44.35	22.33	16.94	34.85	37.97	
15	46.07	19.56	10.78	22.81	313.24	199.85	45.43	36.93	22.33	15.11	33.82	35.89	
16	29.23	18.43	17.69	31.77	396.89	197.67	40.61	31.77	21.85	18.81	33.30	33.30	
17	44.89	18.06	18.81	31.26	486.59	195.49	33.82	39.03	21.37	19.94	33.30	33.30	
18	61.81	24.27	18.43	31.26	569.31	195.49	40.08	38.50	18.43	20.41	33.30	33.30	
19	40.61	39.03	18.81	50.65	627.74	195.49	46.72	46.72	18.06	19.56	33.82	33.82	
20	41.67	39.03	16.94	102.27	717.01	193.32	41.14	55.52	18.06	19.18	33.82	33.82	
21	40.08	37.97	17.31	158.30	753.90	202.04	48.68	55.52	17.69	19.18	33.82	33.82	
22	42.74	30.24	18.06	154.62	706.00	202.04	41.67	44.35	18.43	18.81	33.82	33.82	
23	35.37	28.73	17.69	167.54	617.94	197.67	78.45	38.50	21.37	18.81	33.82	33.82	
24	61.81	28.23	17.31	167.54	524.51	206.42	85.33	40.61	24.27	19.18	33.82	33.30	
25	65.46	28.23	16.58	193.32	449.12	206.42	80.58	41.67	24.76	18.81	33.82	33.30	
26	69.13	34.85	10.52	220.76	415.21	213.29	106.46	41.67	24.27	18.81	33.82	33.82	
27	30.75	53.74	9.67	215.78	418.27	204.22	178.21	41.67	24.27	18.81	35.89	35.89	
28	33.82	40.08	9.67	208.61	480.31	188.98	213.29	36.41	24.27	18.81	36.93	36.93	
29	73.77	22.81	10.52	202.04	470.92	186.82	210.81	51.31	24.27	18.81		38.50	
30	61.81	14.75	11.82	193.32	461.56	186.82	195.49	51.31	20.89	18.81		44.89	
31		19.56		202.04	461.56		165.69		20.89	28.23		49.34	
Total	1362.18	825.46	559.34	2486.45	12884.57	8141.49	3746.79	1415.99	730.56	604.05	949.17	1123.76	34829.81 Tonday
Mean	45.41	26.63	18.64	80.21	415.63	271.38	120.86	47.20	23.57	19.49	33.90	36.25	95.42 Ton/day
Max	73.77	53.74	46.72	220.76	753.90	474.04	213.29	103.50	40.08	30.75	36.93	49.34	753.90 Ton/day
Min	29.23	9.34	9.67	7.52	197.67	186.82	33.82	31.77	17.69	15.11	30.24	31.77	7.52 Ton/day

WATER YEAR : 2018

PHETCHABURI RIVER BASIN

Phetchaburi River at Ban Tha Yang , Phetchaburi (B.10)

Lat 12 - 58 - 21 N Long 99 - 53 - 07 E

Location : on left bank at the bridge of Ban Tha Yang.

Ban Tha Yang **Amphoe** Tha Yang **Changwat** Phetchaburi

Drainge Area	4,076 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1997-Cont'd
Actual Measurement	1997-Cont'd
Using Rating Curve Water Year	2018
Number of observation	24
R-Square	0.9137
Remarks	Continued Sediment Station

$$QS = 1.1106\ QW^{1.30100}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	13.96	43.45	47.03	33.14	182.62	613.65	229.52	180.27	59.76	28.92	22.64	14.75		
2	15.94	36.02	51.19	34.09	208.91	602.46	228.03	120.13	50.14	23.96	20.49	14.36		
3	12.43	31.25	45.49	34.57	225.06	596.89	228.03	49.10	36.02	26.64	17.57	13.19		
4	11.68	29.85	44.47	36.50	228.03	599.67	226.54	52.60	29.38	42.44	15.54	13.19		
5	15.54	44.98	56.15	37.97	255.13	591.33	232.50	47.03	28.00	43.45	13.96	12.43		
6	18.39	61.95	89.54	33.14	325.79	599.67	279.79	22.64	28.92	33.14	13.58	12.43		
7	21.35	64.90	97.60	27.55	365.32	616.45	355.68	13.96	29.38	29.85	13.19	12.43		
8	23.96	63.42	83.21	22.64	486.82	616.45	284.48	14.36	28.00	32.66	13.58	12.81		
9	24.40	45.49	65.64	20.07	496.28	580.24	275.13	30.31	27.55	28.92	12.43	13.58		
10	18.39	31.25	55.44	17.98	532.15	517.73	270.48	122.70	27.09	27.55	12.05	15.14		
11	14.75	20.49	56.15	15.94	522.53	442.45	267.40	179.10	26.64	28.00	12.43	15.14		
12	16.75	17.57	66.38	14.75	477.40	351.84	253.61	93.55	26.64	28.46	12.81	14.36		
13	15.54	26.19	68.63	13.96	454.03	329.02	172.10	59.76	27.55	28.92	12.43	8.78		
14	13.96	32.19	56.87	15.14	385.60	295.47	80.87	60.49	35.05	28.92	12.43	7.75		
15	12.81	26.64	47.54	17.57	344.20	273.58	47.54	51.19	33.61	26.64	12.43	11.30		
16	11.30	20.49	41.94	22.64	365.32	265.85	38.95	36.50	30.78	21.78	12.43	12.43		
17	6.52	15.14	40.94	23.08	399.08	258.18	33.61	27.55	30.31	22.64	12.43	12.81		
18	12.43	14.36	39.94	23.08	517.73	252.08	29.38	33.61	28.00	24.85	11.68	11.30		
19	26.19	16.75	37.97	24.40	594.11	236.98	39.94	32.66	23.52	26.64	11.30	10.93		
20	15.94	28.92	35.53	28.92	650.33	231.01	55.44	46.51	21.35	26.19	10.93	10.93		
21	11.68	36.99	34.09	61.22	822.02	225.06	92.75	56.87	20.07	25.74	10.20	10.93		
22	9.84	36.02	33.14	100.05	1018.20	222.10	124.42	51.19	18.81	24.40	10.20	10.57		
23	7.75	30.78	32.19	116.72	1035.03	229.52	145.91	33.61	17.16	21.35	10.20	10.57		
24	6.52	25.29	29.85	121.84	943.24	231.01	172.10	19.65	17.57	20.07	10.57	11.68		
25	12.81	22.21	28.46	124.42	778.97	232.50	275.13	18.39	19.65	20.07	10.93	12.05		
26	22.64	22.64	27.55	134.85	619.26	236.98	319.35	19.65	20.92	19.23	11.30	12.05		
27	28.46	29.38	24.85	169.79	539.39	241.49	322.57	23.08	21.35	16.75	10.57	11.68		
28	20.92	57.59	21.78	191.61	544.54	243.00	304.97	28.46	20.92	14.36	12.43	10.57		
29	16.75	72.40	19.65	191.61	588.55	241.49	287.61	26.64	20.92	13.19		11.68		
30	32.66	64.90	25.29	184.97	594.11	235.49	259.71	46.00	28.00	13.58		13.58		
31		49.62		177.93	599.67		225.06		32.66	13.58		19.65		
Total	492.26	1119.12	1404.50	2072.14	16099.42	11209.64	6158.60	1597.56	865.72	782.89	362.73	385.05	42549.63	Tonday
Mean	16.41	36.10	46.82	66.84	519.34	373.65	198.66	53.25	27.93	25.25	12.95	12.42	116.57	Ton/day
Max	32.66	72.40	97.60	191.61	1035.03	616.45	355.68	180.27	59.76	43.45	22.64	19.65	1035.03	Ton/day
Min	6.52	14.36	19.65	13.96	182.62	222.10	29.38	13.96	17.16	13.19	10.20	7.75	6.52	Ton/day

WATER YEAR : 2018

WEST COAST - GULF BASIN

Khlong Thap Sakae at Ban Klang , Prachuap Khiri Khan (Gt.9)

Lat 11 - 29 - 40 N Long 99 - 36 - 20 E

Location : on right bank at Ban Klang.

Ban Klang **Amphoe** Thap Sakae **Changwat** Prachuap Khiri Khan

Drainge Area	125 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1998-Cont'd
Actual Measurement	1998-Cont'd
Using Rating Curve Water Year	2018
Number of observation	26
R-Square	0.9180
Remarks	Continued Sediment Station

$$QS = 1.7695\ QW^{1.55910}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.72	12.36	16.82	12.92	11.33	15.12	2.35	10.85	4.31	4.31	2.00	0.56		
2	0.72	13.43	14.01	11.33	10.85	13.43	2.23	9.86	3.97	3.97	2.66	0.56		
3	0.80	16.82	10.85	10.85	10.85	12.92	2.23	8.91	3.61	5.05	3.97	0.49		
4	0.72	12.36	13.43	9.36	11.33	12.36	2.23	7.99	3.29	4.70	2.11	0.49		
5	0.64	6.66	12.36	8.91	10.85	13.43	4.31	7.52	3.29	14.01	1.77	0.42		
6	0.64	4.70	11.87	8.42	10.32	12.36	49.30	7.11	2.96	119.36	1.66	0.42		
7	0.64	3.61	10.32	7.99	9.86	11.33	31.19	6.66	2.35	20.48	1.55	0.49		
8	0.72	2.96	8.91	7.52	9.86	10.32	18.01	6.66	35.62	13.43	1.45	0.39		
9	0.80	2.96	10.85	7.52	9.36	9.86	14.53	736.56	81.33	10.85	1.25	0.36		
10	0.72	4.31	13.43	7.52	9.36	8.42	12.92	907.54	34.49	10.85	1.15	0.36		
11	0.56	2.35	12.92	10.32	8.91	6.66	12.36	245.44	33.38	16.82	1.15	0.36		
12	0.56	2.23	11.33	7.99	9.86	5.05	8.42	107.59	19.23	10.85	1.06	0.36		
13	0.49	2.23	10.32	7.52	10.32	4.31	5.46	60.93	14.53	8.42	0.97	0.36		
14	0.49	2.35	8.91	7.52	11.87	4.31	6.66	41.44	10.85	7.11	0.97	0.39		
15	0.49	2.66	9.86	7.52	15.66	4.31	5.84	31.19	8.91	5.05	0.88	0.39		
16	0.49	2.35	12.92	7.99	17.45	3.97	5.05	25.38	7.52	4.31	0.88	0.39		
17	0.42	2.23	16.82	16.27	16.27	4.31	6.26	21.75	7.11	3.61	0.88	0.42		
18	0.42	2.11	33.38	18.01	65.70	5.46	9.86	20.48	6.26	3.61	0.80	0.42		
19	0.42	1.55	31.19	19.89	74.05	4.31	5.46	15.66	5.84	3.61	0.72	0.22		
20	0.42	2.00	31.19	19.89	36.76	3.97	9.36	11.87	5.46	2.96	0.64	0.10		
21	0.39	2.11	25.38	16.82	27.27	3.61	12.92	10.85	5.05	2.66	0.56	0.14		
22	0.39	2.00	21.15	14.53	21.15	2.96	12.92	9.86	4.70	2.35	0.49	0.06		
23	0.39	2.11	18.65	12.92	18.01	2.66	8.42	8.91	4.31	2.11	0.42	0.02		
24	0.39	15.66	16.82	11.33	16.27	7.11	6.66	7.99	3.97	1.88	0.42	0.00		
25	0.39	6.66	15.66	18.01	16.27	8.42	29.21	7.52	3.97	1.77	0.39	0.00		
26	0.39	5.46	14.53	16.27	17.45	5.46	43.95	7.11	3.61	1.66	0.49	0.00		
27	0.39	9.36	14.53	12.92	17.45	3.97	33.38	6.26	3.29	1.55	0.42	0.00		
28	1.15	11.87	16.27	11.33	14.53	2.96	20.48	5.84	3.29	1.55	0.42	0.00		
29	5.05	15.12	19.89	10.32	13.43	2.96	16.27	5.05	4.70	1.35		0.00		
30	6.26	12.36	18.65	10.85	18.65	2.66	13.43	4.70	4.70	1.45		0.00		
31		12.36		11.87	17.45		11.33		5.05	2.23		0.01		
Total	27.07	197.30	483.22	362.43	568.75	208.98	423.00	2365.48	340.95	293.92	32.13	8.18	5311.41	Tonday
Mean	0.90	6.36	16.11	11.69	18.35	6.97	13.65	78.85	11.00	9.48	1.15	0.26	14.55	Ton/day
Max	6.26	16.82	33.38	19.89	74.05	15.12	49.30	907.54	81.33	119.36	3.97	0.56	907.54	Ton/day
Min	0.39	1.55	8.91	7.52	8.91	2.66	2.23	4.70	2.35	1.35	0.39	0.00	0.00	Ton/day

WATER YEAR : 2018

WEST COAST - GULF BASIN

Khlong Krut at Ban Nong Ya Plong , Prachuap Khiri Khan (Gt.10)

Lat 11 - 24 - 08 N Long 99 - 31 - 18 E

Location : on right bank at the bridge of Phet Kasem Highway near the guidepost 379.

Ban Nong Ya Plong **Amphoe** Bang Saphan **Changwat** Prachuap Khiri Khan

Drainge Area	113 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1998-Cont'd
Actual Measurement	1998-Cont'd
Using Rating Curve Water Year	2018
Number of observation	32
R-Square	0.9360
Remarks	Continued Sediment Station

$$QS = 4.9304\ QW^{1.62990}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	5.76	56.20	32.83	19.16	32.83	29.55	7.09	13.44	12.85	3.43	6.64	2.44		
2	5.76	152.19	15.26	14.04	31.17	23.40	27.96	11.15	10.07	3.43	7.09	2.14		
3	5.34	69.06	12.85	14.04	43.44	20.54	14.04	10.07	12.28	3.43	5.76	1.59		
4	5.34	31.17	12.85	14.04	121.73	17.83	10.07	9.03	11.71	3.78	5.34	1.59		
5	5.34	24.89	11.71	12.85	72.44	20.54	15.26	8.53	11.71	34.52	5.34	1.59		
6	5.34	117.60	11.71	12.85	101.61	15.26	429.66	14.64	11.15	273.55	4.93	1.59		
7	5.76	109.49	11.71	13.44	75.88	24.89	86.55	19.16	10.61	31.17	4.53	1.34		
8	8.04	32.83	14.64	12.85	65.75	15.26	37.99	130.17	200.13	19.16	3.08	1.34		
9	5.34	20.54	32.83	11.71	56.20	13.44	24.89	5859.52	161.37	14.04	2.14	1.11		
10	5.34	27.96	37.99	12.28	59.32	12.28	16.52	1869.16	36.24	24.89	2.14	0.51		
11	5.34	27.96	27.96	86.55	56.20	11.15	13.44	721.34	24.89	34.52	2.14	0.89		
12	5.34	17.83	19.16	59.32	65.75	11.71	12.85	418.42	14.64	17.83	1.86	0.89		
13	5.34	13.44	14.64	143.22	62.50	17.83	11.71	273.55	12.28	14.04	2.14	0.89		
14	5.34	12.28	13.44	93.97	75.88	16.52	10.61	236.63	10.07	12.28	2.14	1.11		
15	5.34	11.15	14.64	79.37	220.70	14.04	9.55	180.35	9.55	11.15	1.86	1.11		
16	4.93	10.07	147.68	56.20	220.70	12.85	9.03	143.22	8.53	10.07	1.86	1.11		
17	5.34	8.53	193.45	200.13	117.60	17.83	8.04	90.23	8.04	9.03	1.59	1.11		
18	5.34	12.85	640.39	452.48	353.44	20.54	7.56	75.88	8.04	9.55	1.59	1.11		
19	5.34	21.95	236.63	245.67	353.44	20.54	6.64	75.88	7.56	9.03	1.34	1.34		
20	6.19	39.78	130.17	134.46	156.76	21.95	34.52	47.23	6.64	8.04	1.34	1.11		
21	5.34	17.83	79.37	97.76	105.53	17.83	11.15	36.24	6.19	7.09	1.34	1.11		
22	4.93	20.54	56.20	86.55	72.44	19.16	43.44	31.17	5.76	6.64	1.34	1.11		
23	4.93	45.32	39.78	65.75	59.32	17.83	19.16	27.96	5.76	6.64	1.34	0.89		
24	4.93	26.41	29.55	53.14	47.23	21.95	23.40	24.89	5.34	7.09	4.53	0.89		
25	4.93	17.83	23.40	213.76	41.60	50.15	43.44	21.95	4.93	8.53	4.93	0.89		
26	4.93	14.04	19.16	109.49	53.14	16.52	322.56	20.54	4.93	6.19	3.43	1.34		
27	4.93	19.16	86.55	69.06	45.32	12.28	90.23	16.52	4.53	5.34	3.78	1.34		
28	8.04	20.54	43.44	53.14	32.83	10.61	143.22	15.26	4.15	4.53	2.44	0.89		
29	17.83	50.15	24.89	53.14	27.96	9.03	45.32	14.64	4.15	4.53		0.69		
30	113.52	17.83	16.52	45.32	32.83	7.56	27.96	12.85	3.78	5.76		0.36		
31		75.88		37.99	39.78		19.16		3.78	7.56		0.22		
Total	285.51	1143.30	2051.40	2573.73	2901.32	540.87	1583.02	10429.62	641.66	616.84	87.98	35.64	22890.89	Tonday
Mean	9.52	36.88	68.38	83.02	93.59	18.03	51.07	347.65	20.70	19.90	3.14	1.15	62.71	Ton/day
Max	113.52	152.19	640.39	452.48	353.44	50.15	429.66	5859.52	200.13	273.55	7.09	2.44	5859.52	Ton/day
Min	4.93	8.53	11.71	11.71	27.96	7.56	6.64	8.53	3.78	3.43	1.34	0.22	0.22	Ton/day

WATER YEAR : 2018

WEST COAST - GULF BASIN

Khlong Yai at Ban Chang Laek , Prachuap Khiri Khan (Gt.11)

Lat 11 - 03 - 44 N Long 99 - 22 - 30 E

Location : on right bank at the bridge of Phet Kasem Highway near the guidepost 423.

Ban Chang Laek **Amphoe** Bang Saphan Noi **Changwat** Prachuap Khiri Khan

Drainge Area	61 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1998-Cont'd
Actual Measurement	1998-Cont'd
Using Rating Curve Water Year	2018
Number of observation	24
R-Square	0.9719
Remarks	Continued Sediment Station

$$QS = 2.5906\ QW^{1.99800}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.08	45.13	6.63	7.48	11.41	10.35	3.73	6.63	10.35	6.63	13.68	0.93		
2	0.08	17.48	4.38	6.63	12.52	9.34	4.38	4.38	9.34	5.07	6.63	0.93		
3	0.07	99.22	2.59	5.82	10.35	9.34	5.82	3.73	8.38	4.38	5.07	0.93		
4	0.05	58.51	2.10	5.82	28.83	8.38	18.85	3.13	8.38	3.73	3.73	0.93		
5	0.05	18.85	4.38	5.82	24.84	10.35	21.74	2.10	8.38	415.72	3.73	0.93		
6	0.05	10.35	6.63	5.07	24.84	8.38	130.08	1.66	7.48	1755.95	3.73	0.65		
7	0.93	7.48	5.07	4.38	45.13	6.63	51.38	1.27	7.48	143.59	3.73	0.65		
8	9.34	5.82	7.48	4.38	48.21	6.63	21.74	1163.78	2239.26	105.06	3.73	0.65		
9	1.27	4.38	14.90	3.73	36.53	5.82	13.68	10787.66	358.94	94.17	3.73	0.65		
10	0.23	7.48	11.41	7.48	28.83	5.82	8.38	2393.49	1887.26	79.81	3.13	0.65		
11	0.10	5.07	8.38	28.83	24.84	5.07	5.82	3370.54	199.75	70.90	3.13	0.65		
12	0.08	3.73	6.63	20.27	39.30	5.07	7.48	497.90	51.38	58.51	14.90	0.65		
13	0.08	2.59	5.07	273.56	33.86	5.07	12.52	199.75	18.85	48.21	11.41	0.65		
14	0.07	2.59	3.73	123.58	24.84	7.48	10.35	182.02	13.68	42.16	5.82	0.65		
15	0.07	2.10	3.13	54.65	21.74	8.38	10.35	173.46	12.52	33.86	5.07	0.65		
16	0.05	1.27	21.74	42.16	18.85	10.35	9.34	173.46	11.41	26.47	4.38	0.65		
17	0.07	1.27	23.26	66.64	17.48	14.90	11.41	173.46	11.41	21.74	4.38	1.27		
18	0.08	6.63	20.27	66.64	17.48	12.52	21.74	247.67	11.41	16.16	3.73	2.10		
19	0.65	2.10	24.84	62.51	18.85	10.35	18.85	79.81	11.41	11.41	3.73	2.10		
20	0.23	1.27	48.21	45.13	17.48	9.34	24.84	31.30	11.41	9.34	3.73	3.13		
21	0.08	0.65	24.84	39.30	20.27	12.52	16.16	24.84	11.41	8.38	3.73	5.07		
22	0.07	8.38	17.48	31.30	13.68	9.34	12.52	21.74	11.41	6.63	3.73	3.73		
23	0.07	150.60	13.68	21.74	24.84	6.63	45.13	21.74	11.41	5.82	3.73	3.13		
24	0.08	48.21	11.41	18.85	20.27	4.38	42.16	21.74	11.41	5.07	3.73	2.59		
25	0.07	13.68	10.35	17.48	16.16	6.63	33.86	20.27	11.41	4.38	3.73	4.38		
26	0.05	7.48	10.35	12.52	14.90	5.82	136.75	20.27	11.41	4.38	3.13	1.66		
27	0.05	9.34	9.34	11.41	13.68	4.38	62.51	20.27	10.35	3.73	3.13	0.93		
28	18.85	10.35	9.34	9.34	10.35	9.34	31.30	20.27	10.35	3.73	2.10	0.93		
29	21.74	5.82	8.38	10.35	9.34	8.38	18.85	18.85	9.34	3.13		0.93		
30	51.38	5.07	8.38	14.90	20.27	4.38	14.90	12.52	8.38	3.73		0.93		
31		6.63		10.35	14.90		9.34		7.48	11.41		0.93		
Total	106.07	569.53	354.38	1038.12	684.87	241.37	835.96	19699.71	5012.84	3013.26	138.18	45.61	31739.90	Tonday
Mean	3.54	18.37	11.81	33.49	22.09	8.05	26.97	656.66	161.70	97.20	4.93	1.47	86.96	Ton/day
Max	51.38	150.60	48.21	273.56	48.21	14.90	136.75	10787.66	2239.26	1755.95	14.90	5.07	10787.66	Ton/day
Min	0.05	0.65	2.10	3.73	9.34	4.38	3.73	1.27	7.48	3.13	2.10	0.65	0.05	Ton/day

WATER YEAR : 2018

WEST COAST - GULF BASIN

Khlong Cha Kra at Ban Cha Kra Bon , Prachuap Khiri Khan (Gt.18)

Lat 11 - 26 - 48 N Long 99 - 34 - 09 E

Location : on left bank at the bridge of Phet Kasem Highway.

Ban Cha Kra Bon **Amphoe** Thap Sakae **Changwat** Prachuap Khiri Khan

Drainge Area	88 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1988-Cont'd
Actual Measurement	1988-Cont'd
Using Rating Curve Water Year	2018
Number of observation	22
R-Square	0.9329
Remarks	Continued Sediment Station

$$QS = 2.5785\ QW^{1.73560}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.22	10.13	24.99	3.34	26.17	21.58	1.60	1.75	2.49	1.75	1.46	0.40		
2	0.22	9.50	9.50	1.75	26.17	20.49	1.46	1.46	2.23	1.46	2.76	0.40		
3	0.19	8.89	6.09	1.60	26.17	19.42	1.46	1.32	3.34	2.23	1.46	0.36		
4	0.19	8.89	4.62	1.60	29.86	17.36	1.46	1.19	6.09	3.34	1.06	0.36		
5	0.19	8.29	3.04	1.60	31.14	19.42	4.62	1.06	7.15	53.88	1.06	0.36		
6	0.16	4.62	3.04	1.60	27.38	17.36	74.47	1.06	7.15	34.56	0.94	0.36		
7	0.16	3.04	3.34	1.75	22.69	17.36	17.36	1.06	7.71	15.40	0.94	0.32		
8	0.13	2.23	5.09	2.23	21.58	15.40	12.65	29.86	15.40	4.62	0.94	0.32		
9	0.13	1.75	8.29	2.49	19.42	14.46	13.54	684.18	36.33	2.23	0.83	0.32		
10	0.11	1.32	7.71	3.34	28.61	14.46	12.65	1554.53	29.86	1.98	0.83	0.28		
11	0.11	1.19	9.50	7.71	27.38	13.54	10.95	376.83	21.58	1.75	0.72	0.28		
12	0.11	1.06	6.09	7.71	27.38	12.65	10.95	105.89	12.65	1.60	0.72	0.32		
13	0.08	0.94	4.29	10.95	31.14	11.79	13.54	45.72	6.61	1.46	0.62	0.32		
14	0.06	0.83	3.64	17.36	36.33	10.13	13.54	36.33	5.58	1.60	0.53	0.28		
15	0.06	0.72	3.04	18.38	36.33	9.50	12.65	27.38	5.09	2.23	0.53	0.28		
16	0.06	0.72	12.65	17.36	41.86	9.50	12.65	22.69	4.62	2.23	0.53	0.25		
17	0.05	0.72	34.56	31.14	31.14	10.13	5.58	18.38	4.29	1.75	0.48	0.25		
18	0.05	0.53	177.87	47.71	93.66	10.13	7.71	14.46	4.29	1.75	0.48	0.25		
19	0.16	0.48	45.72	69.51	165.14	6.09	8.89	11.79	3.96	1.60	0.48	0.22		
20	0.28	0.44	26.17	53.88	77.09	4.29	9.50	10.13	3.96	1.60	0.48	0.22		
21	0.28	0.40	19.42	38.14	60.37	3.64	10.13	8.89	3.64	1.60	0.44	0.22		
22	0.36	0.40	12.65	36.33	51.79	2.76	11.79	7.71	3.34	1.60	0.44	0.22		
23	0.53	0.44	7.71	32.83	43.77	1.75	11.79	7.15	3.34	1.46	0.44	0.28		
24	0.83	0.53	5.58	34.56	39.98	4.29	9.50	6.09	3.04	1.46	0.44	0.44		
25	1.19	0.72	4.62	79.76	39.98	8.89	10.95	4.29	3.04	1.32	0.44	0.94		
26	1.60	0.94	3.64	45.72	39.98	4.62	17.36	3.96	2.76	1.32	0.44	1.46		
27	1.75	1.19	2.76	39.98	34.56	2.76	29.86	3.34	2.76	1.06	0.40	0.83		
28	1.75	1.32	3.64	36.33	22.69	1.98	27.38	3.04	2.49	1.06	0.40	0.48		
29	3.34	1.60	6.09	31.14	19.42	1.75	22.69	2.76	2.49	0.94		0.44		
30	10.13	3.04	6.09	29.86	23.83	1.60	15.40	2.49	2.49	0.94		0.40		
31		12.65		28.61	20.49		7.71		2.23	0.94		0.40		
Total	24.48	89.52	471.44	736.27	1223.50	309.10	421.79	2996.79	222.00	152.72	21.29	12.26	6681.16	Tonday
Mean	0.82	2.89	15.71	23.75	39.47	10.30	13.61	99.89	7.16	4.93	0.76	0.40	18.30	Ton/day
Max	10.13	12.65	177.87	79.76	165.14	21.58	74.47	1554.53	36.33	53.88	2.76	1.46	1554.53	Ton/day
Min	0.05	0.40	2.76	1.60	19.42	1.60	1.46	1.06	2.23	0.94	0.40	0.22	0.05	Ton/day

WATER YEAR : 2018

SOUTHERN PENINSULA EAST COAST

Khlong Chumphon at Ban Wang Phai , Chumphon (X.53A)

Lat 10 - 30 - 20 N Long 99 - 07 - 15 E

Location : on left bank about 9.50 kilometers downstream from X.53 station.

Ban Wang Phai **Amphoe** Mueang **Changwat** Chumphon

Drainge Area	296 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D - 48
Period of Available Records	1996-Cont'd
Actual Measurement	1996-Cont'd
Using Rating Curve Water Year	2018
Number of observation	24
R-Square	0.8872
Remarks	Continued Sediment Station

$$QS = 2.5252\ QW^{1.44630}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	9.50	559.44	130.53	60.59	502.38	191.60	101.99	58.65	89.65	43.00	82.06	20.82	
2	9.50	159.84	42.13	52.03	941.97	143.05	95.20	52.03	61.57	40.40	94.08	20.12	
3	11.19	85.29	27.41	48.35	480.09	124.41	125.62	47.45	52.03	38.69	70.57	19.43	
4	12.37	75.73	26.65	69.55	386.36	112.44	212.78	44.76	51.10	38.69	56.74	18.75	
5	10.06	41.26	28.17	71.59	345.67	197.89	524.98	42.13	48.35	439.16	53.90	18.08	
6	8.96	29.72	47.45	96.32	491.20	123.19	306.40	39.54	44.76	4707.17	51.10	17.41	
7	13.58	27.41	44.76	485.63	861.33	104.28	753.12	37.01	42.13	1399.71	46.55	17.41	
8	53.90	21.52	89.65	204.23	969.34	98.57	328.31	101.99	96.32	482.86	43.88	16.75	
9	28.17	28.17	270.94	158.53	2239.63	87.46	257.14	3141.98	589.65	270.94	41.26	16.75	
10	15.46	64.53	101.99	292.05	3361.61	77.82	155.91	2914.11	219.27	183.33	39.54	16.10	
11	12.37	45.65	60.59	1817.03	2075.44	72.62	125.62	905.86	204.23	146.87	37.85	15.46	
12	11.19	52.03	41.26	2707.32	1668.80	67.52	112.44	378.63	239.09	126.85	35.35	14.82	
13	10.06	28.94	32.10	2395.51	2239.63	69.55	150.73	212.78	343.17	112.44	37.85	14.20	
14	8.96	22.23	25.90	2299.20	1020.13	66.52	138.00	153.31	163.79	101.99	38.69	14.82	
15	8.42	21.52	25.90	1320.87	748.88	69.55	96.32	129.30	125.62	91.86	35.35	14.20	
16	7.90	18.08	225.82	702.79	477.33	139.26	86.37	111.26	148.15	84.21	33.71	14.20	
17	7.90	16.10	1196.74	649.50	345.67	353.19	76.77	110.09	146.87	85.29	32.10	13.58	
18	6.88	45.65	1892.59	2898.03	348.17	581.81	67.52	96.32	167.11	193.69	30.51	13.58	
19	7.38	73.65	3664.92	2087.04	348.17	513.64	62.55	145.59	189.52	232.42	28.94	14.82	
20	10.62	37.85	1020.13	1038.80	581.81	301.59	129.30	98.57	191.60	134.25	27.41	14.20	
21	10.06	25.15	491.20	585.73	368.39	191.60	97.44	83.13	123.19	100.84	27.41	14.20	
22	7.90	32.10	239.09	373.50	257.14	149.44	73.65	75.73	97.44	87.46	26.65	15.46	
23	7.90	153.31	145.59	261.71	316.08	214.94	264.01	70.57	82.06	77.82	25.15	12.97	
24	11.78	71.59	112.44	206.36	266.31	230.21	113.62	65.52	73.65	72.62	24.41	12.37	
25	11.19	124.41	163.79	280.26	225.82	157.22	82.06	60.59	67.52	69.55	23.68	11.78	
26	9.50	46.55	110.09	199.99	257.14	150.73	89.65	56.74	62.55	64.53	22.95	15.46	
27	11.78	30.51	117.18	175.16	236.86	117.18	87.46	53.90	56.74	59.62	22.23	14.20	
28	37.85	23.68	191.60	206.36	191.60	169.11	86.37	52.03	52.96	56.74	20.82	12.97	
29	146.87	20.82	94.08	270.94	150.73	323.40	83.13	56.74	49.26	53.90		12.97	
30	1152.98	25.90	70.57	508.00	225.82	131.77	76.77	76.77	46.55	52.03		14.20	
31		59.62		657.62	325.85		74.68		44.76	61.57		22.95	
Total	1672.18	2068.25	10731.26	23180.59	23255.35	5331.56	5035.91	9473.08	3970.66	9710.50	1110.74	485.03	96025.11 Tonday
Mean	55.74	66.72	357.71	747.76	750.17	177.72	162.45	315.77	128.09	313.24	39.67	15.65	263.08 Ton/day
Max	1152.98	559.44	3664.92	2898.03	3361.61	581.81	753.12	3141.98	589.65	4707.17	94.08	22.95	4707.17 Ton/day
Min	6.88	16.10	25.90	48.35	150.73	66.52	62.55	37.01	42.13	38.69	20.82	11.78	6.88 Ton/day

WATER YEAR : 2018

SOUTHERN PENINSULA EAST COAST

Khlong Tha Di at Ban Tha Yai , Nakhon Si Thammarat (X.55)

Lat 08 - 23 - 52 N Long 99 - 50 - 14 E

Location : on left bank at the bridge.

