

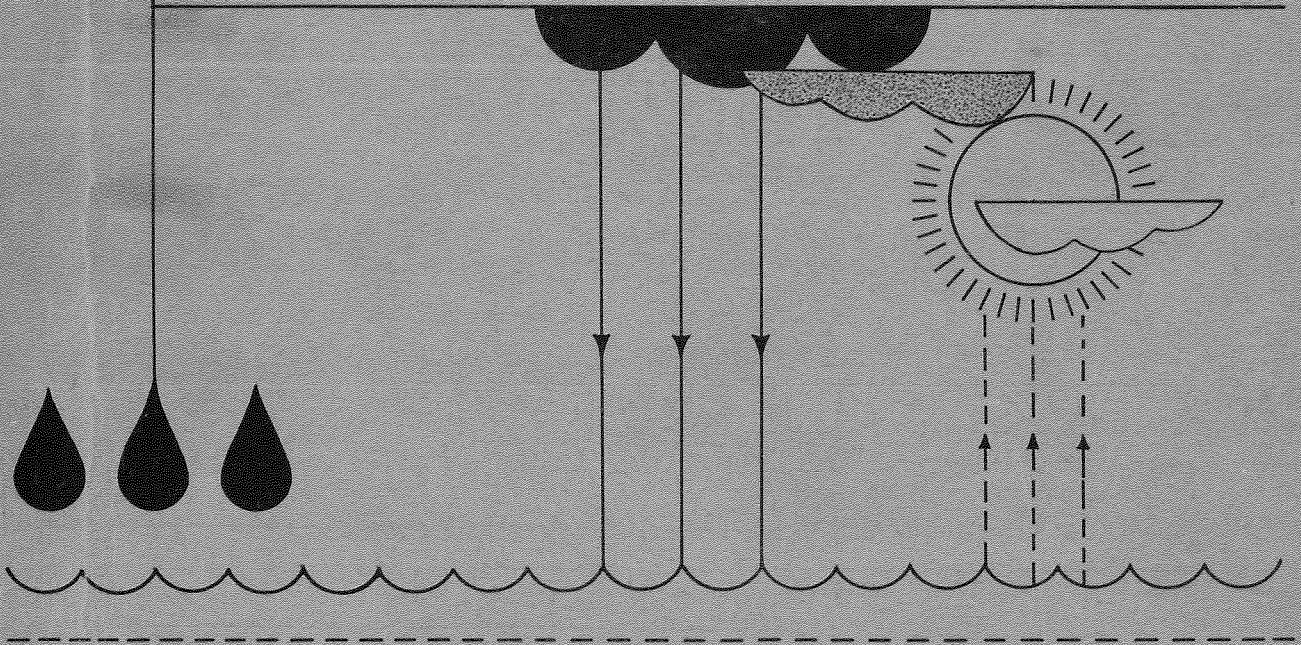
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173

# THAILAND HYDROLOGICAL YEARBOOK

## WATER YEAR 1963-1964

### VOLUME 7



MINISTRY OF NATIONAL DEVELOPMENT  
ROYAL IRRIGATION DEPARTMENT  
BANGKOK, THAILAND



Hydrology No. 245/69

THAILAND  
HYDROLOGICAL YEARBOOK  
VOLUME 7  
WATER YEAR 1963-1964

MINISTRY OF NATIONAL DEVELOPMENT  
ROYAL IRRIGATION DEPARTMENT  
HYDROLOGY SECTION  
BANGKOK, THAILAND





## FOREWORD

The work on streamflow data processing has been carried out by the Hydrology Section since the scientific approach on data observation and processing was introduced and employed some twenty years ago. It has been kept continuing with current improvement of engineering standard by adopting the modern techniques and practices in use by those developed countries. The publication of such data has been planned but its implementation was hesitated due to the limitation of budget. Finally, the programme for yearbook publication submitted to the Budget Bureau was approved in the fiscal year 1966. Great efforts have been made in setting up the standard for yearbook publication, while the work on review of the overall flow data previously processed has also been made. The editing of such publication also takes time and delays implementation. After the data processing in its final stage was made and approximate number of station-years was arranged into serial order or volumes to be published, the first publication being issued as Volume 8 in 1968. It contains the flow data as of hydrological year 1965.

This Volume 7 of the series is the second issue which contains 88 and 94 station-years for the hydrological year 1963 and 1964 respectively. The number of flow data processed from actual calibrating sites is 41 station-years for 1963 and 45 for 1964, while the rest is of computed flow based the application of mean daily gage height to the stage-discharge relationship as of previously or subsequently calibrated at such site. Remarks on such application will be made under each station description.

Damrong Jaraswathana

Chief of Hydrology Section  
July 1969

## 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 had made a great attempt to set up procedure for yearbook publication and to adopt engineering standard, methods and steps for implementation by which further publication of the series will be based upon.

We also wish to express our sincere appreciations and gratitude to the Chief of the Typographical and Reproduction Section, Technical Division, and his efficient staff whose kind assistance and co-ordinated efforts have contributed to the success of the publication of Volume 7 of the series.

Hydrology Section

July 1969

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LOCATION MAP OF HYDROLOGIC OBSERVATION STATIONS IN 1963-1964.

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ILLUSTRATION OF STREAMFLOW GAGING ACTIVITIES

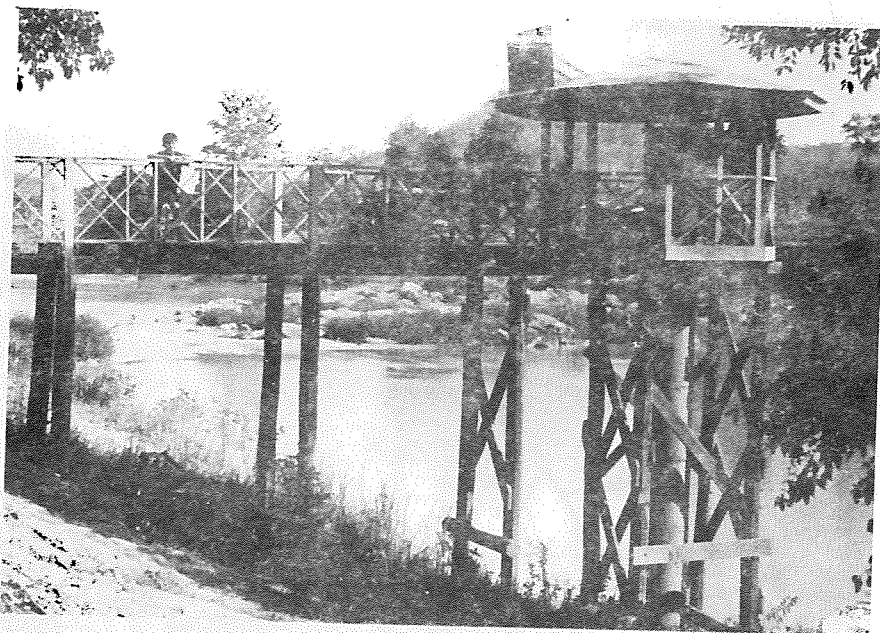


Figure 1. Recording Gaging Station of Yom River  
at Kaeng Luang (Y.6), Sukhothai.

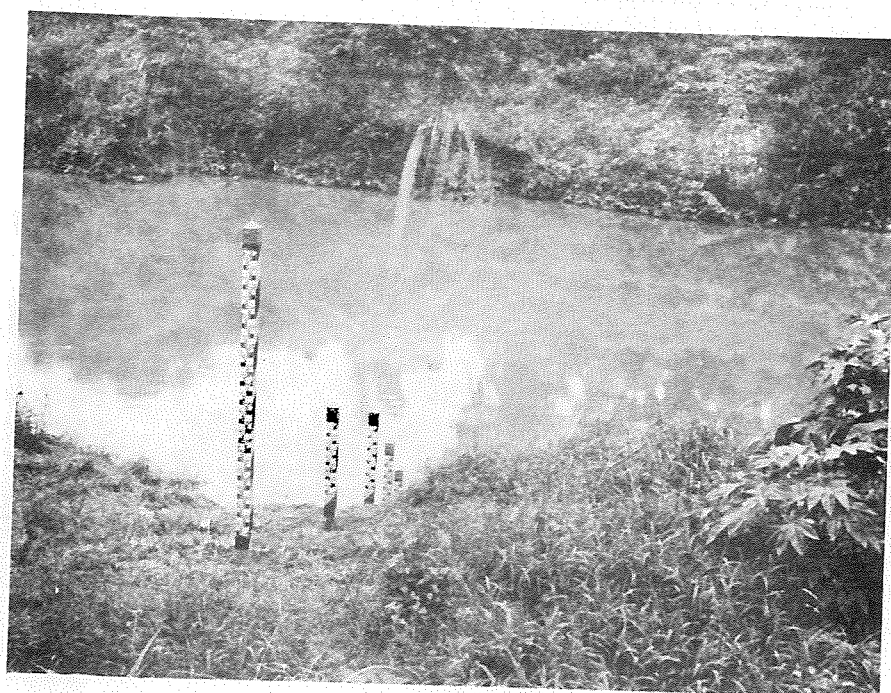


Figure 2. Staff Gaging Station of Yom River  
at Don Rabiang (Y.14), Sukhothai.



Figure 3. Recording Gaging Station of Mae Klong River at Ban Tham (K.8) Kanchanaburi.

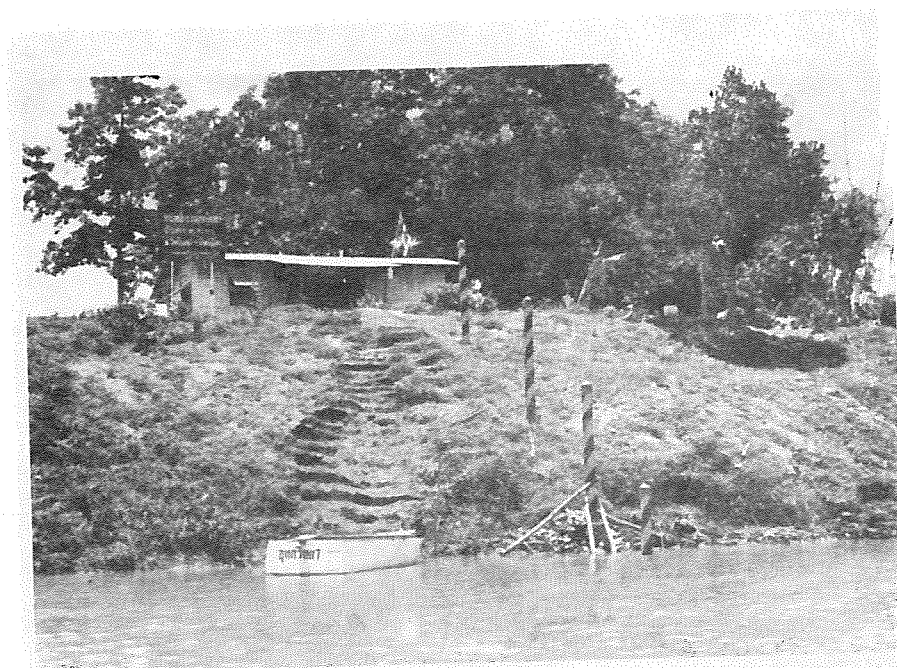


Figure 4. Staff Gaging Station of Khwae Noi at Ban Yang (N.22), Amphoe Wat Bot, Phitsanulok.



Figure 5. Close-up of Rating Operation.

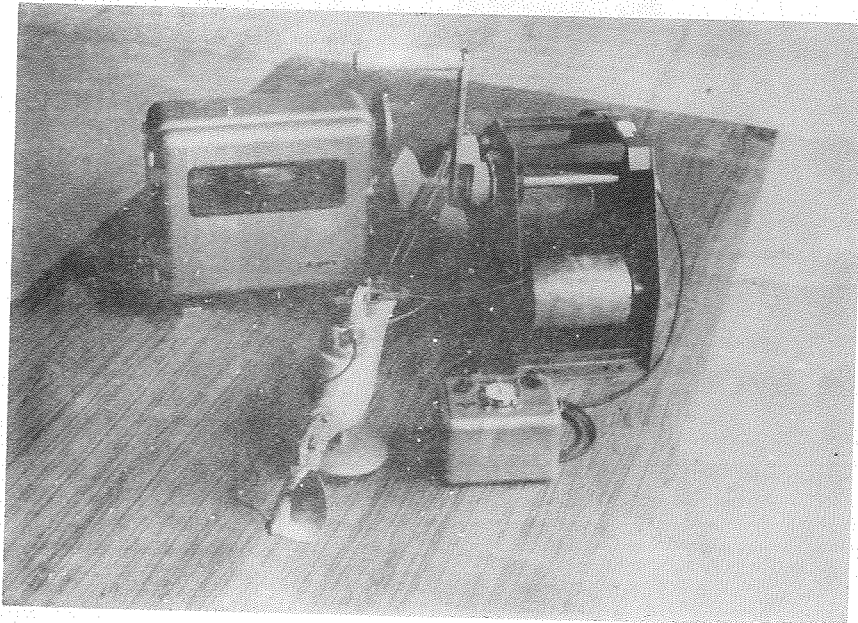


Figure 6. Standard Hydrologic Equipment.



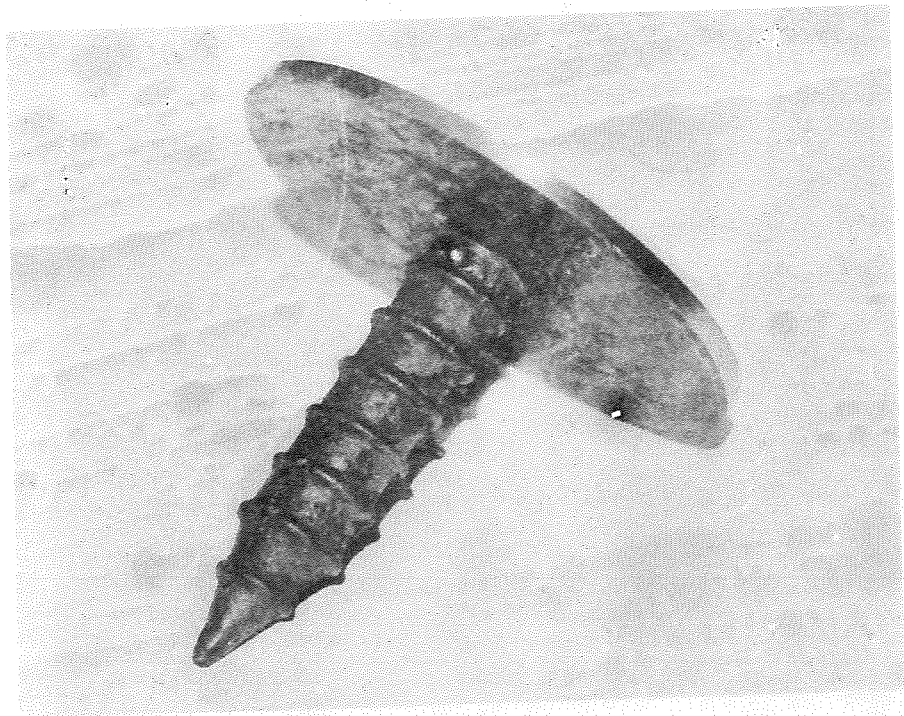


Figure 7. Standard bench mark

## 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 daytime. At some specific stations 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 nearby 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 or 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

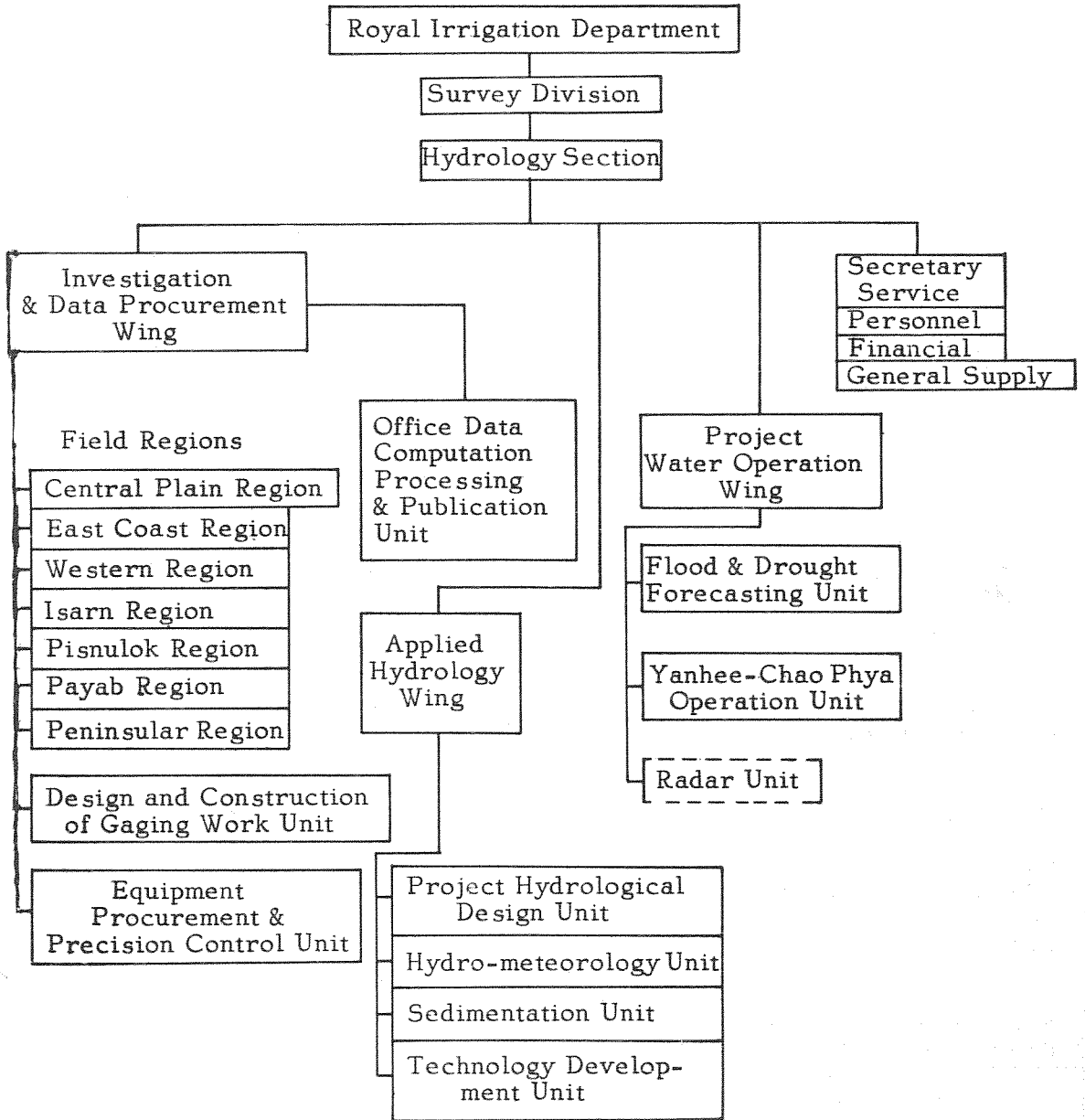
In this format, gaging data are listed according to their code running number order. It has been found more convenient in locating the required data when the list is arranged in such manner. List of gaging station codes presented in the publication of Stream Gaging Stations are shown in the Map enclosed. 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 diagrammatically shown below:





## 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 olden 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 times 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 basin 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 YEAR-BOOK PUBLICATIONS**

It is contemplated that the hydrological data previous to the year 1965 will be published separately as well as the further data to the year 1965. The yearbook volumes in which those data will be published, are to be arranged as follows:

<u>Volume</u>	<u>Years of Record</u>	<u>Approximate No. of Station-years</u>
1	1912-1937	163
2	1938-1947	165
3	1948-1953	185
4	1954-1956	178
5	1957-1959	203
6	1960-1962	215
7	1963-1964	182
8	1965	113
9	1966	135
10	1967	140
11	1968	143

It is earnestly hopeful that the Volumes <sup>6</sup> back to 1 and the Volumes 9 to 11 and so on 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. <sup>2</sup> or sq.m.)	= 1.196 square yards
	= 10.764 square feet
1 square kilometer (km. <sup>2</sup> or sq.km.)	= 0.3861 square mile
	= 247.1 acres
	= 625 rai (Thai)
1 cubic meter (m. <sup>3</sup> or cu.m.)	= 1,000 litres
	= 1,308 cubic yards
	= 35.31 cubic feet
1 million cubic meter (mcm)	= 1,000,000 m. <sup>3</sup>
	= 810.7 acre-feet
1 acre-foot	= 1,233 m. <sup>3</sup>
1 hectare	= 6.25 rai (Thai)
1 acre	= 2.50 rai
1 rai (Thai)	= 1,600 m. <sup>2</sup>
1 day	= 86,400 seconds
1 month (average)	= 2.63 million seconds
1 year (average)	= 31.6 million seconds





ERRATA FOR VOLUME 7

<u>PAGE</u>	<u>ERROR</u>	<u>CORRECTION</u>
v	No. 76: Khlong Nang Rong at Nang Rong, Nakhon Nayok (Ny. 1A)	No. 76: Khlong Tha Dan at Ban Tha Dan, Nakhon Nayok (Ny. 1A)
xiii	Line 11: 1,038 Cubic yards	1.038 Cubic yards
149	In graph: FLOW OF NAN RIVER	FLOW OF NAM PAT
192, 194	<u>Drainage Area: 2,088 sq.km.</u> referred to AMS Map 1:50,000	<u>Drainage Area: 6,063 sq.km.</u> referred to AMS Map 1:250,000 The areas included in Thailand is 2,745 sq.km. while in Burma 3,318 sq.km. exclusive of minor area further upstream due to the map is not available.
249, 251	In graph: FLOW OF CHEE RIVER	FLOW OF LAM PAO
288, 290	Line 3: Khlong Nang Rong at Nang Rong, Nakhon Nayok (Ny. 1A)	Khlong Tha Dan at Ban Tha Dan, Nakhon Nayok (Ny. 1A)
289, 291	In graph: FLOW OF KHLONG NANG RONG AT NANG RONG (Ny. 1A)	FLOW OF KHLONG THA DAN AT BAN THA DAN (Ny. 1A)
329	In graph: FLOW OF MUNE RIVER	FLOW OF PRAN RIVER
300, 302	<u>Drainage Area: 27,220 sqkm.</u>	26,441 sqkm.
308, 310	<u>Drainage Area: 27,200 sqkm.</u>	26,421 sqkm.



# STREAM GAGING DATA

WATER YEAR 1963-1964

WATER YEAR 1963  
PING RIVER BASIN

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

Location: Lat  $18^{\circ} - 47' - 09''$  N., Long  $99^{\circ} - 00' - 29''$  E., on left bank 100 meters downstream from Nawarath Bridge, Amphoe Muang, Chiang Mai.

Drainage Area: 6,355 sq.km. referred to AMS Map 1:50,000.

Type of Gage: Water - stage recorder.

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

Bench Mark: B.M. of The Survey Department.

Location: On left bank on the abutment of bridge.

Elevation: + 306.876 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: 1921 to date.

Rating Operation:

Period of Rating: 1936 - 38, 1954 - 60.

Rated by Float: 1936 - 38.

Rated by Current Meter: 1954 - 60.

Stability of Channel Regimes: Rather unstable, shifting adjustment is include for flow computation.

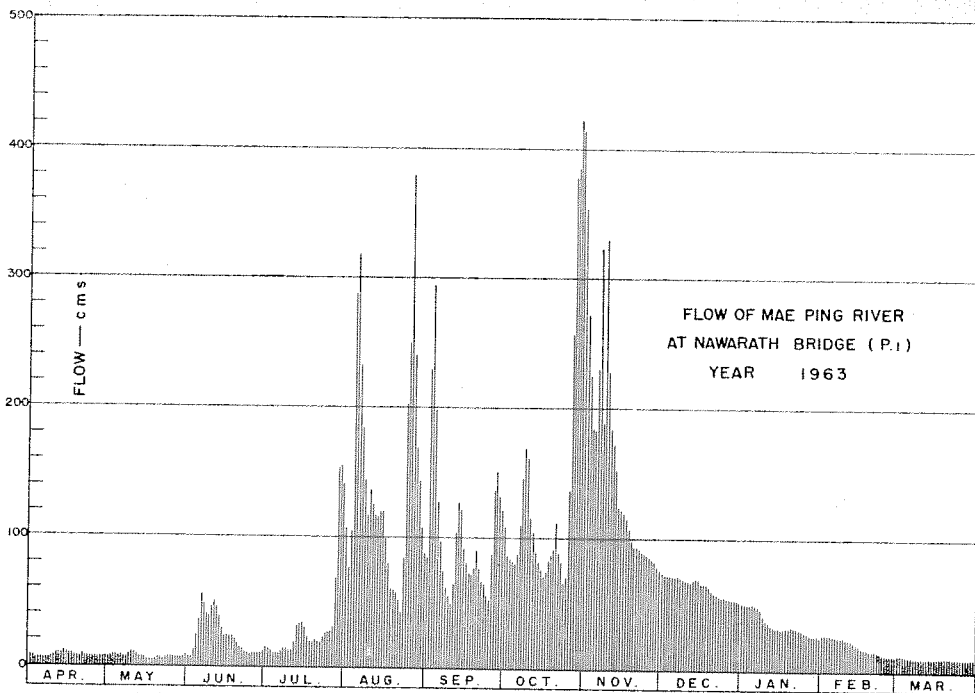
Overbank Flow Conditions: No overbank flow.

General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made during 1960. Flow regulated by Mae Faek Weir since 1936, for irrigation of about 11,200 hectares. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	301.38	301.37	301.39	301.56	302.50	302.37	302.58	304.26	302.27	302.04	301.74	301.50
2	.38	.41	.41	.53	.28	303.49	.38	303.73	.25	.03	.74	.50
3	.36	.43	.52	.50	.86	.88	.36	.45	.25	.03	.74	.49
4	.36	.42	.70	.47	303.84	.25	.33	.19	.25	.03	.74	.49
5	.36	.41	.86	.46	304.02	302.75	.32	.18	.25	.03	.73	.48
6	301.36	301.40	302.08	301.46	303.49	302.47	302.40	303.50	302.24	302.02	301.73	301.47
7	.36	.40	.01	.51	.02	.26	.60	304.05	.24	.02	.72	.46
8	.36	.40	301.91	.53	302.80	.13	.89	.23	301.99	.72	.45	
9	.37	.44	.90	.52	.66	.07	303.08	.08	.22	.93	.71	.44
10	.41	.48	.98	.51	.83	.02	302.85	303.61	.21	.88	.70	.44
11	301.43	301.47	302.03	301.51	302.73	302.17	302.64	303.19	302.20	301.86	301.69	301.45
12	.44	.44	301.98	.61	.65	.54	.55	.03	.20	.84	.68	.45
13	.44	.40	.89	.80	.64	.75	.41	302.88	.21	.82	.65	.46
14	.48	.40	.77	.82	.69	.61	.33	.71	.22	.81	.64	.45
15	.47	.37	.69	.84	.69	.43	.29	.70	.22	.81	.61	.45
16	301.45	301.36	301.70	301.79	302.50	302.32	302.23	302.68	302.20	301.80	301.59	301.45
17	.42	.35	.68	.69	.29	.25	.25	.64	.19	.80	.58	.46
18	.41	.34	.69	.63	.14	.25	.34	.56	.18	.81	.57	.46
19	.40	.36	.66	.63	.12	.30	.39	.49	.16	.81	.56	.46
20	.40	.38	.59	.64	.10	.42	.44	.45	.13	.82	.56	.47
21	301.42	301.37	301.56	301.62	302.04	302.29	302.56	302.45	302.11	301.81	301.56	301.46
22	.40	.36	.52	.61	301.94	.19	.40	.43	.10	.80	.54	.45
23	.40	.38	.49	.68	302.36	.17	.33	.41	.09	.80	.52	.45
24	.38	.41	.46	.72	303.39	.09	.18	.40	.08	.78	.51	.45
25	.37	.41	.45	.74	304.04	.05	.23	.39	.08	.77	.51	.44
26	301.37	301.40	301.46	301.74	304.40	302.35	302.82	302.37	302.07	301.76	301.50	301.44
27	.38	.41	.46	.73	303.57	.84	303.87	.35	.07	.75	.49	.44
28	.38	.41	.47	302.20	.16	.94	304.39	.34	.06	.74	.48	.43
29	.39	.41	.46	.96	302.87	.78	.55	.31	.06	.74	.49	.43
30	.37	.42	.50	.97	.57	.70	.65	.29	.06	.73	.44	.44
31	.44	.44	.86	.86	.36		.60		.05	.73		.44
Mean	301.40	301.40	301.67	301.77	302.83	302.50	302.78	302.91	302.17	301.86	301.62	301.46
Max.	301.48	301.48	302.08	302.97	304.40	303.88	304.65	304.26	302.27	302.04	301.74	301.50
Min.	301.36	301.34	301.39	301.46	301.94	302.02	302.18	302.29	302.05	301.73	301.48	301.43

WATER YEAR 1963 : Max. 304.65 m. Min. 301.34 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	6.46	6.09	6.83	15	99	85	108	353	74	51	27	12
2	6.46	7.68	7.68	14	75	228	86	269	72	50	27	12
3	5.72	8.64	13	12	141	294	84	222	72	50	27	11
4	5.72	8.16	24	10	287	192	81	184	72	50	27	11
5	5.72	7.68	36	10	318	127	80	182	72	50	26	11
6	5.72	7.20	55	10	228	96	88	230	71	49	26	10
7	5.72	7.20	48	12	161	73	110	323	71	49	25	10
8	5.72	7.20	40	14	133	60	145	331	70	47	25	9.60
9	6.09	9.12	39	13	117	54	169	329	69	41	25	9.12
10	7.68	11	46	12	137	49	140	248	68	37	24	9.12
11	8.64	10	50	12	125	64	115	184	67	36	23	9.60
12	9.12	9.12	46	18	116	103	104	162	67	34	23	9.60
13	9.12	7.20	38	31	115	127	89	143	68	33	21	10
14	11	7.20	29	33	120	111	81	123	69	32	20	9.60
15	10	6.09	23	34	120	91	76	121	69	32	19	9.60
16	9.60	5.72	24	30	99	80	70	119	67	31	17	9.60
17	8.16	5.35	23	23	76	72	72	115	66	31	16	10
18	7.68	4.98	23	19	61	72	82	106	65	32	16	10
19	7.20	5.72	21	19	59	77	87	98	63	32	15	10
20	7.20	6.46	17	20	57	90	92	93	60	33	15	10
21	8.16	6.09	15	19	51	76	106	93	58	32	15	10
22	7.20	5.72	13	18	42	66	88	91	57	31	14	9.60
23	7.20	6.46	11	23	84	64	81	89	56	31	13	9.60
24	6.46	7.68	10	25	213	96	65	88	55	30	12	9.60
25	6.09	7.68	9.60	27	322	52	70	87	55	29	12	9.12
26	6.09	7.20	10	27	377	83	136	85	54	28	12	9.12
27	6.46	7.68	10	26	241	138	292	83	54	27	11	9.12
28	6.46	7.68	10	67	180	151	375	82	53	27	11	8.64
29	6.83	7.68	10	153	142	131	404	78	53	27	11	8.64
30	6.09	8.16	12	155	107	121	422	76	53	26	11	9.12
31		9.12	141	84			413		52	26		9.12
Total	215.77	228.96	720.11	1,042	4,487	3,083	4,411	4,787	1,972	1,114	555	304.52
Mean	7.19	7.38	24.0	33.6	145	103	142	159	63.6	35.9	19.1	9.82
Max.	11	11	55	155	377	294	422	353	74	51	27	12
Min.	5.72	4.98	6.83	10	42	49	65	76	52	26	11	8.64
Runoff - mcm.	18.642	19.782	62.217	90.029	387.677	266.371	381.110	413.597	170.381	96.250	47.952	26.310

WATER YEAR 1963 : Max. 422 Min. 4.98 Mean 62.8 Annual Runoff 1,980.342 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 30	18.00	304.65	422				

## WATER YEAR 1964

## PING RIVER BASIN

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

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

Drainage Area: 6,355 sq.km. referred to AMS Map 1:50,000.

Type of Gage: Water - stage recorder.

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

Bench Mark: B.M. of The Survey Department.

Location: On left bank on the abutment of bridge.

Elevation: + 306.876 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: 1921 to date.

Rating Operation:

Period of Rating: 1936 - 38, 1954 - 60.

Rated by Float: 1936 - 38.

Rated by Current Meter: 1954 - 60.

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

Overbank Flow Conditions: No overbank flow.

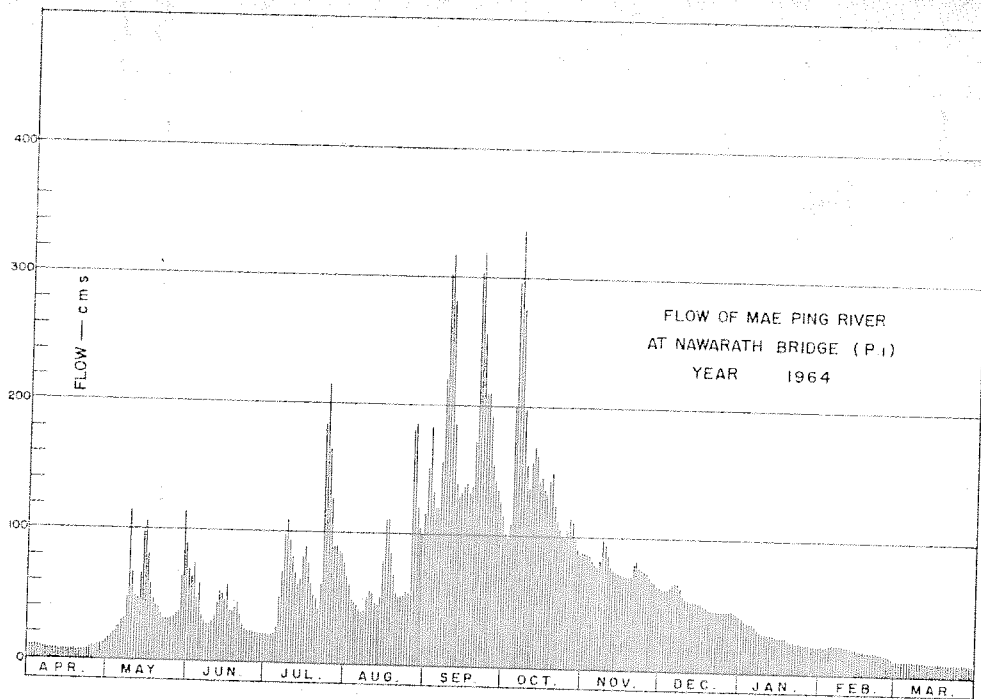
General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made during 1960. Flow regulated by Mae Faek Weir since 1956, for irrigation of about 11,200 hectares. No adjustment made for virgin flow.

## GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	301.44	301.57	302.20	301.65	302.20	302.95	302.54	302.41	302.15	301.95	301.65	301.48
2	.45	.61	.17	.64	.12	303.19	.50	.40	.15	.90	.65	.48
3	.45	.64	.28	.65	.03	302.80	.60	.39	.15	.89	.65	.47
4	.45	.67	301.98	.67	301.99	.70	303.23	.34	.17	.88	.67	.47
5	.44	.73	.90	.75	.97	.70	.91	.32	.19	.87	.68	.47
6	301.43	301.78	301.83	302.03	301.93	302.99	304.16	302.31	302.20	301.85	301.67	301.47
7	.42	.80	.78	.26	.90	303.44	303.75	.35	.19	.83	.67	.47
8	.41	.99	.76	.50	.93	.92	.29	.50	.16	.80	.67	.47
9	.41	302.64	.76	.60	302.04	304.01	302.98	.46	.10	.79	.67	.47
10	.40	.19	.78	.45	.09	303.81	.83	.39	.08	.78	.66	.47
11	301.40	302.02	301.85	302.33	302.08	303.21	303.00	302.31	302.07	301.77	301.65	301.47
12	.39	.00	.99	.21	.00	302.85	.09	.29	.06	.77	.64	.46
13	.39	.18	302.07	.13	301.97	.77	.03	.28	.06	.76	.63	.46
14	.39	.49	.05	.17	302.05	.80	302.86	.27	.06	.76	.62	.46
15	.38	.57	301.98	.33	.28	.84	.90	.26	.05	.75	.61	.46
16	301.38	302.33	301.90	302.41	302.62	302.85	302.83	302.25	302.05	301.75	301.61	301.46
17	.39	.11	.89	.30	.62	.80	.79	.24	.03	.75	.61	.46
18	.39	301.99	.89	.13	.38	.84	.89	.24	.02	.74	.60	.46
19	.38	.94	.92	.05	.22	303.11	.93	.25	.00	.72	.60	.45
20	.38	.91	.97	.02	.08	.93	.95	.32	301.99	.70	.60	.45
21	301.38	301.85	301.84	301.92	302.05	304.03	302.62	302.35	301.98	301.70	301.59	301.45
22	.38	.80	.74	302.14	.05	303.66	.56	.31	.98	.69	.59	.45
23	.41	.81	.70	303.18	.06	.37	.52	.30	.98	.68	.58	.45
24	.43	.80	.69	.41	.09	.38	.51	.29	.98	.68	.57	.44
25	.44	.81	.69	.05	.28	.25	.59	.28	.98	.67	.56	.44
26	301.45	301.83	301.68	302.71	303.17	302.98	302.65	302.25	301.98	301.67	301.55	301.44
27	.45	.86	.67	.41	.21	.88	.62	.21	.98	.66	.53	.43
28	.49	.89	.66	.42	302.70	.82	.50	.20	.98	.66	.50	.43
29	.51	302.18	.65	.39	.56	.75	.43	.18	.97	.66	.42	.42
30	.54	.64	.65	.37	.49	.65	.40	.17	.96	.65	.42	.42
31		.36		.30	.66		.42		.95	.65	.41	.41
Mean	301.42	302.00	301.86	302.28	302.25	303.14	302.86	302.30	302.05	301.75	301.62	301.45
Max.	301.54	302.64	302.28	303.41	303.21	304.03	304.16	302.50	302.20	301.93	301.68	301.48
Min.	301.38	301.57	301.65	301.64	301.90	302.65	302.40	302.17	301.95	301.65	301.50	301.41

WATER YEAR 1964 : Max. 304.16 m. Min. 301.38 m.





DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	9.12	16	67	21	67	152	103	89	62	41	21	11
2	9.60	18	64	20	59	184	99	88	62	39	21	11
3	9.60	20	75	21	50	133	110	87	62	38	21	11
4	9.60	22	46	22	47	121	189	82	64	37	22	11
5	9.12	26	59	27	45	121	299	80	66	37	23	11
6	8.64	30	33	50	41	157	336	78	67	35	22	11
7	8.16	31	30	73	39	221	272	83	66	33	22	11
8	7.68	47	28	99	41	301	198	99	63	31	22	11
9	7.68	115	28	110	51	317	156	95	57	30	22	11
10	7.20	66	30	93	56	282	137	87	55	30	21	11
11	7.20	49	35	81	55	186	158	78	54	29	21	11
12	6.83	47	57	68	47	140	170	76	53	29	20	10
13	6.83	65	54	60	45	130	162	75	53	28	19	10
14	6.83	98	52	64	52	133	141	74	53	28	19	10
15	6.46	107	46	81	75	138	146	73	52	27	18	10
16	6.46	81	59	89	112	140	137	72	52	27	18	10
17	6.83	58	38	77	112	133	132	71	50	27	18	10
18	6.83	47	38	60	86	138	145	71	49	27	17	10
19	6.46	42	41	52	69	173	150	72	47	25	17	10
20	6.46	40	45	49	55	303	125	80	47	24	17	9.60
21	6.46	35	34	41	52	320	112	83	46	24	17	9.60
22	6.46	31	27	61	52	257	106	78	46	23	17	9.60
23	7.68	32	24	182	53	210	101	77	46	23	16	9.60
24	8.64	31	23	216	56	211	100	76	46	23	16	9.12
25	9.12	32	23	165	75	192	109	75	46	22	15	9.12
26	9.60	33	23	123	181	156	116	72	46	22	15	9.12
27	11	36	22	89	196	143	112	68	46	21	14	8.64
28	11	38	21	90	121	136	99	67	46	21	12	8.64
29	12	65	21	87	106	127	91	65	45	21	-	8.16
30	14	115	21	85	98	116	88	64	44	21	-	8.16
31	-	84	-	77	117	-	90	-	43	21	-	7.68
Total	249.55	1,557	1,154	2,433	2,301	5,471	4,989	2,335	1,634	864	523	307.64
Mean	8.32	50.2	38.5	78.5	74.2	182	145	77.8	52.7	27.9	18.7	9.92
Max.	14	115	75	216	186	320	336	99	67	41	23	11
Min.	6.46	16	21	20	39	116	88	64	43	21	12	7.68
Runoff - BCM.	21.561	134.525	119.706	210.211	198.306	472.694	387.850	201.744	141.178	74.650	45.187	25.580

WATER YEAR 1964 : Max. 336 Min. 6.46 Mean 63.9 Annual Runoff 2,014.692 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 6	09.00	304.17	336				

WATER YEAR 1963  
PING RIVER BASIN

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

Location: Lat 16° - 51' - 14" N., Long 99° - 02' - 50" E., on right bank about 200 meters downstream from Kittikhachon I Bridge, Ban Tha Khae, Amphoe Muang, Tak.

Drainage Area: 38,827 sq.km. referred to AMS Map 1:50,000.

Type of Gage: Staff gage.

Zero Gage at Bottom at: + 104.29 m. (M.S.L.)

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

Location: At the south corner of Wat Chaichana Songkhram Temple.

Elevation: + 110.29 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 - 39, 1942 - 45 and 1950 to date.

Rating Operation:

Period of Rating: 1952 - 60, 1963 to date.

Rated by Float: -

Rated by Current Meter: 1952 - 60, 1963 to date.

Stability of Channel Regimes: Fairly stable, no shifting adjustment for flow computation due to its adequate stability.

Overbank Flow Conditions: No overbank flow.

General Description:

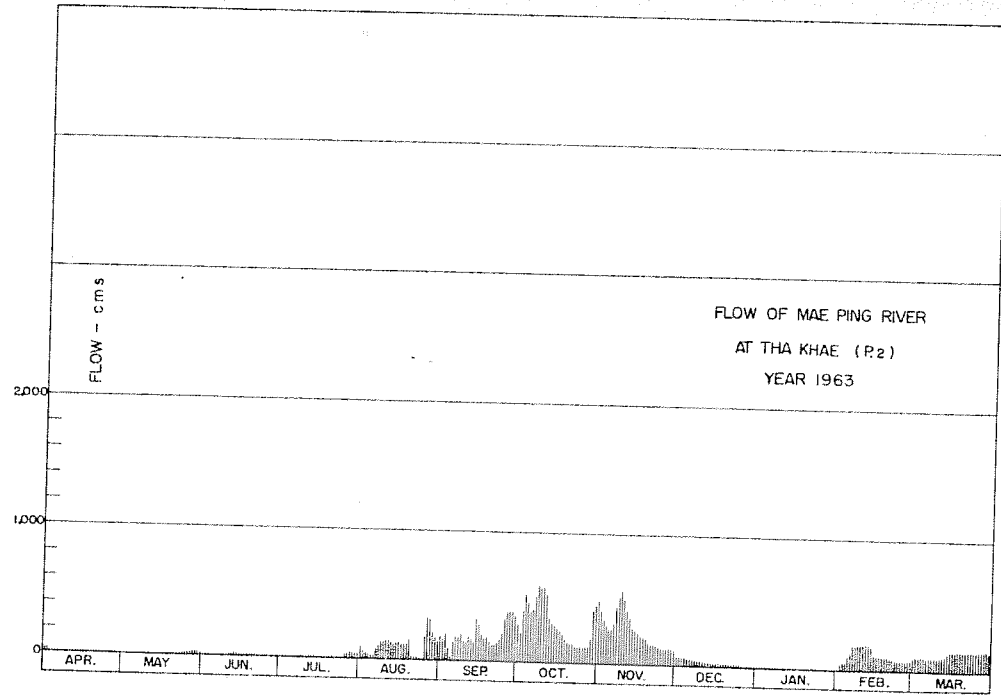
Record fair except those for period of no gage height record. Flow is effected by the construction of Yanhee Dam. Upstream diversions for irrigation of about 40,300 hectares. The data presented is from actual flow at gage site. No adjustment made for virgin flow.

Remark: No gage height record for May 1-17, discharge estimated based on the flow at Wang Kra Chao (P.12) and Ban Wang Khrai (W.4)

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	104.80		104.67	104.46	105.26	105.56	105.81	106.24	105.08	104.67	104.59	105.23
2	.80		.64	.47	.12	.50	.65	.17	.07	.66	.93	.26
3	.64		.55	.48	104.99	.62	106.06	105.94	107	.65	105.00	.26
4	.58		.52	.48	.94	.25	.31	.84	.05	.64	.00	.26
5	.55		.50	.48	.89	104.85	.19	.76	.05	.64	.01	.24
6	104.50		104.49	104.48	104.89	105.44	106.04	105.76	105.04	104.62	105.25	105.23
7	.46		.47	.48	105.22	.49	.09	.89	.03	.62	.40	.23
8	.45		.52	.49	.30	.53	106.17	104.97	104.97	.62	.54	.23
9	.43		.59	.51	.38	.60	.42	.32	.93	.62	.54	.23
10	.43		.70	.49	.40	.41	.41	.41	.92	.62	.55	.23
11	104.41		104.74	104.48	105.42	105.43	106.42	106.27	104.91	104.61	105.57	105.23
12	.40		.74	.48	.43	.58	.33	.09	.90	.61	.58	.24
13	.39		.76	.50	.39	.50	105.97	105.95	.89	.61	.58	.31
14	.39		.74	.52	.33	.45	.86	.79	.88	.61	.53	.39
15	.39		.72	.51	.34	.90	.82	.75	.88	.61	.28	.42
16	104.39		104.71	104.50	105.38	105.81	105.77	105.71	104.86	104.61	105.27	105.42
17	.39		.71	.49	.32	.61	.71	.65	.85	.61	.26	.42
18	.38	104.49	.70	.49	.34	.54	.65	.63	.84	.61	.26	.42
19	.37	.53	.67	.52	.32	.54	.53	.59	.83	.61	.25	.42
20	.37	.56	.64	.58	104.95	.44	.47	.52	.82	.61	.25	.42
21	104.37	104.59	104.61	104.57	104.87	105.33	105.45	105.47	104.81	104.61	105.18	105.42
22	.37	.62	.56	.56	.81	.34	.46	.48	.81	.61	.15	.42
23	.37	.67	.56	.55	.75	.44	.38	.46	.79	.61	.14	.43
24	.37	.72	.53	.55	.72	.50	.34	.40	.78	.61	.14	.43
25	.37	.74	.51	.69	.67	.64	.36	.37	.76	.61	.14	.43
26	104.37	104.76	104.49	104.92	105.54	105.93	105.33	105.35	104.74	104.60	105.14	105.43
27	.37	.78	.50	.95	.90	106.03	.36	.35	.72	.60	.14	.43
28	.35	.81	.49	.99	.89	.04	.33	.35	.70	.60	.14	.43
29	.33	.84	.48	105.01	.69	.04	.55	.35	.69	.59	.14	.44
30	.30	.78	.47	104.92	.53	105.96	106.07	.35	.69	.59	-	.41
31	-	.71	-	.92	.45	-	.17	-	.67	.59	-	.41
Mean	104.44		104.60	104.60	105.24	105.58	105.83	105.75	104.87	104.61	105.24	105.35
Max.	104.80		104.76	105.01	105.90	106.04	106.42	106.41	105.08	104.67	105.58	105.44
Min.	104.30		104.46	104.46	104.67	104.85	105.33	105.35	104.67	104.59	104.59	105.23

WATER YEAR 1963 : Max. 106.42 m. Min. 104.30 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	26	6.70	15	4.95	105	190	285	486	67	15	11	98
2	26	7.90	13	5.30	75	169	222	450	65	14	42	105
3	13	8.00	9.00	5.65	51	211	396	342	65	14	53	105
4	10	8.60	7.50	5.65	43	103	522	298	62	13	53	105
5	9.00	8.60	6.50	5.65	36	31	460	264	62	13	55	100
6	6.50	8.00	6.00	5.65	36	151	387	264	60	12	103	98
7	4.95	7.90	5.30	5.65	96	166	410	320	58	12	140	98
8	4.60	8.70	7.50	6.00	114	180	528	450	48	12	183	98
9	3.90	8.30	11	7.00	134	204	581	528	42	12	183	98
10	3.90	8.20	17	6.00	140	143	575	575	40	12	186	98
11	3.20	7.90	20	5.65	146	149	581	502	39	12	193	98
12	2.85	8.40	20	5.65	149	197	533	410	37	12	197	100
13	2.50	8.40	22	6.50	137	169	355	346	36	12	197	117
14	2.50	8.40	20	7.50	122	154	307	276	35	12	180	137
15	2.50	9.60	18	7.00	124	324	289	260	35	12	110	146
16	2.50	8.90	18	6.50	134	285	268	244	32	12	107	146
17	2.50	8.90	18	6.00	119	207	244	222	31	12	105	146
18	2.25	6.00	17	6.00	124	183	222	214	30	12	105	146
19	2.00	8.00	15	7.50	119	183	180	200	29	12	103	146
20	2.00	9.50	13	10	45	151	160	176	28	12	103	146
21	2.00	11	12	10	34	122	154	160	27	12	87	146
22	2.00	12	9.50	9.50	27	124	157	163	27	12	81	146
23	2.00	15	9.50	9.00	21	151	134	157	24	12	79	149
24	2.00	18	8.00	9.00	18	169	124	140	24	12	79	149
25	2.00	20	7.00	16	15	218	129	132	22	12	79	149
26	2.00	22	6.00	40	183	338	122	127	20	11	79	149
27	2.00	24	6.50	45	324	382	129	127	18	11	79	149
28	1.50	27	6.00	51	320	387	122	127	17	11	79	149
29	1.00	30	5.65	55	236	387	186	127	16	11	79	151
30	0.25	24	5.30	40	180	351	401	127	16	11	79	151
31	-	18	-	40	154	-	450	-	15	11	-	143
Total	149.40	385.50	354.25	450.30	3,561	6,179	9,613	8,214	1,127	375	3,130	3,954
Mean	4.98	12.4	11.8	14.5	115	206	310	274	363	12.1	108	127
Max.	26	30	22	55	324	387	581	575	67	15	197	151
Min.	0.25	6.00	5.30	4.95	15	31	122	127	15	11	11	98
Runoff - mcm.	12.908	33.307	30.607	38.906	307.670	533.866	830.563	709.690	97.373	32.400	270.432	341.626

WATER YEAR 1963 : Max. 581 Min. 0.25 Mean 102 Annual Runoff 3,239.348 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct.9	15.00	106.44	592				

WATER YEAR 1964  
PING RIVER BASIN

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

Location: Lat 16° - 51' - 14" N, Long 99° - 02' - 50" E, on right bank about 200 meters downstream from Kittikhachon I Bridge, Ban Tha Khae, Amphoe Muang, Tak.

Drainage Area: 38,827 sq.km. referred to AMS Map 1:50,000.

Type of Gage: Staff gage.

Zero Gage at Bottom at: + 104.29 m. (M.S.L.)

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

Location: At the south corner of Wat Chaichana Songkhram temple.

Elevation: + 110.29 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 - 39, 1942 - 45 and 1950 to date.

Rating Operation:

Period of Rating: 1952 - 60 1963 to date

Rated by Float: -

Rated by Current Meter: 1952 - 60 1963 to date.

Stability of Channel Regimes: Fairly stable, no shifting adjustment for flow computation due to its adequate stability.

Overbank Flow Conditions: No overbank flow.

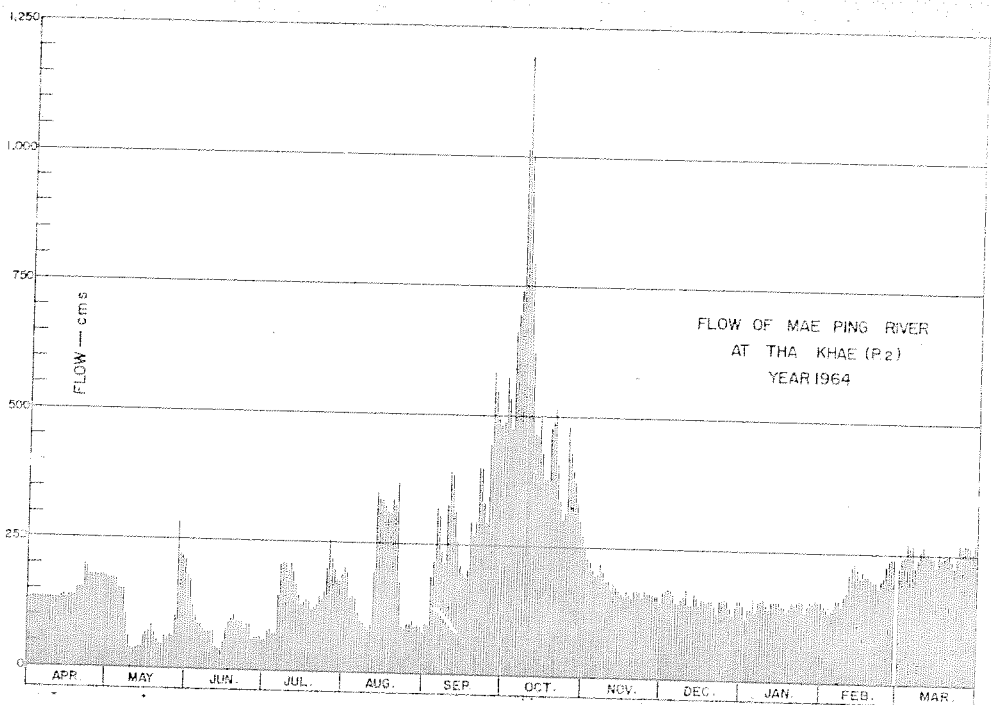
General Description: Records fair except those for period of no gage height record. Flow is effected by the construction of Yankee Dam. Upstream diversions for irrigation of about 40,300 hectares. The data presented is from actual flow at gage site. No adjustment made for virgin flow.

Remark: No gage height record for May 1-17, discharge estimated based on the flow at Wang Kra Chao (P.12) and Ban Wang Khrai (W.4).

GAGE HEIGHT IN METER ( M.S.L.), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	105.41	105.55	105.56	105.05	105.63	105.24	106.45	105.76	105.55	105.45	105.45	105.70
2	.41	.55	.54	.13	.61	.23	.37	.71	.54	.35	.44	.75
3	.41	.55	.36	.15	.44	.59	.27	.69	.54	.43	.40	.75
4	.41	.54	.27	.11	.46	.67	.60	.65	.54	.43	.43	.82
5	.41	.48	.21	.11	.44	.94	.66	.62	.51	.50	.44	.80
6	105.41	105.47	105.19	105.45	105.33	105.91	106.73	105.62	105.45	105.41	105.49	105.81
7	.41	.48	.14	.64	.25	.72	107.12	.68	.45	.47	.49	.69
8	.41	.27	.11	.65	.24	.67	.54	.64	.48	.48	.45	.74
9	.41	.10	.11	.65	.21	.95	.10	.58	.50	.49	.52	.79
10	.41	104.91	.12	.62	.17	106.10	106.81	.59	.55	.45	.54	.80
11	105.41	104.89	105.12	105.65	105.22	106.09	106.53	105.53	105.44	105.43	105.65	105.76
12	.41	.90	104.93	.60	.61	105.93	.25	.57	.44	.47	.70	.77
13	.42	.93	.92	.52	106.01	.79	.25	.55	.52	.47	.71	.76
14	.43	.93	.91	.46	105.98	.65	.31	.53	.49	.47	.68	.75
15	.41	105.06	105.01	.38	.97	.61	.18	.51	.44	.47	.63	.70
16	105.42	105.10	105.15	105.40	105.95	105.58	106.08	105.49	105.48	105.44	105.67	105.77
17	.42	.11	.22	.42	.92	.63	.08	.53	.47	.44	.64	.74
18	.42	.18	.26	.41	.92	.88	.27	.50	.46	.41	.64	.75
19	.47	.10	.28	.34	.98	.82	.30	.48	.47	.44	.63	.76
20	.47	.01	.23	.36	.95	.88	.34	.53	.47	.47	.61	.76
21	105.58	104.98	105.23	105.38	106.05	106.12	106.14	105.53	105.44	105.46	105.61	105.73
22	.63	.97	.23	.44	105.55	.12	105.98	.52	.38	.47	.57	.69
23	.61	105.06	.15	.43	.20	105.97	.90	.49	.48	.47	.62	.76
24	.56	.05	.20	.48	.18	.88	.93	.53	.48	.47	.63	.81
25	.56	.08	.20	.62	.22	106.21	106.28	.51	.49	.40	.70	.80
26	105.56	105.06	105.05	105.78	105.22	106.46	106.18	105.51	105.48	105.45	105.73	105.82
27	.56	.27	.07	.68	.26	.40	.11	.51	.45	.48	.74	.81
28	.56	.86	.07	.62	.21	.30	.07	.50	.37	.47	.74	.81
29	.56	.69	.08	.56	.22	.28	105.98	.50	.44	.49	-	.77
30	.56	.68	.05	.54	.21	.29	.90	.46	.48	.47	-	.82
31	-	.66	-	.59	.16	-	.82	-	.47	.48	-	.83
Mean	105.47	105.24	105.16	105.45	105.51	105.86	106.33	105.56	105.47	105.45	105.59	105.77
Max.	105.63	105.86	105.56	105.78	106.05	106.46	107.34	105.76	105.55	105.50	105.74	105.83
Min.	105.41	104.89	104.91	105.05	105.16	105.23	105.82	105.46	105.37	105.35	105.40	105.69

WATER YEAR 1964 : Max. 107.34 m. Min. 104.89 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	134	174	178	59	200	95	574	246	168	145	145	224
2	134	174	171	74	193	95	529	228	171	119	142	242
3	134	174	121	77	142	187	475	221	171	139	131	242
4	134	171	101	78	148	214	660	207	171	139	139	269
5	134	153	89	70	142	317	696	197	162	159	142	261
6	134	151	85	145	114	304	739	197	145	134	156	265
7	134	153	76	204	97	231	1,015	217	145	151	156	221
8	134	101	70	207	95	214	1,191	204	153	153	145	239
9	134	68	76	207	89	321	1,000	184	159	156	165	257
10	134	37	72	197	81	388	792	187	174	165	171	261
11	134	35	72	207	91	383	619	168	142	139	207	246
12	134	36	40	190	193	313	464	181	142	151	224	250
13	137	40	39	165	347	257	464	174	165	151	228	246
14	139	40	37	148	334	207	496	168	156	151	217	242
15	134	61	52	126	330	193	427	162	142	151	200	224
16	137	68	77	131	321	184	379	156	153	142	214	250
17	137	70	91	137	309	200	379	168	151	142	204	239
18	137	83	99	134	309	292	475	159	148	134	204	242
19	151	68	103	117	354	269	491	153	151	142	200	246
20	151	52	93	121	321	292	513	168	151	151	193	246
21	154	47	93	126	355	398	408	168	142	148	193	235
22	200	46	93	142	174	398	334	165	126	151	181	221
23	193	61	77	139	87	330	300	156	153	151	197	246
24	178	59	87	153	83	292	313	168	153	151	200	265
25	178	64	87	197	91	442	480	162	156	131	224	261
26	178	61	59	254	91	580	427	162	153	145	235	269
27	178	101	65	217	99	546	393	162	139	153	239	265
28	178	284	65	197	69	491	374	159	124	151	239	265
29	178	221	64	178	91	480	334	159	142	156	-	250
30	178	217	59	171	89	486	300	148	153	151	-	269
31	-	210	-	187	79	-	269	-	151	153	-	273
Total	4,524	3,280	2,481	4,747	5,528	9,397	16,310	5,354	4,712	4,535	5,291	7,331
Mean	151	106	82.7	153	178	313	526	178	152	146	189	249
Max.	200	284	178	254	365	580	1,191	246	174	159	239	273
Min.	134	35	37	59	79	93	269	148	124	119	131	221
Runoff - scm.	390.894	283.392	214.358	416.141	477.619	811.901	1,409.184	462.566	407.117	391.824	457.142	667.958

WATER YEAR 1964 : Max. 1,191 Min. 35 Mean 202 Annual Runoff 6,384.096 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 8	12.00	107.38	1,224				

WATER YEAR 1963  
PING RIVER BASIN

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

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

Drainage Area: 1,902 sq.km. referred to AMS Map 1:50,000.

Type of Gage: Staff gage.

Zero Gage at Bottom at: + 333.75 m. (M.S.L.)

bench Mark: B.M. - H.S. / R.I.D. No. 3

Location: On left bank at Mae Taeng bridge.  
Elevation: + 339.379 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  
Rated by Float: -  
Rated by Current Meter: 1955 - 61

Stability of Channel Regimes: Rather unstable during high floods. No shifting adjustment for flow computation for years without actual ratings.

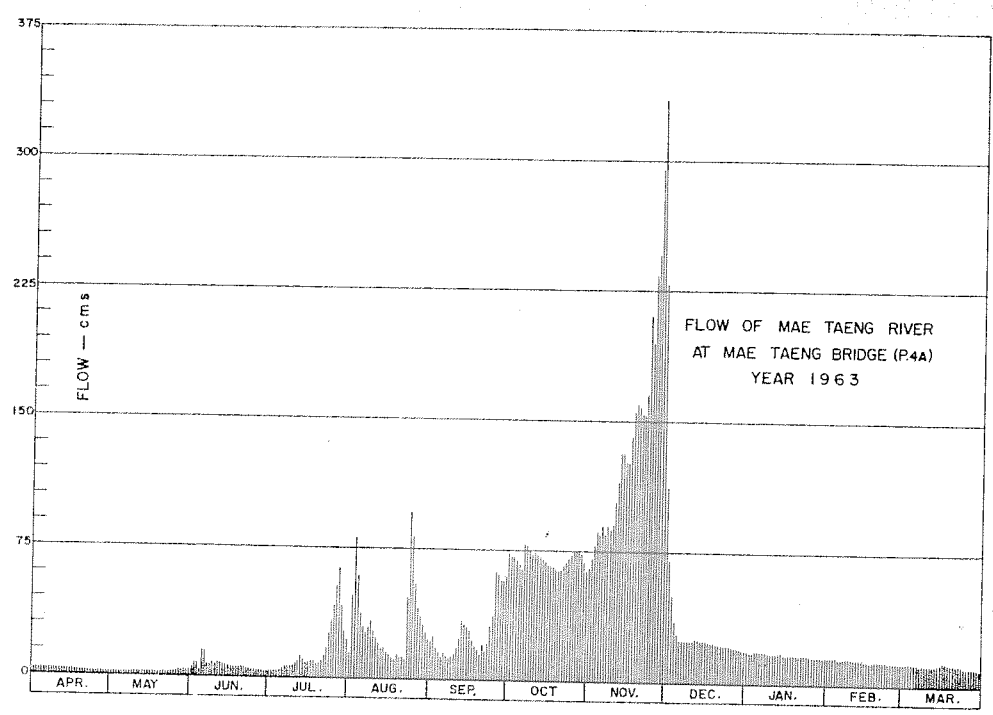
Overbank Flow Conditions: No overbank flow.

General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made during 1955 - 1960. No state diversions for irrigation above gage site except those built by local farmers. No adjustment made for virgin flow.

**GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964**

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	334.16	334.07	334.25	334.15	334.60	334.79	335.59	335.50	335.96	334.73	334.64	334.54
2	.15	.07	.38	.17	335.13	.88	.57	.56	.55	.73	.63	.54
3	.15	.06	.38	.17	.68	.72	.57	.65	.51	.73	.63	.53
4	.15	.06	335.13	.17	.41	.63	.54	.11	.72	.63	.53	
5	.15	.06	334.63	.19	.12	.56	.52	.71	334.94	.72	.62	.53
6	334.15	334.05	334.62	334.24	334.97	334.64	335.49	335.76	334.87	334.71	334.62	334.53
7	.14	.05	.37	.31	.90	.57	.65	.71	.87	.71	.62	.52
8	.14	.05	.33	.33	.98	.55	.65	.76	.87	.71	.61	.52
9	.14	.04	.38	.34	335.03	.58	.60	.74	.87	.70	.61	.52
10	.14	.04	.37	.37	334.92	.61	.58	.77	.86	.70	.61	.52
11	334.13	334.04	334.40	334.43	334.86	334.71	335.60	335.88	334.87	334.69	334.60	334.51
12	.13	.03	.39	.49	.79	.86	.59	336.00	.88	.69	.60	.51
13	.13	.03	.36	.56	.69	335.05	.57	.13	.88	.69	.60	.51
14	.13	.03	.33	.50	.71	334.99	.56	.13	.87	.69	.59	.51
15	.12	.02	.32	.41	.63	335.00	.53	.09	.87	.68	.59	.55
16	334.12	334.02	334.30	334.39	334.61	334.95	335.51	336.09	334.86	334.68	334.59	334.57
17	.12	.02	.30	.47	.56	.85	.51	.20	.85	.68	.58	.57
18	.11	.01	.28	.49	.52	.74	.50	.29	.84	.67	.58	.55
19	.11	.01	.26	.40	.60	.69	.49	.32	.83	.67	.58	.54
20	.11	.01	.25	.41	.56	.62	.48	.51	.82	.67	.57	.53
21	334.10	334.05	334.24	334.48	334.55	334.76	335.49	336.28	334.82	334.67	334.57	334.52
22	.10	.04	.23	.57	.50	.68	.51	.28	.81	.66	.57	.51
23	.10	.03	.22	.70	335.26	.80	.53	.35	.80	.66	.57	.50
24	.09	.08	.21	.88	.83	.99	.56	.77	.80	.66	.56	.49
25	.09	.07	.20	335.04	.69	335.11	.58	.66	.79	.66	.56	.48
26	334.09	334.06	334.19	335.19	335.39	335.46	335.60	336.92	334.78	334.65	334.56	334.47
27	.08	.14	.19	.34	.17	.45	.61	.98	.77	.65	.56	.46
28	.08	.14	.18	.49	.09	.40	.62	337.34	.76	.65	.55	.45
29	.08	.15	.17	.26	.00	.40	.59	.55	.75	.65	.55	.44
30	.07	.16	.17	334.93	334.92	.43	.53	336.78	.74	.64	-	.43
31	-	.17	-	.81	.85	-	.48	-	.74	.64	-	.42
Mean	334.12	334.05	334.34	334.57	334.95	334.93	335.55	336.21	334.91	334.68	334.59	334.51
Max.	334.16	334.17	335.13	335.49	335.83	335.46	335.65	337.55	335.96	334.73	334.64	334.57
Min.	334.07	334.01	334.17	334.15	334.50	334.55	335.48	335.50	334.74	334.64	334.55	334.42

WATER YEAR 1963 : Max. 337.55 m. Min. 334.01 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	3.58	2.44	4.95	3.45	14	21	73	65	111	18	15	12
2	3.45	2.44	7.56	3.71	39	25	71	70	69	18	15	12
3	3.45	2.32	7.56	3.71	81	18	71	78	50	18	15	12
4	3.45	2.32	39	3.71	58	15	69	86	37	18	15	12
5	3.45	2.32	15	3.97	38	12	67	84	28	18	14	12
6	3.45	2.20	14	4.78	29	15	64	89	24	18	14	12
7	3.32	2.20	7.34	6.02	26	13	78	84	24	18	14	11
8	3.32	2.20	6.46	6.46	30	12	78	89	24	18	14	11
9	3.32	2.08	7.56	6.68	33	13	74	87	24	17	14	11
10	3.32	2.08	7.34	7.34	27	14	72	90	24	17	14	11
11	3.19	2.08	8.00	8.78	24	18	74	102	24	17	14	11
12	3.19	1.96	7.78	10.	21	24	73	115	25	17	14	11
13	3.19	1.96	7.12	12.	17	34	71	131	25	17	14	11
14	3.19	1.96	6.46	11	18	31	70	131	24	17	13	11
15	3.06	1.84	6.24	8.26	15	31	68	126	24	16	13	12
16	3.06	1.84	5.80	7.78	14	28	66	126	24	16	13	13
17	3.06	1.84	5.80	10	12	23	66	141	23	16	13	13
18	2.93	1.72	5.46	10.	11	19	65	155	23	16	13	12
19	2.93	1.72	5.12	8.00	14	17	64	160	23	16	13	12
20	2.93	1.72	5.59	8.26	12	14	63	158	22	16	13	12
21	2.80	2.20	4.78	10.	12	20	64	153	22	16	13	11
22	2.80	2.08	4.61	13.	11	16	66	153	22	16	13	11
23	2.80	1.96	4.44	17.	47	21	68	165	21	16	13	11
24	2.78	2.56	4.27	25	96	31	70	210 *	21	16	12	10
25	2.78	2.44	4.10	33	82	37	72	195 *	21	16	12	10
26	2.78	2.32	3.97	42	56	62	74	235 *	20	15	12	10
27	2.56	3.32	3.97	53	41	61	75	245 *	20	15	12	10
28	2.56	3.32	3.84	64	36	57	76	295 *	20	15	12	9.30
29	2.56	3.45	3.71	47	31	57	73	335 *	19	15	12	9.04
30	2.44	3.58	3.71	27	27	59	68	217 *	19	15	-	8.78
31	-	3.71	-	22	23	-	63	-	19	15	-	8.52
Total	91.70	72.18	221.90	496.91	995	818	2,166	4,370	876	512	388	342.64
Mean	3.07	2.32	7.40	16.0	32.1	27.3	69.9	146	28.2	16.5	13.4	11.00
Max.	3.58	3.71	39	64	96	62	78	335	111	18	15	12
Min.	2.44	1.72	3.71	3.45	11	12	63	65	19	15	12	8.52
Runoff - mcm.	7.949	6.221	119.172	52.854	85.968	70.675	187.142	337.568	75.686	44.237	33.523	29.635

WATER YEAR 1963 : Max. 335 Min. 1.72 Mean 31.0 Annual Runoff 980,668 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Nov. 29	09.00	337.66	350				

WATER YEAR 1964  
PING RIVER BASIN

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

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

Drainage Area: 1,902 sq.km. referred to AMS Map 1:50,000

Type of Gage: Staff gage.

Zero Gage at Bottom at: + 333.75 m. (M.S.L.)

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

Location: On left bank at Mae Taeng Bridge.

Elevation: + 339.379 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.

Rated by Float: -

Rated by Current Meter: 1955 - 61.

Stability of Channel Regimes: Rather unstable during high floods. No shifting adjustment for flow computation for years without actual ratings.

Overbank Flow Conditions: No overbank flow.

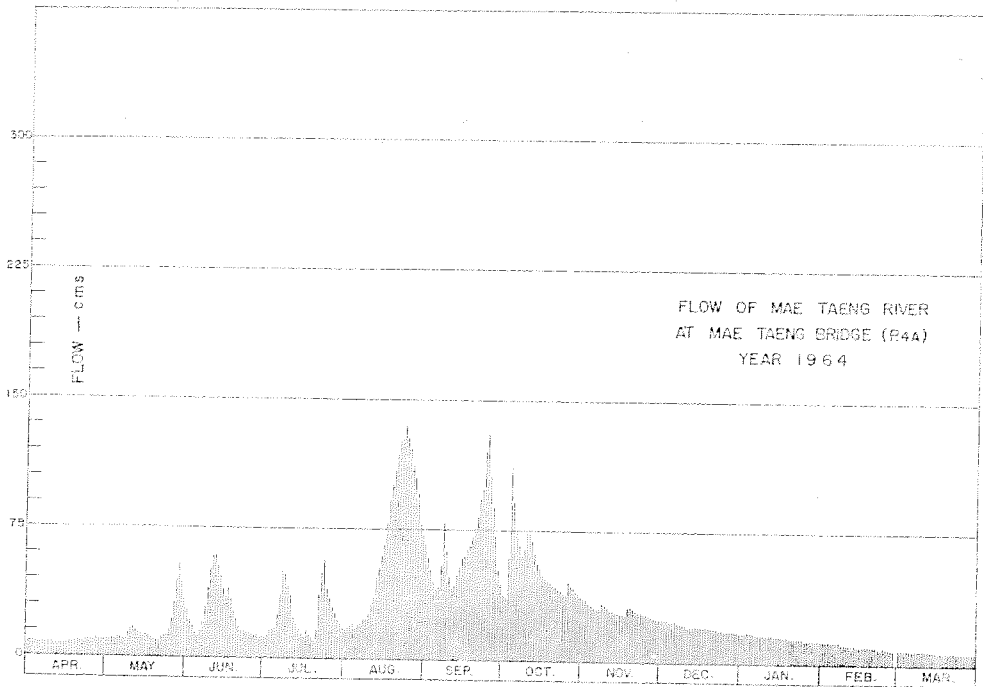
General description: Records fair. Stage - discharge relationship used is defined by discharge measurements made during 1955 - 1960. No state diversions for irrigation above gage site except those built by local farmers. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	334.41	334.46	334.92	334.55	334.69	335.52	335.11	335.09	334.87	334.70	334.56	334.41
2	.40	.46	.80	.57	.72	.43	.06	.06	.87	.69	.55	.41
3	.40	.47	.71	.66	.74	.33	.40	.04	.86	.69	.55	.41
4	.39	.47	.60	.69	.78	.23	.97	.02	.85	.69	.54	.40
5	.39	.50	.57	.73	.73	.15	.78	.00	.84	.69	.54	.40
6	334.39	334.52	334.65	334.87	334.74	334.18	335.61	334.98	334.83	334.68	334.53	334.40
7	.38	.50	.74	335.10	.78	.34	.52	.96	.82	.68	.53	.39
8	.38	.49	.91	.70	.85	.66	.45	335.04	.81	.67	.52	.39
9	.38	.57	335.14	.29	.84	.46	.80	.01	.80	.67	.52	.39
10	.38	.68	.33	.18	.91	.25	.58	334.99	.79	.67	.51	.38
11	334.37	334.69	335.42	335.08	334.99	335.16	335.61	334.97	334.78	334.66	334.51	334.38
12	.37	.65	.43	334.89	335.07	.18	.53	.96	.78	.66	.50	.38
13	.37	.61	.34	.77	.26	.27	.46	.95	.77	.65	.50	.37
14	.37	.58	.27	.70	.33	.34	.58	.94	.77	.65	.49	.37
15	.37	.55	.14	.63	.43	.41	.34	.93	.77	.64	.49	.37
16	334.37	334.57	335.05	334.56	335.50	335.44	335.30	334.92	334.76	334.64	334.48	334.36
17	.40	.53	.15	.66	.64	.47	.27	.91	.76	.63	.48	.36
18	.39	.50	.05	.60	.77	.50	.25	335.00	.76	.63	.47	.36
19	.39	.47	334.90	.56	.85	.56	.23	.00	.76	.62	.47	.35
20	.45	.46	.81	.54	.95	.61	.21	334.98	.75	.62	.46	.35
21	334.42	334.45	334.70	334.67	336.02	335.69	335.19	334.96	334.75	334.61	334.46	334.35
22	.41	.50	.64	335.07	.09	.79	.17	.95	.74	.61	.45	.34
23	.46	.54	.63	.29	.10	.84	.15	.94	.73	.60	.45	.34
24	.45	.56	.61	.39	.15	336.03	.12	.93	.72	.60	.44	.34
25	.44	.65	.60	.18	.09	.12	.12	.92	.72	.59	.44	.33
26	334.43	334.82	334.59	335.07	336.05	335.93	335.24	334.91	334.72	334.59	334.43	334.33
27	.49	.99	.58	334.98	335.97	.75	.20	.90	.71	.58	.43	.33
28	.48	335.24	.57	.90	.90	.54	.18	.89	.71	.58	.42	.32
29	.47	.37	.56	.82	.82	.32	.15	.88	.70	.57	-	.32
30	.46	.22	.55	.77	.62	.20	.13	.87	.70	.57	-	.32
31	-	.05	-	.71	.59	-	.11	-	.70	.56	-	.31
Mean	334.41	334.65	334.86	334.36	335.42	335.49	335.33	334.96	334.77	334.63	334.49	334.36
Max.	334.49	335.37	335.43	335.30	336.15	336.12	335.97	335.09	334.87	334.70	334.56	334.41
Min.	334.37	334.45	334.55	334.54	334.69	334.18	335.06	334.87	334.70	334.56	334.42	334.31

WATER YEAR 1964 : Max. 336.15 m. Min. 334.31 m.





DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	8.26	10	27	12	17	67	37	36	24	17	12	8.26
2	8.00	10	21	13	18	59	35	35	24	17	12	8.26
3	8.00	10	18	16	19	52	57	33	24	17	12	8.26
4	7.78	10	14	17	20	45	112	32	23	17	12	8.00
5	7.78	11	13	18	18	40	91	31	23	17	12	8.00
6	7.78	11	15	24	19	42	75	30	23	16	12	8.00
7	7.56	11	19	37	20	53	67	29	22	16	12	7.78
8	7.56	10	26	50	23	79	61	33	22	16	11	7.78
9	7.56	13	39	49	23	62	63	32	21	16	11	7.78
10	7.56	16	52	42	26	46	72	31	21	16	11	7.56
11	7.34	17	59	36	31	41	75	29	20	16	11	7.56
12	7.34	15	59	25	35	42	68	29	20	16	11	7.56
13	7.34	14	53	20	47	48	62	28	20	15	11	7.34
14	7.34	13	48	17	52	53	56	28	20	15	10	7.34
15	7.34	12	39	15	59	58	53	27	20	15	10	7.34
16	7.34	13	34	12	65	60	50	27	20	15	10	7.12
17	8.00	12	40	16	78	63	48	26	20	15	10	7.12
18	7.78	11	34	14	90	65	46	31	20	15	10	7.12
19	7.78	10	26	12	99	70	45	31	20	14	10	6.90
20	8.78	10	22	12	109	75	44	30	19	14	10	6.90
21	8.52	9.30	17	16	118	82	42	29	19	14	10	6.90
22	8.26	11	15	35	126	92	41	28	19	14	9.30	6.68
23	10	12	15	40	127	98	40	28	18	14	9.30	6.68
24	9.30	12	14	56	134	119	38	27	18	14	9.04	6.68
25	9.04	15	14	42	126	130	38	27	18	13	9.04	6.46
26	8.78	22	15	35	121	107	46	26	18	13	8.78	6.46
27	10	31	13	50	112	88	45	26	18	13	8.78	6.46
28	10	46	13	26	104	69	42	25	18	13	9.52	6.24
29	10	55	12	22	95	51	40	25	18	13	-	6.24
30	10	44	12	20	79	43	39	24	17	13	-	6.24
31	-	34	-	18	73	-	37	-	17	12	-	6.02
Total	248.12	550.30	796	808	2,083	1,995	1,663	873	624	461	292.76	223.04
Mean	8.27	17.1	25.5	26.0	67.2	66.6	53.6	29.1	20.1	14.8	10.4	7.19
Max.	10	55	59	50	134	130	112	36	24	17	12	8.26
Min.	7.34	9.30	12	12	17	40	35	24	17	12	8.52	6.02
Runoff - mcm.	21.427	45.792	68.774	69.638	179.971	172.714	143.683	75.427	53.914	39.930	25.315	19.267

WATER YEAR 1964 : Max. 134 Min. 6.02 Mean 29.0 Annual Runoff 915.754 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Aug. 24	09.00	336.16	150				

WATER YEAR 1963  
PING RIVER BASIN

Mae Taeng River at Huai San, Chiang Mai (P.48)

Location: Lat  $19^{\circ} - 10' - 20''$  N, Long  $98^{\circ} - 55' - 05''$  E, on left bank at Ban Pa Fat about 1 kilometer upstream from Amphoe Mae Taeng and about 7.5 kilometers downstream from Kaeng Kut, Amphoe Mae Taeng, Chiang Mai.

Drainage Area: 1,833 sq.km. referred to AMS. Map 1:50,000

Type of Gage: Staff gage.

Zero Gage at Bottom at: + 343.837 m. (M.S.L.)

Bench Mark: No report about 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: 1957 - 65.

Rating Operation:

Period of Rating: 1957 - 65.  
Rated by Float: -  
Rated by Current Meter: 1957 - 65.

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation due to its adequate stability.

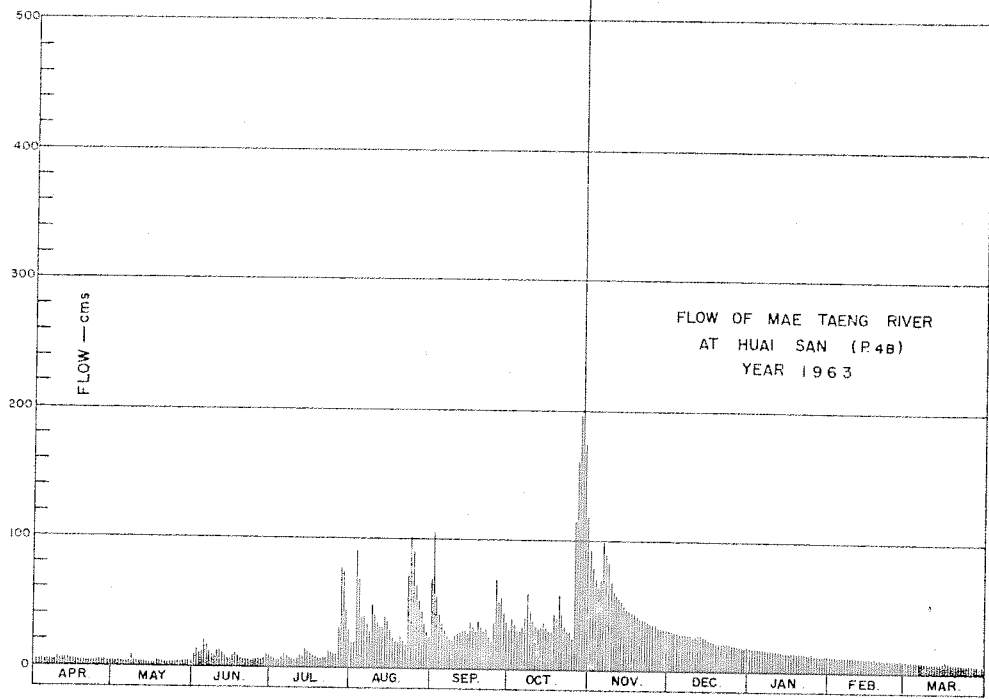
Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1963. No state diversions above gage site.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	344.21	344.21	344.36	344.32	344.63	345.49	344.87	345.80	344.87	344.59	344.44	344.36
2	.20	.19	.48	.30	.64	.95	345.07	.63	.86	.58	.44	.35
3	.20	.18	.41	.26	345.79	.30	344.93	.51	.85	.58	.44	.35
4	.19	.17	.43	.27	.50	.07	.85	.43	.84	.57	.44	.34
5	.19	.18	.65	.32	.03	344.94	.85	.51	.82	.56	.44	.33
6	344.19	344.17	344.56	344.41	345.03	344.84	344.91	345.88	344.81	344.56	344.44	344.32
7	.20	.20	.43	.36	344.95	.77	345.01	.75	.80	.55	.44	.32
8	.20	.34	.36	.33	.81	.70	.35	.68	.80	.55	.43	.31
9	.22	.23	.33	.30	345.20	.68	.12	.47	.78	.54	.43	.31
10	.28	.20	.47	.27	.05	.76	344.98	.38	.77	.54	.42	.31
11	344.24	344.18	344.46	344.29	344.94	344.79	344.91	345.32	344.76	344.53	344.42	344.30
12	.28	.18	.41	.38	.90	.81	.89	.29	.78	.53	.41	.30
13	.27	.17	.33	.35	.90	.85	.90	.24	.79	.52	.41	.31
14	.25	.16	.28	.50	345.03	.86	.96	.19	.77	.51	.41	.31
15	.22	.15	.28	.47	344.97	.79	.90	.15	.74	.51	.41	.33
16	344.22	344.14	344.36	344.39	344.85	344.97	344.86	345.13	344.72	344.50	344.40	344.36
17	.21	.15	.41	.34	.73	.89	.84	.11	.71	.50	.39	.32
18	.20	.24	.36	.34	.65	.83	345.09	.09	.69	.50	.39	.30
19	.20	.19	.31	.31	.63	.98	.04	.05	.68	.49	.38	.28
20	.19	.18	.29	.31	.74	.88	.34	.03	.67	.49	.37	.28
21	344.19	344.17	344.27	344.32	344.69	344.79	345.09	345.02	344.67	344.49	344.37	344.28
22	.18	.16	.26	.32	.58	.87	344.92	.01	.66	.49	.37	.27
23	.18	.18	.24	.46	345.55	.75	.86	344.99	.65	.48	.37	.27
24	.18	.18	.25	.42	.90	.69	.84	.97	.65	.47	.36	.27
25	.19	.16	.27	.39	.79	.97	.73	.95	.64	.48	.36	.26
26	344.21	344.17	344.28	344.39	345.44	345.50	346.04	344.94	344.63	344.47	344.36	344.27
27	.19	.18	.27	.89	.24	.25	.53	.92	.62	.47	.36	.30
28	.21	.19	.28	345.62	.11	.29	.76	.91	.62	.47	.36	.31
29	.20	.20	.40	.58	344.94	.10	348.18	.90	.61	.46	.36	.29
30	.20	.21	.38	.13	.82	344.96	346.58	.88	.61	.46	.36	.29
31	-	.18	-	344.84	.74	-	.09	-	.60	.45	-	.29
Mean	344.21	344.19	344.36	344.49	345.02	344.98	345.30	345.24	344.72	344.51	344.40	344.31
Max.	344.28	344.34	344.65	345.62	345.90	345.95	348.18	345.88	344.87	344.59	344.44	344.36
Min.	344.18	344.14	344.24	344.26	344.58	344.68	344.78	344.88	344.60	344.45	344.36	344.26

WATER YEAR 1963 : Max. 348.18 m. Min. 344.14 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	5.10	5.10	9.60	8.30	20	69	31	92	31	18	12	9.60
2	4.80	4.60	14	7.60	20	105	39	78	30	18	12	9.30
3	4.80	4.30	11	6.50	91	55	34	69	30	18	12	9.30
4	4.60	4.10	12	6.80	69	42	30	64	29	17	12	9.00
5	4.60	4.30	21	8.30	40	35	30	69	29	17	12	8.60
6	4.60	4.10	17	11.	40	29	33	99	28	17	12	8.30
7	4.80	4.80	12.	9.60	34	26	39	88	28	17	12	8.30
8	4.80	9.00	9.60	8.60	28	23	59	82	28	17	12	7.90
9	5.40	5.60	8.60	7.60	49	22	45	67	27	16	12	7.90
10	7.00	4.80	13	6.80	41	26	37	60	26	16	12	7.90
11	5.90	4.30	13.	7.30	35	27	33	57	26	16	12	7.60
12	7.00	4.30	11	10	32	28	32	55	27	16	11	7.60
13	6.80	4.10	8.60	9.30	32	30	32	52	27	15	11	7.90
14	6.20	3.80	7.00	15.	40	30	36	49	26	15	11	7.90
15	5.40	3.60	7.00	13	36	27	32	46	25	15	11	8.60
16	5.40	3.40	9.60	11.	30	36	30	45	24	15	11	9.60
17	5.10	3.60	11	9.00	24	32	29	44	23	15	11	8.30
18	4.80	5.90	9.60	9.00	21	29	43	43	22	15	11	7.60
19	4.80	4.60	7.90	7.90	20	37	40	41	22	14	10	7.00
20	4.60	4.30	7.30	7.90	25	32	58	40	21	14	10	7.00
21	4.60	4.10	6.80	8.30	22	27	43	39	21	14	10	7.00
22	4.30	3.80	6.50	8.30	18	31	33	39	21	14	10	6.80
23	4.30	4.30	5.90	13	72	25	30	37	21	14	10	6.80
24	4.30	4.30	6.20	12	101	22	29	36	21	13	9.60	6.80
25	4.60	3.80	6.80	11	91	36	24	35	20	14	9.60	6.50
26	5.10	4.10	7.00	11	64	69	114	35	20	13	9.60	6.80
27	4.60	4.30	6.80	32	52	52	167	33	19	13	9.60	7.60
28	5.10	4.60	7.00	77	44	55	199	33	19	13	9.60	7.90
29	4.80	4.80	11	74	35	44	516	32	19	13	9.60	7.30
30	4.80	5.10	10	45	29	36	173	31	19	13	-	7.30
31	-	4.30	-	29	25	-	118	-	19	13	-	7.30
Total	153.00	140.10	293.80	501.10	1,280	1,137	2,188	1,590	748	468	316.60	243.30
Mean	5.10	4.52	9.79	16.2	41.3	37.9	70.6	53	24.1	15.1	10.9	7.84
Max.	7.00	9.00	21	77	101	105	516	99	31	18	12	9.60
Min.	4.30	3.40	5.90	6.50	18	22	24	31	19	13	9.60	6.50
Runoff - mcm.	13.219	12.096	25.402	43.286	110.678	98.237	189.043	137.376	64.627	40.435	27.389	20.995

WATER YEAR 1963 : Max. 516 Min. 3.40 Mean 24.8 Annual Runoff 782.611 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 29	18.00	348.24	536				

WATER YEAR 1964  
PING RIVER BASIN

Mae Taeng River at Huai San, Chiang Mai. (P.4B)

Location: Lat  $19^{\circ} - 10' - 20''$  N., Long  $98^{\circ} - 55' - 05''$  E., on left bank at Ban Pa fat about 1 kilometer upstream from Mae Taeng and about 7.5 kilometers downstream from Kaeng Kut, Amphoe Mae Taeng, Chiang Mai.

Drainage Area: 1,833 sq.km. referred to AMS Map 1:50,000

Type of Gage: Staff gage

Zero Gage at Bottom at: +343.837 m. (M.S.L.)

Bench Mark: No report about 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: 1957 - 65.

Rating Operation:

Period of Rating: 1957 - 65.

Rated by Float: -

Rated by Current Meter: 1957 - 65

Stability of channel Regimes: Stable, no shifting adjustment for flow computation due to its adequate stability.

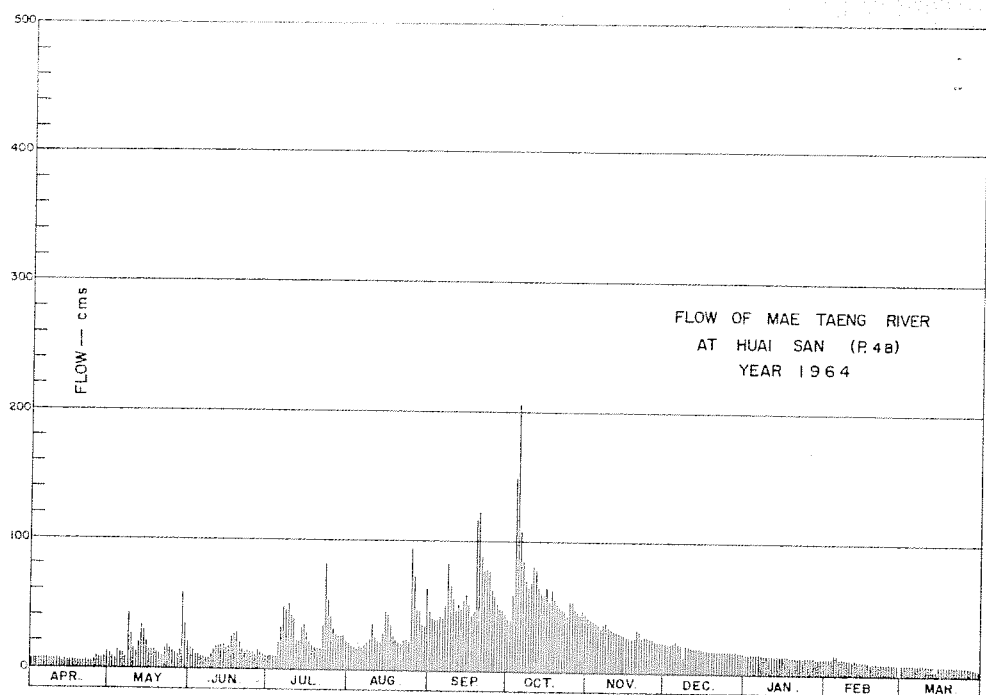
Overbank flow Conditions: No overbank flow.

General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1964. No state diversions above gage site.

GAGE HEIGHT IN METER ( M. S. L.), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	344.24	344.38	344.56	344.37	344.64	345.11	345.02	345.03	344.69	344.57	344.40	344.30
2	.24	.30	.49	.39	.59	.03	.02	.01	.67	.51	.40	.30
3	.23	.25	.42	.39	.58	.01	.31	344.98	.69	.50	.41	.30
4	.23	.47	.42	.39	.56	.02	346.42	.96	.69	.50	.49	.29
5	.23	.37	.38	.67	.59	.09	.93	.94	.73	.50	.46	.29
6	344.22	344.40	344.36	344.87	344.55	345.04	345.97	344.92	344.68	344.49	344.40	344.25
7	.22	.30	.33	345.16	.62	.20	.68	.96	.65	.48	.40	.28
8	.22	345.07	.32	.13	.68	.67	.48	.99	.65	.48	.40	.28
9	.21	344.71	.41	.21	.72	.40	.92	.92	.64	.48	.39	.28
10	.21	.54	.53	.05	.95	.07	.46	.89	.62	.48	.38	.28
11	344.21	344.43	344.61	344.83	344.75	345.14	345.63	344.86	344.61	344.47	344.37	344.27
12	.20	.64	.61	.69	.70	.21	.59	.85	.61	.47	.37	.27
13	.20	.91	.61	.70	.67	.17	.40	.83	.60	.47	.36	.27
14	.20	.84	.62	.90	.82	.28	.33	.82	.59	.47	.36	.27
15	.19	.66	.54	.94	345.12	.33	.33	.80	.59	.46	.35	.26
16	344.19	344.50	344.61	344.52	345.09	345.19	345.40	344.79	344.58	344.46	344.35	344.26
17	.19	.51	.78	.67	344.93	.07	.24	.78	.58	.46	.34	.26
18	.18	.49	.80	.60	.79	.13	.38	.77	.57	.46	.34	.26
19	.18	.45	.82	.58	.72	346.07	.27	.78	.57	.45	.33	.26
20	.18	.42	.65	.55	.67	.14	.21	.90	.56	.45	.33	.26
21	344.18	344.35	344.53	344.52	344.64	345.70	345.18	344.85	344.56	344.45	344.32	344.25
22	.19	.52	.48	.93	.72	.58	.13	.79	.55	.44	.32	.25
23	.19	.61	.49	345.64	.72	.60	.13	.81	.55	.44	.31	.25
24	.19	.53	.48	.26	.67	.57	.09	.78	.54	.44	.31	.24
25	.20	.48	.47	.04	345.81	.37	.24	.75	.54	.43	.31	.24
26	344.31	344.45	344.42	344.88	345.57	345.30	345.24	344.73	344.54	344.43	344.31	344.23
27	.26	.39	.53	.81	.14	.21	.15	.72	.54	.43	.30	.23
28	.25	.49	.46	.78	.14	.15	.10	.71	.56	.42	.30	.22
29	.29	345.32	.41	.78	344.94	.14	.07	.71	.53	.42	-	.22
30	.45	344.94	.38	.69	.93	.08	.14	.70	.52	.41	-	.22
31	-	.64	-	.69	345.39	-	.08	-	.52	.40	-	.22
Mean	344.22	344.56	344.52	344.79	344.85	345.30	345.38	344.84	344.60	344.46	344.36	344.26
Max.	344.45	345.32	344.82	345.64	345.81	346.14	346.93	345.01	344.73	344.57	344.49	344.30
Min.	344.18	344.25	344.32	344.37	344.55	345.01	345.02	344.70	344.52	344.40	344.30	344.22

WATER YEAR 1964 : Max. 346.93 m. Min. 344.18 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	7.16	11	17	11	21	46	40	41	23	15	12	8.60
2	7.16	8.60	15	11	19	41	40	40	22	15	12	8.60
3	6.92	7.40	12	11	18	40	59	38	23	15	12	8.60
4	6.92	14	12	11	17	40	150	37	23	15	15	8.36
5	6.92	11	11	22	19	43	206	36	25	15	14	8.36
6	6.68	12	10	33	18	41	108	34	22	15	12	8.36
7	6.68	8.60	9.50	49	20	51	85	37	21	14	12	8.12
8	6.68	43	9.20	42	22	84	70	38	12	14	12	8.12
9	6.44	24	12	52	24	65	65	34	21	14	11	8.12
10	6.44	17	16	42	36	56	69	33	20	14	11	8.12
11	6.44	13	19	30	26	47	81	31	19	14	11	7.88
12	6.20	21	19	23	23	52	78	31	19	14	11	7.88
13	6.20	34	19	23	22	49	65	30	19	14	10	7.88
14	6.20	30	20	33	29	57	60	29	19	14	10	7.88
15	5.98	21	17	36	46	60	60	28	19	14	10	7.64
16	5.98	15	19	29	43	51	65	27	18	14	10	7.64
17	5.98	15	27	22	35	43	54	27	18	14	9.80	7.64
18	5.76	15	28	19	27	47	63	26	18	13	9.80	7.64
19	5.76	13	29	18	24	117	56	27	18	13	9.50	7.64
20	5.76	12	21	17	22	123	52	33	17	13	9.50	7.64
21	5.76	10	16	16	21	87	50	31	17	13	9.20	7.40
22	5.98	16	14	35	24	78	47	27	17	13	9.20	7.40
23	5.98	19	15	82	24	79	47	28	17	13	8.90	7.40
24	5.98	16	14	55	22	77	43	27	17	13	8.90	7.16
25	6.20	14	14	41	95	63	54	26	17	13	8.90	7.16
26	8.90	13	12	32	77	58	54	25	17	13	8.90	6.92
27	7.64	11	16	28	47	52	48	24	17	13	8.60	6.92
28	6.92	15	14	27	47	48	45	24	17	12	8.60	6.68
29	8.36	59	12	27	36	47	43	24	16	12	-	6.68
30	13	36	11	27	35	44	47	23	16	12	-	6.68
31	-	21	-	23	64	-	44	-	16	12	-	6.68
Total	202.98	575.60	479.70	932	1,003	1,786	2,048	916	589	422	294.80	237.80
Mean	6.77	18.5	15.9	30.1	32.3	59.5	66.1	30.5	19.0	13.6	10.5	7.67
Max.	13	59	29	82	95	123	206	41	25	15	15	8.60
Min.	5.76	7.40	9.20	11	17	40	40	23	16	12	8.60	6.68
Runoff - mcm.	17.539	49.766	41.472	80.525	86.659	154.310	176.947	79.142	50.890	36.461	25.488	20.477

WATER YEAR 1964 : Max. 206 Min. 5.76 Mean 26.0 Annual Runoff 819,677 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct, 5	06.00	347.16	233				

**WATER YEAR 1963  
PING RIVER BASIN**

18

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

Location: Lat 18° - 34' - 32" N., Long 99° - 00' - 44" E., on right bank 10 meters downstream from Tha Sing Phitak bridge in front of Phratat Hariphunchaj Temple. Amphoe Muang, Lamphun.

Drainage Area: 1,569 sq.km. referred to AMS Map 1:50,000.

Type of Gage: Staff gage.

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

Bench Mark: B.M. - H.S. / R.I.D. No.7

Location: On right bank near the 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: 1951 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 for years without actual ratings.

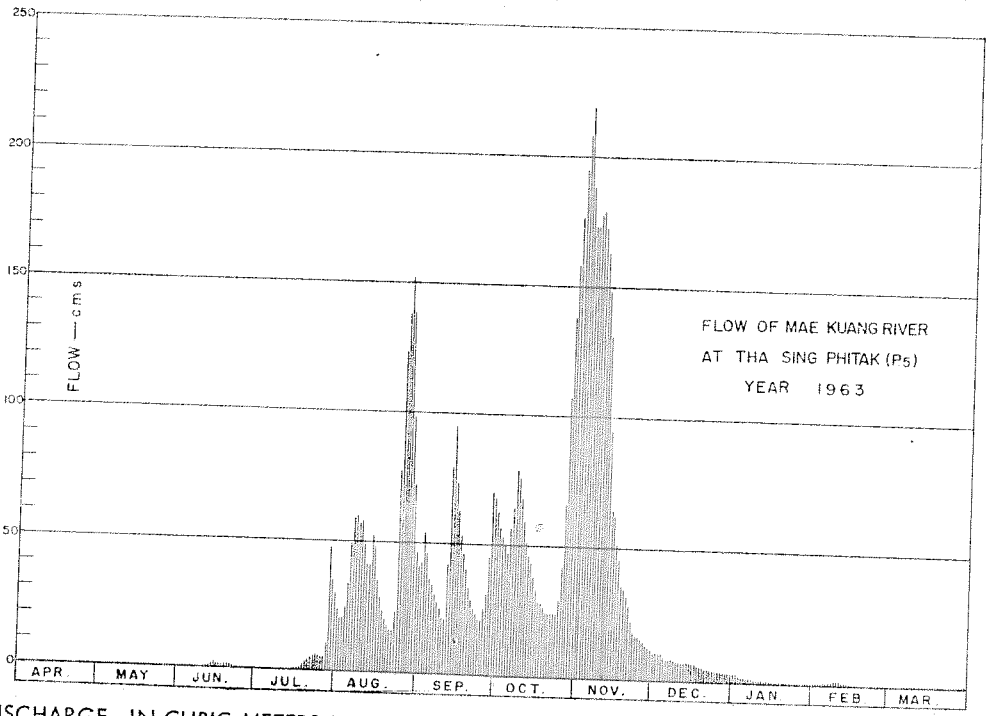
Overbank Flow Conditions: No Overbank Flow.

General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made during 1954 - 60. Upstream diversions for irrigation of about 9,600 hectares since 1954. The data present is from actual flow at gage site. No adjustment made for virgin flow.

**GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964**

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	289.33	289.32	289.33	289.53	290.60	291.03	291.52	293.93	290.10	289.80	289.54	289.47
2	.33	.32	.34	.51	.46	.13	.40	294.11	.10	.80	.55	.45
3	.33	.32	.35	.49	.48	.37	.36	.30	.10	.75	.55	.40
4	.33	.32	.36	.49	.63	.15	.27	293.83	.10	.71	.57	.40
5	.33	.32	.38	.49	.87	290.90	.16	.60	.05	.71	.58	.40
6	289.33	289.33	289.40	289.48	291.33	290.86	291.41	293.60	290.00	289.71	289.58	289.40
7	.32	.33	.47	.48	.49	.77	.60	.66	.00	.68	.61	.39
8	.32	.33	.52	.47	.50	.67	.91	.69	.00	.66	.64	.39
9	.32	.33	.54	.47	.44	.61	.85	.58	.00	.64	.67	.40
10	.32	.33	.58	.47	.47	.50	.68	.43	289.98	.64	.67	.41
11	289.32	289.33	289.60	289.47	291.31	290.50	291.48	293.20	289.97	289.64	289.67	289.43
12	.32	.33	.63	.47	.05	291.07	.30	292.85	.95	.61	.64	.45
13	.32	.33	.68	.46	.05	.91	.18	.25	.95	.61	.63	.47
14	.32	.33	.73	.46	.32	292.24	.10	291.60	.95	.59	.57	.47
15	.32	.34	.76	.30	.22	291.79	290.94	.56	.95	.56	.52	.50
16	289.32	289.34	289.72	289.58	290.87	291.55	290.84	291.30	289.94	289.53	289.50	289.50
17	.32	.34	.71	.65	.69	.36	.70	.15	.94	.53	.50	.50
18	.32	.34	.70	.67	.55	.14	.70	290.99	.93	.53	.50	.50
19	.32	.34	.70	.74	.45	.00	.64	.88	.90	.53	.50	.50
20	.32	.34	.69	.81	.38	290.82	.60	.75	.89	.53	.50	.50
21	289.32	289.34	289.68	289.86	290.34	290.69	290.60	290.65	289.85	289.53	289.50	289.50
22	.32	.34	.65	.89	.35	.60	.60	.50	.85	.53	.49	.49
23	.32	.34	.60	.93	.48	.56	.60	.38	.85	.53	.49	.49
24	.32	.34	.58	.95	291.90	.50	.60	.35	.84	.53	.49	.49
25	.32	.34	.55	.93	292.76	.50	.74	.33	.83	.53	.49	.49
26	289.32	289.34	289.52	289.91	293.03	290.62	291.06	290.30	289.82	283.53	289.49	289.49
27	.32	.34	.50	.90	.26	.81	.64	.27	.81	.53	.49	.49
28	.32	.33	.50	290.39	292.97	291.17	292.46	.19	.80	.53	.49	.49
29	.32	.33	.50	291.21	.29	.72	293.03	.19	.80	.53	.49	.49
30	.32	.32	.52	290.89	291.71	.69	.34	.13	.80	.53	-	.49
31	-	.32	-	.75	.17	-	.64	-	.80	.53	-	.49
Mean	289.32	289.33	289.56	289.75	291.27	291.04	291.48	291.92	289.83	289.60	289.55	289.46
Max.	289.33	289.34	289.76	291.21	293.26	292.24	293.64	294.30	290.10	289.80	289.67	289.50
Min.	289.32	289.32	289.33	289.30	290.34	290.50	290.60	290.13	289.80	289.53	289.49	289.39

WATER YEAR 1963 : Max. 294.30 m. Min. 289.30 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.00	0.00	0.00	0.21	24	40	60	194	10	3.20	0.28	0.00
2	0.00	0.00	0.00	0.07	20	44	55	207	10	3.20	0.35	0.00
3	0.00	0.00	0.00	0.00	21	54	53	219	10	2.30	0.35	0.00
4	0.00	0.00	0.00	0.00	25	45	50	188	10	1.58	0.49	0.00
5	0.00	0.00	0.00	0.00	34	35	45	173	8.80	1.58	0.56	0.00
6	0.00	0.00	0.00	0.00	52	34	56	173	7.60	1.58	0.56	0.00
7	0.00	0.00	0.00	0.00	59	30	64	177	7.60	1.26	0.77	0.00
8	0.00	0.00	0.14	0.00	60	27	79	179	7.60	1.12	0.98	0.00
9	0.00	0.00	0.28	0.00	57	25	76	173	7.60	0.98	1.19	0.00
10	0.00	0.00	0.56	0.00	58	21	68	163	7.10	0.98	1.19	0.00
11	0.00	0.00	0.70	0.00	51	21	59	148	6.90	0.98	1.19	0.00
12	0.00	0.00	0.91	0.00	41	42	51	128	6.40	0.77	0.98	0.00
13	0.00	0.00	1.26	0.00	41	79	46	95	6.40	0.77	0.91	0.00
14	0.00	0.00	1.94	0.00	52	95	43	64	6.40	0.65	0.49	0.00
15	0.00	0.00	2.48	0.00	48	73	37	62	6.40	0.42	0.14	0.00
16	0.00	0.00	1.76	0.56	34	62	33	51	6.20	0.21	0.00	0.00
17	0.00	0.00	1.58	0.91	28	53	28	45	6.20	0.21	0.00	0.00
18	0.00	0.00	1.40	1.19	23	44	28	35	5.90	0.21	0.00	0.00
19	0.00	0.00	1.40	2.12	20	39	26	34	5.20	0.21	0.00	0.00
20	0.00	0.00	1.33	3.40	17	32	24	30	5.00	0.21	0.00	0.00
21	0.00	0.00	1.26	4.40	16	28	24	26	4.20	0.21	0.00	0.00
22	0.00	0.00	1.05	5.00	16	24	24	21	4.20	0.21	0.00	0.00
23	0.00	0.00	0.70	5.90	21	23	24	17	4.20	0.21	0.00	0.00
24	0.00	0.00	0.56	6.40	78	21	24	16	4.00	0.21	0.00	0.00
25	0.00	0.00	0.35	5.90	123	21	29	16	3.80	0.21	0.00	0.00
26	0.00	0.00	0.14	5.40	138	25	41	15	3.60	0.21	0.00	0.00
27	0.00	0.00	0.00	5.20	152	32	66	14	3.40	0.21	0.00	0.00
28	0.00	0.00	0.00	18	135	46	107	12	3.20	0.21	0.00	0.00
29	0.00	0.00	0.00	47	97	70	138	12	3.20	0.21	0.00	0.00
30	0.00	0.00	0.14	35	69	68	157	11	3.20	0.21	0.00	0.00
31	-	0.00	-	30	46	-	176	-	3.20	0.21	-	0.00
Total	0.00	0.00	19.94	176.66	1,656	1,253	1,1791	2,698	187.50	24.71	10.43	0.00
Mean	0.00	0.00	0.66	5.70	53.4	41.8	57.8	89.9	6.06	0.81	0.36	0.00
Max.	0.00	0.00	2.48	47	152	95	176	219	10	3.20	1.19	0.00
Min.	0.00	0.00	0.00	0.00	16	21	24	11	3.20	0.21	0.00	0.00
Runoff - BCM.	0.00	0.00	1.723	15.263	143.078	106.259	154.42	233.107	16.200	2.135	0.901	0.00

WATER YEAR 1963 : Max. 219 Min. 0.00 Mean 21.4 Annual Runoff 675.409 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Nov. 2	06.00	294.30	219				

WATER YEAR 1964  
PING RIVER BASIN

Mae Kuang River at Tha Sing Phitak Lamphun. (P.5)

Location: Lat 18° - 34' - 32" N., Long 99° - 00' - 44" E., on right bank 10 meters downstream from Tha Sing Phitak bridge in front of Phratat Hariphunchai Temple, Amphoe Muang, Lamphun.

Drainage Area: 1,569 sq.km. referred to AMS Map 1:50,000.

Type of Gage: Staff gage.

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

Bench Mark: B.M. - H.S. / R.I.D. No. 7

Location: On right bank near the 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: 1951 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 for years without actual ratings.

Overbank flow Conditions: No overbank flow.

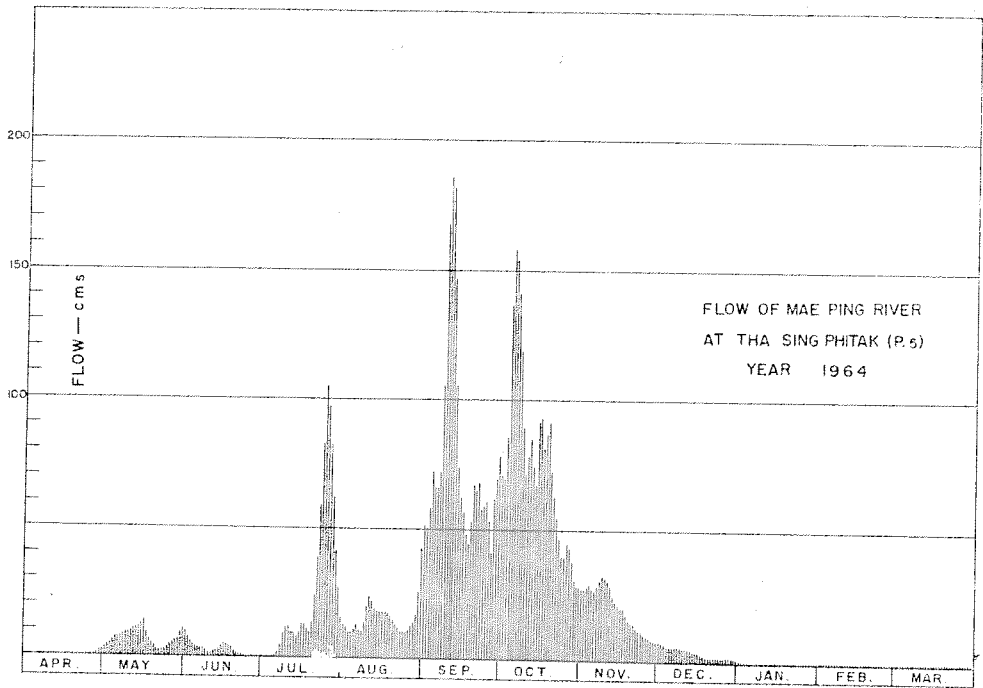
General description: Records fair. Stage - discharge relationship used is defined by discharge measurements made during 1954 - 60. Upstream diversions for irrigation of about 9,600 hectares since 1954. The data present is from actual flow at gage site. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	289.48	289.83	290.10	289.55	290.23	291.32	291.70	290.67	289.98	289.59	289.40	289.38
2	.47	.86	.00	.51	.17	.28	.70	.67	.96	.54	.40	.38
3	.47	.89	289.93	.50	.11	.49	292.07	.70	.95	.50	.40	.38
4	.47	.94	.88	.55	.10	.79	.98	.72	.93	.47	.40	.38
5	.47	.99	.84	.62	.16	.63	293.35	.68	.90	.47	.45	.36
6	289.45	290.00	289.84	289.68	290.23	291.65	293.26	290.64	289.90	289.45	289.48	289.35
7	.45	.01	.83	.77	.15	.79	.03	.69	.90	.45	.53	.35
8	.45	.05	.80	.90	290.10	292.45	292.60	.76	.90	.41	.58	.35
9	.42	.07	.74	290.08	.24	293.49	291.64	.80	.90	.40	.59	.35
10	.41	.08	.70	.19	.51	.80	.78	.78	.88	.40	.56	.35
11	289.40	290.09	289.70	290.18	290.60	293.72	291.90	290.76	289.87	289.40	289.51	289.35
12	.39	.13	.74	.12	.49	.11	292.04	.67	.87	.40	.50	.35
13	.37	.15	.75	.06	.44	292.23	291.80	.59	.85	.40	.45	.35
14	.37	.19	.80	.02	.40	291.72	.64	.54	.83	.40	.41	.35
15	.37	.21	.87	.09	.40	.55	292.19	.50	.82	.40	.39	.35
16	289.37	290.15	289.90	290.21	290.39	291.42	292.20	290.47	289.81	289.40	289.39	289.35
17	.35	.05	.86	.23	.39	.22	291.94	.45	.78	.40	.39	.34
18	.35	289.97	.85	.16	.39	.11	292.06	.38	.74	.40	.37	.34
19	.35	.89	.83	.07	.32	.34	.17	.30	.71	.40	.37	.34
20	.33	.85	.78	.24	.29	.67	291.75	.28	.70	.41	.37	.34
21	289.32	289.77	289.73	290.59	290.23	291.60	291.54	290.26	289.70	289.43	289.37	289.34
22	.32	.76	.66	291.01	.17	.68	.34	.17	.70	.46	.37	.34
23	.32	.77	.65	.46	.11	.41	.11	.16	.70	.45	.37	.34
24	.32	.78	.61	.99	.10	.48	.00	.15	.70	.45	.37	.34
25	.36	.82	.60	292.43	.10	.51	.00	.09	.69	.45	.36	.34
26	289.47	289.88	289.60	292.27	290.16	291.33	291.12	290.06	289.70	289.44	289.36	289.34
27	.58	.92	.60	291.87	.23	.01	.05	.03	.70	.44	.36	.34
28	.65	.94	.59	.45	.28	.55	290.92	.00	.70	.44	.36	.34
29	.74	.98	.58	.00	.36	.74	.77	.00	.69	.44	-	.34
30	.78	290.08	.58	290.53	.74	.90	.70	.00	.67	.42	-	.34
31	-	.16	-	.28	291.16	-	.70	-	.62	.40	-	.33
Mean	289.43	289.98	289.76	290.44	290.37	291.81	291.77	290.43	289.79	289.43	289.42	289.35
Max.	289.78	290.21	290.10	292.43	291.16	293.80	293.35	290.80	289.98	289.59	289.59	289.38
Min.	289.32	289.76	289.58	289.50	290.10	291.01	290.70	290.00	289.62	289.40	289.36	289.33

WATER YEAR 1964 : Max. 293.80 m. Min. 289.32 m.





DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.00	3.80	10	0.35	13	52	69	27	7.10	0.63	0.00	0.00
2	0.00	4.40	7.60	0.07	12	50	69	27	6.60	0.28	0.00	0.00
3	0.00	5.00	5.90	0.00	10	59	86	28	6.40	0.00	0.00	0.00
4	0.00	6.20	4.80	0.35	10	73	136	29	5.90	0.00	0.00	0.00
5	0.00	7.40	4.00	0.84	11	65	158	27	5.20	0.00	0.00	0.00
6	0.00	7.60	4.00	1.26	13	66	152	26	5.20	0.00	0.00	0.00
7	0.00	7.80	3.80	2.66	11	73	138	28	5.20	0.00	0.21	0.00
8	0.00	8.80	3.20	5.20	10	106	114	30	5.20	0.00	0.56	0.00
9	0.00	9.30	2.12	9.50	13	166	66	32	5.20	0.00	0.63	0.00
10	0.00	9.50	1.40	12	21	186	72	31	4.80	0.00	9.42	0.00
11	0.00	9.80	1.40	12	24	181	78	30	4.60	0.00	0.07	0.00
12	0.00	11	2.12	10	21	145	85	27	4.60	0.00	0.00	0.00
13	0.00	11	2.30	9.00	19	94	73	24	4.20	0.00	0.00	0.00
14	0.00	12	3.20	8.10	18	70	66	22	3.80	0.00	0.00	0.00
15	0.00	13	4.60	9.80	18	62	92	21	3.60	0.00	0.00	0.00
16	0.00	11	5.20	13	18	56	93	20	3.40	0.00	0.00	0.00
17	0.00	8.80	4.40	13	18	48	80	20	2.84	0.00	0.00	0.00
18	0.00	6.90	4.20	11	18	43	86	17	2.12	0.00	0.00	0.00
19	0.00	5.00	3.80	9.30	16	53	91	15	1.58	0.00	0.00	0.00
20	0.00	4.20	2.84	13	15	67	71	14	1.40	0.00	0.00	0.00
21	0.00	2.66	1.94	24	13	64	61	14	1.40	0.00	0.00	0.00
22	0.00	2.48	1.12	39	12	68	53	12	1.40	0.00	0.00	0.00
23	0.00	2.66	1.05	58	10	56	43	11	1.40	0.00	0.00	0.00
24	0.00	2.84	0.77	82	10	59	39	11	1.40	0.00	0.00	0.00
25	0.00	3.60	0.70	105	10	60	39	9.80	1.33	0.00	0.00	0.00
26	0.00	4.80	0.70	96	11	52	44	9.00	1.40	0.00	0.00	0.00
27	0.56	5.70	0.70	77	13	39	41	8.30	1.40	0.00	0.00	0.00
28	1.05	6.20	0.63	57	14	62	36	7.60	1.40	0.00	0.00	0.00
29	2.12	7.10	0.56	39	17	70	30	7.60	1.33	0.00	-	0.00
30	2.84	9.50	0.56	22	29	78	28	7.60	1.19	0.00	-	0.00
31	-	11	-	14	45	-	28	-	0.84	0.00	-	0.00
Total	6.57	221.64	89.61	753.43	493	2,321	2,317	592.90	103.43	0.91	1.89	0.00
Mean	0.22	7.13	3.00	24.3	15.9	77.4	74.7	19.3	3.32	0.03	0.07	0.00
Max.	2.84	13.00	10	105	45.0	186	158	32	7.10	0.63	0.63	0.00
Min.	0.00	2.48	0.56	0.00	10.0	39	28	7.60	0.84	0.00	0.00	0.00
Runoff - mcm.	0.568	19.098	7.742	65.096	42.595	200.534	200.189	51.235	8.899	0.679	0.163	0.00

WATER YEAR 1964 : Max. 186 Min. 0.00 Mean 18.9 Annual Runoff 596.227 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sept.10	18.00	293.90	192				

WATER YEAR 1963  
PING RIVER BASIN

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

**Location:** Lat  $16^{\circ} - 28' - 38''$  N., Long  $99^{\circ} - 31' - 06''$  E., on right bank about 100 meters upstream from Kamphaeng Phet Bridge, Ban Nakhon Chum, Amphoe Muang, Kamphaeng Phet.

**Drainage Area:** 42,616 sq.km. referred to AMS Map 1:50,000.

**Type of Gage:** Staff gage.

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

**Bench Mark:** B.M. - H.S.S./R.I.D. No. 2

**Location:** Near the office station of P.7A.

**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:** 1961 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:** Rather unstable, no shifting adjustment for flow computation for years without actual ratings.

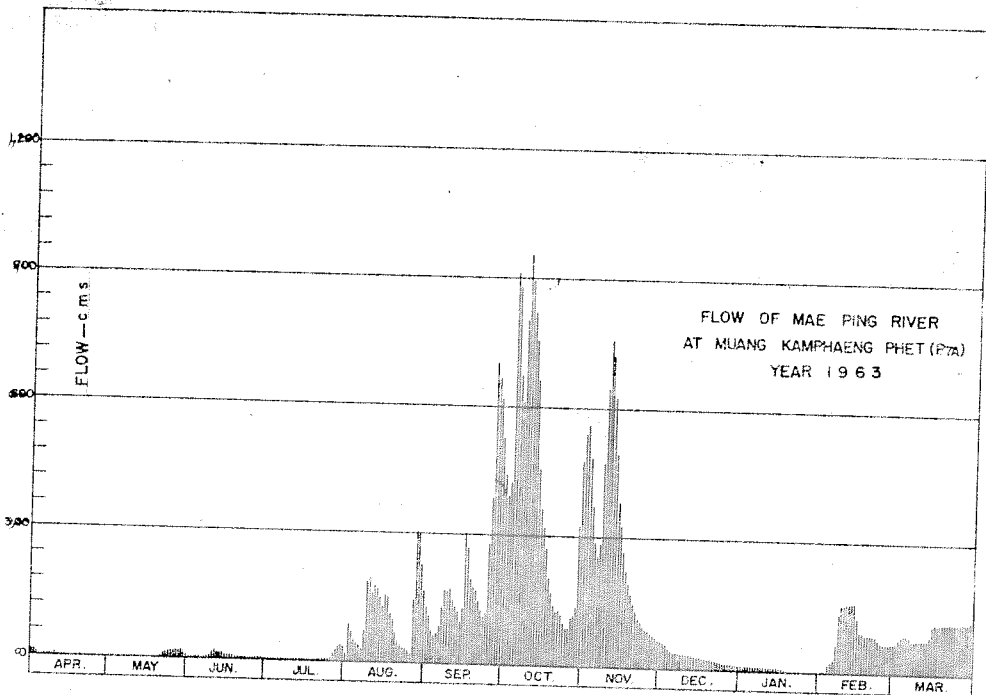
**Overbank Flow Conditions:** No overbank flow.

**General Description:** Gage height record good and flow record fair. Flow regulated by Yanhee Reservoir and upstream diversions for irrigation of about 40,300 hectares. Stage - discharge relationship used is defined by discharge measurements made during 1960 - 61. No adjustment made for virgin flow.

GAGE HEIGHT IN METER ( M.S.L.), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	72.64	72.20	72.43	72.38	72.68	73.47	74.54	74.78	73.11	72.62	72.40	73.15
2	.61	.20	.38	.36	73.25	.39	.60	.82	.09	.60	.40	.22
3	.45	.21	.35	.35	.15	.20	.49	.64	.06	.60	.46	.26
4	.36	.20	.34	.35	.02	.10	75.48	.33	72.99	.60	.72	.26
5	.32	.20	.33	.36	72.96	.15	.43	.08	.95	.59	.82	.26
6	72.28	72.20	72.33	72.35	72.92	73.24	75.05	73.98	72.93	72.58	72.86	73.23
7	.27	.20	.34	.35	.84	.48	74.93	74.07	.92	.57	73.14	.20
8	.27	.19	.34	.37	73.16	.67	75.30	.61	.91	.56	.50	.20
9	.26	.19	.50	.37	.73	.64	.55	75.00	.91	.54	.59	.20
10	.26	.20	.68	.38	.74	.65	.45	.22	.90	.54	.60	.20
11	72.25	72.22	72.73	72.35	73.61	73.54	75.33	75.16	72.89	72.54	73.60	73.20
12	.24	.21	.66	.35	.68	.46	.21	74.95	.87	.53	.61	.20
13	.24	.20	.62	.35	.66	.43	74.94	.62	.86	.53	.61	.20
14	.23	.20	.63	.36	.57	.34	.57	.36	.85	.52	.61	.26
15	.22	.20	.59	.39	.47	.46	.31	.15	.84	.51	.44	.38
16	72.22	72.19	72.56	72.38	73.59	74.13	74.19	74.01	72.83	72.51	73.29	73.40
17	.20	.19	.55	.37	.57	.02	.01	73.87	.82	.51	.27	.40
18	.20	.19	.52	.38	.39	73.75	73.79	.75	.81	.50	.26	.40
19	.19	.18	.49	.38	.31	.69	.62	.65	.80	.49	.26	.40
20	.19	.19	.47	.38	.16	.66	.52	.55	.79	.48	.26	.40
21	72.19	72.24	72.44	72.42	73.02	73.56	73.43	73.47	72.77	72.47	73.26	73.41
22	.19	.53	.42	.45	72.93	.44	.47	.39	.75	.47	.23	.41
23	.18	.62	.40	.46	.87	.36	.40	.34	.73	.47	.17	.41
24	.18	.65	.38	.44	.85	.44	.31	.29	.71	.46	.16	.41
25	.17	.67	.36	.44	.84	74.05	.26	.25	.69	.45	.16	.41
26	72.17	72.69	72.38	72.50	72.78	74.39	73.25	73.23	72.68	72.45	73.15	73.41
27	.17	.70	.38	.72	73.53	75.11	.38	.20	.67	.44	.15	.41
28	.19	.70	.41	.83	74.16	.07	.41	.18	.66	.43	.15	.41
29	.19	.71	.40	.89	.14	74.95	.49	.15	.64	.42	.15	.41
30	.19	.69	.39	.93	73.88	.75	74.20	.12	.63	.41	-	.42
31	-	.53	-	.86	.63	-	.63	-	.62	.41	-	.41
Mean	72.26	72.34	72.46	72.46	73.32	73.75	74.30	74.01	72.83	72.51	73.18	73.32
Max.	72.64	72.71	72.73	72.93	74.16	75.11	75.55	75.22	73.11	72.62	73.61	73.42
Min.	72.17	72.18	72.33	72.35	72.68	73.10	73.25	73.12	72.62	72.41	72.40	73.15

WATER YEAR 1963 : Max. 75.55 m. Min. 72.17 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	13	0.00	3.99	2.60	16	170	443	541	63	12	3.00	69
2	12	0.00	2.60	2.20	87	114	392	559	59	11	3.00	82
3	4.50	0.10	2.00	2.60	69	78	424	482	55	11	4.80	89
4	2.20	0.00	1.80	2.00	49	61	910	368	45	11	19	89
5	3.40	0.00	1.60	2.00	42	69	879	286	40	10	27	89
6	0.80	0.00	1.60	2.00	37	86	669	256	38	10	31	84
7	0.70	0.00	1.80	2.00	29	132	610	283	37	9.50	68	78
8	0.70	0.00	1.80	2.40	71	173	802	470	36	9.00	136	78
9	0.60	0.00	5.00	2.40	188	167	953	644	36	8.00	156	78
10	0.60	0.90	16	2.60	190	169	891	757	35	8.00	158	78
11	0.50	0.20	19	2.00	160	145	819	725	34	8.00	158	78
12	0.40	0.10	15	2.00	176	128	752	620	32	7.50	160	78
13	0.40	0.00	12	2.00	171	122	615	474	31	7.50	160	78
14	0.30	0.00	13	2.20	151	105	455	378	30	7.00	160	89
15	0.20	0.00	10	2.80	130	123	361	308	29	6.50	124	112
16	0.20	0.00	9.00	2.60	156	302	321	265	28	6.50	95	116
17	0.00	0.00	8.50	2.40	151	268	265	225	27	6.50	91	116
18	0.00	0.00	7.00	2.60	114	193	203	193	26	6.00	89	116
19	0.00	0.00	5.70	2.60	99	178	162	169	25	5.70	89	116
20	0.00	0.00	5.10	2.60	71	171	140	147	24	5.40	89	116
21	0.00	0.40	4.20	3.60	49	140	122	130	23	5.10	89	118
22	0.00	7.50	3.60	4.50	38	124	150	114	21	5.10	84	118
23	0.00	12	3.00	4.80	32	108	116	105	19	5.10	73	118
24	0.00	14	2.60	4.20	30	124	99	95	18	4.80	71	118
25	0.00	15	2.20	4.20	29	277	89	87	16	4.50	71	118
26	0.00	16	2.60	6.00	23	389	87	84	16	4.50	69	118
27	0.00	17	2.60	19	143	699	112	78	15	4.20	69	118
28	0.00	17	3.30	28	311	679	118	75	15	3.90	69	118
29	0.00	18	3.00	34	305	620	134	69	13	3.60	69	118
30	0.00	16	2.80	38	228	528	324	64	13	3.30	69	118
31	-	7.50	-	31	165	-	478	-	12	3.30	-	118
Total	38.50	140.80	173.30	223.50	3,510	6,616	12,875	9,051	911	213.51	2,484.80	3,129
Mean	1.28	4.54	5.78	7.21	113	220	415	302	29.4	6.89	85.7	101
Max.	13	18	19	38	311	699	953	757	63	12	160	120
Min.	0.00	0.00	1.60	2.00	16	61	87	64	12	3.30	3.00	69
Runoff - m.c.m.	3.326	12.165	14.973	19.310	303.264	571.622	1,112.400	782.006	78.710	18.446	214.687	270.346

WATER YEAR 1963 : Max. 953 Min. 0.00 Mean 108 Annual Runoff 3,401,257 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct.9	6.00	75.57	965				

WATER YEAR 1964  
PING RIVER BASIN

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

Location: Lat  $16^{\circ} - 28' - 38''$  N., Long  $90^{\circ} - 31' - 06''$  E., on right bank about 100 meters upstream from Kamphaeng Phet Bridge, Ban Nakhon Chum, Amphoe Muang, Kamphaeng Phet.

Drainage Area: 42,676 sq.km. referred to AMS. Map 1:50,000.

Type of Gage: Staff gage.

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

Bench Mark:

Location: Near the office station of P. 7 A.  
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: 1961 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: Rather unstable, no shifting adjustment for flow computation for years without actual ratings

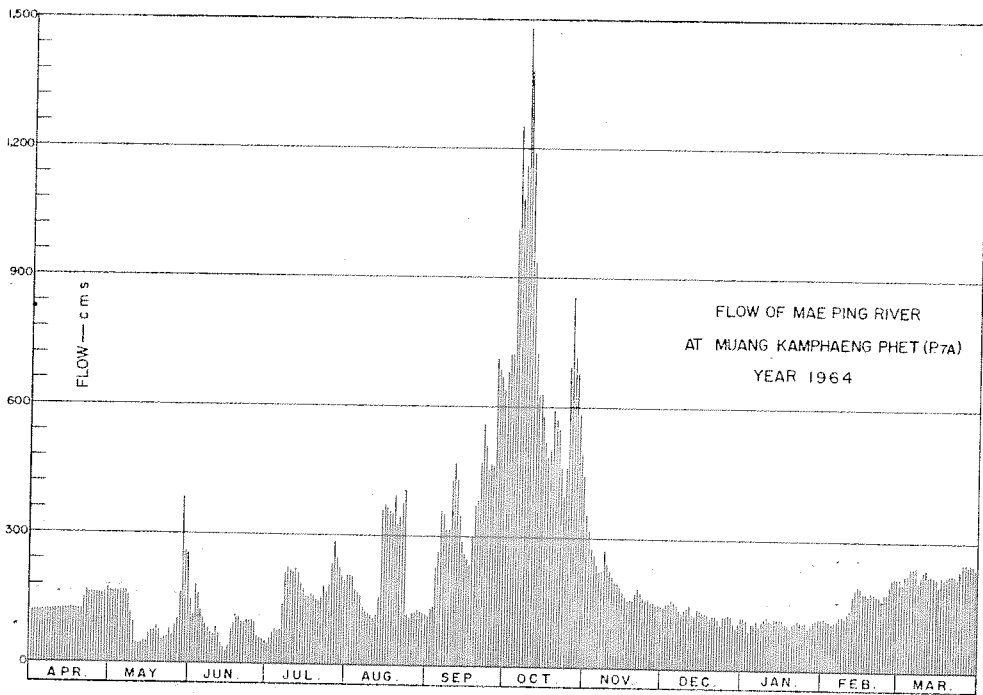
Overbank Flow Conditions: No overbank flow.

General description: Gage height record good and flow record fair. Flow affected by regulation from Yanhee Reservoir and diverted for irrigation of about 40,300 hectares above the gage site. Stage - discharge relationship used is defined by discharge measurements made during 1960 - 61. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	73.41	73.63	73.94	72.98	73.80	73.38	75.07	74.27	73.51	73.41	73.42	73.82
2	.41	.62	.81	73.08	.80	.46	.15	.16	.56	.38	.38	.79
3	.41	.63	.70	.16	.79	.50	.14	.03	.56	.26	.38	.84
4	.41	.63	.56	.21	.63	.87	.61	73.98	.60	.35	.35	.86
5	.41	.63	.43	.18	.64	74.00	76.01	.92	.57	.34	.37	.92
6	73.41	73.63	73.33	73.20	73.60	74.30	75.75	73.85	73.54	73.38	73.39	73.91
7	.42	.64	.26	.49	.48	.27	.82	.86	.47	.31	.44	.92
8	.42	.59	.21	.81	.43	.16	76.32	74.81	.45	.37	.44	.78
9	.42	.38	.14	.86	.41	.15	.19	73.92	.50	.40	.42	.84
10	.43	.28	.12	.84	.38	.50	75.91	.86	.51	.43	.49	.89
11	73.43	72.99	73.22	73.82	73.34	74.60	75.52	73.81	73.55	73.39	73.52	73.91
12	.43	.97	.15	.85	.38	.51	.16	.75	.43	.36	.66	.84
13	.44	.97	72.97	.82	.88	.27	74.91	.76	.42	.40	.73	.86
14	.44	73.02	.90	.71	74.30	.08	.97	.72	.51	.40	.75	.85
15	.44	72.99	.83	.66	.34	73.98	.86	.67	.49	.40	.73	.83
16	73.44	73.14	72.93	73.59	74.32	73.94	74.73	73.63	73.46	73.39	73.68	73.79
17	.44	.17	73.20	.59	.29	.90	.64	.58	.46	.34	.70	.85
18	.43	.19	.29	.62	.27	74.12	.70	.60	.44	.34	.67	.83
19	.43	.24	.35	.59	.40	.33	.89	.59	.40	.30	.70	.85
20	.43	.18	.36	.55	.19	.37	.85	.67	.44	.35	.68	.86
21	73.57	73.05	73.29	73.54	74.34	74.61	74.80	73.70	73.43	73.37	73.67	73.87
22	.64	.08	.28	.58	.43	.82	.58	.66	.39	.38	.66	.85
23	.62	.06	.32	.70	73.73	.70	.40	.62	.32	.37	.62	.83
24	.62	.20	.30	.63	.40	.56	.47	.58	.43	.34	.68	.90
25	.61	.12	.31	.70	.36	.60	75.09	.60	.43	.37	.69	.95
26	73.61	73.25	73.28	73.90	73.41	75.03	75.39	73.57	73.44	73.29	73.76	73.95
27	.61	.32	.10	74.07	.42	.13	.94	.57	.42	.35	.82	.93
28	.61	.72	.07	73.94	.45	.08	.07	.55	.35	.39	.83	.95
29	.62	74.38	.07	.86	.43	.05	74.88	.54	.28	.40	-	.94
30	.66	73.99	.03	.79	.41	74.98	.68	.55	.35	.41	-	.91
31	-	.98	-	.74	.41	-	.50	-	.42	.41	-	.98
Mean	73.49	73.38	73.26	73.61	73.76	74.34	75.13	73.75	73.45	73.37	73.59	73.87
Max.	73.66	74.38	73.94	74.07	74.43	75.13	76.32	74.27	73.60	73.43	73.83	73.98
Min.	73.41	72.97	72.83	72.98	73.34	73.38	74.40	73.54	73.28	73.26	73.35	73.78

WATER YEAR 1964 : Max. 76.32 m. Min. 72.38 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	118	165	245	44	206	112	679	348	138	118	120	211
2	118	162	209	58	206	128	720	311	149	112	112	203
3	118	165	180	71	205	136	715	271	149	89	112	217
4	118	165	149	80	165	225	990	256	158	106	106	222
5	118	165	122	75	167	262	1,253	239	151	105	110	239
6	118	165	103	78	158	358	1,078	219	145	112	114	236
7	120	167	89	134	132	348	1,124	222	130	99	124	239
8	120	156	80	209	122	311	1,481	265	126	110	124	201
9	120	112	68	222	118	308	1,382	239	136	116	120	217
10	122	93	64	217	112	428	1,185	222	138	122	154	230
11	122	45	82	211	105	466	934	209	147	114	140	236
12	122	43	69	219	112	432	725	193	122	108	171	217
13	124	43	43	211	228	348	601	196	120	116	168	222
14	124	49	35	183	358	286	630	185	138	116	193	219
15	124	45	28	171	372	256	578	173	134	116	188	214
16	124	68	38	156	365	245	519	165	128	114	176	203
17	124	73	78	156	355	233	482	154	128	105	180	219
18	122	76	95	162	348	298	506	158	124	105	173	214
19	122	86	106	156	392	368	591	156	116	97	180	219
20	122	75	108	147	321	382	573	173	124	106	176	222
21	151	53	95	145	372	470	550	180	122	110	173	225
22	167	58	93	154	403	559	458	171	114	112	171	219
23	162	55	101	180	188	506	392	162	101	110	162	214
24	162	78	97	165	116	451	417	154	122	105	176	233
25	160	64	99	180	108	466	689	158	122	110	178	247
26	160	87	93	233	118	659	854	151	124	95	196	247
27	160	101	61	283	120	710	715	151	120	106	211	242
28	160	185	56	245	126	684	679	147	106	114	214	247
29	162	385	56	222	122	669	587	145	93	116	-	245
30	171	259	50	203	118	634	498	147	106	118	-	236
31	-	256	-	190	118	-	428	-	120	118	-	256
Total	4,035	3,699	2,792	5,160	6,454	11,738	23,013	5,920	3,951	3,400	4,422	7,011
Mean	134	119	93.0	166	208	391	742	197	127	110	158	226
Max.	171	385	245	283	403	710	1,481	348	138	122	214	256
Min.	118	43	28	44	105	112	392	145	93	89	166	201
Runoff - BCM.	348.624	319.594	241.229	445.824	557.626	1,014.163	1,988.323	511.488	341.366	293.760	382.661	605.750

WATER YEAR 1964 : Max. 1,481 Min. 28 Mean 223 Annual Runoff 7,049.808 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 8	18.00	76.39	1,534				

WATER YEAR 1963  
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 Bhumipol Dam, Amphoe Sam Ngao, Tak.

Drainage Area: 26,390 sq.km. referred to AMS Map 1:50,000.

Type of Gage: Water - stage recorder.

Zero Gage at Bottom at: +135.19 m. (M.S.L.)

Bench Mark:

Location: About 25 meters north of the 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: Rather unstable, shifting adjustment is included for flow computation.

Overbank Flow Conditions: No overbank flow.

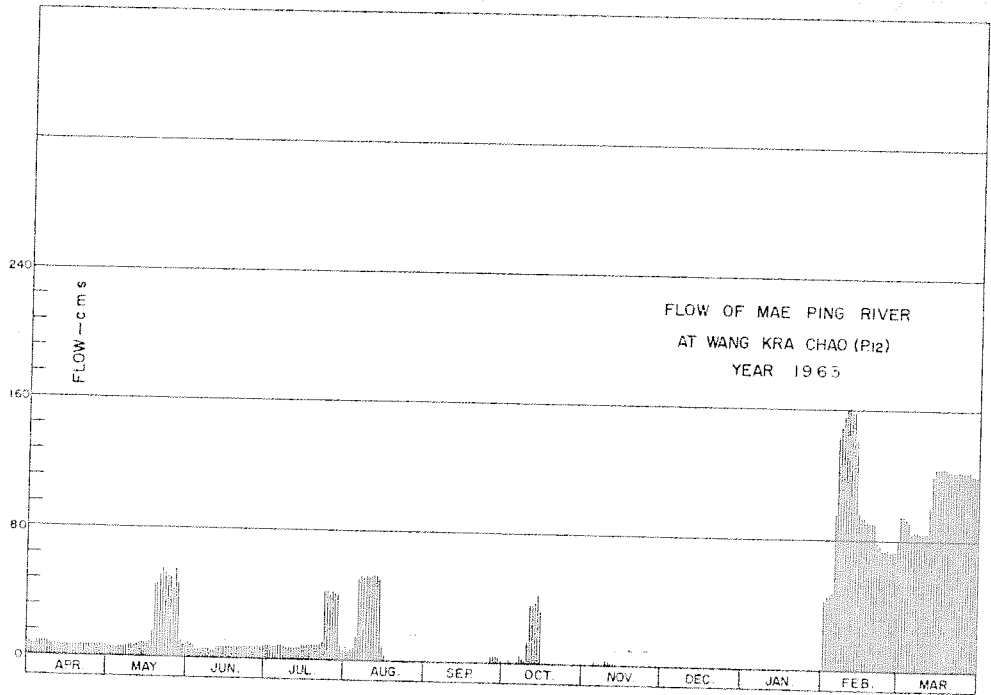
General Description: Records good. Flow regulated by Yanhee Reservoir. Upstream diversions for irrigation of about 28,000 hectares. The data presented is from actual observation at the gage site. Adjusted monthly flow if without Yanhee is also shown below.

Month	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Annual
Adjusted-Runoff-mcm.	32	25	156	329	1,018	1,233	1,975	1,709	494	232	59	46	7,308

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, \*1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	135.95	135.95	136.05	136.03	136.02	135.54	135.77	135.64	135.63	135.57	136.28	136.52
2	.95	.95	.05	.03	.02	.77	.65	.65	.63	.56	.30	.52
3	.95	.95	.04	.03	.02	.56	.82	.65	.61	.56	.30	.51
4	.95	.95	.02	.03	.03	.55	.86	.65	.61	.55	.31	.50
5	.95	.95	.02	.04	.15	.58	.81	.84	.60	.54	.53	.47
6	135.95	135.95	136.02	136.04	136.32	135.64	135.80	135.77	135.60	135.54	136.77	136.48
7	.95	.95	.02	.05	.32	.68	.66	.80	.60	.53	.83	.48
8	.95	.95	.02	.04	.33	.68	.93	.76	.60	.53	.84	.47
9	.95	.95	.02	.04	.33	.68	.90	.87	.60	.52	.84	.47
10	.95	.95	.01	.04	.33	.69	.84	.84	.60	.52	.84	.47
11	135.95	135.95	136.00	136.04	136.34	135.67	136.04	135.80	135.70	135.62	136.83	136.47
12	.95	.95	.03	.04	.34	.66	.22	.78	.68	.68	.83	.54
13	.95	.95	.03	.04	.34	.57	.22	.77	.68	.63	.76	.62
14	.95	.95	.03	.04	.32	.67	.22	.74	.68	.59	.56	.64
15	.95	.95	.03	.04	.07	.65	.22	.72	.67	.58	.55	.64
16	135.95	135.95	136.03	136.04	135.90	135.64	136.16	135.71	135.67	135.57	136.55	136.64
17	.95	.95	.03	.04	.70	.63	135.79	.69	.66	.57	.54	.64
18	.95	136.04	.03	.04	.67	.63	.75	.68	.64	.57	.54	.64
19	.95	.25	.03	.04	.64	.63	.74	.66	.63	.57	.54	.63
20	.95	.26	.03	.04	.63	.63	.72	.65	.63	.56	.54	.63
21	135.95	136.28	136.03	136.04	135.62	135.62	135.70	135.65	135.62	135.56	136.45	136.63
22	.95	.30	.03	.04	.61	.62	.70	.63	.62	.55	.43	.63
23	.95	.31	.03	.07	.60	.62	.69	.63	.61	.55	.43	.63
24	.95	.31	.03	.32	.59	.62	.68	.63	.61	.54	.43	.63
25	.95	.31	.03	.32	.58	.65	.68	.62	.61	.53	.43	.63
26	135.95	136.31	136.03	136.32	135.58	135.91	135.69	135.61	135.60	135.52	136.43	136.63
27	.95	.37	.03	.32	.57	.90	.72	.60	.59	.52	.43	.63
28	.95	.31	.03	.32	.56	.92	.69	.60	.59	.50	.43	.62
29	.95	.09	.03	.22	.56	.90	.68	.60	.58	.49	.48	.62
30	.95	.06	.03	.02	.56	.81	.68	.62	.58	.48	-	.62
31	-	.05	-	.02	.55	-	.67	-	.57	.98	-	.62
Mean	135.95	136.00	136.03	136.09	135.91	135.67	135.84	135.69	135.62	135.56	136.55	136.58
Max.	135.95	136.37	136.05	136.32	136.34	135.92	136.22	135.87	135.70	135.96	136.84	136.64
Min.	135.95	135.95	136.00	136.02	135.55	135.54	135.67	135.60	135.57	135.48	136.28	136.47

WATER YEAR 1963 : Max. 136.84 m. Min. 135.48 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	8.30	6.50	8.30	8.90	8.30		0.20				42	95
2	7.70	6.50	8.30	8.39	5.90		0.20				45	95
3	7.70	6.50	7.70	8.39	7.10		1.10				45	93
4	8.30	6.50	6.50	8.30	7.10		2.30				47	90
5	8.30	7.10	6.50	8.30	16		0.80	1.70			95	84
6	8.30	7.10	6.50	8.90	50		0.50	0.20			144	85
7	8.30	7.10	6.50	8.90	52		2.30	0.50			149	85
8	8.30	7.70	6.50	8.30	50		5.30	0.10			156	84
9	7.70	7.70	6.50	7.70	53		3.50	2.60			161	84
10	7.70	7.70	5.90	7.70	50		1.70	1.70			161	84
11	7.70	7.70	5.30	7.70	52			0.50			158	84
12	7.70	8.30	7.70	7.70	52		13	0.30			158	100
13	7.10	8.30	7.70	7.70	53	No Flow	36	0.20			140	120
14	7.10	8.30	7.70	8.90	49	No Flow	36				95	125
15	7.10	8.90	7.70	8.90	8.90	No Flow	42				93	125
16	7.10	8.90	7.70	9.50	3.50	No Flow						
17	7.70	8.90	7.70	9.50		No Flow	29		No Flow		93	125
18	7.70	16	7.70	9.50		No Flow	0.40		No Flow	No Flow	91	125
19	7.70	43	7.70	9.50		No Flow			No Flow	No Flow	91	125
20	7.70	45	7.70	9.50		No Flow			No Flow	No Flow	91	123
21	7.70	50	7.70	9.50		No Flow			No Flow	No Flow	91	123
22	7.70	55	7.70	9.50		No Flow			No Flow	No Flow	77	123
23	7.70	52	7.70	12		No Flow			No Flow	No Flow	75	123
24	7.70	50	7.70	42		No Flow			No Flow	No Flow	73	123
25	7.70	50	7.70	42		No Flow			No Flow	No Flow	73	123
26	7.70	43	7.70	41		No Flow			No Flow	No Flow	75	123
27	7.70	55	7.70	42		4.10			No Flow	No Flow	73	123
28	7.70	47	7.70	42		3.50			No Flow	No Flow	73	123
29	7.10	11	7.70	41		4.70			No Flow	No Flow	73	120
30	7.10	8.20	7.70	7.10		3.50			No Flow	No Flow	81	120
31	-	8.80	-	6.50		0.80			No Flow	No Flow	-	120
Total	231.00	663.70	220.80	466.60	517.80	16.60	210.30	7.80	0.00	7.10	2,819	3,395
Mean	7.70	21.4	7.36	15.0	16.7	0.50	6.78	0.30	0.00	0.20	97.0	109
Max.	8.30	55	8.30	42	53	4.70	42	2.60	0.00	7.10	161	125
Min.	7.10	6.50	5.30	6.50	0.00	0.00	0.00	0.00	0.00	0.00	42	84
Runoff - mcm.	19.958	57.344	19.077	40.314	44.738	1.434	18.170	0.674	0.000	0.613	243.562	293.328

WATER YEAR 1963 : Max. 161 Min. 0.00 Mean 22.8 Annual Runoff 721.906 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Feb. 9	18.00	136.84	161				

## WATER YEAR 1964

## PING RIVER BASIN

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

Location: Lat  $17^{\circ} - 14' - 30''$  N., Long  $99^{\circ} - 00' - 45''$  E., on right bank about 4 kilometers downstream from Bhumipol Dam, Amphoe Sam Ngao, Tak.

Drainage Area: 26,390 sq.km. referred to AMS Map 1:50,000.

Type of Gage: Water - stage recorder.

Zero Gage at Bottom at: + 135.19 m. (M.S.L.)

Bench Mark:

Location: About 25 meters north of the gagesite.

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: Rather unstable, periodic rating curves are used for flow computation.

Overbank flow Conditions: No overbank flow.

General Description: Records good. Flow regulated by Yanhee Reservoir. Upstream diversions for irrigation of about 28,000 hectares. The data presented is from actual - observation at the gage site. Adjusted monthly flow if without Yanhee is also shown below.

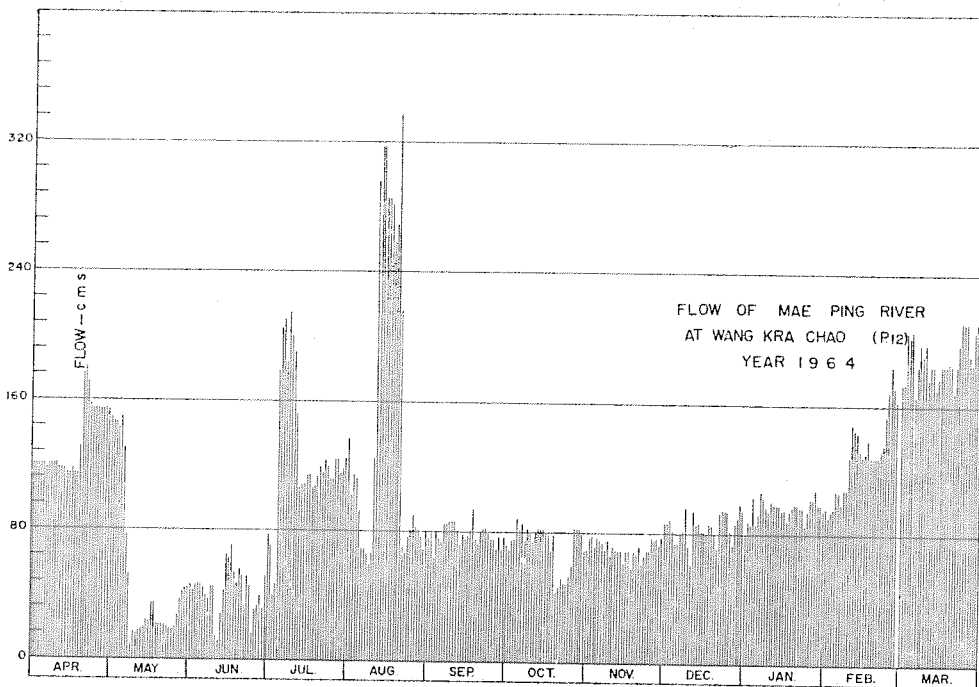
Month	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Annual
Adjusted-Runoff-ccm.	15	484	269	634	490	1,747	2,269	643	367	210	138	94	7,360

## GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	136.62	136.71	136.25	136.40	136.66	136.32	136.30	136.29	136.34	136.30	136.39	136.76
2	.62	.70	.25	.37	.49	.35	.29	.33	.34	.35	.36	.76
3	.62	.70	.25	.21	.54	.25	.32	.34	.35	.34	.38	.85
4	.62	.69	.25	.27	.53	.35	.30	.30	.32	.42	.39	.84
5	.62	.71	.25	.82	.45	.32	.39	.33	.27	.34	.44	.85
6	136.61	136.65	136.24	136.87	136.36	136.31	136.36	136.32	136.27	136.37	136.43	136.73
7	.62	.49	.21	.89	.36	.37	.37	.31	.30	.43	.40	.79
8	.62	.27	.20	.83	.35	.37	.31	.28	.32	.42	.44	.83
9	.62	135.93	.24	.89	.32	.38	.36	.32	.39	.39	.44	.81
10	.62	136.05	.24	.86	.35	.38	.35	.26	.26	.37	.59	.83
11	136.61	136.02	135.99	136.84	136.60	136.38	136.31	136.30	136.19	136.41	136.67	136.77
12	.61	.04	.95	.74	137.18	.35	.35	.29	.38	.40	.66	.79
13	.61	.05	136.13	.50	.22	.30	.36	.29	.33	.40	.65	.79
14	.60	.06	.23	.52	.22	.34	.36	.28	.34	.40	.61	.75
15	.60	.10	.34	.52	.16	.32	.36	.24	.32	.38	.59	.77
16	136.79	136.09	136.56	136.56	137.16	136.33	136.35	136.28	136.31	136.38	136.60	136.79
17	.60	.18	.37	.57	.15	.35	.34	.28	.30	.34	.63	.79
18	.60	.18	.29	.50	.10	.42	.28	.21	.34	.38	.59	.79
19	.65	.08	.25	.51	.12	.32	.34	.28	.33	.39	.59	.80
20	.78	.08	.30	.56	.26	.30	.11	.26	.30	.40	.59	.79
21	136.79	136.08	136.28	136.60	136.98	136.35	136.13	136.30	136.24	136.40	136.59	136.74
22	.77	.07	.16	.57	.29	.36	.16	.23	.37	.39	.61	.79
23	.73	.06	.28	.54	.27	.33	.15	.26	.38	.39	.62	.83
24	.72	.05	.24	.53	.33	.35	.15	.28	.38	.33	.69	.86
25	.72	.04	.03	.51	.35	.32	.17	.28	.38	.38	.74	.86
26	136.72	136.07	136.15	136.51	136.40	136.32	136.23	136.29	136.31	136.42	136.79	136.86
27	.72	.13	.16	.54	.36	.29	.36	.28	.26	.41	.75	.81
28	.72	.19	.21	.54	.35	.33	.36	.29	.34	.44	.72	.79
29	.72	.22	.15	.52	.33	.29	.36	.26	.36	.40	.85	.85
30	.72	.24	.28	.57	.28	.33	.34	.29	.40	.40	-	.86
31	-	.24	-	.60	.35	-	.28	-	.38	.38	-	.83
Mean	136.66	136.24	136.22	136.59	136.64	136.34	136.30	136.28	136.32	136.38	136.57	136.80
Max.	136.79	136.71	136.56	136.89	137.26	136.42	136.39	136.34	136.40	136.44	136.79	136.86
Min.	136.60	135.93	135.95	136.21	136.27	136.25	136.11	136.21	136.19	136.30	136.36	136.73

WATER YEAR 1964 : Max. 137.26 m. Min. 135.92 m.





DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	121	150	47	78	137	76	72	70	87	80	97	174
2	121	146	43	71	103	81	70	77	87	89	91	174
3	121	146	47	40	114	64	76	79	89	87	95	206
4	121	143	47	51	112	81	76	72	83	103	97	202
5	121	150	47	179	93	76	89	77	75	87	108	206
6	118	131	45	205	69	74	83	76	75	93	106	165
7	121	78	40	210	69	85	85	74	80	106	99	184
8	121	51	38	184	67	85	74	69	83	103	108	198
9	121	9.30	45	215	60	87	83	76	97	97	108	191
10	121	17	45	200	67	87	81	66	73	93	128	198
11	118	16	14	189	125	87	74	72	61	101	148	177
12	116	18	11	152	296	81	81	70	95	99	145	184
13	118	19	28	106	317	72	83	70	85	99	143	184
14	115	20	43	109	317	79	83	69	87	99	132	171
15	115	24	65	109	286	76	83	62	83	95	128	177
16	118	23	63	114	286	77	81	69	82	95	130	184
17	115	35	71	115	281	81	79	69	80	87	138	184
18	115	35	54	106	258	95	69	58	87	95	128	184
19	131	22	47	107	267	76	79	69	85	97	128	187
20	176	22	56	114	341	72	44	66	80	99	128	184
21	180	22	52	120	216	81	47	72	70	99	128	168
22	172	21	33	116	70	83	52	61	93	97	132	184
23	158	20	52	124	67	83	49	66	95	97	135	198
24	154	19	45	120	77	81	49	69	95	85	153	210
25	154	18	17	112	81	76	53	69	95	95	168	210
26	154	21	31	112	90	76	61	78	82	103	184	210
27	154	28	33	124	83	70	83	76	75	101	171	191
28	154	37	40	124	81	77	83	78	87	108	162	184
29	154	42	31	116	77	70	83	73	91	99	-	206
30	154	45	52	119	69	77	79	78	99	99	-	210
31	-	45	-	125	81	-	69	-	95	95	-	198
<b>Total</b>	4,034	1,573.30	1,282	3,966	4,657	2,366	2,253	2,130	2,629	2,982	3,618	5,883
<b>Mean</b>	134	50.7	42.7	128	150	78.9	72.7	71.0	84.8	96.2	129	190
<b>Max.</b>	180	150	71	215	341	95	89	79	99	108	184	210
<b>Min.</b>	115	9.30	11	40	60	64	44	58	61	80	91	165
<b>Runoff - m.c.m.</b>	348.538	135.933	110.765	342.662	402.365	204.422	194.659	184.032	227.145	257.645	312.595	508.291

WATER YEAR 1964 : Max. 341 Min. 9.30 Mean 102 Annual Runoff 3,229.053 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Aug. 20	20.00	137.35	402				

WATER YEAR 1963  
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 Mae Taeng, Chiang Mai.

Drainage Area: 1,765 sq.km. referred to AMS Map 1:50,000.

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 the rubber plant garden near the gage site.

Elevation: +444.360 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: 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: Stable, shifting adjustment is included for flow computation.

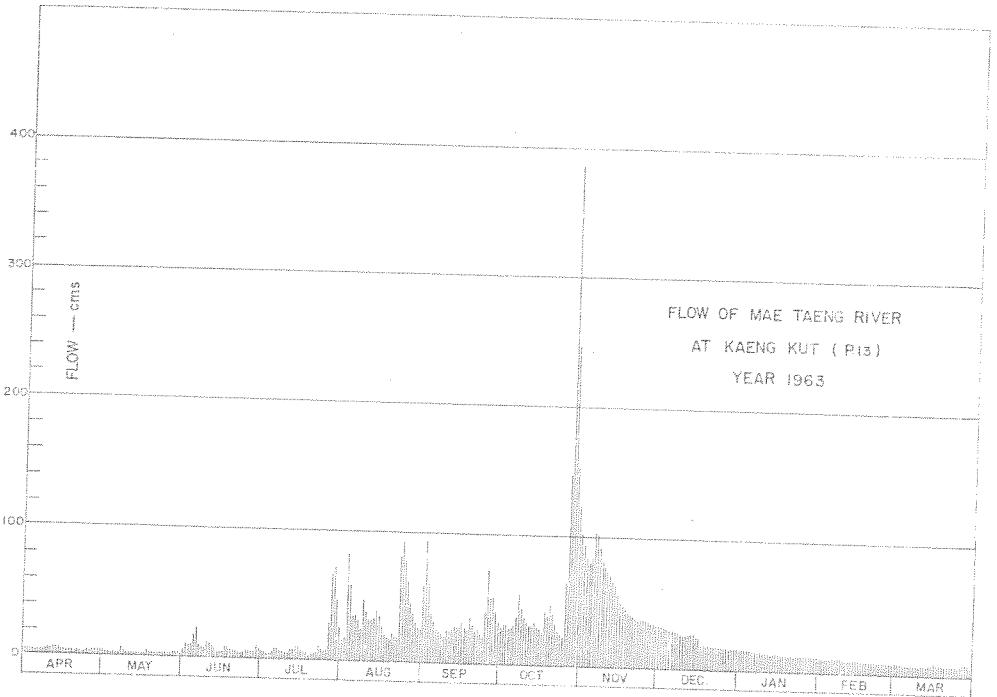
Overbank Flow Conditions: Flow began to overtop right bank at elevation +444.20 m.(M.S.L.) but not included due to inadequate of field data.

General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1963. No state diversions above gage site except those built by the farmers.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	441.71	441.71	441.85	441.80	442.13	442.93	442.36	443.34	442.45	442.24	442.13	442.05
2	.71	.69	.97	.77	.14	443.20	.42	.21	.44	.23	.13	.02
3	.71	.68	.96	.74	443.10	442.76	.42	.13	.43	.23	.13	.02
4	.71	.67	.96	.74	442.86	.53	.35	.08	.41	.22	.13	.01
5	.70	.67	442.18	.81	.48	.41	.36	.13	.40	.22	.13	.00
6	441.69	441.67	442.06	441.88	442.48	442.34	442.40	443.34	442.39	442.21	442.13	442.00
7	.68	.70	441.94	.84	.40	.29	.51	.34	.38	.21	.12	441.99
8	.67	.86	.88	.80	.29	.25	.74	.24	.38	.21	.13	.99
9	.73	.74	.83	.77	.65	.22	.58	.09	.37	.21	.10	.98
10	.79	.70	442.00	.75	.52	.31	.48	.04	.36	.20	.10	.98
11	441.75	441.68	441.98	441.76	442.42	442.31	442.41	443.01	442.35	442.20	442.09	441.98
12	.83	.68	.88	.86	.41	.33	.38	442.97	.37	.20	.09	.99
13	.78	.66	.82	.82	.42	.37	.38	.91	.39	.19	.09	442.00
14	.74	.64	.76	.99	.53	.36	.44	.87	.37	.20	.09	.00
15	.72	.63	.74	.97	.46	.34	.39	.77	.33	.22	.09	.02
16	441.71	441.62	441.77	441.87	442.34	442.42	442.36	442.75	442.31	442.19	442.08	442.06
17	.70	.63	.90	.83	.23	.34	.33	.72	.30	.18	.07	.05
18	.69	.76	.85	.82	.18	.31	.56	.67	.29	.18	.06	.05
19	.68	.70	.80	.79	.16	.48	.52	.63	.29	.18	.06	.04
20	.68	.68	.76	.79	.24	.36	.66	.61	.29	.18	.05	.03
21	441.68	441.67	441.76	441.80	442.20	442.28	442.56	442.59	442.29	442.18	442.05	442.00
22	.67	.66	.74	.81	.10	.32	.42	.57	.28	.18	.05	.02
23	.66	.69	.72	.98	443.04	.25	.35	.55	.28	.17	.05	.04
24	.66	.67	.73	.92	.15	.21	.33	.53	.28	.16	.05	.04
25	.69	.66	.77	.87	.12	.45	.31	.52	.28	.16	.04	.03
26	441.70	441.68	441.76	441.88	442.87	442.88	443.28	442.50	442.27	442.17	442.03	442.05
27	.69	.68	.74	442.33	.61	.71	.59	.49	.27	.16	.03	.12
28	.70	.73	.75	.90	.55	.73	444.03	.48	.27	.15	.03	.13
29	.70	.72	.92	.98	.41	.54	445.42	.47	.26	.14	.04	.09
30	.72	.70	.85	.59	.33	.44	443.89	.46	.26	.14	-	.07
31	-	.68	-	.28	.27	-	.52	-	.25	.14	-	.05
Mean	441.71	441.69	441.85	441.96	442.49	442.45	442.73	442.83	442.33	442.19	442.08	442.03
Max.	441.83	441.86	442.18	442.98	443.15	443.20	445.42	443.34	442.45	442.24	442.13	442.13
Min.	441.66	441.62	441.72	441.74	442.10	442.21	442.31	442.46	442.25	442.14	442.03	441.98

WATER YEAR 1963 : Max. 445.42 m. Min. 441.62 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	5.10	4.66	7.10	7.10	17	71	29	103	33	16	11	9.20
2	4.44	3.80	11	6.20	18	94	32	92	33	17	11	8.30
3	4.00	3.60	10	5.54	93	55	32	84	32	17	11	8.30
4	4.00	3.40	10	5.54	63	39	28	80	31	16	11	8.00
5	3.80	3.40	19	7.40	36	31	29	84	30	16	11	7.70
6	3.60	3.40	14	9.54	36	27	31	103	30	15	12	7.70
7	3.40	4.00	9.88	8.90	31	25	38	103	29	15	11	7.10
8	3.20	8.00	9.20	7.70	25	23	55	94	29	15	12	7.10
9	4.66	4.88	7.70	6.80	48	21	43	81	27	15	11	6.80
10	6.20	4.00	13	6.20	39	26	37	77	26	15	11	6.80
11	5.54	3.60	12	6.50	33	26	33	74	26	14	10	6.80
12	7.70	3.60	9.20	9.54	32	27	31	71	27	14	10	7.10
13	6.20	3.20	7.40	8.30	33	29	31	66	28	13	10	7.40
14	5.32	2.80	5.76	12	40	29	34	63	28	14	10	7.40
15	4.88	2.60	5.32	11	34	28	31	56	26	14	10	8.00
16	4.66	2.40	5.98	8.30	27	33	29	50	25	13	10	9.20
17	4.44	2.60	9.88	7.10	21	28	27	48	19	13	9.88	8.00
18	4.22	5.32	8.30	6.80	19	26	42	45	19	13	9.54	8.00
19	4.00	4.00	7.70	5.98	18	36	39	42	19	13	9.54	7.70
20	4.00	3.60	6.50	5.98	22	29	48	41	19	13	9.20	7.40
21	4.00	3.60	6.50	6.20	20	25	42	40	18	13	9.20	6.50
22	3.80	3.40	5.98	6.50	19	27	33	38	18	13	9.20	7.10
23	3.60	4.00	5.54	12	84	23	27	37	18	13	9.20	7.70
24	3.60	3.60	5.76	9.88	93	21	25	38	18	12	9.20	7.70
25	4.22	3.40	6.80	8.30	84	42	23	38	18	12	8.90	6.20
26	4.44	3.80	6.50	8.60	63	73	78	36	17	13	8.60	6.80
27	4.22	3.80	5.98	28	44	51	140	36	17	12	8.60	8.90
28	4.44	4.88	6.20	67	40	53	174	35	17	12	8.60	9.20
29	4.44	4.66	11	73	31	40	386	35	17	12	8.90	8.00
30	4.88	4.22	9.20	44	27	33	165	34	17	12	-	7.40
31	-	3.20	-	25	26	-	121	-	17	12	-	7.10
Total	135.00	119.42	258.38	440.90	1,206.00	1,091.00	1,913.00	1,824.00	728.00	427.00	290.56	236.60
Mean	4.50	3.85	8.61	14.2	38.9	36.4	61.7	60.8	23.4	13.7	10.0	7.65
Max.	7.70	8.00	19	73	93	94	386	103	33	17	12	9.20
Min.	3.20	2.40	5.32	5.34	17	21	23	34	17	12	8.60	6.20
Runoff - mcm	11.664	10.318	22.324	38.094	104.198	94.262	165.283	157.594	62.899	36.893	25.104	20.442

WATER YEAR 1963 : Max. 386 Min. 2.40 Mean 237 Annual Runoff 749.076 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 29	11.00	445.99	485				

## WATER YEAR 1964

## PING RIVER BASIN

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

Location: Lat  $19^{\circ} - 12' - 38''$  N., Long  $98^{\circ} - 52' - 20''$  E., on left bank about 1 kilometer downstream from Kut village, Amphoe Mae Taeng, Chiang Mai.

Drainage Area: 1,765 sq.km. referred to AMS Map 1:50,000.

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 the rubber plant garden near the gage site.

Elevation: + 444.360 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: 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: Stable, shifting adjustment is included for flow computation.

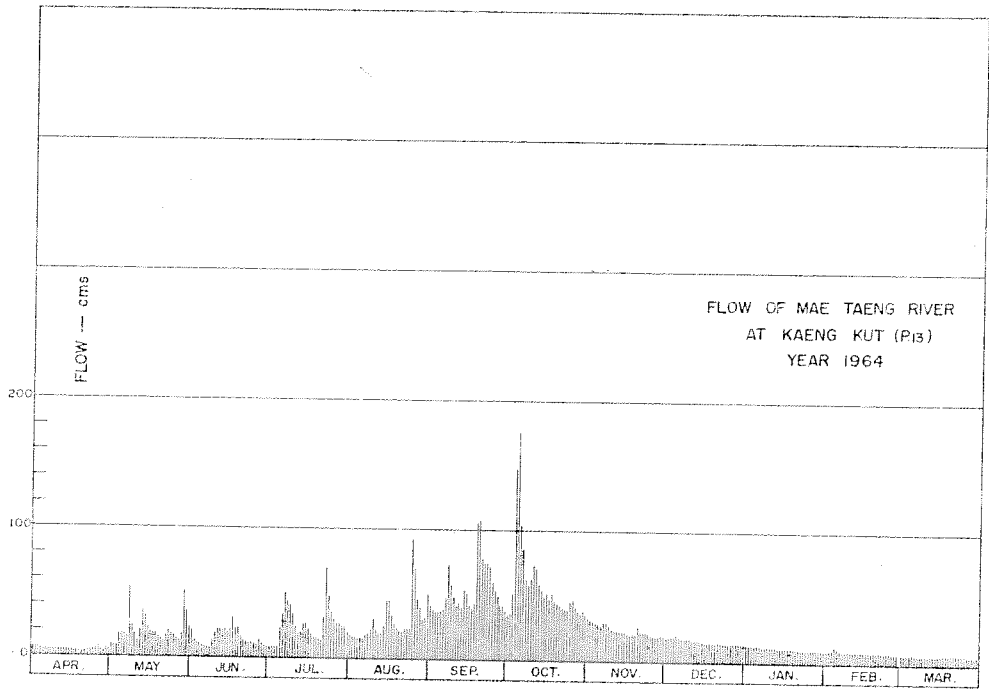
Overbank flow Conditions: Flow began to overtop right bank at elevation + 444.20 m. (M.S.L.) but not included due to inadequate of field data.

General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1964. No state diversions above gage site except those built by the farmers.

## GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	442.06	442.16	442.27	442.02	442.28	442.68	442.60	442.60	442.24	442.11	441.99	441.91
2	.04	.07	.13	.03	.24	.62	.61	.57	.23	.10	.99	.91
3	.04	.02	.06	.03	.23	.58	.87	.53	.24	.10	442.01	.91
4	.04	.25	.06	.03	.21	.60	443.89	.49	.25	.10	.10	.90
5	.03	.17	.02	.29	.24	.61	444.16	.47	.28	.10	.03	.90
6	442.02	442.20	441.99	442.49	442.25	442.64	443.45	442.45	442.24	442.09	442.00	441.90
7	.02	.08	.97	.77	.28	.76	.20	.50	.22	.08	441.99	.89
8	.02	.81	.95	.68	.31	443.15	.02	.50	.21	.08	.99	.89
9	.01	.33	442.04	.76	.39	442.95	442.95	.45	.20	.08	442.00	.89
10	.01	.24	.17	.62	.58	.83	443.02	.41	.20	.07	441.98	.89
11	442.01	442.10	442.27	442.43	442.42	442.73	443.16	442.39	442.19	442.07	441.97	441.89
12	.01	.30	.26	.31	.35	.75	.14	.37	.19	.07	.97	.89
13	.01	.59	.25	.35	.33	.69	442.96	.35	.19	.06	.96	.88
14	.00	.47	.26	.49	.47	.91	.90	.34	.18	.06	.96	.88
15	441.99	.31	.19	.51	.71	.86	.89	.33	.18	.05	.95	.88
16	441.99	442.18	442.27	442.41	442.71	442.73	442.91	442.32	442.17	442.05	441.95	441.88
17	.98	.17	.46	.30	.55	.67	.83	.31	.17	.05	.94	.89
18	.98	.14	.41	.24	.43	.74	.91	.30	.16	.04	.94	.90
19	.98	.09	.44	.23	.36	443.53	.82	.31	.16	.04	.93	.90
20	.97	.06	.27	.20	.32	.54	.81	.43	.15	.03	.93	.89
21	441.97	442.00	442.18	442.17	442.30	443.74	442.78	442.37	442.15	442.03	441.93	441.89
22	442.00	.14	.13	.51	.36	.12	.74	.33	.15	.03	.92	.88
23	441.99	.23	.14	443.07	.36	.14	.74	.34	.14	.03	.92	.86
24	.99	.18	.14	442.78	.31	.10	.70	.32	.14	.03	.92	.86
25	442.02	.17	.12	.57	443.32	442.94	.82	.29	.14	.02	.92	.86
26	442.18	442.10	442.07	442.48	443.11	442.87	442.84	442.27	442.13	442.02	441.91	441.85
27	.09	.04	.18	.41	442.75	.79	.76	.26	.14	.02	.91	.85
28	.05	.15	.12	.41	.72	.73	.69	.26	.16	.01	.91	.85
29	.14	.79	.06	.39	.54	.72	.65	.25	.13	.01	-	.85
30	.23	.52	.02	.41	.54	.66	.71	.24	.12	.00	-	.85
31	-	.30	-	.32	.85	-	.65	-	.11	.00	-	.84
Mean	442.03	442.24	442.16	442.41	442.48	442.86	442.94	442.38	442.18	442.05	441.96	441.88
Max.	442.18	442.81	442.46	443.07	443.32	443.54	444.16	442.28	442.28	442.11	442.10	441.91
Min.	441.97	442.00	441.95	442.02	442.21	442.58	442.60	442.24	442.11	442.00	441.91	441.84

WATER YEAR 1964 : Max. 444.16 m. Min. 441.97 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	7.10	10	22	8.60	19	42	35	32	19	13	9.50	7.40
2	6.56	8.90	15	8.90	17	38	35	32	19	13	9.50	7.40
3	6.56	8.30	11	8.90	15	36	52	30	19	13	10	7.40
4	5.36	16	11	8.90	15	37	147	29	20	13	13	7.10
5	5.12	16	9.50	23	16	37	176	28	21	13	11	7.10
6	4.88	18	8.60	34	16	39	103	27	19	13	9.80	6.56
7	4.88	15	8.60	51	18	47	80	30	18	12	9.50	6.32
8	4.88	54	7.40	45	19	73	63	30	18	12	6.50	6.32
9	4.64	24	13	42	22	57	57	27	18	12	9.80	6.32
10	4.64	19	18	34	31	49	65	25	18	12	9.20	6.32
11	4.64	12	22	24	23	42	74	24	17	12	8.90	6.32
12	4.64	21	22	19	20	44	72	24	17	12	9.50	6.32
13	4.64	36	21	21	20	40	58	23	17	11	9.20	6.08
14	4.40	31	22	27	26	54	54	23	16	11	9.20	6.08
15	4.22	24	19	28	45	51	49	23	16	11	8.90	6.56
16	4.22	19	22	23	45	42	51	22	15	11	8.90	6.56
17	4.04	19	31	19	33	39	46	21	15	11	8.60	6.80
18	4.04	18	23	16	27	43	51	21	15	11	8.60	7.10
19	4.04	16	24	16	23	106	45	21	15	11	8.30	7.10
20	3.86	14	17	15	22	107	44	27	14	10	8.30	6.80
21	3.86	12	14	14	21	80	42	24	15	10	8.30	6.80
22	4.40	17	12	32	23	74	40	22	15	10	8.00	6.56
23	4.22	20	12	70	23	75	40	23	14	10	8.00	6.08
24	4.22	18	12	49	21	72	37	22	14	10	8.00	6.08
25	4.88	18	12	36	93	60	45	20	14	10	8.60	6.08
26	8.00	15	10	31	71	54	46	20	14	10	7.70	5.84
27	5.60	13	14	27	45	49	41	19	14	10	7.70	5.84
28	4.64	17	12	27	42	42	37	19	15	10	7.70	5.84
29	7.70	52	9.60	25	31	42	35	20	14	10	-	5.84
30	5.84	35	8.60	25	31	42	38	19	14	9.88	-	5.84
31	-	23	-	20	50	-	35	-	13	9.80	-	5.60
Total	150.72	641.20	460.90	828.30	925	1,609	1,791	727	502	246.60	252.60	200.36
Mean	5.02	20.60	15.40	26.70	29.8	53.6	57.7	24.2	16.1	11.18	9.02	6.46
Max.	7.70	54	31	51	93	107	176	32	21	13	13	7.40
Min.	3.86	8.30	7.40	8.60	15	36	35	19	13	9.80	7.70	5.60
Runoff - mcm.	13.022	55.400	39.822	71.565	79.920	139.018	154.742	62.813	43.373	29.946	21.825	17.311

WATER YEAR 1964 : Max. 176 Min. 3.86 Mean 23.1 Annual Runoff 728.756 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 5	04.00	444.47	210				

WATER YEAR 1963  
PING RIVER BASIN

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

Location: Lat 18° - 13' - 49" N., Long 98° - 38' - 35" E., on right bank near the bridge on Hot - Mae Sariang, highway 7.5 kilometers from Amphoe Hot, Chiang Mai.

Drainage Area: 3,853 sq.km. referred to AMS Map 1:50,000.

Type of Gage: Staff gage.

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

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

Location: Infront of the office of station P.14

Elevation: + 282.079 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: 1953 to date.

Rating Operation:

Period of Rating: 1953 - 60

Rated by Float: -

Rated by Current Meter: 1953 - 60

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

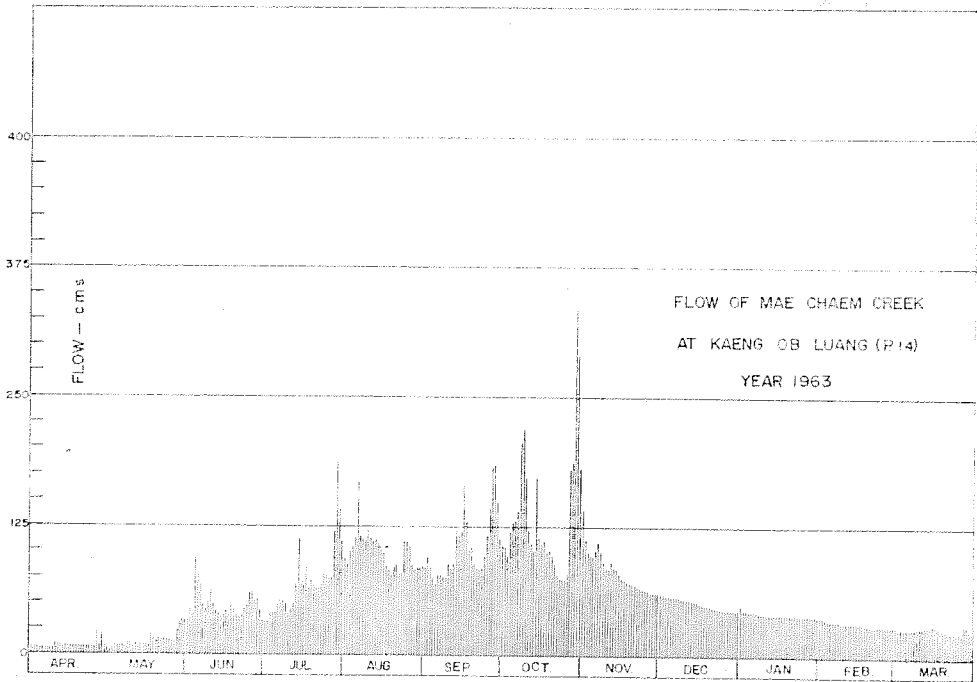
Overbank flow Conditions: No overbank flow.

General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made during 1953 - 60. No upstream state diversions except those built by the farmers. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	276.54	276.54	277.15	277.18	277.71	277.65	277.81	278.04	277.43	277.32	277.19	277.05
2	.54	.53	.27	.19	.67	.72	.81	277.85	.43	.27	.18	.05
3	.54	.52	.25	.22	.77	.65	.74	.76	.42	.27	.16	.04
4	.54	.66	.72	.22	.80	.56	.91	.74	.42	.26	.16	.04
5	.54	.65	.58	.24	.86	.52	.97	.73	.41	.26	.15	.04
6	276.54	276.65	277.52	277.32	278.21	277.59	277.98	277.78	277.41	277.25	277.14	277.04
7	.54	.64	.32	.37	277.87	.59	278.12	.83	.40	.25	.13	.04
8	.53	.64	.28	.36	.85	.57	.43	.76	.40	.24	.12	.04
9	.53	.69	.35	.33	.85	.57	.50	.69	.39	.24	.12	.04
10	.53	.69	.46	.22	.92	.68	.24	.65	.39	.24	.12	.04
11	276.68	276.69	277.32	277.76	277.86	277.64	277.92	277.64	277.38	277.23	277.12	277.04
12	.63	.68	.25	.34	.84	.68	.63	.69	.38	.23	.12	.06
13	.63	.67	.21	.51	.85	.86	.78	.84	.54	.23	.12	.06
14	.63	.66	.19	.86	.82	.88	278.24	.63	.37	.23	.11	.07
15	.62	.65	.20	.51	.78	.90	277.86	.59	.36	.23	.11	.10
16	276.61	276.65	277.25	277.53	277.74	278.18	277.82	277.57	277.35	277.22	277.11	277.08
17	.60	.64	.18	.65	.66	277.97	.84	.56	.34	.22	.10	.07
18	.60	.90	.31	.48	.63	.78	.76	.54	.33	.22	.10	.05
19	.60	.82	.26	.55	.59	.80	.78	.53	.32	.22	.10	.03
20	.59	.78	.21	.51	.65	.68	.74	.52	.31	.22	.09	.01
21	276.59	276.82	277.17	277.48	277.67	277.64	277.68	277.51	277.30	277.22	277.09	276.99
22	.58	.80	.19	.47	.60	.63	.59	.50	.30	.21	.09	.98
23	.57	.79	.27	.51	.60	.64	.56	.49	.29	.21	.08	.98
24	.56	.78	.31	.59	.84	.73	.56	.48	.29	.21	.08	.98
25	.55	.77	.43	.59	.84	.79	.55	.47	.28	.21	.08	.97
26	276.54	276.76	277.44	277.57	277.81	278.05	277.60	277.46	277.28	277.21	277.07	276.97
27	.92	.74	.36	.77	.67	.22	278.29	.45	.27	.21	.07	277.15
28	.65	.98	.37	.91	.63	.23	.32	.45	.27	.20	.06	.08
29	.93	277.11	.25	278.33	.65	.09	279.07	.45	.27	.20	.06	.01
30	.65	.15	.18	.05	.65	277.86	278.86	.44	.27	.20	-	276.99
31	-	.13	-	277.84	.66	-	.29	-	.27	.19	-	.98
Mean	276.60	276.75	277.30	277.51	277.76	277.78	277.98	277.61	277.34	277.23	277.11	277.03
Max.	276.93	277.15	277.72	278.33	278.21	278.23	279.07	278.04	277.43	277.32	277.19	277.13
Min.	276.53	276.52	277.15	277.18	277.59	277.52	277.55	277.44	277.27	277.19	277.06	276.97

WATER YEAR 1963 : Max. 278.86 m. Min. 276.52 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	7.50	7.50	35	38	93	85	106	140	60	49	38	29
2	7.50	7.25	45	38	88	95	106	112	60	45	38	29
3	7.50	7.00	43	41	101	85	97	100	59	45	36	28
4	7.50	11	95	41	105	74	120	97	59	44	36	28
5	7.50	10	77	42	113	69	129	96	58	44	35	28
6	7.50	10	69	49	168	78	131	102	58	43	35	28
7	7.50	10	49	54	115	78	153	109	57	43	34	28
8	7.25	10	45	53	112	75	205	100	57	42	33	28
9	7.25	12	52	50	112	75	218	91	56	42	33	28
10	7.25	12	63	41	122	89	172	85	56	42	33	28
11	11	12	49	44	115	84	122	84	55	41	33	28
12	9.90	11	43	51	111	89	109	91	55	41	33	28
13	9.90	11	40	68	112	113	102	84	54	41	33	30
14	9.90	11	38	113	108	116	172	83	54	41	33	30
15	9.60	10	39	68	102	119	113	78	53	41	33	32
16	9.30	10	43	71	99	163	108	75	52	41	33	31
17	9.00	10	38	85	87	129	111	74	51	41	32	30
18	9.00	21	48	65	83	102	100	72	50	41	32	29
19	9.00	17	44	73	78	105	102	71	49	41	32	28
20	8.75	15	40	68	85	89	97	69	48	41	31	27
21	8.75	17	37	65	88	84	89	68	47	41	31	25
22	8.50	16	38	64	79	83	78	67	47	40	31	25
23	8.25	16	45	68	79	84	74	66	46	40	31	25
24	8.00	15	48	78	111	96	74	65	46	40	31	25
25	7.75	15	60	78	111	104	73	64	45	40	31	24
26	7.50	14	61	75	106	142	79	63	45	40	30	24
27	22	14	53	75	88	169	180	62	45	40	30	34
28	10	25	54	120	83	171	186	62	45	39	30	31
29	22	33	43	187	85	148	333	62	45	39	30	27
30	10	35	38	142	85	113	288	61	45	39	30	25
31	-	34	-	111	87	-	180	-	45	38	-	25
Total	282.35	458.75	1,472	2,216	3,037	3,106	4,207	2,453	1,602	1,285	951	867
Mean	9.41	14.8	49.1	71.5	98.0	103	136	81.7	51.7	41.4	32.8	28.0
Max.	22.	35	95	187	168	171	333	140	60	49	38	34
Min.	7.25	7.00	35	38	78	69	73	61	45	38	30	24
Runoff - mcm.	24.395	39.636	127.181	191.462	262.397	268.358	363.485	211.939	138.413	111.024	82.166	74.909

WATER YEAR 1963 : Max. 333 Min. 7.00 Mean 59.9 Annual Runoff 1,895.365 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 29	06.00	279.26	337				

WATER YEAR 1964  
PING RIVER BASIN

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

Location: Lat  $18^{\circ} - 13' - 49''$  N., Long  $98^{\circ} - 38' - 35''$  E., on right bank near the bridge on Hot - Mae Sariang. highway 7.5 kilometers from Amphoe Hot, Chiang Mai.

Drainage Area: 3,853 sq. km. referred to AMS. Map. 1:50,000.

Type of Gage: Staff gage.

Zero Gage at Bottom at: + 275.84 m. (M.S.L.)

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

Location: Infront of the of office of station P.14  
Elevation: + 282.079 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: 1953 to date.

Rating Operation:

Period of Rating: 1953-60  
Rated by float: -  
Rated by Current Meter: 1953-60

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

Overbank flow Conditions: No overbank flow.

General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made during 1953-60. No upstream state diversions except those built by the farmers. No adjustment made for virgin flow.

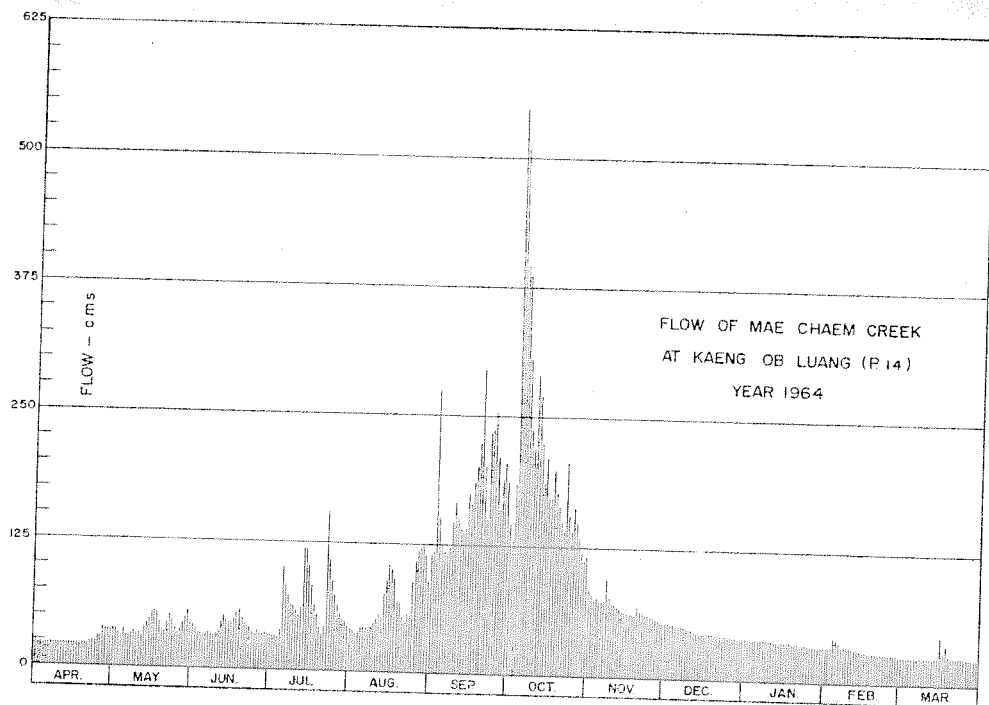
Remark: Gage height for Sept. 20 - Oct. 28 based on correlation.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	276.95	277.18	277.22	277.14	277.24	277.87	278.08	277.63	277.37	277.22	277.14	277.02
2	.96	.18	.18	.13	.22	.89	277.98	.59	.37	.22	.14	.02
3	.95	.13	.16	.13	.19	278.79	278.39	.56	.36	.22	.14	.02
4	.95	.09	.14	.11	.20	.11	279.88	.58	.36	.21	.25	.02
5	.95	.18	.12	.21	.26	277.94	.76	.54	.35	.21	.24	.02
6	276.95	277.10	277.15	277.78	277.26	277.89	279.34	277.55	277.35	277.22	277.18	277.01
7	.95	.10	.16	.63	.25	.87	.30	.57	.34	.22	.15	.01
8	.95	.15	.14	.56	.24	.93	278.95	.72	.34	.22	.15	.01
9	.95	.17	.13	.48	.27	278.08	.60	.58	.33	.21	.14	.01
10	.95	.11	.16	.46	.31	.20	.50	.54	.32	.21	.14	.01
11	276.95	277.13	277.19	277.41	277.34	278.10	278.87	277.53	277.31	277.21	277.13	277.01
12	.95	.19	.27	.37	.40	.04	.77	.52	.30	.20	.12	.01
13	.95	.22	.36	.44	.36	.02	.46	.49	.29	.20	.11	.00
14	.95	.28	.31	.89	.58	.12	.32	.48	.28	.19	.10	.00
15	.95	.31	.29	.89	.68	.25	.39	.47	.28	.19	.09	.00
16	276.95	277.37	277.29	277.78	277.80	278.19	278.23	277.47	277.28	277.18	277.08	277.30
17	.95	.39	.32	.63	.77	.33	.24	.46	.27	.18	.07	.08
18	.95	.37	.38	.46	.70	.41	.39	.45	.27	.18	.06	.19
19	.95	.27	.41	.38	.52	.53	.27	.45	.27	.17	.06	.04
20	.95	.19	.33	.26	.46	.89	.18	.52	.26	.17	.05	.02
21	276.95	277.16	277.29	277.16	277.38	278.41	278.09	277.48	277.26	277.17	277.05	277.01
22	.98	.27	.26	.26	.35	.10	.03	.46	.26	.16	.05	.01
23	277.00	.35	.22	278.13	.42	.58	.30	.45	.25	.16	.04	.01
24	276.99	.30	.16	277.82	.39	.60	.13	.44	.25	.16	.04	.01
25	277.07	.21	.14	.67	.68	.69	.04	.43	.24	.16	.03	.00
26	277.09	277.15	277.18	277.56	277.83	278.39	278.18	277.42	277.24	277.15	277.03	277.00
27	.18	.19	.16	.48	.89	.16	.09	.41	.24	.15	.03	.00
28	.18	.27	.14	.39	.92	.34	.00	.39	.23	.15	.02	276.99
29	.17	.33	.17	.35	.95	.43	277.90	.38	.23	.14	-	.97
30	.16	.39	.16	.32	.87	.33	.85	.37	.23	.14	-	.24
31	-	.26	-	.28	.78	-	.88	-	.22	.14	-	.95
Mean	276.95	277.22	277.21	277.51	277.50	278.25	278.43	277.50	277.29	277.18	277.10	277.01
Max.	277.18	277.39	277.41	278.13	277.95	278.89	279.88	277.72	277.37	277.22	277.25	277.30
Min.	276.95	277.09	277.12	277.11	277.19	277.87	277.85	277.37	277.22	277.14	277.02	276.95

WATER YEAR 1964 : Max. 279.88 m. Min. 276.95 m.





DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	24	38	41	35	42	115	147	85	54	41	35	27
2	24	38	38	34	41	118	131	78	54	41	35	27
3	23	34	36	34	38	274	198	74	53	41	35	27
4	23	31	35	33	39	152	547	77	53	40	43	27
5	23	38	33	40	44	125	509	72	52	40	42	27
6	23	32	35	102	44	118	396	73	52	41	38	27
7	23	32	36	83	43	115	386	75	51	41	35	27
8	23	35	35	74	42	123	306	95	51	41	35	27
9	23	37	34	65	45	147	237	77	50	40	35	27
10	23	33	36	63	48	166	218	72	49	40	35	27
11	23	34	38	58	51	150	290	71	48	40	34	27
12	23	31	45	54	57	140	270	69	47	39	33	27
13	23	41	53	61	53	137	212	66	46	39	33	26
14	23	45	48	118	77	153	186	65	45	38	32	26
15	23	48	46	118	89	174	198	64	45	38	31	26
16	23	54	46	102	105	164	171	64	45	38	31	47
17	23	56	49	83	101	187	172	63	45	38	30	31
18	23	54	55	63	92	202	198	62	45	38	30	38
19	23	45	58	55	69	224	177	62	45	37	30	28
20	23	38	50	44	63	294	163	69	44	37	29	27
21	23	36	46	36	55	202	148	65	44	37	29	27
22	25	45	44	44	52	150	139	63	44	36	29	27
23	26	52	41	155	59	233	182	62	43	36	28	27
24	25	47	36	108	56	237	155	61	43	36	28	27
25	30	40	35	88	89	254	140	60	42	36	28	26
26	31	35	38	74	109	198	163	59	42	35	28	26
27	38	38	36	65	118	160	148	58	42	35	28	26
28	38	45	35	56	122	189	134	56	41	35	27	25
29	37	50	37	52	126	205	119	55	41	35	-	24
30	36	56	36	49	115	187	112	54	41	35	-	23
31	-	44	-	45	102	-	116	-	41	35	-	23
Total	771	1,282	1,231	2,091	2,186	5,293	6,668	2,024	1,438	1,179	906	855
Mean	25.7	41.3	41.0	67.4	70.5	176	215	67.5	46.3	38.0	32.3	27.6
Max.	38	56	58	155	126	294	547	95	54	41	43	47
Min.	23	31	33	33	38	115	112	54	41	35	27	23
Runoff - mcm.	66.614	110.765	106.358	180.662	188.870	457.315	576.115	174.874	124.243	101.866	78.278	73.87

WATER YEAR 1964 : Max. 547      Min. 23      Mean 71.0      Annual Runoff 2,239.834 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 4	18.00	279.90	553				

## WATER YEAR 1963

## PING RIVER BASIN

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

Location: Lat  $18^{\circ} - 12' - 02''$  N., Long  $98^{\circ} - 37' - 01''$  E., on right bank upstream side of the bridge on Hot - Chiang Mai, highway Amphoe Hot, Chiang Mai.

Drainage Area: 3,909 sq.km. referred to M.S. Map. 1:50,000.

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 the 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 to date.

