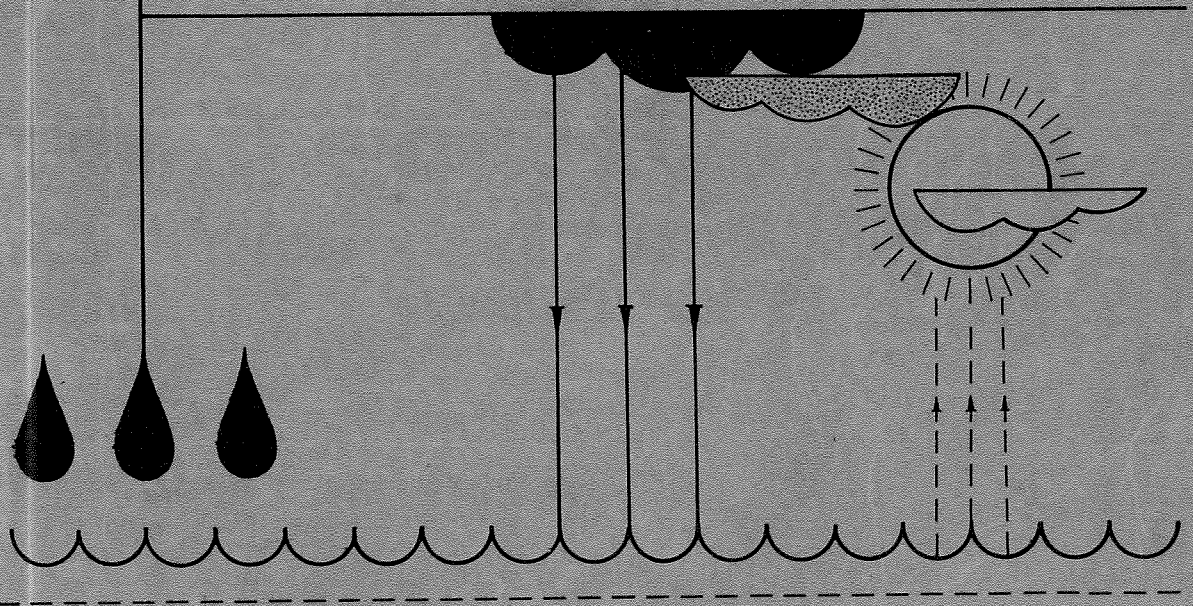
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THAILAND HYDROLOGICAL YEARBOOK

WATER YEAR 1967
VOLUME 10



HYDROLOGY DIVISION

ROYAL IRRIGATION DEPARTMENT

BANGKOK THAILAND

72

Hydrology No. 399/76

THAILAND

HYDROLOGICAL YEARBOOK

VOLUME 10

WATER YEAR 1967

HYDROLOGY DIVISION

ROYAL IRRIGATION DEPARTMENT

BANGKOK, THAILAND

FOREWORD

The programme of yearbook publications was initiated in the year 1966. Great efforts have been made in the editing as well as the setting up of standard for yearbook publication. The previously processed data have been reviewed and arranged into serial orders or volumes to be published. The first issue was Volume 8, published in 1968, contained the flow data as of water year 1965. The second issue was Volume 7, published in 1969, contained the flow data as of water years 1963 and 1964. The third issue was Volume 6, published in 1973, contained the flow data as of water years 1960, 1961 and 1962. The fourth issue was Volume 5, published in 1974, contained the flow data as of water years 1957, 1958 and 1959. The fifth issue was Volume 9, published in 1975, contained the flow data as of water year 1966. The sixth issue was Volume 4, published in 1976, contained the flow data as of water years 1954 to 1956. The seventh issue was Volume 1, published in 1976, contained the flow data as of water years 1912 to 1937. the eight issue was Volume 2, published in 1976, contained the flow data as of water years 1938 to 1947. The ninth issue was Volume 3, published in 1976, contained the flow data as of water years 1948 to 1953.

The Volume 10 of the series is the tenth issue which contains the flow data of 172 stations for water year 1967. The number of flow data processed from actual calibrating sites is 140, while the rest is of computed flow based on the application of mean daily gage height to stage-discharge relationship of previously or subsequently calibrated at such sites. Remarks on such application are made under each station description.

Damrong Jaraswathana
Director of Hydrology Division
September 1976.

ACKNOWLEDGEMENT

The editorial staff of this hydrological yearbook publication feels particularly indebted to Mr. Boonchob Kanchanalak, former Senior Hydrologist of the Royal Irrigation Department, who had initiated and directed the editing work of yearbook publication in 1966. He made a great attempt in setting up procedure for yearbook publication and to adopt engineering standard, method and steps for implementation by which further publication of the series will be based upon.

We also wish to express our sincere appreciations to the Chief of Public Relations and Printing Services Branch, Program Coordination and Budget Division, and his efficient staff whose kind assistance and co-ordinated efforts have contributed to the success of this Volume 10 issue.

Hydrology Division

September 1976.

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LOCATION MAP OF HYDROLOGIC OBSERVATION STATIONS IN WATER YEAR 1967.

* * * * * *

ILLUSTRATION OF STREAMFLOW GAGING ACTIVITIES



Figure 1. Close-up of Rating Operation

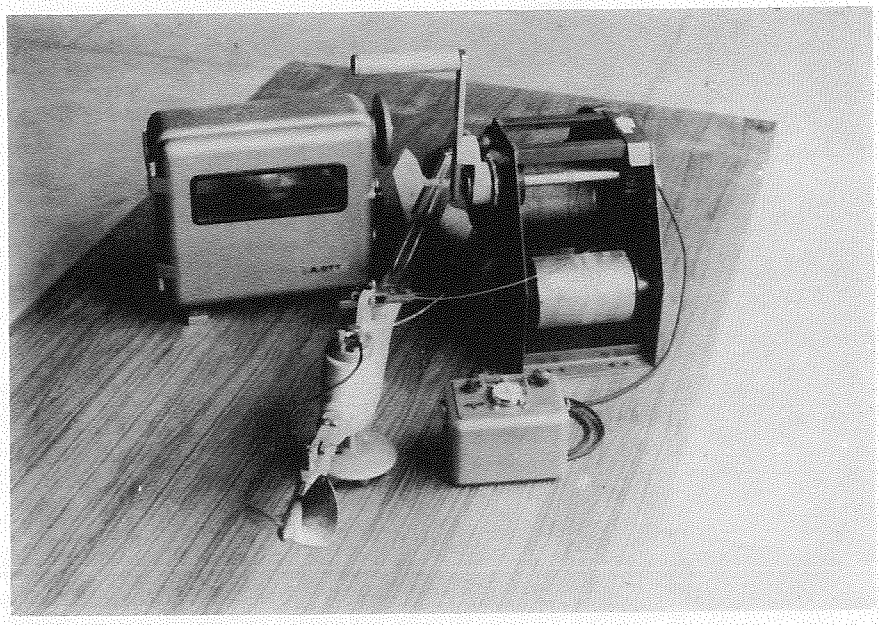


Figure 2. Standard Hydrologic Equipment



Figure 3. Standard bench mark

METHOD OF INVESTIGATION AND DATA PROCESSING

* * * * *

DEFINITION OF TERMS AND ABBREVIATIONS

Staff gaging station is a place on a stream bank where a staff gage is installed for manually observing water level; usually frequency of observation varies from 1 to 5 times of equal interval in the day time. At some specific station where streamflow measurement camps are situated, the observation of water level by night is also made usually 1 to 3 times of equal interval. The standard bench-mark of the Hydrology Section is also established nereby the gage site. The 1.00-m standard enamelled staff gage sections are used with zero reading specified in meters related to mean sea level datum. Wire-weight gages are also adopted on highway bridges.

Recording gaging station is a staff gaging station with additional installation of automatic water-level recorder. A continuous record of water level is obtained at such station. A. Ott type X has so far been adopted as our standard equipment. The pneumatic recording gage is going to be used in some mountainous headwater area. Weekly visit to the gage for inspection and changing chart paper by the crew is under practice.

Streamflow calibrating station of Rating station is a staff gaging station or recording station where flow measurement by a current meter is periodically performed, so that calibration of river section related to flow can be made through development of stage-flow relationship or simply called "rating curve".

The rating station operation covers also the sediment sampling, water temperature observation and water collection for quality analysis. Two types of the station are under operation: with and without crew camp. Those without the camp are under moving team and those with camps are subject to less accessibility. Fixed boat by cableway across the river is one of typical means of flow measurement by the current meter for medium river, 100 meter wide. For wider river, usually located in the deltaic plain with low velocity, the boat is fixed in position by anchors.

The A. Ott current meter has so far been adopted as standard equipment. The multiple-points method has been used as velocity measurement working practice. At present the two-point method is becoming more popular.

Cubic meter per second (cms) is a unit used for flow measurement. It is the rate of flow of a river or a stream discharging water in volume expressed in cubic meter per one second of time. One cms is the rate of discharge of a stream whose channel cross sectional area containing water is one square meter and whose average velocity is one meter per second.

Million cubic meter (mcm) is the volume of water expressed in millions of cubic meter. It is the quantity of water required to cover one square kilometer in area to the depth of one meter.

Water year is the year related to annual cycle of river flow beginning from April 1 to March 31 for this region, during which the river flow begins to rise, reaching its flood stage and subsiding toward its cyclic minimum.

The volume of river water in each water year, usually termed as annual runoff, is approximately the effective runoff from the rainfall accumulated during the water year.

Drainage area is an area above a specified location of a stream, measured in a horizontal plane, which is so enclosed by a topographic divide, in which direct surface runoff from rainfall would drain by gravity into the river above the specified site. The drainage area in square kilometers given herein is the total enclosed area including non-runoff contributing area, if any.

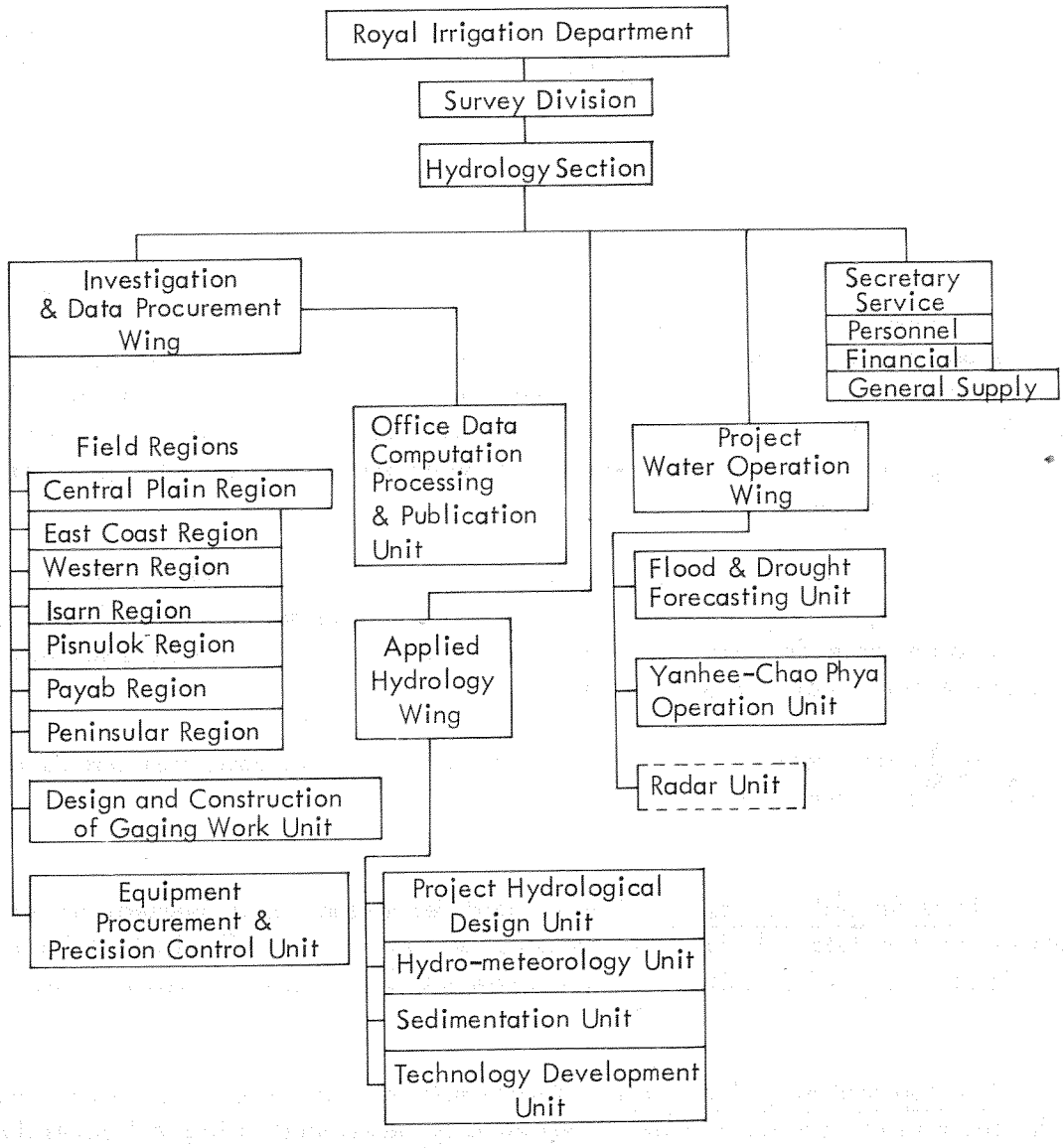
ORDER OF LISTING GAGING DATA

In this format, gaging 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. List of gaging station codes presented in the publication of Stream Gaging Stations are shown in the Map enclosed. The station code name contains the letter standing for river name and number in running order according to the age of the station installed in that river. C. 1 is the station code for the Chao Phya River at Wat Tahard gaging station built in 1905, which is the first stream-flow rating station ever built in this river.

The river list follows the order of river basin beginning first with the main river and followed by first tributaries in the downstream order.

ORGANIZATION

Streamflow data presented herein are from the hydrologic network operated by Hydrology Section of Royal Irrigation Department. Field collection, Office processing and publication are its hydrologic activity under Investigation and Data Procurement Wing which is a part of the Section Works. The organization structure of the Section is diagramatically shown below:


Royal Irrigation Department
Survey Division
Hydrology Section
Investigation & Data Procurement Wing
Secretary Service
Personnel
Financial
General Supply
Field Regions
Central Plain Region
East Coast Region
Western Region
Isarn Region
Pisnulok Region
Payab Region
Peninsular Region
Office Data Computation Processing & Publication Unit
Project Water Operation Wing
Flood & Drought Forecasting Unit
Yanhee-Chao Phya Operation Unit
Radar Unit
Applied Hydrology Wing
Design and Construction of Gaging Work Unit
Equipment Procurement & Precision Control Unit
Project Hydrological Design Unit
Hydro-meteorology Unit
Sedimentation Unit
Technology Development Unit

STANDARD OF DATA COLLECTION WORK

Field work - The minimum standards of hydrologic basic data field observations and measurements are equal to those recommended in the United Nations ECAFE Flood Control Series No. 6.

Water level data are obtained by staff gage reading and recorders in such manner as previously explained.

Measurements of flow are made with current meter by accepted methods as previously mentioned. 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.

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 a fashion of using cross section made during dry season for discharge computation.

The standard methods of U. S. Geological Survey are basic methods adopted in the network field operation.

Office Record 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 shifting control could be eliminated or reduced. Zero flow elevation of the rating section is determined by trial 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 overbank flow stage. The overbank flow is assessed both by direct velocity measurement and slope-area method whenever applicable.

Determination of Daily Mean Flow - Application of the adjusted daily mean gage height to rating tables gives the corresponding daily mean discharge, from which

the monthly and the yearly mean discharge are computed. Shifting adjustment for observed gage height is made when necessary. Shifting design is made base 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 gaging 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 time average reading (for daytime) gives an error of daily mean flow not more than 15% for mountain streams, less than 10% for larger valley streams and not more than 5% for lower deltaic streams. Most of mountain and valley streams are under recording operation, only deltaic streams that daytime reading are still used.

The daily mean water level tabulated herein are the actual arithmetic mean of the observed data available. Adjusted water level due to shifting, which are applicable to rating curve for daily mean flow determination are not shown but they will be found in the computation file of H. 25.

It is noted that the daily mean flow presented herein are mostly subject to upstream diversion utilization. Headwater utilization of water by people diversions and state-own diversions are expected in many of 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 tailwaters of existing reservoirs.

CLASSIFICATION OF DATA

Time basis used for daily mean flow is from midnight to midnight. The degrees of accuracy of the data are classified as follows:

Excellent indicates the error of data of less than 5% being believable;

Good being less than 10%

Fair being less than 15%; and

Poor being more than 15% probable.

Review of Procedure for Streamflow Record Processing

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

1. Checking of gage height data which are obtained either from staff gage reading or from 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 recorder charts, if any.

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

d) Datums of gage observation and of the rating curve used.

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

2. Checking of availability and goodness of field measurement notes, H. 23.

3. Checking of differential magnitude of water level during rating as to which arithmetic average or weighed average is desirable.

4. Checking of stability of rating curve used, HS. 1004.

5. Review of shifting control sample and design shifting, H. 24-25, if any.

6. Adjustment of backwater, flood wave, etc., by rate of change of falls as index, H. 31-32, if any.

7. Overall review of daily mean flow data as an end-product, H. 26.

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

SERIES OF YEARBOOK PUBLICATIONS

The yearbook volumes in which the flow data had been or will be published, are to arranged as follows:

Volume	Years of Record	No. of Station-years
1	1912 - 1937	112
2	1938 - 1947	103
3	1948 - 1953	146
4	1954 - 1956	178
5	1957 - 1959	203
6	1960 - 1962	213
7	1963 - 1964	182
8	1965	113
9	1966	129
10	1967	172
11	1968	187
12	1969	183
13	1970	169
14	1971	156
15	1972	176
16	1973	184
17	1974	203
18	1975	180
19	1976	189

It is earnestly hopeful that the Volume 12 and the further volumes will be released in serial order.

UNIT OF MEASUREMENT USED

UNIT CONVERSION FACTORS

1 meter (m) = 39.37 inches	=	3.2808 feet
1 kilometer (km) = 0.6214 mile	=	3,280.8 feet
1 square meter (m^2 of sq m)	=	1.196 square yards
	=	10.764 square feet
1 square kilometer (km^2 or sq km)	=	0.3861 square mile
	=	247.1 acres
	=	625 rai (Thai)
1 cubic meter (m^3 cu m)	=	1,000 litres
	=	1.308 cubic yards
	=	35.31 cubic feet
1 million cubic meter (mcm)	=	1,000,000 m^3
	=	810.7 acre-feet
1 acre-foot	=	1,233 m^3
1 hectare	=	6.25 rai (Thai)
1 acre	=	2.50 rai
1 rai (Thai)	=	1,600 m^2
1 day	=	86,400 seconds
1 month (average)	=	2.63 million seconds
1 year (average)	=	31.6 million seconds

STREAM GAGING DATA

WATER YEAR 1967

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
PING RIVER BASIN

Ping River at Nawarat Bridge, Chiang Mai (P.1)

Location: Lat 18°- 47' - 09" N, Long 99°- 00' - 29" E, on left bank, 100 meters downstream from Nawarat Bridge, Amphoe Muang, Chiang Mai.

Drainage Area: 6,355 sq.km.

Type of Gage: Water - stage recorder

Zero Gage at Bottom at: +300.80 m. (M.S.L.)

Bench Mark: B.M. of Military Survey and Mapping Department.

Location: At the east abutment of Nawarat Bridge
Elevation: +306.867 m. (M.S.L.)

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: 1936 - 38, 1954 - 60, 1967 to date
Rated by Float: 1936 - 38
Rated by Current Meter: 1954 - 60, 1967 to date

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

Overbank Flow Conditions: No overbank flow.

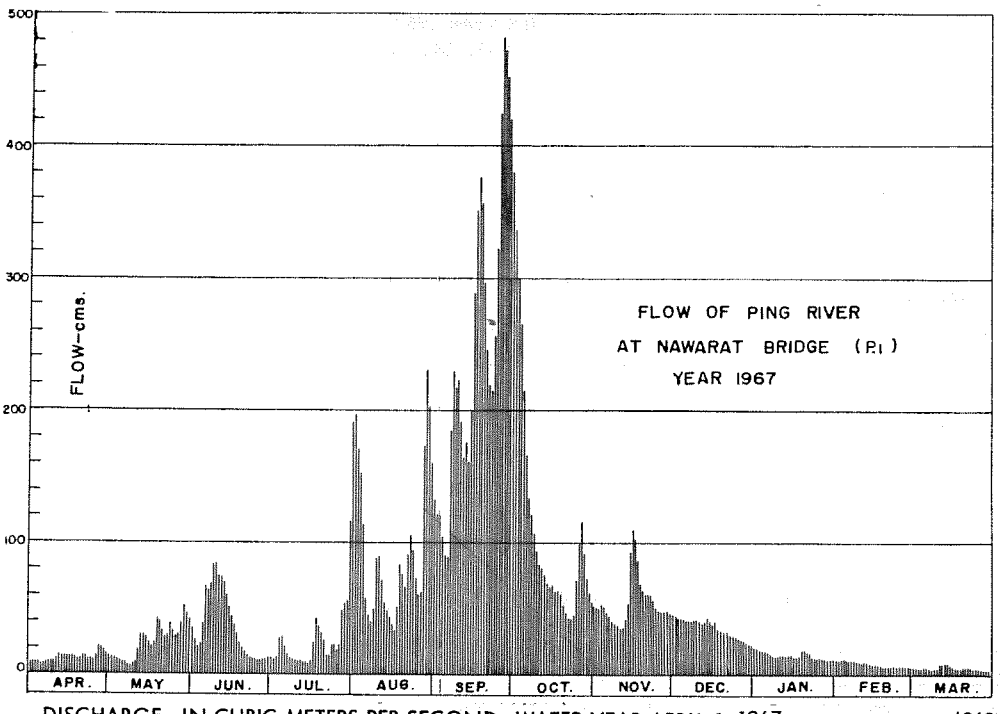
General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1967. Upstream state diversion for irrigation of about 11,200 hectares since 1936 at Mae Faek Weir. The data presented in form of actual flow at gage site, no adjustment made for virgin flow.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31,1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	301.24	301.37	301.70	301.34	303.10	302.61	304.08	301.91	301.84	301.50	301.33	301.21
2	.26	.35	.58	.33	.13	.56	303.88	.90	.83	.49	.34	.19
3	.27	.32	.50	.38	302.93	.56	.77	.90	.82	.48	.34	.17
4	.25	.30	.53	.61	.78	.34	.53	.93	.81	.46	.34	.17
5	.22	.28	.77	.62	.08	.29	.17	.90	.80	.45	.32	.19
6	301.25	301.26	302.07	301.46	301.92	302.29	302.86	301.85	301.79	301.43	301.32	301.19
7	.28	.24	.02	.38	.81	303.01	.63	.81	.79	.42	.32	.18
8	.28	.22	.11	.34	.76	.35	.57	.77	.79	.39	.31	.16
9	.29	.22	.24	.32	.93	.25	.43	.76	.79	.38	.30	.17
10	.28	.24	.24	.31	302.28	.31	.31	.73	.79	.38	.30	.18
11	301.33	301.30	302.15	301.31	302.29	303.01	302.23	301.72	301.78	301.41	301.29	301.25
12	.38	.49	.13	.31	.09	302.87	.20	.72	.76	.41	.30	.27
13	.37	.64	.08	.31	301.93	.98	.16	.80	.78	.40	.29	.28
14	.36	.63	301.97	.28	.88	.84	.09	.99	.83	.40	.26	.26
15	.36	.59	.89	.27	.82	303.12	.07	302.39	.76	.38	.26	.22
16	301.36	301.53	301.80	301.31	301.74	303.78	302.08	302.47	301.76	301.37	301.25	301.20
17	.37	.49	.70	.58	.67	304.08	.03	.33	.79	.39	.24	.17
18	.35	.59	.61	.81	.99	.18	.04	.12	.69	.41	.23	.18
19	.33	.81	.52	.72	302.23	303.98	.01	.07	.69	.47	.23	.17
20	.36	.78	.45	.66	.12	.58	301.92	.02	.68	.48	.23	.19
21	301.39	301.70	301.41	301.46	302.06	303.36	301.86	302.01	301.68	301.43	301.22	301.19
22	.36	.61	.38	.38	.31	.25	.81	.01	.64	.39	.23	.19
23	.33	.65	.34	~~.39~~	~~.43~~	.27	.81	301.99	.64	.38	.22	.18
24	.32	.75	.35	.54	.28	.60	.81	.92	.63	.37	.22	.17
25	.31	.65	.32	.53	.09	.95	302.10	.88	.61	.37	.23	.15
26	301.38	301.61	301.31	301.46	301.98	304.45	302.41	301.86	301.60	301.37	301.23	301.15
27	.51	.66	.33	.56	302.03	.62	.52	.87	.58	.35	.23	.15
28	.50	.81	.32	.90	.93	.57	.26	.88	.57	.35	.23	.15
29	.44	.92	.32	.95	303.36	.47	.09	.86	.56	.33	.23	.15
30	.40	.87	.36	.82	.14	.29	301.99	.85	.54	.34		.13
31		.81		302.71	302.78		.92		.52	.34		.13
Mean	301.34	301.54	301.68	301.53	302.29	303.39	302.41	301.94	301.71	301.40	301.27	301.18
Max.	301.51	301.92	302.24	302.71	303.36	304.62	304.08	302.47	301.84	301.50	301.34	301.28
Min.	301.22	301.22	301.31	301.27	301.67	302.29	301.81	301.72	301.52	301.34	301.22	301.13

WATER YEAR 1967 : Max. 304.62 m. Min. 301.13 m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	8.30	14	35	13	192	127	355	52	46	21	12	6.95
2	9.20	13	27	12	197	121	316	51	45	21	13	6.15
3	9.65	12	21	15	169	121	297	51	44	20	13	5.45
4	8.75	11	23	29	149	95	257	54	43	19	13	5.45
5	7.40	10	40	29	68	90	203	51	42	19	12	6.15
6	8.75	9.20	67	19	53	90	160	47	42	18	12	6.15
7	10	8.30	62	15	43	180	130	43	42	17	12	5.80
8	10	7.40	70	13	39	229	122	40	42	15	11	5.10
9	10	7.40	84	12	54	214	106	39	42	15	11	5.45
10	10	8.30	84	11	89	223	92	37	42	15	11	5.80
11	12	11	75	11	90	180	83	36	41	16	10	8.75
12	15	21	73	11	68	161	80	36	39	16	11	9.65
13	14	31	68	11	54	176	76	42	41	16	10	10
14	14	30	57	10	49	157	68	59	45	16	9.20	9.20
15	14	27	50	9.65	44	195	67	101	39	15	9.20	7.40
16	14	23	42	11	38	299	68	110	39	14	8.75	6.50
17	14	21	35	27	33	355	63	94	42	15	8.30	5.45
18	13	27	29	43	59	376	64	72	34	16	7.85	5.80
19	12	43	23	36	83	336	61	67	34	20	7.85	5.45
20	14	41	19	32	72	265	53	62	34	20	7.85	6.15
21	15	35	16	19	66	231	48	61	34	18	7.40	6.15
22	14	29	15	15	92	214	43	61	31	15	7.85	6.15
23	12	31	13	15	106	217	43	59	31	15	7.40	5.80
24	12	39	13	24	89	268	43	53	30	14	7.40	5.45
25	11	31	12	23	68	330	69	49	29	14	7.85	4.75
26	15	29	11	19	58	438	103	48	28	14	7.85	4.75
27	22	32	12	25	63	482	116	48	27	13	7.85	4.75
28	21	43	12	51	169	468	87	49	26	13	7.85	4.75
29	18	53	12	55	231	443	68	48	25	12	7.85	4.75
30	16	48	14	44	198	400	59	47	24	13		4.05
31		43		140	149		53		23	13		4.05
Total	384.05	788.60	1,114	799.65	2,932	7,481	3,453	1,667	1,126	498	279.30	188.20
Mean	12.8	25.4	37.1	25.8	94.6	249	111	55.6	36.3	161	9.63	6.07
Max.	22	53	84	140	231	482	355	110	46	21	13	10
Min.	240	7.40	11	9.65	33	90	43	36	23	13	7.40	4.05
Runoff - MCM.	33.182	68.135	96.250	69.090	253.325	646.358	298.339	144.029	97.286	43.027	24.131	16.260

WATER YEAR 1967 : Max. 482 Min. 4.05 Mean 56.6 Annual Runoff 1,789.413 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sep. 27	05.00	304.63	485				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
PING RIVER BASIN

Mae Ping River at Tha Khae, Tak (P.2A)

Location: Lat 16°- 51' - 14" N, Long 99°- 07' - 50" E, on right bank about 200 meters downstream from Kitikhachon I Bridge, at Ban Tha Khae, Amphoe Muang, Tak.

Drainage Area: 38,862 sq.km.

Type of Gage: Water - stage recorder

Zero Gage at Bottom at: +104.00 m. (M.S.L.)

Bench Mark:

Location: Near Automatic building
Elevation: +115.321 m. (M.S.L.)

Gage Reading Frequency: Recording

Basis of Mean Daily Gage Height: Arithmetic mean of 24 - readings.

Period of Available Gage Records: 1952 to date

Rating Operation:

Period of Rating: 1952 - 67, 1971 to date
Rated by Float: -
Rated by Current Meter: 1952 - 67, 1971 to date

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

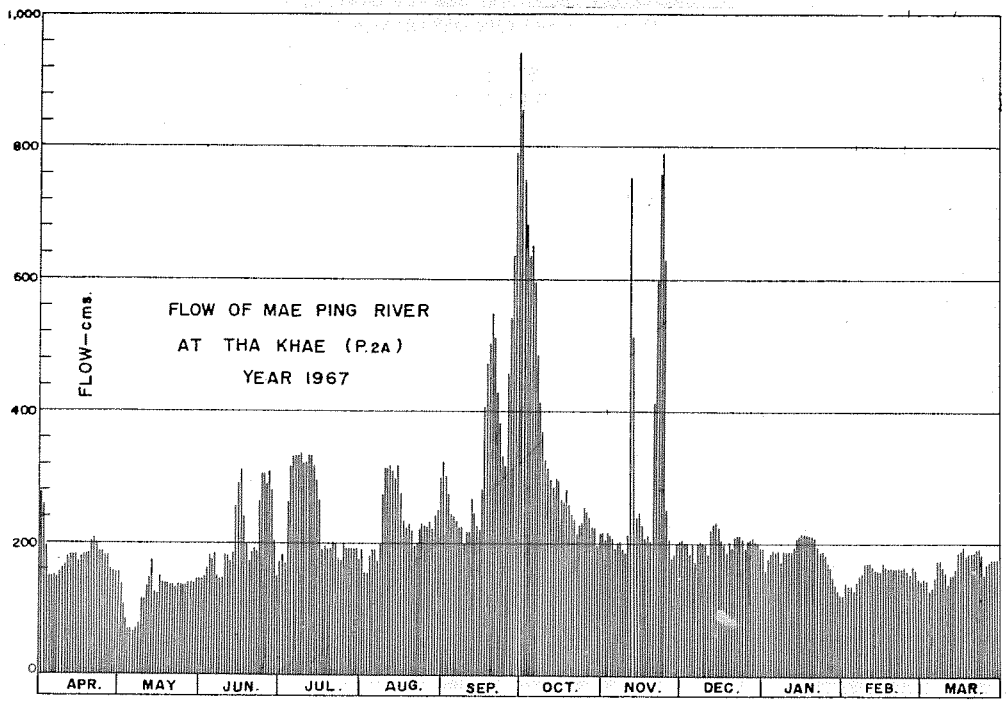
Overbank Flow Conditions: No overbank flow.

General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made during 1967. Flow regulated by Yanhee Reservoir since 1964 upstream. Diversion for irrigation of about 40,300 hectares. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	105.62	105.28	105.24	105.40	105.39	105.63	106.62	105.31	105.33	105.16	104.91	104.99
2	.55	.10	.25	.40	.26	.57	.45	.25	.31	.01	.98	105.00
3	.25	104.95	.29	.30	.27	.55	.36	.30	.31	.10	.96	104.99
4	.25	.95	.36	.73	.31	.49	.26	.28	.24	.13	.96	.92
5	.25	.95	.31	.77	.39	.49	.31	.26	.31	.14	.92	.95
6	105.26	104.93	105.37	105.79	105.38	105.47	106.20	105.21	105.20	105.13	104.99	105.01
7	.24	.95	.24	.79	.31	.44	105.91	.26	.32	.14	105.02	.10
8	.28	.93	.24	.79	.39	.45	.71	.25	.32	.08	.03	.10
9	.29	105.13	.25	.80	.64	.36	.57	.17	.30	.14	.09	.06
10	.31	.10	.36	.76	.71	.43	.54	.22	.30	.14	.09	.04
11	105.36	105.20	105.35	105.77	105.71	105.43	105.50	105.24	105.21	105.14	105.09	104.93
12	.36	.23	.30	.79	.72	.56	.45	106.49	.24	.14	.06	105.02
13	.36	.33	.36	.79	.68	.48	.42	105.53	.27	.16	.05	.03
14	.36	.13	.57	.73	.66	.44	.47	.31	.28	.21	.05	.07
15	.32	.10	.65	.41	.72	.43	.46	.40	.21	.22	.04	.14
16	105.35	105.25	105.70	105.45	105.48	105.62	105.32	105.29	105.18	105.23	105.09	105.15
17	.36	.22	.43	.34	.39	.87	.38	.27	.16	.22	.06	.17
18	.36	.22	.41	.41	.38	.96	.42	.29	.11	.22	.06	.12
19	.37	.22	.34	.39	.40	106.04	.33	.26	.18	.22	.06	.14
20	.42	.21	.41	.38	.39	.09	.32	.23	.14	.21	.06	.14
21	105.44	105.21	105.43	105.42	105.29	105.94	105.30	106.15	105.20	105.20	105.06	105.14
22	.42	.18	.41	.42	.32	.83	.20	.21	.21	.14	.06	.16
23	.37	.21	.63	.35	.38	.75	.26	.52	.21	.13	.06	.16
24	.38	.21	.73	.31	.40	.65	.27	.55	.20	.14	.07	.10
25	.36	.21	.73	.42	.39	.61	.35	105.39	.14	.12	.05	104.99
26	105.36	105.21	105.69	105.39	105.39	105.94	105.32	105.30	105.18	105.07	105.03	105.09
27	.29	.22	.74	.39	.41	106.07	.29	.21	.20	.05	.07	.10
28	.28	.22	.62	.40	.37	.18	.24	.25	.21	104.98	.05	.11
29	.27	.19	.26	.39	.43	.43	.25	.31	.19	.94	104.99	.11
30	.27	.24	.30	.39	.44	.71	.22	.32	.18	.91		.11
31		.24		.32	.58		.30		.15	.89		.07
Mean	105.34	105.15	105.43	105.52	105.45	105.73	105.58	105.46	105.22	105.11	105.03	105.07
Max.	105.62	105.33	105.74	105.80	105.72	106.71	106.62	106.55	105.33	105.23	105.09	105.17
Min.	105.24	104.93	105.24	105.30	105.26	105.36	105.22	105.17	105.11	104.89	104.91	104.92

WATER YEAR 1967 : Max. 106.62 m. Min. 104.89 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	276	159	147	183	192	324	834	219	207	195	125	145
2	249	110	150	183	153	297	730	201	201	147	142	147
3	150	72	162	153	156	264	679	216	201	177	137	145
4	150	72	183	305	168	241	623	210	180	186	137	128
5	150	72	168	324	192	241	651	204	201	189	128	135
6	153	67	186	333	189	234	590	189	168	186	145	150
7	147	72	147	323	168	223	447	204	204	189	152	174
8	159	67	147	333	192	226	394	201	204	171	155	174
9	162	117	150	338	285	195	338	177	198	189	171	163
10	168	110	183	319	315	219	326	192	198	189	171	158
11	183	135	180	324	315	219	311	198	171	189	171	130
12	183	144	165	333	319	268	292	754	222	189	163	152
13	183	174	183	333	302	238	282	292	231	195	160	155
14	183	117	256	305	293	223	300	219	234	210	160	165
15	171	110	289	186	319	219	296	247	213	213	158	186
16	180	150	310	215	260	293	247	213	204	216	171	189
17	183	141	205	177	226	414	267	207	198	213	163	195
18	183	141	198	198	223	468	282	213	183	213	163	180
19	186	141	165	192	230	516	250	204	204	213	163	186
20	202	138	186	189	226	548	247	195	192	210	163	186
21	209	138	192	202	192	480	241	563	210	207	163	186
22	202	130	186	202	202	414	210	607	213	189	163	192
23	186	138	264	180	223	371	228	772	213	186	163	192
24	189	138	306	168	230	324	231	790	210	189	165	174
25	183	138	306	202	226	305	257	244	192	183	160	145
26	183	138	289	192	226	480	247	198	204	168	155	171
27	162	141	310	192	234	562	238	171	207	163	165	174
28	159	141	260	195	219	611	222	183	210	145	160	177
29	156	132	141	192	241	766	225	201	204	135	145	177
30	156	147	153	192	245	942	192	204	201	128	–	177
31	–	147	–	171	302	–	216	–	192	123	–	165
Total	5,386	3,837	6,167	7,344	7,263	11,125	10,893	8,688	6,270	5,695	4,537	5,173
Mean	179	124	205	236	234	371	351	290	202	183	156	166
Max.	276	124	310	338	319	942	834	790	234	216	171	192
Min.	147	67	147	153	153	195	192	171	180	123	125	128
Runoff – MCM.	465.350	331.516	532.828	634.521	627.523	961.200	941.155	750.643	541.228	492.048	391.996	446.947

WATER YEAR 1967 : Max. 942 Min. 67 Mean 225 Annual Runoff 7,117.459 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sep. 30	9.00	106.76	974				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
PING RIVER BASIN

Mae Taeng River at Mae Taeng Bridge, Chiang Mai (P.4A)

Location: Lat. 19°- 07' - 20" N, Long 98°- 56' - 51" E, on left bank about 5 meters downstream from Chiang Mai - Fang highway bridge, Amphoe Mae Taeng, Chiang Mai.

Drainage Area: 1,902 sq.km.

Type of Gage: Staff gage

Zero Gage at Bottom at: +333.745 m. (M.S.L.)

Bench Mark: B.M. - HS./R.I.D. No.3

Location: Near staff gage site
Elevation +339.397 m. (M.S.L.)

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: 1955 to date

Rating Operation:

Period of Rating: 1955-60, 1967 to date
Rated by Float: -
Rated by Current Meter: 1955 - 60, 1967 to date

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

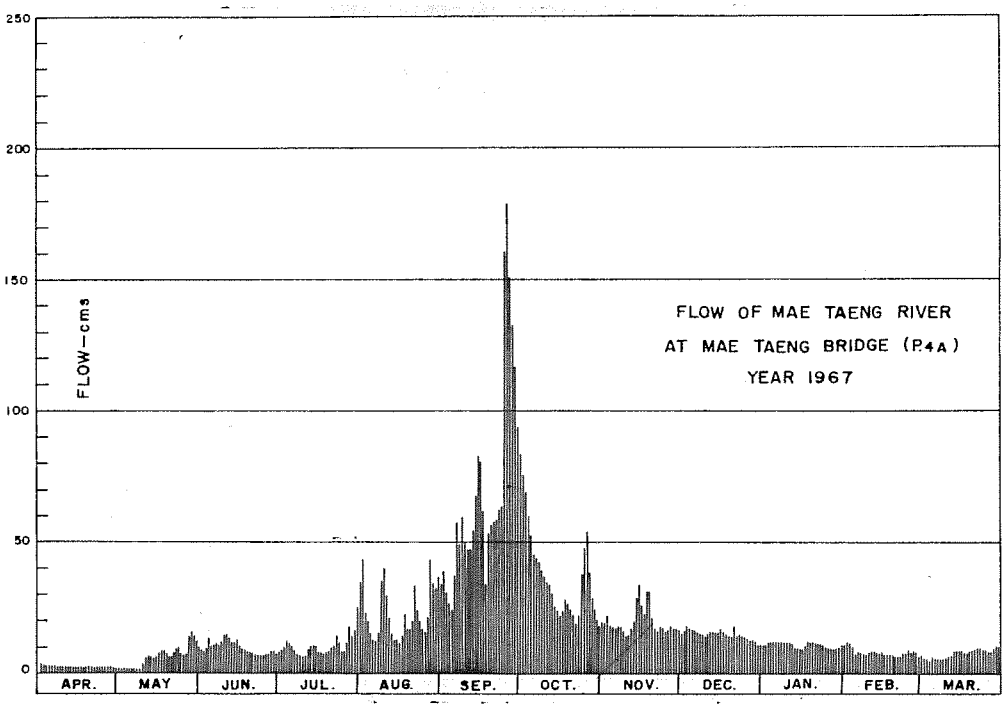
Overbank Flow Conditions: No overbank flow.

General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made during 1967. Upstream diversions for irrigation of about 23,700 hectares at Mae Taeng Weir. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	334.11	334.03	334.22	334.21	334.88	334.89	335.69	334.60	334.45	334.31	334.32	334.14
2	.11	.03	.20	.29	335.12	335.02	.62	.58	.48	.33	.34	.10
3	.10	.03	.18	.32	334.73	334.81	.52	.64	.53	.36	.31	.11
4	.10	.03	.40	.38	.60	.75	.39	.53	.51	.36	.28	.06
5	.10	.03	.30	.35	.49	.68	.24	.54	.50	.34	.18	.12
6	334.10	334.03	334.31	334.28	334.40	334.95	335.13	334.52	334.48	334.35	334.22	334.09
7	.09	.04	.32	.22	.35	335.33	.12	.53	.46	.34	.22	.10
8	.09	.05	.31	.18	.42	.14	.09	.55	.45	.34	.18	.07
9	.09	.06	.29	.17	.93	.38	.01	.49	.46	.36	.17	.09
10	.09	.11	.44	.15	335.06	.20	334.97	.43	.43	.35	.21	.09
11	334.08	334.24	334.44	334.15	334.72	335.16	334.94	334.45	334.45	334.34	334.24	334.12
12	.08	.25	.35	.24	.57	.17	.91	.48	.47	.32	.22	.15
13	.08	.23	.35	.33	.45	.25	.85	.59	.48	.28	.18	.21
14	.08	.21	.36	.32	.37	.53	.73	.79	.46	.27	.17	.23
15	.09	.22	.40	.31	.38	.72	.70	.92	.48	.27	.21	.23
16	334.09	334.27	334.32	334.22	334.33	335.68	334.61	334.70	334.50	334.28	334.16	334.22
17	.09	.30	.26	.21	.41	.37	.68	.61	.46	.32	.16	.20
18	.10	.31	.24	.19	.68	334.76	.79	.85	.46	.35	.18	.17
19	.11	.30	.22	.22	.50	335.28	.73	.85	.43	.36	.16	.22
20	.10	.25	.22	.22	.52	.33	.69	.54	.42	.34	.14	.23
21	334.10	334.25	334.18	334.29	334.62	335.35	334.65	334.50	334.53	334.32	334.15	334.24
22	.09	.30	.16	.29	.90	.37	.54	.48	.41	.31	.12	.26
23	.09	.37	.16	.44	.73	.42	.63	.53	.45	.31	.20	.25
24	.08	.32	.16	.38	.54	.43	.98	.49	.41	.29	.18	.22
25	.08	.25	.16	.27	.51	336.53	335.19	.49	.43	.28	.22	.24
26	334.07	334.24	334.17	334.19	334.48	336.82	335.28	334.50	334.39	334.27	334.17	334.19
27	.07	.31	.19	.37	.55	.52	.11	.54	.40	.27	.21	.21
28	.08	.49	.23	.53	335.10	.42	334.82	.52	.38	.26	.16	.26
29	.08	.45	.22	.43	334.88	.16	.69	.52	.36	.27	.12	.21
30	.04	.38	.19	.45	.88	335.90	.60	.51	.32	.30		.17
31		.31		.69	.98		.50		.31	.31		.05
Mean	334.09	334.21	334.26	334.30	334.65	335.44	334.95	334.57	334.44	334.31	334.20	334.17
Max.	334.11	334.49	334.44	334.69	335.12	336.82	335.69	334.92	334.53	334.36	334.34	334.26
Min.	334.04	334.03	334.16	334.15	334.33	334.68	334.50	334.43	334.31	334.26	334.12	334.05

WATER YEAR 1967 : Max. 336.82 m. Min. 334.03 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	3.04	1.68	8.42	8.16	32	33	81	20	15	11	11	6.58
2	3.04	1.68	7.90	8.94	44	39	76	19	16	11	12	5.70
3	2.80	1.68	7.46	11	25	29	69	22	18	12	11	5.92
4	2.80	1.68	13	13	20	26	61	18	17	12	9.98	4.98
5	2.80	1.68	10	12	16	23	51	18	17	12	7.46	6.12
6	2.80	1.68	11	9.98	13	36	45	17	16	12	8.42	5.52
7	2.64	1.84	11	8.42	12	57	44	18	15	12	8.42	5.70
8	2.64	2.00	11	7.46	14	46	43	18	15	12	7.46	5.16
9	2.64	2.16	10	7.24	35	60	39	16	15	12	7.24	5.52
10	2.64	3.04	15	6.80	41	49	37	14	14	12	8.16	5.52
11	2.48	6.36	15	6.80	25	47	35	15	15	12	8.98	6.58
12	2.48	6.65	12	8.94	19	47	34	16	16	11	8.42	6.80
13	2.48	6.07	12	11	15	52	31	20	16	9.98	7.46	8.16
14	2.48	5.49	12	11	12	70	25	28	15	9.72	7.24	8.68
15	2.64	5.78	13	11	13	83	24	34	16	9.72	8.16	8.68
16	2.64	7.23	11	8.42	11	80	21	24	17	9.98	7.02	8.42
17	2.64	8.10	9.46	8.16	14	59	23	21	15	11	7.02	7.90
18	2.80	8.49	8.94	7.68	23	27	28	31	15	12	7.46	7.24
19	3.04	8.10	8.42	8.42	17	54	25	31	14	12	7.02	8.42
20	2.80	6.65	8.42	8.42	17	57	24	18	14	12	6.58	8.68
21	2.80	6.65	7.46	10	21	58	22	17	18	11	6.80	8.94
22	2.64	8.10	7.02	10	33	59	18	16	14	11	6.14	9.46
23	2.64	11	7.02	15	25	63	21	18	15	11	7.90	9.20
24	2.48	8.88	7.02	13	18	63	37	16	14	20	7.46	8.42
25	2.48	6.65	7.02	9.72	17	149	48	16	14	9.98	8.42	8.94
26	2.32	6.36	7.24	7.68	16	179	54	17	13	9.72	7.24	7.68
27	2.32	8.49	7.68	12	18	148	44	18	13	9.72	8.16	8.16
28	2.48	16	8.68	18	43	139	29	17	13	9.46	7.02	9.46
29	2.48	15	8.42	14	32	117	24	17	12	9.72	6.14	8.16
30	1.84	13	7.68	15	32	96	20	17	11	10	–	7.24
31	–	11	–	24	37	–	17	–	11	11	–	4.80
Total	78.80	199.17	290.26	331.24	710	2,045	1,150	567	459	340	231.74	226.74
Mean	2.63	6.24	9.67	10.7	22.9	68.2	37.1	19.6	14.8	11.0	7.99	7.31
Max.	3.04	16	15	24	44	179	81	34	18	12	12	9.46
Min.	1.84	1.68	7.02	6.80	11	23	17	14	11	9.46	6.14	4.80
Runoff – mcm.	6.808	17.208	25.078	28.619	61.344	176.688	99.360	50.717	39.658	29.376	20.022	19.590

WATER YEAR 1967 : Max. 179 Min. 1.68 Mean 18.2 Annual Runoff 574.469 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sep. 26	12.00	336.94	193				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
PING RIVER BASIN

Mae Kuang River at Tha Sing Phithak Bridge, Lamphun (P.5)

Location: Lat 18°- 34' - 32" N, Long 99°- 00' - 44" E, on right bank about 10 meters downstream from Tha Sing Phithak Bridge, Amphoe Muang, Lamphun.

Drainage Area: 1,569 sq.km.

Type of Gage: Staff gage

Zero Gage at Bottom at: +289.30 m. (M.S.L.)

Bench Mark:

Location: On right bank near abutment of bridge.
Elevation: +295.790 m. (M.S.L.)

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: 1955 to date

Rating Operation:

Period of Rating: 1955 - 61, 1967 to date
Rated by Float: -
Rated by Current Meter: 1955 - 61, 1967 to date

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

Overbank Flow Conditions: No overbank flow.

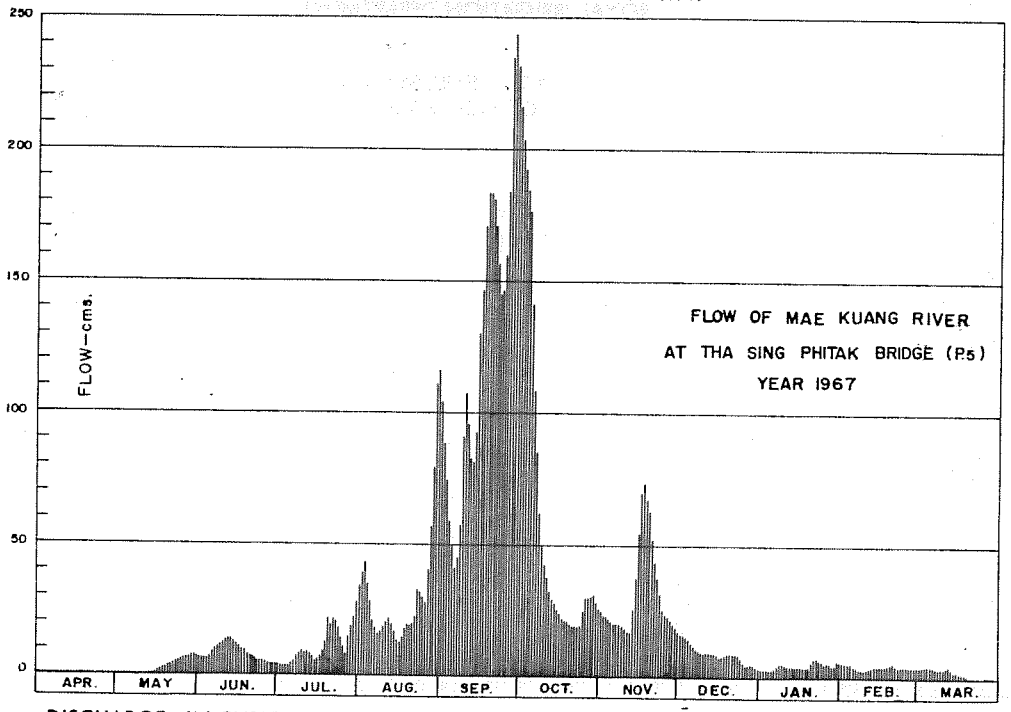
General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1967. Upstream diversions for irrigation of about 9,600 hectares at Mae Kuang Weir. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1,1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	289.34	289.32	289.72	289.59	290.64	292.24	294.29	290.36	290.08	289.55	289.67	289.62
2	.34	.32	.71	.58	.80	291.81	.10	.32	.07	.55	.64	.61
3	.34	.32	.70	.57	.87	.56	293.90	.30	.03	.55	.64	.60
4	.34	.32	.70	.56	.62	.20	.65	.29	.00	.55	.64	.60
5	.33	.32	.75	.58	.42	290.91	.19	.26	289.98	.55	.61	.59
6	289.33	289.32	289.82	289.63	290.23	290.78	292.44	290.21	289.95	289.56	289.56	289.59
7	.33	.32	.86	.68	.14	.97	291.78	.20	.90	.61	.54	.56
8	.33	.31	.91	.74	.09	291.20	.36	.20	.87	.66	.54	.55
9	.33	.31	.94	.78	.10	292.04	.05	.19	.85	.65	.54	.55
10	.33	.32	.97	.83	.17	.37	290.88	.15	.85	.64	.55	.58
11	289.32	289.32	290.00	289.80	290.25	292.12	290.74	290.12	289.85	289.60	289.58	289.60
12	.32	.32	.02	.84	.27	291.80	.63	.13	.84	.62	.60	.56
13	.31	.35	.02	.79	.21	.81	.50	.35	.81	.62	.60	.52
14	.31	.37	289.98	.72	.10	292.11	.45	.64	.83	.62	.60	.50
15	.32	.40	.93	.66	289.99	.88	.37	291.19	.80	.60	.63	.49
16	289.32	289.43	289.90	289.69	289.95	293.32	290.35	291.52	289.77	289.60	289.61	289.45
17	.32	.47	.87	.76	290.00	.59	.29	.62	.77	.59	.60	.42
18	.32	.50	.84	.86	.14	.90	.26	.47	.78	.58	.64	.41
19	.32	.53	.80	.96	.22	.92	.26	.34	.82	.58	.66	.36
20	.33	.55	.77	290.27	.19	.86	.22	.16	.82	.59	.64	.35
21	289.33	289.57	289.74	290.17	290.21	293.70	290.18	290.91	289.81	289.74	289.64	289.35
22	.33	.60	.70	.29	.29	.47	.18	.72	.80	.75	.63	.34
23	.33	.62	.68	.26	.60	.12	.18	.53	.79	.71	.63	.33
24	.34	.64	.67	.14	.59	.20	.17	.38	.75	.71	.62	.32
25	.34	.67	.65	.01	.47	.61	.38	.32	.64	.66	.60	.33
26	289.34	289.69	289.64	289.92	290.44	294.00	290.51	290.30	289.60	289.70	289.62	289.33
27	.34	.70	.61	.74	.83	.73	.53	.28	.62	.66	.63	.33
28	.34	.73	.60	290.07	291.33	.95	.57	.22	.65	.62	.63	.33
29	.32	.75	.60	.17	.99	.75	.54	.17	.63	.63	.63	.33
30	.32	.77	.60	.27	292.45	.52	.46	.13	.59	.69		.34
31		.74		.44	.57		.41		.56	.69		.34
Mean	289.33	289.48	289.79	289.88	290.55	292.81	291.12	290.51	289.81	289.63	289.61	289.46
Max.	289.34	289.77	290.02	290.44	292.57	294.95	294.29	291.62	290.08	289.75	289.67	289.62
Min.	289.31	289.31	289.60	289.56	289.95	290.78	290.17	290.12	289.56	289.55	289.54	289.32

WATER YEAR 1967 : Max. 294.95 m. Min. 289.30 m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.40	0.20	6.96	4.11	34	101	204	25	16	3.35	5.70	4.70
2	0.40	0.20	6.53	3.92	40	81	194	23	16	3.35	5.10	4.50
3	0.40	0.20	6.30	3.72	43	70	183	23	15	3.35	5.10	4.30
4	0.40	0.20	6.30	3.54	33	56	170	22	14	3.35	5.10	4.30
5	0.30	0.20	7.45	3.92	27	44	146	21	13	3.35	4.50	4.11
6	0.30	0.20	9.08	4.90	20	39	110	20	12	3.54	3.54	4.11
7	0.30	0.20	10	5.90	18	46	80	20	11	4.50	3.16	3.54
8	0.30	0.10	11	7.22	16	36	62	20	10	5.50	3.16	3.35
9	0.30	0.10	12	8.14	17	92	50	19	9.80	5.30	3.16	3.35
10	0.30	0.20	13	9.32	19	107	43	18	9.80	5.10	3.35	3.92
11	0.20	0.20	14	8.60	21	95	38	17	9.80	4.30	3.92	4.30
12	0.20	0.20	14	9.56	22	81	34	17	9.56	4.70	4.30	4.50
13	0.10	0.50	14	8.37	20	81	29	24	8.84	4.70	4.30	2.78
14	0.10	0.70	13	6.76	17	95	28	34	9.32	4.70	4.30	2.40
15	0.20	1.00	12	5.50	13	131	25	55	8.60	4.30	4.90	2.20
16	0.20	1.42	11	6.10	12	153	24	69	7.91	4.30	4.50	1.70
17	0.20	1.98	10	7.68	14	167	22	73	7.91	4.11	4.30	1.28
18	0.20	2.40	9.56	10	18	183	21	67	8.14	3.92	5.10	1.14
19	0.20	2.97	8.60	13	20	183	21	61	9.04	3.92	5.50	0.60
20	0.30	3.35	7.91	22	19	181	20	54	9.08	6.10	5.10	0.50
21	0.30	3.73	7.22	19	20	172	19	44	8.84	7.22	4.90	0.50
22	0.30	4.30	6.30	22	22	160	19	37	8.60	7.45	4.90	0.40
23	0.30	4.70	5.90	21	33	143	19	30	8.37	6.53	4.90	0.30
24	0.40	5.10	5.70	18	32	147	19	25	7.45	6.53	4.70	0.20
25	0.40	5.70	5.30	14	29	168	25	23	5.10	5.50	4.30	0.30
26	0.40	6.10	5.10	11	28	188	30	23	4.30	6.30	4.70	0.30
27	0.40	6.30	4.50	7.22	41	231	30	22	4.70	5.50	4.90	0.30
28	0.40	6.99	4.30	16	61	244	32	20	5.30	4.70	4.90	0.30
29	0.20	7.45	4.30	19	89	231	31	19	4.90	4.90	4.90	0.30
30	0.20	7.91	4.30	22	110	218	28	17	4.11	6.10		0.40
31		7.22		28	116		26		3.54	6.10		0.40
Total	8.60	82.02	255.41	349.53	1,024	3,944	1,782	942	280.05	152.57	131.19	65.28
Mean	0.29	2.64	8.51	11.3	33.0	131	57.5	31.4	9.03	4.92	4.52	2.10
Max.	0.40	7.91	14	28	116	244	204	73	16	7.45	5.70	4.70
Min.	0.10	0.10	4.30	3.54	12	39	19	17	3.54	3.35	3.16	0.20
Runoff - mcm.	0.743	7.086	22.067	30.199	88.474	340.762	153.965	81.389	24.196	13.182	11.335	5.640

WATER YEAR 1967 : Max. 244 Min. 0.10 Mean 24.6 Annual Runoff 779.038 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sep.28	06.00	294.99	246				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
PING RIVER BASIN

Mae Ping River at Muang Kamphaeng Phet (P.7A)

Location: Lat 16° – 28' – 38" N, Long 99° – 31' – 06" E, on right bank about 100 meters upstream from Kamphaeng Phet Bridge, at Ban Nakhon Chum, Amphoe Muang, Kamphaeng Phet.

Drainage Area: 42,700 sq.km.

Type of Gage: Staff gage

Zero Gage at Bottom at: +72.00 m. (M.S.L.)

Bench Mark: B.M. – H.S./R.I.D. No.2

Location: Near the house of gage observer
Elevation: +77.642 m. (M.S.L.)

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 – 61, 1967 to date
Rated by Float: –
Rated by Current Meter: 1960 – 61, 1967 to date

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

Overbank Flow Conditions: No overbank flow

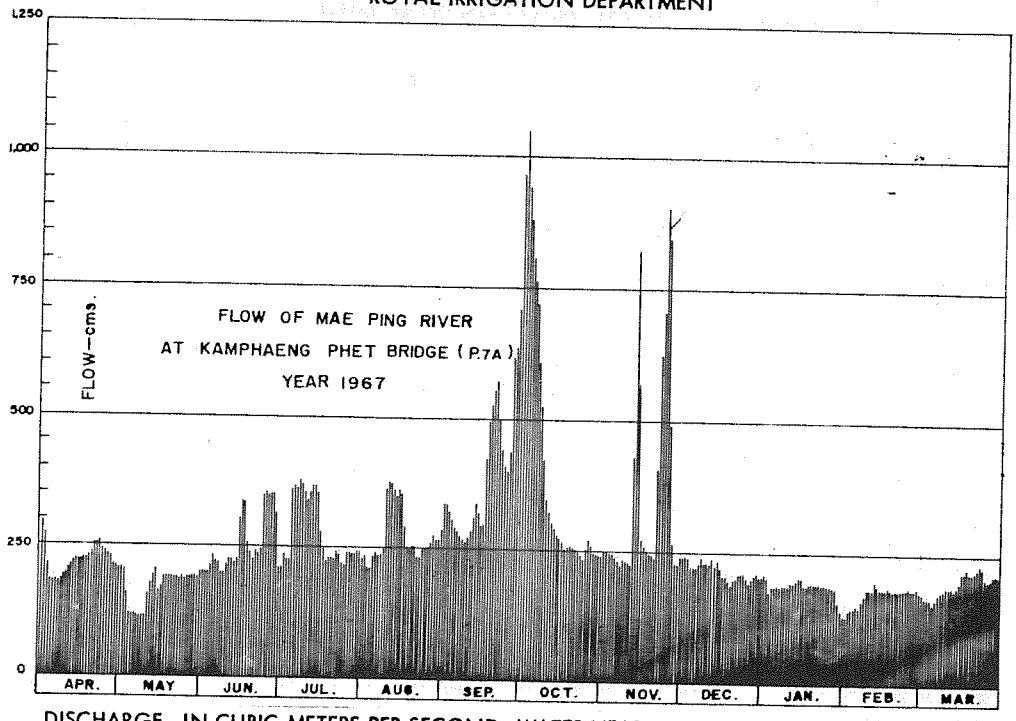
General Description: Record fair. Stage – discharge relationship used is defined by discharge measurements made during 1967. Flow regulated by Yanhee Reservoir and diverted for irrigation of about 40,300 hectares above gage site. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	74.38	74.03	74.01	74.06	74.12	74.50	75.95	74.20	74.16	74.04	73.68	73.88
2	.31	.04	.01	.15	.16	.49	.77	.21	.17	.03	.75	.85
3	73.96	73.80	.01	.12	.03	.44	.68	.19	.16	73.89	.76	.85
4	.92	.63	.06	.06	.06	.39	.53	.17	.09	.94	.76	.85
5	.92	.62	.14	.57	.17	.34	.47	.16	.09	.94	.78	.79
6	73.92	73.62	74.10	74.59	74.18	74.33	75.42	74.14	74.09	73.95	73.75	73.84
7	.92	.61	.09	.58	.15	.29	.16	.12	.13	.95	.83	.89
8	.91	.60	73.98	.62	.15	.27	74.87	.14	.16	.94	.85	.91
9	.97	.60	74.00	.59	.21	.26	.62	.14	.11	.95	.92	.93
10	.97	.61	.08	.55	.58	.30	.47	.12	.14	.95	.93	.95
11	74.03	73.83	74.11	74.50	74.62	74.35	74.45	74.10	74.11	73.97	73.90	73.92
12	.05	.93	.11	.56	.61	.43	.39	.57	.16	.97	.99	.94
13	.09	.98	.06	.59	.56	.50	.35	75.59	.08	.99	.96	.93
14	.10	74.03	.12	.59	.53	.42	.32	74.40	.15	74.02	.93	.93
15	.09	73.85	.40	.53	.57	.36	.30	.24	.09	.02	.93	.98
16	74.09	73.86	74.50	74.19	74.54	74.38	74.26	74.25	74.02	73.95	73.92	74.06
17	.11	.97	.50	.20	.25	.75	.21	.22	.02	.95	.94	.06
18	.11	.97	.18	.10	.21	.93	.23	.19	.00	.97	.92	.09
19	.13	.98	.16	.13	.20	75.00	.24	.18	75.94	.97	.91	.06
20	.13	.98	.09	.13	.23	.06	.22	.15	74.00	.97	.92	.06
21	74.22	73.96	74.18	74.11	74.22	75.09	74.21	74.56	74.01	73.96	93.91	74.08
22	.22	.97	.16	.18	.14	74.87	.20	75.25	.04	.97	.91	.09
23	.24	.94	.13	.17	.13	.74	.17	.40	.04	.95	.93	.12
24	.17	.98	.53	.08	.20	.68	.14	.22	.04	.96	.92	.10
25	.16	.95	.55	.08	.21	.65	.24	.61	.02	.95	.94	.00
26	74.15	73.97	74.53	74.18	74.22	74.74	74.28	74.46	73.96	73.95	93.92	74.00
27	.13	.97	.54	.18	.25	75.20	.23	.16	74.01	.94	.90	.02
28	.05	.98	.54	.17	.30	.23	.18	.10	.03	.92	.95	.04
29	.05	.98	.42	.16	.26	.35	.18	.11	.04	.81	.89	.04
30	.03	.95	.01	.18	.27	.78	.17	.17	.01	.74		.03
31		74.01		.20	.31		.17		.02	.69		.03
Mean	74.08	73.91	74.21	74.29	74.28	74.67	74.58	74.44	74.06	73.94	73.88	73.98
Max.	74.38	74.04	74.55	74.62	74.62	75.78	75.95	75.72	74.17	74.04	73.99	74.12
Min.	73.91	73.60	73.98	74.06	74.03	74.26	74.14	74.10	73.96	73.69	73.68	73.79

WATER YEAR 1967 : Max. 75.95 m. Min. 73.60 m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	300	207	202	214	229	339	1,049	250	240	210	130	172
2	279	210	202	237	240	336	934	253	240	207	144	162
3	190	154	202	229	207	319	878	247	240	174	146	165
4	181	121	214	214	214	303	789	242	222	186	146	165
5	181	120	234	362	242	288	756	240	222	186	152	152
6	181	120	224	369	242	285	729	234	222	188	144	163
7	181	118	222	365	237	273	600	229	232	188	161	174
8	178	116	195	380	237	268	478	234	240	186	165	178
9	193	116	200	369	253	266	380	234	227	188	181	181
10	193	118	219	355	365	276	329	229	234	188	133	188
11	207	161	227	339	380	291	322	224	227	193	176	181
12	212	183	227	359	376	316	303	362	240	193	198	186
13	222	195	214	369	359	339	291	824	219	198	190	183
14	224	207	229	369	349	313	232	306	237	205	183	183
15	222	165	306	349	362	294	276	260	222	205	183	195
16	222	167	339	247	352	300	266	263	205	188	181	214
17	227	193	339	250	263	430	253	255	205	188	186	214
18	227	193	245	224	253	502	258	247	200	193	181	222
19	232	195	240	232	250	530	260	245	186	193	178	214
20	232	195	222	232	258	556	255	237	200	193	181	214
21	255	190	245	227	255	570	253	359	202	190	178	219
22	255	193	240	245	234	478	250	642	210	193	178	222
23	260	186	232	242	232	406	242	718	210	188	183	229
24	242	195	349	219	250	402	234	903	210	190	181	224
25	240	188	355	219	253	391	260	836	205	188	186	200
26	237	193	349	245	255	426	271	326	190	188	181	200
27	232	193	352	245	263	618	258	240	202	186	176	205
28	212	195	352	242	276	632	245	224	207	181	188	210
29	212	195	313	240	266	692	245	227	210	156	174	210
30	207	188	202	245	268	940	242	242	202	142		207
31		202		250	279		242		205	132		207
Total	6,636	5,372	7,691	8,683	8,502	12,399	12,430	10,332	6,715	5,734	5,014	6,042
Mean	221	173	253	280	274	413	401	344	217	186	173	261
Max.	300	210	352	380	380	940	1,049	903	242	210	198	1,229
Min.	178	116	195	214	207	266	234	224	186	132	130	152
Runoff - mcm.	573,350	464.140	664.502	750.211	734.573	1,071.274	1,073.952	892.685	580.176	499.738	433.210	522.029

WATER YEAR 1967 : Max. 1,049 Min. 116 Mean 261 Annual Runoff 8,259.840 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 1	15.00	76.00	1,082				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
PING RIVER BASIN

Mae Ping River at Wang Kra Chao, Tak (P.12)

Location: Lat 17°- 14' - 30" N, Long 99°- 00' - 45" E, on right bank, about 4 kilometers downstream from Yanhee Reservoir, at Wang Kra Chao, Amphoe Sam Ngao, Tak.

Drainage Area: 26,396 sq.km.

Type of Gage: Water - stage recorder.

Zero Gage at Bottom at: +135.192 m. (M.S.L.)

Bench Mark:

Location: About 25 meters north of gage site
Elevation: +143.825 m. (M.S.L.)

Gage Reading Frequency: Recording

Basis of Mean Daily Gage Height: Arithmetic mean of 24 readings.

Period of Available Gage Records: 1952 to date

Rating Operation:

Period of Rating: 1952 to date
Rated by Float: -
Rated by Current Meter: 1952 to date

Stability of Channel Regimes: Unstable, shifting adjustment is used for flow computation.

Overbank Flow Conditions: No overbank flow.

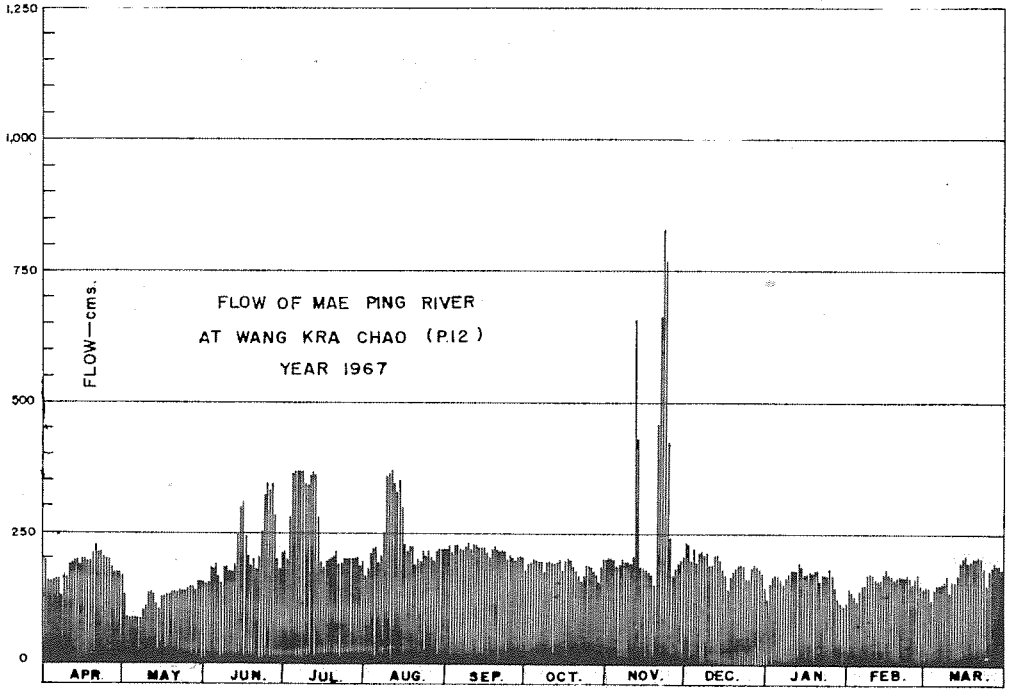
General Description: Records good. Stage - discharge relationship used is defined by discharge measurments made during 1967. Flow regulated by Yanhee Reservoir. Upstream state diversions for irrigation of about 28,000 hectares. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1,1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	136.27	136.03	136.10	136.36	136.16	136.31	136.12	136.23	136.33	135.84	135.86	135.87
2	.10	135.72	.11	.21	.14	.33	.20	.25	.31	.99	.81	.85
3	.11	.74	.23	.56	.28	.26	.20	.23	.18	136.05	.81	.72
4	.12	.75	.21	.86	.32	.33	.23	.23	.29	.06	.74	.83
5	.13	.74	.26	.87	.31	.34	.22	.14	.17	.05	.85	.88
6	136.13	135.74	136.12	136.87	136.19	136.31	136.21	136.21	136.27	136.04	135.90	135.88
7	135.96	.73	.10	.88	.28	.29	.21	.24	.27	135.95	.90	.89
8	136.25	.85	.24	.87	.46	.31	.10	.21	.24	136.05	136.00	.91
9	.13	.88	.24	.80	.78	.36	.21	.21	.26	.06	.00	.96
10	.25	136.01	.20	.79	.79	.29	.22	.19	.13	.07	.00	.77
11	136.27	136.03	136.17	136.86	136.82	136.34	136.21	137.17	136.17	136.06	135.95	135.91
12	.29	.01	.25	.87	.71	.34	.19	.66	.22	.06	.95	.91
13	.29	135.86	.39	.84	.68	.32	.22	136.23	.21	.13	.96	.96
14	.23	.84	.64	.56	.76	.31	.23	.23	.15	.08	.96	136.07
15	.30	.99	.69	.31	.53	.33	.13	.22	.09	.02	136.01	.08
16	136.29	135.98	136.50	136.21	136.29	136.32	136.21	136.21	136.06	136.04	135.97	136.11
17	.28	136.01	.29	.25	.29	.23	.24	.20	135.92	.05	.95	.06
18	.28	135.99	.21	.29	.33	.29	.24	.18	136.06	.04	.93	.07
19	.35	136.01	.30	.29	.32	.33	.19	.05	.09	.06	.94	.09
20	.40	.04	.31	.31	.17	.31	.20	.93	.12	.06	.95	.08
21	136.34	136.00	136.30	136.35	136.24	136.29	136.18	137.55	136.13	135.96	135.95	136.10
22	.35	.05	.42	.24	.21	.30	.10	.77	.14	136.03	.95	.09
23	.30	.02	.70	.16	.31	.29	.14	138.05	.13	.02	.96	.02
24	.29	.03	.80	.29	.26	.19	.23	137.79	.00	.02	.95	135.84
25	.30	.06	.73	.30	.29	.26	.23	136.35	.07	.04	.88	136.00
26	136.22	136.08	136.80	136.30	136.28	136.24	136.22	136.21	136.13	135.93	135.95	136.03
27	.19	.08	.72	.30	.20	.22	.19	.27	.14	.82	.97	.05
28	.19	.03	.33	.30	.29	.24	.17	.32	.11	.75	.85	.03
29	.19	.12	.15	.30	.31	.25	.04	.34	.10	.72	.85	.04
30	.19	.12	.34	.18	.31	.24	.18	.35	.07	.69		.00
31		.12		.30	.31		.23		135.92	.72		135.96
Mean	136.23	135.96	136.36	136.48	136.37	136.29	136.19	136.54	136.14	135.98	135.92	135.97
Max.	136.40	136.12	136.80	136.88	136.82	136.36	136.24	138.05	136.33	136.13	136.01	136.11
Min.	135.96	135.72	136.10	136.16	136.14	136.19	136.04	136.05	135.92	135.69	135.74	135.72

WATER YEAR 1967 : Max. 138.05 m. Min. 135.72 m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	199	139	154	218	168	221	173	200	232	123	144	148
2	154	84	157	180	178	226	193	205	226	155	133	144
3	157	87	185	274	213	208	193	200	193	168	129	117
4	159	88	180	364	224	226	200	200	221	171	116	139
5	161	87	193	367	221	229	198	178	191	168	137	150
6	161	87	160	367	190	221	195	195	215	166	148	150
7	125	85	154	371	213	216	195	203	215	146	148	152
8	190	105	188	367	262	221	168	195	207	168	171	157
9	161	110	188	345	358	234	195	195	213	171	171	168
10	190	135	178	342	361	216	198	190	180	181	171	127
11	195	139	171	362	371	229	195	489	198	178	159	157
12	200	135	190	367	336	229	190	654	210	178	159	157
13	208	107	226	356	327	224	198	185	208	195	161	168
14	185	103	297	274	351	221	200	185	193	183	168	195
15	203	131	312	205	283	226	176	183	178	168	181	198
16	200	129	257	180	216	224	195	180	171	173	171	205
17	198	135	200	190	216	198	203	178	139	176	166	193
18	198	131	180	200	226	216	203	173	171	173	161	195
19	216	135	203	200	224	226	190	143	178	178	164	200
20	229	141	180	205	185	221	180	387	185	178	166	198
21	213	133	203	216	203	216	176	610	188	155	166	203
22	216	143	234	188	195	218	157	700	190	171	166	200
23	203	137	315	168	221	216	166	827	188	168	168	183
24	200	139	345	200	208	190	188	709	157	168	166	141
25	203	146	324	203	216	208	188	203	173	185	150	178
26	183	150	345	203	213	203	185	168	188	164	166	185
27	176	150	321	203	193	198	178	183	190	134	171	190
28	176	139	210	203	216	203	173	195	183	121	144	185
29	176	159	166	203	221	205	154	200	180	116	144	188
30	176	159	213	173	221	203	188	203	173	110		178
31		159		203	221		200		139	116		168
Total	5,603	3,907	6,629	7,901	7,451	6,492	5,791	8,716	5,873	5,006	4,565	5,317
Mean	187	125	221	255	240	216	187	290	189	161	147	172
Max.	229	159	345	371	371	234	203	827	232	195	181	205
Min.	125	84	154	168	168	190	154	143	139	110	116	117
Runoff - MCM.	484.099	337.565	572.746	682.646	643.766	560.909	500.342	753.062	507.427	432.518	394.416	459.389

WATER YEAR 1967 : Max. 827 Min. 84 Mean 200 Annual Runoff 6,328.886 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Nov. 27	20.00	138.14	885				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
PING RIVER BASIN

Mae Taeng River at Kaeng Kut, Chiang Mai (P.13)

Location: Lat 19°- 12' - 38" N, Long 98°- 52' - 20" E, on left bank about 1 kilometer downstream from Kut Village, Amphoe Taeng, Chiang Mai.

Drainage Area: 1,765 sq.km.

Type of Gage: Water - stage recorder.

Zero Gage at Bottom at: +441.31 m. (M.S.L.)

Bench Mark: B.M. - R.I.D. No.6

Location: In rubber plant garden infront of gaging station

Elevation: +444.360 m. (M.S.L.)

Gage Reading Frequency: Recording.

Basis of Mean Daily Gage Height: Arithmetic mean of 24 readings.

Period of Available Gage Records: 1952 to date

Rating Operation:

Period of Rating: 1952 to date

Rated by Float: -

Rated by Current Meter: 1952 to date

Stability of Channel Regimes: Unstable shifting adjustment is used for flow computation.

Overbank Flow Conditions: No overbank flow.

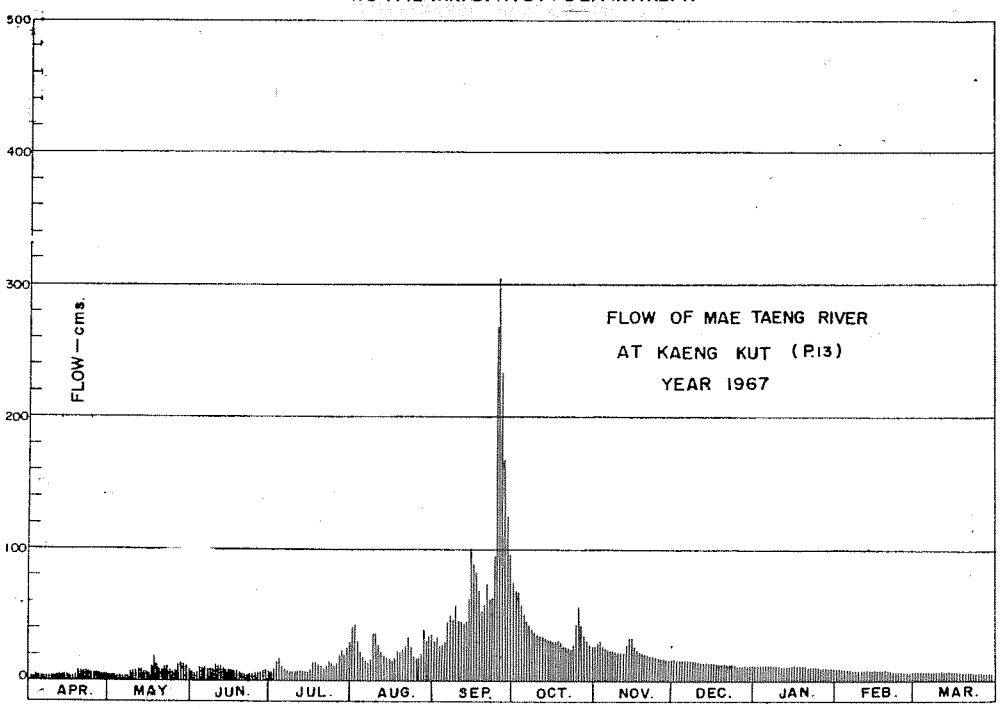
General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions except those built by local residents. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	441.83	441.85	441.94	441.94	442.55	442.39	443.16	442.40	442.24	442.13	442.06	441.99
2	.83	.84	.90	442.03	.60	.48	.07	.42	.23	.13	.05	.99
3	.84	.84	.92	.15	.34	.33	.06	.48	.23	.12	.05	.99
4	.84	.83	442.06	.21	.21	.42	442.93	.41	.22	.12	.05	.99
5	.83	.82	441.98	.06	.14	.32	.84	.38	.22	.12	.05	.98
6	441.83	441.82	442.06	441.99	442.12	442.63	442.77	442.35	442.21	442.11	442.04	441.99
7	.83	.82	.01	.96	.11	.74	.72	.34	.21	.11	.04	.98
8	.83	.82	.00	.94	.16	.64	.67	.33	.20	.11	.04	.99
9	.83	.93	.01	.95	.57	.84	.65	.32	.21	.11	.04	442.01
10	.84	.94	.13	.94	.58	.69	.62	.31	.21	.10	.03	.00
11	441.84	441.97	442.07	441.96	442.36	442.68	442.60	442.31	442.20	442.10	442.03	441.99
12	.84	442.00	.13	.97	.23	.66	.58	.31	.19	.10	.03	.99
13	.84	.00	.05	.94	.21	.58	.56	.38	.19	.09	.03	.98
14	.84	441.93	441.99	.91	.18	.68	.55	.55	.19	.09	.03	.98
15	.84	.97	.98	.90	.13	443.26	.54	.54	.19	.10	.03	.97
16	441.82	441.92	442.00	441.97	442.11	443.07	442.51	442.41	442.18	442.11	442.02	441.97
17	.83	442.04	441.97	442.15	.18	.11	.52	.36	.18	.12	.02	.96
18	.88	442.24	.93	.14	.31	442.90	.53	.33	.17	.19	.02	.97
19	442.01	.11	.90	.08	.25	.75	.49	.32	.17	.13	.02	.97
20	441.96	.01	.88	.05	.28	.77	.45	.29	.17	.11	.01	.97
21	441.95	441.97	441.87	441.99	442.33	443.03	442.44	442.28	442.16	442.10	442.01	441.97
22	.95	442.09	.85	442.08	.47	442.87	.42	.27	.16	.09	.01	.96
23	.92	.06	.88	.17	.33	.99	.41	.27	.16	.08	.01	.96
24	.90	441.97	.88	.11	.21	443.17	.48	.26	.15	.08	.01	.95
25	.92	.93	.88	.03	.17	444.59	.74	.25	.15	.08	.00	.95
26	441.93	441.97	441.94	442.02	442.15	444.79	442.91	442.25	442.14	442.07	442.00	441.95
27	.90	442.09	.90	.20	.24	.26	.68	.25	.14	.07	.00	.94
28	.87	.16	.94	.31	.57	.01	.54	.24	.14	.07	441.99	.94
29	.87	.09	.98	.21	.41	443.60	.47	.24	.13	.06	.99	.94
30	.86	.09	.95	.30	.45	.33	.42	.24	.13	.06		.94
31		.00		.39	.49		.41		.13	.06		.94
Mean	441.87	441.97	441.97	442.03	442.30	443.02	442.64	442.34	442.18	442.10	442.02	441.97
Max.	442.01	442.24	442.13	442.39	442.60	444.79	443.16	442.55	442.24	442.19	442.06	442.01
Min.	441.82	441.82	441.87	441.90	442.11	442.32	442.41	442.24	442.13	442.06	441.99	441.94

WATER YEAR 1967 : Max. 444.79 m. Min. 441.82 m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	3.88	4.36	6.92	6.92	40	29	76	26	17	12	9.96	7.20
2	3.88	4.12	5.80	9.96	43	34	68	27	16	12	9.62	7.20
3	4.12	4.12	6.36	14	27	26	68	30	16	12	9.28	7.20
4	4.12	3.88	11	17	21	29	57	26	16	12	9.28	7.20
5	3.88	3.64	8.04	11	18	24	50	25	16	12	9.28	6.92
6	3.88	3.64	11	8.60	14	43	45	23	16	12	8.94	7.20
7	3.88	3.64	8.94	7.76	14	50	42	23	16	12	8.94	6.92
8	3.88	3.64	8.60	7.20	16	43	38	23	15	12	8.94	7.20
9	3.88	6.36	8.94	7.48	36	58	37	22	15	12	8.94	7.76
10	4.12	6.64	13	7.20	37	46	35	21	15	11	8.60	7.48
11	4.12	7.20	11	7.76	24	46	34	21	14	11	8.60	7.20
12	4.12	8.04	13	8.04	20	44	33	21	14	11	8.60	7.20
13	4.12	8.04	10	7.20	19	43	33	24	14	11	8.60	6.92
14	4.12	6.08	8.32	6.36	18	49	32	34	14	11	8.32	6.92
15	4.12	7.20	8.04	6.08	16	100	31	33	14	11	8.32	6.64
16	3.64	5.80	8.60	8.04	15	82	30	26	14	12	8.04	6.64
17	3.88	9.28	7.76	14	18	82	30	23	14	12	8.04	6.36
18	5.08	18	6.64	14	23	63	31	22	13	15	8.04	6.64
19	8.60	12	5.80	12	21	51	29	22	13	12	8.04	6.64
20	7.20	8.94	5.32	11	23	53	26	20	13	12	7.76	6.64
21	6.92	7.76	5.08	8.60	25	74	26	20	13	11	7.76	6.64
22	6.92	12	4.60	11	33	61	25	19	13	11	7.76	6.36
23	6.08	11	5.32	15	25	63	24	19	13	11	7.76	6.36
24	5.56	7.76	5.32	14	19	78	28	19	12	11	7.76	6.08
25	6.08	6.64	5.32	11	18	264	44	18	12	11	7.48	6.08
26	6.36	7.76	6.92	11	17	305	57	18	12	10	7.48	6.08
27	5.56	12	5.80	18	21	209	40	17	12	10	7.48	5,80
28	4.84	14	6.92	23	39	172	31	17	12	10	7.20	5.80
29	4.84	12	8.04	18	29	121	30	17	12	10	7.20	5.80
30	4.60	12	7.20	25	33	93	27	17	12	10		5.80
31		8.60		30	35		26		12	10		5.80
Total	146.28	246.14	233.60	376.20	757	2,436	1,183	673	430	352	242.02	206.68
Mean	4.88	7.94	7.79	12.1	24.4	80.9	38.2	22.4	13.9	11.3	8.35	6.67
Max.	8.60	18	13	30	43	305	76	34	17	15	9.96	7.76
Min.	3.64	3.64	5.08	6.08	14	24	24	17	12	10	7.20	5.80
Runoff - MCM.	12.639	21.265	20.183	32.504	65.405	210.470	102.21	58.147	37.152	30.413	20.911	17.857

WATER YEAR 1967 : Max. 305 Min. 3.64 Mean 19.9 Annual Runoff 629.158 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sep. 26	04.00	445.23	408				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
PING RIVER BASIN

Mae Chaem Greek at Kaeng Ob Luang, Chiang Mai (P.14)

Location: Lat 18°- 13' - 49" N, Long 98°- 33' - 35" E, on right bank near bridge on Hot - Mae Sariang highway, 7.5 kilometers from Amphoe Hot, Chiang Mai.

Drainage Area: 3,853 sq.km.

Type of Gage: Water - stage recorder.

Zero Gage at Bottom at: 275.844 m. (M.S.L.)

Bench Mark: B.M. - H.S./R.I.D. No.13

Location: In front of office of station P.14
Elevation: +282.079 m. (M.S.L.)

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: 1953 - 60, 1968 to date
Rated by Float: -
Rated by Current Meter: 1953 - 60, 1968 to date

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

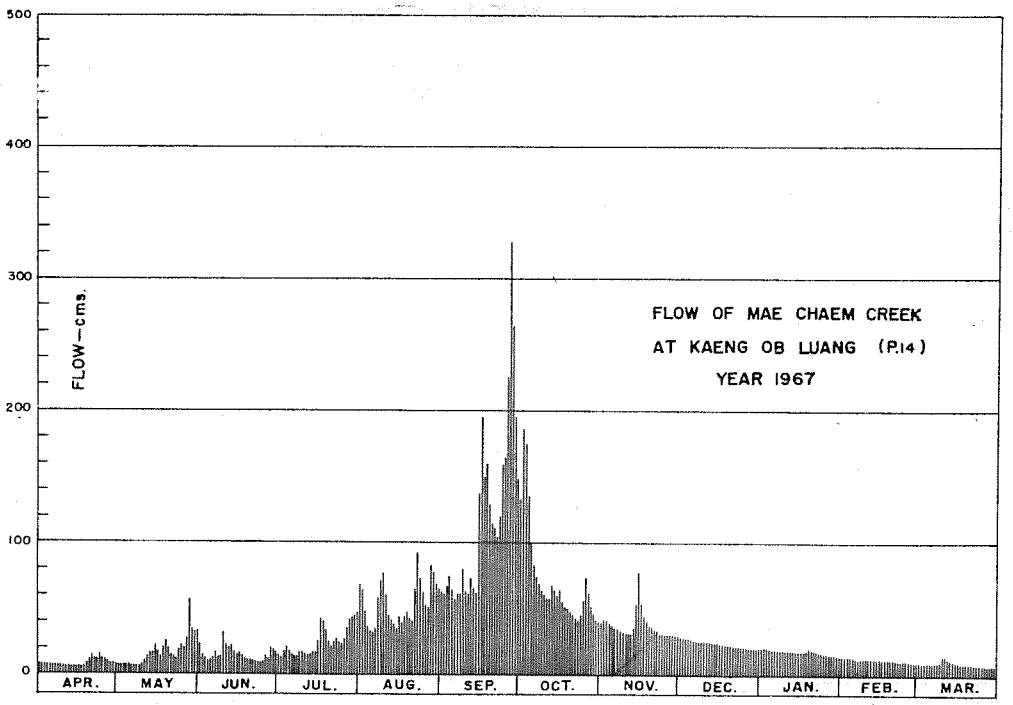
Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1969. No upstream state diversions except those built by local residents. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	276.83	276.83	277.06	276.96	277.64	277.58	278.10	277.35	277.20	277.07	276.98	276.88
2	.83	.83	276.97	.96	.61	.57	.52	.37	.19	.07	.97	.87
3	.83	.82	.94	277.05	.40	.62	.47	.36	.19	.07	.97	.87
4	.83	.82	.90	.10	.30	.69	.15	.33	.18	.07	.97	.87
5	.83	.81	.91	.04	.26	.55	277.92	.32	.17	.06	.96	.87
6	276.83	276.81	276.96	277.00	277.26	277.51	277.76	277.30	277.17	277.06	276.96	276.87
7	.82	.81	277.02	276.97	.29	.57	.69	.28	.17	.06	.90	.87
8	.82	.81	276.95	.99	.54	.57	.64	.27	.16	.06	.95	.87
9	.82	.81	.94	277.03	.66	.74	.59	.26	.16	.06	.95	.87
10	.82	.80	277.25	.02	.72	.59	.55	.25	.17	.06	.95	.98
11	276.81	276.90	277.11	277.00	277.53	277.55	277.53	277.25	277.16	277.05	276.94	276.95
12	.81	.97	.06	.00	.40	.68	.53	.24	.15	.05	.94	.95
13	.81	277.03	.12	.00	.36	.61	.63	.28	.15	.05	.94	.92
14	.81	.00	.03	.02	.33	.50	.57	.43	.15	.05	.93	.90
15	.82	.13	276.99	.02	.29	278.20	.54	.73	.15	.05	.92	.89
16	276.81	277.01	277.02	277.10	277.39	278.58	277.60	277.48	277.14	277.04	276.92	276.88
17	.81	276.94	276.96	.37	.33	.24	.49	.39	.14	.04	.92	.87
18	.80	277.09	.94	.35	.41	.35	.47	.35	.13	.06	.92	.85
19	.85	.17	.92	.23	.43	.11	.46	.31	.13	.07	.91	.85
20	.92	.09	.91	.15	.35	.04	.41	.29	.12	.05	.90	.85
21	276.99	276.99	276.91	277.09	277.36	278.00	277.39	277.27	277.11	277.04	276.90	276.85
22	.94	.95	.89	.15	.67	277.92	.37	.26	.10	.03	.90	.84
23	.93	.93	.88	.18	.85	278.07	.36	.25	.10	.02	.89	.84
24	277.00	277.06	.86	.15	.67	.35	.38	.24	.10	.02	.89	.83
25	276.93	.12	.87	.12	.56	.39	.55	.24	.10	.01	.89	.83
26	276.93	277.07	276.97	277.17	277.49	278.81	277.69	277.24	277.09	277.01	276.89	276.83
27	.88	.22	.92	.27	.44	279.27	.56	.23	.09	.00	.88	.83
28	.88	.53	277.10	.38	.77	278.95	.46	.22	.09	276.99	.88	.83
29	.86	.26	.04	.39	.72	.48	.39	.22	.08	.99	.88	.83
30	.85	.26	.01	.40	.64	.24	.36	.21	.08	.99		.83
31		.27		.40	.61		.34		.08	.99		.82
Mean	276.86	277.00	276.98	277.13	277.49	278.01	277.63	277.31	277.14	277.04	276.92	276.87
Max.	277.00	277.53	277.25	277.40	277.85	279.27	278.52	277.73	277.20	277.07	276.98	276.98
Min.	276.80	276.80	276.86	276.96	277.26	277.50	277.34	277.21	277.08	276.99	276.88	276.82

WATER YEAR 1967 : Max. 279.27 m. Min. 276.80 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	7.70	7.70	19	13	68	62	124	40	28	20	14	9.70
2	7.70	7.70	14	13	65	61	186	42	27	20	14	9.30
3	7.70	7.30	12	18	15	66	178	41	27	20	14	9.30
4	7.70	7.30	10	21	36	74	131	39	27	20	14	9.30
5	7.70	6.90	11	18	33	59	100	38	26	19	13	9.30
6	7.70	6.90	13	15	33	55	82	36	26	19	13	9.30
7	7.30	6.90	17	14	35	61	74	34	26	19	10	9.30
8	7.30	6.90	13	15	58	61	68	34	25	19	13	9.30
9	7.30	6.90	12	17	71	79	63	33	25	19	13	9.30
10	7.30	6.50	32	17	77	63	59	32	26	19	13	14
11	6.90	10	22	15	57	59	57	32	25	18	12	13
12	6.90	14	19	15	45	73	57	31	25	18	12	13
13	6.90	17	23	15	41	65	67	34	25	18	12	11
14	6.90	15	17	17	39	54	61	48	25	18	12	10
15	7.30	23	15	17	35	138	58	78	25	18	11	10
16	6.90	16	17	21	44	196	64	52	24	18	11	9.70
17	6.90	12	13	42	39	144	53	44	24	18	11	9.30
18	6.50	21	12	40	46	160	51	40	23	19	11	8.50
19	8.50	26	11	30	48	125	50	37	23	20	11	8.50
20	11	21	11	25	40	112	46	35	23	18	10	8.50
21	15	15	11	21	41	110	44	34	22	18	10	8.50
22	12	13	10	25	72	100	42	33	21	17	10	8.10
23	12	12	9.70	27	92	120	41	32	21	17	10	8.10
24	15	19	8.90	25	72	160	43	31	21	17	10	7.70
25	12	23	9.30	23	60	166	59	31	21	16	10	7.70
26	12	20	14	26	53	235	74	31	21	16	10	7.70
27	9.70	30	11	34	49	326	60	30	21	15	9.70	7.70
28	9.70	57	21	43	83	261	50	30	21	15	9.70	7.70
29	8.90	33	18	44	77	180	44	30	20	15	9.70	7.70
30	9.50	33	16	45	68	144	41	29	20	15	–	7.70
31	–	34	–	45	65	–	40	–	20	15	–	7.30
~~Total~~	264.90	535.00	441.90	756	1,687	3,569	2,167	1,111	734	553	333.10	285.50
Mean	8.83	17.2	14.7	24.4	54.4	119	69.9	37.0	23.7	17.8	11.5	9.21
Max.	15	57	32	45	92	326	186	78	28	20	14	14
Min.	6.50	6.50	8.90	13	33	54	40	29	20	15	9.70	7.30
Runoff – MCM.	22.887	46.224	38.180	65.318	145.757	308.362	187.229	95.990	63.418	47.779	28.780	24.667

WATER YEAR 1967 : Max. 326 Min. 6.50 Mean 34.0 Annual Runoff 1,074.591 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sep. 27	10.00	279.42	359				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
PING RIVER BASIN

Mae Chaem Creek at Mae Chaem Bridge, Chiang Mai (P.14A)

Location: Lat 18°- 12' - 02" N, Long 98°- 37' - 01" E, on right bank upstream side of bridge on Hot - Chiang Mai highway, Amphoe Hot, Chiang Mai.

Drainage Area: 3,909 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: +262.70 m. (M.S.L.)

Bench Mark: B.M. - H.S./R.I.D. No.11

Location: Infront of office of Station P.14A
Elevation: +267.062 m. (M.S.L.)

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: 1958 - 69

Rating Operation:

Period of Rating: 1958 - 60, 1964
Rated by Float: -
Rated by Current Meter: 1958 - 60, 1964

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

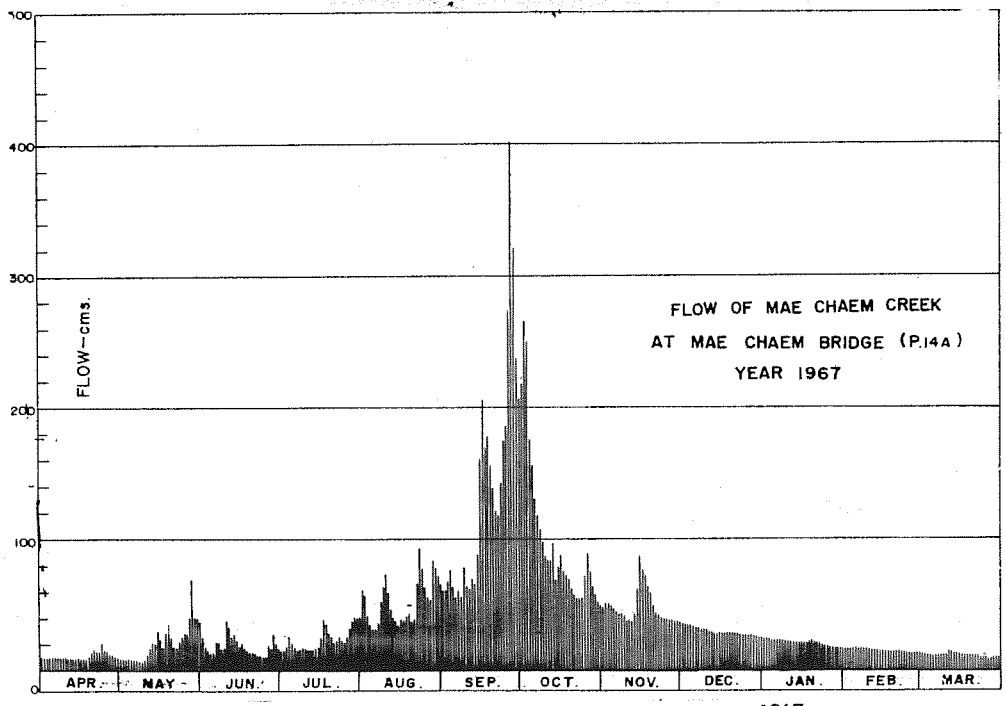
Overbank Flow Conditions: No overbank flow.

General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made during 1958 - 60, 1964. No upstream state diversions except those built by local resident. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	262.88	262.87	263.10	262.97	263.45	263.44	264.26	263.34	263.22	263.10	263.01	262.94
2	.88	.87	.02	.97	.44	.45	.54	.37	.22	.10	.01	.94
3	.88	.86	262.99	263.01	.30	.49	.47	.36	.21	.10	.01	.94
4	.88	.86	.94	.11	.22	.56	.25	.34	.21	.09	.01	.93
5	.90	.86	.95	.04	.18	.43	.93	.33	.20	.09	.00	.93
6	262.89	262.86	263.07	263.00	263.17	263.39	263.91	263.30	263.19	263.09	263.00	262.92
7	.89	.85	.06	262.97	.19	.45	.83	.29	.19	.09	.00	.92
8	.89	.85	.00	.98	.37	.39	.76	.29	.18	.08	.00	.91
9	.89	.85	.01	263.02	.48	.58	.70	.28	.18	.08	.00	.93
10	.88	.84	.25	.01	.54	.47	.62	.23	.18	.08	.00	.93
11	262.88	262.93	263.16	262.99	263.41	263.45	263.62	263.24	263.17	263.07	262.99	262.98
12	.87	.99	.09	.99	.31	.52	.61	.23	.16	.07	.99	.96
13	.87	263.06	.13	.98	.27	.46	.70	.26	.15	.07	.99	.95
14	.87	.03	.07	263.01	.24	.59	.49	.40	.14	.07	.99	.94
15	.90	.17	.02	.01	.20	.95	.60	.64	.14	.07	.98	.94
16	262.87	263.06	263.06	263.05	263.25	264.27	263.63	263.56	263.14	263.06	262.98	262.93
17	.87	262.97	.00	.25	.23	.06	.55	.53	.14	.06	.98	.93
18	.86	263.13	262.98	.24	.27	.14	.53	.46	.14	.07	.98	.92
19	.90	.23	.96	.15	.29	.02	.51	.43	.14	.08	.98	.92
20	.96	.14	.96	.10	.23	263.92	.44	.34	.14	.07	.97	.91
21	263.00	263.03	262.94	263.05	263.25	263.84	263.41	463.29	263.13	263.06	262.97	262.91
22	262.97	262.99	.93	.07	.50	.77	.39	.27	.13	.05	.97	.91
23	.96	263.07	.92	.11	.67	.94	.39	.26	.13	.04	.97	.90
24	263.05	.10	.90	.09	.55	264.13	.39	.26	.12	.04	.96	.90
25	262.97	.15	.90	.06	.46	.16	.51	.26	.12	.03	.96	.90
26	262.98	263.11	263.03	263.10	263.38	264.49	263.65	263.25	263.12	263.03	262.96	262.90
27	.92	.23	262.96	.17	.34	265.06	.55	.25	.12	.02	.95	.90
28	.92	.50	263.13	.24	.62	264.76	.47	.24	.12	.02	.95	.90
29	.90	.26	.05	.25	.60	.40	.41	.24	.11	.02	.95	.89
30	.88	.26	262.99	.27	.53	.28	.37	.23	.11	.02		.89
31		.26		.25	.49		.35		.11	.02		.89
Mean	262.91	263.04	263.02	263.08	263.37	263.86	263.67	263.32	263.15	263.06	262.98	262.92
Max.	263.05	263.50	263.25	263.27	263.67	265.06	264.54	263.64	263.22	263.10	263.10	262.98
Min.	262.86	262.84	262.90	262.97	263.17	263.39	263.35	263.23	263.11	263.02	262.95	262.89

WATER YEAR 1967 : Max. 265.06 m. Min. 262.86 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	9.50	9.00	25	15	62	61	204	49	36	25	17	13
2	.50	.00	18	15	61	62	266	52	36	25	17	13
3	.50	8.50	16	17	44	67	250	51	35	25	17	13
4	.50	.50	13	26	36	77	202	49	35	24	17	12
5	10	.50	14	20	32	60	157	48	34	24	17	12
6	10	8.50	22	17	31	55	134	44	33	24	17	12
7	10	.00	22	15	33	62	120	43	33	24	17	12
8	10	.00	17	15	52	55	108	43	32	23	17	11
9	10	.00	17	18	66	80	98	42	32	23	17	12
10	9.50	7.50	39	17	74	65	85	37	32	23	17	12
11	9.50	12	30	16	57	62	85	38	31	22	16	15
12	.00	16	24	16	45	71	84	37	30	22	16	14
13	.00	22	28	15	41	64	98	40	29	22	16	14
14	.00	19	22	17	38	81	67	56	29	22	16	13
15	10	31	18	17	34	142	82	89	29	22	15	13
16	9.00	22	22	21	39	206	87	77	29	22	15	12
17	.00	15	17	39	37	163	76	73	29	22	15	12
18	8.50	28	15	38	41	179	73	64	29	22	15	12
19	10	37	14	29	43	155	70	60	29	23	15	12
20	14	29	14	25	37	136	61	49	29	22	15	11
21	17	19	13	21	39	122	57	43	28	22	15	11
22	15	16	12	22	69	109	55	41	28	21	15	11
23	14	22	12	26	93	140	55	20	28	20	15	10
24	21	25	10	24	76	177	55	40	27	20	14	10
25	15	29	10	22	64	183	70	40	27	19	14	10
26	15	26	19	25	54	254	90	39	27	19	14	10
27	12	37	14	31	49	401	76	39	27	18	14	10
28	12	69	28	38	85	320	65	38	27	18	14	10
29	10	40	21	39	82	234	57	38	26	18	14	10
30	9.50	40	16	41	73	208	52	37	26	18	–	10
31	–	40	–	39	67	–	50	–	26	18	–	10
Total	335.00	677.50	562	736	1,654	4,051	3,089	1,436	928	672	453	362
Mean	11.2	21.8	18.7	23.7	53.3	135	99.6	47.9	29.9	21.7	15.6	11.7
Max.	21	69	39	41	93	401	266	89	36	25	17	15
Min.	8.50	7.50	10	15	34	55	50	37	26	18	14	10
Runoff - mcm.	28.944	58.536	48.557	63.590	142.906	350.006	266.890	124.070	80.179	58.061	39.139	31.277

WATER YEAR 1967 : Max. 401 Min. 7.50 Mean 40.9 Annual Runoff 1,292.155mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sep. 27,67	9.00	265.26	458				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
PING RIVER BASIN

Mae Ping River at Khlong Khlung, Kamphaeng Phet (P.15)

Location: Lat 16°- 12' - 50" N, Long 99°- 43' - 26" E, on right bank infront of Wat Si Phirom, Amphoe Khlong Khlung, Kamphaeng Phet.

Drainage Area: 43,805 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: +51.555 m. (M.S.L.)

Bench Mark: B. M. - H.S.

Location: Near staff gage site infront of Wat Si Phirom
Elevation: +56.442 m. (M.S.L.)

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 - 59, 1962 to date

Rating Operation:

Period of Rating: 1967 to date
Rated by Float: -
Rated by Current Meter: 1967 to date

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

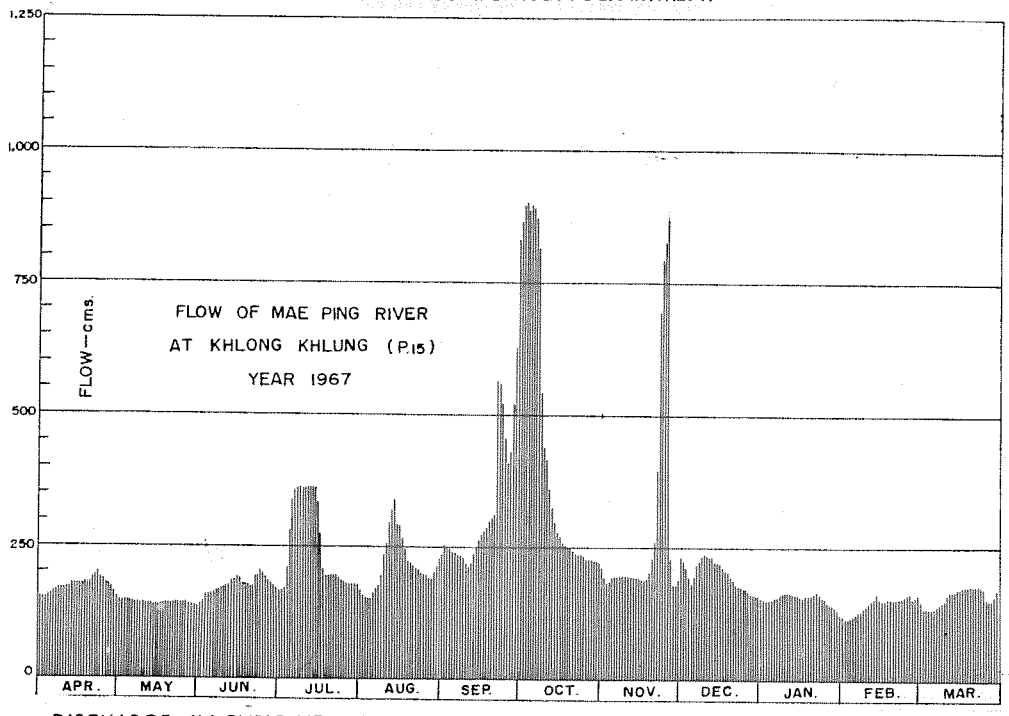
Overbank Flow Conditions: No overbank flow.

General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made during 1967. Flow regulated by Yanhee Reservoir. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	53.65	53.63	53.61	53.70	53.70	53.94	35.51	53.85	53.93	53.66	53.53	53.64
2	.65	.63	.64	.71	.67	54.00	.57	.80	.90	.65	.51	.59
3	.65	.63	.67	.73	.65	53.99	.59	.75	.85	.65	.51	.59
4	.67	.63	.67	.79	.65	.97	.55	.78	.80	.65	.52	.60
5	.67	.63	.68	54.10	.65	.95	.57	.80	.75	.65	.53	.58
6	53.70	53.62	53.68	54.25	53.70	53.95	55.56	53.81	53.82	53.67	53.55	53.59
7	.70	.62	.70	.30	.73	.94	.50	.81	.89	.67	.57	.60
8	.72	.62	.71	.31	.75	.93	.50	.81	.91	.69	.58	.62
9	.72	.62	.73	.31	.80	.92	54.72	.81	.93	.70	.60	.63
10	.72	.62	.73	.31	.95	.89	.48	.81	.95	.70	.62	.65
11	53.73	53.61	53.74	54.31	53.99	53.86	54.45	53.81	53.93	53.70	53.63	53.70
12	.73	.61	.74	.31	54.13	.89	.27	.81	.93	.70	.66	.71
13	.75	.61	.77	.31	.20	.93	.20	.80	.93	.69	.68	.71
14	.75	.60	.79	.31	.25	.98	.12	.80	.90	.69	.70	.72
15	.75	.60	.80	.31	.10	54.02	.07	.80	.90	.68	.65	.72
16	53.75	53.60	53.78	54.18	54.12	54.05	54.04	53.79	53.88	53.67	53.65	53.73
17	.75	.60	.75	53.88	.01	.07	.00	.79	.85	.66	.65	.75
18	.76	.61	.75	.80	53.93	.10	.00	.79	.85	.68	.67	.75
19	.76	.61	.75	.80	.90	.13	53.98	.82	.83	.68	.66	.75
20	.76	.61	.74	.80	.89	.15	.98	.91	.80	.69	.65	.75
21	53.80	53.61	53.73	53.80	53.87	54.17	53.95	54.02	53.78	53.70	53.65	53.75
22	.81	.61	.80	.80	.85	.84	.95	.42	.75	.71	.66	.75
23	.83	.62	.80	.80	.84	.83	.93	55.09	.75	.69	.66	.75
24	.80	.62	.84	.78	.83	.65	.93	.36	.74	.67	.68	.75
25	.79	.62	.82	.77	.82	.53	.93	.45	.73	.65	.69	.73
26	53.77	53.62	53.80	53.75	53.81	54.43	53.91	55.56	53.73	53.63	53.69	53.65
27	.75	.62	.76	.75	.79	.46	.91	53.93	.70	.62	.66	.65
28	.73	.60	.75	.75	.79	.63	.91	.75	.69	.61	.67	.65
29	.70	.60	.73	.75	.82	.97	.90	.75	.69	.60	.70	.69
30	.65	.60	.71	.75	.86	55.43	.90	.80	.68	.58		.73
31		.58		.75	.92		.90		.67	.55		.70
Mean	53.73	53.61	53.73	53.96	53.87	54.22	54.44	54.02	53.82	53.66	53.62	53.68
Max.	53.83	53.63	53.84	54.31	54.25	55.43	55.59	55.56	53.95	53.71	53.70	53.75
Min.	53.65	53.58	53.61	53.70	53.65	53.86	53.90	53.75	53.67	53.55	53.51	53.58

WATER YEAR 1967 : Max. 55.59 m. Min. 53.51 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	151	146	141	164	164	235	865	207	232	154	120	148
2	151	146	148	167	156	254	894	192	222	151	115	135
3	151	146	156	172	151	251	903	178	207	151	115	135
4	156	146	156	189	151	244	884	186	192	151	117	138
5	165	146	159	286	151	238	894	192	178	151	120	133
6	164	143	159	338	164	238	889	195	198	156	125	135
7	164	143	164	356	172	235	860	195	219	156	130	138
8	170	143	167	360	178	232	812	195	225	161	133	143
9	170	143	172	360	192	228	516	195	232	164	138	146
10	170	143	172	360	238	219	422	195	238	164	143	151
11	172	141	175	360	251	210	411	195	232	164	146	164
12	172	141	175	360	296	219	345	195	232	164	154	167
13	178	141	184	360	320	232	320	192	232	161	159	167
14	178	138	189	360	338	248	293	192	222	161	164	170
15	178	138	192	360	286	260	276	192	222	159	151	170
16	178	138	186	313	293	270	267	189	216	156	151	172
17	178	138	178	216	257	276	254	189	207	154	151	178
18	181	141	178	192	232	286	254	189	207	159	156	178
19	181	141	178	192	222	296	248	198	201	159	154	178
20	181	141	175	192	219	303	248	225	192	161	151	178
21	192	141	172	192	213	310	238	260	186	164	151	178
22	195	141	192	192	207	564	238	400	178	167	154	178
23	201	143	192	192	204	561	232	672	178	161	154	178
24	192	143	204	186	201	488	232	794	175	156	159	178
25	189	143	198	184	198	441	232	836	172	151	161	172
26	184	143	192	178	195	403	225	889	172	146	161	151
27	178	143	181	178	189	415	225	232	164	143	154	151
28	172	138	178	178	189	480	225	178	161	141	156	151
29	164	138	172	178	198	619	222	178	161	138	164	161
30	151	138	167	178	210	826	222	192	159	133		172
31		133		178	228		222		156	125		164
Total	5,198	4,387	5,252	7,671	6,663	10,081	13,368	8,517	6,168	4,782	4,207	4,958
Mean	173	141	175	247	215	336	431	284	199	154	145	160
Max.	201	146	204	360	338	826	903	889	238	167	164	178
Min.	151	133	141	164	151	210	222	178	156	125	115	133
Runoff - mcm.	449.107	379.037	453.773	662.774	575.683	870.998	1,154.995	738.869	532.915	413.165	363.485	428.371

WATER YEAR 1967 : Max. 903 Min. 115 Mean 222 Annual Runoff 7,020.173 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 3	12.00	55.59	903				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
PING RIVER BASIN

Mae Ping River at Khanu Waralaksaburi, Kamphaeng Phet (P.16)

Location: Lat 16°- 03' - 42" N, Long 99°- 51' - 51" E, on right bank about 100 meters infront of the district office of Amphoe Khanu Waralaksaburi, 6 kilometers on right side of Phahon Yothin Highway at Ban Salok Bat, Kamphaeng Phet.

Drainage Area: 45,677 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: +41.78 m. (M.S.L.)

Bench Mark: B.M. - P.16

Location: At the gate infront Amphoe Khanu Waralaksaburi office.
Elevation: +45.976 m. (M.S.L.)

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 - 60, 1962 to date

Rating Operation:

Period of Rating: 1960, 1967 to date
Rated by Float: -
Rated by Current Meter: 1960, 1967 to date

Stability of Channel-Regimes: Stable, no shifting adjustment for flow computation.

Overbank Flow Conditions: No overbank flow.

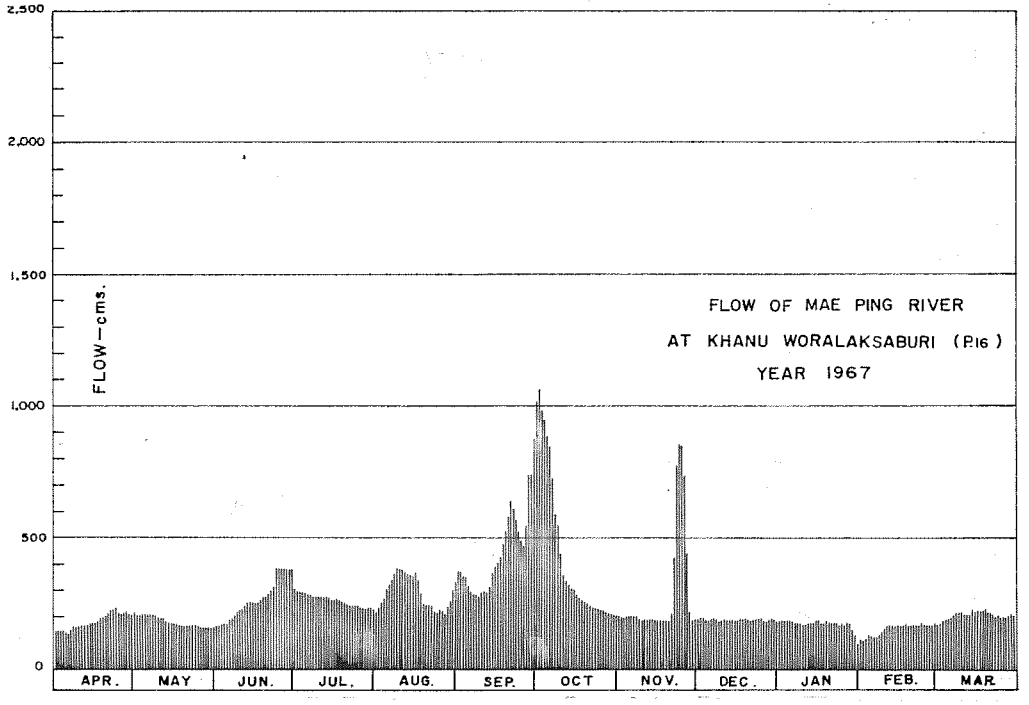
General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made during 1967. Upstream state diversions for irrigation of about 40,000 hectares at Yanhee Reservoir. No adjustment made for virgin flow.

Remarks: * Stage record obtained by stage - correlation.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	43.08	43.31	43.17	43.56	43.31	43.75	45.14	43.28	43.24	43.22	42.97	43.17
2	.08	.30	.17	.56	.38	.75	.25	.30	.25	.22	.94	.18
3	.10	.30	.18	.56	.45	.70	.09	.27	.25	.21	.97	.22
4	.09	.30	.18	.54	.48	.70	.02	.28	.23	.21	43.05	.22
5	.06	.30	.20	.54	.59	.57	44.87	.28	.23	.22	.02	.25
6	43.06	43.30	43.24	43.53	43.64	43.55	44.79	43.28	43.26	43.21	43.01	43.27
7	.14	.28	.24	.53	.69	.53	.48	.29	.25	.20	42.96	.28
8	.15	.28	.29	.51	.74	.53	.28	.28	.23	.18	43.04	.32
9	.14	.28	.31	.51	.78	.50	.16	.26	.22	.19	.10	.33
10	.15	.26	.31	.51	.78	.56	43.88	* .23	.23	.16	.11	.33
11	43.16	43.26	43.40	43.49	43.77	43.56	43.71	* 43.24	43.24	43.18	43.16	43.29
12	.16	.26	.40	.49	.75	.54	.66	* .24	.22	.20	.17	.28
13	.17	.20	.43	.49	.74	.60	.64	* .24	.23	.20	.16	.30
14	.18	.20	.43	.49	.73	.74	.58	* .24	.22	.20	.14	.35
15	.18	.20	.43	.47	.70	.78	.58	* .24	.22	.22	.15	.32
16	43.19	43.19	43.43	43.47	43.75	43.84	43.52	* 43.23	43.23	43.23	43.16	43.34
17	.22	.19	.43	.47	.67	.88	.49	* .23	.24	.19	.16	.34
18	.26	.17	.48	.47	.46	44.03	.47	* .23	.24	.19	.18	.33
19	.26	.17	.50	.44	.41	.18	.44	* .23	.25	.22	.15	.37
20	.28	.17	.50	.44	.41	.29	.43	* .23	.23	.20	.16	.32
21	43.32	43.17	43.53	43.42	43.41	44.40	43.40	* 43.23	43.21	43.19	43.15	43.31
22	.34	.16	.58	.42	.41	.32	.40	.86	.23	.19	.15	.28
23	.36	.16	.58	.42	.36	.24	.38	44.67	.24	.20	.15	.27
24	.38	.16	.78	.42	.31	.11	.37	.83	.25	.15	.19	.29
25	.30	.16	.78	.40	.37	.03	.35	.81	.25	.19	.15	.37
26	43.30	43.14	43.78	43.40	43.36	43.97	43.34	44.51	43.23	43.16	43.16	43.25
27	.31	.14	.77	.38	.30	44.24	.33	43.47	.19	.19	.16	.27
28	.31	.14	.77	.38	.37	.60	.32	.26	.22	.19	.15	.34
29	.30	.14	.77	.38	.44	.60	.31	.23	.25	.10	.18	.31
30	.30	.14	.77	.38	.55	.80	.30	.24	.24	.04		.27
31		.14		.38	.63		.29		.23	42.91		.24
Mean	43.21	43.21	43.46	43.46	43.54	43.92	43.84	43.47	43.23	43.18	43.11	43.28
Max.	43.38	43.31	43.78	43.56	43.78	44.80	45.25	44.83	43.25	43.23	43.19	43.37
Min.	43.06	43.14	43.17	43.38	43.30	43.50	43.29	43.23	43.19	42.91	42.94	43.17

WATER YEAR 1967 : Max. 45.25 m. Min. 42.91 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	143	211	169	298	211	372	1,009	202	190	184	113	169
2	143	208	169	298	234	372	1,064	208	193	184	106	172
3	148	208	172	298	258	252	984	199	193	181	113	184
4	145	208	172	291	269	352	949	202	187	181	134	184
5	137	208	178	291	309	302	874	202	187	184	126	193
6	137	208	190	287	329	294	834	202	196	181	124	199
7	160	202	190	287	348	287	685	205	193	178	111	202
8	163	202	205	280	368	287	594	202	187	172	132	214
9	160	202	211	280	384	276	541	196	184	175	148	218
10	163	196	211	280	384	298	424	187	187	166	151	218
11	166	196	240	272	380	298	356	190	190	172	166	205
12	166	196	240	272	372	291	336	190	184	178	169	202
13	169	178	251	272	368	313	329	190	187	178	166	208
14	172	178	251	272	364	368	306	190	184	178	160	224
15	172	178	251	165	352	384	306	190	184	184	163	214
16	175	175	251	265	372	408	283	187	187	187	166	221
17	184	175	251	265	340	424	272	187	190	175	166	221
18	196	169	269	265	262	485	265	187	190	175	172	218
19	196	169	276	254	244	550	254	187	193	184	163	230
20	202	169	276	254	244	599	251	187	187	178	166	214
21	214	169	287	247	244	648	240	187	181	175	163	211
22	221	166	306	247	244	612	240	416	187	175	163	202
23	227	166	306	247	227	577	234	774	190	178	163	199
24	234	166	384	247	211	519	230	854	193	163	175	205
25	208	166	384	240	230	485	224	844	193	175	163	199
26	208	160	384	240	227	460	221	699	197	166	166	193
27	211	160	380	234	208	577	218	265	175	175	166	199
28	211	160	380	234	230	741	214	196	184	175	163	221
29	208	160	380	234	254	741	210	187	193	148	172	211
30	208	160	380	234	294	839	208	190	190	132		199
31					324		205		187	98		
Total	5,447	5,629	7,994	8,184	9,085	13,511	13,361	8,502	5,833	5,335	4,409	6,339
Mean	181	181	266	264	293	450	431	283	188	172	152	204
Max.	234	211	384	298	384	839	1,064	854	193	187	175	230
Min.	137	160	169	234	208	276	205	187	175	98	106	169
Runoff - mcm.	470.621	486.345	690.681	705.369	784.944	1,167,350	1,154.390	734.572	503.971	460.944	380.937	547.689

WATER YEAR 1967 : Max. 1,064 Min. 98 Mean 254 Annual Runoff 8,087.813 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 2	06.00	45.25	1,064				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
PING RIVER BASIN

Mae Ping River at Banphot Phisai, Nakhon Sawan (P.17)

Location: Lat 15°- 56' - 02" N, Long 99°- 58' - 49" E, on right bank about 300 meters upstream from District office, Tambon Som Sieo, Amphoe Banphot Phisai, Nakhon Sawan.

Drainage Area: 45,851 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: +32.00 m. (M.S.L.)

Bench Mark: B.M. - H.S. P.17

Location: At the post of transmission line near gage site.
Elevation: +37.697 m. (M.S.L.)

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 - cont.

Rating Operation:

Period of Rating: 1960, 1967 to date
Rated by Float: -
Rated by Current Meter: 1960, 1967 to date

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

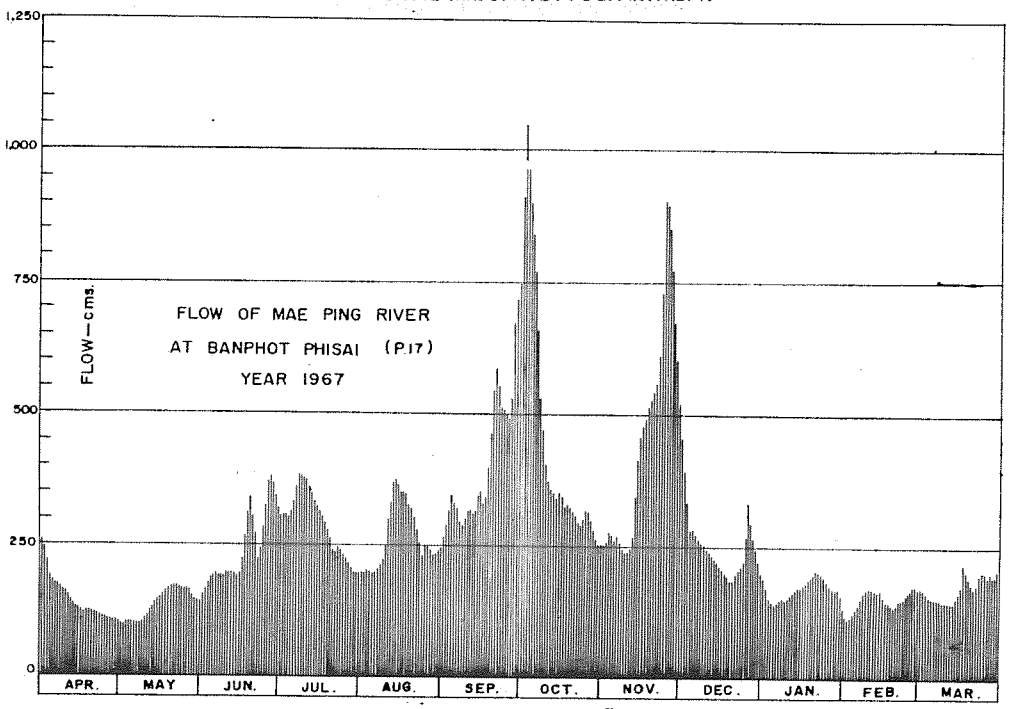
Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1967. Upstream state diversions for irrigation of about 40,300 hectares at Yanhee Reservoir. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	35.11	34.49	34.74	35.26	34.91	35.14	36.87	35.09	35.66	34.87	34.59	34.80
2	.04	.49	.78	.27	.91	.23	37.04	.11	.46	.78	.56	.78
3	34.96	.50	.84	.27	.92	.33	36.86	.18	.24	.72	.58	.76
4	.85	.51	.86	.25	.91	.39	.71	.15	.16	.70	.61	.74
5	.83	.50	.88	.29	.90	.33	.61	.11	.19	.68	.65	.73
6	34.82	34.50	34.90	35.37	34.91	35.30	36.43	35.15	35.15	34.70	34.69	34.72
7	.80	.49	.89	.46	.93	.23	35.99	.11	.13	.72	.72	.72
8	.79	.49	.88	.50	.95	.20	.78	.07	.10	.73	.77	.71
9	.77	.51	.88	.49	.99	.24	.63	.04	.09	.71	.80	.70
10	.76	.54	.90	.48	35.12	.29	.53	.03	.07	.73	.81	.70
11	34.74	34.58	34.90	35.45	35.29	35.30	35.43	35.07	35.05	34.75	34.80	34.80
12	.70	.62	.90	.41	.37	.27	.42	.13	.02	.76	.79	.79
13	.66	.65	.90	.38	.45	.32	.40	.40	34.99	.79	.77	.69
14	.64	.69	.89	.35	.47	.40	.36	.61	.97	.81	.80	.75
15	.62	.70	.89	.31	.41	.40	.40	.72	.95	.81	.77	.78
16	34.60	34.73	34.95	35.27	35.39	35.33	35.38	35.77	34.93	34.82	34.71	34.82
17	.61	.75	35.11	.25	.40	.38	.31	.81	.90	.83	.70	.97
18	.62	.77	.25	.21	.34	.60	.33	.87	.87	.86	.69	.91
19	.62	.78	.38	.17	.31	.82	.31	.90	.85	.88	.66	.87
20	.60	.80	.29	.11	.30	.93	.29	.94	.85	.90	.68	.82
21	34.59	34.81	35.17	35.05	35.25	36.04	35.27	35.97	34.88	34.93	34.71	34.80
22	.58	.81	34.97	.04	.19	35.95	.23	36.00	.93	.92	.71	.83
23	.57	.80	35.05	.08	.11	.84	.21	.37	.95	.90	.72	.91
24	.56	.79	.21	.05	34.99	.84	.25	.75	.95	.88	.75	.92
25	.55	.78	.33	.02	35.09	.81	.30	.73	35.13	.84	.77	.91
26	34.54	34.78	35.45	34.99	35.07	35.79	35.29	36.61	35.19	34.82	34.79	34.87
27	.53	.79	.50	.95	.05	.94	.24	.33	.18	.80	.82	.91
28	.52	.74	.46	.92	.01	36.31	.18	.17	.11	.79	.81	.88
29	.51	.71	.38	.91	.04	.35	.12	.02	.04	.80	.80	.88
30	.51	.70	.29	.90	.05	.43	.10	35.84	34.97	.77		.94
31		.70		.90	.08		.09		.90	.68		.90
Mean	34.69	34.66	35.06	35.20	35.13	35.59	35.62	35.67	35.06	34.80	34.72	34.82
Max.	35.11	34.81	35.50	35.50	35.47	36.43	37.04	36.75	35.66	34.93	34.82	34.97
Min.	34.51	34.49	34.74	34.90	34.90	35.14	35.09	35.03	34.85	34.68	34.56	34.69

WATER YEAR 1967 : Max. 37.04 m. Min. 34.49 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	257	98	154	304	199	266	961	251	442	165	115	148
2	236	98	165	307	199	294	1,049	257	370	144	111	144
3	213	100	180	307	202	327	956	278	297	134	114	141
4	183	102	186	300	199	347	883	269	272	130	117	137
5	178	100	191	314	196	327	835	257	280	127	123	135
6	175	100	196	340	199	317	753	269	262	130	129	134
7	170	98	193	370	204	294	566	257	253	134	134	134
8	167	98	191	384	210	284	485	245	240	135	143	132
9	162	102	191	381	221	297	431	236	236	132	148	130
10	160	108	196	377	260	314	395	233	229	135	150	130
11	154	116	196	367	314	317	360	245	222	139	148	148
12	144	125	196	353	340	307	357	263	211	141	146	146
13	134	132	196	343	367	324	350	350	201	146	143	129
14	130	142	193	333	374	350	337	424	195	150	148	139
15	125	144	193	320	353	353	350	463	188	150	143	144
16	120	152	210	307	347	327	343	481	182	153	132	153
17	122	157	257	300	350	343	320	496	173	155	130	195
18	125	162	300	287	330	420	327	519	165	163	129	176
19	125	165	343	275	320	500	320	530	160	168	124	165
20	120	170	314	257	317	542	314	546	160	173	127	153
21	118	173	275	239	300	586	307	558	168	182	132	148
22	116	173	216	236	281	550	294	570	182	179	132	155
23	114	170	239	248	257	507	287	727	188	173	134	176
24	112	167	287	239	221	507	300	902	188	168	139	179
25	110	165	327	230	251	496	317	890	253	158	143	176
26	108	165	367	221	245	488	314	835	280	153	146	165
27	106	167	384	210	239	546	297	709	275	148	153	176
28	104	154	370	202	227	700	278	640	244	146	150	168
29	102	147	343	199	236	718	260	578	218	148	148	168
30	102	144	314	196	239	753	254	507	195	143		185
31		144		196	248		251		173	127		173
Total	4,292	4,238	7,363	8,942	8,245	12,701	13,851	13,787	7,102	4,629	3,931	4,782
Mean	143	137	245	288	266	423	447	459	229	149	135	154
Max.	257	173	384	384	374	753	1,049	902	442	182	153	195
Min.	102	98	154	196	196	266	251	233	160	127	111	129
Runoff - mcm.	370.83	366.163	636.163	772.589	712.368	1,097.366	1,196.728	1,191.197	613.613	399.946	339.638	413.165

WATER YEAR 1967 : Max. 1,049 Min. 98 Mean 256 Annual Runoff 8,109.763 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 2	06.00	37.10	1,080				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
PING RIVER BASIN

Mae ver at Ban Tha Sala, Chiang Mai (P.19A)

Location: Lat 18°- 25' - 29" N, Long 98°- 42' - 11" E, on left bank about 300 meters downstream from confluence with Li Creek, Amphoe Chom Thong, Chiang Mai.

Drainage Area: 14,023 sq.km.

Type of Gage: Water - stage recorder.

Zero Gage at Bottom at: +271.35 m. (M.S.L.)

Bench Mark: B.M. - H.S.

Location: At rain - tree infront of office of station P.19A
Elevation: +275.682 m. (M.S.L.)

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: 1958 to date.
Rated by Float: -
Rated by Current Meter: 1958 to date.

Stability of Channel Regimes: Unstable, shifting adjustment is included for flow computation.

Overbank Flow Conditions: Overbank flow at elevation +276.713 m. (M.S.L.) but not included for flow computation.

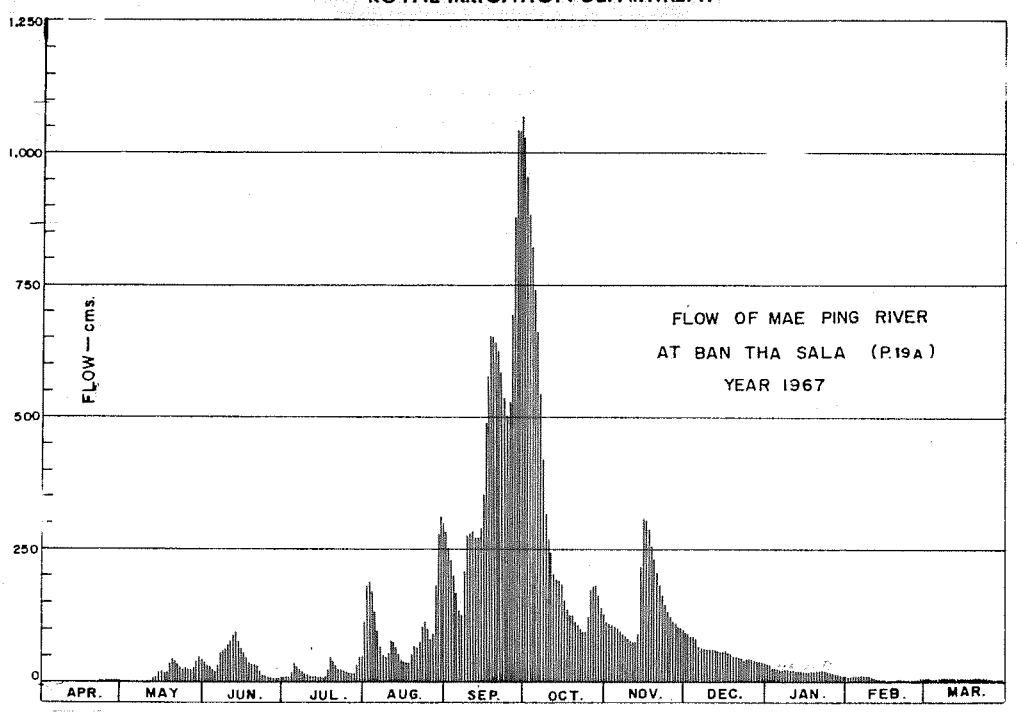
General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made during 1967. Upstream state diversions for irrigation of about 28,000 hectares. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	272.08	272.13	272.73	272.34	273.40	274.25	276.71	273.26	273.14	272.65	272.32	272.26
2	.07	.10	.66	.33	.74	.08	.52	.24	.13	.65	.32	.26
3	.07	.08	.63	.34	.78	273.96	.40	.23	.11	.56	.36	.25
4	.07	.08	.55	.56	.63	.81	.22	.19	.09	.55	.35	.25
5	.07	.07	.50	.72	.35	.60	275.98	.18	.08	.55	.35	.26
6	272.07	272.07	272.63	272.63	273.09	273.45	275.67	273.15	273.04	272.54	272.37	272.26
7	.07	.07	.92	.54	272.91	.46	.21	.09	.03	.52	.36	.26
8	.07	.06	.94	.49	.79	.88	274.73	.07	.03	.52	.35	.26
9	.07	.04	.97	.45	.77	274.24	.37	.05	.01	.52	.33	.26
10	.07	.04	273.06	.42	.86	.26	.14	.02	.01	.52	.25	.27
11	272.07	272.13	273.10	272.39	273.05	274.28	273.97	272.99	273.00	272.51	272.23	272.27
12	.07	.21	.20	.37	.03	.22	.83	.98	.00	.50	.21	.27
13	.07	.28	.23	.34	272.92	.22	.77	273.01	272.97	.49	.19	.26
14	.08	.40	.05	.35	.80	.25	.76	.47	.96	.49	.16	.26
15	.07	.53	272.93	.34	.71	.55	.71	274.35	.97	.48	.16	.27
16	272.09	272.58	272.89	272.33	272.67	275.27	273.52	274.35	272.97	272.47	272.15	272.27
17	.10	.50	.81	.33	.65	.74	.41	.25	.95	.48	.17	.27
18	.10	.49	.71	.57	.63	.93	.35	.15	.93	.48	.16	.29
19	.10	.76	.69	.85	.81	.90	.35	.00	.88	.47	.16	.31
20	.11	.85	.68	.72	.97	.88	.29	273.86	.87	.48	.17	.31
21	272.11	272.77	272.65	272.62	272.93	275.80	273.23	273.72	272.86	272.51	272.22	272.30
22	.17	.69	.48	.57	.99	.65	.16	.62	.86	.53	.23	.29
23	.17	.64	.39	.55	273.22	.44	.13	.50	.81	.50	.24	.28
24	.17	.62	.36	.53	.31	.30	.14	.41	.77	.47	.24	.27
25	.19	.65	.32	.49	.19	.45	.32	.33	.77	.44	.24	.26
26	272.22	272.62	272.30	272.47	273.04	275.88	273.65	273.28	272.76	274.42	272.24	272.23
27	.23	.60	.29	.46	.16	276.41	.69	.25	.74	.39	.24	.18
28	.23	.63	.29	.46	.70	.83	.70	.21	.74	.37	.24	.18
29	.23	.77	.29	.68	274.26	.82	.55	.19	.72	.35	.26	.17
30	.17	.85	.34	.79	.41	.89	.41	.17	.71	.33		.15
31		.79		.80	.36		.35		.69	.34		.14
Mean	272.11	272.42	272.69	272.51	273.20	274.99	274.17	273.42	272.92	272.49	272.25	272.25
Max.	272.23	272.85	273.23	272.85	274.41	276.89	276.71	274.35	273.14	272.65	272.37	272.31
Min.	272.07	272.04	272.29	272.33	272.63	273.45	273.13	272.98	262.69	272.33	272.15	272.14

WATER YEAR 1967 : Max. 276.89 m. Min. 272.04 m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.75	1.50	37	9.55	127	277	990	112	91	33	10	5.40
2	0.60	1.05	31	9.00	182	244	910	109	90	33	10	5.40
3	0.60	0.75	29	9.55	188	221	861	108	87	26	10	4.95
4	0.60	0.75	23	23	164	194	790	102	85	25	12	4.95
5	0.60	0.60	19	36	119	159	707	101	83	25	12	5.40
6	0.60	0.60	29	29	83	135	617	97	65	24	13	5.40
7	0.60	0.60	55	22	62	136	500	89	64	23	12	5.40
8	0.60	0.45	58	18	49	206	389	86	64	23	12	5.40
9	0.60	0.15	61	16	47	275	311	83	62	23	11	5.40
10	0.60	0.15	71	14	56	279	263	79	62	23	6.75	5.85
11	0.60	1.50	76	12	78	284	230	76	61	22	5.85	5.85
12	0.60	3.90	89	11	76	271	204	75	61	21	4.95	5.85
13	0.60	6.75	92	9.55	63	271	194	78	58	20	4.20	5.40
14	0.75	10	70	10	50	277	192	144	56	20	3.30	5.40
15	0.60	18	56	9.55	42	321	183	307	58	20	3.30	5.85
16	0.90	21	52	9.00	38	483	152	307	58	19	3.00	5.85
17	1.05	16	45	9.00	36	601	135	286	55	20	3.60	5.85
18	1.05	15	35	24	35	653	126	265	53	20	3.30	6.75
19	1.05	35	34	48	51	645	126	236	48	19	3.30	7.65
20	1.20	45	33	36	69	639	117	210	47	20	2.40	7.65
21	1.20	36	31	28	64	617	108	185	46	22	3.90	7.20
22	2.70	30	18	24	71	578	98	168	46	23	4.20	6.75
23	2.70	26	12	23	101	524	94	149	42	21	4.50	6.30
24	2.70	24	11	21	114	490	95	135	44	19	4.50	5.85
25	3.30	27	8.55	18	97	527	121	122	44	17	4.50	5.40
26	4.20	24	7.65	17	77	676	173	115	43	16	4.50	4.20
27	4.50	23	7.20	16	92	865	180	111	41	14	4.50	2.70
28	4.50	25	7.20	16	175	1,042	182	105	41	13	4.50	2.70
29	4.50	36	7.20	33	279	1,038	157	102	39	12	5.40	2.40
30	2.70	48	9.55	43	311	1,069	135	99	38	11		1.80
31		43		50	300		126		36	11		1.50
Total	47.55	520.75	1,114.35	653.20	3,296	13,997	9,466	4,241	1,768	638	188.45	162.45
Mean	1.58	16.8	37.1	21.1	106	466	305	141	57.0	20.6	6.50	5.24
Max.	4.50	48	92	50	311	1,069	990	307	91	33	13	7.65
Min.	0.60	0.15	7.20	9.00	35	135	95	75	36	11	2.40	1.50
Runoff - mcm.	4.108	44.993	96.280	56.436	284.774	1,209.341	817.862	366.422	152.755	55.123	16.282	14.036

WATER YEAR 1967 : Max. 1,069 Min. 0.15 Mean 98.6 Annual Runoff 3,118.414 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sep. 30	06.00	276.93	1,086				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
PING RIVER BASIN

Mae Rim Creek at Mae Rim Bridge, Chiang Mai (P.21)

Location: Lat 18° - 55' - 29" N, Long 98° - 56' - 34" E, on right bank about 100 meters downstream from highway bridge on Chiang Mai - Fang Highway, Amphoe Mae Rim, Chiang Mai.

Drainage Area: 515 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: +319.69 m. (M.S.L.)

Bench Mark: B.M. - H.S./R.I.D. No.4

Location: Near pond which belong to Mr. Bunsri Sakul
Elevation: +321.928 m. (M.S.L.)

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: 1954 - 60
Rated by Float: -
Rated by Current Meter: 1954 - 60

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

Overbank Flow Conditions: No overbank flow.

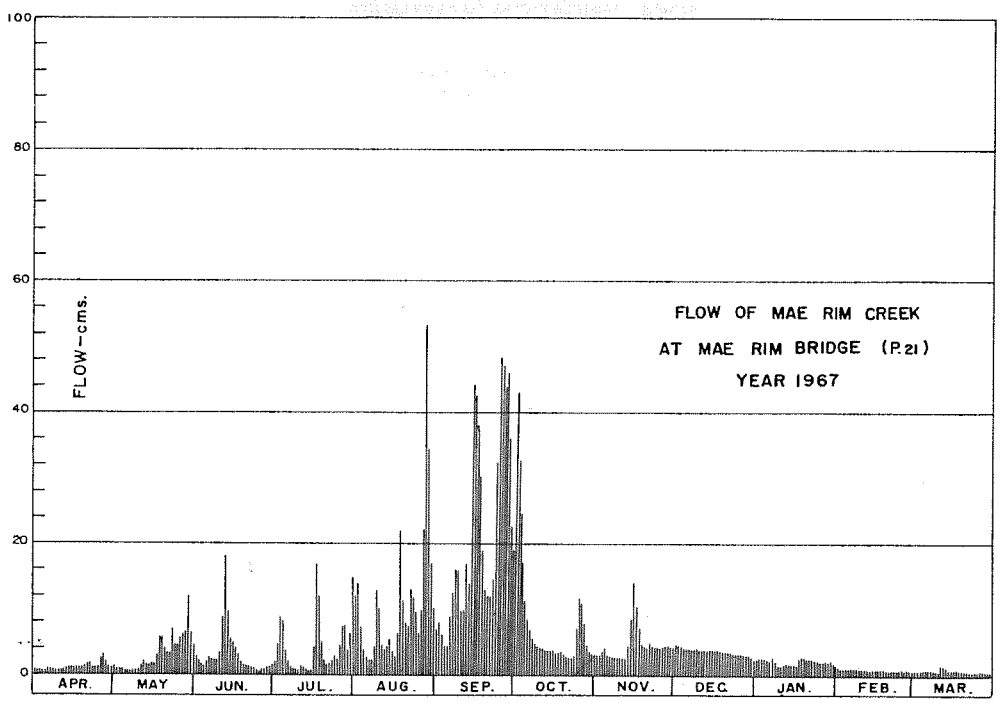
General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made during 1955 - 59. No upstream state diversions except those built by local residents. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	320.26	320.39	320.61	320.38	321.16	320.85	321.40	320.58	320.70	320.51	320.36	320.23
2	.25	.32	.52	.71	.24	.95	322.07	.58	.71	.54	.34	.25
3	.24	.36	.43	321.01	320.97	.82	321.51	.62	.69	.53	.33	.24
4	.25	.34	.40	320.97	.70	.74	.16	.69	.69	.53	.35	.25
5	.23	.28	.45	.67	.59	.59	320.98	.58	.67	.53	.36	.26
6	320.32	320.24	320.55	320.53	320.55	321.00	320.89	320.58	320.67	320.48	320.36	320.27
7	.31	.24	.53	.40	.49	.18	.82	.55	.66	.54	.34	.24
8	.24	.26	.50	.34	.61	.34	.72	.54	.66	.45	.32	.25
9	.22	.32	.49	.34	321.22	.34	.71	.54	.69	.40	.32	.26
10	.22	.26	.59	.31	320.97	.05	.69	.54	.66	.40	.31	.28
11	320.25	320.35	320.80	320.40	320.74	321.04	320.68	320.52	320.65	320.43	320.31	320.43
12	.29	.48	321.41	.37	.65	.36	.67	.52	.64	.45	.30	.39
13	.34	.47	.06	.36	.70	.22	.65	.69	.65	.45	.29	.34
14	.33	.37	320.78	.29	.79	.36	.64	.98	.65	.38	.30	.29
15	.33	.45	.76	.32	.65	322.11	.65	321.26	.65	.43	.31	.26
16	320.34	320.41	320.71	320.55	320.57	322.05	320.61	321.03	320.65	320.41	320.29	320.25
17	.35	.51	.59	321.38	.65	321.86	.60	320.88	.64	.51	.30	.30
18	.32	.78	.48	.11	321.54	.50	.64	.72	.64	.55	.32	.25
19	.35	.82	.42	320.65	.02	.21	.60	.71	.63	.55	.29	.24
20	.40	.68	.41	.48	320.97	.14	.56	.67	.63	.52	.29	.23
21	320.42	320.59	320.39	320.42	320.88	321.15	320.54	320.74	320.62	320.54	320.28	320.23
22	.44	.58	.35	.44	321.22	.10	.54	.70	.61	.53	.28	.21
23	.32	.87	.34	.50	.15	.46	.54	.70	.61	.50	.26	.22
24	.35	.73	.34	.58	.03	.73	.66	.68	.59	.49	.26	.23
25	.38	.71	.25	.52	320.77	322.19	321.18	.69	.58	.48	.32	.20
26	320.54	320.81	320.30	320.55	320.99	322.19	321.13	320.71	320.58	320.46	320.26	320.20
27	.58	.82	.36	320.93	321.44	.07	320.88	.71	.57	.47	.31	.22
28	.44	.86	.33	320.93	322.30	.14	.71	.71	.57	.48	.25	.20
29	.35	321.16	.38	.69	321.83	321.89	.65	.70	.57	.49	.26	.18
30	.34	320.88	.42	.62	.23	.48	.61	.69	.52	.46		.19
31		.74		321.30	.08		.59		.51	.38		.18
Mean	320.33	320.55	320.53	320.68	320.99	321.40	320.81	320.69	320.63	320.48	320.30	320.25
Max.	320.58	321.16	321.41	321.38	322.30	322.19	321.07	321.26	320.71	320.55	320.36	320.43
Min.	320.22	320.24	320.25	320.29	320.49	320.59	320.54	320.56	320.51	320.38	320.25	320.18

WATER YEAR 1967 : Max. 322.30 m. Min. 320.18 m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.64	1.34	3.32	1.28	12	6.55	18	3.02	4.40	2.39	1.16	0.52
2	0.60	0.92	2.48	4.54	14	8.10	43	3.02	4.54	2.66	1.04	0.60
3	0.56	1.16	1.67	9.09	8.42	6.10	21	3.44	4.28	2.57	0.98	0.56
4	0.60	1.04	1.40	8.42	4.40	4.96	12	4.28	4.28	2.57	1.10	0.60
5	0.52	0.72	1.85	4.04	3.11	3.11	8.58	3.02	4.04	2.57	1.16	0.64
6	0.92	0.56	2.75	2.57	2.75	8.90	7.15	3.02	4.04	2.12	1.16	0.68
7	0.86	0.56	2.57	1.40	2.21	12	6.10	2.75	3.92	2.66	1.04	0.56
8	0.56	0.64	2.30	1.04	3.32	16	4.68	2.66	3.92	1.85	0.92	0.60
9	0.48	0.92	2.21	0.98	13	16	4.54	2.66	4.28	1.40	0.92	0.64
10	0.48	0.64	3.11	0.86	8.42	9.85	4.28	2.66	3.92	1.40	0.86	0.72
11	0.60	1.10	5.80	1.40	4.96	9.66	4.16	2.48	3,80	1.67	0.86	1.67
12	0.76	2.12	18	1.22	3.80	17	4.04	2.48	3.68	1,85	0.80	1.34
13	1.04	2.03	10	1.16	4.40	13	3,80	4.28	3.80	1.85	0.76	1.04
14	0.98	1.22	5.52	0.76	5.66	17	3.68	8.58	3.80	1.28	0.80	0.76
15	0.98	1.85	5.24	0.92	3.80	44	3.80	14	3.80	1.67	0.86	0.64
16	1.04	1.49	4.54	2.75	2.93	42	3.32	9.47	3,80	1.49	0.76	0.60
17	1.10	2.39	3.11	17	3.80	34	3.30	7.00	3.68	2.39	0.80	0.80
18	0.92	5.52	2.12	11	22	21	3.68	4.68	3.68	2.75	0.92	0.60
19	1.10	6.10	1.58	3.80	2.28	13	3.20	4.54	3.56	2.75	0.76	0.56
20	1.40	4.16	1.49	2.12	8.42	12	3,84	4.04	3.56	2.48	0.76	0.52
21	1.58	3,11	1.39	1.58	7.00	12	2.66	4.96	3.44	2.66	0.72	0.52
22	1.76	.02	1.10	1.76	13.	11	2.66	4.40	3.32	2.57	0.72	0.44
23	0.92	6.85	1.04	2.30	12	20	2.66	4.40	3.32	2.30	0.64	0.48
24	1.10	4.82	1.04	3.02	9.47	29	3.92	4.16	3.11	2.21	0.64	0.52
25	1.28	.54	0.60	2.48	5.38	48	12	4.28	5.02	2.12	0.92	0.40
26	2.66	5.95	0.80	2.75	8.74	48	11	4.54	3.02	1.94	0.64	0.40
27	3.02	6.10	1.16	7.78	19	43	7.00	4.54	2.93	2.03	0.86	0.48
28	1.76	.70	0.98	7.78	53	46	4.54	4.54	2.93	1.12	0.60	0.40
29	1.10	12	1.28	4.28	33	35	3,80	4.40	2.93	2.21	0.64	0.34
30	1.04	7.00	1.58	3.44	13	20	3.32	4.28	2.48	1.94	–	0.37
31	–	4.96	–	15	10	–	3.11	–	2.39	1.28	–	0.34
Total	32.36	101.53	92.03	128.52	324.27	626.23	221.72	136.58	111.67	65.75	24.80	19.34
Mean	1.08	3.27	3.07	4.14	10.5	20.9	7.15	4.55	3.60	2.12	0.85	0.62
Max.	3.02	12	18	17	53	48	43	14	4.54	2.75	1.16	1.67
Min.	0.48	0.56	0.60	0.76	2.21	3.11	2.66	2.48	2.39	1.28	0.60	0.34
Runoff - mcm.	2.796	8.772	7.951	11.104	28.017	54.106	19.157	11.800	9.648	5.681	2.143	1.671

WATER YEAR 1967: Max. 53 Min. 0.34 Mean 5.15 Annual Runoff 162.847 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Aug. 28	7.00	322.42	59				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
PING RIVER BASIN

Mae Sa Creek at Mae Sa Bridge, Chiang Mai (P.22)

Location: Lat 18°- 53' - 45" N, Long 98°- 57' - 12" E, on left bank about 50 meters from bridge at Tambon Mae Sa, Amphoe Mae Rim, Chiang Mai.

Drainage Area: 135 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: +317.43 m. (M.S.L.)

Bench Mark: B.M. - H.S./R.I.D.

Location: On left bank about 9 meters downstream from bridge.
Elevation: +321.845 m. (M.S.L.)

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 - 69

Rating Operation:

Period of Rating: 1954 - 60
Rated by Float: -
Rated by Current Meter: 1954 - 60

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

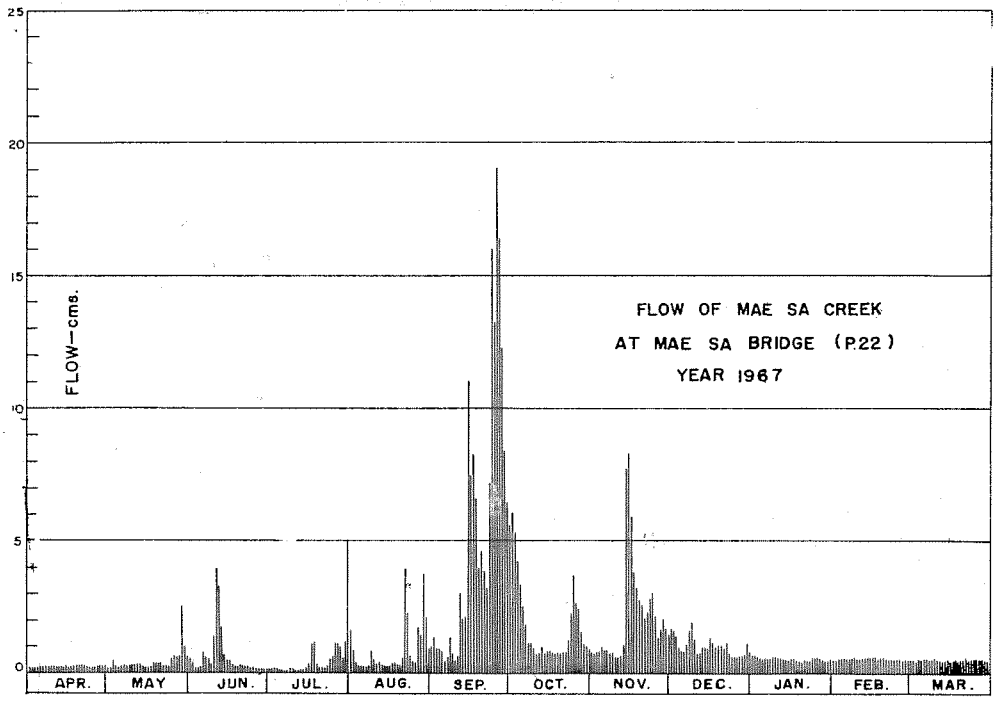
Overbank Flow Conditions: No overbank flow.

General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made during 1959 - 60. No upstream state diversions except those built by local residents. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	317.59	317.58	317.73	317.59	317.94	317.89	318.31	317.81	318.00	317.78	317.73	317.74
2	.59	.59	.61	.59	.82	.99	.35	.81	317.97	.80	.72	.74
3	.60	.73	.59	.61	.68	.83	.30	.83	.89	.78	.75	.72
4	.60	.59	.58	.59	.64	.85	.22	.83	.85	.76	.75	.75
5	.60	.60	.64	.57	.64	.80	.15	.87	.82	.76	.76	.74
6	317.62	317.63	317.82	317.57	317.63	317.70	318.06	317.84	317.85	317.76	317.75	317.76
7	.61	.65	.76	.55	.64	.70	317.98	.84	.90	.75	.75	.75
8	.62	.63	.74	.57	.69	.94	.89	.81	318.02	.76	.76	.73
9	.63	.64	.63	.60	.84	.78	.91	.82	.03	.79	.78	.74
10	.62	.65	.66	.59	.68	.72	.81	.76	317.88	.78	.75	.76
11	317.62	317.66	318.22	317.57	317.66	317.80	317.81	317.79	317.80	317.75	317.74	317.73
12	.62	.66	.12	.56	.71	318.13	.82	.80	.82	.76	.76	.73
13	.62	.64	317.84	.57	.67	317.94	.88	.85	.87	.74	.78	.72
14	.60	.62	.75	.56	.64	.91	.80	318.44	.87	.74	.77	.72
15	.62	.62	.73	.61	.64	318.60	.83	.47	.86	.73	.78	.74
16	317.60	317.62	317.72	317.69	317.65	318.40	317.83	318.26	317.94	317.76	317.77	317.72
17	.61	.62	.65	.89	.70	.48	.81	.17	.87	.75	.78	.74
18	.63	.69	.63	.90	.70	.30	.81	.14	.87	.72	.75	.75
19	.64	.68	.63	.64	.66	.16	.82	.11	.88	.73	.76	.73
20	.64	.67	.66	.60	.66	.26	.81	.10	.88	.71	.75	.74
21	317.65	317.70	317.64	317.60	317.75	318.19	317.82	318.00	317.85	317.74	317.75	317.75
22	.65	.64	.62	.60	318.21	.05	.83	.07	.90	.73	.75	.76
23	.61	.64	.62	.67	317.87	.37	.81	.12	.82	.72	.75	.72
24	.60	.63	.61	.74	.74	.79	318.03	.14	.78	.77	.75	.74
25	.61	.74	.60	.69	.71	.64	.19	.04	.78	.75	.74	.75
26	317.62	317.78	317.58	317.90	317.69	318.90	318.10	317.89	317.77	317.77	317.76	317.74
27	.64	.76	.57	.90	318.00	.80	.08	.98	.80	.74	.73	.74
28	.63	.68	.59	.87	.29	.60	317.92	318.04	.77	.73	.74	.74
29	.64	318.09	.59	.69	.19	.43	.89	317.99	.82	.72	.74	.73
30	.58	317.81	.60	.78	317.95	.35	.88	.95	.90	.72		.73
31		.77		318.29	.79		.85		.81	.74		.73
Mean	317.62	317.67	317.69	317.68	317.78	318.18	317.95	317.98	317.87	317.75	317.75	317.74
Max.	317.65	318.09	318.21	318.29	318.29	318.90	318.35	318.47	318.03	317.80	317.78	317.76
Min.	317.58	317.58	317.57	317.55	317.63	317.70	317.81	317.76	317.77	317.71	317.72	317.72

WATER YEAR 1967 : Max. 318.90 m. Min. 317.55 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.18	0.16	0.49	0.18	1.35	1.10	5.37	0.74	1.70	0.64	0.49	0.52
2	0.18	0.18	0.22	0.18	0.78	1.64	6.05	0.74	1.52	0.70	0.46	0.52
3	0.20	0.49	0.18	0.22	0.36	0.82	5.20	0.82	1.10	0.64	0.55	0.46
4	0.20	0.18	0.16	0.18	0.28	0.90	4.08	0.82	0.90	0.58	0.55	0.55
5	0.20	0.20	0.28	0.14	0.28	0.70	3.20	1.00	0.78	0.55	0.58	0.52
6	0.24	0.26	0.78	0.14	0.26	0.40	2.20	0.86	0.90	0.58	0.55	0.58
7	0.22	0.30	0.58	0.10	0.28	0.40	1.58	0.86	1.15	0.55	0.55	0.55
8	0.24	0.26	0.52	0.14	0.38	1.35	1.10	0.74	1.88	0.58	0.58	0.49
9	0.26	0.28	0.26	0.20	0.86	0.64	1.20	0.78	1.97	0.67	0.64	0.52
10	0.24	0.30	0.32	0.18	0.36	0.46	0.74	0.58	1.05	0.64	0.55	0.58
11	0.24	0.32	3.94	0.14	0.32	0.70	0.74	0.64	0.70	0.55	0.52	0.49
12	0.24	0.32	2.84	0.12	0.43	2.96	0.78	0.70	0.78	0.58	0.58	0.49
13	0.24	0.28	0.86	0.14	0.34	1.35	1.05	0.90	1.00	0.52	0.64	0.46
14	0.20	0.24	0.55	0.12	0.28	1.20	0.70	7.70	0.00	0.52	0.61	0.46
15	0.24	0.24	0.49	0.22	0.28	11	0.82	8.30	0.95	0.49	0.64	0.52
16	0.20	0.24	0.46	0.38	0.30	6.90	0.82	4.64	1.35	0.58	0.61	0.46
17	0.22	0.24	0.30	1.10	0.40	8.50	0.74	3.44	1.00	0.55	0.64	0.52
18	0.26	0.30	0.26	1.15	0.40	5.20	0.74	3.08	0.00	0.46	0.55	0.55
19	0.28	0.36	0.26	0.28	0.32	3.32	0.78	2.72	0.05	0.49	0.58	0.49
20	0.28	0.34	0.32	0.20	0.32	4.64	0.74	2.60	0.05	0.43	0.55	0.52
21	0.30	0.40	0.28	0.20	0.55	3.68	0.78	1.70	0.90	0.52	0.55	0.55
22	0.30	0.28	0.24	0.20	3.94	2.15	0.82	2.33	1.15	0.49	0.55	0.58
23	0.22	0.28	0.24	0.34	1.00	6.39	0.74	2.84	0.78	0.46	0.55	0.46
24	0.20	0.26	0.22	0.52	0.58	16	1.97	3.08	0.64	0.61	0.55	0.52
25	0.22	0.52	0.20	0.38	0.43	12	3.67	2.06	0.64	0.55	0.52	0.55
26	0.24	0.64	0.16	1.15	0.38	19	2.60	1.10	0.61	0.61	0.58	0.52
27	0.28	0.58	0.14	0.15	1.70	16	2.42	1.58	0.70	0.52	0.49	0.52
28	0.26	0.36	0.18	0.00	5.06	11	1.25	2.06	0.61	0.49	0.52	0.52
29	0.28	2.51	0.18	0.38	3.68	7.50	1.10	1.64	0.78	0.46	0.52	0.49
30	0.16	0.74	0.20	0.64	1.40	6.05	1.05	1.40	1.15	0.46	–	0.49
31	–	0.61	–	5.06	0.67	–	0.90	–	0.74	0.52	–	0.49
Total	7.02	12.75	16.11	16.53	27.97	153.95	55.98	62.45	31.53	16.99	16.25	15.94
Mean	0.23	0.41	0.54	0.53	0.90	5.13	1.80	2.08	1.02	0.55	0.56	0.51
Max.	0.30	2.51	3.94	5.06	5.06	19	6.05	8.30	1.97	0.70	0.64	0.58
Min.	0.16	0.16	0.14	0.10	0.26	0.40	0.74	0.58	0.61	0.43	0.46	0.46
Runoff – MCM.	0.606	1.102	1.392	1.428	2.417	13.301	4.837	5.396	2.724	1.468	1.404	1.377

WATER YEAR 1967 : Max. 19 Min. 0.10 Mean 1.18 Annual Runoff 37.452 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sep. 26	15.00	319.14	27				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
PING RIVER BASIN

Mae Khan Creek at Mae Khan Bridge, Chiang Mai (P.23)

Location: Lat 18° – 37' – 37" N, Long 98° – 51' – 42" E, on left bank at downstream side of Mae Khan Bridge, Amphoe San Pa Tong, Chiang Mai.

Drainage Area: 1,777 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: +285.62 m. (M.S.L.)

Bench Mark: B.M. – H.S./R.I.D. No.8

Location: On left bank near Mae Khan Bridge
Elevation: +291.767 m. (M.S.L.)

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: 1955 to date

Rating Operation:

Period of Rating: 1955 – 60
Rated by Float: –
Rated by Current Meter: 1955 – 60

Stability of Channel Regimes: Unstable, no shifting adjustment for flow computation for year without actual ratings.

Overbank Flow Conditions: No overbank flow.

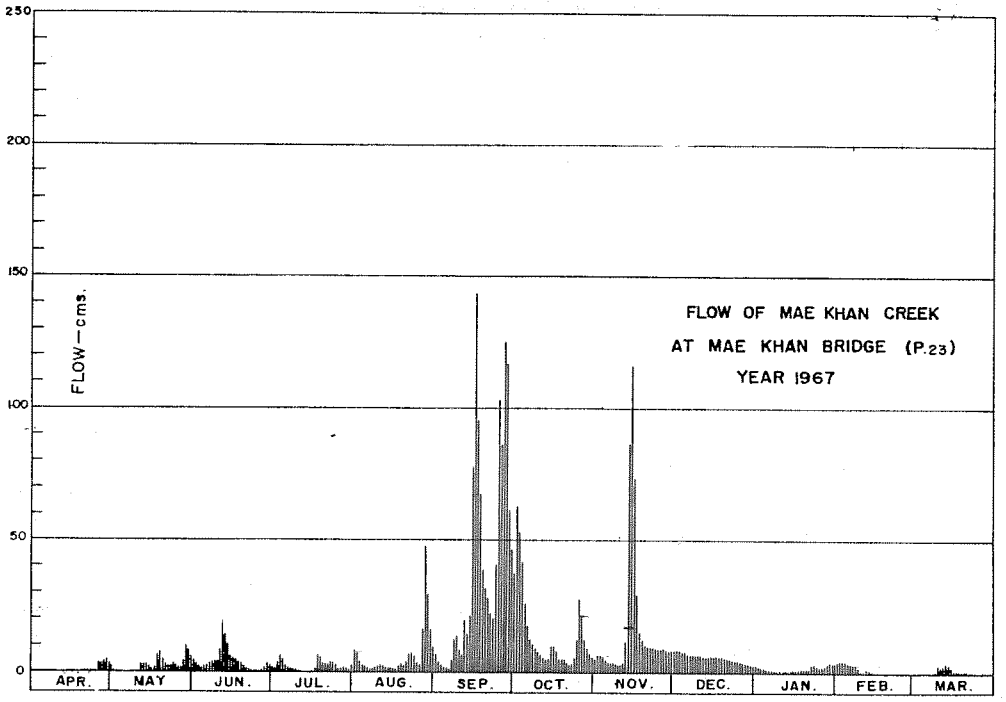
General Description: Records fair. Stage – discharge relationship used is defined by discharge measurements made during 1957 – 60. No upstream state diversions except those built by local residents. No adjustment made for virgin flow.

Remarks: No flow for periods of discharge record are omitted.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	286.25	286.63	286.85	286.67	287.03	286.94	287.66	286.90	287.03	286.78	286.86	286.39
2	.24	.39	.78	.69	.00	.83	288.12	.97	.05	.72	.87	.39
3	.24	.32	.71	.85	286.86	.79	287.98	.97	.05	.70	.87	.39
4	.25	.30	.66	.97	.77	.71	.76	.92	.02	.68	.87	.37
5	.24	.28	.77	.86	.73	.68	.45	.87	.00	.67	.80	.36
6	286.23	286.25	286.77	286.76	286.67	286.62	287.28	286.82	286.98	286.63	286.79	286.36
7	.22	.27	.82	.70	.60	.68	.16	.82	.98	.60	.82	.37
8	.20	.24	.84	.66	.65	287.19	.09	.84	.97	.60	.81	.43
9	.19	.24	.85	.62	.70	.20	.05	.80	.99	.58	.60	.55
10	.18	.26	.86	.57	.73	286.99	286.99	.78	.97	.57	.59	.72
11	286.17	286.55	287.03	286.53	286.78	286.92	286.96	286.79	286.97	286.60	286.62	286.68
12	.18	.80	.37	.49	.74	287.37	.91	.82	.96	.62	.67	.76
13	.19	.79	.22	.44	.67	.21	.90	.95	.94	.61	.62	.84
14	.20	.79	.07	.44	.64	.20	.90	288.43	.96	.59	.59	.76
15	.20	.69	286.94	.43	.68	288.25	287.10	.76	.95	.62	.52	.63
16	286.20	286.66	286.91	286.48	286.65	289.03	287.09	287.80	286.95	286.62	286.45	286.57
17	.21	.68	.88	.66	.63	288.37	286.97	.38	.96	.62	.42	.52
18	.22	.95	.85	.97	.78	.09	.89	.22	.95	.62	.41	.50
19	.21	287.00	.80	.97	.79	287.60	.90	.15	.94	.62	.42	.50
20	.20	286.90	.75	.82	.76	.63	.88	.09	.93	.62	.40	.48
21	286.20	286.82	286.66	286.79	286.86	287.51	286.79	287.09	286.92	286.62	286.38	286.47
22	.21	.73	.61	.75	.97	.38	.76	.07	.91	.80	.37	.44
23	.30	.73	.57	.86	287.00	.33	.78	.07	.90	.81	.36	.44
24	.45	.80	.57	.82	286.91	.75	.89	.07	.88	.74	.36	.44
25	.58	.76	.51	.73	.82	288.63	287.22	.05	.88	.72	.40	.37
26	286.82	286.69	286.49	286.62	286.77	288.29	287.53	287.02	286.87	286.72	286.40	286.37
27	.78	.69	.61	.65	.94	.85	.23	.07	.85	.77	.47	.36
28	.81	.86	.74	.73	287.89	.76	.10	.03	.81	.82	.46	.34
29	.89	287.09	.82	.69	.66	.09	.02	.03	.80	.85		.33
30	.79	.03	.78	.65	.30	287.81	286.97	.02	.79	.84		.32
31		286.92		.67	.10		.91		.78	.82		.34
Mean	286.34	286.65	286.80	286.69	286.87	287.56	287.13	287.13	286.93	286.68	286.58	286.48
Max.	286.89	287.09	287.37	286.97	287.89	289.03	288.12	288.76	287.05	286.85	286.87	286.84
Min.	286.17	286.24	286.49	286.43	286.60	286.62	286.90	286.78	286.78	286.59	286.36	286.32

WATER YEAR 1967 : Max. 289.03 m. Min. 286.17 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1		1.10	4.10	1.50	8.37	6.00	34.	5.00	8.37	2.36	4.28	0.00
2			2.92	1.70	7.50	3.74	63	6.75	8.95	2.08	4.46	0.00
3			1.94	4.10	4.28	3.06	54	6.75	8.95	1.80	4.46	0.00
4			1.40	6.75	2.78	1.94	40	5.50	8.08	1.60	4.46	0.00
5			2.78	4.28	2.22	1.60	23	4.46	7.50	1.50	3.20	0.00
6			2.78	2.64	1.50	1.00	16	3.56	7.00	1.10	3.06	0.00
7			3.56	1.80	0.80	1.60	12	3.56	7.00	0.80	3.56	0.00
8			3.92	1.40	1.30	13	10	3.92	6.75	0.80	3.38	0.06
9			4.10	1.00	1.80	14	8.95	3.20	6.75	0.74	0.80	0.50
10			4.28	0.62	2.22	7.25	7.25	2.92	6.75	0.68	0.74	2.08
11		0.50	8.37	0.38	2.92	5.50	6.50	3.06	6.75	0.80	0.90	1.60
12		3.20	20	0.18	2.36	20	5.25	3.56	6.50	1.00	1.50	2.64
13		3.06	14	0.08	1.50	14	5.00	6.25	6.00	0.90	1.00	3.92
14		3.06	9.53	0.08	1.20	14	5.00	87	6.50	0.74	0.74	2.64
15		1.70	6.00	0.06	1.60	73	10	116	6.25	1.00	0.32	1.10
16		1.40	5.25	0.16	1.30	143	10	42	6.25	1.00	0.10	0.62
17		1.60	4.64	1.40	1.10	82	6.75	20	6.50	0.00	0.04	0.32
18		6.25	4.10	6.75	2.92	61	4.82	14	6.25	0.00	0.01	0.20
19		7.50	3.20	6.75	3.06	31	5.00	12	6.00	0.00	0.04	0.20
20		5.00	2.50	3.56	2.64	32	4.64	10	5.75	0.00	0.00	0.16
21		3.56	1.40	3.06	4.28	26	3.06	10	5.50	1.00	0.00	0.14
22		2.22	0.90	2.50	6.75	20	2.64	9.53	5.25	3.20	0.00	0.08
23		2.22	0.62	4.28	7.50	18	2.92	9.53	5.00	3.38	0.00	0.08
24	0.10	3.20	0.44	3.56	5.25	39	4.82	9.53	4.64	2.36	0.00	0.08
25	0.68	2.64	0.26	2.22	3.56	103	14	8.95	4.64	2.08	0.00	0.00
26	3.56	1.70	0.18	1.00	2.78	76	27	8.08	4.46	2.08	0.00	0.00
27	2.92	1.70	0.90	1.30	6.00	125	15	9.53	4.10	2.78	0.14	0.00
28	3.20	4.28	2.36	2.22	48	116	10	8.37	3,38	3.56	0.12	0.00
29	4.82	10	3.56	1.70	34	61	8.08	8.37	3.20	4.10		0.00
30	3.06	8.37	2.92	1.30	17	43	6.75	8.08	3.06	3.92		0.00
31		5.50		1.50	10		5.25		2.92	3.56		0.00
Total	18.34	79.76	122.91	69.83	198.49	1,155.69	430.68	449.46	185.00	54.92	37.31	16.42
Mean	0.61	2.57	4.10	2.25	6.40	38.5	13.9	15.0	5.97	1.77	1.33	0.53
Max.	4.82	10	20	6.75	48	143	63	116	8.95	4.10	4.46	3.92
Min.	0.00	0.00	0.18	0.06	0.80	1.00	5.00	2.92	2.92	0.74	0.00	0.00
Runoff - mcm.	1.585	6.891	10.619	6.033	17.149	99.852	37.211	38.833	15.984	4.745	3.223	1.419

WATER YEAR 1967 : Max. 143 Min. 0.00 Mean 7.72 Annual Runoff 243.545 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sep. 16	06.00	289.12	152				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
PING RIVER BASIN

Mae Klang River at Mae Klang Bridge, Chiang Mai (P.24)

Location: Lat 18°- 23' - 15" N, Long 98°- 40' - 51" E, on left bank upstream of Mae Klang Bridge, Amphoe Chom Thong, Chiang Mai.

Drainage Area: 616 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: 0.00 m. (A.D.)

Bench Mark:

Location:
Elevation:

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: 1955 to date

Rating Operation:

Period of Rating: 1955 - 60, 1966 - 73
Rated by Float: -
Rated by Current Meter: 1955 - 60, 1966 - 73

Stability of Channel Regimes: Unstable, no shifting adjustment but periodic rating curve is used for flow computation.

Overbank Flow Conditions: No overbank flow.

General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions except those built by local residents. No adjustment made for virgin flow.

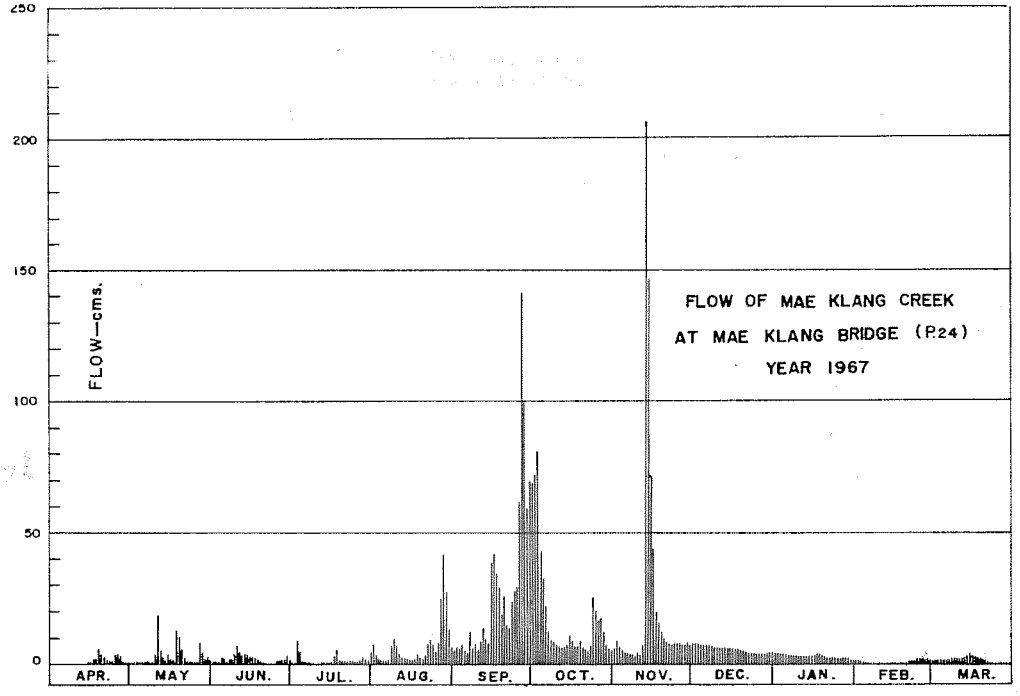
Remarks: Discharge record for period of no flow are omitted.

GAGE HEIGHT IN METER (A.D.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.51	0.53	0.63	0.62	0.96	0.84	1.90	0.88	0.67	0.52	0.39	0.38
2	.51	.53	.62	.60	.75	.90	.93	.98	.68	.52	.39	.38
3	.51	.53	.61	1.01	.69	.89	2.07	.90	.67	.51	.38	.39
4	.51	.53	.74	0.73	.66	.94	1.53	.86	.65	.50	.35	.39
5	.51	.53	.70	.61	.65	.82	.25	.82	.65	.49	.31	.38
6	0.51	0.52	0.62	0.59	0.65	0.82	1.10	0.82	0.65	0.48	0.31	0.36
7	.51	.52	.73	.57	.67	1.06	.03	.80	.65	.47	.30	.35
8	.51	.53	.66	.56	.93	0.87	0.98	.80	.63	.46	.31	.35
9	.51	.53	.80	.56	.99	.93	.95	.79	.62	.46	.30	.40
10	.51	.53	.92	.55	.91	.85	.92	.84	.62	.46	.30	.43
11	0.51	1.24	0.77	0.57	0.78	0.94	0.90	0.78	0.62	0.46	0.30	0.44
12	.52	0.80	.75	.57	.73	1.12	.90	.82	.61	.46	.30	.40
13	.52	.70	.79	.57	.72	0.96	.91	1.14	.61	.46	.31	.43
14	.52	.63	.76	.57	.71	.93	.93	3.68	.62	.46	.29	.47
15	.53	.78	.75	.58	.70	1.61	1.09	2.62	.61	.46	.29	.50
16	0.53	0.67	0.73	0.63	0.69	1.69	0.95	1.48	0.60	0.49	0.29	0.47
17	.54	.61	.72	.77	.71	.55	.90	.03	.60	.50	.29	.48
18	.54	1.10	.65	.86	.78	.55	.89	0.89	.59	.52	.30	.44
19	.89	.02	.58	.66	.72	.16	.95	.82	.59	.45	.31	.40
20	.59	0.83	.58	.63	.71	.40	.86	.74	.57	.43	.30	.37
21	0.75	0.75	0.58	0.62	0.78	1.13	0.88	0.69	0.55	0.42	0.31	0.33
22	.63	.65	.59	.65	.94	.04	.81	.67	.53	.42	.38	.30
23	.62	.65	.59	.64	1.00	.32	.83	.66	.52	.44	.37	.29
24	.62	.65	.60	.63	0.89	.43	1.39	.68	.51	.43	.37	.28
25	.80	.65	.66	.62	.81	.39	.24	.67	.51	.42	.40	.28
26	0.80	0.65	0.69	0.63	0.80	2.02	1.18	0.67	0.51	0.42	0.41	0.28
27	.73	.95	.69	.68	1.33	.99	.22	.66	.51	.42	.40	.27
28	.59	.76	.64	.73	.68	1.96	0.98	.65	.50	.42	.39	.26
29	.58	.68	.79	.70	.43	.94	.91	.69	.52	.41	.40	.25
30	.55	.72	.64	.68	.04	2.11	.88	.66	.52	.39		.24
31		.66		.71	0.91		.87		.52	.39		.26
Mean	0.58	0.70	0.69	0.65	0.85	1.30	1.10	0.97	0.58	0.46	0.34	0.36
Max.	0.89	1.24	0.92	1.01	1.68	2.99	2.07	3.68	0.68	0.52	0.41	0.50
Min.	0.51	0.52	0.58	0.55	0.64	0.82	0.81	0.65	0.50	0.39	0.29	0.24

WATER YEAR 1967 : Max. 3.68 m. Min. 0.24 m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1		0.09	1.12	1.00	8.45	5.00	69	6.00	7.92	4.40	1.87	1.75
2		0.09	1.00	0.75	3,00	6.50	71	9.10	8.20	4.40	1.87	1.75
3		0.09	0.87	10	1.87	6.25	81	6.50	7.92	4.20	1.75	1.87
4		0.09	2.80	2.60	1.50	7.80	47	5.50	7.37	4.00	1.37	1.87
5		0.09	2.00	0.87	1.37	4.50	31	4.50	7.37	3.80	0.87	1.75
6		0.00	1.00	0.66	1.25	4.50	24	4.50	7.37	3.60	0.87	1.50
7		0.00	2.60	0.47	1.62	12	11	4.00	7.37	3.40	0.75	1.37
8		0.09	1.50	0.37	7.47	5.75	9.10	4.00	6.82	3.20	0.87	1.37
9		0.09	4.00	0.37	9.42	7.47	8.12	3.80	6.55	3.20	0.75	2.00
10		0.09	7.15	0.28	6.82	5.25	7.15	5.00	6.55	3.20	0.75	2.60
11		19	3.40	0.47	3.60	7.80	6.50	3.60	6.55	3.20	0.75	2.80
12		4.00	3.00	0.47	2.60	14	6.50	4.25	6.27	3.20	0.75	2.00
13		2.00	3.80	0.47	2.40	8.45	6.82	15	6.27	3.20	0.87	2.60
14		1.12	3.20	0.47	2.20	7.47	7.47	206	6.55	3.20	0.67	3.40
15	0.09	3.60	3.00	0.56	2.00	38	13	122	6.27	3.20	0.67	4.00
16	0.09	1.62	2.60	1.12	1.87	42	8.12	44	6.00	3.80	0.67	3.40
17	0.19	0.87	2.40	3.40	2.20	34	6.50	21	6.00	4.00	0.67	3.60
18	0.19	13	1.37	5.50	3.60	34	6.25	16	5.80	4.40	0.75	2.80
19	6.25	10	0.56	1.50	2.40	16	8.12	13	5,80	3.00	0.87	2.00
20	0.66	4.75	0.56	1.12	2.20	26	5.50	10	5.40	2.60	0.75	1.62
21	3.00	3.00	0.56	1.00	3.60	14	6.00	8.47	5.00	2.40	0.87	1.12
22	1.12	1.37	0.66	1.37	7,80	11	4.25	7.92	4.60	2.40	1.75	0.75
23	1.00	1.37	0.66	1.25	9.75	23	4.75	7.65	4.40	2.80	1.62	0.67
24	1.00	1.37	0.75	1.12	6.25	28	26	8.20	4.20	2.60	1.62	0.60
25	4.00	1:37	1.50	1.00	4.24	26	19	7.92	4.20	2.40	2.00	0.60
26	4.00	1.37	1.87	1.12	4.00	64	16	7.92	4.20	2.40	2.20	0.60
27	2.60	8.12	1.87	1.75	23	141	18	7.65	4.20	2.40	2.20	0.52
28	0.66	3.20	1.25	2.60	42	60	9.10	7.37	4.00	2.40	1.87	0.45
29	0.56	1.75	3.80	2.00	28	58	6.82	8.47	4.40	2.20	2.00	0.37
30	0.28	2.40	1.25	1.75	11	70	6.00	7.65	4.40	1.87		0.30
31		1.50		2.20	6.82		5.75		4.40	1.87		0.45
Total	25.698	87.53	62.10	49.61	214.31	787.74	554.82	586.97	182.35	96.94	35.07	52.48
Mean	0.86	2.82	2.07	1.60	6.91	26.2	17.9	19.5	5.88	3.13	1.21	1.69
Max.	6.25	19	7.15	10	42	141	81	206	8.20	4.40	2.20	4.00
Min.	0.00	0.00	0.56	0.28	1.25	4.50	4.25	3.60	4.00	1.87	0.67	0.30
Runoff – MCM.	2.220	7.563	5.365	4.286	18.516	68.061	47.936	50.714	15.755	8.376	3.030	4.534

WATER YEAR 1967 : Max. 206 Min. 0.00 Mean 7.47 Annual Runoff 236.357 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Nov. 14	12.00	3.85	223				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
PING RIVER BASIN

Mae Kuang River at Ban Pha Taek, Chiang Mai (P.25)

Location: Lat 18°– 55' – 04" N, Long 99°– 07' – 50" E, on left bank at upstream side of Pha Taek Weir at Mae Kuang Irrigation Project, Amphoe Doi Saket, Chiang Mai.

Drainage Area: 572 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: +336.00 m. (M.S.L.)

Bench Mark: B.M. = H. S.

Location: At pier of Mae Kuang Regulator.
Elevation: +339.00 m. (M.S.L.)

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 – 68

Rating Operation:

Period of Rating: 1964 – 66
Rated by Float: –
Rated by Current Meter: 1964 – 66

Stability of Channel Regimes: Stable, using weir crest as a control section. No shifting adjustment for flow computation.

Overbank Flow Conditions: No overbank flow.

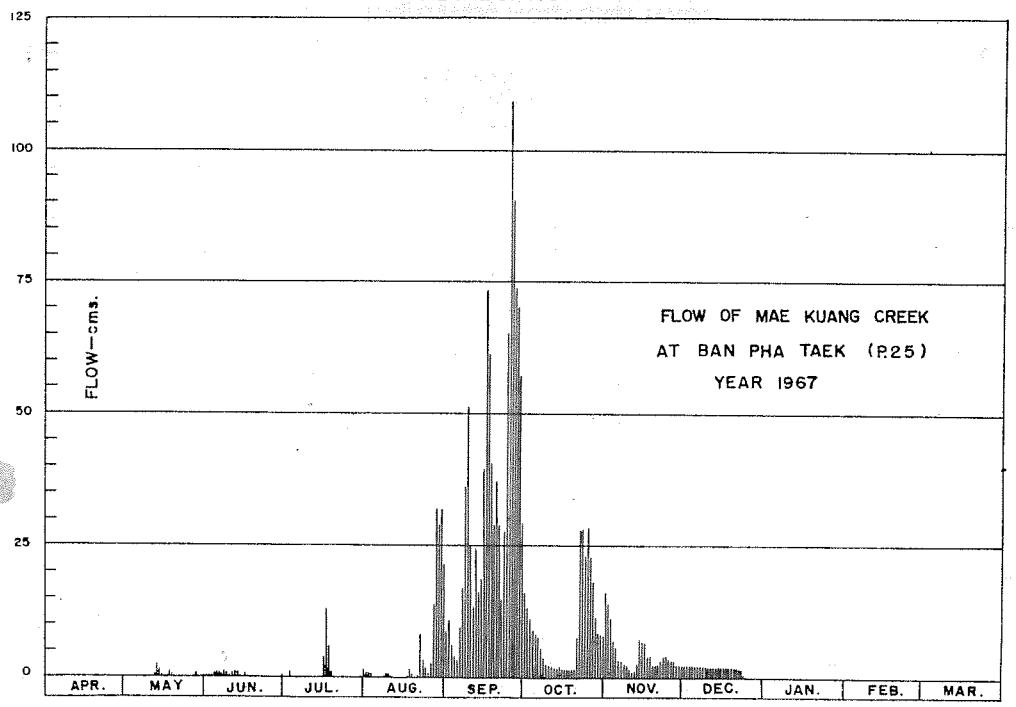
General Description: Records fair. Stage – discharge relationship used is defined by discharge measurements made during 1966 on Pha Taek Weir Crest. Upstream diversions for irrigation of about 9,600 hectares. The present record included also diversions.

Remarks: Discharge record for period of no flow are omitted. No gage height record for period Mar. 19 – 31.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	336.43	336.43	336.71	336.79	337.07	337.16	337.23	337.24	337.09	336.76	336.55	336.47
2	.47	.45	.58	.65	.04	.20	.22	.22	.09	.72	.55	.47
3	.47	.43	.58	337.04	.03	.14	.20	.20	.09	.72	.58	.44
4	.46	.43	337.03	336.81	336.88	.12	.18	.14	.09	.71	.57	.44
5	.46	.40	.04	.56	.78	.10	.17	.14	.09	.71	.54	.44
6	336.43	336.40	337.04	336.49	336.72	337.18	337.16	337.11	337.09	336.72	336.53	336.45
7	.43	.40	.02	.51	.71	.23	.14	.11	.09	.66	.53	.45
8	.43	.41	.04	.63	.79	.36	.10	.09	.09	.67	.52	.56
9	.43	.43	.03	.59	337.02	.41	.10	.09	.09	.67	.52	.55
10	.43	.46	336.79	.67	.03	.24	.09	.05	.08	.65	.52	.71
11	336.42	336.56	337.03	336.68	336.97	337.19	337.09	337.03	337.08	336.65	336.52	336.66
12	.42	.89	.04	.59	.83	.30	.07	.03	.08	.63	.52	.52
13	.43	337.10	.04	.60	.76	.23	.06	.09	.08	.64	.53	.46
14	.40	.05	336.93	.53	.73	.26	.08	.16	.08	.65	.52	.44
15	.40	336.91	.86	.78	.72	.36	.06	.15	.08	.63	.51	.46
16	336.39	336.90	337.03	336.97	336.73	337.48	337.06	337.15	337.08	336.62	336.51	336.45
17	.39	.84	336.94	337.22	.92	.40	.06	.12	.08	.62	.60	.39
18	.39	337.04	.81	.08	337.06	.32	.05	.12	.08	.62	.61	.38
19	.85	.03	.68	.04	336.99	.31	.05	.09	.08	.63	.60	
20	.58	336.94	.63	336.93	.94	.35	.06	.09	.07	.62	.63	
21	336.60	336.77	336.61	336.82	336.93	337.30	337.06	337.10	337.07	336.60	336.50	
22	.70	.68	.56	.81	337.17	.21	.31	.11	.07	.59	.47	
23	.67	.67	.53	.78	.11	.32	.31	.12	.08	.58	.47	
24	.64	.61	.51	.83	.07	.49	.27	.12	336.99	.58	.46	
25	.61	.59	.48	.75	.01	.58	.32	.11	.88	.58	.45	
26	336.50	336.57	336.47	336.76	337.09	337.50	337.27	337.11	336.84	336.58	336.48	
27	.50	337.00	.49	.97	.16	.47	.25	.11	.83	.57	.50	
28	.48	.03	.57	.96	.33	.47	.20	.10	.81	.57	.49	
29	.45	.00	.70	.76	.31	.38	.17	.09	.81	.57	.47	
30	.44	.00	337.01	.74	.33	.26	.17	.09	.79	.57		
31		.02		337.01	.23		.16		.78	.56		
Mean	336.49	336.72	336.79	336.78	336.98	337.31	337.14	337.17	337.02	336.63	336.53	
Max.	336.85	337.10	337.04	337.22	337.33	337.58	337.32	337.24	337.09	336.76	336.63	
Min.	336.39	336.40	336.47	336.49	336.71	337.10	337.05	337.03	336.78	336.56	336.45	

WATER YEAR 1967 : Max. 337.58 m. Min. 336.39 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1				0.00	1.75	7.36	15	16	2.25			
2				0.00	1.00	11	13	13	2.25			
3				1.00	0.75	5.74	11	11	2.25			
4			0.75			4.12	9.98	5.74	2.25			
5			1.00			2.50	8.17	5.74	2.25			
6			1.00			8.98	7.36	3.31	2.25			
7			0.50			15.	5.74	3.31	2.25			
8			1.00			39	2.50	2.25	2.25			
9			0.75		0.50	51	2.50	2.25	2.25			
10			0.00		0.75	16	2.25	1.25	2.00			
11			0.75			9.79	2.25	0.75	2.00			
12			1.00			25	1.75	0.75	2.00			
13		2.50	0.00			15	1.50	2.25	2.00			
14		1.25	0.00			19	2.00	7.36	2.00			
15			0.00			39	1.50	6.55	2.00			
16			0.75			73	1.50	6.55	2.00			
17				13		48	1.50	4.12	2.00			
18		1.00		2.00	1.50	30	1.25	4.12	2.00			
19		0.75		1.00	0.00	28	1.25	2.25	2.00			
20					0.00	37	1.50	2.25	1.75			
21					0.00	25	1.50	2.50	1.75			
22					8.17	12	28	3.31	1.75			
23					3.31	30	28	4.12	1.25			
24					1.75	76	21	4.12				
25					0.25	109	30	3.31				
26					2.25	79	21	3.31				
27					7.36	70	18	3.31				
28		0.75			32	70	11	2.50				
29		0.00			28	44	8.17	2.25				
30		0.00	0.25		32	19	8.17	2.25				
31		0.50		0.25	15		7.36					
Total	0.000	6.75	8.75	17.25	136.34	1,018.49	274.70	131.78	46.75	0.000	0.000	0.000
Mean	0.000	0.218	0.291	0.556	4.40	33.9	8.86	11.06	1.508	0.000	0.000	0.000
Max.	0.000	2.50	1.00	13	32	109	30	16	2.25	0.000	0.000	0.000
Min.	0.000	0.00	0.00	0.00	0.00	2.50	1.25	0.75	0.00	0.000	0.000	0.000
Runoff - MCM.	0.000	0.583	0.756	1.490	11.780	87.997	23.734	11.386	4.039	0.000	0.000	0.000

WATER YEAR 1967 : Max. 109 Min. 0.00 Mean 5.06 Annual Runoff 141.766 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sep. 25	9.00	337.68	156				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
PING RIVER BASIN

Khlong Suan Mak at Ban Mai, Kamphaeng Phet (P.26)

Location: Lat 16°- 26' - 54" N, Long 99°- 25' - 57" E, on right bank about 200 meters downstream from Tha Kra Dan Weir and about 15 kilometers upstream from confluence with Mae Ping River at Ban Mai, Amphoe Muang, Kamphaeng Phet.

Drainage Area: 968 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: 0.00 m. (A.D.)

Bench Mark: B.M. - P.26

Location: At about 10 meters east of station office of P.26
Elevation: + 6.965 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: 1964 to date.

Rating Operation:

Period of Rating: 1964
Rated by Float: -
Rated by Current Meter: 1964

Stability of Channel Regimes: Stable, no shifting adjustment is included for flow computation.

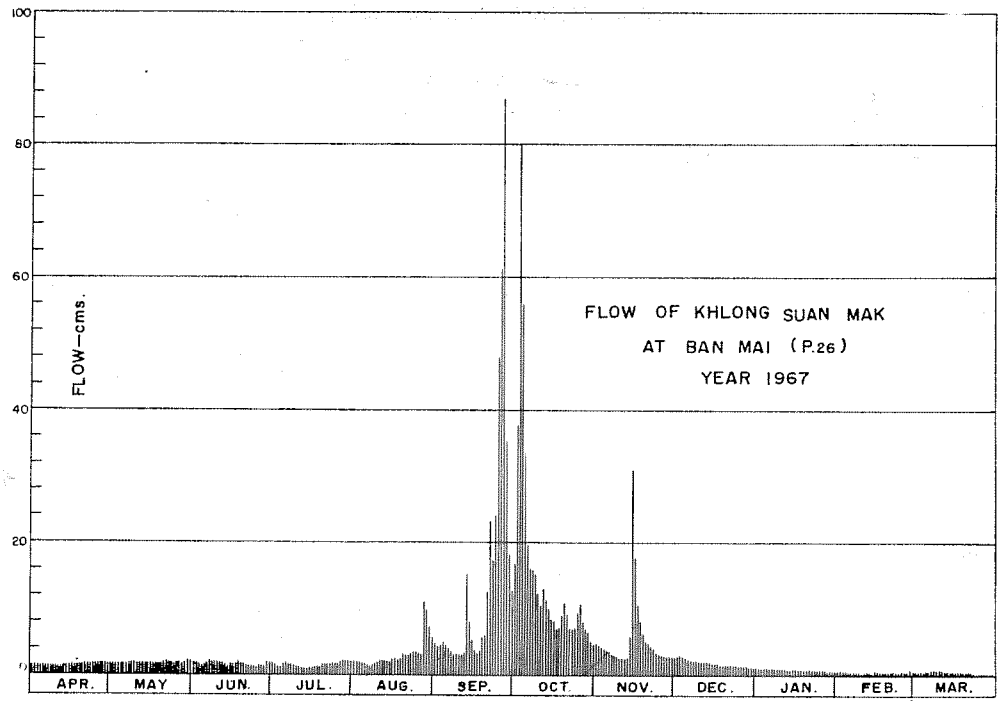
Overbank Flow Conditions: No overbank flow.

General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions except those built by local residents. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (A.D.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.02	0.05	0.07	0.06	0.08	0.24	0.48	0.24	0.13	0.01	-0.06	-0.08
2	.02	.04	.05	.04	.07	.22	.85	.23	.15	.01	-0.06	-0.08
3	.02	.04	.03	.01	.07	.24	1.68	.21	.15	.01	-0.06	-0.09
4	.02	.04	.02	.01	.06	.26	.30	.20	.13	.01	-0.07	-0.10
5	.02	.04	.05	.04	.05	.23	0.96	.19	.12	.00	-0.07	-0.06
6	0.02	0.05	0.07	0.07	0.03	0.20	0.73	0.18	0.11	0.00	-0.08	-0.06
7	.03	.05	.10	.05	.02	.17	.65	.16	.10	.00	-0.08	-0.03
8	.03	.06	.07	.04	.03	.15	.64	.15	.09	.00	-0.08	-0.03
9	.03	.06	.07	.03	.06	.15	.60	.13	.09	-0.01	-0.09	-0.04
10	.03	.06	.07	.02	.07	.15	.50	.12	.09	-0.01	-0.09	-0.05
11	0.03	0.06	0.03	0.01	0.09	0.14	0.40	0.12	0.08	-0.01	-0.09	-0.06
12	.03	.06	.04	-0.02	.10	.14	.56	.11	.08	-0.01	-0.09	-0.07
13	.03	.06	.03	-0.02	.08	.60	.50	.12	.08	-0.02	-0.09	-0.08
14	.03	.05	.03	-0.03	.08	.34	.47	.17	.08	-0.02	-0.08	-0.07
15	.03	.05	.05	-0.02	.08	.24	.40	.96	.07	-0.02	-0.06	-0.06
16	0.03	0.04	0.04	-0.02	0.11	0.19	0.39	0.55	0.06	-0.02	-0.06	-0.07
17	.03	.04	.04	-0.01	.11	.15	.35	.42	.06	-0.02	-0.07	-0.08
18	.03	.05	.07	0.01	.10	.19	.35	.35	.05	-0.03	-0.07	-0.09
19	.03	.05	.06	.02	.12	.29	.42	.29	.05	-0.03	-0.08	-0.09
20	.04	.05	.05	.05	.15	.29	.49	.26	.05	-0.03	-0.08	-0.09
21	0.04	0.07	0.03	0.05	0.15	0.58	0.42	0.24	0.05	-0.03	-0.07	-0.10
22	.04	.08	.02	.05	.15	.81	.35	.21	.05	-0.04	-0.07	-0.11
23	.04	.07	.01	.05	.16	.59	.34	.19	.04	-0.04	-0.07	-0.12
24	.06	.06	.01	.06	.18	.85	.32	.17	.04	-0.04	-0.07	-0.12
25	.06	.06	-0.01	.05	.17	1.26	.43	.15	.03	-0.04	-0.07	-0.12
26	0.06	0.06	0.02	0.05	0.15	1.50	0.50	0.15	0.03	-0.05	-0.07	-0.12
27	.06	.06	.01	.07	.15	.77	.36	.14	.03	-0.05	-0.06	-0.13
28	.06	.05	.01	.09	.50	.02	.34	.13	.03	-0.06	-0.05	-0.14
29	.05	.07	.07	.09	.42	0.73	.30	.13	.02	-0.06	-0.08	-0.14
30	.05	.10	.05	.09	.33	.58	.22	.13	.01	-0.06		-0.14
31		.09		.08	.27		.23		.01	-0.06		-0.15
Mean	0.04	0.06	0.04	0.03	0.13	0.47	0.53	0.23	0.07	-0.02	-0.07	-0.09
Max.	0.06	0.10	0.10	0.09	0.50	1.77	1.68	0.96	0.15	0.01	-0.05	-0.03
Min.	0.02	0.04	-0.01	-0.03	0.02	0.14	0.22	0.11	0.01	-0.06	-0.09	-0.15

WATER YEAR 1967 : Max. 1.77 m. Min. - 0.15 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	1.43	1.77	2.00	1.89	2.12	4.70	11	4.70	2.81	1.31	0.75	0.60
2	1.43	1.66	1.77	1.66	2.00	4.30	25	4.50	3.12	1.31	0.75	0.60
3	1.43	1.66	1.54	1.31	2.00	4.70	80	4.10	3.12	1.31	0.75	0.52
4	1.43	1.66	1.43	1.31	1.89	5.10	51	3.90	2.81	1.31	0.67	0.45
5	1.43	1.66	1.77	1.66	1.77	4.50	31	3.74	2.66	1.20	0.67	0.75
6	1.43	1.77	2.00	2.00	1.54	3.90	20	3.59	2.50	1.20	0.60	0.75
7	1.54	1.77	2.35	1.77	1.43	3.43	16	3.28	2.35	1.20	0.60	0.97
8	1.54	1.89	2.00	1.66	1.54	3.12	16	3.12	2.23	1.20	0.60	0.97
9	1.54	1.89	2.00	1.54	1.89	3.12	15	2.81	2.23	1.12	0.52	0.90
10	1.54	1.89	2.00	1.43	2.00	3.12	11	2.66	2.23	1.12	0.52	0.82
11	1.54	1.89	1.89	1.31	2.23	2.97	10	2.66	2.12	1.12	0.52	0.75
12	*1.54	1.89	1.66	1.05	2.35	2.97	13	2.50	2.12	1.12	0.52	0.67
13	1.54	1.89	1.54	1.05	2.12	15	11	2.66	2.12	1.05	0.52	0.60
14	1.54	1.77	1.54	0.97	2.12	6.90	10	3.43	2.12	1.05	0.60	0.67
15	1.54	1.77	1.77	1.05	2.12	4.70	8.40	31	2.00	1.05	0.75	0.75
16	1.54	1.66	1.66	1.05	2.50	3.74	8.15	13	1.89	1.05	0.75	0.67
17	1.54	1.66	1.66	1.12	2.50	3.12	7.15	8.98	1.89	1.05	0.67	0.60
18	1.54	1.77	2.00	1.31	2.35	3.74	7.15	7.15	1.77	0.97	0.69	0.52
19	1.54	1.77	1.89	1.43	2.66	5.70	8.95	5.70	1.77	0.97	0.60	0.52
20	1.66	1.77	1.77	1.77	3.12	5.70	11	5.10	1.77	0.97	0.60	0.52
21	1.66	2.00	1.54	1.77	3.12	14	8.98	4.70	1.77	0.97	0.67	0.45
22	1.66	2.12	1.43	1.77	3.12	23	7.15	4.10	1.77	0.90	0.67	0.40
23	1.66	2.00	1.31	1.77	3.28	14	6.90	3.74	1.66	0.90	0.67	0.36
24	1.89	1.89	1.31	1.89	3.59	25	6.40	3.43	1.66	0.90	0.67	0.36
25	1.89	1.89	1.12	1.77	3.43	49	9.27	3.12	1.54	0.90	0.67	0.36
26	1.89	1.89	1.43	1.77	3.12	66	11	3.12	1.54	0.82	0.67	0.36
27	1.89	1.89	1.31	2.00	3.12	87	7.40	2.97	1.54	0.82	0.75	0.31
28	1.89	1.77	1.31	2.23	11	34	6.90	2.81	1.54	0.75	0.82	0.27
29	1.77	2.00	2.00	2.23	8.98	20	5.90	2.81	1.43	0.75	0.60	0.27
30	1.77	2.35	1.77	2.23	6.65	14	4.30	2.81	1.31	0.75		0.27
31		2.23		2.12	5.30		4.50		1.31	0.75		0.22
Total	48.23	57.49	50.77	49.89	96.96	440.53	449.53	152.19	62.70	31.89	18.82	17.23
Mean	1.61	1.85	1.69	1.61	3.13	14.7	14.5	5.07	2.02	1.03	0.65	0.55
Max.	1.89	2.35	2.35	2.23	11	87	80	31	3.12	1.31	0.82	0.97
Min.	1.43	1.66	1.12	0.97	1.43	2.97	4.30	2.50	1.31	0.75	0.52	0.22
Runoff - mcm.	4.167	4.967	4.386	4.310	8.377	38.062	38.839	13.149	5.417	2.755	1.626	1.489

WATER YEAR 1967 : Max. 87 Min. 0.22 Mean 403 Annual Runoff 127.546 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sep. 27	06.00	1.98	107				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
PING RIVER BASIN

Huai Mae Nai at Ban Pa Muang, Chiang Mai (P.27)

Location: Lat 18° - 54' - 23" N, Long 98° - 54' - 59" E, on left bank near Wat Amphawan, Amphoe Mae Rim, Chiang Mai.

Drainage Area: 24 sq.km.

Type of Gage: Water - stage recorder.

Zero Gage at Bottom at: 0.00 m. (A.D.)

Bench Mark: B.M. - H.S./R.I.D.

Location Infront of the office of station P.27
Elevation: + 4.45 m. (A.D.)

Gage Reading Frequency: Recording.

Basis of Mean Daily Gage Height: Arithmetic mean of 24 readings.

Period of Available Gage Records: 1965 - 70

Rating Operation:

Period of Rating: 1965 - 70
Rated by Float: -
Rated by Current Meter: 1965 - 70

Stability of Channel Regimes: Stable, no shifting adjustmert for flow computation.

Overbank Flow Conditions: No overbank flow.

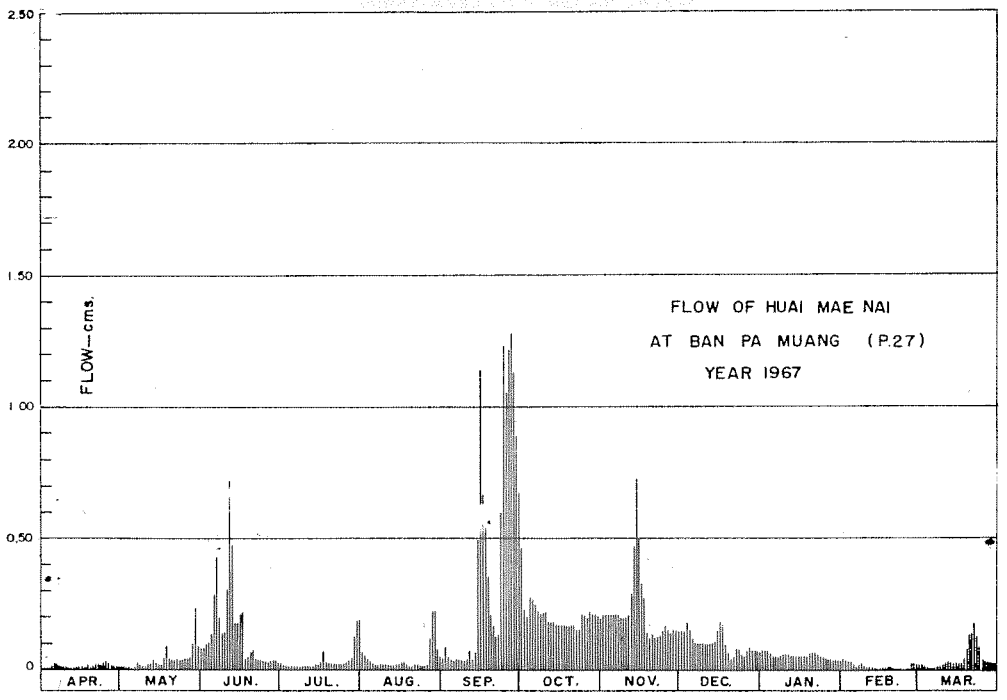
General Description: Record fair. Stage - discharge relationship used is defined by discharge measurements made during 1967. Flow regulated by a series of small diversion dam built by local residents. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (A.D.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.18	0.20	0.33	0.23	0.33	0.25	0.41	0.22	0.29	0.25	0.21	0.14
2	.18	.20	.36	.21	.30	.31	.33	.22	.28	.25	.18	.16
3	.18	.19	.38	.20	.28	.25	.30	.22	.30	.25	.18	.12
4	.18	.18	.37	.20	.26	.24	.26	.22	.31	.24	.18	.11
5	.23	.18	.47	.20	.24	.23	.26	.22	.31	.22	.15	.10
6	0.24	0.18	0.56	0.20	0.22	0.24	0.25	0.22	0.30	0.22	0.12	0.10
7	.21	.25	.47	.20	.22	.24	.23	.22	.29	.21	.14	.10
8	.20	.22	.40	.20	.23	.23	.22	.21	.29	.22	.16	.10
9	.20	.20	.41	.21	.23	.22	.22	.21	.29	.23	.15	.12
10	.20	.20	.40	.21	.22	.22	.23	.21	.29	.23	.11	.15
11	0.18	0.24	0.66	0.21	0.22	0.29	0.20	0.22	0.29	0.23	0.11	0.16
12	.18	.22	.56	.21	.22	.24	.20	.26	.29	.22	.11	.18
13	.18	.28	.43	.21	.22	.24	.20	.31	.29	.27	.11	.16
14	.18	.25	.42	.23	.22	.34	.19	.43	.30	.22	.10	.15
15	.20	.21	.45	.21	.23	.64	.19	.33	.33	.22	.10	.17
16	0.19	0.20	0.36	0.24	0.23	0.47	0.19	0.28	0.35	0.22	0.11	0.16
17	.19	.28	.28	.33	.25	.47	.19	.26	.34	.22	.11	.15
18	.23	.36	.29	.26	.21	.39	.19	.27	.28	.22	.11	.21
19	.21	.29	.32	.22	.20	.31	.19	.27	.24	.24	.12	.24
20	.20	.27	.34	.22	.20	.29	.19	.28	.20	.24	.11	.34
21	0.22	0.27	0.28	0.22	0.22	0.26	0.19	0.27	0.21	0.24	0.09	0.34
22	.23	.28	.27	.22	.22	.25	.18	.27	.26	.23	.09	.35
23	.22	.28	.27	.23	.21	.42	.18	.27	.26	.22	.09	.31
24	.24	.27	.27	.23	.21	.66	.22	.29	.22	.22	.07	.28
25	.26	.29	.26	.24	.21	.60	.22	.30	.21	.21	.08	.20
26	0.26	0.29	0.25	0.24	0.21	0.68	0.21	0.29	0.25	0.20	0.09	0.18
27	.23	.29	.26	.27	.38	.67	.23	.28	.27	.20	.17	.16
28	.22	.33	.28	.26	.42	.63	.22	.29	.25	.20	.17	.16
29	.20	.47	.26	.37	.42	.57	.22	.29	.25	.20	.15	.16
30	.20	.34	.25	.43	.29	.50	.22	.28	.25	.20		.16
31		.35		.44	.24		.21		.24	.19		.16
Mean	0.21	0.26	0.36	0.24	0.25	0.38	0.22	0.26	0.53	0.22	0.13	0.18
Max.	0.26	0.47	0.66	0.44	0.42	0.67	0.41	0.43	0.35	0.25	0.21	0.35
Min.	0.18	0.18	0.25	0.20	0.20	0.22	0.18	0.21	0.20	0.19	0.07	0.10

WATER YEAR 1967 : Max. 0.67 m. Min. 0.07 m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.005	0.011	0.071	0.021	0.071	0.044	0.384	0.207	0.149	0.071	0.044	0.018
2	0.005	0.011	0.092	0.015	0.051	0.085	0.221	0.207	0.135	0.071	0.031	0.024
3	0.005	0.008	0.106	0.011	0.037	0.044	0.178	0.207	0.164	0.071	0.031	0.011
4	0.005	0.005	0.099	0.011	0.031	0.037	0.272	0.207	0.178	0.063	0.031	0.008
5	0.021	0.005	0.236	0.011	0.024	0.034	0.272	0.207	0.120	0.051	0.021	0.005
6	0.024	0.005	0.428	0.011	0.018	0.037	0.250	0.207	0.106	0.051	0.011	0.005
7	0.015	0.027	0.236	0.011	0.018	0.037	0.221	0.207	0.099	0.044	0.018	0.005
8	0.011	0.018	0.135	0.011	0.021	0.034	0.207	0.192	0.099	0.051	0.024	0.005
9	0.011	0.011	0.149	0.015	0.021	0.031	0.207	0.192	0.099	0.058	0.021	0.011
10	0.011	0.011	0.135	0.015	0.018	0.031	0.221	0.192	0.099	0.058	0.008	0.021
11	0.005	0.024	0.719	0.015	0.018	0.071	0.178	0.207	0.099	0.058	0.008	0.024
12	0.005	0.018	0.428	0.015	0.018	0.037	0.178	0.273	0.099	0.051	0.008	0.031
13	0.005	0.037	0.178	0.015	0.018	0.037	0.178	0.384	0.099	0.051	0.008	0.024
14	0.005	0.027	0.164	0.021	0.018	0.164	0.164	0.719	0.106	0.051	0.005	0.021
15	0.011	0.021	0.207	0.015	0.021	1.135	0.164	0.428	0.149	0.051	0.005	0.027
16	0.008	0.011	0.221	0.024	0.021	0.534	0.164	0.317	0.178	0.051	0.008	0.024
17	0.008	0.037	0.037	0.071	0.027	0.534	0.164	0.272	0.164	0.051	0.008	0.021
18	0.021	0.092	0.044	0.031	0.015	0.339	0.164	0.120	0.092	0.051	0.008	0.044
19	0.015	0.044	0.065	0.018	0.011	0.192	0.164	0.120	0.065	0.065	0.011	0.065
20	0.011	0.034	0.078	0.018	0.011	0.164	0.164	0.135	0.037	0.065	0.008	0.135
21	0.018	0.034	0.037	0.018	0.018	0.120	0.164	0.120	0.044	0.065	0.004	0.135
22	0.021	0.037	0.034	0.018	0.018	0.106	0.149	0.120	0.078	0.058	0.004	0.178
23	0.018	0.037	0.034	0.021	0.015	0.406	0.149	0.120	0.078	0.051	0.004	0.120
24	0.024	0.034	0.034	0.021	0.015	1.220	0.207	0.149	0.051	0.051	0.001	0.092
25	0.031	0.044	0.031	0.024	0.015	0.977	0.207	0.164	0.044	0.044	0.002	0.037
26	0.031	0.044	0.027	0.024	0.015	1.22	0.192	0.149	0.071	0.037	0.004	0.031
27	0.021	0.044	0.031	0.034	0.106	1.27	0.221	0.135	0.085	0.037	0.027	0.024
28	0.018	0.071	0.037	0.031	0.221	1.10	0.207	0.149	0.071	0.037	0.027	0.024
29	0.011	0.236	0.031	0.099	0.221	0.859	0.207	0.149	0.071	0.037	0.021	0.024
30	0.011	0.078	0.027	0.178	0.071	0.626	0.207	0.135	0.071	0.037		0.024
31		0.085		0.192	0.037		0.192		0.065	0.034		0.024
Total	0.411	1.201	4.151	1.035	1.240	11.525	6.212	6.390	3.065	1.624	0.411	1.242
Mean	0.014	0.039	0.138	0.033	0.040	0.384	0.200	0.213	0.099	0.052	0.014	0.040
Max.	0.031	0.236	0.719	0.192	0.221	1.27	0.384	0.719	0.178	0.071	0.044	0.178
Min.	0.005	0.005	0.027	0.011	0.011	0.031	0.149	0.120	0.037	0.034	0.001	0.005
Runoff - MCM.	0.035	0.104	0.359	0.089	0.107	0.995	0.537	0.552	0.264	0.140	0.035	0.107

WATER YEAR 1967 : Max. 1.27 Min. 0.001 Mean 0.105 Annual Runoff 3.327 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Jul. 29	17.00	1.10	3.20				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
PING RIVER BASIN

Huai Mae Nai at Ban Mae Nai, Chiang Mai (P.27A)

Location: Lat 18°- 53' - 18" N, Long 98°- 55' - 00" E, on left bank of Huai Mae Nai, Amphoe Mae Rim, Chiang Mai.