Ban Tha Yai **Amphoe** Lan Saka **Changwat** Nakhon Si Thammarat

Drainge Area	105 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D - 48
Period of Available Records	1989 - 2009,2012 - Cont' d
Actual Measurement	1990 - 2009,2012 - Cont' d
Using Rating Curve Water Year	2018
Number of observation	23
R-Square	0.9514
Remarks	Continued Sediment Station

$$QS = 2.1584\ QW^{1.62670}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	7.22	94.37	32.03	23.59	27.69	16.18	4.17	12.89	228.14	539.81	557.60	12.89		
2	12.89	87.69	32.03	16.18	27.69	16.18	4.17	23.59	206.35	276.46	557.60	12.89		
3	12.89	81.20	32.03	16.18	27.69	16.18	5.62	23.59	167.24	140.02	522.24	10.86		
4	12.89	81.20	32.03	23.59	32.03	16.18	7.22	41.44	167.24	5140.65	522.24	10.86		
5	12.89	115.51	23.59	23.59	41.44	23.59	7.22	41.44	167.24	2787.25	251.85	10.86		
6	8.97	94.37	23.59	32.03	41.44	23.59	7.22	32.03	157.96	747.44	81.20	10.86		
7	8.97	68.81	16.18	23.59	32.03	7.22	12.89	41.44	196.28	668.94	81.20	8.97		
8	10.86	57.23	16.18	23.59	36.62	5.62	12.89	115.51	341.76	522.24	74.91	8.97		
9	36.62	46.48	16.18	23.59	36.62	5.62	12.89	355.46	522.24	787.93	68.81	8.97		
10	41.44	46.48	12.89	19.75	36.62	5.62	16.18	504.90	539.81	1160.32	68.81	7.22		
11	7.22	46.48	12.89	16.18	41.44	5.62	16.18	575.61	539.81	1160.32	68.81	5.62		
12	4.17	46.48	12.89	16.18	41.44	1.82	12.89	593.84	472.29	850.21	68.81	7.22		
13	2.90	36.62	12.89	12.89	41.44	0.94	12.89	426.99	355.46	767.58	62.92	7.22		
14	1.82	36.62	12.89	12.89	32.03	0.00	12.89	355.46	397.77	767.58	57.23	1.82		
15	1.82	36.62	12.89	16.18	46.48	0.00	10.86	276.46	383.46	707.77	51.75	2.90		
16	0.30	36.62	19.75	32.03	32.03	0.30	10.86	239.88	8611.47	707.77	51.75	2.90		
17	0.30	32.03	19.75	36.62	32.03	1.82	7.22	131.36	10634.28	707.77	46.48	1.82		
18	1.82	36.62	23.59	51.75	16.18	1.82	7.22	101.23	3303.40	668.94	41.44	2.90		
19	2.90	46.48	23.59	57.23	36.62	0.94	7.22	94.37	2542.01	668.94	41.44	2.90		
20	8.97	46.48	32.03	46.48	36.62	0.94	7.22	101.23	2205.88	668.94	36.62	0.94		
21	23.59	46.48	32.03	36.62	27.69	0.94	4.17	4404.15	1862.23	668.94	36.62	0.30		
22	16.18	36.62	32.03	32.03	27.69	0.30	4.17	522.24	1929.16	630.96	32.03	0.00		
23	7.22	32.03	23.59	27.69	27.69	0.30	4.17	176.72	1698.92	630.96	27.69	0.00		
24	1.82	32.03	23.59	19.75	19.75	0.30	1.82	140.02	1331.05	630.96	23.59	0.00		
25	0.30	46.48	19.75	19.75	19.75	0.00	1.82	122.92	1105.43	593.84	19.75	0.94		
26	0.00	46.48	16.18	27.69	19.75	32.03	19.75	115.51	947.00	593.84	16.18	1.82		
27	1.82	36.62	16.18	27.69	19.75	8.97	1.82	108.28	829.25	593.84	16.18	5.62		
28	1.82	51.75	19.75	27.69	16.18	1.82	2.90	108.28	767.58	557.60	16.18	1.82		
29	10.86	94.37	23.59	27.69	16.18	1.82	4.17	108.28	688.25	557.60		0.30		
30	108.28	41.44	27.69	27.69	19.75	1.82	8.97	131.36	649.85	557.60		0.00		
31		36.62		36.62	27.69		12.89		649.85	557.60		0.30		
Total	369.75	1675.31	654.27	835.02	938.05	198.48	262.57	10026.48	44598.66	27020.62	3501.93	150.69	90231.83	Tonday
Mean	12.32	54.04	21.81	26.94	30.26	6.62	8.47	334.22	1438.67	871.63	125.07	4.86	247.21	Ton/day
Max	108.28	115.51	32.03	57.23	46.48	32.03	19.75	4404.15	10634.28	5140.65	557.60	12.89	10634.28	Ton/day
Min	0.00	32.03	12.89	12.89	16.18	0.00	1.82	12.89	157.96	140.02	16.18	0.00	0.00	Ton/day

WATER YEAR : 2018

SOUTHERN PENINSULA EAST COAST

Khlong Ban Tan at Ban Wang Kong , Nakhon Si Thammarat (X.70)

Lat 08 - 25 - 34 N Long 99 - 51 - 47 E

Location : on left bank upstream side of the bridge.

Ban Wang Kong **Amphoe** Mueang **Changwat** Nakhon Si Thammarat

Drainge Area	39 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D - 48
Period of Available Records	1989 - 2010,2014 - Cont' d
Actual Measurement	1989 - 2010,2014 - Cont' d
Using Rating Curve Water Year	2018
Number of observation	24
R-Square	0.9490
Remarks	Continued Sediment Station

$$QS = 5.7150\ QW^{1.50960}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	11.62	20.89	20.09	8.00	9.50	5.29	9.50	8.99	42.20	53.32	25.88	12.73		
2	13.88	33.08	17.01	10.01	8.49	5.72	20.89	8.99	69.45	32.15	24.18	12.73		
3	13.30	15.06	16.27	10.54	8.00	5.72	17.77	9.50	42.20	28.51	29.41	12.73		
4	12.73	13.88	15.06	10.54	7.53	8.99	13.30	10.54	65.28	678.00	25.03	12.73		
5	12.17	13.88	14.47	11.07	7.06	8.99	11.62	9.50	54.61	957.57	23.34	12.17		
6	11.07	13.88	14.47	11.62	5.72	7.06	13.30	9.50	43.39	262.84	21.70	12.17		
7	10.54	13.88	14.47	12.17	4.87	6.60	12.73	10.01	188.40	157.86	20.89	12.17		
8	18.53	13.88	13.88	12.73	4.47	6.60	13.88	33.08	107.37	120.64	19.31	11.62		
9	63.91	13.88	13.88	12.73	4.08	6.60	13.30	45.81	312.36	96.20	18.53	10.54		
10	29.41	13.88	13.88	12.73	3.70	6.60	13.30	243.30	190.37	80.98	17.77	10.01		
11	23.34	17.01	13.88	12.73	3.70	5.72	11.62	59.86	156.01	69.45	17.01	10.01		
12	22.52	18.53	13.88	12.73	3.70	5.72	12.17	50.77	96.20	63.91	17.01	10.01		
13	20.89	13.30	13.88	12.73	3.70	5.72	11.62	32.15	86.96	80.98	17.77	10.01		
14	18.53	12.73	13.88	12.73	3.70	5.72	11.07	25.03	221.61	55.91	16.27	10.01		
15	15.66	11.62	13.88	12.73	3.34	5.72	11.07	21.70	198.03	48.27	15.66	10.01		
16	14.47	11.07	13.88	12.73	2.98	5.72	11.07	27.63	2050.56	43.39	15.66	9.50		
17	12.17	11.07	13.30	12.73	2.64	5.72	11.07	30.31	572.00	55.91	15.06	9.50		
18	10.54	12.17	13.30	13.30	2.98	6.60	11.07	55.91	246.06	49.52	15.06	9.50		
19	8.49	12.17	12.73	15.66	3.34	6.60	11.07	52.04	291.62	44.60	14.47	9.50		
20	7.53	11.07	12.73	12.73	3.34	6.60	11.07	36.41	190.37	38.69	14.47	9.50		
21	7.06	11.07	12.17	12.73	3.70	6.60	11.07	647.95	120.64	34.18	13.88	9.50		
22	6.60	11.07	11.07	11.07	3.70	8.49	11.07	148.69	90.01	38.69	13.88	9.50		
23	7.53	11.07	10.01	8.49	2.98	5.72	70.86	70.86	72.27	33.08	13.30	9.50		
24	8.99	21.70	8.99	6.60	4.08	5.72	23.34	43.39	59.86	30.31	13.30	9.50		
25	11.62	15.06	7.53	6.15	4.87	6.60	20.89	31.23	49.52	28.51	13.30	9.50		
26	13.30	25.88	7.53	6.15	4.87	10.01	15.06	25.88	42.20	26.75	13.30	9.50		
27	15.06	15.06	7.53	7.53	5.29	15.66	11.62	24.18	38.69	25.88	12.73	9.50		
28	17.01	13.30	7.53	8.99	5.29	13.30	10.54	55.91	33.08	25.03	12.73	9.50		
29	18.53	45.81	7.53	10.01	5.29	8.99	10.01	45.81	29.41	43.39		9.50		
30	20.09	23.34	7.06	11.07	4.87	8.99	8.99	43.39	26.75	30.31		8.99		
31		20.89		12.73	4.87		8.99		70.86	26.75		8.99		
Total	477.09	511.18	375.77	344.46	146.65	218.09	454.93	1918.32	5858.34	3361.58	490.90	320.63	14477.94	Tonday
Mean	15.90	16.49	12.53	11.11	4.73	7.27	14.68	63.94	188.98	108.44	17.53	10.34	39.67	Ton/day
Max	63.91	45.81	20.09	15.66	9.50	15.66	70.86	647.95	2050.56	957.57	29.41	12.73	2050.56	Ton/day
Min	6.60	11.07	7.06	6.15	2.64	5.29	8.99	8.99	26.75	25.03	12.73	8.99	2.64	Ton/day

WATER YEAR : 2018

SOUTHERN PENINSULA EAST COAST

Khlong Klai at Ban Hua Na , Nakhon Si Thammarat (X.149)

Lat 08 - 43 - 46 N Long 99 - 44 - 53 E

Location : on left bank at Ban Hua Na.

Ban Hua Na **Amphoe** Nopphitam **Changwat** Nakhon Si Thammarat

Drainge Area	475 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D - 48
Period of Available Records	1998 - 2006, 2012 - Cont' d
Actual Measurement	1998 - 2006, 2012 - Cont' d
Using Rating Curve Water Year	2018
Number of observation	22
R-Square	0.9418
Remarks	Continued Sediment Station

$$QS = 0.7658\ QW^{1.83330}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1479.47	2076.86	1724.24	1071.68	961.06	890.37	1071.68	855.95	693.16	415.17	90.44	4.89		
2	1838.47	2360.75	1568.14	1034.20	925.41	855.95	1568.14	855.95	693.16	322.28	47.49	4.89		
3	1896.83	2782.27	1523.51	1034.20	961.06	855.95	1479.47	855.95	662.48	279.87	27.13	4.11		
4	1350.88	1956.01	1523.51	997.33	925.41	822.15	1148.45	1724.24	756.40	7750.15	23.68	4.11		
5	1350.88	1479.47	1838.47	1034.20	961.06	788.96	1393.16	1956.01	925.41	10858.58	20.45	3.39		
6	1350.88	1436.02	1523.51	1309.21	1071.68	756.40	2138.52	1393.16	1034.20	1956.01	14.64	2.73		
7	1350.88	1838.47	1479.47	1071.68	1393.16	756.40	1956.01	1227.63	2016.03	1148.45	13.33	3.39		
8	1523.51	1896.83	1479.47	1034.20	1309.21	756.40	1436.02	4680.13	1896.83	822.15	12.07	3.39		
9	3586.63	1838.47	1479.47	997.33	1071.68	925.41	1523.51	3812.21	5225.45	662.48	10.87	3.39		
10	1780.94	2442.53	1393.16	1436.02	1071.68	997.33	1309.21	13849.69	2695.45	546.12	9.72	2.73		
11	2870.33	2695.45	1309.21	1350.88	1227.63	890.37	1109.76	4162.26	1780.94	440.05	8.64	2.73		
12	1268.12	2959.64	1227.63	1187.74	1148.45	855.95	1034.20	2525.58	1896.83	440.05	9.72	3.39		
13	1071.68	1780.94	1187.74	1148.45	1148.45	890.37	961.06	1896.83	4417.75	1187.74	9.72	2.73		
14	1034.20	1613.35	1148.45	1148.45	961.06	997.33	890.37	1613.35	6245.00	518.63	9.72	2.73		
15	997.33	1838.47	1109.76	1109.76	925.41	925.41	890.37	1436.02	3476.19	367.39	9.72	2.73		
16	997.33	1523.51	1109.76	1034.20	890.37	890.37	855.95	1956.01	23699.77	300.74	8.64	2.14		
17	997.33	2016.03	1350.88	997.33	890.37	1187.74	855.95	1780.94	4548.08	997.33	8.64	2.14		
18	997.33	2280.24	1350.88	1148.45	997.33	1393.16	855.95	1780.94	4162.26	603.02	7.61	2.73		
19	997.33	1780.94	1436.02	1523.51	1393.16	1187.74	822.15	2016.03	7023.46	390.95	7.61	2.73		
20	997.33	1523.51	1227.63	1148.45	1187.74	1393.16	822.15	1956.01	2525.58	322.28	6.65	2.14		
21	997.33	1479.47	1268.12	1148.45	1109.76	1071.68	925.41	35962.71	1393.16	247.91	5.74	1.61		
22	997.33	1479.47	1187.74	1034.20	1071.68	961.06	1613.35	3476.19	997.33	217.72	5.74	1.15		
23	997.33	1780.94	1109.76	997.33	1393.16	890.37	2360.75	1479.47	855.95	189.33	4.89	0.77		
24	997.33	2360.75	1071.68	997.33	1436.02	855.95	1523.51	1109.76	724.47	189.33	4.89	0.77		
25	961.06	2360.75	1071.68	997.33	1109.76	925.41	1309.21	925.41	890.37	162.75	4.11	0.77		
26	961.06	2360.75	1034.20	961.06	1034.20	1109.76	1479.47	855.95	724.47	150.14	4.11	1.15		
27	1613.35	1780.94	1071.68	925.41	1034.20	1034.20	1309.21	756.40	546.12	138.01	4.89	0.77		
28	1109.76	1780.94	1071.68	925.41	997.33	1479.47	1109.76	724.47	465.59	127.77	5.74	0.45		
29	1109.76	1613.35	1109.76	890.37	961.06	1436.02	1071.68	693.16	415.17	127.77		0.45		
30	2200.99	1724.24	1109.76	925.41	925.41	961.06	925.41	662.48	390.95	127.77		0.77		
31		1896.83		961.06	925.41		890.37		415.17	117.89		0.77		
Total	41682.98	60738.19	39096.97	33580.63	33419.37	29741.90	38640.21	98980.89	84193.18	32125.83	396.60	72.64	492669.39	Tonday
Mean	1389.43	1959.30	1303.23	1083.25	1078.04	991.40	1246.46	3299.36	2715.91	1036.32	14.16	2.34	1349.78	Ton/day
Max	3586.63	2959.64	1838.47	1523.51	1436.02	1479.47	2360.75	35962.71	23699.77	10858.58	90.44	4.89	35962.71	Ton/day
Min	961.06	1436.02	1034.20	890.37	890.37	756.40	822.15	662.48	390.95	117.89	4.11	0.45	0.45	Ton/day

WATER YEAR : 2018

SOUTHERN PENINSULA EAST COAST

Khlong Tha Taphao at Ban Wang Khrok , Chumphon (X.158)

Lat 10 - 35 - 34 N Long 99 - 08 - 43 E

Location : on right bank at the bridge on Chumphon - Prachuap Khiri Khan Highway.

Ban Wang Khrok **Amphoe** Tha Sae **Changwat** Chumphon

Drainge Area	1,814 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US D - 48
Period of Available Records	1996 - Cont' d
Actual Measurement	1996 - Cont' d
Using Rating Curve Water Year	2018
Number of observation	25
R-Square	0.8749
Remarks	Continued Sediment Station

$$QS = 2.9587\ QW^{1.37070}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	250.64	3807.51	417.48	571.06	2239.13	1437.69	630.78	488.61	692.08	334.84	417.48	64.75		
2	192.07	1798.86	417.48	472.54	3906.27	913.32	604.99	433.02	604.99	386.86	472.54	60.13		
3	149.60	1209.58	306.05	425.23	2571.83	736.79	596.46	291.92	409.77	364.32	440.85	55.60		
4	115.61	1284.43	320.35	571.06	2195.40	865.88	692.08	306.05	356.88	298.96	364.32	51.16		
5	99.54	1075.59	291.92	1075.59	2877.44	1649.09	1172.62	349.49	440.85	683.23	306.05	51.16		
6	84.14	417.48	264.21	875.31	3324.20	1347.72	1197.23	342.14	521.17	9405.22	250.64	46.83		
7	64.75	604.99	349.49	1051.69	6158.72	828.42	2416.34	448.72	379.31	6653.91	237.26	46.83		
8	692.08	537.66	656.86	922.89	7430.83	1051.69	1676.06	828.42	837.75	1909.97	224.09	138.01		
9	665.62	356.88	1826.47	709.87	6831.14	837.75	1689.59	17758.80	4866.84	875.31	217.58	149.60		
10	204.72	371.79	1529.21	847.10	8554.21	562.66	1051.69	27437.21	3573.31	727.79	211.12	126.67		
11	126.67	630.78	847.10	5108.83	7766.41	488.61	800.63	14241.34	3438.56	512.97	417.48	69.47		
12	99.54	596.46	425.23	9693.68	6860.79	456.62	622.15	8554.21	2841.01	529.40	472.54	42.61		
13	110.18	379.31	512.97	11654.81	8414.52	604.99	571.06	5353.96	2065.63	504.82	440.85	42.61		
14	51.16	230.65	379.31	12819.15	4987.44	847.10	596.46	2732.47	1016.11	512.97	364.32	46.83		
15	32.15	230.65	284.92	9729.90	3553.97	922.89	554.29	1868.09	894.26	488.61	306.05	46.83		
16	25.40	198.37	934.41	7797.11	2696.54	1197.23	745.82	1386.09	665.62	472.54	250.64	34.49		
17	21.15	143.77	6101.15	4604.36	2342.06	1952.09	504.82	1234.40	809.87	356.88	237.26	32.15		
18	19.11	922.89	10391.79	9119.13	2342.06	2859.21	440.85	1148.15	683.23	504.82	224.09	34.49		
19	25.40	1271.87	19233.27	7999.20	2446.23	2386.56	386.86	2554.14	456.62	1246.85	217.58	46.83		
20	104.82	562.66	8870.78	5589.68	3210.88	1502.91	727.79	1297.02	587.96	665.62	211.12	38.49		
21	167.45	417.48	3807.51	4439.40	2950.68	1284.43	782.24	763.97	425.23	349.49	237.26	34.49		
22	110.18	1148.15	1938.02	3192.10	1882.02	1608.86	596.46	709.87	554.29	349.49	230.65	42.61		
23	55.60	894.26	1087.59	2521.39	1595.51	2696.54	1868.09	718.81	440.85	379.31	179.65	51.16		
24	115.61	596.46	865.88	1923.98	1798.86	1184.91	1051.69	639.44	464.56	364.32	99.54	34.49		
25	138.01	754.88	763.97	2312.52	1840.32	1411.83	1703.15	683.23	529.40	440.85	89.19	46.83		
26	132.31	456.62	791.42	1676.06	1437.69	1895.98	1111.71	727.79	504.82	425.23	138.01	79.17		
27	224.09	277.97	665.62	1322.31	1271.87	1555.64	1209.58	745.82	448.72	334.84	143.77	55.60		
28	334.84	298.96	736.79	1437.69	1148.15	922.89	1284.43	521.17	440.85	243.93	126.67	6.62		
29	894.26	298.96	745.82	1516.05	809.87	884.77	782.24	579.49	425.23	271.06		19.11		
30	4206.60	306.05	700.96	2224.53	727.79	745.82	692.08	884.77	409.77	291.92		25.40		
31		433.02		2642.90	1360.48		545.96		386.86	250.64		29.85		
Total	9513.30	22514.99	66464.03	116847.12	107533.31	37640.89	29306.20	96028.61	31172.40	31136.97	7528.60	1650.87	557337.29	Tonday
Mean	317.11	726.29	2215.47	3769.26	3468.82	1254.70	945.36	3200.95	1005.56	1004.42	268.88	53.25	1526.95	Ton/day
Max	4206.60	3807.51	19233.27	12819.15	8554.21	2859.21	2416.34	27437.21	4866.84	9405.22	472.54	149.60	27437.21	Ton/day
Min	19.11	143.77	264.21	425.23	727.79	456.62	386.86	291.92	356.88	243.93	89.19	6.62	6.62	Ton/day

WATER YEAR : 2018

SOUTHERN PENINSULA EAST COAST

Khlong Sao Thong at Ban Sao Thong , Nakhon Si Thammarat (X.167)

Lat 08 - 16 - 44 N Long 99 - 54 - 30 E

Location : on right bank at the bridge.

Ban Sao Thong **Amphoe** Ron Phibun **Changwat** Nakhon Si Thammarat

Drainge Area	252 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US DH - 48
Period of Available Records	1998 - 2009 , 2012 - Cont'd
Actual Measurement	1998 - 2009 , 2012 - Cont'd
Using Rating Curve Water Year	2018
Number of observation	22
R-Square	0.9001
Remarks	Continued Sediment Station

$$QS = 2.1112\ QW^{1.59990}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	50.79	347.83	80.03	22.59	22.59	2.28	25.97	31.35	173.80	66.01	82.02	23.01		
2	232.67	110.99	64.79	19.40	17.87	0.31	86.73	25.97	201.03	17.87	76.11	23.01		
3	78.06	102.90	59.39	17.87	14.96	0.93	86.73	24.26	178.24	9.44	76.11	23.01		
4	61.17	76.11	59.39	31.35	9.44	2.83	43.22	27.72	178.24	482.09	86.05	23.01		
5	54.17	82.02	57.63	41.15	13.57	6.92	35.15	27.72	210.44	3452.14	72.26	23.01		
6	47.49	105.08	72.26	51.91	9.44	10.34	47.49	41.15	173.80	1704.95	66.63	23.01		
7	44.28	117.02	59.39	37.11	35.15	1.78	47.49	61.17	545.69	795.38	62.97	23.01		
8	41.15	264.97	54.17	27.72	47.49	1.78	45.34	76.11	586.93	547.05	61.17	23.01		
9	44.28	165.93	49.13	41.15	37.11	2.28	39.11	116.26	1174.80	423.95	55.89	23.01		
10	54.17	142.31	49.13	35.15	37.11	12.24	39.11	1322.68	620.72	361.67	47.49	23.01		
11	76.11	110.99	49.13	39.11	39.11	17.87	35.15	612.21	562.05	311.91	41.15	23.01		
12	59.39	224.84	45.87	33.23	24.26	8.57	29.52	428.90	428.90	273.29	36.62	23.01		
13	45.87	132.61	45.87	58.80	20.97	8.57	35.15	220.00	280.65	273.29	38.10	28.17		
14	39.61	220.97	45.87	41.15	14.96	17.87	27.72	224.84	521.50	244.60	36.62	66.63		
15	36.62	169.41	44.28	31.35	14.96	27.72	27.72	165.06	773.63	213.29	33.71	68.49		
16	33.71	105.08	42.70	25.97	11.28	31.35	27.72	324.09	2952.29	194.55	30.89	68.49		
17	32.29	92.24	45.87	22.59	6.92	35.15	58.80	451.41	3398.15	198.24	32.29	76.11		
18	30.89	90.16	70.36	78.72	20.97	54.17	37.11	392.35	2751.20	224.84	32.29	92.24		
19	29.52	78.06	244.60	482.09	45.34	47.49	35.15	270.16	2277.50	176.46	30.89	94.34		
20	28.17	68.49	110.99	116.26	78.72	37.11	29.52	191.79	1839.88	155.64	29.52	94.34		
21	28.17	74.18	78.06	73.53	49.68	27.72	35.15	595.31	773.63	142.31	28.17	92.24		
22	26.84	61.17	68.49	54.17	37.11	51.91	39.11	942.15	436.35	129.44	26.84	88.10		
23	26.84	59.39	59.39	43.22	37.11	37.11	70.99	302.08	296.67	105.08	26.84	98.58		
24	25.54	72.26	55.89	39.11	45.34	76.11	54.17	205.72	191.79	96.45	26.84	98.58		
25	23.01	94.34	55.89	35.15	31.35	45.34	95.04	152.27	120.08	94.34	24.26	94.34		
26	35.15	155.64	74.18	19.40	29.52	37.11	63.57	120.08	78.72	84.03	24.26	96.45		
27	38.10	129.44	62.97	14.96	31.35	39.11	39.11	105.08	56.47	80.03	23.01	105.08		
28	50.79	88.10	74.18	19.40	25.97	33.23	35.15	116.26	45.34	74.18	23.01	74.18		
29	33.71	76.11	120.08	20.97	12.24	35.15	68.49	143.95	41.15	72.26		44.28		
30	399.56	78.06	25.97	19.40	7.73	24.26	47.49	210.44	22.59	78.06		57.63		
31		110.99		41.15	6.92		35.15		35.15	88.10		76.11		
Total	1808.12	3807.69	2025.95	1635.13	836.54	734.61	1423.32	7928.54	21927.38	11170.94	1232.01	1790.50	56320.73	Tonday
Mean	60.27	122.83	67.53	52.75	26.99	24.49	45.91	264.28	707.33	360.35	44.00	57.76	154.30	Ton/day
Max	399.56	347.83	244.60	482.09	78.72	76.11	95.04	1322.68	3398.15	3452.14	86.05	105.08	3452.14	Ton/day
Min	23.01	59.39	25.97	14.96	6.92	0.31	25.97	24.26	22.59	9.44	23.01	23.01	0.31	Ton/day

WATER YEAR : 2018

SOUTHERN PENINSULA EAST COAST

Lower Khlong Lang Suan at Thanon Luk Suea , Chumphon (X.212)

Lat 09 - 57 - 17 N Long 99 - 04 - 48 E

Location : on left bank at the bridge.

Ban - **Amphoe** Lang Suan **Changwat** Chumphon

Drainge Area	1,406 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US DH - 49
Period of Available Records	2015 - Cont' d
Actual Measurement	2015 - Cont' d
Using Rating Curve Water Year	2018
Number of observation	23
R-Square	0.9325
Remarks	Continued Sediment Station

$$QS = 0.7128\ QW^{1.59880}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	288.20	350.96	1087.78	1000.41	3595.35	1598.96	1902.04	2098.18	2023.78	426.96	350.96	209.71	
2	234.17	190.88	802.15	850.17	4237.25	1379.49	1830.36	2315.56	1999.21	435.75	409.60	275.36	
3	219.37	178.10	818.04	882.76	2487.43	1644.30	1974.75	2287.36	1926.16	295.79	350.96	209.71	
4	219.37	224.26	850.17	818.04	2315.56	2123.20	2048.47	1974.75	1926.16	615.01	259.62	204.94	
5	195.53	200.21	786.37	1123.49	2048.47	2175.88	1950.40	2372.34	1974.75	2526.25	270.08	224.26	
6	167.41	163.90	1017.66	1554.10	2343.88	1878.03	2372.34	2287.36	2023.78	2673.81	270.08	170.95	
7	234.17	150.15	966.24	1974.75	5482.07	1598.96	3022.35	1806.69	1926.16	827.63	249.32	163.90	
8	527.22	160.42	915.81	1667.15	27109.85	1690.12	1902.04	5678.50	2259.30	674.82	219.37	200.21	
9	418.25	163.90	2203.56	1400.89	22953.79	1713.20	2203.56	24211.91	3752.11	375.68	214.52	209.71	
10	295.79	170.95	1736.40	4874.21	31544.71	1576.47	1926.16	22820.48	3158.79	426.96	229.20	150.15	
11	280.68	174.51	1487.71	18566.83	54920.90	1379.49	1950.40	5827.52	3056.24	392.50	280.68	174.51	
12	264.83	190.88	1052.50	13157.79	41507.22	1358.21	2098.18	3124.46	2988.59	303.46	319.00	190.88	
13	204.94	190.88	1017.66	9249.18	53310.93	1444.05	1783.15	2458.47	2372.34	499.10	375.68	200.21	
14	195.53	1196.19	932.51	18055.92	19124.59	1444.05	1713.20	2287.36	6800.86	453.52	334.84	249.32	
15	167.41	1337.06	834.05	13157.79	8651.37	1878.03	1806.69	2175.88	6521.00	342.87	295.79	204.94	
16	186.28	1233.18	1214.63	5827.52	5005.57	2545.74	1830.36	2023.78	5927.67	275.36	264.83	244.23	
17	234.17	882.76	17954.38	6410.29	3752.11	7257.72	1713.20	1806.69	7142.46	409.60	239.18	249.32	
18	204.94	419.49	34851.16	26944.34	4073.09	9182.02	1554.10	1830.36	3673.42	635.20	239.18	270.08	
19	204.94	444.60	29466.61	20866.82	5336.46	5977.98	1487.71	1854.14	13979.71	827.63	249.32	280.68	
20	190.88	444.60	8390.50	11570.63	5482.07	3297.47	1576.47	1667.15	3367.65	555.92	249.32	303.46	
21	214.52	635.20	4445.85	6465.56	3367.65	2604.56	1736.40	2400.92	249.32	480.67	219.37	219.37	
22	178.10	1105.58	2458.47	4278.67	2954.97	2123.20	1400.89	1950.40	303.46	453.52	249.32	209.71	
23	170.95	850.17	1806.69	3124.46	3124.46	2023.78	1854.14	1854.14	375.68	508.41	204.94	200.21	
24	170.95	550.41	1358.21	2429.63	6191.02	1878.03	1690.12	1878.03	384.05	605.01	214.52	214.52	
25	163.90	724.46	1233.18	2315.56	4195.98	1713.20	1926.16	1854.14	742.83	375.68	186.28	254.45	
26	195.53	694.22	1253.70	1974.75	3791.69	1644.30	1878.03	1999.21	813.26	350.96	259.62	239.18	
27	181.72	444.60	1233.18	2604.56	3124.46	1598.96	1902.04	2259.30	605.01	527.22	326.89	288.20	
28	249.32	444.60	1159.62	5433.37	2429.63	1598.96	1950.40	2400.92	635.20	401.01	280.68	219.37	
29	234.17	509.74	1196.19	5288.25	1926.16	1644.30	1926.16	2663.87	688.23	375.68		190.88	
30	359.13	407.14	1159.62	5482.07	1759.71	1806.69	2372.34	2604.56	625.07	401.01		224.26	
31		407.14		5049.65	1878.03		2604.56		674.82	462.50		186.28	
Total	7052.37	15241.14	125690.60	204399.61	340026.43	71779.35	59887.17	114774.43	84897.07	18915.49	7613.15	6832.96	1057109.77 Tonday
Mean	235.08	491.65	4189.69	6593.54	10968.59	2392.64	1931.84	3825.81	2738.62	610.18	271.90	220.42	2896.19 Ton/day
Max	527.22	1337.06	34851.16	26944.34	54920.90	9182.02	3022.35	24211.91	13979.71	2673.81	409.60	303.46	54920.90 Ton/day
Min	163.90	150.15	786.37	818.04	1759.71	1358.21	1400.89	1667.15	249.32	275.36	186.28	150.15	150.15 Ton/day

WATER YEAR : 2018

SOUTHERN PENINSULA EAST COAST

Khlong Rap Ro at Ban Hat Nai , Chumphon (X.248)

Lat 10 - 38 - 16 N Long 99 - 03 - 01 E

Location : on left bank at Ban Hat Nai.