Rating Operation:

Period of Rating: 1958 - 60, 1967

Rated by float: -

Rated by Current Meter: 1958 - 60, 1967

Stability of Channel Regimes: Very stable, no shifting adjustment for flow computation for years without actual ratings.

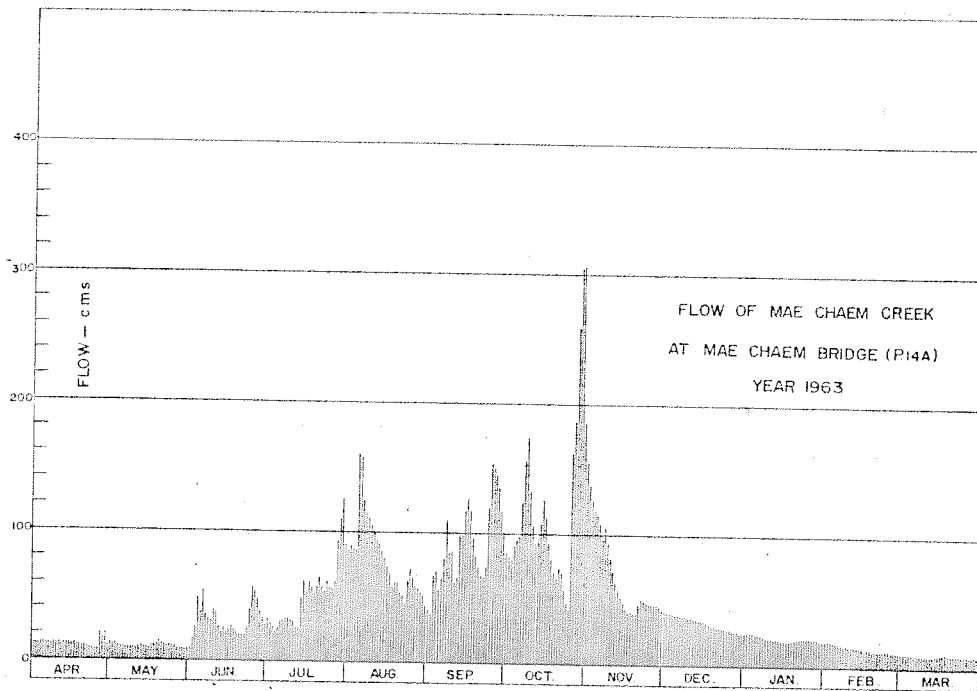
Overbank flow Conditions: No overbank flow.

General description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1958 - 60. No upstream state diversions except those built by the farmers. No adjustment made for virgin flow.

## GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	262.99	263.00	262.93	263.22	263.64	263.29	263.63	264.03	263.31	263.15	263.08	262.95
2	.99	262.98	263.04	.19	.66	.26	.61	263.93	.30	.15	.07	.95
3	.98	.98	.15	.16	.65	.49	.60	.87	.30	.14	.07	.94
4	.98	.96	.37	.11	.64	.53	.67	.83	.29	.14	.06	.94
5	.98	.95	.27	.15	264.05	.42	.70	.81	.28	.13	.06	.94
6	262.98	262.94	263.41	263.20	264.04	263.49	263.71	263.77	263.28	263.13	263.05	262.93
7	.98	.93	.25	.21	263.86	.60	.86	.70	.27	.12	.05	.93
8	.97	.92	.20	.22	.81	.73	264.05	.76	.27	.12	.04	.92
9	.98	.92	.20	.22	.78	.63	.12	.69	.27	.10	.04	.92
10	.98	.92	.29	.21	.76	.64	263.91	.61	.26	.10	.03	.92
11	263.00	262.93	263.26	263.20	263.72	263.47	263.76	263.54	263.26	263.10	263.03	262.91
12	262.99	.95	.14	.15	.69	.50	.68	.48	.25	.09	.02	.91
13	.99	.96	.10	.13	.67	.71	.69	.44	.25	.09	.02	.91
14	.99	.94	.14	.37	.63	.71	.77	.39	.24	.09	.01	.92
15	.98	.93	.19	.47	.60	.82	.87	.36	.24	.08	.01	.93
16	262.98	262.92	263.12	263.40	263.56	263.87	263.80	263.32	263.23	263.08	263.00	262.94
17	.98	.97	.16	.46	.52	.82	.68	.30	.23	.08	.00	.94
18	.97	.97	.12	.43	.44	.70	.60	.30	.21	.08	.00	.94
19	.96	.98	.10	.39	.47	.61	.53	.29	.20	.08	262.99	.93
20	.95	263.03	.07	.45	.47	.56	.49	.29	.20	.09	.99	.93
21	262.95	262.99	263.07	263.49	263.41	263.51	263.56	263.35	263.19	263.09	262.99	262.92
22	.93	.97	.08	.44	.38	.50	.53	.38	.19	.10	.99	.92
23	.91	.96	.15	.41	.33	.56	.43	.37	.18	.10	.98	.92
24	.90	.96	.29	.47	.48	.84	.35	.36	.18	.10	.98	.91
25	.89	.94	.43	.43	.54	264.02	.30	.35	.17	.10	.98	.91
26	262.89	262.94	263.41	263.43	263.49	264.00	264.06	263.35	263.17	263.09	262.97	262.91
27	263.09	.91	.36	.47	.45	263.97	.18	.34	.16	.09	.97	.90
28	.04	.90	.28	.68	.43	.92	.51	.34	.16	.09	.96	.90
29	.09	.90	.23	.78	.41	.82	.68	.33	.16	.09	.96	.90
30	262.96	.90	.17	.87	.38	.73	.69	.32	.15	.08	-	.91
31	-	.90	-	.67	.32	-	.18	-	.15	.08	-	.90
Mean	262.97	262.95	263.20	263.37	263.59	263.66	263.81	263.52	263.22	263.10	263.01	262.92
Max.	263.09	263.03	263.43	263.87	264.05	264.02	264.69	264.03	263.31	263.15	263.08	262.95
Min.	262.89	262.90	262.93	263.11	263.32	263.26	263.30	263.29	263.15	263.08	262.96	262.90

WATER YEAR 1963 : Max. 264.69 m. Min. 262.89 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	13	14	10	33	86	40	85	156	42	26	20	11
2	13	13	17	30	90	37	82	137	41	26	20	11
3	13	13	26	27	88	67	80	126	41	26	20	11
4	13	12	49	23	86	70	91	118	40	26	19	11
5	13	11	38	26	160	56	96	115	39	25	19	11
6	13	11	54	31	158	65	98	168	39	25	18	10
7	13	10	36	32	124	80	124	96	36	24	18	10
8	12	10	33	34	115	110	156	106	38	24	17	10
9	13	10	31	33	110	85	174	94	38	22	17	10
10	13	10	40	32	106	86	153	82	37	22	16	10
11	14	10	37	31	99	62	106	72	37	22	16	9.50
12	13	11	26	26	94	66	93	65	36	21	16	9.50
13	13	12	22	25	91	98	94	58	36	21	16	9.50
14	13	11	26	49	85	98	108	52	35	21	15	10
15	13	10	22	62	80	117	126	48	35	20	15	10
16	13	10	24	53	74	126	113	43	34	20	14	11
17	13	12	27	61	69	117	93	41	34	20	14	11
18	12	12	24	57	58	96	80	41	32	20	14	11
19	12	13	22	52	62	82	70	40	31	20	13	10
20	11	16	20	59	62	74	65	40	31	21	13	10
21	11	13	20	65	54	67	74	47	30	21	13	10
22	10	12	20	58	51	66	70	51	30	22	13	10
23	9.50	12	26	54	45	74	57	49	29	22	13	10
24	9.00	12	40	62	63	120	47	48	29	22	13	9.50
25	8.50	11	57	57	72	154	41	47	28	22	13	9.50
26	8.50	11	54	57	65	150	162	47	28	21	12	9.50
27	21	9.50	48	62	59	144	186	46	27	21	12	9.00
28	17	9.00	39	93	57	135	259	36	27	21	12	9.00
29	21	9.00	34	110	54	117	304	45	27	21	12	9.00
30	12	9.00	28	126	51	101	306	43	26	20	12	9.50
31	-	9.00	-	91	43	-	186	-	26	20	-	9.50
Total	283.50	347.50	950	1,611	2,511	2,760	5,759	2,105	1,041	685	443	311.00
Mean	12.8	11.2	31.6	51	81.0	92.0	121	70.1	33.5	22.0	15.2	10.0
Max.	21	16	57	126	160	154	306	156	42	26	20	11
Min.	8.50	9.00	10	23	43	37	41	40	26	20	12	9.00
Runoff - mcm.	33.134	30.024	82.080	139.190	216.950	238.464	324.778	181.872	89.942	59.184	38.275	26.870

WATER YEAR 1963 : Max. 306 Min. 8.50 Mean 46.2 Annual Runoff 1,460.765 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 30	18.00	264.70	309				

WATER YEAR 1964  
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 the bridge on Hot - Chiang Mai, highway Amphoe Hot, Chiang Mai.

Drainage Area: 3,909 sq.km. referred to AMS Map 1:50,000.

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 the office of station P.14 A.

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 to date.

Gating Operation:

Period of Rating: 1958 - 60, 1967

Rated by Float: -

Rated by Current Meter: 1958 - 60, 1967

Stability of Channel Regimes: Very stable no shifting adjustment for flow computation for years without actual ratings.

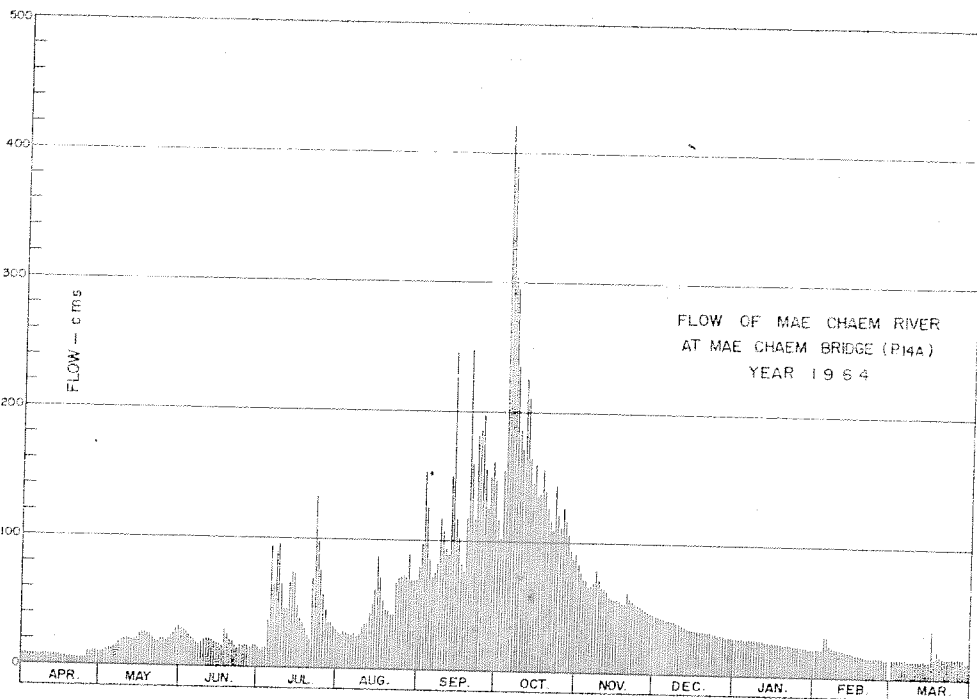
Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1958 - 60. No upstream state diversions except those built by the farmers. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	262.90	262.94	263.19	263.03	263.17	263.59	263.82	263.62	263.33	263.18	263.10	263.01
2	.90	.96	.18	.00	.16	.71	.75	.58	.33	.18	.10	.01
3	.90	.98	.16	.01	.16	264.02	264.03	.54	.32	.18	.10	.01
4	.90	263.00	.13	.03	.17	263.87	265.06	.54	.32	.17	.21	.01
5	.90	262.99	.11	.26	.16	.64	264.97	.50	.31	.17	.20	.01
6	262.90	263.01	263.09	263.69	263.15	263.54	264.68	263.51	263.31	263.18	263.13	263.01
7	.89	.03	.06	.49	.17	.57	.65	.53	.30	.18	.12	.00
8	.89	.05	.05	.66	.13	.62	.41	.60	.30	.18	.11	.00
9	.89	.08	.06	.70	.16	.83	.18	.54	.29	.17	.10	.00
10	.89	.09	.09	.49	.21	.77	.11	.50	.28	.17	.10	.00
11	262.89	263.10	263.10	263.34	263.24	263.69	264.36	263.49	263.27	263.17	263.09	263.00
12	.88	.09	.10	.34	.24	.66	.30	.48	.26	.16	.08	.00
13	.88	.07	.09	.50	.32	264.00	.08	.45	.25	.16	.07	.00
14	.88	.07	.08	.56	.38	.45	263.98	.44	.24	.15	.07	262.99
15	.88	.10	.06	.56	.46	263.83	264.05	.43	.24	.15	.06	.99
16	262.87	263.13	263.05	263.37	263.65	263.74	263.92	263.43	263.24	263.14	263.05	263.27
17	.87	.15	.04	.28	.54	.62	.93	.42	.23	.14	.05	.02
18	.96	.16	.18	.25	.41	.58	264.03	.41	.23	.14	.04	.09
19	.86	.14	.15	.21	.34	.83	263.95	.41	.23	.13	.04	.05
20	.85	.13	.10	.14	.34	264.46	.88	.48	.22	.13	.03	.03
21	262.85	263.10	263.08	263.11	263.32	264.05	263.82	263.44	263.22	263.13	263.03	263.03
22	.84	.07	.04	.52	.31	263.83	.78	.42	.22	.13	.03	.03
23	.84	.08	.01	.91	.51	264.16	.97	.41	.21	.12	.03	.03
24	.84	.10	.05	.72	.54	.18	.85	.40	.21	.12	.03	.03
25	.84	.10	.04	.57	.54	.24	.79	.39	.20	.12	.02	.02
26	262.95	263.09	263.05	263.44	263.55	264.03	263.88	263.38	263.20	263.11	263.02	263.02
27	.95	.09	.04	.34	.54	263.87	.82	.37	.20	.11	.01	.02
28	.94	.12	.03	.25	.66	264.00	.76	.36	.19	.11	.01	.01
29	.94	.15	.05	.25	.52	.06	.69	.34	.19	.10	-	262.99
30	.94	.18	.05	.22	.52	263.99	.65	.33	.19	.10	-	.98
31	-	.20	-	.20	.53	-	.67	-	.18	.10	-	.97
Mean	262.89	263.08	263.08	263.37	263.36	263.88	264.06	263.46	263.25	263.14	263.07	263.02
Max.	262.95	263.20	263.19	263.91	263.66	264.46	265.06	263.62	263.33	263.18	263.21	263.27
Min.	262.84	262.94	263.01	263.00	263.13	263.54	263.65	263.33	263.18	263.01	263.01	262.97

WATER YEAR 1964 : Max. 265.06 m. Min. 262.84 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	9.00	11	30	16	28	79	117	83	45	29	22	15
2	9.00	12	29	14	27	98	104	77	45	29	22	15
3	9.00	13	27	15	29	154	156	72	43	29	22	15
4	9.00	14	25	16	28	126	421	72	43	28	32	15
5	9.00	13	23	37	27	86	390	66	42	28	31	15
6	9.00	15	21	94	26	72	304	67	42	29	25	15
7	8.50	16	19	65	28	76	295	70	41	29	24	14
8	8.50	18	18	90	25	83	236	80	41	29	23	14
9	8.50	20	19	96	27	118	186	72	40	28	22	14
10	8.50	21	21	65	32	108	172	66	39	28	22	14
11	8.50	22	22	46	35	94	225	65	38	28	21	14
12	8.00	21	22	46	35	90	211	63	37	27	20	14
13	8.00	20	21	66	43	150	166	59	36	27	20	14
14	8.00	20	20	74	51	245	146	58	35	26	20	13
15	8.00	22	19	74	61	118	160	57	35	26	19	13
16	7.50	25	18	49	88	103	135	57	35	26	18	38
17	7.50	26	17	39	72	83	137	56	34	26	18	16
18	7.00	27	29	36	54	77	156	54	34	26	17	21
19	7.00	26	26	32	46	118	140	54	34	25	17	18
20	6.50	25	22	26	46	248	127	63	33	25	16	16
21	6.50	22	20	23	43	160	117	58	33	25	16	16
22	6.00	20	17	69	42	118	110	56	33	25	16	16
23	6.00	20	15	133	67	182	144	54	32	24	16	16
24	6.00	22	18	99	72	186	122	53	32	24	16	16
25	6.00	22	17	76	72	198	111	52	31	24	16	16
26	11	21	18	58	73	156	127	51	31	23	16	16
27	11	21	17	46	72	126	117	49	31	23	15	16
28	11	24	16	36	90	150	106	48	30	23	15	15
29	11	26	18	36	69	162	94	46	30	22	15	13
30	11	29	18	33	69	148	88	45	30	22	15	13
31	-	31	-	31	70	-	91	-	29	22	-	12
Total	249.50	645	622	1,636	1,547	3,912	5,211	1,823	1,114	805	557	488
Mean	8.32	20.8	20.7	52.7	49.9	130	168	60.7	35.9	25.9	29.8	15.7
Max.	11	31	30	133	90	248	421	83	45	29	25	38
Min.	6.00	11	15	14	25	72	88	45	29	22	15	12
Runoff - mcm.	21.577	55.728	53.741	141.350	133.661	337.997	450.230	157.507	96.250	69.552	48.125	42.163

WATER YEAR 1964 : Max. 421 Min. 6.00 Mean 51.0 Annual Runoff 1,607.861 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 4	06.00	265.30	454				

WATER YEAR 1963  
PING RIVER BASIN

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

Location: Lat  $15^{\circ} - 56' - 02''$  N., Long  $99^{\circ} - 58' - 49''$  E., on right bank about 300 meters upstream from the district Office, Tambon SomSiao, Amphoe Banphot Phisai, Nakhon Sawan.

Drainage Area: 45,816 sq.km. referred to AMS Map 1:50,000

Type of Gage: Staff gage.

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

Bench Mark: B.M. - H.S. P17

Location: At the post of transmission line near the 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 to date.

Rating Operation:

Period of Rating: 1960, 1967

Rated by Float: -

Rated by Current Meter: 1960, 1967

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

Overbank Flow Conditions: No overbank flow.

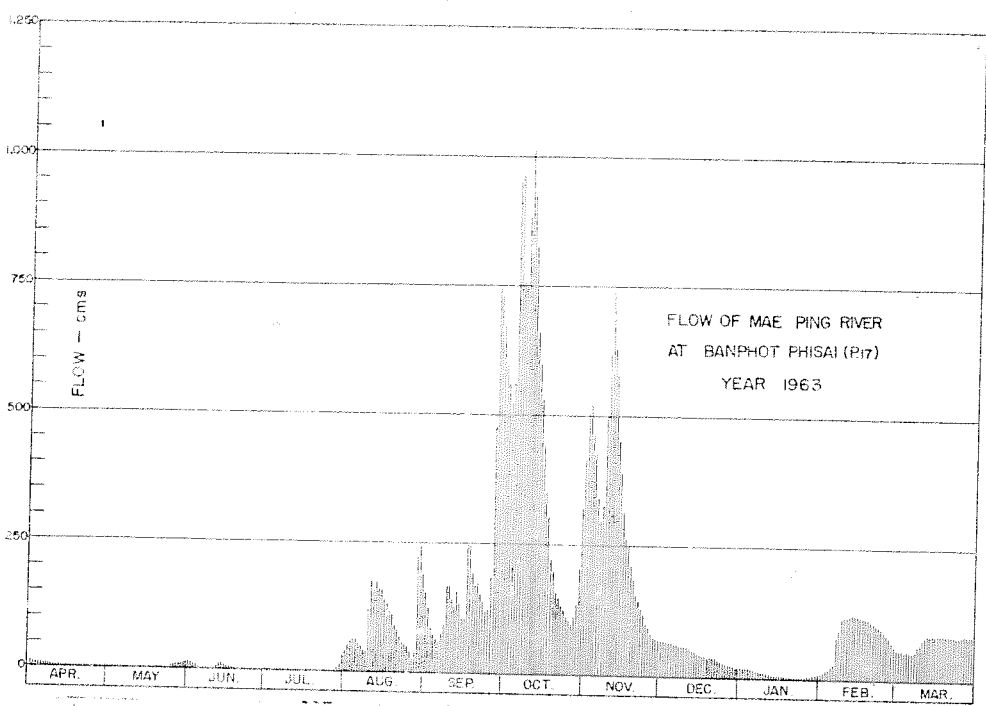
General Description: Records fair except those for period of no gage height record. Stage - discharge relationship used is defined by discharge measurements made during 1960. Flow regulated by Yanhee Reservoir and upstream diversions for irrigation of about 40,300 hectares. No adjustment made for virgin flow.

Remark: No gage height record for Dec. 23 - Feb. 6.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	33.52	33.04	33.55	33.24	33.89	34.68	36.26	35.76	34.12			34.02
2	.49	.04	.54	.26	.96	.45	.17	.98	.10			.01
3	.48	.03	.50	.26	34.02	.29	.04	36.03	.09			.00
4	.45	.03	.45	.24	.08	.15	.15	35.91	.08			33.99
5	.44	.03	.36	.22	.06	.08	37.07	.74	.07			.99
6	33.42	33.02	33.24	33.19	34.00	34.04	37.10	35.47	34.06			33.99
7	.40	.02	.18	.17	33.95	.19	36.65	.28	.05		34.21	.99
8	.37	.01	.14	.16	.90	.33	.64	.41	.04		.32	34.02
9	.35	.01	.13	.14	.87	.73	37.04	.87	.03		.43	.06
10	.32	.01	.19	.13	34.50	.72	.19	36.29	.02		.46	.13
11	33.28	33.00	33.30	33.11	34.77	34.60	37.02	36.62	34.01		34.46	34.18
12	.24	.00	.45	.11	.68	.51	36.75	.39	33.99		.49	.22
13	.20	.00	.53	.10	.77	.67	.40	.14	.97		.49	.24
14	.18	32.99	.51	.10	.69	.53	.25	35.79	.94		.48	.24
15	.13	.99	.48	.09	.69	.40	.07	.57	.91		.48	.24
16	33.11	32.99	33.43	33.09	34.60	34.37	35.80	35.33	33.89		34.47	34.25
17	.10	.99	.36	.09	.54	35.10	.50	.15	.88		.46	.25
18	.09	.98	.31	.08	.49	.09	.31	.10	.87		.45	.25
19	.08	.98	.27	.08	.42	34.83	.09	34.98	.86		.44	.25
20	.08	.98	.24	.11	.36	.73	34.86	.62	.65		.41	.24
21	33.07	32.98	33.22	33.14	34.24	34.77	34.70	33.71	33.84		34.39	34.24
22	.07	33.00	.21	.15	.10	.64	.65	.60	.84		.36	.24
23	.07	.04	.20	.18	.01	.57	.58	.52			.35	.25
24	.06	.17	.19	.19	33.96	.46	.49	.45			.32	.23
25	.06	.38	.18	.20	.93	.50	.43	.38			.28	.23
26	33.05	33.48	33.16	33.21	33.87	34.97	34.38	34.28			34.25	34.23
27	.05	.49	.14	.23	.72	35.83	.34	.23			.20	.24
28	.04	.51	.14	.28	.95	35.62	.42	.16			.14	.24
29	.03	.53	.16	.36	35.98	.58	.57	.13			.06	.24
30	.05	.55	.20	.50	35.09	.40	.80	.12			-	.24
31	-	.57	-	.72	34.85	-	35.8	-			-	.24
Mean	33.21	33.12	33.30	33.20	34.28	34.49	35.60	35.24				34.17
Max.	33.52	33.57	33.55	33.72	35.09	36.62	37.10	36.62				34.25
Min.	33.03	32.98	33.13	33.08	33.72	34.04	34.34	34.12				33.99

WATER YEAR 1963 : Max. 37.19 m. Min. - m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	12	0.00	14	1.60	42	157	603	433	69			57
2	10	0.00	13	2.20	50	116	569	503	67			56
3	10	0.00	11	2.20	57	92	524	520	66			55
4	8.50	0.00	9.50	1.30	64	73	562	480	64			54
5	8.00	0.00	4.00	1.40	62	64	946	426	63			54
6	7.00	0.00	1.30	0.93	55	60	960	347	62			54
7	6.00	0.00	0.86	0.79	49	78	755	295	61			54
8	5.10	0.00	0.58	0.72	43	97	751	330	60		60	54
9	4.50	0.00	0.51	0.58	40	167	931	467	59		96	57
10	3.60	0.00	0.93	0.51	125	165	1,009	614	57		113	62
11	2.60	0.00	3.00	0.37	174	143	922	743	56		118	71
12	1.80	0.00	8.50	0.37	157	127	797	652	54		118	77
13	1.00	0.00	13	0.30	174	156	656	559	51		123	82
14	0.86	0.00	12	0.30	159	170	599	442	48		123	85
15	0.51	0.00	10	0.24	159	108	534	375	44		122	85
16	0.37	0.00	7.50	0.24	143	103	445	308	42		122	85
17	0.30	0.00	4.80	0.24	132	248	355	261	41		120	86
18	0.24	0.00	3.30	0.18	123	246	303	248	40		118	86
19	0.18	0.00	2.40	0.18	111	187	246	220	39		116	86
20	0.18	0.00	1.80	0.37	102	167	193	184	38		115	86
21	0.12	0.00	1.40	0.58	85	174	161	163	37		110	85
22	0.12	0.00	1.20	0.65	67	150	152	143	37		106	85
23	0.12	0.00	1.00	0.86	56	138	139	129			105	85
24	0.06	0.79	0.93	0.93	50	118	123	116			100	83
25	0.06	5.40	0.86	1.00	47	125	113	105			96	83
26	0.00	10	0.72	1.20	40	218	105	90			90	83
27	0.00	10	0.58	1.60	26	455	99	83			86	83
28	0.00	12	0.58	2.60	39	743	111	74			79	85
29	0.00	13	0.72	1.80	220	727	138	71			72	85
30	0.00	15	1.00		11	246	180	69			62	85
31	-	-	-	26	187	-	300	-			-	85
Total	83.22	80.19	131.27	66.94	3,084	6,188	4,281	9,450				2,344
Mean	2.77	2.58	4.37	2.15	99.5	206	461	315				75.6
Max.	12	15	14	26	246	743	1,009	743				86
Min.	0.00	0.00	0.51	0.18	26	60	99	69				54
Runoff - mcm.	7.190	6.928	11.342	5.789	266.458	534.643	1,233.878	816.480				202.522

WATER YEAR 1963 : Max. 1,009 Min. - Mean - Annual Runoff - mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 10	06.00	37.49	1,197	Nov. 11	06.00	36.93	879

WATER YEAR 1964  
PING RIVER BASIN

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

Location: Lat  $15^{\circ} - 56' - 02''$  N., Long  $99^{\circ} - 58' - 49''$  E., on right bank about 300 meters upstream from the District Office, Tambon Som Siao, Amphoe Banphot Phisai, Nakhon Sawan.

Drainage Area: 45,816 sq.km. referred to AMS Map 1:50,000.

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 the 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 to date.

Rating Operation:

Period of Rating: 1960, 1967.

Rated by Float: -

Rated by Current Meter: 1960, 1967.

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

Overbank Flow Conditions: No overbank flow.

General Description:

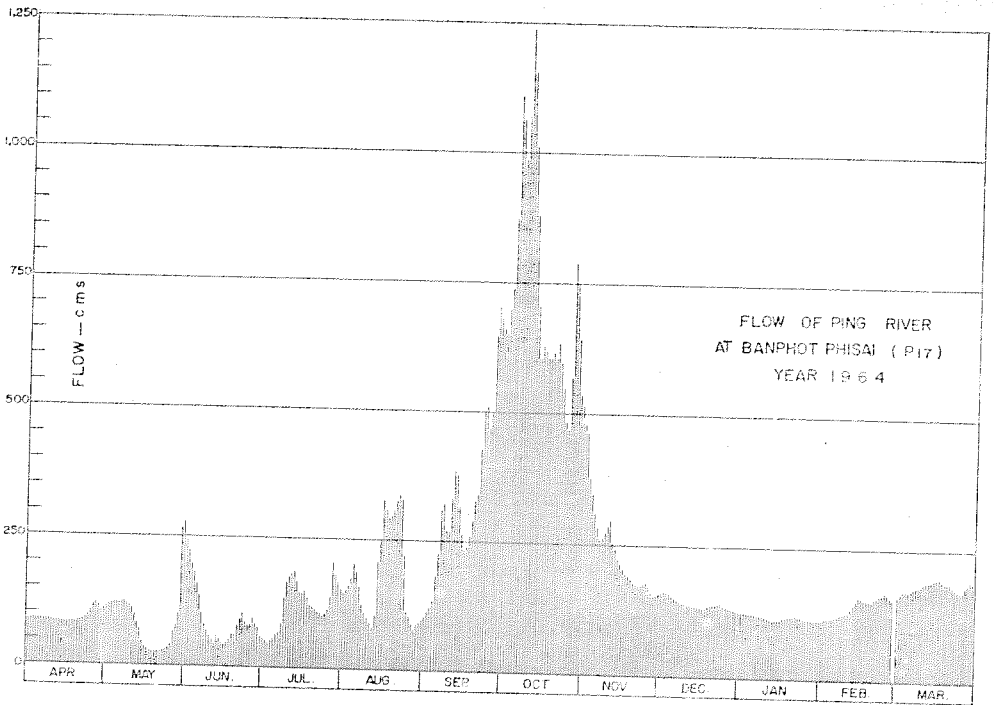
Records fair. Stage - discharge relationship used is defined by discharge measurements made during 1960. Flow regulated by Yanhee Reservoir since September 1963 and upstream diversions for irrigation of about 40,300 hectares. The data presented is from actual observation at gage site, no adjustment made for virgin flow.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	34.24	34.44	35.10	34.01	34.61	34.78	36.38	35.89	34.68	34.50	34.43	34.69
2	.24	.46	.00	33.97	.64	.44	.50	.71	.68	.50	.44	.73
3	.25	.47	34.88	.93	.69	.48	.60	.57	.68	.49	.44	.75
4	.25	.48	.83	.97	.77	.55	.91	.47	.67	.49	.45	.75
5	.25	.49	.72	34.03	.90	.80	37.35	.33	.66	.48	.46	.76
6	34.25	34.49	34.60	34.07	34.85	35.00	37.29	35.23	34.65	34.48	34.47	34.77
7	.25	.50	.40	.10	.68	.33	.14	.16	.63	.47	.48	.78
8	.24	.50	.23	.24	.49	.30	.26	.15	.61	.47	.49	.79
9	.24	.48	.14	.55	.39	.18	.55	.20	.58	.46	.50	.80
10	.24	.46	.04	.72	.32	.17	.44	.25	.57	.45	.50	.81
11	34.23	34.42	33.97	34.78	34.24	35.40	37.23	35.29	34.56	34.44	34.52	34.82
12	.23	.35	.91	.81	.21	.60	36.93	.13	.56	.43	.55	.83
13	.23	.25	34.04	.83	.37	.58	.52	.07	.56	.43	.60	.84
14	.22	.13	33.97	.73	.91	.34	.28	.01	.55	.42	.65	.85
15	.22	33.96	.93	.61	35.09	.17	.32	34.94	.55	.43	.68	.86
16	34.22	33.84	33.88	34.61	35.40	35.03	36.31	34.91	34.55	34.43	34.69	34.87
17	.22	.80	.93	.63	.32	.06	.28	.86	.54	.44	.67	.87
18	.23	.75	.97	.56	.27	.15	.28	.85	.54	.45	.66	.86
19	.23	.74	34.06	.48	.29	.30	.29	.82	.55	.45	.65	.85
20	.24	.74	.11	.46	.33	.40	.26	.80	.56	.46	.64	.83
21	34.24	33.73	34.19	34.42	35.38	35.45	36.34	34.77	34.57	34.46	34.65	34.83
22	.26	.74	.30	.40	.44	.68	.24	.75	.57	.47	.68	.79
23	.29	.77	.37	.38	.40	.97	.15	.76	.58	.46	.70	.78
24	.34	.79	.25	.34	34.92	36.00	35.91	.77	.58	.45	.72	.77
25	.39	.84	.18	.38	.43	35.85	.87	.80	.57	.44	.74	.75
26	34.45	33.89	34.23	34.43	34.36	35.95	36.17	34.75	34.55	34.44	34.75	34.76
27	.49	34.09	.31	.57	.27	36.37	.73	.69	.54	.43	.69	.80
28	.46	.20	.22	.91	.19	.51	.67	.65	.53	.43	.66	.83
29	.40	.38	.18	.81	.25	.47	.49	.65	.52	.42	-	.86
30	.40	35.15	.03	.73	.28	.40	.21	.67	.51	.42	-	.85
31	-	.22	-	.65	.34	-	.01	-	.50	.43	-	.82
Mean	34.28	34.23	34.36	34.45	34.74	35.41	36.58	35.03	34.58	34.45	34.55	34.80
Max.	34.49	35.22	35.10	34.91	35.44	36.51	37.55	35.89	34.68	34.50	34.75	34.87
Min.	34.22	33.73	33.88	33.93	34.19	34.38	35.87	34.65	34.50	34.42	34.43	34.69

WATER YEAR 1964 : Max. 37.55 m. Min. 33.73 m.





DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	85	115	243	56	145	105	648	474	157	125	111	159
2	85	118	225	51	150	115	695	417	157	125	115	167
3	86	120	198	47	159	122	735	375	157	123	114	170
4	96	122	184	51	174	134	870	347	156	123	116	170
5	86	123	165	59	202	180	1,106	308	154	122	118	172
6	86	123	143	63	191	225	1,069	282	152	122	120	174
7	86	125	108	67	157	308	982	264	148	120	122	176
8	85	125	83	85	123	324	1,069	261	145	120	123	178
9	85	122	72	134	106	269	1,239	274	139	118	125	180
10	85	118	60	165	96	266	1,164	287	139	115	125	182
11	83	111	51	176	85	327	1,033	297	135	115	129	184
12	83	100	44	182	80	384	879	255	135	115	134	187
13	83	86	60	187	103	378	703	241	136	113	143	189
14	82	71	51	167	204	311	601	227	134	111	152	191
15	92	50	47	145	246	266	625	211	134	113	157	193
16	82	37	42	145	327	232	621	204	134	113	159	195
17	82	33	47	148	305	239	601	193	132	115	156	195
18	83	23	51	156	292	261	601	191	132	116	154	193
19	83	28	62	122	297	300	614	184	134	116	152	191
20	85	28	68	118	308	327	603	180	136	118	150	187
21	85	27	78	111	322	341	633	174	138	118	152	187
22	87	23	93	108	338	403	595	170	138	120	157	178
23	92	30	103	105	327	500	562	172	139	118	161	176
24	99	32	86	99	207	510	480	174	139	116	165	174
25	106	37	77	105	113	461	467	180	138	115	169	170
26	116	42	83	113	102	493	569	170	134	115	170	172
27	123	66	94	137	89	645	788	159	132	113	159	180
28	118	79	82	204	78	699	763	152	130	113	154	187
29	108	105	77	182	86	683	691	152	129	111	-	192
30	108	261	59	167	90	656	583	156	127	111	-	191
31	-	279	-	152	99	-	513	-	125	113	-	184
Total	2,725	2,769	2,841	3,737	5,601	10,469	23,102	7,132	4,316	3,620	3,963	5,624
Mean	90.8	89.3	94.7	122	181	349	745	238	139	117	141	181
Max.	123	279	243	204	338	699	1,239	474	157	125	170	195
Min.	82	27	42	47	78	105	467	152	125	111	111	159
Runoff - mcm.	235.440	239.243	245.463	327.197	483.926	904.522	1,996.013	616.205	372.902	312.768	342.407	485.914

WATER YEAR 1964 : Max. 1239 Min. 27 Mean 208 Annual Runoff 6,561.994 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct.9	06.00	37.59	1,268	Oct.22	06.00	36.25	599

## WATER YEAR 1963

## PING RIVER BASIN

Mae Ping River at Wutthikun Bridge, Tak. (P.18)

Location: Lat  $16^{\circ} - 40' - 57''$  N., Long  $99^{\circ} - 16' - 40''$  E., on right bank at Wutthikun Bridge on Phahon Yothin highway about 30 kilometers from Tak and 35 kilometers from Kamphaeng Phet, Ban Weng Chao, Amphoe Muang, Tak.

Drainage Area: 40,238 sq. km. referred to AMS Map 1:50,000

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: 1954 - 55, 1959 and 1962 to date.

Rating Operation:

Period of Rating: 1954 - 55

Rated by Float: -

Rated by Current Meter: 1954 - 55

Stability of Channel Regimes: Fairly stable, no shifting adjustment for flow computation for years without actual ratings.

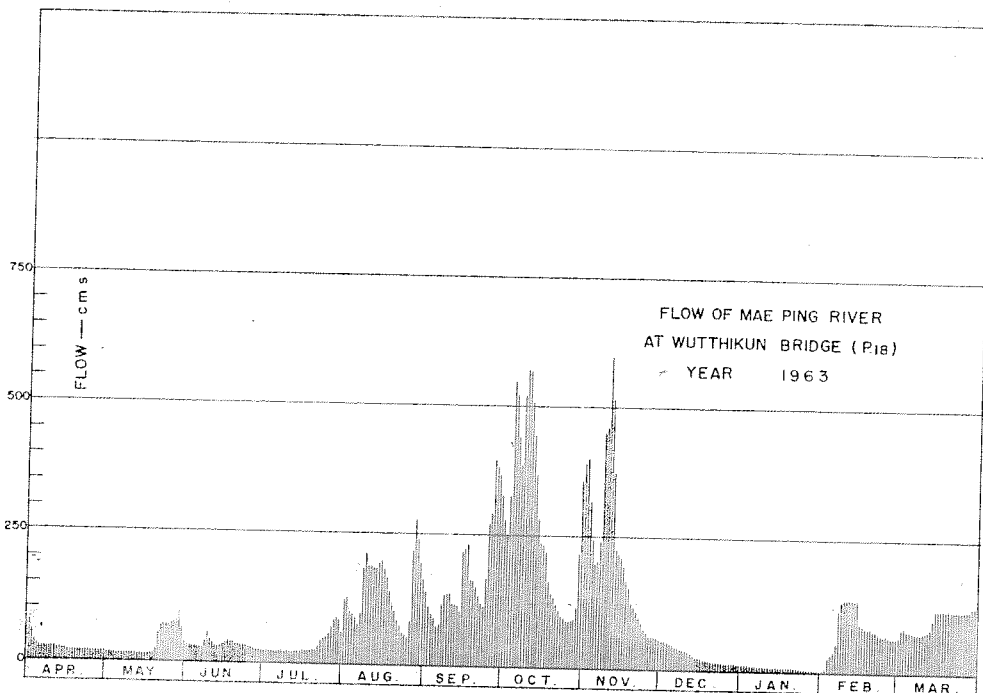
Overbank Flow Conditions: No overbank flow.

General Description: Gage height record good, discharge record fair. Stage - discharge relationship used is defined by discharge measurements made during 1954 - 55. Flow regulated by Yanhee Reservoir and upstream diversions for irrigation of about 40,300 hectares. No adjustment made for virgin flow.

## GAGE HEIGHT IN METER ( A. D. ), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	2.37	1.98	2.12	2.04	2.60	2.68	3.18	3.52	2.27	1.95	1.83	2.34
2	.27	.98	.11	.04	.62	.56	.09	.54	.27	.94	.68	.42
3	.13	.98	.10	.04	.50	.49	.32	.30	.25	.94	2.09	.43
4	.10	.98	.10	.04	.48	.44	.92	.07	.24	.93	.14	.43
5	.06	.97	.09	.04	.44	.38	.85	2.91	.23	.93	.17	.40
6	2.06	1.97	2.08	2.04	2.38	2.40	3.65	2.92	2.20	1.92	2.26	2.39
7	.06	.97	.08	.04	.49	.58	.49	3.06	.19	.92	.58	.38
8	.05	.97	.18	.04	.85	.66	.85	.67	.18	.92	.65	.38
9	.05	.97	.28	.04	.95	.67	.98	.70	.17	.91	.67	.38
10	.05	.97	.19	.04	.87	.67	.97	4.04	.16	.91	.67	.39
11	2.05	1.96	2.15	2.04	2.86	2.58	3.82	3.84	2.15	1.91	2.67	2.39
12	.04	.96	.11	.04	.85	.58	.65	.47	.13	.90	.67	.40
13	.04	.96	.11	.04	.85	.56	.45	.00	.10	.90	.67	.43
14	.03	.96	.13	.05	.88	.52	.19	2.98	.07	.90	.67	.52
15	.03	.96	.14	.06	.90	.98	.04	.95	.07	.90	.47	.59
16	2.02	1.96	2.16	2.06	2.85	3.10	3.03	2.89	2.05	1.90	2.44	2.59
17	.02	.96	.18	.07	.78	.02	2.98	.79	.03	.90	.43	.59
18	.01	.96	.17	.07	.67	2.77	.77	.73	.00	.89	.43	.59
19	.00	.96	.16	.07	.59	.76	.67	.60	.00	.89	.43	.59
20	.00	2.05	.15	.08	.50	.72	.64	.58	1.99	.89	.41	.59
21	2.00	2.26	2.14	2.08	2.42	2.65	2.59	2.54	1.98	1.88	2.39	2.58
22	.00	.35	.13	.12	.38	.59	.54	.49	.98	.87	.38	.58
23	.00	.36	.13	.21	.30	.56	.49	.44	.98	.87	.36	.58
24	.00	.36	.12	.22	.28	.78	.47	.39	.98	.86	.35	.58
25	1.99	.36	.10	.24	.25	3.16	.45	.35	.97	.86	.35	.58
26	1.99	2.37	2.09	2.27	2.42	3.22	2.45	2.32	1.97	1.86	2.34	2.58
27	.99	.38	.08	.35	.98	.53	.45	.31	.97	.85	.33	.58
28	.99	.39	.06	.43	3.18	.49	.46	.30	.97	.85	.33	.58
29	.99	.46	.06	.45	.05	.45	.58	.30	.96	.84	.33	.61
30	.98	.52	.04	.43	2.89	.33	3.27	.29	.95	.84	-	.61
31	-	.15	-	.29	.76	-	.42	-	.95	.84	-	.61
Mean	2.09	1.10	2.12	2.13	2.67	2.80	3.12	2.91	2.08	1.89	2.35	2.54
Max.	2.37	2.46	2.28	2.45	3.18	3.53	3.98	4.04	2.27	1.95	2.67	2.61
Min.	1.98	1.96	2.04	2.04	2.25	2.38	2.45	2.29	1.95	1.84	1.83	2.34

WATER YEAR 1963 : Max. 4.04 m. Min. 1.83 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	72	15	31	21	122	140	279	394	54	12	3.00	67
2	54	15	29	21	126	113	252	402	54	11	6.00	82
3	32	15	28	21	99	97	325	319	51	11	26	84
4	28	15	29	21	95	87	548	246	49	10	33	78
5	23	14	26	21	87	74	520	200	47	10	38	76
6	23	14	25	21	74	78	442	203	42	9.60	53	76
7	23	14	25	21	97	117	384	243	41	9.60	117	74
8	22	14	29	21	184	135	520	450	39	9.60	113	74
9	22	14	26	21	212	137	573	462	38	8.70	137	74
10	22	14	41	21	189	137	569	599	36	8.70	137	76
11	22	15	25	21	187	117	509	516	35	8.70	137	76
12	21	13	29	21	184	117	443	376	32	7.80	137	78
13	21	13	29	21	184	113	369	226	28	7.80	137	84
14	20	13	32	22	192	104	282	220	24	7.80	137	104
15	20	13	33	23	198	220	237	212	24	7.80	93	119
16	19	13	35	23	184	225	234	195	22	7.80	87	119
17	19	13	39	24	165	232	220	169	20	7.80	84	119
18	18	13	38	24	131	163	163	153	17	6.90	84	119
19	17	13	36	24	119	161	138	122	17	6.90	84	119
20	17	22	35	25	99	150	131	117	16	6.90	80	119
21	17	53	33	25	82	133	119	108	15	6.00	76	117
22	17	69	32	21	74	119	108	97	15	5.40	74	117
23	17	70	32	44	60	113	97	87	15	5.40	70	117
24	17	70	31	46	55	166	93	76	15	4.80	69	117
25	16	70	28	43	51	273	89	69	14	4.80	69	117
26	16	72	26	54	82	292	89	63	14	4.80	67	117
27	16	74	25	59	220	398	89	61	14	4.20	65	117
28	16	76	23	84	279	384	91	60	14	4.20	65	117
29	16	91	25	89	240	396	117	60	13	3.60	65	117
30	15	65	21	84	195	328	309	58	12	3.60	65	124
31	-	35	-	58	161	-	359	-	12	3.60	-	124
Total	678	1,026	978	1,071	1,252	5,192	8,698	6,623	839	226.80	2,293	3,125
Mean	22.6	33.1	32.5	34.5	137	173	280	221	27.1	7.31	79.1	101
Max.	72	91	56	89	279	398	573	599	54	12	137	124
Min.	15	13	21	21	51	74	89	58	12	3.60	3.00	67
Runoff - mcm.	58.579	88.648	84.326	92.534	367.373	448.589	751.507	572.227	72.490	19.595	198.115	270.000

WATER YEAR 1963 : Max. 599 Min. 3.00 Mean 95.6 Annual Runoff 3,023.981 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Nov. 10	12.00	4.10	625				

## WATER YEAR 1964

## PING RIVER BASIN

Mae Ping River at Wutthikun Bridge, Tak. (P.18)

Location: Lat  $16^{\circ} - 40' - 57''$  N., Long  $99^{\circ} - 16' - 40''$  E., on right bank at Wutthikun Bridge on Phahon Yothin Highway about 30 kilometers from Tak and 35 kilometers from Kamphaeng Phat, Ban Wang Chao, Amphoe Muang, Tak.

Drainage Area: 40,238 sq.km. referred to AMS Map 1:50,000

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: 1954 - 55, 1959 and 1962 to date.

Rating Operation:

Period of Rating: 1954 - 55  
Rated by Float: -  
Rated by Current Meter: 1954 - 55

Stability of Channel Regimes: Fairly stable, no shifting adjustment for flow computation for years without actual ratings.

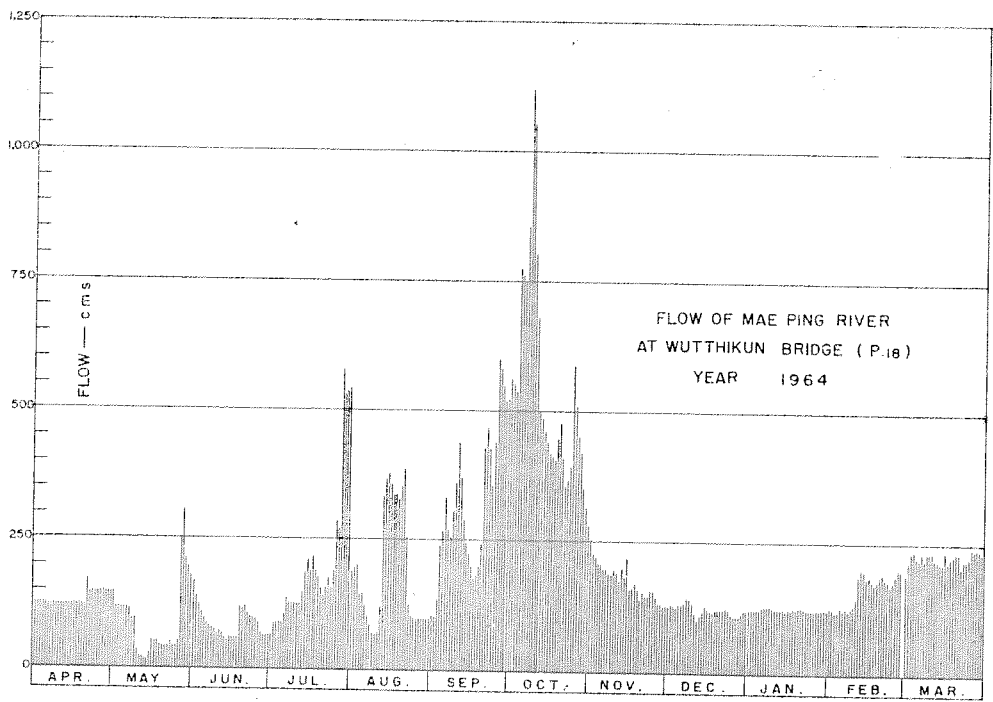
Overbank Flow Conditions: No overbank flow.

General Description: Gage height record good, discharge record fair. Stage - discharge relationship used is defined by discharge measurements made during 1954 - 55. Flow regulated by Yanhee Reservoir and upstream diversions for irrigation of about 40,300 hectares. No adjustment made for virgin flow.

## GAGE HEIGHT IN METER ( A. D. ), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	2.61	2.60	2.79	2.34	2.86	2.52	3.95	3.09	2.69	2.60	2.62	2.87
2	.61	.59	.68	.44	.90	.51	.92	.00	.64	.60	.61	.96
3	.61	.59	.60	.45	.92	.66	.88	2.98	.63	.60	.59	3.03
4	.61	.59	.53	.45	.70	3.05	4.43	.94	.62	.60	.59	.04
5	.61	.59	.50	.45	.71	.13	.40	.93	.64	.60	.62	2.99
6	2.61	2.59	2.45	2.52	2.60	3.34	4.37	2.90	2.64	2.62	2.60	2.97
7	.61	.57	.43	.67	.52	.14	.65	.90	.66	.63	.62	3.02
8	.61	.48	.41	3.00	.44	.10	5.05	.87	.70	.63	.59	2.98
9	.60	.40	.39	.00	.37	.27	4.92	.86	.69	.63	.62	3.04
10	.60	.15	.35	.00	.35	.56	.49	.90	.63	.61	.65	.02
11	2.60	2.07	2.37	3.00	2.37	3.64	4.19	2.87	2.56	2.61	2.72	3.02
12	.60	.04	.35	.00	.60	.45	3.79	.81	.51	.61	.87	2.98
13	.61	.00	.50	2.75	3.35	.21	.75	.91	.55	.60	.91	.97
14	.61	.01	.26	.91	.46	.06	.69	.83	.58	.62	.88	.96
15	.61	.11	.31	.96	.48	2.99	.64	.79	.64	.60	.84	.95
16	2.61	2.27	2.30	2.87	3.42	2.90	3.59	2.75	2.60	2.61	2.86	3.03
17	.61	.25	.30	.98	.34	.83	.57	.76	.59	.60	.82	2.99
18	.61	.27	.30	.88	.34	.87	.55	.80	.58	.62	.80	.99
19	.61	.22	.56	.83	.33	.92	.66	.75	.59	.60	.83	3.00
20	.59	.20	.58	.73	.40	3.37	.74	.68	.60	.62	.87	3.01
21	2.80	2.20	2.60	2.69	3.50	3.62	3.56	2.73	2.60	2.62	2.88	3.01
22	.60	.20	.53	.75	.10	.71	.41	.70	.60	.61	.85	2.92
23	.60	.25	.50	.82	2.62	.54	.46	.70	.61	.61	.82	.97
24	.60	.20	.50	.75	.51	.41	.52	.75	.60	.60	.72	.97
25	.60	.20	.49	.89	.50	.64	4.01	.75	.55	.61	.82	.99
26	2.60	2.26	2.42	3.20	2.50	4.04	3.86	2.70	2.55	2.60	2.87	3.06
27	.60	3.10	.34	.14	.50	.00	.67	.65	.55	.61	.92	.04
28	.60	.27	.33	.99	.50	3.92	.59	.65	.55	.60	.90	.05
29	.60	2.95	.33	.87	.50	.84	.40	.63	.57	.60	.94	.04
30	.60	.89	.33	.90	.50	.86	.29	.63	.60	.61	-	.03
31	-	.82	-	.91	.50	-	.17	-	.60	.60	-	.08
Mean	2.61	2.42	2.44	2.94	2.83	3.30	3.88	2.81	2.60	2.61	2.76	3.00
Max.	2.80	3.27	2.79	3.99	3.50	4.04	5.05	3.09	2.70	2.63	2.92	3.08
Min.	2.59	2.00	2.26	2.34	2.35	2.51	3.17	2.63	2.51	2.60	2.59	2.87

WATER YEAR 1964 : Max. 5.05 m. Min. 2.00 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	124	122	169	67	187	104	561	252	128	122	126	189
2	124	119	140	87	198	102	548	226	131	122	124	214
3	124	119	122	89	203	134	532	220	128	122	119	234
4	124	119	106	89	145	240	772	209	126	122	119	237
5	124	119	99	89	148	264	758	206	131	122	126	223
6	124	119	89	104	122	332	744	198	131	126	122	217
7	124	115	84	138	104	267	884	198	135	128	126	232
8	124	95	80	226	87	255	1,121	189	145	128	119	220
9	122	78	76	226	72	309	1,040	187	143	128	126	237
10	122	35	69	226	69	409	801	198	128	124	133	232
11	122	24	72	226	72	439	663	189	113	124	150	232
12	122	21	69	226	122	369	497	174	102	124	189	220
13	124	17	60	158	335	289	481	200	110	122	200	217
14	124	18	53	200	373	243	458	179	117	126	192	214
15	124	29	61	214	380	223	439	169	131	122	182	212
16	124	54	60	189	359	198	420	158	122	124	187	234
17	124	51	60	220	332	179	412	161	119	122	176	214
18	124	54	60	192	332	189	405	171	117	126	171	223
19	124	45	119	179	328	203	446	158	119	122	179	226
20	119	42	117	153	352	342	477	140	122	126	187	229
21	171	42	122	143	387	431	409	153	122	126	192	229
22	122	42	106	158	255	466	355	145	122	124	184	203
23	122	51	99	176	126	402	373	145	124	124	176	217
24	122	42	99	158	102	355	394	158	122	122	169	217
25	122	42	97	195	99	439	586	158	110	124	176	223
26	122	53	82	286	99	599	524	145	110	122	189	243
27	122	255	67	267	99	582	450	133	110	124	203	237
28	122	309	65	577	99	548	420	133	110	122	197	240
29	122	212	65	528	99	516	352	128	115	122	-	237
30	122	195	65	540	99	524	315	128	122	124	-	234
31	-	176	-	544	99	-	276	-	122	122	-	249
Total	3,736	3,814	2,632	6,670	5,883	9,952	16,913	5,208	3,642	3,838	4,541	6,756
Mean	124	90.8	87.7	215	190	332	545	174	117	124	162	218
Max.	171	309	169	577	387	599	1,121	252	145	128	203	249
Min.	119	17	53	67	69	102	276	128	102	122	119	189
Runoff - mcm.	322.790	243.130	227.405	576.288	508.291	859.852	1,461.283	449.971	314.668	331.603	392.342	583.718

WATER YEAR 1964 : Max. 1,121 Min. 17 Mean 199 Annual Runoff 6,271.341 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 8	12.00	5.10	1,154				

WATER YEAR 1963  
PING RIVER BASIN

Mae Ping River 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 the confluence with Li Creek, Amphoe Chom Thong, Chiang Mai.

Drainage Area: 14,023 sq.km. referred to AMS Map 1:50,000

Type of Gage: Water - stage recorder.

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

Bench Mark: B.M. - AZ.1

Location: Infront of the office of station P.19 A.  
Elevation: + 283.561 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: Fairly stable, shifting adjustment is included for flow computation.

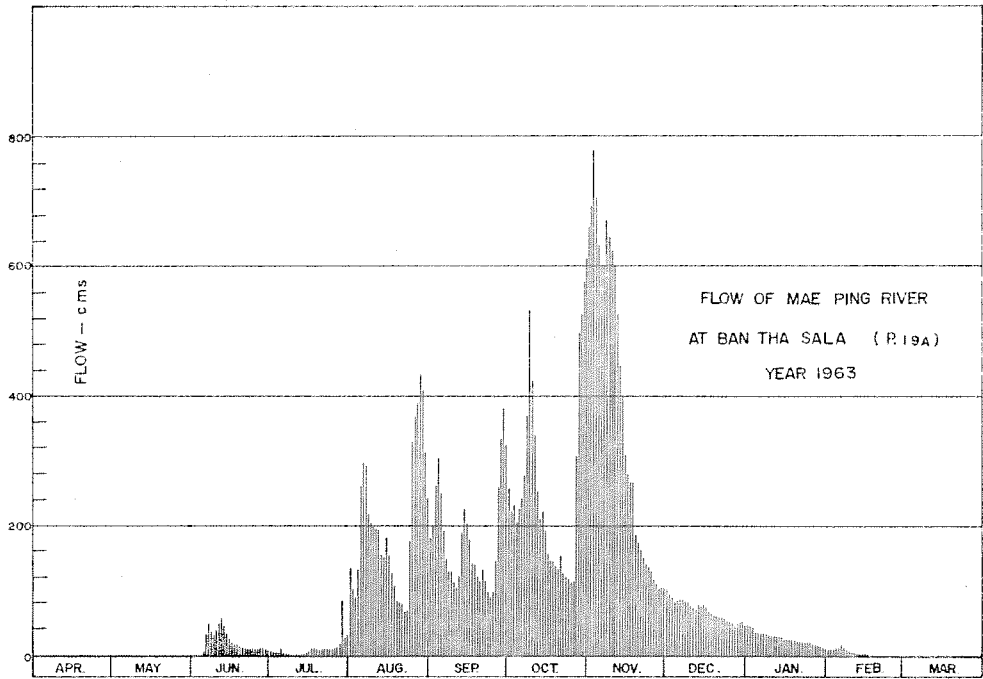
Overbank Flow Conditions: No overbank flow.

General description: Records good. Upstream diversions for irrigation of about 20,000 hectares. The data presented is from actual flow at the gage site. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	272.25	272.06	272.10	272.45	273.68	273.77	274.30	275.45	273.45	272.96	272.61	272.32
2	.21	.05	.13	.45	.43	.85	.08	.51	.41	.94	.62	.32
3	.17	.04	.17	.31	.31	274.25	.12	.57	.39	.94	.60	.32
4	.14	.04	.21	.39	.61	.38	.04	.53	.37	.89	.62	.32
5	.12	.04	.23	.37	274.25	.25	.12	.42	.35	.68	.63	.31
6	272.11	272.03	272.81	272.35	274.40	273.97	274.18	275.37	273.32	272.86	272.65	272.31
7	.10	.03	.93	.33	.40	.75	.30	.39	.32	.86	.64	.32
8	.15	.03	.82	.31	.21	.63	.69	.41	.32	.85	.61	.32
9	.20	.02	.79	.29	.01	.63	275.22	.40	.31	.84	.58	.31
10	.19	.02	.85	.27	273.96	.47	274.90	.40	.29	.84	.57	.30
11	272.16	272.01	272.96	272.25	273.95	273.35	274.51	275.35	273.26	272.80	272.55	272.30
12	.15	.01	273.03	.24	.87	.49	.22	.19	.26	.80	.53	.33
13	.13	.01	272.91	.24	.75	.91	.02	274.97	.28	.81	.52	.35
14	.11	.01	.79	.28	.80	274.08	.05	.69	.27	.80	.52	.32
15	.11	.01	.72	.35	.87	273.93	273.93	.50	.27	.78	.50	.31
16	272.11	272.00	272.67	272.47	273.77	273.85	273.77	274.37	273.23	272.77	272.48	272.31
17	.13	.00	.63	.55	.54	.74	.65	.23	.19	.77	.45	.32
18	.17	271.99	.61	.55	.40	.64	.58	.13	.17	.76	.45	.32
19	.21	.99	.59	.52	.21	.56	.60	.01	.15	.75	.42	.31
20	.19	.99	.59	.50	.18	.56	.54	273.94	.13	.75	.38	.32
21	272.18	271.98	272.57	272.50	273.16	273.57	273.66	273.89	273.12	272.74	272.35	272.31
22	.17	.98	.53	.50	.08	.45	.62	.82	.11	.73	.33	.31
23	.17	.97	.50	.50	.11	.35	.47	.76	.11	.72	.33	.31
24	.17	.97	.48	.50	.84	.28	.35	.71	.08	.72	.30	.32
25	.16	.96	.50	.51	274.45	.34	.28	.66	.07	.71	.30	.32
26	272.16	271.96	272.50	272.53	274.64	273.71	273.49	273.62	273.04	272.69	272.30	272.31
27	.15	.99	.53	.54	.77	274.30	274.46	.60	.02	.68	.30	.32
28	.20	.98	.53	.63	.85	.58	275.00	.55	.01	.67	.30	.32
29	.20	.99	.49	273.29	.75	.76	.16	.55	.00	.65	.30	.32
30	.22	.99	.47	.80	.44	.58	.38	.45	.00	.63	-	.30
31	-	272.04	-	.86	.02	-	.41	-	272.98	.62	-	.30
Mean	272.16	272.01	272.59	272.54	273.89	273.83	274.16	274.55	273.20	272.78	272.47	272.51
Max.	272.25	272.06	273.03	273.86	274.85	274.76	275.41	275.57	273.45	272.96	272.65	272.55
Min.	272.10	271.96	272.10	272.24	273.08	273.28	273.28	273.45	272.98	272.62	272.30	272.30

WATER YEAR 1963 : Max. 275.57 m. Min. 272.10 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	1.00	0.20	0.80	7.00	135	178	256	659	102	49	11	2.20
2	0.70	0.10	1.00	6.20	102	199	221	691	95	47	13	2.40
3	0.80	0.09	1.40	6.20	89	263	232	778	90	45	12	2.40
4	0.60	0.09	1.60	4.80	133	304	203	705	84	38	14	2.40
5	0.60	0.09	2.40	12	261	249	226	631	86	37	14	2.20
6	0.50	0.08	34	4.20	297	291	244	600	88	35	19	2.20
7	0.20	0.08	50	4.00	292	148	277	600	88	36	15	2.40
8	0.60	0.08	37	3.80	219	129	368	670	86	36	11	2.40
9	1.00	0.07	33	3.60	205	130	529	642	84	33	9.00	2.20
10	0.30	0.07	40	3.40	199	113	422	631	78	33	7.80	2.00
11	0.80	0.06	51	3.00	195	104	340	600	76	32	7.40	2.00
12	0.70	0.06	59	3.00	195	122	253	525	72	32	5.80	2.60
13	0.60	0.06	46	3.00	155	191	211	446	81	32	5.40	3.00
14	0.40	0.06	35	3.80	153	226	221	401	78	30	5.40	2.40
15	0.40	0.06	27	5.40	182	203	193	309	80	27	4.60	2.20
16	0.40	0.05	21	9.00	155	178	158	280	76	27	4.20	2.20
17	0.70	0.05	17	14	127	143	146	268	70	27	3.60	2.40
18	0.90	0.04	19	13	108	140	146	268	66	27	3.60	2.40
19	1.10	0.04	16	11	84	121	138	187	64	26	3.00	2.20
20	0.90	0.04	14	10	82	115	132	174	64	26	2.40	2.20
21	0.80	0.03	11	11	80	133	155	165	61	24	1.80	2.20
22	0.80	0.03	12	11	68	115	127	151	60	24	1.40	2.20
23	0.80	0.03	11	11	70	99	122	141	59	23	1.40	2.20
24	0.80	0.03	11	10	176	90	119	137	54	23	1.00	2.40
25	0.70	0.02	11	11	329	98	113	130	54	23	1.00	2.40
26	0.80	0.02	11	13	368	146	115	118	52	20	1.20	2.20
27	0.60	0.04	13	14	389	258	307	112	47	19	1.20	2.40
28	1.20	0.03	13	18	431	334	496	704	52	18	1.40	2.40
29	1.20	0.03	11	85	407	380	525	106	53	16	1.40	2.40
30	1.20	0.04	8.60	153	312	324	575	105	54	14	-	2.40
31	-	0.09	-	167	241	-	610	-	47	13	-	2.40
Total	21.10	1.87	618.80	634.40	5,239	5,424	8,180	11,334	2,201	891	183.00	72.20
Mean	0.70	0.06	20.6	20.4	201	181	264	378	71.0	28.7	6.31	2.33
Max.	1.20	0.20	59	167	431	380	610	778	102	49	19	3.00
Min.	0.40	0.02	0.80	3.00	68	90	113	104	47	13	1.00	2.00
Runoff - mcm.	1.823	0.161	53.464	54.812	539.050	468.634	706.752	979.258	190.166	76.982	15.811	6.238

WATER YEAR 1963 : Max. 778 Min. 0.02 Mean 97.8 Annual Runoff 3,093.152 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Nov. 3	18.00	275.57	778				

WATER YEAR 1964  
PING RIVER BASIN

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

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

Drainage Area: 14,023 sq.km. referred to AMS Map 1:50,000.

Type of Gage: Water - stage recorder.

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

Bench Mark: B.M. - AZ. 1

Location: Infront of the office of station P.19A.

Elevation: + 283.561 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: Fairly stable, periodic rating curves are used for flow computation.

Overbank Flow Conditions: No overbank flow.

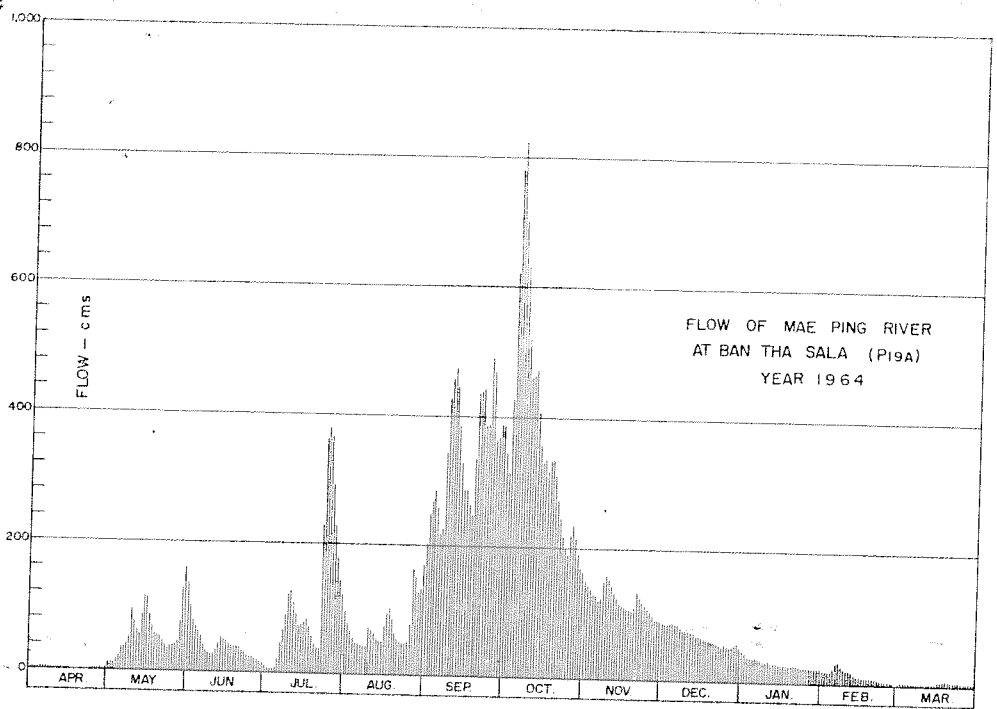
General Description: Records good. Upstream diversions for irrigation of about 28,000 hectares. The data presented is from actual flow at the gage site. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	272.29	272.46	273.54	272.46	273.30	273.90	274.52	273.63	273.25	272.92	272.60	272.20
2	.29	.48	.34	.34	.17	274.06	.39	.59	.24	.89	.59	.21
3	.29	.46	.14	.32	.08	.20	.82	.56	.22	.84	.57	.19
4	.29	.54	.11	.32	272.98	.27	275.47	.52	.24	.83	.59	.20
5	.29	.63	.05	.40	.92	.15	.94	.51	.25	.83	.67	.20
6	272.30	272.80	272.98	272.61	272.91	273.97	276.06	273.45	273.23	272.84	272.73	272.22
7	.29	.81	.85	.91	.89	274.02	275.71	.47	.23	.81	.75	.26
8	.26	.85	.76	273.07	.86	.51	.48	.63	.20	.80	.71	.27
9	.26	.95	.72	.26	.87	.82	.15	.68	.16	.77	.66	.27
10	.26	273.28	.70	.44	273.12	.93	274.94	.64	.17	.73	.61	.27
11	272.26	273.15	272.71	273.49	272.08	274.99	274.95	273.59	273.15	272.75	272.60	272.29
12	.25	.04	.77	.37	.06	.89	.98	.53	.14	.73	.58	.29
13	.22	.00	.87	.27	272.98	.67	.75	.49	.13	.73	.52	.28
14	.21	.23	.97	.13	.95	.45	.56	.44	.10	.73	.50	.28
15	.21	.42	.94	.15	.95	.28	.46	.41	.09	.71	.46	.29
16	272.20	273.39	272.92	273.18	273.15	274.28	274.47	273.39	273.08	272.70	272.46	272.34
17	.15	.23	.88	.19	.28	.18	.40	.37	.07	.68	.46	.37
18	.13	.09	.84	.12	.33	.11	.47	.36	.05	.68	.46	.38
19	.11	.00	.84	.02	.22	.46	.48	.35	.05	.69	.43	.40
20	.11	272.98	.82	272.89	.08	.85	.38	.38	.03	.69	.43	.39
21	272.10	272.97	272.84	272.83	272.99	274.86	274.22	273.52	273.02	272.71	272.43	272.36
22	.10	.90	.76	.82	.94	.87	.10	.49	.00	.71	.40	.33
23	.09	.83	.72	274.02	.93	.71	273.98	.46	272.99	.69	.35	.33
24	.09	.80	.67	.57	.93	.68	.89	.41	.97	.66	.33	.32
25	.25	.83	.65	.65	.97	275.05	.84	.38	.99	.66	.32	.31
26	272.27	272.83	272.65	274.60	273.16	274.97	273.99	273.35	272.96	272.66	272.32	272.29
27	.26	.85	.62	.29	.69	.60	274.06	.31	.96	.66	.27	.28
28	.27	.90	.59	.02	.63	.61	273.97	.27	.97	.65	.25	.27
29	.29	273.16	.55	273.77	.49	.68	.85	.26	.98	.64	-	.26
30	.33	.50	.52	.50	.52	.67	.73	.26	.99	.61	-	.24
31	-	.67	-	.45	.73	-	.70	-	.95	.61	-	.23
Mean	272.22	272.97	272.84	273.27	273.13	274.52	274.57	273.46	273.09	272.73	272.50	272.28
Max.	272.33	273.67	273.54	274.65	273.73	275.05	276.06	273.68	273.25	272.92	272.75	272.40
Min.	272.09	272.46	272.52	272.32	272.86	273.90	273.70	273.26	272.95	272.61	272.25	272.19

WATER YEAR 1964 : Max. 276.06 m. Min. 272.09 m.





DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	3.72	11	136	11	97	204	345	152	89	48	20	1.20
2	3.72	12	103	5.60	78	238	314	145	88	45	19	1.48
3	3.72	11	79	4.80	67	268	427	140	85	40	18	1.08
4	3.72	16	70	4.80	55	285	622	133	88	39	19	1.20
5	3.72	22	63	8.00	48	257	780	131	89	39	25	1.20
6	4.00	36	55	21	47	219	824	121	86	40	30	1.76
7	3.72	37	41	47	45	229	701	124	86	37	32	2.88
8	2.88	41	32	65	42	343	625	152	82	36	28	3.16
9	2.88	51	29	91	43	427	520	161	77	33	24	3.16
10	2.88	94	27	119	72	457	460	154	78	30	21	3.16
11	2.88	75	28	127	67	474	463	145	75	32	20	3.72
12	2.60	62	33	108	64	446	471	134	74	30	19	3.72
13	1.76	57	43	92	55	385	407	127	73	30	15	3.41
14	1.48	86	54	73	51	328	356	119	69	30	14	3.44
15	1.48	116	50	75	51	287	330	115	68	28	11	3.72
16	1.20	111	48	79	75	287	333	111	67	27	11	5.60
17	0.60	86	44	81	94	264	316	108	65	26	11	6.80
18	0.36	68	40	72	102	248	333	107	63	26	11	7.20
19	0.12	57	40	59	85	330	335	105	63	27	9.68	8.00
20	0.12	55	38	45	67	435	311	110	61	27	9.68	7.60
21	0.00	54	40	39	56	438	273	133	59	28	9.68	6.40
22	0.00	46	32	38	50	441	246	127	57	28	8.00	5.20
23	0.00	39	29	229	49	396	221	123	56	27	6.00	5.20
24	0.00	36	25	358	49	388	202	115	54	24	5.20	4.80
25	2.60	39	24	379	54	491	192	110	56	24	4.80	4.40
26	3.16	39	24	366	77	469	223	105	53	24	4.80	3.72
27	2.88	41	21	290	163	366	238	99	53	24	3.16	3.44
28	3.16	46	19	229	152	369	219	92	54	24	2.60	3.16
29	3.72	77	17	178	127	388	194	91	55	23	-	2.88
30	5.20	129	15	145	133	385	171	91	56	21	-	2.32
31	-	160	-	121	171	-	165	-	51	21	-	2.04
Total	68.28	1,810	1,299	3,560.20	2,386	10,542	11,617	3,680	2,130	938	411.60	117.08
Mean	2.28	58.3	43.3	115	76.9	351	375	123	68.7	30.2	14.7	3.78
Max.	5.20	160	136	379	171	491	824	161	89	48	32	8.00
Min.	0.00	11	15	4.80	42	204	165	91	51	21	2.60	1.08
Runoff - mcm.	5.899	156.384	112.234	307.601	206.150	910.829	1,003.709	317.952	184.032	81.043	35.562	10.116

WATER YEAR 1964 : Max. 824 Min. 0.00 Mean 106 Annual Runoff 3,331.511 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct.6	09.00	276.08	828				

## WATER YEAR 1963

## PING RIVER BASIN

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

Location: Lat.  $18^{\circ} - 55' - 29''$  N., Long  $98^{\circ} - 56' - 34''$  E., on right bank about 100 meters downstream from the bridge on Chiang Mai - Fang highway, Amphoe Mae Rim, Chiang Mai.

Drainage Area: 515 sq. km. referred to AMS Map 1:50,000

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 the pond which belongs to Mr. Bunsri Tongsuk 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: Rather unstable, no shifting adjustment for flow computation for years without actual ratings.

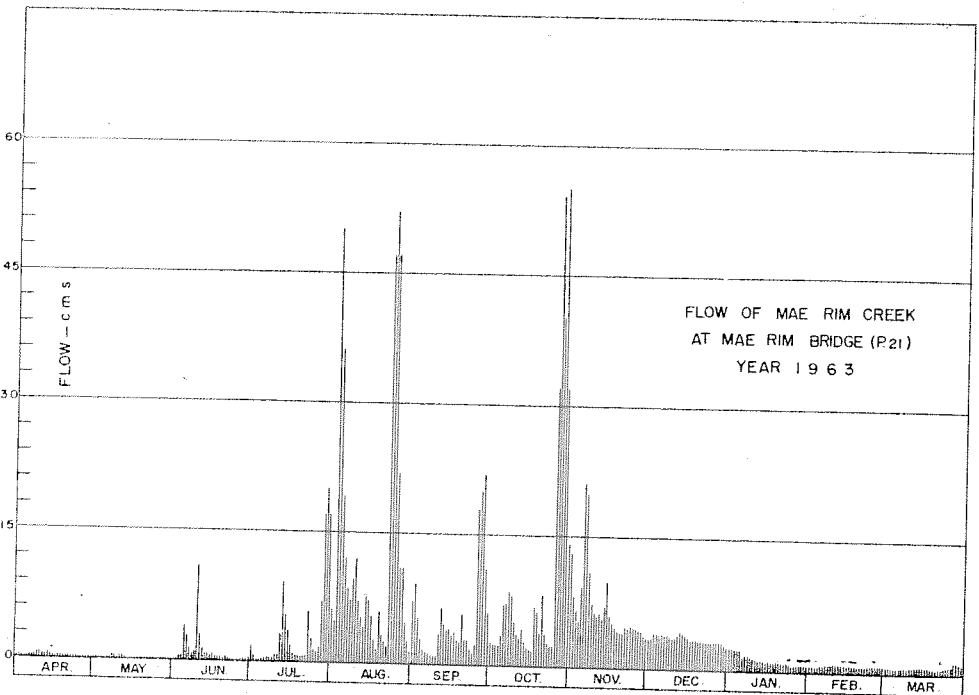
Overbank Flow Conditions: No overbank flow.

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

## GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	320.16	320.10	320.03	320.45	320.82	320.88	320.54	321.19	320.62	320.55	320.29	320.25
2	.17	.14	.09	.22	.75	321.02	.50	320.95	.64	.54	.28	.26
3	.15	.13	.19	.16	322.22	320.76	.51	.83	.68	.54	.26	.25
4	.11	.12	.19	.13	321.90	.56	.51	.76	.67	.54	.27	.24
5	.10	.11	.67	.14	.43	.44	.63	321.01	.66	.52	.31	.25
6	320.14	320.08	320.55	320.17	321.17	320.39	320.88	321.59	320.67	320.43	320.31	320.24
7	.15	.10	.37	.19	320.98	.37	.88	.58	.66	.46	.33	.25
8	.09	.17	.26	.18	.90	.34	.98	.13	.66	.45	.33	.26
9	.25	.18	.36	.17	321.05	.32	.94	320.91	.65	.44	.33	.24
10	.31	.13	321.09	.29	.17	.32	.75	.83	.64	.43	.34	.27
11	320.24	320.18	320.57	320.29	320.89	320.61	320.64	320.81	320.64	320.40	320.33	320.25
12	.23	.17	.39	.59	.76	.85	.58	.82	.66	.38	.33	.26
13	.25	.07	.27	321.01	.68	.71	.69	.78	.70	.38	.35	.26
14	.20	.08	.26	320.75	.98	.66	.55	.88	.68	.36	.33	.20
15	.18	.05	.23	.65	.89	.68	.48	321.04	.60	.35	.32	.28
16	320.16	320.05	320.28	320.45	320.76	320.62	320.46	320.81	320.63	320.37	320.32	320.28
17	.17	.03	.23	.33	.53	.65	.44	.74	.62	.35	.31	.27
18	.17	.05	.23	.29	.42	.56	.86	.71	.62	.36	.31	.32
19	.14	.09	.18	.31	.51	.54	.82	.69	.61	.38	.30	.24
20	.13	.06	.15	.30	.58	.78	.65	.67	.60	.36	.26	.23
21	320.18	320.05	320.20	320.30	320.52	320.56	320.95	320.67	320.61	320.33	320.27	320.23
22	.15	.03	.15	.31	.46	.56	.65	.72	.60	.35	.28	.24
23	.13	.03	.14	.81	322.18	.44	.54	.71	.57	.34	.28	.26
24	.12	.03	.10	.53	.25	.41	.51	.75	.57	.32	.30	.26
25	.10	.02	.08	.40	.18	.50	.50	.71	.59	.30	.31	.27
26	320.10	320.03	320.10	320.37	321.54	321.42	321.81	320.71	320.59	320.29	320.27	320.28
27	.07	.07	.11	.44	.12	.43	322.28	.69	.59	.31	.28	.39
28	.08	.04	.13	.88	.12	.53	.01	.67	.59	.32	.28	.40
29	.14	.01	.16	321.37	320.72	.13	.29	.65	.58	.35	.26	.37
30	.14	.03	.21	.46	.54	320.80	321.80	.64	.57	.30	-	.36
31	-	.04	-	.37	.43	-	.24	-	.55	.39	-	.37
Mean	320.16	320.08	320.26	320.42	321.17	320.69	320.90	320.85	320.64	320.39	320.30	320.27
Max.	320.31	320.18	321.09	321.46	322.25	321.53	322.29	321.59	320.70	320.55	320.35	320.40
Min.	320.07	320.01	320.03	320.13	320.42	320.32	320.44	320.64	320.55	320.29	320.26	320.23

WATER YEAR 1963 : Max. 322.29 m. Min. 320.01 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.28	0.10	0.03	1.85	6.10	7.00	2.66	13	3.44	2.75	0.76	0.60
2	0.31	0.22	0.09	0.48	4.82	9.28	2.30	8.10	3.68	2.66	0.72	0.64
3	0.25	0.19	0.37	0.28	50	5.24	2.39	6.25	4.16	2.66	0.64	0.60
4	0.13	0.16	0.37	0.19	36	2.84	2.39	5.24	4.04	2.66	0.68	0.56
5	0.10	0.13	4.04	0.22	19	1.76	3.56	9.09	3.92	2.48	0.86	0.60
6	0.22	0.08	2.75	0.31	12	1.34	7.00	24	4.04	1.67	0.86	0.56
7	0.34	0.10	1.22	0.37	8.58	1.22	7.00	23	3.92	1.94	0.98	0.60
8	0.09	0.31	0.64	0.34	7.30	1.04	8.58	11	3.92	1.85	0.98	0.64
9	0.60	0.34	1.16	0.31	9.85	0.92	7.94	7.46	3.80	1.76	0.98	0.56
10	0.86	0.19	11	0.76	12	0.92	5.10	6.25	3.68	1.67	1.04	0.68
11	0.56	0.34	2.93	0.76	7.15	3.32	3.64	5.95	3.68	1.40	0.98	0.60
12	0.52	0.31	1.34	3.11	5.24	6.55	3.02	6.10	3.92	1.28	0.98	0.64
13	0.60	0.07	0.68	9.09	4.16	4.54	4.28	5.52	4.40	1.28	1.10	0.64
14	0.40	0.06	0.64	5.10	7.78	3.92	2.75	7.00	4.16	1.28	0.98	0.76
15	0.34	0.05	0.52	3.80	7.15	4.16	2.12	9.66	3.92	1.10	0.92	0.72
16	0.28	0.05	0.72	1.85	5.24	3.44	1.94	5.95	3.56	1.22	0.92	0.72
17	0.34	0.03	0.52	0.98	2.57	3.80	1.76	4.96	3.44	1.10	0.86	0.68
18	0.34	0.05	0.52	0.76	1.58	2.84	6.70	4.54	3.44	1.16	0.86	0.52
19	0.22	0.09	0.34	0.86	5.95	2.66	6.10	4.28	3.32	1.28	0.80	0.56
20	0.19	0.06	0.25	0.80	3.20	5.52	3.80	4.04	3.20	1.16	0.64	0.52
21	0.16	0.05	0.40	0.80	2.48	2.84	8.10	4.34	3.32	0.98	0.68	0.52
22	0.25	0.03	0.28	0.86	1.94	2.84	3.80	4.68	3.20	1.10	0.72	0.56
23	0.19	0.03	0.22	5.95	47	1.76	2.66	4.54	3.11	1.04	0.72	0.64
24	0.16	0.03	0.10	2.57	52	1.49	2.36	4.82	3.11	0.92	0.80	0.64
25	0.10	0.02	0.08	1.40	47	2.39	2.30	4.54	3.11	0.80	0.86	0.68
26	0.10	0.03	0.10	1.22	22	18	32	4.54	3.11	0.76	0.68	0.72
27	0.07	0.07	0.13	1.76	11	20	54	4.28	3.11	0.86	0.76	1.34
28	0.08	0.04	0.19	7.00	11	22	40	4.04	3.11	0.92	0.72	1.40
29	0.22	0.01	0.28	17	4.68	11	55	3.80	3.02	0.98	0.64	1.22
30	0.22	0.03	0.44	20	2.66	5.80	32	3.68	2.93	0.80	-	1.16
31	-	0.04	-	17	1.67	-	14	-	2.75	0.76	-	1.22
Total	8.52	3.31	32.35	107.78	418.92	160.43	331.28	214.35	109.52	44.28	24.08	22.50
Mean	0.28	0.11	1.08	3.48	13.5	5.35	10.7	7.14	3.53	1.43	0.83	0.72
Max.	0.86	0.34	11	20	52	22	55	24	4.40	2.75	1.10	1.40
Min.	0.07	0.01	0.03	0.19	1.58	0.92	1.76	3.68	2.75	0.76	0.64	0.52
Runoff - ECR.	0.736	0.286	2.765	2.331	36.202	13.824	26.598	18.490	9.418	3.802	2.074	1.901

WATER YEAR 1963 : Max. 55 Min. 0.01 Mean 4.03 Annual Runoff 127,640 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 29	18.00	322.33	59				

## PING RIVER BASIN

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

Location: Lat.  $18^{\circ} - 55' - 29''$  N., Long  $98^{\circ} - 56' - 34''$  E., on right bank about 100 meters downstream from the bridge on Chiang Mai - Fang highway, Amphoe Mae Rim, Chiang Mai.

Drainage Area: 515 sq. km. referred to AMS Map 1:50,000

Type of Gage: Staff gage.

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

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

Location: Near the pond which belongs to Mr. Bunsri Tongsuk 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: Rather unstable, no shifting adjustment for flow computation for years without actual ratings.

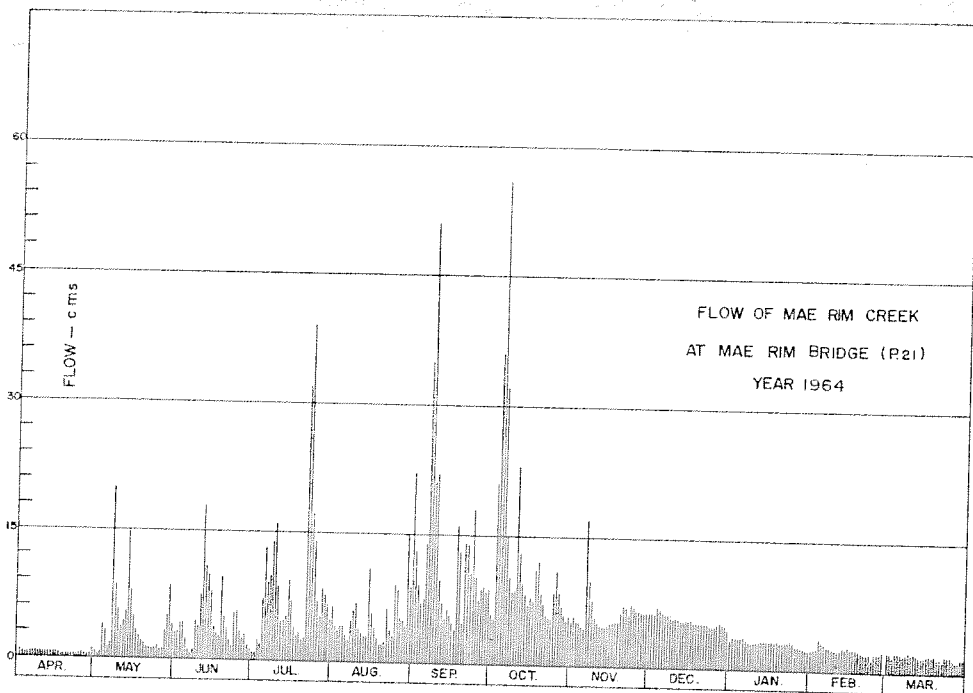
Overbank Flow Conditions: No overbank flow.

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

## GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	320.34	320.33	320.59	320.3	320.85	321.54	320.81	320.77	320.84	320.62	320.52	320.50
2	.33	.24	.62	.34	.70	.22	.77	.81	.84	.65	.53	.48
3	.32	.30	.69	.54	.64	.01	321.52	.77	.83	.65	.54	.45
4	.29	.68	.70	.45	.70	320.94	.97	.75	.89	.64	.65	.51
5	.25	.63	.53	.90	.70	.93	322.30	.72	.86	.64	.63	.51
6	320.27	320.41	320.38	321.19	320.60	321.26	321.80	320.71	320.84	320.65	320.58	320.48
7	.25	.45	.31	.01	.54	.89	.31	321.36	.83	.63	.56	.47
8	.27	321.47	.38	.06	.73	322.23	.07	.05	.83	.60	.55	.46
9	.29	320.99	.71	.26	.82	321.51	320.98	320.93	.81	.58	.54	.50
10	.29	.60	.66	.32	.83	.53	.99	.80	.80	.60	.54	.48
11	320.30	320.64	320.93	321.00	320.67	321.05	321.58	320.75	320.80	320.60	320.51	320.49
12	.27	.69	321.40	320.72	.62	320.89	.23	.74	.80	.60	.53	.47
13	.27	.81	.09	.74	.60	.77	.03	.73	.79	.62	.55	.45
14	.30	321.31	.05	.77	.60	.84	320.96	.72	.78	.63	.54	.44
15	.29	320.94	320.95	321.03	321.12	.78	.88	.73	.79	.62	.56	.45
16	320.28	320.75	320.65	320.88	320.80	320.71	320.94	320.75	320.79	320.62	320.53	320.46
17	.26	.62	.58	.69	.68	.65	.91	.76	.78	.62	.53	.47
18	.21	.55	.56	.57	.57	321.32	321.10	.76	.77	.61	.53	.46
19	.22	.50	321.05	.63	.51	322.22	.16	.76	.77	.61	.52	.46
20	.25	.47	320.75	.52	.51	321.72	320.95	.84	.77	.59	.49	.42
21	320.21	320.41	320.64	320.56	320.53	321.24	320.89	320.89	320.76	320.59	320.48	320.43
22	.21	.40	.49	321.76	.84	.24	.81	.89	.76	.61	.47	.40
23	.23	.39	.43	.98	.65	.08	.79	.82	.75	.60	.46	.47
24	.20	.41	.79	.37	.58	.42	.79	.90	.74	.63	.41	.46
25	.25	.42	.81	.25	321.01	.03	.98	.88	.74	.58	.48	.47
26	320.30	320.37	320.58	320.89	320.99	320.91	321.10	320.86	320.73	320.56	320.48	320.42
27	.26	.49	.54	.76	.76	321.00	320.97	.85	.77	.56	.48	.39
28	.22	.63	.60	.98	.74	.01	.87	.85	.78	.55	.52	.39
29	.27	.76	.45	.94	.66	320.95	.81	.85	.75	.54	-	.43
30	.37	.99	.38	.87	321.30	.98	.78	.84	.75	.53	-	.43
31	-	.67	-	.74	-	-	.81	-	.72	.51	-	.43
Mean	320.27	320.63	320.68	320.90	320.73	321.25	321.06	320.80	320.78	320.60	320.51	320.46
Max.	320.37	321.47	321.40	321.98	321.30	322.23	322.30	321.36	320.89	320.65	320.65	320.51
Min.	320.20	320.24	320.31	320.34	320.51	320.65	320.77	320.71	320.72	320.51	320.41	320.39

WATER YEAR 1964 : Max. 322.30 m. Min. 320.20 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	1.04	0.98	3.11	1.04	6.55	22	5.95	5.38	6.40	3.32	2.48	2.30
2	0.98	0.56	3.44	1.04	4.40	13	5.38	5.95	6.40	3.80	2.57	2.12
3	0.92	0.80	4.28	2.66	3.68	9.09	21	5.38	6.25	3.80	2.66	1.85
4	0.76	4.16	4.40	1.85	4.40	7.04	36	5.10	7.15	3.68	3.80	2.39
5	0.72	3.56	2.57	7.30	4.40	7.78	56	4.68	6.70	3.68	3.56	2.39
6	0.68	1.49	1.28	13	3.20	14	32	4.54	6.40	3.80	3.02	2.12
7	0.60	1.85	0.86	9.09	2.66	35	15	17	6.25	3.56	2.84	2.12
8	0.63	20	1.28	10	4.83	51	10	9.85	6.25	3.20	2.75	2.12
9	0.76	8.74	4.54	14	6.10	21	8.58	7.78	5.95	3.02	2.66	2.30
10	0.76	5.80	3.92	16	7.15	22	8.74	5.80	5.80	3.20	2.66	2.12
11	0.80	3.68	7.78	8.90	4.04	9.85	23	5.10	5.80	3.20	2.39	2.21
12	0.68	4.28	18	4.68	3.44	7.15	13	4.96	5.80	3.20	2.57	2.03
13	0.68	5.95	11	4.96	3.20	5.38	9.47	4.82	5.66	3.44	2.75	1.85
14	0.80	15	9.85	5.38	3.20	6.40	8.26	4.68	5.52	3.56	2.66	1.76
15	0.76	7.94	8.10	9.47	11	5.52	7.00	4.82	5.66	3.44	2.84	1.85
16	0.72	5.10	3.80	7.00	5.80	4.54	7.94	5.10	5.52	3.44	2.57	1.94
17	0.64	3.44	3.02	4.28	4.16	3.80	7.46	5.24	5.52	3.44	2.57	2.03
18	0.44	2.75	2.84	2.93	2.93	16	11	5.24	5.38	3.32	2.57	1.94
19	0.48	2.30	9.85	3.56	2.39	13	12	5.24	5.38	3.32	2.48	1.94
20	0.60	2.03	5.10	2.48	2.30	4.68	8.26	6.40	5.38	3.11	2.21	1.58
21	0.44	1.49	3.68	2.84	2.57	14	7.15	7.15	5.24	3.11	2.12	1.67
22	0.44	1.40	2.21	30	6.40	14	5.95	7.15	5.24	3.32	2.03	1.40
23	0.52	1.34	1.67	39	3.80	10	5.66	6.10	5.10	3.20	1.94	2.03
24	0.40	1.49	5.66	17	3.02	18	5.66	7.30	4.96	3.56	1.49	1.85
25	0.60	1.58	5.95	14	9.09	10	8.58	7.00	4.96	3.02	2.12	2.03
26	0.80	1.22	3.02	7.15	8.74	7.46	11	6.70	4.82	2.84	2.12	1.58
27	6.64	1.34	2.66	5.24	5.24	8.90	8.42	6.55	5.38	2.84	2.12	1.34
28	0.48	3.56	3.20	8.58	4.96	9.09	6.85	6.58	5.52	2.75	2.48	1.34
29	0.60	5.24	1.94	7.94	3.92	8.10	5.95	6.55	5.10	2.66	-	1.67
30	1.22	8.74	1.28	6.85	15	8.50	5.52	6.40	5.10	2.57	-	1.67
31	-	4.04	-	4.96	8.90	-	5.95	-	4.60	2.39	-	1.67
Total	20.59	131.85	140.29	273.18	161.47	386.36	382.73	190.54	175.19	100.79	71.23	59.12
Mean	0.69	4.25	4.68	8.81	5.21	72.9	12.3	6.35	5.65	3.26	2.53	1.91
Max.	1.22	20	18	39	15	51	56	17	7.15	3.80	3.80	2.39
Min.	0.40	0.56	0.86	1.04	2.30	3.80	5.38	4.54	4.60	2.39	1.49	1.34
Runoff - mcm.	1.728	11.405	12.096	23.587	13.910	33.350	33.091	16.416	15.120	8.726	6.134	5.098

WATER YEAR 1964 : Max. 56 Min. 0.40 Mean 5.73 Annual Runoff 180.864 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 5	15.00	322.74	60				

WATER YEAR 1963  
PING RIVER BASIN

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

Location: Lat  $18^{\circ} - 53' - 45''$  N., Long  $98^{\circ} - 57' - 12''$  E., on left bank about 50 meters downstream from the bridge on Chiang Mai - Mae Sa fall highway, Amphoe Mae Rim, Chiang Mai.

Drainage Area: 135 sq.km. referred to AMS Map 1:50,000.

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 from Mae Sa 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 to date.

Rating Operation:

Period of Rating: 1954 - 1960

Rated by Float: -

Rated by Current Meter: 1954 - 1960

Stability of Channel Regimes: Rather unstable, no shifting adjustment for flow computation for years without actual ratings.

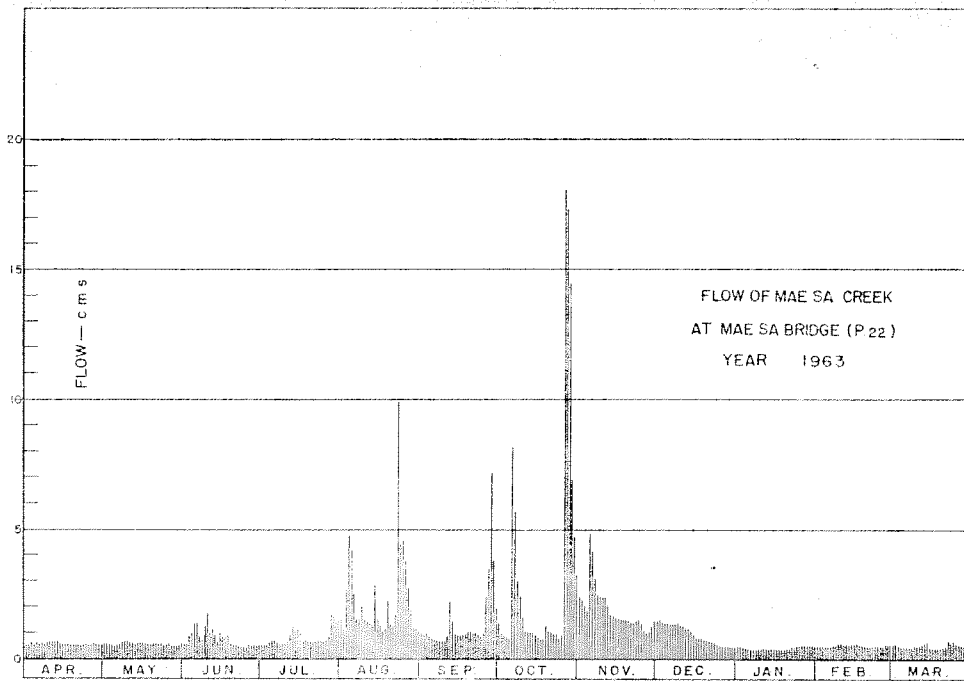
Overbank Flow Conditions: No overbank flow.

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

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	317.73	317.75	317.74	317.73	317.95	317.85	317.87	318.07	317.95	317.72	317.74	317.75
2	.73	.73	.73	.72	.87	.84	.85	.06	.96	.72	.74	.75
3	.75	.74	.84	.73	318.01	.86	.83	.05	.94	.71	.74	.74
4	.72	.73	.85	.75	.27	.83	.82	317.99	.93	.69	.73	.73
5	.77	.70	.93	.79	.22	.81	.81	318.27	.93	.68	.73	.72
6	317.73	317.72	317.93	317.78	318.07	317.80	318.41	318.21	317.93	317.68	317.72	317.72
7	.75	.74	.80	.77	317.96	.71	.31	.12	.93	.68	.74	.72
8	.73	.75	.76	.76	.95	.78	.09	.08	.93	.67	.74	.72
9	.76	.78	.91	.74	318.03	.77	.07	.07	.94	.68	.76	.74
10	.76	.78	318.00	.76	317.95	.77	317.97	.07	.92	.69	.76	.74
11	317.78	317.75	317.83	317.77	317.94	317.79	317.87	318.07	317.92	317.69	317.76	317.74
12	.76	.75	.89	.85	.93	318.05	.87	.03	.89	.68	.76	.75
13	.78	.74	.83	.91	.91	317.95	.87	317.98	.89	.68	.76	.76
14	.74	.75	.73	.88	318.11	.84	.86	.98	.87	.68	.76	.78
15	.73	.75	.86	.89	317.96	.84	.84	.97	.85	.68	.76	.70
16	317.73	317.75	317.83	317.79	317.92	317.84	317.82	317.97	317.82	317.67	317.76	317.70
17	.74	.74	.75	.77	.86	.84	.80	.96	.82	.68	.76	.70
18	.74	.73	.84	.79	.85	.85	.81	.96	.81	.67	.74	.70
19	.72	.73	.74	.77	318.06	.87	.92	.96	.80	.67	.74	.70
20	.73	.75	.72	.77	317.92	.87	.86	.95	.79	.67	.73	.72
21	317.73	317.75	317.72	317.77	317.91	317.86	317.87	317.93	317.78	317.69	317.72	317.72
22	.72	.74	.71	.77	.89	.86	.85	.94	.78	.72	.72	.80
23	.73	.75	.70	.79	318.54	.83	.85	.95	.77	.71	.73	.77
24	.74	.73	.70	.78	.23	.82	.80	.96	.74	.73	.74	.80
25	.75	.73	.71	.77	.25	.87	.82	.94	.73	.74	.73	.75
26	317.73	317.74	317.73	317.79	318.18	318.07	318.82	317.85	317.72	317.74	317.73	317.74
27	.75	.72	.72	.83	.09	.03	319.81	.86	.72	.74	.75	.74
28	.74	.71	.72	.99	317.99	.41	318.75	.86	.72	.74	.71	.73
29	.74	.73	.72	.99	.89	.09	.34	.91	.72	.74	.75	.75
30	.92	.73	.73	.94	.89	.04	.24	.95	.72	.74	-	.76
31	-	.75	-	.96	.87	-	.12	-	.71	.74	-	.76
Mean	317.74	317.74	317.80	317.81	318.01	317.84	318.06	318.00	317.83	317.70	317.74	317.74
Max.	317.78	317.78	318.00	317.99	318.54	318.41	319.81	318.27	317.96	317.74	317.76	317.80
Min.	317.72	317.70	317.70	317.72	317.85	317.71	317.80	317.86	317.71	317.67	317.72	317.70

WATER YEAR 1963 : Max. 319.81 m. Min. 317.67 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.49	0.55	0.52	0.49	1.40	0.90	1.00	2.33	1.40	0.46	0.52	0.55
2	0.49	0.49	0.49	0.46	1.06	0.86	0.90	2.24	1.46	0.46	0.52	0.55
3	0.55	0.52	0.86	0.49	1.79	0.95	0.82	1.97	1.35	0.43	0.52	0.52
4	0.46	0.49	0.90	0.55	4.78	0.32	0.78	1.64	1.30	0.38	0.49	0.49
5	0.61	0.40	1.30	0.67	4.08	0.74	0.74	4.78	1.30	0.36	0.49	0.46
6	0.49	0.46	1.30	0.64	2.33	0.70	3.19	3.94	1.30	0.36	0.46	0.46
7	0.55	0.52	0.70	0.61	1.46	0.43	5.37	2.84	1.30	0.36	0.52	0.46
8	0.49	0.55	0.58	0.58	1.40	0.64	2.51	2.42	1.30	0.34	0.52	0.46
9	0.58	0.64	1.20	0.52	1.97	0.61	2.33	2.33	1.35	0.36	0.58	0.52
10	0.56	0.64	1.70	0.58	1.40	0.61	1.52	2.33	1.25	0.38	0.58	0.52
11	0.64	0.55	0.82	0.61	1.35	0.67	1.00	2.33	1.25	0.38	0.58	0.52
12	0.58	0.55	1.10	0.90	1.30	2.15	1.00	1.97	1.10	0.36	0.58	0.55
13	0.64	0.52	0.82	1.20	1.20	1.30	1.00	1.58	1.10	0.36	0.58	0.58
14	0.52	0.55	0.49	1.05	2.72	0.86	0.95	1.58	1.00	0.36	0.58	0.64
15	0.49	0.55	0.95	1.10	1.46	0.86	0.86	1.52	0.90	0.36	0.58	0.40
16	0.49	0.55	0.82	0.67	1.25	0.86	0.78	1.52	0.78	0.34	0.58	0.40
17	0.52	0.52	0.55	0.61	0.95	0.86	0.70	1.46	0.78	0.36	0.58	0.40
18	0.52	0.49	0.86	0.67	0.36	0.90	0.74	1.46	0.74	0.34	0.52	0.40
19	0.46	0.49	0.52	0.61	2.24	1.00	1.25	1.46	0.70	0.34	0.52	0.40
20	0.49	0.55	0.46	0.61	1.24	1.00	0.95	1.40	0.67	0.34	0.49	0.46
21	0.49	0.55	0.46	0.61	1.20	0.95	1.00	1.30	0.64	0.38	0.46	0.46
22	0.46	0.52	0.43	0.61	1.10	0.95	0.90	1.35	0.64	0.46	0.46	0.70
23	0.49	0.55	0.40	0.67	0.82	0.82	0.90	1.40	0.61	0.43	0.49	0.61
24	0.52	0.49	0.40	0.64	4.22	0.78	0.70	1.46	0.52	0.49	0.52	0.70
25	0.52	0.49	0.43	0.61	4.50	1.00	0.78	1.35	0.49	0.52	0.49	0.55
26	0.49	0.52	0.49	0.67	3.56	2.33	18	0.96	0.46	0.52	0.49	0.52
27	0.55	0.46	0.46	0.82	2.42	1.97	55	0.95	0.46	0.52	0.55	0.52
28	0.52	0.43	0.46	1.64	1.64	2.10	16	0.95	0.46	0.52	0.52	0.49
29	0.52	0.49	0.46	1.64	1.10	2.51	5.88	1.20	0.46	0.52	0.55	0.55
30	0.46	0.49	0.49	1.35	1.10	2.06	4.36	1.40	0.46	0.52	-	0.58
31	-	0.55	-	1.46	1.00	-	2.84	-	0.43	0.52	-	0.58
Total	15.66	16.12	21.42	24.34	68.03	38.19	139.66	55.42	27.96	12.83	15.32	16.00
Mean	0.52	0.52	0.71	0.78	2.19	1.27	4.50	1.85	0.90	0.41	0.53	0.52
Max.	0.64	0.64	1.70	1.64	9.82	3.10	55	4.78	1.46	0.52	0.58	0.70
Min.	0.46	0.40	0.40	0.46	0.90	0.43	0.70	0.95	0.43	0.34	0.46	0.40
Runoff - mcm.	1.353	1.382	1.841	2.074	5.875	3.283	12.067	4.752	2.419	1.108	1.296	1.382

WATER YEAR 1963 : Max. 55 Min. 0.34 Mean 1.23 Annual Runoff 38.946 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 27	18.00	319.84	56				

WATER YEAR 1964  
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 downstream from the bridge on Chiang Mai - Mae Sa fall highway, Amphoe Mae Rim, Chiang Mai.

Drainage Area: 135 sq. km. referred to AMS Map 1:50,000.

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 from Mae Sa 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 to date.

Rating Operation:

Period of Rating: 1954 - 1960

Rated by Float: -

Rated by Current Meter: 1954 - 1960

Stability of Channel Regimes: Rather unstable, no shifting adjustment for flow computation for years without actual ratings.

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 for irrigation except those built by local people. No adjustment made for virgin flow.

Remark: No gage height record for Oct. 5 - 14.

GAGE HEIGHT IN METER ( M.S.L.), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	317.76	317.77	317.87	317.66	317.82	317.88	317.91	317.83	317.98	317.87	317.71	317.76
2	.74	.76	.89	.66	.79	.81	.94	.82	.98	.87	.73	.78
3	.73	.83	318.08	.67	.79	.85	318.50	.83	.99	.86	.72	.70
4	.72	.88	317.92	.67	.77	.83	.50	.74	.99	.87	.78	.70
5	.76	.78	.91	.69	.76	.93		.84	.97	.88	.68	.70
6	317.76	317.75	317.70	317.79	317.75	317.87		317.82	317.95	317.88	317.73	317.68
7	.70	.72	.70	.79	.74	318.96		318.03	.93	.86	.72	.67
8	.73	318.32	.72	.88	.75	.31		317.94	.93	.85	.71	.73
9	.73	.03	.68	.85	.86	.24		.86	.92	.87	.70	.71
10	.73	317.96	.71	.82	.78	.45		.87	318.03	.90	.68	.68
11	317.72	317.93	317.68	317.94	317.74	317.92		317.87	317.93	317.88	317.70	317.67
12	.75	.86	.71	.97	.74	.90		.85	.92	.89	.69	.68
13	.75	318.27	.71	.78	.76	.82		.93	.92	.88	.71	.68
14	.75	317.88	.70	.76	.75	318.02		.94	.95	.80	.68	.73
15	.75	.83	.69	.80	318.13	317.93	317.89	.93	.90	.76	.71	.67
16	317.75	317.79	317.67	317.80	317.87	317.85	317.89	317.93	317.90	317.74	317.71	317.63
17	.74	.79	.65	.73	.82	.83	.88	.89	.92	.72	.72	.64
18	.72	.77	.63	.73	.78	.87	.88	.93	.92	.70	.69	.67
19	.74	.74	.75	.77	.86	318.32	.86	318.00	.90	.71	.72	.69
20	.73	.77	.75	.73	.84	317.95	.88	.14	.83	.83	.69	.69
21	317.73	317.85	317.76	317.74	317.85	317.86	317.88	318.02	317.89	317.76	317.69	317.70
22	.75	.88	.66	318.64	.75	.83	.83	317.98	.88	.69	.68	.68
23	.74	.88	.65	.34	.74	.91	.82	318.12	.87	.74	.68	.67
24	.74	.85	.66	317.98	.75	.89	.82	317.98	.87	.69	.68	.67
25	.76	.82	.67	318.05	.79	.98	.95	.97	.86	.68	.66	.65
26	317.81	317.76	317.67	318.09	317.79	317.85	318.03	317.97	317.85	317.73	317.66	317.65
27	.74	318.05	.67	.01	.76	.87	317.89	.97	.89	.76	.70	.66
28	.73	.13	.70	317.87	.76	318.24	.85	.97	.93	.74	.71	.75
29	.77	.03	.67	.89	.76	.11	.82	318.05	.92	.74	-	.72
30	.79	317.91	.66	.83	318.14	.05	.82	317.97	.89	.73	-	.76
31	-	.85	-	.79	317.88	-	.82	-	.90	.71	-	.72
Mean	317.72	317.88	317.73	317.86	317.81	318.00		317.93	317.92	317.80	317.70	317.69
Max.	317.81	318.32	318.08	318.64	318.14	318.96		318.14	318.03	317.98	317.78	317.78
Min.	317.70	317.72	317.63	317.66	317.74	317.81		317.74	317.83	317.68	317.66	317.63

WATER YEAR 1964 : Max. - m. Min. 317.63 m.





WATER YEAR 1963  
PING RIVER BASIN

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

Location: Lat 18° - 31' - 37" N., Long 98° - 51' - 42" E., on left bank at downstream side of Mae Khen Bridge, Amphoe San Pa Tong, Chiang Mai.

Drainage Area: 1,777 sq.km. referred to AMS Map. 1:50,000.

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 at Mae Khen 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: Rather unstable, no shifting adjustment for flow computation for years without actual ratings.

Overbank Flow Conditions: No overbank flow.

General Description: Records fair except those for periods of no gage height record. Stage - discharge relationship used is defined by discharge measurements made during 1957 - 60. No upstream state diversions for irrigation except those built by local people, No adjustment made for virgin flow.

Remark: No gage height record for periods Aug.6 - 17 and Sep.29 - 30 and Nov.2.

GAGE HEIGHT IN METER ( M.S.L.), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	286.41	286.90	286.42	286.76	288.16	287.08		287.53	287.10	286.89	286.61	286.35
2	.40	.87	.47	.75	.23	.12		.40	.09	.87	.62	.33
3	.39	.79	.51	.66	.34	.20	287.12	.21	.08	.82	.61	.31
4	.39	.58	.63	.55	.45	.11	.28	.13	.08	.81	.62	.29
5	.39	.51	287.46	.55	.56	.01	.42	.55	.07	.81	.62	.28
6	286.40	286.47	287.55	286.54		286.93	287.37	287.65	287.06	286.80	286.62	286.27
7	.43	.46	.52	.54		.98	.40	.79	.04	.78	.66	.27
8	.46	.46	.45	.54		.96	288.26	.59	.02	.77	.64	.30
9	.67	.45	.22	.52		.94	.34	.49	.02	.77	.62	.34
10	.77	.44	.09	.65		.91	287.75	.30	.01	.72	.62	.36
11	286.81	286.43	287.32	286.73		286.83	287.38	287.24	287.00	286.71	286.59	286.40
12	.82	.41	286.94	.77		.90	.21	.27	.06	.70	.56	.45
13	.76	.40	.88	.77		287.12	.11	.21	.07	.69	.55	.49
14	.70	.39	.75	.80		.09	.72	.15	.07	.69	.53	.51
15	.66	.39	.71	.81		.05	.41	.16	.06	.69	.52	.53
16	286.61	286.48	286.68	286.80		287.09	287.22	287.20	287.05	286.68	286.50	286.50
17	.56	.64	.70	.75		.07	.13	.19	.04	.68	.50	.50
18	.51	.62	.72	.71	286.82	.05	.52	.16	.01	.66	.48	.45
19	.48	.60	.72	.67	.94	.02	.50	.12	.00	.66	.47	.41
20	.46	.58	.68	.65	.98	.01	.41	.12	286.98	.68	.45	.38
21	286.46	286.55	286.67	286.63	286.92	286.97	287.29	287.12	286.98	286.69	286.44	286.32
22	.45	.55	.65	.62	.86	.92	.14	.12	.97	.72	.42	.31
23	.44	.42	.65	.60	.84	.91	.03	.11	.96	.68	.40	.31
24	.41	.40	.70	.58	287.80	.92	286.99	.12	.96	.66	.39	.30
25	.40	.38	.79	.57	.70	287.11	.94	.12	.95	.62	.38	.30
26	286.43	286.38	286.91	286.55	287.42	287.31	287.99	287.11	286.95	286.62	286.36	286.30
27	.51	.38	.89	.58	.47	.76	289.14	.11	.94	.61	.38	.29
28	.77	.39	.87	287.12	.39	.85	288.32	.10	.95	.57	.37	.29
29	.98	.40	.81	.76	.18		.53	.10	.92	.58	.35	.29
30	.91	.40	.78	.98	.01		.21	.09	.91	.60	-	.31
31	-	.41	-	288.08	286.95		287.85	-	.91	.61	-	.31
Mean	286.56	286.50	286.86	286.79				287.25	287.00	286.70	286.51	286.35
Max.	286.98	286.90	287.55	288.08				287.79	287.10	286.89	286.66	286.53
Min.	286.39	286.38	286.42	286.52				287.09	286.91	286.57	286.35	286.27

WATER YEAR 1963 : Max. - m. Min. 286.27 m.



WATER YEAR 1964  
PING RIVER BASIN

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

Location: Lat  $16^{\circ} - 31' - 37''$  N., Long  $98^{\circ} - 51' - 42''$  E., on left bank at downstream side of Mae Khan Bridge, Amphoe San Pa Tong, Chiang Mai.

Drainage Area: 1,777 sq. km. referred to AMS Map 1:50,000.

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 at 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: Rather unstable, no shifting adjustment for flow computation for years without actual ratings.

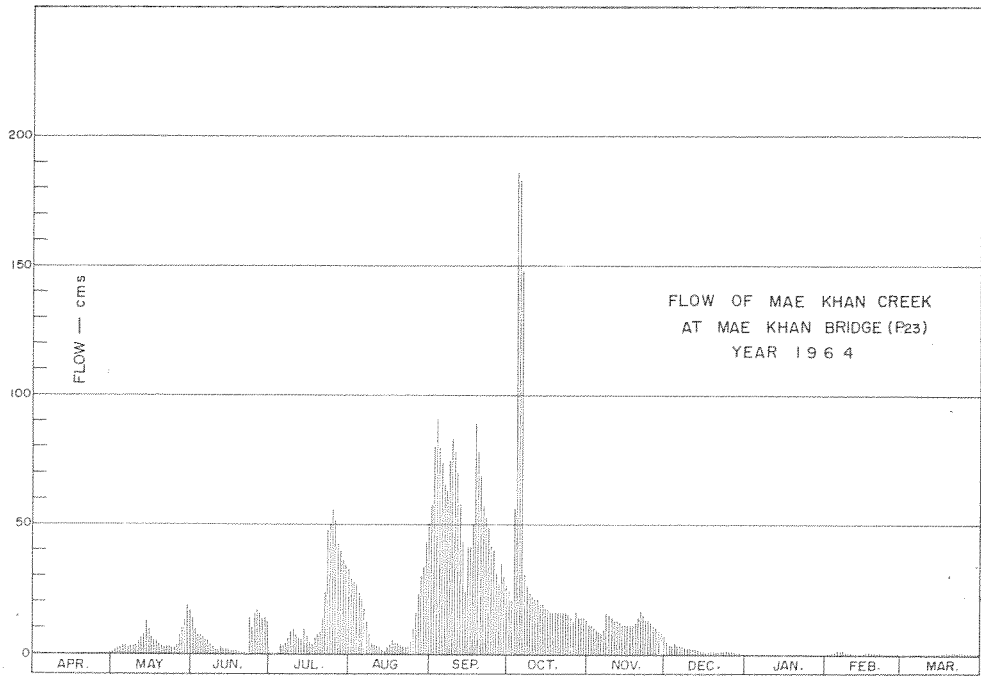
Overbank Flow Conditions: No overbank flow.

General Description: Records fair except those for periods of no gage height record. Stage - discharge relationship used is defined by discharge measurements made during 1957 - 60. No upstream state diversions for irrigation except those built by local people, no adjustment made for virgin flow.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	286.45	286.59	287.22	286.51	287.57	288.04	287.48	287.12	286.89	286.39	286.45	286.43
2	.42	.68	.07	.53	.54	.33	.38	.11	.82	.37	.50	.43
3	.40	.75	.01	.51	.52	.48	288.01	.09	.81	.37	.51	.42
4	.37	.78	.00	.57	.47	.34	289.37	.07	.85	.41	.56	.42
5	.36	.84	286.97	.82	.41	.26	.35	.03	.82	.41	.64	.41
6	286.35	286.81	286.92	286.81	287.32	288.15	288.56	287.01	286.79	286.40	286.62	286.40
7	.34	.76	.90	.85	.19	.11	287.61	.07	.76	.43	.66	.39
8	.31	.79	.82	.94	.01	.28	.51	.26	.75	.42	.61	.38
9	.28	.80	.78	287.03	286.89	.38	.46	.23	.74	.40	.58	.35
10	.27	.83	.71	.66	.84	.30	.42	.21	.74	.36	.53	.35
11	286.27	286.89	286.69	286.99	286.80	288.21	278.40	287.19	286.73	286.32	286.45	286.34
12	.26	.95	.78	.94	.76	.04	.39	.17	.72	.29	.32	.33
13	.26	287.00	.73	.92	.67	287.82	.35	.14	.68	.26	.34	.33
14	.25	.18	.71	287.08	.63	.47	.32	.12	.62	.21	.41	.34
15	.25	.06	.69	.60	.74	.79	.51	.12	.62	.20	.47	.42
16	286.24	286.97	286.65	286.89	286.82	287.78	287.29	287.11	286.61	286.19	286.59	286.48
17	.24	.90	.63	.82	.92	.91	.28	.11	.61	.16	.59	.51
18	.23	.88	.64	.95	.89	288.46	.27	.11	.61	.13	.57	.49
19	.23	.85	.61	287.00	.85	.31	.27	.14	.60	.12	.55	.49
20	.22	.80	.58	.04	.81	.19	.26	.21	.60	.13	.54	.48
21	286.22	286.78	286.55	287.20	286.78	288.03	287.26	287.28	286.61	286.14	286.51	286.48
22	.25	.77	.51	.47	.75	287.97	.26	.23	.62	.14	.50	.47
23	.27	.77	.47	.90	.75	.91	.26	.19	.63	.15	.49	.47
24	.34	.75	.45	.92	.85	.80	.25	.18	.62	.18	.47	.45
25	.40	.73	.48	288.01	287.08	.76	.21	.15	.62	.20	.46	.40
26	286.43	286.81	286.49	287.95	287.27	287.60	287.16	287.12	286.61	286.21	286.46	286.37
27	.47	.95	.48	.82	.45	.53	.26	.10	.60	.22	.45	.26
28	.49	287.09	.47	.76	.58	.68	.22	.07	.59	.27	.44	.25
29	.51	.19	.47	.70	.66	.58	.21	.05	.52	.32	-	.25
30	.53	.34	.46	.67	.81	.53	.20	286.99	.49	.35	-	.24
31	-	.31	-	.63	.92	-	.18	-	.42	.41	-	.23
Mean	286.33	286.89	286.70	287.17	287.11	288.00	287.51	287.13	286.67	286.28	286.51	286.39
Max.	286.53	287.34	287.22	288.01	287.92	288.48	289.37	287.28	286.89	286.43	286.66	286.51
Min.	286.22	286.59	286.45	286.51	286.63	287.47	287.16	286.99	286.42	286.12	286.32	286.23

WATER YEAR 1964 : Max. 289.37 m. Min. 286.12 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.06	0.74	14	0.26	29	58	25	11	4.82	0.00	0.10	0.06
2	0.04	1.60	9.53	0.38	28	79	20	11	3.56	0.00	0.20	0.06
3	0.00	2.22	7.79	0.26	27	91	56	10	3.38	0.00	0.26	0.04
4	0.00	2.92	7.50	0.62	24	80	186	9.53	4.10	0.02	0.56	0.04
5	0.00	3.92	6.75	3.56	22	74	183	8.37	3.56	0.02	1.20	0.02
6	0.00	3.38	5.50	3.38	18	66	97	7.79	3.06	0.00	1.00	0.00
7	0.00	2.64	5.00	4.10	13	63	31	9.53	2.64	0.06	1.40	0.00
8	0.00	3.06	3.56	6.00	7.79	75	26	16	2.50	0.04	0.90	0.00
9	0.00	3.20	2.92	8.37	4.82	83	24	15	2.36	0.00	0.68	0.00
10	0.00	3.74	1.94	9.24	3.92	77	22	14	2.36	0.00	0.38	0.00
11	0.00	4.82	1.70	7.25	3.20	70	21	13	2.22	0.00	0.10	0.00
12	0.00	6.25	2.92	6.00	2.64	58	21	13	2.08	0.00	0.00	0.00
13	0.00	7.50	2.22	5.50	1.50	43	19	12	1.60	0.00	0.00	0.00
14	0.00	13	1.94	9.82	1.10	24	18	11	1.00	0.00	0.02	0.00
15	0.00	9.24	1.50	7.50	2.36	41	17	11	1.00	0.00	0.14	0.04
16	0.00	6.75	1.30	4.82	3.56	41	17	11	0.90	0.00	0.74	0.16
17	0.00	5.00	1.10	3.56	5.50	49	16	11	0.90	0.00	0.74	0.26
18	0.00	4.64	1.20	6.25	4.82	89	16	11	0.90	0.00	0.62	0.18
19	0.00	4.10	0.90	7.50	4.10	78	16	12	0.80	0.00	0.50	0.18
20	0.00	3.20	0.68	8.66	3.38	69	16	14	0.80	0.00	0.44	0.16
21	0.00	2.92	0.50	14	2.92	57	16	16	0.90	0.00	0.26	0.16
22	0.00	2.78	0.26	24	2.50	53	16	15	1.00	0.00	0.20	0.14
23	0.00	2.78	0.14	48	2.50	49	16	13	1.10	0.00	0.18	0.14
24	0.00	2.50	0.10	50	4.28	42	15	13	1.00	0.00	0.14	0.10
25	0.00	2.22	0.16	56	9.82	40	14	12	1.00	0.00	0.12	0.00
26	0.06	3.38	0.18	52	16	31	12	11	0.90	0.00	0.12	0.00
27	0.14	6.25	0.16	43	23	27	16	10	0.80	0.00	0.10	0.00
28	0.18	10	0.14	40	30	35	14	9.53	0.74	0.00	0.08	0.00
29	0.26	13	0.14	36	34	30	14	8.37	0.32	0.00	-	0.00
30	0.38	19	0.12	35	43	27	14	7.25	0.18	0.00	-	0.00
31	-	17	-	33	50	-	13	-	0.04	0.02	-	0.00
Total	1.12	173.75	81.85	534.03	427.71	1,699	1,007	346.37	52.52	0.12	11.18	1.74
Mean	0.04	5.60	2.73	17.2	13.8	56.6	32.4	11.5	1.69	0.00	0.40	0.06
Max.	0.38	19	14	56	50	91	186	16	4.82	0.06	1.40	0.26
Min.	0.00	0.74	0.10	0.26	1.10	24	12	7.25	0.04	0.00	0.00	0.00
Runoff - mcm.	0.152	15.012	7.072	46.140	36.954	146.794	87.005	29.926	4.538	0.010	0.966	0.150

WATER YEAR 1964 : Max. 186 Min. 0.00 Mean 127 Annual Runoff 400.584 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 4	18.00	289.57	210				

WATER YEAR 1963  
PING RIVER BASIN

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

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

Drainage Area: 616 sq.km. referred to AMS Map 1:50,000.

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 - 65

Rated by Float: -

Rated by Current Meter: 1955 - 65

Stability of Channel Regimes: Fairly stable, no shifting adjustment for flow computation due to its stability.

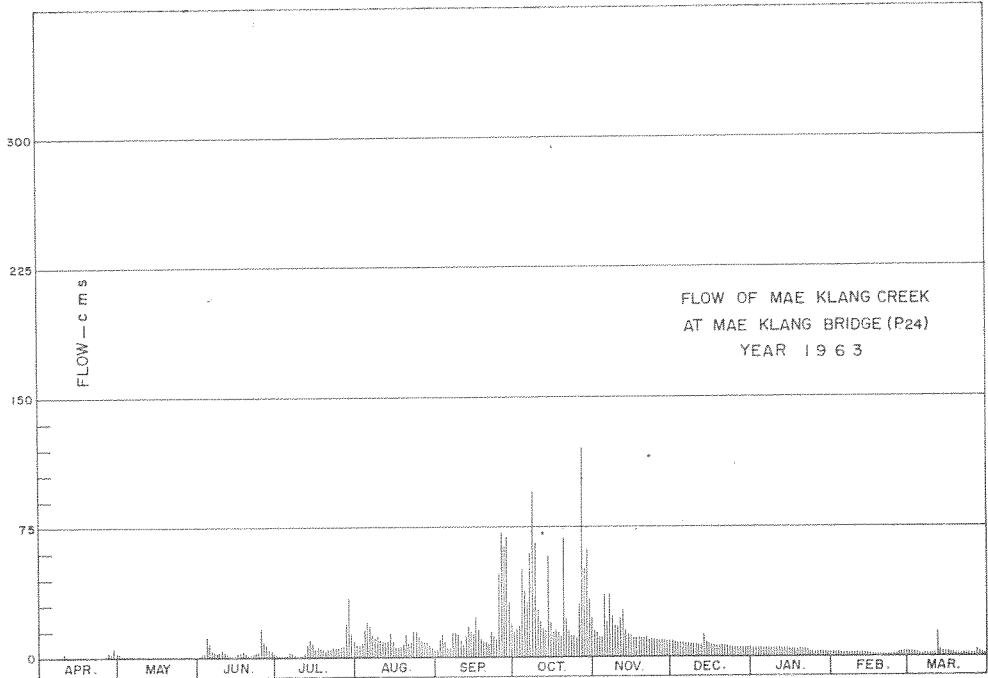
Overbank Flow Conditions: No overbank flow.

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

GAGE HEIGHT IN METER ( A. D. ), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.39	0.39	0.40	0.43	0.73	0.58	0.99	1.02	0.80	0.63	0.45	0.49
2	.36	.38	.51	.41	.73	.86	1.04	0.94	.79	.63	.44	.48
3	.36	.38	.50	.40	.77	.96	.06	.88	.78	.63	.44	.45
4	.36	.37	.93	.40	1.03	.73	.76	.87	.77	.63	.45	.44
5	.35	.36	.75	.42	.44	.63	.54	1.50	.77	.63	.48	.43
6	0.35	0.35	0.60	0.51	1.10	0.63	1.40	1.16	0.76	0.63	0.46	0.43
7	.35	.35	.54	.49	0.96	.98	.89	.51	.76	.63	.45	.43
8	.37	.35	.54	.46	.89	.97	2.34	.23	.76	.62	.44	.43
9	.42	.35	.55	.43	.90	.94	1.96	.09	.75	.62	.44	.43
10	.51	.35	.60	.41	.85	.85	.31	.08	.74	.62	.44	.43
11	0.42	0.35	0.55	0.40	0.80	0.72	1.14	1.21	0.73	0.62	0.44	0.42
12	.39	.35	.47	.51	.79	.90	.04	.30	.73	.62	.44	.97
13	.39	.34	.41	.81	.82	1.07	.01	.60	.95	.62	.44	.55
14	.40	.33	.38	.87	.97	.00	.86	0.95	.80	.62	.44	.50
15	.39	.33	.40	.75	.81	0.95	.12	.90	.76	.62	.43	.50
16	0.38	0.32	0.51	0.65	0.69	1.23	0.99	0.89	0.74	0.62	0.43	0.50
17	.37	.32	.53	.69	.69	.01	1.01	.88	.73	.61	.42	.48
18	.36	.39	.59	.62	.70	0.85	0.97	.88	.72	.61	.41	.45
19	.36	.37	.49	.58	.75	.80	.91	.88	.71	.60	.41	.43
20	.36	.36	.44	.55	.95	.78	2.00	.88	.71	.60	.40	.42
21	0.36	0.36	0.45	0.59	0.77	0.74	1.23	0.87	0.70	0.61	0.40	0.42
22	.35	.35	.47	.59	.80	.99	.01	.86	.69	.62	.40	.41
23	.34	.33	.55	.66	1.02	.90	0.93	.85	.68	.51	.40	.40
24	.34	.32	.60	.63	.02	.86	.91	.85	.67	.49	.40	.40
25	.33	.31	1.07	.65	0.93	1.71	.87	.84	.67	.48	.41	.39
26	0.42	0.32	0.79	0.67	0.83	2.05	1.37	0.83	0.66	0.48	0.46	0.38
27	.53	.32	.75	.69	.77	1.95	2.64	.83	.66	.47	.47	.53
28	.52	.43	.64	1.13	.79	2.01	1.75	.83	.66	.47	.49	.48
29	.68	.36	.62	.46	.70	1.41	.91	.81	.65	.47	.50	.44
30	.54	.35	.50	.04	.64	.12	.41	.80	.64	.47	-	.42
31	-	.34	-	0.81	.59	-	.19	-	.64	.46	-	.40
Mean	0.40	0.35	0.56	0.63	0.82	0.97	1.37	0.98	0.73	0.58	0.44	0.46
Max.	0.68	0.43	1.07	1.46	1.44	2.05	2.64	1.51	0.95	0.63	0.50	0.97
Min.	0.33	0.31	0.38	0.40	0.59	0.58	0.87	0.80	0.64	0.46	0.40	0.38

WATER YEAR 1963 : Max. 2.64 m. Min. 0.31 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.76	0.94	1.00	1.45	7.18	3.86	14	15	9.00	4.86	1.75	2.35
2	0.76	0.88	2.67	1.15	7.18	10	16	13	8.74	4.86	1.60	2.20
3	0.76	0.88	2.50	1.00	8.22	13	17	11	8.48	4.86	1.60	1.75
4	0.76	0.82	12	1.00	16	7.18	51	11	8.22	4.86	1.75	1.60
5	0.70	0.76	7.70	1.30	20	4.86	38	36	8.22	4.86	2.20	1.45
6	0.70	0.70	4.20	2.67	18	4.86	31	20	7.96	4.86	1.90	1.45
7	0.70	0.70	3.18	2.35	13	14	60	36	7.96	4.86	1.75	1.45
8	0.82	0.70	3.18	1.90	11	14	95	23	7.96	4.64	1.60	1.45
9	1.30	0.70	3.35	1.45	12	13	65	18	7.70	4.64	1.60	1.45
10	2.67	0.70	4.20	1.15	10	10	27	17	7.44	4.62	1.60	1.45
11	1.30	0.70	3.35	1.00	9.00	6.92	20	22	7.18	4.62	1.60	1.30
12	0.94	0.70	2.05	2.67	8.74	12	16	26	7.18	4.62	1.60	1.4
13	0.94	0.64	1.15	9.26	9.52	17	15	15	13	4.62	1.60	3.35
14	1.00	0.58	0.88	11	14	15	58	13	9.00	4.62	1.60	2.50
15	0.94	0.58	1.00	7.70	9.26	13	19	12	7.96	4.62	1.45	2.50
16	0.88	0.52	2.67	5.30	6.18	23	14	11	7.44	4.62	1.45	2.50
17	0.82	0.52	3.01	6.18	6.18	15	15	11	7.18	4.42	1.30	2.20
18	0.76	0.94	4.03	4.64	6.40	10	14	11	6.92	4.42	1.15	1.75
19	0.76	0.82	2.35	3.86	7.70	9.00	12	11	6.66	4.20	1.15	1.45
20	0.76	0.76	1.60	3.35	13	8.48	68	11	6.66	4.20	1.00	1.30
21	0.76	0.76	1.75	4.03	8.22	7.44	27	11	6.40	4.42	1.00	1.30
22	0.70	0.70	2.05	4.03	9.00	14	15	10	6.18	4.62	1.00	1.15
23	0.64	0.58	3.35	5.52	15	12	12	10	5.96	2.67	1.00	1.00
24	0.64	0.52	4.20	4.86	15	10	12	10	5.74	2.23	1.00	1.00
25	0.58	0.46	17	5.30	12	48	11	10	5.74	2.20	1.15	0.94
26	1.30	0.52	8.74	5.74	9.78	72	30	9.78	5.52	2.20	1.90	0.88
27	3.01	0.52	7.70	6.18	8.22	64	120	9.78	5.52	2.05	2.05	3.01
28	2.84	1.45	5.08	19	8.74	69	51	9.78	5.52	2.05	2.35	2.20
29	5.96	0.76	4.64	34	6.40	31	62	9.26	5.30	2.05	2.50	1.60
30	3.18	0.70	2.50	16	5.08	19	33	9.00	5.08	2.05	-	1.30
31	-	0.64	-	9.26	4.03	-	22	-	5.08	1.90	-	1.00
Total	38.64	22.15	123.08	184.30	314.03	570.6	1,060	441.60	222.90	121.32	44.05	64.83
Mean	1.28	0.71	4.10	5.94	10.1	19.0	34.2	14.7	7.19	3.91	1.51	2.09
Max.	5.96	1.45	17	34	20	72	120	36	13	4.86	2.50	14
Min.	0.58	0.46	0.88	1.00	4.03	3.86	11	9.00	5.08	1.90	1.00	0.88
Runoff - mcm.	3.338	1.913	10.634	15.923	27.132	49.300	91.584	38.154	19.267	10.482	3.806	5.601

WATER YEAR 1963 : Max. 120 Min. 0.46 Mean 8.78 Annual Runoff 277.128 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct.27	06.00	3.05	157				

WATER YEAR 1964  
PING RIVER BASIN

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

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

Drainage Area: 616 sq.km. referred to AMS Map 1:50,000.

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 - 65

Rated by Float: -

Rated by Current Meter: 1955 - 65

Stability of Channel Regimes: Fairly stable, no shifting adjustment for flow computation due to its stability.

Overbank Flow Conditions: No overbank flow.

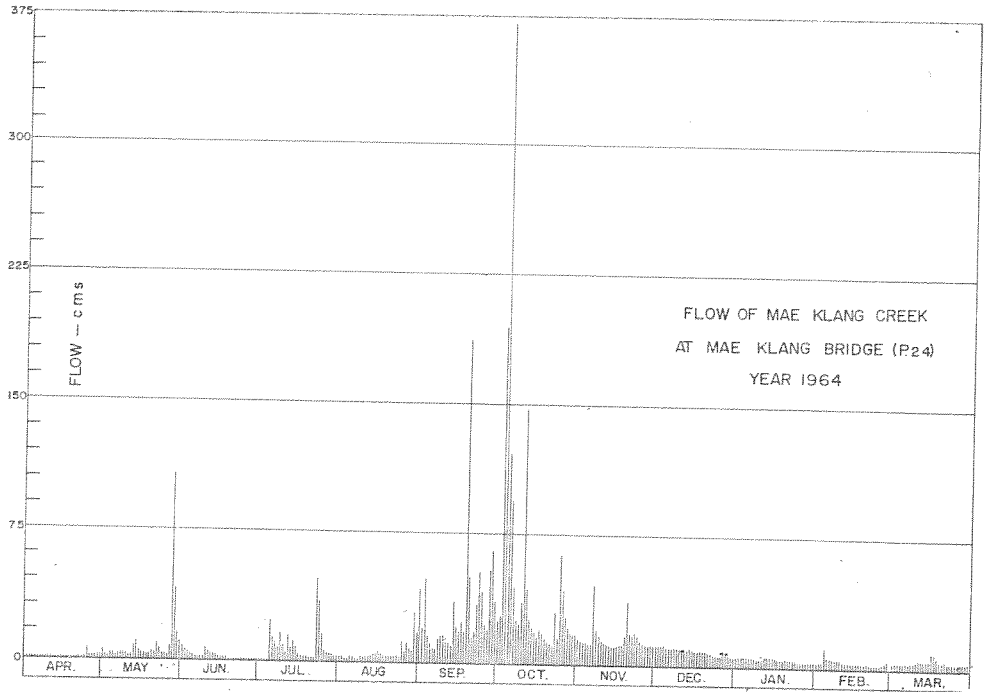
General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1964. No upstream state diversions for irrigation except those built by local farmers. No adjustment made for virgin flow.

GAGE HEIGHT IN METER ( A. D. ), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.39	0.66	0.79	0.41	0.55	1.46	1.16	0.96	0.88	0.71	0.61	0.61
2	.38	.54	.72	.41	.55	.96	.22	.93	.87	.71	.60	.62
3	.38	.45	.66	.41	.54	.54	2.77	.91	.87	.71	.60	.62
4	.38	.56	.64	.44	.54	0.98	3.45	.90	.89	.70	.88	.62
5	.38	.55	.59	1.15	.59	.84	2.23	.88	.86	.70	.71	.62
6	0.38	0.53	0.54	0.93	0.57	0.76	2.00	0.87	0.83	0.69	0.69	0.62
7	.38	.55	.49	.85	.53	.78	1.47	1.50	.81	.69	.68	.61
8	.38	.60	.48	.78	.50	.92	.17	.07	.81	.68	.64	.62
9	.38	.65	.47	.98	.59	.97	.12	.01	.80	.68	.64	.62
10	.39	.56	.76	.81	.58	.98	.35	0.92	.80	.68	.63	.64
11	0.39	0.52	0.65	0.66	0.60	0.89	2.43	0.91	0.79	0.67	0.62	0.65
12	.39	.65	.64	.95	.61	.87	1.45	.89	.78	.70	.61	.64
13	.39	.75	.61	.76	.62	.83	.18	.88	.79	.70	.60	.63
14	.39	.85	.58	.88	.66	1.35	.08	.86	.80	.70	.58	.63
15	.38	.68	.51	.76	.68	.08	.05	.84	.79	.70	.58	.63
16	0.38	0.60	0.45	0.63	0.70	1.03	0.95	0.84	0.78	0.69	0.59	0.82
17	.38	.60	.51	.61	.68	.14	1.06	.87	.78	.68	.57	.81
18	.38	.59	.49	.60	.62	.02	.03	.87	.78	.67	.55	.72
19	.38	.58	.44	.55	.59	2.72	0.95	1.01	.77	.67	.55	.63
20	.38	.66	.41	.52	.59	1.55	.90	.37	.76	.68	.55	.61
21	0.38	0.59	0.39	0.50	0.58	0.95	0.88	1.03	0.75	0.66	0.54	0.63
22	.39	.82	.39	1.53	.59	1.05	.86	0.99	.75	.67	.54	.60
23	.40	.69	.38	1.33	.61	.33	1.26	1.05	.74	.67	.54	.59
24	.40	.59	.41	0.97	.60	.59	0.96	.00	.73	.65	.54	.60
25	.71	.57	.44	.80	.87	.43	1.70	0.94	.71	.64	.54	.59
26	0.53	0.54	0.40	0.73	0.73	1.10	1.46	0.91	0.71	0.63	0.56	0.58
27	.49	.74	.40	.67	.88	.05	.19	.90	.83	.63	.62	.59
28	.48	2.12	.40	.66	.77	.61	.08	.89	.77	.63	.66	.60
29	.49	1.44	.40	.64	.72	.72	.02	.89	.73	.63	-	.59
30	.50	0.99	.41	.60	1.24	.30	0.99	.88	.72	.61	-	.60
31	-	.86	-	.56	0.99	-	1.01	-	.71	.61	-	.59
Mean	0.41	0.71	0.51	0.74	0.66	1.20	1.37	0.96	0.79	0.67	0.61	0.63
Max.	0.71	2.12	0.79	1.53	1.24	2.72	3.45	1.50	0.89	0.71	0.88	0.82
Min.	0.38	0.45	0.38	0.41	0.50	0.76	0.86	0.84	0.71	0.61	0.54	0.58

WATER YEAR 1964 : Max. 3.45 m. Min. 0.38 m.





DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.92	5.44	8.92	1.12	3.10	43	25	15	12	6.68	4.24	4.24
2	0.84	2.92	6.96	1.12	3.10	20	28	14	12	6.68	4.00	4.48
3	0.84	1.60	5.44	1.12	2.92	49	194	13	12	6.68	4.00	4.48
4	0.84	3.28	4.96	1.48	2.92	16	370	13	12	6.40	12	4.48
5	0.84	3.10	3.82	24	3.82	11	121	12	11	6.40	6.68	4.48
6	0.84	2.74	2.92	14	3.46	8.08	94	12	10	6.16	6.16	4.48
7	0.84	3.10	2.08	11	2.74	8.64	44	46	10	6.16	5.92	4.24
8	0.84	4.00	1.96	8.64	2.00	14	25	20	10	5.92	4.96	4.48
9	0.84	5.20	1.84	16	3.82	16	23	17	9.20	5.92	4.96	4.48
10	0.92	3.28	0.08	10	3.64	16	36	14	9.20	5.92	4.72	4.96
11	0.92	2.56	5.20	5.44	4.00	12	147	13	8.92	6.40	4.48	5.20
12	0.92	5.20	4.96	15	4.24	12	43	12	8.64	6.40	4.24	4.96
13	0.92	7.80	4.24	8.08	4.48	10	26	12	8.92	6.40	4.00	4.72
14	0.92	11	3.64	12	5.44	36	21	11	9.20	6.40	3.64	4.72
15	0.84	5.92	2.38	8.08	5.92	21	19	11	8.92	6.40	3.64	4.72
16	0.84	4.00	1.60	4.72	6.40	18	15	11	8.64	6.16	3.82	9.92
17	0.84	4.00	2.38	4.24	5.92	24	20	12	8.64	5.92	3.46	9.56
18	0.84	3.82	2.08	4.00	4.48	18	18	12	8.64	5.68	3.10	6.96
19	0.84	3.64	1.48	3.10	3.82	187	15	17	8.36	5.68	3.10	4.72
20	0.84	5.44	1.12	2.56	3.82	50	13	37	8.08	5.92	3.10	4.24
21	0.84	3.82	0.92	2.20	3.64	15	12	18	7.80	5.44	2.92	4.72
22	0.92	9.92	0.92	48	3.82	19	11	17	7.80	5.68	2.92	4.00
23	1.00	6.16	0.84	35	4.24	35	30	19	7.52	5.68	2.92	3.82
24	1.00	3.82	1.12	16	4.00	53	15	17	7.24	5.20	2.92	4.00
25	6.68	3.46	1.48	9.20	12	41	63	14	6.68	4.96	2.92	3.82
26	2.74	2.92	1.00	7.24	7.24	22	43	13	6.68	4.72	3.24	3.64
27	2.08	7.52	1.00	5.68	12	19	26	13	10	4.72	4.48	3.82
28	1.96	108	1.00	5.44	8.36	55	21	12	8.36	4.72	5.44	4.00
29	2.08	42	1.00	4.96	6.96	65	18	12	7.24	4.72	-	3.82
30	2.20	16	1.12	4.00	29	33	17	12	6.96	4.24	-	4.00
31	-	11	-	3.28	17	-	17	-	6.68	4.24	-	3.82
Total	38.78	302.66	86.46	296.70	188.30	946.72	1,570	471	277.32	178.84	121.98	147.98
Mean	1.29	9.76	2.88	9.57	6.07	31.5	50.6	15.7	8.94	5.76	4.35	4.77
Max.	6.68	108	8.92	48	29	187	370	46	12	6.68	12	9.92
Min.	0.84	1.60	0.84	1.12	2.00	8.08	11	11	6.68	4.24	2.92	3.64
Runoff - mcm.	3.350	26.179	7.470	25.635	16.269	81.797	135.648	40.694	23.960	15.452	10.539	12.785

WATER YEAR 1964 : Max. 370 Min. 0.84 Mean 7.14 Annual Runoff 225.171 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 4	06.00	3.90	406				

WATER YEAR 1964  
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. referred to AMS Map 1:50,000.

Type of Gage: Staff gage.

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

Bench Mark:

Location: At the 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 to date.

Rating Operation:

Period of Rating: 1964 - 67.

Rated by Float: -

Rated by Current Meter: 1964 - 67.

Stability of Channel Regimes: Stable, using weir crest as a control section.

Overbank Flow Conditions: No overbank flow.

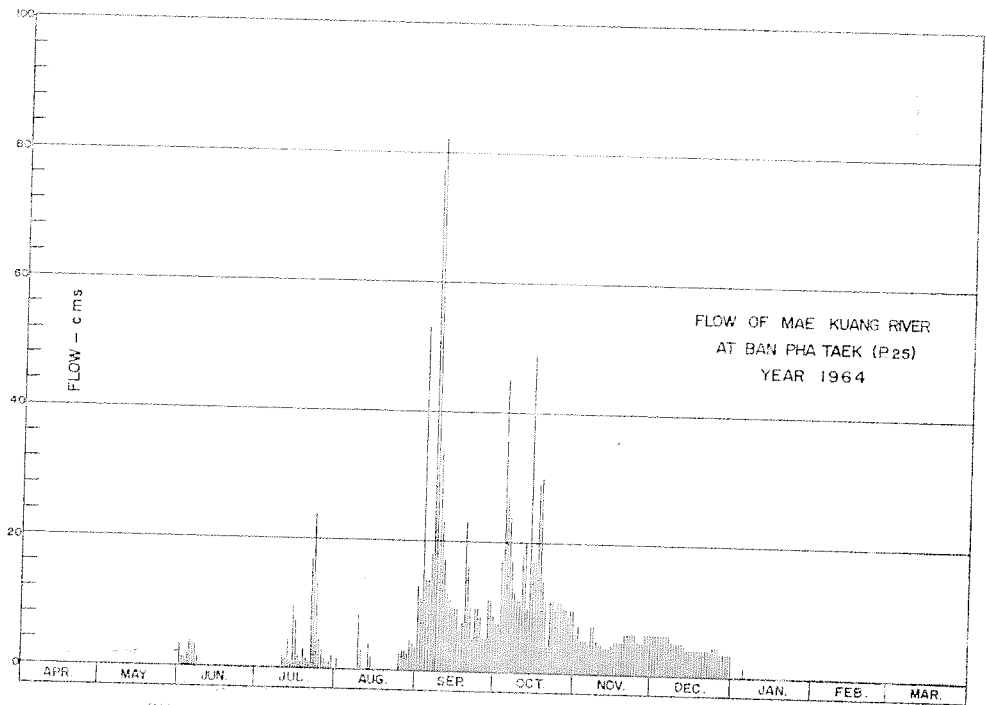
General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made during 1964 on the Pha Taek Weir crest. Upstream state diversions for irrigation of about 9,600 hectares. The presented flow data included also the diversions.

Remark: Gage height record began on Jun. 1, 1964.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1			337.07	336.60	337.03	337.17	337.12	337.11	337.11	337.00	336.83	336.49
2			.03	.65	336.96	.15	.12	.12	.11	336.98	.83	.47
3			.03	.55	.96	.41	.20	.10	.11	.98	.82	.47
4			.04	.60	.94	.18	.37	.10	.11	.97	.87	.37
5			.08	.88	.98	.18	.27	.10	.11	337.03	.90	.37
6			337.07	336.60	336.93	337.21	337.25	337.09	337.11	337.01	336.87	336.37
7			.07	337.00	.90	.51	.20	.12	.11	336.95	.84	.38
8			.03	336.98	.89	.53	.16	.12	.10	.93	.83	.48
9			336.99	337.01	337.13	.31	.15	.10	.10	.90	.84	.61
10			.88	.01	.06	.24	.15	.09	.10	.92	.83	.68
11			337.00	337.04	336.97	337.20	337.21	337.09	337.10	336.91	336.81	336.67
12			.06	.03	.85	.16	.22	.08	.10	.91	.81	.71
13			.04	.09	337.08	.15	.14	.08	.09	.91	.79	.70
14			.00	.02	.04	.14	.39	.08	.08	.91	.76	.70
15			.00	.14	.00	.14	.20	.09	.08	.90	.77	.71
16			337.00	337.12	337.00	337.14	337.20	337.10	337.08	336.90	336.79	336.84
17			336.90	.04	336.99	.11	.28	.10	.08	.89	.78	.81
18			.90	.02	.89	.12	.29	.10	.08	.89	.78	.75
19			.89	.06	.89	.24	.18	.10	.08	.89	.78	.73
20			.90	.03	.87	.19	.15	.11	.08	.89	.76	.71
21			336.85	337.02	336.83	337.14	337.08	337.11	337.08	336.88	336.74	336.69
22			.88	.20	.84	.10	.15	.11	.08	.87	.76	.65
23			.93	.25	.83	.14	.15	.11	.08	.87	.81	.58
24			.98	.17	.82	.14	.14	.11	.09	.87	.81	.48
25			.84	.09	337.05	.13	.15	.10	.09	.87	.82	.40
26			336.86	337.06	337.06	337.10	337.15	337.10	337.09	336.86	336.82	336.37
27			.76	.03	.06	.10	.14	.10	.07	.84	.69	.35
28			.65	.02	.05	.15	.14	.11	.07	.84	.58	.34
29			.61	.02	.09	.15	.13	.11	.07	.83	-	.31
30			.60	.04	.08	.13	.14	.11	.07	.83	-	.31
31			-	336.97	.07	-	.14	-	.07	.83	-	.30
Mean			336.93	336.98	337.10	337.19	337.18	337.10	337.09	336.90	336.80	336.54
Max.			337.08	337.25	337.13	337.53	337.39	337.12	337.11	337.03	336.90	336.84
Min.			336.60	336.55	336.82	337.10	337.08	337.08	337.07	336.83	336.58	336.30

WATER YEAR 1964 : Max. 337.53 m. Min. - m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1			3.50	0.00	1.50	13	7.36	6.18	6.18			
2			1.50	0.00	0.00	11	7.36	7.36	6.18			
3			1.50	0.00	0.00	53	17	5.00	6.18	0.00	0.00	0.00
4			2.00	0.00	0.00	14	45	5.00	6.18	0.00	0.00	0.00
5			4.00	0.00	0.00	14	27	5.00	6.18	0.00	0.00	0.00
6			3.50	0.00	0.00	12	24	4.50	6.18	1.50	0.00	0.00
7			3.50	0.00	0.00	77	17	7.36	6.18	0.00	0.00	0.00
8			1.50	0.00	0.00	82	17	7.36	6.18	0.00	0.00	0.00
9			0.00	0.00	8.54	54	11	5.00	5.00	0.00	0.00	0.00
10			0.00	0.00	3.00	23	11	4.50	5.00	0.00	0.00	0.00
11			0.00	2.00	0.00	17	18	4.50	5.00	0.00	0.00	0.00
12			0.00	1.50	0.00	12	20	4.00	5.00	0.00	0.00	0.00
13			0.00	4.50	4.00	11	9.72	4.00	4.50	0.00	0.00	0.00
14			0.00	1.00	2.00	9.72	49	4.00	4.00	0.00	0.00	0.00
15			0.00	9.72	0.00	9.72	17	4.50	4.00	0.00	0.00	0.00
16			0.00	7.36	0.00	9.72	17	5.00	4.00	0.00	0.00	0.00
17			0.00	2.00	0.00	6.18	29	5.00	4.00	0.00	0.00	0.00
18			0.00	1.00	0.00	7.36	30	5.00	4.00	0.00	0.00	0.00
19			0.00	3.00	0.00	23	14	5.00	4.00	0.00	0.00	0.00
20			0.00	1.50	0.00	16	11	6.18	4.00	0.00	0.00	0.00
21			0.00	1.00	0.00	9.72	4.00	6.18	4.00	0.00	0.00	0.00
22			0.00	17	0.00	5.00	11	6.18	4.00	0.00	0.00	0.00
23			0.00	24	0.00	9.72	11	6.18	4.00	0.00	0.00	0.00
24			0.00	13	0.00	9.72	11	6.18	4.00	0.00	0.00	0.00
25			0.00	4.50	2.50	8.54	11	5.00	4.50	0.00	0.00	0.00
26			0.00	3.00	3.00	5.00	11	5.00	4.50	0.00	0.00	0.00
27			0.00	1.50	3.00	5.00	9.72	5.00	3.50	0.00	0.00	0.00
28			0.00	1.00	2.50	11	9.72	6.18	3.50	0.00	0.00	0.00
29			0.00	1.00	4.50	11	8.54	6.18	3.50	0.00	0.00	0.00
30			0.00	2.00	4.00	8.54	9.72	6.18	3.50	0.00	0.00	0.00
31			-	0.00	3.50	-	9.72	-	3.50	0.00	0.00	0.00
Total			21.00	101.58	42.04	543.94	498.58	162.70	143.76	1.50	0.00	0.00
Mean			0.70	32.8	1.35	18.1	16.1	5.42	4.64	0.05	0.00	0.00
Max.			4.00	24	8.54	82	49	7.36	6.18	1.50	0.00	0.00
Min.			0.00	0.00	0.00	5.00	7.36	4.00	3.50	0.00	0.00	0.00
Runoff - DCR.			1.814	8.776	3.632	46.996	43.077	14.057	12.421	0.130	0.000	0.000

WATER YEAR 1964 : Max. 82 Min. - Mean - Annual Runoff - mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sep. 8	06.00	337.60	100				

WATER YEAR 1964  
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 the confluence with Mae Ping River at Ban Mai, Amphoe Muang, Kamphaeng Phet.

Drainage Area: 968 sq.km. referred to AMS Map 1:50,000.

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 the 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: Fairly stable, periodic rating curves are used for flow computation.

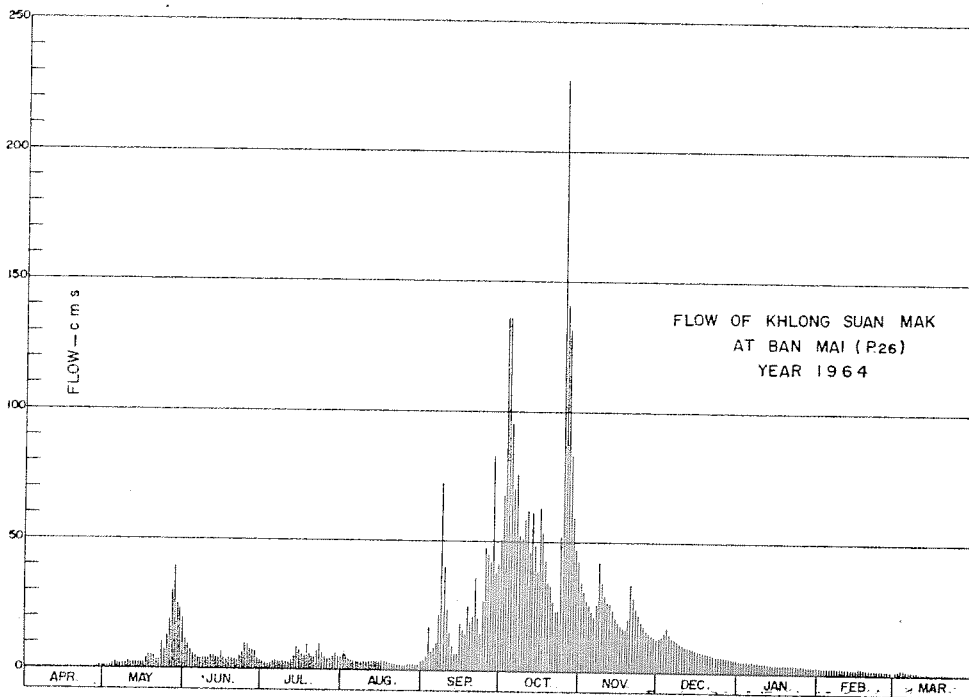
Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1964. No state diversions for irrigation above gage site except those built by the farmers at Tha Kra Dan weir. No adjustment made for virgin flow.

GAGE HEIGHT IN METER ( A. D. ), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.29	0.39	0.97	0.55	0.73	0.59	1.90	1.39	0.78	0.44	0.28	0.19
2	.27	.36	.90	.52	.65	.69	2.17	.32	.80	.42	.27	.22
3	.25	.42	.81	.51	.61	1.13	3.05	.22	.87	.42	.27	.26
4	.24	.49	.72	.50	.59	0.79	3.05	.18	.93	.42	.27	.24
5	.23	.50	.67	.53	.58	.83	2.53	.11	.85	.42	.27	.20
6	0.23	0.49	0.62	0.58	0.58	0.91	2.11	1.05	0.79	0.42	0.27	0.18
7	.21	.45	.61	.55	.56	1.30	.22	.18	.76	.41	.26	.16
8	.21	.46	.62	.53	.54	2.20	1.74	.57	.72	.40	.26	.15
9	.21	.50	.61	.58	.56	1.68	.75	.39	.71	.39	.25	.14
10	.20	.54	.64	.55	.55	.31	.91	.26	.69	.37	.25	.13
11	0.20	0.48	0.69	0.53	0.57	1.05	1.97	1.22	0.66	0.37	0.25	0.13
12	.20	.50	.67	.55	.57	0.86	.67	.19	.65	.37	.25	.12
13	.20	.50	.64	.65	.55	.75	.95	.12	.63	.37	.24	.12
14	.27	.49	.61	.85	.54	.75	.70	.05	.62	.36	.23	.12
15	.31	.46	.73	.81	.54	1.14	1.48	0.99	.61	.35	.22	.11
16	0.35	0.48	0.59	0.73	0.56	1.09	2.00	0.96	0.59	0.35	0.26	0.11
17	.32	.61	.58	.70	.58	.04	1.80	.91	.58	.34	.24	.11
18	.28	.68	.59	.88	.55	.36	.57	.88	.57	.34	.23	.10
19	.27	.66	.56	.74	.53	.16	.39	.97	.55	.33	.22	.10
20	.25	.68	.59	.68	.51	.26	.38	1.40	.54	.32	.21	.12
21	0.25	0.57	0.56	0.62	0.49	1.61	1.21	1.26	0.53	0.32	0.21	0.11
22	.24	.56	.60	.78	.48	.21	.11	.13	.52	.32	.21	.11
23	.23	.91	.72	.90	.46	.04	.11	.07	.51	.32	.21	.11
24	.29	.77	.89	.74	.46	.39	.79	0.99	.50	.31	.20	.10
25	.30	.99	.90	.70	.48	.83	3.90	.94	.49	.30	.20	.10
26	0.29	1.20	0.80	0.64	0.48	1.79	3.10	0.90	0.49	0.30	0.18	0.10
27	.29	.46	.79	.64	.48	.72	.00	.85	.48	.29	.18	.10
28	.32	.68	.76	.70	.50	2.38	2.33	.82	.48	.28	.18	.10
29	.38	.39	.60	.74	.48	1.65	1.92	.81	.47	.28	-	.11
30	.36	.33	.57	.68	.50	.71	.68	.79	.46	.28	-	.10
31	-	.20	-	.65	.56	-	.57	-	.45	.28	-	.10
Mean	0.26	0.71	0.69	0.65	0.54	1.27	2.00	1.10	0.62	0.35	0.23	0.13
Max.	0.38	1.68	0.97	0.90	0.73	2.38	3.90	1.57	0.93	0.44	0.28	0.26
Min.	0.20	0.36	0.56	0.50	0.46	0.59	1.11	0.79	0.45	0.28	0.18	0.10

WATER YEAR 1964 : Max. 3.90 m. Min. 0.10 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.56	1.32	12	3.40	6.53	4.04	51	34	13	5.20	2.72	1.50
2	0.48	1.08	10	2.92	5.05	5.73	68	31	14	4.80	2.58	1.88
3	0.40	1.64	8.24	2.76	4.37	17	136	27	16	4.80	2.58	2.44
4	0.36	2.48	6.32	2.60	4.04	7.79	136	26	17	4.80	2.58	2.16
5	0.32	2.60	5.39	3.08	3.88	8.72	95	23	15	4.80	2.58	1.60
6	0.32	2.48	4.54	3.88	3.88	11	70	21	13	4.80	2.58	1.40
7	0.24	2.00	4.37	3.40	3.56	23	76	26	13	4.60	2.44	1.20
8	0.24	2.12	4.54	3.08	3.24	72	50	42	12	4.40	2.44	1.10
9	0.24	2.60	4.37	3.88	3.56	40	50	34	11	4.26	2.30	1.00
10	0.20	3.24	4.88	3.40	3.40	24	58	30	11	3.98	2.30	0.90
11	0.20	2.36	5.73	3.08	3.72	15	62	27	10	3.98	2.30	0.90
12	0.20	2.60	5.39	3.40	3.72	9.44	46	26	9.80	3.98	2.30	0.90
13	0.20	2.60	4.88	5.05	3.40	6.95	61	24	9.32	3.98	2.16	0.80
14	0.48	2.48	4.37	9.20	3.24	6.95	48	21	9.08	3.84	2.02	0.80
15	0.68	2.12	6.53	8.24	3.24	18	38	19	8.84	3.70	1.88	0.70
16	1.00	2.36	4.04	6.53	3.56	16	63	18	8.38	3.70	2.44	0.70
17	0.76	4.37	3.88	5.90	3.88	14	53	17	8.16	3.56	2.16	0.70
18	0.52	5.56	4.04	9.92	3.40	25	42	16	7.94	3.56	2.02	0.60
19	0.48	5.22	3.56	6.74	3.08	18	34	19	7.50	3.42	1.88	0.60
20	0.40	5.56	4.04	5.56	2.76	22	33	34	7.28	3.28	1.74	0.80
21	0.40	3.72	3.56	4.54	2.48	36	27	29	7.06	3.28	1.74	0.70
22	0.36	3.56	4.20	7.58	2.36	20	23	24	6.84	3.28	1.74	0.70
23	0.32	11	6.32	10	2.12	14	23	22	6.62	3.28	1.74	0.70
24	0.56	7.37	10	6.74	2.12	27	52	19	6.40	3.14	1.60	0.60
25	0.60	13	10	5.90	2.36	48	227	18	6.20	3.00	1.60	0.60
26	0.56	20	8.00	4.88	2.36	45	141	16	6.20	3.00	1.40	0.60
27	0.56	30	7.79	4.88	2.36	42	131	15	6.00	2.86	1.40	0.60
28	0.76	40	7.16	5.90	2.60	83	83	14	6.00	2.72	1.40	0.60
29	1.24	25	4.20	6.74	2.36	38	59	14	5.80	2.72	-	0.70
30	1.08	24	3.72	5.56	2.60	41	47	13	5.60	2.72	-	0.60
31	-	20	-	5.50	3.56	-	42	-	5.40	2.72	-	0.60
Total	14.72	254.44	176.06	163.79	102.79	758.62	2,125	699	289.42	116.16	58.62	29.58
Mean	0.49	8.21	5.87	5.28	3.31	25.3	68.5	23.3	9.32	3.75	2.09	0.95
Max.	1.24	40	12	10	6.53	83	227	42	17	5.20	2.72	2.44
Min.	0.20	1.08	3.56	2.60	2.12	4.04	23	13	5.40	2.72	1.40	0.60
Runoff - mcm.	1.272	21.984	15.211	14.151	8.881	65.545	183.600	60.394	25.006	10.035	5.055	2.555

WATER YEAR 1964 : Max. 227 Min. 0.20 Mean 13.1 Annual Runoff 413.700 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 25	06.00	4.67	275				

WATER YEAR 1963  
WANG RIVER BASIN

Mae Wang River at Rasada Phisek Bridge, Lampang. (W. 1)

Location: Lat 18° - 17' - 28" N., Long 99° - 30' - 14" E., on left bank about 100 meters downstream from Rasada Phisek Bridge, Amphoe Muang, Lampang.

Drainage Area: 3,480 sq.km. referred to AMS Map 1:50,000.

Type of Gage: Staff gage.

Zero Gage at Bottom at: + 228.41 m. (M.S.L.)

Bench Mark: B.M. - R.I.D. 20796

Location: About 700 meters north of the slaughter house.

Elevation: + 233.739 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: 1901 to date.

Rating Operation:

Period of Rating: 1955 - 61.

Rated by Float: -

Rated by Current Meter: 1955 - 61.

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

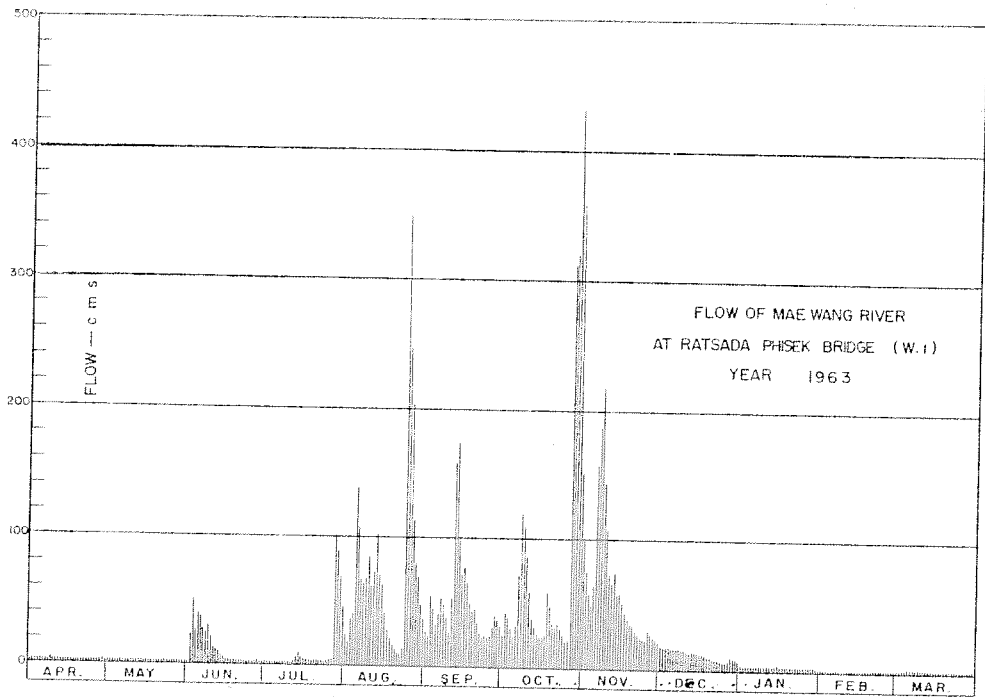
Overbank Flow Conditions: No overbank flow.

General Description: Gage height record good, discharge record fair. Stage - discharge relationship used is defined by discharge measurements made during 1961. Upstream state diversions for irrigation of about 12,320 hectares at Mae Wang weir. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	228.69	228.70	228.65	228.76	229.40	229.47	229.45	230.41	229.34	228.88	228.75	228.72
2	.69	.73	.64	.71	.32	.42	.76	.17	.31	.86	.74	.72
3	.69	.71	229.88	.71	.66	.93	.69	229.96	.32	.85	.74	.74
4	.70	.71	.44	.71	.70	.71	.54	.81	.31	.83	.74	.78
5	.70	.69	.73	.71	230.84	.55	.43	.97	.30	.83	.74	.80
6	228.70	228.67	229.66	228.71	230.50	229.76	229.60	231.01	229.30	228.82	228.75	228.77
7	.70	.68	.47	.70	.07	.91	230.06	.23	.30	.82	.75	.76
8	.70	.68	.46	.70	.04	.84	.67	.47	.29	.86	.75	.76
9	.86	.68	.56	.69	.09	.64	.59	230.76	.26	.86	.74	.75
10	.75	.66	.33	.68	.30	.50	.23	.38	.26	.85	.74	.74
11	228.73	228.64	229.17	228.69	229.95	229.45	229.89	230.14	229.24	228.84	228.74	228.70
12	.71	.68	.14	.73	230.12	231.01	.71	.05	.21	.83	.73	.69
13	.72	.72	.08	.94	.50	.15	.58	.18	.23	.82	.73	.68
14	.71	.70	228.94	229.08	.11	230.36	.50	229.95	.22	.83	.73	.68
15	.71	.70	.90	228.97	.04	.05	.44	.97	.21	.90	.73	.68
16	228.71	228.69	228.80	228.85	229.75	230.21	229.43	229.83	229.20	228.86	228.73	228.68
17	.70	.68	.80	.81	.50	.02	.48	.78	.18	.83	.73	.70
18	.70	.66	.78	.81	.41	229.78	.97	.70	.15	.84	.73	.70
19	.70	.66	.79	.80	.28	.76	.78	.64	.12	.82	.73	.70
20	.69	.66	.75	.83	.21	.80	.61	.61	.08	.82	.73	.70
21	228.67	228.66	228.80	228.81	229.13	229.57	229.59	229.55	229.04	228.80	228.74	228.70
22	.68	.66	.77	.80	.08	.47	.65	.49	.04	.80	.74	.69
23	.67	.66	.74	.81	.21	.42	.56	.46	.02	.81	.74	.68
24	.67	.65	.74	.76	232.21	.45	.47	.43	228.99	.80	.74	.68
25	.70	.65	.73	.79	231.50	.39	.38	.41	.98	.80	.76	.67
26	228.69	228.66	228.72	228.87	231.38	229.46	229.38	229.44	228.97	228.80	228.73	228.68
27	.67	.66	.72	.81	230.62	.66	232.02	.39	.96	.80	.73	.68
28	.76	.66	.79	230.49	.21	.73	.06	.37	229.08	.80	.72	.68
29	.81	.66	.72	.34	.10	.67	.61	.39	.06	.79	.72	.70
30	.71	.65	.70	.07	229.78	.56	.29	.35	.05	.78	-	.70
31	-	.65	-	229.72	.66	-	230.90	-	.01	.76	-	.70
Mean	228.71	228.67	229.01	228.96	230.02	229.79	230.07	229.94	229.16	228.82	228.74	228.71
Max.	228.86	228.73	229.88	230.49	232.21	231.15	232.61	231.47	229.34	228.90	228.75	228.80
Min.	228.67	228.64	228.64	228.68	229.08	229.39	229.38	229.35	228.96	228.76	228.72	228.67

WATER YEAR 1963 : Max. 232.61 m. Min. 228.64 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.95	1.00	0.75	1.72	20	24	23	93	17	3.64	1.60	1.24
2	0.95	1.36	0.70	1.12	16	21	41	73	16	3.28	1.48	1.24
3	0.95	1.12	50	1.12	35	53	36	56	16	3.10	1.48	1.48
4	1.00	1.12	22	1.12	37	38	28	45	16	2.74	1.42	1.96
5	1.00	0.95	39	1.12	136	28	22	57	15	2.74	1.48	2.20
6	1.00	0.85	35	1.12	101	41	31	155	15	2.56	1.60	1.84
7	1.00	0.90	24	1.00	65	52	64	183	15	2.56	1.60	1.72
8	1.00	0.90	23	1.00	62	47	118	216	15	2.28	1.60	1.72
9	3.28	0.90	29	0.95	66	33	110	128	14	3.28	1.48	1.60
10	1.60	0.80	17	9.90	83	25	77	90	14	3.10	1.48	1.48
11	1.36	0.70	11	0.95	55	23	50	70	13	2.92	1.48	1.00
12	1.12	0.90	10	1.36	69	155	38	63	12	2.74	1.36	0.95
13	1.24	1.24	8.44	4.88	101	172	30	73	13	2.56	1.36	0.90
14	1.12	1.00	4.88	8.44	68	88	25	55	12	2.74	1.36	0.90
15	1.12	1.00	4.00	5.54	62	63	22	57	12	4.00	1.36	0.90
16	1.12	0.95	2.20	3.10	40	76	22	46	11	3.28	1.36	0.90
17	1.00	0.90	2.20	2.38	25	61	24	43	10	2.74	1.36	1.00
18	1.00	0.80	1.96	2.38	20	43	57	37	10	2.92	1.36	1.00
19	1.00	0.80	2.08	2.20	15	41	43	33	9.50	2.56	1.36	1.00
20	0.95	0.80	1.60	2.74	12	44	32	32	8.44	2.56	1.36	1.00
21	0.85	0.80	2.20	2.38	9.75	29	30	28	7.32	2.20	1.48	1.00
22	0.90	0.80	1.84	2.20	8.44	24	34	25	7.32	2.20	1.48	0.95
23	0.85	0.80	1.48	2.38	12	21	29	23	6.76	2.38	1.48	0.90
24	0.85	0.75	1.48	1.72	347	23	24	22	5.98	2.20	1.48	0.90
25	1.00	0.75	1.36	2.08	221	20	19	21	5.76	2.20	1.72	0.85
26	0.95	0.80	1.24	3.46	203	23	19	22	5.54	2.20	1.36	0.90
27	0.85	0.80	1.24	2.38	113	31	309	20	5.32	2.20	1.36	0.90
28	1.72	0.80	2.08	100	76	39	317	19	8.44	2.20	1.24	0.90
29	2.38	0.80	1.24	87	67	35	431	20	7.88	2.08	1.24	0.90
30	1.12	0.75	1.00	65	43	29	363	18	7.60	1.96	-	1.00
31	-	0.75	-	38	35	-	143	-	7.48	1.72	-	1.00
Total	35.23	27.59	303.97	351.74	2,223.19	1,402	2,611	1,823	339.34	82.84	41.84	36.33
Mean	1.17	0.89	10.1	11.3	71.7	46.7	84.2	60.7	10.9	2.67	1.44	1.77
Max.	3.28	1.36	50	100	347	172	431	216	17	4.00	1.60	2.20
Min.	0.85	0.70	0.70	0.90	8.44	20	19	18	5.32	1.72	1.24	0.85
Runoff - BCM.	3.044	2.384	26.263	30.390	192.084	121.133	225.590	157.507	29.319	7.157	3.615	3.139

WATER YEAR 1963 : Max. 431 Min. 0.70 Mean 25.3 Annual Runoff 801.625 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 30	06.00	233.16	554				

WATER YEAR 1964  
WANG RIVER BASIN

Mae Wang River at Rasada Phisek Bridge, Lampang. (W. 1)

Location: Lat 18° - 17' - 28" N., Long 99° - 30' - 14" E., on left bank about 100 meters downstream from Rasada Phisek Bridge, Amphoe Muang, Lampang.

Drainage Area: 3,480 sq.km. referred to AMS Map. 1:50,000.

Type of Gage: Staff gage.

Zero Gage at Bottom at: + 228.41 m. (M.S.L.)

Bench Mark: B.M. - R.I.D. 20796

Location: About 700 meters north of the slaughter house.

Elevation: + 233.738 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: 1955 - 61.

Rated by Float: -

Rated by Current Meter: 1955 - 61.

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

Overbank Flow Conditions: No overbank flow.

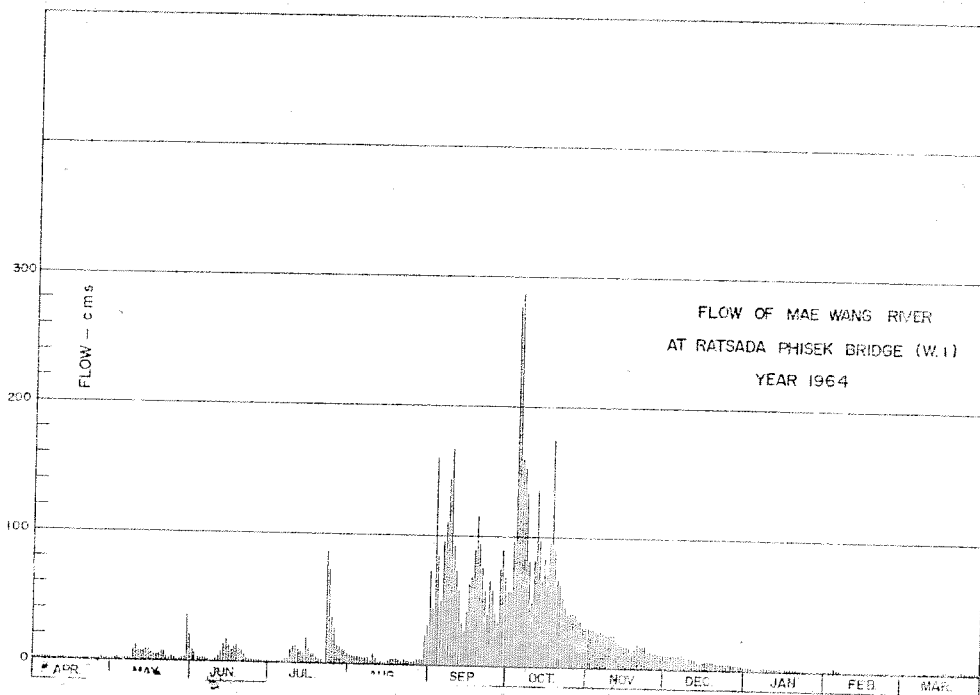
General Description: Gage height record good, discharge record fair. Stage - discharge relationship used is defined by discharge measurements made during 1961. Upstream state diversions for irrigation of about 12,320 hectares at Mae Wang weir. No adjustment made for virgin flow.

GAGE HEIGHT IN METER ( M. S. L.), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	228.71	228.73	229.13	228.71	229.06	230.18	229.99	229.59	229.20	228.88	228.72	228.69
2	.70	.74	229.97	.71	.82	229.80	.99	.58	.19	.87	.70	.69
3	.70	.86	.86	.71	.82	231.05	230.44	.58	.17	.87	.71	.66
4	.70	.75	.85	.72	.82	230.51	231.84	.57	.18	.82	.91	.65
5	.68	.76	.89	.75	228.99	229.89	.90	.55	.19	.81	.81	.67
6	228.68	228.80	228.81	228.75	228.99	230.45	231.05	229.54	229.18	228.81	228.80	228.66
7	.68	.79	.79	.89	.98	.70	230.99	.52	.18	.82	.69	.67
8	.68	.75	.75	.87	.98	.91	.82	.51	.16	.84	.70	.67
9	.70	229.10	.72	229.20	.67	231.11	.28	.49	.16	.83	.78	.66
10	.69	.21	.81	.23	229.10	230.41	229.89	.51	.15	.82	.73	.66
11	228.70	229.09	228.91	229.26	228.96	230.18	230.29	229.51	229.11	228.84	228.73	228.71
12	.70	.83	229.86	.14	.76	229.99	.85	.41	.10	.83	.71	.69
13	.70	.87	.27	.11	.82	.64	.46	.37	228.97	.81	.71	.68
14	.70	.12	.35	.85	.76	.53	.89	.35	.96	.81	.71	.69
15	.70	.18	.23	.41	.76	.77	.38	.33	229.80	.81	.69	.68
16	228.68	229.82	229.14	229.24	228.82	230.05	230.15	229.34	229.03	228.85	228.69	228.73
17	.65	228.96	.22	.85	.91	.13	.45	.31	.84	.81	.69	.76
18	.63	.95	.26	.87	.95	.37	231.17	.26	.84	.81	.69	.79
19	.62	.99	.15	228.97	.95	.65	230.37	.28	.82	.80	.67	.73
20	.64	229.05	.14	.89	.91	.42	.89	.40	.80	.79	.67	.71
21	228.63	229.06	229.06	228.84	228.81	230.21	230.05	229.34	228.97	228.77	228.69	228.71
22	.63	228.83	228.88	.49	.91	229.98	229.91	.35	.99	.75	.66	.71
23	.64	.81	.81	230.35	.83	.75	.82	.36	.98	.74	.66	.71
24	.68	.90	.80	.17	.82	230.09	.74	.27	.99	.74	.66	.69
25	.67	.83	.80	229.68	.81	229.99	.77	.26	.97	.73	.66	.71
26	228.66	228.76	228.79	229.52	228.88	229.76	229.77	229.25	228.97	228.73	228.66	228.71
27	.80	.75	.78	.28	.95	.65	.75	.24	.95	.72	.68	.71
28	.69	.81	.77	.25	.93	230.20	.72	.21	.93	.71	.69	.70
29	.75	.85	.75	.22	.91	.38	.66	.22	.92	.71	-	.70
30	.70	229.68	.72	.19	229.46	.12	.59	.20	.93	.72	-	.70
31	-	.42	-	.88	.60	-	.60	-	.89	.72	-	.69
Mean	228.68	228.95	228.95	229.12	228.95	230.19	230.28	229.39	229.05	228.79	228.71	228.70
Max.	228.80	229.68	229.35	230.35	229.60	231.11	231.90	229.59	229.20	228.88	228.91	228.79
Min.	228.62	228.73	228.72	228.49	228.76	229.53	229.59	229.20	228.89	228.71	228.66	228.65

WATER YEAR 1964 : Max. 231.90 m. Min. 228.62 m.





DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	1.12	1.36	9.75	1.12	7.88	73	58	30	11	3.64	1.24	0.95
2	1.00	1.48	5.54	1.12	6.76	44	58	30	11	3.46	1.00	0.95
3	1.00	3.28	3.28	1.12	6.76	160	96	30	11	3.46	1.12	0.80
4	1.00	1.60	3.10	1.24	6.76	84	277	29	11	2.56	4.22	0.75
5	0.90	1.72	3.82	1.60	5.98	50	287	28	11	2.38	2.38	0.95
6	0.90	2.20	2.38	1.60	5.98	96	160	28	11	2.38	2.20	0.80
7	0.90	2.08	2.08	3.82	5.76	121	193	27	11	2.96	0.95	0.95
8	0.90	1.60	1.60	3.46	5.76	144	194	26	10	2.92	1.00	0.85
9	1.00	9.00	1.24	11	3.46	167	81	25	10	2.94	1.96	0.80
10	0.95	12	2.38	13	9.00	93	50	26	10	2.56	1.36	0.80
11	1.00	8.72	3.22	14	3.32	73	82	26	9.25	2.92	1.36	1.12
12	1.00	7.04	8.44	10	1.72	58	137	20	9.88	2.76	1.12	0.85
13	1.00	8.16	14	9.25	2.56	33	93	16	5.94	2.88	1.12	0.90
14	1.00	9.50	18	7.04	1.72	27	65	15	5.10	2.38	1.12	0.95
15	1.00	9.00	13	20	1.72	42	82	17	6.20	3.78	0.95	0.90
16	0.90	6.76	10	13	2.56	63	71	17	7.04	2.74	0.95	1.36
17	0.75	5.32	12	7.88	4.22	69	96	15	7.32	2.78	0.95	1.72
18	0.65	5.10	14	8.16	4.66	89	135	14	7.32	2.38	0.95	2.08
19	0.60	5.98	10	5.54	3.10	114	74	15	6.76	2.20	0.85	1.36
20	0.70	7.60	10	7.82	4.22	94	11	20	6.20	2.08	0.85	1.12
21	0.65	7.88	1.82	2.42	2.74	25	57	13	5.54	1.84	0.95	1.12
22	0.65	2.74	3.64	10.00	4.22	37	72	18	5.98	1.60	0.80	1.12
23	0.70	2.38	2.38	87	2.74	40	45	18	5.76	1.48	0.80	1.12
24	0.90	4.00	2.20	7	2.96	65	40	14	5.08	1.48	0.80	2.08
25	0.85	2.74	2.20	36	2.38	58	42	16	5.54	1.36	0.80	1.12
26	0.80	1.96	2.08	27	3.58	41	42	15	5.54	1.36	0.80	1.12
27	2.20	1.60	1.96	15	4.66	34	42	12	5.10	1.24	0.90	1.12
28	0.95	2.38	1.84	13	4.66	75	38	12	4.66	1.12	0.95	1.00
29	1.36	3.10	1.60	12	4.22	91	37	12	4.44	1.12	-	1.00
30	1.00	36	1.24	11	27	68	30	11	4.00	1.24	-	1.00
31	-	21	-	8.40	31	-	51	-	3.82	1.24	-	0.95
Total	23.33	195.28	175.85	423.00	183.36	2,302	2,774	603	233.09	68.32	34.45	23.51
Mean	0.94	6.30	5.86	13.6	5.91	76.7	89.4	20.1	7.52	2.20	1.23	1.08
Max.	2.20	36	18	87	31	167	287	30	11	3.64	4.22	2.08
Min.	0.60	1.36	1.24	0.80	1.72	27	30	11	3.82	1.12	0.80	0.75
Runoff - mm.	2.448	16.672	15.193	36.554	15.842	198.893	239.574	52.099	28.139	5.903	2.975	2.904

WATER YEAR 1964 : Max. 287 Min. 0.60 Mean 19.3 Annual Runoff 609.497 mm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 4	18.00	232.30	365				

WATER YEAR 1963  
WANG RIVER BASIN

Mae Wang River at Siriyong Bridge, Lampang. (W. 3)

Location: Lat  $17^{\circ} - 37' - 29''$  N., Long  $99^{\circ} - 14' - 04''$  E., on right bank about 30 meters upstream from Siriyong Bridge, Tambon Lam Raet, Amphoe Thoen, Lampang.

Drainage Area: 8,950 sq.km. referred to AMS Map 1:50,000.

Type of Gage: Staff gage.

Zero Gage at Bottom at: + 13.87 m. (A.D.)

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

Location: on right bank 5 meters from the upper gage.

Elevation: + 20.00 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: 1954 to date.

Rating Operation:

Period of Rating: 1954 - 60.

Rated by Float: -

Rated by Current Meter: 1954 - 60.

Stability of Channel Regimes: Rather unstable. Shifting adjustment not included for flow computation for years without actual ratings.

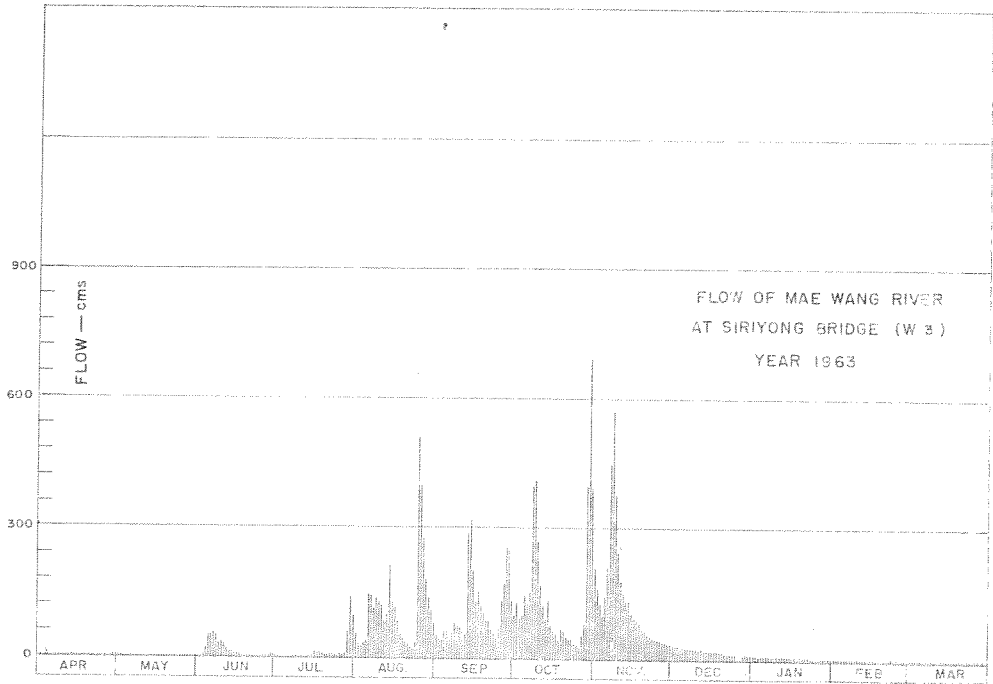
Overbank Flow Conditions: No overbank flow.

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

GAGE HEIGHT IN METER ( A. D. ), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	14.49	14.64	14.59	14.64	15.41	15.40	15.82	16.46	15.16	14.82	14.67	14.58
2	.48	.58	.41	.58	.18	.32	.98	.21	.15	.79	.67	.57
3	.47	.57	.70	.59	.07	.27	.74	15.98	.14	.77	.66	.57
4	.47	.52	15.03	.59	.20	.53	.79	.79	.11	.75	.66	.56
5	.47	.53	.39	.57	.27	.48	16.10	16.06	.10	.75	.66	.56
6	14.46	14.50	15.38	14.62	16.28	15.35	15.99	16.61	15.09	14.76	14.66	14.56
7	.46	.49	.44	.55	.26	.46	16.18	17.33	.07	.76	.66	.56
8	.45	.47	.37	.54	15.92	.64	17.18	.66	.06	.76	.67	.55
9	.45	.46	.16	.53	16.07	.61	.21	.11	.06	.76	.67	.55
10	.44	.45	.23	.58	15.98	.58	16.70	16.59	.06	.79	.67	.55
11	14.44	14.44	15.16	14.58	15.95	15.47	16.25	16.29	15.04	14.79	14.67	14.55
12	.44	.43	.02	.56	.69	.42	15.95	.13	.02	.79	.67	.55
13	.45	.42	14.94	.56	.81	16.79	.74	.01	.01	.75	.67	.55
14	.55	.40	.87	.57	16.45	.90	16.03	.03	.00	.75	.67	.54
15	.54	.40	.82	.69	.00	.40	15.61	15.84	14.99	.75	.67	.54
16	14.52	14.39	14.77	14.88	15.92	16.01	15.50	15.75	14.99	14.75	14.66	14.53
17	.50	.39	.75	.88	.71	.16	.34	.72	.98	.74	.66	.52
18	.47	.39	.71	.86	.46	15.95	.30	.64	.96	.74	.66	.52
19	.46	.38	.68	.79	.29	.82	.54	.54	.95	.74	.66	.51
20	.46	.39	.65	.79	.21	.70	.48	.48	.93	.73	.66	.54
21	14.45	14.37	14.63	14.73	15.17	15.69	15.36	15.43	14.91	14.73	14.65	14.53
22	.45	.39	.60	.76	.07	.51	.28	.38	.89	.72	.64	.53
23	.45	.37	.59	.81	.03	.42	.32	.34	.87	.70	.63	.52
24	.46	.36	.57	.78	.34	.40	.20	.51	.86	.70	.63	.52
25	.53	.36	.58	.74	17.51	.55	.14	.28	.84	.70	.62	.52
26	14.49	14.34	14.60	14.79	17.18	16.03	15.19	15.26	14.63	14.69	14.62	14.52
27	.47	.33	.60	.75	16.73	.27	.51	.24	.63	.69	.61	.52
28	.46	.32	.58	.78	.31	.63	.72	.22	.82	.68	.60	.51
29	.67	.30	.79	15.50	.06	.53	17.19	.20	.82	.68	.59	.51
30	.62	.28	.72	16.08	15.89	.07	.91	.18	.84	.67	-	.51
31	-	.27	-	15.78	.60	-	.16	-	.83	.67	-	.50
Mean	14.48	14.42	14.84	14.79	15.81	15.81	15.85	15.90	14.96	14.74	14.65	14.54
Max.	14.67	14.64	15.44	16.08	17.51	16.90	17.91	17.66	15.16	14.82	14.67	14.58
Min.	14.44	14.27	14.41	14.53	15.03	15.27	15.14	15.18	14.63	14.67	14.59	14.50

WATER YEAR 1963 : Max. 17.91 m. Min. 14.27 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.48	3.52	2.04	3.52	55	54	104	215	32	11	4.51	1.88
2	0.36	1.88	0.00	1.88	34	46	127	165	32	9.37	4.51	1.72
3	0.24	1.72	5.50	2.04	26	42	93	127	31	8.51	4.18	1.72
4	0.24	0.92	23	2.04	36	68	160	100	28	7.65	4.18	1.56
5	0.24	1.08	53	1.72	42	63	146	140	28	7.65	4.18	1.56
6	0.12	0.60	52	2.86	178	49	128	248	27	8.08	4.18	1.56
7	0.12	0.48	58	1.40	175	60	160	449	26	8.08	4.18	1.56
8	0.00	0.24	51	1.24	118	81	401	571	25	8.08	4.51	1.72
9	0.00	0.12	32	1.08	141	77	410	379	25	8.08	4.51	1.40
10	0.00	0.00	38	1.88	127	74	270	244	25	9.37	4.51	1.40
11	0.00	0.00	32	1.88	122	61	173	180	23	9.37	4.51	1.40
12	0.00	0.00	22	1.56	87	56	122	151	22	9.37	4.51	1.40
13	0.00	0.00	17	1.56	102	292	93	132	21	7.65	4.51	1.40
14	1.40	0.00	13	1.72	213	320	135	135	21	7.65	4.51	1.24
15	1.24	0.00	11	5.17	130	202	77	107	20	7.65	4.51	1.24
16	0.92	0.00	8.51	14	118	132	65	94	20	7.65	4.18	1.08
17	0.60	0.00	7.65	14	89	156	48	91	19	7.22	4.18	0.92
18	0.24	0.00	5.93	13	60	122	44	81	18	7.22	4.18	0.92
19	0.12	0.00	4.84	9.37	43	104	69	69	18	7.22	4.18	0.76
20	0.12	0.00	3.85	9.37	36	88	63	63	17	6.79	4.18	1.24
21	0.00	0.00	3.19	6.79	33	87	50	57	15	6.79	3.85	1.08
22	0.00	0.00	2.20	8.08	26	66	43	52	14	6.36	3.52	1.08
23	0.00	0.00	2.04	19	23	56	46	48	13	5.50	3.19	0.92
24	0.12	0.00	1.72	8.94	48	54	36	45	13	5.50	3.19	0.92
25	1.08	0.00	1.88	7.22	511	70	31	43	12	5.50	2.86	0.92
26	0.48	0.00	2.20	9.37	401	135	35	41	3.19	5.17	2.86	0.92
27	0.24	0.00	2.20	7.55	277	176	66	39	3.19	5.17	2.53	0.92
28	0.12	0.00	1.88	8.94	184	253	91	37	11	4.84	2.20	0.76
29	4.51	0.00	9.37	65	140	251	404	36	11	4.84	2.04	0.76
30	2.86	0.00	6.36	143	114	141	690	34	12	4.51	-	0.76
31	-	0.00	-	98	76	-	395	-	11	4.51	-	0.60
Total	15.85	10.56	473.36	464.28	3,765	3,416	4,715	4,173	596.38	222.3	113	37
Mean	0.53	0.34	15.8	14.9	121	114	152	139	19.2	7.17	3.90	1.19
Max.	4.51	3.52	58	143	511	320	690	571	32	11	4.51	1.88
Min.	0.00	0.00	0.00	1.08	23	42	31	34	3.19	4.51	2.04	0.60
Runoff - mcm.	1.369	0.912	40.898	40.114	325.296	295.142	407.376	360.547	51.527	19.207	9.763	3.197

WATER YEAR 1963 : Max. 690 Min. 0.00 Mean 49.2 Annual Runoff 1,555.349 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct.30	18.00	18.03	759				

WATER YEAR 1964  
WANG RIVER BASIN

Mae Wang River at Siriyong Bridge, Lampang. (W. 3)

Location: Lat 17° - 37' - 29" N., Long 99° - 14' - 04" E., on right bank about 30 meters upstream from Siriyong Bridge, Tambon Lom Raet, Amphoe Thoen, Lampang.

Drainage Area: 8,950 sq.km. referred to AMS.Map. 1:50,000.

Type of Gage: Staff gage.

Zero Gage at Bottom at: + 13.87 m. (A.D.)

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

Location: on right bank 5 meters from the upper gage.

Elevation: + 20.00 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: 1954 to date.

Rating Operation:

Period of Rating: 1954 - 60.

Rated by Float: -

Rated by Current Meter: 1954 - 60.