Drainage Area: 18 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: 0.00 m. (A.D.)

Bench Mark: B.M. P.27A

Location: Near staff gage site.
Elevation: + 3.263 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: 1967 to date.

Rating Operation:

Period of Rating: 1967 to date
Rated by Float: -
Rated by Current Meter: 1967 to date

Stability of Channel Regimes: Stable, no shifting adjustment is included for flow computation.

Overbank Flow Conditions: No overbank flow.

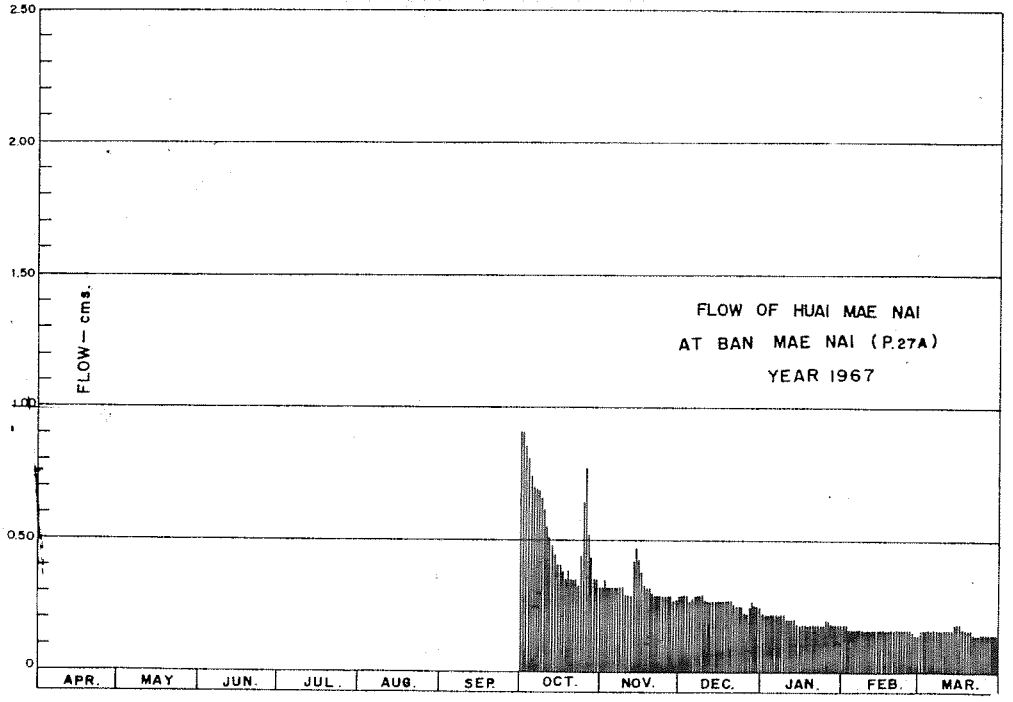
General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made during 1967. Flow regulated by a series of small diversions dams built by local residents. No adjustment is made for virgin flow.

Remarks: Stream gaging began on Oct. 1, 1967.

GAGE HEIGHT IN METER (A.D.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1							0.47	0.31	0.30	0.27	0.25	0.24
2							.47	.32	.30	.27	.25	.24
3							.45	.31	.30	.27	.24	.24
4							.45	.31	.29	.27	.24	.24
5							.43	.31	.29	.27	.24	.24
6							0.42	0.31	0.30	0.27	0.24	0.24
7							.42	.31	.30	.27	.24	.24
8							.42	.31	.30	.27	.24	.24
9							.41	.31	.30	.27	.24	.24
10							.40	.30	.29	.26	.24	.24
11							0.38	0.30	0.29	0.26	0.24	0.24
12							.37	.30	.29	.26	.24	.24
13							.36	.34	.29	.26	.24	.24
14							.35	.36	.29	.25	.24	.25
15							.34	.34	.29	.25	.24	.25
16							0.34	0.33	0.29	0.25	0.24	0.25
17							.33	.31	.29	.25	.24	.24
18							.32	.31	.29	.25	.24	.24
19							.33	.31	.29	.25	.24	.24
20							.32	.30	.29	.25	.24	.24
21							0.32	0.30	0.28	0.25	0.24	0.23
22							.32	.30	.28	.25	.24	.23
23							.31	.30	.28	.25	.24	.23
24							.34	.30	.28	.25	.24	.23
25							.41	.30	.27	.26	.24	.23
26							0.44	0.30	0.27	0.26	0.24	0.23
27							.37	.30	0.28	.25	.23	.23
28							.34	.29	.29	.25	.23	.23
29							.32	.29	.28	.25	.23	.23
30							.32	.30	.28	.25		.23
31							.31		.28	.25		.23
Mean							0.37	0.31	0.29	0.26	0.24	0.24
Max.							0.47	0.36	0.30	0.27	0.25	0.25
Min.							0.31	0.29	0.27	0.25	0.23	0.23

WATER YEAR 1967 : Max. 0.47 m. Min. 0.23 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1							0.91	0.32	0.29	0.22	0.18	0.16
2							0.91	0.35	0.29	0.22	0.18	0.16
3							0.81	0.32	0.29	0.22	0.16	0.16
4							0.81	0.32	0.27	0.22	0.16	0.16
5							0.73	0.32	0.27	0.22	0.16	0.16
6							0.69	0.32	0.29	0.22	0.16	0.16
7							0.69	0.32	0.29	0.22	0.16	0.16
8							0.69	0.32	0.29	0.22	0.16	0.16
9							0.65	0.32	0.29	0.22	0.16	0.16
10							0.61	0.29	0.27	0.20	0.16	0.16
11							0.53	0.29	0.27	0.20	0.16	0.16
12							0.50	0.29	0.27	0.20	0.16	0.16
13							0.47	0.41	0.27	0.20	0.16	0.16
14							0.44	0.47	0.27	0.18	0.16	0.18
15							0.41	0.41	0.27	0.18	0.16	0.18
16							0.41	0.38	0.27	0.18	0.16	0.18
17							0.38	0.32	0.27	0.18	0.16	0.16
18							0.35	0.32	0.27	0.18	0.16	0.16
19							0.38	0.32	0.27	0.18	0.16	0.16
20							0.35	0.29	0.27	0.18	0.16	0.16
21							0.35	0.29	0.25	0.18	0.16	0.14
22							0.35	0.29	0.25	0.18	0.16	0.14
23							0.32	0.29	0.25	0.18	0.16	0.14
24							0.41	0.29	0.25	0.18	0.16	0.14
25							0.65	0.29	0.22	0.20	0.16	0.14
26							0.77	0.29	0.22	0.20	0.16	0.14
27							0.50	0.29	0.25	0.18	0.14	0.14
28							0.41	0.27	0.27	0.18	0.14	0.14
29							0.35	0.27	0.25	0.18	0.14	0.14
30							0.35	0.29	0.25	0.18	–	0.14
31							0.32		0.25	0.18		0.14
Total							16.50	9.56	8.25	6.06	4.62	4.80
Mean							0.53	0.32	0.27	0.19	0.16	0.15
Max.							0.91	0.47	0.29	0.22	0.18	0.18
Min.							0.32	0.27	0.22	0.18	0.14	0.14
Runoff – mcm.							1.426	0.826	0.713	0.523	0.399	0.415

WATER YEAR 1967 : Max. Min. 0.91 Mean 0.14 Annual Runoff . mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
PING RIVER BASIN

Mae Ngat at Ban Mai, Chiang Mai (P.28)

Location: Lat 19°- 10' - 12" N, Long 99°- 03' - 06" E, on left bank about 2 kilometers upstream from Mae Ngat Weir, at Ban Mai, Amphoe Mae Taeng, Chiang Mai.

Drainage Area: 1,261 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: 0.00 m. (A.D.)

Bench Mark: B.M. - R.I.D.

Location: Near staff gage site at Kra Pee Tree.
Elevation: +6.692 m. (A.D.)

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: 1966 to date.

Rating Operation:

Period of Rating: 1966 to date
Rated by Float: -
Rated by Current Meter: 1966 to date

Stability of Channel Regimes: Unstable, hourly and shifting adjustment is included for flow computation.

Overbank Flow Conditions: No overbank flow.

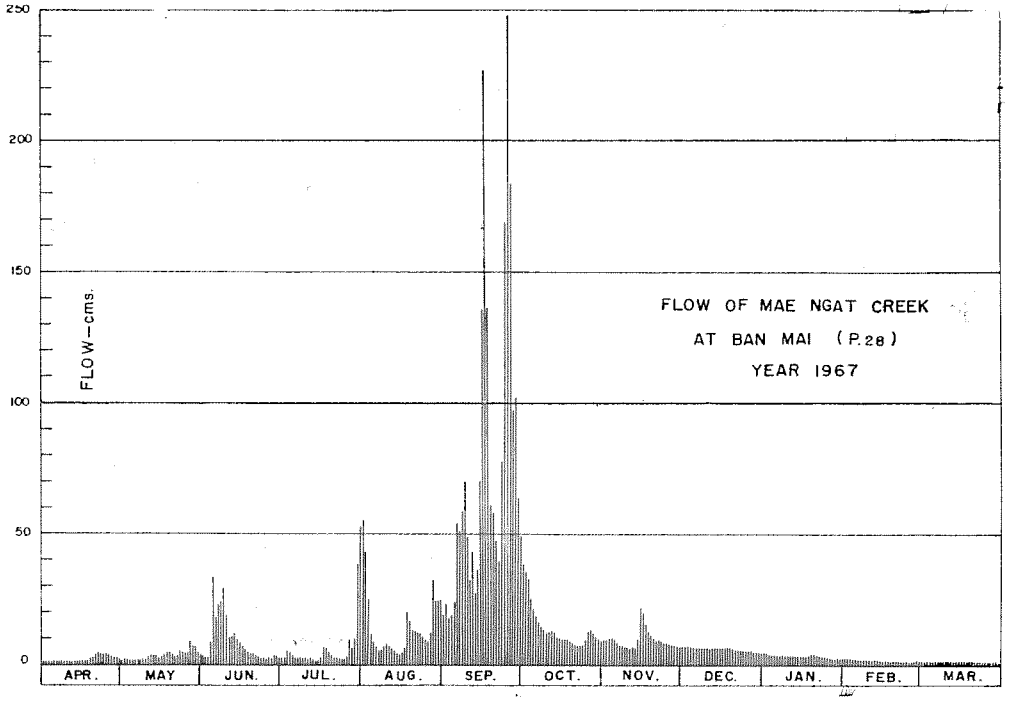
General Description: Records fair. Stage - discharge relation used is defined by discharge measurements made during 1967. Flow regulated by upstream diversions which built by local residents. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (A.D.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.57	0.65	0.74	0.68	1.87	1.31	1.61	1.03	0.94	0.79	0.73	0.67
2	.57	.63	.70	.68	.68	.44	.58	.03	.95	.79	.72	.66
3	.57	.61	.69	.87	.32	.30	.54	.06	.95	.79	.72	.65
4	.57	.60	1.02	.83	.14	.34	.38	.06	.94	.79	.71	.65
5	.57	.58	.62	.75	.03	.27	.30	.03	.93	.78	.71	.65
6	0.57	0.57	1.26	0.71	0.97	1.95	1.23	0.99	0.92	0.78	0.70	0.64
7	.57	.57	.44	.70	.93	.90	.18	.97	.91	.77	.70	.64
8	.56	.62	.45	.71	.92	2.03	.15	.96	.91	.77	.70	.64
9	.56	.68	.55	.69	.97	.16	.12	.95	.91	.77	.70	.64
10	.56	.66	.24	.68	1.07	1.73	.10	.94	.91	.77	.70	.64
11	0.56	0.71	1.10	0.67	1.02	1.51	1.08	0.93	0.90	0.77	0.70	0.64
12	.56	.82	.13	.69	0.95	.79	.12	.94	.90	.77	.70	.69
13	.56	.79	.14	.66	.90	.50	.08	.95	.90	.77	.70	.68
14	.58	.76	.04	.65	.86	.57	.06	1.08	.90	.77	.69	.67
15	.58	.69	0.95	.65	.83	2.29	.08	.39	.89	.77	.69	.66
16	0.58	0.69	0.92	0.68	0.81	3.40	1.05	1.31	0.89	0.77	0.69	0.66
17	.58	.77	.85	.94	.93	2.54	.04	.22	.88	.77	.68	.65
18	.63	.83	.81	.90	1.34	.07	.06	.15	.88	.80	.68	.65
19	.72	.85	.81	.82	.25	1.74	.03	.12	.87	.86	.67	.65
20	.73	.78	.78	.78	.15	.90	0.99	.11	.86	.81	.67	.65
21	0.84	0.74	0.75	0.73	1.11	1.67	0.97	1.06	0.85	0.79	0.67	0.65
22	.84	.73	.73	.75	.10	.64	.96	.03	.84	.78	.67	.64
23	.76	.91	.70	.71	.09	.89	.96	.00	.84	.77	.67	.63
24	.75	.90	.70	.69	.04	2.84	.96	0.99	.84	.75	.67	.63
25	.82	.82	.67	.69	.00	3.57	1.08	.98	.83	.74	.66	.63
26	0.77	0.79	0.69	0.69	0.90	2.76	1.15	0.97	0.82	0.74	0.68	0.63
27	.75	1.04	.66	1.09	1.08	.32	.13	.96	.81	.73	.71	.63
28	.71	0.92	.65	0.97	.57	.51	.10	.96	.80	.73	.70	.63
29	.68	.92	.76	.90	.37	1.98	.06	.95	.80	.73	.69	.63
30	.66	.83	.70	1.59	.48	.80	.03	.94	.80	.73		.62
31		.79		.82	.37		.00		.79	.73		.61
Mean	0.64	0.75	0.94	0.82	1.13	1.99	1.13	1.03	0.88	0.77	0.69	0.64
Max.	0.84	1.04	1.62	1.82	1.87	3.57	1.61	1.39	0.95	0.86	0.73	0.69
Min.	0.56	0.57	0.65	0.65	0.81	1.27	0.96	0.93	0.79	0.73	0.66	0.61

WATER YEAR 1967 : Max. 3.57 m. Min. 0.56 m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	1.10	1.89	3.19	2.54	55	18	38	9.50	7.04	4.67	2.80	1.63
2	1.10	1.63	2.67	2.54	42	23	36	9.50	7.30	4.67	2.67	1.50
3	1.10	1.42	2.54	5.43	17	17	33	10	7.30	3.58	2.67	1.42
4	1.10	1.34	8.90	4.67	11	19	25	10	7.04	3.58	2.54	1.42
5	1.10	1.18	33	3.45	7.56	16	21	9.50	6.78	3.45	2.54	1.42
6	1.10	1.10	16	2.93	6.00	54	18	7.82	6.52	3.45	2.02	1.34
7	1.10	1.10	24	2.80	5.24	50	16	7.30	6.26	3.32	2.02	1.34
8	1.02	1.34	24	2.93	5.05	60	14	7.04	6.26	3.32	2.02	1.34
9	1.02	2.02	29	2.67	6.00	70	13	6.78	6.26	3.32	2.02	1.34
10	1.02	1.76	15	2.54	8.60	39	12	6.52	6.52	3.32	2.02	1.34
11	1.02	2.41	10	2.15	7.30	27	12	6.26	6.50	3.32	2.02	1.34
12	1.02	3.84	11	2.41	6.78	43	13	6.52	6.52	3.32	2.02	1,89
13	1.02	3.45	12	2.02	5.62	26	12	6.78	6.52	3.32	2.02	1.76
14	1.18	3.06	9.80	1.89	4.86	32	9.80	10	6.52	3.32	1.89	1.63
15	1.18	2.15	7.30	1.89	4.29	94	10	22	6.26	3.32	1.89	1.50
16	1.18	2.54	7.30	2.28	3.97	227	9.50	19	6.78	3.32	1.89	1.50
17	1.10	3.58	5.62	6.52	6.26	127	9.20	15	6.52	3.32	1.76	1.42
18	1.15	4.48	4.86	5.24	20	75	9.80	12	6.52	3.71	1.76	1.42
19	2.67	4.86	4.86	3.84	16	46	8.90	11	6.26	4.67	1.63	1.42
20	2.80	3.71	4.29	3.32	13	58	7.82	10	6.00	3.84	1.63	1.42
21	4.67	3.19	3.84	2.67	13	41	7.30	8.90	5.81	3.58	1.63	1.42
22	4.67	2.41	2.67	2.93	12	39	7.04	9.50	5.62	3.45	1.63	1.34
23	3.45	5.05	2.28	2.41	12	57	7.04	8.60	5.62	3.32	1.63	1.26
24	3.32	4.86	2.28	2.15	10	149	7.04	8.34	5.62	3.06	1.63	1.36
25	4.29	4.29	1.89	2.15	9.20	248	10	8.08	5.43	2.93	1.50	1.26
26	3.58	3.84	2.54	2.15	8.08	136	13	7.82	5.24	2.93	1.76	1.26
27	2.93	9.50	2.15	10	12	84	13	7.56	5.05	2.80	2.15	1.26
28	2.41	6.25	2.02	6.78	32	102	12	7.56	4.86	2.80	2.02	1.26
29	2.02	6.26	3.58	7.30	22	64	10	7.30	4.86	2.80	1.89	1.26
30	1.76	4.48	2.80	36	25	50	9.50	7.04	4.86	2.80		1.18
31		3.84		52	20		8.60		4.67	2.80		1.10
Total	58.18	102.84	261.38	190.60	426.81	2,091	432.54	283.22	189.34	105.41	57.67	43.25
Mean	1.94	3.32	8.71	6.15	13.8	69.7	13.9	9.44	6.11	3.40	1.99	1.39
Max.	4.67	9.50	33	52	55	248	38	22	7.30	4.67	2.80	1.89
Min.	1.02	1.10	1.89	1.89	3.97	16	7.04	6.26	4.67	2.80	1.50	1.10
Runoff - mcm.	5.027	8.885	22.583	16.468	36.876	180.662	37.371	24.470	16.359	9.107	4.983	3.737

WATER YEAR 1967 : Max. 248 Min. 1.02 Mean 11.6 Annual Runoff 366.529 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sep. 16	16.00	3.83	325				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
WANG RIVER BASIN

Mae Wang River at Muang Lampang (W.1A)

Location: Lat 18°- 17' - 24" N, Long 99°- 29' - 55" E, on left bank about 300 meters upstream from Kittikhachon II. Bridge, Amphoe Muang, Lampang.

Drainage Area: 3,481 sq.km.

Type of Gage: Water - stage recorder.

Zero Gage at Bottom at: +227.790 m. (M.S.L.)

Bench Mark: B.M. W.1A

Location: Near staff gage site
Elevation: +234.247 m. (M.S.L.)

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: 1967 to date
Rated by Float: -
Rated by Current Meter: 1967 to date

Stability of Channel Regimes: Unstable, shifting adjustment is included for flow computation.

Overbank Flow Conditions: No overbank flow.

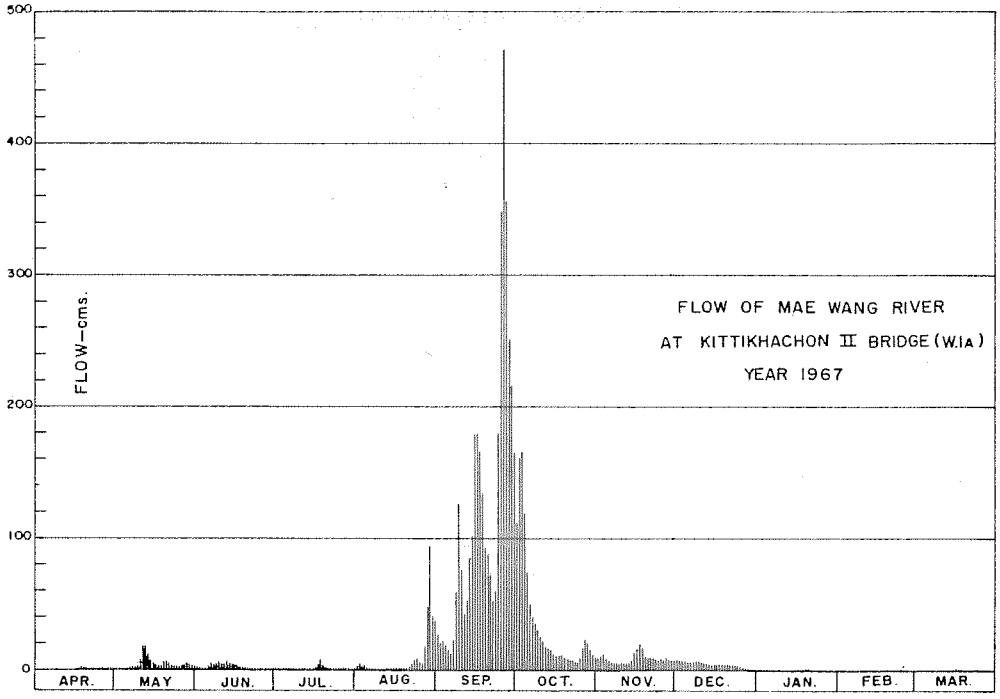
General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions except those built by local residents. No adjustment made for virgin flow.

Remarks: No flow for periods of discharge record are omitted.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1,1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	228.01	288.03	228.10	228.03	228.15	228.99	229.77	228.55	228.46	228.03	227.96	227.94
2	.01	.02	.08	.03	.15	.87	230.37	.58	.47	.02	.96	.96
3	.00	.03	.07	.03	.39	.89	.40	.67	.46	.02	.95	.85
4	227.99	.02	.08	.03	.26	.81	229.78	.57	.45	.04	.95	.81
5	.99	.02	.07	.03	.20	.71	.55	.51	.43	.04	.95	.82
6	227.99	228.09	228.34	228.03	228.16	228.67	229.29	228.48	228.42	228.02	227.96	227.89
7	.98	.14	.30	.03	.15	.85	.16	.43	.39	.03	.97	.91
8	.98	.11	.30	.03	.14	229.18	.06	.40	.40	.02	.96	.96
9	.96	.16	.38	.03	.14	230.08	228.98	.39	.41	.02	.96	228.11
10	.96	.23	.30	.02	.12	229.58	.91	.36	.36	.01	.96	.11
11	227.96	228.74	228.37	228.02	228.11	229.17	228.80	228.36	228.35	228.01	227.96	228.13
12	.97	.72	.38	.02	.10	.07	.75	.33	.36	.01	.96	.03
13	.99	.54	.43	.02	.10	.64	.73	.38	.37	.00	.96	.05
14	228.00	.39	.33	.01	.10	.49	.71	.46	.34	.00	.95	.06
15	.00	.33	.28	.02	.09	230.51	.71	.67	.33	.00	.95	.04
16	228.01	228.27	228.21	228.11	228.09	230.52	228.70	228.74	228.29	228.01	227.95	228.00
17	.02	.20	.15	.21	.09	.42	.67	.82	.29	.01	.95	.00
18	.22	.19	.13	.55	.09	.15	.70	.74	.29	.01	.95	227.98
19	.09	.25	.11	.29	.08	229.69	.66	.55	.27	.03	.95	.97
20	.07	.39	.10	.25	.08	.76	.60	.55	.27	.04	.94	.97
21	228.06	228.31	228.08	228.18	228.10	229.63	228.56	228.56	228.25	228.01	227.95	227.96
22	.06	.24	.07	.13	.12	.34	.52	.53	.22	227.99	.95	.95
23	.07	.23	.06	.13	.40	.24	.50	.51	.23	.98	.95	.95
24	.08	.22	.06	.14	.44	230.02	.49	.46	.22	.98	.94	.95
25	.07	.17	.06	.12	.30	231.34	.50	.51	.17	.98	.94	.94
26	228.06	228.15	228.05	228.13	228.27	232.04	228.81	228.50	228.14	227.99	227.93	227.93
27	.04	.26	.05	.13	.39	231.30	.97	.53	.10	.98	.94	.93
28	.11	.32	.05	.14	229.16	230.77	.82	.49	.08	.97	.94	.93
29	.07	.29	.05	.13	.73	.73	.74	.48	.07	.98	.96	.93
30	.04	.25	.04	.12	.21	.30	.65	.47	.05	.97		.92
31		.16		.11	.17		.59		.04	.96		.92
Mean	228.03	228.24	228.17	228.10	228.33	229.79	228.95	228.52	228.29	228.01	227.95	227.97
Max.	228.22	228.74	228.43	228.55	229.73	232.04	230.40	228.82	228.47	228.04	227.97	228.13
Min.	227.96	228.02	228.04	228.01	228.08	228.67	228.49	228.33	228.04	227.96	227.93	227.81

WATER YEAR 1967 : Max. 232.04 m. Min. 227.81 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.60	0.80	1.50	0.80	1.80	27	91	8.50	6.75	0.60		
2	0.60	0.70	1.30	0.80	1.80	20	161	9.30	7.00	0.50		
3	0.50	0.80	1.20	0.80	5.70	21	165	12	6.75	0.50		
4	0.45	0.70	1.30	0.80	3.45	18	92	9.00	7.25	0.70		
5	0.45	0.70	1.20	0.80	2.55	14	71	7.50	6.75	0.70		
6	0.45	1.40	5.30	0.80	1.95	12	49	6.75	6.50	0.50		
7	0.40	2.10	4.50	0.80	1.80	20	40	5.70	5.90	0.60		
8	0.40	1.65	4.50	0.80	1.65	40	34	5.10	6.10	0.50		
9	0.30	2.40	6.10	0.80	1.65	126	29	4.90	6.30	0.50		0.90
10	0.30	3.45	4.50	0.70	1.40	75	25	4.35	5.30	0.45		0.90
11	0.30	18	5.90	0.70	1.30	43	20	4.35	5.10	0.45		1.10
12	0.35	17	6.10	0.70	1.20	39	17	4.20	5.30	0.45		0.60
13	0.45	10	7.25	0.70	1.20	85	16	5.10	5.50	0.40		0.40
14	0.50	6.30	5.10	0.60	1.20	72	16	6.75	4.90	0.40		0.45
15	0.50	5.10	4.20	0.70	1.10	178	12	13	4.70	0.40		0.35
16	0.60	4.05	3.15	1.65	1.10	179	11	16	4.05	0.90		0.15
17	0.70	3.00	2.25	3.15	1.10	165	10	19	4.05	0.90		0.15
18	3.30	2.85	1.95	8.25	1.10	131	11	16	4.05	0.90		0.05
19	1.40	3.75	1.65	3.15	1.00	82	10	9.00	3.75	1.10		
20	1.20	6.30	1.50	2.55	1.00	88	8.50	9.00	3.75	1.20		
21	1.10	4.70	1.30	1.50	1.20	76	7.50	9.30	3.45	0.90		
22	1.10	3.60	1.20	1.00	2.40	51	6.50	8.50	3.00	0.70		
23	1.20	3.45	1.10	1.00	7.50	45	6.10	8.00	3.15	0.60		
24	1.30	3.30	1.10	1.10	8.50	118	5.90	6.75	3.00	0.60		
25	1.20	2.55	1.10	0.90	5.30	324	6.10	8.00	2.25	0.60		
26	1.10	2.25	1.10	1.00	4.70	470	16	7.75	1.80	0.10		
27	0.90	3.90	1.10	1.00	6.50	316	23	8.50	1.30	0.05		
28	1.65	4.90	1.10	1.10	44	221	18	7.50	1.10	0.00		
29	1.20	4.35	1.10	1.00	93	215	15	7.25	1.00	0.05		
30	0.90	3.75	0.90	1.40	40	152	11	7.00	0.80	0.00		
31	-	2.40		1.30	37		9.60	-	0.70	0.00		
Total	25.40	130.20	81.15	42.35	285.15	3,423.	1,013.20	254.05	131.30	16.25	0.00	5.05
Mean	0.85	4.20	2.70	1.37	9.20	114	32.7	8.47	4.24	0.52	0.00	0.16
Max.	3.30	18	7.25	8.25	93	470	165	19	7.25	1.20	0.00	1.10
Min.	0.30	0.70	0.90	0.60	1.00	12	5.90	4.20	0.70	0.00	0.00	0.00
Runoff - mcm.	2.194	11.249	7.011	3.659	24.637	295.747	87.540	21.950	11.344	1.404	0.00	0.436

WATER YEAR 1967 : Max. 470 Min.0.00 Mean 14.8 Annual Runoff 467.173 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sep. 26	16.00	232.27	521				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
WANG RIVER BASIN

Mae Wang River at Thoen, Lampang (W.3A)

Location: Lat 17°- 38' - 29" N, Long 99°- 14' - 04" E, on right bank about 30 meters upstream from Siriyong Bridge, Amphoe Thoen, Lampang.

Drainage Area: 8,985 sq.km.

Type of Gage: Water - stage recorder.

Zero Gage at Bottom at: 0.00 m. (A.D.)

Bench Mark:

Location: Near the bridge of Automatic building
Elevation: +6.540 m. (A.D.)

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 Float: -
Rated by Current Meter: 1967 to date

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

Overbank Flow Conditions: No overbank flow.

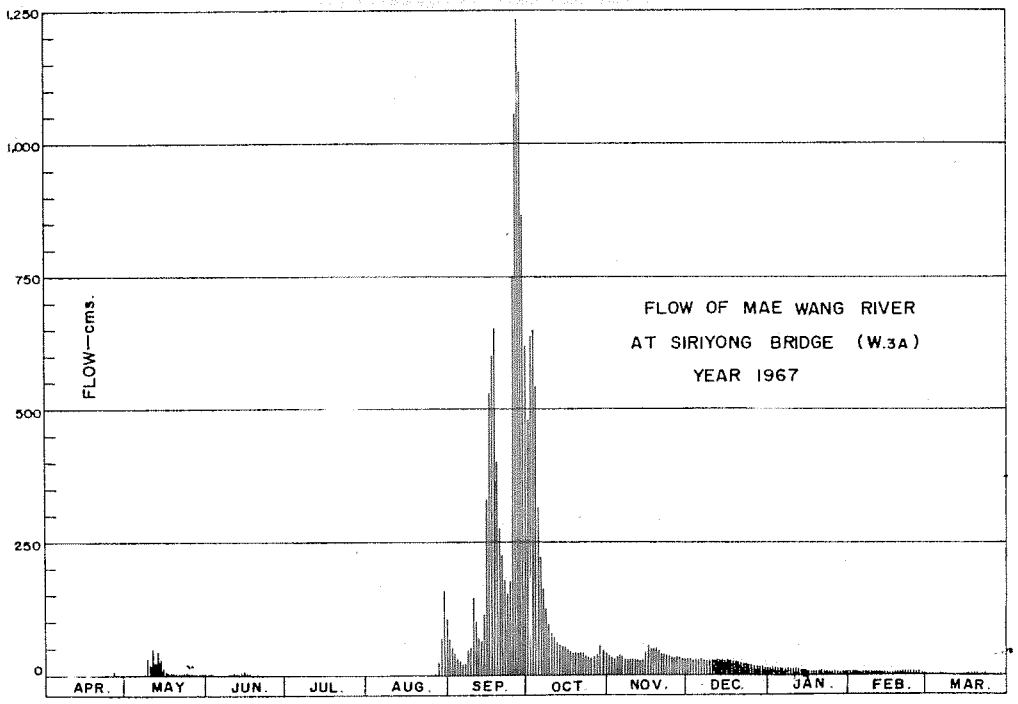
General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions except those built by local residents. No adjustment made for virgin flow.

Remarks: Discharge record for periods of no flow are omitted.

GAGE HEIGHT IN METER (A.D.), WATER YEAR APRIL 1,1967 TO MARCH 31,1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.61	0.77	0.94	0.77	0.82	1.73	3.23	1.47	1.42	1.24	1.12	1.00
2	.60	.76	.93	.78	.81	.60	.95	.45	.40	.25	.12	.00
3	.58	.76	.90	.81	.80	.47	.98	.45	.40	.25	.11	.00
4	.56	.77	.88	.82	.81	.42	.21	.46	.41	.25	.11	0.99
5	.54	.79	.86	.78	.81	.37	2.70	.49	.41	.23	.11	.98
6	0.51	0.77	0.85	0.75	0.88	1.30	2.38	1.43	1.41	1.23	1.10	0.99
7	.46	.77	.86	.74	.88	.36	.17	.41	.40	.23	.10	.99
8	.43	.76	.84	.75	.86	.59	.00	.40	.40	.22	.10	.97
9	.41	1.41	.91	.74	.84	.57	1.88	.41	.40	.21	.10	.99
10	.39	.23	.99	.74	.83	2.19	.80	.43	.40	.22	.10	.99
11	0.38	1.59	1.02	0.72	0.81	1.91	1.74	1.41	1.40	1.22	1.09	0.98
12	.38	.28	.02	.72	.80	.71	.68	.39	.40	.21	.09	.99
13	.37	.54	.03	.72	.80	.61	.65	.39	.40	.18	.09	1.00
14	.36	.38	.07	.71	.81	2.10	.63	.40	.40	.16	.09	0.99
15	.36	.15	.09	.71	.82	3.01	.59	.54	.39	.16	.08	.99
16	0.36	1.07	1.04	0.78	0.85	3.66	1.57	1.64	1.38	1.15	1.08	1.01
17	.35	.04	.04	.81	.82	.88	.55	.59	.38	.15	.07	.01
18	.34	.02	0.99	.81	.80	.99	.54	.60	.38	.15	.07	.02
19	.33	.02	.97	.78	.80	.06	.54	.60	.37	.15	.07	.02
20	.32	0.99	.93	.80	.79	2.60	.53	.53	.36	.14	.08	.01
21	0.34	0.99	0.90	0.95	0.78	2.56	1.52	1.50	1.35	1.14	1.08	1.01
22	.36	1.01	.89	.87	.80	.38	.49	.49	.34	.14	.08	.01
23	.38	.01	.85	.85	.81	.18	.45	.47	.33	.14	.08	.00
24	.71	.00	.85	.83	.83	.40	.44	.46	.32	.14	.09	.00
25	.78	.01	.84	.81	.84	4.13	.43	.45	.30	.13	.08	0.99
26	1.06	0.97	0.83	0.81	0.98	4.78	1.44	1.44	1.29	1.14	1.08	0.99
27	0.89	.94	.81	.82	1.01	5.36	.46	.44	.27	.14	.08	.99
28	.84	.98	.80	.83	.35	.04	.66	.43	.26	.15	.06	.99
29	.78	.96	.82	.83	.78	1.10	.60	.42	.24	.14	.04	.99
30	.76	1.02	.78	.83	2.25	3.89	.55	.41	.25	.13		.99
31		0.95		.82	1.95		.49		.23	.13		.99
Mean	0.52	1.02	0.92	0.79	0.96	2.66	1.93	1.47	1.36	1.18	1.09	0.99
Max.	1.06	1.59	1.09	0.95	2.25	5.36	3.98	1.64	1.42	1.25	1.12	1.02
Min.	0.32	0.76	0.78	0.71	0.78	1.30	1.43	1.39	1.23	1.13	1.04	0.97

WATER YEAR 1967 : Max. 5.36 m. Min. 0.32 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1			0.80			68	402	37	31	15	8.00	2.00
2			0.60			51	638	34	29	15	8.00	2.00
3						37	649	34	29	15	7.50	2.00
4						31	396	36	30	15	7.50	1.80
5						26	256	39	30	14	7.50	1.60
6						19	184	32	30	14	7.00	1.80
7						25	141	30	29	14	7.00	1.80
8						50	110	29	29	13	7.00	1.40
9		30	0.20			48	90	30	29	13	7.00	1.80
10		14	1.80			145	78	32	29	13	7.00	1.80
11		50	3.00			95	70	30	29	13	6.50	1.60
12		18	3.00			65	61	28	29	13	6.50	1.80
13		44	3.50			52	57	28	29	11	6.50	2.00
14		27	5.50			128	55	29	29	10	6.50	1.80
15		9.50	6.50			338	50	44	28	10	6.00	1.80
16		5.50	4.00			538	48	56	27	9.50	6.00	2.50
17		4.00	4.00			613	45	50	27	9.50	5.50	2.50
18		3.00	1.80			652	44	51	27	9.50	5.50	3.00
19		3.00	1.40			352	44	51	26	9.50	5.50	3.00
20		1.80	0.60			233	43	43	25	9.00	6.00	2.50
21		1.80		1.00		224	42	40	24	9.00	6.00	2.50
22		2.50				184	39	39	23	9.00	6.00	2.50
23		2.50				143	34	37	22	9.00	6.00	2.00
24		2.00				188	33	36	21	9.00	6.50	2.00
25		2.50				703	32	34	19	8.50	6.00	1.80
26	5.00	1.40			1.60	966	33	33	18	9.00	6.00	1.80
27		0.80			2.50	1.233	36	33	17	9.00	6.00	1.80
28		1.60			24.	1,082	59	32	16	9.50	5.00	1.80
29		1.20			75	692	51	31	15	9.00	4.00	1.80
30		3.00			157	617	45	30	15	8.50	–	1.80
31		1.00	–		101	–	39	–	14	8.50	–	1.80
Total	5.00	230.10	36.70	1.00	361.10	9,598	3,904	1,088	775	343.00	185.50	62.10
Mean	0.166	7.42	1.22	0.032	11.6	320	126	36.3	25.0	11.1	6.40	2.00
Max.	5.00	50	6.50	1.00	157	1,233	649	56	31	15	8.00	3.00
Min.	0.00	0.00	0.00	0.00	0.00	19	32	28	14	8.50	4.00	1.40
Runoff - mcm.	0.432	19.881	3.171	0.086	31.199	829.267	337.306	94.003	66.960	29.635	16.027	5.365

WATER YEAR 1967 : Max. 1,233 Min. 0.00 Mean 45.3 Annual Runoff 1,433.333 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sep. 27	04.00	5.69	1,399				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
WANG RIVER BASIN

Mae Wang River at Ban Wang Khrai, Tak (W.4)

Location: Lat 17°- 12' - 58" N, Long 99°- 04' - 42" E, on right bank about 120 meters upstream from bridge, 8 kilometers from Amphoe Sam Ngao and 6 kilometers from Phahon Yothin highway, Amphoe Sam Ngao, Tak.

Drainage Area: 10,442 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: +131.316 m. (M.S.L.)

Bench Mark: B.M. - R.I.D.

Location: At the fence of camp of gaging station
Elevation: +137.182 m. (M.S.L.)

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 Float: -
Rated by Current Meter: 1952 to date

Stability of Channel Regimes: Unstable, shifting adjustment is included for flow computation.

Overbank Flow Conditions: No overbank flow.

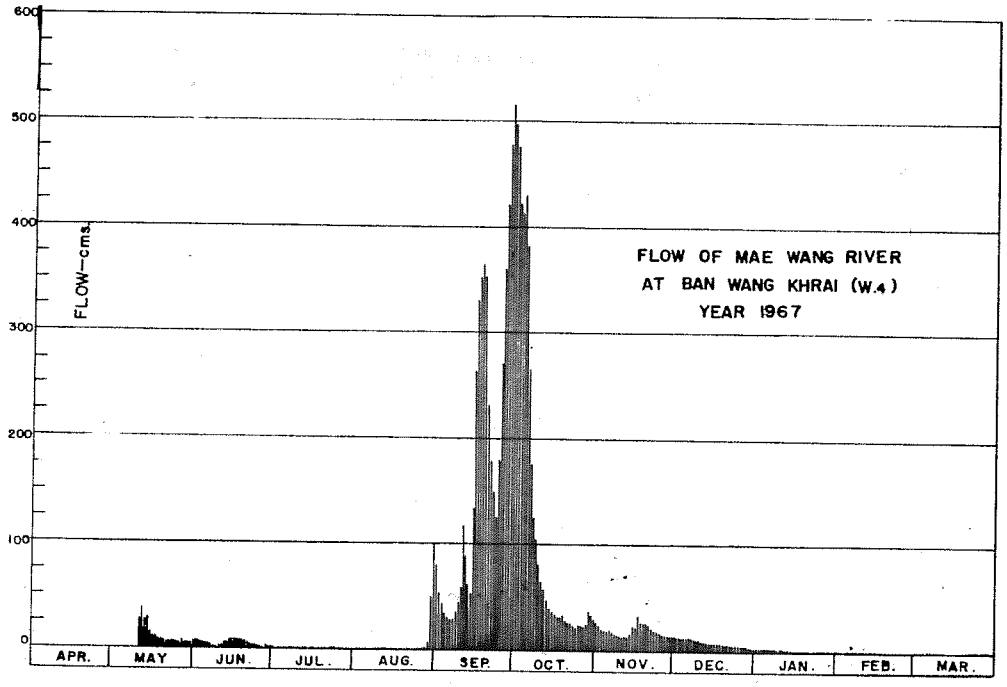
General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made during 1967. Upstream state diversion for irrigation of about 12,320 hectares. No adjustment made for virgin flow.

Remarks: Records for period of no flow are omitted.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1			132.46	132.21	132.18	133.97	137.32	132.98	132.67	132.29	132.13	131.95
2			.39	.18	.16	.65	.15	.90	.68	.28	.12	.95
3			.37	.17	.16	.47	.18	.87	.66	.27	.11	.96
4			.35	.15	.15	.25	.25	.84	.65	.25	.10	.99
5			.33	.17	.14	.12	.00	.82	.65	.25	.09	.97
6			132.30	132.22	132.13	133.09	136.12	132.87	132.65	132.25	132.08	131.94
7			.29	.17	.12	.02	135.32	.82	.65	.24	.07	.93
8			.27	.15	.14	.11	134.72	.77	.64	.23	.07	.93
9			.26	.13	.22	.43	.33	.72	.62	.22	.06	.93
10			.28	.13	.21	.41	.02	.71	.61	.21	.06	.94
11		133.05	132.32	132.12	132.18	134.60	133.82	132.70	132.59	132.20	132.05	131.98
12		.53	.43	.11	.17	.09	.71	.69	.58	.19	.05	.96
13		.00	.44	.10	.16	133.67	.51	.68	.57	.20	.04	.93
14		.09	.54	.08	.15	.47	.40	.79	.56	.19	.04	.94
15		.15	.54	.07	.13	134.60	.35	.99	.55	.18	.03	.95
16		132.80	132.60	132.09	132.13	136.68	133.28	132.83	132.55	132.17	132.02	131.94
17		.66	.58	.08	.12	.90	.21	133.18	.53	.17	.01	.94
18		.62	.53	.06	.15	.97	.19	.02	.52	.17	.01	.94
19		.59	.54	.09	.16	.86	.23	.03	.52	.16	.00	.93
20		.55	.48	.09	.14	.25	.15	.02	.50	.16	.00	.93
21		132.53	132.42	132.12	132.12	135.51	133.10	132.94	132.49	132.16	131.99	131.92
22		.50	.37	.13	.12	.32	.05	.83	.47	.15	.98	.92
23		.47	.34	.26	.13	134.83	132.98	.83	.46	.15	.98	.91
24		.50	.31	.25	.13	.65	.92	.80	.44	.14	.97	.90
25		.49	.28	.22	.14	135.76	.99	.77	.43	.13	.97	.90
26		132.49	132.24	132.21	132.16	136.99	132.95	132.74	132.41	132.13	131.98	131.89
27		.49	.24	.19	.20	137.17	.92	.71	.39	.13	.98	.88
28		.38	.26	.17	.38	.43	.89	.70	.38	.13	.96	.87
29		.37	.22	.17	.63	.53	133.29	.69	.35	.13	.96	.87
30		.37	.22	.17	133.91	.47	.19	.68	.33	.13		.86
31		.40		.16	134.52		.09		.31	.13		.85
Mean			132.37	132.15	132.31	135.01	134.12	132.83	132.53	132.19	132.03	131.92
Max.			132.60	132.26	134.52	137.53	137.32	133.18	132.68	132.29	132.13	131.99
Min.			132.22	132.13	132.12	133.02	132.89	132.68	132.31	132.13	131.96	131.85

WATER YEAR 1967 : Max. 137.53 m. Min. m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1			7.58	1.12	0.84	73	469	25	14	3.64	2.08	0.44
2			5.98	0.84	0.68	55	422	21	15	3.46	1.96	0.44
3			5.54	0.76	0.68	45	412	20	13	3.28	1.84	0.52
4			5.10	0.60	0.60	35	430	19	13	2.92	1.72	0.76
5			4.66	0.60	0.52	30	371	18	13	2.92	1.60	0.68
6			4.00	1.00	0.44	28	235	20	13	2.92	1.48	0.44
7			2.56	0.60	0.36	28	161	18	13	2.74	1.36	0.36
8			2.20	0.44	0.52	32	115	16	12	2.56	1.36	0.36
9			2.08	0.28	1.60	47	96	15	12	2.38	1.24	0.36
10			2.38	1.36	1.48	45	71	14	11	2.74	1.24	0.44
11		26	3.10	1.24	1.12	115	62	14	10	2.56	1.12	0.76
12		48	5.76	1.12	1.00	80	56	14	9.85	2.38	1.12	0.60
13		24	5.98	1.00	0.92	56	45	13	9.85	2.56	1.00	0.36
14		28	8.27	0.84	0.52	46	39	17	9.31	2.38	1.00	0.44
15		31	8.27	0.76	0.36	114	37	24	9.04	2.20	0.92	0.52
16		17	9.85	0.92	0.36	326	34	20	9.04	2.08	0.92	0.52
17		12	9.31	0.84	0.28	351	31	33	8.50	2.08	0.84	0.52
18		11	8.04	0.68	0.60	365	31	26	8.27	2.08	0.84	0.52
19		9.04	8.27	0.84	0.68	351	33	26	8.27	1.96	0.76	0.44
20		8.04	6.89	0.84	0.52	258	29	26	7.81	1.96	0.76	0.44
21		7.58	5.54	1.24	0.36	188	27	23	7.58	1.96	0.68	0.36
22		6.89	4.44	0.84	0.36	171	26	19	7.12	1.84	0.60	0.52
23		6.20	3.82	2.56	0.36	132	24	19	6.89	1.84	0.60	0.44
24		6.89	3.28	2.38	0.36	119	21	18	6.43	1.72	0.52	0.36
25		6.66	2.74	1.60	1.48	211	24	17	6.20	1.96	0.52	0.36
26		6.66	2.08	1.48	1.72	371	24	16	5.76	1.96	0.60	0.28
27		8.27	1.48	1.00	2.20	412	23	16	5.32	1.96	0.60	0.20
28		5.76	3.28	0.84	4.44	483	21	15	5.10	1.96	0.52	0.20
29		5.54	1.24	0.84	10	515	38	15	4.44	1.96	0.52	0.20
30		5.54	1.24	0.84	64	496	33	15	4.00	1.96	–	0.16
31		6.20	–	0.68	100	–	29	–	3.64	2.08	–	0.12
Total		286.27	144.96	30.94	201.36	5,578	3,469	572	281.15	73.00	30.32	13.12
Mean		9.23	4.83	1.00	6.49	186	112	19.1	9.07	2.35	1.04	0.42
Max.		48.	9.85	2.56	100	515	469	33	45	3.64	2.08	0.76
Min.		0.00	1.24	0.28	0.28	28	21	13	3.64	1.72	0.52	0.12
Runoff - MCM.		24.734	12.524	2.677	17.397	461.939	299.722	49.421	24.291	6.307	2.620	1.333

WATER YEAR 1967 : Max. 515 Min. 0.00 Mean 29.2 Annual Runoff 922.766 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sep. 29	12.00	137.53	515				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
WANG RIVER BASIN

Mae Wang River at Ko Kha, Lampang (W.5A)

Location: Lat 18°- 11' - 21" N, Long 99°- 24' - 04" E, on left bank at abutment of Pracharatphongdet bridge at Ban Ko Kha, Amphoe Ko Kha, Lampang.

Drainage Area: 5,278 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: +216.115 m. (M.S.L.)

Bench Mark: B.M. - H.S./R.I.D.

Location: About 300 meters from upper gage near gage reader's house
Elevation: +219.805 m. (M.S.L.)

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: 1963 to date

Rating Operation:

Period of Rating: 1967 to date
Rated by Float: -
Rated by Current Meter: 1967 to date

Stability of Channel Regimes: Unstable. no shifting adjustment but mean hourly discharge are used for flow computation.

Overbank Flow Conditions: No overbank flow.

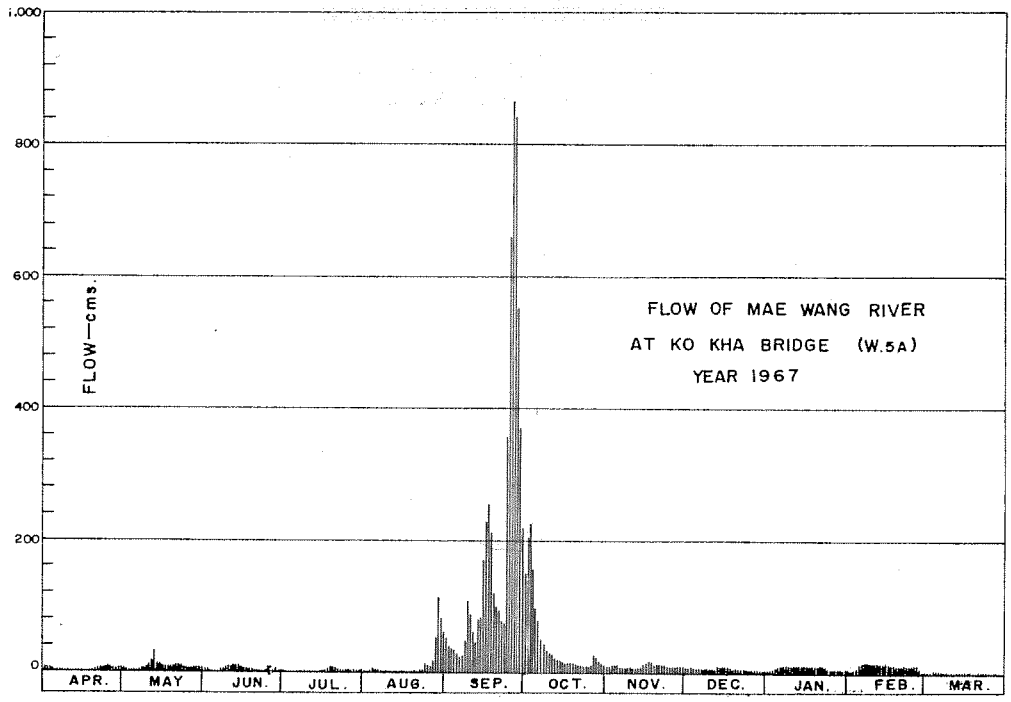
General Description: Records good. Stage - discharge relationshio used is defined by discharge measurement made during 1968. No upstream state diversions for irrigation except those built by local resident. No adjustment made for virgin flow.

Remarks: No gage height record for period Oct. 4 - 16 and discharge record estimated.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1,1967 TO MARCH 31,1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	216.12	216.13	216.17	215.96	216.06	216.97	217.68	216.30	216.24	216.12	216.03	215.99
2	.16	.09	.13	.97	.06	.81	218.22	216.32	.27	.15	.08	.96
3	.11	.06	.09	.97	.11	.81	.31	.35	.27	.19	.15	.99
4	.06	.04	.07	.96	.25	.75		.36	.25	.25	.21	216.18
5	.03	.02	.06	.95	.16	.65		.27	.25	.29	.45	.10
6	216.02	216.09	216.13	215.93	216.11	216.58		216.26	216.24	216.28	216.47	216.07
7	.01	.10	.26	.93	.09	.63		216.25	.23	.34	.45	.00
8	.00	.14	.26	.94	.08	.87		.24	.23	.36	.46	215.98
9	215.99	.19	.27	.94	.07	217.56		.25	.23	.32	.44	.96
10	.97	.27	.29	.92	.06	.30		.22	.24	.33	.40	.94
11	215.95	216.40	216.29	215.92	216.09	217.01		216.24	216.23	216.34	216.42	215.96
12	.97	.79	.35	.90	.06	216.87		.21	.22	.35	.40	.96
13	.99	.51	.36	.89	.06	217.31		.26	.36	.35	.40	.96
14	.96	.39	.34	.91	.05	.38		.30	.31	.33	.40	.95
15	.95	.37	.24	.94	.05	218.02		.40	.34	.36	.45	.95
16	215.94	216.32	216.25	216.03	216.05	218.35		216.44	216.33	216.33	216.39	215.95
17	.93	.29	.20	.05	.05	.44	216.45	.50	.27	.34	.37	.95
18	.92	.31	.17	.20	.05	.15	.44	.47	.23	.34	.38	.93
19	.93	.28	.14	.31	.03	217.57	.43	.34	.23	.33	.36	.91
20	216.17	.32	.08	.20	.03	.49	.38	.38	.23	.36	.36	.88
21	216.19	216.35	216.06	216.15	216.03	217.41	216.35	216.37	216.19	216.36	216.36	215.88
22	.21	.31	.05	.10	.11	.19	.34	.35	.18	.32	.36	.88
23	.21	.33	.03	.07	.17	.09	.30	.35	.17	.26	.35	.88
24	.31	.26	.01	.06	.39	218.38	.29	.32	.13	.16	.35	.86
25	.31	.21	215.99	.06	.37	219.56	.30	.31	.09	.14	.38	.86
26	216.21	216.20	215.99	216.05	216.30	219.90	216.36	216.30	216.07	216.17	216.37	215.85
27	.17	.19	216.02	.04	.46	.86	.67	.30	.13	.17	.40	.85
28	.18	.28	.12	.05	217.06	.05	.54	.30	.10	.12	.10	.84
29	.21	.26	.04	.05	.62	218.62	.46	.29	.09	.11	215.99	.84
30	.22	.26	215.99	.05	.26	.21	.37	.28	.10	.14		.83
31		.21		.05	.08		.33		.09	.18		.83
Mean	216.08	216.26	216.15	216.02	216.27	217.69		216.32	216.21	216.26	216.33	215.93
Max.	216.31	216.79	216.36	216.31	217.62	219.90		216.50	216.36	216.36	216.47	216.18
Min.	215.92	216.02	215.99	215.89	216.03	216.58		216.21	216.07	216.11	215.99	215.83

WATER YEAR 1967 : Max. 219.90 m. Min. 215.83 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	4.40	4.60	5.40	1.60	3.20	50	123	9.00	7.20	4.40	2.60	1.90
2	5.20	3.80	4.60	1.70	3.20	37	208	9.80	8.10	5.00	3.60	1.60
3	4.20	3.20	3.80	1.70	4.20	37	226	11	8.10	5.80	5.00	1.90
4	3.20	2.80	3.40	1.60	7.50	32	120	11	7.50	7.50	6.30	5.60
5	2.60	2.40	3.20	1.50	5.20	26	90	8.10	7.50	8.70	15	4.00
6	2.40	3.80	4.60	1.30	4.20	22	66	7.80	7.20	8.40	16	3.40
7	2.20	4.00	7.80	1.30	3.80	25	50	7.50	6.90	11	15	2.00
8	2.00	4.80	7.80	1.40	3.60	42	42	7.20	6.90	11	16	1.80
9	1.90	5.80	8.10	1.40	3.40	107	34	7.50	6.90	9.80	15	1.60
10	1.70	8.10	8.70	1.20	3.20	80	30	6.60	7.20	10	13	1.40
11	1.50	13	8.70	1.20	3.80	53	26	7.20	6.90	11	14	1.60
12	1.70	35	11	1.00	3.20	42	22	6.30	6.60	11	13	1.60
13	1.90	18	11	0.95	3.20	81	20	7.80	11	11	13	1.60
14	1.60	13	11	1.10	3.00	88	18	9.00	9.40	10	13	1.50
15	1.50	12	7.20	1.40	3.00	173	16	13	11	11	15	1.50
16	1.40	9.80	7.50	2.60	3.00	234	14	15	10	10	13	1.50
17	1.30	8.70	6.00	3.00	3.00	253	15	18	8.10	11	12	1.50
18	1.20	9.40	5.40	6.00	3.00	195	15	16	6.90	11	12	1.30
19	1.30	8.40	4.80	9.40	2.60	108	14	11	6.90	10	11	1.10
20	5.40	9.80	3.60	6.00	2.60	99	12	12	6.90	11	11	0.90
21	5.80	11	3.20	5.00	2.60	91	11	12	5.80	11	11	0.90
22	6.30	9.40	3.00	4.00	4.20	69	11	11	5.60	9.80	11	0.90
23	6.30	10	2.60	3.40	5.40	59	9.00	11	5.40	7.80	11	0.90
24	9.40	7.80	2.20	3.20	13	261	8.70	9.80	4.60	5.20	11	0.80
25	9.40	6.30	1.90	3.20	12	663	9.00	9.40	3.80	4.80	12	0.80
26	6.30	6.00	1.90	3.00	9.00	862	11	9.00	3.40	5.40	12	0.75
27	5.40	5.80	2.40	2.80	16	840	27	9.00	4.60	5.40	13	0.75
28	5.60	8.40	4.40	3.00	57	447	20	9.00	4.00	4.40	4.00	0.70
29	6.30	7.80	2.80	3.00	115	294	16	8.70	3.80	4.20	1.90	0.70
30	6.60	7.80	1.90	3.00	76	209	12	8.40	4.00	4.80	–	0.65
31	–	6.30	–	3.00	58	–	10	–	3.80	5.60	–	0.65
Total	116.00	267.00	159.90	83.95	440.10	5,579	1,305.70	298.10	206.00	257.00	321.40	47.80
Mean	3.87	8.61	5.33	2.71	14.2	186	42.1	9.94	6.64	8.29	11.1	1.54
Max.	9.40	35	11	9.40	115	862	226	18	11	11	16	5.60
Min.	1.20	2.40	1.90	0.95	2.60	22	8.70	6.30	3.40	4.20	1.90	0.65
Runoff – mcm.	10.022	23.069	13.815	7.253	38.025	482.026	112.812	25.756	17.798	22.205	27.769	4.130

WATER YEAR 1967 : Max. 862 Min. 0.65 Mean 24.8 Annual Runoff 784.680 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sep. 26	24.00	220.18	1,060				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
WANG RIVER BASIN

Mae Wang River at Kiu Lom, Lampang (W.10)

Location: Lat 18°- 36' - 46" N, Long 99°- 37' - 08" E, on left bank about 1 kilometer upstream from Kiu Lom Damsite, Amphoe Chae Hom, Lampang.

Drainage Area: 2,813 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: +260.91 m. (M.S.L.)

Bench Mark:

Location: At about 5 meters from upper gage
Elevation: +268.599 m. (M.S.L.)

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: 1962 - 1967

Rating Operation:

Period of Rating: 1962 - 1967
Rated by Float: -
Rated by Current Meter: 1962 - 1967

Stability of Channel Regimes: Unstable, no shifting adjustment is included for flow computation.

Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage - discharge relationship used is defined by discharge measurement made during 1967. No upstream state diversions except those built by local residents. No adjustment made for virgin flow.

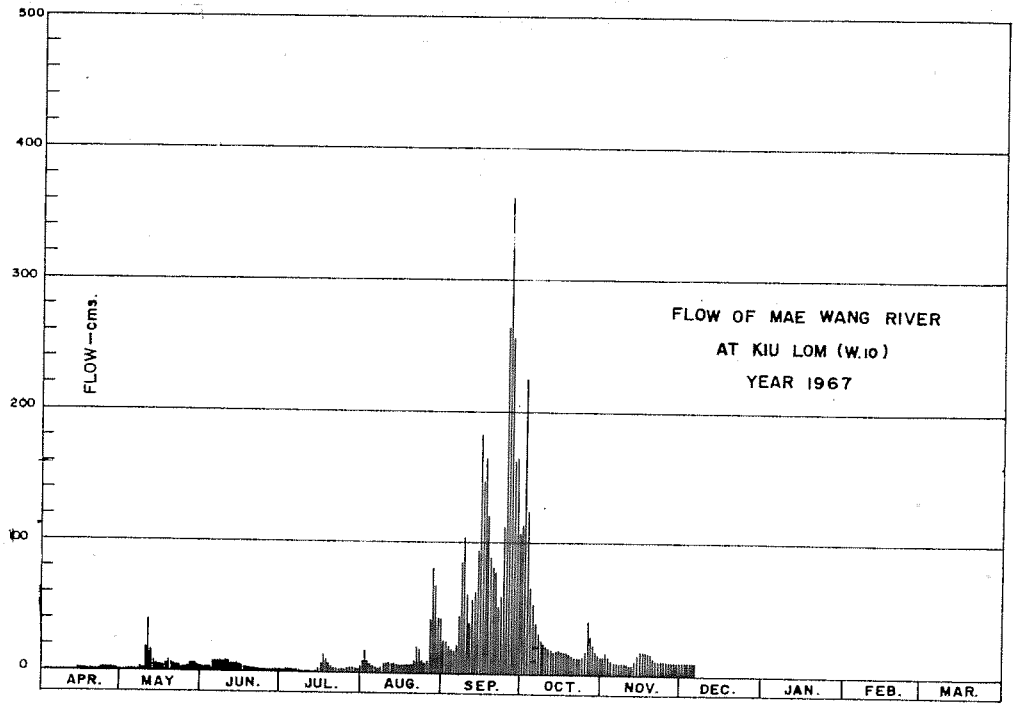
Remarks: Flow data for period Dec. 1, 1967 - Mar. 31, 1968 is not computed due to back-water effected by coffer damming at dam site about 1 kilometer downstream.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	261.24	261.32	261.48	261.37	261.69	262.27	263.39	262.03	262.04			
2	.24	.30	.46	.36	.99	.30	264.94	.15	.04			
3	.23	.29	.44	.45	.84	.24	263.94	.08	.06			
4	.22	.30	.47	.45	.74	.14	.19	.03	.04			
5	.22	.29	.68	.35	.65	.03	262.89	.00	.03			
6	261.21	261.30	261.64	261.33	261.61	262.23	262.63	261.97	262.01			
7	.21	.30	.63	.33	.58	.64	.47	.96				
8	.21	.41	.71	.32	.62	263.49	.37	.94				
9	.20	.38	.63	.32	.80	.67	.30	.94				
10	.20	.42	.66	.32	.81	.08	.24	.93				
11	261.20	262.52	261.65	261.32	261.82	262.57	262.18	261.92				
12	.20	261.82	.63	.30	.81	.98	.15	.92				
13	.20	.72	.58	.28	.77	263.05	.13	.98				
14	.42	.65	.63	.28	.75	.28	.13	262.15				
15	.38	.56	.57	.28	.73	264.59	.16	.19				
16	261.36	261.53	261.54	261.53	261.71	264.15	262.13	262.20				
17	.32	.52	.51	.91	.73	.31	.13	.18				
18	.33	.62	.49	.73	.76	263.75	.14	.16				
19	.35	.75	.48	.58	.74	.35	.10	.12				
20	.34	.65	.45	.55	.71	.55	.05	.08				
21	261.35	261.59	261.42	261.53	261.68	263.29	262.02	262.05				
22	.34	.56	.39	.50	262.29	262.81	.01	.05				
23	.39	.53	.38	.48	.16	.79	261.99	.04				
24	.41	.49	.37	.44	261.89	264.27	.98	.03				
25	.39	.47	.36	.41	.78	265.62	262.11	.02				
26	261.41	261.55	261.34	261.48	261.73	266.11	262.65	262.02				
27	.42	.62	.34	.53	262.61	264.79	.34	.02				
28	.37	.63	.34	.51	263.22	.26	.20	.01				
29	.35	.61	.38	.46	.03	.33	.12	.04				
30	.34	.53	.41	.44	262.59	263.63	.06	.04				
31		.51		.46	.58		.02					
Mean	261.30	261.54	261.50	261.44	261.35	263.45	262.42	262.04				
Max.	261.42	262.52	261.71	261.91	263.22	266.11	264.94	262.20				
Min.	261.20	261.29	261.34	261.28	261.58	262.03	261.98	261.92				

WATER YEAR 1967 : Max. 266.11 m. Min. 261.20 m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.92	1.62	3.91	2.41	9.22	24	89	13	9.93			
2	0.92	1.45	3.62	2.30	17	25	224	17	9.93			
3	0.84	1.36	3.33	3.47	8.52	22	130	12	10			
4	0.75	1.45	3.76	3.47	6.41	19	69	10	9.93			
5	0.75	1.36	9.22	2.18	4.74	16	52	9.69	9.69			
6	0.70	1.45	8.28	2.07	4.05	22	39	8.99	9.22			
7	0.70	1.45	8.05	2.07	3.62	40	31	8.75				
8	0.70	2.64	9.93	1.96	4.20	90	26	8.28				
9	0.65	2.30	8.05	1.96	7.64	103	23	8.28				
10	0.65	3.76	8.75	1.96	7.84	63	21	8.05				
11	0.65	41	8.52	1.96	8.05	36	19	7.84				
12	0.65	13	7.23	1.73	7.84	57	18	7.84				
13	0.65	8.99	6.20	1.53	7.02	62	17	9.22				
14	2.75	7.43	7.23	1.53	6.61	76	17	13				
15	2.30	5.64	6.00	2.07	6.20	182	18	17				
16	2.07	5.10	4.92	5.82	5.82	142	17	17				
17	1.62	4.92	4.38	15	6.20	165	17	16				
18	1.73	6.82	4.05	10	6.82	109	16	16				
19	1.96	9.69	3.91	6.82	6.41	81	15	15				
20	1.85	7.43	3.47	4.74	5.82	81	14	11				
21	1.96	5.64	3.04	4.38	9.46	77	13	10				
22	1.96	5.10	2.64	3.91	21	49	13	10				
23	2.52	4.56	2.52	3.62	17	48	12	9.93				
24	2.75	3.91	2.41	3.04	9.69	153	12	9.69				
25	2.52	3.62	2.30	2.89	7.23	291	16	9.46				
26	2.75	4.92	2.07	3.91	10	364	40	9.46				
27	2.89	6.20	2.07	4.74	43	209	26	9.46				
28	2.18	6.41	2.07	4.38	79	158	21	9.22				
29	1.96	6.61	2.52	4.56	67	165	18	9.93				
30	1.85	5.10	2.89	4.20	42	106	14	9.93				
31	–	4.38	–	4.56	42	–	13	–				
Total	47.15	185.31	147.34	119.24	487.41	3,035	1,070	331.02				
Mean	1.57	5.98	4.91	3.85	15.7	101	34.5	11.0				
Max.	2.89	41	9.93	15	79	364	224	17				
Min.	0.65	1.36	2.07	1.53	3.62	16	12	7.84				
Runoff – mcm.	4.074	16.011	12.730	10.302	42.112	262.224	92.448	28.600				

WATER YEAR 1967 : Max. 364 Min. Mean Annual Runoff mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sep. 26	06.00	266.85	468				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
WANG RIVER BASIN

Mae Wang River at Kiu Lom Dam Site, Lampang (W.10A)

Location: Lat 18°- 31' - 16" N, Long 99°- 37' - 52" E, on left bank about 800 meters downstream from Kiu Lom Damsite, Amphoe Chae Hom, Lampang.

Drainage Area: 2,798 sq.km.

Type of Gage: Water - stage recorder.

Zero Gage at Bottom at: +258.961 m. (M.S.L.)

Bench Mark:

Location: At right side of Automatic gage
Elevation: +265.511 m. (M.S.L.)

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 Float: -
Rated by Current Meter: 1966 to date

Stability of Channel Regimes: Unstable, shifting adjustment is included for flow computation.

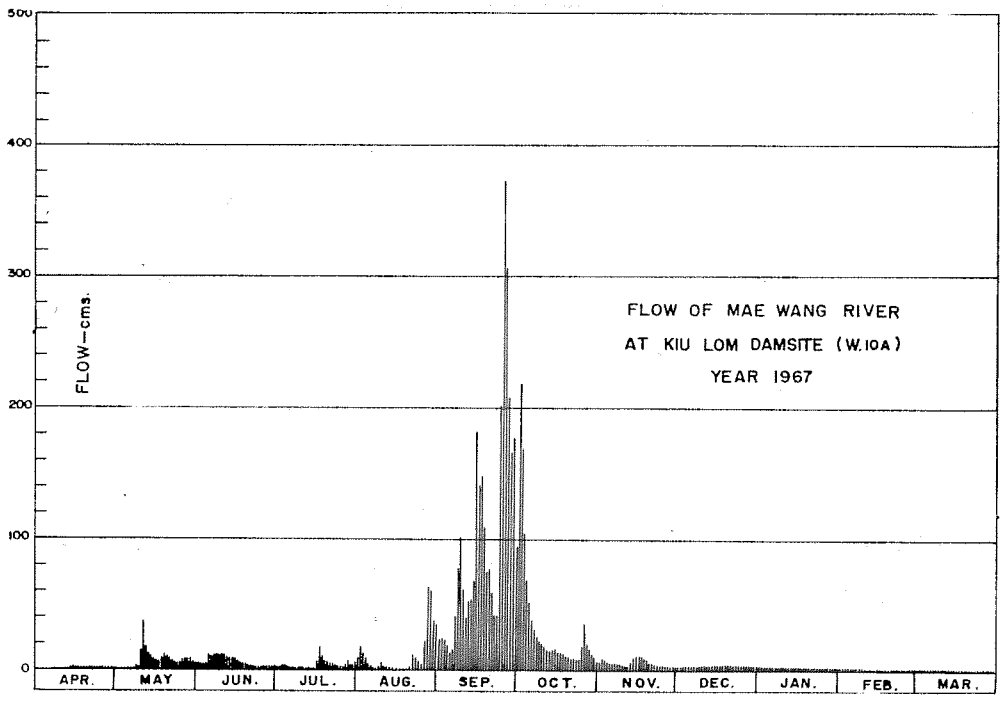
Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1967. Flow is under construction of dam upstream. Data presented is from actual flow at gage site, no adjustment made for virgin flow.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	259.59	259.64	259.83	259.72	259.97	260.45	261.37	260.11	260.02	259.82	259.74	259.70
2	.59	.62	.82	.71	260.24	.48	262.64	.21	.01	.81	.74	.70
3	.58	.62	.80	.80	.04	.42	261.73	.16	.02	.81	.73	.72
4	.58	.63	.82	.79	259.94	.32	.17	.11	.00	.80	.73	.75
5	.57	.62	260.04	.69	.89	.16	260.94	.07	259.99	.80	.73	.71
6	259.57	259.64	260.00	259.68	259.84	260.31	260.75	260.05	259.97	259.80	259.71	259.70
7	.57	.66	259.99	.68	.81	.63	.62	.04	.96	.79	.70	.70
8	.57	.76	260.06	.67	.79	261.32	.52	.02	.97	.78	.70	.69
9	.56	.72	259.99	.67	.81	.53	.45	.02	.97	.78	.70	.67
10	.56	.78	260.01	.67	.82	260.98	.39	.01	.97	.78	.69	.67
11	259.56	260.62	260.01	259.67	259.82	260.62	260.33	259.99	259.95	259.78	259.69	259.68
12	.56	.16	259.99	.65	.81	.94	.30	.99	.94	.78	.69	.67
13	.56	.08	.94	.63	.80	.95	.27	260.05	.94	.78	.69	.66
14	.73	.00	.98	.63	.78	261.18	.27	.20	.94	.77	.69	.65
15	.70	259.91	.93	.63	.75	262.35	.29	.21	.94	.78	.69	.65
16	259.68	259.89	259.90	259.86	259.74	261.95	260.25	260.21	259.94	259.77	259.69	259.65
17	.64	.88	.87	260.22	.75	262.06	.25	.20	.92	.77	.68	.64
18	.65	.98	.85	.05	.78	261.58	.24	.17	.91	.77	.68	.64
19	.67	260.10	.84	259.91	.75	.24	.20	.13	.90	.77	.68	.65
20	.66	.01	.81	.87	.73	.39	.15	.10	.89	.76	.69	.65
21	259.67	259.95	259.78	259.87	259.90	261.11	260.12	260.07	259.88	259.76	259.69	259.64
22	.66	.92	.75	.84	260.24	260.78	.10	.07	.88	.78	.69	.67
23	.71	.88	.74	.82	.14	.77	.09	.06	.87	.78	.70	.66
24	.73	.85	.73	.78	.02	262.07	.08	.05	.86	.77	.70	.65
25	.71	.82	.72	.75	259.95	263.17	.21	.04	.85	.77	.69	.64
26	259.73	259.94	259.70	259.82	259.91	263.73	260.69	260.04	259.84	259.77	259.68	259.63
27	.74	.97	.70	.87	260.52	262.59	.42	.04	.84	.76	.70	.62
28	.69	.98	.70	.85	261.03	.11	.29	.02	.83	.76	.71	.61
29	.67	.97	.73	.80	260.98	.29	.22	.02	.82	.75	.72	.62
30	.66	.89	.76	.78	.70	261.56	.16	.01	.82	.75		.62
31		.86		.80	.70		.12		.82	.74		.62
Mean	259.64	259.88	259.86	259.78	260.03	261.36	260.50	260.08	259.92	259.78	259.70	259.66
Max.	259.74	260.62	260.06	260.22	261.03	263.73	262.64	260.21	260.02	259.82	259.74	259.75
Min.	259.56	259.62	259.70	259.63	259.73	260.16	260.08	260.01	259.82	259.74	259.68	259.61

WATER YEAR 1967 : Max. 263.73 m. Min. 259.56 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	1.20	1.80	5.25	3.20	9.60	24	86	6.90	3.75	4.00	2.75	2.15
2	1.20	1.60	5.00	3.05	19	26	218	9.90	3.75	3.75	2.75	1.15
3	1.10	1.60	5.00	5.00	12	23	119	8.40	4.25	3.75	2.60	2.45
4	1.10	1.70	5.75	4.75	7.50	19	70	6.90	4.00	3.50	2.60	2.90
5	1.00	1.60	13	2.75	5.00	13	53	5.75	4.00	3.50	2.60	2.30
6	1.00	1.80	11	2.60	3.20	18	41	5.25	3.75	3.50	2.30	2.15
7	1.00	2.00	11	2.60	2.15	33	33	5.00	3.75	3.20	2.15	2.15
8	1.00	3.50	13	2.45	1.90	82	26	4.50	4.25	3.05	2.15	2.00
9	0.90	2.90	11	2.45	2.15	101	23	4.50	4.50	3.05	2.15	1.80
10	0.90	4.00	12	2.45	2.30	56	20	4.25	4.75	3.05	2.00	1.80
11	0.90	38	12	2.45	2.30	34	17	3.75	4.50	3.05	2.00	1.90
12	0.90	17	10	2.15	2.15	54	16	3.75	4.50	3.05	2.00	1.80
13	0.90	14	8.70	1.90	2.00	51	15	6.50	4.75	3.05	2.00	1.70
14	2.90	11	9.90	1.90	1.80	68	15	11	5.00	2.90	2.00	1.60
15	2.45	8.40	8.40	1.90	1.50	181	16	11	5.25	3.05	2.00	1.60
16	2.15	7.80	7.50	6.60	1.40	138	14	11	5.50	2.90	2.00	1.60
17	1.70	6.60	6.60	19	1.50	149	14	11	5.25	2.90	1.90	1.50
18	1.80	9.60	6.00	12	1.80	102	13	9.90	5.25	2.90	1.90	1.50
19	2.00	13	5.75	7.80	1.50	73	12	8.70	5.00	2.90	1.90	1.60
20	1.90	10	5.00	6.60	1.30	85	10	5.50	5.00	2.75	2.00	1.60
21	2.00	8.70	4.50	6.60	3.50	63	9.60	4.75	5.00	2.75	2.00	1.50
22	2.00	7.80	3.75	5.75	13	41	9.00	4.75	5.25	3.05	2.00	1,80
23	2.75	6.60	3.50	5.25	10	40	8.70	4.50	5.25	3.05	2.15	1.70
24	3.05	5.75	3.35	4.25	6.60	150	8.40	4.25	5.00	2.90	2.15	1.60
25	2.75	5.00	3.20	3.50	4.75	284	14	4.00	4.75	2.90	2.00	1.50
26	3.05	8.40	2.90	3.25	3.75	372	36	4.00	4.50	2.90	1.90	1.40
27	3.20	9.30	2.90	6.60	31	212	23	4.00	4.50	2.75	2.15	1.30
28	2.45	9.60	2.90	6.00	64	158	17	3.50	4.25	2.90	2.30	1.20
29	2.15	9.30	3.35	4.75	60	178	13	3.50	4.00	2.75	2.45	1.30
30	2.00	6.90	4.00	4.25	37	103	11	3.35	4.00	2.75	–	1.30
31	–	6.00	–	4.75	32	–	7.20	–	4.00	2.75	–	1.30
Total	53.40	241.25	206.20	150.55	352.65	2,931	987.90	183.85	141.25	95.25	62.85	54.15
Mean	1.78	7.78	6.87	4.86	11.4	97.7	31.9	6.13	4.56	3.07	2.17	1.75
Max.	3.20	38	13	19	64	372	218	11	5.50	4.00	2.75	2.90
Min.	0.90	1.60	2.90	1.90	1.30	13	8.40	3.35	3.75	2.05	1.90	1.30
Runoff - MCM.	4.614	20.844	17.816	13.007	30.469	253.238	85.354	15.885	12.204	8.230	5.430	4.678

WATER YEAR 1967 : Max. 372 Min. 0.90 Mean 14.9 Annual Runoff 471.770 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sep. 26	08.00	264.38	480				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
YOM RIVER BASIN

Mae Yom River at Muang Phrae (Y.1)

Location: Lat 18°- 08' - 32" N, Long 100°- 08' - 07" E, on left bank infront of the district liquor factory near Wat Chetawan, Amphoe Muang, Phrae.

Drainage Area: 7,590 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: +144.00 m. (M.S.L.)

Bench Mark: B.M. - R.I.D. No.1

Location: On left bank 23 meters downstream from gage site.
Elevation: +153.810 m. (M.S.L.)

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: 1930 - 71

Rating Operation:

Period of Rating: 1954, 1956 - 60
Rated by Float: -
Rated by Current Meter: 1954, 1956 - 60

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

Overbank Flow Conditions: No overbank flow.

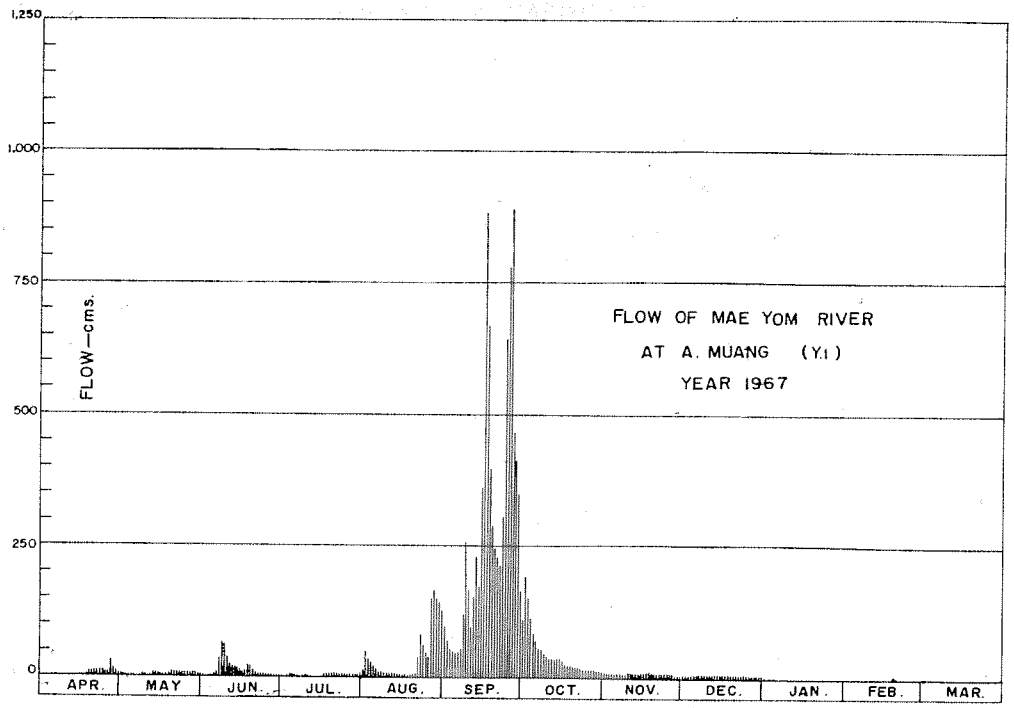
General Description: Stage record good, discharge record fair. Stage - discharge relationship used is defined by discharge measurements made during 1957 - 60. Upstream diversion for irrigation of about 24,000 hectares at Mae Yom Weir. No adjustment made for virgin flow.

Remarks: Discharge record for period of no flow are omitted.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	144.79	145.10	145.01	144.94	145.56	146.53	146.59	145.34	145.13	145.00	144.86	144.70
2	.80	.05	144.99	.99	146.02	.26	147.38	.32	.14	.00	.86	.70
3	.80	.04	.99	145.01	145.79	.07	146.99	.28	.15	144.99	.86	.69
4	.81	.02	145.00	.03	.70	.00	.67	.25	.16	.99	.85	.69
5	.82	144.97	.03	.05	.57	.00	.38	.27	.17	.98	.84	.69
6	144.82	144.94	145.34	145.01	145.37	146.00	146.24	145.25	145.18	144.97	144.84	144.68
7	.82	.94	.76	144.99	.31	.05	.08	.26	.19	.97	.84	.68
8	.83	.95	146.24	145.00	.28	.61	.04	.25	.20	.97	.83	.68
9	.84	145.14	.24	144.98	.27	147.85	145.99	.24	.20	.96	.83	.68
10	.84	144.99	145.76	.95	.24	146.96	.89	.22	.20	.96	.82	.67
11	144.84	144.97	145.65	144.95	145.23	146.25	145.84	145.25	145.21	144.95	144.82	144.67
12	.85	145.09	.52	.93	.15	147.17	.83	.28	.22	.95	.81	.67
13	.85	.26	.49	.88	.13	.67	.80	.30	.23	.95	.81	.67
14	.85	.19	.46	.84	.11	146.79	.83	.28	.24	.95	.80	.66
15	.86	.14	.38	.82	.09	148.29	.84	.26	.25	.94	.80	.66
16	144.87	145.09	145.31	144.94	145.09	150.96	145.77	145.30	145.27	144.94	144.80	144.66
17	.87	.06	.38	145.10	.12	149.90	.65	.35	.26	.94	.78	.65
18	.89	.05	.63	.15	.12	148.57	.64	.41	.25	.94	.78	.65
19	145.31	.17	.54	.24	.14	147.92	.63	.33	.20	.93	.78	.65
20	.33	.25	.39	.24	.13	147.74	.59	.28	.19	.93	.78	.65
21	145.36	145.23	145.26	145.20	145.16	147.66	145.56	145.27	145.17	144.93	144.77	144.64
22	.38	.22	.13	.16	.93	.51	.50	.24	.16	.92	.77	.64
23	.42	.15	.09	.18	146.38	.62	.46	.22	.13	.92	.77	.64
24	.36	.14	.06	.17	.08	149.81	.44	.21	.11	.92	.75	.64
25	.27	.15	.06	.17	145.95	150.30	.43	.23	.09	.92	.75	.63
26	145.22	145.13	145.04	145.10	145.80	150.97	145.42	145.22	145.08	144.91	144.74	144.63
27	.76	.14	.01	.10	147.07	149.09	.44	.20	.07	.91	.73	.63
28	.39	.09	144.98	.08	.19	148.76	.43	.19	.06	.90	.71	.62
29	.19	.07	.97	.09	.05	.34	.42	.18	.05	.90	.70	.62
30	.16	.05	.95	.17	146.99	146.80	.40	.14	.05	.88		.61
31		.03		.29	.82		.38		.04	.87		.61
Mean	145.04	145.09	145.32	145.06	145.70	147.75	145.86	145.26	145.16	144.94	144.79	144.66
Max.	145.76	145.26	146.24	145.29	147.19	150.97	147.38	145.41	145.27	145.00	144.86	144.70
Min.	144.79	144.94	144.95	144.82	145.09	146.00	145.38	145.14	145.04	144.87	144.70	144.61

WATER YEAR 1967 : Max. 150.97 m. Min. 144.61 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.00	6.00	4.20	2.80	20	95	101	12	6.60	4.00	1.20	
2	0.00	5.00	3.80	3.80	50	69	189	11	6.80	4.00	1.20	
3	0.00	4.80	3.80	4.20	33	54	141	10	7.00	3.80	1.20	
4	0.20	4.40	4.00	4.60	28	48	109	9.00	7.20	3.80	1.00	
5	0.40	3.40	4.60	5.00	21	48	80	9.40	7.40	3.60	0.80	
6	0.40	2.80	12	4.20	13	48	67	9.00	7.60	3.40	0.80	
7	0.40	2.80	32	3.80	10	52	54	9.20	7.80	3.40	0.80	
8	0.60	3.00	67	4.00	10	103	51	9.00	8.00	3.40	0.60	
9	0.80	6.80	64	3.60	9.40	256	47	8.80	8.00	3.20	0.60	
10	0.80	3.80	32	3.00	8.80	158	39	8.40	8.00	3.20	0.40	
11	0.80	3.40	25	3.00	8.60	68	36	9.00	8.20	3.00	0.40	
12	1.00	5.80	19	2.60	7.00	162	36	10	8.40	3.00	0.20	
13	1.00	9.20	18	1.60	6.60	230	34	10	8.60	3.00	0.20	
14	1.00	7.80	16	0.80	6.20	121	36	10	8.80	3.00	0.00	
15	1.20	6.80	13	0.20	5.80	327	36	9.20	9.00	2.80	0.00	
16	1.40	5.80	10	2.80	5.80	884	32	10	9.40	2.80	0.00	
17	1.40	5.20	13	6.00	6.40	634	25	12	9.20	2.80	0.00	
18	1.80	5.00	24	7.00	6.40	377	24	14	9.00	2.80	0.00	
19	10	7.40	20	8.80	6.80	267	24	11	8.00	2.60	0.00	
20	11	9.00	14	8.80	6.60	240	22	10	7.80	2.60	0.00	
21	12	8.60	9.20	8.00	7.20	228	20	9.40	7.40	2.60	0.00	
22	13	8.40	6.60	7.20	42	207	18	8.80	7.20	2.40	0.00	
23	15	7.00	5.80	7.60	80	223	16	8.40	6.60	2.40	0.00	
24	12	6.80	5.20	7.40	54	614	16	8.20	6.20	2.40	0.00	
25	9.40	7.00	5.20	7.40	44	726	15	8.60	5.80	2.40	0.00	
26	8.40	6.60	4.80	6.00	34	887	15	8.40	5.60	2.20	0.00	
27	32	6.80	4.20	6.00	150	470	16	8.00	5.40	2.20	0.00	
28	14	5.80	3.60	5.60	165	411	15	7.80	5.20	2.00	0.00	
29	7.80	5.40	3.40	5.80	148	336	15	7.60	5.00	2.00	0.00	
30	7.20	5.00	3.00	7.40	141	122	14	6.80	5.00	1.60		
31		4.60		9.80	124		13		4.80	1.40		
Total	165.00	180.20	450.40	158.80	1,258.60	8,445	1,356	283.00	225.00	87.80	9.40	0.00
Mean	5.50	5.81	15.0	5.12	40.6	281	43.7	9.43	7.26	2.83	0.324	0.00
Max.	32	9.20	67	9.80	165	887	189	14	9.40	4.00	1.20	0.00
Min.	0.00	2.80	3.00	0.20	5.80	48	13	6.80	4.80	1.40	0.00	0.00
Runoff - mcm.	14.256	15.569	38.914	13.720	108.743	729.648	117.158	24.451	19.440	7.586	0.812	0.00

WATER YEAR 1967 : Max. 887 Min. 0.00 Mean 34.5 Annual Runoff 1,090.299 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sep. 25	24.00	152.64	1,399				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
YOM RIVER BASIN

Mae Yom River at Sawankhalok Bridge, Sukhothai (Y.3A)

Location: Lat 17°- 18' - 29" N, Long 99°- 49' - 43" E, on right bank about 100 meters downstream from Sawankhalok bridge, Amphoe Sawankhalok, Sukhothai.

Drainage Area: 13,583 sq.km.

Type of Gage: Water - stage recorder.

Zero Gage at Bottom at: +51.00 m. (M.S.L.)

Bench Mark:

Location: On left side of automatic gage.
Elevation: +60.559 m. (M.S.L.)

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 Float: -
Rated by Current Meter: 1967 to date

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

Overbank Flow Conditions: No overbank flow.

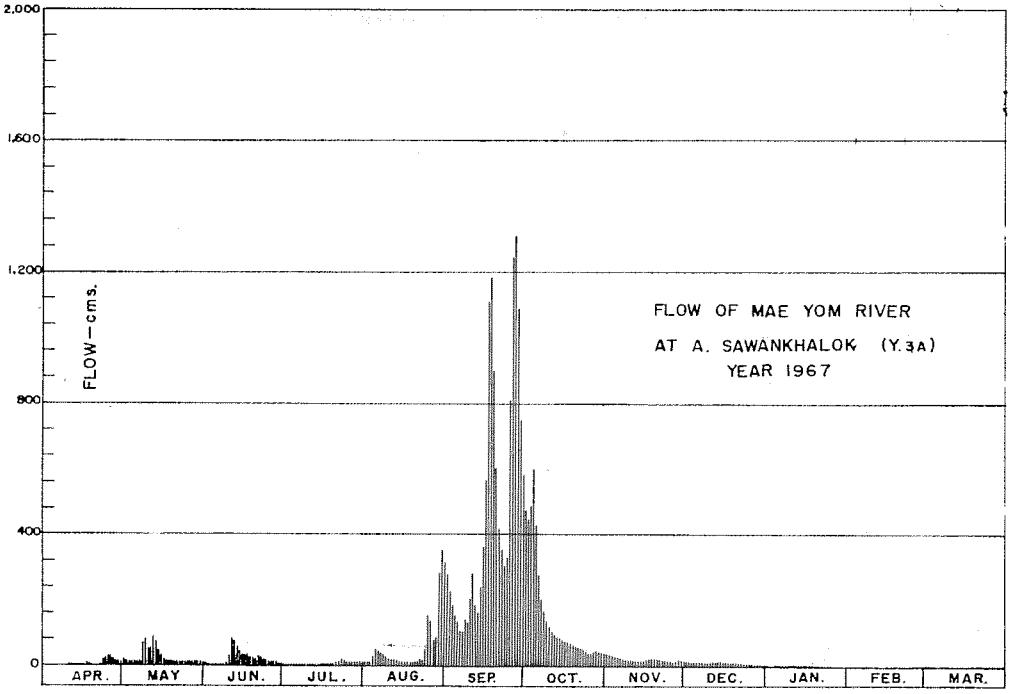
General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1967. Upstream state diversion for irrigation of about 24,000 hectares. No adjustment made for virgin flow.

Remarks: Stream gaging began on Apr. 11, 1967 and discharge record estimated.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1		52.23	51.90	51.84	51.98	55.27	56.60	52.50	52.17	51.82	51.66	51.63
2		.07	.84	.82	52.00	54.70	.26	.47	.14	.80	.66	.64
3		51.98	.83	.79	.07	.24	.67	.44	.12	.78	.65	.65
4		.95	.80	.78	.46	53.89	57.40	.41	.10	.78	.65	.65
5		52.12	.77	.76	.75	.68	56.16	.39	.10	.76	.64	.62
6		52.02	51.74	51.74	52.67	53.37	55.00	52.36	52.06	51.75	51.63	51.60
7		.02	.73	.74	.58	.20	54.45	.31	.04	.76	.63	.60
8		53.03	.73	.75	.48	.85	.09	.29	.04	.74	.62	.59
9		.16	.89	.77	.34	.82	53.81	.26	.04	.73	.62	.58
10		52.76	52.46	.78	.26	54.39	.59	.25	.05	.72	.62	.58
11	51.45	52.85	53.22	51.79	52.22	55.12	53.43	52.23	52.04	51.72	51.61	51.58
12	.45	53.34	.08	.77	.19	54.22	.28	.21	.00	.71	.60	.57
13	.44	.06	52.84	.77	.14	53.96	.21	.20	.01	.70	.60	.57
14	.43	52.61	.72	.76	.09	55.04	.19	.17	.04	.69	.59	.57
15	.44	.33	.51	.74	.05	56.10	.11	.17	.04	.69	.59	.57
16	51.53	52.20	52.44	51.79	52.01	57.24	53.07	52.30	52.01	51.69	51.59	51.57
17	.95	.15	.50	.76	.00	59.91	.01	.31	.00	.69	.59	.58
18	.68	.11	.41	.74	.01	60.16	52.96	.29	51.99	.69	.58	.57
19	.58	.05	.31	.78	.02	58.05	.90	.25	.98	.69	.58	.56
20	.55	51.99	.28	.91	.08	56.50	.86	.22	.97	.68	.58	.56
21	51.58	52.02	52.46	51.99	52.13	55.99	52.78	52.27	51.95	51.68	51.58	51.60
22	.82	.06	.35	52.02	.14	.52	.74	.26	.94	.68	.59	.65
23	52.16	.11	.26	.14	.13	.24	.70	.24	.93	.68	.60	.64
24	.17	.06	.19	.11	53.08	.19	.64	.18	.92	.68	.61	.64
25	.44	.03	.13	.05	.95	58.35	.56	.14	.92	.68	.62	.62
26	52.30	52.01	52.08	52.05	53.48	60.42	52.52	52.11	51.90	51.67	51.62	51.60
27	.14	51.97	.07	.07	.19	.63	.63	.11	.89	.67	.64	.59
28	.11	.97	.02	.03	.41	59.81	.68	.21	.88	.67	.63	.58
29	.06	52.01	51.91	.02	55.01	58.27	.62	.22	.87	.67	.62	.58
30	.06	51.96	.87	51.99	.72	57.34	.60	.19	.86	.67		.56
31		.94		.99	.64		.56		.84	.67		.55
Mean.		52.26	52.21	51.87	52.72	56.12	53.65	52.26	51.99	51.71	51.61	51.59
Max.		53.34	53.22	52.14	55.72	60.63	57.40	52.50	52.17	51.82	51.66	51.65
Min.		51.94	51.73	51.74	51.98	53.20	52.52	52.11	51.84	51.67	51.58	51.55

WATER YEAR 1967 : Max. 60.63 m. Min. m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1		20	8.00	6.20	12	296	488	34	16	5.60	3.40	2.70
2		13	6.20	5.60	12	241	439	32	15	5.00	3.40	2.80
3		10	5.90	4.80	14	199	479	31	14	5.60	3.20	2.90
4		9.50	5.00	5.00	35	160	595	29	14	5.60	3.20	2.90
5		15	4.40	4.60	52	139	408	28	14	5.00	3.00	2.60
6		12	3.80	4.20	46	109	258	25	13	4.80	2.90	2.40
7		12	3.60	4.20	41	87	195	22	13	5.00	2.90	2.40
8		70	3.60	4.40	35	141	161	21	13	4.60	2.80	2.30
9		81	7.70	4.80	27	133	137	20	13	4.40	2.80	2.20
10		50	32	5.00	23	193	119	19	14	4.20	2.80	2.20
11	0.50	56	86	5.30	20	278	106	18	13	4.20	2.70	2.20
12	0.50	95	74	4.80	18	174	94	18	12	4.00	2.60	2.10
13	0.40	73	56	4.80	16	154	88	17	12	3.80	2.60	2.10
14	0.30	41	47	4.60	14	278	86	16	13	3.60	2.50	2.10
15	0.40	25	35	4.20	12	417	80	16	13	3.60	2.50	2.10
16	1.30	19	31	5.30	11	597	77	22	12	3.60	2.50	2.10
17	9.50	16	34	4.60	11	1,124	72	23	12	3.60	2.50	2.20
18	2.80	14	29	4.20	11	1,182	68	22	12	3.60	2.40	2.10
19	1.80	12	24	5.00	12	735	63	20	12	3.60	2.40	2.00
20	1.50	11	23	8.90	13	474	60	18	11	3.40	2.40	2.00
21	1.80	12	32	11	15	401	54	21	11	3.40	2.40	2.40
22	5.60	13	26	12	18	337	52	20	8.60	3.40	2.50	2.90
23	17	14	22	17	17	301	49	20	8.30	3.40	3.60	2.80
24	17	13	18	15	74	295	45	18	8.00	3.40	3.70	2.80
25	31	12	15	13	149	815	38	16	8.00	3.40	3.80	2.60
26	24	11	13	13	101	1,248	35	15	7.70	3.20	2.80	2.40
27	16	10	13	14	78	1,306	42	15	7.10	3.20	3.00	2.30
28	14	10	12	13	95	1,102	45	20	6.80	3.20	2.90	2.20
29	13	11	8.30	12	265	773	41	19	6.50	3.20	2.80	2.20
30	13	9.80	7.10	12	353	606	40	17	6.20	3.20	–	2.00
31		9.20		12	343		38		5.60	3.20	–	1.90
Total	257.10	779.50	685.60	244.50	1,943	14,295	4,552	632	344.80	123.00	80.80	72.90
Mean	8.57	25.14	22.85	7.887	62.68	476	147	21.07	11.12	3.97	2.786	2.35
Max.	31.	95	86	17	353	1,306	595	34	16	5.60	3.80	2.90
Min.	0.30	9.20	3.60	4.20	11	87	35	15	5.60	3.20	2.40	1.90
Runoff – mcm.	22.213	67.349	59.236	21.125	167.875	1,235.088	393.293	54.605	29.791	10.627	6.981	6.298

WATER YEAR 1967 : Max. 1,306 Min. 0.30 Mean 63.6 Annual Runoff 2,074.481 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sep. 27	22.00	60.57	1,321				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
YOM RIVER BASIN

Mae Yom River at Talat Thani, Sukhothai (Y.4)

Location: Lat 17°- 00' - 18" N, Long 99°- 49' - 31" E, in front of the house of the Governer, at Talat Thani, Amphoe Muang, Sukhothai.

Drainage Area: 17,731 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: +44.00 m. (M.S.L.)

Bench Mark:

Location: At about 22 meters from the upper gage.
Elevation: +47.579 m. (M.S.L.)

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: 1950 - 60, 1962 to date

Rating Operation:

Period of Rating: 1954 - 56, 1967 - 70
Rated by Float: -
Rated by Current Meter: 1954 - 56, 1967 - 70

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

Overbank Flow Conditions: Overbank flow but not observed.

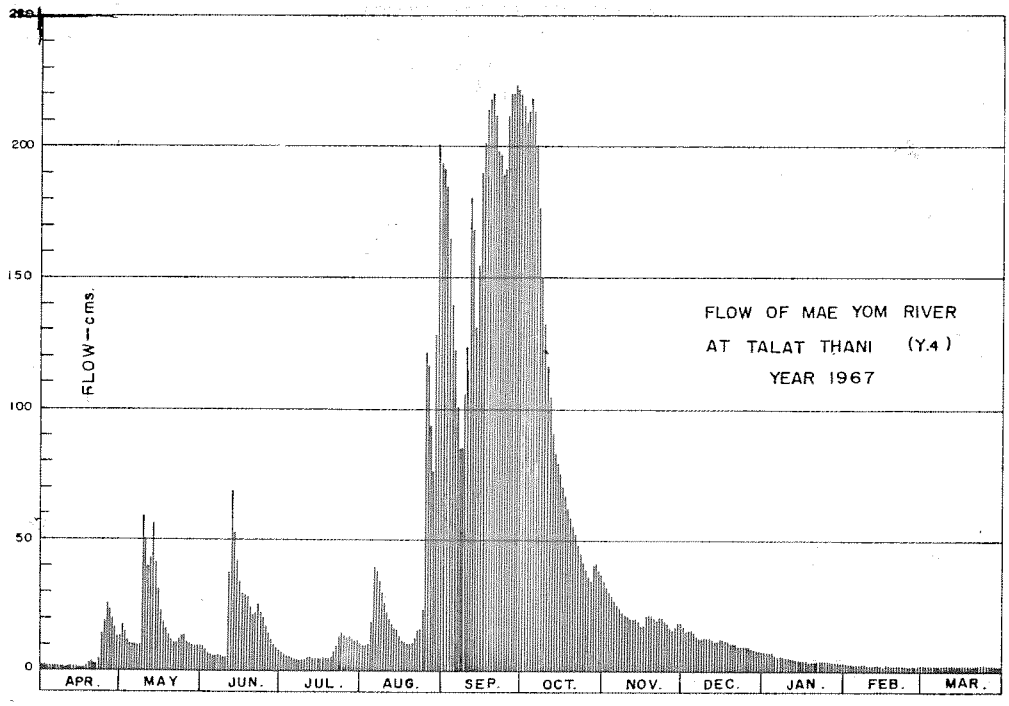
General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1967. Upstream state diversions for irrigation of about 24,000 hectares. No adjustment made for virgin flow.

Remarks: Gage record estimated for period Mar. 1 - 26

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	44.44	45.36	45.04	44.89	45.09	48.60	48.81	46.18	45.49	44.94	44.60	44.49
2	.44	.47	44.98	.83	.07	.38	.75	.10	.40	.93	.59	.49
3	.43	.25	.87	.80	.11	.20	.79	.04	.37	.92	.58	.49
4	.43	.12	.82	.77	.25	47.98	.83	45.99	.37	.90	.58	.49
5	.43	.05	.79	.75	46.14	.75	.77	.92	.35	.83	.57	.49
6	44.42	45.12	44.79	44.70	46.34	47.55	48.57	45.85	45.28	44.81	44.57	44.48
7	.42	.05	.84	.68	.27	.23	.35	.79	.24	.79	.56	.48
8	.41	.10	.80	.66	.12	.30	.14	.72	.23	.79	.55	.48
9	.41	46.33	.75	.68	45.92	.82	47.95	.66	.24	.78	.54	.48
10	.40	.81	.74	.70	.71	.65	.76	.62	.24	.75	.54	.48
11	44.40	46.35	46.27	44.73	45.58	48.49	47.56	45.57	45.26	44.72	44.53	44.48
12	.39	.41	47.01	.73	.50	.27	.38	.56	.23	.71	.52	.48
13	.39	.75	46.65	.70	.45	47.91	.22	.56	.18	.70	.51	.48
14	.38	.59	.37	.71	.36	48.27	.16	.52	.20	.70	.50	.48
15	.38	.06	.16	.70	.28	.60	.11	.45	.26	.68	.50	.48
16	44.38	45.75	46.01	44.70	45.21	48.72	47.01	45.45	45.24	44.67	44.50	44.47
17	.38	.51	45.97	.76	.13	.79	46.97	.69	.21	.67	.49	.47
18	.46	.41	.98	.73	.12	.82	.88	.70	.17	.67	.49	.47
19	.54	.29	.79	.73	.13	.84	.79	.68	.16	.67	.49	.47
20	.59	.20	.65	.77	.16	.80	.73	.61	.15	.67	.49	.47
21	44.51	45.14	45.68	44.99	45.27	48.66	46.64	45.58	45.12	44.67	44.49	44.47
22	.51	.14	.85	45.08	.37	.65	.55	.64	.09	.67	.49	.47
23	.74	.17	.70	.20	.39	.58	.48	.61	.07	.67	.49	.47
24	45.36	.29	.57	.33	.45	.56	.40	.57	.06	.64	.49	.47
25	.56	.27	.43	.31	47.80	.79	.30	.47	.06	.65	.49	.47
26	45.83	45.18	45.33	45.23	47.72	48.84	46.21	45.42	45.04	44.64	44.49	44.47
27	.61	.11	.21	.28	.23	.84	.20	.36	.02	.64	.49	.47
28	.47	.06	.09	.24	.02	.86	.37	.39	.00	.63	.49	.47
29	.36	.08	44.99	.19	48.30	.85	.37	.55	44.99	.62	.49	.47
30	.21	.09	.96	.17	.68	.84	.29	.53	.97	.61		.46
31		.06		.14	.61		.25		.95	.61		.46
Mean	44.69	45.50	45.47	44.90	46.02	48.39	47.27	45.66	45.20	44.72	44.52	44.48
Max.	45.83	46.81	47.01	45.33	48.68	48.86	48.83	46.18	45.49	44.94	44.60	44.49
Min.	44.38	45.05	44.74	44.66	45.07	47.23	46.20	45.36	44.95	44.61	44.49	44.46

WATER YEAR 1967 : Max. 48.86 m. Min. 44.38 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	2.15	16	9.45	7.35	10	191	215	35	18	8.00	3.75	2.65
2	2.15	18	8.50	6.45	10	170	208	32	16	7.87	3.65	2.65
3	2.05	13	7.05	6.00	11	153	213	31	16	7.75	3.55	2.65
4	2.05	11	6.30	5.70	13	135	218	29	16	7.50	3.55	2.65
5	2.05	10	5.90	5.50	34	118	210	28	15	6.60	3.45	2.65
6	1.95	11	5.90	5.00	40	103	188	26	14	6.15	3.45	2.55
7	1.95	10	6.60	4.75	38	82	167	25	13	5.90	3.35	2.55
8	1.85	10	6.00	4.50	33	87	148	23	13	5.90	3.25	2.55
9	1.85	39	5.50	4.75	28	123	132	22	13	5.80	3.15	2.55
10	1.75	59	5.40	5.00	23	110	118	21	13	5.50	3.15	2.55
11	1.75	40	38	5.30	20	180	104	20	13	5.20	3.05	2.55
12	1.69	42	69	5.30	18	160	92	20	13	5.10	2.95	2.55
13	1.69	56	52	5.00	17	129	82	20	12	5.00	2.85	2.55
14	1.64	50	41	5.10	16	160	78	19	12	5.00	2.75	2.55
15	1.64	31	34	5.00	14	191	75	17	13	4.75	2.75	2.55
16	1.64	23	30	5.00	12	204	69	18	13	4.62	2.75	2.45
17	1.64	19	29	5.60	11	213	67	22	12	4.62	2.65	2.45
18	2.35	17	29	5.30	11	217	63	22	12	4.62	2.65	2.45
19	3.15	14	25	5.30	11	220	58	22	11	4.62	2.65	2.45
20	3.65	12	21	5.70	11	214	55	21	11	4.62	2.65	2.45
21	2.85	11	22	8.62	14	198	52	20	11	4.62	2.65	2.45
22	2.85	11	26	10	16	196	48	21	10	4.62	2.65	2.45
23	5.40	12	22	12	16	189	45	21	10	4.62	2.65	2.45
24	16	14	20	15	17	187	42	20	10	4.25	2.65	2.45
25	20	14	17	14	121	213	38	18	10	4.37	2.65	2.45
26	26	12	15	13	115	220	36	17	9.45	4.25	2.65	2.45
27	21	11	12	14	82	220	35	16	9.10	4.25	2.65	2.45
28	18	10	10	13	70	223	41	16	8.75	4.12	2.65	2.45
29	16	10	8.62	12	162	221	41	19	8.62	4.00	2.65	2.45
30	12	10	8.25	12	200	220	38	19	8.37	3.87		2.35
31		10		11	192		37		8.12	3.87		2.35
Total	180.74	626	595.47	242.22	1,386	5,247	3,017	660	372.41	161.96	85.85	77.75
Mean	6.02	20.2	19.8	7.81	44.7	175	97.2	22.0	12.0	5.22	2.96	2.51
Max.	26	59	69	15	200	223	218	35	18	8.00	3.75	2.65
Min.	1.64	10	5.40	4.50	10	82	37	16	8.12	3.87	2.65	2.35
Runoff - mcm.	15.616	54.086	51.449	20.928	119.750	453.341	260.323	57.024	32.176	13.993	7.417	6.718

WATER YEAR 1967 : Max. 223 Min. 1.64 Mean 34.5 Annual Runoff 1,092.882 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sep.27	06.00	48.86	223				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
YOM RIVER BASIN

Mae Yom River at Pho Thale, Phichit (Y.5)

Location: Lat 16°- 05' - 35" N, Long 100°- 15' - 48" E, on left bank in front of Amphoe Pho Thale Office, Phichit.

Drainage Area: 22,344 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: +22.852 m. (M.S.L.)

Bench Mark: B.M. - R.I.D.

Location: At mango tree in front of Amphoe Pho Thale Office.
Elevation: +30.640 m. (M.S.L.)

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: 1951 - 56, 1964 - 73

Rating Operation:

Period of Rating: 1967
Rated by Float: -
Rated by Current Meter: 1967

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1967. Upstream state diversions for irrigation of about 24,000 hectares. No adjustment made for virgin flow.

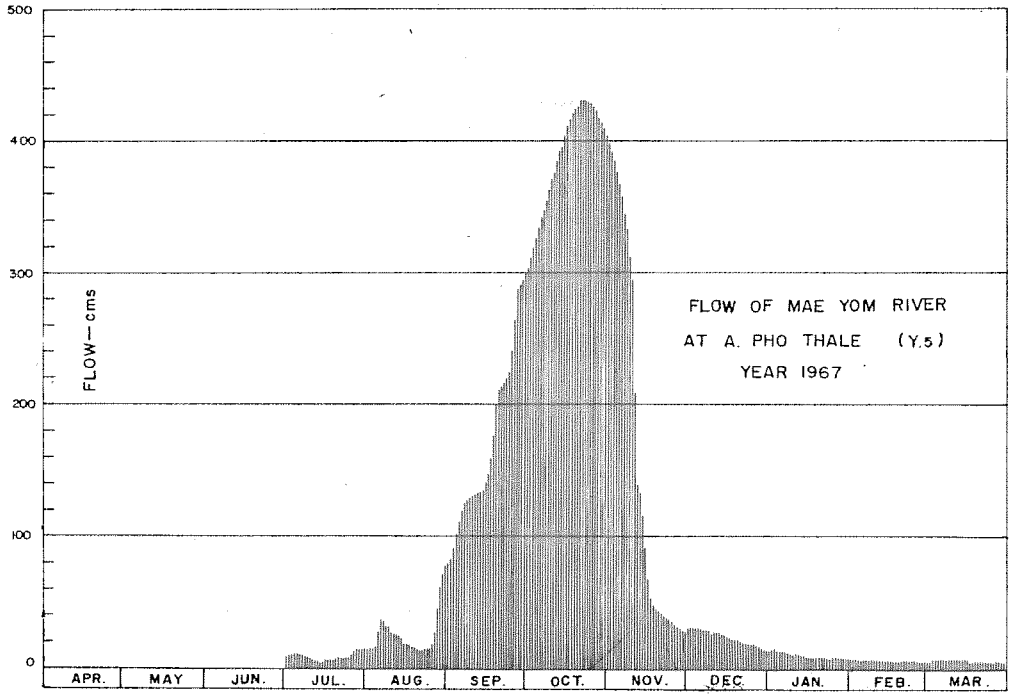
Remarks: Stage record began on Jul. 1, 1967

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1				23.41	23.68	25.63	29.35	30.16	24.29	23.62	23.31	23.17
2				.43	.66	.79	.43	.12	.27	.66	.31	.17
3				.46	.65	.95	.51	.07	.27	.63	.31	.26
4				.50	.60	26.12	.58	.01	.27	.61	.29	.26
5				.53	24.19	.37	.66	29.93	.27	.58	.27	.27
6				23.48	24.47	26.55	29.73	29.86	24.26	23.57	23.26	23.26
7				.45	.40	.62	.79	.77	.26	.55	.26	.28
8				.43	.30	.69	.86	.65	.23	.53	.26	.26
9				.39	.32	.70	.91	.38	.20	.52	.26	.26
10				.33	.16	.73	.97	.13	.15	.49	.25	.26
11				23.28	24.15	26.75	30.04	28.01	24.19	23.47	23.25	23.28
12				.23	.06	.76	.09	26.83	.17	.46	.25	.28
13				.17	.09	.77	.13	.77	.14	.44	.24	.28
14				.13	.00	.80	.14	.31	.10	.43	.23	.28
15				.16	23.82	.94	.18	25.86	.05	.42	.21	.27
16				23.27	23.78	27.05	30.24	25.33	24.02	23.40	23.21	23.15
17				.29	.80	.26	.27	24.96	23.97	.40	.21	.15
18				.26	.70	.59	.30	.83	.96	.40	.21	.15
19				.29	.71	.94	.32	.77	.96	.40	.21	.15
20				.32	.64	28.09	.33	.71	.95	.40	.20	.15
21				23.36	23.61	28.15	30.36	24.64	23.93	23.38	23.20	23.16
22				.35	.63	.17	.36	.57	.89	.37	.20	.16
23				.35	.65	.23	.36	.52	.87	.35	.20	.16
24				.32	.66	.32	.36	.48	.85	.36	.19	.17
25				.38	.70	.52	.34	.45	.83	.37	.18	.17
26				23.46	23.85	28.88	30.33	24.35	23.82	23.37	23.17	23.17
27				.61	24.29	29.12	.32	.28	.74	.37	.17	.17
28				.68	.88	.19	.29	.27	.72	.35	.17	.17
29				.68	25.22	.23	.26	.22	.68	.32	.17	.17
30				.67	.50	.26	.24	.19	.66	.31		.17
31				.66	.61		.20		.63	.31		.17
Mean				23.40	24.09	27.40	30.07	26.68	24.02	23.45	23.23	23.21
Max.				23.68	25.61	29.26	30.36	30.16	24.29	23.66	23.31	23.28
Min.				23.13	23.60	25.63	29.35	24.19	23.63	23.31	23.17	23.15

WATER YEAR 1967 : Max. 30.36 m. Min. m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1				9.79	15	79	304	397	31	14	8.16	5.98
2				10	15	86	311	390	31	15	8.16	5.98
3				11	15	94	319	383	31	14	8.16	7.36
4				11	14	101	325	374	31	14	7.84	7.36
5				12	28	113	333	364	31	13	7.52	7.52
6				11	37	122	341	355	30	13	7.36	7.36
7				10	35	126	347	345	30	13	7.36	7.68
8				10	32	129	355	332	29	12	7.36	7.36
9				9.44	32	130	361	307	29	12	7.36	7.36
10				8.48	27	131	369	286	27	11	7.20	7.36
11				7.68	27	132	378	206	28	11	7.20	7.68
12				6.88	25	133	385	137	28	11	7.20	7.68
13				5.98	26	133	392	133	27	10	7.04	7.68
14				5.42	23	135	393	110	26	10	6.88	7.68
15				5.84	19	142	400	90	25	9.98	6.56	7.52
16				7.52	18	148	410	67	24	9.60	6.56	5.70
17				7.84	18	160	415	53	23	9.60	6.56	5.70
18				7.36	16	180	420	48	22	9.60	6.56	5.70
19				7.84	16	201	423	46	22	9.60	6.56	5.70
20				8.32	15	211	425	44	22	9.60	6.40	5.70
21				8.96	14	214	430	42	21	9.28	6.40	5.84
22				8.80	14	216	430	40	20	9.12	6.40	5.84
23				8.80	15	220	430	38	20	8.80	6.40	5.84
24				8.32	15	226	430	37	20	8.96	6.26	5.98
25				9.28	16	239	427	36	19	9.12	6.12	5.98
26				11	20	266	425	33	19	9.12	5.98	5.98
27				14	31	285	423	31	17	9.12	5.98	5.98
28				15	50	291	418	31	16	8.80	5.98	5.98
29				15	63	294	413	29	15	8.32	5.98	5.98
30				15	74	297	410	28	15	8.16		5.98
31				15	79		403		14	8.16		5.98
Total				302.55	844	5,234	12,045	4,812	743	327.94	190.50	203.42
Mean				9.76	27.2	174	388	160	24.0	10.6	6.57	6.56
Max.				15	79	297	430	397	31	15	8.16	7.68
Min.				5.42	14	79	304	28	14	8.16	5.98	5.70
Runoff - mcm.				26.140	72.922	452.218	1,040.688	415.757	64.195	28.334	16.459	17.575

WATER YEAR 1967 : Max. 403 Min. Mean Annual Runoff mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 21	12.00	30.36	430				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
YOM RIVER BASIN

Mae Yom River at Kaeng Luang, Sukhothai (Y.6)

Location: Lat 17°- 26' - 03" N, Long 99°- 47' - 32" E, on left bank about 150 meters upstream from Kaeng Luang, Amphoe Si Satchanalai, Sukhothai.

Drainage Area: 12,658 sq.km.

Type of Gage: Water - stage recorder.

Zero Gage at Bottom at: +59.00 m. (M.S.L.)

Bench Mark: B.M. - H.S. No.1

Location: Near gage site
Elevation: +69.132 m. (M.S.L.)

Gage Reading Frequency: Recording.

Basis of Mean Daily Gage Height: Arithmetic mean of 24 readings.

Period of Available Gage Records: 1952 to date

Rating Operation:

Period of Rating: 1952 to date
Rated by Float: -
Rated by Current Meter: 1952-to date

Stability of Channel Regimes: Unstable, shifting adjustment is included for flow computation.

Overbank Flow Conditions: No overbank flow.

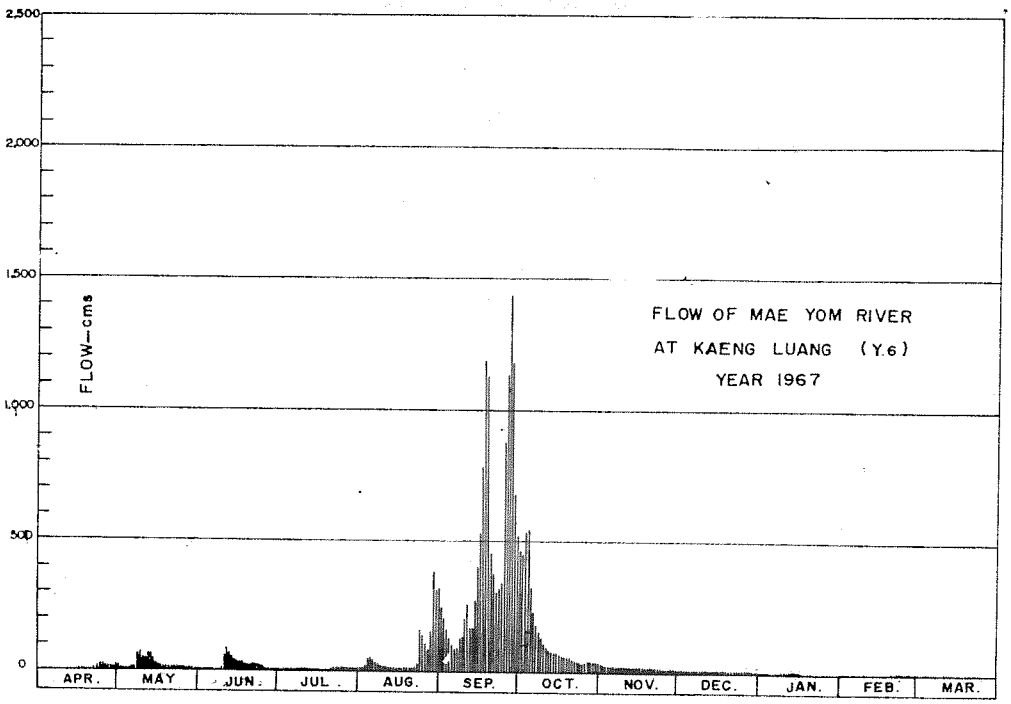
General Description: Records good. Stage - discharge relation used is defined by discharge measurements made during 1967. Upstream state diversions for irrigation of about 24,000 hectares. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	59.56	60.13	59.89	59.80	60.01	63.35	63.31	60.51	60.15	59.91	59.71	59.68
2	.56	.00	.86	.84	.05	.10	.22	.47	.14	.89	.70	.69
3	.56	59.96	.84	.82	.19	61.80	.61	.45	.15	.86	.70	.69
4	.55	.93	.83	.81	.69	.56	.67	.42	.12	.83	.70	.67
5	.54	60.03	.86	.78	.74	.41	62.85	.39	.07	.83	.70	.66
6	59.53	59.93	59.87	59.77	60.67	61.18	62.25	60.34	60.06	59.83	59.70	59.66
7	.51	60.04	.81	.77	.56	.20	61.90	.31	.07	.83	.69	.65
8	.50	.85	.78	.79	.46	.64	.67	.29	.07	.81	.68	.63
9	.49	.99	.87	.81	.33	.51	.47	.26	.09	.80	.68	.62
10	.50	.62	60.79	.83	.28	62.21	.33	.25	.09	.79	.67	.62
11	59.48	60.71	61.17	59.81	60.24	62.30	61.22	60.23	60.05	59.78	59.67	59.61
12	.47	.93	60.88	.81	.20	61.75	.11	.21	.02	.78	.67	.61
13	.47	.86	.70	.79	.16	.83	.06	.19	.06	.77	.66	.60
14	.45	.49	.55	.77	.11	62.56	.05	.17	.10	.76	.66	.60
15	.46	.30	.50	.78	.06	63.18	60.99	.25	.07	.76	.66	.59
16	59.94	60.18	60.46	59.78	60.02	64.01	60.96	60.35	60.07	59.76	59.66	59.60
17	.73	.10	.50	.79	.04	65.62	.91	.33	.02	.76	.65	.60
18	.62	.06	.38	.77	.05	.50	.86	.32	.02	.77	.64	.60
19	.56	.01	.28	.85	.08	63.84	.82	.27	.01	.77	.63	.59
20	.59	.00	.35	60.00	.14	.16	.78	.28	59.99	.76	.63	.63
21	59.73	60.02	60.46	60.00	60.17	62.88	60.72	60.31	59.98	59.76	59.63	59.68
22	60.08	.05	.33	.12	.15	.73	.68	.28	.98	.76	.66	.68
23	.18	.13	.27	.17	.40	.64	.63	.24	.98	.75	.66	.68
24	.30	.07	.19	.11	61.76	.78	.57	.18	.96	.74	.67	.66
25	.36	.02	.11	.06	.60	64.86	.53	.16	.96	.73	.67	.65
26	60.19	59.99	60.01	60.12	61.24	65.81	60.54	60.15	59.94	59.73	59.67	59.65
27	.08	.97	59.95	.07	.06	66.17	.65	.20	.94	.73	.70	.68
28	.11	60.03	.92	.05	.66	64.89	.66	.26	.93	.73	.68	.68
29	59.97	59.99	.91	.03	63.04	63.74	.60	.23	.92	.73	.68	.67
30	60.28	.98	.86	.01	62.65	.67	.59	.20	.91	.73		.65
31		.93		.01	.77		.55		.91	.72		.64
Mean	59.74	60.20	60.21	59.90	60.82	63.10	61.35	60.28	60.03	59.78	59.67	59.64
Max.	60.36	60.99	61.17	60.17	63.04	66.17	63.67	60.51	60.15	59.91	59.71	59.69
Min.	59.45	59.93	59.78	59.77	60.01	61.18	60.53	60.15	59.91	59.72	59.63	59.59

WATER YEAR 1967 : Max. 66.17 m. Min. 59.46 m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	1.50	15	7.38	4.90	13	248	466	33	16	7.64	3.15	2.70
2	1.50	10	6.60	5.82	14	206	444	30	15	7.12	3.00	2.85
3	1.50	8.19	6.08	5.30	20	162	533	28	16	6.34	3.00	2.70
4	1.40	7.38	5.82	5.30	50	130	548	26	14	5.56	3.00	2.40
5	1.30	10	6.60	4.70	53	112	351	25	13	5.56	3.00	2.25
6	1.20	7.38	6.86	4.50	44	86	238	22	12	5.56	3.00	2.25
7	1.00	13	5.30	4.50	36	89	183	21	13	5.56	2.85	2.10
8	0.90	61	4.70	4.90	30	139	151	20	13	5.10	2.70	1.80
9	0.50	72	8.19	5.30	24	124	125	19	13	4.90	2.70	1.70
10	0.55	43	57	5.82	21	230	108	19	13	4.70	2.55	1.70
11	0.45	50	93	5.30	19	245	93	18	12	4.50	2.55	1.60
12	0.40	67	65	5.30	18	160	81	17	11	4.50	2.55	1.60
13	0.40	61	50	4.90	16	172	76	16	12	4.30	2.40	1.50
14	0.30	34	40	4.50	14	290	75	16	14	4.10	2.40	1.50
15	0.35	24	36	4.70	13	424	69	19	13	4.10	2.40	1.40
16	7.64	19	34	4.70	12	642	67	24	11	4.10	2.40	1.40
17	3.00	15	36	4.90	13	1,182	61	23	11	4.10	2.25	1.40
18	1.50	14	29	4.50	13	1,106	57	22	11	4.30	2.10	1.40
19	0.90	11	24	6.34	14	571	54	20	10	4.30	1.95	1.30
20	1.20	10	25	10	16	401	51	20	9.93	4.10	1.95	1.60
21	4.30	11	30	10	18	338	47	22	9.64	4.10	1.95	2.40
22	14	12	24	15	17	307	44	20	9.64	4.10	2.40	2.40
23	19	15	21	17	29	315	40	19	9.64	3.90	2.40	2.40
24	24	13	17	16	162	344	36	16	9.06	3.70	2.55	2.10
25	27	11	14	14	139	926	34	15	9.06	3.50	2.55	1.95
26	18	10	10	17	97	1,279	34	15	8.48	3.50	2.55	1.95
27	13	9.64	8.77	15	78	1,430	42	16	8.48	3.50	3.00	2.40
28	14	11	7.90	14	142	936	43	19	8.19	3.50	2.70	2.40
29	9.64	10	7.64	13	382	579	38	18	7.90	3.50	2.70	2.25
30	22	9.93	6.34	13	300	559	38	17	7.64	3.50		1.95
31		9.06		13	323		35		7.64	3.30		1.80
Total	192.43	673.58	693.18	263.18	2,140	13,733	4,262	615	348.30	140.54	74.70	61.51
Mean	6.41	21.7	23.1	8.49	69.0	458	137	20.5	11.2	4.53	2.57	1.98
Max.	27	72	93	17	382	1,430	548	33	16	7.64	3.15	2.85
Min.	0.30	7.38	4.70	4.50	13	86	34	15	7.64	3.30	1.95	1.30
Runoff - mcm.	16.626	58.975	59.891	22.739	184.896	1,186.531	368.237	53.136	30.093	12.143	6.454	5.314

WATER YEAR 1967 : Max. 1,430 Min. 0.30 Mean 63.4 Annual Runoff 2,004.257 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sep. 27	20.00	66.38	1,496				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
YOM RIVER BASIN

Ngao Creek at Ngao Bridge, Lampang (Y.13)

Location: Lat 18°- 45' - 06" N, Long 99°- 58' - 53" E, on left bank at downstream side of Ngao Bridge, Amphoe Ngao, Lampang.

Drainage Area: 382 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: +266.79 m. (M.S.L.)

Bench Mark: B.M. - R.I.D. No.14

Location: On left bank about 100 meters upstream from gage site.
Elevation: +272.896 m. (M.S.L.)

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: 1957 to date

Period of Rating:
Rated by Float: 1957 - 58, 1971 to date
Rated by Current Meter: -
1957 - 58, 1971 to date

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

Overbank Flow Conditions: No overbank flow.

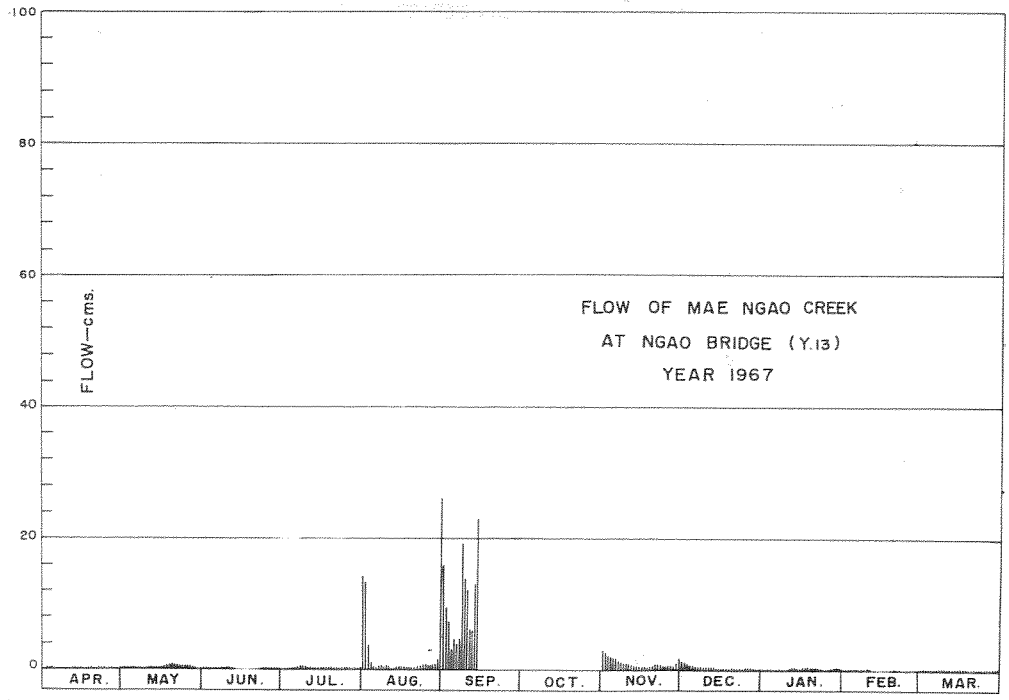
General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made during 1957 - 58. No upstream state diversions for irrigation except those built by local residents. No adjustment made for virgin flow.

Remarks: No records for period Sept. 15 - Oct. 31.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	266.89	266.89	266.93	266.93	267.60	267.54		267.24	267.11	266.92	266.93	266.90
2	.89	.89	.93	.95	.58	.49		.21	.09	.93	.92	.89
3	.91	.91	.92	.94	.24	.39		.18	.07	.94	.92	.92
4	.92	.91	.92	.94	266.99	.22		.17	.03	.94	.92	.92
5	.91	.91	.92	.93	.96	.33		.15	.01	.93	.92	.92
6	266.90	266.90	266.93	266.96	266.94	267.25		267.16	266.99	266.92	266.91	266.94
7	.90	.90	.93	.97	.96	.20		.12	.97	.92	.90	.94
8	.89	.89	.93	.97	.98	.70		.09	.96	.92	.90	.93
9	.89	.90	.93	.95	.97	.55		.09	.96	.92	.90	.92
10	.88	.92	.95	.94	.98	.57		.09	.96	.91	.91	.92
11	266.88	266.94	266.95	266.94	266.93	267.30		267.06	267.96	266.95	266.90	266.92
12	.92	.94	.94	.93	.91	.42		.04	.98	.97	.89	.91
13	.92	.94	.94	.93	.91	.58		.03	.98	.97	.89	.92
14	.93	.93	.93	.92	.92	.75		.01	.96	.96	.88	.92
15	.91	.92	.92	.92	.94			.01	.95	.95	.92	.90
16	266.91	266.98	266.92	266.92	266.92			267.01	266.94	266.98	266.92	266.92
17	.90	.99	.92	.92	.91			266.99	.94	267.00	.93	.92
18	.90	267.02	.92	.91	.93			.99	.94	266.99	.93	.91
19	.90	.03	.92	.92	.91			.98	.95	.97	.93	.91
20	.90	.07	.91	.93	.91			267.04	.95	.97	.93	.91
21	266.91	267.04	266.91	266.93	266.93			267.04	266.95	266.95	266.93	266.91
22	.91	266.99	.92	.92	.95			.02	.95	.94	.93	.91
23	.91	.99	.92	.92	.96			.01	.96	.94	.93	.90
24	.91	.98	.91	.92	267.00			266.98	.96	.94	.92	.89
25	.90	.99	.92	.91	.02			267.01	.99	.94	.91	.89
26	266.90	266.99	266.92	266.91	266.99			267.03	266.97	266.93	266.90	266.89
27	.90	.99	.93	.91	.98			.03	.94	.96	.90	.92
28	.89	.96	.93	.92	267.00			266.98	.94	.97	.90	.94
29	.89	.96	.92	.92	.05			267.09	.94	.97	.90	.94
30	.89	.95	.92	.91	.19			.17	.93	.95		.94
31		.95		.91	.80				.92	.95		.93
Mean	266.90	266.95	266.92	266.93	267.04			267.07	266.97	266.95	266.91	266.92
Max.	266.93	267.07	266.95	266.97	267.80			267.24	267.11	267.00	266.93	266.94
Min.	266.88	266.89	266.91	266.91	266.91			266.98	266.92	266.91	266.88	266.89

WATER YEAR 1967 : Max. 267.80 m. Min. 266.86 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.18	0.18	0.29	0.29	14	11		2.84	1.12	0.26	0.29	0.20
2	0.18	0.18	0.29	0.35	13	9.28		2.36	0.95	0.29	0.26	0.18
3	0.23	0.23	0.26	0.32	2.84	6.14		1.96	0.85	0.32	0.26	0.26
4	0.26	0.23	0.26	0.32	0.47	2.52		1.84	0.65	0.32	0.26	0.26
5	0.23	0.23	0.26	0.29	0.38	4.58		1.60	0.55	0.28	0.26	0.26
6	0.20	0.20	0.29	0.38	0.32	3.00		1.72	0.47	0.26	0.23	0.32
7	0.20	0.20	0.29	0.41	0.38	2.20		1.24	0.41	0.26	0.20	0.32
8	0.18	0.18	0.29	0.41	0.44	19		0.95	0.38	0.26	0.20	0.29
9	0.18	0.20	0.29	0.35	0.41	12		0.95	0.38	0.26	0.20	0.26
10	0.16	0.26	0.35	0.32	0.44	12		0.95	0.38	0.23	0.23	0.26
11	0.16	0.32	0.35	0.32	0.29	3.80		0.80	0.38	0.35	0.20	0.26
12	0.26	0.32	0.32	0.29	0.23	7.04		0.70	0.44	0.41	0.18	0.23
13	0.26	0.32	0.32	0.29	0.23	13		0.65	0.44	0.41	0.18	0.26
14	0.29	0.29	0.29	0.26	0.26	23		0.55	0.38	0.38	0.16	0.26
15	0.23	0.26	0.26	0.26	0.32			0.55	0.35	0.35	0.26	0.20
16	0.23	0.44	0.26	0.26	0.26			0.55	0.32	0.44	0.26	0.26
17	0.20	0.47	0.26	0.26	0.23			0.47	0.32	0.50	0.29	0.26
18	0.20	0.60	0.26	0.23	0.29			0.47	0.32	0.47	0.29	0.23
19	0.20	0.65	0.26	0.26	0.23			0.44	0.35	0.41	0.29	0.23
20	0.20	0.85	0.23	0.29	0.23			0.70	0.35	0.41	0.29	0.23
21	0.23	0.70	0.23	0.29	0.29			0.85	0.35	0.35	0.29	0.23
22	0.23	0.47	0.26	0.26	0.35			0.60	0.35	0.32	0.29	0.23
23	0.23	0.47	0.26	0.26	0.38			0.55	0.38	0.32	0.29	0.20
24	0.23	0.47	0.23	0.26	0.50			0.44	0.38	0.32	0.26	0.18
25	0.20	0.47	0.26	0.23	0.60			0.55	0.47	0.32	0.23	0.18
26	0.20	0.47	0.26	0.23	0.47			0.65	0.41	0.29	0.20	0.18
27	0.20	0.47	0.29	0.23	0.44			0.65	0.32	0.38	~~0.20~~	~~0.26~~
28	0.18	0.38	0.29	~~0.26~~	~~0.50~~			0.44	0.32	0.41	0.20	0.32
~~29~~	0.18	0.38	0.26	0.26	0.75			0.95	0.32	0.41	0.20	0.32
30	0.18	0.35	0.26	0.23	2.08			1.84	0.29	0.35	–	0.32
31		0.35		0.23	26				0.26	0.35	–	0.29
Total	6.29	11.56	8.28	8.90	67.61			29.81	13.64	10.70	6.95	7.74
Mean	0.210	0.373	0.276	0.287	2.18			0.994	0.440	0.345	0.240	0.250
Max.	0.29	0.85	0.35	0.41	26			2.84	1.12	0.50	0.29	0.32
Min.	0.16	0.18	0.26	0.23	0.23			0.44	0.26	0.23	0.16	0.18
Runoff – mcm.	0.543	0.999	0.715	0.769	5.841			2.575	1.178	0.924	0.600	0.669

WATER YEAR 1967 : Max. Min. Mean Annual Runoff mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
YOM RIVER BASIN

Mae Yom River at Don Rabiang, Sukhothai (Y.14)

Location: Lat 17° - 35' - 42" N, Long 99° - 43' - 08" E, on left bank, 50 meters from highway No.101 (Si Satchanalai - Den Chai), about 44 kilometers from Si Satchanalai, Tambon Mae Sam, Amphoe Si Satchanalai, Sukhothai.

Drainage Area: 12,131 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: +65.10 m. (M.S.L.)

Bench Mark: B.M. HS. No.1

Location: Infront of station office of Y.14
Elevation: +77.575 m. (M.S.L.)

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 Float: -
Rated by Current Meter: 1964 to date

Stability of Channel Regimes: Unstable, no shifting adjustment for flow computation.

Overbank Flow Conditions: No overbank flow.

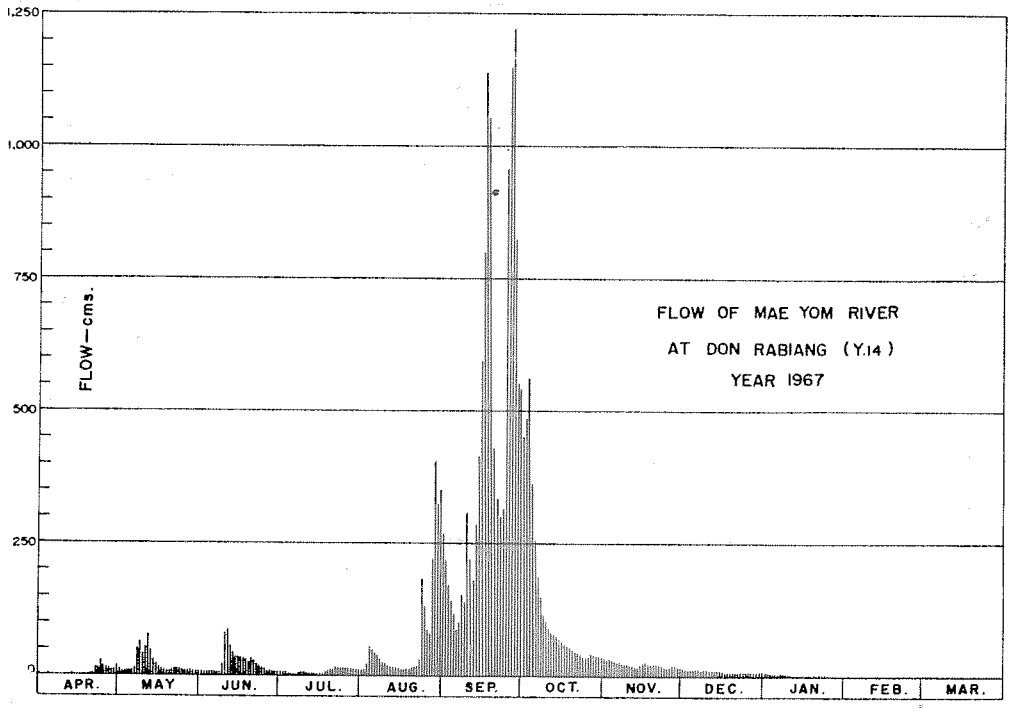
General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1967. Upstream state diversion for irrigation of about 24,000 hectares. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	65.59	66.08	65.92	65.89	66.06	68.56	69.78	66.41	66.14	65.95	65.78	65.77
2	.59	.02	.90	.88	.11	.28	.89	.38	.13	.94	.78	.77
3	.58	65.99	.88	.87	.30	67.84	70.43	.37	.12	.91	.78	.76
4	.58	66.04	.88	.84	.75	.56	.26	.35	.11	.89	.78	.74
5	.58	.00	.90	.83	.64	.38	69.13	.34	.10	.90	.77	.73
6	65.57	65.92	65.88	65.83	66.58	67.02	68.46	66.29	66.09	65.90	65.77	65.73
7	.57	66.13	.86	.85	.47	.28	.04	.27	.10	.89	.76	.71
8	.57	.73	.83	.87	.36	.74	67.75	.26	.09	.87	.75	.70
9	.56	.89	.96	.88	.28	.52	.49	.24	.10	.86	.75	.70
10	.56	.44	67.00	.88	.24	68.91	.31	.22	.09	.85	.75	.69
11	65.56	66.70	67.08	65.87	66.22	68.45	67.16	66.21	66.07	65.85	65.75	65.69
12	.56	.98	66.69	.86	.19	67.74	.04	.19	.07	.84	.75	.70
13	.55	.55	.55	.84	.15	68.21	.01	.16	.10	.84	.75	.72
14	.56	.34	.43	.83	.11	69.14	66.97	.18	.11	.84	.74	.73
15	.56	.23	.42	.81	.07	.87	.90	.29	.08	.84	.73	.73
16	65.58	66.14	66.44	65.83	66.06	71.19	66.86	66.30	66.06	65.84	65.73	65.73
17	.57	.09	.41	.84	.07	72.98	.79	.28	.05	.84	.72	.74
18	.57	.04	.29	.90	.07	.37	.74	.25	.05	.84	.71	.74
19	.57	.03	.25	.98	.13	70.37	.72	.24	.04	.84	.71	.74
20	.78	.04	.40	66.07	.16	69.60	.65	.28	.04	.83	.71	.74
21	65.84	66.05	66.37	66.06	66.16	69.33	66.61	66.28	66.03	65.83	65.71	65.74
22	66.20	.13	.28	.18	.17	68.98	.57	.25	.02	.83	.74	.73
23	.16	.13	.21	.16	.44	.90	.52	.20	.02	.83	.74	.73
24	.44	.08	.15	.11	68.04	69.21	.47	.16	.00	.83	.75	.73
25	.23	.05	.09	.10	67.56	72.19	.44	.14	65.99	.81	.75	.72
26	66.14	66.02	66.01	66.13	67.10	72.87	66.48	66.17	65.99	65.81	65.77	65.72
27	.13	.00	65.96	.10	66.95	73.19	.57	.24	.98	.80	.76	.71
28	.07	.06	.96	.08	68.18	71.27	.54	.24	.97	.80	.75	.71
29	.05	.01	.94	.06	69.64	70.33	.50	.21	.96	.80	.76	.68
30	.26	.00	.89	.05	.08	.32	.49	.16	.96	.79		.66
31		65.96		.04	.30		.45		.96	.79		.65
Mean	65.99	66.45	66.45	65.99	67.85	70.10	68.43	66.25	66.05	65.85	65.75	65.72
Max.	66.44	66.98	67.08	66.18	69.64	73.19	70.43	66.41	66.14	65.95	65.78	65.77
Min.	65.55	65.92	65.83	65.81	66.06	67.02	66.44	66.14	65.96	65.79	65.71	65.65

WATER YEAR 1967 : Max. 73.19 m. Min. 65.55 m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.56	11	6.80	5.90	11	243	444	32	13	6.50	3.02	3.24
2	0.56	9.50	6.20	5.60	13	205	463	30	13	6.20	2.80	3.24
3	0.42	8.60	5.60	5.30	21	151	562	30	13	6.20	2.80	2.66
4	0.42	10	5.60	4.56	55	130	512	29	12	5.60	2.80	2.38
5	0.42	8.90	6.20	4.34	46	111	327	28	12	5.90	2.66	2.24
6	0.28	10	5.60	4.34	42	78	232	25	11	5.90	2.66	2.24
7	0.28	19	5.00	4.78	35	101	177	23	12	5.60	2.52	1.96
8	0.28	55	4.34	5.30	29	151	142	22	11	5.00	2.38	1.82
9	0.14	68	11	5.60	24	126	114	21	12	4.78	2.38	1.82
10	0.14	35	78	5.60	18	306	96	19	11	4.56	2.38	1.68
11	0.14	53	85	5.30	17	241	89	19	11	4.56	2.38	1.68
12	0.14	76	52	5.00	16	151	79	17	11	4.34	2.38	1.82
13	0.00	42	42	4.56	14	209	76	15	12	4.34	2.38	2.10
14	0.14	29	35	4.34	13	340	73	16	12	4.34	2.24	2.24
15	0.14	21	34	3.90	11	458	67	23	11	4.34	2.52	2.24
16	0.42	14	35	4.34	11	700	63	25	10	4.34	2.52	2.24
17	0.28	12	33	4.56	11	1,139	58	23	9.50	4.34	2.38	2.38
18	0.28	10	27	6.20	11	976	54	22	9.50	4.34	2.24	2.38
19	0.28	10	24	8.60	13	535	52	21	9.20	4.34	2.24	2.38
20	3.46	10	33	11	15	401	47	23	9.20	4.12	2.24	2.38
21	4.78	11	28	11	17	358	44	22	8.90	4.12	2.24	2.38
22	17	14	20	16	18	306	41	21	8.60	4.12	2.52	2.24
23	15	14	17	15	32	294	38	18	8.60	4.12	2.52	2.24
24	29	12	15	13	182	340	35	16	8.00	3.68	2.80	2.24
25	19	11	12	13	126	950	33	15	7.70	3.68	2.80	2.10
26	15	10	9.50	14	81	1,131	36	16	7.70	3.68	3.24	2.10
27	14	9.20	8.00	13	68	1,221	41	19	7.40	3.46	3.02	1.96
28	11	11	8.00	12	200	735	39	19	7.10	3.46	2.80	1.96
29	10	9.50	7.40	11	403	542	37	17	6.80	3.46	3.02	1.54
30	19	9.20	5.90	11	316	540	36	15	6.80	3.24	–	1.26
31	–	8.00	–	10	349	–	34	–	6.80	3.24	–	1.12
Total	162.56	630.90	665.14	248.12	2,218	13,169	4,141	641	308.80	139.90	74.88	66.26
Mean	5.42	20.3	22.2	8.00	71.5	439	133	21.4	9.96	4.51	2.58	2.14
Max.	29	76	85	16	403	1,221	562	32	13	6.50	3.24	3.24
Min.	0.00	8.00	4.34	3.90	11	78	33	15	6.80	3.24	2.24	1.12
Runoff – mcm.	14.045	54.510	57.468	21.438	191.635	1,137.802	357.782	55.382	26.680	12.087	6.470	5.725

WATER YEAR 1967 : Max. 1,221 Min. 0.00 Mean 61.4 Annual Runoff 1,941.024 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sep.27	17.00	73.31	1,255				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
YOM RIVER BASIN

Mae Yom River at Kong Krailat, Sukhothai (Y.15)

Location: Lat 16° – 55' – 47" N, Long 99° – 57' – 41" E, on left bank about 5 kilometers far from Amphoe Kong Krailat along the road to Ban Kong, Sukhothai.

Drainage Area: 19,936 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: 0.00 m. (A.D.)

Bench Mark: B.M. Y.15

Location: About 30 meters southwest of staff gage.
Elevation: +6.387 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: 1967 to date

Rating Operation:

Period of Rating: 1967
Rated by Float: –
Rated by Current Meter: 1967

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

Overbank Flow Conditions: No overbank flow.

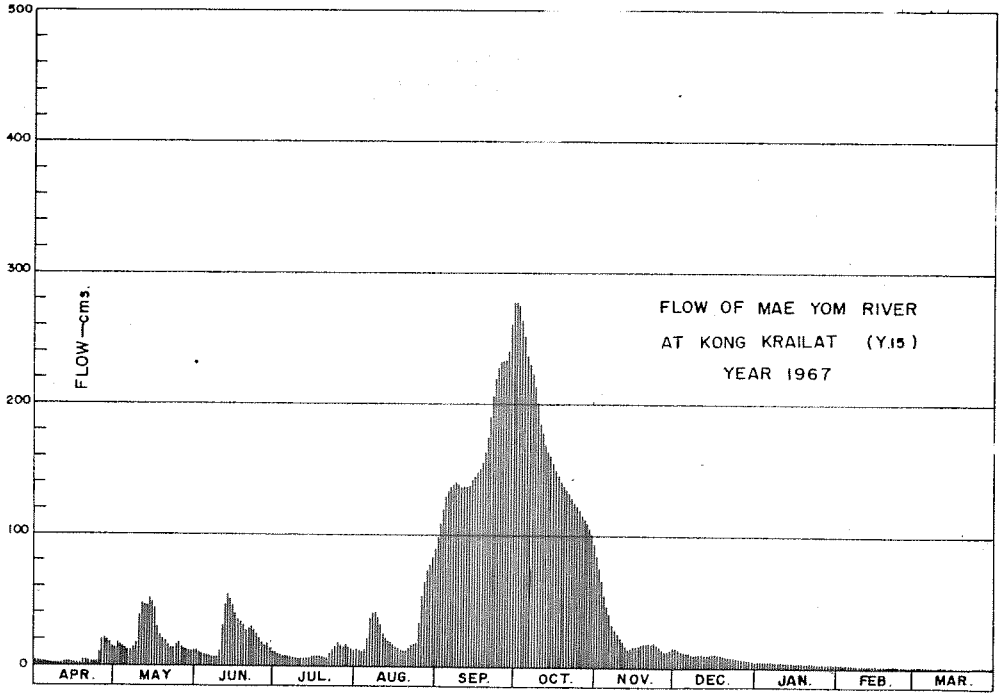
General Description: Records fair. Stage – discharge relationship used is defined by discharge measurements made during 1967. Upstream state diversion for irrigation of about 24,000 hectares. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (A.D.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.28	1.50	1.34	1.32	1.42	4.89	8.29	5.42	1.82	1.11	0.70	0.58
2	.27	.73	.26	.22	.37	5.23	.27	.03	.74	.11	.69	.57
3	.26	.62	.17	.19	.36	.56	.21	4.47	.63	.10	.67	.56
4	.25	.53	.11	.15	.42	.77	.13	3.94	.59	.08	.64	.56
5	.24	.45	.07	.10	.75	.90	.07	.68	.61	.05	.64	.58
6	0.23	1.29	1.07	1.07	2.61	5.99	8.03	3.25	1.56	0.98	0.63	0.58
7	.22	.36	.07	.02	.85	6.06	7.98	2.69	.47	.94	.63	.56
8	.21	.48	.08	0.98	.83	.07	.90	.72	.43	.93	.61	.53
9	.20	.68	.02	.97	.72	.05	.79	.52	.43	.92	.61	.51
10	.19	2.78	0.98	1.00	.44	.03	.68	.31	.44	.90	.60	.50
11	0.18	3.15	1.32	1.04	2.12	6.01	7.58	2.13	1.46	0.87	0.59	0.49
12	.17	.07	2.80	.07	1.91	.01	.50	1.88	.47	.85	.59	.47
13	.16	.07	3.30	.05	.82	.06	.41	.73	.42	.83	.58	.46
14	.15	.29	.38	.04	.73	.13	.34	.84	.37	.81	.57	.44
15	.14	.20	.21	.08	.62	.21	.26	.86	.41	.79	.55	.42
16	0.14	3.03	2.99	1.07	1.52	6.29	7.17	1.81	1.51	0.79	0.53	0.42
17	.14	2.31	.68	.11	.42	.37	.11	.94	.46	.78	.54	.41
18	.25	1.97	.58	.13	.35	.49	.05	2.09	.39	.77	.54	.41
19	.80	.84	.54	.08	.34	.67	.00	.09	.36	.77	.52	.41
20	.77	.87	.36	.07	.35	.93	6.94	.05	.35	.77	.49	.43
21	0.53	1.62	2.21	1.20	1.44	7.20	6.89	2.00	1.33	0.77	0.49	0.43
22	.47	.53	.29	.36	.58	.47	.81	1.94	.29	.76	.48	.41
23	.42	.49	.35	.41	.70	.64	.74	2.00	.28	.76	.47	.42
24	.74	.55	.20	.57	.71	.72	.68	1.94	.26	.75	.49	.50
25	1.35	.68	.03	.72	2.37	.76	.58	.85	.24	.74	.50	.56
26	1.88	1.59	1.85	1.65	3.38	7.77	6.49	1.70	1.23	0.73	0.52	0.56
27	2.15	.49	.71	.59	.72	.80	.39	.65	.22	.72	.52	.55
28	1.97	.40	.61	.61	4.06	1.95	.29	.57	.20	.70	.54	.54
29	.69	.35	.70	.56	.17	8.16	.16	.70	.18	.70	.55	.49
30	.60	.39	.43	.51	.35	.28	.06	.84	.16	.69		.47
31		.39		.46	.59		5.76		.13	.70		.46
Mean	0.61	1.92	1.92	1.24	2.28	6.61	7.21	2.45	1.40	0.84	0.57	0.49
Max.	2.15	3.29	3.38	1.72	4.59	8.28	8.29	5.42	1.82	1.11	0.70	0.58
Min.	0.14	1.29	0.98	0.97	1.34	4.89	5.76	1.57	1.13	0.69	0.47	0.41

WATER YEAR 1967 : Max. 8.28 m. Min. 0.14 m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.44	14	12	11	13	100	277	83	15	6.60	2.80	1.84
2	0.41	18	10	9.88	12	110	273	74	14	6.60	2.72	1.76
3	0.38	16	9.18	9.46	12	122	262	62	12	6.50	2.56	1.68
4	1.35	14	8.34	8.90	13	130	248	51	12	6.30	2.32	1.68
5	0.32	13	7.78	8.20	18	133	238	46	12	6.00	2.32	1.84
6	0.29	11	7.78	7.78	35	137	232	38	11	5.30	2.24	1.84
7	0.26	12	7.78	7.08	41	139	224	28	10	4.90	2.24	1.68
8	0.23	14	7.92	6.54	41	140	212	28	9.96	4.80	2.08	1.44
9	0.20	17	7.08	6.41	38	139	198	25	9.96	4.70	2.08	1.28
10	0.18	39	6.54	6.80	32	138	187	22	10	4.50	2.00	1.20
11	0.16	49	11	7.36	25	137	177	19	10	4.23	1.92	1.16
12	0.14	47	40	7.78	21	137	171	15	10	4.05	1.92	1.08
13	0.12	47	52	7.50	19	139	162	13	9.84	3.87	1.84	1.04
14	0.10	52	55	7.36	18	142	159	15	9.27	3.69	1.76	0.96
15	0.08	50	50	7.92	16	145	154	15	9.72	3.52	1.60	0.88
16	0.08	46	45	7.78	14	148	148	15	11	3.52	1.44	0.88
17	0.08	29	37	8.34	13	151	144	16	10	3.44	1.52	0.84
18	0.35	22	35	8.62	12	156	141	18	9.49	3.36	1.52	0.84
19	4.50	20	34	7.92	12	163	138	18	9.16	3.36	1.36	0.84
20	4.20	20	30	7.78	12	176	135	18	9.05	3.36	1.16	0.92
21	1.80	16	27	9.50	13	191	132	19	8.83	3.36	1.16	0.92
22	1.35	14	29	12	15	209	129	16	8.40	3.28	1.12	0.84
23	1.10	14	30	13	17	221	126	19	8.30	3.28	1.08	0.88
24	3.90	15	27	15	17	228	123	16	8.10	3.20	1.16	1.20
25	12	17	24	17	30	231	119	15	7.90	3.12	1.20	1.68
26	21	15	20	16	55	232	115	13	7.80	3.04	1.36	1.68
27	26	14	17	15	64	234	112	13	7.70	2.96	1.36	1.60
28	22	12	16	16	74	246	108	12	7.50	2.80	1.52	1.52
29	17	12	17	15	77	265	104	13	7.30	2.80	1.60	1.16
30	15	12	13	14	82	277	101	15	7.10	2.72	–	1.08
31	–	12	–	13	90	–	92	–	6.80	2.80	–	1.04
Total	134.02	703	693.40	315.91	951	5,116	5,141	770	299.18	125.96	50.96	39.28
Mean	4.47	22.7	23.1	10.2	30.7	170	165	25.7	9.65	4.06	1.76	1.27
Max.	.26	52	55	17	90	277	277	83	15	6.60	2.80	1.84
Min.	0.08	11	6.54	6.41	12	100	92	12	6.80	2.72	1.08	0.84
Runoff – mcm.	11.579	60.739	59.909	27.295	82.166	442.022	444.182	66.528	25.849	10.883	4.403	3.393

WATER YEAR 1967 : Max. 277 Min. 0.08 Mean 39.3 Annual Runoff 1,238.951 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sep.30	18.00	8.29	277				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
YOM RIVER BASIN

Mae Yom River at Bang Rakam, Phitsanulok (Y.16)

Location: Lat 16°- 45' - 35" N, Long 100°- 07' - 40" E, on right bank about 700 meters upstream from Mae Yom Bridge, Amphoe Bang Rakam, Sukhothai.

Drainage Area: 20,841 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: 0.00 m. (A.D.)

Bench Mark:

Location:
Elevation:

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
Rated by Float: -
Rated by Current Meter: 1967

Stability of Channel Regimes: Unstable, periodic rating curves are used for flow computation.

Overbank Flow Conditions: No overbank flow.

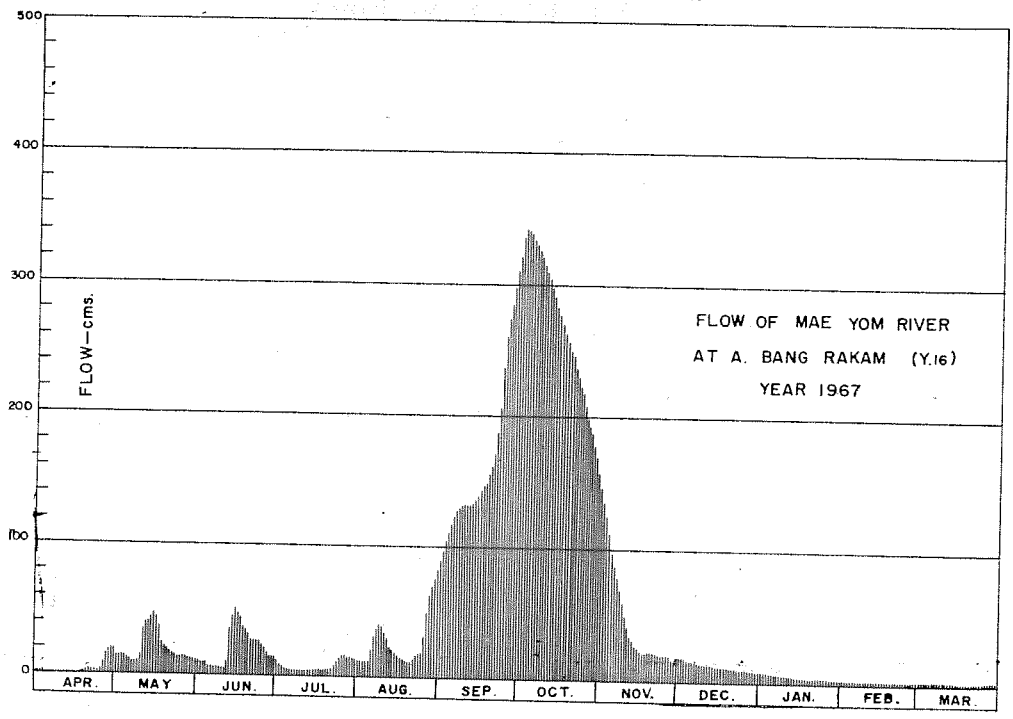
General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made during 1967. Upstream state diversion for irrigation of about 24,000 hectares. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (A.D.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.49	1.41	1.20	1.23	1.32	3.48	7.81	6.16	1.74	1.10	0.74	0.62
2	.48	.41	.16	.14	.27	.65	8.33	5.88	.75	.08	.74	.64
3	.48	.40	.13	.03	.24	.80	.67	.53	.71	.06	.72	.64
4	.48	.42	.17	0.94	.23	.97	.91	.17	.63	.05	.71	.63
5	.47	.32	0.97	.90	.28	4.08	9.06	4.85	.60	.05	.70	.63
6	0.47	1.23	0.96	0.90	1.67	4.18	9.19	4.55	1.58	1.01	0.68	0.64
7	.46	.17	.95	.87	2.09	.25	.28	.20	.54	0.98	.68	.64
8	.46	.17	.95	.82	.25	.28	.33	3.90	.50	.95	.67	.63
9	.44	.15	.95	.80	.29	.30	.37	.57	.47	.93	.67	.61
10	.43	.49	.92	.78	.23	.32	.38	.18	.45	.92	.66	.60
11	0.43	2.20	0.86	0.79	2.07	4.33	9.36	2.78	1.44	0.91	0.65	0.59
12	.42	.33	1.32	.82	1.93	.32	.37	.48	.44	.89	.65	.58
13	.42	.33	2.15	.84	.74	.34	.25	.29	.43	.87	.65	.57
14	.41	.44	.43	.84	.63	.39	.18	.11	.41	.85	.64	.57
15	.41	.53	.62	.85	.55	.45	.12	.03	.38	.84	.65	.56
16	0.40	2.46	2.54	0.86	1.50	4.54	9.03	1.96	1.36	0.83	0.64	0.55
17	.40	.29	.46	.87	.42	.57	8.93	.88	.38	.81	.64	.54
18	.40	1.83	.25	.90	.35	.61	.81	.91	.39	.80	.63	.54
19	.50	.73	.17	.91	.28	.73	.73	.95	.35	.80	.62	.55
20	.60	.64	.09	.90	.27	.86	.61	.95	.32	.79	.61	.53
21	0.75	1.53	1.92	0.88	1.27	4.96	8.41	1.92	1.32	0.79	0.62	0.55
22	.68	.47	.87	.97	.37	5.21	.27	.87	.29	.79	.60	.54
23	.62	.38	.90	1.09	.47	.52	.12	.85	.27	.79	.59	.54
24	.58	.36	.89	.20	.51	.93	7.95	.85	.24	.80	.59	.53
25	.54	1.35	.79	.37	.56	6.37	.77	.83	.22	.78	.58	.54
26	1.12	1.40	1.68	1.47	2.14	6.64	7.59	1.81	1.20	0.77	0.59	0.59
27	.41	.41	.56	.44	.61	.85	.40	.79	.19	.77	.60	.61
28	.55	.34	.45	.42	.89	7.03	.21	.67	.17	.76	.61	.61
29	.61	.25	.40	.42	3.06	.21	.00	.63	.15	.76	.61	.60
30	.61	.20	.40	.40	.19	.44	6.78	.67	.14	.75		.58
31		.20		.36	.33		.51		.12	.74		.57
Mean	0.65	1.61	1.60	1.03	1.84	4.95	8.47	2.87	1.39	0.87	0.65	0.58
Max.	1.61	2.53	2.62	1.47	3.33	7.44	9.38	6.16	1.75	1.10	0.74	0.64
Min.	0.40	1.15	0.86	0.78	1.23	3.48	6.51	1.63	1.12	0.74	0.58	0.53

WATER YEAR 1967 : Max. 9.38 m. Min. 0.40 m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	1.33	15	11	12	13	89	336	142	18	8.40	3.74	2.46
2	1.27	15	10	9.86	12	97	341	132	19	8.12	3.74	2.67
3	1.27	15	9.67	7.84	12	105	340	120	16	7.84	3.52	2.67
4	1.27	15	10	6.34	12	113	337	108	16	7.70	3.41	2.56
5	1.20	13	6.82	5.70	13	119	334	98	16	7.70	3.30	2.56
6	1.20	12	6.66	5.70	22	124	330	88	16	7.14	3.09	2.67
7	1.14	10	6.50	5.31	33	128	325	78	15	6.74	3.09	2.67
8	1.14	10	6.50	4.66	38	130	320	69	14	6.35	2.98	2.56
9	1.01	10	6.50	4.40	40	131	314	60	14	6.09	2.98	2.35
10	0.94	17	6.02	4.18	38	132	310	50	13	5.96	2.88	2.25
11	0.94	37	5.18	4.29	33	132	304	40	13	5.83	2.77	2.16
12	0.88	41	13	4.66	29	132	298	33	13	5.57	2.77	2.08
13	0.88	41	35	4.92	23	133	287	29	13	5.31	2.77	1.99
14	0.81	45	45	4.92	20	136	281	26	13	5.05	2.67	1.99
15	0.81	48	52	5.05	19	139	277	24	12	4.92	2.77	1.91
16	0.75	46	49	5.18	17	144	270	23	12	4.79	2.67	1.82
17	0.75	40	46	5.31	15	146	264	21	12	4.53	2.67	1.74
18	0.75	26	38	5.70	14	148	258	22	12	4.40	2.56	1.74
19	1.40	23	36	5.86	13	156	253	22	12	4.40	2.46	1.82
20	2.25	21	33	5.70	12	163	247	22	11	4.29	2.35	1.65
21	3.85	18	28	5.44	12	170	238	22	11	4.29	2.46	1.82
22	3.09	17	27	6.82	14	185	231	21	11	4.29	2.25	1.74
23	2.46	15	28	8.92	17	205	224	20	11	4.29	2.16	1.74
24	2.08	14	27	11	18	232	216	20	10	4.40	2.16	1.65
25	1.74	14	25	14	19	261	208	20	10	4.18	2.08	1.74
26	9.48	15	22	17	35	278	200	20	9.80	4.07	2.16	2.16
27	15	15	19	16	52	291	192	19	9.66	4.07	2.25	2.35
28	19	14	16	15	63	301	184	17	9.38	3.96	2.35	2.35
29	20	12	15	15	70	311	175	16	9.10	3.96	2.35	2.25
30	20	11	15	15	76	323	166	17	8.96	3.85	–	2.08
31	–	11	–	14	82	–	155	–	8.68	3.74	–	1.99
Total	118.69	656	653.85	255.76	886	5,154	8,215	1,399	390.58	166.23	79.41	66.19
Mean	3.96	21.2	21.8	8.25	28.6	172	265	46.6	12.6	5.36	2.74	2.13
Max.	20	48	52	17	82	323	341	142	19	8.40	3.74	2.67
Min.	0.75	10	5.18	4.18	12	89	155	16	8.68	3.74	2.08	1.65
Runoff – MCM.	10.255	56.678	56.493	22.098	76.550	445.306	709.776	120.874	33.746	14.362	6.861	5.719

WATER YEAR 1967 : Max. 341 Min. 0.75 Mean 49.3 Annual Runoff 1,558.717 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct.12,	15.00	9.39	341				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
YOM RIVER BASIN

Mae Yom River at Sam Ngam, Phichit (Y.17)

Location: Lat 16°- 30' - 50" N, Long 100°- 12' - 40" E, on right bank at Amphoe Sam Ngam, Phichit.

Drainage Area: 21,415 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: 0.00 m. (A.D.)

Bench Mark:

Location:
Elevation:

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
Rated by Float: -
Rated by Current Meter: 1967

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

Overbank Flow Conditions: No overbank flow.

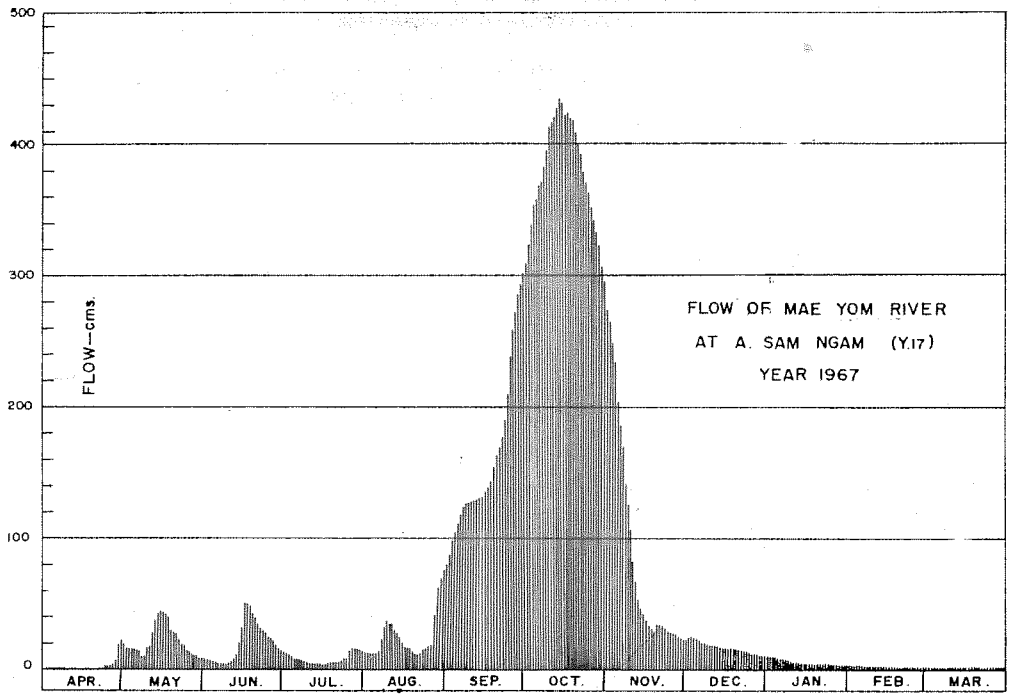
General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made during 1967. Upstream state diversion for irrigation of about 24,000 hectares. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (A.D.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.37	1.07	0.74	0.91	0.92	2.30	5.14	4.80	1.17	0.82	0.59	0.48
2	.37	0.97	.73	.87	.89	.40	.25	.71	.21	.81	.59	.48
3	.37	.96	.72	.81	.88	.59	.35	.47	.20	.79	.58	.49
4	.37	.97	.70	.82	.87	.66	.41	.39	.18	.79	.58	.50
5	.37	.97	.68	.73	.89	.78	.43	.05	.16	.77	.57	.49
6	0.37	0.94	0.66	0.74	0.91	2.88	5.48	3.79	1.12	0.76	0.56	0.50
7	.36	.94	.64	.72	1.10	.95	.49	.68	.10	.75	.55	.50
8	.36	.79	.63	.70	.36	3.01	.57	.22	.08	.72	.54	.50
9	.36	.80	.62	.68	.47	.01	.61	2.92	.06	.71	.53	.49
10	.36	1.01	.61	.66	.43	.02	.66	.56	.04	.71	.52	.49
11	0.36	1.03	0.70	0.64	1.43	3.03	5.68	2.18	1.04	0.69	0.52	0.49
12	.36	.41	.78	.63	.31	.04	.69	1.95	.03	.68	.52	.48
13	.36	.52	.91	.61	.25	.06	.72	.77	.03	.68	.51	.47
14	.36	.59	1.17	.64	.20	.07	.74	.64	.02	.66	.51	.46
15	.35	.62	.39	.63	.08	.09	.73	.57	.00	.65	.51	.45
16	0.35	1.61	1.72	0.57	1.01	3.16	5.69	1.48	0.98	0.64	0.50	0.45
17	.41	.58	.73	.62	0.99	.21	.70	.38	.99	.62	.50	.45
18	.41	.52	.70	.66	.95	.28	.68	.35	1.00	.62	.49	.44
19	.41	.30	.61	.66	.92	.41	.68	.31	0.99	.62	.49	.44
20	.43	.27	.49	.65	.89	.48	.64	.41	.96	.62	.49	.43
21	0.43	1.22	1.39	0.66	0.86	3.59	5.61	1.38	0.96	0.62	0.49	0.43
22	.43	.10	.33	.66	.90	.69	.55	.36	.97	.62	.49	.42
~~23~~	~~.41~~	~~.06~~	~~.31~~	~~.69~~	~~.97~~	~~.87~~	~~.50~~	~~.34~~	~~.94~~	~~.61~~	~~.49~~	~~.42~~
24	.52	0.97	.27	.77	.99	4.04	.46	.31	.94	.61	.49	.41
25	.52	.90	.20	.78	1.01	.52	.43	.29	.89	.61	.49	.41
26	0.52	0.87	1.18	0.94	1.07	4.72	5.38	1.27	0.83	0.61	0.49	0.41
27	.59	.84	.17	.96	.48	.83	.33	.26	.89	.60	.49	.42
28	.67	.83	.03	.98	.82	.94	.29	.21	.87	.60	.48	.43
29	1.03	.81	0.99	.97	2.01	5.02	.20	.17	.84	.60	.48	.44
30	.13	.78	.95	.96	.12	.06	.11	.16	.85	.60		.46
31		.76		.94	.20		.00		.83	.60		.46
Mean	0.46	1.10	1.06	0.75	1.20	3.46	5.49	2.25	1.00	0.67	0.52	0.46
Max.	1.13	1.62	1.73	0.98	2.20	5.06	5.74	4.80	1.21	0.82	0.59	0.50
Min.	0.35	0.76	0.61	0.57	0.86	2.30	5.00	1.16	0.83	0.60	0.48	0.41

WATER YEAR 1967 : Max. 5.74 m. Min. 0.35 m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.84	20	8.70	14	14	82	311	272	24	11	4.70	2.56
2	0.84	16	8.40	13	13	88	327	264	26	11	4.70	2.56
3	0.84	16	8.10	11	13	99	344	242	25	10	4.50	2.73
4	0.84	16	7.50	11	13	104	355	235	25	10	4.50	2.90
5	0.84	16	6.98	8.40	13	112	359	205	24	9.60	4.30	2.73
6	0.84	15	6.46	8.70	14	118	369	185	22	9.30	4.10	2.90
7	0.72	15	5.94	8.10	21	123	371	176	21	9.00	3.90	2.90
8	0.72	10	5.68	7.50	33	127	390	142	21	8.10	3.70	2.90
9	0.72	10	5.42	6.98	38	127	400	121	20	7.80	3.50	2.73
10	0.72	18	5.16	6.46	36	128	413	97	19	7.80	3.30	2.73
11	0.72	19	7.50	5.94	36	129	418	75	19	7.24	3.30	2.73
12	0.72	35	9.90	5.68	30	129	420	62	19	6.98	3.30	2.56
13	0.72	40	14	5.16	28	131	428	53	19	6.98	3.10	2.39
14	0.72	44	24	5.94	25	131	434	46	18	6.46	3.10	2.22
15	0.60	45	34	5.68	21	133	431	43	17	6.20	3.10	2.05
16	0.60	45	50	4.30	18	138	420	38	17	5.94	2.90	2.05
17	1.37	43	51	5.42	17	141	423	34	17	5.42	2.90	2.05
18	1.37	40	49	6.46	15	146	418	32	17	5.42	2.73	1.88
19	1.37	30	45	6.46	14	156	418	30	17	5.42	2.73	1.88
20	1.71	29	39	6.20	13	161	407	35	16	5.42	2.73	1.71
21	1.71	26	34	6.46	12	169	400	34	16	5.42	2.73	1.71
22	1.71	21	31	6.46	13	177	385	33	16	5.42	2.73	1.54
23	1.37	20	30	7.24	16	191	374	32	15	5.42	2.73	1.54
24	3.30	16	29	9.60	17	205	365	30	15	5.16	2.73	1.37
25	3.30	13	25	9.90	18	246	359	29	13	5.16	2.73	1.37
26	3.30	13	25	15	20	265	349	29	11	5.16	2.73	1.37
27	4.70	12	24	16	38	276	340	28	13	4.90	2.73	1.54
28	6.72	11	19	17	55	288	333	26	13	4.90	2.56	1.71
29	19	11	17	16	66	297	319	24	12	4.90	2.56	1.88
30	23	9.90	15	16	72	301	307	24	12	4.90	–	2.22
31	–	9.30	–	15	76	–	294	–	11	4.90	–	2.22
Total	85.93	684.20	640.74	287.04	828	4,918	11,681	2,676	550	211.32	95.32	67.63
Mean	2.86	22.1	21.3	9.26	26.7	164	377	89.2	17.7	6.82	3.29	2.18
Max.	23	45	51	17	76	301	434	272	26	11	4.70	2.90
Min.	0.60	9.30	5.16	4.30	12	82	294	24	11	4.90	2.56	1.37
Runoff - MCM.	7.424	59.115	55.360	24.800	71.539	424.915	1,009.238	231.206	47.520	18.258	8.236	5.843

WATER YEAR 1967 : Max. 434 Min. 0.60 Mean 62.1 Annual Runoff 1,963.455 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 13	15.00	5.74	434				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
NAN RIVER BASIN

Nan River at Muang Nan (N.1)

Location: Lat 18° – 46' – 23" N, Long 100° – 46' – 51" E, on right bank infront of the house of governor, Amphoe Muang, Nan.

Drainage Area: 4,609 sq.km.

Type of Gage: Water – stage recorder.

Zero Gage at Bottom at: +192.17 m. (M.S.L.)

Bench Mark: B.M. – H.S.

Location: On right bank near gage site.
Elevation: B.M.1 +199.362 m. (M.S.L.) and B.M.2 +198.922 m. (M.S.L.)

Gage Reading Frequency: Recordings.

Basis of Mean Daily Gage Height: Arithmetic mean of 24 readings.

Period of Available Gage Records: 1922 – 56, 1962 to date.

Rating Operation:

Period of Rating: 1954 – 56 at N.1A
Rated by Float: –
ated by Current Meter: 1954 – 56 at N.1A

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

Overbank Flow Conditions: No overbank flow.

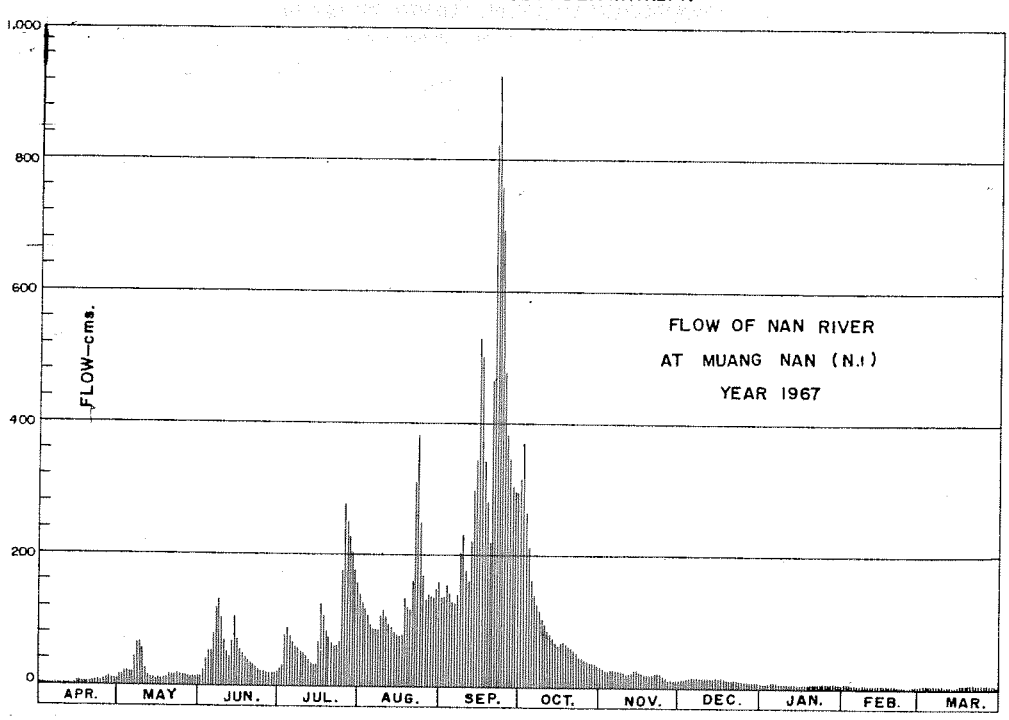
General Description: Records fair. Stage – discharge relation used defined by discharge measurements made during 1954 – 56. No upstream state diversions for irrigation except those built by local residents. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	192.81	193.24	193.19	193.39	194.46	194.43	195.46	193.44	193.15	193.03	192.98	192.83
2	.81	.22	.32	.48	.37	.45	.76	.38	.16	.03	.97	.84
3	.79	.31	.56	.93	.31	.69	.11	.37	.17	.04	.97	.84
4	.79	.31	.73	194.08	.22	.50	194.78	.42	.19	.05	.95	.84
5	.79	.30	.68	193.96	.10	.39	.55	.41	.22	.05	.94	.84
6	192.78	193.26	194.01	193.88	194.04	194.39	194.45	193.40	193.22	193.03	192.93	192.84
7	.78	.67	.34	.81	.06	.32	.38	.38	.22	.03	.92	.85
8	.77	.86	.41	.76	.03	.87	.28	.37	.22	.02	.91	.85
9	.77	.85	.12	.73	.24	195.03	.18	.32	.22	.03	.91	.84
10	.76	.67	193.86	.71	.31	194.63	.10	.30	.20	.03	.90	.83
11	192.76	193.34	193.65	193.63	194.21	194.43	194.03	193.30	193.19	193.03	192.90	192.83
12	.81	.15	.57	.58	.13	.95	193.98	.30	.19	.01	.89	.83
13	.82	.14	.88	.54	.06	195.38	.93	.40	.19	.00	.87	.83
14	.88	.12	194.22	.50	.01	.59	.88	.42	.19	192.99	.86	.83
15	193.02	.11	193.88	.47	193.97	196.35	.84	.37	.18	.98	.86	.84
16	193.02	193.12	193.73	193.87	193.91	196.24	193.88	193.31	193.17	192.98	192.85	192.85
17	192.96	.11	.66	194.38	.96	195.56	.90	.29	.16	.98	.85	.85
18	.91	.10	.63	.20	194.43	.18	.86	.29	.15	.98	.85	.86
19	.92	.16	.58	193.99	.31	194.92	.83	.29	.13	.98	.84	.87
20	.93	.26	.52	.91	.26	.85	.79	193.31	.13	.98	.84	.87
21	192.94	193.24	193.47	193.85	194.53	197.08	193.75	193.32	192.12	192.98	192.83	192.89
22	.95	.21	.41	.81	195.51	.50	.72	.33	.11	.98	.83	.89
23	193.04	.27	.36	.83	.75	.11	.65	.33	.10	.99	.83	.90
24	193.00	.25	.33	.86	194.92	196.49	.62	193.21	.09	.99	.83	.91
25	193.09	.24	.31	194.29	.55	.14	.60	.16	.09	.99	.83	.91
26	193.13	193.23	193.30	195.27	194.40	195.68	193.58	193.15	193.07	192.99	192.82	192.90
27	.16	.21	.30	.13	.48	.54	.55	.13	.06	.99	.82	.88
28	.08	.19	.30	.00	.46	.37	.54	.13	.05	193.00	.82	.87
29	.08	.18	.30	194.87	.45	.36	.53	.14	.05	.00	.83	.86
30	.08	.17	.30	.68	.55	.36	.49	.14	.05	192.99		.83
31		.17		.52	.60		.46		.04	.98		.81
Mean	192.91	193.27	193.63	194.02	194.37	195.36	194.05	193.30	193.14	193.00	192.88	192.85
Max.	193.16	193.86	194.41	195.27	195.75	197.50	195.76	193.44	193.22	193.05	192.98	192.91
Min.	192.76	193.10	193.19	193.39	193.91	194.32	193.46	193.13	193.04	192.98	192.82	192.81

WATER YEAR 1967 : Max. 197.50 m. Min. 192.76 m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	3.65	17	15	26	137	133	317	30	13	7.77	6.20	3.95
2	3.65	16	23	33	124	136	362	26	13	7.77	6.05	4.10
3	3.35	22	40	73	116	174	247	25	14	8.20	6.05	4.10
4	3.35	22	53	90	105	143	189	28	15	8.62	5.75	4.10
5	3.35	21	49	77	92	126	151	28	16	8.62	5.60	4.10
6	3.20	19	82	68	85	126	136	27	16	7.77	5.45	4.10
7	3.20	48	120	60	88	117	125	26	16	7.77	5.30	4.25
8	3.05	66	130	56	84	204	113	25	16	7.35	5.15	4.25
9	3.05	64	94	53	108	232	101	23	16	7.77	5.15	4.10
10	2.90	48	66	51	116	164	92	21	15	7.77	5.00	3.95
11	2.90	24	46	45	104	133	84	21	15	7.77	5.00	3.95
12	3.65	13	40	40	95	217	79	21	15	6.92	4.85	3.95
13	3.80	12	68	37	88	300	73	27	15	6.50	4.55	3.95
14	4.70	12	105	34	82	344	68	28	15	6.35	4.44	3.95
15	7.35	11	68	32	78	529	63	25	14	6.20	4.40	4.10
16	7.35	12	53	67	71	497	68	22	14	6.20	4.25	4.25
17	5.90	11	47	125	77	338	70	20	13	6.20	4.25	4.25
18	5.15	11	45	103	133	260	66	20	13	6.20	4.25	4.40
19	5.30	13	40	80	116	212	62	20	12	6.20	4.10	4.55
20	5.45	19	36	71	110	200	58	22	12	6.20	4.10	4.55
21	5.60	17	32	64	148	771	55	23	12	6.20	3.95	4.85
22	5.75	16	28	60	327	925	52	23	11	6.20	3.95	4.85
23	8.20	19	25	62	380	782	46	23	11	6.35	3.95	5.00
24	6.50	18	23	66	212	571	44	16	10	6.35	3.95	5.15
25	10	17	22	114	151	471	42	13	10	6.35	3.95	5.15
26	12	17	21	278	128	364	40	13	9.47	6.35	3.80	5.00
27	13	16	21	251	140	333	38	12	9.05	6.35	3.80	4.70
28	10	15	21	226	137	298	37	12	8.62	6.50	3.80	4.55
29	10	14	21	204	136	296	37	12	8.62	6.50	3.80	4.40
30	10	14	21	172	151	296	34	12	8.62	6.35		3.95
31		14		147	159		31		8.20	6.20		3.65
Total	175.35	658	1,455	2,865	4,078	9,692	2,986	644	394.58	213.85	134.95	134.15
Mean	5.84	21.2	48.5	92.4	131	323	96.3	21.4	12.7	6.89	4.65	4.32
Max.	13	66	130	278	380	925	362	30	16	8.62	6.20	5.15
Min.	2.90	11	15	26	71	117	31	12	8.20	6.20	3.80	3.65
Runoff - MCM.	15.150	56.851	125.712	247.536	352.339	837.388	257.990	55.641	34.091	18.476	11.659	11.590

WATER YEAR 1967 : Max. 925 Min. 2.90 Mean 64.0 Annual Runoff 2,024.429 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sep. 22	09.00	198.26	1,328				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
NAN RIVER BASIN

Nan River at Tha-It, Uttaradit (N.2A)

Location: Lat 17°- 37' - 13" N, Long 100°- 06' - 09" E, on right bank at downtown infront of Muang Uttaradit Kindergarten, Amphoe Muang, Uttaradit.

Drainage Area: 16,863 sq.km.

Type of Gage: Water - stage recorder.

Zero Gage at Bottom at: +53.00 m. (M.S.L.)

Berch Mark: B.M. - H.S.

Location: At Uttaradit Kindergarten, north of railway station
Elevation: +62.154 m. (M.S.L.)

Gage Reading Frequency: Recordings.

Basis of Mean Daily Gage Height: Arithmetic mean of 24 hourly readings.

Period of Available Gage Records: 1962 to date.

Rating Operation:

Period of Rating: 1962 to date
Rated by Float: -
Rated by Current Meter: 1963, 1965 to date

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

Overbank Flow Conditions: No overbank flow.

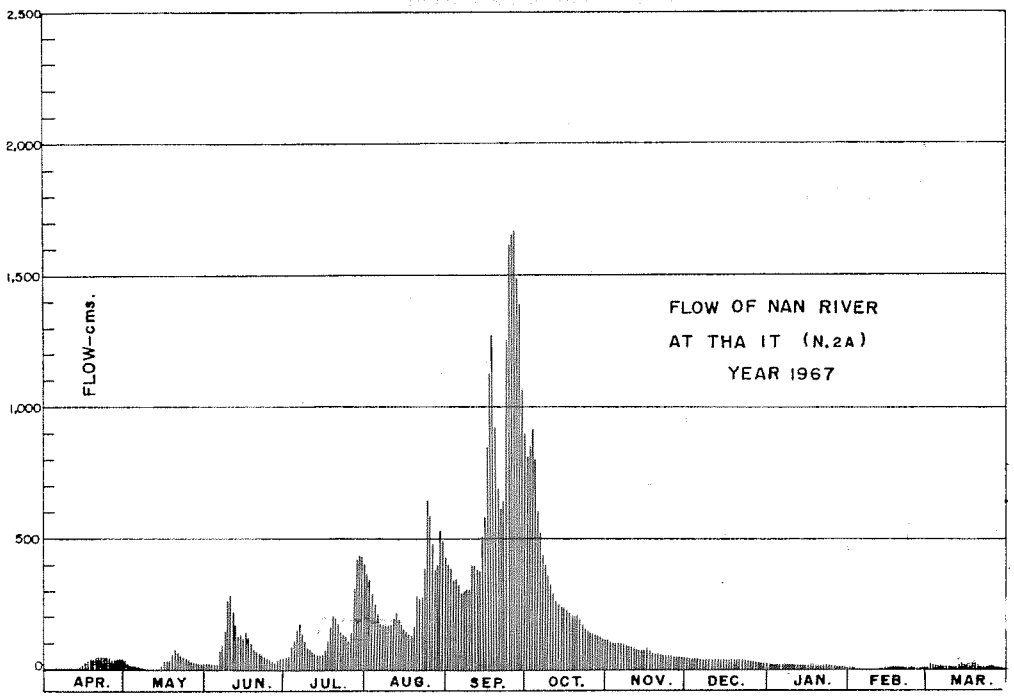
General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions for irrigation except those built by local residents. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	53.03	53.33	53.25	53.59	55.69	55.87	57.44	54.16	53.60	53.32	53.19	53.14
2	.02	.24	.24	.56	.50	.81	.69	.13	.59	.31	.18	.28
3	.01	.20	.22	.97	.35	.57	.87	.10	.59	.31	.18	.28
4	.01	.20	.21	54.03	.12	.62	.38	.09	.58	.30	.18	.21
5	.00	.20	.22	.40	54.91	.44	56.67	.09	.57	.29	.16	.18
6	53.00	53.23	53.81	54.62	54.60	55.31	56.25	54.08	53.57	53.28	53.16	53.14
7	.00	.27	54.01	.44	.61	.38	55.93	.06	.55	.28	.15	.13
8	52.99	.00	.19	.16	.60	.41	.80	.02	.55	.28	.14	.12
9	.99	.00	55.16	53.97	.61	.38	.59	.02	.54	.28	.13	.12
10	53.02	.00	.28	.88	.59	.90	.41	53.99	.53	.28	.12	.11
11	52.99	53.02	54.91	53.77	54.74	55.82	55.28	53.99	53.52	53.27	53.12	53.11
12	53.01	.00	.46	.70	.88	.73	.18	.90	.51	.26	.12	.14
13	.00	.01	.28	.69	.79	.72	.09	.89	.50	.26	.11	.30
14	.04	.05	.33	.68	.61	56.40	.09	.84	.49	.25	.10	.32
15	.16	.16	.14	.66	.49	.79	.03	.88	.48	.25	.10	.25
16	53.27	53.47	54.40	53.78	54.42	58.20	54.98	53.93	53.48	53.24	53.10	53.19
17	.43	.38	.26	54.03	.37	.85	.91	.82	.48	.27	.10	.16
18	.49	.43	.01	.52	.27	.14	.37	.78	.49	.20	.09	.13
19	.44	.74	53.87	.83	.61	57.39	.83	.74	.48	.20	.09	.11
20	.39	.92	.79	.79	55.28	56.88	.86	.73	.48	.20	.09	.10
21	53.60	53.78	53.75	54.59	55.21	56.67	54.74	53.72	53.49	53.20	53.09	53.08
22	.52	.67	.65	.34	.27	57.19	.61	.70	.49	~.21	.08	.07
23	.53	.62	.57	.33	.89	59.21	.52	.68	.45	.25	.08	.06
24	.63	.51	.50	.23	56.87	.63	.46	.65	.44	.24	.10	.06
25	.53	.42	.42	.10	.65	.71	.45	.64	.42	.20	.12	.06
26	53.43	53.39	53.36	54.11	55.98	59.74	54.40	53.63	53.41	53.20	53.14	53.06
27	.44	.37	.32	55.28	.64	.14	.36	.62	.40	.19	.14	.04
28	.51	.33	.42	.97	.90	.12	.32	.62	.40	.17	.14	.04
29	.59	.26	.50	56.06	56.45	58.27	.27	.61	.37	.20	.14	.03
30	.48	.23	.52	.03	.21	57.84	.23	.60	.35	.20		.02
31		.27		55.92	.02		.20		.34	.20		.01
Mean	53.26	53.31	53.86	54.39	55.23	57.07	55.31	53.85	53.49	53.24	53.12	53.13
Max.	53.63	53.92	55.28	56.06	56.87	59.74	57.87	54.16	53.60	53.32	53.19	53.32
Min.	52.99	53.00	53.21	53.56	54.27	55.31	54.20	53.60	53.34	53.17	53.08	53.01

WATER YEAR 1967 : Max. 59.74 m. Min. 52.99 m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	12	33	27	51	362	399	792	112	52	32	23	20
2	11	27	27	49	324	386	864	109	51	32	23	30
3	11	24	25	89	295	338	921	105	51	32	23	30
4	11	24	25	97	254	348	774	104	51	31	23	25
5	10	24	25	142	218	312	585	104	50	30	21	23
6	10	26	71	173	170	288	482	103	50	30	21	20
7	10	29	94	148	171	300	411	100	48	30	20	19
8	9.50	10	116	112	170	306	384	95	48	30	20	18
9	9.50	10	261	89	171	300	342	95	48	30	19	18
10	11	10	282	79	169	405	306	92	47	30	18	18
11	9.50	11	218	67	191	388	282	92	46	29	18	18
12	11	10	150	60	213	370	264	81	46	28	18	20
13	10	11	127	59	198	368	248	80	45	28	18	31
14	13	13	133	58	171	518	248	74	44	27	17	32
15	21	21	110	57	155	615	238	79	44	27	17	27
16	29	43	142	68	145	1,036	230	85	44	27	17	23
17	40	37	124	97	138	1,275	218	72	44	29	17	21
18	44	40	94	159	125	1,014	211	68	44	24	16	19
19	41	64	77	205	171	777	205	64	44	24	16	18
20	41	83	69	198	282	639	210	63	44	24	16	17
21	52	68	65	169	270	585	191	62	44	24	16	16
22	46	58	56	134	280	720	171	60	44	25	16	15
23	48	54	50	132	403	1,423	159	58	41	27	16	14
24	54	46	45	121	636	1,614	150	56	41	27	17	14
25	47	39	39	105	580	1,653	149	55	39	24	18	14
26	41	37	35	106	422	1,667	142	54	39	24	20	14
27	41	36	32	282	352	1,394	137	54	38	23	20	13
28	46	33	39	420	405	1,385	132	54	38	22	20	13
29	51	28	42	439	530	1,061	125	53	36	24	20	12
30	44	26	44	433	473	911	121	52	34	24		11
31		29		409	430		117		34	24		11
Total	844.50	1,004	2,644	4,807	8,874	22,795	9,809	2,335	1,369	842	544	594.00
Mean	28.1	32.4	88.1	155	286	760	316	77.8	44.2	27.2	18.7	19.2
Max.	54	83	282	439	636	1,667	921	112	52	32	23	32
Min.	9.50	10	25	49	125	288	117	52	34	22	16	11
Runoff - MCM.	72.965	86.746	228.449	415.325	766.714	1,969.488	847.490	201.744	118.282	72.749	47.002	51.322

WATER YEAR 1967 : Max. 1,667 Min. 9.50 Mean 154 Annual Runoff 4,878.274 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sep. 26	08.00	60.02	1,807				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
NAN RIVER BASIN

Nan River at Phichai, Uttaradit (N.4)

Location: Lat 17°- 16' - 20" N, Long 100°- 04' - 52" E, on right bank near Phichai Railway Station, Ban Wang Phaniat, Amphoe Phichai, Uttaradit.

Drainage Area: 19,384 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: +44.00 m. (M.S.L.)

Bench Mark: B.M. - H.S.

Location: On right bank north of railway station
Elevation: +53,327 m. (M.S.L.)

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: 1946 - 47, 1951 to date

Rating Operation:

Period of Rating: 1965 to date
Rated by Float: -
Rated by Current Meter: 1965 to date

Stability of Channel Regimes: Stable, no shifting adjustment but mean hourly discharge is used for flow computation.

Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage - discharge relation used is defined by discharge measurements made during 1967. No upstream state diversions for irrigation except those built by local residents. No adjustment made for virgin flow.

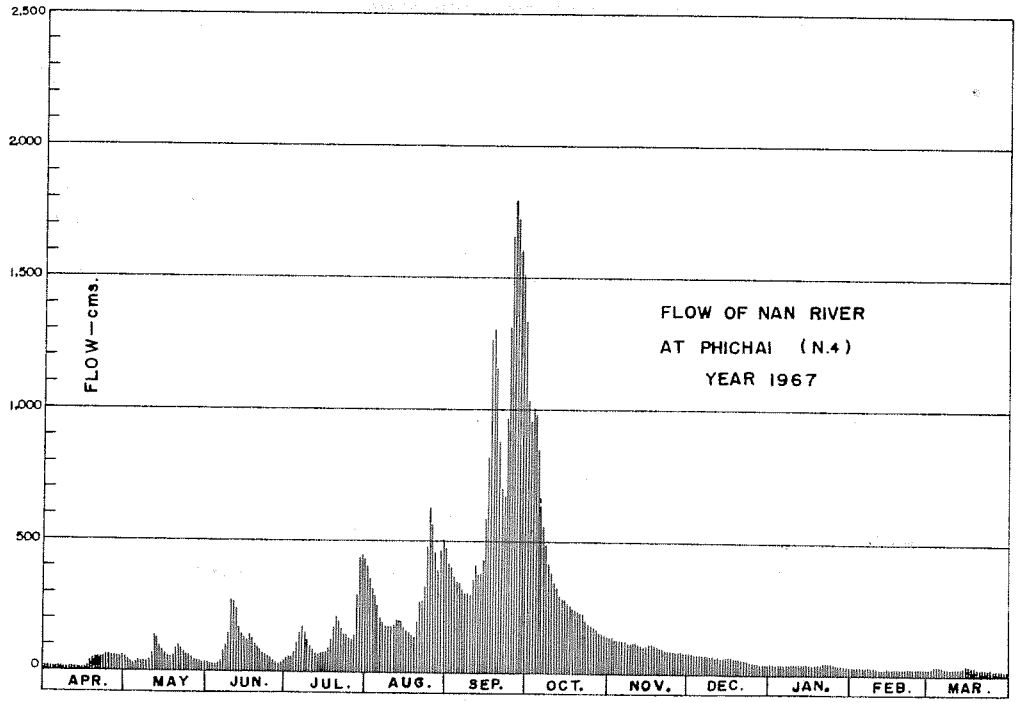
Remarks: * Mean hourly discharge.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	45.12	45.59	45.42	45.55	45.75	47.86	50.49	46.31	45.82	45.50	45.36	45.26
2	.10	.49	.40	.56	.59	.79	.15	.27	.82	.50	.36	.24
3	.10	.41	.36	.64	.39	.63	.45	.25	.80	.50	.34	.37
4	.10	.34	.34	.90	.18	.49	.29	.22	.80	.50	.34	.39
5	.10	.34	.34	46.10	46.93	.47	49.46	.21	.79	.49	.34	.34
6	45.10	45.45	45.43	46.40	46.74	47.31	48.78	46.20	45.78	45.48	45.32	45.29
7	.08	.40	.86	.51	.61	.28	.36	.20	.77	.48	.32	.25
8	.08	.42	46.00	.32	.53	.28	.06	.18	.75	.46	.32	.23
9	.08	.42	.37	.12	.55	.26	47.82	.15	.74	.46	.30	.22
10	.08	.43	47.13	45.98	.53	.52	.62	.11	.73	.46	.30	.21
11	45.08	45.69	47.05	45.88	46.51	47.85	47.46	46.17	45.71	45.45	45.28	45.20
12	.08	46.29	46.70	.80	.69	.68	.35	.10	.70	.44	.28	.22
13	.08	.11	.41	.73	.76	.66	.26	.04	.70	.44	.28	.27
14	.08	45.91	.31	.75	.67	48.02	.18	.02	.68	.43	.26	.42
15	.08	.81	.24	.75	.53	.64	.16	.03	.68	.42	.26	.41
16	45.12	45.72	46.15	45.78	46.43	49.68	47.09	46.12	45.66	45.42	45.26	45.34
17	.24	.60	.35	.91	.38	51.32	.04	.14	.66	.42	.26	.29
18	.50	.62	.18	46.18	.33	.48	.00	.07	.66	.42	.26	.26
19	.55	.64	.01	.58	.28	50.56	46.95	.03	.66	.42	.26	.23
20	.61	.90	45.92	.78	.80	49.72	.92	.01	.64	.42	.26	.23
21	45.62	45.99	45.85	46.63	47.15	49.06	46.91	45.97	45.62	45.50	45.26	45.21
22	.61	.87	.79	.47	.14	48.88	.81	.96	.61	.50	.25	.20
23	.58	.77	.72	.31	.34	50.56	.69	.93	.58	.45	.25	.19
24	.67	.71	.65	.33	48.22	51.98	.62	.92	.54	.46	.24	.20
25	.68	.64	.57	.23	.98	52.58	.58	.90	.51	.43	.24	.17
26	45.63	45.57	45.47	46.12	48.40	52.95	46.55	45.88	45.48	45.40	45.23	45.15
27	.57	.53	.42	.36	47.81	.72	.49	.87	.48	.40	.22	.14
28	.57	.49	.39	47.53	.60	.45	.42	.86	.46	.40	.22	.12
29	.56	.47	.40	.97	48.09	.04	.38	.85	.48	.38	.24	.14
30	.67	.41	.47	48.03	.34	51.16	.35	.84	.48	.37		.14
31		.41		47.94	.14		.33		.48	.36		.12
Mean	45.32	45.63	45.89	46.33	47.17	49.40	47.58	46.06	45.66	45.44	45.28	45.24
Max.	45.68	46.29	47.13	48.03	48.98	52.95	50.49	46.31	45.82	45.50	45.36	45.42
Min.	45.08	45.34	45.34	45.55	46.28	47.26	46.33	45.84	45.48	45.36	45.22	45.12

WATER YEAR 1967 : Max. 52.95 m. Min. 45.08 m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	15	55	39	51	392	414	1,022	142	81	46	33	25
2	14	45	37	52	360	400	932	137	81	46	33	23
3	14	38	33	60	322	368	1,011	134	78	46	32	34
4	14	32	32	90	283	341	968	130	78	46	32	36
5	14	32	32	114	240	337	763	128	77	45	32	32
6	14	41	40	155	208	307	609	127	76	44	30	27
7	13	37	85	171	187	301	518	127	75	44	30	24
8	13	39	102	144	174	301	455	124	73	42	30	22
9	13	39	151	117	177	298	406	120	72	42	28	22
10	13	40	274	100	174	347	366	115	70	42	28	21
11	13	66	260	88	171	412	335	123	68	41	26	20
12	13	140	201	78	199	378	314	114	67	41	26	22
13	13	115	156	70	211	374	298	107	67	41	26	26
14	13	91	142	73	196	446	283	104	65	40	25	39
15	13	80	133	73	174	*576	280	106	65	39	25	38
16	15	69	120	76	159	*828	267	117	63	39	25	32
17	23	56	148	91	152	*1,267	259	119	63	39	25	27
18	46	58	124	124	145	1,304	252	110	63	39	25	25
19	51	60	103	182	138	1,041	243	106	63	39	25	22
20	57	90	92	215	218	826	238	103	60	39	25	22
21	58	101	84	190	278	671	237	98	58	46	25	21
22	57	86	77	165	276	631	220	97	57	46	24	20
23	54	75	69	142	313	1,041	199	94	54	41	24	19
24	64	68	61	145	488	1,462	188	92	50	42	23	20
25	65	60	53	131	653	1,666	182	90	47	40	23	18
26	59	53	43	117	526	*1,797	177	88	44	37	22	17
27	53	49	39	149	404	1,716	168	86	44	37	22	16
28	53	45	36	349	362	1,620	158	85	44	37	22	15
29	52	43	37	436	461	1,482	152	84	44	35	23	16
30	64	38	43	448	513	1,210	148	83	44	34		16
31		38		430	471		145		44	33		15
Total	973	1,879	2,846	4,826	9,025	24,162	11,793	3,290	1,935	1,268	769	732
Mean	32.4	60.6	94.9	156	291	805	380	110	62.4	40.9	26.5	23.6
Max.	65	140	274	448	653	1,797	1,022	142	81	46	33	39
Min.	13	32	32	51	138	298	145	83	44	33	22	15
Runoff - mcm.	84.067	162.346	245.894	416.966	779.760	2,087.597	1,018.915	284.256	167.184	109.555	66.442	63.245

WATER YEAR 1967 : Max. 1,797 Min. 13 Mean 173 Annual Runoff 5,486.227 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sep. 26	18.00	53.00	1,820				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
NAN RIVER BASIN

Nan River at Muang, Phitsanulok (N.5A)

Location: Lat 16° – 49' – 15" N, Long 100° – 15' – 49" E, on left bank near post office about 1 kilometer upstream from gaging station N.5, Amphoe Muang, Phitsanulok.

Drainage Area: 25,286 sq.km.

Type of Gage: Water – stage recorder.

Zero Gage at Bottom at: +34.570 m. (M.S.L.)

Bench Mark: B.M. – H.S.

Location: Near automatic building.
Elevation: +45.227 m. (M.S.L.)

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 Float: –
Rated by Current Meter: 1966 to date

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

Overbank Flow Conditions: No overbank flow.

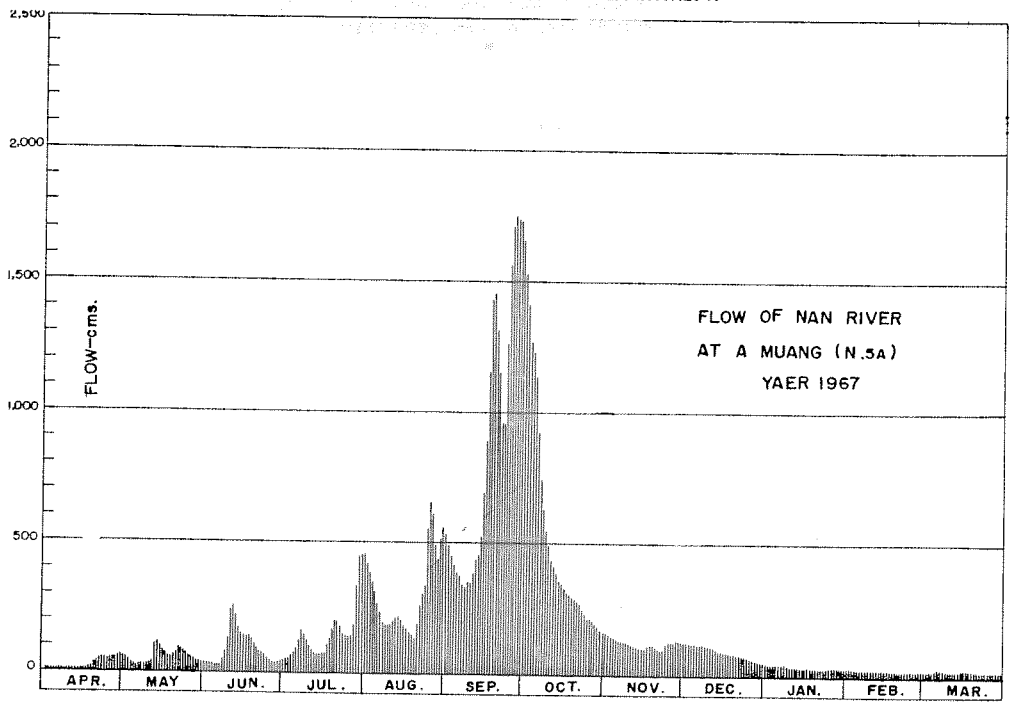
General Description: Records good. Stage – discharge relation used is defined by discharge measurements made during 1967. No upstream state diversions except those built by local residents. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	34.60	35.53	35.12	35.38	38.96	39.49	44.31	36.64	36.31	35.30	35.04	34.84
2	.60	.43	.13	.42	.73	.18	43.73	.55	.30	.28	.02	.84
3	.59	.26	.11	.50	.46	38.91	.37	.48	.28	.26	.01	.85
4	.58	.13	.05	.50	.17	.73	.27	.45	.25	.24	.00	.87
5	.58	.05	.00	.74	37.85	.48	42.90	.39	.25	.26	34.99	.98
6	34.57	34.98	35.00	35.95	37.47	38.39	41.91	36.35	36.24	35.30	34.99	34.97
7	.56	35.03	.02	36.37	.15	.15	40.91	.33	.22	.23	.98	.92
8	.55	.05	.46	.69	36.94	.13	.21	.32	.24	.18	.98	.85
9	.55	.01	.90	.52	.86	.29	39.66	.29	.20	.16	.96	.81
10	.54	.05	36.34	.23	.88	.22	.23	.25	.16	.15	.96	.81
11	34.54	35.07	37.38	36.01	36.88	38.41	38.91	36.20	36.13	35.14	34.95	34.80
12	.53	.15	.48	35.85	.98	.87	.69	.15	.08	.13	.94	.78
13	.53	36.15	.14	.74	37.11	.92	.48	.11	.03	.12	.93	.77
14	.56	.25	36.73	.64	.18	39.33	.29	.09	35.99	.11	.92	.85
15	.55	35.99	.52	.66	.05	40.29	.17	.06	.95	.10	.91	.87
16	34.55	35.80	36.49	35.66	36.86	41.37	38.07	36.05	35.93	35.09	34.90	34.99
17	.54	.68	.42	.73	.69	42.93	37.94	.15	.89	.08	.89	.99
18	.64	.49	.53	36.02	.58	44.05	.86	.22	.86	.07	.89	.93
19	.82	.48	.36	.35	.48	.12	.79	.16	.83	.06	.89	.88
20	35.13	.51	.09	.78	.40	43.59	.71	.08	.79	.05	.88	.85
21	35.19	35.82	35.89	37.06	37.03	42.83	37.66	36.02	35.76	35.04	34.89	34.81
22	.33	36.01	.76	.00	.54	.04	.54	35.98	.73	.04	.89	.77
23	.40	35.94	.71	36.76	.68	41.99	.39	36.00	.69	.03	.89	.77
24	.36	.80	.59	.53	38.21	43.53	.25	.18	.65	.03	.88	.75
25	.33	.70	.46	.47	39.75	44.53	.10	.28	.61	.08	.86	.72
26	35.47	35.55	35.37	36.37	40.37	44.99	37.12	36.30	35.57	35.10	34.86	34.71
27	.43	.41	.29	.35	39.85	45.13	.01	.30	.52	.06	.86	.70
28	.49	.33	.22	.79	.07	.08	36.92	.36	.48	.03	.86	.70
29	.57	.26	.20	38.22	38.75	.08	.83	.35	.42	.02	.87	.69
30	.54	.21	.28	.91	39.49	44.80	.74	.33	.38	.01		.67
31		.14		39.02	.72		.67		.34	.00		.66
Mean	34.87	35.46	35.83	36.39	37.84	41.26	39.02	36.25	35.90	35.12	34.93	34.82
Max.	35.57	36.25	37.48	39.02	40.37	45.13	44.31	36.64	36.31	35.30	35.04	34.99
Min.	34.53	34.98	35.00	35.38	36.40	38.13	36.67	35.98	35.34	35.00	34.86	34.66

WATER YEAR 1967 : Max. 45.13 m. Min. 34.53 m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	12	63	37	53	449	525	1,504	160	127	48	32	22
2	12	56	38	55	417	480	1,346	151	126	47	31	22
3	12	46	37	61	360	442	1,253	144	124	46	31	22
4	11	38	33	61	342	417	1,228	141	121	44	30	23
5	11	33	30	78	300	382	1,139	135	121	46	29	29
6	11	29	30	95	254	371	925	131	121	48	29	28
7	11	32	31	133	216	339	746	129	119	44	29	26
8	11	33	58	165	192	337	634	128	121	41	29	22
9	10	31	91	148	184	358	551	125	117	40	28	20
10	10	33	130	120	186	349	487	121	113	39	28	20
11	10	34	244	100	186	373	442	117	111	38	27	20
12	9.90	39	256	87	197	437	412	112	106	38	27	19
13	9.90	112	215	78	211	444	382	109	102	37	26	19
14	11	121	169	71	220	501	358	107	98	37	26	22
15	10	98	148	72	204	646	342	104	95	36	25	23
16	10	83	145	72	184	825	329	103	93	35	25	29
17	10	74	138	77	165	1,146	312	112	90	35	24	29
18	14	60	149	101	154	1,431	302	119	88	34	24	26
19	21	60	132	131	144	1,451	293	113	85	34	24	24
20	38	62	107	175	136	1,309	283	106	82	33	24	22
21	41	85	90	206	202	1,123	277	101	80	32	24	20
22	50	100	80	199	263	951	263	97	77	32	24	19
23	54	94	76	173	280	941	245	99	74	32	24	19
24	52	83	67	149	347	1,294	228	115	71	32	24	18
25	50	75	58	143	564	1,566	210	124	69	35	23	17
26	59	63	52	133	659	1,702	212	126	66	36	23	16
27	56	55	47	131	579	1,745	200	126	62	34	23	16
28	60	50	43	176	465	1,730	190	132	60	32	23	16
29	66	46	42	349	420	1,730	180	131	55	31	23	16
30	64	43	47	442	525	1,644	170	129	53	31		15
31		38		458	560		163		50	30		14
Total	805.80	1,870	2,820	4,492	9,585	26,989	15,606	3,647	2,877	1,157	759	653
Mean	26.9	60.3	94.0	145	309	900	503	121	92.8	37.3	26.2	21.1
Max.	66	121	256	458	659	1,745	1,504	160	127	48	32	29
Min.	9.90	29	30	53	136	337	163	97	50	30	23	14
Runoff - MCM.	69.621	161.568	243.648	388.109	828.144	2,331.850	1,348.358	315.101	248.573	99.965	65.578	56.419

WATER YEAR 1967 : Max. 1,745 Min. 9.90 Mean 195 Annual Runoff 6,156.933 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sep. 26	21.00	45.15	1,751				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
NAN RIVER BASIN

Nan River at Tha Pla, Uttaradit (N.6A)

Location: Lat 17°- 47' - 50" N, Long 100°- 31' - 56" E, on right bank about 600 meters upstream from district office of Amphoe Tha Pla, Uttaradit.