Ban Hat Nai **Amphoe** Tha Sae **Changwat** Chumphon

Drainge Area	691 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US DH - 49
Period of Available Records	2006 - Cont' d
Actual Measurement	2006 - Cont' d
Using Rating Curve Water Year	2018
Number of observation	20
R-Square	0.7039
Remarks	Continued Sediment Station

$$QS = 8.1966\ QW^{1.28040}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	176.62	922.38	76.97	152.33	922.38	444.05	218.74	362.80	377.30	253.79	276.26	156.33	
2	82.15	244.92	64.36	128.87	1152.50	399.28	210.16	348.42	341.28	249.35	262.72	152.33	
3	61.08	218.74	57.84	125.05	649.09	384.60	201.65	334.17	327.09	244.92	306.07	148.37	
4	49.92	168.44	79.55	249.35	910.59	436.52	218.74	327.09	320.05	249.35	240.51	144.42	
5	36.34	249.35	64.36	313.04	817.46	1017.90	276.26	320.05	348.42	783.12	227.39	144.42	
6	32.04	156.33	90.05	280.80	1054.25	474.46	482.13	306.07	313.04	2799.50	227.39	136.60	
7	32.04	240.51	95.41	334.17	1751.37	429.01	723.81	299.13	299.13	600.30	214.44	132.72	
8	184.88	103.56	384.60	271.73	2247.70	528.72	384.60	817.46	707.05	429.01	214.44	128.87	
9	84.76	76.97	640.90	227.39	2912.95	320.05	377.30	24065.07	1127.76	362.80	210.16	125.05	
10	54.64	98.11	429.01	391.93	3294.16	223.06	249.35	5290.42	584.22	327.09	205.90	121.25	
11	39.28	95.41	218.74	2443.28	2731.91	210.16	218.74	1566.73	632.73	320.05	201.65	117.48	
12	33.46	100.83	152.33	4755.55	3050.38	201.65	231.75	946.07	665.54	299.13	197.43	117.48	
13	32.04	74.41	111.87	7057.30	3189.18	262.72	214.44	740.65	560.28	285.36	205.90	111.87	
14	29.24	61.08	92.72	3486.55	1950.81	236.12	201.65	649.09	436.52	306.07	236.12	114.66	
15	27.86	66.84	84.76	1819.61	898.83	267.22	197.43	592.24	391.93	280.80	210.16	121.25	
16	26.49	53.06	1338.50	910.59	657.30	466.82	306.07	544.45	391.93	285.36	201.65	117.48	
17	25.15	56.24	2642.35	1484.32	608.37	817.46	184.88	520.89	362.80	267.22	197.43	114.66	
18	22.49	474.46	9302.97	2076.92	707.05	1127.76	168.44	698.70	362.80	406.67	189.05	121.25	
19	32.04	474.46	3894.50	2204.73	732.22	632.73	201.65	1066.42	327.09	536.57	184.88	117.48	
20	66.84	156.33	1127.76	1290.64	828.98	459.20	292.23	560.28	327.09	327.09	180.74	114.66	
21	36.34	176.62	608.37	1042.10	576.22	399.28	214.44	497.56	334.17	285.36	176.62	109.08	
22	29.24	313.04	391.93	794.53	459.20	673.80	497.56	459.20	489.83	276.26	172.52	136.60	
23	29.24	180.74	280.80	608.37	536.57	665.54	875.41	436.52	313.04	262.72	172.52	117.48	
24	114.66	164.38	240.51	698.70	513.09	399.28	520.89	414.09	299.13	253.79	168.44	106.32	
25	71.86	218.74	240.51	698.70	459.20	616.47	794.53	444.05	285.36	280.80	168.44	172.52	
26	42.26	121.25	210.16	474.46	600.30	528.72	624.59	384.60	276.26	258.25	164.38	193.23	
27	121.25	98.11	201.65	399.28	544.45	320.05	592.24	370.03	271.73	244.92	160.34	148.37	
28	121.25	132.72	285.36	355.59	505.31	271.73	489.83	355.59	267.22	240.51	156.33	132.72	
29	223.06	84.76	223.06	466.82	444.05	253.79	444.05	406.67	262.72	236.12		136.60	
30	698.70	76.97	156.33	771.74	528.72	240.51	414.09	421.54	258.25	231.75		231.75	
31		92.72		698.70	616.47		384.60		258.25	231.75		172.52	
Total	2617.22	5752.48	23788.23	37013.14	36851.06	13708.66	11412.25	44546.05	12520.01	12415.78	5729.88	4215.82	210570.58 Tonday
Mean	87.24	185.56	792.94	1193.97	1188.74	456.96	368.14	1484.87	403.87	400.51	204.64	135.99	576.91 Ton/day
Max	698.70	922.38	9302.97	7057.30	3294.16	1127.76	875.41	24065.07	1127.76	2799.50	306.07	231.75	24065.07 Ton/day
Min	22.49	53.06	57.84	125.05	444.05	201.65	168.44	299.13	258.25	231.75	156.33	106.32	22.49 Ton/day

WATER YEAR : 2018

TAPI RIVER BASIN

Khlong Phum Duang at Ban Tha Khanon , Surat Thani (X.36)

Lat 09 - 01 - 44 N Long 98 - 58 - 00 E

Location : on left bank at Ban Tha Khanon.

Ban Tha Khanon **Amphoe** Khiri Ratnikhom **Changwat** Surat Thani

Drainge Area	3,012 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US DH - 49
Period of Available Records	1989 - Cont' d
Actual Measurement	1989 - 1999 , 2003-2005, 2012 - Cont' d
Using Rating Curve Water Year	2018
Number of observation	19
R-Square	0.7756
Remarks	Continued Sediment Station

$$QS = 0.5455\ QW^{1.56030}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	465.43	1358.48	954.58	1160.80	6020.50	4378.56	2195.36	1358.48	584.67	387.29	656.00	638.70		
2	664.72	726.86	781.69	934.76	3445.04	4165.63	4250.34	1280.28	630.11	1392.50	520.33	638.70		
3	591.98	763.25	621.57	1076.58	2648.35	3880.15	3011.91	1150.15	548.59	577.39	638.70	656.00		
4	506.40	584.67	499.48	828.46	2944.57	4250.34	1801.76	1107.90	492.60	866.58	599.33	252.61		
5	308.63	584.67	754.09	1192.97	2075.84	5639.57	1815.83	717.86	445.41	847.45	584.67	673.47		
6	381.02	1004.77	1944.28	2457.22	2317.27	4727.12	3148.24	1025.11	847.45	1403.91	513.34	744.97		
7	432.25	1473.05	1676.86	2240.80	3199.91	4617.17	2379.10	726.86	577.39	381.02	584.67	790.96		
8	215.84	2016.99	876.21	1426.82	7011.25	4486.46	2240.80	1045.59	445.41	520.33	591.98	682.27		
9	215.84	1066.21	1182.21	1055.88	9664.45	4486.46	5336.71	1128.95	584.67	285.74	591.98	691.10		
10	381.02	944.65	1787.72	2944.57	10078.68	4357.10	7138.87	2075.84	527.34	314.45	527.34	847.45		
11	527.34	895.57	1555.21	6238.68	11519.07	4250.34	5244.73	1567.08	541.47	268.99	326.21	555.74		
12	478.95	895.57	819.03	5382.91	10640.62	3917.24	2877.77	934.76	577.39	231.34	452.05	647.33		
13	350.19	828.46	1076.58	3624.07	9836.29	3642.16	2488.72	735.89	506.40	876.21	606.71	744.97		
14	513.34	630.11	895.57	3011.91	8541.54	4039.70	1844.10	1118.41	485.76	548.59	541.47	699.98		
15	314.45	754.09	809.64	2568.09	6783.63	3935.83	1801.76	954.58	534.39	717.86	520.33	735.89		
16	176.43	1236.35	673.47	1929.85	5757.65	5710.32	3096.86	772.45	2911.10	656.00	541.47	819.03		
17	220.97	1519.80	4018.85	1815.83	5085.15	7370.66	2410.24	599.33	3079.80	673.47	541.47	647.33		
18	226.13	1214.59	6935.08	4486.46	5153.33	9767.42	2016.99	1347.21	895.57	934.76	285.74	781.69		
19	195.78	1171.49	7842.16	6658.34	5805.13	9905.32	1901.11	1651.05	847.45	638.70	562.92	1269.25		
20	220.97	1203.76	4639.08	5733.97	7657.55	7578.92	1901.11	1004.77	555.74	781.69	606.71	1347.21		
21	285.74	924.91	3079.80	4144.54	7921.76	4314.28	1663.18	1214.59	763.25	425.72	790.96	664.72		
22	374.78	866.58	2828.04	2811.53	6783.63	3660.27	1484.69	2180.29	606.71	699.98	599.33	708.90		
23	432.25	735.89	1543.37	1815.83	6214.30	2552.14	2120.38	1313.59	699.98	682.27	577.39	699.98		
24	506.40	1014.92	1150.15	2150.26	6361.09	3096.86	2120.38	944.65	555.74	599.33	1704.33	691.10		
25	387.29	1358.48	1097.42	1415.35	5805.13	3217.21	2210.47	772.45	513.34	673.47	425.72	252.61		
26	527.34	1097.42	1369.79	1543.37	4661.04	3321.66	2363.59	726.86	458.72	555.74	591.98	735.89		
27	591.98	915.09	1392.50	1107.90	4165.63	2632.23	1973.25	699.98	452.05	717.86	699.98	876.21		
28	520.33	599.33	1651.05	2046.34	4639.08	2240.80	1567.08	599.33	513.34	356.28	534.39	717.86		
29	1097.42	1247.28	1203.76	3445.04	4639.08	2441.52	1192.97	954.58	368.57	599.33		744.97		
30	1578.98	1214.59	1107.90	3843.18	4081.52	2441.52	1676.86	744.97	438.81	577.39		744.97		
31		708.90		6020.50	4165.63		1358.48		541.47	614.12		584.67		
Total	13690.19	31556.78	56767.14	87112.81	185623.71	135024.96	78633.64	32453.84	22530.69	19805.76	16717.50	22286.53	702203.55	Tonday
Mean	456.34	1017.96	1892.24	2810.09	5987.86	4500.83	2536.57	1081.79	726.80	638.90	597.05	718.92	1923.85	Ton/day
Max	1578.98	2016.99	7842.16	6658.34	11519.07	9905.32	7138.87	2180.29	3079.80	1403.91	1704.33	1347.21	11519.07	Ton/day
Min	176.43	584.67	499.48	828.46	2075.84	2240.80	1192.97	599.33	368.57	231.34	285.74	252.61	176.43	Ton/day

WATER YEAR : 2018

TAPI RIVER BASIN

Tapi River at Ban Yan Din Daeng , Surat Thani (X.37A)

Lat 08 - 34 - 03 N Long 99 - 15 - 15 E

Location : on left bank at Tambon Yan Din Daeng.

Ban Yan Din Daeng **Amphoe** Phrasaeng **Changwat** Surat Thani

Drainge Area	5,200 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US DH - 49
Period of Available Records	1990 - Cont' d
Actual Measurement	1990 - 2000 , 2002 - Cont' d
Using Rating Curve Water Year	2018
Number of observation	19
R-Square	0.7304
Remarks	Continued Sediment Station

$$QS = 1.6166\ QW^{1.37920}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	133.96	806.40	1509.12	933.23	3667.54	1043.81	2804.93	2599.08	971.87	1311.20	494.90	131.71		
2	274.64	1137.37	1362.09	743.13	4024.78	920.45	3077.06	1912.75	791.67	1319.64	465.03	127.25		
3	498.67	1137.37	1235.87	667.25	4178.70	838.56	3836.51	1544.31	709.66	1171.32	435.68	125.03		
4	487.38	933.23	1144.14	625.58	3956.03	926.84	4314.68	1500.36	662.59	1083.64	382.11	122.83		
5	337.28	933.23	991.35	589.16	3517.27	1110.42	4570.36	1439.41	634.78	2213.71	347.49	120.63		
6	227.80	1219.30	958.94	648.64	3093.08	1235.87	4649.83	1235.87	690.72	4063.11	320.46	116.28		
7	233.90	1164.51	1076.97	796.57	3045.11	1123.87	4789.82	1205.54	709.66	4987.70	347.49	114.12		
8	347.49	920.45	946.06	733.52	3836.51	926.84	4943.09	1083.64	811.32	5693.02	327.16	111.96		
9	281.07	786.78	772.15	607.30	4511.00	901.37	5054.83	1010.93	1137.37	5972.81	290.78	114.12		
10	181.01	1083.64	832.35	690.72	5054.83	1137.37	5144.71	1269.20	1144.14	5785.87	271.45	109.83		
11	166.49	1191.82	984.84	1198.67	5531.53	1123.87	5077.26	2168.37	1184.97	5416.96	258.76	105.58		
12	166.49	1110.42	838.56	1901.84	5739.40	952.50	4920.82	2464.28	1252.50	4987.70	246.25	103.48		
13	161.73	1184.97	686.01	2089.64	5646.75	984.84	4729.69	2123.28	984.84	4570.36	233.90	101.38		
14	157.00	1050.42	580.15	2045.02	5394.13	1097.00	4451.85	1645.22	791.67	3938.90	221.73	105.58		
15	154.65	801.48	498.67	1655.70	5032.43	1076.97	4101.54	1422.13	796.57	3189.63	212.73	105.58		
16	154.65	657.93	446.63	1144.14	4530.76	1110.42	3836.51	1269.20	1171.32	2544.93	203.82	105.58		
17	154.65	821.20	502.44	838.56	3785.60	1772.25	3718.01	1090.32	3125.17	2078.46	193.36	103.48		
18	154.65	1252.50	939.64	1097.00	2930.48	2667.22	3887.61	1205.54	4217.43	1772.25	188.40	101.38		
19	157.00	1719.00	1804.41	2331.48	2763.41	3286.99	3956.03	1561.99	4876.37	1553.14	183.47	105.58		
20	203.82	2045.02	2653.55	3254.45	3205.80	3650.76	3853.53	1456.75	5348.54	1328.10	176.14	103.48		
21	221.73	1901.84	3000.88	3567.17	3583.84	3853.53	3451.04	1311.20	5554.52	1164.51	168.89	101.38		
22	171.30	1422.13	3157.36	3567.17	3768.67	3768.67	2888.46	2000.66	5669.87	1130.62	164.11	97.23		
23	152.31	1164.51	3000.88	3045.11	3734.88	3418.06	3061.07	2639.91	5531.53	1070.32	159.36	97.23		
24	143.06	1353.57	2331.48	2157.07	3533.88	2986.76	3904.69	2157.07	5235.03	914.08	161.73	95.18		
25	136.22	1561.99	1593.06	1448.08	3303.30	2585.52	4412.54	1582.68	4789.82	786.78	157.00	95.18		
26	157.00	1923.68	1387.73	1057.04	2958.58	2265.85	4689.71	1219.30	4236.83	714.41	152.31	97.23		
27	215.72	2331.48	1593.06	816.26	2544.93	2056.15	4809.91	1004.39	3600.54	662.59	145.36	109.83		
28	461.33	2357.88	1624.30	801.48	2078.46	1890.94	4809.91	1004.39	2944.52	616.42	138.49	140.77		
29	593.68	1923.68	1474.15	1387.73	1697.83	2371.11	4629.93	1057.04	2292.04	584.65		116.28		
30	529.10	1572.33	1184.97	2100.84	1404.90	2804.93	4198.06	1076.97	1761.56	553.36		101.38		
31		1404.90		2888.46	1191.82		3517.27		1430.76	525.27		97.23		
Total	7415.78	40875.03	41111.81	47428.01	113246.23	55889.74	130091.26	46261.78	75060.18	73705.46	7048.36	3383.78	641517.42	Tonday
Mean	247.19	1318.55	1370.39	1529.94	3653.10	1862.99	4196.49	1542.06	2421.30	2377.60	251.73	109.15	1757.58	Ton/day
Max	593.68	2357.88	3157.36	3567.17	5739.40	3853.53	5144.71	2639.91	5669.87	5972.81	494.90	140.77	5972.81	Ton/day
Min	133.96	657.93	446.63	589.16	1191.82	838.56	2804.93	1004.39	634.78	525.27	138.49	95.18	95.18	Ton/day

WATER YEAR : 2018

TAPI RIVER BASIN

Tapi River at Ban Tha Pho , Nakhon Si Thammarat (X.195)

Lat 08 - 30 - 24 N Long 99 - 30 - 39 E

Location : on left bank at Ban Tha Pho.

Ban Tha Pho **Amphoe** Chawang **Changwat** Nakhon Si Thammarat

Drainge Area	488 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US DH - 48
Period of Available Records	1998 - Cont'd
Actual Measurement	1998 - 2002, 2005-2006, 2011 - Cont'd
Using Rating Curve Water Year	2018
Number of observation	20
R-Square	0.7835
Remarks	Continued Sediment Station

$$QS = 1.4839\ QW^{1.54280}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	47.46	187.19	73.97	52.99	339.01	284.94	172.34	119.02	167.48	250.77	177.24	15.37		
2	50.20	107.97	64.68	42.14	296.67	290.79	290.79	115.30	158.51	302.60	122.79	15.37		
3	39.57	90.41	58.73	39.57	273.38	443.00	284.94	111.61	158.51	376.86	64.68	13.58		
4	29.87	93.83	58.73	42.14	250.77	351.47	202.47	119.02	167.48	821.74	61.68	13.58		
5	25.39	67.73	111.61	39.57	261.99	326.71	182.19	119.02	314.58	8509.74	61.68	13.58		
6	25.39	67.73	126.60	90.41	302.60	302.60	197.33	107.97	212.89	2143.59	70.82	11.88		
7	23.24	61.68	158.51	70.82	821.74	290.79	182.19	97.30	519.99	1159.44	67.73	13.58		
8	23.24	64.68	150.30	52.99	951.91	370.45	192.23	158.51	339.01	885.99	64.68	11.88		
9	50.20	52.99	150.30	52.99	593.67	314.58	339.01	223.49	320.62	738.77	61.68	11.88		
10	52.99	58.73	150.30	80.40	593.67	339.01	332.84	556.40	279.14	647.26	61.68	10.25		
11	44.77	61.68	138.27	93.83	678.61	256.36	261.99	320.62	332.84	527.21	55.83	11.88		
12	55.83	104.37	134.34	93.83	571.21	202.47	218.16	218.16	256.36	484.46	42.14	25.39		
13	83.69	67.73	130.45	97.30	519.99	218.16	207.65	167.48	223.49	484.46	42.14	27.60		
14	80.40	61.68	122.79	107.97	477.46	250.77	202.47	146.25	396.31	449.82	39.57	29.87		
15	77.16	50.20	119.02	93.83	443.00	267.67	182.19	142.24	409.46	436.22	39.57	27.60		
16	77.16	47.46	119.02	83.69	339.01	261.99	182.19	134.34	2825.52	491.50	37.06	27.60		
17	73.97	64.68	142.24	90.41	302.60	332.84	261.99	142.24	3486.46	484.46	37.06	27.60		
18	73.97	111.61	146.25	154.39	332.84	326.71	182.19	122.79	1457.79	498.57	34.60	27.60		
19	70.82	122.79	197.33	364.09	429.47	290.79	177.24	126.60	1857.62	470.50	32.20	27.60		
20	70.82	93.83	212.89	218.16	443.00	308.57	154.39	111.61	1735.21	456.68	29.87	27.60		
21	70.82	80.40	239.72	172.34	463.57	239.72	146.25	631.78	1030.91	422.76	32.20	27.60		
22	67.73	90.41	192.23	146.25	498.57	261.99	162.68	800.71	800.71	345.22	34.60	25.39		
23	70.82	93.83	172.34	134.34	505.67	212.89	631.78	332.84	678.61	302.60	32.20	25.39		
24	67.73	87.03	150.30	122.79	498.57	202.47	370.45	228.85	608.82	290.79	32.20	25.39		
25	67.73	104.37	158.51	111.61	443.00	202.47	256.36	187.19	491.50	279.14	29.87	27.60		
26	83.69	142.24	93.83	107.97	416.09	308.57	314.58	162.68	422.76	273.38	21.17	27.60		
27	80.40	146.25	70.82	107.97	370.45	218.16	212.89	146.25	296.67	267.67	19.16	27.60		
28	25.39	126.60	58.73	158.51	332.84	218.16	142.24	138.27	273.38	256.36	17.23	25.39		
29	23.24	93.83	52.99	150.30	320.62	187.19	126.60	162.68	250.77	245.23		25.39		
30	119.02	80.40	50.20	320.62	314.58	182.19	107.97	154.39	239.72	218.16		23.24		
31		90.41		484.46	302.60		97.30		234.27	187.19		23.24		
Total	1752.71	2774.74	3806.00	3978.68	13689.16	8264.48	6975.89	6305.61	20947.39	23709.14	1423.33	675.12	94302.25	Tonday
Mean	58.42	89.51	126.87	128.34	441.59	275.48	225.03	210.19	675.72	764.81	50.83	21.78	258.36	Ton/day
Max	119.02	187.19	239.72	484.46	951.91	443.00	631.78	800.71	3486.46	8509.74	177.24	29.87	8509.74	Ton/day
Min	23.24	47.46	50.20	39.57	250.77	182.19	97.30	97.30	158.51	187.19	17.23	10.25	10.25	Ton/day

WATER YEAR : 2018

TAPI RIVER BASIN

Khlong Sin Pun at Ban Bang Rup , Surat Thani (X.198)

Lat 08 - 24 - 24 N Long 99 - 15 - 05 E

Location : on right bank at Ban Bang Rup.

Ban Bang Rup **Amphoe** Phrasaeng **Changwat** Surat Thani

Drainge Area	866 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US DH - 49
Period of Available Records	2009 - Cont' d
Actual Measurement	2009 - Cont' d
Using Rating Curve Water Year	2018
Number of observation	19
R-Square	0.8394
Remarks	Continued Sediment Station

$$QS = 8.3422\ QW^{1.12790}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	7.78	58.35	418.05	211.34	502.55	133.43	581.85	851.36	80.11	167.64	58.35	23.45		
2	7.78	126.49	370.13	125.34	534.11	129.96	555.27	744.06	80.96	166.32	56.83	23.03		
3	7.41	264.15	304.58	79.13	516.05	127.65	568.62	662.39	94.84	161.05	54.61	22.18		
4	7.41	339.89	240.88	64.72	484.62	126.49	605.96	565.88	117.56	291.03	53.79	21.34		
5	7.41	368.10	226.06	62.94	473.45	124.19	651.58	477.91	161.05	735.92	51.59	21.34		
6	7.13	411.46	222.78	53.79	448.98	121.89	686.85	398.31	189.48	957.00	49.28	20.93		
7	7.13	333.88	203.21	42.32	460.08	119.60	724.98	333.88	196.87	1150.78	47.79	20.51		
8	7.13	284.29	182.12	63.89	635.41	117.56	760.52	291.03	219.50	1145.85	45.73	20.09		
9	6.85	226.06	208.08	128.80	806.98	115.53	791.19	234.28	232.63	1103.19	44.36	19.26		
10	6.85	196.87	270.84	242.54	886.41	112.50	769.15	208.08	242.54	912.81	42.32	19.26		
11	7.13	170.42	358.00	345.92	957.00	109.47	730.45	190.96	255.81	819.63	41.64	21.76		
12	6.85	158.42	335.88	504.80	1017.62	108.46	700.36	165.00	267.50	749.54	40.29	25.58		
13	6.85	153.17	282.60	522.81	889.61	107.45	670.58	142.74	292.72	705.81	38.27	29.34		
14	6.58	146.64	247.51	378.67	819.63	131.11	630.03	126.49	411.46	662.39	36.27	32.62		
15	6.30	133.43	206.46	272.52	738.58	177.73	592.51	112.50	565.88	619.28	34.27	35.60		
16	6.30	161.05	180.66	219.50	630.03	242.54	558.00	102.44	648.96	573.93	33.17	38.27		
17	6.03	190.96	226.06	217.87	513.80	331.88	529.59	98.57	714.06	534.11	32.62	43.68		
18	6.03	232.63	325.03	314.79	422.45	407.07	493.58	92.99	735.92	473.45	31.52	50.09		
19	5.76	264.15	385.20	372.15	368.10	473.45	448.98	88.30	772.30	385.20	30.43	53.10		
20	5.76	301.19	462.31	482.38	321.61	549.97	413.65	85.60	841.83	328.45	28.80	64.72		
21	5.49	296.11	525.07	444.54	289.34	630.03	383.02	84.62	857.72	285.97	28.26	80.11		
22	5.49	272.52	549.97	366.08	239.23	689.49	431.27	83.76	700.36	211.34	27.18	89.28		
23	5.22	297.80	473.45	262.48	196.87	716.71	545.43	83.76	520.56	176.26	26.11	95.71		
24	5.22	341.90	387.38	159.73	174.80	724.98	665.17	82.79	464.53	126.49	25.58	100.44		
25	5.49	402.68	319.90	101.44	159.73	665.17	813.30	82.79	400.49	94.84	25.04	104.44		
26	6.03	448.98	247.51	81.93	145.34	531.85	940.90	81.93	294.41	81.93	24.51	109.47		
27	12.78	500.31	353.97	91.13	140.41	418.05	993.32	80.96	262.48	73.69	23.98	107.45		
28	20.93	543.17	328.45	127.65	139.24	464.53	1009.52	80.96	259.15	66.51	23.98	77.32		
29	25.58	525.07	307.98	206.46	138.08	565.88	1013.57	80.96	234.28	62.94		72.85		
30	22.18	489.09	289.34	376.50	136.91	605.96	989.28	80.11	201.59	62.23		70.09		
31		453.42		475.68	136.91		924.84		177.73	62.23		69.25		
Total	250.88	9092.65	9439.46	7399.84	14323.93	9880.58	21173.32	6795.41	11495.28	13947.81	1056.57	1582.56	106438.29	Tonday
Mean	8.36	293.31	314.65	238.70	462.06	329.35	683.01	226.51	370.82	449.93	37.73	51.05	291.61	Ton/day
Max	25.58	543.17	549.97	522.81	1017.62	724.98	1013.57	851.36	857.72	1150.78	58.35	109.47	1150.78	Ton/day
Min	5.22	58.35	180.66	42.32	136.91	107.45	383.02	80.11	80.11	62.23	23.98	19.26	5.22	Ton/day

WATER YEAR : 2018

TAPI RIVER BASIN

Lower Khlong I - Pan at Ban Arpart , Surat Thani (X.260)

Lat 08 - 32 - 28 N Long 99 - 13 - 25 E

Location : on left bank at Ban Arpart.

Ban Arpart **Amphoe** Phrasaeng **Changwat** Surat Thani

Drainge Area	2,076 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US DH - 49
Period of Available Records	2007 - Cont' d
Actual Measurement	2007 - Cont' d
Using Rating Curve Water Year	2018
Number of observation	19
R-Square	0.7482
Remarks	Continued Sediment Station

$$QS = 5.1457\ QW^{1.18320}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	98.79	669.80	445.58	276.54	1344.89	322.22	721.87	748.12	336.13	340.78	146.49	81.72		
2	267.53	715.32	387.88	227.61	1513.65	292.40	1029.08	577.05	272.03	343.12	138.85	81.72		
3	406.97	523.71	431.04	240.81	1484.33	267.53	1414.34	542.44	243.02	301.53	134.30	80.32		
4	263.05	364.21	392.64	243.02	1185.70	301.53	1616.20	653.66	232.00	276.54	128.27	80.32		
5	144.95	624.76	324.53	211.29	940.49	385.50	1636.24	631.16	227.61	754.70	123.77	80.32		
6	126.76	916.00	373.65	287.86	815.04	428.62	1616.20	536.19	240.81	1391.13	122.28	78.92		
7	225.43	807.04	387.88	336.13	989.78	352.47	1723.51	586.54	263.05	1669.72	169.76	78.92		
8	354.81	514.38	283.32	243.02	1373.76	281.06	1834.14	462.02	267.53	1887.18	135.81	78.92		
9	196.76	326.84	260.81	199.97	1642.93	290.13	1932.84	416.57	533.06	1811.47	114.85	78.92		
10	108.97	404.58	378.38	319.91	2055.40	364.21	1940.46	644.01	431.04	1543.05	107.51	77.53		
11	88.77	392.64	421.39	673.04	2338.40	310.70	1849.27	1048.47	567.58	1339.12	103.13	77.53		
12	88.77	418.98	301.53	932.32	2319.57	272.03	1797.90	1111.86	477.33	1210.48	98.79	76.14		
13	78.92	366.57	229.81	903.79	2155.82	299.24	1737.00	847.14	326.84	1102.07	97.35	76.14		
14	69.26	329.16	191.95	787.10	1894.78	352.47	1496.05	570.73	267.53	960.98	94.48	76.14		
15	62.49	303.82	166.63	570.73	1589.54	336.13	1362.20	554.99	251.89	819.04	93.04	76.14		
16	58.48	278.80	152.64	378.38	1310.36	390.26	1220.41	480.40	483.48	679.52	93.04	76.14		
17	62.49	605.60	249.67	292.40	1038.76	754.70	1200.56	387.88	1200.56	561.28	91.62	76.14		
18	81.72	911.92	644.01	599.24	839.10	1121.66	1333.36	599.24	1425.97	486.55	90.19	76.14		
19	70.63	1102.07	956.88	1141.31	993.91	1356.42	1425.97	819.04	1472.63	418.98	88.77	76.14		
20	160.39	1121.66	1175.81	1402.73	1230.36	1525.40	1295.30	640.79	1513.65	352.47	87.35	76.14		
21	166.63	863.27	1290.29	1562.95	1402.73	1582.89	1063.04	564.43	1519.52	308.40	85.94	76.14		
22	100.24	570.73	1316.11	1519.52	1466.79	1310.36	863.27	928.23	1472.63	368.93	84.53	76.14		
23	77.53	455.92	1097.18	1131.48	1300.32	1006.30	1087.41	952.78	1391.13	347.79	84.53	76.14		
24	59.81	599.24	715.32	692.51	1111.86	871.35	1321.85	689.26	1290.29	274.28	83.12	74.76		
25	53.19	660.11	498.89	445.58	1006.30	748.12	1443.44	489.63	1185.70	219.43	76.14	74.76		
26	97.35	767.90	471.20	338.45	851.17	708.79	1582.89	387.88	1033.92	199.97	72.00	74.76		
27	135.81	879.44	564.43	274.28	718.59	611.98	1723.51	326.84	879.44	185.57	69.26	74.76		
28	373.65	761.30	526.82	317.60	589.71	536.19	1834.14	340.78	718.59	176.06	69.26	74.76		
29	440.72	602.42	445.58	644.01	480.40	666.57	1703.31	357.16	570.73	166.63		74.76		
30	423.79	489.63	352.47	843.12	409.37	791.08	1362.20	383.13	435.87	160.39		74.76		
31		406.97		1087.41	359.51		1024.24		361.86	152.64		74.76		
Total	4944.66	18754.79	15434.32	19124.11	38753.32	18838.31	45192.20	18278.42	21893.42	20809.80	2884.43	2386.90	227294.68	Tonday
Mean	164.82	604.99	514.48	616.91	1250.11	627.94	1457.81	609.28	706.24	671.28	103.02	77.00	622.73	Ton/day
Max	440.72	1121.66	1316.11	1562.95	2338.40	1582.89	1940.46	1111.86	1519.52	1887.18	169.76	81.72	2338.40	Ton/day
Min	53.19	278.80	152.64	199.97	359.51	267.53	721.87	326.84	227.61	152.64	69.26	74.76	53.19	Ton/day

WATER YEAR : 2018

THALE SAP SONGKHLA

Khlong Ratthaphum at Ban Nasithong , Songkhla (X.67A)

Lat 07 - 06 - 50 N Long 100 - 12 - 15 E

Location : on right bank at Ban Nasithong.

Ban Nasithong **Amphoe** Ratthaphum **Changwat** Songkhla

Drainge Area	272 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US D-59
Period of Available Records	2008 - Cont' d
Actual Measurement	2008 - Cont' d
Using Rating Curve Water Year	2018
Number of observation	15
R-Square	0.9658
Remarks	Continued Sediment Station

$$QS = 1.5937\ QW^{1.84810}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	18.79	28.38	203.17	26.75	47.13	20.66	49.24	39.11	28.38	162.22	41.05	15.30		
2	25.16	19.71	75.23	23.61	37.21	19.71	51.39	115.47	39.11	118.64	41.05	15.30		
3	18.79	18.79	49.24	23.61	35.36	18.79	51.39	506.91	31.78	121.85	41.05	15.30		
4	17.00	17.89	37.21	22.11	30.06	25.16	65.20	273.98	162.22	764.65	41.05	14.48		
5	15.30	17.89	31.78	25.16	28.38	22.11	103.17	319.33	237.65	966.78	37.21	14.48		
6	15.30	17.00	26.75	60.43	25.16	18.79	100.19	203.17	97.26	470.24	35.36	14.48		
7	14.48	17.89	23.61	41.05	23.61	17.00	810.32	115.47	162.22	243.54	35.36	14.48		
8	14.48	17.89	22.11	28.38	23.61	14.48	237.65	94.36	91.51	184.51	33.55	14.48		
9	14.48	19.71	20.66	70.13	26.75	15.30	149.67	75.23	645.15	261.60	33.55	14.48		
10	15.30	19.71	19.71	299.50	112.33	17.89	97.26	106.18	645.15	198.29	30.06	14.48		
11	19.71	19.71	18.79	162.22	60.43	17.00	80.50	85.92	1491.90	138.51	28.38	16.14		
12	17.00	17.00	25.16	80.50	39.11	17.89	77.84	70.13	452.37	170.93	26.75	17.89		
13	15.30	15.30	20.66	58.11	31.78	30.06	60.43	60.43	299.50	293.02	26.75	20.66		
14	14.48	15.30	18.79	47.13	26.75	33.55	60.43	58.11	255.52	153.73	25.16	16.14		
15	13.68	16.14	17.89	45.06	25.16	88.70	55.83	47.13	479.49	118.64	23.61	14.48		
16	13.68	20.66	17.89	37.21	23.61	212.81	49.24	47.13	1510.31	103.17	22.11	13.68		
17	12.90	19.71	37.21	33.55	22.11	326.07	55.83	55.83	1907.95	100.19	20.66	13.68		
18	11.40	18.79	121.85	60.43	22.11	574.34	49.24	53.59	676.99	94.36	20.66	12.90		
19	12.14	19.71	676.99	67.65	25.16	255.52	41.05	60.43	1198.42	85.92	28.38	12.90		
20	12.90	15.30	525.73	47.13	35.36	109.24	37.21	75.23	645.15	77.84	23.61	12.14		
21	12.90	13.68	145.44	35.36	47.13	112.33	35.36	60.43	312.66	72.66	20.66	12.14		
22	12.14	12.90	83.19	30.06	30.06	135.10	31.78	94.36	212.81	67.65	19.71	12.14		
23	11.40	22.11	60.43	26.75	94.36	179.84	28.38	51.39	162.22	65.20	19.71	11.40		
24	12.90	20.66	49.24	23.61	125.10	94.36	37.21	41.05	162.22	60.43	18.79	11.40		
25	16.14	16.14	58.11	23.61	49.24	77.84	188.96	35.36	207.82	58.11	17.89	11.40		
26	20.66	16.14	53.59	30.06	33.55	62.79	85.92	31.78	131.73	53.59	17.00	12.14		
27	17.89	35.36	43.03	23.61	26.75	67.65	60.43	30.06	131.73	51.39	17.00	11.40		
28	16.14	41.05	39.11	30.06	22.11	70.13	43.03	33.55	479.49	49.24	16.14	10.69		
29	20.66	273.98	33.55	26.75	22.11	53.59	37.21	31.78	434.83	49.24		10.69		
30	60.43	222.65	30.06	31.78	20.66	45.06	60.43	31.78	162.22	47.13		12.14		
31		525.73		80.50	20.66		53.59		125.10	45.06		15.30		
Total	513.53	1572.88	2586.18	1621.87	1192.91	2753.76	2945.38	2904.68	13580.86	5448.33	762.26	428.71	36311.35	Tonday
Mean	17.12	50.74	86.21	52.32	38.48	91.79	95.01	96.82	438.09	175.75	27.22	13.83	99.48	Ton/day
Max	60.43	525.73	676.99	299.50	125.10	574.34	810.32	506.91	1907.95	966.78	41.05	20.66	1907.95	Ton/day
Min	11.40	12.90	17.89	22.11	20.66	14.48	28.38	30.06	28.38	45.06	16.14	10.69	10.69	Ton/day

WATER YEAR : 2018

THALE SAP SONGKHLA

Khlong Tam at Ban Khuan Lang , Songkhla (X.71B)

Lat 06 - 59 - 15 N Long 100 - 25 - 27 E

Location : on left bank at the bridge.