Stability of Channel Regimes: Rather unstable. Shifting adjustment not included for flow computation for years without actual ratings.

Overbank Flow Conditions: No overbank flow.

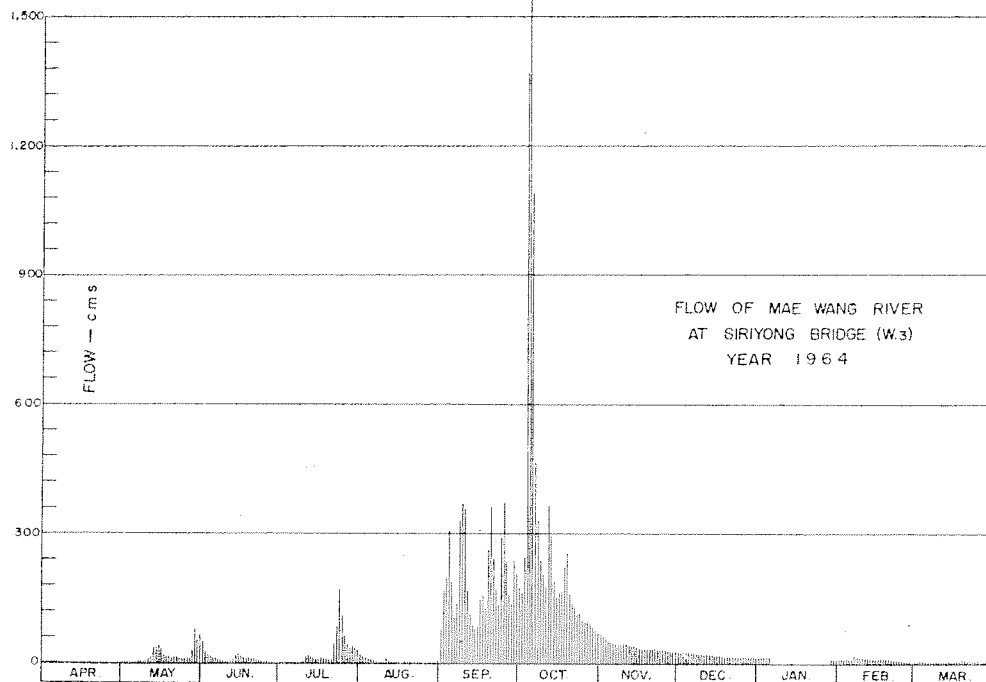
General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made during 1955 - 59. No upstream state diversions for irrigation except those built by the farmers. No adjustment made for virgin flow.

Remark: No gage height record for Jan. 6 - 28.

GAGE HEIGHT IN METER ( A. D. ), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	14.50	14.61	15.40	14.57	15.03	15.71	16.26	15.51	15.08	14.88	14.77	14.68
2	.49	.57	.11	.60	14.93	16.21	.19	.47	.08	.87	.77	.68
3	.49	.51	14.98	.55	.88	.35	.60	.42	.07	.87	.77	.69
4	.48	.58	.88	.55	.83	.86	18.87	.38	.07	.87	.81	.69
5	.48	.58	.80	.56	.76	.15	19.23	.35	.06	.87	.79	.67
6	14.47	14.61	14.77	14.56	14.73	15.82	18.54	15.33	15.06		14.78	14.63
7	.47	.60	.75	.57	.70	16.05	17.36	.30	.05		.95	.62
8	.46	.61	.71	.59	.67	.94	16.90	.28	.04		.91	.62
9	.45	.63	.68	.65	.65	17.08	.52	.29	.04		.87	.62
10	.44	.63	.65	.68	.71	16.66	.41	.32	.03		.86	.61
11	14.43	14.71	14.64	14.91	14.84	16.22	16.29	15.31	15.02		14.85	14.61
12	.42	.87	.66	15.00	.69	15.96	17.06	.27	.01		.81	.61
13	.42	15.18	.75	14.95	.66	.70	16.73	.25	.00		.79	.60
14	.41	.19	.95	.85	.64	.64	.33	.24	14.98		.81	.60
15	.41	.26	.99	.80	.63	.70	.13	.22	.97		.80	.59
16	14.40	15.17	14.96	14.77	14.64	16.11	16.19	15.19	14.96		14.79	14.60
17	.40	14.93	.91	.91	.65	.17	.18	.18	.95		.79	.63
18	.39	.92	.80	.85	.68	15.97	.45	.17	.94		.78	.63
19	.38	.90	.85	.76	.68	16.67	.64	.16	.93		.77	.73
20	.38	.78	.82	.74	.68	17.05	.21	.16	.92		.76	.72
21	14.38	14.87	14.77	14.70	14.66	16.58	16.05	15.18	14.91		14.76	14.71
22	.44	.84	.72	15.30	.64	.24	.04	.19	.90		.75	.69
23	.43	.79	.69	.50	.63	.03	15.88	.16	.89		.75	.67
24	.41	.72	.65	16.23	.67	.80	.90	.15	.88		.73	.66
25	.39	.76	.63	15.88	.66	17.09	.76	.13	.87		.70	.66
26	14.38	14.74	14.62	15.52	14.65	16.45	15.75	15.13	14.88		14.70	14.67
27	.38	.79	.61	.30	.65	.12	.76	.12	.89		.69	.64
28	.37	15.16	.60	.21	.68	.03	.73	.11	.89		.69	.62
29	.37	.60	.59	.25	.68	.57	.67	.10	.88	14.78	-	.61
30	.37	.39	.58	.20	.70	.40	.59	.09	.88	.77	-	.60
31	-	.54	-	.14	.76	-	.54	-	.88	.77	-	.59
Mean	14.42	14.87	14.78	14.96	14.71	16.31	16.48	15.24	14.96		14.78	14.64
Max.	14.50	15.60	15.40	16.23	15.03	17.09	19.23	15.51	15.08		14.95	14.73
Min.	14.37	14.51	14.58	14.55	14.63	15.64	15.54	15.09	14.87		14.69	14.59

WATER YEAR 1964 : Max. 19.23 m. Min. 14.37 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.60	2.53	54	1.72	23	89	175	66	26	14	8.51	4.84
2	0.48	1.72	28	2.20	17	165	162	61	26	13	8.51	4.84
3	0.48	0.76	19	1.40	14	192	246	56	26	13	8.51	5.17
4	0.36	1.88	14	1.40	11	310	1,370	42	26	13	10	5.17
5	0.36	1.88	9.80	1.56	8.08	155	1,630	49	25	13	9.37	4.51
6	0.24	2.53	8.51	1.56	6.79	104	1,090	47	25		8.94	3.19
7	0.24	2.20	7.65	1.72	5.50	138	459	44	24		18	2.86
8	0.12	2.53	5.93	2.04	4.51	331	320	43	23		15	2.86
9	0.00	3.19	4.84	3.85	3.85	370	228	43	23		13	2.86
10	0.00	3.19	3.85	4.84	5.93	260	204	46	23		13	2.53
11	0.00	5.93	3.52	15	12	167	180	45	22		12	2.53
12	0.00	13	4.18	21	5.17	124	364	42	21		10	2.53
13	0.00	34	7.65	18	4.18	88	277	40	21		9.37	2.20
14	0.00	35	18	12	3.52	81	188	39	19		10	2.20
15	0.00	41	20	9.80	3.19	88	151	37	19		9.80	2.04
16	0.00	33	18	8.51	3.52	148	162	35	18		9.37	2.20
17	0.00	17	15	15	3.85	158	160	34	18		9.37	3.19
18	0.00	16	9.80	12	4.84	125	213	33	17		8.94	3.19
19	0.00	15	12	8.08	4.84	263	256	32	17		8.51	6.79
20	0.00	8.94	11	7.22	4.84	361	165	32	16		8.08	6.36
21	0.00	13	8.51	5.50	4.18	242	138	34	15		8.08	5.93
22	0.00	12	6.36	44	3.52	171	136	35	15		7.65	5.17
23	0.00	9.37	5.17	65	3.19	135	112	32	14		7.65	4.51
24	0.00	6.36	3.85	169	4.51	294	115	32	14		6.79	4.18
25	0.00	8.08	3.19	112	4.18	373	96	30	13		5.50	4.18
26	0.00	7.22	2.86	67	3.85	213	94	30	14		5.50	4.51
27	0.00	9.37	2.53	44	3.85	149	96	29	14		5.17	3.52
28	0.00	32	2.20	36	4.84	135	92	28	14		5.17	2.86
29	0.00	76	2.04	40	4.84	239	84	28	14	8.94	-	2.53
30	0.00	53	1.88	36	5.50	202	75	27	14	8.51	-	2.20
31	-	69	-	31	8.08	-	69	-	14	8.51	-	2.04
Total	2.88	535.68	313.32	798.40	200.15	5,870	9,107	1,181	590		259.79	113.69
Mean	1.10	173	10.4	25.7	6.46	196	294	39.3	19.0		9.28	3.67
Max.	0.60	76	54	169	23	373	1,630	66	26		18	6.79
Min.	0.00	0.76	1.88	1.40	3.19	81	69	27	13		5.17	2.04
Runoff - BCM.	0.249	46.369	27.071	68.982	17.293	507.168	786.845	102.038	50.976		22.446	9.823

WATER YEAR 1964 : Max. 1,630 Min. 0.00 Mean - Annual Runoff - mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct.5	18.00	19.27	1700				

WATER YEAR 1963  
WANG RIVER BASIN

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

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

Drainage Area: 10,407 sq.km. referred to AMS Map. 1:50,000.

Type of Gage: Staff gage.

Zero Gage at Bottom at: + 131.31 m. (M.S.L.)

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

Location: At the fence near the gage site.

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: Fairly stable, periodic rating curves are used for flow computation.

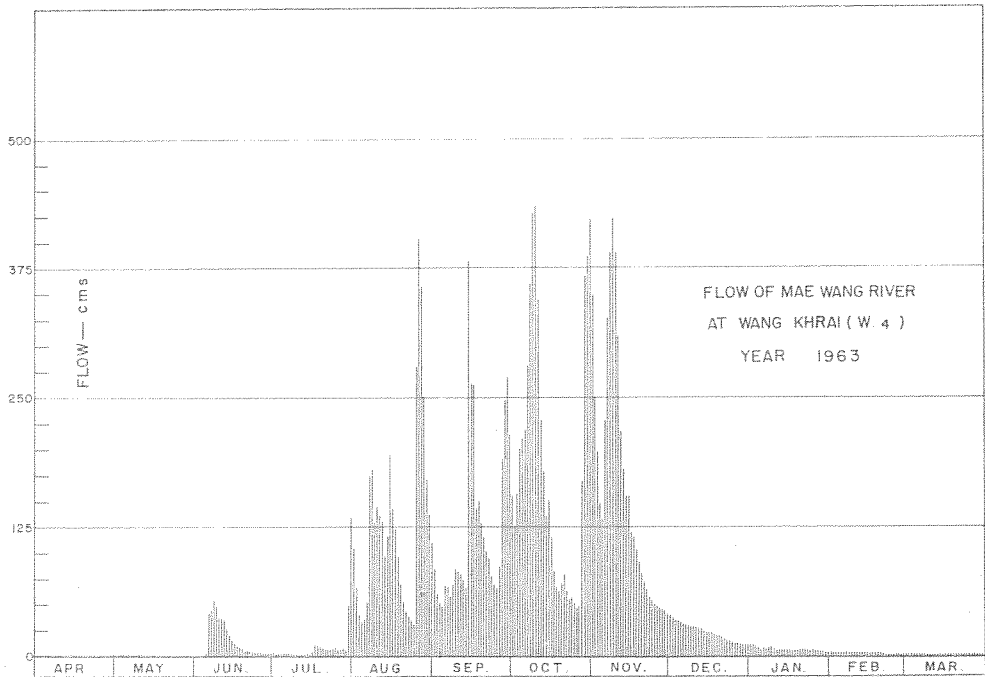
Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made in 1963. Upstream diversions for irrigation of about 12,320 hectares. The data presented is from actual observation at the gage site. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	131.96	131.90	131.59	132.14	134.14	133.92	134.90	136.76	136.36	132.70	132.42	132.26
2	.96	.99	.56	.06	133.55	.62	.57	135.99	.32	.68	.41	.25
3	.95	132.00	.59	131.99	.14	.45	135.06	.51	.31	.64	.40	.25
4	.95	.04	.56	132.08	.00	.31	.46	.07	.28	.58	.40	.24
5	.94	.00	.55	.08	.09	.72	.53	134.81	.23	.55	.39	.26
6	131.94	131.96	133.23	132.09	133.36	133.70	135.59	135.61	133.21	132.57	132.39	132.24
7	.93	.95	.29	.08	135.19	.48	.83	136.49	.19	.56	.39	.23
8	.93	.94	.45	.06	.26	.73	136.75	.83	.17	.57	.39	.22
9	.93	.94	.34	.04	134.56	134.00	.96	.95	.15	.57	.38	.22
10	.92	.93	.03	.03	.85	133.96	.99	.81	.14	.56	.38	.21
11	131.92	131.91	133.09	132.02	134.71	133.92	136.60	136.22	133.12	132.55	132.39	132.22
12	.91	.89	.07	.02	.65	.77	135.84	135.69	.10	.55	.40	.22
13	.91	.87	132.87	.04	.17	.65	.24	.45	.07	.54	.37	.20
14	.90	.86	.70	.03	.27	136.69	134.89	.14	.04	.54	.37	.20
15	.90	.94	.58	.05	135.39	135.96	135.62	.16	.03	.53	.36	.19
16	131.89	131.83	132.47	132.06	134.69	135.05	134.49	134.74	133.02	132.52	132.26	132.18
17	.89	.82	.40	.14	.59	134.79	.15	.64	.00	.51	.36	.19
18	.90	.81	.34	.46	.05	.92	133.92	.46	132.97	.50	.35	.18
19	.93	.76	.30	.45	133.66	.61	.84	.29	.96	.52	.34	.17
20	.92	.71	.25	.37	.41	.38	.98	.10	.92	.52	.33	.17
21	131.95	131.68	132.21	132.32	133.27	134.19	134.12	133.95	132.87	132.52	132.33	132.17
22	.92	.65	.18	.29	.18	.18	133.84	.85	.83	.51	.32	.16
23	.91	.62	.15	.30	.06	133.87	.68	.74	.81	.50	.32	.16
24	.90	.60	.13	.31	132.92	.72	.72	.68	.77	.47	.31	.16
25	.89	.59	.13	.34	134.91	.67	.52	.61	.75	.47	.30	.16
26	131.87	131.57	132.12	132.30	136.81	134.00	133.46	133.55	132.72	132.46	132.28	132.16
27	.91	.56	.10	.29	.52	135.11	.58	.50	.71	.45	.27	.16
28	.90	.54	.11	.37	135.82	.74	134.65	.47	.70	.45	.25	.16
29	.90	.52	.09	.32	.19	136.01	136.72	.41	.68	.44	.25	.15
30	.91	.54	.07	133.31	134.74	135.68	.75	.39	.66	.44	.25	.15
31	-	.61	-	134.75	.39	-	.95	-	.68	.43	-	.15
Mean	131.92	131.79	132.38	132.29	134.34	134.36	135.07	134.89	132.99	132.53	132.35	132.19
Max.	131.96	132.04	133.45	134.75	136.81	136.69	136.99	136.95	133.36	132.70	132.42	132.26
Min.	131.87	131.52	131.55	131.99	132.92	133.31	133.46	133.39	132.66	132.43	132.25	132.15

WATER YEAR 1963 : Max. 136.99 m. Min. 131.52 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.94	0.10	0.00	3.80	93	79	148	370	39	12	4.40	1.60
2	0.94	1.36	0.00	2.40	59	63	122	244	37	12	4.20	1.50
3	0.80	1.50	0.00	1.36	38	53	162	187	36	10	4.00	1.50
4	0.80	2.10	0.00	2.70	33	46	201	146	35	8.40	4.00	1.40
5	0.66	1.50	0.00	2.70	36	68	208	126	33	7.50	3.80	1.60
6	0.66	0.94	42	2.85	49	67	215	199	32	8.10	3.80	1.40
7	0.52	0.80	45	2.70	174	55	245	320	31	7.80	3.80	1.30
8	0.52	0.66	53	2.40	180	69	391	387	30	8.10	3.80	1.20
9	0.52	0.60	48	2.10	121	84	424	421	29	8.10	3.60	1.20
10	0.38	0.52	33	1.95	144	82	434	382	29	7.80	3.60	1.10
11	0.38	0.24	36	1.80	133	79	340	276	28	7.50	3.80	1.20
12	0.24	0.09	35	1.80	128	71	225	207	27	7.50	4.00	1.20
13	0.24	0.07	27	2.10	94	64	162	181	26	7.20	3.40	1.00
14	0.10	0.06	20	1.95	101	380	132	153	25	7.20	3.40	1.00
15	0.10	0.66	16	2.25	193	262	151	154	24	6.90	3.20	0.09
16	0.09	0.03	12	2.40	131	161	102	120	24	6.60	3.20	0.08
17	0.09	0.02	10	3.80	124	139	80	113	23	6.30	3.20	0.09
18	0.10	0.01	8.44	12	87	150	67	100	22	6.00	3.00	0.08
19	0.52	0.00	7.40	11	65	125	62	89	21	6.60	2.80	0.07
20	0.38	0.00	6.20	9.22	51	109	70	77	20	6.60	2.60	0.07
21	0.80	0.00	5.24	7.92	44	96	79	68	18	6.60	2.60	0.07
22	0.38	0.00	4.60	7.16	40	95	62	63	17	6.30	2.40	0.06
23	0.24	0.00	4.00	7.40	35	76	54	57	16	6.00	2.40	0.06
24	0.10	0.00	3.60	7.66	29	68	56	54	15	5.40	2.20	0.06
25	0.09	0.00	3.60	8.44	149	65	46	50	14	5.40	2.20	0.06
26	0.07	0.00	3.40	7.40	403	84	43	47	13	5.20	1.80	0.06
27	0.24	0.00	3.00	7.16	349	167	49	45	13	5.00	1.70	0.06
28	0.10	0.00	3.20	9.22	245	233	114	44	12	5.00	1.50	0.06
29	0.10	0.00	2.85	7.92	174	269	364	41	12	4.80	1.50	0.05
30	0.24	0.00	2.55	46	135	226	370	40	11	4.80	-	0.05
31	-	0.00	-	134	109	-	421	-	12	4.60	-	0.05
Total	11.34	11.26	435.08	323.56	3,746	3,585	5,599	4,761	724	217.30	89.70	19.32
Mean	0.38	0.36	14.5	10.4	12.1	11.9	18.1	15.9	23.3	7.01	3.09	0.62
Max.	0.94	2.10	53	134	403	380	434	421	39	12	4.40	1.60
Min.	0.07	0.00	0.00	1.36	29	46	43	40	11	4.60	1.50	0.05
Runoff = BCMs	0.980	0.973	37.591	27.955	323.654	309.744	483.754	411.350	62.554	18.775	7.750	1.669

WATER YEAR 1963 : Max. 434 Min. 0.00 Mean 53.3 Annual Runoff 1,686.749 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct.10	09.00	137.01	441	Nov.9	15.00	136.97	428

WATER YEAR 1964  
WANG RIVER BASIN

Mao Wang River at Wang Khrai, Tak. (W. 4)

**Location:** Lat.  $17^{\circ} - 12' - 58''$  N., Long  $99^{\circ} - 04' - 42''$  E., on right bank about 120 meters upstream from the bridge, 8 kilometers from Amphoe Sam Ngao and 6 kilometers from Phahon Yothin highway, Amphoe Sam Ngao, Tak.

**Drainage Area:** 10,407 sq.km. referred to AMS.Map. 1:50,000.

**Type of Gage:** Staff gage.

**Zero Gage at Bottom at:** + 131.31 m. (M.S.L.)

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

**Location:** At the fence near the gage site.

**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:** Fairly stable, periodic rating curves are used for flow computation.

**Overbank Flow Conditions:** No overbank flow.

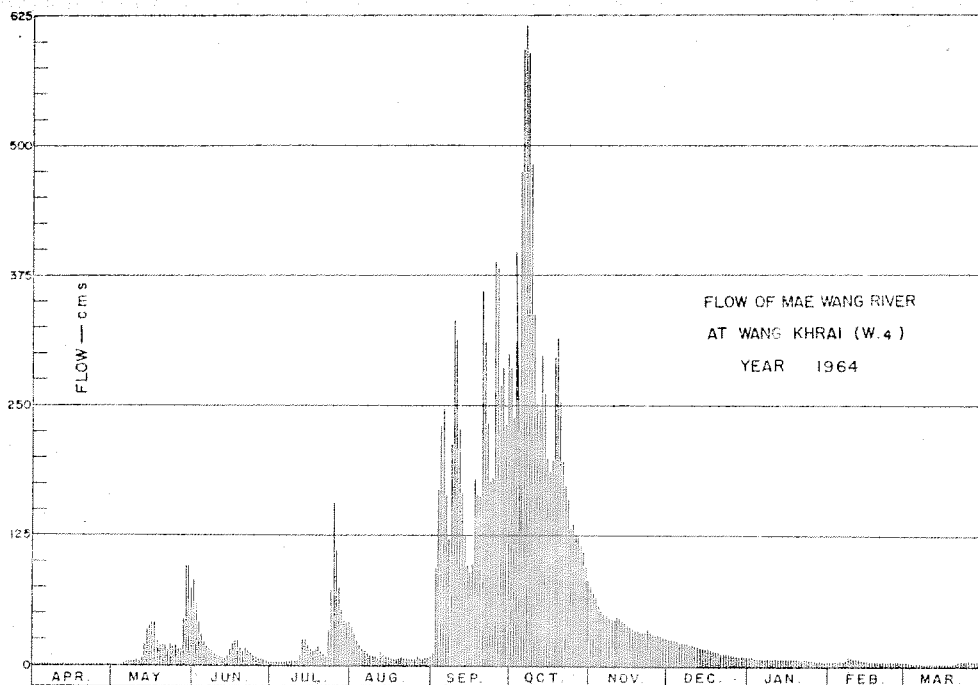
**General Description:** Records good. Stage - discharge relationship used is defined by discharge measurements made in 1964. Upstream diversions for irrigation of about 12,320 hectares. The data presented is from actual observation at the gage site. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	132.14	132.01	134.02	132.32	133.23	132.57	136.25	133.99	133.01	132.49	132.31	132.20
2	.14	.00	133.75	.30	.08	134.21	135.85	.90	132.99	.49	.30	.20
3	.13	.00	.32	.28	132.92	135.20	136.42	.80	.97	.47	.30	.18
4	.13	.04	.05	.35	.82	.82	.96	.67	.95	.47	.30	.18
5	.12	.21	132.88	.27	.74	.97	137.17	.60	.93	.47	.31	.18
6	132.12	132.23	132.76	132.26	132.67	134.99	137.44	133.53	132.92	132.47	132.31	132.17
7	.11	.25	.70	.25	.61	.39	.49	.50	.90	.46	.36	.17
8	.11	.27	.66	.25	.56	135.63	.44	.44	.89	.45	.50	.16
9	.10	.30	.60	.29	.51	136.54	.22	.42	.88	.44	.51	.16
10	.10	.32	.54	.32	.48	.41	136.63	.42	.87	.43	.46	.15
11	132.09	132.34	132.50	132.35	132.45	135.78	136.20	133.48	132.85	132.42	132.43	132.15
12	.09	.40	.46	.55	.65	.17	.15	.44	.82	.42	.41	.14
13	.08	.84	.44	.96	.56	134.65	.52	.37	.79	.41	.39	.14
14	.07	133.15	.47	.98	.49	.23	.28	.33	.79	.40	.35	.13
15	.06	.28	.70	.81	.47	.13	135.68	.26	.75	.40	.34	.13
16	132.06	133.32	132.89	132.72	132.44	134.25	135.56	133.26	132.75	132.39	132.32	132.12
17	.06	.30	.93	.65	.42	135.32	.68	.22	.73	.39	.31	.13
18	.05	132.92	.92	.70	.42	.13	136.49	.19	.71	.38	.30	.17
19	.04	.82	.75	.80	.44	.13	.61	.17	.67	.40	.30	.14
20	.03	.78	.65	.65	.47	136.70	.30	.16	.66	.41	.29	.15
21	132.02	132.79	132.75	132.59	132.45	136.42	135.67	133.15	132.65	132.38	132.28	132.22
22	.02	.66	.66	.54	.44	135.84	.31	.16	.62	.38	.27	.30
23	.02	.85	.58	133.14	.43	.28	.24	.21	.60	.38	.26	.29
24	.07	.74	.52	.70	.42	.32	134.87	.16	.59	.37	.25	.27
25	.07	.80	.48	135.07	.41	136.84	.95	.12	.57	.35	.24	.24
26	132.04	132.70	132.43	134.46	132.47	136.81	134.76	133.10	132.56	132.35	132.24	132.22
27	.03	.72	.40	133.90	.45	.09	.74	.08	.55	.34	.32	.22
28	.02	133.31	.37	.54	.43	.26	.67	.07	.53	.34	.22	.21
29	.03	134.26	.34	.35	.45	135.79	.52	.04	.52	.31	-	.20
30	.02	.25	.32	.32	.47	136.35	.32	.03	.51	.31	-	.18
31	-	133.90	-	.32	.48	-	.09	-	.50	.31	-	.16
Mean	132.07	132.77	132.73	132.87	132.56	135.44	135.92	133.34	132.74	132.40	132.33	132.18
Max.	132.14	134.26	134.02	135.07	133.23	136.84	137.49	133.99	133.01	132.49	132.51	132.30
Min.	132.02	132.00	132.32	132.25	132.41	132.57	134.09	133.03	132.50	132.31	132.22	132.12

WATER YEAR 1964 : Max. 137.49 m. Min. 132.00 m.





DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	1.48	0.10	82	4.40	37	11	284	75	25	7.80	4.20	2.20
2	1.48	0.00	65	4.00	31	93	232	69	25	7.80	4.00	2.20
3	1.36	0.00	42	3.64	23	167	309	64	24	7.40	4.00	1.96
4	1.36	0.40	29	4.60	19	228	414	57	23	7.40	4.00	1.96
5	1.24	2.38	22	3.46	16	246	474	53	22	7.40	4.20	1.96
6	1.24	2.74	18	3.28	14	149	588	49	22	7.40	4.20	1.84
7	1.12	3.10	15	3.10	12	105	615	48	21	7.20	5.20	1.84
8	1.12	3.46	14	3.10	10	208	588	45	21	7.00	8.00	1.72
9	1.00	4.00	11	3.82	8.80	330	480	44	20	6.80	8.30	1.72
10	1.00	4.40	9.70	4.40	8.00	308	317	44	20	6.60	7.20	1.60
11	0.90	4.80	8.50	5.00	7.25	224	250	47	19	6.40	6.60	1.60
12	0.90	6.00	7.50	10	13	164	244	45	18	6.40	6.20	1.48
13	0.80	20	7.00	25	10	123	297	42	17	6.20	5.80	1.48
14	0.70	34	7.75	26	8.25	94	260	42	17	6.00	5.00	1.36
15	0.60	40	15	19	7.75	88	196	38	16	6.00	4.80	1.36
16	0.60	42	22	16	7.00	96	185	37	16	5.80	4.40	1.24
17	0.60	41	24	13	6.50	178	196	35	15	5.80	4.20	1.36
18	0.50	23	23	15	6.50	161	292	33	14	5.60	4.00	1.84
19	0.40	19	17	18	7.00	161	313	33	13	6.00	4.00	1.48
20	0.30	19	13	13	7.75	358	263	32	13	6.20	3.82	1.60
21	0.20	19	17	11	7.25	309	195	32	12	5.60	3.64	2.56
22	0.20	14	14	9.70	7.00	231	164	32	12	5.60	3.46	4.00
23	0.20	20	11	33	6.75	174	159	34	11	5.60	3.28	3.82
24	0.70	17	9.10	62	6.50	178	131	32	11	5.40	3.10	3.46
25	0.70	18	8.00	155	6.25	397	137	30	10	5.00	2.92	2.92
26	0.40	15	6.75	110	7.75	380	124	29	9.80	5.00	2.92	2.56
27	0.30	16	6.00	74	7.25	262	123	29	9.50	4.80	2.74	2.56
28	0.20	41	5.40	53	6.75	285	118	28	8.90	4.80	2.56	2.56
29	0.30	96	4.80	43	7.25	225	108	27	8.60	4.20	-	2.20
30	0.20	96	4.40	42	7.75	298	95	26	8.30	4.20	-	1.96
31	-	74	-	42	8.00	-	81	-	8.00	4.20	-	1.72
Total	22.10	695.38	538.90	833.50	338.30	6,221	8,232	1,229	490.10	187.60	126.74	63.94
Mean	0.74	22.4	17.9	26.9	10.9	207	265	40.9	15.8	6.05	4.53	2.06
Max.	1.48	96	82	156	37	397	615	75	25	7.80	8.30	4.00
Min.	0.20	0.00	4.40	3.10	6.25	11	81	26	8.00	4.20	2.56	1.24
Runoff - mcm.	1.909	60.081	46.561	72.914	29.229	537.494	711.245	106.186	42.345	16.209	10.950	5.524

WATER YEAR 1964 : Max. 615 Min. 0.00 Mean 52.0 Annual Runoff 1,639.747 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct.7	09.00	137.49	615				

WATER YEAR 1963  
WANG RIVER BASIN

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

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

**Drainage Area:** 2,796 sq. km. referred to AMS. Map 1:50,000.

**Type of Gage:** Staff gage.

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

**Bench Mark:** B.M. - BC<sub>2</sub>

**Location:** About 5 meters from the 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 to date.

**Rating Operation:**

**Period of Rating:** 1962 to date.

**Rated by Float:** -

**Rated by Current Meter:** 1962 to date.

**Stability of Channel Regimes:** Very stable, no shifting adjustment for flow computation due to its excellent stability.

**Overbank Flow Conditions:** No overbank flow.

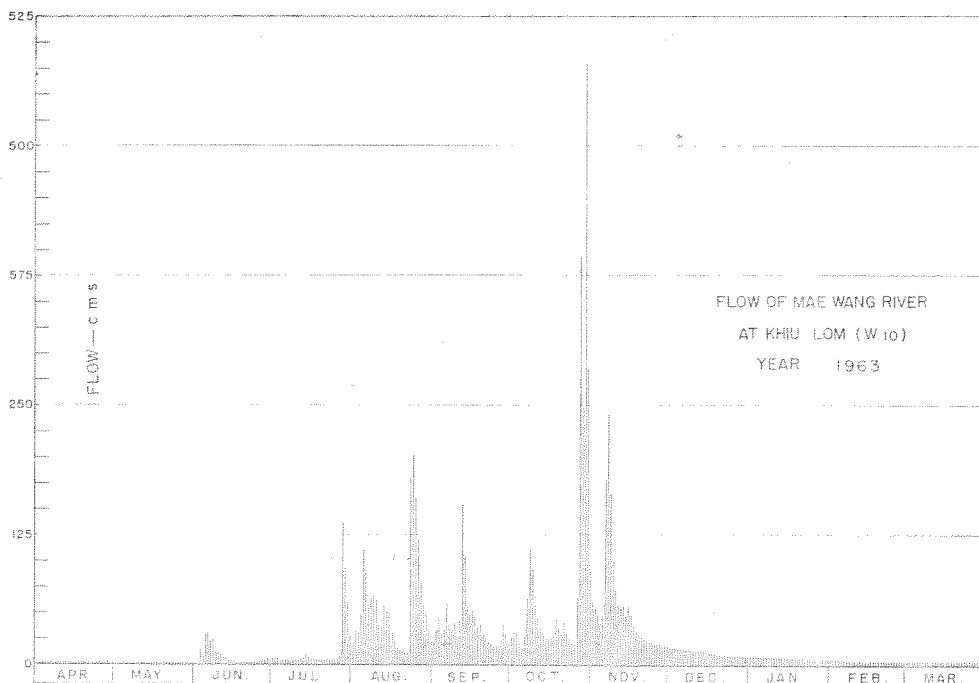
**General Description:** Records good. Stage - discharge relationship used is defined by discharge measurements made in 1963, no upstream state diversions for irrigation except those built by the farmers. No adjustment made for virgin flow.

**Remark:** Hourly gage heights are used for periods Jul. 28 - 29, Aug. 23, Sep. 12, Oct. 27 - 30 and Nov. 6 - 7.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	261.26	261.22	261.15	261.49	261.90	261.98	262.17	262.90	261.90	261.62	261.47	261.38
2	.26	.21	.25	.54	262.29	262.35	.27	.73	.89	.60	.47	.38
3	.25	.21	.81	.46	.18	.55	.21	.59	.87	.60	.47	.38
4	.24	.18	.54	.40	.62	.12	261.97	.38	.87	.60	.47	.38
5	.25	.16	262.20	.37	263.67	.24	.89	.63	.84	.59	.46	.38
6	261.24	261.18	262.23	261.37	263.12	262.91	262.14	264.15	261.84	261.59	261.47	261.38
7	.23	.19	261.95	.38	262.64	.39	.65	265.04	.84	.59	.46	.37
8	.23	.17	262.09	.37	.89	.31	263.68	264.30	.84	.58	.45	.37
9	.24	.17	261.75	.36	.94	.43	.63	263.35	.82	.58	.45	.36
10	.24	.18	.75	.34	.85	261.96	262.80	262.95	.81	.58	.45	.36
11	261.26	261.19	261.59	261.34	262.39	262.52	262.50	262.74	261.79	261.58	261.44	261.36
12	.24	.18	.50	.36	.35	264.19	.31	.64	.81	.57	.44	.40
13	.24	.17	.45	.54	.75	263.47	.19	.77	.81	.57	.43	.39
14	.24	.18	.39	.64	.63	262.76	.13	.50	.79	.56	.43	.39
15	.23	.17	.37	.56	.64	.56	.13	.75	.78	.56	.43	.39
16	261.23	261.16	261.34	261.50	262.21	262.66	262.11	262.53	261.76	261.55	261.42	261.37
17	.23	.16	.32	.47	261.99	.54	.16	.34	.73	.54	.41	.38
18	.22	.15	.32	.44	.87	.32	.53	.26	.72	.54	.41	.38
19	.21	.18	.30	.41	.80	.42	.35	.19	.70	.53	.41	.37
20	.20	.15	.28	.42	.74	.28	.16	.14	.69	.52	.39	.37
21	261.20	261.16	261.25	261.41	261.69	262.09	262.47	262.11	261.67	261.52	261.39	261.36
22	.17	.14	.24	.39	.58	.01	.19	.07	.66	.54	.38	.36
23	.16	.15	.23	.41	264.17	261.93	.08	.04	.65	.54	.38	.36
24	.16	.15	.22	.40	.72	.88	261.99	.01	.64	.52	.38	.36
25	.14	.19	.27	.39	.19	.90	.94	262.00	.64	.52	.38	.35
26	261.14	261.17	261.42	261.42	263.74	261.97	262.94	261.98	261.64	261.51	261.38	261.34
27	.15	.18	.41	.52	.04	262.11	266.17	.96	.62	.51	.38	.34
28	.39	.17	.36	263.94	262.78	.20	264.75	.94	.62	.49	.38	.33
29	.30	.13	.51	.31	.59	.14	267.34	.93	.62	.49	.38	.33
30	.24	.12	.33	262.58	.26	.04	264.43	.91	.62	.48	-	.32
31	-	.15	-	.14	.05	-	263.45	-	.62	.48	-	.32
Mean	261.23	261.17	261.49	261.67	262.66	262.37	262.83	262.59	261.74	261.55	261.42	261.36
Max.	261.39	261.22	262.23	263.94	264.72	264.19	267.34	265.04	261.90	261.62	261.47	261.40
Min.	261.14	261.12	261.15	261.34	261.68	261.88	261.89	261.91	261.62	261.48	261.38	261.32

WATER YEAR 1963 : Max. 267.34 m. Min. 261.12 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	1.60	1.20	0.75	5.80	17	20	27	64	17	8.50	5.40	3.60
2	1.60	1.10	1.50	6.80	32	35	32	55	17	8.00	5.40	3.60
3	1.50	1.10	14	5.20	28	45	29	47	16	8.00	5.40	3.60
4	1.40	0.90	6.80	4.00	49	25	19	37	16	8.00	5.40	3.60
5	1.50	0.90	28	3.40	111	30	17	49	15	7.80	5.20	3.60
6	1.40	0.90	30	3.40	76	64	26	148	15	7.80	5.40	3.60
7	1.30	0.95	19	3.60	50	37	50	240	15	7.80	5.20	3.40
8	1.30	0.85	24	3.40	63	33	112	160	15	7.60	5.00	3.40
9	1.40	0.85	12	3.20	66	39	91	90	14	7.60	5.00	3.20
10	1.40	0.90	12	2.80	61	19	58	67	14	7.60	5.00	3.20
11	1.60	0.95	7.80	2.80	37	44	43	55	13	7.60	4.80	3.20
12	1.40	0.90	6.00	3.20	35	153	33	50	14	7.40	4.80	4.00
13	1.40	0.85	5.00	6.80	56	97	28	57	14	7.40	4.60	3.80
14	1.40	0.90	3.80	9.00	49	56	25	43	13	7.40	4.60	3.80
15	1.30	0.85	3.40	7.20	50	46	25	56	13	7.40	4.60	3.80
16	1.30	0.80	2.80	6.00	29	51	24	44	12	7.00	4.40	3.40
17	1.30	0.80	2.40	5.40	20	45	27	35	11	6.80	4.20	3.60
18	1.20	0.75	2.40	4.80	16	34	44	31	11	6.80	4.20	3.60
19	1.10	0.90	2.00	4.20	13	39	35	28	10	6.60	4.20	3.40
20	1.00	0.75	1.80	4.40	12	32	27	26	10	6.40	3.80	3.40
21	1.00	0.80	1.50	4.20	10	24	41	24	9.75	6.40	3.80	3.20
22	0.85	0.70	1.40	3.80	10	21	28	23	9.50	6.80	3.60	3.20
23	0.80	0.75	1.30	4.20	180	18	23	22	9.25	6.80	3.60	3.20
24	0.80	0.75	1.20	4.00	201	16	20	21	9.00	6.40	3.60	3.20
25	0.70	0.95	1.70	3.80	151	17	18	20	9.00	6.40	3.60	3.00
26	0.70	0.85	4.40	4.40	116	19	66	20	9.00	6.20	3.60	2.80
27	0.75	0.90	4.20	6.40	72	24	393	19	8.50	6.20	3.60	2.80
28	3.80	0.85	3.20	136	57	38	206	18	8.50	5.80	3.60	2.60
29	2.00	0.65	6.20	88	47	26	579	18	8.50	5.80	3.60	2.60
30	1.40	0.60	2.60	47	31	22	172	17	8.50	5.60	-	2.40
31	-	0.75	-	26	22	-	96	-	8.50	5.60	-	2.40
Total	40.20	26.55	213.15	423.20	1,767	1,159	2,414	1,584	373.00	217.50	129.20	102.20
Mean	1.34	0.86	7.10	13.6	57.0	38.6	77.8	52.8	12.0	7.02	4.45	3.30
Max.	3.80	1.20	30	136	201	153	579	240	17	8.50	5.40	4.00
Min.	0.70	0.60	0.75	2.80	10	16	17	17	8.50	5.60	3.60	2.40
Runoff - mcm.	3.473	2.294	18.416	36.564	152.669	100.138	208.570	136.858	32.227	18.792	11.163	8.830

WATER YEAR 1963 : Max. 579 Min. 0.60 Mean 23.1 Annual Runoff 731.290 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 29	15.00	267.50	611				

WATER YEAR 1964  
WANG RIVER BASIN

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

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

Drainage Area: 2,796 sq.km. referred to AMS. Map 1:50,000.

Type of Gage: Staff gage.

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

Bench Mark: B.M. - BC<sub>2</sub>

Location: About 5 meters from the 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 to date.

Rating Operation:

Period of Rating: 1962 to date.

Rated by Float: -

Rated by Current Meter: 1962 to date.

Stability of Channel Regimes: Very stable, no shifting adjustment for flow computation due to its excellent stability.

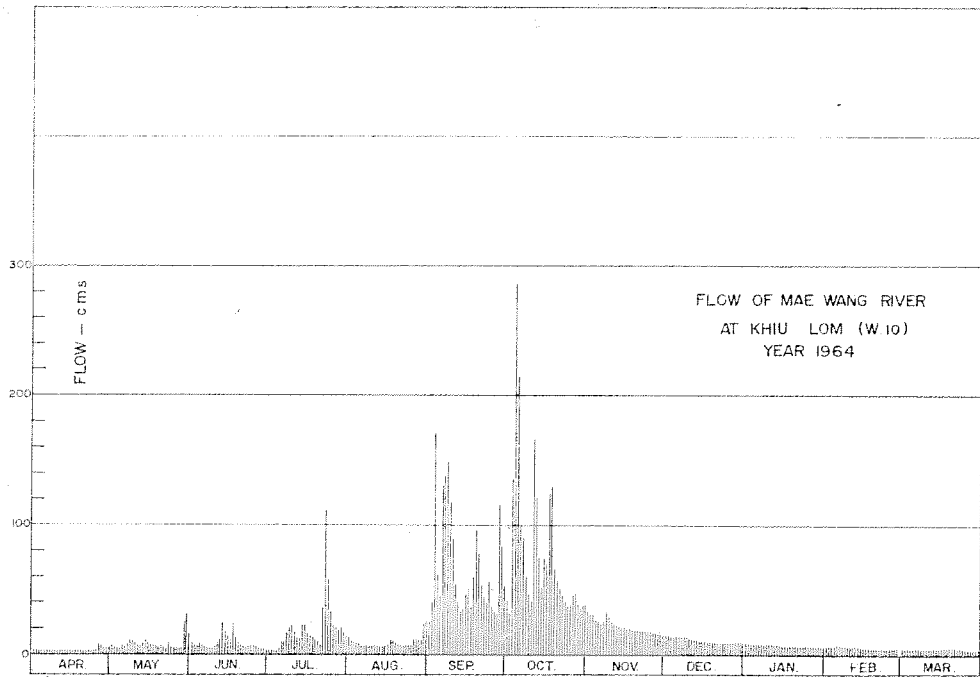
Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made in 1964, no upstream state diversions for irrigation except those built by the farmers. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	261.32	261.56	261.64	261.35	261.77	262.09	262.42	262.26	261.83	261.62	261.51	261.41
2	.32	.47	.56	.34	.70	.40	.24	.23	.83	.62	.51	.40
3	.32	.43	.51	.33	.66	264.14	263.75	.22	.80	.61	.50	.40
4	.31	.42	.61	.34	.63	262.81	265.19	.17	.80	.61	.51	.40
5	.31	.56	.51	.40	.60	.51	264.56	.11	.81	.61	.54	.39
6	261.31	261.45	261.49	261.62	261.56	263.72	263.33	262.07	261.80	261.60	261.54	261.39
7	.31	.59	.45	.63	.55	.81	.24	.14	.78	.59	.54	.39
8	.30	.70	.43	.87	.56	.92	262.78	.27	.78	.59	.52	.38
9	.30	.66	.43	.98	.53	.59	.52	.21	.77	.59	.52	.38
10	.30	.64	.52	262.03	.53	.25	.41	.12	.75	.59	.51	.38
11	261.28	261.56	261.63	261.88	261.53	262.69	264.09	262.07	261.73	261.59	261.51	261.38
12	.28	.50	.71	.75	.52	.40	263.62	.05	.72	.58	.50	.38
13	.29	.59	262.10	.73	.50	.27	.01	.02	.71	.58	.48	.39
14	.30	.69	261.90	262.04	.48	.31	262.64	261.98	.70	.57	.46	.39
15	.30	.64	.80	.04	.52	.53	263.01	.98	.69	.57	.47	.38
16	261.29	261.57	261.70	261.85	261.57	262.62	262.93	261.97	261.68	261.57	261.45	261.43
17	.29	.52	262.06	.81	.72	.34	263.66	.95	.66	.56	.45	.45
18	.28	.48	261.75	.78	.68	.77	.71	.94	.67	.55	.44	.46
19	.28	.47	.63	.69	.63	263.33	262.89	.92	.65	.55	.44	.45
20	.26	.53	.56	.65	.58	.05	.74	.94	.64	.55	.44	.44
21	261.28	261.47	261.50	261.57	261.54	262.67	262.63	261.93	261.64	261.55	261.43	261.44
22	.31	.42	.47	262.32	.56	.48	.51	.92	.63	.54	.43	.42
23	.30	.63	.53	263.52	.54	.40	.42	.91	.63	.54	.42	.41
24	.30	.47	.53	262.75	.54	.71	.32	.91	.64	.54	.42	.40
25	.35	.43	.51	.29	.57	.35	.36	.89	.65	.53	.42	.37
26	261.53	261.44	261.48	262.04	261.72	262.27	262.52	261.88	261.61	261.53	261.43	261.36
27	.51	.41	.45	261.99	.72	.23	.55	.86	.63	.53	.43	.36
28	.41	.46	.41	.93	.69	263.56	.41	.85	.65	.53	.42	.35
29	.40	262.12	.39	262.00	.70	.14	.31	.84	.65	.53	-	.34
30	.43	.25	.37	261.85	262.07	262.25	.36	.83	.65	.52	-	.34
31	-	261.84	-	.82	.12	-	.37	-	.64	.52	-	.33
Mean	261.32	261.58	261.59	261.88	261.63	262.81	262.95	262.01	261.70	261.57	261.47	261.39
Max.	261.53	262.25	262.10	263.52	262.12	264.14	265.19	262.27	261.83	261.62	261.54	261.46
Min.	261.26	261.41	261.37	261.33	261.48	262.09	262.24	261.83	261.61	261.52	261.42	261.33

WATER YEAR 1964 : Max. 265.19 m. Min. 261.26 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	2.90	7.70	9.70	3.50	14	25	41	33	15	9.10	6.70	4.70
2	2.90	5.90	7.70	3.30	11	40	32	31	15	9.10	6.70	4.50
3	2.90	5.10	6.70	3.10	10	171	135	31	14	8.80	6.50	4.50
4	2.70	4.90	8.80	3.30	9.40	62	286	27	14	8.80	6.70	4.50
5	2.70	7.70	6.70	4.50	8.50	45	215	26	15	8.80	7.30	4.30
6	2.70	5.50	6.30	9.10	7.70	130	99	24	14	8.50	7.30	4.30
7	2.70	8.30	5.50	9.40	7.50	138	90	26	14	8.30	7.30	4.30
8	2.50	11	5.10	17	7.70	149	60	33	14	8.30	6.90	4.10
9	2.50	10	5.10	21	7.10	118	46	30	14	8.30	6.90	4.10
10	2.50	9.70	6.90	23	7.10	90	40	26	13	8.30	6.70	4.10
11	2.30	7.70	9.40	17	7.10	54	166	24	12	8.30	6.70	4.10
12	2.30	6.50	12	13	6.90	40	121	23	12	8.10	6.50	4.10
13	2.40	8.30	25	12	6.50	33	74	22	12	8.10	6.10	4.30
14	2.50	11	18	23	6.10	35	52	21	11	7.90	5.70	4.30
15	2.50	9.70	14	23	6.90	46	74	21	11	7.90	5.90	4.10
16	2.40	7.90	11	16	7.90	51	70	20	11	7.90	5.50	5.10
17	2.40	6.90	24	15	12	37	124	20	10	7.70	5.50	5.50
18	2.30	6.10	13	14	11	59	129	19	11	7.50	5.30	5.70
19	2.30	5.90	9.40	11	9.40	96	66	19	10	7.50	5.30	5.50
20	2.10	7.10	7.70	10	8.10	77	57	19	10	7.50	5.30	5.30
21	2.30	5.90	6.50	7.90	7.30	53	51	19	10	7.50	5.10	5.30
22	2.70	4.90	5.90	36	7.70	44	45	19	9.40	7.30	5.10	4.90
23	2.50	9.40	7.10	112	7.30	40	41	18	9.40	7.30	4.90	4.70
24	2.50	5.90	7.10	58	7.30	56	37	18	9.70	7.30	4.90	4.50
25	3.50	5.10	6.70	34	7.90	37	38	18	10	7.10	4.90	3.90
26	7.10	5.30	6.10	23	12	33	46	17	8.80	7.10	5.10	3.70
27	6.70	4.70	5.50	21	12	31	47	17	9.40	7.10	5.10	3.70
28	4.70	5.70	4.70	19	11	115	40	16	10	7.10	4.90	3.50
29	4.50	26	4.30	21	11	83	35	16	10	6.90	-	3.30
30	5.10	32	3.90	16	24	52	38	15	10	6.90	-	3.30
31	-	16	-	15	26	-	38	-	9.70	6.90	-	3.10
Total	92.10	273.80	269.80	614.10	305.40	2,040	2,433	668	358.40	243.20	166.80	135.30
Mean	3.07	8.83	8.99	19.8	9.85	68.0	78.4	22.2	11.6	7.84	5.96	4.36
Max.	7.10	32	25	112	26	171	286	33	15	9.10	7.30	5.70
Min.	2.10	4.70	3.90	3.10	6.10	25	32	15	8.80	6.90	4.90	3.10
Runoff - mcm.	7.957	23.656	23.311	53.058	26.386	176.256	210.211	57.715	30.966	21.012	14.411	11.690

WATER YEAR 1964 : Max. 286 Min. 2.10 Mean 21.3 Annual Runoff 672.183 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 4	18.00	265.44	316				

WATER YEAR 1963  
YOM RIVER BASIN

Mae Yom River at Muang Phrae. (V. 1)

Location: Lat 16° - 08' - 32" N., Long 100° - 08' - 07" E., on left bank in front of the district liquor factory near Wat Chetawan, Amphoe Muang Phrae.

Drainage Area: 7,590 sq.km. referred to AMS Map 1:50,000.

Type of Gage: Staff gage.

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

Bench Mark: B.M. - R.I.D. 1

Location: on left bank 23 meters downstream from the 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: 1939 to date.

Rating Operation:

Period of Rating: 1954, 1956, 1957 - 60.

Rated by Float: -

Rated by Current Meter: 1954, 1956, 1957 - 60.

Stability of Channel Regimes: Stable, no shifting adjustment made for years without actual ratings.

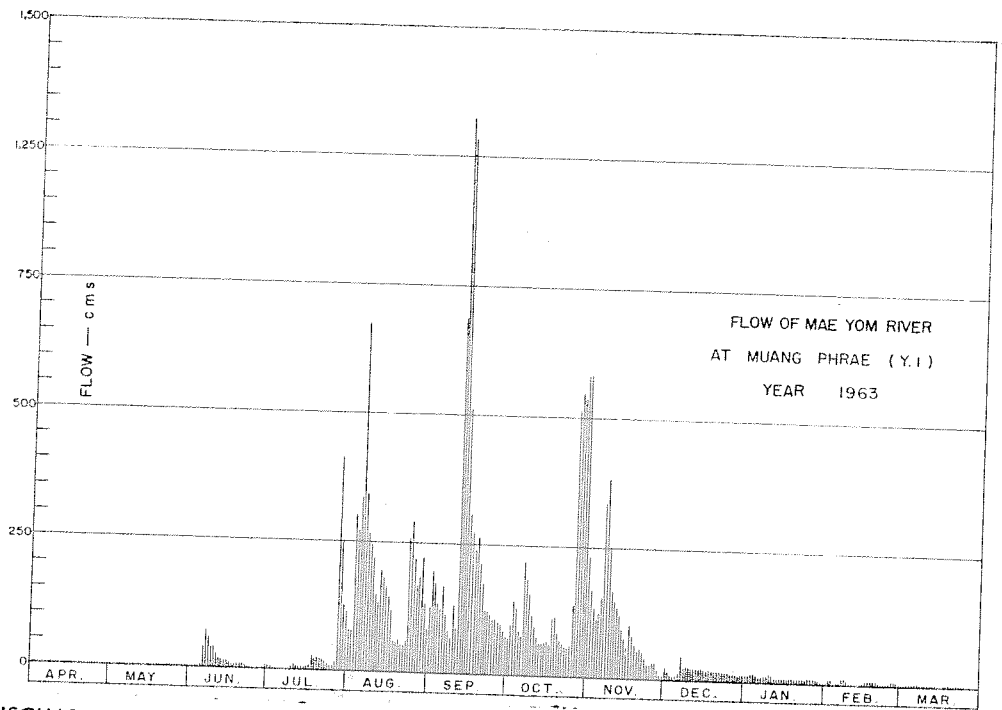
Overbank Flow Conditions: No overbank flow.

General Description: Gage height record good, discharge record fair. Stage - discharge relationship used is defined by discharge - measurements made during 1957 - 60. Upstream state diversions for irrigation of about 24,000 hectares at Mae Yom weir. The 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, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	144.84	144.73	144.85	145.19	146.37	146.85	146.28	147.69	145.59	145.32	144.93	144.76
2	.78	.72	.83	.14	.35	147.43	.62	.21	.48	.37	145.21	.79
3	.74	.70	.76	.02	148.13	.27	147.00	146.90	.29	.46	.21	144.92
4	.73	.69	.71	144.87	147.93	146.90	146.85	.67	.24	.47	144.94	.88
5	.72	.60	145.06	.80	148.12	.80	.37	.79	.18	.41	.95	.88
6	144.77	144.64	145.96	144.72	150.08	147.21	146.33	147.10	145.14	145.34	144.96	144.92
7	.82	.65	146.29	.72	148.37	146.66	147.59	148.34	.96	.31	145.34	.96
8	.87	.64	.14	.82	147.90	.39	.35	.60	.63	.30	.33	.88
9	.87	.62	145.89	.92	.78	.22	.12	147.81	.67	.33	.19	.83
10	.85	.60	.90	145.26	.57	.89	146.78	.13	.65	.47	144.88	.81
11	144.82	144.58	145.63	145.32	146.97	146.35	146.51	147.03	145.61	145.38	144.88	144.87
12	.79	.57	.51	.18	.87	148.83	.30	146.93	.60	.26	.88	.90
13	.77	.55	.43	.10	147.42	152.43	.17	.78	.59	.22	.85	.86
14	.74	.55	.42	.12	.33	.28	.16	.50	.59	.17	.92	.83
15	.71	.56	.42	.17	.18	149.30	.21	.29	.63	.15	145.03	.76
16	144.76	144.58	145.30	145.24	147.02	148.17	146.23	146.13	145.56	145.21	145.11	144.72
17	.78	.62	.15	.32	146.79	147.96	.13	.59	.53	.25	.20	.83
18	.76	.69	.10	.71	.15	.72	.68	.38	.54	.27	.19	.94
19	.74	.76	.22	.62	.13	.90	.72	.19	.53	.29	.19	.96
20	.72	.81	.23	.65	.18	.55	.39	.07	.52	.25	.14	.92
21	144.76	144.88	145.25	145.63	146.06	147.26	146.24	146.13	145.51	145.23	144.96	144.89
22	.76	.92	.10	.60	.04	146.78	.18	.03	.49	.29	.86	.91
23	.76	.97	144.93	.49	.15	.78	.13	145.86	.44	.25	.81	145.01
24	.76	.95	.85	.36	147.87	.72	.09	.68	.43	.18	.82	144.96
25	.76	.88	.81	.30	148.07	.63	.15	.69	.42	.30	.98	.93
26	144.76	144.87	144.79	145.32	147.58	146.63	146.18	145.76	145.41	145.38	145.18	144.87
27	.76	.96	.75	.44	.20	.58	149.31	.65	.40	.31	.14	.82
28	.75	.92	.74	148.74	.35	.55	.48	.47	.38	.14	144.96	.79
29	.75	.86	.80	147.81	.62	.43	.42	.28	.36	.06	.81	.72
30	.73	.86	145.25	146.87	146.89	.29	.65	.12	.34	144.96	-	.67
31	-	.83	-	.72	.36	-	.66	-	.34	.93	-	.73
Mean	144.77	144.74	145.23	145.52	147.22	147.46	146.98	146.53	145.48	145.27	145.03	144.85
Max.	144.87	144.97	146.29	148.74	150.08	152.43	149.66	148.60	145.96	145.47	145.34	145.01
Min.	144.71	144.55	144.71	144.72	146.04	146.22	146.09	145.12	145.14	144.93	144.81	144.67

WATER YEAR 1963 : Max. 152.43 m. Min. 144.55 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.80	0.00	1.00	7.80	79	127	70	233	22	11	2.60	0.00
2	0.00	0.00	0.60	6.80	77	196	104	167	17	13	8.20	0.00
3	0.00	0.00	0.00	4.40	301	174	142	132	9.80	16	8.20	2.40
4	0.00	0.00	0.00	1.40	207	132	127	109	8.80	17	2.80	0.60
5	0.00	0.00	5.20	0.00	299	122	79	121	7.60	14	3.00	0.60
6	0.00	0.00	45	0.00	674	167	75	154	6.80	12	3.20	2.40
7	0.40	0.00	71	0.00	341	108	219	336	45	10	12	3.20
8	1.40	0.00	59	0.40	264	81	185	382	24	10	11	1.60
9	1.40	0.00	39	2.40	245	66	156	250	26	11	7.80	0.60
10	1.00	0.00	40	9.20	216	131	120	158	25	17	1.60	0.20
11	0.40	0.00	24	11	139	77	93	146	23	13	1.60	1.40
12	0.00	0.00	18	7.60	129	423	72	136	22	9.20	1.60	2.00
13	0.00	0.00	15	6.00	195	1,324	62	120	22	8.40	1.00	1.20
14	0.00	0.00	15	6.40	182	1,274	61	92	22	7.40	2.40	0.60
15	0.00	0.00	15	7.40	164	510	65	71	24	7.00	4.60	0.00
16	0.00	0.00	10	8.80	144	307	66	58	20	8.20	6.20	0.00
17	0.00	0.00	6.60	11	121	274	58	101	19	9.00	8.00	0.60
18	0.00	0.00	6.00	29	60	237	110	80	20	9.40	7.80	2.80
19	0.00	0.00	8.40	23	58	264	114	63	19	9.80	7.80	2.60
20	0.00	0.20	8.60	25	62	213	81	54	19	9.00	6.80	2.40
21	0.00	1.60	9.00	24	53	173	67	58	18	8.60	3.20	1.80
22	0.00	2.40	6.00	22	51	120	62	50	18	9.80	1.20	2.20
23	0.00	3.40	2.60	18	60	120	58	38	16	9.00	0.20	4.20
24	0.00	3.00	1.00	12	259	114	55	27	15	7.60	0.40	3.20
25	0.00	1.60	0.20	10	291	105	60	27	15	10	3.60	2.60
26	0.00	1.40	0.00	11	216	105	62	32	14	9.60	7.60	1.40
27	0.00	3.20	0.00	16	166	100	512	31	14	10	6.80	0.40
28	0.00	2.40	0.00	414	185	97	546	17	13	6.80	3.20	0.00
29	0.00	1.20	0.00	250	223	85	534	7.60	12	5.20	0.20	0.00
30	0.00	1.20	9.00	129	131	71	580	6.40	13	3.20	-	0.00
31	-	0.60	-	114	78	-	582	-	13	2.60	-	0.00
Total	5.40	22.20	415.20	1,187.60	5,733	7,297	5,177	3,259	563	303.80	134.60	39.20
Mean	0.18	0.72	13.8	38.3	185	243	167	109	18.2	8.80	4.64	1.26
Max.	1.40	3.40	71	414	674	1,324	582	382	45	17	12	4.20
Min.	0.00	0.00	0.00	0.00	51	66	55	6.40	6.80	2.60	0.20	0.00
Runoff - BCM.	0.466	1.918	35.873	102.609	495.331	630.461	447.293	281.578	48.643	26.248	11.629	3.387

WATER YEAR 1963 : Max. 1,324 Min. 0.00 Mean 65.9 Annual Runoff 2,085.437 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sep. 13	18.00	153.00	1,560				

WATER YEAR 1964  
YOM RIVER BASIN

Mae Yom River at Muang Phrae. (Y. 1)

Location: Lat 18° - 03' - 32" N., Long 100° - 03' - 07" E., on left bank in front of the district liquor factory near Wat Chetawan, Amphoe Muang Phrae.

Drainage Area: 7,590 sq.km. referred to AMS Map. 1:50,000.

Type of Gage: Staff gage.

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

Bench Mark: B.M. - R.I.D. 1

Location: On left bank 23 meters downstream from the 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: 1939 to date.

Rating Operation:

Period of Rating: 1954, 1956, 1957 - 60.

Rated by Float: -

Rated by Current Meter: 1954, 1956, 1957 - 60.

Stability of Channel Regimes: Stable, no shifting adjustment made for years without actual ratings.

Overbank flow Conditions: No overbank flow.

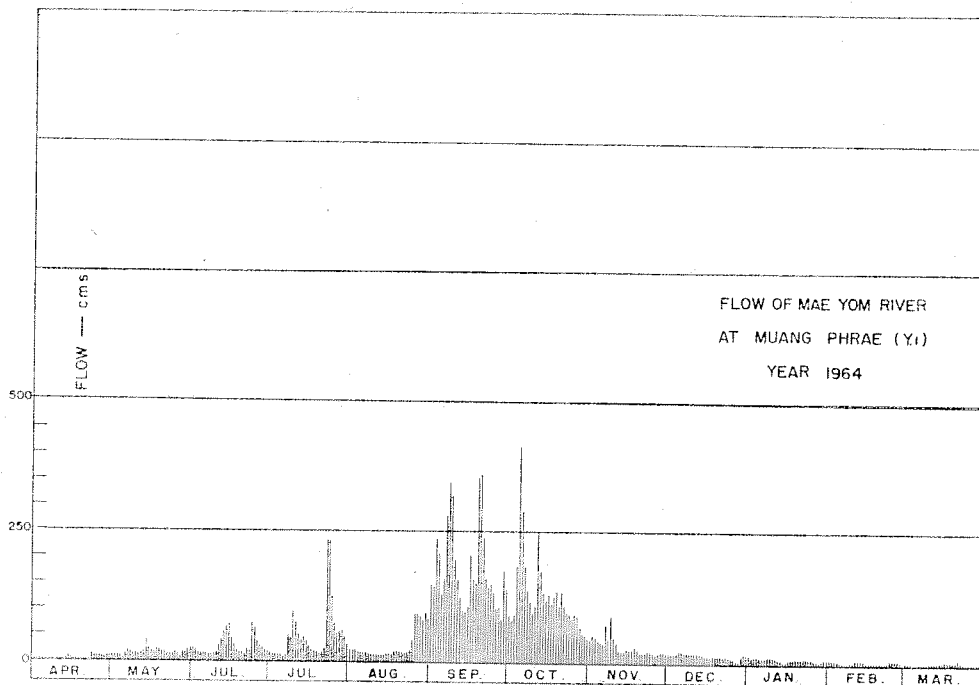
General Description: Gage height record good, discharge record fair. Stage - discharge relationship used is defined by discharge - measurements made during 1957 - 60. Upstream state diversions for irrigation of about 24,000 hectares at Mae Yom weir. The data presented is from actual flow at the gage site, no adjustment made for virgin flow.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	144.76	145.18	145.63	145.43	145.67	147.06	146.43	145.95	145.48	145.38	145.14	144.98
2	.76	.20	.56	.42	.60	.02	.36	146.04	.45	.33	.11	.84
3	.75	.13	.44	.40	.57	.70	.54	145.97	.47	.35	.08	.80
4	.76	.07	.39	.37	.52	.52	147.19	.90	.49	.34	.05	.74
5	.76	144.96	.38	.33	.49	146.85	148.77	.85	.58	.30	144.95	.73
6	144.76	145.34	145.38	145.21	145.45	147.17	148.04	145.82	145.58	145.30	144.82	144.70
7	.73	.50	.35	.34	.44	.97	147.36	146.29	.53	.31	.79	.69
8	.74	.47	.35	146.03	.40	148.38	146.93	145.90	.50	.34	.81	.68
9	.79	.36	.37	145.92	.39	.24	.69	.84	.50	.41	.87	.68
10	.76	.36	.41	146.54	.40	147.40	.46	.98	.49	.34	.90	.89
11	144.74	145.32	145.73	146.32	145.39	147.11	146.66	145.84	145.48	145.30	145.22	144.88
12	.77	.34	.92	.03	.38	146.79	147.80	.62	.46	.27	.22	.82
13	.92	.54	144.09	145.88	.38	.56	.23	.54	.45	.14	.13	.86
14	145.13	.89	.22	.99	.38	.51	146.86	.54	.43	144.87	.07	.96
15	144.93	.58	.27	.87	.40	.59	.73	.65	.41	.87	144.99	145.00
16	144.87	145.44	145.92	145.69	145.42	147.47	146.86	145.64	145.40	145.10	144.95	145.04
17	.83	.42	.71	.57	.33	.12	.68	.64	.38	.18	.94	144.99
18	.79	.58	.52	.54	.56	.03	.85	.74	.36	.28	.93	.94
19	.76	.49	.49	.50	.54	148.44	.93	.67	.36	.26	.91	.93
20	.75	.47	.44	.46	.51	.46	.58	.53	.35	.24	.90	.95
21	144.73	145.43	145.38	145.45	145.49	147.72	146.90	145.46	145.34	145.20	144.89	145.09
22	.72	.33	.41	.66	.45	.12	.64	.56	.33	.26	.89	144.83
23	145.36	.33	.49	147.68	.45	146.98	.49	.61	.32	.25	.96	.74
24	.26	.34	146.29	.68	.62	147.04	.49	.57	.31	.21	145.14	.70
25	.17	.43	.19	146.73	.87	146.89	.46	.46	.30	.18	.14	.69
26	145.11	145.33	145.83	146.30	146.49	146.58	146.48	145.43	145.19	145.10	145.11	144.68
27	.09	.15	.72	.03	.49	.62	.46	.47	144.96	144.93	.07	.66
28	.05	.44	.67	.12	.44	.37	.16	.50	.95	.84	144.99	.64
29	.08	.42	.57	.14	.35	147.28	.04	.55	145.38	.99	-	.63
30	.14	.59	.49	145.95	.49	146.96	.04	.47	.47	145.22	-	145.09
31	-	.67	-	.74	.41	-	145.95	-	.42	.17	-	.20
Mean	144.89	145.39	145.45	145.91	145.70	145.23	146.77	145.70	145.39	145.20	144.99	144.84
Max.	145.36	145.89	146.29	147.68	146.49	148.46	148.77	146.29	145.58	145.41	145.22	145.20
Min.	144.72	144.96	144.09	145.21	145.33	146.37	145.95	145.43	144.95	144.84	144.79	144.63

WATER YEAR 1964 : Max. 148.77 m. Min. 144.63 m.





DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.00	7.60	24	15	24	149	85	44	17	13	6.80	3.60
2	0.00	8.20	20	15	22	144	78	51	16	11	6.20	0.80
3	0.00	6.60	14	14	21	234	96	46	17	12	5.60	0.00
4	0.00	5.40	14	13	19	209	165	40	16	12	5.00	0.00
5	0.00	3.20	13	11	18	127	413	37	21	10	3.00	0.00
6	0.00	11	13	8.20	16	162	286	35	21	10	0.40	0.00
7	0.00	18	12	12	16	275	186	71	19	10	0.00	0.00
8	0.00	17	12	50	14	343	135	40	18	12	0.20	0.00
9	0.00	12	13	42	14	319	111	86	18	14	1.40	0.00
10	0.00	12	14	96	14	192	88	46	18	12	2.00	1.80
11	0.00	11	30	74	14	155	108	36	17	10	8.40	1.60
12	0.00	12	42	50	13	121	248	23	16	9.40	8.40	0.40
13	2.40	20	55	39	13	98	170	20	16	6.80	6.60	1.20
14	6.40	39	66	47	13	93	128	20	15	1.40	5.40	3.20
15	2.40	21	70	38	14	101	115	25	14	1.40	3.80	4.00
16	1.40	16	42	27	15	202	128	24	19	6.00	3.00	4.80
17	0.60	15	29	21	11	156	110	23	13	7.60	2.80	3.80
18	0.00	21	19	20	20	146	127	30	12	9.60	2.60	2.80
19	0.00	18	18	18	20	353	135	24	12	9.20	2.20	2.60
20	0.00	17	16	16	18	357	100	19	12	8.80	2.00	3.00
21	0.00	15	13	16	18	237	132	16	12	8.00	1.80	5.80
22	0.00	11	23	26	16	156	106	20	11	9.20	1.80	0.60
23	12	11	18	231	16	140	91	23	11	9.00	3.20	0.00
24	9.20	12	71	231	23	147	91	21	10	8.20	6.80	0.00
25	7.40	15	63	115	38	131	81	16	10	7.80	6.80	0.00
26	6.20	11	36	72	91	100	90	15	7.80	6.00	6.20	0.00
27	5.80	7.00	29	50	91	104	88	17	3.20	2.60	5.40	0.00
28	5.00	16	26	58	86	79	61	18	3.00	0.80	3.80	0.00
29	5.40	15	21	59	77	174	51	20	13	3.80	-	0.00
30	7.20	22	18	44	91	138	51	17	17	8.40	-	5.80
31	-	24	-	30	83	-	44	-	15	7.40	-	8.00
Total	71.40	450	854	1,558.20	959	5,342	3,893	923	437	257.40	111.60	53.80
Mean	2.38	14.5	28.4	50.2	30.9	178	126	30.7	14.0	8.30	3.98	1.73
Max.	12	39	71	231	91	357	413	71	21	14	8.40	8.00
Min.	0.00	3.20	12	8.20	11	79	44	15	3.00	1.40	0.00	0.00
Runoff - BCM.	6.169	38.880	73.786	134.628	82.858	461.549	336.787	79.747	37.757	22.239	9.642	4.648

WATER YEAR 1964 : Max. 413 Min. 0.00 Mean 40.9 Annual Runoff 1,288.690 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 5	06.00	149.05	463				

WATER YEAR 1963  
YOM RIVER BASIN

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

Location: Lat. 17° - 00' - 18" N., Long 99° - 49' - 31" E., on left bank in front of the house of the Governor, Amphoe Muang, Sukhothai.

Drainage Area: 17,731 sq.km. referred to AMS. Map. 1:50,000.

Type of Gage: Staff gage.

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

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

Location: 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.

Rated by Float: -

Rated by Current Meter: 1954 - 56.

Stability of Channel Regimes: Stable, no shifting adjustment made for flow computation for years without actual ratings.

Overbank Flow Conditions: Flow began to overtop the bank at elevation + 48.50 m. (M.S.L.) but not observed.

General Description: Records fair except those for periods of no gage height record. Stage - discharge relationship used is defined by discharge measurements made during 1954 - 56. Upstream diversions for irrigation of about 24,000 hectares. The data presented is from actual flow at the gage site. No adjustment made for virgin flow.

Remark: No gage height record for periods Apr. 1 - May 16 and Jan. 1 - 25.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1			45.09	44.85	48.49	48.05	48.03	48.71	46.85		45.62	45.17
2			.23	.85	.20	47.75	47.88	.62	.79		.55	.23
3			.04	.79	47.84	48.07	.88	.46	.74		.45	.38
4			44.86	.75	.70	.36	48.05	.29	.70		.38	.35
5			.77	45.05	48.65	.25	.42	.20	.68		.33	.26
6			44.70	45.15	48.74	48.04	48.36	48.33	46.44		45.47	45.16
7			.70	.16	.85	47.81	.28	.43	.60		.55	.10
8			.73	.09	.87	48.00	.64	.67	.57		.42	.09
9			.83	.00	.75	47.91	.63	.68	.55		.30	.04
10			46.64	44.90	.65	.68	.41	.60	.52		.27	.01
11			46.73	44.83	48.52	47.50	48.38	48.42	46.50		45.28	45.03
12			.41	.79	.43	.51	.24	.27	.47		.42	.17
13			.33	.76	.29	48.27	.02	.19	.45		.50	.18
14			.24	.74	.23	.78	47.75	.12	.41		.45	.13
15			45.97	.99	.45	.81	.65	47.98	.38		.35	.10
16			45.83	45.32	48.42	48.78	47.48	47.87	46.35		45.26	45.08
17		44.35	.53	.33	.28	.75	.39	.76	.33		.19	.01
18		.34	.50	.26	.10	.68	.49	.68	.31		.14	.00
19		.35	.46	.32	47.81	.58	.38	.73	.29		.10	.00
20		.34	.40	.38	.53	.49	.35	.63	.26		.16	.00
21		44.34	45.30	45.48	47.31	48.50	47.75	47.48	46.22		45.23	45.00
22		.35	.20	.65	.30	.37	.63	.39	.15		.31	.00
23		.35	.17	46.08	.17	.21	.40	.42	.12		.31	44.98
24		.34	.15	.13	.09	.11	.24	.39	.10		.29	.97
25		.33	.23	.03	.39	.11	.08	.20	.09		.24	45.01
26		44.33	45.26	45.85	48.67	48.10	47.01	47.12	46.09	45.62	45.21	45.06
27		.32	.19	.81	.65	.18	.12	46.98	.07	.58	.19	.15
28		.34	.13	.82	.42	.54	48.50	.94	.05	.54	.14	.11
29		.82	.02	.84	.22	.49	.70	.90	.02	.52	.10	.08
30		.89	44.90	48.85	.34	.34	.73	.90	.01	.65	-	.05
31		45.02	.66	.40	-	-	.72	-	.00	.68	-	.00
Mean			45.39	45.50	48.19	48.33	47.89	47.88	46.36		45.33	45.09
Max.			46.73	48.85	48.87	48.81	48.73	48.71	46.85		45.62	45.38
Min.			44.70	44.74	47.09	47.50	47.01	46.90	46.00		45.10	44.97

WATER YEAR 1963 : Max. 48.87 m. Min. m.



WATER YEAR 1964  
YOM RIVER BASIN

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

Location: Lat. 17° - 00' - 18" N., Long 99° - 49' - 31" E., on left bank in front of the house of the Governor, Amphoe Muang Sukhothai.

Drainage Area: 17,731 sq.km. referred to AMS Map 1:50,000.

Type of Gage: Staff gage

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

Bench Mark: B.M. - H.S./R.I.D.  
Location: 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.  
Rated by Float: -  
Rated by Current Meter: 1954 - 56.

Stability of Channel Regimes: Stable, no shifting adjustment made for flow computation for years without actual ratings.

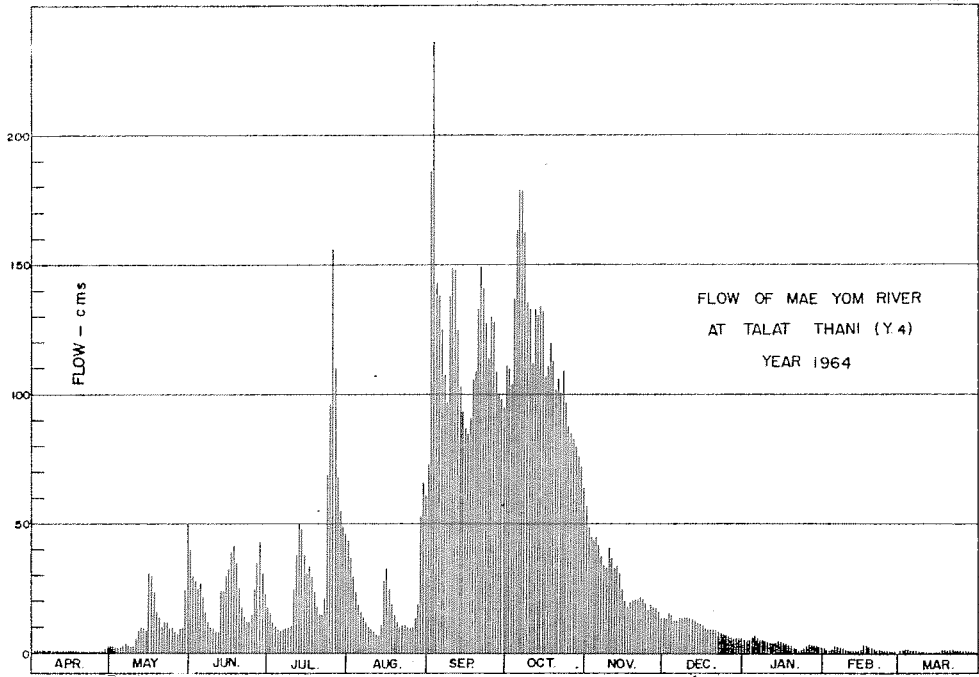
Overbank Flow Conditions: Flow began to overtop the bank at elevation + 48.50 m. (M.S.L.) but not observed.

General Description: Records fair except those for periods of no gage height records. Stage - discharge relationship used is defined by discharge measurements made during 1954 - 56. Upstream diversions for irrigation of about 24,000 hectares. The data presented is from actual flow at the gage site. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	44.98	45.30	46.94	46.26	47.05	47.67	48.22	47.35	46.08	45.62	45.26	45.02
2	.96	.25	.66	.16	46.88	48.83	.21	.18	.10	.56	.19	.10
3	.92	.22	.61	.01	.67	.97	.13	.08	.15	.61	.12	.13
4	.90	.21	.50	45.90	.47	.54	.48	.05	.11	.71	.21	.15
5	.88	.26	.57	.84	.28	.49	.69	.07	.06	.74	.36	.13
6	44.87	45.34	46.40	45.81	46.18	48.37	48.80	46.99	46.06	45.67	45.35	45.09
7	.87	.43	.16	.85	.07	.18	.80	.89	.09	.63	.29	.07
8	.86	.33	.00	.86	45.98	.03	.66	.80	.08	.60	.26	.03
9	.86	.30	45.90	.89	.90	.49	.50	.77	.10	.58	.19	44.98
10	.85	.31	.87	.92	.84	.59	.35	.97	.09	.55	.11	.95
11	44.85	45.62	45.80	46.49	45.79	48.48	48.23	46.88	46.07	45.53	45.06	44.93
12	.85	.83	.78	.91	.73	.37	.45	.75	.05	.51	.05	.88
13	.80	.90	46.48	47.19	.71	.11	.42	.78	.02	.54	.05	.85
14	.76	.88	.47	.15	.95	47.98	.46	.71	45.99	.57	.05	.82
15	.72	.80	.68	46.91	46.60	.90	.32	.51	.98	.55	.05	.88
16	44.70	46.69	46.73	46.71	46.75	47.86	48.17	46.34	45.95	45.51	45.41	44.94
17	.69	.68	.93	.79	.50	.95	.22	.26	.91	.47	.39	45.03
18	.69	.46	.99	.68	.30	48.15	.32	.34	.88	.42	.32	.04
19	.70	.19	.82	.47	.13	.19	.24	.38	.86	.36	.27	.01
20	.72	.09	.50	.26	45.97	.45	.10	.38	.87	.29	.20	.07
21	44.83	45.90	46.26	46.14	45.91	48.59	48.15	46.38	45.84	45.22	45.17	45.07
22	.90	.97	.10	.13	.96	.52	.07	.39	.79	.18	.17	.06
23	.90	.97	.01	.37	.96	.39	.19	.35	.78	.16	.14	.05
24	.89	.88	45.99	47.58	.90	.25	.04	.29	.76	.22	.08	.04
25	.85	.89	46.14	48.02	.88	.42	47.91	.21	.73	.37	.03	.02
26	44.80	45.79	46.50	48.64	45.91	48.40	47.86	46.28	45.70	45.42	45.00	45.00
27	.78	.75	.83	.20	46.09	.19	.83	.27	.69	.41	44.97	44.98
28	.76	.86	47.02	47.57	.31	.07	.78	.24	.67	.39	.95	.97
29	45.19	.90	46.70	.31	47.26	.05	.72	.16	.65	.36	-	.96
30	.28	46.51	.43	.18	.52	.01	.64	.07	.64	.32	-	.94
31	-	47.20	-	.10	.42	-	.48	-	.64	.30	-	.88
Mean	44.85	46.83	46.42	46.69	46.29	48.28	48.23	46.60	45.91	45.46	45.17	45.00
Max.	45.28	47.20	47.02	48.64	47.52	48.97	48.80	47.35	46.15	45.74	45.41	45.15
Min.	44.69	45.21	45.78	45.81	45.71	47.67	47.48	46.07	45.64	45.16	44.95	44.82

WATER YEAR 1964      Max. 48.97 m.      Min. 44.69 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.95	2.60	40	18	44	73	111	57	14	5.84	2.32	1.06
2	0.90	2.25	30	16	37	186	110	49	14	5.12	1.84	1.30
3	0.79	2.04	28	12	30	236	104	45	16	5.72	1.42	1.48
4	0.74	1.97	25	10	24	143	137	44	15	6.96	1.97	1.60
5	0.69	2.32	27	9.12	19	138	163	45	13	7.44	3.08	1.48
6	0.67	2.92	22	8.58	16	125	179	42	13	6.44	3.00	1.27
7	0.67	3.70	1f	9.30	14	108	179	38	14	5.96	2.53	1.21
8	0.64	2.84	12	9.48	12	97	159	34	14	5.60	2.32	1.09
9	0.64	2.60	10	10	10	138	139	33	14	5.36	1.84	0.95
10	0.62	2.68	9.66	11	9.12	149	123	41	14	5.00	1.36	0.87
11	0.62	5.84	8.40	25	8.24	148	112	37	14	4.76	1.18	0.82
12	0.62	8.94	8.08	38	7.28	125	133	33	13	4.52	1.15	0.69
13	0.50	10	24	50	6.96	103	130	34	13	4.88	1.15	0.62
14	0.41	9.84	24	48	11	93	134	31	12	5.24	1.15	0.55
15	0.32	8.40	30	38	28	87	120	25	12	5.00	1.15	0.69
16	0.27	31	32	31	33	85	107	20	11	4.52	3.50	0.84
17	0.25	30	39	34	25	91	111	18	10	4.10	3.32	1.09
18	0.25	24	42	30	19	106	120	20	9.84	3.60	2.76	1.12
19	0.27	16	35	24	15	109	113	21	9.48	3.08	2.39	1.03
20	0.32	14	25	18	12	133	102	21	9.66	2.53	1.90	1.21
21	0.57	10	18	15	10	149	106	21	9.12	2.04	1.72	1.21
22	0.74	12	14	15	11	141	100	22	8.24	1.78	1.72	1.18
23	0.74	12	12	21	11	127	109	21	8.08	1.66	1.54	1.15
24	0.72	9.84	12	69	10	114	97	19	7.76	2.04	1.24	1.12
25	0.62	10	15	96	9.84	130	88	17	7.28	3.16	1.09	1.06
26	0.50	8.24	25	156	10	128	85	19	6.80	3.60	1.00	1.00
27	0.45	7.60	35	110	14	109	83	18	6.68	3.50	0.92	0.95
28	0.41	9.48	43	68	19	100	80	18	6.44	3.32	0.87	0.92
29	1.84	10	31	55	53	98	76	16	6.20	3.08	-	0.90
30	2.46	25	23	49	66	95	72	14	6.08	2.76	-	0.84
31	-	50	-	46	61	-	64	-	6.08	2.60	-	0.69
Total	20.19	348.10	715.14	1,149.48	655.44	3,664	3,546	873	333.74	131.21	51.43	31.99
Mean	0.67	11.2	23.4	37.1	21.1	122	114	29.1	10.8	4.23	1.84	1.03
Max.	2.46	50	43	156	66	236	179	57	16	7.44	3.50	1.60
Min.	0.25	1.97	8.08	8.58	6.96	73	64	14	6.08	1.66	0.87	0.55
Runoff - mcm.	1.744	30.076	61.788	99.315	56.630	316.570	306.374	75.427	28.835	11.336	4.443	2.764

WATER YEAR 1964 : Max. 236 Min. 0.25 Mean 31.6 Annual Runoff 995.304 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sep. 3	12.00	48.98	240	Oct. 6	18.00	48.85	191

WATER YEAR 1963  
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 150 meters upstream from Kaeng Luang about 300 meters from km. 8 on the road Si Satchanalai - Sawankhalok, Amphoe Si Satchanalai, Sukhothai.

Drainage Area: 12,658 sq.km. referred to AMS Map 1:50,000.

Type of Gage: Water - stage recorder.

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

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

Location: On left bank near the camp of the gage observer

Elevation: + 69.132 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: 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: Stable, shifting adjustment not included for flow computation due to its excellent stability.

Overbank Flow Conditions: No overbank flow.

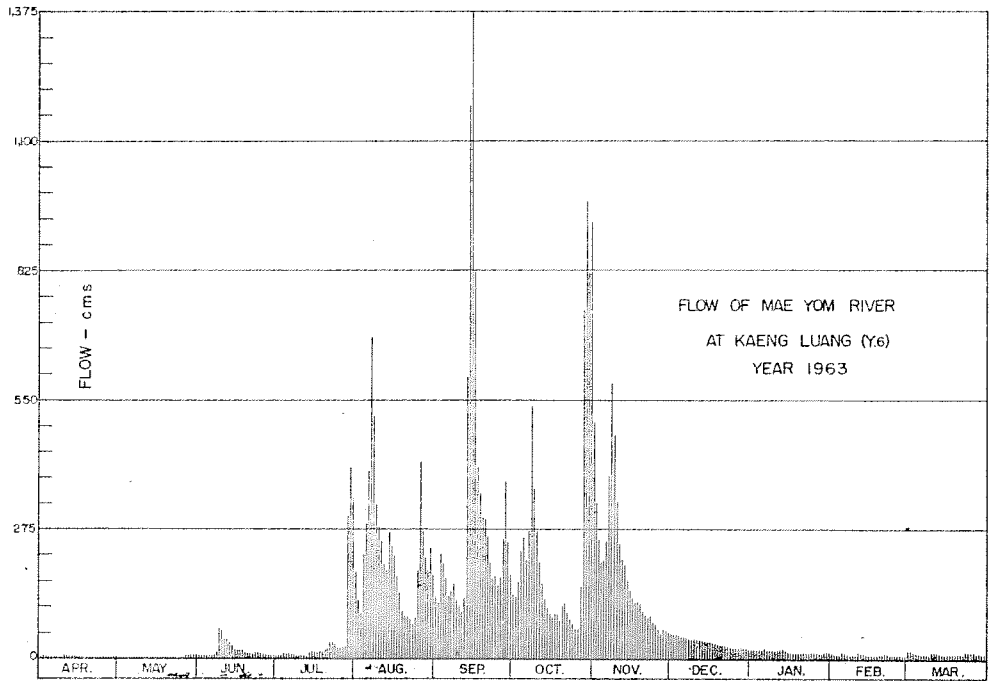
General Description: Records good. Upstream diversions for irrigation of about 24,000 hectares. The data presented is from actual discharge measurements made in 1963 at gage site. No adjustment made for virgin flow.

Remark: Hourly gage height are used for period Sep. 13 - 16.

GAGE HEIGHT IN METER ( M. S. L.), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	59.56	59.51	59.78	59.67	61.85	61.45	61.49	63.44	60.68	60.11	59.88	60.00
2	.65	.50	.68	.64	.40	.37	.47	62.68	.66	.11	.83	.00
3	.62	.51	.65	.64	.16	62.08	.58	.27	.63	.10	.81	59.93
4	.60	.53	.63	.86	62.06	61.97	62.12	61.97	.61	.10	.81	.88
5	.57	.53	.65	.85	.46	.75	.28	62.02	.59	.08	.97	.83
6	59.56	59.51	59.66	59.86	63.00	61.48	62.00	62.26	60.57	60.16	59.89	59.81
7	.58	.50	.68	.80	64.08	.58	.38	.96	.54	.06	.80	.80
8	.57	.50	.98	.75	63.48	.65	63.55	63.75	.51	.02	.76	.79
9	.55	.49	60.80	.71	62.67	.41	62.84	.33	.51	.02	.76	.78
10	.75	.48	.76	.68	.43	.27	.37	62.70	.49	.01	.77	.89
11	59.63	59.47	60.46	59.65	62.27	61.18	61.97	62.23	60.46	60.04	59.92	59.91
12	.57	.46	.50	.63	61.93	.43	.67	.00	.45	.08	.91	.88
13	.62	.44	.42	.63	.86	63.67	.44	61.92	.42	.14	.86	.85
14	.62	.43	.27	.96	62.36	65.41	.26	.72	.41	.11	.78	.81
15	.60	.42	.11	60.00	.22	66.24	.73	.57	.39	.01	.74	.79
16	59.59	59.40	60.04	59.96	62.06	64.50	61.05	61.43	60.37	59.93	59.71	59.78
17	.57	.39	.06	.94	61.79	63.05	.12	.35	.35	.91	.70	.77
18	.57	.38	.04	60.03	.51	62.79	.12	.37	.34	.90	.69	.78
19	.53	.37	59.98	.01	.26	.53	60.99	.33	.32	.90	.74	.79
20	.51	.36	.88	.08	.10	.52	61.29	.18	.28	.93	.78	.78
21	59.50	59.36	59.82	60.19	61.08	62.32	61.35	61.09	60.27	59.94	59.82	59.76
22	.48	.35	.82	.40	.03	61.96	.14	.04	.26	.94	.81	.74
23	.46	.33	.90	.38	60.90	.73	.00	.11	.24	.95	.77	.89
24	.45	.33	.92	.31	61.05	.78	60.90	60.95	.23	.95	.75	.90
25	.49	.36	.91	.19	.87	.65	.79	.90	.21	.96	.76	.88
26	59.51	59.57	59.85	60.19	63.08	61.77	60.80	60.77	60.19	59.90	59.72	59.87
27	.50	.76	.78	.17	62.36	62.25	61.62	.63	.17	.88	.70	.85
28	.53	.75	.73	.24	.03	.89	64.28	.76	.16	.90	.68	.83
29	.55	.78	.69	62.55	61.88	.24	65.01	.74	.16	.98	.73	.81
30	.52	.80	.68	63.04	62.18	61.76	64.54	.71	.15	60.00	-	.79
31	-	.76	-	62.59	61.78	-	.87	-	.13	59.96	-	.77
Mean	59.56	59.49	59.97	60.21	62.00	62.32	62.00	61.74	60.38	60.00	59.79	59.84
Max.	59.75	59.80	60.80	63.04	64.08	66.24	65.01	63.75	60.68	60.16	59.97	60.00
Min.	59.45	59.33	59.63	59.63	60.90	61.18	60.79	60.63	60.13	59.88	59.68	59.74

WATER YEAR 1963 : Max. 66.24 m. Min. 59.33 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1,1963 TO MARCH 31,1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	4.20	3.20	9.40	6.40	186	132	137	505	55	20	12	16
2	6.00	3.00	6.60	5.80	125	121	134	330	54	20	11	16
3	5.40	3.20	6.00	5.80	98	223	148	254	51	20	10	14
4	5.00	3.60	5.60	12	220	205	229	205	50	20	10	12
5	4.40	3.60	6.00	11	288	172	256	213	48	19	15	11
6	4.20	3.20	6.20	12	399	135	210	252	47	23	13	10
7	4.60	3.00	6.60	10	682	143	273	390	45	18	10	10
8	4.40	3.00	15	8.50	516	158	534	587	43	17	8.80	9.70
9	4.00	2.80	65	7.30	328	126	363	477	43	17	8.80	9.40
10	8.50	2.60	62	6.60	283	110	272	334	41	16	9.10	13
11	5.60	2.40	40	6.00	254	100	205	247	40	18	14	13
12	4.40	2.20	42	5.60	199	129	161	210	39	19	13	12
13	5.40	1.80	37	5.60	188	598	130	197	37	22	12	11
14	5.40	1.60	28	15	270	1,193	109	168	37	20	9.40	10
15	5.00	1.40	20	16	245	1,379	95	147	35	16	8.20	9.70
16	4.80	1.00	18	15	220	822	87	129	34	14	7.30	9.40
17	4.40	0.90	18	14	178	410	94	119	33	13	7.00	9.10
18	4.40	0.80	18	17	139	353	94	121	32	13	6.80	9.40
19	3.60	0.70	15	16	109	302	82	117	31	13	8.20	9.70
20	3.20	0.60	12	19	92	300	112	100	29	14	9.40	9.40
21	3.00	0.60	11	24	90	263	119	91	28	14	11	8.80
22	2.60	0.50	11	36	86	204	96	87	28	14	10	8.20
23	2.20	0.30	13	35	74	169	83	93	27	14	9.10	13
24	2.00	0.30	14	31	87	176	74	78	26	14	8.50	13
25	2.80	0.90	13	24	189	158	64	74	25	15	8.80	12
26	3.20	4.40	11	24	417	175	65	63	24	13	7.60	12
27	3.00	8.80	9.40	23	270	250	154	51	23	12	7.00	11
28	3.60	8.50	7.90	27	215	374	742	62	23	13	6.60	11
29	4.00	9.40	6.80	305	191	249	972	60	23	15	7.90	10
30	3.40	10	6.60	408	239	173	822	58	22	16	-	9.70
31	-	8.80	-	313	176	-	927	-	21	15	-	9.10
Total	126.70	97.10	540.10	1,464.60	7,053	9,302	7,843	5,819	1,094	507	279.50	341.60
Mean	4.22	3.13	18.0	47.2	227	310	253	194	35.3	16.3	9.64	11.0
Max.	8.50	10	65	408	682	1,379	972	587	55	23	15	16
Min.	2.00	0.30	5.60	5.60	74	100	64	51	21	12	6.60	8.20
Runoff - mcm.	10.973	8.381	46.656	126.576	609.379	804.125	677.635	502.762	94.523	43.805	24.106	29.549

WATER YEAR 1963 : Max. 1,379 Min. 0.30 Mean 94.4 Annual Runoff 2,978.001 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sep.15	12.00	66.30	1,400				

WATER YEAR 1964  
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 150 meters upstream from Kaeng Luang about 300 meters from km. 8 on the road Si Satchanalai - Sawankhalok, Amphoe Si Satchanalai, Sukhothai.

Drainage Area: 12,658 sq.km. referred to AMS. Map 1:50,000.

Type of Gage: Water - stage recorder.

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

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

Location: On left bank near the camp of the gage observer.

Elevation: + 69.132 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: 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: Stable, shifting adjustment not included for flow computation due to its excellent stability.

Overbank Flow Conditions: No overbank flow.

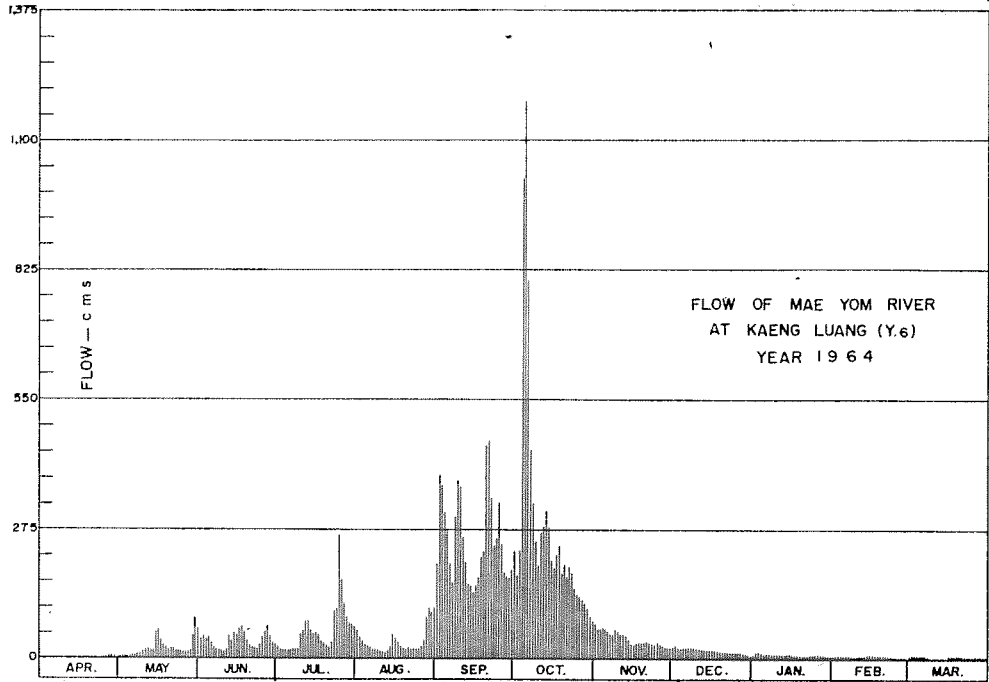
General Description: Records good. Upstream diversions for irrigation of about 24,000 hectares. The data presented is from actual discharge measurements made in 1964 at gage site. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	59.75	59.90	60.67	60.44	60.90	62.05	62.21	61.03	60.40	59.94	59.84	59.82
2	.73	.93	.77	.35	.74	63.01	61.82	60.94	.43	60.14	.82	.94
3	.71	.94	.64	.28	.61	62.90	62.23	.92	.37	.20	60.00	.91
4	.69	.98	.72	.25	.52	.64	65.13	.96	.33	.13	59.98	.88
5	.67	.95	.59	.25	.45	.45	.69	.90	.36	.07	.95	.86
6	59.66	59.96	60.42	60.28	60.40	62.10	64.28	60.84	60.37	60.09	59.93	59.84
7	.65	.96	.34	.28	.35	61.79	63.48	.79	.36	.12	.89	.82
8	.65	.95	.31	.29	.31	62.59	62.74	.76	.38	.08	.84	.78
9	.65	.95	.27	.30	.28	.96	.31	.89	.38	.07	.82	.74
10	.64	60.28	.22	.76	.23	.92	.02	.85	.35	.06	.80	.73
11	59.64	60.27	60.25	60.89	60.20	62.38	62.43	60.76	60.33	60.05	59.82	59.71
12	.63	.35	.79	61.12	.19	.05	.50	.79	.31	.04	.83	.70
13	.64	.27	.63	.12	.22	61.79	.66	.75	.30	.06	.88	.70
14	.64	.28	.82	60.94	.40	.74	.48	.65	.28	.07	60.05	.69
15	.63	.86	.78	.80	.78	.64	.07	.49	.27	.06	.04	.69
16	59.63	60.90	60.95	60.85	60.71	61.76	61.98	60.47	60.27	60.04	60.00	59.87
17	.63	.63	61.00	.79	.56	.86	62.17	.53	.25	59.98	59.94	.81
18	.63	.46	60.84	.64	.44	62.16	.27	.54	.23	.92	.93	.86
19	.80	.37	.64	.55	.37	.20	61.92	.53	.22	.89	.93	.87
20	.78	.29	.47	.45	.32	63.28	62.05	.56	.20	.88	.91	.85
21	59.75	60.37	60.38	60.40	60.38	63.33	61.86	60.58	60.18	59.85	59.87	59.83
22	.72	.36	.33	.55	.36	62.79	62.00	.53	.17	.85	.84	.82
23	.69	.28	.33	61.33	.34	.27	61.94	.50	.15	.93	.80	.81
24	.68	.28	.46	.33	.31	.36	.69	.48	.15	60.03	.78	.79
25	.69	.21	.69	62.40	.33	.75	.59	.53	.14	.03	.77	.78
26	59.70	60.19	60.87	61.81	60.46	62.29	61.56	60.50	60.13	60.02	59.75	59.82
27	.90	.22	61.01	.46	.61	61.93	.49	.46	.13	.00	.74	.78
28	.98	.30	60.77	.20	61.19	.86	.45	.38	.11	59.97	.77	.75
29	.94	.77	.59	.11	.36	.84	.36	.36	.08	.95	-	.72
30	.94	61.18	.49	.06	.29	.98	.22	.39	.02	.91	-	.69
31	-	60.97	-	.03	.35	-	.11	-	59.97	.88	-	.67
Mean	59.95	60.31	60.60	60.82	60.55	62.32	62.31	60.65	60.24	60.01	59.87	59.79
Max.	59.98	61.18	61.01	62.40	61.36	63.33	65.69	61.03	60.43	60.20	60.05	59.94
Min.	59.63	59.90	60.22	60.25	60.19	61.64	61.11	60.36	59.97	59.85	59.74	59.67

WATER YEAR 1964 : Max. 65.69 m. Min. 59.63 m.





DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1,1964 TO MARCH 31,1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	4.76	7.00	44	28	62	202	229	73	26	7.80	6.10	5.80
2	4.45	7.60	52	23	49	387	175	65	28	14	5.95	7.80
3	4.15	7.80	41	19	39	363	232	64	24	16	9.00	7.20
4	3.85	8.60	48	18	33	310	995	67	22	13	8.60	6.70
5	3.55	8.00	37	18	29	272	1,180	62	24	11	8.00	6.40
6	3.40	8.20	27	19	26	210	727	57	24	12	7.60	6.10
7	3.25	8.20	22	19	23	163	502	53	24	13	6.85	5.80
8	3.25	8.00	21	20	21	300	330	51	25	11	6.10	5.20
9	3.25	8.00	19	20	19	376	246	61	25	11	5.80	4.60
10	3.10	19	17	51	17	367	197	58	23	11	5.50	4.45
11	3.10	19	18	61	16	258	268	51	22	10	5.80	4.15
12	2.95	23	53	82	16	202	282	53	21	10	5.95	4.00
13	3.10	19	40	82	17	163	314	50	20	11	6.70	4.00
14	3.10	19	56	65	26	156	278	42	19	11	10	3.85
15	2.95	59	52	54	52	142	205	31	19	11	10	3.85
16	2.95	62	66	58	47	158	191	30	19	10	9.00	6.55
17	2.95	40	70	53	36	172	222	34	18	8.60	7.80	5.65
18	2.95	30	57	41	28	220	239	34	17	7.40	7.60	6.40
19	5.50	24	41	35	24	227	181	34	17	6.85	7.60	6.55
20	5.20	20	30	29	21	452	202	36	16	6.70	7.20	6.25
21	4.75	24	25	26	25	464	172	37	15	6.25	6.55	5.95
22	4.30	24	22	35	24	340	194	34	15	6.25	6.10	5.80
23	3.85	19	22	104	22	239	184	32	14	7.60	5.50	5.65
24	3.70	19	30	104	21	255	149	31	14	9.90	5.20	5.35
25	3.85	16	45	262	22	332	135	34	14	9.90	5.05	5.20
26	4.00	16	60	165	30	242	131	32	13	9.60	4.75	5.80
27	7.00	17	71	119	39	183	123	30	13	9.00	4.60	5.20
28	8.60	20	52	90	89	172	118	25	12	8.40	5.05	4.75
29	7.80	52	37	81	107	170	107	24	11	8.00	-	4.30
30	7.80	88	31	76	99	191	92	25	9.60	7.20	-	3.85
31	-	68	-	73	106	-	81	-	8.40	6.70	-	3.55
Total	127.41	768.40	1,206	1,930	1,185	7,688	8,681	1,310	572	301.15	189.95	166.70
Mean	4.25	24.8	40.2	62.2	38.2	256	280	43.7	18.4	9.71	6.78	5.38
Max.	8.60	88	71	262	107	464	1,180	73	28	16	10	7.80
Min.	2.95	7.00	17	18	16	142	81	24	8.40	6.25	4.60	3.55
Runoff - mm.	11.008	66.390	104.198	166.752	102.384	664.243	750.038	113.184	49.421	26.019	16.412	14.403

WATER YEAR 1964 : Max. 1,180 Min. 2.95 Mean 66.1 Annual Runoff 2,084.453 mm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct.5	06.00	66.38	1,407				

WATER YEAR 1963  
YOM RIVER BASIN

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

Location: Lat  $18^{\circ} - 45' - 06''$  N., Long  $99^{\circ} - 58' - 53''$  E., on left bank at downstream side of Ngao Bridge, Amphoe Ngao, Lampang.

Drainage Area: 582 sq.km. referred to AMS Map 1:50,000.

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 101 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.

Rating Operation:

Period of Rating: 1957 - 58.

Rated by Float:

Rated by Current Meter: 1957 - 58.

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

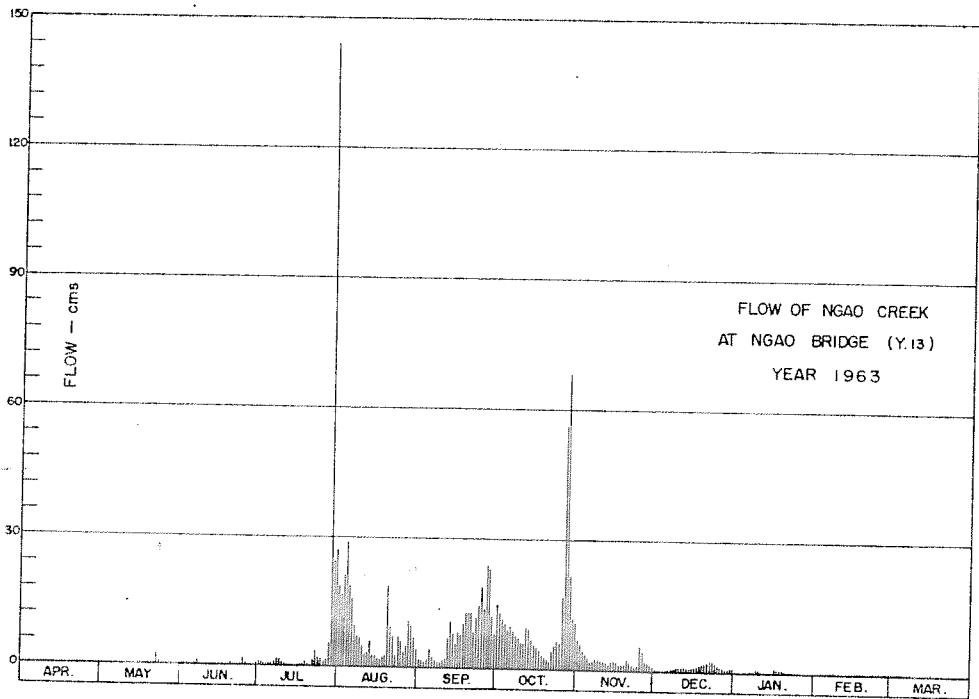
Overbank Flow Conditions: No overbank flow.

General Description: Gage height record good, discharge record fair. Stage - discharge relationship used is defined by discharge measurements made during 1957 - 58. No upstream diversion for irrigation except those built by the farmers. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	266.94	266.94	267.05	267.15	267.70	267.20	267.63	267.42	267.01	267.00	266.92	266.94
2	.94	.95	.05	.12	.66	.18	.58	.39	266.99	266.99	.94	.94
3	.93	.92	.05	.09	.57	.16	.57	.33	.99	.95	.94	.95
4	.92	.92	.04	.08	.84	.20	.54	.29	.99	.96	.95	.95
5	.92	.92	.01	.07	.69	.33	.49	.25	.99	.95	.95	.95
6	266.92	266.92	267.07	267.09	267.65	267.24	267.51	267.19	267.04	266.97	266.96	266.94
7	.92	.91	.12	.12	.51	.18	.48	.19	.07	.96	.98	.94
8	.91	.93	.02	.17	.44	.14	.45	.24	.09	.99	.97	.94
9	.89	267.00	.00	.18	.42	.13	.43	.22	.09	267.04	.97	.92
10	.89	.06	266.99	.11	.35	.18	.39	.21	.11	.01	.97	.92
11	266.88	267.02	266.99	267.09	267.27	267.21	267.39	267.19	267.11	267.00	266.96	266.92
12	.88	.02	.98	.05	.29	.42	.50	.18	.12	266.96	.95	.92
13	.89	.00	.99	.00	.39	.53	.49	.15	.09	.94	.95	.93
14	.89	266.99	.99	266.98	.26	.46	.42	.19	.08	.93	.94	.93
15	.89	.99	.97	.97	.25	.39	.38	.21	.09	.99	.93	.92
16	266.91	266.98	266.97	266.94	267.19	267.45	267.36	267.18	267.11	267.09	266.93	266.92
17	.92	.98	.95	267.06	.17	.45	.33	.15	.12	.08	.96	.92
18	.92	.97	.94	.05	.21	.52	.28	.16	.14	.04	.97	.91
19	.91	.95	.94	.15	.26	.58	.25	.16	.17	.04	.99	.91
20	.91	.94	267.08	.10	.69	.59	.22	.23	.19	.01	.99	.91
21	266.90	266.94	267.02	267.08	267.50	267.59	267.18	267.18	267.19	266.99	266.98	266.91
22	.90	267.23	.01	.19	.43	.47	.32	.13	.21	.98	.94	.91
23	.90	.09	.01	.31	.25	.55	.38	.09	.21	.95	.93	.90
24	.89	.09	.01	.20	.43	.62	.41	.11	.19	.94	.93	.90
25	.90	.06	.17	.20	.39	.70	.40	.38	.16	.99	.94	.90
26	266.90	267.05	267.07	267.14	267.30	267.60	267.67	267.32	267.12	267.02	266.94	266.90
27	.89	.04	.04	.19	.36	.77	268.11	.21	.09	266.96	.94	.90
28	.96	.03	.02	.38	.54	.75	.20	.18	.08	.95	.93	.90
29	.96	.03	.06	268.64	.52	.56	267.74	.13	.08	.93	.95	.90
30	.95	.02	.09	267.79	.43	.46	.57	.09	.09	.92	-	.90
31	-	.04	-	.81	.33	-	.53	-	.10	.93	-	.89
Mean	266.91	267.00	267.02	267.21	267.43	267.42	267.49	267.21	267.10	266.98	266.95	266.92
Max.	266.96	267.23	267.17	268.64	267.84	267.77	268.20	267.42	267.21	267.09	266.99	266.95
Min.	266.88	266.91	266.94	266.94	267.17	267.13	267.18	267.09	266.99	266.92	266.92	266.89

WATER YEAR 1963 : Max. 268.64 m. Min. 266.88 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.32	0.32	0.75	1.60	19	2.20	15	7.04	0.55	0.50	0.26	0.32
2	0.32	0.35	0.75	1.24	17	1.96	13	6.14	0.47	0.47	0.32	0.32
3	0.29	0.26	0.75	0.95	12	1.72	12	4.58	0.47	0.35	0.32	0.35
4	0.26	0.26	0.70	0.90	29	2.20	11	3.64	0.47	0.38	0.35	0.35
5	0.26	0.26	0.55	0.85	19	4.58	9.28	3.00	0.47	0.35	0.35	0.35
6	0.26	0.26	0.85	0.95	16	2.84	10	2.68	0.70	0.41	0.38	0.32
7	0.26	0.23	1.24	1.24	10	1.96	8.96	2.08	0.85	0.38	0.44	0.32
8	0.23	0.29	0.60	1.84	7.68	1.48	8.00	2.84	0.95	0.47	0.41	0.32
9	0.18	0.50	0.50	1.96	7.04	1.36	7.36	2.52	0.95	0.70	0.41	0.26
10	0.18	0.80	0.47	1.12	5.10	1.96	6.14	2.36	1.12	0.55	0.41	0.26
11	0.16	0.60	0.47	0.95	3.32	2.36	6.14	2.08	1.12	0.50	0.38	0.26
12	0.16	0.60	0.44	0.75	3.64	7.04	9.60	1.96	1.24	0.38	0.35	0.26
13	0.18	0.50	0.47	0.50	6.14	11	9.28	1.60	0.95	0.32	0.35	0.29
14	0.18	0.47	0.47	0.44	3.16	8.32	7.04	2.08	0.90	0.29	0.32	0.29
15	0.18	0.47	0.41	0.41	3.00	6.14	5.88	2.36	0.95	0.47	0.29	0.26
16	0.23	0.44	0.41	0.32	2.08	8.32	5.36	1.96	1.12	0.95	0.29	0.26
17	0.26	0.44	0.35	0.80	1.84	8.00	4.58	1.60	1.24	0.90	0.38	0.26
18	0.26	0.41	0.32	0.75	2.36	10	3.48	1.72	1.48	0.70	0.41	0.23
19	0.23	0.35	0.32	1.60	3.16	13	3.00	1.72	1.84	0.70	0.47	0.23
20	0.23	0.32	0.90	1.00	19	13	2.52	2.68	2.08	0.55	0.47	0.23
21	0.20	0.32	0.60	0.90	9.60	13	1.96	1.96	2.08	0.47	0.44	0.23
22	0.20	2.68	0.55	2.08	7.36	8.64	4.32	1.36	2.36	0.44	0.32	0.23
23	0.20	0.95	0.55	4.06	3.00	12	5.88	0.95	2.36	0.35	0.29	0.20
24	0.18	0.95	0.55	2.20	7.36	15	6.72	1.12	2.08	0.32	0.29	0.20
25	0.20	0.80	1.84	2.20	6.14	19	6.40	5.88	1.72	0.47	0.32	0.20
26	0.20	0.75	0.85	1.48	3.80	14	17	4.32	1.24	0.55	0.32	0.20
27	0.18	0.70	0.70	2.08	5.36	24	56	2.36	0.95	0.38	0.32	0.20
28	0.38	0.65	0.60	5.88	11	23	68	1.96	0.90	0.35	0.29	0.20
29	0.38	0.65	0.60	144	10	12	22	1.36	0.90	0.29	0.35	0.20
30	0.35	0.60	0.95	25	7.36	8.32	12	0.95	0.95	0.26	-	0.20
31	-	0.70	-	27	4.58	-	11	-	1.00	0.29	-	0.18
Total	7.10	17.88	19.51	237.05	265.08	258.40	368.90	78.26	36.46	14.49	10.30	7.98
Mean	0.24	0.58	0.65	7.65	8.55	8.61	11.9	2.61	1.18	0.47	0.35	0.26
Max.	0.38	2.68	1.84	144	29	24	68	7.04	2.36	0.95	0.47	0.35
Min.	0.16	0.23	0.32	0.32	1.84	1.36	1.96	0.95	0.47	0.26	0.26	0.18
Runoff - BCM.	0.613	1.545	1.686	20.481	22.903	22.326	31.873	6.762	3.150	1.252	0.890	0.689

WATER YEAR 1963 : Max. 144 Min. 0.16 Mean 3.61 Annual Runoff 114.170 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Jul.29	18.00	269.21	312				

WATER YEAR 1964  
YOM RIVER BASIN

Ngao Creek at Ngao Bridge, Lampang. (V. 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. referred to AMS Map 1:50,000.

**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 101 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.

**Rating Operation:**

**Period of Rating:** 1957 - 58.

**Rated by Float:** -

**Rated by Current Meter:** 1957 - 58.

**Stability of Channel Regimes:** Stable, no shifting adjustment for flow computation for years without actual ratings.

**Overbank Flow Conditions:** No overbank flow.

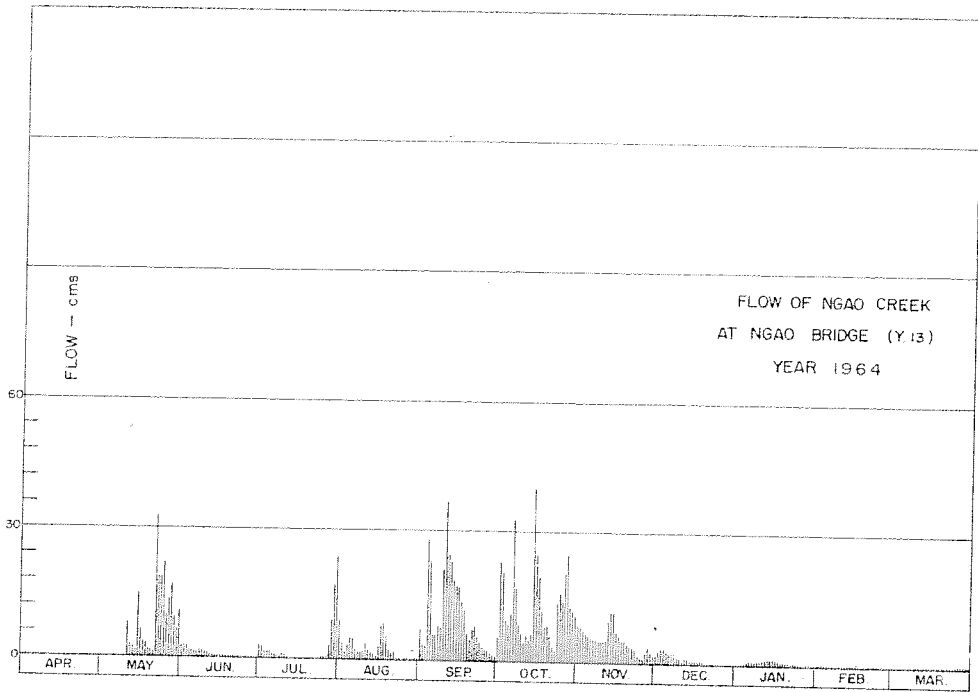
**General Description:** Gage height record good, discharge record fair. Stage - discharge relationship used is defined by discharge measurements made during 1957 - 58. No upstream diversions for irrigation except those built by the farmers. No adjustment made for virgin flow.

**Remark:** Doubtful record for Apr. and May.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	266.90	266.94	267.25	267.28	267.49	267.43	267.13	267.47	267.21	266.98	267.02	266.93
2	.89	.95	.25	.26	.31	.29	.75	.47	.26	.98	.01	.93
3	.89	.93	.25	.21	.17	.29	.73	.44	.30	.99	266.99	.92
4	.89	.92	.19	.19	.29	.82	.50	.41	.28	267.03	.99	.92
5	.89	.92	.17	.17	.36	.76	.45	.39	.25	.06	.99	.92
6	266.89	266.91	267.16	267.14	267.35	267.39	267.53	267.38	267.24	267.07	266.98	266.93
7	.90	.91	.16	.14	.24	.39	.88	.37	.23	.08	.98	.93
8	.91	.93	.19	.10	.19	.46	.66	.36	.17	.09	.97	.94
9	.91	.97	.19	.11	.17	.44	.47	.35	.18	.09	.97	.94
10	.91	267.84	.16	.12	.19	.88	.39	.33	.14	.10	.97	.95
11	266.90	267.45	267.14	267.12	267.31	267.93	267.33	267.36	267.08	267.12	266.94	266.95
12	.90	.26	.11	.06	.24	.79	.39	.44	.15	.12	.92	.94
13	.89	.24	.09	.97	.15	.69	.33	.51	.12	.15	.92	.94
14	.89	.17	.09	.97	.15	.69	.29	.56	.08	.16	.96	.95
15	.89	.63	.07	.96	.09	.66	.96	.56	.08	.13	.95	.95
16	266.89	267.43	267.04	266.98	267.28	267.66	267.78	267.43	267.06	267.13	266.95	266.94
17	.88	.29	.04	.98	.45	.61	.71	.39	.08	.09	.95	.95
18	.88	.29	.04	.96	.48	.55	.57	.36	.04	.09	.94	.95
19	.88	.21	.03	.94	.37	.40	.45	.35	.04	.07	.92	.94
20	.88	.17	.03	.93	.22	.35	.47	.33	266.98	.06	.92	.95
21	266.89	267.14	267.02	266.92	267.17	267.42	267.35	267.31	266.99	267.05	266.96	266.95
22	.89	.89	.02	.93	.19	.46	.30	.29	267.01	.04	.97	.96
23	.89	.70	.01	.95	.08	.37	.25	.27	.00	.04	.95	.97
24	.89	.69	266.99	.97	.03	.32	.60	.17	266.95	.01	.95	.98
25	.89	.74	.99	267.04	.02	.30	.65	.14	.99	.01	.95	.99
26	266.89	267.51	266.99	267.04	267.03	267.25	267.60	267.12	266.96	267.02	266.92	267.00
27	.89	.60	.98	.05	.03	.23	.73	.21	.95	266.99	.94	266.99
28	.90	.66	.97	.27	.02	.17	.78	.30	.96	.99	.93	267.01
29	.91	.49	.97	.49	.01	.14	.58	.24	.95	267.00	-	266.98
30	.96	.41	.96	.67	.03	.12	.55	.17	.92	266.98	-	.98
31	-	.53	-	.77	.04	-	.54	-	.94	267.00	-	.97
Mean	266.89	267.31	267.08	267.12	267.20	267.48	267.54	267.35	267.08	267.05	266.96	266.95
Max.	266.96	267.89	267.25	267.77	267.49	267.93	267.96	267.56	267.30	267.16	267.02	267.01
Min.	266.88	266.91	266.96	266.92	267.01	267.12	267.13	267.12	266.92	266.98	266.92	266.92

WATER YEAR 1964 : Max. 267.96 m. Min. 266.88 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.20	0.32	3.00	3.48	9.28	7.36	1.36	8.64	2.36	0.44	0.60	0.29
2	0.18	0.35	3.00	3.16	4.06	3.64	23	8.64	3.16	0.44	0.55	0.29
3	0.18	0.29	3.00	2.36	1.84	3.64	21	7.68	3.80	0.47	0.47	0.26
4	3.18	0.26	2.08	2.08	3.64	28	9.60	6.72	3.48	0.65	0.47	0.26
5	0.18	0.26	1.84	1.84	5.36	23	8.00	6.14	3.00	0.80	0.47	0.26
6	0.18	0.23	1.72	1.48	5.10	6.14	11	5.88	2.84	0.85	0.44	0.29
7	0.20	0.23	1.72	1.48	2.84	6.14	33	5.62	2.68	0.90	0.44	0.29
8	0.23	0.29	2.08	1.00	2.08	8.32	17	5.36	1.84	0.95	0.41	0.32
9	0.23	0.41	2.08	1.12	1.84	7.68	8.64	5.10	1.72	0.95	0.41	0.32
10	0.23	29	1.72	1.24	2.08	28	6.14	4.58	1.48	1.00	0.41	0.35
11	0.20	8.00	1.48	1.24	4.06	37	4.58	5.36	0.90	1.24	0.32	0.35
12	0.20	3.16	1.12	0.80	2.48	25	6.14	7.68	1.60	1.24	0.26	0.32
13	0.18	2.84	0.95	0.41	1.60	19	4.58	10	1.24	1.60	0.26	0.32
14	0.18	1.84	0.95	0.41	1.60	19	3.64	12	0.90	1.72	0.38	0.35
15	0.18	15	0.85	0.38	0.95	17	40	12	0.90	1.36	0.35	0.35
16	0.18	7.36	0.70	0.44	3.48	17	25	7.36	0.80	1.36	0.35	0.32
17	0.16	3.64	0.70	0.44	8.00	14	20	6.14	0.90	0.95	0.35	0.35
18	0.16	3.64	0.70	0.38	8.96	12	12	5.36	0.70	0.95	0.32	0.35
19	0.16	2.36	0.65	0.32	5.62	6.40	8.00	5.10	0.70	0.85	0.26	0.32
20	0.16	1.84	0.65	0.29	2.52	5.10	8.64	4.58	0.44	0.80	0.26	0.35
21	0.18	1.48	0.60	0.26	1.84	7.04	5.10	4.06	0.47	0.75	0.38	0.35
22	0.18	33	0.60	0.29	2.08	8.32	3.80	3.64	0.55	0.70	0.41	0.38
23	0.18	19	0.55	0.35	0.90	5.62	3.00	3.32	0.50	0.70	0.35	0.41
24	0.18	19	0.47	0.41	0.65	4.32	14	1.84	0.35	0.55	0.35	0.44
25	0.18	22	0.47	0.70	0.60	3.80	16	1.48	0.47	0.55	0.35	0.47
26	0.18	10	0.47	0.70	0.65	3.00	14	1.24	0.38	0.60	0.26	0.50
27	0.18	14	0.44	0.75	0.65	2.68	21	2.36	0.35	0.47	0.32	0.47
28	0.20	17	0.41	3.32	0.60	1.84	25	3.80	0.38	0.47	0.29	0.55
29	0.23	9.28	0.41	9.28	0.55	1.48	13	2.84	0.35	0.55	-	0.44
30	0.38	6.72	0.38	17	0.65	1.24	12	1.84	0.26	0.44	-	0.44
31	-	11	-	24	0.70	-	11	-	0.32	0.50	-	0.41
Total	5.82	243.80	35.79	81.41	87.86	336.76	409.22	166.36	39.82	25.75	10.49	11.17
Mean	0.19	7.86	1.19	2.63	2.83	11.2	13.2	5.54	1.28	0.83	0.37	0.36
Max.	0.38	33	3.00	24	9.28	37	40	12	3.80	1.72	0.60	0.55
Min.	0.16	0.23	0.38	0.26	0.55	1.24	1.36	1.24	0.26	0.44	0.26	0.26
Runoff - mcm.	0.503	21.064	3.092	7.034	7.591	29.096	35.357	14.373	3.440	2.225	0.906	0.965

WATER YEAR 1964 : Max. 40 Min. 0.16 Mean 3.98 Annual Runoff 125,647 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct.15	12.00	268.16	63				

WATER YEAR 1964  
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 joining Si Satchanalai - Den Chai at Tambon Mae Sam, 44 km. from Amphoe Si Satchanalai Sukhothai.

Drainage Area: 12,058 sq.km. referred to AMS Map 1:50,000.

Type of Gage: Staff gage.

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

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

Location: Infront of the camp of station Y. 14

Elevation: + 77,575 m. (M.S.L.)

Gage Reading Frequency: 16 - time daily readings at 03.00, 06.00-18.00, 21.00 and 24 hours.

Basis of Mean Daily Gage Height: Arithmetic mean of 16 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: Stable, no shifting adjustment for flow computation due to its stability.

Overbank Flow Conditions: No overbank flow.

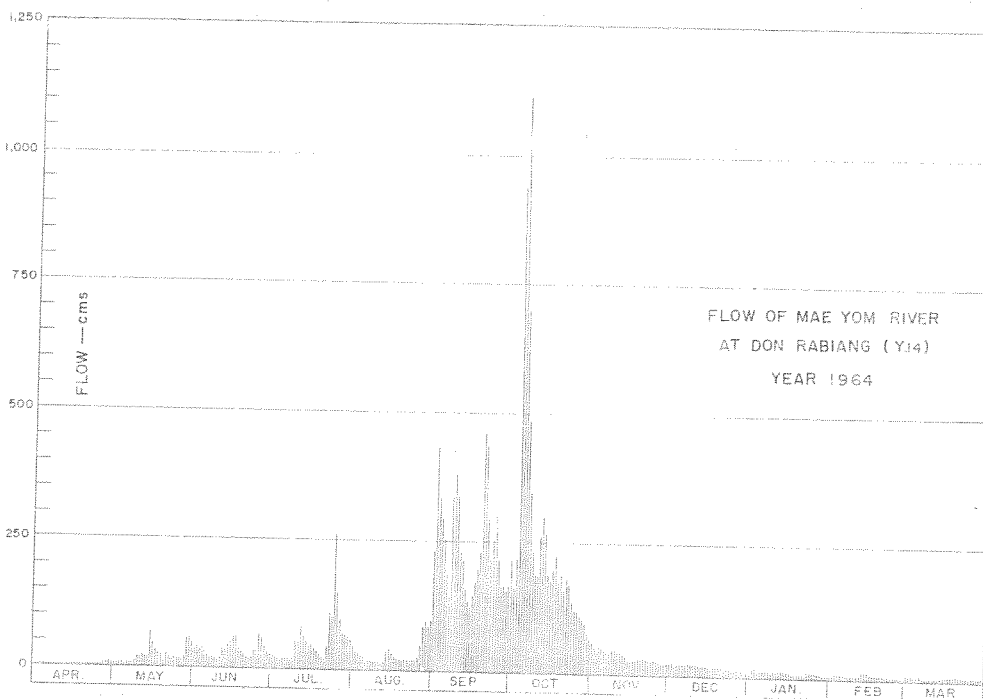
General Description: Records good except those for period of no gage height record. Upstream diversions for irrigation of about 24,000 hectares. The data presented is from actual observation at gage site during 1964. no adjustment made for virgin flow.

Remark: Gage height record for period Oct. 1 - Nov.30 has been made based on correlation with station at Kaeng Luang (Y. 6) which is 25 kilometers downstream.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	65.77	65.94	66.58	66.78	66.74	68.55	68.41	66.91	66.37	65.96	65.85	65.94
2	.76	.85	.67	.31	.59	69.77	67.99	.80	.37	66.20	66.01	.95
3	.75	66.00	.60	.27	.50	.22	66.44	.75	.32	.70	.33	.91
4	.74	.01	.65	.25	.44	68.99	72.22	.37	.31	.13	65.99	.90
5	.73	65.99	.48	.28	.39	.71	.36	.77	.33	.09	.97	.87
6	65.72	65.98	66.35	66.29	66.34	68.17	71.11	66.72	66.34	66.13	65.94	65.86
7	.72	66.01	.30	.28	.30	67.86	70.07	.68	.34	.13	.91	.82
8	.71	65.98	.30	.28	.27	69.21	69.10	.66	.37	.10	.87	.80
9	.71	66.09	.24	.35	.24	.48	68.54	.76	.33	.11	.87	.78
10	.71	.30	.21	.82	.21	.25	.17	.73	.31	.10	.85	.76
11	65.71	66.28	66.32	66.84	68.20	68.53	68.70	66.66	66.30	66.09	65.86	65.75
12	.70	.34	.66	67.20	.19	.16	.79	.68	.29	.10	.93	.74
13	.70	.25	.62	.63	.24	67.87	69.00	.65	.28	.11	66.04	.73
14	.70	.35	.74	66.82	.58	.73	68.76	.56	.26	.09	.07	.74
15	.70	67.03	.78	.70	.67	.66	.23	.43	.26	.08	.05	.81
16	65.70	66.73	66.93	66.81	66.58	67.90	68.11	66.42	66.25	66.05	65.99	65.84
17	.71	.53	.94	.64	.44	68.10	.36	.46	.23	65.99	.96	.84
18	.77	.38	.71	.56	.37	.36	.49	.47	.22	.95	.95	.93
19	.82	.72	.53	.47	.32	.53	.64	.45	.21	.92	.94	.91
20	.77	.52	.41	.39	.30	69.93	.20	.49	.20	.91	.91	.89
21	65.75	66.40	66.34	66.35	66.34	69.78	67.66	66.50	66.19	65.89	65.87	65.86
22	.75	.31	.32	.71	.32	68.97	68.14	.46	.17	.80	.84	.86
23	.74	.29	.32	67.50	.30	.41	.66	.44	.16	66.09	.82	.85
24	.74	.26	.53	.39	.28	.75	67.75	.42	.15	.05	.60	.84
25	.77	.19	.62	68.75	.33	69.00	.62	.46	.14	.06	.78	.83
26	65.76	66.22	67.01	67.90	66.44	68.47	68.58	66.44	66.14	66.04	65.78	65.84
27	.95	.25	66.92	.37	.80	67.99	.49	.41	.13	.02	.80	.81
28	66.01	.30	.64	.08	67.24	68.02	.44	.34	.12	65.99	.80	.78
29	.01	.88	.51	.04	.34	67.93	.33	.23	.05	.93	-	.75
30	65.97	.91	.44	.00	.25	68.00	.15	.35	.02	.93	-	.73
31	-	.80	-	66.92	.45	-	.01	-	65.98	.98	-	.71
Mean	65.77	66.35	66.56	66.50	66.52	68.57	68.55	66.57	66.23	66.03	65.91	65.83
Max.	66.01	67.03	67.01	68.75	67.45	69.93	72.96	66.91	66.37	66.20	66.07	65.95
Min.	65.70	65.94	66.21	66.25	66.19	67.66	67.01	66.33	65.98	65.80	65.78	65.71

WATER YEAR 1964 : Max. 72.96 m. Min. 65.70 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	2.86	7.38	37	26	48	234	216	61	25	8.02	4.75	7.38
2	2.68	8.66	43	22	37	435	165	52	25	17	9.66	7.70
3	2.50	9.30	38	20	32	337	220	51	23	17	10	6.42
4	2.32	9.66	40	19	29	299	937	54	22	14	8.98	6.10
5	2.14	8.98	31	21	26	256	1,108	50	23	12	8.34	5.29
6	1.96	8.66	24	21	24	186	700	46	24	14	7.38	5.02
7	1.96	9.66	22	21	22	150	469	44	24	14	6.42	3.94
8	1.78	8.66	22	21	20	336	317	42	25	13	5.29	3.40
9	1.78	12	19	24	19	382	233	49	23	13	5.29	3.04
10	1.78	22	17	54	17	342	186	47	22	13	4.75	2.68
11	1.78	21	23	55	17	232	255	42	22	12	5.02	2.50
12	1.60	24	42	85	16	216	268	44	21	13	7.06	2.32
13	1.60	19	39	70	19	151	301	41	21	13	11	2.14
14	1.60	24	48	54	37	135	264	36	20	12	12	2.32
15	1.60	70	51	45	43	128	194	28	20	12	11	3.67
16	1.60	47	62	51	37	154	129	28	19	11	8.98	4.48
17	1.78	34	63	41	29	178	210	30	18	8.98	8.02	4.48
18	2.86	26	46	35	25	210	226	30	18	7.06	7.70	7.06
19	3.94	23	34	30	23	232	171	30	17	6.74	7.38	6.42
20	2.86	23	27	26	22	463	190	31	17	6.42	6.42	5.83
21	2.50	27	24	24	24	436	161	32	16	5.83	5.29	5.56
22	2.50	22	23	46	23	296	183	30	16	3.40	4.48	5.02
23	2.32	21	23	112	22	216	173	29	15	12	3.94	4.75
24	2.32	20	36	102	21	262	137	28	15	11	3.40	4.48
25	2.86	16	39	262	23	301	124	30	14	11	3.84	4.75
26	2.68	18	69	154	29	218	120	29	14	11	3.04	4.48
27	7.70	19	62	100	52	165	111	27	14	10	3.40	3.67
28	9.66	22	41	74	89	168	107	24	14	8.98	3.40	5.04
29	9.66	58	33	71	98	158	97	23	12	8.66	3.40	2.50
30	8.34	61	29	68	89	166	80	24	10	7.06	2.14	2.14
31	-	52	-	62	107	-	69	-	8.66	5.56	-	1.78
Total	93.52	751.96	1,107	1,817	1,119	7,442	8,191	1,112	578.66	331.71	185.43	134.36
Mean	3.12	24.2	36.9	58.6	36.0	248	264	37.0	18.7	10.7	6.62	4.33
Max.	9.66	70	69	262	107	463	1,108	61	25	17	12	7.70
Min.	1.60	7.38	17	19	16	128	69	23	8.66	3.40	3.04	1.78
Runoff - mcm.	8.080	64.969	95.645	156.989	96.682	642.989	737.702	96.877	49.936	28.660	16.021	11.609

WATER YEAR 1964 : Max. 1,108 Min. 1.60 Mean 32.6 Annual Runoff 1,975.418 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 4	18.00	73.94	1,400				

WATER YEAR 1963  
NAN RIVER BASIN

Nan River at Muang Nan. (N. 1)

Location: Lat  $18^{\circ} - 46' - 23''$  N., Long  $100^{\circ} - 46' - 51''$  E., on right bank in front of the house of Governor, Amphoe Muang, Nan.

Drainage Area: 4,609 sq.km. referred to AMS Map 1:50,000.

Type of Gage: Water - stage recorder.

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

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

Location: On right bank. Near the gage site.

Elevation: B.M. - 1 + 199.362 m. (M.S.L.), B.M. - 2 + 198.992 m. (M.S.L.)

Gage Reading Frequency: Recording.

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

Period of Available Gage Records: 1922 to date.

Rating Operation:

Period of Rating: 1954 - 56, at N.1A 2 km. upstream.

Rated by Float:

Rated by Current Meter: 1954 - 56.

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

Overbank Flow Conditions: No overbank flow.

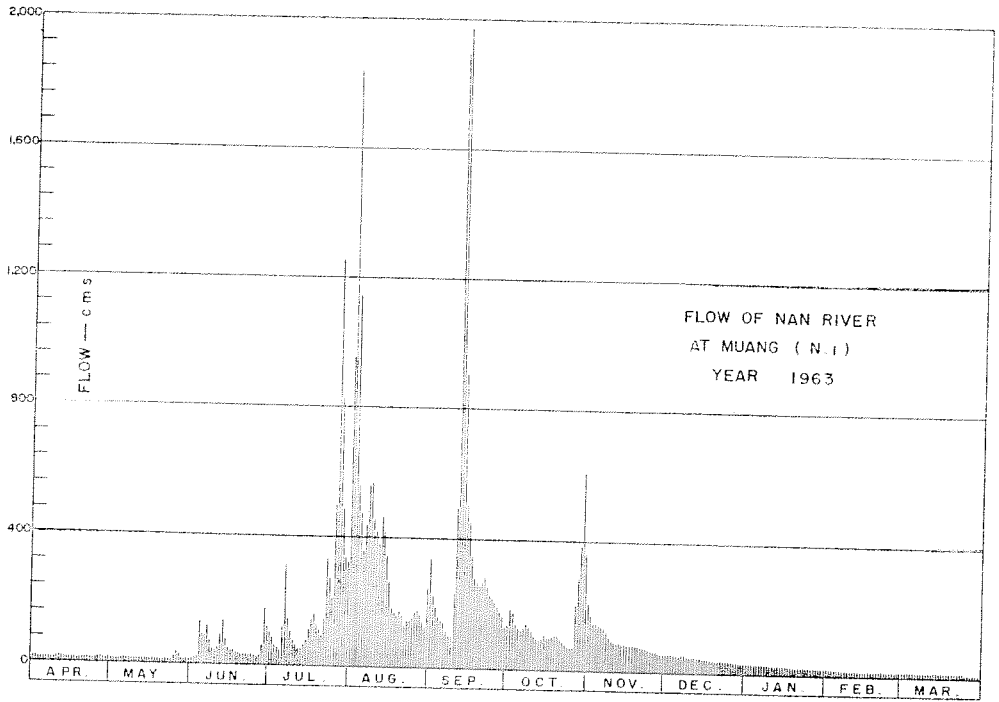
General Description: Records fair except those for periods of no gage height record. Stage - discharge relationship used on basis of stage correlation with station at N.1A, 2 kilometers upstream, which discharge measurements made during 1954 - 56, No diversions for irrigation above gage site.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	193.15	193.09	193.14	194.16	197.55	195.55	194.43	194.88	193.72	193.42	193.23	193.12
2	.15	.08	.23	.02	199.07	194.96	.74	.65	.71	.41	.23	.12
3	.11	.07	.23	193.82	197.94	.75	.68	.49	.71	.40	.23	.12
4	.09	.07	194.31	.68	196.45	.56	.45	.47	.69	.40	.22	.11
5	.08	.15	.07	.65	.13	.49	.35	.45	.67	.40	.21	.11
6	193.09	193.19	194.06	194.41	195.60	194.45	194.33	194.41	193.67	193.38	193.21	193.09
7	.09	.14	.24	195.42	.99	.26	.38	.36	.73	.38	.20	.09
8	.09	.12	193.88	194.49	196.44	.14	.46	.32	.69	.38	.20	.09
9	.13	.11	.63	.20	.47	.13	.40	.17	.65	.37	.18	.09
10	.19	.11	.56	193.94	.05	.97	.29	.06	.64	.36	.18	.09
11	193.23	193.10	193.68	193.81	195.91	196.18	194.16	194.04	193.64	193.36	193.18	193.08
12	.18	.10	194.06	.69	.73	199.08	.13	.03	.63	.35	.18	.08
13	.14	.09	.37	.69	196.10	.38	.06	.02	.62	.34	.18	.08
14	.12	.09	193.93	.81	195.90	197.31	.13	.00	.60	.34	.16	.08
15	.11	.08	.67	.96	.59	196.26	.18	193.99	.59	.34	.16	.08
16	193.09	193.08	193.57	194.18	195.08	196.04	194.14	193.99	193.58	193.34	193.15	193.07
17	.08	.08	.62	.47	194.71	195.56	.11	.97	.57	.34	.15	.07
18	.08	.06	.51	.60	.63	.22	.20	.95	.56	.33	.15	.07
19	.08	.05	.45	.35	.57	.18	.19	.94	.55	.31	.15	.06
20	.07	.04	.44	.18	.63	.12	.19	.93	.54	.29	.14	.06
21	193.07	193.05	193.44	194.10	194.60	195.18	194.12	193.90	193.53	193.29	193.14	193.05
22	.06	.12	.44	.48	.36	.26	.01	.89	.51	.29	.13	.05
23	.05	.14	.44	195.52	.48	.11	193.95	.87	.49	.28	.13	.04
24	.05	.12	.44	.23	.48	194.98	.90	.95	.49	.28	.13	.04
25	.07	.33	.40	194.87	.55	.92	.88	.82	.49	.26	.13	.03
26	193.15	193.52	193.34	195.99	194.64	194.86	193.88	193.80	193.49	193.26	193.13	193.03
27	.21	.36	.34	198.13	.70	.78	194.83	.79	.47	.25	.13	.02
28	.16	.20	.84	197.23	.65	.67	195.37	.77	.46	.25	.12	.02
29	.13	.15	194.69	196.09	.46	.58	.74	.75	.45	.25	.12	.01
30	.12	.15	.28	195.55	.28	.36	196.60	.74	.43	.24	-	.01
31	-	.14	-	196.47	195.10	-	195.65	-	.43	.24	-	.00
Mean	193.11	193.13	193.71	194.71	195.51	195.34	194.45	194.08	193.58	193.33	193.17	193.07
Max.	193.23	193.52	194.69	198.13	199.07	199.38	196.60	194.88	193.73	193.42	193.23	193.12
Min.	193.05	193.04	193.14	193.65	194.28	194.13	193.88	193.74	193.43	193.24	193.12	193.00

WATER YEAR 1963 : Max. 199.38 m. Min. 193.00 m.





DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	13	10	12	99	949	335	133	206	52	28	17	12
2	12	10	17	83	1,837	219	182	167	51	28	17	12
3	11	9.47	17	61	1,144	184	172	142	51	27	17	12
4	10	9.47	116	49	558	153	136	139	50	27	16	11
5	10	13	89	46	469	142	121	136	48	27	16	11
6	10	15	88	130	346	136	119	130	48	26	16	10
7	10	12	108	308	435	110	125	122	53	26	15	10
8	10	12	68	142	555	96	137	117	50	26	15	10
9	12	11	45	103	565	95	128	100	46	25	14	10
10	15	11	39	74	449	221	114	88	45	25	14	10
11	17	11	49	60	416	481	99	85	45	25	14	10
12	14	11	88	50	375	1,842	95	84	45	24	14	10
13	12	10	124	50	461	1,970	88	83	44	24	14	10
14	12	10	73	60	414	849	95	81	42	24	13	10
15	11	10	48	77	344	503	101	80	41	24	13	10
16	10	10	40	101	241	447	96	80	40	24	13	9.47
17	10	10	44	139	177	338	93	78	40	24	13	9.47
18	10	9.05	35	159	164	268	103	75	39	23	13	9.47
19	10	8.62	31	121	154	260	102	74	38	22	13	9.05
20	9.47	8.20	30	101	164	249	102	73	37	20	12	9.05
21	9.47	8.62	30	92	159	260	94	70	37	20	12	8.62
22	9.05	12	30	140	122	276	82	69	35	20	12	8.62
23	8.62	12	30	329	140	247	75	67	34	20	12	8.20
24	8.62	12	30	270	140	223	70	64	34	20	12	8.20
25	9.47	23	27	204	151	212	68	61	34	19	12	7.77
26	13	36	24	435	166	202	68	59	34	19	12	7.77
27	16	25	24	1,251	175	189	197	58	32	18	12	7.35
28	13	15	63	822	167	171	298	56	31	18	12	7.35
29	12	13	174	459	137	156	377	55	31	18	12	6.92
30	12	13	113	335	113	122	606	54	29	17	-	6.50
31	-	12	-	319	245	-	357	-	29	17	-	6.50
Total	339.70	392.43	1,706	6,669	11,932	10,956	4,633	2,753	1,265	705	397	288.73
Mean	11.3	12.6	56.9	215	385	365	149	91.8	40.8	22.7	13.7	9.31
Max.	17	36	174	1,251	1,837	1,970	606	206	53	28	17	12
Min.	8.62	8.20	12	46	113	95	68	54	29	17	12	6.50
Runoff - RCB.	29.350	33.906	147.398	576.202	1,030.929	946.598	400.291	237.859	109.296	60.912	34.301	24.946

WATER YEAR 1963 : Max. 1970 Min. 6.50 Mean 115 Annual Runoff 3,631.985 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sept. 12	23.00	200.50	2,800				

WATER YEAR 1964  
NAN RIVER BASIN

Nan River at Muang Nan. (N. 1)

Location: Lat  $18^{\circ} - 46' - 23''$  N., Long  $100^{\circ} - 46' - 51''$  E., on right bank in front of the house of Governor, Amphoe Muang, Nan.

Drainage Area: 4,609 sq.km. referred to AMS Map 1:50,000.

Type of Gage: Water - stage recorder.

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

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

Location: On right bank. Near the gage site.

Elevation: B.M. - 1 + 199.362 m. (M.S.L.), B.M. - 2 + 198.922 m. (M.S.L.)

Gage Reading Frequency: Recording.

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

Period of Available Gage Records: 1922 to date.

Rating Operation:

Period of Rating: 1954 - 56, at N.1A 2 km. upstream.

Rated by Float:

Rated by Current Meter: 1954 - 56.

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

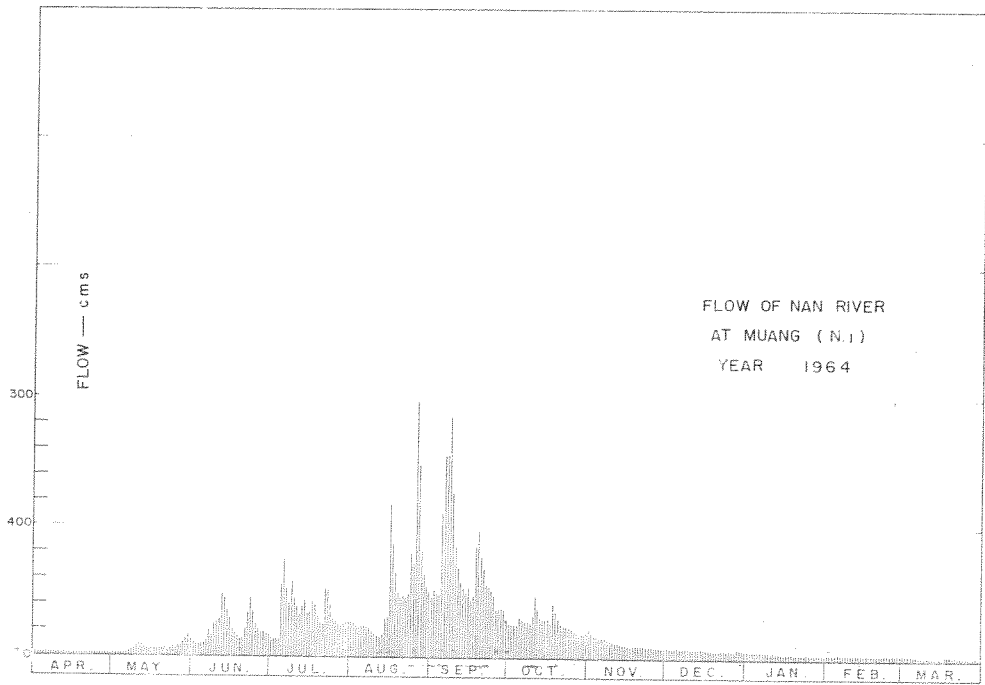
Overbank Flow Conditions: No overbank flow.

General Description: Records fair except those for periods of no gage height records. Stage - discharge relationship used on basis of stage correlation with station at N.1A, 2 kilometers upstream, which discharge measurements made during 1954 - 56. No diversions for irrigation above gage site.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	192.99	192.96	193.56	193.76	194.23	194.73	194.17	194.02	193.42	193.30	193.11	193.10
2	.92	.96	.47	.73	.17	.87	.17	193.91	.41	.29	.11	.10
3	.93	.97	.51	.73	.10	.82	.17	.85	.41	.29	.15	.10
4	.92	.98	.52	.70	.07	.77	.17	.83	.43	.29	.20	.10
5	.99	.98	.53	194.97	.08	196.35	.35	.80	.45	.29	.22	.10
6	192.98	193.00	193.63	193.37	194.10	196.51	194.28	193.79	193.42	193.29	193.20	193.10
7	.98	.12	.96	194.88	.07	.64	.23	.79	.40	.28	.17	192.99
8	.98	.18	.76	.57	.05	.99	.22	.74	.39	.28	.17	.99
9	.98	.28	194.17	195.01	193.96	.13	.21	.68	.40	.28	.18	.99
10	.99	.38	.18	194.72	.88	195.57	.36	.66	.39	.20	.14	.97
11	192.99	193.48	194.26	194.55	193.84	195.24	194.75	193.64	193.38	193.25	193.18	192.98
12	.99	.48	.80	.38	.78	.02	.51	.61	.37	.22	.17	.98
13	.99	.35	.72	.53	.86	194.91	.33	.58	.36	.21	.17	.98
14	.99	.26	.48	.66	194.31	.83	.28	.57	.36	.20	.15	.97
15	193.00	.23	.28	.38	.32	.93	.28	.54	.36	.20	.14	.97
16	193.01	193.23	194.01	194.45	196.13	194.68	194.28	193.52	193.36	193.19	193.14	192.97
17	192.99	.34	193.91	.63	195.59	.75	.21	.52	.35	.18	.14	193.11
18	.99	.23	.81	.58	.16	195.58	.61	.52	.33	.18	.14	.07
19	.98	.27	.73	.36	194.80	.78	.45	.52	.32	.18	.13	.06
20	.97	.27	.70	.20	.74	.43	.33	.51	.32	.17	.13	.05
21	192.96	193.29	194.02	194.15	194.77	195.22	194.20	193.51	193.32	193.17	193.13	193.04
22	.95	.16	.43	.89	.73	194.96	.14	.50	.32	.17	.13	.02
23	.94	.27	.71	.88	.82	.93	.11	.49	.32	.16	.12	.00
24	.94	.36	.47	.57	193.47	.87	.07	.49	.32	.16	.12	192.98
25	.96	.29	.14	.32	.34	.79	.02	.48	.32	.16	.12	.97
26	192.97	193.46	194.00	194.24	197.13	194.50	193.99	193.47	193.32	193.16	193.12	192.97
27	.98	.43	193.92	.19	196.55	.52	.94	.46	.33	.15	.12	.97
28	.94	.57	.94	.12	195.49	.52	.91	.45	.42	.14	.12	.96
29	.95	.72	.88	.17	.12	.51	.89	.44	.40	.13	-	.95
30	.94	.82	.88	.21	194.93	.28	.90	.43	.33	.12	-	.95
31	-	.67	-	.23	.83	-	.97	-	.31	.12	-	.94
Mean	192.97	193.29	194.01	194.17	194.78	195.19	194.21	193.61	193.36	193.21	193.15	193.01
Max.	193.01	193.82	194.80	195.37	197.13	196.99	194.75	194.02	193.45	193.30	193.22	193.11
Min.	192.92	192.96	193.47	193.70	193.78	194.28	193.89	193.43	193.31	193.12	193.11	192.94

WATER YEAR 1964 : Max. 197.13 m. Min. 192.92 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	6.35	5.90	39	56	107	180	100	83	28	21	11	11
2	5.30	5.90	32	53	100	204	100	71	28	20	11	11
3	5.45	6.05	35	53	92	195	100	66	28	20	13	11
4	5.30	6.20	36	50	89	187	100	62	29	20	15	11
5	6.35	6.20	37	221	90	529	121	59	31	20	16	11
6	6.20	6.50	45	298	92	577	113	58	28	20	15	11
7	6.20	12	77	206	89	620	107	58	27	20	14	6.35
8	6.20	14	56	154	88	740	105	54	26	20	14	6.35
9	6.20	20	100	228	77	469	104	49	27	20	14	6.35
10	6.35	26	101	179	68	346	122	47	26	15	12	6.05
11	6.35	33	110	151	63	272	184	45	26	18	14	6.20
12	6.35	33	192	125	57	230	145	43	25	16	14	6.20
13	6.35	24	179	148	66	211	119	40	25	16	14	6.20
14	6.35	19	140	169	116	197	113	40	25	15	13	6.35
15	6.50	17	113	125	117	214	113	37	25	15	12	6.05
16	6.92	17	82	136	469	172	113	36	25	15	12	6.05
17	6.35	24	71	164	344	184	104	36	24	14	12	11
18	6.35	17	60	156	256	342	161	36	23	14	12	9.47
19	6.20	19	53	122	192	386	136	36	23	14	12	9.05
20	6.05	19	50	103	182	310	119	35	23	14	12	8.62
21	5.90	20	83	97	187	268	103	35	23	14	12	8.20
22	5.75	13	133	207	180	219	96	34	23	14	12	7.35
23	5.60	19	177	206	195	214	93	34	23	13	12	6.50
24	5.60	25	139	154	319	204	89	34	23	13	12	6.20
25	5.90	20	96	117	292	190	83	33	23	13	12	6.05
26	6.05	31	81	106	789	143	80	32	23	13	12	6.05
27	6.20	29	72	102	589	147	74	31	23	13	12	6.05
28	5.60	40	74	94	323	147	71	31	28	13	12	5.90
29	5.45	52	68	100	249	145	69	30	27	12	-	5.75
30	5.60	61	68	104	214	113	70	29	23	12	-	5.75
31	-	48	-	107	197	-	78	-	22	12	-	5.60
Total	181.32	688.75	2,599	4,293	6,288	8,349	3,285	1,314	783	488	358	235.39
Mean	6.04	22.2	86.6	138	203	278	106	43.8	25.2	15.7	12.8	7.59
Max.	6.92	61	192	298	789	740	184	83	31	21	16	11
Min.	5.30	5.90	32	50	57	113	69	29	22	12	11	5.60
Runoff - mcm.	15.666	59.508	224.554	370.915	543.283	721.354	283.824	113.530	67.651	42.163	30.931	20.338

WATER YEAR 1964 : Max. 789 Min. 5.30 Mean 79.1 Annual Runoff 2,493.716 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Aug. 26	21.00	197.85	1,095				

WATER YEAR 1963  
NAN RIVER BASIN  
Nan River at Tha - It, Uttaradit. (N. 2A)

Location: Lat 17°-37' - 13" N., Long 100° - 06' - 19" E. on right bank at downtown in front of Muang Uttaradit Kindergarten, Amphoe Muang, Uttaradit.

Drainage Area: 16,863 sq.km. referred to AMS Map 1:50,000.

Type of Gage: Water - stage recorder

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

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

Location: At Uttaradit Kindergarten, north of railway station.

Elevation: + 62.154 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: 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, shifting adjustment is included for flow computation.

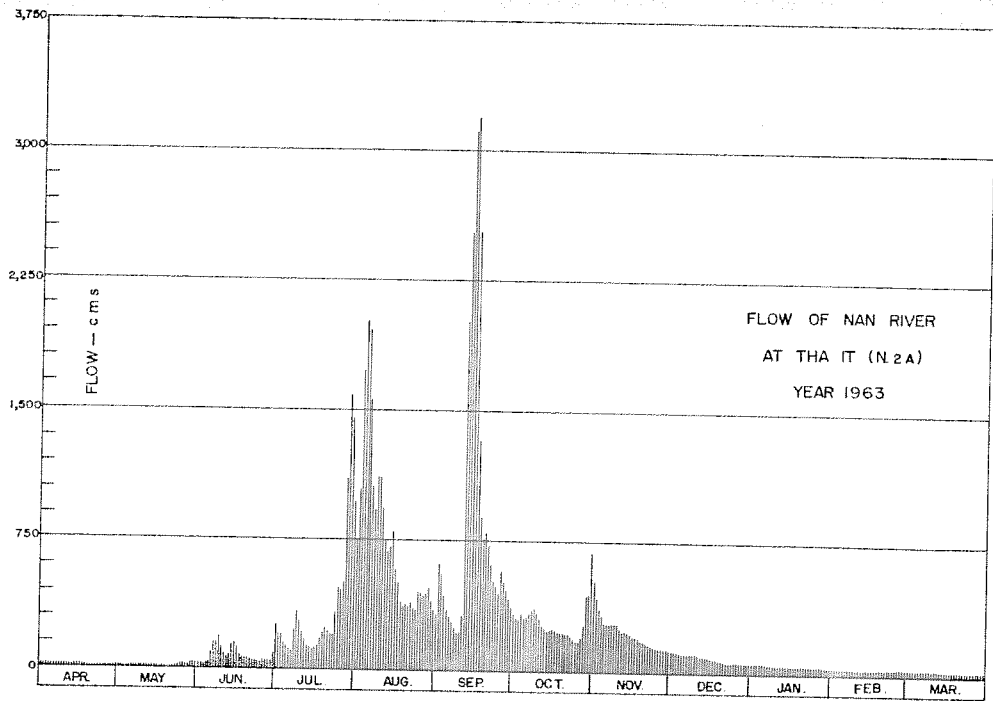
Overbank Flow Conditions: Overbank flow was observed and included for flow computation.

General Description: Records good except for period Sep.13 - Mar.31 which are fair. No diversions for irrigation above gage site.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	52.91	52.87	53.06	55.23	57.41	55.67	55.55	56.58	54.23	53.66	53.35	53.20
2	.91	.86	.02	54.85	58.53	56.97	.44	.08	.20	.65	.34	.20
3	.90	.83	52.95	.83	60.07	.84	.39	55.74	.17	.64	.33	.20
4	.90	.83	53.13	.49	.59	.16	.60	.53	.14	.61	.33	.20
5	.90	.84	.26	.17	.46	55.84	.45	.32	.13	.60	.33	.20
6	52.89	52.85	54.18	54.01	59.76	55.64	55.54	55.25	54.12	53.58	53.32	53.20
7	.89	.85	.36	53.95	58.53	.42	.65	.28	.08	.56	.32	.20
8	.88	.85	.41	54.97	57.98	.29	.72	.30	.06	.56	.31	.20
9	.87	.85	.76	55.61	58.63	.12	.81	.28	.07	.54	.30	.20
10	.87	.85	.32	.24	.66	.11	.62	.23	.08	.54	.29	.18
11	52.92	52.87	53.98	54.82	58.19	55.58	55.41	55.09	54.04	53.53	53.28	53.17
12	.92	.86	.77	.49	57.57	60.31	.20	.01	.00	.52	.27	.16
13	.88	.85	.89	.26	.32	61.53	.06	.02	53.99	.52	.27	.13
14	.95	.85	54.52	.14	.34	62.33	54.97	54.95	.95	.51	.26	.12
15	.94	.86	.65	.07	.66	.43	55.03	.88	.94	.51	.26	.10
16	52.93	52.82	54.34	54.15	57.08	61.54	55.05	54.82	53.92	53.52	53.26	53.08
17	.88	.81	53.94	.27	56.55	59.39	54.98	.78	.90	.50	.24	.08
18	.87	.83	.72	.56	.21	57.94	.95	.72	.87	.50	.24	.08
19	.86	.80	.65	.79	55.94	.52	.92	.66	.83	.49	.23	.08
20	.85	.80	.62	55.02	.94	.65	.92	.59	.81	.45	.24	.08
21	52.85	52.80	53.50	54.88	55.91	57.37	54.90	54.54	53.78	53.43	53.23	53.08
22	.84	.81	.40	.69	56.02	56.93	.87	.49	.76	.42	.22	.08
23	.84	.82	.32	.68	55.79	.57	.75	.44	.75	.42	.21	.07
24	.87	.89	.25	55.54	.80	.40	.64	.41	.75	.41	.21	.07
25	.87	53.01	.22	56.21	56.23	.19	.56	.36	.75	.41	.21	.07
26	52.86	53.04	53.34	56.20	56.28	56.80	54.59	54.34	53.74	53.41	53.21	53.07
27	.84	.01	.31	.38	.15	.50	.73	.32	.72	.40	.21	.07
28	.84	.02	.41	58.43	.29	.31	55.23	.30	.70	.38	.20	.07
29	.88	.35	.50	59.63	.49	.01	56.18	.27	.68	.37	.20	.07
30	.88	.13	54.08	.41	.11	55.76	.19	.25	.67	.36	-	.07
31	-	.07	-	58.18	55.80	-	57.26	-	.67	.36	-	.07
Mean	52.88	52.89	53.73	55.36	57.33	57.30	55.29	54.93	53.92	53.49	53.26	53.12
Max.	52.95	53.36	54.76	59.63	60.59	62.43	57.26	56.58	54.23	53.66	53.35	53.20
Min.	52.84	52.80	52.95	53.95	55.79	55.11	54.56	54.25	53.67	53.36	53.20	53.07

WATER YEAR 1963 : Max. 62.43 m. Min. 52.84 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	16	15	31	263	746	316	325	525	128	66	44	35
2	18	15	30	204	1,058	615	306	420	124	65	43	35
3	17	13	26	200	1,727	545	295	357	120	64	43	35
4	17	14	36	150	2,016	424	333	321	117	62	43	35
5	17	14	43	133	1,953	352	308	287	116	61	43	35
6	17	15	138	111	1,560	308	323	276	114	60	42	35
7	17	15	153	102	1,050	276	342	281	110	58	42	35
8	16	15	151	242	920	249	354	284	107	58	42	35
9	16	16	192	343	1,118	216	370	281	108	57	41	35
10	16	16	123	281	1,110	219	336	273	110	57	40	34
11	18	17	82	218	936	316	302	251	105	56	40	33
12	18	16	71	169	749	2,016	268	239	100	55	39	33
13	16	15	83	137	684	2,527	246	240	99	55	39	31
14	20	15	146	128	707	3,109	233	230	94	55	39	31
15	19	16	162	120	800	3,194	242	219	93	55	39	30
16	18	14	125	131	575	2,534	245	210	90	55	39	29
17	15	13	81	142	505	1,428	234	204	88	54	37	29
18	15	15	65	192	399	885	230	195	84	54	37	29
19	14	13	62	221	363	760	225	165	80	53	37	29
20	13	13	60	240	384	797	225	176	76	50	37	29
21	13	12	53	224	375	720	222	169	74	49	37	29
22	13	13	48	198	392	608	218	162	71	48	36	29
23	13	15	46	200	354	522	200	155	70	48	36	28
24	14	20	44	375	347	485	183	151	70	48	36	28
25	14	27	43	477	452	442	171	145	70	48	36	28
26	14	29	52	456	446	575	176	142	69	48	36	28
27	13	26	46	507	428	507	197	140	66	47	36	28
28	13	25	53	1,106	438	466	273	137	64	46	35	28
29	15	43	59	1,578	477	407	440	134	62	45	35	28
30	15	36	107	1,472	397	361	442	131	61	45	35	28
31	-	32	-	965	338	-	692	-	61	45	-	28
Total	472	573	2,411	11,285	23,804	26,179	8,959	6,921	2,801	1,667	1,129	962
Mean	15.7	18.4	80.3	364	768	873	289	231	90.3	53.7	38.9	31.0
Max.	20	43	192	1,578	2,016	3,194	692	525	128	66	44	35
Min.	13	12	26	102	338	216	171	131	61	45	35	28
Runoff - mcm.	40.781	49.507	208.310	975.024	2,056.666	2,261.866	774.058	597.974	242.006	144.029	97.546	83.117

WATER YEAR 1963 : Max. 3,194 Min. 13 Mean 238 Annual Runoff 7,530.883 mcm

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sept. 15	06.00	62.49	3,247				

WATER YEAR 1964  
NAN RIVER BASIN

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

Location: Lat 17° - 37' - 13" N., Long 100° - 06' - 19" E., on right bank at downtown in front of Muang Uttaradit Kindergarten, Amphoe Muang, Uttaradit.

Drainage Area: 16,863 sq.km. referred to AMS Map 1:50,000.

Type of Gage: Water - stage recorder.

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

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

Location: At Uttaradit Kindergarten north of railway station.

Elevation: + 62.154 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: 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 for years without actual ratings.

Overbank Flow Conditions: No overbank flow.

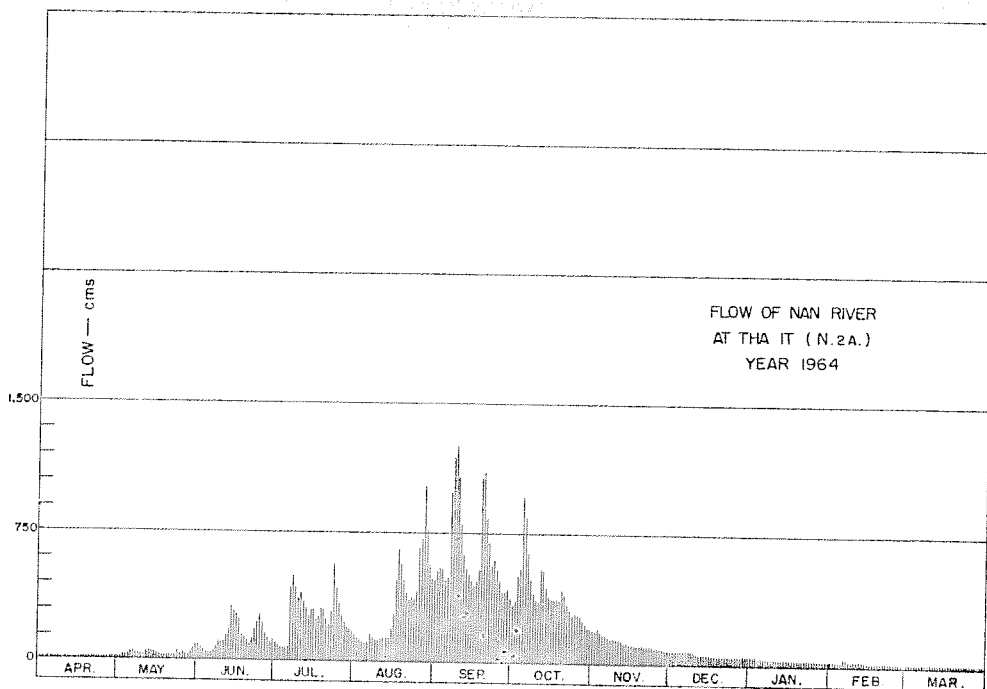
General Description: Records fair except those for period of no gage height record. Stage - discharge relationship used is defined by discharge measurements made during 1965 - 66. No diversions for irrigation above gage site.

Remark: Gage height record for periods Apr. 1 - Jun. 30, Aug. 15 - 17, 20 - 25, Sep. 9 - 16, Oct. 4 - 5, 20 - Nov. 30, Feb. 4 - Mar. 31 has been made based on correlation with station at Ban Phra Fang (N. 23) which is 23 kilometers above.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	53.10	53.22	54.00	54.17	54.52	56.21	55.56	54.76	53.93	53.64	53.32	53.16
2	.14	.25	53.92	.03	.40	.45	.62	.75	.92	.57	.31	.15
3	.21	.42	.72	53.92	.33	.51	56.32	.76	.92	.54	.30	.15
4	.20	.38	.59	.87	.28	.50	.55	.69	.92	.53	.29	.15
5	.16	.41	.57	.91	.20	.20	57.95	.62	.92	.52	.41	.15
6	53.12	53.60	53.59	54.05	54.25	56.27	57.63	54.54	53.93	53.48	53.59	53.14
7	.10	.69	.67	55.98	.54	58.03	56.73	.49	.93	.46	.45	.14
8	.09	.54	.90	56.29	.41	.64	.14	.45	.87	.46	.42	.13
9	.08	.48	54.15	55.94	.32	.79	55.83	.45	.85	.46	.41	.11
10	.08	.46	.16	.70	.33	.28	.66	.44	.81	.46	.40	.10
11	53.07	53.44	54.23	55.90	54.35	57.36	55.65	54.37	53.77	53.45	53.40	53.10
12	.07	.59	.42	.64	.40	56.80	56.48	.32	.75	.44	.37	.10
13	.07	.70	.68	.39	.40	.49	.44	.29	.72	.44	.35	.10
14	.06	.66	55.48	.17	.36	.34	.06	.25	.71	.44	.30	.10
15	.07	.65	.32	.37	.67	.15	55.76	.21	.71	.43	.29	.11
16	53.15	53.56	55.22	55.40	55.26	56.03	55.73	54.17	53.69	53.42	53.27	53.12
17	.14	.47	.09	.10	56.08	.14	.70	.16	.68	.40	.24	.14
18	.13	.37	54.55	.14	.91	.68	.74	.13	.66	.37	.24	.13
19	.13	.33	.42	.41	.51	58.25	.68	.11	.64	.36	.25	.19
20	.16	.35	.28	.36	.10	.38	.95	.09	.63	.33	.28	.17
21	53.15	53.38	54.10	55.08	55.87	57.58	55.78	54.10	53.62	53.36	53.27	53.19
22	.14	.37	.29	54.86	.68	56.94	.49	.09	.62	.36	.24	.16
23	.13	.47	.71	55.32	.73	.57	.37	.06	.62	.36	.22	.15
24	.12	.69	.97	56.56	.66	.70	.24	.03	.62	.35	.20	.13
25	.11	.48	55.19	55.95	.87	.50	.29	.03	.60	.34	.20	.11
26	53.10	53.53	55.00	55.48	56.98	56.10	55.27	54.01	53.60	53.34	53.17	53.09
27	.14	.46	54.53	.14	57.23	55.91	.23	53.97	.60	.34	.17	.07
28	.22	.43	.36	54.95	58.15	.90	.07	.95	.56	.34	.16	.06
29	.28	.55	.20	.80	57.19	.95	54.94	.92	.54	.33	-	.06
30	.25	.76	.24	.75	56.52	.72	.83	.92	.55	.32	-	.05
31	-	.99	-	.68	.23	-	.79	-	.67	.32	-	.05
Mean	53.13	53.50	54.39	55.14	55.41	56.81	55.82	54.27	53.73	53.42	53.30	53.12
Max.	53.28	53.99	55.48	56.56	58.15	58.79	57.95	54.78	53.93	53.64	53.59	53.19
Min.	53.06	53.22	53.57	53.87	54.20	55.72	54.79	53.92	53.54	53.32	53.16	53.05

WATER YEAR 1964 : Max. 58.79 m. Min. 53.05 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	17	24	103	113	159	480	340	196	86	58	31	21
2	19	26	85	97	142	536	352	194	85	51	31	20
3	24	39	64	86	133	551	506	199	85	48	30	20
4	23	36	52	80	126	549	561	184	85	47	29	20
5	21	38	51	84	116	478	961	173	85	47	38	20
6	18	53	52	99	120	494	859	162	86	43	52	19
7	17	62	60	430	162	988	606	155	86	42	41	19
8	16	48	83	499	143	1,194	465	149	80	42	39	19
9	16	43	110	421	132	1,248	397	149	77	42	38	18
10	16	42	112	368	133	1,070	360	148	73	42	37	17
11	15	40	120	412	135	778	358	138	69	41	37	17
12	15	52	145	356	142	624	544	132	67	40	35	17
13	15	62	183	306	142	546	534	128	64	40	33	17
14	15	59	324	267	137	510	447	122	63	40	30	17
15	15	58	294	303	181	467	381	117	63	39	29	18
16	20	50	276	308	283	441	372	113	62	39	28	18
17	19	43	252	254	452	465	368	112	61	37	26	19
18	19	35	163	261	654	594	377	108	59	35	26	19
19	19	32	145	310	551	1,060	364	106	58	34	26	22
20	21	33	126	301	456	1,103	423	104	57	34	29	21
21	20	36	105	250	405	844	386	105	56	34	28	22
22	19	35	128	212	364	662	326	104	56	34	26	21
23	19	43	188	294	375	566	303	101	56	34	24	20
24	18	62	231	564	360	599	279	97	56	33	23	19
25	18	43	270	423	405	549	288	97	53	33	23	18
26	17	47	236	324	673	456	285	95	53	33	21	16
27	19	42	160	261	741	414	277	91	53	33	21	15
28	24	39	137	227	1,027	412	249	88	50	33	21	15
29	29	49	116	202	729	423	226	85	48	32	-	15
30	26	68	121	194	554	372	207	85	49	31	-	14
31	-	93	-	183	485	-	200	-	60	31	-	14
Total	569	1,432	4,492	8,489	10,617	19,473	12,601	3,837	2,041	1,202	852	567
Mean	18.9	46.1	149.7	273.8	342.4	649.1	406.4	127.9	65.8	38.7	30.4	18.2
Max.	29	93	324	564	1,027	1,248	951	199	86	58	52	22
Min.	15	24	51	80	116	372	200	85	48	31	21	14
Runoff - mcm.	49.162	123.725	388.109	733.450	917.309	1,682.457	1,088.726	331.517	176.342	103.853	73.613	48.989

WATER YEAR 1964 : Max. 1,248 Min. 14 Mean 181 Annual Runoff 5,717.261 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sept. 9	18.00	58.92	1,296				

WATER YEAR 1963  
NAN RIVER BASIN

Nan River at Phichai, Uttaradit (N.4)

Location: Lat  $17^{\circ} - 16' - 20''$  N, Long  $100^{\circ} - 04' - 52''$  E, on right bank near railway station, Amphoe Phichai, Uttaradit.

Drainage Area: 19,297 sq.km. referred to AMS Map 1:50,000.

Type of Gage: Staff gage.

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

Bench Mark:

Location: A few meters north of Phichai Railway Station.

Elevation: + 53.327 m. (M.S.L.)

Gage Reading Frequency: 3 - time daily readings at 06.00, 12.00 and 18.00 hours.

Basis of Mean Daily Gage Height: Arithmetic mean of 3 readings.

Period of Available Gage Records: 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 for flow computation for years without actual ratings.

Overbank Flow Conditions: No overbank flow.

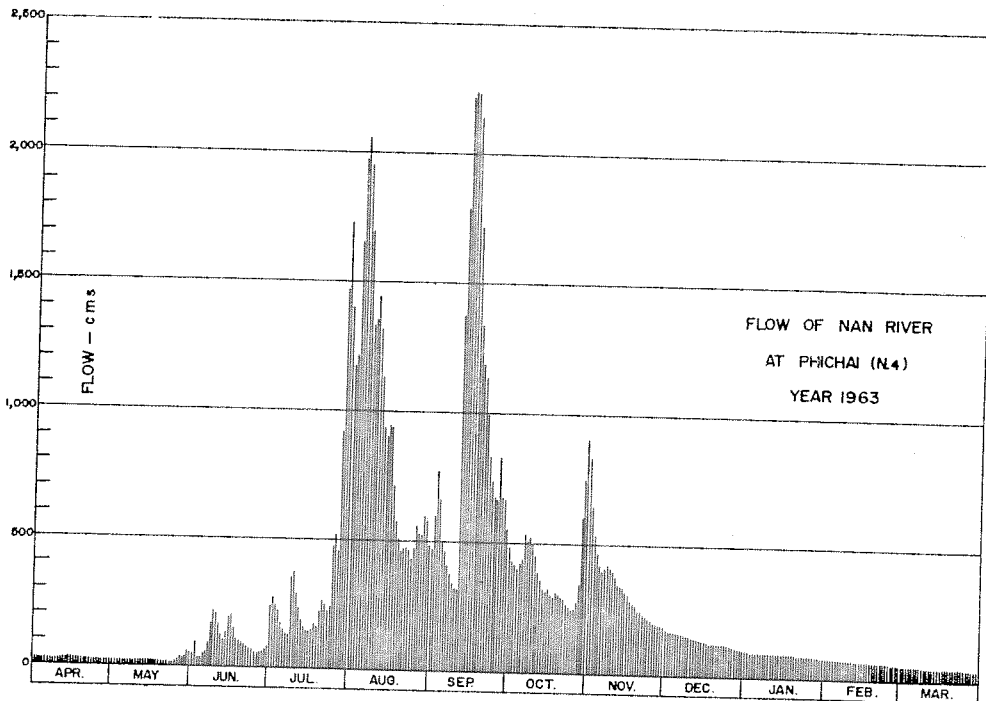
General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made during 1965 - 67. No diversions for irrigation above gage site.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	45.19	45.12	45.42	46.83	50.77	48.05	48.11	49.57	46.41	45.88	45.67	45.44
2	.18	.12	.35	47.05	.90	.66	47.85	48.85	.59	.86	.67	.44
3	.17	.11	.29	46.87	52.29	49.33	.79	.35	.39	.85	.66	.43
4	.17	.10	.26	.76	53.16	48.90	.72	.04	.38	.85	.65	.42
5	.18	.10	.45	.45	.37	.23	.83	47.79	.36	.84	.65	.42
6	45.17	45.08	45.51	46.25	53.11	48.02	47.92	47.70	46.34	45.84	45.64	45.41
7	.16	.09	.80	.13	52.42	47.74	48.36	.75	.32	.83	.63	.40
8	.15	.09	46.41	.11	51.29	.60	.25	.82	.30	.83	.63	.40
9	.14	.09	.71	47.47	.36	.41	.31	.77	.28	.82	.62	.39
10	.13	.10	.65	.60	.65	.30	.19	.71	.26	.82	.61	.39
11	45.14	45.10	46.36	47.13	51.24	47.28	47.96	47.59	46.24	45.82	45.61	45.38
12	.17	.12	.05	46.76	50.63	51.43	.65	.45	.22	.81	.60	.37
13	.18	.13	45.90	.50	49.95	52.68	.52	.41	.20	.80	.59	.37
14	.20	.12	46.15	.33	.81	53.78	.33	.36	.18	.80	.59	.36
15	.23	.12	.57	.24	.97	.82	.25	.28	.16	.79	.58	.35
16	45.19	45.11	46.61	46.23	49.94	53.81	47.34	47.24	46.13	45.79	45.58	45.34
17	.18	.10	.27	.29	.10	.57	.19	.09	.11	.79	.57	.34
18	.17	.09	45.98	.41	48.55	52.47	.15	.06	.09	.78	.57	.34
19	.16	.08	.89	.35	.24	51.31	.25	.00	.09	.78	.56	.34
20	.14	.05	.65	.89	.02	50.82	.19	46.90	.08	.77	.55	.34
21	45.13	45.05	45.80	47.01	48.07	50.65	47.17	46.84	46.07	45.76	45.54	45.33
22	.12	.04	.71	46.85	.08	.15	.13	.77	.07	.75	.53	.33
23	.11	.03	.61	.75	.03	49.55	.02	.71	.06	.75	.52	.33
24	.10	.03	.59	.86	47.87	.20	46.95	.65	.05	.74	.51	.33
25	.12	.07	.54	48.09	48.86	48.36	.84	.62	.02	.72	.50	.32
26	45.11	45.21	45.49	48.32	48.47	48.92	46.88	46.59	45.99	45.71	45.49	45.31
27	.10	.34	.53	47.98	.33	49.55	47.05	.58	.96	.71	.48	.30
28	.12	.26	.56	49.88	.32	48.97	.42	.57	.94	.70	.47	.26
29	.13	.36	.64	51.73	.64	.93	48.66	.56	.92	.70	.46	.25
30	.13	.51	.75	52.50	.61	.41	49.23	.50	.91	.69	.24	.24
31	.43	.43		51.51	.12		.83		.89	.68		.24
Mean	45.15	45.15	45.86	47.42	49.88	49.85	47.69	47.34	46.15	45.78	45.58	45.35
Max.	45.23	45.51	46.71	52.50	53.37	53.82	49.83	49.57	46.41	45.88	45.67	45.44
Min.	45.10	45.03	45.26	46.11	47.87	47.28	46.84	46.50	45.89	45.68	45.46	45.24

WATER YEAR 1963 : Max. 53.82 m. Min. 45.03 m.





DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	31	26	52	240	1,172	468	481	836	173	103	78	54
2	30	26	99	275	1,211	604	426	649	170	100	78	54
3	30	25	39	246	1,651	772	414	532	170	99	77	53
4	30	24	37	229	1,969	661	400	466	169	99	75	52
5	30	24	53	179	2,053	506	422	414	166	98	75	52
6	30	23	61	150	1,949	462	441	396	163	98	74	51
7	29	23	93	134	1,696	404	535	406	160	97	73	50
8	28	23	173	131	1,329	376	510	420	157	97	73	50
9	27	23	221	351	1,351	340	523	410	154	95	72	49
10	26	24	211	376	1,441	320	498	398	151	95	71	49
11	27	24	166	289	1,313	316	450	374	149	95	71	48
12	30	26	123	229	1,130	1,372	386	343	146	94	70	47
13	30	26	105	187	938	1,788	360	340	143	93	69	47
14	32	26	136	161	901	2,217	325	331	140	93	69	46
15	34	26	198	149	944	2,233	311	316	138	92	68	45
16	31	25	205	147	936	2,229	327	309	134	92	68	44
17	30	24	153	156	712	2,133	300	282	131	92	67	44
18	30	23	115	173	578	1,713	293	277	129	91	67	44
19	29	23	104	164	508	1,335	311	267	129	91	66	44
20	27	20	99	249	462	1,187	300	251	127	89	65	44
21	26	20	93	269	473	1,136	297	241	126	88	64	43
22	26	20	82	243	475	993	289	230	126	87	63	43
23	25	19	71	227	464	830	270	221	125	87	62	43
24	24	19	69	245	431	738	259	211	123	86	61	43
25	26	22	64	477	471	676	241	206	120	83	60	42
26	25	33	59	526	560	666	248	201	116	82	59	41
27	24	44	63	454	528	830	275	200	112	82	58	40
28	26	37	66	920	526	678	342	198	110	81	57	37
29	26	46	74	1,467	599	668	604	197	107	81	56	36
30	26	61	87	1,724	592	546	746	187	106	80	-	35
31	-	53	-	1,397	483	-	906	-	104	79	-	35
Total	845	858	3,171	12,164	29,846	29,197	12,490	10,109	4,274	2,819	1,966	1,405
Mean	28.1	27.6	106	392	963	973	403	337	138	90.9	67.7	45.3
Max.	34	61	221	1,724	2,053	2,233	906	836	173	103	78	54
Min.	24	19	37	131	431	316	241	187	104	79	56	35
Runoff - mcm.	73.008	74.131	273.974	1,050.970	2,578.694	2,522.621	1,079.136	873.418	369.274	243.562	169.862	121.392

WATER YEAR 1963 : Max. 2,233 Min. 19 Mean 298 Annual Runoff 9,430.042 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sept. 15	18.00	53.82	2,233	Aug. 5	18.00	53.37	2,053

WATER YEAR 1964  
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 railway station, Amphoe Phichai, Uttaradit.

Drainage Area: 19,297 sq.km. referred to AMS Map. 1:50,000.

Type of Gage: Staff gage.

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

Bench Mark:

Location: A few meters north of Phichai railway station.

Elevation: + 53.327 m. (M.S.L.)

Gage Reading Frequency: 3 - time daily readings at 06.00, 12.00 and 18.00 hours.

Basis of Mean Daily Gage Height: Arithmetic mean of 3 readings.

Period of Available Gage Records: 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 for flow computation for years without actual ratings.

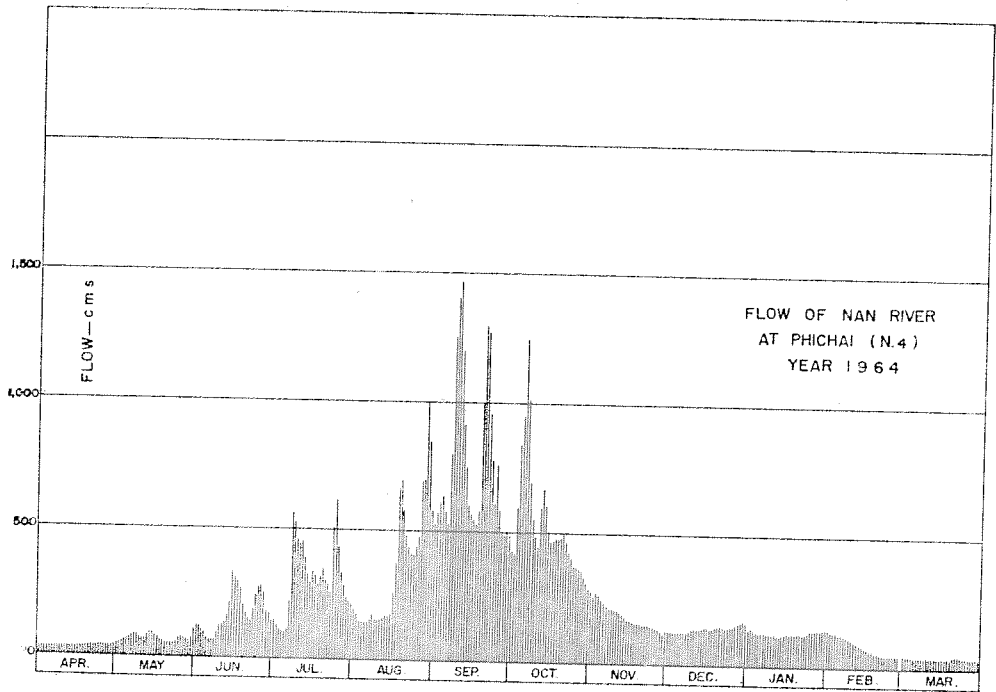
Overbank Flow Conditions: No overbank flow.

General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made during 1965. No diversions for irrigation above gage site.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	45.23	45.40	46.04	46.25	46.56	48.30	47.85	47.05	46.07	46.17	46.17	45.31
2	.23	.48	.04	.08	.45	.51	.78	46.93	.07	.18	.14	.30
3	.22	.50	45.91	45.98	.24	.70	48.63	.99	.04	.16	.10	.30
4	.21	.55	.86	.89	.21	.79	49.56	.96	.04	.09	.10	.29
5	.21	.60	.64	.89	.20	.58	.97	.83	.06	.08	.07	.29
6	45.21	45.65	45.56	45.96	46.15	48.31	51.00	46.79	46.05	46.07	46.04	45.29
7	.23	.70	.57	46.71	.26	49.40	50.22	.72	.04	.06	.01	.28
8	.23	.77	.59	48.48	.40	50.98	49.03	.65	.06	.05	45.96	.28
9	.24	.74	.80	.33	.27	51.50	48.42	.62	.07	.05	.92	.27
10	.24	.66	46.07	.02	.26	.72	.13	.61	.12	.03	.89	.26
11	45.24	45.59	46.10	47.95	46.27	50.86	47.93	46.60	46.16	46.03	45.85	45.24
12	.23	.60	.17	.99	.31	49.84	48.62	.53	.14	.01	.81	.24
13	.25	.74	.35	.68	.37	.22	.93	.49	.13	.01	.76	.24
14	.25	.82	.65	.34	.35	48.66	.66	.45	.17	.00	.67	.23
15	.26	.78	47.36	.18	.38	.51	.22	.37	.20	.02	.61	.23
16	45.27	45.73	47.24	47.41	46.94	48.40	48.02	46.36	46.20	46.03	45.57	45.24
17	.28	.67	.25	.33	47.56	.32	.02	.33	.17	.04	.54	.24
18	.29	.59	.04	.12	48.89	.55	.07	.31	.17	.04	.51	.27
19	.30	.54	46.61	.30	49.03	50.15	.07	.29	.22	.05	.47	.29
20	.30	.43	.49	.43	48.59	51.18	.10	.25	.23	.04	.44	.32
21	45.31	45.42	46.31	47.24	48.11	51.10	48.20	46.24	46.25	46.04	45.40	45.31
22	.32	.42	.18	.08	47.91	49.99	.05	.25	.24	.03	.35	.32
23	.32	.41	.49	46.91	.77	.33	47.84	.25	.19	.04	.34	.30
24	.34	.45	.87	48.21	.73	48.66	.72	.22	.19	.07	.33	.29
25	.35	.64	47.04	.72	.88	49.27	.53	.19	.20	.12	.33	.26
26	45.33	45.68	47.09	47.88	48.08	48.58	47.55	46.16	46.24	46.14	45.32	45.25
27	.31	.64	46.95	.41	49.03	.24	.51	.14	.26	.15	.31	.22
28	.31	.58	.47	.10	.03	.13	.47	.09	.31	.16	.31	.21
29	.31	.54	.45	46.83	50.15	.21	.34	.00	.35	.16	-	.20
30	.36	.62	.20	.75	49.60	.15	.22	.07	.37	.17	-	.19
31	-	.84	-	.68	48.54	-	.12	-	.37	.19	-	.18
Mean	45.27	45.61	46.42	47.27	47.55	49.34	48.35	46.47	46.18	46.08	45.71	45.26
Max.	45.36	45.84	47.36	48.72	50.15	51.72	51.00	47.05	46.37	46.19	46.17	45.32
Min.	45.21	45.40	45.56	45.89	46.15	48.13	47.12	46.00	46.04	46.00	45.31	45.18

WATER YEAR 1964 : Max. 51.72 m. Min. 45.18 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	34	50	122	150	197	521	426	275	126	139	139	41
2	34	58	122	127	179	569	412	256	126	140	135	40
3	34	60	106	115	149	613	597	265	122	138	130	40
4	33	65	100	104	144	635	833	261	122	129	130	39
5	33	70	74	104	143	585	944	240	125	127	126	39
6	33	75	66	112	136	523	1,241	233	123	126	122	39
7	34	81	67	221	151	790	1,013	222	122	125	116	38
8	34	89	69	562	172	1,235	694	211	125	123	112	38
9	35	86	93	528	153	1,394	549	206	126	123	107	38
10	35	77	126	462	151	1,463	485	205	133	121	104	37
11	35	69	130	447	153	1,199	443	203	138	121	99	35
12	34	70	139	456	158	909	595	192	135	118	94	35
13	36	86	164	392	167	743	668	185	134	118	88	35
14	36	95	211	327	164	604	604	179	139	117	78	34
15	37	91	331	298	169	569	504	167	143	120	71	34
16	38	85	309	340	257	544	462	166	143	121	67	35
17	38	78	311	325	368	526	462	161	139	122	64	35
18	39	69	274	288	659	578	473	158	139	122	61	38
19	40	64	205	320	694	993	473	156	146	123	57	39
20	40	53	185	343	588	1,295	479	150	147	122	54	42
21	41	52	158	309	481	1,271	500	149	150	122	50	41
22	42	52	140	281	439	949	468	150	149	121	45	42
23	42	51	185	253	410	772	424	150	142	122	44	40
24	44	55	246	502	402	604	400	146	142	126	43	39
25	45	74	274	618	433	756	362	142	143	133	43	37
26	43	79	282	433	475	585	366	138	149	135	42	36
27	41	74	259	340	694	508	358	135	151	136	41	34
28	41	68	182	284	694	485	351	129	158	138	41	33
29	41	64	179	240	993	502	327	117	164	138	-	32
30	46	72	143	227	844	489	306	126	167	139	-	31
31	-	98	-	216	576	-	288	-	167	142	-	30
Total	1,138	2,210	5,252	9,724	11,393	23,209	16,507	5,473	4,335	3,947	2,305	1,146
Mean	37.9	71.2	175	314	367	774	532	182	140	127	82.3	36.9
Max.	46	98	331	618	993	1,463	1,241	275	167	142	139	42
Min.	33	50	66	104	136	485	288	117	122	117	41	30
Runoff - INCM.	98.323	190.944	453.773	840.154	984.355	2,005.258	1,426.205	472.867	374.544	341.021	199.152	99.014

WATER YEAR 1964 : Max. 1,463 Min. 30 Mean 237 Annual Runoff 7,485.610 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sept. 10	18.00	51.84	1,502				

WATER YEAR 1963  
NAN RIVER BASIN

Nan River at Muang Phitsanulok. (No. 5)

Location: Lat.  $16^{\circ} - 48' - 35''$  N., Long  $100^{\circ} - 15' - 37''$  E., on left bank at Ban Wat Chan, 50 meters downstream from ice factory, Amphoe Muang, Phitsanulok.

Drainage Area: 25,207 sq.km. referred to AMS. Map. 1:50,000.

Type of Gage: Staff gage.

Zero Gage at Bottom at: + 34.00 m. (M.S.L.)

Bench Mark: B.M. - R.I.D. No. 1506

Location: On left bank along the gage line.

Elevation: + 44.739 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: 1922 - 28, 1950 to date.

Rating Operation:

Period of Rating: 1953 - 56, 1965 to date.

Rated by Float:

Rated by Current Meter: 1953 - 56, 1965 to date.

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

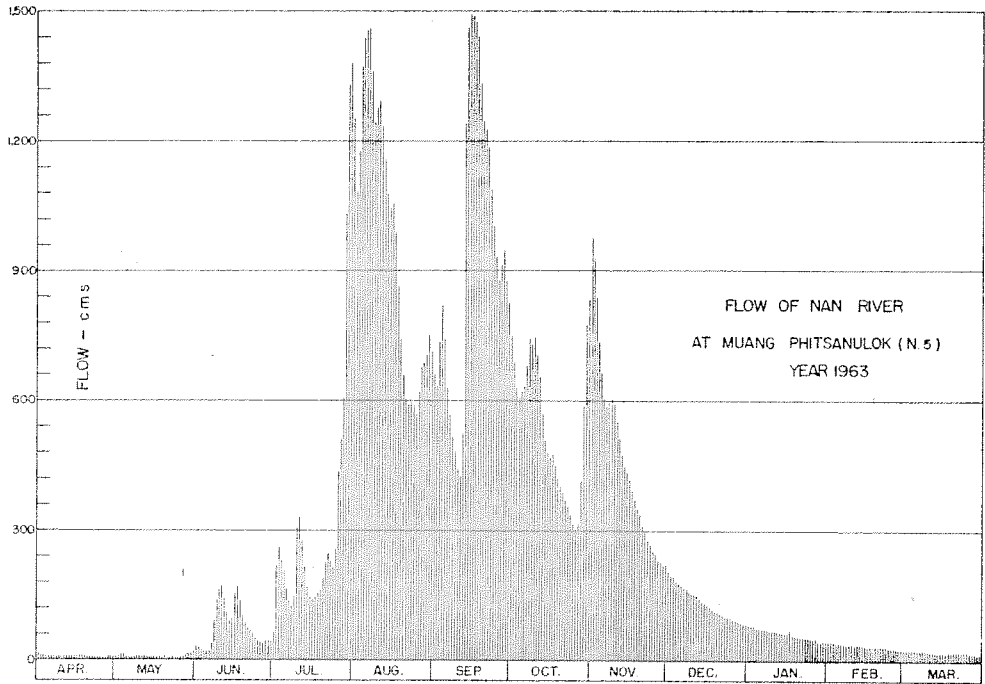
Overbank Flow Conditions: No overbank flow.