Drainage Area: 13,173 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: +73.00 m. (M.S.L.)

Bench Mark: B.M. - R.I.D. No.1

Location: On right bank near gage site.
Elevation: +90.517 m. (M.S.L.)

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 - 70

Rating Operation:

Period of Rating: 1954 - 70
Rated by Float: -
Rated by Current Meter: 1954 - 70

Stability of Channel Regimes: Unstable, shifting adjustment is included for flow computation.

Overbank Flow Conditions: No overbank flow.

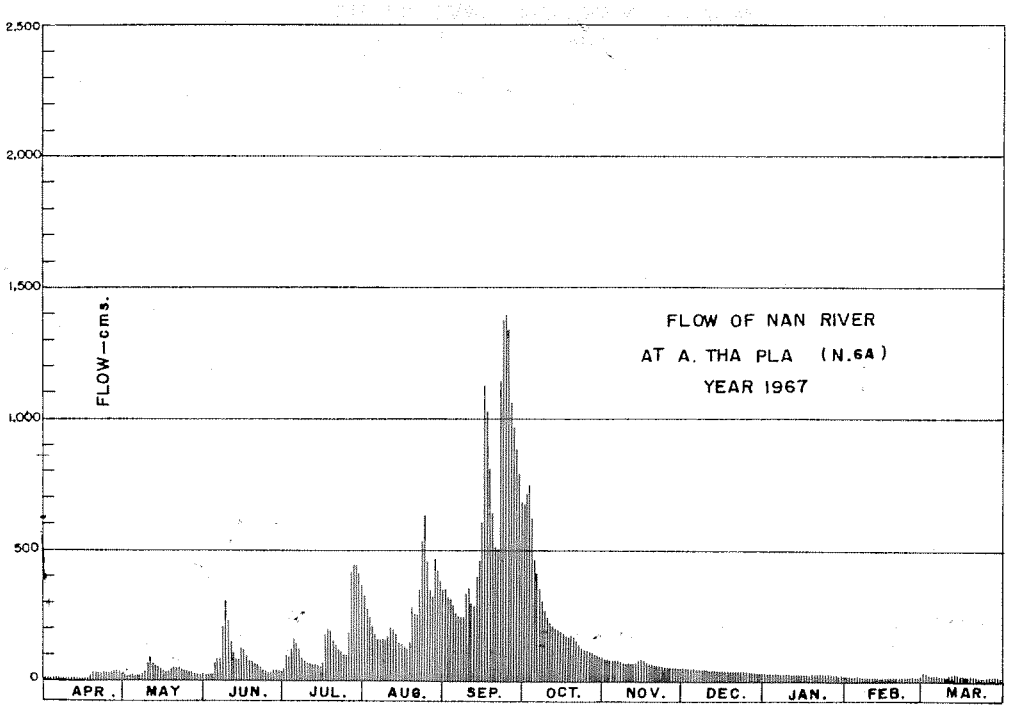
General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions for irrigation except those built by local residents. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	74.47	74.69	74.72	75.03	77.52	77.68	79.34	75.62	75.12	74.81	74.68	74.84
2	.46	.68	.72	.75	.21	.44	.54	.59	.12	.80	.67	.83
3	.46	.67	.73	.60	76.93	.44	.71	.58	.10	.80	.66	.68
4	.45	.77	.81	.97	.66	.30	78.79	.58	.10	.79	.65	.63
5	.45	.64	75.52	76.33	.41	.05	.23	.58	.10	.78	.64	.62
6	74.45	74.73	75.58	76.15	76.28	76.95	77.89	75.57	75.09	74.77	74.63	74.60
7	.45	.68	.66	75.85	.29	.99	.57	.52	.07	.76	.62	.60
8	.45	.83	76.78	.62	.34	.89	.33	.49	.06	.76	.62	.59
9	.44	.91	77.42	.52	.26	77.53	.11	.45	.05	.76	.61	.59
10	.44	75.44	76.71	.40	.46	.71	76.95	.41	.04	.75	.60	.58
11	74.44	75.70	76.17	75.32	76.68	77.23	76.80	75.38	75.03	74.74	74.60	74.68
12	.45	.33	75.80	.35	.59	.12	.69	.35	.02	.74	.60	.75
13	.46	.26	.57	.31	.47	78.04	.64	.35	.00	.73	.59	.74
14	.45	.22	.55	.27	.21	.41	.61	.51	74.99	.73	.59	.68
15	.45	.06	76.02	.19	.11	79.25	.56	.60	.98	.73	.59	.64
16	74.44	75.00	75.95	75.49	76.08	81.24	76.48	75.52	74.97	74.72	74.59	74.63
17	.46	74.86	.61	76.45	75.95	80.77	.46	.43	.97	.72	.59	.61
18	.67	.90	.44	.62	76.02	79.56	.35	.38	.96	.72	.59	.60
19	.91	75.14	.44	.56	77.28	.03	.45	.34	.95	.72	.59	.59
20	.83	.15	.37	.29	.04	78.54	.33	.30	.94	.76	.59	.56
21	74.86	75.16	75.23	76.13	77.01	78.46	76.26	75.29	74.93	74.82	74.58	74.54
22	.76	.06	.14	.05	.64	81.31	.06	.26	.93	.80	.58	.53
23	.98	.03	.06	75.84	78.69	82.19	75.99	.23	.92	.71	.57	.55
24	.85	74.92	74.97	.73	79.18	.27	.94	.21	.90	.72	.58	.55
25	.84	.90	.88	.72	78.10	.01	.90	.21	.89	.72	.57	.54
26	74.83	74.89	74.85	76.78	77.57	80.89	75.87	75.18	74.87	74.72	74.56	74.53
27	.88	.83	75.06	78.09	.38	.57	.81	.18	.86	.72	.56	.51
28	.97	.74	.01	.23	78.34	.19	.76	.16	.85	.70	.55	.50
29	.85	.72	.03	.18	.03	79.77	.72	.15	.84	.69	.55	.50
30	.75	.75	74.97	.00	77.90	.42	.69	.14	.83	.69		.49
31		.76		77.73	.62		.65		.81	.68		.49
Mean	74.62	74.95	75.46	76.18	77.04	78.97	76.85	75.38	74.98	74.74	74.59	74.60
Max.	74.98	75.70	77.42	78.23	79.18	82.27	79.71	75.62	75.12	74.82	74.68	74.84
Min.	74.44	74.64	74.72	75.03	75.95	76.89	75.65	75.14	74.81	74.68	74.55	74.49

WATER YEAR 1967 : Max. 28.27 m. Min. 74.44 m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31,1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	11	20	22	41	325	352	667	85	52	33	25	34
2	11	20	22	100	278	312	711	82	52	32	24	34
3	11	19	23	85	239	312	748	81	50	32	23	25
4	11	25	28	122	204	291	553	81	50	32	23	22
5	11	18	78	164	173	256	451	81	50	31	22	21
6	11	23	83	142	158	242	387	80	49	31	22	20
7	11	20	91	110	159	248	333	76	48	30	21	20
8	11	29	219	87	165	234	295	74	47	30	21	19
9	10	34	309	78	155	327	264	70	47	30	20	19
10	10	71	210	68	179	357	242	67	46	29	20	19
11	10	95	144	62	206	281	222	70	45	29	20	24
12	11	62	105	64	195	266	208	67	45	29	20	29
13	11	57	82	61	180	413	201	67	43	28	19	28
14	11	54	80	58	149	480	197	80	43	28	19	25
15	11	43	127	52	137	647	191	89	42	28	19	22
16	10	39	120	75	134	1,121	182	81	41	28	19	22
17	11	31	86	178	120	1,000	179	74	41	28	19	20
18	19	33	71	199	127	715	166	70	41	28	19	20
19	34	49	71	191	288	601	178	66	40	28	19	19
20	29	49	66	159	255	505	164	63	39	30	19	18
21	31	50	55	140	250	493	155	62	39	34	19	17
22	25	43	49	130	345	1,140	132	60	39	32	19	16
23	38	41	43	109	533	1,373	124	58	38	27	18	17
24	30	34	37	98	633	1,395	119	56	37	28	19	17
25	29	33	32	97	424	1,325	115	56	36	28	18	17
26	29	32	30	219	333	1,030	112	54	35	28	18	16
27	32	28	43	422	303	951	106	54	34	28	18	16
28	37	23	40	447	467	860	101	53	34	26	17	15
29	30	22	41	438	411	761	97	52	33	26	17	15
30	24	24	37	406	389	684	94	52	32	26		15
31		25		360	341		90		31	25		15
Total	570	1,146	2,444	4,962	8,255	18,972	7,784	2,061	1,299	902	576	635
Mean	19.0	37.0	81.5	160	266	632	251	68.7	41.9	29.1	19.9	20.5
Max.	38	95	309	447	633	1,395	748	89	52	34	25	34
Min.	10	18	22	41	120	234	90	52	31	25	17	15
Runoff - MCM.	49.248	99.014	211.162	428.717	713.232	1,639.181	672.538	178.070	112.234	77.933	49.766	54.950

WATER YEAR 1967 : Max. 1,395 Min. 10 Mean 135 Annual Runoff 4,286.045 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sep.24	24.00	82.48	1,452				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
NAN RIVER BASIN

Nan River at Muang Phichit (N.7)

Location: Lat 16°- 26' - 31" N, Long 100°- 21' - 11" E, on right bank infront of Phichit Phittaya School, Amphoe Muang, Phichit.

Drainage Area: 29,153 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: +26.00 m. (M.S.L.)

Bench Mark: B.M. - R.I.D. No.4

Location: On right bank about 78 meters downstream from gage site.
Elevation: +37.273 m. (M.S.L.)

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: 1934 to date

Rating Operation:

Period of Rating: 1965 - 68, 1973 to date
Rated by Float: -
Rated by Current Meter: 1965 - 68, 1973 to date

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

Overbank Flow Conditions: No overbank flow.

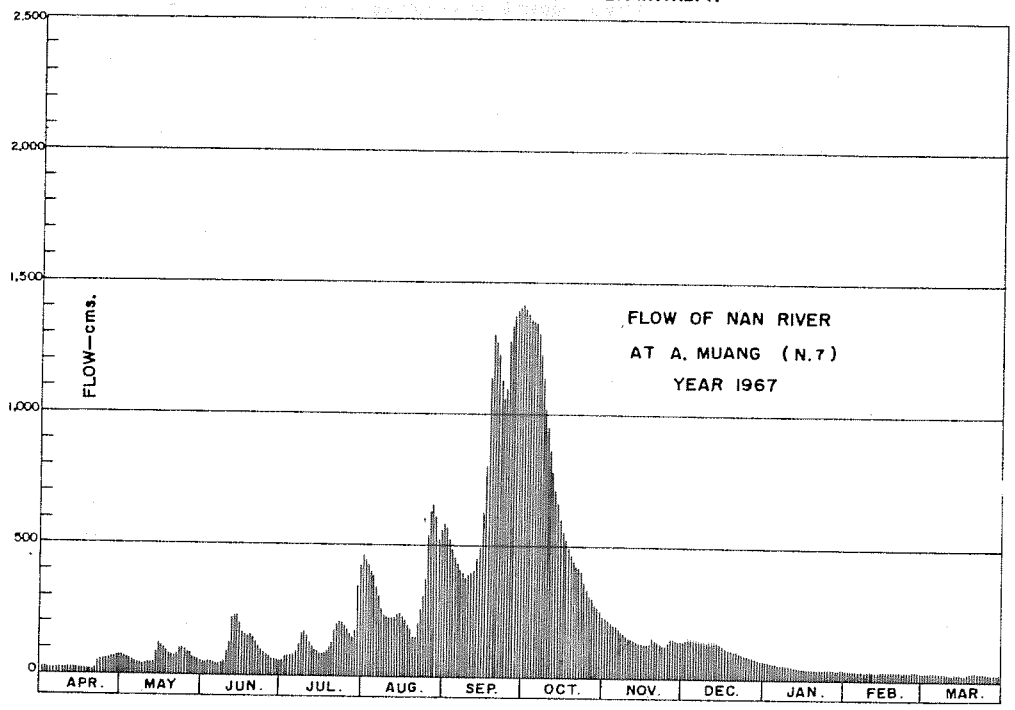
General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions for irrigation except those built by local residents. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	26.45	27.40	27.00	27.13	31.28	32.20	36.60	29.28	28.47	27.30	26.74	26.59
2	.43	.34	.01	.40	.17	.05	.53	.17	.50	.29	.76	.61
3	.42	.34	.03	.42	30.98	31.72	.42	.08	.50	.27	.77	.62
4	.40	.30	.02	.50	.83	.47	.40	.03	.53	.26	.75	.60
5	.39	.08	26.99	.52	.45	.20	.34	28.94	.52	.23	.73	.58
6	26.38	26.98	26.90	27.65	30.12	31.07	36.18	28.89	28.50	27.21	26.72	26.58
7	.37	.95	.89	28.00	29.85	30.86	35.61	.80	.48	.15	.70	.59
8	.36	.90	.93	.62	.48	.72	.14	.75	.45	.12	.69	.60
9	.34	.89	27.12	.70	.36	.67	34.70	.59	.45	.03	.67	.58
10	.33	.89	.75	.57	.30	.80	.25	.54	.45	.00	.69	.57
11	26.34	26.91	28.36	28.30	29.29	30.80	33.76	28.49	28.47	26.98	26.69	26.55
12	.35	.94	29.27	.05	.25	.87	.30	.45	.46	.97	.66	.56
13	.33	27.01	.50	27.92	.27	31.25	32.95	.43	.44	.96	.66	.58
14	.32	.81	.31	.70	.36	.34	.37	.28	.35	.94	.67	.57
15	.30	28.13	28.98	.60	.40	.81	.08	.36	.26	.90	.68	.55
16	26.26	28.02	28.65	27.61	29.29	33.43	31.87	28.30	28.18	26.89	26.67	26.56
17	.26	27.84	.50	.65	.06	34.14	.68	.29	.11	.88	.65	.58
18	.28	.75	.49	.68	28.91	35.60	.47	.29	.03	.87	.62	.61
19	.29	.55	.50	.93	.76	36.12	.28	.50	27.98	.84	.63	.64
20	.30	.43	.44	28.30	.45	.07	.09	.43	.90	.80	.65	.65
21	26.39	27.47	28.15	28.85	28.47	35.80	30.98	28.36	27.88	26.81	26.62	26.65
22	.89	.61	27.98	29.06	29.35	.31	.87	.28	.85	.83	.61	.64
23	27.06	.90	.83	.12	.85	34.95	.58	.21	.77	.81	.60	.63
24	.18	.88	.66	28.98	30.14	35.30	.37	.24	.69	.80	.62	.62
25	.21	.78	.58	.88	.80	36.20	.18	.38	.63	.78	.63	.60
26	27.22	27.60	27.39	28.80	32.43	36.46	30.05	28.50	27.60	26.78	26.64	26.59
27	.20	.56	.30	.49	.70	.52	29.98	.48	.58	.77	.63	.57
28	.26	.34	.19	.52	.61	.58	.80	.45	.49	.75	.61	.55
29	.36	.24	.13	29.02	31.87	.62	.69	.44	.44	.75	.59	.56
30	.40	.18	.09	30.38	.74	.63	.59	.40	.39	.77		.55
31		.12		31.13	32.10		.40		.33	.72		.56
Mean	26.60	27.39	27.80	28.53	30.22	33.45	32.73	28.55	28.09	27.16	26.66	26.59
Max.	27.40	28.13	29.50	31.13	32.70	36.63	36.60	29.28	28.53	27.30	26.77	26.65
Min.	26.26	26.89	26.89	27.13	28.45	30.67	29.40	28.21	27.33	26.72	26.59	26.55

WATER YEAR 1967 : Max. 36.63 m. Min. 26.26 m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	25	72	50	56	456	582	1,396	224	148	66	37	31
2	24	68	50	72	442	561	1,379	213	151	65	38	31
3	24	68	51	73	417	515	1,353	204	151	64	38	32
4	23	66	51	78	399	481	1,348	199	154	64	37	31
5	23	54	49	79	353	446	1,334	191	153	62	36	30
6	22	49	45	87	313	429	1,297	186	151	61	36	30
7	22	47	44	111	283	402	1,172	178	149	57	35	31
8	21	45	46	162	244	385	1,078	173	146	56	35	31
9	21	44	56	169	232	379	993	159	146	51	34	30
10	20	44	93	157	226	395	911	155	146	50	35	30
11	21	45	139	134	225	395	826	150	148	49	35	29
12	21	47	223	114	221	403	748	146	147	48	33	29
13	20	50	246	105	223	452	692	145	146	48	33	30
14	20	98	227	90	232	464	606	132	138	47	34	30
15	19	120	194	84	236	527	565	139	131	45	34	29
16	18	112	164	85	225	770	538	134	124	44	34	29
17	18	100	151	87	202	891	509	133	119	44	33	30
18	18	93	150	89	188	1,170	481	133	113	43	32	31
19	19	81	151	106	174	1,284	456	151	110	42	32	33
20	19	74	146	134	146	1,272	432	145	104	40	33	33
21	23	76	122	182	148	1,212	417	139	103	40	32	33
22	44	85	110	202	231	1,112	403	132	100	41	31	33
23	53	104	99	208	283	1,040	369	127	95	40	31	32
24	59	103	88	194	316	1,110	343	129	89	40	32	32
25	61	96	83	185	395	1,302	321	140	86	39	32	31
26	61	84	71	178	614	1,362	305	151	84	39	33	31
27	60	82	66	150	654	1,377	298	149	83	38	32	20
28	64	68	59	153	640	1,391	278	146	77	37	31	29
29	70	62	56	198	538	1,401	267	146	74	37	31	29
30	72	59	54	345	518	1,403	255	142	71	38		29
31		56		437	568		236		68	36		29
Total	985	2,252	3,134	4,504	10,342	24,913	21,606	4,691	3,705	1,471	979	948
Mean	32.8	72.6	104	145	334	830	697	156	119	47.4	33.7	30.6
Max.	72	120	246	437	654	1,403	1,396	224	154	66	37	33
Min.	18	44	44	56	146	379	236	127	68	36	31	29
Runoff - MCM.	85.104	194.573	270.778	389.146	893.549	2,152.483	1,866.758	405.302	320.112	127.094	84.585	81.907

WATER YEAR 1967 : Max. 1,403 Min. 18 Mean 217 Annual Runoff 6,871.392 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sep.30,67	12.00	36.63	1,403				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
NAN RIVER BASIN

Nan River at Bang Mun Nak, Phichit (N.8)

Location: Lat 16° – 01' – 50" N, Long 100° – 22' – 53" E, on left bank about 100 meters upstream from Bang Mun Nak Market, Amphoe Bang Mun Nak, Phichit.

Drainage Area: 32,878 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: +19.80 m. (M.S.L.)

Bench Mark: B.M. – H.S. N.8

Location: In front of house of gage observer.
Elevation: +30.523 m. (M.S.L.)

Gage Reading Frequency: 5 – time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.

Basis of Mean Daily GageHeight: Arithmetic mean of 5 readings.

Period of Available Gage Records: 1951 to date.

Rating Operation:

Period of Rating: 1965 – 68, 1973 to date
Rated by Float: –
Rated by Current Meter: 1965 – 68, 1973 to date

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

Overbank Flow Conditions: No overbank flow.

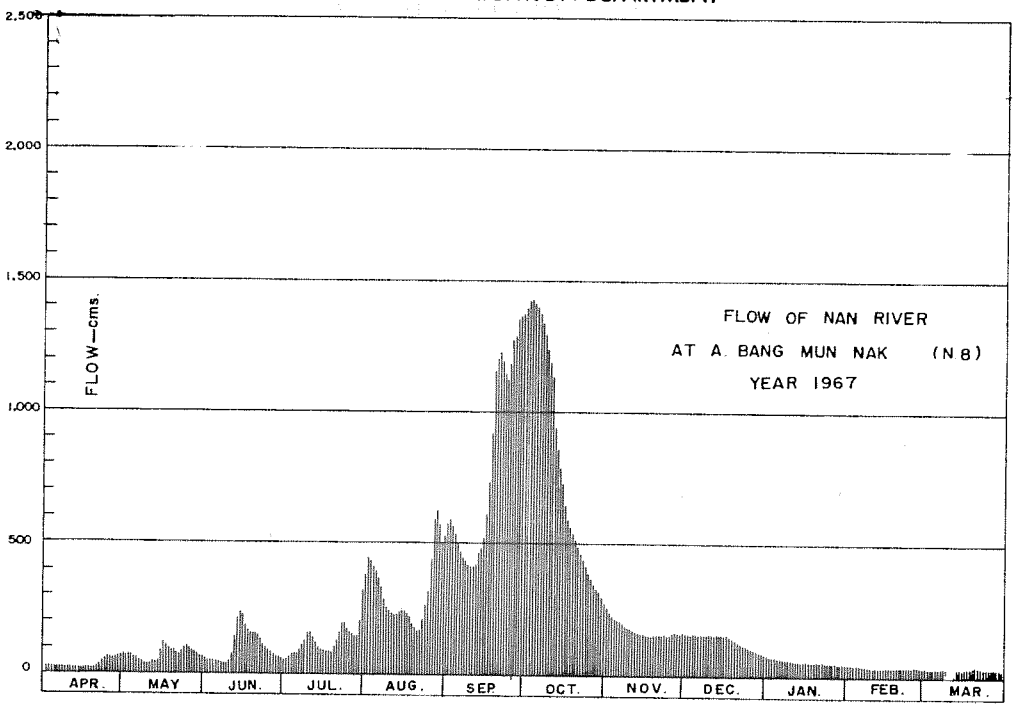
General Description: Records fair. Stage – discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversion for irrigation except those built by local residents. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	20.75	21.59	21.37	21.38	24.52	25.76	30.05	24.67	22.98	21.69	21.18	20.92
2	.74	.62	.32	.41	.91	.92	.10	.43	.97	.63	.17	.93
3	.74	.61	.29	.54	.89	.81	.11	.28	.94	.59	.15	.94
4	.73	.57	.28	.65	.74	.58	.09	.17	.96	.56	.14	.93
5	.72	.47	.26	.67	.54	.38	.05	.06	.94	.54	.12	.93
6	20.71	21.35	21.22	21.70	24.30	25.16	30.00	23.94	22.88	21.52	21.10	20.93
7	.69	.23	.19	.88	.02	24.95	29.95	.84	.87	.50	.09	.94
8	.68	.15	.15	22.19	23.74	.83	.85	.74	.86	.48	.08	.93
9	.68	.10	.15	.37	.53	.73	.71	.65	.85	.46	.07	.92
10	.67	.12	.31	.65	.37	.71	.52	.55	.83	.44	.06	.91
11	20.66	21.12	21.69	22.66	23.28	24.74	29.21	23.45	22.81	21.41	21.04	20.91
12	.65	.25	22.30	.47	.27	.74	28.87	.31	.80	.39	.02	.90
13	.64	.17	23.03	.23	.29	25.12	.56	.07	.79	.36	.02	.90
14	.65	.23	.34	.04	.31	.20	.24	.08	.74	.33	.01	.90
15	.66	.87	.19	21.94	.35	.42	27.62	.04	.69	.31	20.99	.87
16	20.67	22.24	22.91	21.87	23.36	25.93	27.38	22.94	22.65	21.32	20.98	20.86
17	.68	.11	.71	.84	.28	26.83	.20	.79	.54	.31	.97	.88
18	.68	21.96	.63	.81	.14	28.03	.01	.75	.46	.30	.96	.94
19	.69	.84	.60	.83	22.97	.92	26.85	.79	.40	.30	.95	.99
20	.70	.73	.62	.99	.81	29.24	.70	.84	.33	.29	.94	21.02
21	20.80	21.66	22.52	22.30	22.72	29.27	26.53	22.86	22.28	21.26	20.93	21.00
22	.97	.68	.30	.70	.76	.16	.36	.91	.23	.27	.92	20.95
23	21.14	.81	.11	.99	23.19	28.92	.20	.94	.19	.26	.91	.91
24	.26	.97	21.96	23.01	.66	.78	.04	.95	.14	.24	.90	.89
25	.39	22.00	.84	22.85	24.01	29.11	25.82	23.01	.06	.22	.94	.86
26	21.45	21.91	21.74	22.68	24.84	29.47	25.60	23.14	22.01	21.22	20.95	20.84
27	.43	.81	.66	.57	25.85	.62	.42	.13	21.96	.23	.93	.83
28	.47	.70	.57	.51	26.15	.82	.27	.12	.91	.24	.93	.81
29	.51	.59	.50	.53	25.88	.84	.14	22.95	.86	.23	.93	.80
30	.54	.51	.45	23.06	.45	.92	.02	23.13	.81	.21		.80
31		.44		24.04	.34		24.91		.76	.19		.79
Mean	20.89	21.59	21.94	22.27	24.01	27.03	27.72	23.35	22.50	21.36	21.01	20.90
Max.	21.54	22.24	23.34	24.04	26.15	29.92	30.11	24.67	22.98	21.69	21.18	21.02
Min.	20.64	21.10	21.15	21.38	22.72	24.71	24.91	22.75	21.76	21.19	20.90	20.79

WATER YEAR 1967 : Max. 30.11 m. Min. 20.64 m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	23	72	57	58	388	571	1,395	261	160	79	46	32
2	23	74	54	60	441	596	1,420	240	160	75	45	32
3	23	74	52	69	439	579	1,425	229	159	72	44	33
4	22	71	52	76	418	542	1,415	221	160	70	43	32
5	22	64	51	78	390	510	1,395	213	159	69	42	32
6	21	56	48	80	359	477	1,370	205	159	67	41	32
7	21	49	46	93	323	447	1,346	198	159	66	40	33
8	20	44	44	120	287	430	1,299	191	159	65	40	32
9	20	41	44	135	262	416	1,234	186	159	63	39	32
10	20	42	54	162	243	413	1,150	181	159	62	39	31
11	19	42	79	163	232	418	1,031	176	158	60	38	31
12	19	50	129	144	230	418	917	170	158	58	37	31
13	19	45	202	123	233	471	837	162	158	57	37	31
14	19	49	240	106	235	483	768	162	158	55	36	31
15	19	93	220	98	241	516	648	161	157	54	35	29
16	20	124	189	93	242	598	609	159	157	54	35	29
17	20	112	168	90	232	747	580	158	151	54	34	30
18	20	100	160	88	215	971	550	158	143	53	34	33
19	21	90	157	89	196	1,151	527	158	138	53	33	35
20	21	93	159	102	178	1,221	506	159	132	52	33	37
21	26	77	149	129	169	1,227	482	159	127	51	32	36
22	34	79	129	167	173	1,203	458	159	123	51	32	33
23	43	88	112	198	220	1,151	437	159	119	51	31	31
24	51	101	100	200	277	1,122	416	159	115	49	31	30
25	59	103	90	182	321	1,192	387	160	108	48	33	29
26	62	96	83	165	432	1,273	360	164	104	48	33	28
27	61	88	77	154	585	1,309	339	164	100	49	32	27
28	64	80	71	148	633	1,357	323	164	96	49	32	26
29	67	72	66	150	590	1,362	308	159	92	49	32	26
30	68	67	62	206	521	1,381	295	161	88	48	-	26
31	-	62	-	325	504	-	284	-	84	46	-	25
Total	947	2,298	3,144	4,051	10,209	24,552	24,511	5,356	4,259	1,777	1,059	955
Mean	31.6	74.1	105	131	329	818	791	178	137	57.3	36.5	30.8
Max.	68	124	240	325	633	1,381	1,425	261	160	79	46	37
Min.	19	41	44	58	169	413	284	158	84	46	31	25
Runoff - mcm.	81.821	198.547	271.642	350.006	882.058	2,121.293	2,117.750	462.758	367.978	153.533	91.497	82.512

WATER YEAR 1967 : Max. 1,425 Min. 19 Mean 227 Annual Runoff 7,181.395 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 3	06.00	30.11	1,425				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
NAN RIVER BASIN

Nan River at Taphan Hin, Phichit (N.10)

Location: Lat 16°- 13' - 03" N, Long 100°- 25' - 26" E, on right bank 1 kilometer downstream from Wat Thao Prasat, Tambon Huai Ket, Amphoe Taphan Hin, Phichit.

Drainage Area: 30,760 sq.km.

Type of Gage: Staff gage

Zero Gage at Bottom at: +22.41 m. (M.S.L.)

Bench Mark: B.M. - H.S. No.1

Location: On right bank along the gage line
Elevation: +33.173 m. (M.S.L.)

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: 1965 - 68, 1973 to date
Rated by Float: -
Rated by Current Meter: 1965 - 68, 1973 to date

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

Overbank Flow Conditions: No overbank flow.

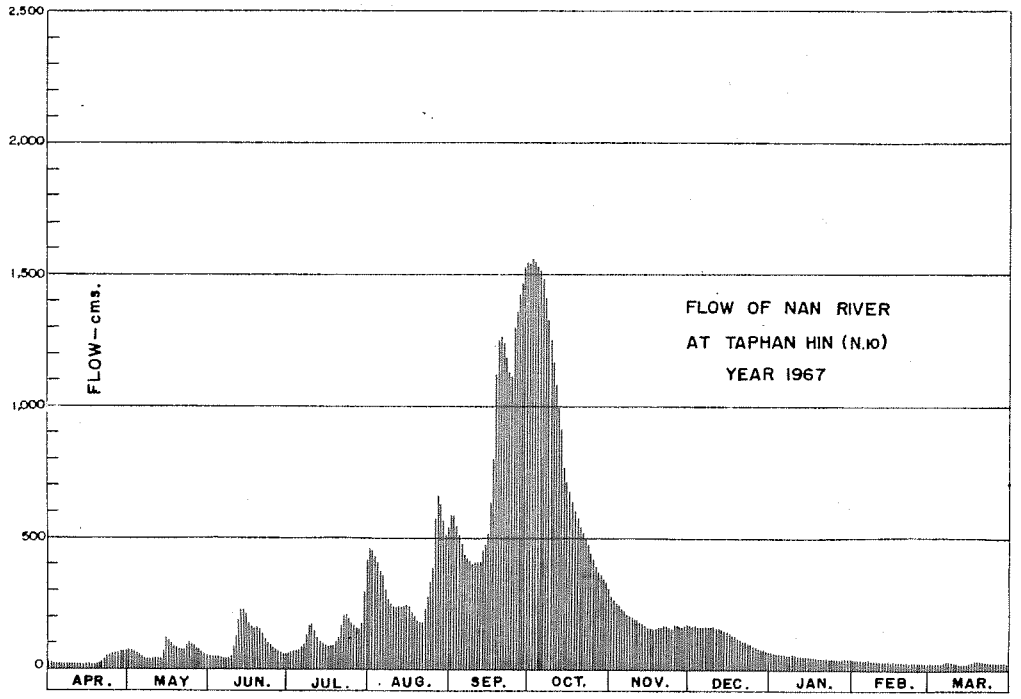
General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions except those built by local residents. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1,1967 TO MARCH 31,1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	23.23	24.06	23.77	23.82	27.56	28.44	32.88	26.12	25.12	23.97	23.55	23.33
2	.22	.02	.75	24.00	.49	.39	.93	.00	.12	.94	.54	.33
3	.20	23.99	.75	.06	.30	.13	.89	25.90	.11	.89	.52	.33
4	.20	.91	.74	.14	.13	27.90	.85	.82	.10	.86	.51	.33
5	.20	.78	.70	.15	26.87	.67	.81	.73	.08	.84	.50	.35
6	23.19	23.67	23.65	24.22	26.79	27.41	32.72	25.63	25.11	23.81	23.49	23.38
7	.19	.61	.63	.42	.36	.27	.51	.54	.09	.80	.48	.44
8	.18	.56	.60	.79	.07	.18	.28	.48	.09	.78	.47	.46
9	.18	.58	.75	25.15	25.92	.11	31.95	.43	.08	.77	.46	.42
10	.17	.58	24.15	.18	.82	.18	.55	.38	.06	.74	.45	.37
11	23.16	23.58	24.78	24.93	25.79	27.13	31.10	25.32	25.02	23.73	23.43	23.34
12	.15	.63	25.47	.68	.78	.18	30.67	.24	.00	.72	.42	.32
13	.14	.63	.74	.50	.80	.57	.09	.20	24.99	.71	.40	.31
14	.13	24.03	.72	.35	.84	.75	29.40	.13	.95	.70	.39	.29
15	.16	.59	.44	.27	.89	28.10	.13	.08	.84	.69	.38	.29
16	23.20	24.58	25.15	24.23	25.82	28.98	28.92	25.02	24.82	23.68	23.38	23.31
17	.16	.37	.06	.22	.67	29.81	.74	.00	.79	.67	.37	.39
18	.19	.26	.01	.24	.49	31.49	.52	.05	.70	.66	.37	.45
19	.22	.15	.08	.41	.35	32.01	.35	.12	.65	.65	.36	.45
20	.27	.06	.02	.72	.22	.09	.16	.09	.57	.64	.34	.42
21	23.37	24.07	24.77	25.11	25.21	31.99	28.02	25.17	24.53	23.63	23.33	23.39
22	.57	.10	.57	.47	.56	.67	27.84	.16	.40	.65	.35	.35
23	.71	.40	.41	.55	26.18	.37	.67	.11	.36	.63	.37	.33
24	.82	.46	.34	.40	.54	.42	.45	.04	.34	.61	.41	.29
25	.89	.37	.20	.19	27.06	32.19	.24	.17	.29	.60	.39	.28
26	23.86	24.24	24.09	25.06	28.32	32.42	27.03	25.21	24.23	23.59	23.37	23.26
27	.89	.15	23.99	.00	.89	.62	26.88	.13	.20	.59	.36	.25
28	.96	.02	.95	24.98	.60	.72	.77	.10	.16	.60	.35	.24
29	.98	23.93	.90	25.26	.06	.87	.70	.16	.10	.63	.34	.22
30	24.01	.88	.84	26.45	27.78	.89	.60	.21	.05	.59		.20
31		.82		27.25	28.16		.36		.01	.56		.17
Mean	23.39	24.00	24.40	24.81	26.59	29.70	29.58	25.32	24.71	23.71	23.42	23.33
Max.	24.01	24.59	25.74	27.25	28.89	32.89	32.93	26.12	25.12	23.97	23.55	23.46
Min.	23.13	23.56	23.60	23.82	25.21	27.11	26.36	25.00	24.01	23.56	23.33	23.17

WATER YEAR 1967 : Max. 32.93 m. Min. 23.13 m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	24	76	55	59	463	591	1,537	277	168	69	41	29
2	23	73	54	71	453	584	1,560	263	168	67	41	29
3	22	71	54	76	427	545	1,542	252	167	64	40	29
4	22	65	54	81	404	512	1,524	243	166	62	39	29
5	22	56	51	82	370	479	1,506	233	164	60	38	30
6	22	49	48	88	360	442	1,469	222	167	58	38	31
7	22	45	46	104	305	423	1,394	212	165	57	37	35
8	22	42	44	136	271	411	1,319	206	165	56	37	36
9	22	43	54	171	254	401	1,232	201	164	55	36	34
10	21	43	82	174	243	411	1,143	195	162	54	35	31
11	21	43	136	150	239	404	1,052	189	158	53	34	29
12	20	46	205	126	238	411	970	181	156	52	34	28
13	20	46	234	110	240	464	863	176	155	52	32	28
14	19	74	232	98	245	490	745	169	152	51	32	27
15	21	118	202	92	251	541	701	164	141	50	31	27
16	22	117	171	88	243	676	667	158	139	50	31	28
17	21	100	162	88	226	814	638	156	136	49	31	32
18	22	91	157	89	207	1,131	604	161	128	48	31	35
19	23	82	164	103	192	1,246	578	168	123	48	30	35
20	26	76	158	130	179	1,266	550	165	116	47	29	34
21	31	76	135	167	177	1,242	529	173	113	46	29	32
22	43	78	116	205	214	1,169	503	172	102	48	30	30
23	52	102	103	213	284	1,106	479	167	99	46	31	29
24	59	107	97	197	327	1,116	447	160	97	45	33	27
25	64	100	86	175	395	1,293	419	173	93	44	32	26
26	62	89	78	162	573	1,361	391	177	88	44	31	25
27	64	82	71	156	662	1,431	371	169	86	44	30	25
28	69	73	68	155	616	1,469	357	166	83	44	30	24
29	70	67	64	183	535	1,533	348	172	78	46	29	23
30	72	63	60	316	495	1,542	335	177	75	44		22
31		59		420	550		305		72	42		21
Total	1,023	2,252	3,241	4,465	10,638	25,504	26,078	5,697	4,046	1,595	972	900
Mean	34.1	72.6	108	144	343	850	841	190	130	51.4	35.5	29.0
Max.	72	118	234	420	662	1,542	1,560	277	168	69	41	36
Min.	19	42	44	59	177	401	305	156	72	42	29	21
Runoff - MCM.	88.387	194.573	280.022	385.776	919.123	2,203.546	2,253.139	492.221	349.574	137.808	83.981	77.760

WATER YEAR 1967 : Max. 1,560 Min. 19 Mean 236 Annual Runoff 7,465.910 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct.1,67	06.00	32.93	1,560				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
NAN RIVER BASIN

Nan River at Ban Hat Phai, Uttaradit (N.12A)

Location: Lat 17°- 44' - 12" N, Long 100°- 32' - 28" E, on right bank about 4 kilometers downstream from Sirikit Dam Site along Phasom - Sila - At Road at Ban Hat Phai, Amphoe Tha Pla, Uttaradit.

Drainage Area: 15,718 sq.km.

Type of Gage: Staff gage

Zero Gage at Bottom at: +69.00 m. (M.S.L.)

Bench Mark: B.M. of Survey Division

Location: On right bank infront of the office of gaging station N.12A
Elevation: +84.00 m. (M.S.L.)

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: 1966 to date

Rating Operation:

Period of Rating: 1966 to date
Rated by Float: -
Rated by Current Meter: 1966 to date

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

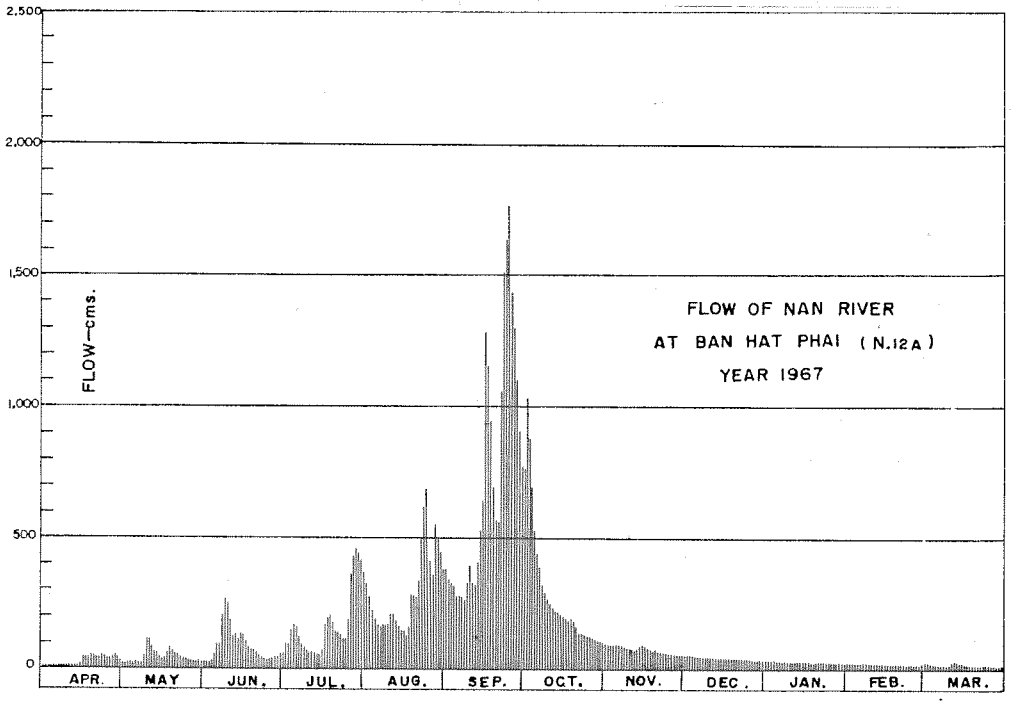
Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions for irrigation except those built by local residents. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	69.90	70.16	70.18	70.53	72.94	73.14	74.72	71.04	70.56	70.24	70.10	70.23
2	.89	.13	.17	71.05	.66	72.89	75.81	.01	.55	.23	.10	.20
3	.87	.12	.17	.00	.30	.79	.22	70.99	.54	.23	.09	.11
4	.88	.17	.31	.44	.06	.73	74.29	.98	.53	.22	.08	.07
5	.88	.11	.72	.74	71.84	.45	73.69	.99	.52	.21	.06	.04
6	69.88	70.26	71.07	71.63	71.66	72.51	73.32	70.99	70.51	70.20	70.05	70.02
7	.88	.14	.02	.27	.67	.48	.00	.94	.50	.19	.05	.01
8	.87	.13	72.06	.05	.72	.30	72.75	.91	.49	.19	.04	.00
9	.90	.31	.45	70.92	.64	.85	.55	.87	.48	.19	.03	.00
10	.89	71.21	.25	.80	.77	73.21	.36	.85	.47	.19	.03	.04
11	69.89	71.19	71.61	70.71	72.05	72.76	72.22	70.80	79.46	70.19	70.03	70.03
12	.89	70.80	.33	.72	71.96	.61	.10	.78	.44	.18	.02	.31
13	.89	.70	.44	.70	.77	73.33	.04	.78	.43	.17	.02	.23
14	.90	.66	.17	.65	.62	.81	.03	.88	.42	.17	.02	.13
15	70.05	.43	.43	.59	.50	74.46	71.96	71.00	.41	.17	.02	.08
16	70.53	70.32	71.38	70.85	71.47	76.49	71.91	70.95	70.40	70.16	70.02	70.05
17	.48	.35	.05	71.69	.34	.02	.86	.85	.39	.16	.02	.04
18	.42	.67	70.91	.90	.38	75.08	.76	.80	.39	.15	.01	.02
19	.55	.92	.80	72.01	72.63	74.49	.89	.76	.38	.15	.01	.00
20	.55	.77	.78	71.70	.43	.02	.76	.74	.37	.15	.00	69.98
21	70.49	70.63	70.65	71.46	72.46	73.99	71.46	70.70	70.37	70.19	70.00	69.97
22	.40	.61	.54	.40	.96	76.00	.40	.68	.35	.25	.00	.96
23	.61	.49	.48	.35	73.89	77.08	.35	.66	.34	.20	.02	.99
24	.49	.40	.40	.17	74.54	.37	.34	.64	.33	.16	.04	70.02
25	.42	.40	.34	.14	73.53	.66	.31	.63	.31	.15	.06	69.95
26	70.42	70.33	70.29	71.88	73.01	76.62	71.27	70.62	70.30	70.15	70.06	69.97
27	.47	.29	.38	73.27	72.87	.53	.22	.60	.29	.13	.04	.96
28	.58	.23	.47	.55	73.94	75.97	.18	.60	.28	.12	.05	.96
29	.46	.19	.48	.51	.59	.26	.13	.59	.27	.11	.06	.93
30	.28	.25	.61	.34	.38	74.88	.10	.57	.26	.10		.93
31		.23		.18	.04		.07		.25	.10		.90
Mean	70.19	70.44	70.90	71.55	72.44	74.39	72.29	70.81	70.41	70.17	70.04	70.04
Max.	70.61	71.21	72.45	73.55	74.54	77.08	75.81	71.04	70.56	70.24	70.10	70.31
Min.	69.87	70.11	70.17	70.53	71.34	72.30	71.07	70.57	70.25	70.10	70.00	69.90

WATER YEAR 1967 : Max. 77.08 m. Min. 69.87 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	11	26	27	50	348	385	724	97	53	30	22	30
2	11	24	26	98	303	341	1,035	94	52	30	22	28
3	10	23	26	93	249	324	854	92	51	30	21	23
4	10	26	35	139	215	314	621	91	50	29	21	20
5	10	23	66	175	187	271	486	92	50	29	20	18
6	10	32	100	162	165	280	419	92	49	28	19	17
7	10	24	95	121	166	276	360	87	48	27	19	17
8	10	24	215	98	172	249	317	84	47	27	19	16
9	11	35	271	85	163	334	286	80	47	27	18	16
10	11	114	242	73	178	398	258	78	46	27	18	18
11	11	112	159	65	214	319	238	73	45	27	18	21
12	11	73	127	66	202	295	221	71	44	27	17	35
13	11	64	139	64	178	421	213	71	43	26	17	30
14	11	61	110	60	160	514	211	81	42	26	17	24
15	19	43	138	55	146	661	202	93	42	26	17	21
16	50	35	133	78	143	1,278	195	88	41	26	17	19
17	47	38	98	169	128	1,103	189	78	41	26	17	18
18	42	62	84	194	133	816	177	73	41	25	17	17
19	52	85	73	208	298	669	193	69	41	25	17	16
20	52	70	71	170	268	560	177	74	40	25	16	15
21	47	58	60	142	273	554	142	64	40	27	16	14
22	41	57	51	135	354	1,099	135	62	38	31	16	14
23	57	47	47	129	532	1,518	129	61	38	28	17	16
24	47	41	41	110	681	1,640	128	59	37	26	18	17
25	42	41	38	107	459	1,762	125	58	35	25	20	13
26	42	36	33	192	362	1,330	121	58	34	25	20	14
27	46	33	41	409	338	1,294	115	56	33	24	18	14
28	54	30	46	462	543	1,088	111	56	33	23	19	14
29	45	27	47	455	470	865	106	55	32	23	20	13
30	33	31	57	423	430	764	103	54	32	22		13
31		30		392	367		100		31	22		11
Total	864	1,425	2,696	5,179	8,825	21,722	8,691	2,241	1,296	819	532	572
Mean	28.8	46.0	89.9	167	285	724	280	74.7	41.8	26.4	18.3	18.4
Max.	57	114	271	462	681	1,762	1,035	97	53	30	22	35
Min.	10	23	26	50	128	271	100	54	31	22	16	11
Runoff - MCM.	74.650	123.120	232.934	447.466	762.480	1,876.781	750.902	193.622	111.974	70.762	45.965	49.421

WATER YEAR 1967 : Max. 1,762 Min. 10 Mean 150 Annual Runoff 4,740.076 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sep. 25	16.00	77.82	1,833				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
NAN RIVER BASIN

Nan River at Ban San, Nan (N.13)

Location: Lat 18°- 32' - 06" N, Long 100°- 46' - 06" E, on right bank infront of Wat Phranet, Ban San, Amphoe Sa, Nan.

Drainage Area: 8,993 sq.km.

Type of Gage: Water - stage recorder.

Zero Gage at Bottom at: +176.65 m. (M.S.L.)

Bench Mark: B.M. - H.S./R.I.D.

Location: At the foot of big tree near gage site.
Elevation: +186.634 m. (M.S.L.)

Gage Reading Frequency: Recording

Basis of Mean Daily Gage Height: Arithmetic mean of 24 readings.

Period of Available Gage Records: 1959 to date.

Rating Operation:

Period of Rating: 1959 - 66
Rated by Float: -
Rated by Current Meter: 1959 - 66

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1959 - 66. No upstream state diversions for irrigation except those built by local residents. No adjustment made for virgin flow.

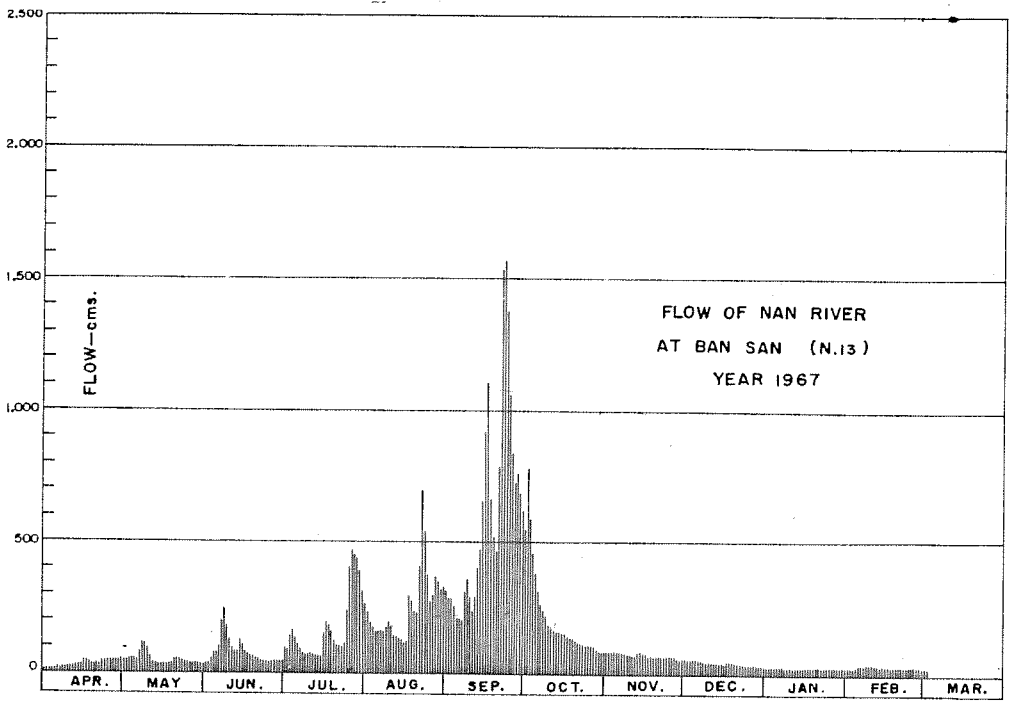
Remarks: No gage height record for period Mar. 3 - 31, 1968.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	176.79	177.16	177.02	177.66	178.67	178.75	179.84	177.50	177.23	176.98	176.94	176.95
2	.80	.12	.03	.56	.46	.78	180.88	.50	.22	.98	.93	.95
3	.82	.23	.20	.93	.26	.70	.04	.50	.22	.99	.93	.95
4	.83	.23	.41	178.07	.09	.46	179.44	.50	.23	.99	.93	
5	.83	.22	.49	177.90	.01	.35	.09	.52	.23	.99	177.03	
6	176.86	177.17	177.73	177.68	178.03	178.35	178.84	177.51	177.22	176.98	177.06	
7	.86	.58	178.35	.55	.05	.23	.64	.48	.22	.99	.05	
8	.83	.78	.60	.49	.00	.90	.49	.45	.19	.98	.06	
9	.87	.77	.11	.41	.15	179.09	.30	.42	.19	.97	.05	
10	.88	.56	177.79	.40	.28	178.62	.14	.40	.17	.97	.06	
11	176.89	177.26	177.58	177.45	178.10	178.39	178.09	177.39	177.17	176.97	177.05	
12	.91	.07	.44	.43	177.89	179.01	.01	.39	.13	.96	.04	
13	.95	.06	.47	.37	.92	.52	.04	.50	.12	.95	.02	
14	.93	.04	.84	.31	.86	.79	.03	.52	.11	.95	.03	
15	.98	.03	.67	.31	.82	181.24	.01	.45	.10	.95	.02	
16	177.17	177.04	177.49	178.00	177.73	182.06	177.99	177.41	177.10	176.95	177.01	
17	.18	.03	.41	.25	.88	180.85	.92	.38	.09	.96	176.98	
18	.15	.02	.39	.23	178.80	.21	.91	.37	.12	.96	.99	
19	.04	.08	.35	177.94	.55	179.67	.91	.37	.12	.96	.99	
20	176.99	.22	.29	.79	.46	.39	.80	.35	.11	.96	.99	
21	177.05	177.23	177.23	177.70	178.70	181.03	177.75	177.35	177.10	176.95	176.99	
22	.04	.21	.19	.70	179.53	183.36	.74	.33	.09	.94	.99	
23	.12	.17	.15	.65	180.55	.43	.74	.33	.07	.94	.99	
24	.11	.10	.12	.68	179.57	182.44	.73	.34	.04	.94	.99	
25	.11	.09	.10	178.62	178.92	181.79	.73	.34	.04	.94	.99	
26	177.13	177.07	177.14	179.38	178.60	180.88	177.70	177.34	177.03	176.94	176.98	
27	.15	.05	.18	.60	.94	.62	.69	.31	.02	.94	.96	
28	.17	.05	.14	.51	179.14	.79	.57	.27	.02	.94	.96	
29	.16	.05	.15	.38	.06	.46	.52	.24	.01	.94	.95	
30	.16	.02	.12	.14	178.89	.22	.52	.25	.00	.94		
31		.01		178.80	.97		.52		176.99	.94		
Mean	176.99	177.18	177.44	178.02	178.51	180.04	178.24	177.40	177.11	176.95	176.99	
Max.	177.18	177.78	178.60	179.60	180.55	183.43	180.88	177.52	177.23	176.99	177.06	
Min.	176.79	177.01	177.02	177.31	177.73	178.28	177.52	177.24	176.99	176.94	176.93	

WATER YEAR 1967 · Max. 183.43 m. Min. 176.79 m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	9.00	46	32	98	264	280	520	80	53	28	24	25
2	10	42	33	86	226	286	779	80	52	28	23	25
3	12	53	59	141	194	270	568	80	52	29	23	25
4	13	53	72	163	166	226	429	83	53	29	23	
5	13	52	79	136	154	208	352	82	53	29	33	
6	16	47	109	101	157	208	298	81	52	28	36	
7	16	88	208	85	160	197	258	78	52	29	35	
8	13	117	250	79	152	310	230	75	49	28	36	
9	17	115	170	71	176	352	200	72	49	27	35	
10	18	86	118	70	197	254	174	70	47	27	36	
11	19	56	88	75	168	214	166	69	47	27	35	
12	21	37	74	73	134	334	154	69	43	26	34	
13	25	36	77	67	139	446	158	80	42	25	32	
14	23	34	126	61	130	508	157	82	41	25	33	
15	28	33	100	61	123	873	154	75	40	25	32	
16	47	34	79	152	109	1,104	150	71	40	25	31	
17	48	33	71	192	133	771	139	68	39	26	28	
18	45	32	69	189	290	608	138	67	42	26	29	
19	34	38	65	142	241	479	138	67	42	26	29	
20	29	52	59	118	226	418	120	65	41	26	29	
21	35	53	53	104	270	818	112	65	40	25	29	
22	34	51	49	104	449	1,538	110	63	39	24	29	
23	42	47	45	97	693	1,563	110	63	37	24	29	
24	41	40	42	101	457	1,220	109	64	34	24	29	
25	41	39	40	254	314	1,027	109	64	34	24	29	
26	43	37	44	416	250	779	104	64	33	24	28	
27	45	35	48	464	319	711	103	61	32	24	26	
28	47	35	44	444	363	755	87	57	32	24	26	
29	46	35	45	416	345	670	82	54	31	24	25	
30	46	32	42	363	308	611	82	55	30	24		
31		31		290	325		82		29	24		
Total	876	1,519	2,381	5,213	7,632	18,038	6,372	2,104	1,300	804	866	
Mean	29.2	49.0	79.4	168	246	601	205	70.1	41.9	25.9	29.9	
Max.	48	117	250	464	693	1,563	779	83	53	29	36	
Min.	9.00	31	32	61	109	197	82	54	29	24	23	
Runoff - MCM.	75.686	131.241	205.718	450.403	659.404	1,558.483	550.540	181.785	112.320	69.465	74.822	

WATER YEAR 1967 : Max. 1,563 Min. 9.00 Mean Annual Runoff mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sep.23,67	11.00	183.53	1,610				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
NAN RIVER BASIN

Nan River at Chum Saeng, Nakhon Sawan (N.14)

Location: Lat 15°- 53' - 41" N, Long 100°- 18'- 44" E, on right bank infront of the previous office of Amphoe Chum Saeng, Tambon Phikul, Nakhon Sawan.

Drainage Area: 33,197 sq.km.

Type of Gage: Staff gage

Zero Gage at Bottom at: +18.00 m. (M.S.L.)

Bench Mark: B.M. - R.I.D. No.2

Location: 45 meters from the fence of Amphoe Chum Saeng
Elevation: +27.589 m. (M.S.L.)

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: 1965 - 68
Rated by Float: -
Rated by Current Meter: 1965 - 68

Stability of Channel Regimes: Stable no shifting adjustment for flow computation.

Overbank Flow Conditions: Overbank flow was observed at elevation +25.00 m. (M.S.L.) but not included for flow computation.

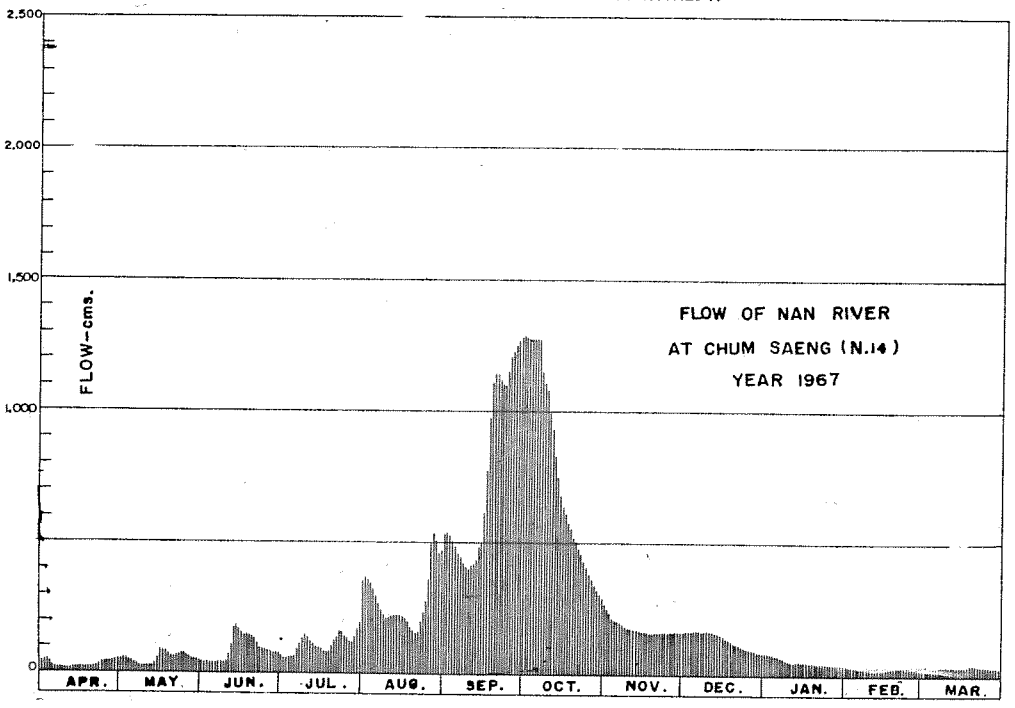
General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions for irrigation except those built by local residents. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31,1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	19.34	19.54	19.35	19.74	22.16	23.27	26.84	23.37	20.83	19.73	19.12	19.13
2	.40	.57	.31	.57	.27	.34	.91	.17	.83	.70	.09	.1[illegible]
3	.52	.59	.32	.60	.17	.26	.96	.04	.79	.69	.04	.09
4	.27	.53	.32	.66	.05	.12	.99	22.72	.81	.67	18.98	.09
5	.12	.45	.30	.68	21.86	22.97	27.02	.74	.80	.66	.95	.08
6	19.05	19.27	19.29	19.68	21.69	22.82	27.02	22.66	20.76	19.63	18.96	19.07
7	.00	.18	.30	.91	.47	.68	.01	.55	.71	.59	.97	.07
8	18.97	.13	.30	20.11	.25	.60	26.99	.44	.71	.45	.98	.08
9	.95	.08	.31	.40	.12	.53	.96	.32	.70	.40	.99	.09
10	.94	.09	.37	.55	.04	.45	.90	.18	.68	.36	19.01	.10
11	18.92	19.09	19.62	20.51	21.03	22.57	26.78	21.95	20.64	19.34	19.05	19.09
12	.99	.12	20.07	.38	.11	.57	.65	.79	.62	.35	.10	.08
13	19.02	.16	.72	.18	.14	.65	.48	.54	.57	.37	.14	.09
14	.03	.29	.83	.10	.15	23.01	.16	.53	.52	.40	.16	.11
15	.04	.72	.71	.08	.15	.21	25.96	.24	.47	.36	.15	.06
16	19.07	20.00	20.58	20.03	21.13	23.69	25.82	20.99	20.41	19.35	19.14	19.07
17	.07	19.99	.55	.01	.06	24.50	.66	.87	.37	.33	.13	.11
18	.04	.92	.58	19.89	20.94	25.44	.54	.82	.33	.31	.13	.16
19	.05	.88	.55	.85	.74	.96	.46	.81	.27	.28	.12	.23
20	.05	.77	.51	20.00	.59	26.10	.26	.76	.20	.28	.12	.24
21	19.05	19.68	20.38	20.17	20.51	26.11	25.08	20.80	20.13	19.28	19.13	19.21
22	.12	.69	.18	.41	.55	.06	24.94	.87	.08	.28	.13	.18
23	.30	.74	.05	.63	.91	25.94	.81	21.04	.04	.28	.14	.18
24	.38	.82	19.97	.65	21.28	.92	.59	.27	.00	.27	.15	.18
25	.44	.85	.94	.55	.60	26.18	.47	.49	19.97	.27	.19	.17
26	19.45	19.75	19.90	20.41	22.31	26.38	24.28	21.50	19.92	19.26	19.16	19.16
27	.43	.67	.89	.32	23.12	.45	.12	.21	.88	.25	.14	.11
28	.43	.59	.87	.30	.30	.55	23.98	20.90	.85	.26	.15	.05
29	.47	.52	.85	.37	.10	.67	.83	.86	.82	.23	.15	.05
30	.51	.46	.82	.74	22.84	.76	.70	.92	.79	.20		.06
31		.41		.67	.90		.57		.77	.16		.07
Mean	19.18	19.53	19.92	20.17	21.60	24.39	25.70	21.68	20.36	19.39	19.09	19.12
Max.	19.52	20.00	20.83	20.74	23.30	26.76	27.02	23.37	20.83	19.73	19.16	19.24
Min.	18.92	19.08	19.29	19.57	20.51	22.45	23.57	20.76	19.77	19.16	18.95	19.05

WATER YEAR 1967 : Max. 26.76 m. Min. 18.92 m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	41	55	41	70	356	531	1,279	263	162	80	32	33
2	45	57	39	57	372	542	1,277	241	162	77	30	32
3	53	58	39	59	358	529	1,275	229	162	76	27	30
4	36	54	39	64	341	505	1,273	203	162	75	24	30
5	26	48	38	65	314	481	1,270	205	162	74	22	30
6	22	36	37	65	291	457	1,270	200	162	71	23	29
7	19	30	38	84	264	435	1,272	193	162	68	23	29
8	17	27	38	102	237	422	1,140	188	162	57	24	30
9	16	24	39	133	222	411	1,120	183	162	53	24	30
10	16	24	43	151	213	399	1,082	179	162	50	26	31
11	15	24	61	146	212	417	1,014	173	162	48	28	30
12	18	26	98	131	221	417	948	172	162	49	31	30
13	20	29	174	109	224	430	865	167	159	51	34	30
14	21	37	188	101	225	488	744	167	154	53	35	32
15	21	69	172	99	225	520	679	164	149	50	34	29
16	23	92	155	95	223	603	640	163	143	49	34	29
17	23	91	151	93	215	763	601	162	139	47	33	32
18	21	85	155	82	201	973	577	162	135	46	33	35
19	22	81	151	79	178	1,102	561	162	129	44	32	40
20	22	73	146	92	161	1,138	524	162	122	44	32	41
21	22	65	131	108	153	1,140	493	162	116	44	33	39
22	26	66	109	134	157	1,128	472	162	111	44	33	37
23	38	70	96	162	197	1,097	453	163	108	44	34	37
24	44	77	89	164	241	1,092	422	165	104	43	34	37
25	48	79	87	151	280	1,157	405	167	101	43	37	36
26	48	71	83	134	378	1,209	378	167	97	42	35	35
27	47	65	82	124	505	1,227	356	164	93	41	34	32
28	47	58	81	122	536	1,253	337	162	90	42	34	28
29	50	53	79	130	502	1,273	218	162	88	40	34	28
30	53	49	77	176	460	1,278	301	162	85	38		29
31		46		167	470		285		83	35		29
Total	920	1,719	2,756	3,449	8,932	23,417	23,631	5,374	4,150	1,618	889	999
Mean	30.7	55.4	91.9	111	288	780	762	179	134	52.2	30.6	32.2
Max.	53	92	188	176	536	1,278	1,279	263	162	80	35	41
Min.	15	24	37	57	153	399	285	162	83	35	22	28
Runoff - MCM.	79.488	148.522	238.118	297.994	771.725	2,023.229	2,041.718	464.314	358.560	139.795	76.810	86.314

WATER YEAR 1967 : Max. 1,279 Min. 15 Mean 213 Annual Runoff 6,726.586 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 1	15.00	16.84	1,279				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
NAN RIVER BASIN

Nam Pat at Ban Fai, Uttaradit (N.16)

Location: Lat 17°- 44' - 24" N, Long 100°- 42' - 00" E, on left bank about 3 kilometers upstream from Amphoe Nam Pat, Tambon Ban Fai, Uttaradit.

Drainage Area: 2,098 sq.km.

Type of Gage: Staff gage

Zero Gage at Bottom at: 0.00 m. (A.D.)

Bench Mark: B.M. - H.S.

Location: On left bank 20 meter from upper gage
Elevation: +6.310 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: 1957 - 58, 1962 to date

Rating Operation:

Period of Rating: 1963 - 65
Rated by Float: -
Rated by Current Meter: 1963 - 65

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

Overbank Flow Conditions: No overbank flow.

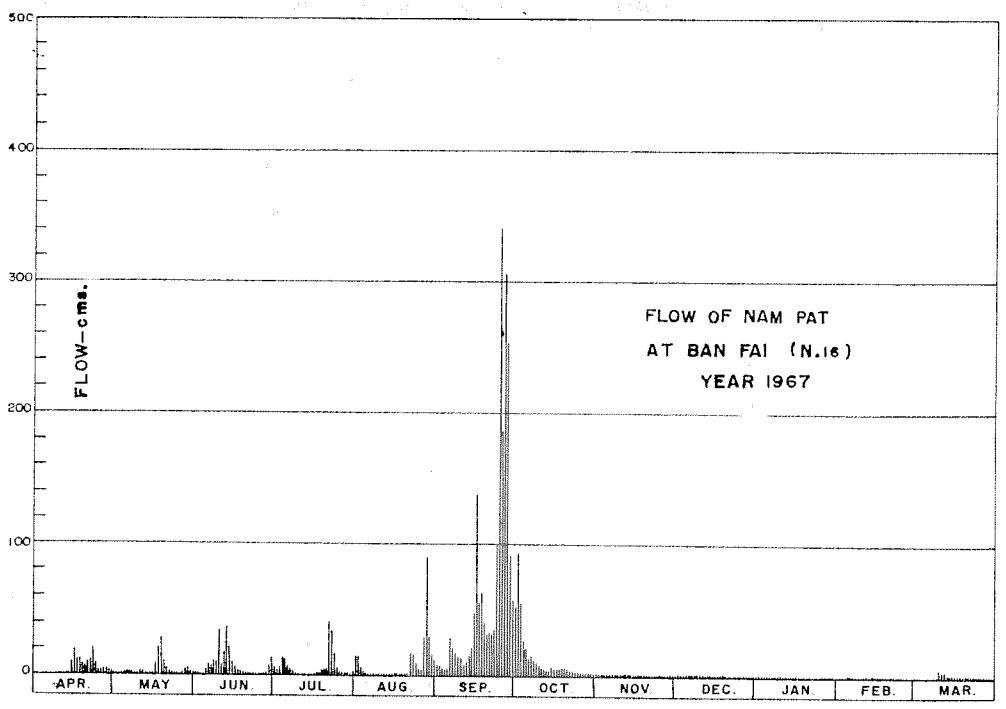
General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1963 - 65. No upstream state diversions for irrigation except those built by local residents. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (A.D.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.21	0.49	0.44	0.77	1.07	0.87	1.67	0.53	0.47	0.38	0.35	0.30
2	.21	.45	.41	.64	.08	.79	2.23	.53	.46	.38	.35	.30
3	.21	.41	.35	.79	0.78	.75	1.55	.52	.46	.38	.35	.30
4	.22	.51	.37	1.04	.56	.69	.33	.51	.45	.38	.35	.30
5	.22	.54	.73	.03	.45	.65	.19	.51	.45	.38	.34	.29
6	0.22	0.61	0.90	0.79	0.48	1.39	0.94	0.50	0.45	0.37	0.34	0.29
7	.23	.59	.75	.70	.46	.17	1.09	.50	.44	.37	.34	.30
8	.25	.49	.98	.58	.44	.13	0.97	.49	.44	.37	.33	.30
9	.28	.44	.80	.49	.42	.04	.89	.49	.44	.36	.32	.30
10	.34	.50	1.48	.46	.41	.05	.85	.48	.44	.36	.32	.78
11	0.39	0.64	0.86	0.42	0.39	0.87	0.83	0.48	0.44	0.36	0.32	0.65
12	.38	.57	1.18	.40	.38	.82	.76	.47	.46	.37	.31	.70
13	.38	.49	.51	.40	.39	1.08	.68	.47	.45	.38	.31	.50
14	.58	.45	.12	.39	.38	.13	.63	.47	.45	.38	.32	.47
15	.96	.47	0.88	.38	.37	.60	.78	.46	.44	.38	.32	.43
16	1.19	0.53	0.75	0.43	0.38	2.64	0.77	0.46	0.43	0.39	0.33	0.41
17	0.87	.90	.62	.60	.41	1.69	.72	.46	.42	.39	.32	.38
18	1.03	1.22	.55	.65	.53	.89	.75	.46	.42	.39	.32	.37
19	0.86	.39	.52	.64	.49	.46	.79	.45	.41	.38	.32	.36
20	.74	0.93	.49	.69	.44	.40	.75	.45	.40	.38	.31	.35
21	0.92	0.75	0.45	0.76	0.54	1.47	0.69	0.45	0.40	0.37	0.31	0.34
22	.95	.64	.44	1.60	1.12	.42	.65	.44	.39	.37	.30	.33
23	1.23	.55	.42	.46	.10	.51	.61	.44	.39	.36	.30	.33
24	0.73	.51	.41	0.95	0.86	2.39	.60	.44	.39	.36	.30	.32
25	.59	.49	.41	.66	.73	3.99	.59	.43	.40	.36	.30	.32
26	0.65	0.46	0.40	0.57	0.65	2.91	0.58	0.45	0.40	0.36	0.29	0.32
27	.67	.51	.50	.55	.90	3.78	.57	.46	.39	.37	.29	.31
28	.75	.61	.56	.53	2.20	2.85	.56	.46	.39	.37	.29	.31
29	.63	.78	.84	.52	1.38	.07	.55	.46	.39	.36	.29	.31
30	.55	.66	1.06	.49	.10	1.78	.54	.47	.39	.36		.30
31		.49		.59	0.98		.53		.39	.35		.30
Mean	0.58	0.61	0.71	0.66	0.70	1.61	0.86	0.47	0.42	0.37	0.32	0.37
Max.	1.23	1.39	1.51	1.60	2.20	3.99	2.23	0.53	0.47	0.39	0.35	0.78
Min.	0.21	0.41	0.35	0.38	0.37	0.65	0.53	0.43	0.39	0.35	0.29	0.29

WATER YEAR 1967 : Max. 3.99 m. Min. 0.21 m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.020	1.42	1.02	5.87	15	8.25	46	1.85	1.26	0.60	0.45	0.20
2	0.020	1.10	0.78	3.32	15	6.29	93	1.83	1.18	0.60	0.45	0.20
3	0.020	0.78	0.45	6.29	6.08	5.45	38	1.72	1.18	0.60	0.45	0.20
4	0.040	1.61	0.55	14	2.16	4.22	26	1.61	1.10	0.60	0.45	0.20
5	0.040	1.94	5.03	13	1.10	3.50	20	1.61	1.10	0.60	0.40	0.18
6	0.040	2.78	9.00	6.29	1.34	29	10	1.50	1.10	0.55	0.40	0.18
7	0.060	2.49	5.45	4.40	1.18	19	16	1.50	1.02	0.55	0.40	0.20
8	0.10	1.42	11	2.38	1.02	17	11	1.42	1.02	0.55	0.35	0.20
9	0.16	1.02	6.50	1.42	0.86	14	8.75	1.42	1.02	0.50	0.30	0.20
10	0.40	1.50	34	1.18	0.78	14	7.75	1.34	1.02	0.50	0.30	6.08
11	0.65	3.32	8.00	0.86	0.65	8.25	7.25	1.34	1.02	0.50	0.30	3.50
12	0.60	2.27	20	0.70	0.60	7.00	5.66	1.26	1.18	0.55	0.25	4.40
13	0.60	1.42	36	0.70	0.65	15	4.04	1.26	1.10	0.60	0.25	1.50
14	2.38	1.10	17	0.65	0.60	17	3.14	1.26	1.10	0.60	0.30	1.26
15	11	1.26	8.50	0.60	0.55	41	6.08	1.18	1.02	0.60	0.30	0.94
16	20	1.83	5.45	0.94	0.60	137	5.87	1.18	0.94	0.65	0.35	0.78
17	8.25	9.00	2.96	2.60	0.78	47	4.82	1.18	0.86	0.65	0.30	0.60
18	13	21	2.05	3.50	1.83	63	5.45	1.18	0.86	0.65	0.30	0.55
19	8.00	29	1.72	3.32	1.42	33	6.29	1.10	0.78	0.60	0.30	0.50
20	5.24	9.96	1.42	4.22	1.02	30	5.45	1.10	0.70	0.60	0.25	0.45
21	9.64	5.45	1.10	5.66	1.94	34	4.22	1.10	0.70	0.55	0.25	0.40
22	11	3.32	1.02	41	17	31	3.50	1.02	0.65	0.55	0.20	0.35
23	22	2.05	0.86	33	16	36	2.78	1.02	0.65	0.50	0.20	0.35
24	5.03	1.61	0.78	11	8.00	109	2.60	1.02	0.65	0.50	0.20	0.30
25	2.49	1.42	0.78	3.68	5.03	342	2.49	0.94	0.70	0.50	0.20	0.30
26	3.50	1.18	0.70	2.27	3.50	171	2.38	1.10	0.70	0.50	0.18	0.30
27	3.86	1.61	1.50	2.05	9.00	304	2.27	1.18	0.65	0.55	0.18	0.25
28	5.45	2.78	2.16	1.83	90	163	2.16	1.18	0.65	0.55	0.18	0.25
29	3.14	6.08	7.50	1.72	29	78	2.05	1.18	0.65	0.50	0.18	0.25
30	2.05	3.68	14	1.42	16	54	1.94	1.26	0.65	0.50		0.20
31		1.42		2.49	11		1.83		0.65	0.45		0.20
Total	138.78	126.82	207.28	182.36	256.69	1,840.96	358.77	38.82	27.86	17.30	8.62	25.47
Mean	4.63	4.09	6.91	5.88	8.38	61.4	11.6	1.29	0.90	0.56	0.30	0.82
Max.	22	29	36	41	90	342	93	1.83	1.26	0.65	0.45	6.08
Min.	0.020	0.78	0.45	0.60	0.55	3.50	1.83	0.94	0.65	0.45	0.18	0.18
Runoff - mcm.	11.990	10.957	17.909	15.756	22.437	159.059	30.998	3.354	2.407	1.495	0.745	2.201

WATER YEAR 1967 : Max. 342 Min. 0.020 Mean 8.83 Annual Runoff 279.308 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sep. 27	15.00	4.35	421				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
NAN RIVER BASIN

Nan River at Ban Mon, Nan (N.17)

Location: Lat. 19°- 24' - 34" N, Long 100°- 52' - 05" E, at Ban Mon, Amphoe Thung Chang, Nan.

Drainage Area: 1,156 sq.km.

Type of Gage: Staff gage

Zero Gage at Bottom at: 0.00 m. (A.D.)

Bench Mark:

Location:
Elevation:

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: 1963 to date

Rating Operation:

Period of Rating: 1969 - 71, 1973 to date
Rated by Float: -
Rated by Current Meter: 1969 - 71, 1973 to date

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

Overbank Flow Conditions: No overbank flow.

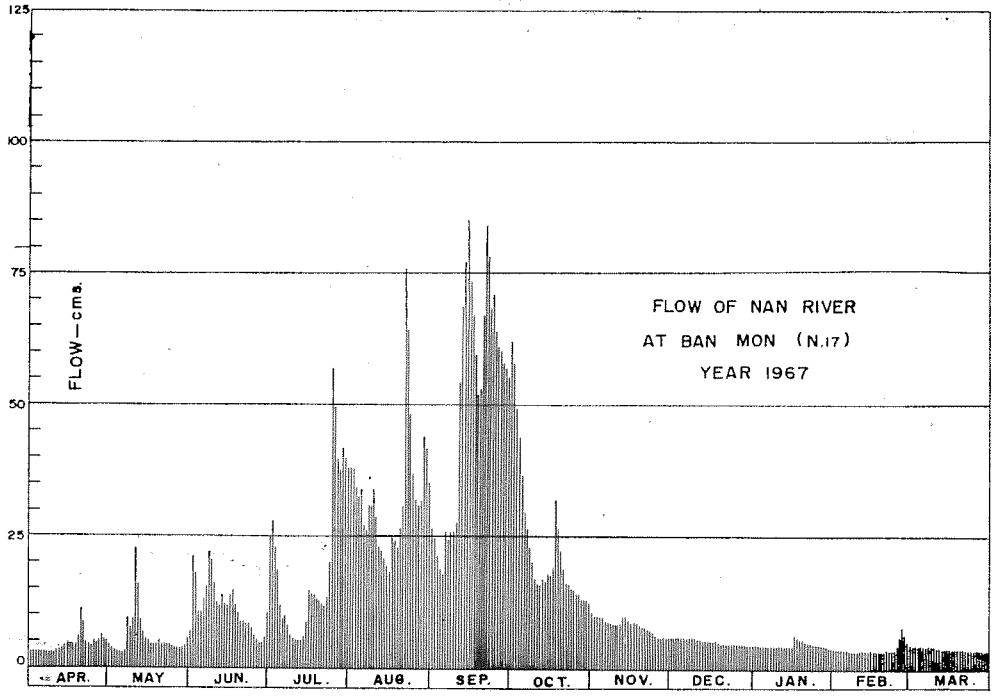
General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made during 1969. No upstream state diversions for irrigation except those built by local residents. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (A.D.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.23	0.35	0.53	1.00	1.27	1.03	1.66	0.64	0.47	0.37	0.31	0.36
2	.23	.30	.92	.07	.26	0.98	.53	.63	.47	.36	.31	.36
3	.23	.25	.80	0.96	.18	.88	.43	.62	.47	.36	.31	.36
4	.23	.24	.59	.82	.14	.83	.33	.62	.46	.36	.30	.35
5	.22	.24	.65	.65	.19	.81	.23	.62	.46	.36	.30	.35
6	0.22	0.22	0.73	0.58	1.05	1.02	1.13	0.58	0.46	0.36	0.30	0.35
7	.22	.26	.80	.63	.02	0.98	.03	.58	.45	.36	.29	.34
8	.22	.61	.94	.54	.12	1.03	0.93	.58	.45	.36	.29	.34
9	.22	.53	.90	.48	.12	.03	.88	.57	.45	.36	.29	.34
10	.22	.60	.74	.44	.10	.04	.78	.57	.44	.36	.29	.33
11	0.24	0.97	0.68	0.44	0.99	1.54	0.78	0.57	0.44	0.36	0.29	0.33
12	.28	.71	.65	.44	.97	.75	.79	.61	.44	.36	.29	.33
13	.31	.53	.74	.44	.93	.81	.81	.63	.43	.36	.29	.32
14	.36	.49	.68	.48	.88	.97	.80	.62	.43	.36	.29	.32
15	.36	.44	.68	.60	.83	.83	.83	.58	.43	.36	.29	.32
16	0.36	0.43	0.73	0.76	0.79	1.77	0.82	0.58	0.42	0.36	0.29	0.31
17	.35	.38	.77	.74	1.01	.63	.90	.58	.42	.50	.29	.31
18	.35	.38	.69	.74	0.98	.48	1.14	.57	.42	.45	.29	.31
19	.46	.38	.63	.71	.94	.46	.02	.56	.41	.44	.29	.30
20	.67	.43	.58	.70	1.05	.70	0.88	.55	.41	.43	.29	.30
21	0.57	0.38	0.58	0.69	1.10	1.87	0.79	0.54	0.41	0.42	0.31	0.30
22	.39	.38	.57	.69	.85	.96	.78	.53	.40	.41	.29	.29
23	.38	.38	.57	.73	.56	.71	.78	.52	.40	.40	.29	.29
24	.34	.38	.53	.85	.29	.79	.77	.49	.40	.39	.29	.29
25	.43	.33	.48	1.57	.18	.68	.77	.47	.39	.38	.36	.28
26	0.40	0.33	0.44	1.36	1.13	1.63	0.74	0.47	0.39	0.37	0.50	0.28
27	.42	.33	.40	.24	.12	.62	.73	.47	.39	.36	.55	.28
28	.48	.30	.40	.27	.11	.59	.72	.47	.38	.35	.45	.27
29	.43	.31	.46	.33	.36	.58	.71	.47	.38	.34	.40	.27
30	.41	.34	.53	.30	.32	.53	.70	.47	.38	.33		.26
31		.46		.27	.08		.69		.37	.32		.26
Mean	0.34	0.41	0.65	0.82	1.13	1.45	0.93	0.56	0.42	0.38	0.32	0.31
Max.	0.67	0.97	0.94	1.57	1.85	1.97	1.66	0.64	0.47	0.50	0.55	0.36
Min.	0.22	0.22	0.40	0.44	0.79	0.81	0.69	0.47	0.37	0.32	0.29	0.26

WATER YEAR 1967 : Max. 1.97 m. Min. 0.22 m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	2.97	4.15	7.30	25	38	26	62	10	5.97	4.39	3.68	4.27
2	2.97	3.56	21	28	38	24	54	10	5.97	4.27	3.68	4.27
3	2.97	3.14	16	23	34	20	48	9.86	5.97	4.27	3.68	4.27
4	2.97	3.06	8.91	17	32	18	42	9.86	5.80	4.27	3.56	4.15
5	2.89	3.06	11	11	34	17	36	9.86	5.80	4.27	3.56	4.15
6	2.89	2.89	14	8.64	27	26	31	8.64	5.80	4.27	3.56	4.15
7	2.89	3.22	16	10	26	24	26	8.64	5.62	4.27	3.48	4.03
8	2.89	9.52	22	7.57	31	26	22	8.64	5.62	4.27	3.48	4.03
9	2.89	7.30	20	6.15	31	26	20	8.38	5.62	4.27	3.48	4.03
10	2.89	9.18	14	5.44	30	27	16	8.38	5.44	4.27	3.48	3.91
11	3.06	23	12	5.44	24	55	16	8.38	5.44	4.27	3.48	3.91
12	3.39	13	11	5.44	23	69	16	9.52	5.44	4.27	3.48	3.91
13	3.68	7.30	14	5.44	22	73	17	10	5.27	4.27	3.48	3.80
14	4.27	6.32	12	6.15	20	85	16	9.86	5.27	4.27	3.48	3.80
15	4.27	5.44	12	9.18	18	74	18	8.64	5.27	4.27	3.48	3.80
16	4.27	5.27	14	15	16	70	17	8.64	5.09	4.27	3.48	3.68
17	4.15	4.50	15	14	25	60	20	8.64	5.09	6.50	3.48	3.68
18	4.15	4.50	12	14	24	51	32	8.38	5.09	5.62	3.48	3.68
19	5.80	4.50	10	13	22	50	26	8.11	4.92	5.44	3.48	3.56
20	11	5.27	8.64	13	27	65	20	7.84	4.92	5.27	3.48	3.56
21	8.38	4.50	8.64	12	30	77	16	7.57	4.92	5.09	3.68	3.56
22	4.62	4.50	8.38	12	76	84	16	7.30	4.74	4.92	3.48	3.48
23	4.50	4.50	8.38	14	56	66	16	7.04	4.74	4.74	3.48	3.48
24	4.03	4.50	7.30	18	39	71	15	6.32	4.74	4.62	3.48	3.48
25	5.27	3.91	6.15	57	34	64	15	5.97	4.62	4.50	4.27	3.39
26	4.74	3.91	5.44	44	31	60	14	5.97	4.62	4.39	6.50	3.39
27	5.09	3.91	4.74	37	31	60	14	5.97	4.62	4.27	7.84	3.39
28	6.15	3.56	4.74	38	30	58	13	5.97	4.50	4.15	5.62	3.31
29	5.27	3.68	5.80	42	44	57	13	5.97	4.50	4.03	4.74	3.31
30	4.92	4.03	7.30	40	44	54	13	5.97	4.50	3.91	–	3.22
31	–	5.80	–	38	29	–	12	–	4.39	3.80	–	3.22
Total	130.23	174.98	337.72	594.45	983	1,537	712	244.32	160.30	139.69	113.53	115.87
Mean	4.34	5.64	11.2	19.2	31.7	51.2	23.0	8.14	5.17	4.51	3.91	3.74
Max.	11	23	22	57	76	85	62	10	5.97	6.50	7.84	4.27
Min.	2.89	2.89	4.74	5.44	16	17	12	5.97	4.39	3.80	3.48	3.22
Runoff – mcm.	11.252	15.118	29.179	51.360	84.931	132.797	61.517	21.109	13.850	12.069	9.809	10.011

WATER YEAR 1967 : Max. 85 Min. 2.89 Mean 14.3 Annual Runoff 453.003 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sept.22	12.00	2.40	120				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
NAN RIVER BASIN

Khwae Noi at Ban Yang, Phitsanulok (N.22)

Location: Lat 17°- 01' - 57" N, Long 100°- 22' - 23" E, on left bank about 1 kilometer downstream from district forestry office, and about 12 kilometers upstream from Amphoe Wat Bot Office, Phitsanulok.

Drainage Area: 4,761 sq.km.

Type of Gage: Staff gage

Zero Gage at Bottom at: + 43.037 m. (M.S.L.)

Bench Mark: B.M. - N.22

Location: Near staff gage
Elevation: + 51.143 m. (M.S.L.)

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: 1963 to date

Rating Operation:

Period of Rating: 1963 to date
Rated by Float: -
Rated by Current Meter: 1963 to date

Stability of Channel Regimes: Unstable, shifting adjustment is included for flow computation.

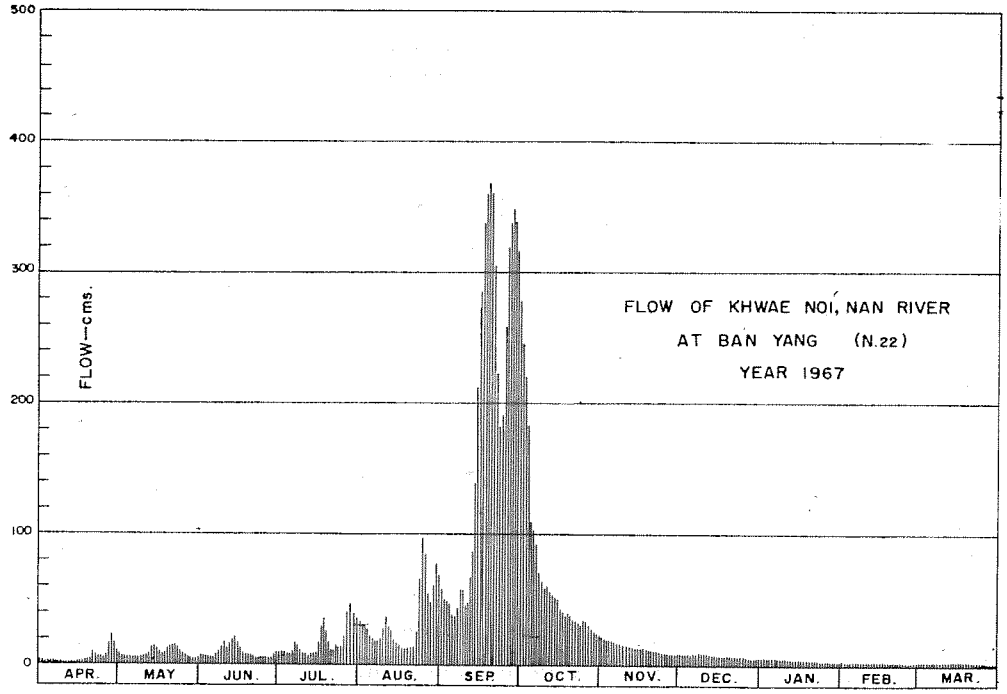
Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversion except those built by local residents. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	43.51	43.83	43.75	43.88	44.46	45.01	48.56	44.34	49.94	43.74	43.63	43.59
2	.51	.77	.70	.90	.37	44.92	47.96	.32	.93	.74	.62	.59
3	.50	.78	.67	.86	.38	.88	.64	.30	.92	.73	.62	.59
4	.50	.75	.66	.81	.31	.83	.25	.29	.93	.23	.62	.58
5	.50	.69	.65	.80	.18	.64	46.11	.27	.92	.72	.61	.58
6	43.49	43.65	43.70	43.92	44.09	44.58	46.03	44.24	43.91	43.72	43.60	43.57
7	.48	.64	.78	44.17	.05	.71	45.69	.22	.90	.71	.59	.57
8	.48	.63	.90	.08	.12	45.07	.48	.21	.89	.71	.60	.56
9	.48	.65	.98	43.93	.25	.01	.34	.20	.88	.71	.60	.56
10	.48	.66	44.02	.84	.30	44.75	.22	.19	.87	.71	.60	.55
11	43.47	43.78	43.79	43.80	44.58	44.84	45.25	44.17	43.86	43.70	43.59	43.56
12	.47	.88	44.06	.76	.37	45.06	.18	.15	.85	.70	.59	.59
13	.48	44.12	.14	.73	.21	.80	.11	.13	.84	.69	.59	.57
14	.50	.16	.08	.73	.12	47.03	.09	.13	.83	.69	.58	.55
15	.49	.05	.21	.81	.09	.94	.05	.13	.83	.69	.58	.58
16	43.49	43.94	44.31	43.96	44.05	48.44	44.96	44.12	43.82	43.68	43.58	43.61
17	.50	.86	.16	44.42	43.98	.85	.86	.11	.81	.67	.58	.59
18	.55	.88	43.98	.57	.96	49.06	.82	.09	.81	.67	.58	.58
19	.62	.99	.87	.34	.93	.21	.88	.07	.81	.67	.58	.56
20	.70	44.13	.81	.14	.94	48.97	.83	.05	.81	.66	.59	.55
21	43.98	44.15	43.77	44.03	44.00	48.26	44.24	44.04	43.80	43.66	43.57	43.55
22	.82	.15	.78	.04	.05	47.44	.66	.03	.80	.66	.57	.54
23	.77	.12	.72	.04	.59	.03	.60	.02	.80	.65	.57	.53
24	.77	43.99	.68	43.93	45.51	.17	.56	.00	.79	.65	.57	.53
25	.70	.89	.66	.98	.76	48.24	.69	43.99	.79	.65	.57	.52
26	43.79	43.84	43.63	44.29	45.30	49.06	44.65	43.98	43.78	43.65	43.56	43.52
27	44.17	.79	.62	.71	44.86	.28	.55	.97	.76	.64	.56	.51
28	.44	.75	.65	.92	.79	.38	.49	.96	.76	.64	.57	.51
29	.22	.72	.86	.75	45.20	.21	.44	.95	.76	.63	.58	.50
30	.02	.73	.88	.61	.40	48.98	.40	.95	.76	.63		.50
31		.77		.54	.16		.37		.75	.63		.50
Mean	43.66	43.86	43.85	44.11	44.46	46.92	45.34	44.12	43.83	43.68	43.59	43.55
Max.	44.44	44.15	44.31	44.92	45.76	49.38	48.56	44.34	43.94	43.74	43.63	43.59
Min.	43.47	43.63	43.62	43.73	43.93	44.58	44.37	43.95	43.75	43.63	43.56	43.50

WATER YEAR 1967 : Max. 49.38 m. Min. 43.47 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	3.05	7.40	7.80	9.68	32	57	273	22	9.46	5.36	3.65	3.35
2	3.05	6.26	6.80	10	28	50	227	20	9.24	5.36	3.50	3.35
3	2.90	6.44	6.26	9.90	29	48	204	19	9.02	5.18	3.50	3.35
4	2.90	5.90	6.08	8.80	26	45	177	19	9.24	5.18	3.50	3.20
5	2.90	4.85	5.90	8.60	21	37	105	18	9.02	5.00	3.50	3.20
6	2.75	4.25	5.90	11	18	35	102	17	8.80	5.00	3.35	3.05
7	2.60	4.10	8.40	18	17	41	84	16	8.60	4.85	3.20	3.05
8	2.60	3.95	11	15	19	57	72	16	8.40	4.85	3.35	2.90
9	2.60	4.25	13	11	20	57	65	16	8.00	4.85	3.35	2.90
10	2.60	4.40	17	9.46	25	45	58	15	7.80	4.85	3.35	2.75
11	2.45	6.44	13	8.60	36	49	60	14	7.60	4.70	3.20	2.90
12	2.45	8.40	15	7.80	28	70	56	14	7.40	4.70	3.20	3.35
13	2.60	14	17	7.20	23	105	53	13	7.20	4.55	3.20	3.05
14	2.90	15	15	7.20	17	187	52	13	7.00	4.55	3.05	2.75
15	2.75	13	20	8.80	16	260	50	13	7.00	4.55	3.05	3.20
16	2.75	11	23	12	15	304	43	13	6.80	4.40	3.05	3.65
17	2.90	9.02	17	29	13	344	39	13	6.62	4.25	3.05	3.35
18	3.65	9.46	12	35	12	366	37	12	6.62	4.25	3.05	3.20
19	3.80	12	9.46	26	12	368	40	12	6.62	4.25	3.20	2.90
20	5.00	14	8.20	17	12	343	37	11	6.62	4.10	3.35	2.75
21	10	15	7.40	12	13	216	34	11	6.44	4.10	3.05	2.75
22	7.20	15	7.60	12	15	208	34	11	6.44	4.10	3.05	2.60
23	6.20	14	6.44	14	34	177	31	11	6.44	3.95	3.05	2.45
24	6.26	11	5.72	12	84	187	30	10	6.26	3.95	3.05	2.45
25	5.00	8.80	5.36	13	99	274	35	10	6.26	3.95	3.05	2.30
26	6.62	7.80	4.85	22	73	317	33	9.90	6.08	3.95	2.90	2.30
27	15	6.80	4.70	42	50	339	29	9.68	5.72	3.80	2.90	2.15
28	24	6.08	5.18	52	47	349	27	9.46	5.72	3.80	3.05	2.15
29	17	5.54	9.24	44	67	332	25	9.68	5.72	3.65	3.20	2.00
30	11	5.72	9.68	38	78	309	24	9.68	5.72	3.65	–	2.00
31	–	6.62	–	35	65	–	23	–	5.54	3.65	–	2.00
Total	167.54	266.48	303.97	566.04	1,044	5,636	2,159	407.40	223.40	137.33	92.95	87.35
Mean	5.58	8.60	10.1	18.2	33.7	188	69.6	13.6	7.53	4.43	3.20	2.82
Max.	24	15	23	52	99	368	277	22	9.46	5.36	3.65	3.35
Min.	2.45	3.95	4.70	7.20	12	35	23	9.68	5.54	3.65	2.90	2.00
Runoff - BCM.	14.475	23.034	26.263	48.906	90.022	486.950	186.538	35.199	19.302	11.865	8.031	7.461

WATER YEAR 1967 : Max. 368 Min. 2.00 Mean 30.3 Annual Runoff 958.302 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sep.19	13.00	49.24	372				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
NAN RIVER BASIN

Nan River at Phra Fang, Uttaradit (N.23)

Location: Lat 17°- 38' - 16" N, Long 100°- 14' - 02" E, on right bank about 1 kilometers upstream from Wat Phra Fang, about 1.5 kilometer away from Phra Fang – Ngiu Ngarm Road, Tambon Pha Chuk, Amphoe Muang, Uttaradit.

Drainage Area: 16,366 sq.km.

Type of Gage: Staff gage

Zero Gage at Bottom at: +56.452 m. (M.S.L.)

Bench Mark:

Location: About 9 meters from upper gage
Elevation: +69.923 m. (M.S.L.)

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: 1963 to date.

Rating Operation:

Period of Rating: 1963 to date
Rated by Float: -
Rated by Current Meter: 1963 to date

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

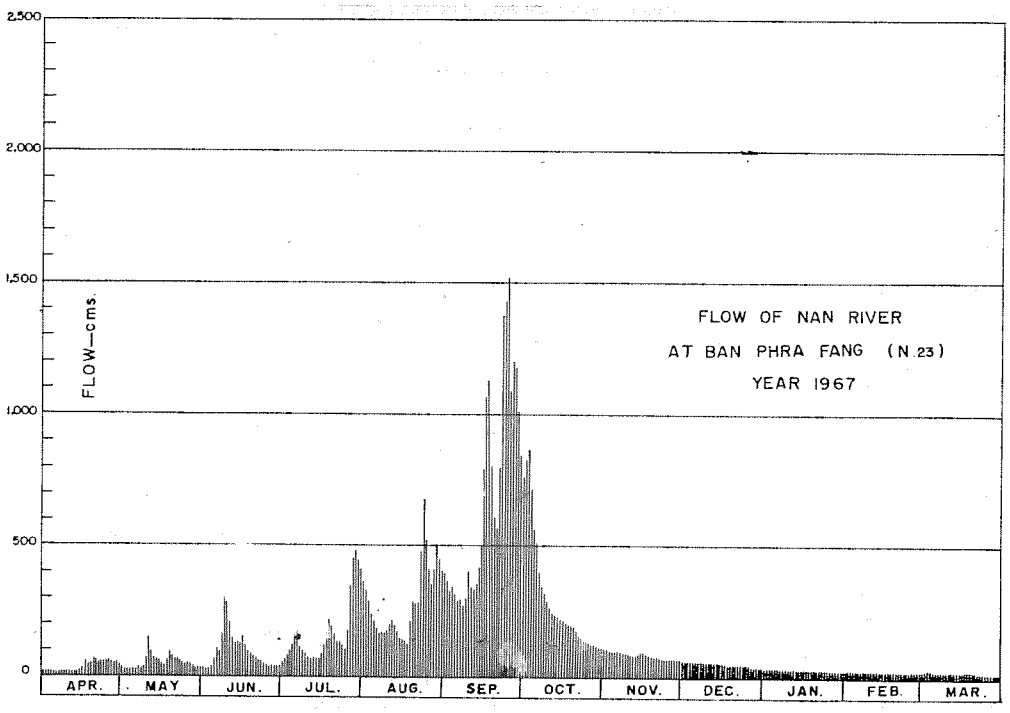
Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage – discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions except those built by local residents. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	57.08	57.31	57.34	57.60	59.64	59.78	61.39	58.01	57.64	57.38	57.28	57.26
2	.07	.30	.28	.64	.45	.64	.78	57.99	.63	.38	.28	.29
3	.06	.28	.30	.88	.20	.41	.88	.96	.63	.38	.27	.33
4	.06	.28	.33	58.05	58.93	.53	.15	.95	.62	.37	.27	.28
5	.05	.32	.65	.33	.68	.25	60.53	.94	.61	.37	.26	.25
6	57.05	57.28	58.00	58.51	58.57	59.22	60.13	57.96	57.61	57.36	57.26	57.23
7	.05	.37	57.95	.27	.44	.23	59.81	.94	.60	.36	.25	.21
8	.04	.29	58.36	.03	.51	.07	.56	.91	.60	.36	.24	.20
9	.04	.33	59.31	57.89	.46	.25	.39	.87	.59	.35	.23	.20
10	.07	.64	.12	.83	.50	.85	.21	.85	.58	.35	.23	.20
11	57.04	58.32	58.69	57.74	58.69	59.54	59.08	57.82	57.57	57.35	57.22	57.28
12	.06	57.94	.33	.70	.75	.43	58.96	.80	.56	.35	.22	.25
13	.05	.75	.20	.73	.59	.59	.86	.79	.55	.34	.22	.23
14	.09	.72	.21	.71	.46	60.39	.87	.81	.54	.34	.21	.22
15	.21	.63	.16	.71	.34	.75	.78	.93	.53	.34	.21	.22
16	57.32	57.52	58.37	57.81	58.29	62.58	58.78	57.96	57.53	57.34	57.21	57.21
17	.59	.50	.09	58.06	.22	.81	.69	.87	.53	.34	.21	.21
18	.49	.62	57.90	.52	.15	61.91	.64	.82	.52	.33	.21	.21
19	.49	.95	.80	.77	.86	.25	.64	.79	.52	.33	.21	.21
20	.67	.77	.78	.62	59.19	60.75	.63	.77	.51	.33	.21	.19
21	57.60	57.70	57.72	58.50	59.15	60.66	58.51	57.75	57.50	57.33	57.21	57.18
22	.52	.68	.65	.19	.21	61.56	.39	.73	.50	.33	.20	.17
23	.55	.62	.58	.22	60.02	63.44	.31	.71	.49	.32	.20	.17
24	.60	.53	.53	.12	61.12	.86	.27	.70	.48	.32	.21	.16
25	.63	.48	.48	.00	60.46	64.07	.23	.69	.47	.32	.25	.17
26	57.58	57.46	57.42	58.19	59.84	62.60	58.20	57.68	57.44	57.31	57.25	57.15
27	.61	.45	.39	59.59	.50	63.02	.16	.67	.42	.31	.25	.14
28	.50	.38	.43	60.06	.93	62.92	.12	.67	.41	.30	.24	.13
29	.60	.34	.43	.28	60.36	.00	.09	.66	.41	.30	.25	.12
30	.50	.34	.41	.01	.09	61.71	.06	.65	.40	.29		.12
31		.35		59.87	59.81		.03		.39	.29		.11
Mean	57.31	57.52	57.87	58.37	59.14	60.97	59.13	57.82	57.52	57.34	57.23	57.20
Max.	57.67	58.32	59.31	60.28	61.12	64.07	61.88	58.01	57.64	57.38	57.28	57.33
Min.	57.04	57.28	57.28	57.60	58.15	59.07	58.03	57.65	57.39	57.29	57.20	57.11

WATER YEAR 1967 : Max. 64.07 m. Min. 57.04 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	14	29	31	57	364	389	738	105	61	35	27	26
2	13	28	27	61	330	364	838	103	60	35	27	28
3	13	27	28	90	285	323	864	99	60	35	26	31
4	13	27	31	110	241	344	680	98	59	34	26	27
5	12	30	62	147	201	294	542	97	58	34	26	25
6	12	27	104	174	183	287	458	99	58	33	26	24
7	12	34	98	139	163	289	395	97	57	33	25	22
8	12	28	151	108	174	263	350	93	57	33	24	21
9	12	31	305	91	166	294	319	88	56	32	24	21
10	13	61	271	84	172	402	287	86	55	32	24	21
11	12	146	202	73	202	346	265	82	54	32	23	27
12	13	97	147	68	212	326	246	80	53	32	23	25
13	12	74	129	72	186	355	230	79	52	31	23	24
14	14	70	131	69	166	511	231	81	51	31	22	23
15	22	60	124	69	149	590	217	96	50	31	22	23
16	30	49	153	81	142	1,059	217	99	50	31	22	22
17	56	47	115	111	132	1,128	202	88	50	31	22	22
18	46	59	92	175	123	872	194	82	49	31	22	22
19	46	98	80	215	230	704	194	79	49	31	22	22
20	64	76	78	191	282	590	193	76	48	31	22	21
21	57	68	70	157	276	570	174	74	47	31	22	20
22	49	66	62	128	286	781	156	72	47	31	21	19
23	52	59	55	132	436	1,371	144	69	46	30	21	19
24	57	50	50	119	674	1,445	139	68	45	30	22	19
25	60	45	45	104	526	1,512	133	67	44	30	25	19
26	55	43	39	128	400	1,065	129	66	41	29	25	18
27	58	42	36	355	339	1,191	124	64	39	29	25	17
28	47	35	40	444	418	1,161	119	64	38	28	24	17
29	57	31	40	488	504	896	115	63	38	28	25	16
30	47	31	38	438	450	820	111	62	37	28	–	16
31		32		406	395		108		36	28		16
Total	980	1,600	2,834	5,080	8,807	20,542	9,112	2,476	1,545	970	688	673
Mean	32.7	51.6	94.5	164	284	685	294	82.5	49.8	31.3	23.7	21.7
Max.	64	146	305	488	674	1,512	864	105	61	35	27	31
Min.	12	27	27	57	123	263	108	62	36	28	21	16
Runoff - MCM.	84.672	138.240	244.858	438.912	760.925	1,774.829	787.277	213.926	133.488	83.808	59.443	58.147

WATER YEAR 1967 : Max. 1,512 Min. 12 Mean 151 Annual Runoff 4,778.525 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sep. 25	21.00	64.29	1,583				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
NAN RIVER BASIN

Khek River at Wang Nok Aen, Phitsanulok (N.24)

Location: Lat 16^{0} – 50' – 35" N, Long 100^{0} – 31' – 20" E, on right bank about 2 kilometers downstream from Sakunothayan Fall, Amphoe Wang Thong, Phitsanulok.

Drainage Area: 1,866 sq.km.

Type of Gage: Staff gage

Zero Gage at Bottom at: 0.00 m. (A.D.)

Bench Mark:

Location: Near the gage site
Elevation: +12.845 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: 1965 to date

Rating Operation:

Period of Rating: 1965 to date
Rated by Float: –
Rated by Current Meter: 1965 to date

Stability of Channel Regimes: Unstable, shifting adjustment is included for flow computation.

Overbank Flow Conditions: No overbank flow.

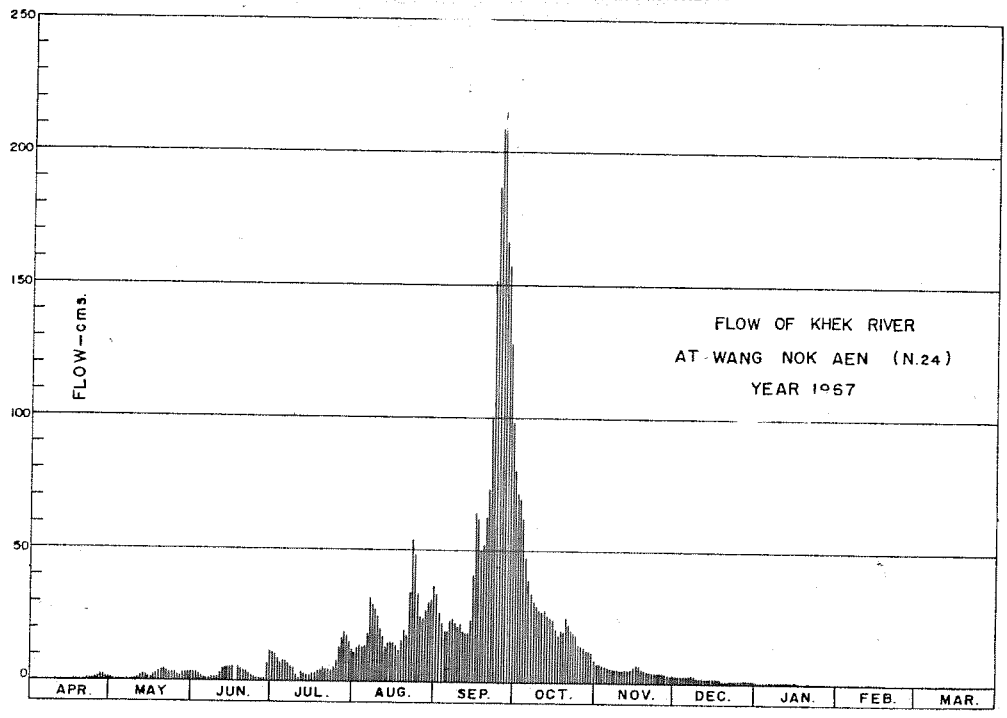
General Description: Records good. Stage – discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions for irrigation except those built by local residents. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (A.D.), WATER YEAR APRIL 1, 1967 TO MARCH 31,1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.55	0.75	1.09	1.61	1.59	2.64	4.08	1.38	0.98	0.77	0.64	0.56
2	.55	.71	.02	.59	.71	.39	3.86	.37	.97	.76	.63	.54
3	.54	.68	0.95	.42	.72	.25	.85	.35	.96	.75	.62	.56
4	.54	.65	.91	.41	.69	.10	.31	.32	.97	.75	.61	.57
5	.53	.63	.86	.49	.72	1.99	2.97	.30	.96	.74	.61	.59
6	0.53	0.64	0.85	1.44	2.01	2.20	2.74	1.29	0.95	0.74	0.60	0.60
7	.53	.72	.85	.38	.55	.20	.58	.27	.94	.73	.59	.61
8	.52	.65	.84	.32	.44	.12	.44	.25	.93	.73	.58	.60
9	.52	.70	.82	.23	.39	.04	.33	.23	.92	.72	.59	.59
10	.51	.76	.90	.14	.27	.10	.24	.22	.90	.72	.58	.60
11	0.52	0.83	1.04	1.11	2.07	2.03	2.25	1.21	0.89	0.71	0.59	0.61
12	.53	.96	.15	.08	1.89	1.93	.27	.18	.88	.71	.60	.60
13	.54	.94	.23	.04	.76	.94	.18	.17	.87	.70	.59	.59
14	.56	.87	.23	0.99	.77	2.21	.14	.17	.86	.70	.59	.59
15	.57	.86	.21	.99	.81	.62	.19	.22	.86	.69	.59	.58
16	0.58	0.82	1.27	1.04	1.77	3.47	2.01	1.26	0.85	0.69	0.59	0.57
17	.59	.91	.35	.06	.68	.40	1.92	.23	.84	.68	.58	.58
18	.61	.98	.23	.14	.62	2.94	2.00	.18	.83	.68	.58	.61
19	.63	1.05	.12	.16	.88	.96	1.97	.14	.82	.67	.58	.62
20	.66	.11	.10	.20	2.07	3.35	.94	.12	.82	.66	.58	.61
21	0.69	1.11	1.09	1.16	1.88	3.65	1.81	1.10	0.81	0.67	0.57	0.60
22	.73	.06	.01	.10	2.70	4.44	.73	.08	.81	.67	.57	.58
23	.83	.05	0.94	.09	3.37	5.77	.68	.07	.81	.66	.57	.57
24	.85	.03	.89	.23	.06	6.67	.64	.06	.80	.66	.57	.56
25	.85	0.99	.86	.33	2.61	7.38	.62	.04	.80	.65	.57	.55
26	0.95	0.94	0.84	1.65	2.30	7.60	1.63	1.03	0.80	0.64	0.58	0.55
27	.93	.96	.82	.88	.25	6.42	.57	.02	.79	.65	.58	.55
28	.87	1.01	.90	2.02	.38	.16	.52	.00	.79	.65	.58	.56
29	.81	.02	1.31	1.94	.53	5.37	.48	0.99	.78	.65	.57	.55
30	.77	.02	.66	.82	.53	4.62	.45	.99	.78	.65		.54
31		.04		.69	.77		.42		.77	.65		.55
Mean	0.65	0.88	1.04	1.35	2.15	3.56	2.22	1.17	0.86	0.69	0.59	0.58
Max.	0.95	1.11	1.66	2.02	3.37	7.60	4.08	1.38	0.98	0.77	0.64	0.62
Min.	0.51	0.63	0.82	1.04	1.59	1.93	1.42	0.99	0.77	0.64	0.57	0.54

WATER YEAR 1967 : Max. 7.60 m. Min. 0.51 m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.30	1.00	3.88	11	11	34	76	7.68	3.52	1.36	0.76	0.36
2	0.30	0.84	3.04	11	13	28	69	7.52	3.40	1.36	0.72	0.24
3	0.24	0.72	2.35	8.20	14	24	69	7.20	3.28	1.27	0.68	0.36
4	0.24	0.60	1.99	7.20	13	21	52	6.72	3.40	1.27	0.64	0.42
5	0.18	0.48	1.54	8.42	14	19	44	6.40	3.28	1.18	0.64	0.54
6	0.18	0.54	1.45	7.68	19	24	37	6.26	3.16	1.18	0.60	0.60
7	0.18	0.88	1.45	6.72	32	24	33	5.98	3.04	1.09	0.54	0.64
8	0.12	0.60	1.36	5.84	29	23	30	5.70	2.92	1.27	0.48	0.60
9	0.12	0.80	1.18	5.84	28	21	29	5.42	2.80	1.18	0.54	0.54
10	0.06	1.09	1.90	1.81	25	22	27	5.28	2.62	1.18	0.48	0.60
11	0.12	1.72	3.28	1.54	20	20	27	5.14	2.53	1.18	0.54	0.64
12	0.18	2.92	4.50	4.00	17	19	28	5.84	2.44	1.18	0.60	0.60
13	0.24	2.71	5.42	3.52	13	19	26	5.70	2.35	1.00	0.54	0.54
14	0.36	2.08	5.42	2.92	15	25	25	5.70	2.26	1.00	0.54	0.54
15	0.42	1.99	5.14	2.92	15	39	24	6.40	2.26	0.96	0.54	0.48
16	0.48	1.63	5.98	3.52	15	64	20	7.04	2.17	0.96	0.54	0.42
17	0.54	2.44	7.20	3.76	13	62	18	6.56	2.08	0.92	0.48	0.48
18	0.64	3.16	5.42	4.60	12	48	20	5.84	1.99	0.92	0.48	0.64
19	0.72	4.00	4.20	4.80	17	52	19	5.28	1.90	0.88	0.48	0.68
20	0.84	4.40	4.20	5.28	20	64	25	5.00	1.90	0.84	0.48	0.64
21	0.96	4.40	3.88	4.80	17	74	22	4.80	1.81	0.88	0.42	0.60
22	1.27	3.88	2.92	4.20	35	102	20	4.60	1.81	0.88	0.42	0.48
23	2.17	3.76	2.26	4.10	54	154	19	4.50	1.81	0.84	0.42	0.42
24	2.35	3.52	1.81	5.70	45	193	18	4.40	1.72	0.84	0.42	0.36
25	2.35	3.04	1.54	7.20	33	209	14	4.20	1.72	0.80	0.42	0.30
26	2.80	2.53	1.36	12	25	219	14	4.10	1.72	0.76	0.48	0.30
27	2.62	2.71	1.18	17	24	167	13	4.00	1.63	0.80	0.48	0.30
28	2.08	3.28	1.90	19	27	156	12	3.76	1.63	0.80	0.48	0.36
29	1.54	3.40	6.56	18	31	124	12	3.64	1.54	0.80	0.42	0.30
30	1.18	3.40	12	16	31	95	11	3.64	1.54	0.80		0.24
31		3.64		13	37		8.28		1.45	0.80		0.30
Total	25.78	72.16	106.11	231.65	714	2,145	861.28	164.30	71.68	31.18	15.26	14.52
Mean	0.86	2.33	3.54	7.47	23.0	71.5	27.8	5.48	2.31	1.01	0.526	0.468
Max.	2.80	4.40	12	19	54	219	76	7.68	3.52	1.36	0.76	0.68
Min.	0.06	0.48	1.18	1.54	11	19	8.28	3.64	1.45	0.76	0.42	0.24
Runoff - MCM.	2.227	6.235	9.168	20.015	61.690	185.328	74.415	14.195	6.193	2.694	1.318	1.254

WATER YEAR 1967 : Max. 219 Min. 0.06 Mean 12.2 Annual Runoff 384.732 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sep. 26	06.00	8.30	260				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
NAN RIVER BASIN

Khlong Ta Yom at Ban Wat Ta Yom, Phitsanulok (N.25)

Location: Lat 16° – 36' – 10" N, Long 100° – 26' – 49" E, on left bank at Ban Wat Ta Yom Market, at bridge on highway No.112 (Wang Thong – Phichit) Amphoe Ban Kra Thum, Phitsanulok.

Drainage Area: 875 sq.km.

Type of Gage: Staff gage

Zero Gage at Bottom at: 0.00 m. (A.D.)

Bench Mark: B.M. – H.S./R.I.D. No.1

Location: On left bank along the gage line
Elevation: +5.554 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: 1965 to date.

Rating Operation:

Period of Rating: 1965, 1967 – 71
Rated by Float: –
Rated by Current Meter: 1965, 1967 – 71

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

Overbank Flow Conditions: No overbank flow.

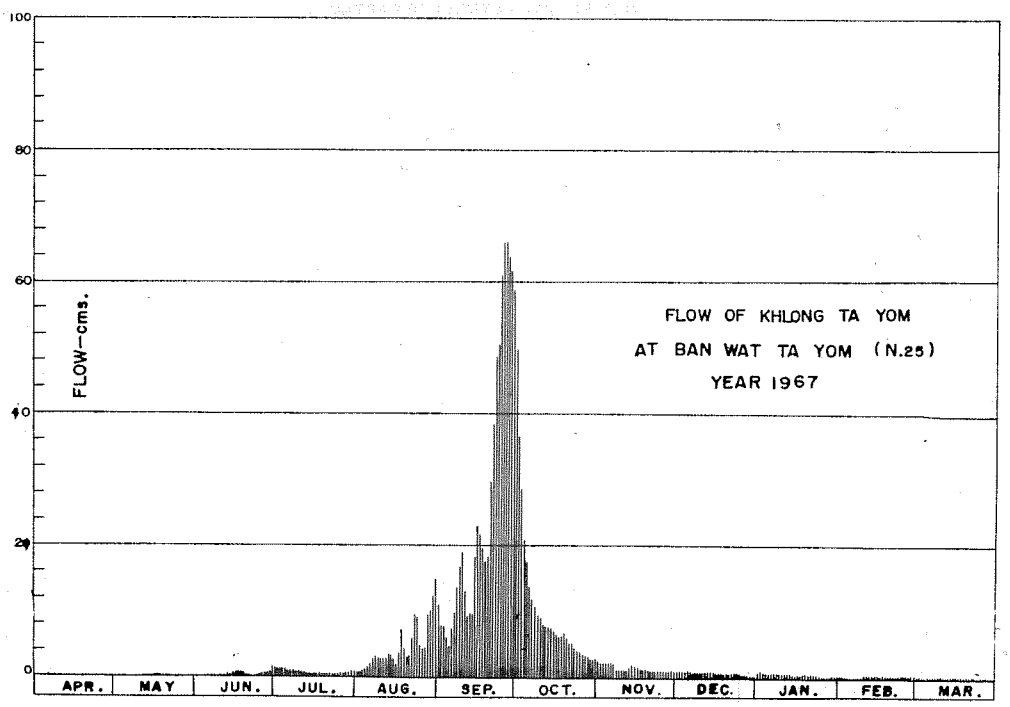
General Description: Records fair. Stage – discharge relationship used is defined by discharge measurements made during 1965 and 1968. No upstream state diversions for irrigation except those built by local residents. No adjustment made for virgin flow.

Remarks: Discharge record for periods of no flow are omitted.

GAGE HEIGHT IN METER (A.D.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.60	0.60	0.61	0.95	0.90	2.05	4.20	1.16	0.90	0.90	0.72	0.71
2	.60	.60	.61	.95	.90	1.71	3.70	.10	.90	.90	.72	.71
3	.60	.60	.61	.95	.94	.70	.32	.10	.90	.85	.71	.71
4	.60	.60	.61	.95	.97	.60	2.85	.10	.90	.85	.71	.71
5	.60	.60	.61	.95	1.02	.40	.61	.10	.90	.84	.70	.71
6	0.60	0.60	0.61	0.90	1.12	1.70	2.34	1.10	0.90	0.83	0.70	0.71
7	.60	.60	.62	.90	.22	.96	.20	.10	.87	.82	.70	.71
8	.60	.60	.62	.90	.25	2.28	.08	.00	.87	.81	.70	.71
9	.60	.60	.62	.85	.22	.53	1.97	.00	.86	.80	.70	.71
10	.60	.60	.63	.85	.20	.78	.93	.00	.86	.80	.70	.71
11	0.60	0.60	0.63	0.85	1.20	2.26	1.81	1.00	0.86	0.80	0.70	0.70
12	.60	.60	.70	.80	.20	1.89	.81	.00	.85	.80	.70	.70
13	.60	.60	.75	.80	.30	2.00	.80	.07	.85	.80	.70	.70
14	.60	.60	.75	.80	.28	1.88	.78	.09	.85	.79	.70	.70
15	.60	.60	.80	.80	.10	3.00	.74	.05	.85	.79	.70	.70
16	0.60	0.70	0.85	0.80	1.07	3.10	1.69	1.05	0.83	0.78	0.70	0.68
17	.60	.70	.85	.78	.39	2.93	.65	.03	.83	.77	.70	.67
18	.60	.70	.85	.78	.72	.77	.65	.00	.83	.77	.70	.64
19	.60	.65	.75	.75	.26	.61	.70	.00	.81	.77	.70	.65
20	.60	.65	.75	.75	.25	.53	.65	.00	.81	.77	.70	.64
21	0.60	0.65	0.70	0.77	1.33	3.45	1.50	0.97	0.80	0.77	0.70	0.60
22	.60	.60	.70	.77	.65	4.20	.50	.97	.80	.77	.70	.60
23	.60	.60	.70	.78	.99	.67	.40	.97	.80	.77	.70	.60
24	.60	.60	.70	.78	.91	.70	.40	.95	.80	.77	.70	.60
25	.60	.60	.75	.78	.50	5.10	.40	.95	.80	.76	.70	.60
26	0.60	0.60	0.78	0.80	1.43	5.20	1.30	0.95	0.79	0.76	0.70	0.60
27	.60	.60	.80	.80	.40	.20	.30	.93	.78	.75	.71	.60
28	.60	.60	.80	.83	.95	.16	.26	.93	.77	.74	.71	.60
29	.60	.60	.80	.85	2.03	.10	.20	.89	.76	.74	.71	.60
30	.60	.60	.80	.90	2.27	.06	.20	.89	.76	.73		.60
31		.60	1.05	.90	2.44		.20		.76	.72		.60
Mean	0.60	0.61	0.71	0.84	1.40	2.14	1.42	1.02	0.83	0.79	0.70	0.67
Max.	0.60	0.70	1.05	0.95	2.44	5.20	4.20	1.16	0.90	0.90	0.72	0.71
Min.	0.60	0.60	0.61	0.75	0.90	1.60	1.20	0.89	0.76	0.72	0.70	0.60

WATER YEAR 1967 : Max. 5.20 m. Min. 0.60 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1			0.025	1.28	1.00	11	40	2.54	1.00	1.00	0.32	0.29
2			0.025	1.28	1.00	6.96	32	2.15	1.00	1.00	0.32	0.29
3			0.025	1.28	1.22	6.85	26	2.15	1.00	0.80	0.29	0.29
4			0.025	1.28	1.58	5.90	20	2.15	1.00	0.80	0.29	0.29
5			0.025	1.28	1.67	4.20	17	2.15	1.00	0.76	0.25	0.29
6			0.025	1.00	2.28	6.85	14	2.15	1.00	0.72	0.25	0.29
7			0.050	1.00	2.94	9.56	12	2.15	0.88	0.68	0.25	0.29
8			0.050	1.00	3.15	13	11	1.55	0.88	0.64	0.25	0.29
9			0.050	0.80	2.94	16	9.67	1.55	0.84	0.60	0.25	0.29
10			0.075	0.80	2.80	19	9.23	1.55	0.84	0.60	0.25	0.29
11			0.075	0.80	2.80	13	8.00	1.55	0.84	0.60	0.25	0.25
12			0.25	0.60	2.80	8.80	8.00	1.55	0.80	0.60	0.25	0.25
13			0.42	0.60	3.50	10	7.90	1.97	0.80	0.60	0.25	0.25
14			0.42	0.60	3.36	8.70	7.69	2.09	0.80	0.57	0.25	0.25
15			0.60	0.60	2.15	22	7.27	1.85	0.80	0.57	0.25	0.25
16		0.25	0.80	0.60	1.97	23	6.76	1.85	0.72	0.53	0.25	0.20
17		0.25	0.80	0.53	4.13	21	6.38	1.73	0.72	0.50	0.25	0.18
18		0.25	0.80	0.53	7.06	19	6.38	1.55	0.72	0.50	0.25	0.10
19		0.12	0.42	0.42	3.22	17	6.85	1.55	0.64	0.50	0.25	0.13
20		0.12	0.42	0.42	3.15	16	6.38	1.55	0.64	0.50	0.25	0.10
21		0.12	0.25	0.50	3.71	28	5.00	1.39	0.60	0.50	0.25	
22			0.25	0.50	6.38	40	5.00	1.39	0.60	0.50	0.25	
23			0.25	0.53	9.89	49	4.20	1.39	0.60	0.50	0.25	
24			0.25	0.53	9.01	50	4.20	1.28	0.60	0.50	0.25	
25			0.42	0.53	5.00	61	4.20	1.28	0.60	0.46	0.25	
26			0.53	0.60	4.44	66	3.50	1.28	0.57	0.46	0.25	
27			0.60	0.60	4.20	66	3.50	1.17	0.53	0.43	0.29	
28			0.60	0.60	9.45	64	3.22	1.17	0.50	0.39	0.29	
29			0.60	0.80	10	61	2.80	0.96	0.46	0.39	0.29	
30			1.85	1.00	13	59	2.80	0.96	0.46	0.36		
31				1.00	15		2.80		0.46	0.32		
Total	0.00	1.11	10.98	23.89	144.60	801.82	303.73	49.60	22.90	17.88	7.59	4.86
Mean	0.000	0.04	0.37	0.77	4.66	26.7	9.80	1.65	0.74	0.58	0.26	0.16
Max.	0.00	0.25	1.85	1.28	15	66	40	2.54	1.00	1.00	0.32	0.29
Min.	0.00	0.00	0.025	0.42	1.00	4.20	2.80	0.96	0.46	0.32	0.25	0.00
Runoff - MCM.	0.000	0.096	0.949	2.064	12.493	69.277	26.242	4.285	1.979	1.545	0.656	0.423

WATER YEAR 1967 : Max. 66 Min. 0.00 Mean 3.79 Annual Runoff 120.006 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sep. 26	12.00	5.20	66				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
NAN RIVER BASIN

Nan River at Tron, Uttaradit (N.26)

Location: Lat 17°- 29' - 00" N, Long 100°- 06' - 58" E, on right bank about 500 meters upstream from Tron Railway Station, opposite to district office of Amphoe Tron, Uttaradit.

Drainage Area: 17,350 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: 0.00 m. (A.D.)

Bench Mark: B.M. - H.S. No.1

Location: At mango tree at the corner of fence of gage observer's house
Elevation: +9.594 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: 1965 to date

Rating Operation:

Period of Rating: 1965 to date
Rated by Float: -
Rated by Current Meter: 1965 to date

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

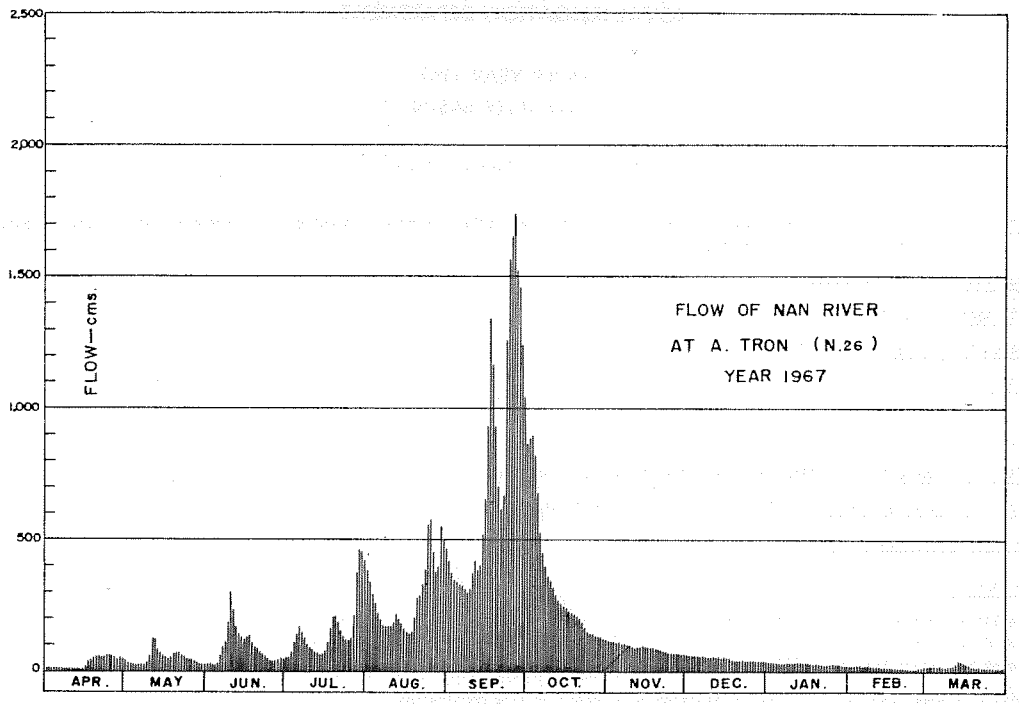
Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions for irrigation except those built by local residents. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (A.D.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.33	0.76	0.66	0.93	3.09	3.26	5.09	1.49	1.01	0.74	0.58	0.50
2	.33	.65	.64	.92	2.90	.06	.16	.45	.01	.73	.58	.52
3	.33	.59	.63	1.11	.58	2.92	.26	.44	.00	.73	.57	.53
4	.32	.57	.59	.31	.46	.87	4.90	.42	0.99	.72	.56	.54
5	.32	.58	.61	.63	.24	.80	.30	.41	.98	.72	.55	.53
6	0.31	0.58	0.98	1.91	2.04	2.80	3.75	1.40	0.97	0.71	0.55	0.52
7	.31	.59	1.34	.82	1.92	.72	.38	.38	.96	.71	.54	.50
8	.30	.63	.41	.56	.89	.64	.14	.36	.96	.70	.53	.49
9	.30	.68	2.19	.40	.91	.62	2.94	.32	.94	.60	.52	.48
10	.31	.76	.64	.25	.88	3.04	.85	.27	.94	.60	.52	.51
11	0.33	1.58	2.32	1.20	1.97	3.27	2.72	1.24	0.93	0.62	0.50	0.57
12	.32	.62	1.86	.14	2.18	.06	.54	.26	.92	.67	.50	.70
13	.31	.24	.67	.07	.10	.06	.43	.28	.91	.66	.49	.80
14	.32	.10	.62	.04	1.94	.64	.37	.31	.90	.65	.48	.75
15	.33	.05	.50	.03	.83	4.15	.34	.34	.89	.65	.47	.66
16	0.39	0.90	1.60	1.12	1.75	5.45	2.28	1.32	0.88	0.62	0.46	0.56
17	.71	.82	.66	.33	.69	6.71	.21	.31	.87	.63	.46	.53
18	.83	.87	.43	.70	.70	.12	.18	.28	.86	.63	.44	.50
19	.81	1.05	.27	2.08	2.04	5.26	.14	.24	.86	.62	.43	.49
20	.88	.10	.16	.14	.55	4.52	.13	.19	.85	.62	.42	.48
21	0.95	1.15	1.11	1.94	2.51	4.09	2.08	1.17	0.84	0.61	0.41	0.47
22	.91	.04	.06	.23	.65	.34	1.94	.15	.83	.61	.39	.45
23	.87	0.96	0.98	.58	3.07	6.40	.84	.14	.83	.62	.38	.44
24	.97	.87	.89	.53	3.87	7.30	.76	.11	.82	.65	.38	.43
25	.96	.87	.81	.47	4.00	.60	.74	.08	.81	.64	.38	.41
26	0.93	0.80	0.76	1.48	3.50	7.78	1.71	1.07	0.81	0.63	0.40	0.40
27	.86	.77	.78	2.16	.03	.20	.67	.05	.78	.62	.44	.39
28	.85	.71	.82	3.04	.04	.04	.63	.04	.78	.61	.47	.39
29	.89	.67	.87	.43	.82	6.50	.60	.03	.75	.60	.49	.38
30	.88	.63	.85	.40	.68	5.75	.55	.02	.76	.60		.37
31				.29	.48		.51		.74	.59		.36
Mean	0.58	0.87	1.22	1.70	2.52	4.60	2.68	1.25	0.88	0.66	0.48	0.50
Max.	0.97	1.62	2.64	3.43	4.00	7.78	5.26	1.49	1.01	0.74	0.58	0.80
Min.	0.30	0.57	0.59	0.92	1.69	2.62	1.51	1.02	0.74	0.59	0.38	0.36

WATER YEAR 1967 : Max. 7.78 m. Min. 0.30 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	11	41	33	57	389	424	854	119	65	40	27	21
2	11	32	31	56	351	383	873	113	65	39	27	22
3	11	27	30	75	290	355	900	112	64	39	26	23
4	11	26	27	97	269	345	802	110	63	38	25	24
5	11	27	29	137	231	332	654	108	62	38	24	23
6	10	27	62	176	197	332	529	107	61	37	24	22
7	10	27	100	163	178	317	449	105	60	37	24	21
8	10	30	108	128	173	302	399	102	60	36	23	20
9	10	34	222	107	176	298	359	98	58	35	22	20
10	10	41	302	90	172	379	341	92	58	35	22	22
11	11	130	244	84	186	426	317	89	57	34	21	26
12	11	136	169	78	221	383	283	91	56	34	21	36
13	10	89	142	71	207	383	263	93	55	33	20	45
14	11	74	136	68	181	505	253	97	54	32	20	40
15	11	69	120	67	164	619	248	100	53	32	19	33
16	14	54	133	76	153	953	238	98	52	31	19	25
17	37	47	141	99	145	1,338	226	97	51	30	19	23
18	48	51	111	146	146	1,149	221	93	50	30	17	21
19	46	69	92	204	197	900	214	89	50	30	17	20
20	52	74	80	214	285	702	212	83	49	30	16	20
21	59	79	75	181	278	606	204	81	49	29	16	19
22	55	68	70	150	303	664	181	79	48	29	14	18
23	51	60	62	130	385	1,237	154	78	48	30	14	17
24	61	51	53	124	556	1,547	151	75	47	32	14	17
25	60	46	46	116	585	1,662	147	72	46	31	14	16
26	57	45	43	117	474	1,738	142	71	46	30	15	15
27	60	42	43	217	377	1,510	140	69	43	30	17	14
28	49	37	47	379	379	1,452	137	68	43	29	19	14
29	53	34	51	459	544	1,269	133	67	40	28	20	14
30	52	30	49	453	514	1,039	126	66	41	28	–	13
31	–	–	–	430	470	–	121	–	40	27	–	13
Total	913	1,597	2,851	4,949	9,176	23,549	10,271	2,722	1,634	1,013	576	677
Mean	30.4	53.2	95.0	160	298	785	333	90.7	52.7	32.6	19.9	21.8
Max.	61	136	302	459	585	1,738	900	119	65	40	27	45
Min.	10	26	27	56	145	298	121	66	40	27	14	13
Runoff – MCM.	78.883	137.981	246.326	427.594	792.806	2,034.634	887.414	235.181	141.178	87.523	49.766	58.493

WATER YEAR 1967 : Max. 1,738 Min. 10 Mean 164 Annual Runoff 5,177.779 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sep. 26	6.00	7.95	1.811				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
NAN RIVER BASIN

Nan River at Phrom Phiram, Phitsanulok (N.27)

Location: Lat 17°- 01' - 37" N, Long 100°- 12' - 12" E, on left bank about 200 meters downstream from Phrom Phiram Railway Station, Amphoe Phrom Phiram, Phitsanulok.

Drainage Area: 19,549 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: +38.20 m. (A.D.)

Bench Mark:

Location:
Elevation:

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 to date
Rated by Float: -
Rated by Current Meter: 1965 to date

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

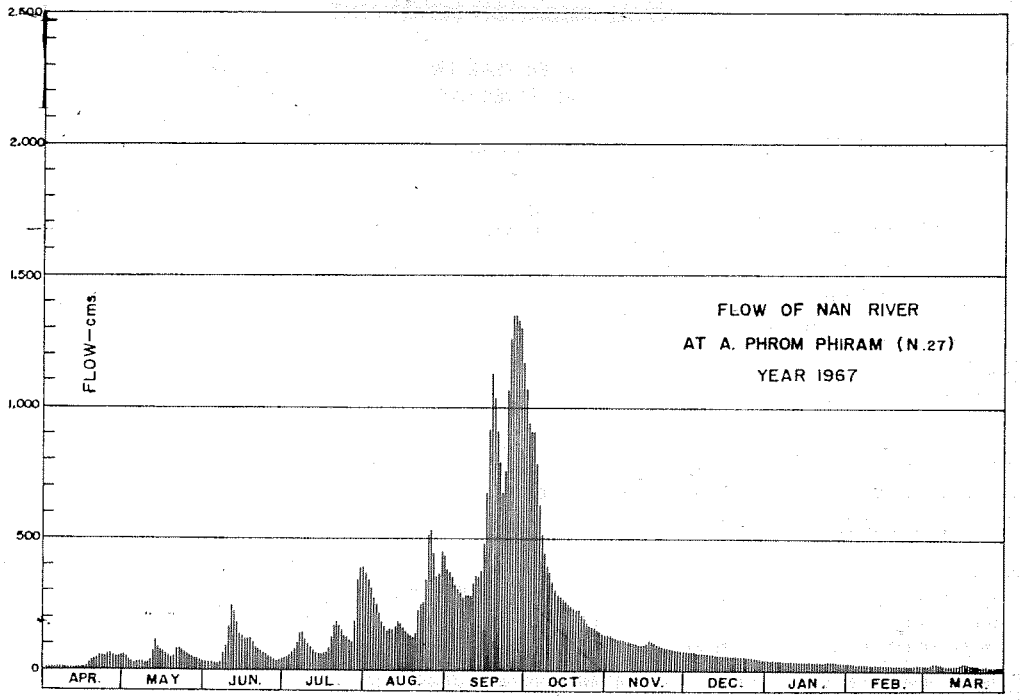
Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions for irrigation except those built by local residents. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	38.63	39.42	39.04	39.28	42.55	42.58	46.90	40.31	39.60	39.09	38.87	38.75
2	.62	.31	.07	.34	.34	.56	.29	.27	.58	.08	.86	.75
3	.62	.16	.04	.37	.04	.42	.20	.22	.57	.07	.85	.77
4	.62	38.98	38.97	.53	41.75	.12	.24	.20	.55	.06	.84	.88
5	.61	.93	.93	.78	.42	.00	45.61	.12	.54	.05	.83	.91
6	38.61	38.95	38.99	40.07	41.18	41.88	44.57	40.12	39.52	39.04	38.83	38.84
7	.60	39.05	39.15	.43	40.80	.70	43.75	.11	.51	.03	.82	.78
8	.60	38.97	.67	.45	.64	.73	.22	.10	.50	.02	.81	.74
9	.60	39.02	.88	.18	.57	.78	42.82	.07	.49	.02	.80	.72
10	.59	.01	40.78	39.94	.59	.74	.50	.02	.47	.02	.79	.70
11	38.59	39.03	41.45	39.79	40.55	42.23	42.24	39.97	39.45	39.00	38.78	38.70
12	.59	.65	.18	.68	.64	.44	.02	.93	.43	.00	.77	.68
13	.63	40.15	40.68	.56	.87	.36	41.84	.90	.41	38.98	.76	.69
14	.60	39.85	.35	.52	.86	.56	.73	.89	.40	.97	.75	.77
15	.60	.64	.26	.54	.67	43.36	.63	.87	.38	.96	.74	.91
16	38.60	39.56	40.16	39.56	40.50	44.58	41.57	39.95	39.36	38.96	38.74	38.94
17	.63	.43	.23	.60	.38	46.46	.48	40.07	.35	.95	.74	.86
18	.82	.37	.25	.75	.31	47.40	.40	.05	.34	.95	.73	.79
19	39.14	.32	.04	40.24	.21	.12	.34	39.96	.33	.94	.72	.76
20	.25	.44	39.83	.72	.42	46.20	.26	.88	.32	.93	.72	.74
21	39.25	39.74	39.69	40.89	41.26	45.28	41.27	39.84	39.32	38.93	38.72	38.71
22	.36	.76	.63	.69	.47	44.58	.15	.80	.31	.93	.72	.69
23	.39	.61	.55	.42	.53	45.28	.00	.77	.30	.92	.71	.68
24	.33	.52	.45	.27	42.22	47.18	40.84	.73	.28	.94	.71	.65
25	.39	.46	.35	.25	43.63	48.04	.73	.71	.26	39.00	.70	.64
26	39.48	39.34	39.28	40.08	43.77	48.50	40.68	39.70	39.25	38.97	38.70	38.63
27	.37	.25	.21	.03	42.98	.50	.62	.68	.23	.94	.75	.63
28	.28	.21	.14	.92	.35	.38	.54	.66	.19	.92	.77	.62
29	.32	.16	.15	42.31	.42	.26	.49	.63	.16	.91	.76	.60
30	.41	.09	.22	.70	43.17	47.72	.41	.62	.14	.90		.58
31		.05		.72	.07		.35		.12	.88		.56
Mean	38.90	39.34	39.69	40.24	41.52	44.56	42.34	39.94	39.38	38.98	38.77	38.73
Max.	39.48	40.15	41.45	42.72	43.77	48.50	46.90	40.31	39.60	39.09	38.87	38.94
Min.	38.59	38.93	38.93	39.28	40.21	41.70	40.35	39.62	39.12	38.88	38.70	38.56

WATER YEAR 1967 : Max. 48.50 m. Min. 38.56 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	9.70	56	31	47	376	380	1,028	135	75	41	28	22
2	9.30	49	32	51	351	377	918	131	74	41	28	22
3	9.30	38	31	53	315	360	903	127	73	40	27	23
4	9.30	27	26	65	283	324	910	125	71	40	26	29
5	8.90	24	24	85	247	311	764	118	71	39	26	31
6	8.90	25	26	109	221	298	648	118	69	38	26	26
7	8.50	31	38	142	180	278	533	117	69	38	25	23
8	8.50	26	76	144	165	281	461	116	68	37	25	22
9	8.50	29	93	119	158	287	409	113	67	37	24	21
10	8.20	29	176	98	160	282	370	109	66	37	24	20
11	8.20	30	250	86	156	338	339	104	64	36	23	20
12	8.20	74	219	77	165	363	313	101	63	36	23	19
13	9.70	116	166	67	187	353	293	98	62	35	22	20
14	8.50	91	134	64	186	377	281	97	61	34	22	23
15	8.50	74	126	66	167	479	270	96	60	34	22	31
16	8.50	67	117	67	152	649	264	102	58	34	22	32
17	9.70	57	124	70	141	952	254	113	57	33	22	28
18	18	53	125	82	135	1,126	245	111	57	33	21	24
19	37	49	107	125	126	1,070	238	103	56	32	21	22
20	44	58	89	170	145	903	230	96	55	32	21	22
21	44	82	78	187	230	755	231	93	55	32	21	20
22	52	83	73	167	252	649	217	90	55	32	21	20
23	54	71	66	141	259	755	201	88	54	31	20	19
24	50	64	59	127	336	1,082	184	84	53	32	20	18
25	54	59	51	125	616	1,254	173	83	52	36	20	18
26	61	51	47	110	536	1,348	168	82	51	34	20	17
27	53	44	42	106	429	1,348	163	81	50	32	22	17
28	47	42	37	190	352	1,322	156	79	47	31	23	17
29	49	38	38	347	360	1,298	151	77	46	31	22	16
30	56	34	42	394	454	1,190	144	76	44	30	–	15
31	–	31	–	396	441	–	138	–	43	29	–	14
Total	769.40	1,602	2,543	4,077	8,181	20,789	11,597	3,063	1,846	1,077	667	671
Mean	25.6	51.7	84.8	131	263	694	372	102	59.5	34.7	23.0	21.6
Max.	61	116	250	396	536	1,348	1,028	135	75	41	28	32
Min.	8.20	24	24	47	126	278	138	76	43	29	20	14
Runoff - MCM.	66.476	138.413	219.715	352.253	706.838	1,796.170	1,001.981	264.643	159.494	93.053	57.629	57.974

WATER YEAR 1967 : Max. 1,348 Min. 8.20 Mean 155 Annual Runoff 4,914.639 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sep. 26	21.00	48.55	1,359				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
NAN RIVER BASIN

Nam Pat at Ban Wang Bang, Uttaradit (N.33)

Location: Lat 17°- 43' - 05" N, Long 100°- 34' - 32" E, on right bank about 4.5 kilometers upstream from confluence with Nan River at Ban Wang Bang, Tambon Saen To, Amphoe Nam Pat, Uttaradit.

Drainage Area: 2,463 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: +79.00 m. (M.S.L.)

Bench Mark: B.M. - R.I.D.

Location: Near gage site
Elevation: +89.442 m. (M.S.L.)

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: 1966 to date

Rating Operation:

Period of Rating: 1966 to date
Rated by Float: -
Rated by Current Meter: 1966 to date

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

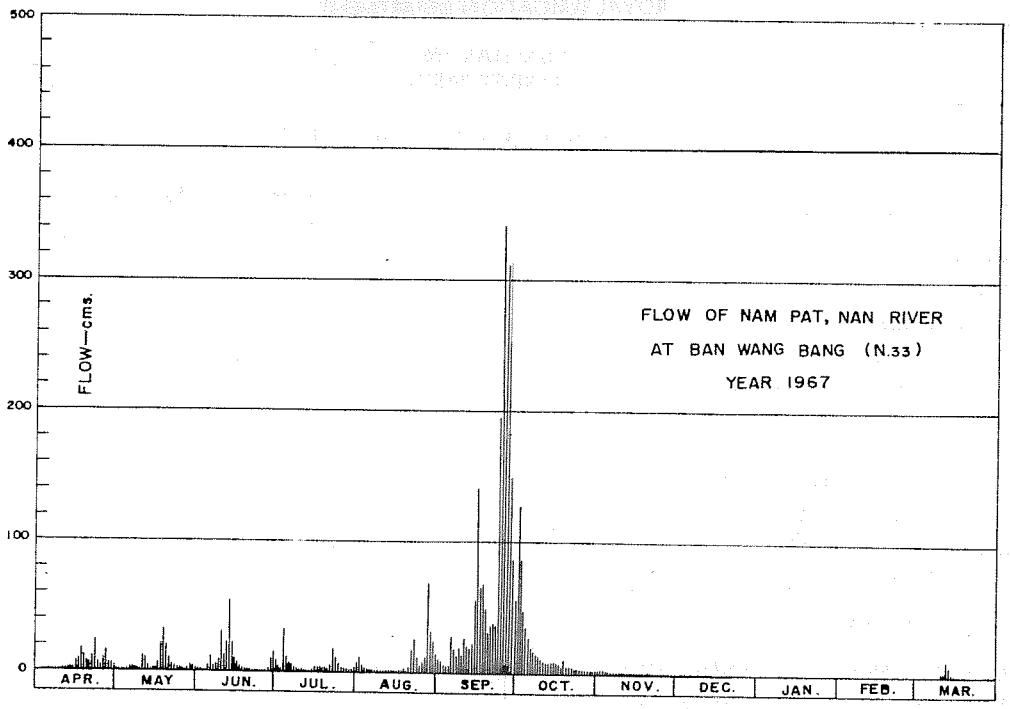
Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions for irrigation except those built by local residents. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	79.26	79.68	79.70	80.14	80.08	80.24	81.39	79.74	79.61	79.46	79.39	79.34
2	.26	.65	.66	79.89	.30	.12	82.47	.73	.61	.46	.39	.34
3	.25	.61	.63	.83	.02	.05	81.34	.72	.60	.46	.38	.33
4	.24	.58	.61	81.00	79.86	79.99	.04	.70	.60	.46	.38	.33
5	.25	.57	.86	80.39	.77	.93	80.82	.69	.59	.46	.38	.32
6	79.30	79.85	80.33	80.10	79.73	80.88	80.67	79.68	79.59	79.46	79.37	79.32
7	.30	.86	79.89	79.93	.69	.55	.53	.68	.58	.45	.37	.31
8	.30	.76	80.04	.81	.65	.27	.40	.67	.57	.45	.37	.31
9	.27	.76	.25	.75	.63	.62	.33	.66	.56	.45	.36	.30
10	.26	.68	.95	.69	.63	.29	.28	.66	.55	.44	.36	.80
11	79.23	80.38	80.25	79.64	79.62	80.81	80.26	79.65	79.54	79.44	79.36	79.79
12	.18	.19	.58	.62	.61	.63	.19	.65	.53	.44	.36	80.31
13	.21	79.80	81.47	.59	.59	.52	.16	.64	.52	.43	.35	79.78
14	.42	.68	80.75	.58	.62	.75	.14	.64	.51	.42	.35	.64
15	.40	.73	.24	.72	.56	81.25	.19	.63	.50	.42	.35	.60
16	80.16	79.73	80.03	80.00	79.56	82.63	80.16	79.63	79.49	79.41	79.35	79.54
17	.24	80.27	79.90	79.68	.61	81.55	.07	.62	.49	.41	.35	.50
18	.52	.74	.83	.92	.63	.68	.01	.62	.49	.41	.35	.47
19	.22	81.01	.77	.88	.75	.18	.27	.62	.49	.41	.35	.44
20	.03	80.49	.74	.90	.68	80.94	.00	.61	.49	.41	.35	.43
21	80.13	80.09	79.69	79.87	79.98	81.09	79.93	79.61	79.49	79.41	79.35	79.42
22	.36	79.95	.66	80.11	80.58	.11	.90	.61	.48	.40	.35	.40
23	.78	.84	.64	.58	.82	.07	.89	.61	.48	.40	.36	.39
24	.09	.78	.62	.19	.21	82.03	.86	.60	.48	.40	.35	.37
25	79.84	.73	.61	79.95	.00	84.26	.86	.60	.48	.40	.35	.36
26	80.14	79.69	79.61	79.83	80.08	83.24	79.83	79.60	79.48	79.40	79.35	79.36
27	.51	.67	.66	.77	.44	84.05	.81	.61	.47	.40	.35	.35
28	.02	.84	.75	.75	81.70	82.94	.79	.62	.47	.40	.35	.35
29	.06	.98	80.27	.76	.00	.02	.78	.62	.47	.39	.35	.35
30	79.78	.92	.50	.74	80.67	81.54	.76	.61	.46	.39		.35
31		.73		.87	.37		.76		.46	.39		.35
Mean	79.73	79.91	80.02	79.92	80.01	82.27	80.29	79.64	79.52	79.42	79.36	79.46
Max.	80.78	81.01	81.47	81.00	81.70	84.26	82.47	79.74	79.61	79.46	79.39	80.31
Min.	79.18	79.57	79.61	79.58	79.56	79.93	79.76	79.60	79.46	79.39	79.35	79.30

WATER YEAR 1967 : Max. 84.26 m. Min. 79.18 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.072	1.94	2.10	8.05	6.96	10	51	2.48	1.38	0.59	0.32	0.21
2	0.072	1.70	1.78	4.08	11	7.66	126	2.38	1.38	0.59	0.32	0.21
3	0.060	1.38	1.54	3.39	6.00	6.48	49	2.29	1.30	0.59	0.30	0.19
4	0.048	1.19	1.38	33	3.74	5.53	35	2.10	1.30	0.59	0.30	0.19
5	0.060	1.13	3.74	13	2.76	4.64	26	2.02	1.24	0.59	0.30	0.16
6	0.12	3.62	12	7.28	2.38	28	21	1.94	1.24	0.59	0.27	0.16
7	0.12	3.74	4.08	4.64	2.02	17	17	1.94	1.19	0.54	0.27	0.14
8	0.12	2.66	6.32	3.16	1.70	11	14	1.86	1.13	0.54	0.27	0.14
9	0.084	2.66	10	2.57	1.54	20	12	1.78	1.08	0.54	0.25	0.12
10	0.072	1.94	31	2.02	1.54	11	11	1.78	1.02	0.50	0.25	3.04
11	0.036	13	10	1.62	1.46	26	10	1.70	0.97	0.50	0.25	2.95
12	0.00	9.01	18	1.46	1.38	20	9.01	1.70	0.91	0.50	0.25	12
13	0.00	3.04	55	1.24	1.24	17	8.43	1.62	0.86	0.46	0.23	2.85
14	0.42	1.94	24	1.19	1.46	24	8.05	1.62	0.80	0.42	0.23	1.62
15	0.34	2.38	10	2.29	1.08	44	9.01	1.54	0.75	0.42	0.23	1.30
16	8.43	2.38	6.16	5.68	1.08	141	8.43	1.54	0.71	0.38	0.23	0.97
17	10	11	4.20	1.94	1.38	60	6.80	1.46	0.71	0.38	0.23	0.75
18	17	24	3.39	4.50	1.54	67	5.84	1.46	0.71	0.38	0.23	0.63
19	9.64	33	2.76	3.97	2.57	41	11	1.46	0.71	0.38	0.23	0.50
20	6.16	16	2.48	4.20	1.94	31	5.68	1.38	0.71	0.38	0.23	0.46
21	7.86	7.12	2.02	3.85	5.38	37	4.64	1.38	0.71	0.38	0.23	0.42
22	13	4.94	1.78	7.47	18	38	4.20	1.38	0.67	0.34	0.23	0.34
23	25	3.50	1.62	18	26	36	4.08	1.38	0.67	0.34	0.25	0.32
24	7.12	2.85	1.46	9.01	9.42	90	3.74	1.30	0.67	0.34	0.23	0.27
25	3.50	2.38	1.38	4.94	5.68	340	3.74	1.30	0.67	0.34	0.23	0.25
26	8.05	2.02	1.38	3.39	6.96	207	3.39	1.30	0.67	0.34	0.23	0.25
27	16	1.86	1.78	2.76	14	311	3.16	1.38	0.63	0.34	0.23	0.23
28	6.00	3.50	2.57	2.57	68	173	2.95	1.46	0.63	0.32	0.23	0.23
29	6.64	5.38	11	2.66	33	90	2.85	1.46	0.63	0.32	0.23	0.23
30	2.85	4.50	16	2.48	21	59	2.66	1.38	0.59	0.32	–	0.23
31	–	2.38	–	3.85	13	–	2.66	–	0.59	0.32	–	0.23
Total	148.874	178.14	250.92	170.26	275.21	1,973.31	482.32	49.77	27.23	13.58	7.28	31.59
Mean	4.96	5.75	8.36	5.49	8.88	65.8	15.5	1.66	0.88	0.44	0.25	1.02
Max.	25	33	55	33	68	340	126	2.48	1.38	0.59	0.32	12
Min.	0.00	1.13	1.38	1.19	1.08	4.64	2.66	1.30	0.59	0.32	0.23	0.12
Runoff - mcm.	12.863	15.391	21.679	14.710	23.778	170.494	41.672	4.300	2.353	1.173	0.629	2.729

WATER YEAR 1967 : Max. 340 Min. 0.00 Mean 9.86 Annual Runoff 311,773 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sep. 27	18.00	84.70	403				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
NAN RIVER BASIN

Khlong Chom Phu at Ban Tha Mun Ram, Phitsanulok (N.34)

Location: Lat 16°- 40' - 24" N, Long 100°-30' - 24" E, on left bank about 4 kilometers downstream from confluence with Khlong Ta Krut Duan, Ban Tha Mun Ram, Amphoe Wang Thong, Phitsanulok.

Drainage Area: 712 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: 0.00 m. (A.D.)

Bench Mark: B.M. - H.S.

Location: Near house of gage observer.
Elevation: +6.415 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: 1966 to date

Rating Operation:

Period of Rating: 1966 to date
Rated by Float: -
Rated by Current Meter: 1966 to date

Stability of Channel Regimes: Unstable, shifting adjustment is included for flow computation.

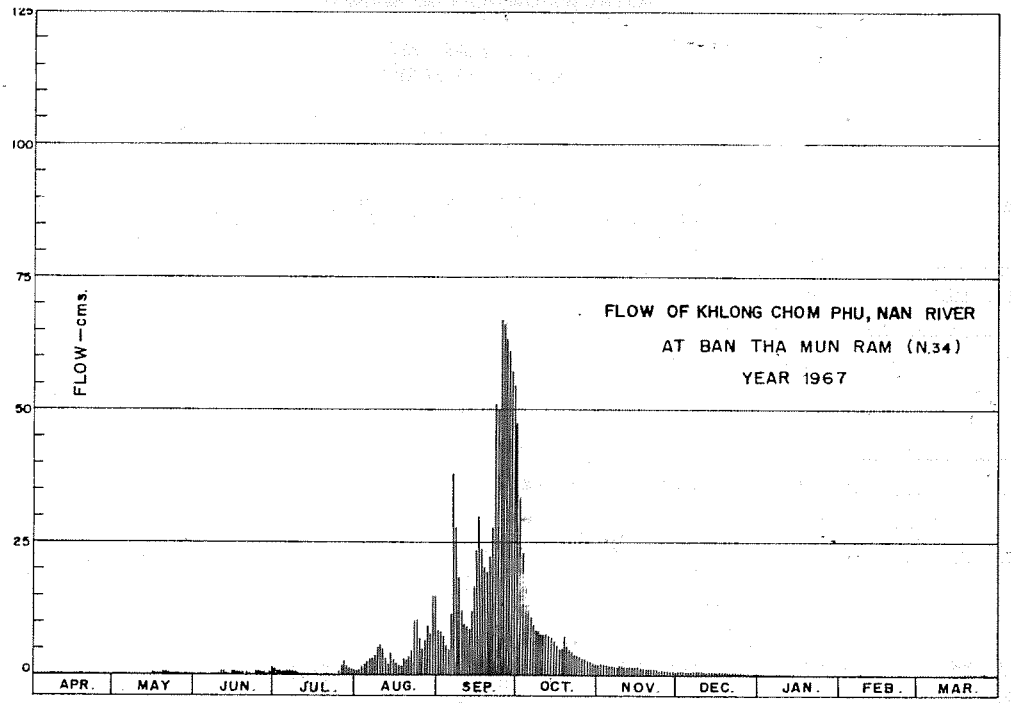
Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions for irrigation except those built by local residents. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (A.D.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.46	0.48	0.53	0.84	0.71	1.83	4.61	0.93	0.70	0.56	0.48	0.46
2	.45	.46	.53	.77	.81	.63	.13	.93	.70	.56	.48	.47
3	.45	.47	.57	.71	.91	.54	3.63	.91	.70	.55	.47	.48
4	.45	.46	.56	.70	.88	.28	2.89	.89	.69	.55	.47	.47
5	.45	.45	.54	.69	.96	.14	.49	.88	.68	.55	.47	.46
6	0.45	0.45	0.54	0.77	1.05	2.08	2.21	0.87	0.67	0.54	0.47	0.46
7	.45	.45	.53	.77	.09	4.42	.03	.85	.67	.54	.46	.46
8	.45	.45	.54	.72	.12	3.38	1.90	.84	.66	.54	.47	.46
9	.45	.44	.58	.69	.35	2.42	.78	.83	.66	.53	.48	.45
10	.45	.44	.59	.66	.44	1.96	.70	.82	.65	.53	.47	.45
11	0.45	0.46	0.73	0.67	1.27	1.80	1.69	0.81	0.64	0.53	0.47	0.45
12	.44	.46	.65	.66	0.97	.80	.71	.81	.63	.53	.46	.45
13	.44	.45	.56	.63	.90	.63	.66	.81	.63	.52	.46	.46
14	.44	.45	.55	.61	1.25	2.43	.63	.81	.63	.52	.46	.46
15	.44	.67	.72	.62	0.99	3.02	.57	.81	.62	.51	.46	.46
16	0.44	0.64	0.67	0.64	0.92	3.97	1.44	0.81	0.62	0.51	0.47	0.45
17	.44	.59	.64	.63	.86	.40	.34	.80	.61	.50	.47	.45
18	.45	.58	.63	.60	.88	.26	.38	.78	.61	.50	.46	.45
19	.46	.58	.61	.60	1.11	2.78	.66	.78	.61	.50	.45	.45
20	.45	.62	.60	.67	.00	3.28	.45	.77	.60	.50	.45	.45
21	0.44	0.62	0.58	0.65	1.14	3.57	1.30	0.76	0.60	0.49	0.46	0.45
22	.44	.58	.57	.64	.36	.94	.24	.75	.60	.49	.46	.44
23	.45	.56	.56	.65	2.08	5.25	.19	.74	.60	.49	.45	.44
24	.46	.56	.69	.64	.05	.12	.16	.73	.59	.49	.46	.45
25	.46	.55	.67	.65	1.46	.92	.13	.73	.59	.48	.46	.45
26	0.45	0.58	0.63	0.86	1.25	6.07	1.09	0.72	0.59	0.48	0.47	0.45
27	.45	.56	.60	1.01	.51	5.97	.08	.72	.59	.48	.47	.44
28	.50	.56	.58	0.88	.98	.92	.04	.72	.57	.48	.46	.44
29	.49	.54	.66	.82	.64	.74	.01	.71	.57	.49	.46	.44
30	.47	.54	.85	.79	2.61	.62	0.98	.70	.57	.49		.44
31		.53		.75	.53		.96		.57	.49		.44
Mean	0.45	0.52	0.61	0.71	1.29	3.40	1.78	0.80	0.63	0.51	0.47	0.46
Max.	0.50	0.67	0.85	1.01	2.61	6.07	4.61	0.93	0.70	0.56	0.48	0.48
Min.	0.44	0.44	0.53	0.60	0.71	1.14	0.96	0.70	0.57	0.48	0.45	0.44

WATER YEAR 1967 : Max. 6.07 m. Min. 0.44 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.11	0.15	0.29	1.30	0.92	8.30	38	2.16	0.84	0.39	0.15	0.11
2	0.095	0.11	0.29	0.97	1.40	8.06	32	2.16	0.92	0.39	0.15	0.13
3	0.095	0.13	0.42	0.72	1.93	7.34	26	2.04	0.92	0.35	0.13	0.15
4	0.095	0.11	0.39	0.68	2.21	5.30	18	1.93	0.88	0.35	0.13	0.13
5	0.095	0.095	0.32	0.64	2.68	4.31	14	1.89	0.84	0.35	0.13	0.11
6	0.095	0.095	0.32	0.97	3.23	12	11	1.82	0.80	0.32	0.13	0.11
7	0.095	0.095	0.29	0.97	3.49	38	9.74	1.72	0.80	0.32	0.11	0.11
8	0.095	0.095	0.32	0.76	3.68	25	8.70	1.66	0.76	0.32	0.13	0.11
9	0.095	0.076	0.45	0.52	5.30	15	8.38	1.61	0.76	0.29	0.15	0.09
10	0.095	0.076	0.49	0.42	5.98	11	7.74	1.56	0.72	0.29	0.13	0.09
11	0.095	0.11	1.06	0.45	4.73	9.42	7.66	1.51	0.68	0.29	0.13	0.09
12	0.076	0.11	0.72	0.42	2.50	9.42	7.82	1.51	0.64	0.29	0.11	0.09
13	0.076	0.095	0.39	0.32	2.10	8.86	7.42	1.51	0.64	0.26	0.11	0.11
14	0.076	0.095	0.35	0.26	4.31	15	7.18	1.51	0.64	0.26	0.11	0.11
15	0.076	0.80	1.02	0.29	2.62	21	6.70	1.51	0.60	0.22	0.11	0.11
16	0.076	0.68	0.80	0.35	2.21	30	5.67	1.51	0.60	0.22	0.13	0.09
17	0.076	0.49	0.68	0.32	1.89	24	4.94	1.45	0.56	0.19	0.13	0.09
18	0.095	0.45	0.64	0.22	1.99	22	5.22	1.35	0.56	0.19	0.11	0.09
19	0.11	0.45	0.56	0.22	3.36	17	7.42	1.35	0.56	0.19	0.09	0.09
20	0.095	0.60	0.52	0.45	2.92	22	5.30	1.30	0.52	0.19	0.09	0.09
21	0.076	0.60	0.45	0.39	3.82	28	4.66	1.26	0.52	0.17	0.11	0.09
22	0.076	0.45	0.42	0.35	5.37	32	4.24	1.21	0.52	0.17	0.11	0.08
23	0.095	0.39	0.39	0.39	11	51	3.75	1.16	0.52	0.17	0.09	0.08
24	0.11	0.39	0.88	0.35	11	49	3.55	0.97	0.49	0.17	0.11	0.09
25	0.11	0.35	0.80	0.39	6.14	67	3.36	0.97	0.49	0.15	0.11	0.09
26	0.095	0.45	0.64	1.66	4.59	66	3.10	0.92	0.49	0.15	0.13	0.09
27	0.095	0.39	0.52	2.50	6.54	63	3.04	0.92	0.49	0.15	0.13	0.08
28	0.19	0.39	0.45	1.77	9.50	61	2.80	0.92	0.42	0.15	0.11	0.08
29	0.17	0.32	0.76	1.45	6.78	57	2.39	0.88	0.42	0.17	0.11	0.08
30	0.13	0.32	1.66	1.30	15	54	2.21	0.84	0.42	0.17		0.08
31		0.29		1.11	15		2.10		0.42	0.17		0.08
Total	2.903	9.252	17.29	22.91	154.19	841.01	274.09	43.11	19.44	7.46	3.47	3.02
Mean	0.098	0.298	0.576	0.739	4.97	28.0	8.84	1.44	0.627	0.240	0.120	0.097
Max.	0.19	0.80	1.66	2.50	15	67	38	2.16	0.92	0.39	0.15	0.15
Min.	0.076	0.076	0.29	0.22	0.92	4.31	2.10	0.84	0.42	0.15	0.11	0.08
Runoff - mcm.	0.256	0.799	1.444	1.979	13.322	72.663	23.681	3.725	1.680	0.644	0.300	0.261

WATER YEAR 1967 : Max. 67 Min. 0.076 Mean 3.82 Annual Runoff 120.805 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sep. 26	12.00	6.08	68				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
NAN RIVER BASIN

Nan River at Kaeng Sarang, Nan (N.35)

Location: Lat 18°- 23' - 46" N, Long 100°- 51' - 05" E, on left bank about 500 meters upstream from confluence with Huai Sarang and about 29 kilometers downstream from distric office of Amphoe Sa, Nan.

Drainage Area: 10,335 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: 0.00 m. (A.D.)

Bench Mark:

Location:
Elevation:

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: 1966 to date

Rating Operation:

Period of Rating: 1966 to date
Rated by Float: -
Rated by Current Meter: 1966 to date

Stability of Channel Regimes: Unstable, shifting adjustment is included for flow computation.

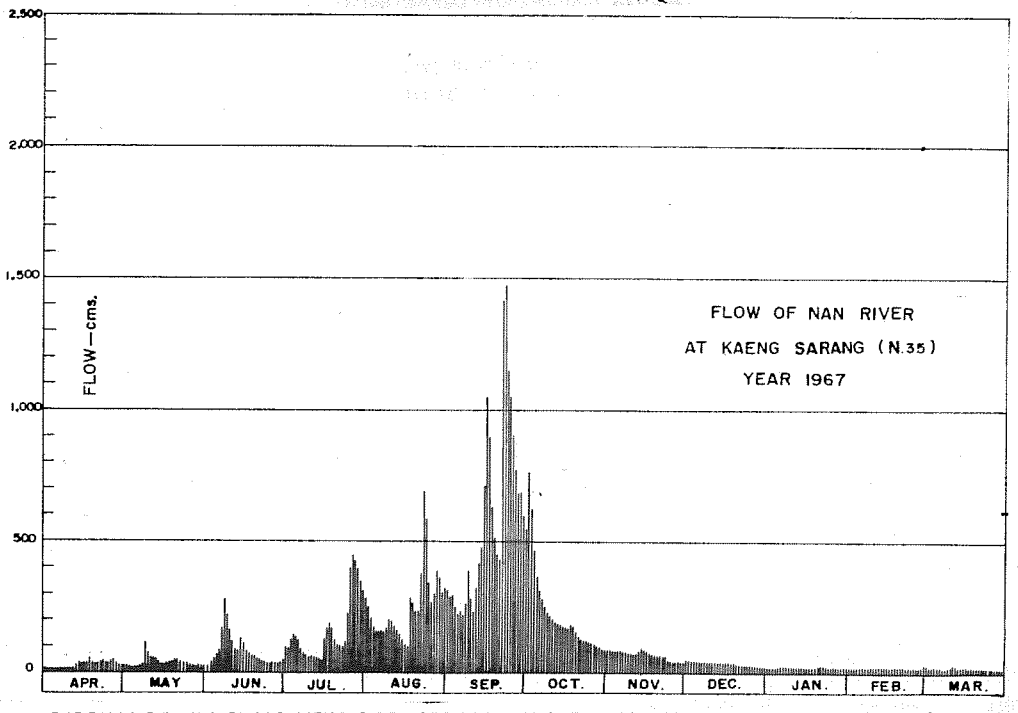
Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions for irrigation except those built by local residents No adjustment made for virgin flow.

GAGE HEIGHT IN METER (A.D.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.47	0.62	0.63	1.22	2.17	2.34	3.39	1.10	0.86	0.70	0.61	0.64
2	.47	.58	.65	.14	1.93	.22	4.19	.09	.85	.69	.60	.59
3	.46	.56	.78	.34	.79	.27	3.49	.09	.85	.69	.60	.57
4	.46	.57	.88	.55	.62	.01	2.94	.09	.84	.69	.59	.56
5	.46	.55	1.03	.48	.52	1.86	.62	.09	.84	.69	.59	.55
6	0.46	0.54	1.15	1.40	1.53	1.94	2.36	1.07	0.84	0.69	0.58	0.55
7	.46	.60	.61	.12	.58	.84	.18	.05	.83	.69	.58	.54
8	.46	.68	2.18	.06	.52	2.09	.03	.03	.83	.68	.57	.54
9	.46	1.37	1.73	0.99	.61	.65	1.91	.01	.82	.68	.58	.54
10	.46	.05	.39	.95	.81	.15	.80	0.99	.81	.68	.58	.60
11	0.46	0.89	1.19	0.98	1.74	1.89	1.73	0.98	0.81	0.68	0.58	0.67
12	.47	.92	.05	.96	.60	2.43	.69	.98	.80	.67	.58	.63
13	.57	.89	.06	.92	.50	3.04	.65	1.07	.80	.67	.58	.59
14	.74	.75	.39	.86	.43	.15	.64	.13	.79	.67	.58	.57
15	.68	.68	.32	.80	.41	4.34	.61	.07	.79	.66	.58	.57
16	0.70	0.66	1.11	1.50	1.32	5.15	1.60	1.02	0.79	0.66	0.57	0.55
17	.70	.75	.04	.66	.32	4.24	.54	0.99	.78	.65	.57	.54
18	.87	.78	0.99	.74	2.31	3.63	.61	.98	.78	.65	.56	.53
19	.69	.82	.97	.47	.05	.16	.53	.96	.77	.65	.56	.53
20	.68	.84	.91	.32	.01	2.94	.43	.95	.76	.70	.56	.52
21	0.72	0.85	0.84	1.22	2.12	3.75	1.36	0.94	0.76	0.69	0.56	0.52
22	.76	.78	.81	.22	.86	6.21	.32	.92	.76	.67	.56	.52
23	.79	.72	.77	.17	3.94	.37	.29	.91	.75	.65	.58	.52
24	.73	.70	.73	.21	.09	5.41	.26	.90	.74	.65	.59	.51
25	.68	.71	.71	.70	2.47	4.90	.24	0.89	.73	.64	.58	.50
26	0.80	0.67	0.69	2.77	2.15	4.23	1.22	0.89	0.73	0.63	0.57	0.49
27	.82	.63	.72	3.04	.38	3.98	.19	.88	.72	.63	.58	.49
28	.72	.61	.70	2.94	.77	.74	.17	.88	.71	.62	.64	.49
29	.65	.67	.75	.82	.62	.81	.16	.87	.71	.62	.70	.49
30	.62	.64	.81	.64	.38	.58	.13	.86	.70	.62		.48
31		.63		.29	.50		.12		.70	.62		.47
Mean	0.61	0.73	1.02	1.34	2.03	3.38	1.82	0.98	0.78	0.66	0.58	0.54
Max.	0.87	1.37	2.18	3.04	3.94	6.37	4.19	1.13	0.86	0.70	0.70	0.67
Min.	0.46	0.54	0.63	0.80	1.32	1.84	1.12	0.86	0.70	0.62	0.56	0.47

WATER YEAR 1967 : Max. 6.37 m. Min. 0.46 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	13	26	27	101	278	315	546	89	51	28	26	29
2	13	22	29	89	250	289	763	88	49	27	25	24
3	12	21	47	119	204	300	572	88	49	27	25	22
4	12	21	59	150	173	246	434	88	48	27	24	21
5	12	20	78	138	155	216	366	88	48	27	24	21
6	12	19	95	125	157	232	313	85	48	27	23	21
7	12	24	169	84	166	213	280	82	47	27	23	20
8	12	32	278	76	155	262	256	80	47	26	22	20
9	12	122	191	67	171	384	236	77	46	26	23	20
10	12	76	132	62	201	274	214	75	45	26	23	25
11	12	55	101	65	195	222	202	73	45	26	23	33
12	13	59	81	63	169	315	195	73	44	26	24	28
13	21	55	82	58	152	455	187	85	44	26	24	24
14	38	39	132	51	140	482	186	94	43	26	24	22
15	32	32	116	44	121	802	180	85	43	25	24	24
16	34	30	85	142	107	1,047	178	78	43	25	23	22
17	34	39	76	177	107	774	168	75	41	24	23	21
18	53	41	69	191	287	606	180	73	41	24	22	21
19	33	47	67	144	234	484	166	71	40	24	22	21
20	32	49	59	119	226	431	149	69	34	28	22	20
21	36	51	51	104	248	386	137	68	34	28	22	20
22	40	43	47	104	409	1,412	130	65	34	26	22	20
23	44	36	43	97	688	1,470	125	64	33	24	24	20
24	37	34	38	103	465	1,133	121	49	32	24	25	19
25	32	35	36	184	322	1,002	118	48	31	25	23	18
26	45	31	34	384	254	802	115	48	31	24	22	17
27	47	27	37	448	302	732	110	47	30	24	23	17
28	36	25	35	424	388	665	107	47	29	23	29	17
29	29	31	40	395	355	685	98	46	29	23	35	17
30	26	28	47	355	302	596	94	45	28	23		16
31		27		304	329		92		28	23		15
Total	796	1,197	2,381	4,967	7,716	17,232	7,018	2,143	1.235	789	694	655
Mean	26.5	38.6	79.4	160	249	574	226	71.4	39.5	25.4	23.9	21.1
Max.	53	122	278	448	688	1,470	763	94	51	28	35	33
Min.	12	19	27	44	107	213	92	45	28	23	22	15
Runoff - MCM.	68.774	103.421	205.718	429.149	666.662	1,488.845	606.355	185.155	106.704	68.169	59.962	56.592

WATER YEAR 1967 : Max. 1,470 Min. 12 Mean 128 Annual Runoff 4,045.507 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sep. 23	14.00	6.43	1,491				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
NAN RIVER BASIN

Nan River at Thap Krit, Nakhon Sawan (N.37)

Location: Lat 15°- 45' - 19" N, Long 100°- 15' - 35" E, on left bank infront of Wat Thap Krit Klang, Tambon Thap Krit, Amphoe Chum Saeng, Nakhon Sawan.

Drainage Area: 56,214 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: 0.00 m. (A.D.)

Bench Mark: B.M. - R.I.D.

Location: Near staff gage site.
Elevation: +6.928 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: 1967 to date

Rating Operation:

Period of Rating: 1967 to date
Rated by Float: -
Rated by Current Meter: 1967 to date

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

Overbank Flow Conditions: No overbank flow.

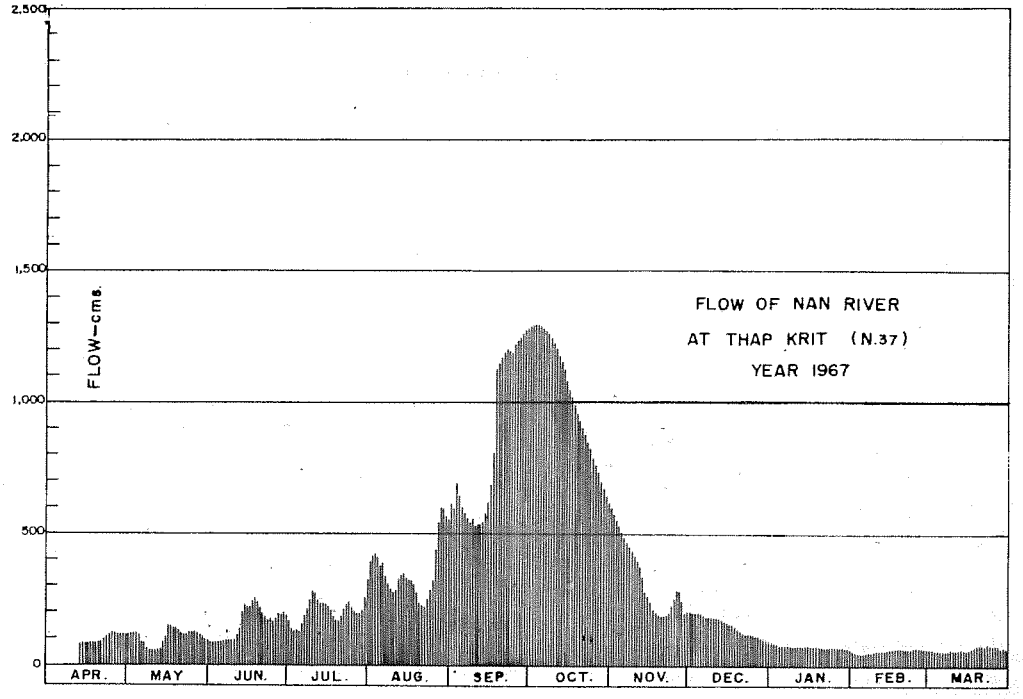
General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions except those built by local residents. No adjustment made for virgin flow.

Remarks: Records began on Apr. 13, 1967.

GAGE HEIGHT IN METER (A.D.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1		0.79	0.60	1.03	2.15	3.10	6.34	4.02	1.60	0.80	0.46	0.60
2		.79	.61	0.85	.24	.02	.50	3.88	.60	.80	.45	.56
3		.80	.63	.84	.26	.42	.63	.75	.59	.75	.44	.54
4		.77	.62	.89	.18	.13	.73	.65	.61	.67	.42	.54
5		.59	.62	.87	.04	.06	.80	.52	.59	.68	.46	.53
6		0.56	0.64	0.98	2.12	2.95	6.87	3.41	1.51	0.66	0.47	0.53
7		.46	.66	1.19	1.80	.86	.91	.29	.51	.69	.47	.46
8		.40	.66	.34	.72	.80	.93	.16	.49	.69	.46	.53
9		.38	.66	.47	.61	.84	.94	2.75	.45	.68	.48	.55
10		.38	.64	.60	.59	.74	.92	.65	.48	.66	.51	.54
11		0.39	0.74	1.59	1.62	2.77	6.89	2.50	1.46	0.63	0.55	0.53
12		.41	.92	.45	.85	.77	.85	.36	.44	.66	.55	.57
13	0.52	.43	1.27	.39	.89	.88	.78	.20	.42	.68	.50	.57
14	.57	.58	.37	.40	.90	3.11	.67	.10	.33	.69	.60	.50
15	.55	.75	.34	.39	.85	.23	.54	2.00	.31	.67	.58	.52
16	0.58	0.97	1.31	1.38	1.83	3.55	6.41	1.78	1.29	0.68	0.59	0.54
17	.57	.93	.43	.27	.82	4.03	.29	.65	.26	.67	.60	.61
18	.58	.90	.48	.11	.69	5.18	.17	.58	.19	.67	.61	.63
19	.58	.92	.44	.05	.46	.25	.04	.55	.14	.64	.60	.69
20	.58	.85	.30	.05	.36	.42	5.91	.53	.08	.64	.60	.70
21	0.60	0.80	1.16	1.15	1.31	5.51	5.75	1.52	1.04	0.63	0.58	0.67
22	.63	.78	.10	.27	.32	.54	.62	.55	.04	.64	.56	.64
23	.74	.78	.06	.39	.48	.51	.49	.61	.03	.65	.55	.72
24	.79	.84	.07	.43	.66	.51	.32	.82	.02	.64	.62	.69
25	.81	.83	.03	.34	.79	.68	.11	2.00	.01	.63	.62	.67
26	0.79	0.81	1.10	1.23	2.26	5.81	4.96	2.12	0.98	0.64	0.62	0.67
27	.78	.75	.20	.19	.79	.89	.82	.09	.92	.63	.61	.62
28	.78	.73	.17	.20	3.04	6.00	.66	1.65	.89	.64	.60	.54
29	.79	.68	.20	.24	.03	.13	.51	.58	.88	.64	.58	.58
30	.78	.67	.14	.42	2.87	.23	.31	.61	.86	.59		.59
31		.62		.83	.87		.19		.86	.53		.61
Mean		0.69	1.00	1.38	1.98	4.20	6.69	2.67	1.29	0.66	0.54	0.59
Max.		0.97	1.48	1.83	3.04	6.23	6.94	4.02	1.61	0.80	0.62	0.72
Min.		0.38	0.60	0.84	1.31	2.74	4.19	1.52	0.86	0.53	0.42	0.46

WATER YEAR 1967 : Max. 6.94 m. Min. m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1		121	88	166	398	614	1,287	584	202	93	50	67
2		121	90	132	418	595	1,293	561	202	93	49	62
3		123	93	130	422	691	1,293	538	201	86	48	60
4		118	91	139	405	621	1,290	522	203	76	45	60
5		86	91	136	374	604	1,287	501	201	77	50	59
6		81	95	156	391	578	1,280	484	189	75	51	59
7		65	98	198	321	558	1,274	464	189	79	51	50
8		55	98	228	304	544	1,270	444	187	79	50	59
9		52	98	254	282	553	1,241	382	181	77	53	61
10		52	95	280	278	530	1,218	366	185	75	56	60
11		53	114	278	284	537	1,192	342	182	71	61	59
12		57	145	250	331	537	1,175	320	180	75	61	63
13	74	60	214	238	341	562	1,147	294	177	77	55	63
14	83	85	234	240	343	616	1,110	278	164	79	67	55
15	80	114	228	238	331	645	1,073	262	161	76	65	57
16	85	154	222	236	328	722	1,039	229	159	77	66	60
17	83	147	246	214	325	837	1,008	209	154	76	67	68
18	85	141	256	182	298	1,130	982	200	145	76	68	71
19	85	145	248	170	252	1,144	954	195	138	72	67	79
20	85	132	220	170	232	1,177	926	192	129	72	67	80
21	88	123	192	190	222	1,194	894	191	124	71	65	76
22	193	119	180	214	224	1,199	868	195	124	72	62	72
23	112	119	172	238	256	1,194	842	203	123	73	61	83
24	121	130	174	246	292	1,194	811	235	122	72	70	79
25	125	128	166	228	319	1,221	773	262	120	71	70	76
26	121	125	180	206	422	1,239	746	281	116	72	70	76
27	119	114	200	198	542	1,249	721	276	109	71	68	70
28	119	110	194	200	600	1,262	693	209	105	72	67	60
29	121	102	200	208	597	1,274	668	199	103	72	65	65
30	119	100	188	244	560	1,281	634	203	101	66		66
31		91		328	560		613		101	59		68
Total		3,223	4,910	6,535	11,252	26,102	31,602	9,621	4,777	2,332	1,745	2,043
Mean		104	164	211	363	870	1,019	321	154	75.2	60.1	65.9
Max.		154	256	328	600	1,281	1,293	584	203	93	70	83
Min.		52	88	130	222	530	613	191	101	59	45	50
Runoff - MCM.		273.974	424.224	564.624	972.172	2,255.213	2,730.413	831.254	412.733	201.485	150.768	176.152

WATER YEAR 1967.: Max. 1,293 Min. Mean Annual Runoff mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 3	01.00	6.95	1,293				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
NAN RIVER BASIN

Nam Khan at Ban Pa Khai, Phitsanulok (N.38)

Location: Lat 16°- 58' - 22" N, Long 100°- 50' - 55" E, about 8 kilometers from Phitsanulok - Nakhon Thai Road, at Ban Pa Khai, Amphoe Nakhon Thai, Phitsanulok.

Drainage Area: 243 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: 0.00 m. (A.D.)

Bench Mark:

Location:
Elevation:

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 - 72

Rating Operation:

Period of Rating: 1967 - 70
Rated by Float: -
Rated by Current Meter: 1967 - 70

Stability of Channel Regimes: Unstable, shifting adjustment is included for flow computation.

Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversion for irrigation except those built by local residents. No adjustment made for virgin flow.

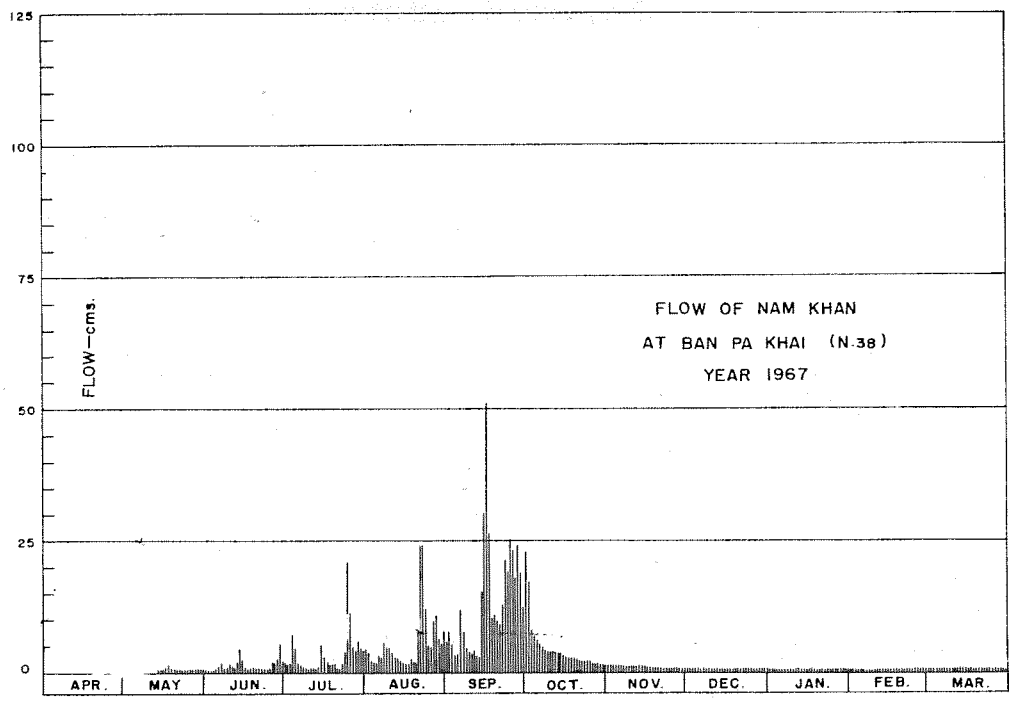
Remarks: Stream gaging began on May 14, 1967.

GAGE HEIGHT IN METER (A.D.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1			0.49	0.85	1.36	1.47	2.84	0.75	0.62	0.51	0.53	0.52
2			.48	.78	.14	.76	.18	.72	.61	.53	.52	.47
3			.47	.85	0.96	.34	1.71	.72	.59	.53	.53	.46
4			.50	1.66	.89	.19	.56	.70	.58	.52	.50	.46
5			.54	.16	.91	.11	.46	.71	.58	.50	.49	.46
6			0.66	0.84	1.13	2.14	1.37	0.77	0.57	0.52	0.49	0.48
7			.85	.74	.05	1.79	.30	.72	.57	.53	.50	.49
8			.61	.69	.51	.38	.25	.71	.57	.52	.50	.49
9			.57	.65	.69	.26	.20	.69	.57	.51	.49	.49
10			.84	.64	.35	.16	.16	.68	.57	.52	.49	.49
11			0.67	0.63	1.15	1.36	1.20	0.67	0.56	0.52	0.50	0.56
12			.64	.59	0.99	.13	.13	.66	.56	.51	.49	.50
13			.90	.57	1.05	.05	.15	.69	.56	.50	.49	.51
14		0.50	1.35	.69	0.94	2.37	.14	.68	.56	.50	.50	.51
15		.50	0.78	1.38	.89	3.36	.04	.67	.56	.50	.50	.50
16		0.56	0.64	0.99	0.85	4.36	0.99	0.66	0.55	0.50	0.53	0.49
17		.68	.60	.85	.83	2.27	.97	.64	.55	.50	.50	.48
18		.78	.61	.72	1.04	1.87	.97	.64	.55	.51	.49	.47
19		.63	.64	.74	0.93	.96	.99	.64	.55	.51	.49	.47
20		.58	.58	.87	.85	.81	.92	.63	.55	.51	.47	.47
21		0.55	0.55	0.63	1.89	1.81	0.89	0.63	0.55	0.50	0.47	0.46
22		.54	.54	.61	3.01	2.14	.86	.62	.55	.50	.48	.45
23		.54	.52	.80	2.99	.86	.85	.61	.55	.50	.48	.45
24		.56	.52	1.00	1.77	.58	.91	.61	.55	.51	.49	.45
25		.54	.58	2.70	.46	3.02	.87	.61	.55	.56	.50	.44
26		0.54	0.89	1.79	1.32	2.85	0.83	0.61	0.54	0.56	0.51	0.44
27		.56	.86	.40	.97	.39	.80	.60	.54	.55	.51	.44
28		.55	.97	.23	2.01	.93	.78	.59	.54	.53	.52	.44
29		.56	1.45	.56	1.48	.23	.77	.59	.53	.53	.53	.44
30		.54	0.91	.36	.49	1.94	.75	.58	.53	.51		.44
31		.50		.25	.79		.74		.53	.53		.44
Mean			0.71	0.98	1.38	2.03	1.15	0.66	0.56	0.52	0.50	0.47
Max.			1.45	2.70	3.01	4.36	2.84	0.77	0.62	0.56	0.53	0.56
Min.			0.47	0.57	0.83	1.05	0.74	0.58	0.53	0.50	0.47	0.44

WATER YEAR 1967 : Max. 4.36 m. Min. m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1			0.48	1.85	4.50	5.20	23	1.40	0.88	0.53	0.59	0.56
2			0.46	1.52	3.08	7.61	14	1.28	0.84	0.59	0.56	0.44
3			0.44	1.85	2.20	4.43	7.80	1.28	0.77	0.59	0.59	0.42
4			0.50	7.34	1.85	3.32	7.08	1.20	0.74	0.56	0.50	0.42
5			0.62	3.56	1.95	2.84	6.24	1.24	0.74	0.50	0.48	0.42
6			1.04	1.80	3.14	12	5.20	1.48	0.71	0.56	0.48	0.46
7			1.85	1.36	2.66	7.90	4.71	1.28	0.71	0.59	0.50	0.48
8			0.64	1.16	5.76	4.64	4.36	1.24	0.71	0.56	0.50	0.48
9			0.71	1.00	7.25	3.80	4.22	1.16	0.71	0.53	0.48	0.48
10			1.81	0.96	4.57	3.20	3.94	1.12	0.71	0.56	0.48	0.48
11			1.08	0.92	3.50	4.50	4.22	1.08	0.68	0.56	0.50	0.68
12			0.96	0.77	2.55	3.20	3.74	1.04	0.68	0.53	0.48	0.50
13			2.10	0.71	2.90	2.72	3.87	1.16	0.68	0.50	0.48	0.53
14		0.50	4.85	1.16	2.05	15	3.80	1.12	0.68	0.50	0.50	0.53
15		0.50	1.52	5.06	1.80	30	3.20	1.08	0.68	0.50	0.53	0.50
16		0.68	0.96	2.55	1.60	51	2.90	1.04	0.65	0.50	0.59	0.48
17		1.12	0.80	1.85	1.52	14	2.78	0.96	0.65	0.50	0.50	0.46
18		1.52	0.84	1.44	2.55	9.69	2.78	0.96	0.65	0.53	0.48	0.44
19		0.92	0.96	1.52	2.00	11	2.90	0.96	0.65	0.53	0.48	0.44
20		0.74	0.74	1.65	1.60	9.03	2.50	0.92	0.65	0.53	0.44	0.44
21		0.65	0.64	0.88	9.14	9.03	2.20	0.92	0.65	0.50	0.44	0.42
22		0.62	0.62	0.80	24	13	2.05	0.88	0.65	0.50	0.46	0.40
23		0.62	0.56	1.85	24	22	2.00	0.84	0.65	0.50	0.46	0.40
24		0.68	0.56	2.90	7.90	18	2.30	0.84	0.65	0.53	0.48	0.40
25		0.62	0.74	21	5.44	26	2.10	0.84	0.65	0.68	0.50	0.38
26		0.62	2.05	8.00	4.43	23	1.90	0.84	0.62	0.68	0.53	0.38
27		0.68	1.90	4.78	10	16	1.75	0.80	0.62	0.65	0.53	0.38
28		0.65	2.45	3.62	11	24	1.65	0.77	0.62	0.59	0.56	0.38
29		0.68	5.60	6.00	5.60	14	1.60	0.77	0.59	0.59	0.59	0.38
30		0.62	2.45	4.50	5.36	11	1.40	0.74	0.59	0.53		0.38
31		0.50		3.74	7.90		1.48		0.59	0.59		0.38
Total			40.84	98.10	173.81	381.11	133.67	31.24	21.05	17.09	14.69	13.92
Mean			1.36	3.16	5.61	12.7	4.31	1.04	0.68	0.55	0.51	0.45
Max.			5.60	21	24	51	23	1.48	0.88	0.68	0.59	0.68
Min.			0.44	0.71	1.60	2.72	1.40	0.74	0.59	0.50	0.44	0.38
Runoff - MCM.			3.528	8.476	15.017	32.928	11.549	2.699	1.819	1.476	1.269	1.203

WATER YEAR 1967 : Max. 51 Min. 0.38 Mean Annual Runoff mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sep. 16	04.00	5.40	83				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
CHAO PHYA RIVER BASIN

Chao Phya River at Muang Nakhon Sawan (C.2)

Location: Lat 15°- 40' - 15" N, Long 100°- 06' - 45" E, on left bank about 3 kilometers downstream side of Dechatiwong Bridge, Amphoe Muang, Nakhon Sawan.

Drainage Area: 110,569 sq.km.

Type of Gage: Water - stage recorder.

Zero Gage at Bottom at: Gage readings are already m. (M.S.L.)

Bench Mark: B.M. - H.S./R.I.D.

Location: On left bank 20 meters west of gage site.
Elevation: B.M. 1 + 26.258 m. (M.S.L.) and B.M.2 + 26.091 m. (M.S.L.)

Gage Reading Frequency: Recording.

Basis of Mean Daily Gage Height: Arithmetic mean of 24 hourly readings.

Period of Available Gage Records: 1956 to date

Rating Operation:

Period of Rating: 1956 to date
Rated by Float: -
Rated by Current Meter: 1956 to date

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

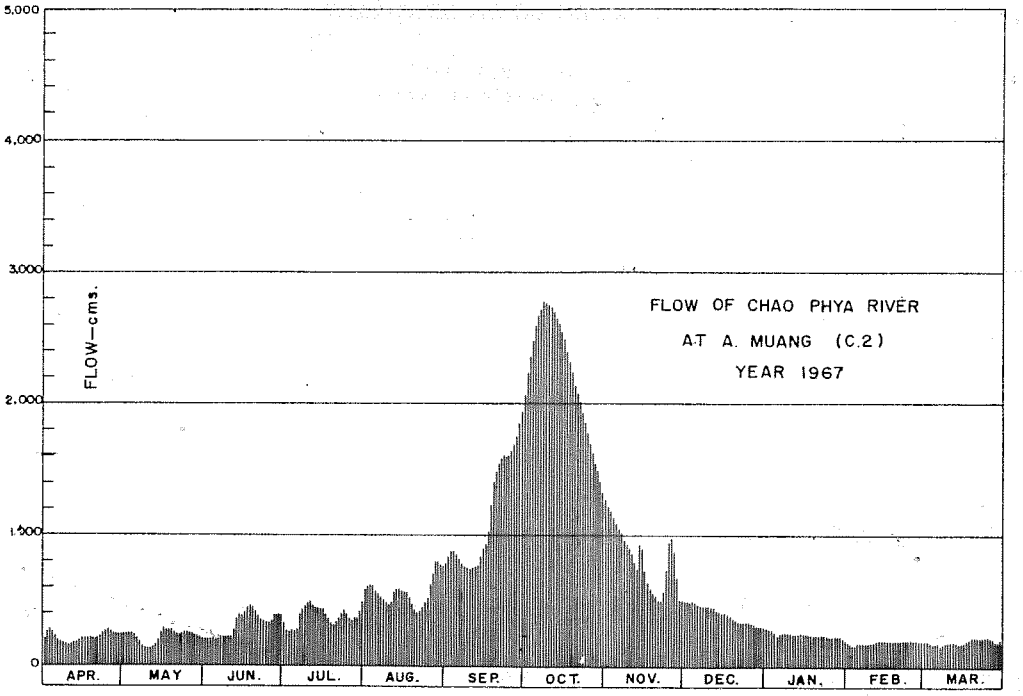
Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage - discharge relation used is defined by discharge measurements made during 1967. Upstream diversions for irrigation of about 91,000 hectares. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	18.12	18.38	18.21	18.74	19.62	20.31	23.22	21.47	19.32	18.56	18.08	18.13
2	.45	.39	.23	.45	.71	.44	.53	.37	.32	.53	.03	.13
3	.51	.40	.24	.46	.74	.55	.74	.28	.30	.49	.00	.07
4	.42	.38	.24	.53	.70	.52	.92	.18	.32	.39	.00	.04
5	.17	.22	.23	.51	.56	.43	24.05	.07	.29	.31	.06	.05
6	18.08	18.03	18.23	18.59	19.48	20.31	24.16	20.97	19.20	18.34	18.07	18.05
7	.05	17.96	.30	.95	.45	.25	.24	.87	.19	.40	.06	.01
8	.05	.91	.30	19.10	.38	.20	.29	.75	.18	.40	.03	.02
9	.03	.86	.29	.22	.28	.16	.28	.66	.16	.39	.04	.06
10	.01	.86	.25	.32	.24	.14	.26	.56	.19	.38	.08	.07
11	18.01	17.88	18.33	19.33	19.32	20.16	24.24	20.41	19.18	18.34	18.10	18.07
12	.06	.94	.58	.24	.57	.19	.20	.24	.15	.35	.15	.07
13	.06	18.01	.87	.14	.64	.24	.13	.10	.10	.37	.17	.10
14	.14	.14	.98	.15	.66	.44	.06	.66	.03	.39	.18	.02
15	.17	.35	.97	.15	.60	.55	23.95	.58	.02	.38	.17	.03
16	18.21	18.54	18.98	19.13	19.57	20.68	23.83	19.95	19.02	18.36	18.15	18.06
17	.19	.51	19.14	18.99	.58	.97	.71	.74	18.99	.37	.14	.10
18	.18	.47	.23	.76	.46	21.39	.57	.59	.93	.34	.15	.18
19	.20	.55	.20	.68	.21	.81	.46	.50	.86	.31	.15	.25
20	.20	.49	.03	.64	.09	22.01	.33	.39	.80	.31	.15	.28
21	18.22	18.42	18.93	18.73	19.04	22.16	23.19	19.34	18.73	18.32	18.14	18.25
22	.26	.39	.81	.86	.05	.25	.05	.29	.74	.32	.14	.24
23	.40	.41	.78	.99	.14	.28	22.92	.82	.75	.33	.16	.25
24	.45	.43	.72	19.07	.29	.26	.76	20.35	.74	.32	.16	.27
25	.48	.44	.76	18.98	.33	.31	.58	.71	.74	.29	.15	.26
26	18.45	18.42	18.93	18.85	19.70	22.39	22.38	20.82	18.72	18.29	18.16	18.24
27	.41	.38	19.00	.81	20.11	.48	.26	.36	.68	.29	.15	.18
28	.41	.35	18.97	.85	.31	.68	.10	19.66	.61	.29	.15	.08
29	.39	.32	.99	.88	.32	.84	21.92	.34	.60	.30	.12	.09
30	.37	.29	.97	19.01	.24	.99	.75	.33	.60	.23		.13
31		.27		.36	.20		.62		.59	.15		.13
Mean	18.24	18.27	18.69	18.92	19.57	21.21	23.38	20.31	18.97	18.35	18.11	18.13
Max.	18.51	18.55	19.23	19.36	20.32	22.99	24.29	21.47	19.32	18.56	18.18	18.28
Min.	18.01	17.86	18.21	18.45	19.04	20.14	21.62	19.29	18.59	18.15	18.00	18.01

WATER YEAR 1967 : Max. 24.29 m. Min. 17.86 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	190	249	210	338	586	800	2,086	1,242	496	293	182	193
2	266	252	215	266	613	846	2,269	1,199	496	285	171	193
3	280	254	217	268	622	886	2,400	1,162	490	276	165	180
4	259	249	217	285	610	875	2,516	1,122	496	252	165	173
5	201	212	215	280	568	843	2,604	1,078	487	232	178	175
6	182	171	215	300	544	800	2,679	1,039	462	240	180	175
7	175	157	230	393	535	779	2,734	1,001	459	254	178	167
8	175	148	230	434	514	762	2,768	958	456	254	171	169
9	171	138	228	468	484	749	2,761	926	451	252	173	178
10	167	138	219	496	473	743	2,747	890	459	249	182	180
11	167	142	237	499	496	749	2,734	836	456	240	186	180
12	178	154	298	473	571	759	2,700	776	448	242	197	180
13	178	167	372	445	592	776	2,658	730	434	247	201	186
14	195	195	401	448	598	846	2,611	926	414	252	204	169
15	201	242	398	448	580	886	2,536	897	412	249	201	171
16	210	288	401	442	571	933	2,457	685	412	244	197	178
17	206	280	445	403	574	1,039	2,381	622	403	247	195	186
18	204	271	470	344	538	1,208	2,293	577	388	240	197	204
19	208	290	462	323	465	1,388	2,226	550	370	232	197	219
20	208	276	414	313	431	1,477	2,149	517	354	232	197	226
21	212	259	388	336	417	1,546	2,069	502	336	235	195	219
22	221	252	357	370	420	1,587	1,992	487	338	235	195	217
23	254	256	349	403	445	1,601	1,923	646	341	237	199	219
24	266	261	333	426	487	1,592	1,839	814	338	235	199	223
25	273	264	344	401	517	1,615	1,747	944	338	228	204	221
26	266	259	388	367	610	1,652	1,652	983	333	228	199	217
27	256	249	406	357	733	1,696	1,592	818	323	228	197	204
28	256	242	398	367	800	1,798	1,518	598	305	228	197	182
29	252	235	403	375	803	1,881	1,437	502	303	230	190	184
30	247	228	398	409	776	1,960	1,362	499	303	215		193
31		223		508	762		1,307		300	197		193
Total	6,524	7,001	9,858	11,985	17,735	35,072	68,747	24,526	12,401	7,508	5,492	5,954
Mean	217	226	329	387	572	1,169	2,218	817	400	242	189	192
Max.	280	290	470	508	803	1,960	2,768	1,242	496	293	204	226
Min.	167	138	210	266	417	743	1,307	487	300	197	165	167
Runoff - mcm.	563.674	604.886	851.731	1,035.504	1,532.304	3,030.221	5,939.741	2,119.046	1,071.446	648.691	474.509	514.426

WATER YEAR 1967 : Max. 2,768 Min. 167 Mean 581 Annual Runoff 18,386.179mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 8	24.00	24.29	2,768				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
CHAO PHYA RIVER BASIN

Chao Phya River at Ban Bang Kaeo, Ang Thong (C.7)

Location: Lat 14° - 35' - 05" N, Long 100° - 27' - 12" E, on left bank infront of Police Station, Amphoe Muang, Ang Thong.

Drainage Area: Flood plain.

Type of Gage: Staff gage.

Zero Gage at Bottom at: + 0.94 m. (M.S.L.)

Bench Mark:

Location:
Elevation:

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: 1930 to date.

Rating Operation:

Period of Rating: 1955 - 56
Rated by Float: -
Rated by Current Meter: 1955 - 56

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

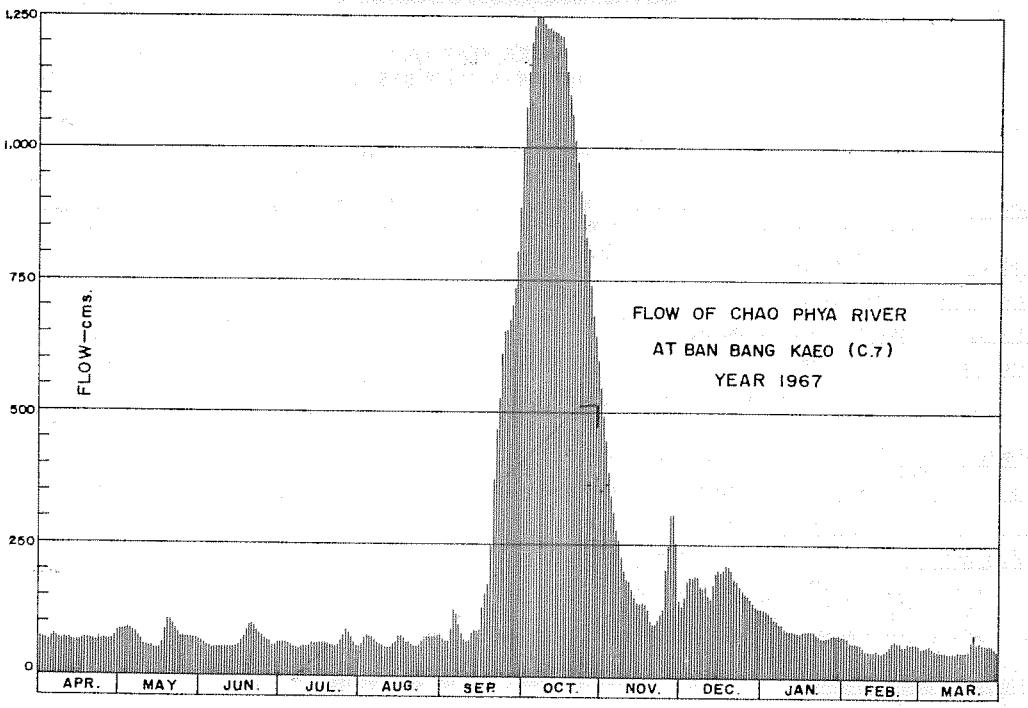
Overbank Flow Conditions: No overbank flow.

General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made during 1967. Flow regulated by Chao Phya Diversion Dam. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	1.70	1.90	1.61	1.62	1.56	1.70	6.14	4.49	2.34	2.30	1.76	1.52
2	.67	.90	.57	.63	.74	.65	.28	.23	.49	.28	.70	.52
3	.65	.90	.52	.62	.80	.67	.40	3.98	.72	.25	.61	.56
4	.66	.92	.50	.59	.77	.91	.49	.75	.80	.17	.64	.59
5	.71	.92	.48	.55	.74	2.31	.54	.57	.78	.11	.63	.53
6	1.77	1.89	1.48	1.52	1.68	2.19	6.58	3.39	2.79	2.06	1.61	1.47
7	.74	.81	.48	.50	.62	1.98	.58	.27	.79	.02	.57	.43
8	.69	.74	.48	.50	.60	.82	.57	.05	.63	.04	.47	.42
9	.65	.65	.48	.50	.58	.72	.55	2.85	.63	1.92	.42	.41
10	.70	.54	.49	.52	.50	.65	.54	.75	.66	.91	.42	.40
11	1.68	1.48	1.49	1.54	1.49	1.67	6.54	2.73	2.49	1.90	1.42	1.39
12	.67	.48	.49	.58	.53	.83	.53	.58	.48	.90	.43	.38
13	.65	.48	.50	.61	.58	.90	.53	.50	.65	.87	.46	.39
14	.64	.47	.51	.62	.65	.89	.53	.41	.86	.86	.41	.40
15	.64	.45	.55	.62	.81	.92	.52	.38	.88	.86	.38	.40
16	1.64	1.45	1.64	1.62	1.79	2.34	6.51	2.41	2.85	1.89	1.44	1.40
17	.67	.53	.72	.60	.70	.58	.45	.40	.89	.90	.49	.40
18	.71	.89	.85	.60	.63	.69	.38	.30	.94	.90	.56	.41
19	.69	2.11	.94	.60	.62	3.13	.31	.07	.93	.90	.69	.44
20	.65	.10	2.04	.56	.60	.81	.24	.02	.83	.86	.69	.68
21	1.65	2.00	2.01	1.53	1.53	4.29	6.13	2.05	2.75	1.78	1.66	1.85
22	.64	1.91	1.87	.52	.52	.62	.08	.11	.74	.77	.63	.81
23	.67	.80	.78	.54	.55	.98	5.98	.21	.62	.74	.53	.68
24	.65	.76	.77	.64	.62	5.15	.89	.31	.53	.74	.58	.62
25	.66	.74	.75	.75	.69	.16	.77	.92	.54	.74	.61	.60
26	1.67	1.74	1.66	1.91	1.79	5.24	5.68	3.26	2.52	1.74	1.62	1.60
27	.65	.74	.58	.87	.83	.36	.43	.54	.47	.78	.63	.60
28	.67	.73	.54	.76	.87	.50	.26	.55	.39	.81	.62	.51
29	.75	.71	.57	.61	.97	.70	.09	.08	.31	.81	.59	.47
30	.83	.70	.60	.54	2.05	.97	4.96	2.47	.32	.82		.42
31		.66		.53	1.88		.76		.31	.78		.42
Mean	1.68	1.74	1.63	1.60	1.69	3.14	6.14	2.89	2.64	1.92	1.56	1.51
Max.	1.83	2.11	2.04	1.91	2.05	5.97	6.58	4.49	2.94	2.30	1.76	1.85
Min.	1.64	1.45	1.48	1.50	1.49	1.65	4.76	2.02	2.31	1.74	1.38	1.38

WATER YEAR 1967 : Max. 6.58 m. Min. 1.38 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	70	87	63	64	59	70	995	490	132	127	75	56
2	68	87	60	64	73	66	1,071	435	150	125	70	56
3	66	87	56	64	78	68	1,140	384	179	121	63	59
4	67	89	54	61	76	88	1,194	341	189	113	65	61
5	71	89	53	58	73	128	1,225	309	186	107	64	56
6	76	86	53	56	68	115	1,250	278	188	102	63	52
7	73	79	53	54	64	94	1,250	259	188	98	60	49
8	69	73	53	54	62	80	1,243	225	167	100	52	48
9	66	66	53	54	60	72	1,231	196	167	89	48	48
10	70	57	53	56	54	66	1,225	182	171	88	48	47
11	68	53	53	57	53	68	1,225	180	150	87	48	46
12	68	53	53	60	56	81	1,219	161	149	87	48	46
13	66	53	54	63	60	87	1,219	151	169	84	51	46
14	65	52	55	64	66	86	1,219	140	197	83	48	47
15	65	50	58	64	79	89	1,212	137	202	83	46	47
16	65	50	65	64	77	132	1,206	140	196	86	50	47
17	68	56	72	62	70	161	1,170	139	202	87	53	47
18	71	86	82	62	64	175	1,128	127	209	87	59	48
19	69	107	91	62	64	237	1,088	103	207	87	69	50
20	66	106	100	59	62	352	1,048	98	193	83	69	68
21	66	96	97	56	56	448	990	101	182	76	67	82
22	65	88	84	56	56	520	964	107	181	76	64	79
23	68	78	76	57	58	605	914	117	166	73	56	68
24	66	75	76	65	64	651	872	128	161	73	60	64
25	67	73	74	74	69	651	832	206	156	73	63	62
26	68	73	67	88	77	672	804	258	153	73	64	62
27	66	73	60	84	81	706	727	304	147	76	64	62
28	68	72	57	75	84	748	677	305	138	79	64	55
29	74	71	60	63	93	810	632	230	128	79	61	52
30	81	70	62	57	101	909	600	147	129	80		48
31		67		56	85		552		128	76		48
Total	2,056	2,302	1,947	1,933	2,142	9,035	32,122	6,378	5,260	2,758	1,713	1,706
Mean	68.5	74.2	64.9	62.3	69.1	301	1,036	213	170	88.9	59.1	55.0
Max.	81	107	100	88	101	909	1,250	490	209	127	75	82
Min.	65	50	53	54	53	66	552	98	128	73	46	46
Runoff - mcm.	177.638	198.893	168.221	167.011	185.069	780.624	2,775.341	551.059	454.464	238.291	148.003	147.398

WATER YEAR 1967 : Max. 1,250 Min. 46 Mean 189 Annual Runoff 5,992.018 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 7	18.00	6.59	1,256				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
CHAO PHYA RIVER BASIN

Chao Phya River at Wat Pho Ngam, Chai Nat (C.13)

Location: Lat 19°– 09' – 57" N, Long 100°– 11' – 32" E, on left bank about 1.5 kilometers downstream from Chao Phya Diversion Dam, Amphoe Sanphya, Chai Nat.