Ban Khuan Lang **Amphoe** Hat Yai **Changwat** Songkhla

Drainge Area	148 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-59
Period of Available Records	2005 - Cont' d
Actual Measurement	2005 - Cont' d
Using Rating Curve Water Year	2018
Number of observation	14
R-Square	0.8355
Remarks	Continued Sediment Station

$$QS = 7.1726\ QW^{0.90820}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	13.46	6.39	23.77	6.12	7.76	4.99	15.28	23.36	10.05	29.75	9.10	10.37		
2	12.85	15.88	21.91	5.46	6.58	4.71	12.54	25.38	9.29	26.18	8.40	10.37		
3	10.99	12.85	15.58	4.99	5.66	4.71	11.92	27.77	8.66	28.96	7.95	10.37		
4	10.37	8.66	12.23	4.99	4.99	6.12	13.15	24.57	38.44	75.22	8.40	8.46		
5	9.74	7.50	10.05	4.99	4.51	5.92	13.46	27.77	74.61	110.44	8.40	1.66		
6	10.37	11.30	8.85	7.30	4.03	5.19	13.46	29.75	52.76	86.70	7.95	1.12		
7	10.99	14.37	7.76	6.85	3.54	5.19	26.98	26.98	38.93	52.76	7.50	1.05		
8	8.91	9.55	7.04	6.39	3.54	5.46	40.90	33.46	33.96	38.93	7.50	0.89		
9	9.10	8.21	6.58	6.58	4.03	5.19	45.79	30.15	34.46	32.45	7.50	1.59		
10	10.37	8.85	6.58	11.30	6.39	4.71	31.44	75.22	41.99	28.57	7.04	6.39		
11	15.28	9.29	6.58	14.68	10.37	4.71	28.17	124.20	81.36	23.36	6.85	10.37		
12	15.28	8.21	6.39	11.61	8.66	4.24	24.17	61.74	88.97	23.36	6.58	10.99		
13	11.61	7.04	6.12	9.10	7.30	4.03	20.16	38.44	60.17	23.36	6.39	10.99		
14	10.37	5.66	6.12	7.76	5.92	4.24	16.60	28.96	64.88	19.10	6.39	10.37		
15	9.74	7.30	5.92	6.85	5.19	8.85	14.68	24.98	62.94	16.25	9.74	9.74		
16	9.10	7.95	6.12	6.39	4.51	26.98	16.96	22.61	92.30	16.60	16.84	9.74		
17	8.91	13.15	7.76	6.12	5.19	39.43	18.75	26.58	140.35	22.61	16.84	9.10		
18	8.91	10.68	14.68	9.29	6.58	39.92	14.68	40.90	104.00	22.61	7.30	8.91		
19	8.66	9.29	32.45	13.46	6.58	39.43	12.54	41.99	110.44	19.10	1.51	8.91		
20	8.91	8.40	41.99	10.99	13.77	22.61	10.05	32.95	111.43	16.60	1.51	8.66		
21	8.66	7.95	27.77	9.10	10.99	19.81	9.55	24.98	70.74	14.98	1.51	8.66		
22	8.21	10.05	18.39	7.76	8.21	16.60	9.74	22.61	46.33	13.77	1.43	8.66		
23	8.01	11.92	18.39	6.58	7.50	13.77	9.74	20.51	36.45	12.54	1.43	8.46		
24	7.56	9.55	14.68	5.66	15.28	11.92	40.90	15.28	29.75	11.92	3.82	8.46		
25	9.74	8.66	12.23	5.19	10.99	10.37	79.83	13.77	25.78	11.61	9.10	8.46		
26	9.10	8.40	11.61	5.19	8.40	9.55	44.71	12.23	23.36	10.99	11.61	8.46		
27	9.74	15.88	10.99	5.46	7.04	9.29	30.15	11.61	21.21	10.37	10.99	8.46		
28	8.21	22.61	9.10	5.66	6.39	13.15	23.36	10.99	38.93	9.74	10.99	8.21		
29	6.39	31.95	7.76	5.46	5.92	10.37	18.39	10.68	59.64	9.55		8.21		
30	6.58	40.90	6.85	4.99	5.19	8.85	15.88	10.37	35.96	9.55		8.46		
31		27.77		6.39	4.99		27.77		28.96	9.55		9.10		
Total	296.12	386.17	392.25	228.66	216.00	370.31	711.70	920.79	1677.10	837.48	210.57	243.65	6490.80	Tonday
Mean	9.87	12.46	13.08	7.38	6.97	12.34	22.96	30.69	54.10	27.02	7.52	7.86	17.78	Ton/day
Max	15.28	40.90	41.99	14.68	15.28	39.92	79.83	124.20	140.35	110.44	16.84	10.99	140.35	Ton/day
Min	6.39	5.66	5.92	4.99	3.54	4.03	9.55	10.37	8.66	9.55	1.43	0.89	0.89	Ton/day

WATER YEAR : 2018

THALE SAP SONGKHLA

Khlong U - Taphao at Ban Bang Sala , Songkhla (X.90)

Lat 06 - 55 - 39 N Long 100 - 26 - 37 E

Location : on left bank at the bridge near Wat Bang Sala, Tambon Thung Lan.

Ban Bang Sala **Amphoe** Khlong Hoi Khong **Changwat** Songkhla

Drainge Area	1,547 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US D-48
Period of Available Records	1982 - Cont' d
Actual Measurement	1982 - Cont' d
Using Rating Curve Water Year	2018
Number of observation	14
R-Square	0.8564
Remarks	Continued Sediment Station

$$QS = 2.5298\ QW^{1.45050}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	81.96	203.63	544.82	275.93	1304.45	248.02	131.02	109.13	116.29	285.43	61.27	49.78		
2	77.68	186.66	635.17	203.63	870.88	178.34	314.54	178.34	102.12	138.59	61.27	55.43		
3	37.36	285.43	212.29	304.74	667.47	229.94	439.30	354.68	109.13	229.94	63.25	55.43		
4	26.12	428.41	203.63	304.74	465.01	229.94	203.63	229.94	417.62	1725.90	55.43	55.43		
5	17.54	295.04	212.29	257.22	465.01	266.53	439.30	138.59	517.78	4282.00	46.12	55.43		
6	10.12	203.63	504.43	334.42	385.75	504.43	88.53	354.68	275.93	3539.31	37.36	53.53		
7	20.28	295.04	285.43	364.95	439.30	195.09	587.76	221.06	186.66	2167.80	27.65	49.78		
8	26.12	558.50	324.43	146.29	504.43	266.53	1244.89	178.34	146.29	1128.41	46.12	40.80		
9	32.39	221.06	417.62	266.53	428.41	275.93	1264.56	146.29	266.53	635.17	71.38	34.02		
10	40.80	285.43	417.62	396.29	238.93	116.29	1205.59	1488.21	491.18	544.82	86.32	29.20		
11	53.53	587.76	385.75	619.31	504.43	131.02	853.37	2469.88	667.47	396.29	103.28	24.62		
12	39.07	266.53	334.42	504.43	344.50	138.59	478.04	1801.59	801.29	35.68	110.32	26.12		
13	24.62	138.59	275.93	186.66	186.66	178.34	324.43	1090.30	417.62	90.75	110.32	53.53		
14	32.39	170.15	396.29	170.15	248.02	385.75	275.93	439.30	385.75	103.28	103.28	81.96		
15	39.07	700.26	587.76	162.07	238.93	603.57	428.41	195.09	324.43	117.50	96.38	81.96		
16	40.80	906.45	767.08	138.59	178.34	1147.49	229.94	178.34	465.01	143.71	90.75	71.38		
17	42.55	767.08	517.78	295.04	221.06	1488.21	295.04	257.22	700.26	128.53	84.14	59.30		
18	44.32	238.93	683.70	439.30	266.53	1529.88	295.04	266.53	558.50	86.32	79.81	46.12		
19	44.32	417.62	870.88	818.47	314.54	1551.11	385.75	334.42	700.26	84.14	84.14	35.68		
20	44.32	517.78	1166.67	888.50	406.91	924.29	81.96	195.09	924.29	69.32	75.56	26.12		
21	42.55	531.25	1052.59	452.10	439.30	385.75	109.13	195.09	978.67	51.64	84.14	18.90		
22	42.55	801.29	651.36	354.68	229.94	478.04	109.13	924.29	572.28	92.99	81.96	12.45		
23	44.32	1015.54	504.43	203.63	195.09	396.29	88.53	203.63	314.54	132.28	73.46	6.91		
24	42.55	406.91	344.50	354.68	428.41	304.74	767.08	266.53	385.75	96.38	61.27	3.70		
25	51.64	221.06	334.42	439.30	375.30	406.91	3665.30	354.68	767.08	57.36	51.64	1.51		
26	92.99	375.30	572.28	478.04	238.93	248.02	2194.76	154.12	531.25	55.43	39.07	0.67		
27	248.02	1509.00	221.06	257.22	385.75	364.95	853.37	203.63	1186.20	59.30	39.07	2.53		
28	212.29	406.91	314.54	229.94	465.01	304.74	558.50	266.53	1205.59	51.64	44.32	3.70		
29	170.15	544.82	375.30	587.76	452.10	221.06	285.43	170.15	1034.02	42.55		5.00		
30	478.04	1090.30	354.68	942.23	406.91	266.53	544.82	131.02	504.43	35.68		6.42		
31		906.45		870.88	324.43		517.78		275.93	53.53		24.62		
Total	2200.46	15482.81	14469.15	12247.72	12620.73	13966.32	19260.86	13496.69	16330.15	16661.67	1969.08	1072.03	139777.67	Tonday
Mean	73.35	499.45	482.31	395.09	407.12	465.54	621.32	449.89	526.78	537.47	70.32	34.58	382.95	Ton/day
Max	478.04	1509.00	1166.67	942.23	1304.45	1551.11	3665.30	2469.88	1205.59	4282.00	110.32	81.96	4282.00	Ton/day
Min	10.12	138.59	203.63	138.59	178.34	116.29	81.96	109.13	102.12	35.68	27.65	0.67	0.67	Ton/day

WATER YEAR : 2018

THALE SAP SONGKHLA

Khlong Bang Kaeo at Ban Khuan In No Mo , Phutthalung (X.109)

Lat 07 - 20 - 29 N Long 100 - 03 - 35 E

Location : on left bank at Ban Khuan In No Mo.

Ban Khuan In No Mo **Amphoe** Ta Mot **Changwat** Phatthalung

Drainge Area	131 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2005 - Cont' d
Actual Measurement	2005 - Cont' d
Using Rating Curve Water Year	2018
Number of observation	15
R-Square	0.8132
Remarks	Continued Sediment Station

$$QS = 1.8248\ QW^{1.62400}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	10.28	11.46	18.77	12.68	9.71	4.74	18.77	12.68	22.53	44.02	12.07	4.32		
2	10.28	5.62	17.34	12.68	8.08	4.74	9.16	29.08	24.10	45.03	9.16	4.32		
3	10.28	5.18	15.95	12.68	8.08	4.74	10.87	309.62	29.94	58.96	8.08	4.32		
4	10.28	5.18	14.61	12.07	7.56	9.71	10.87	229.00	180.01	501.24	7.56	4.32		
5	10.28	4.74	13.96	12.07	7.56	5.62	9.71	169.75	177.43	199.96	7.06	4.32		
6	9.71	4.74	13.31	36.25	7.06	5.18	15.95	67.05	242.43	102.53	6.09	3.91		
7	9.71	4.74	12.68	17.34	7.06	5.18	81.82	30.81	131.06	69.43	6.09	3.91		
8	9.71	20.99	12.68	13.96	7.06	5.18	24.10	43.02	81.82	54.52	6.09	3.91		
9	9.71	13.96	12.07	22.53	6.57	5.18	17.34	54.52	154.79	44.02	5.62	3.91		
10	9.71	13.31	12.07	65.87	6.57	5.18	13.96	117.56	154.79	43.02	5.62	3.91		
11	9.71	11.46	11.46	20.99	6.57	4.74	12.07	75.53	527.13	36.25	5.62	4.32		
12	9.71	11.46	16.64	15.27	6.09	4.74	10.87	697.10	193.70	32.59	5.62	4.32		
13	9.71	12.07	12.68	13.96	6.09	4.74	9.16	76.77	209.41	43.02	5.62	4.32		
14	9.71	10.87	11.46	13.31	6.09	4.74	9.16	50.22	74.30	47.08	5.18	4.74		
15	9.71	10.87	10.28	13.31	6.09	7.06	8.61	51.28	124.24	33.49	5.18	4.74		
16	9.71	10.28	9.16	12.68	5.62	24.91	8.61	133.36	520.61	26.55	5.18	4.74		
17	9.71	10.28	24.10	12.68	5.62	21.75	8.61	70.64	457.15	23.31	5.18	4.74		
18	9.71	9.16	34.40	154.79	5.62	18.77	8.08	140.37	180.01	22.53	5.18	5.18		
19	9.71	9.16	80.55	39.10	5.62	11.46	7.56	60.10	1852.08	21.75	5.18	5.18		
20	9.71	8.61	49.17	23.31	5.62	7.56	7.56	42.02	1560.01	21.75	4.74	5.18		
21	9.71	8.61	27.38	22.53	5.62	7.06	6.57	30.81	169.75	20.99	4.74	5.18		
22	10.28	8.08	21.75	17.34	5.18	7.06	6.09	38.14	87.00	20.24	4.74	5.62		
23	10.28	8.08	20.24	12.68	5.18	6.57	46.05	28.22	65.87	18.77	4.74	5.62		
24	10.28	8.08	18.77	12.07	5.18	6.57	13.96	24.10	54.52	17.34	4.32	5.62		
25	10.87	8.08	17.34	12.68	5.18	8.08	47.08	21.75	45.03	18.05	4.32	5.62		
26	10.87	18.77	15.95	11.46	5.18	7.06	16.64	18.77	30.81	17.34	4.32	5.62		
27	10.87	27.38	15.27	10.87	4.74	6.57	13.96	15.27	90.95	16.64	4.32	5.18		
28	13.96	50.22	13.96	10.87	4.74	6.09	13.96	44.02	49.17	15.95	4.32	5.18		
29	18.05	35.32	13.96	10.87	4.74	5.62	13.31	48.12	61.23	15.27		5.18		
30	22.53	29.08	13.31	28.22	4.74	5.18	12.07	41.04	38.14	14.61		5.18		
31		27.38		18.77	4.74		12.68		34.40	13.96		8.08		
Total	324.75	423.22	581.27	705.89	189.56	231.78	505.21	2770.72	7624.41	1660.21	161.94	150.69	15329.65	Tonday
Mean	10.83	13.65	19.38	22.77	6.11	7.73	16.30	92.36	245.95	53.56	5.78	4.86	42.00	Ton/day
Max	22.53	50.22	80.55	154.79	9.71	24.91	81.82	697.10	1852.08	501.24	12.07	8.08	1852.08	Ton/day
Min	9.71	4.74	9.16	10.87	4.74	4.74	6.09	12.68	22.53	13.96	4.32	3.91	3.91	Ton/day

WATER YEAR : 2018

THALE SAP SONGKHLA

Khlong La Pang at Ban Thung Prap , Songkhla (X.113)

Lat 06 - 37 - 59 N Long 100 - 23 - 46 E

Location : on right bank at Ban Thung Prap.

Ban Thung Prap **Amphoe** Sadao **Changwat** Songkhla

Drainge Area	129 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US D-49
Period of Available Records	1981 - Cont' d
Actual Measurement	1981 - Cont' d
Using Rating Curve Water Year	2018
Number of observation	14
R-Square	0.9012
Remarks	Continued Sediment Station

$$QS = 8.9578\ QW^{1.53450}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	13.72	15.68	44.44	14.36	53.38	8.41	32.59	24.37	15.01	26.75	11.85	7.36	
2	13.72	25.95	25.16	20.59	33.45	8.41	285.31	22.08	16.35	25.95	11.85	5.41	
3	10.66	35.21	17.72	11.85	28.38	37.00	34.33	23.60	15.01	62.59	11.85	4.96	
4	13.08	25.95	14.36	16.35	23.60	135.77	41.60	26.75	39.73	398.46	16.35	4.52	
5	13.72	10.66	13.08	19.86	20.59	23.60	33.45	30.04	28.38	105.22	13.72	4.09	
6	9.51	25.16	11.85	21.33	18.43	15.68	25.16	25.16	29.20	40.66	11.25	4.09	
7	8.41	17.72	11.25	13.08	19.14	16.35	133.65	25.95	18.43	34.33	10.66	4.09	
8	7.88	12.46	10.08	10.66	18.43	14.36	97.54	22.08	20.59	31.73	10.08	4.09	
9	7.88	9.51	9.51	21.33	81.02	12.46	103.28	48.34	91.91	29.20	10.08	3.68	
10	7.88	14.36	8.96	51.34	72.31	16.35	178.20	796.79	48.34	25.95	9.51	4.96	
11	7.88	9.51	8.41	31.73	27.56	13.72	42.54	115.10	394.34	22.83	9.51	37.00	
12	12.46	7.88	8.41	17.03	20.59	13.08	44.44	40.66	47.36	22.08	9.51	27.56	
13	8.96	19.14	7.88	13.08	17.72	25.16	99.44	33.45	30.88	22.83	9.51	9.51	
14	8.41	121.18	7.88	15.68	15.68	31.73	113.10	29.20	26.75	21.33	9.51	5.88	
15	12.46	41.60	7.36	15.68	14.36	281.65	103.28	26.75	30.04	19.86	9.51	4.52	
16	8.96	16.35	10.08	10.66	13.72	271.21	243.33	27.56	49.34	18.43	9.51	4.52	
17	7.36	19.14	193.61	15.01	13.08	123.23	52.36	26.75	49.34	18.43	9.51	4.09	
18	6.86	12.46	338.29	243.33	13.72	135.77	45.41	37.00	27.56	19.14	9.51	4.09	
19	7.88	55.96	243.33	55.96	39.73	37.90	41.60	31.73	59.91	17.72	46.38	3.68	
20	9.51	190.81	90.06	25.95	68.09	30.04	30.04	25.95	70.89	16.35	17.03	3.28	
21	7.36	52.36	31.73	21.33	17.72	26.75	27.56	23.60	29.20	15.01	20.59	3.28	
22	8.96	88.23	22.08	15.68	14.36	30.88	25.16	23.60	24.37	14.36	11.85	2.90	
23	7.36	38.81	19.14	14.36	36.10	54.66	23.60	21.33	21.33	13.72	10.08	2.90	
24	6.36	17.72	78.08	12.46	24.37	52.36	137.90	19.86	42.54	13.72	9.51	2.90	
25	10.66	14.36	52.36	11.25	15.01	30.88	164.37	17.72	369.96	13.08	9.51	3.68	
26	19.14	72.31	19.86	10.66	13.08	22.83	37.00	17.03	148.73	11.85	8.96	3.28	
27	10.08	28.38	15.68	185.26	11.85	19.86	38.81	15.01	210.71	11.85	8.96	3.28	
28	8.41	17.03	14.36	338.29	11.25	75.17	27.56	13.72	38.81	11.85	7.36	3.28	
29	12.46	361.95	12.46	188.03	10.08	50.34	25.16	12.46	31.73	11.85		2.90	
30	15.68	42.54	11.25	458.72	9.51	22.08	23.60	14.36	55.96	11.25		12.46	
31		20.59		378.02	8.96		22.83		29.20	11.25		27.56	
Total	303.67	1440.97	1358.72	2278.92	785.27	1637.69	2334.20	1618.00	2111.90	1119.63	343.51	219.80	15552.28 Tonday
Mean	10.12	46.48	45.29	73.51	25.33	54.59	75.30	53.93	68.13	36.12	12.27	7.09	42.61 Ton/day
Max	19.14	361.95	338.29	458.72	81.02	281.65	285.31	796.79	394.34	398.46	46.38	37.00	796.79 Ton/day
Min	6.36	7.88	7.36	10.66	8.96	8.41	22.83	12.46	15.01	11.25	7.36	2.90	2.90 Ton/day

WATER YEAR : 2018

THALE SAP SONGKHLA

Khlong Lam at Ban Khlong Lam , Phatthalung (X.170)

Lat 07 - 33 - 22 N Long 99 - 59 - 31 E

Location : on left bank at the bridge.

Ban Khlong Lam **Amphoe** Srinagarindra **Changwat** Phatthalung

Drainge Area	269 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US D-59
Period of Available Records	2005 - Cont' d
Actual Measurement	2005 - Cont' d
Using Rating Curve Water Year	2018
Number of observation	14
R-Square	0.8733
Remarks	Continued Sediment Station

$$QS = 1.7278\ QW^{1.59900}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	5.03	7.01	25.62	7.72	20.17	3.85	21.22	77.61	82.26	166.39	51.93	15.86		
2	20.17	5.03	13.40	6.32	12.52	3.85	103.12	68.63	87.01	51.93	51.93	15.86		
3	15.23	10.82	9.22	5.66	10.82	3.30	44.25	82.26	87.01	15.86	68.63	13.40		
4	7.01	10.01	8.46	5.66	9.22	8.46	33.62	240.36	139.73	133.34	55.94	13.40		
5	5.03	5.66	7.01	6.32	8.46	12.52	33.62	146.23	187.51	139.73	48.03	11.10		
6	4.42	4.42	5.66	26.77	7.72	6.32	33.62	127.07	133.34	120.90	44.25	11.10		
7	3.85	8.46	5.03	14.30	7.01	5.03	240.36	139.73	152.84	114.86	40.59	11.10		
8	3.85	24.49	4.42	9.22	7.72	4.42	77.61	209.56	133.34	108.93	40.59	11.10		
9	5.03	14.30	4.42	8.46	12.52	21.22	73.07	281.05	127.07	108.93	37.04	11.10		
10	5.66	13.40	6.32	20.17	9.22	30.32	87.01	360.12	120.90	103.12	37.04	7.01		
11	8.46	18.13	4.42	27.93	8.46	25.62	55.94	1017.63	127.07	103.12	33.62	11.10		
12	5.66	7.72	5.66	18.13	7.01	29.12	64.29	248.31	133.34	97.42	33.62	8.96		
13	4.42	6.32	10.01	12.52	6.32	31.54	82.26	194.76	127.07	166.39	33.62	8.96		
14	3.85	5.66	6.32	10.82	5.66	34.04	194.76	264.49	120.90	133.34	30.32	8.96		
15	3.85	5.03	4.42	10.01	6.32	61.11	82.26	202.11	120.90	108.93	30.32	7.01		
16	3.30	5.03	3.85	8.46	5.66	127.07	77.61	240.36	315.28	97.42	27.15	8.96		
17	3.30	4.42	17.14	7.72	5.03	131.24	87.01	418.97	232.51	108.93	27.15	5.23		
18	2.79	5.03	31.54	30.32	4.42	175.66	55.94	1488.55	152.84	97.42	27.15	7.01		
19	2.79	15.23	99.31	24.49	5.66	84.62	48.03	378.67	5041.52	87.01	24.12	5.23		
20	3.30	5.66	44.72	21.22	5.03	56.45	108.93	306.59	350.97	82.26	24.12	5.23		
21	2.31	4.42	31.54	23.38	5.03	91.86	680.88	256.35	82.26	73.07	27.15	5.23		
22	2.31	3.85	20.17	14.30	5.66	48.03	187.51	209.56	60.06	73.07	24.12	7.01		
23	2.31	5.66	14.30	11.66	10.82	51.93	256.35	166.39	68.63	68.63	27.15	0.40		
24	1.87	5.03	10.82	10.01	20.17	73.07	463.02	139.73	91.86	64.29	21.22	3.66		
25	2.79	6.32	11.66	9.22	17.14	48.03	629.78	120.90	173.33	60.06	18.47	3.66		
26	2.79	4.42	16.17	8.46	10.01	40.59	240.36	103.12	209.56	60.06	18.47	7.01		
27	10.01	3.85	14.30	7.72	7.01	48.03	194.76	91.86	202.11	55.94	18.47	5.23		
28	3.85	3.85	10.01	9.22	6.32	30.32	139.73	87.01	224.76	51.93	15.86	5.23		
29	6.32	19.14	9.22	11.66	5.03	27.15	120.90	108.93	187.51	51.93		5.23		
30	14.30	10.82	7.72	10.82	5.03	24.12	103.12	97.42	166.39	51.93		3.66		
31		16.17		34.04	4.42		91.86		152.84	51.93		1.21		
Total	165.86	265.36	462.86	432.71	261.59	1338.89	4712.80	7874.33	9592.72	2809.07	938.07	245.21	29099.47	Tonday
Mean	5.53	8.56	15.43	13.96	8.44	44.63	152.03	262.48	309.44	90.62	33.50	7.91	79.72	Ton/day
Max	20.17	24.49	99.31	34.04	20.17	175.66	680.88	1488.55	5041.52	166.39	68.63	15.86	5041.52	Ton/day
Min	1.87	3.85	3.85	5.66	4.42	3.30	21.22	68.63	60.06	15.86	15.86	0.40	0.40	Ton/day

WATER YEAR : 2018

THALE SAP SONGKHLA

Khlong Wa at Ban Khlong Wa , Songkhla (X.174)

Lat 06 - 59 - 42 N Long 100 - 29 - 05 E

Location : on right bank at the bridge.

Ban Khlong Wa **Amphoe** Hat Yai **Changwat** Songkhla

Drainge Area	116 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US D-49
Period of Available Records	2003 - Cont' d
Actual Measurement	2003 - Cont' d
Using Rating Curve Water Year	2018
Number of observation	14
R-Square	0.7958
Remarks	Continued Sediment Station

$$QS = 7.1195\ QW^{1.09970}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	4.28	10.55	19.50	7.83	4.28	5.57	8.22	42.71	15.26	38.13	11.94	5.57		
2	4.28	8.70	26.46	7.35	3.84	5.11	7.83	44.56	14.34	40.88	12.43	5.11		
3	4.28	7.83	21.22	6.88	3.84	5.57	7.35	63.84	17.79	68.15	12.84	5.11		
4	4.73	7.35	16.10	6.88	4.28	7.35	7.35	59.56	38.13	319.09	11.45	4.73		
5	5.11	6.42	14.34	6.42	3.03	6.42	9.58	69.60	52.48	214.02	11.94	4.73		
6	5.11	9.58	12.84	6.88	3.03	6.03	15.26	68.15	44.56	115.49	10.06	4.28		
7	5.11	8.22	11.94	7.35	3.03	5.57	24.71	62.41	35.41	81.72	9.58	4.28		
8	4.28	6.42	11.04	5.57	3.03	6.03	22.09	60.98	32.70	66.71	10.55	4.73		
9	4.73	6.42	10.06	6.03	3.84	6.42	22.96	53.89	29.12	68.15	8.70	4.73		
10	5.11	7.35	9.18	6.03	4.28	6.42	22.96	53.89	44.56	65.28	10.55	4.28		
11	4.28	7.83	8.70	6.03	3.84	6.03	22.96	45.48	69.60	51.07	7.83	4.28		
12	4.28	7.83	8.70	5.57	3.03	5.11	19.50	39.96	51.07	37.22	7.83	4.28		
13	4.28	6.42	8.22	5.11	2.60	5.11	22.96	36.31	56.72	39.04	7.35	4.28		
14	3.03	5.57	7.83	5.11	3.03	6.42	22.96	35.41	60.98	40.88	6.88	3.84		
15	3.03	5.57	7.35	4.73	3.03	8.70	18.65	33.60	59.56	41.79	6.42	3.84		
16	3.03	7.35	7.35	4.73	3.03	10.06	15.26	31.80	75.39	51.07	7.35	3.40		
17	3.03	8.70	7.83	4.73	2.60	9.58	16.10	29.12	111.46	44.56	6.42	3.40		
18	2.60	7.35	11.94	5.57	2.60	9.58	26.46	27.35	97.48	36.31	7.35	3.03		
19	2.60	7.35	14.76	5.11	6.03	9.18	34.50	25.58	103.45	30.91	12.84	3.03		
20	2.60	7.35	15.26	4.73	8.70	7.83	29.12	24.71	83.68	26.46	4.28	3.03		
21	2.17	6.88	13.34	4.73	9.58	7.83	32.70	24.71	68.15	27.35	2.60	3.03		
22	1.82	8.22	12.43	4.28	8.70	7.35	27.35	22.96	56.72	26.46	1.82	3.03		
23	2.17	7.35	11.94	3.84	11.45	6.88	24.71	21.22	49.20	24.71	2.60	2.60		
24	2.17	8.70	11.45	3.84	10.55	6.88	51.07	20.36	45.48	22.96	5.57	2.17		
25	5.57	12.43	10.55	3.84	8.70	7.35	78.31	18.65	42.71	20.36	3.84	2.60		
26	13.84	12.84	9.58	3.84	7.83	7.83	55.30	16.10	39.04	17.79	3.40	2.60		
27	10.06	20.36	9.18	3.84	6.88	10.55	48.27	16.10	38.13	17.79	3.84	2.60		
28	6.88	13.84	8.70	5.57	6.88	13.84	37.22	15.26	44.56	16.10	5.57	2.17		
29	11.04	12.84	8.22	5.57	6.42	11.04	32.70	14.76	40.88	16.10		2.17		
30	14.76	16.94	8.22	5.11	6.03	9.58	32.70	14.34	34.50	14.76		2.60		
31		25.58		4.73	6.03		40.88		32.70	17.79		2.17		
Total	150.26	296.14	354.23	167.83	164.02	227.22	837.99	1093.37	1585.81	1699.10	213.83	111.70	6901.50	Tonday
Mean	5.01	9.55	11.81	5.41	5.29	7.57	27.03	36.45	51.16	54.81	7.64	3.60	18.91	Ton/day
Max	14.76	25.58	26.46	7.83	11.45	13.84	78.31	69.60	111.46	319.09	12.84	5.57	319.09	Ton/day
Min	1.82	5.57	7.35	3.84	2.60	5.11	7.35	14.34	14.34	14.76	1.82	2.17	1.82	Ton/day

WATER YEAR : 2018

THALE SAP SONGKHLA

Khlong Tha Cheat at Ban Mae Khree , Phatthalung (X.267)

Lat 07 - 20 - 18 N Long 100 - 06 - 36 E

Location : on left bank at Ban Mae Khree.