General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made during 1953 - 56. No diversions for irrigation above gage site.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	34.64	34.49	35.06	35.61	43.79	40.51	41.09	42.39	37.10	35.82	35.29	34.97
2	.62	.50	.02	37.25	42.96	.35	40.70	.12	.05	.79	.28	.95
3	.61	.69	34.94	.61	43.43	.99	.34	41.61	.00	.77	.26	.95
4	.59	.67	.83	.36	44.32	41.48	.18	40.99	36.93	.75	.24	.93
5	.58	.61	.84	.16	.60	.03	.26	.55	.86	.72	.23	.92
6	34.58	34.57	34.87	36.74	44.67	40.32	40.37	40.16	36.81	35.71	35.22	34.92
7	.59	.52	35.19	.43	.69	39.91	.65	.02	.77	.69	.21	.91
8	.58	.48	.91	.32	.27	.58	41.03	.10	.75	.68	.20	.90
9	.55	.49	36.51	.55	43.74	.34	40.96	.15	.67	.66	.19	.89
10	.53	.51	.73	37.97	.90	.06	41.05	.06	.63	.64	.17	.88
11	34.52	34.53	36.82	38.19	43.96	38.93	40.81	39.81	36.61	35.62	35.16	34.87
12	.55	.51	.51	37.72	.70	39.63	.38	.55	.59	.60	.15	.87
13	.57	.51	.16	.22	.32	43.73	39.92	.28	.51	.28	.14	.86
14	.58	.50	35.91	36.82	42.93	44.73	.51	.09	.45	.56	.13	.85
15	.57	.50	.98	.55	.76	.83	.32	38.99	.39	.54	.11	.84
16	34.56	34.49	36.60	36.49	42.80	44.81	39.24	38.87	36.35	35.53	35.09	34.84
17	.59	.48	.79	.56	.45	.75	.28	.68	.30	.51	.08	.83
18	.60	.46	.46	.63	41.75	.61	.10	.50	.25	.49	.07	.83
19	.58	.44	.10	.72	.06	.15	38.89	.36	.21	.48	.06	.82
20	.55	.45	35.85	.98	40.51	43.76	.74	.24	.16	.46	.05	.82
21	34.52	34.42	35.70	37.32	40.17	43.67	38.63	38.03	36.12	35.45	35.04	34.81
22	.51	.45	.63	.47	.07	.46	.49	37.90	.08	.43	.04	.81
23	.49	.49	.51	.33	.10	42.98	.39	.76	.05	.42	.03	.80
24	.48	.48	.40	.18	.06	.55	.24	.64	.01	.40	.02	.80
25	.46	.46	.29	.55	39.92	.14	.06	.53	35.99	.38	.01	.79
26	34.45	34.44	35.23	39.00	40.26	41.82	37.95	37.45	35.96	35.37	35.00	34.78
27	.48	.48	.17	.54	.63	42.04	38.05	.36	.92	.36	34.99	.77
28	.49	.63	.26	40.17	.68	.23	.84	.30	.91	.35	.98	.76
29	.48	.71	.32	42.67	.80	41.83	40.02	.23	.89	.34	.97	.75
30	.49	.70	.29	44.15	41.09	.53	41.22	.17	.86	.32	-	.74
31	-	.81	-	.36	40.88	-	.75	-	.84	.30	-	.73
Mean	34.55	34.53	36.56	37.92	42.29	42.02	39.72	39.10	36.39	35.54	35.12	34.84
Max.	34.64	34.81	36.82	44.36	44.69	44.83	41.75	42.39	37.10	35.82	35.29	34.97
Min.	34.45	34.42	34.83	35.61	39.92	38.93	37.95	37.17	35.84	35.30	34.97	34.73

WATER YEAR 1963 : Max. 44.83 m. Min. 34.42 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	13	7.70	33	67	1,252	658	750	975	203	83	45	28
2	12	8.00	31	219	1,082	632	688	927	197	80	45	27
3	11	15	27	260	1,175	734	631	837	192	79	44	26
4	11	14	21	232	1,371	817	607	734	184	77	42	26
5	10	11	22	210	1,437	741	619	664	177	75	42	26
6	10	10	23	164	1,454	628	635	604	171	75	41	26
7	11	8.60	39	136	1,459	566	680	583	167	73	41	25
8	10	7.40	90	126	1,359	517	741	595	165	73	40	25
9	9.50	7.70	143	146	1,241	482	730	602	157	71	39	24
10	8.90	8.30	163	303	1,276	442	744	589	154	70	38	24
11	8.60	8.90	172	330	1,289	425	706	551	152	68	38	23
12	9.50	8.30	143	273	1,232	524	637	512	150	67	37	23
13	10	8.30	111	216	1,153	1,239	568	473	143	66	37	23
14	10	8.00	90	172	1,077	1,462	506	447	137	64	36	22
15	10	8.00	95	146	1,044	1,492	479	433	132	63	35	22
16	9.80	7.70	151	141	1,052	1,487	468	417	128	62	34	22
17	11	7.40	169	147	986	1,473	473	392	124	68	34	21
18	11	6.80	138	154	862	1,439	448	369	119	59	33	21
19	10	6.20	106	162	746	1,331	420	351	116	59	33	21
20	9.50	6.50	85	190	658	1,245	400	337	111	57	32	21
21	8.60	5.60	74	227	605	1,226	386	311	108	56	32	20
22	8.30	6.50	69	244	590	1,182	368	295	104	55	32	20
23	7.70	7.70	61	228	595	1,086	355	278	101	54	31	20
24	7.40	7.40	53	212	589	1,004	336	264	98	53	31	20
25	6.80	6.80	45	253	568	930	314	251	96	52	30	19
26	6.50	6.20	42	434	619	874	301	241	94	51	30	19
27	7.40	7.40	38	511	677	912	313	232	91	50	29	18
28	7.70	12	44	605	685	946	413	225	90	49	29	18
29	7.40	15	47	1,027	704	876	583	217	88	49	28	17
30	7.70	15	45	1,331	750	825	772	211	86	47	28	17
31	-	20	-	1,377	717	-	862	-	84	46	-	16
Total	281.30	283.40	2,370	10,243	30,304	28,195	16,935	13,919	4,119	1,951	1,038	680
Mean	9.37	9.13	79.0	330	977	940	546	464	133	62.9	35.7	21.9
Max.	13	20	172	1,377	1,459	1,492	862	975	203	83	45	28
Min.	6.50	5.60	21	67	568	425	301	211	84	46	28	16
Runoff - mcm.	24,278	24,451	204,768	884,995	2,618,266	2,436,048	1,463,011	1,202,602	355,882	168,566	89,683	58,752

WATER YEAR 1963 : Max. 1,492 Min. 5.60 Mean 301 Annual Runoff 9,531,302 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sept. 15	06.00	44.83	1,492	Aug. 7	08.00	44.71	1,463

WATER YEAR 1964  
NAN RIVER BASIN

Nan River at Muang Phitsanulok. (N. 5)

Location: Lat. 16° - 48' - 35" N., Long 100° - 15' - 37" E., on left bank at Ban Wat Chan, 50 meters downstream from ice factory, Amphoe Muang, Phitsanulok.

Drainage Area: 25,207 sq.km. referred to AMS Map 1:50,000.

Type of Gage: Staff gage.

Zero Gage at Bottom at: + 34.00 m. (M.S.L.)

Bench Mark: B.M. - R.I.D. No. 1506

Location: On left bank along the gage line.

Elevation: + 44,739 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: 1922 - 28, 1950 to date.

Rating Operation:

Period of Rating: 1953 - 56, 1965 to date.

Rated by Float: -

Rated by Current Meter: 1953 - 56, 1965 to date.

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

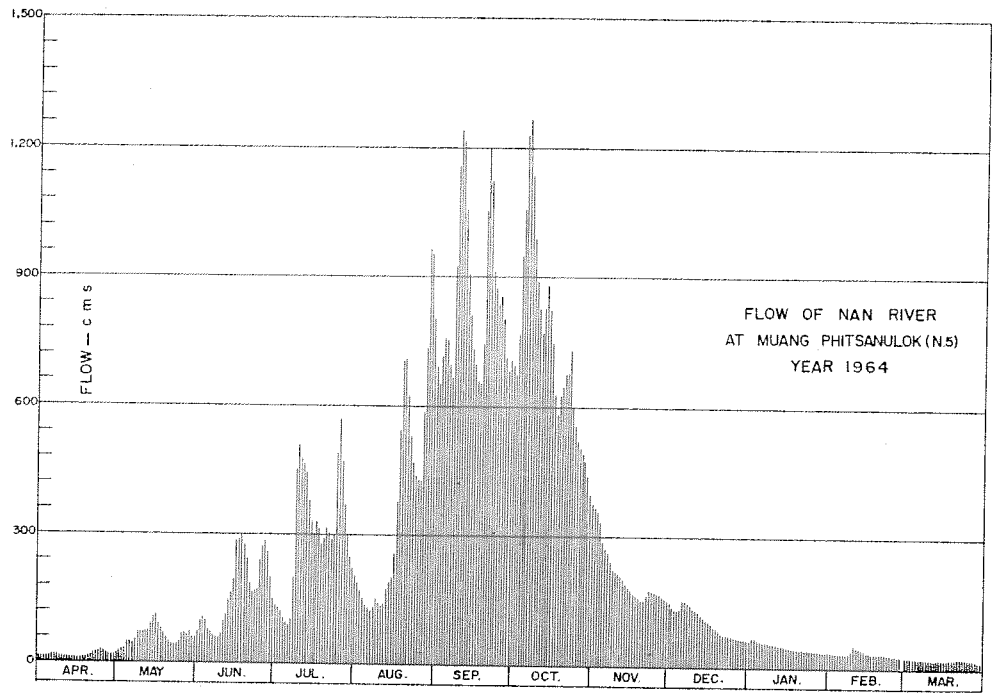
Overbank Flow Conditions: No overbank flow.

General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made during 1953 - 56. No diversions for irrigation above gage site.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	34.72	34.87	35.71	36.46	37.13	40.72	40.76	38.55	36.59	35.58	35.15	34.94
2	.70	.99	36.03	.42	36.97	.48	.61	.51	.46	.63	.13	.92
3	.69	35.07	.15	.32	.80	.87	41.17	.40	.41	.65	.12	.90
4	.71	.12	.07	.13	.61	41.13	42.26	.26	.39	.59	.11	.89
5	.75	.38	35.88	.01	.46	.12	.85	37.85	.40	.55	.11	.89
6	34.82	35.40	35.70	35.94	36.41	40.76	43.69	37.70	36.63	35.52	35.12	34.88
7	.84	.31	.59	36.09	.32	.57	.84	.65	.64	.50	.12	.87
8	.80	.43	.53	37.09	.43	42.11	.25	.45	.61	.47	.15	.86
9	.75	.70	.50	39.15	.62	43.34	42.44	.35	.54	.46	.22	.85
10	.72	.69	.65	.52	.51	.74	41.93	.26	.43	.45	.39	.84
11	34.69	35.70	36.01	39.33	36.44	43.63	41.55	37.22	36.41	35.43	35.35	34.83
12	.67	.71	.21	.23	.49	42.83	.20	.18	.35	.41	.31	.82
13	.66	.75	.57	.09	.84	.00	.58	.09	.26	.39	.28	.81
14	.65	.95	.76	38.59	.99	41.45	.87	.00	.22	.37	.24	.80
15	.64	36.14	37.02	.24	37.09	.00	.53	36.92	.16	.35	.20	.79
16	34.64	36.20	37.84	37.99	37.58	40.75	41.03	36.86	36.10	35.33	35.17	34.81
17	.63	35.95	.85	39.19	38.57	.52	40.31	.80	.05	.32	.13	.81
18	.65	.82	.94	.07	39.53	.49	.02	.74	35.98	.30	.10	.81
19	.73	.67	.77	37.75	40.80	41.05	.33	.70	.92	.29	.08	.81
20	.75	.54	.50	.85	.84	42.83	.45	.66	.86	.28	.10	.83
21	34.78	35.38	37.01	38.08	40.30	43.55	40.63	36.64	35.79	35.27	35.12	34.88
22	.88	.30	36.76	37.98	39.68	.16	.63	.74	.75	.26	.08	.89
23	.90	.29	.83	.85	.25	42.04	.98	.87	.73	.25	.07	.88
24	.95	.31	.84	.93	.04	41.80	.10	.85	.71	.23	.05	.87
25	35.05	.36	37.46	39.41	38.98	.61	39.86	.83	.69	.22	.01	.84
26	34.99	35.64	37.73	39.91	38.94	41.72	39.58	36.81	35.66	35.21	34.99	34.82
27	.90	.67	.83	.26	40.05	.38	.51	.79	.64	.20	.98	.80
28	.80	.62	.61	38.49	.99	40.85	.43	.74	.63	.19	.96	.77
29	.84	.72	.09	37.93	42.32	.66	.27	.69	.61	.18	-	.75
30	.79	.52	36.65	.55	.27	.84	.02	.64	.59	.17	-	.73
31	-	.51	-	.31	41.40	-	38.69	-	.57	.16	-	.70
ean	34.77	35.55	36.70	37.91	38.41	41.63	42.00	37.19	36.09	35.36	35.14	34.83
ax.	35.05	36.20	37.94	39.91	42.32	43.74	43.84	38.55	36.64	35.65	35.39	34.94
in.	34.63	34.87	35.50	35.94	36.32	40.48	38.69	36.64	35.57	35.16	34.96	34.70

WATER YEAR 1964 : Max. 43.84 m. Min. 34.63 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	16	23	75	138	206	691	698	375	150	66	37	27
2	15	29	100	135	189	653	674	370	138	69	36	26
3	15	33	110	126	170	715	764	356	134	70	36	25
4	15	36	103	109	152	757	952	338	132	66	35	24
5	17	52	87	98	138	755	1,061	289	133	63	35	24
6	21	53	74	92	134	698	1,230	271	154	61	36	24
7	22	47	66	105	126	667	1,263	265	155	60	36	23
8	20	55	62	202	136	925	1,139	241	152	58	37	23
9	17	74	60	455	153	1,157	984	230	146	57	41	22
10	16	73	70	508	143	1,241	893	221	136	56	52	22
11	15	74	98	480	137	1,217	828	216	134	55	49	21
12	14	75	116	466	141	1,058	769	212	126	54	47	21
13	13	77	148	447	174	905	837	202	120	52	45	20
14	13	93	166	381	191	811	883	192	117	51	42	20
15	13	110	194	336	202	736	825	183	111	49	40	19
16	13	115	288	306	257	696	741	177	106	48	38	20
17	12	93	269	330	278	659	626	170	101	47	36	20
18	13	83	300	315	509	654	583	164	95	46	35	20
19	16	72	279	277	704	744	629	160	91	45	34	20
20	17	63	247	289	710	1,058	648	156	86	45	35	21
21	19	52	193	317	625	1,200	677	155	80	44	36	24
22	24	46	166	305	532	1,121	677	164	77	44	34	24
23	25	45	173	289	469	912	733	178	76	43	33	24
24	27	47	174	299	440	871	595	175	75	42	32	23
25	32	50	242	491	431	839	559	173	73	41	30	22
26	29	70	275	566	426	857	517	171	71	41	29	21
27	25	72	287	470	587	800	506	169	70	40	29	20
28	20	68	260	368	734	712	494	164	69	39	28	18
29	22	75	202	299	963	682	472	159	68	39	-	17
30	19	61	155	253	954	710	437	155	66	38	-	16
31	-	61	-	226	803	-	394	-	65	38	-	15
Total	555	1,977	5,059	9,478	11,914	25,501	23,088	6,451	3,309	1,567	1,033	666
Mean	18.5	63.7	169	306	384	850	745	215	107	50.5	36.8	21.4
Max.	32	115	300	566	963	1,241	1,263	375	155	70	52	27
Min.	12	23	60	92	126	653	394	155	65	38	28	15
Runoff - MCM.	47.952	170.813	437.098	818.899	1,029.370	2,203.286	1,994.803	557.366	285.896	135.389	89.251	57.542

WATER YEAR 1964 : Max. 1,263 Min. 12 Mean 248 Annual Runoff 7,827.667 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct.7	06.00	43.91	1,278	Sept.10	18.00	43.78	1,250

WATER YEAR 1963  
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 600 meters upstream from district office of Amphoe Tha Pla, Uttaradit.

Drainage Area: 13,086 sq.km. referred to AMS Map 1:50,000.

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: 24 time daily readings.

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, shifting adjustment not included for flow computation due to its stability.

Overbank Flow Conditions: Overbank flow was observed and included for flow computation.

General Description: Records fair. Stage - discharge relationship used is from discharge measurements made during 1963. No diversions for irrigation above gage site.

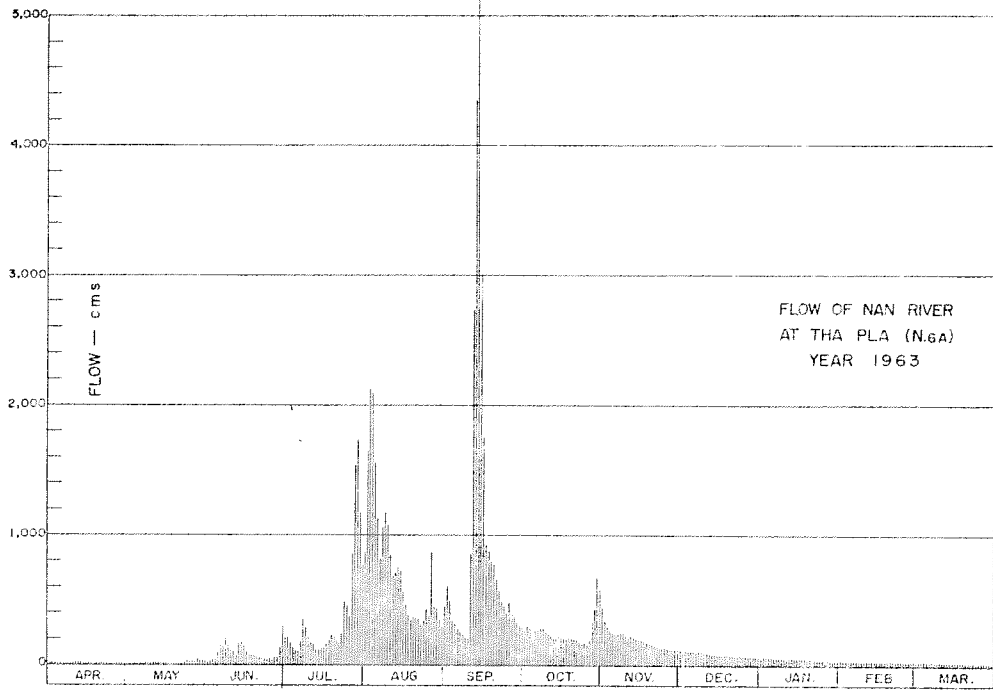
Remark: Overbank flow occurred on period Sept. 12 - 15.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	74.55	74.51	74.71	76.77	80.14	78.37	77.30	78.37	75.86	75.27	74.93	74.73
2	.56	.49	.66	.83	82.54	79.13	.20	77.76	.84	.26	.93	.73
3	.56	.49	.84	.46	83.83	78.37	.48	.46	.81	.25	.94	.73
4	.56	.47	.84	.06	.73	77.75	.33	.21	.79	.24	.94	.73
5	.55	.52	75.59	75.81	82.26	.58	.22	.06	.75	.23	.94	.72
6	74.54	74.49	76.36	75.74	81.03	77.29	77.18	77.07	75.73	75.22	74.93	74.71
7	.53	.51	.06	76.57	79.95	.10	.14	.09	.72	.21	.92	.70
8	.53	.54	.79	77.85	80.81	76.90	.27	.09	.73	.20	.90	.70
9	.53	.55	.18	.46	81.18	.75	.32	.03	.78	.20	.89	.69
10	.67	.55	75.79	76.88	80.86	.73	.18	76.86	.70	.18	.88	.69
11	74.59	74.55	75.75	76.42	80.07	80.12	76.97	76.79	75.66	75.16	74.87	74.68
12	.56	.54	.42	.42	79.48	85.22	.81	.88	.65	.15	.86	.68
13	.62	.53	76.40	75.92	.53	87.30	.71	.79	.63	.14	.85	.68
14	.58	.52	.52	.90	.71	88.00	.72	.68	.61	.13	.84	.67
15	.57	.48	.25	.96	.64	86.34	.88	.57	.58	.12	.83	.67
16	74.56	74.46	75.71	76.07	78.89	82.32	76.78	76.54	75.55	75.11	74.82	74.67
17	.54	.45	.42	.40	.40	80.37	.71	.52	.52	.10	.82	.66
18	.53	.43	.38	.63	.03	79.76	.68	.45	.50	.09	.82	.66
19	.52	.43	.38	77.00	77.82	.84	.74	.34	.48	.08	.81	.66
20	.52	.42	.24	76.88	.91	.84	.72	.25	.45	.07	.80	.67
21	74.50	74.42	75.13	76.61	77.90	79.33	76.69	76.20	75.43	75.06	74.80	74.67
22	.51	.42	.05	.49	.82	78.84	.56	.15	.42	.05	.79	.66
23	.51	.60	74.97	.97	.54	.52	.42	.11	.40	.05	.78	.65
24	.50	.81	.94	78.55	.78	.37	.32	.07	.38	.05	.77	.65
25	.49	.72	75.12	.44	78.26	.13	.24	.04	.37	.04	.76	.64
26	74.49	74.67	75.03	78.02	77.99	78.52	76.29	76.01	75.36	75.03	74.76	74.63
27	.48	.67	.15	80.15	78.07	.09	.59	75.99	.35	.01	.75	.62
28	.54	75.08	.21	82.23	.37	77.84	77.66	.96	.34	74.97	.74	.61
29	.56	74.88	.94	.79	.30	.63	78.27	.93	.31	.96	.74	.60
30	.54	.82	77.49	81.14	77.75	.43	79.41	.90	.30	.95	-	.60
31	-	.72	-	79.84	.42	-	.13	-	.28	.94	-	.60
Mean	74.54	74.57	75.58	77.49	79.45	79.60	77.09	76.64	75.56	75.11	74.84	74.67
Max.	74.67	75.08	77.49	82.79	83.83	88.00	79.41	78.37	75.86	75.27	74.94	74.73
Min.	74.48	74.42	74.66	75.74	77.42	76.73	76.24	75.90	75.28	74.94	74.74	74.60

WATER YEAR 1963 : Max. 88.00 m. Min. 74.42 m.





DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	17	15	25	208	860	444	273	44	113	62	39	26
2	17	14	22	216	1,644	605	260	338	112	61	39	26
3	17	14	32	173	2,117	444	297	294	109	60	39	26
4	17	13	32	133	2,080	336	277	261	107	59	39	26
5	17	15	89	109	1,544	311	263	243	103	58	39	25
6	16	14	163	103	1,128	272	258	244	102	58	39	25
7	16	15	133	185	808	248	253	247	100	57	38	24
8	16	16	211	352	1,057	224	269	246	102	56	37	24
9	16	17	145	294	1,176	206	276	240	106	56	36	24
10	23	17	107	222	1,073	204	256	219	99	55	35	24
11	19	17	104	169	841	854	231	211	95	53	35	23
12	17	16	74	169	688	2,722	213	222	94	53	34	23
13	20	16	167	119	700	4,343	201	211	93	52	33	23
14	18	15	179	117	746	5,170	202	193	91	51	32	22
15	18	13	152	123	728	3,439	222	185	88	50	32	22
16	17	12	100	134	553	1,745	210	181	85	50	31	22
17	16	12	74	167	450	924	201	179	83	49	31	22
18	16	11	70	192	381	759	198	172	81	48	31	22
19	15	11	70	236	347	779	205	161	79	48	31	22
20	15	11	59	222	362	779	202	152	76	47	30	22
21	14	11	51	189	360	652	199	147	75	46	30	22
22	15	11	46	176	347	542	184	142	74	46	29	22
23	15	19	41	232	306	475	169	138	72	46	29	21
24	14	30	39	484	341	444	159	134	70	46	28	21
25	14	25	50	458	422	398	151	131	70	45	28	21
26	14	23	44	379	374	475	156	128	69	44	28	20
27	13	23	53	862	862	391	187	126	68	43	27	20
28	16	48	57	1,533	444	350	323	123	67	40	26	19
29	17	35	121	1,734	430	318	424	120	65	40	26	19
30	16	31	299	1,163	336	290	671	117	64	39	25	19
31	-	25	-	779	289	-	605	-	62	39	-	19
Total	491	565	2,809	11,632	23,320	29,143	7,997	5,954	2,674	1,557	951	696
Mean	16.4	18.2	93.6	375	752	971	258	198	86.2	50.2	32.8	22.4
Max.	23	48	299	1,734	2,117	5,170	671	444	113	62	39	26
Min.	13	11	22	103	289	204	151	117	62	39	26	19
Runoff - cc.m.	42.422	48.816	242.698	1,005.005	2,014.848	2,517.955	690.941	514.426	231.034	134.529	82.166	60.134

WATER YEAR 1963 : Max. 5,170 Min. 11 Mean 240 Annual Runoff 7,584.970 cc.m.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sept. 14	09.00	88.11	5,260				

WATER YEAR 1964  
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 600 meters upstream from district office of Amphoe Tha Pla, Uttaradit.

Drainage Area: 13,086 sq.km. referred to AMS Map 1:50,000.

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: 24 time daily readings.

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 shifting adjustment not included for flow computation due to its stability.

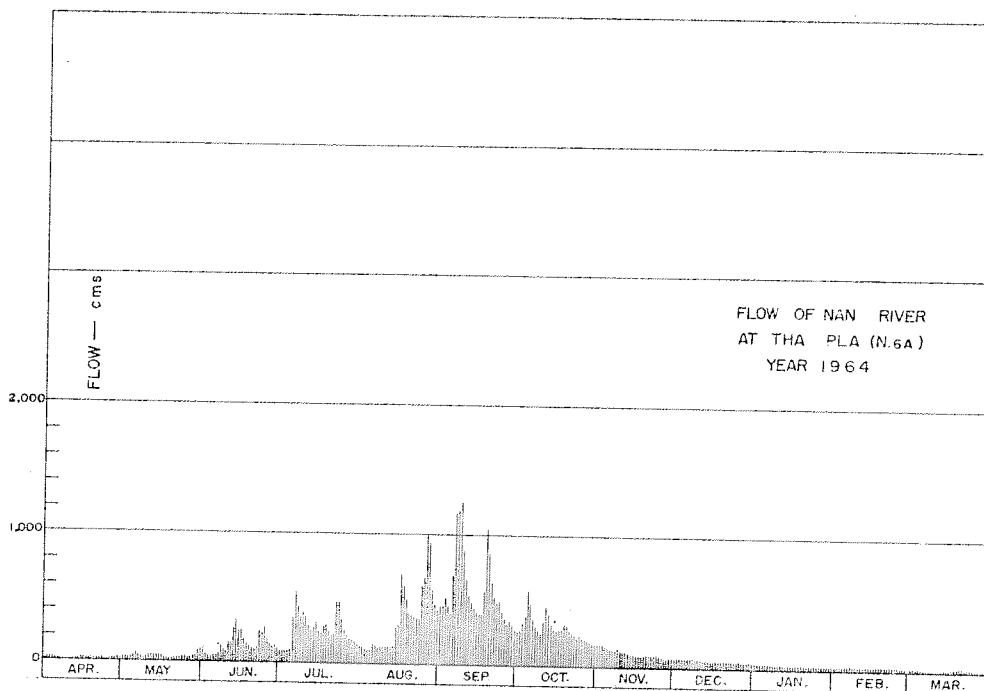
Overbank Flow Conditions: No overbank flow.

General Description: Records fair. Stage - discharge relationship used is from discharge measurements made during 1963. No diversions for irrigation above gage site.

**GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965**

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	74.61	74.74	75.60	75.77	76.10	78.31	77.07	76.36	75.46	75.13	74.82	74.69
2	.75	75.00	.43	.67	75.99	.29	.12	.47	.47	.09	.81	.69
3	.77	74.94	.24	.59	.94	.58	.45	.37	.45	.07	.80	.68
4	.69	.83	.11	.67	.85	.27	.67	.25	.46	.05	.85	.68
5	.66	75.16	.19	.76	.85	77.94	78.91	.20	.49	.04	.84	.67
6	74.62	75.42	75.19	77.67	76.31	79.47	78.38	76.11	75.49	75.03	75.03	74.67
7	.60	.13	.47	78.79	.14	81.14	77.72	.05	.42	.03	75.10	.67
8	.59	.00	76.00	.24	.01	.19	.31	.01	.40	.02	74.99	.64
9	.59	.00	75.77	77.65	.04	.36	.25	.06	.37	.00	74.95	.64
10	.58	74.96	.69	.96	.02	80.15	76.96	75.98	.34	74.97	.93	.63
11	74.58	75.15	76.26	77.77	76.14	79.28	77.62	75.91	75.33	74.96	74.91	74.62
12	.58	.19	.20	.34	.09	78.69	78.31	.86	.30	.95	.90	.62
13	.58	.23	77.12	.06	.04	.41	77.93	.81	.29	.95	.87	.62
14	.61	.21	.53	.12	.15	.14	.46	.75	.27	.93	.85	.62
15	.69	.24	.01	.53	77.24	77.97	.25	.75	.26	.92	.83	.62
16	74.73	75.13	77.09	76.99	77.41	77.95	77.21	75.72	75.24	74.92	74.80	74.64
17	.70	74.97	76.50	.96	79.44	.90	.16	.70	.23	.91	.79	.69
18	.69	.90	.20	77.34	.02	78.84	.22	.67	.21	.91	.79	.75
19	.77	.90	.05	.38	78.45	80.74	.47	.65	.19	.90	.79	.74
20	.69	.90	75.81	.08	.00	.03	.49	.64	.18	.89	.80	.74
21	74.69	74.90	75.75	76.72	77.83	79.15	77.19	75.66	75.16	75.84	74.78	74.70
22	.67	.96	.92	.85	.80	78.60	.07	.65	.15	.88	.76	.70
23	.64	.99	76.84	78.44	.74	.35	76.95	.62	.14	.87	.75	.68
24	.61	75.04	.84	.36	.73	.47	.79	.60	.13	.87	.73	.66
25	.59	.05	77.12	77.57	79.04	.01	.93	.58	.12	.87	.72	.65
26	74.64	75.04	76.63	77.07	79.30	77.65	76.81	75.55	75.11	74.86	74.71	74.61
27	.73	74.99	.19	76.79	80.63	.46	.76	.52	.10	.86	.70	.60
28	.85	75.23	.00	.57	.35	.53	.61	.50	.09	.85	.69	.58
29	.78	.22	.09	.51	78.91	.40	.50	.48	.09	.84		.58
30	.76	.57	75.94	.46	.33	.16	.43	.47	.27	.84		.57
31		.67		.25	.06		.40		.19	.85		.57
Mean	74.67	75.08	76.12	77.06	77.42	78.81	77.27	75.83	75.27	74.94	74.85	74.65
Max.	74.85	75.67	77.53	78.79	80.63	81.36	78.91	76.47	75.49	75.13	75.10	74.74
Min.	74.58	74.74	75.11	75.59	75.85	77.16	76.40	75.47	75.09	74.83	74.69	75.57

WATER YEAR 1964 : Max. 81.36 m. Min. 74.57 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	18	24	84	99	132	452	254	163	73	46	27	22
2	24	38	70	90	121	448	261	176	74	43	27	22
3	25	34	55	83	116	506	310	164	75	42	26	21
4	22	28	45	90	107	445	345	150	73	41	28	21
5	20	49	51	98	107	388	576	144	75	40	28	20
6	19	70	51	345	157	699	466	133	75	40	39	21
7	18	46	74	550	157	1,170	353	127	70	40	44	20
8	18	58	122	349	123	1,187	288	123	68	39	37	20
9	18	38	99	342	126	1,247	279	128	67	38	34	20
10	17	36	91	392	124	872	239	120	65	36	34	19
11	17	48	151	361	137	658	337	113	62	36	33	19
12	17	51	144	293	131	529	452	108	60	35	32	19
13	17	54	261	252	126	472	387	103	59	35	30	19
14	18	53	323	261	138	422	312	97	58	34	28	19
15	26	55	245	323	278	393	279	97	57	33	28	19
16	23	46	257	248	304	390	273	94	55	33	26	20
17	22	36	180	239	693	382	266	92	54	32	26	22
18	22	32	144	293	600	561	275	90	53	32	26	24
19	25	32	127	299	480	1,042	313	88	51	32	26	24
20	22	32	103	255	398	836	316	87	50	31	26	24
21	22	32	97	208	371	629	271	89	49	31	25	22
22	21	36	114	224	366	510	254	88	48	31	24	22
23	20	37	223	478	356	460	235	86	47	30	24	21
24	18	40	223	462	355	484	217	84	46	30	23	20
25	18	41	261	329	605	400	235	82	46	30	23	19
26	20	40	196	254	662	342	219	80	45	30	22	18
27	23	37	143	217	1,009	312	215	78	44	30	22	18
28	29	54	122	188	928	323	193	76	43	29	22	17
29	25	54	131	181	576	302	180	74	43	28	22	17
30	25	82	116	175	456	266	172	74	43	28	22	17
31	24	90		150	408		168		51	28	22	17
<b>Total</b>	628	1,383	4,303	8,213	10,627	17,129	8,938	5,208	1,792	1,063	790	624
<b>Mean</b>	20.9	44.6	143	265	343	571	288	107	57.8	34.3	28.2	20.1
<b>Max.</b>	29	90	323	550	1,009	1,247	576	176	75	46	44	24
<b>Min.</b>	17	24	45	83	107	266	168	74	43	28	22	17
<b>Runoff - mcm.</b>	54.259	119.491	371.779	709.603	918.173	1,479.946	772.243	277.171	154.829	91.843	68.256	53.914

WATER YEAR 1964 : Max. 1,247 Min. 17 Mean 161 Annual Runoff 5,071.507 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sept. 9	06.00	81.47	1,285				

WATER YEAR 1963  
NAN RIVER BASIN

Nan River at Muang Phichit (N.7)

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

Drainage Area: 28,191 sq.km. referred to AMS Map 1:50,000.

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 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 to date.  
Rated of Float: -  
Rated by Current Meter: 1965 to date.

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

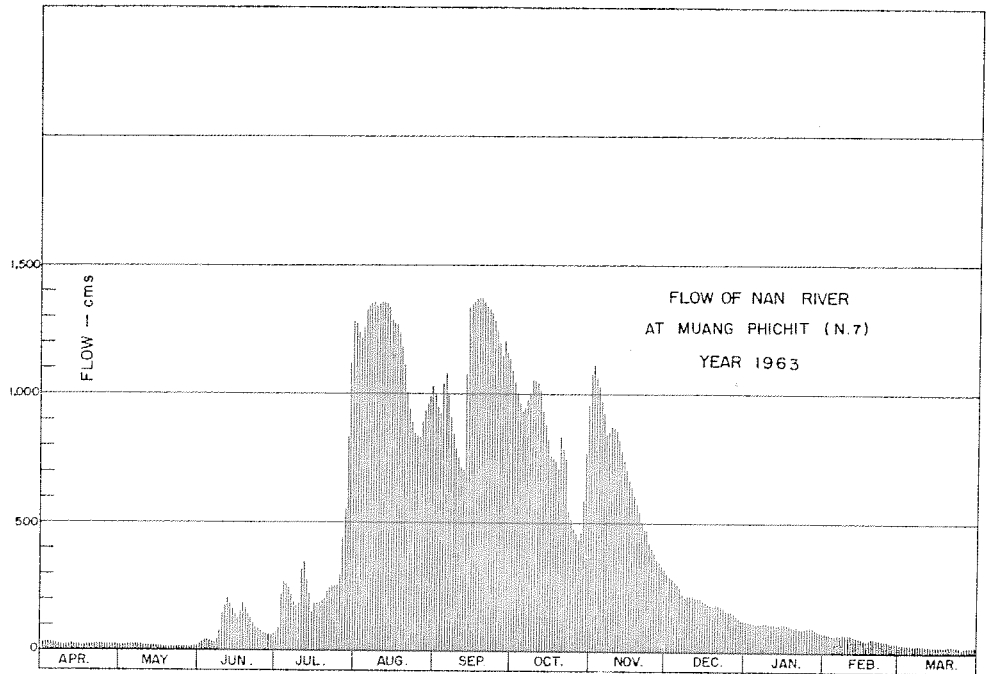
Overbank Flow Conditions: No overbank flow.

General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made during 1965. No diversions for irrigation above gage site.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	26.60	26.38	26.49	27.40	36.04	34.72	35.21	35.12	30.17	27.97	27.33	26.61
2	.65	.35	.65	.66	35.85	.47	34.94	.25	.06	.97	.28	.58
3	.65	.39	.77	29.48	.80	.40	.73	.11	29.98	.98	.25	.54
4	.61	.42	.80	.87	36.06	.95	.48	34.87	.91	.90	.21	.51
5	.58	.45	.73	.76	.32	35.13	.42	.57	.77	.88	.20	.50
6	26.54	26.46	26.66	29.60	36.40	34.80	34.52	34.28	29.60	27.87	27.22	26.47
7	.51	.48	.65	.35	.44	.29	.65	33.96	.31	.91	.27	.45
8	.48	.50	.96	.00	.45	33.96	.83	.97	.23	.95	.30	.47
9	.45	.46	27.51	28.80	.40	.78	35.00	34.10	.30	.93	.28	.48
10	.47	.38	28.50	29.06	.42	.45	.80	.09	.32	.87	.23	.46
11	26.51	26.33	28.90	30.37	36.45	33.25	34.95	34.00	29.28	27.85	27.20	26.43
12	.62	.30	29.17	.60	.45	.19	.74	33.82	.22	.83	.16	.40
13	.51	.32	28.96	.24	.43	35.17	.42	.55	.20	.80	.08	.37
14	.47	.35	.65	29.48	.26	36.30	.10	.33	.16	.84	.03	.35
15	.44	.31	.39	28.60	.10	.42	33.78	.14	.07	.86	.01	.33
16	26.38	26.28	28.20	28.90	36.09	36.47	33.48	32.92	29.00	27.87	26.97	26.30
17	.35	.26	.60	.90	.02	.51	.43	.72	28.98	.82	.95	.32
18	.37	.27	.93	.92	35.76	.54	.33	.50	.87	.79	.98	.37
19	.42	.25	.67	29.02	.60	.52	.16	.26	.83	.73	27.00	.39
20	.46	.24	.40	.14	.26	.43	.88	.07	.87	.70	26.97	.40
21	26.48	26.22	28.15	29.38	34.80	36.39	33.66	31.86	28.88	27.68	26.92	26.39
22	.50	.22	27.80	.65	.46	.32	.40	.66	.83	.64	.90	.36
23	.49	.22	.64	.72	.17	.23	32.15	.42	.75	.60	.88	.33
24	.44	.22	.54	.73	33.98	.06	31.94	.23	.63	.62	.83	.28
25	.42	.22	.43	.74	.90	35.87	.70	.07	.56	.68	.78	.25
26	26.43	26.23	27.20	30.26	33.91	35.63	31.51	30.86	28.50	27.70	26.71	26.27
27	.47	.23	.17	31.62	34.15	.45	.33	.68	.42	.66	.68	.32
28	.48	.22	.12	32.50	.47	.70	.72	.61	.30	.58	.63	.35
29	.47	.22	.11	33.78	.56	.55	32.50	.46	.17	.51	.60	.34
30	.43	.28	.25	35.60	.75	.38	33.71	.35	.10	.43		.32
31		.25		36.07	.87		34.60		.06	.38		.33
Mean	26.49	26.31	27.70	30.07	35.31	35.31	33.72	32.86	29.04	27.77	27.03	26.39
Max.	26.65	26.50	29.17	36.07	36.45	36.54	35.21	35.25	30.17	27.98	27.33	26.61
Min.	26.35	26.22	26.49	27.40	33.90	33.19	31.33	30.35	28.06	27.38	26.60	26.25

WATER YEAR 1963 : Max. 36.54 m. Min. 26.22 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	33	24	29	76	1,268	990	1,093	1,074	295	113	72	34
2	35	23	36	92	1,230	940	1,036	1,101	284	113	69	33
3	36	25	41	229	1,220	926	992	1,072	276	114	67	31
4	34	26	42	265	1,272	1,038	942	1,022	269	108	65	29
5	33	27	39	255	1,324	1,076	930	960	256	107	64	29
6	31	27	36	240	1,340	1,007	950	903	240	106	65	28
7	29	28	36	217	1,348	905	976	842	214	109	68	27
8	28	29	50	188	1,350	842	1,013	844	207	111	70	28
9	27	27	83	172	1,340	809	1,049	869	213	110	69	28
10	28	24	150	193	1,344	751	1,049	867	215	106	66	27
11	29	22	180	316	1,350	717	1,038	850	211	104	64	26
12	34	21	202	341	1,350	707	994	817	206	103	62	25
13	29	22	185	302	1,346	1,085	950	768	204	101	57	24
14	28	23	161	229	1,312	1,320	869	731	201	104	54	23
15	27	21	142	157	1,280	1,344	809	699	194	105	53	22
16	24	20	129	180	1,278	1,354	757	663	188	106	50	21
17	23	20	157	180	1,264	1,362	748	631	186	102	49	22
18	24	20	182	182	1,212	1,368	731	597	178	100	51	24
19	26	19	162	190	1,178	1,364	702	561	174	96	52	25
20	27	19	143	199	1,104	1,346	827	532	178	94	50	25
21	28	18	125	220	1,007	1,338	788	501	178	93	48	25
22	29	18	101	244	938	1,324	743	473	174	90	47	23
23	29	18	90	251	882	1,306	544	442	168	88	46	22
24	27	18	84	252	846	1,272	513	417	159	89	44	20
25	26	18	78	253	831	1,234	478	397	154	93	42	19
26	26	18	64	304	833	1,185	453	371	150	94	38	20
27	28	18	62	468	878	1,145	430	350	144	92	37	22
28	28	18	59	597	940	1,200	481	342	136	87	35	23
29	28	18	59	809	958	1,167	597	326	127	83	33	23
30	26	20	67	1,178	996	1,130	797	314	122	78	33	22
31	19	19		1,274	1,022		966		119	75		22
Total	860	668	2,974	10,053	35,841	33,552	25,225	20,336	6,020	3,074	1,587	772
Mean	28.6	21.5	99.1	324	1,156	1,118	814	678	194	99.1	54.7	24.9
Max.	36	29	202	1,274	1,350	1,368	1,093	1,101	295	114	72	34
Min.	23	18	29	76	831	707	430	314	119	75	33	19
Runoff - BCM.	74.304	57.715	256.954	868.579	3,096.662	2,898.893	2,179.440	1,757.030	520.128	265.594	137.117	66.701

WATER YEAR 1963 : Max. 1,368 Min. 18 Mean 385 Annual Runoff 12,179.117mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sept. 18	06.00	36.54	1,368				

WATER YEAR 1964  
NAN RIVER BASIN

Nan River at Muang Phichit (N.7)

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

Drainage Area: 28,191 sq.km. referred to AMS Map 1:50,000.

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 76 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 to date.

Rated by Float: -

Rated by Current Meter: 1965 to date.

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

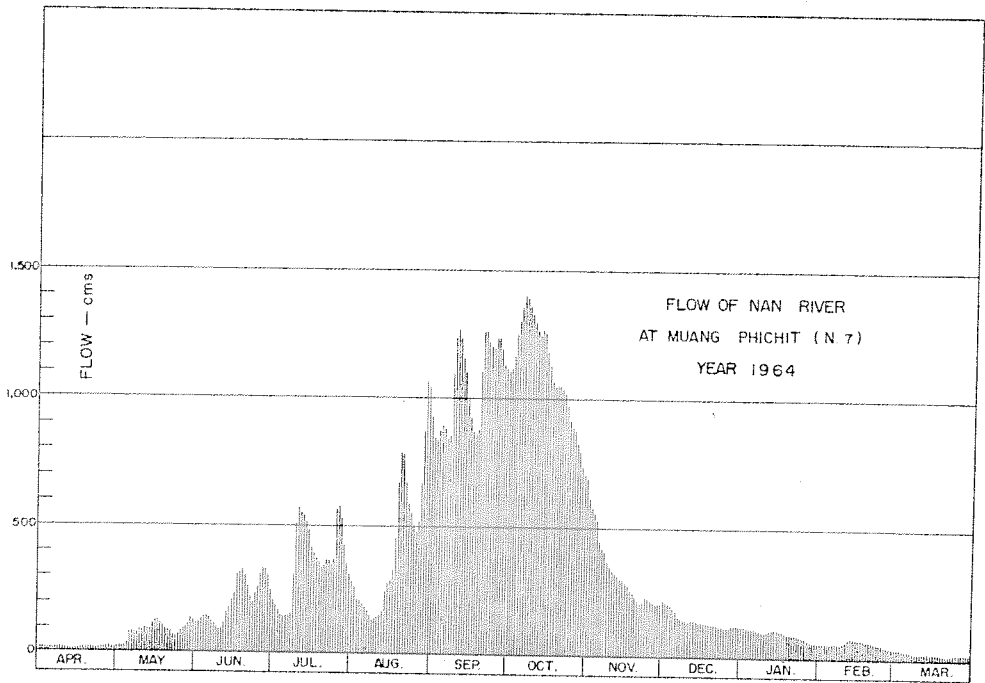
Overbank Flow Conditions: No overbank flow.

General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made during 1965. No diversions for irrigation above gage site.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	26.35	26.42	27.98	29.17	30.00	34.47	35.25	33.05	29.30	27.97	27.08	26.71
2	.32	.46	28.09	28.94	29.75	33.97	.31	32.65	.23	.95	.07	.66
3	.28	.43	.29	.71	.34	.91	.60	.34	.17	.93	.05	.61
4	.24	.55	.38	.47	.20	34.09	.98	.20	.09	.90	.03	.58
5	.26	.80	.41	.40	.10	.20	36.27	.01	28.98	.88	.04	.56
6	26.28	27.37	28.37	28.42	28.90	34.13	36.48	31.45	28.81	27.84	27.07	26.50
7	.30	.50	.16	.47	.68	33.95	.66	.22	.52	.80	.10	.44
8	.32	.43	.02	.57	.37	34.03	.63	.16	.45	.79	.09	.39
9	.30	.44	27.75	29.84	.30	35.40	.45	30.84	.40	.74	.05	.34
10	.26	.56	.65	31.90	.33	.85	.28	.60	.36	.72	.09	.32
11	26.25	27.75	27.72	32.30	28.43	36.00	36.16	30.51	28.30	27.74	27.16	26.31
12	.22	.72	28.02	.17	.51	35.86	35.96	.40	.36	.78	.32	.30
13	.20	.68	.51	.06	.79	.44	.91	.32	.40	.90	.37	.32
14	.20	.70	29.00	31.95	29.60	.10	36.02	.20	.33	.87	.40	.34
15	.22	28.04	.28	.65	.96	34.65	35.95	.17	.30	.81	.38	.32
16	26.24	26.20	29.57	31.15	30.07	34.31	35.61	30.09	28.28	27.78	27.34	26.30
17	.26	.20	30.25	.03	.55	.09	.35	29.96	.23	.67	.30	.30
18	.28	.09	.33	30.87	31.70	.05	.07	.83	.20	.65	.28	.28
19	.30	27.92	.42	.70	32.90	.15	34.97	.60	.18	.63	.21	.26
20	.32	.68	.20	.52	33.61	35.08	35.00	.50	.15	.58	.20	.25
21	26.30	27.59	29.80	30.65	33.58	35.95	34.99	29.28	28.13	27.56	27.17	26.23
22	.27	.49	.33	.90	32.99	.96	.95	.20	.10	.55	.12	.22
23	.25	.28	.13	.77	.50	.78	.86	.25	.06	.53	.07	.25
24	.27	.26	.45	.65	.21	.68	.64	.45	.00	.50	.03	.27
25	.32	.40	.78	.78	31.89	.66	.33	.42	27.99	.45	26.98	.29
26	26.37	27.49	30.27	32.22	31.68	35.85	34.23	29.33	27.98	27.33	26.88	26.31
27	.42	.72	.50	.34	32.02	.86	.13	.24	28.00	.23	.81	.33
28	.45	.82	.43	.05	.91	.62	33.87	.20	.04	.18	.77	.34
29	.43	.95	.15	31.30	34.02	.38	.65	.16	.06	.12	-	.32
30	.40	28.30	29.80	30.75	30.03	.43	.22	.07	.07	.10	-	.30
31	-	.15	-	.30	34.93	-	.15	-	.05	.07	-	.27
Mean	26.30	27.53	29.10	30.58	30.90	34.99	35.26	30.36	28.37	27.63	27.12	26.36
Max.	26.45	28.30	30.50	32.34	35.03	36.00	36.66	33.05	29.30	27.97	27.40	26.71
Min.	26.20	26.42	27.65	28.40	28.30	33.91	33.15	29.16	27.98	27.07	26.77	26.22

WATER YEAR 1964 : Max. 36.66 m. Min. 26.20 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	23	26	114	202	278	940	1,101	684	213	113	57	38
2	22	27	121	183	254	844	1,114	620	207	111	56	36
3	20	28	135	165	217	833	1,178	573	202	110	55	34
4	19	31	142	148	204	867	1,256	552	195	108	54	33
5	20	42	144	143	196	888	1,314	523	186	107	54	32
6	20	74	141	144	180	875	1,356	445	173	104	56	29
7	21	82	126	148	163	840	1,392	416	151	101	58	27
8	22	78	116	155	141	856	1,386	408	146	100	57	25
9	21	78	97	262	136	1,134	1,350	369	143	97	55	23
10	20	86	91	507	138	1,230	1,316	341	140	95	57	22
11	19	97	95	567	145	1,260	1,292	331	136	97	62	21
12	18	95	116	547	151	1,232	1,252	319	140	100	71	21
13	17	93	151	531	171	1,143	1,242	311	143	108	74	22
14	17	94	188	514	240	1,070	1,264	298	138	106	76	23
15	18	118	211	471	274	976	1,250	295	136	102	75	22
16	19	129	237	407	285	909	1,180	287	135	100	72	21
17	20	129	303	392	335	867	1,123	274	131	92	70	21
18	20	121	312	372	478	859	1,064	261	129	91	69	20
19	21	109	321	352	660	878	1,043	240	128	90	65	20
20	22	93	298	332	779	1,066	1,049	231	125	87	64	19
21	21	87	258	347	774	1,250	1,047	211	124	86	62	18
22	20	81	216	364	674	1,252	1,038	204	122	85	59	18
23	19	69	198	360	597	1,216	1,020	209	119	84	56	19
24	20	68	226	347	553	1,196	974	226	115	82	54	20
25	22	76	257	362	505	1,191	913	224	114	79	51	21
26	24	81	305	555	475	1,230	894	216	114	72	46	21
27	26	95	330	573	525	1,232	875	208	115	66	43	22
28	27	102	322	529	662	1,182	826	204	118	63	41	23
29	26	111	293	426	854	1,130	786	201	119	59	-	22
30	25	136	258	358	1,055	1,112	748	206	120	58	-	21
31	-	125	-	308	1,034	-	700	-	118	56	-	20
Total	629	2,661	6,122	11,071	13,133	31,558	34,343	9,887	4,395	2,809	1,669	734
Mean	20.9	85.8	204	357	424	1,051	1,108	329	142	90.6	59.2	23.6
Max.	27	136	330	573	1,055	1,260	1,392	684	213	113	76	38
Min.	17	26	91	143	136	833	700	201	114	56	41	18
Runoff - mm.	54.346	229.910	528.941	956.534	1,134.691	2,726.611	2,967.235	854.237	379.728	242.698	144.202	63.418

WATER YEAR 1964 : Max. 1,392 Min. 17 Mean 326 Annual Runoff 10,282 550 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct.7	06.00	36.67	1,394				

WATER YEAR 1963  
NAN RIVER BASIN

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

Location: Lat  $16^{\circ} - 01' - 50''$  N., Long  $100^{\circ} - 22' - 53''$  E., on left bank near Bang Mun Nak Market, Amphoe Bang Mun Nak, Phichit.

Drainage Area: 32,791 sq.km. referred to AMS Map 1:50,000.

Type of Gage: Staff gage.

Zero Gage at Bottom at: + 20.00 m. (M.S.L.)

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

Location: Near the camp of gage observer.

Elevation: + 29.266 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: 1965 to date.

Rated by Float: -

Rated by Current Meter: 1965 to date.

Stability of Channel Regimes: Rather unstable, no shifting adjustment for flow computation for years without actual ratings.

Overbank Flow Conditions: Overbank flow is observed but not included for flow computation.

General Description: Records fair except those for period of no gage height record, which are poor. Stage-discharge relationship used is defined by discharge measurements made during 1965. No diversions for irrigation above gage site.

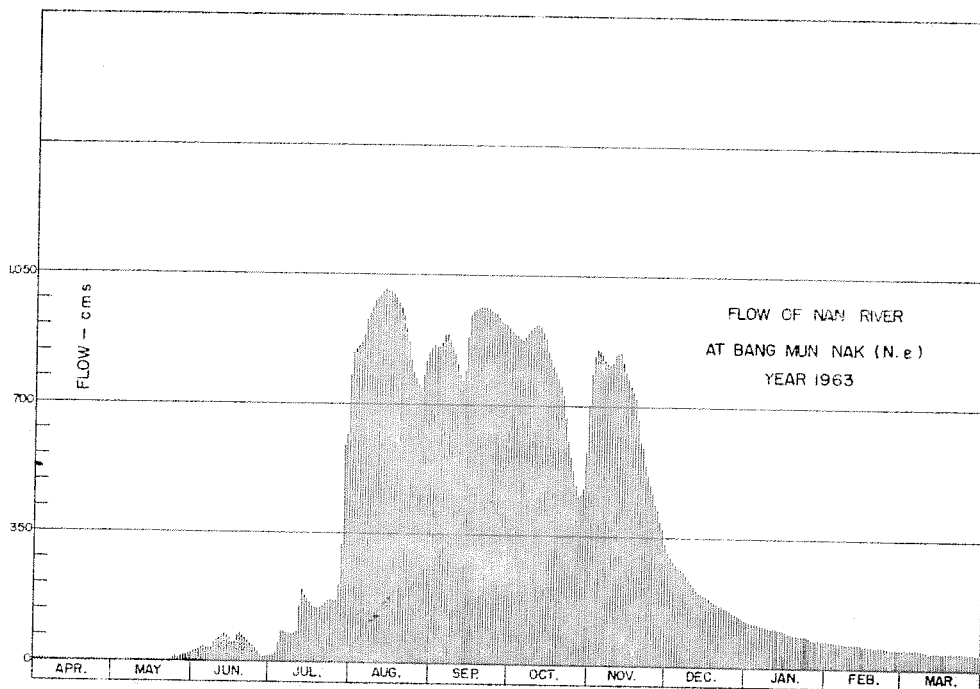
Remark: Gage height record for Nov.21 - Mar.31 based on correlation with station at Taphan Hin (N.10), which is about 30 kilometers upstream.

**GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964**

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	21.19	21.02	21.99	21.75	29.09	29.22	29.42	28.81	24.42	22.58	21.86	21.51
2	.19	.01	22.04	.81	.17	.21	.58	29.07	.52	.56	.84	.50
3	.19	.00	.17	.94	.20	.20	.36	.16	.22	.54	.83	.49
4	.19	20.99	.28	22.57	.28	.25	.32	.15	.13	.53	.81	.48
5	.19	.98	.29	23.01	.39	.36	.30	.10	.07	.50	.79	.47
6	21.19	20.97	22.24	23.03	29.55	29.37	29.33	29.03	24.04	22.48	21.79	21.46
7	.19	.96	.20	.01	.62	.29	.58	28.98	23.97	.46	.77	.45
8	.19	.95	.23	22.97	.69	.19	.43	.95	.96	.42	.76	.44
9	.18	.94	.46	.95	.76	.09	.48	.98	.90	.40	.74	.43
10	.18	.93	.66	.95	.79	28.96	.49	29.03	.75	.36	.72	.42
11	21.17	20.92	22.76	23.02	29.83	28.81	29.49	29.05	23.62	22.32	21.72	21.41
12	.16	.91	.89	.95	.86	.69	.46	.06	.58	.31	.71	.40
13	.15	.90	.93	24.44	.89	.86	.41	28.97	.48	.27	.70	.40
14	.14	.90	.88	.28	.88	29.33	.31	.84	.44	.24	.68	.39
15	.13	.90	.79	.14	.87	.61	.16	.74	.40	.23	.67	.38
16	21.13	20.90	22.55	24.04	29.84	29.66	29.04	28.64	23.38	22.18	21.65	21.37
17	.13	.90	.57	23.94	.80	.67	28.94	.54	.32	.16	.63	.36
18	.13	.90	.86	.90	.75	.68	.84	.44	.27	.12	.62	.35
19	.12	.90	.97	.90	.69	.69	.74	.10	.20	.11	.60	.34
20	.12	.90	.86	.92	.59	.69	.64	27.75	.16	.10	.59	.33
21	21.12	20.90	22.71	23.98	29.46	29.68	28.48	26.62	23.12	22.08	21.61	21.32
22	.11	.96	.62	24.05	.28	.67	.10	.38	.08	.06	.59	.32
23	.10	21.18	.51	.10	.02	.65	27.72	.14	.05	.04	.58	.31
24	.09	.42	.39	.12	28.84	.64	.45	25.93	22.96	21.99	.57	.30
25	.08	.59	.29	.11	.74	.62	.20	.74	.91	.97	.56	.30
26	21.07	21.50	22.01	24.13	28.64	29.57	26.92	25.56	22.86	21.96	21.55	21.29
27	.06	.72	21.79	.60	.57	.52	.71	.40	.82	.95	.54	.29
28	.05	.80	.65	25.62	.76	.50	.75	.18	.75	.93	.53	.28
29	.04	.80	.62	27.61	.99	.49	.87	24.89	.71	.91	.52	.28
30	.03	.86	.66	.80	29.11	.46	27.54	.67	.67	.89	.27	.27
31		.93		28.76	.18		28.32		.64	.87		.26
Mean	21.13	21.14	22.39	24.01	29.39	29.39	28.61	27.77	23.42	22.21	21.67	21.37
Max.	21.19	21.93	22.97	28.76	29.89	29.69	29.49	29.16	24.42	22.58	21.86	21.51
Min.	21.03	20.90	21.62	21.73	28.57	28.69	26.71	24.67	22.64	21.87	21.52	21.26

WATER YEAR 1963 : Max. 29.89 m. Min. 20.90 m.





DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	5.80	2.40	29	19	837	862	901	787	360	125	74	53
2	5.80	2.20	31	22	852	850	895	854	289	125	72	53
3	5.80	2.00	36	27	858	858	889	850	278	122	72	52
4	5.80	1.99	42	56	873	867	881	848	268	121	71	52
5	5.80	1.80	42	84	895	889	877	839	262	118	69	51
6	5.30	1.70	40	85	926	851	883	826	258	117	69	51
7	5.80	1.60	38	84	917	875	893	817	251	115	68	50
8	5.80	1.50	39	81	963	856	904	812	250	112	68	50
9	5.60	1.40	51	79	979	879	915	817	244	111	66	49
10	5.60	1.30	62	79	986	814	917	826	229	108	65	49
11	5.40	1.20	68	84	995	767	917	830	216	105	65	48
12	5.20	1.10	75	153	1,002	765	910	832	212	105	65	48
13	5.00	1.00	78	198	1,010	796	899	816	202	102	64	48
14	4.80	1.00	75	184	1,007	883	879	792	198	100	63	47
15	4.60	1.00	69	171	1,005	944	850	774	194	99	62	47
16	4.60	1.00	55	163	998	956	828	756	193	96	61	46
17	4.60	1.00	56	154	988	958	810	739	187	94	60	46
18	4.60	1.00	74	151	976	960	792	722	183	91	59	45
19	4.40	1.00	81	151	963	963	774	666	176	91	58	45
20	4.40	1.00	74	153	940	963	756	610	173	90	57	44
21	4.40	1.00	65	158	910	960	729	590	170	89	59	44
22	4.20	1.60	59	164	873	958	666	554	166	87	57	44
23	4.00	5.60	53	168	825	953	605	518	162	86	57	43
24	3.80	10	47	170	792	951	564	488	156	82	56	43
25	3.60	15	42	169	774	947	527	462	152	81	56	43
26	3.40	12	29	170	756	935	487	437	148	80	55	42
27	3.20	19	21	214	744	924	457	426	144	79	55	42
28	3.00	21	16	322	778	919	463	389	138	78	54	42
29	2.80	21	16	588	819	917	480	354	135	77	54	42
30	2.60	24	17	618	841	910	578	328	132	75	54	41
31	2.60	26	17	778	854	910	701	328	130	74	54	41
<b>Total</b>	140.20	185.39	1,480	5,697	27,956	26,958	23,625	20,339	6,196	3,033	1,811	1,441
<b>Mean</b>	4.67	5.98	49.3	164	902	899	762	678	200	97.8	62.4	46.4
<b>Max.</b>	5.80	26	81	778	1,010	963	917	850	300	125	74	53
<b>Min.</b>	2.60	1.00	16	19	744	765	457	328	130	74	54	41
<b>Runoff - mcm.</b>	12.113	16.918	127.872	492.221	2,416.262	2,329.171	2,041.200	1,757.290	535.334	262.051	156.470	124.502

WATER YEAR 1963 : Max. 1 010 Min. 1.00 Mean 325 Annual Runoff 10,270.505 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Aug. 13	18.00	29.90	1,013				

WATER YEAR 1964  
NAN RIVER BASIN

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

Location: Lat  $16^{\circ} - 01' - 50''$  N., Long  $100^{\circ} - 22' - 53''$  E., on left bank near Bang Mun Nak Market, Amphoe Bang Mun Nak, Phichit.

Drainage Area: 32,791 sq.km. referred to AMS Map 1:50,000.

Type of Gage: Staff gage.

Zero Gage at Bottom at: + 20.00 m. (M.S.L.)

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

Location: Near the camp of gage observer.

Elevation: + 29.266 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: 1965 to date.

Rated by Float: -

Rated by Current Meter: 1965 to date.

Stability of Channel Regimes: Rather unstable, no shifting adjustment for flow computation for years without actual ratings.

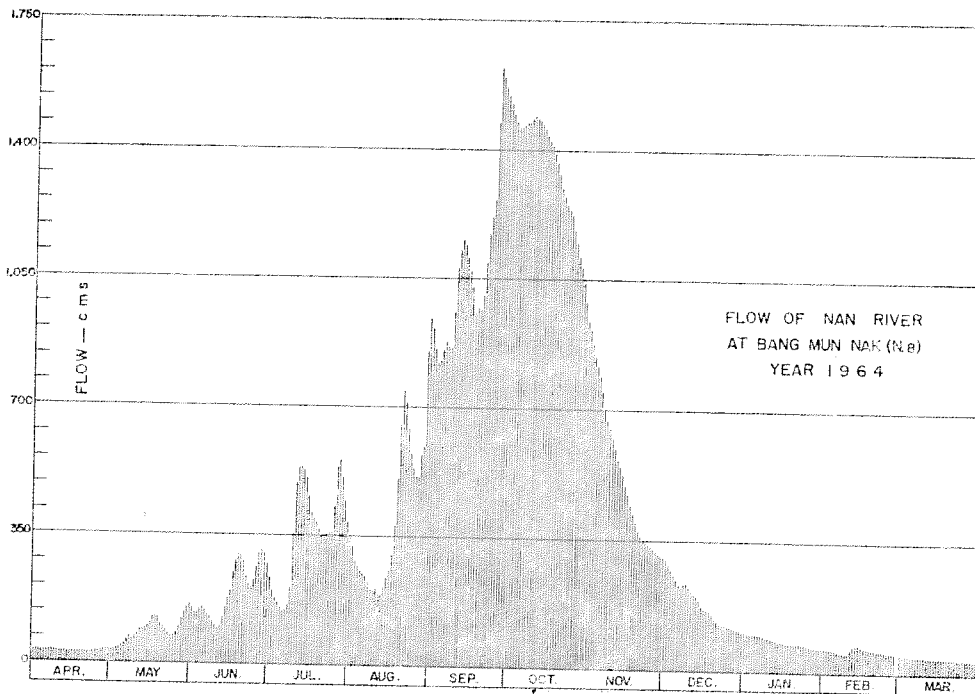
Overbank Flow Conditions: Overbank flow was observed but not included for flow computation.

General Description: Records fair. Stage - discharge - relationship used is defined by discharge measurements made during 1965. No diversions for irrigation above gage site.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	21.11	21.15	22.91	23.81	24.87	28.49	30.14	28.46	24.39	22.28	21.68	21.41
2	.10	.17	.75	.50	.63	.19	.10	.26	.28	.26	.67	.40
3	.09	.19	.75	.30	.36	27.99	.07	.11	.12	.25	.66	.39
4	.08	.26	.85	.13	.16	28.05	.07	27.96	23.99	.24	.65	.37
5	.07	.36	.95	22.97	.04	.21	.08	.80	.89	.25	.62	.36
6	21.06	21.46	22.85	22.81	23.97	28.30	30.09	27.57	23.78	22.24	21.60	21.34
7	.05	.71	.74	.84	.88	.25	.10	.30	.76	.21	.59	.31
8	.04	.82	.65	23.01	.70	.20	.12	.11	.80	.17	.58	.31
9	.03	.77	.48	.53	.50	.65	.13	26.99	.78	.13	.57	.30
10	.02	.81	.31	24.90	.48	29.13	.12	.86	.72	.10	.56	.28
11	21.01	22.00	22.22	25.97	23.53	29.32	30.11	26.68	23.62	22.08	21.67	21.27
12	.60	.11	.29	26.26	.40	.38	.09	.44	.54	.06	.81	.27
13	.00	.11	.55	.26	.33	.35	.06	.30	.45	.02	.85	.26
14	.00	.13	.88	.21	.56	.25	.03	.18	.34	21.99	.83	.25
15	.00	.24	23.27	.02	.81	.12	.01	25.98	.24	.96	.78	.24
16	21.00	22.37	23.45	25.69	24.05	28.96	29.97	25.78	23.14	21.93	21.74	21.24
17	.80	.52	.93	.40	.42	.83	.93	.59	.07	.90	.69	.24
18	.00	.55	24.27	.27	25.07	.73	.88	.40	.01	.90	.65	.22
19	20.99	.48	.41	.19	26.06	.69	.80	.22	22.94	.89	.62	.20
20	.99	.39	.42	24.99	27.04	.84	.74	.08	.85	.88	.60	.19
21	20.96	22.26	24.25	24.83	27.57	29.20	29.68	24.96	28.69	21.87	21.58	21.19
22	.98	.10	23.94	.86	.38	.44	.64	.86	.57	.87	.59	.19
23	21.00	21.96	.65	.91	26.94	.53	.60	.82	.52	.85	.57	.19
24	.03	.84	.55	.91	.54	.64	.55	.78	.53	.82	.54	.18
25	.06	.82	.72	.94	.24	30.13	.46	.72	.51	.79	.53	.17
26	21.09	21.98	24.11	25.55	26.09	30.39	29.36	24.66	22.48	21.75	21.50	21.16
27	.12	22.21	.43	26.28	.06	.33	.28	.59	.44	.73	.46	.15
28	.15	.58	.54	.38	.49	.28	.17	.52	.41	.72	.43	.14
29	.15	.76	.46	.06	27.30	.24	.00	.49	.37	.71	.13	.13
30	.15	.90	.19	25.60	28.19	.20	28.79	.46	.34	.70	.12	.12
31		23.02		.16	.60		.61		.32	.69		.11
Mean	21.04	22.03	23.39	24.86	25.23	29.11	29.77	26.06	23.19	21.97	21.63	21.24
Max.	21.15	23.02	24.54	26.38	28.60	30.39	30.14	28.46	24.39	22.28	21.85	21.41
Min.	20.98	21.15	22.22	22.81	23.33	27.99	28.61	24.46	22.32	21.69	21.43	21.11

WATER YEAR 1964 : Max. 30.39 m. Min. 20.98 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	35	35	152	235	352	917	1,496	910	297	103	63	48
2	33	36	138	204	323	656	1,476	859	285	101	62	46
3	33	37	137	185	294	819	1,461	841	267	100	62	47
4	32	41	147	170	272	830	1,461	814	253	100	61	46
5	32	46	155	157	258	860	1,466	785	243	100	59	46
6	31	51	147	143	251	877	1,471	744	232	100	58	45
7	31	65	136	146	242	867	1,476	698	230	98	57	43
8	31	71	130	160	224	858	1,488	668	234	95	57	43
9	30	68	117	207	204	953	1,491	648	232	92	56	43
10	30	71	105	355	282	1,075	1,486	628	226	90	56	42
11	29	83	98	494	207	1,133	1,481	599	216	89	62	41
12	29	91	103	536	194	1,195	1,471	563	208	87	71	41
13	29	91	122	536	188	1,144	1,456	542	199	84	73	41
14	29	92	149	528	210	1,110	1,441	524	189	82	72	41
15	29	100	177	501	235	1,077	1,431	495	180	80	69	40
16	29	109	199	455	259	1,028	1,411	467	171	78	66	40
17	29	120	247	416	300	995	1,391	441	165	76	63	40
18	29	122	284	400	376	972	1,366	416	160	76	61	39
19	29	117	299	390	506	963	1,328	394	154	75	59	38
20	29	110	300	366	656	998	1,300	377	147	75	58	37
21	28	101	281	347	744	1,095	1,274	363	134	74	57	37
22	28	90	248	351	712	1,177	1,257	351	124	74	57	37
23	29	80	219	357	640	1,212	1,230	346	120	73	56	37
24	30	72	209	357	578	1,257	1,220	341	121	71	55	37
25	31	71	226	360	533	1,491	1,185	334	119	69	54	36
26	33	82	246	455	511	1,621	1,148	327	117	67	53	36
27	34	98	301	539	506	1,591	1,120	319	114	66	51	35
28	35	125	313	554	570	1,566	1,086	311	112	65	49	35
29	35	139	305	506	698	1,546	1,058	304	109	65	49	35
30	35	151	275	442	854	1,526	986	308	107	64	49	34
31		161		387	942		944		105	63		33
Total	924	2,726	5,985	11,219	13,041	35,564	41,344	15,728	5,570	2,532	1,677	1,240
Mean	30.8	87.9	199	362	421	1,119	1,334	524	180	81.6	59.8	40.0
Max.	35	161	313	554	942	1,621	1,496	910	297	103	73	48
Min.	28	35	98	143	188	819	944	305	105	63	49	33
Runoff - m.c.m.	79.854	232.070	517.104	969.322	1,126.743	2,899.930	3,572.122	1,388.893	481.240	218.765	144.893	107.136

WATER YEAR 1964 : Max. 1,621 Min. 28 Mean 371 Annual Runoff 11,708.065 m.c.m.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sept. 25	18.00	30.43	1,641				

WATER YEAR 1963  
NAN RIVER BASIN

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

Location: Lat  $16^{\circ} - 13' - 03''$  N., Long  $100^{\circ} - 25' - 26''$  E., on right bank about 1 kilometer downstream of Wat Thao Prasat Tambon Huai Kat, Amphoe Taphan Hin, Phichit.

Drainage Area: 30,675 sq.km. referred to AMS. Map 1:50,000.

Type of Gage: Staff gage.

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

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

Location: Near the gage site.

Elevation: + 33.175 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 - 1959, 1962 to date.

Rating Operation:

Period of Rating: 1965 to date.

Rated by Float: -

Rated by Current Meter: 1965 to date.

Stability of Channel Regimes: Rather unstable, no shifting adjustment for flow computation for years without actual ratings.

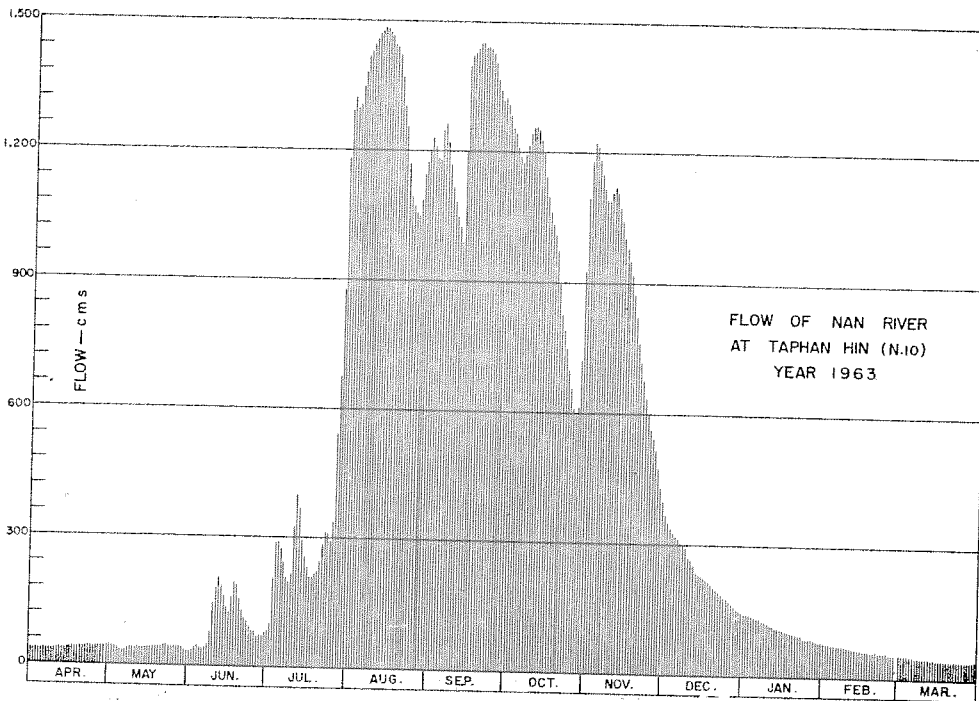
Overbank Flow Conditions: No overbank flow.

General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made during 1965. No diversions for irrigation above gage site.

**GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964**

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	23.45	23.66	23.41	24.18	32.20	31.68	31.91	31.54	26.81	24.90	24.15	23.76
2	.45	.65	.49	.41	.10	.58	.86	.75	.69	.89	.11	.75
3	.46	.64	.66	25.51	.09	.58	.68	.71	.59	.86	.10	.74
4	.46	.55	.67	26.21	.25	.87	.58	.55	.50	.84	.08	.73
5	.47	.46	.61	.24	.45	.96	.52	.39	.44	.80	.07	.72
6	23.48	23.47	23.54	26.09	32.55	31.76	31.60	31.21	26.40	24.77	24.07	23.71
7	.49	.50	.57	25.85	.63	.49	.70	.68	.35	.74	.06	.70
8	.49	.52	.71	.52	.69	.23	.84	.07	.34	.71	.04	.69
9	.50	.53	24.14	.44	.74	.04	.92	.17	.26	.68	.01	.68
10	.51	.54	.94	.54	.78	30.85	.93	.23	.09	.65	23.99	.67
11	23.51	23.55	25.30	26.49	32.82	30.73	31.91	31.18	26.01	24.61	23.99	23.66
12	.52	.55	.53	27.02	.85	.54	.83	.01	25.93	.60	.98	.65
13	.52	.56	.41	26.81	.84	31.59	.64	30.83	.82	.56	.96	.65
14	.53	.57	.14	.27	.81	32.49	.37	.61	.78	.52	.95	.64
15	.54	.58	24.82	25.97	.77	.59	.13	.51	.75	.51	.93	.63
16	23.55	23.59	24.71	25.76	32.71	32.62	30.92	30.33	25.69	24.47	23.91	23.62
17	.56	.60	25.08	.57	.67	.64	.78	.14	.65	.45	.89	.61
18	.56	.61	.44	.56	.57	.68	.66	29.89	.60	.42	.88	.60
19	.57	.61	.38	.62	.38	.69	.46	.63	.54	.41	.86	.59
20	.58	.63	.06	.70	.18	.67	.06	.29	.49	.38	.84	.58
21	23.59	23.64	24.82	25.90	31.91	32.65	29.64	29.02	25.45	24.35	23.87	23.57
22	.60	.65	.58	26.18	.48	.64	.45	28.79	.40	.33	.85	.57
23	.60	.66	.47	.42	.09	.60	.21	.54	.34	.30	.83	.56
24	.61	.65	.36	.38	30.98	.52	28.89	.32	.28	.27	.82	.55
25	.62	.62	.26	.25	.91	.38	.65	.12	.23	.25	.81	.55
26	23.62	23.61	24.14	26.57	30.84	32.28	28.37	27.96	25.18	24.23	23.80	23.54
27	.63	.62	.04	27.93	31.03	.18	.27	.81	.13	.21	.79	.54
28	.64	.62	.01	28.77	.37	.21	.38	.51	.07	.20	.78	.53
29	.65	.58	23.98	29.98	.52	.16	29.05	.22	.02	.19	.77	.53
30	.66	.52	24.12	31.52	.66	.06	30.21	.00	24.98	.18	.52	.52
31		.44		32.07	.79		31.09		.94	.16		.51
Mean	23.55	23.58	24.41	26.57	32.12	32.00	30.63	29.91	25.76	24.50	23.94	23.62
Max.	23.66	23.66	25.53	32.07	32.85	32.69	31.93	31.75	26.81	24.90	24.15	23.76
Min.	23.45	23.44	23.41	24.18	30.84	30.54	28.27	27.00	24.94	24.16	23.77	23.51

WATER YEAR 1963 : Max. 32.85 m. Min. 23.41 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	33	46	31	82	1,322	1,208	1,254	1,180	369	143	80	52
2	33	45	35	101	1,297	1,188	1,244	1,222	353	142	77	51
3	34	44	46	204	1,294	1,188	1,208	1,214	339	139	76	51
4	34	39	46	287	1,337	1,246	1,188	1,182	326	138	75	50
5	34	34	45	291	1,379	1,264	1,176	1,150	318	134	74	49
6	35	34	38	272	1,414	1,224	1,192	1,116	312	131	74	49
7	35	36	40	242	1,429	1,170	1,212	1,091	305	129	73	48
8	35	37	49	205	1,444	1,120	1,240	1,089	304	126	72	47
9	36	38	79	196	1,457	1,084	1,256	1,108	294	123	70	47
10	37	38	147	207	1,467	1,047	1,258	1,120	272	120	68	46
11	37	39	182	325	1,477	1,025	1,254	1,110	261	117	68	46
12	37	39	206	399	1,484	989	1,238	1,078	252	116	68	45
13	37	40	193	369	1,482	1,190	1,200	1,044	238	113	66	45
14	38	40	166	295	1,474	1,394	1,146	1,002	234	110	65	44
15	38	41	136	256	1,464	1,419	1,101	983	228	109	64	44
16	39	41	126	232	1,449	1,427	1,061	949	224	106	63	43
17	40	42	160	211	1,439	1,437	1,034	914	219	104	61	43
18	40	43	196	210	1,414	1,447	1,011	869	214	102	61	42
19	40	43	190	216	1,367	1,449	973	822	207	101	59	41
20	41	44	158	225	1,317	1,444	900	762	202	98	58	41
21	41	44	136	248	1,254	1,439	824	716	197	96	60	40
22	42	45	114	285	1,168	1,437	790	677	192	94	58	40
23	42	46	106	315	1,093	1,427	749	636	186	92	57	40
24	43	45	97	309	1,072	1,402	694	601	180	90	56	39
25	43	43	89	292	1,059	1,367	654	569	175	88	56	39
26	43	43	79	336	1,046	1,342	609	544	170	86	55	38
27	44	43	72	539	1,082	1,317	593	520	165	85	54	38
28	44	43	70	674	1,146	1,324	611	472	159	84	54	38
29	45	41	68	885	1,176	1,312	721	429	154	83	53	38
30	46	37	78	1,176	1,204	1,287	927	396	150	82	53	37
31		33		1,289	1,230		1,093		146	81		37
Total	1,166	1,266	3,176	11,171	40,737	38,614	31,411	26,565	7,345	3,362	1,875	1,348
Mean	38.8	40.8	106	360	1,314	1,287	1,013	885	237	108	64.6	43.4
Max.	46	46	206	1,289	1,484	1,449	1,258	1,222	369	143	80	52
Min.	33	33	31	82	1,046	989	593	396	146	81	53	37
Runoff - mcm.	100.742	109.382	274.406	965.174	3,519.677	3,336.250	2,713.910	2,295.216	634.608	209.477	162.000	116.467

WATER YEAR 1963 : Max. 1,484 Min. 31 Mean 459 Annual Runoff 14,518.310mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Aug. 12	18.00	32.86	1,510				

WATER YEAR 1964  
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 about 1 kilometer downstream of Wat Thao Prasat, Tambon Huai Ket, Amphoe Taphan Hin, Phichit.

Drainage Area: 30,673 sq.km. referred to AMS Map 1:50,000.

Type of Gage: Staff gage.

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

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

Location: Near the gage site.

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 - 1959, 1962 to date.

Rating Operation:

Period of Rating: 1965 to date.

Rated by Float: -

Rated by Current Meter: 1965 to date.

Stability of Channel Regimes: Rather unstable, no shifting adjustment for flow computation for years without actual ratings.

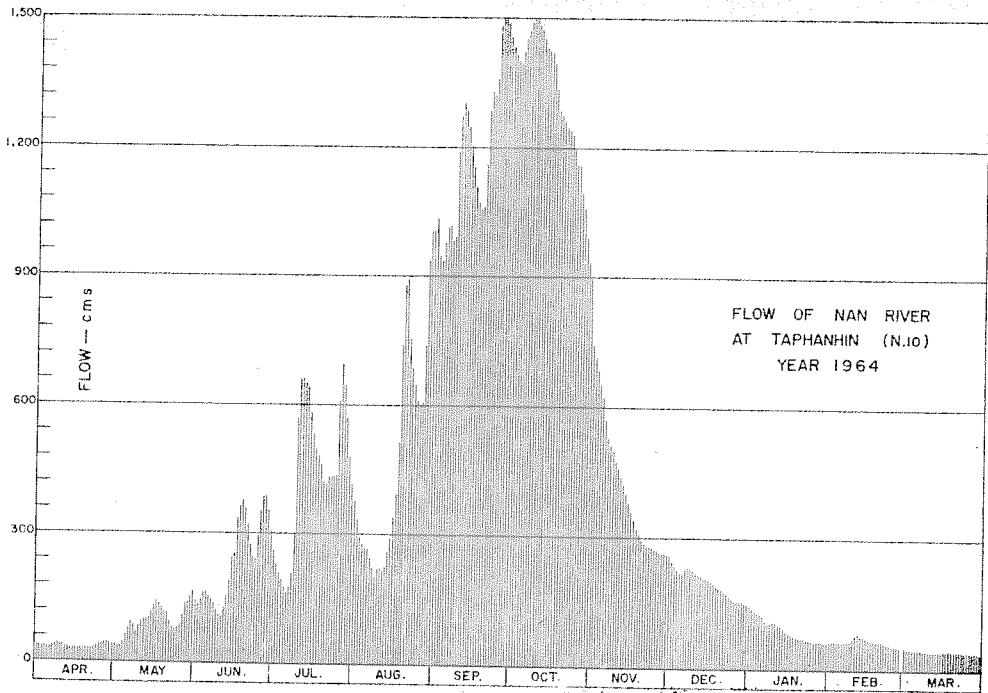
Overbank Flow Conditions: No overbank flow.

General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made during 1965. No diversions for irrigation above gage site.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	23.50	23.55	24.90	25.99	26.81	30.77	32.58	29.78	26.15	24.92	23.90	23.71
2	.49	.52	.82	.71	.58	.31	.51	.58	.03	.87	.92	.69
3	.49	.52	.93	.55	.26	.25	.50	.43	25.91	.79	.91	.68
4	.48	.65	25.14	.40	.14	.47	.59	.25	.83	.74	.90	.65
5	.47	.88	.12	.22	.06	.65	.72	.05	.77	.69	.89	.63
6	23.47	24.12	25.03	25.12	26.06	30.69	32.79	28.72	25.73	24.66	23.87	23.62
7	.48	.29	24.94	.25	25.89	.49	.86	.44	.84	.62	.89	.61
8	.53	.21	.82	.46	.68	.56	.89	.31	.87	.60	.90	.60
9	.56	.05	.65	26.35	.47	31.56	.89	.24	.86	.55	.95	.60
10	.55	.24	.51	28.15	.66	32.01	.85	.08	.82	.50	24.03	.59
11	23.51	24.35	24.50	28.68	25.68	32.13	32.80	27.91	25.77	24.45	24.09	23.59
12	.47	.39	.72	.69	.58	.07	.72	.78	.72	.41	.16	.58
13	.44	.40	25.02	.62	.68	31.87	.63	.59	.68	.38	.12	.58
14	.42	.46	.39	.55	26.00	.66	.61	.45	.65	.30	.08	.57
15	.41	.61	.85	.12	.25	.40	.58	.28	.61	.23	.04	.57
16	23.40	24.77	25.96	27.89	26.47	31.16	32.49	27.08	25.59	24.17	23.99	23.59
17	.39	.90	26.52	.62	.97	30.97	.35	26.92	.55	.12	.94	.60
18	.38	.82	.75	.58	27.76	.89	.15	.74	.50	.09	.92	.61
19	.38	.71	.84	.45	28.96	.89	.01	.62	.45	.05	.90	.60
20	.37	.58	.75	.16	29.93	31.43	31.94	.53	.38	.04	.89	.59
21	23.36	24.46	26.47	27.12	30.02	32.05	31.87	26.41	25.34	24.02	23.88	23.58
22	.39	.30	.10	.24	29.52	.22	.84	.37	.30	.00	.87	.57
23	.47	.15	25.85	.25	.01	.19	.79	.36	.25	23.98	.85	.55
24	.52	.08	.84	.25	28.61	.32	.63	.34	.19	.95	.82	.53
25	.57	.14	26.22	.32	.39	.84	.44	.29	.11	.94	.78	.52
26	23.56	24.26	26.67	28.33	28.33	32.90	31.30	26.27	25.06	23.91	23.76	23.51
27	.61	.55	.92	.87	.35	.91	.11	.20	.05	.90	.75	.51
28	.66	.84	.94	.60	29.19	.85	30.92	.19	.05	.89	.73	.54
29	.60	.89	.72	.00	30.26	.74	.56	.23	.01	.88	-	.54
30	.56	25.04	.31	27.54	31.15	.65	.26	.20	24.99	.86	-	.51
31	-	.15	-	.14	.16	-	.04	-	.96	.87	-	.48
Mean	23.48	24.38	25.80	27.28	27.54	30.66	32.13	27.11	25.45	24.28	23.92	23.59
Max.	23.66	25.15	26.94	28.87	31.16	32.91	32.89	29.78	26.15	24.92	24.16	23.71
Min.	23.36	23.52	24.50	25.12	25.47	30.25	30.04	26.19	24.96	23.86	23.73	23.48

WATER YEAR 1964 : Max. 32.91 m. Min. 23.36 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	36	39	143	259	369	1,032	1,417	739	258	143	62	49
2	35	37	136	226	337	945	1,399	705	246	138	63	47
3	35	37	146	208	294	934	1,397	679	234	131	63	47
4	35	45	166	192	278	975	1,419	650	226	127	62	45
5	34	61	164	174	268	1,009	1,452	618	220	123	61	44
6	34	78	155	164	268	1,017	1,469	568	216	121	60	43
7	35	91	147	177	247	979	1,487	528	227	118	61	43
8	38	85	136	199	223	992	1,494	510	230	116	62	42
9	40	72	120	305	200	1,184	1,494	501	229	112	65	42
10	39	87	109	574	221	1,274	1,484	474	225	108	71	41
11	37	96	108	659	223	1,304	1,472	456	220	104	75	41
12	34	99	127	660	212	1,289	1,452	439	215	101	81	41
13	33	100	154	649	223	1,246	1,429	416	211	98	78	41
14	32	105	191	638	260	1,204	1,424	399	208	92	75	40
15	31	117	242	569	292	1,152	1,419	379	205	86	72	40
16	31	131	255	532	322	1,106	1,394	357	203	82	68	41
17	30	143	329	489	392	1,070	1,334	339	199	78	65	42
18	30	136	361	483	512	1,055	1,284	319	195	75	63	43
19	30	126	374	463	706	1,055	1,274	307	190	72	62	42
20	29	114	361	420	876	1,158	1,260	297	184	72	61	41
21	29	105	322	414	893	1,284	1,246	284	181	70	61	41
22	30	92	273	432	803	1,327	1,240	280	177	69	60	40
23	34	80	242	433	713	1,319	1,230	279	172	68	58	39
24	37	75	241	433	648	1,352	1,198	277	167	65	56	38
25	40	79	289	444	612	1,482	1,160	272	160	65	54	37
26	40	89	350	603	603	1,497	1,160	270	155	63	52	37
27	43	112	385	691	606	1,499	1,097	263	154	62	51	37
28	46	138	388	646	745	1,489	1,061	262	154	61	50	38
29	42	142	357	550	936	1,457	992	266	151	61	-	38
30	40	156	300	477	1,104	1,434	936	263	149	59	-	37
31	-	167	-	417	1,106	-	896	-	146	60	-	35
Total	1,059	3,034	7,071	13,580	15,492	36,120	40,470	12,396	6,107	2,800	1,772	1,272
Mean	35.3	97.8	236	438	500	1,204	1,305	413	197	90.3	63.2	41.0
Max.	46	167	388	691	1,106	1,499	1,494	739	258	143	81	49
Min.	29	37	108	164	200	934	896	262	146	59	50	35
Runoff - mcm.	91.498	262.138	610.934	1,173.312	1,338.509	3,120.768	3,496.608	1,071.014	527.645	241.920	153.101	109.901

WATER YEAR 1964 : Max. 1,499 Min. 29 Mean 387 Annual Runoff 12,197.347 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sept.27	06.00	32.91	1,520				

WATER YEAR 1963  
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 in front of Wat Phranet, Tambol Ban San, Amphos Sa, Nan

Drainage Area: 8,993 sq.km. referred to AMS Map 1:50,000.

Type of Gage: Water - stage recorder.

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

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

Location: On top of a nail near gage site 4.5 kilometers from B.M. - H.S./R.I.D. No.2  
Elevation: + 186.63 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: 1959 to date.

Rating Operation:

Period of Rating: 1959 to date.

Rated by Float: -

Rated by Current Meter: 1959 to date.

Stability of Channel Regimes: Stable, shifting adjustment not included for flow computation due to its stability.

Overbank Flow Conditions: No overbank flow.

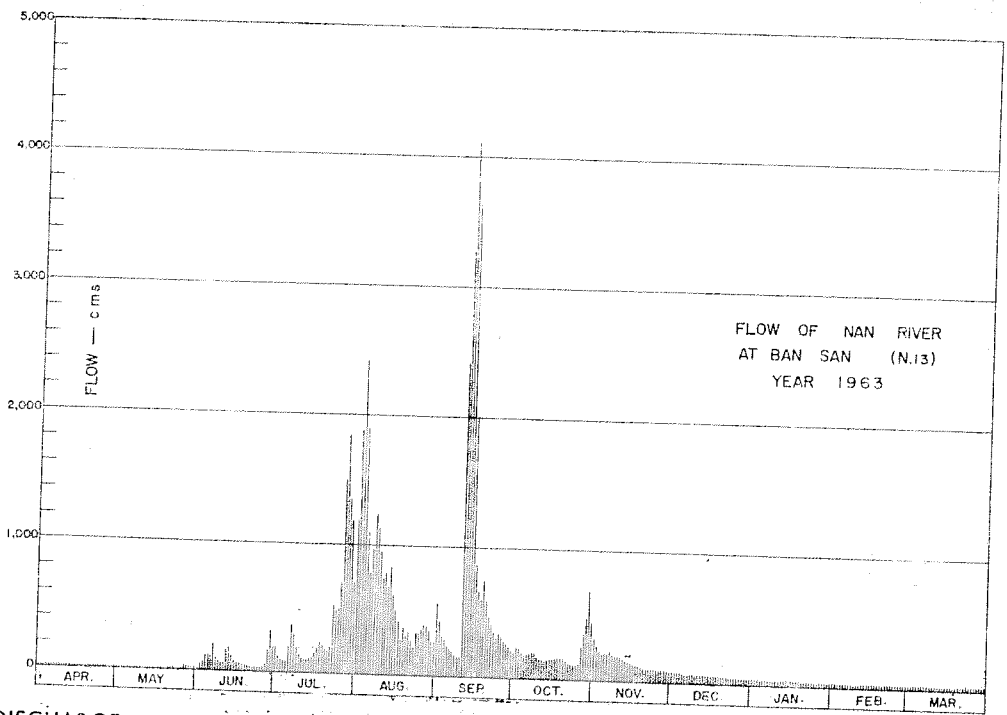
General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1963. No diversions for irrigation above gage site.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	176.90	176.85	176.95	178.46	182.29	180.19	178.40	179.10	177.60	177.27	177.13	177.03
2	.90	.85	177.07	.09	185.24	179.55	.61	178.77	.58	.27	.13	.03
3	.89	.85	.09	177.77	.25	.02	.60	.56	.55	.26	.11	.02
4	.89	.85	.91	.66	184.05	178.89	.42	.39	.53	.26	.11	.02
5	.89	.86	.97	.61	181.86	.64	.31	.47	.52	.25	.11	.02
6	176.89	176.88	177.81	178.31	180.98	178.49	178.30	178.45	177.51	177.25	177.10	177.01
7	.89	.88	178.47	179.32	181.27	.31	.34	.52	.53	.25	.10	.01
8	177.03	.88	177.83	178.96	182.36	.19	.45	.38	.54	.25	.10	.01
9	176.95	.88	.55	.38	.05	.12	.37	.32	.50	.25	.10	.01
10	.91	.87	.44	.11	181.55	.10	.24	.21	.48	.25	.10	.01
11	176.90	176.87	177.44	177.86	180.87	185.53	178.11	178.35	177.47	177.24	177.10	177.01
12	.90	.86	178.19	.75	181.00	186.99	.06	.24	.45	.24	.10	.00
13	.90	.85	.30	.72	180.61	188.61	.01	.14	.45	.23	.09	.00
14	.89	.84	177.89	.77	181.16	187.70	.06	.08	.45	.23	.08	.00
15	.89	.82	.58	.84	180.35	184.07	.11	.02	.44	.23	.08	.00
16	176.88	176.82	177.41	178.12	179.88	181.26	178.08	178.05	177.43	177.23	177.08	177.00
17	.88	.81	.44	.23	.56	180.59	.06	177.97	.40	.22	.07	.00
18	.87	.81	.40	.64	178.79	.26	.15	.89	.40	.22	.07	.00
19	.87	.81	.33	.48	179.24	.82	.15	.85	.38	.21	.07	.00
20	.93	.82	.28	.32	178.95	.26	.15	.80	.38	.20	.07	.00
21	176.91	176.83	177.20	178.17	179.10	179.69	178.06	177.75	177.36	177.19	177.06	176.99
22	.91	.92	.15	.38	178.72	.45	177.93	.73	.35	.19	.06	.99
23	.90	.95	.12	180.06	.47	.13	.86	.72	.33	.18	.04	.98
24	.90	177.02	.20	179.83	179.16	178.95	.83	.72	.33	.18	.04	.98
25	.89	176.94	.18	.32	.02	179.15	.81	.71	.33	.17	.04	.98
26	176.89	176.87	177.35	180.66	179.24	179.09	177.81	177.67	177.33	177.17	177.04	176.97
27	.89	177.21	.33	183.04	.43	178.88	178.68	.65	.33	.14	.03	.96
28	.89	.11	178.22	.94	.41	.74	179.35	.63	.32	.14	.03	.96
29	.85	.04	179.04	182.60	.08	.60	.78	.62	.31	.14	.03	.96
30	.85	.02	178.31	.15	178.76	.48	180.65	.61	.29	.13	-	.96
31	-	176.94	-	180.36	.74	-	179.58	-	.28	.13	-	177.00
Mean	176.89	176.90	177.61	179.09	180.53	180.46	178.38	178.08	177.42	177.22	177.07	177.02
Max.	177.03	177.21	179.04	183.94	185.25	188.61	180.65	179.10	177.60	177.27	177.13	177.03
Min.	176.85	176.81	176.95	177.61	178.47	178.10	177.81	177.61	177.28	177.13	177.03	176.96

WATER YEAR 1963 : Max. 188.61 m. Min. 176.81 m.





DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	19	17	22	215	1,219	575	205	334	89	47	34	26
2	19	17	30	154	2,415	430	242	271	86	47	34	26
3	19	17	30	111	2,420	313	240	233	83	46	33	26
4	19	17	129	97	1,896	292	208	203	80	46	33	26
5	19	17	137	90	1,069	247	190	217	79	45	33	25
6	19	18	116	190	785	220	188	214	77	45	32	25
7	19	18	217	380	872	190	195	226	80	45	32	25
8	26	18	119	306	1,245	170	213	202	81	45	32	25
9	22	18	82	202	1,135	159	200	191	76	45	32	25
10	20	18	68	157	962	156	178	173	73	45	32	25
11	19	18	68	123	754	2,581	157	197	72	44	32	25
12	19	17	170	108	791	3,285	150	178	70	44	32	24
13	19	17	183	105	682	4,120	142	162	70	43	31	24
14	19	16	127	111	838	3,652	150	153	70	43	31	24
15	19	15	86	120	612	1,904	157	144	68	43	30	24
16	18	15	64	159	503	869	153	149	67	43	30	24
17	18	15	68	176	432	676	150	137	63	42	30	24
18	18	15	63	247	274	591	163	127	63	42	30	24
19	18	15	54	219	363	741	163	122	60	41	30	24
20	21	15	48	191	304	591	163	115	60	40	30	24
21	20	16	40	166	334	461	150	109	58	39	29	24
22	20	20	36	202	262	408	132	106	57	39	29	24
23	19	22	34	545	217	340	123	105	54	38	27	23
24	19	26	40	492	347	304	119	105	54	38	27	23
25	19	21	38	380	318	345	116	103	54	38	27	23
26	19	18	57	696	363	332	116	98	54	38	27	23
27	19	41	54	1,502	404	290	254	96	54	35	26	22
28	19	33	174	1,853	399	265	386	93	53	35	26	22
29	17	27	322	1,333	330	240	481	92	51	35	26	22
30	17	26	190	1,170	269	219	693	90	49	34	26	22
31	-	21	-	615	265	-	437	-	48	34	-	24
Total	577	604	2,872	12,415	23,079	24,971	6,614	4,745	2,053	1,284	877	747
Mean	19.2	19.5	95.7	409	744	832	213	158	66.2	41.4	30.3	24.1
Max.	26	41	322	1,853	2,420	4,120	693	334	89	47	34	26
Min.	17	15	22	90	217	156	116	90	48	34	26	22
Runoff - mcm.	49.853	52.186	248.141	1,072.656	1,994.026	2,157.494	571.450	409.968	177.379	110.938	75.773	64.541

WATER YEAR 1963 : Max. 4,120 Min. 15 Mean 221 Annual Runoff 6,985.959 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sept. 13	15.00	189.00	4,200				

WATER YEAR 1964  
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 in front of Wat Phranet, Tambol Ban San, Amphoe Sa, Nan.

Drainage Area: 8,993 sq.km. referred to AMS Map 1:50,000.

Type of Gage: Water - stage recorder.

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

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

Location: On top of a nail near gage site 4.5 kilometers from B.M. - H.S./R.I.D. No.2

Elevation: + 186.63 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: 1959 to date.

Rating Operation:

Period of Rating: 1959 to date.

Rated by Float: -

Rated by Current Meter: 1959 to date.

Stability of Channel Regimes: Stable, shifting adjustment not included for flow computation due to its stability.

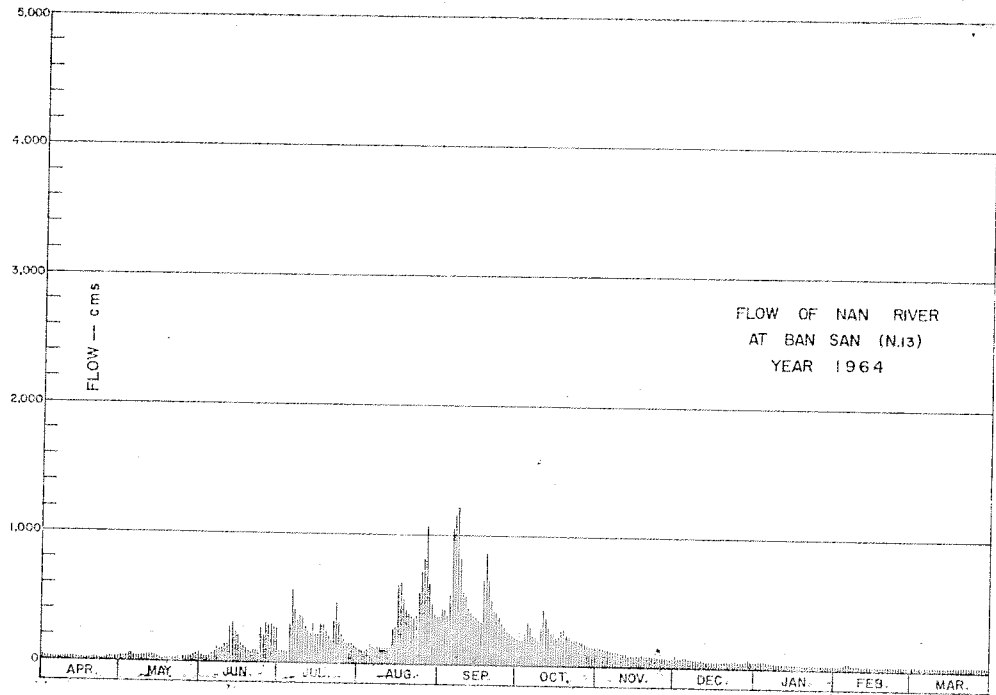
Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1964. No diversions for irrigation above gage site.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	177.18	177.17	177.39	177.52	177.70	179.16	178.20	177.95	177.57	177.24	177.09	177.01
2	.07	.10	.28	.49	.66	.44	.13	.91	.38	.23	.09	.01
3	.07	.05	.24	.56	.62	.40	.15	.85	.38	.22	.08	.01
4	.07	.32	.28	.49	.63	.16	.46	.81	.39	.21	.15	.01
5	.06	.34	.32	178.77	.97	.94	.96	.76	.39	.20	.26	.00
6	177.02	177.22	177.48	180.09	177.82	181.99	178.72	177.73	177.36	177.20	177.23	177.00
7	.02	.20	.79	179.32	.74	182.35	.43	.70	.35	.19	.15	176.99
8	.02	.18	.62	178.90	.75	.56	.39	.72	.34	.18	.14	.99
9	.02	.17	.58	179.14	.76	181.86	.18	.68	.33	.18	.13	.99
10	.02	.23	.85	.10	.83	180.03	.60	.64	.32	.17	.13	.99
11	177.03	177.26	177.84	178.71	177.79	179.94	179.45	177.62	177.31	177.16	177.12	176.99
12	.04	.27	178.61	.48	.74	.46	.14	.61	.30	.16	.10	.99
13	.08	.29	.94	.43	.77	.32	178.72	.58	.30	.15	.08	.98
14	.02	.25	.48	.85	178.56	.15	.49	.56	.30	.15	.07	.97
15	176.99	.17	.40	.41	.69	.11	.45	.55	.28	.14	.06	.96
16	176.99	177.13	177.95	178.34	180.29	179.06	178.38	177.53	177.27	177.14	177.06	177.00
17	.98	.10	.83	.78	.40	178.87	.35	.51	.27	.14	.06	.02
18	.97	.10	.72	.80	179.83	180.40	.62	.50	.25	.13	.07	.04
19	.98	.14	.58	.55	.37	181.32	.74	.49	.25	.13	.06	.02
20	.99	.12	.57	.25	.21	180.33	.39	.50	.26	.12	.05	.01
21	176.99	177.12	177.60	178.10	179.11	179.79	178.37	177.49	177.26	177.12	177.05	177.01
22	.97	.12	178.22	.98	.10	.37	.22	.47	.26	.12	.05	.00
23	.95	.14	.29	179.66	.06	.33	.15	.46	.26	.12	.04	.00
24	.94	.19	.60	178.90	.80	.15	.26	.45	.26	.12	.04	176.99
25	.98	.17	.14	.42	180.66	178.87	.18	.44	.26	.11	.03	.98
26	177.06	177.16	177.83	178.20	181.09	178.69	178.16	177.42	177.26	177.11	177.02	176.99
27	.09	.18	.72	.06	182.06	.56	.07	.40	.26	.11	.02	.99
28	.07	.22	.79	.04	180.36	.51	177.98	.40	.31	.10	.02	.99
29	.05	.32	.69	.00	179.62	.38	.95	.40	.36	.10	-	.99
30	.12	.44	.60	177.88	.28	.29	.93	.39	.30	.10	-	.99
31	-	.47	-	.77	.15	-	.92	-	.26	.10	-	.99
Mean	177.03	177.20	177.85	178.48	178.91	179.73	178.39	177.58	177.31	177.15	177.09	176.99
Max.	177.18	177.47	178.94	180.09	182.06	182.56	179.45	177.93	177.57	177.24	177.26	177.04
Min.	176.94	177.05	177.24	177.49	177.62	178.29	177.92	177.39	177.26	177.10	177.02	176.96

WATER YEAR 1964 : Max. 182.06 m. Min. 176.94 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	44	43	71	89	118	372	198	155	97	51	34	25
2	32	35	56	85	112	430	187	152	69	50	34	25
3	32	29	51	96	105	422	196	142	69	48	33	25
4	32	61	56	85	107	372	244	136	71	47	39	25
5	31	64	61	300	161	537	334	128	71	46	53	24
6	26	48	83	570	137	1,352	291	123	66	46	50	24
7	26	46	132	405	124	1,156	238	113	65	45	40	23
8	26	44	105	323	126	1,217	231	121	64	44	39	23
9	26	43	99	368	128	1,016	195	115	62	44	38	23
10	26	50	142	360	139	557	269	103	61	43	38	23
11	27	53	140	289	132	537	432	105	59	42	37	23
12	28	54	271	247	124	435	368	104	58	42	35	23
13	33	57	330	239	129	405	291	99	58	40	32	22
14	26	52	247	314	262	370	249	96	58	40	33	21
15	23	43	233	235	285	362	242	94	56	39	31	20
16	23	38	158	222	614	352	229	91	54	39	31	24
17	22	35	139	301	639	318	224	88	54	39	31	26
18	21	35	121	305	513	639	273	86	53	38	32	28
19	22	39	99	260	416	870	294	85	53	38	31	26
20	23	37	97	206	382	623	231	86	53	37	29	25
21	23	37	102	182	369	504	228	85	53	37	29	25
22	21	37	201	337	360	416	201	82	53	37	29	24
23	19	39	213	477	352	407	190	80	53	37	28	24
24	19	45	269	323	506	370	208	79	53	37	28	23
25	22	43	188	237	701	318	195	78	53	36	27	22
26	31	42	310	198	810	285	192	75	53	36	26	23
27	34	44	291	176	1,072	262	177	72	53	36	26	23
28	32	48	303	172	630	253	163	72	66	35	26	23
29	29	61	285	166	468	229	158	72	66	35	26	23
30	37	78	269	147	397	213	155	71	58	35	-	23
31	-	82	-	129	370	-	155	-	53	35	-	23
Total	816	1,462	5,122	7,842	10,781	15,297	7,230	2,998	1,858	1,254	939	757
Mean	27	47	171	253	343	516	234	109	60	40	33	24
Max.	44	82	330	570	1,072	1,217	432	155	97	51	51	28
Min.	19	29	51	85	105	213	153	71	53	35	26	20
Runoff - cc.	70.502	126.317	442.541	677.549	931.478	1,321.834	624.672	259.027	160.531	103.346	81.130	65.405

WATER YEAR 1963 : Max. 1,217 Min. 19 Mean 154 Annual Runoff 4,864,332 ccm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sept. 8	18.00	183.69	1,555				

WATER YEAR 1963  
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 in front of the previous site of Amphoe Chum Saeng Office, Tambol Phikul, Nakhon Sawan.

Drainage Area: 33,110 sq.km. referred to AMS Map 1:50,000.

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 Chumsaeng Distric Office.  
Elevation: + 27.588 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 to date.

Rated by float: -

Rated by Current Meter: 1965 to date.

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

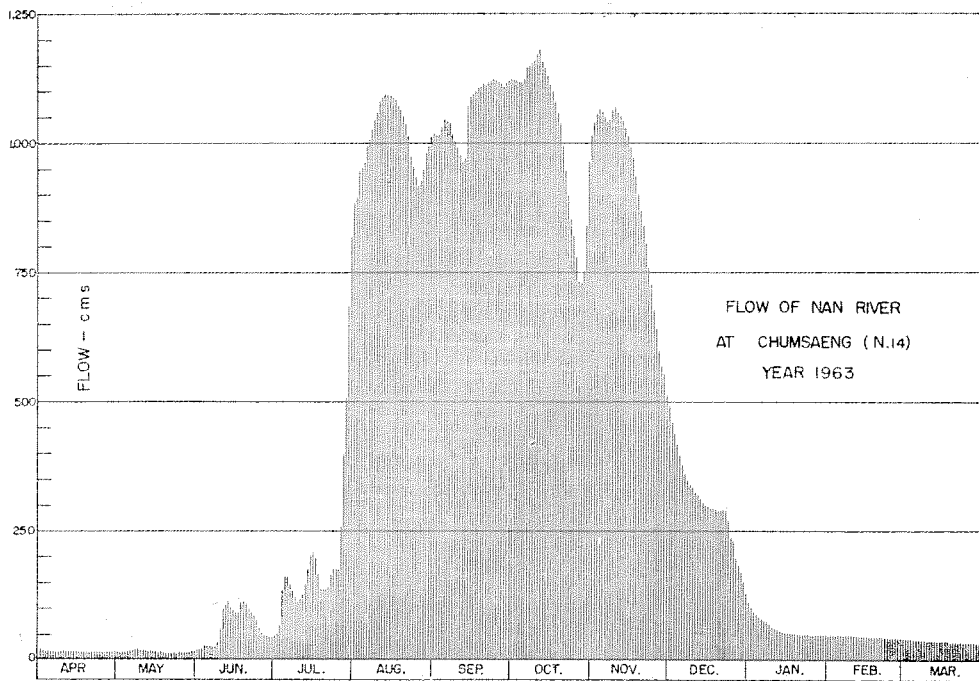
Overbank flow Conditions: Overbank flow is observed but not included for flow computation.

General Description: Gage height record good, discharge record fair. Stage - discharge relationship used is defined by discharge measurements made during 1965. No diversions for irrigation above gage site.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	18.62	18.53	18.67	19.44	25.98	26.55	26.95	26.54	23.93	20.61	19.44	19.27
2	.60	.52	.70	.53	26.03	.54	.95	.64	.74	.48	.43	.25
3	.60	.52	.81	.83	.26	.54	.94	.70	.61	.32	.43	.23
4	.57	.53	.92	20.93	.28	.60	.93	.73	.46	.25	.42	.22
5	.56	.56	.94	21.28	.33	.66	.93	.71	.31	.14	.42	.20
6	18.56	18.61	18.88	21.26	26.45	26.65	26.95	26.68	23.18	20.09	19.41	19.20
7	.55	.65	.85	.09	.52	.63	27.02	.64	.06	.03	.41	.19
8	.55	.70	.87	20.90	.59	.55	.04	.65	22.98	19.98	.40	.18
9	.55	.69	19.04	.76	.67	.50	.06	.73	.91	.90	.40	.17
10	.56	.62	.72	.60	.71	.44	.08	.75	.88	.79	.40	.16
11	18.56	18.60	20.42	20.73	26.79	26.38	27.12	26.71	22.80	19.70	19.39	19.16
12	.56	.59	.57	.83	.83	.33	.15	.69	.75	.69	.39	.15
13	.56	.58	.65	21.07	.85	.36	.07	.65	.68	.63	.38	.14
14	.55	.57	.48	.45	.84	.76	.03	.60	.63	.58	.38	.13
15	.55	.54	.37	.72	.83	.83	26.98	.54	.59	.53	.38	.13
16	18.55	18.52	20.31	21.77	26.82	26.85	26.92	26.45	22.57	19.52	19.37	19.12
17	.54	.51	.28	.64	.80	.87	.86	.36	.53	.50	.36	.12
18	.53	.50	.60	.33	.77	.89	.80	.21	.52	.50	.36	.11
19	.53	.46	.65	20.96	.74	.90	.72	.06	.52	.49	.35	.10
20	.53	.42	.54	.96	.70	.92	.63	25.92	.50	.49	.34	.09
21	18.53	18.44	20.40	20.98	26.63	26.91	26.45	25.79	22.50	19.48	19.34	19.08
22	.54	.43	.32	21.02	.54	.92	.25	.63	.50	.48	.33	.08
23	.54	.41	.20	.32	.38	.93	.05	.40	.49	.47	.32	.08
24	.55	.40	.03	.45	.30	.95	25.85	.25	.34	.47	.31	.07
25	.55	.43	19.72	.41	.21	.94	.70	.00	.05	.46	.31	.07
26	18.54	18.47	19.58	21.43	26.14	26.93	25.52	24.81	21.84	19.46	19.30	19.07
27	.54	.47	.46	22.25	.17	.92	.27	.58	.65	.46	.29	.07
28	.53	.50	.40	23.32	.27	.90	.25	.40	.48	.46	.28	.06
29	.53	.50	.37	24.03	.40	.92	.37	.33	.36	.45	.28	.06
30	.53	.56	.34	25.04	.46	.94	.79	.07	.12	.45	.28	.06
31		.56		.68	.53		26.33		20.86	.45		.06
Mean	18.55	18.53	19.74	21.50	26.51	26.73	26.55	26.01	22.72	19.72	19.37	19.13
Max.	18.62	18.70	20.65	25.68	26.85	26.95	27.15	26.75	23.93	20.61	19.44	19.27
Min.	18.53	18.40	18.67	19.44	25.98	26.33	25.25	24.07	20.86	19.45	19.28	19.06

WATER YEAR 1963 : Max. 27.15 m. Min. 18.42 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	20	17	21	49	882	1,016	1,122	1,014	489	112	49	42
2	19	17	22	52	893	1,014	1,122	1,038	458	103	48	41
3	19	17	25	66	946	1,014	1,119	1,054	438	93	48	40
4	18	17	29	134	951	1,028	1,116	1,062	416	89	48	40
5	18	18	29	162	963	1,044	1,116	1,057	395	82	48	39
6	18	19	27	161	992	1,041	1,122	1,049	377	79	47	39
7	17	20	26	147	1,009	1,056	1,142	1,038	360	76	47	39
8	17	22	27	132	1,026	1,016	1,147	1,041	349	74	47	38
9	17	22	33	122	1,046	1,004	1,153	1,062	339	70	47	38
10	18	20	61	111	1,057	990	1,158	1,067	335	64	47	37
11	18	19	99	120	1,077	975	1,170	1,057	324	60	47	37
12	18	19	109	127	1,088	963	1,178	1,051	318	59	47	37
13	18	18	114	146	1,094	970	1,156	1,041	310	56	46	37
14	17	18	103	177	1,091	1,070	1,144	1,028	304	54	46	36
15	17	17	96	203	1,088	1,088	1,130	1,014	299	52	46	36
16	17	17	93	208	1,086	1,094	1,114	992	296	52	46	36
17	17	16	91	195	1,080	1,100	1,097	970	292	51	45	36
18	17	16	111	167	1,072	1,105	1,080	934	290	51	45	35
19	17	15	114	137	1,064	1,108	1,059	900	290	51	45	35
20	17	14	107	137	1,054	1,114	1,036	868	288	51	45	35
21	17	15	98	138	1,036	1,111	992	840	288	50	45	34
22	17	15	93	142	1,014	1,114	944	805	288	50	44	34
23	17	14	86	166	975	1,116	897	756	287	50	44	34
24	17	14	76	177	956	1,122	853	726	269	50	43	34
25	17	15	61	174	934	1,119	820	676	236	49	43	34
26	17	15	54	176	918	1,116	780	640	330	49	43	34
27	17	15	49	258	925	1,114	730	598	196	49	43	34
28	17	16	47	397	949	1,108	726	566	182	49	42	33
29	17	16	46	505	980	1,114	750	553	169	49	42	33
30	17	18	45	684	994	1,119	840	511	150	49	42	33
31	17	18		816	1,011		963		129	49		33
Total	524	529	1,992	6,386	31,251	31,943	31,776	27,008	9,199	1,922	1,323	1,123
Mean	17.4	17.0	66.4	206	1,008	1,065	1,025	900	297	62.0	45.6	36.2
Max.	20	22	114	816	1,094	1,122	1,178	1,067	489	112	49	42
Min.	17	14	21	49	882	963	726	511	129	49	42	33
Runoff - mcm.	45.274	45.706	172.109	551.750	2,760.086	2,759.875	2,745.446	2,333.491	794.794	166.061	114.307	97.027

WATER YEAR 1963 : Max. 1,178 Min. 14 Mean 396 Annual Runoff 12,525.926 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 11	06.00	27.15	1,178				

WATER YEAR 1964  
NAN RIVER BASIN

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

Location: Lat  $15^{\circ} - 53' - 41''$  N., Long  $103^{\circ} - 18' - 44''$  E., on right bank in front of the previous site of Amphoe Chum Saeng Office, Tambol Phikul, Nakhon Sawan.

Drainage Area: 33,110 sq.km. referred to AMS Map 1:50,000.

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 District Office.  
Elevation: + 27.588 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 to date.

Rated by Float: -

Rated by Current Meter: 1965 to date.

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

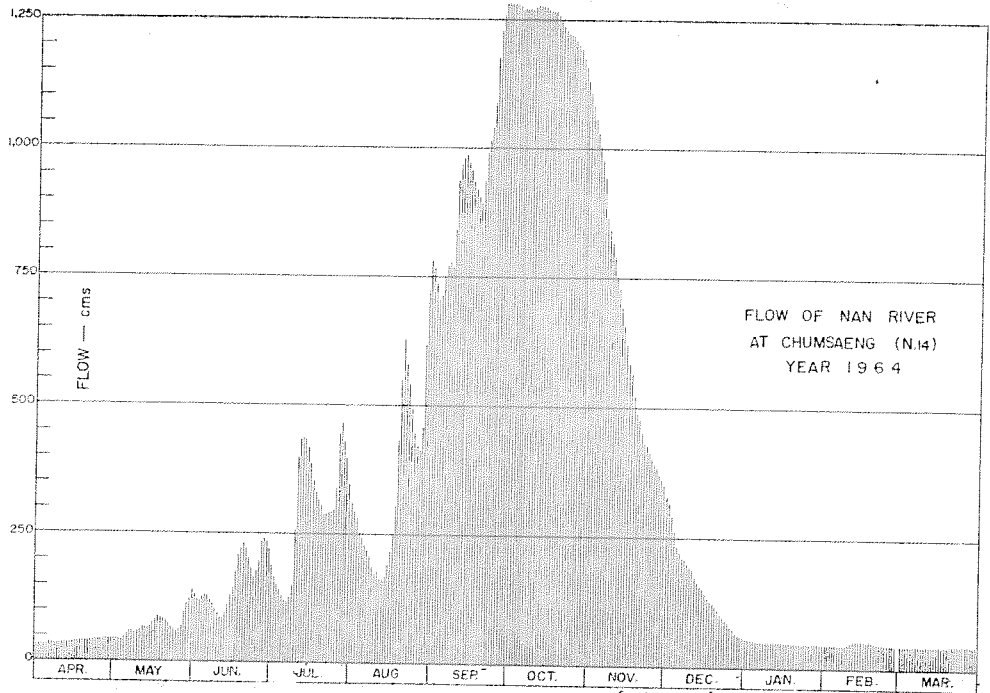
Overbank Flow Conditions: Overbank flow is observed but not included for flow computation.

General Description: Gage height record good, discharge record fair. Stage - discharge relationship used is defined by discharge measurements made during 1965. No diversion for irrigation above gage site.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	19.06	19.35	20.94	21.58	22.68	25.45	27.52	26.81	22.85	19.64	19.42	19.38
2	.07	.34	.74	.53	.55	.30	.50	.71	.74	.60	.41	.37
3	.07	.56	.73	.13	.45	.13	.49	.60	.52	.57	.40	.37
4	.08	.38	.83	.01	.18	.19	.47	.49	.29	.54	.40	.36
5	.08	.44	.90	20.89	.09	.35	.48	.39	.02	.53	.39	.36
6	19.09	19.57	20.86	20.73	21.97	25.47	27.47	26.24	21.90	19.52	19.39	19.36
7	.10	.75	.75	.70	.87	.50	.47	25.90	.82	.51	.38	.36
8	.11	.75	.66	.82	.75	.46	.47	.81	.78	.51	.38	.35
9	.11	.67	.48	21.13	.56	.80	.89	.69	.69	.50	.40	.35
10	.12	.70	.36	22.25	.39	26.22	.50	.56	.63	.50	.45	.35
11	19.13	19.73	20.23	23.33	21.46	26.35	27.49	25.38	21.58	19.50	19.50	19.35
12	.14	.87	.22	.59	.29	.40	.49	.26	.40	.49	.57	.34
13	.15	.86	.36	.61	.27	.42	.48	.08	.30	.49	.62	.34
14	.16	.84	.62	.59	.35	.36	.47	24.91	.21	.48	.60	.34
15	.17	.89	.89	.47	.60	.30	.46	.71	.11	.48	.59	.34
16	19.19	20.03	21.06	23.24	21.86	26.21	27.46	24.50	21.00	19.48	19.59	19.34
17	.20	.18	.45	22.99	.14	.45	.45	.40	20.90	.47	.58	.35
18	.22	.26	.79	.85	.65	.07	.43	.13	.66	.47	.57	.35
19	.23	.20	.92	.75	23.58	.03	.39	23.91	.78	.46	.56	.36
20	.24	.16	22.01	.67	24.33	.20	.36	.85	.69	.46	.51	.37
21	19.26	20.11	21.92	22.51	24.75	26.43	27.33	23.69	20.58	19.46	19.47	19.37
22	.28	.60	.69	.52	.47	.55	.51	.58	.48	.45	.45	.38
23	.29	19.87	.48	.54	.25	.64	.30	.53	.40	.45	.42	.38
24	.30	.78	.31	.56	23.96	.83	.29	.44	.32	.45	.41	.38
25	.31	.70	.43	.57	.66	27.14	.26	.36	.21	.44	.40	.37
26	19.32	19.77	21.67	22.91	23.49	27.32	27.23	23.28	20.10	19.44	19.40	19.37
27	.33	20.01	22.04	23.65	.43	.42	.20	.22	19.98	.44	.39	.37
28	.34	.38	.10	.79	.73	.52	.13	.12	.85	.44	.39	.37
29	.35	.65	.05	.56	24.67	.53	.07	.07	.78	.43		.38
30	.35	.76	21.88	.33	25.23	.53	26.97	22.99	.74	.43		.38
31		21.01		22.95	.52		.89		.69	.43		.38
Mean	19.19	19.91	21.18	22.47	22.88	26.27	27.36	24.72	21.20	19.48	19.46	19.36
Max.	19.35	21.01	22.10	23.79	25.52	27.53	27.52	26.81	22.83	19.64	19.62	19.38
Min.	19.06	19.35	20.22	20.70	21.27	25.13	26.89	22.99	19.59	19.43	19.39	19.34

WATER YEAR 1964 : Max. 27.53 m. Min. 19.06 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	33	45	135	189	310	766	1,284	1,083	528	57	48	46
2	34	45	121	167	294	736	1,278	1,057	517	55	47	46
3	34	45	120	150	282	702	1,275	1,028	290	54	47	46
4	34	46	127	141	251	714	1,269	1,002	265	53	47	45
5	34	49	132	131	241	746	1,272	978	253	52	47	45
6	37	54	129	120	228	770	1,269	942	221	52	47	45
7	35	62	121	118	218	776	1,269	864	213	51	46	45
8	35	62	115	126	206	768	1,269	844	209	51	46	45
9	35	58	103	150	187	842	1,275	818	200	51	47	45
10	36	60	96	258	172	957	1,278	789	194	51	49	45
11	36	61	88	398	178	968	1,275	752	189	51	51	45
12	37	68	67	435	153	980	1,275	728	175	51	54	45
13	37	68	96	458	162	985	1,272	692	164	51	56	45
14	37	67	112	435	168	976	1,269	658	157	50	55	45
15	38	69	131	418	191	956	1,266	622	149	50	55	45
16	39	76	145	386	217	934	1,266	584	140	50	55	45
17	39	85	177	351	252	918	1,263	566	132	50	54	45
18	40	90	210	331	306	902	1,257	521	129	50	54	45
19	40	86	223	318	433	893	1,245	486	124	49	53	45
20	41	84	232	308	553	952	1,237	476	117	49	51	46
21	41	81	223	289	629	987	1,228	450	110	49	50	46
22	42	75	200	290	579	1,016	1,223	433	103	49	49	46
23	43	68	180	293	540	1,038	1,220	426	98	49	48	46
24	43	64	165	295	494	1,088	1,217	414	95	49	47	46
25	43	60	176	296	446	1,125	1,209	402	87	49	47	46
26	44	63	198	359	421	1,226	1,200	391	80	49	47	46
27	44	75	235	444	412	1,257	1,192	383	74	49	47	46
28	45	97	242	466	457	1,284	1,172	369	67	49	47	46
29	45	114	236	430	615	1,267	1,156	362	64	48		46
30	45	122	219	398	722	1,287	1,128	351	62	48		46
31	44	141	345	780			1,105		59	48		46
Total	1,166	2,240	4,774	9,253	11,107	28,840	58,415	19,471	4,859	1,564	1,391	1,410
Mean	38.8	72.2	159	298	358	961	1,239	649	156	50.4	49.6	45.4
Max.	45	141	242	466	780	1,287	1,284	1,083	328	57	56	46
Min.	33	45	87	118	162	702	1,105	351	59	48	46	45
Runoff - RCR.	100.742	195.556	412.474	799.459	959.645	2,491.726	5,318.883	1,682.294	418.090	135.150	120.182	121.824

WATER YEAR 1964 : Max. 1,287 Min. 33 Mean 341 Annual Runoff 10,754,035 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sept. 29	18.00	27.53	1,287				

WATER YEAR 1963  
NAM RIVER BASIN

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

Location: Lat  $17^{\circ} - 44' - 24''$  N., Long  $100^{\circ} - 42' - 00''$  E., on left bank 3 kilometers upstream from Amphoe Nam Pat, Tambol Ban Fai, Uttaradit.

Drainage Area: 2,088 sq.km. referred to AMS Map 1:50,000.

Type of Gage: Staff gage.

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

Bench Mark:

Location: On left bank 12 meters 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 - 1958, 1962 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 due to its stability.

Overbank Flow Conditions: No overbank flow.

General Description: Records good except those for period of no gage height record. Stage - discharge relationship used is defined by discharge measurements made during 1963. No diversions for irrigation above gage site.

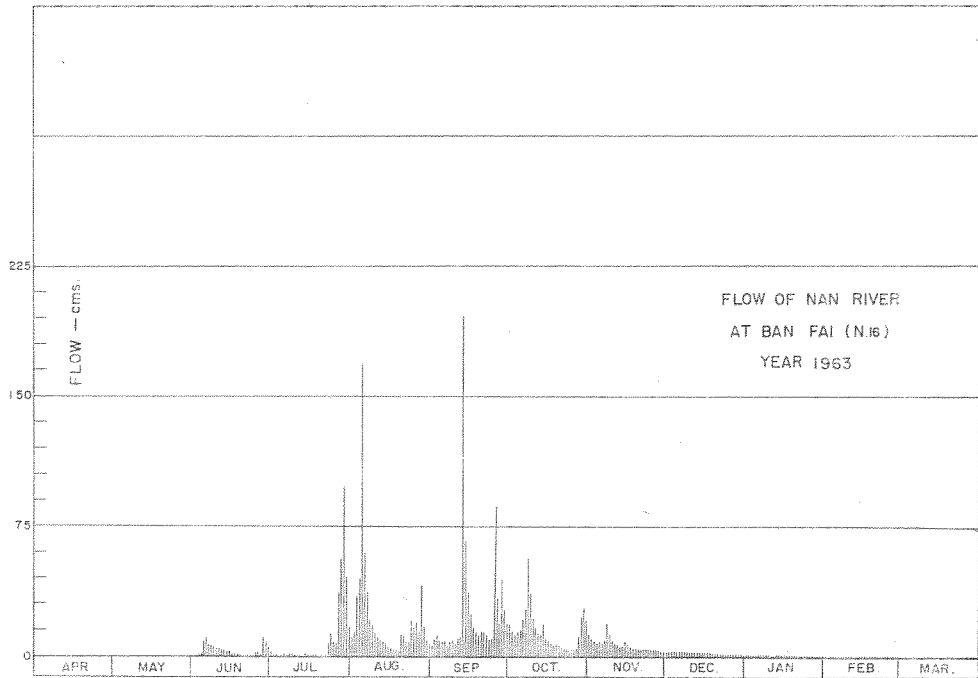
Remark: No gage height record for Apr. 1 - May 31.

GAGE HEIGHT IN METER (A.D. ), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1			0.42	0.68	0.98	0.79	1.16	0.97	0.61	0.46	0.41	0.36
2			.51	.53	1.06	.95	.05	.91	.61	.45	.41	.36
3			.53	.57	.52	1.01	.01	.85	.61	.45	.41	.36
4			.62	.49	.70	0.87	.05	.81	.60	.45	.40	.36
5			.89	.51	3.07	.88	.10	.84	.60	.46	.40	.36
6			0.97	0.59	1.94	0.90	1.27	0.84	0.60	0.48	0.40	0.36
7			.82	.53	.44	.80	.41	.88	.59	.48	.39	.36
8			.80	.58	.25	.68	.90	1.16	.59	.47	.39	.35
9			.76	.62	.16	.89	.52	0.97	.58	.47	.39	.35
10			.75	.56	.07	.83	.23	.84	.58	.46	.38	.35
11			0.73	0.51	0.98	0.96	1.14	0.81	0.58	0.46	0.39	0.35
12			.71	.50	.91	2.60	.05	.78	.57	.46	.40	.35
13			.68	.51	.87	3.35	0.99	.74	.56	.47	.40	.35
14			.67	.61	.84	2.03	1.16	.75	.56	.47	.40	.35
15			.64	.56	.76	1.56	0.94	.84	.56	.46	.39	.35
16			0.60	0.51	0.75	1.32	0.90	0.78	0.55	0.47	0.39	0.35
17			.60	.57	.72	.15	.86	.72	.54	.47	.39	.35
18			.58	.55	.70	.07	.81	.70	.53	.47	.39	.35
19			.55	.48	.68	.01	.82	.68	.52	.47	.38	.35
20			.48	.50	1.03	.06	.79	.66	.52	.46	.38	.34
21			0.44	0.49	1.01	1.07	0.75	0.65	0.51	0.45	0.38	0.34
22			.44	.50	0.88	0.99	.75	.65	.51	.45	.38	.34
23			.44	.85	.87	.94	.71	.65	.50	.45	.37	.34
24			.46	1.02	1.21	.95	.70	.64	.50	.44	.37	.34
25			.63	0.87	.13	1.56	.69	.64	.49	.44	.37	.33
26			0.64	0.85	1.21	2.28	0.69	0.64	0.47	0.44	0.37	0.33
27			.56	1.55	.07	.07	.82	.65	.47	.44	.36	.33
28			.96	.88	.61	1.69	.98	.63	.48	.43	.36	.33
29			.85	2.42	.13	.38	1.23	.62	.47	.43	.36	.32
30			.76	1.71	0.88	.20	.37	.62	.47	.42	.32	.32
31				1.15	.82		.17		.47	.42		.32
Mean			0.65	0.75	1.14	1.30	1.03	0.76	0.54	0.45	0.39	0.34
Max.			0.97	2.42	3.07	3.35	1.90	1.16	0.61	0.48	0.41	0.36
Min.			0.42	0.48	0.68	0.79	0.69	0.62	0.47	0.42	0.36	0.32

WATER YEAR 1963 : Max. 3.35 m. Min. - m.





DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1			0.60	4.10	12	6.80	19	12	2.70	0.90	0.50	0.20
2			1.30	1.60	15	11	15	10	2.70	0.80	0.50	0.20
3			1.60	2.10	36	13	13	8.50	2.70	0.80	0.50	0.20
4			7.90	1.10	46	9.10	15	7.30	2.50	0.80	0.40	0.20
5			9.70	1.30	165	9.40	16	8.20	2.50	0.90	0.40	0.20
6			12	2.40	61	10	23	8.20	2.50	1.00	0.40	0.20
7			7.60	1.60	38	7.00	30	9.40	2.40	1.00	0.40	0.20
8			7.00	2.20	22	9.40	58	19	2.40	1.00	0.40	0.20
9			6.00	2.90	19	9.70	36	12	2.20	1.00	0.40	0.20
10			5.80	2.00	15	7.90	22	8.20	2.20	0.90	0.30	0.20
11			5.30	1.30	12	12	18	7.30	2.20	0.90	0.40	0.20
12			4.80	1.20	10	12	14	6.50	2.10	0.90	0.40	0.20
13			4.10	1.30	9.10	197	13	5.50	2.00	1.00	0.40	0.20
14			3.90	2.70	8.20	67	19	5.80	2.00	1.00	0.40	0.20
15			3.30	2.00	6.00	38	11	8.20	2.00	0.90	0.40	0.20
16			2.25	1.30	5.80	25	10	6.50	1.90	1.00	0.40	0.20
17			2.25	2.10	5.00	18	8.80	5.00	1.70	1.00	0.40	0.20
18			2.20	1.90	4.50	15	7.30	4.50	1.60	1.00	0.40	0.20
19			1.90	1.00	4.10	13	7.60	4.10	1.50	1.00	0.30	0.20
20			1.60	1.20	14	15	6.80	3.70	1.50	0.90	0.30	0.10
21			0.70	1.10	13	15	5.80	3.50	1.30	0.80	0.30	0.10
22			0.70	1.20	9.40	13	5.30	3.50	1.30	0.80	0.30	0.10
23			0.70	8.50	9.10	11	4.80	3.50	1.20	0.80	0.30	0.10
24			0.90	14	21	11	4.50	3.30	1.20	0.70	0.30	0.10
25			3.10	9.10	18	38	4.30	3.30	1.10	0.70	0.30	0.10
26			3.30	8.50	21	87	4.30	3.30	1.00	0.70	0.30	0.10
27			2.00	38	15	20	7.60	3.10	1.00	0.70	0.20	0.10
28			12	57	41	45	12	3.10	1.00	0.60	0.20	0.10
29			6.50	99	18	28	22	2.90	1.00	0.60	0.20	0.00
30			6.00	47	9.40	20	28	2.90	1.00	0.60	0.20	0.00
31				18	7.60	19	19		1.00	0.60		0.00
Total			123.40	338.70	690.20	793.30	480.10	192.20	55.40	26.30	10.40	4.70
Mean			4.10	10.9	22.3	26.4	15.5	6.40	1.77	0.84	0.40	0.20
Max.			12	99	165	197	58	19	2.70	1.00	0.50	0.20
Min.			0.60	1.00	4.10	6.80	4.30	2.90	1.00	0.60	0.20	0.00
Runoff - mcm.			10.662	29.264	59.633	68.541	41.506	16.606	4.786	2.272	0.898	0.406

WATER YEAR 1963 : Max. 197      Min.      Mean      Annual Runoff      mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Aug. 5	18.00	3.80	300				

WATER YEAR 1964  
NAN RIVER BASIN

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

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

Drainage Area: 2,088 sq.km. referred to AMS Map 1:50,000.

Type of Gage: Staff gage.

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

Bench Mark:

Location: On left bank 12 meters from upper gage.

Elevation: + 6.510 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 - 1958, 1962 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 due to its stability.

Overbank Flow Conditions: No overbank flow.

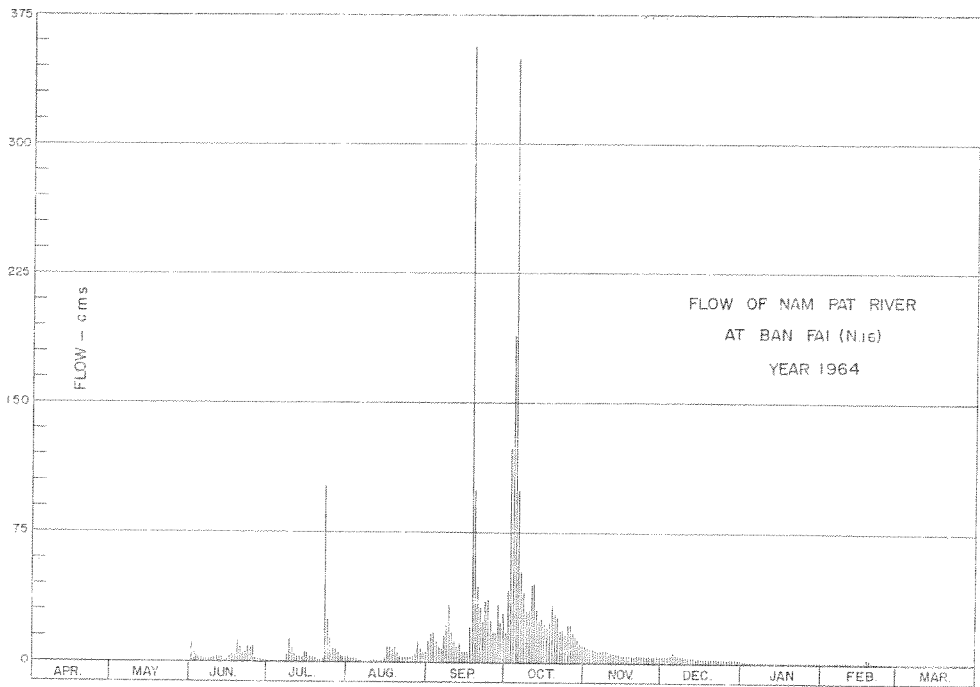
General Description: Records good except those for period of no gage height record. Stage - discharge relationship used is defined by discharge measurements made during 1964. No diversions for irrigation above gage site.

Remark: No gage height record for April 1 - May 31.

GAGE HEIGHT IN METER ( A. D. ), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1			0.96	0.46	0.66	1.01	1.14	0.90	0.62	0.49	0.41	0.39
2			.78	.45	.62	.12	.62	.86	.63	.49	.40	.39
3			.73	.42	.60	.15	2.55	.85	.65	.49	.40	.39
4			.64	.42	.58	.00	3.09	.82	.68	.49	.40	.39
5			.60	.47	.55	0.90	4.15	.79	.77	.49	.40	.40
6			0.58	0.46	0.52	0.86	2.33	0.77	0.71	0.48	0.44	0.40
7			.56	.48	.50	1.09	1.77	.77	.67	.48	.47	.40
8			.54	.71	.49	.24	.58	.78	.65	.48	.46	.40
9			.60	1.03	.48	.48	.39	.77	.63	.48	.46	.40
10			.61	0.87	.52	.14	.41	.76	.62	.48	.49	.40
11			0.68	0.75	0.52	1.00	1.64	0.75	0.61	0.47	0.49	0.40
12			.70	.68	.44	0.90	.67	.74	.60	.47	.47	.40
13			.63	.65	.44	.94	.39	.72	.59	.47	.45	.39
14			.59	.64	.50	.81	.27	.70	.58	.47	.44	.39
15			.58	.78	.60	.79	.30	.69	.57	.47	.44	.39
16			0.66	0.77	0.92	0.79	1.24	0.69	0.56	0.47	0.43	0.39
17			.74	.67	.93	1.22	.19	.68	.56	.46	.46	.38
18			.70	.64	.86	4.20	.26	.68	.53	.46	.60	.38
19			1.00	.60	.93	2.26	.46	.67	.54	.46	.55	.38
20			0.87	.56	.80	1.65	.36	.67	.53	.45	.47	.37
21			0.69	0.52	0.69	1.44	1.33	0.67	0.53	0.45	0.47	0.37
22			.71	.53	.66	.27	.14	.86	.53	.45	.46	.37
23			.90	2.36	.65	.52	.16	.67	.53	.44	.44	.37
24			.84	1.33	.65	.53	.08	.65	.53	.43	.42	.37
25			.86	.04	.64	.29	.22	.65	.52	.42	.42	.37
26			0.60	0.85	0.65	1.14	1.23	0.65	0.52	0.42	0.42	0.37
27			.57	.83	.74	.15	.12	.65	.51	.42	.42	.37
28			.55	.79	1.01	.49	.05	.64	.51	.42	.42	.37
29			.54	.69	0.86	.25	.00	.64	.51	.42	.42	.37
30			.50	.64	.78	.38	0.97	.63	.50	.42	.42	.36
31				.65	.78		.93		.50	.42		.36
Mean			0.68	0.73	0.66	1.30	1.52	0.72	0.58	0.46	0.45	0.38
Max.			1.00	2.36	1.01	4.20	4.15	0.90	0.77	0.49	0.60	0.40
Min.			0.50	0.42	0.44	0.79	0.93	0.63	0.50	0.42	0.40	0.36

WATER YEAR 1964 : Max. 4.20 m. Min. - m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1			12	1.10	3.90	13	18	9.50	3.30	1.40	0.60	0.40
2			6.50	1.00	3.30	17	42	8.50	3.45	1.40	0.50	0.40
3			5.25	0.70	3.00	18	123	8.25	3.75	1.40	0.50	0.40
4			3.60	0.70	2.70	13	189	7.50	4.20	1.40	0.50	0.40
5			3.00	1.20	2.25	9.50	349	6.75	6.25	1.40	0.50	0.50
6			2.70	1.10	1.80	8.50	100	6.25	4.75	1.30	0.90	0.50
7			2.40	1.30	1.50	16	52	6.25	4.05	1.30	1.20	0.50
8			2.10	4.75	1.40	22	40	6.50	3.75	1.30	1.10	0.50
9			3.00	14	1.30	34	29	6.25	3.45	1.30	1.10	0.50
10			3.15	8.75	1.80	18	30	6.00	3.30	1.30	1.40	0.50
11			4.20	5.75	1.80	13	44	5.75	3.15	1.20	1.40	0.50
12			4.50	4.20	0.90	9.50	45	5.50	3.00	1.20	1.20	0.50
13			3.45	3.75	0.90	11	29	5.00	2.85	1.20	1.00	0.40
14			2.85	3.60	1.50	7.25	24	4.50	2.70	1.20	0.90	0.40
15			2.70	6.50	3.00	6.75	25	4.35	2.55	1.20	0.90	0.40
16			3.90	6.25	10	6.75	22	4.35	2.40	1.20	0.80	0.40
17			5.50	4.05	10	21	20	4.20	2.40	1.10	1.10	0.30
18			4.50	3.60	8.50	357	23	4.20	1.95	1.10	3.00	0.30
19			13	3.00	10	95	33	4.05	2.10	1.10	2.25	0.30
20			8.75	2.40	7.00	44	28	4.05	1.95	1.00	1.20	0.20
21			4.35	1.80	4.35	32	26	4.05	1.95	1.00	1.20	0.20
22			4.75	1.95	3.90	24	18	3.90	1.95	1.00	1.10	0.20
23			9.50	103	3.75	36	19	4.05	1.95	0.90	0.90	0.20
24			8.00	26	3.75	37	16	3.75	1.95	0.80	0.70	0.20
25			8.50	14	3.60	24	21	3.75	1.80	0.70	0.70	0.20
26			3.00	8.25	3.75	18	22	3.75	1.80	0.70	0.70	0.20
27			2.55	7.75	5.50	18	17	3.75	1.65	0.70	0.70	0.20
28			2.25	6.75	13	34	15	3.50	1.65	0.70	0.70	0.20
29			2.10	4.35	8.50	23	13	3.60	1.65	0.70	0.70	0.20
30			1.50	3.60	6.50	29	12	3.45	1.50	0.70	0.70	0.10
31				3.75	6.50		10		1.50	0.70	0.70	0.10
Total			143.55	258.90	139.65	1,013.25	1,454	155.20	84.65	33.60	29.85	9.90
Mean			4.77	8.35	4.91	33.8	46.9	5.18	2.73	1.08	1.03	0.33
Max.			13	103	13	357	349	9.50	6.25	1.40	3.00	0.50
Min.			1.50	0.70	0.90	6.75	10	3.45	1.50	0.70	0.50	0.10
Runoff - mcm.			12.403	22.455	12.066	87.545	125.626	13.421	7.314	2.905	2.579	0.855

WATER YEAR 1964 : Max. 357 Min. - Mean - Annual Runoff - mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sept. 18	12.00	4.69	444				

WATER YEAR 1963  
NAN RIVER BASIN

Khwaee Noi River at Ban Yang, Phitsanulok (N.22)

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

Drainage Area: 4,761 sq.km. referred to AMS Map 1:50,000.

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 upper gage.

Elevation: + 8,952 m. (A.D.)

Gage Reading Frequency: 16 - time daily readings at 03.00, 06.00 - 18.00, 21.00 and 24.00 hours.

Basis of Mean Daily Gage Height: Arithmetic mean of 16 readings.

Period of Available Gage Records: 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: Rather unstable, shifting adjustment and periodic rating curves are used for flow computation.

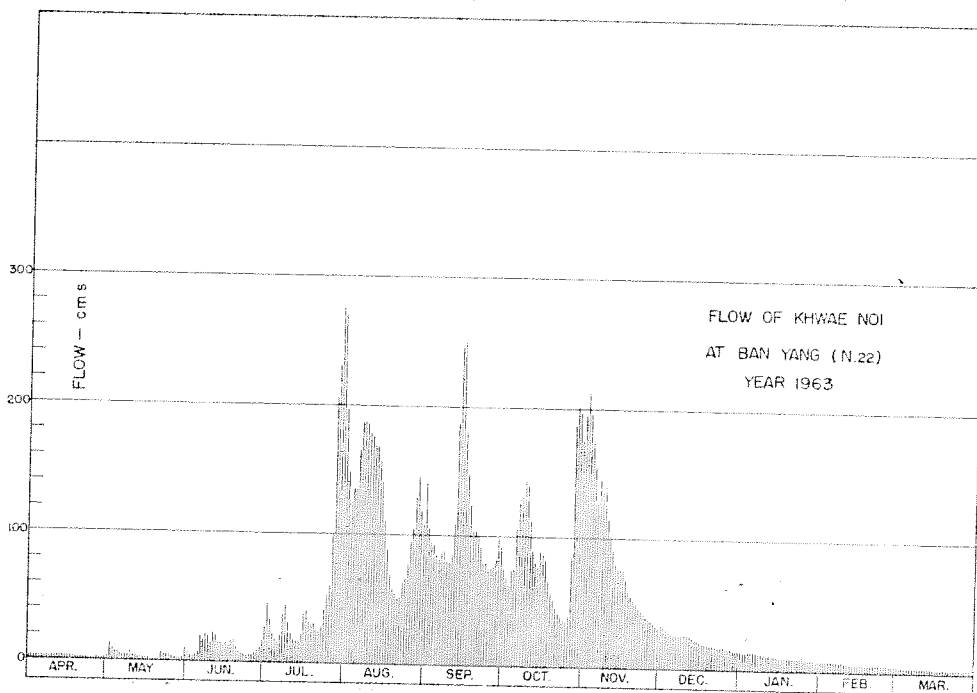
Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage - discharge relationship used is defined by discharge measurements during 1964. No diversions for irrigation above gage site.

GAGE HEIGHT IN METER ( A. D. ), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.53	0.55	0.76	1.46	4.55	3.69	2.61	4.52	1.63	1.02	0.75	0.59
2	.53	1.02	.66	.93	3.84	.15	.42	.76	.57	.01	.74	.58
3	.53	0.04	.59	.61	.49	2.94	.36	.53	.51	.01	.74	.57
4	.53	.74	.66	.32	.64	.91	.53	.22	.47	.00	.73	.57
5	.53	.70	.75	.17	.97	.75	.57	3.93	.44	.00	.73	.56
6	0.53	0.62	1.20	1.06	4.42	2.67	3.16	3.52	1.41	0.99	0.72	0.56
7	.53	.60	.12	.28	.78	.78	.53	.78	.39	.98	.72	.55
8	.52	.61	.28	.71	.63	.81	.58	.65	.39	.97	.71	.55
9	.50	.61	.21	.87	.39	.65	.76	.73	.40	.96	.70	.55
10	.50	.76	.04	.57	.37	.66	.69	.29	.39	.94	.69	.55
11	0.51	0.61	1.27	1.31	4.31	2.78	3.27	3.09	1.40	0.93	0.68	0.54
12	.52	.58	.23	.15	.23	3.23	2.85	2.88	.37	.92	.67	.54
13	.50	.55	.05	.12	.16	4.40	.65	.65	.33	.91	.67	.53
14	.49	.53	.05	.10	3.96	5.25	.59	.57	.30	.89	.66	.53
15	.49	.51	0.96	.29	5.73	.30	.84	.58	.27	.88	.66	.53
16	0.49	0.50	1.03	1.74	3.25	4.93	2.80	2.55	1.25	0.87	0.65	0.52
17	.49	.47	0.95	.79	2.83	.36	.71	.35	.23	.87	.65	.52
18	.48	.45	1.11	.54	.44	3.89	.38	.23	.21	.86	.64	.52
19	.47	.45	.12	.52	.22	.49	.18	.16	.19	.85	.63	.51
20	.47	.45	0.92	.51	.13	.48	.05	.07	.17	.84	.63	.51
21	0.46	0.49	0.82	1.41	2.06	3.41	1.92	2.00	1.15	0.83	0.63	0.50
22	.46	.72	.76	.36	.06	.20	.82	1.93	.13	.83	.62	.50
23	.46	.67	.72	.49	.32	2.88	.76	.87	.12	.82	.62	.50
24	.45	.67	.68	.81	.37	.75	.71	.82	.11	.82	.61	.49
25	.45	.64	.69	2.08	.61	.55	.67	.77	.10	.81	.61	.49
26	0.46	0.59	0.70	2.25	2.98	2.57	1.77	1.73	1.09	0.80	0.60	0.48
27	.47	.55	.74	3.04	3.14	.59	2.75	.69	.08	.79	.60	.48
28	.46	.54	.81	4.67	.55	.70	4.41	.66	.07	.79	.60	.47
29	.47	.52	.93	5.04	.79	3.03	.61	.61	.06	.77	.59	.47
30	.49	.54	1.21	.46	.39	2.90	.55	.58	.05	.77	.46	.46
31		.84		.27	.19		.23		.04	.76		.46
Mean	0.49	0.60	0.93	2.03	3.54	3.27	2.83	2.76	1.27	0.89	0.66	0.52
Max.	0.53	1.02	1.28	5.46	4.78	5.30	4.61	4.76	1.63	1.02	0.75	0.59
Min.	0.45	0.45	0.59	1.06	2.06	2.55	1.67	1.58	1.04	0.76	0.59	0.46

WATER YEAR 1963 : Max. 5.46 m. Min. 0.45 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	3.17	3.55	7.88	28	197	139	78	195	34	14	7.65	4.31
2	3.17	14	5.70	46	149	106	68	212	32	14	7.42	4.12
3	3.17	9.80	4.31	34	126	95	65	196	30	14	7.42	3.93
4	3.17	7.42	5.70	23	136	93	74	174	28	14	7.42	3.95
5	3.17	6.50	7.65	19	136	85	76	155	27	14	7.19	3.74
6	3.17	4.90	20	16	166	81	106	128	26	14	6.96	3.74
7	3.17	4.50	17	22	187	86	129	145	26	13	6.96	3.55
8	2.98	4.70	22	37	187	88	132	136	26	13	6.73	3.55
9	2.60	4.70	20	44	187	80	145	141	26	13	6.50	3.55
10	2.50	7.88	15	32	179	80	139	114	26	12	6.30	3.55
11	2.79	4.70	22	23	176	86	113	102	26	12	6.10	3.36
12	2.98	4.12	20	18	170	110	90	91	25	12	5.90	3.36
13	2.60	3.55	15	17	169	187	80	80	24	12	5.90	3.17
14	2.48	3.17	15	17	157	245	77	76	23	11	5.70	3.17
15	2.48	2.79	15	22	141	250	89	76	22	11	5.70	3.17
16	2.48	2.60	15	39	111	181	87	75	21	10	5.50	2.98
17	2.48	2.24	13	41	89	148	85	65	20	10	5.50	2.98
18	2.36	2.60	17	31	69	124	66	59	20	10	5.30	2.98
19	2.24	2.00	17	30	59	104	57	56	19	10	5.10	2.79
20	2.24	2.00	12	30	55	104	51	52	19	9.80	5.10	2.79
21	2.12	2.48	9.30	26	52	101	46	49	18	9.35	5.10	2.60
22	2.12	6.96	7.88	25	52	92	42	46	17	9.55	4.90	2.60
23	2.12	5.90	6.96	29	63	79	39	44	17	9.30	4.90	2.60
24	2.00	5.90	6.10	41	66	79	37	42	17	9.30	4.70	2.48
25	2.00	5.30	6.30	53	78	75	36	40	17	9.05	4.70	2.48
26	2.12	4.31	6.50	60	37	76	40	38	16	8.80	4.50	2.36
27	2.24	3.55	7.42	100	105	77	65	37	16	8.57	4.50	2.36
28	2.12	3.36	9.05	206	130	82	187	35	16	8.57	4.50	2.24
29	2.24	2.98	12	230	145	99	201	33	15	8.11	4.31	2.24
30	2.48	3.36	20	275	120	92	197	32	15	8.11	4.12	2.12
31		9.80		250	108		175		15	7.88	4.12	2.12
Total	77.06	151.02	375.75	1,864	3,852	3,324	2,888	2,724	679	309.59	166.25	94.92
Mean	2.57	4.87	12.5	60.1	124	111	93.1	90.8	21.9	10.9	5.80	3.06
Max.	3.17	14	22	275	197	250	201	212	34	14	7.65	4.31
Min.	2.00	2.00	4.31	16	52	75	36	32	15	7.88	4.31	2.12
Runoff - mcm.	6.658	13.048	32.465	161.050	335.677	287.194	249.523	235.354	58.666	29.340	14.535	8.201

WATER YEAR 1963 : Max. 275 Min. 2.00 Mean 45.2 Annual Runoff 1,429.710 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Jul.31	06.00	5.48	275				

WATER YEAR 1964  
NAN RIVER BASIN

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

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

Drainage Area: 4,761 sq.km. referred to AMS Map 1:50,000.

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 upper gage.

Elevation: + 8,952 m. (A.D.)

Gage Reading Frequency: 16 - time daily readings at 05.00, 06.00 - 18.00, 21.00 and 24.00 hours.

Basis of Mean Daily Gage Height: Arithmetic mean of 16 readings.

Period of Available Gage Records: 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: Rather unstable, shifting adjustment is included for flow computation.

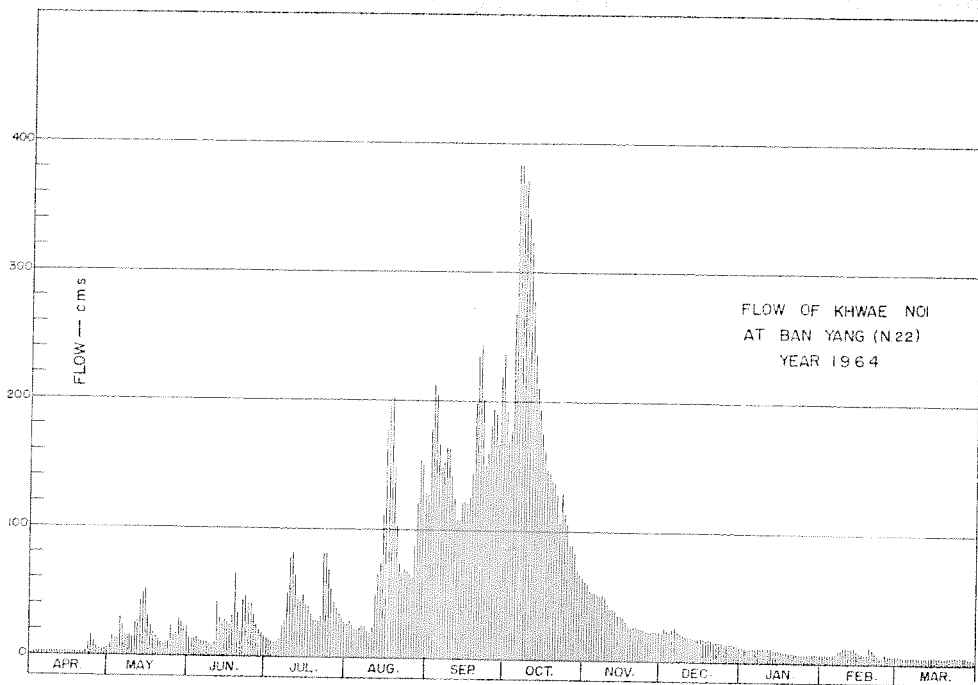
Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage - discharge relationship used is defined by discharge measurements during 1964. No diversions for irrigation above gage site.

GAGE HEIGHT IN METER ( A. D. ), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.45	0.74	0.96	0.94	1.30	3.20	4.22	2.24	1.30	0.96	0.76	0.68
2	.45	.96	1.01	.86	.35	.92	3.85	.16	.41	.94	.76	.67
3	.45	.89	0.99	.84	.23	4.43	4.00	.09	.34	.94	.75	.67
4	.45	.92	1.03	.81	.14	.31	5.15	.02	.31	.93	.75	.67
5	.44	1.39	0.95	.81	.10	3.86.	6.45	1.95	.35	.92	.75	.66
6	0.44	1.27	0.88	0.88	1.14	3.58	6.42	1.92	1.40	0.92	0.79	0.65
7	.45	.01	.90	1.19	.17	.64	.44	.88	.30	.92	.85	.65
8	.43	.02	.84	.31	.14	.78	.30	.88	.24	.91	.87	.64
9	.45	.04	.79	.85	.09	.86	.13	.83	.21	.90	.89	.64
10	.45	0.97	.73	2.39	.03	.70	5.84	.79	.19	.90	.94	.64
11	0.43	1.33	0.84	2.44	1.13	3.45	5.38	1.74	1.17	0.89	0.94	0.63
12	.42	.38	1.77	.12	.80	.09	4.96	.71	.16	.88	.93	.63
13	.42	.75	.60	1.72	2.13	.01	.68	.68	.15	.87	.92	.62
14	.42	.89	.40	.71	.26	.13	.34	.65	.13	.86	.89	.62
15	.45	.96	.38	.82	.93	.19	3.92	.61	.12	.85	.84	.61
16	0.43	1.47	1.27	1.63	3.90	3.13	3.72	1.57	1.11	0.85	0.81	0.61
17	.42	.30	.27	.61	4.17	.19	.58	.54	.09	.83	.79	.60
18	.41	.12	.51	.46	.10	.47	.51	.52	.08	.82	.80	.60
19	.40	.07	2.30	.33	3.45	4.16	.46	.51	.07	.81	.98	.61
20	.40	0.98	1.63	.35	2.70	.87	.43	.49	.07	.81	.90	.62
21	0.40	0.86	1.25	1.32	2.29	4.80	3.31	1.47	1.05	0.80	0.83	0.62
22	.52	.81	.90	.62	.12	.42	.15	.45	.03	.80	.75	.64
23	.86	.87	.94	2.46	.17	3.65	.35	.43	.02	.80	.73	.66
24	1.07	.88	.74	.45	.13	.75	.06	.41	.02	.79	.71	.67
25	0.90	1.29	.78	.22	.15	4.04	2.99	.39	.01	.79	.68	.68
26	0.72	1.03	1.56	1.91	2.13	4.36	2.75	1.37	1.80	0.79	0.68	0.68
27	.63	.08	.37	.69	.44	.21	.72	.34	.00	.79	.68	.66
28	.58	.41	.18	.61	3.06	3.83	.61	.33	.00	.78	.68	.60
29	.56	.02	.07	.50	.60	4.19	.49	.31	0.99	.78		.56
30	.59	0.87	0.99	.41	.53	.49	.39	.29	.98	.77		.54
31		.90		.32	.16		.31		.97	.77		.54
Mean	0.51	1.14	1.29	1.57	2.23	3.82	4.09	1.65	1.14	0.85	0.81	0.63
Max.	1.07	1.96	2.30	2.46	4.17	4.80	6.45	2.24	1.41	0.96	0.98	0.68
Min.	0.40	0.74	0.73	0.81	1.03	3.01	2.31	1.29	0.97	0.77	0.68	0.54

WATER YEAR 1964 : Max. 6.45 m. Min. 0.40 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	2.44	9.60	14	15	27	128	191	62	22	12	6.56	6.12
2	2.44	15	14	14	29	178	167	58	26	11	6.78	5.24
3	2.58	13	14	12	25	212	178	54	24	11	6.56	5.24
4	2.58	14	15	12	22	204	268	52	25	11	6.56	5.02
5	2.58	30	13	12	21	166	385	53	25	11	6.78	4.80
6	2.58	25	12	14	24	148	385	52	27	11	7.78	4.80
7	2.58	16	12	24	25	153	367	50	24	11	9.60	4.80
8	2.72	16	11	28	25	164	372	51	22	11	10	4.80
9	2.86	16	9.86	51	21	163	342	49	21	11	11	4.80
10	3.00	14	8.56	78	19	142	325	43	20	11	11	5.02
11	3.18	26	12	81	24	124	278	40	20	11	11	4.80
12	2.86	28	43	64	49	108	236	40	19	11	11	5.02
13	2.72	43	30	45	67	108	210	39	18	10	11	4.80
14	2.58	49	26	44	74	121	193	35	17	9.86	9.86	5.02
15	2.72	53	29	49	112	122	176	35	18	9.86	8.30	4.80
16	2.72	31	27	41	176	121	163	34	18	9.08	7.52	4.80
17	2.72	24	25	40	196	125	147	31	17	9.08	6.78	4.44
18	2.58	18	32	34	202	144	144	27	17	8.82	7.00	4.26
19	2.44	16	65	29	148	198	138	26	17	8.56	15	4.44
20	2.58	13	34	29	103	235	137	27	17	8.30	11	4.62
21	2.16	11	19	28	74	244	128	27	15	7.78	8.56	4.44
22	3.90	9.60	44	40	66	201	106	26	15	7.26	6.56	4.80
23	10	11	48	81	69	150	129	25	15	7.26	5.24	5.24
24	16	11	40	81	68	160	113	25	15	7.00	5.68	5.24
25	11	24	42	68	65	182	106	24	14	6.78	6.56	5.46
26	7.00	16	33	53	63	194	89	23	14	6.34	6.12	5.46
27	5.68	18	26	43	88	191	89	23	14	6.56	6.12	5.24
28	5.02	29	21	39	121	167	83	23	14	7.00	5.90	4.08
29	5.02	17	19	35	194	199	69	23	14	7.00		3.54
30	6.12	13	17	31	151	217	67	22	13	6.78		3.18
31		14		28	128		63		12	6.78		3.36
Total	125.36	643.20	755.42	1,243	2,436	4,969	5,840	1,099	567	283.10	229.82	147.68
Mean	4.18	20.7	25.2	40.0	78.6	166	188	36.6	18.2	9.13	8.21	4.76
Max.	16	53	65	81	202	244	385	62	27	12	13	6.12
Min.	2.16	9.60	8.56	12	19	108	63	22	12	6.34	5.24	3.18
Runoff - mcm.	10.831	55.572	65.268	107.395	210.470	429.322	504.576	94.954	48.989	24.460	19.656	12.759

WATER YEAR 1964 : Max. 383 Min. 2.16 Mean 50.2 Annual Runoff 1,584.453 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 4	24.00	7.00	432				

WATER YEAR 1964  
NAN RIVER BASIN

Nan River at Ban Phra Fang, Uttaradit. (N. 23)

Location: Lat 17° - 39' - 16" N., Long 100° - 14' - 02" E., on right bank about 1 kilometer upstream from Wat Phra Fang 1.5 kilometers from the road at Tambol Pha Chuk on the way Phra Fang - Ngui Ngarm Amphoe Muang, Uttaradit.

Drainage Area: 16,249 sq.km. referred to AMS Map 1:50,000.

Type of Gage: Staff gage.

Zero Gage at Bottom at: + 56.00 m. (M.S.L.)

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

Location: On right bank 19 meters from upper gage.

Elevation: + 69.471 m. (M.S.L.)

Gage Reading Frequency: 16 - time daily readings at 03.00, 06.00 - 18.00, 21.00 and 24.00 hours.

Basis of Mean Daily Gage Height: Arithmetic mean of 16 readings.

Period of Available Gage Records: 1963 to date.

Rating Operation:

Period of Rating: 1964 to date.

Rated by Float: -

Rated by Current Meter: 1964 to date.

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation due to its stability.

Overbank Flow Conditions: No overbank flow.

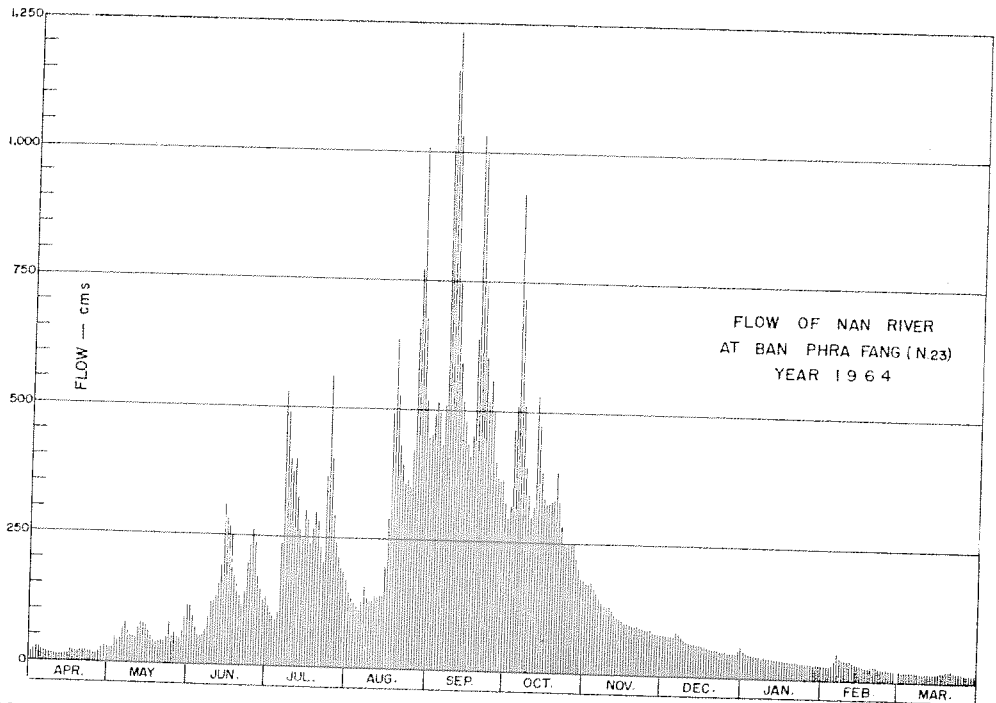
General Description: Records good. Stage - discharge relationship used is defined by discharge measurements during 1963. No diversions for irrigation above gage site.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	56.82	56.96	57.72	57.74	57.98	59.74	58.93	58.16	57.42	57.19	56.93	56.84
2	.88	.99	.56	.64	.88	.94	59.09	.15	.42	.15	.93	.83
3	.95	57.16	.37	.57	.81	60.02	.81	.18	.41	.14	.92	.83
4	.94	.12	.25	.52	.76	59.95	.98	.09	.41	.12	.95	.83
5	.90	.15	.23	.64	.71	.65	61.51	.02	.42	.11	57.05	.83
6	56.85	57.34	57.25	58.59	57.81	60.01	60.81	57.94	57.45	57.10	57.19	56.82
7	.83	.43	.33	60.09	58.04	61.78	.01	.89	.43	.09	.08	.82
8	.81	.28	.55	59.91	57.87	62.19	59.46	.85	.38	.08	.06	.81
9	.80	.22	.78	.50	.84	.39	.22	.85	.36	.08	.05	.79
10	.80	.20	.79	.38	.85	61.84	58.98	.84	.32	.07	.04	.78
11	56.79	57.18	57.86	59.51	57.91	60.91	59.09	57.77	57.31	57.06	57.04	56.78
12	.79	.33	58.04	.14	.90	.34	60.09	.72	.29	.05	.02	.78
13	.79	.44	.28	58.82	.91	.03	59.85	.69	.29	.04	.00	.78
14	.78	.40	59.04	.66	.89	59.86	.43	.66	.28	.04	56.96	.78
15	.79	.39	58.89	59.01	58.50	.67	.17	.63	.27	.04	.95	.79
16	56.89	57.30	58.80	58.90	58.92	59.55	59.11	57.60	57.26	57.03	56.93	56.80
17	.88	.21	.67	.60	59.91	.74	.13	.59	.24	.02	.91	.82
18	.86	.11	.16	.79	60.51	60.52	.14	.57	.23	.02	.91	.81
19	.86	.07	.04	59.00	.07	61.84	.16	.56	.22	.01	.92	.86
20	.90	.09	57.91	58.87	59.64	.76	.43	.54	.21	.01	.94	.85
21	56.89	57.12	57.74	58.55	59.47	60.91	59.15	57.55	57.20	57.00	56.93	56.86
22	.87	.11	.92	.36	.28	.38	58.89	.54	.19	56.99	.91	.84
23	.86	.21	58.32	59.33	.33	.04	.66	.52	.18	.98	.89	.83
24	.85	.43	.56	60.22	.26	.21	.64	.50	.18	.97	.87	.81
25	.84	.22	.77	59.50	.60	59.94	.69	.50	.17	.97	.87	.79
26	56.83	57.27	58.59	58.95	60.60	59.51	58.68	57.49	57.16	56.97	56.85	56.77
27	.88	.20	.15	.62	61.00	.36	.67	.46	.15	.96	.85	.75
28	.96	.17	57.98	.42	.77	.33	.48	.45	.14	.95	.84	.74
29	57.02	.29	.83	.28	60.67	.36	.34	.43	.14	.96	-	.74
30	56.99	.50	.87	.24	.03	.12	.23	.43	.19	.94	-	.73
31	-	.73	-	.14	59.72	-	.19	-	.27	.94	-	.73
Mean	56.86	57.24	48.01	58.76	58.97	60.33	59.22	57.70	57.28	57.03	56.96	56.80
Max.	57.02	57.73	59.04	60.22	61.77	62.39	61.51	58.18	57.42	57.19	57.19	56.86
Min.	56.78	56.96	57.23	57.52	57.71	59.12	58.19	57.43	57.14	56.94	56.84	56.73

WATER YEAR 1964 : Max. 62.39 m. Min. 56.73 m.





DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	18	29	115	117	150	454	292	175	78	51	26	19
2	22	31	95	105	136	499	320	174	78	47	26	18
3	28	48	72	96	126	518	469	178	77	46	26	18
4	27	44	58	90	120	501	508	166	77	44	28	18
5	24	47	56	105	113	434	924	156	78	43	37	18
6	20	69	58	239	126	515	718	146	82	42	51	18
7	16	80	68	534	159	1,013	515	138	80	41	40	18
8	17	62	34	452	135	1,161	394	132	74	40	38	17
9	26	54	122	402	131	1,235	341	132	71	40	37	15
10	16	52	124	377	132	1,024	300	131	66	39	36	15
11	15	50	133	404	140	747	320	121	65	38	36	15
12	15	68	159	330	139	593	534	115	63	37	34	15
13	15	51	193	274	140	520	478	111	63	36	32	15
14	15	76	311	250	138	481	387	107	62	36	29	15
15	15	75	285	305	196	438	335	104	60	36	28	15
16	23	64	271	287	290	412	324	100	59	35	26	16
17	22	53	251	241	492	454	328	99	57	34	25	18
18	21	43	175	269	637	639	330	96	56	34	25	17
19	21	39	159	303	529	1,034	333	95	54	33	26	21
20	24	41	140	282	432	1,006	387	93	53	33	27	20
21	23	44	117	233	396	747	331	94	52	32	26	21
22	22	43	142	205	357	603	285	93	51	31	25	19
23	21	53	199	367	367	522	250	90	50	30	23	16
24	20	80	235	564	353	561	247	88	50	30	22	17
25	19	54	266	402	423	499	254	88	49	30	22	15
26	18	60	239	295	660	404	253	87	48	30	20	14
27	22	52	174	244	773	373	251	83	47	29	20	13
28	29	49	150	214	1,009	367	223	82	46	28	19	12
29	34	63	129	193	679	373	202	80	46	28	-	12
30	31	88	135	187	520	326	185	80	51	27	-	12
31	-	116	-	173	449	-	180	-	60	27	-	12
Total	631	1,806	4,725	8,579	10,447	18,463	11,198	3,434	1,903	1,107	810	506
Mean	21.0	58.3	157	277	337	615	361	114	61.3	35.7	28.9	16.3
Max.	34	116	311	564	1,009	1,235	924	178	78	51	28.9	16.3
Min.	15	29	56	90	113	326	180	80	46	27	19	12
Runoff - mcm.	54,518	156,211	408,240	741,226	902,621	1,595,203	967,507	296,698	164,413	95,645	69,984	43,718

WATER YEAR 1964 : Max. 1,235 Min. 12 Mean 174 Annual Runoff 5,495,990 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sept. 9	15.00	62.48	1,269				

WATER YEAR 1963  
CHAO PHYA RIVER BASIN

Chao Phya River at Muang Nakhon Sawan. (C. 2)

Location: Lat  $15^{\circ} - 40' - 15''$  N, Long  $100^{\circ} - 06' - 45''$  E, on left bank about 2 kilometers downstream from Dechatiwong Bridge, Amphoe Muang, Nakhon Sawan.

Drainage Area: 111,435 sq.km. referred to AMS Map 1:50,000.

Type of Gage: Staff gage.

Zero Gage at Bottom at: + 17.00 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.<sub>1</sub> - 26.258 m. (M.S.L.) and B.M.<sub>2</sub> + 26.091 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: 1956 to date.

Rated by Float: -

Rated by Current Meter: 1956 to date.

Stability of Channel Regimes: Fairly stable, shifting adjustment and periodic rating curves are used for flow computation.

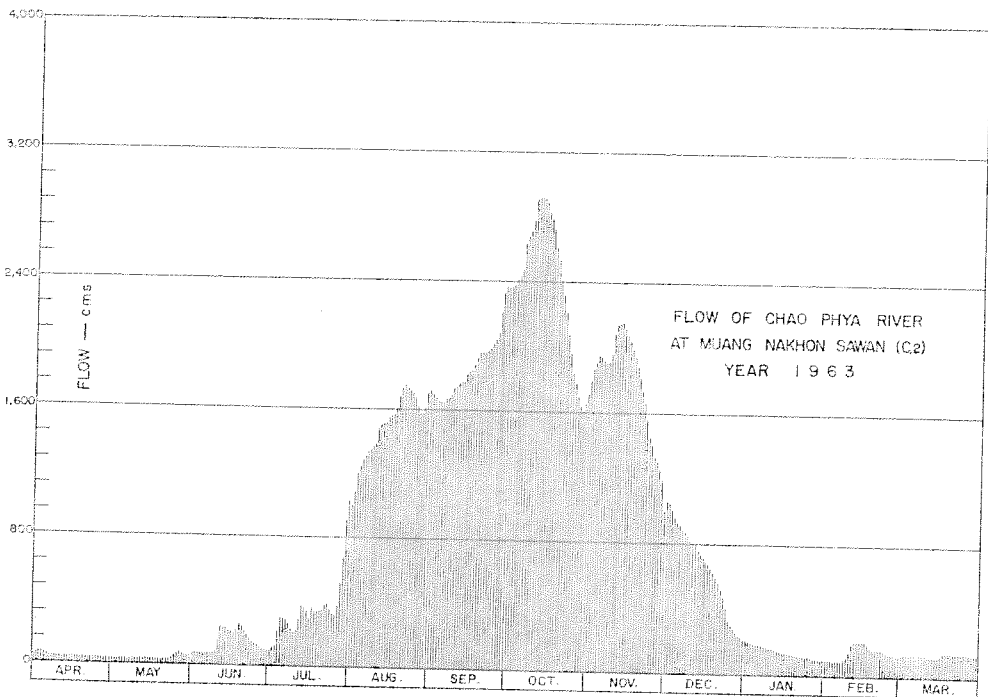
Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage - discharge relationship used by discharge measurements made during 1963. 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, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	17.81	17.35	17.76	17.94	20.97	22.25	23.58	22.77	21.17	18.59	17.96	18.05
2	.00	.35	.78	.97	21.01	.20	.60	.87	.09	.55	.94	.05
3	.81	.34	.75	18.05	.18	.16	.61	.93	.02	.51	.93	.03
4	.81	.35	.76	.45	.27	.14	.67	23.01	20.93	.48	.91	.04
5	.77	.35	.75	.74	.37	.15	.85	.00	.87	.45	.90	.06
6	17.71	17.37	17.71	18.77	21.43	22.19	24.00	23.00	20.80	18.43	17.90	18.07
7	.64	.41	.67	.74	.48	.19	.07	22.98	.72	.39	.93	.07
8	.60	.41	.65	.65	.54	.23	.12	.99	.67	.37	.99	.07
9	.56	.41	.70	.54	.57	.32	.22	23.06	.61	.35	18.03	.05
10	.53	.39	.86	.49	.65	.40	.34	.29	.54	.33	.21	.05
11	17.51	17.38	18.19	18.55	21.80	22.45	24.41	23.39	20.49	18.30	18.33	18.04
12	.50	.38	.40	.87	.87	.45	.41	.47	.44	.28	.43	.03
13	.49	.37	.57	19.03	.90	.45	.41	.47	.38	.26	.44	.02
14	.47	.35	.59	18.98	.95	.50	.37	.41	.32	.23	.45	.01
15	.45	.34	.54	.96	.97	.52	.30	.34	.25	.22	.45	.00
16	17.43	17.34	18.48	18.73	21.98	22.54	24.23	23.28	20.18	18.20	18.46	18.02
17	.42	.33	.44	.63	.97	.62	.15	.20	.11	.17	.40	.07
18	.43	.32	.54	.56	22.08	.76	.04	.11	.03	.15	.28	.13
19	.43	.34	.65	.54	.23	.80	23.93	.00	19.96	.14	.24	.15
20	.43	.33	.63	.55	.31	.91	.81	22.87	.87	.13	.22	.15
21	17.43	17.31	18.52	18.58	22.35	22.83	23.66	22.70	19.78	18.12	18.21	18.15
22	.42	.30	.40	.67	.33	.84	.50	.53	.67	.10	.19	.15
23	.41	.29	.29	.78	.30	.87	.31	.36	.50	.08	.18	.14
24	.39	.42	.21	.87	.28	.94	.12	.19	.29	.76	.16	.14
25	.38	.52	.31	.87	.23	.98	22.92	.03	.11	.04	.11	.13
26	17.40	17.65	18.07	18.86	22.16	23.01	22.68	21.88	18.97	18.03	18.08	18.13
27	.41	.75	.33	19.07	.09	.16	.51	.74	.86	.01	.07	.12
28	.38	.78	17.96	.50	.66	.41	.39	.61	.79	.00	.05	.12
29	.36	.70	.62	.37	.39	.54	.33	.45	.72	17.99	.05	.11
30	.35	.69	.92	23.36	.23	.58	.42	.28	.66	.98	-	.11
31	-	.72	-	.78	.29	-	.40	-	.61	.97	-	.11
Mean	17.52	17.47	18.10	18.34	21.89	22.64	23.43	22.74	20.01	18.22	18.15	18.08
Max.	17.81	17.78	18.05	20.78	22.35	23.58	24.41	23.47	21.17	18.59	18.46	18.15
Min.	17.35	17.29	17.65	17.94	20.97	22.14	22.33	21.28	18.61	17.97	17.90	18.02

WATER YEAR 1963 : Max. 24.41 m. Min. 17.29 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	66	74	76	107	1,104	1,695	2,357	1,790	1,061	216	99	131
2	65	74	79	113	1,163	1,670	2,369	1,871	1,054	210	96	131
3	66	74	75	130	1,199	1,650	2,412	1,937	1,026	202	95	128
4	66	74	75	219	1,279	1,640	2,425	1,949	966	196	92	130
5	62	74	74	299	1,264	1,645	2,570	1,943	944	190	90	135
6	57	75	69	296	1,307	1,665	2,629	1,914	914	185	90	137
7	51	77	67	288	1,329	1,665	2,674	1,905	883	177	96	137
8	48	77	65	262	1,356	1,685	2,707	1,899	880	177	107	137
9	57	78	71	232	1,370	1,730	2,776	1,949	854	175	113	133
10	44	77	94	219	1,406	1,740	2,904	2,091	828	169	154	130
11	43	77	155	234	1,473	1,765	2,975	2,155	806	164	200	128
12	42	77	190	325	1,505	1,785	2,935	2,155	795	160	210	126
13	41	76	232	375	1,518	1,765	2,935	2,155	774	149	212	125
14	40	75	257	357	1,518	1,820	2,892	2,166	741	144	214	126
15	37	75	274	342	1,550	1,830	2,822	2,072	717	142	214	126
16	40	75	210	288	1,555	1,840	2,786	2,035	704	138	216	130
17	39	74	200	256	1,550	1,880	2,714	1,985	680	133	200	138
18	40	73	224	237	1,605	1,920	2,617	1,946	653	130	175	149
19	40	74	256	232	1,685	1,955	2,530	1,887	629	131	167	153
20	40	74	250	240	1,725	1,960	2,418	1,820	605	130	164	149
21	40	73	222	247	1,745	1,955	2,313	1,730	574	125	162	145
22	39	72	195	271	1,735	1,960	2,201	1,652	537	125	158	145
23	38	72	167	296	1,720	1,975	2,079	1,554	480	121	156	145
24	37	76	150	322	1,710	2,011	1,960	1,471	416	117	153	145
25	37	73	142	322	1,685	2,032	1,850	1,396	350	113	142	144
26	38	69	130	320	1,620	2,059	1,775	1,332	311	113	137	144
27	38	82	118	360	1,585	2,128	1,691	1,306	282	110	135	142
28	75	73	111	521	1,570	2,320	1,632	1,252	264	109	131	142
29	74	62	104	639	1,615	2,369	1,603	1,166	244	107	131	140
30	74	61	104	868	1,710	2,357	1,647	1,104	230	102	131	140
31	-	65	-	1,028	1,715	-	1,681	-	216	101	-	140
Total	1,358	1,711	4,363	10,267	46,851	56,461	73,839	52,536	20,420	4,559	4,311	4,251
Mean	45.2	42.2	145	331	1,511	1,882	2,382	1,784	659	147	149	137
Max.	66	82	256	1,028	1,745	2,369	2,935	2,166	1,061	216	216	153
Min.	34	32	65	107	1,104	1,640	1,603	1,104	216	101	90	125
Runoff - mm.	117.158	113.270	376.963	887.069	4,047.926	4,748.230	6,379.690	4,625.510	1,764.286	393.896	372.470	367.286

WATER YEAR 1963 : Max. 2,935 Min. 32 Mean 769 Annual Runoff 24,323,758 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 12	18.00	24.42	2,946				

WATER YEAR 1964  
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 2 kilometers downstream from Dechatiwong Bridge, Amphoe Muang, Nakhon Sawan.

**Drainage Area:** 111,435 sq.km. referred to AMS Map 1:50,000.

**Type of Gage:** Staff gage.

**Zero Gage at Bottom at:** + 17.00 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.<sub>1</sub> + 26.250 m. (M.S.L.) and B.M.<sub>2</sub> + 26.091 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:** 1956 to date.

**Rated by Float:** -

**Rated by Current Meter:** 1956 to date.

**Stability of Channel Regimes:** Fairly stable, shifting adjustment and periodic rating curves are used for flow computation.

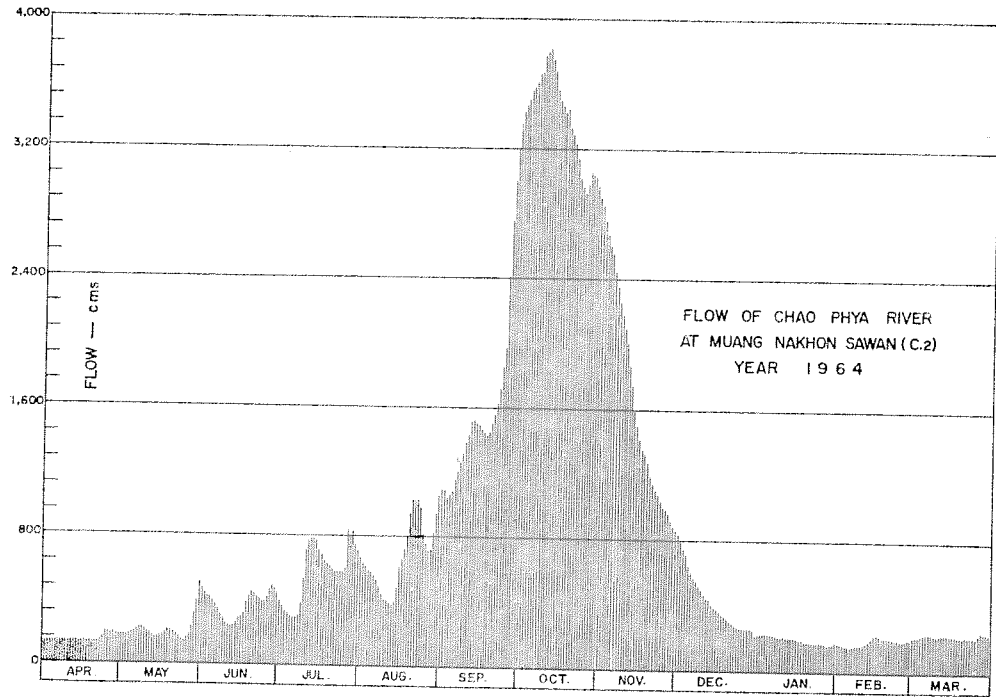
**Overbank Flow Conditions:** No overbank flow.

**General Description:** Records good, Stage - discharge relationship used by discharge measurements made during 1964. 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, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	18.11	18.23	19.29	19.06	19.96	20.94	24.03	24.50	20.53	18.57	18.27	18.40
2	.11	.24	.19	18.94	.84	.96	.98	.40	.43	.57	.26	.42
3	.10	.24	.13	.82	.78	.91	25.01	.29	.29	.57	.25	.41
4	.09	.24	.10	.75	.71	.93	.04	.17	.13	.55	.23	.45
5	.08	.28	.07	.70	.61	21.00	.08	.05	19.95	.53	.22	.45
6	18.07	18.30	18.99	18.65	19.50	21.18	25.10	23.92	19.81	18.51	18.20	18.45
7	.08	.34	.88	.60	.46	.30	.09	.77	.71	.50	.19	.49
8	.08	.42	.77	.65	.36	.39	.09	.63	.63	.48	.22	.48
9	.09	.42	.67	.81	.20	.46	.13	.50	.54	.45	.23	.48
10	.10	.40	.57	19.40	.08	.64	.16	.36	.47	.45	.24	.42
11	18.09	18.33	18.47	19.95	19.07	21.76	25.17	23.19	19.40	18.47	18.24	18.43
12	.08	.30	.43	20.15	.00	.92	.15	.82	.35	.47	.28	.46
13	.07	.22	.46	.21	18.93	22.00	.13	22.83	.32	.45	.33	.47
14	.06	.14	.55	.24	.97	21.99	.08	.62	.22	.42	.37	.45
15	.05	.13	.63	.21	19.25	.96	.04	.40	.15	.41	.44	.44
16	18.07	18.18	18.66	20.07	19.62	21.89	25.02	22.20	19.12	18.41	18.45	18.45
17	.06	.21	.72	19.98	.80	.88	24.99	.00	.08	.39	.44	.44
18	.05	.28	19.00	.85	.96	.84	.95	21.82	.03	.38	.40	.41
19	.09	.35	.12	.80	20.25	.86	.91	.65	18.99	.37	.39	.43
20	.06	.34	.24	.77	.62	.96	.88	.47	.93	.35	.36	.42
21	18.05	18.33	19.25	19.66	20.85	22.08	24.84	21.35	18.87	18.33	18.37	18.43
22	.05	.32	.20	.63	.87	.19	.78	.27	.84	.31	.35	.43
23	.09	.25	.10	.63	.87	.35	.72	.20	.81	.31	.34	.43
24	.19	.16	.00	.63	.73	.67	.70	.10	.75	.31	.34	.42
25	.26	.14	.01	.66	.34	.94	.66	.10	.70	.30	.31	.41
26	18.26	18.17	19.09	19.74	20.11	23.67	24.65	20.92	18.70	18.36	18.32	18.43
27	.25	.26	.23	20.35	19.98	24.16	.0	.85	.70	.29	.33	.47
28	.28	.50	.30	.27	20.02	.51	.69	.75	.70	.26	.36	.48
29	.27	.73	.26	.34	.29	.71	.68	.66	.66	.23	-	.47
30	.25	.98	.19	.19	.63	.85	.63	.61	.62	.26	-	.43
31	-	19.38	-	.08	.87	-	.56	-	.58	.27	-	.42
Mean	18.12	18.35	18.95	19.61	19.89	22.16	24.92	22.42	19.26	18.40	18.31	18.44
Max.	18.26	19.38	19.30	20.35	20.87	24.85	25.17	24.50	20.53	18.57	18.45	18.49
Min.	18.05	18.13	18.43	18.60	18.93	20.91	24.56	20.61	18.58	18.23	18.19	18.40

WATER YEAR 1964 : Max. 25.17 m. Min. 18.07 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	144	182	480	403	677	1,097	3,430	2,848	836	227	177	211
2	144	185	450	370	637	1,097	3,469	2,760	801	227	175	220
3	141	195	432	336	618	1,050	3,512	2,671	752	229	173	218
4	139	185	423	322	595	1,058	3,563	2,603	715	229	169	227
5	137	196	409	311	579	1,085	3,580	2,554	655	227	157	227
6	134	202	378	300	557	1,157	3,614	2,442	608	227	153	227
7	137	213	347	302	528	1,207	3,665	2,346	576	227	159	236
8	137	230	316	316	492	1,262	3,665	2,256	550	222	165	234
9	139	230	294	361	447	1,313	3,772	2,179	521	216	167	234
10	141	227	269	538	417	1,384	3,798	2,099	500	216	171	222
11	139	207	246	711	414	1,436	3,825	2,096	479	220	171	225
12	137	199	241	774	395	1,507	3,755	1,884	443	220	179	231
13	134	182	252	785	375	1,521	3,681	1,753	434	216	190	234
14	137	168	272	796	409	1,507	3,554	1,602	404	209	209	229
15	134	165	288	785	493	1,503	3,499	1,500	384	203	225	227
16	139	179	302	725	611	1,471	3,462	1,412	376	200	227	229
17	137	182	314	694	671	1,449	3,409	1,356	364	196	225	227
18	134	193	398	650	725	1,436	3,447	1,331	350	194	216	218
19	134	213	432	634	814	1,454	3,332	1,262	339	190	213	222
20	139	210	453	624	945	1,507	3,285	1,190	323	185	207	220
21	137	207	441	595	1,030	1,567	3,231	1,144	308	181	209	222
22	137	204	426	579	1,038	1,629	3,140	1,114	293	177	205	222
23	146	185	423	579	1,038	1,716	3,020	1,087	286	177	193	222
24	174	160	395	579	984	1,850	2,967	1,038	272	177	193	220
25	193	154	398	602	532	1,968	2,925	1,004	267	177	192	218
26	199	163	426	627	760	2,388	2,988	985	267	177	194	231
27	190	193	471	840	715	2,716	3,056	966	267	175	196	241
28	193	260	493	810	729	3,005	3,044	914	267	169	202	243
29	190	325	480	836	825	3,191	3,032	889	267	163	-	241
30	185	395	453	757	959	3,332	2,978	864	238	175	-	231
31	-	515	-	718	1,058	-	2,905	-	229	177	-	229
Total	4,501	6,694	11,402	18,259	21,368	49,863	10,460	50,059	15,371	6,202	5,322	7,038
Mean	150	216	380	589	689	1,662	3,374	1,669	431	200	190	227
Max.	199	515	493	840	1,058	3,332	3,825	2,848	836	229	227	243
Min.	134	154	241	300	375	1,050	2,905	864	229	163	153	211
Runoff - ccm.	388,886	578,362	985,133	1,577,578	1,846,195	4,308,163	9,037,526	4,325,098	1,155,254	535,853	459,821	608,083

WATER YEAR 1964 : Max. 3,825 Min. 134 Mean 818 Annual Runoff 25,805.952 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 11	18.00	25.17	3,825				

WATER YEAR 1963  
CHAO PHYA RIVER BASIN

Chao Phya River at Ban Gang Kaeo, Ang Thong. (C.7)

Location: Lat 14° - 35' - 05" N, Long 100° - 27' - 12" E, on left bank in front of the police station, Amphoe Muang, Ang Thong.

Drainage Area: Flood plain.

Type of Gage: Staff gage.

Zero Gage at Bottom at: + 0.90 m. (M.S.L.)

Bench Mark: B.M. C.7

Location: On left bank in front of Muang Ang Thong police station.

Elevation: + 6.569 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 for years without actual ratings.

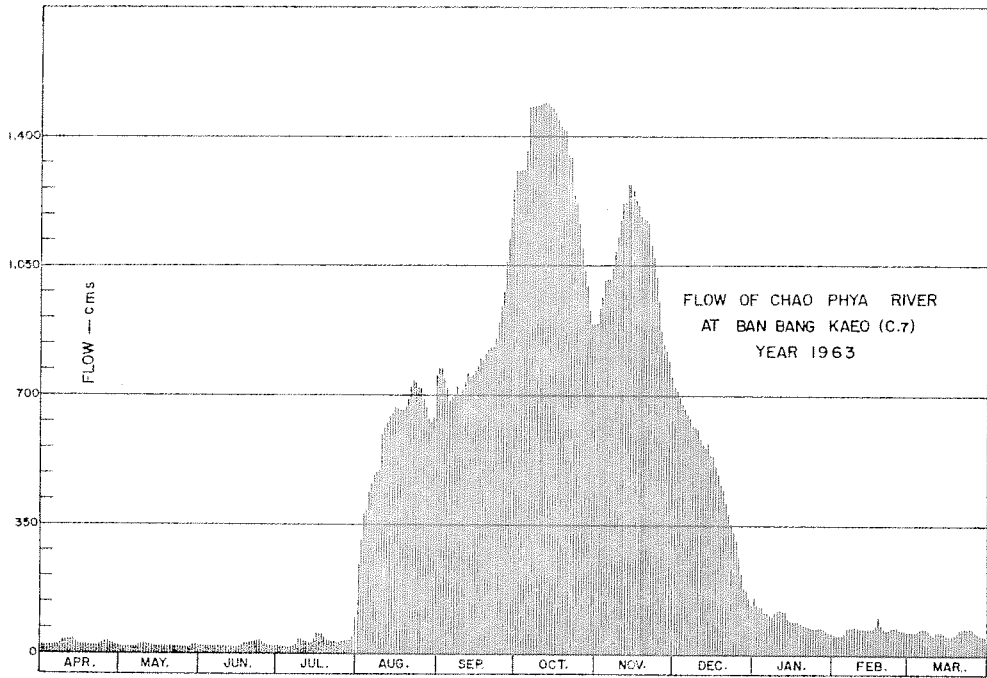
Overbank Flow Conditions: Overbank flow was observed but not included for flow computation.