Drainage Area: 120,693 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: +6.50 m. (M.S.L.)

Bench Mark: B.M. – C.13

Location: On left bank 5 meters from B.M. – H.S./R.I.D. No.1
Elevation: +15.634 m. (M.S.L.)

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: 1947 – 70

Rating Operation:

Period of Rating: 1947 – 49, 1951 – 59, 1961 – 62
Rated by Float: –
Rated by Current Meter: 1947 – 49, 1951 – 59, 1961 – 62

Stability of Channel Regimes: Stable, no shifting adjustment for flow computations.

Overbank Flow Conditions: No overbank flow.

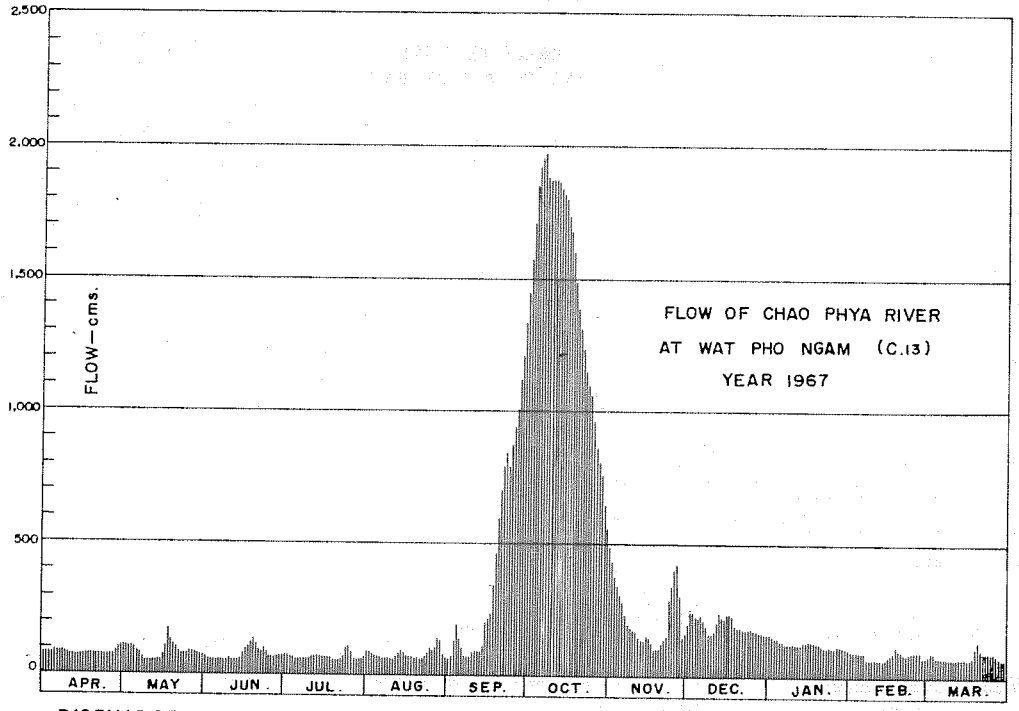
General Description: Records fair. Stage – discharge relationship used is defined by discharge measurements made during 1967. Flow regulated by Chao Phya diversion Dam at above gage site which diverted for irrigation of about 979,000 hectares. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1,1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	7.40	7.60	7.24	7.35	7.47	7.26	12.34	9.32	7.90	7.70	7.25	7.12
2	.40	.60	.20	.33	.48	.34	.63	.05	8.20	.65	.25	.20
3	.40	.60	.20	.30	.39	.65	13.03	8.85	.16	.60	.25	.19
4	.40	.60	.20	.30	.35	8.11	.33	.69	.05	.60	.23	.06
5	.44	.57	.20	.25	.33	7.75	.44	.50	.06	.50	.20	.05
6	7.45	7.43	7.20	7.25	7.30	7.56	13.52	8.39	8.13	7.50	7.20	7.03
7	.44	.39	.20	.25	.27	.34	.55	.10	7.96	.45	.00	.03
8	.41	.26	.20	.25	.25	.31	.37	7.89	.85	.45	.00	.03
9	.39	.15	.20	.25	.25	.32	.35	.85	.70	.45	.00	.00
10	.36	.15	.20	.25	.25	.43	.35	.81	.70	.45	.00	.00
11	7.34	7.15	7.20	7.30	7.25	7.48	13.35	7.75	7.80	7.45	7.00	7.00
12	.32	.15	.20	.33	.35	.50	.33	.63	.95	.45	.00	.00
13	.32	.16	.20	.33	.45	.48	.28	.55	8.20	.45	.00	.05
14	.32	.19	.20	.30	.52	.51	.25	.50	.04	.50	.00	.05
15	.33	.21	.37	.30	.43	8.15	.20	.65	.01	.50	.10	.05
16	7.35	7.35	7.50	7.30	7.33	8.25	13.07	7.62	8.13	7.50	7.15	7.00
17	.35	.54	.58	.30	.30	.32	12.95	.44	.15	.50	.24	.00
18	.35	.98	.68	.28	.34	.79	.70	.30	.07	.50	.39	.05
19	.35	.63	.80	.21	.27	9.35	.45	.30	7.86	.45	.30	.40
20	.35	.63	.65	.20	.25	.84	.20	.34	.85	.45	.25	.50
21	7.35	7.54	7.47	7.20	7.25	10.06	12.02	7.45	7.85	7.40	7.18	7.30
22	.35	.40	.43	.24	.27	.44	11.80	.58	.80	.35	.15	.20
23	.35	.40	.56	.35	.35	.62	.63	.66	.80	.35	.20	.20
24	.33	.41	.38	.54	.44	.21	.40	8.50	.80	.35	.20	.20
25	.30	.44	.30	.64	.57	.72	.32	.72	.80	.35	.20	.20
26	7.31	7.45	7.25	7.50	7.51	10.93	11.04	9.00	7.77	7.35	7.25	7.20
27	.35	.45	.25	.30	.61	11.10	10.75	.04	.77	.40	.25	.17
28	.45	.43	.30	.20	.82	.40	.57	8.42	.75	.40	.10	.05
29	.58	.40	.35	.25	.75	.78	.36	7.54	.72	.35	.10	.00
30	.60	.35	.35	.25	.39	12.02	.03	.75	.70	.35		.00
31		.30		.30	.33		9.63		.70	.30		.00
Mean	7.38	7.42	7.33	7.30	7.39	8.90	12.33	8.04	7.91	7.45	7.15	7.11
Max.	7.60	7.98	7.80	7.64	7.82	12.02	13.55	9.32	8.20	7.70	7.39	7.50
Min.	7.30	7.15	7.20	7.20	7.25	7.26	9.63	7.30	7.70	7.30	7.00	7.00

WATER YEAR 1967 : Max. 13.55 m. Min. 7.15 m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	83	110	64	77	91	66	1,424	489	194	160	97	81
2	85	110	59	75	93	76	1,539	423	248	152	97	91
3	83	110	59	71	82	117	1,714	379	241	145	97	90
4	83	110	59	71	77	195	1,860	344	221	145	95	74
5	88	105	59	65	75	132	1,915	305	223	131	91	73
6	89	87	59	65	71	104	1,955	289	235	131	91	71
7	88	82	59	65	67	76	1,970	230	205	124	67	71
8	84	66	59	65	65	72	1,880	192	185	124	67	71
9	82	53	59	65	65	73	1,870	185	160	124	67	67
10	78	53	59	65	65	87	1,870	179	160	124	67	67
11	76	53	59	71	65	93	1,870	168	177	124	67	67
12	73	53	59	75	77	95	1,860	149	203	124	67	67
13	73	54	59	75	89	93	1,835	138	248	124	67	73
14	73	58	59	71	98	96	1,820	131	219	131	67	73
15	75	60	79	71	87	202	1,795	152	214	131	79	73
16	77	77	95	71	75	221	1,733	148	235	131	85	67
17	77	101	107	71	71	235	1,678	123	239	131	96	67
18	77	171	122	69	76	344	1,569	103	225	131	116	73
19	77	114	140	60	67	463	1,466	103	187	124	103	117
20	77	114	117	59	65	615	1,370	109	185	124	97	131
21	77	101	91	59	65	677	1,304	124	185	117	89	103
22	77	83	87	64	67	790	1,225	142	177	110	85	91
23	77	83	104	77	77	842	1,164	154	177	110	91	91
24	75	84	81	101	88	721	1,086	305	177	110	91	91
25	71	88	71	116	105	871	1,060	350	177	110	91	91
26	72	89	65	95	96	934	968	412	172	110	97	91
27	~~77~~	~~89~~	~~65~~	~~71~~	~~111~~	~~987~~	~~880~~	~~421~~	~~172~~	~~117~~	~~97~~	~~87~~
28	89	87	71	59	143	1,086	827	289	168	117	79	73
29	107	83	77	65	132	1,217	767	137	163	110	79	67
30	110	77	77	65	82	1,304	674	168	160	110		67
31		71		71	75		570		160	103		67
Total	2,428	2,676	2,280	2,220	2,562	12,904	45,518	6,841	6,092	3,859	2,479	2,483
Mean	80.9	86.3	76.0	71.6	82.6	430	1,468	228	196	124	85.5	80.1
Max.	110	171	140	116	143	1,304	1,970	489	248	160	116	131
Min.	71	53	59	59	65	66	570	103	160	103	67	67
Runoff - MCM.	209.779	231.206	196.992	191.808	221.357	1,114.906	3,932.755	591.062	526.349	333.418	214.186	214.531

WATER YEAR 1967 : Max. 1,970 Min. 53 Mean 252 Annual Runoff 7,978.349 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 7	06.00	13.58	1,985				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
CHAO PHYA RIVER BASIN

Chao Phya River at In Buri, Sing Buri (C.14)

Location: Lat 15°- 00' - 30" N, Long 100°- 19' - 50" E, on right bank 200 meters north of district office of Amphoe In Buri, Sing Buri.

Drainage Area: Flood plain.

Type of Gage: Staff gage.

Zero Gage at Bottom at: +4.50 m. (M.S.L.)

Bench Mark: B.M. - C.14

Location: On right bank infront of Thai Government Saving Bank.
Elevation: +12.694 m. (M.S.L.)

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: 1950 - 69

Rating Operation:

Period of Rating: 1955
Rated by Float: -
Rated by Current Meter: 1955

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

Overbank Flow Conditions: No overbank Flow.

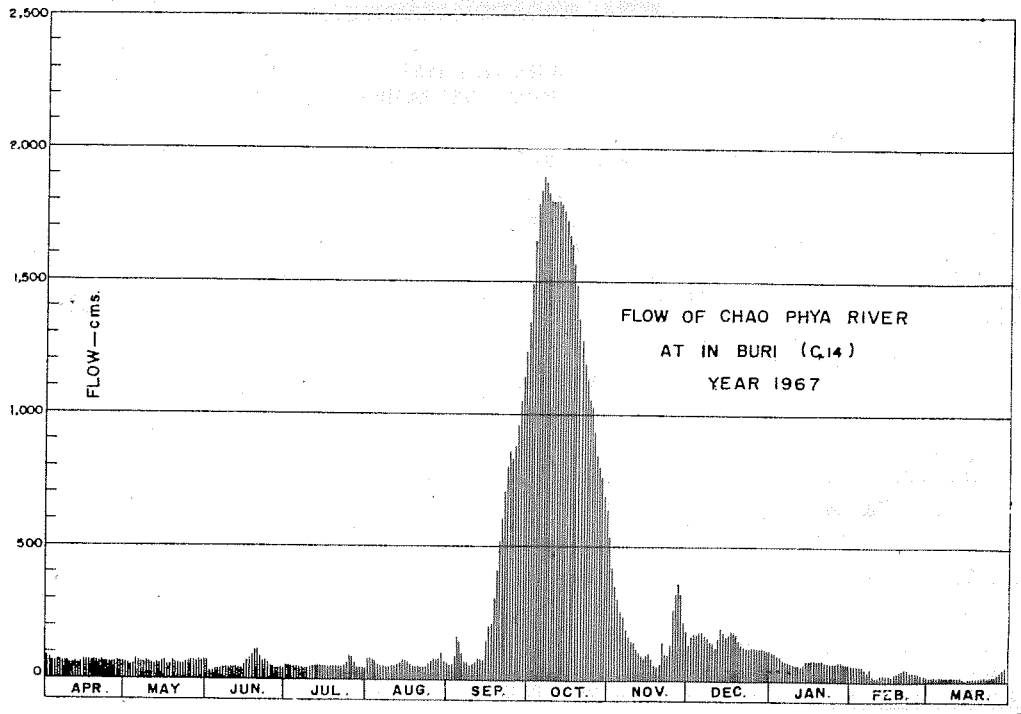
General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made during 1955. Flow regulated by Chao Phya Diversions at Chai Nat. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	5.78	5.58	5.68	5.54	5.80	5.50	10.38	7.85	6.04	5.95	5.56	5.12
2	.71	.57	.36	.57	.72	.52	.65	.36	.25	.90	.53	.12
3	.64	.51	.33	.49	.70	.67	.98	.12	.36	.87	.55	.16
4	.60	.55	.39	.48	.65	6.24	11.28	6.95	.32	.82	.54	.15
5	.66	.71	.41	.48	.56	.10	.38	.74	.36	.79	.49	.13
6	5.67	5.65	5.44	5.45	5.51	5.76	11.49	6.64	6.39	5.71	5.44	5.11
7	.63	.63	.45	.47	.49	.61	.45	.39	.30	.69	.36	.13
8	.64	.63	.45	.46	.48	.55	.36	.24	.27	.67	.41	.12
9	.61	.65	.45	.46	.49	.52	.32	.15	.19	.63	.18	.13
10	.57	.65	.44	.47	.52	.57	.31	.14	.12	.61	.10	.10
11	5.60	5.57	5.43	5.49	5.52	5.64	11.31	5.96	5.99	5.54	5.11	5.08
12	.60	.55	.43	.49	.53	.74	.31	.91	6.19	.55	.21	.07
13	.50	.63	.45	.56	.61	.73	.29	.81	.46	.53	.20	.05
14	.58	.57	.43	.54	.72	.70	.24	.74	.39	.60	.18	.02
15	.68	.64	.55	.53	.67	6.16	.18	.84	.27	.69	.19	.01
16	5.67	5.68	5.66	5.52	5.63	6.47	11.10	5.81	6.31	5.69	5.18	5.02
17	.67	.53	.73	.52	.57	.42	10.99	.71	.41	.70	.24	.03
18	.65	.58	.82	.52	.52	.83	.77	.55	.37	.70	.32	.05
19	.67	.67	.95	.49	.51	7.38	.51	.53	.30	.67	.37	.04
20	.64	.62	.94	.48	.50	.84	.29	.54	.17	.68	.42	.06
21	5.63	5.57	5.74	5.48	5.48	8.18	10.16	6.13	6.10	5.66	5.45	5.10
22	.66	.55	.65	.49	.48	.52	9.98	5.84	.06	.66	.43	.12
23	.64	.57	.70	.55	.51	.79	.81	.85	.02	.60	.33	.14
24	.63	.63	.64	.67	.60	.91	.55	.96	5.99	.64	.34	.15
25	.62	.68	.56	.84	.68	.87	.49	6.83	6.05	.62	.35	.14
26	5.64	5.68	5.42	5.78	5.77	9.06	9.24	7.07	6.03	5.63	5.32	5.17
27	.64	.65	.41	.59	.71	.25	8.96	.23	.01	.65	.20	.23
28	.66	.65	.45	.46	.76	.50	.80	6.94	.00	.65	.20	.36
29	.63	.69	.44	.46	.91	.82	.67	.44	.00	.62	.12	.48
30	.65	.64	.46	.45	.68	.10	.40	.40	.00	.59		.50
31		.65		.46	.62		.25		5.94	.57		.44
Mean	5.64	5.64	5.54	5.53	5.61	7.03	10.42	6.32	6.18	5.67	5.32	5.15
Max.	5.78	5.71	5.95	5.84	5.91	9.82	11.49	7.85	6.46	5.95	5.56	5.50
Min.	5.50	5.51	5.33	5.45	5.48	5.50	8.25	5.53	5.94	5.53	5.10	5.01

WATER YEAR 1967 : Max. 11.49 m. Min. 5.01 m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	89	62	74	57	92	52	1,362	525	128	114	59	16
2	78	60	37	60	80	54	1,477	400	163	107	56	16
3	69	53	33	51	77	73	1,632	343	185	102	58	19
4	64	58	40	50	70	162	1,784	303	176	95	57	18
5	72	78	41	50	59	138	1,839	258	183	90	51	17
6	73	70	45	46	53	86	1,899	238	188	78	45	16
7	68	68	46	48	51	65	1,877	188	172	76	36	17
8	69	68	46	47	50	58	1,828	162	167	73	41	16
9	65	70	46	47	51	54	1,806	146	153	68	20	17
10	60	70	45	48	54	60	1,800	145	141	65	15	15
11	64	60	44	51	54	69	1,800	116	120	57	16	14
12	64	58	44	51	56	83	1,800	108	153	58	23	13
13	52	68	46	59	65	81	1,789	93	202	56	22	11
14	62	60	44	57	80	77	1,760	83	188	64	20	9.40
15	74	69	58	56	73	148	1,730	98	167	76	21	8.70
16	73	74	72	54	68	204	1,690	102	174	76	20	9.40
17	73	56	81	54	60	194	1,637	78	190	77	25	10
18	70	60	95	54	54	277	1,533	58	185	77	32	11
19	73	73	114	51	53	405	1,416	56	172	73	38	11
20	69	67	113	50	52	523	1,326	57	150	74	42	12
21	68	60	83	50	50	616	1,274	143	138	72	46	15
22	72	58	70	51	50	716	1,202	98	132	72	44	16
23	69	60	77	58	53	797	1,139	99	125	64	33	18
24	68	68	69	73	64	863	1,049	116	120	69	34	18
25	67	74	59	98	74	821	1,026	277	130	67	35	18
26	69	74	42	89	81	879	936	331	127	68	32	20
27	69	73	41	63	78	942	848	368	124	70	22	24
28	72	70	46	47	86	1,030	860	301	122	76	22	37
29	68	76	45	47	108	1,142	761	198	122	67	16	50
30	70	69	47	46	74	892	680	190	122	63		52
31		70		47	67		636		113	60		45
Total	2,073	2,054	1,743	1,710	2,043	11,561	44,137	5,678	4,730	2,298	981	589.50
Mean	69.1	66.2	58.1	55.2	65.9	385	1,423	189	152	74.1	33.8	19.0
Max.	89	78	114	98	108	1,142	1,899	525	202	114	59	52
Min.	52	53	33	46	50	52	636	56	113	56	15	8.70
Runoff - mcm.	179.107	177.466	150.595	147.744	176.515	998.870	3,813.437	490.579	408.672	198.547	84.758	50.933

WATER YEAR 1967 : Max: 1,899 Min. 8.70 Mean 217 Annual Runoff 6,877.224 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 6	24.00	11.51	1,911				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
CHAO PHYA RIVER BASIN

Chao Phya River at Wat Chula Mani, Ayutthaya (C.15)

Location: Lat 14°- 25' - 35" N, Long 100°- 29' - 11" E, on left bank infront of Wat Chula Mani, 100 meters upstream from confluence with Khlong Bang Ban, Amphoe Bang Ban, Ayutthaya.

Drainage Area: Flood plain.

Type of Gage: Staff gage.

Zero Gage at Bottom at: -0.20 m. (M.S.L.)

Bench Mark: B.M. - C.15 15 meters from B.M. - H.S./R.I.D. No.9

Location: On left bank north of Wat Chula Mani
Elevation: +4.301 m. (M.S.L.)

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: 1950 to date

Rating Operation:

Period of Rating: 1955
Rated by Float: -
Rated by Current Meter: 1955

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

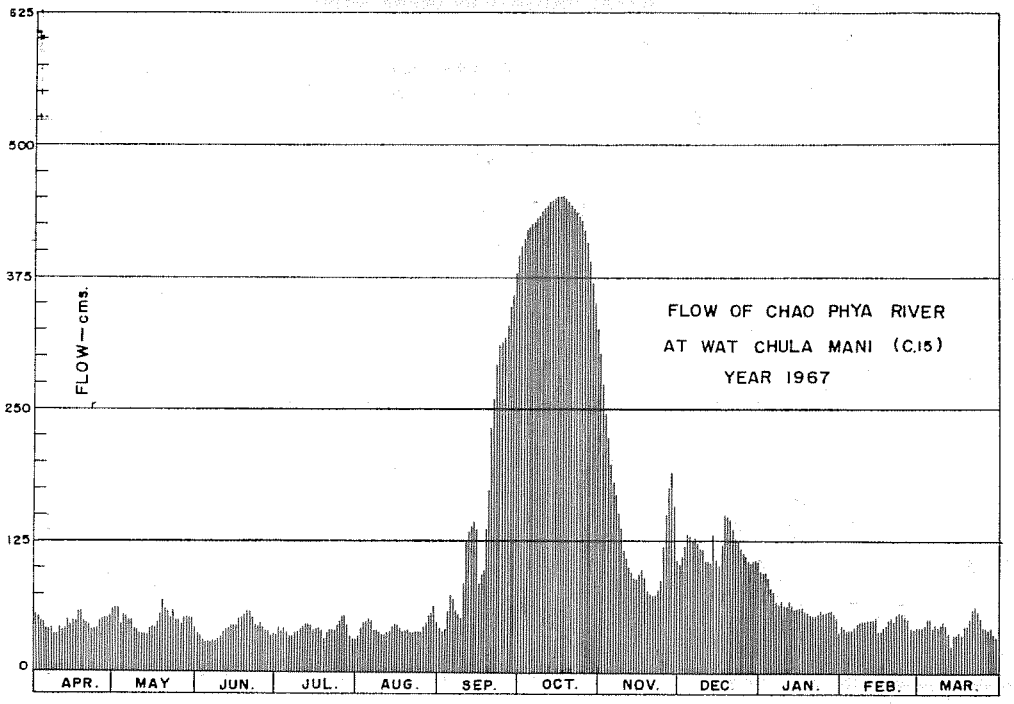
Overbank Flow Conditions: No overbank flow.

General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made during 1955. Flow regulated by Chao Phya Diversion at Chai Nat. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1,1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.83	0.93	0.58	0.57	0.51	0.67	3.92	3.25	1.42	1.35	0.70	0.66
2	.79	.92	.53	.67	.63	.60	.99	.04	.49	.33	.65	.66
3	.73	.66	.48	.62	.72	.58	4.03	2.80	.62	.32	.63	.67
4	.72	.84	.44	.67	.71	.72	.08	.58	.74	.26	.63	.77
5	.62	.81	.47	.60	.77	1.07	.10	.40	.73	.14	.61	.75
6	0.62	0.77	0.43	0.52	0.74	1.05	4.12	2.23	1.68	1.10	0.66	0.63
7	.65	.76	.47	.52	.62	0.88	.13	.10	.72	0.99	.70	.68
8	.55	.65	.47	.57	.62	.85	.15	1.91	.64	.95	.73	.66
9	.59	.63	.48	.56	.57	.78	.17	.79	.60	1.00	.75	.69
10	.67	.56	.53	.62	.55	.68	.20	.57	.57	0.94	.75	.75
11	0.61	0.56	0.60	0.66	0.55	1.66	4.22	1.50	1.43	0.92	0.74	0.69
12	.67	.56	.64	.70	.56	.76	.23	.39	.47	1.00	.74	.57
13	.76	.56	.66	.70	.59	.81	.26	.32	.42	0.94	.76	.30
14	.68	.64	.70	.69	.67	.87	.27	.28	.72	.89	.80	.54
15	.75	.67	.70	.62	.67	.78	.28	.25	.46	.90	.54	.53
16	0.75	0.67	0.70	0.63	0.70	1.08	4.28	1.32	1.36	0.91	0.63	0.57
17	.88	.74	.79	.64	.64	.31	.28	.37	.48	.92	.64	.47
18	.88	.87	.82	.61	.60	.37	.28	.28	.93	.89	.68	.67
19	.74	1.02	.85	.43	.62	.77	.27	.13	.91	.87	.76	.68
20	.71	0.95	.89	.58	.61	2.26	.25	.07	.89	.82	.79	.77
21	0.69	0.87	0.88	0.62	0.57	2.68	4.23	1.06	1.80	0.83	0.75	0.90
22	.61	.80	.81	.63	.56	.93	.21	.08	.70	.80	.84	.94
23	.64	.89	.70	.59	.56	3.17	.19	.14	.68	.84	.86	.87
24	.64	.76	.69	.68	.60	.32	.16	.13	.61	.89	.83	.79
25	.74	.74	.73	.74	.57	.33	.14	.59	.53	.83	.78	.64
26	0.79	0.69	0.67	0.81	0.64	3.36	4.08	1.89	1.52	0.87	0.75	0.65
27	.78	.80	.62	.82	.72	.44	.01	2.17	.45	.87	.66	.60
28	.78	.82	.63	.69	.80	.55	3.88	.30	.44	.89	.61	.64
29	.84	.79	.53	.52	.83	.66	.77	1.99	.47	.84	.65	.55
30	.94	.79	.59	.48	.92	.81	.63	.47	.48	.79		.51
31		.67		.47	.75		.46		.45	.56		.51
Mean	0.70	0.75	0.61	0.64	0.63	1.93	4.10	1.75	1.58	0.96	0.70	0.65
Max.	0.94	1.02	0.89	0.81	0.92	3.81	4.28	3.25	1.93	1.35	0.86	0.94
Min.	0.55	0.56	0.43	0.43	0.51	0.58	3.46	1.06	1.42	0.56	0.61	0.30

WATER YEAR 1967 : Max. 4.28 m. Min. 0.30 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31,1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	56	63	39	38	35	45	395	302	103	97	47	44
2	53	63	36	45	42	40	405	275	109	95	43	44
3	49	44	33	41	48	39	411	246	121	95	42	45
4	48	57	30	45	48	48	419	220	132	90	42	52
5	41	55	32	40	52	75	422	200	131	80	41	50
6	42	52	30	35	50	73	425	182	127	77	44	42
7	43	51	32	35	41	60	427	168	130	68	47	46
8	37	43	32	38	41	57	430	149	123	65	49	44
9	39	42	33	38	38	53	433	137	119	69	50	46
10	45	38	36	41	37	46	438	116	116	64	50	50
11	41	38	40	44	37	125	441	110	104	63	50	46
12	45	38	43	47	38	134	443	100	107	69	50	38
13	51	38	44	47	39	139	448	95	103	64	51	22
14	46	43	47	46	45	145	449	91	130	60	54	36
15	50	45	47	41	45	136	451	89	106	61	36	36
16	50	45	47	42	47	75	451	95	100	62	42	38
17	60	50	53	43	43	94	451	99	108	63	43	32
18	60	59	55	41	40	99	451	91	151	60	46	45
19	50	71	57	30	41	135	449	79	149	59	51	46
20	48	65	60	39	41	185	446	75	147	55	53	52
21	46	59	60	41	38	232	443	74	138	56	50	61
22	41	54	55	42	38	262	440	75	128	54	57	64
23	43	60	47	39	38	292	436	80	127	57	58	59
24	43	51	46	46	40	312	432	79	120	60	56	53
25	50	50	49	50	38	313	428	118	113	56	53	43
26	53	46	45	55	43	317	419	147	112	59	50	43
27	53	54	41	55	48	328	408	176	105	59	44	40
28	53	55	42	39	54	348	389	189	105	60	41	43
29	57	53	36	35	56	358	374	157	107	57	43	37
30	64	53	39	33	63	379	354	107	108	53		35
31		45		32	50		330		105	38		35
Total	1,457	1,580	1,286	1,283	1,321	4,939	13,138	4,121	3,684	2,042	1,373	1,367
Mean	48.6	51.0	42.9	41.4	42.6	164	424	137	119	65.9	47.3	44.1
Max.	64	71	60	55	63	379	451	302	151	97	58	64
Min.	37	38	30	30	35	39	330	74	103	38	41	22
Runoff - mcm.	125.884	136.512	111.110	110.851	114.134	426.730	1,135.125	356.054	318.298	176.429	118.627	118.109

WATER YEAR 1967 : Max. 451 Min. 30 Mean 103 Annual Runoff 3,247.862 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 16	18.00	4.29	452				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
CHAO PHYA RIVER BASIN

Khlong Wang Kra Thum at highway bridge, Lop Buri (C.24)

Location: Lat 15° – 06' – 07" N, Long 100° – 42' – 58" E, on left bank at bridge on Phahon Yothin Highway, 2.5 kilometers from Amphoe Khok Samrong, Lop Buri.

Drainage Area: 1,281 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: +20.30 m. (M.S.L.)

Bench Mark: B.M. – H.S.

Location: Near left abutment of Wang Kra Thum Bridge.
Elevation: +26.380 m. (M.S.L.)

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: 1966 to date.

Rating Operation:

Period of Rating: 1966 – 67
Rated by Float: –
Rated by Current Meter: 1966 – 67

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

Overbank Flow Conditions: No overbank flow.

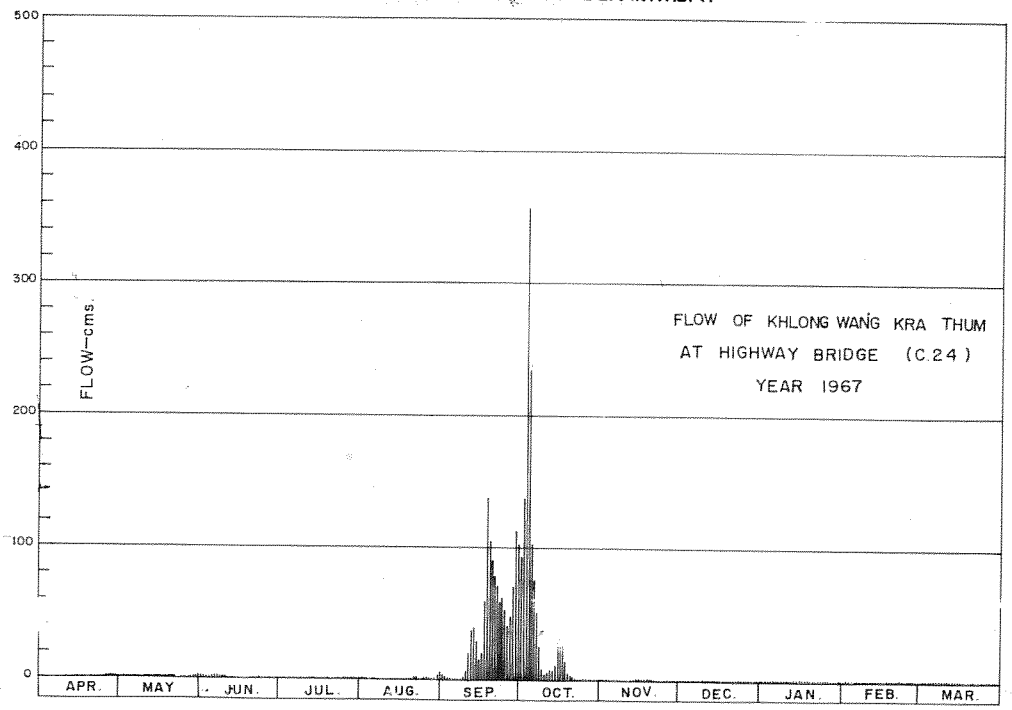
General Description: Records fair. Stage – discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions except those built by local residents. No adjustment made for virgin flow.

Remarks: No gage height record for period Jul. 1 – 19, discharge record for period of no flow are omitted.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	20.46	21.04	22.04		21.38	22.26	24.56	20.86	21.10	21.45	21.44	21.14
2	.46	.18	21.64		.30	21.96	.51	.77	.01	.43	.44	.14
3	.46	20.95	.32		.28	.79	.92	.68	20.97	.44	.44	.14
4	.46	.98	.22		.25	.60	.73	.64	21.07	.45	.42	.13
5	.46	.93	.37		.26	.44	.56	.55	.14	.46	.43	.14
6	20.46	20.88	21.88		21.09	21.38	24.41	20.47	21.24	21.46	21.42	21.13
7	.46	.96	.95		.01	.37	.09	.38	.31	.47	.41	.11
8	.46	.90	.70		20.91	.46	23.15	.92	.35	.46	.36	.12
9	.46	.89	.47		.87	.89	22.69	.91	.35	.43	.32	.10
10	.46	.86	.22		.85	22.54	.38	.86	.40	.42	.30	.10
11	20.46	20.88	21.10		20.87	23.38	22.59	20.84	21.37	21.42	21.27	21.08
12	.46	.86	20.98		.84	24.00	.72	.95	.38	.41	.22	.06
13	.46	.87	.89		.82	.06	.79	21.24	.40	.44	.17	.05
14	.45	21.09	.83		.94	23.83	.59	.61	.44	.44	.16	.03
15	.45	20.93	.80		21.01	.21	23.90	.78	.45	.44	.14	.02
16	20.45	21.00	20.78		21.02	23.45	24.07	21.73	21.42	21.43	21.13	21.01
17	.45	20.94	.67		20.92	24.21	23.80	.70	.40	.43	.12	.00
18	.45	.98	.59		.89	.69	22.91	.59	.43	.43	.10	.01
19	.45	.96	.67		.72	.60	.54	.50	.43	.43	.07	.00
20	.48	.94	.63	20.48	.65	.52	.27	.43	.42	.43	.06	.01
21	20.50	20.88	20.58	20.76	20.60	24.48	21.98	21.38	21.45	21.42	21.04	21.00
22	.52	.83	.56	.97	.56	.40	.68	.30	.47	.44	.03	20.99
23	.59	.87	.51	.93	.53	.32	.42	.21	.47	.43	.02	.99
24	.60	.86	.42	.97	.97	.37	.26	.18	.48	.43	.01	.95
25	.62	.97	.39	.95	21.78	.24	.21	.18	.48	.43	.01	.91
26	21.32	21.50	20.38	21.02	21.77	24.03	21.18	21.36	21.50	21.42	21.01	20.90
27	.41	.74	.36	.12	.72	.29	.13	.45	.50	.43	.02	.89
28	.42	.54	.36	.13	.71	.43	.22	.45	.50	.42	.06	.89
29	.47	.36	.36	.13	.66	.63	.22	.31	.51	.43	.13	.87
30	.06	.82	.34	.48	22.41	.61	.10	.25	.48	.43		.86
31		.85		.47	.62		20.99		.46			.85
Mean	20.62	21.07	20.93		21.17	23.38	22.73	21.15	21.37	21.43	21.20	21.02
Max.	21.47	21.85	22.04		22.62	24.69	24.92	21.78	21.51	21.47	21.44	21.14
Min.	20.45	20.83	20.34		20.53	21.37	20.99	20.38	20.97	21.41	21.01	20.85

WATER YEAR 1967 : Max. 24.92 m. Min. 20.34 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1		0.44	2.76		1.06	3.76	94	0.26	0.50	1.20	1.18	0.58
2		0.66	1.58		0.90	2.44	84	0.17	0.41	1.16	1.18	0.58
3		0.35	0.94		0.86	1.88	357	0.080	0.37	1.18	1.18	0.58
4		0.38	0.74		0.80	1.50	167	0.040	0.47	1.20	1.14	0.56
5		0.33	1.04		0.82	1.18	94	0.00	0.58	1.22	1.16	0.58
6		0.28	2.14		0.49	1.06	68	0.00	0.78	1.22	1.14	0.56
7		0.36	2.40		0.41	1.04	42	0.00	0.92	1.24	1.12	0.52
8		0.30	1.70		0.31	1.22	13	0.32	1.00	1.22	1.02	0.54
9		0.29	1.24		0.27	2.17	6.81	0.31	1.02	1.16	0.94	0.50
10		0.26	0.74		0.25	5.52	4.48	0.26	1.10	1.14	0.90	0.50
11		0.28	0.50		0.27	17	5.92	0.24	1.04	1.14	0.84	0.48
12		0.24	0.38		0.24	37	7.12	0.35	1.06	1.12	0.74	0.46
13		0.27	0.29		0.22	40	7.89	0.78	1.10	1.18	0.64	0.45
14		0.49	0.23		0.34	30	5.92	1.52	1.18	1.18	0.62	0.43
15		0.33	0.20		0.41	14	33	1.86	1.20	1.18	0.58	0.42
16		0.40	0.18		0.42	19	41	1.76	1.14	1.16	0.56	0.41
17		0.34	0.070		0.32	49	29	1.70	1.10	1.16	0.54	0.40
18		0.38	0.00		0.29	138	9.34	1.48	1.16	1.16	0.50	0.41
19		0.36	0.070		0.12	103	5.52	1.30	1.16	1.16	0.47	0.40
20		0.34	0.030	0.00	0.050	86	3.82	1.16	1.14	1.16	0.46	0.41
21		0.28		0.16	0.00	79	2.52	1.06	1.20	1.14	0.44	0.40
22		0.23		0.37	0.00	67	1.66	0.90	1.24	1.18	0.43	0.39
23		0.27		0.33	0.00	58	1.14	0.72	1.24	1.16	0.42	0.39
24		0.26		0.37	0.37	63	0.82	0.66	1.26	1.16	0.41	0.35
25	0.02	0.37		0.35	1.86	51	0.72	0.66	1.26	1.16	0.41	0.31
26	0.94	1.30		0.42	1.84	39	0.66	1.02	1.30	1.14	0.41	0.30
27	1.12	1.78		0.54	1.74	55	0.56	1.20	1.30	1.16	0.42	0.29
28	1.14	1.38		0.56	1.72	71	0.74	1.20	1.30	1.14	0.46	0.29
29	1.24	1.02		0.56	1.62	114	0.74	0.92	1.32	1.16	0.56	0.27
30	0.46	1.96		1.26	4.66	106	0.50	0.80	1.26	1.16		0.26
31		2.05		1.24	6.18		0.39		1.22	1.16		0.25
Total	4.92	18.00	17.23	6.16	28.84	1,257.77	1,089.27	22.73	32.33	36.26	20.87	13.27
Mean	0.16	0.58	0.57	0.19	0.93	41.9	35.1	0.76	1.04	1.17	0.72	0.43
Max.	1.24	2.05	2.76	1.26	6.18	138	357	1.86	1.32	1.24	1.18	0.58
Min.	0.00	0.23	0.00	0.00	0.00	1.04	0.39	0.00	0.37	1.12	0.41	0.25
Runoff - mcm.	0.425	1.555	1.489	0.532	2.492	108.671	94.113	1.964	2.793	3.133	1.803	1.146

WATER YEAR 1967 : Max. 357 Min. 0.00 Mean 6.96 Annual Runoff 220.117 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 3	10.00	24.96	406				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
CHAO PHYA RIVER BASIN

Huai Yai at Khok Samrong, Lop Buri (C.25)

Location: Lat 15°- 15' - 12" N, Long 100°- 51' - 45" E, on right bank about 2.5 kilometers N.E. of Amphoe Khok Samrong at Ban Maha Phot, Khao Tayom, Lop Buri.

Drainage Area: 68 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: 0.00 m. (A.D.)

Bench Mark: B.M. - H.S.

Location: Near camp of station C.25
Elevation: +5.20 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: 1966 - 72

Rating Operation:

Period of Rating: 1966 - 72
Rated by Float: -
Rated by Current Meter: 1966 - 72

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

Overbank Flow Conditions: No overbank flow.

General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversion except those built by local residents. No adjustment made for virgin flow.

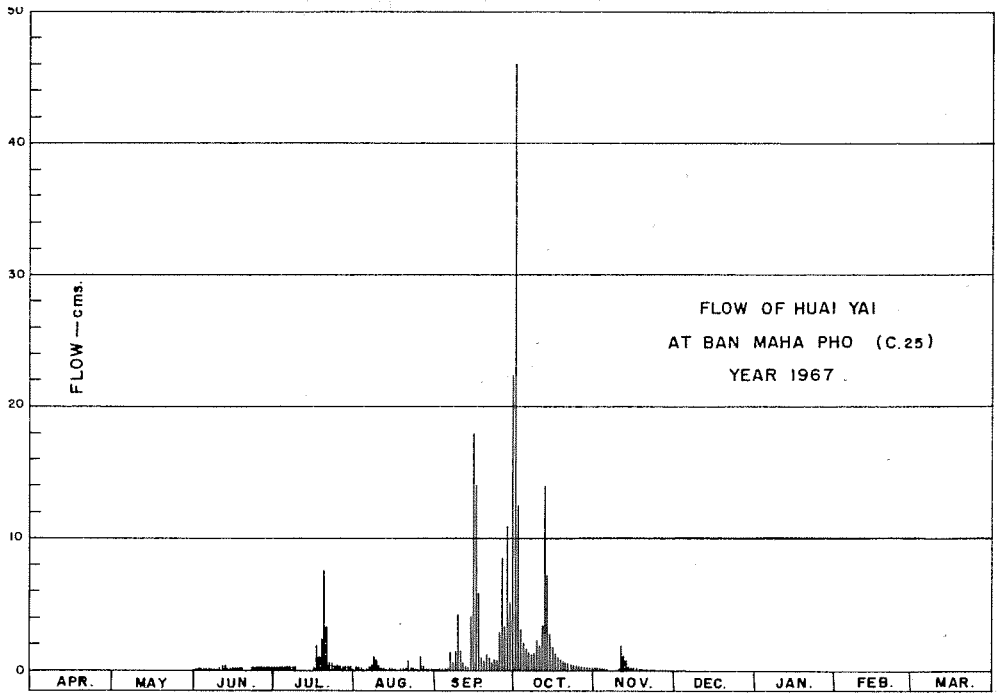
Remarks: Records for periods of no flow are omitted.

GAGE HEIGHT IN METER (A.D.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1			0.54	0.31	0.56	0.53	1.94	0.60	0.46			
2			.55	.28	.61	.52	2.53	.59	.45			
3			.58	.27	.56	.52	1.23	.59	.44			
4			.55	.25	.56	.51	.03	.58	.43			
5			.55	.24	.54	.50	0.94	.56	.42			
6			0.56	0.23	0.53	0.51	0.89	0.55	0.41			
7			.56	.22	.65	.85	.85	.53	.39			
8			.55	.20	.62	.65	.82	.52	.38			
9			.54	.19	.81	.81	.80	.51	.35			
10			.58	.17	.76	1.15	.96	.50	.32			
11			0.60	0.16	0.61	0.79	0.92	0.91	0.28			
12			.61	.14	.58	.67	.83	.78	.25			
13			.69	.13	.57	.62	1.76	.76	.22			
14			.56	.11	.56	.59	.15	.63	.19			
15			.55	.10	.54	.95	0.97	.60	.16			
16			0.53	0.09	0.53	1.96	0.89	0.59	0.13			
17			.53	.09	.53	.70	.83	.59	.11			
18			.51	.91	.52	0.89	.80	.59	.09			
19			.50	.75	.51	.75	.77	.58	.07			
20			.49	.94	.50	.72	.74	.57	.06			
21			0.48	1.40	0.51	0.83	0.72	0.56	0.05			
22			.48	0.71	.74	.80	.70	.55	.05			
23			.46	.71	.58	.68	.69	.53	.04			
24			.44	.71	.56	.76	.67	.52	.03			
25			.43	.64	.54	.73	.66	.51	.03			
26			0.40	0.69	0.52	1.04	0.65	0.50	0.02			
27			.38	.66	.81	.47	.63	.49	.01			
28			.37	.61	.62	0.89	.62	.49				
29			.35	.64	.57	1.60	.61	.48				
30			.33	.60	.55	0.99	.61	.47				
31				.67	.54		.60					
Mean			0.51	0.44	0.59	0.87	0.93	0.57				
Max.			0.69	1.40	0.81	1.96	2.53	0.91	0.46			
Min.			0.33	0.09	0.50	0.50	0.60	0.47				

WATER YEAR 1967 : Max. 2.53 m. Min. 0.09 m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1			0.13		0.17	0.11	18	0.25	0.030			
2			0.15		0.28	0.090	46	0.23	0.025			
3			0.21		0.17	0.090	5.19	0.23	0.020			
4			0.15		0.17	0.070	2.98	0.21	0.015			
5			0.15		0.13	0.050	2.19	0.17	0.010			
6			0.17		0.11	0.070	1.77	0.15	0.005			
7			0.17		0.40	1.47	1.47	0.11				
8			0.15		0.31	0.40	1.25	0.090				
9			0.13		1.17	1.17	1.10	0.070				
10			0.21		0.88	4.22	2.36	0.050				
11			0.25		0.28	1.04	2.02	1.93				
12			0.28		0.21	0.46	1.32	0.99				
13			0.52		0.19	0.31	14	0.88				
14			0.17		0.17	0.23	4.22	0.34				
15			0.15		0.13	2.27	2.44	0.25				
16			0.11		0.11	18	1.77	0.23				
17			0.090		0.11	13	1.32	0.23				
18			0.070	1.93	0.090	1.77	1.10	0.23				
19			0.050	0.82	0.070	0.82	0.93	0.21				
20			0.045	2.19	0.050	0.66	0.77	0.19				
21			0.040	7.50	0.070	1.32	0.66	0.17				
22			0.040	0.60	0.27	1.10	0.55	0.15				
23			0.030	0.60	0.21	0.49	0.52	0.11				
24			0.020	0.60	0.17	0.88	0.46	0.090				
25			0.015	0.37	0.13	0.71	0.43	0.070				
26				0.52	0.090	3.08	0.40	0.050				
27				0.43	1.17	8.62	0.34	0.045				
28				0.28	0.31	1.77	0.31	0.045				
29				0.37	0.19	11	0.28	0.040				
30				0.25	0.15	2.61	0.28	0.035				
31				0.19	0.13		0.25					
Total			3.50	16.65	8.59	77.88	116.68	7.845	0.105			
Mean			0.12	0.54	0.28	2.60	3.76	0.26	0.004			
Max.			0.52	7.50	1.17	18	46	1.93	0.030			
Min.			0.00	0.00	0.050	0.050	0.25	0.035	0.00			
Runoff - mcm.			0.302	1.439	0.742	6.729	10.081	0.678	0.009			

WATER YEAR 1967 : Max. 46 Min. 0.00 Mean 0.63 Annual Runoff 19.980 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 2	9.00	4.60	137				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
SAKAE KRANG RIVER BASIN

Huai Thap Salao at Ban Pradahak, Uthai Thani (Ct.3)

Location: Lat 15° - 24' - 19" N, Long 99° - 42' - 40" E, on right bank about 4 kilometers downstream from local residents weir and about 5 kilometers upstream from confluence with Huai Thap Than, at Ban Prada Hak, Amphoe Nong Chang, Uthai Thani.

Drainage Area: 791 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: 0.00 m. (A.D.)

Bench Mark: B.M. - H.S.

Location: On right bank near gage site.
Elevation: +4.671 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: 1967 to date

Rating Operation:

Period of Rating: 1967 to date
Rated by Float: -
Rated by Current Meter: 1967 to date

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

Overbank Flow Condition: No overbank flow.

General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions for irrigation except those built by local residents. No adjustment made for virgin flow.

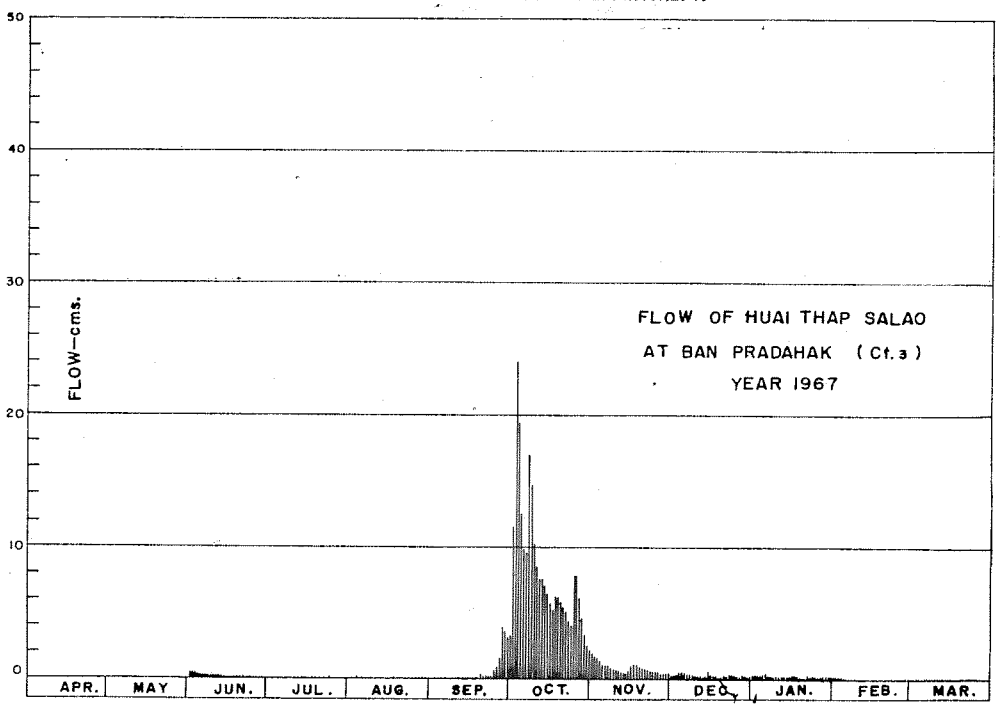
Remarks: Stage record began on Jul. 1, 1967.

GAGE HEIGHT IN METER (A.D.), WATER YEAR APRIL 1, 1967 TO MARCH 31,1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1				0.10	0.01	0.01	0.65	0.47	0.21	0.20	0.16	0.11
2				.10	.01	.00	.96	.45	.21	.20	.15	.11
3				.10	.01	.00	1.58	.42	.24	.19	.15	.11
4				.10	.01	.00	.41	.41	.25	.20	.14	.11
5				.07	.01	.00	.11	.37	.27	.21	.14	.11
6				0.04	0.01	0.00	0.93	0.35	0.24	0.22	0.14	0.11
7				.06	.01	.00	.91	.34	.24	.16	.14	.11
8				.03	.01	.00	1.31	.32	.22	.19	.13	.11
9				.03	.01	.01	1.18	.31	.20	.20	.14	.11
10				.03	.01	.03	0.98	.29	.20	.19	.13	.11
11				0.03	0.01	0.04	0.88	0.28	0.19	0.18	0.13	0.11
12				.02	.01	.05	.85	.27	.19	.17	.13	.11
13				.04	.00	.04	.87	.26	.13	.17	.13	.11
14				.02	.00	.04	.82	.27	.18	.17	.12	.11
15				.03	.00	.04	.79	.28	.23	.18	.12	.11
16				0.03	0.00	0.04	0.75	0.34	0.20	0.20	0.12	0.11
17				.02	.00	.06	.71	.37	.19	.19	.12	.11
18				.13	.00	.03	.79	.35	.19	.19	.12	.11
19				.12	.00	.18	.78	.33	.17	.19	.12	.15
20				.07	.00	.25	.75	.32	.17	.18	.12	.16
21				0.07	0.00	0.21	0.73	0.29	0.21	0.18	0.12	0.15
22				.09	.01	.20	.70	.33	.18	.19	.12	.14
23				.09	.02	.18	.63	.28	.20	.18	.11	.13
24				.04	.01	.18	.61	.27	.21	.19	.12	.14
25				.02	.01	.39	.88	.25	.21	.18	.12	.13
26				0.02	0.01	0.42	0.88	0.24	0.17	0.18	0.12	0.12
27				.02	.02	.53	.74	.22	.16	.16	.13	.12
28				.01	.02	.77	.64	.23	.19	.16	.12	.12
29				.01	.03	.74	.57	.23	.18	.16	.13	.12
30				.01	.02	.69	.53	.23	.21	.16		.12
31				.01	0.03		.49		.19	.17		.12
Mean				0.05	0.01	0.17	0.85	0.31	0.20	0.18	0.13	0.12
Max.				0.13	0.03	0.77	1.58	0.47	0.27	0.22	0.16	0.16
Min.				0.01	0.00	0.00	0.49	0.22	0.16	0.16	0.11	0.11

WATER YEAR 1967 : Max. 1.58 m. Min. 0.01 m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1				0.050	0.005	0.005	2.61	1.98	0.323	0.280	0.188	0.073
2				0.050	0.005	0.000	7.69	1.80	0.323	0.280	0.188	0.073
3				0.050	0.005	0.000	24	1.52	0.452	0.257	0.165	0.073
4				0.050	0.005	0.000	20	1.43	0.495	0.280	0.142	0.073
5				0.035	0.005	0.000	12	1.15	0.581	0.323	0.142	0.073
6				0.020	0.005	0.000	8.83	1.02	0.492	0.366	0.142	0.073
7				0.030	0.005	0.000	8.37	0.962	0.452	0.188	0.142	0.073
8				0.015	0.005	0.005	17	0.836	0.366	0.257	0.119	0.073
9				0.015	0.005	0.005	14	0.773	0.280	0.280	0.142	0.073
10				0.015	0.005	0.015	9,80	0.667	0.280	0.257	0.119	0.073
11				0.015	0.005	0.020	7.85	0.624	0.257	0.234	0.119	0.073
12				0.010	0.005	0.025	7.32	0.581	0.257	0.211	0.119	0.073
13				0.020	0.000	0.020	7.68	0.538	0.234	0.211	0.119	0.073
14				0.010	0.000	0.020	6.80	0.581	0.234	0.211	0.096	0.073
15				0.015	0.000	0.020	6.29	0.624	0.409	0.234	0.096	0.073
16				0.015	0.000	0.020	5.67	0.962	0.280	0.280	0.096	0.073
17				0.010	0.000	0.030	5.05	1.15	0.257	0.257	0.096	0.073
18				0.119	0.000	0.340	6.29	1.02	0.257	0.257	0.096	0.073
19				0.096	0.000	0.146	6.14	0.899	0.211	0.257	0.096	0.165
20				0.035	0.000	0.290	5.67	0.836	0.211	0.234	0.096	0.188
21				0.035	0.000	0.194	5.36	0.667	0.323	0.234	0.096	0.165
22				0.045	0.005	0.170	4.90	0.899	0.234	0.257	0.096	0.142
23				0.045	0.010	0.146	3.92	0.624	0.280	0.234	0.073	0.119
24				0.020	0.005	0.146	3.64	0.581	0.323	0.257	0.096	0.142
25				0.010	0.005	0.704	7.89	0.495	0.323	0.234	0.096	0.119
26				0.010	0.005	0.940	7.89	0.452	0.211	0.234	0.096	0.096
27				0.010	0.010	1.60	5.52	0.366	0.188	0.188	0.119	0.096
28				0.005	0.010	3.94	4.06	0.409	0.257	0.188	0.096	0.096
29				0.005	0.015	3.58	3.13	0.409	0.234	0.188	0.119	0.096
30				0.005	0.010	3.00	2.63	0.409	0.323	0.188	–	0.096
31				0.005	0.015	–	2.17	–	0.257	0.211	–	0.096
Total				0.870	0.150	15.081	240.170	25.264	9.604	7.557	3.405	2.930
Mean				0.028	0.005	0.502	7.75	0.842	0.310	0.244	0.117	0.094
Max.				0.119	0.015	3.94	24	1.98	0.581	0.366	0.188	0.188
Min.				0.005	0.00	0.00	2.17	0.366	0.188	0.188	0.073	0.073
Runoff – mcm.				0.075	0.013	1.303	20.751	2.183	0.830	0.654	0.294	0.253

WATER YEAR 1967 : Max. 24 Min. 0.00 Mean 1.02 Annual Runoff mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 3	15.00	1.82	31				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
THA CHIN RIVER BASIN

Huai Kra Sieo at Ban Wang Yao, Suphan Buri (T.3)

Location: Lat 14°- 51' - 44" N, Long 99°- 39' - 10" E, on right bank about 3 kilometers upstream from confluence with Huai Yang and about 2 kilometers upstream from Ban Wang Yao, Amphoe Doembang Nangbuat, Suphan Buri.

Drainage Area: 1,065 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: +70.778 m. (M.S.L.)

Bench Mark: B.M. - H.S.

Location: On right bank infront of camp of station T.3
Elevation: +76.906 m. (M.S.L.)

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: 1963 - 70

Rating Operation:

Period of Rating: 1963 - 68
Rated by Float: -
Rated by Current Meter: 1963 - 68

Stability of Channel Regimes: Unstable, shifting adjustment is included for flow computation.

Overbank Flow Conditions: No overbank flow.

General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions except those built by local residents. No adjustment made for virgin flow.

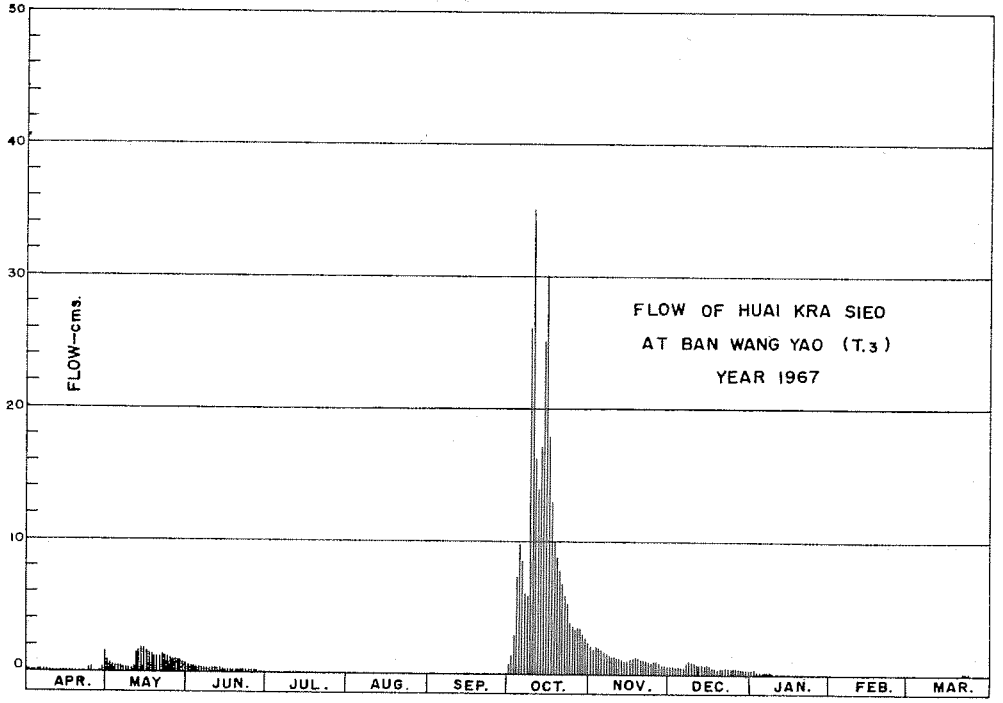
Remarks: Discharge record for periods of no flow are omitted.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	71.32	71.53	71.47	71.35	71.25	71.24	71.56	71.73	71.50	71.39	71.25	71.25
2	.30	.50	.46	.34	.26	.24	.62	.70	.50	.39	.24	.25
3	.32	.48	.45	.35	.26	.25	.77	.68	.49	.39	.24	.24
4	.31	.47	.44	.34	.26	.29	72.07	.66	.49	.39	.24	.24
5	.31	.46	.43	.33	.26	.27	.18	.65	.49	.39	.23	.23
6	71.30	71.45	71.42	71.32	71.25	71.25	72.11	71.63	71.48	71.39	71.23	71.23
7	.29	.44	.42	.31	.25	.24	.00	.61	.48	.39	.22	.22
8	.28	.43	.41	.31	.26	.24	71.98	.60	.47	.39	.22	.22
9	.28	.41	.40	.31	.26	.23	72.66	.59	.47	.38	.21	.21
10	.27	.41	.41	.29	.26	.23	.83	.59	.47	.38	.20	.20
11	71.26	71.42	71.42	71.29	71.29	71.23	72.38	71.58	71.46	71.38	71.19	71.19
12	.26	.62	.41	.29	.30	.23	.27	.57	.45	.38	.19	.18
13	.25	.64	.40	.30	.29	.26	.41	.56	.45	.38	.18	.17
14	.25	.63	.40	.31	.29	.28	.62	.54	.44	.37	.18	.16
15	.26	.62	.39	.32	.28	.28	.74	.55	.44	.37	.19	.15
16	71.28	71.60	71.38	71.30	71.27	71.29	72.44	71.56	71.44	71.37	71.21	71.14
17	.27	.58	.37	.30	.28	.30	.27	.58	.44	.37	.20	.13
18	.27	.57	.37	.30	.28	.28	.17	.59	.44	.36	.19	.13
19	.27	.55	.37	.30	.28	.28	.10	.58	.43	.36	.18	.17
20	.27	.55	.37	.29	.28	.30	.05	.57	.43	.35	.17	.24
21	71.27	71.55	71.36	71.29	71.26	71.32	72.01	71.56	71.42	71.34	71.17	71.23
22	.27	.57	.38	.31	.25	.31	71.96	.55	.42	.34	.17	.23
23	.27	.56	.39	.31	.24	.29	.92	.54	.42	.33	.17	.22
24	.38	.54	.39	.30	.24	.31	.88	.55	.41	.32	.17	.22
25	.39	.53	.38	.29	.23	.31	.85	.55	.41	.31	.21	.22
26	71.32	71.52	71.38	71.28	71.25	71.31	71.84	71.55	71.41	71.30	71.29	71.21
27	.30	.53	.38	.27	.27	.29	.86	.53	.40	.29	.30	.20
28	.30	.51	.36	.26	.26	.27	.84	.51	.39	.28	.29	.19
29	.44	.51	.36	.26	.25	.28	.81	.51	.39	.27	.27	.18
30	.62	.49	.36	.26	.24	.26	.78	.50	.39	.26		.17
31		.48		.26	.24		.76		.39	.25		.16
Mean	71.31	71.52	71.40	71.30	71.26	71.27	72.09	71.58	71.44	71.35	71.21	71.20
Max.	71.62	71.64	71.47	71.35	71.30	71.32	72.83	71.73	71.50	71.39	71.30	71.25
Min.	71.25	71.41	71.36	71.26	71.23	71.23	71.56	71.50	71.39	71.25	71.17	71.16

WATER YEAR 1967 : Max. 72.83 m. Min. 71.16 m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.13	0.84	0.58	0.052	0.000	0.000	0.84	2.08	0.58	0.31	0.000	0.008
2	0.10	0.62	0.49	0.036	0.004	0.000	1.27	1.80	0.58	0.31		.008
3	0.13	0.53	0.44	0.052	0.004	0.000	2.75	2.08	0.53	0.10		.004
4	0.12	0.49	0.40	0.036	0.004	0.016	7.25	1.90	0.53	0.10		.004
5	0.12	0.44	0.36	0.020	0.004	0.008	9.60	1.80	0.53	0.10		.000
6	0.10	0.40	0.31	0.016	0.000	0.000	8.04	1.62	0.49	0.10		
7	0.084	0.36	0.31	0.012	0.000	0.000	5.98	1.43	0.91	0.10		
8	0.068	0.31	0.27	0.012	0.004	0.000	5.65	1.34	0.84	0.10		
9	0.068	0.22	0.27	0.012	0.004	0.000	26	1.27	0.84	0.084		
10	0.052	0.22	0.27	0.004	0.004	0.000	35	1.27	0.84	0.084		
11	0.036	0.27	0.31	0.004	0.016	0.000	16	1.20	0.76	0.084		
12	0.036	1.53	0.27	0.004	0.020	0.000	13	1.12	0.69	0.084		
13	0.020	1.71	0.22	0.008	0.016	0.004	17	1.05	0.69	0.084		
14	0.020	1.80	0.22	0.012	0.016	0.012	25	0.91	0.62	0.068		
15	0.036	1.71	0.15	0.052	0.012	0.012	30	0.98	0.62	0.068		
16	0.068	1.53	0.13	0.020	0.008	0.016	18	1.05	0.62	0.068		
17	0.052	1.34	0.12	0.020	0.012	0.020	13	1.20	0.40	0.068		
18	0.052	1.27	0.12	0.020	0.012	0.012	10	1.27	0.40	0.052		
19	0.052	1.12	0.12	0.020	0.012	0.012	8.67	1.20	0.36	0.052		0.000
20	0.052	1.12	0.12	0.016	0.012	0.020	7.65	1.12	0.36	0.036		.004
21	0.052	1.12	0.10	0.016	0.004	0.052	6.86	1.05	0.44	0.020		0.000
22	0.052	1.27	0.13	0.036	0.000	0.036	5.98	0.98	0.44	0.020		
23	0.052	1.20	0.15	0.036	0.000	0.016	5.33	0.84	0.44	0.016		
24	0.31	1.05	0.15	0.020	0.000	0.036	3.88	0.91	0.40	0.012		
25	0.36	0.98	0.13	0.016	0.000	0.036	3.46	0.91	0.40	0.008	0.000	
26	0.052	0.91	0.13	0.012	0.000	0.036	3.34	0.91	0.40	0.004	0.012	
27	0.020	0.98	0.13	0.008	0.008	0.016	3.59	0.76	0.36	0.000	.016	
28	0.020	0.84	0.068	0.004	0.004	0.008	3.34	0.62	0.31		.012	
29	0.36	0.84	0.068	0.004	0.000	0.012	2.98	0.62	0.31		.004	
30	1.53	0.69	0.068	0.004	0.000	0.004	2.63	0.58	0.31			
31		0.62		0.004	0.000		2.39		0.31	0.000		0.000
Total	4.204	28.33	6.554	0.588	0.180	0.384	304.48	35.87	16.31	2.132	0.044	0.028
Mean	0.14	0.91	0.22	0.018	0.005	0.012	9.82	1.19	0.53	0.068	0.002	0.000
Max.	1.53	1.80	0.58	0.052	0.020	0.052	35	2.08	0.91	0.31	0.016	0.008
Min.	0.020	0.22	0.068	0.004	0.000	0.000	0.84	0.58	0.31	0.000	0.000	0.000
Runoff - MCM.	0.363	2.448	0.566	0.051	0.016	0.033	26.307	3.099	1.409	0.184	0.004	0.002

WATER YEAR 1967 : Max. 35 Min. 0.000 Mean 1.09 Annual Runoff 34.482 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 10	01.00	73.40	46				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
PASAK RIVER BASIN

Pasak River at Kaeng Khoi, Saraburi (S.2)

Location: Lat 14°- 35' - 32" N, Long 101°- 00' - 23" E, about 100 meters downstream from Kaeng Khoi Water Supply, Amphoe Kaeng Khoi, Saraburi.

Drainage Area: 14,522 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: +5.84 m. (M.S.L.)

Bench Mark: B.M. - H.S.

Location: On left bank near gage site.
Elevation: +20.130 m. (M.S.L.)

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: 1914 to date.

Rating Operation:

Period of Rating: 1945, 1947 - 48, 1959 - 61, 1965 to date
Rated by Float: 1945, 1947 - 48
Rated by Current Meter: 1959 - 61, 1965 to date

Stability of Channel Regimes: Unstable, shifting adjustment is included for flow computation.

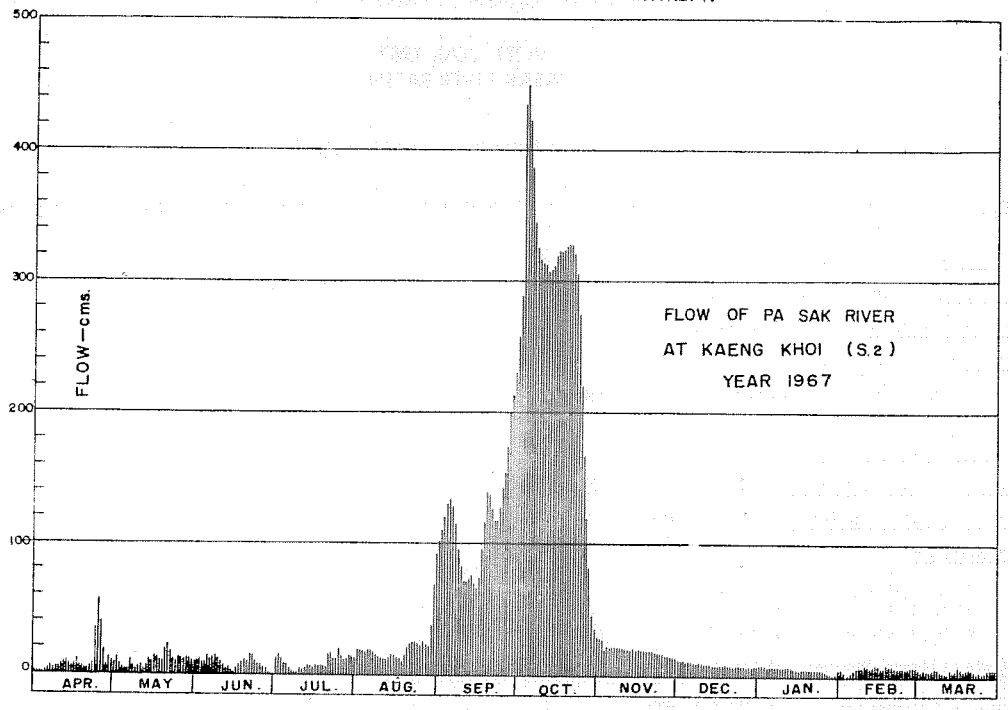
Overbank Flow Conditions: No overbank flow.

General Description: Records fair except those for period of low flow effected by back water from Rama VI Barrage which are poor. Stage - discharge relationship used is defined by discharge measurements made during 1967. Flow is diverted for irrigation of about 3,000 hectares above gage site at Lom Sak Weir. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	7.30	7.18	7.25	7.49	7.68	8.68	10.45	7.66	7.65	7.55	7.53	7.49
2	.28	.31	.26	.54	.64	.79	.82	.64	.63	.60	.46	.44
3	.23	.15	.17	.45	.62	.91	12.00	.65	.66	.53	.40	.48
4	.21	.04	.21	.34	.60	9.01	.14	.73	.63	.52	.35	.44
5	.31	.01	.37	.33	.65	.05	11.83	.70	.65	.53	.46	.47
6	7.37	7.00	7.56	7.22	7.57	8.98	11.39	7.69	7.64	7.55	7.50	7.50
7	.47	.25	.60	.17	.53	.80	.15	.69	.63	.52	.47	.52
8	.35	.45	.64	.10	.48	.59	.08	.69	.61	.51	.49	.54
9	.19	.40	.55	.14	.42	.35	.04	.70	.65	.51	.47	.44
10	.16	.45	.48	.25	.43	.26	.02	.68	.61	.52	.51	.44
11	7.21	7.54	7.43	7.21	7.39	8.26	11.00	7.68	7.63	7.52	7.45	7.39
12	.25	.38	.28	.25	.37	.30	10.95	.69	.61	.51	.45	.32
13	.35	.52	.37	.34	.40	.34	.98	.70	.64	.50	.51	.49
14	.22	.66	.24	.27	.48	.23	11.00	.73	.55	.48	.53	.42
15	.18	.60	.17	.25	.46	.18	.07	.70	.56	.54	.51	.46
16	7.27	7.45	7.30	7.29	7.42	8.32	11.10	7.68	7.55	7.49	7.43	7.55
17	.38	.39	.38	.32	.40	.55	.09	.71	.54	.52	.48	.53
18	.39	.31	.43	.32	.34	.89	.11	.68		.53	.52	.46
19	.37	.39	.49	.31	.42	9.11	.14	.68	.60	.51	.43	.51
20	.29	.62	.45	.25	.62	.10	.15	.66	.56	.54	.47	.53
21	7.31	7.66	7.58	7.58	7.68	8.95	11.14	7.68	7.53	7.51	7.50	7.48
22	.40	.47	.55	.59	.71	.86	.07	.64	.52	.52	.41	.41
23	.48	.29	.44	.47	.70	.90	10.92	.67	.53	.55	.44	.37
24	8.17	.34	.39	.45	.69	9.03	.60	.66	.54	.50	.50	.42
25	.46	.41	.35	.66	.62	.14	9.95	.67	.53	.53	.43	.39
26	7.94	7.40	7.27	7.58	7.73	9.35	9.28	7.66	7.55	7.45	7.42	7.45
27	.57	.38	.26	.48	.65	.64	8.68	.66	.56	.40	.46	.48
28	.34	.29	.46	.47	.58	.83	.20	.67	.53	.20	.53	.47
29	.31	.26	.41	.54	.82	.96	7.92	.65	.55	.11	.46	.50
30	.21	.23	.53	.50	8.24	10.14	.77	.67	.53	.45		.52
31		.21		.51	.51		.68		.54	.54		.49
Mean	7.40	7.36	7.39	7.38	7.61	8.88	10.54	7.68	7.58	7.49	7.47	7.46
Max.	8.46	7.66	7.58	7.66	8.51	10.14	12.14	7.73	7.65	7.60	7.53	7.55
Min.	7.21	7.00	7.17	7.10	7.34	8.18	7.68	7.65	7.52	7.11	7.35	7.32

WATER YEAR 1967 : Max. 12.14 m. Min. 7.00 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	1.80	8.60	10	13	20	103	264	28	13	7.40	5.00	4.70
2	1.40	13	11	15	19	112	302	27	11	8.90	2.90	3.20
3	0.40	7.70	8.00	11	18	122	432	19	12	6.80	1.40	4.40
4	0.00	4.40	9.20	7.70	17	131	449	23	10	6.50	0.40	3.20
5	2.00	3.50	15	7.40	19	134	412	21	11	6.80	2.90	4.10
6	3.80	3.20	11	4.10	19	128	362	21	10	7.40	4.10	5.00
7	6.80	11	13	2.60	17	113	336	21	9.80	6.50	6.80	5.60
8	3.20	4.70	14	1.00	15	96	321	21	9.20	6.20	7.40	6.20
9	5.60	3.20	11	1.80	13	77	316	21	10	6.20	6.80	3.20
10	4.70	4.70	8.60	5.00	13	71	314	20	9.20	6.50	8.00	3.20
11	6.20	7.40	7.10	3.80	12	71	312	20	9.80	6.50	6.20	1.80
12	7.40	2.60	2.60	5.00	11	73	307	19	9.20	6.20	6.20	0.40
13	10	6.80	5.30	7.70	12	76	310	19	10	5.90	8.00	4.70
14	6.50	11	1.60	7.10	15	69	312	21	7.40	5.30	8.60	2.60
15	5.30	9.20	1.80	5.00	15	65	319	19	7.70	5.30	8.00	3.80
16	8.00	14	5.60	6.20	13	75	323	19	7.40	3.80	5.60	6.50
17	11	11	8.00	7.10	12	93	322	20	7.10	4.70	7.10	5.90
18	5.90	8.90	9.50	7.10	10	120	324	19	7.40	5.00	8.30	3.80
19	5.30	11	11	6.80	13	139	327	19	8.90	4.40	5.60	5.30
20	2.90	21	10	5.00	21	138	328	18	7.70	5.30	6.80	5.90
21	3.50	23	15	16	24	125	327	19	6.80	4.40	7.70	4.40
22	6.20	15	14	17	25	118	319	17	6.50	4.70	5.00	2.30
23	8.60	8.30	9.80	12	25	119	304	17	6.80	5.60	5.90	1.40
24	40	9.30	8.30	11	24	130	271	17	7.10	4.10	7.70	2.60
25	57	12	7.10	19	21	139	206	16	6.80	5.00	5.60	1.80
26	27	12	4.70	16	26	158	145	15	7.40	2.60	5.30	3.50
27	11	11	4.40	12	23	185	95	15	7.70	1.40	6.50	4.40
28	4.40	12	0.00	12	19	203	59	15	6.80	0.00	8.60	4.10
29	13	11	0.00	15	31	215	43	13	7.40	0.00	6.50	5.00
30	9.50	9.30	0.00	13	69	233	34	14	6.80	2.60	–	5.60
31	–	9.20	–	13	90	–	29	–	7.10	5.30	–	4.70
Total	278.40	300.00	236.60	285.40	681	3,631	8,524	573	265	157.30	174.90	123.30
Mean	9.28	9.68	7.89	9.21	22.0	121	275	19.1	8.55	5.07	6.03	3.98
Max.	57	23	15	19	90	233	449	28	13	8.90	8.60	6.50
Min.	0.00	2.60	0.00	1.00	10	65	29	13	6.50	0.00	0.40	0.40
Runoff – MCM.	24.054	25.920	20.442	24.658	58.838	313.718	736.474	49.507	22.896	13.591	15.111	10.653

WATER YEAR 1967 : Max. 449 Min. 0.00 Mean 41.6 Annual Runoff 1,315.863mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 3	18.00	12.44	484				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
PASAK RIVER BASIN

Pasak River at Amphoe Muang, Phetchabun (S.48)

Location: Lat 16° - 25' - 22" N, Long 101° - 09' - 52" E, on left bank about 500 meters upstream from municiple bridge, Amphoe Muang, Phetchabun.

Drainage Area: 3,565 sq.km.

Type of Gage: Water - stage recorder.

Zero Gage at Bottom at: +106.50 m. (M.S.L.)

Bench Mark: B.M. - H.S.

Location: Infront of town-hall of Changwat Phetchabun.
Elevation: +114.20 m. (M.S.L.)

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 - 70
Rated by Float: -
Rated by Current Meter: 1966 - 70

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

Overbank Flow Conditions: No overbank flow.

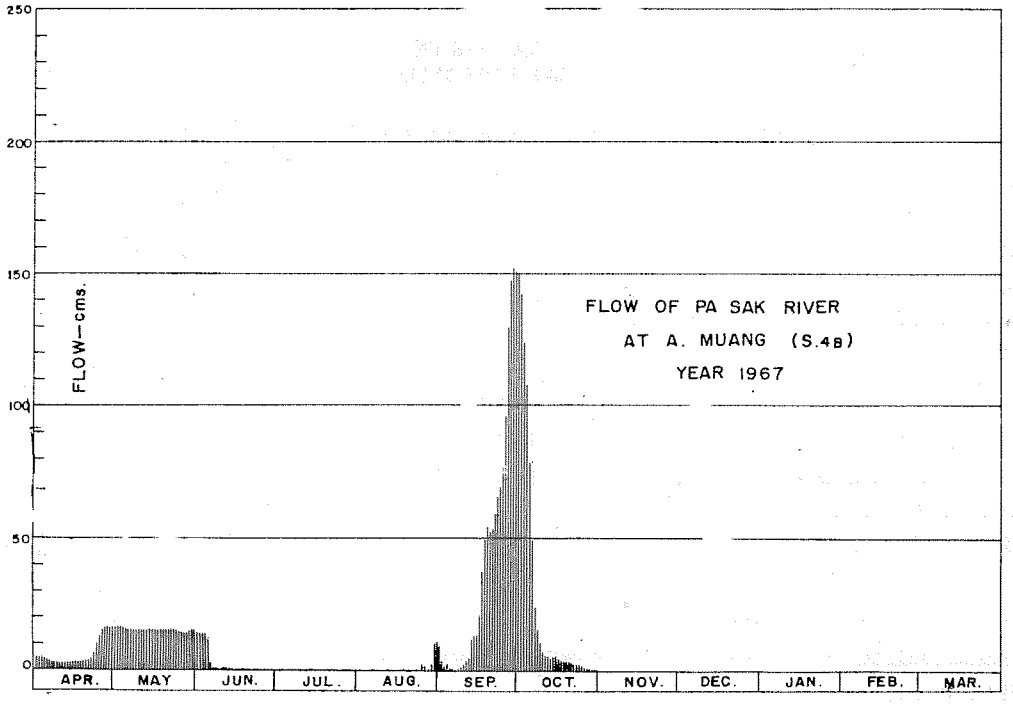
General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made during 1967. Gage height record for period of low flow is influenced by temporary weir which built by local residents. No adjustment made for virgin flow.

Remarks: No records for period Nov. 1 - Mar. 31. Discharge record for period of no flow are omitted.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	108.31	109.85	109.66	107.19	107.20	108.67	114.97					
2	.31	.83	.64	.19	.20	107.87	.80					
3	.27	.82	.62	.19	.20	.67	.28					
4	.22	.79	.60	.19	.20	.94	113.84					
5	.17	.77	.20	.19	.20	.35	.10					
6	108.09	109.75	107.49	107.19	107.20	107.48	111.87					
7	.01	.73	.34	.19	.20	.36	110.60					
8	107.92	.71	.29	.19	.20	.55	109.76					
9	.85	.69	.30	.19	.20	.65	108.95					
10	.84	.68	.38	.19	.20	.83	.51					
11	107.84	109.69	107.47	107.19	107.20	108.09	108.50					
12	.86	.71	.35	.19	.20	.19	.48					
13	.91	.70	.30	.19	.20	109.29	.19					
14	.95	.68	.28	.19	.20	.47	.37					
15	.96	.67	.24	.19	.20	.30	.38					
16	107.98	109.68	107.22	107.19	107.20	109.89	108.23					
17	.98	.67	.22	.19	.20	111.47	.14					
18	108.00	.70	.21	.19	.20	112.14	.10					
19	.03	.71	.21	.19	.20	.33	.12					
20	.05	.71	.20	.19	.20	.26	.12					
21	108.13	109.71	107.20	107.19	107.21	112.31	108.00					
22	.21	.70	.19	.19	.20	.53	107.90					
23	.50	.69	.19	.19	.25	.79	.85					
24	109.08	.67	.19	.19	.35	.90	.85					
25	.41	.64	.18	.21	.90	113.03	.66					
26	109.69	109.66	107.18	107.20	107.66	113.61	107.57					
27	.82	.65	.18	.20	.53	114.49	.53					
28	.85	.65	.18	.20	.31	.93	.43					
29	.85	.67	.18	.20	.90	115.02	.33					
30	.84	.68	.19	.20	109.10	114.99	.27					
31		.67		.20	.26		.58					
Mean	108.43	109.71	107.64	107.19	107.41	110.55	109.27					
Max.	109.85	109.85	109.66	107.21	109.26	115.02	114.97					
Min.	107.84	109.64	107.18	107.19	107.20	107.35	107.27					

WATER YEAR 1967 : Max. 114.99 m. Min. m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	4.74	16	14			7.10	150					
2	4.74	16	14			2.23	141					
3	4.50	16	14			1.28	118					
4	4.20	16	14			2.58	100					
5	3.90	15	11			0.25	75					
6	3.42	15	0.63			0.60	44					
7	2.94	15	0.23			0.27	24					
8	2.48	15	0.13			0.84	15					
9	2.13	15	0.14			1.20	9.03					
10	2.08	15	0.32			2.03	6.01					
11	2.08	15	0.57			3.42	5.94					
12	2.18	15	0.25			4.02	5.81					
13	2.43	15	0.14			11	4.02					
14	2.63	15	0.11			13	5.11					
15	2.68	15	0.06			12	5.18					
16	2.78	15	0.03			17	4.26					
17	2.78	15	0.03			36	3.72					
18	2.88	15	0.01			49	3.48					
19	3.06	15	0.01			54	3.60					
20	3.18	15				52	3.60					
21	3.66	15			0.01	53	2.88					
22	4.14	15			0.00	59	2.38					
23	5.94	15			0.07	66	2.13					
24	9.96	15			0.25	69	2.13					
25	12	14		0.01	2.38	73	1.24					
26	15	14			1.24	92	0.91					
27	16	14			0.74	127	0.77					
28	16	14			0.16	148	0.45					
29	16	15			2.38	152	0.21					
30	16	15			10	151	0.10					
31		15			11		0.95					
Total	176.51	465	69.66	0.01	28.26	1,259.82	740.91					
Mean	5.88	15.0	2.32	0.00	0.91	42.0	23.9					
Max.	16	16	14	0.01	11	152	150					
Min.	2.08	14	0.00	0.00	0.00	0.25	0.10					
Runoff - mcm.	15.250	40.176	6.019	0.001	2.442	108.848	64.015					

WATER YEAR 1967 : Max. 152 Min. Mean Annual Runoff mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sep. 29	19.00	115.06	154				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
PASAK RIVER BASIN

Pasak River at Lom Sak, Phetchabun (S.6A)

Location: Lat 16°- 49' - 52" N, Long 101°- 47' - 57" E, on right bank about 100 meters downstream from Lom Sak Weir, Amphoe Lomsak, Phetchabun.

Drainage Area: 1,007 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: +145.50 m. (M.S.L.)

Bench Mark:

Location:
Elevation:

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: 1961 - 67

Rating Operation:

Period of Rating: 1961, 1967
Rated by Float: -
Rated by Current Meter: 1961, 1967

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

Overbank Flow Conditions: No overbank flow.

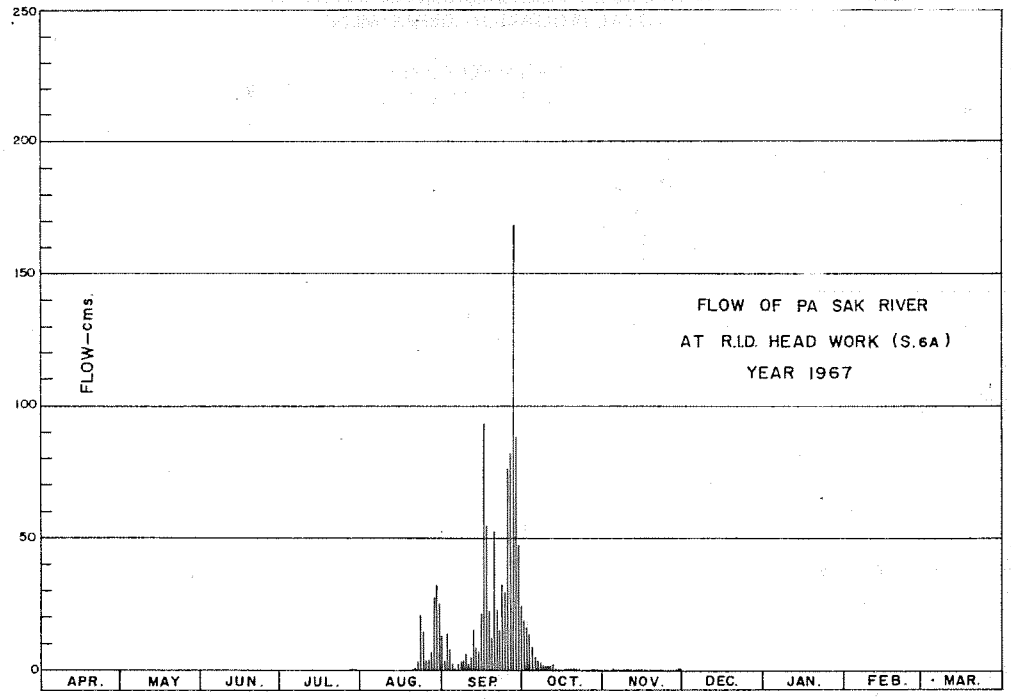
General Description: Records fair. Stage - discharge relation used is defined by discharge measurements made during 1967. Upstream state diversions for irrigation of about 3,200 hectares at Lom Sak Weir. No adjustment made for virgin flow.

Remarks: No records for periods Apr. 1 - Jul. 15 and Dec. 1 - Mar.31

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31,1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1					145.55	146.02	147.02	145.57				
2					.55	.75	146.85	.58				
3					.55	.21	.65	.59				
4					.55	145.90	.48	.57				
5					.55	.75	.26	.57				
6					145.55	145.92	146.13	145.58				
7					.55	146.14	.11	.56				
8					.55	.14	145.99	.56				
9					.55	.34	.95	.55				
10					.55	145.98	.91	.55				
11					145.55	146.33	145.92	145.55				
12					.55	.81	146.04	.55				
13					.55	.30	145.89	.53				
14					.55	.41	.83	.53				
15				145.53	.56	147.21	.70	.53				
16				145.54	145.56	148.96	145.61	145.54				
17				.53	.55	147.49	.72	.54				
18				.53	.55	146.76	.83	.54				
19				.53	.55	.60	.85	.52				
20				.53	.55	148.02	.84	.52				
21				145.57	145.92	146.80	145.70	145.52				
22				.54	146.14	.81	.72	.52				
23				.54	147.05	147.41	.64	.52				
24				.55	146.48	.08	.63	.52				
25				.56	.07	148.60	.63	.52				
26				145.56	146.21	148.55	145.67	145.52				
27				.57	.42	150.24	.60	.60				
28				.78	147.28	148.86	.63	.68				
29				.71	.40	147.50	.65	.75				
30				.58	.09	.05	.57	.79				
31				.56	146.46		.55					
Mean					145.92	148.03	145.92	145.56				
Max.					147.40	150.24	147.02	145.79				
Min.					145.55	145.75	145.55	145.52				

WATER YEAR 1967 : Max. 150.24 m. Min. 145.52 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1					0.00	2.20	20	0.00				
2					.00	14	16	.00				
3					.00	4.14	12	.00				
4					.00	1.00	8.60	.00				
5					.00	0.30	4.84	.00				
6					0.00	1.20	3.30	0.00				
7					.00	3.40	.10	.00				
8					.00	3.40	1.90	.00				
9					.00	6.04	.50	.00				
10					.00	1.80	.10	.00				
11					0.00	5.88	1.20	0.00				
12					.00	15	2.40	.00				
13					.00	5.40	0.95	.00				
14					.00	7.20	.65	.00				
15				0.000	.00	26	.10	.00				
16				0.000	0.00	93	0.01	0.00				
17				.000	.00	35	.18	.00				
18				.000	.00	14	.65	.00				
19				.000	.00	11	.75	.00				
20				.000	.00	52	.70	.00				
21				0.000	1.20	15	0.10	0.00				
22				.000	3.40	15	.18	.00				
23				.000	21	32	.04	.00				
24				.000	8.60	22	.03	.00				
25				.000	2.70	76	.03	.00				
26				0.000	4.14	73	0.07	0.00				
27				.000	7.40	168	.00	.00				
28				.42	28	88	.03	.08				
29				.14	32	35	.05	.30				
30				.00	22	21	.00	.46				
31				.00	8.20		.00					
Total					138.64	846.96	80.46	0.84				
Mean					4.47	28.2	2.59	0.03				
Max.					32	168	20	0.46				
Min.					0.00	0.30	0.00	0.00				
Runoff - mcm.					11.978	73.177	6.952	0.072				

WATER YEAR 1967 : Max. Min. Mean Annual Runoff mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sep. 27	14.00	150.92	216				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
PASAK RIVER BASIN

Lam Muak Lek at Kaeng Khoi, Saraburi (S.7)

Location: Lat 14°- 38' - 04" N, Long 101°- 12' - 37" E, on left bank about 50 meters upstream from Bangkok - Nakhon Ratchasima highway bridge, Tambon Muak Lek, Amphoe Kaeng Khoi, Saraburi.

Drainage Area: 177 sq.km.

Type of Gage: Water - stage recorder.

Zero Gage at Bottom at: 0.00 m. (A.D.)

Bench Mark: B.M. - H.S.

Location: On left bank near Automatic bridge.
Elevation: +6.919 m. (A.D.)

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 Float: -
Rated by Current Meter: 1965 to date

Stability of Channel Regimes: Stable, no shifting adjustment but mean hourly discharge is used for flow computation.

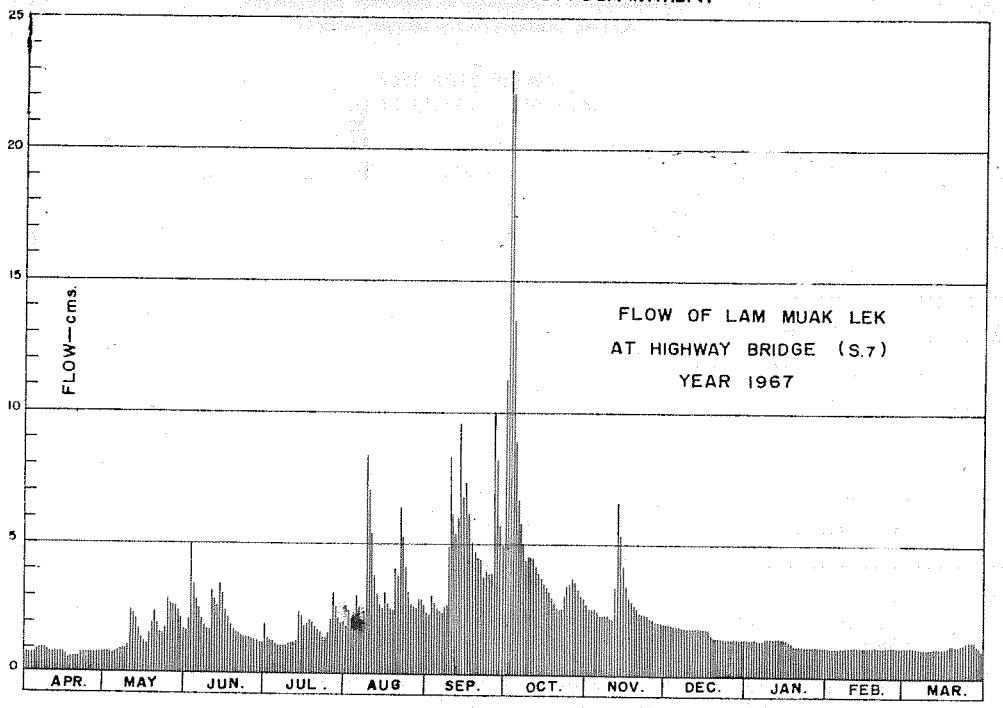
Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions for irrigation except those built by local residents. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (A.D.), WATER YEAR APRIL 1,1967 TO MARCH 31,1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.58	0.58	0.67	0.63	0.70	0.75	0.96	0.69	0.64	0.58	0.56	0.56
2	.58	.58	.72	.64	.76	.74	1.83	.68	.64	.58	.55	.56
3	.58	.58	.95	.64	.73	.81	.77	.68	.63	.58	.55	.56
4	.58	.58	.83	.64	.73	.79	.22	.68	.63	.59	.55	.56
5	.59	.58	.79	.62	.81	.77	.04	.67	.63	.58	.55	.56
6	0.59	0.59	0.76	0.62	0.76	0.76	0.94	0.66	0.62	0.58	0.56	0.56
7	.59	.60	.72	.62	.73	.75	.89	.66	.62	.58	.55	.55
8	.60	.60	.71	.62	.72	.78	.84	.66	.62	.59	.56	.55
9	.60	.59	.69	.62	1.16	.79	.81	.66	.62	.59	.56	.55
10	.60	.62	.68	.63	.04	1.16	.82	.65	.62	.59	.56	.55
11	0.58	0.76	0.83	0.63	0.92	1.02	0.82	0.65	0.62	0.59	0.56	0.56
12	.58	.75	.79	.63	.84	0.98	.81	.75	.62	.59	.56	.56
13	.57	.71	.77	.64	.81	.97	.79	.95	.62	.59	.56	.56
14	.58	.67	.84	.76	.78	1.23	.78	.84	.62	.59	.56	.56
15	.58	.65	.81	.74	.76	.03	.76	.78	.62	.59	.56	.56
16	0.57	0.63	0.76	0.70	0.82	1.10	0.75	0.74	0.62	0.59	0.56	0.56
17	.55	.62	.73	.71	.78	.03	.74	.71	.61	.58	.56	.56
18	.56	.67	.71	.73	.77	0.96	.72	.70	.60	.57	.57	.57
19	.56	.70	.69	.72	.76	.95	.71	.69	.59	.56	.56	.57
20	.56	.75	.68	.70	.89	.91	.69	.68	.59	.56	.56	.56
21	0.56	0.71	0.68	0.69	0.84	0.92	0.68	0.66	0.59	0.56	0.56	0.56
22	.58	.68	.66	.68	1.04	.89	.68	.66	.59	.56	.56	.57
23	.58	.67	.66	.66	0.96	.86	.69	.66	.59	.56	.56	.57
24	.58	.68	.66	.66	.87	.88	.74	.66	.59	.56	.56	.58
25	.58	.80	.65	.67	.80	.87	.75	.65	.59	.56	.56	.58
26	0.58	0.79	0.65	0.72	0.78	0.86	0.75	0.65	0.59	0.56	0.55	0.58
27	.58	.78	.64	.82	.78	1.27	.77	.64	.59	.57	.56	.58
28	.58	.78	.64	.77	.76	.11	.74	.64	.59	.56	.56	.57
29	.58	.76	.63	.73	.80	.00	.73	.64	.59	.56	.55	.56
30	.58	.72	.63	.71	.80	0.94	.72	.64	.59	.56		.55
31		.69		.72	.78		.71		.59	.56		.54
Mean	0.58	0.67	0.72	0.70	0.82	0.93	0.86	0.69	0.61	0.57	0.56	0.56
Max.	0.60	0.80	0.95	0.82	1.16	1.27	1.83	0.95	0.64	0.59	0.57	0.58
Min.	0.55	0.58	0.63	0.62	0.70	0.74	0.68	0.64	0.59	0.56	0.55	0.54

WATER YEAR 1967 : Max. 1.83 m. Min. 0.54 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.84	0.84	1.56	1.96	1.80	2.35	5.12	2.68	2.08	1.36	1.13	1.13
2	0.84	0.84	2.02	1.32	2.46	2.24	23	2.56	2.08	1.36	1.01	1.13
3	0.84	0.84	4.95	1.32	2.13	3.03	22	2.56	1.96	1.36	1.01	1.13
4	0.84	0.84	3.29	1.32	2.13	2.79	11	2.56	1.96	1.48	1.01	1.13
5	0.92	0.84	2.79	1.16	3.03	2.57	8.12	2.44	1.96	1.36	1.01	1.13
6	0.92	0.92	2.46	1.16	2.46	2.46	6.44	2.32	1.84	1.36	1.13	1.13
7	0.92	1.00	2.02	1.16	2.13	2.35	5.63	2.32	1.84	1.36	1.01	1.01
8	1.00	1.00	1.91	1.16	2.02	2.68	4.84	2.32	1.84	1.48	1.13	1.01
9	1.00	0.92	1.72	1.16	8.32	2.79	4.36	2.32	1.84	1.48	1.13	1.01
10	1.00	1.16	1.64	1.24	6.34	8.32	4.52	2.20	1.84	1.48	1.13	1.01
11	0.84	2.46	3.29	1.24	4.50	6.02	4.52	2.20	1.84	1.48	1.13	1.13
12	0.84	2.35	2.79	1.24	3.42	5.40	4.36	3.50	1.84	1.48	1.13	1.13
13	0.76	1.91	2.57	1.32	3.03	5.25	4.06	6.60	1.84	1.48	1.13	1.13
14	0.84	1.56	3.42	2.46	2.68	9.54	3.92	4.84	1.84	1.48	1.13	1.13
15	0.84	1.40	3.03	2.24	2.46	6.18	3.64	3.92	1.84	1.48	1.13	1.13
16	0.76	1.24	3.46	1.80	3.16	7.30	3.50	3.36	1.84	1.48	1.13	1.13
17	0.60	1.16	2.13	1.91	2.68	6.18	3.36	2.94	1.72	1.36	1.13	1.13
18	0.68	1.56	1.91	2.13	2.57	5.10	3.08	2.80	1.60	1.25	1.25	1.25
19	0.68	1.80	1.72	2.02	2.46	4.95	2.94	2.68	1.48	1.13	1.13	1.25
20	0.68	2.35	1.64	1.80	4.07	4.35	2.68	2.56	1.48	1.13	1.13	1.13
21	0.68	1.91	1.64	1.72	3.47	4.50	2.56	2.32	1.48	1.13	1.13	1.13
22	0.84	1.64	1.48	1.64	6.34	4.07	2.56	2.32	1.48	1.13	1.13	1.25
23	0.84	1.56	1.48	1.48	5.10	3.68	2.68	2.32	1.48	1.13	1.13	1.25
24	0.84	1.64	1.48	1.48	3.81	3.94	3.36	2.32	1.48	1.13	1.13	1.36
25	0.84	2.90	1.40	1.56	2.90	3.81	3.50	2.20	1.48	1.13	1.13	1.36
26	0.34	2.79	1.40	2.02	2.68	3.68	3.50	2.20	1.48	1.13	1.01	1.36
27	0.84	2.68	1.32	3.16	2.68	10	3.78	2.08	1.48	1.25	1.13	1.36
28	0.84	2.68	1.32	2.57	2.46	7.47	3.36	2.08	1.48	1.13	1.13	1.25
29	0.84	2.46	1.24	2.13	2.90	5.70	3.22	2.08	1.48	1.13	1.01	1.13
30	0.84	2.02	1.24	1.91	2.90	4.80	3.08	2.08	1.48	1.13		1.01
31		1.72		2.02	2.68		2.94		1.48	1.13		0.89
Total	24.88	50.99	63.32	52.81	101.77	143.50	165.63	81.68	52.84	40.38	32.05	35.71
Mean	0.80	1.64	2.11	1.70	3.28	4.78	5.34	2.72	1.70	1.30	1.10	1.15
Max.	1.00	2.90	4.95	3.16	8.32	10	23	6.60	2.08	1.48	1.25	1.36
Min.	0.60	0.84	1.24	1.16	1.80	2.24	2.56	2.08	1.48	1.13	1.01	0.89
Runoff - mcm.	2.150	4.405	5.384	4.563	8.793	12.398	14.310	7.057	4.565	3.489	2.769	3.085

WATER YEAR 1967 : Max. 23 Min. 0.60 Mean 2.31 Annual Runoff 73.056 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 2	22.00	3.19	54				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
NAM PHUNG RIVER BASIN

Nam Phung at Nam Phung Bridge, Phetchabun (S.10)

Location: Lat 16°- 56' - 50" N, Long 101°- 13' - 10" E, on right bank at Nam Phung Bridge, Tambon Hin Hao, Amphoe Lom Kao, Phetchabun.

Drainage Area: 268 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: 0.00 m. (A.D.)

Bench Mark: B.M. - H.S.

Location: Near gage site.
Elevation: +8.85 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: 1965 to date.

Rating Operation:

Period of Rating: 1967
Rated by Float: -
Rated by Current Meter: 1967

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

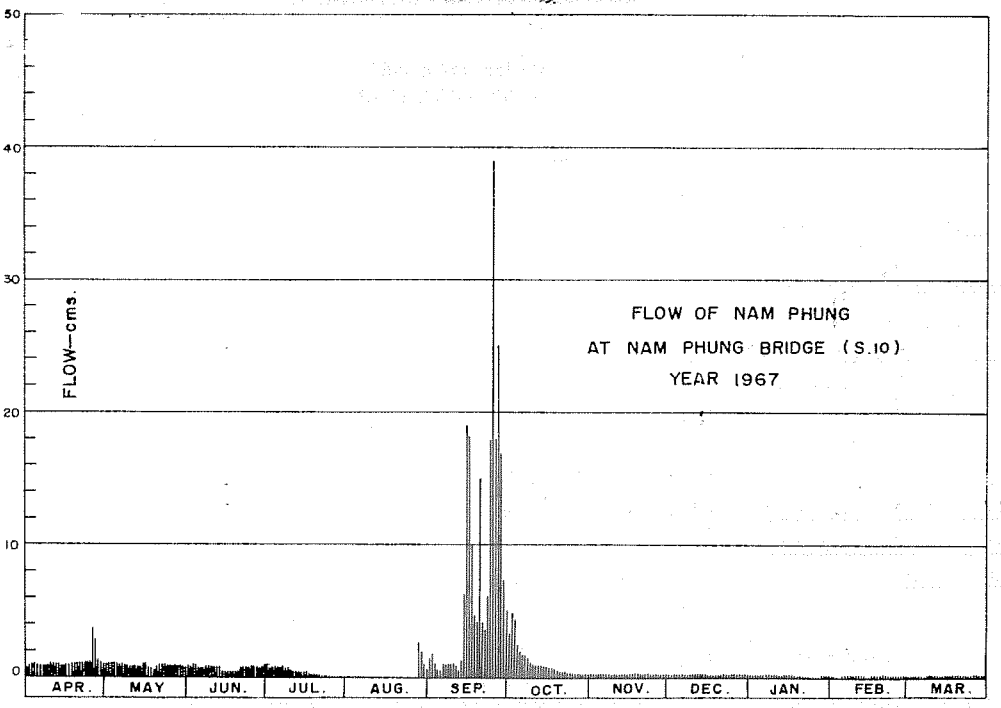
Overbank Flow Conditions: No overbank flow.

General Description: Records poor. Stage - discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions for irrigation except those built by local residents. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (A.D.), WATER YEAR APRIL 1,1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.20	0.25	0.21	0.26	- 0.28	0.36	0.57	0.02	0.00	- 0.01	- 0.05	- 0.02
2	.21	.27	.21	.20	.18	.42	.82	.00	.00	.01	.06	.02
3	.25	.26	.26	.21	.18	.24	.78	.00	.01	.01	.08	.02
4	.25	.27	.21	.21	.15	.12	.51	.00	.00	.01	.09	.02
5	.25	.26	.20	.21	.14	.10	.43	0.00	.01	.01	.01	.01
6	0.22	0.24	0.20	0.20	- 0.14	0.29	0.41	0.01	0.02	- 0.01	- 0.01	- 0.05
7	.21	.26	.20	.21	.19	.22	.40	- 0.01	.02	.01	.01	.08
8	.21	.23	.21	.20	.13	.26	.36	+ 0.00	.03	.01	.01	.01
9	.24	.21	.21	.20	.17	.26	.26	.01	.03	.01	.01	.01
10	.26	.21	.21	.10	.18	.28	.25	.00	.03	.01	.01	.01
11	0.25	0.23	0.21	0.10	- 0.13	0.20	0.23	0.00	0.03	- 0.01	- 0.01	- 0.01
12	.25	.22	.21	.10	.18	.10	.24	.00	.03	.01	.01	.01
13	.25	.22	.21	.10	.19	.23	.23	.01	.01	.01	.06	.02
14	.20	.21	.10	.10	.19	.81	.21	.03	.01	.01	.08	.01
15	.21	.26	.10	.10	.19	1.82	.21	- 0.01	.01	.00	.09	.01
16	0.24	0.27	0.10	0.10	- 0.20	1.78	0.19	+ 0.06	0.01	- 0.00	- 0.01	- 0.01
17	.23	.20	.10	.00	.19	.18	.18	.04	.01	.00	.01	.01
18	.27	.20	.10	.00	.19	0.66	.17	.04	.01	.04	.01	.01
19	.26	.10	.10	- 0.02	.23	.58	.14	.04	.01	.05	.01	.01
20	.26	.21	.10	0.02	.25	1.62	.11	.03	.01	.05	.02	.01
21	0.26	0.24	0.21	- 0.02	- 0.25	0.70	0.09	0.02	0.01	- 0.06	- 0.02	- 0.01
22	.27	.25	.21	.05	.25	.66	.08	.03	.01	.03	.02	.01
23	.27	.27	.21	.05	.29	.77	.08	.04	.01	.08	.02	.01
24	.27	.24	.21	.07	.25	1.87	.07	.02	.01	.09	.02	.01
25	.28	.24	.21	.08	.25	2.74	.05	.02	.02	.08	.02	.02
26	0.68	0.24	0.21	- 0.10	- 0.22	1.52	0.04	- 0.01	0.01	- 0.08	- 0.02	- 0.02
27	.55	.25	.21	.12	.20	2.15	.03	.00	.01	.09	.02	.02
28	.28	.21	.20	.12	+ 0.56	1.39	.01	.00	.01	.01	.02	.02
29	.26	.21	.21	.15	.40	1.01	.01	.00	.01	.01	.02	.02
30	.25	.21	.26	.15	.24	0.85	.00	.00	.01	.02		.02
31		.20		.15	.17		.00		.01	.02		.02
Mean	0.27	0.23	0.19	0.05	0.13	0.84	0.23	0.01	0.01	- 0.03	- 0.03	- 0.02
Max.	0.68	0.27	0.26	0.26	0.56	2.74	0.82	0.06	0.03	- 0.00	- 0.01	- 0.01
Min.	0.20	0.10	0.10	- 0.15	- 0.29	0.10	0.00	- 0.01	0.00	- 0.09	- 0.09	- 0.08

WATER YEAR 1967 : Max. 2.74 m. Min. -0.29 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31,1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.78	0.99	0.82	1.03	0.02	1.50	2.79	0.29	0.24	0.22	0.16	0.21
2	0.82	1.07	0.82	1.78	0.02	1.82	4.90	0.24	0.24	0.22	0.15	0.21
3	0.99	1.03	1.03	1.82	0.02	0.95	4.52	0.24	0.26	0.22	0.12	0.21
4	0.99	1.07	0.82	1.82	0.04	0.53	2.37	0.24	0.24	0.22	0.10	0.21
5	0.99	1.03	0.78	1.82	0.05	0.47	1.88	0.24	0.26	0.22	0.22	0.22
6	0.86	0.95	0.78	0.78	0.05	1.16	1.76	0.26	0.29	0.22	0.22	0.16
7	0.82	1.03	0.78	0.82	0.01	0.86	1.70	0.22	0.29	0.22	0.22	0.12
8	0.82	0.91	0.82	0.78	0.06	1.03	1.50	0.24	0.31	0.22	0.22	0.22
9	0.95	0.82	0.82	0.78	0.03	1.03	1.03	0.26	0.31	0.22	0.22	0.22
10	1.03	0.82	0.82	0.47	0.02	1.12	0.99	0.24	0.31	0.22	0.22	0.22
11	0.99	0.91	0.82	0.47	0.02	0.78	0.91	0.24	0.31	0.22	0.22	0.22
12	0.99	0.86	0.82	0.47	0.02	0.47	0.95	0.24	0.31	0.22	0.22	0.22
13	0.99	0.86	0.82	0.47	0.01	0.91	0.91	0.26	0.26	0.22	0.15	0.20
14	0.78	0.82	0.47	0.47	0.01	4.80	0.82	0.31	0.26	0.22	0.12	0.22
15	0.82	1.03	0.47	0.47	.01	19	0.82	0.22	0.26	0.24	0.10	0.22
16	0.95	1.07	0.47	0.47	0.00	18	0.75	0.37	0.26	0.24	0.22	0.22
17	0.91	0.78	0.47	0.24	0.01	8.96	0.72	0.33	0.26	0.24	0.22	0.22
18	1.07	0.78	0.47	0.24	0.01	3.48	0.69	0.33	0.26	0.18	0.22	0.22
19	1.03	0.47	0.47	0.21	0.00	2.86	0.59	0.33	0.26	0.16	0.22	0.22
20	1.03	0.82	0.47	0.21	0.00	15	0.51	0.31	0.26	0.16	0.21	0.22
21	1.03	0.95	0.82	0.21	0.00	3.80	0.45	0.29	0.26	0.15	0.21	0.22
22	1.07	0.99	0.82	0.16	0.00	.48	0.42	0.31	0.26	0.12	0.21	0.22
23	1.07	1.07	0.82	0.16	0.00	4.43	0.42	0.33	0.26	0.12	0.21	0.22
24	1.07	0.95	0.82	0.13	0.00	19	0.40	0.29	0.26	0.10	0.21	0.22
25	1.12	0.95	0.82	0.12	0.00	39	0.35	0.29	0.29	0.12	0.21	0.21
26	3.64	0.95	0.82	0.09	0.00	14	0.33	0.22	0.26	0.12	0.21	0.21
27	2.65	0.99	0.82	0.07	0.00	25	0.31	0.24	0.26	0.10	0.21	0.21
28	1.12	0.82	0.78	0.07	2.72	12	0.26	0.24	0.26	0.22	0.21	0.21
29	1.03	0.82	0.82	0.04	1.70	6.92	0.26	0.24	0.26	0.22	0.21	0.21
30	0.99	0.82	1.03	0.04	0.90	5.20	0.24	0.24	0.26	0.21		0.21
31		0.78		0.04	0.58		0.24		0.26	0.21		0.21
Total	33.40	28.21	22.41	12.75	6.31	217.56	34.79	8.10	8.34	5.99	5.64	6.53
Mean	1.11	0.91	0.75	0.41	0.20	7.25	1.12	0.27	0.27	0.19	0.19	0.21
Max.	3.64	1.07	1.03	1.03	2.72	39	4.90	0.37	0.31	0.24	22	0.22
Min.	0.78	0.47	0.47	0.04	0.00	0.47	0.24	0.22	0.24	0.10	10	0.12
Runoff - mcm.	2.886	2.437	1.936	1.102	0.545	18.797	3.006	0.700	0.720	0.517	0.487	0.564

WATER YEAR 1967 : Max. 39 Min. 0.00 Mean 1.06 Annual Runoff 33.698 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sep. 25	6.00	4.00	78				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
SARAWIN RIVER BASIN

Mae Lamao Creek at Ban Ko Ko, Tak (SW.1)

Location: Lat 16°- 54' - 56" N, Long 98°- 37' - 57" E, on right bank at Ban Ko Ko, 14 kilometers southeast of Amphoe Mae Ramat, between Doi Kala and Doi Mae Phasa, Amphoe Mae Sot, Tak.

Drainage Area: 1,426 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: 0.00 m. (A.D.)

Bench Mark: B.M. - H.S.

Location: At the abutment of measuring line.
Elevation: +5.597 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: 1966 to date

Rating Operation:

Period of Rating: 1966 to date
Rated by Float: -
Rated by Current Meter: 1966 to date

Stability of Channel Regimes: Unstable, shifting adjustment is included for flow computation.

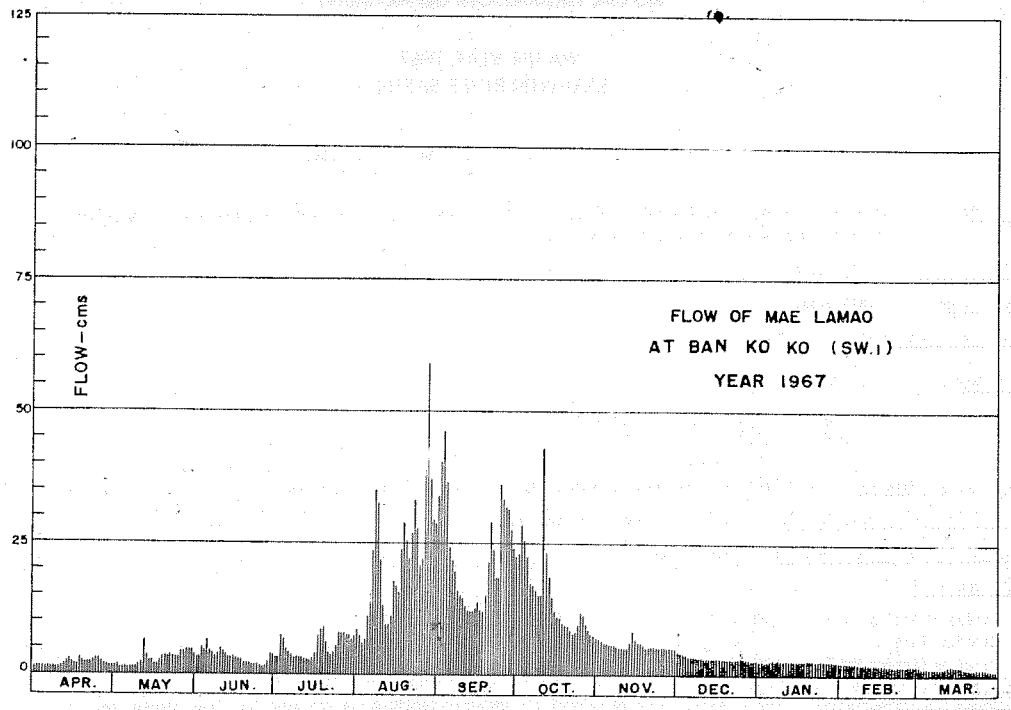
Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions except those built by local residents. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (A.D.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.14	0.17	0.28	0.27	0.54	1.16	0.89	0.42	0.33	0.26	0.23	0.16
2	.14	.16	.31	.29	.50	.33	.92	.42	.32	.26	.23	.17
3	.14	.15	.41	.50	.44	.43	1.05	.40	.32	.25	.23	.17
4	.15	.15	.36	.45	.43	.14	0.93	.40	.31	.25	.23	.17
5	.14	.14	.45	.35	.61	0.97	.83	.39	.30	.25	.23	.16
6	0.14	0.13	0.33	0.32	0.74	0.89	0.77	0.39	0.30	0.25	0.23	0.16
7	.15	.14	.31	.29	1.01	.86	.74	.39	.30	.25	.22	.15
8	.14	.15	.28	.28	.29	.75	.73	.39	.30	.25	.22	.15
9	.14	.17	.30	.27	.22	.73	.68	.37	.29	.25	.22	.16
10	.15	.18	.38	.27	0.82	.71	.65	.37	.29	.25	.22	.15
11	0.15	0.24	0.32	0.28	0.61	0.66	1.37	0.37	0.29	0.25	0.22	0.18
12	.17	.45	.29	.26	.59	.62	0.97	.37	.28	.25	.22	.19
13	.23	.28	.26	.25	.60	.60	.74	.41	.28	.25	.21	.20
14	.25	.22	.27	.25	.65	.60	.67	.52	.28	.25	.21	.19
15	.21	.24	.27	.29	.85	.64	.62	.43	.28	.25	.20	.19
16	0.19	0.19	0.27	0.32	0.82	0.66	0.60	0.42	0.28	0.25	0.20	0.18
17	.19	.18	.25	.50	.77	.61	.59	.41	.28	.25	.19	.17
18	.28	.24	.24	.56	1.02	.60	.56	.40	.28	.25	.19	.16
19	.22	.28	.21	.59	.15	.66	.54	.39	.28	.25	.18	.15
20	.22	.31	.20	.48	.05	1.00	.54	.37	.28	.25	.18	.14
21	0.21	0.29	0.19	0.36	0.94	1.09	0.52	0.36	0.27	0.25	0.18	0.14
22	.22	.30	.18	.32	1.08	0.86	.48	.36	.27	.25	.18	.14
23	.24	.28	.17	.35	.25	.78	.48	.35	.27	.24	.18	.14
24	.25	.28	.17	.40	.08	.81	.53	.35	.27	.24	.17	.15
25	.26	.29	.17	.54	0.89	1.22	.63	.36	.27	.24	.17	.15
26	0.21	0.33	0.16	0.53	0.86	1.12	0.60	0.35	0.27	0.24	0.17	0.13
27	.19	.33	.16	.52	1.44	.13	.53	.35	.27	.24	.17	.12
28	.18	.36	.19	.52	.76	.11	.49	.34	.26	.24	.17	.12
29	.18	.34	.34	.51	.28	0.96	.44	.34	.26	.24	.16	.11
30	.17	.35	.31	.47	.06	.91	.43	.34	.26	.24		.11
31		.31		.50	.11		.42		.26	.24		.10
Mean	0.19	0.25	0.27	0.39	0.92	0.89	0.67	0.38	0.29	0.25	0.20	0.15
Max.	0.28	0.45	0.45	0.59	1.76	1.43	1.37	0.52	0.33	0.26	0.23	0.20
Min.	0.14	0.13	0.16	0.25	0.43	0.60	0.42	0.34	0.26	0.24	0.16	0.10

WATER YEAR 1967 : Max. 1.76 m. Min. 0.10 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	1.28	1.64	3.44	3.28	8.49	34	22	6.70	4.23	2.96	2.48	1.52
2	1.28	1.52	3.44	3.28	7.45	41	23	6.70	4.02	2.96	2.48	1.64
3	1.28	1.40	5.49	7.95	5.95	46	28	6.20	4.02	2.80	2.48	1.64
4	1.40	1.40	4.40	6.70	5.70	32	24	6.20	3.81	2.80	2.48	1.64
5	1.28	1.28	6.45	4.86	9.94	25	20	5.95	3.60	2.80	2.48	1.52
6	1.28	1.16	4.40	4.23	14	22	17	5.95	3.60	2.80	2.48	1.52
7	1.40	1.28	4.02	3.60	24	20	17	5.95	3.60	2.80	2.32	1.40
8	1.28	1.40	3.44	3.44	35	16	16	5.49	3.60	2.80	2.32	1.40
9	1.28	1.64	3.81	3.28	32	15	15	5.07	3.44	2.80	2.32	1.52
10	1.40	1.76	5.49	3.28	17	15	14	5.28	3.44	2.80	2.32	1.40
11	1.40	2.64	4.23	3.44	9.94	13	43	5.28	3.44	2.80	2.32	1.76
12	1.64	6.95	3.60	2.96	9.36	12	22	5.28	3.28	2.80	2.32	1.88
13	2.48	3.28	3.12	2.80	9.65	12	17	6.20	3.28	2.80	2.16	2.00
14	2.80	2.32	3.12	2.80	11	12	14	8.49	3.28	2.80	2.16	1.88
15	2.16	2.64	3.12	3.44	18	13	12	6.70	3.28	2.80	2.00	1.88
16	1.88	1.88	3.12	4.02	17	14	11	6.45	3.28	2.80	2.00	1.76
17	1.88	1.76	2.96	6.70	15	12	11	6.20	3.28	2.80	1.88	1.64
18	3.28	2.64	2.80	8.20	24	12	10	5.70	3.28	2.80	1.88	1.52
19	2.32	3.28	2.32	9.07	29	14	9.36	5.49	3.28	2.80	1.76	1.40
20	2.32	3.81	2.32	6.20	25	26	9.36	5.07	3.28	2.80	1.76	1.28
21	2.16	3.44	2.16	4.44	21	29	8.78	5.49	3.12	2.80	1.76	1.28
22	2.16	3.60	2.00	3.60	26	20	7.70	5.49	3.12	2.80	1.76	1.28
23	2.64	3.28	1.88	4.23	33	18	7.95	5.28	3.12	2.64	1.76	1.28
24	2.80	3.28	1.88	5.28	26	19	9.36	5.28	3.12	2.64	1.77	1.40
25	2.96	3.44	1.88	8.20	19	36	12	5.49	3.12	2.64	1.77	1.40
26	2.16	4.23	1.40	7.95	18	31	11	5.28	3.12	2.64	1.77	1.16
27	~~1.88~~	~~4.23~~	~~1.76~~	~~7.70~~	~~43~~	32	9.36	5.28	3.12	2.64	1.77	1.04
28	1.76	4.86	2.16	7.20	59	31	8.49	5.07	2.96	2.64	1.77	1.04
29	1.76	4.40	4.23	7.45	39	25	7.70	5.07	2.96	2.64	1.52	0.92
30	1.64	4.65	3.60	6.70	29	23	7.45	5.07	2.96	2.64	–	0.92
31	–	3.81	–	7.45	28	–	7.20	–	2.96	2.64	–	0.80
Total	57.24	88.90	98.04	164.23	668.48	670	451.71	173.15	104.00	85.68	60.05	44.72
Mean	1.91	2.87	3.27	5.30	21.6	22.3	14.6	5.77	3.35	2.76	2.07	1.44
Max.	3.28	6.95	6.45	9.07	59	46	43	8.49	4.23	8.96	2.48	2.00
Min.	1.28	1.16	1.40	2.80	5.70	12	7.20	5.07	2.96	2.64	1.52	0.80
Runoff - mcm.	4.945	7.681	8.471	14.189	57.757	57.888	39.028	14.960	8.986	7.403	5.188	3.864

WATER YEAR 1967 : Max. 59 Min. 0.80 Mean 7.28 Annual Runoff 230.360 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Aug. 28	12.00	1.93	69				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
SARAWIN RIVER BASIN

Mae Yuam River at Ban Tha Kham, Mae Hong Son (SW.2)

Location: Lat 18°- 11' - 26' N, Long 97°- 56' - 06" E, on left bank about 500 meters upstream from Mae Yuam Weir at Ban Tha Kham, Amphoe Mae Sariang, Mae Hong Son.

Drainage Area: 2,617 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: 0.00 m. (A.D.)

Bench Mark: B.M. - H.S.

Location: At gage site about 30 meters from left bank
Elevation: +99.677 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: 1966 to date

Rating Operation:

Period of Rating: 1966 - 70
Rated by Float: -
Rated by Current Meter: 1966 - 70

Stability of Channel Regimes: Unstable, shifting adjustment and periodic rating curve are used for flow computation.

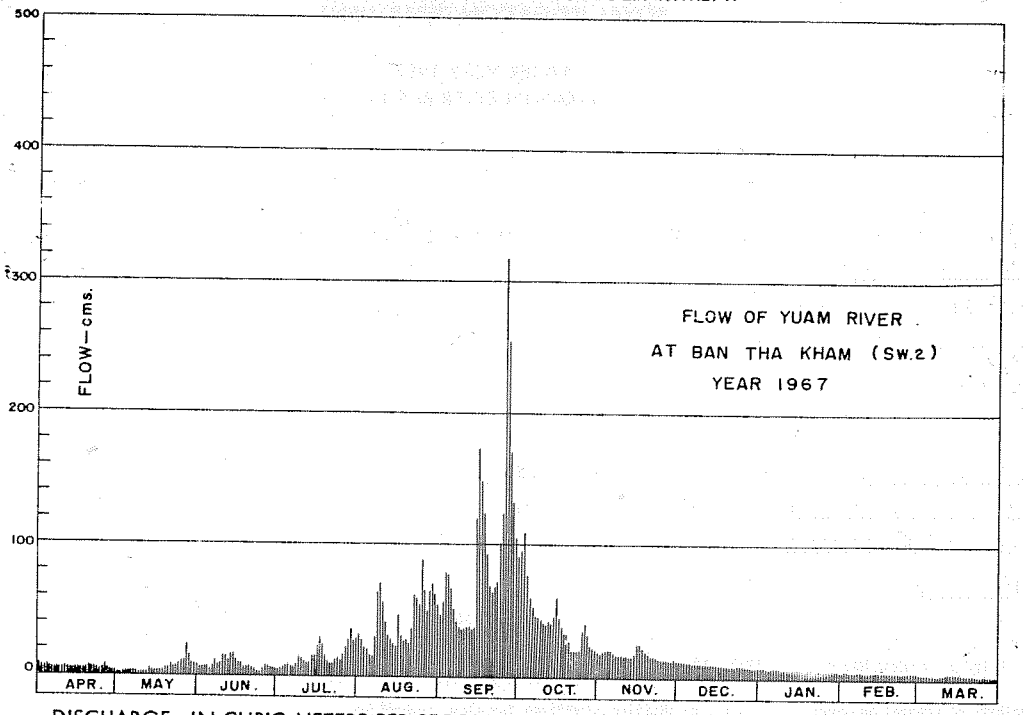
Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1967. Flow regulated by Mae Yuam and local residents weir. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (A.D.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	1.44	1.17	1.34	1.41	1.84	1.88	1.50	0.77	0.77	0.65	0.71	1.05
2	.45	.34	.36	.42	.78	.95	.54	.78	.77	.65	.92	.05
3	.43	.36	.38	.45	.72	2.11	.64	.81	.77	.64	1.02	.05
4	.46	.36	.38	.49	.70	.10	.37	.82	.77	.64	.05	.04
5	.43	.37	.30	.50	.66	1.94	.28	.80	.76	.64	.04	.05
6	1.42	1.37	1.39	1.49	1.66	1.86	1.19	0.78	0.76	0.65	1.07	1.03
7	.40	.37	.51	.49	.73	.83	.14	.76	.75	.65	.10	.02
8	.43	.39	.41	.55	2.10	.78	.11	.75	.75	.64	.13	0.99
9	.43	.38	.45	.65	.10	.77	.10	.75	.75	.64	.13	.97
10	.43	.39	.55	.61	1.92	.78	.08	.75	.75	.64	.13	1.09
11	1.43	1.39	1.56	1.57	1.82	1.79	1.04	0.75	0.74	0.64	1.12	1.16
12	.42	.39	.46	.56	.78	.79	.03	.74	.73	.64	.10	.16
13	.40	.49	.56	.58	.74	.76	.02	.74	.73	.64	.11	.15
14	.39	.41	.57	.65	.70	.80	.01	.76	.73	.63	.13	.12
15	.39	.38	.45	.62	.69	2.48	.13	.95	.73	.63	.13	.09
16	1.40	1.42	1.45	1.68	1.93	2.73	1.08	0.93	0.72	0.63	1.13	1.09
17	.40	.42	.43	.87	.74	.21	0.98	.90	.72	.62	.13	.02
18	.41	.40	.38	.72	.75	.06	.93	.87	.72	.61	.13	0.97
19	.44	.46	.39	.65	.75	1.91	.93	.84	.72	.61	.11	.93
20	.45	.48	.40	.57	.71	.78	.88	.83	.71	.61	.10	.90
21	1.44	1.45	1.39	1.55	1.80	1.80	0.85	0.82	0.71	0.61	1.09	0.88
22	.43	.35	.32	.59	2.04	.83	.84	.82	.70	.61	.07	.85
23	.41	.40	.24	.62	1.99	.80	.84	.80	.70	.60	.06	.83
24	.34	.45	.21	.62	.94	2.11	.83	.80	.70	.60	.10	.80
25	.44	.46	.30	.62	2.21	.20	.90	.80	.69	.60	.10	.77
26	1.43	1.40	1.36	1.66	1.98	2.81	1.01	0.80	0.69	0.59	1.09	0.77
27	.32	.64	.36	.75	.89	.14	0.91	.78	.67	.59	.08	.75
28	.31	.48	.32	.82	2.01	1.82	.85	.78	.67	.59	.09	.75
29	.32	.43	.40	.88	.05	.68	.83	.78	.66	.59	.09	.75
30	.33	.44	.40	.79	.00	.59	.80	.77	.65	.58		.72
31		.41		.82	1.93		.78		.65	.58		.71
Mean	1.41	1.41	1.40	1.62	1.86	1.97	1.05	0.80	0.72	0.62	1.08	0.95
Max.	1.45	1.64	1.57	1.88	2.21	2.81	1.64	0.95	0.77	0.65	1.13	1.16
Min.	1.31	1.17	1.21	1.41	1.66	1.59	0.78	0.77	0.65	0.58	0.71	0.71

WATER YEAR 1967 : Max. 2.81 m. Min. 1.17 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	8.65	0.32	5.17	5.95	31	46	90	17	12	8.12	5.68	3.77
2	6.40	2.02	5.95	6.40	25	55	95	18	12	8.12	5.40	3.97
3	5.50	2.53	6.85	7.75	20	79	108	20	12	7.53	5.13	3.80
4	6.85	2.53	6.85	9.55	19	78	71	21	12	7.53	5.10	3.66
5	5.50	2.86	3.85	10	15	56	60	20	11	7.53	5.16	3.67
6	5.17	2.86	7.30	6.40	15	46	54	18	11	8.12	5.08	3.63
7	4.51	2.86	12	6.40	21	42	49	16	11	8.12	5.06	3.70
8	5.50	2.20	7.30	9.10	64	36	45	16	11	7.53	5.00	3.81
9	5.50	2.02	9.10	15	71	35	44	16	11	7.53	4.90	3.40
10	5.50	2.20	15	12	46	36	42	16	11	7.53	4.85	3.80
11	5.50	2.20	15	10	34	37	38	16	11	7.53	4.87	4.28
12	5.17	2.20	9.55	9.55	30	37	42	15	10	8.12	4.92	4.59
13	4.51	5.50	15	11	26	34	41	15	10	8.12	4.91	4.90
14	4.18	2.86	16	15	23	39	40	16	10	7.53	4.91	4.49
15	4.18	2.53	9.10	13	22	173	59	25	10	7.53	4.80	3.88
16	4.51	3.85	9.10	17	47	237	47	24	9.30	7.53	4.77	3.68
17	4.51	3.85	9.10	34	26	135	37	21	9.30	6.94	4.70	3.49
18	4.84	3.19	5.95	20	27	107	32	19	9.30	6.35	4.60	3.30
19	5.95	5.17	6.40	15	27	81	32	16	9.30	7.53	4.50	3.17
20	6.40	5.95	6.85	10	23	61	23	16	8.71	7.53	4.52	3.17
21	5.95	8.65	6.40	9.10	32	64	20	15	8.71	7.53	4.55	3.29
22	5.50	4.51	5.50	11	62	68	20	15	8.12	7.53	4.30	3.14
23	4.84	6.40	2.86	13	55	64	20	13	10	6.94	4.19	2.99
24	2.53	8.65	2.02	13	48	105	19	13	10	6.94	4.20	2.88
25	5.95	11	4.84	13	89	122	30	13	9.30	6.94	4.26	2.76
26	7.75	7.75	7.30	15	59	317	41	13	9.30	6.35	4.20	2.76
27	3.52	25	7.30	25	47	191	31	12	8.12	6.35	4.17	2.69
28	3.19	12	5.50	29	64	141	24	12	8.12	6.35	4.10	2.75
29	3.52	9.10	5.50	35	70	121	22	13	7.53	6.35	4.08	2.81
30	3.85	9.55	5.50	26	62	102	20	12	8.12	5.76		2.67
31		8.20		29	52		18		8.12	5.76		2.67
Total	155.43	168.51	234.14	459.20	1,252	2,745	1,314	492	306.35	225.17	136.91	107.57
Mean	5.18	5.43	7.80	14.8	40.4	91.5	42.4	16.4	9.88	7.26	4.72	3.47
Max.	8.65	25	16.	35	89	317	108	25	12	8.12	5.68	4.90
Min.	2.53	0.32	2.02	5.95	15	34	18	12	7.53	0.76	4.08	2.67
Runoff - mcm.	13.429	14.559	20.230	39.675	108.173	237.168	113.530	42.509	26.469	19.455	11.829	9.294

WATER YEAR 1967 : Max. 317 Min. 0.32 Mean 20.7 Annual Runoff 656.318 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sep. 26	16.00	3.35	454				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
SARAWIN RIVER BASIN

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

Location: Lat 19°-16' - 10" N, Long 97°- 56' - 55" E, at Ban Pong Daeng, Amphoe Muang, Mae Hong Son.

Drainage Area: 4,466 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: 0.00 m. (A.D.)

Bench Mark:

Location:
Elevation:

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 - 68

Rating Operation:

Period of Rating: 1967 - 68
Rated by Float: -
Rated by Current Meter: 1967 - 68

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

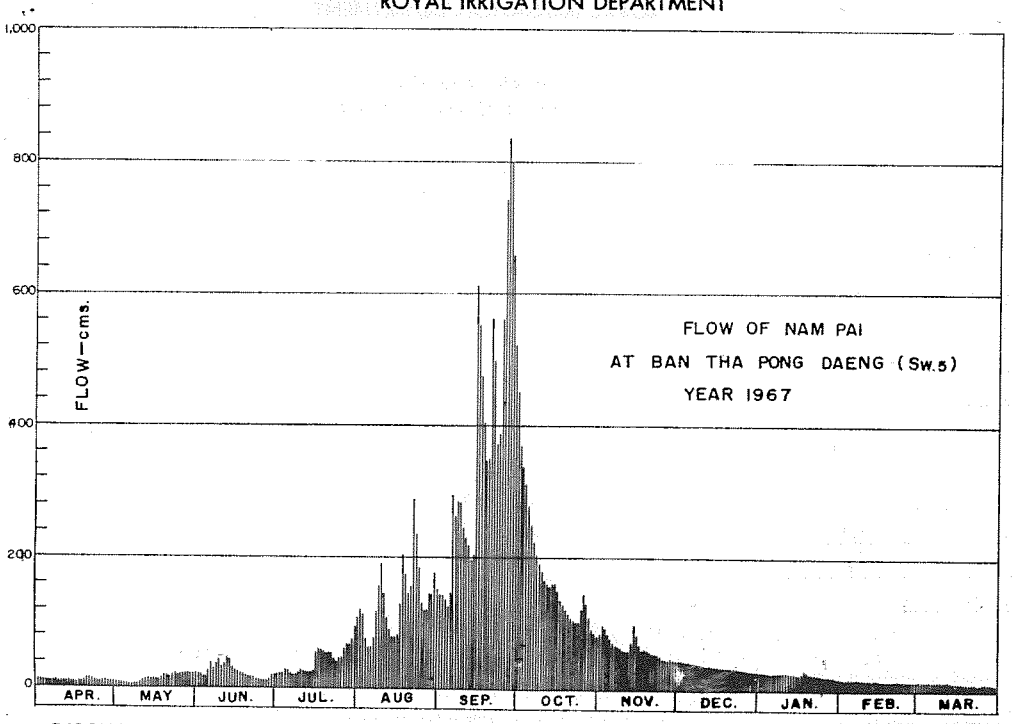
Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions for irrigation except those built by local residents. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (A.D.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.48	0.41	0.63	0.63	1.34	1.53	2.76	1.15	0.85	0.68	0.58	0.52
2	.47	.41	.60	.63	.40	.54	.50	.27	.85	.68	.57	.51
3	.46	.41	.56	.63	.32	.47	.45	.24	.85	.68	.57	.50
4	.47	.41	.54	.70	.04	.45	.31	.15	.84	.67	.57	.50
5	.46	.40	.69	.72	.01	.39	.15	.10	.83	.67	.56	.50
6	0.46	0.39	0.82	0.64	1.01	2.27	2.02	1.06	0.83	0.67	0.56	0.50
7	.47	.38	.66	.61	.10	.09	1.91	.05	.82	.66	.56	.50
8	.47	.37	.77	.60	.34	.23	.84	.04	.81	.66	.55	.49
9	.46	.38	.87	.64	.58	.21	.78	.02	.81	.66	.55	.49
10	.46	.41	.73	.70	.78	1.98	.73	0.99	.80	.66	.55	.49
11	0.45	0.48	0.78	0.68	1.47	1.95	1.65	0.98	0.79	0.65	0.55	0.49
12	.44	.51	.88	.66	.28	.90	.62	.98	.79	.65	.55	.49
13	.44	.53	.87	.65	.21	.77	.59	1.01	.78	.65	.54	.49
14	.45	.53	.74	.64	.13	.87	.62	.28	.78	.64	.54	.48
15	.45	.51	.66	.69	.14	3.45	.63	.17	.77	.64	.54	.48
16	0.42	0.49	0.67	0.94	1.13	3.20	1.52	1.04	0.77	0.64	0.54	0.48
17	.44	.47	.65	1.00	.39	2.91	.47	.00	.76	.65	.54	.47
18	.43	.54	.62	.00	.84	.71	.44	.02	.76	.71	.54	.47
19	.47	.60	.60	0.97	.66	.47	.41	.00	.75	.67	.54	.47
20	.56	.57	.58	.96	.53	.52	.35	0.98	.75	.65	.53	.47
21	0.54	0.57	0.58	0.95	1.55	3.29	1.31	0.95	0.74	0.65	0.53	0.46
22	.53	.54	.55	.95	2.24	2.72	.29	.94	.74	.64	.52	.46
23	.50	.63	.52	.85	.00	.53	.28	.93	.74	.64	.52	.46
24	.48	.59	.50	.82	1.71	.68	.27	.91	.73	.62	.52	.45
25	.46	.60	.50	.88	.48	3.31	.39	.89	.73	.62	.51	.45
26	0.46	0.61	0.49	0.90	1.39	3.91	1.54	0.88	0.72	0.61	0.51	0.45
27	.51	.64	.49	1.02	.40	4.09	.39	.87	.72	.61	.51	.45
28	.47	.63	.51	.06	.55	3.96	.27	.87	.71	.60	.51	.45
29	.44	.61	.59	.06	.50	.45	.21	.88	.70	.60	.52	.45
30	.43	.60	.62	.11	.71	.10	.18	.86	.70	.59		.43
31		.62		.26	.59		.15		.69	.59		.43
Mean	0.49	0.50	0.68	0.93	1.62	2.74	1.95	1.07	0.77	0.64	0.54	0.47
Max.	0.56	0.64	0.88	1.26	2.24	4.09	2.76	1.28	0.85	0.71	0.58	0.52
Min.	0.42	0.37	0.49	0.60	1.01	1.39	1.15	0.86	0.69	0.59	0.51	0.43

WATER YEAR 1967 : Max. 4.09 m. Min. 0.37 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	11	7.17	22	22	110	143	414	80	43	26	18	14
2	11	7.17	20	22	120	145	349	99	43	26	17	13
3	10	7.17	17	22	107	133	337	94	43	26	17	12
4	11	7.17	15	28	65	129	304	80	42	25	17	12
5	10	6.60	27	30	61	118	268	73	41	25	17	12
6	10	6.18	40	23	61	295	239	68	41	25	17	12
7	11	5.76	25	21	73	255	217	66	40	25	17	12
8	11	5.34	35	20	110	286	203	65	39	25	16	12
9	10	5.76	45	23	152	282	191	63	39	25	16	12
10	10	7.17	31	28	191	231	181	59	37	25	16	12
11	9.45	11	36	26	133	225	165	58	36	24	16	12
12	8.88	13	46	25	100	215	160	58	36	24	16	12
13	8.88	14	45	24	89	189	154	61	36	24	15	12
14	8.31	14	32	23	77	209	160	100	36	23	15	11
15	9.45	13	25	27	79	611	162	83	35	23	15	11
16	7.74	12	25	53	77	535	142	65	35	23	15	11
17	8.88	11	24	60	118	453	133	60	34	24	15	10
18	8.31	15	21	60	203	401	127	63	34	29	15	10
19	11	20	20	56	167	342	122	60	33	25	15	10
20	17	17	18	55	143	354	112	58	33	24	14	10
21	15	17	18	54	147	561	105	54	32	24	14	10
22	14	15	16	54	288	404	102	53	32	23	14	10
23	12	22	14	43	235	357	100	52	32	23	14	10
24	11	19	12	40	177	394	99	49	31	21	14	9.45
25	10	20	12	46	134	567	118	47	31	21	13	9.45
26	10	21	12	48	118	768	145	46	30	21	13	9.45
27	13	23	12	63	120	835	118	45	30	21	13	9.45
28	11	22	13	68	147	786	99	45	29	20	13	9.45
29	8.88	21	19	68	138	611	89	46	28	20	14	9.45
30	8.31	20	21	74	177	506	85	44	28	19		8.31
31		21		97	154		80		27	19		8.31
Total	316.09	426.49	718	1,303	4,071	11,340	5,280	1,894	1,086	728	441	335.32
Mean	10.5	13.8	23.9	42.0	131	378	170	63.1	35.0	23.5	15.2	10.8
Max.	17	23	46	97	288	835	414	100	43	29	18	14
Min.	7.74	5.34	12	20	61	118	80	44	27	19	13	8.31
Runoff - mcm.	27.310	36.849	62.035	112.579	351.734	979.776	456.192	163.642	93.830	62.899	38.102	28.972

WATER YEAR 1967 : Max. 835 Min. 5.34 Mean 76.3 Annual Runoff 2,413.921 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sep. 27	06.00	4.19	874				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
MAE KHONG RIVER BASIN

Mae Kok River at Mae Kok Bridge, Chiang Rai (G.2A)

Location: Lat 19°- 55' - 16" N, Long 99°- 50' - 57" E, on left bank about 20 meters downstream from Chiang Rai - Mae Chan highway bridge, Amphoe Muang, Chiang Rai.

Drainage Area: 6,063 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: +389.00 m. (M.S.L.)

Bench Mark:

Location: Infront of Muang Chiang Rai Police Station.
Elevation: +393.90 m. (M.S.L.)

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: 1958 to date

Rating Operation:

Period of Rating: 1958 - 60, 1967 to date
Rated by Float: -
Rated by Current Meter: 1958 - 60, 1967 to date

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

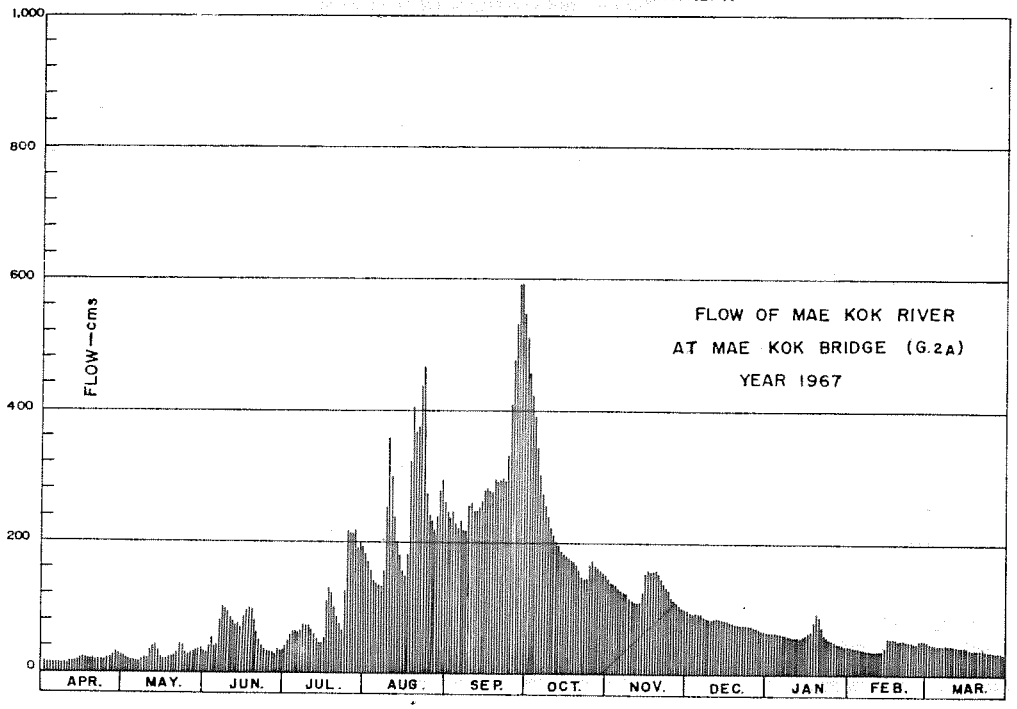
Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions for irrigation except those built by local residents. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	390.59	390.68	390.74	390.83	391.54	391.76	392.42	391.39	391.18	391.00	390.86	390.91
2	.59	.66	.81	.86	.47	.72	.30	.36	.16	.00	.85	.89
3	.59	.65	.92	.94	.42	.75	.22	.37	.15	390.99	.85	.88
4	.59	.64	.84	.99	.37	.72	.15	.37	.15	.99	.84	.87
5	.58	.63	.81	391.00	.35	.65	.03	.33	.15	.99	.84	.86
6	390.58	390.63	391.02	390.97	391.34	391.71	391.92	391.30	391.14	390.98	390.83	390.86
7	.58	.63	.20	.99	.33	.66	.85	.29	.13	.97	.82	.86
8	.58	.63	.18	391.05	.46	.66	.79	.29	.12	.96	.82	.86
9	.58	.70	.15	.03	.86	.78	.74	.26	.11	.96	.81	.86
10	.58	.66	.12	.04	392.07	.80	.68	.24	.11	.95	.81	.86
11	390.58	390.77	391.08	391.00	391.94	391.75	391.65	391.23	391.11	390.95	390.81	390.87
12	.59	.82	.03	390.97	.72	.75	.62	.22	.12	.94	.81	.86
13	.59	.86	.05	.93	.60	.79	.59	.23	.11	.94	.81	.85
14	.62	.75	390.99	.87	.52	.81	.56	.31	.10	.94	.82	.84
15	.64	.70	391.10	.87	.42	.85	.53	.41	.10	.98	.94	.84
16	390.68	390.66	391.16	390.89	391.38	391.86	391.59	391.44	391.10	390.99	390.94	390.83
17	.67	.68	.17	391.23	.58	.85	.51	.44	.09	391.00	.94	.82
18	.66	.68	.19	.32	392.02	.85	.50	.43	.08	.08	.93	.81
19	.65	.70	.16	.28	.19	.90	.49	.44	.07	.16	.92	.81
20	.66	.71	390.97	.16	.07	.89	.46	.44	.07	.13	.92	.82
21	390.64	390.74	390.90	391.08	392.12	391.89	391.43	391.38	391.07	391.03	390.92	390.82
22	.65	.86	.84	.04	.26	.91	.39	.35	.07	390.94	.91	.82
23	.65	.86	.80	390.99	.09	.89	.39	.32	.06	.94	.91	.81
24	.63	.76	.77	391.04	391.90	392.04	.38	.30	.05	.93	.90	.81
25	.67	.72	.75	.66	.75	.19	.46	.26	.05	.92	.89	.80
26	390.68	390.73	390.76	391.64	391.71	392.27	391.50	391.23	391.04	390.90	390.90	390.80
27	.70	.75	.74	.65	.65	.41	.47	.22	.03	.89	.92	.79
28	.79	.79	.81	.66	.71	.60	.45	.21	.02	.88	.93	.79
29	.74	.79	.79	.57	.83	.60	.44	.19	.01	.87	.93	.79
30	.70	.80	.79	.60	.90	.53	.43	.18	.01	.87		.79
31		.79		.57	.84		.42		.00	.86		.79
Mean	390.63	390.72	390.95	391.15	391.72	391.93	391.65	391.31	391.09	390.96	390.87	390.83
Max.	390.79	390.86	391.20	391.66	392.26	392.60	392.42	391.44	391.18	391.16	390.94	390.91
Min.	390.58	390.63	390.74	390.83	391.33	391.65	391.38	391.18	391.00	390.86	390.81	390.79

WATER YEAR 1967 : Max. 392.60 m. Min. 390.58 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	15	21	26	35	185	249	505	147	100	63	40	48
2	15	20	32	40	167	236	450	140	95	63	38	44
3	15	19	49	53	154	246	417	142	93	61	38	43
4	15	18	37	61	142	236	389	142	93	61	37	41
5	15	18	32	53	138	215	342	133	93	61	37	40
6	15	18	67	58	135	233	302	126	91	60	35	40
7	15	18	104	61	133	218	278	124	89	58	34	40
8	15	18	100	72	164	218	258	124	86	56	34	40
9	15	22	93	69	282	255	242	117	84	56	32	40
10	15	20	86	71	358	261	224	113	84	54	32	40
11	15	28	78	63	309	246	215	111	84	54	32	41
12	15	34	69	58	236	246	206	109	86	53	32	40
13	15	40	72	51	200	258	198	111	84	53	32	38
14	17	26	61	41	179	265	190	128	82	53	34	37
15	18	22	82	41	154	273	182	152	82	60	53	37
16	21	20	95	44	145	282	179	159	82	61	53	35
17	20	21	97	111	195	278	177	159	80	63	53	34
18	20	21	102	131	339	278	174	157	78	78	51	32
19	19	22	95	122	405	295	172	159	76	95	49	32
20	20	23	58	95	358	292	164	159	76	89	49	34
21	18	26	46	78	377	292	157	145	76	69	49	34
22	19	40	37	71	434	299	147	138	76	53	48	34
23	19	40	31	61	365	292	147	131	74	53	48	32
24	18	27	28	71	295	346	145	126	72	51	46	32
25	20	24	26	218	246	405	164	117	72	49	44	31
26	21	25	27	212	233	438	174	111	71	46	46	31
27	22	26	26	215	215	500	167	109	69	44	49	30
28	30	30	32	218	233	593	162	106	67	43	51	30
29	26	30	30	193	271	593	159	102	65	41	51	30
30	22	31	30	200	295	558	157	100	65	41		30
31		30		193	275		154		63	40		30
Total	545	778	1,748	3,070	7,617	9,401	6,997	3,897	2,488	1,782	1,227	1,120
Mean	18.2	25.1	58.3	99.0	246	313	226	130	80.2	57.5	42.3	36.1
Max.	30	40	104	218	434	593	505	159	100	95	53	48
Min.	15	18	26	35	133	215	145	100	63	40	32	30
Runoff - mcm.	47.088	67.219	151.027	265.248	658.109	812.246	604.541	336.701	214.963	153.965	106.013	96.768

WATER YEAR 1967 : Max. 593 Min. 15 Mean 111 Annual Runoff 3,513.888 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sep. 28	24.00	392.63	609				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
MAE KHONG RIVER BASIN

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

Location: Lat 17°- 34' - 39" N, Long 102°- 20' - 19" E, on right bank about 300 meters downstream from confluence of Huai Nam Ban and Huai Pak Kong, Amphoe Ban Phu, Udon Thani.

Drainage Area: 1,307 sq.km.

Type of Gage: Water - stage recorder.

Zero Gage at Bottom at: +0.00 m. (A.D.)

Bench Mark: B.M. - H.S.

Location: On right bank near the camp of gaging station Kh.18
Elevation: +7.590 m. (A.D.)

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 to date
Rated by Float: -
Rated by Current Meter: 1957 to date

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

Overbank Flow Conditions: Overbank flow at elevation +6.65 m. (M.S.L.) but not observed.

General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions for irrigation except those built by local residents. No adjustment made for virgin flow.

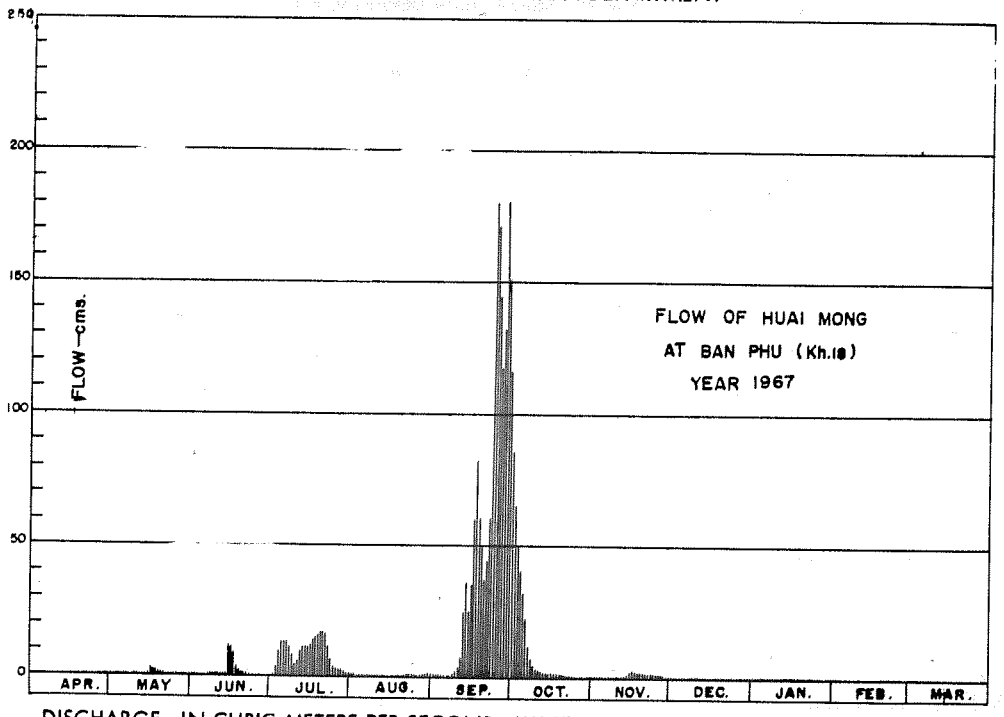
Remarks: No flow for periods of discharge record are omitted.

GAGE HEIGHT IN METER (A.D.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.72	1.05	0.79	1.09	1.56	1.30	6.92	1.14	1.09	0.82	0.70	0.67
2	.70	0.94	.76	.15	.38	.20	.58	.15	.05	.79	.71	.68
3	.73	.91	.76	2.15	.21	.12	.25	.12	.06	.81	.74	.66
4	.71	.87	.75	3.45	.34	.10	5.76	.10	.07	.78	.68	.64
5	.70	.81	.76	.66	.39	.11	.17	.08	.02	.79	.69	.64
6	0.71	0.75	0.75	3.72	1.27	1.03	4.49	1.04	0.99	0.77	0.68	0.63
7	.70	.75	.78	.66	.09	.04	3.34	.02	.94	.75	.70	.65
8	.71	.76	.84	.31	0.95	.09	2.48	.02	.90	.86	.74	.65
9	.71	.74	.96	2.76	.95	.65	.15	.07	.91	.82	.70	.63
10	.73	.75	.95	.30	1.04	2.11	1.94	.09	.92	.75	.66	.66
11	0.73	0.76	0.97	2.35	1.06	2.33	1.81	1.09	0.87	0.79	0.65	0.67
12	.72	.77	.98	3.14	.08	4.02	.67	.15	.83	.84	.63	.65
13	.71	.78	.97	.43	1.00	5.65	.56	.23	.84	.88	.66	.63
14	.70	1.10	1.90	.50	0.91	4.52	.53	.58	.80	.89	.66	.64
15	.70	.27	3.55	.43	.89	5.29	.55	.79	.83	.86	.68	.66
16	0.74	1.95	3.41	3.47	0.82	6.64	1.54	1.94	0.79	0.84	0.67	0.65
17	.73	.86	2.45	.76	.87	.98	.56	.88	.76	.85	.65	.64
18	.72	.57	1.94	.92	1.00	.66	.47	.81	.71	.84	.62	.64
19	.70	.39	.72	4.04	0.96	5.99	.43	.72	.79	.80	.62	.66
20	.73	.28	.54	.12	1.02	.44	.40	.65	.87	.78	.62	.73
21	0.71	1.22	1.39	4.14	1.16	5.93	1.36	1.56	0.82	0.76	0.65	0.71
22	.71	.13	.25	3.92	.35	6.56	.32	.59	.79	.75	.65	.69
23	.78	.04	.14	2.99	.45	.81	.27	.61	.73	.76	.65	.67
24	.75	0.99	.04	.37	.43	7.69	.26	.54	.72	.73	.66	.66
25	.77	.98	.02	.06	.33	.64	.20	.47	.76	.74	.64	.66
26	0.86	0.87	1.03	1.91	1.24	7.33	1.18	1.40	0.79	0.71	0.63	0.66
27	.99	.81	.02	.92	.24	.36	.24	.34	.84	.69	.62	.66
28	1.10	.78	0.97	.84	.29	.69	.21	.26	.82	.66	.65	.65
29	.18	.80	1.02	.61	.36	.60	.19	.20	.79	.70	.65	.64
30	.13	.83	.09	.42	.46	.33	.13	.13	.80	.71		.62
31		.78		.53	.38		.12		.85	.70		.62
Mean	0.78	1.01	1.28	2.87	1.18	4.61	2.39	1.36	0.86	0.78	0.66	0.65
Max.	1.18	1.95	3.55	4.14	1.56	7.69	6.92	1.94	1.09	0.89	0.74	0.73
Min.	0.70	0.74	0.75	1.09	0.82	1.03	1.12	1.02	0.71	0.66	0.62	0.62

WATER YEAR 1967 : Max. 7.69 m. Min. 0.62 m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.02	0.45	0.09	0.49	1.78	1.00	78	0.58	0.49	0.12	0.00	0.00
2	0.00	0.28	0.06	0.60	1.24	0.70	61	0.62	0.45	0.09	0.01	
3	0.03	0.22	0.06	4.00	0.73	0.54	49	0.54	0.45	0.11	0.04	
4	0.01	0.17	0.05	11	1.12	0.50	38	0.50	0.47	0.08	0.00	
5	0.00	0.11	0.06	13	1.27	0.52	28	0.48	0.42	0.09	0.00	
6	0.01	0.05	0.05	13	0.91	0.43	20	0.44	0.38	0.07	0.00	
7	0.00	0.05	0.08	13	0.49	0.44	11	0.42	0.28	0.05	0.00	
8	0.01	0.06	0.14	10	0.30	0.49	5.50	0.42	0.20	0.16	0.04	
9	0.01	0.04	0.32	7.06	0.30	2.05	4.00	0.47	0.22	0.12	0.00	
10	0.03	0.05	0.30	4.70	0.44	3.84	3.10	0.49	0.24	0.05		
11	0.03	0.06	0.34	4.90	0.46	4.82	2.63	0.49	0.17	0.09		
12	0.02	0.07	0.36	9.24	0.48	16	2.11	0.60	0.13	0.14		
13	0.01	0.08	0.34	11	0.40	36	1.78	0.79	0.14	0.18		
14	0.00	0.50	2.90	12	0.22	21	1.69	1.84	0.10	0.19		
15	0.00	0.91	12	11	0.19	30	1.75	2.56	0.13	0.16		
16	0.04	3.15	11	11	0.12	63	1.72	3.10	0.09	0.14		
17	0.03	2.78	3.35	14	0.17	82	1.78	2.84	0.06	0.15		
18	0.02	1.81	3.10	15	0.40	64	1.51	2.63	0.01	0.14		
19	0.00	1.27	2.28	16	0.32	43	1.39	2.28	0.09	0.10		
20	0.03	0.94	1.72	17	0.42	32	1.30	2.05	0.17	0.08		0.03
21	0.01	0.76	1.27	17	0.62	41	1.18	1.78	0.12	0.06		0.01
22	0.01	0.56	0.85	15	1.15	60	1.06	1.87	0.09	0.05		0.00
23	0.08	0.44	0.58	8.34	1.45	72	0.91	1.93	0.03	0.06		
24	0.05	0.38	0.44	4.98	1.39	180	0.88	1.72	0.02	0.03		
25	0.07	0.36	0.42	3.64	1.09	168	0.70	1.51	0.06	0.04		
26	0.16	0.17	0.43	2.95	0.82	116	0.66	1.30	0.09	0.01		
27	0.38	0.11	0.42	3.00	0.82	120	0.82	1.12	0.14	0.00		
28	0.50	0.08	0.34	2.72	0.97	180	0.75	0.88	0.12	0.00		
29	0.66	0.10	0.42	1.93	1.18	159	0.68	0.70	0.09	0.00	0.00	
30	0.56	0.13	0.49	1.36	1.48	116	0.56	0.56	0.10	0.01		
31		0.08		1.69	1.24		0.54		0.15	0.01		0.00
Total	2.78	16.22	46.26	260.60	23.97	1,614.33	323.98	37.51	5.70	2.58	0.09	0.04
Mean	0.093	0.523	1.54	8.41	0.773	53.8	10.4	1.25	0.184	0.083	0.003	0.001
Max.	0.66	3.15	12	17	1.78	180	78	3.10	0.49	0.19	0.04	0.03
Min.	0.00	0.04	0.05	0.49	0.12	0.43	0.54	0.42	0.01	0.00	0.00	0.00
Runoff - MCM.	0.240	1.401	3.997	22.516	2.071	139.478	27.992	3.241	0.492	0.223	0.008	0.003

WATER YEAR 1967 : Max. 180 Min. 0.00 Mean 6.38 Annual Runoff 201.663 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sep.24,67	21.00	7.84	212				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
MAE KHONG RIVER BASIN

Nam Phung at Ban Chan Phen, Sakon Nakhon (Kh.21A)

Location: Lat 16°- 58' - 22" N, Long 104°- 10' - 03" E, on left bank about 6 kilometers downstream from Nam Phung Damsite 500 meters upstream from confluence with Huai Huat and 800 meters upstream from Ban Chan Phen, Amphoe Muang, Sakon Nakhon.

Drainage Area: 577 sq.km.

Type of Gage: Water - stage recorder.

Zero Gage at Bottom at: +172.00 m. (M.S.L.)

Bench Mark: B.M. 2 - H.S./R.I.D. No.2

Location: On left bank 15 meters upstream from gage site.
Elevation: +178.373 m. (M.S.L.)

Gage Reading Frequency: Recording.

Basis of Mean Daily Gage Height: Arithmetic mean of 24 readings.

Period of Available Gage Records: 1961 to date.

Rating Operation:

Period of Rating: 1961 - 67
Rated by Float: -
Rated by Current Meter: 1961 - 67

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

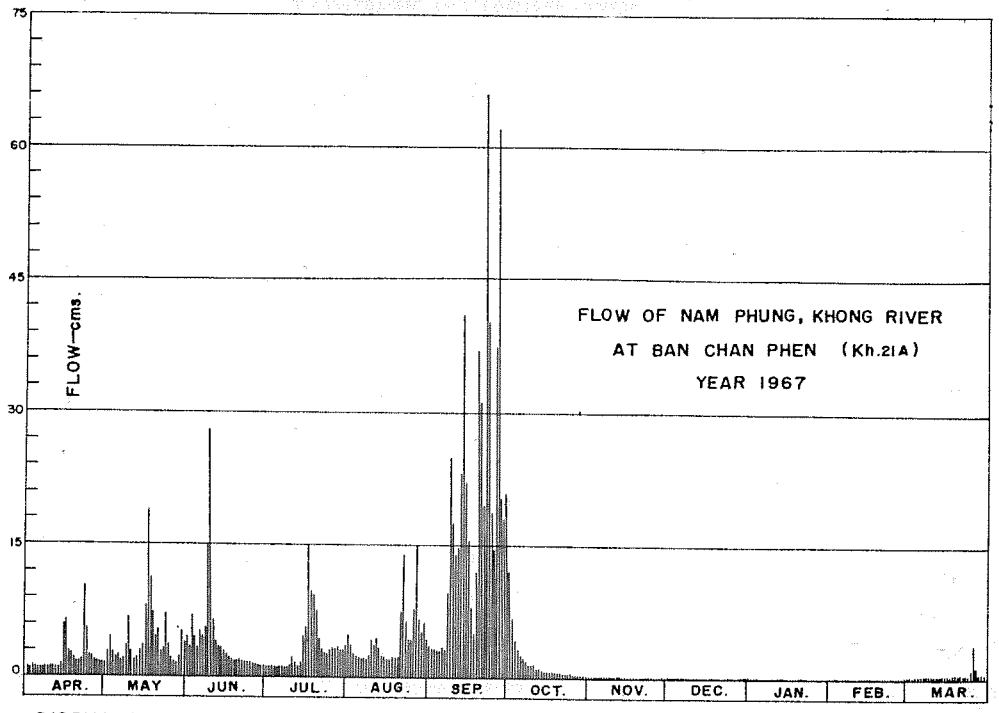
Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions for irrigation except those built by local residents. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	172.92	172.94	173.12	172.93	173.14	173.07	173.45	172.79	172.74	172.74	172.73	172.76
2	.91	173.04	172.99	.93	.04	.05	.24	.79	.74	.73	.73	.74
3	.92	.12	173.22	.93	.02	.05	.16	.79	.74	.73	.74	.78
4	.92	.01	.11	.93	.01	.04	.09	.79	.74	.74	.74	.81
5	.91	172.99	.01	.92	.00	.04	.05	.78	.74	.74	.74	.81
6	172.91	173.01	173.15	172.93	172.99	173.07	173.01	172.78	172.74	172.73	172.74	172.82
7	.91	172.96	.12	.93	.99	.04	172.99	.78	.74	.73	.74	.83
8	.91	.98	.08	.92	.98	.06	.97	.77	.74	.73	.74	.83
9	.92	173.07	.79	.92	173.00	.71	.94	.77	.74	.73	.74	.83
10	.92	.21	.41	.94	.11	.43	.94	.77	.74	.74	.74	.82
11	172.91	173.01	173.13	173.00	173.05	173.44	172.94	172.77	172.73	172.74	172.74	172.81
12	.91	172.97	.09	172.94	.12	.45	.91	.77	.71	.74	.74	.82
13	.92	.95	.06	.93	.02	.54	.91	.75	.71	.74	.74	.82
14	.90	173.01	.06	.95	.00	174.03	.90	.75	.72	.73	.75	.83
15	173.19	.08	.03	173.13	172.99	173.58	.89	.75	.74	.73	.74	.83
16	173.20	173.01	173.01	173.14	172.98	173.44	172.89	172.76	172.74	172.73	172.74	172.83
17	.02	.56	172.99	.46	.98	.20	.89	.76	.74	.73	.74	.84
18	.02	.31	.98	.28	173.00	.14	.88	.76	.75	.73	.75	.83
19	172.98	.23	.97	.30	.00	.09	.87	.76	.75	.73	.75	.86
20	.97	.10	.97	.24	172.98	.95	.86	.74	.75	.73	.74	.84
21	172.96	173.16	172.98	173.09	173.17	173.73	172.85	172.73	172.75	172.74	172.74	172.84
22	.97	.02	.96	.05	.44	.39	.85	.73	.75	.74	.74	.84
23	173.33	172.98	.96	.03	.17	174.40	.84	.73	.75	.73	.75	.84
24	.05	173.23	.96	.01	.10	173.83	.83	.74	.75	.73	.75	.83
25	.00	.04	.96	.04	.08	.41	.82	.74	.75	.73	.74	.86
26	173.00	172.99	172.95	173.06	173.16	173.42	172.82	172.74	172.75	172.73	172.75	173.09
27	172.97	.96	.94	.05	.47	174.35	.81	.74	.74	.73	.73	172.90
28	.96	.95	.94	.07	.17	173.63	.80	.74	.74	.73	.74	.86
29	.95	.96	.93	.05	.12	.50	.81	.74	.74	.74	.74	.87
30	.95	173.15	.94	.03	.19	.62	.80	.74	.74	.74		.86
31		.07		.07	.10		.79		.75	.74		.86
Mean	172.97	173.07	173.06	173.04	173.08	173.46	172.87	172.76	172.74	172.73	172.74	172.84
Max.	173.33	173.56	173.79	173.46	173.47	174.40	173.45	172.79	172.75	172.74	172.75	173.09
Min.	172.90	172.94	172.93	172.92	172.98	173.04	172.79	172.73	172.71	172.73	172.73	172.74

WATER YEAR 1967 : Max. 174.40 m. Min. 172.71 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	1.20	1.50	4.56	1.35	5.02	3.59	14	0.27	0.12	0.12	0.09	0.18
2	1.05	3.08	2.25	1.35	3.08	3.25	7.60	0.27	0.12	0.09	0.09	0.12
3	1.20	4.56	7.00	1.35	2.74	3.25	5.48	0.27	0.12	0.09	0.12	0.24
4	1.20	2.57	4.33	1.35	2.57	3.08	3.93	0.27	0.12	0.12	0.12	0.36
5	1.05	2.25	2.57	1.20	2.40	3.08	3.25	0.24	0.12	0.12	0.12	0.36
6	1.05	2.57	5.25	1.35	2.25	3.59	2.57	0.24	0.12	0.09	0.12	0.42
7	1.05	1.80	4.56	1.35	2.25	3.08	2.25	0.24	0.12	0.09	0.12	0.48
8	1.05	2.10	3.76	1.20	2.10	3.42	1.95	0.21	0.12	0.09	0.12	0.48
9	1.20	3.59	28	1.20	2.40	25	1.50	0.21	0.12	0.09	0.12	0.48
10	1.20	6.70	13	1.50	4.33	14	1.50	0.21	0.12	0.12	0.12	0.42
11	1.05	2.57	4.79	2.40	3.25	14	1.50	0.21	0.090	0.12	0.12	0.36
12	1.05	1.95	3.93	1.50	4.56	14	1.05	0.21	0.030	0.12	0.12	0.42
13	1.20	1.65	3.42	1.35	2.76	18	1.05	0.15	0.030	0.12	0.12	0.42
14	0.90	2.57	3.42	1.65	2.40	41	0.90	0.15	0.060	0.09	0.15	0.48
15	6.17	3.76	2.91	4.79	2.25	19	0.84	0.15	0.12	0.09	0.12	0.48
16	5.40	2.57	2.57	5.02	2.10	14	0.84	0.18	0.12	0.09	0.12	0.48
17	2.74	19	2.25	15	2.10	6.40	0.84	0.18	0.12	0.09	0.12	0.54
18	2.74	9.72	2.10	8.80	2.40	5.02	0.78	0.18	0.15	0.09	0.15	0.48
19	2.10	7.30	1.95	9.40	2.40	3.93	0.72	0.18	0.15	0.09	0.15	0.66
20	1.95	4.10	1.95	7.60	2.10	37	0.66	0.12	0.15	0.09	0.12	0.54
21	1.80	5.48	2.10	3.93	5.71	26	0.60	0.09	0.15	0.12	0.12	0.54
22	1.95	2.74	1.80	3.25	14	12	0.60	0.09	0.15	0.12	0.12	0.54
23	10	2.10	1.80	2.91	5.71	66	0.54	0.09	0.15	0.09	0.15	0.54
24	3.25	7.30	1.80	2.57	4.10	31	0.48	0.12	0.15	0.09	0.15	0.48
25	2.40	3.08	1.80	3.08	3.76	13	0.42	0.12	0.15	0.09	0.12	0.66
26	2.40	2.25	1.65	3.42	5.48	13	0.42	0.12	0.15	0.09	0.15	3.93
27	1.95	1.80	1.50	3.25	15	62	0.36	0.12	0.12	0.09	0.09	0.90
28	1.80	1.65	1.50	3.59	5.71	21	0.30	0.12	0.12	0.09	0.12	0.66
29	1.65	1.80	1.35	3.25	4.56	16	0.36	0.12	0.12	0.12	0.12	0.72
30	1.65	5.25	1.50	2.91	6.17	21	0.30	0.12	0.12	0.12		0.66
31		3.59		3.59	4.10		0.27		0.15	0.12		0.66
Total	66.40	122.95	121.37	106.46	129.74	518.69	57.86	5.25	3.750	3.15	3.57	18.69
Mean	2.21	3.97	4.04	3.43	4.18	17.3	1.87	0.17	0.12	0.10	0.12	0.60
Max.	10	19	28	15	15	66	14	0.27	0.15	0.12	0.15	3.93
Min.	0.90	1.50	1.35	1.20	2.10	3.08	0.27	0.09	0.030	0.09	0.09	0.12
Runoff - MCM.	5.737	10.623	10.486	9.198	11.209	44.815	4.999	0.454	0.324	0.272	0.308	1.615

WATER YEAR 1967 : Max. 66 Min. 0.030 Mean 3.16 Annual Runoff 100.041 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sep. 23	16.00	175.79	199				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
MAE KHONG RIVER BASIN

Huai Huat at Ban Bung Sa, Sakon Nakhon (Kh.40)

Location: Lat 16°- 58' - 25" N, Long 104°- 10' - 16" E, on right bank south of Ban Chan Phen, about 200 meters upstream from confluence with Nam Phung, Amphoe Muang, Sakon Nakhon.

Drainage Area: 60 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: +172.47 m. (M.S.L.)

Bench Mark: B.M. - H.S./R.I.D. No.1

Location: About 200 meters north of gage site.
Elevation: +177.844 m. (M.S.L.)

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: 1962 - 70

Rating Operation:

Period of Rating: 1962 - 67
Rated by Float: -
Rated by Current Meter: 1962 - 67

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions for irrigation except those built by local residents. No adjustment made for virgin flow.

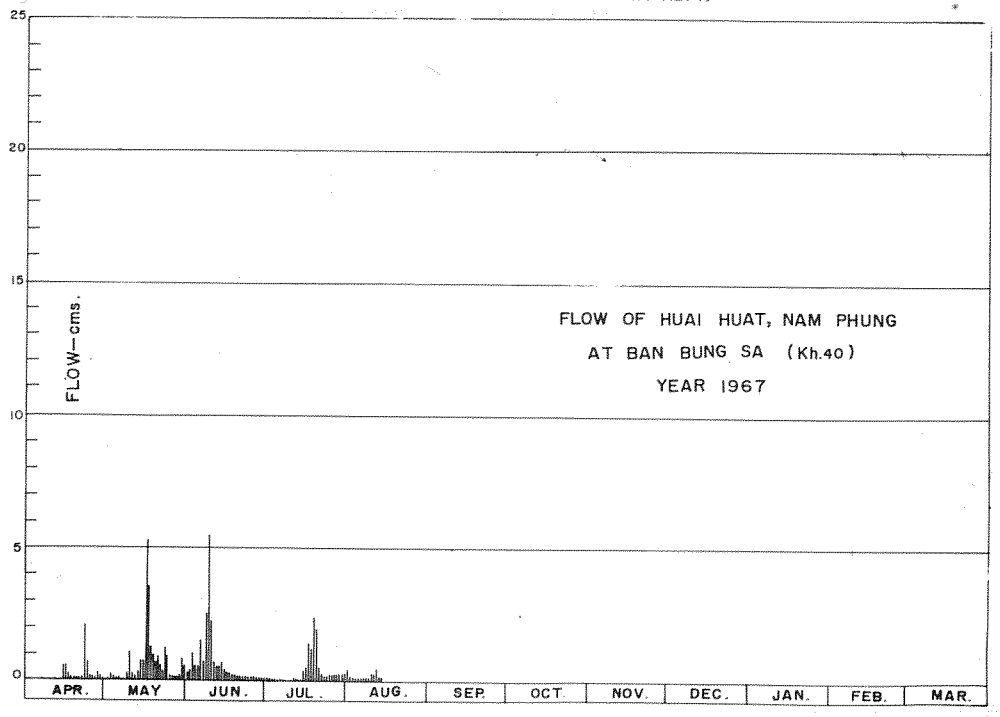
Remarks: Ending of records since Aug. 15, 1967.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	172.93	172.97	173.03	172.99	173.10							
2	.92	.98	.02	.98	.04							
3	.91	173.04	.25	.98	.03							
4	.92	.00	.11	.98	.00							
5	.93	172.98	.06	.97	172.99							
6	172.92	173.00	173.34	172.97	172.99							
7	.92	172.97	.15	.97	.99							
8	.92	.96	.09	.97	.99							
9	.92	173.05	.81	.96	.98							
10	.95	.25	.38	.96	173.07							
11	172.94	173.04	173.15	172.99	173.07							
12	.93	.02	.14	.98	.11							
13	.95	.03	.12	.97	.02							
14	.94	.18	.18	.97	.00							
15	173.14	.12	.10	173.10								
16	173.14	173.23	173.08	173.08								
17	.01	.79	.06	.33								
18	.00	.28	.04	.20								
19	172.99	.23	.03	.47								
20	.98	.15	.02	.42								
21	172.99	173.22	173.02	173.09								
22	173.01	.11	.02	.03								
23	.42	.06	.02	.02								
24	.08	.29	.01	.02								
25	.02	.03	.02	.04								
26	173.02	173.02	173.00	173.05								
27	172.99	.01	.00	.03								
28	173.08	.00	.01	.05								
29	172.99	.00	.00	.03								
30	.97	.21	172.99	.03								
31		.09		.04								
Mean	172.99	173.11	173.11	173.05								
Max.	173.42	173.79	173.81	173.47								
Min.	172.91	172.98	172.99	172.96								

WATER YEAR 1967 : Max. m. Min. m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.048	0.080	0.34	0.12	0.41							
2	0.040	0.10	0.19	0.10	0.19							
3	0.032	0.23	1.04	0.10	0.17							
4	0.040	0.15	0.45	0.10	0.15							
5	0.048	0.10	0.28	0.080	0.12							
6	0.040	0.15	1.53	0.080	0.12							
7	0.040	0.080	0.60	0.080	0.12							
8	0.040	0.072	0.38	0.080	0.12							
9	0.040	0.26	5.49	0.072	0.10							
10	0.064	1.04	1.77	0.072	0.30							
11	0.056	0.23	0.60	0.12	0.30							
12	0.048	0.19	0.57	0.10	0.45							
13	0.064	0.21	0.49	0.080	0.19							
14	0.056	0.72	0.72	0.080	0.15							
15	0.57	0.49	0.41	0.41								
16	0.57	0.95	0.34	0.34								
17	0.17	5.26	0.28	1.47								
18	0.15	1.19	0.23	0.81								
19	0.12	0.95	0.21	2.39								
20	0.10	0.60	0.19	2.04								
21	0.12	0.90	0.19	0.38								
22	0.17	0.45	0.19	0.21								
23	2.04	0.28	0.19	0.19								
24	0.34	1.24	0.17	0.19								
25	0.19	0.21	0.19	0.23								
26	0.19	0.19	0.15	0.26								
27	0.12	0.17	0.15	0.21								
28	0.34	0.15	0.17	0.26								
29	0.12	0.15	0.15	0.21								
30	0.080	0.86	0.12	0.21								
31		0.38		0.23								
Total	6.046	18.032	17.78	11.304								
Mean	0.20	0.58	0.59	0.36								
Max.	2.04	5.26	5.49	2.39								
Min.	0.032	0.072	0.12	0.072								
Runoff - mcm.	0.522	1.558	1.536	0.977								

WATER YEAR 1967 : Max. Min. Mean Annual Runoff mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
NAM LOEI RIVER BASIN

Nam Loei at Wat Ku Kam, Loei (Kh.43)

Location: Lat 17°– 14' – 15" N, Long 101°– 41' – 31" E, on left bank downstream of Wat Ku Kam at Ban Sai Khao, Amphoe Wang Saphung, Loei.

Drainage Area: 991 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: 0.00 m. (A.D.)

Bench Mark: B.M. – H.S.

Location: On left bank at tamarind tree along measuring line.
Elevation: +10.689 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: 1966 to date.

Rating Operation:

Period of Rating: 1966 to date
Rated by Float: –
Rated by Current Meter: 1966 to date

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

Overbank Flow Conditions: No overbank flow.

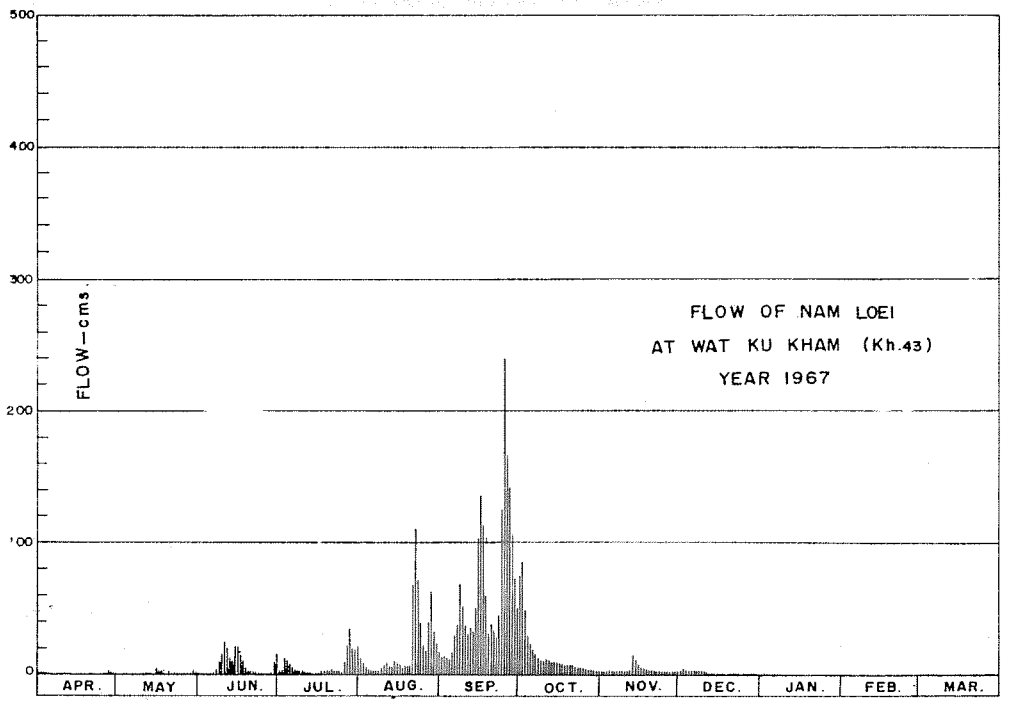
General Description: Records good. Stage – discharge relation used is defined by discharge measurements made during 1967. No upstream state diversions for irrigation except those built by local residents. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (A.D.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.72	0.82	0.87	1.00	1.29	1.33	2.55	0.97	0.95	0.87	0.82	0.80
2	.72	.80	.87	0.99	.20	.34	.70	.96	1.05	.87	.82	.81
3	.72	.78	.88	1.32	.10	.33	1.95	.96	.01	.87	.82	.85
4	.72	.80	.86	.27	.04	.26	.69	.96	0.98	.87	.81	.82
5	.72	.79	.84	.19	.00	.43	.54	.95	.96	.86	.81	.80
6	0.72	0.78	0.85	1.07	0.98	1.77	1.44	0.95	0.95	0.86	0.81	0.80
7	.72	.78	1.04	.00	.94	.89	.36	.94	.94	.86	.81	.79
8	.72	.78	.26	0.97	.97	2.43	.30	.94	.94	.86	.81	.79
9	.72	.79	.23	.95	1.10	.15	.26	.94	.93	.85	.81	.79
10	.72	.84	2.00	.94	.18	1.74	.24	.94	.93	.85	.81	.79
11	0.72	0.84	1.51	0.90	1.20	1.73	1.28	0.93	0.92	0.85	0.81	0.80
12	.72	.84	.34	.88	.10	.85	.24	1.02	.92	.85	.81	.79
13	.72	.84	.16	.88	.08	.77	.21	.39	.92	.84	.81	.78
14	.72	.82	.54	.86	.26	2.27	.23	.31	.91	.84	.81	.78
15	.72	1.03	.55	.88	.21	3.02	.21	.18	.91	.84	.81	.78
16	0.72	0.97	1.39	0.91	1.10	3.39	1.18	1.10	0.91	0.84	0.80	0.78
17	.76	.94	.17	.96	.06	2.97	.15	.05	.90	.84	.80	.78
18	.82	.97	0.99	.99	.15	.01	.13	.04	.90	.84	.80	.79
19	.80	.98	1.01	.98	.12	1.68	.13	.01	.90	.84	.80	.81
20	.78	.93	0.97	.94	.12	.88	.17	0.99	.90	.83	.80	.80
21	0.78	0.89	0.94	1.02	2.13	1.74	1.09	0.97	0.90	0.83	0.80	0.79
22	.78	.87	.92	0.99	3.04	.58	.07	.96	.90	.83	.80	.79
23	.78	.86	.90	.95	2.40	.78	.05	.95	.89	.83	.80	.79
24	.78	.84	.88	.98	1.77	2.95	.03	.95	.89	.83	.80	.79
25	.78	.84	.87	.91	.46	4.68	.03	.94	.89	.83	.80	.79
26	0.80	0.88	0.86	1.23	1.45	3.80	1.02	0.94	0.89	0.83	0.80	0.79
27	.94	.85	.88	.55	2.07	.43	.00	.94	.88	.82	.80	.78
28	.90	.83	.92	.83	.33	2.97	0.99	.94	.88	.82	.80	.78
29	.87	1.02	1.09	.37	1.77	.27	.98	.93	.88	.82	.80	.78
30	.84	0.92	.43	.44	.64	1.97	.97	.93	.87	.82		.78
31		.88		.57	.43		.97		.87	.82		.78
Mean	0.76	0.86	1.10	1.09	1.41	2.21	1.29	1.00	0.92	0.84	0.81	0.79
Max.	0.94	1.03	2.00	1.83	3.04	4.68	2.70	1.39	1.05	0.87	0.82	0.85
Min.	0.72	0.78	0.84	0.86	0.94	1.26	0.97	0.93	0.87	0.82	0.80	0.78

WATER YEAR 1967 : Max. 4.68 m. Min. 0.72 m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.50	0.70	1.20	3.50	12	13	76	2.90	2.50	1.20	0.70	0.50
2	0.50	0.50	1.20	3.30	9.00	14	85	2.70	4.75	1.20	0.70	0.60
3	0.50	0.30	1.30	13	6.00	13	41	2.70	3.75	1.20	0.70	1.00
4	0.50	0.50	1.10	11	4.50	11	28	2.70	3.10	1.20	0.60	0.70
5	0.50	0.40	0.90	8.70	3.50	17	22	2.50	2.70	1.10	0.60	0.50
6	0.50	0.30	1.00	5.25	3.10	32	18	2.50	2.50	1.10	0.60	0.50
7	0.50	0.30	4.50	3.50	2.30	38	15	2.30	2.30	1.10	0.60	0.40
8	0.50	0.30	11	2.90	2.90	69	12	2.30	2.30	1.10	0.60	0.40
9	0.50	0.40	10	2.50	6.00	52	11	2.30	2.10	1.00	0.60	0.40
10	0.50	0.90	44	2.30	8.40	31	10	2.30	2.10	1.00	0.60	0.40
11	0.50	0.90	20	1.50	9.00	30	12	2.10	1.90	1.00	0.60	0.50
12	0.50	0.90	14	1.30	6.00	36	10	4.00	1.90	1.00	0.60	0.40
13	0.50	0.90	7.80	1.30	5.50	32	9.35	16	1.90	0.90	0.60	0.30
14	0.50	0.70	22	1.10	11	59	10	13	1.70	0.90	0.60	0.30
15	0.50	4.25	22	1.30	9.35	106	9.35	8.40	1.70	0.90	0.60	0.30
16	0.50	2.90	16	1.70	6.00	132	8.40	6.00	1.70	0.90	0.50	0.30
17	0.90	2.30	8.10	2.70	5.00	102	7.50	4.75	1.50	0.90	0.50	0.30
18	1.50	2.90	3.30	3.30	7.50	44	6.90	4.50	1.50	0.90	0.50	0.40
19	1.30	3.10	3.75	3.10	6.60	28	6.90	3.75	1.50	0.90	0.50	0.60
20	1.10	2.10	2.90	2.30	6.60	38	6.30	3.30	1.50	0.80	0.50	0.50
21	1.10	1.40	2.30	4.00	51	31	6.75	2.90	1.50	0.80	0.50	0.40
22	1.10	1.20	1.90	3.30	107	24	5.25	2.70	1.50	0.80	0.50	0.40
23	1.10	1.10	1.50	2.50	67	33	4.75	2.50	1.40	0.80	0.50	0.40
24	1.10	0.90	1.30	3.10	32	101	4.25	2.50	1.40	0.80	0.50	0.40
25	1.10	0.90	1.20	1.70	18	240	4.25	2.50	1.40	0.80	0.50	0.40
26	1.30	1.30	1.10	10	18	164	4.00	2.30	1.40	0.80	0.50	0.40
27	2.30	1.00	1.30	22	48	135	3.50	2.30	1.30	0.70	0.50	0.30
28	1.50	0.80	1.90	35	64	102	3.30	2.30	1.30	0.70	0.50	0.30
29	1.20	4.00	6.75	15	32	59	3.10	2.10	1.30	0.70	0.50	0.30
30	0.90	1.90	17	18	26	42	2.90	2.10	1.20	0.70		0.30
31		1.30		23	17		2.90		1.20	0.70		0.30
Total	25.50	41.35	232.30	213.15	610.25	1,828.00	449.65	115.00	59.80	28.60	16.30	13.20
Mean	0.85	1.33	7.74	6.87	19.7	60.9	14.5	3.83	1.93	0.92	0.56	0.42
Max.	2.30	4.25	44	35	107	240	85	16	4.75	1.20	0.70	1.00
Min.	0.50	0.30	0.90	1.10	2.30	11	2.90	2.10	1.20	0.70	0.50	0.30
Runoff - MCM.	2.203	3.573	20.071	18.416	52.726	157.939	38.850	9.936	5.167	2.471	1.408	1.140

WATER YEAR 1967 : Max. 240 Min. 0.30 Mean 9.93 Annual Runoff 313.900 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sep. 25	8.00	5.03	282				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
CHEE RIVER BASIN

Chee River at Wat Tai Kosum, Maha Sarakham (E.1)

Location: Lat 16°- 15' - 02" N, Long 103°- 04' - 25" E, on right bank, 800 meters north - east of the district office of Amphoe Kosum Phisai, Maha Sarakham.

Drainage Area: 29,788 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: +136.64 m. (M.S.L.)

Bench Mark: B.M. - E.1

Location: On right bank 5 meter from gage site.
Elevation: +149.116 m. (M.S.L.)

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: 1936 - 43, 1951 to date.

Rating Operation:

Period of Rating: 1965 to date
Rated by Float: -
Rated by Current Meter: 1965 to date

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

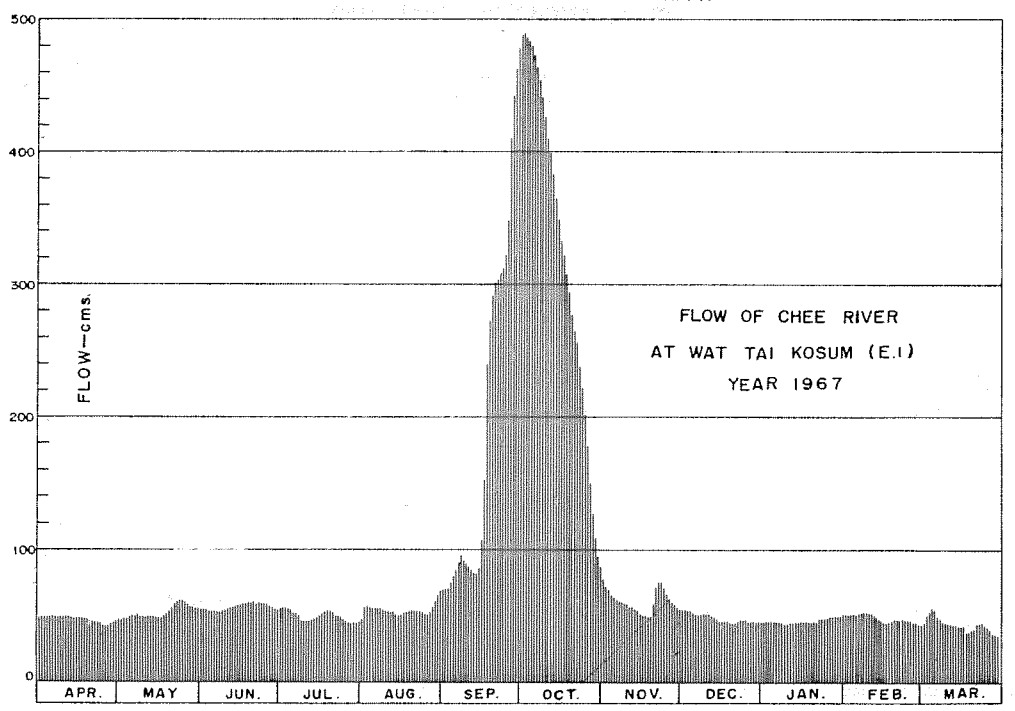
Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1967. Flow regulated by Nam Phong Dam at above gage site. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	138.18	138.16	138.33	138.35	138.19	138.64	144.09	138.65	138.21	138.00	138.12	137.94
2	.20	.17	.33	.36	.36	.64	.10	.55	.21	.00	.12	.97
3	.22	.18	.32	.37	.41	.64	.08	.47	.20	.00	.12	138.13
4	.22	.19	.32	.35	.39	.75	.05	.41	.19	.00	.12	.14
5	.22	.21	.31	.33	.36	.83	.00	.37	.15	137.97	.12	.23
6	138.22	138.23	138.31	138.28	138.35	138.89	143.91	138.34	138.13	137.99	138.14	138.21
7	.21	.24	.30	.27	.36	139.02	.81	.32	.12	.98	.14	.07
8	.21	.26	.30	.25	.35	.09	.69	.30	.14	.98	.16	137.99
9	.20	.22	.31	.14	.32	.02	.54	.29	.14	.96	.16	.97
10	.20	.21	.32	.14	.31	138.94	.39	.26	.15	.96	.14	.94
11	138.20	138.19	138.33	138.14	138.31	138.92	143.21	138.25	138.15	137.97	138.14	137.94
12	.19	.21	.35	.15	.29	.90	.04	.24	.11	.97	.13	.94
13	.19	.20	.37	.17	.28	.86	142.86	.21	.07	.97	.07	.93
14	.19	.21	.38	.20	.25	.84	.68	.16	.04	.98	.02	.89
15	.18	.20	.40	.22	.22	.92	.51	.12	.01	.99	.00	.90
16	138.18	138.19	138.41	138.24	138.25	139.29	142.33	138.10	138.01	138.00	137.97	137.91
17	.18	.19	.42	.28	.28	140.04	.15	.09	.00	137.99	.96	.90
18	.17	.21	.43	.31	.30	141.14	141.98	.07	137.99	.98	138.00	.77
19	.16	.25	.44	.32	.31	.58	.81	.10	.98	.98	.03	.80
20	.14	.29	.44	.31	.32	.81	.64	.35	.98	.99	.04	.82
21	138.13	138.35	138.44	138.29	138.32	141.93	141.46	138.57	137.98	138.00	138.03	137.85
22	.12	.42	.43	.26	.31	.94	.28	.63	138.01	.04	.02	.95
23	.11	.46	.44	.24	.31	142.02	.09	.60	.02	.05	.02	.96
24	.09	.49	.43	.20	.30	.07	140.77	.52	.02	.06	.03	.97
25	.06	.48	.42	.16	.25	.22	.52	.43	.02	.07	.03	.90
26	138.05	138.44	138.42	138.14	138.25	142.54	140.21	138.36	138.01	138.07	138.03	137.87
27	.07	.40	.39	.11	.27	143.09	139.79	.31	.00	.09	137.98	.79
28	.09	.38	.35	.11	.37	.59	.45	.26	.00	.09	.94	.75
29	.11	.36	.34	.11	.46	.81	.20	.23	.00	.10	.93	.73
30	.14	.35	.34	.12	.56	.97	138.95	.21	.00	.11		.72
31		.34		.12	.63		.78		.00	.12		.72
Mean	138.16	138.28	138.37	138.23	138.33	140.46	141.82	138.32	138.06	138.01	138.06	137.92
Max.	138.22	138.49	138.44	138.36	138.63	143.97	144.10	138.65	138.21	138.12	138.16	138.23
Min.	138.05	138.16	138.30	138.11	138.19	138.64	138.78	138.07	138.00	137.96	137.93	137.72

WATER YEAR 1967 : Max. 144.10 m. Min. 137.72 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	48	47	55	56	48	70	488	77	55	46	51	44
2	49	47	55	56	56	70	489	72	55	46	51	45
3	49	48	54	56	58	70	487	68	55	46	51	51
4	49	48	54	56	57	76	484	65	54	46	51	52
5	49	49	54	55	56	80	479	63	52	45	51	56
6	49	50	54	52	56	84	471	62	51	46	52	55
7	49	50	53	52	56	92	462	61	51	45	52	49
8	49	51	53	51	56	96	451	60	52	45	53	46
9	49	49	54	46	54	92	438	59	52	44	53	45
10	49	49	54	46	54	87	425	58	52	44	52	44
11	49	48	55	46	54	86	409	57	52	45	52	44
12	48	49	56	46	53	84	394	57	50	45	51	44
13	48	49	56	47	52	82	378	55	49	45	49	43
14	48	49	57	49	51	81	363	53	48	45	47	42
15	48	49	58	49	49	86	349	51	46	46	46	42
16	48	48	58	50	51	108	334	50	46	46	45	42
17	48	48	59	52	52	158	320	50	46	46	44	42
18	47	49	59	54	53	240	306	49	46	45	46	37
19	47	51	60	54	54	274	292	50	45	45	47	38
20	46	53	60	54	54	292	279	62	45	46	48	39
21	45	56	60	53	54	302	265	73	45	46	47	40
22	45	59	59	51	54	303	251	76	46	48	47	44
23	45	61	60	50	54	309	236	75	47	48	47	44
24	44	62	59	49	53	313	214	71	47	48	47	45
25	42	62	59	47	51	325	196	66	47	49	47	42
26	42	60	59	46	51	351	175	63	46	49	47	41
27	43	58	57	45	52	398	145	60	46	50	45	38
28	44	57	56	45	56	442	124	58	46	50	44	36
29	45	56	55	45	61	462	109	56	46	50	43	35
30	46	56	55	45	66	477	94	55	46	50		35
31		55		45	69		84		46	51		35
Total	1,407	1,623	1,697	1,548	1,695	5,990	9,991	1,832	1,510	1,446	1,406	1,335
Mean	46.9	52.3	56.6	49.9	54.7	200	322	61.0	48.7	46.6	48.5	43.1
Max.	49	62	60	56	69	477	489	77	55	51	53	56
Min.	42	47	53	45	48	70	84	49	45	44	43	35
Runoff - MCM.	121.565	140.227	146.621	133.747	146.448	517.536	862.222	158.285	130.464	124.934	121.478	115.344

WATER YEAR 1967 : Max. 489 Min. 35 Mean 86.0 Annual Runoff 2,719.872 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 1	15.00	144.10	489				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
CHEE RIVER BASIN

Chee River at Wat Si Thammaram, Ubon Ratchathani (E.2)

Location: Lat 15° - 47' - 06" N, Long 104° - 08' - 36" E, on left bank 1.5 kilometers south of office of Amphoe Yasothon and 500 meters downstream from Wat Si Thammaram, Ubon Ratchathani.

Drainage Area: 47,391 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: +117.00 m. (M.S.L.)

Bench Mark: B.M. of Survey Department No.97

Location: 15 meters east of the district post office.
Elevation: +126.972 m. (M.S.L.)

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: 1951 to date.

Rating Operation:

Period of Rating: 1951
Rated by Float: -
Rated by Current Meter: 1951

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

Overbank Flow Conditions: No overbank flow.

General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made during 1951. Flow regulated by Nam Phong Dam at above gage site. No adjustment made for virgin flow.

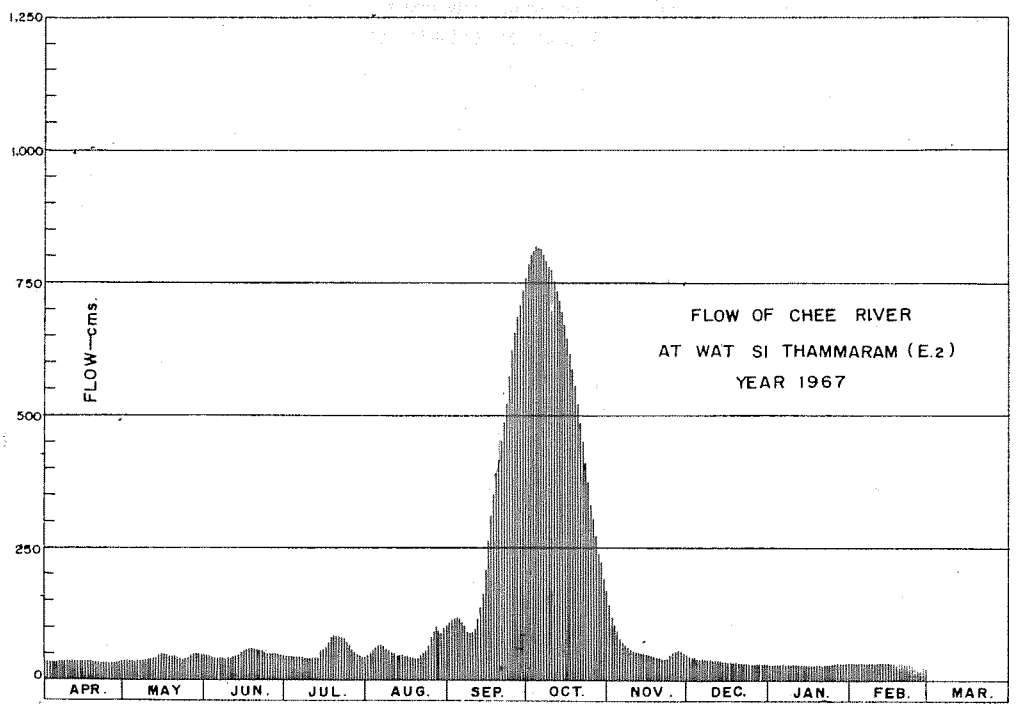
Remarks: No gage height record for period Mar. 1 - 31.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	119.19	119.28	119.45	119.44	119.46	120.35	125.50	120.76	119.46	119.13	119.18	
2	.19	.27	.43	.42	.55	.44	.56	.50	.42	.12	.18	
3	.20	.25	.42	.44	.67	.49	.59	.29	.40	.12	.18	
4	.21	.24	.42	.42	.74	.50	.62	.15	.39	.12	.19	
5	.22	.24	.40	.43	.77	.45	.61	119.97	.38	.13	.19	
6	119.23	119.24	119.35	119.43	119.78	120.37	125.60	119.87	119.36	119.13	119.19	
7	.23	.24	.33	.42	.75	.27	.56	.77	.35	.13	.19	
8	.24	.28	.34	.40	.67	.16	.52	.72	.34	.12	.20	
9	.25	.29	.35	.38	.62	.11	.48	.66	.33	.11	.20	
10	.25	.33	.38	.36	.57	.15	.46	.60	.32	.10	.20	
11	119.25	119.38	119.39	119.42	119.53	120.25	125.39	119.57	119.31	119.10	119.20	
12	.25	.38	.42	.41	.48	.46	.31	.56	.31	.10	.19	
13	.25	.42	.48	.41	.46	.74	.23	.55	.30	.10	.19	
14	.25	.47	.55	.62	.48	121.04	.13	.54	.29	.10	.18	
15	.25	.51	.64	.65	.47	.52	.01	.54	.28	.10	.18	
16	119.25	119.49	119.69	119.72	119.45	122.02	124.87	119.50	119.26	119.10	119.17	
17	.25	.45	.70	.78	.43	.48	.72	.47	.25	.10	.17	
18	.25	.43	.69	.98	.42	.88	.55	.44	.23	.10	.17	
19	.24	.41	.67	120.10	.38	123.19	.34	.43	.22	.10	.17	
20	.23	.42	.64	.11	.37	.36	.12	.40	.21	.10	.16	
21	119.22	119.42	119.61	120.12	119.48	123.64	123.88	119.37	119.20	119.10	119.16	
22	.20	.40	.56	.09	.58	.89	.61	.35	.19	.10	.15	
23	.19	.39	.54	.04	.62	124.14	.29	.37	.18	.11	.15	
24	.18	.40	.51	119.89	.75	.48	.00	.47	.17	.12	.15	
25	.17	.46	.48	.77	.96	.76	122.61	.56	.17	.13	.14	
26	119.16	119.48	119.48	119.64	120.16	124.95	122.38	119.62	119.16	119.14	119.14	
27	.18	.49	.47	.55	.27	125.10	.14	.62	.15	.14	.13	
28	.21	.50	.46	.49	.15	.20	121.77	.60	.14	.15	.13	
29	.24	.51	.47	.44	.08	.31	.60	.55	.14	.16	.13	
30	.27	.49	.45	.41	.22	.40	.31	.51	.14	.16		
31		.47		.42	.27		.03		.13	.16		
Mean	119.22	119.39	119.49	119.62	119.70	122.27	124.22	119.68	119.26	119.12	119.17	
Max.	119.27	119.51	119.70	120.12	120.27	125.40	125.62	120.76	119.46	119.16	119.20	
Min.	119.17	119.24	119.33	119.36	119.37	120.11	121.03	119.35	119.13	119.10	119.13	

WATER YEAR 1967 : Max. 125.62 m. Min. m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	33	37	46	45	47	108	784	141	47	30	33	
2	33	37	45	44	52	115	801	120	44	30	33	
3	33	36	44	45	59	119	809	103	43	30	33	
4	34	35	44	44	64	120	818	93	42	30	33	
5	34	35	43	45	66	116	815	80	42	30	33	
6	35	35	41	45	67	110	812	73	41	30	33	
7	35	35	40	44	65	102	801	66	41	30	33	
8	35	37	40	43	59	93	790	63	40	30	33	
9	36	38	41	42	56	90	778	59	40	30	33	
10	36	40	42	41	53	93	773	55	39	29	33	
11	36	42	42	44	51	100	753	53	39	29	33	
12	36	42	44	43	48	117	733	53	39	29	33	
13	36	44	48	43	47	140	715	52	38	29	33	
14	36	47	52	56	48	167	693	51	38	29	33	
15	36	50	57	58	47	211	668	51	37	29	33	
16	36	48	61	63	46	261	642	49	36	29	32	
17	36	46	62	67	45	311	615	47	36	29	32	
18	36	45	61	81	44	357	587	45	35	29	32	
19	35	43	59	89	42	394	553	45	34	29	32	
20	35	44	57	90	41	416	520	43	34	29	32	
21	34	45	56	90	48	452	485	41	33	29	32	
22	33	43	53	88	54	487	448	41	33	29	31	
23	33	42	51	85	56	523	407	41	33	30	31	
24	33	43	50	74	65	575	371	47	32	30	31	
25	32	47	48	66	79	622	325	53	32	30	31	
26	32	48	48	57	93	657	300	56	32	31	31	
27	33	48	47	52	102	686	273	56	31	31	30	
28	34	49	47	48	93	708	236	55	31	31	30	
29	35	50	47	45	88	733	219	52	31	32	30	
30	37	48	46	43	98	756	191	50	31	32		
31		47		44	102		166		30	32		
Total	1,038	1,326	1,462	1,764	1,925	9,739	17,881	1,834	1,134	926	932	
Mean	34.6	42.8	48.7	56.9	62.1	325	577	61.1	36.6	29.9	32.1	
Max.	37	50	62	90	102	756	818	141	47	32	33	
Min.	32	35	40	41	41	90	166	41	30	29	30	
Runoff - MCM.	89.683	114.566	126.317	152.410	166.320	841.450	1,544.918	158.458	97.978	80.006	80.525	

WATER YEAR 1967 : Max. 818 Min. Mean Annual Runoff mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 4	06.00	125.62	818				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
CHEE RIVER BASIN

Chee River at Kaeng Tha Dua, Chaiyaphum (E.5)

Location: Lat 15°- 46' - 07" N, Long 101°- 49' - 03" E, on left bank at Ban Na Di about 12 kilometers upstream from Amphoe Ban Khwao, Chaiyaphum.

Drainage Area: 4,254 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: +186.144 m. (M.S.L.)

Bench Mark: B.M. - E.5 No.1107

Location: On left bank along measuring line.
Elevation: +197.319 m. (M.S.L.)

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: 1958 to date

Rating Operation:

Period of Rating: 1967 - 70, 1973 to date
Rated by Float: -
Rated by Current Meter: 1967 - 70, 1973 to date

Stability of Channel Regimes: Unstable, shifting adjustment is included for flow computations.

Overbank Flow Conditions: No overbank flow.