Ban Mae Khree **Amphoe** Tamot **Changwat** Phatthalung

Drainge Area	295 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US D-59
Period of Available Records	2007 - Cont' d
Actual Measurement	2007 - Cont' d
Using Rating Curve Water Year	2018
Number of observation	15
R-Square	0.7638
Remarks	Continued Sediment Station

$$QS = 4.5483\ QW^{1.20720}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	4.82	9.37	13.75	8.94	7.66	2.96	11.14	40.04	34.52	117.26	13.09	4.82		
2	6.83	7.24	16.45	8.51	6.42	2.60	9.81	59.38	33.44	58.10	13.75	4.82		
3	5.61	8.08	11.14	8.08	6.01	2.60	8.51	283.20	36.71	96.87	20.64	4.82		
4	4.82	7.66	9.37	7.24	5.22	5.22	17.13	271.63	41.15	303.85	19.22	4.82		
5	4.44	6.42	8.94	6.83	5.22	4.44	44.54	254.45	78.81	346.35	15.09	4.06		
6	4.82	6.42	9.81	7.66	4.82	3.68	24.25	165.95	60.66	152.61	14.41	4.44		
7	4.44	6.83	9.37	6.83	4.06	3.32	78.81	95.21	100.23	91.88	13.09	4.82		
8	4.44	8.08	8.94	6.01	4.44	4.06	55.56	98.55	109.26	67.14	12.43	4.44		
9	6.83	8.51	8.51	8.08	6.01	3.32	37.81	64.54	88.58	61.95	12.43	4.06		
10	7.24	9.81	8.94	15.76	6.83	2.96	27.05	58.10	143.93	53.04	12.43	3.32		
11	7.24	9.37	9.81	18.52	7.24	2.60	22.79	85.30	195.91	45.68	11.78	3.32		
12	6.42	7.66	9.81	10.69	6.01	2.96	24.25	119.28	143.93	41.15	10.69	2.96		
13	5.61	6.42	9.37	8.51	5.22	3.32	19.93	61.95	150.41	50.54	10.69	2.96		
14	4.82	5.61	8.08	7.24	4.44	4.44	16.45	51.79	86.94	46.83	10.69	2.96		
15	4.82	6.42	6.01	7.24	4.44	4.06	14.41	49.30	131.50	40.04	10.69	2.26		
16	4.82	6.83	6.42	6.42	4.06	6.42	15.09	56.83	356.77	34.52	10.69	1.92		
17	4.44	6.83	10.25	6.01	3.68	8.51	22.79	77.20	377.77	30.22	10.25	1.92		
18	4.06	6.42	13.09	9.37	4.06	10.25	19.22	133.56	221.53	30.22	9.37	1.60		
19	3.68	6.83	44.54	15.76	4.44	14.41	13.75	86.94	360.26	26.01	9.81	1.60		
20	3.68	5.61	49.30	11.78	4.82	8.94	11.78	67.14	574.74	24.25	8.08	1.28		
21	3.68	4.82	34.52	18.52	4.06	11.14	11.14	49.30	174.95	22.07	8.08	1.60		
22	3.68	6.83	20.64	10.69	4.06	13.09	9.81	48.06	88.58	21.35	8.08	0.98		
23	3.68	8.94	16.45	8.51	4.06	8.94	17.13	35.61	64.54	20.64	7.66	0.98		
24	3.68	6.83	13.75	7.24	4.82	10.25	18.52	28.10	51.79	19.22	7.24	0.69		
25	4.44	6.42	11.78	7.24	4.44	8.51	48.06	24.25	50.54	17.82	7.24	0.69		
26	6.01	7.24	11.78	6.42	3.68	7.66	29.16	22.07	40.04	17.13	6.83	0.98		
27	6.01	14.41	10.69	6.01	3.32	6.83	49.30	21.35	36.71	16.45	6.01	1.92		
28	5.22	14.41	10.25	9.37	2.96	6.83	37.81	68.45	42.28	15.76	5.61	2.60		
29	6.42	23.52	10.25	15.76	2.96	6.42	24.98	50.54	68.45	15.76		2.60		
30	15.76	33.44	9.81	11.78	2.60	9.37	41.15	46.83	48.06	15.09		1.92		
31		16.45		10.25	2.96		69.77		55.56	14.41		2.60		
Total	162.46	289.73	421.82	297.27	145.02	190.11	851.90	2574.90	4048.55	1914.21	306.07	84.76	11286.80	Tonday
Mean	5.42	9.35	14.06	9.59	4.68	6.34	27.48	85.83	130.60	61.75	10.93	2.73	30.92	Ton/day
Max	15.76	33.44	49.30	18.52	7.66	14.41	78.81	283.20	574.74	346.35	20.64	4.82	574.74	Ton/day
Min	3.68	4.82	6.01	6.01	2.60	2.60	8.51	21.35	33.44	14.41	5.61	0.69	0.69	Ton/day

WATER YEAR : 2018

THALE SAP SONGKHLA

Upper Khlong Tha Nae at Ban Khao Pu , Phatthalung (X.276)

Lat 07 - 42 - 25 N Long 99 - 50 - 29 E

Location : on right bank at the bridge.

Ban Khao Pu **Amphoe** Si Banphot **Changwat** Phatthalung

Drainge Area	47 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US D-59
Period of Available Records	2009 - Cont' d
Actual Measurement	2009 - Cont' d
Using Rating Curve Water Year	2018
Number of observation	14
R-Square	0.8276
Remarks	Continued Sediment Station

$$QS = 3.9583\ QW^{1.56570}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.58	1.25	1.55	1.69	3.36	0.98	3.77	3.53	5.40	18.20	2.74	1.09		
2	2.74	2.74	2.37	1.55	2.74	0.83	3.77	3.13	4.66	13.70	2.74	1.09		
3	2.58	2.58	1.55	1.38	2.37	0.83	2.96	3.13	3.77	12.65	3.36	1.09		
4	2.37	1.87	1.25	1.55	2.21	0.98	2.96	80.16	19.40	173.89	2.96	0.98		
5	2.21	1.38	1.25	1.87	1.87	1.25	2.58	18.20	72.22	114.15	2.74	0.98		
6	2.02	1.09	1.09	2.74	1.69	0.98	9.68	12.65	55.49	55.49	2.58	0.98		
7	2.02	1.25	0.98	2.21	1.55	0.98	40.41	35.78	66.47	40.41	2.58	0.98		
8	1.87	1.55	0.83	1.69	2.21	0.98	10.64	29.92	35.78	29.92	2.58	0.98		
9	3.36	2.21	1.09	1.55	2.96	0.98	5.40	19.40	25.79	24.46	2.37	0.98		
10	2.37	3.53	1.25	6.19	2.21	0.98	12.65	59.07	20.63	20.63	2.37	0.98		
11	2.37	2.58	0.98	3.77	1.87	0.83	3.96	126.93	19.40	17.04	2.21	0.98		
12	2.37	2.37	0.83	2.96	1.55	0.83	28.52	60.89	18.20	14.78	2.21	0.98		
13	2.21	1.55	0.98	2.58	1.38	0.98	21.88	31.35	35.78	14.78	2.21	1.38		
14	2.02	1.25	0.83	2.21	1.25	1.38	23.15	21.88	20.63	11.63	2.21	0.98		
15	1.87	1.09	0.83	2.02	1.25	4.66	7.86	34.28	42.00	9.68	2.02	1.25		
16	1.87	1.25	0.98	1.69	1.09	11.63	9.68	35.78	428.02	8.75	2.02	1.38		
17	1.69	1.38	2.96	1.87	1.09	25.79	5.40	42.00	168.09	10.64	1.87	1.55		
18	1.69	1.87	7.01	4.66	1.09	55.49	3.53	145.62	173.89	7.86	1.87	1.55		
19	1.55	2.21	14.78	2.74	0.98	14.78	3.13	72.22	932.54	6.19	1.69	1.38		
20	1.55	1.38	11.63	2.58	1.09	5.40	2.96	46.90	126.93	5.40	1.69	1.38		
21	1.38	1.09	5.40	2.21	1.25	20.63	2.74	42.00	76.15	4.66	1.55	1.38		
22	1.38	1.09	3.13	1.87	1.09	21.88	2.74	28.52	53.73	3.96	1.55	1.38		
23	1.25	0.98	2.58	1.69	2.96	9.68	3.36	20.63	40.41	3.77	1.55	1.25		
24	1.25	0.98	2.21	1.55	3.36	7.86	42.00	15.89	35.78	3.53	1.38	1.38		
25	1.25	1.25	2.02	1.38	2.74	10.64	32.80	11.63	29.92	3.53	1.87	1.38		
26	1.25	1.25	1.87	1.25	2.21	5.40	18.20	8.75	24.46	3.36	1.87	1.38		
27	1.87	1.25	1.69	1.09	1.55	3.53	15.89	7.86	68.37	3.13	1.38	1.87		
28	1.09	0.98	2.21	1.09	1.09	3.36	7.86	7.86	60.89	3.13	1.25	1.69		
29	1.55	1.25	2.96	1.25	0.83	3.13	11.63	8.75	35.78	3.13		1.69		
30	1.69	1.38	2.02	14.78	0.83	2.74	6.19	6.19	23.15	2.96		1.55		
31		2.58		17.04	0.83		5.40		21.88	2.96		1.55		
Total	57.27	50.46	81.11	94.70	54.55	220.39	353.70	1040.90	2745.61	648.37	59.42	39.44	5445.92	Tonday
Mean	1.91	1.63	2.70	3.05	1.76	7.35	11.41	34.70	88.57	20.92	2.12	1.27	14.92	Ton/day
Max	3.36	3.53	14.78	17.04	3.36	55.49	42.00	145.62	932.54	173.89	3.36	1.87	932.54	Ton/day
Min	1.09	0.98	0.83	1.09	0.83	0.83	2.58	3.13	3.77	2.96	1.25	0.98	0.83	Ton/day

WATER YEAR : 2018

SOUTHERN PENINSULA WEST COAST

Trang River at Ban Tha Pradu , Trang (X.56)

Lat 07 - 46 - 01 N Long 99 - 32 - 25 E

Location : on left bank at Ban Tha Pradu.

Ban Tha Pradu **Amphoe** Huai Yot **Changwat** Trang

Drainge Area	1,801 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US DH-49
Period of Available Records	1981 - Cont' d
Actual Measurement	1981 - 1987, 2007 - Cont' d
Using Rating Curve Water Year	2018
Number of observation	17
R-Square	0.8078
Remarks	Continued Sediment Station

$$QS = 2.9426\ QW^{1.25790}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	230.18	554.79	522.48	205.58	1593.61	172.99	1178.24	348.50	218.92	423.93	164.50	72.34		
2	232.44	375.80	383.32	192.40	1016.88	160.29	1125.38	307.16	207.79	395.92	158.19	68.79		
3	225.66	385.84	299.98	214.45	496.92	151.93	1213.76	281.00	196.77	338.68	156.10	68.79		
4	164.50	423.93	297.59	218.92	319.21	166.61	1051.35	288.09	192.40	436.79	149.86	68.79		
5	119.47	278.64	328.91	216.69	314.38	194.59	691.22	290.46	285.72	1791.08	147.79	68.79		
6	100.05	188.05	328.91	230.18	343.58	177.27	633.91	273.95	321.63	3054.86	141.62	67.02		
7	90.61	205.58	299.98	218.92	253.02	151.93	1303.48	309.56	281.00	4187.98	135.50	67.02		
8	83.20	236.98	241.54	179.41	471.63	158.19	1486.74	321.63	484.24	4592.01	131.46	67.02		
9	85.04	307.16	218.92	183.72	1077.36	232.44	1142.94	316.79	457.52	4133.92	127.44	67.02		
10	109.67	373.30	295.21	368.32	927.53	288.09	787.75	336.23	358.38	3290.34	125.44	67.02		
11	103.88	338.68	271.61	931.75	637.25	192.40	564.56	577.64	295.21	2000.17	119.47	67.02		
12	105.80	360.86	239.26	829.90	460.13	198.97	447.13	594.08	266.93	1029.78	115.53	75.92		
13	94.36	304.76	221.16	516.06	350.96	223.41	416.25	528.91	243.83	594.08	111.62	56.66		
14	81.37	196.77	198.97	375.80	292.83	205.58	600.68	408.60	232.44	471.63	113.57	46.67		
15	75.92	188.05	175.12	299.98	253.02	221.16	535.36	429.06	299.98	418.81	109.67	43.44		
16	70.56	198.97	160.29	239.26	227.92	416.25	594.08	687.82	684.42	375.80	105.80	40.25		
17	68.79	192.40	250.72	207.79	216.69	756.44	777.29	787.75	1763.56	346.04	100.05	38.67		
18	67.02	406.06	471.63	234.71	276.29	898.13	580.92	735.72	2401.07	333.79	98.14	38.67		
19	63.53	525.69	898.13	429.06	496.92	1060.01	393.40	670.88	3011.10	319.21	96.25	35.56		
20	60.08	368.32	986.91	474.77	358.38	777.29	449.72	794.74	3492.17	292.83	92.48	34.02		
21	58.36	441.95	865.36	309.56	324.05	519.27	780.77	698.03	3571.36	273.95	88.74	34.02		
22	56.66	487.40	654.02	246.12	353.43	525.69	773.80	580.92	3523.80	257.64	86.89	32.50		
23	54.97	416.25	418.81	210.01	477.92	600.68	836.96	623.90	3186.88	243.83	83.20	32.50		
24	54.97	365.83	309.56	185.88	650.66	423.93	1502.67	516.06	2296.19	232.44	81.37	35.56		
25	54.97	654.02	262.28	164.50	487.40	434.21	2000.17	375.80	1280.93	221.16	77.73	86.89		
26	67.02	873.08	266.93	147.79	368.32	434.21	2078.00	324.05	819.32	207.79	77.73	92.48		
27	170.86	1134.15	273.95	139.57	333.79	449.72	1915.97	292.83	798.25	201.16	74.12	58.36		
28	143.67	999.73	281.00	145.73	271.61	468.49	1423.35	264.60	640.60	190.23	74.12	41.83		
29	117.50	558.04	290.46	307.16	232.44	808.77	826.37	243.83	490.57	185.88		37.11		
30	321.63	434.21	232.44	333.79	205.58	1099.13	532.13	234.71	532.13	177.27		34.02		
31		525.69		1218.22	188.05		413.70		457.52	172.99		53.29		
Total	3332.74	13300.98	10945.45	10176.00	14277.76	12568.07	29058.05	13443.30	33292.63	31191.99	3144.38	1698.04	176429.39	Tonday
Mean	111.09	429.06	364.85	328.26	460.57	418.94	937.36	448.11	1073.96	1006.19	112.30	54.78	483.37	Ton/day
Max	321.63	1134.15	986.91	1218.22	1593.61	1099.13	2078.00	794.74	3571.36	4592.01	164.50	92.48	4592.01	Ton/day
Min	54.97	188.05	160.29	139.57	188.05	151.93	393.40	234.71	192.40	172.99	74.12	32.50	32.50	Ton/day

WATER YEAR : 2018

SOUTHERN PENINSULA WEST COAST

Khlong Langu at Ban Wang Pa Khian , Satun (X.150)

Lat 06 - 56 - 30 N Long 99 - 52 - 33 E

Location : on right bank at Ban Wang Pa Khian.

Ban Wang Pa Khian **Amphoe** Langu **Changwat** Satun

Drainge Area	480 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US DH - 48
Period of Available Records	1998 - Cont' d
Actual Measurement	1998 - Cont' d
Using Rating Curve Water Year	2018
Number of observation	16
R-Square	0.9140
Remarks	Continued Sediment Station

$$QS = 1.6270\ QW^{1.50780}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	30.59	26.73	96.54	96.54	669.75	98.49	282.85	137.88	79.61	135.69	41.73	15.71		
2	30.59	26.73	90.78	116.59	334.50	81.44	294.07	122.85	77.80	108.42	41.73	14.93		
3	30.59	41.73	63.82	137.88	271.78	160.34	266.29	186.32	79.61	106.40	41.73	14.93		
4	30.59	31.92	47.72	88.88	193.64	647.52	426.81	216.14	124.96	308.31	41.73	14.93		
5	30.59	23.34	44.69	100.45	158.04	611.03	334.50	179.11	171.99	780.70	40.27	14.93		
6	30.59	26.73	34.63	218.69	133.52	226.40	331.55	191.19	112.48	465.81	38.84	14.16		
7	30.59	23.34	29.28	148.96	116.59	164.96	621.90	155.75	135.69	255.44	38.84	13.41		
8	30.59	20.69	25.48	108.42	102.42	247.41	388.98	140.07	122.85	186.32	38.84	13.41		
9	29.28	23.34	23.34	1285.01	122.85	234.21	430.02	127.08	112.48	158.04	37.42	12.66		
10	29.28	36.02	33.27	4382.83	426.81	164.96	328.62	772.87	116.59	140.07	37.42	13.41		
11	29.28	30.59	34.63	3847.30	231.59	133.52	242.10	340.41	179.11	122.85	37.42	18.98		
12	29.28	24.25	62.14	948.09	155.75	160.34	208.55	234.21	135.69	110.44	37.42	15.71		
13	29.28	21.56	43.20	334.50	118.66	462.52	218.69	162.64	144.49	114.53	36.02	15.71		
14	29.28	28.00	29.28	239.46	100.45	1327.00	519.57	140.07	127.08	108.42	36.02	14.93		
15	29.28	25.48	25.48	188.75	87.00	2252.28	410.91	129.22	114.53	94.60	36.02	14.16		
16	29.28	65.52	24.25	151.22	83.28	4361.80	557.65	122.85	250.08	85.13	36.02	14.16		
17	28.00	142.28	151.22	167.29	74.22	4278.03	376.64	127.08	282.85	79.61	34.63	13.41		
18	25.48	83.28	800.40	404.60	76.00	3732.07	314.07	124.96	223.82	76.00	34.63	12.66		
19	23.34	179.11	3787.03	376.64	158.04	3355.01	669.75	236.83	213.60	70.70	34.63	12.66		
20	22.44	67.23	4756.30	244.75	280.07	1216.04	370.51	331.55	439.69	67.23	28.00	11.94		
21	20.69	47.72	1348.17	171.99	164.96	516.15	334.50	188.75	260.85	62.14	22.44	11.22		
22	19.83	74.22	319.86	133.52	352.35	472.42	271.78	621.90	176.72	60.48	21.56	10.53		
23	19.83	83.28	198.57	112.48	1944.48	607.42	745.66	208.55	142.28	57.19	21.56	9.84		
24	18.98	76.00	155.75	98.49	2131.46	423.62	485.74	146.72	124.96	53.97	20.69	9.18		
25	18.98	169.63	349.35	94.60	442.92	382.79	1054.74	122.85	122.85	52.38	19.83	8.53		
26	18.98	77.80	593.05	108.42	239.46	568.20	512.74	118.66	135.69	50.81	18.98	7.89		
27	18.98	102.42	459.23	201.05	179.11	575.26	316.96	104.41	250.08	49.26	17.32	9.84		
28	18.98	285.64	255.44	331.55	144.49	632.84	242.10	124.96	340.41	47.72	16.51	9.84		
29	18.98	621.90	158.04	373.57	120.75	370.51	196.10	96.54	188.75	46.19		8.53		
30	18.98	388.98	118.66	1115.01	106.40	271.78	171.99	88.88	193.64	46.19		7.89		
31		162.64		2016.96	112.48		162.64		135.69	43.20		9.84		
Total	771.43	3038.10	14159.60	18344.49	9833.82	28736.36	12088.98	6001.30	5316.92	4144.24	908.25	389.93	103733.42	Tonday
Mean	25.71	98.00	471.99	591.76	317.22	957.88	389.97	200.04	171.51	133.69	32.44	12.58	284.20	Ton/day
Max	30.59	621.90	4756.30	4382.83	2131.46	4361.80	1054.74	772.87	439.69	780.70	41.73	18.98	4756.30	Ton/day
Min	18.98	20.69	23.34	88.88	74.22	81.44	162.64	88.88	77.80	43.20	16.51	7.89	7.89	Ton/day

WATER YEAR : 2018

SOUTHERN PENINSULA WEST COAST

Khlong Ta Kuaw Pa at Ban Hin Dan , Phangnga (X.187)

Lat 08 - 46 - 25 N Long 98 - 23 - 36 E

Location : on left bank at the bridge on Surat Thanu - Phang Nga Highway.

Ban Hin Dan **Amphoe** Ta Kuaw Pa **Changwat** Phangnga

Drainge Area	539 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.DH - 48
Period of Available Records	2003 - Cont' d
Actual Measurement	2003 - 2008, 2010 - Cont' d
Using Rating Curve Water Year	2018
Number of observation	18
R-Square	0.8740
Remarks	Continued Sediment Station

$$QS = 2.3951\ QW^{1.31190}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	149.83	395.09	395.09	619.03	1423.91	739.30	619.03	275.24	215.77	83.61	59.00	11.02		
2	149.83	395.09	395.09	619.03	877.19	504.09	395.09	275.24	202.14	83.61	59.00	11.02		
3	149.83	395.09	395.09	619.03	739.30	595.60	395.09	275.24	196.74	79.97	59.00	9.25		
4	149.83	395.09	395.09	619.03	739.30	4275.19	395.09	266.54	191.38	79.97	55.66	9.25		
5	149.83	560.86	395.09	619.03	739.30	1669.66	395.09	266.54	186.06	79.97	55.66	7.55		
6	149.83	504.09	395.09	2108.22	739.30	1020.45	395.09	266.54	175.52	79.97	52.36	7.55		
7	144.81	504.09	395.09	849.17	1945.95	1020.45	395.09	257.91	165.13	76.37	49.12	7.55		
8	144.81	504.09	395.09	642.67	5924.72	504.09	395.09	257.91	154.89	76.37	49.12	7.55		
9	144.81	504.09	395.09	991.39	4108.27	504.09	395.09	257.91	149.83	76.37	45.92	7.55		
10	144.81	504.09	395.09	2622.68	4342.39	504.09	395.09	257.91	144.81	76.37	42.78	5.95		
11	144.81	560.86	395.09	2026.70	5016.15	395.09	395.09	249.34	139.83	72.81	39.69	5.95		
12	144.81	504.09	384.54	1290.59	4045.63	395.09	395.09	249.34	134.89	72.81	36.65	5.95		
13	144.81	504.09	374.07	1005.90	3510.20	395.09	395.09	249.34	130.00	72.81	34.27	5.95		
14	144.81	504.09	374.07	739.30	1865.99	448.80	395.09	240.84	125.15	72.81	34.27	5.95		
15	144.81	504.09	374.07	727.05	1321.51	515.32	395.09	240.84	120.34	72.81	31.92	4.44		
16	144.81	504.09	642.67	654.57	1020.45	1475.78	395.09	232.41	115.58	72.81	29.61	4.44		
17	144.81	877.19	3510.20	560.86	739.30	3453.41	395.09	232.41	110.87	69.30	27.35	4.44		
18	139.83	448.80	4376.09	1035.06	739.30	5171.56	877.19	232.41	106.20	69.30	25.13	4.44		
19	139.83	448.80	2006.44	1728.01	1020.45	2944.00	877.19	232.41	102.34	69.30	25.13	4.44		
20	139.83	448.80	1493.17	766.43	1580.83	1049.71	504.09	224.06	98.53	69.30	25.13	3.04		
21	139.83	343.06	1406.72	666.53	1168.67	654.57	504.09	224.06	98.53	69.30	22.95	3.04		
22	139.83	257.91	1005.90	619.03	1321.51	619.03	395.09	224.06	94.74	65.82	20.83	3.04		
23	139.83	448.80	766.43	619.03	4208.23	619.03	363.66	224.06	90.99	65.82	18.75	3.04		
24	139.83	504.09	642.67	619.03	2441.72	619.03	363.66	224.06	90.99	65.82	16.73	5.95		
25	139.83	448.80	504.09	619.03	1020.45	619.03	332.87	224.06	87.28	65.82	14.76	11.02		
26	139.83	448.80	504.09	619.03	1020.45	619.03	322.75	224.06	87.28	62.39	14.76	9.25		
27	159.99	448.80	1306.03	1214.05	1020.45	619.03	302.74	224.06	83.61	62.39	12.86	31.92		
28	302.74	448.80	619.03	948.18	766.43	619.03	292.85	224.06	83.61	62.39	12.86	11.02		
29	448.80	448.80	619.03	690.58	619.03	619.03	284.01	224.06	83.61	62.39		18.75		
30	395.09	395.09	619.03	1005.90	504.09	619.03	275.24	224.06	83.61	59.00		12.86		
31		395.09		4174.85	395.09		275.24		83.61	59.00		25.13		
Total	5056.98	14554.61	25874.33	32638.99	56925.56	33806.70	12911.14	7280.98	3933.86	2206.78	971.27	268.30	196429.50	Tonday
Mean	168.57	469.50	862.48	1052.87	1836.31	1126.89	416.49	242.70	126.90	71.19	34.69	8.65	538.16	Ton/day
Max	448.80	877.19	4376.09	4174.85	5924.72	5171.56	877.19	275.24	215.77	83.61	59.00	31.92	5924.72	Ton/day
Min	139.83	257.91	374.07	560.86	395.09	395.09	275.24	224.06	83.61	59.00	12.86	3.04	3.04	Ton/day

WATER YEAR : 2018

SOUTHERN PENINSULA WEST COAST

Khlong Bang Yai at Satree Phuket School , Phuket (X.191)

Lat 07 - 53 - 20 N Long 98 - 23 - 40 E

Location : on left bank at Satree Phuket School.

Ban - **Amphoe** Mueang **Changwat** Phuket

Drainge Area	55 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.DH - 48
Period of Available Records	2003 - Cont' d
Actual Measurement	2003 - Cont' d
Using Rating Curve Water Year	2018
Number of observation	15
R-Square	0.9300
Remarks	Continued Sediment Station

$$QS = 9.2485\ QW^{1.35920}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	10.27	23.40	4.62	13.77	5.26	6.60	7.30	10.27	4.62	5.26	1.33	0.90	
2	8.01	19.94	4.62	15.76	4.62	5.92	9.50	8.75	4.00	2.84	1.80	0.90	
3	4.00	11.85	7.30	14.75	4.00	61.90	8.75	11.05	4.00	2.31	1.80	0.90	
4	2.84	8.01	23.40	10.27	6.60	77.10	8.01	8.75	4.00	2.31	1.33	0.52	
5	4.62	8.75	220.73	28.69	4.62	24.70	35.68	7.30	3.41	14.75	2.84	1.80	
6	4.00	17.82	34.25	15.76	5.92	18.87	63.78	7.30	7.30	4.62	1.80	0.90	
7	3.41	11.05	15.76	10.27	7.30	11.85	52.75	7.30	5.92	3.41	1.33	0.52	
8	2.31	15.76	10.27	8.75	15.76	10.27	22.13	6.60	4.62	2.84	0.90	0.52	
9	2.84	15.76	10.27	35.68	11.85	8.01	31.44	16.78	4.00	2.84	1.33	0.52	
10	6.60	24.70	7.30	35.68	11.05	11.85	50.96	34.25	4.00	2.31	1.33	0.52	
11	5.92	8.75	5.92	15.76	5.92	8.75	15.76	12.80	4.00	2.31	0.90	0.52	
12	4.00	5.26	5.92	11.05	4.00	17.82	11.05	9.50	4.00	2.84	0.90	0.90	
13	2.31	5.26	5.26	8.75	3.41	42.29	11.05	8.75	4.00	2.31	0.90	0.52	
14	2.31	4.00	5.26	7.30	3.41	18.87	8.75	8.01	5.26	4.62	0.90	0.52	
15	1.80	4.62	5.26	6.60	4.00	38.95	28.69	7.30	5.92	4.62	0.90	0.90	
16	1.80	18.87	11.05	5.92	2.84	224.81	14.75	19.94	4.00	2.84	0.90	0.52	
17	1.80	17.82	40.61	17.82	4.62	150.87	17.82	38.95	3.41	2.31	1.33	0.90	
18	1.80	15.76	208.61	17.82	3.41	147.20	35.68	8.75	7.30	1.80	0.52	0.52	
19	1.80	18.87	60.04	8.75	11.05	56.36	67.58	6.60	5.26	1.80	0.90	0.52	
20	2.84	8.01	79.98	7.30	4.62	32.83	37.30	11.85	3.41	1.80	0.90	0.52	
21	4.00	6.60	42.29	5.92	4.00	21.03	24.70	10.27	2.84	1.80	0.90	0.52	
22	3.41	6.60	23.40	5.92	42.29	16.78	26.01	11.05	2.84	1.80	0.90	0.52	
23	4.00	5.26	16.78	5.26	482.62	16.78	28.69	7.30	2.84	1.80	0.90	0.52	
24	13.77	11.05	18.87	4.62	60.04	24.70	28.69	5.92	5.26	1.33	0.52	0.52	
25	9.50	5.26	17.82	4.00	38.95	21.03	35.68	5.26	4.00	1.33	0.90	0.90	
26	11.85	79.98	88.77	3.41	27.34	13.77	19.94	4.00	2.84	1.33	0.90	0.52	
27	7.30	15.76	69.50	4.62	16.78	10.27	12.80	8.01	2.84	1.80	0.90	0.52	
28	5.92	7.30	30.05	5.92	11.85	8.75	11.85	9.50	2.84	1.33	0.52	0.52	
29	4.62	8.01	27.34	4.00	9.50	10.27	13.77	5.26	2.84	1.33		0.52	
30	15.76	6.60	16.78	23.40	8.75	8.01	26.01	4.62	3.41	1.33		4.62	
31		5.26		8.01	9.50		13.77		5.92	1.33		0.52	
Total	155.41	421.94	1118.03	371.53	835.88	1127.21	780.64	321.99	130.90	87.25	31.28	24.54	5406.60 Tonday
Mean	5.18	13.61	37.27	11.98	26.96	37.57	25.18	10.73	4.22	2.81	1.12	0.79	14.81 Ton/day
Max	15.76	79.98	220.73	35.68	482.62	224.81	67.58	38.95	7.30	14.75	2.84	4.62	482.62 Ton/day
Min	1.80	4.00	4.62	3.41	2.84	5.92	7.30	4.00	2.84	1.33	0.52	0.52	0.52 Ton/day

WATER YEAR : 2018

SOUTHERN PENINSULA WEST COAST

Khlong Kapong at Ban Tha Na , Phang Nga (X.196)

Lat 08 - 42 - 02 N Long 98 - 24 - 42 E

Location : on left bank at the bridge.

Ban Tha Na **Amphoe** Kapong **Changwat** Phang Nga

Drainge Area	139 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.DH - 48
Period of Available Records	2003 - Cont' d
Actual Measurement	2003 - Cont' d
Using Rating Curve Water Year	2018
Number of observation	16
R-Square	0.7287
Remarks	Continued Sediment Station

$$QS = 2.7674\ QW^{1.29540}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	16.67	63.64	119.95	96.39	422.46	84.48	100.44	54.64	28.19	19.98	12.74	5.71		
2	16.67	58.20	74.84	106.58	331.27	71.06	96.39	52.87	28.19	19.98	12.74	5.71		
3	16.67	60.00	61.81	116.99	276.86	90.39	90.39	52.87	26.98	18.86	12.74	5.71		
4	16.67	60.00	58.20	179.05	236.58	489.03	84.48	51.12	26.98	18.86	12.74	5.71		
5	16.67	60.00	54.64	272.77	194.03	345.22	80.59	51.12	25.78	18.86	11.98	5.71		
6	16.67	65.48	84.48	301.70	240.54	232.64	76.75	49.39	25.78	18.86	11.98	5.71		
7	15.87	65.48	90.39	213.13	476.23	153.51	71.06	49.39	25.78	17.76	11.98	5.71		
8	15.87	76.75	162.98	232.64	802.63	114.89	69.19	47.66	25.78	17.76	11.98	5.71		
9	15.87	80.59	260.58	264.62	1067.46	104.52	67.33	47.66	24.59	17.76	11.24	5.71		
10	15.87	96.39	201.62	318.52	885.86	90.39	65.48	45.96	24.59	16.67	11.24	5.71		
11	15.87	106.58	86.44	217.00	692.14	78.67	63.64	45.96	24.59	16.67	11.24	5.09		
12	15.87	116.99	65.48	190.26	595.28	76.75	60.00	44.26	24.59	16.67	11.24	5.09		
13	15.07	131.93	61.81	175.81	469.86	74.84	58.20	44.26	23.42	16.67	10.50	5.09		
14	15.07	147.27	58.20	172.58	377.88	92.38	58.20	44.26	23.42	15.87	10.50	5.09		
15	15.07	159.81	240.54	166.17	310.08	116.99	56.41	42.58	23.42	15.87	9.78	5.09		
16	15.07	179.05	322.76	150.38	280.96	209.28	56.41	42.58	23.42	15.87	9.78	5.09		
17	14.28	179.05	252.52	131.93	252.52	508.36	56.41	40.92	22.26	15.87	9.07	5.09		
18	14.28	162.98	175.81	125.91	201.62	1089.82	110.72	40.92	22.26	15.87	9.07	5.09		
19	14.28	106.58	90.39	122.92	159.81	811.78	92.38	39.60	22.26	15.87	9.07	4.48		
20	14.28	86.44	54.64	119.95	128.91	482.62	86.44	39.60	22.26	15.07	9.07	4.48		
21	14.28	74.84	47.66	114.89	138.02	236.58	78.67	38.29	21.11	15.07	7.01	4.48		
22	13.51	67.33	104.52	110.72	220.89	156.65	72.95	36.99	21.11	15.07	7.01	4.48		
23	13.51	65.48	186.50	108.64	632.14	102.47	67.33	36.99	21.11	15.07	6.36	4.48		
24	24.59	86.44	339.84	102.47	739.22	82.53	61.81	35.70	21.11	14.28	6.36	4.48		
25	24.59	94.38	450.88	96.39	469.86	80.59	60.00	34.42	21.11	14.28	5.71	4.48		
26	23.42	96.39	422.46	98.41	322.76	80.59	58.20	33.15	19.98	14.28	5.71	5.09		
27	23.42	96.39	280.96	150.38	217.00	78.67	58.20	31.89	19.98	14.28	5.71	9.78		
28	22.26	110.72	186.50	147.27	144.17	78.67	58.20	30.65	19.98	14.28	5.71	6.36		
29	31.89	134.97	138.02	175.81	110.72	96.39	56.41	30.65	19.98	14.28		9.07		
30	47.66	197.82	104.52	276.86	98.41	102.47	56.41	30.65	19.98	12.74		7.69		
31		213.13		405.61	96.39		54.64		19.98	12.74		11.98		
Total	551.77	3301.10	4839.94	5462.75	11592.56	6413.23	2183.73	1267.00	719.97	502.02	270.26	179.15	37283.48	Tonday
Mean	18.39	106.49	161.33	176.22	373.95	213.77	70.44	42.23	23.22	16.19	9.65	5.78	102.15	Ton/day
Max	47.66	213.13	450.88	405.61	1067.46	1089.82	110.72	54.64	28.19	19.98	12.74	11.98	1089.82	Ton/day
Min	13.51	58.20	47.66	96.39	96.39	71.06	54.64	30.65	19.98	12.74	5.71	4.48	4.48	Ton/day

WATER YEAR : 2018

SOUTHERN PENINSULA WEST COAST

Lower Khlong Palian at Ban Yan Ta Khaow , Trang (X.236)

Lat 07 - 22 - 20 N Long 99 - 40 - 39 E

Location : on right bank at Ban Yan Ta Khaow.