General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made for period 1955. Flow is effected by Chao Phya Diversion at Chai Nat, which is at upstream. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	1.01	0.96	1.04	0.99	3.17	5.59	6.44	5.94	5.41	2.53	1.52	1.62
2	0.97	.96	.03	.99	.60	.59	.44	6.02	.38	.36	.51	.60
3	.99	.96	.00	.97	.97	.49	.44	.07	.31	.36	.47	.61
4	1.04	.95	.03	.96	4.09	.42	.44	.13	.26	.35	.49	.63
5	.07	.97	.03	.96	.26	.29	.48	.14	.21	.22	.67	.69
6	1.07	0.97	0.99	0.96	4.38	5.33	6.56	6.14	5.17	2.17	1.76	1.72
7	.10	1.03	.99	.99	.53	.35	.56	.18	.11	.15	.78	.69
8	.19	.12	.98	1.04	.51	.43	.56	.23	.04	.07	.77	.64
9	.29	.14	.97	.33	.57	.36	.56	.28	4.94	.17	.76	.49
10	.29	.12	.97	.33	.84	.39	.57	.33	.92	.25	.74	.47
11	1.29	1.11	1.01	1.28	4.94	5.46	6.57	6.36	4.82	2.25	1.74	1.56
12	.30	.10	.00	.21	5.06	.55	.57	.37	.74	.23	.74	.55
13	.31	.03	0.98	.18	.15	.51	.57	.39	.71	.20	.72	.56
14	.14	0.97	.96	.17	.16	.52	.56	.41	.82	.04	.68	.50
15	.11	.97	.96	.39	.22	.56	.56	.40	.72	1.97	.69	.45
16	1.05	0.98	0.97	1.55	5.22	5.58	6.55	6.37	4.69	1.95	1.72	1.45
17	.07	1.06	1.05	.52	.20	.67	.54	.36	.58	.95	.77	.45
18	.08	.03	.14	.52	.20	.63	.53	.33	.49	.95	2.06	.47
19	.06	.01	.14	.57	.23	.71	.52	.32	.35	.87	1.83	.57
20	.01	0.99	.16	.32	.30	.75	.52	.32	.28	.81	.68	.68
21	0.99	0.99	1.22	1.31	5.43	5.77	6.47	6.31	4.12	1.83	1.66	1.69
22	.97	1.00	.23	.28	.48	.77	.44	.25	3.97	.80	.68	.71
23	1.00	0.98	.24	.23	.47	.83	.39	.21	.82	.71	.72	.72
24	.10	.96	.25	.19	.43	.94	.37	.14	.71	.75	.72	.72
25	.23	.95	.21	.24	.42	6.03	.31	.04	.45	.75	.72	.71
26	1.23	0.92	1.11	1.26	5.33	6.08	6.24	5.90	3.28	1.77	1.69	1.65
27	.17	.92	.03	.24	.24	.18	.17	.79	.01	.77	.64	.53
28	.14	.97	.02	.24	.14	.27	.11	.74	2.72	.70	.61	.47
29	.10	1.10	.04	.24	.07	.33	.01	.64	.68	.62	.62	.47
30	.02	.10	.02	.49	.14	.40	5.94	.52	.50	.55	-	.47
31	-	.05	-	2.07	.52	-	.94	-	.40	.54	-	.46
Mean	1.11	1.01	1.06	1.26	4.91	5.69	6.42	6.15	4.31	1.99	1.69	1.58
Max.	1.31	1.14	1.25	2.07	5.52	6.40	6.57	6.41	5.41	2.53	2.06	1.72
Min.	0.97	0.92	0.96	0.96	3.17	5.29	5.94	5.52	2.40	1.54	1.47	1.45

WATER YEAR 1963 : Max. 6.57 m. Min. 0.92 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	23	21	25	23	243	775	1,309	895	721	155	56	64
2	22	21	24	23	314	775	1,309	937	712	134	55	62
3	23	21	23	22	382	745	1,309	970	691	134	52	63
4	25	21	24	21	406	724	1,309	1,012	677	133	53	64
5	26	22	24	21	442	685	1,363	1,012	664	118	68	69
6	26	22	23	21	467	697	1,480	1,012	653	113	75	72
7	28	24	23	23	499	703	1,480	1,050	638	111	76	69
8	33	29	22	25	494	727	1,480	1,092	620	103	76	65
9	39	30	22	42	508	706	1,480	1,137	596	113	75	53
10	39	29	22	42	572	715	1,495	1,185	591	121	73	52
11	39	29	23	39	596	736	1,495	1,215	567	121	73	59
12	40	28	23	35	625	763	1,495	1,225	548	119	73	58
13	41	24	22	33	648	751	1,495	1,245	540	116	72	59
14	30	22	21	32	651	754	1,480	1,268	564	100	68	54
15	29	22	21	46	666	766	1,480	1,255	543	93	69	50
16	25	22	22	58	666	772	1,465	1,225	536	91	72	50
17	26	26	25	56	661	800	1,450	1,215	510	91	76	50
18	27	24	30	56	661	788	1,435	1,185	490	91	102	52
19	26	23	30	45	669	813	1,420	1,175	460	84	81	60
20	23	23	32	41	688	826	1,420	1,175	446	79	68	68
21	23	23	35	41	727	832	1,349	1,165	412	81	67	69
22	22	23	36	39	742	832	1,309	1,110	382	78	68	71
23	23	22	36	36	739	852	1,245	1,074	354	71	72	72
24	28	21	37	33	727	895	1,225	1,020	334	74	72	72
25	36	21	35	36	724	944	1,165	950	288	74	72	71
26	36	20	29	38	697	977	1,101	875	261	76	69	66
27	32	20	24	36	672	1,050	1,042	839	219	76	65	56
28	30	22	24	36	645	1,128	997	823	179	70	63	52
29	28	28	25	36	627	1,185	931	791	173	54	64	52
30	24	28	24	53	645	1,255	895	754	151	58	-	52
31	-	25	-	103	754	-	895	-	139	57	-	51
Total	872	736	786	1,191	18,557	24,286	40,803	31,886	14,659	2,999	2,025	1,877
Mean	29	23.7	26.2	38.4	599	809	1,316	1,063	473	96.7	69.8	60.5
Max.	41	30	37	103	754	1,255	1,495	1,268	721	155	102	72
Min.	22	20	21	21	243	685	895	754	139	57	52	50
Runoff - mcm.	75.341	63.590	67.910	102.902	1,603.325	2,098.310	3,525.379	2,754.950	1,266.538	259.114	174.960	162.173

WATER YEAR 1963 : Max. 1,495 Min. 20 Mean 384 Annual Runoff 12,154.493 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct.10	18.00	6.57	1,495				

WATER YEAR 1964  
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 in front of the police station, Amphoe Muang, Ang Thong.

Drainage Area: Flood plain.

Type of Gage: Staff gage.

Zero Gage at Bottom at: + 0.90 m. (M.S.L.)

Bench Mark: B.M. C.7

Location: On left bank in front of Muang Ang Thong police station.

Elevation: + 6.569 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 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 for years without actual ratings.

Overbank Flow Conditions: Overbank flow was observed but not included for flow computation.

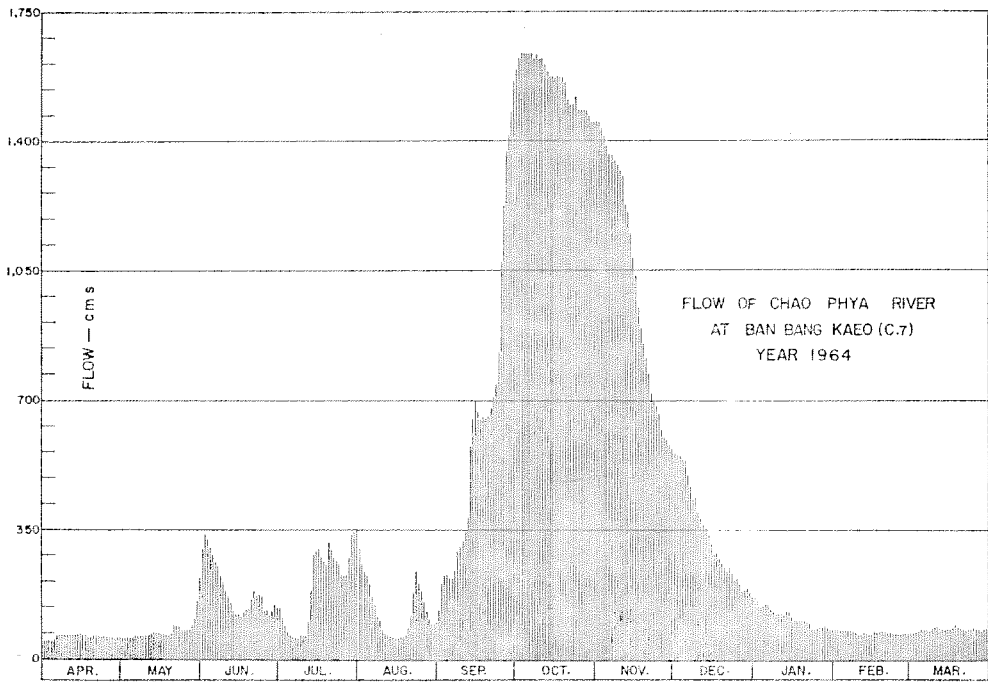
General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made for period 1955. Flow is effected by Chao Phya Diversion at Chai Nat, which is at upstream. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M. S. L. ), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	1.46	1.57	3.55	2.42	3.52	2.35	6.63	6.54	4.78	2.62	1.85	1.71
2	.46	.58	.75	.14	.27	.92	.65	.54	.76	.58	.84	.72
3	.46	.60	.66	.00	.15	3.08	.66	.53	.75	.46	.83	.74
4	.46	.60	.54	1.80	.06	.08	.66	.52	.73	.47	.83	.77
5	.49	.61	.42	.64	2.92	.01	.66	.50	.69	.52	.83	.85
6	1.65	1.63	3.28	1.61	2.68	3.00	6.66	6.48	4.55	2.50	1.83	1.85
7	.69	.63	.24	.58	.49	.15	.66	.48	.38	.41	.82	.84
8	.67	.65	.06	.59	.21	.47	.65	.47	.22	.34	.81	.82
9	.67	.66	2.95	.56	.12	.53	.66	.46	.25	.31	.75	.88
10	.67	.66	.78	.54	1.87	.63	.65	.45	.12	.29	.66	.93
11	1.67	1.67	2.65	1.63	1.70	3.76	6.65	6.44	3.94	2.27	1.70	1.93
12	.67	.74	.53	2.07	.62	.97	.64	.38	.88	.29	.75	.89
13	.67	.73	.35	.77	.62	4.83	.63	.35	.82	.36	.72	.85
14	1.71	.74	.24	.42	.59	5.16	.62	.29	.72	.33	.69	.83
15	.71	.73	.25	.46	.57	.25	.62	.21	.60	.25	.71	.84
16	1.69	1.73	2.22	3.51	1.56	5.22	6.62	6.16	3.43	2.10	1.79	1.86
17	.67	.70	.32	.39	.57	.15	.62	.04	.46	.12	.79	.90
18	.59	.69	.36	.31	.60	.17	.62	5.94	.38	.11	.81	.99
19	.58	.68	.37	.25	.67	.16	.62	.82	.30	.11	.79	.91
20	.65	.78	.56	.62	.92	.17	.61	.71	.21	.09	.79	.88
21	1.66	1.96	2.76	3.49	2.20	5.27	6.58	5.54	3.13	2.06	1.78	1.83
22	.66	.95	.69	.38	.77	.37	.57	.40	.22	.04	.75	.80
23	.64	.91	.71	.34	3.14	.47	.57	.33	.10	1.85	.75	.85
24	.63	.82	.66	.27	2.91	.69	.58	.28	2.97	.82	.74	.86
25	.63	.82	.34	.08	.80	6.21	.56	.20	3.00	.90	.71	.85
26	1.60	1.83	2.36	3.06	2.54	6.37	6.56	5.05	2.91	1.95	1.67	1.84
27	.58	.87	.26	.09	.33	.49	.56	4.96	.76	.95	.67	.81
28	.58	.97	.35	.37	.15	.53	.56	.94	.78	.96	.71	.78
29	.60	2.19	.49	.73	.02	.56	.55	.87	.82	.92	-	.82
30	.60	.62	.46	.94	1.98	.61	.54	.84	.72	.86	-	.84
31	-	3.04	-	.82	2.08	-	.54	-	.66	.85	-	.85
Mean	1.55	1.82	2.74	2.77	2.28	4.62	6.61	5.95	3.73	2.24	1.76	1.84
Max.	1.71	3.04	3.75	3.94	3.52	6.61	6.66	6.54	4.78	2.62	1.85	1.99
Min.	1.46	1.57	2.22	1.54	1.56	2.35	6.54	4.84	2.66	1.85	1.67	1.71

WATER YEAR 1964 : Max. 6.66 m. Min. 1.46 m.





DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	51	60	305	141	300	133	1,588	1,450	557	166	82	71
2	51	60	341	110	259	206	1,620	1,450	552	161	82	72
3	51	62	325	96	240	230	1,636	1,435	550	146	81	73
4	51	62	304	78	227	230	1,636	1,420	545	147	81	76
5	53	63	283	65	206	219	1,636	1,390	536	153	81	82
6	66	64	261	63	173	218	1,636	1,363	503	151	81	82
7	69	64	254	60	150	240	1,636	1,363	467	140	80	82
8	68	66	227	61	117	292	1,620	1,349	433	132	79	80
9	68	67	210	59	108	302	1,636	1,336	439	128	74	85
10	68	67	186	57	84	319	1,620	1,322	412	126	67	90
11	68	68	169	64	70	343	1,620	1,309	377	124	70	90
12	68	73	155	103	64	382	1,604	1,235	365	124	74	86
13	68	72	133	165	64	569	1,588	1,205	354	134	72	82
14	71	73	120	283	61	651	1,572	1,146	336	131	69	81
15	71	72	121	290	60	674	1,572	1,074	314	121	71	82
16	69	72	118	299	59	666	1,572	1,035	285	106	77	83
17	68	70	129	278	60	648	1,572	950	290	108	77	87
18	61	69	134	266	62	653	1,572	895	277	107	79	95
19	60	68	135	256	68	651	1,572	849	264	107	77	88
20	66	76	158	318	89	653	1,556	813	250	105	77	85
21	67	92	184	295	116	680	1,510	760	237	102	76	81
22	67	91	175	277	185	709	1,495	718	251	100	74	78
23	65	88	177	270	239	739	1,495	697	233	82	74	82
24	64	80	171	259	204	807	1,510	683	213	80	73	83
25	64	80	132	230	189	1,074	1,480	661	218	87	71	82
26	62	81	134	227	156	1,225	1,480	622	204	91	68	82
27	60	84	123	231	131	1,376	1,480	600	184	91	68	80
28	60	93	133	275	111	1,435	1,480	596	186	92	71	76
29	62	115	150	337	98	1,480	1,465	579	192	89	-	80
30	62	166	146	377	94	1,556	1,450	572	179	83	-	82
31	-	224	-	354	104	-	1,450	-	171	82	-	82
Total	1,899	2,542	5,593	6,264	4,148	19,360	48,359	30,877	10,110	3,596	2,106	2,540
Mean	63.3	82	186	202	134	645	1,560	1,029	326	116	75.2	81.9
Max.	71	224	341	377	300	1,556	1,636	1,450	557	166	82	95
Min.	51	60	118	57	59	133	1,450	572	171	82	68	71
Runoff - mcm.	164.074	219.629	483.235	541.210	358.387	1,672.704	4,178.218	2,667.773	873.504	310.694	181.958	215.456

WATER YEAR 1964 : Max. 1,636 Min. 51 Mean 376 Annual Runoff 11,870.842 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct.3	18.00	6.66	1,636				

WATER YEAR 1963  
CHAO PHYA RIVER BASIN

Chao Phya River at Wat Pho Ngam, Chai Nat. (C. 15)

Location: Lat  $15^{\circ} - 09' - 57''$  N, Long  $100^{\circ} - 11' - 32''$  E, on left bank 1,500 meters downstream from Chao Phya Diversion Dam. Amphoe Ranthaya, Chai Nat.

Drainage Area: 120,693 sq.km. referred to AMC Map 1:50,000.

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: 1949 to date.

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 computation for years without actual ratings.

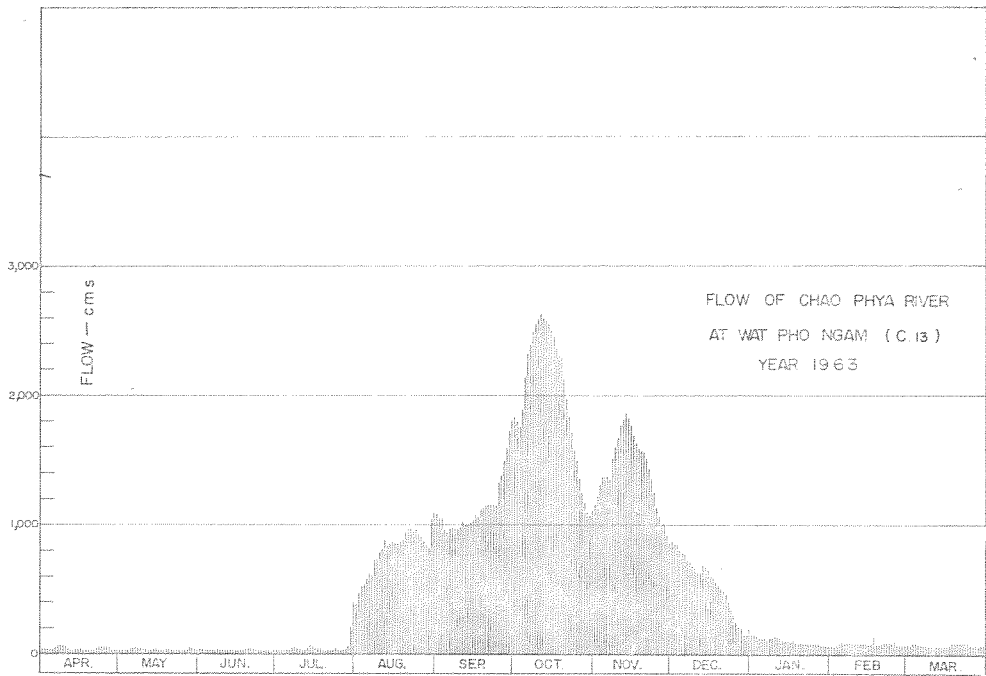
Overbank Flow Conditions: No overbank flow condition.

General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made for period 1962. Upstream diversions for irrigation of about 979,000 hectares. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	7.06	7.03	7.08	6.95	9.15	11.60	15.50	11.85	-10.95	7.92	7.35	7.40
2	.07	.03	.07	.95	.50	.50	.43	12.18	.85	.97	.30	.40
3	.07	.03	.08	.95	.70	.51	.35	.25	.85	.90	.40	.50
4	.07	.03	.03	.95	.78	.25	.60	.40	.70	.81	.60	.50
5	.07	.03	.05	.95	.94	.17	14.10	.40	.65	.78	.60	.50
6	7.17	7.14	7.05	7.04	10.10	11.27	14.36	12.48	10.61	7.78	7.60	7.45
7	.33	.24	6.97	.21	.04	.27	.82	.60	.48	.67	.60	.45
8	.33	.18	7.03	.20	.48	.27	.65	.77	.39	.85	.55	.30
9	.30	.13	.05	.17	.44	.27	.73	13.00	.30	.85	.55	.30
10	.30	.13	.05	.10	.65	.29	.80	.19	.23	.90	.55	.30
11	7.17	7.07	7.05	7.01	10.75	11.43	14.85	13.38	10.10	7.35	7.55	7.30
12	.03	.00	.03	.02	.95	.35	.80	.46	.10	.85	.53	.30
13	.03	.02	.05	.20	.85	.35	.76	.55	.30	.65	.30	.30
14	.03	.04	.00	.41	.89	.41	.73	.45	.25	.65	.50	.30
15	.03	.15	.01	.33	.90	.47	.67	.38	.20	.65	.50	.30
16	7.02	7.10	7.01	7.20	10.87	11.51	14.54	13.21	10.05	7.65	7.60	7.30
17	.01	.01	.02	.18	.89	.53	.44	.07	9.97	.65	.87	.30
18	.03	.01	.04	.13	.90	.72	.39	12.95	.87	.55	.45	.50
19	.00	.01	.10	6.99	.99	.75	.30	.90	.75	.50	.45	.50
20	.00	.05	.19	7.04	11.20	.82	.06	.90	.66	.55	.45	.50
21	7.00	7.02	7.19	7.05	11.23	11.79	13.76	12.77	9.57	7.50	7.55	7.50
22	.12	.02	.18	.05	.27	.82	.50	.57	.46	.50	.55	.50
23	.25	.01	.07	.05	.20	.79	.23	.35	.20	.50	.55	.50
24	.25	6.97	.03	.17	.23	.82	.02	.06	8.95	.50	.55	.50
25	.25	.96	.03	.13	.15	12.28	12.72	11.76	.74	.50	.50	.40
26	7.23	7.02	7.00	7.07	11.04	12.44	12.35	11.53	8.50	7.50	7.42	7.30
27	.20	.09	6.99	.07	10.92	.73	.10	.35	.28	.50	.40	.30
28	.04	.20	.97	.15	.83	.76	11.83	.35	.23	.40	.40	.30
29	.03	.12	.97	.42	.78	13.29	.64	.10	7.98	.35	.40	.30
30	.05	.08	.97	6.27	11.50	.43	.58	10.90	.95	.35	-	.30
31	-	.08	-	9.15	.62	-	.70	-	8.15	.35	-	.30
Mean	7.12	7.06	7.04	7.21	10.70	11.77	13.68	12.50	9.72	7.64	7.51	7.36
Max.	7.33	7.24	7.19	9.15	11.62	13.43	14.85	13.55	10.95	7.97	7.87	7.50
Min.	7.00	6.96	6.97	6.95	9.15	11.17	11.58	10.90	7.95	7.35	7.30	7.30

WATER YEAR 1963 : Max. 14.85 m. Min. 6.95 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	35	32	37	25	391	1,084	1,835	1,167	875	148	67	73
2	36	32	36	25	475	1,051	1,800	1,228	845	157	61	73
3	36	32	37	25	525	1,054	1,760	1,315	845	145	73	85
4	36	32	32	25	545	968	1,885	1,372	802	130	98	85
5	36	32	34	28	585	942	2,156	1,372	787	125	98	85
6	47	43	34	33	630	975	2,329	1,372	776	125	98	79
7	65	54	27	51	613	975	2,391	1,346	738	108	98	79
8	65	48	32	50	738	975	2,492	1,518	712	136	91	61
9	61	42	34	47	741	975	2,545	1,602	685	136	91	61
10	61	42	34	39	787	932	2,595	1,685	666	145	91	61
11	47	36	34	30	825	1,028	2,628	1,775	630	136	91	61
12	32	29	32	31	875	1,001	2,595	1,815	630	136	89	61
13	32	31	34	50	845	1,001	2,566	1,860	686	105	85	61
14	32	33	29	74	857	1,021	2,545	1,810	672	105	85	61
15	32	44	30	65	860	1,041	2,505	1,775	658	105	85	61
16	31	39	30	50	851	1,087	2,442	1,695	616	105	98	61
17	30	30	31	48	857	1,061	2,360	1,632	594	105	140	61
18	29	30	33	42	860	1,124	2,329	1,582	567	91	79	85
19	29	30	39	29	887	1,133	2,275	1,562	537	85	79	85
20	29	34	49	33	952	1,157	2,132	1,562	515	91	79	85
21	29	31	49	34	962	1,147	1,965	1,513	492	85	91	85
22	41	31	48	34	975	1,157	1,835	1,437	465	85	91	85
23	55	30	36	34	952	1,147	1,704	1,353	403	85	91	85
24	55	27	32	47	962	1,157	1,611	1,243	347	85	91	85
25	55	26	32	42	936	1,326	1,494	1,137	303	85	95	73
26	53	31	29	35	902	1,367	1,353	1,061	255	85	75	61
27	50	38	29	36	866	1,497	1,258	1,001	212	85	73	61
28	33	50	27	44	840	1,594	1,160	1,001	203	73	73	61
29	32	41	27	77	825	1,731	1,097	920	159	67	73	61
30	32	37	27	211	1,051	1,800	1,077	860	153	67	-	61
31	-	37	-	391	1,091	-	1,117	-	189	67	-	61
Total	1,236	1,104	1,014	1,786	25,062	34,578	61,832	42,573	17,018	3,288	2,529	2,203
Mean	41.2	35.6	33.8	57.6	908	1,153	1,994	1,419	549	106	87.2	71.0
Max.	65	54	49	391	1,091	1,800	2,628	1,850	875	136	140	85
Min.	29	26	27	25	391	942	1,077	860	153	67	61	61
Runoff - BCM.	106.790	95.386	87.610	154.310	2,165.357	2,987.639	5,342.289	3,678.307	1,470.356	284.083	218.505	190.339

WATER YEAR 1963 : Max. 2,628 Min. 25 Mean 531 Annual Runoff 16,780.867 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 11	06.00	14.85	2,628				

WATER YEAR 1964  
CHAO PHYA RIVER BASIN

Chao Phya River at Wai Pho Ngam, Chai Nat (C.13)

Location: Lat 19° - 09' - 57" N., Long 100° - 11' - 32" E., on left bank 1,500 meters downstream from Chao Phya Diversion Dam.  
Amphoe Sangkhaya, Chai Nat.

Drainage Area: 120,693 sq.km. referred to AMS Map 1:50,000.

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. - R.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 to date.

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 Regime: Stable, no shifting adjustment for flow computation for years without actual ratings.

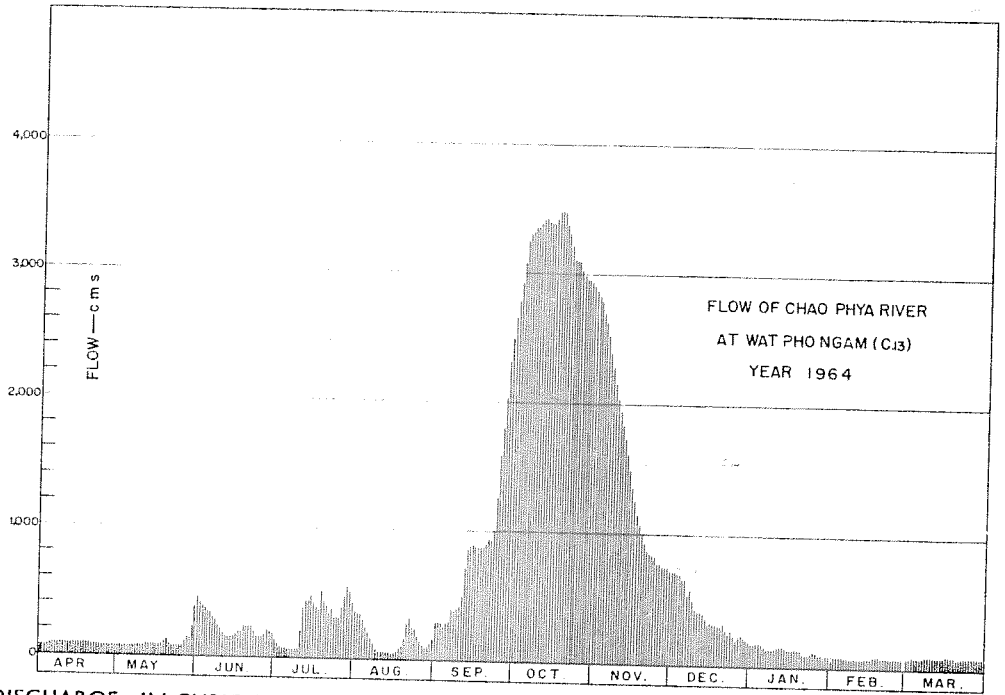
Overbank Flow Conditions: no overbank flow condition.

General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made for period 1962. Upstream diversions for irrigation of about 979,000 hectares. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	7.30	7.40	8.40	7.76	9.00	8.66	15.95	15.14	10.40	8.00	7.48	7.45
2	.30	.40	.22	.62	8.96	.67	.23	.07	.40	.00	.48	.45
3	.30	.40	.12	.45	.92	.63	.46	14.94	.35	.03	.48	.50
4	.30	.40	.06	.35	.68	.50	.63	.84	.33	.07	.48	.50
5	.50	.40	8.90	.30	.40	.65	.70	.70	.20	.07	.48	.50
6	7.50	7.40	8.90	7.30	8.19	8.67	15.71	14.48	10.20	7.91	7.40	7.45
7	.50	.45	.65	.30	7.92	9.13	.75	.30	9.70	.85	.40	.50
8	.50	.45	.58	.29	.65	.06	.75	.10	.90	.85	.36	.55
9	.50	.45	.37	.29	.32	.12	.78	13.90	.57	.85	.32	.55
10	.50	.45	.26	.37	.26	.25	.82	.70	.33	.85	.38	.55
11	7.50	7.45	8.08	8.28	7.23	9.46	15.82	13.50	9.20	7.92	7.35	7.50
12	.50	.50	7.93	9.09	.22	10.39	.80	.30	.20	.95	.35	.50
13	.50	.50	.90	.35	.20	.88	.79	.00	.15	.92	.35	.50
14	.50	.50	.93	.35	.19	.96	.79	12.70	8.98	.87	.45	.50
15	.50	.50	.96	.47	.19	11.00	.82	.35	.75	.84	.40	.50
16	7.50	7.50	8.06	9.27	7.19	10.94	15.88	12.10	8.85	7.83	7.40	7.62
17	.50	.50	.17	.15	.19	.93	.89	.78	.80	.83	.50	.62
18	.50	.50	.15	.83	.37	.91	.88	.56	.80	.83	.50	.55
19	.50	.69	.35	.65	.61	.95	.81	.36	.75	.83	.50	.55
20	.50	.77	.40	.35	.90	.98	.72	.15	.70	.77	.40	.45
21	7.45	7.53	8.40	9.20	8.60	11.15	15.62	10.95	8.78	7.59	7.45	7.45
22	.45	.45	.40	8.90	.78	.10	.49	.87	.55	.55	.45	.50
23	.45	.45	.16	9.09	.42	.37	.48	.80	.45	.60	.45	.50
24	.40	.45	7.96	8.76	.40	12.03	.45	.70	.53	.65	.41	.50
25	.40	.40	.95	.80	.05	.95	.41	.60	.31	.75	.40	.50
26	7.40	7.40	7.90	8.76	7.86	13.40	15.35	10.60	8.18	7.68	7.45	7.50
27	.40	.65	8.05	9.12	.63	.89	.30	.50	.32	.52	.40	.50
28	.40	.89	.23	.50	.50	14.28	.30	.50	.35	.55	.40	.50
29	.40	8.33	.18	.80	.57	.60	.27	.50	.30	.48		.50
30	.40	.70	.05	.67	.75	.84	.24	.40	.21	.48		.50
31		9.11		.25	8.00		.19		.12	.48		.50
Mean	7.44	7.59	8.36	8.61	7.85	10.84	15.59	12.61	9.08	7.79	7.42	7.51
Max.	7.50	9.11	9.40	9.80	9.00	14.84	15.89	15.14	10.40	8.07	7.48	7.62
Min.	7.30	7.40	7.90	7.29	7.19	8.50	15.05	10.40	8.12	7.48	7.32	7.45

WATER YEAR 1964 : Max. 15.89 m. Min. 7.19 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	61	73	450	122	358	287	2,770	2,854	715	162	83	79
2	51	73	407	101	349	289	2,899	2,785	715	162	83	79
3	61	73	385	79	340	281	3,081	2,692	700	167	83	85
4	61	73	371	67	291	255	3,232	2,621	695	175	83	85
5	85	73	336	61	235	285	3,295	2,525	658	175	83	85
6	85	73	336	61	196	289	3,304	2,385	658	147	73	79
7	85	79	287	61	148	387	3,342	2,275	525	136	73	79
8	85	79	271	60	105	371	3,342	2,156	575	136	68	85
9	85	79	229	60	63	385	3,371	2,040	492	136	63	91
10	85	79	209	69	57	414	3,409	1,935	433	136	71	91
11	85	79	176	212	53	465	3,409	1,835	403	148	67	85
12	85	85	150	378	52	712	3,390	1,736	403	153	67	85
13	85	85	145	438	50	854	3,380	1,602	391	148	67	85
14	85	85	150	438	49	878	3,380	1,486	354	140	79	85
15	85	85	155	467	49	890	3,409	1,353	305	135	73	85
16	85	85	173	419	49	872	3,466	1,258	325	133	73	101
17	85	85	193	391	49	869	3,475	1,143	315	133	85	101
18	85	85	189	365	49	863	3,466	1,071	315	133	85	91
19	85	111	225	512	99	875	3,399	1,005	305	133	85	91
20	85	123	235	438	145	884	3,314	936	295	123	73	79
21	79	89	235	403	275	936	3,223	875	311	97	79	79
22	79	79	235	336	311	920	3,106	851	265	91	79	79
23	79	79	191	378	239	1,008	3,098	831	245	98	79	85
24	73	79	155	307	235	1,231	3,072	822	261	105	74	85
25	73	73	153	315	171	1,582	3,038	773	218	120	73	85
26	73	73	145	307	138	1,785	2,990	773	194	109	79	85
27	73	102	171	385	102	2,034	2,950	744	220	88	73	85
28	73	143	203	475	85	2,263	2,950	744	225	91	73	85
29	73	222	194	550	94	2,460	2,928	744	216	83	85	85
30	73	295	171	517	120	2,621	2,906	715	200	83	85	85
31		382		414	162		2,870		184	83	85	85
Total	2,352	3,278	6,925	9,186	4,738	28,245	99,264	45,545	12,116	3,959	2,126	2,667
Mean	78.4	106	231	296	153	941	3,202	1,518	391	128	75.9	86.0
Max.	85	382	450	550	358	2,621	3,475	2,834	715	175	83	101
Min.	61	73	145	60	49	255	2,770	715	184	83	63	79
Runoff - BCM.	203.213	283.219	598.320	793.670	409.363	2,440.368	8,576.410	3,935.088	1,046.822	342.058	183.686	230.429

WATER YEAR 1964 : Max. 3,475 Min. 49 Mean 604 Annual Runoff 19,042.646 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 18	06.00	15.89	3,475				

WATER YEAR 1963  
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 the 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 in front of the 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 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 for years without actual ratings.

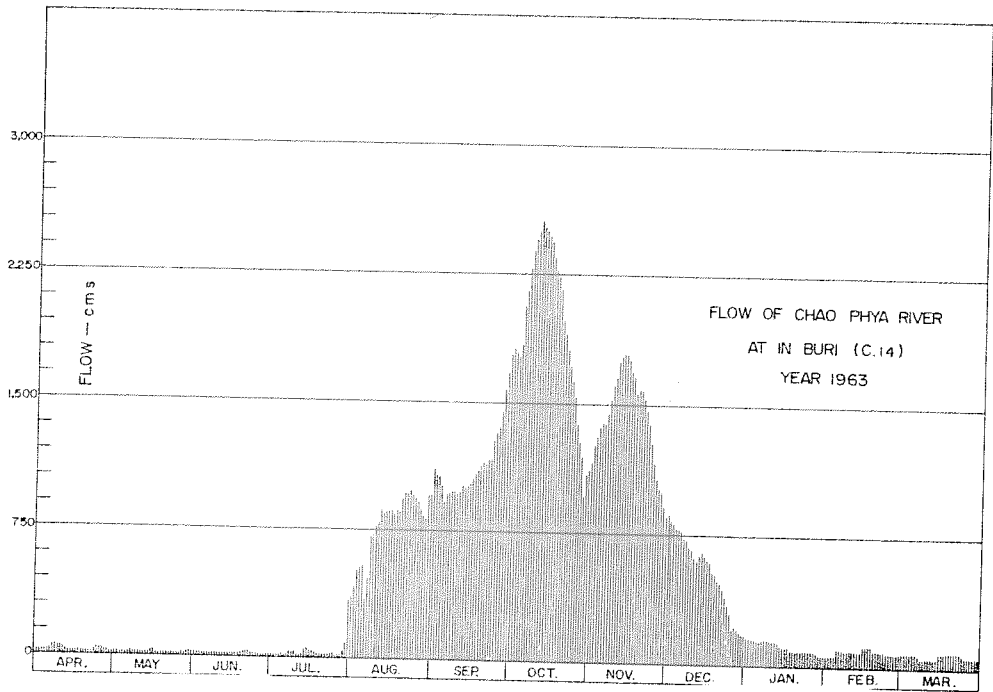
Overbank Flow Conditions: Overbank flow not observed.

General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made for period 1955. Flow effected by Chao Phya Diversion at Chai Nat. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	5.25	5.23	5.28	5.20	7.25	9.73	11.33	9.87	8.99	6.22	5.63	5.77
2	.25	.23	.26	.20	.50	.61	.29	10.14	.89	.22	.63	.77
3	.28	.23	.28	.20	.82	.58	.25	.27	.87	.22	.63	.77
4	.28	.23	.26	.17	.90	.47	.38	.39	.77	.20	.63	.77
5	.30	.23	.24	.20	.95	.20	.76	.45	.75	.13	.89	.75
6	5.39	5.23	5.24	5.20	7.16	9.30	11.90	10.44	8.70	6.14	5.89	5.75
7	.55	.40	.20	.20	.65	.34	12.05	.57	.57	.15	.83	.73
8	.55	.23	.20	.43	8.51	.35	.16	.74	.55	.17	.83	.55
9	.50	.25	.25	.37	.57	.35	.23	.93	.40	.16	.83	.55
10	.51	.25	.25	.37	.72	.33	.28	11.04	.37	.16	.83	.55
11	5.47	5.23	5.25	5.25	8.79	9.35	12.33	11.21	8.19	6.15	5.83	5.55
12	.30	.23	.24	.23	9.00	.45	.30	.27	.12	.13	.80	.55
13	.27	.24	.24	.29	8.94	.43	.28	.29	.25	.08	.80	.55
14	.26	.24	.26	.49	.99	.46	.25	.29	.30	5.93	.80	.55
15	.26	.34	.20	.55	9.00	.55	.22	.23	.23	.70	.99	.77
16	5.26	5.34	5.22	5.45	9.00	9.59	12.12	11.10	8.17	5.90	5.99	5.77
17	.26	.22	.22	.42	8.94	.66	.05	.03	.10	.90	.99	.77
18	.24	.22	.22	.37	9.00	.71	.00	10.83	7.90	.84	.99	.77
19	.24	.22	.22	.27	8.99	.79	11.91	.87	.90	.80	.83	.79
20	.22	.22	.35	.25	9.23	.84	.68	.87	.70	.79	.83	.79
21	5.22	5.25	5.35	5.25	9.31	9.83	11.51	10.77	7.64	5.79	5.80	5.80
22	.22	.23	.38	.25	.31	.87	.33	.61	.54	.79	.80	.80
23	.35	.22	.27	.23	.35	.89	.15	.43	.34	.79	.80	.80
24	.45	.20	.24	.30	.29	10.17	10.99	.18	.14	.79	.73	.70
25	.44	.17	.23	.35	.25	.26	.79	9.88	6.99	.79	.73	.60
26	5.44	5.19	5.23	5.29	9.17	10.37	10.45	9.64	6.50	5.79	5.70	.60
27	.33	.25	.20	.27	.03	.66	.17	.44	.57	.79	.70	.60
28	.33	.28	.20	.29	8.92	.87	9.94	.39	.49	.71	.70	.60
29	.23	.32	.20	.54	.87	11.13	.31	.19	.35	.65	.70	.60
30	.23	.32	.20	.88	9.27	.27	.59	8.98	.34	.63	.63	.60
31		.27		7.12	.29		.77		.27	.63		.60
Mean	5.33	5.25	5.25	5.38	8.71	9.81	11.41	10.48	7.83	5.95	5.80	5.68
Max.	5.55	5.40	5.38	7.12	9.35	11.27	12.33	11.29	8.99	6.22	5.99	5.80
Min.	5.22	5.17	5.20	5.17	7.25	9.20	9.31	8.98	6.27	5.63	5.63	5.55

WATER YEAR 1963 : Max. 12.33 m. Min. 5.17 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	26	24	28	22	373	1,110	1,811	1,161	857	158	68	87
2	26	24	27	22	435	1,068	1,789	1,260	827	158	68	87
3	28	24	28	22	517	1,058	1,767	1,318	821	158	68	87
4	28	24	27	20	539	1,019	1,839	1,366	791	155	68	87
5	30	24	25	22	547	925	2,064	1,391	785	143	105	84
6	40	24	25	22	352	960	2,160	1,387	770	145	105	84
7	58	40	22	22	472	974	2,282	1,442	731	146	96	81
8	58	24	22	44	713	977	2,387	1,519	725	150	96	58
9	52	24	26	38	731	977	2,455	1,608	680	148	96	58
10	53	24	26	38	776	970	2,505	1,661	671	148	96	58
11	48	24	26	26	797	977	2,555	1,745	619	146	96	58
12	30	24	25	24	660	1,012	2,525	1,778	600	143	92	58
13	28	25	25	29	842	1,005	2,505	1,789	636	135	92	58
14	27	25	27	51	857	1,016	2,475	1,789	650	111	92	58
15	27	34	22	58	860	1,047	2,445	1,756	630	107	120	87
16	27	34	24	46	860	1,061	2,349	1,690	614	107	120	87
17	27	24	24	42	842	1,086	2,282	1,656	594	107	120	87
18	25	24	24	38	860	1,103	2,235	1,561	539	98	120	87
19	25	24	24	28	857	1,131	2,167	1,580	539	92	96	90
20	24	24	35	24	935	1,150	2,013	1,580	485	90	96	90
21	24	26	35	26	963	1,146	1,911	1,533	470	90	92	92
22	24	24	39	26	963	1,161	1,811	1,459	445	90	92	92
23	35	24	28	24	977	1,168	1,715	1,383	395	90	92	92
24	46	22	25	30	956	1,278	1,637	1,282	347	90	81	77
25	45	20	24	35	942	1,322	1,542	1,165	313	90	81	64
26	45	14	24	29	915	1,358	1,391	1,079	210	90	77	64
27	33	26	22	28	870	1,482	1,278	1,009	224	90	77	64
28	33	28	22	29	836	1,580	1,187	991	208	78	77	64
29	24	32	22	57	821	1,765	963	922	181	70	77	64
30	24	32	22	104	949	1,778	1,061	854	179	68	77	64
31		28		343	956		1,124		167	68		64
Total	1,020	794	775	1,369	24,173	34,604	60,230	42,714	16,703	3,559	2,656	2,332
Mean	34.0	25.6	25.8	44.1	779.7	1,153.4	1,942.9	1,423.8	538.8	114.6	91.5	75.2
Max.	58	40	39	343	977	1,778	2,555	1,789	857	158	120	92
Min.	24	14	22	20	352	925	963	854	167	68	68	58
Runoff - BCM.	88.128	68.602	66.960	118.282	2,088.547	2,989.786	5,203.872	3,690.490	1,443.139	307.498	229.478	201.485

WATER YEAR 1963 : Max. 2,555 Min. 14 Mean 521.6 Annual Runoff 16,496.266mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 11	06.00	12.33	2,555				

WATER YEAR 1964  
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 the 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 in front of the 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 to date.

Rating Operation:

Period of Rating: 1955  
Rated by Flow: -  
Rated by Current Meter: 1955

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

Overbank Flow Conditions: Overbank flow, not observed.

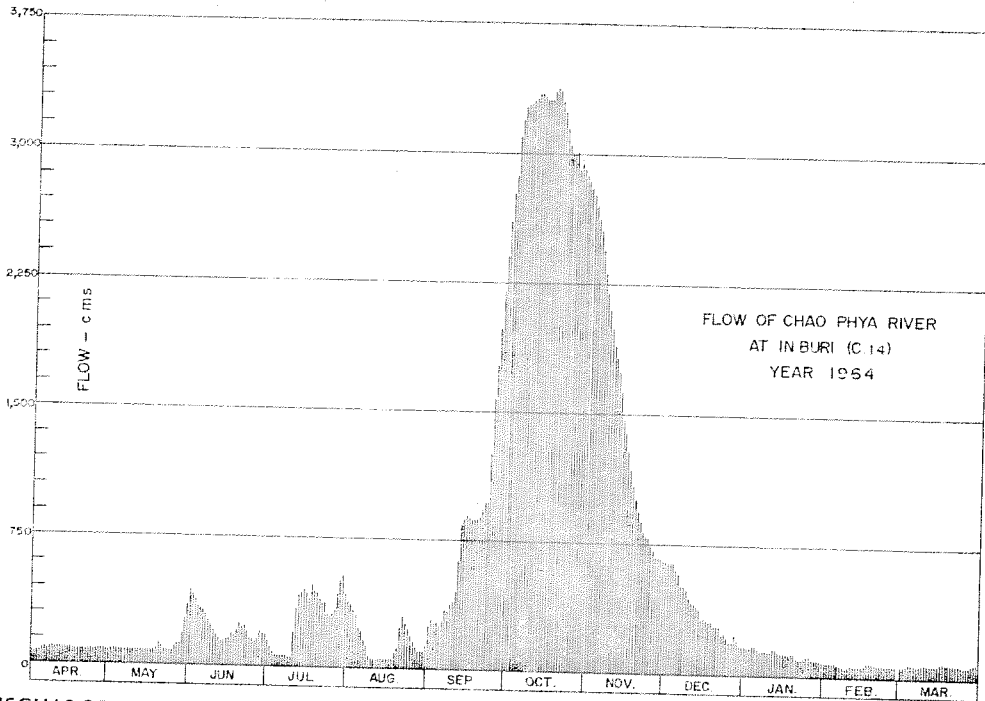
General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made for period 1955. Flow effected by Chao Phya Diversion at Chai Nat. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	5.60	5.73	7.52	6.16	7.27	5.71	12.53	12.53	8.29	6.23	5.73	5.63
2	.60	.73	.43	5.95	.22	.87	.63	.46	.26	.24	.73	.65
3	.60	.73	.29	.78	.08	.73	.79	.39	.27	.25	.73	.57
4	.60	.73	.11	.64	6.97	.80	.92	.33	.27	.29	.73	.71
5	.69	.73	.05	.60	.60	.72	.90	.77	.12	.26	.73	.69
6	5.79	5.73	7.00	5.60	6.51	6.82	13.00	12.07	8.05	6.21	5.68	5.68
7	.69	.73	6.88	.60	.19	7.11	.01	11.94	7.75	.10	.65	.65
8	.79	.73	.75	.57	.03	.07	.02	.80	.77	.10	.59	.67
9	.79	.73	.60	.50	5.68	.27	.04	.64	.71	.10	.53	.76
10	.79	.73	.47	.50	.52	.53	.06	.47	.51	.10	.55	.72
11	5.79	5.77	6.31	6.47	5.50	7.56	13.06	11.35	7.40	6.12	5.66	5.70
12	.79	.73	.21	7.09	.49	8.21	.05	.19	.38	.19	.61	.69
13	.79	.73	.11	.43	.49	.92	.03	10.97	.34	.19	.60	.67
14	.79	.73	.10	.47	.47	9.03	.03	.62	.26	.12	.65	.66
15	.79	.73	.18	.56	.48	.09	.03	.44	.00	.05	.65	.66
16	5.79	5.75	6.22	7.45	5.49	9.05	13.07	10.17	7.04	6.05	5.63	5.75
17	.70	.73	.37	.35	.50	.01	.09	9.93	.00	.05	.70	.79
18	.70	.73	.34	.65	.55	.02	.08	.66	6.97	.06	.70	.74
19	.70	.83	.49	.50	.80	.01	.02	.44	.95	.06	.70	.72
20	.70	6.01	.69	.47	6.05	.07	12.97	.23	.82	.03	.67	.70
21	5.70	5.90	6.56	7.32	6.64	9.23	2.88	9.05	6.86	5.89	5.66	5.70
22	.70	.73	.61	.21	.93	.33	.90	8.87	.81	.65	.65	.70
23	.70	.73	.48	.26	.72	.31	.76	.76	.59	.85	.65	.70
24	.73	.70	.21	6.96	.78	10.11	.75	.76	.65	.88	.60	.65
25	.73	.70	.19	.93	.38	.85	.76	.60	.57	.98	.60	.62
26	5.73	5.89	6.16	6.75	6.17	11.24	12.69	8.49	6.42	5.98	5.67	5.64
27	.73	.79	.22	7.08	.80	.62	.74	.35	.40	.84	.63	.63
28	.73	6.00	.44	.45	5.83	.94	.69	.35	.60	.80	.61	.69
29	.73	.39	.38	.76	.80	12.17	.63	.35	.45	.83	.73	.73
30	.73	.77	.35	.86	.85	.37	.61	.29	.33	.80	.74	.74
31		7.18		.45	6.14		.59		.33	.74		.75
Mean	5.73	5.87	6.56	6.79	6.23	8.85	12.88	10.32	7.20	6.04	5.65	5.69
Max.	5.79	7.18	7.52	7.86	7.27	12.37	13.09	12.53	8.29	6.29	5.73	5.79
Min.	5.60	5.70	6.10	5.50	5.47	6.71	12.53	8.29	6.33	5.74	5.53	5.62

WATER YEAR 1964 : Max. 13.09 m. Min. 5.47 m.





DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	64	81	440	148	378	252	2,761	2,761	647	160	81	68
2	64	81	417	111	366	285	2,666	2,709	639	162	81	70
3	64	81	385	89	333	256	3,059	2,615	642	163	81	73
4	64	81	340	69	308	270	3,182	2,555	642	170	81	78
5	76	81	326	64	230	254	3,259	2,445	600	169	81	76
6	90	81	315	64	212	274	3,270	2,301	580	157	74	74
7	76	81	288	64	155	340	3,281	2,190	498	158	70	70
8	90	81	260	60	127	351	3,292	2,059	504	158	63	73
9	90	81	230	52	74	378	3,314	1,989	488	158	56	77
10	90	81	204	52	54	392	3,356	1,868	457	158	58	80
11	90	87	174	204	52	449	3,356	1,822	410	141	72	77
12	90	81	157	336	51	625	3,325	1,735	405	155	65	76
13	90	81	140	417	51	836	3,303	1,628	395	153	64	73
14	90	84	158	427	48	870	3,303	1,464	375	141	70	72
15	90	84	152	449	50	889	3,303	1,387	315	130	70	72
16	90	84	158	422	51	876	3,347	1,278	324	130	68	84
17	77	81	165	397	52	863	3,369	1,183	315	150	77	90
18	77	81	179	472	58	866	3,358	1,086	308	132	77	83
19	77	96	208	435	92	865	3,292	1,009	303	132	77	80
20	77	124	248	427	130	882	3,237	935	274	127	73	77
21	77	107	222	390	258	935	3,138	876	283	105	72	77
22	77	81	232	365	299	970	3,050	821	272	99	70	77
23	77	84	206	375	254	965	3,006	788	228	199	70	77
24	81	77	157	306	266	1,254	2,995	768	240	104	64	70
25	81	77	153	299	186	1,570	3,006	740	224	119	64	67
26	81	105	148	303	150	1,762	2,908	707	194	119	75	69
27	81	120	156	333	122	1,977	2,984	665	190	98	68	68
28	81	122	198	422	96	2,190	2,908	665	230	92	65	76
29	81	138	185	501	92	2,396	2,866	655	200	96	92	81
30	81	264	181	528	99	2,595	2,845	647	177	92	83	83
31	81	356	181	422	145		2,803		177	83		84
Total	2,414	5,274	6,783	9,001	4,817	27,663	97,282	44,432	11,516	4,008	1,965	2,352
Mean	80.4	165.6	226.1	290.3	155.3	922.1	3,138	1,481	371.4	129.2	70.8	75.8
Max.	90	356	440	528	378	2,595	3,369	2,761	647	170	81	90
Min.	64	77	138	52	48	252	2,761	647	177	83	56	67
Runoff - BCM.	208.570	282.874	586.05	777.686	416.189	2,390.083	8,405.165	3,838.925	994.982	346.291	171.504	203.213

WATER YEAR 1964 : Max. 3,369 Min. 48 Mean 590.4 Annual Runoff 18,621.533bcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 17	06.00	13.09	3,369				

WATER YEAR 1963  
CHAO PHYA RIVER BASIN

Chao Phya River at Wat Chula Mani, Ayutthaya (C.15)

Location: Lat  $14^{\circ} - 25' - 35''$  N., Long  $100^{\circ} - 29' - 11''$  E., on left bank in front of Wat Chula Mani, 100 meters upstream from the 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 for years without actual ratings.

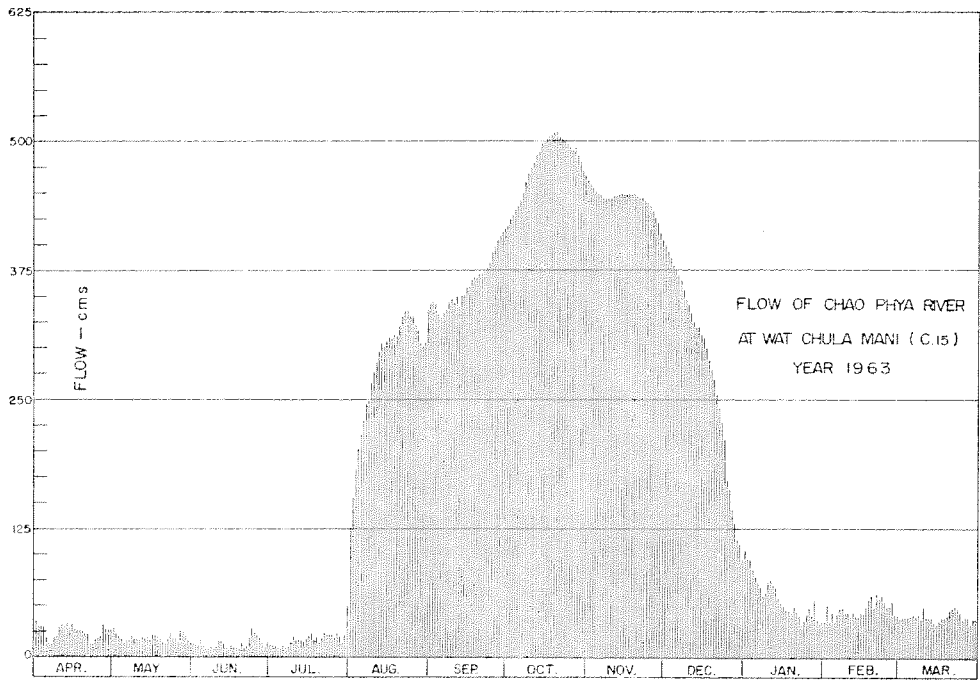
Overbank Flow Conditions: Overbank flow was observed but not included for flow computation.

General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made for period 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, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.51	0.42	0.12	0.08	1.69	3.55	4.08	4.34	3.94	1.43	0.51	0.57
2	.47	.32	.07	.09	.97	.56	.12	.32	.90	.32	.76	.57
3	.45	.26	.08	.06	2.73	.54	.14	.30	.86	.33	.52	.58
4	.47	.22	.18	.04	.4	.48	.17	.29	.81	.23	.64	.59
5	.25	.12	.06	.03	.55	.45	.20	.26	.77	.12	.53	.59
6	0.13	0.20	0.00	0.06	2.66	3.48	4.24	4.25	3.74	1.08	0.63	0.61
7	.1	.19	.04	.01	.78	.51	.29	.24	.71	0.99	.72	.60
8	.25	.28	.06	.04	.83	.55	.34	.24	.64	.89	.72	.61
9	.29	.21	.04	.14	.97	.57	.38	.24	.58	.93	.65	.56
10	.44	.22	.07	.26	3.05	.56	.42	.24	.53	.06	.66	.72
11	0.48	0.21	0.16	0.17	3.12	3.59	4.45	4.25	3.48	1.07	0.60	0.56
12	.43	.26	.20	.20	.20	.52	.49	.25	.41	.01	.64	.56
13	.48	.24	.13	.17	.26	.60	.51	.26	.38	.00	.60	.56
14	.41	.26	.04	.16	.24	.60	.55	.26	.39	0.86	.60	.50
15	.48	.22	.01	.21	.28	.65	.57	.26	.32	.77	.65	.46
16	0.40	0.30	0.09	0.27	3.31	3.66	4.58	4.26	3.30	0.74	0.65	0.51
17	.38	.29	.04	.31	.30	.71	.59	.26	.22	.71	.73	.56
18	.38	.27	.02	.18	.32	.72	.60	.26	.14	.66	.84	.58
19	.38	.21	.00	.21	.32	.72	.61	.26	.06	.65	.87	.62
20	.32	.13	.11	.13	.40	.74	.61	.25	2.98	.74	.72	.69
21	0.51	0.11	0.01	0.23	3.46	3.75	4.59	4.24	2.87	0.66	0.91	0.71
22	.10	.19	.06	.32	.49	.77	.58	.24	.77	.62	.84	.73
23	.11	.33	.24	.30	.50	.79	.57	.22	.65	.49	.88	.70
24	.22	.24	.40	.31	.46	.84	.55	.21	.49	.54	.80	.66
25	.23	.24	.33	.32	.46	.90	.53	.19	.18	.65	.74	.55
26	0.32	0.15	0.29	0.25	3.40	3.95	4.51	4.16	2.05	0.71	0.75	0.57
27	.46	.39	.23	.32	.36	.98	.53	.12	1.85	.62	.78	.57
28	.42	.35	.13	.29	.28	4.01	.49	.09	.71	.82	.61	.48
29	.39	.27	.04	.15	.24	.04	.45	.04	.55	.54	.62	.53
30	.40	.18	.14	.27	.27	.06	.41	3.99	.50	.48	.55	.55
31		.12		.73	.50		.37		.33	.51		.62
Mean	0.35	0.24	0.11	0.20	3.07	3.69	4.44	4.23	3.00	0.65	0.69	0.59
Max.	0.51	0.42	0.40	0.73	3.50	4.06	4.61	4.34	3.94	1.43	0.91	0.73
Min.	0.10	0.11	0.00	0.01	1.69	3.45	4.08	3.99	1.33	0.48	0.51	0.46

WATER YEAR 1963 : Max. 4.61 m. Min. 0.00 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	35	29	14	12	127	343	419	461	398	104	35	38
2	32	23	12	12	155	344	425	457	392	95	51	38
3	31	20	12	11	182	342	428	454	386	95	35	39
4	31	18	17	10	205	335	433	452	379	87	43	39
5	20	14	11	9.85	216	329	438	448	374	79	36	39
6	14	17	8.50	11	229	333	444	446	370	75	42	41
7	13	17	10	8.95	244	337	452	444	365	68	48	40
8	20	21	11	10	250	343	461	444	356	60	48	41
9	21	18	10	15	265	346	468	444	347	63	43	38
10	30	18	12	20	276	344	474	444	340	74	44	48
11	33	18	16	16	286	349	479	446	333	75	40	38
12	30	20	17	17	296	339	486	446	323	70	43	38
13	33	19	14	16	304	350	490	448	319	69	40	38
14	29	20	10	16	301	350	497	448	320	58	40	34
15	33	18	8.95	18	306	357	501	448	312	52	43	32
16	28	22	12	21	310	358	502	448	309	50	43	35
17	27	21	10	23	309	365	504	448	299	48	49	38
18	27	21	9.40	17	312	367	506	448	288	44	57	38
19	27	18	8.50	18	312	367	508	448	278	43	59	41
20	23	14	13	14	322	370	508	446	268	50	48	46
21	23	13	8.95	19	330	371	504	444	254	44	62	48
22	13	17	11	23	335	374	502	444	242	41	57	49
23	13	24	19	22	336	377	501	441	228	33	60	47
24	18	19	28	23	330	384	497	440	210	36	54	44
25	19	19	24	23	330	392	493	436	177	43	50	37
26	23	15	21	20	322	399	490	432	163	48	50	38
27	32	27	19	23	317	403	493	425	143	41	53	38
28	29	25	14	21	306	408	486	420	129	55	41	33
29	27	21	10	15	301	412	479	412	114	36	41	36
30	28	17	15	21	305	416	472	405	110	33		37
31		14		49	336		466		95	35		41
Total	762	597	406.30	554.80	8,754	10,902	14,806	13,267	8,621	1,804	1,355	1,227
Mean	25.4	19.2	13.5	17.9	282	365	478	442	278	58.1	46.7	39.5
Max.	35	29	28	49	336	416	508	461	398	104	62	49
Min.	13	13	8.50	8.95	127	329	419	405	95	33	35	32
Runoff - mcm.	65.837	51.581	35.078	47.952	756.346	941.933	1,279.238	1,146.269	744.854	155.866	117.072	106.013

WATER YEAR 1963 : Max. 508 Min. 8.50 Mean 172 Annual Runoff 5,448.038 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 19	6.00	4.61	508				

WATER YEAR 1964  
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 in front of Wat Chula Mani, 100 meters upstream from the 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 for years without actual ratings.

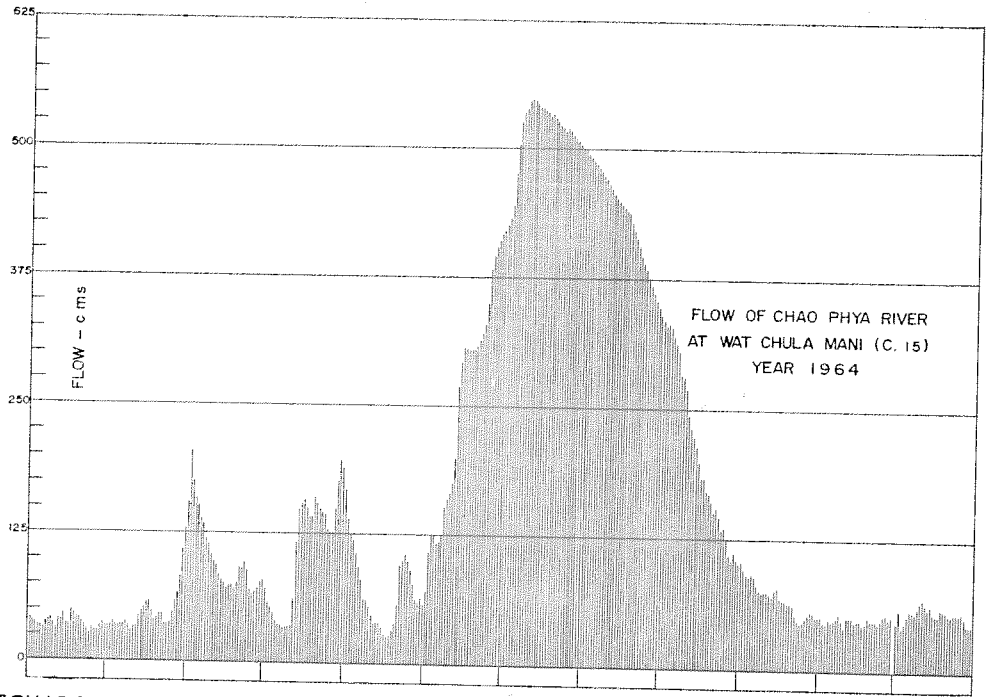
Overbank Flow Conditions: Overbank flow was observed but not included for flow computation.

General Description: Records fairs. Stage - discharge relationship used is defined by discharge measurements made for period 1955. Flow regulated by Chao Phya Diversion at Chai Wat. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.61	0.51	1.96	1.04	2.04	1.03	4.12	4.54	3.49	1.42	0.77	0.70
2	.59	.54	2.44	0.86	1.81	.49	.16	.52	.46	.34	.69	.86
3	.55	.57	.16	.78	.66	.64	.24	.50	.47	.28	.69	.63
4	.50	.54	.06	.71	.59	.66	.43	.48	.45	.25	.73	.69
5	.52	.52	1.94	.58	.47	.57	.59	.46	.39	.29	.70	.79
6	0.46	0.53	1.83	0.53	1.30	1.59	4.70	4.44	3.33	1.25	0.72	0.86
7	.56	.54	.76	.54	.15	.70	.76	.42	.27	.16	.77	.84
8	.62	.56	.62	.50	0.91	.94	.78	.40	.10	.08	.81	.85
9	.63	.50	.54	.51	.91	2.02	.82	.37	.08	.05	.70	.89
10	.54	.45	.44	.51	.82	.07	.82	.34	2.98	.08	.63	.97
11	0.45	0.50	1.35	0.54	0.70	2.16	4.82	4.31	2.81	1.08	0.76	1.00
12	.61	.51	.51	.93	.56	.39	.81	.29	.68	.04	.76	0.94
13	.62	.66	.19	1.60	.59	.98	.79	.27	.61	.01	.76	.85
14	.70	.72	.12	.91	.56	3.18	.78	.25	.53	.09	.70	.92
15	.69	.79	.09	.96	.51	.28	.77	.23	.39	.11	.71	.78
16	0.67	0.86	1.04	2.00	0.39	3.27	4.76	4.20	2.24	0.99	0.71	0.78
17	.75	.86	.06	1.93	.36	.26	.74	.17	.25	.98	.66	.79
18	.69	.71	.08	.84	.38	.26	.75	.14	.12	.98	.69	.88
19	.65	.60	.04	.83	.47	.27	.72	.10	.10	.92	.77	.86
20	.65	.64	.14	2.02	.57	.29	.71	.05	.03	.92	.72	.84
21	0.59	0.70	1.29	1.96	0.82	3.33	4.69	4.00	1.93	0.92	0.71	0.80
22	.52	.68	.27	.92	1.32	.40	.68	3.93	.97	.79	.72	.78
23	.43	.53	.35	.87	.39	.45	.66	.88	.89	.70	.69	.83
24	.38	.54	.25	.86	.46	.59	.67	.84	.76	.67	.72	.82
25	.48	.57	.01	.71	.39	.85	.66	.79	.78	.68	.79	.82
26	0.44	0.72	0.97	1.69	1.26	3.93	4.64	3.73	1.67	0.74	0.80	0.83
27	.44	.88	1.01	.69	.09	.98	.62	.67	.50	.79	.74	.77
28	.50	.98	.03	.90	0.91	4.03	.61	.62	.45	.83	.77	.66
29	.57	1.14	.13	2.18	.87	.07	.59	.58	.52	.82	.64	.64
30	.50	.50	.14	.37	.93	.89	.57	.53	.45	.74	.65	.65
31		.72		.30	.85		.56		.40	.76		.65
Mean	0.56	0.71	1.39	1.44	0.99	2.82	4.64	4.13	2.42	0.99	0.73	0.80
Max.	0.75	1.72	2.44	2.37	2.04	4.09	4.82	4.54	3.49	1.42	0.80	1.00
Min.	0.38	0.45	0.97	0.50	0.36	1.03	4.12	3.53	1.40	0.67	0.65	0.63

WATER YEAR 1964 : Max. 4.82 m. Min. 0.36 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	41	35	154	72	162	71	425	495	334	103	52	47
2	39	36	204	58	139	109	432	492	330	96	46	58
3	37	38	175	53	125	123	444	488	332	91	46	42
4	34	36	164	48	118	125	476	485	329	89	49	46
5	35	35	152	39	107	116	504	481	321	92	47	53
6	32	36	141	36	93	118	524	478	313	89	48	58
7	38	36	134	36	81	128	535	474	305	82	52	57
8	41	38	121	34	62	152	538	471	283	75	55	56
9	42	34	114	35	62	160	546	466	280	73	47	60
10	36	31	105	35	55	165	546	461	268	75	42	67
11	31	34	97	36	47	175	546	456	247	75	51	69
12	41	35	94	63	38	199	544	452	232	72	51	64
13	41	44	84	119	39	268	540	449	223	70	51	57
14	47	48	79	149	38	293	538	446	214	76	47	63
15	46	53	76	154	35	306	537	443	199	78	48	53
16	45	58	72	158	27	305	535	438	183	68	48	53
17	50	58	74	151	26	304	531	433	184	67	44	53
18	46	48	75	142	27	304	533	428	171	67	46	60
19	43	40	72	141	32	305	528	422	168	63	52	58
20	43	43	80	160	38	308	526	414	161	63	48	57
21	39	47	92	154	55	313	522	406	151	63	48	54
22	35	46	91	150	95	322	520	396	155	53	48	53
23	30	36	97	145	100	329	517	389	147	47	46	56
24	27	36	89	144	106	349	519	384	134	45	48	55
25	33	38	70	129	100	385	517	377	136	46	53	55
26	30	48	67	127	90	396	513	368	126	50	54	56
27	30	60	70	127	76	403	510	360	110	53	50	52
28	34	67	71	148	62	411	508	353	105	56	52	44
29	38	84	79	177	59	417	504	347	112	55		43
30	34	110	80	197	63	420	501	340	105	50		43
31		130		189	57		499		101	51		43
Total	1,138	1,518	3,073	3,406	2,214	7,779	15,958	12,892	6,459	2,133	1,369	1,685
Mean	37.9	48.9	102	110	71.4	259	515	430	208	68.8	48.8	54.3
Max.	50	130	204	197	162	420	546	495	334	103	55	69
Min.	27	31	67	34	26	71	425	340	101	45	42	42
Runoff - mcm.	98.323	131.155	265.507	294.278	191.290	672.106	1,378.771	1,113.869	558.058	184.291	118.282	145.584

WATER YEAR 1964 : Max. 546 Min. 26 Mean 163 Annual Runoff 5,151.514 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 9	9.00	4.82	546				

WATER YEAR 1963  
SUPHAN 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 Ban Wang Yao, Amphoe Doembang Nangbuat, Suphan Buri.

Drainage Area: 913 sq.km. referred to AMS Map 1:50,000.

Type of Gage: Staff gage.

Zero Gage at Bottom at: + 71.00 m. (M.S.L.)

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

Location: On right bank in front of the 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 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 due to its stability.

Overbank Flow Conditions: No overbank flow.

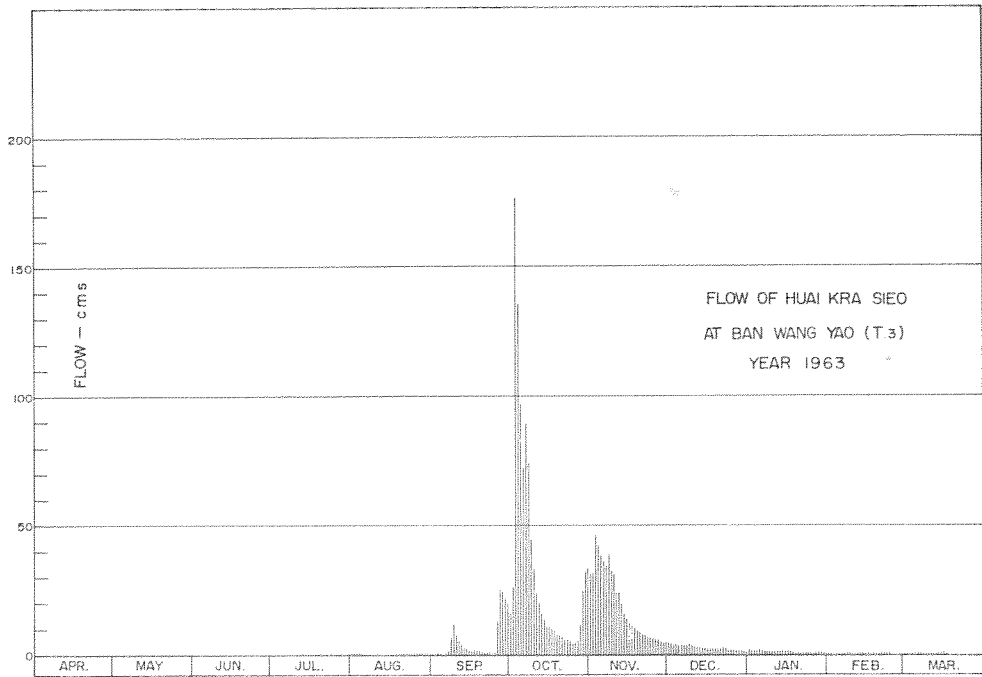
General Description: Records fair except those for period of no gage height record. Stage - discharge relationship used by discharge measurements made during 1963. No diversions for irrigation above gage site.

Remark: Gage height began to record of Jul.9 and no gage height record for Mar. 18 - 31.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1					71.41	71.40	72.61	72.98	72.07	71.82	71.67	71.60
2					.42	.41	.87	.99	.05	.82	.66	.60
3					.45	.42	74.65	73.26	.04	.82	.66	.59
4					.43	.41	.32	.20	.03	.82	.65	.59
5					.41	.54	73.92	.13	.02	.82	.65	.59
6					71.41	71.58	73.63	73.09	72.01	71.82	71.65	71.58
7					.40	.51	.83	.06	.00	.81	.64	.58
8					.40	72.17	.65	.14	71.99	.80	.64	.57
9				71.39	.40	.50	.26	.02	.98	.79	.64	.57
10				.39	.40	.27	.03	72.98	.97	.78	.63	.57
11				71.38	71.40	72.12	72.84	72.84	71.96	71.78	71.63	71.62
12				.38	.39	.03	.72	.83	.95	.77	.62	.68
13				.38	.39	71.96	.62	.73	.96	.76	.62	.70
14				.38	.39	.89	.54	.63	.95	.76	.61	.67
15				.38	.38	.85	.46	.57	.94	.75	.61	.64
16				71.38	71.38	71.82	72.44	72.50	71.93	71.74	71.61	71.65
17				.38	.38	.80	.39	.45	.92	.74	.60	.64
18				.38	.38	.77	.36	.41	.91	.73	.60	
19				.38	.38	.75	.30	.37	.90	.73	.60	
20				.38	.48	.73	.26	.34	.90	.72	.60	
21				71.38	71.59	71.71	72.21	72.30	71.89	71.72	71.60	
22				.38	.52	.69	.18	.26	.88	.71	.62	
23				.38	.47	.67	.15	.24	.87	.70	.62	
24				.38	.45	.69	.12	.21	.86	.70	.62	
25				.38	.44	.70	.09	.19	.86	.70	.62	
26				71.38	71.43	72.51	72.10	72.16	71.85	71.70	71.61	
27				.38	.42	.86	.15	.13	.84	.69	.61	
28				.38	.41	.83	.49	.12	.84	.68	.61	
29				.38	.41	.79	.73	.10	.83	.68	.60	
30				.38	.40	.72	73.00	.09	.82	.67	-	
31				.42	.40	-	.04	-	.82	.67	-	
Mean					71.42	71.77	72.80	72.30	71.93	71.75	71.62	
Max.					71.59	72.86	74.65	73.26	72.07	71.82	71.67	
Min.					71.38	71.40	72.09	72.09	71.82	71.67	71.60	

WATER YEAR 1963 : Max. 74.65 m. Min. - m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1					0.02	0.00	16	31	4.31	1.58	0.65	0.30
2					0.04	0.02	26	31	4.05	1.58	0.60	0.30
3					0.10	0.04	176	46	3.92	1.58	0.60	0.29
4					0.06	0.02	135	42	3.79	1.58	0.55	0.29
5					0.02	0.24	97	38	3.66	1.58	0.55	0.29
6					0.02	0.28	72	36	3.53	1.58	0.55	0.28
7					0.00	0.21	89	34	3.40	1.49	0.50	0.28
8					0.00	5.75	74	39	3.19	1.49	0.50	0.27
9				0.00	0.00	12	46	32	3.18	1.34	0.50	0.27
10				0.00	0.00	7.35	33	31	3.07	1.28	0.45	0.27
11				0.00	0.00	5.00	24	24	2.96	1.28	0.45	0.40
12				0.00	0.00	3.79	20	24	2.85	1.22	0.40	0.70
13				0.00	0.00	2.96	16	20	2.96	1.16	0.40	0.80
14				0.00	0.00	2.21	14	16	2.85	1.16	0.35	0.65
15				0.00	0.00	1.85	11	14	2.74	1.10	0.35	0.50
16				0.00	0.00	1.58	11	12	2.63	1.04	0.35	0.55
17				0.00	0.00	1.40	9.78	11	2.52	1.04	0.30	0.50
18				0.00	0.00	1.22	9.12	10	2.41	0.98	0.30	
19				0.00	0.00	1.10	7.80	9.34	2.30	0.98	0.30	
20				0.00	0.16	0.98	7.16	8.68	2.30	0.98	0.30	
21				0.00	0.29	0.86	6.36	7.80	2.21	0.92	0.30	
22				0.00	0.22	0.75	5.90	7.16	2.12	0.86	0.40	
23				0.00	0.14	0.65	5.45	6.84	2.03	0.80	0.40	
24				0.00	0.10	0.75	5.00	6.36	1.94	0.80	0.40	
25				0.00	0.08	0.80	4.57	6.05	1.94	0.80	0.40	
26				0.00	0.06	13	4.70	5.60	1.85	0.80	0.35	
27				0.00	0.04	25	5.45	5.15	1.70	0.75	0.35	
28				0.00	0.02	24	12	5.00	1.70	0.70	0.35	
29				0.00	0.02	22	20	4.70	1.67	0.70	0.30	
30				0.00	0.00	20	32	4.57	1.58	0.65	-	
31				0.04	0.00	-	33	-	1.58	0.65	-	
Total					1.39	155.78	1,028.29	568.25	82.94	34.45	12.20	
Mean					0.04	5.19	33.17	18.9	2.67	1.11	0.42	
Max.					0.29	25	176	46	4.31	1.58	0.65	
Min.					0.00	0.00	4.57	4.57	1.58	0.65	0.30	
Runoff - mcm.					1.120	13.459	88.844	49.097	7.166	2.976	1.054	

WATER YEAR 1963 : Max. 176 Min. - Mean - Annual Runoff - mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct.3	18.00	75.22	270				

WATER YEAR 1964  
SUPHAN RIVER BASIN

Huai Kra Sieo at Ban Wang Yao, Suphan Buri. (T. 3)

Location: Lat  $14^{\circ} - 51' - 44''$  N, Long  $99^{\circ} - 39' - 10''$  E, on right bank about 3 kilometers upstream from the confluence with Huai Yang and 2 kilometers upstream from Ban Wang Yao, Amphoe Doembang Nangbuat, Suphan Buri.

Drainage Area: 913 sq.km. referred to AMS Map 1:50,000.

Type of Gage: Staff gage.

Zero Gage at Bottom at: + 71.00 m. (M.S.L.)

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

Location: On right bank in front of the camp of station I.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 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 due to its stability.

Overbank Flow Conditions: No overbank flow.

General Description: Records fair except those for period of no gage height record. Stage - discharge relationship used by discharge measurements made during 1964. No diversions for irrigation above gage site.

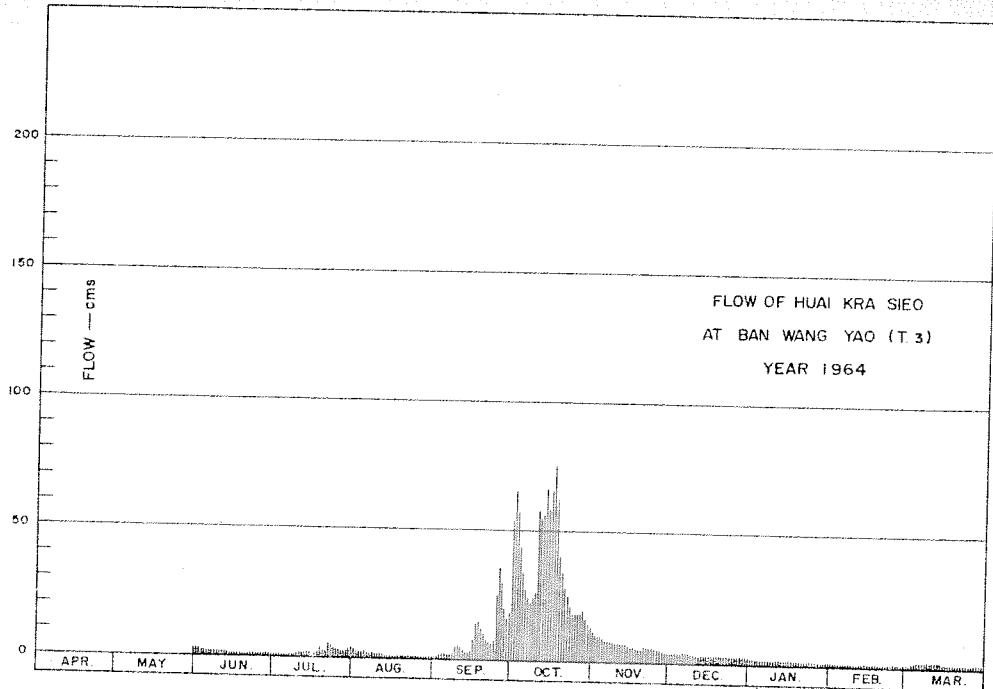
Remark: No gage height record for Apr. 1 - May 31.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1			71.90	71.61	71.95	71.67	73.50	72.38	71.97	71.85	71.71	71.69
2			.89	.59	.93	.74	.47	.33	.97	.85	.71	.70
3			.83	.59	.91	.80	.37	.30	.97	.84	.71	.73
4			.84	.59	.88	.85	.17	.28	.97	.84	.70	.74
5			.82	.58	.86	.83	72.98	.25	72.00	.84	.70	.74
6			71.79	71.57	71.84	71.83	72.83	72.21	72.00	71.83	71.70	71.79
7			.78	.57	.83	.84	.76	.19	71.98	.83	.69	.77
8			.76	.58	.82	.91	.71	.19	.97	.83	.69	.76
9			.75	.65	.80	72.05	.79	.19	.95	.82	.70	.76
10			.81	.79	.78	.08	73.22	.18	.94	.81	.70	.76
11			71.78	71.77	71.76	72.06	73.37	72.17	71.94	71.82	71.70	71.75
12			.75	.75	.75	71.99	.33	.18	.93	.81	.70	.75
13			.74	.75	.73	.94	.36	.17	.92	.81	.70	.74
14			.73	.80	.71	.92	.48	.15	.93	.80	.69	.74
15			.72	.78	.70	.98	.37	.13	.94	.79	.69	.73
16			71.70	71.73	71.69	72.21	73.48	72.11	71.94	71.79	71.69	71.73
17			.69	.74	.68	.48	.58	.09	.93	.78	.68	.72
18			.68	.86	.67	.50	.44	.07	.92	.78	.68	.71
19			.67	.99	.67	.41	.16	.07	.92	.77	.68	.71
20			.66	.94	.66	.31	72.99	.07	.92	.77	.67	.71
21			71.65	71.91	71.65	72.22	72.89	72.08	71.91	71.76	71.67	71.70
22			.64	72.08	.63	.16	.78	.09	.91	.76	.66	.69
23			.63	.06	.64	.13	.68	.09	.90	.76	.66	.69
24			.62	.00	.64	.20	.60	.08	.90	.75	.66	.68
25			.65	71.99	.64	.78	.60	.06	.89	.75	.66	.68
26			71.67	71.91	71.63	73.02	72.61	72.04	71.89	71.75	71.66	71.67
27			.66	.89	.64	72.86	.61	.02	.88	.74	.67	.67
28			.65	.87	.63	.65	.62	.01	.87	.74	.69	.66
29			.64	.87	.64	.52	.55	.00	.87	.73	-	.65
30			.62	.95	.70	.64	.48	71.98	.86	.73	-	.65
31			-	.99	.69	-	.43	-	.86	.72	-	.65
Mean			71.72	71.79	71.73	72.23	73.00	72.14	71.93	71.79	71.66	71.71
Max.			71.90	72.08	71.95	73.02	73.58	72.38	72.00	71.85	71.71	71.79
Min.			71.62	71.57	71.63	71.67	72.43	71.98	71.86	71.72	71.66	71.65

WATER YEAR 1964 : Max. 73.58 m. Min. - m.





DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1			2.40	0.25	3.10	0.55	53	11	3.38	1.95	0.78	0.65
2			2.31	0.19	2.82	1.02	65	10	3.38	1.95	0.78	0.70
3			1.77	0.19	2.54	1.50	58	9.50	3.38	1.86	0.78	0.94
4			1.86	0.19	2.22	1.95	44	9.06	3.38	1.86	0.70	1.02
5			1.68	0.18	2.04	1.77	34	8.40	3.80	1.86	0.70	1.02
6			1.42	0.17	1.86	1.77	27	7.52	3.80	1.77	0.70	1.42
7			1.34	0.17	1.77	1.86	24	7.11	3.52	1.77	0.65	1.26
8			1.19	0.18	1.68	2.54	22	7.11	3.38	1.77	0.65	1.18
9			1.10	0.45	1.50	4.60	25	7.11	3.10	1.68	0.70	1.18
10			1.59	1.42	1.34	5.08	27	6.92	2.96	1.68	0.70	1.18
11			1.34	1.26	1.18	4.76	58	6.73	2.96	1.68	0.70	1.10
12			1.10	1.10	1.10	3.66	55	6.92	2.82	1.59	0.70	1.10
13			1.02	1.10	0.94	2.96	57	6.73	2.68	1.59	0.70	1.02
14			0.94	1.50	0.78	2.68	66	6.35	2.82	1.50	0.65	1.02
15			0.86	1.34	0.70	3.52	58	5.97	2.96	1.42	0.65	0.94
16			0.70	0.94	0.65	7.52	66	5.59	2.96	1.42	0.65	0.94
17			0.65	1.02	0.60	14	75	5.24	2.82	1.34	0.60	0.86
18			0.60	2.04	0.55	15	63	4.92	2.68	1.34	0.60	0.78
19			0.55	3.66	0.55	12	43	4.92	2.68	1.26	0.60	0.78
20			0.50	2.96	0.50	9.75	34	4.92	2.68	1.26	0.55	0.78
21			0.45	2.54	0.45	7.74	29	5.04	2.54	1.18	0.55	0.70
22			0.40	5.08	0.35	6.54	25	5.24	2.54	1.18	0.50	0.65
23			0.35	4.76	0.40	5.97	21	5.24	2.40	1.18	0.50	0.65
24			0.30	3.80	0.40	7.30	18	5.08	2.40	1.10	0.50	0.60
25			0.45	3.66	0.40	25	18	4.76	2.31	1.10	0.50	0.60
26			0.55	2.54	0.35	36	18	4.44	2.31	1.10	0.50	0.55
27			0.50	2.31	0.40	28	18	4.12	2.22	1.02	0.55	0.55
28			0.45	2.13	0.35	20	19	3.96	2.13	1.02	0.65	0.50
29			0.40	2.13	0.40	15	16	3.80	2.13	0.94	-	0.45
30			0.30	3.10	0.70	19	14	3.52	2.04	0.94	-	0.45
31			-	3.66	0.65	-	13	-	2.04	0.86	-	0.45
Total			29.06	56.02	33.27	270.04	1,163	187.22	87.20	44.17	17.79	26.02
Mean			0.97	1.81	1.07	9.00	37.5	6.24	2.81	1.42	0.63	0.84
Max.			2.40	5.08	3.10	36	75	11	3.80	1.95	0.78	1.42
Min.			0.30	0.17	0.35	0.55	13	3.52	2.04	0.86	0.50	0.45
Runoff - mcm.			2.511	4.840	2.874	23.331	100.483	16.176	7.534	3.816	1.537	2.248

WATER YEAR 1964 : Max. 75 Min. - Mean - Annual Runoff - mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct.17	18.00	73.60	77				

WATER YEAR 1964  
SUPHAN RIVER BASIN

Huai Yang at Ban Tap Kradat, Suphan Buri. (T. 4)

Location: Lat 14° - 50' - 25" N, Long 99° - 36' - 18" E, on left bank 7 kilometers from the confluence with Huai Kra Sieo, Amphoe Doembang Nangbuat, Suphan Buri.

Drainage Area: 130 sq.km. referred to AMS Map 1:50,000.

Type of Gage: Staff gage.

Zero Gage at Bottom at: + 84.90 m. (M.S.L.)

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

Location: On left bank in front of the camp of station T.4

Elevation: + 87.209 m. (M.S.L.)

Gage Reading Frequency: 13 - time daily readings at 06.00 - 18.00 hours.

Basis of Mean Daily Gage Height: Arithmetic mean of 13 readings.

Period of Available Gage Records: 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: Stable, no shifting adjustment for flow computation due to its stability.

Overbank Flow Conditions: No overbank flow.

General Description: Records fair except those for periods of no gage height record. Stage - discharge relationship used by discharge measurements made during 1964. No diversions for irrigation above gage site.

Remark: Gage height began to record on Jul.7 and no gage height record for periods Dec., Feb. and Mar.

GAGE HEIGHT IN METER ( M. S. L.), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1					85.14	83.34	87.26	85.30		84.94		
2					.12	.34	86.75	.29		.94		
3					.11	.33	.36	.28		.94		
4					.09	.44	.04	.27		.94		
5					.07	.25	85.82	.26		.93		
6					85.06	85.21	85.68	85.25		84.93		
7				84.96	.06	.17	.59	.24		.93		
8				.97	.05	.16	.51	.23		.93		
9				.96	.04	.15	86.36	.22		.93		
10				.96	.02	.12	87.14	.21		.93		
11				84.96	85.02	85.10	86.36	85.21		84.93		
12				.97	.01	.10	.58	.20		.93		
13				85.08	.01	.09	.37	.20		.93		
14				84.98	.00	.17	.58	.19		.93		
15				.97	84.99	86.14	.73	.18		.92		
16				84.98	84.99	85.45	86.57	85.18		84.92		
17				85.04	.98	.35	.20	.17		.92		
18				.08	.98	.27	85.97	.16		.92		
19				.02	.97	.23	.81	.15		.92		
20				84.96	.97	.21	.70	.14		.92		
21				84.96	84.97	85.18	85.60	85.14		84.92		
22				85.01	.97	.17	.54	.13		.92		
23				.58	.97	.15	.50	.13		.92		
24				.27	.97	.40	.46	.13		.92		
25				.31	.97	.69	.44	.12		.92		
26				85.43	84.97	85.52	85.43	85.12		84.92		
27				.29	85.03	.47	.41	.11		.92		
28				.24	.00	.41	.38	.10		.92		
29				.19	.13	.41	.37	.10		.92		
30				.21	.19	86.35	.34	.10		.92		
31				.16	.24	-	.32	-		.92		
Mean					85.03	85.34	85.97	85.18		84.92		
Max.					85.24	86.35	87.26	85.30		84.94		
Min.					84.97	85.09	85.32	85.10		84.92		

WATER YEAR 1964 : Max.                      m.                      Min.                      m.



WATER YEAR 1963  
PASAK RIVER BASIN

Pasak River at Kaeng Khoi, Saraburi. (S. 2)

**Location:** Lat  $14^{\circ} - 35' - 32''$  N, Long  $101^{\circ} - 00' - 23''$  E, on right bank 100 meters downstream from Kaeng Khoi water supply, Amphoe Kaeng Khoi, Saraburi.

**Drainage Area:** 14,398 sq.km. referred to AMS Map 1:50,000.

**Type of Gage:** Staff gage.

**Zero Gage at Bottom at:** + 5.84 m. (M.S.L.)

**Bench Mark:** B.M.<sub>1</sub> - H.S./R.I.D. No.2 and B.M.<sub>2</sub> - H.S./R.I.D. No.3

**Location:** on left bank opposite to gage site.

**Elevation:** B.M.<sub>1</sub> + 18.875 m. (M.S.L.), B.M.<sub>2</sub> + 18.621 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 - 62, 1965 to date.

**Rated by Float:** 1945, 1947 - 48.

**Rated by Current Meter:** 1959 - 62, 1965 to date.

**Stability of Channel Regimes:** Stable, no shifting adjustment for flow computation for years without actual ratings.

**Overbank Flow Conditions:** No overbank flow.

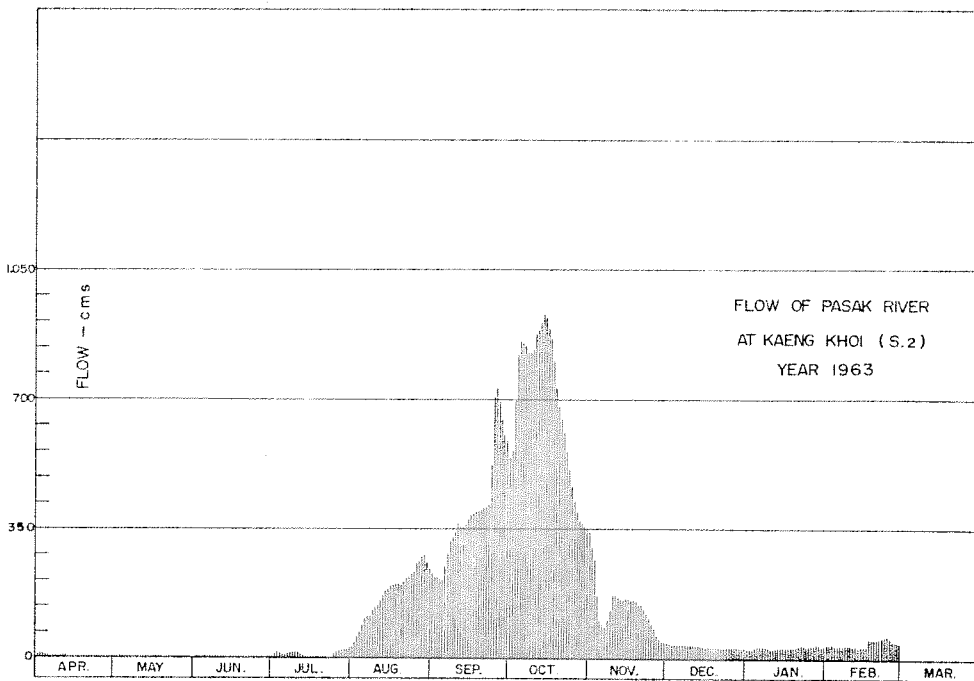
**General Description:** Records fair except those for period of no gage height record. Stage - discharge relationship used is defined by discharge measurements made during 1960 - 62. Water stage during dry period are effected by backwater from Rama VI Barrage. Upstream diversions for irrigation of about 3,000 hectares at Lom Sak weir.

**Remark:** No gage height record for Mar. 1 - 31.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	7.16	6.96	6.87	7.19	7.79	10.08	12.59	11.04	7.97	7.69	7.91	
2	.23	.94	.86	.25	8.00	.01	.73	10.74	.95	.66	.91	
3	.27	.94	.86	.44	.25	9.99	13.57	.47	.94	.67	.91	
4	.18	.94	.85	.36	.43	.96	14.48	9.54	.93	.77	.87	
5	.15	.94	.87	.32	.64	.94	.70	8.83	.92	.80	.85	
6	7.10	6.93	6.89	7.27	8.84	10.32	14.67	8.70	7.92	7.78	7.84	
7	.09	.93	.91	.31	.92	.57	.64	.63	.92	.76	.83	
8	.10	.93	.90	.36	9.06	.84	.57	.81	.91	.78	.87	
9	.09	.92	.90	.40	.16	.93	.53	9.17	.90	.70	.89	
10	.10	.92	.88	.42	.21	11.05	.64	.52	.90	.69	.86	
11	7.18	6.92	6.87	7.37	9.29	11.24	14.84	9.53	7.89	7.69	7.82	
12	.13	.92	.87	.28	.43	.19	.88	.48	.86	.70	.80	
13	.10	.91	.86	.17	.57	.17	.97	.44	.85	.70	.77	
14	.07	.91	.86	.05	.67	.21	15.11	.42	.82	.73	.77	
15	.05	.91	.86	.02	.73	.33	.08	.45	.80	.74	.84	
16	7.04	6.89	6.90	6.99	9.77	11.42	14.89	9.43	7.79	7.74	7.82	
17	.04	.86	.92	.98	.87	.44	.74	.42	.77	.73	8.19	
18	.03	.86	.90	.98	.88	.47	.38	.43	.77	.73	.15	
19	.03	.86	.89	7.00	.87	.50	13.93	.37	.75	.77	.13	
20	.01	.90	.89	6.99	.81	.55	.57	.27	.74	.79	.15	
21	7.00	6.92	6.89	6.98	9.90	11.57	13.33	9.27	7.73	7.84	8.17	
22	.00	.91	.94	.99	.96	.61	.11	.18	.73	.86	.20	
23	6.97	.91	.94	.99	10.03	.65	12.71	.02	.73	.84	.25	
24	7.03	.97	.96	7.04	.07	12.45	.37	8.89	.73	.83	.26	
25	.05	.99	.97	.19	.13	13.74	.04	.72	.74	.82	.19	
26	6.99	6.98	6.97	7.43	10.35	13.90	11.74	8.55	7.73	7.82	8.07	
27	.98	.97	.97	.53	.42	.75	.50	.30	.75	.84	.04	
28	7.00	.96	7.02	.57	.49	.36	.30	.14	.74	.91	.00	
29	6.97	.91	.12	.60	.53	.03	.25	.04	.73	.89	7.96	
30	.96	.89	.08	.63	.37	12.92	.17	.00	.71	.81	-	
31	-	.88	-	.71	.17	-	.13	-	.70	.82	-	
Mean	7.07	6.92	6.91	7.26	9.49	11.51	13.71	9.19	7.82	7.77	7.98	
Max.	7.27	6.99	7.12	7.71	10.53	13.90	15.11	11.04	7.97	7.91	8.26	
Min.	6.96	6.86	6.85	6.98	7.79	9.94	11.13	8.00	7.70	7.66	7.77	

WATER YEAR 1963 : Max. 15.11 m. Min. m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	8.00	3.20	1.40	8.75	33	228	542	340	43	28	40	
2	10	2.80	1.20	12	45	220	561	304	42	27	40	
3	11	2.80	1.20	18	60	218	679	271	41	27	40	
4	8.50	2.80	1.00	15	72	215	818	171	41	32	37	
5	7.75	2.80	1.40	13	88	212	855	104	40	34	36	
6	6.50	2.60	1.80	11	105	254	849	93	40	33	36	
7	6.25	2.60	2.20	13	112	283	845	87	40	32	35	
8	6.50	2.60	2.00	15	124	316	823	102	40	33	37	
9	6.25	2.40	2.00	16	133	327	826	134	39	29	38	
10	6.50	2.40	1.60	17	138	341	845	169	39	28	37	
11	8.50	2.40	1.40	15	146	364	880	170	38	28	35	
12	7.25	2.40	1.40	12	160	358	887	165	37	29	34	
13	6.50	2.20	1.20	8.25	174	355	904	161	36	29	32	
14	5.75	2.20	1.20	5.25	184	360	927	159	35	30	32	
15	5.25	2.20	1.20	4.50	190	375	922	162	34	31	36	
16	5.00	1.80	2.00	3.80	194	387	889	160	33	31	35	
17	5.00	1.20	2.40	3.60	205	389	862	159	32	30	56	
18	4.75	1.20	2.00	3.60	206	393	801	160	32	30	54	
19	4.75	1.20	1.80	4.00	205	397	732	154	31	32	53	
20	4.25	2.00	1.80	3.80	198	403	679	144	31	33	54	
21	4.00	2.40	1.80	3.60	208	406	645	144	30	36	55	
22	4.00	2.20	2.80	3.80	215	411	614	135	30	37	57	
23	3.40	2.20	2.80	3.80	222	416	558	121	30	36	60	
24	4.75	3.40	3.20	5.00	227	522	511	109	31	35	61	
25	5.25	3.80	3.40	8.75	233	704	467	95	31	35	56	
26	3.80	3.60	3.40	17	257	728	428	81	30	35	49	
27	3.60	3.40	3.40	21	265	705	397	63	31	36	47	
28	4.00	3.20	4.50	23	274	649	371	53	31	40	45	
29	3.40	2.20	7.00	24	279	603	365	47	30	38	43	
30	3.20	1.80	6.00	25	260	588	355	45	29	34		
31		1.60		29	238		351		29	35		
Total	173.65	75.60	70.50	366.50	5,450	12,127	21,188	4,262	1,076	1,003	1,270	
Mean	5.79	2.44	2.35	11.8	176	404	683	142	34.7	32.3	43.7	
Max.	11	3.80	7.00	29	279	728	927	340	43	40	60	
Min.	3.20	1.20	1.00	3.60	33	212	351	45	29	27	32	
Runoff - mcm.	15.034	6.566	6.048	31.622	470.880	1,047.773	1,830.643	368.237	90.374	86.659	109.728	

WATER YEAR 1963 : Max. 927 Min. - Mean - Annual Runoff - mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 14	18.00	15.16	940				

WATER YEAR 1964  
PASAK RIVER BASIN  
Pasak River at Kaeng Khoi, Saraburi. (S. 2)

Location: Lat  $14^{\circ} - 35' - 32''$  N., Long  $101^{\circ} - 00' - 23''$  E., on right bank 100 meters downstream from Kaeng Khoi water supply Amphoe Kaeng Khoi, Saraburi.

Drainage Area: 14,398 sq.km. referred to AMS. Map 1:50,000.

Type of Gage: Staff gage.

Zero Gage at Bottom at: + 5.84 m. (M.S.L.)

Bench Mark: B.M.<sub>1</sub> = H.S./R.I.D. No.2 and B.M.<sub>2</sub> = H.S./R.I.D. No.3

Location: On left bank opposite to gage site

Elevation: B.M.<sub>2</sub> = 18.875 m. (M.S.L.), B.M.<sub>3</sub> = + 18.621 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 - 62, 1965 to date.

Rated by Float: 1945, 1947 - 48.

Rated by Current Meter: 1959 - 62, 1965 to date.

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

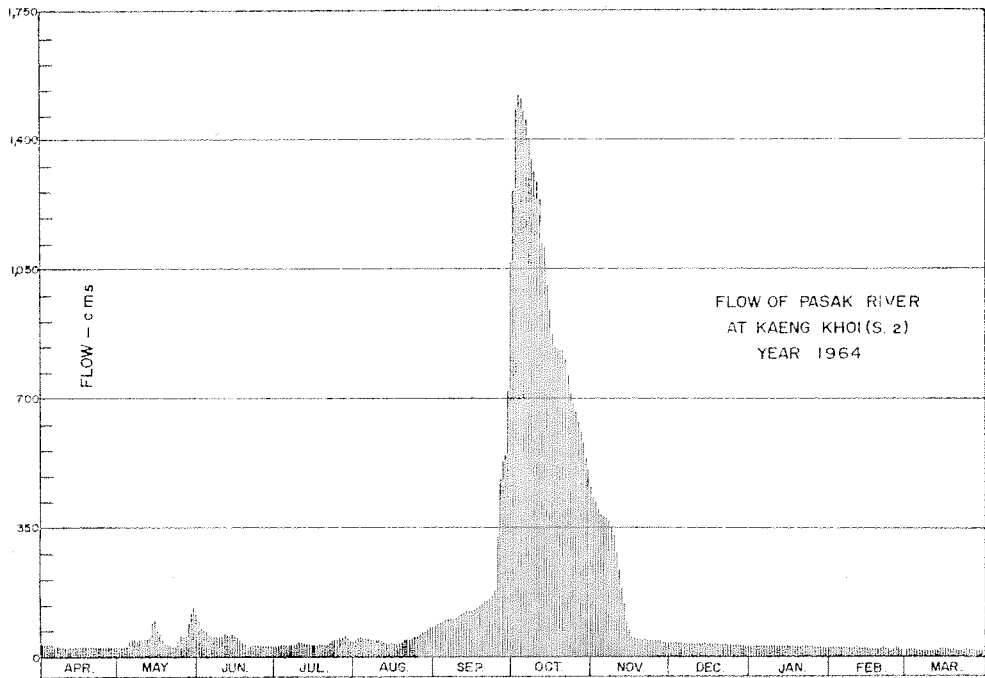
Overbank Flow Conditions: No overbank flow.

General Description: Records fair except those for period of no gage height record. Stage - discharge relationship used is defined by discharge measurements made during 1959. Water stage during dry period are effected by backwater from Rama VI Barrage. Upstream diversions for irrigation of about 3,000 hectares at Lon Sak weir.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	7.69	7.61	8.72	7.66	8.05	8.65	18.44	12.20	7.89	7.80	7.65	7.48
2	.71	.62	.44	.67	.10	.69	19.40	.05	.88	.79	.67	.56
3	.70	.63	.43	.69	.14	.73	.64	11.86	.88	.78	.66	.55
4	.69	.68	.37	.73	.10	.78	.57	.72	.89	.78	.66	.53
5	.68	.95	.19	.76	.08	.80	.37	.69	.88	.77	.66	.47
6	7.62	8.02	8.15	7.80	8.07	8.81	19.25	11.63	7.87	7.75	7.65	7.46
7	.59	7.96	.14	.79	.06	.83	18.96	.57	.87	.75	.65	.45
8	.58	.88	.13	.76	.04	.84	.63	.44	.86	.73	.65	.45
9	.57	8.01	.14	.82	.00	.87	.45	.19	.86	.76	.64	.46
10	.57	.04	.19	.88	7.97	.92	.26	10.79	.85	.75	.67	.44
11	7.56	8.00	8.25	7.86	7.93	9.03	17.99	10.29	7.87	7.74	7.67	7.44
12	.55	.03	.18	.83	.87	.07	.72	9.79	.87	.74	.62	.44
13	.57	.10	.12	.82	.85	.09	.19	.37	.88	.73	.60	.47
14	.60	.75	.24	.80	.83	.11	16.53	8.89	.88	.72	.64	.52
15	.61	.74	.17	.79	.82	.13	.12	.43	.83	.72	.57	.57
16	7.62	8.42	8.11	7.79	7.82	9.15	15.66	8.13	7.85	7.71	7.53	7.58
17	.61	.18	7.94	.78	.80	.20	.43	.09	.83	.70	.50	.53
18	.61	7.92	.85	.83	.85	.26	.39	.07	.85	.70	.52	.51
19	.60	.79	.77	.80	.87	.34	.38	.04	.84	.70	.53	.52
20	.62	.73	.73	.77	.98	.43	.39	.02	.83	.69	.55	.46
21	7.61	7.68	7.71	7.79	8.00	9.44	15.20	8.01	7.82	7.69	7.77	7.46
22	.57	.57	.69	.90	.02	.46	14.92	.01	.84	.69	.53	.45
23	.56	.64	.68	8.01	.08	.59	.58	.00	.81	.68	.50	.57
24	.56	.95	.71	.03	.13	.83	.37	7.99	.82	.67	.49	.55
25	.55	8.18	.68	.06	.17	11.21	.16	.97	.81	.67	.53	.53
26	7.55	8.08	7.67	8.10	8.26	12.61	13.92	7.98	7.82	7.67	7.71	7.50
27	.56	.18	.66	.15	.34	13.07	.73	.96	.80	.67	.55	.47
28	.56	.68	.66	.19	.40	.27	.49	.92	.79	.66	.50	.45
29	.57	9.05	.65	.07	.48	14.65	.13	.91	.77	.66	-	.46
30	.61	.21	.65	.00	.55	16.90	12.83	.89	.76	.66	-	.46
31	-	.04	-	7.90	.61	-	.57	-	.77	.66	-	.47
Mean	7.60	8.11	8.00	7.86	8.07	9.99	16.31	9.43	7.84	7.71	7.60	7.49
Max.	7.71	9.21	8.72	8.19	8.61	16.90	19.64	12.20	7.89	7.80	7.77	7.58
Min.	7.55	7.57	7.65	7.66	7.80	8.65	12.57	7.89	7.76	7.66	7.49	7.44

WATER YEAR 1964 : Max. 19.64 m. Min. 7.44 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	30	26	93	28	48	87	1,313	435	38	34	28	21
2	30	27	72	29	51	90	1,476	418	38	34	29	24
3	30	27	71	30	53	93	1,519	398	38	33	28	24
4	30	29	67	31	51	97	1,507	382	38	33	28	23
5	29	42	56	32	50	99	1,471	379	38	33	28	21
6	27	46	54	34	49	100	1,450	372	37	32	28	20
7	26	43	53	34	49	101	1,401	366	37	32	28	20
8	25	38	53	32	47	102	1,345	351	37	31	28	20
9	25	46	53	35	45	105	1,314	324	37	32	28	20
10	25	47	56	36	43	109	1,282	283	36	32	29	20
11	24	45	60	37	41	117	1,236	233	37	32	29	20
12	24	47	56	35	37	121	1,193	184	37	32	27	20
13	25	51	52	35	36	122	1,108	146	38	31	26	21
14	26	95	59	34	35	124	1,003	106	38	31	28	23
15	26	94	55	34	35	125	938	71	35	31	25	25
16	27	70	52	34	35	127	869	53	36	30	23	25
17	26	56	41	33	34	131	834	50	35	30	22	23
18	26	40	36	35	36	136	828	49	36	30	23	22
19	26	34	33	34	37	144	827	47	36	30	23	23
20	27	31	31	33	44	152	828	46	35	30	24	20
21	26	29	30	34	45	153	800	46	35	30	33	20
22	25	25	30	39	46	154	759	46	36	30	23	20
23	24	28	29	46	50	166	713	45	34	29	22	25
24	24	42	30	47	53	186	686	44	35	29	22	24
25	24	56	29	49	55	326	660	43	34	29	23	23
26	24	50	29	51	61	480	631	44	35	29	30	22
27	24	56	28	54	65	531	609	43	34	29	24	21
28	24	89	28	56	69	553	580	40	34	28	22	20
29	25	119	28	49	75	722	537	40	33	28	-	20
30	26	132	28	45	79	1,062	504	38	32	28	-	20
31	-	118	-	39	84	-	476	-	33	28	-	21
Total	780	1,678	1,392	1,176	1,538	6,617	30,697	5,122	1,112	950	731	671
Mean	26.0	54.1	46.4	37.9	49.6	220	990	177	35.8	30.6	26.1	21.6
Max.	30	132	93	56	84	1,062	1,519	435	38	34	33	25
Min.	24	25	28	28	34	87	476	38	32	28	22	20
Runoff = BCM.	67.392	144.979	120.269	101.606	132.883	571.709	2,652.221	442.541	96.077	82.080	63.158	57.974

WATER YEAR 1964 : Max. 1,519 Min. 20 Mean 144 Annual Runoff 4,532,890 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 3	12.00	19.64	1,519				

WATER YEAR 1963  
PASAK RIVER BASIN

Pasak River at Lom Sak, Phetchabun, (S.6A)

Location: Lat  $16^{\circ} - 49' - 52''$  N., Long  $101^{\circ} - 17' - 57''$  E., on right bank, about 100 meters downstream from Lom Sak weir, Amphoe Lom Sak, Phetchabun.

Drainage Area: 1,007 sq.km. referred to AMS Map 1:50,000.

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 to date.

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 for years without actual ratings.

Overbank Flow Conditions: No overbank flow.

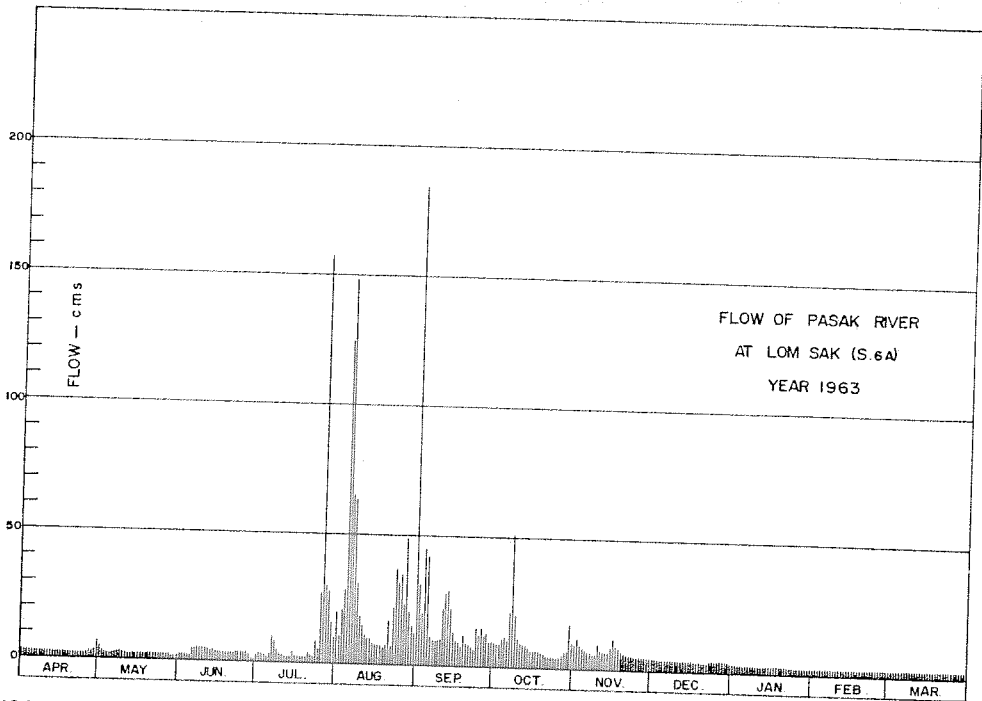
General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made during 1961. Upstream state diversions of about 3,200 hectares at Lom Sak weir. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	146.20	146.41	146.15	146.21	147.17	150.30	146.69	146.68	146.39	146.23	146.15	146.11
2	.20	.25	.15	.27	146.76	147.55	.66	.83	.37	.23	.14	.11
3	.20	.18	.15	.23	147.19	.16	.66	.67	.36	.22	.14	.11
4	.20	.15	.03	.20	.48	146.89	.81	.60	.36	.22	.14	.10
5	.17	.15	.03	.13	149.45	.82	.86	.55	.35	.21	.14	.10
6	146.17	146.19	146.40	146.22	148.37	146.80	146.70	146.50	146.35	146.21	146.14	146.10
7	.17	.19	.41	.74	.19	.72	147.21	.49	.35	.21	.13	.11
8	.17	.23	.42	.62	147.91	.67	148.05	.45	.34	.21	.13	.11
9	.17	.22	.41	.36	.53	.77	147.20	.46	.34	.21	.13	.11
10	.16	.20	.42	.24	.07	.77	146.78	.74	.34	.20	.12	.11
11	146.13	146.15	146.42	146.21	146.92	147.22	146.69	146.55	146.34	146.20	146.12	146.10
12	.12	.14	.37	.15	.80	.42	.65	.52	.32	.20	.12	.10
13	.11	.14	.31	.11	.73	.46	.63	.50	.32	.21	.13	.10
14	.11	.14	.38	.10	.77	.25	.58	.52	.31	.21	.13	.10
15	.11	.13	.31	.33	.60	146.88	.50	.62	.31	.21	.12	.10
16	146.11	146.12	146.29	146.18	146.59	146.70	146.50	146.78	146.31	146.21	146.12	146.10
17	.11	.11	.29	.14	.58	.67	.49	.64	.30	.22	.12	.10
18	.11	.11	.29	.13	.56	.56	.48	.61	.29	.22	.12	.10
19	.11	.11	.28	.10	.50	.86	.45	.53	.29	.21	.11	.10
20	.11	.17	.28	.18	.56	.65	.42	.48	.28	.21	.11	.10
21	146.10	146.17	146.28	146.35	147.05	146.63	146.40	146.45	146.28	146.21	146.11	146.10
22	.10	.17	.28	.18	146.50	.55	.37	.44	.25	.20	.11	.10
23	.10	.17	.30	.15	147.25	.51	.36	.44	.34	.19	.10	.10
24	.10	.11	.30	.65	.69	.96	.32	.42	.34	.19	.11	.10
25	.10	.11	.30	.41	.54	.85	.30	.41	.34	.18	.12	.10
26	146.17	146.11	146.30	147.40	147.65	146.98	146.32	146.41	146.34	146.18	146.12	146.10
27	.23	.03	.30	150.29	.27	.83	.41	.40	.35	.17	.12	.10
28	.24	.10	.22	.20	.99	.89	.49	.40	.35	.17	.11	.10
29	.30	145.99	145.96	149.52	.16	.71	.50	.40	.32	.16	.11	.10
30	.56	.99	.93	147.00	146.96	.72	147.06	.39	.32	.16	-	.10
31	-	146.03	-	146.72	.83	-	146.72	-	.24	.15	-	.10
Mean	146.16	146.14	146.26	146.70	147.21	146.99	146.65	146.53	146.32	146.20	146.12	146.09
Max.	146.56	146.41	146.42	150.29	149.45	150.30	148.05	146.83	146.39	146.23	146.15	146.11
Min.	146.10	145.99	145.93	146.10	146.50	146.51	146.30	146.39	146.24	146.15	146.11	146.10

WATER YEAR 1963 : Max. 150.30 m. Min. 145.93 m.





DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	3.00	5.15	2.75	3.10	20	184	9.35	9.20	4.90	3.30	2.75	2.55
2	3.00	3.50	2.75	3.70	10	31	8.90	12	4.70	3.30	2.70	2.55
3	3.00	2.90	2.75	3.30	21	20	8.90	9.05	4.60	3.20	2.70	2.55
4	3.00	2.75	2.15	3.00	29	45	11	8.00	4.60	3.20	2.70	2.50
5	2.85	2.75	2.15	2.13	124	42	12	7.25	4.50	3.10	2.70	2.50
6	2.85	2.95	5.00	3.20	148	11	9.50	6.50	4.50	3.10	2.70	2.50
7	2.85	2.95	5.15	10	65	9.80	21	6.35	4.50	3.10	2.65	2.55
8	2.85	3.30	5.30	8.30	63	9.05	51	5.75	4.40	3.10	2.65	2.55
9	2.85	3.20	5.15	4.60	31	10	21	5.90	4.40	3.10	2.65	2.55
10	2.80	3.00	5.30	3.40	18	10	11	10	4.40	3.00	2.60	2.55
11	2.65	2.75	5.30	3.10	14	22	9.35	7.25	4.40	3.00	2.60	2.50
12	2.60	2.70	4.70	2.75	11	28	8.75	6.80	4.20	3.00	2.60	2.50
13	2.55	2.70	4.10	2.55	9.95	29	8.45	6.50	4.20	3.10	2.65	2.50
14	2.55	2.70	4.80	2.50	10	22	7.70	6.80	4.10	3.10	2.65	2.50
15	2.55	2.65	4.10	4.30	8.00	13	6.50	8.30	4.10	3.10	2.60	2.50
16	2.55	2.60	3.90	2.90	7.85	9.50	6.50	12	4.10	3.10	2.60	2.50
17	2.55	2.55	3.90	2.70	7.70	9.05	6.35	8.60	4.00	3.20	2.60	2.50
18	2.55	2.55	3.90	2.65	7.40	7.40	6.20	8.15	3.90	3.20	2.60	2.50
19	2.55	2.55	3.80	2.50	6.50	12	5.75	6.95	3.90	3.10	2.55	2.50
20	2.55	2.85	3.80	2.90	7.40	8.75	5.30	6.20	3.80	3.10	2.55	2.50
21	2.50	2.85	3.80	4.50	17	8.45	5.00	5.75	3.80	3.10	2.55	2.50
22	2.50	2.85	3.80	2.90	6.50	7.25	4.70	5.60	3.50	3.00	2.55	2.50
23	2.50	2.85	4.00	2.75	22	6.65	4.60	5.60	4.40	2.95	2.50	2.50
24	2.50	2.55	4.00	8.75	37	15	4.20	5.30	4.40	2.95	2.55	2.50
25	2.50	2.55	4.00	5.15	31	12	4.00	5.15	4.40	2.90	2.60	2.50
26	2.85	2.55	4.00	27	35	15	4.20	5.15	4.40	2.90	2.60	2.50
27	3.30	2.15	4.00	157	23	12	5.15	5.00	4.50	2.85	2.60	2.50
28	3.40	2.50	3.20	30	49	13	6.35	5.00	4.50	2.85	2.60	2.50
29	4.00	1.80	1.40	28	20	9.65	6.50	5.00	4.20	2.80	2.55	2.50
30	7.40	1.80	1.10	16	15	9.80	17	4.90	4.20	2.80	-	2.50
31	-	2.10	-	9.80	12	-	9.80	-	3.40	2.75	-	2.50
Total	88.15	85.60	114.05	365.43	886.30	641.35	306.00	210.00	131.90	94.35	75.90	77.85
Mean	2.94	2.76	3.80	11.8	28.6	21.4	9.87	7.00	4.25	3.04	2.62	2.51
Max.	7.40	5.15	5.30	157	148	184	51	12	4.90	3.30	2.75	2.55
Min.	2.50	1.80	1.10	2.13	6.50	6.65	4.00	4.90	3.40	2.75	2.55	2.50
Runoff - mcm.	7.616	7.396	9.854	31.573	76.576	55.413	26.438	18.144	11.396	8.152	6.558	6.726

WATER YEAR 1963 : Max. 184 Min. 1.10 Mean 8.41 Annual Runoff 265.842 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sept. 1	18.00	150.64	213				

WATER YEAR 1964  
PASAK RIVER BASIN

Pasak River at Lom Sak, Phetchabun. (S. 6A)

Location: Lat 16° - 49' - 52" N, Long 101° - 17' - 57" E, on right bank, about 100 meters downstream from Lom Sak weir, Amphoe Lom Sak, Phetchabun.

Drainage Area: 1,007 sq. km. referred to AMS Map 1:50,000.

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 to date.

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 for years without actual ratings.

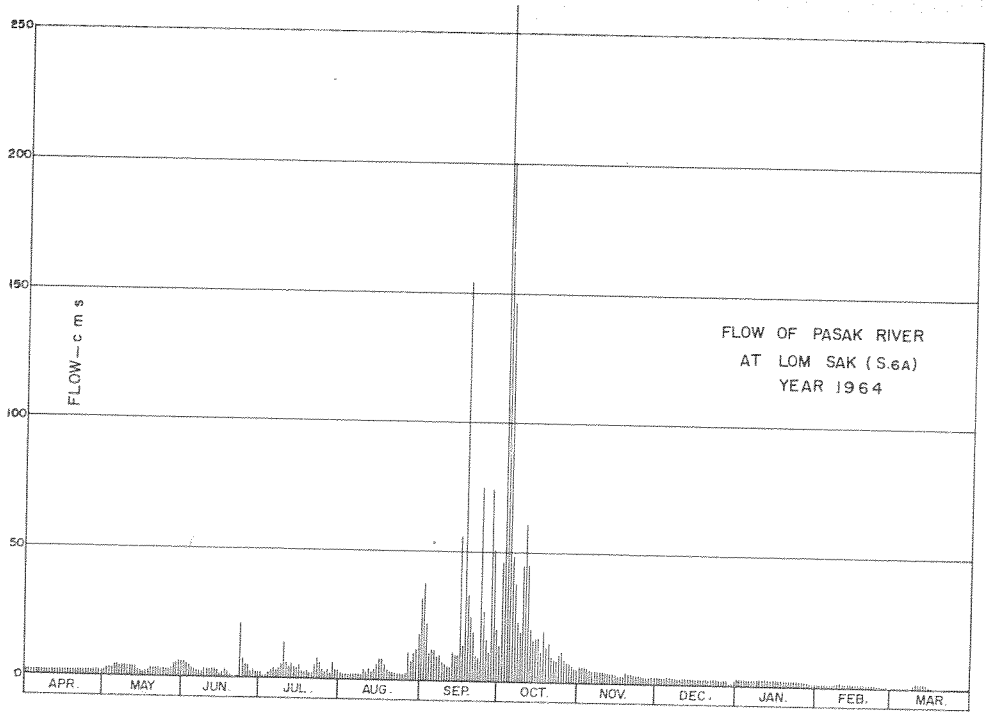
Overbank Flow Conditions: No overbank flow.

General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made during 1961. Upstream state diversions of about 3,200 hectares at Lom Sak weir. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	146.11	146.18	146.51	146.07	146.16	147.54	146.91	146.49	146.20	146.15	146.95	145.88
2	.11	.28	.45	145.93	.07	.73	147.93	.48	.19	.14	.95	.87
3	.11	.30	.41	.79	.07	.24	151.14	.49	.19	.14	.97	.86
4	.11	.29	.27	146.08	.07	146.77	150.50	.46	.19	.14	.99	.85
5	.11	.38	.22	.25	.03	.86	149.72	.39	.22	.14	.97	.85
6	146.10	146.40	146.20	146.31	146.11	146.86	147.97	146.39	146.22	146.14	145.95	145.87
7	.10	.37	.17	.27	.08	.72	.72	.39	.19	.14	.95	.86
8	.10	.37	.15	.31	.19	.74	.28	.39	.17	.14	.97	.89
9	.10	.37	.27	.46	.05	.56	.12	.39	.16	.14	146.00	.97
10	.10	.37	.27	.91	.33	.50	.89	.35	.16	.14	.00	146.00
11	146.10	146.36	146.27	146.48	146.20	146.46	148.26	146.31	146.15	146.14	145.99	146.00
12	.10	.37	.28	.37	.40	.44	147.90	.30	.14	.14	.97	.62
13	.10	.37	.28	.47	.25	.80	.16	.30	.12	.13	.96	.00
14	.10	.20	.26	.36	.33	.76	146.99	.30	.11	.13	.95	145.98
15	.10	.15	145.94	.35	.48	.74	147.05	.28	.10	.13	.95	.95
16	146.10	146.15	146.07	146.41	146.62	148.15	147.04	146.19	146.11	146.12	145.95	145.89
17	.10	.15	.22	.23	.63	146.93	146.83	.20	.10	.11	.95	.86
18	.10	.15	.17	.18	.47	149.90	147.16	.21	.09	.09	.94	.85
19	.10	.27	145.92	.27	.32	147.61	146.87	.33	.09	.06	.94	.85
20	.10	.27	.82	.11	.23	.33	.96	.29	.08	.05	.94	.85
21	146.10	146.26	145.83	146.10	146.20	147.10	146.72	146.28	146.08	146.05	145.93	145.85
22	.10	.26	.83	.46	.17	146.74	.64	.29	.07	.04	.93	.85
23	.10	.22	147.19	.61	.12	.65	.63	.25	.05	.04	.93	.85
24	.10	.24	146.56	.53	.12	148.58	.78	.21	.03	.03	.93	.84
25	.16	.23	.43	.34	.08	147.40	.84	.21	.02	.02	.93	.84
26	146.17	146.21	146.40	146.20	146.13	147.00	146.66	146.19	145.99	146.02	145.91	145.83
27	.18	.21	.17	.29	.79	146.82	.60	.19	146.00	.01	.90	.83
28	.23	.41	.25	.19	147.58	148.55	.56	.17	.01	.00	.89	.83
29	.19	.44	.19	.52	146.81	.05	.52	.20	145.89	145.98	-	.82
30	.11	.50	.16	.29	.83	147.18	.44	.20	.91	.97	-	.82
31	-	.49	-	.25	147.08	-	.41	-	.94	.95	-	.82
Mean	146.12	146.30	146.24	146.30	146.35	147.22	147.39	146.30	146.09	146.08	145.95	145.88
Max.	146.23	146.50	147.19	146.91	147.08	149.90	151.14	146.49	146.22	146.15	146.00	146.02
Min.	146.10	146.15	145.82	145.79	146.03	146.44	146.41	146.17	145.89	145.95	145.89	145.82

WATER YEAR 1964 : Max. 151.14 m. Min. 145.79 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	2.55	2.90	6.65	2.35	2.80	31	14	6.35	3.00	2.75	1.30	0.70
2	2.55	3.80	5.75	1.10	2.35	38	46	6.20	2.95	2.70	1.30	0.65
3	2.55	4.00	5.15	0.30	2.35	22	261	6.35	2.95	2.70	1.50	0.60
4	2.55	3.90	3.70	2.40	2.35	10	200	5.90	2.95	2.70	1.80	0.55
5	2.55	4.80	3.20	3.50	2.15	12	141	4.90	3.20	2.70	1.50	0.55
6	2.50	5.00	3.00	4.10	2.55	12	48	4.90	3.20	2.70	1.30	0.65
7	2.50	4.70	2.85	3.70	2.40	9.80	38	4.90	2.95	2.70	1.30	0.60
8	2.50	4.70	2.75	4.10	2.95	10	23	4.90	2.85	2.70	1.50	0.75
9	2.50	4.70	3.70	5.90	2.25	7.40	19	4.60	2.80	2.70	2.00	1.50
10	2.50	4.70	3.70	14	4.30	6.50	45	4.50	2.80	2.70	2.00	2.00
11	2.50	4.60	3.70	6.20	3.00	5.90	61	4.10	2.75	2.70	1.80	2.00
12	2.50	4.70	3.80	4.70	5.00	5.60	45	4.00	2.70	2.70	1.50	2.10
13	2.50	4.70	3.80	6.05	3.50	11	20	4.00	2.60	2.65	1.40	2.00
14	2.50	3.00	3.60	4.60	4.30	10	16	4.00	2.55	2.65	1.30	1.60
15	2.50	2.75	1.30	4.50	6.20	10	17	3.80	2.50	2.65	1.30	1.30
16	2.50	2.75	2.35	5.15	8.30	56	17	2.95	2.55	2.60	1.30	0.75
17	2.50	2.75	3.20	3.30	8.45	14	12	3.00	2.50	2.55	1.30	0.60
18	2.50	2.75	2.85	2.90	6.05	154	20	3.10	2.45	2.45	1.20	0.55
19	2.50	3.70	1.00	3.70	4.20	33	13	4.30	2.45	2.30	1.20	0.55
20	2.50	3.70	0.40	2.55	3.30	25	15	3.90	2.40	2.25	1.20	0.55
21	2.50	3.60	0.45	2.50	3.00	18	9.80	3.80	2.40	2.25	1.10	0.55
22	2.50	3.60	0.45	5.90	2.85	10	8.60	3.09	2.35	2.20	1.10	0.55
23	2.50	3.20	21	8.15	2.60	8.75	8.45	3.50	2.25	2.20	1.10	0.55
24	2.50	3.40	7.40	6.95	2.60	75	11	3.10	2.15	2.15	1.10	0.50
25	2.80	3.30	5.45	4.40	2.40	27	12	3.10	2.10	2.10	1.10	0.50
26	2.75	3.10	5.00	3.00	2.65	16	8.90	2.95	1.80	2.10	0.90	0.45
27	2.90	3.10	2.85	3.90	11	11	8.00	2.95	2.00	2.05	0.80	0.45
28	3.30	5.15	3.50	2.95	7.70	74	7.40	2.85	2.05	2.00	0.75	0.45
29	2.95	5.60	2.95	6.80	11	51	6.80	3.00	0.75	1.60	-	0.40
30	2.55	6.50	2.80	3.90	12	20	5.60	3.00	0.90	1.50	-	0.40
31	-	6.35	-	3.50	18	-	5.15	-	1.20	1.30	-	0.40
Total	77.50	125.50	118.30	137.05	154.55	793.95	1,162.70	122.80	75.05	74.00	36.95	25.75
Mean	2.58	4.05	3.94	4.42	4.98	26.5	37.5	4.09	2.42	2.39	1.32	0.83
Max.	3.30	6.50	21	14	18	154	261	6.35	3.20	2.75	2.00	2.10
Min.	2.50	2.75	0.40	0.30	2.15	5.60	5.15	2.85	0.75	1.30	0.75	0.40
Runoff - mcm.	6.696	10.843	10.221	11.841	13.353	68.597	100.457	10.610	6.484	6.394	3.192	2.225

WATER YEAR 1964 : Max. 261 Min. 0.30 Mean 7.96 Annual Runoff 250.914 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 3	18.00	152.50	451				

WATER YEAR 1963  
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 the bridge on highway Chiang Rai - Mae Chan, Amphoe Muang, Chiang Rai.

Drainage Area: 2,088 sq.km. referred to AMS Map 1:50,000.

Type of Gage: Staff gage.

Zero Gage at Bottom at: +389.00 m. (M.S.L.)

Bench Mark: H.S. No. 1

Location: Infront of Muang Chiang Rai police station.

Elevation: + 393.900 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.

Rated by Float: -

Rated by Current Meter: 1958 - 60.

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

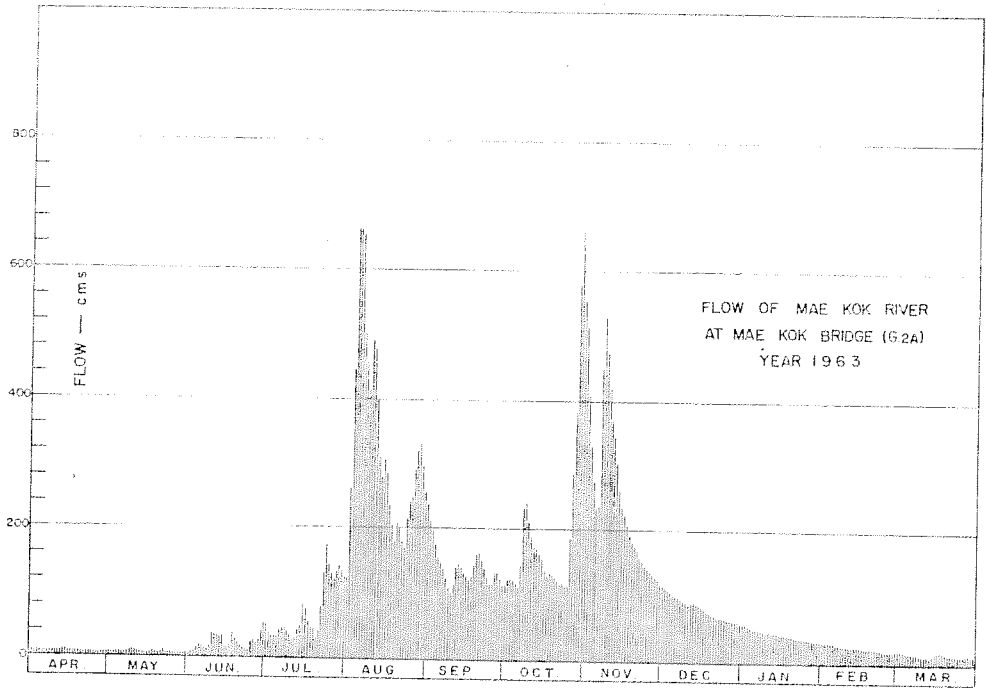
Overbank Flow Conditions: No overbank flow.

General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made for period 1958 - 60. No diversions for irrigation above gage site.

GAGE HEIGHT IN METER ( M. S. L.), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	390.45	390.43	390.39	390.90	391.28	391.72	391.25	392.41	391.26	390.94	390.75	390.64
2	.45	.43	.47	.80	.80	.64	.29	.20	.24	.93	.74	.62
3	.45	.43	.50	.79	392.12	.59	.29	391.97	.22	.92	.74	.61
4	.45	.43	.56	.78	.73	.49	.28	.82	.21	.91	.73	.60
5	.44	.44	.62	.74	.73	.43	.26	.72	.19	.90	.73	.59
6	390.44	390.42	390.60	390.84	392.52	391.40	391.23	391.73	391.18	390.90	390.72	390.58
7	.44	.45	.54	.86	.41	.35	.39	392.30	.17	.89	.72	.57
8	.44	.46	.54	.86	.31	.29	.71	.47	.15	.88	.71	.56
9	.43	.48	.59	.82	.21	.22	.74	.35	.14	.87	.71	.54
10	.43	.49	.79	.78	.39	.18	.63	.22	.13	.87	.70	.54
11	390.45	390.48	390.77	390.72	392.35	391.25	391.54	392.10	391.12	390.87	390.70	390.53
12	.46	.47	.76	.73	.17	.37	.50	.02	.13	.86	.69	.53
13	.48	.45	.73	.83	391.94	.39	.49	391.91	.13	.85	.69	.52
14	.48	.43	.75	.89	.85	.36	.46	.79	.12	.85	.69	.54
15	.46	.41	.58	391.10	.93	.32	.44	.73	.11	.84	.68	.56
16	390.45	390.40	390.56	391.05	391.87	391.31	391.34	391.68	391.10	390.84	390.67	390.60
17	.44	.44	.61	390.93	.72	.28	.31	.63	.08	.83	.67	.61
18	.44	.50	.80	.86	.60	.31	.33	.57	.06	.83	.66	.60
19	.43	.46	.69	.87	.51	.39	.32	.53	.04	.82	.66	.58
20	.43	.43	.64	.74	.63	.45	.31	.50	.03	.82	.65	.55
21	390.42	390.46	390.62	390.84	391.61	391.46	391.28	391.48	391.02	390.81	390.65	390.55
22	.42	.49	.58	391.06	.52	.41	.26	.44	.01	.81	.64	.54
23	.41	.45	.54	.34	.48	.35	.26	.42	.00	.80	.64	.53
24	.40	.43	.54	.50	.65	.29	.25	.39	.00	.80	.63	.52
25	.39	.42	.69	.38	.74	.25	.25	.37	.00	.79	.62	.52
26	390.39	390.41	390.70	391.31	391.76	391.25	391.55	391.35	390.99	390.79	390.61	390.52
27	.39	.40	.66	.28	.89	.33	.88	.33	.98	.78	.61	.53
28	.41	.40	.70	.33	.97	.33	392.03	.31	.98	.78	.60	.53
29	.42	.40	.82	.37	392.00	.29	.53	.29	.97	.77	.63	.52
30	.43	.40	.91	.35	391.90	.26	.73	.27	.96	.76	.52	.52
31	-	.40	-	.29	.79	-	.52	-	.95	.75	-	.52
Mean	390.43	390.44	390.64	391.00	391.95	391.36	391.54	391.74	391.09	390.84	390.68	390.56
Max.	390.48	390.50	390.91	391.50	392.73	391.72	392.73	392.47	391.26	390.94	390.75	390.64
Min.	390.39	390.40	390.39	390.72	390.28	391.18	391.23	391.27	390.95	390.75	390.60	390.52

WATER YEAR 1963 : Max. 392.73 m. Min. 390.39 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	7.00	6.00	4.17	51	122	236	115	500	117	58	32	20
2	7.00	6.00	8.00	38	261	212	124	409	113	56	31	19
3	7.00	6.00	9.50	36	377	198	124	320	109	55	31	18
4	7.00	6.00	14	35	662	172	122	268	106	53	30	17
5	6.50	6.50	19	31	662	157	117	236	102	51	30	16
6	6.50	5.50	17	43	553	149	111	239	100	51	28	15
7	6.50	7.00	12	46	500	138	147	450	98	50	28	14
8	6.50	7.50	12	46	455	124	233	529	94	49	27	14
9	6.00	8.50	16	40	413	109	242	473	92	47	27	12
10	6.00	9.00	36	35	491	100	209	417	90	47	26	12
11	7.00	8.50	34	28	473	115	185	369	88	47	26	12
12	7.50	8.00	33	30	397	142	174	339	90	46	25	12
13	8.50	7.00	30	42	398	147	172	299	90	45	25	11
14	8.50	6.00	32	50	278	140	164	258	88	45	25	12
15	7.50	5.00	15	84	306	131	159	239	86	43	24	14
16	7.00	4.50	14	76	285	128	135	224	84	43	23	17
17	6.50	6.50	18	56	236	122	128	209	81	42	23	18
18	6.50	9.50	38	46	200	128	133	193	77	42	22	17
19	6.00	7.50	25	47	177	147	131	182	74	40	22	15
20	6.00	6.00	20	31	209	162	128	174	72	40	21	13
21	5.50	7.50	19	43	203	164	122	169	70	39	21	13
22	5.50	9.00	15	77	179	152	117	159	69	39	20	12
23	5.00	7.00	12	135	169	138	117	154	67	38	20	12
24	4.50	6.00	12	174	215	124	115	147	67	38	19	11
25	4.17	5.50	25	145	242	115	115	142	57	36	19	11
26	4.17	5.00	26	128	249	115	137	138	65	36	18	11
27	4.17	4.50	22	122	292	133	288	133	64	35	18	12
28	5.00	4.50	26	133	320	133	342	128	64	35	17	12
29	5.50	4.50	40	142	331	124	558	124	62	34	19	11
30	5.00	4.50	53	138	295	117	662	119	61	33	-	11
31	-	4.50	-	124	258	-	553	-	59	32	-	11
Total	186.51	199.00	656.67	2,252	10,119	4,272	6,229	7,740	2,566	1,345	697	425
Mean	6.22	6.42	21.9	72.6	326	142	201	258	82.7	43.3	24.0	13.7
Max.	8.50	9.50	53	174	662	236	662	529	117	58	32	20
Min.	4.17	4.50	4.17	28	122	100	111	119	59	32	17	11
Runoff - mcm.	16.114	17.194	56.736	194.573	874.282	369.101	538.186	658.736	221.702	116.208	60.221	36.720

WATER YEAR 1963 : Max. 662 Min. 4.17 Mean 100 Annual Runoff 3,169.772 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Aug. 4	18.00	392.81	706				

WATER YEAR 1964  
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 the bridge on highway Chiang Rai - Mae Chan, Amphoe Muang, Chiang Rai.

Drainage Area: 2,088 sq.km. referred to AMS Map 1:50,000.

Type of Gage: Staff gage.

Zero Gage at Bottom at: + 389.00 m. (M.S.L.)

Bench Mark: H.S. No.1

Location: Infront of Muang Chiang Rai police station.

Elevation: + 393.900 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.

Rated by Float: -

Rated by Current Meter: 1958 - 60.

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

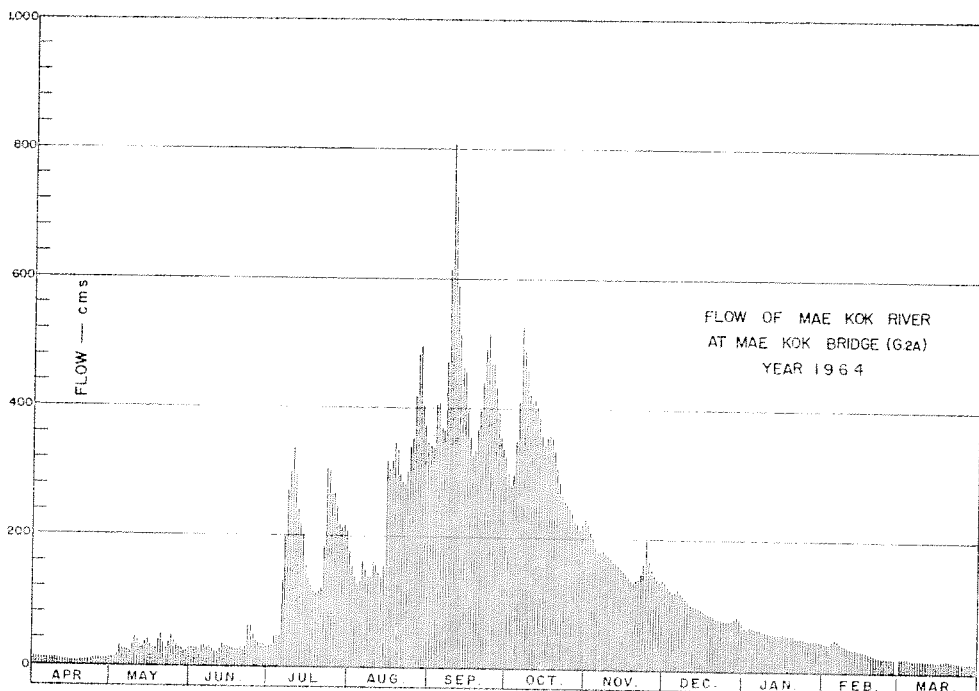
Overbank Flow Conditions: No overbank flow.

General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made for period 1958 - 60. No diversions for irrigation above gage site.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	390.51	390.53	390.72	390.74	391.51	392.03	391.91	391.67	391.33	391.00	390.84	390.65
2	.51	.54	.70	.75	.41	.02	.85	.64	.30	390.97	.83	.65
3	.50	.59	.69	.85	.34	.19	.91	.60	.28	391.00	.83	.65
4	.50	.74	.68	.87	.31	.20	392.06	.55	.26	390.99	.86	.64
5	.49	.69	.74	.89	.33	.10	.20	.52	.27	.98	.88	.63
6	390.49	390.68	390.73	391.33	391.53	392.09	392.46	391.52	391.28	390.98	390.86	390.62
7	.49	.65	.71	.68	.40	.32	.38	.53	.26	.97	.84	.62
8	.48	.64	.72	.83	.35	.63	.32	.51	.24	.96	.82	.61
9	.48	.73	.69	.90	.35	.96	.23	.50	.22	.95	.81	.61
10	.48	.84	.66	392.01	.45	.81	.20	.48	.20	.94	.79	.61
11	390.47	390.81	390.65	391.90	391.43	392.59	392.21	391.46	391.18	390.94	390.77	390.60
12	.46	.74	.69	.74	.38	.43	.18	.45	.17	.94	.76	.60
13	.45	.72	.76	.66	.35	.32	.14	.43	.16	390.93	.76	.60
14	.44	.79	.72	.61	.46	.31	.07	.42	.15	.93	.75	.60
15	.43	.82	.73	.42	.96	.18	.03	.40	.14	.93	.74	.59
16	390.42	390.74	390.72	391.35	391.91	392.06	392.06	391.38	391.13	390.93	390.73	390.59
17	.41	.71	.71	.29	.96	391.98	.07	.36	.12	.92	.73	.60
18	.40	.70	.69	.25	392.04	392.02	.06	.34	.11	.92	.72	.61
19	.42	.82	.71	.23	.01	.11	.00	.33	.10	.91	.71	.62
20	.44	.87	.72	.25	391.91	.91	391.93	.35	.09	.91	.69	.61
21	390.46	390.76	390.67	391.28	391.87	392.27	391.87	391.35	391.07	390.89	390.67	390.60
22	.47	.69	.73	.54	.86	.39	.81	.38	.07	.89	.66	.59
23	.48	.79	.98	.93	.92	.44	.78	.45	.06	.88	.66	.58
24	.50	.85	.96	.92	392.02	.34	.77	.59	.06	.88	.65	.58
25	.51	.79	.86	.81	.06	.34	.75	.46	.05	.87	.65	.57
26	390.52	390.74	390.81	391.82	392.19	392.25	391.73	391.41	391.05	390.87	390.64	390.57
27	.51	.72	.78	.75	.37	.16	.68	.37	.05	.86	.64	.56
28	.50	.70	.76	.66	.40	.06	.67	.35	.07	.86	.64	.56
29	.51	.66	.76	.65	.17	.02	.64	.34	.09	.86	-	.55
30	.52	.66	.73	.66	.11	391.97	.67	.35	.07	.85	-	.55
31	-	.72	-	.63	.04	-	.70	-	.04	-	-	.55
Mean	390.47	390.72	390.74	391.49	391.75	392.26	391.98	391.45	391.15	390.92	390.75	390.60
Max.	390.52	390.87	390.98	392.01	392.40	392.96	392.46	391.67	391.33	391.00	390.88	390.65
Min.	390.40	390.53	390.65	390.74	391.31	391.97	391.64	391.33	391.04	390.85	390.64	390.55

WATER YEAR 1964 : Max. 392.96 m. Min. 390.40 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	10	12	28	31	177	342	299	221	133	67	43	21
2	10	12	26	32	152	339	278	212	126	62	42	21
3	9.50	16	25	45	135	405	299	200	122	67	42	21
4	9.50	31	24	47	128	409	354	187	117	65	46	20
5	9.00	25	31	50	133	369	409	179	119	64	49	19
6	9.00	24	30	133	182	365	524	179	122	64	46	19
7	9.00	21	27	224	149	459	486	182	117	62	43	19
8	8.50	20	28	271	138	609	459	177	113	61	40	18
9	8.50	30	25	295	138	806	421	174	109	59	39	18
10	8.50	43	22	335	162	706	409	169	104	58	36	18
11	8.00	39	21	295	157	588	413	164	100	58	34	17
12	7.50	31	25	242	145	510	401	162	98	58	33	17
13	7.00	28	33	218	138	459	385	157	96	56	33	17
14	6.50	36	28	207	164	455	358	154	94	56	32	17
15	6.00	40	30	154	317	401	342	149	92	56	31	16
16	5.50	31	28	138	299	354	354	145	90	56	30	16
17	5.00	27	27	124	317	324	358	140	88	55	30	17
18	4.50	26	25	115	346	339	354	135	86	55	28	18
19	5.50	40	27	111	335	373	331	133	84	53	27	19
20	6.50	47	28	115	299	405	306	138	83	53	25	18
21	7.50	33	23	122	285	438	285	138	79	50	23	17
22	8.00	25	30	185	282	491	265	145	79	50	22	16
23	8.50	36	64	306	302	514	255	162	77	49	22	15
24	9.50	45	61	302	339	468	252	198	77	49	21	15
25	10	36	46	265	354	468	246	164	76	47	21	14
26	11	31	39	268	405	430	239	152	76	47	20	14
27	10	28	35	246	482	393	224	142	76	46	20	14
28	9.50	26	33	218	495	354	221	138	79	46	20	14
29	10	22	33	215	397	339	212	135	83	46	20	13
30	11	22	30	218	373	320	221	138	79	45	20	13
31	-	28	-	209	346	-	230	-	74	45	-	13
Total	248.50	911	932	5,732	8,071	13,232	10,190	4,869	2,948	1,705	898	524
Mean	8.28	29.3	31.0	185	260	441	329	162	95.0	55.0	32.0	16.9
Max.	11	47	64	335	495	806	524	221	133	67	49	21
Min.	4.50	12	21	31	128	320	212	133	74	45	20	13
Runoff - mm.	21.470	78.710	80.525	495.245	697.334	1,143.245	880.416	420.682	254.707	147.312	77.587	45.274

WATER YEAR 1964 : Max. 806 Min. 4.50 Mean 138 Annual Runoff 4,342.507 mm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sept. 9	18.00	392.99	826				

WATER YEAR 1963  
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 Huai Mong Dam site and 500 meters downstream from the confluence of Huai Nam Ban and Huai Pak Kong. Amphoe Ban Phu, Udon Thani.

Drainage Area: 1,307 sq.km. referred to AMS Map 1:50,000.

Type of Gage: Water - stage recorder.

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

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

Location: At the camp of station Kh. 18

Elevation: + 7.590 m. (A.D.)

Gage Reading Frequency: Recording.

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

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 for years without actual ratings.

Overbank Flow Conditions: Flow began to overtop the bank at elevation + 6.65 m. (A.D.), but not included.

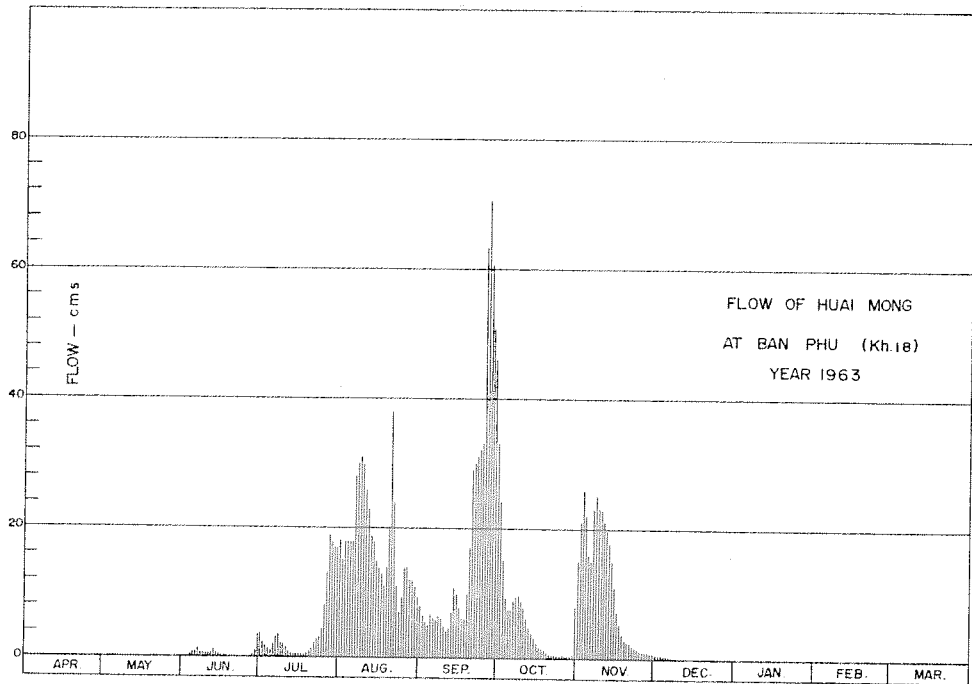
General Description: Gage height record good, discharge record fair. Stage - discharge relationship used is defined by discharge measurements made for period 1957 - 59. No upstream diversions for irrigation and no adjustment for virgin flow.

GAGE HEIGHT IN METER ( A. D. ), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.86	0.90	0.94	2.16	4.09	2.94	5.32	3.04	1.32	0.89	0.84	0.80
2	.90	.90	.91	1.86	3.75	.69	4.63	4.35	.25	.91	.83	.80
3	.92	.88	1.03	.74	4.11	.51	3.78	.84	.24	.89	.83	.87
4	.91	.93	.26	.58	.11	.41	.10	.46	.22	.87	.84	.80
5	.93	.96	.46	.48	.10	.71	2.81	3.93	.18	.91	.84	.81
6	0.91	1.02	1.37	1.76	4.14	2.63	2.82	3.79	1.17	0.88	0.84	0.79
7	.87	0.98	.54	2.04	.95	.57	3.05	4.57	.09	.88	.84	.79
8	.89	.98	.33	.14	5.13	.66	.15	.75	.07	.88	.86	.78
9	.94	.97	.33	1.94	.20	.60	.17	.58	.08	.89	.84	.83
10	.98	.96	.29	.82	.11	.37	.05	.55	.07	.90	.83	.83
11	0.93	0.97	1.20	1.65	4.85	2.25	2.84	4.41	1.06	0.89	0.83	0.81
12	.93	.93	.33	.43	.56	.35	.59	.28	.05	.93	.84	.79
13	.91	.92	.50	.33	.22	.81	.37	.12	.02	.90	.83	.80
14	.87	.94	.35	.28	.09	3.34	.19	3.82	0.97	.87	.86	.81
15	.90	.95	.20	.22	3.84	.26	.05	.31	.95	.90	.84	.82
16	0.86	0.97	1.14	1.23	3.73	2.87	1.87	2.80	0.93	0.88	0.81	0.82
17	.89	.96	.13	.21	.60	.59	.72	.45	.96	.87	.81	.87
18	.93	.92	.09	.20	.36	.58	.59	.17	1.00	.88	.82	.93
19	.93	.90	.03	.28	.67	3.16	.56	.02	0.95	.89	.81	.93
20	.94	.92	.06	.46	4.30	.94	.44	1.86	.93	.91	.86	.80
21	0.92	0.93	1.07	1.59	5.61	5.02	1.53	1.79	0.93	0.93	0.86	0.82
22	.97	.95	.05	.81	4.66	.15	.27	.75	.92	.94	.88	.82
23	.89	.96	.03	.98	3.32	.17	.21	.68	.92	.91	.86	.81
24	.91	1.00	.04	2.04	2.72	.22	.1f	.62	.91	.95	.84	.79
25	.87	.03	.01	.29	3.11	.27	.10	.52	.91	1.01	.83	.77
26	0.87	0.96	0.97	2.93	3.69	6.52	1.13	1.45	0.89	0.90	0.82	0.72
27	.88	.93	.99	3.61	.74	.78	.11	.43	.89	.87	.86	.80
28	.86	.89	1.25	4.20	.44	.51	.09	.38	.88	.87	.83	.81
29	.87	.90	.58	.14	.46	.31	.10	.37	.89	.88	.82	.80
30	.89	.90	2.12	.06	.33	5.99	.22	.35	.91	.87	-	.78
31	-	.92	-	.05	.16	-	2.88	-	.86	.86	-	.78
Mean	0.90	0.94	1.22	2.07	4.04	3.77	2.25	3.01	1.01	0.87	0.84	0.81
Max.	0.98	1.03	2.12	4.20	5.61	6.78	5.32	4.84	1.32	1.01	0.88	0.93
Min.	0.86	0.88	0.91	1.21	3.11	2.25	1.09	1.35	0.86	0.86	0.81	0.78

WATER YEAR 1963 : Max. 6.78 m. Min. 0.78 m.





DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.09	0.12	0.16	3.74	18	8.15	33	15	0.77	0.11	0.08	0.05
2	0.12	0.12	0.13	2.41	15	6.63	24	21	0.62	0.13	0.07	0.05
3	0.14	0.11	0.26	1.96	18	5.60	15	26	0.60	0.11	0.07	0.01
4	0.13	0.15	0.64	1.44	18	5.05	9.20	22	0.56	0.10	0.08	0.05
5	0.15	0.18	1.10	1.15	18	6.75	7.34	16	0.49	0.13	0.08	0.06
6	0.13	0.25	0.87	2.03	18	6.28	7.40	15	0.47	0.11	0.08	0.05
7	0.10	0.20	1.32	3.18	28	5.93	8.86	23	0.35	0.11	0.08	0.05
8	0.11	0.20	0.79	3.65	30	6.45	9.55	25	0.32	0.11	0.09	0.04
9	0.16	0.19	0.79	2.74	31	6.10	9.69	23	0.33	0.11	0.08	0.07
10	0.20	0.18	0.70	2.26	30	4.84	8.86	23	0.32	0.12	0.07	0.07
11	0.15	0.19	0.52	1.65	26	4.20	7.71	21	0.30	0.11	0.07	0.06
12	0.15	0.15	0.79	1.03	23	4.73	6.04	20	0.29	0.15	0.08	0.05
13	0.13	0.14	1.20	0.79	19	7.34	4.84	18	0.25	0.12	0.07	0.05
14	0.10	0.16	0.83	0.63	18	11	3.89	15	0.19	0.10	0.09	0.06
15	0.12	0.17	0.52	0.56	15	10	3.22	11	0.17	0.12	0.08	0.06
16	0.09	0.19	0.42	0.58	14	7.71	2.45	7.28	0.15	0.11	0.06	0.06
17	0.11	0.18	0.41	0.54	13	6.04	1.88	5.27	0.18	0.10	0.06	0.10
18	0.15	0.14	0.35	0.52	11	5.99	1.47	3.79	0.22	0.11	0.06	0.15
19	0.15	0.12	0.26	0.68	14	9.62	1.38	3.09	0.17	0.11	0.06	0.15
20	0.16	0.14	0.30	1.10	20	16	1.05	2.41	0.15	0.13	0.09	0.05
21	0.14	0.15	0.32	1.47	38	29	0.79	2.41	0.15	0.15	0.11	0.06
22	0.19	0.17	0.29	2.22	24	30	0.66	1.99	0.14	0.16	0.11	0.06
23	0.11	0.18	0.26	2.91	11	31	0.54	1.75	0.14	0.13	0.09	0.06
24	0.13	0.22	0.28	3.18	6.81	32	0.46	1.56	0.13	0.17	0.08	0.05
25	0.10	0.26	0.23	4.41	9.27	33	0.38	1.26	0.13	0.23	0.07	0.04
26	0.10	0.18	0.19	8.09	14	63	0.41	1.07	0.11	0.12	0.06	0.05
27	0.11	0.15	0.21	13	14	75	0.38	1.03	0.11	0.10	0.09	0.05
28	0.09	0.11	0.62	19	12	62	0.35	0.90	0.11	0.10	0.07	0.06
29	0.10	0.12	1.44	18	12	55	0.36	0.87	0.11	0.11	0.06	0.05
30	0.11	0.12	3.55	17	11	46	0.56	0.82	0.13	0.10	-	0.04
31	-	0.14	-	17	9.62	-	7.78	-	0.09	0.09	-	0.04
Total	3.82	5.08	19.75	138.92	558.70	600.41	179.50	329.50	8.25	3.76	2.24	1.94
Mean	0.13	0.16	0.66	4.48	18.0	20.0	5.79	11.0	0.27	0.12	0.08	0.06
Max.	0.20	0.26	3.55	19	38	75	33	26	0.77	0.23	0.11	0.15
Min.	0.09	0.11	0.13	0.52	6.81	4.20	0.35	0.82	0.09	0.09	0.06	0.04
Runoff - mcm.	0.330	0.439	1.706	12.003	48.272	51.875	15.509	28.469	0.713	0.325	0.193	0.168

WATER YEAR 1963 : Max. 75 Min. 0.04 Mean 5.06 Annual Runoff 160,001 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sept. 27	18.00	6.88	80				

WATER YEAR 1964  
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 Huai Mong Dam site and 500 meters downstream from the confluence of Huai Nam Ban and Huai Pak Kong, Amphoe Ban Phu, Udon Thani.

Drainage Area: 1,307 sq.km. referred to AMS Map 1:50,000.

Type of Gage: Water - stage recorder.

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

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

Location: At the camp of 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 for years without actual ratings.

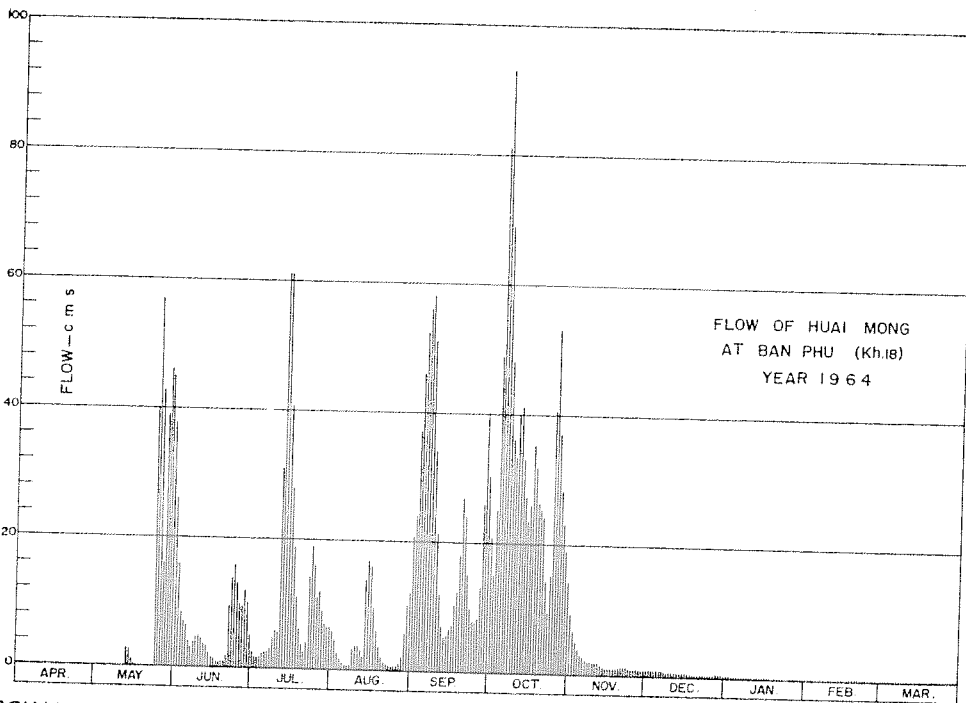
Overbank Flow Conditions: Flow began to overtop the bank at elevation + 6.65 m. (A.D.), but not included.

General Description: Gage height record good, discharge record fair. Stage - discharge relationship used is defined by discharge measurements made for period 1957 - 59. No upstream diversions for irrigation and no adjustment for virgin flow.

GAGE HEIGHT IN METER ( A. D. ), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.81	0.82	4.86	1.88	2.60	4.58	4.30	3.08	1.35	1.02	0.78	0.78
2	.92	.84	3.95	.64	.35	.63	3.82	2.68	.36	.08	.82	.60
3	.94	.84	.13	.65	1.88	5.53	4.76	.41	.34	.03	.80	.78
4	.96	.86	2.78	.72	.99	.62	6.10	.21	.34	0.89	.78	.81
5	.88	.85	.68	.86	.42	6.20	.89	.02	.35	.86	.78	.81
6	0.83	0.83	2.24	1.87	1.27	6.33	7.08	1.91	1.35	0.91	0.79	0.81
7	.85	.84	1.97	.90	.29	.41	6.67	.83	.38	.87	.79	.80
8	.89	.84	2.18	2.01	.22	.16	.08	.75	.23	.84	.84	.79
9	.92	.85	.33	.34	2.05	5.35	5.50	.71	.09	.89	.82	.76
10	.92	.86	.39	.57	.16	4.35	.32	.73	.16	.95	.80	.79
11	0.89	0.85	2.30	2.51	2.16	3.44	5.68	1.72	1.21	0.93	0.78	0.80
12	.88	.84	.13	5.18	.03	2.75	.75	.24	.14	.93	.77	.80
13	.84	.96	.06	6.49	1.72	.42	.28	.57	.13	.89	.78	.77
14	.88	.91	1.86	.49	3.71	.47	4.86	.58	.12	.88	.79	.78
15	.88	.40	.67	5.84	4.03	.67	.59	.43	.13	.82	.82	.76
16	0.88	1.09	1.56	4.98	3.93	2.74	4.83	1.38	1.22	0.86	0.78	0.76
17	.81	.00	.40	.34	.17	3.23	5.42	.37	.15	.86	.77	.77
18	.80	0.98	.27	3.39	2.60	.51	.20	.40	.07	.86	.81	.76
19	.82	.95	.44	2.61	.12	4.16	4.82	.44	.02	.83	.94	.75
20	.82	.86	.35	.15	1.78	.90	.78	.44	.06	.84	1.00	.74
21	0.82	0.86	1.68	1.84	1.51	4.67	4.62	1.46	1.03	0.85	0.99	0.73
22	.81	.84	3.13	2.18	.38	3.78	3.71	.50	.11	.87	.91	.72
23	.80	.95	.67	3.68	.28	.20	.11	.50	.13	.85	.86	.81
24	.80	5.72	.90	4.17	.25	2.90	.81	.42	.01	.79	.86	.81
25	.78	6.36	.59	3.94	.30	.85	5.71	.34	0.98	.82	.85	.75
26	0.78	5.85	3.20	3.37	1.33	3.06	6.25	1.34	1.07	0.86	0.82	0.75
27	.80	3.93	.15	.42	.45	.58	5.53	.35	.07	.85	.79	.75
28	.80	5.64	.45	.05	.78	4.81	4.93	.38	.15	.82	.80	.74
29	.80	.98	.23	2.76	2.57	5.68	.36	.09	.83	.83	.73	.73
30	.78	.94	2.41	.68	3.27	.13	.19	.34	.10	.83	.71	.71
31		.47		.70	.47		3.65		0.99	.80		.71
Mean	0.85	2.18	2.56	3.13	2.12	4.24	5.09	1.68	1.16	0.88	0.82	0.76
Max.	0.96	6.36	4.86	6.49	4.03	6.41	7.08	3.08	1.38	1.08	1.00	0.81
Min.	0.78	0.82	1.27	1.64	1.22	2.42	3.11	1.34	0.98	0.80	0.77	0.71

WATER YEAR 1964 : Max. 7.08 m. Min. 0.02 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.06	0.06	27	2.49	6.10	21	20	9.07	0.82	0.25	0.04	0.04
2	0.14	0.08	16	1.62	4.73	24	15	6.57	0.85	0.33	0.06	0.05
3	0.16	0.08	9.41	1.65	2.49	37	25	5.05	0.80	0.26	0.05	0.04
4	0.18	0.09	7.16	1.88	1.56	46	49	3.99	0.80	0.11	0.04	0.06
5	0.11	0.08	6.57	2.41	1.00	52	81	3.09	0.82	0.09	0.04	0.06
6	0.07	0.07	4.15	2.45	0.66	56	93	2.61	0.82	0.13	0.05	0.06
7	0.08	0.08	2.87	2.57	0.70	58	69	2.30	0.90	0.10	0.05	0.05
8	0.11	0.08	3.84	3.04	0.56	51	48	1.99	0.58	0.08	0.08	0.05
9	0.14	0.08	4.62	4.68	3.22	34	36	1.85	0.35	0.11	0.06	0.04
10	0.14	0.09	4.95	5.93	3.74	21	33	1.92	0.46	0.17	0.05	0.05
11	0.11	0.08	4.46	5.60	3.74	12	40	1.88	0.54	0.15	0.04	0.05
12	0.11	0.08	3.60	31	3.13	6.98	41	1.96	0.42	0.15	0.04	0.05
13	0.08	2.83	3.27	61	1.88	5.11	33	1.41	0.41	0.11	0.04	0.04
14	0.11	2.61	2.41	61	14	5.38	27	1.44	0.39	0.11	0.05	0.04
15	0.11	0.95	1.72	43	17	6.51	23	1.02	0.41	0.06	0.06	0.04
16	0.11	0.35	1.38	28	16	6.93	26	0.90	0.56	0.09	0.04	0.04
17	0.06	0.22	0.95	20	9.69	10	35	0.87	0.44	0.09	0.04	0.04
18	0.05	0.20	0.66	11	6.10	12	31	0.95	0.32	0.09	0.06	0.04
19	0.06	0.17	1.05	6.16	3.55	18	26	1.05	0.25	0.07	0.16	0.03
20	0.06	0.09	0.82	3.69	2.11	27	25	1.05	0.30	0.08	0.22	0.03
21	0.06	0.09	1.75	2.34	1.23	24	24	1.10	0.26	0.08	0.21	0.03
22	0.06	0.08	9.41	3.84	0.90	15	14	1.20	0.38	0.10	0.13	0.03
23	0.05	0.17	14	14	0.68	9.90	9.27	1.20	0.41	0.07	0.09	0.03
24	0.05	40	16	19	0.62	7.90	15	1.00	0.23	0.05	0.09	0.06
25	0.04	57	13	16	0.72	7.59	40	0.80	0.20	0.06	0.08	0.03
26	0.04	43	9.90	11	0.79	8.94	53	0.80	0.32	0.09	0.06	0.03
27	0.05	16	9.55	12	1.07	13	37	0.82	0.32	0.08	0.05	0.03
28	0.05	39	12	8.72	2.11	26	28	0.90	0.44	0.06	0.05	0.03
29	0.05	46	10	7.04	5.93	40	23	0.85	0.35	0.07		0.03
30	0.04	45	5.05	6.57	10	30	19	0.80	0.36	0.07		0.02
31		36		6.69	12		14		0.21	0.05		0.02
Total	2.54	330.71	207.55	406.37	138.01	692.24	1,052.27	60.44	14.72	3.41	2.03	1.24
Mean	0.08	10.7	6.92	13.1	4.45	23.1	33.9	2.01	0.47	0.11	0.07	0.04
Max.	0.18	57	27	61	17	58	93	9.07	0.90	0.33	0.22	0.06
Min.	0.04	0.06	0.66	1.62	0.56	5.11	9.27	0.80	0.20	0.05	0.04	0.02
Runoff - mcm.	0.219	28.573	17.932	35.110	11.924	59.809	90.916	5.222	1.272	0.295	0.175	0.107

WATER YEAR 1964 : Max. 93 Min. 0.02 Mean 7.98 Annual Runoff 251.556 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 6	06.00	7.19	101				

WATER YEAR 1963  
MAE KHONG RIVER BASIN

Nam Gon at Ban Nong Bua, Sakon Nakhon (Kh.20B)

Location: Lat 17°- 18' - 08" N., Long 103°- 45' - 27" E., on left bank 1 kilometer north - east of Ban Nong Bua, 500 meters upstream from Nam Gon Damsite, Amphoe Phanna Nikhom, Sakon Nakhon.

Drainage Area: 1,117 sq.km. referred to AMS Map 1:50,000.

Type of Gage: Water - stage recorder.

Zero Gage at Bottom at: + 160.00 m. (M.S.L.)

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

Locations: On right bank 20 meters from damsite.  
Elevation: + 169.900 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: 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 due to its stability.

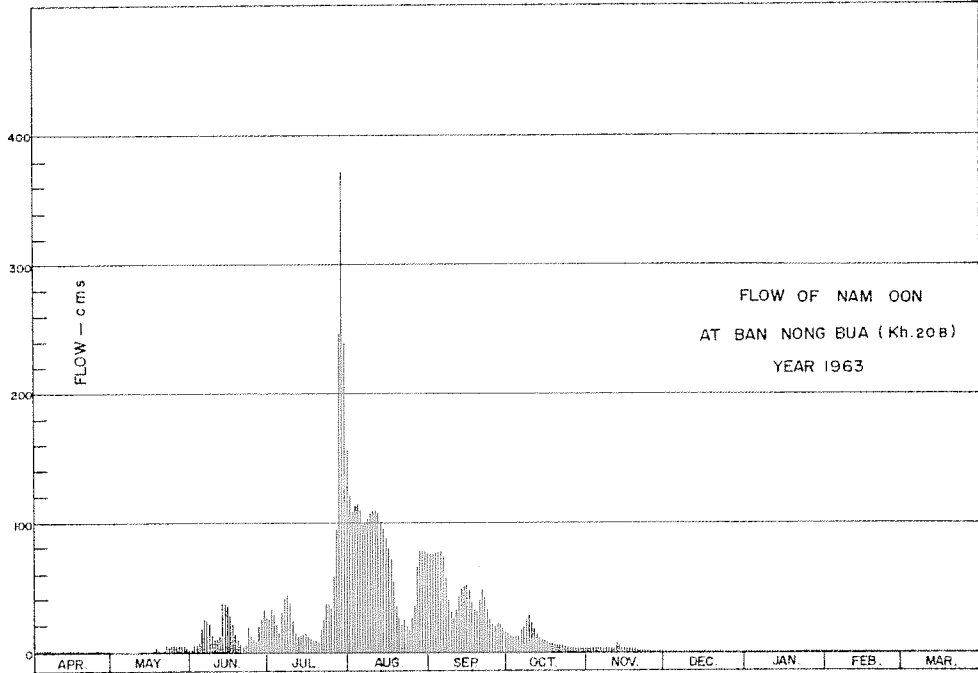
Overbank Flow Conditions: Overbank flow are observed and included for flow computation for Jul. 28 - 31.

General Description: Records good. Stage - discharge relationship used by discharge measurements made during 1963. No diversions for irrigation above gage site.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	161.91	161.87	162.40	164.57	168.69	167.17	163.72	162.56	162.22	162.03	161.92	161.87
2	.89	.82	.76	165.05	.30	.22	.58	.58	.21	.02	.96	.88
3	.85	.84	.80	164.84	.46	.21	.53	.59	.21	.00	162.00	.87
4	162.00	.85	163.17	.28	.53	.25	.60	.60	.21	.03	161.95	.86
5	161.99	.85	163.10	163.87	.53	.29	.59	.59	.22	.05	162.01	.86
6	162.01	161.88	164.54	164.91	168.02	167.14	163.96	162.59	162.18	161.98	161.97	161.85
7	161.98	.92	.53	165.58	.02	166.34	164.18	.57	.15	162.03	.94	.87
8	.96	.90	.28	.70	.14	165.47	.59	.57	.16	.07	.95	.88
9	.92	.92	163.60	.35	.29	164.89	.75	.61	.17	.05	.96	.88
10	.87	.91	.24	164.51	.34	.67	.37	.62	.17	.06	.91	.83
11	161.86	161.89	163.44	163.79	168.35	165.09	164.01	162.69	162.15	162.01	161.93	161.88
12	.83	.87	.61	.62	.52	.66	163.73	163.16	.12	.02	.90	.87
13	.97	.90	165.31	.70	.10	.97	.50	162.90	.13	161.94	.91	.83
14	.86	.87	.31	.76	167.90	166.07	.34	.68	.14	.99	.98	.80
15	.88	.87	.19	.72	.66	.11	.23	.63	.12	162.00	.98	.86
16	161.88	161.87	164.69	163.57	167.37	165.85	163.15	162.55	162.12	161.96	161.95	161.86
17	.86	.85	.32	.36	.05	.38	.07	.51	.11	162.09	.96	.83
18	.89	162.63	163.69	.26	166.24	164.99	162.99	.50	.11	161.99	.90	.84
19	.84	.25	.25	.26	165.20	.94	.92	.46	.10	162.00	.94	.82
20	.86	.10	162.90	.18	164.62	165.49	.88	.43	.07	.01	.89	.83
21	161.83	162.26	162.71	164.03	164.28	165.90	162.83	162.41	162.06	161.99	161.87	161.84
22	.81	.82	.90	.59	.55	.60	.81	.38	.07	.98	.96	.88
23	.84	.64	164.16	165.32	.18	.00	.71	.36	.06	.99	162.16	.87
24	.80	.85	163.62	.34	163.96	164.58	.66	.35	.08	.99	.06	.87
25	.89	.88	.31	.08	164.64	.33	.67	.31	.05	.97	.00	.87
26	161.84	162.76	163.04	166.48	165.17	164.16	162.61	162.28	162.04	161.97	161.98	161.86
27	.84	.74	164.25	167.88	166.78	.34	.55	.27	.02	.97	.94	.85
28	.82	.77	.55	169.99	167.29	.30	.60	.27	.06	.99	.92	.84
29	.85	.78	165.04	170.57	.28	.12	.56	.24	.05	.94	.91	.82
30	.79	.45	164.66	169.94	.23	163.88	.56	.24	.03	.99	.89	.89
31		.36		.25	.22		.57		.02	.94		.92
Mean	161.88	162.35	163.84	165.24	166.99	166.55	163.22	162.52	162.12	162.00	162.06	161.86
Max.	162.01	162.88	165.31	170.57	168.69	167.29	164.75	163.16	162.22	162.09	162.16	161.92
Min.	161.79	161.82	162.40	163.18	163.96	163.88	162.55	162.24	162.02	161.94	161.87	161.80

WATER YEAR 1963 : Max. 170.57 m. Min. 161.79 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.12	0.07	1.80	25	121	75	14	2.72	0.90	0.36	0.14	0.07
2	0.09	0.02	4.18	33	108	76	12	2.86	0.85	0.34	0.22	0.08
3	0.05	0.04	4.50	29	113	76	11	2.93	0.85	0.30	0.30	0.07
4	0.30	0.05	7.73	21	115	77	12	3.00	0.85	0.36	0.20	0.06
5	0.28	0.05	18	15	109	78	12	2.93	0.90	0.40	0.32	0.06
6	0.32	0.08	25	30	99	74	16	2.93	0.74	0.26	0.24	0.05
7	0.26	0.14	24	42	99	57	19	2.79	0.65	0.36	0.18	0.07
8	0.22	0.10	21	44	103	40	25	2.79	0.68	0.44	0.20	0.08
9	0.14	0.14	12	38	107	30	28	3.07	0.71	0.40	0.22	0.08
10	0.07	0.12	8.40	24	109	26	22	3.14	0.71	0.42	0.12	0.03
11	0.06	0.09	10	14	109	33	17	3.63	0.65	0.32	0.16	0.08
12	0.03	0.07	12	12	108	43	14	7.64	0.56	0.34	0.10	0.07
13	0.24	0.10	37	13	101	49	11	5.30	0.59	0.18	0.12	0.03
14	0.06	0.07	37	14	95	51	9.40	3.56	0.62	0.28	0.26	0.00
15	0.08	0.07	35	14	88	52	8.30	3.21	0.56	0.30	0.26	0.06
16	0.08	0.07	27	12	80	47	7.37	2.65	0.56	0.22	0.20	0.06
17	0.06	0.05	21	10	72	38	6.83	2.37	0.53	0.48	0.22	0.03
18	0.09	3.21	13	8.60	55	32	6.11	2.30	0.53	0.28	0.10	0.04
19	0.04	1.05	8.50	8.60	35	31	5.48	2.10	0.50	0.38	0.18	0.02
20	0.06	0.50	5.30	7.82	26	40	5.14	1.95	0.44	0.32	0.09	0.03
21	0.03	1.10	3.78	17	21	48	4.74	1.85	0.42	0.28	0.07	0.04
22	0.01	4.66	5.30	25	25	42	4.58	1.70	0.44	0.26	0.22	0.08
23	0.04	3.28	19	37	19	32	3.78	1.60	0.42	0.28	0.68	0.07
24	0.00	4.90	12	37	16	25	3.42	1.55	0.46	0.28	0.42	0.07
25	0.09	5.14	9.10	33	26	21	3.49	1.35	0.40	0.24	0.30	0.07
26	0.04	4.18	6.56	59	35	19	3.07	1.20	0.38	0.24	0.26	0.06
27	0.04	4.02	20	95	66	22	2.65	1.15	0.34	0.24	0.18	0.05
28	0.02	4.26	25	246	78	21	3.00	1.15	0.42	0.28	0.14	0.04
29	0.05	4.34	32	371	78	18	2.72	1.00	0.40	0.18	0.12	0.02
30	0.00	2.05	26	238	77	15	2.72	1.00	0.36	0.28		0.09
31		1.60		157	76		2.79		0.34	0.18		0.14
Total	2.97	45.62	491.15	1,730.02	2,369	1,288	298.59	77.42	17.76	9.40	6.22	1.80
Mean	0.10	1.47	16.4	55.8	76.4	42.9	9.63	2.58	0.57	0.30	0.21	0.06
Max.	0.32	5.14	37	371	121	78	28	7.64	0.90	0.48	0.68	0.14
Min.	0.00	0.02	1.80	7.82	16	15	2.65	1.00	0.34	0.18	0.07	0.00
Runoff - mcm.	0.257	3.941	42.435	149.474	204.682	111.283	25.793	6.689	1.534	0.812	0.537	0.155

WATER YEAR 1963 : Max. 371 Min. 0.00 Mean 17.3 Annual Runoff 547.599 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Jul. 29	24.00	170.69	418				

WATER YEAR 1964  
MAE KHONG RIVER BASIN

Nam Oon at Ban Nong Bua, Sakon Nakhon (Kh. 208)

Location: Lat 17° - 18' - 08" N., Long 103° - 45' - 27" E., on left bank 1 kilometer north - east of Ban Nong Bua, 500 meters upstream from Nam Oon Damsite, Amphoe Phanna Nihom, Sakon Nakhon.

Drainage Area: 1,117 sq.km. referred to AMS Map 1:50,000.

Type of Gage: Water - stage recorder.

Zero Gage at Bottom at: + 160.00 m. (M.S.L.)

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

Location: On right bank 20 meters from damsite.

Elevation: + 169.900 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: 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 due to its stability.

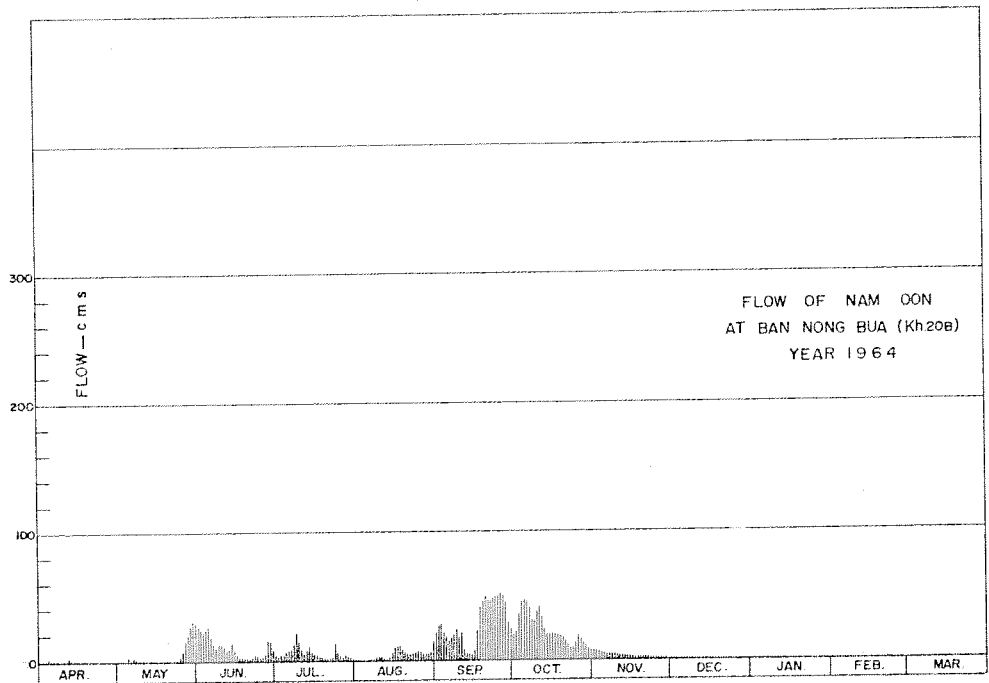
Overbank Flow Conditions: Overbank flow are observed and included for flow computation for Jul. 28 - 31.

General Description: Records fair. Stage - discharge relationship used by discharge measurements made during 1964. No diversions for irrigation above gage site.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	161.93	161.83	164.58	162.85	162.29	164.25	164.03	163.07	162.25	161.99	161.96	161.97
2	.96	.86	.42	.67	.22	.59	.27	.00	.25	.99	.93	.96
3	.95	.94	.29	.82	.18	.62	165.07	162.94	.23	.99	.92	.98
4	162.49	162.05	.43	.71	.17	.27	.60	.89	.20	.98	.92	.95
5	.21	.64	.57	163.13	.13	.01	.72	.84	.17	.99	.91	.99
6	162.10	162.38	163.93	163.19	162.12	163.72	165.67	162.79	162.18	161.98	161.93	162.00
7	.04	.59	.60	.30	.38	.96	.35	.76	.17	162.03	.92	161.98
8	161.99	.42	.37	.62	.37	164.14	164.82	.74	.17	161.99	.92	161.99
9	.96	.39	.58	164.28	.52	.36	.73	.71	.16	.97	.94	162.01
10	.93	.32	.58	163.78	.52	163.94	165.16	.67	.17	.95	.93	.08
11	161.91	162.20	163.40	163.23	162.42	163.46	165.38	162.63	162.17	161.97	161.91	162.04
12	162.53	.21	.14	162.90	.38	.15	164.99	.59	.15	.95	.90	.02
13	.20	.18	.21	163.19	.34	162.91	.42	.56	.15	.94	.93	161.98
14	.03	.25	.70	.41	.55	.78	.10	.51	.13	.91	.92	.95
15	.60	.12	.16	.12	.93	.73	.02	.49	.13	.95	.95	.93
16	161.97	162.03	162.85	162.85	163.40	163.11	164.12	162.47	162.13	162.60	161.94	161.90
17	.93	.03	.66	.72	.38	164.22	.10	.46	.10	161.97	.97	.87
18	162.14	161.97	.55	.61	.49	165.22	.02	.45	.11	.95	.94	.86
19	.15	.93	.45	.53	.16	.63	.03	.43	.12	.95	.91	.87
20	.02	.95	.44	.48	162.95	.84	163.98	.40	.08	.95	.92	.83
21	161.95	161.96	162.43	162.36	162.86	165.77	163.72	162.39	162.07	161.92	161.90	161.85
22	162.08	.96	.65	.35	.88	.69	.46	.42	.07	.94	.94	.85
23	.01	.92	.82	.51	.86	.79	.29	.37	.05	.92	.94	.87
24	161.97	162.00	.75	163.66	163.02	.86	.30	.33	.04	.94	.90	.89
25	.95	.44	.61	.00	.07	.89	.56	.31	.06	.90	.94	.86
26	161.91	163.07	162.55	162.70	162.97	165.99	164.05	162.31	162.06	161.98	161.92	161.84
27	.89	.75	.75	.56	.92	.96	163.92	.29	.05	.94	.97	.83
28	.87	164.11	163.81	.85	.91	.56	.67	.28	.05	.90	162.01	.89
29	.89	.58	.83	.60	.88	164.82	.42	.27	.05	.89		.82
30	.85	.90	.30	.42	163.03	.35	.25	.25	.03	.91		.82
31		.77		.35	.75		.13		161.97	.90		.82
Mean	162.03	162.54	163.31	163.93	162.74	164.55	164.27	162.55	162.12	161.95	161.93	161.92
Max.	162.53	164.90	164.58	164.28	163.75	165.99	165.72	163.07	162.25	162.03	162.01	162.08
Min.	161.85	161.83	162.43	162.35	162.12	162.73	163.13	162.25	161.97	161.89	161.90	161.82

WATER YEAR 1964 : Max. 165.99 m. Min. 161.82 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.16	0.03	27	5.30	1.40	22	19	7.30	1.20	0.28	0.22	0.24
2	0.22	0.06	25	3.90	1.10	27	22	6.60	1.20	0.28	0.16	0.22
3	0.20	0.18	23	5.10	0.92	28	35	6.10	1.10	0.28	0.14	0.26
4	2.50	0.45	25	4.20	0.88	22	45	5.60	1.00	0.26	0.14	0.20
5	1.00	3.60	27	7.90	0.72	19	47	5.20	0.68	0.28	0.12	0.28
6	0.60	1.90	18	8.50	0.68	15	46	4.80	0.92	0.26	0.16	0.30
7	0.42	3.20	13	9.60	1.90	18	40	4.60	0.88	0.39	0.14	0.26
8	0.28	2.10	10	13	1.80	20	31	4.40	0.88	0.28	0.14	0.28
9	0.22	1.90	13	22	2.70	24	29	4.20	0.84	0.24	0.18	0.33
10	0.16	1.60	13	15	2.70	18	37	3.90	0.88	0.20	0.16	0.54
11	0.12	1.00	11	8.90	2.10	12	41	3.50	0.88	0.24	0.12	0.42
12	2.80	1.00	8.00	5.70	1.90	8.10	34	3.20	0.80	0.20	0.10	0.36
13	1.00	0.92	8.70	8.50	1.70	5.80	25	3.00	0.80	0.18	0.16	0.26
14	0.39	1.20	14	11	2.90	4.70	20	2.70	0.72	0.12	0.14	0.20
15	0.30	0.68	8.20	7.80	6.00	4.30	19	2.50	0.72	0.20	0.20	0.16
16	0.24	0.39	5.30	5.30	11	7.70	20	2.40	0.72	0.30	0.18	0.10
17	0.16	0.39	3.80	4.30	11	22	20	2.40	0.60	0.24	0.24	0.07
18	0.76	0.24	2.90	3.40	12	37	19	2.30	0.64	0.20	0.18	0.06
19	0.80	0.16	2.30	2.80	8.20	45	19	2.20	0.68	0.20	0.12	0.07
20	0.36	0.20	2.20	2.50	6.10	49	18	2.00	0.54	0.20	0.14	0.03
21	0.20	0.22	2.20	1.80	5.40	48	15	1.90	0.51	0.14	0.10	0.05
22	0.54	0.22	3.70	1.70	5.50	46	12	2.10	0.51	0.18	0.18	0.05
23	0.33	0.14	5.10	2.70	5.40	48	9.50	1.80	0.45	0.14	0.18	0.24
24	0.24	0.30	4.50	14	6.80	49	9.60	1.60	0.42	0.18	0.10	0.09
25	0.20	2.20	3.40	6.60	7.30	50	13	1.50	0.48	0.10	0.18	0.06
26	0.12	7.30	2.90	4.10	6.30	52	19	1.50	0.48	0.26	0.14	0.05
27	0.09	15	4.50	3.00	5.90	51	17	1.40	0.45	0.18	0.24	0.05
28	0.07	20	16	5.10	5.80	45	14	1.40	0.45	0.10	0.33	0.03
29	0.09	27	16	3.30	5.50	31	11	1.30	0.45	0.09	0.09	0.02
30	0.05	32	9.60	2.10	6.90	24	9.10	1.20	0.39	0.12	0.12	0.02
31		30		1.70	15		7.90		0.24	0.10		0.02
Total	14.62	155.58	328.30	290.80	153.50	852.60	723.10	94.60	21.71	6.42	4.59	5.30
Mean	0.49	5.02	10.9	64.8	4.95	28.4	23.3	3.15	0.70	0.21	0.16	0.17
Max.	2.80	32	27	22	15	52	47	7.30	1.20	0.39	0.33	0.54
Min.	0.05	0.03	2.20	1.70	0.68	4.30	7.90	1.20	0.24	0.09	0.10	0.02
Runoff - RCT.	1.253	13.442	28.365	17.349	13.262	73.665	62.476	8.173	1.876	0.555	0.396	0.458

WATER YEAR 1964 : Max. 52 Min. 0.02 Mean 7.02 Annual Runoff 221.281 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sept. 27	7.00	165.02	52				

WATER YEAR 1963  
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 6 kilometers downstream from Nam Phung Dam site, 500 meters upstream from the confluence with Huai Huat and 800 meters upstream from Ban Chan Phen, Amphoe Mueng, Sakon Nakhon.

Drainage Area: 577 sq.km. referred to AMS Map 1:50,000.

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: + 178.575 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: 1961 to date.

Rating Operation:

Period of Rating: 1961 to date.

Rated by Float:

Rated by Current Meter: 1961 to date.

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation due to its stability.

Overbank Flow Conditions: No overbank flow.

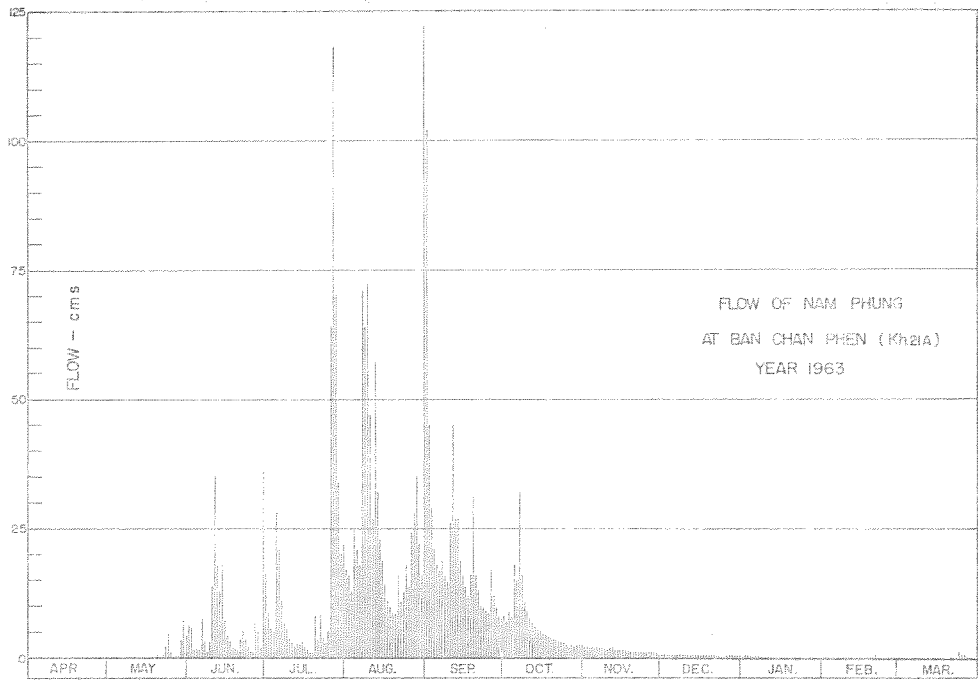
General Description: Records good. Stage - discharge relationship used by discharge measurements made during 1963. No diversions for irrigation above gage site.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	172.72	172.84	173.26	173.56	173.59	174.87	173.33	173.10	173.00	172.94	172.88	172.82
2	.72	.77	.25	.35	.56	.14	.30	.10	.00	.98	.88	.84
3	.71	.76	.05	.24	.48	173.85	.36	.09	.00	.95	.87	.83
4	.70	.73	.06	.23	.77	.69	.33	.09	172.99	.95	.86	.83
5	.71	.70	.07	.83	.69	.61	.62	.09	.99	.94	.86	.82
6	172.74	172.70	173.31	173.69	173.60	173.58	173.54	173.09	172.99	172.95	172.87	172.82
7	.72	.76	.13	.44	174.52	.63	.91	.08	.99	.95	.88	.82
8	.71	.76	.04	.29	.42	.55	.55	.08	.98	.94	.88	.82
9	.78	.76	.14	.24	.53	.54	.44	.07	.99	.94	.88	.86
10	.68	.72	.51	.17	.17	.80	.37	.07	.98	.93	.87	.88
11	172.67	172.69	173.96	173.13	173.82	174.14	173.32	173.08	172.97	172.93	172.86	172.84
12	.67	.67	.61	.10	174.33	173.82	.28	.08	.97	.92	.85	.83
13	.67	.68	.49	.11	173.92	.82	.26	.07	.97	.92	.85	.83
14	.67	.67	.62	.11	.73	.64	.24	.06	.97	.91	.85	.82
15	.67	.66	.31	.13	.65	.55	.23	.06	.97	.91	.87	.82
16	172.66	172.64	173.19	173.09	173.50	173.50	173.21	173.05	172.96	172.92	172.86	172.82
17	.66	.64	.13	.05	.43	.47	.20	.05	.97	.90	.85	.85
18	.65	.65	.10	.03	.38	.56	.18	.05	.97	.90	.85	.85
19	.65	.87	.07	.03	.35	.90	.17	.04	.96	.90	.84	.82
20	.64	.96	.05	.33	.35	.55	.17	.04	.96	.89	.85	.84
21	172.64	172.88	173.17	173.16	173.57	173.48	173.15	173.04	172.96	172.91	172.97	172.83
22	.64	.96	.22	.34	.43	.40	.14	.03	.95	.90	.91	.83
23	.64	173.08	.16	.18	.49	.38	.13	.03	.95	.88	.88	.88
24	.64	.21	.08	.14	.62	.37	.13	.02	.94	.88	.87	173.02
25	.64	.01	.04	.23	.51	.35	.11	.03	.95	.90	.85	172.97
26	172.66	172.94	173.03	174.42	173.78	173.58	173.10	173.02	172.95	172.90	172.84	172.97
27	.65	.95	.28	175.04	.83	.46	.11	.02	.98	.89	.83	.94
28	.65	.92	.22	174.50	.97	.38	.10	.01	.97	.89	.83	.92
29	.67	173.13	.09	173.95	.72	.33	.11	.01	.97	.89	.83	.90
30	.78	.38	.98	.66	.56	.31	.11	.00	.97	.88	.83	.88
31		.19		.71	175.08		.11		.97	.86		.87
Mean	172.67	172.85	173.25	173.43	173.78	173.64	173.27	173.05	172.97	172.91	172.86	172.86
Max.	172.74	173.38	173.98	175.04	175.08	174.87	173.91	173.10	173.00	172.98	172.97	173.02
Min.	172.64	172.64	173.03	173.03	173.35	173.31	173.10	173.00	172.94	172.86	172.83	172.82

WATER YEAR 1963 : Max. 175.08 m. Min. 172.64 m.





DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.00	0.06	6.16	16	17	102	8.10	2.45	0.85	0.44	0.13	0.03
2	0.00	0.00	5.90	8.70	16	45	7.20	2.45	0.85	0.71	0.13	0.06
3	0.00	0.00	1.65	5.64	13	29	9.00	2.29	0.85	0.57	0.11	0.05
4	0.00	0.00	1.81	5.38	25	21	8.10	2.29	0.78	0.50	0.10	0.05
5	0.00	0.00	1.97	28	21	18	18	2.29	0.78	0.44	0.10	0.03
6	0.00	0.00	7.50	21	18	17	15	2.29	0.78	0.50	0.11	0.05
7	0.00	0.00	3.09	11	71	19	32	2.13	0.78	0.50	0.13	0.03
8	0.00	0.00	1.49	6.94	64	16	16	2.15	0.71	0.44	0.13	0.03
9	0.00	0.00	3.31	5.64	72	15	11	1.97	0.78	0.44	0.13	0.10
10	0.00	0.00	14	3.95	47	26	9.30	1.97	0.71	0.57	0.11	0.13
11	0.00	0.00	35	3.09	27	45	7.80	2.13	0.64	0.37	0.10	0.06
12	0.00	0.00	18	2.45	57	27	6.68	2.13	0.64	0.30	0.08	0.05
13	0.00	0.00	13	2.66	32	27	6.16	1.97	0.64	0.30	0.08	0.05
14	0.00	0.00	18	2.66	23	19	5.64	1.81	0.64	0.23	0.08	0.03
15	0.00	0.00	7.50	3.09	19	16	5.38	1.81	0.64	0.23	0.11	0.03
16	0.00	0.00	4.38	2.29	14	14	4.86	1.65	0.57	0.30	0.10	0.03
17	0.00	0.00	3.09	1.65	11	12	4.60	1.65	0.64	0.16	0.08	0.05
18	0.00	0.00	2.45	1.33	9.60	16	4.17	1.65	0.64	0.16	0.08	0.05
19	0.00	0.11	1.97	1.33	8.70	31	3.95	1.49	0.57	0.16	0.06	0.03
20	0.00	0.57	1.65	8.10	8.70	16	3.95	1.49	0.57	0.14	0.08	0.06
21	0.00	0.13	3.95	3.74	16	13	3.52	1.49	0.57	0.23	0.04	0.05
22	0.00	0.57	5.12	8.40	11	10	3.31	1.33	0.50	0.16	0.23	0.05
23	0.00	2.13	3.74	4.17	13	9.60	3.09	1.33	0.50	0.13	0.13	0.13
24	0.00	4.86	2.13	3.31	18	9.30	3.09	1.17	0.44	0.13	0.11	1.17
25	0.00	1.01	1.49	5.38	14	8.70	2.66	1.33	0.50	0.16	0.08	0.64
26	0.00	0.44	1.33	64	25	17	2.45	1.17	0.50	0.16	0.06	0.64
27	0.00	0.50	6.68	118	28	12	2.66	1.17	0.71	0.14	0.05	0.44
28	0.00	0.30	5.12	70	35	9.60	2.45	1.01	0.64	0.14	0.05	0.30
29	0.00	3.09	2.29	34	22	8.10	2.66	1.01	0.64	0.14	0.05	0.16
30	0.00	9.60	36	20	16	7.50	2.66	0.85	0.64	0.13	0.03	0.13
31	0.00	4.38	22	22	122	2.66	2.66	0.64	0.64	0.10		0.11
Total	0.00	27.69	219.77	493.90	894	635.80	218.10	51.90	20.34	8.88	3.45	4.80
Mean	0.00	0.89	7.32	15.9	28.8	21.2	7.03	1.73	0.66	0.29	0.12	0.15
Max.	0.00	9.60	36	118	122	102	32	2.45	0.85	0.71	0.64	1.17
Min.	0.00	0.00	1.33	1.33	8.70	7.50	2.45	0.85	0.44	0.10	0.05	0.03
Runoff = BCM.	0.000	2.392	18.988	42.673	77.242	54.933	18.844	4.484	1.757	0.767	0.296	0.415

WATER YEAR 1963 : Max. 122 Min. 0.00 Mean 7.04 Annual Runoff 222.792 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Aug. 31	15.00	175.81	210	Jul. 27	6.00	175.30	147

WATER YEAR 1964  
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 6 kilometers downstream from Nam Phung Damsite, 500 meters upstream from the confluence with Huai Huat and 800 meters upstream from Ban Chan Phen, Amphoe Muang, Sakon Nakhon.

Drainage Area: 577 sq.km. referred to AMS Map 1:50,000.

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: + 178.375 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: 1961 to date.

Rating Operation:

Period of Rating: 1961 to date.

Rated by Float: -

Rated by Current Meter: 1961 to date.

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation due to its stability.

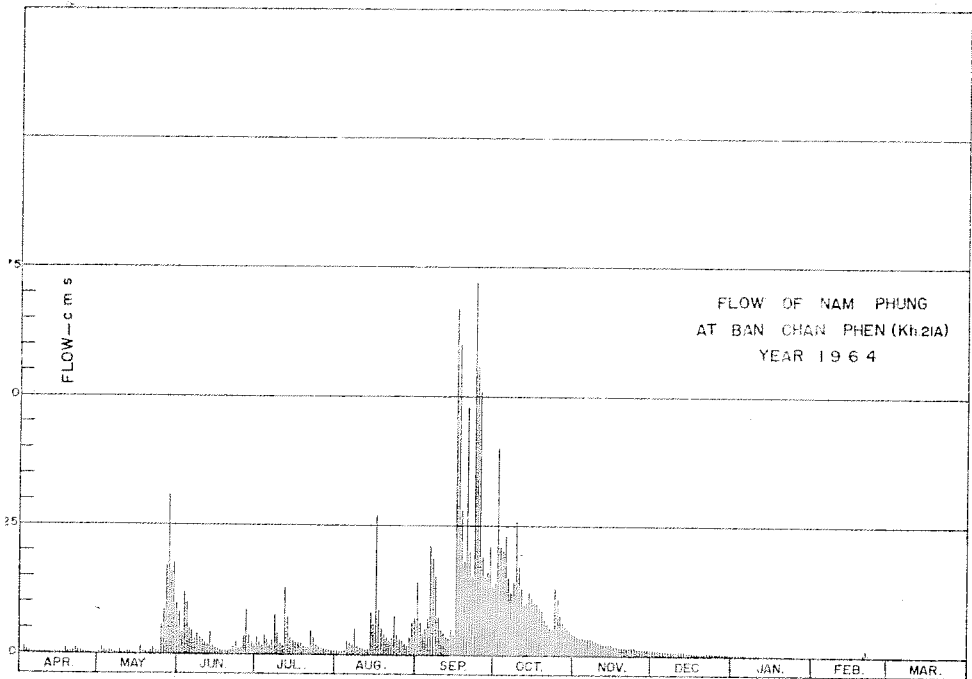
Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage - discharge relationship used by discharge measurements made during 1964. No diversions for irrigation above gage site.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	172.88	172.95	173.36	173.19	172.98	173.53	173.52	173.13	172.96	172.88	172.81	172.80
2	173.07	173.08	.22	.13	.98	.30	174.05	.12	.96	.88	.81	.80
3	.00	172.99	.47	.10	.98	.21	173.70	.11	.95	.87	.81	.80
4	172.97	.98	.42	.20	.98	.27	.69	.11	.94	.87	.82	.82
5	.95	.98	.25	.16	173.15	.32	.75	.10	.94	.86	.81	.82
6	172.93	172.99	173.25	173.11	173.14	173.70	173.55	173.10	172.94	172.88	172.81	172.83
7	.92	.96	.16	.16	.11	.66	.45	.10	.93	.87	.82	.82
8	.92	.95	.23	.35	.25	.55	.51	.09	.93	.86	.82	.80
9	.93	173.03	.19	.17	.09	.33	.81	.07	.93	.86	.82	.80
10	.92	172.96	.15	.12	.07	.26	.61	.07	.92	.86	.82	.80
11	172.94	172.95	173.12	173.09	173.05	173.21	173.50	173.06	172.92	172.86	172.83	172.80
12	.92	.98	.11	.50	.02	.18	.41	.05	.93	.85	.83	.79
13	.91	.98	.23	.34	.12	.17	.39	.04	.92	.85	.82	.79
14	.95	.94	.09	.19	.37	.24	.46	.03	.90	.85	.81	.78
15	.92	.91	.06	.15	.29	.21	.42	.03	.91	.84	.81	.79
16	172.91	172.94	173.05	173.13	173.83	174.41	173.40	173.02	172.91	172.85	172.81	172.78
17	.90	173.09	.03	.13	.38	.33	.39	.01	.90	.83	.80	.75
18	173.04	172.99	.01	.13	.26	173.85	.36	.01	.90	.84	.80	.76
19	172.98	.95	.00	.09	.21	.62	.34	.01	.89	.83	.81	.76
20	.97	.93	.00	.07	.21	174.17	.27	.01	.89	.83	.90	.76
21	173.00	173.01	172.99	173.06	173.16	173.65	173.24	173.00	172.88	172.83	172.96	172.76
22	.05	.06	173.09	.24	.15	.56	.21	172.99	.91	.84	.88	.76
23	.02	172.99	.14	.19	.34	174.47	.19	173.01	.90	.84	.85	.78
24	172.97	.95	.05	.11	.21	.28	.48	.01	.90	.83	.82	.79
25	.95	173.28	.06	.08	.17	173.90	.41	172.98	.89	.83	.81	.79
26	172.93	173.37	173.19	173.06	173.15	173.65	173.30	172.98	172.89	172.83	172.80	172.78
27	.92	.61	.38	.04	.12	.56	.25	.98	.89	.83	.80	.79
28	.90	.91	.21	.04	.10	.57	.21	.97	.89	.83	.80	.79
29	.90	.59	.13	.03	.18	.70	.19	.97	.89	.82	.80	.79
30	.90	.62	.08	.01	.30	.49	.17	.97	.88	.82	.80	.78
31		.43	.00	.00	.33		.15		.88	.82		.78
Mean	172.95	173.11	173.16	173.14	173.18	173.61	173.43	173.04	172.91	172.85	172.82	172.78
Max.	173.07	173.91	173.47	173.50	173.83	174.47	174.05	173.13	172.96	172.88	172.96	172.83
Min.	172.88	172.91	172.99	173.00	172.98	173.17	173.15	172.97	172.88	172.82	172.80	172.75

WATER YEAR 1964 : Max. 174.47 m. Min. 172.75 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.13	0.41	8.03	3.45	0.55	14	14	3.80	1.10	0.40	0.05	0.00
2	1.41	1.51	4.16	2.30	0.55	6.26	40	3.60	1.10	0.40	0.05	0.00
3	0.65	0.60	12	1.75	0.55	3.90	21	3.40	1.00	0.35	0.05	0.00
4	0.50	0.55	10	3.64	0.55	5.46	20	3.40	0.90	0.35	0.10	0.10
5	0.41	0.55	4.95	2.88	2.69	6.87	25	3.20	0.90	0.30	0.05	0.10
6	0.31	0.60	4.95	1.92	2.49	21	15	3.20	0.90	0.40	0.05	0.15
7	0.26	0.45	2.88	2.88	1.92	19	12	3.20	0.80	0.35	0.10	0.10
8	0.26	0.41	4.43	7.72	4.95	15	14	3.03	0.80	0.30	0.10	0.00
9	0.31	0.97	3.45	3.07	1.62	7.11	26	2.69	0.80	0.30	0.10	0.00
10	0.26	0.45	2.69	2.11	1.41	5.21	17	2.69	0.70	0.30	0.10	0.00
11	0.36	0.41	2.11	1.62	1.19	3.90	13	2.52	0.70	0.30	0.15	0.00
12	0.26	0.55	1.92	13	0.87	3.26	9.66	2.35	0.80	0.25	0.15	0.00
13	0.21	0.55	4.43	7.41	2.11	3.07	10	2.18	0.70	0.25	0.10	0.00
14	0.41	0.36	1.62	3.45	8.33	4.69	12	2.01	0.50	0.25	0.05	0.00
15	0.26	0.21	1.30	2.69	5.99	3.90	11	2.01	0.60	0.20	0.05	0.00
16	0.21	0.36	1.19	2.30	27	67	10	1.84	0.60	0.25	0.05	0.00
17	0.16	1.62	0.97	2.30	8.61	60	10	1.67	0.50	0.15	0.00	0.00
18	1.08	0.60	0.76	2.30	5.21	28	9.26	1.67	0.50	0.20	0.00	0.00
19	0.55	0.41	0.65	1.62	3.90	18	8.74	1.67	0.45	0.15	0.05	0.00
20	0.50	0.31	0.65	1.41	3.90	48	6.95	1.67	0.45	0.15	0.50	0.00
21	0.65	0.76	0.60	1.30	2.88	19	6.20	1.50	0.40	0.15	1.10	0.00
22	1.19	1.30	1.62	4.69	2.69	15	5.45	1.40	0.60	0.20	0.40	0.00
23	0.87	0.60	2.49	3.45	7.41	72	5.00	1.57	0.50	0.20	0.25	0.00
24	0.50	0.41	1.19	1.92	3.90	56	13	1.67	0.50	0.15	0.10	0.00
25	0.41	5.73	1.30	1.51	3.07	51	11	1.30	0.45	0.15	0.05	0.00
26	0.31	8.33	3.45	1.30	2.69	19	7.70	1.30	0.45	0.15	0.00	0.00
27	0.26	17	8.61	1.08	2.11	15	6.45	1.30	0.45	0.15	0.00	0.00
28	0.16	31	3.90	1.08	1.75	16	5.45	1.20	0.45	0.15	0.00	0.00
29	0.16	16	2.30	0.97	3.26	21	5.00	1.20	0.45	0.10	0.00	0.00
30	0.16	18	1.51	0.76	6.26	13	4.60	1.20	0.40	0.10	0.00	0.00
31		10		0.65	7.11		4.20		0.40	0.10		0.00
Total	13.17	121.01	100.11	88.51	127.50	640.63	376.66	65.54	19.85	7.20	3.75	0.45
Mean	0.44	3.90	3.34	2.85	4.11	21.3	12.1	2.18	0.64	0.23	0.13	0.01
Max.	1.41	31	12	13	27	72	40	3.80	1.10	0.40	1.10	0.15
Min.	0.13	0.21	0.60	0.65	0.55	3.07	4.20	1.20	0.40	0.10	0.00	0.00
Runoff - C.M.	1.138	10.455	8.649	7.647	11.016	55.350	32.543	5.663	1.715	0.622	0.324	0.039

WATER YEAR 1964 : Max. 72 Min. 0.00 Mean 4.28 Annual Runoff 135.162 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sept. 16	17.00	175.13	142				

WATER YEAR 1963  
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, 200 meters upstream from the confluence with Nam Phung, south of Ban Chan Phen, Amphoe Muang, Sakon Nakhon.

Drainage Area: 60 sq.km. referred to AMS Map 1:50,000.

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 right bank of Nam Phung and on left bank of Huai Huat.

Elevation: + 177.843 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 to date.

Rated by float: -

Rated by Current Meter: 1962 to date.

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

Overbank Flow Conditions: No overbank flow.

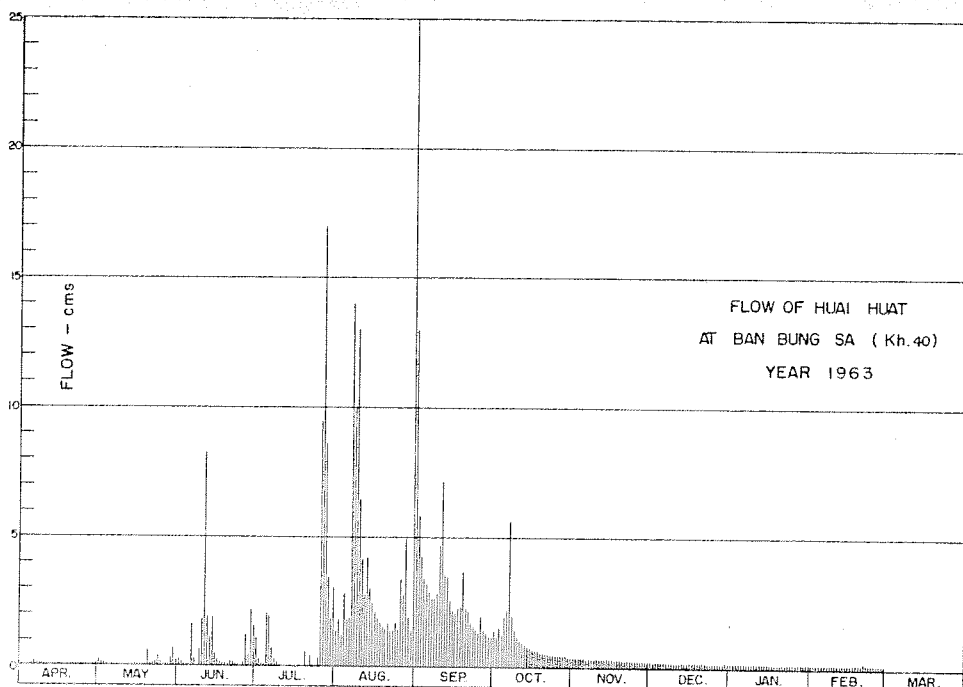
General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made during 1964. No diversions for irrigation above gage site.

Remark: No gage height record for March.

GAGE HEIGHT IN METER (A.D. ), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.65	0.75	0.78	1.01	1.07	2.28	1.07	0.80	0.74	0.72	0.71	
2	.65	.69	.72	0.79	.15	1.66	.02	.80	.74	.72	.71	
3	.65	.67	.69	.71	.01	.50	.10	.80	.74	.72	.71	
4	.65	.64	.68	.68	.37	.41	.03	.80	.74	.72	.71	
5	.65	.64	.66	1.20	.15	.37	.17	.80	.74	.72	.71	
6	0.71	0.64	1.12	1.17	1.17	1.32	1.23	0.79	0.73	0.72	0.71	
7	.69	.65	0.78	0.92	2.32	.29	.64	.79	.74	.72	.71	
8	.67	.66	.64	.77	.03	.29	.18	.79	.73	.72	.71	
9	.66	.63	.90	.72	.26	.32	.08	.79	.73	.72	.71	
10	.65	.61	1.16	.67	1.73	.55	.02	.79	.73	.72	.71	
11	0.65	0.58	1.89	0.64	1.49	1.79	0.99	0.79	0.73	0.72	0.71	
12	.64	.56	.18	.65	.32	.42	.96	.79	.73	.72	.71	
13	.64	.54	.01	.64	.49	.41	.95	.79	.73	.72	.71	
14	.63	.53	.16	.64	.35	.27	.93	.78	.73	.72	.71	
15	.62	.51	0.85	.65	.27	.22	.92	.78	.73	.72	.71	
16	0.61	0.40	0.78	0.61	1.21	1.19	0.90	0.78	0.73	0.72	0.71	
17	.60	.39	.72	.58	.16	.23	.89	.77	.73	.71	.71	
18	.59	.56	.69	.57	.13	.24	.88	.77	.73	.71	.71	
19	.59	.67	.68	.57	.10	.43	.87	.77	.73	.71	.71	
20	.58	.90	.66	.88	.08	.23	.86	.77	.73	.71	.71	
21	0.58	0.68	0.72	0.65	1.13	1.22	0.85	0.76	0.73	0.71	0.72	
22	.58	.68	.72	.83	.07	.13	.85	.76	.73	.71	.71	
23	.57	.71	.70	.66	.08	.12	.84	.76	.72	.71	.70	
24	.55	.82	.66	.65	.13	.08	.84	.76	.72	.71	.70	
25	.53	.72	.63	.79	.08	.06	.84	.75	.72	.71	.70	
26	0.55	0.65	0.70	1.99	1.39	1.17	0.85	0.75	0.72	0.71	0.69	
27	.54	.67	1.03	2.57	.31	.07	.84	.75	.72	.71	.69	
28	.54	.60	0.84	1.92	.58	.05	.82	.75	.72	.71	.70	
29	.68	.80	1.22	.41	.17	.02	.83	.75	.72	.70	.70	
30	.67	.92	.11	.16	.07	.01	.81	.75	.73	.71	.71	
31		.75		.35	3.03		.81		.72	.71		
Mean	0.62	0.65	0.87	0.94	1.38	1.31	0.96	0.78	0.73	0.71	0.71	
Max.	0.71	0.92	1.89	2.57	3.03	2.28	1.64	0.80	0.74	0.72	0.72	
Min.	0.53	0.39	0.63	0.57	1.01	1.01	0.81	0.75	0.72	0.70	0.69	

WATER YEAR 1963 : Max. 3.03 m. Min. - m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.08	0.26	0.32	1.13	1.40	13	1.40	0.36	0.24	0.20	0.17	
2	0.08	0.14	0.20	0.34	1.81	5.80	1.17	0.36	0.24	0.20	0.17	
3	0.08	0.11	0.14	0.17	1.23	4.25	1.54	0.36	0.24	0.20	0.17	
4	0.08	0.06	0.12	0.12	2.84	3.48	1.22	0.36	0.24	0.20	0.17	
5	0.08	0.06	0.09	2.08	1.81	3.19	1.92	0.36	0.24	0.20	0.17	
6	0.17	0.06	1.65	1.92	1.92	2.84	2.27	0.34	0.22	0.20	0.17	
7	0.14	0.08	0.32	0.75	14	2.64	5.60	0.34	0.24	0.20	0.17	
8	0.11	0.09	0.06	0.30	9.99	2.64	1.97	0.34	0.22	0.20	0.17	
9	0.09	0.05	0.67	0.20	13	2.84	1.45	0.34	0.22	0.20	0.17	
10	0.08	0.01	1.86	0.11	6.51	4.72	1.17	0.34	0.22	0.20	0.17	
11	0.08	0.00	8.28	0.06	4.16	7.14	1.04	0.34	0.22	0.20	0.17	
12	0.06	0.00	1.97	0.08	2.84	3.57	0.92	0.34	0.22	0.20	0.17	
13	0.06	0.00	1.13	0.06	4.16	3.48	0.87	0.34	0.22	0.20	0.17	
14	0.05	0.00	1.86	0.06	3.05	2.51	0.79	0.32	0.22	0.20	0.17	
15	0.03	0.00	0.51	0.08	2.51	2.20	0.75	0.32	0.22	0.20	0.17	
16	0.01	0.00	0.32	0.01	2.14	2.03	0.67	0.32	0.22	0.20	0.17	
17	0.00	0.00	0.20	0.00	1.86	2.27	0.64	0.30	0.22	0.17	0.17	
18	0.00	0.00	0.14	0.00	1.70	2.33	0.61	0.30	0.22	0.17	0.17	
19	0.00	0.11	0.12	0.00	1.54	3.65	0.58	0.30	0.22	0.17	0.17	
20	0.00	0.67	0.09	0.61	1.45	2.27	0.55	0.30	0.22	0.17	0.17	
21	0.00	0.12	0.20	0.08	1.70	2.20	0.51	0.28	0.22	0.17	0.20	
22	0.00	0.12	0.20	0.45	1.40	1.70	0.51	0.28	0.22	0.17	0.17	
23	0.00	0.17	0.15	0.09	1.45	1.65	0.48	0.28	0.20	0.17	0.15	
24	0.00	0.42	0.09	0.08	1.70	1.45	0.48	0.28	0.20	0.17	0.15	
25	0.00	0.20	0.05	0.34	1.45	1.36	0.48	0.26	0.20	0.17	0.15	
26	0.00	0.00	0.15	9.48	3.33	1.92	0.45	0.26	0.20	0.17	0.14	
27	0.00	0.11	1.22	17	2.77	1.40	0.48	0.26	0.20	0.17	0.14	
28	0.00	0.00	0.48	8.64	5.01	1.31	0.42	0.26	0.20	0.17	0.15	
29	0.02	0.36	2.20	3.48	1.92	1.17	0.45	0.26	0.20	0.15	0.15	
30	0.11	0.75	1.59	1.86	1.40	1.13	0.39	0.26	0.22	0.17	0.17	
31		0.26		3.05	25		0.39	0.26	0.20	0.17	0.17	
Total	1.41	4.29	26.38	52.63	127.05	92.14	32.17	9.36	6.78	5.73	4.80	
Mean	0.05	0.14	0.88	1.70	4.10	3.07	1.04	0.31	0.22	0.18	0.16	
Max.	0.17	0.75	8.28	17	25	13	5.60	0.36	0.24	0.20	0.20	
Min.	0.00	0.00	0.05	0.00	1.23	1.13	0.39	0.26	0.20	0.15	0.14	
Runoff - mcm.	0.122	0.371	2.279	4.547	10.977	7.961	2.779	0.809	0.586	0.495	0.415	

WATER YEAR 1963 : Max. 25 Min. - Mean - Annual Runoff - mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Aug. 31	12.00	3.40	32				

WATER YEAR 1964  
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, 200 meters upstream from the confluence with Nam Phung, south of Ban Chan Phen, Amphoe Muang, Sakon Nakhon.

Drainage Area: 60 sq.km. referred to AMS Map 1:50,000.

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 right bank of Nam Phung and on left bank of Huai Huat.  
Elevation: + 177.845 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: 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 due to its stability.

Overbank Flow Conditions: No overbank flow.

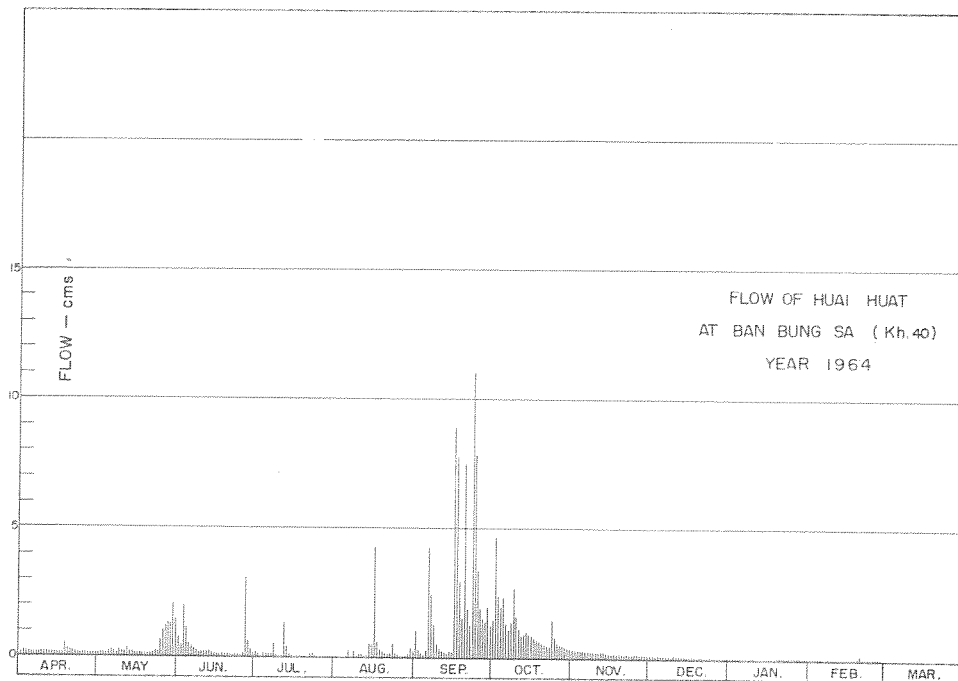
General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made during 1964. No diversions for irrigation above gage site.

Remark: No gage height record for Mar.

GAGE HEIGHT IN METER ( A. D. ), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.71	0.69	0.93	0.74	0.57	0.99	1.08	0.78	0.67	0.65	0.64	
2	.73	.71	.84	.71	.57	.78	.54	.78	.67	.65	.64	
3	.72	.70	1.18	.65	.57	.72	.21	.77	.67	.64	.64	
4	.72	.70	.02	.71	.57	.68	.18	.77	.67	.64	.64	
5	.71	.74	0.85	.70	.65	.78	.24	.76	.67	.64	.65	
6	0.71	0.76	0.82	0.69	0.75	1.50	1.06	0.76	0.67	0.64	0.64	
7	.71	.73	.78	.68	.64	.26	.00	.76	.66	.64	.63	
8	.71	.72	.76	.86	.75	.05	.06	.75	.67	.64	.63	
9	.72	.75	.72	.65	.62	0.85	.30	.75	.66	.64	.64	
10	.72	.74	.74	.64	.67	.79	.10	.75	.67	.63	.64	
11	0.72	0.74	0.74	0.64	0.67	0.75	1.01	0.74	0.67	0.64	0.64	
12	.71	.81	.73	1.06	.62	.73	0.95	.73	.67	.63	.66	
13	.70	.75	.76	0.83	.61	.71	.95	.73	.66	.63	.64	
14	.71	.72	.72	.67	.85	.73	.98	.73	.66	.63	.63	
15	.71	.71	.71	.64	.85	.72	.96	.72	.66	.63	.63	
16	0.71	0.70	0.70	0.62	1.50	1.93	0.94	0.71	0.65	0.64	0.63	
17	.71	.72	.69	.62	0.90	.84	.92	.71	.66	.64	.63	
18	.86	.70	.68	.64	.79	.33	.90	.71	.66	.64	.64	
19	.78	.70	.67	.62	.73	.10	.89	.71	.65	.65	.65	
20	.75	.69	.67	.61	.71	.82	.87	.70	.65	.65	.72	
21	0.73	0.70	0.67	0.60	0.68	1.16	0.85	0.70	0.65	0.66	0.66	
22	.72	.72	.66	.71	.67	.04	.84	.70	.65	.65	.65	
23	.71	.73	.67	.72	.85	2.12	.83	.70	.66	.65	.64	
24	.71	.73	.67	.64	.70	1.85	1.08	.70	.65	.64	.64	
25	.70	.90	.66	.62	.68	.40	0.94	.69	.65	.64	.63	
26	0.70	0.99	0.71	0.61	0.66	1.17	0.87	0.69	0.65	0.64	0.64	
27	.70	1.04	1.35	.60	.65	.10	.85	.69	.65	.64	.64	
28	.70	.05	0.90	.59	.64	.07	.83	.68	.65	.64	.63	
29	.70	.06	.77	.59	.68	.18	.82	.68	.64	.64		
30	.69	.19	.71	.58	.80	.03	.81	.68	.64	.63		
31		.09		.57	.75		.80		.65	.63		
Mean	0.72	0.80	0.78	0.67	0.72	1.14	0.99	0.72	0.66	0.64	0.64	
Max.	0.86	1.19	1.35	1.06	1.50	2.12	1.54	0.78	0.67	0.65	0.72	
Min.	0.69	0.69	0.66	0.57	0.57	0.68	0.80	0.68	0.64	0.63	0.63	

WATER YEAR 1964 : Max. 2.12 m. Min. - m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.17	0.14	0.79	0.24	0.00	1.04	1.45	0.32	0.11	0.08	0.06	
2	0.22	0.17	0.48	0.17	0.00	0.32	4.63	0.32	0.11	0.08	0.06	
3	0.20	0.15	1.97	0.08	0.00	0.20	2.14	0.30	0.11	0.06	0.06	
4	0.20	0.15	1.17	0.17	0.00	0.12	1.97	0.30	0.11	0.06	0.06	
5	0.17	0.24	0.51	0.15	0.08	0.30	2.33	0.28	0.11	0.06	0.08	
6	0.17	0.28	0.42	0.14	0.26	4.25	1.36	0.28	0.11	0.06	0.06	
7	0.17	0.22	0.32	0.12	0.06	2.45	1.08	0.28	0.09	0.06	0.05	
8	0.17	0.20	0.28	0.55	0.26	1.31	1.36	0.26	0.11	0.06	0.05	
9	0.20	0.26	0.20	0.08	0.03	0.51	2.70	0.26	0.09	0.06	0.06	
10	0.20	0.24	0.24	0.06	0.11	0.34	1.54	0.26	0.11	0.05	0.06	
11	0.20	0.24	0.24	0.06	0.11	0.26	1.13	0.24	0.11	0.06	0.06	
12	0.17	0.39	0.22	1.36	0.03	0.22	0.87	0.22	0.11	0.05	0.09	
13	0.15	0.26	0.28	0.45	0.01	0.17	0.87	0.22	0.09	0.05	0.06	
14	0.17	0.20	0.20	0.11	0.51	0.22	1.00	0.22	0.09	0.05	0.05	
15	0.17	0.17	0.17	0.06	0.51	0.20	0.92	0.20	0.09	0.05	0.05	
16	0.17	0.15	0.15	0.03	4.25	8.88	0.83	0.17	0.08	0.06	0.05	
17	0.17	0.20	0.14	0.03	0.67	7.71	0.75	0.17	0.09	0.06	0.05	
18	0.55	0.15	0.12	0.06	0.34	2.91	0.67	0.17	0.09	0.06	0.06	
19	0.32	0.15	0.11	0.03	0.22	1.54	0.64	0.17	0.08	0.08	0.08	
20	0.26	0.14	0.11	0.01	0.17	7.48	0.58	0.15	0.08	0.08	0.20	
21	0.22	0.15	0.11	0.00	0.12	1.86	0.51	0.15	0.08	0.09	0.09	
22	0.20	0.20	0.09	0.17	0.11	1.26	0.48	0.15	0.08	0.08	0.08	
23	0.17	0.22	0.11	0.20	0.51	11	0.45	0.15	0.09	0.08	0.06	
24	0.17	0.22	0.11	0.06	0.15	7.82	1.45	0.15	0.08	0.06	0.06	
25	0.15	0.67	0.09	0.03	0.12	3.40	0.83	0.14	0.08	0.06	0.05	
26	0.15	1.04	0.17	0.01	0.09	1.92	0.58	0.14	0.08	0.06	0.06	
27	0.15	1.26	3.05	0.00	0.08	1.54	0.51	0.14	0.08	0.06	0.06	
28	0.15	1.31	0.67	0.00	0.06	1.40	0.45	0.12	0.08	0.06	0.05	
29	0.15	1.36	0.30	0.00	0.12	1.97	0.42	0.12	0.06	0.06	0.06	
30	0.14	2.03	0.17	0.00	0.36	1.22	0.39	0.12	0.06	0.05	0.05	
31		1.49		0.00	0.26		0.36		0.08	0.05		
Total	5.85	14.05	12.99	4.43	9.60	73.82	35.25	6.17	2.82	1.94	1.86	
Mean	0.19	0.45	0.43	0.14	0.31	2.46	1.14	0.20	0.09	0.06	0.07	
Max.	0.55	2.03	3.05	1.36	4.25	11	4.63	0.32	0.11	0.08	0.20	
Min.	0.14	0.14	0.09	0.00	0.00	0.12	0.36	0.12	0.06	0.05	0.05	
Runoff - mcm.	0.505	1.214	1.122	0.383	0.829	6.378	3.046	0.533	0.244	0.168	0.161	

WATER YEAR 1964 : Max. 11 Min. - Mean - Annual Runoff - mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sept. 23	12.00	2.25	13				

WATER YEAR 1963  
CHEE RIVER BASIN

Chee River at Wat Tai Kosum, Maha Sarakham (E.1)

Location: Lat 16° - 15' - 02" N., Long 105° - 04' - 25" E., on right bank 800 meters north - east of the district office of Amphoe Kosum Phisai, Maha Sarakham.

Drainage Area: 29,803 sq.km. referred to AMS Map 1:50,000.

Type of Gage: Staff gage.

Zero Gage at Bottom: + 136.64 m. (M.S.L.)

Bench Mark: B.M. - E.1

Location: On right bank 5 meters 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 for years without actual ratings.

Overbank Flow Conditions: No overbank flow.

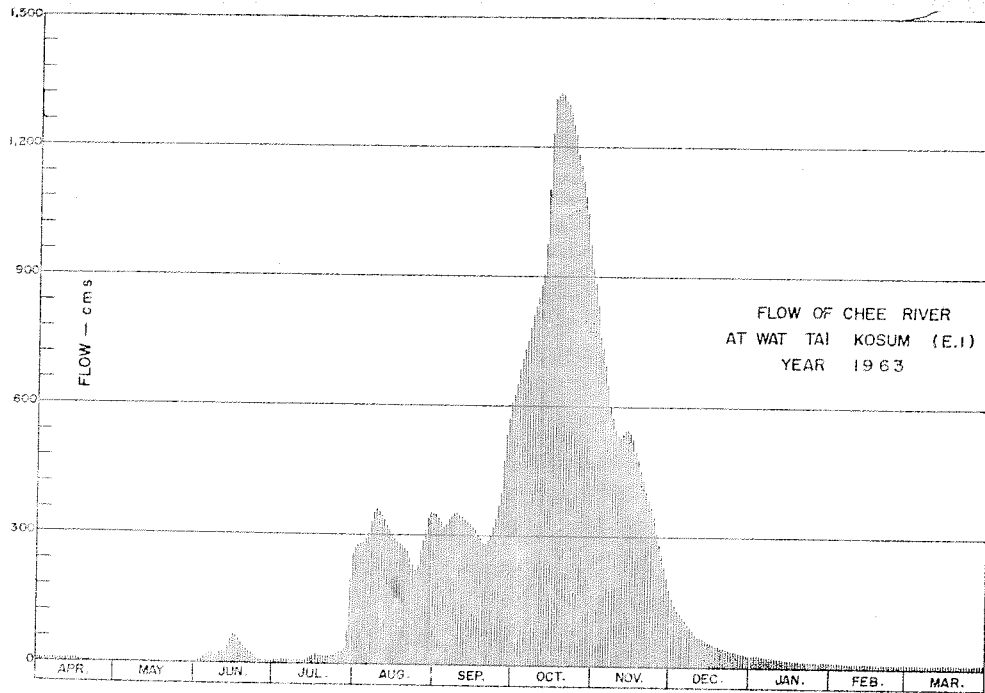
General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made for period 1965 - 66. No upstream diversions from the main river except those for series of tank irrigation.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	136.91	136.85	136.83	137.04	141.78	142.69	145.01	146.09	140.22	137.71	137.25	137.09
2	.91	.85	.91	.04	.83	.59	.12	145.89	139.94	.69	.24	.09
3	.91	.85	137.05	.07	.88	.47	.28	.64	.80	.67	.23	.09
4	.91	.84	.26	.15	.93	.34	.40	.49	.66	.65	.22	.09
5	.91	.84	.49	.17	142.02	.43	.49	.29	.52	.63	.21	.08
6	136.91	136.84	137.61	137.14	142.20	142.55	145.59	145.10	139.39	137.61	137.20	137.08
7	.91	.84	.61	.10	.46	.62	.70	144.78	.24	.59	.19	.07
8	.91	.83	.56	.06	.73	.69	.80	.67	.11	.57	.18	.07
9	.91	.83	.47	.04	.84	.72	.88	.47	138.96	.55	.17	.06
10	.91	.83	.67	.18	.77	.66	.97	.37	.82	.53	.16	.06
11	136.91	136.82	137.67	137.12	142.67	142.62	146.97	144.34	138.71	137.51	137.15	137.05
12	.91	.82	.79	.17	.57	.53	.18	.38	.67	.49	.14	.04
13	.91	.82	138.09	.23	.40	.47	.39	.45	.62	.47	.14	.04
14	.91	.81	.36	.31	.27	.43	.74	.46	.55	.45	.14	.04
15	.91	.81	.64	.47	.13	.37	147.09	.41	.47	.43	.13	.04
16	136.91	136.81	138.61	137.56	141.99	142.27	147.23	144.31	138.39	137.41	137.13	137.04
17	.90	.81	.49	.61	.97	.17	.33	.12	.33	.39	.12	.04
18	.90	.81	.29	.57	.92	.07	.34	143.94	.26	.37	.12	.04
19	.90	.81	.09	.55	.87	141.96	.35	.74	.21	.35	.12	.03
20	.90	.81	137.93	.49	.80	.89	.30	.53	.17	.34	.12	.03
21	136.89	136.81	137.78	137.45	141.69	142.01	147.28	143.26	138.13	137.34	137.12	137.03
22	.89	.81	.63	.51	.49	.17	.23	.07	.09	.33	.12	.02
23	.89	.80	.46	.51	.29	.38	.16	142.88	.05	.32	.11	.02
24	.89	.80	.26	.57	.11	.61	.10	.63	.01	.32	.11	.01
25	.88	.80	.20	.67	.19	.89	.01	.19	137.97	.31	.11	.01
26	136.88	136.80	137.12	137.76	141.69	143.19	146.91	141.96	137.93	137.30	137.10	137.00
27	.87	.80	.04	.82	.92	.97	.81	.59	.89	.30	.10	.00
28	.87	.80	.00	.92	142.25	144.40	.71	.21	.85	.27	.10	136.99
29	.86	.79	.00	138.85	.59	.65	.59	140.87	.81	.28	.10	.99
30	.86	.79	.00	140.54	.74	.86	.39	.52	.77	.27	-	.98
31	-	.79	-	141.53	.71	-	.21	-	.73	.26	-	.98
Mean	136.90	136.82	137.61	137.65	142.04	142.73	146.44	143.79	138.59	137.44	137.15	137.04
Max.	136.91	136.85	138.64	141.53	142.84	144.86	147.34	146.09	140.22	137.71	137.25	137.09
Min.	136.86	136.79	136.83	137.04	141.11	141.89	145.01	140.52	137.73	137.26	137.10	136.98

WATER YEAR 1963 : Max. 147.34 m. Min. 136.79 m.





DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	6.20	5.15	4.81	8.84	273	351	636	884	160	28	14	9.89
2	6.20	5.15	6.20	8.84	277	342	657	829	142	27	13	9.89
3	6.20	5.15	9.05	9.47	281	331	688	766	133	27	13	9.89
4	6.20	4.98	14	11	285	319	713	733	124	26	13	9.89
5	6.20	4.98	21	12	292	327	733	690	116	25	13	9.68
6	6.20	4.98	25	11	307	338	755	653	108	25	12	9.68
7	6.20	4.98	25	10	330	344	780	595	99	24	12	9.47
8	6.20	4.81	23	9.26	354	351	805	576	92	23	12	9.47
9	6.20	4.81	20	8.84	364	353	827	546	84	23	12	9.26
10	6.20	4.81	27	12	358	348	851	532	77	22	11	9.26
11	6.20	4.64	27	10	349	344	879	528	71	21	11	9.05
12	6.20	4.64	31	12	340	336	911	533	69	21	11	8.84
13	6.20	4.47	41	13	324	331	977	543	67	20	11	8.84
14	6.20	4.47	54	15	313	327	1,096	544	63	19	11	8.84
15	6.20	4.47	68	20	301	322	1,226	537	59	19	11	8.84
16	6.20	4.47	66	23	290	313	1,279	523	56	18	11	8.84
17	6.00	4.47	60	25	288	305	1,318	498	53	18	10	8.84
18	6.00	4.47	51	23	284	296	1,322	476	50	17	10	8.84
19	6.00	4.47	42	22	280	287	1,318	453	48	17	10	8.63
20	6.00	4.47	36	21	274	282	1,306	431	46	16	10	8.63
21	5.83	4.47	31	19	266	291	1,298	404	44	16	10	8.63
22	5.83	4.47	25	21	250	305	1,279	386	42	16	10	8.42
23	5.83	4.30	20	21	235	323	1,255	368	41	16	10	8.42
24	5.83	4.30	14	23	222	343	1,230	345	39	16	10	8.21
25	5.66	4.30	12	27	228	369	1,196	307	38	15	10	8.21
26	5.66	4.30	10	30	266	397	1,158	287	36	15	10	8.00
27	5.49	4.30	8.84	32	284	479	1,122	258	35	15	10	8.00
28	5.49	4.30	8.00	36	312	536	1,086	229	33	14	10	7.80
29	5.32	4.14	8.00	78	342	573	1,045	204	32	15	10	7.80
30	5.32	4.14	8.00	180	355	609	977	180	30	14	-	7.60
31	-	4.14	-	253	352	-	920	-	29	14	-	7.60
Total	179.46	142.17	795.90	1,005.25	9,276	10,453	31,641	14,839	2,086	602	321	273.26
Mean	5.98	4.59	26.5	32.4	299	348	1,020	494	67.3	19.4	11.1	8.81
Max.	6.20	5.15	68	253	364	609	1,322	884	160	28	14	9.89
Min.	5.32	4.14	4.81	8.84	222	262	636	180	29	14	10	7.60
Runoff - mcm.	15.505	12.283	68.766	86.854	801.446	903.139	2,733.782	1,282.003	180.250	52.013	27.734	23.610

WATER YEAR 1963 : Max. 1,322 Min. 4.14 Mean 196 Annual Runoff 6,187.367 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 18	06.00	147.34	1,322				

WATER YEAR 1964  
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: 29,803 sq.km. referred to AMS Map 1:50,000.

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 meters 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 for years without actual ratings.

Overbank Flow Conditions: No overbank flow.

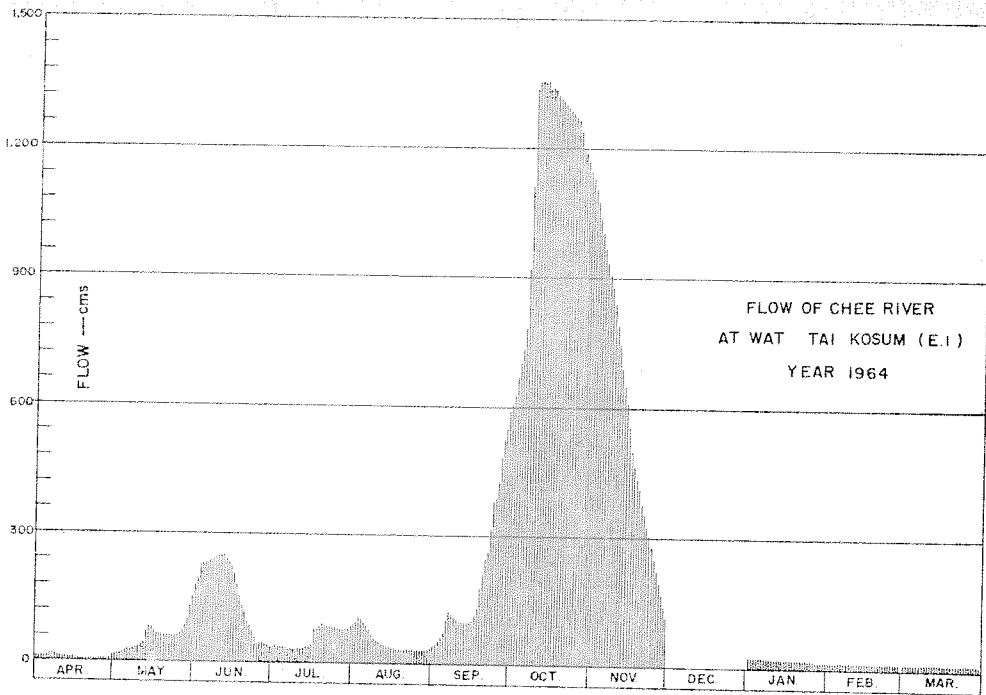
General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made for period 1965 - 66. No upstream diversions from the main river except those for series of tank irrigation.

Remark: No gage height record for Dec. 1 - 31.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	136.98	137.29	140.53	138.06	139.12	138.11	144.89	146.77		137.64	137.34	137.24
2	.99	.34	.91	.08	.21	.27	145.07	.68		.63	.34	.24
3	137.01	.44	141.19	.04	.30	.41	.19	.57		.62	.33	.23
4	.04	.54	.21	.00	.33	.57	.39	.47		.61	.33	.23
5	.12	.64	.26	137.97	.21	.77	.59	.37		.60	.32	.23
6	137.29	137.69	141.30	137.94	139.01	139.36	145.84	146.27		137.59	137.32	137.27
7	.27	.74	.34	.91	138.91	.64	146.22	.17		.58	.32	.22
8	.17	.79	.38	.87	.69	.51	.96	.07		.57	.31	.22
9	.09	.84	.41	.84	.49	.41	147.37	145.94		.56	.31	.22
10	.03	.94	.46	.82	.33	.31	.42	.75		.55	.30	.22
11	137.01	138.04	141.50	137.84	138.28	139.28	147.42	145.54		137.54	137.29	137.22
12	.00	.21	.51	.92	.14	.26	.42	.29		.53	.29	.21
13	136.95	.70	.39	.99	.12	.24	.42	.09		.52	.29	.21
14	.94	.90	.27	138.00	.08	.24	.40	144.87		.51	.28	.21
15	.92	.87	.17	.02	.03	.24	.39	.54		.50	.28	.21
16	136.90	138.77	140.94	138.14	137.97	139.31	147.37	144.16		137.49	137.27	137.20
17	.89	.61	.54	.86	.93	.54	.35	143.87		.48	.27	.20
18	.89	.59	.14	.92	.91	.89	.33	.66		.47	.26	.20
19	.88	.59	139.79	139.01	.89	140.54	.31	.36		.46	.26	.20
20	.88	.55	.49	.09	.84	141.09	.29	.02		.45	.26	.19
21	136.88	138.52	139.19	139.05	137.84	141.49	147.27	142.72		137.44	137.26	137.19
22	.89	.52	138.99	.04	.84	.76	.25	.39		.43	.25	.19
23	.90	.52	.74	.02	.84	142.29	.23	.21		.42	.25	.19
24	.82	.52	.49	138.99	.84	143.01	.21	141.87		.41	.25	.19
25	.94	.53	.19	.94	.84	.16	.19	.46		.40	.24	.19
26	136.94	138.62	138.23	138.91	137.84	143.58	147.12	141.14		137.39	137.24	137.18
27	.94	.79	.14	.88	.84	.99	.03	140.70		.38	.24	.17
28	.97	.99	.12	.84	.84	144.34	146.99	.34		.37	.24	.17
29	137.07	139.36	.07	.91	.84	.52	.94	139.94		.36	-	.16
30	.22	.74	.04	.91	.89	.76	.88	.54		.35	-	.15
31	-	140.14	-	139.07	138.01	-	.84	-		.34	-	.15
Mean	136.99	138.40	134.13	138.45	138.27	140.63	146.82	143.96		137.49	137.28	137.20
Max.	137.29	140.14	141.51	139.07	139.30	144.76	147.42	146.77		137.64	137.34	137.24
Min.	136.82	137.29	138.04	137.82	137.84	138.11	144.89	139.54		137.34	137.24	137.15

WATER YEAR 1964 : Max. 147.42 m. Min. 136.82 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	7.60	15	181	40	93	43	614	1,107		26	16	13
2	7.80	16	207	42	97	50	643	1,075		25	16	13
3	8.21	19	228	40	107	56	670	1,038		25	16	13
4	8.84	22	229	39	104	64	711	1,004		25	16	13
5	10	26	233	38	97	74	755	970		24	16	13
6	15	27	236	36	87	106	816	938		24	16	13
7	14	29	239	35	81	123	923	908		24	16	13
8	12	31	242	34	71	115	1,211	878		23	15	13
9	9.89	33	244	33	60	109	1,334	843		23	15	13
10	8.63	36	248	32	53	103	1,354	792		23	15	13
11	8.21	40	251	33	51	101	1,354	744		22	15	13
12	8.00	48	252	36	45	109	1,354	690		22	15	13
13	7.00	71	243	38	44	99	1,354	651		22	15	13
14	6.80	81	234	39	42	99	1,346	611		21	15	13
15	6.40	79	226	40	40	99	1,342	556		21	15	13
16	6.00	74	209	45	38	103	1,334	503		21	14	12
17	5.83	66	181	79	36	117	1,326	468		20	14	12
18	5.83	65	155	82	35	138	1,318	445		20	14	12
19	5.66	65	132	87	35	181	1,310	414		20	14	12
20	5.66	63	114	91	33	220	1,302	381		19	14	12
21	5.66	62	96	89	33	250	1,295	353		19	14	12
22	5.83	62	85	88	33	271	1,287	324		19	14	12
23	6.00	62	73	87	33	315	1,279	308		19	14	12
24	4.64	62	60	85	33	380	1,272	280		18	14	12
25	6.80	62	47	83	33	395	1,264	248		18	13	12
26	6.80	67	48	81	33	436	1,238	224		18	13	12
27	6.80	75	45	80	33	482	1,203	195		17	13	12
28	7.40	85	44	78	33	528	1,188	168		17	13	12
29	9.47	106	42	81	33	553	1,169	142		17	-	11
30	13	129	40	81	35	591	1,147	117		17	-	11
31	-	155	-	90	39	-	1,132	-		16	-	11
Total	239.76	1,833	4,864	1,862	1,620	6,301	35,845	17,375		645	410	384
Mean	7.99	59.1	162	60.0	52.2	210	1,156	579		20.8	14.6	12.3
Max.	15	155	252	90	107	591	1,354	1,107		26	16	13
Min.	4.64	15	40	32	33	43	614	117		16	13	11
Runoff - mcm.	20.715	158.371	420.250	160.877	139.968	544.406	3,097.008	1,501.200		55.728	35.424	33.178

WATER YEAR 1964 : Max. 1,354 Min. 4.64 Mean Annual Runoff mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct.10	06.00	147.42	1,354				

WATER YEAR 1963  
CHEE RIVER BASIN

Chee River at Wat Si Thammaram, Ubon Ratchathani (E.2)

Location: Lat 16° - 15' - 02" N., Long 103° - 04' - 25" E., on left bank about 1.5 kilometers south of the district office of Amphoe Yasothon and 500 meters downstream from Wat Si Thammaram, Ubon Ratchathani.

Drainage Area: 47,406 sq.km. referred to AMS Map 1:50,000.

Type of Gage: Staff gage.

Zero Gage at Bottom at: + 117.00 m. (M.S.L.)

Bench Mark: B.M. of The Survey Department, No.97.

Location: 15 meters east of the provincial 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 for years without actual ratings.

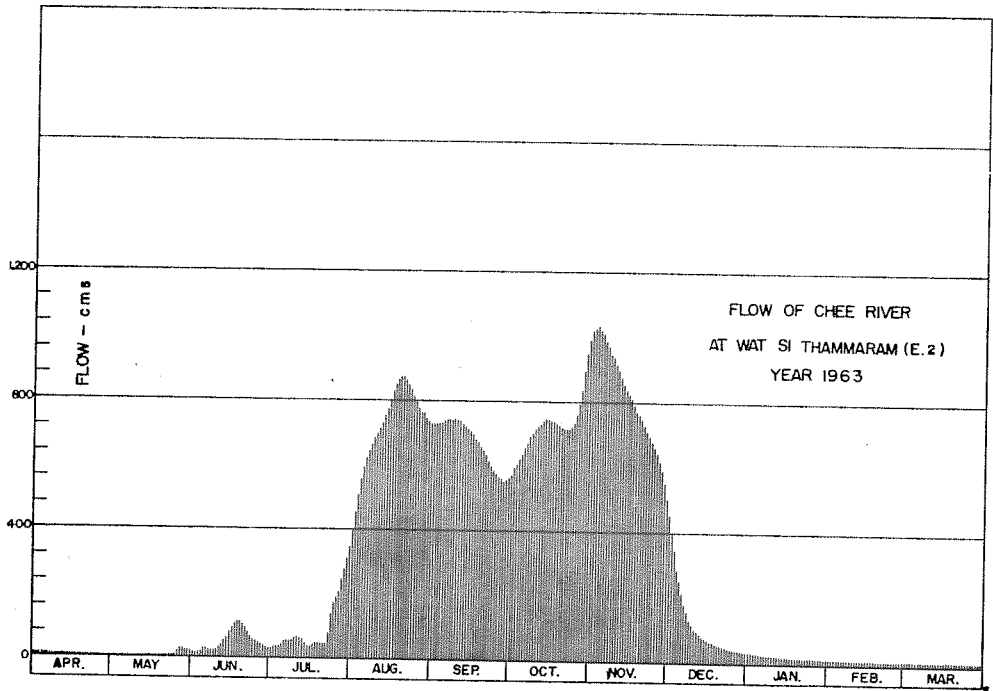
Overbank Flow Conditions: No overbank flow.

General Description: Gage height record good, discharge record fair. Stage - discharge relationship used is defined by discharge measurements made during 1951. No upstream diversions from the main river except those for series of tank irrigation.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	118.60	118.38	118.87	119.22	123.25	125.30	124.50	126.11	123.66	119.24	118.76	118.57
2	.62	.38	.83	.31	.65	.30	.59	.12	.25	.21	.75	.56
3	.63	.44	.87	.35	124.05	.31	.67	.15	122.82	.18	.74	.56
4	.62	.50	.98	.38	.37	.32	.77	.11	.27	.14	.73	.55
5	.60	.49	119.15	.45	.60	.34	.85	.09	121.93	.12	.72	.55
6	118.59	118.48	119.12	119.58	124.76	125.34	124.95	126.05	121.54	119.10	118.71	118.54
7	.58	.47	.06	.62	.90	.35	125.03	.02	.21	.07	.71	.54
8	.56	.46	.01	.59	125.00	.35	.12	125.97	120.93	.05	.70	.54
9	.55	.45	.02	.62	.10	.36	.17	.95	.69	.03	.69	.53
10	.53	.44	.09	.74	.16	.35	.23	.90	.50	.00	.68	.53
11	118.51	118.43	119.25	119.81	125.23	125.34	125.27	125.85	120.33	118.99	118.67	118.53
12	.49	.42	.44	.79	.32	.30	.30	.80	.21	.97	.66	.53
13	.49	.41	.61	.71	.40	.27	.34	.75	.10	.95	.66	.52
14	.49	.40	.75	.54	.50	.23	.36	.69	.00	.94	.65	.52
15	.49	.40	120.00	.43	.58	.20	.36	.64	119.92	.92	.65	.52
16	118.49	118.39	120.21	119.41	125.66	125.15	125.35	125.59	119.85	118.91	118.65	118.52
17	.49	.37	.36	.48	.73	.09	.34	.53	.78	.90	.65	.51
18	.48	.37	.43	.51	.77	.05	.32	.47	.73	.89	.64	.51
19	.47	.41	.44	.51	.79	124.98	.29	.42	.67	.88	.63	.50
20	.46	.31	.36	.48	.79	.91	.26	.35	.62	.86	.62	.50
21	118.45	118.52	120.22	119.46	125.77	124.84	125.25	125.30	119.58	118.85	118.62	118.50
22	.44	.54	.03	.49	.75	.73	.24	.22	.54	.84	.61	.50
23	.44	.53	119.81	.98	.67	.63	.24	.15	.52	.83	.60	.49
24	.43	.53	.68	120.78	.61	.55	.28	.07	.48	.82	.59	.49
25	.42	.64	.64	121.14	.54	.49	.33	124.98	.45	.81	.59	.49
26	118.41	118.94	119.56	121.30	125.48	124.43	125.42	124.87	119.41	118.81	118.58	118.48
27	.40	119.14	.48	.51	.43	.39	.54	.75	.36	.79	.58	.48
28	.39	.15	.38	.89	.43	.36	.69	.58	.33	.78	.57	.47
29	.39	.05	.28	122.18	.37	.37	.85	.34	.32	.78	.57	.47
30	.38	.00	.18	.47	.53	.43	.97	.02	.28	.77	.47	.47
31		118.94		.82	.31		126.06		.25	.76		.48
Mean	118.49	118.57	119.57	120.11	125.27	125.00	125.36	125.66	120.37	118.94	118.65	118.54
Max.	118.63	119.15	120.44	122.82	125.79	125.36	126.06	126.15	123.66	119.24	118.76	118.57
Min.	118.38	118.37	118.83	119.22	123.25	124.36	124.50	124.02	119.25	118.76	118.57	118.47

WATER YEAR 1963 : Max. 126.13 m. Min. 118.37 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	12	6.60	20	34	402	730	578	1,020	455	35	17	11
2	13	6.60	19	39	454	730	593	1,026	402	34	17	11
3	13	7.86	20	41	510	733	607	1,032	349	33	16	11
4	13	9.42	24	42	558	735	624	1,020	288	31	16	11
5	12	9.16	31	46	595	740	638	1,009	252	30	16	11
6	12	8.90	30	54	622	740	657	987	213	29	15	10
7	12	8.64	28	56	647	743	672	971	182	28	15	10
8	11	8.38	26	54	666	743	690	947	157	27	15	10
9	11	8.12	26	56	686	746	701	938	135	26	15	10
10	10	7.86	29	64	699	743	715	916	120	25	14	10
11	9.68	7.60	36	69	715	740	723	896	106	25	14	10
12	9.16	7.40	45	67	735	730	730	876	97	24	14	10
13	9.16	7.20	56	62	756	723	740	859	89	23	14	9.94
14	9.16	7.00	65	51	784	715	746	839	82	23	14	9.94
15	9.16	7.00	82	45	806	708	746	824	76	22	14	9.94
16	9.16	6.80	97	43	830	697	743	809	72	22	14	9.94
17	9.16	6.40	109	48	852	684	740	792	67	21	14	9.68
18	8.90	6.40	114	50	866	676	735	772	64	21	13	9.68
19	8.64	7.20	115	50	873	662	728	762	59	21	13	9.42
20	8.38	9.68	109	48	873	649	721	743	56	20	13	9.42
21	8.12	9.94	98	47	866	636	719	730	54	20	13	9.42
22	7.86	10	84	48	852	617	717	712	51	19	12	9.42
23	7.86	10	69	81	833	600	717	697	50	19	12	9.16
24	7.60	10	60	143	815	587	726	680	48	19	12	9.16
25	7.40	13	57	176	795	576	738	662	46	18	12	9.16
26	7.20	23	53	190	778	567	762	642	43	18	12	8.90
27	7.00	31	48	210	764	561	795	621	41	18	12	8.90
28	6.80	31	42	248	764	556	839	592	40	18	11	8.64
29	6.80	27	37	278	748	558	896	553	39	18	11	8.64
30	6.60	25	33	310	738	567	947	505	37	17	11	8.64
31	6.60	23	349	349	733		992		36	17		8.90
Total	282.80	367.16	1,662	3,099	22,615	20,192	22,675	24,432	3,806	721	400	301.90
Mean	9.43	11.8	55.4	100	729	673	731	814	123	23.2	13.7	9.74
Max.	13	31	115	349	873	746	992	1,032	455	35	17	11
Min.	6.60	6.40	19	34	402	556	578	505	36	17	11	8.64
Runoff - mcm.	24.434	31.723	143.597	267.754	1,953.936	1,744.589	1,959.120	2,110.925	328.838	62.294	34.560	26.084

WATER YEAR 1963 : Max. 1,032 Min. 6.40 Mean 275 Annual Runoff 8,687.853 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Nov. 3	18.00	126.13	1,032				

WATER YEAR 1964  
CHEE RIVER BASIN

Chee River at Wat Si Thammaram, Ubon Ratchathani (E.2)

Location: Lat 16° - 15' - 02" N., Long 103° - 04' - 25" E., on left bank about 1.5 kilometers south of the district office of Amphoe Yasothon and 500 meters downstream from Wat Si Thammaram, Ubon Ratchathani.

Drainage Area: 47,406 sq.km. referred to AMS Map 1:50,000.

Type of Gage: Staff gage.

Zero Gage at Bottom at: + 117.00 m. (M.S.L.)

Bench Mark: B.M. of The Survey Department, No.97.

Location: 15 meters east of the provincial 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 for years without actual ratings.

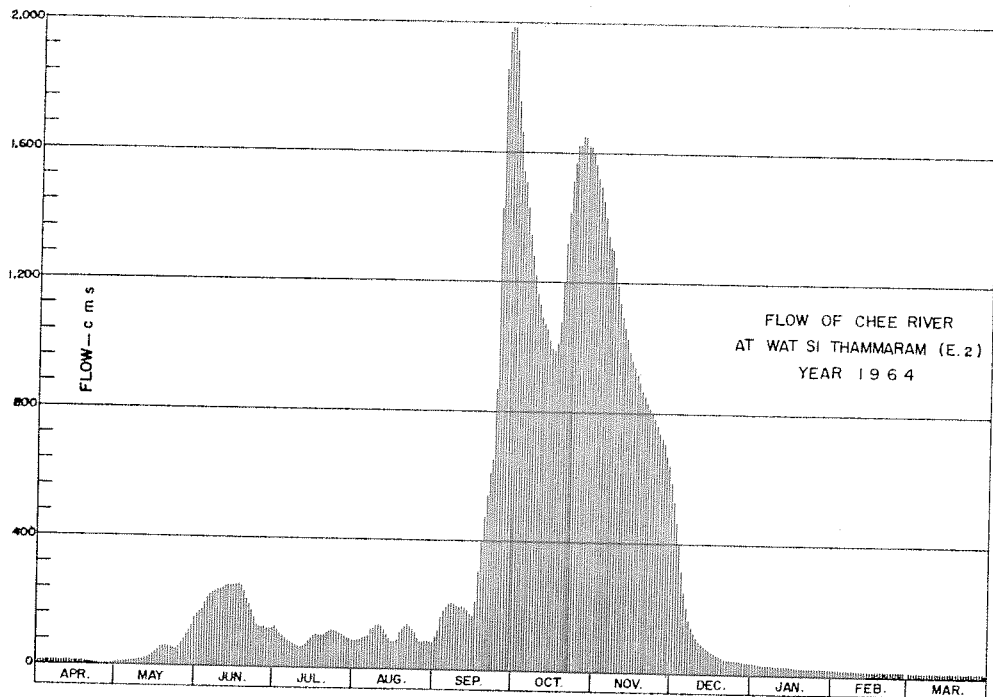
Overbank Flow Conditions: No overbank flow.

General Description: Gage height record good, discharge record fair. Stage - discharge relationship used is defined by discharge measurements made during 1951. No upstream diversions from the main river except those for series of tank irrigation.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	118.48	118.50	121.03	120.58	120.05	120.24	126.77	126.64	124.17	119.19	118.84	118.69
2	.50	.54	.09	.49	.08	.61	.69	.60	123.69	.18	.82	.68
3	.51	.56	.16	.35	.11	.98	.65	.56	.14	.14	.79	.67
4	.53	.63	.34	.25	.14	121.20	.58	.52	122.52	.12	.78	.66
5	.55	.66	.54	.16	.22	.35	.51	.48	121.95	.11	.77	.65
6	118.57	118.69	121.66	120.06	120.28	121.44	126.45	126.47	121.46	119.10	118.76	118.65
7	.60	.73	.72	119.97	.51	.48	.39	.41	.04	.09	.76	.64
8	.62	.73	.76	.91	.57	.46	.32	.35	120.75	.07	.75	.63
9	.63	.75	.80	.86	.68	.40	.28	.29	.54	.07	.75	.63
10	.65	.80	.83	.81	.71	.37	.23	.23	.38	.05	.74	.62
11	118.65	118.83	121.86	119.74	120.67	121.39	126.20	126.18	120.27	119.04	118.74	118.62
12	.64	.88	.90	.79	.56	.37	.16	.12	.14	.03	.73	.62
13	.64	119.02	.92	.84	.36	.27	.11	.05	.05	.02	.73	.62
14	.63	.11	.95	.98	.17	.15	.07	.00	119.96	.01	.72	.61
15	.62	.19	.94	120.13	.03	.04	.05	125.96	.86	118.99	.72	.61
16	118.60	119.35	121.96	120.24	120.00	121.44	126.09	125.90	119.81	118.98	118.71	118.61
17	.56	.54	.97	.29	.13	122.35	.20	.84	.74	.97	.71	.61
18	.54	.66	.91	.27	.34	123.19	.36	.77	.67	.97	.71	.60
19	.52	.70	.80	.25	.55	.78	.49	.72	.60	.96	.71	.60
20	.50	.70	.56	.29	.68	124.28	.58	.66	.55	.95	.70	.60
21	118.47	119.70	121.38	120.37	120.72	124.65	126.65	125.61	119.49	118.95	118.70	118.60
22	.45	.67	.15	.43	.66	.91	.70	.56	.46	.94	.71	.60
23	.43	.64	120.92	.47	.56	125.78	.74	.49	.45	.93	.72	.60
24	.41	.62	.70	.45	.46	126.58	.74	.43	.43	.95	.73	.59
25	.41	.70	.57	.44	.22	.92	.76	.35	.40	.92	.73	.59
26	118.42	119.88	120.50	120.39	120.04	127.01	126.76	125.26	119.37	118.91	118.71	118.58
27	.43	120.05	.58	.34	119.98	.02	.74	.15	.36	.91	.70	.57
28	.43	.22	.50	.28	120.08	.02	.74	.00	.33	.90	.70	.57
29	.43	.39	.49	.20	.09	126.96	.72	124.81	.30	.89	.56	.56
30	.46	.58	.55	.11	.06	.87	.70	.54	.26	.88	.56	.56
31		.84		.05	.06		.66		.22	.87		.55
Mean	118.53	119.35	121.37	120.26	120.32	123.22	126.49	125.91	120.36	119.08	118.74	118.61
Max.	118.65	120.84	121.97	120.58	120.72	127.02	126.77	126.64	124.17	119.19	118.84	118.69
Min.	118.41	118.50	120.49	119.74	119.98	120.24	126.05	124.54	119.22	118.87	118.70	118.55

WATER YEAR 1964 : Max. 127.02 m. Min. 118.41 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	8.90	9.42	166	126	86	99	1,661	1,498	528	33	19	15
2	9.42	10	171	119	88	129	1,558	1,450	459	33	19	14
3	9.68	11	177	108	90	161	1,510	1,402	388	31	18	14
4	10	13	194	100	92	181	1,426	1,354	315	30	18	14
5	11	14	213	93	98	195	1,342	1,310	254	30	17	14
6	11	15	225	86	102	203	1,280	1,300	205	29	17	14
7	12	16	231	80	121	207	1,222	1,240	167	29	17	13
8	13	16	235	76	126	205	1,162	1,188	141	28	17	13
9	13	17	239	72	134	199	1,131	1,138	123	28	17	13
10	14	18	242	69	137	196	1,095	1,095	110	27	16	13
11	14	19	245	64	134	198	1,074	1,062	102	27	16	13
12	13	21	249	67	125	196	1,050	1,026	92	26	16	13
13	13	26	251	71	109	187	1,020	987	86	26	16	13
14	13	30	252	81	94	177	998	960	79	26	16	12
15	13	33	253	91	84	167	987	942	72	25	16	12
16	12	41	255	99	82	203	1,009	916	69	24	15	12
17	11	51	256	103	91	297	1,074	892	64	24	15	12
18	10	59	250	102	107	394	1,196	866	59	24	15	12
19	9.94	62	239	100	124	471	1,320	849	55	24	15	12
20	9.42	62	215	103	134	544	1,426	830	52	23	15	12
21	8.64	62	197	110	138	604	1,510	815	48	23	15	12
22	8.12	59	177	114	133	649	1,570	801	47	23	15	12
23	7.60	57	156	118	125	869	1,622	781	46	23	16	12
24	7.20	56	136	116	117	1,426	1,622	764	45	23	16	12
25	7.20	62	126	115	98	1,856	1,648	743	43	22	16	12
26	7.40	74	120	111	85	1,973	1,648	721	41	22	15	12
27	7.60	84	126	107	81	1,986	1,622	697	41	22	15	11
28	7.60	98	120	102	88	1,986	1,622	666	40	21	15	11
29	7.60	111	119	96	88	1,908	1,596	631	38	21	11	11
30	8.38	126	124	90	86	1,791	1,570	585	36	21	11	11
31	149	149	86	86	86	86	1,522	34	34	20	11	11
Total	307.70	1,481.42	5,959	2,975	3,283	19,657	42,093	29,509	3,879	788	453	387
Mean	10.2	47.8	199	95.9	106	655	1,358	984	125	25.4	16.1	12.4
Max.	14	149	256	126	138	1,986	1,661	1,498	528	33	19	15
Min.	7.20	9.42	119	64	81	99	987	585	34	20	15	11
Runoff - R.C.M.	26.585	127.995	514.858	257.040	283.650	1,698.365	3,636.839	2,549.578	335.146	68.083	39.139	33.437

WATER YEAR 1964 : Max. 1,986 Min. 7.20 Mean 303 Annual Runoff 9,570,711 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sept.28	18.00	127.03	1,999				

WATER YEAR 1963  
CHEE RIVER BASIN

Chee River at Tha Khon Yang, Maha Sarakham (E.8A)

Location: Lat 16° - 13' - 51" N., Long 103° - 16' - 29" E., on right bank at the bridge on highway Maha Sarakham - Kalasin, Tambon Tha Khon Yang, Amphoe Kantharawichai, Maha Sarakham.

Drainage Area: 29,817 sq.km. referred to AMS Map 1:50,000.

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 the right abutment of bridge.

Elevation: + 147.910 m. (M.S.L.)

Gage Reading Frequency: 3 - time daily readings at 06.00, 12.00 and 18.00 hours.

Basis of Mean Daily Gage Height: Arithmetic mean of 3 readings.

Period of Available Gage Records: 1955 to date.

Rating Operation:

Period of Rating: 1955 - 57, 1964 to date

Rated by Float: -

Rated by Current Meter: 1955 - 57, 1964 to date.

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

Overbank Flow Conditions: No overbank flow.

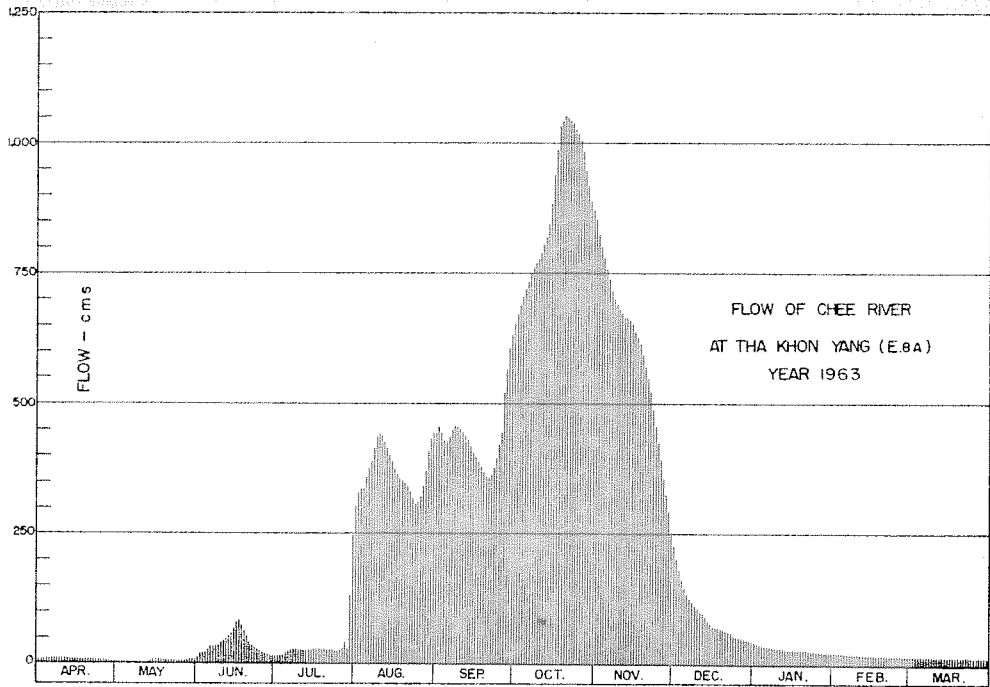
General Description: Gage height record good, discharge record fair. Stage - discharge relationship used is defined by discharge measurements made for period 1955 - 57. No upstream diversions from the main river except those for series of tank irrigation.

**GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964**

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	133.82	133.69	134.00	134.05	138.77	140.28	142.01	143.31	137.80	134.62	134.20	134.03
2	.80	.68	.15	.05	139.05	.39	.13	.12	.42	.56	.19	.03
3	.81	.68	.17	.05	.15	.29	.24	142.98	.09	.53	.19	.03
4	.89	.68	.18	.10	.18	.12	.36	.85	136.77	.50	.18	.02
5	.88	.67	.29	.16	.42	.13	.46	.71	.54	.48	.17	.02
6	133.87	133.67	134.43	134.23	139.60	140.21	142.56	142.58	136.35	134.46	134.17	134.02
7	.87	.67	.42	.27	.74	.34	.66	.43	.20	.45	.16	.02
8	.86	.66	.46	.30	.99	.41	.73	.34	.08	.43	.15	.02
9	.86	.66	.50	.33	140.19	.39	.79	.26	135.97	.41	.14	.02
10	.85	.66	.61	.31	.26	.35	.84	.20	.86	.39	.14	.01
11	133.84	133.66	134.68	134.28	140.21	140.28	142.94	142.14	135.77	134.38	134.13	134.01
12	.84	.66	.74	.27	.10	.23	143.02	.09	.69	.37	.12	.01
13	.83	.69	.85	.27	139.96	.14	.12	.09	.59	.36	.11	.01
14	.82	.73	.98	.28	.84	.02	.29	.06	.46	.35	.11	.00
15	.81	.78	135.16	.29	.71	139.90	.53	.00	.34	.34	.10	.00
16	133.81	133.81	135.39	134.31	139.56	139.82	143.85	141.93	135.24	134.33	134.09	134.00
17	.80	.87	.43	.33	.45	.75	144.11	.83	.20	.32	.08	.00
18	.80	.84	.28	.33	.38	.63	.36	.73	.18	.31	.07	.00
19	.79	.79	.06	.31	.35	.50	.43	.57	.15	.30	.07	.00
20	.78	.78	134.83	.29	.29	.42	.47	.39	.12	.29	.07	133.99
21	133.77	133.76	134.64	134.28	139.23	139.39	144.45	141.20	135.09	134.29	134.06	133.99
22	.75	.74	.48	.27	.10	.44	.43	140.98	.04	.28	.06	.99
23	.75	.74	.37	.30	138.94	.57	.39	.72	134.94	.27	.06	.99
24	.74	.74	.31	.26	.81	.78	.34	.43	.88	.26	.05	.99
25	.74	.73	.26	.24	.86	140.08	.28	.11	.85	.26	.05	.98
26	133.73	133.72	134.19	134.27	139.01	140.32	144.20	139.77	134.81	134.25	134.05	133.98
27	.72	.72	.14	.38	.22	141.00	.09	.39	.78	.24	.04	.98
28	.72	.74	.10	.61	.56	.37	143.89	.04	.75	.24	.04	.97
29	.71	.75	.08	.98	.94	.68	.70	138.64	.72	.23	.04	.97
30	.69	.75	.06	136.32	140.17	.85	.54	.21	.69	.22	.04	.97
31	.73	.73	138.07	.28	.28	.44	.44	.21	.66	.20	.04	.97
Mean	133.80	133.72	134.54	134.48	139.57	140.20	144.31	141.47	135.58	134.35	134.11	134.01
Max.	133.89	133.87	135.43	138.07	140.28	141.85	144.47	143.31	137.80	134.62	134.20	134.03
Min.	133.69	133.66	134.00	134.05	138.77	139.39	142.01	138.21	134.66	134.20	134.04	133.97

WATER YEAR 1963 : Max. 144.47 m. Min. 133.66 m.





DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	8.60	4.70	14	16	304	444	654	854	229	42	22	15
2	8.00	4.40	20	16	328	455	671	823	205	39	22	15
3	8.30	4.40	21	16	336	445	687	801	183	37	22	15
4	11	4.40	22	18	339	428	705	780	163	36	22	15
5	10	4.10	27	21	360	429	720	758	148	35	21	15
6	10	4.10	33	24	376	437	735	738	136	34	21	15
7	10	4.10	32	26	390	450	750	716	127	34	21	15
8	10	3.80	34	27	415	457	761	702	120	33	20	15
9	10	3.80	36	28	435	455	770	690	113	32	20	15
10	9.50	3.80	41	27	442	451	778	681	107	31	20	14
11	9.20	3.80	45	26	437	444	794	673	101	31	19	14
12	9.20	3.80	48	26	426	439	807	666	97	30	19	14
13	8.90	4.70	53	26	412	430	823	666	91	30	18	14
14	8.60	5.90	60	26	400	418	850	661	84	29	18	14
15	8.30	7.40	69	27	387	406	889	653	78	29	18	14
16	8.30	8.30	80	27	373	398	942	643	73	28	18	14
17	8.00	10	83	28	362	391	987	629	71	28	17	14
18	8.00	9.20	75	28	356	379	1,032	615	70	27	17	14
19	7.70	7.70	64	27	353	367	1,044	594	68	27	17	14
20	7.40	7.40	52	27	348	360	1,052	571	67	27	17	14
21	7.10	6.80	43	26	343	357	1,048	548	65	27	16	14
22	6.50	6.20	35	26	332	362	1,044	522	63	26	16	14
23	6.50	6.20	30	27	318	374	1,037	490	58	26	16	14
24	6.20	6.20	27	25	307	394	1,028	459	55	25	16	14
25	6.20	5.90	25	24	312	424	1,017	427	53	25	16	13
26	5.90	5.60	22	26	324	448	1,003	393	51	25	16	13
27	5.60	5.60	20	31	342	524	983	357	50	24	16	13
28	5.60	6.20	18	41	373	568	948	327	48	24	16	13
29	5.30	6.50	17	60	410	608	916	293	47	24	16	13
30	4.70	6.50	16	134	433	632	890	259	45	23	16	13
31		5.90		249	444		874		44	22		13
<b>Total</b>	238.60	177.40	1,162	1,156	11,517	13,174	27,239	17,989	2,910	910	533	436
<b>Mean</b>	7.95	5.72	38.7	37.3	371	439	879	600	93.8	29.3	18.3	14.0
<b>Max.</b>	11	10	83	249	444	632	1,052	854	229	42	22	15
<b>Min.</b>	4.70	3.80	14	16	304	357	654	259	44	22	16	13
<b>Runoff - mcm.</b>	20.615	15.327	100.397	99.878	995.069	1,138.234	2,353.450	1,554.250	251.424	78.624	46.051	37.670

WATER YEAR 1963 : Max. 1,052 Min. 3.80 Mean 211 Annual Runoff 6,690.989 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 20	18.00	144.47	1,052				

WATER YEAR 1964  
CHEE RIVER BASIN

Chee River at Tha Khon Yang, Maha Sarakham, (E. 8A)

Location: Lat 16° - 13' - 51" N, Long 103° - 16' - 29" E, on right bank at the bridge on highway Maha Sarakham - Kalasin, Tambon Tha Khon Yang, Amphoe Kantharawichai, Maha Sarakham.

Drainage Area: 29,817 sq.km. referred to AMS Map 1:50,000.

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 the right abutment of bridge.

Elevation: + 147.910 m. (M.S.L.)

Gage Reading Frequency: 3 - time daily readings at 06.00, 12.00 and 18.00 hours.

Basis of Mean Daily Gage Height: Arithmetic Mean of 3 readings.

Period of Available Gage Records: 1955 to date.

Rating Operation:

Period of Rating: 1955 - 57, 1964 to date.

Rated by Float: -

Rated by Current Meter: 1955 - 57, 1964 to date.

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

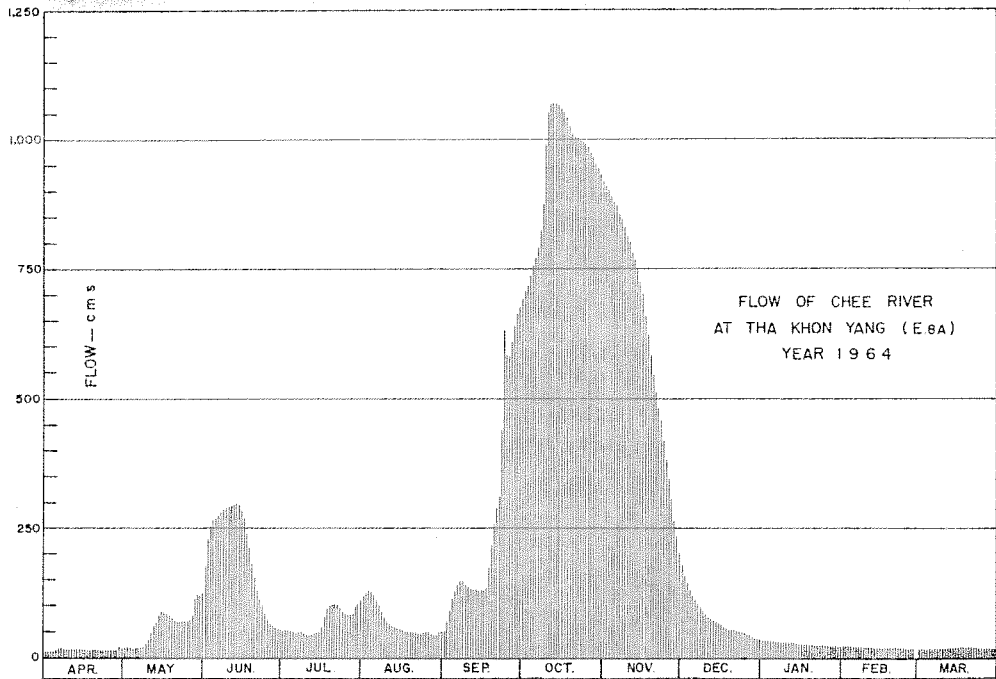
Overbank Flow Conditions: No overbank flow.

General Description: Gage height record good, discharge record fair. Stage - discharge relationship used is defined by discharge measurements made for period 1955 - 57. No upstream diversions from the main river except those for series of tank irrigation.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	133.97	134.18	137.02	134.92	136.08	134.89	142.28	143.71	137.07	134.52	134.25	134.11
2	.96	.18	.82	.94	.18	135.20	.38	.66	136.78	.51	.25	.12
3	.96	.17	138.16	.92	.27	.62	.45	.60	.51	.50	.24	.12
4	.96	.17	.32	.88	.25	136.00	.58	.54	.32	.49	.23	.11
5	134.04	.17	.36	.83	.15	.27	.70	.47	.14	.48	.23	.11
6	134.14	134.17	138.44	134.81	135.98	136.47	142.80	143.42	135.98	134.46	134.23	134.10
7	.15	.19	.52	.80	.80	.58	.92	.34	.86	.45	.22	.10
8	.13	.24	.58	.89	.59	.57	143.12	.28	.75	.44	.22	.10
9	.13	.35	.62	.77	.41	.48	.43	.16	.64	.42	.21	.11
10	.13	.52	.64	.74	.27	.40	144.13	.08	.47	.40	.21	.11
11	134.12	134.79	138.67	134.71	135.17	136.34	144.47	142.98	135.40	134.39	134.20	134.11
12	.12	135.04	.70	.73	.09	.32	.55	.87	.34	.39	.19	.12
13	.12	.18	.72	.78	.03	.31	.56	.78	.28	.38	.18	.12
14	.12	.47	.70	.83	134.98	.30	.56	.65	.22	.37	.18	.12
15	.11	.58	.58	.87	.96	.26	.54	.48	.16	.35	.18	.13
16	134.11	135.57	138.36	135.02	134.92	136.30	144.50	142.33	135.11	134.34	134.18	134.14
17	.11	.52	.01	.42	.86	.41	.48	.05	.02	.33	.17	.14
18	.10	.45	137.59	.69	.83	.97	.42	141.79	134.95	.33	.17	.15
19	.10	.37	.13	.80	.82	137.65	.32	.51	.91	.31	.17	.16
20	.10	.29	136.70	.84	.82	138.22	.25	.21	.90	.29	.17	.16
21	134.10	135.23	136.32	135.86	134.80	138.62	144.21	140.92	134.90	134.27	134.16	134.16
22	.09	.20	.02	.84	.77	.88	.19	.65	.87	.27	.16	.15
23	.09	.24	135.80	.73	.75	140.25	.16	.43	.84	.27	.15	.14
24	.09	.25	.52	.60	.78	141.86	.17	.06	.81	.27	.15	.14
25	.09	.23	.30	.52	.81	.50	.14	139.70	.78	.27	.13	.12
26	134.08	135.24	135.15	135.48	134.80	141.49	144.10	139.30	134.75	134.26	134.11	134.14
27	.08	.45	.08	.48	.76	.69	.04	138.83	.70	.26	.11	.10
28	.11	136.01	.01	.53	.71	.92	.00	.32	.65	.26	.10	.08
29	.23	.15	134.94	.75	.73	142.08	143.91	137.90	.59	.26	-	.06
30	.19	.11	.92	.89	.85	.19	.87	.45	.54	.25	-	.05
31	-	.20	-	.99	.84	-	.79	-	.53	.25	-	.04
Mean	134.09	135.06	137.26	135.25	135.19	137.93	143.81	141.68	135.51	134.36	134.18	134.11
Max.	134.23	136.20	138.72	135.99	136.27	142.19	144.56	143.71	137.07	134.52	134.25	134.16
Min.	133.96	134.17	134.92	134.71	134.71	134.89	142.28	137.45	134.53	134.25	134.10	134.04

WATER YEAR 1964 : Max. 144.56 m. Min. 133.96 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	13	22	179	57	120	55	693	918	182	37	25	18
2	13	22	231	58	126	71	708	909	163	36	25	19
3	13	21	255	57	131	93	719	900	146	36	24	19
4	13	21	268	55	130	115	738	890	134	36	24	18
5	16	21	271	52	124	131	756	879	123	35	24	18
6	20	21	277	51	114	143	772	871	114	34	24	18
7	20	22	284	51	103	150	791	858	107	34	23	18
8	19	24	288	55	91	150	823	849	100	33	23	18
9	19	29	292	49	82	144	873	829	94	32	23	18
10	19	37	293	48	74	139	990	817	85	31	23	18
11	19	50	296	46	69	135	1,052	801	81	31	22	18
12	19	63	298	47	65	134	1,067	783	78	31	22	19
13	19	70	300	50	62	134	1,068	769	75	31	22	19
14	19	85	298	52	60	133	1,068	749	72	30	22	19
15	18	91	288	54	59	131	1,065	723	69	29	22	19
16	18	90	271	62	57	133	1,057	701	66	29	22	20
17	18	88	244	81	54	140	1,053	660	62	28	21	20
18	18	84	216	97	52	176	1,043	624	58	28	21	20
19	18	79	186	103	52	220	1,025	586	56	27	21	21
20	18	75	158	105	52	260	1,012	549	56	27	21	21
21	18	72	134	107	51	292	1,005	514	56	26	21	21
22	18	71	116	105	49	313	1,001	483	54	26	21	20
23	18	73	103	99	46	441	996	459	53	26	20	20
24	18	73	88	92	50	633	998	422	51	26	20	19
25	18	72	76	88	51	585	992	386	50	26	19	19
26	17	73	68	85	51	583	985	349	48	25	18	18
27	17	84	65	85	49	610	974	309	46	25	18	18
28	18	116	61	88	46	642	967	268	43	25	18	17
29	24	124	58	100	47	664	952	236	40	25	-	16
30	22	122	57	108	53	679	945	207	38	25	-	16
31	-	127	-	114	53	-	931	-	37	25	-	16
Total	537	2,022	6,019	2,301	2,225	8,229	29,119	19,298	2,437	914	609	578
Mean	17.9	65.2	201	74.2	71.8	274	939	643	78.6	29.5	21.7	18.6
Max.	24	127	300	114	131	679	1,068	918	182	37	25	21
Min.	13	21	57	46	46	55	693	207	37	25	18	16
Runoff - BCM.	46.397	174.701	520.042	198.806	192.240	710.986	2,515.882	1,667.347	210.557	78.970	52.618	49.939

WATER YEAR 1964 : Max. 1,068 Min. 13 Mean 203 Annual Runoff 6,418.483 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 13	12.00	144.56	1,068				

WATER YEAR 1963  
CHEE RIVER BASIN

Chee River at Tha Phra, Khon Kaen. (E. 16A)

Location: Lat 16° - 21' - 14" N, Long 102° - 48' - 09" E, on left bank 400 meters upstream from the bridge on .  
Khon Kaen - Maha Sarakham, Tambon Don Han, Amphoe Muang, Khon Kaen.

Drainage Area: 13,171 sq.km. referred to AMS Map 1:50,000.

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 the abutment of the bridge.

Elevation: + 154.989 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: 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: Stable, shifting adjustment not included for flow computation due to its stability.

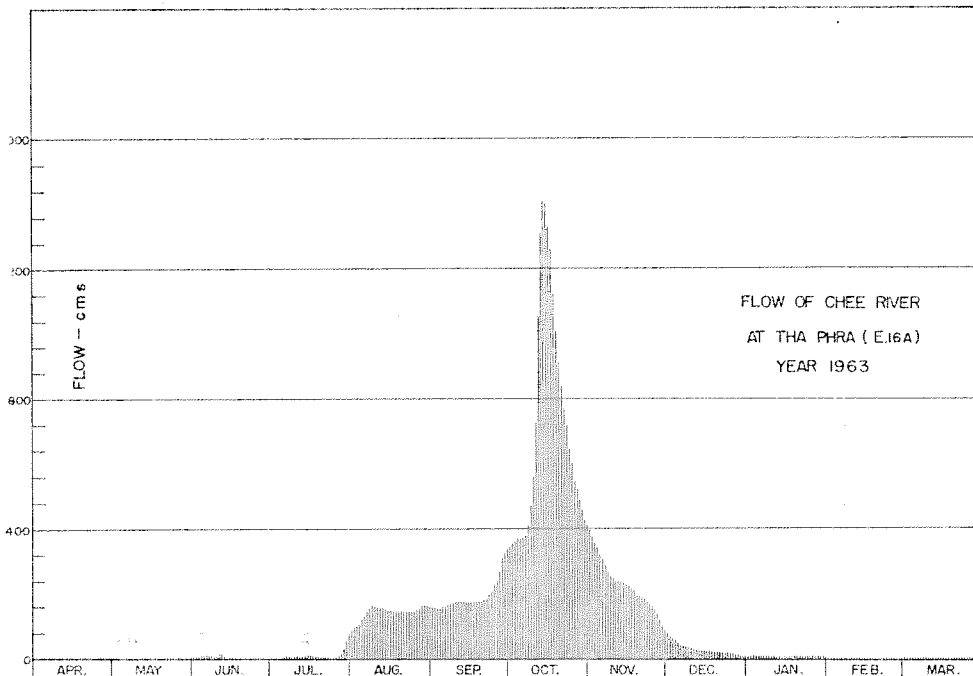
Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage - discharge relationship used by discharge measurements made during 1963.  
No upstream diversions from the main river except those for series of tank irrigation.

**GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964**

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	143.22	143.08	143.75	143.32	146.50	148.18	151.08	151.47	146.31	143.86	143.60	143.36
2	.22	.10	.74	.31	.65	.11	.18	.34	.00	.84	.58	.39
3	.22	.12	.77	.36	.79	.06	.25	.21	145.73	.82	.58	.45
4	.25	.15	.87	.48	147.00	.06	.30	.07	.54	.80	.57	.47
5	.29	.19	.90	.56	.28	.14	.30	150.93	.29	.78	.57	.46
6	143.30	143.20	143.99	143.73	147.55	148.26	151.33	150.77	145.15	143.76	143.57	143.42
7	.31	.19	144.00	.91	.83	.38	.44	.54	.03	.75	.56	.38
8	.32	.18	143.92	.85	148.09	.49	.58	.29	144.94	.74	.55	.36
9	.34	.19	.85	.79	.23	.53	.82	.11	.83	.72	.54	.36
10	.37	.20	.72	.75	.25	.54	152.16	149.98	.74	.70	.53	.36
11	143.26	143.22	143.85	143.73	148.20	148.54	152.81	149.89	144.65	143.69	143.52	143.35
12	.24	.23	144.29	.69	.13	.54	153.36	.84	.60	.67	.52	.35
13	.23	.22	143.96	.69	.07	.52	.72	.82	.55	.66	.52	.34
14	.22	.22	.62	.89	.02	.49	.84	.77	.50	.66	.50	.34
15	.20	.21	.59	144.01	147.93	.49	.83	.69	.45	.65	.48	.33
16	143.19	143.20	143.67	144.03	147.87	148.50	153.72	149.57	144.41	143.64	143.48	143.32
17	.18	.19	.69	143.92	.84	.51	.60	.42	.38	.64	.48	.31
18	.17	.18	.66	.78	.83	.51	.45	.27	.36	.65	.47	.31
19	.16	.17	.64	.70	.86	.53	.28	.12	.34	.68	.46	.30
20	.15	.16	.60	.67	.84	.59	.11	148.97	.32	.71	.44	.29
21	143.14	143.15	143.55	143.66	147.81	148.69	152.94	148.82	144.30	143.74	143.44	143.28
22	.16	.14	.53	.63	.79	.84	.78	.68	.24	.74	.45	.27
23	.17	.13	.51	.61	.77	149.04	.63	.53	.19	.73	.44	.26
24	.15	.12	.47	.60	.79	.30	.48	.37	.14	.71	.42	.25
25	.13	.11	.43	.62	.88	.60	.33	.18	.09	.70	.42	.24
26	143.11	143.16	143.39	143.72	147.95	149.87	152.21	147.93	144.04	143.68	143.41	143.24
27	.10	.19	.36	.88	148.04	150.31	.08	.61	.01	.67	.40	.23
28	.10	.27	.33	144.20	.25	.73	151.96	.24	143.98	.67	.38	.22
29	.09	.41	.32	.66	.29	.89	.83	146.84	.95	.64	.36	.22
30	.08	.54	.32	145.42	.28	151.02	.70	.47	.92	.64	-	.20
31	-	.66	-	146.68	.24	-	.58	-	.88	.62	-	.20
Mean	143.20	143.21	143.68	143.90	147.80	148.87	152.38	149.39	144.61	143.71	143.49	143.32
Max.	143.37	143.66	144.29	146.68	148.29	151.02	153.84	151.47	146.31	143.86	143.60	143.47
Min.	143.08	143.08	143.32	143.31	146.50	148.06	151.08	146.47	143.88	143.62	143.36	143.20

WATER YEAR 1963 : Max. 153.84 m. Min. 143.08 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	2.80	0.88	12	4.30	95	162	344	394	88	14	9.00	4.90
2	2.80	1.10	12	4.15	101	159	356	376	77	14	8.64	5.35
3	2.80	1.38	12	4.90	107	157	364	359	68	13	8.64	6.35
4	3.25	1.80	14	6.86	115	157	371	343	61	13	8.46	6.69
5	3.85	2.36	15	8.28	126	161	371	327	54	13	8.46	6.52
6	4.00	2.50	17	12	137	165	375	310	49	12	8.46	5.84
7	4.15	2.36	17	15	148	171	390	289	46	12	8.28	5.20
8	4.30	2.22	15	14	159	175	412	269	43	12	8.10	4.90
9	4.60	2.36	14	13	164	177	456	256	40	11	7.92	4.90
10	5.05	2.50	11	12	165	178	545	248	37	11	7.74	4.90
11	3.40	2.80	14	12	163	178	782	242	34	11	7.56	4.75
12	3.10	2.95	24	11	160	178	1,054	239	33	10	7.56	4.75
13	2.95	2.80	16	11	158	177	1,316	238	31	10	7.56	4.60
14	2.80	2.80	9.40	15	156	175	1,412	235	30	10	7.20	4.60
15	2.50	2.65	8.82	17	152	175	1,404	230	28	10	6.86	4.45
16	2.36	2.50	10	18	150	176	1,316	224	27	9.80	6.86	4.30
17	2.22	2.36	11	15	149	176	1,220	217	26	9.80	6.86	4.15
18	2.08	2.22	10	13	148	176	1,114	211	26	10	6.69	4.15
19	1.94	2.08	9.80	11	149	177	1,005	204	25	11	6.52	4.00
20	1.80	1.94	9.00	10	149	180	915	197	25	11	6.18	3.85
21	1.66	1.80	8.10	10	147	184	836	190	24	12	6.18	3.70
22	1.94	1.66	7.74	9.60	147	191	770	184	23	12	6.35	3.55
23	2.08	1.52	7.38	9.20	146	200	712	177	22	12	6.18	3.40
24	1.80	1.38	6.69	9.00	147	212	653	170	20	11	5.84	3.25
25	1.52	1.24	6.01	9.40	150	226	600	162	19	11	5.84	3.10
26	1.24	1.94	5.35	11	153	241	560	152	18	11	5.67	3.10
27	1.10	2.36	4.90	15	157	270	520	139	17	10	5.50	2.95
28	1.10	3.55	4.45	22	165	306	488	125	17	10	5.20	2.80
29	0.99	5.67	4.30	35	167	323	459	109	16	9.80	4.90	2.80
30	0.88	7.92	4.30	58	166	337	432	94	15	9.80	-	2.50
31	-	10	-	84	165	-	412	-	15	9.40	-	2.50
Total	77.06	85.60	320.24	499.69	4,561	5,920	21,964	6,910	1,054	345.60	205.21	132.80
Mean	2.57	2.70	10.7	16.1	147	197	708	230	34.0	11.1	7.08	4.28
Max.	5.05	10	24	84	167	337	1,412	394	88	14	9.00	6.69
Min.	0.88	0.88	4.30	4.15	95	157	344	94	15	9.40	4.90	2.50
Runoff - mcm.	6.658	7.223	27.669	43.173	394.070	511.488	1,897.690	597.024	91.066	29.860	17.730	11.474

WATER YEAR 1963 : Max. 1,412 Min. 0.88 Mean 115 Annual Runoff 3,635.124 mcm.

Momentary-Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct.14	18.00	153.84	1,412				

WATER YEAR 1964  
CHEE RIVER BASIN

Chee River at Tha Phra, Khon Kaen. (E. 16A)

Location: Lat 16° - 21' - 14" N, Long 102° - 48' - 09" E, on left bank 400 meters upstream from the bridge on highway Khon Kaen - Maha Sarakham, Tambon Don Han, Amphoe Muang, Khon Kaen.

Drainage Area: 13,171 sq.km. referred to AMS Map 1:50,000.

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 the abutment of the bridge.

Elevation: + 154.989 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: 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: Stable, no shifting adjustment for flow computation for years without actual ratings.

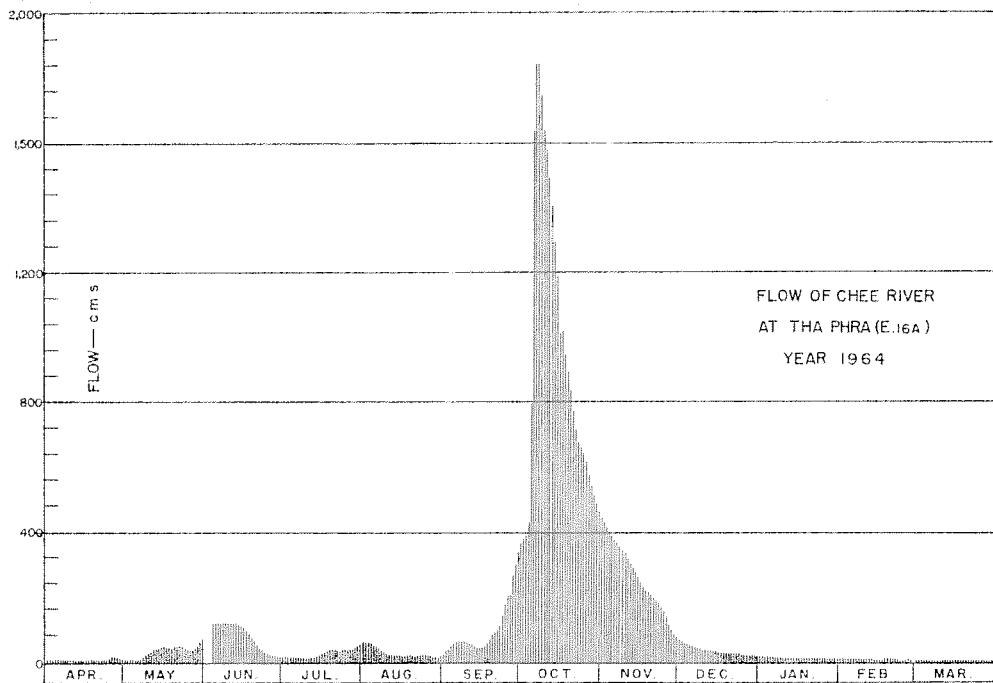
Overbank Flow Conditions: No overbank flow.

General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made during 1963. No upstream diversions from the main river except those for series of tank irrigation.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	143.19	143.42	146.08	143.93	145.45	144.31	151.23	151.77	145.74	144.06	143.77	143.59
2	.23	.42	.10	.94	.51	.58	.33	.68	.57	.06	.76	.55
3	.33	.44	.55	.90	.49	.88	.40	.59	.44	.04	.75	.52
4	.42	.47	.82	.86	.40	145.16	.59	.51	.35	.03	.74	.50
5	.46	.48	146.98	.84	.23	.38	152.82	.41	.26	.01	.72	.48
6	143.43	143.46	147.01	143.85	145.02	145.48	154.06	151.34	145.17	144.00	143.71	143.47
7	.38	.48	.04	.85	144.91	.51	.38	.26	.09	143.98	.70	.45
8	.36	.79	.05	.80	.65	.51	.38	.17	.00	.97	.69	.43
9	.33	144.18	.05	.74	.47	.50	.26	.07	144.91	.95	.68	.43
10	.27	.34	.04	.68	.35	.46	.13	150.97	.85	.93	.68	.43
11	143.23	144.50	147.05	143.65	144.26	145.37	154.05	150.85	144.80	143.92	143.67	143.43
12	.18	.73	.08	.75	.18	.22	153.93	.70	.76	.90	.66	.44
13	.15	.81	.02	.86	.15	.06	.81	.54	.70	.89	.64	.44
14	.14	.91	146.95	144.02	.15	.00	.68	.36	.65	.86	.61	.44
15	.14	145.09	.85	.16	.12	144.94	.55	.13	.60	.85	.58	.47
16	143.17	145.07	146.70	144.35	144.06	144.98	153.44	149.90	144.57	143.83	143.58	143.55
17	.18	144.98	.49	.48	.06	145.09	.30	.69	.55	.81	.61	.58
18	.22	.91	.23	.61	.11	.38	.16	.49	.53	.80	.66	.56
19	.26	.90	145.91	.75	.12	.75	.04	.29	.49	.79	.70	.53
20	.28	.95	.56	.80	.08	146.12	152.91	.13	.46	.79	.71	.48
21	143.29	145.06	145.23	144.74	144.05	146.34	152.77	148.96	144.44	143.82	143.69	143.43
22	.31	.15	144.93	.65	.11	.58	.65	.78	.41	.82	.64	.40
23	.32	.03	.67	.65	.21	.91	.53	.57	.37	.82	.61	.40
24	.36	144.87	.47	.72	.24	147.59	.49	.35	.34	.81	.59	.39
25	.49	.71	.31	.79	.20	148.42	.45	.05	.31	.81	.58	.38
26	143.80	144.58	144.21	144.77	144.10	149.10	152.36	147.60	144.28	143.80	143.59	143.36
27	.88	.63	.11	.79	.12	.68	.26	.10	.24	.80	.62	.35
28	.77	.88	.03	.75	143.97	150.22	.15	146.64	.20	.80	.61	.33
29	.65	145.17	143.95	145.02	.93	.62	.05	.27	.16	.79	-	* .33
30	.54	.44	.92	.17	.94	.98	151.95	145.98	.12	.78	-	* .33
31	-	.78	-	.34	144.03	-	.86	-	.08	.78	-	* .32
Mean	143.36	144.54	145.91	144.33	144.41	146.37	152.90	149.67	144.69	143.88	143.66	143.44
Max.	143.88	145.78	147.08	145.34	145.51	150.98	154.38	151.77	145.74	144.06	143.77	143.59
Min.	143.14	143.42	143.92	143.65	143.93	144.31	151.23	145.98	144.08	143.78	143.58	143.32

WATER YEAR 1964 : Max. 154.38 m. Min. 143.14 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	2.52	4.98	80	14	58	23	362	446	68	17	11	7.54
2	2.90	4.98	81	14	60	31	375	429	62	17	11	6.90
3	3.93	5.26	97	14	60	40	384	413	58	17	10	6.42
4	4.98	5.68	108	13	57	49	413	401	55	17	10	6.10
5	5.54	5.82	114	12	51	56	786	385	52	16	9.90	5.82
6	5.12	5.54	115	12	44	59	1,586	376	49	16	9.70	5.68
7	4.48	5.82	117	12	41	60	1,840	366	46	15	9.50	5.40
8	4.26	11	117	11	32	60	1,840	354	44	15	9.32	5.12
9	3.93	20	117	10	28	60	1,744	343	41	15	9.14	5.12
10	3.30	24	117	9.14	25	59	1,642	332	39	14	9.14	5.12
11	2.90	29	117	8.60	22	56	1,578	318	37	14	8.96	5.12
12	2.44	35	118	10	20	51	1,482	303	36	14	8.78	5.26
13	2.20	38	116	13	19	46	1,388	289	34	13	8.42	5.26
14	2.12	41	113	16	19	44	1,284	274	33	13	7.88	5.26
15	2.12	46	109	20	19	42	1,184	275	32	12	7.38	5.68
16	2.36	46	103	25	17	43	1,107	243	31	12	7.38	6.90
17	2.44	43	95	28	17	46	1,016	230	30	12	7.88	7.38
18	2.80	41	85	32	18	56	941	220	29	11	8.78	7.06
19	3.20	41	74	36	19	69	881	211	28	11	9.50	6.58
20	3.40	42	62	37	18	82	823	204	27	11	9.70	5.82
21	3.50	46	51	36	17	89	766	197	27	12	9.32	5.12
22	3.71	48	41	35	18	98	719	189	26	12	8.42	4.70
23	3.82	45	34	33	21	111	673	179	25	12	7.88	4.70
24	4.26	40	28	35	22	139	657	169	24	12	7.54	4.59
25	5.96	35	23	37	21	172	642	157	23	12	7.38	4.48
26	11	31	21	37	18	203	610	139	23	11	7.54	4.26
27	13	32	18	37	19	230	577	119	22	11	8.06	4.15
28	11	40	17	36	15	263	514	101	21	11	7.88	3.93
29	8.60	49	15	44	14	296	512	87	20	11	-	3.93
30	6.74	58	14	49	14	333	486	77	19	11	-	3.93
31	-	70	-	55	17	-	465	-	18	11	-	3.82
Total	138.53	989.08	2,317	778.74	840	2,966	29,304	7,808	1,079	408	247.38	167.15
Mean	4.62	31.9	77.2	25.1	27.1	98.9	945	260	34.8	13.2	8.83	5.39
Max.	13	70	118	55	60	333	1,840	446	68	17	11	7.54
Min.	2.12	4.98	14	8.60	14	23	362	77	18	11	7.38	3.82
Runoff - BCM.	11.969	85.456	200.189	67.283	72.576	256.262	2,531.866	674.661	93.226	35.251	21.374	14.442

WATER YEAR 1964 : Max. 1,840 Min. 2.12 Mean 129 Annual Runoff 4,064.505 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct.7	18.00	154.40	1,856				

WATER YEAR 1963  
CHEE RIVER BASIN

Nam Phong at Ban Nam Phong, Khon Kaen (E.22)

Location: Lat 16°-42'-41" N., Long 102°-48'-30" E., on right bank at highway bridge on the way Khon Kaen - Udon, south of Nam Phong Market, Amphoe Nam Phong, Khon Kaen.

Drainage Area: 13,183 sq.km. referred to AMS Map 1:50,000.

Type of Gage: Staff gage.

Zero Gage at Bottom at: + 150.92 m. (M.S.L.)

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

Location: On right bank on the abutment of bridge.  
Elevation: + 167.463 m. (M.S.L.)

Gage Reading Frequency: 3 - time daily readings at 06.00, 12.00 and 18.00 hours.

Basis of Mean Daily Gage Height: Arithmetic mean of 3 readings.

Period of Available Gage Records: 1954 to date.

Rating Operation:

Period of Rating: 1954 - 57, 1964 - 65.

Rated by Float: -

Rated by Current Meter: 1954 - 57, 1964 - 65.

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

Overbank Flow Conditions: No overbank flow.

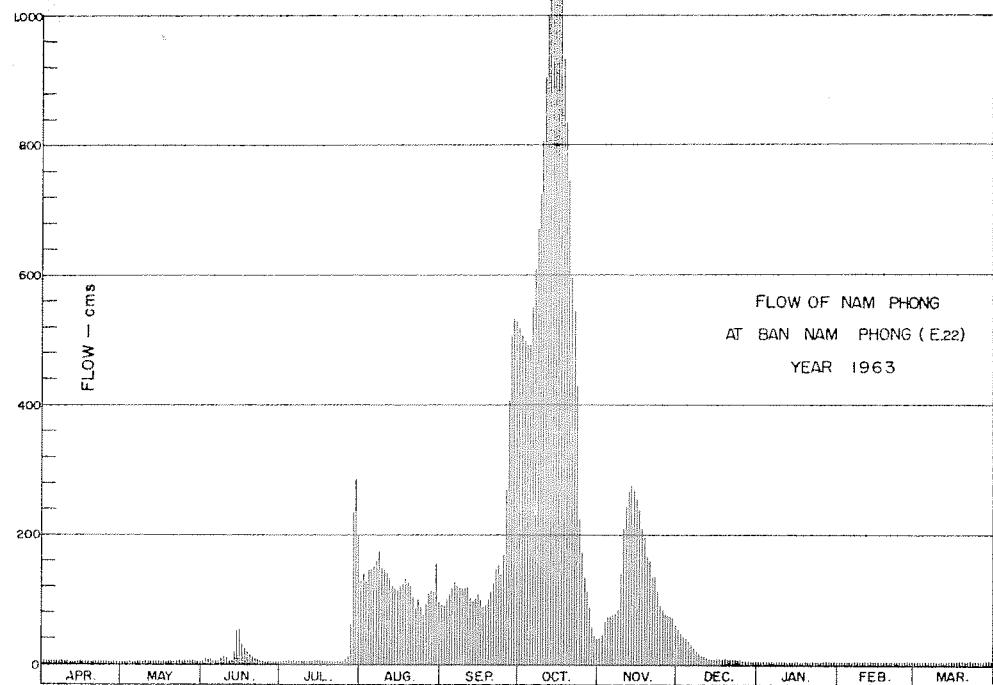
General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made during 1954, 1956, 1964 - 65. No diversions for irrigation above gage site.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	152.07	152.05	152.37	152.18	156.43	155.64	160.73	154.13	154.60	152.32	152.25	152.08
2	.06	.06	.52	.21	.64	.60	.66	.30	.42	.30	.25	.08
3	.06	.06	.46	.27	.45	.79	.60	155.00	.23	.30	.25	.09
4	.06	.07	.62	.28	.78	156.00	.57	.12	.11	.28	.25	.10
5	.06	.07	.34	.28	.80	.24	.57	.20	153.99	.27	.25	.10
6	152.05	152.07	152.24	152.27	156.86	156.40	160.95	155.24	153.74	152.26	152.24	152.09
7	.05	.08	.29	.27	157.05	.28	161.37	.30	.55	.26	.24	.08
8	.05	.11	.66	.27	.28	.22	.65	.40	.31	.26	.24	.07
9	.05	.14	.78	.27	156.84	.18	.98	156.68	.14	.25	.23	.07
10	.05	.16	.90	.25	.80	.19	162.38	157.77	.01	.25	.22	.06
11	152.05	152.17	152.27	152.24	156.70	156.23	162.82	158.26	152.84	152.24	152.21	152.07
12	.05	.17	.43	.29	.53	155.87	163.21	.51	.81	.23	.20	.07
13	.05	.17	153.22	.34	.30	.78	.53	.67	.64	.23	.18	.07
14	.05	.18	154.54	.40	.22	.85	.73	.55	.59	.23	.14	.06
15	.05	.19	.58	.45	.15	.97	.79	.40	.54	.22	.12	.05
16	152.07	152.20	153.77	152.45	156.25	155.81	163.63	158.21	152.53	152.21	152.11	152.05
17	.07	.21	.52	.44	.35	.55	.38	157.82	.52	.20	.10	.04
18	.07	.22	.26	.42	.49	.65	162.94	.55	.50	.20	.10	.04
19	.07	.23	.10	.42	.39	.81	.52	.14	.50	.19	.10	.03
20	.07	.24	152.88	.40	.25	156.12	.08	.02	.49	.19	.09	.03
21	152.07	152.25	152.69	152.32	155.92	156.41	161.28	156.57	152.49	152.19	152.08	152.03
22	.07	.26	.57	.30	.50	.80	160.91	.59	.48	.19	.07	.03
23	.07	.27	.44	.32	.82	.91	.09	.13	.47	.19	.07	.03
24	.07	.27	.33	.35	.56	.67	158.00	155.66	.47	.20	.07	.03
25	.07	.27	.23	.40	.26	157.18	157.25	.51	.46	.21	.06	.02
26	152.07	152.28	152.19	152.52	155.65	158.53	156.68	155.31	152.45	152.23	152.08	152.02
27	.06	.29	.13	.88	156.05	159.90	.13	.22	.44	.25	.09	.01
28	.05	.29	.12	154.78	.11	160.66	155.70	.18	.42	.27	.09	.08
29	.05	.29	.13	158.16	.07	.83	154.66	.09	.36	.20	.08	.23
30	.05	.29	.15	.75	.94	.81	.29	154.81	.35	.27	.30	.30
31		.29		157.62	155.75		.15		.33	.26		.34
Mean	152.06	152.19	152.72	152.99	156.33	156.80	160.30	156.34	152.93	152.24	152.15	152.08
Max.	152.07	152.29	154.58	158.75	157.28	160.83	163.79	158.67	154.60	152.32	152.25	152.34
Min.	152.05	152.05	152.12	152.18	155.26	155.60	154.15	154.13	152.33	152.19	152.06	152.01

WATER YEAR 1963 : Max. 163.79 m. Min. 152.10 m.





DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	4.35	4.25	7.20	5.30	129	94	517	42	55	6.70	6.00	4.40
2	4.30	4.30	8.80	5.60	140	92	507	46	50	6.50	6.00	4.40
3	4.30	4.30	8.10	6.20	130	100	498	69	44	6.50	6.00	4.45
4	4.30	4.35	10	6.30	147	109	493	74	41	6.30	6.00	4.50
5	4.30	4.35	6.90	6.30	148	120	493	76	38	6.20	6.00	4.50
6	4.25	4.35	5.90	6.20	152	128	550	78	32	6.10	5.90	4.45
7	4.25	4.40	6.40	6.20	162	121	609	80	27	6.10	5.90	4.40
8	4.25	4.60	11	6.20	175	119	669	84	22	6.10	5.90	4.35
9	4.25	4.90	13	6.20	151	118	728	142	18	6.00	5.80	4.35
10	4.25	5.10	14	6.00	148	118	806	209	16	6.00	5.70	4.30
11	4.25	5.20	6.20	5.90	143	120	903	245	14	5.90	5.60	4.35
12	4.25	5.20	7.80	6.40	134	104	1,000	266	13	5.80	5.50	4.35
13	4.25	5.20	20	6.90	123	100	1,085	279	11	5.80	5.30	4.35
14	4.25	5.30	53	7.50	119	103	1,140	269	9.85	5.80	4.90	4.30
15	4.25	5.40	55	8.00	116	108	1,157	256	9.10	5.70	4.70	4.25
16	4.35	5.50	33	8.00	121	101	1,112	240	8.95	5.60	4.60	4.25
17	4.35	5.60	26	7.90	125	90	1,045	211	8.80	5.50	4.50	4.20
18	4.35	5.70	21	7.70	132	94	932	193	8.50	5.50	4.50	4.20
19	4.35	5.80	17	7.70	127	101	835	167	8.50	5.40	4.50	4.15
20	4.35	5.90	14	7.50	121	115	748	161	8.40	5.40	4.45	4.15
21	4.35	6.00	11	6.70	106	128	594	136	8.40	5.40	4.40	4.15
22	4.35	6.10	9.55	6.50	88	148	544	137	8.30	5.40	4.35	4.15
23	4.35	6.20	7.90	6.70	101	154	429	115	8.20	5.40	4.35	4.15
24	4.35	6.20	6.80	7.00	90	142	224	94	8.20	5.50	4.35	4.15
25	4.35	6.20	5.80	7.50	78	169	173	88	8.10	5.60	4.30	4.10
26	4.35	6.30	5.40	8.80	94	269	142	80	8.00	5.80	4.40	4.10
27	4.30	6.40	4.80	14	112	407	115	77	7.90	6.00	4.45	4.05
28	4.25	6.40	4.70	62	114	507	96	76	7.70	6.20	4.45	4.40
29	4.25	6.40	4.80	236	113	532	58	73	7.10	6.30	4.40	5.80
30	4.25	6.40	5.00	286	156	529	46	63	7.00	6.20	6.50	6.50
31		6.40		198	98		42		6.80	6.10	6.90	6.90
Total	128.95	168.70	410.05	973.20	3,893	5,140	18,290	4,126	528.80	182.80	147.20	139.10
Mean	4.30	5.44	13.7	31.4	125	171	590	137	17.1	5.90	5.07	4.49
Max.	4.35	6.40	55	286	175	532	1,157	279	55	6.70	6.00	6.90
Min.	4.25	4.25	4.80	5.30	78	92	42	42	6.80	5.40	4.30	4.05
Runoff - BCM.	11.141	14.576	35.428	84.084	336.355	444.096	1,580.256	356.486	45.688	15.794	12.718	12.018

WATER YEAR 1963 : Max. 1,157 Min. 4.05 Mean 93.2 Annual Runoff 2,948.642 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 15	06.00	163.80	1,160				

WATER YEAR 1964  
CHEE RIVER BASIN

Nam Phong at Ban Nam Phong, Khon Kaen (E.22)

Location: Lat 16° - 42' - 41" N., Long 102° - 48' - 30" E., on right bank at highway bridge on the way Khon Kaen - Udon, south of Nam Phong Market, Amphoe Nam Phong, Khon Kaen.

Drainage Area: 13,183 sq.km. referred to AMS Map 1:50,000.

Type of Gage: Staff gage.

Zero Gage at Bottom at: + 150.92 m. (M.S.L.)

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

Location: On right bank on the abutment of bridge.

Elevation: + 167.463 m. (M.S.L.)

Gage Reading Frequency: 3 - times daily readings at 06.00, 12.00 and 18.00 hours.

Basis of Mean Daily Gage Height: Arithmetic mean of 3 readings.

Period of Available Gage Records: 1954 to date.

Rating Operation:

Period of Rating: 1954 - 57, 1964 - 65.

Rated by Float: -

Rated by Current Meter: 1954 - 57, 1964 - 65.

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

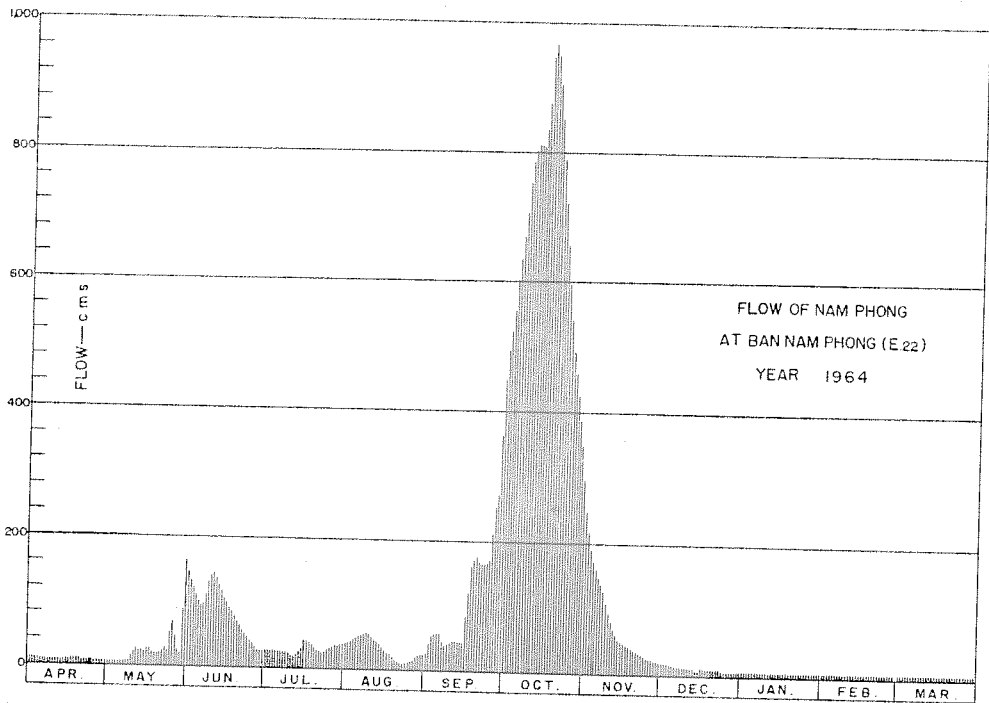
Overbank Flow Conditions: No overbank flow.

General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made during 1964. No diversions for irrigation above gage site.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	152.36	152.62	157.05	153.69	154.36	153.60	161.48	158.69	153.03	152.16	152.17	152.10
2	.35	.02	156.82	.73	.42	154.45	.62	.14	.06	.21	.17	.10
3	.35	.03	.61	.68	.54	.88	162.02	157.77	152.97	.28	.17	.10
4	.34	.05	.38	.65	.67	.99	.39	.46	.91	.30	.17	.10
5	.29	.07	.18	.58	.72	155.01	.68	.23	.86	.29	.17	.19
6	152.24	152.08	156.05	153.56	154.79	155.01	162.92	157.02	152.77	152.28	152.16	152.19
7	.24	.10	.10	.55	.87	154.48	163.16	156.89	.69	.28	.16	.19
8	.24	.12	.41	.53	.92	.28	.38	.67	.63	.28	.12	.17
9	.25	.16	.78	.52	.96	.36	.56	.36	.60	.28	.10	.17
10	.26	.72	.99	.39	.89	.49	.65	155.96	.56	.28	.12	.17
11	152.27	153.26	157.04	153.09	154.73	154.62	163.66	155.62	152.51	152.26	152.15	152.16
12	.28	.74	156.90	.12	.58	.61	.65	.33	.46	.26	.15	.14
13	.30	.32	.70	.30	.45	.57	.65	.06	.43	.25	.15	.14
14	.30	.43	.51	.57	.33	.54	.74	154.87	.40	.24	.12	.14
15	.32	.23	.31	154.03	.07	.47	.95	.76	.50	.24	.10	.12
16	152.32	153.57	156.13	154.52	153.81	155.77	164.21	154.60	152.57	152.24	152.10	152.12
17	.34	.64	155.95	.50	.60	156.61	.26	.47	.55	.22	.10	.11
18	.35	.22	.79	.55	.45	157.32	.20	.86	.51	.22	.10	.11
19	.35	.15	.61	.19	.20	.49	.01	.21	.49	.21	.10	.11
20	.35	.21	.41	153.89	152.89	.53	163.85	.08	.47	.20	.10	.10
21	152.31	153.20	155.17	153.69	152.56	157.42	163.58	153.96	152.44	152.19	152.10	152.10
22	.29	.39	154.98	.59	.33	.35	.24	.84	.41	.19	.11	.10
23	.27	.71	.80	.48	.38	.37	162.81	.72	.19	.19	.11	.10
24	.24	.30	.62	.60	.46	.39	.33	.59	.12	.20	.11	.09
25	.17	154.95	.40	.84	.52	.44	161.90	.52	.03	.19	.10	.09
26	152.12	155.27	154.20	153.94	152.63	158.10	161.52	153.42	151.99	152.19	152.10	152.09
27	.11	154.19	153.87	154.05	.83	.60	.18	.34	152.03	.18	.10	.08
28	.10	153.54	.60	.15	153.08	.84	160.79	.26	.07	.17	.10	.08
29	.08	.15	.62	.22	.38	160.16	.37	.17	.10	.17		.08
30	.04	155.74	.65	.24	.46	161.02	159.83	.09	.12	.17		.08
31		157.32		.28	.54		.16		.15	.17		.08
Mean	152.26	153.32	155.69	153.79	153.79	156.29	162.67	155.16	152.47	152.22	152.12	152.12
Max.	152.36	157.32	157.05	154.52	154.96	161.02	164.26	158.69	153.06	152.30	152.17	152.19
Min.	152.04	152.02	153.60	153.09	152.33	153.60	159.16	153.09	151.99	152.16	152.10	152.08

WATER YEAR 1964 : Max. 164.26 m. Min. 151.99 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	8.36	4.88	145	27	39	25	496	248	17	7.59	6.20	5.51
2	8.25	4.88	131	27	40	41	523	214	17	7.59	6.60	5.70
3	8.25	4.97	120	26	43	52	556	188	16	7.70	6.82	5.90
4	8.14	5.15	109	26	46	56	601	170	15	7.70	6.82	6.10
5	7.59	5.33	99	25	48	56	633	157	14	7.59	6.71	6.50
6	7.04	5.42	94	25	50	56	665	144	13	7.59	6.30	6.50
7	7.04	5.60	96	24	52	42	702	135	12	7.59	6.00	6.50
8	7.04	5.80	110	24	53	37	746	124	12	7.59	5.80	6.40
9	7.15	6.20	129	24	55	39	785	107	11	7.48	5.60	6.40
10	7.26	13	141	22	53	42	804	92	11	7.48	5.51	6.50
11	7.37	20	144	18	48	45	811	78	9.76	7.37	5.60	6.50
12	7.48	27	136	18	44	45	811	67	9.40	7.26	6.40	6.10
13	7.70	21	125	21	41	44	808	58	9.28	7.04	6.30	6.00
14	7.70	23	115	25	38	43	825	51	8.93	7.04	5.90	6.00
15	7.92	20	105	32	33	42	873	48	6.50	7.15	5.70	6.00
16	7.92	25	97	43	29	83	942	45	11	6.60	5.70	5.90
17	8.14	26	90	42	25	120	965	42	10	6.40	5.70	5.90
18	8.25	20	84	39	23	161	950	40	9.16	6.50	5.80	5.80
19	8.25	19	77	36	19	171	904	37	8.92	6.60	5.80	6.00
20	8.03	19	70	30	15	174	852	35	9.04	6.50	5.80	5.70
21	7.81	19	62	27	11	167	790	33	8.92	6.50	5.70	5.51
22	7.59	22	55	25	8.03	163	717	31	8.80	6.40	5.60	5.51
23	7.37	27	50	23	8.58	164	656	28	8.58	6.40	5.51	5.60
24	7.04	21	45	25	9.52	165	597	26	6.00	6.60	5.51	5.60
25	6.30	54	40	29	10	168	539	24	4.79	6.60	5.42	5.60
26	5.80	65	36	31	12	211	493	22	4.43	6.40	5.51	5.60
27	5.70	45	30	33	14	253	459	21	6.10	6.30	5.60	5.51
28	5.10	24	25	35	18	268	426	20	7.15	6.20	5.51	5.42
29	5.42	19	25	36	22	358	388	19	7.59	6.20	5.51	5.42
30	5.06	82	26	37	23	451	347	19	7.70	6.20	5.51	5.60
31		161		37	24		296		7.70	6.20		5.33
Total	218.07	820.23	2,611	892	954.13	3,742	20,960	2,323	305.75	214.36	165.42	182.61
Mean	7.27	26.4	87.0	28.7	30.8	125	676	77.4	9.86	6.91	5.91	5.89
Max.	8.36	161	145	43	55	451	965	248	17	7.70	6.82	6.50
Min.	5.06	4.88	25	18	8.03	25	296	19	4.43	6.20	5.42	5.33
Runoff = m.c.m.	18.841	70.868	225.590	77.069	82.437	323.309	1,810.944	200.707	26.417	18.521	14.292	15.777

WATER YEAR 1964 : Max. 965 Min. 4.43 Mean 91.5 Annual Runoff 2,884.772 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 17	18.00	164.26	968				

WATER YEAR 1963  
CHEE RIVER BASIN

Lam Pao at Ban Na Kaeo, Kalasin (E. 30)

Location: Lat 16° - 47' - 34" N, Long 103° - 26' - 58" E. on left bank 500 meters west of Ban Na Kaeo, 600 meters downstream from the confluence with Lam Phanchat. Amphoe Sahatsakhan, Kalasin.

Drainage Area: 3,955 sq.km. referred to AMS Map 1:50,000.

Type of Gage: Water - stage recorder.

Zero Gage at Bottom at: + 145.00 m. (M.S.L.)

Bench Mark:

Location: At the foot of the flag pole in front of station E.30.

Elevation: + 158.602 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: 1957 to date.

Rating Operation:

Period of Rating: 1957 - 64.

Rated by Float: -

Rated by Current Meter: 1957 - 64.

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

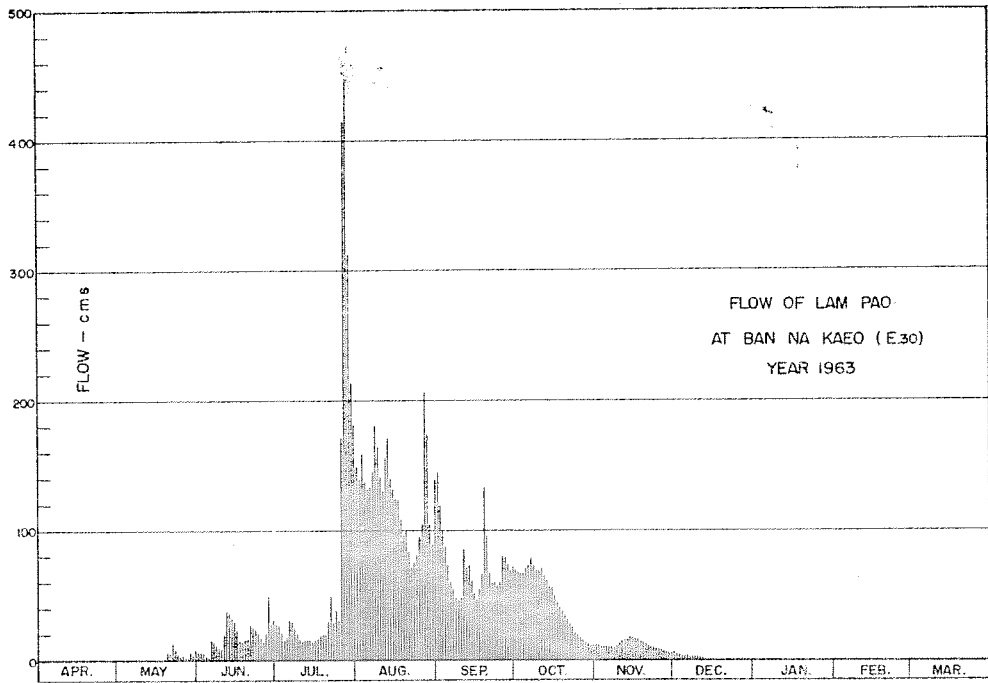
Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage - discharge relationship used by discharge measurements made during 1963. No diversions for irrigation above gage site.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	145.81	145.73	146.35	147.29	150.24	150.57	148.46	146.69	146.30	145.88	145.70	145.63
2	.79	.73	.35	.31	.17	149.67	.41	.68	.24	.85	.69	.65
3	.79	.73	.35	.09	.42	.17	.35	.65	.21	.84	.68	.64
4	.79	.73	.17	146.90	.25	148.82	.31	.63	.20	.80	.69	.64
5	.78	.74	.10	.96	149.96	.45	.43	.61	.19	.79	.69	.64
6	145.78	145.76	146.86	147.41	150.10	148.21	148.44	146.61	146.18	145.76	145.68	145.64
7	.92	.82	.79	.37	.12	.05	.58	.60	.18	.73	.67	.65
8	.92	.87	.65	.24	.57	147.92	.52	.59	.18	.81	.67	.64
9	.88	.81	.57	.09	.62	.85	.41	.65	.16	.77	.67	.62
10	.85	.79	.50	146.93	.24	.90	.38	.73	.12	.83	.67	.64
11	145.84	145.81	147.02	146.80	149.91	148.72	148.35	146.78	146.08	145.73	145.67	145.65
12	.83	.82	.62	.88	150.44	.49	.30	.85	.04	.73	.64	.64
13	.83	.81	.57	.88	.77	.46	.23	.88	.00	.73	.68	.64
14	.82	.80	.48	.86	.31	.17	.13	.90	145.96	.73	.68	.64
15	.81	.76	.38	.81	.11	147.98	.02	.90	.93	.73	.67	.63
16	145.80	145.79	147.17	146.84	149.77	147.89	147.91	146.89	145.92	145.71	145.66	145.63
17	.82	.78	146.88	.90	.67	148.05	.80	.86	.94	.70	.66	.64
18	.81	.79	.82	.99	.28	.38	.69	.81	.87	.70	.66	.64
19	.78	.76	.86	147.01	.19	149.87	.57	.76	.84	.74	.66	.65
20	.78	146.36	.89	.02	.05	148.86	.46	.73	.83	.70	.66	.67
21	145.76	146.32	147.29	147.36	148.81	148.40	147.37	146.68	145.81	145.70	145.65	145.70
22	.75	.78	.22	.97	.51	.20	.29	.62	.80	.70	.65	.69
23	.74	.53	.17	.32	.57	.13	.20	.57	.81	.70	.64	.67
24	.73	.25	.06	.64	.63	.11	.11	.52	.81	.70	.64	.66
25	.75	.19	146.94	.46	.95	.17	.02	.49	.84	.70	.65	.69
26	145.75	146.22	146.83	150.31	148.87	148.64	146.94	146.45	145.79	145.69	145.65	145.70
27	.75	.04	147.05	153.97	151.04	.58	.87	.42	.80	.69	.64	.69
28	.76	.02	.98	154.25	150.36	.50	.82	.37	.79	.71	.63	.68
29	.74	.35	.29	152.85	149.31	.47	.77	.34	.76	.70	.63	.66
30	.74	.32	.43	151.64	148.81	.48	.73	.32	.76	.72	-	.65
31	-	.46	-	150.71	149.89	-	.70	-	.80	.71	-	.64
Mean	145.80	145.99	146.95	148.13	149.77	148.50	147.76	146.66	145.97	145.74	145.66	145.66
Max.	145.92	146.78	147.98	154.25	151.04	150.57	148.58	146.90	146.30	145.88	145.70	145.70
Min.	145.73	145.73	146.10	146.81	148.51	147.85	146.70	146.32	145.76	145.69	145.63	145.62

WATER YEAR 1963 : Max. 154.25 m. Min. 145.62 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.55	0.15	6.40	28	150	145	70	12	6.76	0.90	0.16	0.02
2	0.45	0.15	6.40	28	139	120	68	12	5.61	0.75	0.13	0.05
3	0.45	0.15	6.40	22	159	100	67	11	4.16	0.70	0.11	0.03
4	0.45	0.15	3.70	17	138	88	67	11	4.00	0.40	0.13	0.03
5	0.40	0.20	3.00	18	132	72	71	11	4.00	0.50	0.13	0.03
6	0.40	0.30	16	31	134	61	73	10	4.00	0.35	0.11	0.03
7	1.20	0.60	15	30	145	55	79	11	3.80	0.25	0.09	0.05
8	1.20	0.85	12	26	180	48	75	10	3.80	0.60	0.09	0.03
9	0.90	0.55	10	22	164	46	69	11	3.50	0.35	0.09	0.00
10	0.75	0.45	8.80	18	141	48	68	13	3.20	0.05	0.09	0.03
11	0.70	0.55	20	15	132	85	71	15	2.60	0.30	0.09	0.05
12	0.65	0.60	38	16	156	72	65	16	2.40	0.25	0.03	0.03
13	0.65	0.55	36	16	171	73	62	16	1.90	0.25	0.11	0.03
14	0.60	0.50	33	16	141	62	57	18	1.40	0.25	0.11	0.03
15	0.55	0.30	30	15	132	51	56	18	1.20	0.30	0.09	0.02
16	0.50	0.45	24	16	124	47	50	17	1.30	0.28	0.07	0.02
17	0.60	0.40	16	17	123	53	45	16	0.95	0.15	0.07	0.03
18	0.55	0.45	15	19	109	66	41	15	0.50	0.10	0.07	0.03
19	0.40	0.30	16	20	97	133	38	14	0.50	0.25	0.07	0.05
20	0.40	6.56	17	20	100	96	35	13	0.50	0.10	0.07	0.09
21	0.30	5.92	28	30	84	68	32	12	0.45	0.20	0.05	0.16
22	0.25	14	26	50	72	59	28	10	0.45	0.20	0.05	0.13
23	0.20	9.40	24	39	76	60	26	10	0.45	0.20	0.03	0.09
24	0.15	4.80	21	39	81	57	21	9.20	0.55	0.20	0.03	0.07
25	0.25	3.90	18	31	95	60	19	8.64	0.45	0.20	0.05	0.13
26	0.25	4.32	15	171	105	80	17	8.00	0.30	0.15	0.05	0.16
27	0.25	2.24	21	415	206	79	16	7.52	0.45	0.15	0.03	0.13
28	0.30	2.20	50	448	174	74	14	6.72	0.40	0.20	0.02	0.11
29	0.20	6.40	28	312	165	69	13	6.24	0.30	0.10	0.02	0.07
30	0.20	5.92	32	214	88	72	12	5.92	0.25	0.20	-	0.05
31	-	8.16	-	183	139	-	12	-	0.55	0.20	-	0.03
Total	14.70	81.47	595.70	2,332	3,992	2,199	1,435	354.24	60.68	9.00	2.24	1.81
Mean	0.49	2.63	19.8	75.2	129	73.3	46.2	11.8	1.96	0.29	0.08	0.06
Max.	1.20	14	50	448	206	145	79	18	6.76	0.90	0.16	0.16
Min.	0.15	0.15	3.00	15	72	46	12	5.92	0.25	0.10	0.02	0.00
Runoff - BCM.	1.270	7.039	51.468	201.485	344.909	189.994	123.984	30.606	5.243	0.778	0.193	0.156

WATER YEAR 1963 : Max. 448 Min. 0.00 Mean 30.3 Annual Runoff 957.125 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Jul.28	18.00	154.70	527				

WATER YEAR 1964  
CHEE RIVER BASIN

Lam Pao at Ban Na Kaeo, Kalasin. (E. 30)

Location: Lat 16° - 47' - 34" N, Long 103° - 26' - 58" E, on left bank 500 meters west of Ban Na Kaeo, 600 meters downstream from the confluence with Lam Phanchat. Amphoe Sahatsakhan, Kalasin.

Drainage Area: 3,955 sq.km. referred to AMS Map 1:50,000.

Type of Gage: Water - stage recorder.

Zero Gage at Bottom at: + 145.00 m. (M.S.L.)

Bench Mark:

Location: At the foot of the flag pole in front of station E.30.

Elevation: + 158.602 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: 1957 to date.

Rating Operation:

Period of Rating: 1957 - 64.

Rated by Float: -

Rated by current Meter: 1957 - 64.

Stability of Channel Regimes: Stable, no shifting adjustment for fDw computation due to its stability.

Overbank Flow Conditions: No overbank flow.

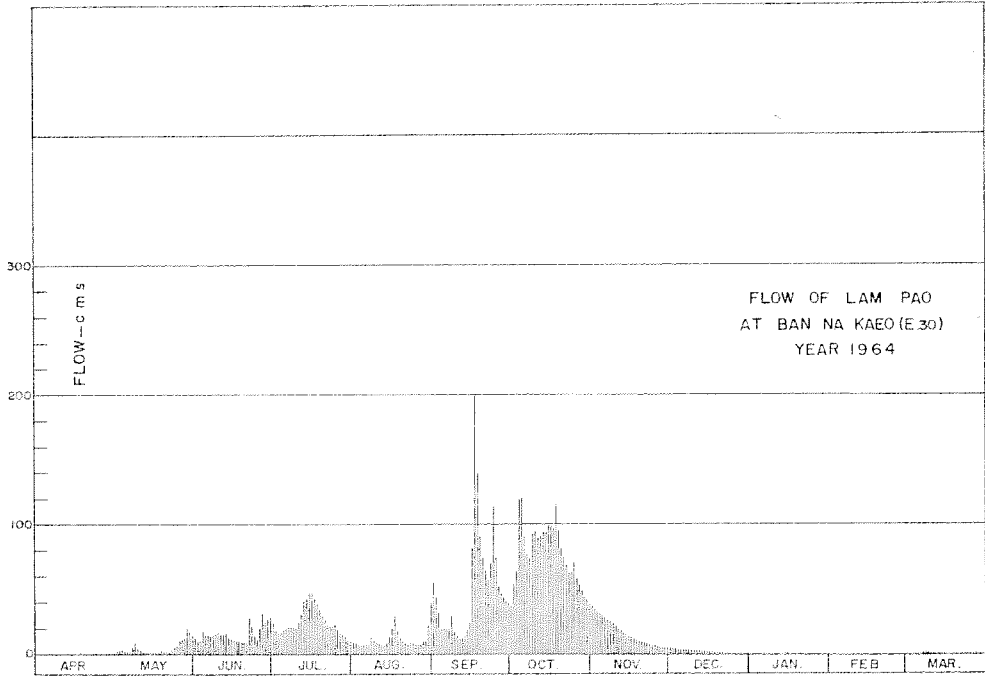
General Description: Records good except those for period of no gage height record, which are poor. Stage - discharge relationship used by discharge measurements made during 1964. No diversions for irrigation above gage site.

Remark: No gage height record for Feb. 1 - 28.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	145.64	145.73	146.81	147.28	146.62	148.10	147.64	147.66	146.31	145.77		145.68
2	.66	146.10	.68	.07	.58	147.83	148.04	.59	.30	.76		.67
3	.67	.08	.62	146.96	.54	.54	.29	.53	.29	.76		.67
4	.67	.25	.97	.97	.52	.05	149.33	.48	.26	.77		.68
5	.67	.11	.84	147.05	.50	.09	.35	.44	.24	.78		.69
6	145.65	146.00	146.89	147.10	146.50	147.07	148.82	147.39	146.22	145.78		145.68
7	.66	145.93	.91	.13	.53	.04	.58	.34	.19	.78		.72
8	.65	146.33	.92	.13	.86	.42	.49	.29	.18	.79		.93
9	.65	.58	.91	.14	.71	.01	.88	.24	.17	.78		.93
10	.64	.25	.98	.21	.57	146.88	.92	.17	.17	.83		.88
11	145.64	146.08	146.92	147.29	146.57	146.78	148.83	147.12	146.16	145.82		145.83
12	.63	.06	.94	.50	.53	.73	.82	.05	.15	.80		.80
13	.63	.05	.98	.79	.48	.87	.89	146.97	.13	.79		.79
14	.62	145.99	.83	.82	.56	.97	.90	.91	.09	.96		.78
15	.62	.96	.76	.91	.88	147.26	149.03	.86	.08	.93		.76
16	145.62	145.99	146.72	147.91	147.15	148.67	148.99	146.81	146.07	145.89		145.74
17	.62	146.03	.70	.86	.46	150.39	.93	.76	.06	.87		.72
18	.88	.04	.67	.70	.01	149.65	149.26	.71	.05	.85		.71
19	146.12	.16	.65	.60	146.75	148.84	148.94	.66	.02	.84		.75
20	145.93	.10	.64	.45	.70	.54	.65	.63	145.98	.82		.71
21	145.82	145.99	146.61	147.30	146.61	148.32	148.50	146.61	145.94	145.80		145.71
22	.75	146.04	147.37	.22	.54	.11	.38	.58	.90	.79		.71
23	.76	.21	.19	.13	.62	.43	.26	.55	.88	.78		.70
24	.73	.35	146.88	.12	.60	149.24	.26	.53	.85	.76		.70
25	.71	.40	.75	.20	.55	148.53	.44	.48	.84	.74		.69
26	145.72	146.71	147.11	147.08	146.54	148.06	148.22	146.44	145.83	145.74		145.68
27	.69	.71	.51	146.94	.55	147.92	.09	.39	.83	.74		.68
28	.77	.75	.28	.90	.69	.84	147.99	.37	.81	.74		.67
29	.77	147.09	.39	.85	.65	.77	.90	.34	.80	.73		.67
30	.73	146.99	.39	.76	147.14	.71	.82	.31	.79	.73		.67
31	-	.91	-	.67	.50	-	.74	-	.78	.72		.66
Mean	147.71	146.25	146.76	147.32	146.71	147.85	148.88	146.91	146.04	145.79		145.73
Max.	146.12	147.09	147.51	147.91	147.50	150.39	149.35	147.66	146.31	145.96		145.93
Min.	145.62	145.73	146.61	146.67	146.48	146.73	147.64	146.31	145.78	145.72		145.66

WATER YEAR 1964 : Max. 150.39 m. Min. - m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.10	0.32	13	25	9.18	55	36	37	4.32	0.42		0.20
2	0.15	2.20	10	19	8.44	44	52	35	4.20	0.40		0.17
3	0.17	2.04	9.18	16	7.72	33	63	33	4.10	0.40		0.17
4	0.17	3.70	17	17	7.36	19	119	31	3.80	0.42		0.20
5	0.17	2.30	14	19	7.00	20	120	30	3.60	0.45		0.22
6	0.12	1.40	15	20	7.00	19	90	28	3.40	0.45		0.20
7	0.15	1.05	15	21	7.54	18	77	27	3.10	0.45		0.30
8	0.12	4.56	15	21	14	29	73	25	3.00	0.47		1.05
9	0.12	8.44	15	21	11	18	93	24	2.90	0.45		1.05
10	0.10	3.70	17	20	8.26	15	95	22	2.90	0.62		0.82
11	0.10	2.04	15	25	8.26	12	90	20	2.80	0.58		0.62
12	0.07	1.88	16	32	7.54	11	90	19	2.70	0.50		0.50
13	0.07	1.80	17	42	6.68	14	94	17	2.50	0.47		0.47
14	0.05	1.35	13	43	8.08	17	94	15	2.12	1.20		0.45
15	0.05	1.20	12	47	14	24	101	14	2.04	1.05		0.40
16	0.05	1.35	11	47	21	82	99	13	1.96	0.86		0.35
17	0.05	1.64	11	45	30	199	96	12	1.88	0.78		0.30
18	0.62	1.72	10	39	18	140	115	11	1.80	0.70		0.27
19	2.40	2.80	9.75	35	12	91	96	9.94	1.56	0.66		0.37
20	1.10	2.20	9.56	30	11	75	81	9.37	1.30	0.58		0.27
21	0.58	1.35	8.99	26	8.99	65	74	8.99	1.10	0.50		0.27
22	0.37	1.72	28	23	7.72	55	68	8.44	0.90	0.47		0.27
23	0.40	3.30	22	21	9.18	70	62	7.90	0.82	0.45		0.25
24	0.32	4.80	14	21	8.80	114	62	7.54	0.70	0.40		0.25
25	0.27	5.40	12	23	7.70	75	71	6.68	0.66	0.35		0.22
26	0.30	11	20	19	7.72	53	60	6.04	0.63	0.35		0.20
27	0.22	11	32	16	7.90	47	54	5.28	0.63	0.35		0.20
28	0.42	12	25	15	10	44	50	5.04	0.54	0.35		0.17
29	0.42	20	28	14	9.75	41	46	4.68	0.50	0.32		0.17
30	0.32	17	28	12	21	39	43	4.32	0.47	0.32		0.17
31	-	15	-	10	32	-	40	-	0.45	0.30		0.15
Total	9.75	150.26	482.48	784	354.82	1,538	2,404	497.0	63.38	16.07		10.70
Mean	0.32	4.85	16.1	25.2	11.4	51.2	77.5	16.6	2.04	0.52		0.34
Max.	2.40	20	32	47	32	199	120	37	4.32	1.20		1.05
Min.	0.05	0.32	8.99	10	6.68	11	36	4.32	0.45	0.30		0.15
Runoff - mcm.	0.842	12.932	41.686	67.738	30.672	132.883	207.706	42.943	5.443	1.382		0.950

WATER YEAR 1964 : Max. 199 Min. - Mean - Annual Runoff - mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sept.17	8.00	150.50	208	Oct.4	14.00	149.65	140

WATER YEAR 1963  
CHEE RIVER BASIN

Nam Phong at Ubol Ratana Dam, Khon Kaen (E.31)

Location: Lat 16° - 46' - 23" N., Long 102° - 37' - 58" E., on left bank 100 meters downstream from Ubol Ratana Damsite, Amphoe Nam Phong, Khon Kaen.

Drainage Area: 12,104 sq.km. referred to AMS Map 1:50,000.

Type of Gage: Water - stage recorder.

Zero Gage at Bottom at: + 155.00 m. (M.S.L.)

Bench Mark: B.M. - H.S./R.I.D. No.123

Location:

Elevation: + 168.169 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: 1957 - 64.

Rating Operation:

Period of Rating: 1957 - 64.

Rated by Float: -

Rated by Current Meter: 1957 - 64.

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation due to its stability.

Overbank Flow Conditions: No overbank flow.

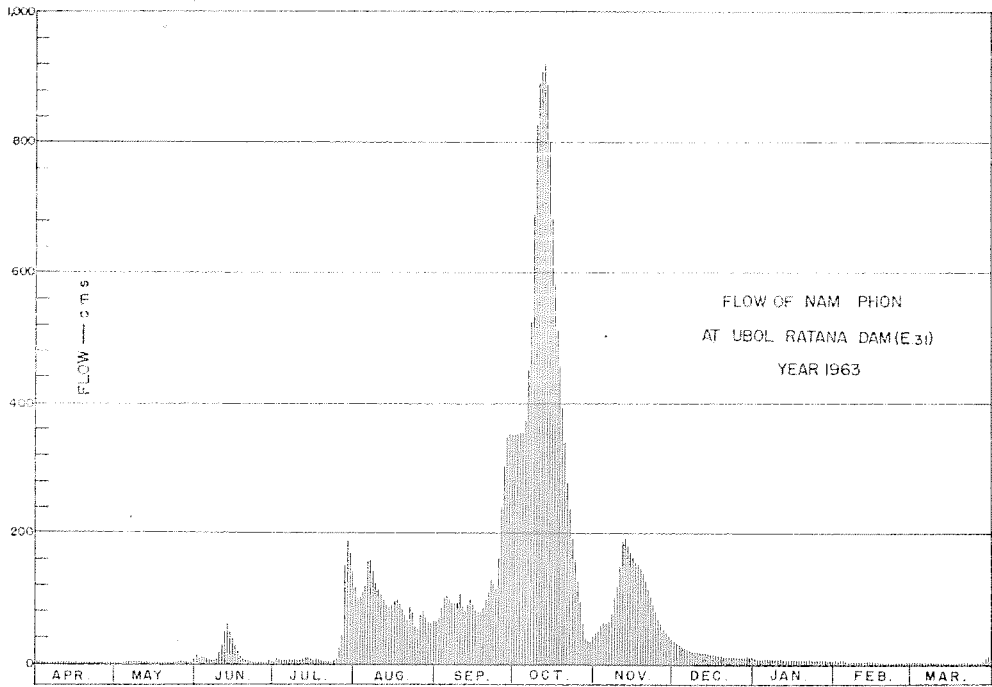
General Description: Records good. Stage - discharge relationship used by discharge measurements made during 1963. No diversions for irrigation above gage site.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	156.20	155.85	157.19	156.43	161.18	159.59	166.18	158.87	158.34	156.81	156.47	156.26
2	.34	.86	156.80	.03	160.70	.72	.20	159.10	.23	.76	.46	.25
3	.19	.85	.95	.67	.78	160.18	.22	.39	.04	.73	.57	.17
4	.10	.90	.91	.63	.92	.74	.18	.49	157.86	.74	.51	.13
5	.05	156.29	.75	.62	161.28	.87	.46	.50	.76	.75	.46	.05
6	156.04	156.30	156.55	156.55	162.29	160.65	162.28	159.58	157.66	156.72	156.45	156.11
7	.06	.17	.60	.59	.25	.52	168.04	.96	.56	.69	.41	.05
8	.09	.34	.47	.68	161.74	.48	.82	160.77	.49	.68	.37	.09
9	.21	.24	.66	.65	.53	.53	169.59	161.26	.45	.68	.34	.11
10	.15	.18	157.39	.62	.06	.88	.85	162.00	.43	.75	.28	.04
11	156.05	156.12	158.07	156.75	160.88	160.32	169.91	163.04	157.40	156.72	156.31	156.06
12	.07	.07	159.06	.74	.60	159.99	.94	.16	.37	.64	.31	.06
13	.04	.02	.50	.90	.38	160.35	.85	162.94	.35	.60	.32	.04
14	.02	155.97	158.84	.89	.30	.64	.58	.65	.31	.55	.32	.04
15	155.95	.92	.20	.80	.44	.33	.12	.37	.28	.55	.27	.00
16	155.96	155.90	157.91	156.64	160.60	160.14	168.55	162.18	157.28	156.52	156.21	155.98
17	.97	.86	.46	.74	.66	.08	167.93	.12	.24	.50	.29	156.06
18	.95	.84	.04	.72	.48	.07	.31	161.97	.20	.51	.17	.02
19	156.00	.87	156.79	.62	.21	.16	166.70	.80	.14	.50	.14	155.99
20	.04	156.04	.64	.50	159.84	.61	.01	.48	.07	.53	.20	156.08
21	155.95	156.01	156.47	156.41	159.55	160.90	165.12	161.08	157.05	156.34	156.19	156.07
22	.92	155.93	.38	.40	160.29	161.56	164.12	160.72	.04	.67	.31	.15
23	.92	.92	.29	.37	.06	.31	163.09	.34	.01	.56	.21	.07
24	.99	156.05	.29	.47	159.27	.06	162.28	.00	156.97	.55	.27	.04
25	.97	.38	.14	.55	.15	162.22	161.57	159.68	.94	.61	.37	.00
26	155.94	156.33	156.16	157.80	159.97	163.99	160.52	159.40	156.42	156.55	156.32	156.09
27	.94	.33	.34	158.42	160.11	165.41	159.29	.14	.90	.57	.28	.05
28	.97	.25	.29	162.01	159.77	166.11	158.57	158.88	.97	.51	.29	.05
29	.92	.19	.56	163.04	.59	.20	.27	.68	.98	.46	.29	.54
30	.89	.22	.37	162.62	.55	.19	.18	.51	.97	.47		157.08
31		.76		161.86	.60		.65		.85	.43		.01
Mean	156.08	156.18	157.04	157.47	160.52	161.44	155.46	160.67	157.36	156.61	156.32	156.15
Max.	156.34	156.76	159.50	163.04	162.29	166.20	169.94	163.16	158.34	156.81	156.57	157.08
Min.	155.89	155.84	156.14	156.37	159.15	159.59	158.18	158.51	156.85	156.43	156.14	155.98

WATER YEAR 1963 : Max. 169.94 m. Min. 155.43 m.





DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	1.80	0.10	13	3.67	115	64	351	46	34	7.92	4.03	2.28
2	2.86	0.12	7.80	8.16	98	68	352	51	32	7.28	3.94	2.15
3	1.73	0.10	9.65	6.17	101	81	353	58	28	6.89	5.07	1.59
4	1.10	0.20	9.13	5.73	106	100	351	61	25	7.02	4.41	1.31
5	0.84	2.43	7.15	5.62	119	104	371	61	23	7.15	3.94	0.84
6	0.79	2.50	4.85	4.85	158	97	443	63	21	6.76	3.85	1.17
7	0.89	1.59	5.40	5.29	156	92	524	75	20	6.39	3.49	0.84
8	1.05	2.86	4.03	6.28	136	91	641	101	18	6.28	3.13	1.05
9	1.87	2.08	6.06	5.95	120	92	812	118	18	6.28	2.86	1.17
10	1.45	1.66	17	5.62	111	105	887	146	17	7.15	2.36	0.79
11	0.84	1.24	29	7.15	105	86	908	188	17	6.76	2.59	0.89
12	0.94	0.94	50	7.02	95	76	919	192	16	5.84	2.59	0.89
13	0.79	0.68	61	9.00	87	86	887	183	16	5.40	2.68	0.79
14	0.68	0.47	45	8.88	85	96	809	172	15	4.85	2.68	0.79
15	0.39	0.28	31	7.80	89	86	699	161	15	4.85	2.29	0.58
16	0.43	0.20	26	5.84	95	80	592	153	15	4.52	1.89	0.50
17	0.47	0.12	18	7.02	97	78	511	151	14	4.30	2.43	0.89
18	0.39	0.08	11	6.76	91	78	446	145	13	4.41	1.59	0.68
19	0.58	0.14	7.67	5.62	82	81	390	138	12	4.30	1.38	0.54
20	0.79	0.79	5.84	4.30	71	95	339	126	11	4.63	1.60	1.00
21	0.39	0.63	4.03	3.49	62	105	286	112	11	4.74	1.73	0.94
22	0.28	0.51	3.22	3.40	85	129	235	99	11	6.17	2.59	1.45
23	0.28	0.28	2.43	3.13	78	120	190	86	10	4.96	1.87	0.94
24	0.54	0.84	2.43	4.03	55	111	157	76	9.91	4.85	2.29	0.79
25	0.47	3.22	1.38	4.85	52	155	129	66	9.52	5.51	3.13	0.58
26	0.35	2.77	1.52	24	75	228	92	58	9.26	4.85	2.68	1.05
27	0.35	2.77	2.86	36	79	301	56	52	9.00	5.07	2.36	0.84
28	0.47	2.15	2.43	146	69	346	39	46	5.91	4.41	2.43	0.84
29	0.28	1.73	5.18	188	64	352	33	41	10	3.94	2.43	4.74
30	0.18	1.94	3.13	171	62	351	31	38	9.91	4.03		11
31		7.28		140	64		41		8.40	3.67		10
Total	24.27	42.50	397.19	850.63	2,862	3,848	12,874	3,063	487.91	172.09	80.51	53.91
Mean	0.81	1.37	13.2	27.4	92.3	128	415	102	15.7	5.55	2.78	1.74
Max.	2.86	7.28	61	188	158	352	919	192	34	7.92	5.07	11
Min.	0.18	0.08	1.38	3.13	52	64	31	38	8.40	3.67	1.38	0.50
Runoff - mcm.	2.097	3.672	34.317	73.494	247.277	332.467	1,112.314	264.643	42.155	14.868	6.956	4.658

WATER YEAR 1963: Max. 919 Min. 0.08 Mean 67.6 Annual Runoff 2,138,919 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct.12	9.00	169.95	922				

WATER YEAR 1964  
CHEE RIVER BASIN

Nam Phong at Ban Husai Sai, Khon Kaen (E.31A)

Location: Lat 16°-46' - 20" N., Long 102°-38' - 02" E., on left bank at Ban Husai Sai, 500 meters downstream from the bridge crossing Nam Phong, on the road to Ubol Ratana Dam site, Amphoe Nam Phong, Khon Kaen.

Drainage Area: 12,109 sq.km. referred to AMS Map 1:50,000.

Type of Gage: Staff gage.

Zero Gage at Bottom at: + 155.00 m. (M.S.L.)

Bench Mark:

Location:  
Elevation:

Gage Reading Frequency: 3 - time daily readings at 06.00, 12.00 and 18.00 hours.

Basis of Mean Daily Gage Height: Arithmetic mean of 3 readings.

Period of Available Gage Records: 1964 - 65.

Rating Operation:

Period of Rating: 1965

Rated by Float: -

Rated by Current Meter: 1965

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

Overbank Flow Conditions: No overbank flow.

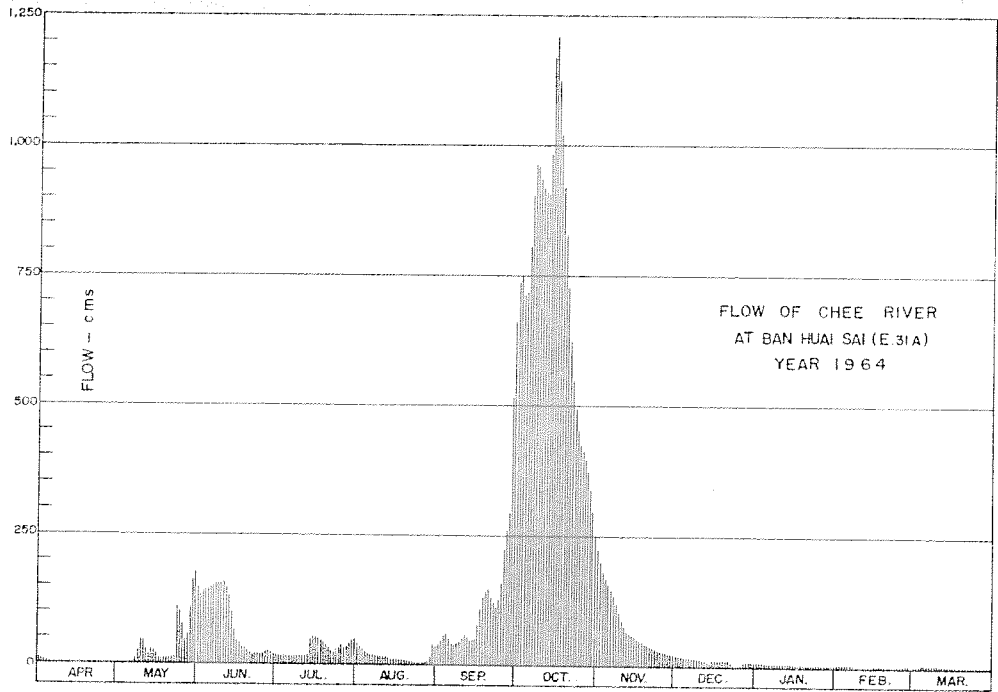
General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made for period 1964 - 65. No diversions for irrigation above gage site.

Remark: Gage height record for Apr. 1 - Aug. 31 were at station E.31, which is about 50 meters upstream from station E.31A.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	156.81	156.08	161.76	157.45	158.63	158.51	168.69	163.38	157.67	156.82	156.60	156.29
2	.61	.08	.37	.38	.37	.78	.74	162.93	.64	.83	.61	.27
3	.44	.09	.62	.36	.68	159.16	.60	.55	.58	.82	.61	.28
4	.32	.08	.64	.40	157.84	.36	.62	.23	.47	.79	.61	.59
5	.23	.08	.71	.37	.68	158.94	.98	161.96	.42	.76	.52	.52
6	156.15	156.11	161.74	157.34	157.62	158.61	169.33	161.71	157.36	156.76	156.52	156.47
7	.15	.20	.83	.31	.57	.48	.51	.46	.31	.75	.49	.44
8	.09	157.06	.95	.32	.52	.59	.50	.10	.26	.74	.34	.47
9	.10	.84	.96	.38	.45	.70	.43	160.62	.22	.74	.31	.48
10	.08	158.79	.97	.39	.41	.96	.38	.18	.16	.70	.31	.43
11	156.05	158.74	161.99	157.40	157.37	159.17	169.35	159.80	157.10	156.68	156.33	156.37
12	.05	157.90	.76	.41	.41	.04	.34	.52	.08	.66	.33	.35
13	.02	.36	.37	.53	.21	158.86	.57	.35	156.86	.68	.31	.35
14	155.99	.95	160.54	158.95	.05	.85	170.06	.27	.65	.65	.30	.34
15	156.66	.85	159.42	159.00	156.00	.88	.15	.15	157.05	.53	.29	.32
16	156.02	157.57	158.73	159.00	157.03	159.87	169.95	159.02	157.06	156.43	156.29	156.32
17	155.96	156.93	.61	158.89	156.99	160.81	.67	158.92	.07	.50	.33	.30
18	.96	.81	.13	.83	.93	161.41	.38	.80	.09	.57	.33	.28
19	.94	.91	.12	.66	.88	.66	.07	.66	.10	.56	.30	.27
20	156.00	.85	157.88	.46	.84	.73	168.66	.55	.07	.55	.28	.26
21	156.04	156.97	157.67	158.22	156.75	161.41	168.17	158.46	157.02	156.54	156.27	156.26
22	.04	.98	.54	157.89	.71	.09	167.65	.38	156.97	.52	.24	.23
23	.06	157.12	.54	.77	.59	160.89	.18	.28	.48	.56	.27	.20
24	.10	160.79	.51	158.08	.50	161.24	166.74	.18	.01	.57	.30	.19
25	.08	.55	.49	.22	.48	162.11	.45	.08	.03	.55	.32	.18
26	156.03	159.86	157.53	158.49	156.51	163.43	166.32	157.98	156.50	156.52	156.33	156.17
27	.02	158.71	.66	.24	.52	164.06	.15	.90	.70	.49	.32	.15
28	.09	159.18	.80	.33	.50	.63	165.82	.83	.84	.49	.32	.13
29	.05	160.79	.73	.55	157.22	167.43	.32	.79	.86	.48	.32	.14
30	.09	162.15	.59	.80	158.47	168.36	164.67	.79	.86	.49	.32	.13
31		.49		.92	.30		163.93		.82	.53		.08
Mean	156.12	157.96	159.67	158.05	157.27	160.77	168.53	159.65	157.01	156.62	156.37	156.30
Max.	156.81	162.49	161.99	159.13	158.63	168.36	170.15	163.38	157.67	156.83	156.61	156.59
Min.	155.94	156.08	157.49	157.31	156.48	158.48	163.93	157.79	156.01	156.43	156.24	156.08

WATER YEAR 1964 : Max. 170.15 m. Min. 155.94 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	10	1.90	148	20	45	42	735	223	24	10	7.00	3.90
2	7.15	1.90	133	19	38	48	747	200	23	10	7.15	3.70
3	5.40	1.95	143	18	32	58	713	181	22	10	7.15	3.80
4	4.20	1.90	144	19	27	64	718	168	20	9.85	7.15	6.90
5	5.30	1.90	146	18	24	52	806	156	19	9.40	6.20	6.20
6	2.50	2.10	148	18	23	44	904	146	18	9.40	6.20	5.70
7	2.50	3.00	151	18	22	44	963	136	18	9.25	5.90	5.40
8	1.95	14	155	18	21	44	960	122	17	9.10	4.40	5.70
9	2.00	27	156	19	20	46	936	104	16	9.10	4.10	5.80
10	1.90	49	157	19	19	53	920	88	15	8.50	4.10	5.30
11	1.75	47	158	19	18	58	910	77	14	8.20	4.30	4.70
12	1.75	28	148	19	19	55	907	69	14	7.90	4.30	4.50
13	1.60	18	133	21	16	50	984	63	11	8.20	4.10	4.50
14	1.45	29	101	53	14	50	1,169	61	7.75	7.75	4.00	4.40
15	1.80	27	66	57	12	51	1,209	58	14	6.30	3.90	4.20
16	1.60	22	47	54	13	79	1,123	54	14	5.30	3.90	4.20
17	1.30	12	44	51	13	110	1,019	52	14	6.00	4.30	4.00
18	1.30	10	33	50	12	134	920	49	14	6.70	4.30	3.80
19	1.20	12	33	45	11	144	828	45	14	6.60	4.00	3.70
20	1.50	11	28	40	11	147	727	43	14	6.50	3.80	3.60
21	1.70	12	24	35	9.25	134	626	40	13	6.40	3.70	3.60
22	1.70	13	20	28	8.65	122	549	38	12	6.20	3.40	3.30
23	1.80	15	21	26	6.90	114	495	36	5.80	6.60	3.70	3.00
24	2.00	110	21	32	6.00	128	452	34	1.55	6.70	4.00	2.90
25	1.90	101	20	35	5.80	162	425	32	1.65	6.50	4.20	2.80
26	1.65	79	21	41	6.10	225	414	30	6.00	6.20	4.30	2.70
27	1.60	47	24	35	6.20	261	398	28	8.50	5.90	4.20	2.50
28	1.95	58	26	37	6.00	295	374	27	11	5.90	4.20	2.30
29	1.75	110	25	43	16	520	339	26	11	5.80		2.40
30	1.95	164	22	49	41	662	297	26	11	5.90		2.30
31		179		52	36		253		10	6.30		1.90
<b>Total</b>	74.15	1,208.65	2,496	1,008	557.90	3,993	22,820	2,412	414.25	232.45	131.95	123.70
<b>Mean</b>	2.47	38.99	83.2	32.5	19.6	133.1	736	80.4	13.36	7.50	4.71	3.99
<b>Max.</b>	10	179	158	57	45	662	1,209	223	24	10	7.15	6.90
<b>Min.</b>	1.20	1.90	20	18	5.80	42	253	26	1.55	5.30	3.40	1.90
<b>Runoff - mcm.</b>	6.406	104.427	215.654	87.091	48.202	344.995	1,971.648	208.397	35.791	20.084	11.400	10.688

WATER YEAR 1964 : Max. 1,209 Min. 1.20 Mean 97.2 Annual Runoff 3,064.785 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 14	24.00	170.18	1,223				

**WATER YEAR 1963  
CHEE RIVER BASIN**

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

**Location:** Lat 15°-54' - 20" N., Long 101°-42' - 45" E., on left bank at Ban Nong O, 100 meters downstream from Wat Tha Sa-nga, Amphoe Ban Khwao, Chaiyaphum.

**Drainage Area:** 2,906 sq.km. referred to AMS Map 1:50,000.

**Type of Gage:** Staff gage.

**Zero Gage at Bottom at:** + 198.00 m. (M.S.L.)

**Bench Mark:** B.M. - E.32

**Location:** At the former camp of station E.32.

**Elevation:** + 210,748 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 to date.

Rated by Float: -

Rated by Current Meter: 1960 to date.

**Stability of Channel Regimes:** Rather unstable, shifting adjustment included for flow computation.

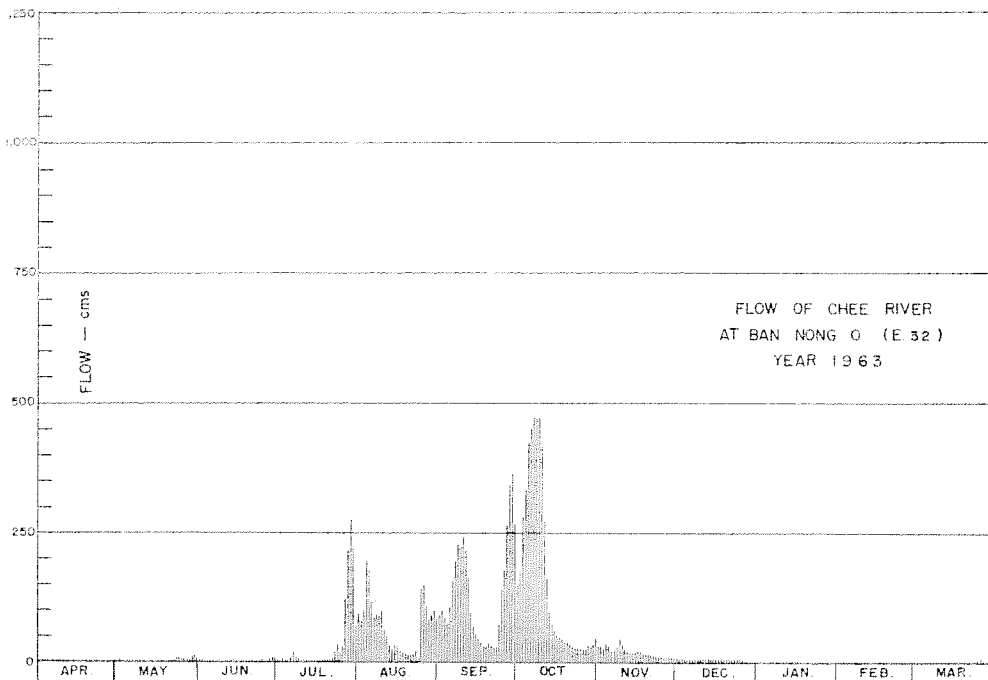
**Overbank Flow Conditions:** No overbank flow.

**General Description:** Records good. Stage - discharge relationship used by discharge measurements made during 1963. No diversions for irrigation above gage site.

**GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964**

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	198.83	198.98	199.13	199.04	203.51	202.86	205.84	200.50	199.33	199.00	198.86	198.81
2	.83	199.07	.08	.17	202.76	203.60	.89	.55	.31	198.99	.86	.81
3	.80	198.89	198.97	.31	203.66	202.98	207.51	.26	.29	.98	.86	.80
4	.80	.91	.91	.10	206.18	.44	206.32	.81	.27	.98	.85	.80
5	.81	.94	.88	.03	205.92	203.29	209.08	.47	.25	.98	.85	.79
6	198.80	198.87	198.89	199.38	204.09	205.37	209.55	200.10	199.23	198.98	198.85	198.79
7	.80	.89	.88	200.00	202.85	206.13	.72	.21	.22	.97	.85	.79
8	.79	.86	.87	199.56	.98	.81	.68	.49	.21	.97	.84	.78
9	.79	.83	.90	.35	203.15	.84	.72	201.27	.19	.96	.84	.83
10	.83	.80	.93	.15	.57	207.08	.47	200.70	.18	.96	.84	.84
11	198.85	198.77	198.93	199.10	202.58	206.94	208.36	200.22	199.20	198.95	198.84	198.78
12	.82	.80	.95	.22	201.50	205.55	206.10	.84	.20	.95	.84	.79
13	.79	.77	.98	.21	200.62	203.43	203.76	199.91	.17	.94	.83	.79
14	.77	.78	199.06	.12	.27	202.37	202.51	.88	.15	.94	.82	.79
15	.77	.75	.02	.01	.70	201.79	.01	200.00	.13	.93	.82	.78
16	198.78	198.78	198.91	199.07	200.54	201.34	201.67	200.03	199.12	198.93	198.82	198.77
17	.77	.79	.98	.10	.14	200.93	.40	.00	.11	.92	.82	.77
18	.75	.79	.89	.10	199.94	.63	.19	199.87	.10	.92	.81	.76
19	.78	.81	.87	.09	.80	.59	200.98	.76	.08	.91	.81	.76
20	.78	.97	.86	.22	.80	.83	.92	.73	.08	.91	.82	.80
21	198.77	199.02	198.84	199.15	199.68	200.65	200.68	199.68	199.06	198.90	198.96	198.78
22	.76	.12	.82	.18	.82	.44	.53	.60	.05	.90	.96	.76
23	.76	.37	.87	200.09	200.13	.47	.45	.56	.04	.90	199.02	.78
24	.76	.38	.85	.83	203.12	202.37	.34	.50	.04	.89	198.90	.76
25	.77	198.98	199.24	199.91	204.92	204.78	.26	.46	.03	.89	.86	.94
26	198.75	199.23	199.01	200.54	205.17	205.51	200.21	199.43	199.03	198.88	198.83	199.24
27	.75	.06	198.90	204.32	203.85	207.11	.26	.41	.02	.88	.82	198.95
28	.76	.03	199.08	206.67	202.67	208.40	.59	.39	.02	.87	.82	.84
29	.90	.47	.45	207.54	203.01	.74	.55	.36	.01	.87	.82	.81
30	.86	.61	.19	206.74	.67	.14	.75	.34	.00	.86	.80	.80
31		.23		203.35	.06		201.31		.00	.86	.83	.83
Mean	198.79	198.98	198.97	200.41	202.38	203.95	203.86	199.98	199.13	198.93	198.85	198.82
Max.	198.90	199.61	199.45	207.54	206.18	208.74	209.72	201.27	199.33	199.00	199.02	199.24
Min.	198.75	198.75	198.82	199.01	199.68	200.44	200.21	199.34	199.00	198.86	198.81	198.76

WATER YEAR 1963 : Max. 209.72 m. Min. 198.75 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	1.26	3.62	6.71	5.08	95	94	150	31	10	4.50	2.18	1.53
2	1.26	5.69	5.86	7.39	81	102	179	32	9.77	4.32	2.18	1.53
3	0.90	1.98	3.43	9.77	105	86	285	27	9.43	4.14	2.18	1.40
4	0.90	2.29	2.29	6.20	198	73	333	37	9.09	4.14	2.05	1.40
5	1.02	2.86	1.86	4.81	180	108	421	31	8.75	4.14	2.05	1.31
6	0.90	1.74	1.98	11	116	158	451	24	8.41	4.14	2.05	1.31
7	0.90	1.98	1.86	22	87	192	475	26	8.24	3.96	2.05	1.31
8	0.84	1.62	1.74	14	94	227	468	31	8.07	3.96	1.92	1.22
9	0.84	1.26	2.10	10	91	225	473	47	7.73	3.78	1.92	1.79
10	1.26	0.90	2.67	7.05	101	244	415	35	7.56	3.78	1.92	1.92
11	1.50	0.73	2.67	6.20	67	217	274	26	7.90	3.60	1.92	1.22
12	1.14	0.90	3.05	8.24	52	165	155	23	7.90	3.60	1.92	1.31
13	0.84	0.73	3.62	8.07	34	98	91	20	7.39	3.42	1.79	1.31
14	0.73	0.79	5.52	6.54	27	72	75	20	7.05	3.42	1.66	1.31
15	0.73	0.62	4.54	4.27	35	56	60	22	6.71	3.24	1.66	1.22
16	0.79	0.79	2.29	5.69	32	49	54	22	6.54	3.24	1.66	1.13
17	0.73	0.84	3.62	6.20	24	40	50	22	6.37	3.06	1.66	1.13
18	0.62	0.84	1.98	6.20	21	34	45	19	6.20	3.06	1.53	1.05
19	0.79	1.02	1.74	6.03	18	33	41	17	5.86	2.88	1.53	1.05
20	0.79	3.43	1.62	8.24	18	38	40	17	5.86	2.88	1.66	1.40
21	0.73	4.54	1.38	7.05	16	34	35	16	5.52	2.70	3.78	1.22
22	0.68	6.54	1.14	7.56	19	30	32	15	5.35	2.70	3.78	1.05
23	0.68	11	1.74	24	24	31	30	14	5.18	2.70	4.84	1.22
24	0.68	11	1.50	38	12	72	28	13	5.18	2.57	2.70	1.05
25	0.73	3.62	8.58	20	142	145	27	12	5.01	2.57	2.18	3.42
26	0.62	8.41	4.27	32	150	180	26	12	5.01	2.44	1.79	9.26
27	0.62	5.52	2.10	125	109	265	27	11	4.84	2.44	1.66	3.60
28	0.66	4.81	5.86	216	81	344	33	11	4.84	2.31	1.66	1.92
29	2.10	12	12	276	96	364	32	11	4.67	2.31	1.66	1.53
30	1.62	15	7.73	220	104	268	36	10	4.50	2.18	1.40	1.40
31		8.41		70	85		48		4.50	2.18		1.79
Total	27.88	125.48	107.45	1,196.59	2,312	4,044	4,885	654	209.43	100.36	61.54	54.31
Mean	0.93	4.05	3.58	38.6	74.5	135	157	21.8	6.75	3.24	2.12	1.75
Max.	2.10	15	12	276	198	364	473	47	10	4.50	4.84	9.26
Min.	0.62	0.62	1.14	4.27	12	30	26	10	4.50	2.18	1.53	1.05
Runoff - ccm.	2.409	10.841	9.284	103.385	199.757	349.402	422.064	56.506	18.095	8.671	5.317	4.692

WATER YEAR 1963 : Max. 473 Min. 0.62 Mean 37.6 Annual Runoff 1,190.423 ccm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 31	09.00	201.62	473	Jul. 29	15.00	199.72	268

WATER YEAR 1964  
CHEE RIVER BASIN

Chee River at Ban Nong 0, Chaiyaphum (E.32)

Location: Lat 15° - 54' - 20" N., Long 101° - 42' - 45" E., on left bank at Ban Nong 0, 100 meters downstream from Wat Tha Sa-nga, Amphoe Ban Khwao, Chaiyaphum.

Drainage Area: 2,906 sq.km. referred to AMS Map 1:50,000.

Type of Gage: Staff gage.

Zero Gage at Bottom at: + 198.00 m. (M.S.L.)

Bench Mark: B.M. - E.32

Location: At the former camp of station E.32  
Elevation: + 210.748 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 to date.

Rated by Float: -

Rated by Current Meter: 1960 to date.

Stability of Channel Regimes: Rather unstable, shifting adjustment and periodic rating curves are used for flow computation.

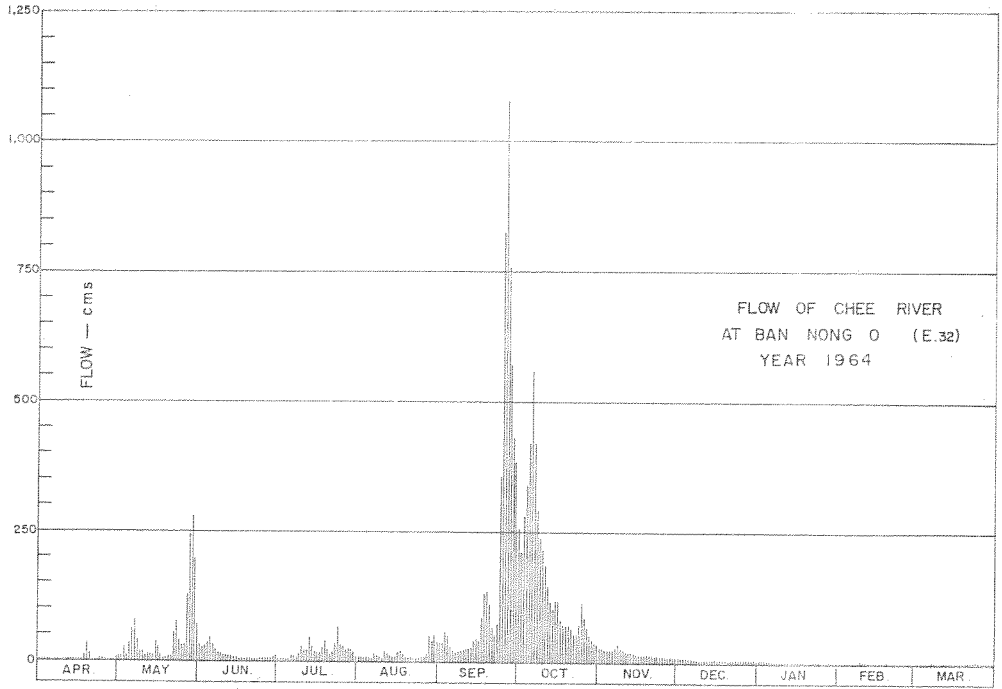
Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage - discharge relationship used by discharge measurements made during 1964. No diversions for irrigation above gage site.

**GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965**

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	198.81	199.32	200.58	199.14	199.44	200.65	207.93	200.65	199.55	199.19	198.99	198.93
2	.78	.31	.33	.09	.43	.77	206.35	.58	.54	.18	.98	.92
3	.77	200.12	.37	.06	.33	201.65	207.44	.49	.53	.17	.98	.92
4	.76	199.43	.67	.05	.30	.35	208.73	.42	.52	.16	.97	.91
5	.76	201.00	201.02	.12	.27	200.32	209.71	.36	.51	.15	.97	.91
6	198.75	201.07	200.42	199.50	199.22	200.00	210.12	200.31	199.49	199.14	198.97	198.93
7	.74	202.63	199.96	.34	.58	199.84	209.62	.72	.47	.13	.97	199.23
8	.74	200.77	.75	.25	.52	.99	208.62	.84	.44	.12	199.04	.08
9	.70	199.89	.56	.76	.30	200.02	207.28	.53	.43	.11	.27	198.96
10	.78	.84	.46	200.40	.21	.28	206.58	.34	.41	.10	.22	.92
11	198.81	199.39	199.50	199.90	199.92	200.06	206.25	200.25	199.40	199.09	199.16	198.91
12	.89	.58	.39	.87	.69	.27	205.51	.20	.39	.09	.14	.90
13	.93	.50	.40	201.23	.44	.37	204.60	.13	.37	.08	.01	.89
14	.96	.40	.31	200.35	.32	.88	203.61	.07	.35	.08	.01	.90
15	.80	200.76	.25	199.82	.39	201.12	204.28	.00	.34	.07	.01	.87
16	198.75	200.33	199.20	199.66	199.90	200.84	204.67	199.95	199.33	199.07	199.05	198.87
17	.94	199.45	.17	.94	200.05	202.97	202.90	.91	.31	.07	.04	.86
18	200.61	.21	.16	200.39	199.61	204.29	.24	.89	.29	.06	.09	.86
19	199.55	.16	.12	.78	.43	.57	.23	.91	.28	.05	.16	.85
20	198.96	.37	.09	199.88	.33	203.65	.19	.90	.27	.04	.00	.85
21	198.85	199.32	199.06	199.59	199.28	202.37	202.02	199.88	199.26	199.03	198.98	198.86
22	.82	201.06	.04	.83	.22	201.47	201.60	.83	.25	.03	.98	.86
23	.91	202.48	.03	200.63	.24	202.25	.65	.77	.25	.03	.97	.85
24	.84	200.86	.21	202.03	.36	207.78	202.31	.73	.24	.02	.93	.85
25	199.07	.33	.26	200.42	.37	210.68	203.77	.70	.23	.02	.92	.84
26	198.94	200.47	199.15	200.37	199.34	211.11	202.79	199.67	199.22	199.02	198.92	198.83
27	.89	203.27	.10	.02	.67	210.68	.06	.64	.21	.01	.92	.81
28	.89	206.74	.25	.14	201.29	.24	201.55	.61	.20	.01	.91	.81
29	.95	207.67	.39	.04	200.91	209.71	.24	.59	.20	.00	.81	.81
30	.84	205.98	.28	199.79	201.39	.10	.00	.54	.19	.00	.80	.80
31		202.10		.55	200.73		200.84			198.99		.80
Mean	198.93	200.96	199.55	199.93	199.66	203.31	204.57	200.08	199.35	199.07	199.02	193.89
Max.	200.61	207.67	201.02	202.03	201.39	211.11	210.12	200.84	199.55	199.19	199.27	199.23
Min.	198.70	199.16	199.03	199.05	199.21	199.84	200.84	199.54	199.19	198.99	198.91	198.80

WATER YEAR 1964 : Max. 211.11 m. Min. 198.70 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	1.57	11	33	8.12	13	38	257	32	11	5.58	3.10	2.49
2	1.22	11	28	7.17	13	40	212	30	11	5.44	3.00	2.38
3	1.14	27	32	6.48	11	60	281	28	11	5.31	3.00	2.38
4	1.05	13	38	6.25	11	53	367	27	11	5.17	2.89	2.28
5	1.05	45	46	7.76	10	31	423	26	11	5.03	2.89	2.28
6	0.96	67	33	15	9.56	24	557	25	10	4.89	2.89	2.49
7	0.87	83	24	12	16	21	422	33	10	4.75	2.89	6.25
8	0.87	40	19	10	15	24	293	36	10	4.62	6.97	2.79
9	0.52	22	16	20	11	25	237	29	9.15	4.48	6.97	2.79
10	1.22	21	14	33	9.38	30	218	25	9.15	4.34	6.08	2.58
11	1.57	13	15	22	23	26	187	23	9.00	4.23	5.17	2.28
12	2.89	16	13	22	18	30	143	23	7.85	4.23	4.89	2.18
13	3.67	15	13	50	13	32	118	21	7.55	4.11	3.31	2.09
14	4.28	13	11	32	11	43	101	20	7.25	4.11	3.31	2.18
15	1.40	40	10	21	13	48	120	19	7.10	4.00	3.31	1.91
16	0.96	31	9.20	18	22	42	118	18	7.95	4.00	3.77	1.91
17	3.88	14	8.66	23	25	92	84	17	7.65	4.00	3.66	1.82
18	37	9.38	8.48	32	17	134	73	17	7.32	3.88	4.23	1.82
19	15	8.48	7.76	41	13	136	72	17	7.14	3.77	5.17	1.73
20	4.28	12	7.17	22	11	112	71	17	7.97	3.66	3.20	1.73
21	2.23	11	6.48	16	11	69	66	16	6.79	3.54	3.00	1.82
22	1.73	58	6.02	21	9.56	54	55	16	6.61	3.54	3.00	1.82
23	3.26	79	5.79	37	9.92	73	56	15	6.61	3.54	2.89	1.73
24	2.06	42	9.38	68	12	357	75	14	6.43	3.43	2.49	1.73
25	6.71	31	10	33	12	825	116	14	6.25	3.43	2.38	1.64
26	3.88	34	8.30	32	12	1,076	87	13	6.08	3.43	2.38	1.55
27	2.89	134	7.40	25	18	758	67	13	6.08	3.31	2.38	1.37
28	2.89	245	10	27	52	573	53	12	5.90	3.31	2.28	1.37
29	4.08	279	13	25	43	432	45	12	5.72	3.20		1.37
30	2.06	193	11	20	54	358	40	11	5.58	3.20		1.28
31		70	15	15	40		36			3.10		1.28
Total	117.19	1,687.86	473.64	727.78	558.42	5,616	5,050	619	242.03	126.72	98.19	66.44
Mean	3.91	54.4	15.8	23.5	18.0	187	163	20.6	8.07	4.09	3.51	2.14
Max.	37	279	46	68	54	1,076	557	36	11	5.58	6.97	6.25
Min.	0.52	8.48	5.79	6.25	9.38	21	36	11	5.58	3.10	2.28	1.28
Runoff - mm.	10.125	145.831	40.922	62.880	48.247	485.222	436.320	53.482	20.911	10.949	8.484	5.740

WATER YEAR 1964 : Max. 1,076 Min. 0.52 Mean 42.1 Annual Runoff 1,329,114 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sept. 26	09.00	211.21	1,217				

WATER YEAR 1963  
CHEE RIVER BASIN

Nam Yang at Ban Nong Saeng Thung, Roi Et (E.33A)

Location: Lat 16° - 19' - 31" N., Long 104° - 01' - 17" E., on left bank 1 kilometer south - east of Ban Nong Saeng Thung, 2 kilometers south - west of Ban Nong Doen, Amphoe Phon Thong, Roi Et.

Drainage Area: 2,061 sq.km. referred to AMS Map 1:50,000.

Type of Gage: Staff gage.

Zero Gage at Bottom at: + 133.97 m. (M.S.L.)

Bench Mark: B.M. - E.33A

Location: At the foot of the flag pole at station E.33A.

Elevation: + 143.700 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: 1961 to date.

Rated by Float: -

Rated by Current Meter: 1961 to date.

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

Overbank Flow Conditions: No overbank flow.

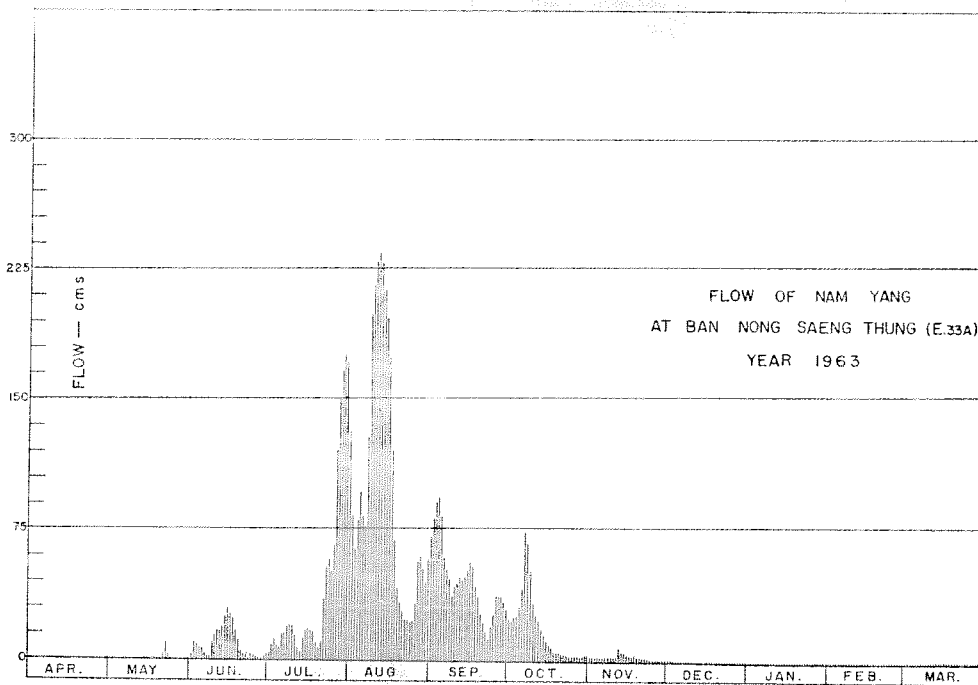
General Description: Records good. Stage - discharge relationship used by discharge measurements made during 1963. No diversions for irrigation above gage site.

**GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964**

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	134.65	134.53	135.27	135.14	139.51	137.67	136.21	135.08	134.86	134.73	134.65	134.60
2	.64	.53	.55	.48	138.00	.98	.04	.06	.85	.74	.64	.59
3	.63	.53	.43	.63	137.59	138.28	.13	.05	.82	.67	.64	.58
4	.63	.53	.37	.41	138.04	.31	.24	.03	.80	.71	.63	.60
5	.62	.55	.34	.40	.57	137.96	.46	.03	.81	.71	.63	.59
6	134.61	134.57	135.05	135.70	138.08	137.38	136.69	135.00	134.79	134.70	134.62	134.59
7	.60	.56	134.95	.69	.13	.13	137.77	.03	.79	.72	.63	.59
8	.60	.56	.92	.86	140.10	136.99	.86	.02	.77	.66	.63	.58
9	.59	.55	135.50	.92	141.31	.64	.15	.06	.77	.70	.66	.58
10	.57	.54	.60	.91	.61	.77	136.64	.03	.78	.68	.64	.58
11	134.57	134.54	135.72	135.62	141.66	136.84	136.30	135.08	134.77	134.69	134.62	134.58
12	.58	.54	.71	.29	.74	137.05	.05	.40	.76	.64	.61	.58
13	.59	.53	.82	.17	.62	.00	135.83	.29	.76	.69	.63	.57
14	.58	.53	136.05	.60	.33	.07	.70	.22	.72	.68	.62	.56
15	.58	.52	.27	.73	.07	.12	.56	.16	.75	.67	.62	.56
16	134.57	134.52	136.16	135.74	140.61	137.29	135.45	135.12	134.77	134.67	134.61	134.57
17	.57	.52	.03	.71	139.57	.18	.36	.05	.74	.66	.61	.57
18	.56	.52	135.89	.65	138.16	136.80	.30	.11	.73	.66	.62	.56
19	.56	.52	.60	.47	137.27	.54	.28	.09	.74	.65	.62	.56
20	.55	.73	.29	.28	136.69	.30	.26	.03	.76	.66	.62	.56
21	134.55	135.06	135.15	135.40	136.47	136.08	135.21	134.96	134.76	134.66	134.62	134.56
22	.54	.50	.03	136.68	.20	135.86	.17	.93	.74	.66	.60	.55
23	.54	.04	.02	137.32	.18	.68	.13	.93	.73	.66	.61	.55
24	.54	134.87	.18	.46	.11	.93	.14	.91	.74	.67	.61	.58
25	.53	.79	.09	.23	.11	136.25	.12	.90	.74	.67	.60	.65
26	134.53	134.76	135.00	137.44	136.45	136.76	135.11	134.90	134.72	134.66	134.59	134.62
27	.53	.72	134.95	139.03	137.31	.75	.12	.90	.72	.66	.58	.61
28	.54	.81	.96	.65	.63	.70	.07	.87	.72	.65	.58	.59
29	.54	.78	135.01	140.14	.35	.62	.11	.86	.72	.66	.59	.63
30	.52	.82	.16	.36	.06	.43	.16	.85	.71	.65	.63	.63
31		.86		.25	.26		.13		.72	.65	.64	.64
Mean	134.57	134.67	135.40	136.53	138.54	136.91	135.80	135.03	134.76	134.67	134.62	134.58
Max.	134.65	135.50	136.27	140.36	141.74	138.31	137.86	135.40	134.86	134.74	134.66	134.65
Min.	134.52	134.52	134.92	135.14	136.11	135.68	135.07	134.85	134.71	134.64	134.58	134.55

WATER YEAR 1963 : Max. 141.74 m. Min. 134.52 m.





DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.03	0.00	3.00	3.60	140	72	24	2.90	1.07	0.25	0.12	0.03
2	0.02	0.00	10	8.82	75	82	23	2.71	1.02	0.38	0.10	0.02
3	0.01	0.00	8.28	12	62	92	25	2.62	0.86	0.17	0.10	0.01
4	0.01	0.00	7.20	7.56	79	94	26	2.43	0.58	0.27	0.07	0.03
5	0.00	0.01	6.73	7.38	97	82	31	2.14	0.62	0.27	0.07	0.02
6	0.02	0.03	3.00	15	80	59	41	1.89	0.54	0.25	0.05	0.02
7	0.01	0.02	2.05	15	74	52	74	2.14	0.62	0.30	0.07	0.02
8	0.01	0.02	1.08	19	144	47	68	2.14	0.54	0.07	0.07	0.01
9	0.00	0.01	9.97	20	199	37	46	2.52	0.54	0.17	0.15	0.01
10	0.00	0.00	14	20	215	42	33	2.24	0.58	0.12	0.10	0.01
11	0.01	0.00	17	14	230	44	25	2.71	0.46	0.15	0.05	0.01
12	0.02	0.00	17	7.20	235	48	23	7.56	0.42	0.10	0.04	0.01
13	0.03	0.00	19	4.34	228	46	18	5.80	0.46	0.22	0.07	0.01
14	0.04	0.00	25	12	212	48	15	4.78	0.27	0.17	0.05	0.00
15	0.04	0.00	30	17	197	52	12	3.96	0.38	0.15	0.05	0.00
16	0.03	0.00	27	18	175	57	9.58	3.48	0.50	0.20	0.04	0.01
17	0.03	0.00	24	17	118	54	7.92	2.71	0.38	0.17	0.04	0.01
18	0.02	0.00	17	16	69	43	5.21	3.36	0.34	0.17	0.05	0.00
19	0.02	0.00	11	10	42	37	4.92	2.81	0.38	0.15	0.05	0.00
20	0.01	0.54	5.50	7.04	33	26	4.92	2.24	0.46	0.12	0.05	0.00
21	0.01	2.90	3.24	7.38	28	21	4.20	1.80	0.46	0.12	0.05	0.00
22	0.00	9.58	2.05	36	21	16	3.72	1.56	0.38	0.12	0.03	0.00
23	0.00	2.43	1.97	54	21	12	3.24	1.56	0.38	0.12	0.04	0.00
24	0.00	0.58	3.84	58	22	20	2.81	1.39	0.34	0.15	0.04	0.02
25	0.00	0.10	2.81	51	22	27	2.62	1.31	0.34	0.15	0.03	0.04
26	0.00	0.04	1.80	66	33	37	2.81	1.12	0.27	0.12	0.02	0.01
27	0.00	0.00	1.39	121	57	37	2.90	1.31	0.27	0.12	0.01	0.00
28	0.00	0.15	1.48	145	60	37	2.43	1.12	0.27	0.10	0.01	0.00
29	0.00	0.07	1.89	167	52	34	2.81	0.91	0.27	0.12	0.02	0.02
30	0.00	0.17	3.36	177	43	29	3.84	0.86	0.20	0.10	0.02	0.02
31	0.00	0.27	172	172	59		3.48		0.22	0.10		0.03
Total	0.37	16.92	282.36	1,305.32	3,122	1,384	551.41	76.08	14.42	5.17	1.64	0.37
Mean	0.01	0.54	9.41	42.1	101	46.1	17.8	2.53	0.46	0.17	0.06	0.01
Max.	0.04	9.58	30	177	235	94	74	7.56	1.07	0.38	0.15	0.04
Min.	0.00	0.00	1.39	3.60	21	12	2.43	0.86	0.20	0.07	0.01	0.00
Runoff - mcm.	0.032	1.462	24.396	112.780	269.741	119.578	47.643	6.573	1.446	0.447	0.142	0.032

WATER YEAR 1963 : Max. 235    Min. 0.00    Mean 18.5    Annual Runoff 584.069 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Aug. 12	16.00	141.76	239				

WATER YEAR 1964  
CHEE RIVER BASIN

Nam Yang at Ban Nong Saeng Thung, Roi Et. (E. 33A)

Location: Lat 16° - 19' - 31" N, Long 104° - 01' - 17" E, on left bank 1 kilometer south - east of Ban Nong Saeng Thung, 2 kilometers south - west of Ban Nong Doen, Amphoe Phon Thong, Roi Et.

Drainage Area: 2,061 sq.km. referred to AMS Map 1:50,000.

Type of Gage: Water - stage recorder.

Zero Gage at Bottom at: + 133.97 m. (M.S.L.)

Bench Mark: B.M. - E.33A

Location: At the foot of the flag pole at station E. 33 A.  
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 to date.

Rated by Float: -

Rated by Current Meter: 1961 to date.

Stability of Channel Regimes: Stable, shifting adjustment and periodic rating curves are used for flow computation.

Overbank Flow Conditions: No overbank flow.

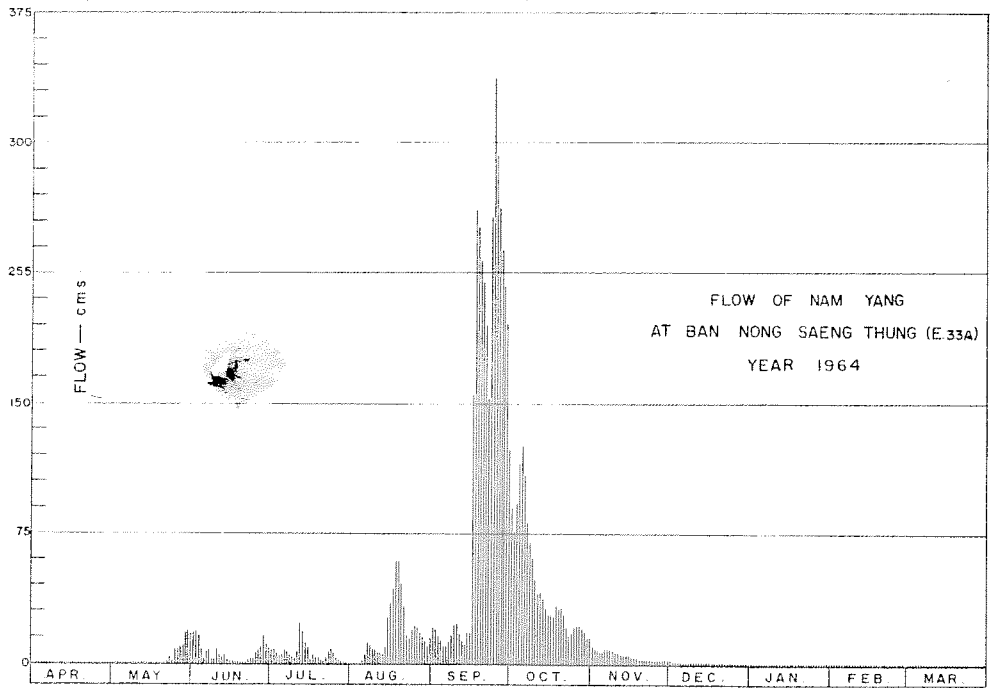
General Description: Records good. Stage - discharge relationship used by discharge measurements made during 1963. No diversions for irrigation above gage site.

Remark: Water - stage recorder began to operate on Aug. 17, 1964. The previous record staff gage readings.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	134.64	134.62	135.82	135.39	134.77	136.13	138.79	135.52	134.90	134.71	134.64	134.60
2	.64	.68	.88	.41	.82	.09	.12	.44	.82	.69	.63	.60
3	.65	.80	.76	.24	.79	135.94	.40	.40	.81	.70	.63	.60
4	.72	.76	.45	.17	.78	.72	139.09	.35	.83	.70	.63	.64
5	.77	.76	.28	.21	.98	.56	.40	.35	.80	.70	.65	.67
6	134.73	134.71	135.40	135.33	135.28	135.48	138.94	135.42	134.79	134.70	134.64	134.64
7	.69	.67	.36	.31	.62	.58	.36	.43	.79	.69	.67	.62
8	.66	.72	.23	.23	.55	.80	136.83	.41	.78	.68	.64	.60
9	.64	.75	.21	.13	.43	136.06	.50	.39	.78	.69	.64	.60
10	.65	.71	.42	.05	.41	.11	.08	.35	.77	.68	.62	.60
11	134.64	134.68	135.20	135.00	135.27	135.84	136.86	135.29	134.80	134.68	134.65	134.58
12	.64	.87	.14	136.06	.29	.63	.83	.22	.78	.66	.63	.58
13	.63	.87	.19	135.93	.21	.54	.63	.15	.76	.65	.62	.58
14	.62	.74	.06	.57	.48	.83	.42	.15	.75	.65	.63	.57
15	.62	.74	134.97	.45	136.21	.83	.30	.14	.75	.65	.61	.56
16	134.62	134.73	134.92	135.30	136.61	139.93	136.26	135.08	134.74	134.64	134.61	134.56
17	.62	.73	.96	.28	.82	142.14	.20	.04	.74	.65	.63	.56
18	.62	.71	.88	.19	137.42	.04	.42	.03	.74	.63	.62	.55
19	.62	.66	.84	.15	.46	141.79	.34	.00	.73	.70	.62	.53
20	.62	.70	.82	.09	.04	.62	.38	134.98	.72	.68	.61	.54
21	134.63	134.75	134.76	135.01	136.54	141.19	136.21	134.96	134.72	134.67	134.61	134.54
22	.62	.88	135.05	.14	135.92	140.27	135.93	.95	.71	.66	.59	.56
23	.62	135.16	.04	.36	.74	142.03	.74	.93	.72	.65	.59	.55
24	.62	134.93	.02	.41	.85	.99	.80	.92	.73	.65	.60	.55
25	.61	135.36	.27	.29	.98	.40	.98	.90	.72	.63	.61	.55
26	134.61	135.36	135.34	135.12	135.95	142.03	135.96	134.88	134.71	134.63	134.64	134.55
27	.61	.44	.45	.03	.83	141.68	.98	.91	.71	.59	.62	.53
28	.62	.44	.74	134.95	.70	.32	.91	.89	.72	.64	.61	.54
29	.62	.82	.49	.93	.65	140.79	.79	.93	.72	.64	-	.53
30	.62	.87	.45	.89	.59	139.90	.68	.92	.75	.64	-	.53
31	-	.78	-	.84	.87	-	.66	-	.69	.64	-	.52
Mean	134.64	134.95	135.25	135.24	135.77	138.47	136.86	135.14	134.76	134.66	134.62	134.57
Max.	134.77	135.87	135.88	136.06	137.46	142.99	139.40	135.52	134.90	134.71	134.67	134.67
Min.	134.61	134.62	134.76	134.84	134.77	135.48	135.66	134.88	134.69	134.59	134.59	134.52

WATER YEAR 1964 : Max. 142.99 m. Min. 134.52 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.15	0.10	18	7.79	0.37	21	89	10	1.90	0.66	0.52	0.16
2	0.15	0.37	19	8.16	0.54	20	75	8.53	1.34	0.56	0.67	0.16
3	0.17	0.61	16	6.02	0.44	16	92	7.85	1.27	0.60	0.67	0.16
4	0.37	0.33	7.98	4.90	0.40	13	115	6.60	1.41	0.72	0.67	0.36
5	0.54	0.33	5.06	5.54	1.77	10	125	6.60	1.20	0.72	0.69	0.48
6	0.40	0.20	7.05	7.61	5.70	10	108	8.19	1.14	0.72	0.52	0.36
7	0.27	0.10	7.61	7.24	12	12	88	8.36	1.14	0.66	0.66	0.28
8	0.20	0.22	5.38	5.86	11	16	70	8.02	1.08	0.60	0.52	0.20
9	0.15	0.30	5.06	4.30	8.96	22	60	7.68	1.08	0.66	0.52	0.20
10	0.17	0.20	8.76	3.17	8.96	23	47	6.92	1.02	0.60	0.44	0.16
11	0.15	0.25	4.90	2.25	6.34	17	40	6.04	1.20	0.60	0.56	0.12
12	0.15	1.10	4.00	23	6.50	13	41	5.07	1.27	0.52	0.48	0.12
13	0.12	1.10	4.75	19	5.22	11	36	4.55	1.14	0.48	0.44	0.12
14	0.10	0.30	2.94	12	9.78	18	31	4.81	1.08	0.48	0.48	0.10
15	0.10	0.30	1.96	9.99	26	18	28	4.68	1.08	0.48	0.24	0.08
16	0.10	0.27	1.49	2.25	35	154	28	3.90	1.02	0.44	0.24	0.08
17	0.10	0.27	1.04	5.54	43	261	27	3.48	1.02	0.48	0.32	0.08
18	0.10	0.22	0.58	3.85	59	251	33	3.37	1.02	0.48	0.28	0.08
19	0.10	0.10	0.97	3.28	59	232	31	2.56	0.96	0.84	0.28	0.04
20	0.10	0.20	0.84	2.59	46	219	32	2.37	0.72	0.72	0.18	0.06
21	0.12	0.33	0.54	1.77	33	193	28	2.47	0.72	0.66	0.18	0.06
22	0.10	1.04	2.94	3.55	16	148	21	2.37	0.66	0.60	0.14	0.10
23	0.10	4.00	2.82	7.05	14	237	16	2.18	0.72	0.56	0.14	0.08
24	0.10	1.39	2.59	8.96	19	337	17	2.09	0.78	0.56	0.16	0.08
25	0.07	8.16	6.34	6.68	22	292	21	1.90	0.72	0.40	0.18	0.08
26	0.07	8.16	7.61	3.70	21	262	22	1.76	0.66	0.40	0.28	0.08
27	0.07	9.78	9.78	2.36	18	238	22	1.99	0.66	0.24	0.20	0.04
28	0.10	9.78	16	1.58	15	216	20	1.83	0.72	0.52	0.18	0.06
29	0.10	18	11	1.39	13	195	18	2.18	0.72	0.52	-	0.04
30	0.10	19	8.96	1.10	10	123	15	2.09	0.90	0.52	-	0.04
31	-	17	-	0.65	15	-	15	-	0.56	0.52	-	0.02
Total	4.62	103.51	191.95	183.13	541.98	3,598	1,411	140.44	30.91	16.56	10.84	4.08
Mean	0.15	3.34	6.40	5.91	17.5	120	45.5	4.68	1.00	0.56	0.39	0.13
Max.	0.54	19	19	23	59	337	125	10	1.90	0.84	0.69	0.48
Min.	0.07	0.10	0.54	0.65	0.37	10	15	1.76	0.56	0.24	0.14	0.02
Runoff	0.399	8.943	16.585	15.822	46.827	310.867	121.910	12.134	2.671	1.431	0.936	0.352

WATER YEAR 1964 : Max. 337 Min. 0.02 Mean 17.1 Annual Runoff 538,878 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sept. 24	3.00	143.20	359				

WATER YEAR 1963  
CHEE RIVER BASIN

Lam Pao at Ban Nong Song Hong, Kalasin. (E. 34)

Location: Lat  $16^{\circ} - 35' - 52''$  N, Long  $103^{\circ} - 27' - 15''$  E, on right bank 1 kilometer downstream from Lam Pao Dam site, 2.5 kilometers upstream from the confluence with Huai Yang, Amphoe Muang Kalasin.

Drainage Area: 5,542 sq.km. referred to AMS Map 1:50,000.

Type of Gage: Staff gage.

Zero Gage at Bottom at: + 138.00 m. (M.S.L.)

Bench Mark: B.M. - R.I.D. No.9

Location: On right bank in front of the camp of gage observer

Elevation: + 150.216 m. (M.S.L.)

Gage Reading Frequency: 16 - time daily readings at 06.00 - 18.00, 21.00 and 24.00 hours.

Basis of Mean Daily Gage Height: Arithmetic mean of 16 readings.

Period of Available Gage Records: 1962 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, shifting adjustment hourly gage height and periodic rating curves are used for flow computation.

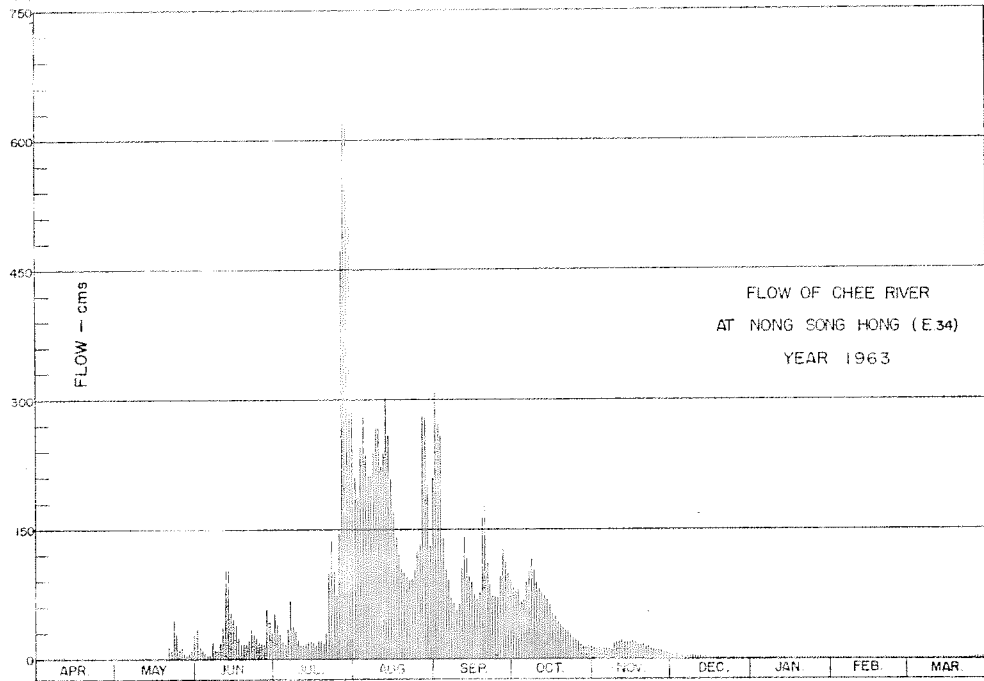
Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage - discharge relationship used by discharge measurements made during 1963. No diversions for irrigation above gage site.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	139.71	139.65	140.60	140.90	143.22	143.85	141.36	140.03	139.75	139.48	139.48	139.40
2	.68	.63	.20	.69	142.95	.60	.32	.03	.73	.55	.47	.40
3	.70	.62	.04	.46	143.50	142.92	.30	.02	.70	.57	.47	.42
4	.69	.64	139.96	.27	.83	.30	.26	.01	.68	.57	.46	.41
5	.69	.65	.86	.21	.39	141.92	.31	139.99	.67	.54	.49	.41
6	139.68	139.70	139.88	140.62	143.13	141.63	141.60	139.99	139.67	139.49	139.51	139.41
7	.67	.71	140.34	141.16	.13	.42	.77	140.00	.67	.47	.45	.42
8	.67	.71	.10	140.72	.41	.27	.64	139.98	.67	.47	.44	.44
9	.71	.70	.10	.51	.68	.13	.73	140.18	.67	.53	.44	.46
10	.71	.69	.31	.34	.67	.18	.51	.23	.64	.51	.45	.43
11	139.70	139.68	140.71	140.20	143.17	141.79	141.39	140.24	139.67	139.46	139.45	139.42
12	.67	.71	141.71	.14	.25	142.25	.29	.24	.67	.49	.45	.41
13	.67	.70	.73	.16	.78	141.90	.21	.24	.58	.48	.44	.41
14	.68	.69	.10	.23	.44	.62	.12	.22	.60	.48	.42	.40
15	.68	.68	140.83	.25	142.97	.52	.03	.21	.55	.51	.42	.40
16	139.68	139.66	140.70	140.18	142.56	141.30	140.95	140.21	139.53	139.50	139.45	139.40
17	.68	.66	.37	.13	.25	.20	.86	.18	.53	.50	.50	.40
18	.67	.67	.23	.23	.01	.33	.77	.14	.50	.48	.48	.40
19	.67	.66	.19	.22	141.87	142.19	.69	.11	.48	.49	.43	.41
20	.65	.69	.20	.21	.79	.48	.61	.10	.50	.49	.43	.41
21	139.65	140.18	140.33	140.46	141.63	141.87	140.55	140.08	139.46	139.52	139.42	139.42
22	.64	.09	.61	141.52	.56	.46	.48	.04	.46	.44	.42	.43
23	.64	.84	.48	.99	.50	.23	.43	139.99	.53	.43	.42	.41
24	.63	.52	.38	.63	.63	.18	.36	.96	.53	.47	.42	.43
25	.62	.14	.27	.18	.86	.28	.30	.92	.53	.45	.42	.51
26	139.62	140.18	140.19	142.16	141.98	141.76	140.23	139.89	139.49	139.44	139.40	139.53
27	.62	.01	.12	145.02	143.49	142.08	.18	.85	.46	.43	.40	.51
28	.70	139.89	.89	146.05	144.10	141.86	.13	.83	.50	.46	.40	.50
29	.69	.94	.76	.05	143.30	.65	.10	.81	.49	.49	.40	.53
30	.66	140.07	.52	145.18	142.35	.53	.07	.78	.48	.52	-	.47
31	-	.49	-	143.97	.76	-	.05	-	.47	.49	-	.47
Mean	139.67	139.87	140.46	141.39	142.81	141.82	140.90	140.05	139.57	139.49	139.44	139.43
Max.	139.71	140.84	141.73	146.05	144.10	143.85	141.77	140.24	139.75	139.57	139.51	139.53
Min.	139.62	139.62	139.86	140.13	141.50	141.13	140.05	139.78	139.46	139.43	139.40	139.40

WATER YEAR 1963 : Max. 146.05 m. Min. 139.40 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	1.40	0.36	34	53	211	399	82	14	7.00	1.12	0.31	0.13
2	0.96	0.24	15	40	190	280	79	14	6.52	1.46	0.25	0.13
3	1.20	0.12	9.56	29	244	230	81	13	6.28	1.79	0.25	0.10
4	0.96	0.24	7.10	21	279	139	66	12	4.48	1.79	0.31	0.10
5	0.96	0.24	3.92	18	235	104	69	13	4.92	1.29	0.21	0.10
6	0.96	0.94	4.40	36	211	92	89	13	4.70	0.81	0.13	0.10
7	0.60	0.84	28	66	212	72	103	13	4.92	0.38	0.21	0.16
8	0.60	0.72	11	40	239	65	116	12	4.92	0.68	0.16	0.21
9	1.08	0.48	11	34	267	56	103	19	4.92	0.81	0.16	0.08
10	0.96	0.36	19	22	267	63	89	20	4.04	0.57	0.21	0.10
11	0.84	0.24	38	17	223	106	82	21	3.60	0.31	0.21	0.10
12	0.36	0.60	103	16	238	141	77	22	3.60	0.57	0.21	0.08
13	0.36	0.48	102	17	301	115	73	20	1.84	0.68	0.16	0.08
14	0.36	0.36	55	20	258	96	69	20	3.28	0.25	0.10	0.08
15	0.36	0.24	47	21	209	89	64	20	2.48	0.57	0.08	0.08
16	0.36	0.36	40	19	170	75	53	21	2.16	0.38	0.13	0.08
17	0.48	0.36	24	16	141	69	50	20	2.32	0.68	0.25	0.08
18	0.36	0.48	19	22	121	77	44	18	2.00	0.38	0.13	0.08
19	0.36	0.36	17	21	110	163	41	17	1.84	0.47	0.13	0.10
20	0.36	0.72	18	19	105	176	38	18	2.00	0.47	0.16	0.10
21	0.36	14	22	31	94	112	34	15	1.20	0.16	0.16	0.13
22	0.24	11	35	98	91	87	32	15	0.72	0.38	0.21	0.16
23	0.12	45	29	137	93	74	30	13	1.36	0.47	0.13	0.13
24	0.12	28	25	102	109	72	26	12	1.68	0.21	0.13	0.25
25	0.12	12	20	74	124	72	23	12	1.04	0.25	0.13	1.29
26	0.12	14	17	146	133	96	20	11	0.88	0.21	0.08	1.46
27	0.12	8.00	16	472	280	126	18	10	1.84	0.21	0.08	1.26
28	0.72	4.64	58	639	279	112	16	8.98	0.88	0.38	0.13	0.96
29	0.36	6.20	44	623	202	101	16	8.46	0.88	0.96	0.13	1.46
30	0.36	11	33	451	132	93	16	7.72	0.88	0.31	-	0.58
31	-	28	-	286	210	-	15	-	0.72	0.25	-	0.47
Total	16.40	190.48	896.98	3,606	5,978	3,462	1,714	453.16	89.90	19.25	4.94	10.35
Mean	0.55	6.14	29.9	116	193	115	55.2	15.1	2.90	0.62	0.17	0.33
Max.	1.40	45	103	639	301	309	116	22	7.00	1.79	0.31	1.46
Min.	0.12	0.12	3.92	16	91	56	15	7.72	0.72	0.21	0.08	0.08
Runoff - RCM	1.417	16.457	77.499	311.558	516.499	299.117	148.090	39.153	7.767	1.663	0.427	0.894

WATER YEAR 1963 : Max. 639 Min. 0.08 Mean 44.9 Annual Runoff, 420.542 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Jul. 28	22.00	146.22	665				

WATER YEAR 1964  
CHEE RIVER BASIN

Lam Pao at Ban Nong Song Hong, Kalasin. (E.34)

**Location:** Lat  $16^{\circ} - 35' - 52''$  N, Long  $103^{\circ} - 27' - 15''$  E, on right bank 1 kilometer downstream from Lam Pao Dam site, 2.5 kilometers upstream from the confluence with Huai Yang, Amphoe Muang, Kalasin.

**Drainage Area:** 5,542 sq.km. referred to AMS Map 1:50,000.

**Type of Gage:** Staff gage.

**Zero Gage at Bottom at:** + 138.00 m. (M.S.L.)

**Bench Mark:** B.M. - R.I.D. No. 9

**Location:** On right bank in front of the camp of station E.34

**Elevation:** + 150.216 m. (M.S.L.)

**Gage Reading Frequency:** 16 - time daily readings at 06.00 - 18.00, 21.00 and 24.00 hours.

**Basis of Mean Daily Gage Height:** Arithmetic mean of 16 readings.

**Period of Available Gage Records:** 1962 to date.

**Rating Operation:**

Period of Rating: 1963 to date.

Rated by Float: -

Rated by Current Meter: 1963 to date.

**Stability of Channel Regimes:** Rather unstable, shifting adjustment is included for flow computation.

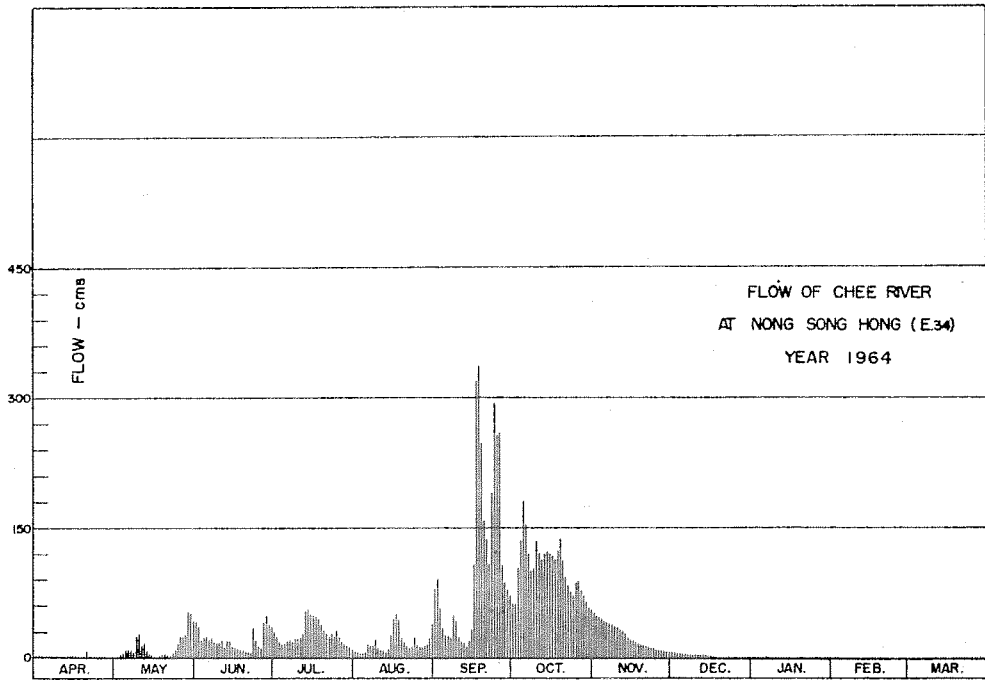
**Overbank Flow Conditions:** No overbank flow.

**General Description:** Records good. Stage - discharge relationship used by discharge measurements made during 1964. No diversions for irrigation above gage site.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	139.49	139.52	140.56	140.35	139.74	141.25	140.96	140.76	139.67	139.41	139.35	139.34
2	.50	.49	.45	.20	.71	.46	.98	.70	.66	.46	.36	.35
3	.49	.63	.10	.06	.68	140.89	141.62	.65	.65	.40	.38	.35
4	.46	.67	.15	.00	.66	.44	142.10	.60	.64	.42	.35	.34
5	.46	.76	.20	.02	.70	.22	.69	.57	.62	.41	.36	.33
6	139.47	139.79	140.10	140.07	140.00	140.20	142.37	140.54	139.61	139.44	139.35	139.33
7	.45	.75	.17	.09	139.90	.18	141.88	.52	.60	.40	.33	.32
8	.44	.71	.06	.08	.92	.70	.59	.50	.59	.41	.35	.33
9	.43	140.20	.03	.15	140.13	.58	.67	.46	.58	.40	.36	.34
10	.42	.27	.01	.15	139.88	.21	142.08	.44	.58	.40	.37	.42
11	139.42	139.94	140.08	140.18	139.78	140.03	141.87	140.38	139.57	139.43	139.41	139.42
12	.41	.99	139.99	.29	.76	139.92	.80	.33	.56	.40	.37	.40
13	.41	.78	140.07	.80	.69	.87	.89	.26	.55	.40	.35	.38
14	.40	.64	.08	.85	.80	140.07	.92	.18	.54	.38	.39	.37
15	.41	.58	139.93	.73	140.27	.38	.87	.13	.52	.39	.37	.36
16	139.41	139.53	139.84	140.73	140.66	141.87	141.86	140.08	139.51	139.49	139.35	139.36
17	.42	.52	.82	.68	.75	144.33	.79	.04	.51	.49	.34	.34
18	.45	.55	.78	.63	.61	.50	.94	.01	.50	.52	.37	.34
19	.47	.57	.76	.49	.18	143.53	142.12	139.97	.50	.44	.37	.36
20	.72	.60	.73	.38	.03	142.48	141.77	.94	.50	.42	.35	.33
21	139.60	139.55	139.69	140.28	139.95	142.12	141.51	139.91	139.47	139.40	139.36	139.32
22	.53	.58	.68	.21	.85	141.71	.33	.88	.43	.37	.35	.33
23	.50	.59	140.43	.28	.91	142.81	.20	.85	.45	.40	.36	.33
24	.49	.76	.10	.19	140.19	144.03	.13	.83	.42	.42	.34	.34
25	.52	140.02	139.89	.34	139.97	143.62	.36	.80	.47	.37	.35	.33
26	139.53	140.20	139.85	140.21	139.87	142.43	141.40	139.78	139.48	139.35	139.33	139.32
27	.54	.18	140.53	.08	.86	141.72	.23	.75	.43	.38	.33	.31
28	.50	.25	.72	139.98	.93	.39	.11	.73	.40	.37	.35	.30
29	.54	.77	.52	.93	.95	.23	140.99	.70	.38	.37	-	.31
30	.51	.78	.46	.88	140.18	.14	.89	.69	.40	.39	-	.30
31	-	.57	-	.81	.57	-	.82	-	.40	.36	-	.30
Mean	139.48	139.86	140.09	140.26	140.00	141.51	141.59	140.17	139.52	139.41	139.36	139.34
Max.	139.72	140.78	140.72	140.85	140.75	144.50	142.69	140.76	139.67	139.52	139.41	139.42
Min.	139.40	139.49	139.68	139.81	139.66	139.87	140.82	139.69	139.38	139.35	139.33	139.30

WATER YEAR 1964 : Max. 144.50 m. Min. 139.30 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.28	2.50	42	32	8.70	80	63	52	6.60	0.60	0.21	0.21
2	0.13	1.90	37	25	7.80	93	64	49	6.30	0.33	0.15	0.18
3	0.21	5.40	21	20	6.90	59	103	47	6.00	0.48	0.18	0.18
4	0.13	6.60	23	17	6.30	36	136	44	5.70	0.43	0.20	0.18
5	0.13	9.30	25	18	7.50	26	180	43	5.10	0.48	0.28	0.17
6	0.16	10	21	20	17	25	155	41	4.80	0.72	0.27	0.16
7	0.19	9.00	24	21	14	24	121	40	4.50	0.55	0.25	0.14
8	0.13	7.80	20	20	15	49	101	39	4.25	0.50	0.23	0.14
9	0.12	25	18	23	22	43	106	37	4.00	0.45	0.33	0.13
10	0.15	28	18	23	13	25	135	36	4.00	0.45	0.37	0.78
11	0.12	15	20	24	9.90	19	120	33	3.75	0.49	0.42	0.90
12	0.20	17	13	29	9.30	15	115	31	3.50	0.91	0.35	0.70
13	0.20	9.90	20	54	7.20	13	121	28	3.25	0.59	0.26	0.55
14	0.20	5.70	20	57	10	20	123	24	3.00	0.44	0.28	0.57
15	0.29	4.00	15	51	28	33	120	22	2.50	0.43	0.27	0.59
16	0.11	2.75	12	51	47	120	119	20	2.25	0.76	0.27	0.37
17	0.11	2.50	11	48	52	321	114	19	2.25	0.76	0.31	0.35
18	0.33	3.25	9.90	46	45	336	125	18	2.00	0.96	0.22	0.23
19	0.48	3.75	9.30	39	24	249	137	16	2.00	0.67	0.18	0.16
20	8.10	4.50	8.40	33	19	163	113	15	2.00	0.84	0.20	0.11
21	2.36	3.25	7.20	29	16	137	96	14	1.70	0.70	0.19	0.15
22	1.77	4.00	6.90	25	12	109	85	13	0.81	0.51	0.18	0.19
23	0.99	4.25	36	29	14	190	77	12	1.49	0.58	0.19	0.13
24	0.81	9.30	21	25	25	294	73	12	1.05	0.63	0.19	0.12
25	0.49	18	14	31	16	257	87	10	0.98	0.51	0.15	0.11
26	0.63	25	12	25	13	159	89	9.90	1.49	0.46	0.22	0.12
27	0.77	24	41	20	13	109	79	9.90	0.90	0.36	0.16	0.09
28	0.62	27	50	17	15	88	72	8.40	0.57	0.33	0.26	0.09
29	0.57	53	40	15	16	79	65	7.50	0.25	0.24	-	0.10
30	0.61	53	37	13	24	73	59	7.20	0.65	0.27	-	0.08
31	-	43	-	11	43	-	56	-	0.65	0.23	-	0.09
Total	21.39	437.65	652.70	891	576.60	3,244	3,209	757.90	88.29	16.66	6.77	8.07
Mean	0.71	14.1	21.7	28.7	18.6	108	103	25.3	2.85	0.54	0.24	0.26
Max.	8.10	53	50	57	52	336	180	52	6.60	0.96	0.42	0.90
Min.	0.11	1.90	6.90	11	6.30	13	56	7.20	0.25	0.23	0.15	0.08
Runoff - BCM.	1.848	37.813	56.393	76.982	49.818	280.282	277.258	65.482	7.625	1.439	0.585	0.697

WATER YEAR 1964 : Max. 336 Min. 0.08 Mean 27.1 Annual Runoff 856.226 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sept. 18	01.00	144.74	359				

WATER YEAR 1963  
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. referred to AMS Map 1:50,000.

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.

Rated by Float: -

Rated by Current Meter: 1960

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

Overbank Flow Conditions: No overbank flow.

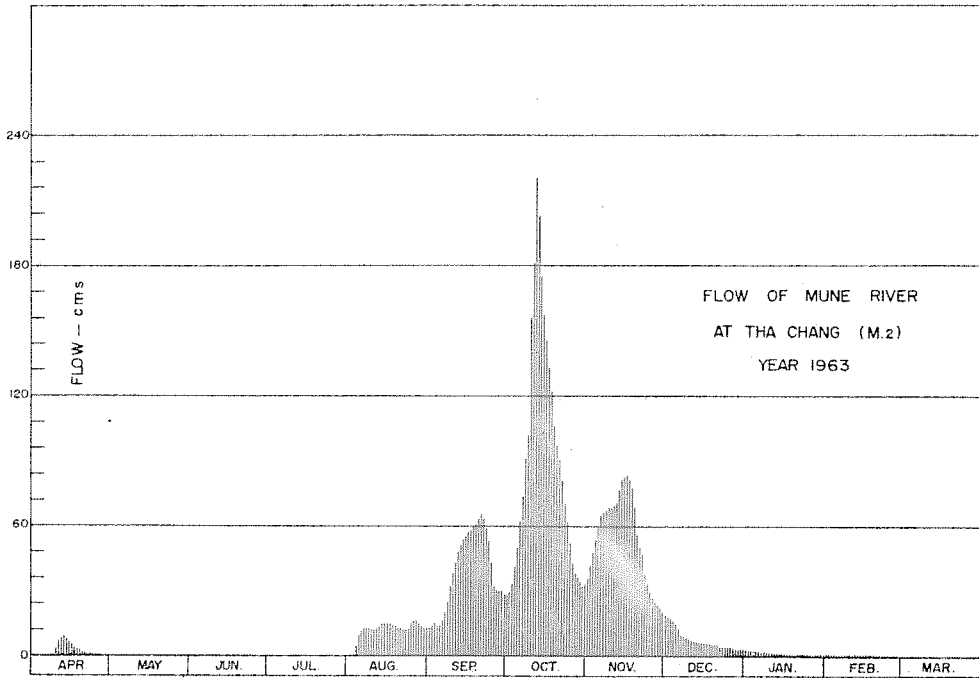
General Description: Gage height record good, discharge record fair. Stage - discharge relationship used is defined by discharge measurements made during 1960. No upstream diversions for irrigation except some of tank irrigation.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	159.45	159.53	159.32	159.17	159.45	161.70	162.86	163.25	162.26	160.32	159.70	159.51
2	.45	.51	.31	.20	.56	.80	.95	.53	.16	.29	.69	.50
3	.46	.51	.31	.23	.80	.89	163.16	.74	.08	.26	.69	.50
4	.47	.49	.32	.22	160.31	.84	.52	.94	161.98	.24	.68	.50
5	.47	.48	.34	.21	161.35	.80	.85	164.14	.89	.21	.68	.49
6	159.48	159.47	159.35	159.22	161.55	162.00	164.20	164.26	161.68	160.17	159.67	159.49
7	.48	.46	.34	.23	.72	.34	.52	.31	.39	.13	.67	.49
8	.49	.45	.33	.24	.72	.69	.90	.34	.29	.09	.66	.48
9	.50	.45	.33	.25	.69	163.09	165.19	.37	.20	.05	.65	.48
10	160.26	.44	.34	.25	.65	.42	.57	.38	.13	.00	.64	.48
11	160.95	159.43	159.35	159.26	161.62	163.61	165.69	164.39	161.06	159.95	159.64	159.48
12	161.14	.42	.36	.27	.72	.77	.83	.43	.01	.89	.63	.47
13	.25	.41	.37	.28	.83	.88	.77	.57	160.99	.86	.62	.47
14	.14	.40	.38	.28	.89	.97	.67	.69	.96	.84	.62	.46
15	160.90	.39	.39	.29	.89	164.02	.58	.73	.95	.84	.61	.46
16	160.73	159.38	159.37	159.30	161.86	164.08	165.51	164.75	160.93	159.82	159.61	159.46
17	.64	.36	.31	.31	.87	.10	.42	.69	.90	.82	.60	.45
18	.48	.34	.29	.31	.85	.17	.33	.61	.86	.80	.58	.45
19	.26	.32	.27	.33	.77	.19	.15	.37	.81	.79	.58	.45
20	.18	.30	.22	.34	.74	.23	.00	.08	.77	.79	.57	.44
21	159.90	159.29	159.18	159.35	161.69	164.29	164.90	163.85	160.73	159.78	159.56	159.44
22	.76	.28	.16	.36	.63	.23	.70	.74	.69	.78	.56	.44
23	.63	.27	.17	.37	.58	.13	.44	.40	.66	.77	.55	.43
24	.60	.28	.14	.37	.65	163.98	.22	.17	.62	.76	.55	.43
25	.59	.28	.12	.38	.88	.60	163.90	162.96	.58	.75	.54	.43
26	159.58	159.28	159.10	159.40	162.02	163.10	163.58	162.76	160.54	159.74	159.54	159.43
27	.57	.28	.09	.39	161.99	.02	.38	.67	.50	.74	.53	.42
28	.56	.28	.11	.37	.91	.00	.28	.58	.46	.73	.52	.42
29	.55	.29	.12	.37	.83	162.96	.19	.47	.42	.71	.52	.41
30	.54	.30	.15	.39	.74	.89	.12	.35	.39	.71	-	.41
31	.55	.31	-	.43	.69	-	.10	-	.36	.71	-	.41
Mean	159.98	159.38	159.26	159.30	161.50	163.29	164.45	163.85	161.04	159.91	159.61	159.46
Max.	161.25	159.53	159.39	159.43	162.02	164.29	165.83	164.75	162.26	160.32	159.70	159.51
Min.	159.45	159.27	159.09	159.17	159.45	161.70	162.95	162.35	160.36	159.71	159.52	159.41

WATER YEAR 1963 : Max. 165.83 m. Min. 159.09 m.





DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.41	0.52	0.25	0.11	0.41	13	28	35	19	2.86	0.85	0.49
2	0.41	0.49	0.23	0.13	0.57	14	29	41	18	2.73	0.83	0.47
3	0.43	0.47	0.23	0.16	1.08	15	33	47	17	2.60	0.83	0.47
4	0.44	0.46	0.25	0.15	2.81	14	41	53	16	2.52	0.81	0.47
5	0.44	0.45	0.28	0.14	9.50	14	50	59	15	2.39	0.81	0.46
6	0.45	0.44	0.29	0.15	11	16	62	64	13	2.25	0.79	0.46
7	0.45	0.43	0.28	0.16	13	20	74	66	9.90	2.10	0.79	0.46
8	0.46	0.41	0.26	0.17	13	25	91	67	8.90	1.97	0.77	0.45
9	0.47	0.41	0.26	0.17	13	32	101	68	8.20	1.84	0.74	0.45
10	2.60	0.40	0.28	0.17	12	38	155	68	7.78	1.68	0.72	0.45
11	6.40	0.39	0.29	0.18	12	43	180	69	7.28	1.52	0.72	0.45
12	7.84	0.38	0.30	0.19	13	48	220	70	6.88	1.34	0.70	0.44
13	8.60	0.37	0.32	0.20	14	51	202	76	6.72	1.25	0.68	0.44
14	7.84	0.36	0.33	0.20	15	54	175	81	6.48	1.20	0.68	0.43
15	6.00	0.35	0.35	0.21	15	55	157	82	6.40	1.20	0.66	0.43
16	4.91	0.33	0.32	0.22	15	57	145	83	6.24	1.14	0.66	0.43
17	4.41	0.33	0.23	0.23	15	58	133	81	6.00	1.14	0.64	0.41
18	3.58	0.28	0.21	0.23	14	60	122	77	5.73	1.08	0.61	0.41
19	2.60	0.25	0.19	0.26	14	61	106	68	5.39	1.05	0.61	0.41
20	2.28	0.22	0.15	0.28	13	63	97	57	5.13	1.05	0.59	0.40
21	1.37	0.21	0.12	0.29	13	65	91	50	4.91	1.02	0.57	0.40
22	0.99	0.20	0.10	0.30	12	63	81	47	4.68	1.02	0.57	0.40
23	0.70	0.19	0.11	0.32	12	59	71	38	4.52	1.00	0.55	0.39
24	0.64	0.20	0.09	0.32	12	54	62	33	4.32	0.99	0.55	0.39
25	0.62	0.20	0.08	0.33	15	43	52	29	4.10	0.96	0.54	0.39
26	0.61	0.20	0.07	0.36	16	32	43	26	3.89	0.94	0.54	0.39
27	0.59	0.20	0.06	0.35	16	30	38	25	3.68	0.94	0.52	0.38
28	0.57	0.20	0.07	0.32	15	30	36	23	3.49	0.92	0.50	0.38
29	0.55	0.21	0.08	0.32	14	29	34	22	3.30	0.87	0.50	0.37
30	0.54	0.22	0.10	0.35	13	28	32	20	3.16	0.87	-	0.37
31	-	0.23	-	0.39	13	-	32	-	3.03	0.85	-	0.37
Total	68.20	10.00	6.18	7.36	367.37	1,184	2,773	1,625	238.10	45.29	19.33	13.11
Mean	2.27	0.32	0.21	0.24	11.8	39	89	54	7.68	1.46	0.67	0.42
Max.	8.60	0.52	0.35	0.39	16	65	220	83	19	2.86	0.85	0.49
Min.	0.41	0.19	0.06	0.11	0.41	13	28	20	3.03	0.85	0.50	0.37
Runoff	5.892	0.864	0.534	0.636	31.741	102.298	239.587	140.400	20.571	3.913	1.670	1.133

WATER YEAR 1963 : Max. 220 Min. 0.06 Mean 17.4 Annual Runoff 549.240 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct.12	18.00	165.85	226				

WATER YEAR 1964  
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 Chakkerat, Nakhon Ratchasima.

Drainage Area: 4,800 sq.km. referred to AMS Map 1:50,000.

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.

Rated by Float: -

Rated by Current Meter: 1960.

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

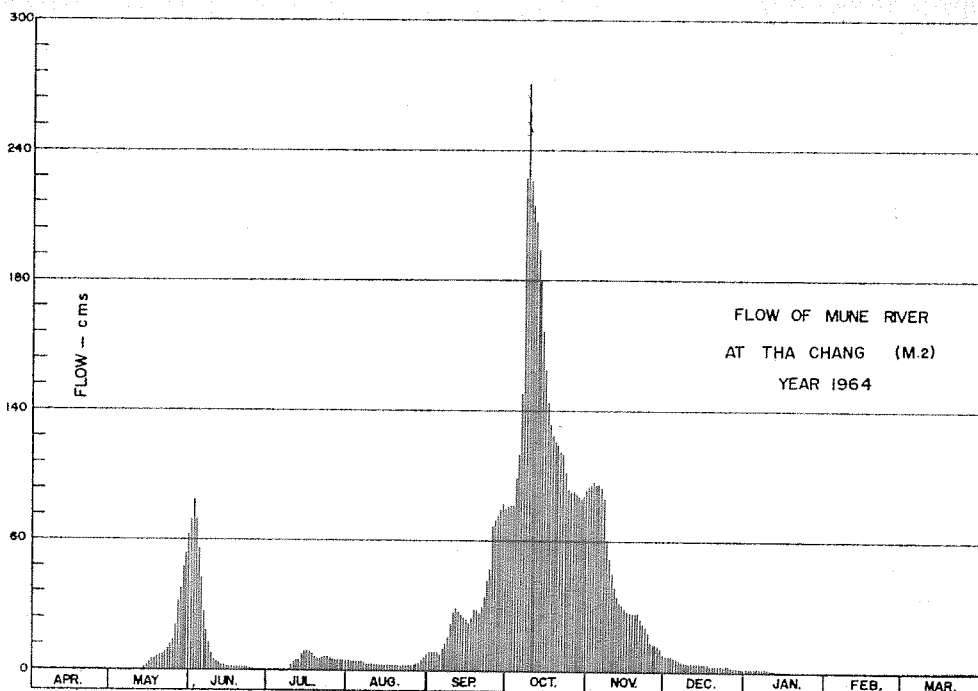
Overbank Flow Conditions: No overbank flow.

General Description: Gage height record good, discharge record fair. Stage - discharge relationship used is defined by discharge - measurements made during 1960. No upstream diversions for irrigation except some of tank irrigation.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	159.40	159.34	164.42	159.52	160.72	161.18	164.58	164.79	161.15	160.02	159.57	159.38
2	.39	.35	.64	.51	.71	.23	.57	.81	.09	.01	.56	.39
3	.39	.35	.42	.50	.71	.24	.61	.82	.05	.00	.56	.39
4	.38	.35	.03	.52	.68	.23	.87	.80	160.97	159.99	.55	.40
5	.38	.36	163.58	.53	.66	.22	165.05	.80	.93	.95	.55	.40
6	159.37	159.36	162.80	159.52	160.64	161.49	165.38	164.79	160.89	159.91	159.55	159.41
7	.37	.37	.26	.51	.58	.72	.88	.66	.83	.89	.54	.41
8	.37	.37	161.72	.51	.48	162.02	.98	.19	.79	.84	.53	.41
9	.36	.39	.20	.55	.45	.53	.85	163.92	.73	.82	.52	.41
10	.36	.40	160.86	160.37	.43	.80	.81	.67	.69	.80	.52	.42
11	159.36	159.42	160.70	160.69	160.41	162.94	165.79	163.44	160.64	159.78	159.51	159.42
12	.35	.46	.57	.75	.43	.82	.74	.20	.57	.77	.51	.42
13	.35	.61	.42	.86	.43	.73	.69	.11	.55	.76	.51	.42
14	.35	.85	.24	161.19	.42	.67	.58	.03	.47	.74	.50	.43
15	.34	160.10	.20	.30	.41	.64	.47	162.93	.44	.71	.49	.44
16	159.34	160.50	160.12	161.33	160.39	162.56	165.35	162.88	160.40	159.69	159.49	159.44
17	.34	.75	.09	.28	.37	.69	.24	.83	.37	.69	.48	.44
18	.34	.88	.02	.13	.30	.89	.19	.82	.34	.68	.47	.45
19	.33	.93	159.94	.03	.27	.84	.14	.81	.30	.67	.46	.45
20	.33	161.04	.88	160.90	.29	.83	.13	.77	.28	.65	.46	.46
21	159.33	161.05	159.87	160.90	160.30	162.93	165.08	162.67	160.27	159.62	159.45	159.46
22	.33	.16	.90	.92	.30	163.19	.05	.56	.25	.61	.44	.47
23	.33	.42	.87	.98	.29	.61	164.91	.43	.24	.60	.43	.47
24	.32	.64	.85	.97	.28	.65	.77	.16	.19	.59	.42	.48
25	.32	.85	.79	.91	.29	164.34	.75	161.83	.18	.59	.42	.48
26	159.31	162.45	159.74	160.89	160.30	164.43	164.74	161.74	160.16	159.59	159.41	159.48
27	.31	163.11	.68	.81	.36	.51	.73	.68	.14	.58	.39	.50
28	.32	.39	.62	.74	.50	.55	.69	.58	.11	.58	.38	.50
29	.33	.79	.60	.75	.79	.60	.64	.46	.08	.58	-	.51
30	.34	.99	.55	.75	.95	.54	.72	.27	.06	.57	-	.52
31	-	164.25	-	.74	161.12	-	.76	-	.04	.57	-	.52
Mean	159.35	160.78	160.99	160.48	160.49	162.83	165.15	163.15	160.49	159.74	159.49	159.44
Max.	159.40	164.25	164.64	161.33	161.12	164.60	165.98	164.82	161.15	160.02	159.57	159.52
Min.	159.31	159.34	159.55	159.50	160.27	161.18	164.57	161.27	160.04	159.57	159.38	159.38

WATER YEAR 1964 : Max. 165.98 m. Min. 159.31 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.36	0.28	70	0.50	4.85	8.08	76	85	7.90	1.74	0.59	0.33
2	0.35	0.29	79	0.49	4.79	8.44	76	86	7.52	1.71	0.57	0.35
3	0.35	0.29	70	0.47	4.79	8.52	77	87	7.04	1.68	0.57	0.35
4	0.33	0.29	56	0.50	4.62	8.44	89	86	6.56	1.65	0.55	0.36
5	0.33	0.30	43	0.52	4.52	8.36	100	86	6.24	1.52	0.55	0.36
6	0.32	0.30	27	0.50	4.41	11	128	85	5.93	1.40	0.55	0.37
7	0.32	0.32	19	0.49	4.10	13	236	79	5.52	1.40	0.54	0.37
8	0.32	0.32	13	0.49	3.58	16	271	61	5.25	1.20	0.52	0.37
9	0.30	0.35	8.20	0.55	3.44	23	226	52	4.91	1.14	0.50	0.37
10	0.30	0.36	5.73	3.07	3.34	27	214	45	4.68	1.08	0.50	0.38
11	0.30	0.38	4.73	4.68	3.25	29	208	39	4.41	1.02	0.49	0.38
12	0.29	0.43	4.04	5.02	3.34	27	194	34	4.04	1.00	0.49	0.38
13	0.29	0.66	3.30	5.73	3.34	26	180	32	3.94	0.99	0.49	0.39
14	0.29	1.22	2.52	8.14	3.30	25	157	31	3.54	0.94	0.47	0.39
15	0.28	2.00	2.35	9.00	3.25	24	139	29	3.39	0.87	0.46	0.40
16	0.28	3.68	2.07	9.30	3.16	23	124	28	3.20	0.83	0.46	0.40
17	0.28	5.02	1.97	8.84	3.07	25	114	27	3.07	0.83	0.45	0.40
18	0.28	5.86	1.74	7.78	2.77	28	109	27	2.94	0.81	0.44	0.41
19	0.26	6.24	1.49	7.04	2.64	28	106	27	2.77	0.79	0.43	0.41
20	0.26	7.12	1.31	6.00	6.00	27	105	27	2.69	0.74	0.43	0.43
21	0.26	7.20	1.28	6.00	2.77	29	102	25	2.64	0.68	0.41	0.43
22	0.26	7.96	1.37	6.16	2.77	34	100	23	2.56	0.66	0.40	0.44
23	0.25	10	1.28	6.64	2.73	43	92	21	2.52	0.64	0.39	0.44
24	0.25	12	1.22	6.56	2.69	53	84	18	2.31	0.62	0.38	0.45
25	0.25	14	1.05	6.08	2.73	67	83	14	2.28	0.62	0.38	0.45
26	0.23	21	0.94	5.93	2.77	70	83	13	2.21	0.62	0.37	0.45
27	0.23	32	0.81	5.39	3.03	73	82	13	2.14	0.61	0.35	0.47
28	0.25	38	0.68	4.97	3.68	75	81	12	2.03	0.61	0.33	0.47
29	0.26	48	0.64	5.02	5.25	77	79	11	1.94	0.61	-	0.49
30	0.28	54	0.55	5.02	6.40	75	82	8.76	1.87	0.59	-	0.50
31	-	63	-	4.97	7.72	-	84	-	1.81	0.59	-	0.50
Total	8.61	342.87	426.27	141.85	115.83	989.84	3,881	1,211.76	119.85	30.13	13.06	12.69
Mean	0.29	11.1	14.2	4.57	3.74	33.0	125	40.4	3.87	0.97	0.47	0.41
Max.	0.36	63	79	9.30	7.72	77	271	87	7.90	1.74	0.59	0.50
Min.	0.23	0.28	0.55	0.47	2.64	8.08	76	8.76	1.81	0.59	0.33	0.33
Runoff - mcm.	0.744	29.624	36.830	12.256	10.008	85.522	353.318	104.696	10.355	2.603	1.128	1.096

WATER YEAR 1964 : Max. 271 Min. 0.23 Mean 271 Annual Runoff 630.181 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 8	18.00	166.00	280				

WATER YEAR 1963  
MUNE RIVER BASIN

Mune River at Seri Prachathipatai Bridge, Ubon Ratchathani. (M. 7)

Location: Lat 15° - 13' - 17" N, Long 104° - 15' - 39" E, on left bank at the abutments of Seri Prachathipatai Bridge, Amphoe Muang, Ubon Ratchathani.

Drainage Area: 106,673 sq.km. referred to AMS Map 1:50,000.

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 the bridge.

Elevation: + 113.317 m. (M.S.L.)

Gage Reading Frequency: 2 - time daily readings at 09.00 and 15.00 hours.

Basis of Mean Daily Gage Height: Arithmetic mean of 2 readings.

Period of Available Gage Records: 1944 to date.

Rating Operation:

Period of Rating: 1956 - 58, 1964 to date.

Rated by Float:

Rated by Current Meter: 1956 - 58, 1964 to date.

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

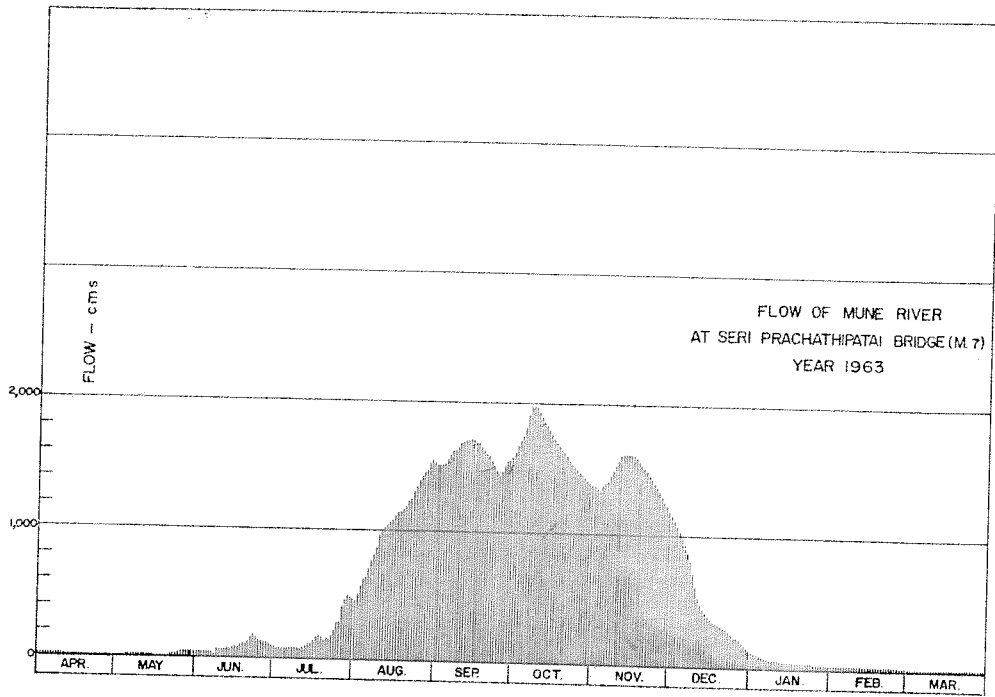
Overbank Flow Conditions: No overbank flow.

General Description: Gage height record good, discharge record fair. Stage - discharge relationship used is defined by discharge - measurements made for period 1958. No upstream diversions for irrigation except those for series of tank irrigation, the total of 140 tanks with capacity of 420 mcm. and irrigated area of 64,200 hectares.

GAGE HEIGHT IN METER (M. S. L. ), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	106.49	106.41	106.72	106.95	108.16	110.62	110.86	110.28	109.80	107.06	106.58	106.47
2	.49	.41	.72	.90	.28	.62	.98	.26	.71	.01	.58	.47
3	.49	.43	.71	.88	.46	.63	111.05	.24	.62	106.97	.58	.46
4	.49	.47	.71	.86	.58	.65	.14	.30	.53	.93	.57	.46
5	.49	.49	.71	.89	.62	.73	.28	.34	.43	.89	.57	.46
6	106.49	106.50	106.69	106.90	108.77	110.80	111.51	110.40	109.30	106.86	106.57	106.45
7	.49	.51	.67	.91	.93	.87	.63	.48	.15	.84	.56	.45
8	.50	.52	.62	.91	109.01	.89	.64	.57	108.99	.81	.56	.45
9	.50	.54	.81	.88	.16	.93	.62	.67	.79	.80	.56	.45
10	.49	.54	.79	.87	.38	111.00	.54	.75	.53	.78	.55	.44
11	106.48	106.53	106.78	106.86	109.46	111.04	111.47	110.82	108.34	106.77	106.55	106.44
12	.48	.53	.83	.91	.54	.05	.39	.85	.19	.76	.54	.44
13	.47	.52	.85	.98	.57	.06	.32	.86	.09	.74	.54	.44
14	.47	.50	.85	107.06	.60	.07	.24	.86	.00	.73	.53	.44
15	.46	.49	.88	.08	.64	.06	.17	.84	107.94	.71	.53	.43
16	106.46	106.47	106.89	107.17	109.73	111.02	111.09	110.82	107.89	106.70	106.52	106.43
17	.45	.46	.90	.28	.78	.00	.02	.79	.82	.69	.52	.43
18	.45	.45	.98	.34	.80	110.95	110.98	.73	.80	.68	.51	.43
19	.44	.45	107.02	.30	.86	.89	.92	.68	.76	.68	.51	.43
20	.44	.44	.04	.18	.91	.82	.87	.63	.73	.68	.50	.42
21	105.43	106.44	107.12	107.25	110.00	110.79	110.80	110.56	107.69	106.67	106.50	106.42
22	.43	.50	.26	.22	.02	.71	.73	.49	.65	.65	.50	.42
23	.43	.56	.33	.33	.15	.62	.67	.43	.61	.64	.49	.42
24	.43	.58	.26	.46	.26	.52	.62	.36	.57	.64	.49	.42
25	.42	.63	.16	.64	.35	.45	.57	.28	.52	.63	.49	.46
26	106.42	106.72	107.10	107.67	110.44	110.52	110.53	110.20	107.47	106.63	106.49	106.45
27	.42	.73	.09	108.01	.49	.63	.49	.13	.42	.62	.48	.44
28	.42	.72	.08	.17	.53	.70	.44	.04	.35	.62	.48	.43
29	.41	.72	.04	.27	.67	.73	.39	109.96	.28	.61	.48	.43
30	.41	.72	106.99	.22	.71	.77	.35	.87	.20	.60	-	.42
31	-	.72	-	.18	.66	-	.31	-	.11	.59	-	.42
Mean	106.46	106.54	106.92	107.27	109.63	110.80	110.99	110.48	108.20	106.74	106.53	106.44
Max.	106.50	106.73	107.33	108.27	110.71	111.07	111.64	110.86	109.80	107.06	106.58	106.47
Min.	106.41	106.41	106.62	106.86	108.16	110.45	110.31	109.87	107.11	106.59	106.48	106.42

WATER YEAR 1963 : Max. 111.64 m. Min. 106.41 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	21	12	54	98	464	1,512	1,619	1,362	1,151	120	32	19
2	21	12	54	88	510	1,512	1,673	1,353	1,111	110	32	19
3	21	14	52	84	582	1,516	1,704	1,345	1,072	102	32	18
4	21	19	52	80	630	1,525	1,745	1,371	1,033	94	31	18
5	21	21	52	86	646	1,560	1,808	1,389	990	86	31	18
6	21	22	48	88	709	1,592	1,913	1,415	934	80	31	17
7	21	23	45	90	777	1,623	1,969	1,450	869	76	30	17
8	22	25	38	90	810	1,632	1,973	1,490	802	70	30	17
9	22	27	70	84	874	1,650	1,964	1,534	718	68	30	17
10	21	27	66	82	968	1,682	1,926	1,569	610	64	28	15
11	20	26	64	80	1,003	1,700	1,893	1,601	534	63	28	15
12	20	26	74	90	1,037	1,704	1,857	1,614	474	61	27	15
13	19	25	78	104	1,050	1,709	1,826	1,619	438	57	27	15
14	19	22	78	120	1,063	1,713	1,790	1,619	407	55	26	15
15	18	21	84	124	1,081	1,709	1,758	1,610	386	52	26	14
16	18	19	86	145	1,120	1,691	1,722	1,601	369	50	25	14
17	17	18	88	173	1,142	1,682	1,691	1,587	345	48	25	14
18	17	17	104	190	1,151	1,659	1,673	1,560	338	47	23	14
19	15	17	112	178	1,177	1,632	1,646	1,530	324	47	23	14
20	15	15	116	147	1,199	1,601	1,623	1,516	314	47	22	13
21	14	15	133	165	1,239	1,587	1,592	1,485	301	45	22	13
22	14	22	168	157	1,248	1,551	1,560	1,455	287	42	22	13
23	14	30	187	187	1,305	1,512	1,534	1,428	273	41	21	13
24	14	32	168	226	1,353	1,468	1,512	1,397	260	41	21	13
25	13	39	142	284	1,393	1,437	1,490	1,362	244	39	21	18
26	13	54	128	294	1,433	1,468	1,472	1,327	229	39	21	17
27	13	55	126	410	1,455	1,516	1,455	1,296	214	38	20	15
28	13	54	124	467	1,472	1,547	1,433	1,257	193	38	20	14
29	12	54	116	506	1,534	1,560	1,411	1,221	173	36	20	14
30	12	54	106	486	1,551	1,578	1,393	1,182	152	35	-	13
31	-	54	-	471	1,529	-	1,375	-	130	34	-	13
Total	522	871	2,813	5,874	33,505	47,828	52,000	43,545	15,675	1,825	747	474
Mean	17.4	28.0	93.7	189	1,081	1,594	1,677	1,451	506	58.8	25.7	15.3
Max.	22	55	187	506	1,551	1,713	1,973	1,619	1,151	120	32	19
Min.	12	12	38	80	464	1,437	1,375	1,182	130	34	20	13
Runoff - BCM.	45.101	75.254	243.043	507.514	2,894.382	4,132.339	4,492.800	3,762.288	1,354.320	157.680	64.541	40.954

WATER YEAR 1963 : Max. 1,973 Min. 12 Mean 562 Annual Runoff 17,770.660 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 8	15.00	111.64	1,973				

WATER YEAR 1964  
MUNE RIVER BASIN

Mune River at Seri Prachathipatai Bridge, Ubon Ratchathani. (M. 7)

Location: Lat 15° - 13' - 17" N, Long 104° - 15' - 39" E, on left bank at the abutments of Seri Prachathipatai Bridge, Amphoe Muang, Ubon Ratchathani.

Drainage Area: 106,673 sq.km. referred to AMS Map 1:50,000.

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 the bridge.

Elevation: + 113.317 m. (M.S.L.)

Gage Reading Frequency: 2 - time daily readings at 09.00 and 15.00 hours.

Basis of Mean Daily Gage Height: Arithmetic mean of 2 readings.

Period of Available Gage Records: 1944 to date.

Rating Operation:

Period of Rating: 1956 - 58, 1964 to date.

Rated by Float: -

Rated by Current Meter: 1956 - 58, 1964 to date.

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation for years without actual ratings

Overbank Flow Conditions: Overbank flow was observed at station M. 7 - 2 and M. 7 - 3.

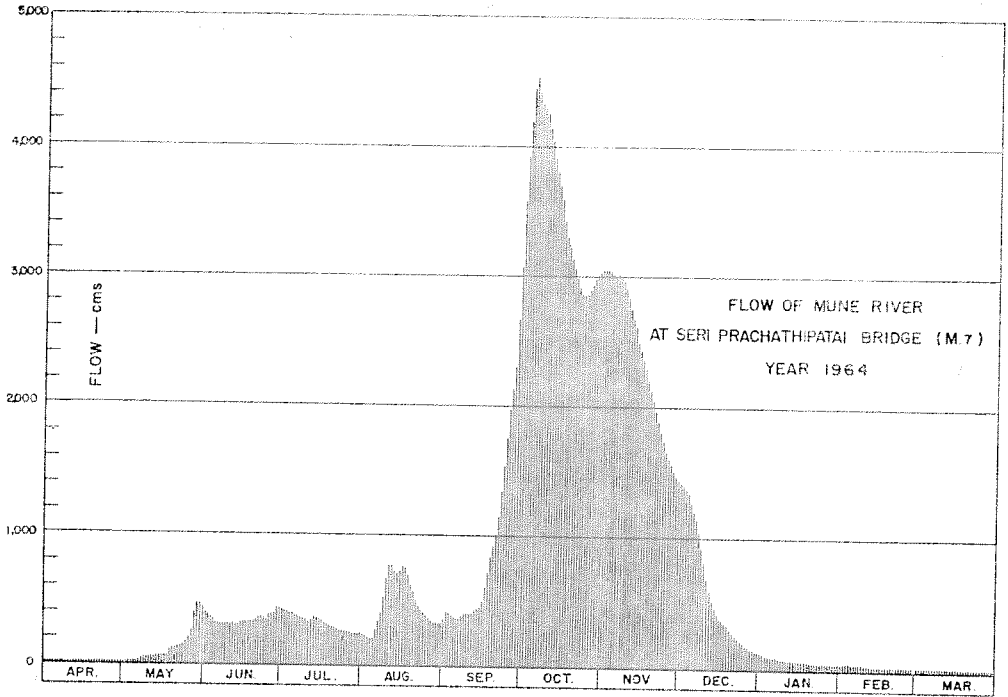
General Description: Gage height record good discharge record fair. Stage - discharge relationship used is defined by discharge - measurements made for period 1958. No upstream diversions for irrigation except those for series of tank irrigation, the total of 140 tanks with capacity of 420 mcm. and irrigated area of 64,200 hectares.

Remark: Overbank flow was observed for period Sept. 28 - Nov. 17.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	106.42	106.39	107.97	108.00	107.38	107.81	113.74	113.17	110.14	106.90	106.61	106.51
2	.41	.43	.88	107.97	.34	.94	114.10	.17	.10	.87	.61	.51
3	.41	.46	.81	.93	.29	.93	.35	.15	.05	.85	.60	.51
4	.41	.46	.74	.89	.25	.88	.56	.11	109.99	.82	.60	.51
5	.41	.49	.69	.88	.29	.84	.67	.09	.83	.81	.60	.51
6	106.41	106.51	107.65	107.87	107.54	107.82	114.72	113.10	109.70	106.80	106.59	106.51
7	.41	.54	.63	.84	.75	.83	.70	.09	.56	.78	.58	.51
8	.41	.61	.62	.80	.96	.90	.67	.03	.35	.76	.58	.51
9	.41	.63	.63	.80	108.35	.93	.66	112.93	.07	.75	.58	.50
10	.40	.65	.64	.76	.82	.93	.58	.82	108.81	.74	.57	.50
11	106.40	106.66	107.65	107.71	109.02	107.93	114.47	112.71	108.53	106.73	106.57	106.49
12	.40	.67	.65	.74	.83	.95	.35	.59	.32	.73	.56	.49
13	.40	.68	.65	.81	108.91	108.01	.22	.45	.11	.72	.55	.48
14	.40	.70	.68	.81	.84	.85	.07	.31	107.98	.72	.55	.48
15	.39	.71	.67	.77	.92	.89	113.97	.15	.87	.72	.54	.48
16	106.39	106.69	107.69	107.73	109.00	108.32	113.79	111.99	107.77	106.71	106.54	106.48
17	.39	.71	.70	.68	108.98	.67	.64	.86	.69	.70	.53	.47
18	.40	.74	.70	.65	.86	109.02	.50	.70	.65	.68	.53	.47
19	.41	.94	.71	.63	.66	.24	.34	.54	.56	.66	.53	.47
20	.42	.97	.71	.59	.47	.45	.20	.38	.47	.66	.53	.47
21	106.42	106.96	107.75	107.58	108.29	109.68	113.07	111.22	107.41	106.65	106.52	106.46
22	.42	107.02	.82	.53	.14	110.01	112.95	.88	.32	.64	.52	.46
23	.42	.83	.81	.49	.83	.47	.87	110.93	.27	.64	.52	.46
24	.42	.89	.79	.46	107.92	.89	.84	.81	.21	.64	.52	.46
25	.41	.18	.75	.46	.86	111.35	.86	.66	.18	.64	.52	.45
26	106.41	107.29	107.87	107.46	107.82	111.74	112.90	110.54	107.10	106.63	106.52	106.45
27	.41	.58	.88	.45	.74	112.05	.97	.44	.05	.63	.51	.45
28	.40	.94	.93	.41	.71	.35	113.03	.34	.02	.63	.51	.44
29	.39	108.14	108.05	.41	.71	.76	.09	.26	.00	.62	-	.44
30	.39	.15	.02	.41	.70	113.29	.13	.19	106.96	.62	-	.43
31	-	.06	-	.40	.69	-	.16	-	.93	.61	-	.42
Mean	106.41	106.94	107.76	107.67	108.14	109.27	113.75	111.93	108.19	106.71	106.55	106.48
Max.	106.42	108.15	108.05	108.00	109.03	113.29	114.72	113.17	110.14	106.90	106.61	106.51
Min.	106.39	106.39	107.62	107.40	107.25	107.81	112.84	110.19	106.93	106.61	106.51	106.42

WATER YEAR 1964 : Max. 114.72 m. Min. 106.39 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	10	5.60	418	428	238	367	3,571	3,054	1,418	120	48	26
2	8.60	12	390	418	227	409	3,924	3,054	1,400	112	48	26
3	8.60	17	367	406	213	406	4,182	3,040	1,375	106	46	26
4	8.60	17	345	393	203	390	4,411	3,016	1,345	98	46	26
5	8.60	21	330	390	213	377	4,522	3,004	1,273	95	46	26
6	8.60	25	317	386	285	370	4,571	3,010	1,212	92	44	26
7	8.60	31	311	377	348	374	4,321	3,004	1,146	87	42	26
8	8.60	45	308	364	415	396	4,289	2,966	1,049	82	42	26
9	8.60	49	311	364	542	406	4,279	2,907	923	80	42	24
10	7.00	53	314	352	703	406	4,195	2,843	808	78	39	24
11	7.00	53	317	336	775	406	4,082	2,780	692	75	39	22
12	7.00	57	317	345	779	412	3,695	2,708	608	75	37	22
13	7.00	59	317	367	736	413	3,845	2,630	524	73	35	21
14	7.00	63	327	367	710	444	3,732	2,551	473	73	35	21
15	5.60	65	324	355	739	457	3,628	2,461	433	73	33	21
16	5.60	61	330	342	768	533	3,480	2,371	397	70	33	21
17	5.60	65	333	327	761	650	3,368	2,298	369	68	31	19
18	7.00	72	333	317	718	775	3,270	2,218	355	64	31	19
19	8.60	118	336	311	646	855	3,163	2,139	324	59	31	19
20	10	126	336	299	582	935	3,072	2,054	294	59	31	19
21	10	124	348	296	523	1,025	2,992	1,970	275	57	28	17
22	10	139	370	282	473	1,154	2,918	1,896	246	55	28	17
23	10	142	367	270	438	1,348	2,871	1,818	230	55	28	17
24	10	158	361	261	402	1,543	2,854	1,755	211	55	28	17
25	8.60	183	348	261	383	1,769	2,866	1,678	202	55	28	15
26	8.60	213	386	261	270	1,978	2,889	1,616	178	53	28	15
27	8.60	296	390	258	345	2,158	2,930	1,565	163	53	26	15
28	7.00	409	406	247	336	2,367	2,966	1,516	154	53	26	14
29	5.60	473	444	247	336	2,698	3,004	1,476	148	50	-	14
30	5.60	476	474	247	333	3,158	3,028	1,441	137	50	-	12
31	-	447	-	244	330	-	3,048	-	128	48	-	10
Total	240.20	4,075.60	10,535	10,118	14,870	28,997	109,966	70,839	18,490	2,223	999	623
Mean	8.01	131	351	326	480	966	3,547	2,361	596	71.7	35.6	20.0
Max.	10	476	444	428	779	3,158	4,571	3,054	1,418	120	48	26
Min.	5.60	5.60	308	244	203	367	2,854	1,441	128	48	26	10
Runoff - mcm.	20.753	352.132	910.224	874.195	1,284.768	2,505.341	9,501.062	6,120.490	1,597.536	192.067	86.314	53.827

WATER YEAR 1964 : Max. 4,571 Min. 5.60 Mean 745 Annual Runoff 23,499.564 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 6	15.00	114.73	4,582				

WATER YEAR 1963  
MUNE RIVER BASIN

Huai Samran at Highway Bridge, Si Sa Ket. (M. 9)

Location: Lat 15° - 07' - 00" N, Long 104° - 19' - 20" E, on left bank downstream side of the bridge 200 meters north of the city jail, Amphoe Muang, Si Sa Ket.

Drainage Area: 3,026 sq.km. referred to AMS Map 1:50,000.

Type of Gage: Staff gage.

Zero Gage at Bottom at: + 109.00 m. (M.S.L.)

Bench Mark: B.M. - No. 0339

Location: At the Bridge on right bank.

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

Rated by Float: -

Rated by Current Meter: 1951

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

Overbank Flow Conditions: No overbank flow.

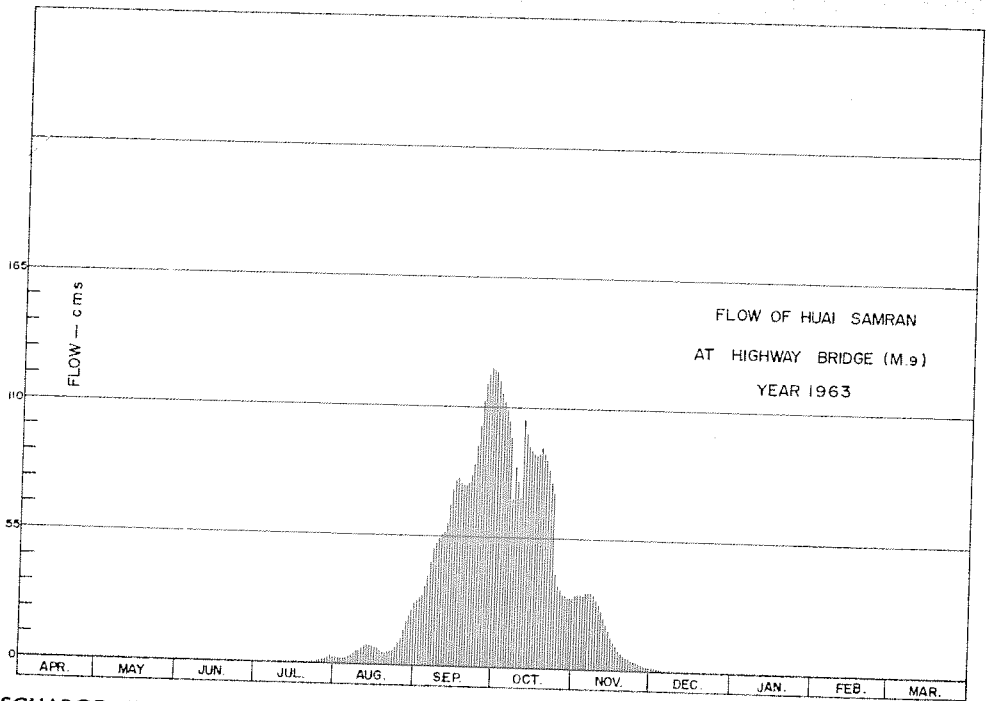
General Description: Stage record good, discharge record fair. Stage - discharge relationship used is defined by discharge measurements made during 1951. No diversions for irrigation above gage site.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	109.41	109.33	109.38	109.66	111.15	113.40	116.31	113.52	110.72	109.61	109.37	109.32
2	.40	.30	.38	.72	.13	.42	.20	.53	.63	.60	.37	.31
3	.39	.30	.40	.76	.12	.50	.13	.54	.54	.59	.36	.31
4	.38	.29	.49	.89	.11	.68	.05	.55	.47	.58	.36	.31
5	.37	.28	.55	.97	.14	.87	115.94	.56	.40	.57	.36	.31
6	109.36	109.27	109.56	109.94	111.25	114.11	115.79	113.57	110.32	109.57	109.35	109.32
7	.36	.45	.54	.89	.37	.35	.64	.56	.27	.56	.35	.31
8	.35	.54	.53	.84	.52	.44	.49	.51	.21	.55	.35	.31
9	.35	.52	.70	.79	.68	.53	.33	.42	.17	.55	.34	.30
10	.35	.51	.70	.78	.78	.61	.14	.30	.09	.54	.31	.30
11	109.34	109.57	109.68	109.77	111.87	114.65	114.97	113.19	110.03	109.52	109.30	109.29
12	.33	.53	.63	.93	.94	.79	.83	.06	109.99	.50	.28	.29
13	.32	.53	.51	110.08	.98	115.03	.73	112.87	.92	.49	.53	.28
14	.31	.51	.43	.17	.98	.23	.67	.65	.90	.48	.50	.29
15	.29	.46	.40	.23	.96	.33	.64	.48	.88	.47	.43	.31
16	109.29	109.44	109.45	110.31	111.92	115.35	114.62	112.32	109.87	109.47	109.37	109.32
17	.33	.43	.45	.40	.87	.30	.64	.18	.81	.46	.36	.32
18	.37	.43	.42	.53	.74	.28	.69	.05	.80	.45	.36	.33
19	.36	.42	.43	.59	.64	.27	.65	111.92	.78	.44	.34	.34
20	.35	.42	.61	.59	.62	.31	.58	.79	.76	.44	.34	.34
21	109.34	.41	109.60	110.55	111.69	115.38	114.48	111.66	109.75	109.43	109.34	109.32
22	.31	109.40	110.07	.54	.72	.52	.34	.52	.74	.42	.34	.31
23	.30	.39	109.90	.53	.79	.70	.18	.42	.74	.41	.33	.31
24	.29	.45	.70	.52	.95	.90	113.94	.34	.72	.41	.33	.29
25	.28	.45	.54	.62	112.12	116.13	.75	.26	.69	.40	.33	.28
26	109.28	109.44	109.47	110.81	112.38	116.29	113.63	111.15	109.67	109.39	109.32	109.27
27	.39	.42	.52	.89	.60	.36	.55	.03	.65	.39	.32	.26
28	.37	.41	.78	111.04	.82	.40	.51	110.91	.64	.39	.32	.25
29	.36	.40	.86	.19	113.00	.41	.47	.83	.63	.38	.32	.26
30	.34	.39	.68	.31	.17	.39	.47	.79	.63	.38	-	.24
31	-	.39	-	.22	.32	-	.50	-	.62	.38	-	.27
Mean	109.34	109.42	109.58	110.32	111.97	115.06	114.74	112.38	109.97	109.48	109.35	109.30
Max.	109.41	109.57	110.07	111.31	113.32	116.41	116.31	113.57	110.72	109.61	109.53	109.34
Min.	109.28	109.27	109.38	109.66	111.11	113.40	113.47	110.79	109.62	109.38	109.32	109.24

WATER YEAR 1963 : Max. 116.41 m. Min. 109.24 m.





DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.02	0.01	0.02	0.09	2.92	28	121	31	1.41	0.07	0.01	0.00
2	0.02	0.00	0.02	0.11	2.83	29	116	31	1.17	0.07	0.01	0.00
3	0.02	0.00	0.02	0.12	2.79	30	113	31	0.97	0.07	0.01	0.00
4	0.02	0.00	0.04	0.16	2.74	34	109	31	0.82	0.06	0.01	0.00
5	0.01	0.00	0.05	0.18	2.88	38	104	32	0.69	0.06	0.01	0.00
6	0.01	0.00	0.06	0.17	3.37	44	97	32	0.55	0.06	0.01	0.00
7	0.01	0.03	0.05	0.16	3.95	50	71	32	0.48	0.06	0.01	0.00
8	0.01	0.05	0.05	0.14	4.73	52	85	31	0.40	0.05	0.01	0.00
9	0.01	0.05	0.10	0.13	5.69	54	79	29	0.36	0.05	0.01	0.00
10	0.01	0.04	0.10	0.12	6.36	56	72	27	0.27	0.05	0.01	0.00
11	0.01	0.06	0.09	0.12	7.13	57	67	25	0.22	0.05	0.00	0.00
12	0.01	0.05	0.08	0.17	7.76	61	62	22	0.19	0.04	0.00	0.00
13	0.00	0.05	0.04	0.26	8.12	68	59	19	0.17	0.04	0.05	0.00
14	0.00	0.04	0.03	0.36	8.12	75	58	16	0.16	0.04	0.04	0.00
15	0.00	0.03	0.02	0.43	7.94	79	57	14	0.15	0.03	0.03	0.00
16	0.00	0.03	0.03	0.54	7.58	80	56	12	0.15	0.03	0.01	0.00
17	0.01	0.03	0.03	0.69	7.13	78	57	10	0.13	0.03	0.01	0.00
18	0.01	0.03	0.02	0.95	6.09	77	58	8.85	0.13	0.03	0.01	0.00
19	0.01	0.02	0.03	1.08	5.42	77	57	7.58	0.12	0.03	0.01	0.01
20	0.01	0.02	0.07	1.08	5.28	78	55	6.43	0.12	0.03	0.01	0.01
21	0.01	0.02	0.07	1.00	5.76	81	53	5.55	0.11	0.03	0.01	0.00
22	0.00	0.02	0.26	0.97	5.96	86	49	4.73	0.11	0.02	0.01	0.00
23	0.00	0.02	0.16	0.95	6.43	93	45	4.20	0.11	0.02	0.01	0.00
24	0.00	0.03	0.10	0.92	7.85	102	40	3.80	0.11	0.02	0.01	0.00
25	0.00	0.03	0.05	1.15	9.62	113	35	3.42	0.10	0.02	0.01	0.00
26	0.00	0.03	0.03	1.68	12	120	33	2.92	0.09	0.02	0.00	0.00
27	0.02	0.02	0.05	1.96	15	124	31	2.45	0.08	0.02	0.00	0.00
28	0.01	0.02	0.12	2.49	19	126	31	2.03	0.08	0.02	0.00	0.00
29	0.01	0.02	0.15	3.10	21	126	30	1.75	0.08	0.02	0.00	0.00
30	0.01	0.02	0.09	3.65	24	125	30	1.62	0.08	0.02	0.00	0.00
31	-	0.02	-	3.24	27	-	30	-	0.08	0.02	0.00	0.00
Total	0.26	0.79	2.03	28.17	262.45	2,241	1,980	480.33	9.69	1.18	0.32	0.03
Mean	0.01	0.02	0.07	0.91	8.47	74.7	63.8	16.0	0.31	0.04	0.01	0.00
Max.	0.02	0.06	0.26	3.65	27	126	121	32	1.41	0.07	0.05	0.01
Min.	0.00	0.00	0.02	0.09	2.74	28	30	1.62	0.08	0.02	0.00	0.00
Runoff	0.022	0.086	0.175	2.433	22.676	193.622	171.072	41.500	0.837	0.102	0.028	0.002

WATER YEAR 1963 : Max. 126 Min. 0.00 Mean 13.7 Annual Runoff 432.540 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sept.29	06.00	116.41	126				

WATER YEAR 1964  
MUNE RIVER BASIN

Huai Samran at Highway Bridge, Si Sa Ket. (M. 9)

Location: Lat 15° - 07' - 00" N, Long 104° - 19' - 20" E, on left bank downstream side of the bridge 200 meters north of the city jail, Amphoe Muang, Si Sa Ket.

Drainage Area: 3,026 sq.km referred to AMS Map 1:50,000.

Type of Gage: Staff gage.

Zero Gage at Bottom at: + 109.00 m. (M.S.L.)

Bench Mark: B.M. - No. 0339

Location: At the bridge on right bank.

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

Rated by Float: -

Rated by Current Meter: 1951

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

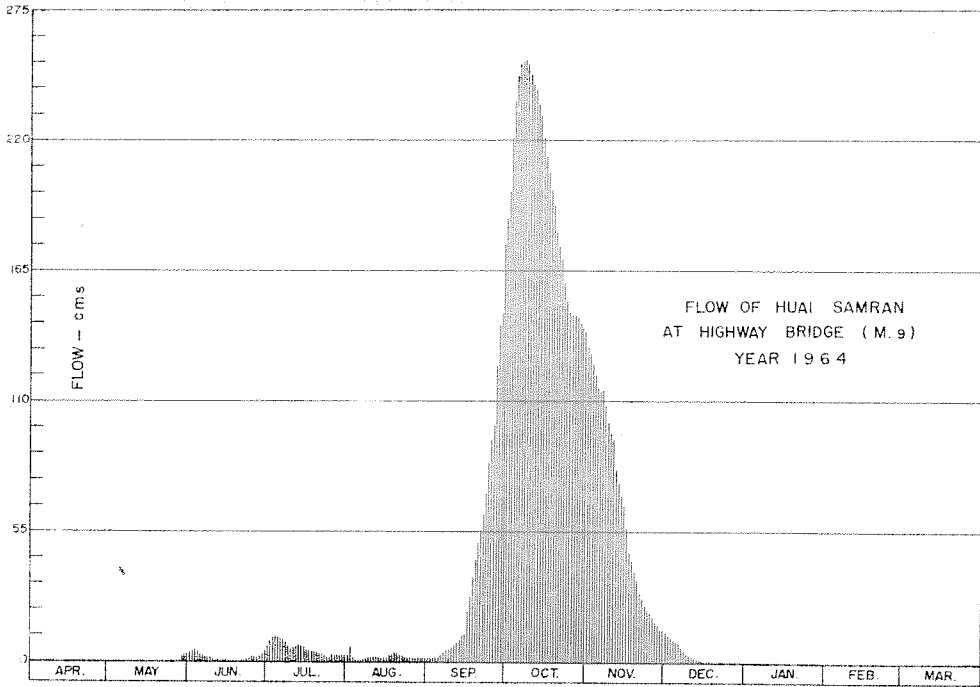
Overbank Flow Conditions: No overbank flow.

General Description: Stage record good, discharge record fair. Stage - discharge relationship used is defined by discharge measurements made during 1951. No diversions for irrigation above gage site.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	109.26	109.51	111.33	111.95	111.02	110.76	117.29	116.50	112.42	109.75	109.36	109.27
2	.28	.48	.46	112.06	.80	.75	.41	.47	.33	.74	.37	.34
3	.29	.46	.52	.16	110.58	.79	.67	.40	.18	.73	.40	.30
4	.31	.43	.36	.19	.42	.82	.80	.30	.08	.72	.42	.27
5	.33	.40	.18	.17	.34	.89	.90	.20	.04	.71	.39	.29
6	109.31	109.40	111.06	112.14	110.37	111.17	117.95	116.17	111.98	109.66	109.36	109.32
7	.31	.43	110.93	.08	.58	.28	.96	.18	.78	.56	.38	.34
8	.31	.47	.78	111.97	.70	.49	.97	.05	.56	.59	.31	.33
9	.30	.54	.65	.80	.85	.58	.95	115.87	.37	.64	.30	.33
10	.29	.57	.51	.59	.91	.73	.91	.76	.23	.64	.32	.34
11	109.36	109.62	110.39	111.68	110.95	111.90	117.87	115.70	111.03	109.62	109.35	109.33
12	.38	.67	.26	.76	.91	112.00	.85	.39	110.85	.59	.34	.32
13	.36	.65	.14	.86	.78	.05	.79	.23	.73	.56	.32	.31
14	.34	.56	.03	.81	.62	.27	.74	.07	.59	.55	.31	.31
15	.32	.66	109.96	.71	.59	.37	.64	114.95	.45	.54	.30	.30
16	109.32	109.72	109.90	111.63	110.76	112.95	117.56	114.64	110.35	109.51	109.31	109.29
17	.31	.78	.90	.53	111.02	113.30	.49	.20	.26	.48	.32	.25
18	.30	.88	110.05	.47	.23	.77	.42	.04	.19	.47	.34	.26
19	.29	.94	109.94	.44	.34	114.08	.34	113.88	.12	.48	.35	.27
20	.32	.97	.87	.36	.31	.35	.22	.72	.04	.49	.36	.29
21	109.32	109.77	109.82	111.25	111.17	114.59	117.14	113.45	110.01	109.50	109.32	109.30
22	.32	.88	110.12	.15	.03	.83	.06	.33	109.97	.49	.27	.32
23	.40	.99	.42	.02	110.87	115.10	116.95	.13	.95	.50	.28	.33
24	.44	110.15	.68	110.88	.78	.48	.83	.05	.94	.48	.31	.34
25	.50	.25	.88	.82	.74	.73	.75	112.95	.92	.43	.30	.34
26	109.49	109.38	110.76	111.15	110.69	115.85	116.75	112.85	109.89	109.40	109.30	109.35
27	.47	.50	.72	.12	.67	116.38	.74	.71	.84	.44	.29	.34
28	.43	.78	.88	.17	.75	.67	.73	.62	.82	.42	.29	.33
29	.40	111.06	111.16	.07	.77	.76	.69	.50	.81	.36	-	.32
30	.46	.12	.58	.10	.72	117.15	.66	.46	.78	.35	-	.30
31	-	.19	-	.15	.72	-	.62	-	.77	.35	-	.30
Mean	109.35	109.81	110.61	111.55	110.84	113.29	117.37	114.59	110.72	109.54	109.33	109.31
Max.	109.50	111.19	111.58	112.19	111.80	117.15	117.97	116.50	112.42	109.75	109.42	109.35
Min.	109.26	109.40	109.82	110.82	110.34	110.75	116.62	112.46	109.77	109.35	109.29	109.27

WATER YEAR 1964 : Max. 117.97 m. Min. 109.27 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.00	0.04	3.75	7.67	2.42	1.53	187	132	13	0.11	0.01	0.00
2	0.00	0.04	4.41	8.96	6.50	1.50	198	130	12	0.11	0.01	0.01
3	0.00	0.03	4.73	10	1.06	1.62	223	126	10	0.11	0.02	0.00
4	0.00	0.03	3.90	10	0.73	1.72	236	121	9.18	0.11	0.02	0.00
5	0.01	0.02	3.06	10	0.59	1.96	246	116	8.74	0.10	0.02	0.00
6	0.01	0.02	2.56	9.84	0.64	3.01	252	114	8.12	0.09	0.01	0.00
7	0.01	0.03	2.10	9.18	1.06	3.51	253	115	6.36	0.06	0.02	0.01
8	0.01	0.03	1.59	8.03	1.35	4.57	254	109	4.94	0.07	0.00	0.01
9	0.00	0.05	1.22	6.50	1.82	5.04	252	101	3.95	0.08	0.00	0.01
10	0.00	0.06	0.90	5.10	2.03	6.03	247	96	3.28	0.08	0.00	0.01
11	0.01	0.08	0.67	5.69	2.17	7.40	243	93	2.45	0.08	0.01	0.01
12	0.02	0.09	0.47	6.23	2.03	8.30	241	81	1.82	0.07	0.01	0.00
13	0.01	0.08	0.32	7.04	1.59	8.85	235	75	1.44	0.06	0.00	0.00
14	0.01	0.06	0.22	6.59	1.15	11	230	70	1.08	0.05	0.00	0.00
15	0.00	0.09	0.18	5.89	1.08	12	220	66	0.78	0.05	0.00	0.00
16	0.00	0.11	0.16	5.35	1.53	21	212	57	0.60	0.04	0.00	0.00
17	0.00	0.12	0.16	4.78	2.42	27	205	46	0.47	0.04	0.00	0.00
18	0.00	0.15	0.24	4.47	3.28	36	199	42	0.38	0.03	0.01	0.00
19	0.00	0.17	0.17	4.31	3.80	43	192	38	0.30	0.04	0.01	0.00
20	0.00	0.18	0.15	3.90	3.65	50	181	35	0.23	0.04	0.01	0.00
21	0.00	0.12	0.14	3.37	3.01	56	175	29	0.21	0.04	0.00	0.00
22	0.00	0.15	0.30	2.92	2.45	62	169	27	0.18	0.04	0.00	0.00
23	0.02	0.19	0.73	2.42	1.89	71	160	24	0.17	0.04	0.00	0.01
24	0.03	0.33	1.30	1.93	1.59	84	152	22	0.17	0.04	0.00	0.01
25	0.04	0.45	1.93	1.72	1.47	94	147	21	0.17	0.03	0.00	0.01
26	0.04	0.02	1.53	2.92	1.32	100	147	19	0.16	0.02	0.00	0.01
27	0.03	0.04	1.41	2.79	1.27	125	146	17	0.14	0.03	0.00	0.01
28	0.03	0.12	1.93	3.01	1.50	142	146	16	0.14	0.02	0.00	0.01
29	0.02	2.56	2.79	2.59	1.56	147	143	14	0.13	0.01	-	0.00
30	0.03	2.79	5.04	2.70	1.41	176	141	14	0.12	0.01	-	0.00
31	-	3.10	-	2.92	1.41	-	139	-	0.12	0.01	-	0.00
Total	3.33	11.35	48.06	168.83	59.78	1,312.04	6,171	1,966	90.83	1.71	0.16	0.12
Mean	0.01	0.37	1.60	5.45	1.93	43.7	199	65.5	2.93	0.05	0.00	0.00
Max.	0.04	3.10	5.04	10	6.50	176	254	132	13	0.11	0.02	0.01
Min.	0.00	0.02	0.14	1.72	0.59	1.50	139	14	0.12	0.01	0.00	0.00
Runoff - mcm.	0.028	0.981	4.152	14.587	5.165	113.360	533.174	169.852	7.847	0.148	0.014	0.010

WATER YEAR 1964 : Max. 254 Min. 0.00 Mean 26.9 Annual Runoff 849.120 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 8	18.00	117.98	255				

WATER YEAR 1963  
MUNE RIVER BASIN

Mune River at Kaeng Sa Phu, Ubon Ratchathani (M.11)

Location: Lat 15° - 14' - 46" N., Long 105° - 14' - 38" E., on right bank 200 meters downstream from the office of Amphoe Phibun Mangsahan and 100 meters downstream from Kaeng Sa Phu, Ubon Ratchathani.

Drainage Area: 112,190 sq.km. referred to AMS Map 1:50,000.

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 in front of Thai Government Saving Bank.

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: Rather unstable, no shifting adjustment for flow computation for years without actual ratings.

Overbank Flow Conditions: No overbank flow.

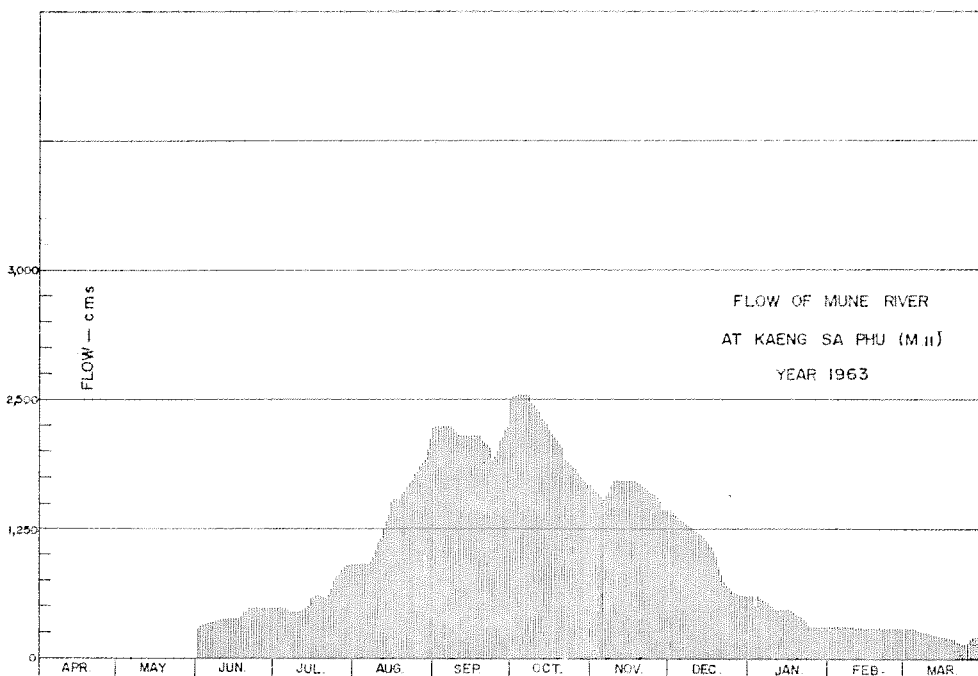
General Description: Records poor. Stage - discharge relationship used is defined by discharge measurements made for period 1951. No upstream diversions for irrigation except those for series of tank irrigation.

Remark: No gage height record for period Apr. 1 - May 31.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1			106.65	107.02	107.70	109.20	109.45	108.60	108.38	107.22	106.70	106.66
2			.70	.02	.70	.20	.46	.58	.35	.22	.70	.66
3			.72	.02	.70	.20	.47	.55	.32	.22	.70	.66
4			.73	.02	.70	.20	.47	.53	.28	.22	.70	.64
5			.75	.00	.70	.20	.47	.50	.26	.18	.70	.62
6			106.77	106.98	107.70	109.20	109.47	108.55	108.24	107.15	106.70	106.61
7			.78	.97	.73	.20	.47	.58	.22	.12	.70	.60
8			.79	.95	.78	.18	.40	.65	.20	.08	.70	.59
9			.80	.95	.88	.16	.38	.70	.18	.05	.69	.56
10			.81	.95	.98	.14	.35	.70	.16	.03	.68	.54
11			106.81	106.95	108.04	109.13	109.33	108.70	108.14	107.00	106.67	106.53
12			.82	.99	.15	.13	.27	.70	.11	.00	.67	.52
13			.82	107.01	.25	.13	.25	.70	.08	.00	.66	.51
14			.83	.05	.33	.13	.23	.70	.06	.00	.66	.50
15			.83	.16	.45	.13	.18	.70	.00	.00	.66	.50
16			106.84	107.18	108.50	109.13	109.14	108.70	107.98	107.00	106.66	106.49
17			.84	.20	.50	.13	.11	.70	.92	106.98	.66	.48
18			.88	.20	.50	.13	.08	.68	.85	.95	.66	.46
19			.95	.20	.55	.09	.05	.66	.79	.90	.66	.45
20			.96	.18	.58	.07	.02	.64	.65	.88	.66	.42
21			107.02	107.17	108.62	109.05	108.90	108.62	107.55	106.85	106.66	106.38
22			.02	.23	.68	.02	.88	.60	.42	.82	.66	.36
23			.02	.32	.72	108.90	.85	.58	.39	.78	.66	.35
24			.02	.45	.76	.93	.83	.56	.35	.70	.66	.35
25			.02	.50	.78	.98	.82	.54	.28	.70	.66	.35
26			107.02	107.55	108.83	109.08	108.77	108.52	107.26	106.70	106.66	106.44
27			.02	.62	.87	.11	.74	.48	.25	.70	.66	.48
28			.02	.65	.90	.18	.70	.38	.22	.70	.66	.50
29			.02	.68	109.00	.20	.68	.38	.22	107.00	.66	.50
30			.02	.68	.10	.44	.65	.38	.22	.70	.66	.50
31				.70	.20		.65		.22	.70		.50
Mean			106.88	101.21	108.35	109.13	109.11	108.59	107.82	106.94	106.67	106.51
Max.			107.02	107.70	109.20	109.44	109.47	108.70	108.38	107.22	106.70	106.66
Min.			106.65	106.95	107.70	108.90	108.65	108.38	107.22	106.70	106.66	106.35

WATER YEAR 1963 : Max. 109.47 m. Min. - m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1			295	497	920	2,240	2,527	1,635	1,442	617	320	300
2			320	497	920	2,240	2,539	1,617	1,216	617	320	300
3			331	497	920	2,240	2,550	1,590	1,391	617	320	300
4			336	497	920	2,240	2,550	1,572	1,359	617	320	290
5			347	485	920	2,240	2,550	1,545	1,343	593	320	280
6			358	474	920	2,240	2,550	1,590	1,327	575	320	275
7			364	468	941	2,240	2,550	1,617	1,311	557	320	270
8			369	457	976	2,216	2,470	1,680	1,295	533	320	265
9			375	457	1,050	2,193	2,447	1,725	1,279	515	315	250
10			380	457	1,125	2,170	2,412	1,725	1,263	503	310	240
11			380	457	1,170	2,158	2,389	1,725	1,247	485	305	235
12			386	479	1,255	2,158	2,320	1,725	1,223	485	305	230
13			386	491	1,335	2,158	2,297	1,725	1,200	485	300	225
14			391	515	1,399	2,158	2,274	1,725	1,185	485	300	220
15			391	581	1,502	2,158	2,216	1,725	1,140	485	300	220
16			397	593	1,545	2,158	2,170	1,725	1,125	485	300	215
17			397	605	1,545	2,158	2,136	1,725	1,080	463	300	210
18			419	605	1,545	2,158	2,105	1,707	1,050	457	300	200
19			457	605	1,590	2,115	2,075	1,689	985	430	300	195
20			463	593	1,617	2,095	2,045	1,671	887	419	300	180
21			497	587	1,653	2,075	1,925	1,653	822	402	300	161
22			497	623	1,707	2,045	1,905	1,635	758	386	300	152
23			497	677	1,745	1,925	1,875	1,617	718	364	300	147
24			497	757	1,785	1,955	1,855	1,599	695	320	300	147
25			497	790	1,805	2,005	1,845	1,581	653	320	300	147
26			497	822	1,855	2,105	1,795	1,563	641	320	300	190
27			497	868	1,895	2,135	1,765	1,528	635	320	300	210
28			497	887	1,925	2,216	1,725	1,442	617	320	300	220
29			497	907	2,025	2,240	1,707	1,442	617	320	300	220
30			497	913	2,125	2,516	1,680	1,442	617	320	300	220
31				920	2,240		1,680		617	320		220
Total			12,512	19,061	44,875	64,950	66,929	48,940	31,716	14,135	8,895	6,934
Mean			417	615	1,447	2,165	2,159	1,551	1,023	456	307	224
Max.			497	920	2,240	2,516	2,550	1,725	1,442	617	320	300
Min.			295	457	920	1,925	1,680	1,442	617	320	300	147
Runoff - c.c.m.s.			1,081.037	1,646.870	3,877.209	5,611.680	5,782.666	4,228.416	2,740.262	1,221.264	768.528	599.098

WATER YEAR 1963 : Max. 2,550 Min. - Mean - Annual Runoff - mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 5	18.00	109.47	2,550				

WATER YEAR 1964  
MUNE RIVER BASIN

Mune River at Kaeng Sa Phu, Ubon Ratchathani (M.11)

Location: Lat 15° - 14' - 46" N., Long 105° - 14' - 38" E., on right bank 200 meters downstream from the office of Amphoe Phibun Mangsahan and 100 meters downstream from Kaeng Sa Phu, Ubon Ratchathani.

Drainage Area: 112,190 sq.km. referred to AMS Map 1:50,000.

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 in front of Thai Government Saving Bank.

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: Rather unstable, no shifting adjustment for flow computation for years without actual ratings.

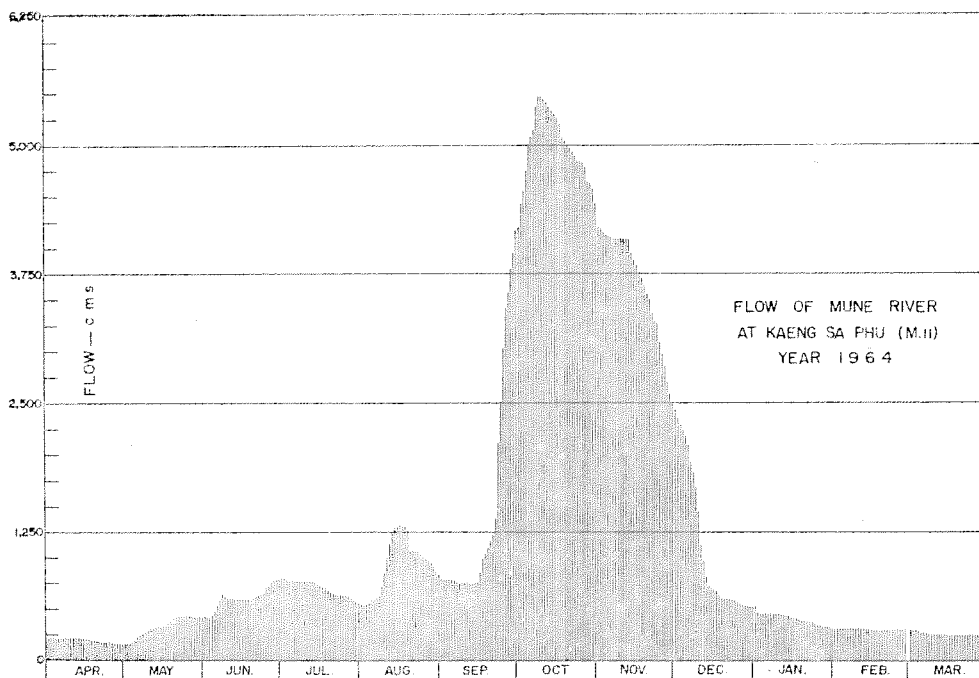
Overbank Flow Conditions: No overbank flow.

General Description: Records poor. Stage - discharge relationship used is defined by discharge measurements made for period 1951. No upstream diversions for irrigation except those for series of tank irrigation.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	106.50	106.40	106.90	107.52	107.12	107.50	110.83	110.83	109.38	107.08	106.70	106.66
2	.50	.40	.90	.52	.10	.50	.98	.81	.30	106.98	.70	.66
3	.50	.40	.90	.50	.11	.50	111.10	.80	.25	.95	.70	.66
4	.50	.45	.95	.48	.15	.50	.20	.78	.20	.95	.70	.63
5	.50	.48	107.02	.48	.18	.49	.40	.77	.15	.95	.70	.60
6	106.50	106.52	107.12	107.48	107.20	107.48	111.45	110.76	110.08	106.95	106.70	106.60
7	.50	.55	.18	.48	.22	.46	.50	.75	108.90	.95	.70	.59
8	.50	.58	.28	.48	.24	.45	.65	.75	.82	.95	.70	.58
9	.50	.62	.25	.48	.40	.45	.70	.75	.65	.95	.70	.57
10	.50	.66	.22	.48	.60	.45	.70	.75	.38	.94	.70	.57
11	106.50	106.68	107.20	107.48	107.80	107.45	111.69	110.75	107.99	106.93	106.69	106.57
12	.50	.70	.20	.48	108.00	.45	.68	.75	.78	.92	.68	.57
13	.50	.72	.20	.48	.19	.45	.65	.70	.58	.91	.67	.56
14	.48	.73	.20	.45	.20	.45	.62	.65	.40	.90	.67	.56
15	.48	.74	.20	.42	.21	.45	.60	.60	.38	.88	.66	.55
16	106.47	106.74	107.20	107.42	108.22	107.62	111.58	110.55	107.35	106.87	106.66	106.55
17	.47	.74	.20	.40	.22	.78	.54	.50	.30	.86	.66	.55
18	.46	.78	.20	.38	.22	.88	.44	.45	.25	.85	.66	.55
19	.46	.82	.20	.35	.18	.93	.42	.40	.20	.84	.66	.55
20	.45	.87	.20	.30	107.90	108.03	.40	.33	.20	.83	.66	.54
21	106.44	106.90	107.25	107.28	107.90	108.10	111.38	110.28	107.20	106.82	106.66	106.54
22	.44	.90	.27	.25	.90	.50	.35	.18	.20	.81	.66	.54
23	.43	.90	.28	.25	.90	109.08	.33	.10	.18	.80	.66	.54
24	.42	.90	.30	.25	.87	.44	.30	.08	.18	.78	.66	.54
25	.42	.90	.38	.25	.83	.88	.29	109.93	.14	.76	.66	.54
26	106.41	106.90	107.40	107.25	107.81	110.20	111.28	109.84	107.12	106.75	106.66	106.54
27	.41	.90	.47	.25	.78	.31	.25	.73	.10	.74	.66	.53
28	.40	.90	.49	.22	.75	.52	.15	.62	.08	.73	.66	.53
29	.40	.90	.50	.20	.68	.65	.12	.51	.08	.72	.66	.53
30	.40	.90	.52	.15	.63	.80	.10	.42	.08	.71	.66	.52
31		.90		.12	.58		110.99		.08	.70		.52
Mean	106.46	106.72	107.22	107.37	107.71	108.29	111.38	110.40	107.87	106.86	106.68	106.56
Max.	106.50	106.90	107.52	107.52	108.22	110.80	111.70	110.83	109.38	107.08	106.70	106.66
Min.	106.40	106.40	106.90	107.12	107.10	107.45	110.83	109.42	107.08	106.70	106.66	106.52

WATER YEAR 1964 : Max. 111.70 m. Min. 106.40 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	220	170	430	803	557	790	4,207	4,207	2,447	533	320	300
2	220	170	430	803	545	790	4,421	4,179	2,355	474	320	300
3	220	170	430	790	551	790	4,575	4,169	2,297	457	320	300
4	220	195	457	777	575	790	4,715	4,137	2,240	457	320	285
5	220	210	487	777	593	783	5,005	4,123	2,181	457	320	270
6	220	230	557	777	605	777	5,082	4,109	2,105	457	320	270
7	220	245	593	777	617	764	5,150	4,095	1,925	457	320	265
8	220	260	653	777	629	757	5,372	4,095	1,845	457	320	260
9	220	280	635	777	725	757	5,460	4,095	1,680	457	320	255
10	220	300	617	777	855	757	5,460	4,095	1,442	452	320	255
11	220	310	605	777	990	757	5,434	4,095	1,132	446	315	255
12	220	320	605	777	1,140	757	5,419	4,095	976	441	310	255
13	220	331	605	777	1,287	757	5,372	4,095	842	435	305	250
14	210	336	605	757	1,295	757	5,336	3,960	725	430	305	250
15	210	342	605	738	1,305	757	5,305	3,895	713	419	300	245
16	205	342	605	738	1,311	868	5,274	3,832	695	413	300	245
17	205	342	605	725	1,311	976	5,212	3,770	665	408	300	245
18	200	364	605	713	1,311	1,050	5,067	3,707	635	402	300	245
19	200	386	605	695	1,279	1,087	5,036	3,645	605	397	300	245
20	195	413	605	665	1,065	1,162	5,005	3,561	605	391	300	240
21	190	430	635	653	1,065	1,215	4,974	3,501	605	386	300	240
22	190	430	647	635	1,065	1,545	4,927	3,381	605	380	300	240
23	185	430	653	635	1,065	2,105	4,896	3,285	593	375	300	240
24	180	430	665	635	1,042	2,516	4,850	3,261	593	364	300	240
25	180	430	713	635	1,012	3,022	4,845	3,081	569	353	300	240
26	175	430	725	635	997	3,405	4,831	2,976	557	347	300	240
27	175	430	770	635	976	3,537	4,787	2,849	545	342	300	235
28	170	430	783	617	955	3,795	4,645	2,723	533	336	300	235
29	170	430	790	605	907	3,960	4,603	2,595	533	331		235
30	170	430	803	575	874	4,165	4,575	2,495	533	325		235
31		430		557	842		4,435		533	320		230
Total	6,070	10,446	18,533	22,014	29,344	45,948	154,275	110,101	54,309	12,699	8,635	7,840
Mean	202	337	618	719	946	1,532	4,977	3,670	1,107	410	308	253
Max.	220	430	803	803	1,311	4,165	5,460	4,207	2,447	533	320	300
Min.	170	170	430	557	545	757	4,207	2,495	533	320	300	230
Runoff - DCR.	524.446	902.534	1,601.251	1,902.010	2,535.322	3,969.907	13,329.369	9,512.726	2,964.298	1,097.194	746.064	677.376

WATER YEAR 1964 : Max. 5,460 Min. 170 Mean 1,261 Annual Runoff 39,762.490 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 10	18.00	111.70	5,460				

WATER YEAR 1963  
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 20 kilometers upstream from Phawaphutanon Bridge on the road Amnat Charoen - Kham Khuan Kao, about 35 kilometers from Amphoe Amnat Charoen, Ubon Ratchathani.

Drainage Area: 1654 sq.km. referred to AMS Map 1:50,000.

Type of Gage: Water - stage recorder.

Zero Gage at Bottom at: + 119.90 m. (M.S.L.)

Bench Mark: B.M. of the Survey Department No. P.572.

Location: On left bank at provincial roads store.

Elevation: + 128.834 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: 1954 - 55, 1957 to date.

Rating Operation:

Period of Rating: 1955 - 57.

Rated by Float: -

Rated by Current Meter: 1955 - 57.

Stability of Channel Regimes: Rather unstable, no shifting adjustment for flow computation for years without actual ratings.

Overbank Flow Conditions: No overbank flow.

General Description: Records fair except those for periods of no gage height record, which are poor. Stage - discharge relationship used is defined by discharge measurements made for period 1965 - 67. No diversions for irrigation above gage site.

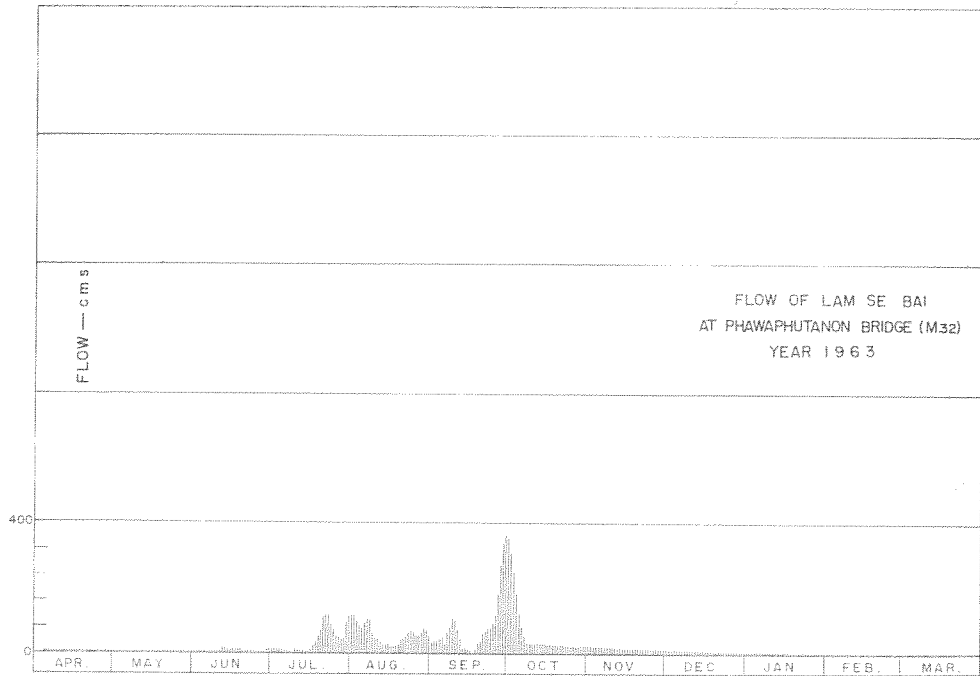
Remark: No gage height record for period Apr. 1 - 4, May 29, Jul.27 and Sept.17.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1		121.16	121.68	122.20	124.82	123.34	126.48	122.81	122.24	121.75	121.22	121.10
2		.15	.80	.20	.81	.40	.22	.80	.22	.74	.21	.10
3		.15	.78	.19	.62	.51	125.85	.79	.20	.73	.20	.09
4	121.20	.16	.76	.18	.42	.66	.32	.78	.18	.71	.19	.09
5	.20	.16	.80	.07	.40	.81	124.76	.77	.17	.70	.18	.09
6	121.20	121.15	121.82	121.95	124.62	123.00	124.25	122.73	122.15	121.67	121.17	121.08
7	.19	.15	.79	.84	.73	124.15	123.75	.69	.14	.66	.15	.08
8	.19	.14	.73	.87	.69	.42	.31	.67	.14	.65	.15	.08
9	.18	.14	.68	.99	.02	.72	.21	.64	.14	.64	.14	.08
10	.18	.14	.71	122.06	123.66	.64	.20	.61	.13	.61	.14	.07
11	121.19	121.14	121.99	122.03	123.67	124.24	123.19	122.60	122.12	121.59	121.14	121.07
12	.19	.14	122.58	.00	.44	123.72	.18	.58	.11	.58	.14	.07
13	.19	.14	.38	121.95	.19	122.14	.18	.57	.08	.57	.14	.07
14	.19	.14	.20	.91	.06	.52	.17	.55	.05	.54	.14	.07
15	.19	.14	.06	.93	.14	.10	.14	.53	.04	.53	.14	.07
16	121.19	121.14	122.16	122.28	122.96	122.00	123.10	122.52	122.02	121.52	121.13	121.07
17	.18	.14	.23	.88	.87	.87	.08	.50	.00	.50	.13	.07
18	.18	.14	.21	123.45	.87	.36	.06	.50	121.99	.49	.13	.07
19	.18	.14	.10	.90	123.05	123.31	.04	.49	.98	.47	.13	.07
20	.18	.15	121.99	124.41	.64	.57	.01	.47	.96	.46	.12	.07
21	121.18	121.25	121.98	124.72	123.68	124.02	123.00	122.45	121.95	121.44	121.12	121.07
22	.18	.26	.79	.77	.97	.21	122.98	.45	.94	.42	.11	.07
23	.18	.26	.73	.75	124.15	.32	.95	.41	.93	.40	.10	.07
24	.18	.48	.58	.45	.17	.37	.93	.39	.91	.37	.10	.06
25	.18	.55	.61	.09	.16	.50	.92	.38	.90	.34	.10	.06
26	121.18	121.53	121.54	125.95	123.91	124.91	122.89	122.36	121.88	121.34	121.10	121.06
27	.18	.53	.59	.59	.96	125.47	.88	.35	.86	.32	.10	.06
28	.17	.52	.72	.62	124.09	126.03	.86	.35	.84	.31	.10	.06
29	.17		122.12	.58	.31	.43	.85	.31	.83	.29	.10	.06
30	.16	.58	.20	124.69	.19	.53	.83	.27	.79	.26	.06	.06
31		.57		.65	123.78		.82		.77	.23		.06
Mean			121.91		123.90		123.55	122.54	122.02	121.51	121.14	121.07
Max.			122.58		124.82		126.48	122.81	122.24	121.75	121.22	121.10
Min.			121.54		122.87		122.82	122.27	121.77	121.23	121.10	121.06

WATER YEAR 1963 : Max. 126.53 m. Min. 121.06 m.





DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1		1.30	4.80	11	114	32	351	20	11	5.50	1.60	1.00
2		1.25	6.00	11	113	34	304	20	11	5.40	1.55	1.00
3		1.25	5.70	10	96	37	242	20	11	5.30	1.50	0.96
4	1.50	1.30	5.60	10	80	42	169	20	10	5.10	1.45	0.96
5	1.50	1.30	6.00	8.91	79	48	108	19	10	5.00	1.40	0.96
6	1.50	1.25	6.20	7.50	96	24	69	19	9.95	4.70	1.35	0.92
7	1.45	1.25	5.90	6.40	106	64	45	18	9.82	4.60	1.25	0.92
8	1.45	1.20	5.30	6.70	102	80	31	18	9.82	4.50	1.25	0.92
9	1.40	1.20	4.80	7.90	57	105	59	17	9.82	4.40	1.20	0.92
10	1.40	1.20	5.10	8.78	42	98	28	17	9.69	4.10	1.20	0.88
11	1.45	1.20	7.90	8.39	42	69	28	16	9.56	3.92	1.20	0.88
12	1.45	1.20	16	8.00	35	44	28	16	9.43	3.84	1.20	0.88
13	1.45	1.20	13	7.50	28	9.82	28	16	9.04	3.76	1.20	0.88
14	1.45	1.20	11	7.10	25	15	28	16	8.65	3.52	1.20	0.88
15	1.45	1.20	8.78	7.30	27	9.30	27	15	8.52	3.44	1.20	0.88
16	1.45	1.20	10	12	23	8.00	26	15	8.26	3.36	1.15	0.88
17	1.40	1.20	11	22	21		26	15	8.00	3.20	1.15	0.88
18	1.40	1.20	11	35	21	13	25	15	7.99	3.13	1.15	0.88
19	1.40	1.20	9.30	52	25	31	25	15	7.80	2.99	1.15	0.88
20	1.40	1.25	7.90	80	41	39	24	14	7.60	2.92	1.10	0.88
21	1.40	1.75	7.80	105	43	57	24	14	7.50	2.78	1.10	0.88
22	1.40	1.80	5.90	109	55	67	24	14	7.40	2.64	1.05	0.88
23	1.40	1.80	5.30	107	64	74	23	14	7.30	2.50	1.00	0.88
24	1.40	3.06	4.80	82	65	77	23	13	7.10	2.35	1.00	0.84
25	1.40	3.60	4.10	60	64	86	22	13	7.00	2.20	1.00	0.84
26	1.40	3.44	3.52	54	52	122	22	13	6.80	2.20	1.00	0.84
27	1.40	3.44	3.92		55	188	22	13	6.60	2.10	1.00	0.84
28	1.35	3.66	5.20	41	60	270	21	12	6.40	2.05	1.00	0.84
29	1.35		9.30	43	73	342	21	12	6.30	1.95	1.00	0.84
30	1.30		11	102	66	361	21	11	5.90	1.80		0.84
31		3.76		117	47		20		5.77	1.65		0.84
Total			222.12		1,817		1,884	470	261.02	106.90	34.60	27.60
Mean			7.40		58.6		60.7	15.6	8.42	3.45	1.19	0.89
Max.			16		114		351	20	11	5.50	1.60	1.00
Min.			3.52		21		20	11	5.77	1.65	1.00	0.84
Runoff mm.			19.191		156.989		162.778	40.608	22.552	9.236	2.989	2.385

WATER YEAR 1963 : Max. 361 Min. 0.84 Mean Annual Runoff mm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sept. 30	24.00	126.54	363				

WATER YEAR 1964  
MUNF 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 20 kilometers upstream from Phawaphutanon Bridge on the road Amnat Charoen - Kham Khoen Kaeo, about 35 kilometers from Amphoe Amnat Charoen, Ubon Ratchathani.

Drainage Area: 1,654 sq.km. referred to AMS Map 1:50,000.

Type of Gage: Water - stage recorder.

Zero Gage at Bottom at: + 119.90 m. (M.S.L.)

Bench Mark: B.M. of The Survey Department No. 572.

Location: On left bank at provincial roads store.

Elevation: + 128.834 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: 1954 - 55, 1957 to date.

Rating Operation:

Period of Rating: 1955 - 57.

Rated by Float: -

Rated by Current Meter: 1955 - 57.

Stability of Channel Regimes: Rather unstable, no shifting adjustment for flow computation for years without actual ratings.

Overbank Flow Conditions: Flow began to overtop right bank at elevations + 127.50 m. (M.S.L.)

General Description: Records fair except those for periods of no gage height record, which are poor. Stage - discharge relationship used is defined by discharge measurements made for period 1965 - 67. No upstream diversions for irrigation. The data presented is not adjustment made for virgin flow.

Remark: No gage height record for periods Apr. 1 - 4, Oct. 14 - 20.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1		121.02	121.21	121.99	122.32	125.66	125.97	123.42	122.37	121.51	120.95	121.10
2		.02	.26	122.05	.39	.60	.41	.35	.35	.48	.94	.10
3		.02	.35	.10	.32	.46	124.88	.38	.31	.45	.94	.10
4		.02	.52	.13	.26	.16	.48	.35	.25	.42	.94	.10
5	121.06	.02	.61	.08	.48	124.79	.12	.30	.21	.38	.94	.10
6	121.06	121.02	121.66	121.99	122.59	124.26	123.70	123.25	122.15	121.36	120.94	121.10
7	.06	.02	.72	122.01	.84	.96	.75	.21	.10	.34	.94	.10
8	.06	.02	.62	121.98	.99	123.62	.71	.16	.05	.32	.95	.09
9	.06	.02	.56	.91	123.11	124.00	.70	.11	121.99	.30	.95	.09
10	.06	.02	.65	.83	.16	.34	.68	.05	.56	.28	.97	.08
11	121.06	121.02	121.88	121.76	123.01	124.80	123.67	123.00	121.95	121.26	120.98	121.07
12	.06	.05	122.12	.66	122.96	125.46	.65	122.95	.95	.24	121.00	.06
13	.06	.04	.26	.56	.77	126.01	.62	.90	.91	.21	.01	.06
14	.06	.22	.42	.54	.62	.94	.82	.89	.89	.19	.05	.06
15	.06	.41	.50	.54	.62	127.13		.82	.88	.18	.06	.06
16	121.06	121.64	122.66	121.53	122.62	127.81		122.77	121.85	121.17	121.06	121.06
17	.06	.80	.76	.52	.82	128.55		.73	.81	.15	.08	.06
18	.06	122.12	123.90	.52	.99	129.29		.69	.80	.14	.09	.06
19	.06	.23	122.95	.51	123.16	.95		.65	.79	.12	.10	.04
20	.06	.26	123.05	.50	.41	130.22		.62	.76	.12	.10	.04
21	121.05	122.17	123.17	121.50	123.66	130.48	123.45	122.58	121.74	121.10	121.10	121.04
22	.05	121.97	.36	.50	.91	.64	.52	.54	.74	.09	.16	.04
23	.05	.69	.41	.51	124.18	.23	.68	.50	.73	.08	.10	.03
24	.05	.37	.40	.51	.46	129.74	.87	.46	.73	.06	.16	.03
25	.05	.26	.28	.51	.68	.20	124.01	.43	.70	.05	.10	.02
26	121.05	121.26	123.09	121.51	124.82	128.66	123.98	122.42	121.67	121.04	121.10	121.02
27	.02	.24	122.76	.69	.37	.12	.74	.42	.66	.02	.10	.03
28	.02	.22	.29	.68	.51	127.86	.51	.40	.64	.00	.10	.03
29	.02	.22	121.96	.71	.71	.06	.47	.40	.61	120.98		.03
30	.02	.21	.95	.89	125.82	126.52	.45	.38	.58	.98		.04
31		.20		.13	.78		.43		.54	.97		.04
Mean		121.35	122.34	121.70	123.43	127.07		122.85	121.89	121.19	121.03	121.06
Max.		122.26	123.90	122.13	125.82	130.64		123.42	122.37	121.51	121.10	121.10
Min.		121.02	121.21	121.13	122.26	123.62		122.38	121.54	120.97	120.94	121.02

WATER YEAR 1964 : Max.                      m.                      Min.                      m.



WATER YEAR 1963  
MUNE RIVER BASIN

Lam Phra Phloeng at Pak Thong Chai, Nakhon Ratchasima (M.33)

Location: Lat 14° - 35' - 20" N., Long 101° - 50' - 30" E., on right bank 50 meters upstream of Lam Phra Phloeng Dam site.  
Ban Bu Hua Chang, Amphoe Pak Thong Chai, Nakhon Ratchasima.

Drainage Area: 822 sq.km. referred to AMS Map 1:50,000.

Type of Gage: Water - stage recorder.

Zero Gage at Bottom at: + 226.76 m. (M.S.L.)

Bench Mark: B.M. of Survey Division No.3.

Location:

Elevation: + 264.086 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: 1955 to 1964.

Rating Operation:

Period of Rating: 1955 to 1964.

Rated by Float: -

Rated by Current Meter: 1955 to 1964.

Stability of Channel Regimes: Rather unstable, shifting adjustment and mean hourly discharge are made for flow computation.

Overbank Flow Conditions: No overbank flow.

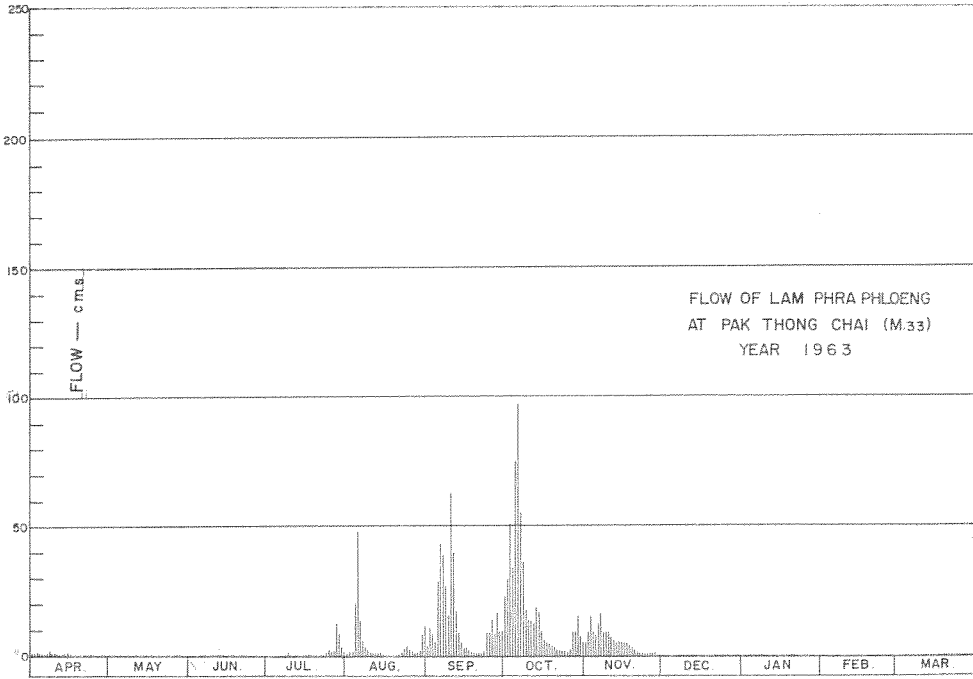
General Description: Records good. Stage - discharge relationship used by discharge measurements made during 1963.  
No diversions for irrigation above gage site.

Remark: Mean hourly discharge adjustments are made for periods Aug. 4 - 7, Sep. 5 - 12 and Oct. 1 - 6.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	227.40	227.24	227.16	227.14	227.86	228.41	230.68	228.58	228.01	227.69	227.38	227.24
2	.55	.26	.14	.18	.86	229.34	231.43	229.21	.00	.68	.36	.24
3	.85	.26	.15	.24	.78	228.97	232.86	.93	227.97	.68	.36	.24
4	.75	.24	.15	.25	230.08	.54	231.51	.12	.97	.67	.36	.24
5	.40	.23	.17	.47	232.73	230.34	233.52	228.97	.96	.66	.35	.23
6	227.29	227.24	227.21	227.53	229.80	232.37	233.95	229.65	227.94	227.65	227.34	227.24
7	.32	.25	.20	.52	228.56	231.95	232.58	230.07	.91	.62	.34	.24
8	.95	.24	.20	.61	.19	.28	231.59	229.18	.88	.61	.31	.24
9	.53	.25	.20	.81	.05	229.95	230.11	.20	.89	.61	.34	.25
10	.50	.24	.20	.71	227.97	232.96	229.60	.14	.89	.59	.32	.24
11	227.47	227.22	227.19	227.65	227.91	232.32	229.78	228.88	227.88	227.58	227.36	227.24
12	.45	.21	.19	.61	.88	230.18	.43	.68	.96	.56	.32	.24
13	.44	.20	.18	.59	.85	229.10	230.21	.56	.91	.56	.31	.23
14	.63	.19	.18	.57	.79	228.59	.00	.65	.88	.55	.29	.22
15	.67	.19	.17	.60	.76	.30	229.02	.62	.81	.54	.32	.22
16	227.51	227.19	227.17	227.60	227.71	228.14	228.63	228.61	227.81	227.52	227.31	227.22
17	.45	.23	.17	.60	.67	.04	.50	.55	.87	.52	.28	.23
18	.41	.28	.16	.66	.65	227.96	.99	.41	.86	.52	.27	.27
19	.37	.29	.15	.66	.68	.91	.35	.34	.85	.52	.32	.25
20	.34	.32	.15	.63	.70	.88	.18	.28	.84	.50	.28	.23
21	227.31	227.38	227.15	227.61	227.78	227.84	228.08	228.23	227.82	227.49	227.25	227.23
22	.29	.33	.15	.63	.89	.81	.01	.18	.80	.48	.24	.23
23	.28	.31	.14	.71	228.20	.92	227.95	.15	.78	.47	.24	.23
24	.27	.30	.14	.81	.48	229.11	228.07	.12	.77	.45	.24	.23
25	.26	.28	.14	228.00	.11	.09	.21	.10	.75	.43	.26	.23
26	227.25	227.26	227.14	227.92	227.99	229.77	228.46	228.10	227.74	227.42	227.26	227.23
27	.24	.24	.14	228.05	.84	228.94	229.27	.14	.73	.41	.25	.23
28	.23	.19	.14	229.55	.81	230.27	.14	.16	.73	.40	.24	.24
29	.23	.16	.14	228.95	.94	229.22	.87	.02	.72	.40	.24	.23
30	.23	.18	.14	.21	229.04	.07	228.94	.00	.71	.38	.22	.22
31		.18		227.92	.62		.66		.69	.38		.22
Mean	227.43	227.24	227.16	227.74	228.29	229.42	299.78	288.66	227.85	227.53	227.30	227.23
Max.	227.95	227.38	227.21	229.55	232.73	232.96	233.95	230.07	228.01	227.69	227.38	227.27
Min.	227.23	227.16	227.14	227.14	227.65	227.81	228.18	228.00	227.69	227.38	227.24	227.22

WATER YEAR 1963 : Max. 233.95 m. Min. 227.14 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.40	0.01	0.01	0.01	1.71	3.80	23	5.47	0.82	0.20	0.05	0.01
2	0.21	0.01	0.00	0.01	1.75	11	30	10	0.79	0.19	0.02	0.01
3	1.15	0.01	0.00	0.01	1.55	8.35	51	16	0.71	0.19	0.02	0.01
4	0.79	0.01	0.00	0.01	*21	5.40	32	9.40	0.71	0.19	0.02	0.01
5	0.05	0.01	0.01	0.09	*49	*21	78	8.28	0.68	0.18	0.02	0.01
6	0.01	0.01	0.01	0.18	*14	*44	97	13	0.65	0.16	0.02	0.01
7	0.01	0.01	0.01	0.16	* 5.14	*39	49	17	0.55	0.15	0.02	0.01
8	1.92	0.01	0.01	0.37	3.48	*27	36	9.85	0.48	0.14	0.01	0.01
9	0.21	0.01	0.01	1.15	2.25	*16	18	10	0.50	0.14	0.02	0.01
10	0.13	0.01	0.01	0.70	1.84	*63	14	9.77	0.50	0.13	0.01	0.01
11	0.09	0.01	0.01	0.50	1.47	*40	14	7.60	0.48	0.12	0.02	0.01
12	0.07	0.01	0.01	0.37	1.39	*18	13	6.16	0.68	0.11	0.01	0.01
13	0.06	0.01	0.01	0.31	1.20	9.47	19	5.34	0.55	0.11	0.01	0.01
14	0.44	0.01	0.01	0.26	1.24	5.53	17	5.95	0.48	0.10	0.01	0.01
15	0.56	0.01	0.01	0.34	0.84	3.91	9.85	5.74	0.34	0.10	0.01	0.01
16	0.15	0.01	0.01	0.34	0.67	3.42	6.44	5.67	0.34	0.09	0.01	0.01
17	0.07	0.01	0.01	0.34	0.41	2.50	5.21	5.27	0.46	0.09	0.01	0.01
18	0.04	0.01	0.01	0.53	0.58	1.93	5.08	4.36	0.44	0.09	0.01	0.01
19	0.02	0.01	0.00	0.53	0.50	1.79	4.13	3.97	0.45	0.09	0.01	0.01
20	0.02	0.01	0.00	0.44	0.58	1.71	3.31	2.16	0.40	0.08	0.01	0.01
21	0.01	0.05	0.00	0.37	0.87	1.55	2.95	1.85	0.36	0.07	0.01	0.01
22	0.01	0.02	0.00	0.44	1.24	1.43	2.35	1.56	0.32	0.07	0.01	0.01
23	0.01	0.01	0.00	0.70	3.00	1.84	2.40	1.40	0.30	0.06	0.01	0.01
24	0.01	0.01	0.00	1.15	4.08	9.25	2.06	1.25	0.29	0.05	0.01	0.01
25	0.01	0.01	0.00	2.25	2.80	9.10	1.67	1.15	0.27	0.04	0.01	0.01
26	0.01	0.01	0.00	1.74	2.40	14	3.00	1.15	0.25	0.04	0.01	0.01
27	0.01	0.01	0.00	2.35	1.51	8.50	9.77	1.35	0.24	0.03	0.01	0.01
28	0.01	0.01	0.00	13	1.20	17	10	1.45	0.24	0.03	0.01	0.01
29	0.01	0.01	0.00	8.35	1.59	9.47	16	0.85	0.23	0.03	0.01	0.01
30	0.01	0.01	0.00	3.59	8.05	9.47	7.90	0.79	0.22	0.03	0.01	0.01
31	0.01	0.01	0.00	1.84	12		5.10		0.20	0.03		0.01
Total	6.48	0.33	0.15	42.41	149.34	408.42	588.22	173.79	13.91	3.15	0.39	0.31
Mean	0.22	0.01	0.00	1.37	48.2	13.6	18.9	5.79	0.45	0.10	0.01	0.01
Max.	1.92	0.05	0.01	13	49	63	97	17	0.82	0.20	0.05	0.01
Min.	0.01	0.01	0.00	0.01	0.41	1.43	1.67	0.79	0.20	0.03	0.01	0.01
Runoff - mcm.	0.560	0.028	0.013	3.664	12.903	35.287	50.822	15.015	1.202	0.270	0.034	0.027

WATER YEAR 1963 : Max. 97 Min. 0.00 Mean 3.79 Annual Runoff 119.826 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 6	05.00	234.88	146				

WATER YEAR 1964  
MUNE RIVER BASIN

Lam Phra Phloeng at Pak Thong Chai, Nakhon Ratchasima (M.35)

Location: Lat 14° - 35' - 20" N., Long 101° - 50' - 30" E., on right bank 50 meters upstream of Lam Phra Phloeng Dam site.  
Ban Bu Hua Chang, Amphoe Pak Thong Chai, Nakhon Ratchasima.

Drainage Area: 822 sq.km. referred to AMS Map 1:50,000.

Type of Gage: Water - stage recorder.

Zero Gage at Bottom at: + 226.76 m. (M.S.L.)

Bench Mark: B.M. of Survey Division No.3

Location:

Elevation: + 264.086 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: 1955 to 1964.

Rating Operation:

Period of Rating: 1955 to 1964.

Rated by Float: -

Rated by Current Meter: 1955 to 1964.

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

Overbank Flow Conditions: No overbank flow.

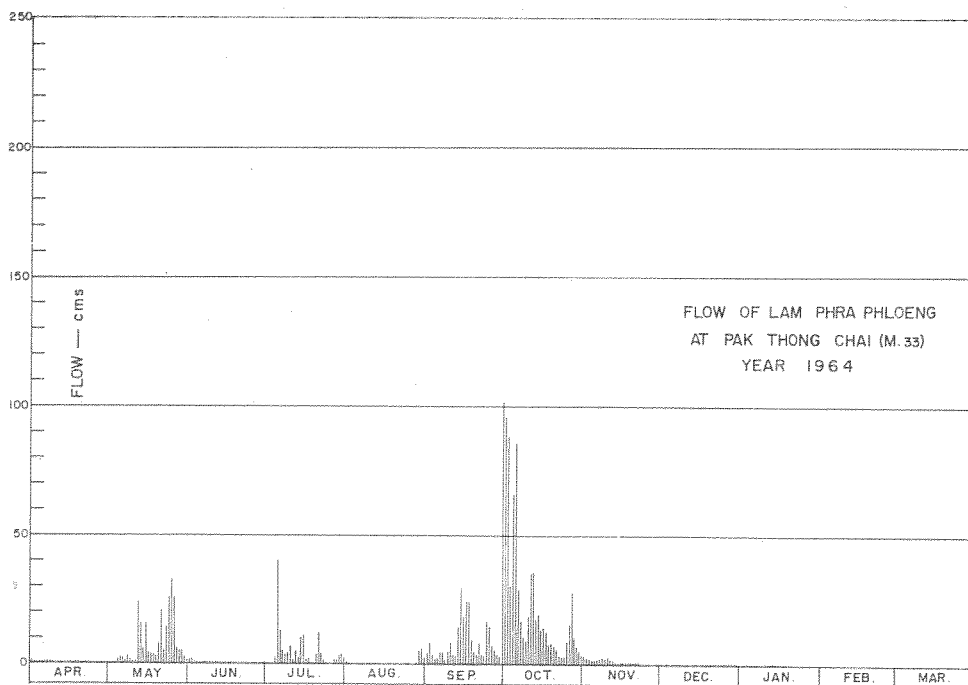
General Description: Records good. Stage - discharge relationship used by discharge measurements made during 1963 - 64. No diversions for irrigation above gage site.

Remark: No gage height record since Jan. 19 due to the storage at Lam Phra Phloeng reservoir.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	227.22	227.48	228.35	227.63	228.07	228.78	235.20	228.55	227.90	227.88		
2	.22	.48	.37	.62	227.94	229.27	233.66	.44	.89	.89		
3	.22	.36	.05	.61	.86	228.61	231.46	.37	.90	.93		
4	.22	228.24	.01	228.47	.81	.38	233.16	.34	.89	.93		
5	.22	.52	227.93	232.10	.79	.40	.64	.26	.87	.92		
6	227.22	228.35	227.88	229.88	227.76	228.78	231.28	228.30	227.86	227.92		
7	.22	.20	.83	228.89	.75	.80	230.20	.41	.85	.92		
8	.22	.57	.80	.51	.71	.27	229.56	.45	.85	.92		
9	.22	.27	.79	.78	.69	.83	.36	.33	.68	.94		
10	.22	.06	.71	229.07	.68	229.49	230.40	.44	.56	.95		
11	227.22	228.01	227.50	228.28	227.68	228.69	231.81	228.35	227.73	227.93		
12	.22	231.01	.69	.77	.67	.51	.80	.25	.77	.96		
13	.22	230.11	.74	.47	.69	230.02	230.32	.20	.92	.95		
14	.22	229.01	.72	229.60	.73	231.46	.55	.16	228.01	.94		
15	.22	230.11	.70	.64	.72	230.41	229.90	.11	.03	.90		
16	227.22	228.81	227.69	228.31	227.71	230.97	229.98	228.07	227.99	227.88		
17	.21	.68	.68	.37	.90	.97	.81	.05	.98	.89		
18	.21	.73	.67	.16	.92	229.49	.22	.03	.96	.84		
19	.21	.48	.64	.10	.86	228.81	.25	.01	.96			
20	.21	229.29	.64	.70	.81	.76	.14	227.99	.95			
21	227.22	230.62	227.65	229.84	227.82	229.24	228.92	227.98	227.95			
22	.22	228.91	.65	228.61	.79	228.72	.69	.98	.95			
23	.23	230.05	.65	.26	.74	.55	.57	.98	.95			
24	.22	231.16	.64	.13	.71	230.28	.53	.97	.98			
25	.22	.63	.64	.04	.70	.07	229.39	.92	228.00			
26	227.22	231.03	227.50	228.04	227.71	229.19	230.17	227.91	228.00			
27	.22	229.02	.64	.29	.77	228.83	231.20	.89	.00			
28	.37	228.80	.63	.24	228.12	.63	229.57	.89	227.99			
29	228.06	.90	.62	.60	.82	.56	.12	.91	.99			
30	227.60	.44	.64	.73	229.07	234.19	228.86	.90	.99			
31		.23		.29	228.49		.71		.94			
Mean	227.26	229.02	227.75	228.63	227.89	229.40	230.43	228.15	227.91			
Max.	228.06	231.63	228.37	232.10	229.07	234.19	235.20	228.55	228.03			
Min.	227.21	227.36	227.50	227.61	227.67	228.27	228.53	227.89	227.56			

WATER YEAR 1964 : Max. 235.20 m. Min. - m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.00	0.03	2.65	0.14	1.38	5.08	217	3.70	0.70	0.64		
2	0.00	0.03	2.75	0.13	0.86	8.56	88	3.10	0.67	0.67		
3	0.00	0.00	1.30	0.11	0.58	4.06	31	2.75	0.70	0.82		
4	0.00	2.10	1.14	3.25	0.43	2.80	66	2.60	0.67	0.82		
5	0.00	3.52	0.82	40	0.38	2.90	86	2.20	0.61	0.78		
6	0.00	2.65	0.64	14	0.34	5.08	29	2.40	0.58	0.78		
7	0.00	1.90	2.49	5.83	0.32	5.20	17	2.95	0.55	0.78		
8	0.00	3.82	0.40	3.46	0.26	2.25	11	3.15	0.55	0.78		
9	0.00	2.25	0.38	5.08	0.23	5.41	9.28	2.55	0.22	0.86		
10	0.00	1.34	0.26	7.09	0.22	10	19	3.10	0.08	0.90		
11	0.00	1.14	0.05	2.30	0.22	4.54	36	2.65	0.29	0.86		
12	0.00	25	0.23	5.02	0.20	3.46	36	2.15	0.35	0.94		
13	0.00	16	0.31	3.25	0.23	15	18	1.90	0.78	0.90		
14	0.00	6.67	0.28	11	0.29	31	20	1.74	1.14	0.86		
15	0.00	16	0.25	12	0.28	19	14	1.54	1.22	0.70		
16	0.00	5.27	0.23	2.45	0.26	25	15	1.38	1.00	0.64		
17	0.00	4.48	0.22	2.75	0.70	25	13	1.30	1.02	0.67		
18	0.00	4.78	0.20	1.85	0.78	10	8.16	1.22	0.94	0.52		
19	0.00	3.30	0.16	1.50	0.58	5.27	8.40	1.14	0.94			
20	0.00	8.72	0.16	4.60	0.43	4.96	7.54	1.06	0.90			
21	0.00	21	0.17	13	0.46	8.32	6.04	1.02	0.90			
22	0.00	5.97	0.17	4.06	0.38	4.72	4.54	1.02	0.90			
23	0.00	15	0.17	2.20	0.31	3.70	3.82	1.02	0.90			
24	0.00	27	0.16	1.62	0.26	17	3.58	0.98	1.02			
25	0.00	33	0.16	1.26	0.25	15	9.36	0.78	1.10			
26	0.00	26	0.05	1.26	0.26	7.93	16	0.74	1.10			
27	0.00	6.74	0.16	2.35	0.35	5.41	28	0.67	1.10			
28	0.00	5.20	0.14	2.10	1.58	4.18	11	0.67	1.06			
29	1.34	5.90	0.13	4.00	5.34	3.76	7.44	0.74	1.06			
30	0.10	3.10	0.16	4.78	7.09	102	5.67	0.70	1.06			
31		2.05		2.35	3.35		4.66		0.86			
Total	1.44	259.96	14.39	164.79	28.60	366.59	849.49	52.92	24.97			
Mean	0.05	8.38	0.48	5.31	0.92	12.2	27.4	1.76	0.80			
Max.	1.34	33	2.75	40	7.09	102	217	3.70	1.22			
Min.	0.00	0.00	0.05	0.11	0.20	2.25	3.58	0.67	0.08			
Runoff - mcm.	0.124	22.460	1.243	14.238	2.471	31.673	73.396	4.572	2.157			

WATER YEAR 1964 : Max. 217 Min. - Mean - Annual Runoff - mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 1	14.00	236.31	347				

WATER YEAR 1963  
MUNE RIVER BASIN

Lam Ta Khong at Sikhui, Nakhon Ratchasima (M.38C)

Location: Lat 14° - 52' - 06" N., Long 101° - 33' - 53" E., on left bank 500 meters downstream from Lam Ta Khong Dam site.  
Tambon Khlong Phai, Amphoe Sikhui, Nakhon Ratchasima.

Drainage Area: 1,292 sq.km. referred to AMS Map 1:50,000.

Type of Gage: Water - stage recorder.

Zero Gage at Bottom: + 242.00 m. (M.S.L.)

Bench Mark: B.M. - H.S. north - east region.

Location: On left bank at the railway telegraph post. No.204/9.  
Elevation: + 256.11 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: 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 due to its stability.

Overbank Flow Conditions: No overbank flow.

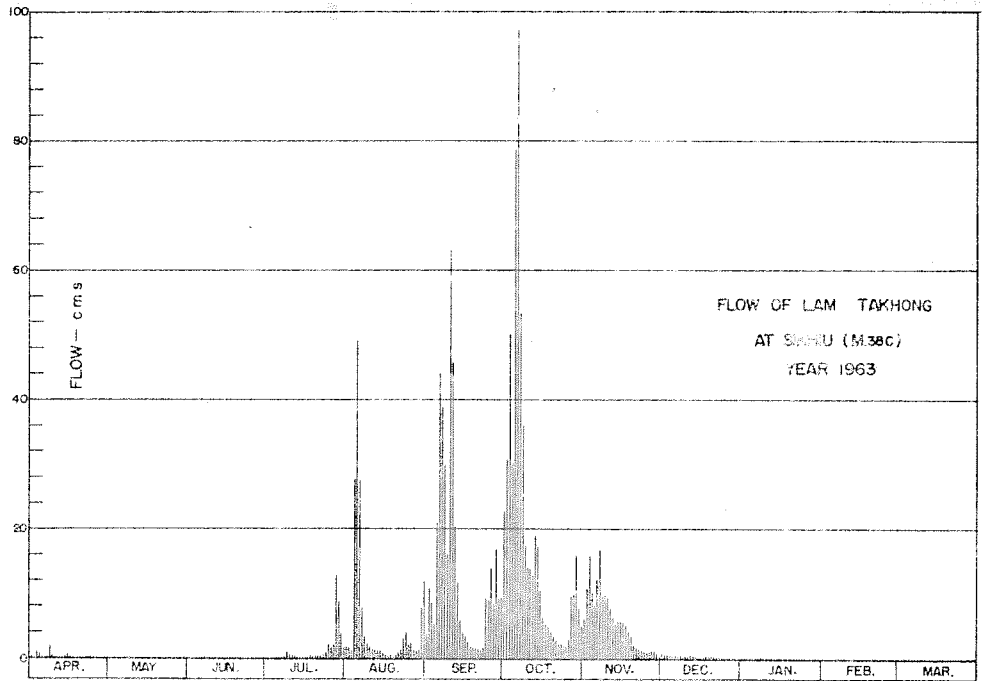
General Description: Records good. Stage - discharge relationship used by discharge measurements made during 1963. No upstream diversions for irrigation except those built by the farmers for dry period by means of water wheel diversions. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	244.03	243.74	243.66	245.05	246.61	246.73	248.05	246.66	246.64	245.22	244.61	244.10
2	.18	.72	.65	.17	.56	.70	.87	.66	.02	.22	.60	.09
3	.16	.72	.69	.24	.49	.69	.62	247.46	.00	.23	.58	.06
4	.25	.77	.69	.28	.48	.76	249.50	.17	245.98	.20	.56	.07
5	.26	.84	.71	.54	.93	247.11	.69	.07	.96	.17	.53	.05
6	244.17	244.27	243.73	245.82	248.69	247.53	249.76	247.03	245.93	245.13	244.50	244.03
7	.22	.62	244.09	.84	247.70	.53	.12	.02	.90	.10	.47	.02
8	.94	.28	.69	246.17	.04	.26	248.73	246.92	.89	.12	.45	.01
9	245.60	243.94	.65	.27	246.96	.49	.51	247.09	.87	.10	.32	.02
10	244.96	.87	.32	.18	.95	.92	.08	.05	.83	.07	.27	.00
11	244.38	243.83	244.16	246.10	246.97	248.81	247.51	246.89	245.82	245.05	244.24	244.00
12	.06	.76	.15	245.99	.88	249.30	.37	.76	.78	.02	.21	243.99
13	.01	.70	243.99	.92	.75	247.61	.18	.66	.74	244.99	.19	.98
14	243.91	.67	.88	.83	.67	.12	.14	.59	.70	.96	.17	.97
15	.86	.65	.84	.75	.58	246.91	246.98	.55	.66	.95	.18	.96
16	243.84	243.66	244.15	245.68	246.53	246.76	246.86	246.54	245.63	244.93	244.20	243.95
17	.83	.66	.12	.65	.64	.73	.78	.67	.60	.89	.19	.94
18	.84	.66	.05	.65	.51	.66	.69	.54	.57	.84	.18	.94
19	.85	.66	.01	.77	.42	.58	.64	.43	.53	.82	.17	.95
20	.81	.66	243.92	246.02	.59	.53	.63	.38	.50	.81	.16	.95
21	243.75	243.66	244.04	246.47	246.50	246.57	246.56	246.38	245.47	244.80	244.18	243.98
22	.72	.67	.14	.48	.39	.47	.52	.29	.45	.78	.19	.99
23	.74	.93	.13	.48	.31	.55	.47	.25	.42	.77	.20	.98
24	.74	.71	.11	.75	.34	.88	.44	.23	.40	.74	.20	244.03
25	.74	.66	.19	.92	.36	247.50	.43	.21	.38	.71	.19	243.95
26	243.71	243.75	244.37	246.93	246.50	247.54	246.41	246.18	245.35	244.74	244.16	243.93
27	.69	.76	.46	.88	.61	.47	.42	.16	.33	.75	.14	.91
28	.69	.73	.62	247.12	.55	.26	.82	.12	.30	.74	.12	.91
29	.71	.72	.79	246.86	.46	.26	.88	.11	.28	.76	.10	.89
30	.68	.68	.89	.87	.37	.27	.75	.07	.25	.68	.86	.86
31		.65		.72	.66		.68		.23	.65		.88
Mean	244.04	243.79	244.13	246.11	246.71	247.18	247.45	246.60	245.64	244.94	244.24	243.98
Max.	245.60	244.62	244.89	247.12	248.69	249.30	249.76	247.46	246.04	245.23	244.61	244.10
Min.	243.68	243.65	243.65	243.05	246.31	246.47	246.41	246.07	245.23	244.65	244.10	243.86

WATER YEAR 1963 : Max. 249.76 m. Min. 243.75 m.





DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	1.24	0.87	0.77	2.64	8.13	9.78	45	8.78	4.64	2.95	1.96	1.32
2	1.42	0.85	0.76	2.86	7.60	9.30	74	8.78	4.57	2.95	1.95	1.31
3	1.39	0.85	0.81	2.98	6.92	9.17	64	27	4.50	2.95	1.92	1.30
4	1.50	0.91	0.81	3.05	6.85	10	102	19	4.46	2.91	1.89	1.28
5	1.51	1.00	0.84	3.53	13	17	111	16	4.42	2.86	1.84	1.26
6	1.40	1.52	0.86	4.12	67	29	115	15	4.35	2.78	1.80	1.24
7	1.46	1.98	1.31	4.16	34	28	85	15	4.29	2.73	1.76	1.22
8	2.46	1.54	2.08	5.09	16	21	69	13	4.27	2.77	1.74	1.21
9	3.66	1.12	2.02	5.51	14	28	60	17	4.23	2.73	1.58	1.22
10	2.49	1.04	1.58	5.13	14	41	46	16	4.14	2.68	1.52	1.20
11	1.65	0.99	1.59	4.85	14	72	28	12	4.12	2.64	1.49	1.20
12	1.27	0.90	1.78	4.48	12	92	24	10	4.04	2.59	1.45	1.19
13	1.21	0.82	1.19	4.33	10	31	19	8.78	3.95	2.35	1.43	1.17
14	1.09	0.79	1.05	4.14	8.91	18	18	7.90	3.87	2.49	1.40	1.16
15	1.02	0.76	1.00	3.97	7.80	13	14	7.50	3.79	2.47	1.42	1.15
16	1.00	0.77	1.38	3.83	7.30	11	12	7.40	3.72	2.44	1.44	1.14
17	0.99	0.77	1.34	3.76	8.52	9.78	10	8.91	3.66	2.38	1.43	1.12
18	1.60	0.77	1.26	3.76	7.10	8.78	9.17	7.40	3.60	2.31	1.42	1.12
19	1.61	0.77	1.21	4.02	6.40	7.80	8.52	6.47	3.51	2.28	1.40	1.14
20	0.96	0.77	1.10	4.57	7.90	7.30	8.39	6.13	3.45	2.26	1.39	1.14
21	0.89	0.77	1.25	5.77	7.00	7.70	7.60	5.85	3.40	2.25	1.42	1.17
22	0.85	0.79	1.37	6.85	6.19	6.77	7.26	5.60	3.36	2.22	1.45	1.19
23	0.87	1.11	1.35	6.85	5.71	7.50	6.77	5.42	3.31	2.20	1.44	1.17
24	0.87	0.84	1.33	18	5.89	12	6.55	5.35	3.27	2.16	1.44	1.24
25	0.87	0.77	1.43	13	6.01	28	6.47	5.24	3.23	2.11	1.43	1.14
26	0.84	0.89	1.64	13	7.00	29	6.32	5.11	3.18	2.16	1.39	1.11
27	0.81	0.90	1.75	12	8.13	27	6.40	5.06	3.14	2.17	1.37	1.09
28	0.81	0.86	1.98	18	7.50	21	11	4.92	3.09	2.15	1.34	1.09
29	0.84	0.85	2.23	12	6.70	21	12	4.88	3.05	2.11	1.32	1.06
30	0.80	0.80	2.38	12	5.07	21	10	4.74	3.00	2.07	1.32	1.02
31		0.76		9.62	8.78		9.04		2.95	2.02		1.05
Total	38.19	25.13	40.86	208.87	352.41	653.88	1,002.39	290.26	116.54	76.16	44.81	36.42
Mean	1.27	0.94	1.36	6.48	11.4	27.8	32.3	9.67	3.76	2.46	1.54	1.17
Max.	3.66	1.98	2.38	18	67	92	115	27	4.64	2.96	1.96	1.32
Min.	0.80	0.76	0.76	2.64	5.71	6.77	6.32	4.74	2.96	2.02	1.32	1.02
Runoff - BCEL.	3.300	2.517	3.530	17.355	30.448	56.495	86.606	25.073	10.069	6.580	3.871	3.147

WATER YEAR 1963 : Max. 115 Min. 0.76 Mean 7.87 Annual Runoff 248,993 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 6	14.00	249.90	122				

WATER YEAR 1964  
MUNE RIVER BASIN

Lam Ta Khong at Sikhui, Nakhon Ratchasima (M.38C)

Location: Lat 14° 52' - 06" N., Long 101° 33' - 53" E., on left bank 500 meters downstream from Lam Ta Khong Damsite.  
Tambon Khlong Phai, Amphoe Sikhui, Nakhon Ratchasima.

Drainage Area: 1,292 sq.km. referred to AMS Map 1:50,000.

Type of Gage: Water - stage recorder.

Zero Gage at Bottom at: + 242.00 m. (M.S.L.)

Bench Mark: B.M. - H.S. north - east region.

Location: On left bank at the railway telegraph 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 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: 1962 to date.

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation due to its stability.

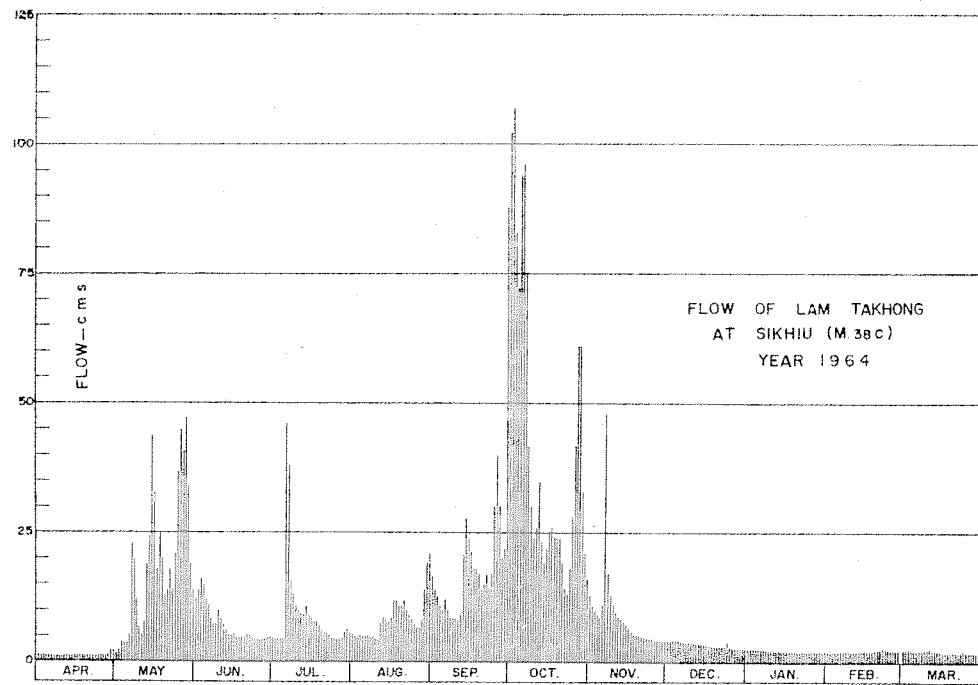
Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage - discharge relationship used by discharge measurements made during 1964.  
No upstream diversions for irrigation except those built by the farmers for dry period by mean of water wheel diversions. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	243.91	244.25	246.54	245.64	245.84	246.82	249.79	246.62	245.45	244.73	244.37	244.60
2	.92	.51	.66	.63	.79	.67	.95	.50	.42	.72	.36	.61
3	.92	245.40	.79	.61	.75	.61	.23	.40	.43	.69	.36	.66
4	.92	.20	.71	.63	.81	.47	248.85	.32	.52	.69	.37	.61
5	.88	.25	.54	.87	.79	.39	249.56	.26	.47	.69	.39	.54
6	243.84	245.80	246.47	247.95	245.77	246.56	249.60	246.46	245.43	244.69	244.42	244.49
7	.83	247.09	.22	.66	.79	.38	248.96	247.01	.42	.66	.46	.46
8	.82	246.97	.13	246.79	.76	.27	247.77	246.85	.41	.64	.40	.44
9	.81	.52	.13	.61	.78	.25	.36	.59	.39	.61	.43	.50
10	.80	.09	.41	.49	.68	.24	.15	.46	.36	.60	.41	.68
11	243.81	245.85	246.22	246.41	245.58	246.20	247.21	246.36	245.32	244.59	244.48	244.68
12	.83	246.18	.12	.32	246.15	.31	.55	.27	.26	.58	.52	.61
13	.81	.94	.00	.31	.29	.98	.12	.23	.22	.56	.54	.53
14	.81	247.18	245.89	.43	.22	247.31	246.95	.17	.21	.55	.53	.47
15	.90	.90	.83	.32	.18	.16	247.07	.10	.18	.54	.53	.40
16	244.00	247.48	245.84	246.25	246.25	247.06	247.17	246.04	245.15	244.51	244.52	244.34
17	243.93	246.91	.72	.20	.54	246.88	.22	245.93	.10	.48	.48	.31
18	244.05	247.17	.67	.19	.52	.88	.15	.87	.05	.49	.55	.28
19	243.94	246.98	.73	.10	.44	.85	.13	.82	.01	.47	.61	.27
20	.89	.62	.69	.02	.50	.67	.13	.80	244.98	.48	.56	.25
21	243.89	246.65	245.79	245.95	246.52	246.72	246.95	245.76	244.97	244.48	244.64	244.24
22	.87	.89	.82	.94	.41	.82	.70	.74	.95	.46	.74	.26
23	.99	.66	.74	.83	.33	.70	.61	.73	.93	.46	.67	.31
24	.90	247.03	.65	.72	.22	.86	.91	.68	.91	.45	.63	.40
25	.95	.64	.58	.67	.14	247.37	247.32	.64	.89	.43	.60	.27
26	244.01	248.08	245.51	245.64	246.08	247.74	247.81	245.58	244.85	244.44	244.58	244.24
27	243.96	247.78	.55	.66	.06	.39	248.49	.55	.79	.43	.55	.24
28	.99	248.19	.65	.72	.20	.01	.47	.51	.77	.41	.53	.24
29	244.42	247.52	.67	.90	.65	.07	247.47	.48	.76	.39	.39	.21
30	.38	246.92	.67	246.05	.93	249.40	.01	.45	.74	.39	.20	.20
31		.65	.92	247.02			246.78		.73	.38		.21
Mean	243.93	246.62	246.00	246.05	246.16	246.87	247.77	246.07	245.13	244.54	244.51	244.40
Max.	244.42	248.19	246.79	247.95	247.02	249.40	249.95	247.01	245.52	244.73	244.74	244.68
Min.	243.80	244.25	245.51	245.61	245.58	246.20	246.61	245.45	244.73	244.38	244.36	244.20

WATER YEAR 1964 : Max. 249.95 m. Min. 243.80 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	1.24	1.84	12	4.53	5.28	17	102	13	4.06	2.68	2.05	2.45
2	1.26	2.29	14	4.50	5.02	14	107	11	3.99	2.66	2.05	2.47
3	1.26	3.95	16	4.43	4.88	13	83	10	4.01	2.61	2.03	2.55
4	1.26	3.73	15	4.50	5.11	11	72	9.29	4.22	2.61	2.05	2.47
5	1.19	3.65	12	5.45	5.02	10	94	8.63	4.10	2.61	2.08	2.34
6	1.12	5.05	11	46	4.95	12	96	11	4.02	2.61	2.13	2.26
7	1.10	23	8.21	38	5.02	10	75	48	3.99	2.55	2.20	2.20
8	1.08	20	7.33	16	4.92	8.73	41	17	3.97	2.52	2.10	2.17
9	1.07	12	7.33	13	4.98	8.52	30	13	3.93	2.46	2.15	2.27
10	1.05	6.96	10	11	4.66	8.42	24	11	3.87	2.45	2.12	2.59
11	1.07	5.33	8.21	10	4.35	8.00	26	9.77	3.79	2.43	2.24	2.59
12	1.10	7.81	7.24	9.29	7.52	9.17	35	8.73	3.67	2.41	2.31	2.47
13	1.07	19	6.20	9.17	8.94	20	23	8.31	3.59	2.38	2.34	2.33
14	1.07	25	5.39	11	8.21	28	19	7.71	3.57	2.36	2.33	2.22
15	1.22	44	5.22	9.29	7.81	24	22	7.05	3.51	2.34	2.33	2.10
16	1.40	33	5.28	8.52	8.52	22	25	6.54	3.45	2.29	2.31	1.99
17	1.28	18	4.79	8.00	12	18	26	5.79	3.35	2.24	2.24	1.94
18	1.49	25	4.62	7.90	12	18	24	5.45	3.25	2.26	2.36	1.89
19	1.29	20	4.82	7.05	11	17	24	5.16	3.17	2.22	2.47	1.87
20	1.21	13	4.69	6.37	11	14	24	5.05	3.11	2.24	2.38	1.84
21	1.21	14	5.02	5.91	12	15	19	4.92	3.10	2.24	2.52	1.82
22	1.17	18	5.16	5.85	10	17	14	4.85	3.06	2.20	2.69	1.85
23	1.38	14	4.85	5.22	9.41	14	13	4.82	3.03	2.20	2.57	1.94
24	1.22	21	4.56	4.79	8.21	17	18	4.66	3.99	2.18	2.50	2.10
25	1.31	37	4.35	4.62	7.43	30	28	4.53	2.96	2.15	2.45	1.87
26	1.42	50	4.19	4.53	6.88	40	42	4.35	2.89	2.17	2.41	1.82
27	1.33	41	4.28	4.59	6.71	30	61	4.28	2.78	2.15	2.36	1.82
28	1.38	53	4.56	4.79	8.00	20	61	4.19	2.75	2.12	2.33	1.82
29	2.13	34	4.62	5.62	14	22	33	4.13	2.73	2.08		1.77
30	2.06	19	4.62	6.62	19	88	21	4.06	2.69	2.08		1.75
31		14		5.74	21		16		2.68	2.06		1.77
Total	38.44	599.80	215.54	292.28	263.83	583.84	1,298	266.27	107.35	72.56	63.90	65.34
Mean	1.28	19.3	7.18	9.43	8.51	19.5	41.8	8.87	3.46	2.34	2.28	2.11
Max.	2.13	53	16	46	21	88	107	48	4.22	2.68	2.69	2.59
Min.	1.05	1.84	4.19	4.43	4.35	8.00	13	4.06	2.68	2.06	2.03	1.75
Runoff - BCM	3.321	51.823	18.623	25.253	22.795	50.444	112.147	23.006	9.275	6.269	5.521	5.645

WATER YEAR 1964 : Max. 107 Min. 1.05 Mean 10.6 Annual Runoff 334.122 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 2	15.00	250.02	110				

WATER YEAR 1963  
PRACHIN RIVER BASIN

Prachin River at Kabin Buri, Prachin Buri (Kgt.3)

Location: Lat 15° - 59' - 15" N. Long 100° - 42' - 32" E., on left bank in front of the office of Amphoe Kabin Buri and about 500 meters downstream from the confluence of Lam Phra Prong and Lam Hanuman, Prachin Buri.

Drainage Area: 7,502 sq.km. referred to AMS Map 1:50,000.

Type of Gage: Staff gage.

Zero Gage at Bottom at: + 0.00 m. (M.S.L.)

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

Location: On left bank at the fence of Amphoe Kabin Buri.  
Elevation: + 10.178 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: 1941 to date.

Rating Operation:

Period of Rating: 1941, 1943 - 44, 1949 and 1964 to date.  
Rated by float: 1941, 1943 - 44, 1949.  
Rated by Current Meter: 1964 to date.

Stability of Channel Regimes: Fairly stable, no shifting adjustment for flow computation for years without actual ratings.

Overbank Flow Conditions: No overbank flow.

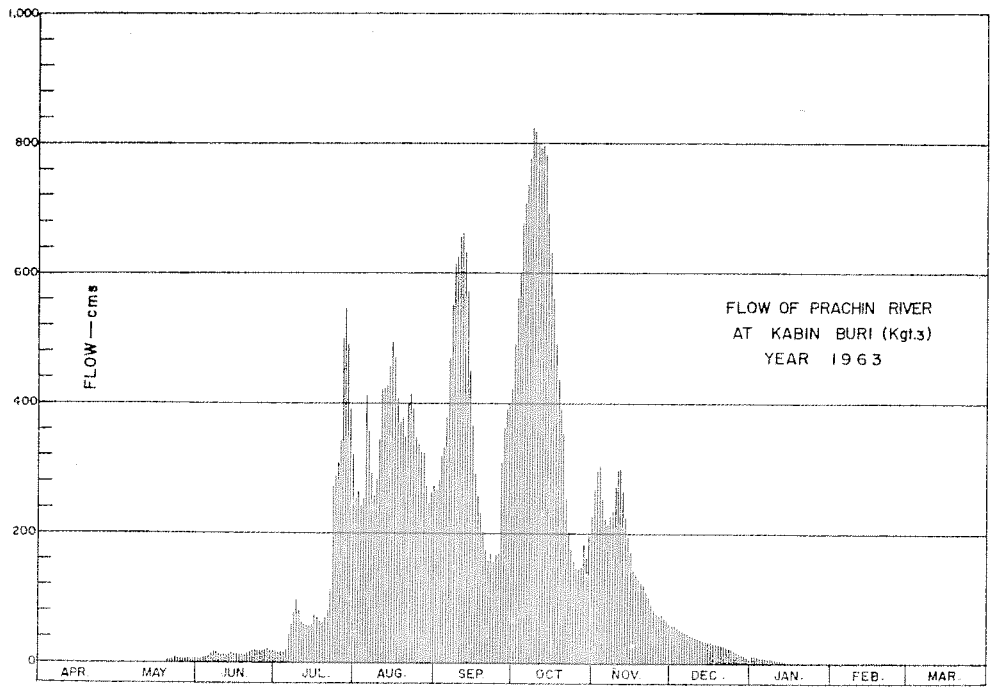
General Description: Records fair except those for period of no gage height record. Stage - discharge relationship used is defined by discharge measurements made during 1964 - 67. No diversions for irrigation above gage site.

Remark: No gage height record for Apr.1 - May 19 and Jan.1 - Mar.31.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1			0.78	1.22	5.78	5.90	8.16	5.90	2.43			
2			.80	.18	.90	6.10	.69	6.22	.37			
3			.84	.20	.60	.53	.89	.38	.30			
4			.94	.20	.80	.68	9.53	5.78	.22			
5			.97	.51	7.50	7.19	.72	.32	.17			
6			1.06	2.10	6.95	7.93	9.90	5.16	2.14			
7			.26	.42	.25	8.50	10.15	.39	.09			
8			.20	.82	5.80	9.07	.43	.47	.05			
9			.09	3.24	6.13	.14	.42	6.00	.00			
10			.00	2.88	.83	.37	.29	.32	1.94			
11			1.03	2.53	7.58	9.40	10.22	6.35	1.90			
12			0.99	.45	.59	.20	.30	5.90	.87			
13			1.11	.35	.65	8.77	.18	.35	.83			
14			.18	.35	.89	7.80	9.60	4.93	.80			
15			.09	.40	8.19	6.87	.20	.48	.75			
16			1.07	2.75	8.00	6.24	8.70	4.08	1.72			
17			.03	.70	7.48	5.84	.18	3.93	.68			
18			.05	.58	.10	.48	7.70	.85	.65			
19			.07	.48	.20	.02	.27	.75	.62			
20		0.60	.17	.65	6.84	4.60	6.48	.68	.60			
21		0.60	1.19	2.88	7.36	4.33	5.79	3.48	1.57			
22		.70	.26	3.50	.67	.48	.06	.32	.51			
23		.89	.26	6.00	.33	.30	4.62	.08	.45			
24		.80	.21	.17	6.87	.45	.33	2.95	.40			
25		.79	.28	.40	.78	.48	.10	.80	.35			
26		0.78	1.30	6.80	6.60	6.40	4.08	2.75	1.27			
27		.76	.35	8.25	.50	7.02	.15	.79	.18			
28		.80	.36	.58	.80	.30	.75	.67	.10			
29		.79	.30	.18	5.65	.37	.37	.60	.00			
30		.79	.26	7.30	.87	.45	.85	.49	0.87			
31				6.57	6.03		5.34		.72			
Mean			1.12	3.73	6.80	6.81	7.59	4.44	1.69			
Max.			1.36	8.58	8.19	9.40	10.43	6.38	2.43			
Min.			0.78	1.18	5.60	4.30	4.08	2.49	0.72			

WATER YEAR 1963 : Max. - m. Min. - m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1			7.70	18	255	265	489	265	60			
2			8.00	16	265	281	561	291	58			
3			8.80	17	242	318	589	304	55			
4			11	17	254	331	680	255	52			
5			11	26	412	381	709	222	50			
6			13	47	357	462	736	211	49			
7			19	60	293	534	776	227	47			
8			17	78	257	614	821	233	45			
9			14	99	283	624	819	273	43			
10			12	81	345	656	798	299	41			
11			13	64	421	661	787	301	39			
12			12	61	422	632	800	265	38			
13			14	57	428	572	781	224	36			
14			16	57	457	446	691	195	35			
15			14	59	493	349	632	168	33			
16			13	74	470	292	562	144	33			
17			13	72	410	260	492	135	31			
18			13	66	372	234	434	130	30			
19			13	62	382	201	389	124	30			
20		5.00	16	69	346	175	313	121	29			
21		5.00	17	81	398	159	256	111	28			
22		6.50	19	112	431	168	204	103	26			
23		9.80	19	273	395	157	176	91	24			
24		8.00	17	286	349	166	159	84	23			
25		7.85	19	306	340	234	145	77	21			
26		7.70	20	342	324	306	144	74	19			
27		7.40	21	500	315	364	148	76	16			
28		8.00	22	545	273	392	184	70	14			
29		7.85	20	492	345	389	161	67	12			
30		7.85	19	392	263	407	190	63	9.40			
31		7.85		321	275		224		6.80			
Total			491.50	4,750	10,775	11,040	148.50	5,203	1,033.20			
Mean			15.0	153	347	368	4.79	173	33.3			
Max.			22	545	493	661	821	304	60			
Min.			7.70	16	242	157	144	63	6.80			
Runoff - cc%			39.010	410.400	930.960	953.856	12.803	449.539	89.268			

WATER YEAR 1963 : Max. 10.43 Min. - Mean. - Annual Runoff - mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 8	12.00	10.45	824				

WATER YEAR 1964  
PRACHIN RIVER BASIN

Prachin River at Kabin Buri, Prachin Buri (Kgt.3)

Location: Lat 13°- 59' - 15" N., Long 100°- 42' - 32" E., on left bank in front of the office of Amphoe Kabin Buri and about 500 meters downstream from the confluence of Lam Phra Prong and Lam Hanuman, Prachin Buri.

Drainage Area: 7,502 sq.km. referred to AMS Map 1:50,000.

Type of Gage: Staff gage.

Zero Gage at Bottom at: + 0.149 m. (M.S.L.)

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

Location: On left bank at the fence of Amphoe Kabin Buri.  
Elevation: + 10.178 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: 1941 to date.

Rating Operation:

Period of Rating: 1941, 1943 - 44, 1949 and 1964 to date.  
Rated by Float: 1941, 1943 - 44, 1949.  
Rated by Current Meter: 1964 to date.

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation due to its stability.

Overbank Flow Conditions: No overbank flow.

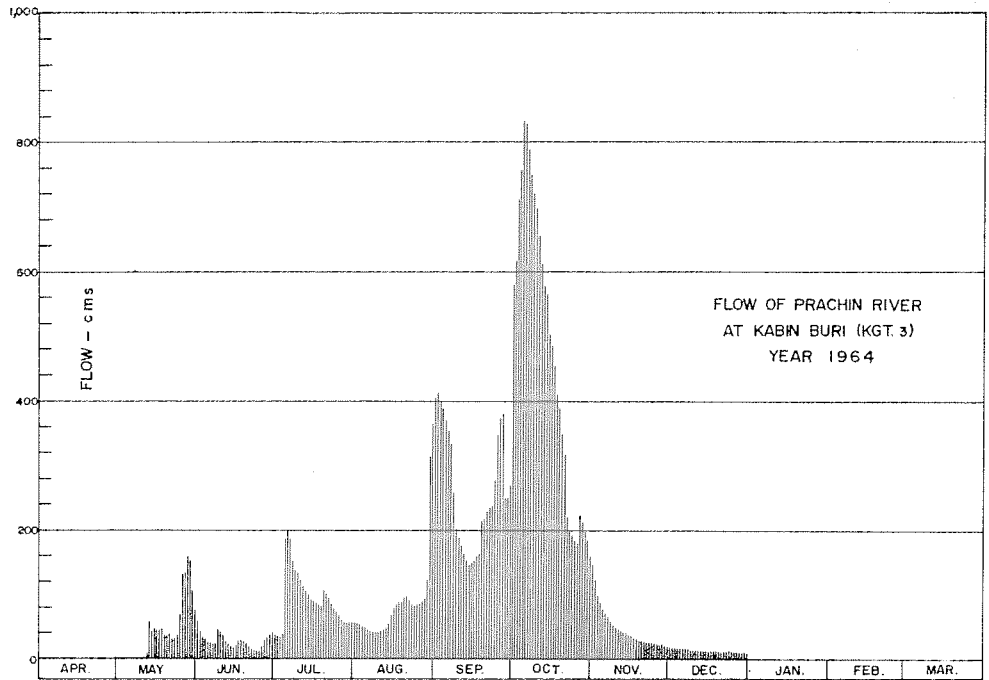
General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1964. No diversions for irrigation above gage site.

Remark: No gage height record for Apr.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1		- 0.42	2.41	1.92	2.41	7.21	8.87	4.14	1.28	0.85	0.37	0.44
2		.33	.01	.83	.33	.30	9.20	3.75	.25	.82	.36	.45
3		.26	1.77	.78	.31	.15	.97	.30	.23	.81	.35	.46
4		.15	.69	.95	.23	.05	10.30	.06	.23	.79	.35	.41
5		.11	.55	4.76	.18	6.87	.83	2.85	.19	.76	.34	.39
6		- 0.02	1.49	4.96	2.11	6.71	10.80	2.71	1.18	0.74	0.34	0.39
7		0.06	.44	.77	.07	.51	.53	.61	.18	.72	.34	.36
8		.45	.45	.25	.02	5.78	.28	.41	.16	.70	.37	.35
9		.38	2.11	.02	1.99	4.98	.05	.31	.12	.66	.35	.33
10		.50	.05	3.92	2.04	.78	9.87	.20	.10	.64	.48	.32
11		0.48	1.93	3.72	2.08	4.60	9.51	2.11	1.08	0.61	0.47	0.34
12		.87	.57	.59	.12	.38	.14	.06	.08	.58	.44	.33
13		2.43	.43	.43	.18	.23	8.86	.00	.08	.56	.43	.34
14		.06	.33	.33	.39	.12	.75	1.96	.06	.55	.43	.33
15		.19	.22	.22	.71	.20	.25	.90	.06	.53	.43	.31
16		2.11	1.33	3.14	2.91	4.25	8.02	1.85	1.05	0.52	0.42	0.30
17		.11	.63	.08	3.06	.34	7.70	.71	.05	.52	.40	.27
18		.16	.65	.01	.09	.41	.25	.70	.05	.51	.38	.26
19		1.89	.58	2.91	.09	5.14	.05	.61	.03	.50	.37	.24
20		.89	.44	3.45	.24	.19	6.65	.61	0.99	.48	.35	.24
21		1.94	1.29	3.36	3.25	5.33	6.33	1.56	1.01	0.48	0.33	0.23
22		.66	.11	.21	.15	.40	5.20	.51	.06	.46	.32	.21
23		.74	.06	.09	.05	.45	4.92	.51	.03	.45	.31	.20
24		.87	0.98	2.86	2.97	.89	.84	.51	.03	.44	.32	.19
25		2.70	1.01	.77	3.01	6.66	.71	.48	.01	.43	.33	.18
26		3.92	1.31	2.64	3.05	6.90	4.64	1.48	0.96	0.42	0.33	0.18
27		.94	.69	.47	.11	.97	5.25	.41	.96	.41	.44	.18
28		4.35	.80	.41	.19	5.56	.11	.39	.95	.40	.44	.17
29		.22	.93	.37	.78	.57	4.93	.36	.91	.40	.40	.16
30		3.46	.99	.38	6.30	.80	.74	.31	.89	.39	.39	.16
31		2.82		.41	.82		.35		.86	.38		.16
Mean		1.64	1.58	3.13	2.94	5.62	7.64	2.08	1.07	0.56	0.38	0.29
Max.		4.35	2.41	4.96	6.82	7.30	10.83	4.14	1.28	0.85	0.48	0.46
Min.		- 0.42	0.98	1.78	1.99	4.12	4.35	1.31	0.86	0.38	0.31	0.16

WATER YEAR 1964 : Max. 10.83 m. Min. - m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1		0.00	58	39	58	404	578	146	19	10	2.30	3.16
2		0.00	42	36	55	413	617	123	19	9.40	2.20	3.30
3		0.00	34	34	54	398	712	99	18	9.20	2.10	3.44
4		0.00	32	40	51	388	756	87	18	8.80	2.10	2.74
5		0.00	27	187	49	370	830	78	17	8.20	2.00	2.50
6		0.00	26	201	46	354	826	71	17	7.80	2.00	2.50
7		0.30	24	187	44	334	788	67	17	7.40	2.00	2.20
8		3.30	24	153	43	267	753	58	16	7.00	2.30	2.10
9		1.40	46	139	42	202	722	54	15	6.40	2.10	1.90
10		4.00	44	133	43	188	699	49	15	6.10	3.62	1.80
11		3.62	39	122	45	176	654	46	15	5.65	3.58	2.00
12		10	28	114	46	162	610	44	15	5.20	3.16	1.90
13		59	24	106	49	152	577	42	15	4.90	3.02	2.00
14		44	21	101	57	145	564	41	14	4.75	3.02	1.90
15		49	18	95	71	150	508	38	14	4.45	3.02	1.70
16		46	21	91	80	153	485	37	14	4.30	2.88	1.60
17		46	30	88	87	160	453	32	14	4.30	2.60	1.42
18		48	30	85	89	164	408	32	14	4.15	2.40	1.36
19		37	28	80	89	214	388	29	14	4.00	2.30	1.24
20		37	24	107	96	218	348	29	13	3.62	2.10	1.24
21		40	20	102	97	229	317	28	13	3.62	1.90	1.18
22		31	15	95	92	235	219	26	14	3.44	1.80	1.06
23		35	14	85	87	239	198	26	14	3.30	1.70	1.00
24		37	13	78	83	277	192	26	14	3.16	1.80	0.95
25		71	13	74	85	349	183	25	13	3.02	1.90	0.90
26		133	20	68	87	373	179	25	12	2.88	1.90	0.90
27		134	32	61	90	380	223	23	12	2.74	3.16	0.90
28		160	35	58	94	248	212	23	12	2.60	3.16	0.85
29		151	39	56	124	249	199	22	11	2.60		0.80
30		107	42	57	314	269	185	20	10	2.50		0.80
31		76	58	58	365		160			2.40		0.80
Total		1,361.62	863	2,930	2,712	7,860	14,543	1,446	449	157.88	68.12	52.14
Mean		43.9	28.7	94.5	87.4	262	469	48.2	14.5	5.10	2.43	1.68
Max.		160	58	201	365	413	830	146	19	10	3.62	3.44
Min.		0.00	13	34	42	145	160	20	10	2.40	1.70	0.80
Runoff		117.644	74.563	253.152	234.317	679.104	1,256.515	124.934	38.794	13.641	5.885	4.505

WATER YEAR 1964 : Max. 830 Min. 0.00 Mean 89.1 Annual Runoff 2,803.054 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 4	15.00	11.50	930				

WATER YEAR 1963  
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, 12 kilometers upstream from Muang Nakhon Nayok and 10 kilometers on the country road, left of Suwanson road, Amphoe Muang, Nakhon Nayok.

Drainage Area: 526 sq.km. referred to AMS Map 1:50,000.

Type of Gage: Staff gage.

Zero Gage at Bottom at: + 2.96 m. (M.S.L.)

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

Location: On left bank near the gage line.

Elevation: + 9.79 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 - 57.

Rated by Float: -

Rated by Current Meter: 1952 - 57.

Stability of Channel Regimes: Fairly stable, no shifting adjustment for flow computation for years without actual ratings.

Overbank Flow Conditions: No overbank flow.

General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made during 1955 - 57. For drought periods stage is effected by backwater at Nakhon Nayok Barrage. No diversions for irrigation above gage site.