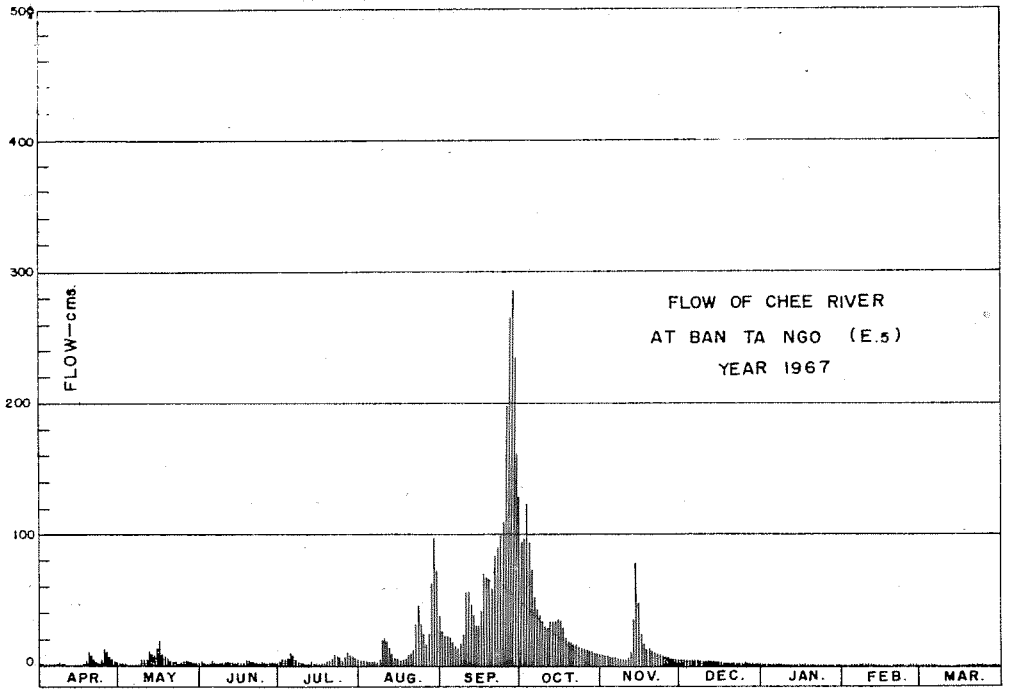
General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions for irrigation except those built by local residents. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	186.88	187.11	187.12	187.21	187.26	188.84	191.63	187.63	187.37	186.93	186.79	186.74
2	.87	.03	.02	.40	.25	.60	.63	.60	.34	.92	.79	.74
3	.86	.00	.00	.28	.25	.58	192.49	.56	.31	.92	.78	.75
4	.85	186.97	.08	.57	.20	.61	191.83	.53	.29	.91	.77	.74
5	.86	.95	.29	.80	.17	.29	190.76	.50	.25	.90	.77	.73
6	186.85	186.95	187.18	187.51	187.17	188.07	190.12	187.46	187.22	186.89	186.79	186.73
7	.92	.96	.10	.28	.11	.00	189.78	.43	.19	.89	.77	.72
8	187.09	187.03	.04	.16	.26	.18	.51	.37	.18	.89	.76	.71
9	186.98	.09	.00	.10	188.42	.69	.32	.36	.16	.89	.75	.72
10	.91	.14	.00	.05	.57	189.94	.13	.34	.16	.88	.75	.72
11	186.87	187.51	187.13	187.02	188.10	189.99	189.02	187.32	187.14	186.87	186.74	186.72
12	.84	.93	.16	186.99	187.81	.57	.15	.54	.13	.86	.76	.71
13	.83	.67	.18	187.13	.50	.34	.22	188.81	.11	.86	.75	.71
14	.82	.65	.00	.12	.40	188.93	.15	190.67	.09	.86	.74	.77
15	.82	188.31	.05	.04	.32	.86	.09	189.30	.08	.85	.74	.75
16	186.82	188.45	187.03	187.03	187.28	189.58	188.92	188.52	187.06	186.85	186.74	186.76
17	187.02	187.73	.07	.01	.27	190.53	.70	.20	.04	.84	.74	.75
18	.23	.54	.37	.01	.32	.40	.57	.00	.03	.83	.75	.74
19	.87	.45	.25	.15	.78	.28	.47	187.88	.03	.82	.74	.71
20	.64	.32	.16	.32	.81	189.99	.35	.81	.02	.83	.74	.71
21	187.32	187.20	187.10	187.39	187.81	190.88	188.27	187.74	187.01	186.82	186.73	186.71
22	.18	.13	.05	.77	188.98	.97	.20	.68	.00	.82	.74	.70
23	.12	.09	.02	.62	189.68	.88	.13	.63	186.97	.81	.76	.70
24	.41	.08	.02	.27	.00	.98	.07	.56	.94	.82	.75	.76
25	188.00	.14	.00	.18	188.67	192.87	.00	.52	187.02	.81	.74	.80
26	187.77	187.32	186.98	187.65	188.16	194.52	187.94	187.48	186.97	186.81	186.73	186.76
27	.57	.20	187.11	.89	.77	195.44	.90	.44	.97	.81	.73	.74
28	.42	.06	.08	.59	190.45	.69	.85	.40	.96	.80	.74	.72
29	.23	.05	.10	.46	191.51	194.95	.78	.38	.95	.79	.72	.70
30	.20	.00	.14	.38	190.26	192.97	.74	.37	.93	.79		.69
31		.01		.33	189.27		.69		.94	.80		.67
Mean	187.13	187.29	187.09	187.31	188.15	190.45	189.11	187.80	187.09	186.85	186.75	186.73
Max.	188.00	188.45	187.29	187.89	191.51	195.69	192.49	190.67	187.37	186.93	186.79	186.80
Min.	186.82	186.95	186.98	186.99	187.11	188.00	187.74	187.32	186.93	186.79	186.72	186.67

WATER YEAR 1967 : Max. 195.69 m. Min. 186.67 m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	1.12	2.88	2.96	3.69	4.14	27	94	8.74	5.00	1.92	0.80	0.44
2	1.08	2.24	2.16	5.50	4.05	23	94	8.35	4.70	1.84	0.80	0.44
3	1.04	2.00	2.00	4.32	4.05	22	123	7.83	4.41	1.84	0.76	0.46
4	1.00	1.76	2.64	7.37	3.60	23	100	6.71	4.41	1.76	0.72	0.44
5	1.04	1.60	4.41	10	3.36	18	69	6.38	4.80	1.68	0.60	0.40
6	1.00	1.60	3.44	6.71	3.36	14	52	6.16	4.50	1.60	0.68	0.40
7	1.36	1.68	*2.80	4.32	2.88	13	44	5.83	4.23	1.60	0.60	0.36
8	2.72	2.24	2.32	3.28	4.14	17	38	5.20	4.14	1.60	0.56	0.32
9	1.84	2.74	2.00	2.80	20	26	34	5.10	3.96	1.60	0.52	0.36
10	1.28	3.12	2.00	2.40	22	55	30	4.90	3.96	1.36	0.52	0.36
11	1.08	6.71	3.04	2.16	15	56	28	5.10	3.78	1.28	0.48	0.36
12	0.96	12	3.28	1.92	10	45	33	9.52	3.69	1.20	0.56	0.32
13	0.92	8.61	3.44	3.04	6.60	39	34	31	3.52	1.20	0.52	0.32
14	0.88	8.35	2.00	2.96	5.50	30	33	78	3.36	1.20	0.48	0.56
15	0.88	18	2.40	2.32	4.70	31	36	36	3.28	1.16	0.48	0.52
16	0.88	20	2.24	2.24	4.32	49	32	21	3.12	1.16	0.48	0.56
17	2.16	9.39	2.56	2.08	4.23	70	28	16	2.80	1.12	0.44	0.52
18	3.87	7.04	5.20	2.08	4.70	67	21	13	2.72	1.08	0.48	0.48
19	11	6.05	4.05	3.20	10	63	19	13	2.72	1.04	0.44	0.36
20	8.22	4.70	3.28	4.70	10	55	17	12	2.64	1.08	0.44	0.36
21	4.70	3.60	2.80	5.40	10	80	16	10	2.56	1.04	0.40	0.36
22	3.44	3.04	2.40	9.91	30	80	15	9.39	2.48	1.04	0.44	0.32
23	2.96	2.72	2.16	7.96	46	77	15	9.39	2.24	1.00	0.48	0.32
24	5.61	2.64	2.16	4.23	30	80	14	7.83	2.00	1.04	0.48	0.56
25	13	3.12	2.00	3.44	24	152	13	7.37	2.64	1.00	0.44	0.72
26	9.91	4.70	1.84	8.35	15	226	12	6.93	2.24	1.00	0.40	0.56
27	7.73	3.60	2.88	11	26	272	11	6.49	2.24	1.00	0.40	0.48
28	5.72	2.48	2.64	7.59	66	285	11	5.30	2.16	0.84	0.44	0.40
29	3.87	2.40	2.80	6.16	97	227	9.78	5.10	2.08	0.80	0.36	0.32
30	3.60	2.00	3.12	5.30	61	141	9.26	5.00	1.92	0.80		0.28
31		2.08		4.80	36		9.52		2.00	0.64		0.20
Total	104.51	155.09	83.02	151.23	587.63	2,363	1,094.56	372.62	100.30	38.72	15.20	12.88
Mean	3.48	5.00	2.77	4.88	18.9	78.8	35.3	12.4	3.23	1.25	0.524	0.415
Max.	13	20	4.41	11	97	285	123	78	5.00	1.92	0.80	0.72
Min.	0.88	1.60	1.84	1.92	2.88	13	9.26	4.90	1.92	0.80	0.36	0.20
Runoff - mcm.	9.030	13.400	7.173	13.066	50.771	204.163	94.570	32.194	8.666	3.345	1.313	1.113

WATER YEAR 1967 : Max. 285 Min. 0.20 Mean 13.9 Annual Runoff 438.805 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sep. 28	08.00	195.73	287				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
CHEE RIVER BASIN

Huai Pa Thao at Ban Na Fai, Chaiyaphum (E.6A)

Location: Lat 15° - 55' - 28" N, Long 102° - 02' - 18" E, on right bank about 2.5 kilometers east side from Chaiyaphum - Chum Phae Road at kilometer pole No.12.300 and about 500 meters downstream from Ban Na Fai Weir, Amphoe Muang, Chaiyaphum.

Drainage Area: 498 sq.km.

Type of Gage: Water - stage recorder.

Zero Gage at Bottom at: 0.00 m. (A.D.)

Bench Mark: B.M. - H.S.

Location: Under bridge of Automatic building about 6 meters apart.
Elevation: +6.303 m. (A.D.)

Gage Reading Frequency: Recordings.

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 - 71, 1973 to date
Rated by Float: -
Rated by Current Meter: 1967 - 71, 1973 to date

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

Overbank Flow Conditions: No overbank flow.

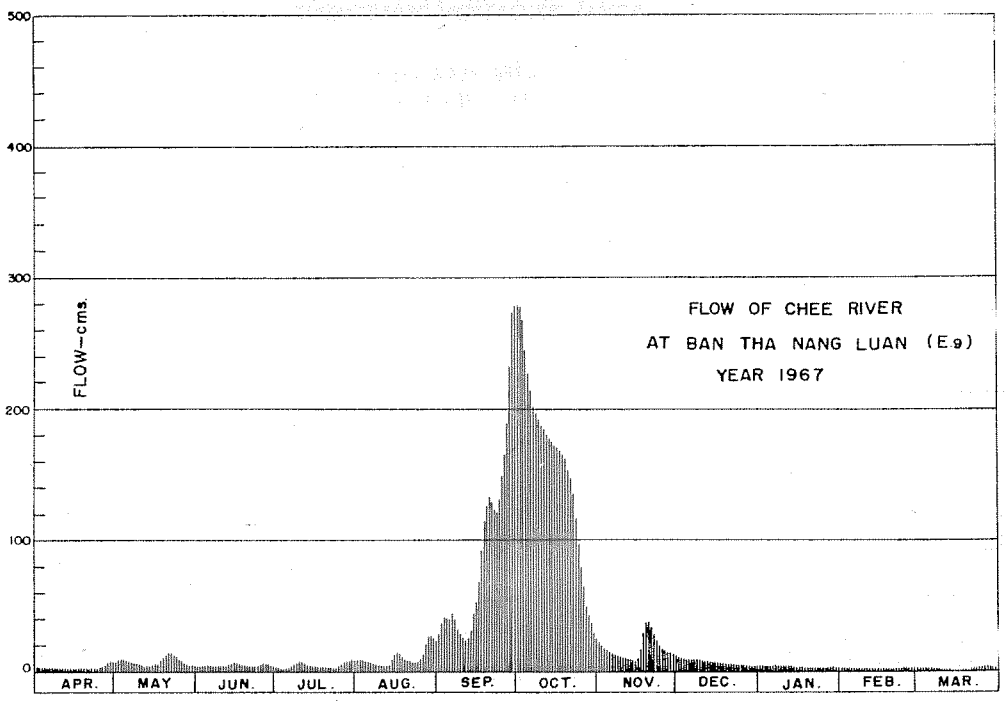
General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made during 1967. Flow regulated by Ban Na Fai Weir about 500 meters upstream. No adjustment made for virgin flow.

Remarks: Gage height record began on Sep. 22, 1967.

GAGE HEIGHT IN METER (A.D.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1							4.57	3.97	3.44	2.34	2.15	1.93
2							.51	.94	.43	.33	.13	.87
3							.43	.90	.40	.33	.10	.91
4							.35	.87	.32	.32	.10	.95
5							.28	.83	.27	.30	.10	.92
6							4.24	3.80	3.21	2.29	2.11	1.89
7							.23	.76	.17	.29	.12	.87
8							.26	.74	2.99	.31	.09	.84
9							.33	.70	.85	.28	.06	.86
10							.35	.68	.84	.27	.04	.90
11							4.32	3.66	2.80	2.28	2.02	1.89
12							.38	.72	.80	.28	.00	.89
13							.43	.91	.74	.27	.00	.88
14							.40	.98	.71	.28	1.99	.93
15							.35	.97	.70	.27	.99	.95
16							4.32	3.93	2.70	2.25	1.98	1.95
17							.31	.89	.69	.24	.98	.92
18							.30	.85	.67	.23	.97	.93
19							.28	.83	.62	.23	.97	.91
20							.25	.80	.58	.22	.98	.89
21							4.23	3.78	2.57	2.20	1.97	1.88
22						4.35	.21	.74	.53	.18	.94	.89
23						.26	.23	.73	.50	.16	.93	.90
24						.68	.24	.72	.49	.18	.97	.92
25						5.04	.20	.66	.48	.17	.98	.97
26						5.56	4.18	3.63	2.46	2.16	1.95	1.96
27						.54	.16	.58	.44	.18	.94	.95
28						.25	.12	.56	.41	.20	.94	.94
29						4.48	.08	.55	.40	.20	.94	.90
30						.59	.04	.51	.39	.18		.89
31							.00		.37	.17		.88
Mean							4.28	3.77	2.77	2.24	2.01	1.91
Max.							4.57	3.98	3.44	2.34	2.15	1.97
Min.							4.00	3.51	2.37	2.16	1.93	1.84

WATER YEAR 1967 : Max. m. Min. m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	3.26	7.96	5.20	3.90	8.84	29	278	23	12	4.75	3.42	2.21
2	3.26	9.98	5.60	3.90	9.62	36	278	20	11	4.75	3.34	2.21
3	3.26	11	5.60	3.74	8.84	42	263	18	10	4.75	3.10	2.14
4	3.26	9.74	5.20	3.74	8.51	41	233	17	10	4.75	3.02	2.07
5	3.26	8.73	4.75	4.06	7.96	40	221	15	9.62	4.75	2.94	2.07
6	3.18	8.07	4.39	4.48	7.19	45	214	14	9.50	4.75	2.94	2.07
7	3.18	6.64	4.30	4.84	6.53	41	203	13	9.50	4.75	2.86	2.07
8	3.10	6.53	4.30	5.11	6.00	33	198	13	9.50	4.66	2.86	2.07
9	3.02	5.70	4.30	6.20	5.90	30	192	12	9.39	4.57	2.86	2.00
10	3.02	5.30	4.66	7.52	5.60	26	187	12	9.17	4.57	2.78	1.94
11	3.02	5.02	5.02	8.62	5.40	22	184	11	8.62	4.57	2.63	1.88
12	3.02	4.48	5.40	8.62	5.11	24	180	10	8.18	4.39	2.56	1.88
13	3.02	4.14	5.90	7.52	5.80	30	177	9.48	7.74	4.06	2.56	1.88
14	3.02	4.14	7.30	6.20	8.07	39	175	8.95	7.52	3.82	2.49	1.88
15	3.02	4.75	7.96	5.60	13	49	172	9.17	7.41	3.74	2.49	1.88
16	3.02	6.00	6.86	4.84	15	62	171	11	7.41	3.66	2.49	1.88
17	3.02	7.74	6.31	4.39	13	87	169	15	7.19	3.66	2.49	1.88
18	3.02	9.98	5.90	4.14	12	114	165	29	6.97	3.50	2.42	1.88
19	3.02	12	5.80	4.06	9.74	123	161	37	6.75	3.50	2.35	1.82
20	3.02	13	5.80	4.14	8.62	134	154	38	6.53	3.50	2.28	1.82
21	3.02	15	5.60	4.14	8.29	131	148	34	6.10	3.50	2.21	1.82
22	3.02	15	5.30	4.22	7.41	124	137	29	5.90	3.50	2.21	2.44
23	3.02	13	4.93	3.98	7.63	121	118	23	5.90	3.50	2.21	2.63
24	3.10	11	5.11	3.98	8.40	126	99	20	5.80	3.50	2.21	3.42
25	3.18	9.86	5.70	3.98	9.86	146	79	17	5.50	3.50	2.21	3.82
26	4.14	8.95	7.08	4.75	13	166	64	16	5.40	3.50	2.21	4.14
27	5.80	6.97	6.64	6.75	21	194	51	15	5.20	3.66	2.21	4.30
28	6.75	6.00	5.50	8.51	28	226	44	14	5.11	3.74	2.21	4.06
29	8.18	6.00	4.57	8.73	28	270	36	13	5.02	3.58	2.21	3.82
30	7.41	5.60	4.14	7.96	26	278	30	12	5.02	3.50		2.70
31		5.20		7.74	24		27		4.93	3.42		2.42
Total	109.62	253.48	165.12	170.36	352.32	2,829	4,808	528.40	233.88	124.35	74.77	74.80
Mean	3.65	8.18	5.50	5.49	11.4	94.3	155	17.6	7.54	4.01	2.58	2.41
Max.	8.18	15	7.96	8.73	28	278	278	38	12	4.75	3.42	4.30
Min.	3.02	4.14	4.14	3.74	5.11	22	27	8.95	4.93	3.42	2.21	1.82
Runoff - mcm.	9.471	21.901	14.266	14.719	30.440	244.426	415.411	45.654	20.207	10.744	6.460	6.463

WATER YEAR 1967 : Max. 278 Min. 1.82 Mean 26.6 Annual Runoff 840.162 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 2	06.00	9.48	285				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
CHEE RIVER BASIN

Chee River at Ban Tha Phra, Khon Kaen (E.16A)

Location: Lat 16°- 21' - 14" N, Long 102°- 48' - 09" E, on left bank about 400 meters upstream from bridge on Khon Kaen - Maha Sarakham Highway, Tambon Don Han, Amphoe Muang, Khon Kaen.

Drainage Area: 13,171 sq.km.

Type of Gage: Water - stage recorder.

Zero Gage at Bottom at: +142.94 m. (M.S.L.)

Bench Mark: B.M. - H.S.

Location: On left bank near abutment of bridge.
Elevation: +154.989 m. (M.S.L.)

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 to date
Rated by Float: -
Rated by Current Meter: 1954 to date

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

Overbank Flow Conditions: No overbank flow.

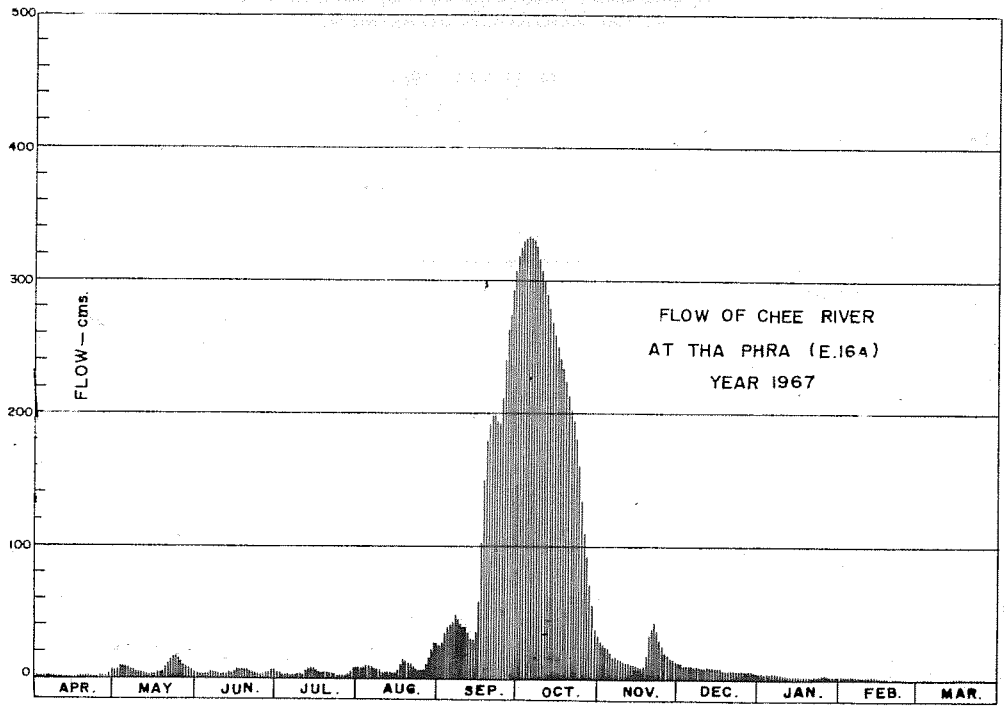
General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversion for irrigation except those built by local residents. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	142.99	143.36	143.23	143.37	143.55	144.34	150.81	144.46	143.78	143.34	143.14	143.01
2	.99	.46	.21	.28	.52	.41	.92	.38	.74	.32	.14	.01
3	.98	.56	.19	.24	.58	.65	.99	.30	.70	.32	.14	.00
4	.98	.59	.23	.21	.64	.82	151.04	.20	.67	.32	.14	.00
5	.97	.56	.30	.19	.63	.87	.06	.08	.65	.31	.14	.00
6	142.97	143.49	143.33	143.16	143.58	144.91	151.04	143.98	143.64	143.30	143.13	142.99
7	.96	.44	.31	.15	.51	145.08	150.97	.94	.63	.29	.12	.99
8	.96	.40	.28	.19	.45	.01	.86	.90	.62	.28	.11	.99
9	.95	.37	.23	.22	.40	144.84	.71	.86	.61	.26	.10	.99
10	.95	.32	.20	.24	.38	.77	.55	.82	.61	.21	.10	.98
11	142.94	143.27	143.19	143.36	143.37	144.79	150.36	143.80	143.60	143.21	143.09	142.98
12	.94	.24	.22	.48	.35	.62	.18	.77	.59	.20	.08	.97
13	.94	.22	.27	.55	.30	.47	.00	.73	.57	.19	.08	.97
14	.93	.18	.29	.56	.25	.51	149.83	.69	.56	.17	.07	.96
15	.93	.17	.35	.51	.26	.82	.66	.66	.55	.16	.06	.95
16	142.92	143.23	143.46	143.43	143.46	145.53	149.50	143.63	143.53	143.15	143.05	142.95
17	.96	.28	.48	.38	.75	146.53	.34	.61	.51	.14	.04	.94
18	.97	.32	.46	.37	.85	147.52	.18	.65	.49	.14	.04	.93
19	.96	.38	.43	.33	.82	148.06	.01	144.04	.47	.12	.04	.93
20	.96	.51	.40	.29	.75	.31	148.83	.59	.47	.11	.03	.93
21	142.95	143.65	143.38	143.25	143.74	148.50	148.62	144.79	143.46	143.10	143.03	142.92
22	.95	.78	.35	.21	.60	.54	.40	.89	.46	.11	.02	.92
23	.94	.91	.32	.17	.50	.46	.11	.55	.45	.14	.02	.92
24	.94	.96	.31	.14	.45	.36	147.73	.40	.44	.15	.02	.92
25	.95	.88	.28	.12	.45	.54	.22	.26	.43	.16	.02	.91
26	142.97	143.74	143.28	143.15	143.53	149.18	146.66	144.11	143.43	143.16	143.02	142.91
27	.98	.61	.34	.22	.72	.73	.12	143.99	.42	.14	.01	.90
28	143.01	.52	.42	.29	.97	150.02	145.66	.91	.41	.12	.01	.90
29	.27	.44	.48	.37	144.27	.32	.17	.85	.39	.11	.01	.89
30	.41	.35	.41	.52	.39	.60	144.84	.81	.38	.12		.89
31		.28		.59	.40		.62		.37	.13		.88
Mean	142.98	143.47	143.32	143.31	143.63	146.64	148.97	144.05	143.54	143.19	143.07	142.95
Max.	143.41	143.96	143.48	143.59	144.40	150.60	151.06	144.89	143.78	143.34	143.14	143.01
Min.	142.92	143.17	143.19	143.12	143.25	144.34	144.62	143.61	143.37	143.10	143.01	142.88

WATER YEAR 1967 : Max. 151.06 m. Min. 142.88 m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	1.41	5.56	3.76	5.72	8.80	26	320	30	13	5.24	2.80	1.59
2	1.41	7.22	3.52	4.36	8.26	28	326	27	12	4.92	2.80	1.59
3	1.32	8.98	3.30	3.88	9.34	35	330	25	11	4.92	2.80	1.50
4	1.32	9.52	3.76	3.52	10	40	332	23	11	4.92	2.80	1.50
5	1.23	8.98	4.60	3.30	10	42	334	20	11	4.76	2.80	1.50
6	1.23	7.73	5.08	3.00	9.34	43	332	17	10	4.60	2.70	1.41
7	1.14	6.88	4.76	2.90	8.08	49	329	17	10	4.48	2.60	1.41
8	1.14	6.20	4.36	3.30	7.05	46	323	16	10	4.36	2.50	1.41
9	1.05	5.72	3.76	3.64	6.20	41	314	15	9.88	4.12	2.40	1.41
10	1.05	4.92	3.40	3.88	5.88	39	306	14	9.88	3.52	2.40	1.32
11	0.96	4.24	3.30	5.56	5.72	39	296	13	9.70	3.52	2.31	1.32
12	0.96	3.88	3.64	7.56	5.40	34	286	13	9.52	3.42	2.22	1.23
13	0.96	3.64	4.24	8.80	4.60	30	276	12	9.16	3.30	2.22	1.23
14	0.87	3.20	4.48	8.98	3.90	31	267	11	8.98	3.10	2.13	1.14
15	0.87	3.10	5.40	8.08	4.04	40	258	11	8.80	3.00	2.04	1.05
16	0.78	3.76	7.22	6.71	7.22	65	250	10	8.44	2.90	1.95	1.05
17	1.14	4.36	7.56	5.88	12	105	241	9.88	8.08	2.80	1.86	0.96
18	1.23	4.92	7.22	5.72	15	151	233	11	7.73	2.80	1.86	0.87
19	1.14	5.88	6.71	5.08	14	177	224	19	7.39	2.60	1.86	0.87
20	1.14	8.08	6.20	4.48	12	189	215	33	7.39	2.50	1.77	0.87
21	1.05	11	5.88	4.00	12	198	204	39	7.22	2.40	1.77	0.78
22	1.05	13	5.40	3.52	9.70	200	193	43	7.22	2.50	1.68	0.78
23	0.96	16	4.92	3.10	7.90	196	179	32	7.05	2.80	1.68	0.78
24	0.96	17	4.76	2.80	7.05	191	161	28	6.88	2.90	1.68	0.78
25	1.05	15	4.36	2.60	7.05	200	136	24	6.71	3.00	1.68	0.69
26	1.23	12	4.36	2.90	8.44	233	111	20	6.71	3.00	1.68	0.69
27	1.32	9.88	5.24	3.64	12	263	88	18	6.54	2.80	1.59	0.60
28	1.59	8.26	6.54	4.48	17	277	69	16	6.37	2.60	1.59	0.60
29	4.24	6.88	7.56	5.72	24	293	52	15	6.04	2.50	1.59	0.54
30	6.37	5.40	6.37	8.26	28	309	41	14	5.88	2.60		0.54
31		4.36		9.52	28		34		5.72	2.70		0.48
Total	42.17	235.55	151.66	154.89	327.97	3,609	7,060	595.88	265.29	105.58	61.76	32.49
Mean	1.40	7.60	5.05	5.00	10.6	120	228	19.9	8.56	3.40	2.13	1.05
Max.	6.37	17	7.56	9.52	28	309	334	43	13	5.24	2.80	1.59
Min.	0.78	3.10	3.30	2.60	3.90	26	34	9.88	5.72	2.40	1.59	0.48
Runoff - mcm.	3.643	20.351	13.103	13.382	28.337	311.818	609.984	51.484	22.921	9.122	5.336	2.807

WATER YEAR 1967 : Max. 334 Min. 0.48 Mean 34.5 Annual Runoff 1,092.289 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 4	24.00	151.06	334				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
CHEE RIVER BASIN

Nam Phong at Ban Tha Hin, Khon Kaen (E.17)

Location: Lat 16°- 26' - 20" N, Long 102°- 56' - 52" E, on left bank about 20 meters downstream from bridge on Khon Kaen - Yang Talat Road, opposite to Wat Tha Hin, Amphoe Muang, Khon Kaen.

Drainage Area: 14,426 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: 0.00 m. (A.D.)

Bench Mark: B.M. - H.S. No.2

Location: On right bank near gage site.
Elevation: +10.990 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: 1954 to date.

Rating Operation:

Period of Rating: 1965 to date
Rated by Float: -
Rated by Current Meter: 1965 to date

Stability of Channel Regimes: Unstable, no shifting adjustment for flow computation.

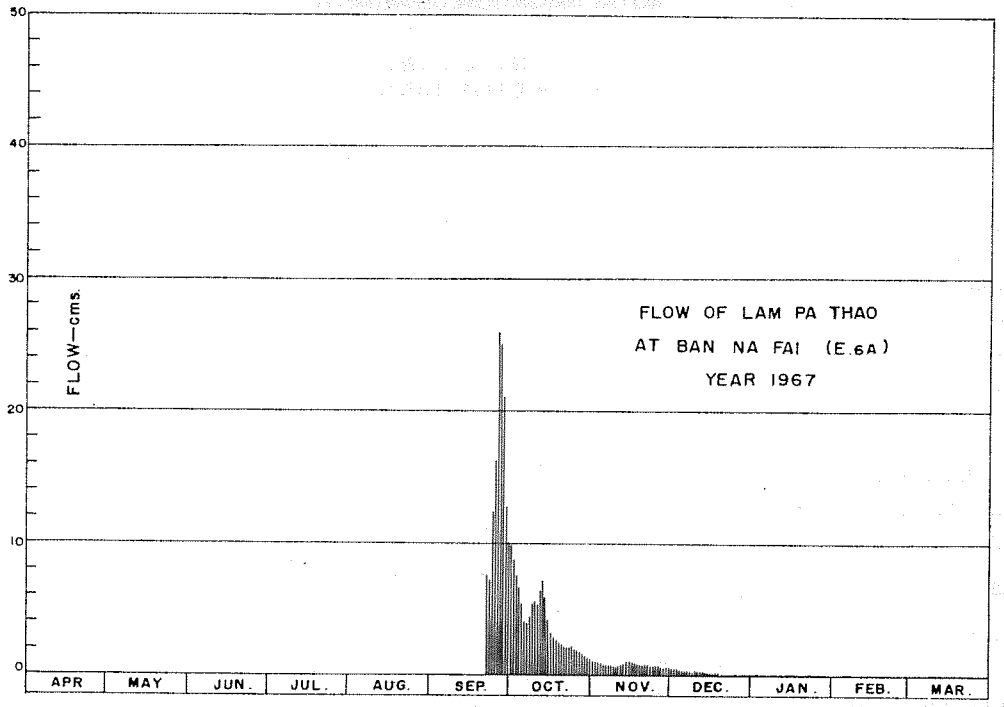
Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1967. Flow regulated by Ubonrat Dam at above gage site. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (A.D.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	3.05	2.85	3.14	3.08	3.12	2.89	7.53	2.75	2.65	2.64	2.89	2.78
2	.07	.80	.07	.11	.15	.93	.32	.74	.68	.65	.89	.98
3	.06	.82	.04	.18	.17	.94	.08	.74	.70	.63	.90	3.13
4	.05	.85	.08	.16	.14	.94	6.86	.74	.70	.62	.93	.16
5	.05	.90	.14	.15	.06	.95	.69	.75	.70	.62	.94	.03
6	3.09	2.92	3.16	3.14	3.08	2.99	6.49	2.76	2.70	2.62	2.93	2.92
7	.11	.94	.18	.09	.09	3.02	.26	.77	.73	.63	.93	.81
8	.10	.91	.19	.02	.07	.03	.05	.77	.74	.63	.94	.75
9	.08	.91	.20	2.90	.07	.03	5.89	.77	.73	.63	.96	.73
10	.04	.89	.23	.92	.08	.03	.71	.76	.71	.63	.77	.73
11	3.01	2.88	3.24	3.02	3.14	3.01	5.51	2.75	2.68	2.64	2.62	2.72
12	.01	.93	.26	.10	.08	.00	.35	.73	.63	.65	.73	.71
13	.02	.99	.32	.10	.02	.08	.19	.70	.58	.67	.79	.72
14	.02	3.01	.35	.13	2.97	.29	.04	.70	.57	.68	.72	.59
15	2.97	.02	.34	.15	.95	.67	4.90	.67	.56	.70	.70	.53
16	2.94	3.00	3.31	3.16	2.93	4.93	4.76	2.65	2.55	2.68	2.71	2.49
17	.93	.00	.30	.12	.90	5.66	.61	.63	.56	.68	.74	.45
18	.91	.02	.30	.06	.88	.79	.46	.63	.57	.68	.78	.46
19	.90	.05	.31	.04	.86	.75	.32	.63	.57	.70	.80	.64
20	.88	.08	.32	.01	.82	.57	.16	.64	.57	.72	.79	.74
21	2.77	3.11	3.28	2.96	2.86	5.48	4.01	2.65	2.59	2.75	2.78	2.77
22	.77	.15	.26	.92	.95	.34	3.86	.65	.62	.77	.79	.77
23	.77	.17	.27	.78	3.00	.20	.71	.64	.63	.80	.80	.74
24	.80	.16	.30	.78	2.96	.20	.51	.64	.64	.80	.79	.71
25	.82	.13	.32	.84	.91	.37	.30	.64	.64	.80	.77	.66
26	2.76	3.13	3.26	2.87	2.98	6.50	3.14	2.64	2.64	2.82	2.73	2.54
27	.70	.16	.18	.89	.97	7.49	.00	.64	.64	.85	.68	.46
28	.71	.18	.13	.94	.98	.83	2.91	.64	.64	.87	.65	.43
29	.78	.17	.08	.99	3.01	.86	.85	.63	.64	.89	.68	.36
30	.81	.16	.07	3.04	2.99	.71	.82	.63	.64	.89		.33
31		.16		.08	.96		.77		.64	.89		.56
Mean	2.93	3.01	3.22	3.02	3.00	4.58	4.84	2.69	2.64	2.72	2.80	2.69
Max.	3.11	3.18	3.35	3.18	3.17	7.86	7.53	2.77	2.74	2.89	2.96	3.16
Min.	2.70	2.80	3.04	2.78	2.82	2.89	2.82	2.63	2.55	2.62	2.62	2.33

WATER YEAR 1967 : Max. 7.83 m. Min. 2.33 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1							9.63	1.17	0.54	0.10	0.045	0.003
2							8.49	1.10	0.53	0.099	0.039	0.00
3							7.11	1.00	0.51	0.099	0.030	0.001
4							5.80	0.95	0.45	0.096	0.030	0.005
5							4.68	0.90	0.42	0.090	0.030	0.002
6							4.04	0.66	0.39	0.087	0.033	0.00
7							3.88	0.82	0.37	0.087	0.036	0.00
8							4.36	0.80	0.30	0.093	0.028	0.00
9							5.48	0.76	0.25	0.084	0.022	0.00
10							5.80	0.74	0.41	0.081	0.018	0.00
11							5.32	0.72	0.37	0.084	0.014	0.00
12							6.28	0.78	0.37	0.084	0.010	0.00
13							7.20	1.02	0.31	0.081	0.010	0.00
14							5.00	1.20	0.28	0.084	0.009	0.003
15							3.75	1.17	0.27	0.081	0.009	0.005
16							3.16	1.07	0.27	0.075	0.008	0.005
17							2.93	0.99	0.26	0.072	0.008	0.002
18							2.70	0.93	0.25	0.069	0.007	0.003
19							2.57	0.90	0.21	0.069	0.007	0.001
20							2.36	0.86	0.19	0.066	0.008	0.00
21							2.23	0.84	0.18	0.060	0.007	0.00
22						7.68	2.10	0.80	0.16	0.054	0.004	0.00
23						6.87	2.23	0.79	0.15	0.048	0.003	0.00
24						11	2.30	0.78	0.15	0.054	0.007	0.002
25						16	2.03	0.72	0.14	0.051	0.008	0.007
26						26	1.94	0.70	0.14	0.048	0.005	0.006
27						25	1.85	0.65	0.13	0.054	0.004	0.005
28						20	1.68	0.64	0.12	0.060	0.004	0.004
29						13	1.52	0.63	0.12	0.060	0.004	0.00
30						10	1.39	0.60	0.12	0.054		0.00
31							1.25		0.11	0.051		0.00
Total							121.16	25.90	8.46	2.275	0.447	0.054
Mean							3.91	0.86	0.27	0.073	0.015	0.002
Max.							9.63	1.20	0.54	0.10	0.045	0.007
Min.							1.25	0.60	0.11	0.048	0.003	0.00
Runoff - mcm.							10.468	2.238	0.731	0.196	0.039	0.005

WATER YEAR 1967 : Max. Min. Mean Annual Runoff mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
CHEE RIVER BASIN

Chee River at Ban Tha Khon Yang, Maha Sarakham (E.8A)

Location: Lat 16° - 13' - 51" N, Long 103° - 16' - 29" E, on right bank at Maha Sarakham - Kalasin highway bridge, Tambon Tha Khon Yang, Amphoe Muang, Maha Sarakham.

Drainage Area: 29,802 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: +133.21 m. (M.S.L.)

Bench Mark: B.M. - H.S. No.6

Location: On right abutment of bridge.
Elevation: +147.910 m. (M.S.L.)

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: 1955 to date

Rating Operation:

Period of Rating: 1955 - 57, 1965 to date
Rated by Float: -
Rated by Current Meter: 1955 - 57, 1965 to date

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

Overbank Flow Conditions: No overbank flow.

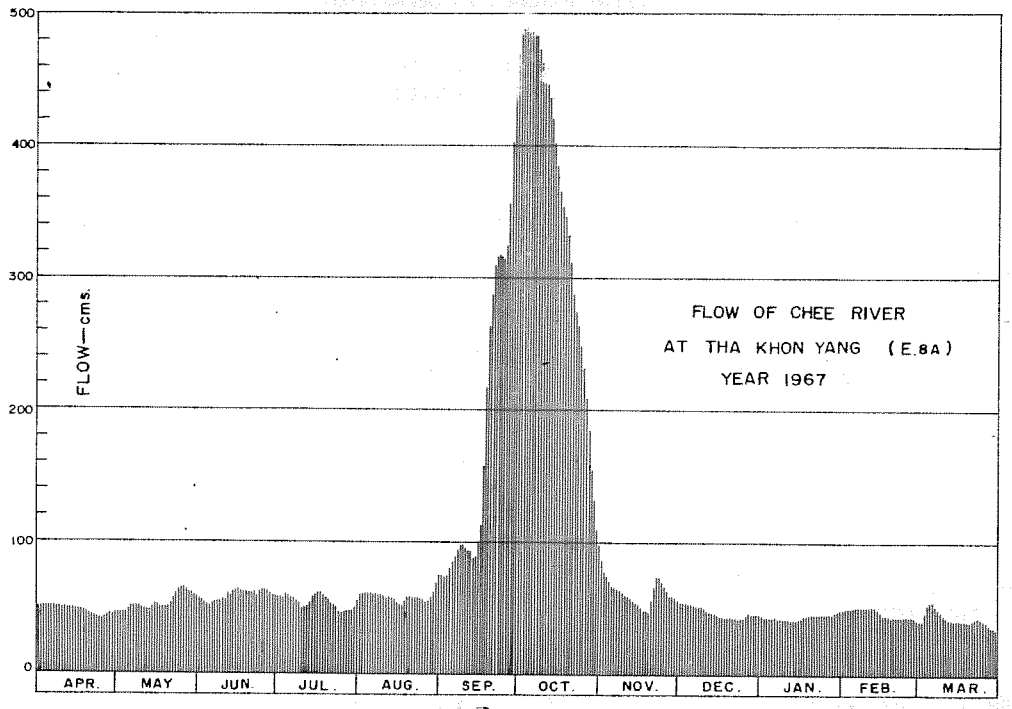
General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1967. Flow regulated by Ubonrat Dam at above gage site.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	134.91	134.82	135.02	135.06	135.09	135.41	141.34	135.61	134.96	134.75	134.87	134.68
2	.91	.83	134.99	.04	.11	.37	.40	.45	.96	.74	.88	.70
3	.90	.83	.95	.05	.11	.37	.43	.36	.96	.74	.88	.82
4	.90	.83	.92	.10	.13	.46	.44	.30	.95	.74	.89	.95
5	.90	.88	.93	.06	.12	.58	.43	.23	.94	.73	.90	.98
6	134.90	134.92	134.96	135.04	135.11	135.65	141.39	135.20	134.93	134.73	134.90	134.98
7	.90	.93	.98	.04	.10	.71	.34	.18	.91	.72	.90	.93
8	.89	.93	.99	.01	.09	.82	.24	.14	.91	.72	.90	.87
9	.89	.90	.99	134.97	.08	.86	.10	.12	.90	.71	.91	.80
10	.89	.88	135.02	.88	.05	.79	140.97	.09	.88	.71	.91	.75
11	134.88	134.87	135.01	134.90	135.05	135.75	140.87	135.07	134.85	134.71	134.91	134.71
12	.88	.86	.10	.93	.08	.76	.73	.05	.82	.70	.91	.70
13	.88	.87	.07	135.01	.06	.67	.51	.01	.81	.70	.89	.70
14	.87	.90	.16	.86	.02	.64	.27	134.98	.79	.70	.86	.69
15	.86	.94	.14	.09	134.97	.87	.08	.94	.78	.71	.81	.69
16	134.86	134.92	135.16	135.13	134.95	136.17	139.88	134.89	134.76	134.74	134.78	134.68
17	.85	.89	.13	.13	.95	137.03	.68	.84	.76	.75	.77	.68
18	.84	.90	.12	.08	135.02	.92	.67	.88	.74	.76	.76	.67
19	.81	.90	.12	.03	.07	138.55	.47	.83	.73	.77	.76	.67
20	.79	.93	.13	.00	.07	.93	.23	.98	.73	.77	.76	.67
21	134.76	134.99	135.12	134.96	135.06	139.17	138.89	135.21	134.73	134.78	134.76	134.69
22	.72	135.06	.13	.92	.07	.27	.70	.34	.72	.78	.76	.73
23	.71	.12	.09	.87	.04	.30	.52	.34	.72	.79	.76	.73
24	.71	.17	.14	.82	.04	.27	.29	.28	.71	.79	.76	.71
25	.72	.20	.17	.80	.01	.23	.01	.20	.71	.80	.76	.69
26	134.75	135.17	135.17	134.82	134.98	139.46	137.66	135.12	134.76	134.80	134.76	134.65
27	.78	.14	.14	.84	.99	.95	.27	.06	.80	.81	.74	.60
28	.78	.11	.11	.85	135.06	140.51	136.85	.06	.80	.81	.72	.57
29	.79	.10	.09	.87	.15	.89	.45	.03	.79	.83	.69	.55
30	.79	.08	.06	.91	.29	141.12	.08	.00	.78	.84		.53
31		.05		135.00	.39		135.79		.77	.86		.49
Mean	134.83	134.96	135.07	134.98	135.07	137.38	139.55	135.13	134.82	134.76	134.82	134.72
Max.	134.91	135.20	135.17	135.13	135.39	141.12	141.44	135.61	134.96	134.86	134.91	134.98
Min.	134.71	134.82	134.92	134.80	134.95	135.37	135.79	134.83	134.71	134.70	134.69	134.49

WATER YEAR 1967 : Max. 141.44 m. Min. 134.49 m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	51	47	57	59	60	76	483	86	54	43	49	41
2	51	47	55	58	61	74	488	78	54	43	50	41
3	51	47	53	58	61	74	491	74	54	43	50	47
4	51	47	52	61	62	79	492	71	53	43	50	53
5	51	50	52	59	62	85	491	67	53	43	51	55
6	51	52	54	58	61	88	487	66	52	43	51	55
7	51	52	55	58	61	91	483	65	51	42	51	52
8	50	52	55	56	60	97	474	63	51	42	51	49
9	50	51	55	54	60	99	461	62	51	42	51	46
10	50	50	57	50	58	95	451	60	50	42	51	44
11	50	49	56	51	58	93	443	59	48	42	51	42
12	50	49	61	52	60	94	431	58	47	41	51	41
13	50	49	59	56	59	89	414	56	46	41	50	41
14	49	51	64	59	57	88	395	55	45	41	49	41
15	49	53	63	60	54	99	379	53	45	42	46	41
16	49	52	64	62	53	116	363	50	44	43	45	41
17	48	50	62	62	53	168	347	48	44	44	45	41
18	48	51	62	60	57	221	347	50	43	44	44	40
19	46	51	62	57	59	262	331	47	43	45	44	40
20	45	52	62	56	59	289	311	55	43	45	44	40
21	44	55	62	54	59	307	286	66	43	45	44	41
22	42	59	62	52	59	315	273	73	42	45	44	43
23	42	62	60	49	58	317	260	73	42	45	44	43
24	42	64	63	47	58	315	244	70	42	45	44	42
25	42	66	64	46	56	311	227	66	42	46	44	41
26	44	64	64	47	55	330	206	62	44	46	44	39
27	45	63	63	48	55	369	182	59	46	46	43	37
28	45	61	61	48	59	414	157	59	46	46	42	36
29	45	61	60	49	63	444	133	57	45	47	41	35
30	45	60	59	51	70	463	111	56	45	48		34
31		58		56	75		95		45	49		32
Total	1,427	1,675	1,778	1,693	1,842	5,962	10,736	1,864	1,453	1,362	1,364	1,314
Mean	47.7	54.0	59.3	54.6	59.4	199	346	621	469	439	47.0	42.4
Max.	51	66	64	62	75	463	492	86	54	49	51	55
Min.	42	47	52	46	53	74	95	47	42	41	41	32
Runoff - mcm.	123.293	144.720	153.619	146.275	159.149	515.117	927.590	161.050	125.539	117.677	117.850	113.530

WATER YEAR 1967 : Max. 492 Min. 32 Mean 88.7 Annual Runoff 2,805.408 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 3	18.00	141.44	492				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
CHEE RIVER BASIN

Chee River at Ban Nang Luan, Khon Kaen (E.9)

Location: Lat 16°- 05' - 49" N, Long 102°- 34' - 23" E, on left bank at Mancha Khiri - Chonnabot Highway Bridge, about 6 kilometers from Amphoe Mancha Khiri, at Ban Nang Luan, Amphoe Chonnabot, Khon Kaen.

Drainage Area: 11,020 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: 0.00 m. (A.D.)

Bench Mark:

Location:
Elevation:

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: 1958 to date.

Rating Operation:

Period of Rating: 1967 to date
Rated by Float: -
Rated by Current Meter: 1967 to date

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

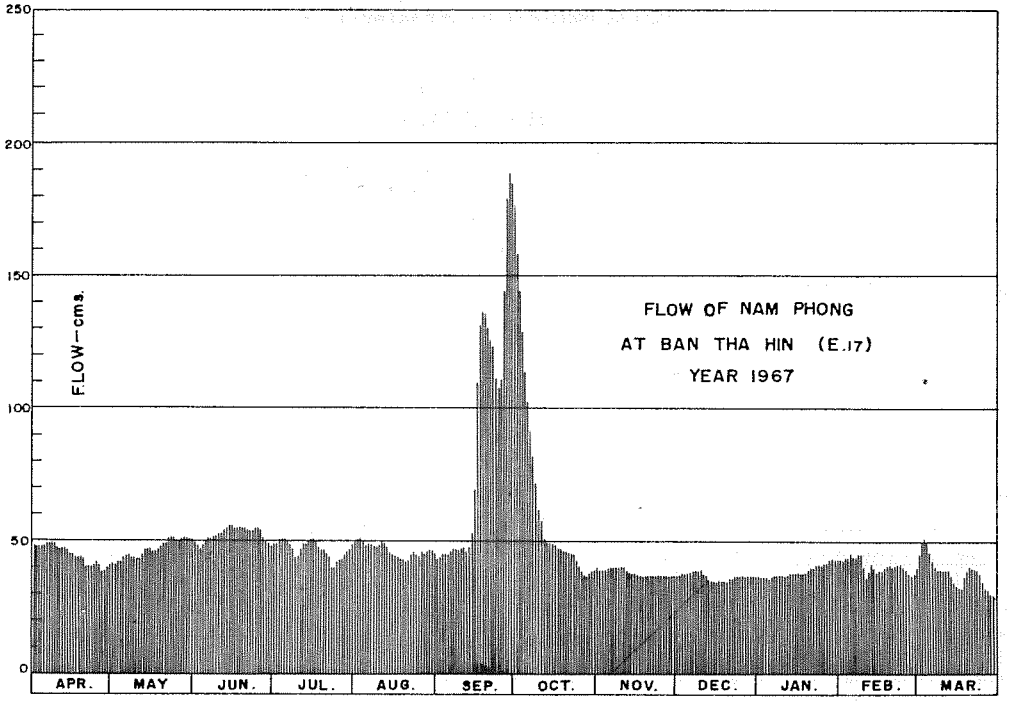
Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions for irrigation except those built by local residents. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (A.D.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	1.47	1.96	1.70	1.55	2.04	3.40	9.47	3.07	2.28	1.65	1.49	1.33
2	.47	2.14	.74	.55	.11	.82	.47	2.88	.23	.65	.48	.33
3	.47	.20	.74	.53	.04	4.11	.45	.75	.19	.65	.45	.32
4	.47	.12	.70	.53	.01	.08	.41	.64	.16	.65	.44	.31
5	.47	.03	.65	.57	1.96	.03	.38	.52	.11	.65	.43	.31
6	1.46	1.97	1.61	1.62	1.89	4.28	9.35	2.48	2.10	1.65	1.43	1.31
7	.46	.84	.60	.66	.83	.08	.30	.41	.10	.65	.42	.31
8	.45	.83	.60	.69	.78	3.63	.26	.36	.10	.64	.42	.31
9	.44	.75	.60	.80	.77	.45	.21	.33	.09	.63	.42	.30
10	.44	.71	.64	.92	.74	.25	.17	.28	.07	.63	.41	.29
11	1.44	1.68	1.68	2.02	1.72	3.02	9.14	2.20	2.02	1.63	1.39	1.28
12	.44	.62	.72	.02	.69	.13	.10	.15	1.98	.61	.38	.28
13	.44	.58	.77	1.92	.76	.44	.06	.08	.94	.57	.38	.28
14	.44	.58	.90	.80	.97	.94	.03	.05	.92	.54	.37	.28
15	.44	.65	.96	.74	2.41	4.47	.00	.07	.91	.53	.37	.28
16	1.44	1.78	1.86	1.66	2.53	5.13	8.98	2.22	1.91	1.52	1.37	1.28
17	.44	.94	.81	.61	.40	6.26	.94	.56	.89	.52	.37	.28
18	.44	2.14	.77	.58	.30	7.37	.88	3.39	.87	.50	.36	.28
19	.44	.29	.76	.57	.12	.71	.81	.86	.85	.50	.35	.27
20	.44	.41	.76	.58	.02	8.10	.69	.90	.83	.50	.34	.27
21	1.44	2.55	1.74	1.58	1.99	7.99	8.52	3.67	1.79	1.50	1.33	1.27
22	.44	.53	.71	.59	.91	.74	.20	.41	.77	.50	.33	.32
23	.44	.37	.67	.56	.93	.62	7.53	.07	.77	.50	.33	.39
24	.45	.21	.69	.56	2.00	.82	6.76	2.86	.76	.50	.33	.49
25	.46	.13	.75	.56	.13	8.46	5.92	.70	.73	.50	.33	.54
26	1.58	2.05	1.88	1.65	2.40	8.90	5.23	2.58	1.72	1.50	1.33	1.58
27	.76	1.87	.84	.85	.93	9.23	4.58	.51	.70	.52	.33	.60
28	.85	.78	.73	2.01	3.32	.40	.22	.46	.69	.53	.33	.57
29	.98	.78	.63	.03	.37	.46	3.81	.40	.68	.51	.33	.54
30	.91	.74	.58	1.96	.23	.47	.48	.33	.68	.50		.40
31		.70		.94	.12		.29		1.67	.49		.36
Mean	1.49	1.96	1.73	1.72	2.21	5.89	7.89	2.67	1.92	1.56	1.38	1.35
Max.	1.98	2.55	1.96	2.03	3.37	9.47	9.47	3.90	2.28	1.65	1.49	1.60
Min.	1.44	1.58	1.58	1.53	1.69	3.02	3.29	2.05	1.67	1.49	1.33	1.27

WATER YEAR 1967 : Max. 9.47 m. Min. 1.27 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1,1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	48	42	50	49	50	43	154	40	37	37	43	40
2	48	41	48	49	51	44	139	39	38	37	43	46
3	48	42	47	51	51	45	123	39	38	37	44	50
4	48	42	49	51	50	45	109	39	38	36	44	51
5	48	44	50	51	48	45	99	40	38	36	45	47
6	49	44	51	50	49	46	88	40	38	36	44	44
7	49	45	51	49	49	47	78	40	39	37	44	41
8	49	44	52	47	48	47	69	40	39	37	45	40
9	49	44	52	44	48	47	62	40	39	37	45	39
10	47	43	53	44	49	47	59	40	39	37	40	39
11	47	43	53	47	50	47	52	40	38	37	36	39
12	47	44	54	49	49	46	50	39	37	37	39	39
13	47	46	55	49	47	49	49	38	35	38	41	39
14	47	47	56	50	45	55	49	38	35	38	39	36
15	45	47	56	51	45	66	49	38	35	38	38	34
16	45	46	55	51	44	106	48	37	35	38	39	33
17	44	46	55	50	44	132	47	37	35	38	39	32
18	44	47	55	48	43	136	47	37	35	38	40	32
19	44	48	55	47	43	135	46	37	35	38	41	37
20	43	49	55	47	42	128	46	37	35	39	41	39
21	40	49	54	45	43	125	45	37	36	40	40	40
22	40	51	54	44	45	118	45	37	36	40	41	40
23	40	51	54	40	46	111	45	37	37	41	41	39
24	41	51	55	40	45	107	43	37	37	41	41	39
25	42	50	55	42	44	109	40	37	37	41	40	37
26	40	50	54	43	46	145	38	37	37	42	39	34
27	38	51	51	43	45	179	37	37	37	42	38	32
28	39	51	50	45	46	189	37	37	37	43	37	32
29	40	51	49	46	47	184	38	37	37	43	38	30
30	41	51	48	47	46	172	39	37	37	43		29
31		51		49	45		39		37	43		35
Total	1,337	1,451	1,576	1,458	1,443	2,795	1,909	1,145	1,143	1,205	1,185	1,184
Mean	44.6	46.8	52.5	47.0	46.5	93.2	16.6	38.2	36.9	38.9	40.9	38.2
Max.	49	51	56	51	51	189	154	40	39	43	45	51
Min.	38	41	47	40	42	43	37	37	35	36	36	29
Runoff - MCM.	115.517	125.366	136.166	125.971	124.672	241.488	164.938	98.928	98.753	104.112	102.384	102.298

WATER YEAR 1967 : Max. 189 Min. 29 Mean 48.7 Annual Runoff 1,540.598 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sep. 28	18.00	7.87	190				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
CHEE RIVER BASIN

Nam Phong at Ban Nong Wai, Khon Kaen (E.22A)

Location: Lat 16° – 43' – 29" N, Long 102° – 48' – 21" E, on left bank about 500 meters downstream from bridge on Khon Kaen – Udon highway or at downstream side of Nam Phong Weir, Khon Kaen.

Drainage Area: 13,183 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: +150.92 m. (M.S.L.)

Bench Mark: * B.M. of NEA.

Location: At km. 111 on Udon – Khon Kaen highway.
Elevation: +165.507 m. (M.S.L.)

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: 1966 to date
Rated by Float: –
Rated by Current Meter: 1966 to date

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

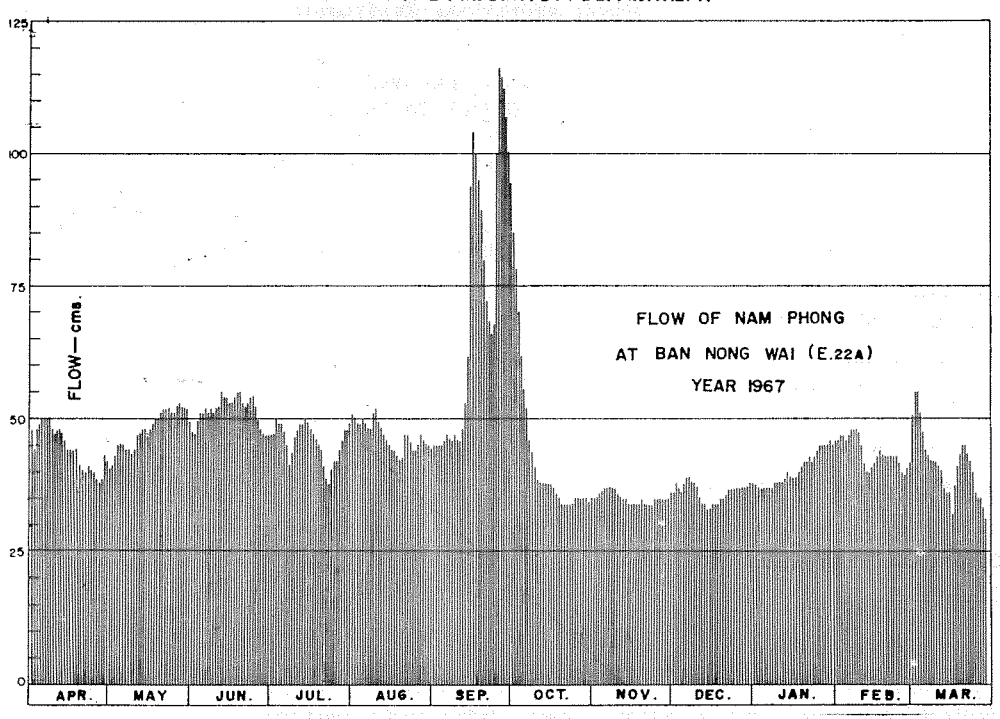
Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage – discharge relationship used is defined by discharge measurements made during 1967. Flow regulated by Ubonrat Dam upstream. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M.S.L), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	155.47	155.06	155.41	155.39	155.58	155.30	157.31	154.78	154.87	154.93	155.33	155.54
2	.19	.13	.40	.42	.56	.31	156.96	.81	.94	.88	.35	.76
3	.45	.21	.52	.52	.49	.28	.60	.83	.91	.88	.38	.76
4	.51	.29	.59	.50	.48	.29	.28	.86	.86	.89	.39	.50
5	.56	.31	.58	.49	.52	.37	155.95	.88	.93	.90	.37	.38
6	155.56	155.29	155.65	155.41	155.50	155.41	155.67	154.88	155.00	154.91	155.42	155.23
7	.52	.25	.59	.23	.44	.36	.42	.89	154.99	.91	.43	.18
8	.52	.24	.62	.11	.44	.34	.27	.88	.97	.90	.44	.17
9	.45	.21	.61	.26	.57	.39	.11	.89	.94	.94	.43	.15
10	.39	.23	.64	.38	.64	.36	.03	.85	.89	.95	.40	.13
11	155.45	155.38	155.64	155.47	155.51	155.37	154.97	154.80	154.80	154.96	155.25	155.10
12	.47	.40	.78	.48	.45	.49	.94	.79	.74	.98	.12	.03
13	.42	.43	.71	.49	.38	.74	.95	.78	.74	155.02	.05	154.90
14	.30	.44	.72	.53	.33	156.08	.96	.77	.72	.03	.05	.86
15	.26	.37	.70	.51	.31	157.45	.96	.73	.71	.01	.08	.85
16	155.23	155.43	155.67	155.44	155.27	157.89	154.92	154.74	154.75	155.01	155.15	154.59
17	.24	.48	.72	.35	.25	.66	.90	.73	.77	.02	.21	.88
18	.25	.52	.76	.35	.19	.45	.87	.76	.77	.05	.25	155.10
19	.08	.53	.75	.29	.14	.21	.81	.78	.79	.09	.19	.19
20	.09	.58	.69	.23	.20	156.91	.76	.77	.82	.13	.19	.30
21	155.07	155.64	155.64	155.09	155.38	156.63	154.77	154.75	154.86	155.16	155.20	155.28
22	.07	.64	.70	154.96	.39	.42	.77	.77	.89	.18	.22	.18
23	.09	.62	.73	.96	.34	.27	.74	.77	.89	.17	.22	.13
24	.06	.59	.74	155.12	.26	.26	.76	.78	.89	.20	.20	.07
25	.03	.61	.62	.16	.27	157.57	.79	.82	.88	.25	.13	154.87
26	154.95	155.64	155.51	155.17	155.28	158.34	154.80	154.82	154.92	155.28	155.04	154.81
27	.93	.68	.47	.26	.40	.24	.81	.80	.91	.29	.02	.82
28	.98	.65	.38	.37	.36	.17	.82	.79	.91	.32	.08	.63
29	155.19	.65	.39	.46	.32	157.93	.81	.81	.92	.31	.06	.60
30	.14	.62	.38	.47	.30	.62	.76	.87	.93	.33		155.16
31		.54		.54	.26		.78		.94	.32		.26
Mean	155.26	155.47	155.61	155.33	155.38	156.47	155.20	154.81	154.87	155.07	155.23	155.11
Max.	155.56	155.68	155.78	155.54	155.64	158.34	157.31	154.89	155.00	155.33	155.44	155.76
Min.	154.93	155.06	155.38	154.96	155.14	155.28	154.74	154.73	154.71	154.88	155.02	154.59

WATER YEAR 1967 : Max. 158.34 m. Min. 154.59 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	48	40	47	47	51	45	90	35	36	38	46	50
2	43	42	47	47	50	45	82	35	38	37	46	55
3	48	43	50	50	49	45	74	36	37	37	47	55
4	49	45	51	49	49	45	66	36	36	37	47	49
5	50	45	51	49	50	46	59	37	38	37	46	47
6	50	45	52	47	49	47	53	37	39	37	47	44
7	50	44	51	44	48	46	47	37	39	37	48	43
8	50	44	52	41	48	46	44	37	38	37	48	42
9	48	43	51	44	51	47	41	37	38	38	48	42
10	47	44	52	47	52	46	40	36	37	38	47	42
11	48	47	52	48	49	46	38	35	35	38	44	41
12	48	47	55	49	48	49	38	35	34	38	41	40
13	47	48	54	49	47	54	38	35	34	39	40	37
14	45	48	54	50	46	62	38	34	33	40	40	36
15	44	46	53	49	45	94	38	34	33	39	41	36
16	44	48	53	48	44	104	37	34	34	39	42	31
17	44	49	54	46	44	99	37	34	34	39	43	37
18	44	50	55	46	43	94	36	34	34	40	44	41
19	41	50	55	45	42	88	35	35	35	41	43	43
20	41	51	53	44	43	81	34	34	35	42	43	45
21	40	52	52	41	47	74	34	34	36	42	43	45
22	40	52	53	38	47	69	34	34	37	43	43	43
23	41	52	54	38	46	66	34	34	37	42	43	42
24	40	51	54	41	44	66	34	35	37	43	43	40
25	40	51	52	42	44	96	35	35	37	44	42	36
26	38	52	49	42	45	116	35	35	37	45	40	35
27	38	53	48	44	47	114	35	35	37	45	39	35
28	39	52	47	46	46	112	35	35	37	45	41	32
29	43	52	47	48	45	105	35	35	37	45	40	31
30	42	52	47	48	45	98	34	36	38	46		42
31		50		50	44		35		38	45		44
Total	1,330	1,488	1,545	1,417	1,448	2,145	1,345	1,055	1,125	1,253	1,265	1,281
Mean	44.3	48.0	51.5	45.7	46.7	71.5	43.4	35.2	36.3	40.4	43.6	41.3
Max.	50	53	55	50	52	116	90	37	39	46	48	55
Min.	38	40	47	38	42	45	34	34	33	37	39	31
Runoff - MCM.	114.912	128.563	133.488	122.429	125.107	185.328	116.208	91.152	97.200	108.259	109.296	110.678

WATER YEAR 1967 : Max. 116 Min. 31 Mean 45.6 Annual Runoff 1,442.621 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sep. 26	06.00	158.47	120				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
CHEE RIVER BASIN

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

Location: Lat 15°- 54' - 40" N, Long 101°- 42' - 40" E, on left bank about 500 meters north of Ban Nong O, 600 meters upstream from gaging station E.32, Amphoe Kaset Sombun, Chaiyaphum.

Drainage Area: 2,905 sq.km.

Type of Gage: Water - stage recorder.

Zero Gage at Bottom at: +198.00 m. (M.S.L.)

Bench Mark: B.M. - H.S.

Location: On left bank along staff gage line.
Elevation: +213.903 m. (M.S.L.)

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 Float: -
Rated by Current Meter: 1966 to date

Stability of Channel Regimes: Unstable, shifting adjustment is included for flow computation.

Overbank Flow Conditions: No overbank flow.

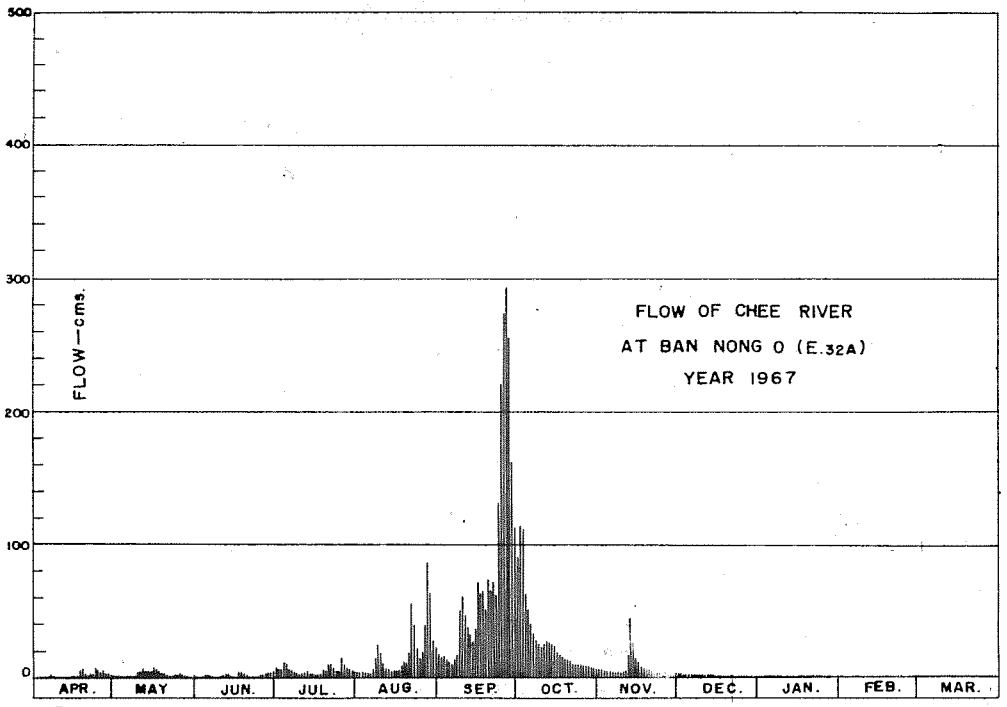
General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions except those built by local residents. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	198.62	198.79	198.82	199.21	199.02	199.71	202.30	199.06	198.89	198.67	198.60	198.57
2	.62	.77	.78	.02	.02	.57	203.25	.05	.89	.67	.58	.56
3	.62	.73	.76	.22	198.99	.68	.15	.03	.88	.66	.57	.56
4	.62	.72	.90	.47	.97	.51	201.69	.00	.86	.66	.60	.55
5	.62	.71	.91	.33	.95	.36	200.99	.00	.85	.66	.59	.54
6	198.65	198.73	198.84	199.09	198.91	199.30	200.60	198.97	198.84	198.65	198.59	198.53
7	.80	.82	.79	198.98	.98	.42	.30	.96	.82	.65	.58	.55
8	.68	.76	.78	.92	199.56	.68	.13	.95	.81	.66	.58	.54
9	.62	.75	.74	.87	200.15	200.95	199.99	.94	.80	.65	.57	.56
10	.62	199.05	.84	.83	199.81	201.46	.91	.93	.79	.64	.58	.54
11	198.61	199.14	198.96	198.81	199.47	200.74	199.97	198.93	198.78	198.64	198.57	198.54
12	.60	.26	.99	.91	.23	.65	200.12	199.18	.77	.64	.57	.55
13	.60	.06	.94	.95	.15	.25	.07	200.96	.76	.63	.57	.61
14	.63	.15	.83	.86	.02	199.99	.03	.13	.76	.64	.56	.56
15	.63	.10	.79	.82	.05	200.10	199.95	199.49	.74	.63	.56	.55
16	198.80	199.30	198.80	198.81	199.05	201.72	199.77	199.30	198.74	198.62	198.56	198.53
17	.69	.18	199.13	.79	.09	.55	.68	.20	.74	.62	.56	.52
18	199.07	.05	.08	.86	.29	.60	.60	.16	.72	.62	.56	.53
19	.18	198.97	198.95	199.08	.50	200.89	.52	.11	.71	.62	.56	.53
20	198.82	.93	.88	.03	.33	201.88	.49	.07	.71	.62	.55	.53
21	198.83	198.87	198.84	199.37	199.83	201.54	199.44	199.05	198.70	198.62	198.56	198.53
22	.86	.83	.81	.38	201.41	.84	.41	.02	.64	.61	.55	.56
23	.89	.82	.78	.06	200.27	.11	.39	198.99	.52	.63	.55	.64
24	199.27	.91	.83	198.94	199.89	203.00	.35	.98	.71	.63	.55	.60
25	.11	.85	.76	.90	.52	206.08	.33	.96	.68	.63	.56	.57
26	199.01	199.02	198.79	199.62	199.60	207.42	199.31	198.95	198.68	198.63	198.56	198.56
27	.14	198.85	.84	.30	200.73	.86	.28	.93	.67	.61	.56	.55
28	198.90	.77	.90	.20	202.56	206.86	.24	.92	.67	.61	.56	.53
29	.94	.77	.92	.14	201.55	204.31	.18	.92	.63	.61	.56	.52
30	.85	.78	.90	.02	200.41	203.21	.13	.91	.66	.61		.52
31		.93		.02	199.94		.09		.65	.60		.52
Mean	198.80	198.91	198.86	199.06	199.68	201.71	200.09	199.13	198.74	198.63	198.57	198.54
Max.	199.27	199.30	199.13	199.62	202.56	207.86	203.25	200.96	198.89	198.67	198.60	198.64
Min.	198.60	198.71	198.74	198.79	198.91	199.30	199.09	198.91	198.52	198.60	198.55	198.52

WATER YEAR 1967 : Max. 207.86 m. Min. 198.52 m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.42	1.42	1.70	8.40	4.74	18	86	6.30	3.70	1.34	0.56	0.42
2	0.42	1.26	1.34	5.65	4.74	15	116	6.17	3.70	1.34	0.42	0.35
3	0.42	0.96	1.18	8.55	4.35	17	113	5.91	3.58	1.26	0.35	0.35
4	0.42	0.86	2.50	13	4.09	14	68	5.52	3.34	1.26	0.56	0.28
5	0.42	0.78	2.62	10	3.83	11	49	5.52	3.22	1.26	0.49	0.21
6	0.63	0.94	1.90	6.60	3.34	10	41	5.13	3.10	1.18	0.49	0.14
7	1.90	1.70	1.42	5.13	4.22	13	34	5.00	2.86	1.18	0.42	0.28
8	0.86	1.18	1.34	4.35	13	18	29	4.87	2.74	1.26	0.42	0.21
9	0.42	1.10	1.02	3.70	25	47	26	4.74	2.62	1.18	0.35	0.35
10	0.42	4.35	1.90	3.22	18	61	23	4.61	2.50	1.02	0.42	0.21
11	0.35	5.52	3.22	2.98	11	42	25	4.61	2.40	1.02	0.35	0.21
12	0.28	7.20	3.58	4.22	7.65	39	28	8.10	2.30	1.02	0.35	0.28
13	0.28	4.48	2.98	4.74	6.45	33	27	46	2.20	0.94	0.42	0.70
14	0.49	5.65	1.80	3.58	4.74	27	26	27	2.20	1.02	0.35	0.35
15	0.49	5.30	1.42	3.10	5.13	29	24	14	2.00	0.94	0.35	0.35
16	1.90	7.80	1.50	2.98	5.13	72	19	11	2.00	0.86	0.35	0.21
17	0.94	6.04	5.39	2.74	5.65	64	17	8.85	2.00	0.86	0.35	0.14
18	5.13	4.35	4.74	3.58	8.55	65	16	8.25	1.80	0.86	0.35	0.21
19	6.60	3.34	3.10	6.45	12	46	14	7.50	1.70	0.86	0.35	0.21
20	2.00	2.86	2.30	5.78	9.15	74	14	6.90	1.70	0.78	0.28	0.21
21	1.80	2.20	1.90	11	18	64	13	6.60	1.60	0.78	0.35	0.21
22	2.10	1.80	1.60	11	56	72	10	5.65	1.10	0.70	0.28	0.42
23	2.40	1.70	1.34	6.17	27	52	10	5.26	0.21	0.86	0.28	1.02
24	7.35	2.62	1.80	4.61	21	108	10	5.13	1.70	0.78	0.28	0.70
25	5.13	2.00	2.40	4.09	13	219	9.98	4.87	1.42	0.78	0.35	0.49
26	3.83	3.96	2.74	15	15	274	9.64	4.74	1.42	0.78	0.35	0.42
27	5.52	2.00	3.34	9.81	39	294	9.15	4.48	1.34	0.63	0.35	0.35
28	2.50	1.26	4.09	7.95	87	251	8.55	4.35	1.34	0.63	0.35	0.21
29	2.98	1.26	4.35	6.60	58	152	7.65	4.35	1.02	0.63	0.35	0.14
30	2.00	1.34	4.09	4.74	29	112	6.90	4.22	1.26	0.63		0.14
31		2.86		4.74	23		6.30		1.18	0.56		0.14
Total	60.40	89.77	74.60	194.46	546.76	2,313	896.17	245.63	65.25	29.20	10.92	9.91
Mean	2.01	2.89	2.49	6.27	17.6	77.1	28.9	8.19	2.10	0.942	0.376	0.320
Max.	7.35	7.80	5.39	15	87	294	116	46	3.70	1.34	0.56	1.02
Min.	0.28	0.78	1.02	2.74	3.34	10	6.30	4.22	0.21	0.56	0.28	0.14
Runoff - mcm.	5.213	7.756	6.445	16.801	47.240	199.843	77.429	21.222	5.638	2.523	0.943	0.856

WATER YEAR 1967 : Max. 294 Min. 0.14 Mean 12.4 Annual Runoff 391.916 . mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sep. 27	10.00	207.89	295				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
CHEE RIVER BASIN

Nam Yang at Ban Nong Saeng Thung, Roi Et (E.33A)

Location: Lat 16° - 20' - 01" N, Long 104° - 01' - 18" E, on left bank about 1 kilometer south - east of Ban Nong Saeng Thung and 150 meters downstream from confluence with Nong Saeng, Amphoe Phon Thong, Roi Et.

Drainage Area: 2,599 sq.km.

Type of Gage: Water - stage recorder.

Zero Gage at Bottom at: +133.97 m. (M.S.L.)

Bench Mark: B.M. - H.S.

Location: Infront of the camp of gaging station.
Elevation: +143.700 m. (M.S.L.)

Gage Reading Frequency: Recording

Basis of Mean Daily Gage Height: Arithmetic mean of 24 readings.

Period of Available Gage Records: 1961 to date

Rating Operation:

Period of Rating: 1961 - 69
Rated by Float: -
Rated by Current Meter: 1961 - 69

Stability of Channel Regimes: Unstable, shifting adjustment is included for flow computation.

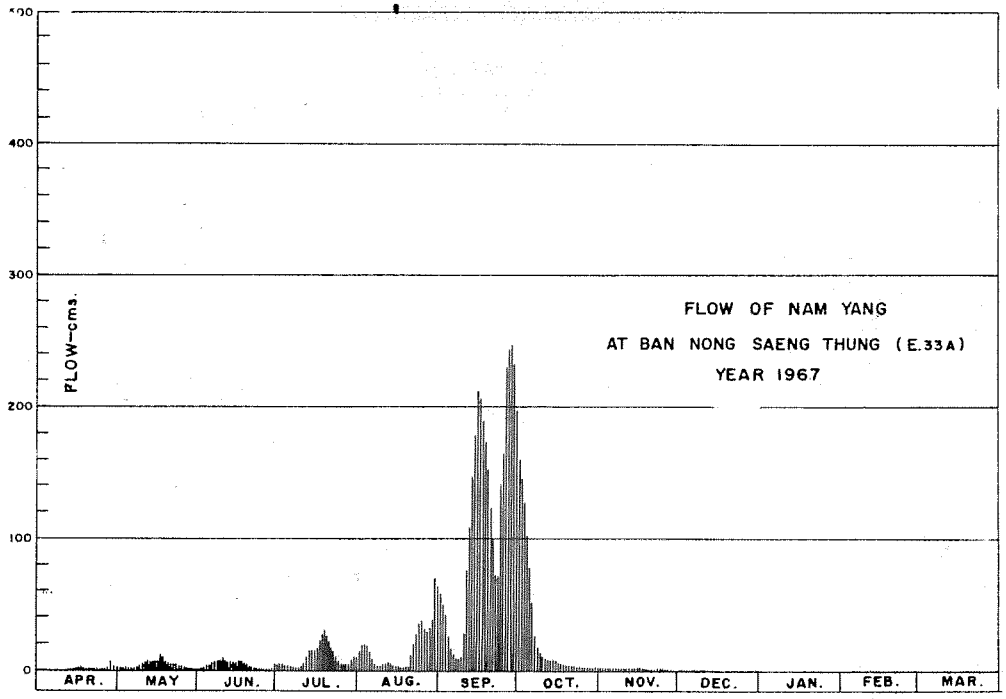
Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions for irrigation except those built by local residents. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	134.77	135.05	134.89	135.22	135.75	137.27	140.06	135.04	134.82	134.70	134.61	134.60
2	.77	.00	.87	.31	.99	.10	139.70	.05	.81	.69	.61	.59
3	.76	.03	135.05	.32	136.01	136.79	.25	.04	.82	.68	.61	.58
4	.75	.06	.13	.13	135.88	.28	138.52	.03	.88	.67	.61	.58
5	.76	134.99	.25	.09	.62	135.81	137.67	.03	.89	.71	.62	.57
6	134.75	134.99	135.35	135.09	135.39	135.57	137.13	135.02	134.86	134.72	134.66	134.58
7	.75	.96	.32	.01	.25	.48	136.45	.01	.81	.72	.60	.60
8	.75	.94	.37	134.95	.15	.58	.08	.03	.76	.70	.60	.59
9	.74	135.16	.39	.92	.10	.71	135.83	.00	.76	.69	.60	.58
10	.75	.26	.64	135.09	.34	136.51	.71	.02	.76	.69	.60	.57
11	134.75	135.33	135.37	135.25	135.33	138.37	135.65	135.03	134.75	134.67	134.59	134.57
12	.75	.45	.41	.50	.35	139.45	.61	.06	.74	.69	.59	.57
13	.80	.35	.40	.80	.20	140.20	.59	.04	.74	.68	.59	.57
14	.91	.36	.40	.73	.11	.76	.62	.05	.72	.68	.58	.57
15	.93	.41	.35	.82	.04	141.37	.52	.06	.72	.67	.62	.60
16	134.95	135.38	135.46	135.85	135.00	141.26	135.43	135.04	134.73	134.65	134.59	134.57
17	135.01	.70	.46	136.11	134.97	140.89	.38	.03	.73	.65	.58	.55
18	.02	.59	.34	.33	135.02	.55	.33	.02	.72	.65	.61	.60
19	134.95	.36	.20	.58	.07	139.95	.30	.01	.73	.65	.59	.57
20	.93	.31	.12	.37	.11	.26	.26	134.99	.72	.64	.59	.56
21	134.90	135.34	135.05	136.08	135.64	138.42	135.24	134.97	134.71	134.64	134.59	134.56
22	.87	.30	.00	135.82	136.08	137.67	.22	.94	.72	.63	.60	.56
23	.88	.22	134.96	.60	.36	138.20	.19	135.04	.71	.64	.59	.55
24	.83	.13	.95	.41	.58	140.23	.17	.01	.73	.70	.58	.57
25	.86	.09	.95	.32	.61	.72	.14	134.96	.79	.65	.57	.56
26	134.89	135.06	134.93	135.25	136.28	141.24	135.09	134.93	134.69	134.64	134.58	134.56
27	135.03	.02	.90	.32	.36	.48	.09	.89	.71	.66	.57	.58
28	.42	134.97	.88	.28	.47	.51	.08	.88	.72	.64	.59	.58
29	.08	.94	135.01	.46	.64	.11	.07	.87	.76	.63	.60	.57
30	.03	.93	.33	.60	137.69	140.55	.05	.86	.75	.63		.55
31		.90		.58	.51		.04		.73	.63		.56
Mean	134.88	135.18	135.19	135.52	135.77	138.84	136.05	135.00	134.76	134.67	134.60	134.57
Max.	135.42	135.70	135.64	136.58	137.69	141.51	140.06	135.06	134.89	134.72	134.66	134.60
Min.	134.74	134.90	134.87	134.92	134.97	135.48	135.04	134.86	134.69	134.63	134.57	134.55

WATER YEAR 1967 : Max. 141.51 m. Min. 134.55 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.54	2.42	1.18	4.17	15	55	161	2.13	0.81	0.32	0.080	0.12
2	0.54	1.99	1.06	5.33	20	50	145	2.22	0.76	0.32	0.080	0.080
3	0.50	2.25	2.42	5.48	20	40	126	2.13	0.81	0.28	0.080	0.040
4	0.46	2.51	3.17	3.17	16	26	98	2.04	1.19	0.24	0.080	0.040
5	0.50	1.91	4.55	2.76	12	15	62	2.13	1.25	0.40	0.12	0.00
6	0.46	1.91	5.93	2.76	8.64	10	45	2.04	1.05	0.45	0.28	0.040
7	0.46	1.69	5.48	2.08	4.93	8.49	26	1.95	0.76	0.45	0.040	0.12
8	0.46	1.54	6.24	1.61	3.71	9.90	18	2.13	0.50	0.36	0.040	0.080
9	0.43	3.49	6.54	1.39	3.15	12	13	1.86	0.60	0.32	0.040	0.040
10	0.46	4.68	11	2.76	6.12	28	11	2.04	0.60	0.32	0.040	0.00
11	0.46	5.63	6.24	4.55	5.99	85	9.90	2.13	0.55	0.24	0.040	0.00
12	0.46	7.60	6.37	8.52	6.27	123	9.26	2.39	0.50	0.32	0.040	0.00
13	0.65	5.93	6.69	14	4.32	157	8.95	2.22	0.50	0.28	0.040	0.00
14	1.31	6.09	6.69	13	3.26	182	9.42	2.30	0.40	0.28	0.00	0.00
15	1.46	6.87	5.93	15	2.48	213	7.88	2.39	0.40	0.24	0.16	0.12
16	1.61	6.39	7.79	15	2.13	207	6.56	2.22	0.45	0.16	0.040	0.00
17	2.08	12	7.79	21	1.86	188	5.86	2.13	0.45	0.24	0.00	0.00
18	2.16	10	5.78	26	2.30	171	5.20	2.04	0.40	0.24	0.12	0.12
19	1.61	6.09	3.92	32	2.81	144	4.80	1.95	0.45	0.24	0.040	0.00
20	1.46	5.35	3.06	27	3.26	116	4.32	1.86	0.40	0.20	0.040	0.00
21	1.24	5.78	2.42	20	14	84	4.07	1.69	0.36	0.20	0.040	0.00
22	1.06	5.18	1.99	15	23	59	4.07	1.46	0.40	0.16	0.080	0100
23	1.12	4.17	1.69	11	30	77	3.71	2.30	0.36	0.20	0.040	0.00
24	0.33	3.17	1.61	6.87	36	157	3.48	2.04	0.45	0.45	0.000	0.00
25	1.00	2.76	1.61	5.48	37	179	3.15	1.60	0.76	0.24	0.000	0.00
26	1.18	2.51	1.46	4.55	28	231	2.59	1.39	0.28	0.20	0.00	0.00
27	2.25	2.51	1.24	5.48	30	246	2.59	1.12	0.36	0.28	0.00	0.040
28	7.06	2.70	1.12	4.93	33	248	2.48	1.19	0.40	0.20	0.040	0.040
29	2.68	1.76	2.08	7.79	38	213	2.39	1.12	0.60	0.16	0.080	0.00
30	2.25	1.54	5.63	11	71	184	2.22	1.05	0.55	0.16		0.00
31		1.24		10	64		2.13		0.45	0.16		0.00
Total	38.74	128.05	129.18	309.68	550.23	3,518.39	810.03	57.26	17.80	8.31	1.68	0.88
Mean	1.29	4.13	4.31	9.99	17.7	117	26.1	1.91	0.57	0.27	0.058	0.028
Max.	7.06	12	11	32	71	248	161	2.39	1.25	0.45	0.28	0.12
Min.	0.43	1.24	1.06	1.39	1.86	8.49	2.13	1.05	0.28	0.16	0.00	0.00
Runoff - mcm.	3.347	11.063	11.161	26.756	47.540	303.989	69.986	4.947	1.538	0.718	0.145	0.076

WATER YEAR 1967 : Max. 248 Min. 0.00 Mean 15.2 Annual Runoff 481.268 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sep. 28	02.00	141.60	253				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
CHEE RIVER BASIN

Lam Chi Long at Ban Kut Yang, Chaiyaphum (E.49)

Location: Lat 15°- 49' - 31" N, Long 101°- 51' - 01" E, on left bank at Ban Kut Yang, Amphoe Ban Khwao, Chaiyaphum.

Drainage Area: 265 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: +196.394 m. (M.S.L.)

Bench Mark: B.M. - H.S.

Location: About 20 meters south-east of camp of gaging station.
Elevation: +205.115 m. (M.S.L.)

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 - 71
Rated by Float: -
Rated by Current Meter: 1967 - 71

Stability of Channel Regimes: Stable, shifting adjustment is included for flow computation.

Overbank Flow Conditions: No overbank flow.

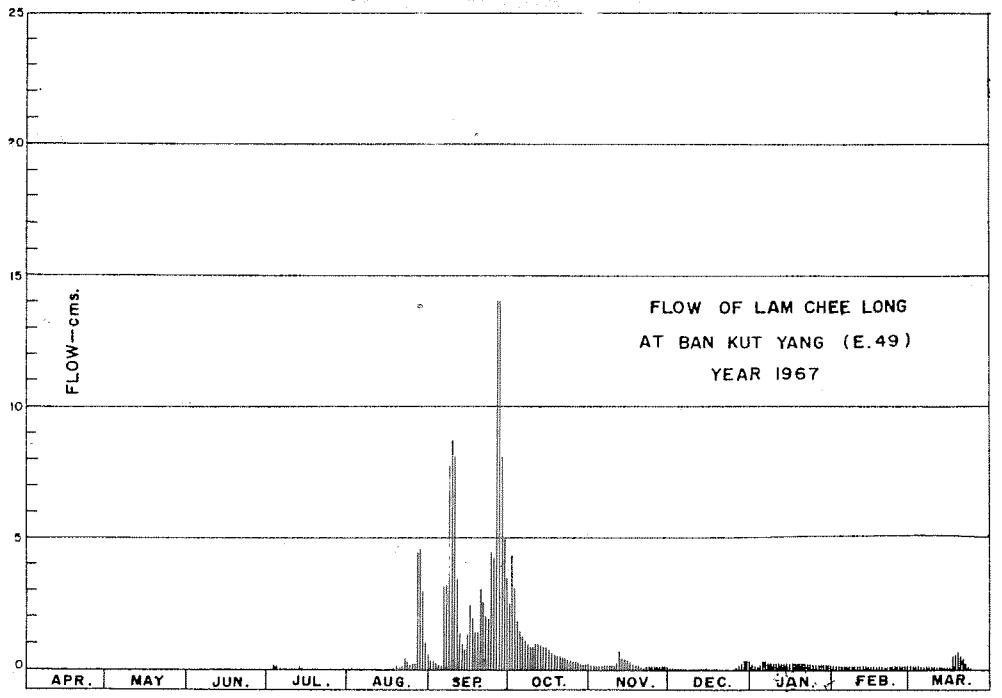
General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made during 1967. River stage is effected by man - made channel obstructions. No adjustment made for virgin flow.

Remarks: No gage height record for period Apr. 1 - June 30 which are dry.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1				198.86	198.89	199.15	200.14	199.08	198.96	199.11	199.06	198.99
2				.82	.97	.11	.72	.09	.95	.05	.06	.98
3				199.09	.88	.05	.32	.09	.95	198.98	.06	.98
4				.01	.86	.03	199.94	.06	.96	199.04	.05	.98
5				198.98	.83	.01	.78	.09	.96	.22	.05	.98
6				198.92	198.82	200.60	199.69	199.12	198.94	199.23	199.05	198.98
7				.86	.81	.50	.63	.12	.93	.14	.05	.97
8				.85	.80	201.66	.56	.13	.94	.14	.04	.97
9				.86	.79	.88	.51	.12	.93	.14	.04	.96
10				.84	.78	.75	.51	.11	.90	.13	.03	.96
11				198.78	198.77	200.11	199.53	199.09	198.90	199.13	199.03	198.95
12				.71	.76	199.65	.54	.58	.95	.13	.03	.94
13				199.03	.75	.50	.51	.40	.87	.12	.02	.95
14				198.80	.75	.42	.48	.41	.84	.12	.01	.95
15				.81	.75	.78	.47	.31	.86	.11	.01	.94
16				198.80	198.75	200.16	199.41	199.23	198.90	199.11	199.00	198.94
17				.87	.76	199.89	.37	.19	.89	.11	198.99	199.37
18				.78	.76	.68	.33	.14	.88	.11	.99	.38
19				.77	.76	.54	.31	.12	.85	.10	.98	.44
20				.76	.76	200.37	.29	.10	.88	.10	.98	.30
21				198.78	198.98	200.12	199.26	199.06	198.87	199.09	198.98	199.27
22				.95	199.31	199.99	.24	.09	.81	.09	.98	.27
23				.91	.14	.91	.22	.07	.83	.09	.99	198.98
24				.92	.04	201.91	.20	.06	.83	.09	199.00	.77
25				.92	.07	.70	.19	.04	.82	.08	.02	.76
26				198.90	199.04	202.43	199.17	199.02	198.96	199.08	199.01	198.77
27				.87	200.93	.44	.14	.01	199.05	.08	.01	.79
28				.83	.97	201.76	.14	.01	.12	.08	.00	.80
29				.80	199.82	200.95	.09	.00	.20	.08	.00	.80
30				.77	.56	.36	.07	.00	.21	.07		.80
31				.76	.27		.12		.17	.07		.80
Mean				198.86	199.07	200.38	199.48	199.13	198.94	199.10	199.02	198.99
Max.				199.09	200.97	202.44	200.72	199.58	199.21	199.23	199.06	199.44
Min.				198.71	198.75	199.01	199.07	199.00	198.81	198.98	198.98	198.76

WATER YEAR 1967 : Max. 202.44 m. Min. 198.71 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1				0.021	0.042	0.28	2.49	0.16	0.086	0.23	0.19	0.13
2				0.000	0.10	0.24	4.33	0.16	0.078	0.18	0.19	0.12
3				0.20	0.035	0.15	2.77	0.14	0.078	0.12	0.19	0.12
4				0.13	0.021	0.13	1.77	0.11	0.086	0.17	0.18	0.12
5				0.11	0.000	0.12	1.47	0.12	0.086	0.35	0.18	0.12
6				0.063	0.000	3.19	1.27	0.14	0.070	0.36	0.18	0.12
7				0.021	0.000	2.89	1.14	0.14	0.063	0.26	0.18	0.11
8				0.014	0.000	7.47	0.99	0.15	0.070	0.26	0.17	0.11
9				0.021	0.000	8.77	0.89	0.14	0.063	0.26	0.17	0.10
10				0.007	0.000	7.97	0.89	0.13	0.042	0.25	0.16	0.10
11				0.000	0.000	2.32	0.93	0.12	0.042	0.25	0.16	0.094
12				0.000	0.000	1.25	0.95	0.73	0.078	0.25	0.16	0.086
13				0.15	0.000	0.91	0.89	0.44	0.021	0.24	0.15	0.094
14				0.000	0.000	0.75	0.83	0.45	0.000	0.24	0.14	0.094
15				0.000	0.000	1.52	0.81	0.33	0.014	0.23	0.14	0.086
16				0.000	0.000	2.46	0.70	0.24	0.042	0.23	0.13	0.086
17				0.028	0.000	1.77	0.62	0.20	0.035	0.23	0.13	0.56
18				0.000	0.000	1.29	0.56	0.16	0.023	0.23	0.13	0.58
19				0.000	0.000	0.99	0.53	0.14	0.007	0.22	0.12	0.68
20				0.000	0.000	3.07	0.50	0.13	0.028	0.22	0.12	0.45
21				0.000	0.11	2.24	0.45	0.094	0.021	0.21	0.12	0.41
22				0.086	0.43	1.92	0.43	0.13	0.000	0.21	0.12	0.41
23				0.056	0.23	1.72	0.40	0.13	0.000	0.21	0.13	0.12
24				0.063	0.14	4.41	0.38	0.14	0.000	0.21	0.13	0.00
25				0.063	0.17	3.68	0.36	0.15	0.000	0.20	0.15	0.00
26				0.049	0.10	14	0.34	0.13	0.10	0.20	0.14	0.00
27				0.028	4.48	14	0.27	0.13	0.18	0.20	0.14	0.00
28				0.000	4.63	8.15	0.25	0.13	0.24	0.20	0.13	0.00
29				0.000	1.29	4.48	0.20	0.12	0.33	0.20	0.13	0.00
30				0.000	0.97	3.13	0.18	0.12	0.34	0.19	–	0.00
31				0.000	0.45	–	0.21	–	0.29	0.19	–	0.00
Total	0.00	0.00	0.00	1.110	13.198	105.25	28.80	5.604	2.518	7.00	4.36	4.90
Mean	0.00	0.00	0.00	0.036	0.426	3.508	0.929	0.187	0.081	0.226	0.150	0.16
Max.	0.00	0.00	0.00	0.20	4.63	14	4.33	0.73	0.34	0.36	0.19	0.68
Min.	0.00	0.00	0.00	0.000	0.000	0.12	0.18	0.094	0.000	0.12	0.12	0.00
Runoff – MCM.	0.000	0.000	0.000	0.096	1.140	9.094	2.488	0.484	0.217	0.605	0.377	0.423

WATER YEAR 1967 : Max. 14 Min. 0.000 Mean 0.47 Annual Runoff 14.925 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sep. 27	03.00	202.59	15				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
MUNE RIVER BASIN

Mune River at Tha Chang, Nakhon Ratchasima (M.2)

Location: Lat 15°- 00'- 03" N, Long 102°- 15' - 57" E, on right bank 100 meters west of Ban Tha Chang School and 30 meters south of railway pumping station, Amphoe Chakkarat, Nakhon Ratchasima.

Drainage Area: 4,800 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: +158.50 m. (M.S.L.)

Bench Mark: B.M. - H.S./R.I.D. No.1004

Location: 10 meters from right bank along the gage line.
Elevation: +165.140 m. (M.S.L.)

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: 1950 to date.

Rating Operation:

Period of Rating: 1960, 1969 - 71
Rated by Float: -
Rated by Current Meter: 1960, 1969 - 71

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1960. No upstream state diversions for irrigation except those built by local residents. No adjustment made for virgin flow.

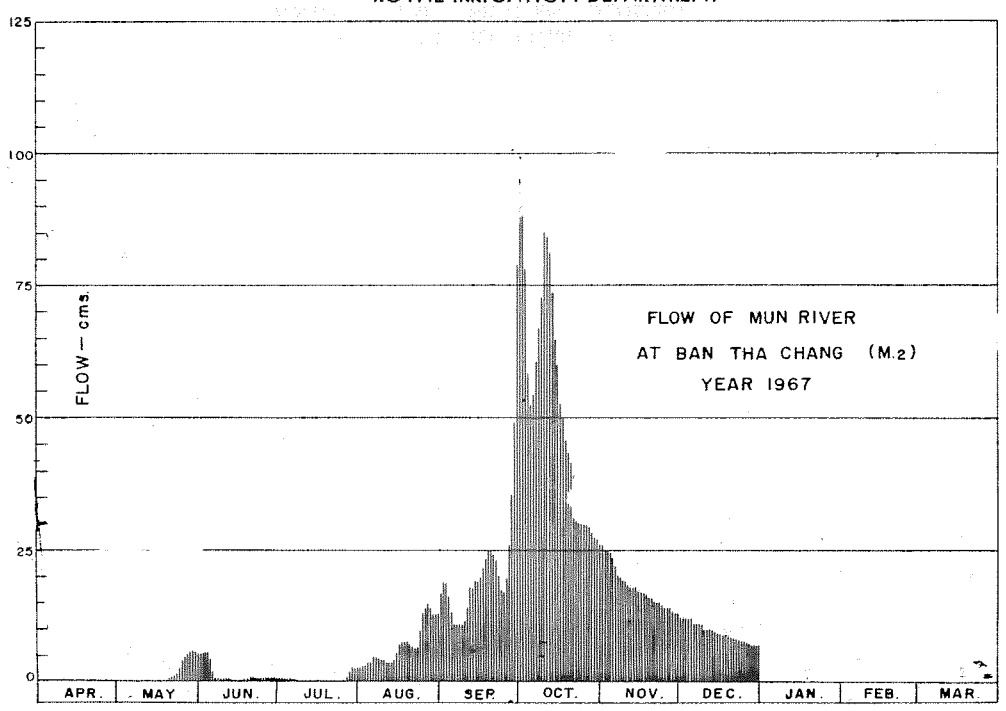
Remarks: No record for period Jan. 1 - 31, 1968.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	159.06	159.17	160.78	159.69	160.32	162.10	164.97	162.75	161.64		159.15	159.04
2	.07	.18	.83	.68	.37	.28	.86	.71	.62		.15	.03
3	.07	.18	.86	.65	.39	.28	.38	.67	.59		.14	.02
4	.08	.18	.75	.60	.47	.04	.01	.63	.58		.14	.01
5	.08	.18	.43	.59	.56	161.70	163.90	.54	.56		.13	.00
6	159.08	159.19	159.65	159.55	160.67	161.55	164.02	162.47	161.54		159.13	159.00
7	.09	.19	.60	.52	.70	.51	.23	.39	.52		.12	.00
8	.09	.20	.58	.50	.64	.50	.37	.36	.50		.12	.00
9	.09	.20	.57	.49	.61	.53	.55	.32	.48		.11	.00
10	.10	.21	.55	.49	.59	.64	.79	.28	.45		.10	158.99
11	159.10	159.21	159.56	159.48	160.56	161.86	164.76	162.23	161.42		159.10	158.98
12	.10	.21	.58	.48	.54	162.13	.69	.19	.40		.09	.98
13	.11	.22	.52	.47	.53	.25	.42	.19	.37		.08	.98
14	.11	.22	.51	.46	.62	.28	.20	.18	.35		.06	.99
15	.12	.22	.47	.45	.82	.30	.02	.15	.32		.04	159.00
16	159.12	159.23	159.45	159.45	161.04	162.38	163.90	162.11	161.30		159.07	159.00
17	.12	.24	.43	.43	.09	.52	.82	.08	.28		.09	158.99
18	.12	.30	.55	.41	.11	.60	.68	.04	.26		.08	.99
19	.13	.46	.64	.40	.13	.69	.60	.02	.24		.07	.99
20	.13	.64	.77	.45	.08	.69	.52	161.99	.21		.06	.98
21	159.14	159.75	159.77	159.45	160.98	162.61	163.45	161.95	161.20		159.04	158.97
22	.14	.88	.73	.46	.95	.46	.40	.91	.18		.03	.97
23	.14	.99	.69	.47	161.02	.26	.35	.88	.15		.03	.97
24	.15	160.30	.68	.45	.39	.13	.26	.84	.11		.04	.97
25	.15	.59	.66	.49	.71	.13	.11	.80	.09		.06	.98
26	159.15	160.72	159.65	159.49	161.81	162.40	162.99	161.79	161.07		159.05	159.05
27	.15	.81	.69	.92	.87	.92	.92	.76	.05		.05	.03
28	.16	.86	.72	160.14	.80	163.40	.87	.74	.04		.05	.03
29	.15	.89	.72	.30	.75	.94	.83	.70	.03		.05	.01
30	.17	.86	.70	.26	.73	164.62	.79	.67	.02			158.99
31		.78		.26	.71		.77		.01			.98
Mean	159.12	159.68	159.80	159.61	160.98	162.36	163.82	162.14	161.31		159.08	159.00
Max.	159.17	160.89	160.86	160.30	161.87	164.62	164.97	162.75	161.64		159.15	159.05
Min.	159.06	159.17	159.43	159.49	160.32	161.50	162.77	161.67	161.01		159.03	158.97

WATER YEAR 1967 : Max. 164.97 m. Min. 158.97 m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.051	0.11	5.19	0.83	2.86	17	95	26	12		0.099	0.043
2	0.055	0.12	5.52	0.81	3.07	19	89	25	12		0.099	0.039
3	0.055	0.12	5.73	0.74	3.16	19	68	25	12		0.092	0.035
4	0.060	0.12	5.02	0.64	3.54	16	55	24	12		0.092	0.031
5	0.060	0.12	3.34	0.62	3.99	13	52	23	12		0.086	0.027
6	0.060	0.12	0174	0.55	4.57	11	55	22	11		0.086	0.027
7	0.064	0.12	0.64	0.50	4.73	11	63	20	11		0.080	0.027
8	0.064	0.13	0.61	0.47	4.41	11	68	20	11		0.080	0.027
9	0.064	0.13	0.59	0.46	4.25	11	75	19	11		0.074	0.027
10	0.068	0.14	0.55	0.46	4.15	12	85	19	10		0.068	0.023
11	0.068	0.14	0.57	0.45	3.99	15	84	18	10		0.068	0.019
12	0.068	0.14	0.61	0.45	3.89	18	81	18	10		0.064	0.019
13	0.074	0.15	0.50	0.44	3.84	18	70	18	9.70		0.060	0.019
14	0.074	0.15	0.49	0.43	4.31	19	62	18	9.50		0.051	0.023
15	0.080	0.15	0.44	0.41	5.46	19	55	17	9.20		0.043	0.027
16	0.080	0.16	0.41	0.41	7.12	20	52	17	9.00		0.055	0.027
17	0.080	0.17	0.39	0.39	7.52	22	49	17	8.84		0.064	0.023
18	0.080	0.22	0.55	0.37	7.66	24	45	16	8.68		0.060	0.023
19	0.086	0.41	0.72	0.36	7.78	25	43	16	8.52		0.055	0.023
20	0.086	0.72	1.00	0.41	7.44	25	41	16	8.28		0.051	0.019
21	0.092	0.96	1.00	0.41	6.64	24	39	15	8.20		0.043	0.015
22	0.092	1.31	0.92	0.43	6.40	21	38	15	8.08		0.039	0.015
23	0.092	1.65	0.83	0.44	6.96	19	37	15	7.90		0.039	0.015
24	0.099	2.77	0.81	0.41	9.90	17	35	14	7.66		0.043	0.015
25	0.099	4.15	0.77	0.46	13	17	32	14	7.52		0.051	0.019
26	0.099	4.85	0.74	0.46	14	21	30	14	7.36		0.047	0.047
27	0.099	5.39	0.83	1.43	15	29	29	14	7.20		0.047	0.039
28	0.10	5.73	0.90	2.14	14	38	28	13	7.12		0.047	0.039
29	0.10	5.93	0.90	2.77	13	53	27	13	7.04		0.047	0.031
30	0.11	5.73	0.85	2.60	13	78	27	13	6.96		–	0.023
31	–	5.19	–	2.60	13	–	26	–	6.88		–	0.019
Total	2.359	47.30	42.16	24.35	222.64	662	1,635	534	287.64		1.830	0.805
Mean	0.078	1.52	1.40	0.78	7.18	22.07	53.0	18.0	9.28		0.063	0.026
Max.	0.11	5.93	5.73	2.77	15	78	95	26	12		0.099	0.047
Min.	0.051	0.11	0.39	0.36	2.86	11	26	13	6.88		0.039	0.015
Runoff – mcm.	0.204	4.086	3.643	2.104	19.236	57.197	141.264	46.138	24.852		0.158	0.070

WATER YEAR 1967 : Max. 95 Min. Mean Annual Runoff mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 1	24.00	164.99	96				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
MUNE RIVER BASIN

Mune River at Seri Prachathipatai Bridge, Ubon Ratchathani (M.7)

Location: Lat 15° - 13' - 17" N, Long 104° - 51' - 39" E, on left bank at abutment of Seri Prachathipathai Bridge, Amphoe Muang, Ubon Ratchathani.

Drainage Area: 106,673 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: +105.00 m. (M.S.L.)

Bench Mark: B.M. - H.S. M.7

Location: On left bank near bridge.
Elevation: +113.317 m. (M.S.L.)

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: 1944 to date.

Rating Operation:

Period of Rating: 1956, 1958, 1964 to date.
Rated by Float: -
Rated by Current Meter: 1956, 1958, 1964 to date.

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

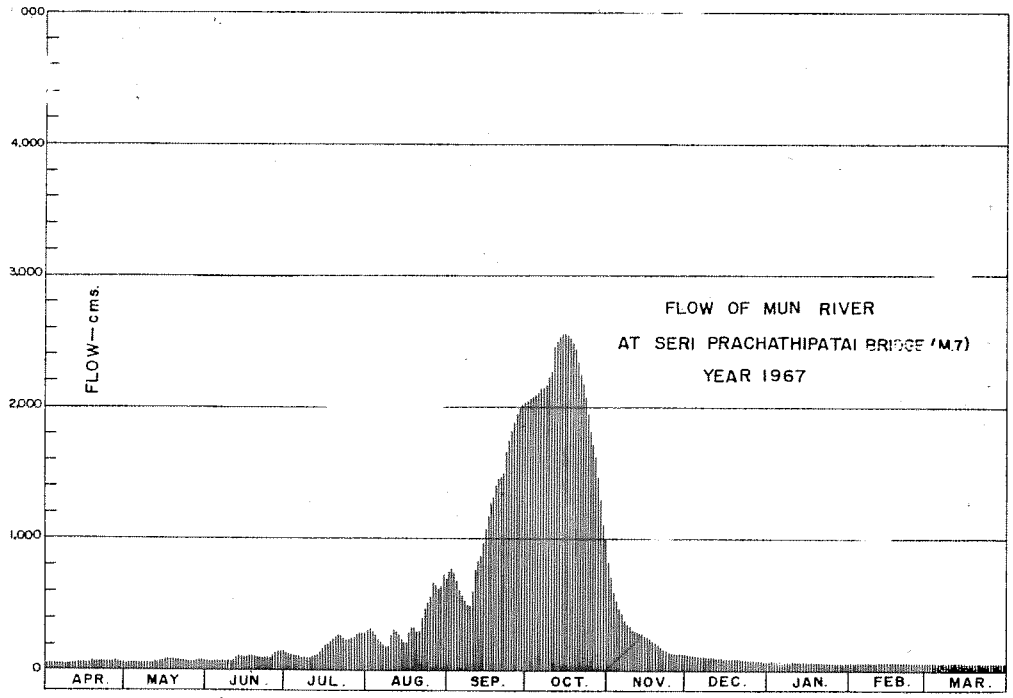
Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1,1967 TO MARCH 31,1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	106.63	106.67	106.75	106.98	107.63	108.80	111.30	108.90	106.99	106.74	106.68	106.65
2	.62	.67	.74	.98	.64	.84	.32	.63	.98	.74	.68	.65
3	.62	.69	.73	.98	.56	.74	.35	.41	.96	.74	.68	.64
4	.62	.68	.73	.94	.46	.58	.38	.24	.94	.73	.68	.64
5	.62	.68	.72	.91	.35	.44	.42	.09	.93	.73	.68	.64
6	106.61	106.68	106.72	106.89	107.28	108.32	111.45	107.95	106.91	106.72	106.68	106.64
7	.61	.67	.72	.86	.19	.24	.47	.83	.91	.72	.68	.64
8	.61	.67	.71	.87	.15	.16	.49	.76	.90	.72	.69	.64
9	.61	.67	.71	.86	.22	.12	.60	.68	.89	.71	.68	.64
10	.61	.67	.74	.84	.52	.33	.68	.63	.88	.71	.68	.64
11	106.61	106.68	106.74	106.88	107.64	108.84	111.97	107.59	106.87	106.71	106.68	106.64
12	.61	.69	.82	.94	.59	.95	112.03	.56	.87	.71	.68	.65
13	.61	.68	.91	.93	.47	109.09	.07	.54	.86	.71	.68	.66
14	.63	.70	.92	107.07	.38	.26	.10	.52	.86	.71	.68	.67
15	.66	.74	.89	.13	.36	.47	.10	.49	.84	.71	.68	.67
16	106.67	106.80	106.92	107.26	107.36	109.73	112.09	107.44	106.83	106.70	106.68	106.66
17	.67	.81	.94	.28	.69	.92	.06	.40	.82	.69	.68	.66
18	.71	.78	.91	.30	.66	110.01	.00	.33	.82	.69	.68	.65
19	.69	.78	.89	.35	.62	.20	111.92	.27	.81	.68	.68	.64
20	.69	.77	.88	.47	.57	.25	.79	.20	.81	.68	.68	.63
21	106.69	106.77	106.88	107.48	107.61	110.29	111.63	107.15	106.80	106.68	106.68	106.63
22	.69	.77	.86	.44	.91	.35	.51	.10	.79	.70	.67	.62
23	.69	.76	.85	.42	108.12	.66	.31	.06	.78	.69	.67	.62
24	.69	.75	.83	.39	.24	.81	.13	.02	.77	.68	.66	.61
25	.68	.73	.84	.38	.35	.93	110.94	.00	.77	.68	.66	.61
26	106.70	106.73	107.00	107.41	108.59	111.03	110.70	106.99	106.76	106.68	106.66	106.61
27	.73	.73	.05	.42	.51	.15	.45	.98	.75	.68	.65	.61
28	.70	.73	.05	.50	.44	.22	.17	.98	.75	.67	.65	.61
29	.69	.78	.09	.55	.51	.26	109.87	.98	.75	.67	.65	.61
30	.68	.77	.05	.52	.72	.29	.50	107.00	.75	.67		.62
31		.76		.52	.65		.19		.75	.67		.62
Mean	106.65	106.72	106.85	107.18	107.77	109.67	111.32	107.52	106.84	106.70	106.67	106.63
Max.	106.73	106.81	107.09	107.55	108.72	111.29	112.10	108.90	106.99	106.74	106.69	106.67
Min.	106.61	106.67	106.71	106.84	107.15	108.12	109.19	106.98	106.75	106.67	106.65	106.61

WATER YEAR 1967 : Max. 112.10 m. Min. 106.61 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31,1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	51	59	75	125	311	761	2,047	805	128	73	61	55
2	49	59	73	125	314	779	2,059	689	125	73	61	55
3	49	63	71	125	288	735	2,077	598	120	73	61	53
4	49	61	71	116	257	668	2,096	530	116	71	61	53
5	49	61	69	108	223	610	2,120	472	113	71	61	53
6	47	61	69	104	203	562	2,138	421	108	69	61	53
7	47	59	69	98	178	530	2,151	378	108	69	61	53
8	47	59	67	100	168	499	2,163	354	106	69	63	53
9	47	59	67	98	187	484	2,231	327	104	67	61	53
10	47	59	73	93	275	566	2,281	311	102	67	61	53
11	47	61	73	102	314	779	2,465	298	100	67	61	53
12	47	63	89	116	298	827	2,505	288	100	67	61	55
13	47	61	108	113	260	890	2,532	282	98	67	61	57
14	51	65	111	147	232	969	2,552	275	98	67	61	59
15	57	73	104	163	226	1,066	2,552	266	93	67	61	57
16	59	85	111	198	226	1,189	2,545	250	91	65	61	57
17	59	87	116	203	331	1,282	2,525	238	89	63	61	57
18	67	81	108	209	321	1,327	2,485	218	89	63	61	55
19	63	81	104	223	308	1,423	2,433	201	87	61	61	53
20	63	79	102	260	291	1,449	2,350	181	87	61	61	51
21	63	79	102	263	304	1,470	2,250	168	85	61	61	51
22	63	79	98	250	407	1,501	2,175	155	83	65	59	49
23	63	77	95	244	484	1,573	2,053	145	81	63	59	49
24	63	75	91	235	530	1,758	1,945	135	79	61	57	47
25	61	71	93	232	574	1,827	1,833	130	79	61	57	47
26	65	71	130	241	672	1,886	1,695	128	77	61	57	47
27	71	71	142	244	639	1,957	1,555	125	75	61	55	47
28	65	71	142	269	610	1,999	1,408	125	75	59	55	47
29	63	81	152	285	639	2,023	1,257	125	75	59	55	47
30	61	79	142	275	727	2,041	1,080	130	75	59	–	49
31	–	77	–	275	697	–	936	–	75	59	–	49
Total	1,680	2,167	2,917	5,639	11,494	35,530	64,494	8,748	2,921	2,019	1,737	1,617
Mean	56.0	69.9	97.2	182	371	1,184	2,080	292	94.2	65.1	59.9	52.2
Max.	71	87	152	285	727	2,041	2,552	805	128	73	63	59
Min.	47	59	67	93	168	484	936	125	75	59	55	47
Runoff - mcm.	145.152	187.229	252.029	487.210	993.082	3,069.792	5,572.282	755.827	252.374	174.442	150.077	139.709

WATER YEAR 1967 : Max. 2,552 Min. 47 Mean 385 Annual Runoff 12,179.203 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 14	15.00	106.61	2,552				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
MUNE RIVER BASIN

Lam Plai Mat at Railway Bridge, Buri Ram (M.8)

Location: Lat 15°- 01' - 05" N, Long 102°- 48' - 55" E, on right bank about 15 meters downstream from Railway bridge, Amphoe Lam Plai Mat, Buri Ram.

Drainage Area: 5,025 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: +148.890 m. (M.S.L.)

Bench Mark: B.M. - H.S. 1015

Location: On left bank along staff gage line.
Elevation: +155.976 m. (M.S.L.)

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: 1951 to date.

Rating Operation:

Period of Rating: 1967
Rated by Float: -
Rated by Current Meter: 1967

Stability of Channel Regimrs: Unstable, shifting adjustment is included for flow computation.

Overbank Flow Conditions: No overbank flow.

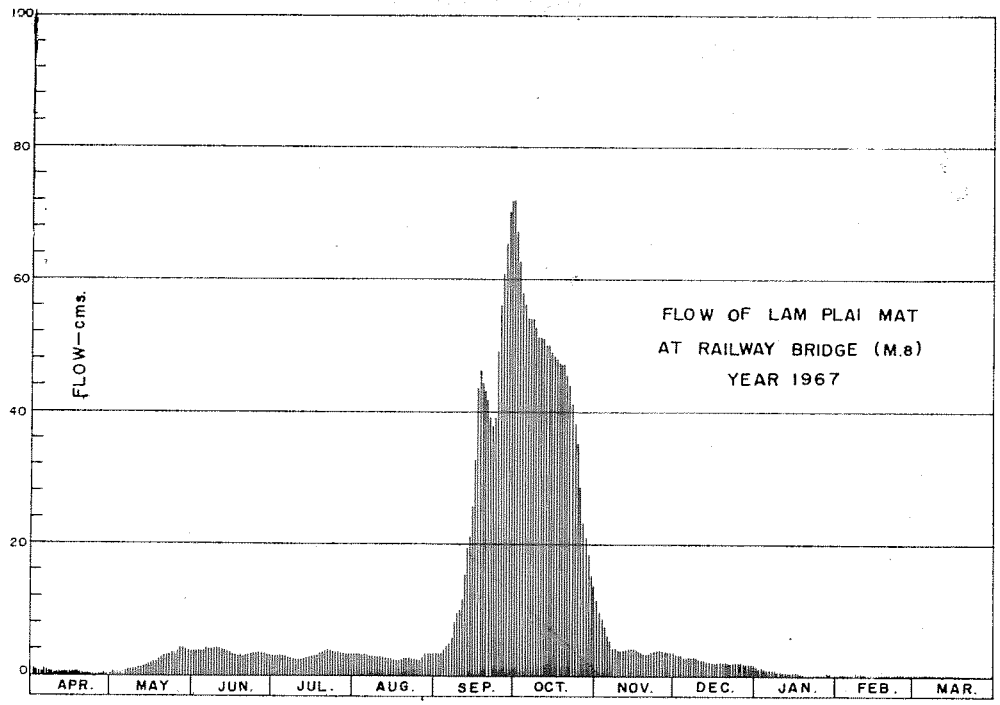
General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions for irrigation except those built by local residents. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	150.33	150.23	150.82	150.74	150.80	150.83	155.93	151.54	150.79	150.58	150.25	150.23
2	.31	.24	.83	.73	.79	.83	.86	.39	.78	.58	.29	.22
3	.29	.25	.83	.72	.78	.85	.74	.23	.77	.58	.27	.22
4	.29	.26	.84	.72	.77	.92	.61	.06	.75	.56	.24	.21
5	.32	.28	.84	.70	.76	151.00	.49	150.92	.73	.54	.27	.21
6	150.30	150.30	150.86	150.70	150.75	151.06	155.38	150.84	150.73	150.54	150.29	150.21
7	.28	.31	.86	.69	.74	.11	.30	.81	.74	.53	.27	.21
8	.26	.31	.87	.67	.73	.39	.22	.80	.74	.50	.33	.21
9	.24	.33	.87	.65	.72	.60	.14	.79	.74	.48	.31	.20
10	.23	.35	.87	.64	.71	.72	.09	.79	.72	.48	.32	.18
11	150.23	150.37	150.86	150.63	150.70	151.79	155.08	150.79	150.69	150.47	150.30	150.17
12	.23	.39	.85	.64	.69	152.07	.05	.79	.68	.47	.23	.16
13	.24	.42	.85	.65	.67	.59	.03	.82	.66	.46	.21	.18
14	.26	.45	.84	.67	.66	.84	.00	.82	.65	.47	.22	.18
15	.26	.50	.80	.69	.65	153.16	154.96	.81	.64	.46	.22	.17
16	150.27	150.53	150.75	150.72	150.64	153.89	154.92	150.80	150.62	150.48	150.22	150.17
17	.25	.57	.71	.74	.62	154.67	.87	.79	.62	.44	.22	.16
18	.23	.59	.73	.76	.61	.93	.85	.79	.64	.37	.22	.16
19	.21	.65	.73	.79	.65	.96	.82	.77	.62	.35	.24	.16
20	.20	.69	.72	.81	.67	.88	.78	.77	.61	.37	.29	.15
21	150.18	150.71	150.73	150.83	150.68	154.75	154.70	150.79	150.62	150.36	150.28	150.15
22	.17	.73	.76	.85	.69	.56	.57	.80	.62	.35	.23	.15
23	.17	.76	.78	.84	150.71	.44	.36	.81	.62	.34	.23	.15
24	.17	.79	.78	.83	.73	.62	.10	.82	.62	.39	.24	.15
25	.18	.82	.78	.82	.71	155.07	153.78	.81	.63	.39	.20	.14
26	150.19	150.87	150.81	150.81	150.72	155.36	153.36	150.80	150.62	150.38	150.19	150.14
27	.19	.89	.79	.80	.76	.56	152.94	.79	.61	.35	.18	.14
28	.18	.88	.76	.79	.85	.70	.56	.79	.59	.36	.17	.14
29	.18	.86	.76	.78	.83	.85	.22	.79	.59	.32	.20	.14
30	.17	.85	.75	.76	.84	.93	151.98	.79	.59	.28		.14
31		.84			.85		.75		.58	.25		.13
Mean	150.23	150.55	150.80	150.74	150.72	153.10	154.53	150.87	150.66	150.43	150.24	150.17
Max.	150.33	150.89	150.87	150.85	150.85	155.93	155.93	151.54	150.79	150.58	150.33	150.23
Min.	150.17	150.23	150.71	150.63	150.61	150.83	151.75	150.77	150.58	150.25	150.17	150.13

WATER YEAR 1967 : Max. 155.93 m. Min. 150.13 m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.95	0.52	3.74	3.18	3.60	3.32	72	11	3.32	1.20	0.20	0.32
2	0.85	0.56	3.81	3.11	3.53	3.32	66	9.91	3.25	1.20	0.36	0.28
3	0.76	0.60	3.81	3.04	3.46	3.46	61	8.47	3.18	1.20	0.28	0.28
4	0.76	0.64	3.88	3.04	3.39	3.95	58	7.08	3.04	1.10	0.16	0.24
5	0.90	0.72	3.88	2.90	3.32	4.51	56	5.96	2.90	1.00	0.28	0.24
6	0.80	0.80	4.02	2.90	3.25	4.93	54	5.32	2.90	1.00	0.36	0.24
7	0.72	0.85	4.02	2.84	3.18	5.32	54	4.09	2.97	0.95	0.28	0.24
8	0.64	0.85	4.09	2.72	3.11	7.56	54	4.02	2.97	0.80	0.52	0.24
9	0.56	0.95	4.09	2.60	3.04	9.37	52	3.95	2.72	0.72	0.44	0.20
10	0.52	1.05	4.09	2.54	2.97	10	51	3.95	2.60	0.72	0.48	0.12
11	0.52	1.15	4.02	2.48	2.90	11	51	3.95	2.42	0.68	0.40	0.08
12	0.52	1.25	3.95	2.54	2.84	14	51	3.95	2.36	0.68	0.12	0.04
13	0.56	1.40	3.95	2.60	2.72	19	50	4.16	2.25	0.64	0.04	0.12
14	0.64	1.55	3.88	2.72	2.66	21	50	4.16	2.20	0.68	0.08	0.12
15	0.64	1.80	3.60	2.84	2.60	24	49	4.09	2.15	0.64	0.08	0.08
16	0.68	1.95	3.25	3.04	2.54	33	48	4.02	2.05	0.72	0.08	0.08
17	0.60	2.15	2.97	3.18	2.42	43	48	3.95	2.05	0.56	0.08	0.04
18	0.52	2.25	3.11	3.32	2.36	46	47	3.53	2.15	0.28	0.08	0.04
19	0.44	2.60	3.11	3.53	2.60	44	47	3.39	2.05	0.20	0.16	0.04
20	0.40	2.84	3.04	3.67	2.72	43	47	3.39	2.00	0.28	0.36	0.00
21	0.32	2.97	3.11	3.81	2.78	41	45	3.53	2.05	0.24	0.32	
22	0.28	3.11	3.32	3.95	2.84	39	43	3.60	2.05	0.20	0.12	
23	0.28	3.32	3.46	3.88	2.54	37	41	3.85	2.05	0.16	0.12	
24	0.28	3.53	3.46	3.81	2.66	40	37	3.95	2.05	0.36	0.16	
25	0.32	3.74	3.46	3.74	2.54	51	33	3.88	2.10	0.36	0.20	
26	0.36	4.09	3.67	3.67	2.60	57	27	3.81	2.05	0.32	0.16	
27	0.36	4.23	3.53	3.60	2.84	61	23	3.74	2.00	0.20	0.12	
28	0.32	4.16	3.32	3.53	3.46	64	21	3.74	1.90	0.64	0.08	
29	0.32	4.02	3.32	3.53	3.32	70	18	3.74	1.90	0.48	0.20	
30	0.28	3.95	3.25	3.46	3.39	72	15	3.74	1.90	0.32	–	
31	–	3.88	–	3.32	3.46	–	13	–	1.85	0.20	–	0.00
Total	16.10	67.48	108.21	99.09	91.64	885.74	1,382	139.92	73.43	18.73	6.32	3.04
Mean	0.537	2.18	3.61	3.20	2.96	29.5	44.6	4.66	2.37	0.604	0.218	0.098
Max.	0.95	4.23	4.09	3.95	3.60	72	72	11	3.32	1.20	0.52	0.32
Min.	0.28	0.52	2.97	2.48	2.36	3.32	13	3.39	1.85	0.16	0.08	0.00
Runoff – mcm.	1.391	5.830	9.349	8.561	7.918	76.528	119.405	12.089	6.344	1.618	0.546	0.263

WATER YEAR 1967 : Max. 72 Min. 0.00 Mean 7.90 Annual Runoff 249.843 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sep. 30	24.00	155.94	72				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
MUNE RIVER BASIN

Huai Samran at Highway Bridge, Si Sa Ket (M.9)

Location: Lat 15^{0} – 07' – 00" N, Long 104^{0} – 19' – 20" E, on left bank downstream of bridge, 200 meters north of the city jail, Amphoe Muang, Si Sa Ket.

Drainage Area: 3,026 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: +109.00 m. (M.S.L.)

Bench Mark: B.M. No.0339

Location: On right bank at the bridge.
Elevation: +123.034 m. (M.S.L.)

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: 1951, 1972 to date
Rated by Float: –
Rated by Current Meter: 1951, 1972 to date

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

Overbank Flow Conditions: No overbank flow.

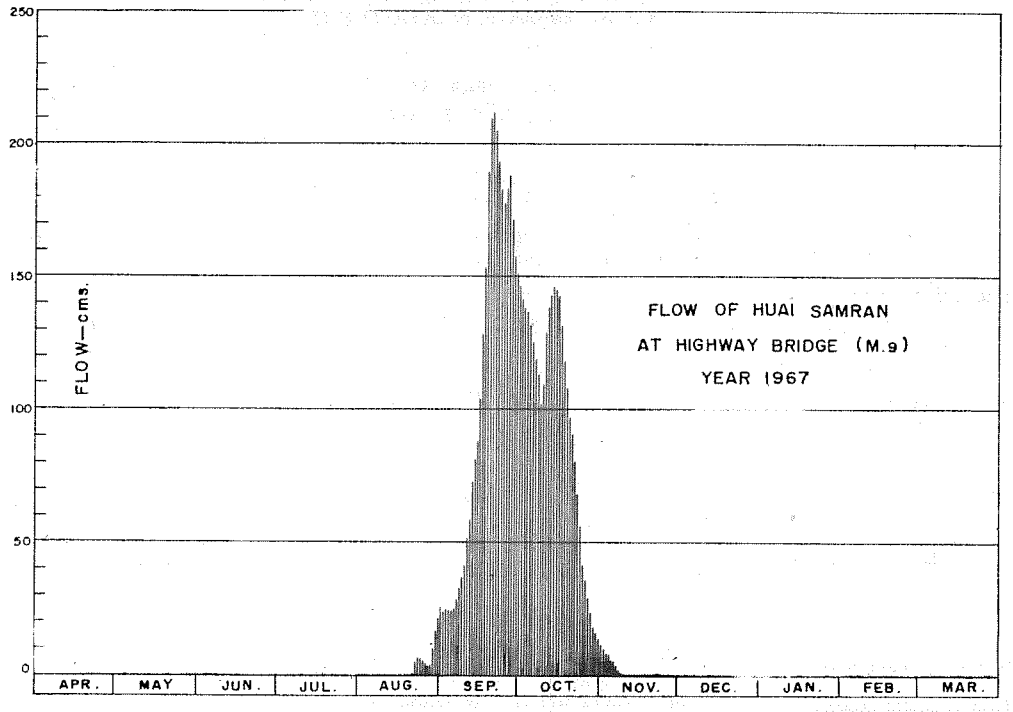
General Description: Records fair. Stage – discharge relationship used is defined by discharge measurements made during 1951. No upstream state diversions for irrigation except those built by local residents. No adjustment made for virgin flow.

Remarks: Discharge record for period of no flow are omitted.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	109.26	109.32	109.33	109.46	109.89	113.25	116.77	112.21	110.00	109.54	109.39	109.39
2	.28	.32	.33	.91	.87	.16	.67	.11	109.98	.53	.39	.40
3	.28	.32	.34	.55	.81	.20	.62	111.99	.96	.53	.36	.37
4	.29	.33	.34	.43	.72	.21	.59	.90	.91	.53	.35	.36
5	.30	.33	.34	.41	.63	.12	.50	.70	.87	.52	.34	.37
6	109.29	109.32	109.35	109.40	109.56	113.21	116.38	111.53	109.85	109.51	109.34	109.36
7	.27	.31	.36	.40	.38	.43	.29	.29	.85	.51	.33	.35
8	.26	.31	.38	.39	.75	.66	.14	110.85	.84	.47	.31	.35
9	.26	.32	.43	.39	.94	.81	115.90	.53	.83	.30	.31	.36
10	.25	.34	.44	.38	.96	114.08	116.08	.38	.83	.48	.30	.35
11	109.25	109.33	109.44	109.46	109.92	114.39	116.44	110.27	109.82	109.50	109.29	109.35
12	.26	.33	.45	.36	.90	.68	.62	.36	.81	.49	.32	.34
13	.26	.34	.50	.36	.89	115.12	.70	.29	.79	.49	.30	.34
14	.27	.46	.86	.37	.86	.44	.74	.27	.76	.48	.30	.35
15	.28	.46	.83	.44	.85	.60	.72	.24	.74	.48	.35	.31
16	109.28	109.55	109.70	109.58	109.87	115.97	116.67	110.20	109.71	109.47	109.34	109.33
17	.29	.55	.57	.69	.88	116.46	.47	.18	.69	.45	.33	.39
18	.30	.45	.44	.87	.87	.84	.22	.15	.66	.48	.32	.37
19	.29	.40	.39	.86	.88	117.31	115.95	.13	.63	.47	.32	.36
20	.29	.38	.38	.73	.95	.54	.77	.11	.62	.46	.31	.35
21	109.30	109.36	109.40	109.67	110.41	117.56	115.57	110.09	109.61	109.46	109.31	109.38
22	.32	.35	.41	.66	111.48	.48	.26	.08	.61	.43	.30	.34
23	.34	.34	.39	.67	.76	.35	114.82	.08	.60	.40	.30	.33
24	.36	.34	.39	.68	.77	.22	.40	.08	.60	.42	.29	.32
25	.38	.33	.38	.69	.64	.15	.00	.07	.59	.48	.29	.34
26	109.37	109.33	109.37	109.74	111.48	117.25	113.71	110.06	109.59	109.45	109.28	109.33
27	.36	.34	.37	.72	.32	.30	.38	.06	.57	.42	.28	.33
28	.35	.35	.38	.64	.35	.14	.04	.05	.56	.42	.27	.32
29	.34	.35	.39	.58	.98	116.90	112.80	.02	.56	.41	.29	.33
30	.32	.34	.39	.56	112.79	.84	.64	.02	.55	.40		.34
31		.34		.90	113.10		.47		.54	.40		.34
Mean	109.30	109.37	109.43	109.58	110.55	115.52	115.57	110.58	109.73	109.46	109.32	109.35
Max.	109.38	109.55	109.86	109.91	113.10	117.56	116.77	112.21	110.00	109.54	109.39	109.40
Min.	109.25	109.31	109.33	109.36	109.38	113.12	112.47	110.02	109.54	109.30	109.27	109.32

WATER YEAR 1967 : Max. 117.56 m. Min. 109.25 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.00	0.004	0.006	0.032	0.157	26	148	11	0.200	0.052	0.018	0.018
2		0.004	0.006	0.163	0.151	24	142	9.51	0.184	0.049	0.018	0.020
3		0.004	0.008	0.055	0.133	25	139	8.21	0.178	0.049	0.012	0.014
4		0.006	0.008	0.026	0.106	25	137	7.40	0.163	0.049	0.010	0.012
5		0.006	0.008	0.022	0.079	24	132	5.82	0.151	0.046	0.008	0.014
6		0.004	0.010	0.020	0.058	25	125	4.78	0.145	0.043	0.008	0.012
7		0.002	0.012	0.020	0.016	29	120	3.55	0.145	0.043	0.006	0.010
8		0.002	0.014	0.018	0.115	34	113	1.82	0.142	0.034	0.002	0.010
9		0.004	0.026	0.018	0.172	37	102	0.946	0.139	0.000	0.002	0.012
10		0.008	0.028	0.016	0.178	43	110	0.656	0.139	0.036	0.000	0.010
11		0.006	0.028	0.032	0.166	51	128	0.481	0.136	0.040	0.000	0.010
12		0.006	0.030	0.012	0.160	58	139	0.622	0.133	0.038	0.004	0.008
13		0.008	0.040	0.012	0.157	72	144	0.507	0.127	0.038	0.000	0.008
14		0.032	0.148	0.014	0.148	83	146	0.481	0.118	0.036	0.000	0.010
15		0.032	0.139	0.028	0.145	89	145	0.442	0.112	0.036	0.010	0.002
16		0.055	0.100	0.064	0.151	105	142	0.390	0.103	0.034	0.008	0.006
17		0.055	0.061	0.097	0.154	129	130	0.368	0.097	0.030	0.006	0.018
18		0.030	0.028	0.151	0.151	153	117	0.335	0.088	0.036	0.004	0.014
19		0.020	0.018	0.148	0.154	189	104	0.313	0.079	0.034	0.004	0.012
20		0.016	0.016	0.109	0.175	210	96	0.291	0.076	0.032	0.002	0.010
21	0.00	0.012	0.020	0.091	0.709	212	88	0.272	0.073	0.032	0.002	0.016
22	0.004	0.010	0.022	0.088	4.52	205	77	0.264	0.073	0.026	0.000	0.008
23	0.008	0.008	0.018	0.091	6.23	193	62	0.264	0.070	0.020	–	0.006
24	0.012	0.008	0.018	0.094	6.30	181	51	0.264	0.070	0.024	–	0.004
25	0.016	0.006	0.016	0.097	5.42	176	41	0.256	0.067	0.036	–	0.008
26	0.014	0.006	0.014	0.112	4.52	184	35	0.248	0.067	0.030	–	0.006
27	0.012	0.008	0.014	0.106	3.70	188	28	0.248	0.061	0.024	–	0.006
28	0.010	0.010	0.016	0.082	3.85	175	22	0.240	0.058	0.024	–	0.004
29	0.008	0.010	0.018	0.064	8.12	157	18	0.216	0.058	0.022	0.00	0.006
30	0.004	0.008	0.018	0.058	18	153	46	0.216	0.055	0.020	–	0.008
31	–	0.008	–	0.160	23	–	14	–	0.052	0.020	–	0.008
Total	0.088	0.390	0.908	2.10	87.09	3,255	3,011	60.41	3.36	1.03	0.124	0.310
Mean	0.003	0.013	0.030	0.070	2.81	108.50	97.13	2.01	0.108	0.033	0.004	0.010
Max.	0.016	0.055	0.148	0.163	23	212	148	11	0.200	0.052	0.018	0.020
Min.	0.000	0.002	0.006	0.012	0.016	24	14	0.216	0.052	0.000	0.000	0.004
Runoff – mcm.	0.007	0.034	0.078	0.181	7.524	281.232	260.150	5.219	0.290	0.090	0.011	0.027

WATER YEAR 1967 : Max. 212 Min. 0.000 Mean 17.5 Annual Runoff 554.844 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sep.21	01.00	117.60	216				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
MUNE RIVER BASIN

Kaeng Saphu, Phibun Mang Sahan, Ubon Ratchathani (M.11)

Location: Lat 15°- 14' - 46" N, Long 105°- 14' - 36" E, on right bank about 200 meters downstream from the office of Amphoe Phibun Mangsahan and 100 meters downstream from Kaeng Saphu, Ubon Ratchathani.

Drainage Area: 115,687 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: +101.00 m. (M.S.L.)

Bench Mark: B.M. - H.S. referred to B.M. of Mapping Dept. Thai Army No. 148/2476

Location: Near the road infront of Thai Government saving ban
Elevation: +113.572 m. (M.S.L.)

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: 1951 to date.

Rating Operation:

Period of Rating: 1951
Rated by Float: -
Rated by Current Meter: 1951

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

Overbank Flow Conditions: No overbank flow.

General Description: Records fair. Stage - discharge relation used is defined by discharge measurements made during 1951. No upstream state diversions for irrigation except those built by local residents. No adjustment made for virgin flow.

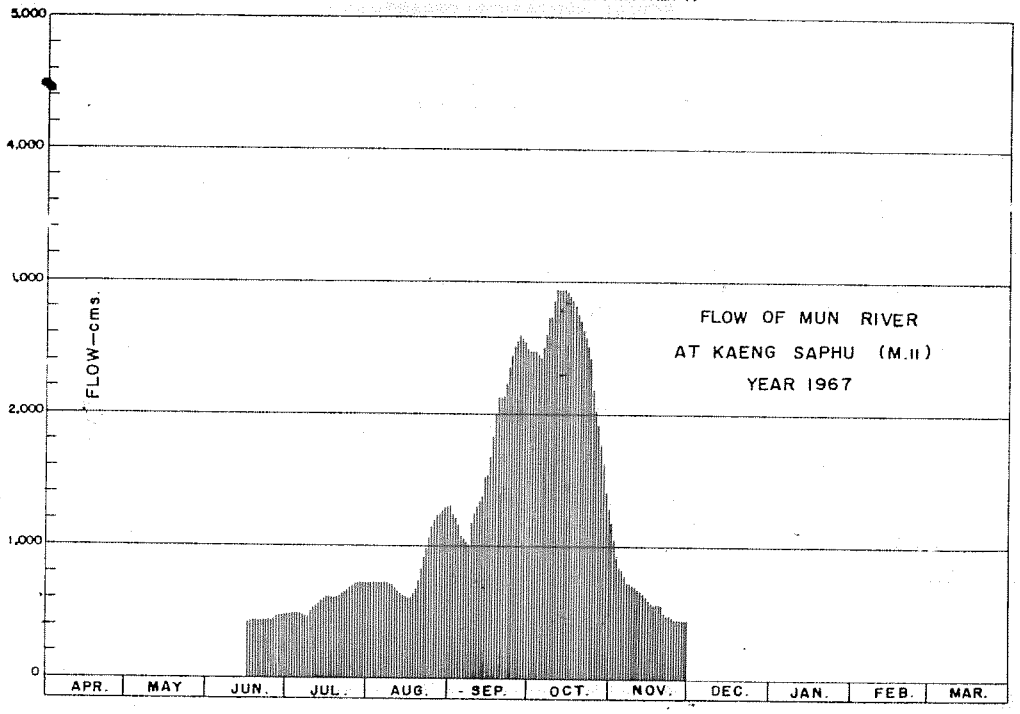
Remarks: No records for periods Apr. 1 - June 15 and Dec. 1 - Mar.31

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1				107.00	107.40	108.20	109.40	108.00				
2				.00	.40	.10	.40	107.87				
3				.00	.40	.08	.40	.61				
4				.00	.40	.00	.38	.58				
5				.00	.40	107.90	.36	.53				
6				107.00	107.40	107.88	109.40	107.45				
7				106.98	.40	.85	.52	.40				
8				.97	.40	.80	.62	.40				
9				.96	.39	108.08	.62	.38				
10				107.05	.38	.15	.75	.35				
11				107.08	107.35	108.22	109.80	107.32				
12				.12	.28	.26	.80	.30				
13				.12	.25	.30	.80	.25				
14				.18	.22	.49	.80	.20				
15				.20	.20	.50	.78	.18				
16			106.88	107.20	107.20	108.73	109.75	107.15				
17			.90	.20	.20	.86	.73	.12				
18			.90	.20	.28	.98	.70	.12				
19			.90	.20	.35	109.10	.65	.12				
20			.90	.22	.45	.10	.60	.12				
21			106.90	107.24	107.55	109.10	109.55	106.99				
22			.90	.26	.71	.20	.50	.99				
23			.90	.28	.80	.30	.42	.98				
24			.90	.30	.91	.40	.28	.96				
25			.91	.34	108.00	.45	.08	.94				
26			106.92	107.36	108.08	109.48	108.98	106.92				
27			.98	.38	.10	.50	.86	.92				
28			.98	.40	.15	.48	.75	.92				
29			.98	.40	.18	.46	.55	.92				
30			.98	.40	.20	.40	.33	.92				
31				.40	.20		.20					
Mean				107.17	107.57	108.68	109.33	107.23				
Max.				107.40	108.20	109.50	109.80	108.00				
Min.				106.96	107.20	107.80	108.20	106.92				

WATER YEAR 1967 : Max. 109.80 m. Min. m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1				485	725	1,295	2,470	1,140				
2				485	725	1,215	2,470	1,042				
3				485	725	1,200	2,470	861				
4				485	725	1,140	2,447	842				
5				485	725	1,065	2,424	809				
6				485	725	1,050	2,470	757				
7				474	725	1,027	2,608	725				
8				468	725	990	2,723	725				
9				463	719	1,200	2,723	713				
10				515	713	1,255	2,872	695				
11				533	695	1,311	2,930	677				
12				557	653	1,343	2,930	665				
13				557	635	1,375	2,930	635				
14				593	617	1,536	2,930	605				
15				605	605	1,545	2,907	593				
16			419	605	605	1,755	2,872	575				
17			430	605	605	1,885	2,849	557				
18			430	605	653	2,005	2,815	557				
19			430	605	695	2,125	2,757	557				
20			430	617	757	2,125	2,700	557				
21			430	629	822	2,125	2,642	479				
22			430	647	927	2,240	2,585	479				
23			430	653	990	2,355	2,493	474				
24			430	665	1,072	2,470	2,331	463				
25			435	689	1,140	2,527	2,105	452				
26			441	701	1,200	2,562	2,005	441				
27			474	713	1,215	2,585	1,885	441				
28			474	725	1,255	2,562	1,775	441				
29			474	725	1,279	2,539	1,590	441				
30			474	725	1,295	2,470	1,399	441				
31				725	1,295		1,295					
Total				18,309	26,242	52,877	76,402	18,839				
Mean				591	846	1,762	2,464	628				
Max.				725	1,295	2,585	2,930	1,140				
Min.				463	605	990	1,295	441				
Runoff - MCM.				1,581.898	2,267.309	4,568.573	6,601.133	1,627.690				

WATER YEAR 1967 : Max. 2,930 Min. Mean Annual Runoff mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct.11,67	6.00	109.80	2,930				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
MUNE RIVER BASIN

Lam Chi at Ban Kho Kho, Surin (M.26)

Location: Lat 14°- 54' - 03" N, Long 103°- 24' - 21" E, about 5 meters from railway bridge at Ban Kho Kho, Amphoe Muang, Surin.

Drainage Area: 2,927 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: +127.80 m. (M.S.L.)

Bench Mark: B.M. H.S. No.1035 about 28 meters from left bank along staff gage line.

Location: B.M. H.S. No.1036 about 26 meters from right bank along staff gage line.
Elevation: B.M. No.1035 +134.981 m. (M.S.L.), B.M. No.1036 +135.203 m. (M.S.L.)

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: 1967 - 68
Rated by Float: -
Rated by Current Meter: 1967 - 68

Stability of Channel Regimes: Unstable, shifting adjustment is included for flow computation.

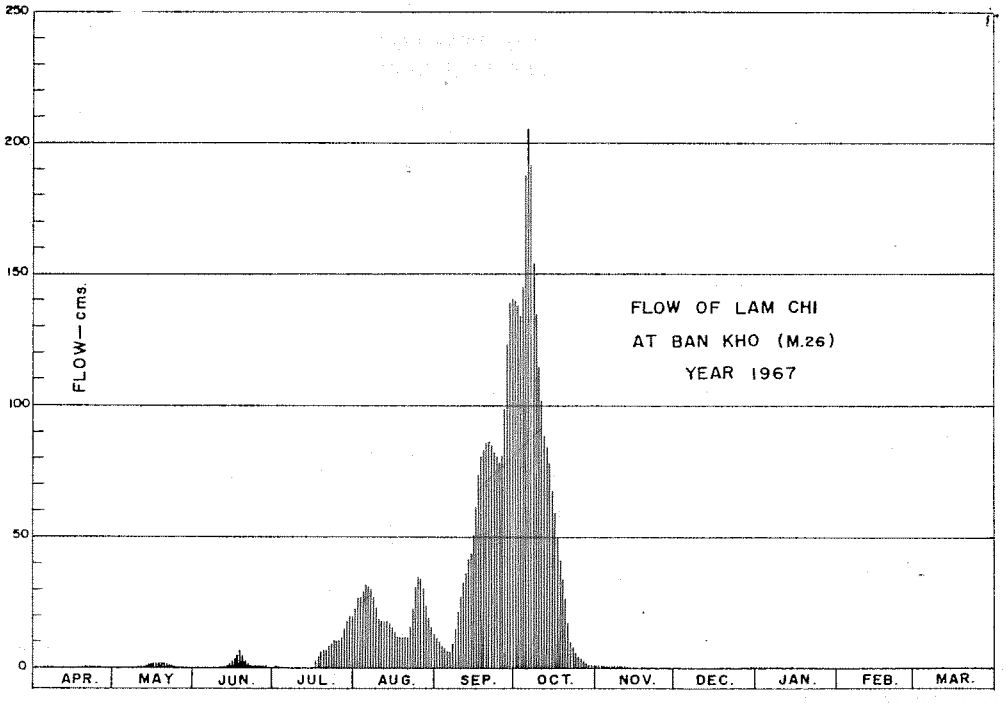
Overbank Flow Conditions: Overbank flow was observed at elevation +135.44 m. (M.S.L.) and included for flow computation.

General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions for irrigation except those built by local residents. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	127.40	127.45	127.62	127.64	130.89	129.87	135.72	128.08	127.67	127.48	127.48	127.38
2	.40	.46	.62	.55	131.09	.65	.71	.06	.65	.43	.44	.42
3	.43	.49	.60	.63	.10	.49	.67	.00	.69	.47	.46	.45
4	.44	.54	.60	.61	.31	.33	.75	127.95	.63	.53	.42	.42
5	.44	.59	.59	.54	.48	.13	136.02	.88	.63	.55	.40	.40
6	127.46	127.60	127.59	127.57	131.42	129.08	136.10	127.85	127.58	127.56	127.47	127.40
7	.48	.60	.59	.46	.27	.53	135.99	.82	.62	.57	.46	.40
8	.48	.60	.60	.58	.03	130.08	.80	.86	.64	.57	.43	.40
9	.50	.61	.62	.58	130.65	.57	.63	.98	.70	.57	.45	.39
10	.52	.63	.65	.58	.42	131.13	.44	.85	.68	.60	.43	.41
11	127.56	127.63	127.69	127.54	130.36	131.50	135.20	127.83	127.63	127.59	127.42	127.42
12	.60	.69	.82	.61	.37	.84	134.86	.82	.61	.57	.41	.40
13	.55	.88	.91	.65	.36	132.14	.38	.78	.56	.56	.41	.38
14	.49	128.02	128.14	.74	.33	.52	133.87	.75	.51	.56	.43	.39
15	.45	.11	.34	.63	.21	133.16	.34	.80	.69	.55	.38	.40
16	127.44	128.09	128.56	127.80	130.03	133.86	132.79	127.76	127.62	127.53	127.36	127.39
17	.44	.02	.90	128.32	129.85	134.49	.27	.75	.54	.52	.39	.38
18	.44	.20	129.13	.80	.84	.92	131.74	.73	.47	.47	.48	.38
19	.52	.18	128.70	129.13	.85	135.06	.20	.73	.56	.44	.43	.39
20	.65	.09	.51	.17	.85	.11	130.65	.70	.56	.56	.42	.41
21	127.65	128.03	128.16	129.15	129.86	135.10	130.06	127.69	127.50	127.49	127.42	127.41
22	.60	127.89	127.89	.44	130.37	.04	129.59	.68	.53	.49	.40	.40
23	.52	.82	.80	.53	.97	134.93	.28	.68	.72	.48	.41	.40
24	.47	.67	.87	.62	131.41	.82	.10	.63	.67	.43	.42	.39
25	.41	.65	.78	.55	.50	.72	128.93	.73	.49	.47	.42	.39
26	127.40	127.64	127.73	129.64	131.43	135.01	128.72	127.63	129.51	127.45	127.41	127.39
27	.40	.62	.67	.94	.16	.38	.51	.69	.62	.47	.41	.43
28	.39	.59	.67	130.35	130.92	.61	.34	.65	.48	.49	.39	.46
29	.39	.62	.68	.62	.58	.72	.21	.53	.45	.44	.38	.46
30	.42	.65	.68	.60	.25	.74	.15	.63	.45	.43		.40
31		.65		.56	.01		.12		.47	.42		.44
Mean	127.48	127.75	127.92	128.58	130.65	132.82	132.42	127.78	127.58	127.51	127.42	127.40
Max.	127.65	128.20	129.13	130.62	131.50	135.74	136.10	128.08	127.67	127.60	127.48	127.46
Min.	127.39	127.45	127.59	127.46	129.84	129.08	128.12	127.53	127.45	127.42	127.36	127.38

WATER YEAR 1967 : Max. 136.10 m. Min. 127.36 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.050	0.125	0.44	0.48	24	12	139	1.84	0.62	0.20	0.065	0.005
2	0.050	0.140	0.44	0.30	27	10	138	1.76	0.40	0.12	0.035	0.025
3	0.095	0.185	0.40	0.46	27	9.04	132	1.52	0.48	0.18	0.045	0.040
4	0.110	0.28	0.40	0.42	30	7.90	143	1.34	0.36	0.30	0.025	0.025
5	0.110	0.38	0.38	0.28	32	6.62	193	1.13	0.36	0.34	0.015	0.015
6	0.140	0.40	0.38	0.34	31	6.32	205	1.04	0.26	0.36	0.050	0.015
7	0.170	0.40	0.38	0.14	29	9.36	181	0.95	0.34	0.38	0.045	0.015
8	0.170	0.40	0.40	0.36	26	14	146	1.07	0.38	0.38	0.030	0.015
9	0.20	0.42	0.44	0.36	22	21	124	1.44	0.64	0.38	0.040	0.010
10	0.24	0.46	0.50	0.36	19	28	107	1.04	0.60	0.44	0.030	0.020
11	0.32	0.46	0.58	0.28	18	33	94	1.07	0.50	0.42	0.025	0.025
12	0.40	0.58	0.86	0.42	18	37	85	1.04	0.46	0.38	0.020	0.015
13	0.30	1.04	1.16	0.50	18	42	84	0.92	0.36	0.36	0.020	0.005
14	0.185	1.48	1.96	0.68	17	44	75	0.83	0.26	0.36	0.030	0.010
15	0.125	1.84	2.76	0.46	16	53	65	0.98	0.62	0.34	0.005	0.015
16	0.110	1.76	3.70	0.80	14	65	56	0.86	0.48	0.30	0.00	0.010
17	0.110	1.48	5.60	2.68	12	76	48	0.83	0.32	0.28	0.010	0.005
18	0.110	2.20	6.99	5.00	12	82	40	0.78	0.18	0.18	0.065	0.005
19	0.24	2.12	4.40	6.99	12	85	32	0.78	0.36	0.14	0.030	0.010
20	0.50	1.76	3.45	7.25	12	86	25	0.72	0.36	0.36	0.025	0.020
21	0.50	1.52	2.04	7.12	12	86	13	0.70	0.24	0.22	0.025	0.020
22	0.40	1.07	1.07	9.12	17	85	9.52	0.64	0.30	0.22	0.015	0.015
23	0.24	0.86	0.80	9.84	24	82	7.32	0.64	0.68	0.20	0.020	0.015
24	0.155	0.54	1.01	11	33	80	6.20	0.54	0.58	0.12	0.025	0.010
25	0.065	0.50	0.76	10	35	78	5.18	0.74	0.22	0.18	0.025	0.010
26	0.050	0.48	0.66	11	34	84	4.00	0.54	0.26	0.15	0.020	0.010
27	0.050	0.44	0.54	13	30	102	3.04	0.66	0.48	0.18	0.020	0.030
28	0.045	0.38	0.54	17	23	125	2.36	0.58	0.20	0.22	0.010	0.045
29	0.045	0.44	0.56	20	19	139	1.84	0.34	0.18	0.14	0.005	0.045
30	0.080	0.50	0.56	20	16	141	1.60	0.54	0.15	0.12	–	0.015
31	–	0.50	–	20	13	–	1.48	–	0.20	0.025	–	0.035
Total	5.365	25.140	44.16	176.64	672.00	1,729.54	2,167.54	27.86	11.83	7.975	0.775	0.555
Mean	0.179	0.811	1.47	5.70	21.7	57.6	69.9	0.93	0.38	0.26	0.027	0.018
Max.	0.50	2.20	6.99	20	35	141	205	1.84	0.62	0.44	0.065	0.045
Min.	0.045	0.28	0.38	0.14	12	6.32	1.48	0.34	0.15	0.025	0.00	0.005
Runoff - mcm.	0.463	2.172	3.815	15.262	58.061	149.406	187.275	1.407	1.022	0.689	0.067	0.048

WATER YEAR 1967 : Max. 205 Min. 0.00 Mean 13.3 Annual Runoff 420.688 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 6	04.00	136.12	210				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
MUNE RIVER BASIN

Lam Se Bai at Phawaphutanon Bridge, Ubon Ratchathani (M.32)

Location: Lat 15°- 50' - 20" N, Long 104°- 27' - 35" E, on right bank about 25 meters upstream from Phawaphutanon Bridge at Tambon Pho Trai, Amphoe Kham Khun Kaeo, Ubon Ratchathani.

Drainage Area: 1,654 sq.km.

Type of Gage: Water - stage recorder.

Zero Gage at Bottom at: +119.90 m. (M.S.L.)

Bench Mark: B.M. - H.S./R.I.D. Lam Sae

Location: On right bank near gage site.
Elevation: +128.102 m. (M.S.L.)

Gage Reading Frequency: Recordings.

Basis of Mean Daily Gage Height: Arithmetic mean of 24 readings.

Period of Available Gage Records: 1954 - 55, 1957 to date.

Rating Operation:

Period of Rating: 1965 - 67
Rated by Float: -
Rated by Current Meter: 1965 - 67

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

Overbank Flow Conditions: No overbank flow.

General Description: Records fair. Stage - discharge relation used is defined by discharge measurements made during 1965 - 67. No upstream state diversions for irrigation except those built by local residents. No adjustment made for virgin flow.

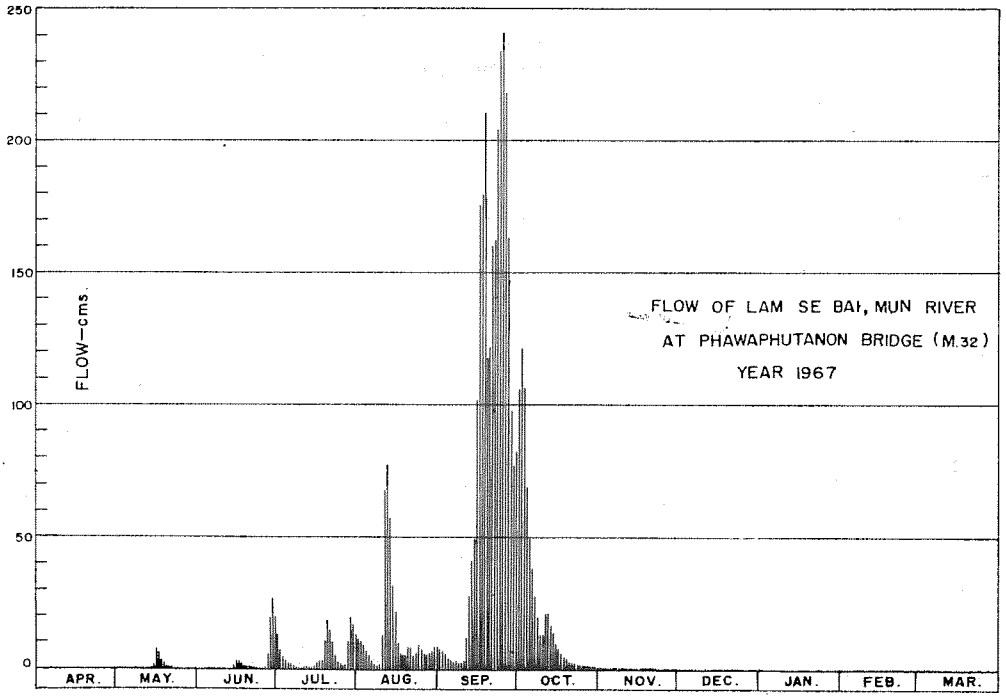
Remarks: Discharge record for period of no flow are omitted.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	120.52	120.61	120.70	122.10	122.23	121.93	124.74	121.07	120.86	120.73	120.71	120.70
2	.52	.60	.70	121.79	.22	.86	.90	.05	.85	.73	.71	.70
3	.51	.63	.80	.60	.03	.79	.74	.04	.84	.73	.71	.70
4	.51	.67	.98	.51	121.84	.66	.25	.03	.84	.73	.73	.70
5	.51	.68	.99	.39	.65	.52	123.84	.02	.84	.72	.73	.70
6	120.51	120.68	120.95	121.26	121.44	121.44	123.49	121.02	120.84	120.72	120.73	120.70
7	.51	.69	.90	.13	.28	.50	.14	.00	.83	.72	.73	.70
8	.51	.70	.87	.03	.16	.47	122.73	120.98	.82	.72	.73	.69
9	.51	.72	.84	120.99	.07	.38	.38	.97	.81	.72	.73	.69
10	.50	.77	.91	121.03	122.14	.55	.39	.95	.80	.72	.73	.69
11	120.50	120.88	120.78	121.06	124.28	122.35	122.86	120.95	120.78	120.71	120.73	120.69
12	.49	.91	.77	.10	.37	123.33	.88	.95	.78	.71	.73	.69
13	.49	.88	.84	.07	123.86	.70	.63	.94	.77	.71	.73	.68
14	.49	.85	121.16	.08	.34	.85	.45	.92	.76	.71	.73	.67
15	.49	121.15	.53	.17	122.72	124.70	.19	.92	.76	.70	.73	.67
16	120.50	121.98	121.52	121.47	122.06	125.37	121.91	120.94	120.76	120.69	120.72	120.66
17	.51	.75	.35	.50	121.73	.41	.76	.94	.75	.69	.72	.66
18	.52	.46	.20	.51	.74	.63	.64	.92	.75	.69	.72	.66
19	.52	.26	.16	122.32	.72	124.81	.55	.91	.75	.69	.72	.66
20	.52	.11	.11	.75	122.01	.92	.47	.90	.75	.70	.72	.66
21	120.52	121.02	121.10	122.45	121.97	125.25	121.40	120.90	120.75	120.70	120.72	120.66
22	.53	120.94	.08	.04	.69	.27	.34	.90	.74	.70	.72	.65
23	.52	.88	120.99	121.68	.88	.56	.29	.90	.74	.70	.71	.65
24	.52	.84	.92	.42	122.08	.79	.25	.89	.74	.70	.71	.63
25	.56	.83	.86	.24	121.91	.84	.22	.89	.74	.70	.71	.61
26	120.57	120.80	120.83	121.13	121.75	125.62	121.19	120.89	120.74	120.70	120.71	120.61
27	.60	.79	121.11	.31	.78	.15	.16	.89	.74	.70	.71	.61
28	.61	.77	122.77	122.27	.86	124.65	.13	.89	.74	.70	.71	.60
29	.61	.75	123.14	.81	.93	.36	.11	.89	.74	.70	.71	.60
30	.61	.74	122.62	.66	122.03	.41	.10	.88	.74	.70		.60
31		.72		.34	.04		.09		.74	.70		.60
Mean	120.53	120.90	121.18	121.49	122.12	123.73	122.30	120.94	120.78	120.71	120.72	120.66
Max.	120.61	121.98	123.14	122.81	124.37	125.84	124.90	121.07	120.86	120.73	120.73	120.70
Min.	120.49	120.60	120.70	120.99	121.07	121.38	121.09	120.88	120.74	120.70	120.71	120.60

WATER YEAR 1967 : Max. 125.84 m. Min. 120.49 m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1		0.01	0.10	9.30	11	7.30	107	0.88	0.32	0.13	0.11	0.10
2		0.00	0.10	5.90	11	6.60	121	0.80	0.30	0.13	0.11	0.10
3		0.03	0.36	4.00	8.39	5.90	107	0.76	0.28	0.13	0.11	0.10
4		0.07	0.56	3.28	6.40	4.60	59	0.72	0.28	0.13	0.13	0.10
5		0.08	0.58	2.45	4.50	3.36	49	0.68	0.28	0.12	0.13	0.10
6		0.08	0.50	1,80	2.78	2.78	37	0.68	0.28	0.12	0.13	0.10
7		0.09	0.40	1.15	1.90	3.20	27	0.60	0.26	0.12	0.13	0.10
8		0.10	0.34	0.72	1.30	2.99	19	0.56	0.24	0.12	0.13	0.09
9		0.11	0.28	0.58	0.88	2.40	13	0.54	0.22	0.12	0.13	0109
10		0.17	0.42	0.72	9.82	3.60	13	0.50	0.20	0.12	0.13	0.09
11		0.36	0.18	0.84	71	13	21	0.50	0.18	0.11	0.13	0.09
12		0.42	0.17	1.00	77	32	22	0.50	0.18	0.11	0.13	0.09
13		0.36	0.28	0.88	50	43	17	0.48	0.17	0.11	0.13	0.08
14		0.30	1.30	0.92	32	50	14	0.44	0.16	0.11	0.13	0.07
15		1.25	3.44	1.35	19	103	10	0.44	0.16	0.10	0.13	0.07
16		7.80	3.36	2.99	8.78	175	7.10	0.48	0.16	0.09	0.12	0.06
17		5.50	2.25	3.20	5.30	180	5.60	0.48	0.15	0.09	0.12	0.06
18		2.92	1.50	3.28	5.40	210	4.40	0.44	0.15	0.09	0.12	0.06
19		1.75	1.30	12	5.20	113	3.60	0.42	0.15	0.09	0.12	0.06
20		1.05	1.05	19	8.13	124	2.99	0.40	0.15	0.10	0.12	0.06
21		0.68	1.00	14	7.70	160	2.50	0.40	0.15	0.10	0.12	0.06
22		0.48	0.92	8.52	4.90	163	2.20	0.40	0.14	0.10	0.12	0.05
23		0.36	0.58	4.80	6.80	201	1.95	0.40	0.14	0.10	0.11	0.05
24		0.28	0.44	2.64	9.04	233	1.75	0.38	0.14	0.10	0.11	0.03
25		0.26	0.32	1.70	7.10	241	1.60	0.38	0.14	0.10	0.11	0.01
26		0.20	0.26	1.15	5.50	209	1.45	0.38	0.14	0.10	0.11	0.01
27		0.19	1.05	2.05	5.80	149	1.30	0.38	0.14	0.10	0.11	0.01
28	0.01	0.17	19	11	6.60	98	1.15	0.38	0.14	0.10	0.11	0.00
29	0.01	0.15	27	20	7.30	76	1.05	0.38	0.14	0.10	0.11	0.00
30	0.01	0.14	17	17	8.39	80	1.00	0.36	0.14	0.10	–	0.00
31	–	0.12	–	13	8.52	–	0.96	–	0.14	0.10	–	0.00
Total	0.03	25.48	86.04	171.22	417.43	2,695.73	686.60	15.14	5.82	3.34	3.50	1.89
Mean	0.001	0.82	2.87	5.52	13.5	89.8	22.1	0.505	0.188	0.108	0.121	0.061
Max.	0.01	7.80	27	20	77	241	121	0.88	0.32	0.13	0.13	0.10
Min.	0.00	0.00	0.10	0.58	0.88	2.40	0.96	0.36	0.14	0.10	0.11	0.00
Runoff – mcm.	0.002	2.201	7.434	14.793	36.066	233.003	59.322	1.308	0.503	0.288	0.302	0.163

WATER YEAR 1967 : Max. 241 Min. 0.00 Mean 11.3 Annual Runoff, 355.296 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sep. 25	02.00	125.85	242				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
MUNE RIVER BASIN

Lam Takhong at Sikhiu, Nakhon Ratchasima (M.38C)

Location: Lat 14°- 52' - 06" N, Long 101°- 33' - 53" E, on left bank about 500 meters downstream from Lam Ta Khong Damsite, Tambon Khlong Phai, Amphoe Sikhiu, Nakhon Ratchasima.

Drainage Area: 1,292 sq.km.

Type of Gage: Water - stage recorder.

Zero Gage at Bottom at: +242.00 sq.km.

Bench Mark: B.M. - H.S.

Location: On left bank at railway telegram post No.204/9
Elevation: +256.115 m. (M.S.L.)

Gage Reading Frequency: Recording.

Basis of Mean Daily Gage Height: Arithmetic mean of 24 readings.

Period of Available Gage Records: 1962 to date

Rating Operation:

Period of Rating: 1962 to date
Rated by Float: -
Rated by Current Meter: 1962 to date

Stability of Channel Regimes: Unstable, shifting adjustment and hourly discharge are included for flow computation.

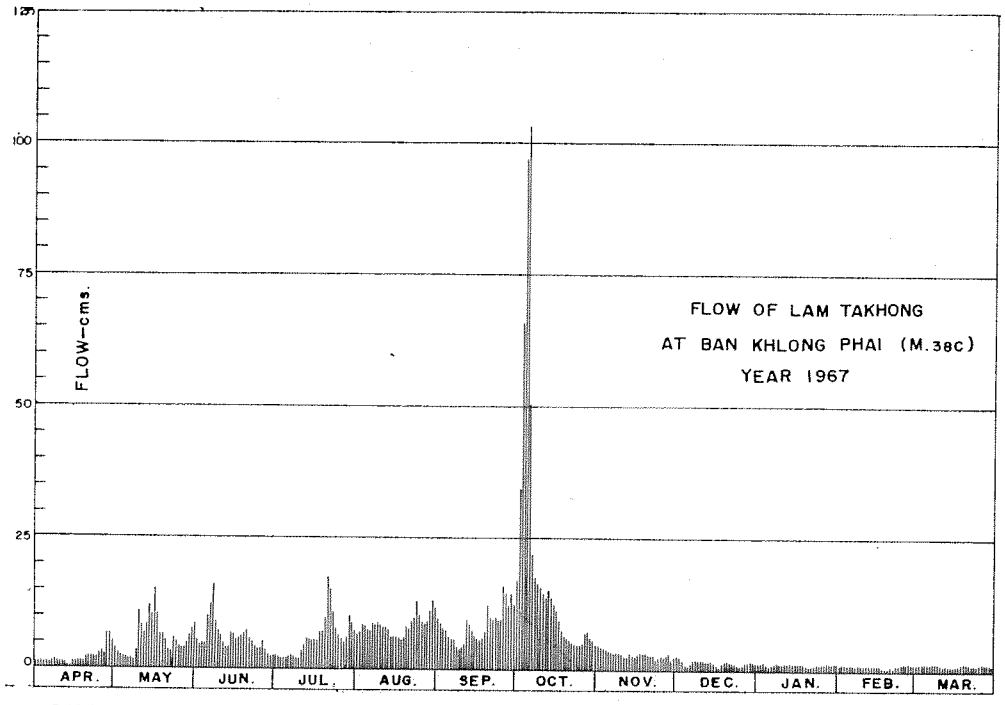
Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions for irrigation except those built by local residents. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	243.92	244.56	244.91	244.97	245.92	246.21	246.31	245.45	244.59	244.21	244.08	244.05
2	.92	.44	.87	.91	.87	.12	247.16	.37	.49	.22	.04	.08
3	.91	.33	.94	.88	246.10	.02	248.44	.34	.41	.23	.07	.09
4	.92	.28	.86	.83	.08	245.92	249.17	.29	.01	.21	.07	.10
5	.92	.23	245.92	.93	245.99	.85	.24	.28	243.92	243.99	.04	.09
6	243.91	244.10	246.18	245.04	245.96	245.86	247.19	245.19	244.19	244.11	244.02	244.10
7	.94	.15	.55	.01	246.12	.78	246.84	.13	.31	.15	.02	.11
8	244.03	243.96	245.95	244.90	.14	.65	.62	.11	.31	.17	.04	.11
9	243.99	244.72	.73	.83	.09	.61	.48	.12	.31	.18	.06	.11
10	.93	246.06	.68	.79	.04	.65	.38	.00	.32	.19	.07	.04
11	243.91	245.41	245.43	245.21	246.00	245.87	246.30	244.87	244.31	244.18	244.07	244.00
12	.90	.38	.24	.36	.09	246.29	.28	.76	.29	.18	.08	.04
13	.90	.84	.27	.56	245.97	.19	.40	245.04	.29	.19	.10	243.98
14	.90	246.25	.74	.53	.83	.09	.32	244.84	.29	.19	.12	.98
15	.93	245.85	.65	.48	.87	.02	.17	.69	.21	.18	.09	.98
16	244.03	246.58	245.45	245.51	245.86	245.98	246.11	245.01	244.11	244.18	243.93	244.00
17	.11	245.32	.56	.58	.81	.98	245.94	.11	243.84	.18	.82	.01
18	.02	.37	.62	.70	.72	.93	.79	.04	244.17	.18	.85	.08
19	243.99	.36	.70	.70	.86	246.06	.71	244.99	.31	.01	.87	.17
20	244.37	.03	.76	.91	246.06	.39	.63	.99	.25	243.99	.95	.16
21	244.36	244.68	245.51	246.63	246.03	246.19	245.59	244.89	244.22	244.07	243.88	244.06
22	.42	.64	.40	.55	.13	.18	.55	.84	.20	.11	244.01	.04
23	.33	245.25	.33	.18	.14	.21	.46	.54	.20	.14	.05	.03
24	.32	244.99	.19	245.97	.46	.18	.40	.16	243.91	.13	.09	.04
25	.45	.77	.25	.85	.23	.16	.37	.47	.88	.13	.13	.07
26	244.62	244.60	245.46	245.78	246.12	246.62	245.37	244.46	244.14	244.15	244.07	244.19
27	.40	.61	.19	.71	.06	.42	.66	.45	.23	.18	.07	.19
28	245.43	.90	.14	.87	.13	.28	.74	.59	.24	.18	.08	.12
29	.21	245.09	.05	246.24	.27	.49	.64	.27	.26	.17	.07	.08
30	244.83	.41	.03	.10	.45	.36	.56	.31	.23	.14		.04
31		.53		.00	.27		.51		.21	.14		.07
Mean	244.19	245.02	245.45	245.53	246.05	246.09	246.21	244.89	244.21	244.15	244.03	244.07
Max.	245.43	246.58	246.55	246.63	246.45	246.62	249.24	245.45	244.59	244.23	244.13	244.19
Min.	243.90	243.96	244.86	244.79	245.72	245.61	245.37	244.16	243.84	243.99	243.82	243.98

WATER YEAR 1967 : Max. 249.24 m. Min. 243.82 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	1.03	3.20	4.68	2.74	6.68	9.55	11	4.54	2.84	1.40	0.90	1.00
2	1.03	2.76	4.50	2.42	6.22	8.63	26	4.18	2.44	1.44	0.80	1.09
3	1.00	2.40	4.82	2.32	8.51	7.66	62	4.12	2.12	1.47	0.87	1.12
4	1.03	2.28	4.56	2.17	8.29	6.68	97	3.94	0.82	1.40	0.87	1.15
5	1.03	2.12	9.98	2.49	7.35	5.95	103	3.94	0.60	0.67	0.80	1.12
6	1.00	1.72	12	2.92	7.06	5.95	26	3.53	1.33	0.97	0.75	1.15
7	1.09	1.83	16	2.79	8.74	5.15	20	3.31	1.75	1109	0.75	1.18
8	1.51	1.12	8.72	2.38	8.97	4.10	17	3.31	1.75	1.15	0.80	1.18
9	1.37	4.01	7.19	2.17	8.40	3.80	15	3.48	1.75	1.18	0.85	1.18
10	1.18	11	6.78	2.05	7.87	3.92	14	2.97	1.79	1.21	0.87	0.97
11	1.09	7.05	4.97	3.82	7.45	5.36	13	2.45	1.75	1.18	0.87	0.87
12	1.03	6.85	3.82	4.72	8.40	9.32	13	2.11	1.68	1.18	0.90	0.97
13	0.98	9.30	4.00	6.09	7.16	8.08	15	3.15	1.68	1.21	0.95	0.82
14	0.95	12	7.28	5.88	5.86	6.87	14	2.35	1.68	1.21	1.00	0.82
15	1.03	9.29	6.54	5.53	6.22	6.13	12	1.80	1.40	1.18	0.92	0.82
16	1.30	15	5.11	5.74	6.13	5.95	11	2.63	1.09	1.18	0.52	0.87
17	1.55	6.30	5.88	6.23	5.68	6.31	8.81	2.83	0.42	1.18	0.30	0.90
18	1.24	6.50	6.30	7.19	5.01	6.31	7.19	2.66	1.27	1.18	0.36	1.09
19	1.12	6.45	6.94	7.19	6.13	7.66	6.38	2.63	1.75	0.72	0.40	1.37
20	2.44	4.95	7.46	9.10	8.08	12	5.88	2.79	1.54	0.67	0.60	1.33
21	2.36	3.40	5.53	17	7.77	9.55	5.67	2.56	1.44	0.87	0.46	1.03
22	2.56	3.28	4.78	15	8.86	9.43	5.46	2.52	1.37	0.97	0.82	0.97
23	2.20	6.00	4.36	9.43	8.97	9.80	4.97	1.78	1.37	1.06	0.95	0.95
24	2.16	4.86	3.53	7.1t	13	9.43	4.66	1.96	0.57	1.03	1.12	0.97
25	2.68	4.00	3.88	6.04	9.92	9.20	4.54	2.80	0.50	1.03	1.24	1.06
26	3.36	3.69	5.04	5.43	8.63	16	4.60	2.32	1.18	1.09	1.06	1.44
27	2.48	3.83	3.31	4.94	7.87	13	6.78	2.28	1.47	1.18	1.06	1.44
28	7.10	5.18	2.97	6.22	8.63	11	6.86	2.84	1.51	1.18	1.09	1.21
29	6.00	6.05	2.56	10	10	14	5.46	1.61	1.58	1.15	1.06	1.09
30	4.28	7.41	2.42	8.51	13	12	5.04	1.75	1.47	1.06	–	0.97
31	–	7.68	–	7.45	10	–	4.78	–	1.40	1.06	–	1.06
Total	59.18	171.51	175.91	183.12	250.86	248.79	556.08	85.14	45.31	34.55	23.94	33.19
Mean	1.97	5.53	5.86	5.87	8.09	8.29	17.9	2.83	1.44	1.11	0.83	1.07
Max.	7.10	15	16	17	13	16	103	4.54	2.84	1.47	1.24	1.44
Min.	0.95	1.12	2.42	2.05	5.01	3.80	4.54	1.61	0.42	0.67	0.30	0.82
Runoff – mcm.	5.113	14.818	15.199	15.821	21.674	21.495	48.045	7.356	3.915	2.985	2.068	2.868

WATER YEAR 1967 : Max. 103 Min. 0.30 Mean 5.10 Annual Runoff 161.359 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 5	10.00	249.62	122				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
MUNE RIVER BASIN

Lam Takhong at Khao Yai, Nakhon Ratchasima (M.43)

Location: Lat 14° – 31' – 40" N, Long 101° – 24' – 09" E, on left bank infront of highway maintenance office, at Ban Musi, Khao Yai, Amphoe Pak Chong, Nakhon Ratchasima.

Drainage Area: 235 sq.km.

Type of Gage: Water – stage recorder.

Zero Gage at Bottom at: 0.00 m. (A.D.)

Bench Mark: B.M. – H.S.

Location: On left bank near gage site.
Elevation: +5.592 m. (A.D.)

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 Float: –
Rated by Current Meter: 1965 to date

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

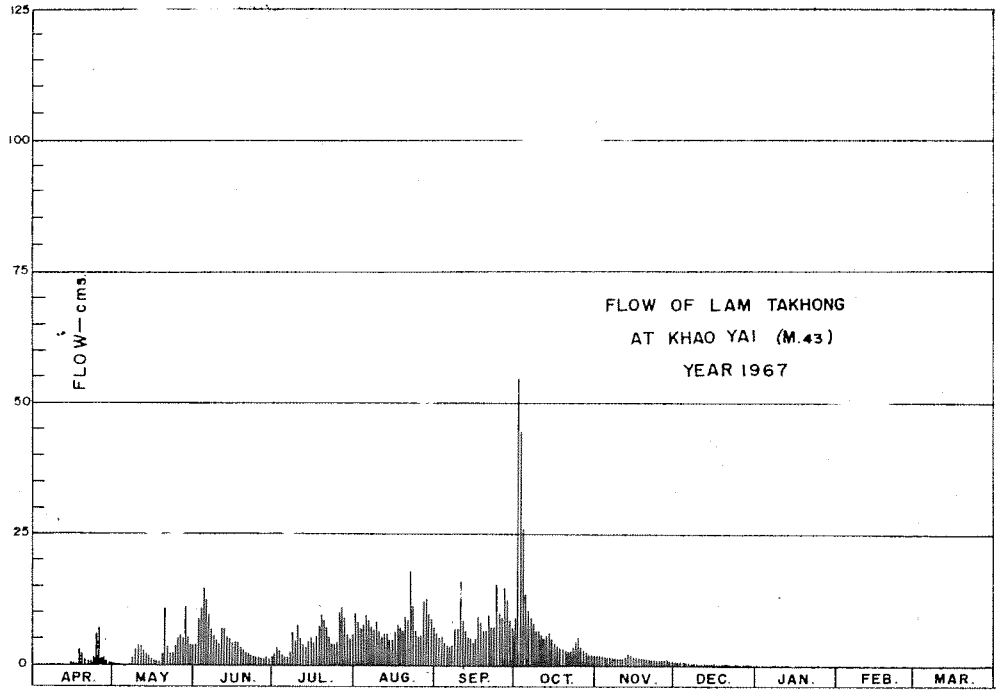
Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage – discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions except those built by local residents. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (A.D.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.30	0.50	0.85	0.73	1.23	1.00	1.10	0.71	0.58	0.48	0.39	0.41
2	.30	.48	1.16	.83	.11	0.96	2.54	.70	.57	.47	.39	.40
3	.29	.46	.29	.75	.03	.97	.07	.69	.56	.47	.39	.40
4	.28	.45	.45	.69	.09	.89	1.54	.69	.57	.47	.38	.39
5	.28	.45	.35	.67	.21	.85	.33	.68	.56	.47	.38	.38
6	0.27	0.51	1.11	0.67	1.14	0.84	1.23	0.67	0.56	0.46	0.37	0.37
7	.27	.54	.05	.77	.09	.87	.16	.66	.56	.46	.37	.37
8	.29	.66	0.97	1.01	.01	1.06	.09	.65	.55	.46	.38	.36
9	.31	.84	.90	0.88	.11	0.93	.03	.65	.54	.46	.38	.39
10	.30	.86	.85	1.10	.03	1.49	.02	.64	.54	.46	.37	.37
11	0.30	0.86	1.05	0.95	0.95	1.10	0.99	0.64	0.53	0.47	0.36	0.36
12	.32	.76	.05	.86	1.02	0.99	.96	.67	.53	.46	.37	.37
13	.34	.72	0.95	.82	.00	.96	1.00	.75	.53	.44	.37	.37
14	.36	.69	.95	.91	0.93	.95	.01	.70	.52	.44	.38	.37
15	.58	.63	.89	.96	.91	.88	0.91	.67	.52	.43	.37	.41
16	0.50	0.60	0.91	0.86	1.02	0.95	0.88	0.65	0.51	0.43	0.37	0.45
17	.44	.58	.89	.94	.12	1.19	.86	.64	.51	.43	.35	.45
18	.80	.58	.83	1.12	.07	.10	.83	.63	.51	.43	.35	.42
19	.71	.67	.80	.21	.01	.02	.81	.63	.52	.43	.34	.41
20	.58	1.29	.75	.15	.18	.05	.79	.62	.52	.42	.34	.39
21	0.60	0.84	0.72	1.04	1.03	1.20	0.77	0.61	0.52	0.42	0.35	0.39
22	.54	.73	.70	0.96	.54	.08	.77	.60	.51	.42	.35	.48
23	.68	.74	.69	.89	.14	.09	.84	.60	.50	.42	.37	.44
24	.98	.81	.67	.87	.05	.49	.89	.60	.50	.42	.38	.41
25	1.08	.95	.66	.87	0.96	.22	.97	.59	.50	.41	.49	.39
26	0.58	0.99	0.66	1.22	0.93	1.13	0.81	0.59	0.50	0.40	0.52	0.37
27	.67	.88	.65	.28	1.31	.42	.80	.59	.49	.40	.48	.36
28	.60	1.28	.68	.12	.37	.25	.75	.59	.50	.40	.45	.36
29	.56	0.97	.64	0.98	.21	.14	.73	.59	.51	.40	.43	.34
30	.53	.87	.69	.93	.17	.06	.72	.58	.50	.40		.32
31		.88		.97	.07		.71		.49	.40		.32
Mean	0.49	0.74	0.89	0.93	1.10	1.07	1.03	0.64	0.53	0.44	0.39	0.39
Max.	1.08	1.29	1.45	1.28	1.54	1.49	2.54	0.75	0.58	0.48	0.52	0.48
Min.	0.27	0.45	0.64	0.67	0.91	0.84	0.71	0.58	0.49	0.40	0.34	0.32

WATER YEAR 1967 : Max. 2.54 m. Min. 0.27 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.00	0.40	3.80	2.33	10	6.10	7.80	2.11	0.96	0.34	0.08	0.13
2	0.00	0.34	8.94	3.52	7.99	5.46	59	2.00	0.89	0.31	0.08	0.10
3	0.00	0.28	11	2.55	6.61	5.62	36	1.91	0.82	0.31	0.08	0.10
4	0.00	0.25	15	1.91	7.63	4.36	18	1.91	0.89	0.31	0.06	0.08
5	0.00	0.25	13	1.73	9.91	3.80	12	1.82	0.82	0.31	0.06	0.06
6	0.00	0.47	7.99	1.73	8.56	3.66	10	1.73	0.82	0.28	0.04	0.04
7	0.00	0.68	6.95	2.77	7.63	4.08	8.94	1.64	0.82	0.28	0.04	0.04
8	0.00	1.64	5.62	6.27	6.27	7.12	7.63	1.55	0.75	0.28	0.06	0.02
9	0.00	3.66	4.50	4.22	7.99	4.98	6.61	1.55	0.68	0.28	0.06	0.08
10	0.00	3.94	3.80	7.80	6.61	16	6.44	1.46	0.68	0.28	0.04	0.04
11	0.00	3.94	6.95	5.30	5.30	7.80	5.94	1.46	0.61	0.31	0.02	0.02
12	0.00	2.66	6.95	3.94	6.44	5.94	5.46	1.73	0.61	0.28	0.04	0.04
13	0.00	2.22	5.30	3.38	6.10	5.46	6.10	2.55	0.61	0.22	0.04	0.04
14	0.020	1.91	5.30	4.66	4.98	5.30	6.27	2.00	0.54	0.22	0.06	0.04
15	0.96	1.37	4.36	5.46	4.66	4.22	4.66	1.73	0.54	0.19	0.04	0.13
16	0.40	1.10	4.66	3.94	6.44	5.30	4.22	1.55	0.47	0.19	0.04	0.25
17	0.22	0.96	4.36	5.14	8.18	9.51	3.94	1.46	0.47	0.19	0.00	0.25
18	3.10	0.96	3.52	8.18	7.29	7.80	3.52	1.37	0.47	0.19	0.00	0.16
19	2.11	1.73	3.10	9.91	6.27	6.44	3.24	1.37	0.54	0.19	0.00	0.15
20	0.96	11	2.55	8.75	9.32	6.95	2.99	1.28	0.54	0.16	0.00	0.08
21	1.10	3.66	2.22	6.78	6.61	9.70	2.77	1.19	0.54	0.16	0.00	0.08
22	0.68	2.33	2.00	5.46	18	7.46	2.77	1.10	0.47	0.16	0.00	0.34
23	1.82	2.44	1.91	4.36	8.56	7.63	3.66	1.10	0.40	0.16	0.04	0.22
24	5.78	3.24	1.73	4.08	6.95	16	4.36	1.10	0.40	0.16	0.06	0.13
25	7.46	5.30	1.64	4.08	5.46	10	5.62	1.03	0.40	0.13	0.37	0.08
26	0.96	5.94	1.64	10	4.98	8.37	3.24	1.03	0.40	0.10	0.54	0.04
27	1.73	4.22	1.55	11	12	15	3.10	1.03	0.37	0.10	0.34	0.02
28	1.10	11	1.82	8.18	13	11	2.55	1.03	0.40	0.10	0.25	0.02
29	0.82	5.62	1.46	5.78	9.91	8.56	2.33	1.03	0.47	0.10	0.19	0.00
30	0.61	4.08	1.91	4.98	9.13	7.12	2.22	0.96	0.40	0.10	–	0.00
31	–	4.22	–	5.62	7.29	–	2.11	–	0.37	0.10	–	0.00
Total	29.83	91.81	145.53	163.81	246.07	226.74	253.49	44.78	18.15	6.49	2.63	2.76
Mean	0.99	2.96	4.85	5.28	7.94	7.56	8.18	1.49	0.58	0.21	0.09	0.09
Max.	7.46	11	15	11	18	16	59	2.55	0.96	0.34	0.54	0.34
Min.	0.00	0.25	1.46	1.73	4.66	3.66	2.11	0.96	0.37	0.10	0.00	0.00
Runoff – mcm.	2.577	7.932	12.574	14.153	21.260	19.590	21.901	3.869	1.568	0.561	0.227	0.238

WATER YEAR 1967 : Max. 59 Min. 0.00 Mean 3.37 Annual Runoff 106.453 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 2	18.00	3.41	135				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
MUNE RIVER BASIN

Lam Mune at Ban Jorakhe Hin, Nakhon Ratchasima (M.49)

Location: Lat 14^{0} - 30' - 32" N, Long 102^{0} - 09' - 50" E, on right bank about 3 kilometers downstream from dam site, about 3 kilometers south - west of Ban Jorakhe Hin, Amphoe Khon Buri, Nakhon Ratchasima.

Drainage Area: 451 sq.km.

Type of Gage: Water - stage recorder.

Zero Gage at Bottom at: +197.16 m. (M.S.L.)

Bench Mark: B.M. - H.S.

Location: On right bank near Automatic gage.
Elevation: +202.348 m. (M.S.L.)

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 - 73
Rated by Float: -
Rated by Current Meter: 1965 - 73

Stability of Channel Regimes: Unstable, shifting adjustment and hourly discharge are included for flow computation.

Overbank Flow Conditions: No overbank flow.

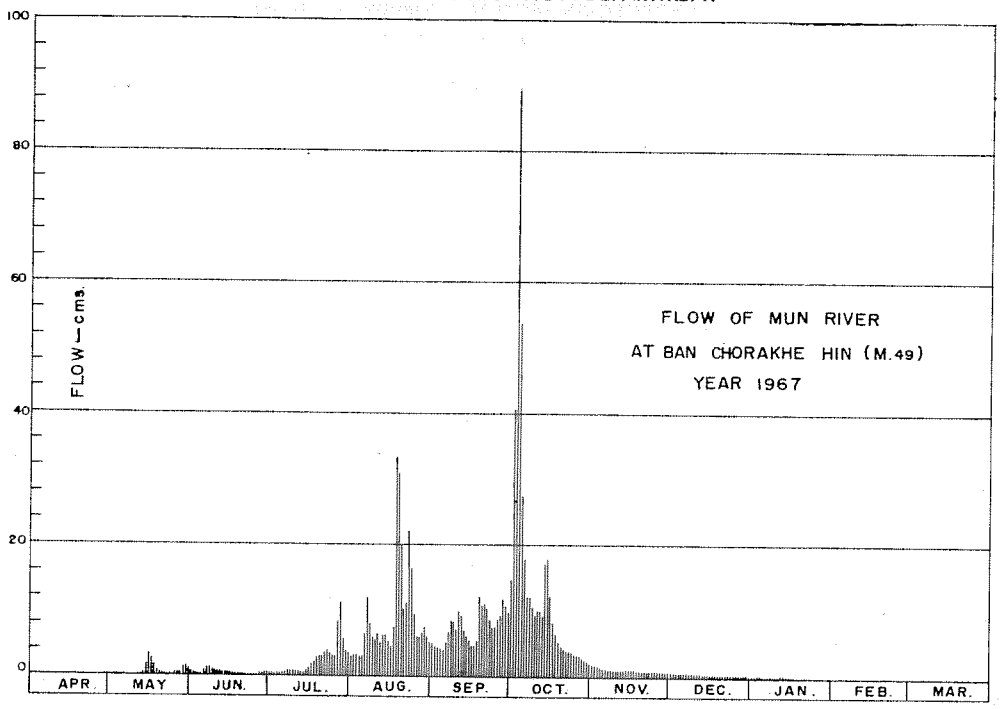
General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions for irrigation except those built by local residents by mean of pumping and water wheel. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1,1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	197.78	198.04	198.82	198.49	200.42	200.67	200.85	200.04	198.88	198.26	197.95	197.78
2	.78	.02	.58	.46	.51	.56	201.72	.00	.87	.25	.89	.78
3	.80	197.98	.38	.47	.56	.57	202.35	199.96	.81	.19	.95	.78
4	.80	.95	.27	.48	.48	.55	201.33	.94	.79	.12	.99	.77
5	.80	.94	.25	.60	.37	.47	.39	.91	.74	.10	.96	.77
6	197.80	198.09	198.98	198.74	200.42	200.68	201.08	199.88	198.66	198.10	197.91	197.77
7	.79	.06	199.52	.89	201.04	.78	.02	.86	.59	.10	198.01	.76
8	.79	197.98	.41	.93	200.87	.89	.02	.82	.50	.08	.04	.77
9	.85	.94	.31	.92	.73	.84	200.85	.80	.43	.08	197.86	.77
10	.84	.93	.11	.92	.71	.74	.76	.77	.42	.14	.91	.79
11	197.81	197.92	198.95	198.92	200.77	201.00	200.85	199.77	198.35	198.11	197.87	197.80
12	.80	198.20	.84	.91	.62	200.95	.84	.78	.35	.41	.84	.79
13	.80	.42	.76	.84	.79	.79	.73	.79	.38	.36	.89	.80
14	.78	.38	.76	.73	.76	.72	201.14	.84	.38	.26	.84	.82
15	.78	199.97	.68	.98	.67	.63	.19	.85	.32	.09	.91	.81
16	197.76	200.26	198.59	199.52	200.56	200.55	200.82	199.82	198.23	197.99	197.91	197.78
17	.76	199.97	.50	.84	.58	.46	.69	.77	.22	.98	.86	.78
18	.77	.38	.46	.96	201.68	.58	.60	.68	.21	.98	.82	.79
19	.77	198.98	.53	200.15	.61	201.01	.51	.61	.20	.96	.93	.77
20	.83	.65	.42	.22	.03	200.88	.43	.52	.19	.95	.90	.75
21	197.83	198.47	198.25	200.16	200.86	200.94	200.37	199.46	198.19	197.95	197.85	197.77
22	.89	.44	.17	.34	.95	.90	.32	.41	.19	.95	.88	.88
23	.94	.28	.12	.40	201.38	.75	.29	.37	.19	.94	.88	.92
24	.89	.17	.08	.25	.10	.72	.28	.28	.18	.94	.86	.87
25	.85	.11	.12	.18	200.84	.73	.26	.18	.18	198.02	.86	.81
26	197.84	198.06	198.19	200.10	200.75	200.83	200.26	199.13	198.18	198.07	197.78	197.84
27	.87	.14	.36	.84	.79	.84	.21	.05	.17	197.96	.73	.84
28	198.00	.44	.48	.96	.82	201.01	.17	198.98	.18	198.00	.82	.98
29	.09	199.60	.48	.64	.89	200.96	.16	.95	.23	.06	.81	.95
30	.06	.68	.45	.57	.74	.86	.11	.89	.26	.03		.83
31		.09		.53	.70		.07		.24	197.95		.80
Mean	197.84	198.53	198.59	199.55	200.82	200.76	200.73	199.60	198.38	198.08	197.89	197.81
Max.	198.09	200.26	199.52	200.96	201.68	201.01	202.35	200.04	198.88	198.41	198.04	197.98
Min.	197.76	197.92	198.08	198.46	200.37	200.47	200.07	198.89	198.17	197.95	197.73	197.75

WATER YEAR 1967 : Max. 202.35 m. Min. 197.73 m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1,1967 TO MARCH 31,1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.038	0.15	0.63	0.39	2.77	5.01	9.14	1.93	0.71	0.34	0.11	0.030
2	0.038	0.14	0.44	0.37	3.11	4.19	44	1.76	0.70	0.32	0.082	0.030
3	0.046	0.12	0.32	0.38	3.33	4.25	89	1.58	0.65	0.28	0.11	0.030
4	0.046	0.11	0.26	0.38	2.99	4.01	44	1.47	0.64	0.24	0.12	0.027
5	0.046	0.10	0.25	0.46	2.60	3.68	22	1.36	0.60	0.23	0.13	0.027
6	0.046	0.17	0.77	0.56	6.58	5.03	13	1.26	0.61	0.22	0.11	0.027
7	0.042	0.16	1.38	0.69	12	6.38	12	1.16	0.64	0.22	0.15	0.024
8	0.042	0.12	1.22	0.72	7.41	8.32	12	1.06	0.64	0.20	0.17	0.027
9	0.066	0.10	1.09	0.71	5.68	8.17	10	1.02	0.59	0.20	0.086	0.027
10	0.062	0.098	0.89	0.71	5.48	6.18	8.79	0.99	0.58	0.23	0.11	0.034
11	0.050	0.094	0.74	0.71	6.43	10	10	0.99	0.52	0.21	0.090	0.038
12	0.046	0.23	0.64	0.70	4.73	9.27	10	1.00	0.52	0.38	0.046	0.034
13	0.046	0.35	0.58	0.64	6.32	6.86	8.32	1.01	0.55	0.35	0.066	0.038
14	0.038	0.32	0.58	0.56	6.28	6.18	17	1.06	0.55	0.29	0.046	0.046
15	0.038	2.31	0.52	0.77	5.10	5.10	18	1.08	0.50	0.20	0.074	0.042
16	0.030	3.33	0.45	1.38	4.31	4.50	9.80	1.04	0.44	0.15	0.074	0.030
17	0.030	2.31	0.39	1.98	4.43	4.58	7.70	0.99	0.42	0.15	0.054	0.030
18	0.034	1.19	0.37	2.28	33	5.58	5.98	0.90	0.40	0.15	0.038	0.034
19	0.034	0.77	0.41	2.87	30	12	5.10	0.83	0.39	0.14	0.082	0.027
20	0.058	0.49	0.35	3.16	14	9.80	4.50	0.82	0.38	0.13	0.070	0.027
21	0.058	0.38	0.25	2.90	9.10	11	4.13	0.84	0.37	0.13	0.050	0.034
22	0.082	0.36	0.21	3.73	11	10	3.83	0.85	0.36	0.13	0.062	0.078
23	0.102	0.27	0.19	4.07	22	7.70	3.68	0.89	0.36	0.13	0.062	0.094
24	0.082	0.21	0.17	3.29	14	7.28	3.63	0.88	0.35	0.13	0.054	0.074
25	0.066	0.18	0.19	2.99	7.55	7.41	3.33	0.84	0.34	0.12	0.054	0.050
26	0.062	0.16	0.22	2.70	5.68	8.94	3.33	0.85	0.33	0.14	0.024	0.062
27	0.074	0.20	0.31	8.79	6.08	9.10	3.11	0.83	0.32	0.094	0.009	0.062
28	0.130	0.36	0.39	11	6.98	12	2.80	0.80	0.32	0.11	0.046	0.120
29	0.175	1.51	0.38	5.18	7.41	11	2.57	0.78	0.34	0.14	0.042	0.106
30	0.160	1.65	0.36	4.01	5.58	9.45	2.31	0.72	0.35	0.12	–	0.058
31	–	0.87	–	3.20	5.18	–	2.10	–	0.33	0.082	–	0.046
Total	1.867	18.812	14.95	72.28	267.11	222.97	395.15	31.59	14.80	5.956	2.221	1.413
Mean	0.062	0.61	0.50	2.33	8.62	7.43	12.74	1.05	0.48	0.19	0.076	0.045
Max.	0.175	3.33	1.38	11	33	12	89	1.93	0.71	0.38	0.17	0.120
Min.	0.030	0.094	0.17	0.37	2.60	3.68	2.10	0.72	0.32	0.082	0.009	0.024
Runoff – mcm.	0.161	1.625	1.292	6.245	23.078	19.265	34.141	2.729	1.279	0.514	0.192	0.122

WATER YEAR 1967 : Max. 89 Min. 0.009 Mean 2.86 Annual Runoff 90.643 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 3	9.00	202.44	129				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
MUNE RIVER BASIN

Lam Sae at Khon Buri, Nakhon Ratchasima (M.50)

Location: Lat 14^{0} - 31' - 08" N, Long 102^{0} - 14' - 39" E, on right bank about 500 meters south of the office of Amphoe Khon Buri, 30 meters south - east of Khon Buri Sanitarium, Nakhon Ratchasima.

Drainage Area: 875 sq.km.

Type of Gage: Water - stage recorder.

Zero Gage at Bottom at: 0.00 m. (A.D.)

Bench Mark: B.M. 1

Location: On right bank at the foot of a big tree.
Elevation: +10.00 m. (A.D.)

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 - 67
Rated by Float: -
Rated by Current Meter: 1965 - 67

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

Overbank Flow Conditions: No overbank flow.

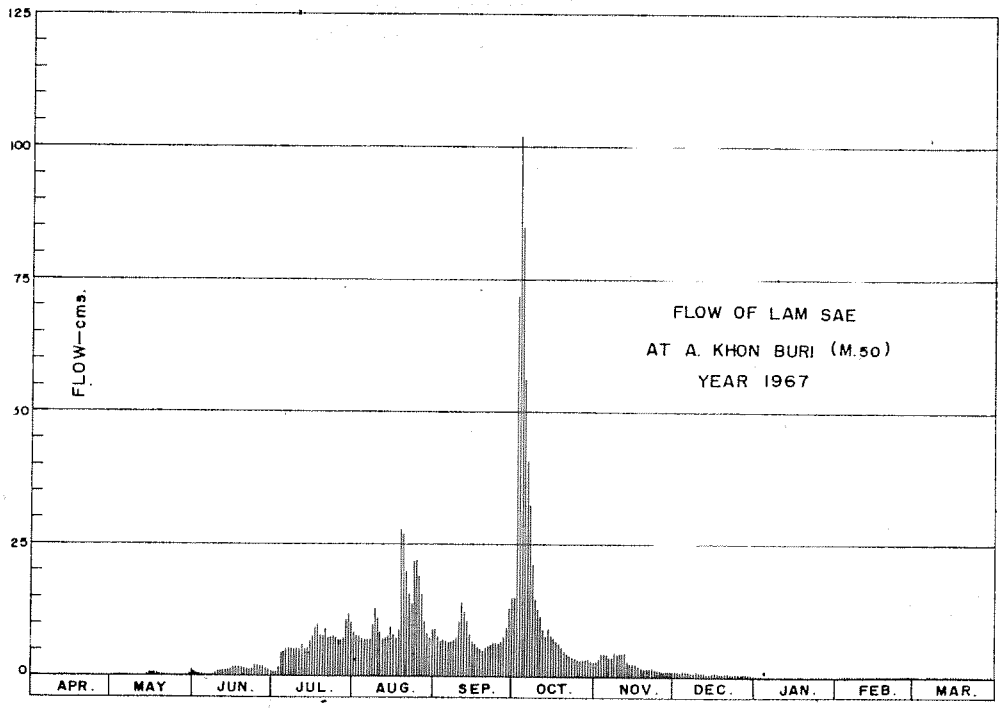
General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions except those built by local residents. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (A.D.), WATER YEAR APRIL 1,1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.30	0.49	1.00	1.05	1.78	1.80	1.97	1.33	1.07	0.67	0.62	0.46
2	.30	.61	0.84	.07	.76	.75	2.05	.39	.09	.70	.53	.46
3	.30	.67	.74	.18	.75	.71	.84	.50	.07	.60	.58	.44
4	.25	.62	.72	.53	.72	.72	.71	.50	.12	.65	.61	.41
5	.35	.57	.62	.55	.72	.70	.51	.49	.07	.64	.53	.37
6	0.42	0.52	0.66	1.58	1.71	1.68	2.34	1.42	1.04	0.60	0.58	0.42
7	.38	.47	.69	.60	.71	.70	.21	.45	.03	.63	.53	.45
8	.36	.45	.73	.59	.84	.71	.05	.54	.04	.59	.53	.44
9	.36	.48	.97	.57	.92	.77	1.93	.50	.06	.65	.59	.39
10	.41	.42	1.09	.60	.85	.85	.92	.51	.04	.69	.54	.36
11	0.43	0.47	1.10	1.59	1.75	1.93	1.86	1.53	1.02	0.58	0.53	0.41
12	.47	.50	.09	.64	.70	.90	.79	.53	.00	.53	.60	.44
13	.51	.57	.09	.59	.73	.84	.77	.35	0.95	.54	.62	.44
14	.56	.65	.12	.62	.77	.75	.80	.30	.92	.62	.54	.43
15	.42	.95	.16	.69	.81	.71	.77	.30	.90	.69	.48	.40
16	0.38	0.95	1.21	1.77	1.78	1.64	1.73	1.30	0.86	0.67	0.47	0.39
17	.35	.92	.22	.81	.72	.60	.71	.26	.88	.57	.47	.40
18	.33	.87	.22	.83	.74	.56	.66	.21	.86	.52	.52	.36
19	.34	.73	.19	.77	2.19	.55	.58	.21	.85	.53	.52	.40
20	.36	.65	.18	.78	.17	.61	.52	.19	.84	.54	.57	.41
21	0.45	0.62	1.16	1.80	2.04	1.63	1.47	1.18	0.83	0.52	0.54	0.41
22	.55	.56	.15	.74	1.95	.64	.46	.19	.85	.50	.53	.41
23	.55	.54	.14	.77	.89	.68	.42	.16	.83	.51	.53	.40
24	.54	.50	.25	.77	2.10	.67	.41	.14	.83	.57	.52	.40
25	.59	.47	.26	.74	.09	.66	.38	.13	.82	.59	.46	.38
26	0.54	0.47	1.23	1.71	2.01	1.71	1.37	1.10	0.78	0.56	0.43	0.39
27	.44	.55	.24	.71	1.95	.78	.38	.10	.81	.52	.44	.40
28	.45	.53	.18	.74	.81	.81	.39	.09	.83	.56	.45	.40
29	.47	.55	.12	.85	.79	.92	.39	.07	.77	.59	.45	.42
30	.48	.87	.08	.88	.73	.96	.34	.07	.75	.57		.42
31		1.15		.84	.80		.35		.69	.60		.40
Mean	0.42	0.62	1.05	1.64	1.85	1.73	1.78	1.30	0.92	0.59	0.53	0.41
Max.	0.59	1.15	1.26	1.88	2.19	1.96	2.84	1.54	1.12	0.70	0.62	0.46
Min.	0.25	0.42	0.62	1.05	1.70	1.55	1.34	1.07	0.69	0.50	0.43	0.36

WATER YEAR 1967 : Max. 2.84 m. Min. 0.25 m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.10	0.29	0.80	1.00	7.92	9.10	15	2.77	1.08	0.47	0.42	0.26
2	0.10	0.41	0.64	1.88	7.64	7.50	19	3.31	1.16	0.50	0.33	0.26
3	0.10	0.47	0.54	1.68	7.50	6.94	102	4.40	1.08	0.40	0.38	0.24
4	0.05	0.42	0.52	4.73	7.08	7.08	81	4.40	1.32	0.45	0.41	0.21
5	0.15	0.37	0.42	4.95	7.08	6.80	56	4.30	1.08	0.44	0.33	0.17
6	0.22	0.32	0.46	5.28	6.08	6.54	39	3.60	0.96	0.40	0.38	0.22
7	0.18	0.27	0.49	5.50	6.94	6.80	29	3.90	0.92	0.43	0.33	0.25
8	0.16	0.25	0.53	5.39	10	6.94	19	4.84	0.96	0.39	0.33	0.24
9	0.16	0.28	0.77	5.17	13	7.78	14	4.40	1.04	0.45	0.39	0.19
10	0.21	0.22	1.16	5.50	11	11	13	4.51	0.96	0.49	0.34	0.16
11	0.23	0.27	1.20	5.39	7.50	14	11	4.73	0.88	0.38	0.33	0.21
12	0.27	0.30	1.16	6.02	6.80	12	8.06	4.73	0.80	0.33	0.40	0.24
13	0.31	0.37	1.16	5.39	7.22	10	7.78	2.95	0.75	0.34	0.42	0.24
14	0.36	0.45	1.32	5.76	7.78	7.50	9.10	2.50	0.72	0.42	0.34	0.23
15	0.22	0.75	1.56	6.67	9.44	6.94	7.78	2.50	0.70	0.49	0.28	0.20
16	0.18	0.75	1.87	7.78	7.92	6.02	7.22	2.50	0.66	0.47	0.27	0.19
17	0.15	0.72	1.94	9.44	7.08	5.50	6.94	2.22	0.68	0.37	0.27	0.20
18	0.13	0.67	1.94	10	7.36	5.06	6.28	1.87	0.66	0.32	0.32	0.16
19	0.14	0.53	1.74	7.78	28	4.95	5.28	1.87	0.65	0.33	0.32	0.20
20	0.16	0.45	1.68	7.92	27	5.63	4.62	1.74	0.64	0.34	0.37	0.21
21	0.25	0.42	1.56	9.10	19	5.89	4.10	1.68	0.63	0.32	0.34	0.21
22	0.35	0.36	1.50	7.36	15	6.02	4.00	1.74	0.65	0.30	0.33	0.21
23	0.35	0.34	1.44	7.78	12	6.54	3.60	1.56	0.63	0.31	0.33	0.20
24	0.34	0.30	2.15	7.78	22	6.41	3.50	1.44	0.63	0.37	0.32	0.20
25	0.39	0.27	2.22	7.36	22	6.28	3.22	1.38	0.62	0.39	0.26	0.18
26	0.34	0.27	2.01	6.94	17	6.94	3.13	1.20	0.58	0.36	0.23	0.19
27	0.24	0.35	2.08	6.94	15	7.92	3.22	1.20	0.61	0.32	0.24	0.20
28	0.25	0.33	1.68	7.36	9.44	9.44	3.31	1.16	0.63	0.36	0.25	0.22
29	0.27	0.35	1.32	11	8.06	13	3.31	1.08	0.57	0.39	0.25	0.22
30	0.28	0.67	1.12	12	7.22	15	2.86	1.08	0.55	0.37	–	0.22
31	–	1.50	–	10	9.10	–	2.95	–	0.49	0.40	–	0.20
Total	6.64	13.72	38.98	206.05	357.02	237.52	498.26	81.56	24.29	12.10	9.51	6.51
Mean	0.22	0.44	1.30	6.65	11.5	7.92	16.1	2.72	0.78	0.39	0.33	0.21
Max.	0.39	1.50	2.22	12	28	15	102	4.84	1.32	0.50	0.42	0.26
Min.	0.050	0.22	0.42	1.00	6.80	4.95	2.86	1.08	0.49	0.30	0.23	0.16
Runoff – mcm.	0.574	1.185	3.368	17.803	30.846	20.522	43.050	7.047	2.099	1.045	0.822	0.562

WATER YEAR 1967 : Max. 102 Min. 0.050 Mean 4.08 Annual Runoff 128.923 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 3	10.00	2.87	107				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
MUNE RIVER BASIN

Huai Khayung at Ban Nam Om, Si Sa Ket (M.66)

Location: Lat 14^0 – 38' – 23" N, Long 104^0 – 39' – 45" E, on right bank 50 meters upstream from bridge on Kantharalak – Det Udom Road, Ban Nam Om, Amphoe Kantharalak, Si Sa Ket.

Drainage Area: 586 sq.km.

Type of Gage: Water – stage recorder.

Zero Gage at Bottom at: 0.00 m. (A.D.)

Bench Mark: B.M. – H.S. No.1

Location: On right bank near gage site.
Elevation: +6.581 m. (A.D.)

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 – 68, 1972 to date
Rated by Float: –
Rated by Current Meter: 1965 – 68, 1972 to date

Stability of Channel Regimes: Unstable, shifting adjustment is included for flow computation.

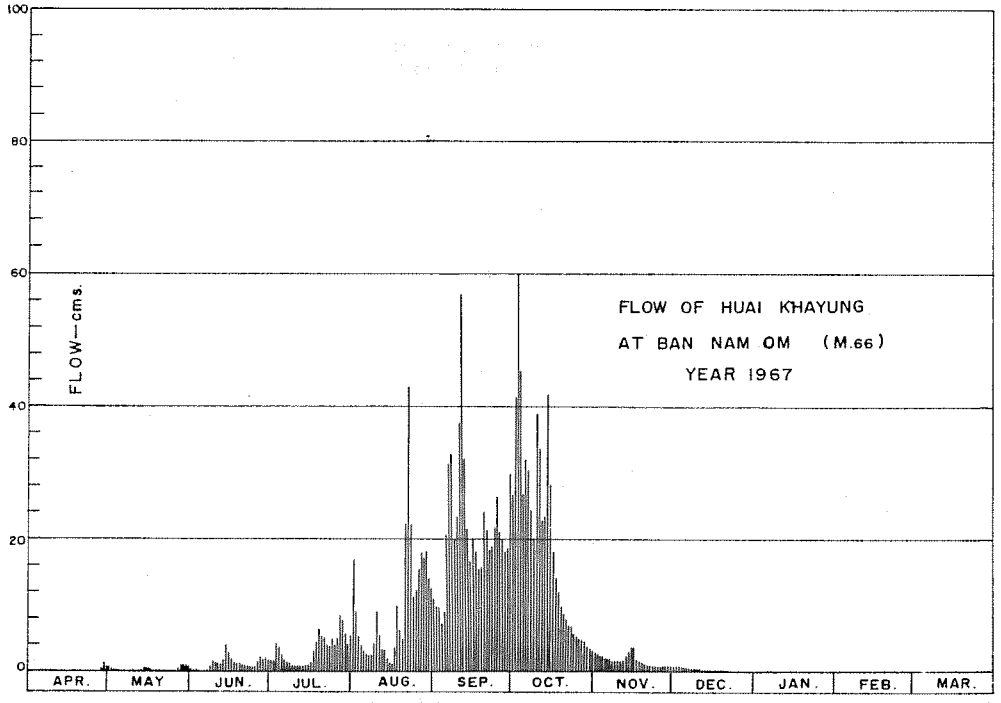
Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage – discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions for irrigation except those built by local residents. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (A.D.), WATER YEAR APRIL 1, 1967 TO MARCH 31,1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.17	0.36	0.31	0.44	1.46	1.22	2.02	0.70	0.44	0.25	0.16	0.13
2	.17	.32	.27	.37	0.90	.21	.69	.70	.42	.24	.15	.13
3	.16	.29	.27	.70	.67	.19	3.81	.68	.41	.24	.17	.12
4	.17	.27	.26	.62	.57	.02	2.87	.66	.41	.24	.16	.12
5	.17	.26	.24	.52	.50	0.96	.21	.63	.40	.24	.15	.12
6	0.16	0.26	0.24	0.45	0.46	2.33	2.53	0.62	0.38	0.23	0.15	0.12
7	.16	.27	.22	.39	.43	.42	.37	.60	.37	.24	.14	.12
8	.16	.26	.25	.36	.44	1.76	1.84	.59	.36	.23	.14	.13
9	.16	.26	.41	.32	.55	.76	.68	.57	.35	.22	.14	.12
10	.16	.24	.39	.30	1.17	2.15	2.80	.56	.34	.21	.14	.12
11	0.17	0.25	0.33	0.30	0.84	3.50	2.49	0.56	0.34	0.21	0.14	0.12
12	.17	.27	.34	.30	.72	2.67	1.91	.58	.33	.21	.14	.12
13	.18	.25	.41	.29	.70	.08	.91	.66	.32	.21	.13	.12
14	.17	.39	.66	.30	.53	1.70	3.02	.71	.31	.21	.14	.12
15	.15	.35	.54	.30	.48	.58	2.15	.67	.31	.19	.14	.12
16	0.15	0.35	0.45	0.37	0.46	1.80	1.77	0.60	0.30	0.20	0.13	0.12
17	.16	.31	.39	.55	.78	.71	.57	.56	.30	.21	.13	.11
18	.19	.25	.36	.62	1.22	.54	.44	.53	.30	.20	.13	.12
19	.18	.22	.38	.79	0.81	.39	.32	.52	.30	.13	.14	.11
20	.18	.26	.33	.70	.70	2.01	.22	.51	.29	.18	.14	.11
21	0.18	0.30	0.30	0.66	1.77	1.80	1.14	0.48	0.29	0.19	0.13	0.11
22	.21	.28	.29	.60	3.01	.70	.07	.47	.28	.18	.13	.11
23	.19	.24	.27	.54	1.81	.70	.03	.46	.27	.19	.13	.12
24	.18	.26	.26	.66	.32	.88	0.96	.44	.27	.18	.13	.11
25	.18	.28	.28	.56	.38	2.08	.89	.43	.27	.18	.13	.12
26	0.19	0.27	0.40	0.67	2.64	1.64	0.86	0.43	0.25	0.17	0.13	0.12
27	.19	.35	.49	.96	1.75	.76	.86	.43	.25	.17	.13	.11
28	.39	.45	.44	.88	.66	.65	.84	.44	.26	.17	.13	.11
29	.44	.45	.47	.73	.72	.52	.77	.44	.26	.17	.13	.11
30	.40	.43	.42	.61	.49	2.28	.74	.43	.25	.17		.11
31		.36		.59	.33		.72		.25	.15		.11
Mean	0.20	0.30	0.35	0.53	1.10	1.80	1.72	0.55	0.32	0.20	0.14	0.12
Max.	0.44	0.45	0.66	0.96	3.01	3.50	3.81	0.71	0.44	0.25	0.17	0.13
Min.	0.15	0.22	0.22	0.29	0.43	0.96	0.72	0.43	0.25	0.15	0.13	0.11

WATER YEAR 1967 : Max. 3.81 m. Min. 0.15 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.040	0.56	0.36	1.83	17	9.90	25	3.20	1.02	0.24	0.10	0.060
2	0.040	0.40	0.20	1.34	7.92	9.75	35	2.80	0.90	0.20	0.080	0.060
3	0.020	0.28	0.20	4.35	5.02	9.45	60	2.62	0.84	0.20	0.12	0.040
4	0.040	0.20	0.18	3.50	3.91	7.14	39	2.44	0.84	0.20	0.10	0.040
5	0.040	0.18	0.14	2.53	3.20	6.36	26	2.17	0.78	0.20	0.080	0.040
6	0.020	0.18	0.14	1.90	2.80	31	32	2.08	0.84	0.18	0.080	0.040
7	0.020	0.20	0.10	1.48	2.53	33	30	1.90	0.78	0.20	0.10	0.040
8	0.020	0.18	0.60	1.27	2.62	20	20	1.83	0.72	0.18	0.10	0.060
9	0.020	0.18	1.62	1.02	3.70	20	17	1.69	0.66	0.16	0.10	0.040
10	0.020	0.14	1.48	0.90	9.15	28	39	1.62	0.60	0.14	0.10	0.040
11	0.040	0.16	1.08	0.90	4.90	57	33	1.62	0.60	0.14	0.10	0.040
12	0.040	0.20	1.14	0.90	3.60	37	22	1.76	0.56	0.14	0.10	0.040
13	0.020	0.16	1.62	0.84	3.40	25	22	2.44	0.52	0.14	0.080	0.040
14	0.00	0.72	4.02	0.90	1.83	18	42	3.20	0.48	0.14	0.10	0.040
15	0.00	0.52	2.71	0.90	1.48	16	25	2.80	0.48	0.10	0.10	0.040
16	0.00	0.52	1.90	1.34	1.34	20	18	2.17	0.44	0.12	0.080	0.040
17	0.00	0.36	1.48	3.70	4.24	18	14	1.83	0.44	0.14	0.080	0.020
18	0.040	0.16	1.27	4.46	9.90	15	12	1.62	0.44	0.12	0.080	0.040
19	0.020	0.10	1.41	6.49	4.57	13	10	1.55	0.44	0.080	0.10	0.020
20	0.020	0.18	1.08	5.38	3.40	24	9.00	1.48	0.40	0.080	0.10	0.020
21	0.020	0.32	0.90	4.90	19	20	7.92	1.27	0.40	0.10	0.080	0.020
22	0.080	0.24	0.84	4.24	43	18	7.01	1.20	0.36	0.080	0.080	0.020
23	0.040	0.14	0.72	3.60	20	19	6.49	1.14	0.32	0.16	0.080	0.040
24	0.020	0.18	0.66	4.90	11	22	5.62	1.02	0.32	0.14	0.080	0.020
25	0.020	0.24	0.78	3.80	12	26	5.26	0.96	0.32	0.14	0.080	0.040
26	0.040	0.20	1.55	5.02	35	18	4.90	0.96	0.24	0.12	0.080	0.040
27	0.040	0.52	2.26	8.70	18	20	4.90	0.96	0.24	0.12	0.080	0.020
28	0.72	1.08	1.83	7.66	17	18	4.68	1.02	0.28	0.12	0.080	0.020
29	1.02	1.08	2.08	5.74	18	16	3.91	1.02	0.28	0.12	0.080	0.020
30	0.78	0.96	1.69	4.35	14	30	3.60	0.96	0.24	0.12	–	0.020
31	–	0.56	–	4.13	12	–	3.40	–	0.24	0.080	–	0.020
Total	3.24	11.10	36.04	102.97	315.51	624.60	587.69	53.33	16.02	4.40	2.60	1.080
Mean	0.108	0.358	1.20	3.32	10.2	20.8	18.9	1.78	0.517	0.142	0.090	0.035
Max.	1.02	1.08	4.02	8.70	43	57	60	3.20	1.02	0.24	0.12	0.060
Min.	0.00	0.10	0.10	0.84	1.34	6.36	3.40	0.96	0.24	0.080	0.080	0.020
Runoff – MCM.	0.280	0.959	3.114	8.897	27.260	53.965	50.776	4.608	1.384	0.380	0.225	0.093

WATER YEAR 1967 : Max. 60 Min. 0.00 Mean 4.80 Annual Runoff 151.941 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 3	09.00	4.17	70				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
MUNE RIVER BASIN

Huai Kwang at Ban Kaeng Yang, Ubon Ratchathani (M.75)

Location: Lat 15°- 09' - 53" N, Long 105°- 17' - 01" E, on left bank at bridge on Phibun Mangsahan - Chong Mek, near Wat Pa Thepburom, Tambon Don Chick, Amphoe Phibun Mangsahan, Ubon Ratchathani.