Ban Yan Ta Khaow **Amphoe** Yan Ta Khaow **Changwat** Trang

Drainge Area	588 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.DH-49
Period of Available Records	2005 - Cont' d
Actual Measurement	2005 - 2006, 2010 - Cont' d
Using Rating Curve Water Year	2018
Number of observation	17
R-Square	0.8863
Remarks	Continued Sediment Station

$$QS = 3.2608\ QW^{1.29340}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	119.59	111.07	140.02	202.05	564.83	145.98	218.33	158.08	111.07	176.63	30.27	31.68	
2	131.17	102.70	134.11	179.76	438.04	122.47	314.36	145.98	108.26	161.14	26.14	35.98	
3	142.99	108.26	122.47	155.04	325.11	97.19	354.14	182.91	128.26	155.04	42.28	44.17	
4	113.90	86.41	102.70	137.05	255.11	176.63	293.13	218.33	142.99	258.51	48.02	48.02	
5	78.94	66.16	78.94	134.11	205.29	205.29	265.36	228.23	293.13	543.20	57.93	59.97	
6	51.93	51.93	62.02	357.81	170.39	164.21	255.11	231.55	224.92	479.49	62.02	68.25	
7	33.10	42.28	53.92	258.51	164.21	182.91	314.36	244.95	339.55	350.48	57.93	74.63	
8	15.88	35.98	57.93	195.62	176.63	182.91	314.36	258.51	261.93	286.13	57.93	81.12	
9	11.78	38.91	70.36	268.80	265.36	195.62	365.17	248.33	224.92	248.33	53.92	86.41	
10	19.59	44.17	91.76	619.73	268.80	208.53	350.48	647.60	221.62	215.05	44.17	83.75	
11	30.27	59.97	113.90	761.79	255.11	218.33	314.36	387.46	261.93	186.07	30.27	74.63	
12	42.28	74.63	134.11	575.72	268.80	221.62	282.64	296.65	195.62	158.08	24.80	68.25	
13	55.92	89.08	152.00	443.17	272.24	241.58	272.24	234.89	170.39	152.00	19.59	53.92	
14	64.08	105.47	158.08	368.87	268.80	265.36	335.93	231.55	137.05	125.35	15.88	40.40	
15	70.36	128.26	164.21	325.11	248.33	328.70	307.25	192.43	122.47	108.26	17.09	34.53	
16	81.12	140.02	170.39	279.17	255.11	603.14	296.65	179.76	265.36	94.47	23.47	34.53	
17	86.41	128.26	198.83	255.11	238.23	698.47	335.93	202.05	368.87	91.76	28.88	46.08	
18	83.75	137.05	303.71	527.10	195.62	862.03	279.17	228.23	307.25	99.94	37.44	57.93	
19	81.12	152.00	570.27	463.84	167.29	935.96	272.24	238.23	1036.11	99.94	49.96	74.63	
20	66.16	111.07	553.99	417.64	145.98	653.21	248.33	581.18	1518.99	108.26	68.25	94.47	
21	53.92	94.47	532.46	417.64	142.99	453.48	453.48	382.48	1300.15	119.59	72.49	116.74	
22	37.44	68.25	397.46	317.94	176.63	350.48	310.80	343.19	958.87	128.26	70.36	128.26	
23	27.50	53.92	300.17	258.51	265.36	314.36	407.52	303.71	647.60	137.05	64.08	125.35	
24	22.16	62.02	231.55	221.62	314.36	350.48	443.17	289.63	443.17	131.17	53.92	113.90	
25	33.10	94.47	248.33	205.29	293.13	325.11	564.83	268.80	361.49	111.07	34.53	89.08	
26	46.08	105.47	339.55	192.43	261.93	310.80	469.05	238.23	335.93	86.41	22.16	64.08	
27	66.16	119.59	343.19	195.62	231.55	328.70	387.46	215.05	307.25	66.16	14.68	49.96	
28	76.78	140.02	307.25	234.89	211.79	354.14	328.70	195.62	474.26	51.93	12.64	35.98	
29	91.76	140.02	258.51	272.24	195.62	293.13	282.64	164.21	279.17	40.40		31.68	
30	137.05	158.08	221.62	321.52	182.91	258.51	234.89	137.05	224.92	38.91		31.68	
31		142.99		785.12	167.29		192.43		186.07	44.17		38.91	
Total	1972.29	2992.98	6613.81	10348.82	7592.84	10049.33	10064.51	7874.87	11959.57	5053.25	1141.10	2018.97	77682.34 Tonday
Mean	65.74	96.55	220.46	333.83	244.93	334.98	324.66	262.50	385.79	163.01	40.75	65.13	212.83 Ton/day
Max	142.99	158.08	570.27	785.12	564.83	935.96	564.83	647.60	1518.99	543.20	72.49	128.26	1518.99 Ton/day
Min	11.78	35.98	53.92	134.11	142.99	97.19	192.43	137.05	108.26	38.91	12.64	31.68	11.78 Ton/day

WATER YEAR : 2018

SOUTHERN PENINSULA WEST COAST

Khlong Phangnga at Ban Bang Tong , Phangnga (X.245)

Lat 08 - 30 - 49 N Long 98 - 30 - 15 E

Location : on right bank at Ban Bang Tong.

Ban Bang Tong **Amphoe** Mueang **Changwat** Phangnga

Drainge Area	242 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.DH - 48
Period of Available Records	2005 - Cont' d
Actual Measurement	2005 - Cont' d
Using Rating Curve Water Year	2018
Number of observation	19
R-Square	0.7516
Remarks	Continued Sediment Station

$$QS = 3.5258\ QW^{1.09160}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	9.17	32.73	80.20	156.04	485.01	90.25	118.37	87.73	48.31	27.20	17.77	12.55	
2	9.17	32.73	70.25	108.07	335.92	70.25	113.21	87.73	45.44	27.20	17.77	12.55	
3	9.17	31.34	61.88	85.21	219.41	87.73	108.07	85.21	42.59	27.20	17.77	12.55	
4	9.17	31.34	56.03	70.25	133.96	527.04	102.95	85.21	41.17	27.20	16.45	12.55	
5	9.17	34.12	50.23	67.78	95.32	921.30	97.86	82.70	39.75	27.20	16.45	12.55	
6	9.17	36.93	46.87	67.78	196.65	697.86	92.78	82.70	39.75	25.84	16.45	12.55	
7	9.17	41.17	46.87	67.78	645.25	541.12	90.25	80.20	39.75	25.84	16.45	11.27	
8	9.17	41.17	45.44	67.78	1021.21	403.58	87.73	77.70	38.34	25.84	16.45	11.27	
9	7.92	48.31	44.01	67.78	937.89	324.09	85.21	77.70	38.34	24.47	15.14	11.27	
10	7.92	72.72	42.59	140.24	789.52	277.15	82.70	75.21	36.93	24.47	15.14	11.27	
11	7.92	110.64	41.17	281.03	607.21	234.69	80.20	75.21	36.93	24.47	15.14	11.27	
12	7.92	108.07	39.75	189.11	527.04	196.65	77.70	72.72	35.52	24.47	15.14	11.27	
13	7.92	92.78	36.93	130.83	447.89	162.40	77.70	72.72	35.52	24.47	15.14	11.27	
14	7.92	90.25	34.12	90.25	391.57	130.83	77.70	70.25	35.52	24.47	13.84	11.27	
15	7.92	80.20	56.03	80.20	351.74	102.95	75.21	70.25	34.12	23.12	13.84	11.27	
16	7.92	77.70	196.65	77.70	288.82	265.51	75.21	67.78	34.12	23.12	13.84	11.27	
17	7.92	70.25	588.26	75.21	215.60	678.69	75.21	67.78	34.12	23.12	13.84	11.27	
18	7.92	67.78	508.32	75.21	156.04	838.74	175.18	65.81	32.73	23.12	13.84	10.01	
19	9.17	57.97	399.58	277.15	121.48	640.48	143.39	63.84	32.73	23.12	13.84	10.01	
20	10.43	45.44	308.37	367.63	115.79	545.82	137.10	63.84	32.73	23.12	13.84	10.01	
21	19.54	41.17	143.39	308.37	113.21	471.06	133.96	61.88	31.34	23.12	13.84	10.01	
22	5.89	38.34	90.25	250.06	133.96	379.58	127.71	61.88	31.34	23.12	13.84	11.27	
23	7.51	34.12	156.04	189.11	452.52	320.15	124.59	59.92	31.34	23.12	13.84	10.01	
24	11.27	34.12	277.15	146.54	616.70	238.53	121.48	57.97	31.34	23.12	13.84	10.01	
25	12.55	32.73	359.68	133.96	403.58	168.78	115.79	56.03	29.96	21.77	13.84	13.84	
26	12.55	32.73	443.27	130.83	261.64	108.07	110.64	54.09	29.96	21.77	13.84	12.55	
27	13.84	31.34	371.61	127.71	178.38	87.73	102.95	54.09	28.58	21.77	12.55	16.45	
28	13.84	32.73	320.15	102.95	130.83	82.70	97.86	52.16	28.58	21.77	12.55	12.55	
29	13.84	36.93	269.38	149.70	110.64	110.64	92.78	52.16	28.58	20.43		15.14	
30	20.43	50.23	211.80	367.63	108.07	121.48	87.73	52.16	27.20	17.77		15.14	
31		85.21		517.68	105.51		87.73		27.20	17.77		23.12	
Total	303.42	1653.29	5396.27	4967.57	10698.36	9825.85	3176.95	2074.63	1079.83	734.59	416.28	379.39	40706.43 Tonday
Mean	10.11	53.33	179.88	160.24	345.11	327.53	102.48	69.15	34.83	23.70	14.87	12.24	111.52 Ton/day
Max	20.43	110.64	588.26	517.68	1021.21	921.30	175.18	87.73	48.31	27.20	17.77	23.12	1021.21 Ton/day
Min	5.89	31.34	34.12	67.78	95.32	70.25	75.21	52.16	27.20	17.77	12.55	10.01	5.89 Ton/day

WATER YEAR : 2018

SOUTHERN PENINSULA WEST COAST

Khlong Duson at Ban Panjor , Satun (X.279)

Lat 06 - 46 - 39 N Long 100 - 04 - 16 E

Location : on right bank at Ban Panjor.

Ban Panjor **Amphoe** Khuan Don **Changwat** Satun

Drainge Area	262 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US DH - 48
Period of Available Records	2013 - Cont' d
Actual Measurement	2013 - Cont' d
Using Rating Curve Water Year	2018
Number of observation	18
R-Square	0.9377
Remarks	Continued Sediment Station

$$QS = 2.5288\ QW^{1.50440}$$

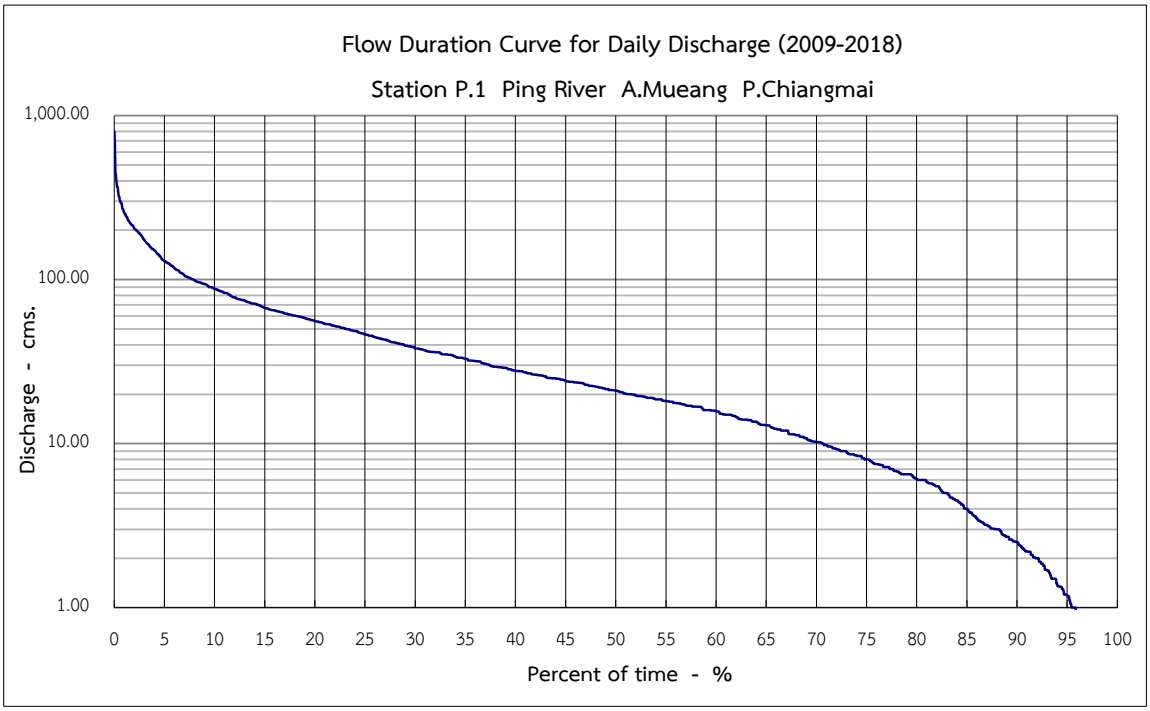
Suspended Sediment , in Tons per Day. Water Year 1 April 2018 to 31 March 2019

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	5.13	9.44	42.65	17.01	271.42	27.20	65.06	50.52	23.98	37.65	21.90	1.84	
2	5.62	6.12	30.55	15.17	151.66	23.98	131.86	56.02	23.98	29.42	21.90	1.54	
3	4.65	8.28	23.98	13.40	82.00	23.98	91.33	65.06	21.90	30.55	19.90	1.54	
4	3.75	5.62	19.90	13.40	47.85	28.30	106.94	51.88	45.22	110.97	17.01	1.26	
5	2.92	4.20	17.01	20.89	36.43	26.11	125.47	54.63	42.65	189.09	16.08	1.00	
6	2.92	3.75	13.40	57.42	31.70	23.98	119.18	50.52	30.55	108.95	16.08	1.00	
7	2.53	3.75	11.90	35.23	29.42	32.86	320.99	46.53	36.43	63.48	15.17	1.26	
8	2.16	4.20	10.65	25.03	25.03	49.18	174.73	43.93	32.86	50.52	14.28	2.53	
9	1.84	4.65	10.04	129.72	31.70	85.69	158.47	38.88	30.55	43.93	13.40	1.54	
10	2.16	4.65	8.85	438.40	211.32	61.92	127.59	153.92	29.42	40.12	12.55	1.00	
11	4.20	7.72	8.28	300.38	119.18	38.88	91.33	226.60	91.33	35.23	11.90	7.17	
12	3.33	4.65	8.28	158.47	56.02	56.02	73.13	104.95	38.88	34.04	8.85	7.72	
13	2.16	3.75	7.72	73.13	38.88	165.37	66.65	74.78	36.43	36.43	5.62	4.65	
14	1.84	8.28	7.17	47.85	30.55	407.91	163.06	54.63	35.23	31.70	5.13	2.92	
15	1.54	11.27	6.64	40.12	25.03	1272.44	129.72	46.53	41.38	29.42	5.13	2.16	
16	1.54	32.86	6.64	31.70	22.93	1763.78	170.03	46.53	117.11	25.03	6.64	1.54	
17	1.26	15.17	18.92	35.23	19.90	1615.59	160.76	65.06	83.84	22.93	3.75	1.00	
18	1.26	14.28	153.92	177.10	18.92	1341.97	191.52	57.42	51.88	26.11	3.75	1.00	
19	1.00	41.38	625.91	151.66	78.36	655.11	324.48	54.63	57.42	22.93	9.44	0.76	
20	1.84	19.90	530.96	78.36	82.00	363.58	235.07	99.03	97.09	22.93	5.62	0.54	
21	1.84	11.90	283.92	51.88	34.04	259.11	158.47	58.84	57.42	22.93	4.65	0.35	
22	1.00	32.86	125.47	35.23	110.97	241.01	91.33	47.85	41.38	21.90	4.20	0.19	
23	0.76	119.18	54.63	31.70	871.55	256.06	80.18	38.88	35.23	20.89	3.33	0.19	
24	0.76	42.65	41.38	30.55	674.82	160.76	174.73	35.23	31.70	19.90	2.92	0.35	
25	4.20	22.93	49.18	25.03	218.92	123.36	489.48	36.43	31.70	20.89	2.53	2.16	
26	6.12	19.90	53.25	22.93	104.95	102.96	274.53	30.55	35.23	19.90	2.16	1.00	
27	3.33	68.25	35.23	19.90	68.25	138.36	174.73	30.55	47.85	18.92	2.16	0.76	
28	2.16	76.57	27.20	21.90	53.25	117.11	115.05	28.30	149.42	18.92	1.84	0.35	
29	17.95	277.65	22.93	63.48	45.22	85.69	78.36	25.03	46.53	22.93		0.07	
30	28.30	165.37	19.90	381.84	38.88	65.06	66.65	27.20	58.84	20.89		0.00	
31		78.36		592.89	32.86		60.37		40.12	22.93		7.17	
Total	120.07	1129.54	2276.46	3137.00	3664.01	9613.33	4791.25	1800.91	1543.55	1222.43	257.89	56.56	29613.00 Tonday
Mean	4.00	36.44	75.88	101.19	118.19	320.44	154.56	60.03	49.79	39.43	9.21	1.82	81.13 Ton/day
Max	28.30	277.65	625.91	592.89	871.55	1763.78	489.48	226.60	149.42	189.09	21.90	7.72	1763.78 Ton/day
Min	0.76	3.75	6.64	13.40	18.92	23.98	60.37	25.03	21.90	18.92	1.84	0.00	0.00 Ton/day

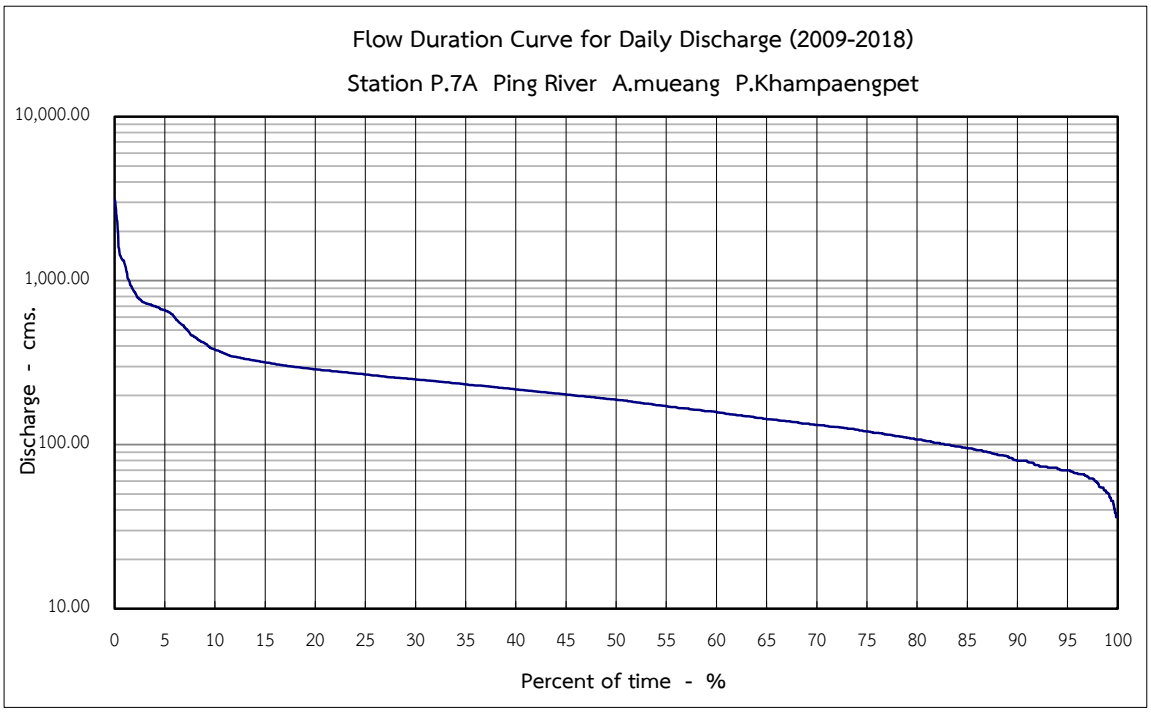
Appendix

Flow Duration Curve for Daily Discharge

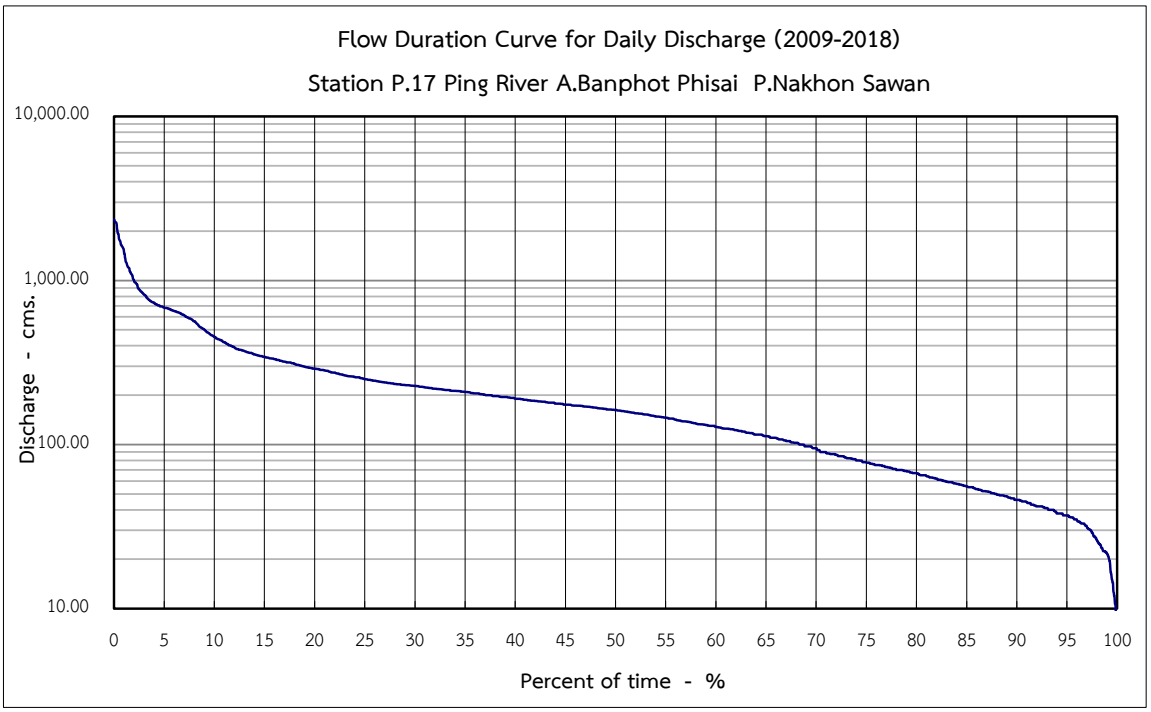
(2009-2018)



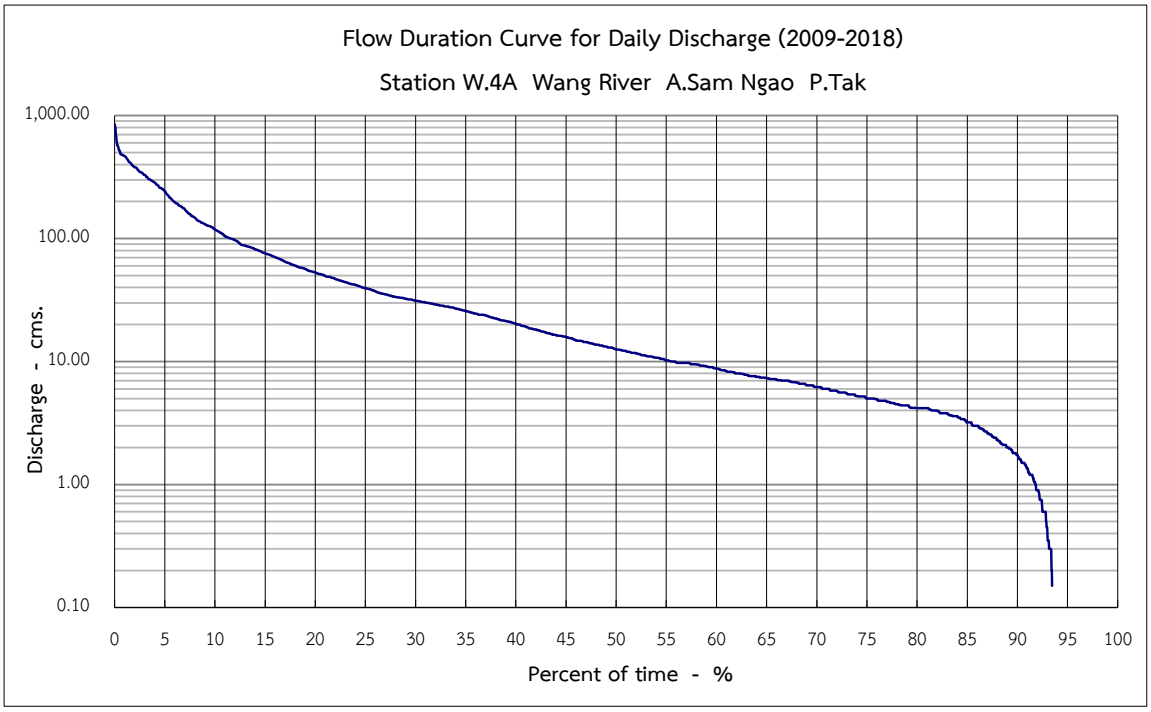
Percent of time - %	1	10	20	30	50	60	80	85	90	95	100
Discharge - cms.	254.7	87.8	55.7	38.0	21.1	15.8	6.1	4.0	2.5	1.2	0.1



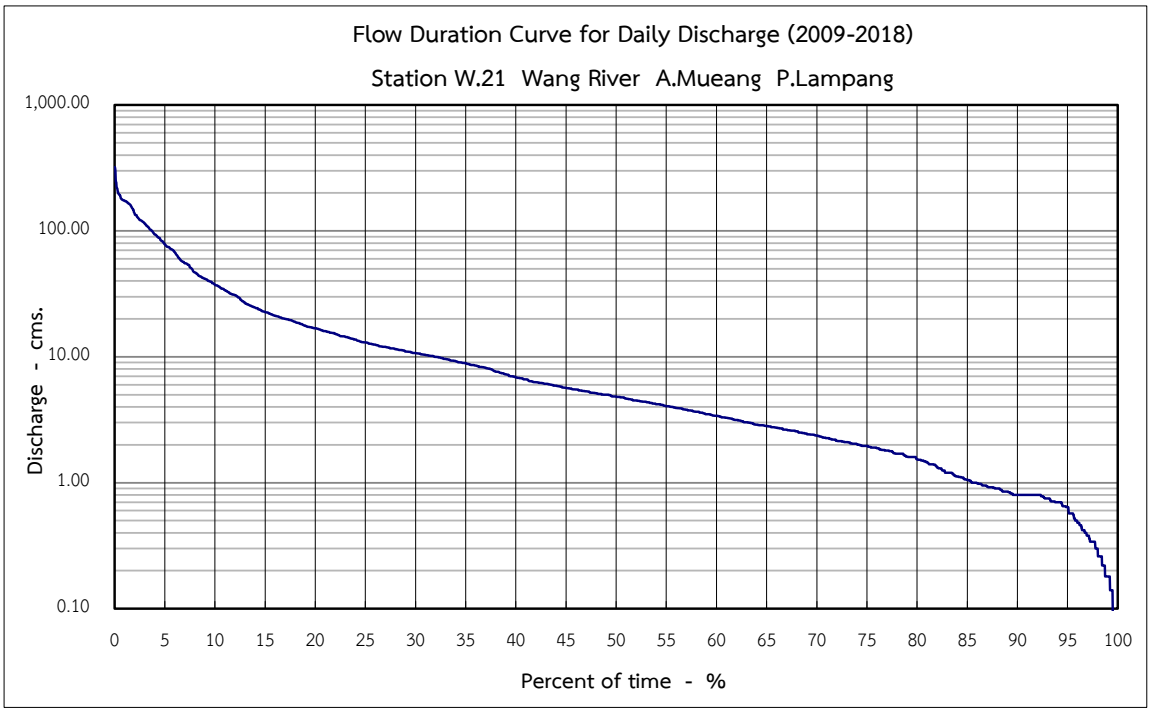
Percent of time - %	1	10	20	30	50	60	80	85	90	95	100
Discharge - cms.	1,326.7	417.3	304.0	256.0	184.0	155.0	107.5	95.3	79.9	69.7	25.3



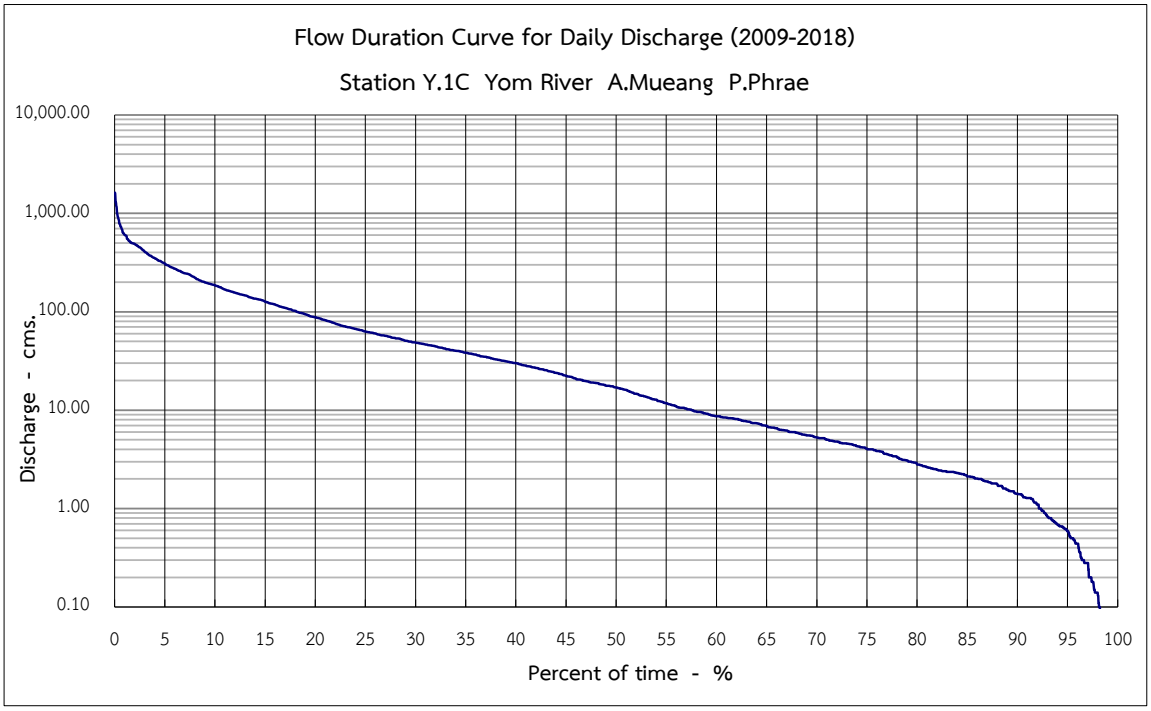
Percent of time - %	1	10	20	30	50	60	80	85	90	95	100
Discharge - cms.	1,489.0	454.9	290.0	227.8	162.5	128.0	67.0	55.7	46.0	37.0	3.0