Drainage Area: 388 sq.km.

Type of Gage: Water - stage recorder.

Zero Gage at Bottom at: 0.00 m. (A.D.)

Bench Mark: B.M. - H.S.

Location: About 9 meters from bank at Wat Pa Thepburom.
Elevation: +6.775 m. (A.D.)

Gage Reading Frequency: Recordings.

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 Float: -
Rated by Current Meter: 1965 to date

Stability of Channel Regimes: Unstable, no shifting adjustment but mean hourly discharge are used for those flashly flooded.

Overbank Flow Conditions: No overbank flow.

General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions for irrigation except those built by local residents. No adjustment made for virgin flow.

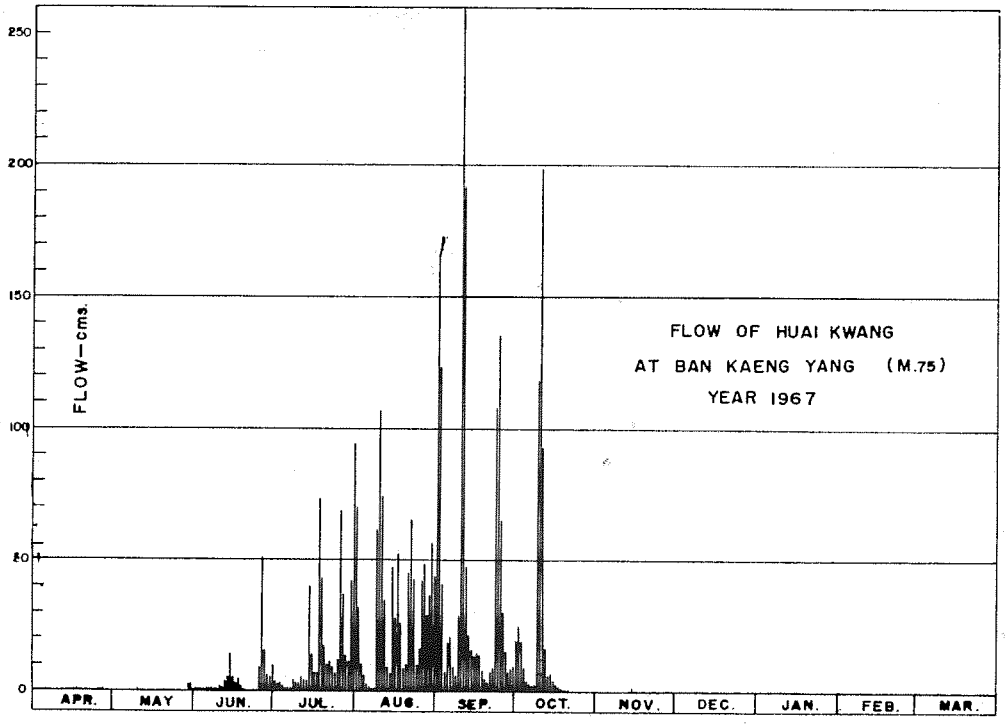
Remarks: Estimated stage record for period Aug. 24 - Sep. 7. No flow for period of discharge record are omitted.

GAGE HEIGHT IN METER (A.D.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.64	0.70	0.79	1.08	3.40	+ 5.55	1.94	0.75	0.74	0.69	0.68	0.69
2	.62	.70	.76	.00	1.62	+ 4.13	2.07	.75	.74	.72	.69	.70
3	.62	.69	.74	.09	.41	+ 1.67	1.67	.78	.73	.72	.69	.70
4	.62	.69	.71	0.93	.23	+ .09	.30	.77	.73	.71	.70	.70
5	.63	.70	.70	.85	.03	+ .84	.08	.75	.73	.68	.70	.70
6	0.63	0.74	0.71	0.89	0.94	+ 1.93	1.03	0.75	0.73	0.68	0.70	0.70
7	.63	.74	.72	.83	.88	+ .41	.01	.75	.72	.68	.69	.67
8	.62	.73	.72	1.13	.86	.14	.01	.74	.71	.68	.69	.66
9	.61	.76	.76	.03	3.44	.63	3.35	.74	.71	.68	.70	.65
10	.60	.85	.98	.00	4.35	5.88	5.84	.73	.70	.68	.70	.65
11	0.60	0.76	0.85	1.22	2.89	4.98	2.09	0.75	0.71	0.68	0.68	0.66
12	.60	.73	1.11	.10	.18	2.46	1.46	.76	.75	.68	.68	.66
13	.60	.72	.24	.08	1.47	1.72	.20	.76	.74	.68	.70	.66
14	.64	.72	.63	2.58	.18	.75	.28	.92	.74	.68	.71	.66
15	.67	.73	.10	1.65	2.80	.61	.05	.80	.75	.68	.70	.65
16	0.74	0.74	1.02	1.25	1.90	1.69	0.97	0.77	0.71	0.68	0.68	0.65
17	.82	.72	.15	.30	2.99	.66	.93	.76	.71	.68	.66	.65
18	.78	.73	0.90	3.43	1.96	.35	.88	.75	.71	.68	.66	.65
19	.74	.82	.82	2.05	.37	.15	.83	.75	.69	.67	.66	.65
20	.73	.77	.78	1.57	.10	.04	.82	.75	.70	.67	.65	.67
21	0.74	0.75	0.75	1.43	2.74	1.33	0.81	0.74	0.72	0.67	0.67	0.67
22	.73	.73	.77	.55	3.32	.33	.79	.74	.72	.68	.68	.67
23	.74	.71	.75	.39	2.03	4.39	.77	.74	.72	.67	.69	.67
24	.77	.73	.74	.25	+ 1.38	.91	.77	.74	.70	.67	.69	.67
25	.79	.75	1.34	.46	+ 1.55	3.19	.76	.73	.71	.66	.69	.67
26	0.78	0.73	2.93	3.38	+ 2.64	2.08	0.75	0.73	0.72	0.67	0.70	0.67
27	.87	.71	1.56	2.24	+ .85	1.64	.74	.73	.71	.67	.71	.67
28	.64	.79	.18	1.70	+ .14	.30	.74	.73	.69	.67	.71	.67
29	.70	1.00	.07	.46	+ .55	.37	.73	.74	.69	.67	.68	.66
30	.72	.00	.45	2.02	+ 3.11	.45	.74	.73	.68	.67		.66
31		0.84		3.95	2.57		.76		.68	.67		.65
Mean	0.69	0.76	1.02	1.58	2.12	2.25	1.29	0.75	0.71	0.68	0.69	0.67
Max.	0.87	1.00	2.93	3.95	4.35	5.88	5.84	0.92	0.74	0.72	0.71	0.70
Min.	0.60	0.69	0.70	0.83	0.86	1.04	0.73	0.73	0.68	0.66	0.65	0.65

WATER YEAR 1967 : Max. 5.88 m. Min. 0.60 m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1		0.00	0.58	3.72	70	165	21	0.32	0.26	0.00		
2		0.00	0.39	2.60	14	96	25	0.32	0.26	0.13		
3		0.00	0.26	3.86	9.24	15	15	0.52	0.19	0.13		
4		0.00	0.065	1.83	5.96	3.86	7.15	0.45	0.19	0.065		
5		0.00	0.00	1.07	3.02	19	3.72	0.32	0.19			
6		0.26	0.065	1.41	1.94	21	3.02	0.32	0.19			
7		0.26	0.13	0.90	1.33	9.10	2.74	0.32	0.13			
8		0.19	0.13	4.43	1.17	4.57	2.74	0.26	0.065			
9		0.39	0.39	3.02	81	14	88	0.26	0.065			
10		1.07	2.38	2.60	107	259	198	0.19	0.00			
11		0.39	1.07	5.79	52	152	26	0.32	0.065			
12		0.19	4.14	4.00	28	37	10	0.39	0.32			
13		0.13	6.13	3.72	10	16	5.45	0.39	0.26			
14		0.13	14	40	5.24	16	6.81	1.72	0.26			
15		0.19	4.00	14	47	13	3.30	0.65	0.32			
16	0.26	0.26	2.88	6.30	20	15	2.27	0.45	0.065			
17	0.82	0.13	4.72	7.14	53	14	1.83	0.39	0.065			
18	0.52	0.19	1.50	73	22	8.02	1.33	0.32	0.065			
19	0.26	0.82	0.82	25	8.37	4.72	0.90	0.32	0.00			
20	0.49	0.45	0.52	12	4.00	3.16	0.82	0.32	0.00			
21	0.26	0.32	0.32	9.54	45	7.67	0.73	0.26	0.13			
22	0.19	0.19	0.45	12	65	7.72	0.58	0.26	0.13			
23	0.26	0.065	0.32	8.72	24	112	0.45	0.26	0.13			
24	0.45	0.19	0.26	6.30	8.55	136	0.45	0.26	0.00			
25	0.58	0.32	7.85	10	12	60	0.39	0.19	0.065			
26	0.52	0.19	51	69	42	25	0.32	0.19	0.13			
27	1.24	0.065	12	30	49	14	0.26	0.19	0.065		0.065	
28	0.00	0.58	5.16	15	27	7.16	0.26	0.19	0.00		0.065	
29	0.00	2.60	3.58	10	39	8.37	0.19	0.26	0.00		0.00	
30	0.13	2.60	9.90	25	57	9.90	0.26	0.19	0.00			
31	–	0.99	–	94	40	–	0.39	–	0.00			
Total	5.68	13.16	135.01	505.95	952.82	1,273.25	429.36	10.80	3.610	0.325	0.195	0.000
Mean	0.19	0.42	4.50	16.3	30.7	42.4	13.8	0.36	0.12	0.010	0.007	0.00
Max.	1.24	2.60	51	94	107	259	198	1.72	0.26	0.13	0.065	0.00
Min.	0.00	0.00	0.00	0.90	1.17	3.16	0.19	0.19	0.00	0.00	0.00	0.00
Runoff - mcm.	0.491	1.137	11.665	43.714	82.324	110.008	37.096	0.933	0.312	0.028	0.017	0.000

WATER YEAR 1967 : Max. 259 Min. 0.00 Mean 9.09 Annual Runoff 287.725 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sep. 10	16.00	7.41	416				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
MUNE RIVER BASIN

Lam Dom Noi at Ban Fang Lum, Ubon Ratchathani (M.79)

Location: Lat 15°- 07' - 09" N, Long 105°- 22' - 42" E, on right bank about 20 meters upstream from concrete bridge crossing Lam Dom Noi, Phibun Mangsahan - Chong Mek Highway, about 300 meters south - east of Ban Fang Lum, Tambon Non Klang, Amphoe Phibun Mangsahan, Ubon Ratchathani

Drainage Area: 1,973 sq.km.

Type of Gage: Water - stage recorder.

Zero Gage at Bottom at: 0.00 m. (A.D.)

Bench Mark: B.M. - H.S. M.79

Location: On right bank, 10 meters from the gage site.
Elevation: +12.246 m. (A.D.)

Gage Reading Frequency: Recordings.

Basis of Mean Daily Gage Height: Arithmetic mean of 24 readings.

Period of Available Gage Records: 1965 - 69

Rating Operation:

Period of Rating: 1965 - 69
Rated by Float: -
Rated by Current Meter: 1965 - 69

Stability of Channel Regimes: Unstable, shifting adjustment is included for flow computation.

Overbank Flow Conditions: No overbank flow.

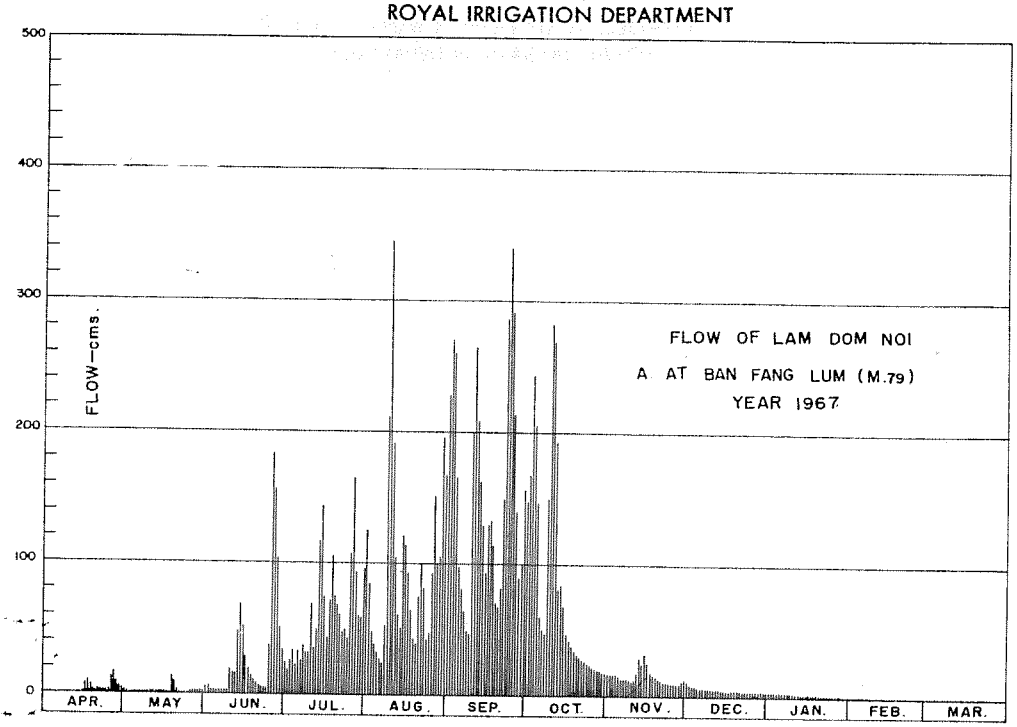
General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions except those built by local residents. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (A.D.), WATER YEAR APRIL 1,1967 TO MARCH 31,1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.35	0.57	0.79	1.33	3.13	4.51	3.41	1.14	0.95	0.68	0.49	0.41
2	.35	.52	.69	.18	2.50	5.03	.68	.13	.88	.68	.50	.45
3	.34	.49	.62	.36	1.87	4.88	4.71	.13	.86	.68	.50	.48
4	.34	.49	.57	.58	.68	3.57	.09	.13	.84	.68	.49	.44
5	.35	.48	.56	.24	.54	2.60	2.92	.08	.83	.67	.47	.42
6	0.35	0.45	0.59	1.58	1.44	2.44	2.06	1.05	0.82	0.66	0.48	0.44
7	.35	.43	.58	.32	.36	.07	1.90	.04	.80	.66	.48	.43
8	.34	.41	.57	.63	.33	1.85	.83	.02	.79	.65	.46	.43
9	.35	.41	.59	.49	4.59	.85	3.30	.00	.78	.64	.48	.41
10	.35	.47	1.18	.54	5.90	4.11	5.18	0.98	.78	.64	.47	.40
11	0.35	0.57	1.09	2.22	3.87	4.96	4.99	1.00	0.77	0.64	0.50	0.40
12	.35	.54	.14	1.47	2.57	.05	3.32	.22	.76	.63	.54	.39
13	.36	.52	.82	.85	.09	3.67	2.30	.47	.75	.63	.49	.39
14	.39	.53	2.22	2.99	1.76	.15	.49	.32	.74	.62	.47	.37
15	.38	.54	1.78	3.39	3.08	2.52	.09	.53	.73	.61	.46	.37
16	0.81	0.49	1.35	2.01	2.96	3.20	1.84	1.32	0.72	0.59	0.45	0.37
17	.93	.47	.09	1.58	.50	.26	.73	.16	.72	.57	.45	.37
18	.75	.46	.08	2.14	.03	2.68	.65	.09	.72	.55	.45	.43
19	.60	1.05	0.93	.85	1.70	.27	.57	.05	.71	.54	.45	.45
20	.54	0.81	.87	.22	.67	.19	.51	.02	.70	.54	.45	.41
21	0.65	0.61	0.78	2.26	2.36	2.60	1.47	0.99	0.70	0.55	0.44	0.39
22	.62	.53	.75	.10	.76	3.25	.44	.97	.69	.53	.42	.38
23	.61	.49	.70	1.85	.08	5.22	.40	.95	.69	.53	.42	.37
24	.55	.47	.69	.91	1.66	.84	.36	.93	.69	.54	.45	.37
25	.60	.49	1.92	.64	.65	.29	.33	.92	.69	.53	.43	.36
26	1.00	0.60	3.94	2.77	2.62	3.75	1.29	0.91	0.69	0.51	0.42	0.35
27	.09	.59	.45	3.71	3.50	2.82	.27	.90	.69	.51	.41	.35
28	0.78	.54	2.40	2.64	2.60	.57	.24	.90	.69	.53	.41	.34
29	.75	.62	1.73	.04	.90	.49	.21	.93	.69	.51	.40	.34
30	.64	.58	.48	.00	4.10	3.59	.19	1.02	.69	.51		.33
31		.61		.70	3.61		.16		.69	.49		.35
Mean	0.54	0.54	1.26	2.02	2.56	3.41	2.29	1.08	0.75	0.59	0.46	0.39
Max.	1.09	1.05	3.94	3.71	5.90	5.84	5.18	1.53	0.95	0.68	0.54	0.48
Min.	0.34	0.41	0.56	1.18	1.33	1.85	1.16	0.90	0.69	0.49	0.40	0.33

WATER YEAR 1967 : Max. 5.90 m. Min. 0.33 m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.15	2.55	6.80	24	125	227	145	17	11	4.60	1.35	0.15
2	0.15	1.80	4.80	19	84	270	164	17	9.40	4.60	1.50	0.75
3	0.15	1.35	3.40	25	48	258	243	17	8.80	4.60	1.50	1.20
4	0.15	1.35	2.55	35	40	156	194	17	8.20	4.60	1.35	0.60
5	0.15	1.20	2.40	21	33	90	111	15	7.90	4.40	1.05	0.30
6	0.15	0.75	2.85	35	29	81	59	14	7.60	4.20	1.20	0.60
7	0.15	0.45	2.70	24	25	58	50	14	7.00	4.20	1.20	0.45
8	0.15	0.15	2.55	37	24	47	46	14	6.80	4.00	0.90	0.45
9	0.15	0.15	2.85	31	234	47	137	13	6.60	3.80	1.20	0.15
10	0.15	1.05	19	33	345	196	283	12	6.60	3.80	1.05	0.15
11	0.15	2.55	16	68	178	265	267	13	6.40	3.80	1.50	0.15
12	0.15	2.10	17	50	90	191	138	20	6.20	3.60	2.10	0.15
13	0.15	1.80	46	47	60	163	72	30	6.00	3.60	1.35	0.15
14	0.15	1.95	68	115	43	126	84	24	5.80	3.40	1.05	0.15
15	0.15	2.10	44	143	122	86	60	33	5.60	3.20	0.90	0.15
16	7.30	1.35	25	56	113	130	47	24	5.40	2.85	0.75	0.15
17	11	1.05	16	35	84	134	42	18	5.40	2.55	0.75	0.15
18	6.00	0.90	15	63	57	95	38	16	5.40	2.25	0.75	0.45
19	3.00	14	11	106	40	71	35	14	5.20	2.10	0.75	0.75
20	2.10	7.30	9.10	68	39	66	32	14	5.00	2.10	0.75	0.75
21	4.00	3.20	6.60	70	76	90	30	13	5.00	2.25	0.60	0.15
22	3.40	1.95	6.00	61	100	133	29	12	4.80	1.95	0.30	0.15
23	3.20	1.35	5.00	47	60	287	27	11	4.80	1.95	0.30	0.15
24	2.25	1.05	4.80	50	39	340	25	11	4.80	2.10	0.75	0.15
25	3.00	1.35	51	38	38	293	24	11	4.80	1.95	0.45	0.15
26	13	3.00	183	101	92	169	23	10	4.80	1.65	0.30	0.15
27	16	2.85	147	166	151	104	22	10	4.80	1.65	0.15	0.15
28	6.60	2.10	78	93	90	89	21	10	4.80	1.95	0.15	0.15
29	6.00	3.40	42	58	109	84	20	11	4.80	1.65	0.15	0.15
30	3.80	2.70	31	55	195	157	19	11	4.80	1.65	–	0.15
31	–	3.20	–	96	159	–	18	–	4.80	1.35	–	0.15
Total	92.90	72.05	871.40	1,850	2,922	4,502	2,505	469.00	189.30	92.35	26.10	8.85
Mean	3.10	2.32	29.0	59.7	94.3	150	80.8	15.6	6.11	2.98	0.90	0.28
Max.	16	14	183	166	345	340	283	33	11	4.60	2.10	1.20
Min.	0.15	0.15	2.40	19	24	47	18	10	4.80	1.35	0.15	0.15
Runoff – MCM.	8.026	6.225	75.289	159.840	252.461	389.059	216.432	40.522	16.355	7.979	2.255	0.765

WATER YEAR 1967 : Max. 345 Min. 0.15 Mean 37.2 Annual Runoff 1,175.208 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Aug. 10	08.00	6.08	362				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
MUNE RIVER BASIN

Lam Dom Yai at Det Udom, Ubon Ratchathani (M.80)

Location: Lat 14° – 53' – 53" N, Long 105° – 05' – 08" E, on left bank 20 meters downstream side of bridge on Buntharik Road, Amphoe Det Udom, Ubon Ratchathani.

Drainage Area: 3,363 sq.km.

Type of Gage: Water – stage recorder.

Zero Gage at Bottom at: 0.00 m. (A.D.)

Bench Mark: B.M. – H.S. M.80

Location: On left bank 12 meters from gage site.
Elevation: +11.819 m. (A.D.)

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 Float: –
Rated by Current Meter: 1965 to date

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

Overbank Flow Conditions: No overbank flow.

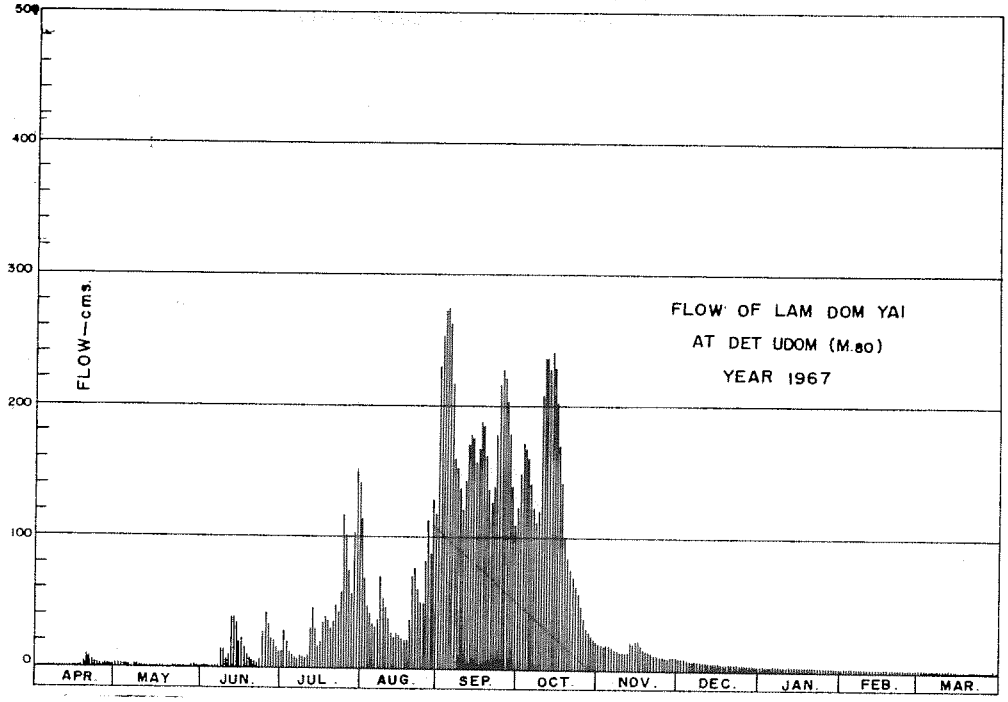
General Description: Records good. Stage – discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions except those built by local residents. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (A.D.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.65	0.94	0.81	1.60	5.49	7.12	4.70	1.83	1.32	0.96	0.80	0.70
2	.65	.93	.79	.46	.20	.58	5.34	.78	.29	.96	.79	.74
3	.64	.92	.84	.56	3.96	.97	.97	.76	.27	.95	.79	.71
4	.64	.89	.81	2.21	2.96	8.00	.90	.79	.24	.95	.79	.69
5	.64	.87	.77	1.84	.69	7.66	.62	.74	.21	.95	.78	.71
6	0.64	0.84	0.76	1.54	2.53	6.56	5.07	1.67	1.19	0.94	0.78	0.70
7	.63	.83	.73	.42	.31	5.63	4.70	.62	.17	.93	.78	.69
8	.64	.88	.70	.25	.25	.54	.55	.57	.16	.92	.77	.69
9	.65	.85	.74	.23	.49	.09	.58	.54	.15	.92	.76	.69
10	.64	.81	1.55	.35	3.45	4.65	6.48	.50	.13	.91	.77	.68
11	0.64	0.80	1.57	1.26	2.84	5.25	7.30	1.52	1.12	0.90	0.76	0.68
12	.65	.79	.07	.21	.73	.97	.30	.50	.10	.89	.75	.68
13	.67	.77	.30	.18	.37	6.10	.05	.88	.09	.89	.77	.69
14	.68	.77	2.53	2.09	.09	.03	.37	.78	.09	.88	.75	.68
15	.67	.77	.54	.78	1.97	5.57	.04	.88	.08	.88	.75	.67
16	0.72	0.77	2.26	1.99	2.10	5.82	6.47	1.93	1.07	0.88	0.75	0.67
17	.71	.80	1.74	.65	.05	6.30	5.61	.72	.06	.87	.75	.67
18	.72	.82	.97	.80	1.92	.21	4.75	.65	.05	.87	.75	.67
19	1.08	.80	.59	2.36	.83	5.53	.17	.58	.04	.87	.75	.67
20	.39	.75	.31	.57	.74	4.85	3.87	.52	.03	.87	.74	.67
21	1.27	0.75	1.16	2.48	2.44	4.95	3.68	1.48	1.03	0.87	0.73	0.67
22	.05	.73	.08	.18	3.47	5.36	.52	.44	.02	.87	.73	.66
23	0.94	.75	.01	.45	.65	6.06	.37	.40	.01	.87	.74	.65
24	.90	.77	0.97	.86	.18	.91	.20	.37	.00	.87	.75	.65
25	.87	.78	1.14	.52	2.88	7.11	2.97	.34	0.99	.87	.73	.65
26	0.87	0.76	2.03	3.11	2.78	6.91	2.61	1.32	0.99	0.87	0.72	0.65
27	.89	.74	.68	4.66	3.74	.48	.29	.30	.99	.87	.72	.65
28	.93	.73	.27	.18	4.60	5.62	.14	.29	.98	.86	.72	.67
29	.89	.73	1.99	3.15	3.75	4.81	.04	.35	.98	.85	.72	.67
30	.91	.80	.90	2.80	4.95	.49	1.97	.34	.97	.83		.67
31		.88		4.63	.50		.90		.96	.82		.64
Mean	0.79	0.81	1.42	2.24	3.06	5.91	4.63	1.58	1.09	0.89	0.75	0.68
Max.	1.27	0.94	2.68	4.66	5.49	8.00	7.37	1.93	1.32	0.96	0.80	0.74
Min.	0.63	0.73	0.70	1.18	1.74	4.49	1.90	1.29	0.96	0.82	0.72	0.64

WATER YEAR 1967 : Max. 8.00 m. Min. 0.63 m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1,1967 TO MARCH 31,1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.35	3.10	1.60	15	151	229	118	20	9.36	3.40	1.50	0.70
2	0.35	2.95	1.42	12	139	252	145	19	8.82	3.40	1.42	1.02
3	0.28	2.80	1.90	14	88	273	173	18	8.46	3.25	1.42	0.78
4	0.28	2.40	1.60	29	52	274	170	19	7.92	3.25	1.42	0.63
5	0.28	2.20	1.26	20	44	256	157	18	7.38	3.25	1.34	0.78
6	0.28	1.90	1.18	13	39	201	133	16	7.03	3.10	1.34	0.70
7	0.21	1.80	0.94	11	32	158	118	15	6.69	2.95	1.34	0.63
8	0.28	2.30	0.70	8.10	31	154	111	14	6.52	2.80	1.26	0.63
9	0.35	2.00	1.02	7.74	38	134	113	13	6.35	2.80	1.18	0.63
10	0.28	1.60	14	9.90	69	116	197	13	6.01	2.65	1.26	0.56
11	0.28	1.50	14	8.28	48	141	237	13	5.84	2.50	1.18	0.56
12	0.35	1.42	5.05	7.38	45	173	237	13	5.50	2.40	1.10	0.56
13	0.49	1.26	9.00	6.86	34	179	225	21	5.35	2.40	1.26	0.63
14	0.56	1.26	39	26	26	175	241	19	5.35	2.30	1.10	0.56
15	0.49	1.26	39	46	23	155	225	21	5.20	2.30	1.10	0.49
16	0.86	1.26	31	24	27	166	197	22	5.05	2.30	1.10	0.49
17	0.78	1.50	18	16	25	188	157	17	4.90	2.20	1.10	0.49
18	0.86	1.70	23	19	22	184	120	16	4.75	2.20	1.10	0.49
19	5.20	1.50	14	34	20	153	96	14	4.60	2.20	1.10	0.49
20	11	1.10	9.18	40	18	124	84	13	4.45	2.20	1.02	0.49
21	8.46	1.10	6.52	37	36	128	77	12	4.45	2.20	0.94	0.49
22	4.75	0.94	5.20	29	70	146	71	11	4.30	2.20	0.94	0.42
23	3.10	1.10	4.15	36	76	177	66	11	4.15	2.20	1.02	0.35
24	2.50	1.26	3.55	49	60	218	60	10	4.00	2.20	1.10	0.35
25	2.20	1.34	6.18	39	50	228	53	9.72	3.85	2.20	0.94	0.35
26	2.20	1.18	25	57	46	218	41	9.32	3.85	2.20	0.86	0.35
27	2.40	1.02	43	116	79	197	32	9.00	3.85	2.20	0.86	0.35
28	2.95	0.94	31	96	113	157	28	8.82	3.70	2.10	0.86	0.49
29	2.40	0.94	24	59	80	122	25	9.90	3.70	2.00	0.86	0.49
30	2.65	1.50	21	47	128	109	23	9.92	3.55	1.80	–	0.49
31	–	2.30	–	115	109	–	21	–	3.40	1.70	–	0.28
Total	57.42	50.43	396.45	1,047.26	1,818	5,385	3,751	434.52	168.33	76.85	33.02	16.72
Mean	1.91	1.63	13.2	33.8	58.6	179	121	14.5	5.43	2.48	1.17	0.54
Max.	11	3.10	43	116	151	274	241	22	9.36	3.40	1.50	1.02
Min.	0.21	0.94	0.70	6.86	18	109	21	8.82	3.40	1.70	0.86	0.28
Runoff – mcm.	4.961	4.357	34.253	90.483	157.075	465.264	324.086	37.542	14.544	6.640	2.853	1.445

WATER YEAR 1967 : Max. 274 Min. 0.21 Mean 36.2 Annual Runoff 1,143.504 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sep. 3	20.00	8.04	277				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
MUNE RIVER BASIN

Lam Sae at Ban Mab Krat, Nakhon Ratchasima (M.81)

Location: Lat 14°- 23' - 51" N, Long 102°- 15' - 20" E, on right bank infront of Wat Mab Krat, Tambon Khok Kra Chai, Amphoe Khon Buri, Nakhon Ratchasima.

Drainage Area: 482 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: +209.903 m. (M.S.L.)

Bench Mark: B.M. - R.I.D. No.326 at Sandal Tree

Location: B.M. - R.I.D. No.350 at Peepal Tree.
Elevation: +215.006 m. (M.S.L.) and +215.923 m. (M.S.L.)

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 Float: -
Rated by Current Meter: 1967 to date

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

Overbank Flow Conditions: No overbank flow.

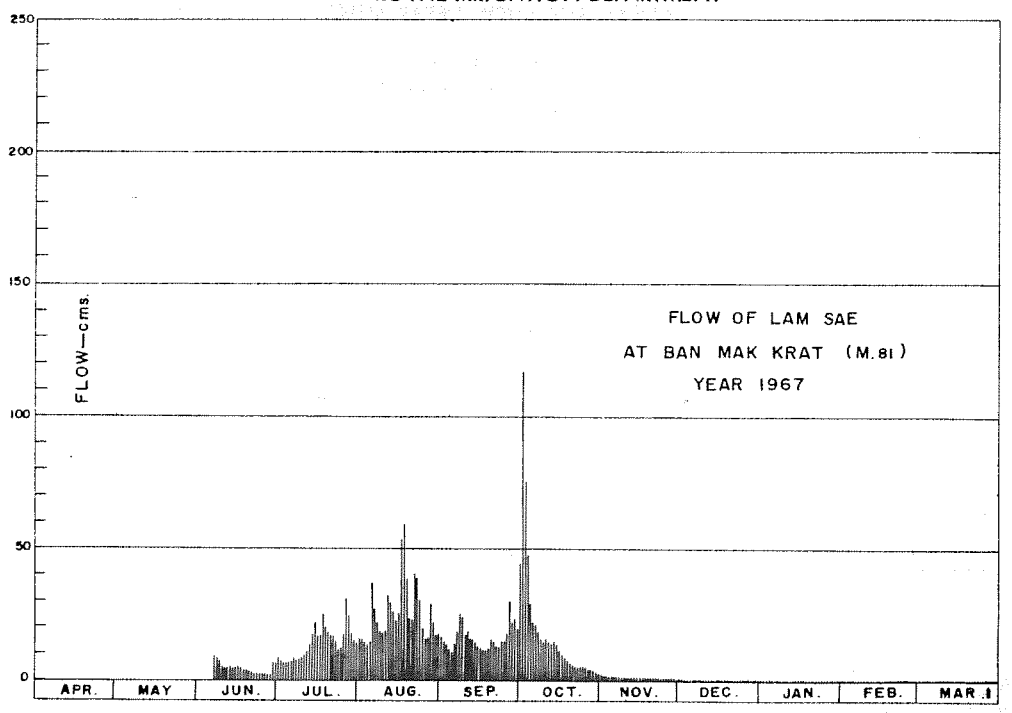
General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions except those built by local residents. No adjustment made for virgin flow.

Remarks: Gage height record began on June 7, 1967.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1				211.50	212.03	211.94	212.68	210.63	209.93	209.39	209.04	208.87
2				.42	.03	.96	213.70	.60	.93	.35	.04	.87
3				.27	211.96	.90	.36	.55	.92	.32	.05	.89
4				.29	.83	.75	212.83	.51	.92	.30	.03	.88
5				.25	212.01	.63	.48	.46	.91	.30	.03	.85
6				211.42	212.77	211.99	212.26	210.43	209.89	209.29	209.00	208.85
7			211.57	.48	.43	212.22	.31	.40	.87	.29	.01	.85
8			.45	.36	.23	.48	.17	.37	.84	.28	208.98	.84
9			.24	.42	.14	.40	211.98	.34	.81	.28	.97	.82
10			.03	.48	.15	.09	.92	.31	.79	.27	.96	.81
11			210.95	211.64	212.15	212.18	212.06	210.30	209.76	209.24	208.95	208.81
12			211.00	.71	.50	.06	211.92	.30	.73	.22	.94	.80
13			.05	.84	.41	.03	.92	.35	.70	.22	.93	.80
14			210.98	212.11	.31	211.89	.96	.37	.67	.22	.93	.80
15			.90	.34	.17	.82	.82	.33	.64	.22	.93	.80
16			211.05	212.11	212.07	211.86	211.68	210.29	209.63	209.18	208.92	208.79
17			.03	.11	213.11	.73	.59	.26	.60	.16	.92	.79
18			210.91	.45	.19	.80	.50	.22	.58	.14	.91	.79
19			.78	.24	212.65	.77	.39	.20	.57	.13	.90	.78
20			.74	.16	.35	212.05	.29	.18	.56	.12	.91	.77
21			210.66	212.11	212.38	211.98	211.21	210.16	209.55	209.10	208.89	208.77
22			.64	.07	.86	.89	.14	.12	.54	.09	.92	.80
23			.65	211.91	.81	.80	.09	.05	.53	.08	.90	.83
24			.62	.81	.37	.99	.04	.02	.52	.06	.90	.85
25			.60	.79	.16	.99	.08	.01	.51	.07	.88	.88
26			210.58	212.03	212.02	212.17	210.97	210.00	209.50	209.05	208.87	208.87
27			.52	.61	.00	.60	.91	209.99	.49	.03	.85	.83
28			.47	.36	.57	.29	.94	210.02	.44	.05	.87	.80
29			211.26	.16	.21	.39	.83	209.95	.44	.04	.86	.76
30			.20	.05	.09	.15	.74	.94	.44	.04		.76
31				211.94	.13		.69		.44	.06		.75
Mean				211.85	212.34	212.02	211.78	210.26	209.64	209.18	208.94	208.82
Max.				212.61	213.19	212.60	213.70	210.63	209.93	209.39	209.05	208.89
Min.				211.25	211.83	211.63	210.69	209.94	209.44	209.03	208.85	208.75

WATER YEAR 1967 : Max. 213.70 m. Min. 208.75 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1,1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1				8.80	16	14	33	2.61	0.92	0.49	0.21	0.11
2				8.00	16	15	117	2.45	0.92	0.46	0.21	0.11
3				6.76	15	14	74	2.20	0.91	0.44	0.22	0.11
4				6.92	13	12	39	2.00	0.91	0.42	0.20	0.11
5				6.60	15	10	26	1.80	0.91	0.42	0.20	0.10
6				8.00	37	15	20	1.68	0.89	0.41	0.18	0.10
7			9.50	8.60	25	19	21	1.56	0.87	0.41	0.18	0.10
8			8.30	7.48	20	26	18	1.50	0.85	0.40	0.17	0.09
9			6.52	8.00	18	24	15	1.44	0.83	0.40	0.16	0.09
10			4.98	8.60	18	17	14	1.38	0.81	0.39	0.15	0.08
11			4.50	10	18	19	16	1.36	0.79	0.37	0.15	0.08
12			4.80	11	27	16	14	1.36	0.76	0.36	0.14	0.08
13			5.10	13	24	16	14	1.46	0.74	0.36	0.14	0.08
14			4.68	17	21	14	15	1.50	0.71	0.36	0.14	0.08
15			4.20	22	18	13	13	1.42	0.69	0.36	0.14	0.08
16			5.10	17	17	13	11	1.34	0.68	0.32	0.13	0.08
17			4.98	17	54	11	9.70	1.29	0.66	0.31	0.13	0.08
18			4.26	25	59	12	8.80	1.23	0.64	0.29	0.12	0.08
19			3.48	20	32	12	7.72	1.20	0.63	0.28	0.12	0.07
20			3.24	18	23	16	6.92	1.17	0.63	0.27	0.12	0.07
21			2.78	17	23	15	6.28	1.15	0.62	0.26	0.11	0.07
22			2.67	17	41	14	5.72	1.10	0.61	0.25	0.13	0.08
23			2.72	14	38	12	5.34	1.03	0.60	0.24	0.12	0.09
24			2.56	12	23	15	5.04	1.00	0.60	0.23	0.12	0.10
25			2.45	12	18	15	5.28	0.99	0.59	0.24	0.11	0.11
26			2.35	16	16	18	4.62	0.98	0.58	0.22	0.11	0.11
27			2.06	31	15	30	4.26	0.97	0.57	0.20	0.10	0.09
28			1.84	23	29	21	4.44	1.00	0.53	0.22	0.11	0.08
29			6.68	18	19	24	3.78	0.94	0.53	0.21	0.10	0.07
30			6.20	16	17	18	3.24	0.93	0.53	0.21	–	0.07
31			–	14	18		2.94	–	0.53	0.23	–	0.07
Total				437.76	743.00	490.00	544.08	42.04	22.04	10.03	4.22	2.72
Mean				14.1	24.0	16.3	17.5	1.40	0.71	0.32	0.14	0.087
Max.				31	59	30	117	2.61	0.92	0.49	0.22	0.11
Min.				6.60	13	10	2.94	0.93	0.53	0.20	0.10	0.07
Runoff – mcm.				37.822	64.195	42.336	47.008	3.632	1.904	0.866	0.364	0.235

WATER YEAR 1967 : Max. 117 Min. 0.07 Mean Annual Runoff mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 2	06.00	213.85	140				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
TONLE SAP RIVER BASIN

Huai Phrom Hot at Aranyaprathet, Prachin Buri (TL.1)

Location: Lat 13°- 43' - 12" N, Long 101°- 28' - 06" E, on left bank near Prachin - Aranyaprathet highway bridge, being about 7 kilometers west of Aranyaprathet, Amphoe Aranyaprathet, Prachin Buri.

Drainage Area: 571 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: 0.00 m. (A.D.)

Bench Mark:

Location:
Elevation:

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 - 65
Rated by Float: -
Rated by Current Meter: 1964 - 65

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

Overbank Flow Conditions: No overbank flow.

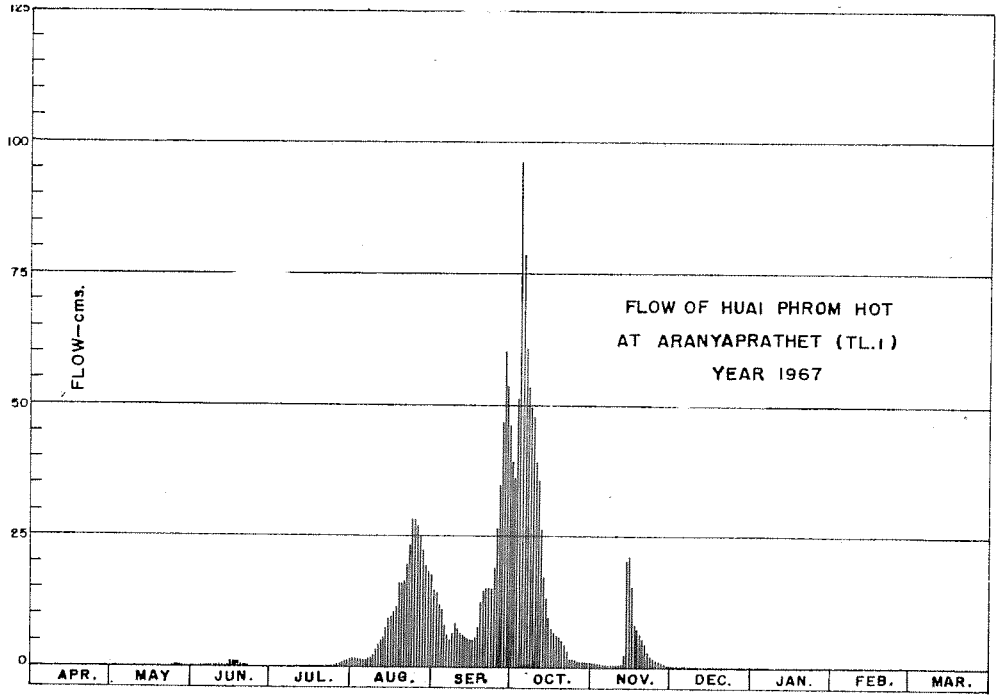
General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made during 1964 - 65. No upstream state diversions for irrigation except those built by local residents. No adjustment made for virgin flow.

Remarks: Discharge records for periods of no flow are omitted.

GAGE HEIGHT IN METER (A.D.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.87	0.56	1.80	1.79	2.27	3.93	5.55	1.95	1.78	1.19	0.98	0.93
2	.87	.56	.79	.78	.24	.79	.52	.92	.72	.18	.98	.93
3	.84	.56	.78	.77	.23	.66	.96	.90	.67	.17	.98	.93
4	.82	.54	.77	.76	.18	.47	6.46	.88	.63	.17	.98	.92
5	.82	.54	.76	.75	.17	.22	.36	.86	.60	.17	.97	.91
6	0.80	0.54	1.74	1.75	2.14	2.94	6.16	1.86	1.58	1.17	0.97	0.91
7	.77	.56	.74	.75	.26	.80	.05	.85	.54	.16	.97	.91
8	.73	.56	.74	.73	.30	3.02	.02	.85	.51	.16	.97	.90
9	.70	.56	.74	.73	.32	.26	5.95	.85	.51	.15	.97	.89
10	.70	.56	.74	.73	.62	.14	.70	.85	.49	.15	.97	.87
11	0.69	0.56	1.76	1.73	2.75	3.02	5.48	1.85	1.44	1.15	0.97	0.87
12	.66	.56	.75	.73	.85	.00	4.58	.83	.38	.15	.96	.87
13	.66	.56	.74	.73	.96	2.96	.02	2.06	.38	.14	.96	.85
14	.66	.58	.85	.73	3.09	.91	3.58	4.31	.38	.12	.96	.84
15	.65	.58	2.13	.73	.35	.86	.34	.40	.36	.12	.96	.83
16	0.64	0.79	2.05	1.73	3.38	2.87	3.12	3.63	1.36	1.12	0.96	0.79
17	.62	.79	.05	.73	.49	.90	.02	.24	.36	.10	.99	.79
18	.60	.79	.05	.73	.66	3.18	2.98	.08	.34	.10	.99	.77
19	.60	.79	1.93	.75	.98	.57	.94	2.96	.34	.10	.99	.75
20	.60	1.37	.88	.75	4.01	.84	.87	.86	.34	.08	.99	.74
21	0.59	1.35	1.85	1.75	4.02	3.92	2.72	2.72	1.32	1.06	0.99	0.73
22	.59	.36	.83	.78	.33	.91	.57	.44	.32	.05	.99	.73
23	.56	.74	.83	.78	.77	.76	.17	.32	.32	.03	.98	.72
24	.55	.85	.81	.78	.98	4.29	.22	.25	.31	.01	.98	.72
25	.55	.85	.81	.84	5.03	.72	.19	.20	.31	.01	.97	.71
26	0.57	1.87	1.81	2.04	4.96	5.21	2.15	2.14	1.31	1.01	0.97	0.70
27	.57	.85	.81	.07	.73	.91	.13	.07	.30	.00	.95	.70
28	.56	.85	.79	.17	.41	6.18	.07	1.95	.30	.00	.94	.70
29	.56	.82	.79	.21	.25	.09	.03	.86	.28	0.99	.93	.69
30	.56	.81	.79	.27	.18	5.77	.01	.80	.25	.98		.69
31		.81		.29	.14		.00		.19	.98		.69
Mean	0.67	1.03	1.83	1.83	3.42	3.80	3.87	2.36	1.42	1.12	0.97	0.81
Max.	0.87	1.87	2.13	2.29	5.03	6.18	6.46	4.40	1.78	1.19	0.99	0.93
Min.	0.55	0.54	1.74	1.73	2.14	2.80	2.00	1.80	1.19	0.98	0.93	0.69

WATER YEAR 1967 : Max. 6.46 m. Min. 0.54 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1			0.30	0.27	1.71	15	36	0.75	0.24			
2			0.27	0.24	1.62	14	36	0.66	0.06			
3			0.24	0.21	1.59	12	47	0.60				
4			0.21	0.18	1.44	11	96	0.54				
5			0.18	0.15	1.41	8.00	79	0.48				
6			0.12	0.15	1.32	5.78	58	0.48				
7			0.12	0.15	1.68	4.80	52	0.45				
8			0.12	0.09	1.80	6.36	50	0.45				
9			0.12	0.09	1.90	8.40	47	0.45				
10			0.12	0.09	3.62	7.32	39	0.45				
11			0.18	0.09	4.45	6.36	35	0.45				
12			0.15	0.09	5.15	6.20	23	0.39				
13			0.12	0.09	5.92	5.92	16	1.08				
14			0.45	0.09	6.92	5.57	12	20				
15			1.29	0.09	9.30	5.22	9.20	21				
16			1.05	0.09	9.60	5.29	7.16	12				
17			1.05	0.09	11	5.50	6.36	8.20				
18			1.05	0.09	12	7.64	6.06	6.84				
19			0.69	0.15	16	12	5.78	5.92				
20			0.54	0.15	16	14	5.29	5.22				
21			0.45	0.15	16	15	4.24	4.24				
22			0.39	0.24	20	15	3.32	2.54				
23		0.12	0.39	0.24	25	14	1.41	1.90				
24		0.45	0.33	0.24	28	19	1.56	1.65				
25		0.45	0.33	0.42	28	24	1.47	1.50				
26		0.51	0.33	1.02	27	31	1.35	1.32				
27		0.45	0.33	1.11	24	45	1.29	1.11				
28		0.45	0.27	1.41	21	60	1.11	0.75				
29		0.36	0.27	1.53	19	54	0.99	0.48				
30		0.33	0.27	1.71	18	41	0.93	0.30				
31		0.33	–	1.77	18	–	0.90	–				
Total	0.00	3.45	11.73	12.48	358.43	484.36	684.20	102.20	0.30	0.00	0.00	0.00
Mean	0.00	0.111	0.391	0.402	11.6	16.15	22.1	3.41	0.01	0.00	0.00	0.00
Max.	0.00	0.51	1.29	1.77	28	60	96	21	0.24	0.00	0.00	0.00
Min.	0.00	0.00	0.12	0.09	1.41	4.80	0.90	0.30	0.00	0.00	0.00	0.00
Runoff – mcm.	0.000	0.298	1.013	1.078	30.968	41.849	59.134	8.830	0.026	0.00	0.00	0.00

WATER YEAR 1967 : Max. 96 Min. 0.00 Mean 4.53 Annual Runoff 143.214 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct.4	09.00	6.48	100				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
NAKHON NAYOK RIVER BASIN

Nakhon Nayok River at Khao Kariang, Nakhon Nayok (NY.1)

Location: Lat 14° – 14' – 22" N, Long 101° – 16' – 45" E, on left bank about 10 kilometers from Suwanson Road and 12 kilometers upstream from Muang Nakhon Nayok.

Drainage Area: 526 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: +2.959 m. (M.S.L.)

Bench Mark: B.M. – R.I.D.

Location: Near upper gage.
Elevation: +9.791 m. (M.S.L.)

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 – 1973

Rating Operation:

Period of Rating: 1953, 1955–57, 1966–1973
Rated by Float: –
Rated by Current Meter: –

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

Overbank Flow Conditions: No overbank flow.

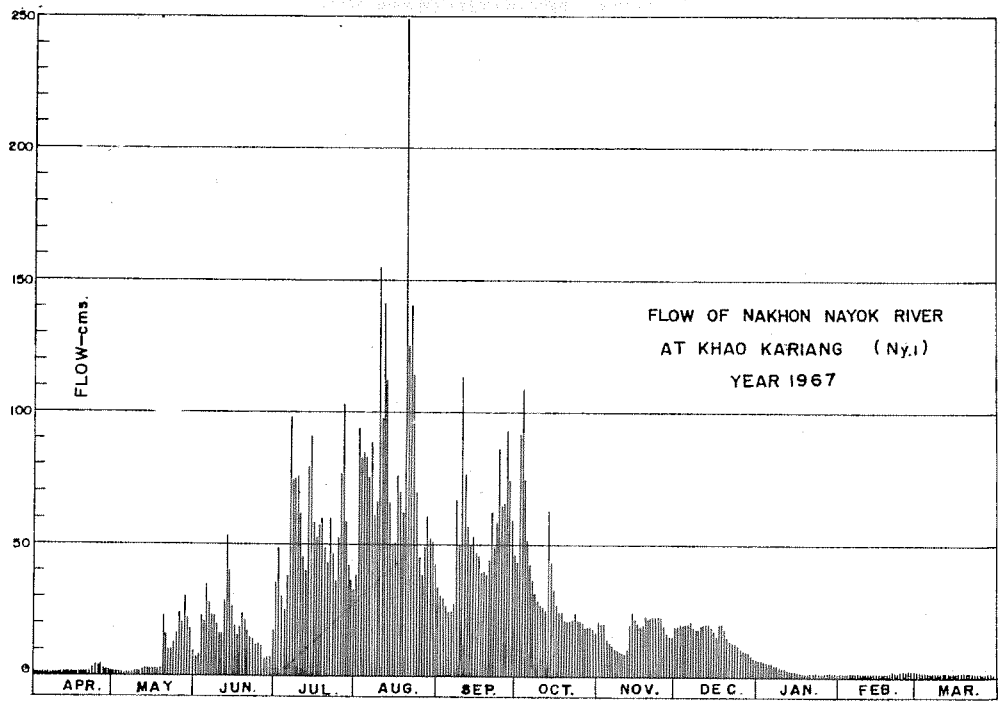
General Description: Records fair. Stage – discharge relationship used is defined by discharge measurements made during 1955 – 57 and 1966 – 67. No upstream state diversions except those built by local residents. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	3.43	3.50	3.90	4.58	5.11	4.82	5.08	4.46	4.41	3.84	3.46	3.50
2	.43	.49	.92	5.25	6.22	.76	6.23	.45	.42	.84	.45	.46
3	.43	.49	4.54	4.89	5.93	.76	.65	.42	.42	.82	.45	.45
4	.43	.47	.34	.60	6.06	.62	5.62	.22	.42	.81	.45	.45
5	.43	.47	.91	.64	.01	.57	.21	.16	.42	.79	.45	.45
6	3.44	3.47	4.59	4.93	5.80	4.61	5.00	4.14	4.47	3.77	3.45	3.45
7	.44	.46	.50	6.32	6.14	.69	4.90	.10	.37	.73	.45	.45
8	.45	.48	.54	5.74	5.51	5.67	.75	.07	.37	.70	.44	.45
9	.45	.50	.38	.85	.46	.17	.72	.03	.37	.68	.44	.45
10	.45	.56	.23	.87	7.39	6.65	.66	.01	.42	.62	.47	.45
11	3.45	3.57	4.34	5.37	6.12	5.76	4.62	4.00	4.42	3.60	3.47	3.45
12	.45	.60	.81	.01	7.14	.40	.61	.04	.42	.57	.46	.45
13	.45	.60	5.34	.06	5.83	.23	5.60	.40	.42	.56	.46	.45
14	.45	.55	4.72	.99	.49	.34	4.98	.60	.38	.54	.45	.45
15	.46	.53	.50	6.18	.12	.21	.80	.48	.28	.52	.45	.45
16	3.46	3.57	4.32	5.38	5.46	5.15	4.68	4.42	4.26	3.50	3.45	3.45
17	.46	.55	.27	.35	.88	.01	.58	.40	.44	.49	.45	.45
18	.48	.56	.57	.49	.62	.02	.60	.44	.42	.49	.44	.45
19	.48	.61	.54	.52	.32	.00	.48	.54	.34	.49	.43	.45
20	.48	4.52	.36	.09	8.55	4.97	.46	.49	.22	.48	.47	.45
21	3.47	4.08	4.20	4.98	6.57	5.56	4.46	4.54	4.18	3.48	3.53	3.45
22	.47	3.91	.24	5.52	7.12	.13	.50	.55	.16	.48	.49	.45
23	.61	4.08	.23	.03	6.00	.46	.56	.55	.15	.48	.47	.44
24	.72	.19	.09	4.73	5.45	6.08	.47	.55	.10	.48	.53	.44
25	.63	.24	.18	5.27	.11	5.61	.46	.55	.07	.48	.69	.44
26	3.74	4.57	4.14	5.82	4.91	5.62	4.43	4.40	4.04	3.48	3.56	3.44
27	.59	.31	3.88	6.43	5.30	6.22	.38	.30	.02	.48	.53	.44
28	.60	.77	.92	5.42	.55	5.67	.41	.26	3.98	.49	.52	.44
29	.56	.41	.91	.05	.33	.39	.39	.26	.95	.48	.50	.44
30	.50	.36	.93	4.90	.31	.08	.36	.40	.90	.48		.44
31		.07		.76	.01		.29		.86	.48		.44
Mean	3.50	3.82	4.34	5.32	5.86	5.27	4.80	4.20	4.26	3.58	3.48	3.45
Max.	3.74	4.77	5.34	6.43	8.55	6.65	6.65	4.60	4.47	3.84	3.69	3.50
Min.	3.43	3.46	3.88	4.58	4.91	4.57	4.29	4.00	3.86	3.48	3.43	3.44

WATER YEAR 1967 : Max. 8.55 m. Min. 3.43 m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	1.30	2.00	7.00	24	43	32	42	21	19	6.10	1.60	2.00
2	1.30	1.90	7.40	49	93	30	93	20	20	6.10	1.50	1.60
3	1.30	1.90	23	35	79	30	114	20	20	5.80	1.50	1.50
4	1.30	1.70	17	25	85	26	64	14	20	5.65	1.50	1.50
5	1.30	1.70	35	26	82	24	47	13	20	5.35	1.50	1.50
6	1.40	1.70	25	36	72	25	39	12	21	5.05	1.50	1.50
7	1.40	1.60	22	98	89	28	35	11	18	4.45	1.50	1.50
8	1.50	1.80	23	70	59	67	30	10	18	4.00	1.40	1.50
9	1.50	2.00	18	75	57	46	29	9.66	18	3.80	1.40	1.50
10	1.50	2.60	14	76	155	114	27	9.22	20	3.20	1.70	1.50
11	1.50	2.70	17	54	88	71	26	9.00	20	3.00	1.70	1.50
12	1.50	3.00	32	39	141	55	25	9.88	20	2.70	1.60	1.50
13	1.50	3.00	53	41	74	48	63	19	20	2.60	1.60	1.50
14	1.50	2.50	29	81	59	53	38	25	18	2.40	1.50	1.50
15	1.60	2.30	22	91	44	47	31	21	16	2.20	1.50	1.50
16	1.60	2.70	17	54	57	45	27	20	15	2.00	1.50	1.50
17	1.60	2.50	15	53	76	39	24	19	20	1.90	1.50	1.50
18	1.80	2.60	24	59	64	40	25	20	20	1.90	1.40	1.50
19	1.80	3.10	23	60	52	39	21	23	17	1.90	1.30	1.50
20	1.80	23	18	43	249	38	21	22	14	1.80	1.70	1.50
21	1.70	11	14	38	110	62	21	23	13	1.80	2.30	1.50
22	1.70	7.20	15	60	140	44	22	23	13	1.80	1.90	1.50
23	3.10	11	14	40	82	57	24	23	12	1.80	1.70	1.40
24	4.30	13	11	29	57	86	21	23	11	1.80	2.30	1.40
25	3.30	15	13	50	43	64	21	23	10	1.80	3.90	1.40
26	4.60	24	12	73	35	64	20	19	9.88	1.80	2.60	1.40
27	2.90	16	6.70	103	51	93	18	16	9.44	1.80	2.30	1.40
28	3.00	30	7.40	56	61	67	19	15	8.60	1.90	2.20	1.40
29	2.60	19	7.20	41	52	55	19	15	8.00	1.80	2.00	1.40
30	2.00	18	7.60	35	51	42	18	19	7.00	1.80	–	1.40
31	–	10	–	30	39	–	16	–	6.40	1.80	–	1.40
Total	59.20	240.50	549.30	1,644	2,439	1,531	1,040	526.76	482.32	91.80	51.60	46.20
Mean	1.97	7.76	18.3	53.0	78.7	51.0	33.5	17.5	15.5	2.96	1.78	1.49
Max.	4.60	30	53	103	249	114	114	25	21	6.10	3.90	2.00
Min.	1.30	1.60	6.70	24	35	24	16	9.00	6.40	1.80	1.30	1.40
Runoff - mcm.	5.115	20.779	47.459	142.042	210.730	132.278	89.856	45.512	41.672	7.931	4.458	3.992

WATER YEAR 1967 : Max. 249 Min. 1.30 Mean 23.8 Annual Runoff 751.825 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Aug.20	05.00	9.38	358				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
NAKHON NAYOK RIVER BASIN

Khlong Tha Dan at Ban Tha Dan, Nakhon Nayok (Ny.1A)

Location: Lat 14° – 18' – 27" N, Long 101° – 19' – 40" E, on left bank about 1.8 kilometers upstream from confluence with Lam Nang Rong, Tambon Hintang, Amphoe Muang, Nakhon Nayok.

Drainage Area: 187 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: 0.00 m. (A.D.)

Bench Mark: B.M. – H.S.

Location: On left bank near gage site.
Elevation: +3.669 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: 1958 – 69

Rating Operation:

Period of Rating: 1958 – 59
Rated by Float: –
Rated by Current Meter: 1958 – 59

Stability of Channel Regimes: Unstable, no shifting adjustment for flow computation.

Overbank Flow Conditions: No overbank flow.

General Description: Records poor. Stage – discharge relationship used is defined by discharge measurements made during 1958 – 59. No upstream state diversions for irrigation except those built by local residents. No adjustment made for virgin flow.

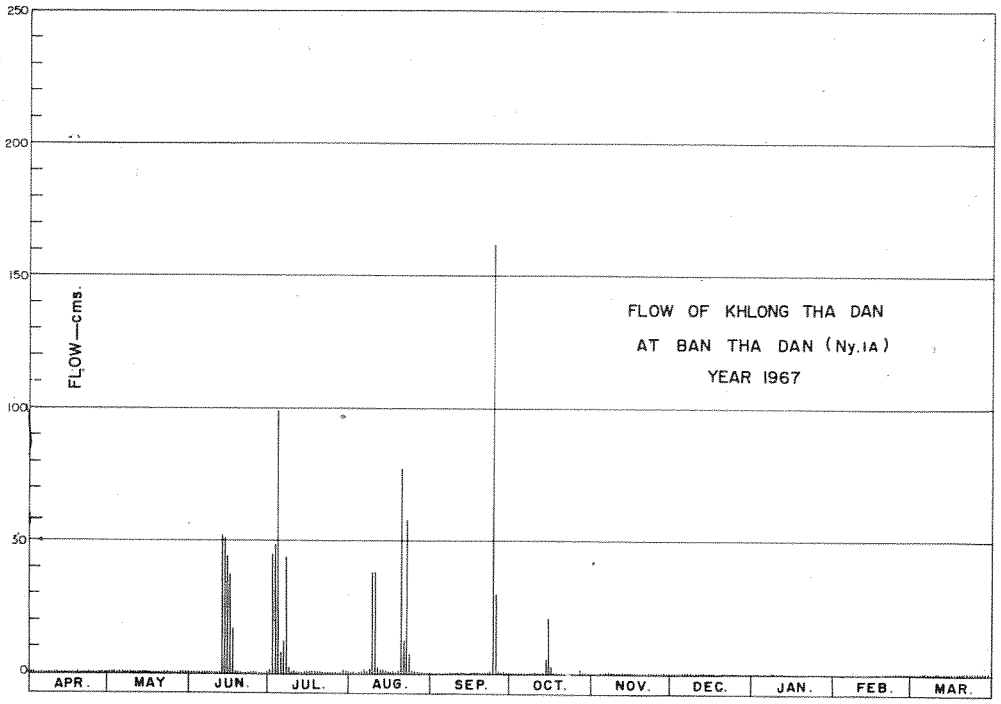
Remarks: No records for periods Apr. 1 – 30 and no flow for periods of discharge record are omitted.

GAGE HEIGHT IN METER (A.D.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1		0.58	0.62	0.86	0.54	0.39	0.48	0.52	0.44	0.35	0.14	0.56
2		.56	.54	2.18	.87	.37	.40	.47	.41	.35	.14	.55
3		.51	.44	.24	.44	.37	.58	.41	.56	.34	.13	.55
4		.44	.48	.80	.78	.31	.51	.37	.52	.33	.13	.54
5		.50	.52	0.87	.78	.28	.43	.31	.50	.32	.12	.53
6		0.48	0.49	0.57	0.94	0.27	0.43	0.27	0.67	0.31	0.12	0.53
7		.48	.48	2.17	.84	.34	.35	.27	.66	.30	.11	.52
8		.43	.44	0.75	.94	.36	.44	.23	.65	.29	.40	.52
9		.47	.55	.75	2.08	.58	.58	.19	.65	.28	.40	.51
10		.40	.58	.86	.08	.56	.58	.19	.63	.27	.39	.51
11		0.48	0.48	0.65	0.92	0.52	0.38	0.38	0.63	0.27	0.39	0.50
12		.56	.40	.45	.92	.48	.30	.74	.61	.26	.38	.49
13		.68	2.28	.47	.92	.47	.48	.73	.60	.25	.38	.49
14		.60	.26	.56	.81	.40	1.07	.72	.58	.24	.37	.48
15		.58	.12	.87	.73	.38	.77	.71	.56	.23	.37	.48
16		0.75	2.03	0.87	0.73	0.42	0.67	0.68	0.54	0.23	0.36	0.47
17		.58	0.78	.85	.84	.42	.60	.67	.52	.22	.36	.47
18		.48	.70	.74	.57	.38	.53	.64	.50	.22	.35	.46
19		.58	.61	.71	.94	.42	.47	.61	.58	.22	.35	.46
20		.68	.51	.59	2.58	.56	.40	.58	.56	.21	.40	.45
21		0.69	0.41	0.56	0.94	0.49	0.34	0.57	0.54	0.21	0.60	0.45
22		.58	.34	.58	2.36	.58	.28	.54	.52	.20	.59	.44
23		.62	.26	.64	0.84	.46	.22	.51	.50	.20	.58	.44
24		.49	.26	.62	.85	3.24	.22	.50	.48	.19	.60	.43
25		.83	.19	.54	.85	0.88	.14	.48	.47	.18	.59	.43
26		0.08	0.28	0.58	0.68	0.88	0.09	0.46	0.45	0.17	0.59	0.42
27		.76	.28	.58	.58	.80	.94	.43	.43	.16	.58	.42
28		.86	.21	.72	.49	.73	.84	.49	.40	.15	.57	.41
29		.86	.14	.94	.39	.65	.75	.46	.39	.15	.56	.41
30		.77	.14	.84	.38	.55	.67	.43	.37	.14		.40
31		.71		.65	.42		.60		.35	.14		.40
Mean		0.58	0.66	0.90	0.94	0.58	0.53	0.48	0.52	0.24	0.38	0.47
Max.		0.86	2.28	2.80	2.58	3.24	1.77	0.74	0.67	0.35	0.60	0.56
Min.		0.08	0.14	0.54	0.38	0.27	0.09	0.19	0.35	0.14	0.11	0.40

WATER YEAR 1967 : Max. 3.24 m. Min. m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1		0.17	0.22	0.80	0.13	0.00	0.07	0.11	0.03			0.15
2		0.15	0.13	45	0.84	0.00	0.00	0.06	0.00			0.14
3		0.10	0.03	49	0.03	0.00	0.17	0.00	0.15			0.14
4		0.03	0.07	99	0.54	0.00	0.10	0.00	0.11			0.13
5		0.09	0.11	0.84	0.54	0.00	0.02	0.00	0.09			0.12
6		0.07	0.08	0.16	1.18	0.00	0.02	0.00	0.32			0.12
7		0.07	0.07	44	0.72	0.00	0.00	0.00	0.30			0.11
8		0.02	0.03	0.48	1.18	0.00	0.03	0.00	0.28			0.11
9		0.06	0.14	0.48	38	0.17	0.17	0.00	0.28			0.10
10		0.00	0.17	0.80	38	0.15	0.17	0.00	0.24			0.10
11		0.07	0.07	0.28	1.06	0.11	0.00	0.00	0.24			0.09
12		0.15	0.00	0.04	1.06	0.07	0.00	0.46	0.20			0.08
13		0.34	52	0.06	1.06	0.06	0.07	0.44	0.19			0.08
14		0.19	51	0.15	0.60	0.00	2.32	0.42	0.17			0.07
15		0.17	41	0.84	0.44	0.00	21	0.40	0.15			0.07
16		0.48	35	0.84	0.44	0.01	0.32	0.34	0.13			0.06
17		0.17	0.54	0.76	0.72	0.01	0.19	0.32	0.11			0.06
18		0.07	0.38	0.46	0.16	0.00	0.12	0.26	0.10			0.05
19		0.17	0.20	0.40	1.18	0.01	0.06	0.20	0.17			0.05
20		0.34	0.10	0.18	77	0.15	0.00	0.17	0.15			0.04
21		0.36	0.00	0.15	1.18	0.08	0.00	0.16	0.13		0.19	0.04
22		0.17	0.00	0.17	58	0.17	0.00	0.13	0.11		0.18	0.03
23		0.22	0.00	0.26	0.72	0.05	0.00	0.10	0.09		0.17	0.03
24		0.08	0.00	0.22	0.76	162	0.00	0.09	0.07		0.19	0.02
25		0.68	0.00	0.13	0.76	0.88	0.00	0.07	0.06		0.18	0.02
26		0.00	0.00	0.17	0.34	0.88	0.00	0.05	0.04		0.18	0.01
27		0.50	0.00	0.17	0.17	0.58	1.18	0.02	0.02		0.17	0.01
28		0.80	0.00	0.42	0.08	0.44	0.72	0.08	0.00		0.16	0.00
29		0.80	0.00	1.18	0.00	0.28	0.48	0.05	0.00		0.15	0.00
30		0.52	0.00	0.72	0.00	0.14	0.32	0.02	0.00		–	0.00
31		0.40	–	0.28	0.01	–	0.19	–	0.00		–	0.00
Total	0.00	7.44	181.34	248.44	226.90	166.24	27.72	3.95	3.93	0.00	1.57	2.03
Mean	0.00	0.240	6.04	8.01	7.32	5.54	0.894	0.132	0.127	0.00	0.054	0.065
Max.	0.00	0.80	52	99	77	162	21	0.46	0.32	0.00	0.19	0.15
Min.	0.00	0.00	0.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Runoff - mcm.	0.00	0.643	15.668	21.465	19.604	14.363	2.395	0.341	0.339	0.00	0.136	0.175

WATER YEAR 1967 : Max. 162 Min. 0.00 Mean 2.37 Annual Runoff 75.130 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sept.24	09.00	3.36	187				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
NAKHON NAYOK RIVER BASIN

Khlong Madua at Wang Ta Khrai Bridge, Nakhon Nayok (Ny.2)

Location: Lat 14°- 19' - 10" N, Long 101°- 18' - 34" E, on right bank at Wang Ta Khrai Bridge, Amphoe Muang, Nakhon Nayok.

Drainage Area: 150 sq.km.

Type of Gage: Slope gage and vertical staff gage.

Zero Gage at Bottom at: 0.00 m. (A.D.)

Bench Mark: B.M. - H.S.

Location: About 10 meters downstream from slope gage site.
Elevation: +3.065 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: 1967 - 68

Rating Operation:

Period of Rating: 1967 - 68
Rated by Float: -
Rated by Current Meter: 1967 - 68

Stability of Channel Regimes: Stable, no shifting adjustment but mean hourly discharge is included for flow computation.

Overbank Flow Conditions: No overbank flow.

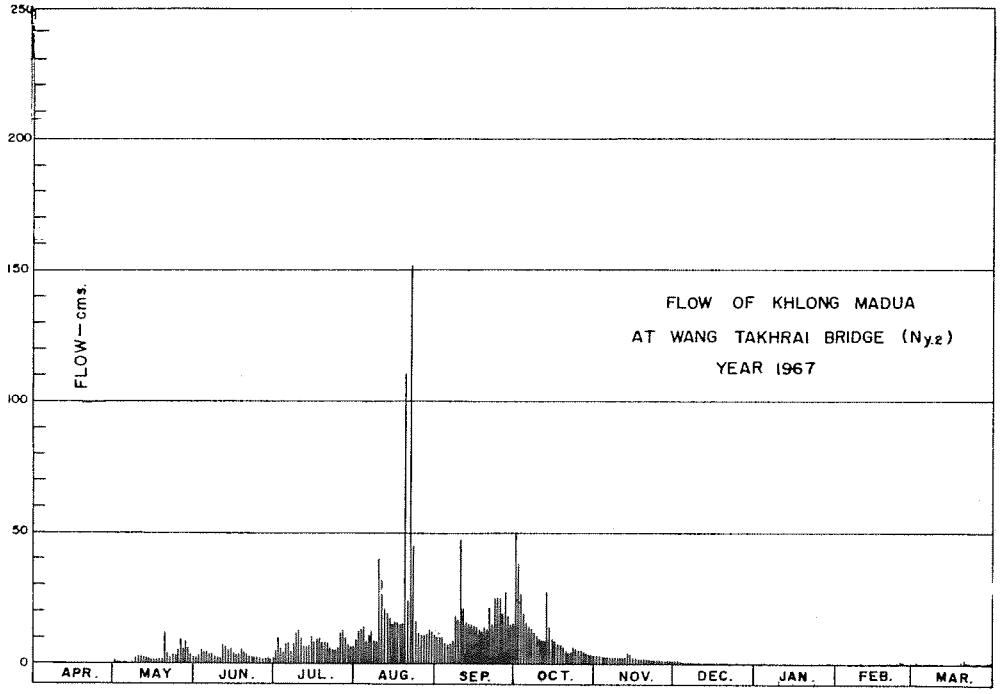
General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions except those built by local residents. No adjustment made for virgin flow.

Remarks: No record for period Apr. 1 - 30, 1967.

GAGE HEIGHT IN METER (A.D.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1		0.27	0.40	0.49	0.78	0.94	1.55	0.75	0.61	0.46	0.42	0.46
2		.26	.48	.80	.88	.97	.41	.75	.61	.47	.42	.45
3		.25	.58	.60	.87	.96	.28	.74	.59	.46	.41	.43
4		.24	.49	.50	.90	.91	.16	.73	.58	.45	.41	.43
5		.24	.57	.69	.72	.90	.10	.72	.58	.45	.41	.42
6		0.24	0.50	0.72	0.84	0.90	1.06	0.71	0.57	0.45	0.41	0.42
7		.25	.50	.57	.85	.97	.04	.70	.56	.46	.41	.42
8		.27	.43	.72	.75	1.14	.01	.70	.56	.46	.41	.42
9		.40	.41	.85	.75	.01	0.98	.70	.55	.44	.41	.42
10		.41	.40	.88	1.35	.52	.94	.70	.55	.44	.45	.42
11		0.40	0.68	0.76	1.11	1.15	0.94	0.69	0.54	0.44	0.44	0.42
12		.39	.65	.66	.04	.11	.93	.70	.54	.44	.42	.42
13		.34	.58	.63	.02	.10	1.29	.82	.54	.44	.42	.42
14		.34	.62	.70	0.96	.08	.00	.76	.54	.43	.41	.43
15		.30	.51	.83	.93	.06	0.94	.70	.52	.43	.41	.42
16		0.32	0.46	0.73	0.94	1.07	0.92	0.70	0.52	0.43	0.41	0.42
17		.31	.48	.77	.94	.03	.90	.68	.51	.43	.41	.42
18		.37	.60	.77	.93	.01	.89	.67	.51	.43	.41	.42
19		.44	.53	.70	.90	.06	.86	.67	.51	.43	.41	.42
20		.84	.47	.73	2.10	.03	.84	.66	.51	.43	.42	.68
21		0.56	0.43	0.66	1.04	1.19	0.82	0.65	0.51	0.43	0.50	0.48
22		.44	.41	.60	2.26	.07	.82	.64	.50	.43	.45	.44
23		.46	~~.39~~	.60	~~1.00~~	.26	.88	.64	.50	.43	.43	.42
24		.50	.41	.59	.04	.25	.83	.64	.49	.42	.54	.42
25		.61	.39	.62	.02	.25	.84	.63	.49	.42	.61	.42
26		0.78	0.36	0.84	1.00	1.15	0.84	0.62	0.49	0.42	0.49	0.42
27		.57	.37	.87	.00	.28	.83	.61	.49	.43	.45	.42
28		.73	.41	.73	.00	.15	.80	.61	.49	.44	.44	.42
29		.56	.36	.68	.05	.09	.79	.69	.48	.43	.43	.42
30		.48	.45	.63	.01	.05	.78	.63	.48	.42		.42
31		.44		.65	0.97		.76		.48	.42		.42
Mean		0.42	0.48	0.69	1.03	1.12	0.97	0.69	0.53	0.43	0.44	0.43
Max.		0.84	0.68	0.87	2.26	1.28	1.55	0.82	0.61	0.47	0.54	0.68
Min.		0.24	0.36	0.49	0.72	0.90	0.76	0.61	0.48	0.42	0.41	0.42

WATER YEAR 1967 : Max. 2.26 m. Min. 0.24 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1		1.06	2.30	3.38	9.50	9.10	50	3.20	1.12	0.32	0.24	0.32
2		0.98	3.26	10	13	10	36	3.20	1.12	0.34	0.24	0.30
3		0.90	5.10	5.50	13	10	27	3.00	0.94	0.32	0.22	0.26
4		0.82	3.38	3.50	14	7.90	19	2.80	0.88	0.30	0.22	0.26
5		0.82	4.90	7.30	8.00	7.50	15	2.60	0.88	0.30	0.22	0.24
6		0.82	3.50	8.00	12	7.50	14	2.40	0.82	0.30	0.22	0.24
7		0.90	3.50	4.90	12	10	13	2.20	0.76	0.32	0.22	0.24
8		1.06	2.66	8.00	8.75	18	12	2.20	0.76	0.32	0.22	0.24
9		2.30	2.42	12	8.75	12	11	2.20	0.70	0.28	0.22	0.24
10		2.42	2.30	13	40	47	9.10	2.20	0.70	0.28	0.30	0.24
11		2.30	7.10	9.00	24	18	9.10	2.08	0.64	0.28	0.28	0.24
12		2.20	6.50	6.70	20	16	8.70	2.20	0.64	0.28	0.24	0.24
13		1.70	5.10	6.10	19	15	27	4.86	0.64	0.28	0.24	0.24
14		1.70	5.90	7.50	17	15	11	3.40	0.64	0.26	0.22	0.26
15		1.30	3.70	11	15	14	9.10	2.20	0.52	0.26	0.22	0.24
16		1.50	3.02	8.25	16	14	8.30	2.20	0.52	0.26	0.22	0.24
17		1.40	3.26	9.25	16	13	7.50	1.96	0.46	0.26	0.22	0.24
18		2.00	5.50	9.25	15	12	7.17	1.84	0.46	0.26	0.22	0.24
19		2.78	4.10	7.50	16	14	6.18	1.84	0.46	0.26	0.22	0.24
20		12	3.14	8.25	110	13	5.52	1.72	0.46	0.26	0.24	1.96
21		4.70	2.66	6.70	20	21	4.86	1.60	0.46	0.26	0.40	0.36
22		2.78	2.42	5.50	151	14	4.86	1.48	0.40	0.26	0.30	0.28
23		3.02	2.20	5.50	22	25	6.84	1.48	0.40	0.26	0.26	0.24
24		3.50	2.42	5.30	13	25	5.19	1.48	0.38	0.24	0.64	0.24
25		5.70	2.20	5.90	12	25	5.54	1.36	0.38	0.24	1.12	0.24
26		9.50	1.90	12	11	18	5.54	1.24	0.38	0.24	0.38	0.24
27		4.90	2.00	13	11	27	5.19	1.12	0.38	0.26	0.30	0.24
28		8.25	2.42	8.25	11	18	4.20	1.12	0.38	0.28	0.28	0.24
29		4.70	1.90	7.10	13	15	4.00	2.08	0.36	0.26	0.26	0.24
30		3.26	2.90	6.10	12	13	3.80	1.36	0.36	0.24	–	0.24
31		2.78	–	6.50	10	–	3.40	–	0.32	0.24	–	0.24
Total		94.05	103.66	240.23	693.00	484.00	359.09	64.62	18.32	8.52	8.58	9.52
Mean		3.03	3.45	7.75	22.3	16.1	11.6	2.15	0.59	0.27	0.29	0.31
Max.		12	7.10	13	151	27	50	4.86	1.12	0.34	1.12	1.96
Min.		0.82	1.90	3.38	8.00	7.50	3.40	1.12	0.32	0.24	0.22	0.24
Runoff – MCM.		8.126	8.956	20.756	59.875	41.817	31.025	5.583	1.583	0.736	0.741	0.822

WATER YEAR 1967 : Max. 151 Min. 0.22 Mean Annual Runoff mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Aug.20	6.00	3.00	410				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
PRACHIN RIVER BASIN

Prachin River at Amphoe Muang, Prachin Buri (Kgt.1)

Location: Lat 14°- 03' - 01" N, Long 101°- 22' - 03" E, on left bank behind Meteorological Station at Muang, Prachin Buri.

Drainage Area: 9,209 sq.km.

Type of Gage: Water - stage recorder.

Zero Gage at Bottom at: - 1.305 m. (M.S.L.)

Bench Mark: B.M. - R.I.D.

Location: In fence of Meteorological station.
Elevation: +4.115 m. (M.S.L.)

Gage Reading Frequency: Recording.

Basis of Mean Daily Gage Height: Arithmetic mean of 24 readings.

Period of Available Gage Records: 1926 to date

Rating Operation:

Period of Rating: 1967
Rated by Float: -
Rated by Current Meter: 1967

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

Overbank Flow Conditions: No overbank flow.

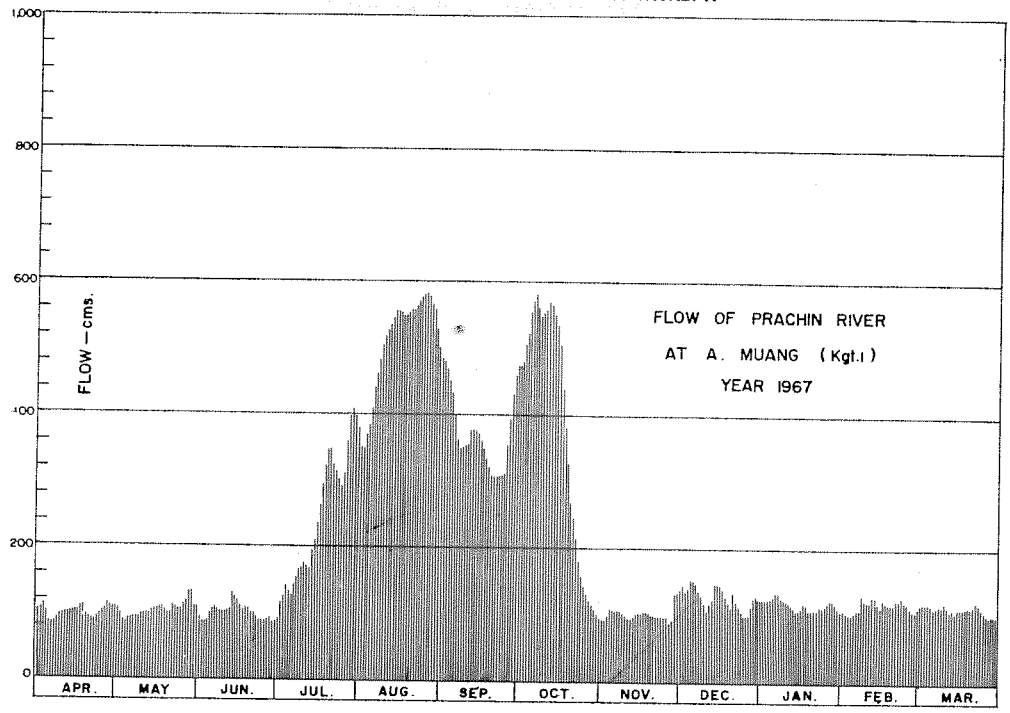
General Description: Records fair except those for periods of tidal effect which are poor. Stage - discharge relationship used is defined by discharge measurements made during 1967. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.04	0.10	- 0.07	- 0.13	2.12	3.30	3.26	0.73	0.47	0.27	0.12	0.24
2	.05	.01	- 0.16	0.19	.11	.28	.29	.76	.51	.30	.08	.24
3	.15	- 0.13	- 0.17	.29	.20	.25	.38	.72	.37	.30	.05	.24
4	.02	- 0.20	- 0.18	.48	.30	.17	.47	1.23	.47	.30	.03	.22
5	- 0.02	- 0.17	0.00	.39	.44	.10	.53	1.14	.60	.36	.08	.22
6	- 0.21	- 0.14	0.07	0.30	2.64	2.95	3.58	1.10	0.58	0.41	0.13	0.15
7	- 0.19	- 0.06	.12	.46	.83	.82	.60	.11	.51	.40	.15	.18
8	- 0.11	- 0.06	.08	.58	.95	.78	.54	.13	.43	.32	.36	.21
9	- 0.04	- 0.08	.05	.70	3.12	.79	.55	.06	.36	.30	.28	.19
10	- 0.03	- 0.03	.03	.75	.21	.81	.56	0.94	.22	.28	.27	.26
11	- 0.03	0.00	0.05	0.80	3.20	2.82	3.57	0.86	0.08	0.27	0.27	0.19
12	0.01	0.01	.08	.71	.33	.90	.58	.79	.22	.21	.34	.08
13	.03	- 0.01	.15	.65	.39	.91	.57	.88	.29	.18	.34	.14
14	.01	0.05	.34	.98	.45	.90	.54	1.03	.55	.10	.23	.06
15	.06	.09	.29	1.15	.47	.87	.52	.07	.53	.10	.18	.14
16	0.05	0.09	0.20	1.34	3.46	2.83	3.45	1.02	0.51	0.17	0.30	0.13
17	.12	.11	.09	1.55	.42	.76	.32	.10	.44	.25	.26	.16
18	.12	.12	.07	1.73	.42	.68	.16	.10	.34	.21	.23	.19
19	- 0.05	.06	.12	1.94	.45	.63	2.99	.03	.25	.10	.20	.20
20	- 0.07	- 0.01	.08	2.11	.47	.58	.77	0.96	.14	.10	.21	.18
21	- 0.11	0.01	- 0.02	2.10	3.47	2.57	2.59	0.93	0.40	0.13	0.29	0.18
22	- 0.15	.15	0.01	2.04	.50	.58	.35	.95	.24	.11	.28	.27
23	- 0.08	.13	- 0.07	1.80	.53	.58	.09	.94	.18	.20	.34	.25
24	- 0.05	.09	- 0.14	1.76	.57	.59	1.85	.92	.08	.15	.31	.17
25	0.03	.07	- 0.11	1.70	.59	.62	.75	.94	.00	.17	.25	.06
26	0.06	0.16	- 0.19	1.85	3.60	2.82	1.58	0.92	0.02	0.24	0.18	0.03
27	.20	.22	- 0.10	2.16	.59	.95	.42	.44	.01	.29	.14	.00
28	.16	.39	- 0.09	2.44	.56	3.09	.28	.20	.19	.28	.10	.04
29	.10	.37	- 0.19	2.52	.52	.20	.15	.37	.33	.19	.16	.03
30	.13	.13	- 0.16	2.48	.40	.26	0.92	.44	.34	.15		.01
31		.14		2.36	.33		.74		.29	.08		.03
Mean	0.00	0.05	0.06	1.30	3.18	2.88	2.77	0.96	0.32	0.22	0.22	0.15
Max.	0.16	0.39	0.34	2.52	3.60	3.30	3.60	1.23	0.60	0.41	0.36	0.27
Min.	- 0.23	- 0.20	- 0.19	- 0.13	2.11	2.57	0.74	0.20	0.00	0.08	0.03	0.00

WATER YEAR 1967 : Max. 3.60 m. Min. - 0.23 m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	103	108	94	90	350	486	474	95	142	122	110	120
2	104	101	88	115	348	480	483	95	146	125	106	120
3	112	90	87	124	362	471	511	94	132	125	104	120
4	102	85	86	143	377	449	540	111	142	125	102	118
5	83	87	100	134	398	429	560	109	155	131	106	118
6	84	89	106	125	428	389	576	106	153	136	110	112
7	86	95	110	141	456	358	583	106	146	135	112	114
8	91	95	106	153	474	349	543	107	138	127	131	117
9	97	94	104	166	501	351	550	104	131	125	123	115
10	98	98	102	171	516	355	557	100	118	123	122	121
11	98	100	104	177	527	358	563	97	106	122	122	115
12	101	101	106	167	535	377	570	96	118	117	129	106
13	102	99	112	160	544	379	563	98	124	114	129	111
14	101	104	129	199	554	377	543	103	150	108	119	105
15	105	107	124	213	558	370	530	105	148	108	114	111
16	104	107	116	243	556	360	494	103	146	114	125	110
17	110	109	107	270	549	345	438	106	139	120	121	113
18	110	110	106	294	549	328	379	106	129	117	118	115
19	96	105	110	324	554	318	324	105	120	108	116	116
20	94	99	106	348	558	309	270	101	111	108	117	114
21	91	101	98	347	558	307	237	100	135	110	124	114
22	88	112	101	338	563	309	203	100	120	109	123	122
23	94	110	94	315	569	309	173	100	114	116	129	120
24	96	107	89	298	577	310	151	100	106	112	121	114
25	102	106	91	290	581	316	143	100	100	114	120	105
26	105	113	86	311	583	358	131	100	102	120	114	102
27	116	118	92	356	580	389	121	89	101	124	111	100
28	113	134	93	398	567	426	114	87	115	123	108	103
29	108	132	86	410	557	457	108	132	128	115	113	102
30	110	110	88	404	517	474	100	139	129	112	–	101
31	–	111	–	386	495	–	95	–	124	106	–	102
Total	3,4004	3,237	3,021	7,610	15,841	11,293	11,627	3,092	3,968	3,671	3,399	3,476
Mean	100	104	101	245	511	376	375	103	128	118	117	112
Max.	116	134	129	410	583	486	583	111	155	136	131	122
Min.	83	85	86	90	348	307	95	87	100	106	102	100
Runoff – mcm.	259.546	279.677	261.014	657.504	1,368.662	975.715	1,004.573	267.149	342.835	317.174	293.674	300.326

WATER YEAR 1967 : Max. 583 Min. 83 Mean 200 Annual Runoff 6,327.850 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Aug.26	01.00	3.60	583				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
PRACHIN RIVER BASIN

Prachin River at Kabin Buri, Prachin Buri (Kgt.3)

Location: Lat 13°- 59' - 05" N, Long 101°- 42' - 32" E, on left bank infront of Kabin Buri Office and about 500 meters downstream from confluence of Lam Phra Prom and Lam Hanuman, Amphoe Kabin Buri, Prachin Buri.

Drainage Area: 7,502 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: - 0.490 m. (M.S.L.)

Bench Mark: B.M. - H.S./R.I.D.

Location: At fence of Amphoe Kabin Office
Elevation: +10.1786 m. (M.S.L.)

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: 1941 to date

Rating Operation:

Period of Rating: 1941, 1943 - 44, 1949 and 1964 to date
Rated by Float: 1941, 1943 - 44 and 1949
Rated by Current Meter: 1964 to date

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

Overbank Flow Conditions: No overbank flow.

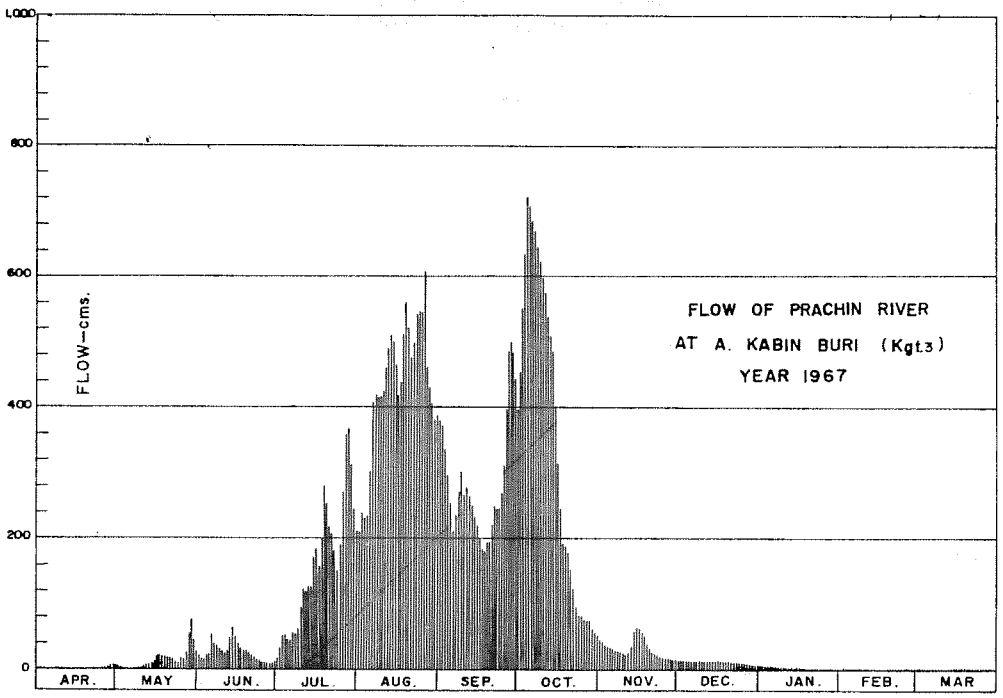
General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions for irrigation except those built by local residents. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.15	0.70	1.57	1.43	5.26	7.29	7.40	2.32	1.32	0.79	0.44	0.40
2	.15	.63	.37	.81	.72	.21	8.65	.22	.28	.77	.43	.38
3	.14	.52	.25	2.47	.61	6.74	9.49	.13	.27	.74	.42	.37
4	.13	.45	.53	.56	.62	.18	10.14	.03	.25	.71	.41	.37
5	.13	.41	.63	.32	6.23	5.72	.07	1.95	.22	.68	.40	.36
6	0.13	0.42	2.53	2.35	7.44	5.21	9.86	1.88	1.23	0.66	0.38	0.35
7	.14	.37	.12	.64	.64	.66	.71	.82	.20	.65	.38	.34
8	.13	.51	.09	.55	.61	6.13	.55	.76	.19	.63	.37	.33
9	.12	.48	1.90	.62	.61	.49	.36	.70	.18	.62	.37	.32
10	.11	.57	.77	3.35	.65	5.97	.13	.66	.18	.61	.39	.31
11	0.12	0.71	1.68	3.92	7.97	6.22	8.89	1.64	1.22	0.57	0.42	0.31
12	.12	.85	.85	.91	8.22	.07	.65	.68	.20	.55	.38	.30
13	.11	.97	2.54	4.03	.49	5.92	.40	2.00	.19	.54	.37	.29
14	.11	.92	.85	.02	.38	.70	.23	.67	.18	.53	.37	.29
15	.10	1.24	.42	.99	.07	.52	7.54	.83	.22	.51	.36	.29
16	0.10	1.55	2.21	4.95	7.57	5.29	6.49	2.71	1.20	0.51	0.35	0.28
17	.11	.55	1.93	.36	.87	4.98	5.58	.65	.18	.50	.34	.28
18	.14	.55	.82	5.25	8.61	.86	.07	.47	.17	.49	.34	.29
19	.16	.47	.91	6.20	.75	5.11	.02	.10	.14	.48	.33	.29
20	.17	.43	.70	5.81	.42	.07	4.84	1.87	.11	.47	.32	.29
21	0.20	1.41	1.57	5.34	8.14	5.54	4.24	1.73	1.08	0.47	0.31	0.30
22	.23	.33	.50	.22	.31	.84	3.76	.64	.07	.46	.32	.35
23	.28	.12	.35	4.72	.75	.78	.42	.58	.05	.46	.31	.41
24	.42	.07	.23	.32	.79	.83	.19	.51	.02	.45	.35	.48
25	.50	.44	.10	.98	.64	6.33	.21	.45	0.99	.46	.41	.48
26	0.51	1.33	1.02	5.67	9.26	7.05	3.05	1.40	0.97	0.46	0.43	0.46
27	.52	.45	0.97	7.06	7.83	8.22	.02	.36	.94	.45	.46	.42
28	.80	2.47	1.03	.13	.78	.38	.06	.35	.91	.44	.46	.38
29	.91	3.09	.07	6.40	.49	.18	2.83	.33	.89	.44	.43	.34
30	.83	2.40	.09	5.91	.26	7.75	.58	.35	.85	.44		.30
31		1.88		.34	.39		.44		.81	.45		.27
Mean	0.26	1.17	1.69	4.31	7.69	6.21	6.35	1.89	1.12	0.55	0.38	0.34
Max.	0.91	3.09	2.85	7.13	9.26	8.38	10.14	2.83	1.32	0.79	0.46	0.48
Min.	0.10	0.37	0.97	1.43	5.26	4.86	2.44	1.33	0.81	0.44	0.31	0.27

WATER YEAR 1967 : Max. 10.14 m. Min. 0.10 m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.35	5.00	22	18	205	380	391	45	16	6.17	2.30	1.90
2	0.35	4.23	17	28	240	372	530	41	15	5.91	2.20	1.72
3	0.32	3.10	14	51	231	326	634	38	14	5.52	2.10	1.63
4	0.29	2.40	21	54	232	277	722	35	14	5.13	2.00	1.63
5	0.29	2.00	23	45	281	240	712	32	13	4.78	1.90	1.54
6	0.29	2.10	53	46	396	202	683	30	14	4.56	1.72	1.45
7	0.32	1.63	38	57	417	235	663	29	13	4.45	1.72	1.36
8	0.29	3.00	37	54	414	273	642	27	13	4.23	1.63	1.27
9	0.26	2.70	31	57	414	304	617	25	13	4.12	1.63	1.18
10	0.23	3.60	27	90	418	260	588	24	13	4.01	1.81	1.09
11	0.26	5.13	24	120	453	280	559	23	13	3.60	2.10	1.09
12	0.26	7.05	29	119	481	268	530	24	13	3.40	1.72	1.00
13	0.23	8.92	53	126	512	256	502	34	13	3.30	1.63	0.95
14	0.23	8.12	66	126	499	238	482	59	13	3.20	1.63	0.95
15	0.20	14	49	186	464	224	406	65	13	3.00	1.54	0.95
16	0.20	21	41	184	409	207	304	60	13	3.00	1.45	0.90
17	0.23	21	32	146	442	186	229	58	13	2.90	1.36	0.90
18	0.32	21	29	204	526	178	192	51	12	2.80	1.36	0.95
19	0.38	19	31	279	542	195	188	37	12	2.70	1.27	0.95
20	0.41	18	25	247	504	192	176	30	11	2.60	1.18	0.95
21	0.50	18	22	211	472	226	139	26	11	2.60	1.09	1.00
22	0.65	16	20	202	491	249	111	23	10	2.50	1.18	1.45
23	0.90	11	16	169	542	244	93	22	10	2.50	1.09	2.00
24	2.10	10	14	143	547	248	82	20	9.74	2.40	1.45	2.70
25	2.90	18	11	186	529	290	83	19	9.24	2.50	2.00	2.70
26	3.00	16	9.74	236	604	356	75	17	8.92	2.50	2.20	2.50
27	3.10	19	8.92	357	437	481	74	16	8.44	2.40	2.50	2.10
28	6.30	51	9.91	364	432	499	76	16	7.96	2.30	2.50	1.72
29	7.96	77	10	296	401	476	65	16	7.65	2.30	2.20	1.36
30	6.75	48	11	255	377	429	55	16	7.05	2.30		1.00
31		30		211	390		50		6.45	2.40		0.85
Total	39.87	486.98	794.57	4,867	13,302	8,591	10,653	958	360.45	106.08	50.46	43.74
Mean	1.33	15.7	26.5	157	492	286	344	31.9	11.6	3.42	1.74	141
Max.	7.96	77	66	364	604	499	722	65	16	6.17	2.50	2.70
Min.	0.20	1.63	8.92	18	205	178	50	16	6.45	2.30	1.09	0.85
Runoff - mcm.	3.445	42.075	68.651	420.509	1,149.293	742.262	920.419	82.771	31.143	9.165	4.360	3.779

WATER YEAR 1967 : Max. 722 Min. 0.22 Mean 110 Annual Runoff 3,477.872 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct.4	18.00	10.16	725				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
PRACHIN RIVER BASIN

Prachin River at Si Maha Phot, Prachin Buri (Kgt.6)

Location: Lat 13°- 58' - 21" N, Long 101°- 30' - 57" E, on left bank opposite to Wat Tha Prathum, Amphoe Si Maha Phot, Prachin Buri.

Drainage Area: 7,978 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: 0.00 m. (A.D.)

Bench Mark: B.M. - H.S.

Location: Near staff gage site.
Elevation: +6.890 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: 1949, 1967 to date.

Rating Operation:

Period of Rating: 1967
Rated by Float: -
Rated by Current Meter: 1967

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

Overbank Flow Conditions: No overbank flow.

General Description: Records fair except those for periods of tidal effect which are poor. Stage - discharge relationship used is defined by discharge measurements made during 1967. No adjustment made for virgin flow.

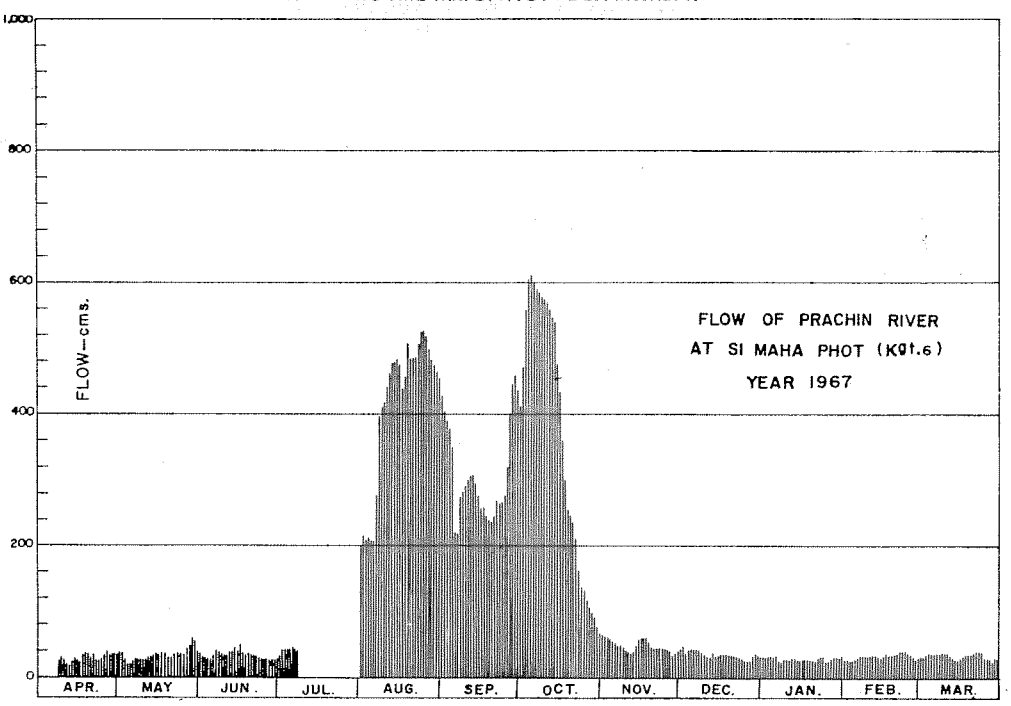
Remarks: Stream gaging began on Apr. 8, 1967 and no record for period Jul. 9 - 31.

GAGE HEIGHT IN METER (A.D.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1		2.60	2.58	2.41	5.21	7.10	7.05	3.25	2.67	2.43	2.21	2.41
2		.65	.37	.67	.42	.04	.42	.26	.82	.40	.22	.37
3		.28	.39	.79	.33	6.94	.86	.13	.56	.46	.23	.49
4		.06	.30	.73	.40	.85	.93	.09	.65	.45	.24	.57
5		.00	.29	.74	.32	.57	8.24	.04	.78	.38	.24	.53
6		2.22	2.44	2.84	5.34	5.39	8.26	2.96	2.74	2.50	2.40	2.50
7		.37	.69	.75	.88	.39	.21	.82	.69	.18	.38	.54
8	2.15	.28	.66	.67	6.95	.98	.19	.87	.69	.16	.48	.53
9	.45	.34	.60		7.09	6.05	.14	.75	.61	.22	.43	.58
10	.12	.29	.58		.12	.15	.08	.65	.48	.33	.42	.59
11	1.97	2.40	2.44		7.27	6.22	8.04	2.64	2.53	2.25	2.42	2.51
12	.97	.41	.63		.38	.29	7.98	.51	.46	.39	.53	.40
13	2.18	.46	.60		.51	.29	.91	.65	.54	.35	.50	.37
14	.42	.51	.82		.51	.13	.77	.88	.40	.25	.40	.21
15	.23	.59	.59		.54	5.95	.40	3.02	.52	.25	.32	.24
16	2.11	2.50	2.92		7.36	5.81	7.20	3.12	2.51	2.27	2.46	2.25
17	.51	.64	.60		.22	.82	6.58	.15	.52	.34	.58	.47
18	.58	.62	.51		.40	.68	.15	.14	.44	.32	.47	.44
19	.61	.56	.63		.69	.65	5.81	2.97	.41	.23	.47	.48
20	.31	.47	.55		.53	.65	.73	.77	.42	.25	.49	.44
21	2.54	2.45	2.54		7.54	5.74	5.60	2.78	2.42	2.11	2.57	2.52
22	.19	.54	.48		.55	.92	.29	.79	.41	.39	.60	.63
23	.30	.54	.34		.67	.91	4.74	.78	.36	.37	.63	.58
24	.31	.55	.35		.78	.93	.42	.75	.32	.38	.66	.63
25	.36	.50	.37		.80	.97	.39	.76	.23	.20	.59	.33
26	2.70	2.52	2.36		7.74	6.36	4.17	2.71	2.17	2.07	2.52	2.30
27	.54	.94	.27		.61	.99	3.95	.66	.22	.23	.41	.29
28	.53	.87	.23		.53	7.33	.81	.41	.42	.47	.24	.14
29	.60	3.16	.27		.48	.38	.74	.58	.54	.47	.32	.35
30	.53	2.97	.31		.35	.29	.48	.64	.56	.47		.31
31		.57			.13		.25		.46	.49		.34
Mean		2.51	2.49		6.99	6.29	6.34	2.86	2.50	2.32	2.43	2.43
Max.		3.16	2.92		7.80	7.38	8.26	3.26	2.82	2.49	2.68	2.63
Min.		2.00	2.23		5.21	5.39	3.25	2.41	2.17	2.07	2.21	2.14

WATER YEAR 1967 : Max. 8.26 m. Min. m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1		38	37	32	197	414	407	66	41	32	25	32
2		40	30	41	216	406	465	66	47	31	26	30
3		27	31	46	208	392	537	60	36	33	26	34
4		21	28	43	214	379	549	58	40	33	26	37
5		20	28	44	207	342	604	56	45	31	26	35
6		26	32	48	209	213	608	53	44	34	31	34
7		30	42	44	262	213	599	47	42	24	31	36
8	24	27	40	41	393	272	595	49	42	24	34	35
9	33	29	38		412	280	586	44	38	26	32	37
10	23	28	37		418	291	575	40	34	29	32	38
11	19	31	33		441	299	568	40	35	27	32	35
12	19	32	39		458	308	558	35	33	31	35	31
13	24	33	38		479	308	546	40	36	30	34	30
14	32	35	47		479	289	521	49	31	27	31	25
15	26	38	38		484	269	461	55	35	27	29	26
16	23	34	51		455	254	430	60	35	27	33	27
17	35	40	38		433	256	343	61	35	29	37	33
18	37	39	35		461	241	291	61	33	29	33	32
19	38	36	39		508	238	254	53	32	26	33	34
20	26	33	36		482	238	246	45	32	27	34	32
21	36	33	36		484	247	233	45	32	23	37	35
22	25	36	34		485	266	204	46	32	31	38	39
23	28	36	29		505	265	160	46	30	30	39	37
24	28	36	30		523	267	136	46	29	31	41	39
25	30	34	30		526	271	134	45	26	25	37	29
26	42	35	30		517	316	119	42	24	22	35	28
27	36	52	27		495	399	105	40	26	26	32	28
28	35	49	26		482	450	96	32	32	33	26	23
29	38	62	27		474	458	92	37	36	33	29	30
30	35	53	28		453	444	78	40	36	33		28
31		37			419		66		33	34		29
Total		1,100	1,034		12,779	9,285	11,166	1,457	1,082	898	954	998
Mean		35.5	34.5		412	309	360	48.6	34.9	28.9	32.9	32.2
Max.		62	51		526	458	608	66	47	34	41	39
Min.		20	26		197	213	66	32	24	22	25	23
Runoff - mcm.		95.040	89.337		1,104.105	802.224	964.742	125.884	93.484	77.587	82.425	86.227

WATER YEAR 1967 : Max. 608 Min. 19 Mean Annual Runoff mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 5	18.00	8.27	609				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
PRACHIN RIVER BASIN

Lam Phra Sathung at Ban Wang Khian, Prachin Buri (Kgt.10)

Location: Lat 13°- 48' - 29" N, Long 102°- 03' - 35" E, on left bank about 1 kilometer on right side of Kabin Buri - Aranyabrathet highway, 400 meters from Saha Charoen Sawmill, Amphoe Sa Kaeo, Prachin Buri.

Drainage Area: 2,523 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: +23.74 m. (M.S.L.)

Bench Mark: B.M. - H.S.

Location: On left bank near gage site.
Elevation: +34.641 m. (M.S.L.)

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: 1966 to date

Rating Operation:

Period of Rating: 1966 to date
Rated by Float: -
Rated by Current Meter: 1966 to date

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

Overbank Flow Conditions: No overbank flow.

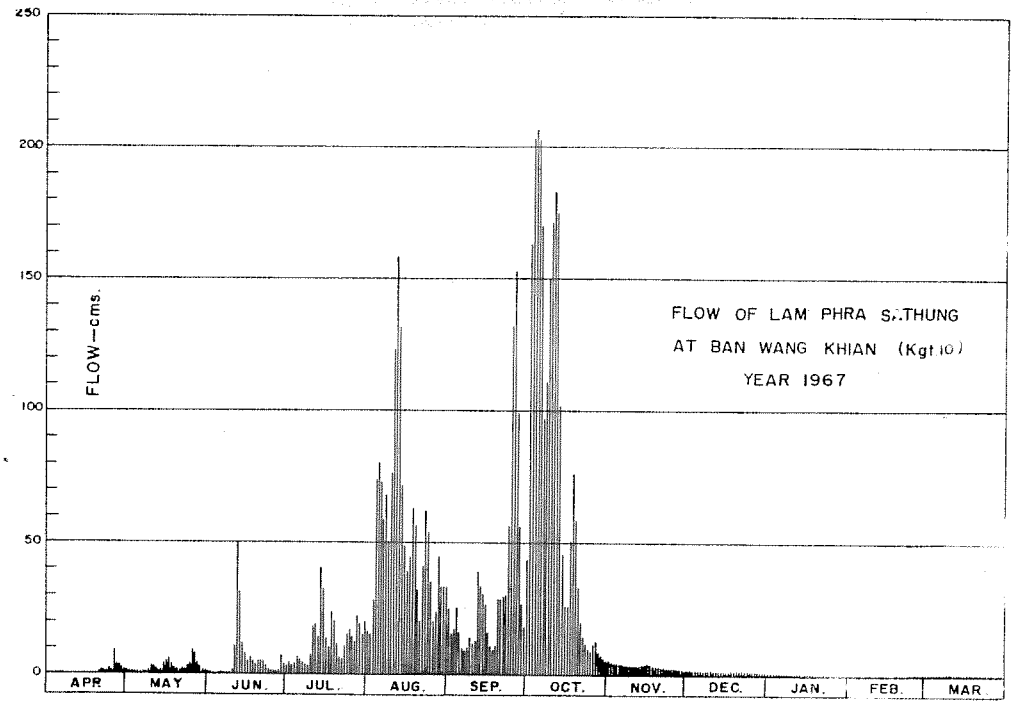
General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions except those built by local residents. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	24.64	24.91	24.84	25.35	26.59	26.87	29.45	25.79	25.20	24.93	24.78	24.70
2	.63	.86	.80	.57	.55	.44	33.90	.74	.21	.92	.78	.71
3	.62	.88	.77	.41	27.29	.74	34.68	.70	.19	.91	.78	.71
4	.61	.83	.75	.50	29.93	27.21	.80	.66	.18	.90	.77	.74
5	.61	.81	.74	.92	30.28	26.45	.65	.63	.16	.88	.77	.71
6	24.60	24.78	24.63	25.82	29.82	26.06	33.22	25.61	25.14	24.88	24.76	24.70
7	.60	.76	.63	.70	.19	25.99	30.74	.58	.13	.88	.75	.70
8	.63	.75	.63	.56	.74	26.19	32.09	.53	.14	.88	.74	.70
9	.63	.76	.77	.33	28.68	.50	33.10	.54	.15	.88	.74	.70
10	.61	25.35	.84	.90	30.28	.28	33.55	.54	.14	.88	.74	.70
11	24.61	25.35	26.23	26.78	32.03	26.49	33.72	25.51	25.13	24.86	24.72	24.68
12	.61	.04	28.75	.84	33.11	28.15	33.26	.59	.14	.86	.71	.68
13	.61	24.92	26.48	.16	32.25	27.75	30.09	.55	.12	.85	.70	.68
14	.60	.97	.37	28.17	29.35	.72	27.96	.57	.11	.85	.70	.68
15	.61	25.59	.03	27.39	28.39	.16	27.30	.59	.11	.84	.70	.67
16	24.65	25.65	25.65	26.21	28.24	26.60	27.26	25.76	25.07	24.84	24.70	24.67
17	.64	.83	.97	25.93	.59	.18	28.36	.59	.06	.84	.69	.74
18	.67	.46	.79	27.36	29.51	.02	29.92	.49	.07	.84	.70	.79
19	.69	.18	.69	.18	.12	.39	.02	.43	.06	.74	.71	.82
20	.76	.05	.81	26.32	27.46	27.63	27.34	.41	.05	.82	.79	.76
21	25.00	25.06	25.66	25.97	26.96	27.55	26.71	25.38	25.04	24.81	24.73	24.72
22	24.91	.18	.63	.79	28.52	.69	.44	.34	.02	.81	.70	.72
23	.86	.08	.23	26.42	29.46	.52	.27	.31	.00	.80	.70	.76
24	25.14	.37	.13	.77	28.99	29.03	.17	.30	24.98	.80	.74	.72
25	24.94	.56	.00	.93	27.58	32.00	.10	.28	.98	.80	.74	.72
26	26.17	26.17	24.91	26.69	26.73	33.16	26.42	25.28	24.97	24.80	24.72	24.70
27	25.39	25.98	.86	.56	27.11	31.73	.67	.25	.97	.78	.71	.68
28	.43	.50	.91	27.09	28.37	28.67	.17	.24	.95	.78	.71	.68
29	.21	.13	25.97	26.79	27.65	27.48	.03	.23	.94	.78	.71	.68
30	.08	24.97	.49	.43	.70	26.97	25.92	.21	.94	.77		.76
31		.89		.95	.73		.83		.93	.78		.72
Mean	24.82	25.18	25.44	26.35	28.81	27.55	29.46	25.49	25.07	24.84	24.73	24.71
Max.	26.17	26.17	28.75	28.17	33.11	33.16	34.80	25.79	25.21	24.93	24.79	24.82
Min.	24.60	24.75	24.63	25.33	26.55	26.02	25.83	25.21	24.93	24.77	24.69	24.67

WATER YEAR 1967 : Max. 34.80 m. Min. 24.60 m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.30	1.14	0.90	3.05	15	20	66	5.01	1.89	0.87	0.48	0.18
2	0.27	0.97	0.78	4.34	15	14	173	4.67	1.93	0.84	0.48	0.21
3	0.24	1.04	0.69	3.38	25	18	203	4.41	1.85	0.81	0.48	0.21
4	0.21	0.87	0.63	3.91	75	25	207	4.15	1.81	0.78	0.45	0.30
5	0.21	0.81	0.60	6.98	80	14	202	3.57	1.73	0.72	0.45	0.21
6	0.18	0.72	0.57	5.66	69	9.80	155	3.67	1.65	0.72	0.42	0.18
7	0.18	0.66	0.57	4.80	56	9.10	88	3.49	1.61	0.72	0.39	0.18
8	0.27	0.63	0.57	3.91	68	10	124	3.22	1.65	0.72	0.36	0.18
9	0.27	0.66	0.69	2.90	46	14	156	3.27	1.65	0.72	0.36	0.18
10	0.21	3.05	0.90	7.15	80	11	174	3.27	1.65	0.72	0.36	0.18
11	0.21	3.05	10	18	126	13	188	3.11	1.61	0.66	0.30	0.12
12	0.21	1.65	50	19	158	39	168	3.55	1.65	0.66	0.27	0.12
13	0.21	1.18	13	10	132	32	30	3.55	1.57	0.63	0.24	0.12
14	0.18	1.37	11	40	59	31	37	3.67	1.53	0.63	0.24	0.12
15	0.21	4.47	7.69	26	41	24	26	3.79	1.53	0.60	0.24	0.09
16	0.33	4.87	4.47	9.60	38	14	25	4.89	1.37	0.60	0.24	0.09
17	0.30	6.22	6.72	6.47	45	9.70	44	3.79	1.33	0.60	0.21	0.30
18	0.39	3.67	4.60	23	63	8.14	76	3.22	1.37	0.30	0.24	0.45
19	0.45	2.23	3.97	20	55	12	56	2.90	1.33	0.54	0.27	0.54
20	0.66	1.69	4.73	9.60	25	29	26	2.80	1.29	0.57	0.25	0.36
21	1.49	1.73	4.80	6.38	18	23	17	2.65	1.25	0.57	0.27	0.24
22	1.14	2.23	4.73	5.01	43	30	14	2.45	1.18	0.57	0.18	0.24
23	0.97	1.81	2.45	9.60	62	30	11	2.32	1.11	0.54	0.18	0.36
24	2.05	3.16	1.93	15	52	58	9.30	2.27	1.04	0.54	0.30	0.24
25	1.25	4.28	1.41	17	31	132	8.14	2.18	1.04	0.54	0.30	0.24
26	9.30	9.30	1.07	14	18	153	11	2.18	1.01	0.54	0.24	0.18
27	3.27	7.51	0.93	12	23	111	13	2.05	1.00	0.48	0.21	0.12
28	3.49	3.91	1.11	22	45	42	8.14	2.01	0.935	0.48	0.21	0.12
29	2.36	2.01	7.42	18	32	22	6.89	1.97	0.900	0.48	0.21	0.12
30	1.81	1.37	3.85	13	33	15	5.98	1.89	0.900	0.45	–	0.36
31	–	1.07	–	20	33	–	5.43	–	0.870	0.48	–	0.24
Total	32.62	79.33	152.78	379.74	1,661	977.4	2378.88	96.37	42.275	19.11	9.03	6.78
Mean	1.09	2.56	5.09	12.2	53.6	32.6	76.7	3.21	1.39	0.616	0.311	0.219
Max.	9.30	9.30	50	40	158	153	207	5.01	1.93	0.87	0.48	0.54
Min.	0.18	0.63	0.57	2.90	15	8.14	5.43	1.89	0.87	0.45	0.18	0.09
Runoff – mcm.	2.818	6.854	13.200	32.810	143.510	84.477	205.535	8.326	3.739	1.651	0.780	0.586

WATER YEAR 1967 : Max. 207 Min. 0.09 Mean 15.9 Annual Runoff 504.287 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct.4	18.00	34.82	208				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
PRACHIN RIVER BASIN

Lam Phra Proeng at Ban Kaeng , Prachin Buri (Kgt. 12)

Location: Lat 13°- 56' - 02" N, Long 101°- 58' - 41" E, on left bank near Ban Kaeng Railway Station, about 200 meters upstream from Thotsaphon Sawmill, Amphoe Sa Kaeo, Prachin Buri.

Drainage Area: 1,540 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: 0.00 m. (A.D.)

Bench Mark: B.M. - H.S.

Location: On left bank near gage site
Elevation: +9.687 m. (M.S.L.)

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: 1966 to date

Rating Operation:

Period of Rating: 1966 to date
Rated by Float: -
Rated by Current Meter: 1966 to date

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions for irrigation except those built by local residents. No adjustment made for virgin flow.

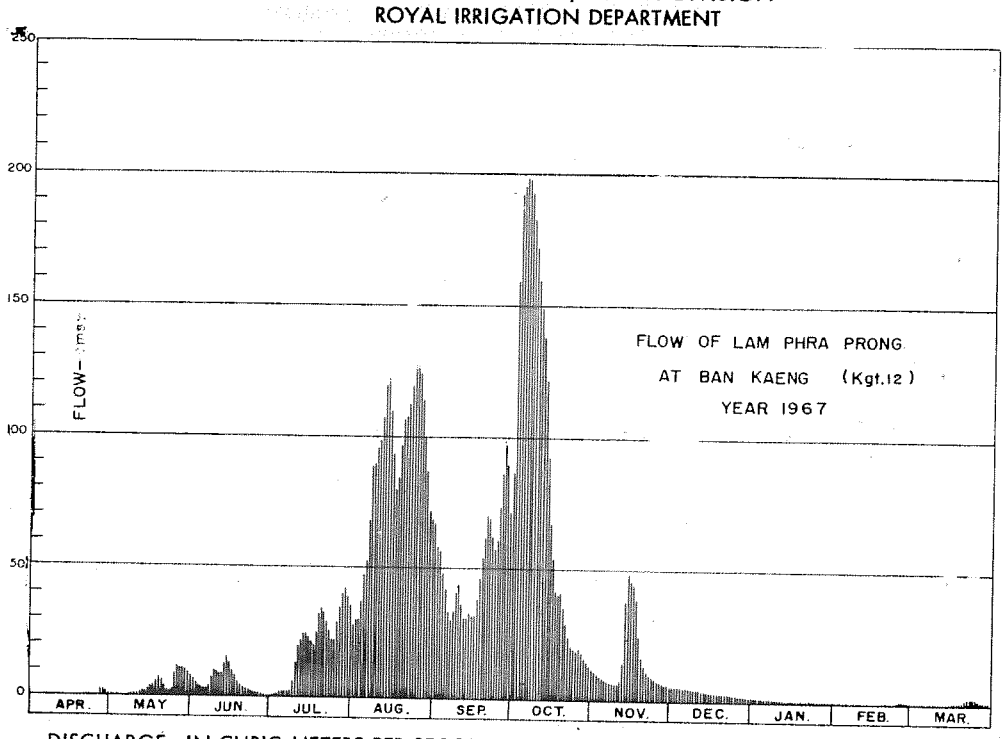
Remarks: No flow for period of discharge record are omitted.

GAGE HEIGHT IN METER (A.D.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.38	0.67	1.47	0.73	2.71	4.57	5.49	1.78	1.33	0.85	0.69	0.63
2	.37	.62	.30	.75	.93	.24	8.22	.71	.32	.84	.68	.63
3	.37	.62	.20	.86	.97	.14	.78	.64	.29	.83	.68	.63
4	.36	.61	.14	.90	3.34	3.92	.85	.57	.27	.82	.68	.62
5	.36	.56	.08	.96	.83	.49	.94	.53	.25	.81	.67	.62
6	0.35	0.56	1.08	0.92	4.07	3.14	8.95	1.49	1.23	0.80	0.66	0.62
7	.36	.50	.13	.94	.89	2.95	.79	.44	.23	.79	.65	.61
8	.36	.49	.47	1.01	5.49	.97	.45	.41	.20	.78	.65	.61
9	.35	.77	.73	.41	.54	3.42	.12	.41	.20	.77	.64	.60
10	.35	.74	.69	.99	.78	.62	7.81	.42	.22	.76	.67	.60
11	0.35	0.74	1.58	2.36	5.87	3.25	7.50	1.39	1.18	0.75	0.65	0.60
12	.34	.88	.57	.49	6.30	2.98	.19	.85	.13	.73	.63	.59
13	.34	.94	.92	.62	.57	.97	6.78	3.21	.15	.73	.63	.58
14	.33	.90	2.07	.66	.64	3.10	5.78	.82	.14	.72	.63	.57
15	.32	1.04	1.92	.57	.08	.07	4.52	.66	.13	.71	.61	.61
16	0.34	1.08	1.66	2.40	5.35	2.99	3.84	3.63	1.07	0.70	0.60	0.59
17	.38	.19	.47	.36	.07	3.14	.47	.30	.05	.70	.59	.58
18	.43	.33	.34	.69	.42	.70	.45	2.50	.03	.69	.59	.57
19	.40	.50	.20	3.06	.96	.96	.51	.13	.03	.70	.59	.57
20	.39	.46	.11	.14	6.15	4.42	.07	1.89	.04	.71	.58	.71
21	0.57	1.18	1.07	3.04	6.18	4.74	2.76	1.80	1.04	0.70	0.57	0.89
22	.68	0.96	.01	2.82	.41	.71	.58	.72	.00	.70	.56	.94
23	.65	.87	0.95	.59	.63	.38	.42	.63	0.99	.71	.55	.98
24	.60	1.01	.90	.50	.82	.17	.31	.55	.97	.71	.71	.94
25	.56	.61	.87	.64	.87	.41	.28	.49	.94	.71	.78	.87
26	0.54	1.87	0.83	2.95	6.64	5.05	2.32	1.46	0.91	0.70	0.78	0.80
27	.95	.78	.79	3.22	.35	.57	.22	.40	.92	.70	.74	.72
28	.97	.78	.76	.46	5.73	.79	.12	.39	.90	.73	.69	.64
29	.85	.79	.74	.52	.17	.27	.00	.34	.88	.76	.64	.58
30	.74	.66	.75	.36	4.77	4.64	1.92	.34	.87	.72		.56
31		.55		.21	.71		.86		.85	.70		.54
Mean	0.48	1.07	1.26	2.26	5.39	3.96	5.04	1.93	1.09	0.74	0.65	0.66
Max.	0.97	1.87	2.07	3.52	6.87	5.79	8.95	3.82	1.33	0.85	0.78	0.98
Min.	0.32	0.49	0.74	0.73	2.71	2.95	1.86	1.34	0.85	0.69	0.55	0.54

WATER YEAR 1967 : Max. 8.95 m. Min. 0.32 m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1		0.58	7.27	0.88	26	66	90	11	5.80	1.65	0.66	0.42
2		0.38	5.50	1.00	30	58	173	10	5.70	1.58	0.62	0.42
3		0.38	4.50	1.72	30	56	192	9.32	5.40	1.51	0.62	0.42
4		0.34	3.90	2.00	38	50	195	8.44	5.20	1.44	0.62	0.38
5		0.18	3.34	2.42	48	41	198	7.96	5.00	1.37	0.58	0.38
6		0.06	3.10	2.14	54	34	198	7.49	4.80	1.30	0.54	0.38
7		0.00	3.80	2.28	74	30	192	6.94	4.80	1.24	0.50	0.34
8		0.00	7.27	2.78	89	30	180	6.61	4.50	1.18	0.50	0.34
9		1.12	10	6.61	90	39	169	6.61	4.50	1.12	0.46	0.30
10		0.94	9.97	14	97	44	158	6.72	4.70	1.06	0.58	0.30
11		0.94	8.56	20	99	36	148	6.40	4.30	1.00	0.50	0.30
12		1.86	8.44	22	111	31	138	12	3.80	0.88	0.42	0.27
13		2.28	13	24	120	30	126	35	4.00	0.88	0.42	0.24
14		2.00	14	25	122	33	97	48	3.90	0.82	0.42	0.21
15		3.02	13	23	105	32	65	45	3.80	0.76	0.34	0.34
16		3.34	9.58	20	86	31	49	44	3.26	0.70	0.30	0.27
17		4.40	7.27	20	78	34	40	37	3.10	0.70	0.27	0.24
18		5.80	5.90	25	87	46	40	22	2.94	0.66	0.27	0.21
19		7.60	4.50	32	102	51	41	16	2.94	0.70	0.27	0.21
20		7.16	3.60	34	107	62	32	13	3.02	0.76	0.24	0.76
21	0.21	4.30	3.26	32	108	70	27	11	3.02	0.70	0.21	1.93
22	0.62	2.42	2.78	28	115	69	23	10	2.70	0.70	0.18	2.28
23	0.50	1.79	2.35	24	121	61	21	9.19	2.63	0.76	0.15	2.56
24	0.30	2.78	2.00	22	128	56	19	8.20	2.49	0.76	0.76	2.28
25	0.18	8.94	1.79	25	129	62	18	7.49	2.28	0.76	1.18	1.79
26	0.12	12	1.51	30	122	78	19	7.16	2.07	0.70	1.18	1.30
27	2.35	11	1.24	35	113	91	17	6.50	2.14	0.70	0.94	0.82
28	2.49	11	1.06	40	96	97	16	6.40	2.00	0.88	0.66	0.46
29	1.65	11	0.94	42	81	83	14	5.90	1.86	1.06	0.46	0.24
30	0.94	9.58	1.00	38	71	68	13	5.90	1.79	0.82		0.18
31		8.20		35	69		12		1.65	0.70		0.12
Total	9.36	125.39	165.43	631.83	2,746	1,569	2,720	437.23	110.09	29.85	14.85	20.69
Mean	0.312	4.04	5.51	20.4	88.6	52.3	87.7	14.6	3.55	0.963	0.512	0.667
Max.	2.49	12	13	42	129	97	198	48	5.80	1.65	1.18	2.56
Min.	0.00	0.00	0.94	0.88	26	30	12	5.90	1.65	0.66	0.15	0.12
Runoff - mcm.	0.809	10.834	14.293	54.590	237.254	135.562	234.922	37.777	9.512	2.579	1.283	1.788

WATER YEAR 1967 : Max. 198 Min. 0.00 Mean 23.4 Annual Runoff 741.288 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct.6	04.00	8.97	199				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
PRACHIN RIVER BASIN

Lam Phra Prong at Kabin Buri, Prachin Buri (Kgt.13)

Location: Lat 13°- 58' - 57" N, Long 101°- 42' - 46" E, on left bank about 40 meters upstream from Freedom Highway Bridge on Chachoengsao - Kabin Buri Highway, Amphoe Kabin Buri, Prachin Buri.

Drainage Area: 5,347 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: 0.00 m. (A.D.)

Bench Mark: B.M. - H.S.

Location: Near staff gage site.
Elevation: +10.547 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: 1967 to date.

Rating Operation:

Period of Rating: 1967 to date
Rated by Float: -
Rated by Current Meter: 1967 to date

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

Overbank Flow Conditions: No overbank flow.

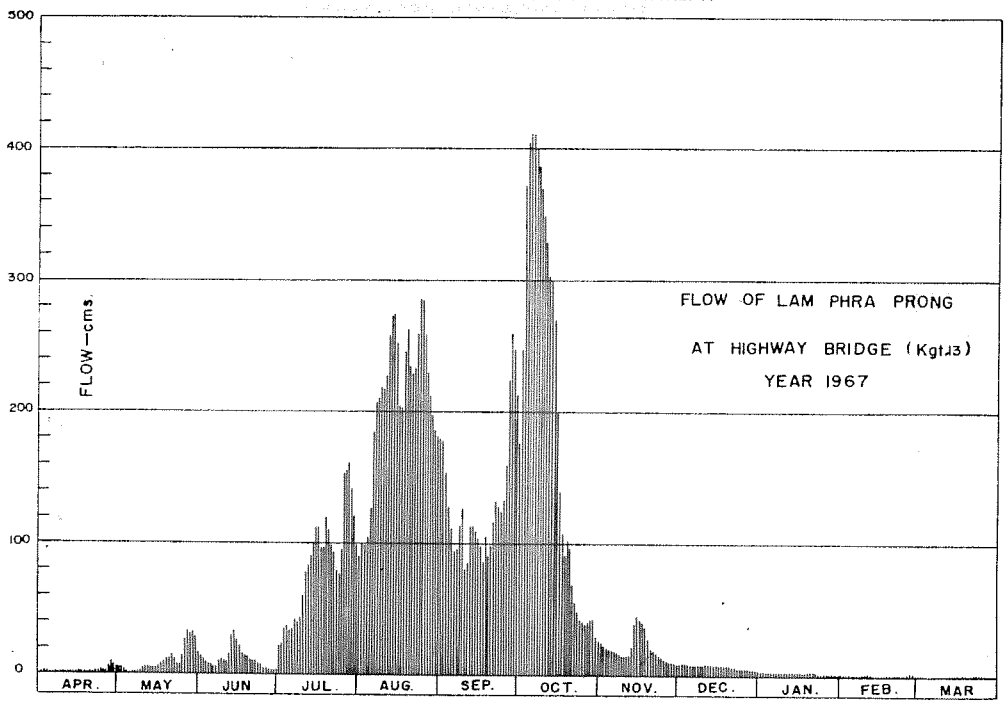
General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions for irrigation except those built by local residents. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (A.D.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.92	1.42	2.29	2.64	5.45	7.77	7.48	2.86	1.82	1.34	1.15	1.01
2	.92	.34	1.99	.77	.78	.56	9.26	.76	.81	.33	.14	0.99
3	.90	.21	.78	3.31	.74	.08	10.40	.62	.80	.32	.14	.98
4	.89	.05	.70	.45	.96	6.56	.72	.56	.77	.31	.14	.98
5	.88	0.96	.68	.25	6.75	.12	.77	.53	.76	.30	.13	.97
6	0.90	1.02	1.46	3.35	7.86	5.52	10.77	2.47	1.75	1.30	1.13	0.96
7	.88	0.96	.56	.65	8.27	.69	.67	.42	.73	.28	.13	.95
8	.86	1.05	.93	.58	.33	6.16	.50	.33	.73	.26	.14	.94
9	.88	.02	.92	.67	.47	.56	.32	.25	.71	.26	.14	.93
10	.88	.33	.89	4.39	.41	5.13	.03	.22	.70	.25	.17	.92
11	0.88	1.38	1.89	4.99	8.61	5.35	9.87	2.23	1.72	1.24	1.17	0.92
12	.88	.47	2.13	5.17	9.01	6.18	.59	.28	.71	.22	.14	.91
13	.88	.54	3.16	.40	.28	.16	.60	.76	.69	.22	.14	.90
14	.88	.42	.29	.73	.27	.00	.30	3.69	.69	.21	.12	.90
15	.96	.45	2.83	6.16	8.92	5.88	8.30	.83	.74	.21	.10	.90
16	0.96	1.60	2.68	6.18	8.18	5.66	6.98	3.68	1.72	1.20	1.10	0.89
17	.97	.79	.29	5.64	.15	.26	.04	.62	.69	.19	.09	.89
18	.93	.90	.14	.68	.75	.92	5.50	.32	.71	.18	.08	.90
19	.93	2.10	.20	6.40	9.10	.44	.88	2.81	.66	.18	.07	.90
20	.91	.10	1.95	.19	8.70	.58	.59	.55	.64	.19	.07	.90
21	0.94	2.11	1.93	5.70	8.60	6.28	4.78	2.49	1.59	1.17	1.07	0.91
22	1.01	1.99	.92	.59	.73	.68	.25	.42	.55	.17	.06	.96
23	.18	.70	.74	.15	9.20	.58	3.90	.23	.56	.16	.06	1.02
24	.26	.63	.62	4.84	.42	.41	.66	.14	.53	.16	.08	.09
25	.23	2.14	.47	5.41	.39	.80	.60	.06	.55	.16	.11	.09
26	1.13	3.08	1.37	7.23	9.02	7.69	3.51	2.00	1.49	1.16	1.20	1.07
27	.21	.29	.35	.25	8.47	8.71	.60	1.92	.46	.16	.22	.03
28	.77	.08	.27	.40	.28	9.07	.71	.94	.44	.16	.20	0.99
29	.67	.30	.24	6.75	.08	8.80	.68	.87	.43	.15	.15	.95
30	.57	2.81	.23	.24	7.18	.17	.06	.83	.40	.15		.91
31		.43		5.57	.82		2.97		.35	.15		.88
Mean	1.03	1.83	1.93	5.12	8.41	6.56	7.04	2.56	1.64	1.23	1.12	0.95
Max.	1.77	3.30	3.29	7.40	9.42	9.07	10.77	3.83	1.82	1.34	1.22	1.09
Min.	0.86	0.96	1.23	2.64	5.45	5.13	2.97	1.83	1.35	1.15	1.06	0.88

WATER YEAR 1967 : Max. 10.77 m. Min. 0.86 m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.60	4.20	15	21	88	179	165	25	8.76	3.46	1.90	1.05
2	0.60	3.46	11	23	99	169	273	23	8.63	3.37	1.82	0.95
3	0.50	2.38	8.24	34	97	147	374	20	8.50	3.28	1.82	0.90
4	0.47	1.25	7.20	37	105	126	406	19	8.11	3.19	1.82	0.90
5	0.45	0.80	6.96	32	134	111	411	19	7.98	3.10	1.74	0.85
6	0.50	1.10	4.60	34	183	90	411	18	7.85	3.10	1.74	0.80
7	0.45	0.80	5.60	41	207	96	401	17	7.59	2.94	1.74	0.75
8	0.40	1.25	10	39	210	112	384	16	7.59	2.78	1.82	0.70
9	0.45	1.10	10	41	219	126	366	15	7.33	2.78	1.82	0.65
10	0.45	3.37	9.67	59	215	79	338	14	7.20	2.70	2.06	0.60
11	0.45	3.82	9.67	75	228	85	323	14	7.46	2.62	2.06	0.60
12	0.45	4.70	15	81	255	113	299	15	7.33	2.46	1.82	0.55
13	0.45	5.40	31	66	274	112	300	23	7.08	2.46	1.82	0.50
14	0.45	4.20	33	97	274	106	276	42	7.08	2.38	1.66	0.50
15	0.80	4.50	24	112	248	102	208	45	7.74	2.38	1.50	0.50
16	0.80	6.00	22	113	201	95	143	42	7.46	2.30	1.50	0.47
17	0.85	8.37	15	94	199	82	108	40	7.08	2.22	1.45	0.47
18	0.65	9.80	13	95	237	104	89	34	7.33	2.14	1.40	0.50
19	0.65	12	14	120	261	88	102	24	6.72	2.14	1.35	0.50
20	0.55	12	10	113	233	92	92	19	6.48	2.14	1.35	0.50
21	0.70	14	10	96	227	116	61	18	5.90	2.06	1.35	0.55
22	1.05	11	10	92	235	131	55	17	5.50	2.06	1.30	0.80
23	2.14	7.20	7.72	79	268	127	47	14	5.60	1.98	1.30	1.10
24	2.78	6.36	6.24	71	285	121	41	13	5.30	1.98	1.40	1.45
25	2.54	15	4.70	87	283	136	40	12	5.50	1.98	1.58	1.45
26	1.74	29	3.73	154	255	174	38	11	4.90	1.98	2.30	1.35
27	2.38	33	3.55	155	219	236	40	10	4.60	1.98	2.46	1.15
28	8.11	29	2.86	161	207	259	42	10	4.40	1.98	2.30	0.95
29	6.84	33	2.62	134	195	240	42	9.41	4.30	1.90	1.90	0.75
30	5.70	24	2.54	115	179	201	29	8.89	4.00	1.90		0.55
31		17		92	181		27		3.55	1.90		0.45
Total	44.95	309.06	328.90	2,583	6,501	3,955	5,931	607.30	204.85	75.64	50.08	23.79
Mean	1.50	9.70	11.0	83.0	210	132	191	20.2	6.61	2.44	1.73	0.77
Max.	8.11	33	33	161	285	259	411	45	8.76	3.46	2.46	1.45
Min.	0.40	0.80	2.54	21	88	79	27	8.89	3.55	1.90	1.30	0.45
Runoff - mcm.	3.884	26.703	28.417	223.171	561.686	341.712	512.438	52.471	17.699	6.535	4.327	2.055

WATER YEAR 1967 : Max. 411 Min. 0.40 Mean 56.3 Annual Runoff 1,781.099 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct.5	15.00	10.78	412				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
PRACHIN RIVER BASIN

Lam Phya Tarn at Ban Thung Faek, Prachin Buri (Kgt.14)

Location: Lat 14°- 09' - 30" N, Long 101°- 52' - 52" E, on left bank at Ban Thung Faek, 2 kilometers on left side of Kabin Buri - Nakhon Ratchasima Highway, about 35 kilometers from crossing with Suwanson Road, Amphoe Kabin Buri, Prachin Buri.

Drainage Area: 366 sq.km.

Type of Gage: Water - stage recorder.

Zero Gage at Bottom at: +34.61 m. (M.S.L.)

Bench Mark: B.M. - H.S.

Location: On left bank near gaging station.
Elevation: +44.428 m. (M.S.L.)

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 Float: -
Rated by Current Meter: 1966 to date

Stability of Channel Regimes: Unstable, shifting adjustment is included for flow computation.

Overbank Flow Conditions: No overbank flow.

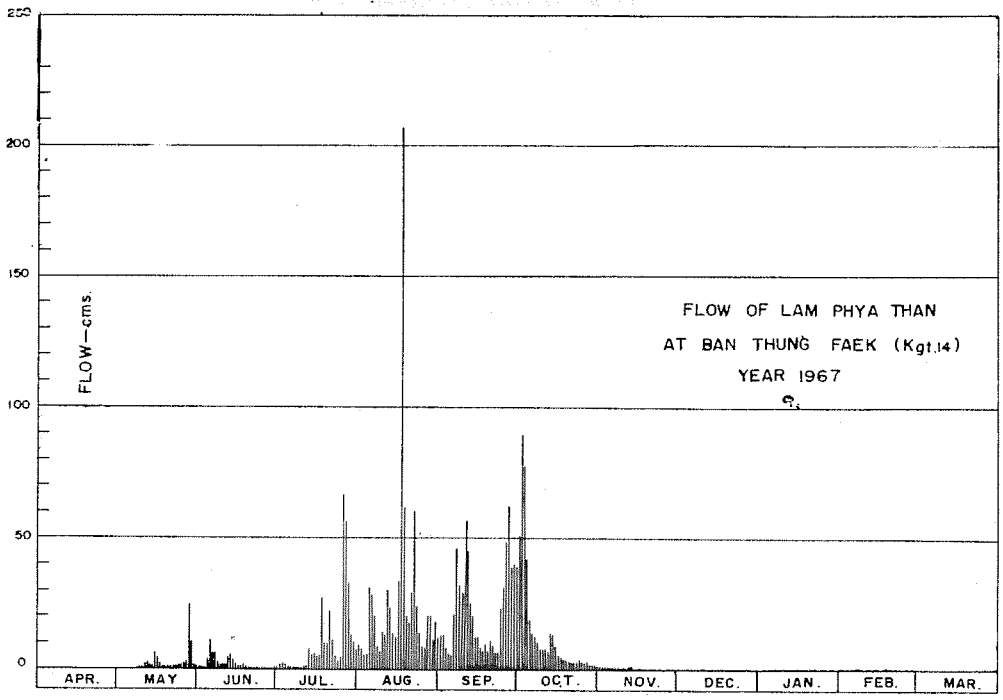
General Description: Records good. Stage discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions for irrigation except those built by local residents. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	34.66	34.63	34.90	35.02	35.53	35.71	36.86	35.08	34.98	34.82	34.76	34.69
2	.65	.63	.91	.06	.46	.70	37.53	.07	.95	.82	.76	.72
3	.64	.63	.93	.21	.35	.49	.12	.06	.93	.82	.76	.78
4	.63	.63	35.19	.02	.34	.40	36.03	.05	.92	.82	.76	.74
5	.62	.63	.59	34.96	36.27	.36	35.75	.04	.92	.82	.76	.71
6	34.61	34.63	35.34	34.91	36.24	36.06	35.66	35.03	34.91	34.82	34.75	34.70
7	.61	.62	.37	.95	.65	.69	.63	.04	.91	.82	.75	.69
8	.61	.67	.17	.95	35.49	.28	.51	.03	.90	.82	.74	.68
9	.61	.95	.08	35.00	.38	35.85	.44	.02	.89	.82	.73	.67
10	.61	.92	.10	.02	.72	36.66	.43	.01	.90	.81	.72	.67
11	34.61	35.08	35.05	35.04	35.61	36.89	35.45	35.00	34.89	34.81	34.72	34.66
12	.61	.14	.32	.13	36.23	.10	.38	.05	.89	.80	.71	.66
13	.61	.07	.33	.54	35.80	.00	.72	.15	.88	.80	.71	.66
14	.61	34.98	.20	.38	.65	35.67	.65	.09	.88	.80	.71	.65
15	.61	35.40	.12	.46	.53	.68	.42	.05	.88	.80	.71	.64
16	34.62	35.27	35.05	35.37	35.88	35.50	35.34	35.03	34.88	34.80	34.70	34.64
17	.62	.06	.00	.37	39.16	.43	.30	.01	.87	.80	.70	.64
18	.62	34.97	.15	36.22	36.88	.59	.26	.01	.87	.79	.70	.65
19	.62	.93	.03	35.51	35.85	.46	.23	34.99	.87	.79	.70	.74
20	.63	.92	34.96	.66	.80	.66	.21	.98	.87	.79	.70	.75
21	34.63	34.94	34.92	36.08	36.08	35.53	35.20	34.97	34.87	34.78	34.71	34.72
22	.67	.97	.89	35.46	.95	.40	.18	.96	.86	.79	.70	.70
23	.69	35.00	.87	.30	35.85	.45	.22	.95	.86	.81	.70	.69
24	.68	.05	.85	.23	.66	36.03	.29	.95	.85	.80	.71	.67
25	.67	.06	.84	.29	.50	.32	.21	.96	.84	.80	.71	.66
26	34.66	35.11	34.82	36.95	35.42	36.78	35.16	35.00	34.83	34.79	34.70	34.65
27	.64	.18	.81	.83	.97	.98	.19	34.95	.83	.79	.70	.64
28	.63	36.09	.81	35.69	.97	.44	.16	.95	.83	.79	.70	.64
29	.63	35.21	.80	.68	.59	.49	.12	.95	.83	.78	.69	.63
30	.63	.07	35.03	.59	.89	.34	.11	.96	.83	.78		.63
31		34.99		.42	.63		.09		.82	.77		.63
Mean	34.63	34.98	35.05	35.43	35.95	35.96	35.54	35.01	34.88	34.80	34.72	34.68
Max.	34.69	36.09	35.59	36.95	39.16	36.98	37.53	35.15	34.98	34.82	34.76	34.78
Min.	34.61	34.62	34.80	34.91	35.34	35.36	35.09	34.95	34.82	34.77	34.69	34.63

WATER YEAR 1967 : Max. 39.16 m. Min. 34.61 m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.035	0.000	0.57	0.66	9.60	13	56	0.98	0.62	0.18	0.102	0.042
2	0.028	0.000	0.62	1.38	7.26	13	89	0.93	0.50	0.18	0.102	0.063
3	0.021	0.000	0.71	2.02	5.09	7.48	67	0.89	0.44	0.18	0.102	0.15
4	0.014	0.000	3.00	0.66	4.90	5.63	23	0.84	0.41	0.18	0.102	0.086
5	0.007	0.000	11	0.84	31	4.90	15	0.80	0.41	0.18	0.102	0.056
6	0.000	0.000	5.45	0.62	27	23	13	0.75	0.38	0.18	0.086	0.049
7	0.000	0.000	6.00	0.71	13	46	12	0.80	0.38	0.18	0.086	0.042
8	0.000	0.056	2.76	0.80	8.60	30	8.85	0.75	0.35	0.18	0.070	0.035
9	0.000	0.80	1.70	0.71	6.18	18	7.26	0.71	0.32	0.18	0.063	0.028
10	0.000	0.66	1.90	0.80	14	47	7.03	0.66	0.35	0.17	0.056	0.028
11	0.000	1.70	1.46	0.89	12	57	7.48	0.66	0.32	0.17	0.056	0.021
12	0.000	2.39	5.09	1.54	30	24	6.00	0.89	0.32	0.15	0.049	0.021
13	0.000	1.62	5.27	8.15	16	20	14	1.62	0.29	0.15	0.049	0.021
14	0.000	0.93	2.63	4.90	13	12	12	1.14	0.29	0.15	0.049	0.014
15	0.000	6.58	1.70	6.36	960	12	6.81	0.89	0.29	0.15	0.049	0.007
16	0.007	4.23	1.14	4.72	22	7.48	5.27	0.80	0.26	0.15	0.042	0.007
17	0.007	1.54	0.84	4.72	207	6.00	4.54	0.71	0.26	0.15	0.042	0.007
18	0.007	0.89	2.02	27	63	9.60	3.31	0.71	0.26	0.13	0.042	0.014
19	0.007	0.71	0.98	7.48	18	6.58	2.88	0.62	0.26	0.13	0.042	0.086
20	0.014	0.66	0.66	11	16	11	2.63	0.57	0.26	0.13	0.042	0.102
21	0.014	0.75	0.50	22	25	8.15	2.51	0.53	0.26	0.12	0.049	0.063
22	0.042	0.89	0.41	6.36	60	5.45	2.27	0.50	0.23	0.13	0.042	0.049
23	0.056	1.06	0.35	3.62	18	6.36	2.76	0.47	0.23	0.17	0.042	0.042
24	0.049	1.46	0.20	2.63	12	24	3.77	0.47	0.23	0.17	0.049	0.042
25	0.042	1.54	0.14	3.46	7.70	34	2.63	0.50	0.20	0.15	0.049	0.02
26	0.035	2.02	0.12	66	6.00	53	2.02	0.66	0.18	0.13	0.042	0.014
27	0.021	2.88	0.10	55	20	62	2.39	0.47	0.18	0.13	0.042	0.007
28	0.014	25	0.10	14	20	38	2.02	0.47	0.18	0.13	0.042	0.007
29	0.014	3.31	0.090	13	9.85	40	1.62	0.47	0.18	0.12	0.035	0.090
30	0.014	1.62	0.71	11	18	35	1.22	0.50	0.18	0.12		0.000
31		0.98		7.03	11		1.06		0.17	0.10		0.000
Total	0.448	64.276	58.22	290.06	740.78	679.63	387.33	21.76	9.17	4.70	1.725	1.110
Mean	0.015	2.07	1.94	9.36	23.9	22.6	12.5	0.725	0.296	0.152	0.062	0.036
Max.	0.056	25	11	66	207	62	89	1.62	0.62	0.18	0.102	0.15
Min.	0.000	0.000	0.090	0.62	4.90	4.90	1.06	0.47	0.17	0.10	0.035	0.000
Runoff - mcm.	0.039	5.553	5.030	25.061	64.003	58.720	33.465	1.880	0.792	0.406	0.149	0.096

WATER YEAR 1967 : Max. 207 Min. 0.000 Mean 6.19 Annual Runoff 195.196 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Aug.17	19.00	40.29	303				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
PRACHIN RIVER BASIN

Huai Samong at highway bridge, Prachin Buri (Kgt.15)

Location: Lat 14°- 02' - 37" N, Long 101°- 47' - 30" E, on left bank about 5 kilometers upstream from confluence with Lam Hanuman, on Kabin Buri - Korat highway about 8 kilometers from crossing with Suwanson Road, Amphoe Kabin Buri, Prachin Buri.

Drainage Area: 789 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: 0.00 m. (A.D.)

Bench Mark: B.M. - H.S.

Location: On left bank near gage site.
Elevation: +6.248 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: 1966 to date.

Rating Operation:

Period of Rating: 1966 to date
Rated by Float: -
Rated by Current Meter: 1966 to date

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

Overbank Flow Conditions: No overbank flow.

General Description: Records good except those for period of back water effected of Prachin River, which are poor. Stage - discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions except those built by local residents. No adjustment made for virgin flow.

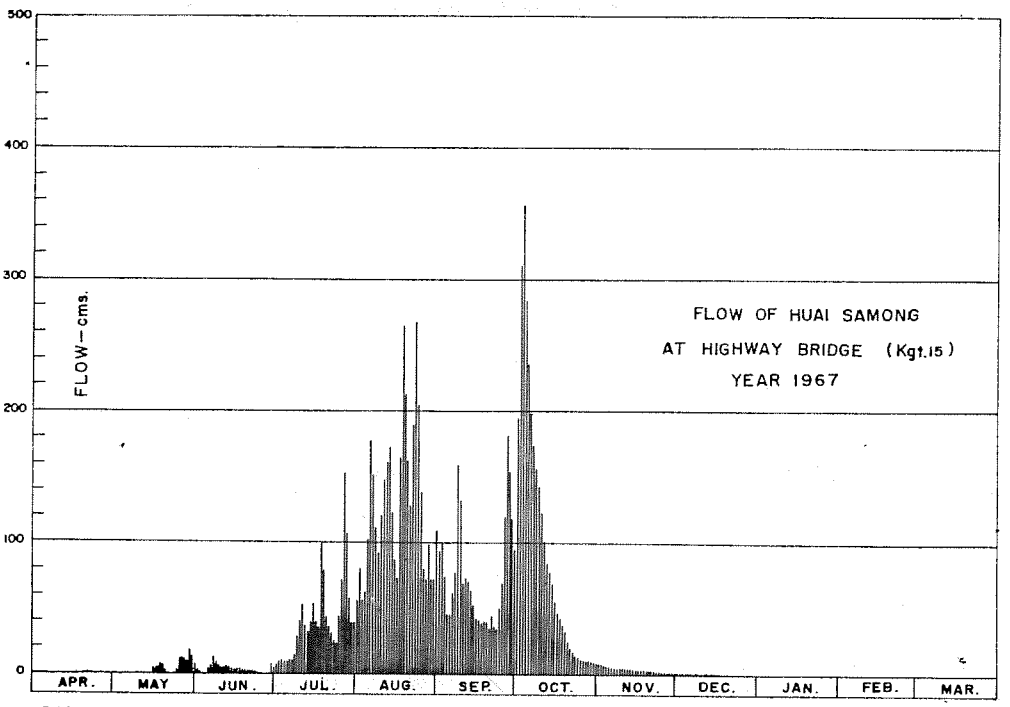
Remarks: Discharge record for period of no flow are omitted.

GAGE HEIGHT IN METER (A.D.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.29	0.38	0.67	0.92	2.37	2.90	3.96	0.94	0.59	0.42	0.36	0.31
2	.29	.38	.59	1.01	.72	3.04	5.78	.92	.58	.41	.36	.31
3	.29	.38	.54	.66	.24	2.55	6.13	.90	.57	.41	.35	.31
4	.29	.40	.53	.02	.23	1.99	5.29	.87	.56	.40	.35	.30
5	.28	.40	.78	0.97	3.19	.95	4.57	.84	.55	.39	.34	.30
6	0.28	0.40	0.86	1.09	4.14	2.44	4.23	0.82	0.54	0.38	0.34	0.29
7	.28	.42	1.12	.02	3.47	.54	.02	.80	.53	.38	.33	.29
8	.28	.42	.00	.12	.45	3.90	3.77	.79	.53	.40	.33	.29
9	.28	.43	2.88	.56	2.81	.46	.62	.79	.52	.40	.32	.29
10	.27	.43	.76	2.00	3.38	2.48	.34	.78	.51	.40	.32	.29
11	0.27	0.45	0.79	2.20	3.75	2.60	3.05	0.78	0.51	0.39	0.32	0.29
12	.27	.46	.88	1.72	.95	.53	2.81	.77	.50	.39	.32	.29
13	.26	.49	.83	.67	4.07	.40	.71	.77	.49	.39	.31	.29
14	.26	.54	.73	.91	3.24	.12	.53	.76	.49	.38	.31	.29
15	.26	.76	.71	2.24	2.81	1.90	.27	.75	.48	.38	.31	.28
16	0.25	0.80	0.72	1.86	2.39	1.95	2.12	0.73	0.48	0.38	0.29	0.28
17	.25	.84	.75	.57	3.90	.85	1.97	.71	.47	.37	.29	.28
18	.25	.95	.73	3.02	5.17	.91	.88	.69	.47	.37	.29	.28
19	.25	.84	.66	2.73	4.41	.90	.75	.68	.46	.37	.29	.28
20	.32	.55	.64	1.93	3.47	.75	.55	.67	.46	.36	.29	.40
21	0.50	0.50	0.63	1.83	3.28	2.01	1.40	0.65	0.45	0.36	0.28	0.40
22	.50	.48	.65	.69	4.50	1.79	.24	.64	.45	.36	.28	.38
23	.45	.41	.61	.55	5.21	.78	.19	.64	.45	.35	.28	.38
24	.45	.66	.56	.47	4.28	2.15	.14	.63	.44	.36	.40	.37
25	.40	1.13	.52	2.08	3.60	.52	.09	.63	.44	.38	.40	.37
26	0.40	1.10	0.49	2.57	2.74	3.38	1.07	0.62	0.44	0.38	0.38	0.36
27	.40	.05	.46	3.80	.52	4.19	.06	.62	.44	.38	.36	.35
28	.38	0.99	.54	.07	3.01	3.68	.05	.61	.43	.37	.34	.34
29	.38	1.35	.91	2.05	2.52	.18	.05	.60	.43	.37	.34	.33
30	.38	.14	.78	1.85	.63	2.77	0.98	.60	.43	.37		.32
31		0.89		.88	3.18		.96		.42	.36		.30
Mean	0.32	0.66	0.71	1.82	3.36	2.52	2.56	0.73	0.49	0.38	0.33	0.32
Max.	0.50	1.35	1.12	3.80	5.21	4.19	6.13	0.94	0.59	0.42	0.40	0.40
Min.	0.25	0.38	0.46	0.92	2.23	1.75	0.96	0.60	0.42	0.35	0.28	0.28

WATER YEAR 1967 : Max. 6.13 m. Min. 0.25 m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1		0.24	3.18	7.68	62	91	164	8.16	2.08	0.44	0.23	0.030
2		0.24	2.08	9.85	81	100	317	7.68	1.96	0.37	0.18	0.030
3		0.24	1.48	11	55	71	356	7.20	1.84	0.37	0.15	0.030
4		0.30	1.36	10	55	44	276	6.60	1.72	0.30	0.15	
5		0.30	4.88	8.88	110	42	212	6.00	1.60	0.27	0.12	
6		0.30	6.40	12	177	65	184	5.60	1.48	0.24	0.12	
7		0.44	13	10	129	71	168	5.20	1.36	0.24	0.090	
8		0.44	9.60	13	107	159	150	5.04	1.36	0.30	0.090	
9		0.51	6.80	27	86	128	139	5.04	1.24	0.30	0.060	
10		0.51	4.56	44	122	67	120	4.88	1.12	0.30	0.060	
11		0.65	5.04	53	148	74	101	4.88	1.12	0.27	0.060	
12		0.72	6.80	33	163	70	86	4.72	1.00	0.27	0.060	
13		0.93	5.80	31	172	63	80	4.72	0.93	0.27	0.030	
14		1.48	4.08	40	113	50	70	4.56	0.93	0.24	0.030	
15		4.56	3.76	55	86	40	57	4.40	0.86	0.24	0.030	
16		5.20	3.92	38	63	42	50	4.08	0.86	0.24		
17		6.00	4.40	27	159	38	43	3.76	0.79	0.21		
18		8.40	4.08	99	265	40	39	3.46	0.79	0.21		
19		6.00	3.04	81	199	40	34	3.32	0.72	0.21		
20	0.060	1.60	2.76	41	129	34	26	3.18	0.72	0.18		0.30
21	1.00	1.00	2.62	37	116	45	21	2.90	0.65	0.18		0.30
22	1.00	0.86	2.90	31	206	35	16	2.76	0.65	0.18		0.24
23	0.65	0.37	2.34	26	268	35	14	2.76	0.65	0.15		0.24
24	0.65	3.04	1.72	23	188	51	13	2.62	0.58	0.18	0.30	0.21
25	0.30	13	1.24	48	138	70	12	2.62	0.58	0.24	0.30	0.21
26	0.30	12	0.93	72	82	122	11	2.48	0.58	0.24	0.24	0.18
27	0.30	11	0.72	152	70	181	11	2.48	0.58	0.24	0.18	0.15
28	0.24	9.36	1.48	102	98	143	11	2.34	0.51	0.21	0.12	0.12
29	0.24	19	7.44	46	70	109	11	2.20	0.51	0.21	0.12	0.090
30	0.24	13	4.88	38	76	84	9.12	2.20	0.51	0.21		0.060
31		7.00		39	109		8.64		0.44	0.18		0.00
Total	4.98	128.69	123.29	1,265.41	3,902	2,204	2,809.76	127.84	30.72	7.69	2.67	2.190
Mean	0.17	4.15	4.11	40.8	126	73.5	90.6	4.26	0.99	0.25	0.092	0.071
Max.	1.00	19	13	152	268	181	356	8.16	2.08	0.44	0.30	0.30
Min.	0.00	0.24	0.72	7.68	55	34	8.64	2.20	0.44	0.15	0.00	0.00
Runoff – mcm.	0.430	11.119	10.652	109.331	337.133	190.426	242.763	11.045	2.654	0.664	0.231	0.189

WATER YEAR 1967 : Max. 356 Min. 0.00 Mean 29.0 Annual Runoff 916.638 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct.3	12.00	6.16	359				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
PRACHIN RIVER BASIN

Khlong Luang at Ban Mai, Chon Buri (Kgt.19)

Location: Lat 13°- 23' - 17" N, Long 101°- 20' - 40" E, on left bank about 4 kilometers east of Khok Pho Market and 16 kilometers from Amphoe Phanat Nikhom Office, Chon Buri.

Drainage Area: 535 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: +20.12 m. (M.S.L.)

Bench Mark: B.M. - H.S.

Location: On left bank infront of camp of gaging station.
Elevation: +25.780 m. (M.S.L.)

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 to date
Rated by Float: -
Rated by Current Meter: 1965 to date

Stability of Channel Regimes: Unstable, shifting adjustment is included for flow computation.

Overbank Flow Conditions: Overbank flow was observed and is included for flow computation.

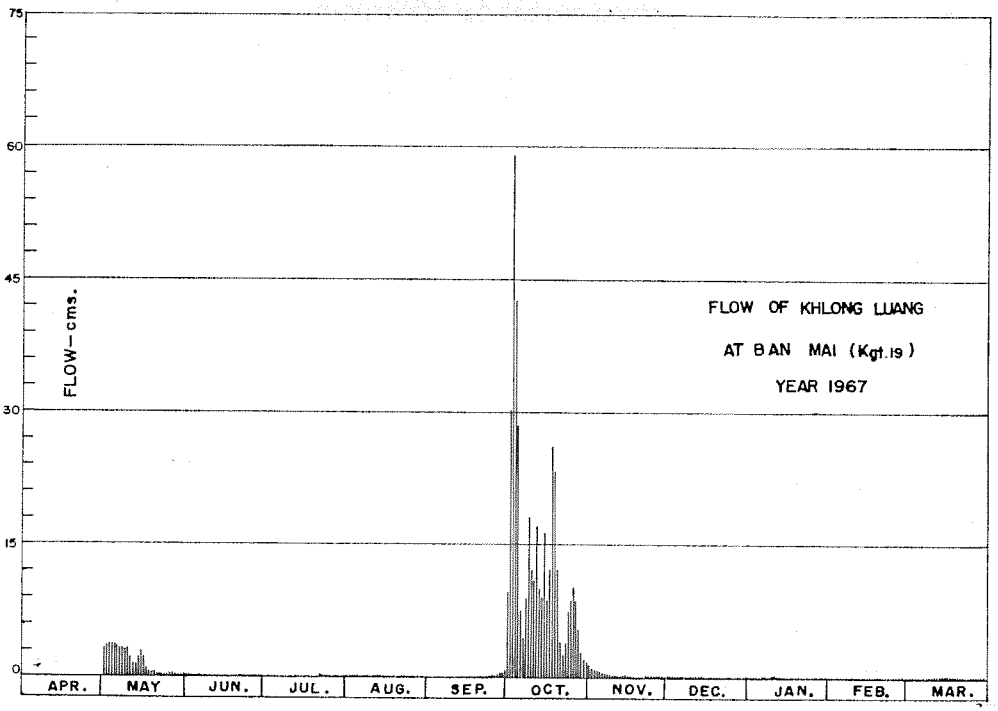
General Description: Records fair except those for periods of low flow which are poor stage - discharge relation used is defined by discharge measurement made during 1967. No upstream state diversions except those built by local residents. No adjustment made for virgin flow.

Remarks: No stage record for period Apr. 1 - 30 and no flow for period of discharge record are omitted.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1		21.83	20.75	20.62	20.73	20.59	23.05	21.35	20.62	20.53	20.49	20.45
2		.92	.74	.61	.78	.58	24.91	.28	.62	.53	.49	.45
3		.95	.72	.64	.78	.57	25.45	.23	.62	.53	.49	.44
4		.96	.70	.62	.80	.56	.06	.18	.61	.53	.48	.44
5		.94	.69	.61	.82	.55	23.48	.13	.61	.52	.48	.43
6		21.87	20.68	20.61	20.80	20.55	22.33	21.10	20.61	20.52	20.48	20.43
7		.86	.67	.61	.77	.54	.04	.03	.60	.52	.48	.42
8		.85	.66	.61	.76	.54	23.04	20.98	.60	.52	.48	.42
9		.83	.65	.61	.73	.54	24.08	.95	.60	.52	.48	.41
10		.82	.64	.60	.70	.55	23.28	.92	.59	.52	.48	.41
11		21.38	20.63	20.60	20.68	20.57	23.29	20.91	20.59	20.52	20.48	20.40
12		.36	.62	.60	.67	.57	24.21	.90	.59	.51	.48	.40
13		.35	.62	.60	.66	.57	23.09	.88	.58	.51	.48	.39
14		.57	.62	.60	.75	.57	.16	.87	.58	.51	.47	.39
15		.74	.61	.60	.71	.57	.86	.87	.58	.51	.47	.38
16		21.42	20.61	20.66	20.70	20.57	22.67	20.87	20.57	20.51	20.47	20.38
17		.14	.63	.66	.71	.57	24.20	.85	.57	.51	.47	.37
18		.04	.64	.63	.86	.59	.79	.82	.57	.51	.47	.37
19		20.98	.68	.62	.82	.59	.27	.79	.57	.51	.47	.36
20		.92	.69	.63	.77	.59	22.44	.76	.56	.50	.47	.36
21		20.86	20.69	20.67	20.73	20.59	21.98	20.74	20.56	20.50	20.47	20.35
22		.81	.69	.88	.72	.63	.76	.73	.56	.50	.47	.35
23		.81	.69	.77	.71	.64	.66	.72	.55	.50	.46	.34
24		.82	.69	.75	.69	.81	22.67	.72	.55	.50	.46	.34
25		.84	.68	.74	.68	20.05	.80	.70	.55	.50	.46	.33
26		20.92	20.67	20.73	20.67	20.90	23.16	20.69	20.55	20.50	20.46	20.33
27		.88	.66	.72	.65	21.06	22.57	.68	.54	.49	.46	.32
28		.85	.65	.71	.64	.30	21.99	.67	.54	.49	.46	.32
29		.82	.64	.72	.62	.23	.68	.66	.54	.49	.46	.31
30		.80	.63	.72	.60	.20	.55	.63	.53	.49		.31
31		.77		.72	.59		.46		.53	.49		.30
Mean		21.32	20.66	20.66	20.72	20.69	23.10	20.89	20.57	20.51	20.47	20.38
Max.		21.96	20.75	20.88	20.86	21.30	25.45	21.35	20.62	20.53	20.49	20.45
Min.		20.77	20.61	20.60	20.59	20.54	21.46	20.63	20.53	20.49	20.46	20.30

WATER YEAR 1967 : Max. 25.45 m. Min. 20.30 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1		3.01	0.14	0.035	0.14		9.79	1.30	0.030	0.01		
2		3.52	0.13	0.030	0.18		31	0.97	0.030	0.01		
3		3.66	0.12	0.045	0.18		59	0.85	0.030	0.01		
4		3.70	0.11	0.035	0.20		37	0.72	0.025	0.01		
5		3.60	0.11	0.030	0.22		13	0.61	0.025	0.01		
6		3.30	0.10	0.030	0.18		5.20	0.54	0.025	0.01		
7		3.26	0.10	0.030	0.13		3.75	0.40	0.020	0.01		
8		3.22	0.095	0.030	0.12		9.46	0.31	0.020	0.01		
9		3.13	0.095	0.025	0.095		18	0.25	0.020	0.01		
10		3.09	0.085	0.025	0.065		11	0.22	0.015	0.01		
11		1.48	0.080	0.025	0.050		11	0.21	0.015	0.01		
12		1.42	0.075	0.025	0.030		17	0.20	0.015			
13		1.39	0.075	0.025	0.015		8.73	0.18	0.010			
14		2.12	0.075	0.025	0.050		9.20	0.17	0.010			
15		2.76	0.030	0.025	0.030		16	0.17	0.010			
16		1.61	0.030	0.010	0.025		7.05	0.12	0.005			
17		0.82	0.040	0.010	0.030		19	0.11	0.005			
18		0.59	0.045	0.00	0.105		26	0.095	0.005			
19		0.46	0.065	0.00	0.085		20	0.080	0.005			
20		0.34	0.070	0.00	0.060		5.72	0.065				
21		0.24	0.070	0.015	0.040		3.43	0.055				
22		0.19	0.070	0.31	0.035		2.52	0.050				
23		0.19	0.070	0.17	0.030		2.34	0.045				
24		0.20	0.070	0.15	0.020	0.075	7.34	0.045				
25		0.22	0.065	0.14	0.015	0.24	8.14	0.035				
26		0.34	0.060	0.14	0.010	0.12	10	0.030				
27		0.27	0.055	0.13	0.00	0.17	6.76	0.025		0.11		
28		0.23	0.050	0.13	0.00	0.57	3.70	0.020		0.003		
29		0.20	0.045	0.13	0.015	0.42	2.41	0.015		0.01		
30		0.18	0.040	0.13	0.005	0.80	1.95	0.035		0.00		
31		0.15		0.13	0.00		1.65			0.009		
Total		48.89	2.260	2.040	2.16	2.395	387.14	7.925	0.320	0.110	0.00	0.00
Mean		1.58	0.075	0.065	0.069	0.079	12.5	0.26	0.010	0.003	0.00	0.00
Max.		3.70	0.14	0.31	0.22	0.80	59	1.30	0.030	0.01	0.00	0.00
Min.		0.15	0.030	0.00	0.00	0.00	1.65	1.30	0.030	0.01	0.00	0.00
Runoff - MCM.		4.224	0.195	0.176	0.187	0.207	33.448	0.684	0.028	0.009	0.00	0.00

WATER YEAR 1967 : Max. 59 Min. 0.00 Mean Annual Runoff mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct.3	12.00	25.47	60				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
PRACHIN RIVER BASIN

Prachin River at Ban Sang, Prachin Buri (Kgt.22)

Location: Lat 13° - 59' - 45" N, Long 101° - 13' - 30" E, on left bank infront Amphoe Ban Sang Office, Amphoe Ban Sang, Prachin Buri.

Drainage Area: -

Type of Gage: Staff gage.

Zero Gage at Bottom at: - 0.818 m. (M.S.L.)

Bench Mark: B.M. - H.S.

Location: Near staff gage site.
Elevation: +3.0324 m. (M.S.L.)

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
Rated by Float: -
Rated by Current Meter: 1967

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

Overbank Flow Conditions: No overbank flow.

General Description: Records fair except those for period of tidal effect which are poor. Stage - discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions except those built by local residents. No adjustment made for virgin flow.

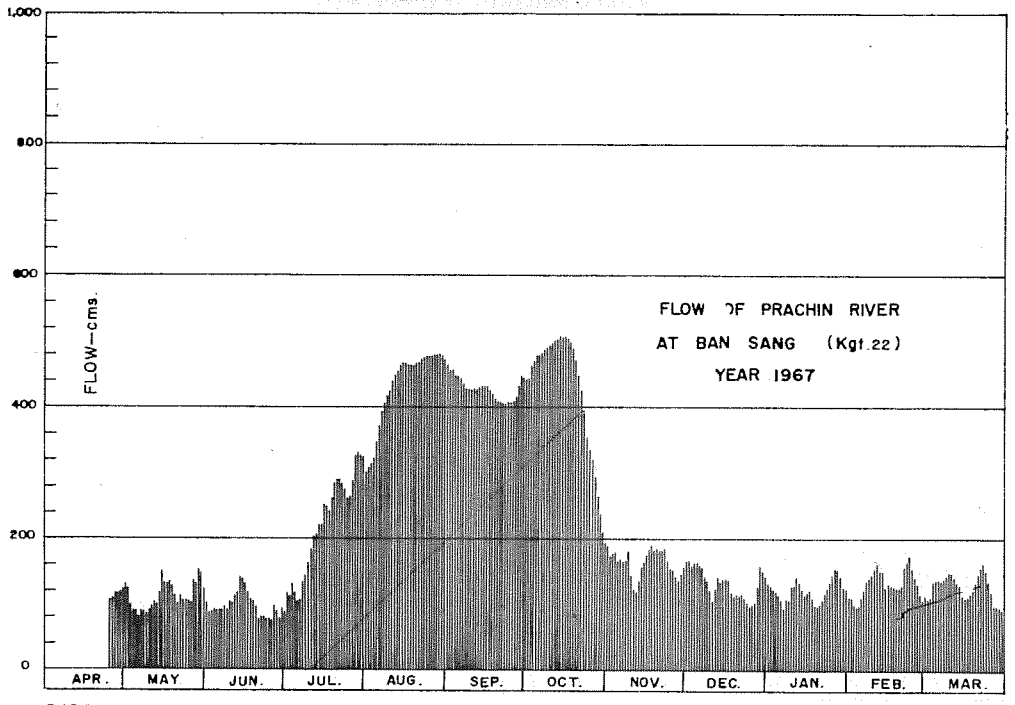
Remarks: Stream gaging began on Apr. 25, 1967.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1		0.22	- 0.04	- 0.19	1.32	2.20	2.08	0.62	0.46	0.20	0.04	0.08
2		.13	.17	+ 0.10	.37	.16	.09	.48	.47	.18	.03	.02
3		- 0.05	.13	.04	.40	.16	.19	.53	.37	.16	- 0.05	.05
4		- 0.14	.11	.19	.46	.11	.24	.56	.43	.11	- 0.07	.26
5		- 0.14	.13	.08	.61	.11	.27	.44	.44	.07	- 0.06	.25
6		- 0.23	- 0.12	- 0.02	1.72	2.10	2.27	0.47	0.42	0.03	+ 0.04	0.25
7		- 0.13	.12	+ 0.02	.85	.04	.30	.44	.37	- 0.13	.15	.23
8		- 0.15	.07	.26	.93	.01	.31	.46	.26	+ 0.03	.25	.27
9		- 0.19	.14	.28	.97	.01	.33	.56	.22	- 0.02	.28	.30
10		- 0.13	.01	.42	2.01	.00	.35	.22	.09	+ 0.18	.31	.35
11		- 0.05	- 0.04	0.59	2.11	2.02	2.37	0.15	- 0.07	0.19	0.39	0.32
12		- 0.02	+ 0.07	.72	.14	.01	.39	.06	+ 0.18	.29	.43	.26
13		- 0.05	.12	.73	.17	.03	.40	.19	.28	.21	.34	.24
14		+ 0.09	.28	.83	.20	.04	.41	.40	.15	.12	.33	.18
15		.34	.25	.80	.22	.04	.41	.44	.27	.07	.14	.06
16		+ 0.18	+ 0.18	1.04	2.21	2.04	2.41	0.51	0.25	0.09	0.22	0.02
17		.20	.05	.02	.20	1.99	.39	.57	.24	.13	.19	.04
18		.23	.00	0.94	.20	.98	.36	.62	.07	.03	.18	.08
19		.15	- 0.01	1.09	.20	.93	.30	.56	.05	- 0.06	.14	.12
20		.03	.08	.24	.22	.91	.21	.53	.09	- 0.07	.15	.24
21		- 0.04	- 0.27	1.27	2.22	1.91	2.08	0.55	0.04	- 0.03	0.21	0.34
22		+ 0.07	.21	.26	.25	.90	1.99	.57	.09	+ 0.01	.41	.40
23		- 0.01	.21	.21	.26	.90	.79	.58	.05	.09	.45	.43
24		+ 0.02	.26	.17	.27	.91	.62	.39	.00	.16	.52	.35
25	0.00	0.00	.25	.08	.26	.91	.52	.37	- 0.08	.23	.34	.22
26	0.02	- 0.04	- 0.27	1.12	2.27	1.93	1.44	0.35	- 0.04	0.36	0.28	0.07
27	.11	+ 0.24	.07	.27	.28	.96	.29	.28	- 0.01	.38	.19	- 0.08
28	.09	.19	.10	.49	.28	2.05	.16	.22	+ 0.23	.37	.04	- 0.09
29	.10	.37	.26	.50	.27	.11	0.97	.31	.40	.18	.00	- 0.09
30	.15	.34	.09	.48	.26	.10	.80	.41	.35	.17		- 0.09
31		.14		.45	.25		.65		.30	.14		- 0.06
Mean		0.05	- 0.07	0.79	2.07	2.02	1.98	0.43	0.20	0.12	0.20	0.16
Max.		0.37	0.28	1.50	2.28	2.20	2.41	0.62	0.47	0.38	0.52	0.43
Min.		- 0.23	- 0.27	- 0.19	1.32	1.90	0.65	0.06	- 0.08	- 0.13	- 0.07	- 0.09

WATER YEAR 1967 : Max. 2.28 m. Min. - 0.08 m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1		133	100	83	298	463	439	189	166	131	110	115
2		121	85	118	307	455	441	169	168	128	109	107
3		99	90	110	312	455	461	176	154	125	99	111
4		89	92	129	322	445	471	180	162	119	97	138
5		89	90	115	350	445	477	163	163	114	98	137
6		79	91	102	370	443	477	168	161	109	110	137
7		90	91	107	394	431	483	165	154	190	124	134
8		88	97	138	409	425	485	166	138	109	137	140
9		83	89	141	417	425	489	180	133	102	141	144
10		90	104	161	425	423	493	133	117	128	145	151
11		99	100	184	445	427	497	124	97	129	156	147
12		102	114	204	451	425	501	112	128	142	162	138
13		99	120	205	457	429	503	129	141	132	150	136
14		116	141	220	463	431	505	158	124	120	148	128
15		150	137	216	467	431	505	163	140	114	123	112
16		128	128	253	465	431	505	173	137	117	133	107
17		131	111	249	463	421	501	182	136	121	129	110
18		134	105	237	463	419	495	189	114	109	128	115
19		124	104	261	463	409	483	180	111	98	123	120
20		109	96	285	467	406	465	183	117	97	124	136
21		100	74	290	467	406	439	179	110	101	132	150
22		114	81	288	473	404	421	182	117	106	159	158
23		104	81	280	475	404	383	183	111	117	165	162
24		107	76	273	477	406	352	156	105	125	175	151
25	105	105	77	259	475	406	333	154	96	134	150	133
26	107	100	74	265	477	409	319	151	100	152	141	114
27	119	136	97	290	479	415	293	141	104	155	129	96
28	116	129	93	328	479	433	272	133	134	154	110	96
29	113	154	76	330	477	445	241	145	158	128	105	94
30	124	150	94	326	475	443	216	159	151	127		94
31		123		321	473		193		144	123		98
Total		3,475	2,908	6,768	13,435	12,810	13,138	4,863	4,091	3,756	3,812	3,909
Mean		112	96.9	218	433	427	424	162	132	121	131	126
Max.		154	141	330	479	463	505	189	168	155	175	162
Min.		79	74	83	298	404	193	112	96	90	97	94
Runoff - MCM.		300.240	251.251	584.755	1,160.784	1,106.784	1,135.123	420.163	353.462	324.548	329.357	337.738

WATER YEAR 1967 : Max. 505 Min. 74 Mean Annual Runoff mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct.14	06.00	2.41	505				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
KHLONG YAI RIVER BASIN

Khlong Dok Krai at Ban Khai, Rayong (Z.3)

Location: Lat 12° - 53' - 35" N, Long 101° - 15' - 29" E, about 3 kilometers downstream from Ban Dok Krai at Ban Mae Nam Khu, Tambon Tasit, Amphoe Ban Khai, Rayong.

Drainage Area: 291 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: +25.594 m. (M.S.L.)

Bench Mark: B.M. No.1577 of Army Survey Department.

Location: On left bank at rain tree near staff gage.
Elevation: -

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 - 72

Rating Operation:

Period of Rating: 1967 - 72
Rated by Float: -
Rated by Current Meter: 1967 - 72

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions for irrigation except those built by local residents. No adjustment made for virgin flow.

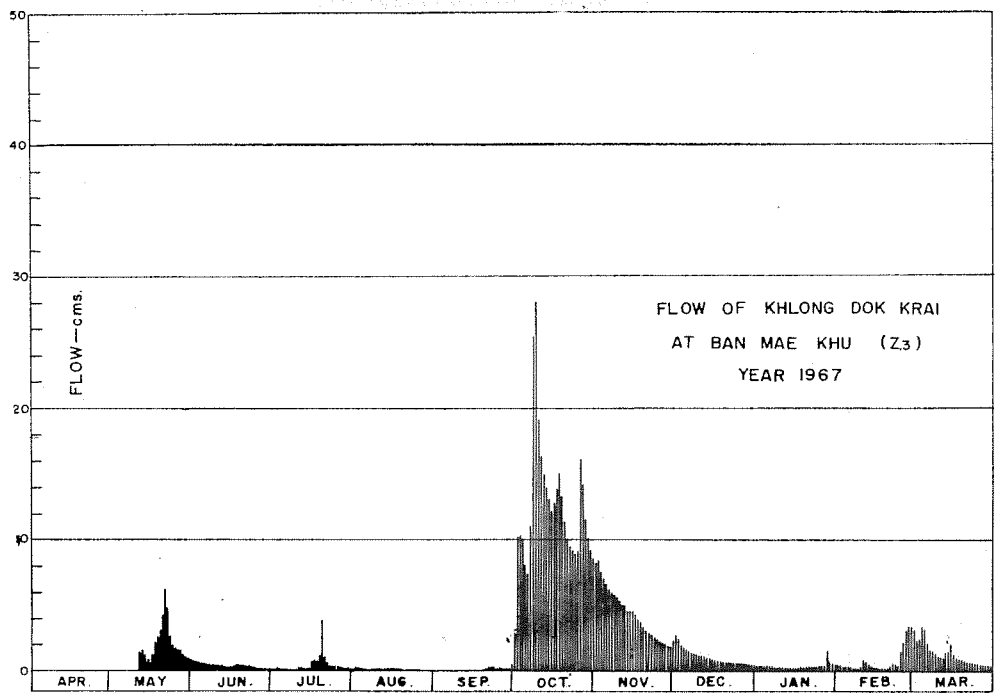
Remarks: Stream gaging began on May 11, 1967.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1			25.92	25.68	25.72	25.61	26.21	27.39	26.45	25.83	25.81	26.51
2			.89	.69	.78	.61	27.78	.42	.30	.81	.77	.32
3			.88	.73	.74	.60	.92	.29	.22	.79	.76	.32
4			.87	.69	.72	.60	.66	.21	.19	.79	.75	.56
5			.86	.68	.70	.62	.35	.14	.15	.79	.74	.50
6			25.85	25.68	25.68	25.60	27.22	27.09	26.12	25.78	25.73	26.19
7			.84	.66	.67	.60	.71	.04	.11	.77	.72	.13
8			.83	.65	.67	.61	28.37	.00	.08	.76	.71	.11
9			.82	.65	.68	.60	.42	26.99	.05	.76	.71	.06
10			.81	.62	.71	.60	.20	.94	.03	.75	.73	.00
11		26.07	25.79	25.76	25.69	25.61	28.08	26.89	26.03	25.75	25.94	25.98
12		.14	.78	.73	.67	.62	27.99	.83	.01	.75	.87	.96
13		.09	.77	.70	.69	.65	.92	.79	25.98	.75	.77	26.12
14		25.97	.76	.69	.76	.65	.84	.80	.96	.74	.75	.10
15		.93	.75	.73	.71	.63	.83	.79	.95	.74	.74	.25
16		25.97	25.77	25.93	25.75	25.62	27.86	26.73	25.93	25.74	25.72	26.00
17		26.24	.83	.95	.72	.61	.95	.64	.92	.73	.72	25.96
18		.34	.85	.92	.69	.64	28.01	.60	.91	.73	.72	.95
19		.43	.83	26.05	.69	.67	27.87	.54	.90	.77	.71	.92
20		.60	.83	.67	.67	.71	.73	.50	.90	.76	.69	.89
21		27.08	25.82	25.91	25.66	25.79	27.63	26.47	25.89	25.73	25.83	25.87
22		26.75	.80	.83	.66	.80	.54	.44	.89	.73	.84	.86
23		.34	.76	.78	.64	.74	.50	.40	.88	.74	.81	.84
24		.21	.74	.77	.65	.70	.47	.37	.86	.76	.77	.82
25		.16	.72	.78	.63	.73	.51	.33	.86	.76	26.17	.81
26		26.11	25.71	25.78	25.63	25.71	28.07	26.29	25.85	25.79	26.30	25.81
27		.14	.71	.78	.63	.70	27.91	.27	.85	.83	.51	.79
28		.03	.71	.76	.61	.69	.69	.23	.84	26.12	.57	.77
29		25.98	.70	.76	.62	.68	.58	.22	.83	25.86	.57	.78
30		.97	.69	.73	.62	.77	.48	.34	.82	.84		.77
31		.94		.71	.62		.41		.82	.84		.76
Mean			25.80	25.79	25.68	25.66	27.73	26.73	25.99	25.78	25.88	26.02
Max.			25.92	26.67	25.78	25.80	28.42	27.39	26.45	26.12	26.57	26.56
Min.			25.69	25.62	25.61	25.69	26.21	26.22	25.82	25.73	25.69	25.76

WATER YEAR 1967 : Max. 28.42 m. Min. 25.60 m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep..	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1			0.82	0.16	0.25	0.02	1.84	8.27	2.87	0.54	0.48	3.15
2			0.72	0.18	0.40	0.02	12	8.51	2.20	0.48	0.37	2.29
3			0.69	0.27	0.30	0.00	14	7.53	1.88	0.42	0.35	2.29
4			0.66	0.18	0.25	0.00	11	6.97	1.76	0.42	0.32	3.40
5			0.63	0.16	0.20	0.04	7.97	6.54	1.62	0.42	0.30	3.10
6			0.60	0.16	0.16	0.00	7.04	6.24	1.52	0.40	0.27	1.76
7			0.57	0.12	0.14	0.00	11	5.94	1.48	0.37	0.25	1.55
8			0.54	0.10	0.14	0.02	25	5.70	1.38	0.35	0.22	1.48
9			0.51	0.10	0.16	0.00	28	5.64	1.27	0.35	0.22	1.31
10			0.48	0.12	0.22	0.00	19	5.34	1.20	0.32	0.27	1.10
11		1.34	0.42	0.35	0.18	0.02	16	5.05	1.20	0.32	0.89	1.03
12		1.59	0.40	0.27	0.14	0.04	15	4.75	1.13	0.32	0.66	0.96
13		1.41	0.37	0.20	0.18	0.10	14	4.55	1.03	0.32	0.37	1.52
14		0.99	0.35	0.18	0.35	0.10	13	4.60	0.96	0.30	0.32	1.45
15		0.85	0.32	0.27	0.22	0.06	12	4.55	0.92	0.30	0.30	2.00
16		0.99	0.37	0.85	0.32	0.04	13	4.25	0.85	0.30	0.25	1.10
17		1.96	0.54	0.92	0.25	0.02	14	3.80	0.82	0.27	0.25	0.96
18		2.38	0.60	0.82	0.18	0.08	15	3.60	0.78	0.27	0.25	0.92
19		2.78	0.54	1.27	0.18	0.14	13	3.30	0.75	0.37	0.22	0.82
20		3.60	0.54	3.95	0.14	0.22	11	3.10	0.75	0.35	0.18	0.72
21		6.18	0.51	0.78	0.12	0.42	10	2.96	0.72	0.27	0.54	0.66
22		4.35	0.45	0.54	0.12	0.45	9.49	2.83	0.72	0.27	0.57	0.63
23		2.38	0.35	0.40	0.08	0.30	9.15	2.65	0.69	0.30	0.48	0.57
24		1.84	0.30	0.37	0.10	0.20	8.91	2.51	0.63	0.35	0.37	0.51
25		1.66	0.25	0.40	0.06	0.27	9.23	2.33	0.63	0.35	1.69	0.48
26		1.48	0.22	0.40	0.06	0.22	16	2.16	0.60	0.42	2.20	0.48
27		1.59	0.22	0.40	0.06	0.20	14	2.08	0.60	0.54	3.15	0.42
28		1.20	0.22	0.35	0.02	0.18	11	1.92	0.57	1.52	3.45	0.37
29		1.03	0.20	0.35	0.04	0.16	9.83	1.88	0.54	0.63	3.45	0.40
30		0.99	0.18	0.27	0.04	0.37	8.99	2.38	0.51	0.57		0.37
31		0.89		0.22	0.04		8.43		0.51	0.57		0.35
Total			13.57	15.11	5.10	3.69	387.88	131.93	33.09	12.98	22.64	38.15
Mean			0.45	0.49	0.16	0.12	12.5	4.40	1.07	0.42	0.78	1.23
Max.			0.82	3.95	0.40	0.45	28	8.27	2.87	1.52	3.45	3.40
Min.			0.18	0.10	0.02	0.00	1.84	1.88	0.51	0.27	0.18	0.35
Runoff - mcm.			1.172	1.305	0.441	0.319	33.513	11.399	2.859	1.121	1.959	3.296

WATER YEAR 1967 : Max. 28 Min. 0.00 Mean Annual Runoff mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct.8	11.00	28.54	40				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
KHLONG YAI RIVER BASIN

Khlong Nong Pla Lai at Ban Khai, Rayong (Z.4)

Location: Lat 12° - 54' - 40" N, Long 101° - 17' - 37" E, on left bank at Ban Nong Ma Pring, Amphoe Ban Rhai, Rayong.

Drainage Area: 429 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: 0.00 m. (A.D.)

Bench Mark: B.M. - H.S.

Location: Near staff gage site.
Elevation: +5.270 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: 1967 to date

Rating Operation:

Period of Rating: 1967 to date
Rated by Float: -
Rated by Current Meter: 1967 to date

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

Overbank Flow Conditions: Overbank flow but not observed.

General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions except those built by local residents. No adjustment made for virgin flow.

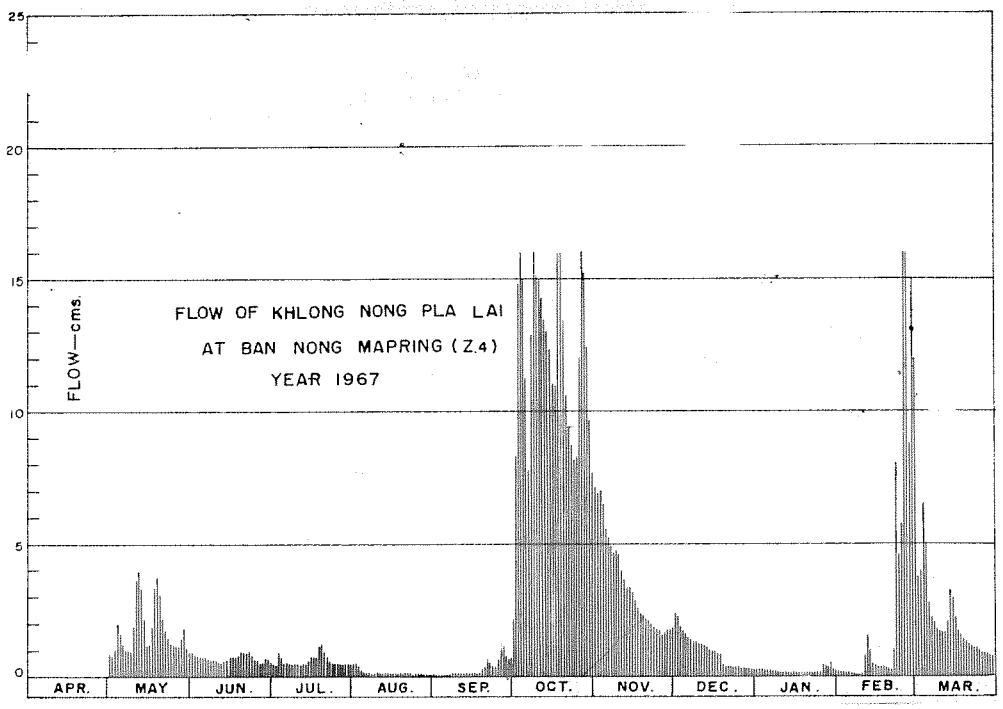
Remarks: Stream gaging began on May 1, 1967.

GAGE HEIGHT IN METER (A.D.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1		0.33	0.37	0.17	0.13	0.01	0.87	1.66	0.84	0.29	0.24	2.02
2		.31	.34	.17	.16	.01	1.82	.64	.80	.29	.23	1.09
3		.35	.32	.36	.15	.01	2.59	.66	.70	.29	.22	.09
4		.71	.31	.26	.13	.00	.78	.56	.65	.28	.20	.56
5		.55	.30	.19	.10	.00	.55	.44	.61	.27	.19	.01
6		0.44	0.29	0.15	0.09	0.00	1.83	1.35	0.58	0.27	0.17	0.84
7		.40	.27	.13	.08	.03	.87	.29	.55	.25	.13	.74
8		.41	.25	.12	.07	.01	2.70	.25	.54	.25	.16	.72
9		.33	.25	.14	.07	.00	.95	.28	.53	.24	.15	.66
10		.48	.23	.13	.09	.00	.87	.23	.49	.24	.18	.63
11		1.08	0.23	0.13	0.07	0.00	2.79	1.19	0.51	0.23	0.44	0.62
12		.13	.21	.12	.07	.00	.67	.15	.47	.23	.68	.62
13		0.95	.25	.15	.08	.00	.61	.07	.45	.22	.37	.78
14		.71	.24	.14	.07	.00	.55	.09	.43	.21	.29	1.00
15		.46	.28	.21	.05	.01	.40	.05	.41	.24	.27	0.93
16		0.49	0.30	0.25	0.05	0.02	2.39	0.99	0.39	0.21	0.24	0.69
17		.68	.28	.24	.05	.00	.45	.94	.38	.20	.23	.62
18		1.00	.34	.24	.05	.04	.77	.89	.37	.19	.24	.58
19		.09	.37	.40	.05	.12	.75	.87	.36	.19	.21	.54
20		0.92	.36	.42	.04	.18	.41	.84	.36	.23	.19	.50
21		0.68	0.32	0.29	0.04	0.33	2.08	0.81	0.36	0.21	0.19	0.48
22		.60	.37	.23	.04	.23	1.96	.79	.36	.20	.65	.46
23		.53	.30	.17	.03	.17	.86	.76	.35	.23	1.76	.43
24		.48	.24	.15	.03	.19	.82	.74	.34	.23	.20	.43
25		.47	.23	.15	.03	.25	.79	.72	.33	.24	.11	.39
26		0.45	0.19	0.15	0.03	0.53	2.30	0.67	0.33	0.39	2.75	0.37
27		.43	.18	.15	.03	.50	.80	.69	.32	.37	.76	.36
28		.52	.26	.13	.03	.34	.66	.67	.31	.30	1.60	.34
29		.65	.26	.14	.03	.29	.24	.67	.31	.28	2.57	.31
30		.42	.20	.14	.03	.33	1.87	.65	.30	.26		.31
31		.37		.13	.03		.73		.30	.25		.29
Mean		0.59	0.27	0.19	0.06	0.12	2.31	1.05	0.45	0.26	0.67	0.68
Max.		1.13	0.37	0.42	0.16	0.53	2.95	1.66	0.84	0.39	2.76	2.02
Min.		0.31	0.18	0.12	0.03	0.00	0.87	0.65	0.30	0.19	0.15	0.29

WATER YEAR 1967 : Max. 2.95 m. Min. 0.00 m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1		0.82	0.92	0.44	0.46	0.08	2.53	7.00	2.44	0.27	0.19	10
2		0.77	0.82	0.44	0.52	0.08	8.35	6.86	2.28	0.27	0.18	3.65
3		0.87	0.80	0.30	0.27	0.08	15	7.00	1.89	0.27	0.16	3.65
4		2.04	0.77	0.65	0.22	0.07	16	6.30	1.72	0.25	0.14	6.58
5		1.47	0.75	0.48	0.18	0.07	14	5.42	1.58	0.24	0.13	3.25
6		1.12	0.72	0.50	0.16	0.07	8.42	5.22	1.47	0.24	0.11	2.49
7		1.00	0.67	0.46	0.15	0.14	7.30	4.84	1.37	0.21	0.12	2.08
8		1.03	0.62	0.44	0.14	0.12	14	4.62	1.33	0.21	0.10	2.00
9		0.82	0.62	0.48	0.14	0.11	16	4.79	1.30	0.19	0.09	1.78
10		1.24	0.57	0.46	0.16	0.11	15	4.51	1.18	0.19	0.12	1.68
11		3.70	0.57	0.46	0.14	0.11	15	3.85	1.24	0.18	0.85	1.65
12		3.96	0.52	0.44	0.14	0.11	14	3.65	1.12	0.18	1.58	1.65
13		3.07	0.62	0.50	0.15	0.11	13	3.25	1.06	0.16	0.67	2.24
14		2.04	0.60	0.48	0.14	0.11	13	3.35	1.00	0.15	0.48	3.21
15		1.18	0.70	0.65	0.12	0.12	11	3.16	0.95	0.19	0.44	2.89
16		1.27	0.75	0.75	0.12	0.13	11	2.80	0.90	0.15	0.38	1.89
17		1.93	0.70	0.72	0.12	0.11	11	2.58	0.87	0.14	0.38	1.65
18		3.30	0.80	0.72	0.12	0.15	16	2.36	0.85	0.13	0.36	1.51
19		3.75	0.92	1.15	0.12	0.27	16	2.28	0.40	0.13	0.32	1.37
20		2.94	0.90	1.21	0.11	0.38	13	2.16	0.40	0.18	0.28	1.24
21		1.93	0.80	0.85	0.11	0.72	10	2.06	0.40	0.15	0.28	1.18
22		1.65	0.92	0.70	0.11	0.48	9.30	1.96	0.40	0.14	1.75	1.12
23		1.40	0.75	0.55	0.10	0.36	8.50	1.86	0.38	0.18	8.05	1.03
24		1.24	0.60	0.50	0.10	0.40	8.20	1.76	0.36	0.18	4.24	1.03
25		1.21	0.57	0.50	0.10	0.52	7.97	1.72	0.34	0.19	3.75	0.92
26		1.15	0.48	0.50	0.10	1.27	12	1.54	0.34	0.46	16	0.87
27		1.09	0.46	0.50	0.10	1.18	16	1.61	0.32	0.42	16	0.85
28		1.37	0.65	0.46	0.10	0.75	15	1.79	0.30	0.28	6.86	0.80
29		1.82	0.65	0.48	0.10	0.62	11	1.79	0.30	0.55	15	0.72
30		1.06	0.50	0.48	0.10		8.58	1.72	0.28	0.22		0.72
31		0.92		0.46	0.10		7.52		0.28	0.21		0.67
Total		53.16	20.72	18.31	4.80	9.55	363.67	103.79	29.05	6.91	78.99	66.38
Mean		1.71	0.691	0.59	0.155	0.138	11.7	3.46	0.937	0.223	2.69	2.14
Max.		3.96	0.92	1.21	0.52	1.27	16	7.00	2.44	0.46	16	10
Min.		0.77	0.46	0.44	0.10	0.07	2.53	1.54	0.28	0.13	0.09	0.67
Runoff - mcm.		4.579	1.814	1.582	0.415	0.825	31.450	8.986	2.506	0.597	6.739	5.702

WATER YEAR 1967 : Max. 16 Min. 0.07 Mean Annual Runoff mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct.9	06.00	3.00	16				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
KHLONG PRASAE RIVER BASIN

Khlong Prasae at Ban Yang Ngam, Rayong (Z.5)

Location: Lat 12°- 53' - 03" N, Long 101°- 35' - 58" E, at Ban Yang Ngam, Amphoe Klang, Rayong.

Drainage Area: 1,164 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: 0.00 m. (A.D.)

Bench Mark:

Location:
Elevation:

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 Float: -
Rated by Current Meter: 1967 to date

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

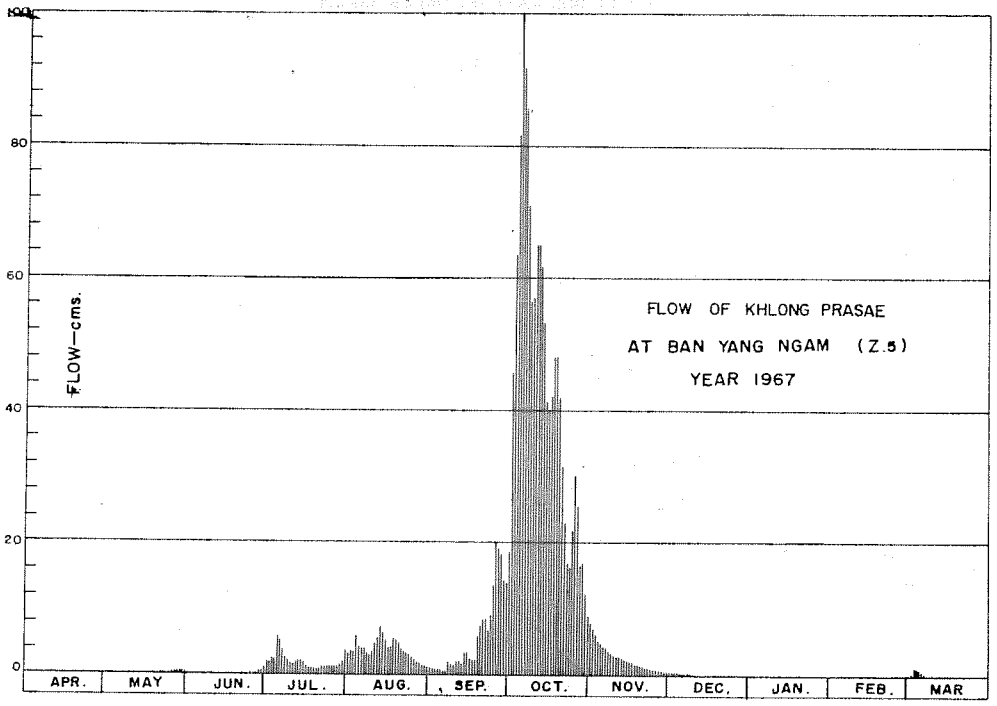
Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions except those built by local residents. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (A.D.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.54	0.77	0.89	1.26	1.50	1.08	3.14	2.13	0.98	0.72	0.63	0.90
2	.54	.76	.87	.29	.59	.06	4.65	.01	.97	.72	.63	.96
3	.54	.80	.84	.41	.48	.05	5.50	1.91	.96	.71	.62	1.17
4	.53	.75	.80	.29	.91	.03	6.05	.82	.95	.71	.62	.13
5	.52	.73	.79	.89	.65	.00	.47	.75	.93	.71	.62	.02
6	0.51	0.73	0.77	1.76	1.64	0.99	6.28	1.69	0.92	0.70	0.62	0.95
7	.51	.71	.75	.51	.65	1.02	.18	.62	.91	.70	.62	.90
8	.51	.70	.77	.37	.54	.27	5.58	.56	.90	.70	.62	.87
9	.51	.69	.76	.28	.47	.20	.18	.51	.89	.69	.62	.85
10	.51	.70	.75	.22	.54	.15	.27	.48	.88	.68	.62	.85
11	0.51	0.70	0.73	1.19	1.74	1.27	5.56	1.45	0.87	0.68	0.62	0.85
12	.51	.69	.71	.28	.85	.33	.58	.42	.86	.67	.63	.83
13	.51	.68	.72	.28	2.10	.24	.42	.39	.85	.67	.64	.82
14	.51	.84	.73	.31	1.92	.55	.03	.35	.84	.67	.63	.80
15	.51	.74	.73	.20	.75	.54	4.42	.33	.83	.66	.62	.78
16	0.51	0.78	0.73	1.13	1.67	1.41	4.43	1.30	0.82	0.66	0.61	0.76
17	.51	.78	.74	.10	.70	.34	.59	.28	.82	.65	.60	.74
18	.51	.86	.77	.09	.87	.34	.85	.22	.81	.65	.60	.72
19	.51	.84	.76	.05	.81	.95	.86	.22	.80	.65	.59	.72
20	.51	.78	.76	.06	.71	2.13	.44	.18	.79	.64	.59	.71
21	0.51	0.84	0.81	1.06	1.60	2.24	3.92	1.15	0.78	0.64	0.60	0.70
22	.51	.89	.90	.14	.55	.26	.36	.13	.78	.64	.60	.70
23	.51	.88	.88	.12	.52	.00	.03	.10	.77	.63	.59	.69
24	.73	.86	.86	.11	.44	.17	2.87	.09	.76	.63	.60	.68
25	.74	.90	.90	.11	.35	.80	3.49	.07	.75	.64	.62	.68
26	0.74	0.92	0.89	1.13	1.32	3.31	3.92	1.05	0.74	0.63	0.63	0.67
27	.75	.95	.91	.17	.27	.18	.57	.03	.74	.63	.64	.67
28	.76	.95	.94	.12	.22	.12	2.95	.01	.73	.63	.82	.68
29	.75	.96	1.02	.22	.17	2.82	3.06	.00	.73	.63	.87	.69
30	.74	.98	1.11	.30	.14	.75	2.50	0.99	.72	.63		.70
31		.93		.57	.12		.29		.72	.63		.69
Mean	0.57	0.81	0.82	1.26	1.57	1.75	4.46	1.37	0.83	0.66	0.63	0.80
Max.	0.76	0.98	1.11	1.89	2.10	3.31	6.47	2.13	0.98	0.72	0.87	1.17
Min.	0.51	0.68	0.71	1.05	1.12	0.99	2.29	0.99	0.72	0.63	0.59	0.67

WATER YEAR 1967 : Max. 6.47 m. Min. 0.15 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.07	0.27	0.39	2.00	3.30	1.12	18	7.64	0.72	0.22	0.13	0.40
2	0.07	0.26	0.37	2.15	3.84	1.04	44	6.68	0.68	0.22	0.13	0.64
3	0.07	0.30	0.34	2.76	3.18	1.00	63	5.97	0.64	0.21	0.12	1.55
4	0.06	0.25	0.30	2.15	5.97	0.92	80	5.34	0.60	0.21	0.12	1.35
5	0.06	0.23	0.29	5.83	4.20	0.80	98	4.85	0.52	0.21	0.12	0.83
6	0.05	0.23	0.27	4.92	4.14	0.76	89	4.44	0.48	0.20	0.12	0.60
7	0.05	0.21	0.25	3.36	4.20	0.88	85	4.02	0.44	0.20	0.12	0.40
8	0.05	0.20	0.27	2.55	3.54	2.05	65	3.66	0.40	0.20	0.12	0.37
9	0.05	0.19	0.26	2.10	3.12	1.70	55	3.36	0.39	0.19	0.12	0.35
10	0.05	0.20	0.25	1.80	3.54	1.45	57	3.18	0.38	0.18	0.12	0.35
11	0.05	0.20	0.23	1.65	4.78	2.05	65	3.00	0.37	0.18	0.12	0.35
12	0.05	0.19	0.21	2.10	5.55	2.35	65	2.82	0.36	0.17	0.13	0.33
13	0.05	0.18	0.22	2.10	7.40	1.90	61	2.65	0.35	0.17	0.14	0.32
14	0.06	0.34	0.23	2.25	6.04	3.60	52	2.45	0.34	0.17	0.13	0.30
15	0.05	0.24	0.23	1.70	4.85	3.54	39	2.35	0.33	0.16	0.12	0.28
16	0.05	0.28	0.23	1.35	4.32	2.76	40	2.20	0.32	0.16	0.11	0.26
17	0.05	0.28	0.24	1.20	4.50	2.40	43	2.10	0.32	0.15	0.10	0.24
18	0.05	0.36	0.27	1.16	5.69	2.40	48	1.80	0.31	0.15	0.10	0.22
19	0.05	0.34	0.26	1.00	5.27	6.25	48	1.80	0.30	0.15	0.09	0.22
20	0.05	0.28	0.26	1.04	4.57	7.64	40	1.60	0.29	0.14	0.09	0.21
21	0.05	0.34	0.31	1.04	3.90	8.52	30	1.45	0.28	0.14	0.10	0.20
22	0.05	0.39	0.39	1.40	3.60	8.68	21	1.35	0.28	0.14	0.10	0.20
23	0.05	0.38	0.38	1.30	3.42	6.60	17	1.20	0.27	0.13	0.09	0.19
24	0.23	0.36	0.36	1.25	2.94	7.96	15	1.16	0.26	0.13	0.10	0.18
25	0.24	0.40	0.40	1.25	2.45	14	23	1.08	0.25	0.14	0.12	0.18
26	0.24	0.48	0.39	1.35	2.30	20	30	1.00	0.24	0.13	0.13	0.17
27	0.25	0.60	0.44	1.55	2.05	19	24	0.92	0.24	0.13	0.14	0.17
28	0.26	0.60	0.56	1.30	1.80	18	16	0.84	0.23	0.13	0.32	0.18
29	0.25	0.64	0.88	1.80	1.55	14	17	0.80	0.23	0.13	0.37	0.19
30	0.24	0.72	1.25	2.20	1.40	13	11	0.76	0.22	0.13		0.20
31		0.52		3.72	1.30		8.92		0.22	0.13		0.19
Total	2.94	10.46	10.73	63.33	118.71	176.37	1,367.92	82.47	11.26	5.10	3.82	11.67
Mean	0.094	0.337	0.357	2.04	3.83	5.88	44.1	2.75	0.363	0.165	0.132	0.376
Max.	0.26	0.72	1.25	5.83	7.40	20	98	7.64	0.72	0.22	0.37	1.55
Min.	0.05	0.18	0.21	1.00	1.30	0.76	8.92	0.76	0.22	0.13	0.09	0.17
Runoff - MCM.	0.254	0.904	0.927	5.471	10.256	15.238	118.188	7.125	0.973	0.441	0.330	1.008

WATER YEAR 1967 : Max. 98 Min. 0.05 Mean 5.11 Annual Runoff 161.117 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct.5	24.00	6.54	101				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
KHLONG TA NOT RIVER BASIN

Khlong Ta Not at Ban Thap Chum, Chanthaburi (Z.7)

Location: Lat 12°- 47' - 56" N, Long 101°- 54' - 32" E, on right bank, 9 kilometers from the entrance at Nikhom Dong Thap, and 14 kilometers upstream from Nong Khla Market, Amphoe Tha Mai, Chanthaburi.

Drainage Area: 1,318 sq.km.

Type of Gage: Water - stage recorder.

Zero Gage at Bottom at: 0.00 m. (A.D.)

Bench Mark: B.M. - H.S.

Location: On right bank along measuring line.
Elevation: +8.953 m. (A.D.)

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 Float: -
Rated by Current Meter: 1965 to date

Stability of Channel Regimes: Unstable, shifting adjustment is included for flow computation.

Overbank Flow Conditions: Overbank flow was observed at elevation +9.20 m. (A.D.) and included for flow computation.

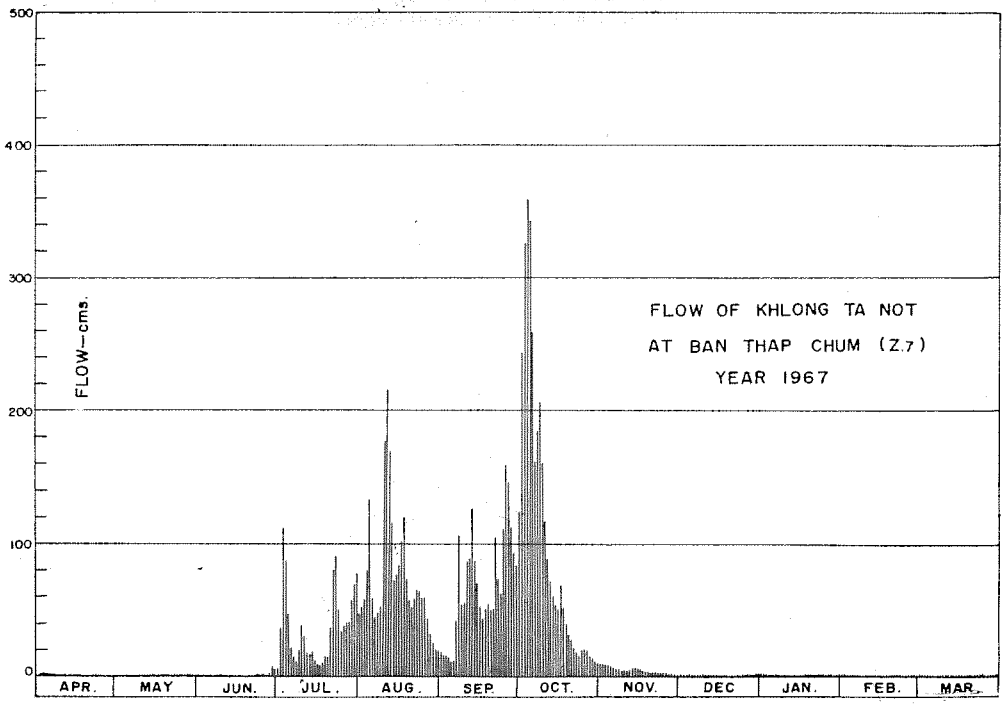
General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions for irrigation except those built by local residents. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (A.D.), WATER YEAR APRIL 1, 1967 TO MARCH 31,1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	2.67	2.64	2.80	3.80	5.67	4.51	7.79	3.90	3.04	2.80	2.73	2.76
2	.66	.64	.77	6.09	6.03	.33	9.82	.88	.02	.80	.74	.75
3	.66	.64	.76	7.91	.01	.51	10.88	.80	.03	.80	.74	.75
4	.66	.65	.76	.09	.89	.32	11.41	.73	.03	.80	.73	.74
5	.66	.65	.76	5.48	8.17	.12	.28	.66	.00	.79	.73	.73
6	2.66	2.65	2.76	4.83	6.14	4.28	10.11	3.63	3.00	2.78	2.73	2.73
7	.66	.66	.73	.48	5.65	5.73	8.50	.60	.10	.78	.73	.73
8	.66	.66	.73	.14	.89	7.66	9.19	.55	2.96	.78	.73	.73
9	.65	.66	.74	.67	.76	6.09	.52	.48	.97	.77	.73	.73
10	.65	.67	.73	5.74	6.98	5.72	8.42	.47	.97	.77	.73	.73
11	2.65	2.67	2.74	5.27	9.11	7.02	7.37	3.45	2.97	2.77	2.73	2.27
12	.65	.67	.73	4.61	.77	6.91	6.79	.46	.97	.77	.72	.71
13	.65	.68	.72	.71	8.73	8.00	.53	.60	.88	.77	.72	.73
14	.66	.68	.71	.78	6.49	6.90	.07	.63	.87	.76	.72	.73
15	.66	.69	.84	.42	.71	.39	.01	.53	.87	.75	.73	.72
16	2.65	2.70	2.84	4.10	7.12	5.95	5.74	3.40	2.84	2.75	2.73	2.71
17	.65	.70	.83	3.89	.24	.49	6.41	.37	.84	.73	.72	.71
18	.66	.74	.80	4.07	.73	.90	5.86	.34	.83	.72	.72	.70
19	.68	.81	.79	.35	6.12	.98	.37	.30	.82	.72	.71	.72
20	.68	.80	.78	.25	.04	.76	.05	.27	.82	.72	.71	.89
21	2.68	2.80	2.80	5.18	5.80	5.45	4.84	3.24	2.82	0.73	2.73	2.68
22	.67	.84	.78	6.85	6.12	7.36	.67	.20	.82	.72	.74	.67
23	.67	.88	3.24	7.14	.29	6.17	.57	.17	.82	.72	.73	.68
24	.67	.82	.04	5.55	.23	5.93	.49	.15	.80	.72	.76	.69
25	.66	.97	.12	.21	.05	7.42	.75	.14	.80	.72	.86	.70
26	2.66	2.96	2.98	5.49	6.12	8.57	4.67	3.12	2.80	2.72	2.89	2.70
27	.65	3.04	.91	.60	5.31	.21	.46	.08	.80	.72	.83	.70
28	.65	3.03	3.49	.51	.05	7.26	.29	.11	.79	.73	.80	.70
29	.64	2.94	.97	6.21	4.83	6.99	.16	.13	.79	.73	.77	.69
30	.64	.88	.65	.48	.61	.63	.05	.10	.79	.73		.67
31		.84		.79	.58		3.97		.79	.73		.67
Mean	2.66	2.76	2.91	5.34	6.43	6.18	7.00	6.75	2.88	2.75	2.75	2.72
Max.	2.68	3.04	3.97	7.91	9.77	8.57	11.41	3.90	3.04	2.80	2.89	2.76
Min.	2.64	2.64	2.71	3.89	4.58	4.12	3.97	3.08	2.79	2.72	2.71	3.67

WATER YEAR 1967 : Max. 11.41 m. Min. 2.64 m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.41	0.32	0.80	6.20	42	18	118	9.00	1.58	0.80	0.59	0.68
2	0.38	0.32	0.71	47	53	15	222	8.80	1.46	0.80	0.62	0.65
3	0.38	0.32	0.68	112	52	16	303	8.00	1.34	0.80	0.62	0.65
4	0.38	0.35	0.68	80	81	13	359	7.80	1.31	0.80	0.59	0.62
5	0.38	0.35	0.68	32	133	10	343	6.60	1.22	0.77	0.59	0.59
6	0.38	0.35	0.68	19	56	12	241	5.50	1.22	0.74	0.59	0.59
7	0.38	0.38	0.59	13	42	41	151	5.20	1.52	0.74	0.59	0.59
8	0.38	0.38	0.59	8.60	48	107	185	4.76	1.10	0.74	0.59	0.59
9	0.35	0.38	0.62	16	45	52	204	4.20	1.13	0.71	0.59	0.59
10	0.35	0.41	0.59	38	84	41	147	4.13	1.13	0.71	0.59	0.59
11	0.35	0.41	0.62	27	178	87	109	3.99	1.13	0.71	0.59	0.59
12	0.35	0.41	0.59	15	216	83	79	4.06	0.95	0.71	0.56	0.53
13	0.35	0.44	0.56	17	149	127	70	5.80	0.68	0.71	0.56	0.59
14	0.38	0.44	0.53	18	69	83	55	6.10	0.65	0.68	0.56	0.59
15	0.38	0.47	0.92	12	77	65	53	5.10	0.65	0.65	0.59	0.56
16	0.35	0.50	0.92	8.20	84	51	47	4.06	0.56	0.65	0.59	0.53
17	0.35	0.50	0.65	6.10	100	39	68	3.85	0.56	0.59	0.56	0.53
18	0.38	0.62	0.56	11	120	50	51	3.64	0.53	0.56	0.56	0.50
19	0.44	0.83	0.53	15	60	55	37	3.36	0.50	0.56	0.53	0.56
20	0.44	0.80	0.50	13	57	49	30	3.15	0.50	0.56	0.53	0.47
21	0.44	0.80	0.56	30	50	40	25	2.94	0.50	0.59	0.59	0.44
22	0.41	0.90	0.50	80	60	104	20	2.68	0.50	0.56	0.62	0.41
23	0.41	1.04	2.00	90	65	60	17	2.50	0.50	0.56	0.59	0.44
24	0.41	0.86	1.28	39	63	54	15	2.38	0.44	0.56	0.68	0.47
25	0.38	1.31	1.52	31	57	107	20	2.32	0.44	0.56	0.98	0.50
26	0.38	1.28	1.10	38	60	159	20	2.20	0.44	0.56	1.07	0.50
27	0.35	1.52	0.89	40	37	142	17	1.70	0.44	0.56	0.89	0.50
28	0.35	1.49	3.57	38	31	101	14	1.85	0.41	0.59	0.80	0.50
29	0.32	1.22	7.90	58	24	88	12	1.95	0.41	0.59	0.71	0.47
30	0.32	1.04	4.76	67	19	73	10	1.80	0.41	0.59		0.41
31		0.92		78	19		9.36		0.41	0.59		0.41
Total	11.31	21.36	37.08	1,103.10	2,231.00	1,942.00	3,051.36	129.42	24.62	20.30	18.52	16.61
Mean	0.377	0.689	1.24	35.6	72.0	64.7	98.4	4.31	0.794	0.655	0.639	0.536
Max.	0.44	1.52	7.90	112	216	159	359	9.00	1.58	0.80	1.07	0.68
Min.	0.32	0.32	0.50	6.10	19	10	9.36	1.70	0.41	0.56	0.53	0.41
Runoff - mcm.	0.977	1.845	3.204	95.308	192.758	167.789	263.637	11.182	2.127	1.764	1.600	1.435

WATER YEAR 1967 : Max. 359 Min. 0.32 Mean 23.5 Annual Runoff 743.617 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct.4	18.00	11.50	370				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
MAE KLONG RIVER BASIN

Mae Klong River at Muang Ratchaburi (K.2)

Location: Lat 13°- 32' - 20" N, Long 99°- 49' - 30" E, on right bank near the children playground, 100 meters upstream from Chulalongkorn Railway Bridge, Amphoe Muang, Ratchaburi.

Drainage Area: Flood plain.

Type of Gage: Staff gage.

Zero Gage at Bottom at: +0.00 m. (M.S.L.)

Bench Mark: B.M. - H.S.

Location: On left bank at Khlong Lum Din Regulator.
Elevation: +2.690 m. (M.S.L.)

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: 1915 - 30, 1932 - 68

Rating Operation:

Period of Rating: 1963, 1965 - 66
Rated by Float: -
Rated by Current Meter: 1963, 1965 - 66

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

Overbank Flow Conditions: No overbank flow.

General Description: Records fair except those for period of tidal effect which are poor. Stage - discharge relationship used is defined by discharge measurement made during 1965. Upstream state diversions for irrigation of about 6,200 hectares. No adjustment made for virgin flow.

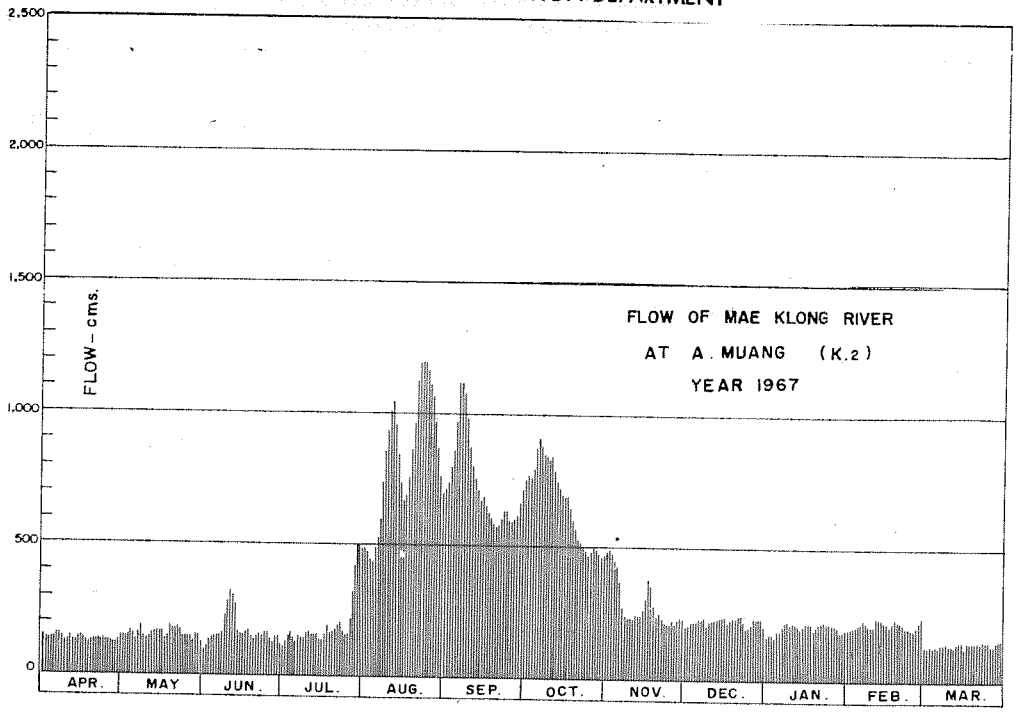
Remarks: Ending of gage height record since Mar. 16, 1968 and discharge record estimated base on gage height record of gaging station at K.2A

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.24	0.33	- 0.10	- 0.02	1.80	2.55	2.65	2.75	0.55	0.34	0.55	0.15
2	.21	.26	- 0.04	0.15	.76	.60	.75	.83	.55	.42	.53	.15
3	.16	.24	0.21	.25	.64	.84	.68	.75	.63	.40	.57	.19
4	.21	.39	.25	.33	.52	3.03	.71	.63	.66	.32	.56	.14
5	.22	.31	.26	.24	.70	.53	3.02	.53	.63	.47	.63	.21
6	0.30	0.13	0.26	0.10	1.86	3.70	3.13	1.20	0.73	0.46	0.66	0.13
7	.30	.31	.28	.30	2.15	.67	.05	0.93	.65	.54	.74	.20
8	.26	.45	.19	.25	.61	.56	2.97	.77	.73	.63	.66	.23
9	.16	.31	.67	.17	.98	.28	.95	.71	.53	.69	.62	.26
10	.10	.23	.93	.32	3.23	2.98	.89	.73	.64	.61	.57	.18
11	0.26	0.19	1.13	0.39	3.42	2.78	2.94	0.69	0.66	0.64	0.58	0.19
12	.16	.32	.04	.29	.51	.66	.77	.81	.68	.62	.77	.14
13	.12	.36	0.94	.31	.20	.24	.66	.78	.69	.57	.74	.23
14	.23	.39	.39	.30	2.93	.41	.60	.77	.71	.52	.72	.32
15	.24	.35	.36	.19	.53	.48	.50	.84	.72	.58	.66	.30
16	0.24	0.39	0.29	0.21	2.41	2.37	2.46	0.94	0.76	0.62	0.66	
17	.16	.28	.33	.22	.49	.29	.50	1.37	.62	.64	.59	
18	.07	.14	.40	.50	.68	.19	.28	.25	.63	.63	.69	
19	.12	.49	.28	.34	3.04	.12	.19	0.90	.73	.49	.75	
20	.18	.48	.14	.35	.28	.07	.09	.71	.73	.58	.69	
21	0.17	0.40	0.27	0.43	3.72	2.11	1.94	0.82	0.72	0.59	0.67	
22	.19	.48	.33	.48	.88	.25	.89	.71	.78	.64	.63	
23	.15	.40	.25	.56	.90	.30	.84	.65	.62	.67	.52	
24	.17	.22	.37	.38	.89	.29	.78	.63	.52	.62	.58	
25	.16	.26	.34	.29	.81	.16	.68	.58	.54	.64	.54	
26	0.13	0.25	0.22	0.31	3.65	2.15	1.79	1.67	1.59	0.63	0.49	
27	.15	.27	.08	.40	.52	.18	.84	.59	.73	.62	.58	
28	.09	.11	.20	1.12	.16	.24	.79	.71	.71	.60	.67	
29	.13	.29	.29	.63	2.86	.36	.73	.74	.71	.47	.79	
30	.19	.31	.12	.86	.69	.56	.68	.72	.72	.47		
31		.17		.78	.48		.72		.50	.52		
Mean	0.18	0.31	0.35	0.47	2.85	2.61	2.37	1.12	0.65	0.56	0.63	
Max.	0.30	0.49	1.13	1.86	3.90	3.70	3.13	1.83	0.78	0.69	0.79	
Min.	0.07	0.11	- 0.10	- 0.02	1.52	2.07	1.68	0.58	0.50	0.32	0.49	

WATER YEAR 1967 : Max. 3.90 m. Min. m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	146	161	94	105	491	712	744	478	200	163	200	131
2	141	149	102	131	481	728	776	499	200	177	196	131
3	133	146	141	147	449	807	754	478	215	173	204	137
4	141	171	147	166	419	873	763	447	220	159	202	129
5	142	158	149	146	465	1,054	869	421	215	186	215	141
6	156	128	149	123	507	1,120	909	339	234	184	220	128
7	156	158	153	156	590	1,108	880	276	218	198	236	139
8	149	182	137	147	731	1,066	851	242	234	214	220	144
9	133	158	222	137	855	963	844	230	196	226	213	149
10	123	144	276	159	945	855	824	234	217	211	204	136
11	149	137	322	171	1,013	786	841	226	220	217	205	137
12	133	159	301	154	1,047	747	783	250	224	213	242	129
13	126	166	278	158	934	709	747	244	226	204	236	144
14	144	171	171	156	837	668	728	242	230	195	232	159
15	146	164	166	137	706	690	696	256	232	205	220	156
16	146	153	154	141	668	656	684	282	240	213	220	120
17	133	129	161	142	693	632	696	381	213	217	207	157
18	118	129	173	191	754	602	629	351	215	215	226	144
19	126	189	153	163	876	581	602	269	234	189	238	147
20	136	187	129	164	963	566	572	230	234	205	226	149
21	134	173	151	178	1,123	578	529	252	232	207	222	153
22	137	187	161	187	1,190	612	515	230	244	217	215	146
23	131	173	147	202	1,198	635	502	218	213	222	195	151
24	134	142	168	170	1,194	602	486	215	195	213	205	147
25	133	149	163	154	1,163	593	460	205	198	217	198	156
26	128	147	142	158	1,100	590	488	222	207	215	189	136
27	131	151	120	173	1,051	599	502	207	234	213	205	134
28	121	125	139	320	920	617	488	230	230	209	222	156
29	128	154	154	447	813	653	473	236	230	186	246	154
30	137	158	126	507	757	715	460	232	232	186		147
31		134		486	690		470		191	195		153
Total	4,091	4,874	5,049	5,973	25,628	22,147	20,565	8,622	6,823	6,244	6,259	4,440
Mean	136	157	168	193	827	738	663	287	220	201	216	143
Max.	156	189	322	507	1,198	1,120	909	499	244	226	246	159
Min.	118	125	94	105	419	566	460	205	191	159	195	120
Runoff - MCM.	353.462	421.114	436.234	516.067	2,214.259	1,913.500	1,776.816	744.941	589.507	539.482	540.778	383.616

WATER YEAR 1967 : Max. 1,198 Min. 94 Mean 330 Annual Runoff 10,429.776mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Aug.23	18.00	3.90	1,198				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
MAE KLONG RIVER BASIN

Mae Klong River at Tha Muang, Kanchanaburi (K.4)

Location: Lat 13°- 57' - 38" N, Long 99°- 38' - 11" E, on left bank at Wat Si Loha Ratchabamrung, Amphoe Tha Muang, Kanchanaburi.

Drainage Area: 27,220 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: +12.00 m. (M.S.L.)

Bench Mark:

Location: At the foot of tamarind tree infront of Amphoe Tha Muang Office.
Elevation: +23.781 m. (M.S.L.)

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: 1939 - 56, 1962 - 69

Rating Operation:

Period of Rating: 1943 - 47, 1962 - 65
Rated by Float: -
Rated by Current Meter: 1943 - 47, 1962 - 65

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

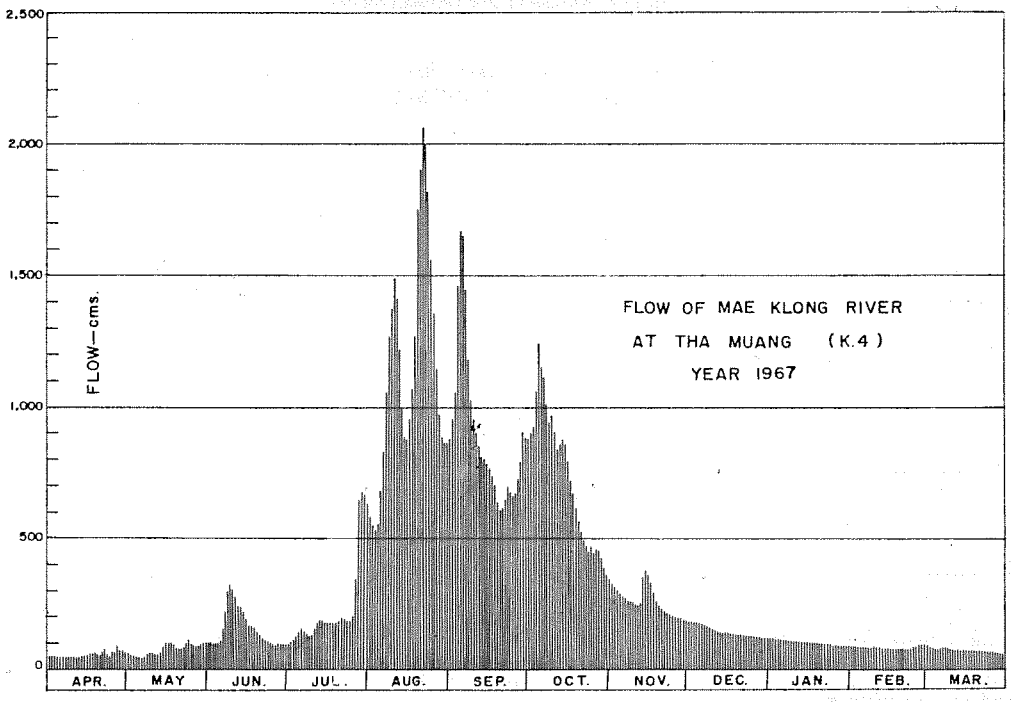
Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1962 - 65. Upstream state diversions for irrigation of about 2,900 hectares. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	12.62	12.74	13.21	13.10	15.86	16.78	16.79	14.64	13.77	13.30	13.05	13.07
2	.61	.69	.13	.17	.63	17.06	.87	.56	.73	.29	.04	.00
3	.60	.65	.10	.26	.49	.36	.89	.50	.73	.28	.03	12.96
4	.60	.63	.09	.40	.60	18.27	17.41	.44	.73	.26	.03	.92
5	.60	.62	.16	.49	.89	.91	.84	.38	.71	.26	.02	.93
6	12.59	12.61	13.59	13.57	16.32	18.86	17.54	14.33	13.67	13.25	13.00	12.97
7	.59	.59	.97	.50	.85	.27	.48	.28	.65	.24	12.99	13.01
8	.59	.69	14.45	.38	17.62	17.62	.07	.23	.62	.23	.98	12.98
9	.58	.78	.55	.35	18.04	.19	16.95	.21	.61	.22	.97	.94
10	.58	.78	.39	.41	.25	.01	17.06	.20	.57	.21	.97	.92
11	12.58	12.70	14.18	13.54	18.46	16.85	16.86	14.17	13.53	13.21	12.96	12.89
12	.58	.70	.09	.72	.23	.66	.60	.12	.51	.19	.96	.88
13	.61	.74	.10	.78	17.39	.55	.73	.15	.49	.19	.95	.87
14	.63	.84	.00	.77	16.85	.50	.77	.65	.48	.18	.95	.86
15	.65	13.15	13.83	.69	.74	.43	.70	.81	.47	.17	.96	.90
16	12.68	13.15	13.65	13.70	16.85	16.40	16.37	14.70	13.46	13.16	12.98	12.90
17	.71	.18	.65	.70	17.22	.30	.21	.49	.46	.15	.97	.89
18	.75	.16	.57	.70	.54	.12	.00	.32	.44	.14	.96	.87
19	.73	12.95	.45	.69	18.17	15.93	15.76	.19	.43	.13	.93	.87
20	.68	.91	.37	.71	19.19	.82	.62	.10	.42	.13	.92	.87
21	12.70	12.92	13.29	13.84	19.54	15.85	15.51	14.06	13.41	13.12	12.92	12.86
22	.90	.99	.24	.81	.74	.95	.37	.00	.40	.12	.93	.84
23	.67	13.15	.20	.77	.55	16.17	.23	13.97	.39	.11	.93	.82
24	.62	.26	.18	.75	18.80	.11	.14	.93	.38	.10	.94	.80
25	.83	.16	.13	.78	.41	.03	.23	.90	.37	.09	13.02	.79
26	12.83	13.03	13.10	13.95	17.89	16.08	15.13	13.87	13.36	13.08	13.00	12.78
27	13.04	.02	.10	14.67	.39	.30	.18	.85	.34	.07	.07	.78
28	12.82	.03	.16	15.97	16.96	.56	.15	.83	.33	.07	.05	.77
29	.81	.12	.12	16.09	.74	.85	.04	.82	.31	.07	.08	.76
30	.78	.16	.10	.11	.73	.79	14.84	.78	.31	.06		.75
31		.21		15.97	.74		.73		.30	.05		.74
Mean	12.68	12.91	13.54	13.95	17.44	16.75	15.20	14.22	13.50	13.16	12.98	12.88
Max.	13.04	13.26	14.55	16.11	19.74	18.86	17.84	14.81	13.77	13.30	13.08	13.07
Min.	12.58	12.59	13.09	13.10	15.49	15.82	14.73	13.78	13.30	13.05	12.92	12.74

WATER YEAR 1967 : Max. 19.74 m. Min. 12.58 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	48	60	109	97	615	876	879	341	187	120	91	94
2	48	55	100	105	559	963	904	325	181	119	90	86
3	47	51	97	115	526	1,064	910	313	181	118	89	82
4	47	50	96	133	552	1,409	1,081	301	181	115	89	78
5	47	49	104	146	622	1,669	1,240	289	178	115	88	79
6	46	48	160	157	740	1,648	1,127	280	172	114	86	83
7	46	46	218	147	891	1,409	1,106	270	169	112	85	87
8	46	55	303	130	1,156	1,156	966	261	165	112	84	84
9	45	64	323	126	1,318	1,006	928	258	163	110	83	80
10	45	64	291	134	1,401	947	963	256	157	109	83	78
11	45	56	253	153	1,485	897	901	246	151	109	82	75
12	45	56	237	180	1,393	839	821	242	148	107	82	74
13	48	60	239	189	1,074	806	860	247	146	107	81	73
14	50	70	223	187	897	792	873	343	144	106	81	72
15	51	102	196	175	863	772	851	375	143	105	82	76
16	54	102	169	177	897	763	754	353	141	104	84	76
17	57	106	169	177	1,016	734	709	311	141	102	83	75
18	61	104	157	177	1,127	684	651	278	139	101	82	73
19	59	81	140	175	1,369	633	590	254	137	100	79	73
20	54	77	129	178	1,792	605	557	239	136	100	78	73
21	56	78	119	198	1,958	612	530	233	134	99	78	72
22	76	85	113	193	2,057	638	497	223	133	99	79	70
23	53	102	108	187	1,962	698	464	218	132	98	79	68
24	49	115	106	184	1,623	681	444	212	130	97	80	66
25	69	104	100	189	1,465	659	464	207	129	96	88	65
26	69	89	97	215	1,259	673	442	202	128	95	86	64
27	90	88	97	347	1,074	734	453	199	125	94	94	64
28	68	89	104	643	932	809	446	196	124	94	91	63
29	67	99	99	675	863	897	422	195	121	94	95	62
30	64	104	97	681	860	879	381	189	121	93		61
31		109		643	863		359		120	91		60
Total	1,650	2,418	4,753	7,213	35,215	26,952	22,573	7,856	4,557	3,235	2,452	2,286
Mean	55.0	78.0	158	233	1,136	898	728	262	147	104	84.5	73.7
Max.	90	115	323	681	2,057	1,648	1,240	375	187	120	95	94
Min.	45	46	96	97	526	605	359	189	120	91	78	60
Runoff – mcm.	142.560	208.915	410.659	623.203	3,042.576	2,328.653	1,950.307	678.758	393.725	279.504	211.853	197.510

WATER YEAR 1967 : Max. 2,057 Min. 45 Mean 331 Annual Runoff 10,468.224 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Aug.22	09.00	19.78	2,077				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
MAE KLONG RIVER BASIN

Khwae Yai at Kaeng Raing, Kanchanaburi (K.6)

Location: Lat 14°- 25' - 43" N, Long 99°- 07' - 04" E, on left bank about 200 meters downstream from Lan Thom Cave and about 9 kilometers upstream from Erawan Fall, Tambon Tha Kradan, Amphoe Si Sawat, Kanchanaburi.

Drainage Area: 11,789 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: +54.00 m. (M.S.L.)

Bench Mark: B.M. - R.I.D. No.2

Location: Near the rain gage infront of camp of station K.6
Elevation: +72.819 m. (M.S.L.)

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 - 72

Rating Operation:

Period of Rating: 1952 - 71
Rated by Float: -
Rated by Current Meter: 1952 - 71

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

Overbank Flow Conditions: No overbank flow.

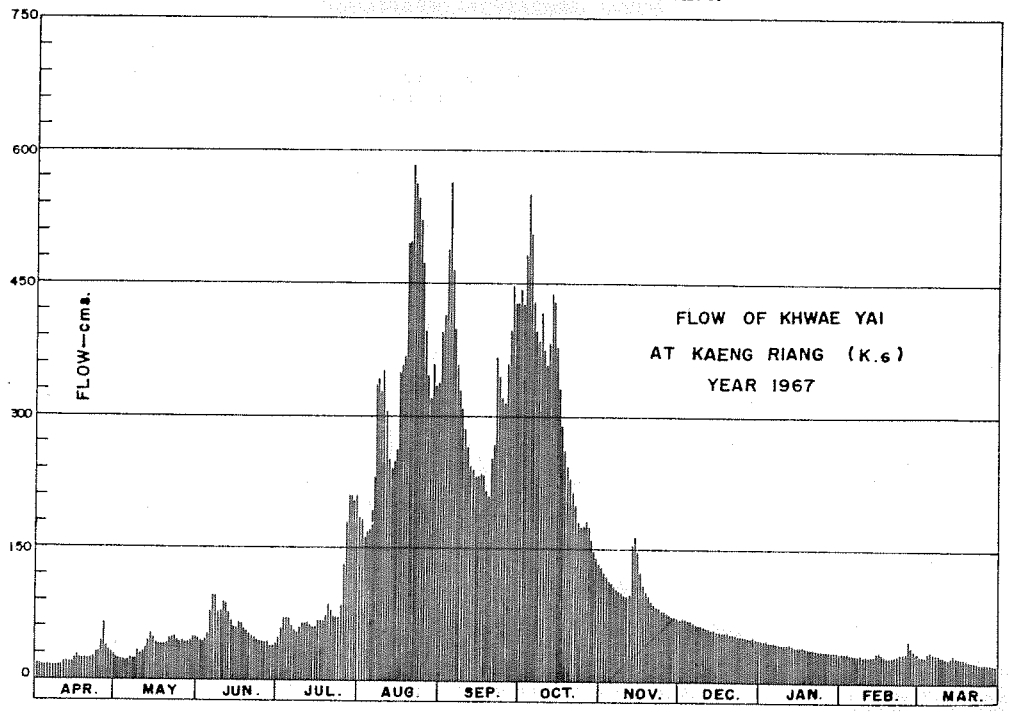
General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions except those built by local residents. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1,1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	55.75	55.89	56.22	56.26	57.78	59.51	59.84	57.22	56.57	56.25	56.04	55.99
2	.75	.87	.19	.37	.76	.60	.67	.17	.57	.24	.03	.97
3	.74	.85	.16	.55	.53	60.17	60.18	.12	.57	.23	.02	.95
4	.74	.83	.27	.56	.64	.59	.52	.07	.55	.22	.01	56.03
5	.74	.81	.55	.56	.68	59.93	.18	.03	.53	.21	.00	.06
6	55.74	55.88	56.85	56.42	57.98	59.41	59.64	57.00	56.51	56.20	55.99	56.03
7	.74	.89	.89	.36	59.08	.20	.48	56.96	.50	.20	.98	.00
8	.74	.85	.66	.33	.13	58.94	.41	.95	.48	.19	.98	55.98
9	.74	56.04	.55	.42	58.93	.78	.66	.92	.47	.19	.98	.95
10	.74	55.97	.79	.48	59.19	.62	.35	.89	.45	.18	.97	.98
11	55.78	56.00	56.78	56.49	58.81	58.44	59.20	56.86	56.44	56.18	55.97	55.93
12	.81	.09	.61	.48	.38	.31	.51	.83	.43	.17	.97	.92
13	.80	.22	.50	.46	.24	.26	.80	57.51	.42	.16	.97	.97
14	.80	.32	.43	.42	.33	.18	.73	.60	.40	.15	56.03	.98
15	.89	.22	.39	.43	.50	.23	.23	.36	.39	.15	55.97	.97
16	55.93	56.16	56.50	56.52	59.18	58.25	58.84	57.14	56.38	56.14	56.01	55.94
17	.89	.13	.47	.51	.23	.22	.58	.02	.37	.14	55.97	.92
18	.85	.15	.38	.50	.34	.04	.37	56.91	.36	.12	.96	.91
19	.88	.14	.35	.58	60.18	57.99	.30	.85	.36	.11	.95	.89
20	.87	.16	.31	.77	.18	58.42	.17	.80	.35	.11	.95	.88
21	55.89	56.24	56.27	56.67	60.70	58.58	58.04	56.77	56.34	56.10	55.96	55.87
22	.87	.26	.23	.58	.58	59.31	57.87	.73	.34	.09	.98	.86
23	.98	.27	.20	.58	.49	.09	.74	.71	.33	.08	56.01	.85
24	.98	.19	.20	.60	.32	58.86	.72	.68	.31	.07	.02	.84
25	56.20	.15	.18	.77	59.84	.96	.67	.67	.30	.07	.03	.84
26	56.44	56.18	56.17	57.81	59.38	59.30	57.76	56.65	56.29	56.07	56.23	55.83
27	.07	.15	.18	.83	58.98	.60	.71	.63	.28	.06	.11	.82
28	.04	.16	.13	58.02	.90	.87	.58	.61	.28	.05	.07	.81
29	55.98	.20	.12	.01	59.24	.73	.43	.60	.27	.05	.04	.80
30	.93	.26	.13	57.96	.05	.74	.34	.59	.26	.05		.80
31		.24		58.01	58.99		.27		.25	.04		.79
Mean	55.84	56.08	56.38	56.76	59.01	59.00	58.76	56.89	56.39	56.14	56.01	55.91
Max.	56.44	56.32	56.89	58.02	60.70	60.59	60.52	57.60	56.57	56.25	56.23	56.06
Min.	55.74	55.81	56.12	56.26	57.53	57.99	57.27	56.59	56.25	56.04	55.95	55.79

WATER YEAR 1967 : Max. 60.70 m. Min. 55.74 m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	17	25	46	49	184	393	443	127	72	48	34	31
2	17	24	44	57	182	407	417	122	72	48	34	30
3	17	23	42	70	158	492	494	118	72	47	33	29
4	17	22	50	71	169	563	551	113	70	46	33	34
5	17	21	70	71	173	456	494	110	68	46	32	36
6	17	25	94	60	208	376	413	107	67	45	31	34
7	17	25	97	56	336	352	389	103	66	45	31	32
8	17	23	79	54	343	318	379	102	65	44	31	31
9	17	34	70	60	317	299	416	100	64	44	31	29
10	17	30	89	65	351	279	371	97	62	44	30	31
11	19	32	88	65	302	258	352	95	62	44	30	28
12	21	37	75	65	251	242	393	92	61	43	30	27
13	20	46	66	63	234	237	437	156	60	42	30	30
14	20	53	61	60	245	228	426	165	59	41	34	31
15	25	46	58	61	265	233	356	141	58	41	36	30
16	28	42	66	68	349	235	306	120	58	41	33	28
17	25	40	64	67	356	232	275	108	57	41	30	27
18	23	41	58	66	370	212	249	99	56	39	30	27
19	25	41	55	72	494	207	241	94	56	39	29	25
20	24	42	53	88	494	255	227	90	55	39	29	25
21	25	48	50	80	583	273	212	88	55	38	30	24
22	24	49	47	72	561	366	194	84	55	37	31	23
23	31	50	45	72	545	338	179	83	53	37	33	22
24	31	44	45	74	516	308	177	80	53	36	33	22
25	45	41	44	88	443	321	172	80	52	36	34	22
26	62	44	43	136	374	365	182	78	51	36	47	22
27	36	41	44	189	323	407	176	76	51	36	39	21
28	34	42	40	210	313	447	163	75	51	35	36	21
29	31	45	39	209	357	426	148	74	50	35	34	20
30	28	49	40	204	332	428	139	73	49	35		20
31		48		209	325		132		48	34		19
Total	747	1,173	1,762	2,831	10,453	9,956	9,503	3,050	1,828	1,262	948	831
Mean	24.9	37.8	58.7	91.3	337	332	306	102	59.0	40.7	32.7	26.8
Max.	62	53	97	210	583	563	551	165	72	48	47	36
Min.	17	21	39	49	158	207	132	73	48	34	29	19
Runoff – mcm.	64.541	101.347	152.237	244.598	903.139	860.198	821.059	263.520	157.939	109.037	81.907	71.799

WATER YEAR 1967 : Max. 583 Min. 17 Mean 121 Annual Runoff 3,831.321 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Aug.21	15.00	60.78	597				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
MAE KLONG RIVER BASIN

Mae Klong River at Ban Tham, Kanchanaburi (K.8)

Location: Lat 13°- 58' - 06" N, Long 99°- 35' - 12" E, on left bank 350 meters downstream from Wat Tha Lo, Amphoe Muang, Kanchanaburi.

Drainage Area: 27,200 sq.km.

Type of Gage: Water - stage recorder.

Zero Gage at Bottom at: +14.00 m. (M.S.L.)

Bench Mark: B.M. - R.I.D.

Location: On left bank near the camp of station K.8
Elevation: +24.500 m. (M.S.L.)

Gage Reading Frequency: Recording.

Basis of Mean Daily Gage Height: Arithmetic mean of 24 readings.

Period of Available Gage Records: 1957 - 60, 1960 - 67

Rating Operation:

Period of Rating: 1957 - 66
Rated by Float: -
Rated by Current Meter: 1957 - 66

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

Overbank Flow Conditions: No overbank flow.

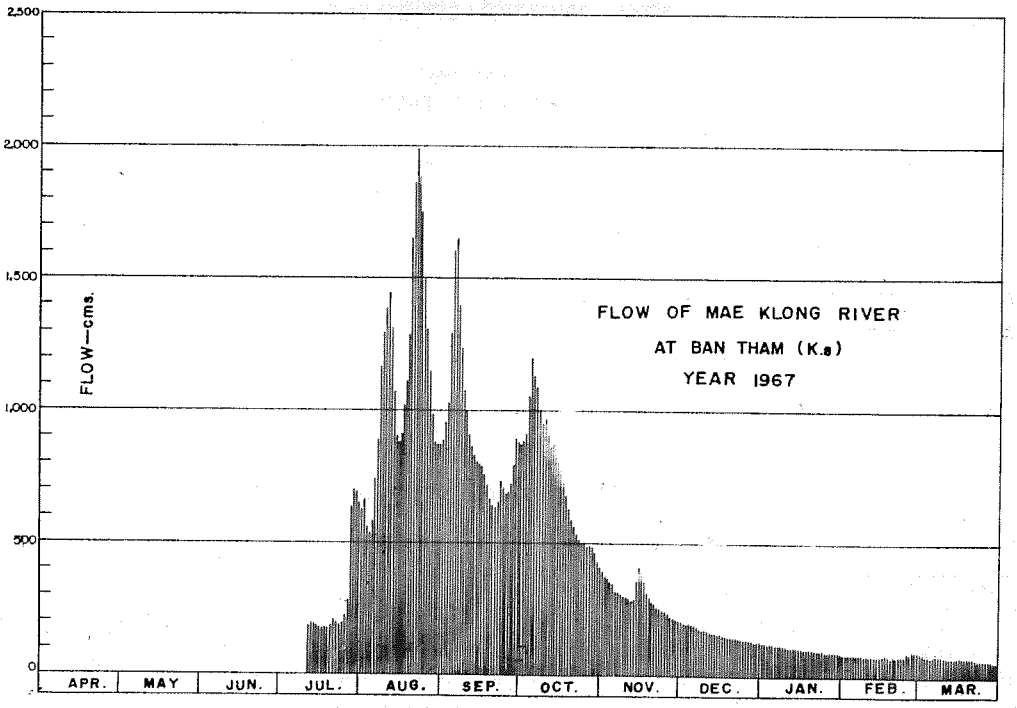
General Description: Records fair. Stage - discharge relationship used defined by discharge measurements made during 1957 - 65. Upstream state diversions for irrigation of about 2,760 hectares at Tha Lo Project. No adjustment made for virgin flow.

Remarks: No gage height record for period Apr. 1 - July 11, 1967.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1					17.53	18.43	18.39	16.67	15.81	15.37	15.12	15.16
2					.34	.69	.45	.61	.79	.35	.12	.09
3					.21	.80	.54	.56	.79	.34	.11	.06
4					.29	19.68	19.07	.51	.79	.34	.10	.04
5					.60	20.40	.34	.51	.77	.34	.09	.03
6					17.99	20.51	19.08	16.37	15.73	15.31	15.09	15.07
7					18.52	19.58	.01	.37	.71	.30	.08	.11
8					19.23	19.40	18.68	.32	.69	.29	.07	.09
9					.61	18.90	.57	.31	.67	.28	.06	.06
10					.83	.70	.67	.29	.65	.27	.06	.03
11					19.99	18.48	18.48	16.25	15.63	15.27	15.06	15.01
12				15.73	.63	.32	.27	.22	.62	.26	.05	.01
13				.78	18.93	.23	.38	.24	.60	.25	.05	.00
14				.77	.42	.18	.45	.56	.58	.25	.05	.00
15				.72	.38	.13	.30	.77	.56	.24	.06	.02
16				15.72	18.53	18.09	18.02	16.66	15.55	15.22	15.09	15.03
17				.72	.87	17.98	17.91	.48	.53	.22	.06	.02
18				.72	19.20	.83	.71	.34	.52	.21	.05	.02
19				.72	.85	.66	.52	.25	.51	.21	.03	.00
20				.74	20.70	.58	.40	.18	.50	.21	.03	14.99
21				15.83	21.14	17.59	17.31	16.13	15.48	15.20	15.30	14.97
22				.82	.26	.68	.24	.08	.47	.19	.04	.95
23				.77	20.81	.92	.15	.06	.46	.18	.03	.94
24				.74	.30	.82	.11	.04	.45	.18	.05	.94
25				.79	19.90	.75	.13	.01	.45	.16	.14	.93
26				15.99	19.41	17.77	17.06	15.98	15.43	15.16	15.10	14.92
27				16.72	18.94	.93	.09	.92	.42	.15	.18	.92
28				17.55	.56	18.19	.05	.87	.40	.15	.14	.90
29				.83	.39	.43	16.95	.86	.39	.14	.18	.89
30				.77	.37	.37	.83	.85	.38	.13		.88
31				.66	.37		.74		.37	.13		.88
Mean					19.03	18.80	17.93	16.27	15.57	15.23	15.61	14.99
Max.					21.26	20.51	19.34	16.67	15.81	15.37	15.18	15.16
Min.					17.21	17.58	16.74	15.85	15.37	15.13	15.03	14.88

WATER YEAR 1967 : Max. 21.26 m. Min. 14.88 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1					619	892	878	389	202	127	87	94
2					562	977	898	374	198	124	87	83
3					525	1,014	927	362	198	122	86	78
4					547	1,323	1,106	350	198	122	84	76
5					640	1,600	1,200	350	194	122	83	74
6					757	1,646	1,109	317	186	118	83	80
7					920	1,286	1,085	317	182	116	81	86
8					1,162	1,221	973	305	178	114	80	83
9					1,297	1,048	936	302	175	113	78	78
10					1,380	980	970	298	172	111	78	74
11					1,441	908	908	290	169	111	78	71
12				186	1,304	856	841	284	167	110	77	71
13				196	1,058	829	876	288	164	108	77	70
14				194	888	814	898	362	161	108	77	70
15				184	876	799	850	413	158	106	78	73
16				184	924	787	766	386	156	103	83	74
17				184	1,038	754	733	343	153	103	78	73
18				184	1,151	709	673	310	151	102	77	73
19				184	1,388	658	616	290	150	102	74	70
20				188	1,730	634	580	276	148	102	74	69
21				206	1,932	637	553	266	145	100	74	67
22				204	1,988	664	533	256	143	98	76	65
23				194	1,781	736	509	252	142	97	74	64
24				188	1,560	706	499	248	140	97	77	64
25				198	1,407	685	504	242	140	94	90	63
26				238	1,225	691	486	236	137	94	84	62
27				401	1,062	739	493	224	135	92	97	62
28				625	933	817	483	214	132	92	90	60
29				709	879	892	457	212	130	90	97	59
30				691	872	872	427	210	129	89	–	58
31				658	872	–	406	–	127	89	–	58
Total					34,718	27,174	23,173	8,966	4,960	3,276	2,359	2,202
Mean					1,119	905	747	298	160	105	84.2	71.0
Max.					1,988	1,646	1,200	389	202	127	97	94
Min.					525	637	406	210	127	89	74	58
Runoff – mcm.					2,999.635	2,347.833	2,002.147	774.662	428.544	283.046	203.817	190.253

WATER YEAR 1967 : Max. Min. Mean Annual Runoff mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Aug.22	08.00	21.32	2,017				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
MAE KLONG RIVER BASIN

Khwae Noi at Wang Pho, Kanchanaburi (K.9)

Location: Lat 14°- 06' - 56" N, Long 99°- 08' - 20" E, on left bank about 300 meters from Wang Pho Railway Station, Amphoe Sai Yok, Kanchanaburi.

Drainage Area: 6,902 Sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: +33.00 m. (M.S.L.)

Bench Mark: B.M. - H.S.

Location: On left bank near gage site.
Elevation: +54.582 m. (M.S.L.)

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: 1962 to date.

Rating Operation:

Period of Rating: 1962 - 64
Rated by Float: -
Rated by Current Meter: 1962 - 64

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation for year without actual ratings.

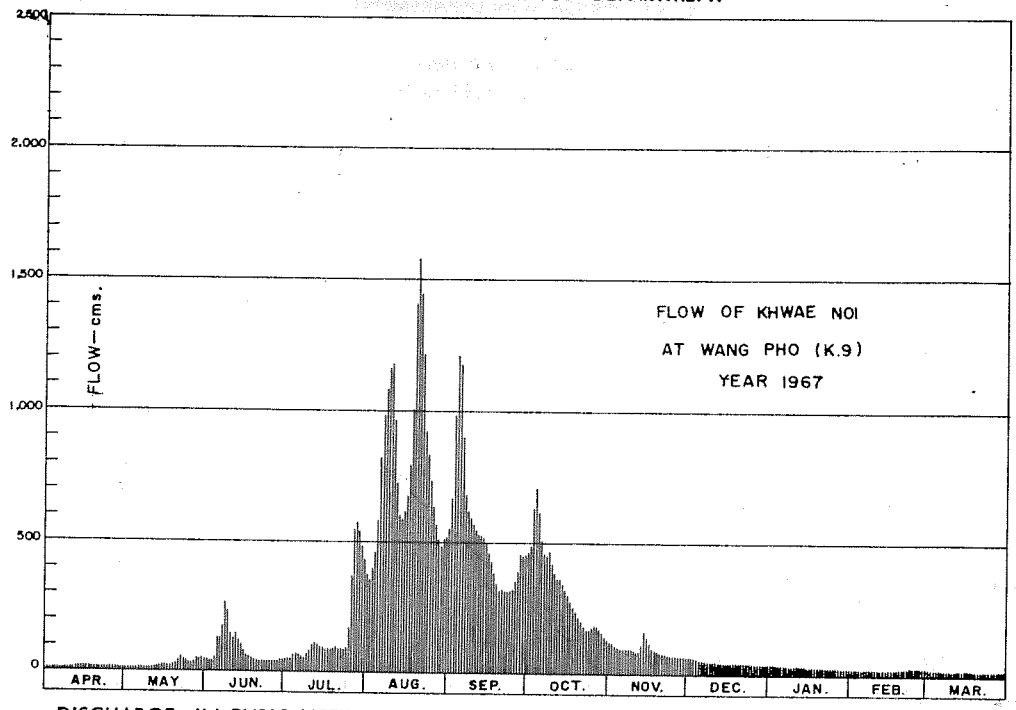
Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1962 - 64. No upstream state diversions for irrigation except those built by local residents. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	33.86	33.88	34.62	34.77	38.60	40.25	39.47	35.95	35.08	34.52	34.23	34.14
2	.84	.86	.62	.87	.58	.91	.73	.89	.10	.51	.22	.10
3	.84	.84	.66	.97	39.01	42.91	40.88	.83	.07	.49	.21	.07
4	.83	.83	.97	35.26	.75	44.34	41.34	.76	.04	.47	.19	.07
5	.83	.82	36.14	.26	40.73	.14	40.54	.68	34.96	.46	.18	.28
6	33.82	33.81	36.14	35.10	41.83	42.60	39.79	35.62	34.91	34.45	34.18	34.25
7	.83	.83	37.19	.01	42.99	41.25	.31	.57	.89	.44	.17	.16
8	.85	.82	.77	34.96	43.69	40.71	.34	.57	.87	.43	.16	.11
9	.84	.90	36.80	35.20	44.10	.57	.50	.58	.85	.42	.15	.08
10	.83	.86	.09	.57	.16	.33	.10	.48	.83	.41	.15	.07
11	33.84	33.87	36.09	35.75	42.98	40.11	38.64	35.42	34.81	34.41	34.15	34.05
12	.93	.94	.38	.85	41.49	.01	.68	.37	.78	.40	.14	.06
13	.93	34.15	.00	.72	40.50	39.98	.67	.72	.77	.38	.14	.04
14	.93	.20	35.55	.58	.47	.89	.44	36.46	.75	.37	.14	.08
15	.96	.33	.27	.57	.71	.78	.17	.25	.73	.36	.13	.11
16	34.06	34.30	35.19	35.50	41.18	39.44	37.94	35.85	34.71	34.35	34.12	34.10
17	.01	.17	.07	.53	.92	.02	.70	.66	.70	.34	.12	.09
18	33.95	.16	34.91	.52	43.71	38.67	.41	.53	.69	.33	.11	.05
19	.90	.22	.82	.55	45.55	.37	.19	.48	.68	.32	.10	.02
20	.87	.37	.74	.65	46.18	.20	.11	.41	.66	.32	.10	.01
21	33.93	34.53	34.68	35.62	45.27	38.28	36.96	35.35	34.65	34.31	34.09	33.98
22	.90	.91	.76	.55	43.66	.25	.74	.29	.64	.31	.11	.98
23	.87	.76	.67	.50	42.63	.21	.59	.26	.63	.30	.12	.98
24	.97	.59	.60	.68	.13	.23	.54	.23	.61	.30	.11	.96
25	.95	.46	.61	36.23	41.44	.25	.72	.19	.60	.28	.16	.95
26	33.95	34.46	34.72	38.35	40.68	38.47	36.80	35.17	34.59	34.27	34.28	33.94
27	34.03	.66	.68	40.21	.14	.94	.73	.15	.57	.26	.27	.93
28	.00	.88	.70	.38	39.74	39.42	.53	.14	.56	.25	.26	.92
29	33.95	.79	.71	39.96	.57	.36	.31	.10	.55	.25	.23	.91
30	.93	.89	.75	.52	.83	.42	.16	.09	.54	.24		.90
31		.76		.08	.99		.05		.54	.24		.89
Mean	33.91	34.25	35.33	36.23	41.72	39.94	38.10	35.53	34.75	34.36	34.16	34.04
Max.	34.06	34.91	37.77	40.38	46.18	44.34	41.34	36.46	35.10	34.52	34.28	34.28
Min.	33.82	33.81	34.60	34.77	38.58	38.20	36.05	35.09	34.54	34.24	34.09	33.89

WATER YEAR 1967 : Max. 46.18 m. Min. 33.81 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	14	14	40	46	356	554	460	117	63	36	25	22
2	13	14	40	51	354	645	492	113	64	35	25	21
3	13	13	41	56	405	956	641	109	62	35	[illegible]	20
4	13	13	56	74	494	1,208	707	104	60	34	24	20
5	13	13	131	74	620	1,171	594	99	56	33	23	26
6	13	12	131	64	781	904	499	95	53	33	23	25
7	13	13	216	59	969	693	441	92	52	33	23	23
8	13	13	268	56	1,090	617	445	92	51	32	23	21
9	13	15	182	70	1,164	598	464	93	50	32	22	20
10	13	14	127	92	1,175	564	416	87	49	31	22	20
11	13	14	127	103	968	537	361	83	48	31	22	19
12	16	16	148	110	729	525	366	80	47	31	22	20
13	16	22	121	101	588	522	364	101	46	30	22	19
14	16	24	91	93	584	511	337	155	45	30	22	20
15	17	28	74	92	617	498	307	138	44	29	22	21
16	20	27	69	88	683	457	284	110	43	29	22	21
17	18	23	62	90	795	406	262	98	43	29	22	21
18	16	23	53	89	1,094	364	236	90	43	28	21	19
19	15	25	49	91	1,443	328	216	87	42	28	21	19
20	14	30	45	97	1,576	310	209	83	41	28	21	18
21	16	36	42	95	1,387	318	195	79	41	27	21	17
22	15	53	46	91	1,085	315	177	75	41	27	21	17
23	14	46	42	88	909	311	165	74	40	27	22	17
24	17	39	39	99	829	313	161	72	39	27	22	17
25	16	33	39	137	722	315	176	69	39	26	23	16
26	16	33	44	326	613	340	182	68	39	26	26	16
27	19	41	42	549	541	397	176	67	38	26	26	16
28	18	52	43	571	493	454	160	66	37	25	26	16
29	16	47	43	519	472	447	143	64	37	25	25	15
30	16	52	45	466	504	454	132	63	37	25	–	15
31	–	46	–	414	523	–	124	–	37	25	–	15
Total	455	844	2,496	4,951	24,563	16,032	9,892	2,723	1,427	913	663	592
Mean	15.2	27.2	83.2	160	792	534	319	90.8	46.0	29.4	22.9	19.1
Max.	20	53	268	571	1,576	1,208	707	115	64	36	26	26
Min.	13	12	39	46	354	311	124	63	37	25	21	15
Runoff – mcm.	39.312	72.922	215.654	427.766	2,122.243	1,385.165	854.669	235.267	123.293	78.883	57.283	51.149

WATER YEAR 1967 : Max. 1,576 Min. 12 Mean 179 Annual Runoff 5,663.606 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Aug.20	12.00	46.28	1,597				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
MAE KLONG RIVER BASIN

Khwae Noi at Ban Lum Sum, Kanchanaburi (K.10)

Location: Lat 14°- 05' - 40" N, Long 99°- 10' - 28" E, on left bank, about 100 meters upstream from Ban Lum Sum Railway Station, Amphoe Sai Yok, Kanchanaburi.

Drainage Area: 7,008 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: +30.40 m. (M.S.L.)

Bench Mark: B.M. 1 - H.S.

Location: Near gage site
Elevation: +52.057 m. (M.S.L.)

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 to date
Rated by Float: -
Rated by Current Meter: 1965 to date

Stability of Channel Regimes: Unstable, shifting adjustment is included for flow computation.

Overbank Flow Conditions: No overbank flow.

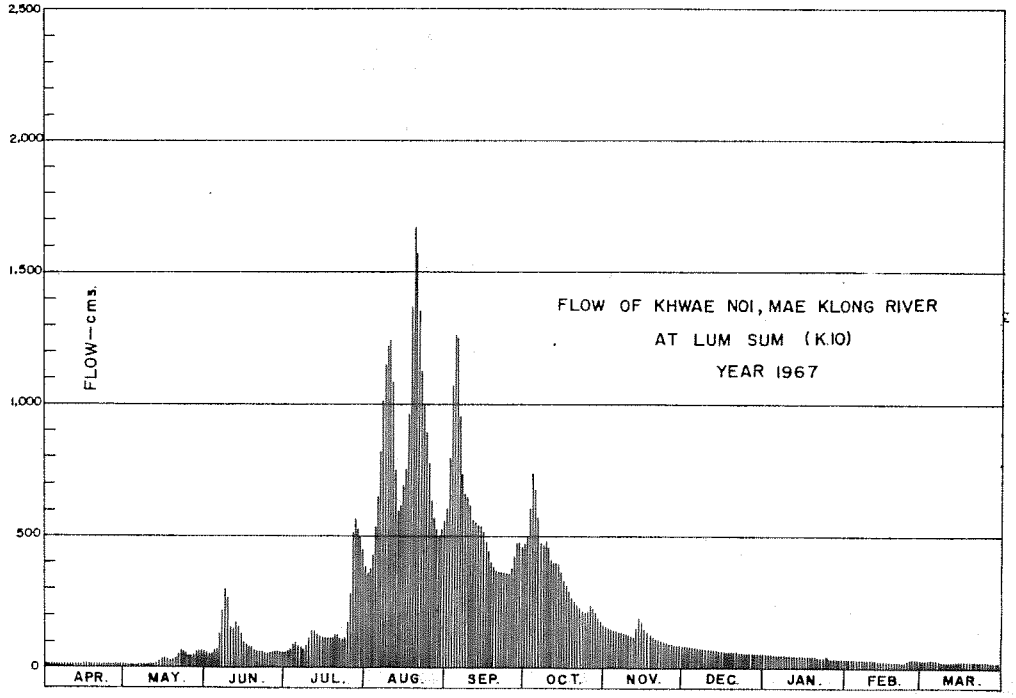
General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions for irrigation except those built by local residents. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	30.98	31.02	31.64	31.77	36.01	37.76	36.80	33.18	32.11	31.62	31.35	31.32
2	.98	.00	.62	.86	35.88	38.41	37.01	.11	.12	.60	.34	.27
3	.97	30.98	.66	.94	36.32	40.40	38.01	.05	.11	.59	.34	.24
4	.97	.97	.87	32.24	.98	41.90	.80	32.97	.06	.58	.32	.24
5	.97	.95	33.02	.32	38.12	.89	.12	.89	.02	.57	.31	.38
6	30.97	30.95	33.20	32.15	39.21	40.32	37.31	32.81	31.99	31.56	31.31	31.40
7	.97	.96	34.14	.03	40.36	38.32	36.76	.76	.97	.55	.30	.33
8	.98	.96	.94	31.97	41.22	38.27	.68	.74	.95	.54	.29	.27
9	.97	31.03	.15	32.13	.67	.08	.88	.75	.93	.53	.28	.24
10	.97	30.99	33.25	.56	.81	37.85	.53	.67	.91	.52	.28	.23
11	30.96	31.00	33.13	32.78	40.75	37.58	36.04	32.60	31.89	31.51	31.28	31.22
12	31.02	.05	.44	.91	39.12	.46	.01	.56	.87	.50	.27	.21
13	.04	.22	.15	.78	38.03	.42	.02	*.90	.86	.49	.27	.21
14	.04	.26	32.64	.64	37.91	.38	35.81	33.55	.84	.49	.27	.24
15	.05	.47	.31	.61	38.15	.23	.51	.38	.82	.48	.26	.26
16	31.17	31.36	32.18	32.54	38.62	36.93	35.29	32.96	31.80	31.47	31.26	31.26
17	.20	.29	.08	.56	39.36	.46	.08	.73	.78	.46	.25	.24
18	.06	.23	31.92	.56	41.02	.08	34.78	.59	.77	.45	.24	.21
19	.04	.24	.82	.56	42.92	35.76	.57	.53	.77	.45	.23	.18
20	.00	.37	.75	.68	43.80	.54	.45	.46	.76	.44	.23	.17
21	31.04	31.51	31.69	32.66	43.03	35.61	34.30	32.39	31.75	31.43	31.22	31.16
22	.03	.88	.75	.60	41.41	.61	.07	.34	.74	.42	.24	.15
23	.03	.79	.68	.55	40.28	.54	33.87	.30	.72	.41	.24	.14
24	.09	.63	.62	.69	39.75	.56	.82	.26	.71	.41	.24	.13
25	.07	.50	.62	33.14	.06	.58	.96	.22	.69	.40	.28	.13
26	31.07	31.49	31.70	35.18	38.27	35.80	34.09	32.19	31.68	31.39	31.37	31.12
27	.12	.62	.72	37.45	37.65	36.24	.04	.16	.67	.38	.38	.11
28	.13	.85	.71	.76	.20	.76	33.83	.14	.66	.38	.41	.10
29	.07	.77	.72	.39	.01	.74	.57	.12	.65	.37	.37	.09
30	.05	.89	.75	36.96	.28	.58	.39	.10	.64	.36		.08
31		.76		.51	.49		.27		.63	.36		.08
Mean	31.03	31.32	32.36	33.30	39.21	37.34	35.44	32.65	31.83	31.47	31.29	31.21
Max.	31.20	31.89	34.94	37.76	43.80	41.90	38.80	33.55	32.12	31.62	31.41	31.40
Min.	30.96	30.95	31.62	31.77	35.88	35.54	33.27	32.10	31.63	31.36	31.22	31.08

WATER YEAR 1967 : Max. 43.80 m. Min. 30.95 m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	13	14	52	59	368	584	478	156	83	51	33	30
2	13	13	51	64	355	668	502	151	84	50	32	29
3	13	13	53	68	399	972	626	147	83	49	32	26
4	13	13	66	86	498	1,257	727	142	80	49	31	26
5	13	12	75	91	639	1,255	633	137	78	48	31	33
6	13	12	154	81	790	970	535	131	76	47	31	34
7	13	12	231	74	977	665	472	133	75	44	30	30
8	13	12	300	70	1,125	659	464	131	74	44	28	27
9	13	14	227	86	1,211	635	485	132	73	43	28	26
10	13	13	123	113	1,239	593	451	126	71	43	28	25
11	12	13	145	130	1,060	559	397	120	70	42	28	25
12	14	15	173	140	740	544	394	117	66	42	27	24
13	15	27	153	130	596	540	395	142	65	41	27	24
14	15	29	116	119	580	535	394	189	64	41	27	26
15	15	39	94	117	675	517	346	175	63	41	27	27
16	20	34	86	112	740	483	327	146	62	40	27	27
17	21	30	80	113	889	432	306	130	61	40	26	26
18	15	27	71	113	1,177	394	280	119	61	39	26	24
19	15	28	65	113	1,576	362	262	115	61	39	25	23
20	13	38	61	122	1,668	359	251	110	60	39	25	23
21	15	45	57	121	1,493	366	237	105	60	39	25	22
22	14	67	61	109	1,160	366	218	101	59	38	26	22
23	14	62	57	105	992	359	211	99	57	37	26	21
24	17	52	53	115	902	353	207	97	57	37	26	21
25	16	44	53	148	757	355	220	94	55	37	27	21
26	16	44	58	289	649	376	231	92	55	35	32	21
27	18	51	60	520	570	420	227	82	54	34	33	20
28	18	65	59	558	516	475	208	85	53	34	34	20
29	16	61	60	513	494	473	185	84	52	34	32	19
30	15	67	57	466	525	456	171	83	52	33	–	19
31	–	60	–	418	550	–	162	–	52	33	–	19
Total	444	1,026	2,981	5,363	25,910	16,982	11,002	3,675	2,016	1,263	830	760
Mean	14.7	33.1	99.4	173	836	566	355	122	65.0	40.7	28.6	24.5
Max.	21	67	300	558	1,668	1,257	727	189	84	51	34	34
Min.	12	12	51	59	355	353	162	83	52	33	25	19
Runoff – mcm.	38.362	88.646	257.558	463.363	2,238.624	1,467.245	950.573	317.520	174.182	109.123	71.712	65.664

WATER YEAR 1967 : Max. 1,668 Min. 12 Mean 197 Annual Runoff 6,242.573 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Aug. 20	15.00	43.89	1,689				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
MAE KLONG RIVER BASIN

Mae Klong River at Wang Khanai, Kanchanaburi (K.11)

Location: Lat 13° - 56' - 55" N, Long 99° - 38' - 42" E, on left bank about 3 kilometers downstream from the district office of Amphoe Tha Muang, Kanchanaburi.

Drainage Area: 26,449 Sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: +11.93 m. (M.S.L.)

Bench Mark: B.M. - H.S.

Location: On left bank along the gage line.
Elevation: B.M.1 +22.097 m. (M.S.L.) and B.M.2 +22.224 m. (M.S.L.)

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 - 70, 1973 to date
Rated by Float: -
Rated by Current Meter: 1965 - 70, 1973 to date

Stability of Channel Regimes: Unstable, no shifting adjustment for flow computation.

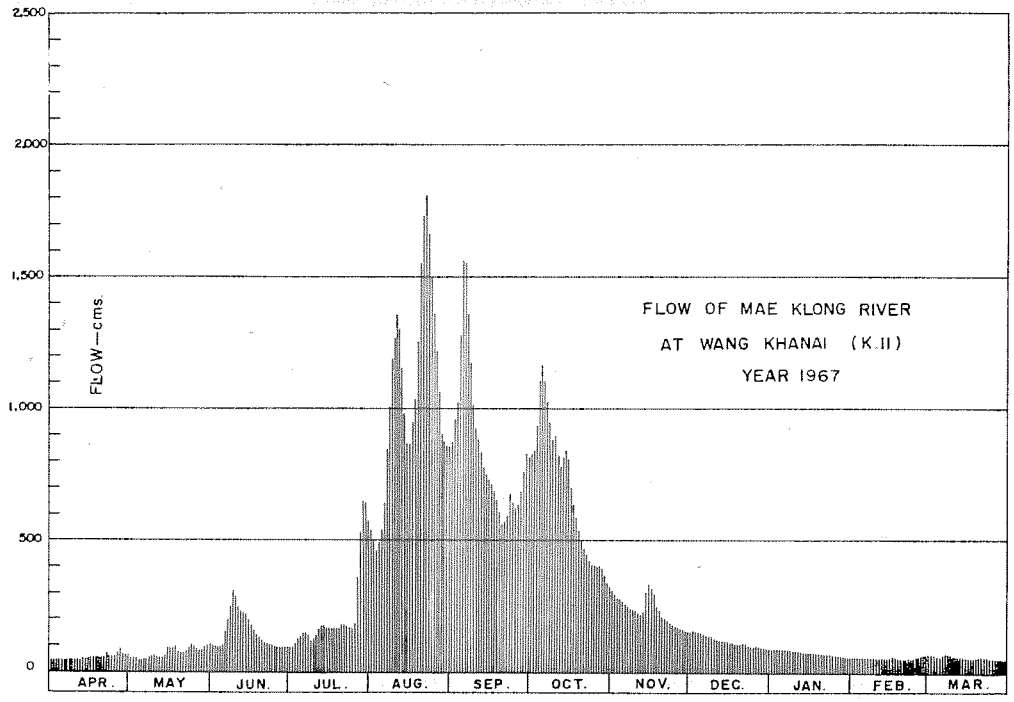
Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1967. Upstream state diversion for irrigation of about 2,960 hectares at Tha Lo Project about 12 kilometers above gage site.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1,1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	12.39	12.51	12.97	12.87	15.53	16.41	16.42	14.42	13.52	13.03	12.74	12.77
2	.39	.49	.91	.93	.33	.68	.49	.35	.50	.02	.74	.70
3	.39	.45	.87	13.02	.18	.95	.53	.29	.48	.00	.73	.66
4	.38	.42	.86	.14	.28	17.72	17.04	.24	.48	12.99	.72	.63
5	.38	.41	.91	.25	.57	18.45	.39	.18	.47	.98	.71	.62
6	12.38	12.40	13.37	13.31	15.98	18.43	17.14	14.12	13.44	12.97	12.70	12.70
7	.37	.39	.74	.25	16.46	17.88	.02	.08	.41	.96	.69	.72
8	.37	.47	14.03	.13	17.18	.22	16.70	.04	.38	.95	.68	.70
9	.37	.55	.30	.10	.58	16.81	.56	.01	.36	.94	.67	.66
10	.37	.57	.15	.15	.79	.64	.65	13.99	.34	.94	.66	.63
11	12.37	12.48	13.94	13.27	17.99	16.47	16.47	13.95	13.32	12.92	12.66	12.61
12	.37	.49	.87	.45	.69	.32	.25	.90	.30	.92	.66	.60
13	.40	.53	.84	.51	.00	.22	.34	.93	.28	.91	.65	.59
14	.41	.63	.75	.50	16.45	.17	.42	14.41	.26	.89	.65	.58
15	.43	.88	.56	.43	.34	.12	.33	.56	.25	.88	.65	.61
16	12.46	12.91	13.41	13.44	16.47	16.05	16.00	14.46	13.24	12.88	12.69	12.62
17	.50	.81	.39	.43	.81	15.98	15.78	.37	.21	.87	.67	.61
18	.52	.90	.33	.43	17.12	.82	.67	.09	.20	.86	.65	.59
19	.49	.74	.19	.44	.70	.64	.45	13.98	.19	.86	.63	.59
20	.47	.69	.12	.46	18.58	.52	.33	.89	.18	.85	.62	.58
21	12.45	12.70	13.05	13.55	19.03	15.55	15.22	13.84	13.16	12.84	12.61	12.57
22	.67	.77	12.98	.50	.20	.63	.12	.78	.14	.82	.60	.55
23	.57	.90	.96	.48	18.84	.91	14.97	.73	.13	.82	.63	.54
24	.51	13.01	.93	.47	.30	.81	.89	.70	.12	.81	.64	.51
25	.54	12.93	.89	.50	17.92	.72	.95	.67	.12	.80	.67	.51
26	12.51	12.83	12.86	13.67	17.44	15.78	14.87	13.63	13.10	12.79	12.68	12.50
27	.82	.79	.86	14.44	16.97	.96	.91	.60	.08	.78	.75	.49
28	.61	.80	.91	15.43	.58	16.20	.87	.58	.07	.77	.77	.48
29	.60	.88	.87	.80	.37	.87	.76	.56	.05	.76	.79	.47
30	.57	.92	.86	.77	.37	.42	.62	.54	.03	.75		.46
31		.96		.66	.37		.51		.03	.74		.45
Mean	12.61	12.82	13.44	13.87	17.08	16.49	15.93	13.98	13.20	12.85	12.68	12.63
Max.	12.82	13.01	14.30	15.80	19.20	18.45	17.39	14.56	13.52	13.03	12.79	12.77
Min.	12.37	12.39	12.86	12.87	15.18	15.52	14.51	13.54	13.03	12.74	12.60	12.45

WATER YEAR 1967 : Max. 19.20 m. Min. 12.45 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	44	55	103	92	533	866	815	302	151	92	60	75
2	44	54	96	99	485	957	837	289	153	91	60	68
3	44	50	91	110	451	1,012	850	277	150	89	59	64
4	43	47	90	126	473	1,282	1,046	272	150	88	58	61
5	43	46	96	140	543	1,551	1,168	261	149	86	57	60
6	43	46	156	149	656	1,544	1,080	250	143	85	56	68
7	42	45	211	140	805	1,339	1,039	243	139	84	55	70
8	42	52	259	122	1,042	1,105	932	236	135	83	55	68
9	42	59	310	188	1,206	965	870	231	133	82	54	64
10	42	61	281	125	1,282	929	899	228	127	82	58	61
11	42	52	243	140	1,354	873	840	222	125	80	58	59
12	42	53	231	165	1,274	824	770	214	122	80	58	58
13	45	56	227	174	1,032	754	799	219	120	79	57	54
14	46	66	212	172	873	738	834	304	117	75	57	53
15	48	93	183	163	837	723	805	334	116	74	57	55
16	51	97	161	164	880	701	689	314	114	74	61	56
17	55	84	158	163	965	680	624	296	110	73	59	55
18	56	94	147	163	1,070	639	579	245	109	72	57	54
19	54	77	129	164	1,274	587	524	223	108	72	55	54
20	52	71	120	167	1,566	555	495	209	107	71	55	53
21	50	72	110	180	1,739	579	469	201	104	70	54	52
22	71	80	105	172	1,805	601	446	192	102	68	53	50
23	61	94	103	170	1,665	683	413	184	100	68	55	49
24	55	108	99	163	1,460	642	396	180	99	67	56	46
25	58	98	94	163	1,364	616	409	175	99	66	59	46
26	55	86	91	187	1,192	633	391	170	97	65	60	46
27	88	82	91	322	1,029	686	400	163	94	64	67	45
28	65	83	97	543	899	745	391	160	93	63	69	44
29	64	92	92	645	853	831	367	157	91	62	71	43
30	61	97	91	636	853	815	338	154	89	61	–	42
31	–	102	–	566	853	–	320	–	89	60	–	41
Total	1,548	2,252	4,477	6,603	32,313	25,455	20,835	6,905	3,635	2,326	1,690	1,714
Mean	51.6	72.6	149	213	1,042	848	672	230	117	75.0	58.3	55.3
Max.	88	108	310	645	1,805	1,551	1,168	334	153	92	71	75
Min.	42	45	90	92	451	555	320	154	89	60	53	41
Runoff – mcm.	133.747	194.573	386.813	570.499	2,791.843	2,199.312	1,800.144	596.592	314.064	200.966	146.016	148.090

WATER YEAR 1967 : Max. 1,805 Min. 41 Mean 301 Annual Runoff 9,482.659 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Aug.22	06.00	19.22	1,852				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
MAE KLONG RIVER BASIN

Khwae Noi at Ban Tha Khanun, Kanchanaburi (K.13)

Location: Lat 14°- 43' - 50" N, Long 98°- 38' - 32" E, on left bank at Pompe Village 200 meters downstream from Wat Tha Khanun, Amphoe Thong Pha Phum, Kanchanaburi.

Drainage Area: 4,047 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: +73.70 m. (M.S.L.)

Bench Mark: B.M. - H.S.

Location: On left bank 75 meters downstream from measureing line.
Elevation: +97.200 m. (M.S.L.)

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 - 71
Rated by Float: -
Rated by Current Meter: 1965 - 71

Stability of Channel Regimes: Unstable, shifting adjustment is included for flow computation.

Overbank Flow Conditions: No overbank flow.

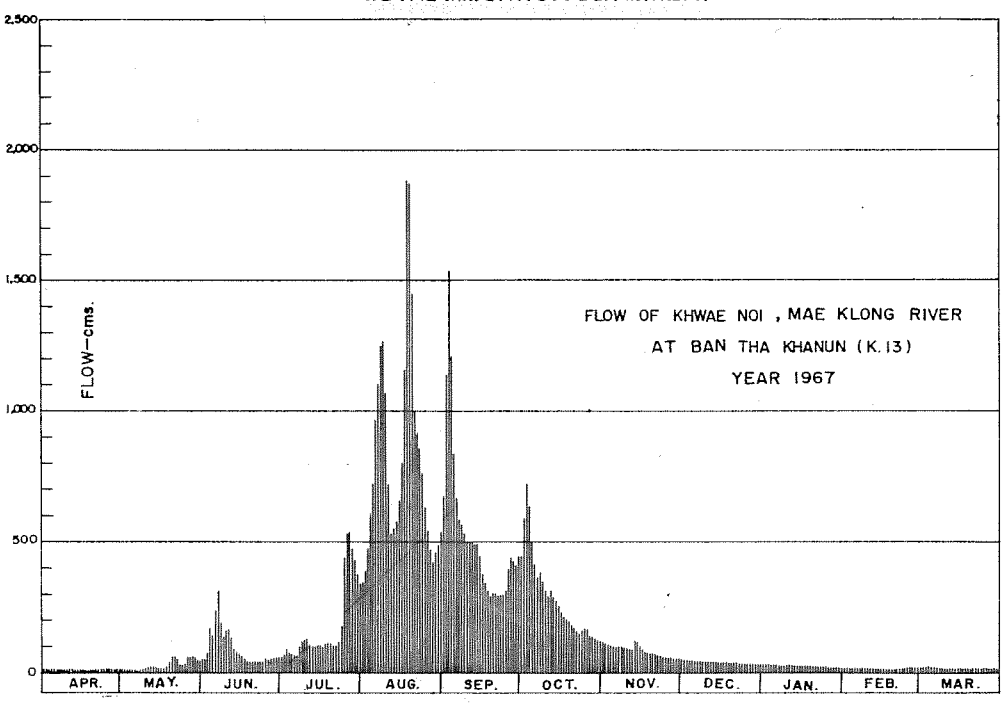
General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions for irrigation except those built by local residents. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	75.71	75.70	76.34	76.55	79.51	80.99	80.09	77.21	76.53	76.16	75.97	75.92
2	.71	.69	.28	.68	.80	83.29	81.10	.17	.50	.15	.96	.94
3	.71	.68	.97	.94	80.55	85.46	.68	.12	.47	.15	.96	76.05
4	.71	.68	77.71	.68	81.30	83.75	80.95	.07	.45	.13	.95	.09
5	.71	.68	.40	.66	82.06	81.99	.08	.03	.43	.12	.95	.01
6	75.71	75.67	78.69	76.56	83.17	81.20	79.66	76.98	76.42	76.11	75.95	75.92
7	.71	.67	.95	.57	.94	80.84	.41	77.01	.41	.11	.94	.90
8	.71	.68	77.58	77.06	84.31	.81	.60	.01	.40	.11	.94	.88
9	.71	.72	.35	.27	.37	.59	.32	76.93	.38	.11	.94	.87
10	.75	.78	.69	.37	82.49	.37	78.96	.91	.37	.11	.93	.86
11	75.76	75.99	77.72	77.30	81.27	80.36	78.88	76.85	76.35	76.10	75.93	75.85
12	.78	.99	.16	.07	80.64	.39	79.08	.88	.34	.09	.93	.89
13	.74	.99	76.83	.00	.77	.29	78.88	77.27	.33	.09	.93	.93
14	.77	76.01	.69	76.95	.95	.32	.81	.19	.31	.08	.93	.92
15	.77	75.93	.63	.98	81.54	79.93	.60	76.92	.30	.07	.93	.89
16	75.74	75.92	76.54	77.01	81.98	79.59	78.42	76.87	76.29	76.07	75.93	75.87
17	.73	.90	.43	76.93	84.09	.30	.24	.79	.28	.06	.93	.85
18	.70	76.04	.36	77.11	86.65	.07	.16	.80	.27	.05	.93	.83
19	.70	.12	.31	.10	.54	78.94	.11	.74	.27	.05	.92	.82
20	.70	.54	.35	.09	84.18	79.08	77.96	.71	.26	.04	.91	.81
21	75.73	76.51	76.36	76.99	82.78	78.99	77.82	76.68	76.24	76.03	70.93	75.81
22	.75	.34	.27	77.01	.46	79.00	.72	.65	.23	.03	.93	.80
23	.78	.18	.27	.26	.08	.01	.66	.62	.23	.02	.93	.79
24	.78	.14	.31	.83	81.44	.03	.80	.60	.22	.02	76.00	.79
25	.79	.18	.43	80.02	80.86	.18	.85	.59	.21	.01	.00	.78
26	75.81	76.49	76.34	80.70	80.43	79.75	77.80	76.58	76.20	76.00	76.07	75.77
27	.77	.45	.39	.73	.09	80.01	.47	.56	.19	.00	.06	.77
28	.75	.53	.40	.34	79.97	79.89	.47	.54	.18	75.99	75.98	.76
29	.73	.45	.45	.08	80.26	.77	.36	.53	.18	.99	.94	.75
30	.72	.32	.44	79.69	.38	80.10	.30	.52	.18	.98		.75
31		.27		.33	.68		.25		.17	.98		.75
Mean	75.74	76.04	76.85	77.70	81.98	80.38	78.69	76.84	76.31	76.06	75.95	75.86
Max.	75.81	76.54	78.95	80.73	86.65	85.46	81.68	77.27	76.53	76.16	76.07	76.09
Min.	75.70	75.67	76.27	76.55	79.51	78.94	77.25	76.52	76.17	75.98	75.91	75.75

WATER YEAR 1967 : Max. 86.65 m. Min. 75.67 m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31,1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	12	11	51	64	355	587	447	117	54	32	21	20
2	12	11	47	73	396	1,029	615	113	52	32	21	20
3	12	11	97	93	509	1,534	717	109	51	32	21	26
4	12	11	166	73	632	1,156	590	105	49	30	20	28
5	12	11	134	72	770	782	452	101	48	30	20	24
6	12	10	267	65	995	630	390	97	47	29	20	20
7	12	10	313	66	1,164	570	355	100	47	29	20	19
8	12	11	152	103	1,248	565	382	100	46	29	20	18
9	12	12	130	121	1,262	530	343	95	45	29	20	18
10	14	14	164	131	855	495	295	92	44	29	18	17
11	14	23	167	130	626	493	285	87	43	28	18	17
12	15	23	113	109	524	498	311	89	43	28	18	18
13	14	23	85	103	546	483	285	122	42	28	18	20
14	15	22	75	99	578	487	276	115	41	27	18	20
15	15	18	71	101	681	424	250	93	40	27	18	18
16	13	18	64	104	782	374	228	89	40	27	18	18
17	12	17	57	97	1,224	335	207	77	39	26	18	17
18	11	27	47	113	1,877	304	198	78	40	26	18	16
19	11	34	44	112	1,865	287	193	73	40	26	18	16
20	11	66	46	111	1,271	306	176	71	39	25	18	16
21	12	64	47	102	965	294	162	69	38	24	18	16
22	13	52	41	104	905	295	151	67	37	24	18	15
23	14	35	41	119	829	297	145	65	37	24	18	15
24	14	33	44	169	706	299	160	64	37	24	21	15
25	15	34	56	440	593	319	165	59	36	23	21	14
26	16	61	50	533	513	398	160	58	35	23	25	14
27	14	58	53	538	449	435	133	57	35	23	24	14
28	13	64	54	476	421	418	139	55	34	22	20	14
29	12	58	57	437	464	401	131	54	34	22	19	13
30	12	49	57	380	483	449	125	54	34	22	–	13
31	–	46	–	331	530	–	120	–	34	22	–	13
Total	388	937	2,790	5,569	25,018	15,474	8,586	2,523	1,281	822	566	542
Mean	12.9	30.2	93.0	180	807	516	277	84.1	41.3	26.5	19.5	17.5
Max.	16	66	313	538	1,877	1,534	717	122	54	32	25	28
Min.	11	10	41	64	355	287	120	54	34	22	18	13
Runoff - mcm.	33.523	80.957	241.056	481.162	2,161.555	1,336.954	741.830	217.987	110.673	71.194	48.902	46.829

WATER YEAR 1967 : Max. 1,877 Min. 10 Mean 176 Annual Runoff 5,572.454 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Aug.18	18.00	87.29	2,099				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
MAE KLONG RIVER BASIN

Lam Phachi at Frontier Police Station, Ratchaburi (K.17)

Location: Lat 13°- 32' - 41" N, Long 99°- 21' - 22" E, on left bank opposite to the "Sai Ngam" frontier police station, Tambon Suan Phung, Amphoe Chom Bung, Ratchaburi.

Drainage Area: 1,355 sq.km.

Type of Gage: Water - stage recorder.

Zero Gage at Bottom at: 0.00 m. (A.D.)

Bench Mark: B.M. - H.S.

Location: On left bank
Elevation: +10.540 m. (A.D.)

Gage Reading Frequency: Recordings

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 Float: -
Rated by Current Meter: 1966 to date

Stability of Channel Regimes: Stable, shifting adjustment is included for flow computation.

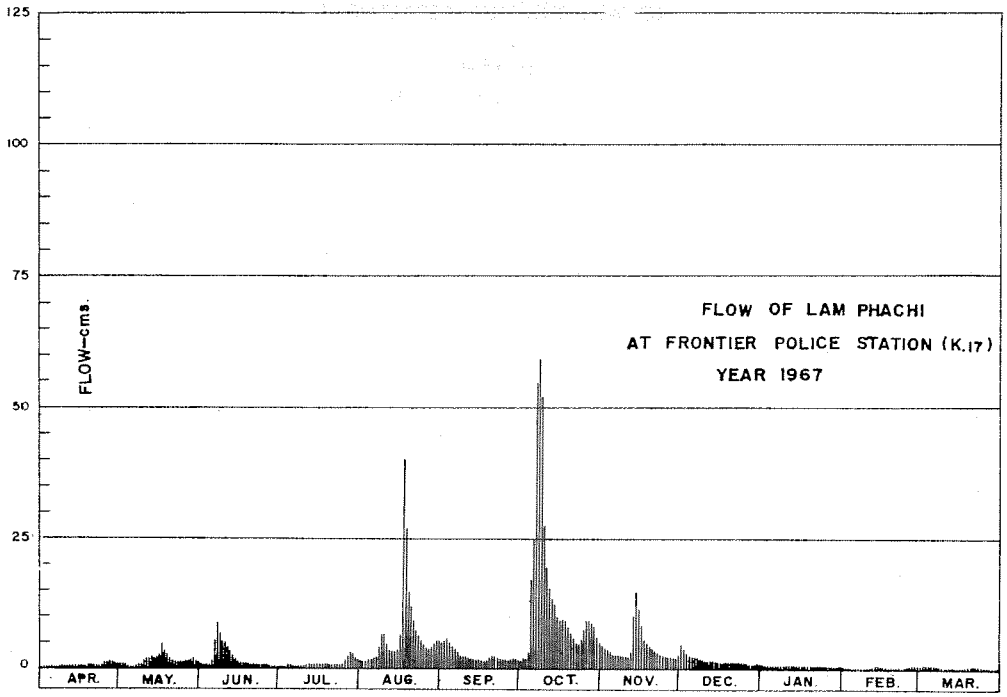
Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions for irrigation except those built by local residents. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (A.D.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	- 0.03	0.14	0.16	0.05	0.24	0.62	0.24	0.60	0.62	0.17	0.06	0.14
2	- 0.02	.12	.14	.05	.23	.65	.27	.55	.52	.17	.06	.14
3	- 0.03	.09	.14	.06	.23	.71	.31	.51	.46	.17	.05	.10
4	- 0.04	.07	.13	.08	.23	.63	.52	.41	.41	.15	.05	.09
5	- 0.04	.05	.27	.09	.23	.55	1.51	.44	.38	.14	.05	.08
6	- 0.04	0.04	0.67	0.07	0.33	0.49	1.72	0.42	0.37	0.14	0.04	0.08
7	- 0.02	.04	1.00	.07	.36	.44	2.47	.40	.34	.13	.03	.08
8	0.06	.08	0.83	.07	.50	.41	.57	.39	.33	.12	.03	.07
9	0.04	.12	.66	.07	.79	.37	.40	.37	.32	.13	.03	.06
10	0.02	.30	.64	.07	.80	.35	1.78	.36	.30	.11	.03	.05
11	0.01	0.31	0.53	0.08	0.59	0.32	1.45	0.35	0.29	0.10	0.01	0.04
12	.01	.32	.43	.08	.48	.30	.27	.38	.28	.11	.02	.04
13	.03	.35	.35	.12	.45	.27	.21	1.10	.28	.13	.06	.04
14	.07	.31	.29	.10	.44	.26	.16	.27	.27	.12	.07	.03
15	.05	.36	.24	.09	.47	.25	1.03	.06	.25	.12	.07	.03
16	0.06	0.46	0.19	0.08	0.56	0.23	0.98	0.85	0.25	0.13	0.06	0.04
17	.05	.67	.17	.08	1.13	.22	.99	.72	.25	.11	.04	.03
18	.06	.48	.18	.10	2.19	.23	.96	.63	.24	.10	.03	.06
19	.08	.38	.16	.11	1.47	.35	.94	.58	.23	.10	.03	.10
20	.10	.31	.14	.12	1.17	.35	.82	.52	.23	.09	.02	.09
21	0.08	0.25	0.14	0.09	0.95	0.36	0.73	0.48	0.23	0.09	0.03	0.08
22	.05	.22	.15	.08	.80	.34	.65	.44	.23	.08	.03	.13
23	.05	.19	.14	.07	.73	.28	.62	.41	.23	.08	.03	.13
24	.09	.19	.12	.08	.65	.27	.68	.41	.22	.08	.02	.08
25	.24	.20	.10	.16	.57	.25	.86	.40	.20	.08	.08	.06
26	0.17	0.21	0.09	0.28	0.51	0.25	0.98	0.40	0.19	0.07	0.14	0.05
27	.30	.25	.07	.39	.47	.28	.98	.39	.17	.07	.16	.05
28	.24	.34	.06	.46	.52	.30	.93	.37	.17	.07	.13	.04
29	.20	.27	.06	.38	.60	.29	.81	.36	.17	.07	.11	.03
30	.18	.22	.05	.33	.64	.26	.71	.42	.20	.07		.01
31		.18		.29	0.65		0.65		0.19	0.07		0.00
Mean	0.07	0.24	0.28	0.14	0.64	0.36	1.07	0.53	0.28	0.10	0.05	0.06
Max.	0.30	0.67	1.00	0.46	2.19	0.71	2.57	1.27	0.62	0.17	0.16	0.14
Min.	- 0.04	0.04	0.05	0.05	0.23	0.22	0.24	0.36	0.17	0.07	0.01	0.00

WATER YEAR 1967 : Max. 2.57 m. Min. - 0.04 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31,1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.09	0.76	0.96	0.36	1.36	4.80	1.42	4.40	4.70	0.96	0.48	0.84
2	0.12	0.68	0.88	0.36	1.30	5.10	1.60	3.90	3.70	0.96	0.48	0.84
3	0.08	0.56	0.56	0.44	1.30	5.82	1.54	3.60	3.10	0.96	0.44	0.68
4	0.04	0.48	0.72	0.52	1.30	4.90	3.40	3.20	2.60	0.88	0.44	0.64
5	0.04	0.40	1.12	0.52	1.30	4.10	18	2.90	2.32	0.84	0.44	0.60
6	0.04	0.36	4.60	0.48	2.00	3.50	21	2.70	2.24	0.84	0.44	0.60
7	0.12	0.36	8.90	0.48	2.24	3.00	53	2.80	2.08	0.80	0.36	0.60
8	0.44	0.52	6.52	0.48	3.60	2.70	59	2.70	2.00	0.76	0.36	0.48
9	0.36	0.68	5.10	0.48	6.38	2.32	52	2.50	1.92	0.80	0.36	0.44
10	0.28	1.60	4.90	0.48	6.52	2.24	27	2.40	1.72	0.72	0.36	0.40
11	0.24	1.76	3.80	0.52	4.10	2.00	17	2.32	1.68	0.68	0.28	0.36
12	0.24	1.84	3.00	0.56	3.50	1.84	13	2.60	1.60	0.72	0.36	0.36
13	0.32	2.08	2.24	0.72	3.20	1.60	13	12	1.60	0.80	0.52	0.36
14	0.48	1.76	1.76	0.64	3.10	1.54	12	15	1.54	0.76	0.56	0.32
15	0.40	2.16	1.42	0.60	3.40	1.48	10	11	1.42	0.76	0.56	0.32
16	0.44	2.70	1.06	0.56	3.90	1.36	9.32	7.50	1.42	0.80	0.52	0.36
17	0.40	4.80	1.00	0.56	11	1.30	9.46	5.82	1.42	0.72	0.44	0.32
18	0.44	2.90	1.06	0.64	40	1.36	9.04	4.80	1.36	0.68	0.40	0.44
19	0.52	2.50	0.88	0.68	18	2.24	8.76	4.30	1.30	0.68	0.40	0.60
20	0.60	1.90	0.80	0.72	13	2.24	7.08	3.70	1.30	0.64	0.36	0.56
21	0.52	1.48	0.80	0.60	9.18	2.32	5.82	3.50	1.30	0.64	0.40	0.52
22	0.40	1.38	0.84	0.56	7.08	1.92	4.90	3.10	1.30	0.60	0.40	0.72
23	0.40	1.12	0.80	0.52	6.10	1.68	4.60	2.80	1.30	0.60	0.40	0.68
24	0.56	1.12	0.72	0.56	5.10	1.60	5.20	2.50	1.24	0.60	0.36	0.52
25	1.24	1.18	0.64	0.88	4.30	1.48	7.64	2.40	1.12	0.60	0.60	0.44
26	0.88	1.24	0.52	1.54	3.70	1.48	9.32	2.40	1.06	0.56	0.84	0.40
27	1.60	1.48	0.44	2.40	3.30	1.68	9.32	2.32	0.96	0.56	0.92	0.40
28	1.24	2.16	0.40	3.10	3.80	1.84	8.62	2.16	0.96	0.56	0.80	0.36
29	1.00	1.60	0.40	2.32	4.60	1.76	6.94	2.08	0.96	0.60	0.72	0.32
30	0.92	1.30	0.36	2.00	5.00	1.56	5.54	2.60	1.12	0.60	–	0.24
31	–	1.06	–	1.68	5.10	–	4.90	–	.06	0.56	–	0.20
Total	14.44	45.84	57.20	27.00	187.76	72.76	419.42	126.00	53.40	22.24	13.96	14.92
Mean	0.48	1.48	1.91	0.87	6.06	2.42	13.53	4.20	1.72	0.71	0.48	0.48
Max.	1.60	4.80	8.90	3.10	40	5.82	59	15	4.70	0.96	0.92	0.84
Min.	0.04	0.36	0.36	0.36	1.30	1.30	1.42	2.08	0.96	0.56	0.28	0.20
Runoff - MCM.	1.248	3.961	4.942	2.333	16.222	6.286	36.238	10.886	4.614	1.922	1.206	1.289

WATER YEAR 1967 : Max. 59 Min. 0.04 Mean 2.88 Annual Runoff 91.147 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct.8	21.00	2.75	73				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
MAE KLONG RIVER BASIN

Khwae Yai at Ban Ong Kha, Kanchanaburi (K.19)

Location: Lat 14° – 52' – 11" N, Long 99° – 03' – 50" E, on right bank about 45 kilometers downstream from confluence with Huai Kha Khaeng, 2 kilometers from confluence with Huai Ong Kha, Tambon Na Suan, Amphoe Si Sawat, Kanchanaburi.

Drainage Area: 9,216 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: 0.00 m. (A.D.)

Bench Mark: B.M. – H.S.

Location: On left bank along gage line.
Elevation: +14.385 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 of 5 readings.

Period of Available Gage Records: 1966 – 72

Rating Operation:

Period of Rating: 1966 – 71
Rated by Float: –
Rated by Current Meter: 1966 – 71

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

Overbank Flow Conditions: No overbank flow.

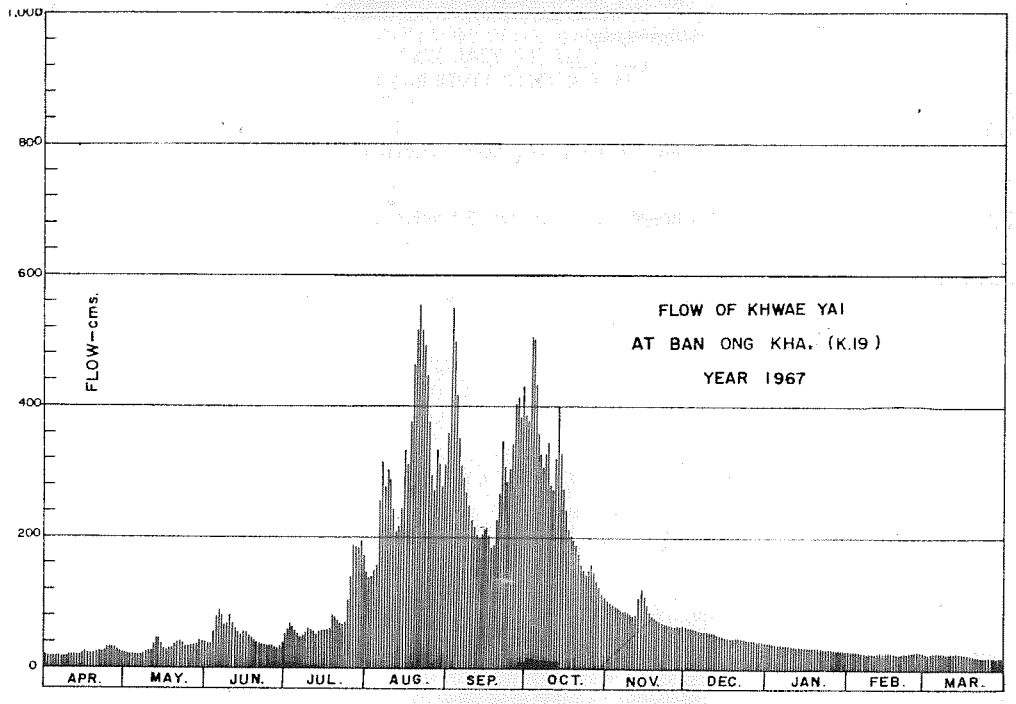
General Description: Records good. Stage – discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions for irrigation.

GAGE HEIGHT IN METER (A.D.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	1.28	1.36	1.67	1.90	3.05	4.80	4.83	2.60	2.05	1.72	1.52	1.45
2	.28	.33	.61	2.06	2.99	.86	.85	.56	.05	.71	.51	.44
3	.28	.33	.68	.15	3.06	5.86	5.58	.52	.05	.70	.51	.45
4	.27	.31	2.00	.06	.15	.29	.56	.49	.02	.69	.50	.54
5	.27	.30	.36	1.98	.22	4.73	4.93	.46	.00	.68	.49	.52
6	1.29	1.29	2.42	1.87	4.10	4.44	4.57	2.42	1.98	1.67	1.48	1.49
7	.27	.29	.25	.83	.49	.25	.32	.40	.97	.66	.47	.49
8	.28	.30	.04	.89	.19	.10	.50	.39	.95	.66	.47	.45
9	.29	.40	.20	.98	.44	3.94	.66	.36	.94	.65	.46	.44
10	.33	.40	.37	2.04	.32	.78	.17	.33	.93	.65	.46	.42
11	1.32	1.46	2.15	2.00	3.87	3.67	4.11	2.29	1.91	1.64	1.46	1.41
12	.33	.64	.02	1.98	.64	.62	.45	.30	.90	.63	.46	.42
13	.33	.80	1.94	.92	.71	.55	.96	.62	.89	.63	.51	.45
14	.38	.69	.89	2.00	.79	.59	.45	.79	.88	.62	.59	.45
15	.42	.51	2.00	.02	4.40	.65	.07	.60	.86	.62	.51	.44
16	1.45	1.51	1.99	2.02	4.62	3.66	3.83	2.47	1.85	1.61	1.48	1.42
17	.38	.50	.89	.00	.37	.50	3.64	.36	.84	.60	.46	.40
18	.37	.53	.84	.05	5.00	.35	.54	.30	.84	.60	.45	.38
19	.41	.56	.78	.33	.44	.75	.48	.27	.83	.59	.44	.37
20	.40	.68	.74	.27	.60	.86	.42	.24	.83	.58	.44	.36
21	1.39	1.72	1.71	2.15	5.88	4.25	3.27	2.21	1.82	1.58	1.45	1.36
22	.48	.75	.67	.14	.68	.66	.13	.18	.81	.57	.45	.35
23	.48	.66	.66	.12	.52	.22	.05	.16	.80	.57	.48	.34
24	.51	.59	.65	.20	.17	.24	2.96	.14	.79	.56	.48	.33
25	.53	.60	.63	.56	4.70	.47	3.07	.13	.77	.56	.49	.33
26	1.54	1.60	1.65	3.12	4.27	4.71	3.14	2.11	1.76	1.55	1.51	1.32
27	.54	.61	.58	.47	.12	5.03	.01	.10	.75	.54	.54	.31
28	.47	.63	.57	.45	.63	.06	2.86	.08	.75	.54	.53	.30
29	.41	.74	.58	.41	.36	4.84	.76	.06	.74	.53	.47	.30
30	.38	.72	.71	.52	.23	5.14	.69	.05	.74	.53		.29
31		.69		.38	.46		.65		.73	.52		.29
Mean	1.38	1.53	1.77	2.32	4.30	4.25	3.92	2.33	1.87	1.61	1.48	1.40
Max.	1.54	1.80	2.42	3.52	5.88	5.86	5.58	2.79	2.05	1.72	1.59	1.54
Min.	1.27	1.29	1.57	1.83	2.99	3.35	2.65	2.05	1.73	1.52	1.44	1.29

WATER YEAR 1967 : Max. 5.88 m. Min. 1.27 m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	18	24	39	52	142	358	376	106	64	41	28	25
2	18	22	36	62	136	368	380	102	64	41	28	24
3	18	22	40	68	143	551	507	99	64	40	28	25
4	18	22	59	62	152	441	503	97	63	39	27	29
5	18	21	85	57	160	348	394	94	60	39	27	28
6	18	21	90	50	258	306	336	91	59	38	26	27
7	18	21	77	48	315	280	300	89	59	38	26	27
8	18	21	59	52	270	264	325	89	58	38	26	25
9	18	25	71	57	303	244	349	86	57	37	25	24
10	20	25	83	61	300	225	280	84	57	37	25	24
11	20	28	67	58	236	212	272	81	56	36	25	23
12	20	38	58	57	208	206	318	85	55	36	25	24
13	20	48	53	53	217	198	398	110	54	36	28	25
14	22	41	50	58	226	206	318	126	52	35	32	25
15	24	31	57	59	304	213	267	109	50	35	28	24
16	25	29	56	59	331	214	237	98	50	35	26	24
17	22	28	50	57	296	195	214	86	49	34	25	22
18	22	30	47	61	392	179	202	81	48	34	25	21
19	23	31	44	81	467	225	195	79	47	33	24	21
20	23	38	41	76	496	238	188	77	47	33	24	20
21	25	41	39	68	553	288	172	75	47	33	25	20
22	24	42	37	67	516	346	157	73	46	32	25	19
23	24	37	36	66	487	284	148	71	45	32	26	19
24	31	33	36	71	425	286	139	70	45	32	26	18
25	32	33	35	99	348	318	150	69	44	32	27	18
26	32	35	36	149	286	354	158	68	43	30	28	18
27	32	36	32	187	267	407	144	67	42	30	29	18
28	29	37	31	185	333	412	129	66	42	30	29	17
29	26	44	33	181	294	378	120	64	42	29	26	17
30	24	42	41	193	277	429	114	64	42	29	–	17
31	–	41	–	177	308	–	110	–	41	29	–	17
Total	682	987	1,518	2,631	9,446	8,973	7,900	2,556	1,592	1,073	769	685
Mean	22.7	31.8	50.6	84.9	305	299	255	85.2	51.3	34.6	26.5	22.1
Max.	32	48	90	193	553	551	507	126	64	41	32	29
Min.	18	21	31	48	136	179	110	64	41	29	24	17
Runoff - MCM.	58.925	85.277	131.155	227.318	816.134	775.267	682.560	220.838	137.549	92.707	66.442	59.184

WATER YEAR 1967 : Max. 553 Min. 17 Mean 106 Annual Runoff 3,353.443 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Aug.21	06.00	6.04	684				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
MAE KLONG RIVER BASIN

Khwae Yai at Khao Wang Masang, Kanchanaburi (K.20)

Location: Lat 14°– 20' – 52" N, Long 99°– 10'– 45" E, on right bank 500 meters upstream from Ban Kaeng Khab, Tambon Tha Kradan, Amphoe Si Sawat, Kanchanaburi.

Drainage Area: 11,963 sq.km.

Type of Gage: Staff gage

Zero Gage at Bottom at: +44.50 m. (M.S.L.)

Bench Mark: B.M. – H.S. K.20

Location: On right bank along gage line
Elevation: +60.932 m. (M.S.L.)

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: 1966 to date

Rating Operation:

Period of Rating: 1966 to date
Rated by Float: –
Rated by Current Meter: 1966 to date

Stability of Channel Regimes: Unstable, shifting adjustment is included for flow computation.

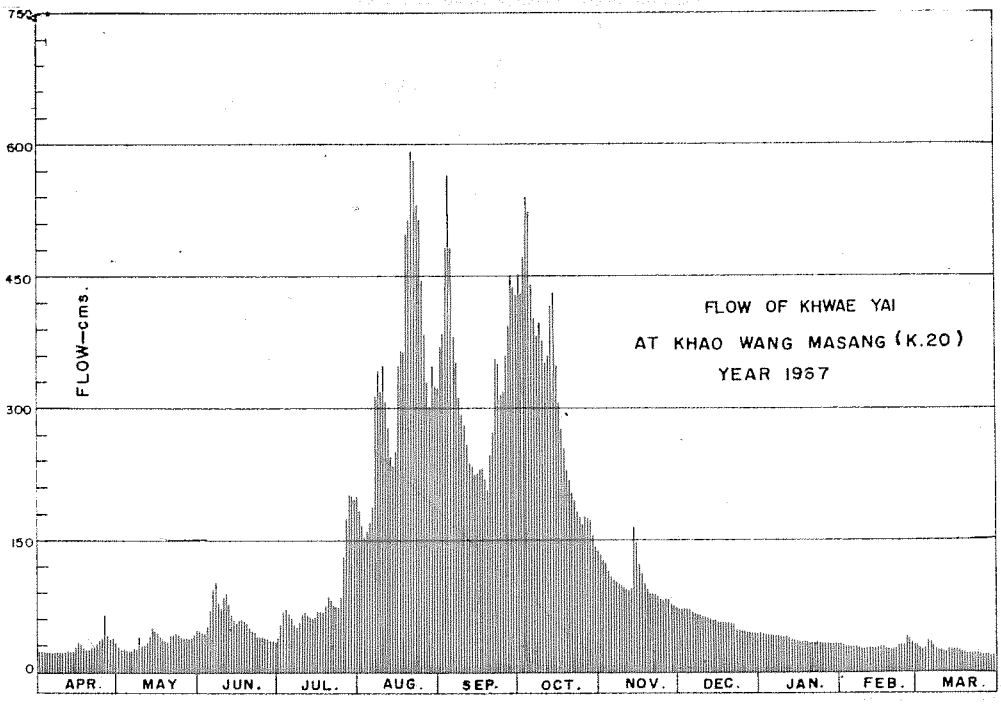
Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage – discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions for irrigation except those built by local resident.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	45.36	45.44	45.71	45.74	47.31	48.85	49.26	46.77	46.11	45.78	45.58	45.55
2	.35	.41	.70	.88	.04	.86	.06	.72	.11	.77	.57	.51
3	.35	.39	.67	46.07	.04	49.45	.52	.67	.11	.76	.56	.49
4	.34	.38	.76	.10	.13	50.04	.94	.62	.10	.75	.55	.56
5	.34	.37	46.05	.03	.20	49.36	.64	.57	.08	.74	.54	.68
6	45.34	45.37	46.34	45.97	47.40	48.86	49.08	46.54	46.05	45.73	45.53	45.67
7	.34	.45	.43	.88	48.43	.61	.01	.51	.03	.73	.53	.55
8	.34	.38	.21	.84	.59	.36	48.84	.49	.01	.72	.52	.52
9	.34	.65	.08	.91	.35	.22	49.00	.47	.00	.72	.52	.50
10	.34	.44	.29	.99	.62	.07	48.81	.44	45.98	.71	.52	.48
11	45.35	45.48	46.33	46.04	48.30	47.88	48.65	46.40	45.97	45.71	45.52	45.47
12	.39	.57	.14	45.99	47.87	.77	.88	.40	.96	.70	.51	.46
13	.37	.70	.04	.97	.71	.72	49.15	.96	.95	.69	.51	.52
14	.37	.83	45.94	.94	.79	.64	.19	47.14	.94	.69	.51	.51
15	.47	.74	.91	.98	.91	.68	48.69	46.92	.92	.68	.54	.52
16	45.59	45.71	45.99	46.05	48.56	47.70	48.31	46.70	45.90	45.67	45.55	45.49
17	.48	.65	46.00	.04	.68	.71	.05	.57	.90	.66	.53	.48
18	.45	.60	45.89	.03	.60	.53	47.84	.46	.89	.66	.51	.45
19	.42	.60	.87	.09	49.56	.43	.75	.39	.89	.65	.49	.43
20	.43	.65	.82	.29	.65	.85	.66	.35	.88	.65	.48	.43
21	45.48	45.73	45.76	46.22	50.11	47.98	47.55	46.31	45.87	45.64	45.49	45.42
22	.46	.76	.73	.12	.04	48.61	.38	.28	.86	.64	.52	.41
23	.51	.78	.71	.12	49.92	.56	.26	.24	.85	.63	.58	.40
24	.58	.71	.70	.13	.75	.28	.23	.21	.84	.62	.56	.39
25	.65	.66	.69	.28	.27	.36	.16	.20	.83	.61	.58	.38
26	46.01	45.68	45.67	46.79	48.80	48.67	47.25	46.19	45.82	45.60	45.77	45.38
27	45.62	.67	.68	47.26	.40	.94	.23	.17	.81	.60	.65	.37
28	.59	.66	.64	.51	.25	49.27	.13	.15	.80	.59	.61	.37
29	.53	.69	.62	.50	.68	.17	46.97	.13	.80	.59	.59	.36
30	.48	.76	.63	.43	.46	.10	.88	.13	.79	.59		.36
31		.75		.50	.39		.83		.78	.58		.36
Mean	45.45	45.60	45.90	46.28	48.01	48.41	48.23	46.47	45.93	45.67	45.55	45.47
Max.	46.01	45.83	46.43	47.51	50.11	50.04	49.94	47.14	46.11	45.78	45.77	45.68
Min.	45.34	45.37	45.62	45.74	47.04	47.43	46.83	46.13	45.78	45.58	45.48	45.36

WATER YEAR 1967 : Max. 50.11 m. Min. 45.34 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	23	29	47	43	181	378	449	133	73	44	32	29
2	22	27	46	55	153	380	419	128	73	44	31	27
3	22	26	44	69	153	470	490	123	73	43	30	26
4	22	26	50	72	163	566	559	112	73	42	30	29
5	22	25	71	66	171	455	510	108	71	42	29	36
6	22	25	94	59	193	380	408	105	69	41	29	36
7	22	29	102	52	320	344	398	102	67	41	29	28
8	22	26	79	50	342	310	372	100	65	41	28	27
9	22	41	69	55	310	291	396	99	65	41	28	26
10	22	29	85	65	347	276	368	96	63	40	28	25
11	22	31	89	69	303	251	345	93	62	40	28	25
12	24	36	73	65	248	238	378	93	62	38	28	24
13	23	44	65	63	229	232	425	145	61	37	28	27
14	23	52	58	61	238	223	431	164	60	37	28	27
15	28	47	54	64	253	227	356	141	59	36	29	27
16	35	45	59	69	348	230	304	121	57	36	30	26
17	29	41	60	69	365	231	271	109	57	35	29	25
18	27	38	56	68	354	209	238	99	57	35	28	24
19	26	34	55	73	500	198	227	93	57	34	27	23
20	26	31	51	87	514	254	217	90	56	34	26	22
21	29	42	47	83	591	271	204	87	55	34	27	22
22	28	44	45	75	580	355	192	89	55	35	28	22
23	33	45	41	75	539	348	178	85	48	35	32	21
24	37	41	41	76	511	307	175	83	48	34	30	21
25	41	38	40	88	435	317	167	82	47	33	32	20
26	65	39	39	134	365	361	177	84	47	33	43	20
27	39	38	39	175	310	401	175	80	46	33	36	20
28	38	38	37	203	290	450	171	77	45	32	33	20
29	40	39	36	201	348	435	155	75	45	32	32	19
30	31	44	36	194	317	425	144	75	45	32	–	19
31	–	49	–	201	313	–	139	–	44	32	–	19
Total	865	1,139	1,708	2,779	10,284	9,813	9,438	3,071	1,805	1,146	868	762
Mean	28.8	36.7	56.9	89.6	332	327	304	102	58.2	37.0	29.9	24.6
Max.	65	52	102	203	591	566	559	164	73	44	43	36
Min.	22	25	36	43	153	198	139	75	44	32	26	19
Runoff – mcm.	74.736	98.410	147.571	240.106	888.538	847.843	815.443	265.334	155.952	99.014	74.995	65.837

WATER YEAR 1967 : Max. 591 Min. 19 Mean 119 Annual Runoff 3,773.779 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Aug.21	24.00	45.35	615				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
MAE KLONG RIVER BASIN

Huai Mae Nam Noi at Sai Yok, Kanchanaburi (K.22)

Location: Lat 14° - 27' - 35" N, Long 98° - 46' - 25" E, on left bank about 12 kilometers upstream from confluence with Khwae Noi at Ban Mae Nam Noi, Amphoe Sai Yok, Kanchanaburi.

Drainage Area: 312 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: 0.00 m. (A.D.)

Bench Mark: B.M. - H.S./R.I.D.

Location: On left bank infront of camp of station K.22
Elevation: +8.00 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: 1966 to date.

Rating Operation:

Period of Rating: 1966 to date
Rated by Float: -
Rated by Current Meter: 1966 to date

Stability of Channel Regimes: Unstable, shifting adjustment is included for flow computation.

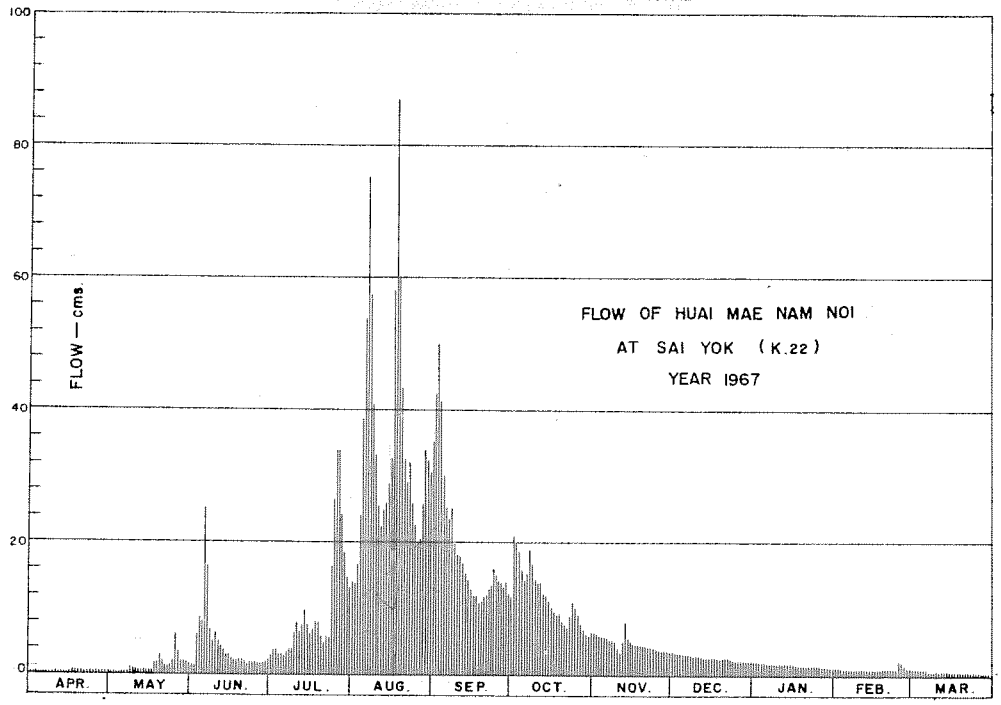
Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions for irrigation except those built by local residents. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (A.D.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.17	0.15	0.31	0.45	1.08	1.79	1.00	0.70	0.49	0.35	0.26	0.23
2	.17	.15	.31	.51	.06	2.66	.41	.68	.48	.35	.25	.22
3	.16	.15	.73	.51	.13	.22	.33	.67	.48	.35	.25	.21
4	.16	.16	.87	.47	.37	1.84	.30	.66	.47	.34	.25	.21
5	.16	.15	.79	.49	.94	.64	.17	.65	.46	.34	.24	.20
6	0.16	0.15	1.55	0.44	2.25	1.49	1.12	0.64	0.46	0.33	0.24	0.20
7	.16	.15	0.99	.50	.82	.45	.18	.63	.45	.33	.23	.20
8	.16	.19	.72	.53	.29	.49	.31	.62	.45	.33	.23	.20
9	.16	.26	.64	.51	1.91	.35	.24	.61	.44	.33	.23	.20
10	.16	.23	.73	.71	.66	.27	.15	.52	.44	.32	.23	.19
11	0.15	0.20	0.65	0.78	1.44	1.26	1.16	0.49	0.43	0.32	0.23	0.19
12	.15	.21	.59	.66	.37	.23	.15	.55	.43	.32	.23	.19
13	.15	.21	.52	.77	.46	.21	.09	.79	.42	.32	.22	.19
14	.15	.22	.48	.88	.51	.17	.06	.64	.42	.31	.22	.19
15	.15	.20	.49	.73	.62	.11	.03	.60	.41	.31	.22	.18
16	0.19	0.21	0.42	0.66	1.61	1.07	0.98	0.59	0.41	0.31	0.22	0.18
17	.18	.21	.42	.71	2.48	.03	.94	.57	.41	.30	.22	.18
18	.17	.35	.41	.79	3.11	0.99	.92	.57	.40	.30	.21	.18
19	.17	.37	.43	.77	2.26	1.01	.93	.55	.40	.30	.21	.17
20	.17	.45	.42	.64	1.90	0.96	.87	.55	.40	.30	.21	.17
21	0.16	0.36	0.35	0.58	1.70	0.95	0.83	0.54	0.39	0.29	0.22	0.17
22	.18	.29	.33	.66	.60	1.02	.81	.53	.39	.29	.23	.17
23	.19	.27	.37	.63	.69	.05	.80	.53	.39	.29	.22	.17
24	.19	.33	.34	.92	.49	.14	.96	.52	.38	.28	.22	.17
25	.20	.39	.35	1.49	.36	.13	.91	.51	.37	.28	.36	.16
26	0.18	0.66	0.33	1.77	1.31	1.08	0.88	0.50	0.37	0.27	0.33	0.16
27	.18	.45	.33	.76	.31	.09	.81	.50	.37	.27	.28	.15
28	.17	.37	.35	.39	.44	.04	.77	.50	.37	.27	.25	.15
29	.17	.37	.36	.19	.75	.07	.74	.50	.37	.27	.23	.15
30	.17	.35	.41	.08	.70	.02	.72	.49	.36	.27		.15
31		.33		.00	.63		.71		.36	.26		.15
Mean	0.17	0.27	0.53	0.80	1.72	1.29	1.01	0.58	0.41	0.31	0.24	0.18
Max.	0.20	0.66	1.55	1.77	3.11	2.66	1.41	0.79	0.49	0.35	0.36	0.23
Min.	0.15	0.15	0.31	0.44	1.06	0.95	0.71	0.49	0.36	0.26	0.21	0.15

WATER YEAR 1967 : Max. 3.11 m. Min. 0.15 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.32	0.32	1.46	2.88	14	35	11	6.44	3.70	2.00	1.19	1.03
2	0.32	0.32	1.46	3.70	14	68	21	6.10	3.55	2.00	1.10	0.96
3	0.28	0.32	6.27	3.70	16	50	19	5.95	3.55	2.00	1.10	0.89
4	0.28	0.36	8.75	3.10	22	36	18	5.80	3.40	1.91	1.10	0.89
5	0.28	0.32	7.29	3.40	40	29	15	5.65	3.25	1.91	1.03	0.82
6	0.28	0.32	25	2.77	52	25	14	5.50	3.25	1.82	1.03	0.68
7	0.28	0.32	11	3.55	75	23	15	5.35	3.10	1.82	0.96	0.68
8	0.28	0.54	6.10	4.00	53	25	19	5.20	3.10	1.82	0.96	0.68
9	0.28	1.03	4.90	3.70	39	20	16	5.05	2.90	1.82	0.96	0.68
10	0.40	0.82	6.27	6.78	31	18	14	3.70	2.90	1.73	0.96	0.61
11	0.36	0.61	5.05	7.99	24	18	14	3.25	2.88	1.73	0.96	0.61
12	0.36	0.68	4.15	5.95	22	17	14	4.15	2.88	1.73	0.96	0.61
13	0.36	0.68	3.55	7.80	25	16	12	7.99	2.77	1.73	0.89	0.61
14	0.36	0.75	2.99	9.89	26	15	12	5.50	2.77	1.64	0.89	0.61
15	0.40	0.61	3.10	7.12	29	13	11	4.90	2.66	1.64	0.96	0.54
16	0.61	0.68	2.33	5.95	29	12	10	4.75	2.66	1.64	0.96	0.54
17	0.54	0.68	2.33	6.78	61	12	9.51	4.45	2.66	1.55	0.96	0.54
18	0.47	1.82	2.22	8.18	87	11	9.13	4.75	2.55	1.55	0.89	0.54
19	0.47	2.00	2.44	7.80	52	11	9.32	4.45	2.55	1.55	0.89	0.47
20	0.47	2.88	2.33	5.65	39	12	8.18	4.45	2.55	1.55	0.89	0.47
21	0.36	1.91	1.64	4.75	32	11	7.46	4.30	2.44	1.46	0.96	0.47
22	0.47	1.28	1.46	5.95	29	13	7.12	4.15	2.44	1.46	1.03	0.47
23	0.54	1.10	2.00	5.50	32	13	8.18	4.15	2.44	1.46	0.96	0.47
24	0.54	1.64	1.73	11	25	16	11	4.00	2.33	1.37	0.96	0.47
25	0.61	2.22	1.82	25	22	15	10	3.85	2.22	1.37	2.22	0.40
26	0.47	5.95	1.64	34	20	14	8.75	3.70	2.22	1.28	1.91	0.40
27	0.47	2.88	1.64	34	20	14	7.46	3.70	2.22	1.28	1.46	0.36
28	0.40	2.00	1.82	22	24	13	6.78	3.70	2.22	1.28	1.19	0.36
29	0.40	2.00	1.91	17	34	14	6.27	3.70	2.22	1.28	1.03	0.36
30	0.40	1.82	2.44	14	32	12	5.95	3.55	2.11	1.28	–	0.36
31	–	1.64	–	13	30	–	6.61	–	2.11	1.19	–	0.36
Total	12.06	40.50	127.09	296.89	1,050	601	356.72	142.18	84.60	49.85	31.36	17.94
Mean	0.402	1.31	4.24	9.58	33.9	20.0	11.5	4.74	2.73	1.61	1.08	0.579
Max.	0.61	5.95	25	34	87	68	21	7.99	3.70	2.00	2.22	1.03
Min.	0.28	0.32	1.46	2.77	14	11	5.95	3.25	2.11	1.19	0.89	0.36
Runoff – MCM.	1.042	3.499	10.980	25.651	90.720	51.927	30.821	12.284	7.309	4.307	2.710	1.550

WATER YEAR 1967 : Max. 87 Min. 0.28 Mean 7.68 Annual Runoff 242.800 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Aug.7	03.00	3.82	119				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
PHET RIVER BASIN

Phet River at Ban Rai Phaniat, Phetchaburi (B.1A)

Location: Lat 13°- 04' - 22" N, Long 99°- 56' - 37" E, next to Muang Thamon Regulator, Ban Rai Phaniat, Tambon Ban Mo, Amphoe Muang, Phetchaburi.

Drainage Area: 4,188 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: 0.00 m. (M.S.L.)

Bench Mark: B.M. - R.I.D. 075

Location: At the cross road infront of Wang Ban Pun.
Elevation: +4.179 m. (M.S.L.)

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: 1961 to date.

Rating Operation:

Period of Rating: 1965, 1967 - 69, 1971
Rated by Float: -
Rated by Current Meter: 1965, 1967 - 69, 1971

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

Overbank Flow Conditions: No overbank flow.

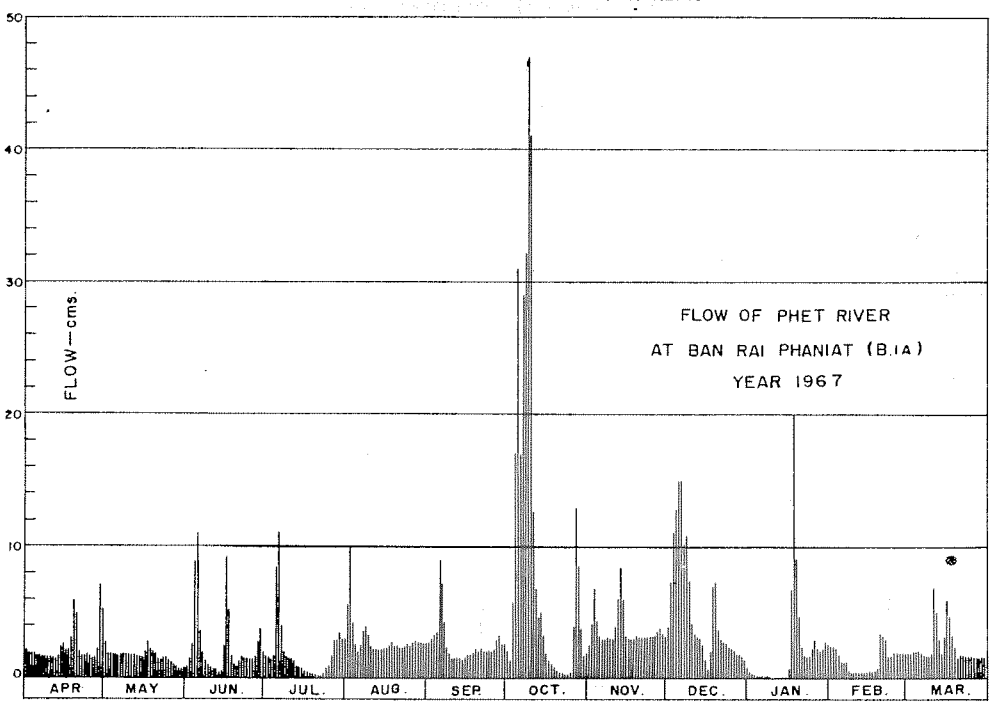
General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1967. Flow regulated by Kaeng Krachan Reservoir and Phet Diversion Dam at above gage site, diversion for irrigation of about 27,800 hectares. The data presented is from actual observation at gage site, no adjustment made for virgin flow.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31,1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	1.12	1.15	0.88	1.05	1.37	1.17	1.12	1.16	1.21	0.80	1.15	1.08
2	.09	.09	1.03	.04	.74	.20	.00	.27	.45	.78	.14	.08
3	.08	.08	.05	.02	.25	.23	0.94	.53	.81	.75	.13	.10
4	.07	.07	.64	.00	.16	.23	1.74	.31	.83	.73	.07	.11
5	.05	.07	.80	.52	.09	.47	2.66	.22	.98	.72	0.96	.11
6	1.05	1.03	1.26	1.80	1.06	1.66	1.88	1.20	2.02	0.72	0.94	1.09
7	.04	.06	.09	.25	.25	.20	2.58	.20	1.76	.72	.97	.06
8	.03	.08	0.98	.10	.30	.12	.64	.22	.78	.72	.82	.03
9	.02	.07	.92	.05	.22	.06	3.16	.21	.51	.71	.81	.05
10	.02	.06	.87	.03	.14	.00	2.95	.20	.31	.60	.82	.03
11	1.02	1.06	0.81	1.00	1.12	1.01	1.90	1.23	1.25	0.69	0.81	1.52
12	.01	.07	.81	0.91	.12	.00	.51	.44	.23	.68	.81	.83
13	.01	.04	.79	.88	.12	.02	.34	.63	.21	.68	.81	.20
14	.14	.04	.82	.88	.12	0.98	.40	.44	.15	.67	.81	.02
15	.15	.03	.85	.87	.12	1.02	.16	.25	0.98	.64	.81	.26
16	1.12	1.06	1.68	0.83	1.13	1.06	1.02	1.21	0.84	0.62	0.83	1.46
17	.12	.18	.30	.81	.15	.06	0.97	.20	.83	1.10	.82	.33
18	.17	.13	.00	.80	.18	.09	.93	.20	1.53	2.25	.82	.18
19	.46	.11	0.94	.78	.14	.13	.89	.23	.56	1.56	.86	.15
20	.38	.07	.89	.76	.16	.10	.84	.23	.26	.23	1.25	.00
21	1.09	1.01	1.01	0.75	1.14	1.13	0.81	1.22	1.20	1.11	1.23	1.07
22	.05	0.99	.05	.73	.14	.11	.80	.21	.18	.06	.00	.06
23	.04	1.01	.03	.73	.15	.10	.76	.22	.17	.03	.03	.04
24	.07	.02	.01	.84	.17	.11	.76	.22	.15	.04	.04	.05
25	.05	.00	.01	.89	.15	.10	.79	.23	.13	.12	.08	.04
26	1.02	0.95	1.00	1.01	1.19	1.11	0.85	1.23	1.12	1.20	1.12	1.03
27	.01	.93	.03	.19	.19	.18	1.90	.26	.09	.13	.08	.03
28	.09	.88	1.16	.18	.18	.23	.59	.29	.08	.11	.09	.01
29	.54	.86	.28	.25	.17	.15	.23	.24	.06	.21	.08	.03
30	.42	.85	.10	.20	.17	.16	.18	.22	1.00	.19		.03
31		.87		.19	.17		.17		0.88	.16		.02
Mean	1.12	1.03	1.07	1.01	1.19	1.14	1.43	1.26	1.31	1.26	0.97	1.13
Max.	1.54	1.18	1.80	1.80	1.74	1.66	3.16	1.63	2.02	2.25	1.25	1.83
Min.	1.01	0.85	0.79	0.73	1.06	0.98	0.76	1.16	0.83	0.62	0.81	1.00

WATER YEAR 1967 : Max. 3.16 m. Min. 0.62 m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	2.20	2.50	0.90	1.75	4.70	2.70	2.20	2.60	3.10	0.50	2.50	1.90
2	1.95	1.95	1.65	1.70	10	3.80	1.50	3.70	5.75	0.44	2.40	1.90
3	1.90	1.90	1.75	1.60	3.50	3.30	1.20	6.95	11	0.35	2.30	2.00
4	1.85	1.85	8.60	1.50	2.60	3.30	10	4.10	12	0.29	1.85	2.10
5	1.75	1.85	11	6.80	1.95	6.05	31	3.20	15	0.26	1.30	2.10
6	1.75	1.65	3.60	11	1.80	8.90	13	3.00	15	0.26	1.20	1.95
7	1.70	1.80	1.95	3.50	3.50	3.00	29	3.00	10	0.26	1.35	1.80
8	1.65	1.90	1.40	2.00	4.00	2.20	31	3.20	11	0.26	0.60	1.65
9	1.60	1.85	1.10	1.75	3.20	1.80	47	3.10	6.65	0.23	0.55	1.75
10	1.60	1.80	0.85	1.65	2.40	1.50	40	3.00	4.10	0.00	0.60	1.65
11	1.60	1.80	0.55	1.50	2.20	1.55	13	3.30	3.50	0.18	0.55	6.80
12	1.55	1.85	0.55	1.05	2.20	1.50	6.65	5.60	3.30	0.16	0.55	12
13	1.55	1.70	0.47	0.90	2.20	1.60	4.40	8.45	3.10	0.16	0.55	3.00
14	2.40	1.70	0.60	0.90	2.20	1.40	5.00	5.60	2.50	0.14	0.55	1.60
15	2.50	1.65	0.75	0.85	2.20	1.60	2.60	3.50	1.40	0.08	0.55	3.60
16	2.20	1.80	9.20	0.65	2.30	1.80	1.60	3.10	0.70	0.04	0.65	5.90
17	2.20	2.80	4.00	0.55	2.50	1.80	1.35	3.00	0.65	2.00	0.60	4.30
18	2.70	2.30	1.50	0.50	2.80	1.95	1.15	3.00	6.95	20	0.60	2.80
19	5.90	2.10	1.20	0.44	2.40	2.30	0.95	3.30	7.40	7.40	0.80	2.50
20	4.80	1.85	0.95	0.38	2.60	2.00	0.70	3.30	3.60	3.30	3.50	1.50
21	1.95	1.55	1.55	0.35	2.40	2.30	0.55	3.20	3.00	2.10	3.30	1.85
22	1.75	1.45	1.75	0.29	2.40	2.10	0.50	3.10	2.80	1.80	3.00	1.80
23	1.70	1.55	1.65	0.29	2.50	2.00	0.38	3.20	2.70	1.65	1.65	1.70
24	1.85	1.60	1.55	0.70	2.70	2.10	0.38	3.20	2.50	1.70	1.70	1.75
25	1.75	1.50	1.55	0.95	2.50	2.00	0.47	3.30	2.30	2.20	1.90	1.70
26	1.60	1.25	1.50	1.55	2.90	2.10	0.75	3.30	2.20	3.00	2.20	1.65
27	1.55	1.15	1.65	2.90	2.90	2.80	13	3.60	1.95	2.30	1.90	1.65
28	1.95	0.90	2.60	2.80	2.80	3.30	7.85	3.90	1.90	2.10	1.95	1.55
29	7.10	0.80	3.80	3.50	2.70	2.50	3.30	3.40	1.80	3.10	1.90	1.65
30	5.30	0.75	2.00	3.00	2.70	2.60	2.80	3.20	1.50	2.90		1.65
31		0.65		2.90	2.70		2.70		0.90	2.60		1.60
Total	71.85	51.95	72.17	60.20	90.45	77.05	275.98	111.40	150.25	61.76	43.05	81.35
Mean	2.39	1.67	2.40	1.94	2.92	2.57	8.90	3.71	4.85	1.99	1.48	2.62
Max.	7.10	2.80	11	11	10	8.90	47	8.45	15	20	3.50	12
Min.	1.55	0.75	0.47	0.29	1.80	1.40	0.38	2.60	0.65	0.04	0.55	1.50
Runoff - MCM.	6.208	4.488	6.235	5.201	7.815	6.657	23.845	9.625	12.982	5.336	3.719	7.029

WATER YEAR 1967 : Max. 47 Min. 0.04 Mean 3.13 Annual Runoff 99.140 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct.9	06.00	3.18	48				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
PHET RIVER BASIN

Phet River at Phet Barrage Phetchaburi (B.2A)

Location: Lat 12°- 54' - 44" N, Long 99°- 51' - 31" E, on left bank about 50 meters downstream from Phet Barrage and discharge measurements are made at 500 meters at downstream side, Amphoe Tha Yang, Phetchaburi.

Drainage Area: 4,060 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: +12.00 m. (M.S.L.)

Bench Mark: B.M. - H.S.

Location: On abutment of Phet Barrage.
Elevation: +23.00 m. (M.S.L.)

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: 1961, 1965 to date
Rated by Float: -
Rated by Current Meter: 1961, 1965 to date

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

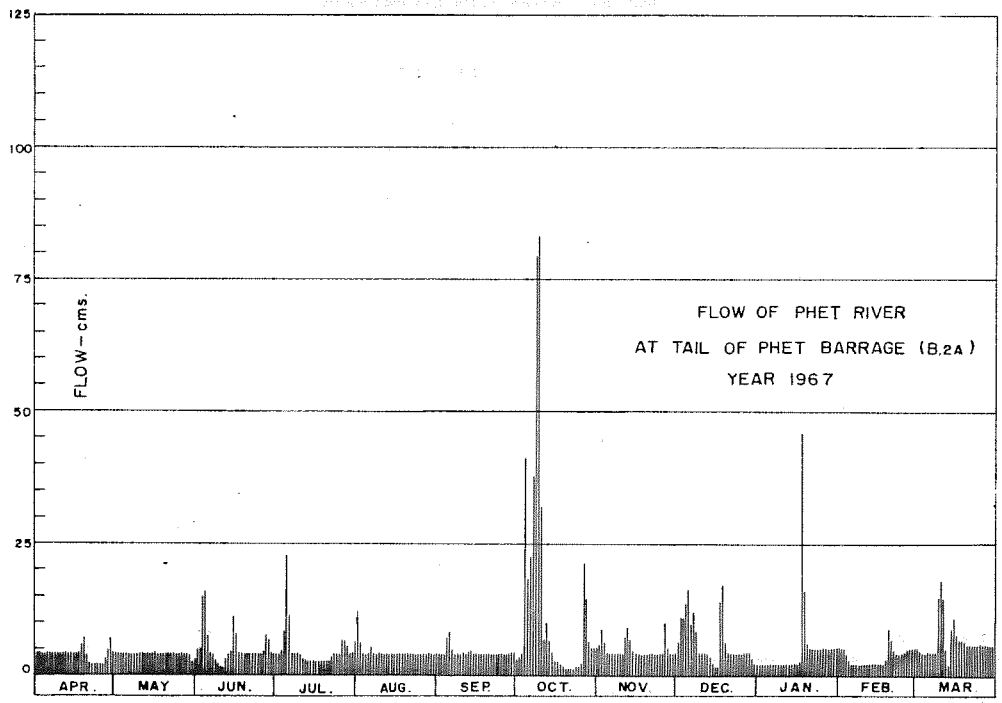
Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1967. Flow regulated by storage and diversion dam for irrigation of about 27,800 hectares at above gage site. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1,1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	12.10	12.10	12.12	12.10	12.26	12.10	12.06	12.13	12.14	12.05	12.12	12.12
2	.10	.10	.10	.10	.12	.10	.09	.19	.24	.05	.12	.10
3	.10	.10	.32	.10	.10	.10	.10	.12	.24	.05	.09	.10
4	.10	.10	.33	.21	.10	.16	.76	.10	.29	.05	.05	.10
5	.10	.10	.12	.47	.10	.19	.29	.10	.33	.05	.05	.10
6	12.10	12.10	12.10	12.10	12.13	12.10	12.41	12.10	12.19	12.05	12.05	12.10
7	.10	.10	.10	.10	.10	.10	.71	.10	.25	.05	.05	.10
8	.10	.10	.07	.10	.10	.10	13.40	.10	.14	.05	.05	.10
9	.10	.10	.05	.10	.10	.10	.47	.10	.10	.05	.05	.31
10	.10	.10	.04	.10	.10	.10	12.30	.10	.10	.65	.05	.37
11	12.10	12.10	12.04	12.08	12.10	12.10	12.10	12.17	12.10	12.05	12.05	12.28
12	.10	.10	.08	.07	.10	.10	.22	.20	.10	.05	.05	.05
13	.10	.10	.10	.07	.10	.12	.13	.13	.08	.05	.05	.05
14	.10	.10	.10	.07	.10	.10	.10	.10	.05	.05	.05	.20
15	.10	.10	.24	.07	.10	.10	.06	.10	.04	.05	.05	.24
16	12.10	12.11	12.14	12.07	12.10	12.10	12.06	12.10	12.04	12.05	12.05	12.15
17	.10	.10	.10	.07	.10	.10	.05	.10	.29	.87	.05	.15
18	.13	.10	.10	.07	.10	.10	.04	.10	.35	.32	.08	.15
19	.16	.10	.10	.07	.10	.10	.03	.10	.10	.12	.20	.13
20	.05	.10	.10	.07	.10	.10	.03	.10	.10	.12	.14	.13
21	12.05	12.10	12.10	12.07	12.10	12.10	12.03	12.10	12.10	12.12	12.10	12.13
22	.05	.10	.10	.09	.10	.10	.03	.10	.10	.12	.10	.13
23	.05	.10	.10	.10	.10	.10	.04	.10	.10	.12	.10	.13
24	.05	.10	.10	.10	.10	.10	.04	.10	.10	.12	.10	.13
25	.05	.10	.10	.10	.10	.10	.04	.10	.10	.12	.11	.13
26	12.05	12.10	12.10	12.15	12.10	12.10	12.42	12.23	12.10	12.12	12.12	12.13
27	.07	.10	.17	.13	.10	.10	.26	.10	.10	.12	.12	.13
28	.10	.10	.16	.12	.10	.10	.12	.10	.10	.12	.12	.13
29	.16	.09	.10	.10	.10	.10	.12	.10	.07	.12	.12	.13
30	.10	.07	.10	.10	.10	.10	.12	.10	.05	.12		.13
31		.07		.14	.10		.12		.05	.12		.13
Mean	12.09	12.10	12.12	12.11	12.10	12.10	12.27	12.11	12.14	12.11	12.08	12.14
Max.	12.16	12.11	12.33	12.47	12.26	12.19	13.47	12.23	12.35	12.87	12.20	12.37
Min.	12.05	12.07	12.04	12.07	12.10	12.10	12.03	12.10	12.04	12.05	12.05	12.05

WATER YEAR 1967 : Max. 13.47 m. Min. 12.03 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	4.10	4.10	5.08	4.10	12	4.10	2.52	5.57	6.06	2.10	5.08	5.08
2	4.10	4.10	4.10	4.10	5.08	4.10	3.78	8.51	11	2.10	5.08	4.10
3	4.10	4.10	15	4.10	4.10	4.10	4.10	5.08	11	2.10	3.78	4.10
4	4.10	4.10	16	9.51	4.10	7.04	40	4.10	14	2.10	2.10	4.10
5	4.10	4.10	5.08	23	4.10	8.51	13	4.10	16	2.10	2.10	4.10
6	4.10	4.10	4.10	4.10	5.57	4.10	20	4.10	8.51	2.10	2.10	4.10
7	4.10	4.10	4.10	4.10	4.10	4.10	37	4.10	12	2.10	2.10	4.10
8	4.10	4.10	2.94	4.10	4.10	4.10	79	4.10	6.06	2.10	2.10	4.10
9	4.10	4.10	2.10	4.10	4.10	4.10	83	4.10	4.10	2.10	2.10	15
10	4.10	4.10	1.68	4.10	4.10	4.10	14	4.10	4.10	2.10	2.10	18
11	4.10	4.10	1.68	3.36	4.10	4.10	4.10	7.53	4.10	2.10	2.10	13
12	4.10	4.10	3.36	2.94	4.10	4.10	10	9.00	4.10	2.10	2.10	2.10
13	4.10	4.10	4.10	2.94	4.10	5.08	5.57	5.57	3.36	2.10	2.10	2.10
14	4.10	4.10	4.10	2.94	4.10	4.10	4.10	4.10	2.10	2.10	2.10	9.00
15	4.10	4.10	11	2.94	4.10	4.10	2.52	4.10	1.68	2.10	2.10	11
16	4.10	4.59	6.06	2.94	4.10	4.10	2.52	4.10	1.68	2.10	2.10	6.55
17	4.10	4.10	4.10	2.94	4.10	4.10	2.10	4.10	14	46	2.10	6.55
18	5.57	4.10	4.10	2.94	4.10	4.10	1.68	4.10	17	15	3.36	5.55
19	7.04	4.10	4.10	2.94	4.10	4.10	1.26	4.10	4.10	5.08	9.00	5.57
20	2.10	4.10	4.10	2.94	4.10	4.10	1.26	4.10	4.10	5.08	6.06	5.57
21	2.10	4.10	4.10	2.94	4.10	4.10	1.26	4.10	4.10	5.08	4.10	5.57
22	2.10	4.10	4.10	3.78	4.10	4.10	1.26	4.10	4.10	5.08	4.10	5.57
23	2.10	4.10	4.10	4.10	4.10	4.10	1.68	4.10	4.10	5.08	4.10	5.57
24	2.10	4.10	4.10	4.10	4.10	4.10	1.68	4.10	4.10	5.08	4.10	5.57
25	2.10	4.10	4.10	4.10	4.10	4.10	1.68	4.10	4.10	5.08	4.59	5.57
26	2.10	4.10	4.10	6.55	4.10	4.10	21	10	4.10	5.08	5.08	5.57
27	2.94	4.10	7.53	5.57	4.10	4.10	12	4.10	4.10	5.08	5.08	5.57
28	4.10	4.10	7.04	5.08	4.10	4.10	5.08	4.10	4.10	5.08	5.08	5.57
29	7.04	3.78	4.10	4.10	4.10	4.10	5.08	4.10	2.94	5.08	5.08	5.57
30	4.10	2.94	4.10	4.10	4.10	4.10	5.08	4.10	2.10	5.08	–	5.57
31	–	2.94	–	6.06	4.10	–	5.08	–	2.10	5.08	–	5.57
Total	115.19	124.95	154.25	145.61	137.45	131.33	392.39	145.56	188.99	160.64	103.07	196.04
Mean	3.84	4.03	5.14	4.70	4.43	4.38	12.6	4.85	6.10	5.18	3.55	6.32
Max.	7.04	4.59	16	23	12	8.51	83	10	17	46	9.00	18
Min.	2.10	2.94	1.68	2.94	4.10	4.10	1.26	4.10	1.68	2.10	2.10	2.10
Runoff - MCM.	9.952	10.796	13.327	12.581	11.876	11.347	33.902	12.576	16.329	13.879	8.905	16.939

WATER YEAR 1967 : Max. 83 Min. 1.26 Mean 5.45 Annual Runoff 172.409 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct.8	20.00	13.65	95				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
PHET RIVER BASIN

Phet River at Ban Song Phi Nong, Phetchaburi (B.3)

Location: Lat 12° – 52' – 04" N, Long 99° – 40' – 40" E, at Tambon Song Phi Nong, Amphoe Tha Yang, Phetchaburi.

Drainage Area: 2,244 sq.km.

Type of gage: Staff gage.

Zero Gage at Bottom at: +41.00 m. (M.S.L.)

Bench Mark: B.M. – H.S.

Location: On left bank near the upper gage.
Elevation: +48.632 m. (M.S.L.)

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: 1930 – 42, 1954 to date.

Rating Operation:

Period of Rating: 1954 – 59, 1968 to date
Rated by Float: –
Rated by Current Meter: 1954 – 59, 1968 to date

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

Overbank Flow Conditions: No overbank flow.

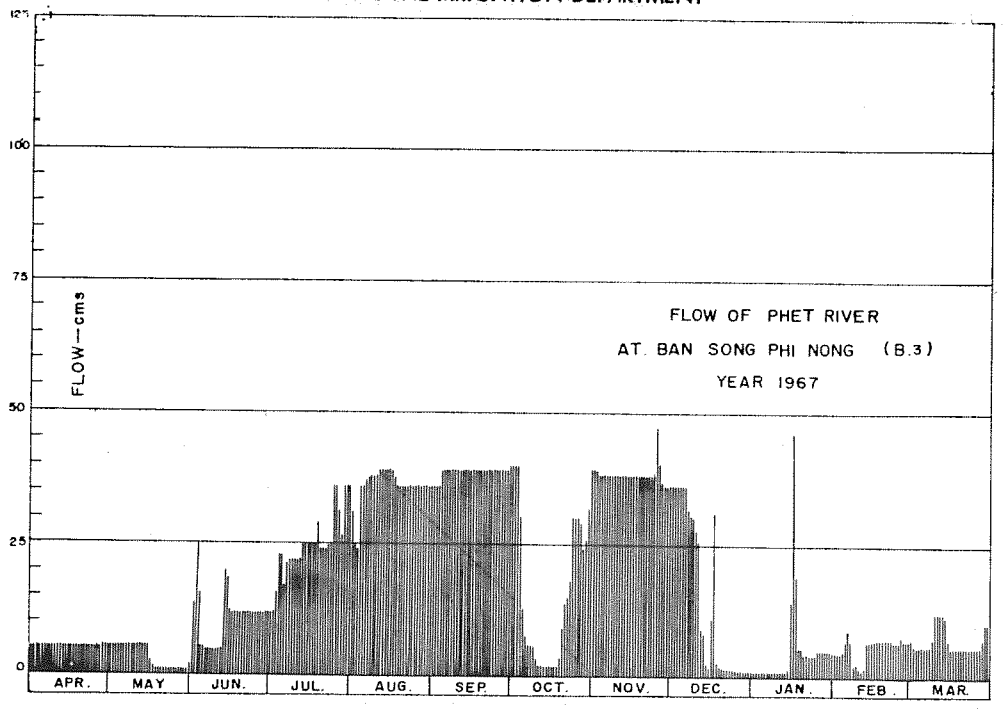
General Description: Records good. Stage – discharge relationship used is defined by discharge measurements made during 1969. Flow regulated by Kaeng Krachan Reservoir. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	41.85	41.86	42.06	42.09	42.52	42.60	42.66	42.64	42.60	41.59	41.82	41.92
2	.85	.86	.20	.09	.39	.60	.66	.64	.60	.59	.81	.86
3	.85	.86	.41	.21	.39	.60	.66	.63	.60	.59	.81	.85
4	.85	.86	41.85	.35	.60	.65	.50	.63	.60	.59	.81	.85
5	.85	.86	.85	.35	.60	.65	.12	.63	.60	.59	41.90	.85
6	41.85	41.86	41.83	42.20	42.62	42.65	41.93	42.63	42.60	41.59	41.99	41.85
7	.85	.86	.83	.31	.63	.65	.88	.63	.51	.59	.90	.85
8	.85	.86	.83	.33	.63	.65	.87	.63	.50	.59	.66	.85
9	.85	.86	.83	.33	.63	.65	.87	.63	.49	.59	.70	.91
10	.85	.86	.83	.33	.63	.65	.68	.63	.45	.59	.61	42.10
11	41.85	41.86	41.83	42.33	42.64	42.65	41.68	42.63	42.40	41.59	41.61	42.10
12	.85	.86	.83	.33	.64	.65	.68	.63	41.97	.59	.61	.10
13	.85	.86	42.29	.40	.64	.65	.68	.63	.96	.59	.91	.10
14	.85	.86	.30	.40	.64	.65	.67	.63	.69	.59	.91	.05
15	.85	.86	.08	.40	.64	.65	.67	.63	.64	.85	.91	41.86
16	41.85	41.68	42.08	42.40	42.64	42.65	41.67	42.63	41.60	42.75	41.91	41.85
17	.85	.63	.08	.40	.62	.65	.67	.63	42.51	.39	.91	.85
18	.85	.61	.08	.40	.59	.65	.66	.63	41.70	41.85	.91	.85
19	.85	.61	.08	.47	.59	.65	.74	.63	.66	.85	.91	.85
20	.85	.61	.08	.39	.59	.65	.99	.63	.63	.79	.91	.85
21	41.85	41.61	42.08	42.39	42.59	42.65	42.14	42.63	41.63	41.80	41.91	41.85
22	.85	.61	.08	.39	.60	.65	.17	.63	.62	.79	.91	.85
23	.85	.60	.08	.40	.60	.65	.27	.63	.62	.79	.90	.85
24	.85	.60	.08	.40	.60	.65	.49	.63	.62	.79	.90	.85
25	.85	.60	.08	.59	.60	.65	.49	.77	.62	.83	.90	.85
26	41.85	41.59	42.08	42.59	42.60	42.65	42.50	42.62	41.60	41.83	41.93	41.85
27	.85	.59	.08	.49	.60	.65	.47	.60	.60	.83	.91	.85
28	.87	.59	.08	.40	.60	.65	.39	.60	.60	.83	.91	.89
29	.86	.59	.08	.59	.60	.65	.46	.60	.60	.83		42.00
30	.86	.59	.09	.59	.60	.66	.50	.60	.59	.83		.00
31		.59		.59	.60		.64		.59	.82		.00
Mean	41.85	41.73	42.03	42.38	42.59	42.64	42.11	42.63	42.00	41.76	41.84	41.91
Max.	41.87	41.86	42.41	42.59	42.64	42.66	42.66	42.77	42.60	42.75	41.99	42.10
Min.	41.85	41.59	41.83	42.09	42.39	42.60	41.66	42.60	41.59	41.59	41.61	41.85

WATER YEAR 1967 : Max. 42.77 m. Min. 41.59 m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31,1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	5.35	5.58	11	12	31	36	40	39	36	1.10	4.66	7.06
2	5.35	5.58	16	12	24	36	40	39	36	1.10	4.43	5.58
3	5.35	5.58	25	16	24	36	40	38	36	1.10	4.43	5.58
4	5.35	5.58	5.35	23	36	39	30	38	36	1.10	4.43	5.58
5	5.35	5.58	5.35	23	36	39	13	38	36	1.10	6.50	5.58
6	5.35	5.58	4.89	16	37	39	7.34	38	36	1.10	9.02	5.58
7	5.35	5.58	4.89	21	38	39	6.04	38	31	1.10	6.50	5.58
8	5.35	5.58	4.89	22	38	39	5.81	38	30	1.10	1.92	5.58
9	5.35	5.58	4.89	22	38	39	5.81	38	30	1.10	2.40	6.78
10	5.35	5.58	4.89	22	38	39	2.16	38	28	1.10	1.32	12
11	5.35	5.58	4.89	22	39	39	2.16	38	25	1.10	1.32	12
12	5.35	5.58	4.89	22	39	39	2.16	38	8.46	1.10	1.32	12
13	5.35	5.58	20	25	39	39	2.16	38	8.18	1.10	6.78	12
14	5.35	5.58	20	25	39	39	2.04	38	2.28	1.10	6.78	11
15	5.35	5.58	12	25	39	39	2.04	38	1.68	5.35	6.78	5.58
16	5.35	2.16	12	25	39	39	2.04	38	1.20	46	6.78	5.35
17	5.35	1.56	12	25	37	39	2.04	38	31	24	6.78	5.35
18	5.35	1.32	12	25	36	39	1.92	38	2.40	5.35	6.78	5.35
19	5.35	1.32	12	29	36	39	3.12	38	1.92	5.35	6.78	5.35
20	5.35	1.32	12	24	36	39	9.02	38	1.56	4.02	6.78	5.35
21	5.35	1.32	12	24	36	39	14	38	1.56	4.20	6.78	5.35
22	5.35	1.32	12	24	36	39	15	38	1.44	4.02	6.78	5.35
23	5.35	1.20	12	25	36	39	19	38	1.44	4.02	6.50	5.35
24	5.35	1.20	12	25	36	39	30	38	1.44	4.02	6.50	5.35
25	5.35	1.20	12	36	36	39	30	47	1.44	4.89	6.50	5.35
26	5.35	1.10	12	36	36	39	30	37	1.20	4.89	7.34	5.35
27	5.35	1.10	12	30	36	39	29	36	1.20	4.89	6.78	5.35
28	5.81	1.10	12	25	36	39	24	36	1.20	4.89	6.78	6.27
29	5.58	1.10	12	36	36	39	28	36	1.20	4.89	–	9.30
30	5.58	1.10	12	36	36	40	30	36	1.10	4.89	–	9.30
31	–	1.10	–	36	36	–	39	–	1.10	4.66	–	9.30
Total	161.42	104.22	328.93	769	1,115	1,162	506.86	1,142	433	155.73	156.45	215.85
Mean	5.38	3.36	11.0	24.8	36.0	38.7	16.3	38.1	14.0	5.02	5.59	6.96
Max.	5.81	5.58	25	36	39	40	40	47	36	46	9.02	12
Min.	5.35	1.10	4.89	12	24	36	1.92	36	1.10	1.10	1.32	5.35
Runoff – mcm.	13.947	9.005	28.419	66.442	96.336	100.397	43.793	98.669	37.411	13.455	13.517	18.649

WATER YEAR 1967 : Max. 47 Min. 1.10 Mean 17.1 Annual Runoff 540.040 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Nov.25	09.00	42.81	50				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
PHET RIVER BASIN

Phet River at Takhian-Ha-Bat, Phetchaburi (B.5)

Location: Lat 12°- 54' - 40" N, Long 99°- 38' - 38" E, on right bank about kilometer downstream from Kaeng Krachan Reservoir, Amphoe Tha Yang, Phetchaburi.

Drainage Area: 2,207 sq.km.

Type of Gage: Water - stage recorder.

Zero Gage at Bottom at: +48.48 m. (M.S.L.)

Bench Mark: B.M. - H.S. No.11

Location: Infront of the camp of station B.5
Elevation: +66.904 m. (M.S.L.)

Gage Reading Frequency: Recording.

Basis of Mean Daily Gage Height: Arithmetic mean of 24 readings.

Period of Available Gage Records: 1962 to date.

Rating Operation:

Period of Rating: 1962 to date
Rated by Float: -
Rated by Current Meter: 1962 to date

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

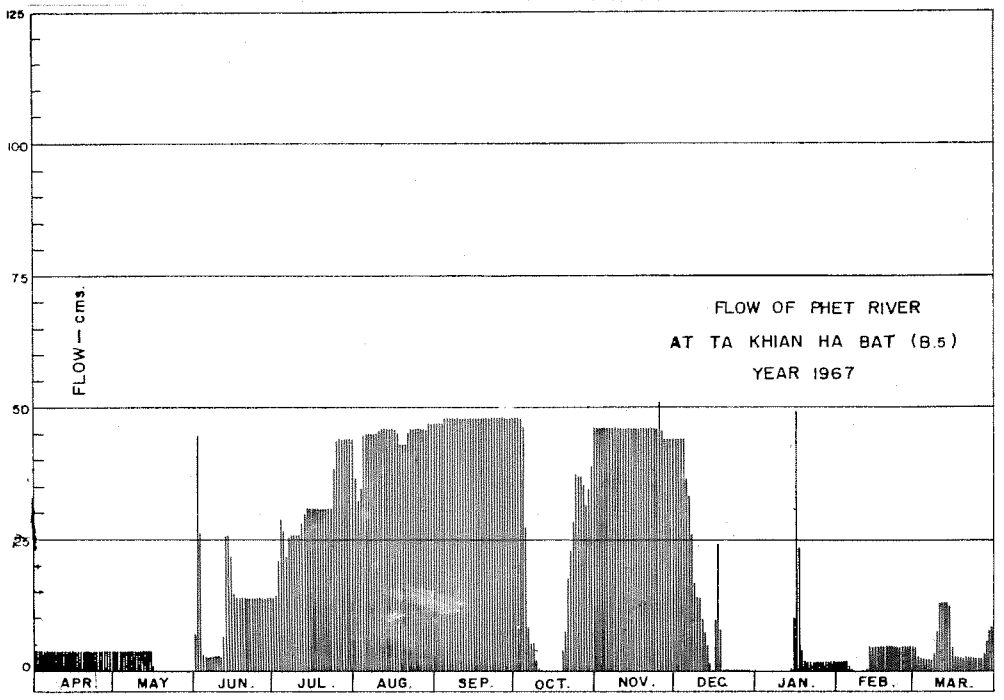
Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1967. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	48.60	48.60	48.89	49.13	49.73	49.93	49.94	49.91	49.88	47.99	48.44	48.64
2	.60	.60	49.89	.13	.63	.93	.94	.91	.88	48.00	.43	.52
3	.60	.60	.14	.41	.69	.93	.94	.91	.88	.00	.43	.50
4	.60	.60	48.53	.56	.89	.94	.91	.91	.88	.00	.43	.49
5	.60	.60	.52	.47	.90	.94	.12	.91	.70	.00	.26	.49
6	48.60	48.60	48.52	49.36	49.90	49.94	48.70	49.91	49.65	48.00	48.12	48.49
7	.60	.60	.52	.50	.90	.94	.70	.91	.42	.00	.11	.49
8	.60	.60	.52	.50	.90	.94	.70	.91	.12	.00	.05	.49
9	.60	.60	.52	.50	.90	.94	.35	.91	.13	.01	47.99	.83
10	.60	.60	.53	.50	.91	.94	.24	.91	.13	.12	.98	49.08
11	48.60	48.60	48.53	49.50	49.91	49.94	48.15	49.91	48.96	48.08	47.98	49.09
12	.60	.60	.83	.58	.91	.94	.14	.91	.81	.02	48.28	.09
13	.60	.60	49.51	.62	.91	.94	.15	.91	.62	47.99	.65	.09
14	.60	.60	.51	.62	.92	.94	.15	.91	.20	.97	.65	.07
15	.61	.60	.25	.62	.92	.94	.15	.91	.16	48.82	.65	48.63
16	48.60	48.11	49.13	49.62	49.92	49.94	48.15	49.91	48.98	49.97	48.66	48.51
17	.60	.09	.13	.62	.89	.94	.15	.91	49.44	.40	.66	.51
18	.60	.09	.13	.62	.85	.94	.15	.91	48.27	48.45	.66	.50
19	.60	.09	.13	.62	.85	.94	.68	.91	.21	.45	.66	.50
20	.60	.08	.13	.62	.86	.94	.91	.91	.21	.44	.66	.51
21	48.60	48.08	49.13	49.62	49.89	49.94	49.26	49.91	48.21	48.43	48.66	48.51
22	.60	.08	.13	.62	.92	.94	.40	.91	.21	.43	.66	.51
23	.60	.08	.13	.62	.92	.94	.53	.91	.21	.43	.66	.50
24	.60	.08	.13	.78	.92	.94	.74	.91	.21	.42	.66	.50
25	.60	.08	.13	.87	.92	.94	.75	50.00	.21	.42	.66	.50
26	48.60	48.08	49.13	49.87	49.92	49.94	49.75	49.90	48.21	48.43	48.66	48.50
27	.61	.08	.13	.87	.92	.94	.70	.88	.21	.44	.66	.50
28	.60	.08	.13	.87	.92	.94	.61	.88	.20	.44	.66	.74
29	.60	.10	.13	.82	.93	.94	.70	.88	.18	.44	.66	.88
30	.60	.13	.13	.87	.93	.94	.76	.88	.18	.44		.88
31		.13		.87	.93		.91		.18	.44		.88
Mean	48.60	48.34	49.00	49.61	49.88	49.94	48.98	49.91	48.76	48.34	48.47	48.63
Max.	48.61	48.60	49.89	49.87	49.93	49.94	49.94	50.00	49.88	49.97	48.66	49.09
Min.	48.60	48.08	48.52	49.13	49.63	49.93	48.14	49.88	48.18	47.97	47.98	48.49

WATER YEAR 1967 : Max. 50.00 m. Min. 47.97 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	3.80	3.80	8.52	14	36	47	48	46	44	0.00	1.90	4.40
2	3.80	3.80	45	14	32	47	48	46	44	0.00	1.80	2.76
3	3.80	3.80	14	23	35	47	48	46	44	0.00	1.80	2.50
4	3.80	3.80	2.89	29	45	48	46	46	44	0.00	1.80	2.40
5	3.80	3.80	2.76	25	45	48	14	46	35	0.00	0.60	2.40
6	3.80	3.80	2.76	21	45	48	5.30	46	33	0.00	0.060	2.40
7	3.80	3.80	2.76	26	45	48	5.30	46	23	0.00	0.030	2.40
8	3.80	3.80	2.76	26	45	48	5.30	46	14	0.00	0.00	2.40
9	3.80	3.80	2.76	26	45	48	1.15	46	14	0.00	0.00	7.44
10	3.80	3.80	2.89	26	46	48	0.50	46	14	0.06	0.00	13
11	3.80	3.80	2.89	26	46	48	0.15	46	9.90	0.00	0.00	13
12	3.80	3.80	7.44	29	46	48	0.12	46	7.08	0.00	0.70	13
13	3.80	3.80	26	31	46	48	0.15	46	4.10	0.00	4.55	13
14	3.80	3.80	26	31	46	48	0.15	46	0.30	0.00	4.55	12
15	3.95	3.80	17	31	46	48	0.15	46	0.18	7.26	4.55	4.25
16	3.80	0.030	14	31	46	48	0.15	46	10	49	4.70	2.63
17	3.80	0.00	14	31	45	48	0.15	46	24	22	4.70	2.63
18	3.80	0.00	14	31	43	48	0.15	46	0.65	2.00	4.70	2.50
19	3.80	0.00	14	31	43	48	5.00	46	0.35	2.00	4.70	2.50
20	3.80	0.00	14	31	43	48	8.90	46	0.35	1.90	4.70	2.63
21	3.80	0.00	14	31	45	48	18	46	0.35	1.80	4.70	2.63
22	3.80	0.00	14	31	46	48	22	46	0.35	1.80	4.70	2.63
23	3.80	0.00	14	31	46	48	27	46	0.35	1.80	4.70	2.50
24	3.80	0.00	14	39	46	48	37	46	0.35	1.70	4.70	2.50
25	3.80	0.00	14	44	46	48	37	51	0.35	1.70	4.70	2.50
26	3.80	0.00	14	44	46	48	37	45	0.35	1.80	4.70	2.50
27	3.95	0.00	14	44	46	48	35	44	0.35	1.90	4.70	2.50
28	3.80	0.00	14	44	46	48	31	44	0.30	1.90	4.70	5.94
29	3.80	0.00	14	44	47	48	35	44	0.24	1.90	4.70	8.34
30	3.80	0.09	14	44	47	48	38	44	0.24	1.90	–	8.34
31	–	0.09	–	44	47	–	46	–	0.24	1.90	–	8.34
Total	114.30	57.21	376.43	973	1,377	1,437	599.62	1,376	369.38	104.32	88.14	158.96
Mean	3.81	1.84	12.5	31.4	44.4	47.9	19.34	45.9	11.9	3.36	3.04	5.13
Max.	3.95	3.80	45	44	47	48	48	51	44	49	4.70	13
Min.	3.80	0.00	2.76	14	32	47	0.12	44	0.18	0.00	0.00	2.40
Runoff - mcm.	9.876	4.943	32.523	84.067	118.973	124.157	51.807	118.886	31.914	9.013	7.615	13.735

WATER YEAR 1967 : Max. 51 Min. 0.00 Mean 19.2 Annual Runoff 607.509 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Nov.25	11.00	50.18	62				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
PHET RIVER BASIN

Huai Mae Prachan at Tha Yang, Phetchaburi (B.6)

Location: Lat 12° - 55' - 56" N, Long 99° - 47' - 05" E, on left bank about 250 meters upstream from bridge on country road Khuan Phet - Ban Tha about 11 kilometers at right side of Phet Kasem highway, Amphoe Tha Yang, Phetchaburi.

Drainage Area: 1,015 sq.km.

Type of Gage: Water - stage recorder.

Zero Gage at Bottom at: +22.71 m. (M.S.L.)

Bench Mark: B.M. - H.S./R.I.D.

Location: On both bank along the gage line.
Elevation: B.M.1 +29.580 m. (M.S.L.) on right bank and B.M.2 +30.223 m. (M.S.L.)

Gage Reading Frequency: Recordings.

Basis of Mean Daily Gage Height: Arithmetic mean of 24 readings.

Period of Available Gage Records: 1942 - 48, 1965 to date

Rating Operation:

Period of Rating: 1965 to date
Rated by Float: -
Rated by Current Meter: 1965 to date

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

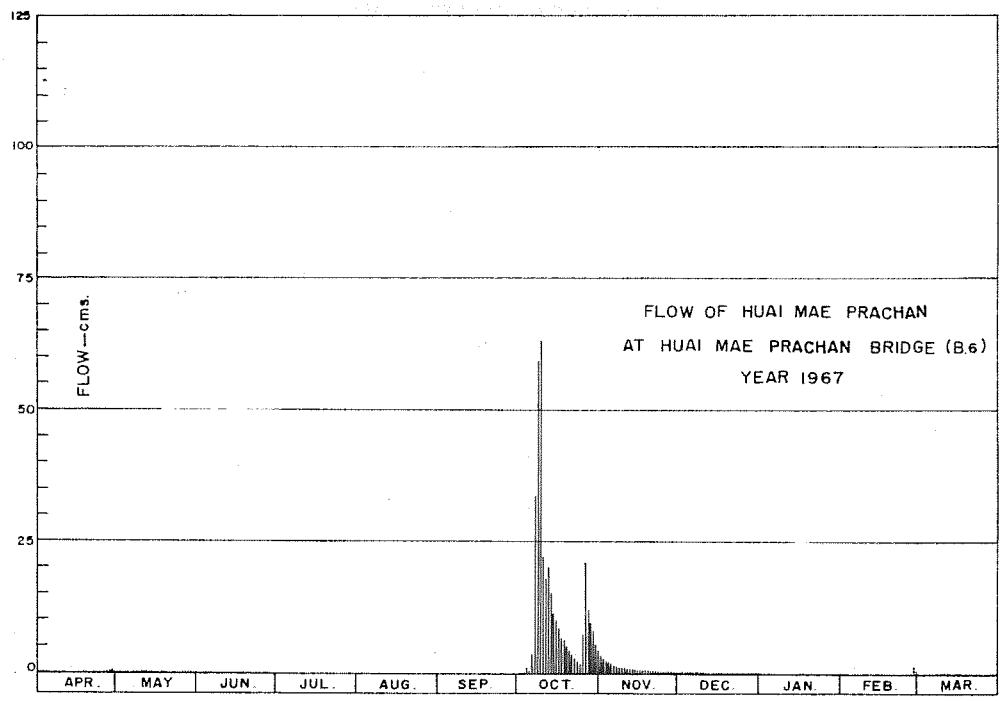
Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1967. No state diversions for irrigation above gage site.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	23.27	23.35	23.36	23.23	23.20	23.20	23.26	24.02	23.49	23.35	23.26	23.40
2	.26	.35	.34	.23	.20	.20	.25	23.96	.47	.34	.26	.35
3	.26	.40	.33	.23	.20	.19	.26	.90	.46	.35	.26	.33
4	.26	.41	.33	.23	.20	.20	.25	.85	.44	.35	.26	.32
5	.26	.39	.32	.22	.20	.20	.49	.82	.44	.34	.25	.31
6	23.26	23.37	23.32	23.22	23.20	23.20	24.05	23.77	23.43	23.33	23.25	23.31
7	.25	.39	.32	.22	.20	.20	.83	.73	.43	.33	.25	.30
8	.25	.42	.32	.21	.21	.20	25.97	.70	.43	.31	.25	.29
9	.25	.39	.31	.21	.21	.19	26.06	.67	.43	.31	.25	.28
10	.25	.37	.31	.20	.21	.20	24.95	.66	.41	.31	.25	.28
11	23.25	23.40	23.31	23.20	23.20	23.20	24.83	23.64	23.40	23.31	23.26	23.27
12	.25	.45	.29	.19	.20	.20	.94	.61	.39	.31	.26	.27
13	.25	.38	.30	.19	.20	.20	.77	.60	.38	.30	.26	.27
14	.24	.37	.33	.19	.21	.20	.57	.59	.38	.29	.25	.27
15	.24	.37	.32	.19	.22	.20	.53	.58	.38	.29	.25	.27
16	23.24	23.37	23.30	23.19	23.21	23.20	24.43	23.56	23.37	23.29	23.25	23.27
17	.26	.38	.29	.19	.21	.20	.31	.55	.37	.29	.25	.27
18	.35	.37	.36	.26	.21	.21	.29	.54	.37	.29	.25	.26
19	.33	.36	.30	.26	.21	.22	.22	.54	.37	.28	.25	.26
20	.30	.35	.30	.25	.22	.29	.11	.52	.37	.28	.25	.27
21	23.29	23.34	23.30	23.24	23.20	23.29	24.02	23.52	23.37	28.27	23.25	23.27
22	.29	.34	.29	.23	.20	.22	22.95	.51	.37	.27	.25	.27
23	.28	.38	.28	.21	.21	.21	.88	.50	.37	.27	.25	.27
24	.28	.41	.27	.19	.21	.20	.83	.50	.37	.27	.25	.27
25	.31	.40	.26	.19	.21	.20	24.28	.48	.37	.27	.40	.27
26	23.34	23.39	23.25	23.19	23.21	23.23	24.99	23.47	23.37	23.27	23.40	23.26
27	.50	.43	.24	.19	.21	.29	.64	.46	.37	.27	.33	.25
28	.51	.42	.24	.19	.20	.28	.53	.46	.37	.26	.74	.23
29	.42	.39	.24	.19	.20	.31	.37	.46	.37	.26	.52	.23
30	.37	.37	.23	.20	.20	.28	.23	.46	.37	.26		.22
31		.36		.20	.20		.17		.35	.26		.22
Mean	23.29	23.38	23.30	23.21	23.20	23.22	24.34	23.62	23.39	23.30	23.29	23.28
Max.	23.51	23.45	23.36	23.26	23.22	23.31	26.06	24.02	23.49	23.35	23.74	23.40
Min.	23.24	23.34	23.23	23.19	23.20	23.19	23.25	23.46	23.35	23.26	23.25	23.22

WATER YEAR 1967 : Max. 26.06 m. Min. 23.19 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.035	0.12	0.14	0.015	0.00	0.00	0.030	3.28	0.46	0.12	0.030	0.20
2	0.030	0.12	0.11	0.015	0.00	0.00	0.25	2.82	0.40	0.11	0.030	0.12
3	0.030	0.20	0.095	0.015	0.00	0.00	0.030	2.40	0.37	0.12	0.030	0.095
4	0.030	0.23	0.095	0.015	0.00	0.00	1.03	2.07	0.32	0.12	0.030	0.080
5	0.030	0.18	0.080	0.010	0.00	0.00	0.46	1.88	0.32	0.11	0.025	0.065
6	0.030	0.15	0.080	0.010	0.00	0.00	3.55	1.60	0.29	0.095	0.025	0.065
7	0.025	0.18	0.080	0.010	0.00	0.00	17	1.40	0.29	0.095	0.025	0.050
8	0.025	0.26	0.080	0.005	0.005	0.00	58	1.25	0.29	0.065	0.025	0.045
9	0.025	0.18	0.065	0.005	0.005	0.00	63	1.12	0.29	0.065	0.025	0.040
10	0.025	0.15	0.065	0.00	0.005	0.00	20	1.07	0.23	0.065	0.025	0.040
11	0.025	0.20	0.065	0.00	0.00	0.00	17	0.99	0.20	0.065	0.030	0.035
12	0.025	0.34	0.045	0.00	0.00	0.00	20	0.85	0.18	0.065	0.030	0.035
13	0.025	0.17	0.050	0.00	0.00	0.00	15	0.81	0.17	0.050	0.030	0.035
14	0.020	0.15	0.095	0.00	0.005	0.00	11	0.78	0.17	0.045	0.025	0.035
15	0.020	0.15	0.080	0.00	0.010	0.00	10	0.75	0.17	0.045	0.025	0.035
16	0.020	0.15	0.050	0.00	0.005	0.00	8.46	0.68	0.15	0.045	0.025	0.035
17	0.030	0.17	0.045	0.00	0.005	0.00	6.55	0.65	0.15	0.045	0.025	0.035
18	0.12	0.15	0.14	0.030	0.005	0.005	6.26	0.62	0.15	0.045	0.025	0.030
19	0.095	0.14	0.050	0.030	0.005	0.010	5.28	0.62	0.15	0.040	0.025	0.030
20	0.050	0.12	0.050	0.025	0.010	0.045	4.10	0.55	0.15	0.040	0.025	0.035
21	0.045	0.11	0.050	0.020	0.00	0.045	3.28	0.55	0.15	0.035	0.025	0.035
22	0.045	0.11	0.045	0.015	0.00	0.010	2.75	0.52	0.15	0.035	0.025	0.035
23	0.040	0.17	0.040	0.005	0.005	0.005	2.27	0.49	0.15	0.035	0.025	0.035
24	0.040	0.23	0.035	0.00	0.005	0.00	1.94	0.49	0.15	0.035	0.025	0.035
25	0.065	0.20	0.030	0.00	0.005	0.00	6.12	0.43	0.15	0.035	0.20	0.035
26	0.11	0.18	0.025	0.00	0.005	0.015	21	0.40	0.15	0.035	0.20	0.030
27	0.49	0.29	0.020	0.00	0.005	0.045	12	0.37	0.15	0.035	0.095	0.025
28	0.52	0.26	0.020	0.00	0.00	0.040	10	0.37	0.15	0.030	1.45	0.015
29	0.26	0.18	0.020	0.00	0.00	0.065	7.48	0.37	0.15	0.030	0.55	0.015
30	0.15	0.15	0.015	0.00	0.00	0.040	5.42	0.37	0.15	0.030	–	0.010
31	–	0.14	–	0.00	0.00	–	4.70	–	0.15	0.030	–	0.010
Total	2.480	5.530	1.860	0.225	0.085	0.325	343.735	30.55	6.55	1.815	3.130	1.420
Mean	0.083	0.18	0.062	0.007	0.003	0.011	11.1	1.02	0.21	0.058	0.11	0.046
Max.	0.52	0.34	0.14	0.030	0.010	0.065	63	3.28	0.46	0.12	1.45	0.20
Min.	0.020	0.11	0.015	0.000	0.000	0.000	0.025	0.37	0.15	0.030	0.025	0.010
Runoff - mcm.	0.214	0.478	0.161	0.019	0.007	0.028	29.699	2.639	0.566	0.157	0.270	0.123

WATER YEAR 1967 : Max. 63 Min. 0.00 Mean 1.09 Annual Runoff 34.362 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct.9	10.00	26.30	74				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
PHET RIVER BASIN

Huai Mae Pra Chan at Ban Nong Bua, Phetchaburi (B.7)

Location: Lat 13° - 01' - 45" N, Long 99° - 44' - 00" E, on left bank at Ban Nong Bua, Amphoe Tha Yang, Phetchaburi.

Drainage Area: 846 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: 0.00 m. (A.D.)

Bench Mark: B.M. - H.S.

Location: Infront of the office of gaging station B.7
Elevation: +10.495 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: 1967 to date

Rating Operation:

Period of Rating: 1967 to date
Rated by Float: -
Rated by Current Meter: 1967 to date

Stability of Channel Regimes: Stable, no shifting adjustment but mean hourly discharge are used for flow computation.

Overbank Flow Conditions: No overbank flow.

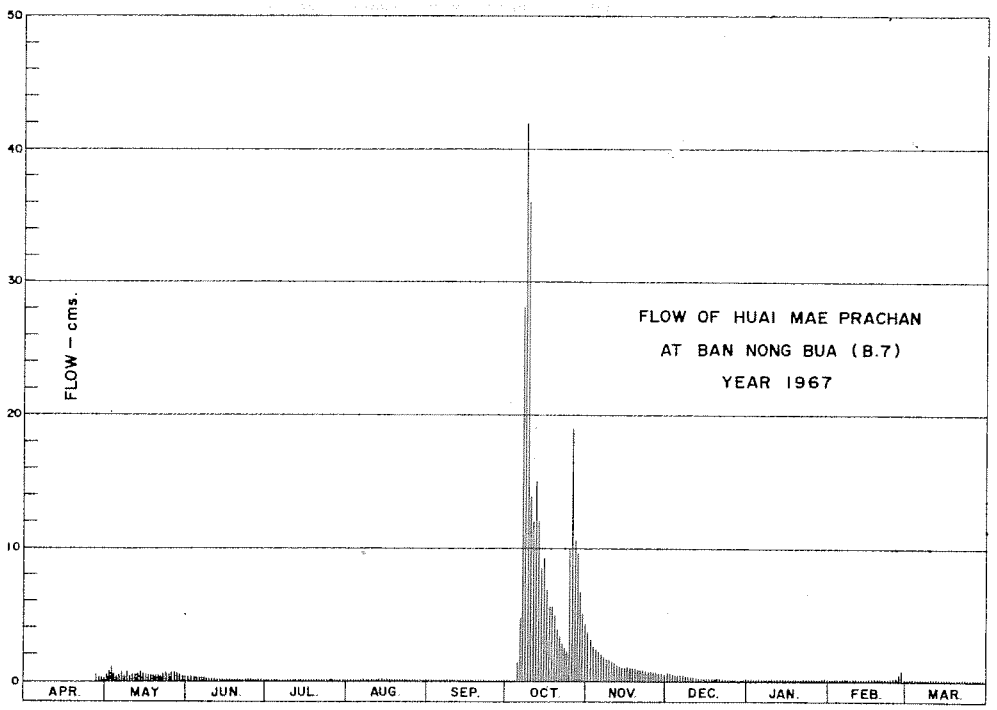
General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions for irrigation except those built by local residents. No adjustment made for virgin flow.

Remarks: Stream gaging began on Apr. 27, 1967; no flow for period of discharge record are omitted.

GAGE HEIGHT IN METER (A.D.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1		0.71	0.70	0.58	0.51	0.30	0.57	1.28	0.77	0.61	0.62	0.57
2		.79	.70	.58	.49	.29	.55	.22	.76	.62	.61	.56
3		.86	.70	.59	.48	.29	.53	.16	.75	.62	.61	.56
4		.74	.70	.57	.48	.29	.57	.12	.74	.62	.59	.55
5		.71	.69	.57	.47	.30	.57	.08	.75	.61	.54	.55
6		0.72	0.69	0.56	0.46	0.29	1.31	1.04	0.75	0.61	0.53	0.55
7		.78	.67	.55	.45	.29	3.17	.01	.74	.60	.53	.55
8		.71	.65	.55	.46	.28	4.53	0.99	.73	.60	.53	.54
9		.78	.65	.55	.46	.28	.11	.97	.72	.59	.53	.53
10		.71	.65	.55	.43	.29	2.33	.95	.71	.59	.53	.54
11		0.75	0.65	0.55	0.43	0.29	2.10	0.93	0.70	0.59	0.52	0.54
12		.75	.64	.55	.43	.30	.43	.91	.69	.59	.52	.54
13		.75	.65	.55	.42	.29	.15	.89	.69	.59	.52	.54
14		.76	.65	.54	.41	.30	1.84	.88	.69	.59	.51	.53
15		.77	.64	.54	.40	.31	.93	.87	.68	.59	.51	.53
16		0.75	0.63	0.53	0.40	0.30	1.70	0.86	0.67	0.59	0.50	0.53
17		.72	.63	.53	.39	.29	.52	.85	.67	.59	.50	.51
18		.72	.62	.53	.40	.34	.54	.85	.67	.58	.49	.51
19		.72	.61	.54	.39	.34	.47	.84	.66	.57	.49	.51
20		.72	.61	.54	.38	.33	.34	.83	.66	.57	.48	.50
21		0.72	0.61	0.54	0.38	0.33	1.26	0.82	0.66	0.57	0.48	0.49
22		.71	.60	.54	.37	.32	.19	.80	.66	.58	.48	.49
23		.74	.60	.54	.35	.31	.13	.80	.65	.62	.47	.47
24		.76	.60	.53	.35	.31	.09	.79	.65	.63	.46	.47
25		.74	.60	.53	.35	.30	.54	.79	.64	.65	.58	.46
26		0.77	0.60	0.53	0.34	0.30	2.78	0.78	0.64	0.65	0.54	0.46
27	0.75	.78	.59	.53	.33	.33	.07	.78	.64	.64	.74	.45
28	.70	.76	.58	.52	.32	.62	1.97	.76	.63	.65	.82	.44
29	.69	.74	.58	.52	.32	.63	.67	.76	.63	.65	.59	.43
30	.64	.72	.58	.52	.31	.60	.49	.75	.63	.64		.43
31		.70		.51	.31		.37		.62	.63		.42
Mean		0.74	0.63	0.54	0.40	0.33	1.74	0.91	0.68	0.61	0.54	0.51
Max.		0.86	0.70	0.59	0.51	0.63	4.53	1.28	0.77	0.65	0.82	0.57
Min.		0.70	0.58	0.51	0.31	0.28	0.53	0.75	0.62	0.57	0.46	0.42

WATER YEAR 1967 : Max. 4.53 m. Min. 0.28 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1		0.39	0.35					3.61	0.66	0.035	0.070	
2		0.75	0.35					3.19	0.62	0.070	0.035	
3		1.07	0.35					2.79	0.57	0.070	0.035	
4		0.53	0.35					2.53	0.53	0.070		
5		0.39	0.31					2.28	0.57	0.035		
6		0.44	0.31				4.74	2.04	0.57	0.035		
7		0.71	0.24				23	1.86	0.53			
8		0.39	0.17				42	1.74	0.48			
9		0.71	0.17				36	1.63	0.44			
10		0.39	0.17				14	1.52	0.39			
11		0.57	0.17				12	1.41	0.35			
12		0.57	0.14				15	1.30	0.31			
13		0.57	0.17				12	1.20	0.31			
14		0.62	0.17				8.49	1.16	0.31			
15		0.66	0.14				9.21	1.11	0.28			
16		0.57	0.10				7.09	1.07	0.24			
17		0.44	0.10				5.63	1.02	0.24			
18		0.44	0.070				5.65	1.02	0.24			
19		0.44	0.035				5.08	0.98	0.21			
20		0.44	0.035				4.05	0.93	0.21			
21		0.44	0.035				3.44	0.89	0.21			
22		0.39					2.96	0.80	0.21			
23		0.53					2.60	0.80	0.17	0.070		
24		0.62					2.36	0.75	0.17	0.10		
25		0.53					5.69	0.75	0.14	0.17		
26		0.66					19	0.71	0.14	0.17		
27	0.57	0.71					11	0.71	0.14	0.14	0.53	
28	0.35	0.62				0.070	9.66	0.62	0.10	0.17	0.89	
29	0.31	0.53				0.10	6.83	0.62	0.10	0.17	0.00	
30	0.14	0.44				0.00	5.26	0.57	0.10	0.14	–	
31	–	0.35				–	4.27	–	0.070	0.10		
Total		16.91	3.935	0.00	0.00	0.170	277.01	41.61	9.610	1.545	1.56	0.00
Mean		0.54	0.13	0.00	0.00	0.006	8.93	1.39	0.31	0.050	0.054	0.00
Max.		1.07	0.35	0.00	0.00	0.10	42	3.61	0.66	0.17	0.89	0.00
Min.		0.35	0.00	0.00	0.00	0.00	0.00	0.57	0.070	0.00	0.00	0.00
Runoff – BCM.		1.461	0.340	0.00	0.00	0.015	23.934	3.595	0.830	0.133	0.135	0.00

WATER YEAR 1967 : Max. 42 Min. 0.00 Mean Annual Runoff mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct.8	24.00	4.92	48				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
PRAN RIVER BASIN

Pran River at Khao Noi, Prachuap Khiri Khan (Pr.2)

Location: Lat 12°- 24' - 41" N, Long 99°- 51' - 01" E, on right bank about 16 kilometers from Phet Kasem Highway at Amphoe Pran Buri along the country road to Pran Buri Damsite, Amphoe Pran Buri, Prachuap Khiri Khan.

Drainage Area: 2,370 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: +2.56 m. (M.S.L.)

Bench Mark: B.M. - H.S./R.I.D.

Location: On right bank infront of the camp of station Pr.2
Elevation: +13.299 m. (M.S.L.)

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: 1963 - 70

Rating Operation:

Period of Rating: 1963 - 70
Rated by Float: -
Rated by Current Meter: 1963 - 70

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

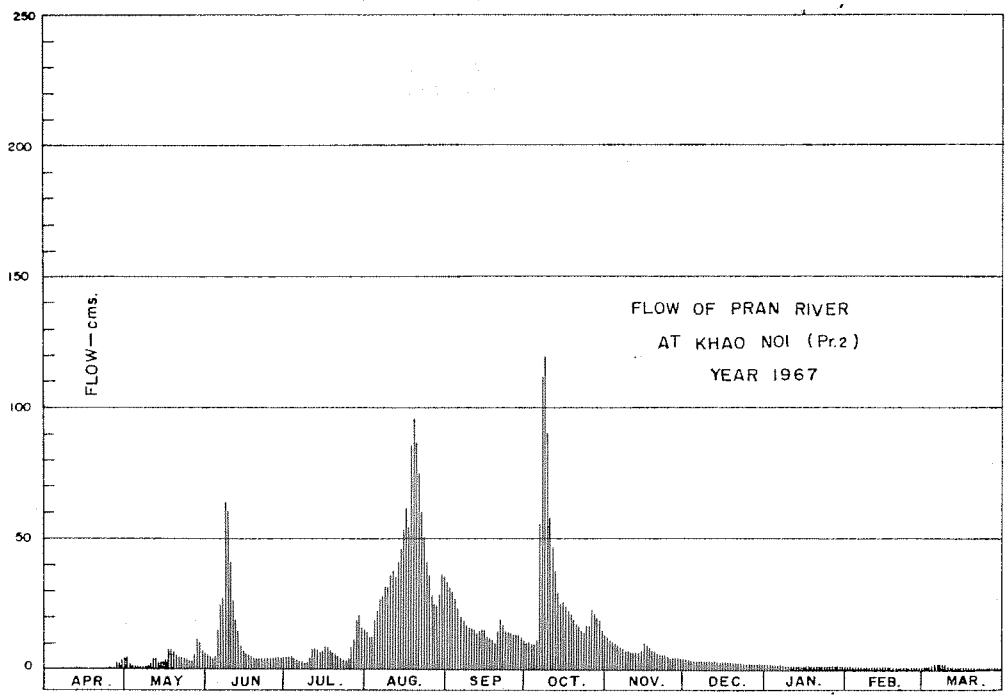
Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversion for irrigation except those built by local residents. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	4.23	4.95	5.06	4.86	5.72	7.01	5.44	5.57	4.87	4.59	4.46	4.44
2	.21	.77	.03	.92	.62	6.94	.40	.49	.86	.58	.46	.48
3	.20	.65	4.97	.96	.72	.77	.37	.42	.85	.57	.45	.53
4	.19	.58	5.07	.93	6.10	.59	.37	.36	.85	.57	.43	.56
5	.19	.53	.83	.89	.48	.37	.47	.32	.83	.55	.43	.58
6	4.19	4.49	6.65	4.88	6.75	6.17	6.73	5.29	4.81	4.54	4.41	4.71
7	.19	.46	.60	.83	.88	.02	10.94	.22	.80	.54	.40	.71
8	.18	.42	8.94	.78	.98	5.96	11.17	.21	.78	.53	.39	.65
9	.17	.52	.73	.76	7.01	.91	9.25	.17	.77	.52	.39	.60
10	.17	.62	7.35	5.00	.30	.85	8.11	.14	.76	.52	.38	.56
11	4.17	4.85	6.48	5.34	7.37	5.75	7.60	5.12	4.77	4.52	4.38	4.54
12	.17	.93	5.97	.36	.13	.74	.00	.11	.76	.52	.39	.52
13	.17	.81	.64	.27	.64	.71	6.61	.09	.74	.50	.39	.50
14	.17	.75	.42	.20	.85	.79	.48	.14	.73	.50	.41	.49
15	.18	.80	.28	.24	8.40	.69	.51	.45	.71	.50	.40	.48
16	4.17	4.95	5.16	5.46	8.76	5.59	6.38	5.37	4.70	4.49	4.39	4.47
17	.17	5.30	.07	.36	.33	.54	.25	.23	.69	.48	.41	.47
18	.17	.24	.00	.24	9.86	.46	.18	.15	.68	.48	.40	.48
19	.17	.15	4.97	.14	10.25	.42	.04	.09	.68	.47	.40	.46
20	.17	.05	.93	.10	9.66	.82	5.94	.05	.66	.47	.39	.44
21	4.17	4.94	4.88	5.03	9.11	6.11	5.84	5.01	4.66	4.46	4.39	4.48
22	.35	.96	.84	4.94	8.48	5.89	.74	.00	.65	.46	.38	.60
23	.43	.94	.83	.90	7.94	.73	.67	4.97	.65	.46	.37	.62
24	.38	.89	.79	.87	.53	.75	.91	.95	.63	.46	.38	.55
25	.37	.81	.77	.93	.13	.74	.87	.93	.63	.45	.39	.50
26	4.34	4.82	4.74	5.36	6.78	5.68	6.31	4.91	4.62	4.45	4.41	4.46
27	.56	5.32	.71	.69	.54	.66	.10	.91	.62	.45	.42	.44
28	.75	.68	.71	6.18	.49	.68	.14	.89	.61	.46	.43	.43
29	.76	.43	.71	.23	7.03	.63	.07	.87	.61	.45	.43	.43
30	.90	.27	.83	5.92	.26	.53	5.83	.87	.61	.46		.40
31		.20		.85	.18		.68		.60	.46		.39
Mean	4.29	4.90	5.53	5.21	7.46	5.92	6.56	5.14	4.71	4.50	4.40	4.51
Max.	4.90	5.68	8.94	6.23	10.25	7.01	11.17	5.57	4.87	4.59	4.46	4.71
Min.	4.17	4.42	4.71	4.76	5.62	5.42	5.37	4.87	4.60	4.45	4.37	4.39

WATER YEAR 1967 : Max. 11.17 m. Min. 4.17 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.16	4.65	5.19	3.39	13	32	10	12	3.93	1.87	1.10	0.76
2	0.080	3.06	4.92	3.93	12	31	10	11	3.84	1.80	1.10	0.95
3	0.040	2.15	4.38	4.29	13	28	9	10	3.75	1.75	1.00	1.45
4	0.040	1.70	5.28	4.02	18	26	9	9.31	3.75	1.75	0.85	1.65
5	0.040	1.45	14	3.66	23	22	11	8.87	3.75	1.65	0.85	1.75
6	0.040	1.25	25	3.57	27	20	28	8.54	3.48	1.60	0.72	2.66
7	0.080	1.10	24	3.14	29	18	111	7.77	3.39	1.60	0.68	2.66
8	0.040	0.90	64	2.66	31	17	118	7.66	3.22	1.55	0.60	2.22
9	0.00	1.40	60	2.50	31	16	74	7.22	3.14	1.50	0.60	1.87
10	0.00	1.94	36	4.56	36	16	52	6.90	3.06	1.50	0.60	1.60
11	0.00	3.75	23	7.88	37	14	43	6.70	3.14	1.45	0.52	1.45
12	0.00	4.47	16	8.10	33	14	33	6.60	3.06	1.45	0.56	1.25
13	0.00	3.39	11	7.11	40	14	27	6.40	2.98	1.35	0.56	1.05
14	0.00	2.90	8.87	6.40	44	15	25	6.90	2.90	1.35	0.64	1.00
15	0.040	3.30	7.33	6.80	53	14	26	10	2.74	1.35	0.60	0.95
16	0.00	4.65	6.10	9.20	60	12	24	9.42	2.66	1.30	0.56	0.90
17	0.080	8.10	5.28	8.10	52	12	22	7.88	2.58	1.25	0.64	0.90
18	0.080	7.44	4.65	6.80	83	10	21	7.00	2.50	1.25	0.60	0.95
19	0.080	6.50	4.38	5.82	95	9.75	19	6.40	2.50	1.20	0.60	0.85
20	0.080	5.55	4.02	5.46	81	15	17	6.00	2.36	1.20	0.56	0.76
21	0.080	4.56	3.57	4.83	70	19	16	5.64	2.36	1.15	0.56	0.95
22	0.60	4.29	3.22	4.02	57	16	15	5.55	2.29	1.10	0.52	1.80
23	0.95	4.11	3.14	3.66	48	14	14	5.28	2.29	1.10	0.48	1.94
24	0.72	3.66	2.82	3.39	41	14	17	4.74	2.15	1.10	0.52	1.55
25	0.68	2.98	2.74	4.20	34	14	17	4.56	2.15	1.05	0.56	1.30
26	0.56	3.06	2.50	8.43	28	13	23	4.38	2.08	1.05	0.64	1.00
27	1.60	7.77	2.29	12	25	13	20	4.38	2.08	1.05	0.68	0.85
28	2.90	12	2.22	19	24	13	20	4.20	2.01	1.10	0.72	0.76
29	2.98	8.98	2.22	20	32	12	18	4.02	2.01	1.05	0.72	0.72
30	4.20	7.22	3.14	16	36	11	15	4.02	2.01	1.10	–	0.60
31	–	6.50	–	15	35	–	13	–	1.94	1.10	–	0.56
Total	16.15	134.78	361.26	217.92	1,241	494.75	877	209.34	85.92	41.67	19.34	39.66
Mean	0.54	4.35	12.0	7.03	40.0	16.5	28.6	6.98	2.77	1.34	0.67	1.28
Max.	4.20	12	64	20	95	32	118	12	3.93	1.87	1.10	2.66
Min.	0.00	0.90	2.22	2.50	12	9.75	9	4.02	1.94	1.05	0.48	0.56
Runoff – mcm.	1.395	11.645	31.213	18.828	107.222	42.746	75.773	18.087	7.423	3.600	1.671	3.427

WATER YEAR 1967 : Max. 118 Min. 0.00 Mean 10.2 Annual Runoff 323.031 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct.8	3.00	11.50	125				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
PRAN RIVER BASIN

Pran River at Khao Tok Nam, Prachuap Khiri Khan (Pr.3)

Location: Lat 12°- 28' - 06" N, Long 99°- 48' - 26" E, on left bank about 2 kilometers upstream from Pran River Project Office, 30 kilometers from Phet Kasem Highway at Amphoe Pran Buri along the country road to Pran Buri Damsite, Amphoe Pran Buri, Prachuap Khirikhan.

Drainage Area: 2,053 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: +18.72 m. (M.S.L.)

Bench Mark: B.M. - H.S./R.I.D.

Location: On left bank near the camp of station Pr.3
Elevation: B.M. - R.I.D. No.465 +30.273 m. (M.S.L.) and B.M. - R.I.D. No.466 +30.283 m. (M.S.L.)

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 - 69

Rating Operation:

Period of Rating: 1965 - 69
Rated by Float: -
Rated by Current Meter: 1965 - 69

Stability of Channel Regimes: Rather unstable, shifting adjustment is included for flow computation.

Overbank Flow Conditions: No overbank flow.

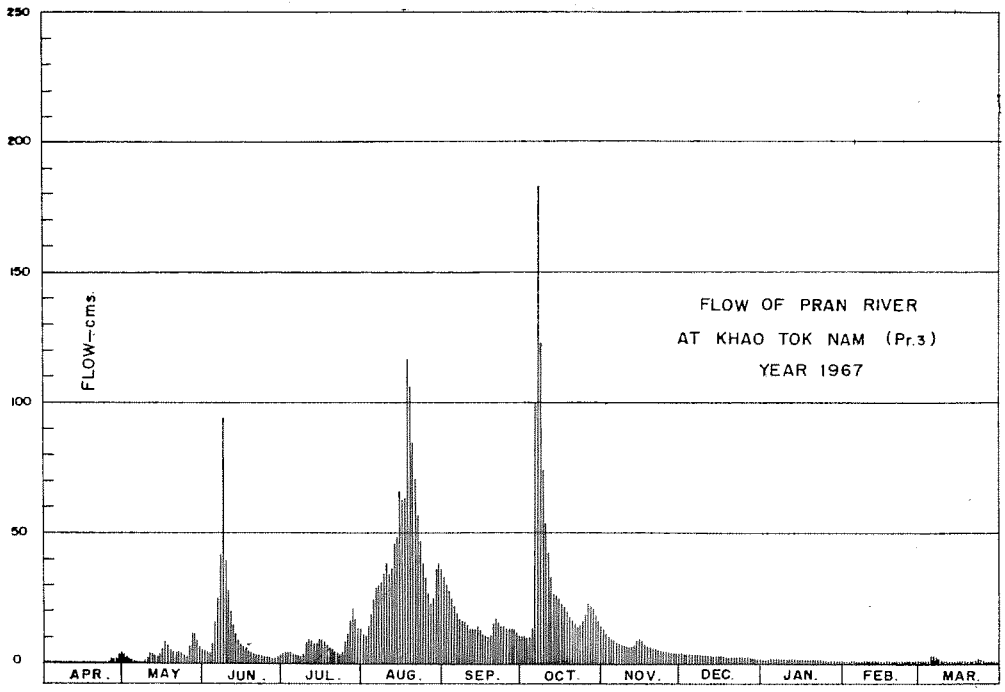
General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions for irrigation except those built by local residents. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	21.19	21.61	21.69	21.62	22.03	22.87	21.91	21.98	21.61	21.44	21.38	21.37
2	.18	.52	.66	.65	.00	.81	.90	.93	.61	.44	.37	.39
3	.17	.47	.63	.65	.24	.70	.87	.90	.61	.43	.36	.44
4	.15	.43	22.00	.62	.36	.57	.89	.87	.60	.43	.35	.43
5	.15	.40	.30	.61	.61	.43	22.05	.84	.59	.42	.34	.55
6	21.15	21.38	22.69	21.59	22.79	22.31	24.12	21.82	21.58	21.41	21.33	21.55
7	.15	.36	23.01	.56	.80	.24	26.24	.80	.57	.41	.32	.52
8	.15	.38	24.79	.54	.85	.20	24.73	.77	.57	.41	.31	.47
9	.15	.43	23.30	.54	.93	.21	23.77	.76	.56	.40	.31	.44
10	.14	.56	22.79	.82	23.13	.13	.38	.74	.56	.40	.30	.42
11	21.13	21.67	22.37	21.90	22.96	22.07	23.03	21.73	21.57	21.40	21.29	21.40
12	.12	.63	.11	.85	23.07	.08	22.75	.73	.55	.39	.29	.39
13	.13	.56	21.95	.79	.38	.07	.58	.73	.55	.39	.32	.38
14	.13	.55	.85	.78	.48	.12	.58	.84	.54	.39	.32	.36
15	.12	.66	.76	.89	.99	.04	.54	.94	.53	.38	.33	.36
16	21.11	21.75	21.71	21.90	23.82	21.99	22.45	21.86	21.52	21.38	21.36	21.37
17	.11	.89	.67	.83	.96	.96	.42	.79	.51	.38	.35	.37
18	.10	.79	.64	.76	25.30	.91	.33	.74	.50	.38	.34	.36
19	.19	.73	.63	.72	24.72	.95	.25	.72	.50	.37	.33	.34
20	.28	.67	.60	.70	.40	22.22	.20	.70	.49	.37	.31	.36
21	21.37	21.65	21.58	21.65	23.96	22.26	22.14	21.69	21.49	21.37	21.30	21.46
22	.38	.67	.57	.60	.59	.15	.08	.68	.49	.37	.30	.50
23	.33	.63	.56	.59	.31	.09	.11	.66	.48	.37	.30	.45
24	.33	.59	.54	.60	.06	.11	.19	.65	.48	.36	.29	.41
25	.35	.55	.53	.70	22.63	.09	.21	.64	.48	.36	.32	.38
26	21.43	21.71	21.51	21.94	22.63	22.05	22.45	21.63	21.47	21.36	21.33	21.36
27	.53	22.05	.50	22.18	.53	.06	.35	.63	.47	.36	.33	.35
28	.56	.02	.50	.43	.65	.06	.37	.62	.46	.36	.33	.35
29	.68	21.84	.55	.29	23.04	.02	.25	.62	.46	.37	.34	.33
30	.71	.81	.59	.13	.06	21.96	.12	.61	.45	.38		.31
31		.74		.13	22.96		.04		.45	.38		.30
Mean	21.26	21.66	21.99	21.79	23.17	22.19	22.62	21.75	21.52	21.39	21.32	21.40
Max.	21.71	22.05	24.79	22.43	25.30	22.87	26.24	21.98	21.61	21.44	21.38	21.55
Min.	21.10	21.36	21.50	21.54	22.00	21.91	21.87	21.61	21.45	21.36	21.29	21.30

WATER YEAR 1967 : Max. 26.24 m. Min. 21.10 m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.13	3.34	4.56	3.92	11	33	10	13	3.76	1.88	1.18	1.11
2	0.12	2.19	4.08	4.40	10	31	10	11	3.76	1.88	1.11	1.25
3	0.10	1.67	3.60	4.40	15	28	9	10	3.76	1.78	1.04	1.78
4	0.075	1.25	9.79	3.92	18	25	9	8.95	3.60	1.78	0.97	1.67
5	0.075	1.04	16	3.76	24	21	13	8.35	3.47	1.67	0.90	3.08
6	0.075	0.90	26	3.47	29	18	74	7.95	3.33	1.56	0.83	3.08
7	0.075	0.76	34	3.08	29	17	183	7.55	3.21	1.56	0.76	2.69
8	0.075	0.90	94	2.82	30	16	100	6.95	3.21	1.56	0.69	2.09
9	0.075	1.25	42	2.82	33	16	64	6.78	3.08	1.46	0.69	1.78
10	0.060	2.69	28	7.75	38	14	51	6.42	3.08	1.46	0.62	1.56
11	0.045	4.24	20	9.37	33	13	39	6.25	3.21	1.46	0.55	1.35
12	0.030	3.60	14	8.35	37	13	31	6.25	2.95	1.35	0.55	1.25
13	0.045	2.69	11	7.15	46	13	26	6.25	2.95	1.35	0.76	1.18
14	0.045	2.56	8.55	6.95	49	14	26	8.35	2.82	1.35	0.76	1.04
15	0.030	4.08	6.77	9.16	66	12	25	9.79	2.69	1.25	0.83	1.04
16	0.015	5.55	5.90	9.37	60	11	23	8.75	2.56	1.25	1.04	1.11
17	0.015	8.15	5.20	7.95	64	11	22	6.95	2.43	1.25	0.97	1.11
18	0.000	6.25	4.72	6.60	117	9.79	20	6.07	2.43	1.25	0.90	1.04
19	0.105	5.20	4.56	5.90	93	11	17	5.72	2.43	1.18	0.83	0.90
20	0.39	4.24	3.60	5.55	81	16	16	5.37	2.30	1.18	0.69	1.04
21	0.90	3.92	3.34	4.72	66	17	15	5.20	2.30	1.18	0.62	1.98
22	0.97	4.24	3.21	3.92	53	15	13	5.04	2.30	1.18	0.62	2.43
23	0.90	3.60	3.08	3.76	45	13	14	4.72	2.20	1.18	0.62	1.88
24	0.90	3.08	2.82	3.92	37	14	16	4.56	2.20	1.11	0.55	1.46
25	1.04	2.56	2.69	5.55	31	13	16	4.40	2.20	1.11	0.76	1.18
26	1.77	5.37	2.43	10	25	13	23	4.08	2.09	1.11	0.83	1.04
27	2.95	12	2.30	15	22	13	21	4.08	2.09	1.11	0.83	0.97
28	2.69	11	2.30	21	25	13	21	3.92	1.98	1.11	0.83	0.97
29	4.40	7.15	2.95	17	37	12	19	3.92	1.98	1.18	0.90	0.83
30	4.88	6.60	3.47	13	38	11	16	3.76	1.88	1.25	–	0.69
31	–	5.37	–	13	35	–	14	–	1.88	1.25	–	0.62
Total	22.980	127.44	374.92	227.56	1,297	476.79	956	200.38	84.13	42.23	23.23	45.20
Mean	0.766	4.11	12.5	7.35	41.8	15.9	30.8	6.68	2.71	1.36	0.801	1.46
Max.	4.88	12	94	21	117	33	183	13	3.76	1.88	1.18	3.08
Min.	0.00	0.76	2.30	2.82	10	9.79	9	3.76	1.88	1.11	0.55	0.62
Runoff – mcm.	1.985	11.011	32.393	19.661	112.061	41.195	82.598	17.313	7.269	3.648	2.007	3.905

WATER YEAR 1967 : Max. 183 Min. 0.00 Mean 10.6 Annual Runoff 335.047 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct.7	17.00	26.43	196				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
KHLONG U-TA PHAO RIVER BASIN

Khlong Wat at Ton Nga Chang, Songkhla (X.14)

Location: Lat 6° - 55' - 00" N, Long 100° - 25' - 00" E, 5 kilometers from Phet Kasem Highway at Ban Tha Rae, about 15 kilometers from Amphoe Hat Yai, Songkhla.

Drainage Area: 71 sq.km.

Type of Gage: Water - stage recorder.

Zero Gage at Bottom at: +109.50 m. (A.D.)

Bench Mark: B.M. - H.S./R.I.D.

Location: On left bank near the rain gage.
Elevation: +114.598 m. (A.D.)

Gage Reading Frequency: Recording.

Basis of Mean Daily Gage Height: Arithmetic mean of 24 readings.

Period of Available Gage Records: 1954 - 71

Rating Operation:

Period of Rating: 1954 - 71
Rated by Float: -
Rated by Current Meter: 1954 - 71

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

Overbank Flow Conditions: No overbank flow.

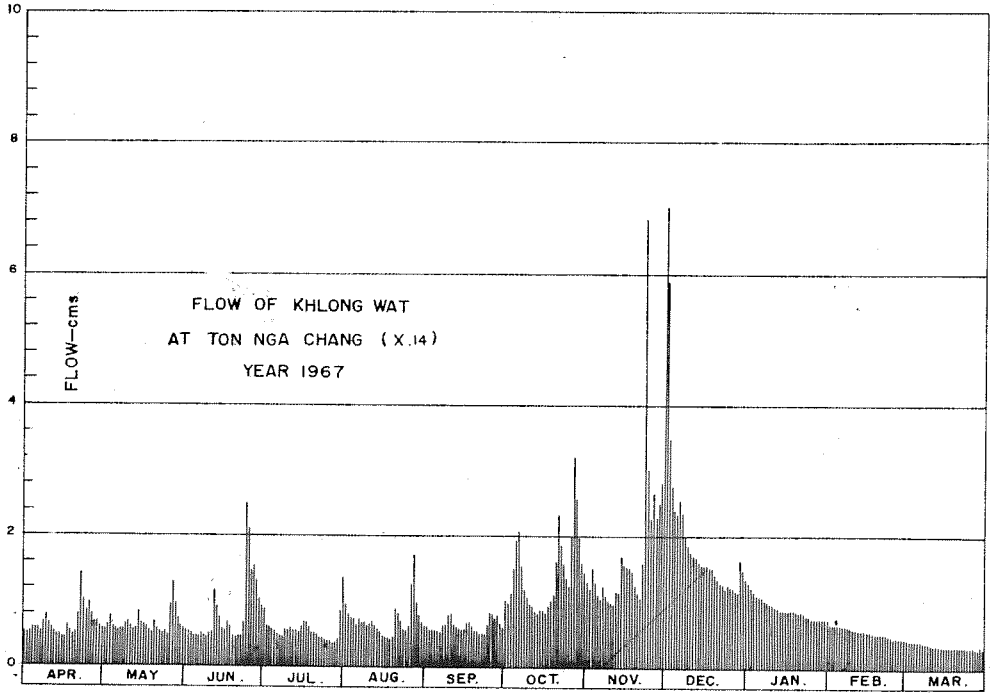
General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1967. No upstream-state diversions.

GAGE HEIGHT IN METER (A.D.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	109.78	109.76	109.75	109.82	109.83	109.77	109.86	109.91	110.44	109.94	109.79	109.72
2	.77	.76	.75	.80	.81	.76	.85	.90	.17	.92	.79	.72
3	.78	.81	.74	.80	.80	.75	.89	.97	.14	.92	.79	.72
4	.78	.77	.73	.79	.80	.75	.96	.91	.10	.90	.79	.72
5	.79	.76	.73	.78	.77	.75	110.01	.89	.09	.90	.79	.72
6	109.77	109.75	109.73	109.77	109.80	109.74	110.02	109.88	110.12	109.90	109.79	109.72
7	.76	.76	.74	.76	.79	.78	109.92	.92	.07	.89	.78	.71
8	.81	.75	.73	.76	.79	.77	.88	.89	.04	.89	.78	.71
9	.83	.78	.72	.78	.77	.81	.86	.88	.03	.88	.78	.71
10	.80	.79	.74	.77	.78	.82	.83	.87	.02	.88	.77	.70
11	109.78	109.77	109.73	109.79	109.79	109.78	109.83	109.87	110.01	109.87	109.77	109.70
12	.76	.75	.89	.77	.77	.77	.81	.91	.02	.87	.76	.70
13	.75	.76	.83	.78	.76	.76	.81	.90	.00	.86	.76	.70
14	.75	.82	.79	.76	.75	.76	.82	110.00	.00	.87	.76	.69
15	.74	.78	.76	.79	.75	.75	.82	109.98	.00	.85	.76	.69
16	109.74	109.78	109.75	109.81	109.75	109.78	109.81	109.97	110.00	109.85	109.76	109.69
17	.79	.76	.79	.81	.74	.79	.83	.97	109.99	.85	.75	.69
18	.76	.75	.76	.78	.74	.77	.85	.95	.99	.85	.75	.69
19	.75	.74	.75	.76	.75	.75	.82	.92	.97	.85	.75	.69
20	.77	.79	.74	.76	.85	.75	.99	.91	.96	.84	.75	.69
21	109.82	109.76	109.75	109.76	109.84	109.74	110.06	109.88	109.95	109.84	109.75	109.69
22	.93	.75	.75	.74	.80	.74	109.98	.95	.95	.84	.75	.69
23	.83	.74	.74	.74	.77	.73	.96	110.42	.93	.83	.74	.69
24	.81	.75	110.10	.73	.78	.78	.91	.13	.93	.83	.74	.69
25	.85	.73	.01	.73	.78	.82	.90	.06	.92	.82	.73	.69
26	109.81	109.84	109.93	109.73	109.92	109.81	110.05	110.12	109.92	109.81	109.73	109.69
27	.78	.91	.94	.72	110.00	.80	.15	.07	.91	.81	.73	.68
28	.79	.84	.88	.72	109.84	.81	.05	.10	.91	.81	.73	.68
29	.78	.79	.84	.72	.81	.78	.00	.12	.99	.81	.73	.70
30	.76	.77	.83	.80	.79	.76	109.96	.15	.95	.79		.68
31		.76		.92	.77		.93		.94	.79		.67
Mean	109.79	109.77	109.80	109.77	109.80	109.77	109.92	109.98	110.01	109.86	109.78	109.70
Max.	109.93	109.91	110.10	109.92	110.00	109.82	110.15	110.42	110.44	109.94	109.79	109.72
Min.	109.74	109.73	109.72	109.72	109.74	109.73	109.81	109.87	109.91	109.79	109.73	109.67

WATER YEAR 1967 : Max. 110.44 m. Min. 109.67 m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.52	0.59	0.56	0.89	0.89	0.63	1.03	1.29	7.00	1.29	0.66	0.41
2	0.48	0.59	0.56	0.63	0.79	0.59	0.98	1.12	3.09	1.17	0.66	0.41
3	0.52	0.79	0.52	0.63	0.75	0.56	1.17	1.52	2.76	1.17	0.66	0.41
4	0.59	0.63	0.48	0.59	0.75	0.56	1.58	1.17	2.38	1.08	0.66	0.41
5	0.56	0.59	0.48	0.56	0.63	0.56	1.99	1.08	2.31	1.08	0.66	0.41
6	0.56	0.56	0.48	0.52	0.75	0.52	2.07	1.03	2.54	1.08	0.66	0.41
7	0.52	0.59	0.52	0.48	0.70	0.66	1.41	1.23	2.15	1.03	0.63	0.38
8	0.70	0.56	0.48	0.48	0.70	0.63	1.17	1.08	1.92	1.03	0.63	0.38
9	0.79	0.66	0.45	0.59	0.63	0.79	1.08	1.03	1.84	0.98	0.63	0.38
10	0.66	0.70	0.52	0.56	0.66	0.84	0.93	0.96	1.76	0.98	0.59	0.34
11	0.59	0.63	0.48	0.63	0.70	0.66	0.93	0.96	1.70	0.93	0.59	0.34
12	0.52	0.56	1.17	0.56	0.63	0.63	0.84	1.17	1.70	0.93	0.56	0.34
13	0.48	0.59	0.89	0.59	0.59	0.59	0.84	1.12	1.58	0.89	0.56	0.34
14	0.48	0.84	0.70	0.52	0.56	0.59	0.89	1.70	1.58	0.98	0.56	0.32
15	0.45	0.66	0.59	0.63	0.48	0.56	0.89	1.58	1.58	0.89	0.56	0.32
16	0.45	0.66	0.56	0.70	0.48	0.66	0.84	1.52	1.58	0.89	0.56	0.32
17	0.63	0.59	0.70	0.70	0.45	0.70	0.93	1.52	1.52	0.89	0.52	0.32
18	0.52	0.56	0.59	0.59	0.45	0.63	1.03	1.41	1.52	0.89	0.52	0.32
19	0.48	0.52	0.48	0.52	0.48	0.56	0.89	1.23	1.41	0.89	0.52	0.32
20	0.56	0.70	0.45	0.52	0.89	0.56	1.76	1.17	1.35	0.84	0.52	0.32
21	0.75	0.59	0.48	0.52	0.84	0.52	2.31	1.03	1.29	0.84	0.52	0.32
22	1.41	0.56	0.48	0.45	0.66	0.52	1.70	1.41	1.29	0.84	0.52	0.32
23	0.89	0.52	0.45	0.45	0.56	0.48	1.58	6.82	1.17	0.79	0.48	0.32
24	0.79	0.56	2.54	0.41	0.59	0.66	1.29	2.76	1.29	0.79	0.48	0.32
25	0.98	0.48	1.99	0.41	0.59	0.84	1.23	2.15	1.23	0.75	0.45	0.32
26	0.79	0.93	1.46	0.41	1.23	0.79	2.23	2.65	1.23	0.75	0.45	0.32
27	0.66	1.29	1.52	0.38	1.70	0.75	3.20	2.23	1.17	0.75	0.45	0.29
28	0.70	0.93	1.23	0.38	0.93	0.79	2.23	2.46	1.17	0.75	0.45	0.29
29	0.66	0.70	0.98	0.45	0.79	0.66	1.84	2.65	1.64	0.75	0.45	0.34
30	0.59	0.63	0.93	0.74	0.70	0.59	1.58	2.98	1.41	0.75	–	0.29
31	–	0.59	–	1.35	0.63	–	1.41	–	1.35	0.75	–	0.27
Total	19.28	20.35	23.72	17.84	22.18	19.08	43.85	52.03	57.51	28.42	16.16	10.60
Mean	0.64	0.66	0.79	0.57	0.71	0.64	1.41	1.73	1.85	0.92	0.56	0.34
Max.	1.41	1.29	2.54	1.35	1.70	0.84	3.20	6.82	7.00	1.29	0.66	0.41
Min.	0.45	0.48	0.45	0.38	0.45	0.48	0.84	0.96	1.17	0.75	0.45	0.27
Runoff – MCM.	1.666	1.758	2.049	1.541	1.916	1.648	3.789	4.495	4.969	2.445	1.396	0.916

WATER YEAR 1967 : Max. 7.00 Min. 0.27 Mean 0.90 Annual Runoff 28,600 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Dec.1	1.00	111.04	24				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
KHLONG U-TA PHAO RIVER BASIN

Khlong U – Ta Phao at Khok Samet Chum, Hat Yai (X.44)

Location: Lat 7°– 00' – 02" N, Long 100°– 27' – 32" E, on left bank upstream side of bridge of Pattalung – Hat Yai Highway, at Ban Kuan Lung, Amphoe Hat Yai, Songkhla.