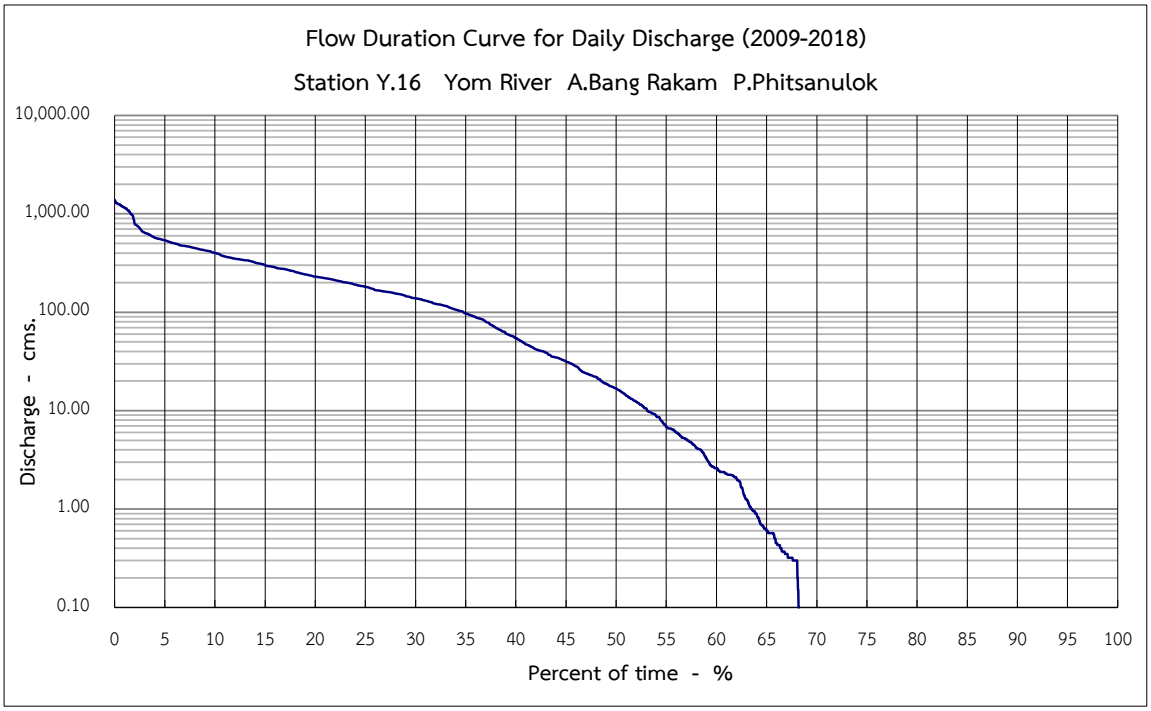
Percent of time - %	1	10	20	30	50	60	80	85	90	95	100
Discharge - cms.	467.6	118.8	53.0	31.2	12.6	8.8	4.2	3.2	1.8	0.0	0.0



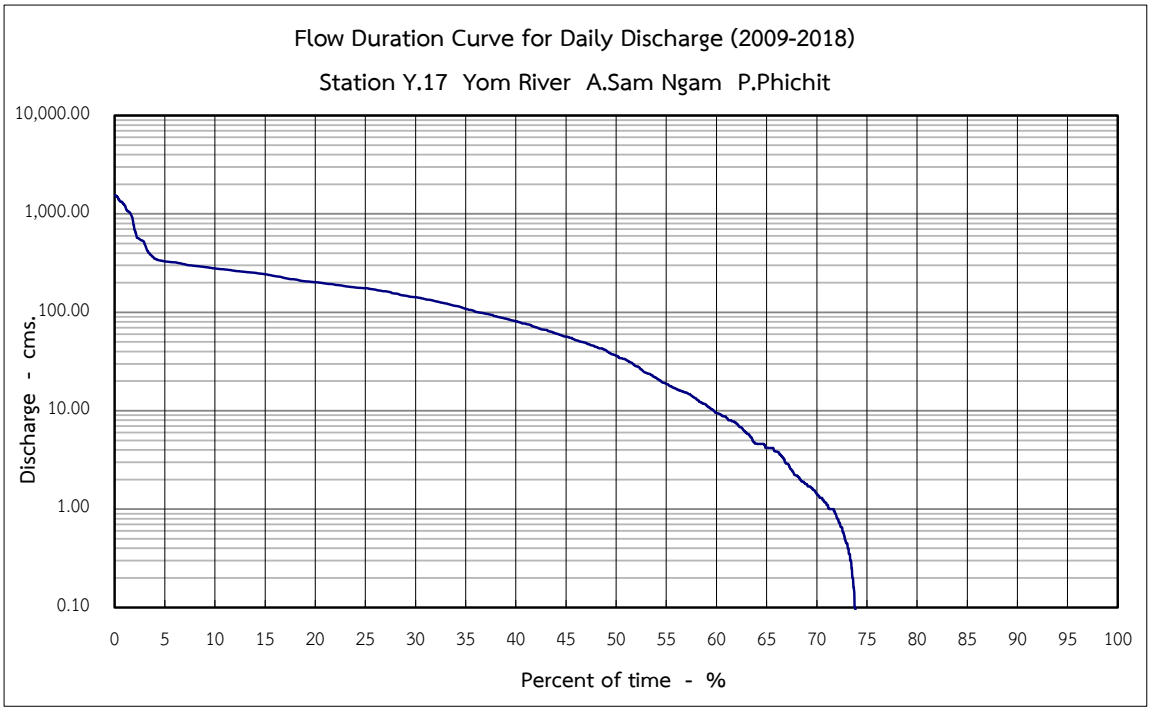
Percent of time - %	1	10	20	30	50	60	80	85	90	95	100
Discharge - cms.	172.8	37.2	16.9	10.7	4.8	3.4	1.5	1.1	0.8	0.6	0.0



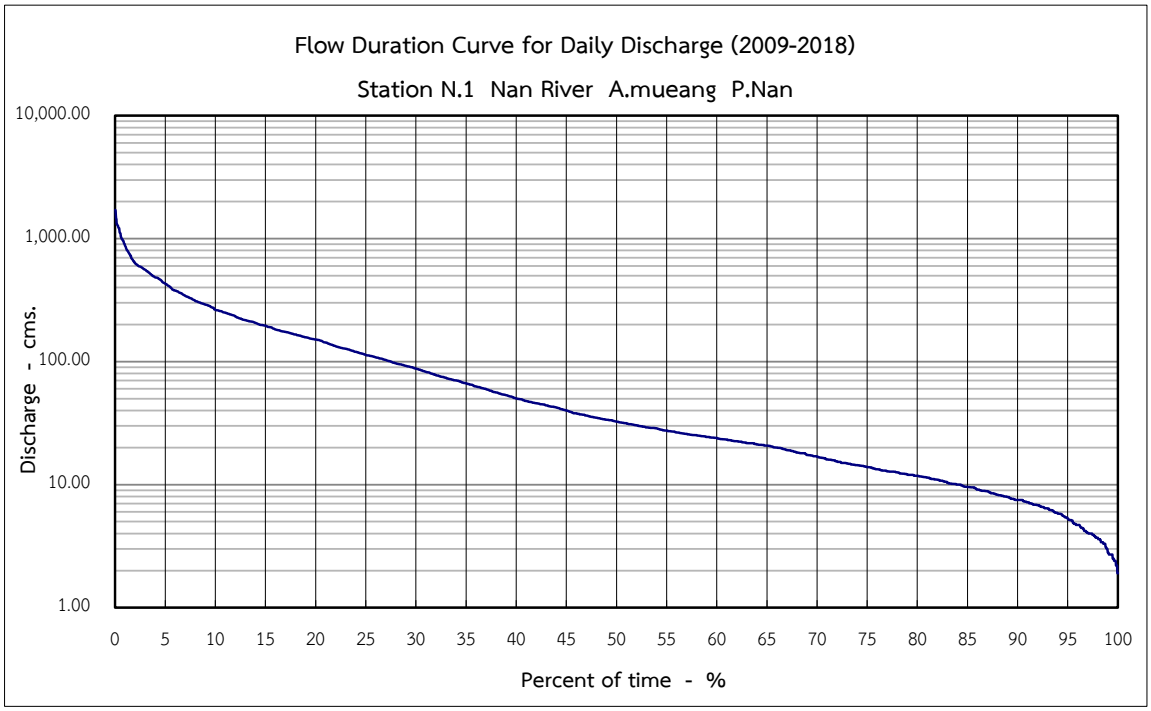
Percent of time - %	1	10	20	30	50	60	80	85	90	95	100
Discharge - cms.	606.4	186.0	88.0	48.7	17.0	8.7	2.8	2.1	1.4	0.6	0.0



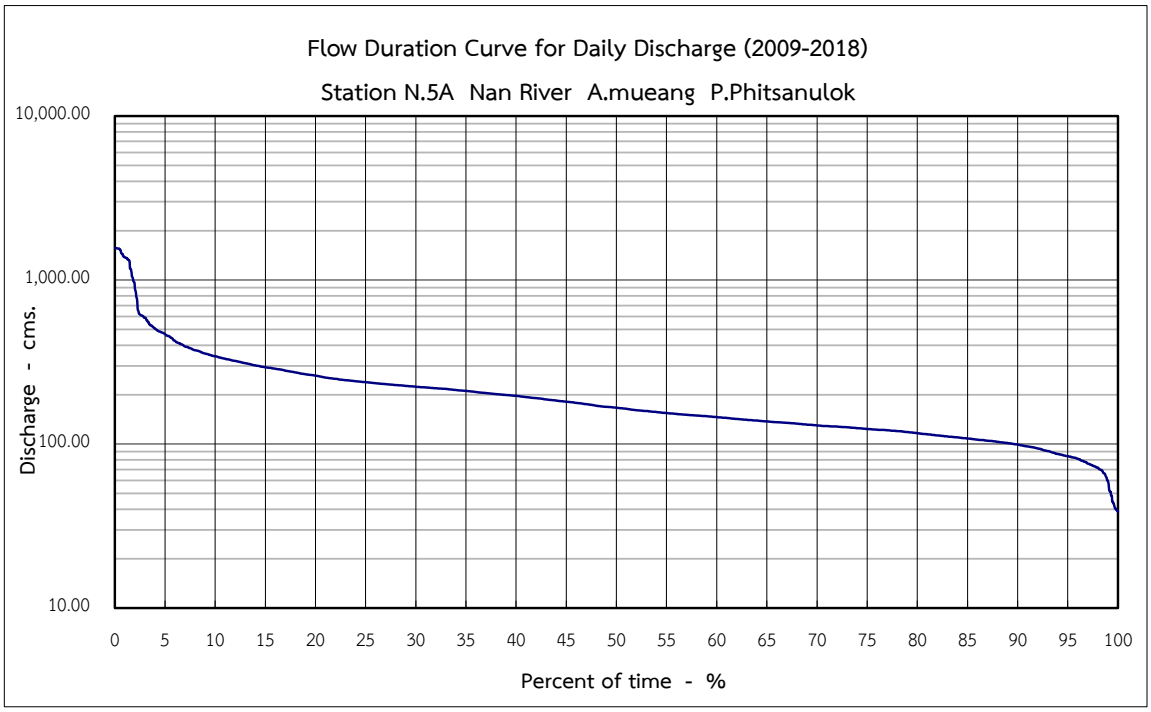
Percent of time - %	1	10	20	30	50	60	80	85	90	95	100
Discharge - cms.	1,154.0	400.7	230.0	138.7	16.8	2.6	0.0	0.0	0.0	0.0	0.0



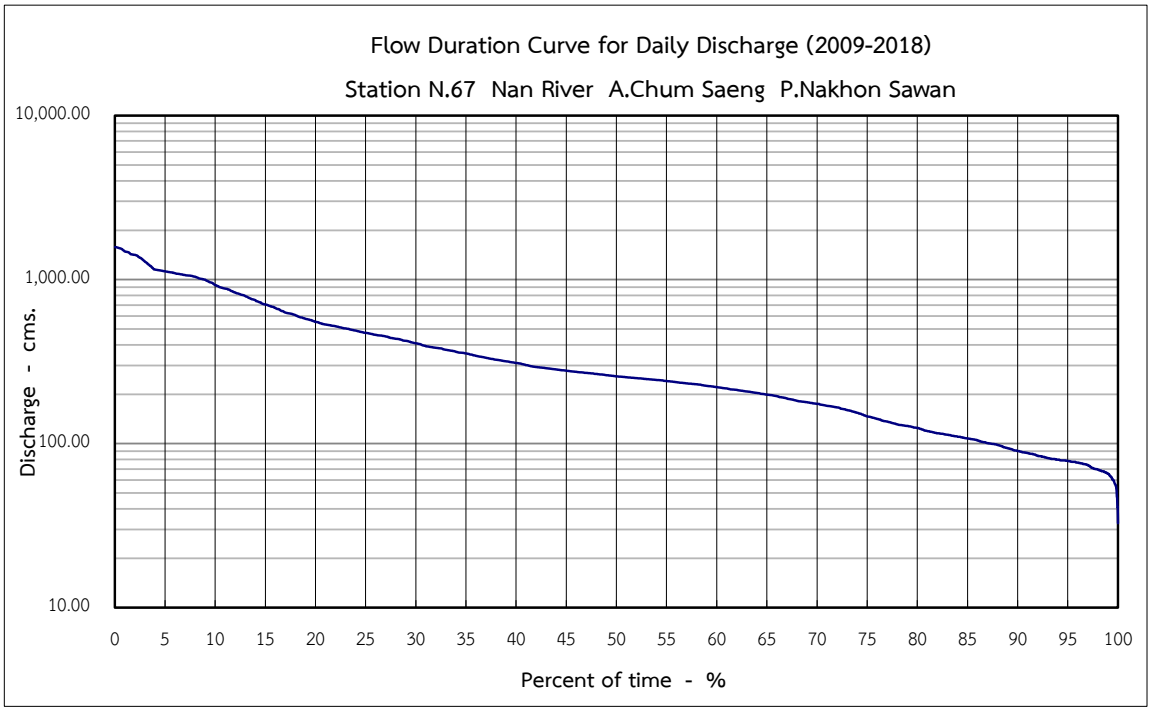
Percent of time - %	1	10	20	30	50	60	80	85	90	95	100
Discharge - cms.	1,228.8	279.2	202.5	142.6	36.4	9.5	0.0	0.0	0.0	0.0	0.0



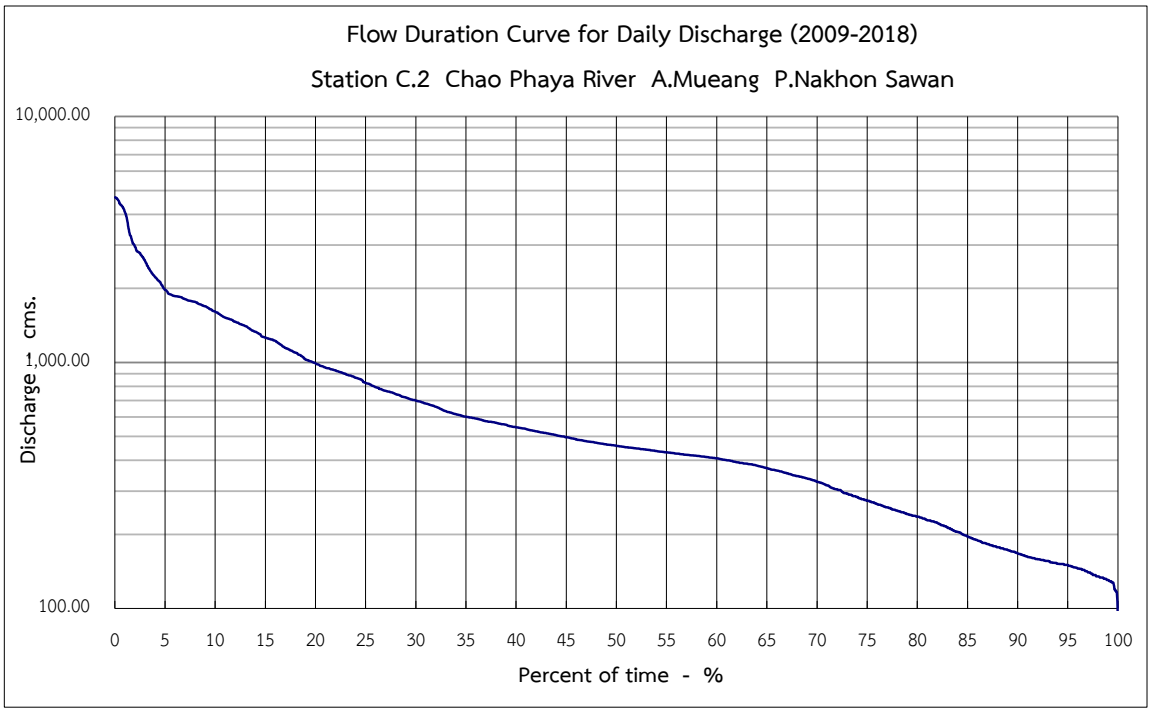
Percent of time - %	1	10	20	30	50	60	80	85	90	95	100
Discharge - cms.	874.7	264.3	151.2	87.5	32.6	24.0	11.8	9.6	7.5	5.3	1.9



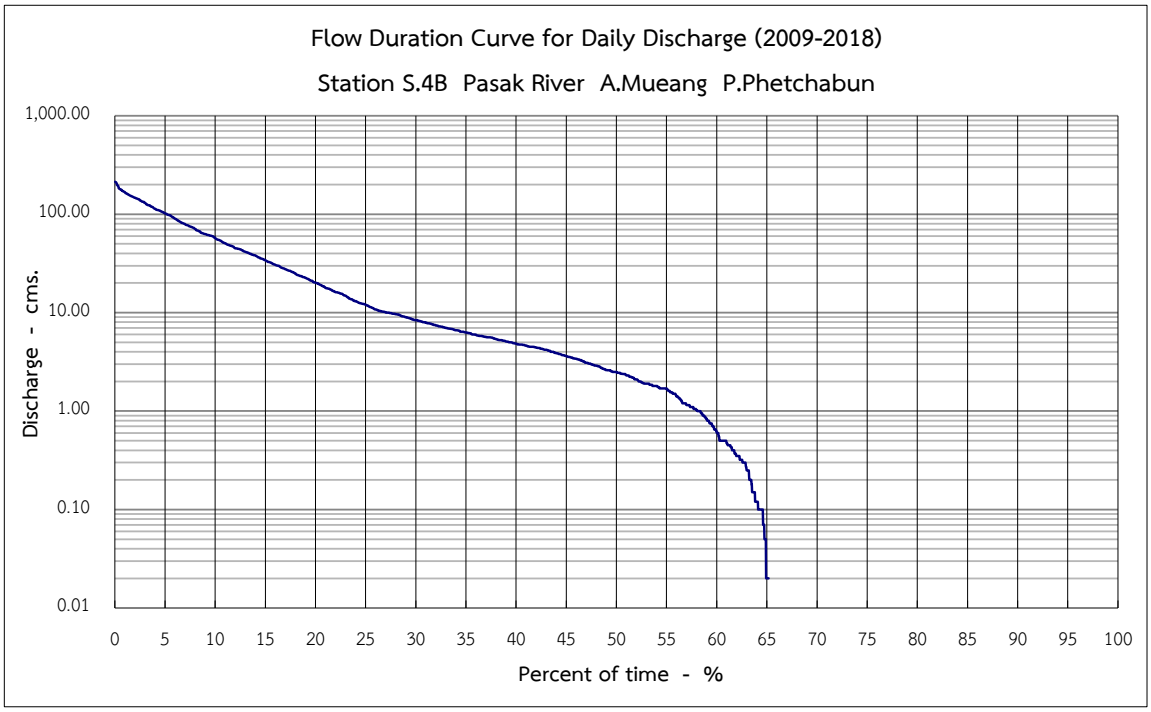
Percent of time - %	1	10	20	30	50	60	80	85	90	95	100
Discharge - cms.	1,374.3	343.0	261.3	223.8	166.6	146.0	116.4	108.0	99.1	84.4	38.7



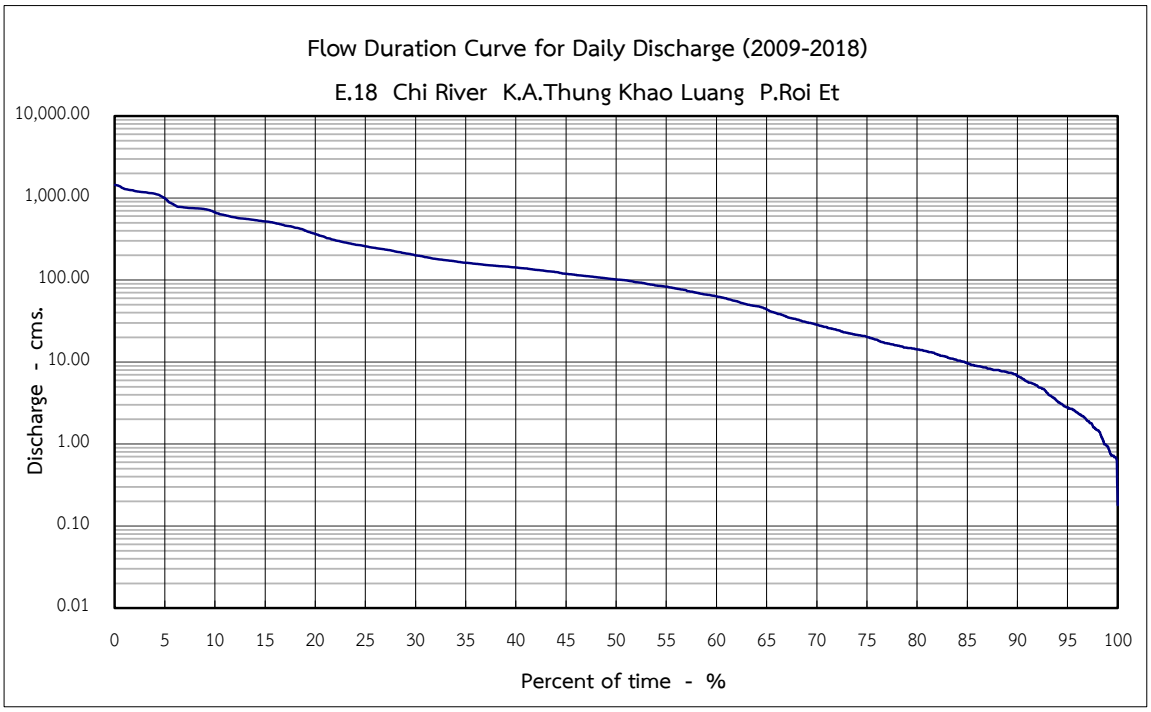
Percent of time - %	1	10	20	30	50	60	80	85	90	95	100
Discharge - cms.	1,485.0	926.2	552.6	409.1	257.0	221.0	124.5	107.6	90.2	78.3	32.7



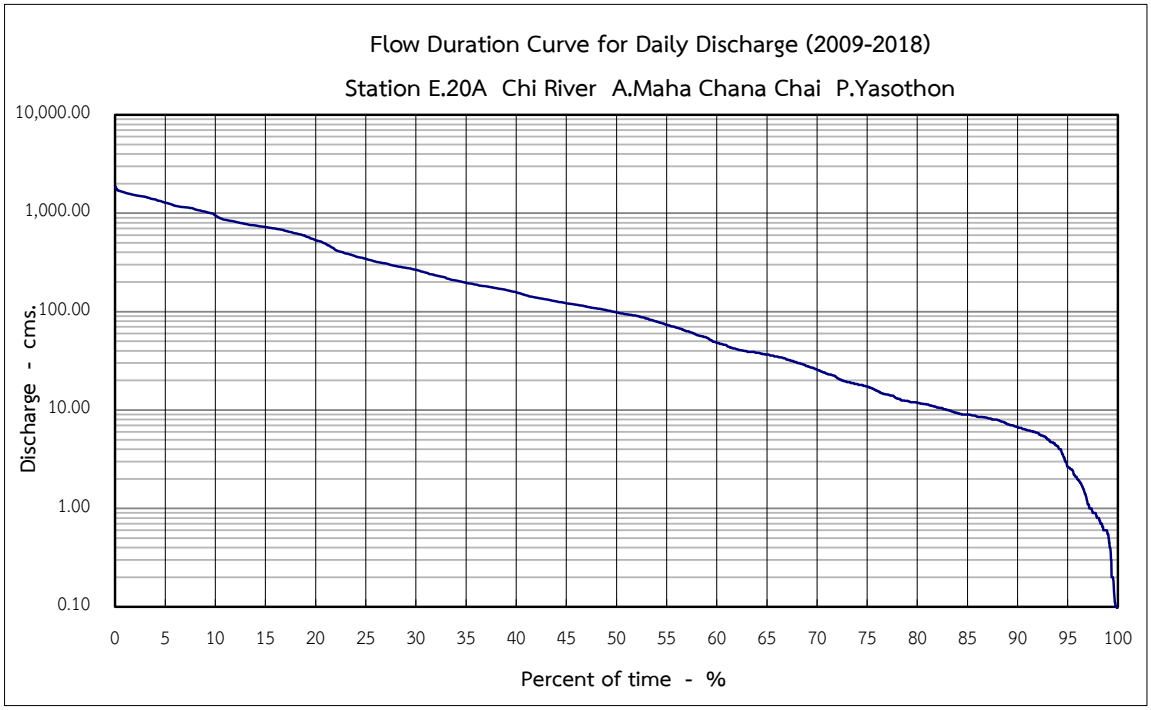
Percent of time - %	1	10	20	30	50	60	80	85	90	95	100
Discharge - cms.	4,089.3	1,610.1	992.4	700.2	458.4	407.8	236.0	196.0	167.6	150.2	94.5



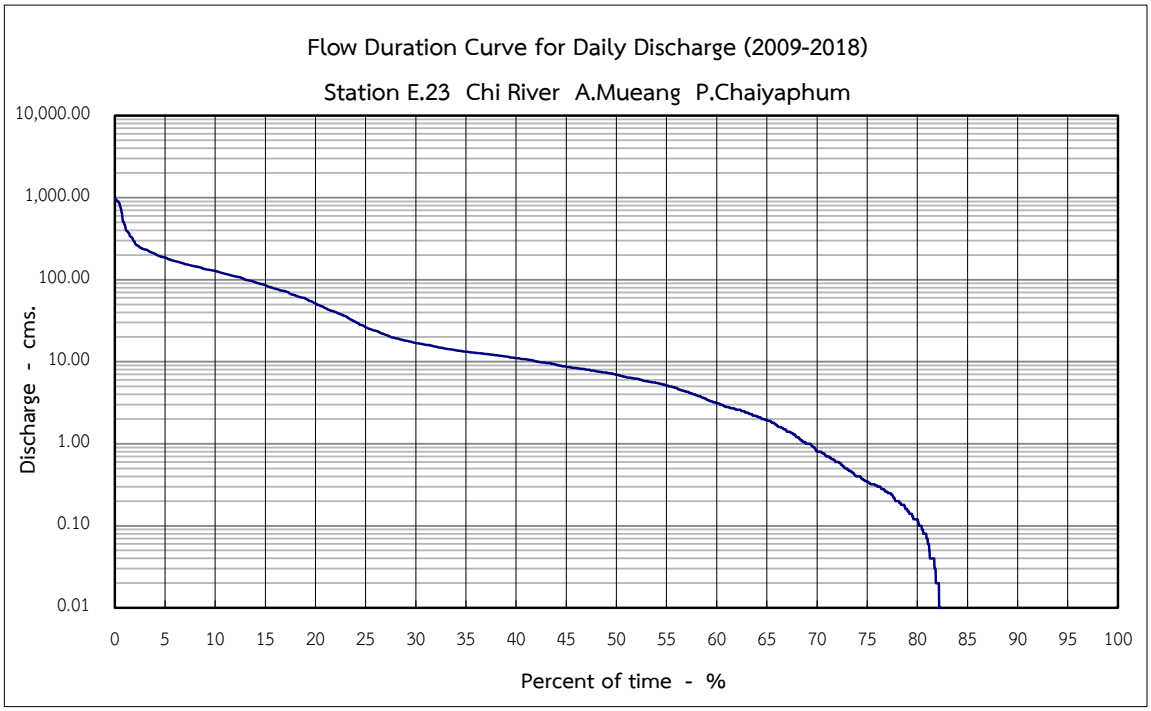
Percent of time - %	1	10	20	30	50	60	80	85	90	95	100
Discharge - cms.	167.7	57.3	20.1	8.4	2.5	0.6	0.0	0.0	0.0	0.0	0.0



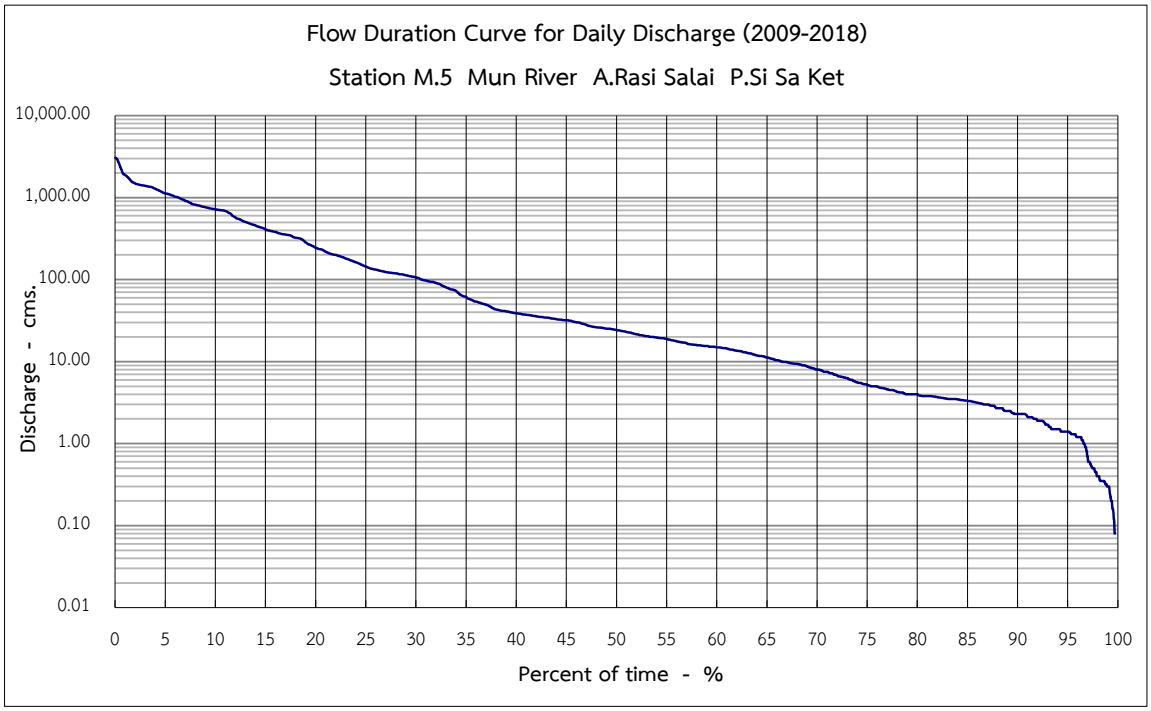
Percent of time - %	1	10	20	30	50	60	80	85	90	95	100
Discharge - cms.	1,288.4	670.5	364.0	200.1	101.9	63.1	14.3	9.7	6.8	2.8	0.2



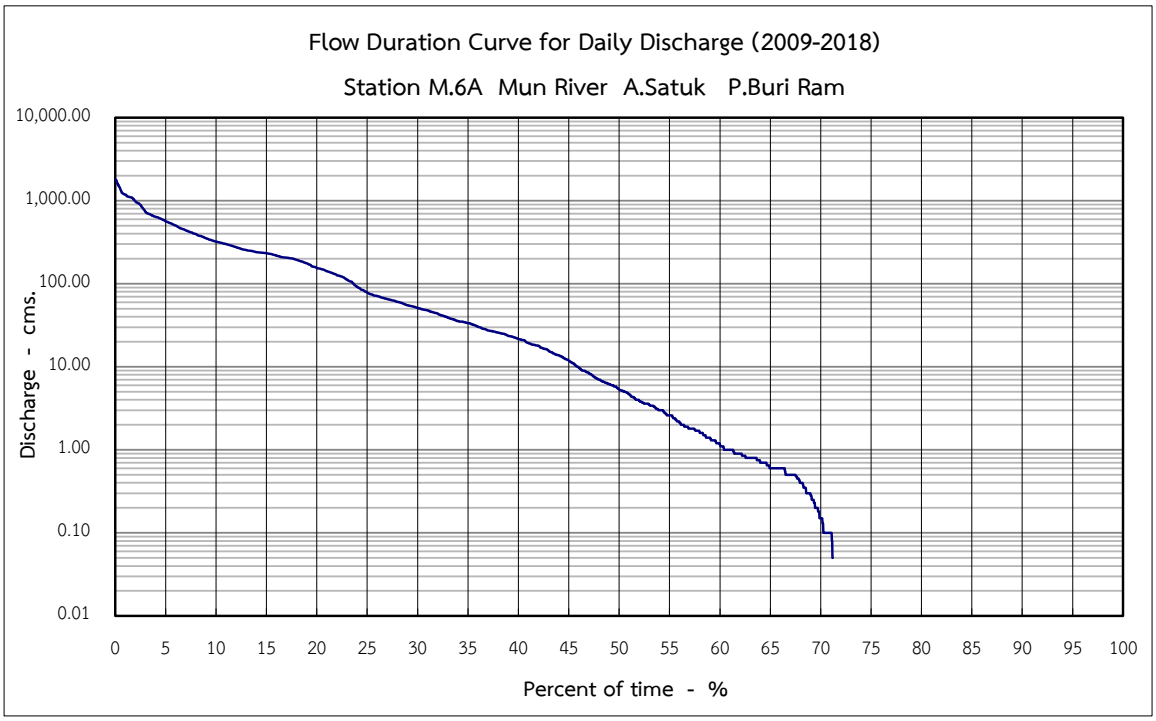
Percent of time - %	1	10	20	30	50	60	80	85	90	95	100
Discharge - cms.	1,619.3	945.5	531.2	266.4	98.4	48.1	11.9	9.0	6.7	2.6	0.1