Drainage Area: –

Type of Gage: Staff gage.

Zero Gage at Bottom at: 0.00 m. (A.D.)

Bench Mark: B.M. – H.S.

Location: On left bank near staff gage.
Elevation: +6.985 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: 1967 to date

Rating Operation:

Period of Rating: 1967 – 72
Rated by Float: –
Rated by Current Meter: 1967 – 72

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

Overbank Flow Conditions: No overbank flow.

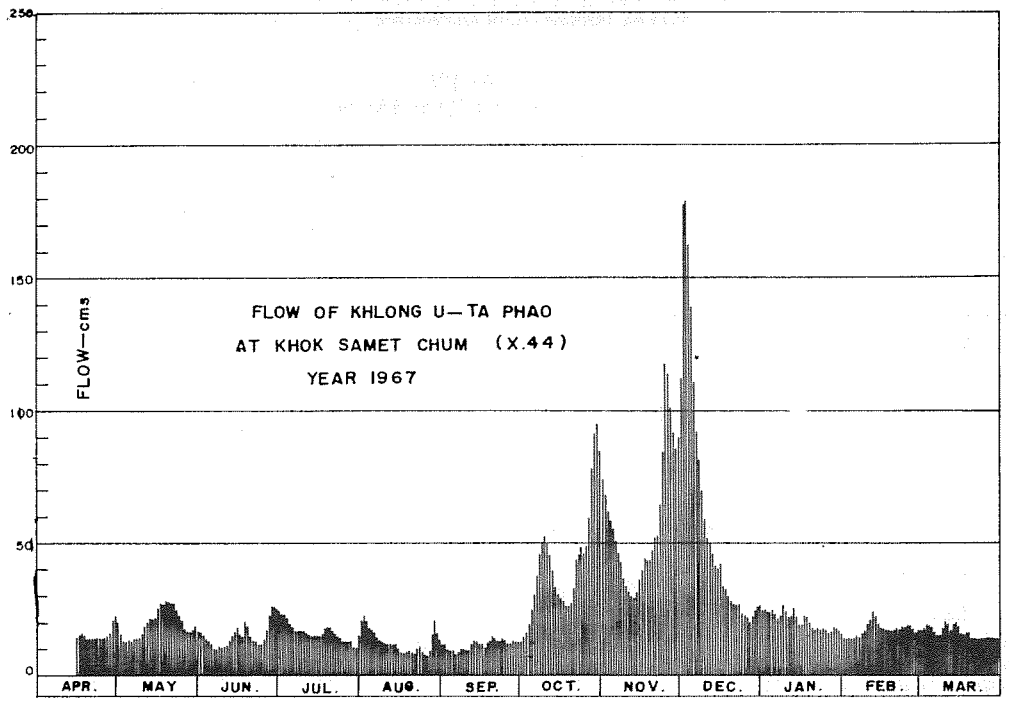
General Description: Records good. Stage – discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversion.

Remarks: Stream gaging began on Apr. 15, 1967.

GAGE HEIGHT IN METER (A.D.), WATER YEAR APRIL 1, 1967 TO MARCH 31,1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1		1.20	1.08	1.39	1.24	0.89	0.94	2.96	3.72	1.42	1.01	1.15
2		.07	.04	.38	.35	.91	1.03	.76	5.29	.43	.01	.17
3		0.98	.00	.35	.30	.80	.10	.58	.30	.42	.00	.22
4		.96	0.95	.28	.18	.81	.22	.48	4.79	.40	.01	.22
5		.98	.90	.23	.15	.77	.45	.38	.19	.43	.01	.17
6		0.97	0.84	1.16	1.08	0.70	1.67	2.27	3.68	1.37	1.04	1.08
7		1.00	.82	.12	.02	.74	.88	.09	.29	.25	.03	.07
8		.00	.87	.13	0.98	.84	2.12	.04	2.96	.33	.11	.04
9		.02	.82	.13	.95	.78	.25	1.85	.67	.52	.12	.13
10		.10	.86	.14	.91	.78	.29	.74	.43	.41	.20	.26
11		1.16	0.87	1.11	0.92	0.78	2.24	1.69	2.25	1.32	1.30	1.23
12		.25	.97	.07	.91	.90	.09	.62	.23	.32	.40	.10
13		.31	1.04	.07	.93	.95	1.89	.59	.12	.45	.33	.20
14		.28	.10	.05	.91	.95	.74	.68	1.99	.28	.18	.24
15	1.02	.33	.16	.05	.82	.94	.66	.80	.95	.23	.16	.19
16	1.07	1.44	1.07	1.04	0.74	0.90	1.59	1.92	2.01	1.22	1.16	1.10
17	.09	.50	.02	.06	.73	.81	.53	2.05	1.72	.31	.14	.07
18	.07	.52	.27	.17	.74	.94	.46	.05	.72	.31	.13	.09
19	0.99	.54	.16	.19	.80	.99	.48	.01	.60	.24	.13	.08
20	1.01	.53	.01	.19	.74	1.04	.52	.15	.55	.17	.14	.02
21	1.02	1.52	0.96	1.15	0.71	1.03	1.60	2.30	1.50	1.14	1.18	1.00
22	.02	.50	.97	.09	.81	0.96	2.03	.28	.50	.16	.14	.01
23	.02	.44	.88	.04	.88	.98	.11	.47	.50	.14	.18	.01
24	.02	.36	.90	.00	.81	1.01	.17	3.11	.42	.17	.19	.03
25	.01	.27	.99	0.97	.72	0.98	.08	.94	.38	.12	.23	.02
26	1.00	1.16	1.11	0.96	0.68	0.92	2.17	3.74	1.36	1.04	1.22	1.02
27	.05	.12	.35	.98	.77	.91	.54	.58	.26	.09	.16	.01
28	.03	.13	.48	.96	1.04	.95	.97	.36	.29	.17	.11	.01
29	.29	.14	.48	.84	.29	.98	3.32	.14	.40	.16	.12	.00
30	.37	.22	.43	.81	.10	.95	.39	.23	.49	.13		.00
31		.15		.97	0.95		.21		.50	.08		.00
Mean		1.23	1.05	1.10	0.94	0.90	1.96	2.43	2.36	1.26	1.14	1.09
Max.		1.54	1.48	1.39	1.35	1.04	3.39	3.94	5.30	1.52	1.40	1.26
Min.		0.96	0.82	0.81	0.68	0.70	0.94	1.59	1.26	1.04	1.00	1.00

WATER YEAR 1967 : Max. 5.30 m. Min. 0.68 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1		19	16	24	20	11	12	76	107	24	14	17
2		15	15	23	23	12	14	68	177	25	14	18
3		13	14	23	21	9.60	16	62	178	24	14	19
4		13	13	21	18	9.80	19	58	154	24	14	19
5		13	12	19	17	9.00	25	55	127	25	14	18
6		13	10	18	16	7.60	32	51	105	23	15	16
7		14	10	17	14	8.40	38	45	90	20	14	15
8		14	11	17	13	10	46	43	76	22	16	15
9		14	10	17	13	9.20	50	37	65	27	17	17
10		16	11	17	12	9.20	52	34	57	24	19	20
11		18	11	16	12	9.20	50	32	50	22	21	19
12		20	13	15	12	12	45	30	50	22	24	16
13		22	15	15	12	13	38	29	46	25	22	19
14		21	16	15	12	13	34	32	42	21	18	20
15	14	22	18	15	10	12	31	36	40	19	18	18
16	15	25	15	15	8.40	12	29	39	42	19	18	16
17	16	27	14	15	8.20	9.80	28	44	33	22	17	15
18	15	27	21	18	8.40	12	26	44	33	22	17	16
19	13	28	18	18	9.60	13	26	42	30	20	17	16
20	14	28	14	18	8.40	15	27	47	28	18	17	14
21	14	27	13	17	7.80	14	30	52	27	17	18	14
22	14	27	13	16	9.80	13	43	51	27	18	17	14
23	14	25	11	15	11	13	46	58	27	17	18	14
24	14	23	12	14	9.80	14	48	82	24	18	18	14
25	14	21	13	13	8.00	13	45	117	23	17	19	14
26	14	18	16	13	7.24	12	48	108	23	15	19	14
27	15	17	23	13	9.00	12	61	101	20	16	18	14
28	16	17	26	13	15	13	77	92	21	18	16	14
29	21	17	26	10	21	13	91	84	24	18	17	14
30	23	19	25	9.80	16	13	94	87	26	17		14
31		17		13	13		86		27	16		14
Total	246	610	455	502.80	395.64	346.80	1,307	1,736	1,799	635	500	497
Mean	16.4	19.7	15.2	16.2	12.8	11.6	42.2	57.9	58.0	20.5	17.2	16.0
Max.	23	28	26	24	23	15	94	117	178	27	24	20
Min.	13	13	10	9.80	7.24	7.60	12	29	20	15	14	14
Runoff - mcm.	21.254	52.704	39.312	43.442	34.183	29.963	112.925	149.990	155.434	54.864	43.200	42.941

WATER YEAR 1967 : Max. 178 Min. 7.24 Mean 25.3 Annual Runoff 798.875 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Dec.2	18.00	5.40	182				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
KHLONG DUSON RIVER BASIN

Khlong Duson at Thung Nui, Satun (X.16A)

Location: Lat 06°- 48' - 00" N, Long 100°- 07' - 00" E, on right bank, 8 kilometers from the road Satun - Khuan Niang Railway Station at Ban Thung Nui along the local road to Panun Fall, Tambon Tone, Amphoe Muang, Satun.

Drainage Area: 58 sq.km.

Type of Gage: Water - stage recorder.

Zero Gage at Bottom at: +0.00 m. (A.D.)

Bench Mark:

Location:
Elevation:

Gage Reading Frequency: Recordings.

Basis of Mean Daily Gage Height: Arithmetic mean of 24 readings.

Period of Available Gage Records: 1959 - 71

Rating Operation:

Period of Rating: 1960
Rated by Float: -
Rated by Current Meter: 1960

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

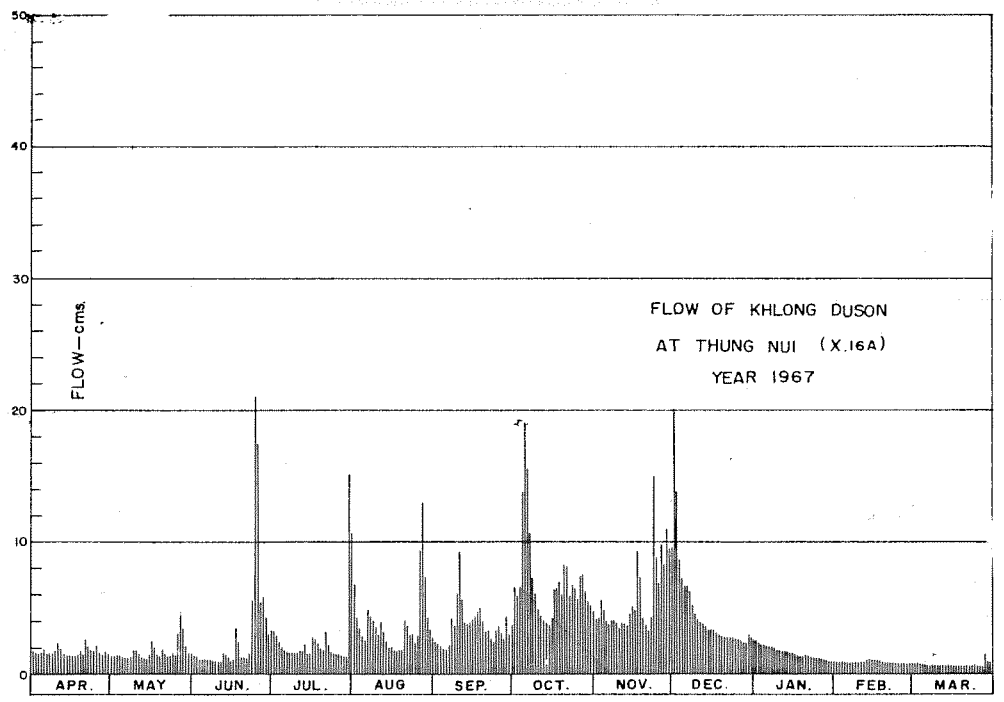
Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1960. No upstream state diversions.

GAGE HEIGHT IN METER (A.D.), WATER YEAR APRIL 1,1967 TO MARCH 31,1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	1.03	1.00	1.00	1.16	1.29	1.09	1.36	1.21	1.98	1.10	0.97	0.95
2	.02	.00	.00	.11	.19	.08	.32	.21	.52	.09	.97	.95
3	.02	.01	0.98	.08	.14	.06	.34	.30	.44	.08	.96	.95
4	.03	.00	.98	.07	.11	.05	.75	.24	.37	.08	.96	.94
5	.04	0.99	.97	.04	.08	.05	.93	.20	.37	.07	.96	.94
6	1.02	0.98	0.97	1.03	1.27	1.05	1.70	1.19	1.37	1.07	0.96	0.94
7	.01	.98	.98	.03	.23	.22	.44	.21	.30	.07	.96	.94
8	.01	.99	.97	.03	.21	.15	.37	.21	.25	.05	.96	.94
9	.03	1.05	.96	.03	.17	.38	.31	.19	.23	.04	.96	.94
10	.09	.04	.96	.01	.12	.51	.25	.16	.21	.04	.96	.94
11	1.05	1.00	0.95	1.04	1.20	1.22	1.22	1.20	1.19	1.04	0.96	0.94
12	.02	0.99	1.03	.03	.15	.20	.20	.19	.19	.04	.97	.94
13	.02	.99	.00	.08	.09	.19	.20	.17	.17	.03	.97	.94
14	.00	.98	0.99	.02	.06	.20	.19	.24	.16	.03	.97	.94
15	.00	.99	.96	.02	.06	.22	.17	.28	.17	.02	.97	.94
16	1.00	1.10	0.96	1.13	1.05	1.23	1.36	1.24	1.16	1.02	0.97	0.93
17	.00	.03	1.17	.11	.04	.25	.36	.51	.15	.01	.97	.93
18	.00	.00	.06	.07	.04	.27	.39	.29	.14	.00	.96	.93
19	.03	0.99	0.99	.04	.04	.19	.29	.21	.12	.00	.95	.93
20	.00	1.04	1.00	.02	.21	.14	.46	.18	.12	.01	.95	.93
21	1.11	1.02	0.98	1.15	1.18	1.15	1.45	1.15	1.12	1.00	0.95	0.93
22	.05	.00	1.02	.05	.12	.10	.29	.15	.12	.00	.95	.93
23	.05	.00	.07	.03	.14	.09	.37	.77	.12	.00	.95	.94
24	.04	.03	2.04	.01	.08	.15	.35	.40	.11	.00	.95	.94
25	.07	.00	1.71	.01	.12	.18	.28	.36	.11	0.99	.95	.94
26	1.02	1.16	1.26	1.01	1.57	1.13	1.41	1.54	1.10	0.99	0.95	0.92
27	.00	.27	.32	.01	.71	.10	.42	.42	.09	.98	.95	.92
28	.04	.11	.19	.00	.28	.23	.32	.61	.09	.98	.95	1.02
29	.02	.04	.12	.00	.18	.13	.30	.51	.14	.98	.95	0.96
30	.00	.02	.16	.79	.15	.15	.27	.50	.11	.97		.93
31		.02		.56	.11		.24		.11	.97		.93
Mean	1.03	1.03	1.09	1.09	1.17	1.17	1.36	1.30	1.22	1.02	0.96	0.94
Max.	1.11	1.27	2.04	1.79	1.71	1.51	1.93	1.77	1.98	1.10	0.97	1.02
Min.	1.00	0.98	0.95	1.00	1.04	1.05	1.17	1.15	1.09	0.97	0.95	**0.92**

WATER YEAR 1967 : Max. 2.04 m. Min. 0.92 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31,1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	1.69	1.36	1.36	3.38	5.35	2.40	6.49	4.10	20	2.54	1.03	0.81
2	1.58	1.36	1.36	2.68	3.80	2.28	5.83	4.10	9.42	2.40	1.03	0.81
3	1.58	1.47	1.14	2.28	3.10	2.04	6.15	5.51	7.90	2.28	0.92	0.81
4	1.69	1.36	1.14	2.16	2.68	1.92	14	4.55	6.66	2.28	0.92	0.70
5	1.80	1.25	1.03	1.80	2.28	1.92	19	3.95	6.66	2.16	0.92	0.70
6	1.58	1.14	1.03	1.69	5.03	1.92	13	3.80	6.66	2.16	0.92	0.70
7	1.47	1.14	1.14	1.69	4.40	4.25	7.90	4.10	5.51	2.16	0.92	0.70
8	1.47	1.25	1.03	1.69	4.10	3.24	6.66	4.10	4.71	1.92	0.92	0.70
9	1.69	1.92	0.92	1.69	3.52	6.83	5.67	3.80	4.40	1.80	0.92	0.70
10	2.40	1.80	0.92	1.47	2.82	9.23	4.71	3.38	4.10	1.80	0.92	0.70
11	1.92	1.36	0.81	1.80	3.95	4.25	4.25	3.95	3.80	1.80	0.92	0.70
12	1.58	1.25	1.69	1.69	3.24	3.95	3.95	3.80	3.80	1.80	1.03	0.70
13	1.58	1.25	1.36	2.28	2.40	3.80	3.95	3.52	3.52	1.69	1.03	0.70
14	1.36	1.14	1.25	1.58	2.04	3.95	3.80	4.55	3.38	1.69	1.03	0.70
15	1.36	1.25	0.92	1.58	2.04	4.25	3.52	5.19	3.52	1.58	1.03	0.70
16	1.36	2.54	0.92	2.96	1.92	4.40	6.49	4.55	3.38	1.58	1.03	0.62
17	1.36	1.69	3.52	2.68	1.80	4.71	6.49	9.23	3.24	1.47	1.03	0.62
18	1.36	1.36	2.04	2.16	1.80	5.03	7.00	5.35	3.10	1.36	0.92	0.62
19	1.69	1.25	1.25	1.80	1.80	3.80	5.35	4.10	2.82	1.36	0.81	0.62
20	1.36	1.80	1.36	1.58	4.10	3.10	8.28	3.66	2.82	1.47	0.81	0.62
21	2.68	1.58	1.14	3.24	3.66	3.24	8.09	3.24	2.82	1.36	0.81	0.62
22	1.92	1.36	1.58	1.92	2.82	2.54	5.35	3.24	2.82	1.36	0.81	0.62
23	1.92	1.36	2.16	1.69	3.10	2.40	6.66	15	2.82	1.36	0.81	0.70
24	1.80	1.69	21	1.47	2.28	3.24	6.32	7.18	2.68	1.36	0.81	0.70
25	2.16	1.36	13	1.47	2.82	3.66	5.19	6.49	2.68	1.25	0.81	0.70
26	1.58	3.38	4.87	1.47	10	2.96	7.36	9.80	2.54	1.25	0.81	0.54
27	1.36	5.03	5.83	1.47	13	2.54	7.54	7.54	2.40	1.14	0.81	0.54
28	1.80	2.68	3.80	1.36	5.19	4.40	5.83	11	2.40	1.14	0.81	1.58
29	1.58	1.80	2.82	1.36	3.66	2.96	5.51	9.23	3.10	1.14	0.81	0.92
30	1.36	1.58	3.38	15	3.24	3.24	5.03	9.04	2.68	1.03	–	0.62
31	–	1.58	–	10	2.68	–	4.55	–	2.68	1.03	–	0.62
Total	50.04	52.34	85.77	81.09	114.62	108.45	209.92	171.05	139.02	50.72	26.35	22.09
Mean	1.67	1.69	2.86	2.61	3.70	3.61	6.77	5.70	4.48	1.64	0.91	0.71
Max.	2.68	5.03	21	15	13	9.23	19	15	20	2.54	1.03	1.58
Min.	1.36	1.14	0.81	1.36	1.80	1.92	3.52	3.24	2.40	1.03	0.81	0.54
Runoff – MCM.	4.323	4.522	7.410	7.006	9.903	9.370	18.137	14.779	12.011	4.382	2.227	1.908

WATER YEAR 1967 : Max. 21 Min. 0.54 Mean 3.04 Annual Runoff 96.030 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Jun.25	5.00	2.60	37				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
KHLONG AI TO RIVER BASIN

Khlong Tha Chiat Ban Thung Chang Kra, Phatthalung (X.21)

Location: Lat 7°- 20' - 58" N, Long 100°- 06' - 40" E, at Ban Thung Chang Kra, Tambon Ta Mote, Phatthalung.

Drainage Area: 176 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: +19.40 m. (M.S.L.)

Bench Mark:

Location: Near upper gage
Elevation: +25.244 m. (M.S.L.)

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: 1959 - 69

Rating Operation:

Period of Rating: 1960 - 63
Rated by Float: -
Rated by Current Meter: 1960 - 63

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

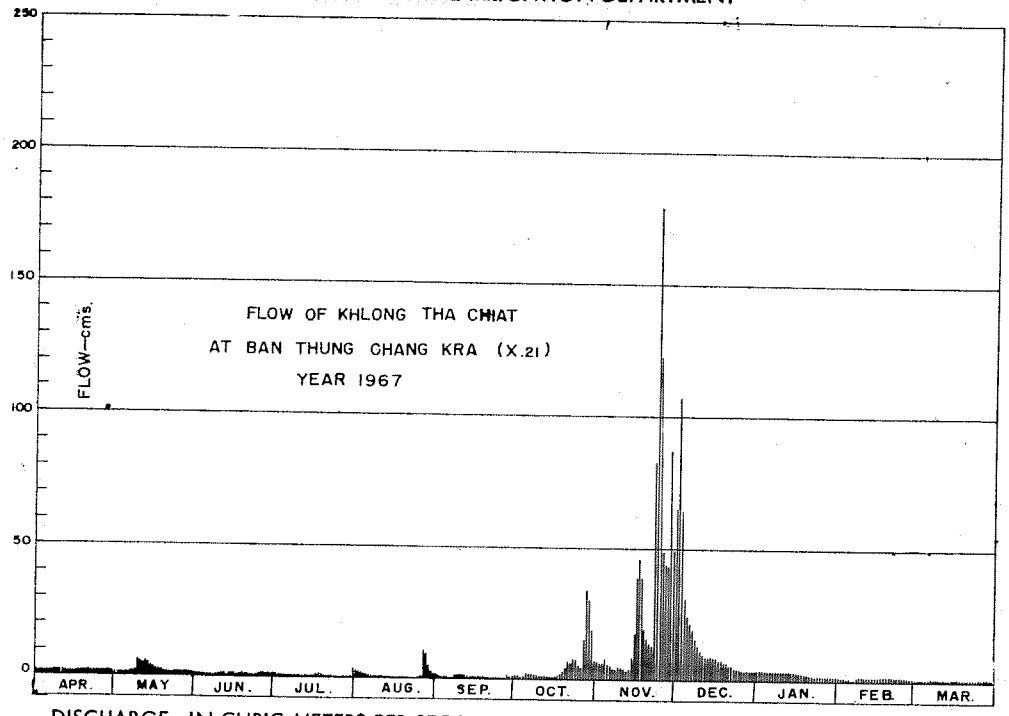
Overbank Flow Conditions: Overbank flow was observed but not included for flow computation.

General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1960 - 63. No upstream state diversions.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	20.10	20.05	20.01	20.08	20.20	20.07	19.83	20.66	23.06	20.39	20.01	19.97
2	.09	.03	.00	.03	.26	.01	.82	.55	.91	.37	.00	.97
3	.09	.01	19.99	19.98	.12	19.95	.87	.60	22.73	.36	19.99	.97
4	.08	.00	.98	.96	.04	20.01	20.02	.78	21.89	.35	.98	.96
5	.07	.04	.97	.94	19.99	19.97	.16	.60	.67	.36	.97	.96
6	20.06	20.08	19.97	19.93	19.94	19.91	20.17	20.49	21.55	20.40	19.96	19.96
7	.04	.17	.96	.92	.92	.90	.15	.39	.47	.40	.97	.95
8	.12	.17	.95	.91	.91	20.06	.06	.37	.22	.38	20.16	.95
9	.11	.28	.94	.89	.88	.05	.02	.47	.11	.36	.12	.95
10	.08	.58	.98	.92	.92	.04	.09	.44	20.99	.34	.10	.95
11	20.07	20.49	19.96	19.92	19.95	20.00	20.04	20.37	20.90	20.31	20.08	19.95
12	.05	.48	20.02	.91	.97	19.97	19.98	.33	.86	.30	.07	.94
13	.04	.59	19.98	.92	.89	.91	.94	.34	.81	.32	.07	.94
14	.03	.49	20.02	.91	.86	.95	.89	.54	.85	.33	.08	.94
15	.03	.35	.02	.90	.82	.92	.87	21.22	.83	.33	.07	.94
16	20.02	20.30	19.99	19.92	19.81	19.92	19.90	22.20	20.80	20.32	20.06	19.94
17	.02	.28	.97	20.04	.84	.89	20.03	.46	.77	.31	.05	.94
18	.09	.25	20.09	.04	.81	.88	.13	21.99	.73	.30	.04	.93
19	.09	.20	.05	19.97	.80	.87	.27	.34	.67	.26	.03	.93
20	.03	.15	.00	.93	.83	.86	.47	.19	.63	.22	.02	.93
21	20.02	20.13	19.99	19.91	19.81	19.84	20.65	21.08	20.57	20.18	20.01	19.92
22	.09	.11	.97	.90	.85	.83	.54	20.96	.53	.15	.01	.92
23	.08	.07	.97	.89	.85	.82	.70	23.20	.47	.14	.00	.92
24	.07	.04	.99	.88	.82	.81	.74	25.12	.44	.14	.00	.91
25	.07	.06	20.14	.87	.79	.81	.43	23.47	.42	.13	.00	.91
26	20.10	20.05	20.12	19.86	19.88	19.81	20.47	22.33	20.40	20.11	19.99	19.91
27	.08	.08	.08	.85	20.99	.80	21.38	.39	.39	.09	.99	.90
28	.15	.13	.08	.84	.78	.90	22.07	.36	.38	.08	.98	.90
29	.15	.09	.04	.83	.31	.94	21.88	23.49	.37	.06	.98	.90
30	.09	.06	.00	.88	.17	.97	.29	22.36	.36	.04		.89
31		.03		20.35	.15		20.45		.35	.02		.89
Mean	20.07	20.19	20.01	19.94	20.00	19.92	20.36	21.47	21.04	20.25	20.03	19.93
Max.	20.15	20.59	20.14	20.35	20.99	20.07	22.07	25.12	23.91	20.40	20.16	19.97
Min.	20.02	20.00	19.94	19.83	19.79	19.80	19.82	20.33	20.35	20.02	19.96	19.89

WATER YEAR 1967 : Max. 25.12 m. Min. 19.79 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	2.00	1.75	1.55	1.90	2.60	1.85	0.82	7.12	69	4.21	1.55	1.38
2	1.95	1.65	1.50	1.65	3.08	1.55	0.78	5.85	107	4.03	1.50	1.38
3	1.95	1.55	1.46	1.42	2.14	1.30	0.98	6.40	56	3.94	1.46	1.38
4	1.90	1.50	1.42	1.34	1.70	1.55	1.60	8.56	30	3.85	1.42	1.34
5	1.85	1.70	1.38	1.26	1.46	1.38	2.36	6.40	24	3.94	1.38	1.34
6	1.80	1.90	1.38	1.22	1.26	1.14	2.42	5.20	22	4.30	1.34	1.34
7	1.70	2.42	1.34	1.18	1.18	1.10	2.30	4.21	20	4.30	1.38	1.30
8	2.12	2.42	1.30	1.14	1.14	1.80	1.80	4.03	15	4.12	2.36	1.30
9	2.06	3.24	1.26	1.06	1.02	1.75	1.60	5.00	13	3.94	2.12	1.30
10	1.90	6.18	1.42	1.18	1.18	1.70	1.95	4.70	11	3.76	2.00	1.30
11	1.85	5.20	1.34	1.18	1.30	1.50	1.70	4.03	10	3.49	1.90	1.30
12	1.75	5.10	1.60	1.14	1.38	1.38	1.42	3.67	9.64	3.40	1.85	1.26
13	1.70	6.29	1.42	1.18	1.06	1.14	1.26	3.76	8.94	3.58	1.85	1.26
14	1.65	5.20	1.60	1.14	0.94	1.30	1.06	5.74	9.50	3.67	1.90	1.26
15	1.65	3.85	1.60	1.10	0.78	1.18	0.98	15	9.22	3.67	1.85	1.26
16	1.60	3.40	1.46	1.18	0.74	1.18	1.10	38	8.80	3.58	1.80	1.26
17	1.60	3.24	1.38	1.70	0.86	1.06	1.65	46	8.44	3.49	1.75	1.26
18	1.95	3.00	1.95	1.70	0.74	1.02	2.18	32	7.96	3.40	1.70	1.22
19	1.95	2.60	1.75	1.38	0.70	0.98	3.16	17	7.24	3.08	1.65	1.22
20	1.65	2.30	1.50	1.22	0.82	0.94	5.00	15	6.76	2.76	1.60	1.22
21	1.60	2.18	1.46	1.14	0.74	0.86	7.00	13	6.07	2.48	1.55	1.18
22	1.95	2.06	1.38	1.10	0.90	0.82	5.74	11	5.63	2.30	1.55	1.18
23	1.90	1.85	1.38	1.06	0.90	0.78	7.60	74	5.00	2.24	1.50	1.18
24	1.85	1.70	1.46	1.02	0.78	0.74	8.08	179	4.70	2.24	1.50	1.14
25	1.85	1.80	2.24	0.98	0.67	0.74	4.60	86	4.50	2.18	1.50	1.14
26	2.00	1.75	2.12	0.94	1.02	0.74	5.00	42	4.30	2.06	1.46	1.14
27	1.90	1.90	1.90	0.90	11	0.70	18	44	4.21	1.95	1.46	1.10
28	2.30	2.18	1.90	0.86	8.56	1.10	34	43	4.12	1.90	1.42	1.10
29	2.30	1.95	1.70	0.82	3.49	1.20	29	87	4.03	1.80	1.42	1.10
30	1.95	1.80	1.50	1.02	2.42	1.38	17	43	3.94	1.70		1.06
31		1.65		3.85	2.30		4.80		3.85	1.60		1.06
Total	56.18	85.31	46.65	39.96	58.86	35.92	176.94	859.67	503.85	96.96	47.72	38.26
Mean	1.87	2.75	1.55	1.29	1.10	1.20	5.71	28.6	16.2	3.13	1.64	1.23
Max.	2.30	6.29	2.24	3.85	11	1.85	34	179	107	4.30	2.36	1.38
Min.	1.60	1.50	1.26	0.82	0.67	0.70	0.78	3.67	3.85	1.60	1.34	1.06
Runoff - mcm.	4.854	7.371	4.030	3.452	5.085	3.103	15.288	74.275	43.533	8.377	4.123	3.306

WATER YEAR 1967 : Max. 179 Min. 0.67 Mean 5.59 Annual Runoff 176.798 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Nov.24	6.00	25.60	213				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
KHLONG AI TO RIVER BASIN

Khlong Ai To at Wat Mahanpawat, Phatthalung (X.21 B)

Location: Lat 7° – 23' – 09" N, Long 100° – 06' – 27" E, at Wat Mahanpawat, about 6 kilometers downstream from Tha Chiat Weir, Ban Tha Madua, Amphoe Khao Chaison, Phatthalung.

Drainage Area: 330 sq.km.

Type of Gage: Water – stage recorder.

Zero Gage at Bottom at: +14.45 m. (M.S.L.)

Bench Mark: B.M. – H.S.

Location: On right bank 50 meter along measuring line
Elevation: +21.081 m. (M.S.L.)

Gage Reading Frequency: Recording.

Basis of Mean Daily Gage Height: Arithmetic mean of 24 hourly readings.

Period of Available Gage Records: 1964 – 71

Rating Operation:

Period of Rating: 1964 – 71
Rated by Float: –
Rated by Current Meter: 1964 – 71

Stability of Channel Regimes: Stable, no shifting adjustment but mean hourly discharge is included for flow computation.

Overbank Flow Conditions: No overbank flow.

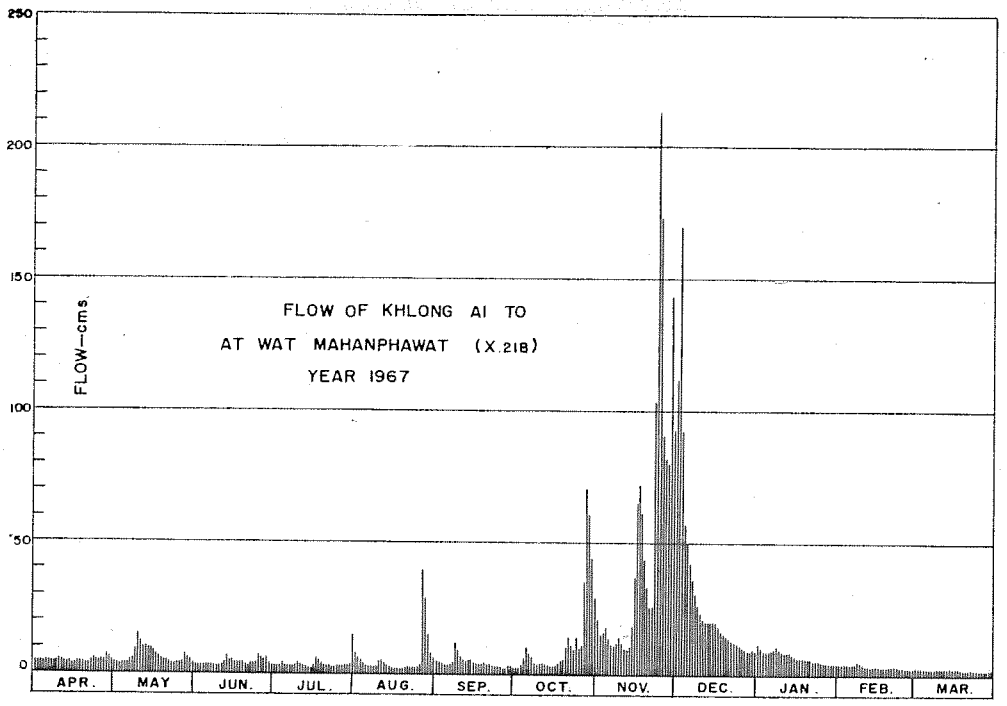
General Description: Records good. Stage – discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	15.39	15.35	15.33	15.31	15.62	15.44	15.23	16.18	18.74	15.82	15.37	15.21
2	.39	.31	.31	.30	.54	.42	.20	.09	20.16	.76	.36	.20
3	.39	.30	.29	.29	.45	.38	.52	.03	18.60	.69	.36	.19
4	.39	.36	.28	.35	.37	.36	.52	.10	17.48	.66	.35	.19
5	.40	.35	.28	.30	.33	.33	.71	15.96	.32	.67	.33	.19
6	15.38	15.36	15.27	15.28	15.26	15.40	15.60	15.86	17.01	15.69	15.34	15.19
7	.37	.43	.26	.28	.26	.37	.53	.79	16.78	.71	.38	.19
8	.36	.47	.26	.28	.25	.84	.40	.81	.57	.77	.44	.19
9	.38	.62	.26	.28	.26	.59	.38	.95	.43	.71	.37	.20
10	.47	.99	.26	.36	.42	.54	.41	.82	.33	.66	.36	.20
11	15.45	15.84	15.27	15.30	15.42	15.45	15.38	15.73	16.24	15.63	15.31	15.20
12	.41	.76	.41	.27	.36	.43	.32	.75	.19	.63	.32	.20
13	.36	.81	.56	.26	.28	.44	.29	.73	.22	.59	.31	.20
14	.34	.75	.41	.24	.25	.46	.28	16.03	.23	.57	.31	.20
15	.33	.70	.47	.24	.23	.39	.29	.64	.19	.55	.30	.20
16	15.33	15.63	15.34	15.29	15.22	15.36	15.28	17.72	16.16	15.52	15.29	15.21
17	.43	.58	.40	.49	.22	.34	.38	.94	.09	.51	.28	.21
18	.41	.52	.41	.46	.22	.36	.43	.56	.05	.51	.28	.19
19	.40	.46	.35	.36	.21	.40	.43	16.81	.00	.51	.27	.15
20	.35	.43	.33	.29	.21	.33	.73	.72	15.93	.49	.27	.14
21	15.35	15.42	15.30	15.26	15.21	15.34	15.96	16.37	15.89	15.48	15.27	15.14
22	.43	.37	.34	.26	.24	.29	.81	.22	.88	.46	.26	.14
23	.53	.33	.34	.25	.22	.28	.72	19.02	.85	.45	.25	.14
24	.46	.33	.38	.26	.22	.28	.93	20.96	.82	.44	.25	.14
25	.40	.35	.56	.26	.24	.26	.73	19.61	.78	.42	.24	.13
26	15.44	15.34	15.49	15.26	15.36	15.23	15.74	18.11	15.74	15.41	15.24	15.13
27	.40	.39	.44	.26	16.89	.23	16.97	.25	.71	.41	.23	.13
28	.71	.57	.49	.26	.36	.28	17.92	.07	.69	.39	.23	.13
29	.56	.46	.36	.26	15.83	.30	.46	19.67	.70	.39	.22	.14
30	.46	.44	.31	.26	.62	.24	16.84	18.39	.72	.38		.17
31		.37		16.03	.51		.44		.71	.38		.18
Mean	15.41	15.50	15.36	15.32	15.52	15.38	15.77	17.03	16.46	15.56	15.30	15.17
Max.	15.71	15.99	15.56	16.03	16.89	15.84	17.92	20.96	20.16	15.82	15.44	15.21
Min.	15.33	15.30	15.26	15.25	15.21	15.23	15.20	15.73	15.69	15.38	15.22	15.13

WATER YEAR 1967 : Max. 20.96 m. Min. 15.13 m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	4.68	4.20	3.96	3.72	8.14	5.36	2.83	19	101	12	4.40	2.61
2	4.68	3.72	3.72	3.60	6.84	5.08	2.50	15	170	10	4.32	2.50
3	4.68	3.60	3.49	3.49	5.50	4.56	3.84	16	95	9.33	4.32	2.40
4	4.68	4.32	3.38	4.20	4.44	4.32	6.52	18	56	8.82	4.20	2.40
5	4.80	4.20	3.38	3.60	3.96	3.96	9.68	14	51	8.99	3.96	2.40
6	4.56	4.32	3.27	3.38	3.16	4.80	7.80	12	42	9.33	4.08	2.40
7	4.44	5.22	3.16	3.38	3.16	4.44	6.68	11	35	9.68	4.56	2.40
8	4.32	5.78	3.16	3.38	3.05	12	4.80	11	29	11	5.36	2.40
9	4.56	8.14	3.16	3.38	3.16	8.64	4.56	14	26	9.68	4.44	2.50
10	5.78	15	3.16	4.32	5.08	6.84	4.94	12	23	8.82	4.32	2.50
11	5.08	12	3.27	3.60	5.08	5.50	4.56	10	21	8.31	3.72	2.50
12	4.44	10	4.94	3.27	4.32	5.22	3.84	10	20	8.31	3.84	2.50
13	4.20	11	7.16	3.16	3.38	5.36	3.49	10	20	8.64	3.72	2.50
14	4.08	10	4.94	2.94	3.05	5.64	3.38	16	21	7.32	3.72	2.50
15	3.96	9.50	5.78	2.94	2.83	4.68	3.49	31	20	7.00	3.60	2.50
16	3.84	8.31	4.08	3.49	2.72	4.32	3.38	64	19	6.52	3.49	2.61
17	4.68	7.48	4.80	6.06	2.72	4.08	4.68	71	17	6.36	3.38	2.61
18	4.80	6.52	4.94	5.64	2.72	4.32	5.22	58	16	6.36	3.38	2.40
19	4.44	5.64	4.20	4.32	2.61	4.80	5.22	36	15	6.36	3.27	2.00
20	4.08	5.22	3.96	3.49	2.61	3.96	10	33	14	6.06	3.27	1.90
21	3.96	5.08	3.60	3.16	2.61	4.08	14	24	13	5.92	3.27	1.90
22	4.56	4.44	4.08	3.16	2.94	3.49	11	20	13	5.64	3.16	1.90
23	5.78	3.96	4.08	3.05	2.72	3.38	9.86	113	12	5.50	3.05	1.90
24	5.36	3.96	4.56	3.16	2.72	3.38	14	220	12	5.36	3.05	1.90
25	4.56	4.20	7.16	3.16	2.94	3.05	10	140	11	5.08	2.94	1.80
26	5.22	4.08	6.06	3.16	4.32	2.83	10	77	10	4.94	2.94	1.80
27	4.56	4.68	5.36	3.16	39	2.83	41	82	9.68	4.94	2.83	1.80
28	7.80	7.32	6.06	3.16	24	3.38	70	75	9.33	4.68	2.83	1.80
29	6.36	5.64	4.32	3.16	12	3.60	55	143	9.50	4.68	2.72	1.90
30	5.08	5.36	3.72	3.16	8.14	2.94	37	87	9.86	4.56		2.20
31		4.44		15	6.36		26		9.68	4.56		2.30
Total	144.02	197.33	130.91	121.85	186.28	140.84	399.27	1,462.00	930.05	224.75	106.14	69.73
Mean	4.80	6.36	4.36	3.93	6.01	4.69	12.9	48.7	30.0	7.25	3.66	2.25
Max.	7.80	15	7.16	15	39	12	70	220	170	12	5.36	2.61
Min.	3.84	3.60	3.16	2.94	2.61	2.83	2.50	10	9.33	4.56	2.72	1.80
Runoff - MCM.	12.443	17.049	11.311	10.528	16.094	12.168	34.497	126.317	80.356	19.418	9.170	6.025

WATER YEAR 1967 : Max. 220 Min. 1.80 Mean 11.2 Annual Runoff 355.578 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Nov.24	5.00	21.05	226				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
KHLONG PHYA HONG RIVER BASIN

Khlong Phya Hong at Ban Charat, Phatthalung (X.23A)

Location: Lat 7°- 27' - 38" N, Long 99°- 57' - 41" E, on right bank about 1 kilometer upstream from Phya Hong Weir at Ban Charat, Phatthalung.

Drainage Area: 62 sq.km.

Type of Gage: Water - stage recorder.

Zero Gage at Bottom at: +31.07 m. (A.D.)

Bench Mark: B.M. - H.S.

Location: On right bank near camp of station X.23A
Elevation: +33.441 m. (A.D.)

Gage Reading Frequency: Recording.

Basis of Mean Daily Gage Height: Arithmetic mean of 24 readings.

Period of Available Gage Records: 1963 - 69

Rating Operation:

Period of Rating: 1963 - 66
Rated by Float: -
Rated by Current Meter: 1963 - 66

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

Overbank Flow Conditions: No overbank flow.

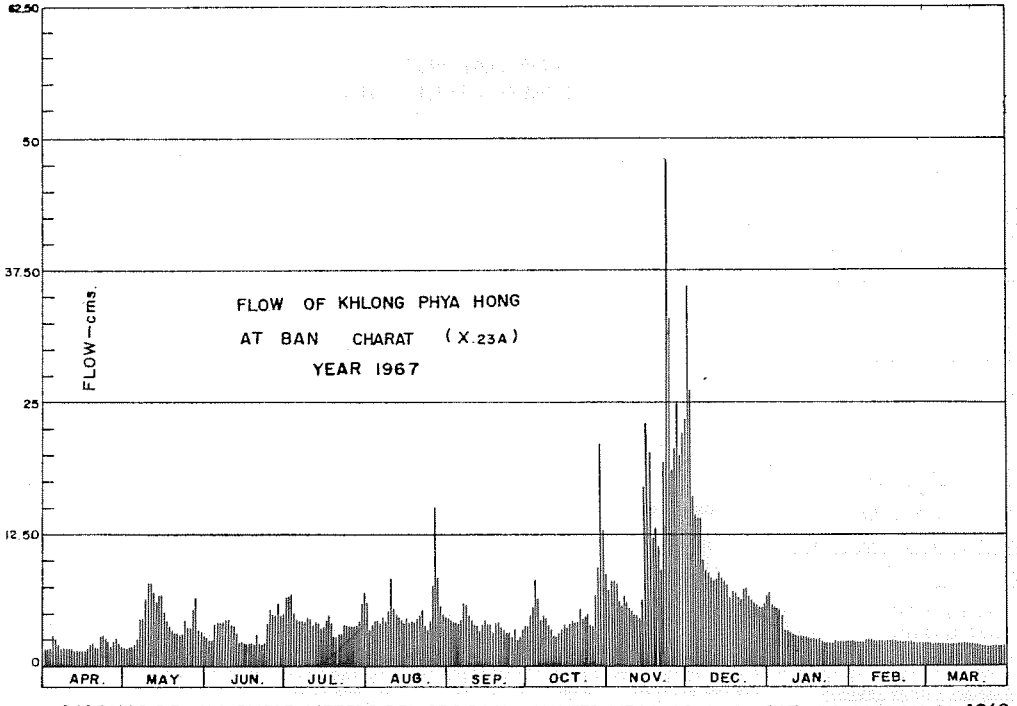
General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions for irrigation except those built by local residents. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (A.D.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	32.09	32.09	32.07	32.31	32.27	32.20	32.13	32.31	33.22	32.33	32.18	32.16
2	.09	.09	.06	.20	.12	.18	.21	.38	32.92	.27	.18	.15
3	.09	.11	.06	.21	.16	.17	.23	.38	.64	.26	.18	.15
4	.23	.11	.16	.23	.18	.17	.38	.37	.63	.25	.17	.15
5	.19	.14	.17	.19	.18	.16	.27	.29	.63	.24	.17	.15
6	32.12	32.14	32.17	32.18	32.16	32.19	32.15	32.26	32.60	32.21	32.17	32.15
7	.09	.19	.17	.18	.20	.28	.21	.31	.48	.26	.19	.14
8	.09	.18	.18	.17	.17	.27	.18	.26	.42	.28	.19	.14
9	.09	.27	.20	.18	.20	.20	.16	.25	.41	.26	.19	.14
10	.09	.37	.18	.22	.39	.18	.13	.23	.39	.24	.18	.14
11	32.09	32.37	32.13	32.14	32.25	32.20	32.09	32.21	32.38	32.23	32.18	32.15
12	.07	.36	.16	.18	.22	.20	.09	.21	.39	.23	.18	.15
13	.07	.24	.39	.17	.19	.18	.11	.19	.42	.23	.18	.15
14	.07	.31	.05	.17	.18	.17	.12	.27	.39	.22	.18	.15
15	.06	.31	.04	.09	.17	.18	.15	.91	.38	.22	.18	.15
16	32.07	32.24	32.03	32.18	32.20	32.16	32.14	32.84	32.36	32.20	32.18	32.15
17	.10	.19	.04	.22	.17	.16	.16	.82	.29	.20	.18	.15
18	.15	.15	.04	.19	.18	.11	.18	.63	.33	.20	.18	.14
19	.15	.12	.02	.09	.17	.17	.17	.59	.33	.20	.17	.14
20	.11	.11	.11	.07	.19	.17	.15	.49	.31	.20	.17	.14
21	32.10	32.10	32.03	32.11	32.21	32.15	32.25	32.41	32.29	32.18	32.17	32.13
22	.21	.09	.03	.08	.24	.12	.19	.40	.34	.16	.17	.13
23	.23	.08	.03	.15	.14	.11	.20	33.47	.35	.16	.17	.13
24	.16	.18	.17	.15	.13	.11	.22	.24	.31	.16	.17	.13
25	.14	.14	.19	.15	.13	.05	.15	32.73	.29	.16	.16	.13
26	32.12	32.12	32.25	32.15	32.28	32.13	32.15	32.78	32.28	32.18	32.16	32.13
27	.18	.23	.17	.15	.66	.06	.29	.96	.27	.17	.16	.13
28	.21	.30	.27	.15	.33	.06	.43	.78	.26	.17	.16	.13
29	.14	.13	.21	.15	.26	.13	.85	.86	.26	.17	.16	.13
30	.11	.12	.20	.27	.22	.16	.53	.66	.26	.17		.13
31		.09		.33	.20		.45		.32	.18		.13
Mean	32.12	32.18	32.12	32.17	32.21	32.16	32.23	32.55	32.42	32.21	32.17	32.14
Max.	32.23	32.37	32.27	32.33	32.66	32.28	32.85	33.47	33.22	32.33	32.19	32.16
Min.	32.06	32.09	32.02	32.07	32.12	32.05	32.09	32.19	32.26	32.16	32.16	32.13

WATER YEAR 1967 : Max. 33.47 m. Min. 32.06 m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	1.63	1.63	2.61	6.61	5.86	4.60	3.48	6.61	36	7.03	2.42	2.24
2	1.63	1.63	2.48	4.60	3.32	4.28	4.78	8.08	24	5.86	2.42	2.15
3	1.63	1.79	2.48	4.78	3.96	4.12	5.14	8.08	15	5.68	2.42	2.15
4	2.98	1.79	3.96	5.14	4.28	4.12	8.08	7.87	14	5.50	2.33	2.15
5	2.51	2.06	4.12	4.44	4.28	3.96	5.86	6.24	14	5.32	2.33	2.15
6	1.88	2.06	4.12	4.28	3.96	4.44	3.80	5.68	14	4.78	2.33	2.15
7	1.63	4.44	4.12	4.28	4.60	6.04	4.78	6.61	10	3.26	2.51	2.06
8	1.63	4.28	4.28	4.12	4.12	5.86	4.28	5.68	8.98	3.48	2.51	2.06
9	1.63	5.86	4.60	4.28	4.60	4.60	3.96	5.50	8.74	3.26	2.51	2.06
10	1.63	7.87	4.28	4.96	8.29	4.28	3.48	5.14	8.29	3.04	2.42	2.06
11	1.63	7.87	3.48	3.64	5.50	4.60	2.87	4.78	8.08	2.93	2.42	2.15
12	1.49	7.66	3.96	4.28	4.96	4.60	2.87	4.78	8.29	2.93	2.42	2.15
13	1.49	5.32	2.09	4.12	4.44	4.28	3.16	4.44	8.98	2.93	2.42	2.15
14	1.49	6.61	2.35	4.12	4.28	4.12	3.32	5.86	8.29	2.82	2.42	2.15
15	1.42	6.61	2.22	2.87	4.12	4.28	3.96	23	8.08	2.82	2.42	2.15
16	1.49	5.32	2.09	4.28	4.60	3.96	3.64	21	7.66	2.60	2.42	2.15
17	1.70	4.44	2.22	4.96	4.12	3.96	3.96	20	6.24	2.60	2.42	2.15
18	2.15	3.80	2.22	4.44	4.28	3.16	4.28	14	7.03	2.60	2.42	2.06
19	2.15	3.32	1.96	2.87	4.12	4.12	4.12	13	7.03	2.60	2.33	2.06
20	1.79	3.16	3.16	2.61	4.44	4.12	3.80	11	6.61	2.60	2.33	2.06
21	1.70	3.00	2.09	3.16	4.78	3.80	5.50	8.74	6.24	2.42	2.33	1.97
22	2.71	2.87	2.09	2.74	5.32	3.32	4.44	8.50	7.24	2.24	2.33	1.97
23	2.93	2.74	2.09	3.80	3.64	3.16	4.60	48	7.45	2.24	2.33	1.97
24	2.24	4.28	4.12	3.80	3.48	3.16	4.96	37	6.61	2.24	2.33	1.97
25	2.06	3.64	4.44	3.80	3.48	2.35	3.80	17	6.24	2.24	2.24	1.97
26	1.88	3.32	5.50	3.80	6.04	3.48	3.80	19	6.04	2.42	2.24	1.97
27	2.42	5.14	4.12	3.80	15	2.48	6.24	25	5.86	2.33	2.24	1.97
28	2.71	6.40	5.86	3.80	7.03	2.48	9.22	19	5.62	2.33	2.24	1.97
29	2.06	3.48	4.78	3.80	5.68	3.48	21	22	5.62	2.33	2.24	1.97
30	1.79	3.32	4.60	5.86	4.96	3.96	12	15	5.68	2.33		1.97
31		2.87		7.03	4.60		9.70		6.82	2.42		1.97
Total	58.08	128.58	102.49	131.07	156.14	119.17	168.88	406.59	298.84	100.18	68.74	64.13
Mean	1.97	4.14	3.42	4.23	5.04	3.97	5.45	13.5	9.64	3.23	2.37	2.07
Max.	2.98	7.87	5.86	7.03	15	6.04	21	48	36	7.03	2.51	2.24
Min.	1.42	1.63	1.96	2.61	3.32	2.35	2.87	4.44	5.68	2.24	2.24	1.97
Runoff - mcm.	5.018	11.109	8.855	11.324	13.490	10.226	14.591	35.129	25.820	8.656	5.939	5.541

WATER YEAR 1967 : Max. 48 Min. 1.42 Mean 4.93 Annual Runoff 155.577 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Nov.23	18.00	34.36	103				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
KHLONG THEPHA RIVER BASIN

Khlong Thepha at Huai Prak Pring, Songkhla (X.27)

Location: Lat 6° – 48' – 04" N, Long 100° – 57' – 28" E, on right bank at Ban Huai Prak Pring, 8 kilometers upstream from state railway bridge, Amphoe Thepha, Songkhla.

Drainage Area: 1,557 sq.km.

Type of Gage: Water – stage recorder.

Zero Gage at Bottom at: +0.00 m. (A.D.)

Bench Mark: B.M. – H.S.

Location: On right bank near the camp of station P.27
Elevation: B.M.1 +8.595 m. (A.D.) and B.M.2 +5.388 m. (A.D.)

Gage Reading Frequency: Recording.

Basis of Mean Daily Gage Height: Arithmetic mean of 24 readings.

Period of Available Gage Records: 1960 to date

Rating Operation:

Period of Rating: 1960 – 68
Rated by Float: –
Rated by Current Meter: 1960 – 68

Stability of Channel Regimes: Unstable, shifting adjustment is included for flow computation.

Overbank Flow Conditions: No overbank flow.

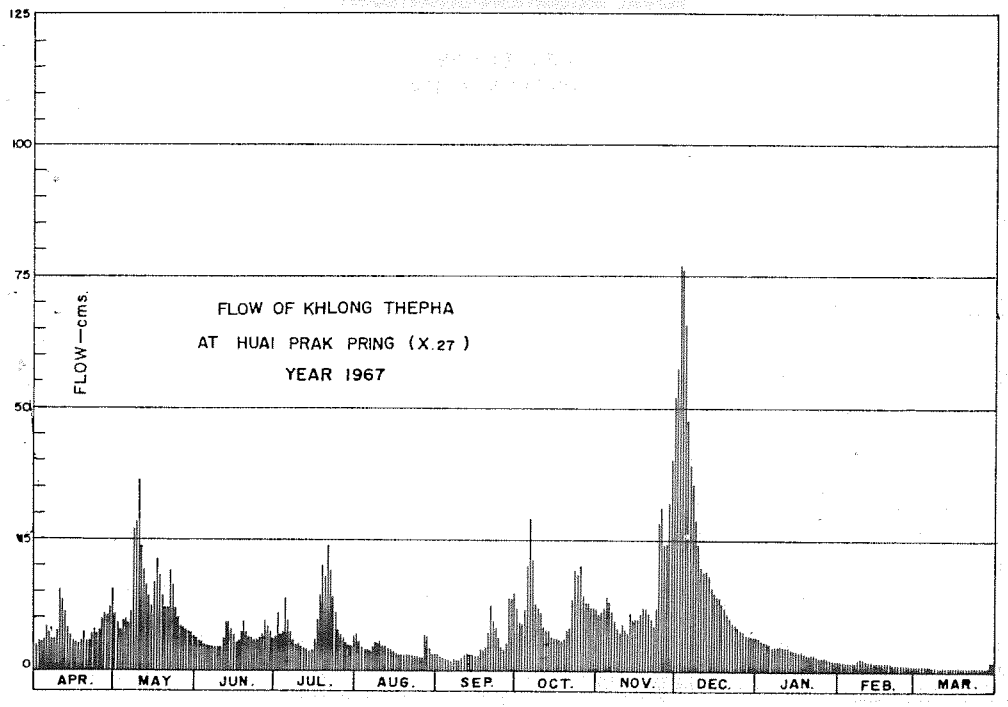
General Description: Records good. Stage – discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions.

GAGE HEIGHT IN METER (A.D.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	1.20	1.58	1.27	1.21	1.42	1.04	1.54	1.58	3.73	1.21	0.86	0.68
2	.25	.42	.24	.59	.30	0.99	.41	.57	4.65	.20	.83	.68
3	.24	.33	.22	.28	.23	.94	.41	.65	.73	.18	.82	.68
4	.25	.48	.19	.44	.19	.91	.67	.75	.16	.16	.81	.67
5	.46	.45	.16	.89	.16	.89	2.13	.68	3.50	.13	.80	.67
6	1.35	1.46	1.15	1.59	1.14	0.88	2.61	1.53	3.12	1.11	0.80	0.67
7	.26	.63	.13	.39	.22	.87	.17	.44	2.87	.11	.79	.66
8	.21	2.57	.10	.29	.32	.86	1.82	.34	.59	.10	.86	.66
9	.38	.56	.12	.24	.28	.89	.61	.27	.34	.11	.88	.66
10	.91	.98	.12	.24	.30	.94	.53	.41	.16	.10	.82	.66
11	1.82	2.37	1.11	1.22	1.24	0.96	1.35	1.32	2.14	1.08	0.79	0.66
12	.64	.05	.50	.17	.19	1.01	.31	.26	.13	.07	.78	.65
13	.45	1.94	.52	.15	.15	0.99	.26	.56	.00	.06	.77	.65
14	.34	.78	.41	.12	.12	.97	.21	.43	1.90	.05	.76	.65
15	.27	.69	.36	.12	.08	.93	.21	.43	.84	.03	.75	.65
16	1.22	2.01	1.24	1.23	1.05	0.94	1.19	1.44	1.81	1.02	0.75	0.65
17	.19	.26	.19	.54	.03	1.06	.19	.53	.78	.00	.75	.65
18	.21	.07	.37	.86	.03	.04	.17	.59	.73	0.98	.74	.65
19	.36	1.87	.52	2.19	.01	.06	.20	.60	.66	.97	.74	.64
20	.24	.74	.36	.01	.01	.33	.34	.55	.58	.96	.73	.64
21	1.21	1.73	1.30	2.39	1.00	1.62	1.36	1.43	1.51	0.95	0.72	0.64
22	.33	2.16	.30	.13	0.99	.42	.80	.32	.46	.94	.72	.64
23	.43	.00	.24	1.81	.99	.31	2.05	.45	.41	.92	.71	.64
24	.36	1.74	.25	.61	.98	.20	1.99	2.47	.37	.91	.71	.64
25	.43	.59	.25	.48	.95	.10	2.12	.66	.33	.90	.70	.64
26	1.52	1.49	1.29	1.43	0.96	1.02	1.75	9.29	1.29	0.89	0.70	0.63
27	.58	.44	.52	.35	1.36	.15	.68	.31	.25	.88	.70	.63
28	.51	.42	.42	.29	.34	.75	.69	.69	.22	.87	.69	.63
29	.68	.41	.31	.24	.03	.73	.64	.92	.22	.86	.69	.77
30	.86	.36	.26	.24	.03	.79	.63	3.64	.22	.85		.77
31		.31		.40	.03		.62		.22	.84		.77
Mean	1.40	1.80	1.28	1.49	1.13	1.12	1.60	1.77	2.16	1.01	0.76	0.66
Max.	1.91	2.98	1.52	2.39	1.42	1.79	2.61	3.64	4.65	1.21	0.88	0.77
Min.	1.20	1.31	1.10	1.12	0.95	0.86	1.17	1.27	1.22	0.84	0.69	0.63

WATER YEAR 1967 : Max. 4.65 m. Min. 0.63 m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1,1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	4.95	11	6.10	5.86	7.09	3.41	11	11	55	6.10	2.33	1.14
2	5.50	8.91	5.74	11	5.62	2.96	9.04	11	77	6.10	2.06	1.14
3	5.39	7.74	5.50	6.70	4.84	2.51	9.04	12	76	5.74	1.97	1.14
4	5.50	9.72	5.17	7.48	4.40	2.24	13	14	62	5.50	1.88	1.06
5	8.13	9.30	4.84	14	4.13	2.06	20	13	47	5.17	1.79	1.06
6	6.96	8.52	4.73	9.44	3.95	1.97	29	11	38	4.95	1.79	1.06
7	5.86	11	4.51	6.83	4.73	2.33	21	9.58	33	4.95	1.70	0.98
8	5.28	27	4.22	5.62	5.86	2.24	15	8.13	28	4.84	2.33	0.98
9	7.35	27	4.40	5.06	5.39	2.51	12	7.22	23	4.95	2.69	0.98
10	15	36	4.40	5.06	5.62	2.96	11	9.04	19	4.84	2.33	0.98
11	13	23	4.31	4.84	4.95	3.14	8.26	7.87	19	4.62	2.06	0.98
12	11	17	9.04	4.31	4.84	3.59	7.74	7.35	19	4.51	1.97	0.90
13	8.26	16	9.30	4.13	4.40	3.41	7.09	11	18	4.13	1.88	0.90
14	6.63	13	7.87	3.86	4.13	3.23	6.46	9.58	16	4.04	1.79	0.90
15	5.98	12	7.22	3.86	3.77	2.87	6.46	9.58	15	3.86	1.70	0.90
16	5.39	17	5.74	4.95	3.50	2.96	6.22	9.72	14	3.77	1.70	0.90
17	5.06	21	5.17	8.78	3.32	4.04	6.22	11	14	3.59	1.70	0.90
18	5.28	18	7.35	13	3.32	3.86	5.98	12	13	3.41	1.62	0.90
19	7.09	14	9.30	20	3.14	4.95	6.34	12	12	3.32	1.62	0.84
20	5.62	12	7.22	17	3.14	8.26	8.13	11	11	3.23	1.54	0.84
21	5.28	12	6.46	24	3.05	12	8.39	9.58	10	3.14	1.46	0.84
22	6.70	19	6.46	19	2.96	9.44	15	8.13	9.30	3.05	1.46	0.84
23	8.00	17	5.74	14	2.96	8.00	19	9.86	8.65	2.87	1.38	0.84
24	7.09	12	5.86	11	2.87	6.58	18	28	8.26	2.78	1.38	0.84
25	8.00	10	6.34	7.87	2.60	4.95	20	31	7.61	2.69	1.30	0.84
26	10	8.91	6.83	7.22	2.69	4.13	14	24	7.09	2.60	1.30	0.78
27	11	8.26	9.86	6.22	6.83	5.50	13	24	6.70	2.51	1.30	0.78
28	10	8.00	8.52	5.50	6.58	14	13	32	6.22	2.42	1.22	0.78
29	12	7.87	7.09	4.95	3.32	14	12	37	6.22	2.33	1.22	1.88
30	15	7.22	6.46	4.95	3.32	15	12	52	6.22	2.24	–	1.88
31	–	6.58	–	6.83	3.32	–	12	–	6.22	2.15	–	1.88
Total	236.50	436.03	191.75	273.32	130.64	159.10	375.37	462.64	691.49	120.40	50.47	31.66
Mean	7.88	14.1	6.39	8.82	4.21	5.30	12.1	15.4	22.3	3.88	1.74	1.02
Max.	15	36	9.86	24	7.09	15	29	52	77	6.10	2.69	1.88
Min.	4.95	6.58	4.22	3.86	2.60	1.97	5.98	7.22	6.22	2.15	1.22	0.78
Runoff – mcm.	20.434	37.673	16.567	23.615	11.287	13.746	32.432	39.972	59.745	10.402	4.361	2.735

WATER YEAR 1967 : Max. 77 Min. 0.78 Mean 8.63 Annual Runoff 272.969 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Dec.2	24.00	4.82	79				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
TAPI RIVER BASIN

Phum Duang River at Ban Yan Lon, Surat Thani (X.38)

Location: Lat 8^0 – 53' – 51" N, Long 98^0 – 52' – 32" E, on right bank at Ban Yan Lon, 2 kilometers downstream from the confluence of Khlong Phra Saeng with Khlong Sok, 30 kilometers upstream from Amphoe Khiri Ratthanikhom, Surat Thani.

Drainage Area: 2,690 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: +3.70 m. (M.S.L.)

Bench Mark: B.M. – H.S.

Location: Near the camp of gaging station X.38
Elevation: +16.732 m. (M.S.L.)

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: 1963 to date

Rating Operation:

Period of Rating: 1963 to date
Rated by Float: –
Rated by Current Meter: 1963 to date

Stability of Channel Regimes: Unstable, shifting adjustment is included for flow computation.

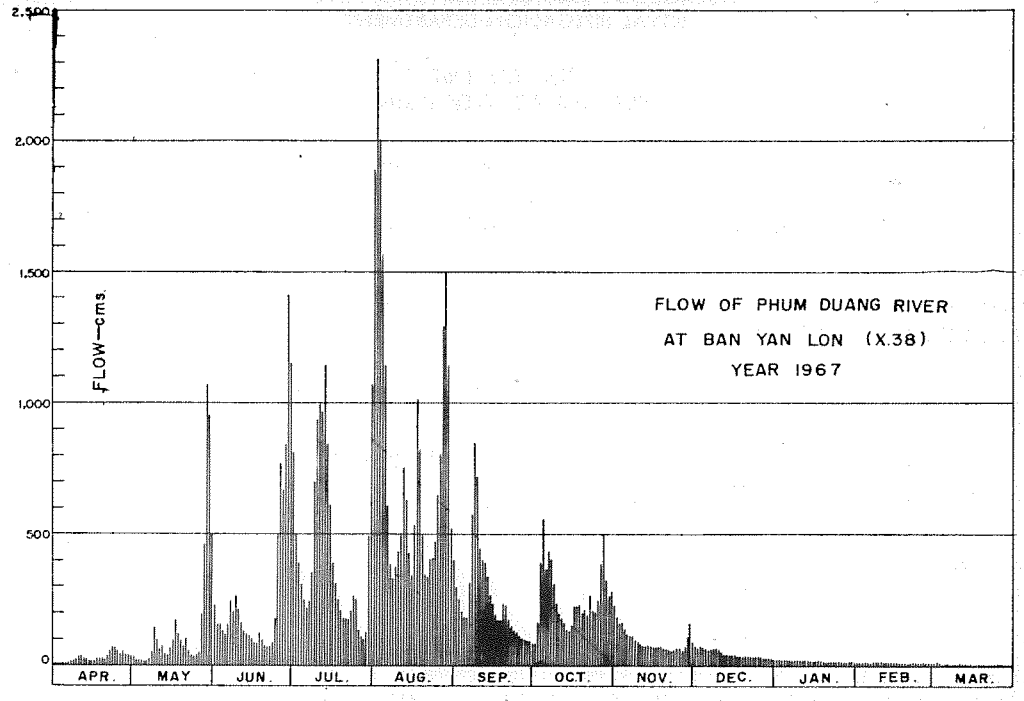
Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage – discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1,1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	4.73	5.08	6.86	10.18	16.41	7.96	5.80	6.93	5.69	5.04	4.84	4.69
2	.73	4.94	.67	9.08	.93	.52	6.29	.69	.69	.04	.84	.68
3	.72	.90	.75	8.26	15.75	.18	8.36	.75	.72	.03	.83	.68
4	.72	.89	.44	7.82	14.32	6.93	9.99	.46	.65	.02	.83	.67
5	.73	.84	.22	.32	12.10	.80	8.35	.35	.56	.01	.82	.67
6	4.71	4.84	6.70	7.01	9.80	7.23	9.10	6.21	5.54	5.00	4.81	4.67
7	.74	.92	7.52	6.86	8.49	9.65	8.98	.22	.61	4.99	.80	.67
8	.84	5.39	6.98	7.97	7.91	11.15	.14	.05	.59	.99	.80	.66
9	.88	6.64	7.76	10.33	8.34	10.13	7.52	5.96	.50	5.00	.80	.66
10	5.07	.11	.26	11.77	.79	9.04	.29	.88	.44	.01	.79	.66
11	5.12	5.63	6.70	12.08	9.14	8.82	6.91	5.84	5.38	4.99	4.78	4.65
12	4.91	.90	.37	11.84	10.73	.89	.73	.80	.34	.98	.78	.65
13	.92	.54	.15	12.76	9.95	.29	.51	.85	.33	.97	.78	.65
14	.83	.51	.09	11.55	8.69	7.81	.46	.85	.30	.96	.77	.64
15	.79	.81	5.93	9.78	.02	.44	.57	.76	.27	.94	.76	.64
16	4.85	5.93	5.77	8.55	9.29	7.10	7.33	5.76	5.26	4.93	4.76	4.63
17	.96	6.76	.77	7.91	12.53	6.90	.34	.86	.24	.92	.75	.63
18	.92	.18	6.20	.57	11.40	.89	.42	.75	.24	.92	.75	.63
19	.97	5.95	5.83	.18	9.40	7.35	.07	.65	.21	.91	.74	.64
20	.89	.61	.66	6.86	8.39	.34	.24	.62	.19	.90	.73	.64
21	5.22	6.02	5.62	6.87	8.33	6.88	6.82	5.54	5.17	4.90	4.73	4.63
22	.48	5.49	.65	.71	.92	.62	7.71	.50	.16	.89	.72	.63
23	.61	.23	.87	.97	.84	.45	.12	.50	.15	.89	.71	.62
24	.58	.14	6.84	.53	9.43	.32	.17	.64	.15	.89	.71	.62
25	.32	.19	9.67	.32	10.23	.20	.31	.69	.13	.88	.70	.61
26	5.24	5.27	11.37	6.18	9.45	6.12	8.40	5.51	5.11	4.87	4.70	4.60
27	.36	6.48	10.58	.08	13.49	.04	9.47	.46	.10	.86	.70	.60
28	.13	9.35	11.84	5.99	14.08	5.97	8.16	6.00	.09	.86	.69	.60
29	.14	12.99	14.26	6.31	12.02	.96	7.47	.69	.08	.86	.69	.60
30	.19	.07	12.95	9.62	9.74	.86	.86	5.96	.07	.85		.59
31		8.19		14.12	8.61		.33		.06	.84		.58
Mean	5.16	8.91	9.94	10.05	12.42	8.50	7.89	6.19	5.39	4.94	4.76	4.64
Max.	5.61	12.99	14.26	14.12	16.93	11.15	9.99	6.93	5.72	5.04	4.84	4.69
Min.	4.71	4.84	5.62	5.99	7.91	5.86	5.80	5.46	5.06	4.84	4.69	4.58

WATER YEAR 1967 : Max. 16.93 m. Min. 4.58 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1,1967 TO MARCH 31,1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	9.50	32	171	640	2,108	297	79	185	71	25	17	10
2	9.50	24	152	475	2,312	248	123	160	71	25	17	10
3	9.00	22	160	367	1,869	210	341	166	74	24	17	10
4	9.00	21	130	314	1,412	184	561	138	68	24	17	9.50
5	9.50	18	10	256	891	170	340	127	62	23	16	9.50
6	12	18	155	222	503	266	435	114	59	23	16	9.50
7	14	23	242	206	332	584	420	115	64	22	15	9.50
8	19	37	184	332	332	842	315	100	62	22	15	9.50
9	22	141	268	664	385	661	244	92	56	23	15	9.50
10	33	92	214	929	443	427	219	85	51	23	14	9.50
11	36	54	155	991	492	399	179	78	47	22	14	9.00
12	23	74	124	943	744	408	160	74	44	22	14	9.00
13	24	48	121	1,145	613	333	139	78	43	21	14	9.00
14	19	45	115	836	376	276	134	78	41	20	13	8.50
15	17	68	101	539	295	235	145	71	41	19	13	8.50
16	20	92	87	372	454	199	223	71	41	20	13	8.00
17	26	170	87	295	1,011	177	224	79	39	20	12	8.00
18	24	114	125	256	789	176	233	71	39	20	12	8.00
19	27	94	92	214	469	231	195	63	37	19	12	8.50
20	22	66	78	180	339	230	214	66	36	19	11	8.50
21	43	100	74	181	332	181	169	60	35	19	11	8.00
22	60	57	77	177	405	154	265	57	34	18	12	8.00
23	70	43	88	205	395	138	201	57	33	18	11	8.50
24	68	37	171	266	474	125	206	68	33	18	11	8.50
25	48	40	503	243	646	114	226	73	32	18	11	8.00
26	43	45	764	125	526	107	351	58	31	17	11	7.50
27	51	148	629	116	1,323	100	492	54	30	17	11	7.50
28	35	488	850	108	1,490	95	322	97	30	17	10	7.50
29	36	1,067	1,409	138	923	93	243	162	27	17	10	7.50
30	39	875	1,080	534	529	84	287	94	27	16		7.00
31		319		1.469	376		228		26	16		6.50
Total	877.50	4,472	8,516	13,738	23,925	7,744	7,913	2,791	1,384	627	385	266.00
Mean	29.2	144	284	443	772	258	255	93.0	44.6	20.2	13.3	8.58
Max.	70	1,067	1,409	1,469	2,312	842	561	185	74	25	17	10
Min.	9.00	18	74	108	295	84	79	54	26	16	10	6.50
Runoff — mcm.	75.816	386.381	735.782	1,186.963	2,038.003	669.082	683.683	241.142	119.578	54.173	33.264	22.982

WATER YEAR 1967 : Max. 2,312 Min. 6.50 Mean 198 Annual Runoff 6,275.966 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Aug.2	07.00	17.14	2,399				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
PHUM DUANG RIVER BASIN

Khlong Saeng at Ban Khao Phang, Surat Thani (X.39)

Location: Lat 8° - 57' - 07" N, Long 98° - 48' - 53" E, at Ban Khao Phang, Amphoe Khiri Rathanikhom, Surat Thani.

Drainage Area: 1,437 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: +8.550 m. (M.S.L.)

Bench Mark:

Location:
Elevation:

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: 1969 to date
Rated by Float: -
Rated by Current Meter: 1964 to date

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

Overbank Flow Conditions: No overbank flow.

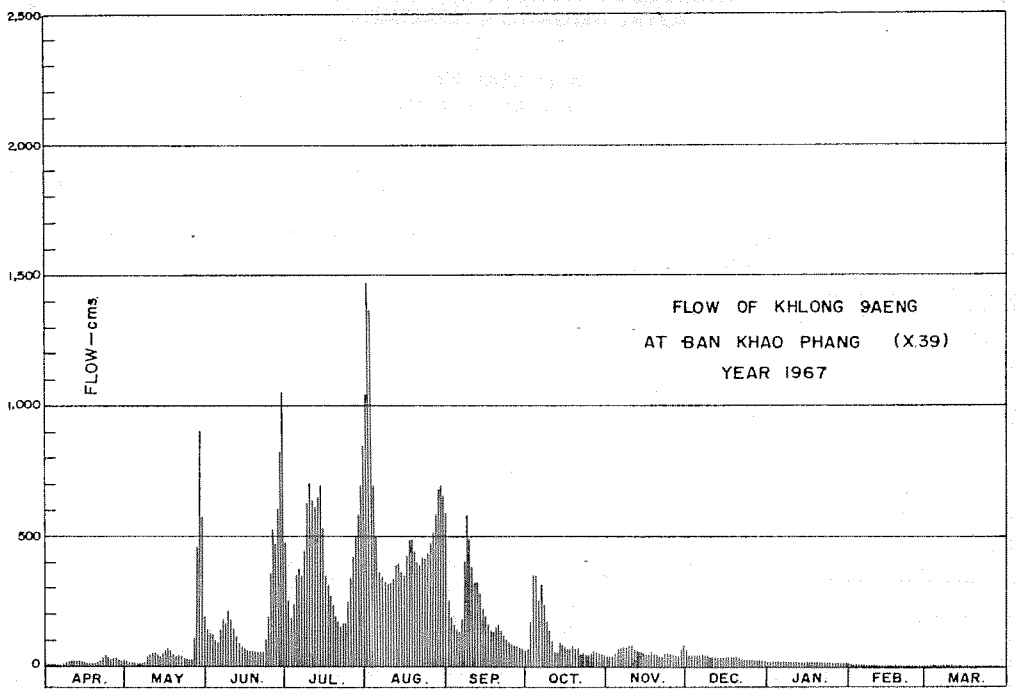
General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made during 1969 - 71. No upstream state diversions.

Remarks: Gage - Height record for period Sep. 1 - 30, Jan. 1 - 31 obtained by correlation with X.38 about 10 kilometers downstream.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	9.02	9.29	10.94	12.52	19.67	11.88	10.07	9.69	9.81	9.36	9.14	9.03
2	.03	.26	.94	.07	.07	.53	.68	.80	.82	.35	.13	.03
3	.01	.17	.92	11.36	15.50	.22	12.95	.97	.83	.34	.12	.03
4	.02	.24	.59	.89	14.27	.01	.96	10.22	.81	.33	.11	.02
5	.03	.16	.51	12.95	13.13	10.89	11.63	.27	.77	.32	.10	.01
6	9.05	9.21	11.14	13.13	12.93	11.27	12.66	10.21	9.83	9.31	9.10	9.01
7	.09	.29	.44	12.75	.83	13.34	.27	.21	.80	.31	.09	.00
8	.13	.45	.18	13.52	.68	14.62	11.39	.31	.79	.31	.07	.00
9	.24	.81	.79	15.00	.59	13.75	.03	.34	.68	.32	.06	8.99
10	.33	.77	.25	.44	.69	12.81	10.71	.13	.72	.33	.07	.99
11	9.43	9.94	10.85	15.19	12.75	12.64	9.93	10.00	9.66	9.31	9.09	8.98
12	.38	.94	.67	14.73	13.27	.70	.92	9.93	.71	.30	.08	.98
13	.32	.75	.46	15.04	.31	.18	10.51	10.00	.72	.30	.08	.97
14	.26	.74	.30	.36	.09	11.76	.43	9.88	.67	.29	.07	.97
15	.21	.98	.18	13.85	12.86	.46	.27	.82	.70	.27	.06	.97
16	9.21	10.21	10.08	12.93	13.14	11.15	10.18	9.90	9.73	9.26	9.07	8.96
17	.23	.23	.06	.65	.95	10.98	.16	.94	.69	.26	.08	.96
18	.21	.05	.06	.32	.96	.97	.20	.88	.67	.26	.07	.97
19	.17	9.79	9.97	11.96	.55	11.19	.11	.79	.71	.25	.07	.97
20	.14	.69	.91	.59	.27	.19	.22	.71	.69	.24	.05	.98
21	9.45	9.80	9.91	11.31	13.27	10.96	9.85	9.81	9.49	9.24	9.06	8.98
22	.70	.72	10.05	.09	.48	.74	10.02	.90	.45	.23	.05	.97
23	.81	.67	.22	.25	.43	.59	9.77	.90	.47	.23	.04	.97
24	.62	.61	11.54	.29	.55	.47	.80	.84	.52	.23	.03	.98
25	.48	.52	12.93	.93	.85	.35	.94	.82	.52	.22	.03	.98
26	9.51	9.73	14.25	12.96	14.18	10.29	10.08	9.75	9.51	9.22	9.02	8.97
27	.59	10.99	13.65	13.65	.66	.23	9.96	.69	.50	.21	.02	.97
28	.46	13.99	15.53	14.35	15.29	.18	.89	10.06	.47	.21	.01	.96
29	.35	16.66	17.53	15.07	.36	.17	.87	.43	.47	.21	.02	.96
30	.52	13.67	14.75	16.07	.03	.09	.70	.19	.42	.20		.96
31		11.40		17.41	14.67		.78		.38	.19		.98
Mean	9.30	10.25	11.45	13.31	14.04	11.35	10.55	9.98	9.64	9.27	9.06	8.98
Max.	9.81	16.66	17.53	17.41	19.67	14.62	12.96	10.43	9.83	9.36	9.14	9.03
Min.	9.01	9.16	9.91	11.09	12.59	10.09	9.70	9.69	9.38	9.19	9.01	8.96

WATER YEAR 1967 : Max. 19.67 m. Min. 8.96 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	6.60	17	131	301	1,472	228	61	36	44	19	11	6.90
2	6.90	15	131	249	1,347	190	107	43	44	19	10	6.90
3	6.30	12	129	173	711	159	353	54	45	19	9.80	6.90
4	6.60	15	99	229	528	138	354	71	44	18	9.40	6.60
5	6.90	11	93	353	375	126	200	75	41	18	9.00	6.30
6	7.50	13	151	375	351	164	318	71	45	17	9.00	6.30
7	8.70	17	181	329	339	403	271	71	43	17	8.70	6.00
8	10	23	155	426	321	579	176	78	42	17	8.10	6.00
9	15	44	218	636	310	456	140	80	36	18	7.80	5.78
10	18	41	162	702	322	336	110	65	38	18	8.10	5.78
11	22	52	122	664	329	316	51	56	35	17	8.70	5.56
12	20	52	106	595	393	323	51	51	38	17	8.40	5.56
13	18	40	89	690	398	261	93	56	38	17	8.40	5.34
14	15	39	77	470	370	215	87	48	35	17	8.10	5.34
15	13	55	69	351	342	183	75	44	37	16	7.80	5.34
16	13	71	62	317	376	153	69	49	39	15	8.10	5.12
17	14	72	60	277	483	135	67	52	36	15	8.40	5.12
18	13	59	60	237	485	134	70	48	35	15	8.10	5.34
19	12	42	54	196	429	156	64	42	38	15	8.10	5.34
20	11	36	50	168	393	156	71	38	36	15	7.50	5.56
21	23	43	50	168	393	133	46	44	25	15	7.80	5.56
22	37	38	59	146	420	113	57	49	23	14	7.50	5.34
23	44	35	71	162	414	99	41	49	24	14	7.20	5.34
24	33	32	191	166	429	90	43	46	27	14	6.90	5.56
25	25	27	351	233	470	81	52	44	27	14	6.90	5.56
26	26	39	525	354	515	76	62	40	26	14	6.60	5.34
27	31	136	443	443	585	72	53	36	26	13	6.60	5.34
28	24	489	716	539	679	69	49	60	24	13	6.30	5.12
29	19	900	1,053	646	690	68	47	87	24	13	6.60	5.12
30	22	445	598	801	640	62	37	69	22	13		5.12
31		177		1,032	586		42		20	13		5.56
Total	532.50	3,087	6,256	12,902	15,895	5,673	3,317	1,652	1,057	489	234.90	176.04
Mean	17.7	99.6	208	416	513	189	107	55.1	34.1	15.8	8.10	5.68
Max.	44	900	1,053	1,032	1,472	579	354	87	45	19	11	6.90
Min.	6.30	11	50	146	310	62	37	36	20	13	6.30	5.12
Runoff - mcm.	46.008	266.717	540.518	1,114.733	1,373.328	490.147	286.589	142.733	91.325	42.250	20.295	15.210

WATER YEAR 1967 : Max. 1,472 Min. 5.12 Mean 140 Annual Runoff 4,429.852 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Aug.1	18.00	19.79	1,499				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
PATTANI RIVER BASIN

Pattani River at Muang Yala (X.40)

Location: Lat 6° – 35' – 00" N, Long 101° – 20' – 00" E, on right bank 500 meters downstream from state railway bridge at Ban Streng Nok, Amphoe Muang, Yala.

Drainage Area: 3,295 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: +9.60 m. (M.S.L.)

Bench Mark: B.M. – H.S.

Location: On right bank near the gage site.
Elevation: B.M.1 +14.009 m. (M.S.L.) and B.M.2 +14.240 m. (M.S.L.)

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 Float: –
Rated by Current Meter: 1964 to date

Stability of Channel Regimes: Unstable, shifting adjustment is included for flow computation.

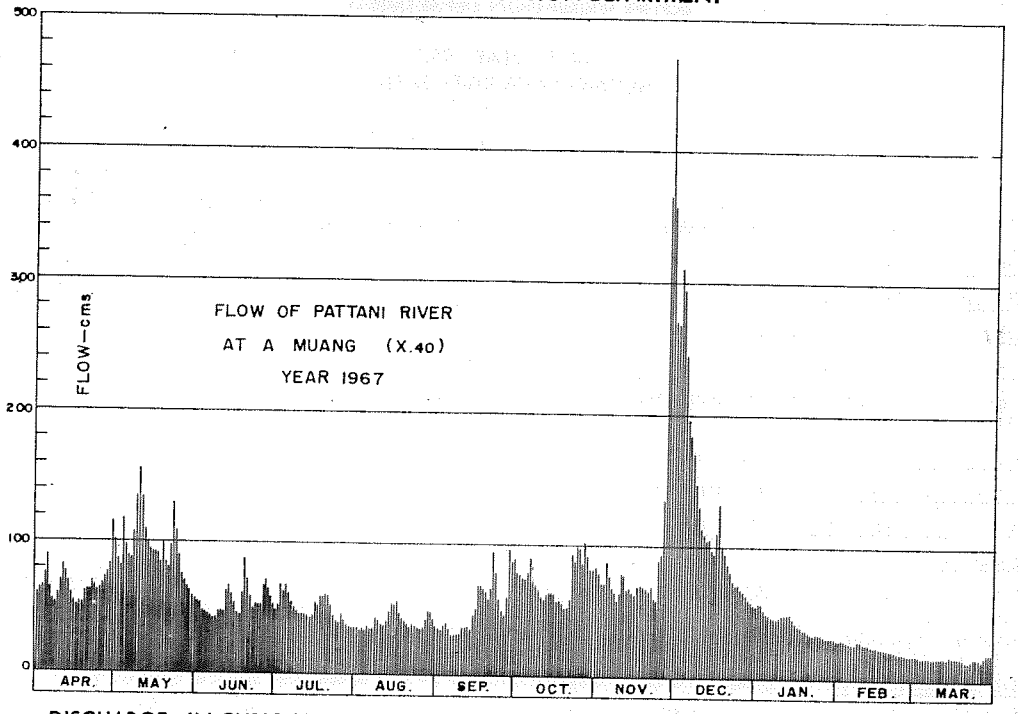
Overbank Flow Conditions: Overbank flow was observed and included for flow computation.

General Description: Records good. Stage – discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	11.27	11.58	11.12	11.04	10.88	10.82	11.39	11.33	13.58	11.15	10.70	10.48
2	.32	.49	.11	.09	.86	.80	.38	.29	.90	.13	.72	.47
3	.34	.42	.09	.29	.87	.87	.32	.30	.65	.08	.70	.47
4	.47	.88	.08	.21	.86	.90	.33	.51	.12	.04	.70	.47
5	.65	.54	.05	.28	.83	.81	.40	.35	12.82	.02	.68	.45
6	11.34	11.44	11.03	11.14	10.82	10.77	11.52	11.27	12.72	11.00	10.66	10.44
7	.26	.50	.01	.10	.84	.76	.42	.20	.59	10.99	.65	.44
8	.23	.73	.02	.05	.95	.76	.27	.12	.31	.99	.71	.43
9	.31	12.00	.01	.02	.90	.76	.22	.20	.08	.99	.70	.43
10	.44	.30	10.98	10.99	.85	.83	.14	.42	11.95	11.04	.66	.43
11	11.47	11.99	10.98	10.99	10.86	10.82	11.10	11.36	11.89	11.04	10.64	10.44
12	.43	.86	11.19	.98	.89	.85	.15	.23	.84	.04	.63	.44
13	.30	.66	.24	.96	11.04	.81	.22	.25	.86	.04	.62	.46
14	.23	.55	.22	.94	.10	.90	.20	.20	.72	10.97	.61	.47
15	.19	.54	.17	.95	.08	.99	.11	.22	.73	.92	.60	.46
16	11.16	11.60	11.07	11.08	11.11	11.23	11.04	11.30	11.94	10.90	10.59	10.47
17	.18	.59	.02	.06	.00	.23	.07	.31	12.16	.88	.57	.46
18	.18	.47	.15	.14	10.95	.19	.04	.30	11.90	.86	.56	.43
19	.29	.70	.63	.15	.92	.16	.00	.26	.72	.85	.56	.43
20	.30	.49	.39	.16	.88	.10	.01	.22	.61	.83	.55	.39
21	11.29	11.48	11.25	11.14	10.87	11.28	11.10	11.32	11.52	10.82	10.55	10.39
22	.42	.63	.14	.02	.88	.56	.52	.14	.44	.81	.54	.40
23	.37	12.07	.10	10.98	.85	.23	.44	.16	.39	.80	.53	.45
24	.29	11.71	.10	.94	.83	.05	.65	.57	.35	.79	.53	.44
25	.30	.50	.08	.95	.82	10.95	.62	.62	.29	.78	.52	.43
26	11.37	11.41	11.14	11.05	10.81	10.90	11.44	12.27	11.25	10.76	10.50	10.40
27	.45	.33	.38	10.96	.92	11.12	.70	14.04	.21	.75	.49	.41
28	.38	.27	.27	.91	11.04	.62	.50	.80	.19	.74	.49	.53
29	.48	.22	.16	.89	.00	.47	.43	.09	.16	.74	.49	.51
30	.86	.18	.10	.88	10.90	.51	.44	13.60	.13	.75		.52
31		.14		.88	.85		.45		.13	.72		.50
Mean	11.35	11.59	11.14	11.04	10.91	11.03	11.31	11.70	11.97	10.94	10.60	10.45
Max.	11.86	12.30	11.63	11.29	11.11	11.62	11.70	14.80	13.90	11.15	10.72	10.53
Min.	11.16	11.14	10.98	10.88	10.81	10.76	11.00	11.12	11.13	10.72	10.49	10.39

WATER YEAR 1967 : Max. 14.80 m. Min. 10.39 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	60	93	56	49	36	35	79	74	267	58	29	18
2	64	86	55	53	34	33	78	69	310	56	30	17
3	66	80	48	68	35	38	74	70	285	52	29	17
4	74	118	47	63	34	40	74	86	221	49	29	17
5	89	91	45	68	36	34	80	73	191	48	28	17
6	63	83	44	57	35	31	90	68	182	47	27	16
7	56	88	43	54	36	31	82	63	169	46	27	16
8	54	105	43	50	44	31	70	56	143	46	30	16
9	60	128	49	48	40	31	67	63	124	46	29	16
10	79	155	48	46	37	36	61	78	113	49	27	16
11	82	127	48	46	38	35	58	74	108	49	26	16
12	78	116	64	46	40	37	62	65	104	49	26	16
13	69	100	67	45	49	34	67	67	105	49	25	17
14	58	92	57	43	54	44	66	63	95	45	24	18
15	55	91	53	46	52	49	61	64	96	42	24	17
16	52	92	46	55	55	68	56	70	112	40	23	18
17	54	91	43	53	47	68	58	70	131	39	22	17
18	54	82	52	60	44	65	56	70	109	38	22	16
19	63	99	88	60	42	63	52	67	95	37	22	16
20	64	83	70	61	39	58	53	64	86	36	21	14
21	63	82	60	60	37	71	60	70	79	35	21	14
22	71	94	51	50	39	93	92	58	73	34	21	14
23	68	130	48	43	37	68	82	60	70	35	20	17
24	63	100	54	40	36	54	99	90	72	35	20	16
25	64	84	52	40	35	47	96	94	69	34	20	16
26	68	77	57	47	34	44	82	148	66	33	19	14
27	74	71	74	41	42	60	102	354	62	32	18	15
28	77	67	67	38	49	97	87	471	61	32	18	20
29	85	64	59	36	47	86	82	336	59	32	18	19
30	115	60	54	36	40	89	82	270	56	31	–	20
31	–	57	–	36	37	–	83	–	56	30	–	19
Total	2,042	2,886	1,642	1,538	1,260	1,570	2,291	3,325	3,769	1,284	695	515
Mean	68.1	93	54.7	49.6	40.6	52.3	73.9	110	122	41.4	24.0	16.6
Max.	115	155	88	68	55	97	102	471	310	58	30	20
Min.	52	57	43	36	34	31	52	56	56	30	18	14
Runoff – mcm.	176.429	249.350	141.869	132.883	108.864	135.648	197.942	287.280	325.642	110.938	60.048	44.496

WATER YEAR 1967 : Max. 471 Min. 14 Mean 62.3 Annual Runoff 1,971.389 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Nov.28	17.00	14.87	486				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
KHLONG YAHA RIVER BASIN

Khlong Yaha at Ban La Ae, Yala (X.72)

Location: Lat 6°- 28' - 21" N, Long 101°- 10' - 03" E, on right bank about 4 kilometers from Amphoe Yaha and about 3 kilometers downstream from confluence with Khlong Ba Tae, at Ban La Ae, Amphoe Yaha, Yala.

Drainage Area: 358 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: 0.00 m. (A.D.)

Bench Mark: B.M. - H.S.

Location: On right bank near measuring line.
Elevation: +50.00 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: 1967 to date.

Rating Operation:

Period of Rating: 1967 - 69
Rated by Float: -
Rated by Current Meter: 1967 - 69

Stability of Channel Regimes: Unstable, shifting adjustment is included for flow computation.

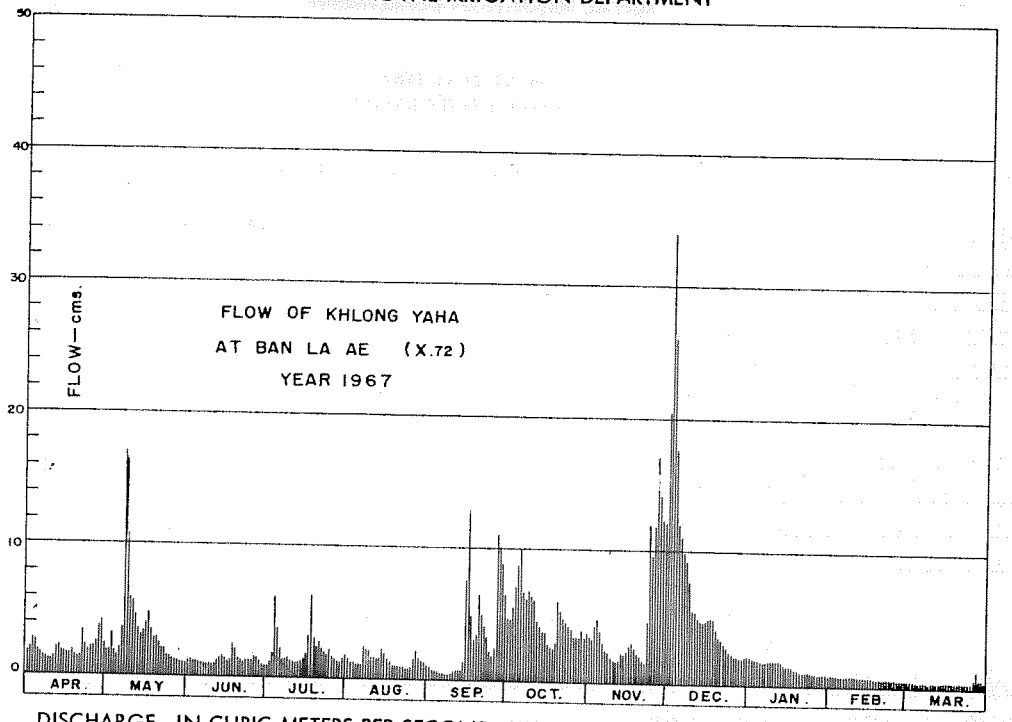
Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions except those built by local residents. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (A.D.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	1.49	1.53	1.37	1.28	1.39	1.28	1.92	1.76	3.23	1.67	1.33	1.21
2	.51	.47	.37	.36	.35	.25	.76	.71	.90	.64	.33	.21
3	.65	.73	.35	.34	.35	.25	.96	.87	.33	.63	.32	.20
4	.65	.55	.35	2.06	.32	.23	2.17	.94	2.92	.62	.32	.19
5	.53	.44	.33	1.69	.32	.22	.40	.82	.74	.59	.31	.18
6	1.48	1.55	1.32	1.52	1.30	1.21	2.47	1.69	2.63	1.58	1.31	1.18
7	.44	.76	.31	.37	.58	.20	.03	.60	.52	.56	.31	.17
8	.42	3.02	.31	.39	.51	.20	1.97	.56	.36	.59	.34	.17
9	.41	2.63	.30	.41	.51	.21	2.04	.50	.18	.59	.32	.17
10	.41	.09	.30	.37	.42	.23	.00	.47	.10	.58	.30	.17
11	1.43	2.05	1.30	1.35	1.39	1.25	1.98	1.44	2.09	1.58	1.30	1.17
12	.55	1.89	.37	.35	.38	.26	.93	.42	.07	.59	.30	.17
13	.59	.76	.40	.33	.38	.25	.86	.57	.05	.56	.29	.17
14	.54	.68	.44	.37	.53	.40	.80	.55	.03	.52	.28	.17
15	.51	.75	.39	.38	.48	2.13	.78	.59	.05	.50	.28	.17
16	1.49	1.83	1.35	1.48	1.42	2.77	1.67	1.66	2.08	1.48	1.29	1.17
17	.47	.94	.35	.45	.36	1.91	.63	.66	.07	.47	.27	.16
18	.53	.76	.60	2.08	.32	.66	.59	.61	.08	.43	.25	.16
19	.47	.64	.47	1.67	.32	.60	.63	.58	1.99	.42	.25	.15
20	.45	.70	.40	.67	.31	2.09	2.06	.55	.90	.40	.25	.15
21	1.42	1.65	1.36	1.58	1.30	1.92	1.96	1.49	1.85	1.39	1.25	1.15
22	.73	.56	.32	.50	.30	.81	.90	.45	.81	.39	.25	.15
23	.54	.54	.37	.45	.28	.74	.87	.69	.76	.39	.24	.17
24	.50	.51	.37	.41	.25	.51	.83	2.52	.72	.38	.23	.16
25	.55	.50	.33	.49	.28	.47	.77	.27	.69	.36	.23	.15
26	1.56	1.47	1.40	1.40	1.39	1.43	1.72	2.59	1.66	1.35	1.22	1.19
27	.49	.45	.40	.35	.52	2.63	.71	.91	.66	.35	.22	.43
28	.77	.44	.35	.36	.42	.58	.70	.67	.64	.35	.22	.32
29	.87	.43	.32	.34	.37	.37	.81	.61	.64	.35	.21	.27
30	.58	.42	.29	.40	.34	.10	.74	.47	.65	.33		.24
31		.41		.45	.31		.80		.67	.33		.22
Mean	1.53	1.71	1.36	1.47	1.38	1.64	1.88	1.84	2.16	1.48	1.28	1.19
Max.	1.87	3.02	1.60	2.08	1.58	2.77	2.47	2.91	3.90	1.67	1.34	1.43
Min.	1.41	1.41	1.29	1.28	1.25	1.20	1.59	1.42	1.64	1.33	1.21	1.15

WATER YEAR 1967 : Max. 3.90 m. Min. 1.15 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	1.85	2.06	1.35	0.90	1.50	1.00	4.70	3.52	21	2.12	0.75	0.39
2	1.95	1.75	1.35	1.30	1.30	0.87	4.02	3.17	34	1.95	0.75	0.39
3	2.77	3.31	1.25	1.20	1.30	0.69	5.62	4.32	23	1.90	0.72	0.36
4	2.77	2.17	1.25	6.07	1.15	0.63	7.60	4.86	16	1.85	0.72	0.33
5	1.90	1.60	1.15	3.17	1.15	0.60	9.20	3.95	12	1.70	0.69	0.30
6	1.65	2.17	1.10	2.12	1.05	0.57	9.97	3.03	11	1.65	0.69	0.30
7	1.45	3.52	1.05	1.35	2.51	0.54	6.72	2.45	9.97	1.65	0.69	0.28
8	1.35	17	1.05	1.45	2.21	0.54	6.16	2.23	9.20	1.80	0.78	0.28
9	1.30	12	1.00	1.55	2.21	0.57	6.82	1.90	7.40	1.80	0.72	0.28
10	1.30	6.16	1.00	1.35	1.65	0.63	6.44	1.75	5.44	1.75	0.66	0.28
11	1.40	5.80	1.00	1.25	1.65	0.84	6.25	1.60	5.35	1.75	0.66	0.28
12	2.01	4.47	1.35	1.25	1.60	0.87	4.78	1.50	4.86	1.80	0.66	0.28
13	2.23	3.52	1.50	1.15	1.60	0.84	4.24	2.28	4.70	1.65	0.63	0.28
14	1.95	2.97	1.70	1.35	2.39	1.55	3.80	2.17	4.54	1.45	0.60	0.28
15	1.80	3.45	1.45	1.40	1.90	5.89	3.66	2.39	4.70	1.35	0.60	0.28
16	1.70	4.02	1.25	1.90	1.60	13	2.90	2.84	4.94	1.40	0.63	0.28
17	1.60	4.86	1.25	1.75	1.30	4.62	2.64	3.03	4.86	1.35	0.57	0.26
18	1.90	3.52	2.58	6.25	1.10	3.10	2.39	2.71	4.94	1.15	0.51	0.26
19	1.60	2.71	1.85	3.03	1.10	2.71	2.84	2.17	4.24	1.10	0.51	0.24
20	1.50	3.10	1.50	3.28	1.05	6.53	6.16	2.01	3.59	1.00	0.51	0.24
21	1.35	2.77	1.30	2.77	1.00	5.03	5.27	1.70	3.24	0.95	0.51	0.24
22	3.45	2.23	1.10	2.28	1.00	4.17	4.78	1.50	2.97	0.95	0.51	0.24
23	2.23	2.12	1.35	2.01	0.90	3.66	4.54	3.95	2.64	0.95	0.48	0.28
24	1.90	1.60	1.35	1.80	0.81	2.17	4.24	12	2.39	0.90	0.45	0.26
25	2.17	1.55	1.15	2.23	0.90	1.95	3.80	9.20	2.23	0.84	0.45	0.24
26	2.23	1.40	1.50	1.75	1.55	1.20	3.45	13	2.06	0.81	0.42	0.33
27	1.85	1.30	1.50	1.50	2.23	11	3.38	17	2.06	0.81	0.42	1.15
28	3.59	1.25	1.25	1.35	1.70	10	3.31	14	1.95	0.81	0.42	0.57
29	4.32	1.20	1.10	1.25	1.45	8.60	3.87	12	1.95	0.81	0.39	0.42
30	2.34	1.15	0.95	1.55	1.30	5.98	3.38	10	2.01	0.75	–	0.33
31	–	1.10	–	1.80	1.15	–	3.80	–	2.12	0.75	–	0.28
Total	61.41	107.83	39.53	63.46	45.31	100.35	150.73	148.23	221.35	41.50	17.10	10.21
Mean	2.05	3.48	1.32	2.05	1.46	3.34	3.41	9.94	7.14	1.34	0.589	0.329
Max.	4.32	17	2.58	6.25	2.51	13	9.97	17	34	2.12	0.78	1.15
Min.	1.30	1.10	0.95	0.90	0.81	0.54	2.39	1.50	1.95	0.75	0.39	0.24
Runoff – mcm.	5.306	9.316	3.415	5.483	3.915	8.670	13.023	12.807	19.125	3.586	1.477	0.882

WATER YEAR 1967 : Max. 34 Min. 0.24 Mean 2.75 Annual Runoff 87.006 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Dec.2	01.00	4.00	36				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
PATTANI RIVER BASIN

Pattani River at Bang Rang Damsite, Pattani (X.78)

Location: Lat 6°- 09' - 16" N, Long 101°- 16' - 34" E, on left bank at Bang Rang Damsite, Tambon Ba Chao, Amphoe Bannang Sata, Yala.

Drainage Area: 2,026 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: +43.900 m. (M.S.L.)

Bench Mark: B.M. - H.S.

Location: In the fence of Meteorological station.
Elevation: +59.599 m. (M.S.L.)

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 - 73

Rating Operation:

Period of Rating: 1967
Rated by Float: -
Rated by Current Meter: 1967

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions.

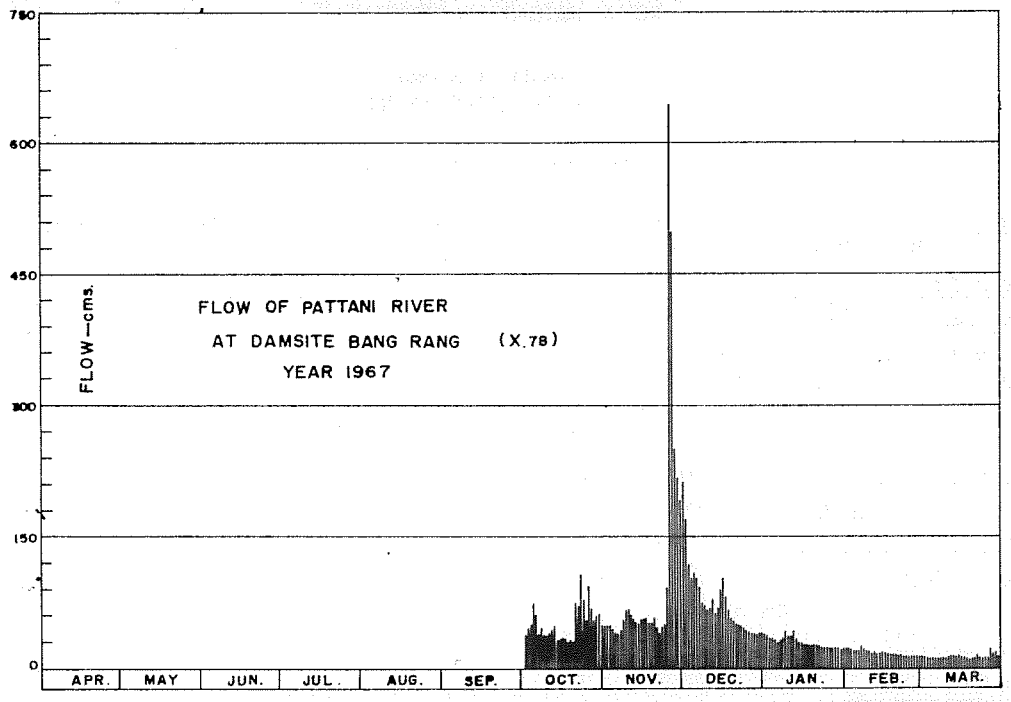
Remarks: Gage height record began on Aug. 28, 1967.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1						44.61	45.13	45.11	46.57	44.85	44.52	44.34
2						.83	44.93	.09	.07	.79	.50	.33
3						.80	45.05	.14	45.89	.77	.51	.32
4						.63	.06	.09	.73	.75	.48	.32
5						.61	.32	.04	.73	.73	.47	.31
6						44.61	45.20	45.02	45.71	44.72	44.46	44.31
7						.59	.00	44.92	.56	.72	.61	.30
8						.61	.02	45.09	.38	.74	.52	.30
9						.79	44.91	.54	.30	.86	.47	.31
10						.66	.88	.32	.24	.76	.45	.32
11						44.78	44.92	45.13	45.25	44.79	44.44	44.33
12						.67	.96	.14	.50	.83	.43	.36
13						.86	45.02	.02	.24	.72	.42	.33
14						.72	44.87	44.97	.31	.68	.39	.34
15						.85	.86	45.09	.57	.66	.42	.37
16						45.17	44.94	45.15	45.73	44.65	44.41	44.34
17						.25	.83	.23	.42	.65	.41	.31
18						44.98	.74	.10	.24	.62	.40	.30
19						.88	.79	.06	.15	.61	.40	.29
20						45.01	.83	.28	.08	.60	.39	.29
21						45.66	45.47	44.93	45.03	44.58	44.38	44.31
22						.01	.19	.84	.01	.58	.37	.38
23						44.81	.54	45.00	.01	.57	.37	.31
24						.72	.46	44.99	44.94	.56	.35	.30
25						.68	.06	45.43	.90	.55	.35	.29
26						44.87	45.61	48.50	44.88	44.53	44.35	44.28
27						45.02	.33	47.03	.85	.53	.35	.60
28					44.85	.69	.19	46.27	.84	.52	.34	.40
29					.71	.24	.31	.58	.84	.51	.34	.45
30					.65	.05	.36	.33	.83	.51		.35
31					.65		.14		.86	.53		.40
Mean						44.89	45.09	45.41	45.34	44.66	44.42	44.34
Max.						45.69	45.61	48.50	46.57	44.86	44.61	44.60
Min.						44.61	44.74	44.92	44.83	44.51	44.34	44.28

WATER YEAR 1967 : Max. 48.50 m. Min. 44.28 m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1,1967 TO MARCH 31,1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1						20	57	52	212	35	17	8.60
2						32	42	50	148	31	16	8.20
3						30	51	54	128	30	16	7.80
4						21	52	50	112	29	15	7.80
5						20	74	46	112	28	14	7.40
6						20	63	45	110	27	14	7.40
7						19	47	38	95	27	21	7.00
8						20	48	50	78	28	17	7.00
9						30	40	89	71	36	14	7.40
10						22	35	69	66	30	13	7.80
11						29	38	61	66	31	13	8.20
12						23	40	62	89	34	12	9.40
13						34	45	52	66	27	12	8.20
14						25	34	48	72	25	11	8.60
15						33	33	58	96	24	12	9.80
16						57	43	63	112	23	11	8.60
17						64	35	70	82	23	11	7.40
18						42	30	50	66	22	11	7.00
19						30	28	47	58	21	11	6.70
20						38	31	75	52	21	11	6.70
21						93	82	45	48	20	10	7.40
22						38	57	39	47	20	9.80	10
23						35	79	51	47	19	9.80	7.40
24						30	72	48	42	19	9.00	7.00
25						27	40	86	39	18	9.00	6.70
26						35	85	636	38	17	9.00	6.40
27						45	69	289	35	17	9.00	21
28					33	105	52	177	35	17	8.60	11
29					25	63	62	219	35	16	8.60	13
30					22	48	66	185	34	16	–	9.00
31					22	–	54	–	36	17	–	11
Total						1,128	1,584	2,904	2,327	748	354.80	266.90
Mean						37.6	51.1	96.8	75.1	24.1	12.2	8.61
Max.						105	85	636	212	36	21	21
Min.						20	28	38	34	16	8.60	6.40
Runoff – mcm.						97.459	136.858	250.906	201.053	64.627	30.655	23.060

WATER YEAR 1967 : Max. 636 Min. 6.40 Mean Annual Runoff mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Nov.26	08.00	49.03	812				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
PATTANI RIVER BASIN

Pattani River at Ban Bang Rang, Yala (X.78A)

Location: Lat 6°- 09' - 52" N, Long 101°- 16' - 19" E, on left bank about 2 kilometers downstream from Bang Rang Damsite, at Ban Bang Rang, Tambon Ba Jao, Amphoe Bannang Sata, Yala.

Drainage Area: 2,044 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: +42.403 m. (M.S.L.)

Bench Mark: B.M. - M.S.

Location: On left bank about 6 meters from upper gage.
Elevation: +53.132 m. (M.S.L.)

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 Float: -
Rated by Current Meter: 1967 to date

Stability of Channel Regimes: Unstable, shifting adjustment is included for flow computation.

Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions except those built by local residents. No adjustment made for virgin flow.

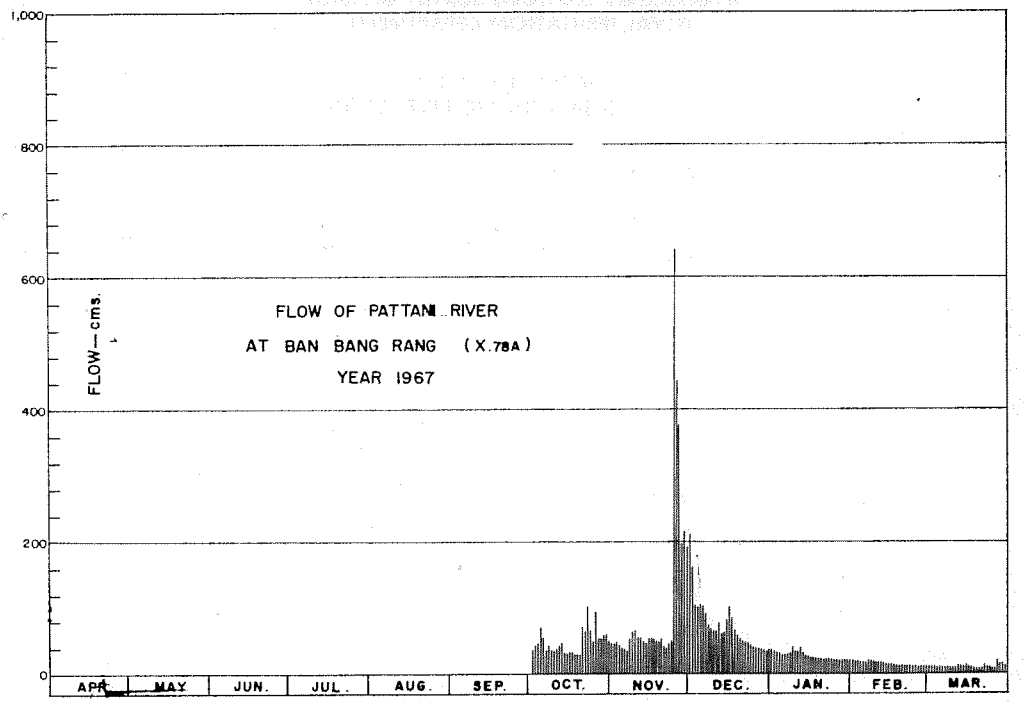
Remarks: Gage height record began on Oct. 2, 1967.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1								43.77	44.98	43.62	43.40	43.23
2							43.59	.76	.60	.58	.38	.22
3							.69	.79	.39	.57	.38	.22
4							.72	.73	.28	.54	.37	.21
5							.99	.68	.31	.53	.36	.20
6							43.78	43.67	44.30	43.52	43.35	43.20
7							.56	.62	.15	.53	.43	.20
8							.69	.86	.02	.55	.40	.19
9							.60	.96	43.98	.65	.36	.19
10							.58	.88	.94	.58	.35	.19
11							43.62	43.78	43.94	43.59	43.33	43.22
12							.67	.76	44.05	.65	.33	.26
13							.73	.70	43.87	.54	.32	.23
14							.52	.67	.93	.50	.32	.23
15							.54	.75	44.13	.49	.31	.25
16							43.57	43.76	44.27	43.48	43.31	43.22
17							.54	.75	.07	.47	.30	.20
18							.49	.75	43.93	.46	.29	.18
19							.53	.72	.86	.45	.29	.17
20							.50	.81	.81	.44	.28	.16
21							43.99	43.66	43.78	43.43	43.28	43.19
22							.86	.59	.75	.43	.27	.26
23							44.34	.70	.74	.42	.26	.21
24							43.98	.74	.70	.41	.25	.19
25							.67	44.19	.67	.41	.25	.18
26							44.23	46.65	43.65	43.40	43.24	43.16
27							43.87	45.64	.64	.40	.24	.37
28							.86	44.78	.63	.39	.24	.29
29							.90	45.01	.62	.39	.23	.31
30							.94	44.82	.60	.38		.22
31							.77		.64	.39		.26
Mean								44.03	43.97	43.49	43.31	43.22
Max.								46.65	44.98	43.65	43.43	43.37
Min.								43.59	43.60	43.38	43.23	43.16

WATER YEAR 1967 : Max. 46.65 m. Min. 43.16 m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1								48	212	39	23	14
2							38	47	144	36	22	13
3							46	50	105	35	22	13
4							48	45	104	33	21	12
5							73	41	108	32	21	12
6							53	40	106	31	20	12
7							35	35	90	32	25	12
8							46	56	75	34	23	11
9							38	65	71	42	21	11
10							37	68	67	36	20	11
11							40	58	67	37	19	13
12							44	56	79	42	19	15
13							49	51	60	33	18	14
14							32	49	66	30	18	14
15							34	56	88	29	18	15
16							36	56	103	28	18	13
17							34	56	81	27	17	12
18							30	52	66	27	17	11
19							33	50	59	26	17	10
20							30	57	55	26	16	10
21							73	45	52	25	16	11
22							60	39	50	25	15	15
23							106	48	49	24	15	12
24							67	51	46	24	14	11
25							40	97	43	24	14	11
26							94	642	42	23	14	10
27							56	338	41	23	14	22
28							55	182	40	23	14	17
29							59	217	39	23	13	18
30							63	188	38	22	–	13
31							48	–	41	23	–	15
Total								2,883	2,287	914	524	403
Mean								96.1	73.8	29.5	18.1	13.0
Max.								642	212	42	25	22
Min.								39	38	22	13	10
Runoff – mcm.								249.091	197.597	78.970	45.274	34.819

WATER YEAR 1967 : Max. 642 Min. 10 Mean Annual Runoff mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Nov.26	09.00	47.67	1.161				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
KHLONG SAO THONG RIVER BASIN

Khlong Sao Thong at Wat Sai Ngam, Nakhon Si Thamarat (X.41)

Location: Lat 8°- 21' - 00" N, Long 99°- 48' - 23" E, on left bank about 800 meters downstream from confluence with Huai Lan Saka 1.5 kilometers south - east of Amphoe Lan Saka, Nakhon Si Thammarat.

Drainage Area: 149 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: +26.19 m. (A.D.)

Bench Mark: B.M. - H.S.

Location: On left bank 30 meters north of upper gage.
Elevation: +34.921 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: 1964 - 70

Rating Operation:

Period of Rating: 1966 - 70
Rated by Float: -
Rated by Current Meter: 1966 - 70

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

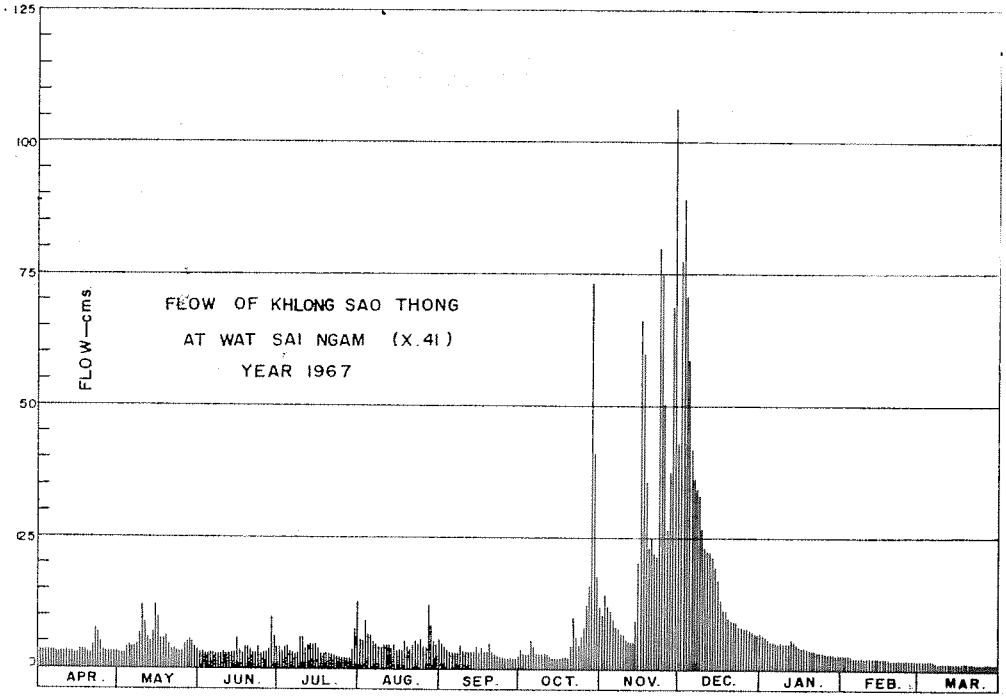
Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions.

GAGE HEIGHT IN METER (A.D.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	26.63	26.59	26.62	26.68	26.75	26.70	26.64	26.98	28.75	26.82	26.56	26.46
2	.63	.58	.62	.63	.75	.66	.57	27.20	.92	.80	.56	.46
3	.63	.57	.60	.67	.98	.64	.53	.07	.54	.78	.56	.46
4	.62	.67	.59	.68	.84	.63	.56	.09	.43	.76	.55	.46
5	.62	.70	.60	.63	.84	.62	.74	26.99	.02	.75	.54	.46
6	26.62	26.67	26.61	26.61	26.74	26.61	26.66	26.92	27.88	26.74	26.54	26.46
7	.61	.69	.57	.57	.71	.60	.61	.89	.71	.73	.54	.45
8	.59	.70	.57	.58	.69	.69	.59	.84	.67	.74	.54	.45
9	.62	.79	.59	.80	.69	.62	.58	.84	.57	.73	.53	.45
10	.62	27.12	.62	.81	.70	.61	.57	.78	.53	.72	.53	.45
11	26.62	26.84	26.57	26.65	26.71	26.61	26.55	26.75	27.50	26.72	26.53	26.45
12	.61	.79	.58	.69	.71	.64	.54	.74	.48	.77	.52	.45
13	.60	.72	.62	.72	.65	.60	.54	.74	.44	.74	.52	.45
14	.59	.83	.58	.71	.72	.68	.54	27.01	.40	.71	.52	.45
15	.59	27.13	.74	.72	.62	.58	.54	.18	.29	.69	.52	.44
16	26.62	26.94	26.66	26.64	26.65	26.67	26.54	28.58	27.13	26.68	26.51	26.44
17	.61	.78	.59	.59	.63	.60	.53	.46	.09	.67	.51	.44
18	.60	.79	.67	.58	.76	.62	.53	27.65	.05	.66	.51	.43
19	.59	.81	.68	.60	.67	.73	.53	.51	.02	.65	.50	.43
20	.59	.70	.66	.58	.64	.60	.71	.58	26.99	.64	.50	.43
21	26.61	26.63	26.60	26.56	26.69	26.56	27.00	27.46	26.98	26.63	26.50	26.43
22	.88	.64	.59	.55	.76	.55	26.78	.32	.95	.62	.49	.42
23	.82	.63	.67	.54	.69	.54	.68	28.81	.92	.62	.49	.42
24	.70	.62	.56	.54	.77	.53	.81	.68	.91	.61	.49	.41
25	.61	.62	.61	.53	.70	.53	.89	27.78	.90	.60	.48	.41
26	26.63	26.71	26.61	26.53	26.65	26.52	27.12	27.54	26.89	26.59	26.48	26.41
27	.70	.75	.65	.53	27.14	.52	.13	.89	.88	.59	.48	.40
28	.62	.78	27.01	.52	26.82	.51	28.68	28.73	.85	.59	.47	.40
29	.62	.74	26.68	.63	.72	.52	27.84	29.13	.84	.58	.46	.40
30	.62	.67	.68	.87	.70	.53	.41	27.90	.83	.57		.40
31		.63		27.15	.77		.08		.84	.56		.39
Mean	26.64	26.74	26.63	26.65	26.74	26.59	26.74	27.50	27.47	26.68	26.50	26.43
Max.	26.84	27.13	27.01	27.15	27.14	26.73	28.68	29.13	28.92	26.82	26.56	26.46
Min.	26.59	26.57	26.57	26.52	26.62	26.51	26.53	26.74	26.83	26.56	26.46	26.39

WATER YEAR 1967 : Max. 29.13 m. Min. 26.39 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	3.45	2.99	3.30	4.20	5.25	4.50	3.60	9.14	76	6.34	2.66	1.54
2	3.45	2.88	3.30	3.45	5.25	3.90	2.77	14	89	6.00	2.66	1.54
3	3.45	2.77	3.00	4.05	9.14	3.60	2.33	11	63	5.60	2.66	1.54
4	3.30	4.05	2.99	4.20	6.68	3.45	2.66	11	58	5.40	2.55	1.54
5	3.30	4.50	3.00	3.45	6.68	3.30	5.10	9.32	40	5.25	2.44	1.54
6	3.30	4.05	3.15	3.15	5.10	3.15	3.90	8.06	35	5.10	2.44	1.54
7	3.15	4.35	2.77	2.77	4.65	3.00	3.15	7.53	29	4.95	2.44	1.45
8	2.99	4.50	2.77	2.88	4.35	4.35	2.99	6.68	28	5.10	2.44	1.45
9	3.30	5.85	2.99	6.00	4.35	3.30	2.88	6.68	24	4.95	2.33	1.45
10	3.30	12	3.30	6.17	4.50	3.15	2.77	5.60	23	4.80	2.33	1.45
11	3.30	6.68	2.77	3.75	4.65	3.15	2.55	5.25	22	4.80	2.33	1.45
12	3.15	5.85	2.88	4.35	4.65	3.60	2.44	5.10	22	5.55	2.22	1.45
13	3.00	4.65	3.30	4.80	3.75	3.00	2.44	5.10	20	5.10	2.22	1.45
14	2.99	6.51	2.88	4.65	4.80	4.20	2.44	9.72	19	4.65	2.22	1.45
15	2.99	12	5.10	4.80	3.30	2.88	2.44	14	16	4.35	2.22	1.36
16	3.60	8.42	3.90	3.60	3.75	4.05	2.44	66	12	4.20	2.01	1.36
17	3.00	5.60	2.99	2.99	3.45	3.00	2.33	59	11	4.05	2.01	1.36
18	2.99	5.85	4.05	2.88	5.40	3.30	2.33	27	11	3.90	2.01	1.27
19	3.00	6.17	4.20	3.00	4.05	4.95	2.33	22	9.94	3.75	1.90	1.27
20	2.99	4.50	3.90	2.88	3.60	3.00	4.65	25	9.32	3.60	1.90	1.27
21	3.15	3.45	3.00	2.66	4.35	2.66	9.50	21	9.14	3.45	1.90	1.27
22	7.36	3.60	2.99	2.55	5.40	2.55	5.60	17	8.60	3.30	1.81	1.18
23	6.34	3.45	4.05	2.44	4.35	2.44	4.20	80	8.06	3.30	1.81	1.18
24	4.50	3.30	2.66	2.44	5.55	2.33	6.17	73	7.88	3.15	1.81	1.09
25	3.15	3.30	3.15	2.33	4.50	2.33	7.53	32	7.70	3.00	1.72	1.09
26	3.45	4.65	3.15	2.33	3.75	2.22	12	23	7.53	2.99	1.72	1.09
27	3.45	5.25	3.75	2.33	12	2.22	12	36	7.36	2.99	1.72	1.00
28	3.30	5.60	9.72	2.22	6.34	2.01	73	75	6.85	2.99	1.63	1.00
29	3.30	5.10	4.20	3.45	4.80	2.22	34	106	6.68	2.88	1.54	1.00
30	3.30	4.05	4.20	7.19	4.50	2.33	19	36	6.51	2.77		1.00
31		3.45		13	5.55		11		6.68	2.66		0.94
Total	105.30	159.52	107.41	120.96	158.44	94.14	252.54	826.18	700.25	129.92	61.65	40.57
Mean	3.51	5.14	3.58	3.90	5.11	3.14	8.15	27.5	22.6	4.19	2.12	1.31
Max.	7.36	12	9.72	13	12	4.95	73	106	89	6.34	2.66	1.54
Min.	2.99	2.77	2.77	2.22	3.30	2.01	2.33	5.10	6.51	2.66	1.54	0.94
Runoff - RCM.	9.098	13.782	9.280	10.451	13.686	8.133	21.819	71.382	60.516	11.225	5.326	3.505

WATER YEAR 1967 : Max. 106 Min. 0.94 Mean 7.53 Annual Runoff 238.194 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Dec.1	21.00	29.81	177				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
KHLONG THA DI RIVER BASIN

Khlong Tha Di at Ban Na Kham, Nakhon Si Thammarat (X.55)

Location: Lat 8° - 23' - 53" N, Long 99° - 50' - 15" E, on left bank about 450 meters downstream from bridge of Karom Road at Ban Na Kam, Amphoe Lan Saka, Nakhon Si Thammarat.

Drainage Area: 105 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: 0.00 m. (A.D.)

Bench Mark: B.M. - H.S.

Location: B.M.1 near staff gage, B.M.2 on right bank at the abutment of bridge.
Elevation: B.M.1 +3.798 m. (A.D.), B.M.2 +6.706 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: 1967 to date.

Rating Operation:

Period of Rating: 1967 - 71
Rated by Float: -
Rated by Current Meter: 1967 - 71

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

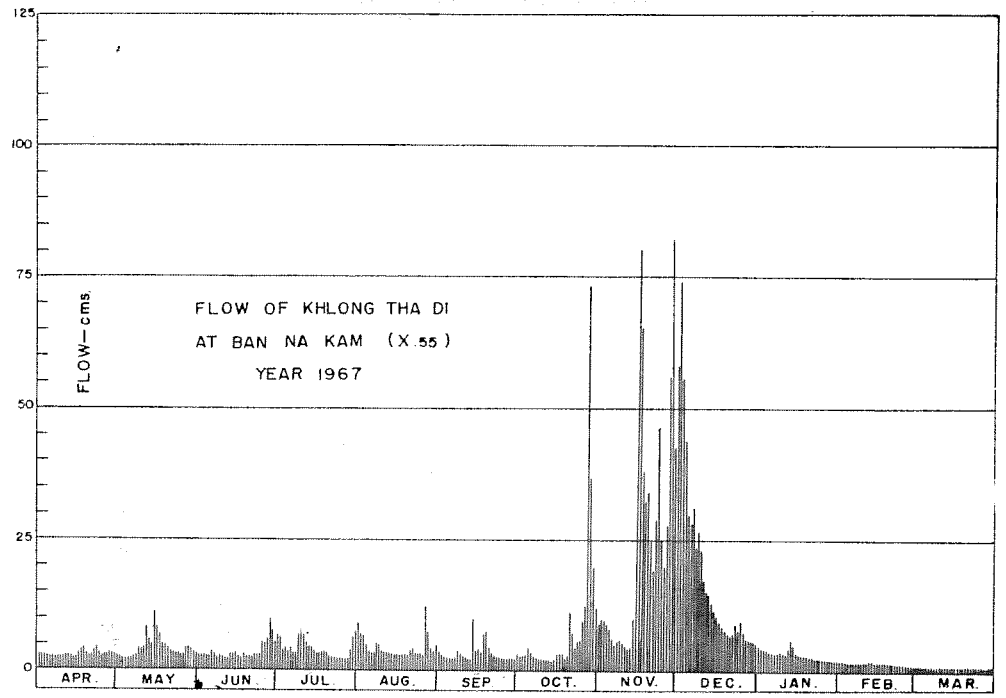
Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions except those built by local residents. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (A.D.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.45	0.45	0.46	0.76	0.89	0.54	0.54	0.97	3.11	0.63	0.45	0.38
2	.45	.44	.48	.70	.72	.53	.51	1.10	.39	.62	.45	.38
3	.45	.43	.47	.49	.76	.59	.50	.04	2.69	.61	.45	.37
4	.45	.43	.46	.59	.61	.49	.52	.00	.21	.59	.44	.37
5	.45	.43	.45	.51	.54	.48	.63	0.94	1.87	.58	.44	.37
6	0.44	0.43	0.53	0.59	0.53	0.48	0.54	0.82	1.88	0.57	0.43	0.37
7	.44	.45	.45	.49	.51	.48	.51	.75	.98	.56	.44	.37
8	.44	.45	.44	.50	.67	.59	.48	.70	.63	.57	.44	.36
9	.44	.59	.46	.83	.63	.53	.48	.69	.77	.58	.43	.36
10	.44	.56	.44	.82	.52	.49	.47	.65	.47	.56	.43	.39
11	0.48	0.59	0.43	0.74	0.54	0.49	0.45	0.62	1.32	0.55	0.43	0.38
12	.47	.84	.43	.65	.54	.48	.46	.60	.26	.62	.46	.37
13	.46	.61	.50	.58	.50	.46	.44	.59	.18	.75	.44	.37
14	.43	.62	.50	.58	.52	.99	.44	.82	.11	.61	.43	.37
15	.44	1.03	.52	.52	.48	.56	.45	1.32	.04	.56	.42	.37
16	0.50	0.78	0.46	0.51	0.48	0.61	0.56	2.65	0.98	0.54	0.42	0.37
17	.54	.76	.42	.52	.49	.52	.55	3.45	.91	.54	.43	.37
18	.57	.63	.51	.52	.49	.82	.55	2.00	.85	.53	.42	.37
19	.50	.63	.46	.54	.48	.84	.56	.05	.82	.54	.42	.37
20	.45	.57	.45	.48	.48	.61	.55	.14	.78	.52	.41	.36
21	0.48	0.53	0.44	0.48	0.55	0.54	1.16	1.59	0.75	0.51	0.41	0.36
22	.54	.52	.52	.46	.58	.51	0.86	.36	.78	.50	.41	.36
23	.58	.51	.53	.46	.52	.50	.68	2.02	.90	.49	.41	.36
24	.47	.49	.48	.45	.50	.49	.81	.62	.81	.49	.40	.36
25	.47	.48	.66	.44	.53	.48	.82	1.73	.93	.48	.40	.36
26	0.48	0.48	0.64	0.43	0.49	0.47	1.17	1.57	0.77	0.48	0.40	0.36
27	.51	.59	.65	.43	1.08	.48	.32	.66	.72	.47	.39	.36
28	.52	.58	1.01	.43	0.66	.46	3.41	2.86	.71	.47	.39	.36
29	.48	.54	0.71	.55	.55	.48	1.98	3.58	.69	.47	.39	.39
30	.46	.52	.62	.73	.54	.47	.44	2.11	.67	.46		.37
31		.48		.82	.64		.15		.67	.46		.36
Mean	0.48	0.56	0.52	0.57	0.58	0.64	0.81	1.53	1.31	0.54	0.42	0.37
Max.	0.58	1.03	1.01	0.83	1.08	0.99	3.41	3.58	3.39	0.75	0.46	0.39
Min.	0.43	0.43	0.42	0.43	0.48	0.46	0.43	0.59	0.67	0.46	0.39	0.36

WATER YEAR 1967 : Max. 3.58 m. Min. 0.36 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31,1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	2.60	2.60	2.73	6.96	8.72	3.12	3.12	8.24	62	4.32	1.95	1.04
2	2.60	2.47	2.99	6.05	6.05	2.99	2.73	10	74	4.18	1.95	1.04
3	2.60	2.34	2.86	3.12	6.65	2.60	2.60	9.36	51	4.04	1.95	0.91
4	2.60	2.34	2.73	4.46	4.46	2.47	2.86	8.72	37	3.77	1.82	0.91
5	2.60	2.34	2.60	3.38	3.51	2.34	4.32	7.76	28	3.64	1.82	0.91
6	2.47	2.34	3.64	4.46	3.38	2.34	3.12	5.90	28	3.51	1.69	0.91
7	2.47	2.60	2.60	3.12	3.12	2.34	2.73	4.88	31	3.38	1.82	0.91
8	2.47	2.60	2.47	3.25	5.30	3.77	2.34	5.75	22	3.51	1.82	0.78
9	2.47	4.46	2.73	8.08	4.74	2.99	2.34	5.60	26	3.64	1.69	0.78
10	2.47	4.04	2.47	7.92	3.25	2.47	2.21	5.02	19	3.38	1.69	1.17
11	2.99	4.46	2.34	6.65	3.51	2.47	1.95	4.60	16	3.25	1.69	1.04
12	2.86	8.24	2.34	5.30	3.51	2.34	2.08	4.32	15	4.18	2.08	0.91
13	2.73	4.74	3.25	4.32	2.99	2.08	1.82	4.18	14	6.05	1.82	0.91
14	2.34	4.98	3.25	4.32	3.25	9.84	1.82	7.60	12	4.04	1.69	0.91
15	2.47	11	3.51	3.51	2.73	3.38	1.95	16	11	3.38	1.56	0.91
16	3.25	7.28	2.73	3.12	2.73	4.04	3.38	49	10	3.12	1.56	0.91
17	3.77	6.96	2.21	3.25	2.86	2.86	3.25	80	9.04	3.12	1.69	0.91
18	4.18	5.02	3.38	3.25	2.86	7.12	3.25	31	8.08	2.99	1.56	0.91
19	3.25	5.02	2.73	3.51	2.73	7.44	3.34	32	7.60	3.12	1.56	0.91
20	2.60	4.18	2.60	2.73	2.73	4.04	2.21	34	6.96	2.86	1.43	0.78
21	2.99	3.64	2.47	2.73	3.64	3.12	11	21	6.50	2.73	1.43	0.78
22	3.77	3.51	3.51	2.47	4.04	2.73	6.50	17	6.96	2.60	1.43	0.78
23	4.32	3.38	3.64	2.47	3.25	2.60	3.90	29	8.88	2.47	1.43	0.78
24	2.86	3.12	2.99	2.34	2.99	2.47	5.75	46	7.44	2.47	1.30	0.78
25	2.86	2.99	5.45	2.21	3.38	2.34	5.90	22	9.36	2.34	1.30	0.78
26	2.99	2.99	5.16	2.08	2.86	2.21	11	19	6.80	2.34	1.30	0.78
27	3.38	4.46	5.30	2.08	12	2.34	14	21	6.05	2.21	1.17	0.78
28	3.51	4.32	11	2.08	5.16	2.08	73	53	5.90	2.21	1.17	0.78
29	2.99	3.77	6.20	3.64	3.64	2.34	27	82	5.60	2.21	1.17	1.17
30	2.73	3.51	4.88	6.20	3.51	2.21	16	31	5.30	2.08		0.91
31		2.99		7.60	4.88		11		5.30	2.08		0.78
Total	88.19	128.59	106.76	126.66	128.43	97.48	237.47	674.93	561.77	99.22	46.54	27.56
Mean	2.94	4.15	3.56	4.08	4.14	3.25	7.66	22.5	18.1	3.20	1.60	0.89
Max.	4.32	11	11	8.08	12	9.84	73	82	74	6.05	2.08	1.17
Min.	2.34	2.34	2.21	2.08	2.73	2.08	1.82	4.18	5.30	2.08	1.17	0.78
Runoff - mcm.	7.620	11.110	9.224	10.943	11.096	8.422	20.517	58.314	48.537	8.573	4.021	2.381

WATER YEAR 1967 : Max. 82 Min. 0.78 Mean 6.35 Annual Runoff 200.759 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Nov. 16	24.00	4.20	119				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
KHLONG PA BON RIVER BASIN

Khlong Pa Bon at Ban Pa Bon, Phatthalung (X.49)

Location: Lat 7°- 16' - 35" N, Long 100°- 10' - 01" E, on left bank downstream side of Phatthalung - Hat Yai highway bridge at Ban Pa Bon, Amphoe Pak Phayun, Hat Yai.

Drainage Area: 82 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: 0.00 m. (A.D.)

Bench Mark: B.M. - H.S.

Location: On left bank near staff gage.
Elevation: +4.522 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: 1967 - 70

Rating Operation:

Period of Rating: 1967 - 70
Rated by Float: -
Rated by Current Meter: 1967 - 70

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

Overbank Flow Conditions: No overbank flow.

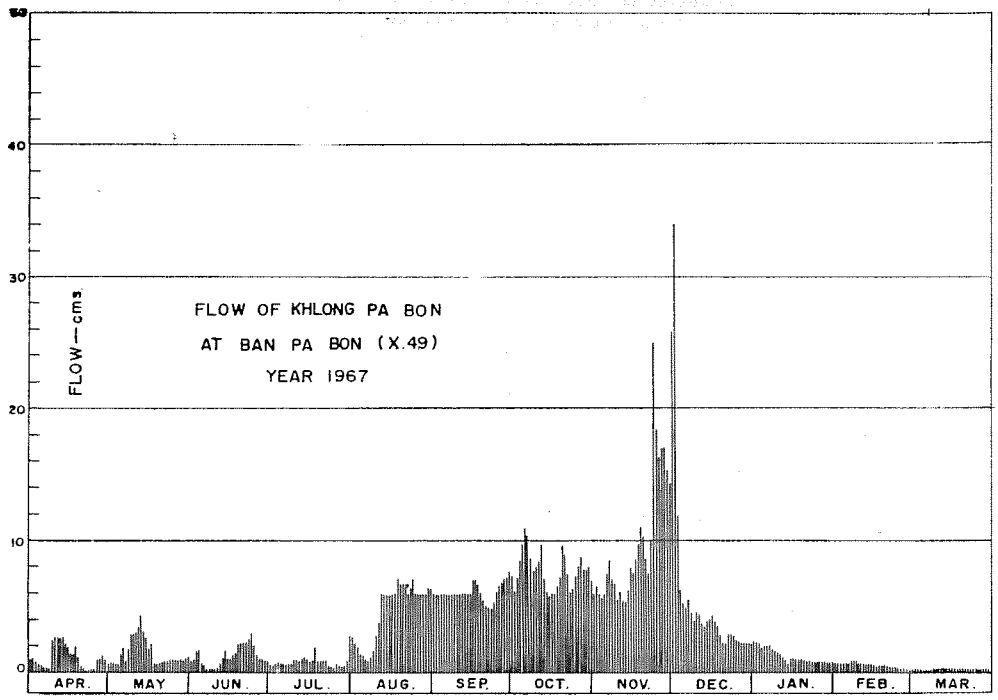
General Description: Records fair except those for period of back water effect by Pa Bon Weir which are poor. Stage - discharge relationship used is defined by discharge measurements made during 1967. Flow effected by Pa Bon Weir about 300 meters downstream from gage site.

GAGE HEIGHT IN METER (A.D.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.54	0.41	0.45	0.40	0.76	1.50	1.61	1.48	2.52	1.12	0.80	0.68
2	.50	.45	.49	.39	.69	.50	.50	.55	.10	.09	.80	.68
3	.40	.43	.61	.41	.67	.50	.59	.51	1.70	.09	.80	.65
4	.39	.43	.61	.46	.57	.50	.71	.46	.49	.04	.79	.63
5	.38	.45	.42	.44	.57	.50	.81	.50	.44	.05	.79	.62
6	0.32	0.66	0.39	0.42	0.48	1.50	1.89	1.63	1.41	1.04	0.78	0.64
7	.33	.42	.30	.41	.81	.50	.85	.72	.46	.07	.83	.61
8	.32	.50	.33	.42	.91	.50	.62	.52	.34	.02	.85	.65
9	.73	.79	.31	.42	1.00	.50	.66	.57	.27	.00	.80	.64
10	.77	.80	.30	.50	.15	.50	.68	.46	.37	0.97	.80	.65
11	0.77	0.81	0.28	0.51	1.25	1.50	1.70	1.52	1.34	0.93	0.79	0.66
12	.74	.85	.40	.46	.50	.50	.80	.46	.27	.90	.78	.66
13	.76	.95	.50	.51	.50	.50	.59	.45	.24	.84	.76	.66
14	.70	.81	.61	.54	.50	.50	.50	.52	.30	.80	.78	.68
15	.65	.77	.53	.51	.49	.50	.49	.67	.31	.88	.78	.68
16	0.59	0.60	0.50	0.48	1.50	1.59	1.51	1.62	1.34	0.88	0.75	0.68
17	.55	.70	.56	.49	.50	.60	.50	.71	.27	.88	.72	.67
18	.67	.40	.60	.68	.51	.56	.54	.81	.27	.85	.75	.67
19	.52	.43	.68	.48	.60	.51	.60	.92	.16	.86	.74	.67
20	.39	.43	.70	.46	.52	.45	.80	.85	.10	.85	.75	.68
21	0.29	0.45	0.71	0.48	1.58	1.42	1.75	1.70	1.08	0.83	0.73	0.67
22	.23	.45	.71	.49	.50	.41	.58	.53	.18	.84	.72	.67
23	.25	.46	.68	.38	.50	.40	.50	.82	.18	.83	.71	.66
24	.29	.50	.80	.36	.60	.40	.54	2.17	.16	.82	.70	.65
25	.26	.50	.68	.33	.50	.51	.61	1.83	.12	.82	.69	.65
26	0.48	0.48	0.59	0.43	1.50	1.56	1.68	1.76	1.10	0.83	0.68	0.65
27	.50	.50	.51	.35	.59	.58	.72	.82	.09	.82	.67	.65
28	.55	.49	.52	.39	.50	.60	.67	.82	.09	.82	.63	.65
29	.51	.49	.48	.39	.50	.60	.65	.71	.09	.81	.61	.64
30	.46	.48	.48	.41	.54	.65	.69	.66	.09	.81		.64
31		.54		.79	.53		.58		.08	.81		.63
Mean	0.49	0.56	0.52	0.46	1.26	1.51	1.64	1.66	1.32	0.91	0.75	0.65
Max.	0.77	0.95	0.80	0.79	1.60	1.65	1.89	2.17	2.52	1.12	0.85	0.68
Min.	0.23	0.40	0.28	0.33	0.81	1.40	1.49	1.45	1.08	0.80	0.61	0.61

WATER YEAR 1967 : Max. 2.52 m. Min. 0.23 m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	1.22	0.64	0.80	0.60	2.65	5.95	7.22	5.74	34	2.51	0.79	0.36
2	1.00	0.30	0.96	0.57	2.13	5.95	5.95	6.52	23	2.29	0.79	0.36
3	0.68	0.72	1.61	0.64	2.00	5.59	6.98	6.06	8.42	2.29	0.79	0.29
4	0.57	0.72	1.61	0.84	1.38	5.95	8.44	5.53	5.84	1.98	0.75	0.25
5	0.54	0.80	0.68	0.76	1.38	5.95	9.85	5.95	5.32	2.04	0.75	0.23
6	0.36	1.94	0.57	0.68	0.92	5.95	11	7.46	5.00	1.98	0.71	0.27
7	0.39	0.68	0.30	0.64	0.83	5.95	10	8,58	5,53	2.16	0.92	0.20
8	0.36	1.00	0.39	0.68	1.26	5.95	7.34	6.18	4.36	1.85	1.00	0.29
9	2.42	2.87	0.33	0.68	1.73	5.95	7,82	6,75	3.74	1.73	0.79	0.27
10	2.72	2.95	0.30	1.00	2.75	5.95	8.06	5.53	4.63	1.57	0.79	0.29
11	2.72	3.04	0.26	1.05	3.57	5.95	8.30	6.18	4.36	1.37	0.75	0.32
12	2.50	3.40	0.60	0.84	5.95	5.95	9.70	5.53	3.74	1.21	0.71	0.32
13	2.65	4.35	1.00	1.05	5.95	5.95	6.98	5.42	3.49	0.96	0.64	0.32
14	2.20	3.04	1.61	1.22	5.95	5.95	5.95	6.18	4.00	0.79	0.71	0.36
15	1.87	2.72	1.16	1.05	5.84	5.95	5.84	7.94	4.09	1.13	0.71	0.36
16	1.49	1.55	1.00	0.92	5.95	6.98	6.06	7.34	4.36	1.13	0.60	0.36
17	1.27	2.20	1.33	0.96	5.95	7.10	5.95	8.44	3.74	1.13	0.49	0.34
18	2.00	0.60	1.55	2.07	6.06	6.64	6.41	9.85	3.74	1.00	0.60	0.34
19	1.11	0.72	2.07	0.92	7.10	6.06	7.10	11	2.83	1.04	0.56	0.34
20	0.57	0.72	2.20	0.84	6.18	5.42	9.70	10	2.35	1.00	0.60	0.36
21	0.28	0.80	2.27	0.92	6.87	5.11	9.00	8.30	2.23	0.92	0.52	0.34
22	0.16	0.80	2.27	0.96	5.95	5.00	6.87	6.29	2.99	0.96	0.49	0.34
23	0.20	0.84	2.07	0.54	5.95	4.90	5.95	10	2.99	0.92	0.45	0.32
24	0.28	1.00	2.95	0.48	7.10	4.90	6.41	25	2.83	0.87	0.41	0.29
25	0.22	1.00	2.07	0.39	5.95	6.06	7.22	17	2.51	0.87	0.39	0.29
26	0.92	0.92	1.49	0.72	5.95	6.64	8.06	16	2.35	0.92	0.36	0.29
27	1.00	1.00	1.05	0.45	5.95	6.87	8.58	17	2.29	0.87	0.34	0.29
28	1.27	0.96	1.11	0.57	5.95	7.10	7.94	17	2.29	0.87	0.25	0.29
29	1.05	0.96	0.92	0.57	5.95	7.10	7.70	15	2.29	0.83	0.20	0.27
30	0.84	0.92	0.92	0.64	6.41	7.70	8.18	14	2.29	0.83		0.27
31		1.22		2.87	6.29		6.87		2.23	0.83		0.25
Total	34.86	45.88	37.45	27.12	143.85	182.83	237.43	287.77	163.83	40.85	17.86	9.47
Mean	1.16	1.48	1.25	0.87	4.64	6.09	7.66	9.59	5.28	1.32	0.61	0.30
Max.	2.72	4.35	2.95	2.87	7.10	7.70	11	25	34	2.51	1.00	0.36
Min.	0.16	0.60	0.26	0.39	0.83	4.90	5.84	5.42	2.23	0.79	0.20	0.20
Runoff - mcm.	3.012	3.964	3.236	2.343	12.429	15.796	20.514	24.863	14.155	3.529	1.543	0.818

WATER YEAR 1967 : Max. 34 Min. 0.16 Mean 3.36 Annual Runoff 106.203 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Dec.1	12.00	2.89	42				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
TRANG RIVER BASIN

Trang River at Ban Pradu Tai, Trang (X.56)

Location: Lat 7°- 45' - 45" N, Long 99°- 32' - 25" E, on left bank about 200 meters at left side from Huai Yot - Krabi Highway, 16 kilometers from Amphoe Huai Yot, Trang.

Drainage Area: 1,801 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: 0.00 m. (A.D.)

Bench Mark: B.M. - H.S.

Location: On left bank near the camp of gaging station X.56
Elevation: +8.855 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: 1966 to date

Rating Operation:

Period of Rating: 1966 - 69
Rated by Float: -
Rated by Current Meter: 1966 - 69

Stability of Channel Regimes: Unstable, shifting adjustment is included for flow computation.

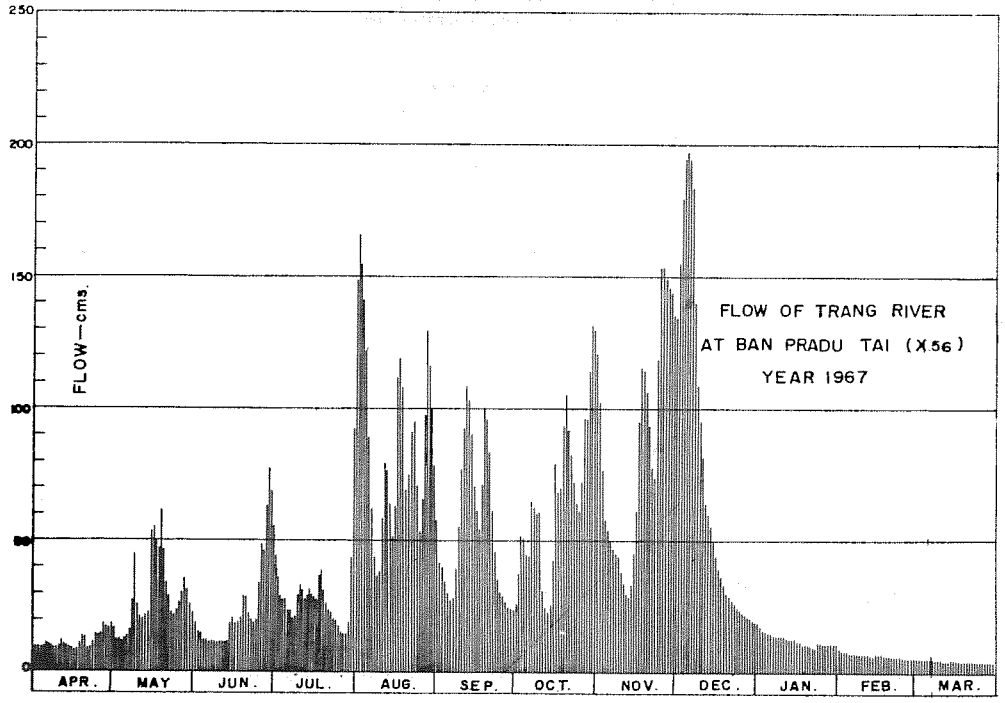
Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions.

GAGE HEIGHT IN METER (A.D.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	1.92	2.23	2.37	3.39	5.80	3.84	2.59	5.46	5.75	2.20	1.82	1.60
2	.91	.00	.24	.01	6.31	.39	3.02	4.91	6.24	.18	.80	.59
3	.92	1.96	.18	2.76	.32	.07	.46	.23	.75	.15	.79	.58
4	.91	.93	.09	.63	5.88	2.84	.37	3.72	.95	.12	.79	.57
5	.95	.96	.05	.63	.06	.68	.17	.67	7.01	.09	.77	.57
6	1.94	2.01	2.02	2.46	4.33	2.60	2.98	3.50	6.94	2.08	1.77	1.56
7	.92	.07	.04	.43	3.63	.57	.88	.23	.65	.06	.77	.56
8	.89	.40	.04	.26	.18	3.04	.80	.22	5.88	.06	.76	.55
9	.87	3.29	.02	.32	2.93	.53	.74	.16	.34	.04	.75	.55
10	.87	2.65	.01	.70	3.04	4.29	.77	2.99	4.95	.03	.74	.54
11	2.00	2.39	1.99	2.79	3.65	4.85	2.69	2.81	4.53	2.02	1.72	1.54
12	1.97	.35	.99	.62	4.33	5.31	.52	.69	.08	.01	.72	.53
13	.91	.42	.99	.59	.24	.18	.42	.65	3.81	.01	.71	.53
14	.88	.32	2.32	.76	3.67	4.80	.41	.71	.57	.00	.70	.53
15	.85	.72	.46	.69	.26	.35	.88	3.15	.37	1.99	.70	.53
16	1.83	3.69	2.30	2.63	4.01	3.91	4.32	3.78	3.20	1.98	1.69	1.52
17	.86	.72	.24	.57	5.26	.51	3.97	4.75	.07	.96	.69	.52
18	.90	.13	.25	.94	.38	.96	.99	5.26	2.97	.94	.68	.51
19	2.11	.94	.69	3.01	4.87	5.04	4.93	.24	.87	.92	.68	.51
20	.06	.50	.68	2.61	.26	4.85	5.16	4.93	.78	.92	.60	.51
21	1.90	3.03	2.44	2.44	4.24	4.33	4.73	4.52	2.68	1.90	1.65	1.50
22	.88	2.81	.32	.44	.83	3.71	.54	.07	.61	.89	.64	.49
23	.99	.57	.24	.31	.98	.27	.21	3.80	.56	.88	.63	.49
24	2.18	.54	.30	.20	.47	2.98	3.99	5.29	.52	.87	.63	.49
25	.06	.60	.78	.12	3.80	.80	.87	6.16	.48	.86	.62	.48
26	2.07	2.70	3.37	2.05	3.66	2.65	4.22	6.31	2.43	1.85	1.16	1.48
27	.26	.85	.28	.00	5.05	.57	.92	.25	.37	.84	.61	.47
28	.21	3.08	.74	1.99	.85	.50	.88	.16	.33	.84	.61	.47
29	.20	2.95	4.34	.98	.63	.45	5.44	.11	.26	.83	.60	.51
30	.29	.74	.04	2.19	.04	.47	.82	5.89	.24	.82		.51
31		.56		4.46	4.46		.76			.82		.48
Mean	1.95	2.68	2.49	2.58	4.56	3.58	3.79	4.35	3.98	1.97	1.70	1.52
Max.	2.29	3.94	4.34	4.46	6.32	5.31	5.82	6.31	7.01	2.20	1.82	1.60
Min.	1.83	1.93	1.99	1.98	2.93	2.45	2.41	2.65	2.24	1.82	1.60	1.48

WATER YEAR 1967 : Max. 7.01 m. Min. 1.48 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	10	18	19	48	143	52	27	117	131	19	8.81	5.80
2	10	13	16	37	165	38	39	95	155	17	8.47	5.64
3	10	13	15	30	151	40	52	71	183	16	8.30	5.48
4	10	12	13	27	132	33	49	56	194	16	8.30	5.32
5	11	13	13	29	99	29	43	54	197	15	7.96	5.32
6	11	14	12	24	73	27	38	49	194	15	7.96	5.16
7	10	15	12	24	52	27	65	46	181	14	7.96	5.16
8	9.83	21	12	20	44	39	62	45	131	14	7.96	5.00
9	9.49	45	12	22	36	48	60	44	109	14	7.62	5.00
10	9.49	27	12	30	39	71	61	38	94	14	7.45	4.88
11	12	21	12	33	58	91	30	33	79	14	7.11	4.88
12	11	20	12	28	79	108	25	30	64	13	7.11	4.76
13	10	22	12	28	76	103	23	29	61	13	6.94	4.76
14	9.66	20	18	32	58	89	23	31	54	13	6.77	5.00
15	9.15	29	21	30	46	73	35	43	48	13	7.28	5.00
16	8.30	54	18	29	69	62	79	62	43	12	7.11	4.88
17	8.81	55	19	27	114	50	67	95	39	11	7.11	4.88
18	11	37	19	37	119	63	68	115	36	11	6.94	4.76
19	14	62	29	39	99	100	96	114	33	11	6.94	4.76
20	13	48	29	28	69	93	105	102	30	11	6.77	4.76
21	9.49	34	23	24	68	75	89	87	29	10	6.44	4.64
22	9.15	29	21	24	89	56	82	71	27	10	6.28	4.52
23	11	23	19	21	95	42	70	63	26	9.83	6.12	4.52
24	15	22	20	21	76	34	64	116	25	12	6.12	4.52
25	15	24	31	18	55	29	60	153	24	11	5.96	4.40
26	15	26	48	16	51	29	71	153	23	11	5.80	4.40
27	~~19~~	~~30~~	45	5	92	27	~~96~~	150	22	11	5.80	4.28
28	18	36	59	5	129	25	94	146	~~27~~	~~11~~	5.80	~~4.28~~
29	17	32	78	.8	114	24	116	144	21	11	5.80	4.40
30	19	27	68	22	91	24	131	135	20	11		4.40
31		23		90	70		129		19	11		4.04
Total	355.37	865	737	886	2,656	1,601	2,049	2,487	2,313	404.83	204.79	149.60
Mean	11.8	27.9	24.6	28.6	85.7	53.4	66.1	82.9	74.6	13.0	7.06	4.82
Max.	19	55	78	90	165	108	131	153	197	19	8.81	5.80
Min.	8.30	12	12	15	36	24	23	29	19	9.83	5.80	4.04
Runoff - mcm.	30.704	74.736	63.677	76.550	229.948	138.326	177.034	214.877	199.843	34.977	17.694	12.925

WATER YEAR 1967 : Max. 197 Min. 4.04 Mean 40.2 Annual Runoff 1,270.822 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Dec.5	6.00	7.02	198				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
KHLONG RATTAPHUM RIVER BASIN

Khlong Rattaphum at Ban Kamphaeng Phet, Songkhla (X.67)

Location: Lat 7°- 03' - 35" N, Long 100°- 17' - 20" E, on right bank about 3 meters upstream from bridge of Phattalung - Songkhla highway, Amphoe Rattaphum, Songkhla.

Drainage Area: 272 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: 0.00 m. (A.D.)

Bench Mark: B.M.1 9 meters from right bank and 17 meters from highway bridge.

Location: B.M.2 32 meters from left bank and 17.5 meters from highway bridge.
Elevation: B.M.1 +3.415 m. (A.D.), B.M.2 +3.307 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: 1967 to date.

Rating Operation:

Period of Rating: 1967 - 72
Rated by Float: -
Rated by Current Meter: 1967 - 72

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

Overbank Flow Conditions: No overbank flow.

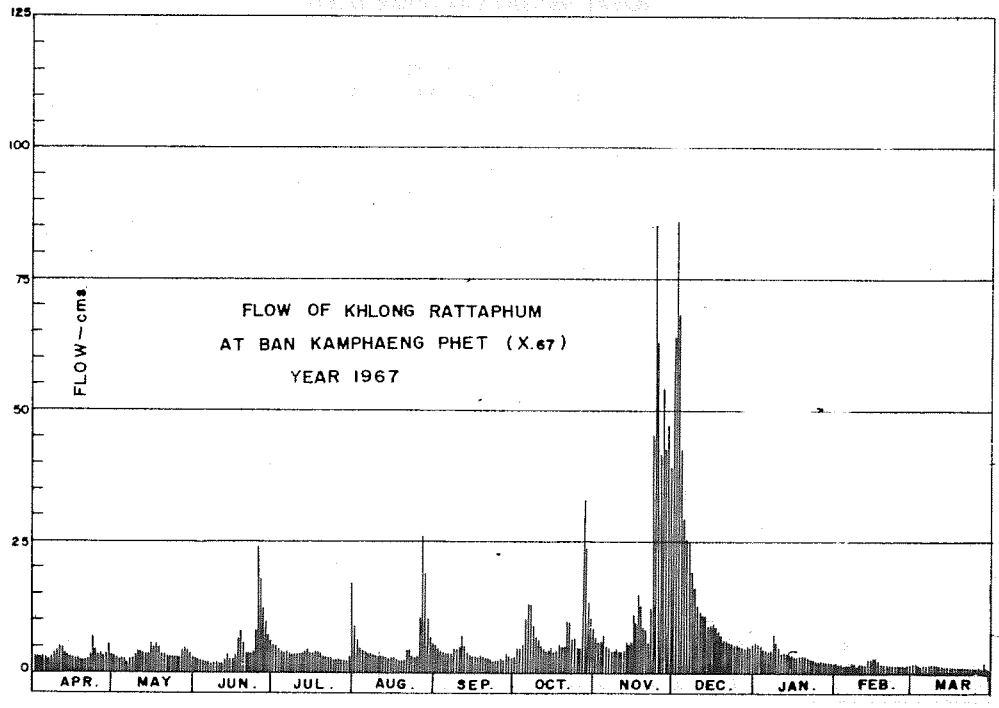
General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made furing 1967. No upstream state diversions for irrigation except those built by local residents. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (A.D.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.28	0.27	0.26	0.44	0.77	0.46	0.28	0.65	3.07	0.53	0.16	0.17
2	.27	.24	.23	.49	.54	.42	.44	.53	.69	.53	.15	.14
3	.26	.22	.16	.45	.44	.38	.39	.53	2.56	.47	.15	.11
4	.26	.26	.16	.39	.39	.34	.49	.64	1.87	.43	.13	.11
5	.28	.22	.16	.35	.38	.33	.81	.46	.61	.42	.13	.11
6	0.21	0.12	0.15	0.37	0.35	0.32	0.98	0.44	1.57	0.41	0.13	0.11
7	.21	.23	.14	.34	.35	.31	1.00	.41	.56	.42	.20	.12
8	.29	.22	.14	.32	.33	.43	0.66	.39	.26	.65	.13	.13
9	.41	.29	.15	.33	.30	.40	.59	.45	.15	.52	.08	.12
10	.39	.38	.15	.33	.30	.51	.53	.39	.00	.43	.07	.11
11	0.49	0.33	0.14	0.33	0.29	0.62	0.46	0.37	0.93	0.35	0.06	0.11
12	.38	.35	.17	.34	.29	.42	.41	.32	.89	.38	.10	.11
13	.51	.35	.36	.37	.27	.33	.37	.51	.88	.36	.26	.08
14	.27	.28	.23	.43	.24	.30	.38	.43	.75	.35	.26	.09
15	.24	.51	.20	.35	.24	.28	.46	.56	.74	.32	.27	.08
16	0.22	0.41	0.24	0.34	0.25	0.28	0.36	0.86	0.79	0.30	0.26	0.08
17	.23	.51	.41	.36	.22	.26	.37	.74	.75	.29	.17	.07
18	.26	.41	.74	.37	.21	.31	.50	1.10	.69	.28	.14	.06
19	.18	.34	.48	.33	.20	.28	.42	0.71	.63	.31	.14	.06
20	.17	.32	.36	.25	.21	.24	.49	.71	.55	.28	.13	.06
21	0.16	0.30	0.33	0.28	0.40	0.25	0.82	0.54	0.57	0.27	0.11	0.06
22	.28	.27	.34	.24	.42	.22	.81	.48	.54	.24	.11	.06
23	.59	.28	.33	.26	.29	.21	.56	2.53	.52	.23	.11	.06
24	.36	.25	.45	.23	.26	.20	.61	3.64	.49	.22	.11	.06
25	.31	.27	1.52	.22	.27	.26	.45	2.22	.50	.21	.11	.05
26	0.36	0.25	1.24	0.22	0.28	0.25	0.44	2.17	0.48	0.20	0.09	0.04
27	.28	.40	0.91	.21	1.58	.22	1.27	.68	.47	.20	.12	.03
28	.28	.45	.80	.21	.38	.34	.69	.11	.44	.20	.13	.03
29	.49	.37	.61	.21	0.78	.28	.04	.41	.48	.18	.13	.40
30	.36	.30	.56	.18	.60	.23	0.86	1.96	.48	.18		.23
31		.26		1.18	.52		.70		.51	.16		.17
Mean	0.30	0.31	0.40	0.34	0.43	0.32	0.63	1.06	1.04	0.33	0.14	0.10
Max.	0.59	0.51	1.52	1.18	1.58	0.62	1.69	3.64	3.69	0.65	0.27	0.40
Min.	0.16	0.12	0.14	0.18	0.20	0.20	0.28	0.32	0.44	0.16	0.06	0.03

WATER YEAR 1967 : Max. 3.69 m. Min. 0.03 m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31,1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	3.12	3.03	2.94	4.78	9.35	5.02	3.12	7.55	66	5.89	2.04	2.13
2	3.03	2.76	2.67	5.38	6.02	4.54	4.78	5.89	86	5.89	1.95	1.86
3	2.94	2.58	2.04	4.90	4.78	4.10	4.20	5.89	51	5.14	1.95	1.59
4	2.94	2.94	2.04	4.20	4.20	3.70	5.38	7.40	32	4.66	1.77	1.59
5	3.12	2.58	2.04	3.80	4.10	3.60	9.97	5.02	26	4.54	1.77	1.59
6	2.49	1.68	1.95	4.00	3.80	3.50	13	4.78	25	4.42	1.77	1.59
7	2.49	2.67	1.86	3.70	3.80	3.40	13	4.42	25	4.54	2.40	1.68
8	3.21	2.58	1.86	3.50	3.60	4.66	7.70	4.20	18	7.55	1.77	1.77
9	4.42	3.21	1.95	3.60	3.30	4.30	6.67	4.90	16	5.76	1.36	1.68
10	4.20	4.10	1.95	3.60	3.30	5.63	5.87	4.20	13	4.66	1.29	1.59
11	5.38	3.60	1.86	3.60	3.21	7.10	5.02	4.00	12	3.80	1.22	1.59
12	4.10	3.80	2.13	3.70	3.21	4.54	4.42	3.50	11	4.10	1.50	1.59
13	3.40	3.80	3.90	4.00	3.03	3.60	4.00	3.63	11	3.90	2.94	1.36
14	3.03	3.12	2.67	4.66	2.76	3.30	4.10	4.66	9.05	3.80	2.94	1.43
15	2.76	5.63	2.40	3.80	2.76	3.12	5.02	6.28	8.90	3.50	3.03	1.36
16	2.58	4.42	2.76	3.70	2.85	3.12	3.90	11	9.65	3.30	2.94	1.36
17	2.67	5.63	4.42	3.90	2.58	2.94	4.00	8.90	9.05	3.21	2.13	1.29
18	2.94	4.42	8.90	4.00	2.49	3.40	5.50	15	8.15	3.12	1.86	1.22
19	2.22	3.70	5.26	3.60	2.40	3.12	4.54	8.45	7.25	3.40	1.86	1.22
20	2.13	3.50	3.90	2.85	2.49	2.76	5.38	8.45	6.15	3.12	1.77	1.22
21	2.04	3.30	3.60	3.12	4.30	2.85	10	6.02	6.41	3.03	1.59	1.22
22	3.12	3.03	3.70	2.76	4.54	2.58	9.97	5.26	6.02	2.76	1.59	1.22
23	6.67	3.12	3.60	2.94	3.21	2.49	6.28	50	5.76	2.67	1.59	1.22
24	3.90	2.85	4.90	2.67	2.94	2.40	6.95	85	5.38	2.58	1.59	1.22
25	3.40	3.03	24	2.58	3.03	2.94	4.90	42	5.50	2.49	1.59	1.15
26	3.90	2.85	18	2.58	3.12	2.85	4.78	40	5.26	2.40	1.43	1.08
27	3.12	4.30	12	2.49	26	2.58	19	54	5.14	2.40	1.68	1.01
28	3.12	4.90	9.80	2.49	21	3.70	28	39	4.78	2.40	1.77	1.01
29	5.38	4.00	6.95	2.22	9.50	3.12	14	47	5.26	2.22	1.77	4.30
30	3.90	3.30	6.28	17	6.30	2.67	11	35	5.26	2.22	–	2.67
31	–	2.94	–	–	5.76	–	8.30	–	5.63	2.04	–	2.13
Total	101.72	107.37	152.33	122.61	164.23	107.63	242.77	533.40	510.60	115.51	54.86	48.94
Mean	3.39	3.46	5.08	3.95	5.30	3.59	7.83	17.8	16.5	3.73	1.89	1.58
Max.	6.67	5.63	24	17	26	7.10	28	85	86	7.55	3.03	4.30
Min.	2.04	1.68	1.86	2.22	2.40	2.40	3.12	3.50	4.78	2.04	1.22	1.01
Runoff - MCM.	8.789	9.277	13.161	10.593	14.189	9.299	20.975	46.086	44.116	9.980	4.740	4.228

WATER YEAR 1967 : Max. 86 Min. 1.01 Mean 6.18 Annual Runoff 195.434 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Dec.1	18.00	3.78	89				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
KHLONG THA KHAE RIVER BASIN

Khlong Tha Khae at Ban Tha Khae, Phatthalung (X.68)

Location: Lat 7°- 34' - 01" N, Long 100°- 03' - 05" E, on left bank downstream side of bridge of Phatthalung - Hat Yai highway, at Ban Tha Khae, Amphoe Muang, Phatthalung.

Drainage Area: 298 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: 0.00 m. (A.D.)

Bench Mark: B.M. - H.S.

Location: About 2 meters from right bank and 15 meters from highway bridge.
Elevation: +4.659 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: 1967 to date.

Rating Operation:

Period of Rating: 1967 - 72
Rated by Float: -
Rated by Current Meter: 1967 - 72

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

Overbank Flow Conditions: No overbank flow.

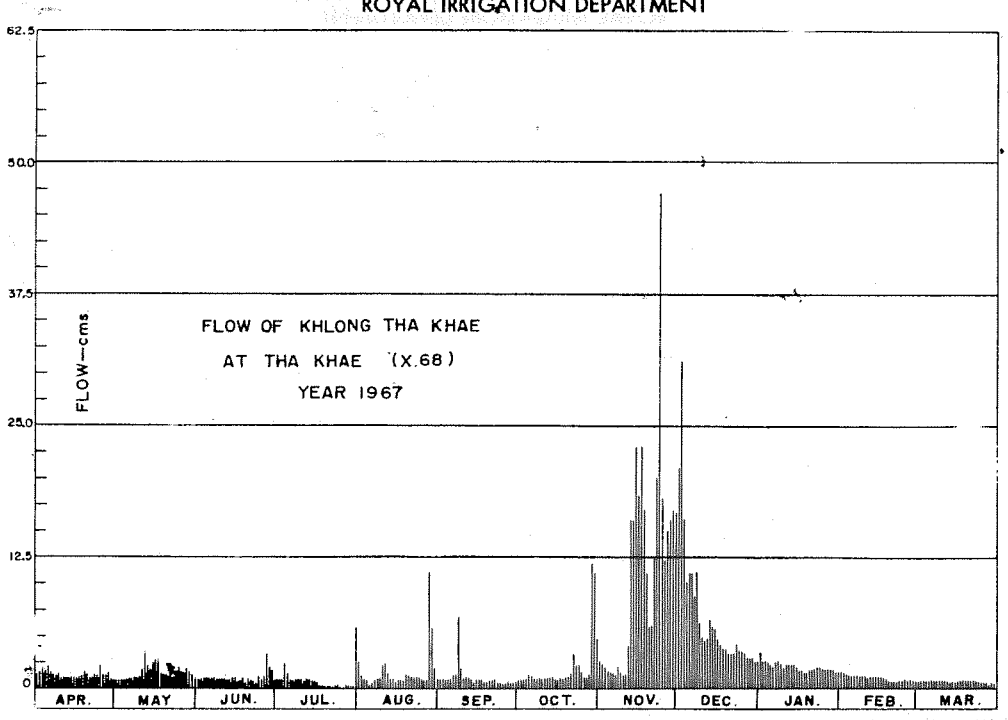
General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions.

GAGE HEIGHT IN METER (A.D.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.75	0.64	0.66	0.65	0.90	0.67	0.65	0.91	2.07	0.99	0.77	0.63
2	.77	.63	.67	.66	.69	.67	.66	.87	.54	.01	.76	.65
3	.76	.65	.67	.65	.65	.66	.66	.83	1.81	.01	.75	.65
4	.79	.65	.69	.86	.64	.67	.68	.81	.49	.89	.74	.64
5	.83	.66	.69	.67	.54	.65	.75	.78	.56	.88	.72	.64
6	0.77	0.65	0.69	0.64	0.62	0.73	0.72	0.76	1.52	0.85	0.73	0.65
7	.74	.67	.69	.65	.65	.66	.68	.73	.37	.91	.73	.64
8	.72	.70	.66	.66	.68	1.26	.67	.85	.52	.92	.72	.63
9	.74	.70	.67	.67	.69	0.76	.71	.77	.20	.88	.73	.64
10	.66	.72	.67	.66	.86	.68	.66	.73	.11	.81	.72	.64
11	0.71	0.80	0.67	0.63	0.87	0.71	0.68	0.75	1.09	0.88	0.71	0.64
12	.68	1.05	.63	.68	.73	.70	.67	.74	.10	.88	.72	.63
13	.69	0.84	.66	.66	.67	.65	.69	1.81	.24	.88	.72	.62
14	.71	.80	.70	.64	.68	.62	.70	.80	.18	.86	.72	.64
15	.70	.89	.69	.63	.59	.66	.66	2.18	.18	.82	.72	.63
16	0.69	0.93	0.62	0.59	0.67	0.64	0.66	1.92	1.09	0.80	0.71	0.64
17	.70	.94	.65	.56	.64	.68	.68	2.20	.05	.80	.70	.64
18	.72	.74	.69	.55	.68	.62	.66	1.90	.03	.79	.66	.66
19	.79	.74	.60	.54	.74	.61	.71	.55	.01	.78	.63	.65
20	.73	.73	.68	.52	.73	.63	.69	.18	0.98	.80	.63	.65
21	0.71	0.70	0.64	0.52	0.71	0.65	0.73	1.21	0.98	0.81	0.63	0.65
22	.71	.70	.63	.51	.71	.66	.97	.65	.98	.82	.63	.65
23	.74	.70	.61	.53	.72	.61	.83	2.04	1.07	.83	.65	.64
24	.71	.74	.72	.53	.70	.60	.87	3.22	.00	.83	.64	.63
25	.84	.83	.63	.50	.67	.56	.79	1.94	.00	.82	.67	.62
26	0.74	0.75	0.69	0.49	0.64	0.61	0.72	1.60	0.98	0.81	0.63	0.62
27	.69	.76	.97	.53	.65	.63	.71	.79	.94	.82	.66	.61
28	.76	.79	.83	.52	1.55	.59	.74	.80	.94	.81	.63	.55
29	.67	.76	.80	.51	.17	.59	1.61	.85	.94	.80	.63	.58
30	.64	.73	.65	.53	0.80	.62	.52	.81	.89	.77		.58
31		.69		1.19	.66		.07		.91	.78		.58
Mean	0.73	0.75	0.68	0.62	0.74	0.67	0.78	1.43	1.22	0.84	0.69	0.63
Max.	0.84	1.05	0.97	1.19	1.55	1.26	1.61	3.22	2.54	0.99	0.77	0.66
Min.	0.64	0.63	0.60	0.49	0.54	0.56	0.65	0.73	0.89	0.77	0.63	0.55

WATER YEAR 1967 : Max. 3.22 m. Min. 0.54 m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	1.45	0.80	0.90	0.85	2.60	0.95	0.85	2.70	21	3.50	1.59	0.75
2	1.59	0.75	0.95	0.90	1.05	0.95	0.90	2.36	31	2.70	1.52	0.85
3	1.52	0.85	0.95	0.85	0.85	0.90	0.90	2.04	16	2.70	1.45	0.85
4	1.73	0.85	1.05	2.28	0.80	0.95	1.00	1.88	10	2.52	1.38	0.80
5	2.04	0.90	1.05	0.95	0.35	0.85	1.45	1.66	11	2.44	1.24	0.80
6	1.59	0.85	1.05	0.80	0.70	1.31	1.24	1.52	11	2.20	1.31	0.85
7	1.38	0.95	1.05	0.85	0.85	0.90	1.00	1.31	8.45	2.70	1.31	0.80
8	1.24	1.10	0.90	0.90	1.00	6.84	0.95	2.20	11	2.80	1.24	0.75
9	1.38	1.10	0.95	0.95	1.05	1.52	1.17	1.59	6.00	2.44	1.31	0.80
10	0.90	1.24	0.95	0.90	2.28	1.00	0.90	1.31	4.87	1.88	1.24	0.80
11	1.17	1.80	0.95	0.75	2.36	1.17	1.00	1.45	4.63	2.44	1.17	0.80
12	1.00	4.17	0.75	1.00	1.31	1.10	0.95	1.38	4.75	2.44	1.24	0.75
13	1.05	2.12	0.90	0.90	0.95	0.85	1.05	16	6.56	2.44	1.24	0.70
14	1.17	1.80	1.10	0.80	1.00	0.70	1.10	16	5.75	2.28	1.24	0.80
15	1.10	2.52	1.05	0.75	0.56	0.90	0.90	23	5.75	1.96	1.24	0.75
16	1.05	2.90	0.70	0.56	0.95	0.80	0.90	18	4.63	1.80	1.17	0.80
17	1.10	3.00	0.85	0.43	0.80	1.00	1.00	23	4.17	1.80	1.10	0.80
18	1.24	1.38	1.05	0.39	1.00	0.70	0.90	17	3.94	1.73	1.95	0.90
19	1.73	1.38	0.60	0.35	1.38	0.65	1.17	11	3.71	1.66	0.75	0.85
20	1.31	1.31	1.00	0.26	1.31	0.75	1.05	5.75	3.40	1.80	0.75	0.85
21	1.17	1.10	0.80	0.26	1.17	0.85	1.31	6.14	3.40	1.88	0.75	0.85
22	1.17	1.10	0.75	0.22	1.17	0.90	3.30	13	3.40	1.96	0.75	0.85
23	1.38	1.10	0.65	0.31	1.24	0.65	2.04	20	4.40	2.04	0.85	0.80
24	1.17	1.38	1.24	0.31	1.10	0.60	2.36	47	3.60	2.04	0.80	0.75
25	2.12	2.04	0.75	0.18	0.95	0.43	1.73	18	3.60	1.96	0.95	0.70
26	1.38	1.45	1.05	0.14	0.80	0.65	1.24	12	3.40	1.88	0.75	0.70
27	1.05	1.52	3.30	0.31	0.85	0.75	1.17	15	3.00	1.96	0.90	0.65
28	1.52	1.73	2.01	0.26	11	0.56	1.38	16	3.00	1.88	0.75	0.39
29	0.95	1.52	1.80	0.22	5.62	0.56	12	17	3.00	1.80	0.75	0.52
30	0.80	1.31	0.85	0.31	1.80	0.70	11	16	2.52	1.59		0.52
31		1.05		5.87	0.90		4.40		2.70	1.66		0.52
Total	39.45	47.07	31.98	24.81	49.75	31.44	62.31	331.29	213.63	66.88	31.69	23.30
Mean	1.31	1.52	1.07	0.80	1.60	1.05	2.01	11.0	6.89	2.16	1.09	0.75
Max.	2.12	4.17	3.30	5.87	11	6.84	12	47	31	3.50	1.59	0.90
Min.	0.80	0.75	0.60	0.14	0.35	0.43	0.85	1.31	2.52	1.59	0.75	0.39
Runoff - RCM.	3.408	4.067	2.763	2.143	4.298	2.716	5.383	28.623	18.458	5.778	2.738	2.013

WATER YEAR 1967 : Max. 47 Min. 0.14 Mean 2.60 Annual Runoff 82.391 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Nov.23	18.00	3.83	57				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
KHLONG PHRU PHO RIVER BASIN

Khlong Phru Pho at Ban Phru Pho, Songkhla (X.69)

Location: Lat 7°- 11' - 25" N, Long 100°- 13' - 26" E, on right bank upstream side of bridge of Phattalung - Hat Yai Highway, at Ban Phru Pho, Amphoe Rattaphum, Songkhla.

Drainage Area: 88 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: 0.00 m. (A.D.)

Bench Mark: B.M. - H.S.

Location: On left bank about 500 meter from Para Tree.
Elevation: +4.229 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: 1967 to date.

Rating Operation:

Period of Rating: 1967 - 72
Rated by Float: -
Rated by Current Meter: 1967 - 72

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

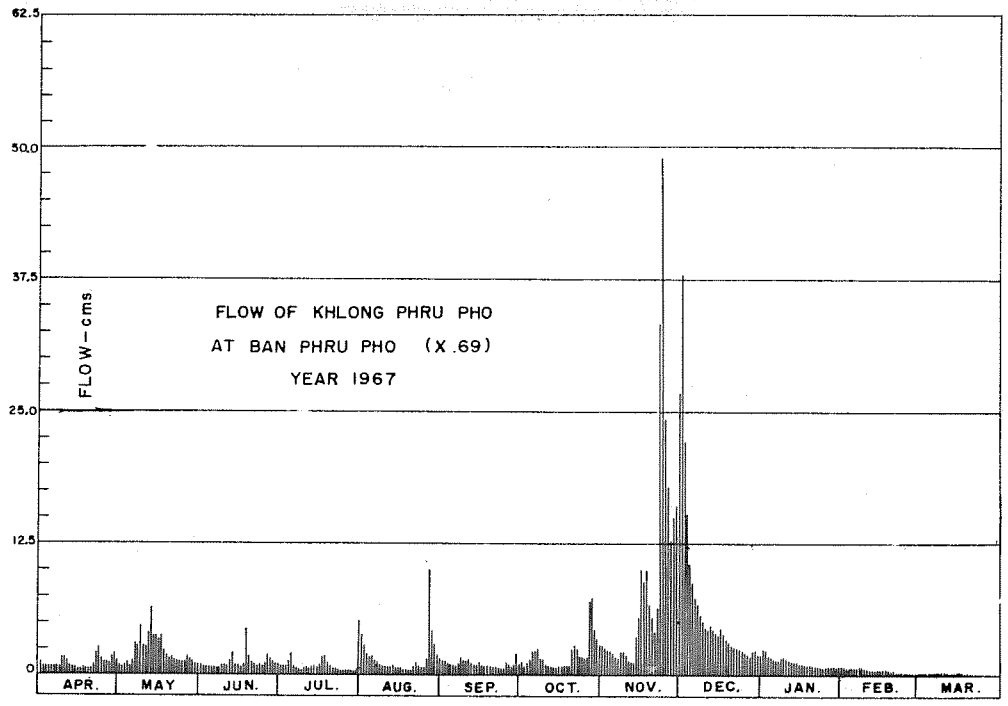
Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions for irrigation except those built by local residents. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (A.D.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.93	0.89	0.92	0.93	1.30	0.99	0.96	1.20	3.15	1.16	0.86	0.76
2	.89	.86	.89	.91	.20	.97	.88	.16	2.64	.12	.85	.75
3	.87	.90	.88	.89	.07	.95	.95	.14	.05	.07	.85	.75
4	.87	.94	.88	.97	.05	.94	.97	.14	1.84	.05	.85	.75
5	.87	.88	.87	1.10	.06	.93	1.12	.08	.75	.03	.85	.75
6	0.87	0.93	0.87	0.88	1.00	0.91	1.11	1.06	1.64	1.02	0.86	0.75
7	.87	1.23	.86	.86	0.96	.92	.16	.02	.59	.03	.93	.75
8	.85	.06	.86	.85	.94	1.04	.02	.14	.49	.07	.92	.75
9	.98	.35	.93	.85	.92	0.97	.00	.13	.44	.04	.86	.75
10	1.01	.17	.91	.86	.91	.99	0.93	.05	.39	.01	.84	.75
11	0.94	1.12	0.87	0.90	0.90	1.02	0.92	0.98	1.37	0.99	0.83	0.74
12	.89	.24	.97	.85	.90	0.95	.89	.96	.42	.99	.83	.74
13	.87	.56	1.10	.90	.94	.93	.87	.96	.37	.97	.82	.74
14	.85	.28	0.94	.92	.88	.91	.85	1.34	.35	.96	.81	.73
15	.85	.35	.91	.87	.87	.96	.88	.53	.31	.95	.81	.73
16	0.84	1.26	0.89	0.90	0.87	0.91	0.88	1.87	1.38	0.95	0.81	0.73
17	.86	.31	.90	1.04	.85	.89	.88	.73	.31	.94	.81	.72
18	.85	.14	1.38	.07	.85	.94	.93	.86	.28	.93	.80	.72
19	.84	.07	.06	0.96	.83	.89	.90	.59	.24	.95	.80	.72
20	.83	.03	0.97	.91	.84	.88	1.11	.47	.20	.92	.80	.71
21	0.86	1.04	0.94	0.88	0.93	0.90	1.20	1.34	1.18	0.91	0.79	0.71
22	1.04	.00	.91	.87	.96	.87	.21	.29	.17	.91	.79	.70
23	.17	0.97	.91	.85	.90	.86	.06	3.55	.16	.90	.79	.70
24	0.98	.96	.92	.84	.89	.84	.05	.19	.14	.90	.78	.69
25	.93	.96	.94	.83	.89	.99	.01	2.29	.10	.89	.78	.68
26	0.94	0.96	1.08	0.82	0.93	0.95	1.07	2.29	1.08	0.90	0.77	0.67
27	.90	1.05	.02	.82	1.87	.87	.62	1.90	.07	.90	.77	.67
28	.99	.03	0.99	.81	.35	.92	.64	2.16	.12	.89	.77	.66
29	1.09	0.98	.95	.79	.16	1.09	.36	.14	.14	.87	.77	.66
30	0.94	.94	.93	.83	.06	0.94	.25	.50	.08	.87		.71
31		.92		1.45	.02		.19		.08	.88		.68
Mean	0.91	1.08	0.95	0.91	1.00	0.94	1.06	1.60	1.44	0.97	0.82	0.72
Max.	1.17	1.56	1.38	1.45	1.87	1.09	1.64	3.55	3.15	1.16	0.93	0.76
Min.	0.83	0.86	0.86	0.79	0.83	0.84	0.85	0.96	1.07	0.87	0.77	0.66

WATER YEAR 1967 : Max. 3.55 m. Min. 0.66 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	1.11	0.90	1.06	1.11	3.75	1.44	1.28	2.90	38	2.62	0.77	0.38
2	0.90	0.77	0.90	1.00	2.90	1.33	0.86	2.62	25	2.34	0.72	0.35
3	0.81	0.95	0.86	0.90	1.99	1.22	1.22	2.48	13	1.99	0.72	0.35
4	0.81	1.17	0.86	1.33	1.85	1.17	1.33	2.48	10	1.85	0.72	0.35
5	0.81	0.86	0.81	2.20	1.92	1.11	2.34	2.06	8.82	1.71	0.72	0.35
6	0.81	1.11	0.77	0.86	1.50	1.00	2.27	1.92	7.40	1.64	0.77	0.35
7	0.81	3.15	0.77	0.77	1.28	1.06	2.62	1.64	6.78	1.71	1.11	0.35
8	0.72	1.92	0.77	0.72	1.17	1.78	1.64	2.48	5.64	1.99	1.06	0.35
9	1.39	4.22	1.11	0.72	1.06	1.33	1.50	2.41	5.12	1.78	0.77	0.35
10	1.57	2.69	1.00	0.77	1.00	1.44	1.11	1.85	4.60	1.57	0.68	0.35
11	1.17	2.34	0.81	0.95	0.95	1.64	1.06	1.39	4.41	1.44	0.63	0.32
12	0.90	3.24	1.33	0.72	0.95	1.22	0.90	1.28	4.91	1.44	0.63	0.32
13	0.81	6.44	2.20	0.95	1.17	1.11	0.81	1.28	4.41	1.33	0.59	0.32
14	0.72	3.58	1.17	1.06	0.86	1.00	0.72	4.13	4.22	1.28	0.54	0.29
15	0.72	4.22	1.00	0.81	0.81	1.28	0.86	6.09	3.84	1.22	0.54	0.29
16	0.69	3.41	0.90	0.95	0.81	1.00	0.86	10	4.51	1.22	0.54	0.29
17	0.77	3.84	0.95	1.78	0.72	0.90	0.86	8.55	3.84	1.17	0.54	0.26
18	0.72	2.48	4.51	1.99	0.72	1.17	1.11	10	3.56	1.11	0.50	0.26
19	0.68	1.99	1.92	1.28	0.63	0.90	0.95	6.78	3.24	1.22	0.50	0.26
20	0.63	1.71	1.33	1.00	0.68	0.86	2.27	5.48	2.90	1.06	0.50	0.23
21	0.77	1.78	1.17	0.86	1.11	0.95	2.90	4.13	2.76	1.00	0.47	0.23
22	1.78	1.50	1.00	0.81	1.28	0.81	2.98	3.66	2.69	1.00	0.47	0.20
23	2.69	1.33	1.00	0.72	0.95	0.77	1.92	49	2.62	0.95	0.47	0.20
24	1.39	1.28	1.06	0.68	0.90	0.68	1.85	39	2.48	0.95	0.44	0.18
25	1.11	1.28	1.17	0.63	0.90	1.44	1.57	18	2.20	0.90	0.44	0.17
26	1.17	1.28	2.06	0.59	1.11	1.22	1.99	18	2.06	0.90	0.41	0.15
27	0.95	1.85	1.64	0.59	10	0.81	7.15	11	1.99	0.90	0.41	0.15
28	1.44	1.71	1.44	0.54	4.22	1.06	7.40	15	2.34	0.81	0.41	0.14
29	2.13	1.39	1.22	0.47	2.62	2.13	4.32	15	2.48	0.81	0.41	0.14
30	1.17	1.17	1.11	0.63	1.92	1.17	3.32	22	2.06	0.86		0.23
31		1.06		5.22	1.64		2.83		2.06			0.17
Total	32.14	66.62	37.90	33.61	53.37	35.00	64.80	272.56	189.96	41.77	17.48	8.33
Mean	1.07	2.15	1.26	1.08	1.72	1.17	2.09	9.08	6.13	1.34	0.60	0.27
Max.	2.69	6.44	4.51	5.22	10	2.13	7.40	49	38	2.62	1.11	0.38
Min.	0.63	0.77	0.77	0.47	0.63	0.68	0.72	1.28	1.99	0.81	0.41	0.14
Runoff - mcm.	2.777	5.756	3.274	2.904	4.611	3.024	5.599	23.549	16.412	3.609	1.510	0.720

WATER YEAR 1967 : Max. 49 Min. 0.14 Mean 2.33 Annual Runoff 73.746 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Nov.23	18.00	3.83	57				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
KHLONG BAN TAN RIVER BASIN

Khlong Ban Tan at Ban Wang Kong, Nakhon Si Thammarat (X.70)

Location: Lat 8° - 25' - 35" N, Long 99° - 51' - 53" E, on right bank at bridge of Nakhon Si Thammarat - Amphoe Lan Saka Road, at Ban Wang Kong, Amphoe Muang, Nakhon Si Thammarat.

Drainage Area: 39 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: 0.00 m. (A.D.)

Bench Mark:

Location:
Elevation:

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 - 71
Rated by Float: -
Rated by Current Meter: 1967 - 71

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

Overbank Flow Conditions: No overbank flow.

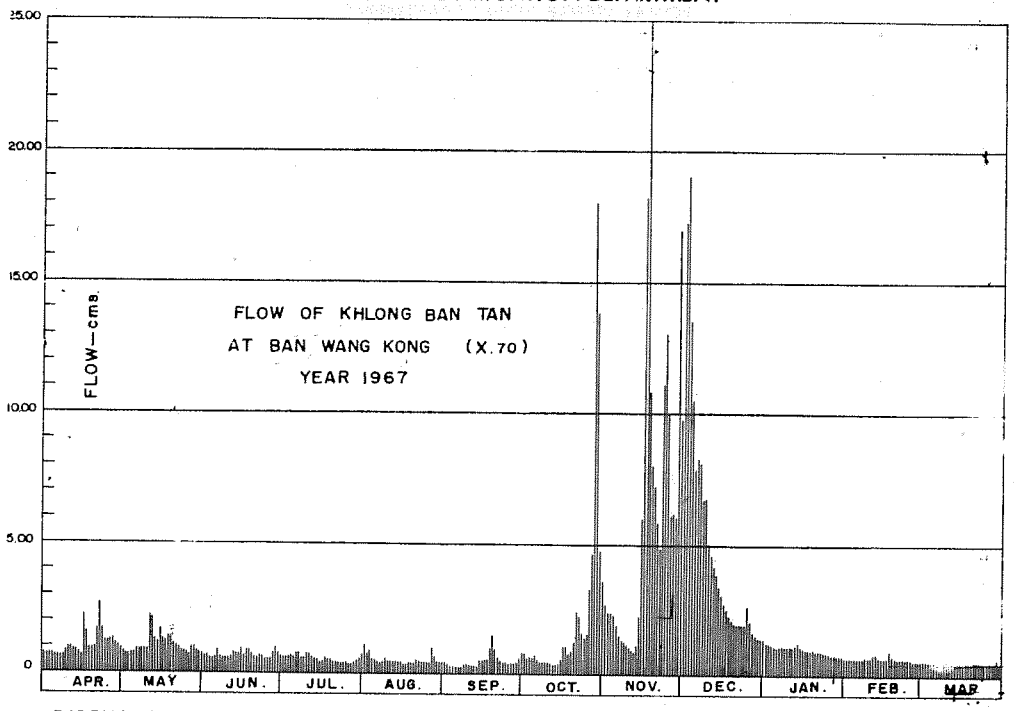
General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions except those built by local residents. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (A.D.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.25	0.27	0.23	0.22	0.34	0.16	0.24	0.55	2.28	0.36	0.23	0.21
2	.24	.25	.24	.22	.24	.14	.20	.56	.52	.35	.23	.20
3	.24	.25	.23	.22	.27	.13	.22	.56	1.85	.34	.23	.20
4	.25	.25	.21	.23	.21	.13	.21	.55	.55	.33	.23	.20
5	.23	.27	.21	.21	.20	.13	.24	.47	.31	.32	.23	.20
6	0.23	0.28	0.29	0.26	0.18	0.12	0.20	0.42	1.39	0.32	0.23	0.20
7	.22	.28	.22	.25	.17	.12	.18	.37	.37	.33	.23	.20
8	.23	.28	.21	.20	.17	.15	.18	.36	.16	.32	.24	.21
9	.28	.29	.21	.20	.21	.14	.17	.33	.20	.32	.22	.23
10	.28	.28	.20	.24	.18	.14	.17	.30	.00	.32	.22	.23
11	0.31	0.55	0.20	0.24	0.18	0.13	0.16	0.28	0.92	0.32	0.24	0.20
12	.24	.53	.26	.20	.17	.13	.15	.27	.84	.34	.26	.20
13	.28	.36	.25	.19	.17	.12	.15	.26	.80	.31	.23	.20
14	.24	.34	.24	.19	.16	.21	.15	.48	.72	.32	.22	.20
15	.22	.46	.29	.18	.16	.16	.18	1.07	.67	.30	.22	.20
16	0.54	0.38	0.23	0.18	0.15	0.21	0.32	1.69	0.62	0.30	0.21	0.20
17	.36	.35	.29	.22	.15	.20	.31	3.08	.58	.29	.30	.20
18	.28	.40	.27	.21	.16	.33	.23	1.36	.54	.29	.24	.20
19	.30	.39	.25	.20	.15	.41	.26	.36	.51	.30	.23	.20
20	.27	.33	.22	.18	.15	.25	.27	.20	.49	.29	.23	.19
21	0.46	0.31	0.21	0.18	0.20	0.19	0.57	0.99	0.47	0.28	0.22	0.19
22	.63	.30	.24	1"	.18	.17	.52	.84	.48	.28	.22	.19
23	.37	.27	.23	.17	.16	.16	.39	1.73	.49	.27	.22	.18
24	.35	.27	.21	.16	.16	.16	.40	.89	.47	.26	.22	.18
25	.35	.26	.20	.16	.16	.15	.38	.18	.62	.26	.22	.18
26	0.36	0.25	0.20	0.15	0.16	0.16	0.88	1.10	0.47	0.25	0.21	0.17
27	.38	.31	.26	.15	.29	.16	.92	.12	.43	.25	.21	.17
28	.33	.31	.31	.16	.19	.16	2.43	.10	.41	.25	.21	.17
29	.31	.26	.24	.19	.16	.20	1.34	2.33	.39	.24	.21	.22
30	.29	.26	.23	.20	.16	.26	0.87	1.37	.38	.24		.16
31		.25		.25	.17		.67		.38	.23		.15
Mean	0.31	0.32	0.24	0.20	0.17	0.18	0.44	0.97	0.88	0.30	0.23	0.19
Max.	0.63	0.55	0.31	0.26	0.34	0.41	2.43	3.08	2.52	0.36	0.30	0.23
Min.	0.22	0.25	0.20	0.15	0.15	0.12	0.15	0.26	0.38	0.23	0.21	0.15

WATER YEAR 1967 : Max. 3.08 m. Min. 0.15 m.

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.77	0.86	0.68	0.64	1.18	0.41	0.73	2.27	17	1.27	0.68	0.59
2	0.73	0.77	0.73	0.64	0.73	0.34	0.55	2.33	19	1.22	0.68	0.55
3	0.73	0.77	0.68	0.64	0.86	0.30	0.64	2.33	12	1.18	0.68	0.55
4	0.77	0.77	0.53	0.68	0.59	0.30	0.59	2.27	9.50	1.13	0.68	0.55
5	0.68	0.86	0.53	0.59	0.55	0.30	0.73	1.83	7.58	1.09	0.68	0.55
6	0.68	0.91	0.95	0.82	0.48	0.27	0.55	1.56	8.22	1.09	0.68	0.55
7	0.64	0.91	0.64	0.77	0.44	0.27	0.48	1.31	8.06	1.13	0.68	0.55
8	0.68	0.91	0.59	0.55	0.44	0.37	0.48	1.27	6.45	1.09	0.73	0.59
9	0.91	0.95	0.59	0.55	0.59	0.34	0.44	1.13	6.75	1.09	0.64	0.68
10	0.91	0.91	0.55	0.73	0.48	0.34	0.44	1.00	5.25	1.09	0.64	0.68
11	1.04	2.27	0.55	0.73	0.48	0.30	0.41	0.91	4.69	1.09	0.73	0.55
12	0.73	2.16	0.82	0.55	0.44	0.30	0.37	0.86	4.13	1.18	0.82	0.55
13	0.91	1.27	0.77	0.51	0.44	0.27	0.37	0.82	3.85	1.27	0.68	0.55
14	0.73	1.18	0.73	0.51	0.41	0.59	0.37	1.89	3.33	1.09	0.64	0.55
15	0.64	1.78	0.95	0.48	0.41	0.41	0.48	5.77	3.00	1.00	0.64	0.55
16	2.22	1.36	0.68	0.48	0.37	0.59	1.09	11	2.68	1.00	0.59	0.55
17	1.27	1.22	0.95	0.64	0.37	0.55	1.04	26	2.38	0.95	1.00	0.55
18	0.91	1.45	0.86	0.59	0.41	1.13	0.68	7.98	2.22	0.95	0.73	0.55
19	1.00	1.40	0.77	0.55	0.41	1.50	0.82	7.98	2.05	1.00	0.68	0.55
20	0.86	1.13	0.64	0.48	0.37	0.77	0.86	6.75	1.94	0.95	0.68	0.51
21	1.73	1.04	0.59	0.48	0.55	0.51	2.38	5.18	1.83	0.91	0.64	0.51
22	2.74	1.00	0.73	0.44	0.48	0.44	2.11	4.13	1.89	0.91	0.64	0.51
23	1.31	0.86	0.68	0.44	0.41	0.41	1.40	11	1.94	0.86	0.64	0.48
24	1.22	0.86	0.59	0.41	0.41	0.41	1.45	13	1.83	0.82	0.64	0.48
25	1.22	0.82	0.55	0.41	0.41	0.37	1.36	6.60	2.68	0.82	0.64	0.48
26	1.27	0.77	0.55	0.37	0.41	0.41	4.41	6.00	1.83	0.77	0.59	0.44
27	1.36	1.04	0.82	0.37	0.95	0.41	4.69	6.15	1.61	0.77	0.59	0.44
28	1.13	1.04	1.04	0.41	0.51	0.41	18	6.00	1.50	~~0.77~~	~~0.59~~	0.44
29	~~1.04~~	~~0.82~~	~~0.73~~	~~0.51~~	~~0.41~~	~~0.55~~	7.82	17	1.40	0.73	0.59	0.64
30	0.95	0.82	0.68	0.55	0.41	0.82	4.34	8.06	1.36	0.73	–	0.41
31	–	0.77	–	0.77	0.44	–	3.00	–	1.36	0.68	–	0.37
Total	31.83	33.68	21.27	17.29	15.84	14.39	63.08	170.38	149.31	30.63	19.52	16.50
Mean	1.06	1.09	0.71	0.56	0.51	0.48	2.03	5.68	4.82	0.99	0.67	0.53
Max.	2.74	2.27	1.04	0.82	1.18	1.50	18	26	19	1.27	1.00	0.68
Min.	0.64	0.77	0.55	0.37	0.37	0.27	0.37	0.82	1.36	0.68	0.59	0.37
Runoff – mcm.	2.750	2.910	1.838	1.494	1.368	1.243	5.450	14.721	12.900	2.646	1.686	1.426

WATER YEAR 1967 : Max. 26 Min. 0.37 Mean 1.59 Annual Runoff 50.433 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Nov.17	6.00	3.75	34				

HYDROLOGY SECTION, SURVEY DIVISION
ROYAL IRRIGATION DEPARTMENT

WATER YEAR 1967
KHLONG TAM RIVER BASIN

Khlong Tam at Ban Khuan Lang, Songkhla (X.71)

Location: Lat 6° - 59' - 33" N, Long 100° - 25' - 57" E, on right bank at downstream side of bridge of Phet Kasem highway at Ban Khuan Lang, Amphoe Hat Yai, Songkhla.

Drainage Area: 127 sq.km.

Type of Gage: Staff gage.

Zero Gage at Bottom at: 0.00 m. (A.D.)

Bench Mark: B.M. - H.S.

Location: On left bank about 12 meters from highway bridge.
Elevation: +6.569 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: 1967 to date.

Rating Operation:

Period of Rating: 1967 - 72
Rated by Float: -
Rated by Current Meter: 1967 - 72

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation.

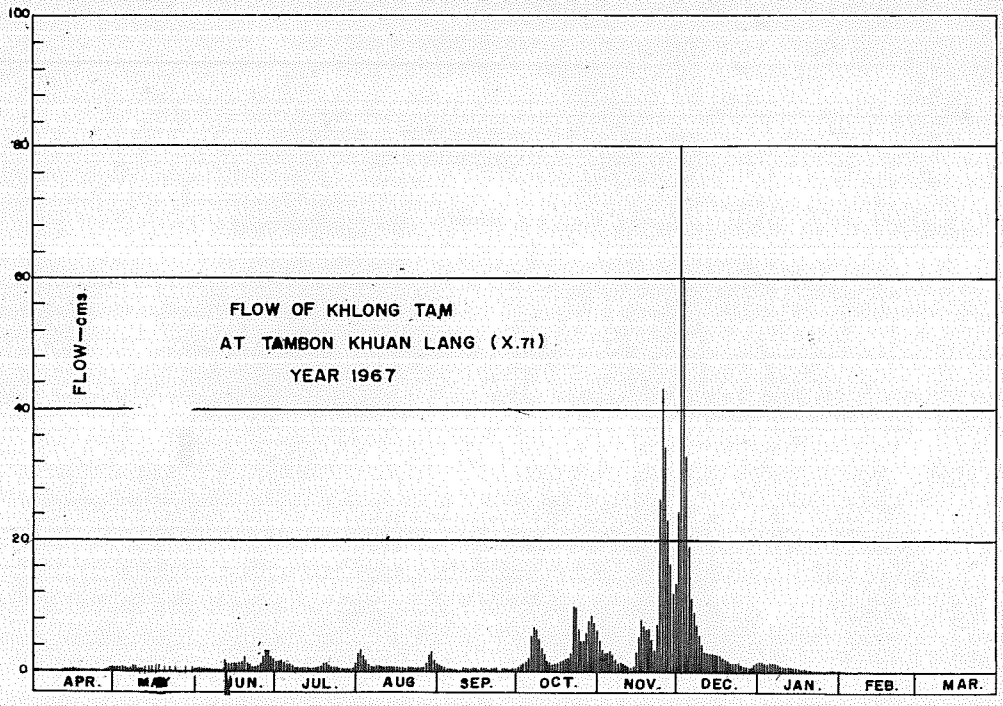
Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1967. No upstream state diversions except those built by local residents. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (A.D.), WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	1.61	1.81	1.76	2.09	2.48	1.89	1.84	2.82	5.16	2.11	1.48	1.41
2	.66	.77	.73	.17	.61	.82	.94	.57	6.66	.11	.46	.41
3	.66	.86	.70	.17	.33	.76	2.00	.44	.13	.06	.46	.40
4	.64	.88	.69	.01	.10	.71	.10	.52	5.33	.02	.45	.40
5	.62	.76	.67	.01	1.94	.70	.30	.57	4.52	.08	.46	.40
6	1.59	1.75	1.64	1.97	1.89	1.67	3.02	2.41	3.85	2.09	1.47	1.38
7	.56	.75	.64	.87	.85	.64	.23	.25	.56	.06	.46	.38
8	.55	.95	.64	.86	.85	.63	.19	1.98	.25	.03	.46	.38
9	.51	.96	.62	.76	.81	.62	2.79	2.14	2.96	1.95	.48	.38
10	.52	.85	.59	.75	.82	.63	.60	.05	.74	.88	.47	.38
11	1.63	1.83	1.76	1.74	1.82	1.70	2.37	1.91	2.55	1.84	1.46	1.37
12	.68	.86	2.03	.76	.84	.70	.12	.83	.50	.83	.45	.37
13	.69	.82	.01	.73	.87	.65	.00	.77	.51	.82	.41	.37
14	.68	.78	.05	.74	.82	.66	1.88	.88	.45	.83	.43	.38
15	.67	.77	.06	.76	.75	.63	2.03	2.51	.44	.75	.43	.37
16	1.65	1.93	2.00	1.84	1.75	1.59	1.99	2.99	2.45	1.74	1.42	1.38
17	.63	.98	.07	.88	.71	.67	2.12	3.38	.41	.74	.43	.37
18	.62	.97	.00	2.00	.68	.60	.18	.19	.33	.69	.52	.38
19	.62	.90	.28	.03	.67	.59	.19	.12	.27	.68	.49	.38
20	.62	.84	.03	.04	.69	.63	.28	.18	.15	.67	.48	.37
21	1.63	1.77	1.94	1.96	1.75	1.61	2.23	2.70	2.04	1.66	1.48	1.37
22	.64	.76	.84	.83	.83	.57	3.66	.47	.06	.64	.47	.37
23	.63	.77	.88	.82	.79	.56	.64	3.10	.07	.63	.46	.37
24	.62	.70	.90	.73	.67	.54	.07	4.84	.03	.62	.44	.37
25	.65	.72	2.04	.70	.72	.54	2.82	5.93	1.99	.60	.45	.36
26	1.69	1.71	2.36	1.67	1.73	1.55	2.86	5.18	1.86	1.56	1.42	1.36
27	.66	.79	.61	.66	2.07	.55	3.06	4.50	.85	.61	.41	.36
28	.72	.88	.47	.64	.43	.60	.40	.19	.83	.54	.41	.36
29	.88	.98	.28	.64	.54	.66	.49	3.84	.89	.53	.41	.36
30	.88	.95	.22	.70	.26	.68	.27	.94	2.07	.49		.36
31		.85		2.01	.04		.08		.11	.47		.36
Mean	1.65	1.83	1.95	1.86	1.94	1.64	2.60	3.01	2.90	1.78	1.45	1.38
Max.	1.88	1.98	2.61	2.17	2.61	1.89	3.66	5.93	6.66	2.11	1.52	1.41
Min.	1.51	1.70	1.59	1.64	1.67	1.54	1.84	1.77	1.83	1.47	1.41	1.36

WATER YEAR 1967 : Max. 6.66 m. Min. 1.36 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1967 TO MARCH 31, 1968

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.26	0.62	0.52	1.37	2.73	0.78	0.68	4.36	27	1.43	0.092	0.064
2	0.34	0.54	0.46	1.64	3.30	0.64	0.92	3.11	80	1.43	0.084	0.064
3	0.34	0.72	0.40	1.64	2.20	0.52	1.10	2.59	49	1.28	0.084	0.060
4	0.31	0.76	0.38	1.13	1.40	0.42	1.40	2.89	29	1.16	0.080	0.060
5	0.28	0.52	0.35	1.13	0.92	0.40	2.10	3.11	18	1.34	0.084	0.060
6	0.23	0.50	0.31	1.01	0.78	0.35	5.52	2.48	11	1.37	0.088	0.058
7	0.19	0.50	0.31	0.74	0.70	0.31	6.84	1.92	9.18	1.28	0.084	0.058
8	0.17	0.95	0.31	0.72	0.70	0.29	6.58	1.04	6.97	1.19	0.084	0.058
9	0.11	0.98	0.28	0.52	0.62	0.28	4.20	1.54	5.16	0.95	0.092	0.058
10	0.13	0.70	0.23	0.50	0.64	0.29	3.25	1.25	3.95	0.76	0.088	0.058
11	0.29	0.66	0.52	0.48	0.64	0.40	2.34	0.83	3.02	0.68	0.084	0.057
12	0.37	0.72	1.19	0.52	0.68	0.40	1.47	0.66	2.80	0.66	0.080	0.057
13	0.38	0.64	1.13	0.46	0.74	0.32	1.10	0.54	2.84	0.64	0.064	0.057
14	0.37	0.56	1.25	0.48	0.64	0.34	0.76	0.76	2.62	0.66	0.072	0.058
15	0.35	0.54	1.28	0.52	0.50	0.29	1.19	2.84	2.59	0.50	0.072	0.057
16	0.32	0.89	1.10	0.68	0.50	0.23	1.07	5.34	2.62	0.48	0.068	0.058
17	0.29	1.04	1.31	0.76	0.42	0.35	1.47	7.86	2.48	0.48	0.072	0.057
18	0.28	1.01	1.10	1.10	0.37	0.25	1.68	6.58	2.20	0.38	0.13	0.058
19	0.28	0.80	2.03	1.19	0.35	0.23	1.71	6.13	1.99	0.37	0.096	0.058
20	0.28	0.68	1.19	1.22	0.38	0.29	2.03	6.52	1.57	0.35	0.092	0.057
21	0.29	0.54	0.92	0.98	0.50	0.26	1.85	3.75	1.22	0.34	0.092	0.057
22	0.31	0.52	0.68	0.66	0.66	0.20	9.98	2.69	1.28	0.31	0.088	0.057
23	0.29	0.54	0.76	0.64	0.58	0.19	9.82	6.00	1.31	0.29	0.084	0.057
24	0.28	0.40	0.80	0.46	0.35	0.16	5.82	22	1.19	0.28	0.076	0.057
25	0.32	0.44	1.22	0.40	0.44	0.16	4.36	43	1.07	0.25	0.080	0.056
26	0.38	0.42	2.31	0.35	0.46	0.17	4.58	27	0.72	0.19	0.068	0.056
27	0.34	0.58	3.30	0.34	1.31	0.17	5.76	18	0.70	0.26	0.064	0.056
28	0.44	0.76	2.69	0.31	2.55	0.25	8.00	15	0.66	0.16	0.064	0.056
29	0.76	1.04	2.03	0.31	2.98	0.34	8.63	11	0.78	0.14	0.064	0.056
30	0.76	0.95	1.82	0.40	1.96	0.37	7.10	12	1.31	0.096		0.056
31		0.70		1.13	1.22		5.88		1.43	0.088		0.056
Total	9.74	21.22	32.18	23.79	32.22	9.65	119.19	222.79	275.66	19.794	2.370	1.792
Mean	0.32	0.68	1.07	0.77	1.04	0.32	3.84	7.43	8.89	0.64	0.08	0.06
Max.	0.76	1.04	3.30	1.64	3.30	0.78	9.98	43	80	1.43	0.93	0.064
Min.	0.11	0.40	0.23	0.31	0.35	0.16	0.68	0.54	0.66	0.088	0.064	0.056
Runoff - mcm.	0.841	1.833	2.780	2.055	2.784	0.834	10.298	19.249	23.817	1.710	0.205	0.155

WATER YEAR 1967 : Max. 80 Min. 0.056 Mean 2.10 Annual Runoff 66.562 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Dec.2	09.00	6.70	83				