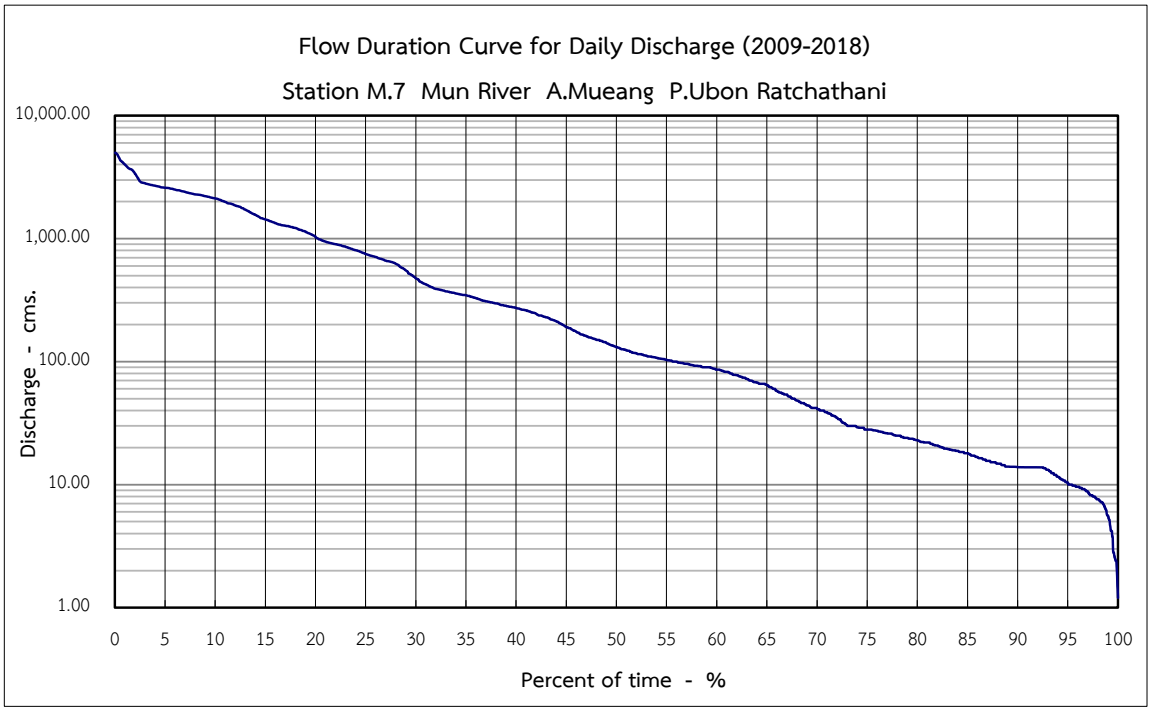
Percent of time - %	1	10	20	30	50	60	80	85	90	95	100
Discharge - cms.	462.4	128.2	51.5	17.0	6.9	3.1	0.1	0.0	0.0	0.0	0.0



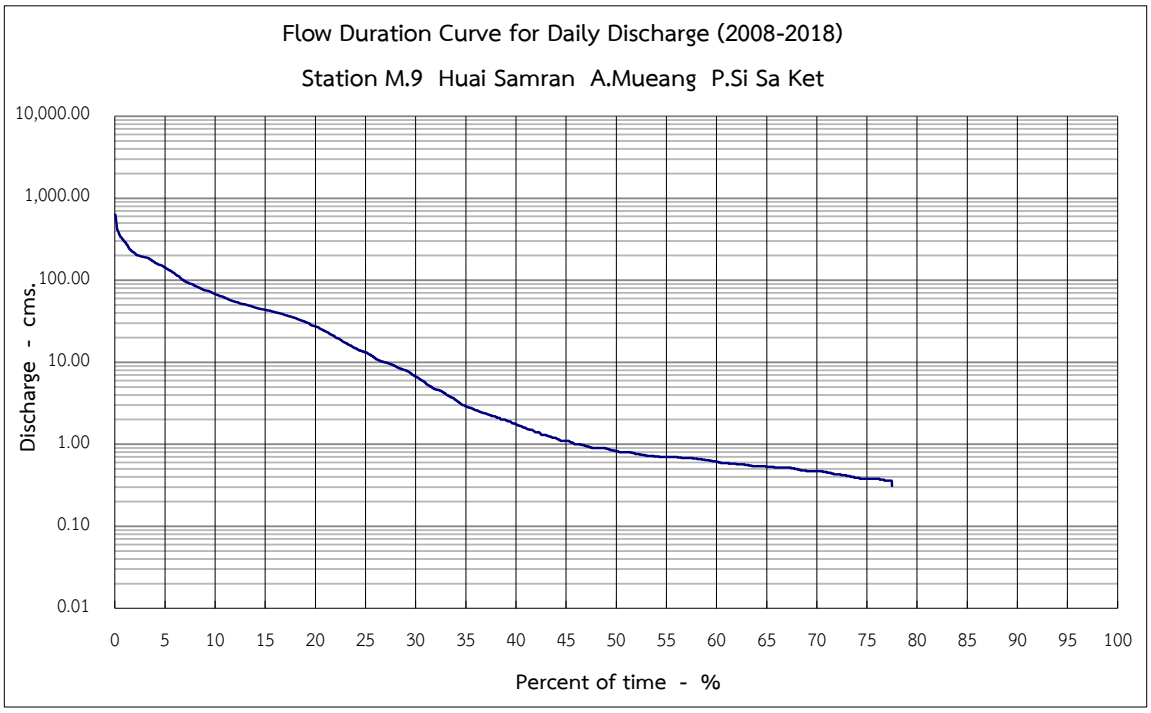
Percent of time - %	1	10	20	30	50	60	80	85	90	95	100
Discharge - cms.	1,891.8	721.2	244.9	106.0	24.2	14.9	4.0	3.3	2.3	1.4	0.0



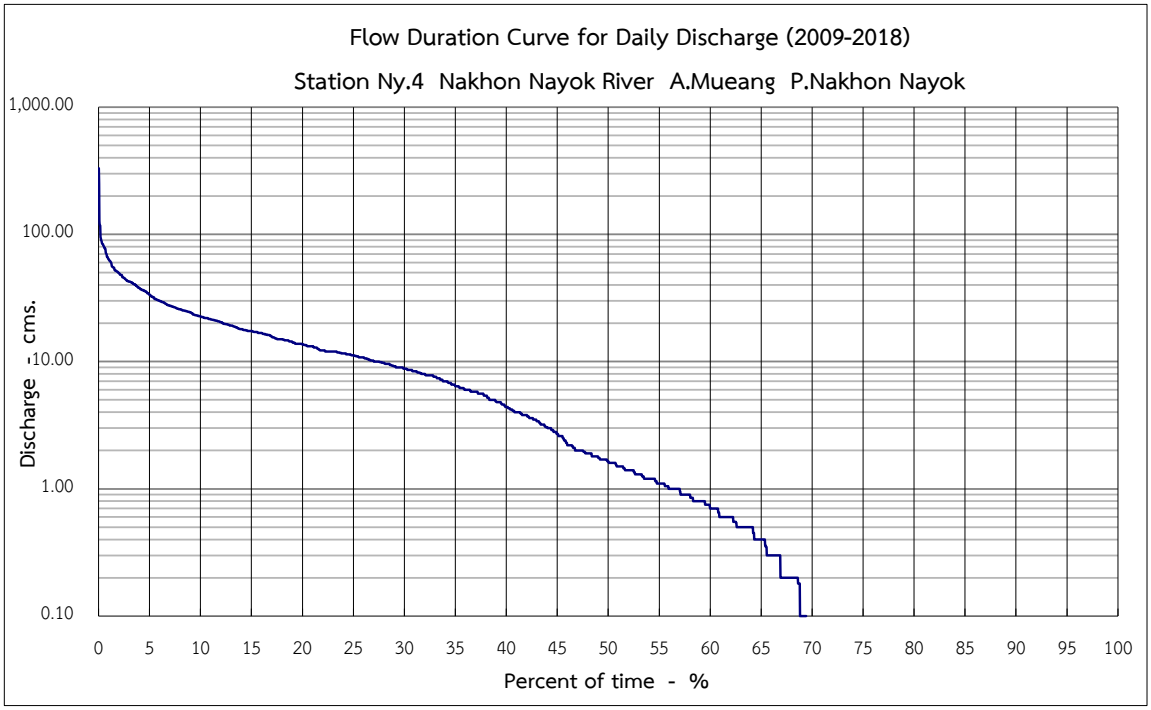
Percent of time - %	1	10	20	30	50	60	80	85	90	95	100
Discharge - cms.	1,185.0	322.0	155.4	51.1	5.4	1.2	0.0	0.0	0.0	0.0	0.0



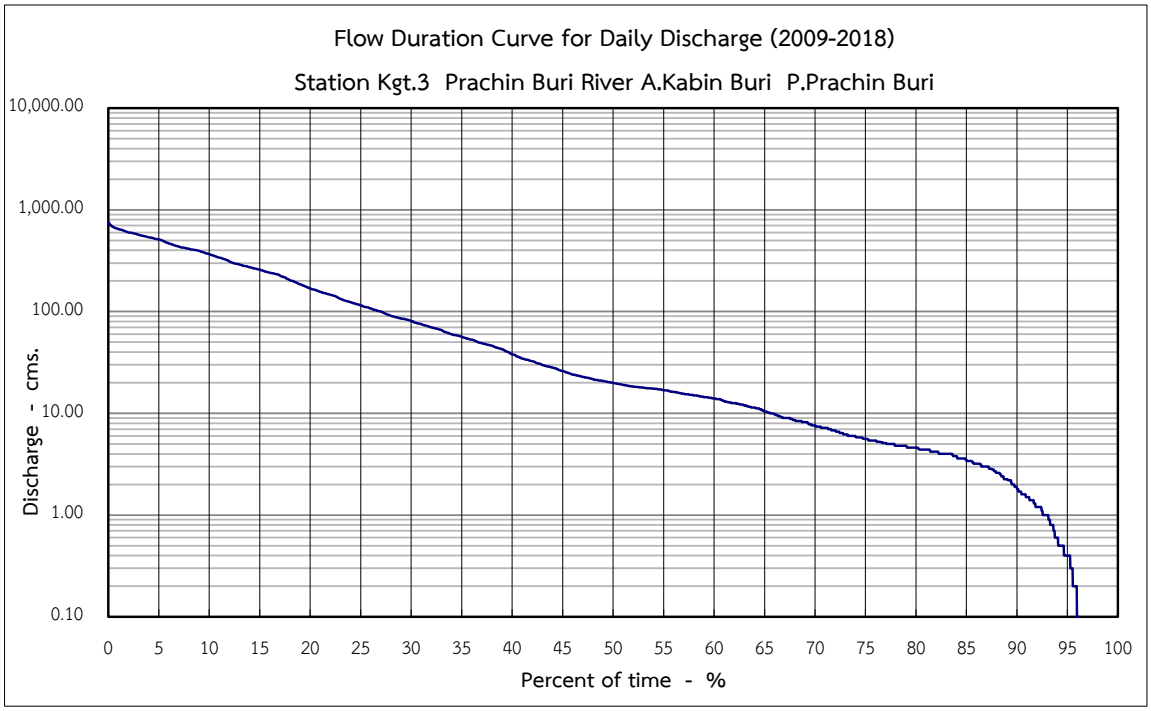
Percent of time - %	1	10	20	30	50	60	80	85	90	95	100
Discharge - cms.	4,011.2	2,120.5	1,038.2	476.0	132.0	86.0	23.0	18.0	13.9	10.4	1.2



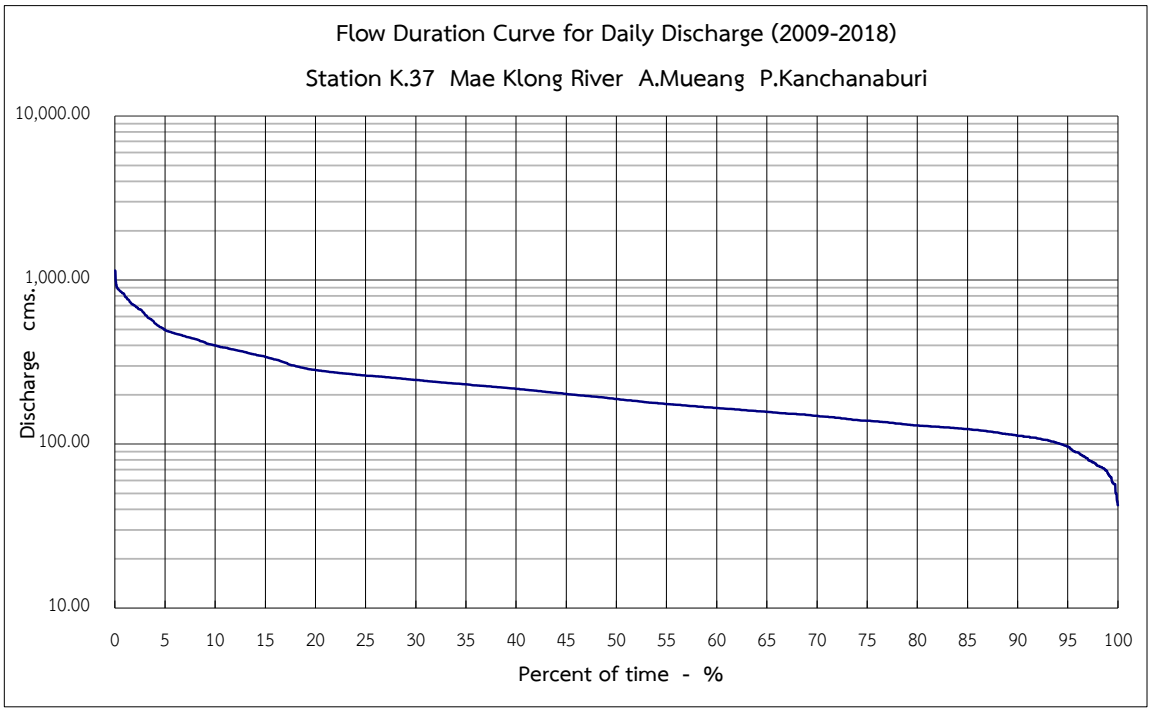
Percent of time - %	1	10	20	30	50	60	80	85	90	95	100
Discharge - cms.	292.8	68.1	27.3	6.7	0.8	0.6	0.0	0.0	0.0	0.0	0.0



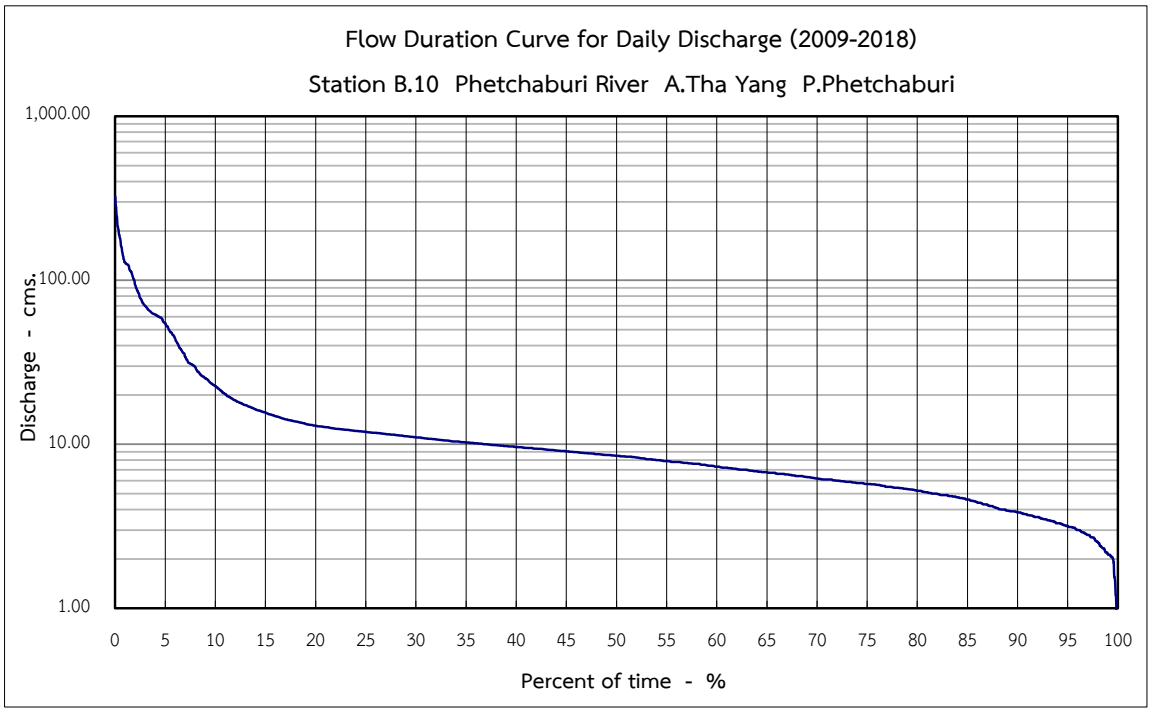
Percent of time - %	1	10	20	30	50	60	80	85	90	95	100
Discharge - cms.	4,011.2	2,120.5	1,038.2	476.0	132.0	86.0	23.0	18.0	13.9	10.4	1.2



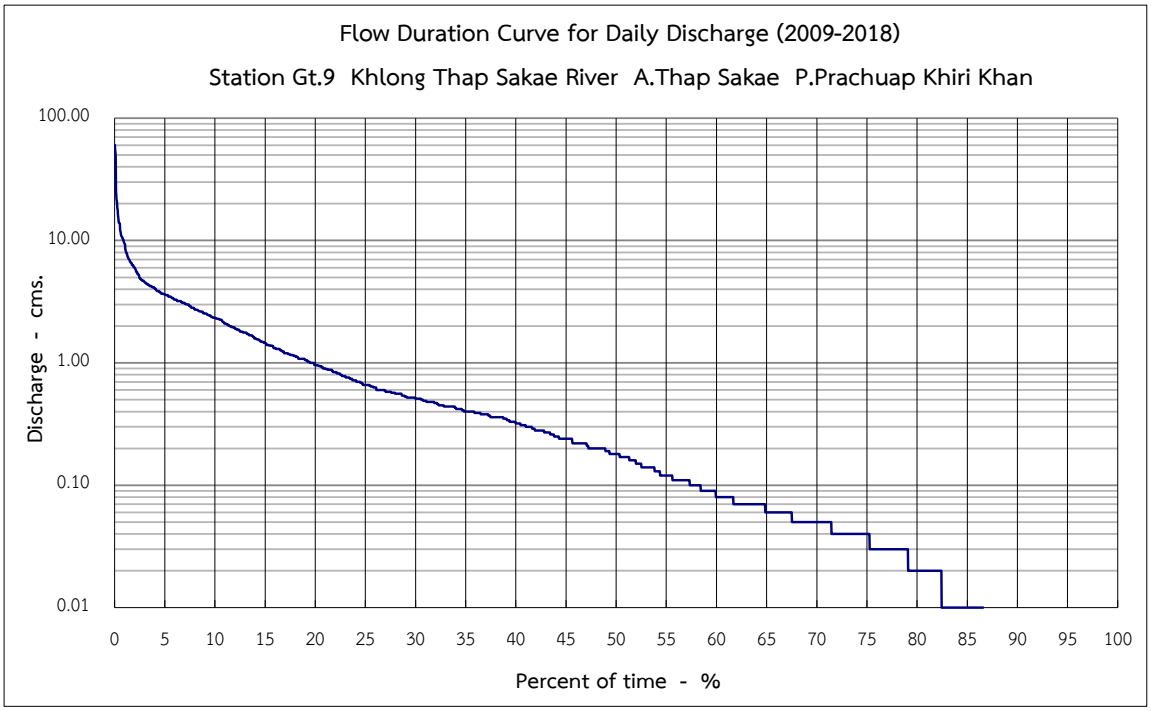
Percent of time - %	1	10	20	30	50	60	80	85	90	95	100
Discharge - cms.	292.8	68.1	27.3	6.7	0.8	0.6	0.0	0.0	0.0	0.0	0.0



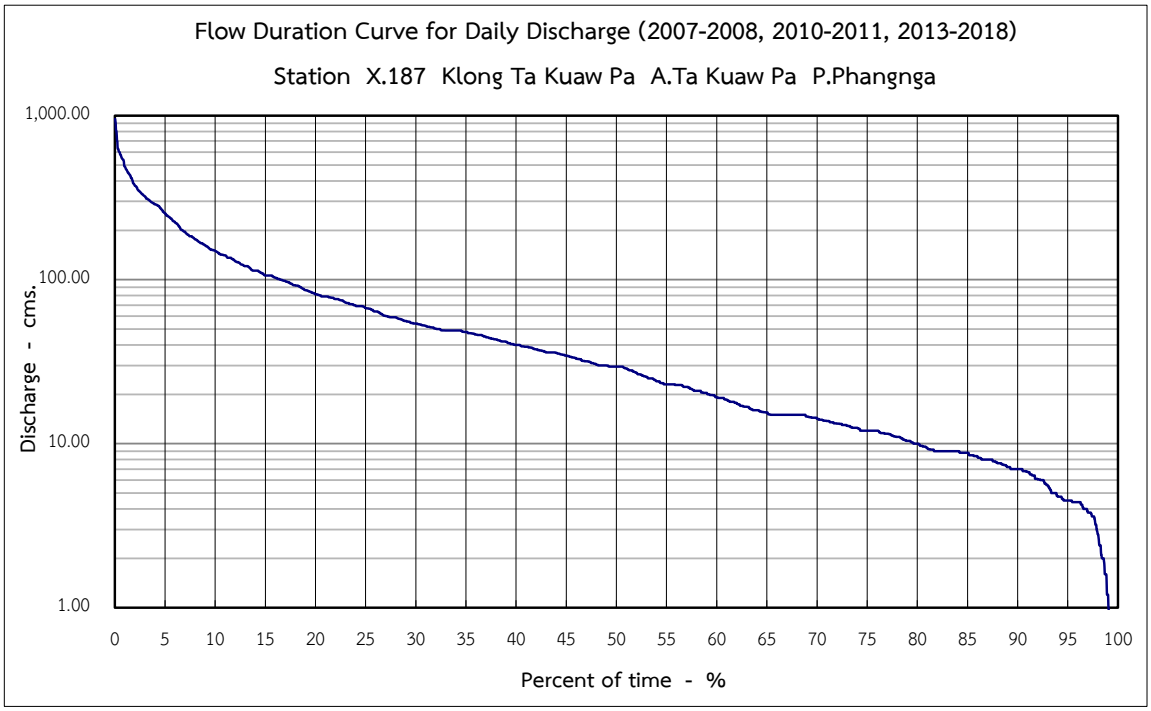
Percent of time - %	1	10	20	30	50	60	80	85	90	95	100
Discharge - cms.	4,011.2	2,120.5	1,038.2	476.0	132.0	86.0	23.0	18.0	13.9	10.4	1.2



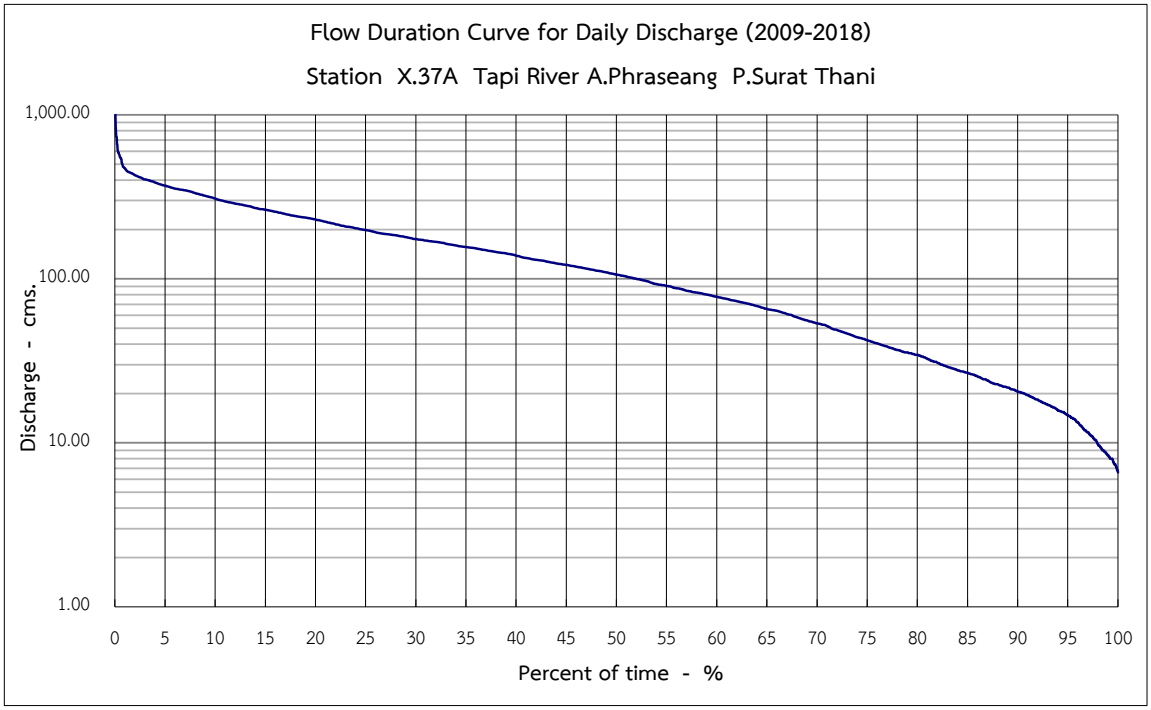
Percent of time - %	1	10	20	30	50	60	80	85	90	95	100
Discharge - cms.	128.4	22.6	13.0	11.0	8.5	7.3	5.2	4.6	3.9	3.2	0.4



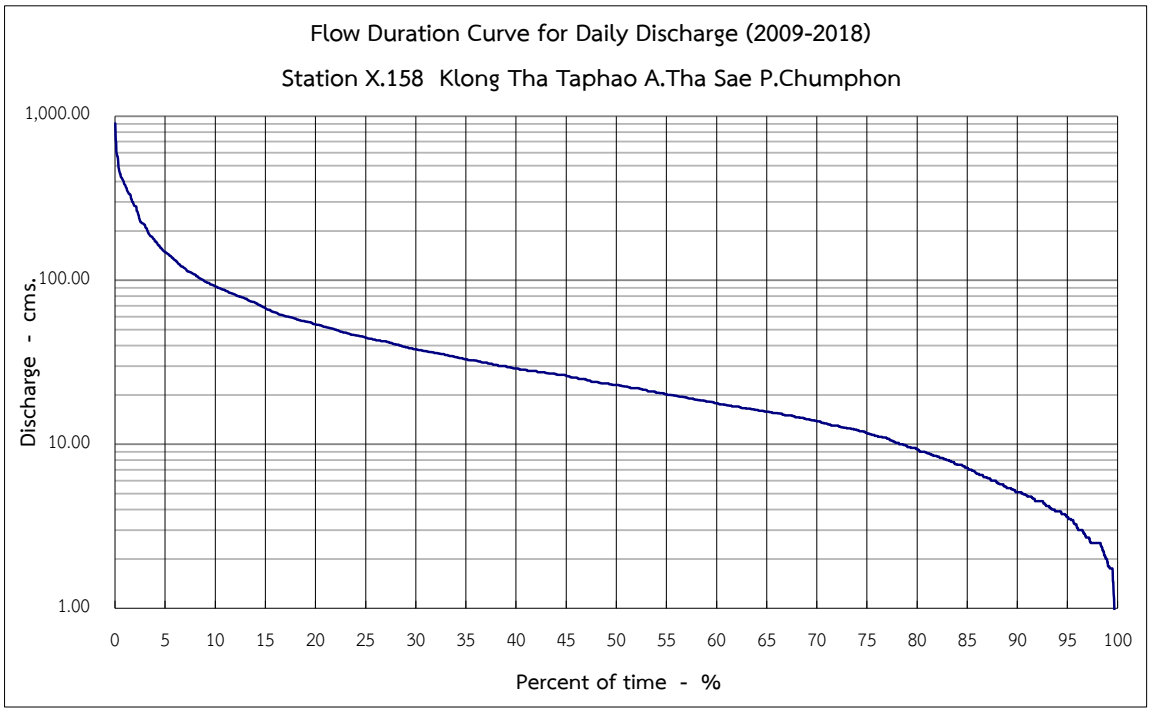
Percent of time - %	1	10	20	30	50	60	80	85	90	95	100
Discharge - cms.	9.4	2.3	1.0	0.5	0.2	0.1	0.0	0.0	0.0	0.0	0.0



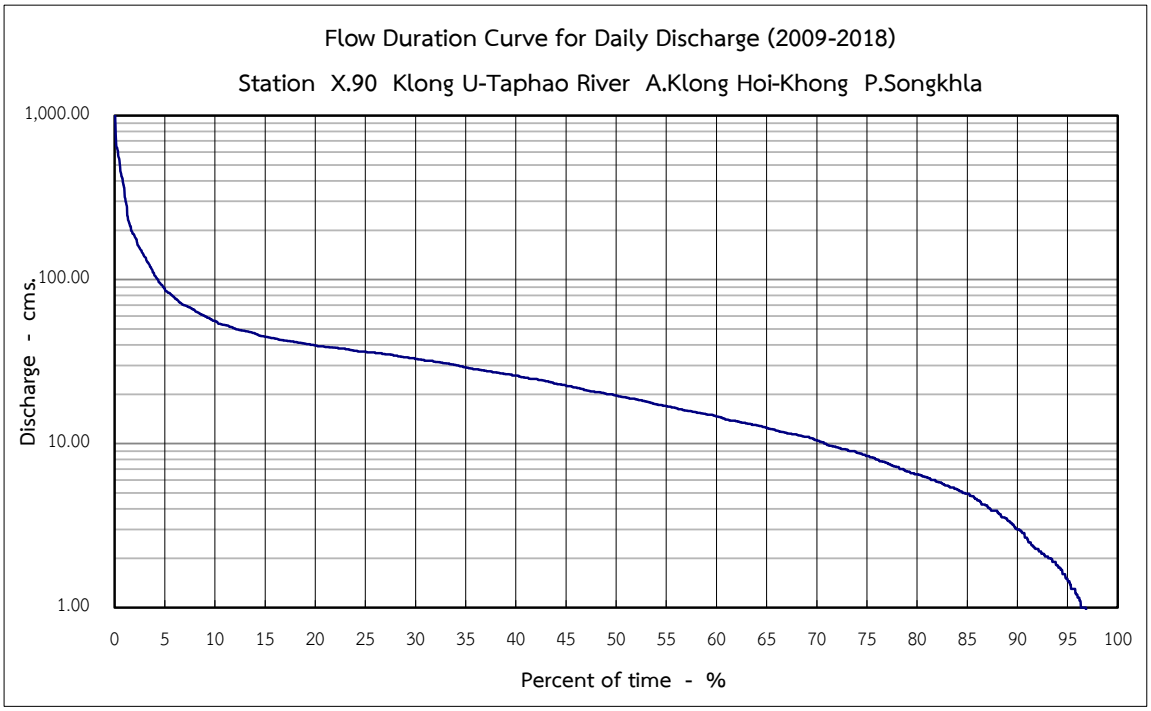
Percent of time - %	1	10	20	30	50	60	80	85	90	95	100
Discharge - cms.	489.3	149.9	81.5	54.0	29.5	19.2	10.0	8.8	7.0	4.5	0.2



Percent of time - %	1	10	20	30	50	60	80	85	90	95	100
Discharge - cms.	472.9	309.0	230.4	174.8	106.0	77.6	34.4	26.8	20.5	14.7	6.6



Percent of time - %	1	10	20	30	50	60	80	85	90	95	100
Discharge - cms.	342.9	82.0	47.2	34.3	21.7	17.0	8.8	6.8	5.1	3.6	0.0



Percent of time - %	1	10	20	30	50	60	80	85	90	95	100
Discharge - cms.	329.9	56.0	39.7	32.8	19.6	14.6	6.5	5.0	3.0	1.5	0.0