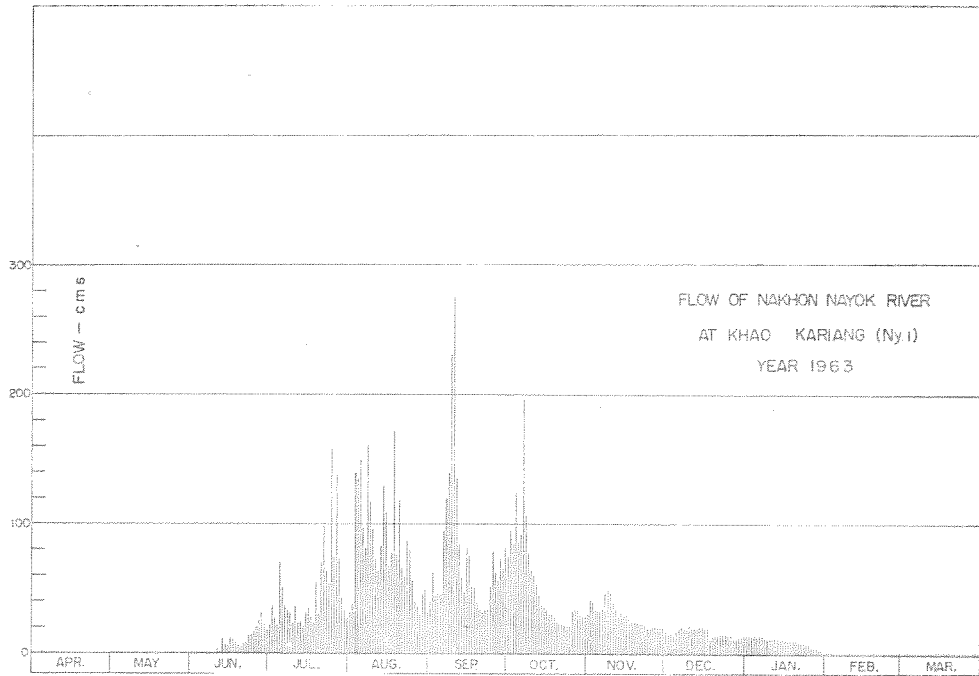
Remark: \* Estimated discharge.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	3.45	3.39	3.38	4.53	4.86	5.04	5.90	4.80	4.36	4.19	3.55	3.49
2	.45	.38	.38	.96	5.02	.63	6.30	5.08	.24	.19	.55	.47
3	.45	.37	.40	.71	7.08	.18	7.76	.04	.23	.22	.54	.45
4	.46	.37	.41	.54	8.70	.19	6.83	4.90	.22	.15	.53	.47
5	.45	.37	.53	5.77	.27	.19	.12	.85	.34	.18	.53	.46
6	3.45	3.37	3.49	5.35	6.38	6.31	6.24	4.85	4.42	4.19	3.53	3.46
7	.45	.37	.55	4.97	.04	.76	7.92	.90	.46	.22	.53	.45
8	.45	.36	.53	.89	7.43	7.10	6.54	5.22	.43	.13	.53	.45
9	.45	.35	.51	.62	6.75	8.32	5.95	.27	.40	.14	.53	.45
10	.45	.35	.48	.57	.32	.74	.66	.22	.49	.14	.53	.48
11	3.45	3.35	3.79	4.98	5.86	7.03	6.58	5.02	4.43	4.14	3.53	3.46
12	.45	.35	.65	.60	.65	6.11	.43	4.89	.45	.14	.53	.45
13	.45	.35	4.12	.64	6.09	5.56	.19	.75	.44	.12	.53	.45
14	.45	.34	3.93	.50	.93	.24	.00	.84	.42	.10	.52	.45
15	.45	.34	.86	.85	.57	6.05	4.97	.75	.46	.10	.52	.45
16		3.33	4.17	4.95	5.73	5.88	4.88	4.76	4.43	4.10	3.52	3.45
17		.33	.09	.74	.98	.35	.80	.66	.42	.09	.51	.45
18		.33	.03	.59	7.60	.34	.76	.61	.07	.07	.50	.45
19		.33	3.93	5.43	.95	.04	.70	.61	.15	.04	.56	.46
20		.34	.91	4.81	6.73	4.91	.61	.56	.22	.04	.55	.45
21		3.36	3.95	5.81	5.71	4.82	4.53	4.54	4.22	4.00	3.55	3.45
22		.36	.97	6.40	.52	.88	.54	.55	.23	3.99	.54	.45
23		.38	4.24	5.72	6.14	.93	.53	.54	.24	.97	.54	.45
24		.37	.26	.43	.01	5.74	.47	.44	.24	.94	.52	.45
25		.36	.35	7.38	5.47	.99	.47	.45	.24	.90	.50	.45
26		3.36	4.48	5.88	5.05	5.63	4.86	4.47	4.24	3.83	3.50	3.45
27		.35	.62	7.06	4.96	.44	.91	.46	.10	.79	.50	.45
28		.36	.83	5.87	.79	.85	.88	.47	.10	.74	.50	.45
29		.39	.60	.16	5.20	.67	.77	.45	.14	.70	.50	.45
30		.38	.39	4.93	.29	6.07	.73	.46	.18	.64	.45	.45
31		.38	.74	4.82	.74	.74	.74	.19	.19	.59	.45	.45
Mean	3.45	3.36	3.93	5.20	6.16	5.82	5.37	4.75	4.38	4.02	3.53	3.45
Max.	3.46	3.39	4.83	7.38	8.70	8.74	7.92	5.27	4.46	4.22	3.55	3.49
Min.	3.45	3.33	3.38	4.53	4.79	4.82	4.47	4.44	4.07	3.59	3.50	3.45

WATER YEAR 1963 : Max. 8.74 m. Min. 3.33 m.





DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	1.50	0.93	0.86	23	34	41	77	31	18	13	2.50	1.90
2	1.50	0.86	0.86	37	40	65	97	42	15	13	2.50	1.70
3	1.50	0.79	1.00	28	138	46	181	41	14	14	2.40	1.70
4	1.60	0.79	1.10	23	264	47	124	35	14	12	2.30	1.70
5	1.50	0.79	2.30	71	222	47	88	33	17	13	2.30	1.60
6	1.50	0.79	1.90	53	101	97	94	33	20	13	2.30	1.60
7	1.50	0.79	2.50	38	84	120	193	35	21	14	2.30	1.50
8	1.50	0.72	2.30	35	158	139	109	48	20	12	2.30	1.50
9	1.50	0.66	2.10	26	120	227	80	50	19	12	2.30	1.50
10	1.50	0.66	1.80	24	98	268	66	48	22	12	2.30	1.80
11	1.50	0.66	5.35	38	75	135	63	40	20	12	2.30	1.60
12	1.50	0.66	3.50	25	66	87	56	35	20	12	2.30	1.50
13	1.50	0.66	12	26	86	62	47	30	20	12	2.30	1.50
14	1.50	0.58	7.60	22	130	49	39	33	20	11	2.20	1.50
15	1.50	0.58	6.40	33	110	84	38	30	21	11	2.20	1.50
16	*1.50	0.51	13	37	69	76	34	30	20	11	2.20	1.50
17	*1.50	0.51	9.98	29	81	53	31	27	20	9.98	2.10	1.50
18	*1.50	0.51	9.66	25	169	53	30	25	9.54	9.54	2.00	1.50
19	*1.50	0.51	7.60	56	195	41	28	25	12	9.88	2.60	1.60
20	*1.50	0.58	7.20	32	119	35	25	24	14	9.88	2.50	1.50
21	*1.50	0.72	8.00	73	68	32	23	23	14	9.00	2.50	1.50
22	*1.50	0.72	8.40	102	60	34	23	23	14	8.80	2.40	1.50
23	*1.50	0.86	15	69	89	36	23	23	15	8.40	2.40	1.50
24	*1.50	0.79	15	56	82	53	21	20	15	7.80	2.20	1.50
25	*1.50	0.72	18	155	58	81	21	20	15	7.00	2.00	1.50
26	*1.50	0.72	21	76	41	65	34	21	15	5.95	2.00	1.50
27	*1.50	0.66	26	137	37	57	35	21	11	5.35	2.00	1.50
28	*1.50	0.72	32	76	31	75	34	21	11	4.60	2.00	1.50
29	*1.50	0.93	25	45	47	67	30	20	13	4.00	2.00	1.50
30	*1.50	0.86	19	36	51	85	29	21	13	3.40	1.50	1.50
31		0.86		29	32		29		13	2.90		
Total	45.10	22.04	286.41	1,535	2,955	2,357	1,802	906	505.54	298.48	65.70	48.20
Mean	1.50	0.71	9.55	49.5	95.3	78.6	58.1	30.3	16.3	9.63	2.26	1.55
Max.	1.60	0.93	32	155	264	268	193	50	22	14	2.60	1.90
Min.	1.50	0.51	0.86	22	31	32	21	20	9.54	2.90	2.00	1.50
Runoff - mm.	3.897	1.904	24.746	132.624	255.312	203.645	155.693	76.451	43.679	25.789	5.676	4.164

WATER YEAR 1963 : Max. 268 Min. 0.51 Mean 29.6 Annual Runoff 935,580 mm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sept. 10	6.00	9.37	356				

WATER YEAR 1964  
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, 12 kilometers upstream from Muang Nakhon Nayok and 10 kilometers on the country road, left of Sawanson road, Amphoe Muang, Nakhon Nayok.

Drainage Area: 526 sq.km. referred to AMS Map 1:50,000.

Type of Gage: Staff gage.

Zero Gage at Bottom at: + 2.96 m. (M.S.L.)

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

Location: On left bank near the gage line.

Elevation: + 9.79 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 - 57.

Rated by Float: -

Rated by Current Meter: 1952 - 57.

Stability of Channel Regimes: Fairly stable, no shifting adjustment for flow computation for years without actual ratings.

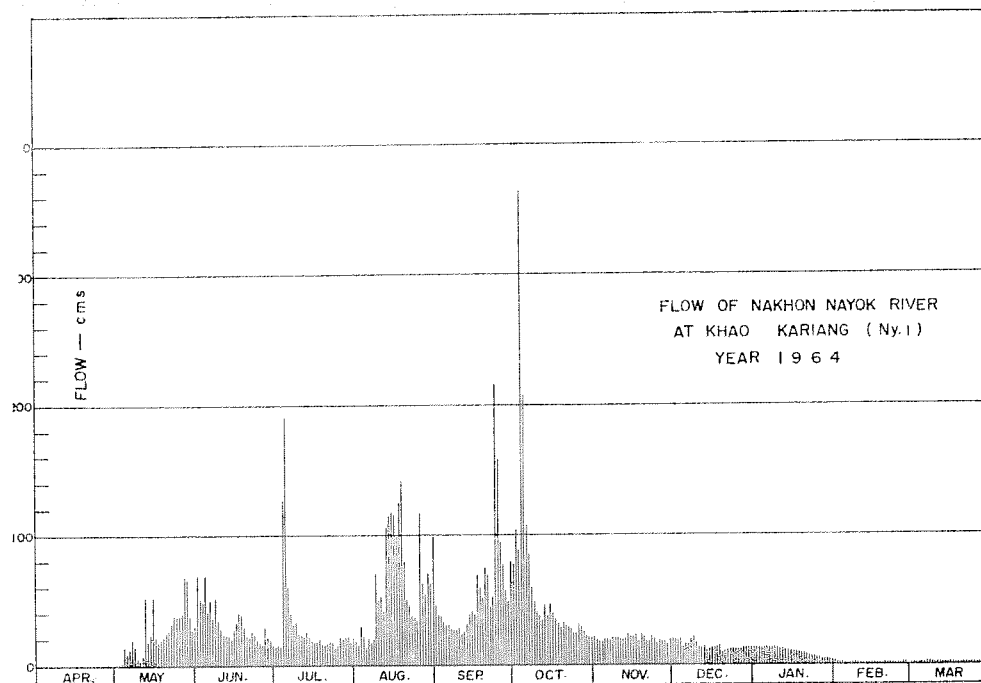
Overbank Flow Conditions: No overbank flow.

General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made during 1955 - 57. For drought periods stage is effected by backwater at Nakhon Nayok Barrage. No diversions for irrigation above gage site.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	3.45	3.44	5.75	4.20	4.43	5.21	5.93	4.49	4.43	4.17	3.66	3.48
2	.44	.43	.35	.27	.28	.03	6.48	.42	.42	.17	.60	.49
3	.43	.42	.25	.24	.76	4.97	6.15	.40	.41	.17	.53	.49
4	.43	4.19	.79	6.88	.49	.87	9.36	.35	.45	.17	.82	.49
5	.43	.00	.04	7.84	.29	.77	8.05	.44	.22	.17	.50	.49
6	3.43	4.13	5.31	5.56	4.45	4.79	6.55	4.42	4.30	4.17	3.48	3.49
7	.42	.44	4.94	.05	.33	.71	.11	.41	.30	.17	.46	.51
8	.42	.19	5.36	4.79	.43	.67	5.55	.46	.41	.17	.50	.55
9	.41	3.78	4.89	.86	5.81	.68	.28	.47	.49	.16	.50	.53
10	.40	.71	.71	.58	.31	.74	.09	.47	.35	.15	.50	.50
11	3.40	3.92	4.53	4.55	5.38	4.57	4.99	4.44	4.18	4.14	3.49	3.50
12	.40	5.34	.55	.51	.07	.65	.90	.43	.18	.12	.49	.50
13	.40	4.37	.54	.63	6.53	.79	5.20	.42	.19	.09	.48	.50
14	.40	.58	.42	.47	.69	5.05	4.98	.56	.07	.09	.48	.50
15	.40	5.36	.71	.39	.73	.10	5.23	.51	.13	.06	.48	.50
16	3.40	4.50	4.88	4.40	6.69	5.00	5.04	4.46	4.18	4.05	3.47	3.50
17	.40	.34	5.08	.35	.38	.79	4.95	.53	.18	.02	.47	.50
18	.39	.40	.03	.42	.85	.49	.84	.36	.21	.02	.47	.48
19	.39	.51	4.73	.28	7.13	.29	.75	.54	.23	.00	.47	.48
20	.39	.57	.54	.29	6.00	.88	.83	.47	.07	3.99	.55	.48
21	3.39	4.65	4.50	4.30	5.32	5.74	4.76	4.37	4.07	3.95	3.49	3.48
22	.39	.81	.65	.38	.19	.14	.74	.36	.08	.92	.49	.48
23	.39	.99	.58	.38	4.99	.34	.70	.49	.12	.89	.49	.48
24	.39	.97	.45	.17	.98	8.14	.58	.43	.13	.86	.49	.47
25	.39	.98	.32	.24	.89	7.38	.60	.30	.13	.84	.49	.47
26	3.39	5.04	4.23	4.49	6.71	6.29	4.81	4.41	4.13	3.81	3.49	3.47
27	.40	.74	.72	.45	5.64	5.93	.75	.37	.13	.78	.54	.47
28	.40	.68	.50	.46	.39	.48	.62	.36	.16	.77	.54	.46
29	.44	4.96	.41	.51	.80	.25	.55	.28	.17	.75	.46	.46
30	.43	.66	.30	.35	.59	.99	.50	.42	.17	.74	.47	.47
31		.76		.47	.39		.50		.17	.70		.47
Mean	3.41	4.54	4.80	4.67	5.48	5.36	5.34	4.43	4.22	4.01	3.50	3.49
Max.	3.45	5.74	5.79	7.84	7.13	8.14	9.36	4.56	4.49	4.17	3.66	3.55
Min.	3.39	3.42	4.23	4.17	4.19	4.57	4.50	4.28	4.07	3.70	3.46	3.46

WATER YEAR 1964 : Max. 9.36 m. Min. 3.39 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	1.50	1.40	70	14	20	47	79	22	20	15	3.60	1.80
2	1.40	1.30	55	15	16	40	106	20	20	15	3.00	1.90
3	1.30	1.20	49	15	30	38	89	19	19	15	2.30	1.90
4	1.30	15	72	127	22	34	354	18	20	15	2.20	1.90
5	1.30	9.00	41	187	15	30	203	20	14	15	2.00	1.90
6	1.30	12	51	62	20	31	109	20	16	15	1.80	1.90
7	1.20	20	37	41	17	28	87	19	16	15	1.60	2.10
8	1.20	15	55	51	20	27	61	21	19	15	2.00	2.50
9	1.10	5.20	55	34	73	27	50	21	22	15	2.00	2.50
10	1.00	4.15	28	24	51	29	43	21	18	12	2.00	2.00
11	1.00	7.40	23	23	54	24	39	20	13	12	1.90	2.00
12	1.00	55	25	22	42	26	35	20	13	12	1.90	2.00
13	1.00	18	25	26	108	31	47	20	13	11	1.80	2.00
14	1.00	24	20	21	116	41	38	24	10	11	1.80	2.00
15	1.00	55	28	19	119	43	48	22	12	10	1.80	2.00
16	1.00	22	34	19	116	39	37	21	15	10	1.70	2.00
17	1.00	17	42	18	101	72	37	23	15	9.44	1.70	2.00
18	0.93	19	40	20	125	59	33	18	14	9.44	1.70	1.80
19	0.93	22	29	16	141	51	30	25	14	9.00	1.70	1.80
20	0.93	24	25	16	82	76	32	21	10	8.80	2.50	1.80
21	0.93	26	22	16	52	70	30	18	10	8.00	1.90	1.80
22	0.93	32	26	18	47	45	29	18	11	7.40	1.90	1.80
23	0.93	39	24	18	39	53	28	22	12	6.85	1.90	1.80
24	0.93	38	20	15	38	211	24	20	12	6.40	1.90	1.70
25	0.93	38	17	15	35	155	25	16	12	6.10	1.90	1.70
26	0.93	41	14	22	117	96	32	19	12	5.65	1.90	1.70
27	1.00	70	29	20	65	79	30	18	12	5.20	2.40	1.70
28	1.00	67	22	21	55	58	26	18	13	5.05	2.40	1.60
29	1.40	37	19	22	72	49	23	16	13	4.75		1.60
30	1.30	27	16	18	63	81	22	20	15	4.60		1.70
31		30		21	55		22		13	4.00		1.70
Total	32.67	784.65	985	954	1,924	1,690	1,848	598	442	295.68	57.20	58.40
Mean	1.09	25.3	32.8	30.8	62.1	56.3	59.6	199	14.3	9.54	2.04	1.88
Max.	1.50	70	72	187	141	211	354	24	22	15	3.60	2.50
Min.	0.93	1.20	14	14	13	24	22	16	10	4.00	1.60	1.60
Runoff - mcm.	2.823	67.794	84.931	82.426	166.234	146.016	159.667	51.667	38.189	25.547	4.942	5.046

WATER YEAR 1964 : Max. 354 Min. 0.93 Mean 26.5 Annual Runoff 835.281 mcm.

## Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 4	15.00	10.05	525				

WATER YEAR 1963  
NAKHON NAYOK RIVER BASIN

Khleng Nang Rong at Nang Rong, Nakhon Nayok (Ny. 1A)

**Location:** Lat 14° - 19' - 30" N., Long 101° - 19' - 24" E., on left bank, 2.5 kilometers upstream from the confluence with Khleng Madua, 1.5 kilometers north - east of Wang Takhrui, Tambon Hintang, Amphoe Muang, Nakhon Nayok.

**Drainage Area:** 75 sq.km. referred to AMS Map 1:50,000.

**Type of Gage:** Staff gage.

**Zero Gage at Bottom at:** + 10.59 m. (A.D.)

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

**Location:** On left bank near the upper gage.

**Elevation:** + 14.295 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 to date.

**Rating Operation:**

**Period of Rating:** 1958 - 59.

**Rated by Float:** -

**Rated by Current Meter:** 1958 - 59.

**Stability of Channel Regimes:** Stable, no shifting adjustment for flow computation for years without actual ratings.

**Overbank Flow Conditions:** No overbank flow.

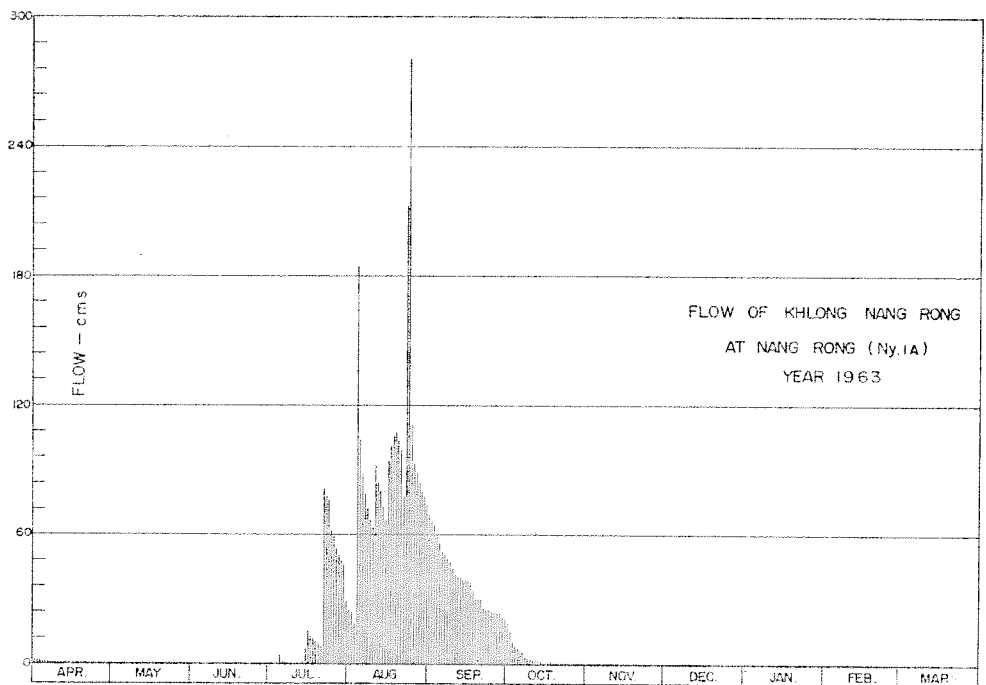
**General Description:** Records poor. Stage - discharge relationship used is defined by discharge measurements made during 1958 - 59. No diversions for irrigation above gage site.

**Remark:** No gage height record for Aug. 1 - Mar. 31.

GAGE HEIGHT IN METER ( A. D. ), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	11.57	10.62	10.91	11.16	12.45	13.09	12.31	11.22	11.08	10.82	10.74	10.69
2	.55	.61	.92	.35	.42	.05	.22	.20	.07	.80	.74	.69
3	.55	.60	.93	.44	.32	.02	.86	.19	.07	.80	.74	.69
4	.52	.59	.93	.41	13.97	12.96	11.99	.18	.06	.80	.73	.69
5	.48	.59	.93	.77	.43	.93	.95	.17	.06	.80	.73	.69
6	11.44	10.59	10.95	11.56	13.29	12.87	11.90	11.16	11.05	10.80	10.73	10.69
7	.40	.59	.99	.46	.20	.85	.85	.15	.05	.80	.73	.69
8	.35	.59	.94	.43	.12	.83	.75	.14	.05	.80	.73	.69
9	.27	.59	11.16	.39	.06	.80	.67	.13	.04	.80	.72	.68
10	.22	.59	.13	.33	.02	.76	.63	.12	.04	.79	.72	.68
11	11.18	10.59	11.09	11.27	13.33	12.71	11.56	11.11	11.04	10.79	10.72	10.68
12	.15	.59	.07	.23	.25	.70	.55	.10	.03	.79	.72	.68
13	.07	.59	.04	.17	.21	.70	.53	.09	.02	.79	.72	.68
14	.04	.59	.08	.54	.13	.69	.49	.08	.00	.79	.72	.68
15	.01	.59	.05	.93	.06	.69	.46	.17	10.99	.78	.72	.68
16	10.97	10.59	11.04	12.21	13.35	12.69	11.44	11.16	10.98	10.78	10.71	10.68
17	.94	.59	10.99	.15	.41	.67	.42	.15	.97	.78	.71	.68
18	.91	.59	.96	.13	.45	.62	.40	.14	.96	.78	.71	.68
19	.89	.59	11.16	.06	.46	.54	.37	.13	.95	.78	.71	.67
20	.86	.59	.16	.02	.43	.54	.35	.13	.94	.77	.71	.67
21	10.83	10.59	11.16	11.99	13.39	12.52	11.34	11.12	10.93	10.77	10.71	10.67
22	.80	.59	.06	13.22	.18	.46	.33	.12	.92	.77	.70	.67
23	.77	.59	.06	.19	14.13	.45	.32	.11	.91	.77	.70	.67
24	.75	.59	.01	.16	.39	.44	.31	.11	.90	.77	.70	.67
25	.72	.62	.06	.00	13.49	.43	.30	.10	.89	.76	.70	.67
26	10.69	10.64	11.01	12.95	13.34	12.42	11.29	11.10	10.88	10.76	10.70	10.67
27	.67	.65	.12	.90	.29	.41	.27	.09	.87	.76	.69	.67
28	.65	.67	.09	.86	.25	.40	.26	.09	.86	.76	.69	.67
29	.63	.69	.04	.82	.21	.37	.25	.09	.85	.75	.69	.67
30	.62	.71	.01	.78	.18	.37	.24	.08	.84	.75	.69	.67
31		.73		.92	.14		.23		.83	.74		.67
Mean	11.05	10.61	11.03	12.04	13.27	12.67	11.55	11.13	10.97	10.78	10.71	10.68
Max.	11.57	10.73	11.16	13.22	14.39	13.09	12.31	11.22	11.08	10.82	10.74	10.69
Min.	10.62	10.59	10.91	11.16	12.32	12.37	11.23	11.08	10.83	10.74	10.69	10.67

WATER YEAR 1963 : Max. 14.39 m. Min. 10.59 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	1.42	0.00	0.00	0.16	25	69	19	0.24	0.08	0.00	0.00	0.00
2	1.30	0.00	0.00	0.50	24	66	15	0.20	0.07	0.00	0.00	0.00
3	1.30	0.00	0.00	0.76	19	64	9.92	0.19	0.07	0.00	0.00	0.00
4	1.12	0.00	0.00	0.64	184	59	8.08	0.18	0.06	0.00	0.00	0.00
5	0.92	0.00	0.00	3.78	104	56	7.20	0.17	0.05	0.00	0.00	0.00
6	0.76	0.00	0.00	1.36	88	52	6.10	0.16	0.05	0.00	0.00	0.00
7	0.60	0.00	0.00	0.84	79	51	5.15	0.15	0.05	0.00	0.00	0.00
8	0.50	0.00	0.00	0.72	72	49	3.50	0.14	0.05	0.00	0.00	0.00
9	0.34	0.00	0.16	0.58	67	47	2.44	0.13	0.04	0.00	0.00	0.00
10	0.24	0.00	0.13	0.46	64	44	1.96	0.12	0.04	0.00	0.00	0.00
11	0.18	0.00	0.09	0.34	92	41	1.36	0.11	0.04	0.00	0.00	0.00
12	0.15	0.00	0.07	0.26	84	40	1.30	0.10	0.03	0.00	0.00	0.00
13	0.07	0.00	0.04	0.17	80	40	1.18	0.09	0.02	0.00	0.00	0.00
14	0.04	0.00	0.08	1.24	73	39	0.96	0.08	0.00	0.00	0.00	0.00
15	0.01	0.00	0.05	6.76	67	39	0.84	0.17	0.00	0.00	0.00	0.00
16	0.00	0.00	0.04	15	94	39	0.76	0.16	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	13	101	38	0.68	0.15	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	12	106	35	0.60	0.14	0.00	0.00	0.00	0.00
19	0.00	0.00	0.16	9.92	107	30	0.54	0.13	0.00	0.00	0.00	0.00
20	0.00	0.00	0.16	8.84	104	30	0.50	0.13	0.00	0.00	0.00	0.00
21	0.00	0.00	0.16	8.08	99	29	0.48	0.12	0.00	0.00	0.00	0.00
22	0.00	0.00	0.05	81	78	26	0.46	0.12	0.00	0.00	0.00	0.00
23	0.00	0.00	0.06	78	222	25	0.44	0.11	0.00	0.00	0.00	0.00
24	0.00	0.00	0.01	76	280	25	0.42	0.11	0.00	0.00	0.00	0.00
25	0.00	0.00	0.05	62	111	24	0.40	0.10	0.00	0.00	0.00	0.00
26	0.00	0.00	0.01	58	93	24	0.38	0.10	0.00	0.00	0.00	0.00
27	0.00	0.00	0.12	54	88	25	0.34	0.09	0.00	0.00	0.00	0.00
28	0.00	0.00	0.09	51	84	23	0.32	0.09	0.00	0.00	0.00	0.00
29	0.00	0.00	0.04	48	80	21	0.30	0.09	0.00	0.00	0.00	0.00
30	0.00	0.00	0.01	46	78	21	0.28	0.08	0.00	0.00	0.00	0.00
31	0.00	0.00	0.00	29	74		0.26	0.08	0.00	0.00	0.00	0.00
Total	8.95	0.00	1.60	668.41	2,921	1,169	91.15	3.95	0.66	0.00	0.00	0.00
Mean	0.30	0.00	0.05	21.6	94.2	38.9	2.94	0.13	0.02	0.00	0.00	0.00
Max.	1.42	0.00	0.16	81	280	69	19	0.24	0.08	0.00	0.00	0.00
Min.	0.00	0.00	0.00	0.16	19	21	0.26	0.08	0.00	0.00	0.00	0.00
Runoff - ccm.	0.773	0.000	0.138	57.751	252.374	101.002	7.875	0.341	0.057	0.000	0.000	0.000

WATER YEAR 1963 : Max. 280 Min. 0.00 Mean 13.3 Annual Runoff 420.312 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Aug. 24	06.00	14.44	295				

WATER YEAR 1964  
NAKHON NAYOK RIVER BASIN

Khlong Nang Rong at Nang Rong, Nakhon Nayok. (Ny. 1A)

Location: Lat  $14^{\circ} - 19' - 30''$  N, Long  $101^{\circ} - 19' - 24''$  E, on left bank, 2.5 kilometers upstream from the confluence with Khlong Madua, 1.5 kilometers north-east of Wang Takhrui, Tambon Hintang, Amphoe Muang, Nakhon Nayok.

Drainage Area: 75 sq.km. referred to AMS Map 1:50,000.

Type of Gage: Staff gage.

Zero Gage at Bottom at: + 10.59 m. (A.D.)

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

Location: On left bank near the upper gage.

Elevation: + 14.295 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 to date.

Rating Operation:

Period of Rating: 1958 - 59.

Rated by Float: -

Rated by Current Meter: 1958 - 59.

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

Overbank Flow Conditions: No overbank flow.

General Description: Records poor. Stage - discharge relationship used is defined by discharge measurements made during 1958 - 59. No diversions for irrigation above gage site.

Remark: No gage height record for Aug. 1 - Mar.31.

GAGE HEIGHT IN METER ( A. D. ), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	10.66	10.67	12.16	12.06								
2	.66	.67	.12	.02								
3	.66	.67	.24	.16								
4	.66	.81	.20	14.37								
5	.66	.87	.16	13.43								
6	10.66	10.89	12.12	13.39								
7	.66	.92	.43	.35								
8	.66	.95	.39	.29								
9	.66	.98	.37	.23								
10	.66	11.00	.35	.15								
11	10.66	11.03	12.33	13.07								
12	.65	.06	.29	12.97								
13	.65	.07	.27	.87								
14	.65	.93	.23	.84								
15	.65	12.06	.36	.77								
16	10.65	12.03	12.34	12.69								
17	.65	.09	.32	.42								
18	.65	.03	.56	.37								
19	.65	.06	.53	.27								
20	.65	.26	.46	.20								
21	10.63	12.21	12.43	12.12								
22	.63	.17	.39	.05								
23	.63	.24	.36	11.99								
24	.63	.22	.32	.95								
25	.63	.35	.30	.84								
26	10.63	12.32	12.26	11.76								
27	.63	.29	.22	.71								
28	.62	.25	.19	.57								
29	.62	.17	.13	.52								
30	.62	.17	.10	.49								
31	-	.15	-	.43								
Mean	10.65	11.63	12.30	12.46								
Max.	10.66	12.35	12.56	14.37								
Min.	10.62	10.67	12.10	11.43								

WATER YEAR 1964 : Max. - m. Min. - m.



WATER YEAR 1963  
MAE KLONG RIVER BASIN

Mae Klong River at Tha Pha, Ratchaburi. (K. 1)

Location: Lat 13° - 50' - 25" N, Long 99° - 52' - 09" E, on left bank at the mouth of Tha Pha Canal and 50 meters upstream from Tha Pha regulator, Amphoe San Pong, 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. - R.I.D.

Location: On left bank of Tha Pha canal at the abutment of Tha Pha regulator.

Elevation: + 12.500 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 - 27, 1933 - 44, 1948 to date.

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 for years without actual ratings.

Overbank Flow Conditions: No overbank flow.

General Description:

Records fair. Stage - discharge relationship used is defined by discharge measurements made for period 1965. Flow diverted by Tha Pha regulator, which is in Tha Pha Canal 50 meters from gage site and upstream state diversions of about 3,200 hectares are made. No adjustment made for virgin flow.

Remark: No gage height record for Apr. 19-30, May 12-Jun. 6 and Dec. 1-Mar. 31.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	5.15	5.03		5.64	9.22	8.68	10.76	8.11				
2	.12	.02		.58	8.51	.68	.79	.59				
3	.09	.02		.55	.22	.43	11.79	.71				
4	.08	.01		.58	.01	.43	12.14	.95				
5	.06	.03		.66	7.77	.39	.14	.89				
6	5.04	5.03		5.88	7.74	8.53	12.13	9.04				
7	.04	.02	5.26	6.33	.29	9.03	.11	8.94				
8	.04	.01	.69	7.27	8.02	10.28	.11	.73				
9	.21	.01	.75	8.71	.49	11.12	.11	.62				
10	.26	.00	.67	9.22	9.26	.32	.09	.52				
11	5.16	5.00	5.57	9.04	10.56	11.10	11.95	8.48				
12	.09		.51	8.40	11.43	10.74	.57	.43				
13	.08		.46	7.91	.83	11.01	.88	.25				
14	.08		.48	.70	.93	.49	10.69	.13				
15	.05		.49	.82	.87	.86	.24	.03				
16	5.02		5.45	7.97	11.53	11.86	9.91	7.88				
17	.00		.41	8.08	10.94	.65	.63	.76				
18	.00		.41	.00	.30	.26	.42	.65				
19			.60	7.95	9.65	10.82	.23	.54				
20			6.13	8.01	.40	.29	.01	.43				
21			6.29	8.02	9.44	9.81	8.81	7.34				
22			.25	.04	.32	.54	.55	.24				
23			5.99	.11	.19	.38	.28	.18				
24			.89	.11	8.90	.44	.14	.12				
25			.93	.34	.69	.51	.09	.05				
26			6.10	8.61	8.67	10.69	8.03	7.00				
27			.03	.49	.60	11.65	.01	6.90				
28			5.89	.86	.60	.64	.05	.89				
29			.79	9.82	.68	.23	.09	.85				
30			.68	10.07	.58	.02	.10	.82				
31			-	9.83	.58	-	.08	-				
Mean				7.82	9.34	10.30	10.04	7.90				
Max.				10.07	11.95	11.86	12.14	9.04				
Min.				5.55	7.74	8.39	8.01	6.82				

WATER YEAR 1963 : Max.

m.

Min.

m.





WATER YEAR 1964  
MAE KLONG RIVER BASIN  
Mae Klong River at Tha Pha, Ratchaburi. (K. 1)

Location: Lat 13° - 50' - 25" N, Long 99° - 52' - 09" E, on left bank at the mouth of Tha Pha canal and 50 meters upstream from Tha Pha regulator, Amphoe Ban Pong, 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. - R.I.D.

Location: On left bank of Tha Pha canal at the abutment of Tha Pha regulator.

Elevation: + 12.500 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 - 27, 1933 - 44, 1948 to date.

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 for years without actual ratings.

Overbank Flow Conditions: No overbank flow.

General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made for period 1965. Flow diverted by Tha Pha regulator, which is 50 meters from gage site and upstream state diversions for irrigation of about 32 hectares. No adjustment made for virgin flow.

Remark: No gage height record for Apr. 1 - 30.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1		5.31	6.70	5.91	6.18	8.37	10.49	8.08	6.34	5.81	5.45	5.38
2		.33	.50	6.05	.17	.25	.61	.01	.32	.80	.45	.41
3		.34	.34	.15	.19	.14	11.04	7.83	.31	.78	.44	.42
4		.40	.15	.18	.24	.03	.08	.63	.36	.71	.43	.44
5		.43	.00	.16	.47	7.94	10.88	.52	.38	.76	.42	.41
6		5.41	5.91	6.25	7.05	7.87	10.86	7.46	6.39	5.75	5.42	5.39
7		.37	.87	7.89	.49	.68	.86	.39	.36	.74	.41	.36
8		.36	.84	8.38	.47	.48	.72	.29	.30	.72	.41	.35
9		.37	.90	7.88	.27	.38	.85	.22	.23	.71	.41	.31
10		.31	6.03	.45	.21	.39	.46	.26	.19	.70	.40	.28
11		5.29	6.06	7.18	7.32	7.40	10.21	7.22	6.16	5.69	5.40	5.24
12		.29	.09	.06	.90	.34	.38	.14	.12	.68	.40	.23
13		.28	.04	6.86	8.66	.22	.23	.07	.10	.67	.39	.23
14		.30	5.98	.73	.80	.21	9.97	.06	.09	.66	.38	.22
15		.49	.95	.83	.43	.32	.83	.01	.08	.64	.37	.22
16		5.47	5.94	7.00	8.03	7.53	10.06	6.96	6.05	5.64	5.37	5.21
17		.46	.87	.06	7.86	.18	9.97	.88	.05	.62	.36	.20
18		.45	.82	.02	.81	.30	.92	.83	.05	.61	.36	.20
19		.49	.80	6.97	.91	.12	.72	.77	.03	.60	.35	.20
20		.46	.82	.92	.77	.94	.20	.72	.01	.59	.35	.20
21		5.45	5.82	6.89	7.46	7.79	9.10	6.71	5.99	5.59	5.34	5.24
22		.44	.81	.72	.36	.67	8.92	.82	.96	.58	.33	.22
23		.43	.81	.58	.31	.64	.72	.90	.94	.57	.32	.21
24		.46	.80	.44	.20	8.07	.55	.81	.92	.56	.30	.18
25		.53	.81	.41	.25	.91	.42	.73	.90	.55	.29	.18
26		5.74	5.80	6.40	7.67	9.36	8.39	6.62	5.90	5.52	5.28	5.16
27		6.02	.79	.40	8.30	11.59	.36	.54	.89	.51	.33	.14
28		.38	.78	.39	.60	.70	.44	.44	.87	.50	.36	.14
29		.72	.80	.36	.54	.56	.58	.40	.86	.48	-	.13
30		.83	.85	.28	.39	.13	.38	.37	.84	.47	-	.11
31		.84	-	.22	.37	-	.19	-	.82	.46	-	.10
Mean		5.59	5.96	6.74	7.57	8.25	9.72	7.06	6.09	5.63	5.37	5.25
Max.		6.84	6.70	8.38	8.80	11.70	11.08	8.08	6.39	5.81	5.45	5.44
Min.		5.28	5.78	5.91	6.17	7.12	8.19	6.37	5.82	5.46	5.28	5.10

WATER YEAR 1964 : Max. 11.70 m. Min. m.



WATER YEAR 1963  
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 to date.

Rating Operation:

Period of Rating: 1965 to date.

Rated by Float: -

Rated by Current Meter: 1965 to date.

Stability of Channel Regimes: Rather unstable, no shifting adjustment for flow computation for years without actual ratings.

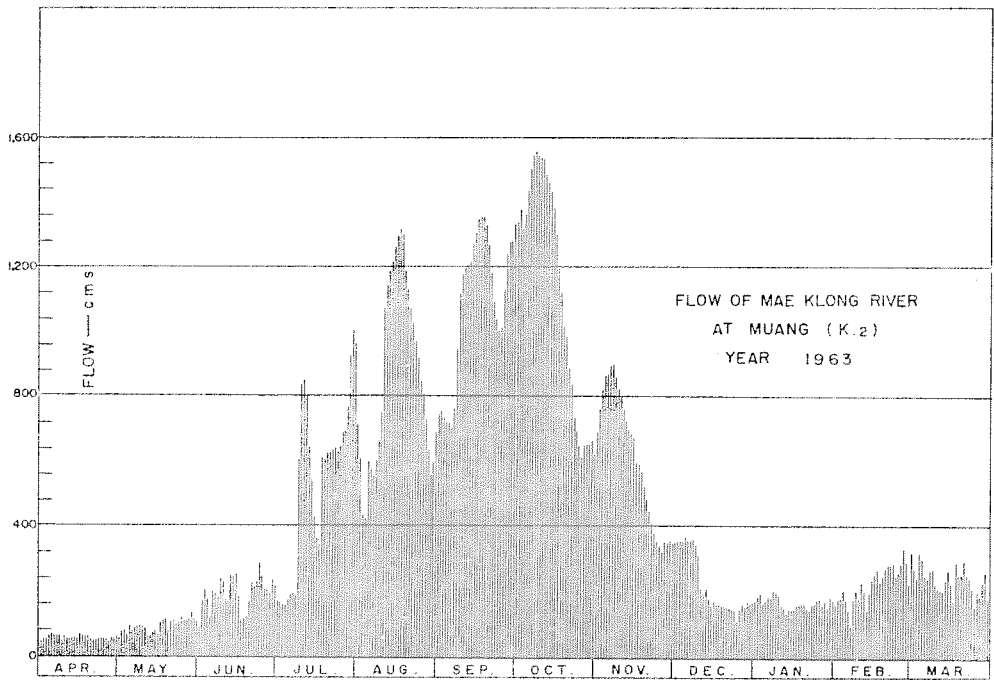
Overbank Flow Conditions: No overbank flow.

General Description: Gage height record good, discharge record fair for high flow, and poor for low flow, i.e. for stage below + 1.20 m. (M.S.L.) which are effected by the tidal fluctuation. State discharge relationship used is defined by discharge measurement made during 1965. State diversions of about 6,200 hectares are made above gage site. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.50	0.59	0.85	0.36	2.28	2.66	4.25	2.45	1.28	0.39	0.33	1.13
2	.59	.75	1.34	.36	.20	.68	.35	.72	.26	.47	.42	0.87
3	.54	.89	.56	.31	1.58	.61	.18	.89	.27	.54	.48	.74
4	.67	.67	.37	.30	.51	.57	.33	3.01	.26	.34	.59	1.12
5	.75	.90	.08	.43	2.19	.58	.48	.02	.35	.39	.41	.05
6	0.61	0.77	0.54	0.54	2.09	2.50	4.65	3.09	1.27	0.49	0.24	0.81
7	.64	.83	.50	.51	.00	.75	.75	.10	.28	.42	.12	.77
8	.65	.88	.43	.48	.18	3.23	.80	.00	.29	.59	.43	.90
9	.50	.91	.76	2.29	.37	.66	.76	2.88	.24	.54	.59	.89
10	.63	.90	.70	.92	.75	.83	.74	.85	.08	.53	.40	.64
11	0.56	0.85	0.35	2.97	3.57	3.89	4.74	2.70	0.51	0.27	0.72	0.58
12	.61	.62	.39	.80	.77	.92	.60	.59	.54	.26	.56	.58
13	.58	.66	.80	.30	.88	.95	.56	.50	.61	.17	.20	.67
14	.61	.74	.79	1.97	.94	4.10	.49	.47	.39	.24	.55	.79
15	.59	.79	.64	.50	4.06	.16	.35	.42	.27	.23	.80	.90
16	0.71	0.68	0.59	1.30	4.14	4.27	4.15	2.15	0.39	0.24	0.84	0.61
17	.67	.96	.02	.20	.20	.30	3.92	.18	.32	.34	.90	.35
18	.63	1.02	.62	2.23	.15	.30	.70	.08	.33	.33	.70	1.01
19	.65	.06	.62	.20	3.87	.22	.38	1.90	.32	.36	.85	0.75
20	.56	0.72	.36	.28	.70	.07	.35	.75	.31	.36	.93	.84
21	0.53	1.00	0.70	2.28	3.57	3.87	3.13	1.62	0.30	0.25	0.98	1.02
22	.53	.03	.60	.30	.47	.65	2.92	.49	.26	.23	.97	0.79
23	.57	0.88	.70	.32	.30	.50	.62	.35	.24	.33	.99	.78
24	.58	.94	.98	.28	.18	.38	.48	.24	.22	.36	.77	.69
25	.59	1.08	.73	.37	2.98	.42	.35	.19	.05	.43	.88	.27
26	0.60	0.97	0.58	2.48	2.86	3.65	2.20	1.10	0.25	0.45	1.00	0.57
27	.49	1.10	.59	.50	.64	4.00	.35	.28	.36	.30	.18	.46
28	.58	.03	.47	.68	.31	.10	.37	.25	.29	.41	0.97	.71
29	.56	.18	.74	3.15	1.98	.11	.35	.28	.39	.27	.63	.85
30	.65	.03	.66	.40	2.19	.24	.42	.25	.34	.46	-	.41
31	-	0.98	-	.37	.49	-	.37	-	.38	.41	-	.60
Mean	0.60	0.88	0.70	1.85	2.82	3.60	3.68	2.10	0.63	0.37	0.66	0.72
Max.	0.75	1.18	1.56	3.40	4.20	4.30	4.80	3.10	1.35	0.59	1.18	1.13
Min.	0.50	0.59	0.02	0.30	1.51	2.50	2.20	1.10	0.05	0.17	0.12	0.27

WATER YEAR 1963 : Max. 4.80 m. Min. 0.02 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	191	207	258	166	629	747	1,337	680	359	171	161	322
2	207	238	374	166	605	754	1,377	767	354	186	177	263
3	198	248	429	158	434	731	1,309	824	356	198	187	236
4	223	222	381	156	416	718	1,369	866	354	163	207	320
5	238	269	310	178	602	722	1,429	869	376	171	175	298
6	211	242	198	198	572	696	1,498	894	356	189	146	250
7	217	254	191	193	546	776	1,539	893	359	177	91	242
8	218	265	178	187	599	945	1,560	862	361	207	178	269
9	191	271	240	632	656	1,104	1,544	820	349	198	207	267
10	215	269	228	834	776	1,171	1,535	810	310	196	173	217
11	202	258	164	851	1,070	1,194	1,535	760	193	151	232	205
12	211	213	171	793	1,147	1,206	1,478	725	198	149	202	205
13	205	220	248	635	1,190	1,217	1,462	696	211	134	139	204
14	211	236	246	538	1,214	1,277	1,433	687	171	146	200	246
15	207	246	217	414	1,261	1,301	1,377	671	151	144	248	269
16	230	224	207	364	1,293	1,345	1,297	590	171	146	256	211
17	222	282	105	339	1,317	1,357	1,206	599	159	163	269	164
18	215	296	213	614	1,297	1,357	1,120	569	161	161	228	293
19	218	305	213	605	1,186	1,325	999	518	159	166	238	238
20	202	232	166	629	1,120	1,265	988	478	158	166	276	256
21	196	291	228	629	1,070	1,186	873	444	156	147	287	296
22	196	298	209	635	1,032	1,100	834	411	149	144	284	246
23	204	265	228	641	970	1,043	734	376	146	161	289	244
24	205	278	287	629	927	999	690	349	142	166	242	226
25	207	310	234	656	855	1,013	650	337	101	178	265	151
26	209	284	205	690	813	1,100	605	315	147	182	291	204
27	189	315	207	696	741	1,237	650	359	166	156	334	184
28	205	298	186	754	638	1,277	656	351	154	175	284	230
29	202	334	736	916	540	1,281	650	359	171	151	215	258
30	218	293	220	1,006	602	1,333	671	351	163	184	-	175
31	-	287	-	995	693	-	656	-	170	175	-	209
Total	6,263	8,255	6,977	16,897	26,811	32,777	35,061	18,235	6,931	5,201	6,501	7,398
Mean	209	266	232	545	865	1,092	1,131	603	223	168	224	239
Max.	238	334	429	1,006	1,317	1,357	1,560	898	376	207	334	322
Min.	191	207	105	156	416	696	605	315	101	134	91	151
Runoff - BCM.	541.123	713.232	602.813	1,459.901	2,316.470	2,831.933	3,029.270	1,575.504	598.938	449.366	561.686	630.187

WATER YEAR 1963 : Max. 1,560 Min. 91 Mean 484 Annual Runoff 15,319.325 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 8	06.00	4.80	1,560				

WATER YEAR 1964  
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 Chulelongkorn 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 to date.

Rating Operation:

Period of Rating: 1965 to date.

Rated by Float: -

Rated by Current Meter: 1965 to date.

Stability of Channel Regimes: Rather unstable, no shifting adjustment for flow computation for years without actual ratings.

Overbank Flow Conditions: No overbank flow.

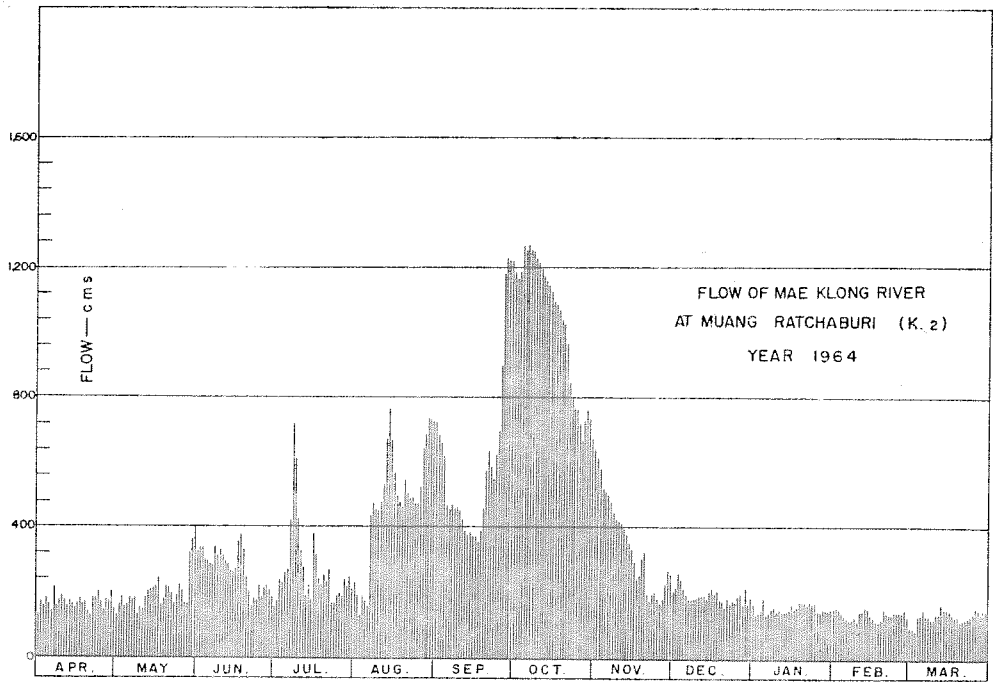
General Description:

Gage height record good, discharge record fair for high flow, and poor for low flow, i. e. for stage below + 1.20 m. (M.S.L.) which are effected by the tidal fluctuation. Stage-discharge relationship used is defined by discharge measurement made during 1965. Stage diversions of about 6,200 hectares are made above gage site. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.12	0.12	1.04	0.26	0.70	2.59	3.86	2.32	0.49	0.35	0.24	-0.13
2	.35	.32	.19	.41	.49	.46	.80	.25	.69	.14	.30	-0.13
3	.29	.24	.19	.74	.69	.39	.87	.13	.85	.19	.27	-0.17
4	.43	.29	.03	.69	.49	.24	4.07	1.89	.73	.23	.18	0.11
5	.31	.35	.02	.85	.91	1.69	.04	.87	.62	.17	.13	.14
6	0.18	0.45	0.98	0.90	0.82	1.65	4.07	1.84	0.49	0.14	0.08	0.24
7	.63	.41	.97	1.22	1.58	.72	.04	.75	.44	.26	.05	.13
8	.29	.45	1.19	2.56	.73	.67	.03	.62	.44	.27	.05	.13
9	.39	.11	.08	.21	.65	.68	3.98	.54	.44	.29	.11	.06
10	.48	.28	.16	1.54	.80	.65	.94	.52	.46	.21	.03	.07
11	0.39	0.25	1.09	1.15	1.75	1.53	3.90	1.50	0.50	0.27	0.21	0.14
12	.29	.49	.00	0.94	.93	.41	.83	.44	.50	.22	.22	.18
13	.39	.56	0.98	.46	2.42	.35	.80	.35	.49	.22	.30	.34
14	.35	.52	.85	.68	.72	.38	.75	.24	.43	.23	.27	.26
15	.25	.62	.86	.39	.41	.33	.71	.18	.56	.24	.16	.25
16	0.35	0.65	0.93	1.37	2.07	1.33	3.62	0.99	0.61	0.35	0.09	0.24
17	.42	.77	1.26	.09	1.82	.26	.60	.76	.53	.27	.04	.15
18	.32	.73	.35	0.76	.74	.39	.56	.83	.57	.30	.02	.11
19	.39	.42	.18	.67	.69	.65	.48	1.06	.42	.40	.04	.12
20	.19	.64	0.77	.83	2.00	2.10	.45	.13	.39	.40	.24	.03
21	0.11	0.62	0.56	0.69	1.85	2.29	3.28	0.53	0.29	0.38	0.18	0.06
22	.44	.51	.28	.91	.79	.13	2.95	.40	.45	.33	.17	.08
23	.42	.30	.45	.36	.80	.33	.82	.54	.35	.39	.17	.09
24	.56	.54	.40	.36	.73	.25	.75	.56	.41	.36	.20	.10
25	.39	.67	.66	.49	.74	.47	.70	.45	.38	.37	.19	.18
26	0.21	0.57	0.50	0.54	1.90	3.08	2.57	0.37	0.49	0.23	0.22	0.28
27	.41	.36	.61	.47	2.31	.86	.40	.44	.52	.21	.19	.27
28	.39	.33	.65	.73	.46	.97	.60	.75	.34	.20	.24	.16
29	.56	1.13	.58	.64	.62	.95	.70	.90	.60	.26	-	.27
30	.25	.29	.47	.79	.61	.95	.62	.87	.34	.24	-	.23
31	-	.46	-	.60	.59	-	.40	-	.46	.27	-	.14
Mean	0.35	0.52	0.88	0.85	1.77	2.16	3.42	1.20	0.49	0.27	0.16	0.13
Max.	0.63	1.46	1.35	2.56	2.72	3.97	4.07	2.32	0.85	0.39	0.30	0.34
Min.	0.11	0.11	0.28	0.26	0.49	1.26	2.40	0.37	0.29	0.14	0.02	-0.17

WATER YEAR 1965 : Max. 4.07 m. Min. - 0.17 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	126	126	301	149	228	725	1,182	641	198	164	146	90
2	164	159	337	175	189	684	1,159	612	226	129	156	90
3	154	146	337	236	226	662	1,186	584	258	137	151	84
4	178	154	298	226	189	617	1,265	515	234	144	156	125
5	158	164	296	258	271	462	1,253	510	213	180	128	129
6	136	182	287	269	252	452	1,265	502	189	129	120	146
7	215	175	284	344	434	470	1,253	478	180	149	115	128
8	154	182	337	715	472	457	1,249	444	180	151	115	128
9	171	125	310	608	452	460	1,229	424	180	154	125	117
10	187	153	329	424	491	452	1,214	419	184	141	112	118
11	171	147	313	327	478	421	1,198	414	191	151	141	134
12	154	189	291	278	526	391	1,171	399	191	142	142	136
13	171	202	287	184	671	376	1,159	376	189	142	156	163
14	164	207	258	224	767	384	1,139	349	178	144	151	146
15	147	213	261	171	668	371	1,124	334	202	146	133	147
16	164	218	276	381	566	371	1,089	289	211	164	121	146
17	177	242	354	313	496	354	1,081	240	196	151	114	131
18	159	161	376	240	475	386	1,066	254	204	156	111	125
19	171	177	334	223	462	452	1,036	305	177	173	114	126
20	137	217	242	254	546	575	1,024	322	171	173	146	112
21	125	213	202	226	504	632	963	196	154	170	136	117
22	180	193	153	271	488	584	844	177	182	161	134	120
23	177	156	182	166	491	644	800	198	164	171	134	121
24	202	198	173	166	473	612	776	202	175	166	139	123
25	171	222	220	189	475	687	760	182	170	168	137	136
26	141	204	191	198	518	891	718	168	189	144	142	153
27	175	166	211	186	638	1,182	665	180	195	141	137	151
28	171	161	218	278	684	1,225	728	238	163	139	146	133
29	202	322	205	217	734	1,217	760	269	209	149	-	151
30	147	361	187	246	731	1,217	734	263	163	146	-	144
31	-	404	-	209	725	-	665	-	184	151	-	129
Total	4,949	6,139	8,050	8,311	15,321	18,413	31,755	10,480	5,891	4,726	3,738	4,002
Mean	165	198	268	268	494	614	1,024	349	190	152	133	129
Max.	215	404	376	715	767	1,225	1,265	641	258	173	156	163
Min.	125	125	153	149	189	354	665	168	154	129	111	84
Runoff - mcm.	427.594	530.410	695.520	718.070	1,323.734	1,590.883	2,743.632	905.472	508.932	408.326	322.963	345.773

WATER YEAR 1964 : Max. 1,265 Min. 84 Mean 334 Annual Runoff 10,521.360 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 4	06.00	4.07	1,265				

WATER YEAR 1963  
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 in front of Wat Si Loha Ratchabamrung, Amphoe Tha Muang, Kanchanaburi.

Drainage Area: 27,220 sq.km. referred to AMS Map 1:50,000.

Type of Gage: Staff gage.

Zero Gage at Bottom at: + 12.00 m. (M.S.L.)

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

Location: In front of the district office of Amphoe Tha Muang.  
Elevation: + 23.781 m. (M.S.L.)

Gage Reading Frequency: 3 - time daily readings at 06.00, 12.00 and 18.00 hours.

Basis of Mean Daily Gage Height: Arithmetic mean of 3 readings.

Period of Available Gage Records: 1939 - 56, 1962 to date.

Rating Operation:

Period of Rating: 1943 - 47, 1962 - 65.

Rated by Float: 1943 - 47.

Rated by Current Meter: 1962 - 65.

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation due to its stability.

Overbank Flow Conditions: No overbank flow.

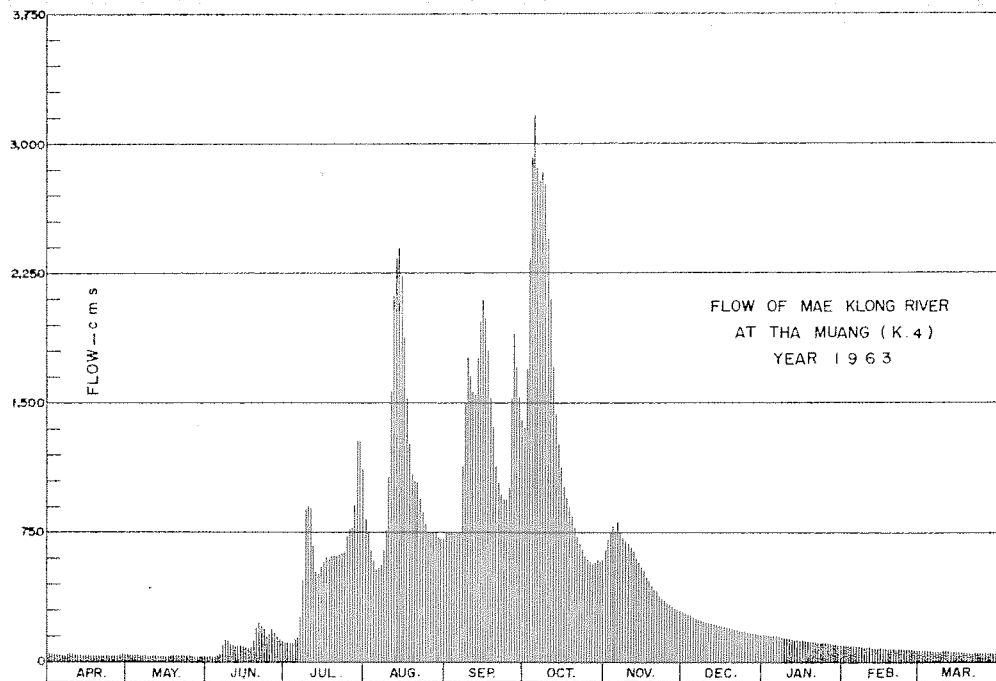
General Description: Records good. Stage discharge relationship used by discharge measurements made during 1963. State diversions of about 2,960 hectares are made above gage site. No adjustment made for virgin flow.

GAGE HEIGHT IN METER ( M. S. L. ), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	12.68	12.64	12.44	13.32	16.93	16.42	18.14	16.06	14.45	13.64	13.18	12.93
2	.67	.64	.46	.27	.48	.41	.56	.28	.42	.63	.17	.92
3	.65	.63	.45	.28	.10	.41	19.95	.41	.37	.61	.16	.90
4	.64	.63	.47	.33	15.79	.39	21.39	.55	.34	.61	.15	.89
5	.63	.62	.56	.48	.63	.43	.86	.48	.30	.59	.15	.88
6	12.62	12.62	12.69	13.83	15.68	16.38	21.29	16.64	14.27	13.60	13.14	12.87
7	.62	.60	13.23	14.31	.74	17.38	.13	.44	.24	.59	.13	.86
8	.70	.59	.48	15.69	16.06	18.45	.25	.30	.20	.57	.12	.85
9	.76	.56	.40	16.85	.50	19.15	.10	.24	.17	.53	.11	.84
10	.67	.54	.25	.97	17.42	.00	20.51	.19	.14	.51	.09	.84
11	12.64	12.51	13.21	16.93	18.81	18.71	19.74	16.11	14.12	13.49	13.08	12.87
12	.62	.51	.13	.03	19.89	.65	18.95	.04	.10	.47	.06	.87
13	.61	.50	.12	15.59	20.32	19.12	.39	15.82	.07	.45	.05	.86
14	.60	.49	.14	.53	.42	.59	17.94	.80	.04	.43	.04	.84
15	.59	.49	.12	.72	.10	.82	.57	.68	.01	.41	.03	.83
16	12.60	12.47	13.07	15.83	19.39	19.63	17.29	15.59	13.98	13.40	13.02	12.83
17	.58	.47	.02	.91	18.65	.24	.08	.42	.97	.39	.01	.83
18	.58	.47	.10	.86	17.97	18.72	16.91	.32	.96	.38	.01	.81
19	.56	.47	.56	.92	.43	.21	.75	.20	.94	.36	.00	.80
20	.56	.54	.96	.96	.36	17.75	.57	.09	.90	.35	.00	.79
21	12.54	12.49	14.11	15.93	17.36	17.36	16.38	15.08	13.87	13.33	13.02	12.79
22	.54	.46	.00	.98	.09	.13	.21	14.92	.84	.33	.02	.78
23	.53	.47	13.94	16.02	16.86	.04	.07	.85	.81	.32	.01	.78
24	.52	.46	.60	.04	.61	.05	15.94	.80	.79	.30	.00	.76
25	.52	.46	.71	.38	.46	.26	.83	.74	.77	.29	.00	.79
26	12.52	12.44	13.91	16.51	16.44	18.64	15.84	14.68	13.75	13.28	12.99	12.77
27	.53	.44	.77	.41	.42	19.45	.72	.62	.73	.26	.98	.76
28	.55	.44	.63	17.09	.45	.02	.77	.58	.71	.24	.96	.75
29	.67	.44	.49	18.03	.35	18.63	.84	.55	.70	.22	.95	.74
30	.68	.46	.39	.02	.29	.34	.81	.50	.68	.21	.73	.73
31		.49		17.51	.52		.80		.66	.19		.73
Mean	12.61	12.52	13.28	15.73	17.27	18.00	17.99	15.57	14.01	13.42	13.06	12.82
Max.	12.76	12.64	14.11	18.03	20.42	19.82	21.86	16.64	14.45	13.64	13.18	12.93
Min.	12.52	12.44	12.44	13.27	15.63	16.38	15.72	14.50	13.66	13.19	12.95	12.73

WATER YEAR 1963 : Max. 21.86 m. Min. 12.44 m.





DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	48	45	31	114	898	747	1,329	650	286	157	98	70
2	47	45	33	108	762	743	1,499	706	281	155	96	69
3	45	44	32	110	657	743	2,151	743	272	152	95	67
4	45	44	33	116	578	737	2,907	783	266	152	94	66
5	44	43	39	134	539	748	3,160	762	259	150	94	65
6	43	43	48	183	551	738	2,854	810	254	151	93	64
7	43	42	104	261	566	1,051	2,769	751	249	150	92	63
8	49	41	134	554	646	1,453	2,832	712	242	147	90	62
9	54	39	124	873	768	1,760	2,753	695	237	141	89	61
10	47	38	106	911	1,065	1,692	2,440	681	232	138	87	61
11	45	36	101	898	1,606	1,562	2,046	660	228	136	86	64
12	43	36	92	638	2,121	1,537	1,669	641	225	133	84	64
13	43	35	90	530	2,340	1,746	1,429	585	220	130	82	63
14	42	34	93	515	2,393	1,971	1,251	580	215	128	81	61
15	41	34	90	561	2,227	2,086	1,117	551	211	125	80	60
16	42	33	85	587	1,875	1,991	1,019	530	206	124	79	60
17	41	33	79	607	1,537	1,803	946	489	204	123	78	60
18	41	33	88	595	1,262	1,567	892	466	203	122	78	58
19	39	33	145	610	1,068	1,357	843	438	200	119	77	57
20	39	38	203	620	1,044	1,182	789	414	194	118	77	56
21	38	34	227	612	1,044	1,044	734	412	189	116	79	56
22	38	33	209	625	950	963	687	380	185	116	79	55
23	37	33	200	635	877	933	649	366	180	114	78	55
24	36	33	151	641	801	936	615	356	178	112	77	54
25	36	33	166	734	757	1,009	587	344	175	111	77	56
26	36	31	195	771	751	1,533	590	332	172	110	76	55
27	37	31	174	743	746	1,904	561	320	169	107	75	54
28	38	31	155	950	754	1,701	573	312	166	105	73	53
29	47	31	136	1,285	726	1,529	590	306	165	102	72	52
30	48	33	123	1,281	709	1,409	582	296	162	101	71	51
31		34		1,096	718		580		159	99		51
Total	1,272	1,126	3,486	18,898	33,336	40,175	43,443	16,051	6,584	3,944	2,416	1,843
Mean	42.4	36.3	116	610	1,075	1,339	1,401	535	212	127	83.3	59.4
Max.	54	45	227	1,285	2,393	2,086	3,160	810	286	157	98	70
Min.	36	31	31	108	539	737	561	236	159	99	72	51
Runoff - BCM	109.901	97.286	301.190	1,632.787	2,880.230	3,471.120	3,753.475	1,386.806	568.858	340.762	208.742	159.235

WATER YEAR 1963 : Max. 3,160 Min. 31 Mean 471 Annual Runoff 14,910.394 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 5	06.00	21.90	3,182				

WATER YEAR 1964  
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 in front of Wat Si Loha Ratchabamrung, Amphoe Tha Muang, Kanchanaburi.

Drainage Area: 27,220 sq.km. referred to AMS Map 1:50,000.

Type of Gage: Staff gage.

Zero Gage at Bottom at: + 12.00 m. (M.S.L.)

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

Location: In front of the district office of Amphoe Tha Muang.  
Elevation: + 23.781 m. (M.S.L.)

Gage Reading Frequency: 3 - time daily readings at 06.00, 12.00 and 18.00 hours.

Basis of Mean Daily Gage Height: Arithmetic mean of 3 readings.

Period of Available Gage Records: 1939 - 56, 1962 to date.

Rating Operation:

Period of Rating: 1943 - 47, 1962 - 65.

Rated by Float: 1943 - 47.

Rated by Current Meter: 1962 - 65.

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation due to its stability..

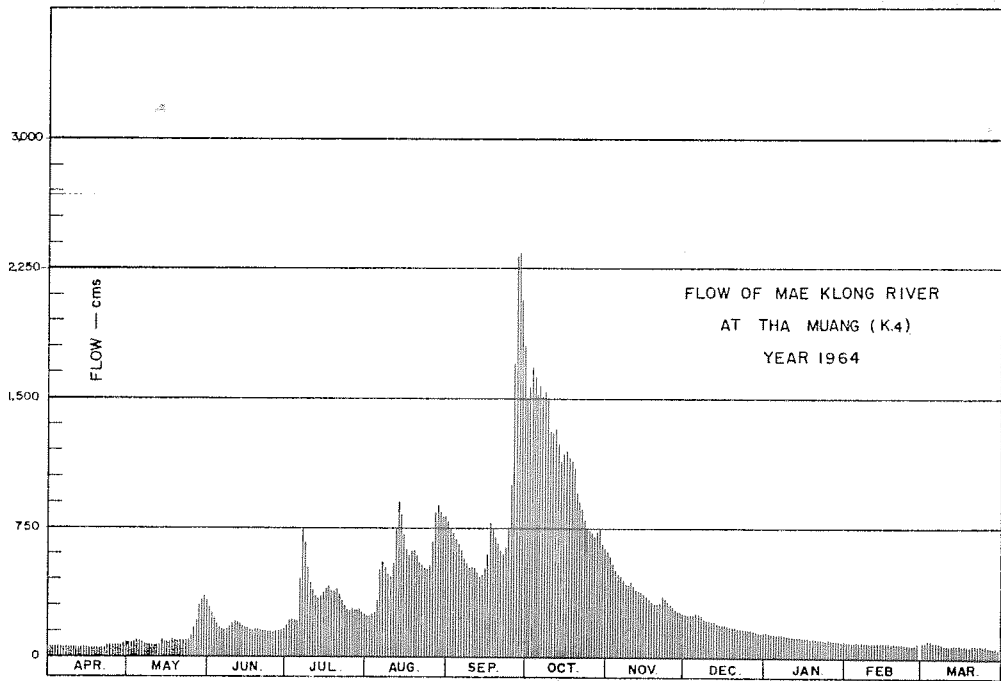
Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage - discharge relationship used by discharge measurements made during 1964. State - diversions of about 2,960 hectares are made above gage site. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	12.73	12.93	14.35	13.70	14.05	16.40	18.36	15.78	14.08	13.38	13.02	12.97
2	.73	.94	.17	.86	.06	.23	.60	.68	.06	.37	.01	13.04
3	.72	.95	13.96	.92	.11	.17	.73	.48	.06	.36	.00	.07
4	.71	13.07	.77	.89	.24	.06	.61	.33	.11	.34	.00	.04
5	.69	.02	.62	.88	.71	15.96	.47	.25	.12	.33	12.99	.00
6	12.68	12.96	13.54	14.76	15.35	15.83	18.48	15.21	14.09	13.32	12.98	12.96
7	.67	.91	.50	16.24	.56	.61	.35	.11	.01	.30	.98	.94
8	.66	.87	.52	.00	.38	.44	.41	.01	13.94	.29	13.00	.91
9	.65	.86	.59	15.44	.23	.41	.33	14.96	.89	.28	12.98	.86
10	.63	.82	.73	.10	.22	.41	17.85	15.08	.86	.27	.99	.83
11	12.64	12.80	13.82	14.85	15.56	15.41	17.84	14.94	13.82	13.26	12.99	12.81
12	.63	.81	.81	.70	16.28	.26	.90	.85	.80	.24	.96	.81
13	.63	.86	.72	.60	.77	.15	.70	.81	.77	.23	.95	.82
14	.62	13.07	.67	.68	.53	.25	.41	.80	.74	.21	.94	.81
15	.64	.04	.65	.78	.15	.42	.54	.73	.72	.19	.93	.79
16	12.63	13.01	13.59	14.91	15.82	15.93	17.63	14.65	13.69	13.18	12.93	12.77
17	.62	.04	.51	.94	.70	16.35	.50	.57	.67	.18	.93	.76
18	.61	.11	.46	.84	.78	.30	.44	.50	.65	.17	.93	.75
19	.63	.08	.50	.83	.81	.08	.09	.43	.62	.16	.94	.76
20	.66	.10	.52	.88	.70	15.94	16.91	.42	.59	.14	.92	.81
21	12.61	13.07	13.49	14.75	15.54	15.79	16.80	14.43	13.57	13.13	12.89	12.80
22	.69	.07	.48	.55	.48	.73	.63	.63	.55	.12	.88	.77
23	.81	.06	.48	.39	.38	.88	.44	.61	.53	.11	.87	.76
24	.81	.10	.45	.29	.35	16.33	.27	.49	.52	.10	.85	.74
25	.80	.29	.43	.27	.56	17.04	.24	.40	.50	.09	.83	.72
26	12.78	13.57	13.43	14.30	16.08	18.78	16.17	14.32	13.49	13.08	12.83	12.70
27	.78	.91	.44	.23	.57	19.99	.10	.25	.47	.07	.91	.68
28	.80	14.42	.46	.28	.71	20.03	.21	.20	.45	.06	.96	.67
29	.90	.56	.50	.26	.57	19.52	.24	.15	.43	.05	.65	.65
30	.95	.66	.57	.16	.46	18.81	15.99	.12	.42	.04	.64	.64
31		.61		14.10	.47		.84		.40	.03		.68
Mean	12.70	13.24	13.62	14.59	15.62	16.45	17.36	14.77	13.73	13.20	12.94	12.82
Max.	12.95	14.66	14.35	16.24	16.77	20.03	18.73	15.78	14.12	13.38	13.02	13.07
Min.	12.61	12.80	13.43	13.70	14.05	15.15	15.84	14.12	13.40	13.03	12.83	12.64

WATER YEAR 1964 : Max. 20.03 m. Min. 12.61 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	62	82	294	187	240	784	1,511	611	246	140	92	86
2	62	83	261	211	242	733	1,616	585	242	139	90	94
3	61	84	226	220	251	716	1,673	536	242	137	89	98
4	60	98	197	215	273	686	1,620	499	251	135	89	94
5	58	92	175	214	362	659	1,559	480	252	133	88	89
6	57	85	163	372	504	624	1,563	470	247	132	87	85
7	56	79	157	736	555	567	1,507	447	234	129	87	83
8	55	75	160	670	511	526	1,532	424	223	128	89	80
9	54	74	170	526	475	518	1,499	414	215	126	87	74
10	53	70	191	445	473	518	1,300	440	211	125	88	71
11	54	68	205	390	555	518	1,296	409	205	123	88	69
12	53	69	203	360	748	482	1,320	390	202	121	85	69
13	53	74	190	341	902	456	1,240	382	197	119	84	70
14	52	98	182	357	826	480	1,130	380	193	116	83	69
15	54	94	179	376	710	521	1,178	366	190	114	82	67
16	53	90	170	403	621	651	1,212	351	185	112	82	65
17	52	94	159	409	590	769	1,163	335	182	112	82	64
18	51	103	152	388	611	754	1,141	322	179	111	82	63
19	53	99	157	386	619	692	1,012	309	175	110	83	64
20	55	102	160	397	590	654	949	307	170	107	81	69
21	51	98	156	370	550	613	912	309	168	106	77	68
22	58	98	155	331	536	598	858	347	165	105	76	65
23	69	97	155	301	511	638	797	343	162	103	75	64
24	69	102	150	283	504	763	745	320	160	102	73	63
25	68	123	147	279	555	994	736	303	157	101	71	61
26	66	168	147	284	692	1,695	716	288	156	99	71	59
27	66	218	149	271	838	2,314	697	275	153	98	80	57
28	68	307	152	281	883	2,336	727	266	150	97	85	56
29	78	333	157	277	838	2,062	736	257	147	95		54
30	83	353	168	259	803	1,709	667	252	146	94		54
31		343		249	806		627		143	93		57
Total	1,784	3,958	5,287	10,788	18,174	26,030	35,239	11,417	5,948	3,562	2,326	2,181
Mean	59.4	128	176	348	586	868	1,137	380	192	115	83.0	70.3
Max.	83	353	294	736	902	2,336	1,673	611	252	140	92	98
Min.	51	68	147	187	240	456	627	252	143	93	71	54
Runoff - mcm.	154.138	341.971	456.797	932.083	1,570.234	2,248.992	3,044.650	986.429	513.907	307.757	200.966	188.438

WATER YEAR 1964 : Max. 2,336 Min. 51 Mean 347 Annual Runoff 10,946.362 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sept. 27	21.00	20.16	2,408				

WATER YEAR 1963  
MAE KLONG RIVER BASIN

Khwaee Yai at Kaeng Riang, Kanchanaburi (K.6)

Location: Lat 14° - 25' - 43" N., Long 99° - 07' - 04" E., on left bank 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. referred to AMS Map 1:50,000.

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: At the rain gage in front of the camp of station K.6  
Elevation: + 72.819 m. (M.S.L.)

Gage Reading Frequency: 16 - time daily readings at 03.00, 06.00 - 18.00, 21.00 and 24 hours.

Basis of Mean Daily Gage Height: Arithmetic mean of 16 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: Rather unstable, shifting adjustment included for flow computation.

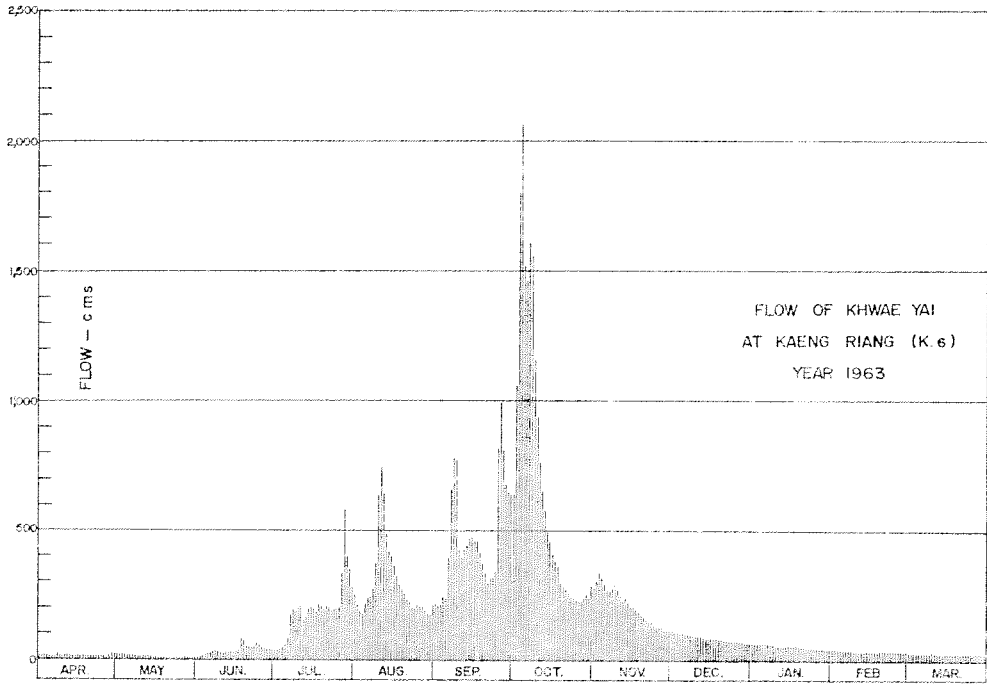
Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage - discharge relationship used by discharge measurements made during 1963. No state - diversions are made above gage site.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	56.10	56.25	56.02	56.37	58.72	58.31	61.25	58.98	57.16	56.58	56.28	56.12
2	.10	.23	.03	.47	.36	.28	63.00	59.09	.13	.57	.29	.12
3	.09	.19	.11	.46	.07	.36	65.67	.33	.10	.57	.28	.11
4	.09	.18	.23	.57	57.97	.66	66.39	.11	.07	.56	.27	.10
5	.08	.16	.29	.70	58.31	.63	64.76	58.91	.04	.58	.27	.09
6	56.07	56.17	56.31	56.97	58.51	59.91	64.52	58.75	57.01	56.57	56.26	56.08
7	.06	.13	.36	57.94	.63	61.33	65.07	.75	56.99	.55	.25	.08
8	.29	.10	.37	58.20	.84	.90	64.89	.83	.97	.52	.24	.07
9	.16	.07	.34	.13	59.72	.78	63.42	.97	.95	.51	.23	.06
10	.16	.06	.31	.48	60.98	59.98	62.56	.79	.95	.49	.22	.10
11	56.14	56.05	56.31	58.16	61.97	59.84	61.84	58.60	56.92	56.47	56.21	56.08
12	.13	.04	.33	57.68	.14	60.03	.31	.43	.90	.46	.20	.07
13	.13	.03	.33	.77	60.37	.13	60.94	.55	.87	.45	.20	.07
14	.12	.02	.33	58.15	59.91	.24	.53	.37	.84	.44	.19	.06
15	.11	.01	.33	.23	.84	.24	.25	.19	.82	.43	.18	.05
16	56.10	56.01	56.32	58.14	59.61	60.11	60.01	58.20	56.83	56.41	56.18	56.05
17	.10	.00	.40	57.99	.27	.08	59.81	.08	.83	.41	.18	.04
18	.11	.03	.88	58.28	58.97	59.76	.69	57.93	.80	.41	.17	.03
19	.10	.02	.80	.28	.87	.60	.14	.82	.77	.39	.17	.03
20	.08	55.99	.69	.16	.68	.33	.09	.73	.74	.39	.20	.04
21	56.07	55.98	56.62	58.31	58.50	59.14	59.01	57.67	56.72	56.38	56.18	56.02
22	.07	.98	.52	.23	.42	.17	58.86	.59	.70	.38	.18	.01
23	.06	.97	.55	.11	.26	.01	.72	.51	.69	.37	.20	.01
24	.05	.99	.69	.15	.18	.22	.57	.45	.67	.36	.20	.02
25	.06	.98	.60	.19	.27	61.54	.48	.40	.66	.35	.20	.04
26	56.08	55.98	56.51	58.21	58.23	62.88	58.50	57.35	56.65	56.34	56.17	56.02
27	.12	56.00	.43	59.34	.22	.02	.55	.31	.64	.32	.16	.01
28	.14	.00	.39	60.77	.09	61.32	.72	.27	.63	.32	.15	.00
29	.31	55.99	.40	59.74	57.99	.22	.69	.23	.61	.30	.13	.00
30	.22	56.00	.39	.49	.98	.23	.54	.19	.60	.29	.05	.05
31		.00	.02	58.30			.94		.59	.28		.03
Mean	56.12	56.01	56.41	58.08	58.94	60.11	60.96	58.18	56.83	56.43	56.21	56.05
Max.	56.31	56.25	56.88	60.77	61.97	62.88	66.39	59.33	57.16	56.58	56.29	56.12
Min.	56.05	55.97	56.02	56.37	57.97	58.28	58.48	57.19	56.59	56.28	56.13	56.00

WATER YEAR 1963 : Max. 66.39 m. Min. 55.97 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	15	25	10	37	253	213	639	275	116	66	43	30
2	15	23	11	40	212	209	1,033	312	114	66	43	30
3	15	21	17	44	185	215	1,795	336	119	66	43	31
4	15	20	25	55	179	244	2,060	315	108	66	42	28
5	13	20	27	65	217	238	1,519	250	105	68	42	30
6	12	21	27	86	239	399	1,453	270	102	67	41	28
7	10	18	32	174	247	655	1,607	269	100	66	40	29
8	25	17	35	194	276	777	1,554	278	98	60	40	29
9	18	15	31	192	393	768	1,153	295	96	60	39	28
10	19	14	28	231	633	427	936	272	96	57	39	31
11	17	14	28	200	742	392	763	249	94	56	37	28
12	16	13	30	192	639	424	649	229	92	55	37	28
13	16	12	30	184	489	446	575	241	90	55	37	28
14	16	11	31	198	410	472	496	220	86	54	37	28
15	16	10	31	203	404	475	456	204	85	55	35	27
16	15	10	31	192	362	458	410	206	86	54	35	25
17	15	8.00	38	181	319	458	380	195	86	53	35	25
18	16	10	81	212	282	414	364	181	85	53	36	27
19	16	10	72	204	269	372	294	170	80	51	36	26
20	14	8.00	50	193	251	356	264	162	81	51	39	27
21	14	8.00	50	208	232	292	271	158	79	50	36	25
22	14	8.00	47	200	220	314	260	151	78	49	36	25
23	13	8.00	50	188	198	314	248	150	77	48	37	25
24	13	9.00	62	193	198	342	235	139	74	48	37	25
25	13	8.00	55	197	211	765	230	130	74	48	37	27
26	12	8.00	47	203	204	991	226	130	74	46	35	25
27	14	11	43	337	202	867	229	129	74	45	34	25
28	15	9.00	39	587	189	675	246	123	70	45	33	25
29	28	8.00	40	396	178	643	254	116	68	43	31	25
30	22	9.00	39	342	160	635	239	120	68	43	31	28
31		9.30	271	216	216	238	238	67	67	43	31	27
Total	471	395	1,137	6,139	9,229	14,170	21,160	6,315	2,713	1,687	1,092	845
Mean	15.7	12.7	37.9	198	298	472	662	210	87.5	54.4	37.6	27.2
Max.	28	25	81	587	742	991	2,060	336	116	68	43	31
Min.	10	8.00	10	37	178	209	226	116	67	43	31	25
Runoff - mcm.	40.694	34.128	98.237	530.410	798.386	1,224.288	1,828.224	545.616	234.403	145.757	94.349	73.008

WATER YEAR 1963 : Max. 2,060 Min. 8.00 Mean 178 Annual Runoff 5,646.499 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 4	06.00	66.68	2,128	Sept. 8	06.00	62.13	831

WATER YEAR 1964  
MAE KLONG RIVER BASIN

Khwaee Yai at Kaeng Riang, Kanchanaburi. (K. 6)

Location: Lat 14° - 25' - 43" N, Long 99° - 07' - 04" E, on left bank 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. referred to AMS Map 1:50,000.

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: At the rain gage in front of the camp of station K.6

Elevation: + 72.819 m. (M.S.L.)

Gage Reading Frequency: 16 - time daily readings at 03.00, 06.00, 18.00, 21.00 and 24.00 hours.

Basis of Mean Daily Gage Height: Arithmetic mean of 16 readings.

Period of Available Gage Records: 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: Stable, no shifting adjustment for flow computation due to its stability.

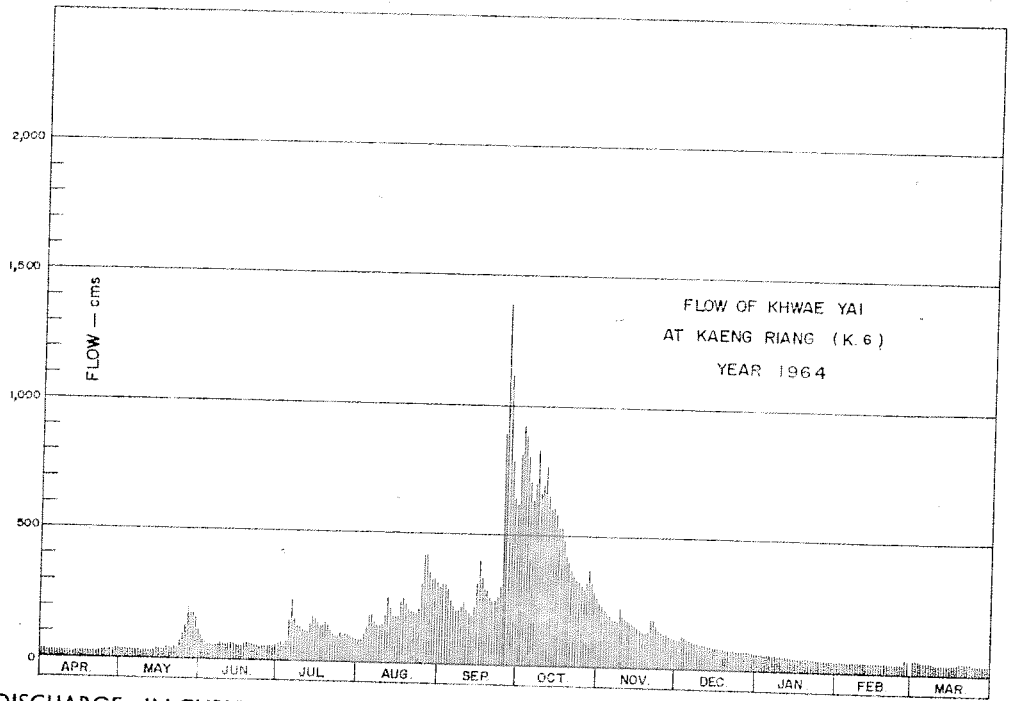
Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage discharge relationship used by discharge measurements made during 1964. No state diversions are made above gage site.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	56.03	56.16	56.91	56.71	56.88	58.95	61.59	58.51	57.17	56.59	56.29	56.46
2	.02	.18	.71	.69	.88	59.03	62.00	.38	.19	.57	.28	.41
3	.00	.15	.59	.65	57.17	.01	61.85	.24	.31	.56	.28	.38
4	55.99	.15	.52	.69	.45	58.87	.55	.15	.26	.55	.27	.34
5	.97	.15	.49	57.56	.91	.55	.18	.03	.21	.54	.27	.31
6	55.96	56.11	56.49	58.38	57.89	58.27	60.84	57.91	57.12	56.54	56.26	56.29
7	.96	.11	.52	57.74	.64	.11	61.13	.87	.07	.53	.28	.27
8	.99	.10	.57	.43	.53	.16	.64	.86	.02	.52	.26	.25
9	.99	.09	.59	.44	.48	.31	60.97	58.30	56.98	.50	.25	.21
10	.95	.09	.55	.27	.57	.46	61.12	.03	.96	.49	.26	.20
11	55.95	56.10	56.54	57.26	57.98	58.15	61.40	57.92	56.92	56.48	56.25	56.20
12	.95	.13	.56	.19	58.53	57.98	60.95	.83	.91	.47	.24	.20
13	.94	.17	.62	.51	.17	.98	.67	.84	.89	.46	.23	.19
14	.95	.16	.60	.78	57.85	58.28	.75	.75	.87	.44	.23	.20
15	.98	.25	.50	.66	.85	59.03	.61	.66	.85	.43	.22	.20
16	55.96	56.23	56.44	57.63	57.92	59.66	60.37	57.58	56.83	56.42	56.23	56.20
17	.95	.21	.46	.41	58.41	.25	.36	.50	.81	.41	.22	.20
18	.97	.19	.60	.47	.57	58.89	.11	.45	.79	.40	.21	.21
19	.96	.28	.62	.57	.34	.83	59.81	.43	.77	.39	.21	.31
20	.94	.25	.54	.45	.12	.57	.66	.47	.73	.38	.20	.25
21	55.93	56.23	56.54	57.25	58.12	58.49	59.47	57.94	56.73	56.38	56.19	56.25
22	.98	.32	.50	.10	.04	.54	.33	.92	.71	.37	.18	.25
23	56.05	.32	.45	.02	.01	.69	.20	.66	.70	.36	.17	.22
24	.09	.65	.43	.00	.23	59.02	.15	.54	.69	.35	.16	.16
25	.12	57.03	.48	.13	59.01	61.87	.04	.46	.68	.34	.20	.18
26	56.08	57.36	56.46	57.04	59.77	63.70	58.98	57.37	56.67	56.33	56.19	56.16
27	.15	58.06	.49	.12	.77	62.73	59.13	.34	.66	.33	.38	.15
28	.11	57.83	.50	.07	.37	61.48	.48	.26	.64	.32	.34	.14
29	.21	.82	.49	56.99	.15	60.89	.12	.22	.63	.31	-	.14
30	.19	.67	.64	.92	.19	.79	58.86	.19	.61	.30	-	.12
31	-	.18	-	.91	.10	-	.67	-	.60	.30	-	.14
Mean	56.01	56.51	56.55	57.26	58.19	59.28	60.29	57.75	56.87	56.43	56.24	56.23
Max.	56.21	58.06	56.91	58.38	59.77	63.70	62.00	58.51	57.31	56.59	56.38	56.46
Min.	55.93	56.09	56.43	56.65	56.88	57.98	58.67	57.19	56.60	56.30	56.16	56.12

WATER YEAR 1964 : Max. 63.70 m. Min. 55.93 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	29	37	93	77	90	300	817	249	115	67	45	57
2	29	38	77	75	90	310	924	235	117	66	45	54
3	27	36	67	72	115	307	885	220	128	65	45	52
4	27	36	62	75	141	290	807	211	123	64	44	49
5	26	36	59	152	187	253	714	199	119	63	44	47
6	25	34	59		235	185	224	675	187			
7	25	34	62		170	160	207	702	183	63	43	45
8	27	33	66		139	149	212	830	182	62	45	44
9	27	33	67		140	144	227	830	182	62	43	43
10	25	33	64		124	153	244	700	199	60	43	40
11	25	33	63		123	194	211	769	188	59	43	39
12	25	35	65		117	251	194	660	179	58	42	39
13	24	38	70		147	213	194	598	180	57	41	39
14	25	37	68		174	181	224	615	171	90	41	39
15	26	43	60		162	181	310	585	162	88	55	39
16	25	41	56		159	188	404	535	154	86	54	39
17	25	40	57		137	238	339	534	146	85	54	39
18	26	39	68		143	256	293	485	142	83	53	40
19	25	45	70		153	230	266	430	139	82	52	47
20	24	43	63		141	208	256	404	143	79	52	43
21	24	41	63		122	208	247	372	190	78	52	43
22	26	47	60		109	200	252	350	188	77	51	43
23	30	47	56		102	197	269	332	162	75	50	41
24	33	72	55		100	219	309	325	150	75	49	37
25	34	103	59		112	307	890	311	142	74	49	38
26	32	132	57		104	423	1,387	304	133	74	48	37
27	36	202	59		111	423	1,115	323	131	73	48	36
28	34	179	60		106	356	789	374	123	71	47	36
29	40	178	59		99	325	647	322	120	70	47	36
30	39	163	71		94	331	624	289	117	69	46	35
31	-	116	-		93	319	-	267	-	68	46	36
Total	845	2,024	1,915	3,867	6,862	11,813	16,864	5,150	2,791	1,711	1,182	1,291
Mean	28.1	65.2	63.8	125	221	394	544	172	90.0	55.2	42.2	41.6
Max.	40	202	95	235	423	1,387	924	249	128	67	45	57
Min.	24	33	55	72	90	194	287	117	69	46	37	35
Runoff - mm.	23.008	174.874	165.456	334.109	592.977	1,020.643	1,457.056	444.960	241.148	148.090	102.125	111.542

WATER YEAR 1964 : Max. 1,387 Min. 24 Mean 154 Annual Runoff 4,865.875 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sept. 26	15.00	63.78	1,409				

WATER YEAR 1963  
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 Tha Muang, Kanchanaburi.

Drainage Area: 27,200 sq.km. referred to AMS Map 1:50,000.

Type of Gage: Water - stage recorder.

Zero Gage at Bottom at: + 14.00 m. (M.S.L.)

Bench Mark: B.M. - P.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 hourly readings.

Period of Available Gage Records: 1957 to date.

Rating Operation:

Period of Rating: 1957 - 66.

Rated by Float: -

Rated by Current Meter: 1957 - 66.

Stability of Channel Regimes: Stable, Shifting adjustment and mean hourly discharge are included for flow computation.

Overbank Flow Conditions: Overbank flow was observed for period Oct. 4 - 9 and is included for flow computation.

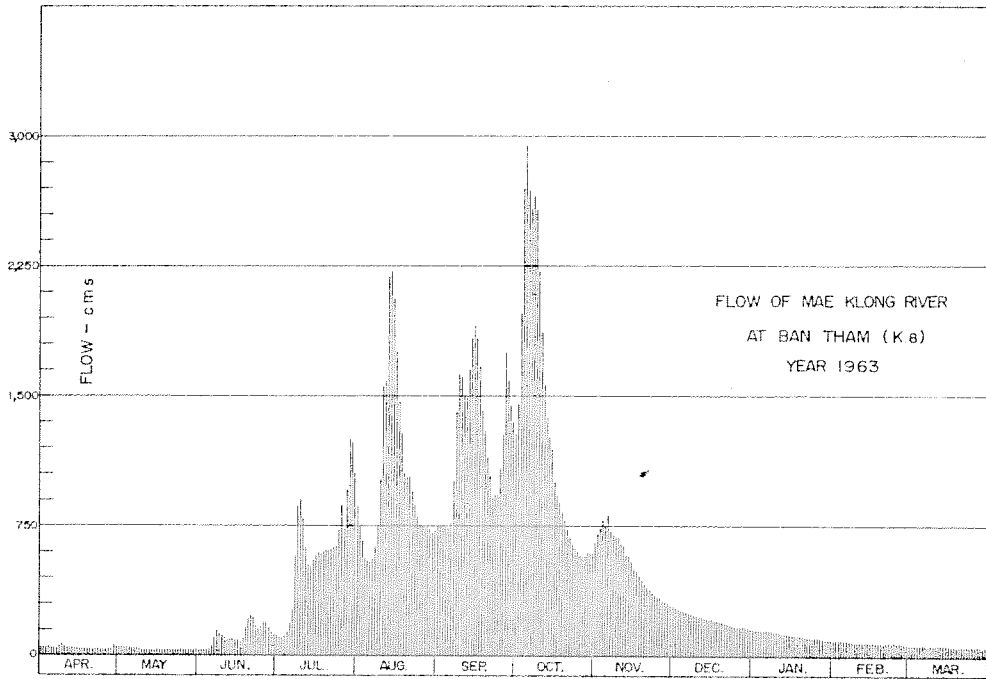
General Description: Records good. Stage - discharge relationship used by discharge measurements made during 1963. Upstream diversions of about 2,960 hectares are made at Tha Lo project, which is about 350 meters upstream. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	14.85	14.84	14.71	15.34	18.44	18.02	19.61	17.71	16.26	15.57	15.20	14.99
2	.82	.84	.72	.28	.01	.01	20.06	.89	.22	.56	.19	.99
3	.81	.83	.71	.29	17.67	.01	21.30	18.01	.18	.55	.18	.98
4	.81	.83	.73	.34	.41	.00	22.88	.13	.15	.54	.18	.97
5	.80	.82	.80	.49	.33	.00	23.36	.03	.12	.53	.17	.96
6	14.79	14.82	14.92	15.77	17.30	18.09	22.82	18.22	16.09	15.53	15.17	14.95
7	.78	.81	15.32	16.17	.40	.84	.62	17.93	.07	.53	.16	.94
8	.92	.79	.49	17.44	.66	19.94	.76	.87	.04	.50	.15	.95
9	15.02	.77	.42	18.40	18.10	20.52	.62	.82	.02	.48	.14	.93
10	14.88	.75	.31	.51	.99	.44	21.92	.78	15.98	.47	.13	.92
11	14.83	14.74	15.26	18.17	20.29	20.18	21.12	17.69	15.97	15.45	15.12	14.95
12	.81	.73	.20	17.60	21.32	.18	20.35	.63	.95	.44	.11	.96
13	.79	.72	.19	.24	.80	.59	19.88	.45	.93	.42	.10	.95
14	.79	.71	.21	.20	.86	21.02	.43	.45	.91	.40	.09	.94
15	.78	.71	.19	.35	.51	.20	.08	.32	.88	.39	.08	.93
16	14.77	14.70	15.16	17.45	20.82	21.03	18.82	17.17	15.87	15.38	15.07	14.92
17	.78	.70	.13	.51	.09	20.63	.64	.11	.84	.37	.06	.92
18	.76	.70	.20	.49	19.45	.14	.47	.01	.84	.36	.06	.91
19	.77	.70	.58	.52	.05	19.65	.32	16.91	.83	.35	.05	.90
20	.76	.75	.88	.55	18.90	.24	.15	.82	.80	.34	.05	.89
21	14.75	14.71	15.99	17.53	18.86	18.95	17.98	16.75	15.76	15.33	15.07	14.89
22	.75	.69	.94	.58	.64	.62	.83	.68	.74	.32	.08	.88
23	.75	.70	.68	.60	.40	.58	.71	.62	.72	.31	.05	.88
24	.74	.69	.58	.63	.20	.58	.58	.57	.69	.30	.06	.87
25	.74	.69	.67	.93	.07	19.04	.48	.51	.68	.29	.05	.90
26	14.73	14.68	15.79	18.40	18.03	19.61	17.46	16.46	15.67	15.28	15.05	14.88
27	.73	.68	.77	17.96	.02	20.81	.43	.41	.55	.27	.03	.88
28	.76	.68	.56	18.67	.02	.43	.45	.38	.64	.25	.02	.87
29	.95	.68	.45	19.51	17.96	.04	.50	.34	.63	.23	.01	.86
30	.85	.69	.37	.48	.90	19.78	.48	.30	.60	.22	-	.86
31	-	.71	-	18.98	.95	-	.48	-	.59	.21	-	.87
Mean	14.80	14.74	15.33	17.40	18.82	19.54	19.53	17.23	15.88	15.39	15.10	14.92
Max.	15.02	14.84	15.99	19.51	21.86	21.20	23.36	18.22	16.26	15.57	15.20	14.99
Min.	14.73	14.68	14.71	15.28	17.30	18.00	17.43	16.30	15.59	15.21	15.01	14.86

WATER YEAR 1963 : Max. 23.36 m. Min. 14.68 m.





DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	50	51	36	118	881	748	1,286	656	289	157	96	69
2	48	51	37	109	745	745	1,455	709	280	155	95	69
3	47	50	36	110	664	745	1,973	745	272	153	93	68
4	47	50	38	118	571	742	2,711	762	266	152	93	66
5	46	48	46	143	549	742	2,939	751	260	150	92	65
6	45	48	60	193	542	770	2,688	810	254	150	92	64
7	44	47	115	270	569	1,013	2,580	721	250	150	91	63
8	60	45	143	579	638	1,408	2,647	703	244	145	89	61
9	73	43	131	868	765	1,628	2,577	688	240	142	88	61
10	56	41	114	904	1,044	1,596	2,214	676	232	140	87	60
11	50	39	106	795	1,555	1,497	1,870	650	230	136	86	64
12	47	38	96	624	1,592	1,497	1,564	633	226	135	84	65
13	45	37	95	525	2,181	1,656	1,372	582	223	131	83	64
14	45	36	98	514	2,218	1,828	1,245	582	219	128	82	63
15	44	36	95	555	2,059	1,902	1,094	546	213	126	80	62
16	43	35	91	582	1,751	1,832	1,007	506	211	125	79	60
17	44	35	87	599	1,469	1,672	941	491	206	123	78	60
18	42	35	96	593	1,229	1,419	892	465	206	122	78	59
19	43	35	159	602	1,055	1,300	843	439	204	120	76	58
20	42	40	213	610	1,031	1,150	789	417	198	118	76	57
21	40	36	234	604	1,030	1,049	734	400	191	117	79	57
22	40	34	225	618	947	941	690	383	187	115	80	56
23	40	35	176	624	871	927	650	369	184	114	76	56
24	39	34	159	633	805	927	618	357	178	112	78	54
25	39	34	175	721	760	1,080	591	344	176	110	76	58
26	38	33	196	868	751	1,286	583	333	175	109	76	56
27	38	33	193	730	748	1,744	578	322	171	107	74	56
28	42	33	155	957	748	1,592	582	316	169	104	73	54
29	64	33	136	1,249	730	1,445	596	307	167	101	71	53
30	52	34	123	1,238	712	1,349	590	298	162	99	-	53
31	-	36	-	1,059	727	-	590	-	160	98	-	54
Total	1,393	1,215	3,664	18,712	31,937	38,230	41,489	15,981	6,643	3,944	2,401	1,865
Mean	46.4	39.1	122	604	1,030	1,274	1,338	533	214	127	82.7	60.1
Max.	73	51	234	1,249	2,218	1,902	2,939	810	289	157	96	69
Min.	38	33	36	109	542	742	578	298	160	98	71	53
Runoff - m.c.m.	120.355	104.976	316.570	1,616.717	2,759.357	3,303.072	3,584.650	1,380.758	573.955	340.762	207.446	161.136

WATER YEAR 1963 : Max. 2,939 Min. 33 Mean 457 Annual Runoff 14,469.754 m.c.m.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 5	06.00	23.44	3,010	Aug. 14	09.00	21.93	2,233

WATER YEAR 1964  
MAEKLONG RIVER BASIN

Mae Klong River at Ben 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 Tha Muang, Kanchanaburi.

Drainage Area: 27,200 sq.km. referred to AMS Map 1:50,000.

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 hourly readings.

Period of Available Gage Records: 1957 to date.

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 due to its stability.

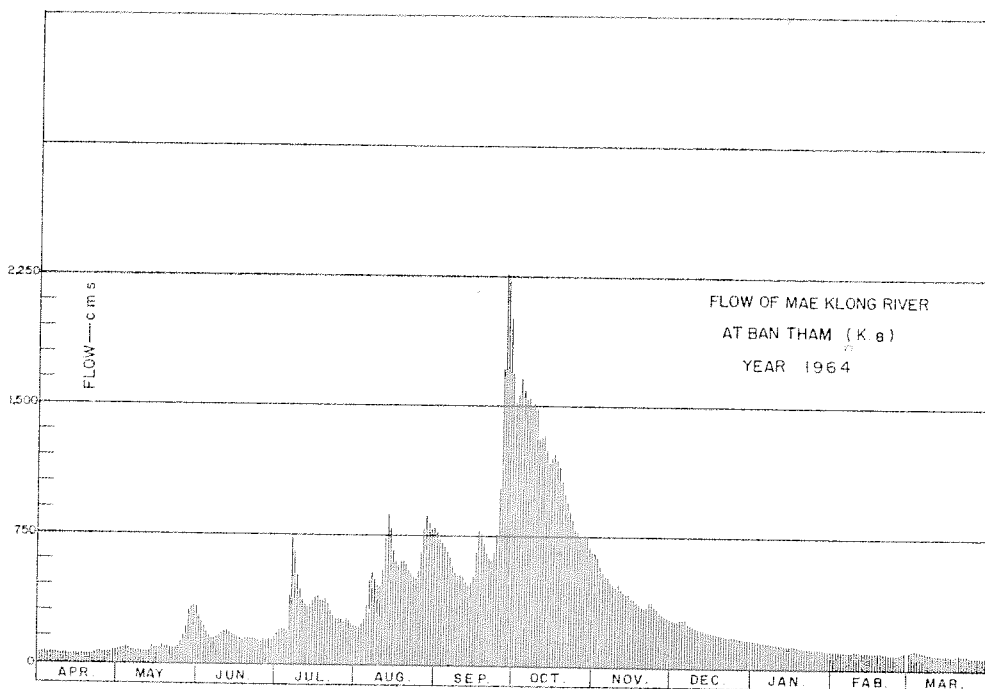
Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage - discharge relationship used by discharge measurements made during 1964. Upstream diversions of about 2,960 hectares are made at Tha Lo project, which is about 350 meters upstream. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	14.86	15.00	16.09	15.61	15.85	17.90	19.90	17.49	16.06	15.51	15.20	15.17
2	.86	.04	15.95	.73	.85	.74	20.13	.40	.04	.50	.20	.23
3	.85	.05	.79	.76	.90	.69	.26	.23	.04	.49	.19	.25
4	.85	.13	.64	.74	16.02	.60	.13	.10	.07	.47	.18	.22
5	.84	.07	.52	.72	.39	.52	.00	.04	.08	.46	.18	.19
6	14.84	15.02	15.46	16.44	16.93	17.40	20.01	17.00	16.06	15.45	15.17	15.16
7	.83	14.99	.44	17.76	17.09	.21	19.89	16.91	15.99	.45	.17	.14
8	.82	.97	.45	.52	16.93	.07	.95	.84	.94	.44	.18	.12
9	.82	.97	.53	.02	.80	.04	.86	.81	.90	.42	.18	.09
10	.83	.95	.64	16.73	.79	.04	.43	.88	.88	.41	.17	.07
11	14.81	14.92	15.70	16.49	17.11	17.01	19.48	16.77	15.85	15.40	15.18	15.06
12	.80	.95	.68	.39	.75	16.90	.50	.70	.82	.39	.15	.05
13	.79	.97	.60	.29	18.21	.81	.27	.67	.81	.38	.15	.06
14	.79	15.17	.57	.37	17.96	.89	.02	.66	.78	.37	.14	.05
15	.80	.09	.55	.46	.59	17.04	.15	.61	.76	.36	.14	.04
16	14.80	15.09	14.49	16.55	17.30	17.50	19.23	16.54	15.74	15.35	15.13	15.03
17	.80	.09	.43	.58	.23	.90	.11	.48	.72	.34	.13	.02
18	.79	.18	.40	.49	.30	.86	.02	.42	.71	.33	.14	.01
19	.79	.13	.45	.48	.33	.66	18.71	.37	.69	.31	.14	.02
20	.79	.14	.46	.52	.26	.52	.55	.35	.67	.30	.13	.05
21	14.78	15.10	15.43	16.41	17.13	17.38	18.44	16.36	15.65	15.29	15.11	15.05
22	.86	.11	.42	.23	.07	.34	.27	.51	.63	.28	.10	.03
23	.93	.10	.42	.11	16.99	.48	.10	.48	.61	.28	.09	.03
24	.92	.13	.40	.04	.96	.90	17.94	.39	.61	.27	.08	.01
25	.91	.32	.38	.02	17.15	18.62	.91	.32	.60	.26	.07	14.99
26	14.90	15.55	15.42	16.05	17.63	20.40	17.83	16.25	15.59	15.25	15.06	14.98
27	.90	.81	.39	15.98	18.06	21.55	.77	.20	.58	.24	.13	.97
28	.91	16.22	.42	16.03	.19	.54	.85	.16	.56	.23	.17	.96
29	15.00	.30	.45	.02	.05	.02	.85	.12	.55	.22	-	.95
30	.01	.39	.51	15.93	17.95	20.32	.63	.10	.53	.22	-	.95
31	-	.30	-	.86	.98	-	.51	-	.92	.21	-	.98
Mean	14.85	15.26	15.54	16.30	17.18	18.03	18.96	16.64	15.77	15.35	15.14	15.06
Max.	15.01	16.39	16.09	17.76	18.21	21.55	20.26	17.49	16.03	15.51	15.20	15.25
Min.	14.78	14.92	15.38	15.61	15.85	16.81	17.51	16.10	15.52	15.21	15.06	14.95

WATER YEAR 1964 : Max. 21.55 m. Min. 14.78 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	54	72	271	172	218	771	1,491	647	264	154	100	96
2	54	78	239	195	218	722	1,588	620	259	152	100	105
3	53	79	206	200	229	707	1,644	571	259	150	99	108
4	53	90	178	197	255	680	1,588	534	266	147	97	103
5	52	82	156	193	343	656	1,532	517	268	145	97	99
6	52	75	145	356	486	620	1,536	506	264	143	96	94
7	50	71	141	728	531	565	1,487	481	248	143	96	92
8	49	68	143	656	486	526	1,511	461	237	141	97	89
9	49	68	157	512	450	517	1,475	453	229	138	97	85
10	50	63	178	431	447	517	1,300	472	225	136	96	82
11	48	62	189	368	537	509	1,320	442	218	134	97	80
12	46	63	185	343	725	478	1,328	423	212	132	93	79
13	45	68	170	318	869	453	1,239	415	210	131	93	80
14	45	96	165	338	790	475	1,147	412	204	129	92	79
15	46	85	161	361	677	517	1,194	399	200	127	92	78
16	46	85	150	383	591	650	1,223	381	197	125	90	76
17	46	85	139	391	571	771	1,180	366	193	124	90	75
18	45	97	134	368	591	759	1,147	351	191	122	92	73
19	45	90	143	366	600	698	1,036	338	187	119	92	75
20	45	92	145	376	579	656	981	333	183	117	90	79
21	44	86	139	348	542	614	944	336	179	115	87	79
22	54	87	138	303	526	603	888	373	176	114	86	76
23	63	86	138	275	503	644	834	366	172	114	85	76
24	62	90	134	259	495	771	783	343	172	112	83	73
25	60	120	131	255	548	1,005	774	326	170	110	82	71
26	59	161	138	261	689	1,706	749	308	168	108	80	69
27	59	210	132	246	821	2,251	731	296	166	107	90	68
28	60	301	138	257	863	2,245	755	287	163	105	96	67
29	72	321	143	255	818	1,994	755	278	161	103	-	66
30	73	343	154	235	786	1,671	689	273	157	103	-	66
31	-	321	-	221	796	-	653	-	156	102	-	69
Total	1,579	3,695	4,780	10,167	17,580	25,751	35,502	12,308	6,354	3,902	2,585	2,507
Mean	52.6	119	159	328	567	858	1,145	410	205	126	92.3	80.8
Max.	73	343	271	728	869	2,251	1,644	647	268	154	100	108
Min.	44	62	131	172	218	453	653	273	156	102	80	66
Runoff - ccm.	136.426	319.248	412.992	878.429	1,518.912	2,224.886	3,067.373	1,063.411	548.996	337.133	223.344	216.605

WATER YEAR 1964 : Max. 2,251 Min. 44 Mean 347 Annual Runoff 10,947.744 ccm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sept. 27	18.00	21.68	2,316				

WATER YEAR 1963  
MAE KLONG RIVER BASIN  
Khwaee Noi at Wang Pho, Kanchanaburi. (R. 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. referred to AMS Map 1:50,000.

Type of Gage: Staff gage.

Zero Gage at Bottom at: + 33.00 m. (M.S.L.)

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

Location: On left bank near to the bank at Wang Pho.

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 to date.

Rated by Float: -

Rated by Current Meter: 1962 to date.

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

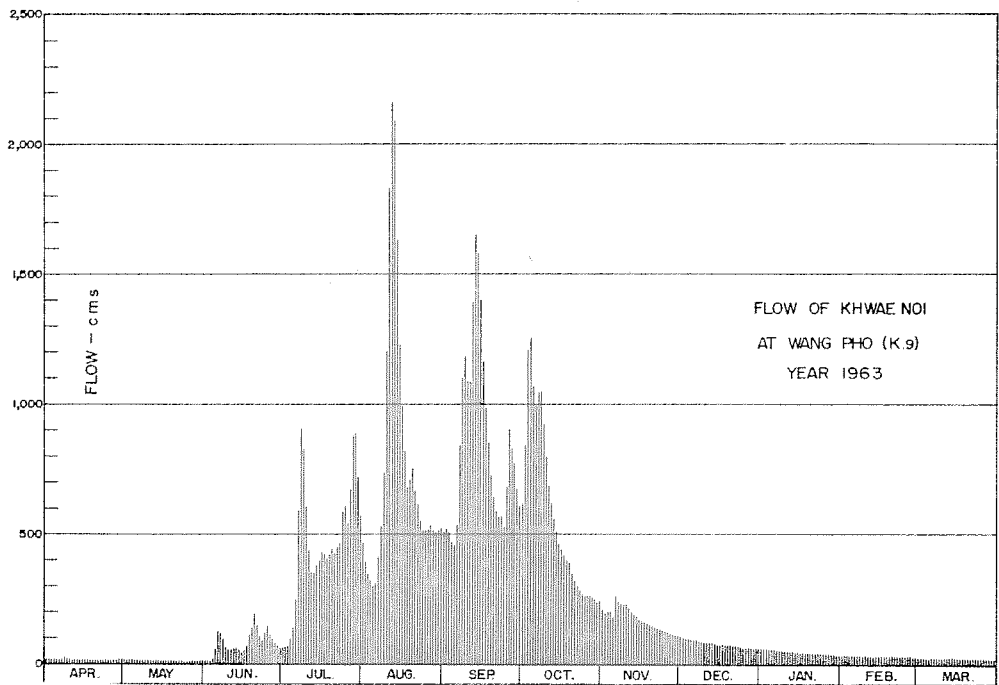
Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage - discharge relationship used by discharge measurement made during 1963.  
No state diversions are made above gage site.

GAGE HEIGHT IN METER ( M. S. L.), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	33.45	33.43	33.28	34.30	38.84	39.20	39.95	36.28	34.98	34.27	33.87	33.66
2	.45	.41	.29	.38	.20	.23	41.40	.18	.95	.26	.86	.65
3	.44	.43	.29	.48	37.79	.14	43.45	.24	.92	.25	.86	.63
4	.44	.47	.52	.86	.49	38.86	.66	.27	.88	.25	.85	.62
5	.42	.42	34.28	35.47	.35	.75	42.68	.00	.84	.25	.85	.61
6	33.42	33.39	35.27	36.77	37.44	39.35	42.30	36.91	34.81	34.25	33.84	33.60
7	.47	.37	.11	39.70	38.38	41.38	.57	.69	.78	.22	.83	.60
8	.62	.35	34.79	41.76	39.31	42.89	.57	.54	.25	.19	.82	.59
9	.48	.32	.32	.32	40.73	43.30	41.88	.53	.73	.17	.81	.58
10	.41	.31	.24	39.86	43.37	42.78	.11	.54	.71	.15	.79	.59
11	33.41	33.30	34.19	38.61	46.25	42.80	40.45	36.38	34.70	34.13	33.79	33.65
12	.40	.29	.25	37.82	47.56	44.35	.01	.19	.67	.12	.78	.63
13	.39	.28	.27	.81	.30	45.50	39.56	.11	.64	.10	.77	.62
14	.38	.26	.15	38.10	45.43	.20	.15	.00	.60	.09	.77	.62
15	.37	.26	.02	.29	43.53	44.38	38.80	35.87	.57	.07	.76	.61
16	33.37	33.27	34.10	38.54	42.28	43.20	38.62	35.81	34.55	34.06	33.75	33.59
17	.37	.26	.36	.48	41.26	42.25	.43	.78	.58	.05	.74	.56
18	.36	.27	35.11	.34	40.40	41.45	.26	.69	.57	.04	.73	.55
19	.36	.27	.42	.50	.58	40.69	.18	.62	.53	.04	.73	.54
20	.36	.25	36.11	.48	.88	.14	37.92	.55	.48	.03	.73	.53
21	33.37	33.24	35.55	38.52	40.32	29.76	37.55	35.48	34.45	34.01	33.77	33.53
22	.36	.25	34.93	.68	39.90	.60	.35	.43	.43	.00	.75	.52
23	.35	.24	.80	.83	.47	.60	.17	.41	.41	33.99	.74	.52
24	.34	.23	35.22	39.74	.19	.30	.00	.33	.39	.98	.73	.51
25	.34	.21	.57	.90	.16	41.00	36.89	.26	.38	.96	.74	.52
26	33.34	33.20	35.13	39.39	39.21	41.75	36.91	35.20	34.37	33.95	33.73	33.50
27	.34	.22	34.83	40.36	.32	.37	.89	.16	.35	.94	.70	.48
28	.27	.21	.58	41.59	.18	40.96	.83	.12	.34	.92	.68	.47
29	.47	.25	.43	.67	.11	.36	.83	.07	.32	.90	.67	.45
30	.44	.30	.34	40.69	.21	39.90	.63	.03	.30	.89	-	.48
31	-	.35	-	39.65	.26	-	.69	-	.28	.88	-	.49
Mean	33.40	33.30	34.56	38.54	40.57	41.28	39.28	35.85	34.59	34.08	33.77	33.56
Max.	33.62	33.47	36.11	41.76	47.56	45.50	43.66	36.91	34.98	34.27	33.87	33.66
Min.	33.34	33.20	33.28	34.30	37.35	38.75	36.63	35.03	34.28	33.88	33.67	33.45

WATER YEAR 1963 : Max. 47.56 m. Min. 33.20 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1,1963 TO MARCH 31,1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	19	18	12	63	469	516	615	207	107	61	38	28
2	19	17	13	68	392	520	843	198	104	61	38	27
3	19	18	13	74	347	508	1,210	204	102	60	38	26
4	19	20	22	98	317	472	1,250	206	100	60	37	26
5	18	18	62	141	303	457	1,066	183	97	60	37	25
6	18	17	127	251	312	535	998	264	95	60	37	25
7	20	16	116	590	412	840	1,047	244	93	58	36	25
8	26	15	93	904	530	1,104	1,047	231	90	56	36	25
9	20	14	64	829	735	1,182	925	230	89	55	35	24
10	17	13	59	602	1,202	1,084	796	231	88	54	34	25
11	17	13	56	439	1,827	1,088	690	216	87	53	34	27
12	17	13	60	350	2,157	1,392	623	199	85	52	34	26
13	17	12	61	349	2,090	1,648	563	192	83	51	33	26
14	16	12	54	381	1,632	1,579	509	183	81	50	33	26
15	16	12	46	402	1,226	1,399	464	173	79	49	33	25
16	16	12	51	431	994	1,163	441	168	78	49	32	25
17	16	12	67	424	820	989	418	165	80	48	32	23
18	15	12	116	407	682	851	399	158	79	47	31	23
19	15	12	137	426	711	728	390	153	77	47	31	23
20	15	11	192	444	759	643	350	147	74	47	34	22
21	16	11	147	428	670	589	323	142	72	46	33	22
22	15	11	103	448	608	568	303	138	71	45	32	22
23	15	11	94	468	551	568	287	137	70	44	32	22
24	15	11	123	586	515	529	272	131	68	44	31	21
25	15	10	149	608	511	678	262	126	68	43	32	22
26	15	10	117	541	517	902	264	122	67	42	31	21
27	15	11	96	676	532	838	262	119	66	42	30	20
28	16	10	80	875	513	772	257	116	65	41	29	20
29	18	11	71	889	504	676	257	112	64	40	28	19
30	19	13	65	728	517	608	239	110	63	39	-	20
31	-	15	-	574	524	-	244	-	62	39	-	21
Total	514	411	2,466	14,494	23,879	25,426	17,614	5,205	2,504	1,543	971	732
Mean	17.1	13.2	82.2	467	770	847	568	173	80.7	49.7	33.4	23.6
Max.	26	20	192	904	2,157	1,648	1,250	264	107	61	38	28
Min.	15	10	12	63	303	457	239	110	62	39	28	19
Runoff - mcm.	44.410	35.510	213.062	1,252.282	2,063.146	2,196.806	1,521.850	449.712	216.346	133.315	83.894	63.245

WATER YEAR 1963 : Max. 2,157 Min. 10 Mean 262 Annual Runoff 8,273.578 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Aug.12	18.00	48.38	2,300	Sept.13	15.00	46.11	1,789

WATER YEAR 1964  
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 Ban Wang Pho railway station  
Amphoe Sai Yok, Kanchanaburi.

Drainage Area: 6,902 sq.km. referred to AMS Map 1:50,000.

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 the way to the bank at Wang Pho.

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.

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 to date.

Rated by Float: -

Rated by Current Meter: 1962 to date.

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation due to its stability.

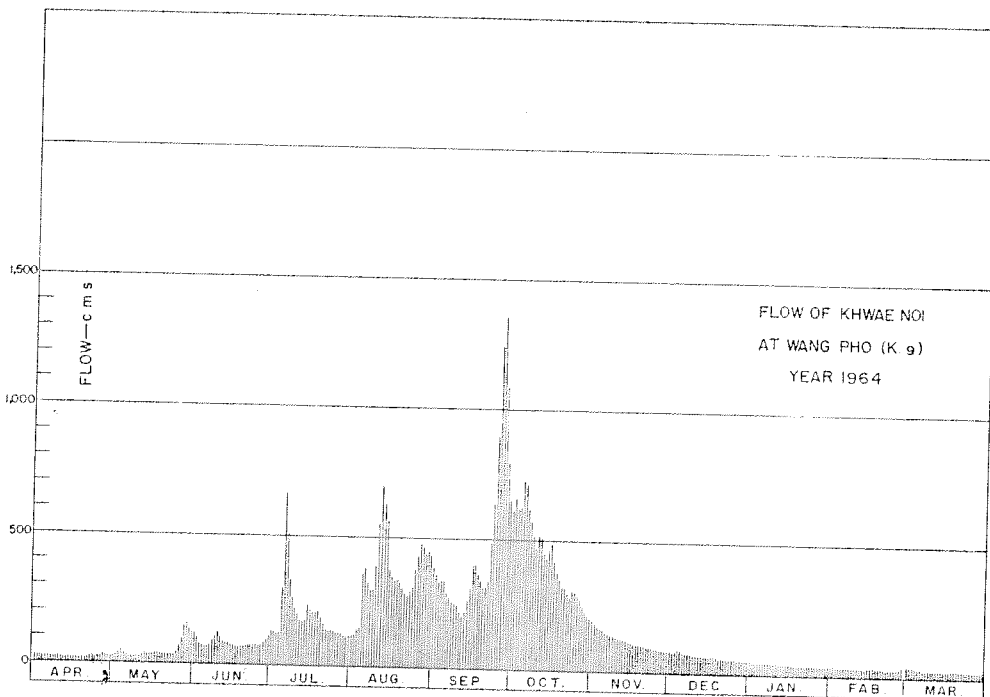
Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage - discharge relationship used by discharge measurements made during 1964.  
No state diversions are made above gage site.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	34.07	34.22	35.79	35.94	35.78	38.84	40.68	36.72	35.17	36.64	34.33	34.44
2	.06	.32	.47	.92	.82	.63	41.06	.58	.16	.63	.32	.36
3	.05	.48	.16	.79	36.09	.30	40.73	.46	.21	.62	.31	.36
4	.04	.58	.02	.73	37.39	.57	.78	.37	.31	.57	.30	.30
5	.03	.37	34.94	37.42	38.64	.32	41.54	.28	.25	.57	.29	.26
6	34.01	34.28	34.95	41.09	38.79	37.86	41.44	36.19	35.14	34.56	34.29	34.22
7	.00	.21	35.08	39.97	.22	.59	40.74	.11	.09	.55	.32	.18
8	33.99	.18	.36	38.28	37.88	.48	.39	.06	.05	.55	.30	.14
9	.98	.18	.57	37.40	.94	.44	39.84	.00	.03	.53	.30	.12
10	.98	.21	.85	36.99	39.02	.33	.44	35.93	.00	.53	.29	.11
11	33.98	34.23	35.59	36.75	40.46	36.97	39.93	35.89	34.98	34.51	34.27	34.17
12	.97	.29	.32	.50	41.24	.81	.87	.85	.96	.51	.25	.17
13	.97	.46	.19	.39	40.84	37.08	.34	.81	.94	.50	.24	.14
14	.97	.41	.24	.55	.33	.58	.04	.76	.93	.48	.24	.12
15	.96	.42	.12	37.13	38.74	38.03	.53	.70	.91	.46	.26	.10
16	33.96	34.37	35.02	36.98	38.45	38.93	39.72	35.65	34.89	34.45	34.29	34.08
17	.95	.47	34.96	.90	.31	.98	.12	.59	.87	.43	.30	.08
18	.94	.47	35.00	.91	.37	.57	38.77	.54	.85	.42	.27	.13
19	.94	.40	.02	.98	.30	.20	.43	.51	.83	.41	.24	.17
20	.93	.37	.01	.65	36.95	.40	.18	.49	.81	.41	.22	.13
21	33.92	34.35	35.03	36.28	37.80	38.12	38.18	35.48	34.78	34.40	34.20	34.10
22	34.14	.34	.08	.05	.66	.36	37.96	.46	.77	.39	.18	.10
23	.23	.34	.07	35.98	.91	39.70	.77	.41	.76	.38	.16	.07
24	.00	.36	.10	36.05	38.07	41.09	38.02	.37	.75	.38	.16	.05
25	.03	.51	.08	35.98	.81	42.52	37.97	.33	.74	.37	.14	.03
26	34.20	34.99	35.08	35.89	39.29	44.41	37.86	35.28	34.73	34.37	34.15	34.01
27	.25	35.63	.13	.89	.63	45.02	.66	.25	.73	.36	.23	33.99
28	.19	36.16	.27	.86	.55	43.87	.36	.23	.73	.35	.34	.99
29	.21	.28	.42	.73	.31	41.98	.12	.20	.69	.35	-	.98
30	.20	35.98	.67	.64	.40	40.92	36.95	.19	.68	.34	-	.98
31	-	.85	-	.71	.26	-	.89	-	.66	.33	-	34.01
Mean	34.04	34.63	35.22	36.69	38.52	39.19	39.11	35.76	34.92	34.78	34.26	34.13
Max.	34.25	36.28	35.85	41.09	41.24	45.02	41.54	36.72	35.31	36.64	34.34	34.44
Min.	33.92	34.18	34.94	35.64	35.78	36.81	36.89	35.19	34.66	34.33	34.14	33.98

WATER YEAR 1964 : Max. 45.02 m. Min. 33.92 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	23	30	120	131	120	363	607	190	80	50	35	40
2	23	34	98	129	122	361	659	178	79	49	34	36
3	23	42	79	120	142	329	613	169	82	49	34	36
4	22	47	71	116	145	336	620	163	88	46	33	33
5	22	37	66	248	362	331	728	156	95	46	33	33
6	21	33	67	664	378	288	714	149	78	46	33	30
7	20	29	74	517	322	262	615	143	75	45	34	28
8	20	28	91	328	290	253	570	139	72	45	33	26
9	20	28	105	246	295	249	501	135	71	44	33	26
10	20	29	124	211	402	240	452	130	69	44	33	25
11	20	30	106	192	578	210	512	127	68	43	32	28
12	19	33	89	172	685	197	505	124	67	43	31	28
13	19	41	81	164	629	219	440	122	66	43	31	26
14	19	38	84	176	562	261	428	118	65	42	31	26
15	19	39	77	233	373	304	463	114	64	41	32	25
16	19	37	71	210	344	393	486	110	63	40	33	24
17	19	41	67	204	330	398	414	106	62	39	33	24
18	18	41	69	205	336	355	376	103	61	39	32	26
19	18	38	71	210	329	320	342	101	60	38	31	28
20	18	37	70	184	296	305	318	100	58	38	30	26
21	18	36	71	156	282	312	318	99	57	38	29	25
22	26	35	74	139	269	335	297	98	56	37	28	25
23	30	35	74	134	292	483	277	95	56	37	27	23
24	20	36	75	139	308	664	303	92	55	37	27	23
25	22	43	74	134	380	886	298	90	55	37	26	22
26	29	69	74	127	434	1,232	282	86	54	37	27	21
27	31	109	77	127	475	1,354	269	85	54	36	30	20
28	28	147	86	125	465	1,129	243	83	54	36	35	20
29	29	156	95	116	436	797	222	81	52	36	-	20
30	29	134	112	110	447	640	208	81	52	35	-	20
31	-	124	-	115	430	-	203	-	51	35	-	21
Total	664	1,636	2,492	6,082	11,258	13,826	13,283	3,567	2,009	1,271	880	813
Mean	22.1	52.7	83.0	196	363	461	428	119	64.8	41.0	31.4	26.2
Max.	31	156	124	664	685	1,354	728	190	88	50	35	40
Min.	18	28	66	110	120	197	203	81	51	35	26	20
Runoff - mcm.	57.370	141.350	215.309	525.485	972.691	1,194.566	1,147.651	308.189	173.578	109.814	76.032	70.243

WATER YEAR 1964 : Max. 1,354 Min. 18 Mean 158 Annual Runoff 4,992.278 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 27	09.00	45.10	1,380				

WATER YEAR 1963  
PHET RIVER BASIN

Phet River at Ban Rai Phaniat, Phetchaburi (B.1A)

Location: Lat 13°-04' - 22" N., Long 99°-56' - 37" E., on-right bank, 3 kilometers upstream from Muang Phetchaburi and about 1 kilometer left of Phet Kasem Highway at Ban Rai Tin Nam, Phetchaburi.

Drainage Area: 4,188 sq.km. referred to AMS Map 1:50,000.

Type of Gage: Staff gage.

Zero Gage at Bottom at: + 0.00 m. (M.S.L.)

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

Location: At the cross road in front of Wang Ban Pun.  
Elevation: + 4.719 m. (M.S.L.)

Gage Reading Frequency: 3 - time daily readings at 06.00, 12.00 and 18.00 hours.

Basis of Mean Daily Gage Height: Arithmetic mean of 3 readings.

Period of Available Gage Records: 1961 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 for years without actual ratings.

Overbank Flow Conditions: No overbank flow.

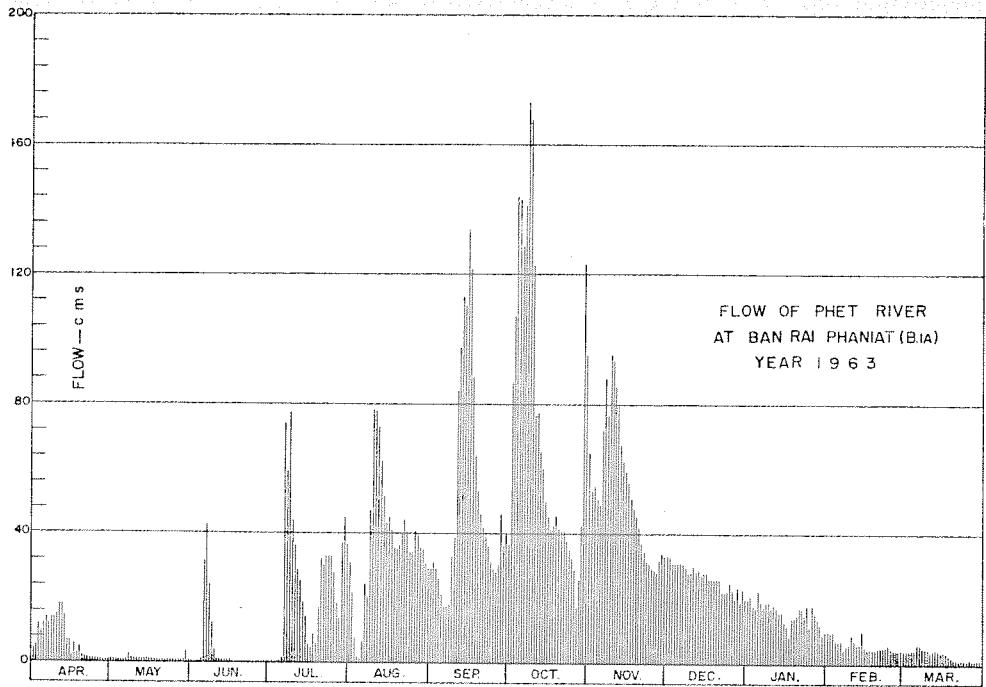
General Description: Gage height record good, discharge record fair. Stage - discharge relationship used is defined by discharge measurements made during 1965. Upstream state diversions of about 27,800 hectares. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	1.36	1.02	0.98	0.85	2.50	2.41	2.66	3.39	2.56	2.12	1.70	1.34
2	.36	.01	.94	.83	.15	.50	3.90	.12	.54	.13	.66	.34
3	.78	.02	.98	.83	1.56	.41	4.31	.17	.50	.03	.66	.34
4	.65	.02	.95	.85	.16	.33	5.00	.07	.50	.01	.53	.34
5	.78	.01	.93	.95	.12	.13	4.97	2.99	.50	.20	.50	.34
6	1.86	1.01	2.48	1.10	1.48	1.98	4.69	3.58	2.49	2.07	1.52	1.46
7	.79	.01	.84	3.62	2.24	2.01	.93	.92	.48	.01	.38	.47
8	.87	.27	.24	.26	.10	.05	5.47	.67	.45	.08	.45	.39
9	.85	.15	1.78	.69	.96	.56	.39	4.05	.40	.07	.45	.40
10	.90	.04	.34	2.91	3.70	.71	4.58	.02	.40	1.99	.65	.41
11	2.05	1.09	1.08	2.65	3.70	3.83	3.65	3.86	2.46	2.04	1.54	1.32
12	.04	.08	.04	.44	.60	4.10	.69	.75	.40	1.98	.45	.34
13	1.89	.06	.01	.30	.36	.42	.39	.47	.42	.93	.44	.36
14	.52	.07	0.99	.09	.05	.37	.20	.34	.35	.95	.72	.35
15	.52	.06	.99	1.86	2.84	.78	.00	.26	.40	.80	.40	.31
16	1.20	1.06	1.03	1.43	2.90	4.56	2.89	3.18	2.38	1.75	1.37	1.33
17	.47	.04	0.95	.37	.80	3.93	.80	.06	.34	.60	.38	.32
18	.24	.04	.93	.63	.65	.39	.81	2.98	.34	.86	.38	.25
19	.40	.01	.90	.45	.63	.12	.89	.90	.34	.86	.38	.20
20	.16	0.96	.91	2.00	0.64	2.94	.80	.84	.34	.89	.38	.09
21	1.14	0.98	0.87	2.51	2.73	2.81	2.79	2.68	2.33	1.99	1.40	1.08
22	.13	.98	.89	.47	.87	.74	.78	.59	.17	2.01	.39	.07
23	.13	.99	.89	.54	.78	.65	.69	.50	.17	1.90	.40	.06
24	.10	1.00	.89	.55	.59	.53	.63	.48	.19	2.05	.45	.06
25	.05	0.97	.88	.56	.59	.41	.55	.41	.28	1.73	.40	.06
26	1.04	0.98	0.88	2.39	2.78	2.38	2.41	2.43	2.20	2.03	.38	1.04
27	.03	1.00	.88	.09	.75	.47	.01	.40	.12	1.95	.36	.04
28	.03	.02	.87	1.82	.65	.94	.32	.53	.25	.87	.35	.05
29	.02	.09	.90	2.70	.60	.64	.86	.57	.08	.75	.35	.05
30	.02	.31	.94	.89	.49	.77	4.60	.55	.21	.65	.05	.05
31		0.98		.66	.41		3.76		.10	.68		.04
Mean	1.45	1.04	1.14	2.11	2.59	2.96	3.49	3.09	2.34	1.93	1.46	1.23
Max.	2.05	1.31	2.84	3.69	3.70	4.78	5.47	4.05	2.56	2.20	1.72	1.47
Min.	1.02	0.96	0.87	0.83	1.12	1.98	2.01	2.40	2.08	1.60	1.35	1.04

WATER YEAR 1963 : Max. 5.47 m. Min. 0.83 m.





DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	4.40	0.88	0.72	0.20	31	29	36	64	33	20	10	4.10
2	4.40	0.84	0.56	0.12	21	31	87	53	33	21	9.70	4.10
3	12	0.88	0.72	0.12	7.78	29	107	55	31	18	9.70	4.10
4	9.50	0.88	0.60	0.20	1.86	26	144	51	31	17	7.24	4.10
5	12	0.84	0.52	0.60	1.42	21	143	48	31	23	6.70	4.10
6	14	0.84	31	1.20	6.36	17	128	72	31	19	7.06	6.02
7	12	0.84	43	74	24	17	141	88	31	17	4.70	6.19
8	14	3.14	24	59	20	18	173	76	30	19	5.85	4.85
9	14	1.75	12	77	47	33	168	94	28	19	5.85	5.00
10	15	0.96	4.10	45	78	38	122	93	28	17	9.50	5.17
11	18	1.16	1.12	36	78	84	76	85	30	18	7.42	3.80
12	18	1.12	0.96	29	73	97	77	80	28	17	5.85	4.10
13	15	1.04	0.84	25	63	113	64	67	29	16	5.68	4.40
14	7.06	1.08	0.76	19	51	110	56	62	27	16	11	4.25
15	7.06	1.04	0.76	14	43	133	49	59	28	13	5.00	3.65
16	2.30	1.04	0.92	5.51	45	121	45	56	28	12	4.55	3.95
17	6.19	0.96	0.60	4.55	41	88	41	51	26	8.50	4.70	3.80
18	2.78	0.96	0.52	9.10	36	64	42	48	26	14	4.70	2.90
19	5.00	0.84	0.40	5.85	35	53	45	45	26	14	4.70	2.30
20	1.86	0.64	0.44	17	36	46	41	43	26	15	4.70	1.16
21	1.64	0.72	0.28	32	39	42	41	37	26	17	5.00	1.12
22	1.53	0.72	0.36	30	44	39	41	34	22	17	4.85	1.08
23	1.53	0.76	0.36	33	41	36	37	31	22	15	5.00	1.04
24	1.20	0.80	0.36	33	34	32	35	31	22	18	5.85	1.04
25	1.00	0.68	0.32	33	34	29	33	29	25	11	5.00	1.04
26	0.96	0.72	0.32	28	41	28	29	29	23	18	4.70	0.96
27	0.92	0.80	0.32	19	40	30	17	28	20	16	4.40	0.96
28	0.92	0.88	0.28	13	36	46	26	32	24	14	4.25	1.00
29	0.88	1.16	0.40	38	35	36	43	34	19	12	4.25	1.00
30	0.88	3.65	0.56	45	31	40	123	33	23	9.50	1.00	1.00
31		0.72		36	29		81		20	10		0.96
Total	206.01	33.34	128.10	762.45	1,143.42	1,526	2,291	1,608	827	491.00	177.90	93.24
Mean	6.87	1.07	4.27	24.6	36.9	50.8	73.9	53	26.6	15.8	6.13	3.01
Max.	18	3.65	43	77	78	133	173	94	33	23	11	6.19
Min.	0.88	0.64	0.28	0.12	1.42	17	17	28	19	8.50	4.25	0.96
Runoff - mcm.	17.799	2.880	11.068	65.876	98.791	131.846	197.942	138.931	71.453	42.427	15.370	8.056

WATER YEAR 1963 : Max. 173 Min. 0.12 Mean 25.4 Annual Runoff 802.436 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 8	06.00	5.47	173				

WATER YEAR 1964  
PHET RIVER BASIN

Phet River at Ban Rai Phaniat, Phetchaburi (B.1A)

Location: Lat 13°-04' - 22" N., Long 99°-56' - 37" E., on right bank, 3 kilometers upstream from Muang Phetchaburi and about 1 kilometer left of Phet Kasem Highway at Ban Rai Tin Nam, Phetchaburi.

Drainage Area: 4,188 sq.km. referred to AMS Map 1:50,000.

Type of Gage: Staff gage.

Zero Gage at Bottom at: + 0.00 m. (M.S.L.)

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

Location: At the cross road in front of Wang Ban Pun.

Elevation: + 4,719 m. (M.S.L.)

Gage Reading Frequency: 3 - time daily readings at 06.00, 12.00 and 18.00 hours.

Basis of Mean Daily Gage Height: Arithmetic mean of 3 readings.

Period of Available Gage Records: 1961 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 for years without actual ratings.

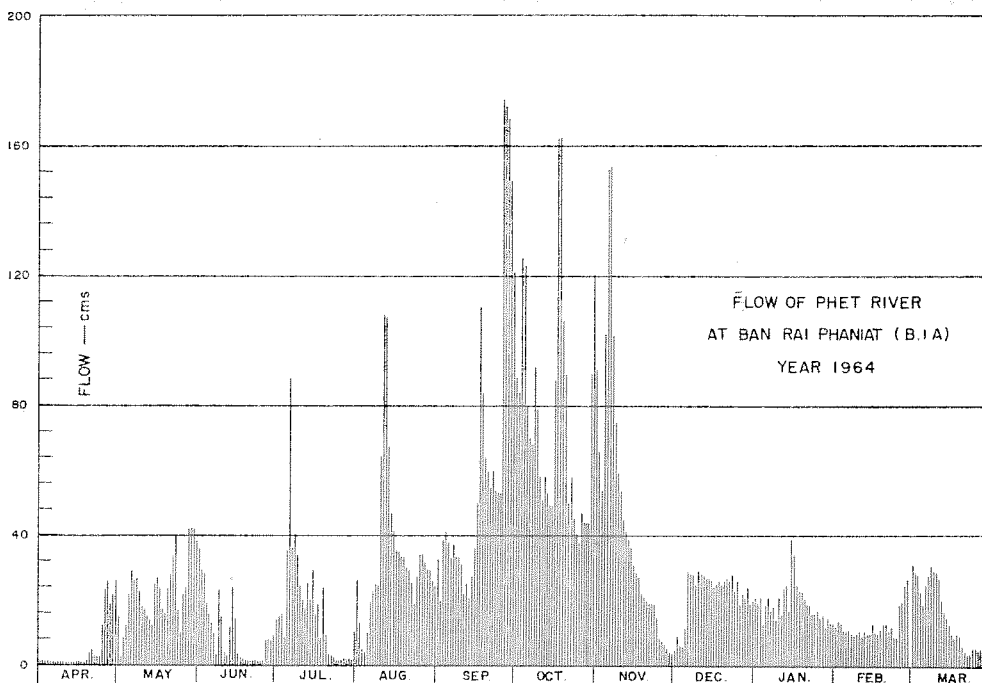
Overbank Flow Conditions: No overbank flow.

General Description: Gage height record good, discharge record fair. Stage - discharge relationship used is defined by discharge measurements made during 1965. Upstream state diversions of about 27,800 hectares. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	1.03	1.90	2.65	1.88	2.33	2.54	3.95	3.98	1.38	2.14	1.76	2.48
2	.03	.26	.43	.92	1.82	.11	.84	.44	.70	.06	.87	.42
3	.02	.65	.38	.93	.41	.74	4.63	.14	.47	.16	.81	.38
4	.00	.79	.08	.60	.34	.80	.61	4.20	.46	1.81	.74	.22
5	.00	2.19	1.96	2.33	.68	.70	3.75	5.11	.76	2.08	.73	.06
6	1.00	2.42	1.83	3.93	2.12	2.56	3.53	5.13	2.41	2.14	1.71	2.29
7	0.99	.34	.62	2.65	.22	.67	.48	4.19	.40	1.98	.67	.40
8	1.00	.36	.29	.75	.30	.54	4.01	3.64	.38	2.03	.65	.48
9	.00	.23	2.20	.59	.30	.54	3.73	.30	.30	1.88	.69	.42
10	0.99	.04	1.92	.27	3.40	.50	.24	.13	.42	2.14	.71	.42
11	0.99	2.01	1.32	2.10	4.32	2.18	3.06	2.89	2.40	1.96	1.62	2.35
12	.98	1.89	.26	.00	.31	.29	.24	.80	.39	2.26	.74	.13
13	.98	.88	.25	.29	3.46	.16	.11	.74	.37	.28	.66	1.99
14	.98	.76	2.26	.11	2.96	.37	.00	.67	.37	.01	.70	.89
15	.99	2.28	1.87	.44	.78	.65	.00	.52	.36	.73	.82	.81
16	0.99	2.37	1.30	1.93	2.60	3.03	3.98	2.44	2.25	2.58	1.70	1.66
17	.99	.26	.18	2.07	.62	4.36	5.28	.37	.30	.28	.70	.60
18	.98	1.97	.17	1.59	.54	3.86	.29	.18	.32	.20	.77	.67
19	1.08	.95	.13	2.25	.54	4.0	4.28	.15	.30	.20	.80	.64
20	.31	2.25	.11	1.64	.46	.29	3.89	.11	.32	.14	.80	.47
21	1.38	2.40	1.09	1.30	2.41	3.17	3.03	2.09	2.36	2.09	1.72	1.37
22	.22	.66	.12	.27	.29	.28	.24	.08	.31	.07	.75	.30
23	.20	.77	.10	.25	.06	.13	2.93	.06	.39	1.93	.62	.32
24	.21	1.99	.10	.12	.37	.11	.81	1.92	.20	.96	.62	.42
25	.78	.69	.09	.14	.57	.12	.70	.60	.32	2.01	2.08	.43
26	2.26	2.19	1.08	1.14	2.57	5.48	2.95	1.54	2.07	1.90	2.10	1.39
27	.34	.25	.55	.20	.53	.45	.88	.49	.18	.95	.29	.43
28	.09	.83	.55	.17	.43	.39	.87	.40	.16	.78	.35	.45
29	.27	.82	.57	.17	.41	.07	.87	.33	.27	.92		.39
30	.34	.81	.63	.17	.35	4.56	3.46	.31	.06	.80		.32
31		.74		.67	.24		4.55		.10	.82		.29
Mean	1.28	2.19	1.57	1.87	2.51	3.23	3.59	2.70	2.18	2.07	1.79	1.83
Max.	2.34	2.83	2.65	3.93	4.32	5.48	5.29	5.13	2.42	2.73	2.35	2.48
Min.	0.98	1.26	1.08	1.12	1.34	2.11	2.70	1.31	1.38	1.78	1.62	1.29

WATER YEAR 1964 : Max. 174 m. Min. 0.72 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.92	15	36	14	26	33	89	91	4.70	21	12	31
2	0.92	3.02	29	15	13	20	84	56	10	19	14	29
3	0.88	9.50	28	16	5.17	39	125	54	6.19	21	13	28
4	0.80	12	19	8.50	4.10	41	123	102	6.02	13	11	23
5	0.80	22	16	26	10	38	80	152	12	19	11	19
6	0.80	29	13	88	20	33	70	153	29	21	11	25
7	0.76	26	8.90	36	23	37	68	101	28	17	9.90	28
8	0.80	27	3.38	40	25	33	92	75	28	18	9.50	31
9	0.80	23	23	34	25	33	79	60	25	14	10	29
10	0.76	18	15	24	64	31	58	54	29	21	11	29
11	0.76	17	3.80	20	108	22	51	45	28	16	8.90	27
12	0.72	15	3.02	17	107	25	58	41	28	24	11	21
13	0.72	14	2.90	25	67	21	53	39	27	25	9.70	17
14	0.72	12	24	20	47	27	49	37	27	17	10	15
15	0.76	25	14	29	41	36	49	32	27	39	13	13
16	0.76	27	3.50	16	35	50	91	29	24	34	10	9.70
17	0.76	24	2.08	19	35	110	162	27	25	25	10	8.50
18	0.72	17	1.97	8.32	33	85	162	22	26	23	12	9.90
19	1.12	16	1.53	24	33	64	106	21	25	23	13	9.30
20	3.65	24	1.31	9.30	30	60	86	20	26	21	13	6.19
21	4.70	28	1.16	3.50	29	55	50	19	27	19	11	4.55
22	2.54	36	1.42	3.14	25	60	58	19	26	19	12	3.50
23	2.30	40	1.20	2.90	19	54	46	19	28	16	8.90	3.80
24	2.42	17	1.20	1.42	27	53	42	15	23	16	8.90	5.34
25	12	10	1.16	1.64	34	53	38	8.50	26	17	19	5.51
26	24	22	1.12	1.64	34	174	47	7.42	19	15	20	4.85
27	26	24	7.60	2.30	32	172	44	6.53	22	16	25	5.51
28	19	42	7.60	1.97	29	168	44	5.00	21	12	27	5.85
29	24	42	7.96	1.97	29	149	44	3.95	24	15		4.85
30	26	42	9.10	1.97	27	121	67	3.65	19	13		3.80
31		39		9.90	24		120		20	13		3.38
Total	161.89	717.52	288.91	521.47	1,060.27	1,897	2,335	1,328.05	695.91	602	354.80	459.53
Mean	5.40	23.1	9.63	16.8	34.2	63.2	75.3	44.3	22.4	19.4	13	14.8
Max.	26	42	36	88	108	174	162	153	29	39	27	31
Min.	0.72	3.02	1.12	1.42	4.10	20	38	3.65	4.70	12	8.90	3.38
Runoff - mcm.	13.987	61.994	24.962	45.055	91.607	163.901	201.744	114.743	60.127	52.013	30.655	39.703

WATER YEAR 1964 : Max. 174 Min. 0.72 Mean 28.5 Annual Runoff 900.491 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sept. 26	06.00	5.48	174				

WATER YEAR 1963  
PHET RIVER BASIN

Phet River at Song Phi Nong, Phetchaburi (8.3)

Location: Lat 12°52' - 04" N., Long 99° - 40' - 40" E., on left bank at Ban Song Phi Nong about 10 kilometers downstream from Kaeng Kra Chan Damsite, Amphoe Tha Yang, Phetchaburi.

Drainage Area: 2,244 sq.km. referred to AMS Map 1:50,000.

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.  
Rated by Float: -  
Rated by Current Meter: 1954 - 59.

Stability of Channel Regimes: Fairly stable, no shifting adjustment for flow computation for years without actual ratings.

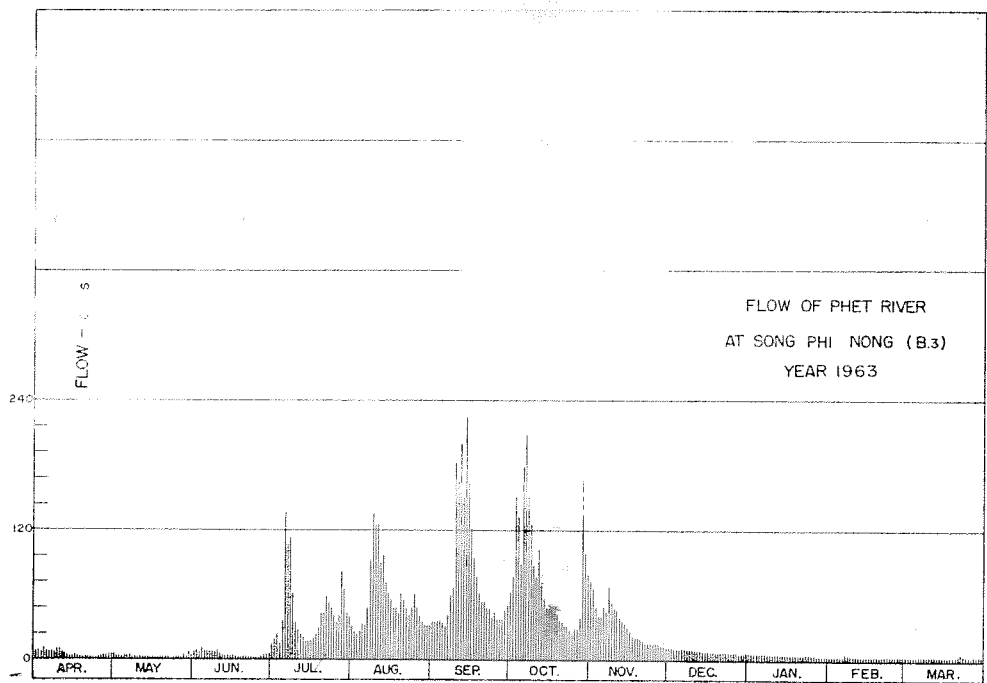
Overbank Flow Conditions: No overbank flow.

General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made during 1954 - 60. Flow is effected by the construction at Kaeng Kra Chan Reservoir. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	42.02	41.95	42.01	42.20	42.46	42.51	42.84	42.94	42.10	41.97	41.87	41.81
2	.04	.87	.04	.28	.38	.51	.98	.88	.09	.97	.87	.81
3	41.99	.84	41.99	.34	.35	.51	43.70	.68	.08	.96	.87	.82
4	42.07	.86	42.10	.19	.38	.52	.48	.58	.08	.96	.88	.84
5	.02	.91	.02	.52	.48	.49	.10	.57	.08	.95	.87	.84
6	42.02	41.88	42.02	43.51	42.47	42.45	43.80	42.67	42.08	41.95	41.87	41.83
7	.02	.90	.02	.25	.67	.59	.99	.62	.07	.94	.94	.83
8	41.99	.86	41.99	.31	43.14	.82	.62	.89	.06	.94	.90	.83
9	42.06	.85	42.00	42.83	.49	.88	.42	.73	.05	.93	.89	.83
10	.05	.85	.05	.50	.42	43.83	.09	.65	.05	.93	.88	.82
11	42.00	41.84	41.96	42.42	43.42	43.72	42.98	42.64	42.04	41.93	41.88	41.82
12	41.94	.84	.90	.36	.12	.94	43.23	.56	.04	.92	.87	.82
13	.89	.83	.89	.29	.17	.61	42.91	.51	.04	.92	.86	.81
14	.88	.86	.88	.25	42.95	44.09	.77	.48	.03	.92	.86	.81
15	.88	.83	.88	.23	.84	43.71	.66	.44	.02	.91	.85	.81
16	41.90	41.82	41.90	42.24	42.77	43.40	42.68	42.40	42.02	41.91	41.85	41.80
17	.86	.85	.86	.27	.67	.15	.64	.30	.01	.91	.85	.80
18	.81	.81	.81	.32	.68	42.98	.63	.28	.01	.90	.85	.82
19	.80	.83	.80	.42	.61	.83	.60	.27	.01	.90	.85	.80
20	.84	.83	.84	.61	.82	.73	.52	.26	.00	.90	.85	.81
21	41.84	41.82	41.84	42.60	42.76	42.74	42.51	42.23	42.01	41.91	41.85	41.86
22	.83	.81	.83	.79	.67	.67	.45	.20	.00	.91	.87	.90
23	.83	.80	.83	.73	.58	.66	.43	.19	.00	.92	.86	.89
24	.82	.82	.82	.69	.68	.56	.39	.18	41.99	.92	.85	.86
25	.82	.84	.82	.59	.81	.61	.35	.17	.99	.91	.84	.83
26	41.82	41.84	41.82	42.49	42.69	42.54	42.42	42.17	41.98	41.90	41.83	41.82
27	.90	.83	.90	.59	.60	.54	.44	.17	.98	.89	.83	.82
28	.90	.87	.90	43.03	.51	.54	.56	.14	.97	.89	.82	.81
29	.95	.85	.95	42.90	.47	.64	43.72	.12	.97	.88	.82	.82
30	.95	.98	.96	.63	.45	.70	.19	.11	.97	.88	.80	.80
31		.91		.57	.45		.01		.98	.88		.86
Mean	41.92	41.85	41.92	42.58	42.74	42.91	42.94	42.43	42.02	41.92	41.86	41.83
Max.	42.07	41.98	42.10	43.51	43.49	44.09	43.99	42.94	42.10	41.97	41.94	41.90
Min.	41.80	41.80	41.80	42.19	42.33	42.45	42.35	42.11	41.97	41.88	41.82	41.80

WATER YEAR 1963 : Max. 224 m. Min. 2.50 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	8.80	5.90	8.40	16	33	36	64	73	12	7.10	4.25	2.75
2	9.60	4.25	9.60	21	27	36	77	67	12	7.10	4.25	2.75
3	7.70	3.50	7.70	25	24	36	163	49	11	6.80	4.25	3.00
4	11	4.00	12	16	27	37	133	41	11	6.80	4.50	3.35
5	8.80	5.30	8.80	37	34	35	89	41	11	6.50	4.25	3.35
6	8.80	4.50	8.80	137	33	32	178	49	11	6.50	4.25	3.25
7	8.80	5.00	8.80	106	49	42	208	45	11	6.20	6.20	3.25
8	7.70	4.00	7.70	113	93	62	152	68	10	6.20	5.00	3.25
9	10	3.75	8.00	63	135	67	126	54	10	5.90	4.75	3.25
10	10	3.75	10	35	126	183	88	47	10	5.90	4.50	3.00
11	8.00	3.50	6.80	30	126	166	77	46	9.60	5.90	4.50	3.00
12	6.20	3.50	5.00	26	91	200	103	40	9.60	5.60	4.25	3.00
13	4.75	3.25	4.75	22	97	151	70	36	9.60	5.60	4.00	2.75
14	4.50	4.00	4.50	19	74	224	57	34	9.20	5.60	4.00	2.75
15	4.50	3.25	4.50	18	64	164	46	31	8.80	5.30	3.75	2.75
16	5.00	3.00	5.00	19	57	123	49	28	8.80	5.30	3.75	2.50
17	4.00	3.75	4.00	21	49	94	48	22	8.40	5.30	3.75	2.50
18	2.75	2.75	2.75	24	49	77	48	21	8.40	5.00	3.75	3.00
19	2.50	3.25	2.50	30	44	63	43	21	8.40	5.00	3.75	2.50
20	3.50	3.25	3.50	44	62	54	37	20	8.00	5.00	3.75	2.75
21	3.50	3.00	3.50	43	56	55	36	18	8.40	5.30	3.75	4.00
22	3.25	2.75	3.25	59	49	49	32	16	8.00	5.30	4.25	5.00
23	3.25	2.50	3.25	54	41	48	31	16	8.00	5.60	4.00	4.75
24	3.00	3.00	3.00	50	49	40	28	16	7.70	5.60	3.75	4.00
25	3.00	3.50	3.00	42	61	44	25	15	7.70	5.30	3.50	3.25
26	3.00	3.50	3.00	35	50	38	30	15	7.40	5.30	3.25	3.00
27	5.00	3.25	5.00	42	43	38	31	15	7.40	4.75	3.25	3.00
28	5.00	4.25	5.00	82	36	38	40	14	7.10	4.75	3.00	2.75
29	6.50	3.75	6.50	69	33	46	166	13	7.10	4.50	3.00	3.00
30	6.50	7.40	6.80	45	32	51	99	12	7.10	4.50		2.50
31		5.30		41	32		80		7.40	4.50		4.00
Total	178.90	119.65	175.40	1,384	1,776	2,329	2,451	983	281.10	174.30	117.20	97.95
Mean	5.96	3.86	5.85	45	57	78	79	33	9.07	5.62	4.04	3.16
Max.	11	7.40	12	137	135	224	208	73	12	7.10	6.20	5.00
Min.	2.50	2.50	2.50	16	24	32	25	12	7.10	4.50	3.00	2.50
Runoff - C.M.	15.466	10.368	15.120	119.578	153.446	201.226	211.766	84.931	24.278	15.034	10.109	8.467

WATER YEAR 1963 : Max. 224 Min. 2.50 Mean 27.5 Annual Runoff 869.789 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sept. 14	06.00	44.22	230	Oct. 6	18.00	44.14	214

WATER YEAR 1964  
PHET RIVER BASIN

Phet River at Song Phi Nong, Phetchaburi (B.3)

Location: Lat 12° - 52' - 04" N., Long 99° - 40' - 40" E., on left bank at Ban Song Phi Nong about 10 kilometers downstream from Kaeng Kra Chan Damsite, Amphoe Tha Yang, Phetchaburi.

Drainage Area: 2,244 sq.km. referred to AMS Map 1:50,000.

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.  
Rated by Float: -  
Rated by Current Meter: 1954 - 59.

Stability of Channel Regimes: Fairly stable, no shifting adjustment for flow computation for years without actual ratings.

Overbank Flow Conditions: No overbank flow.

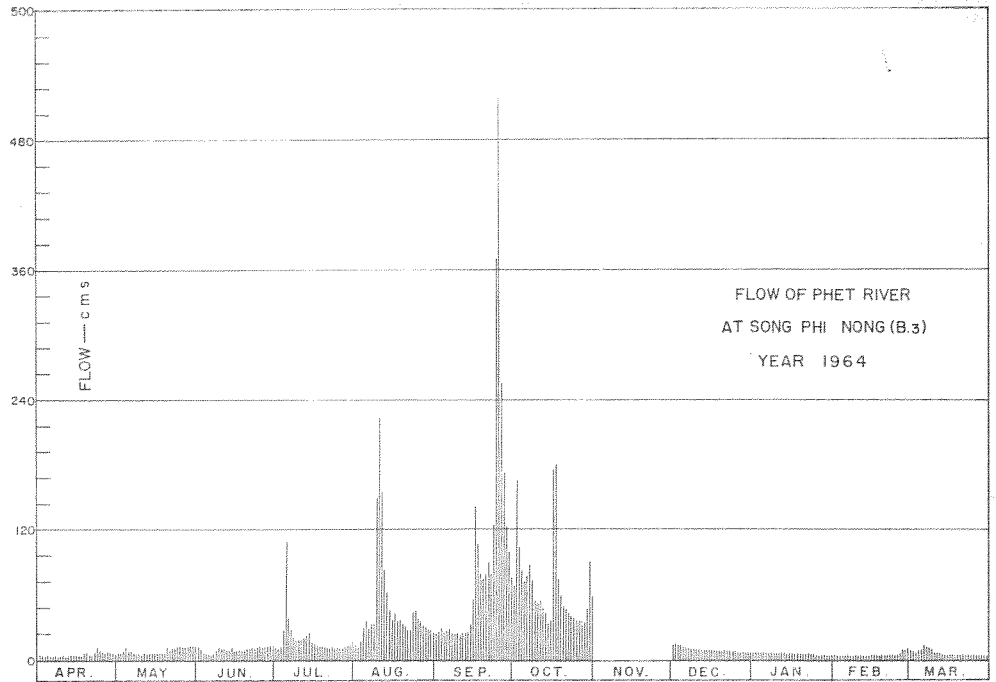
General Description: Records fair. Stage - discharge relationship used is defined by discharge measurements made during 1954 - 60. Flow is effected by the construction at Kaeng Kra Chan Reservoir. No adjustment made for virgin flow.

Remark: No gage height record for Nov. 1 - 30.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	41.87	41.91	42.08	42.08	42.15	42.32	42.88		42.14	41.96	41.87	42.01
2	.86	.95	.00	.05	.07	.34	43.71		.17	.95	.87	41.99
3	.82	42.00	41.96	.08	.19	.41	.22		.14	.95	.87	.96
4	.83	.08	.93	.26	.41	.35	.02		.12	.95	.87	.99
5	.82	41.99	.90	43.27	.49	.39	42.92		.08	.95	.87	42.06
6	41.81	41.98	41.89	42.54	42.40	42.40	42.98		42.07	41.94	41.87	42.14
7	.80	.95	.92	.38	.45	.33	43.08		.05	.94	.87	.10
8	.79	.92	42.01	.27	.46	.33	42.95		.04	.94	.86	.07
9	.84	.90	.06	.24	43.59	.33	.73		.04	.94	.86	.06
10	.87	.89	.04	.22	44.08	.29	.70		.02	.94	.86	41.97
11	41.82	41.95	42.03	42.23	43.64	42.32	42.72		42.03	41.93	41.86	41.94
12	.82	.94	.03	.26	.04	.32	.64		.02	.96	.86	.93
13	.85	.95	.02	.29	42.82	.35	.60		.03	.94	.86	.89
14	.85	.95	.05	.34	.62	.44	.46		.02	.93	.87	.88
15	.85	.95	.03	.20	.51	.75	.74		.01	.93	.87	.88
16	41.83	41.94	42.01	42.15	42.58	43.53	43.77		42.01	41.93	41.89	41.89
17	.85	.93	.03	.13	.49	.27	.27		.00	.93	.88	.88
18	.92	.92	.03	.11	.52	42.98	42.95		.00	.92	.88	.87
19	.92	.91	.03	.10	.45	.94	.78		41.99	.92	.88	.86
20	.89	42.07	.05	.10	.44	42.99	.67		.98	.92	.88	.86
21	41.86	42.04	42.04	42.07	42.37	43.10	42.64		42.00	41.91	41.87	41.87
22	.94	.00	.06	.05	.38	42.98	.60		41.99	.91	.87	.88
23	42.08	41.98	.05	.11	.60	43.38	.56		.99	.90	.87	.88
24	.03	.96	.10	.05	.63	44.59	.53		.98	.90	.87	.87
25	41.97	.97	.13	.06	.53	45.58	.50		.98	.89	.88	.87
26	41.93	42.07	42.09	42.04	42.49	44.27	42.51		41.97	41.89	41.90	41.86
27	.97	.27	.07	.06	.43	43.75	.50		.97	.89	42.03	.84
28	.95	.30	.10	.10	.41	.38	.48		.97	.89	.02	.84
29	.92	.36	.13	.12	.37	.17	.51		.96	.88	.05	.87
30	.88	.27	.12	.15	.38	42.97	43.10		.96	.88		.85
31		.15		.17	.33		42.79		.96	.88		.86
Mean	41.88	42.01	42.03	42.20	42.59	42.95	42.82		42.02	41.92	41.93	41.93
Max.	42.08	42.36	42.13	43.27	44.08	45.58	43.77		42.17	41.96	42.05	42.14
Min.	41.79	41.89	41.89	42.04	42.07	42.29	42.46		41.96	46.88	41.86	41.84

WATER YEAR 1964 : Max. 45.58 m. Min. 41.79 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	4.25	5.30	11	11	13	24	67		14	6.80	4.25	8.40
2	4.00	6.50	8.00	10	11	25	164		15	6.50	4.25	7.70
3	3.00	8.00	6.80	11	16	29	102		14	6.50	4.25	6.80
4	3.25	11	5.90	20	29	25	81		13	6.50	4.25	7.70
5	3.00	7.70	5.00	108	35	28	71		11	6.50	4.25	10
6	2.75	7.40	4.75	38	28	28	77		11	6.20	4.25	14
7	2.50	6.50	5.60	27	32	24	87		10	6.20	4.25	12
8	2.35	5.60	8.40	21	33	24	74		9.60	6.20	4.00	11
9	3.50	5.00	10	19	148	24	54		9.60	6.20	4.00	10
10	4.25	4.75	9.60	18	225	22	51		8.80	6.20	4.00	7.10
11	3.00	6.50	9.20	18	155	24	53		9.20	5.90	4.00	6.20
12	3.00	6.20	9.20	20	83	24	46		8.80	6.80	4.00	5.90
13	3.75	6.50	8.80	22	62	25	43		9.20	6.20	4.00	4.75
14	3.75	6.50	10	25	45	31	33		8.80	5.90	4.25	4.50
15	3.75	6.50	9.20	16	36	55	55		8.40	5.90	4.25	4.50
16	3.25	6.20	8.40	14	41	140	174		8.40	5.90	4.75	4.75
17	3.75	5.90	9.20	13	35	108	108		8.00	5.90	4.50	4.50
18	5.60	5.60	9.20	12	37	77	74		8.00	5.60	4.50	4.25
19	5.60	5.30	9.20	12	32	73	58		7.70	5.60	4.50	4.00
20	4.75	11	10	12	31	78	49		7.40	5.60	4.50	4.00
21	4.00	9.60	9.60	11	27	89	46		8.00	5.30	4.25	4.25
22	6.20	8.00	10	10	27	77	43		7.70	5.30	4.25	4.50
23	11	7.40	10	12	43	121	40		7.70	5.00	4.25	4.50
24	9.20	6.80	12	10	45	311	38		7.40	5.00	4.25	4.25
25	7.10	7.10	13	10	38	518	35		7.40	4.75	4.50	4.25
26	5.90	11	12	9.60	35	254	36		7.10	4.75	5.00	4.00
27	7.10	21	11	10	31	171	35		7.10	4.75	9.20	3.50
28	6.50	22	12	12	29	121	34		7.10	4.75	8.80	3.50
29	5.60	26	13	13	27	97	36		6.80	4.50	10	4.25
30	4.50	21	13	14	27	76	89		6.80	4.50		3.75
31		14		15	24		59		6.80	4.50		4.00
Total	140.25	287.85	283.05	573.60	1,478	2,723	2,012		279.80	176.20	139.50	186.80
Mean	4.67	9.28	9.43	18.5	47.6	90.7	64.9		9.02	5.68	4.81	6.02
Max.	11	26	13	108	225	518	174		15	6.80	10	14
Min.	2.35	4.75	4.75	9.60	11	22	33		6.80	4.50	4.00	3.50
Runoff - mcm.	12.118	24.870	24.455	49.559	127.699	235.267	173.837		24.175	15.224	12.053	16.13

WATER YEAR 1964 : Max. 518 Min. 2.35 Mean - Annual Runoff - mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sept. 25	06.00	46.20	680				

WATER YEAR 1963  
PHET RIVER BASIN

Phet River at Takhian He - Bat, Phetchaburi (B.5)

Location: Lat 12° - 54' - 40" N., Long 99° - 38' - 38" E., on right bank 1 kilometer downstream from Kaeng Kra Chan Dam, Amphoe Tha Yang, Phetchaburi.

Drainage Area: 2,207 sq.km. referred to AMS Map 1:50,000.

Type of Gage: Staff gage.

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: 16 - time daily readings at 03.00, 06.00 - 18.00, 21.00 and 24.00 hours.

Basis of Mean Daily Gage Height: Arithmetic mean of 16 readings.

Period of Available Gage Records: 1962 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 due to its stability.

Overbank Flow Conditions: No overbank flow.

General Description:

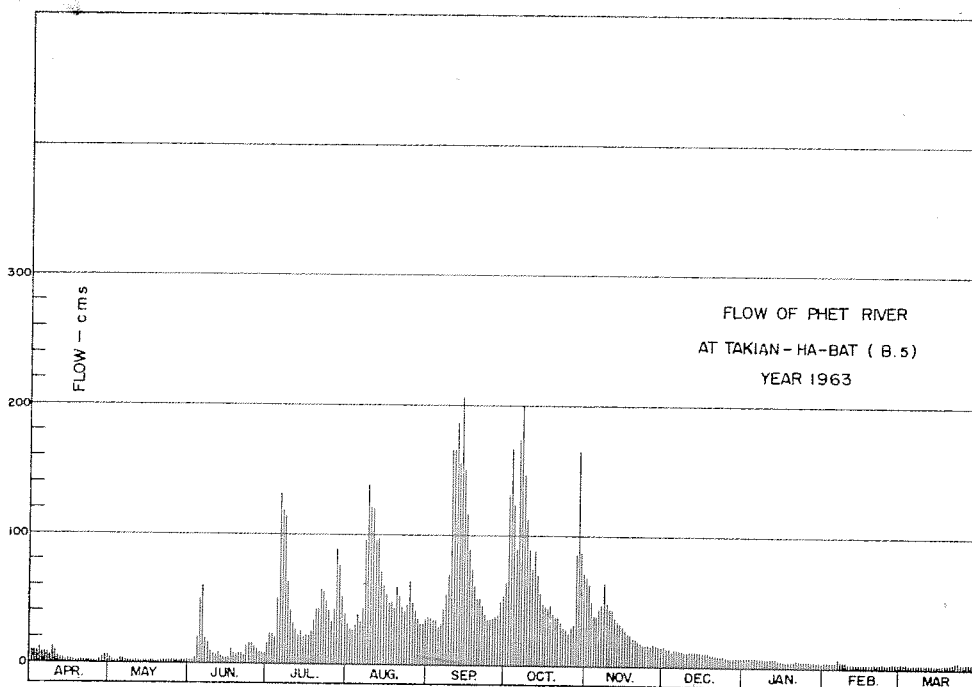
Records good. Stage - discharge relationship used is defined by discharge measurements made during 1963. Flow is effected by the construction at Kaeng Kra Chan Reservoir. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	48.83	48.65	48.60	48.99	49.30	49.38	49.78	49.82	48.94	48.75	48.65	48.61
2	.83	.59	.59	49.15	.22	.36	50.58	.75	.92	.74	.65	.61
3	.80	.56	.67	.15	.21	.35	.95	.53	.92	.74	.64	.69
4	.87	.58	49.12	.10	.26	.35	.50	.43	.88	.74	.64	.58
5	.79	.65	.64	.60	.41	.23	.09	.40	.89	.74	.64	.58
6	48.81	48.64	49.72	50.58	49.33	49.30	51.00	49.49	48.89	48.74	48.76	48.58
7	.79	.62	.13	.44	.48	.48	.23	.53	.88	.72	.67	.58
8	.76	.59	48.99	.38	50.18	.66	50.74	.78	.87	.72	.64	.58
9	.89	.58	.83	49.77	.65	.84	.36	.56	.86	.71	.64	.58
10	.83	.58	.77	.46	.47	50.91	.09	.49	.86	.72	.61	.58
11	48.70	48.58	48.74	49.29	50.45	50.92	49.90	49.47	48.87	48.71	48.61	48.57
12	.64	.57	.82	.21	.18	51.11	50.08	.37	.88	.71	.62	.57
13	.62	.56	.74	.14	.20	50.83	49.85	.33	.87	.70	.62	.57
14	.61	.58	.68	.19	49.89	51.28	.65	.30	.86	.68	.62	.56
15	.63	.55	.66	.08	.76	50.82	.54	.26	.86	.67	.61	.56
16	48.62	48.54	48.68	49.12	49.66	50.42	49.51	49.20	48.86	48.66	48.60	48.56
17	.59	.54	.88	.12	.54	.09	.49	.17	.86	.66	.60	.55
18	.54	.54	.82	.18	.54	49.90	.53	.14	.84	.66	.60	.57
19	.58	.54	.76	.36	.48	.73	.43	.10	.82	.66	.60	.57
20	.57	.54	.78	.47	.73	.60	.38	.08	.82	.66	.60	.58
21	48.56	48.55	48.79	49.47	49.64	49.61	49.38	49.05	48.79	48.69	48.60	48.60
22	.55	.55	.75	.69	.50	.52	.31	.03	.78	.69	.60	.66
23	.55	.55	.94	.66	.44	.42	.25	.01	.77	.67	.60	.66
24	.54	.59	49.00	.56	.52	.35	.22	48.99	.77	.67	.60	.63
25	.54	.60	48.97	.46	.77	.34	.19	.98	.75	.65	.60	.62
26	48.54	48.57	48.93	49.33	49.56	49.37	49.24	48.98	48.75	48.65	48.60	48.62
27	.63	.57	.87	.48	.47	.40	.29	.99	.75	.64	.61	.62
28	.68	.59	.83	50.09	.36	.41	50.04	.98	.74	.64	.61	.62
29	.71	.59	.82	49.93	.30	.56	.91	.95	.75	.64	.61	.62
30	.73	.59	.81	.62	.27	.63	.06	.95	.75	.64	.61	.62
31		.63		.43	.36		49.87		.75	.63		.63
Mean	48.68	48.58	48.88	49.50	49.65	49.84	49.92	49.27	48.83	48.69	48.62	48.59
Max.	48.89	48.65	49.72	50.58	50.65	51.28	51.23	49.82	48.94	48.75	48.76	48.66
Min.	48.54	48.54	48.59	48.99	49.21	49.23	49.19	48.95	48.74	48.63	48.60	48.55

WATER YEAR 1963 : Max. 51.28 m. Min. 48.54 m.





DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	10	4.55	3.10	17	32	37	64	68	15	7.60	4.55	3.39
2	10	2.92	2.92	24	28	36	132	62	14	7.28	4.55	3.39
3	9.20	2.38	5.13	24	27	35	167	47	14	7.28	4.26	2.92
4	12	2.74	23	21	30	35	124	40	12	7.28	4.26	2.74
5	8.88	4.55	54	51	39	29	89	38	13	7.28	4.26	2.74
6	9.58	4.26	60	132	34	32	174	44	13	7.28	7.92	2.74
7	8.88	3.68	23	119	44	44	200	47	12	6.64	5.13	2.74
8	7.92	2.92	17	114	96	56	147	64	12	6.64	4.26	2.74
9	13	2.74	10	64	139	69	112	49	11	6.32	4.26	2.74
10	10	2.74	8.24	42	122	165	89	44	11	6.64	3.39	2.74
11	6.00	2.74	7.28	32	120	166	74	43	12	6.32	3.39	2.56
12	4.26	2.56	9.96	27	96	187	88	37	12	6.32	3.68	2.56
13	3.68	2.38	7.28	23	98	156	70	34	12	6.00	3.68	2.56
14	3.39	2.74	5.42	26	73	206	55	32	11	5.42	3.68	2.38
15	3.97	2.20	4.84	21	63	155	48	30	11	5.13	3.39	2.38
16	3.68	2.02	5.42	23	56	117	46	27	11	4.84	3.10	2.38
17	2.92	2.02	12	23	48	89	44	25	11	4.84	3.10	2.20
18	2.02	2.02	9.96	26	48	74	47	24	11	4.84	3.10	2.56
19	2.74	2.02	7.92	36	44	61	40	21	9.96	4.84	3.10	2.56
20	2.56	2.02	8.56	43	61	51	37	21	9.96	4.84	3.10	2.74
21	2.38	2.20	8.88	43	54	52	37	19	8.88	5.71	3.10	3.10
22	2.20	2.20	7.60	58	45	46	33	18	8.56	5.71	3.10	4.84
23	2.20	2.20	15	56	41	39	30	17	8.24	5.13	3.10	4.84
24	2.02	2.92	17	49	46	35	28	17	8.24	5.13	3.10	3.97
25	2.02	3.10	16	42	64	35	26	16	7.60	4.55	3.10	3.68
26	2.02	2.56	14	34	49	37	29	16	7.60	4.55	3.10	3.68
27	3.97	2.56	12	44	43	38	32	17	7.60	4.26	3.39	3.68
28	5.42	2.92	10	89	36	39	85	16	7.28	4.26	3.39	3.68
29	6.32	2.92	9.96	76	32	49	165	15	7.60	4.26	3.39	3.68
30	6.96	2.92	9.58	53	31	54	87	15	7.60	4.26	3.68	3.68
31		3.97		40	36		72		7.60	3.97		3.97
Total	170.19	86.67	405.05	1,472	1,775	2,224	2,471	963	324.70	175.42	108.93	96.56
Mean	5.67	2.79	13.5	47.4	57.2	74.1	79.7	32.2	10.5	5.66	3.76	3.11
Max.	13	4.55	60	132	139	206	200	68	15	7.60	7.92	4.84
Min.	2.02	2.02	2.92	17	27	29	26	15	7.28	3.97	3.10	2.20
Runoff - mcm.	14.704	7.488	34.996	127.181	153.360	192.154	213.494	83.203	28.054	15.156	9.411	8.343

WATER YEAR 1963 : Max. 206 Min. 2.02 Mean 28.1 Annual Runoff 887.546 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sept. 14	05.00	51.58	240				

WATER YEAR 1964  
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 1 kilometer downstream from Kaeng Kra Chan Dam, Amphoe Tha Yang, Phetchaburi.

Drainage Area: 2,207 sq.km. referred to AMS Map 1:50,000.

Type of Gage: Staff gage.

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: 16 - time daily readings at 03.00, 06.00, 18.00, 21.00 and 24.00 hours.

Basis of Mean Daily Gage Height: Arithmetic mean of 16 readings.

Period of Available Gage Records: 1962 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, shifting adjustment included for flow computation.

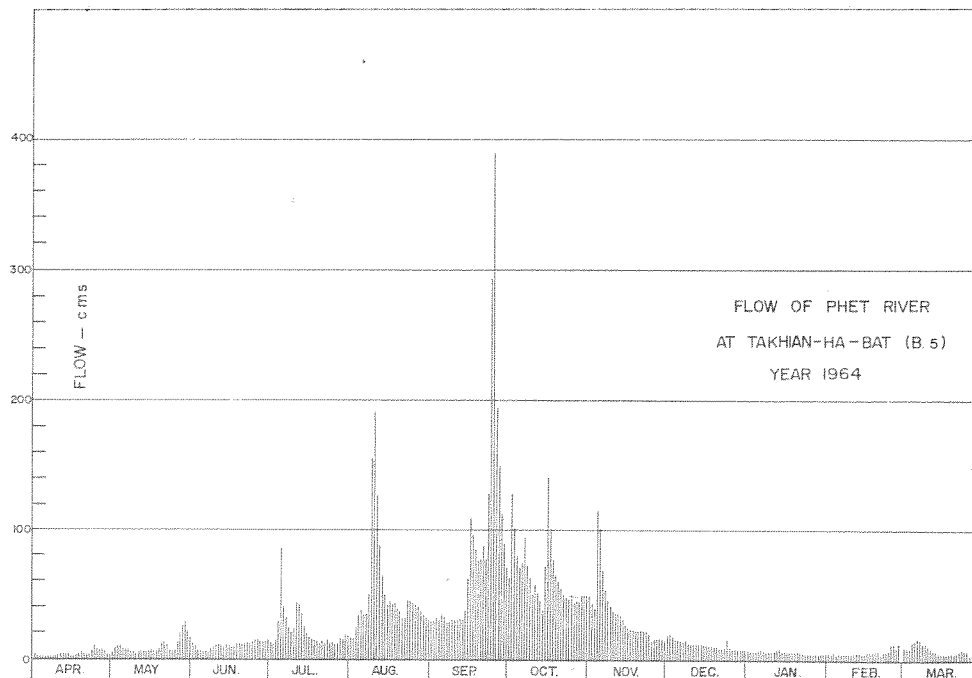
Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1964. Flow is effected by the construction at Kaeng Kra Chan Reservoir. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	48.62	48.70	48.87	48.91	48.86	49.14	49.83	49.47	48.95	48.64	48.53	48.67
2	.61	.78	.78	.87	.85	.16	50.66	.36	.98	.63	.53	.65
3	.61	.85	.72	.92	49.02	.17	.24	.39	.95	.63	.53	.60
4	.60	.87	.68	49.17	.22	.13	49.98	50.47	.93	.63	.52	.76
5	.59	.77	.65	50.00	.28	.20	.81	.28	.92	.63	.51	.79
6	48.59	48.78	48.65.	49.31	49.21	49.16	49.86	49.84	48.90	48.62	48.51	48.83
7	.58	.75	.66	.15	.24	.09	50.14	.59	.88	.62	.51	.80
8	.58	.70	.77	.04	.46	.11	49.84	.49	.89	.61	.51	.75
9	.59	.68	.79	48.98	50.85	.10	.62	.35	.88	.61	.51	.74
10	.63	.66	.83	49.02	51.29	.12	.55	.30	.87	.61	.51	.66
11	48.65	48.71	48.81	49.34	50.67	49.12	49.62	49.27	48.88	48.64	48.52	48.60
12	.65	.71	.79	.32	.01	.14	.49	.27	.88	.63	.53	.56
13	.65	.72	.78	.21	49.63	.14	.38	.25	.87	.63	.55	.55
14	.64	.72	.81	.07	.40	.28	.32	.18	.87	.61	.54	.52
15	.62	.72	.78	48.93	.30	.57	.77	.13	.86	.59	.54	.52
16	48.62	48.75	48.76	48.88	49.33	50.43	50.82	49.10	48.86	48.50	48.56	48.51
17	.68	.73	.82	.85	.29	.15	.20	.08	.85	.57	.54	.51
18	.70	.70	.80	.85	.30	49.89	49.87	.07	.85	.57	.54	.50
19	.70	.75	.83	.83	.23	.80	.67	.06	.84	.57	.55	.49
20	.68	.91	.84	.79	.22	.84	.60	.06	.84	.57	.55	.49
21	48.65	48.90	48.79	48.80	49.15	49.99	49.50	49.06	48.84	48.56	48.51	48.52
22	.65	.84	.84	.78	.16	.83	.44	.05	.84	.56	.56	.56
23	.77	.73	.82	.85	.40	50.54	.41	.04	.84	.56	.64	.60
24	.92	.70	.89	.78	.41	52.15	.40	.00	.80	.55	.69	.56
25	.76	.73	.95	.81	.35	.81	.47	48.96	.68	.55	.74	.51
26	48.74	48.86	48.91	48.76	49.30	51.57	49.37	48.92	48.67	48.54	48.75	48.49
27	.78	49.10	.88	.79	.25	50.88	.36	.96	.67	.54	.64	.48
28	.72	.19	.87	.83	.20	.47	.33	.96	.66	.54	.75	.47
29	.65	.23	.91	.83	.17	.17	.44	.94	.65	.53	-	.46
30	.64	.14	.94	.89	.15	49.93	50.10	.92	.65	.53	-	.45
31	-	48.97	-	.88	.15	-	49.69	-	.64	.53	-	.45
Mean	48.66	48.82	48.81	48.98	49.43	49.87	49.73	49.26	48.83	48.58	48.57	48.58
Max.	48.92	49.23	48.94	50.00	51.29	52.81	50.82	50.47	48.98	48.64	48.75	48.83
Min.	48.58	48.66	48.65	48.76	48.85	49.09	49.33	48.92	48.64	48.53	48.51	48.45

WATER YEAR 1964 : Max. 52.81 m. Min. 48.45 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	5.14	6.64	14	14	17	30	63	50	20	8.00	5.72	10
2	3.98	10	11	13	17	31	128	42	21	7.66	5.72	9.70
3	3.98	12	8.68	16	26	33	97	39	18	7.66	6.01	8.34
4	3.69	12	7.32	30	35	31	80	115	16	7.66	5.72	14
5	3.40	8.68	6.64	86	39	35	71	101	16	8.00	5.14	15
6	3.40	9.70	7.32	40	35	33	75	69	15	8.34	5.14	17
7	3.18	8.34	7.32	33	36	29	95	52	14	7.32	5.14	16
8	3.18	6.64	10	25	51	30	72	46	16	6.01	5.14	13
9	3.40	6.30	11	22	155	31	63	41	13	7.66	5.43	13
10	4.27	5.43	12	25	191	31	50	38	13	7.66	5.72	11
11	4.85	6.98	12	44	127	31	58	36	13	7.66	5.72	8.34
12	4.85	7.32	11	43	88	32	52	36	13	8.34	6.01	6.98
13	4.85	7.32	11	36	65	31	46	34	13	8.00	6.01	6.01
14	4.27	7.32	12	26	49	39	38	30	13	7.32	5.72	5.14
15	3.69	6.64	11	20	43	63	73	27	12	6.64	5.72	5.14
16	3.69	8.34	10	18	46	109	140	25	12	6.98	6.64	5.14
17	5.72	7.66	12	16	43	96	101	24	11	6.01	6.01	4.85
18	5.72	6.98	12	16	44	85	77	23	11	6.01	6.30	5.14
19	6.01	8.34	13	15	39	76	65	23	11	6.30	6.64	4.85
20	5.43	14	13	13	38	78	60	23	11	6.30	6.64	4.85
21	5.14	14	12	15	32	89	55	23	10	6.01	5.14	5.72
22	5.14	12	14	13	32	77	50	23	10	5.72	6.98	6.98
23	8.00	7.66	13	16	46	128	48	22	10	5.72	6.01	8.00
24	13	7.32	15	13	45	293	47	20	16	5.72	7.66	6.64
25	8.68	9.02	16	14	44	389	51	15	10	5.72	13	6.14
26	8.00	14	16	12	42	221	44	16	9.36	5.43	13	2.08
27	9.70	23	15	13	41	150	46	17	9.36	5.72	9.36	4.27
28	8.00	27	14	17	36	112	44	17	9.36	5.72	13	3.98
29	5.72	30	15	17	35	89	51	16	8.68	5.72	-	3.69
30	5.14	22	16	20	32	71	50	16	8.68	5.72	-	3.40
31	-	17	-	19	31	-	50	-	8.00	5.72	-	3.40
Total	163.22	349.63	358.28	720	1,600	2,573	2,040	1,059	391.44	208.45	190.44	237.78
Mean	5.43	11.3	11.9	23	52	86	66	35	12.6	6.72	6.80	7.67
Max.	13	30	16	86	191	389	140	115	21	8.34	13	17
Min.	3.18	5.43	6.64	12	17	29	44	16	8.00	5.43	5.14	2.08
Runoff - BCM	14.083	30.240	30.931	62.208	138.240	222.307	176.256	91.498	33.782	17.971	16.416	20.563

WATER YEAR 1964 : Max. 389 Min. 2.08 Mean 27 Annual Runoff 854.495 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sept. 24	22.00	53.45	473				

WATER YEAR 1963  
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, 16 kilometers from Amphoe Pran Buri on the road to Pran Buri Dam site, Prachuap Khiri Khan.

Drainage Area: 2,370 sq.km. referred to AMS Map 1:50,000.

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 in front of the camp of station Pr. 2

Elevation: + 13.299 m. (M.S.L.)

Gage Reading Frequency: 16 - time daily readings at 03.00, 06.00 - 18.00, 21.00 and 24.00 hours.

Basis of Mean Daily Gage Height: Arithmetic mean of 16 readings

Period of Available Gage Records: 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: Fairly stable, shifting adjustment is included for flow computation.

Overbank Flow Conditions: No overbank flow.

General Description: Records poor. Stage - discharge relationship used is defined by discharge measurements made during 1963. Flow diverted for sugar cane plantation at upstream. No adjustment made for virgin flow.

Remark: Gage height began to record on Sep. 13.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.		
1							0.25	7.01	5.45	4.81	4.62	4.52		
2							.31	6.61	.37	.80	.61	.51		
3							7.18	.43	.31	.79	.60	.50		
4							.67	.26	.27	.78	.60	.42		
5							.79	.45	.23	.77	.60	.49		
6							7.69	7.11	5.12	4.77	4.59	4.48		
7							8.22	.20	.18	.76	.59	.48		
8							.18	.84	.15	.75	.60	.47		
9							7.88	.65	.13	.74	.58	.46		
10							.39	.16	.11	.73	.57	.46		
11								6.94	7.12	5.09	4.72	4.57	4.45	
12								.65	6.97	.10	.71	.60	.45	
13								9.13	.43	.64	.09	.70	.62	.44
14								8.68	.26	.50	.06	.69	.60	.44
15								7.85	.13	.33	.03	.68	.59	.43
16								7.27	6.00	6.25	5.01	4.67	4.57	4.43
17								6.86	5.98	.15	.00	.67	.57	.43
18								.53	.99	.00	4.98	.66	.54	.43
19								.25	.95	5.86	.96	.66	.54	.43
20								.05	6.02	.75	.95	.67	.54	.42
21								6.00	6.11	5.66	4.93	4.69	4.54	4.42
22								5.98	.22	.60	.91	.71	.55	.46
23								.82	5.95	.53	.89	.81	.60	.46
24								.77	.87	.48	.88	.78	.62	.46
25								.76	6.09	.43	.87	.74	.62	.45
26								5.74	6.58	5.41	4.87	4.71	4.59	4.45
27								.68	7.00	.44	.86	.69	.56	.44
28								.73	6.75	.80	.85	.67	.55	.43
29								.97	.98	.82	.84	.66	.53	.42
30								6.21	8.16	.57	.83	.64	-	.41
31								-	.08	-	.81	.62	-	.40
Mean								6.80	6.30	5.04	4.72	4.58	4.45	
Max.								8.22	7.84	5.45	4.81	4.62	4.52	
Min.								5.87	5.41	4.81	4.62	4.53	4.40	

WATER YEAR 1963 : Max.                      m.                      Min.                      m.



WATER YEAR 1964  
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 16 kilometers from Amphoe Pran Buri on the road to Pran Buri Dam site, Prachuap Khiri Khan.

Drainage Area: 2,370 sq.km. referred to AMS Map 1:50,000.

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 in front of the camp of station Pr.2

Elevation: + 13.299 m. (M.S.L.)

Gage Reading Frequency: 16 - time daily readings at 03.00, 06.00 - 18.00, 21.00 and 24.00 hours.

Basis of Mean Daily Gage Height: Arithmetic mean of 16 readings.

Period of Available Gage Records: 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: Fairly stable, shifting adjustment is included for flow computation.

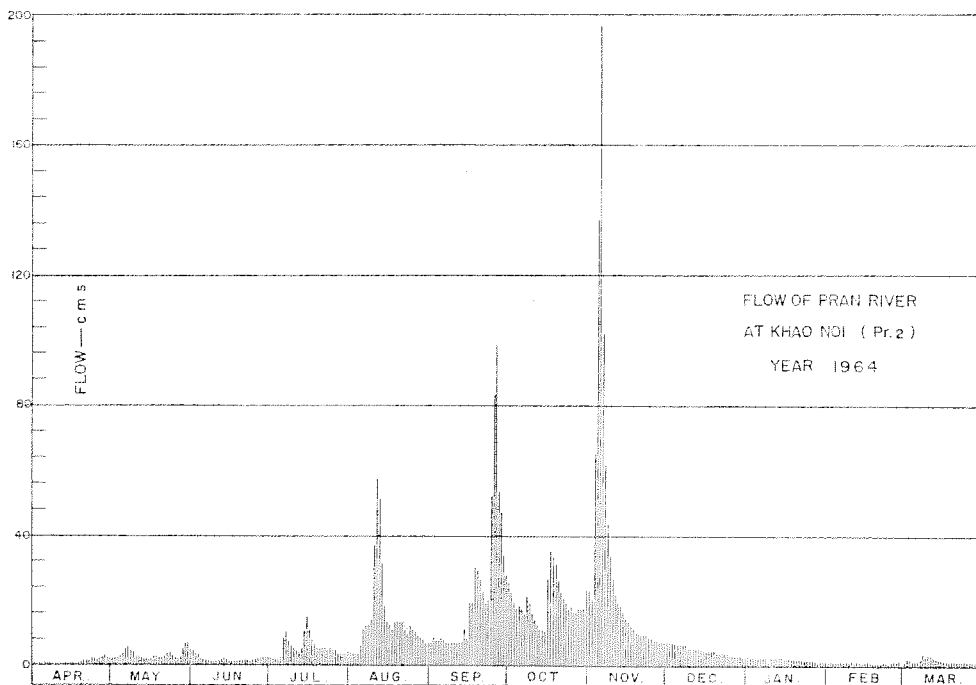
Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1964. Flow diverted for sugar cane plantation at upstream. No adjustment made for virgin flow.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	4.39	4.65	4.98	4.80	4.91	5.19	6.43	6.21	5.12	4.72	4.54	4.63
2	.38	.71	.91	.77	.93	.30	.20	.00	.11	.71	.53	.70
3	.38	.67	.85	.73	.89	.27	.05	.66	.12	.70	.53	.67
4	.37	.72	.81	.72	.90	.24	5.97	9.73	.11	.70	.53	.62
5	.36	.85	.77	.93	5.18	.29	6.03	12.17	.08	.69	.53	.60
6	4.38	5.02	4.73	5.52	5.56	5.24	6.01	10.29	5.09	4.69	4.52	4.59
7	.39	.05	.69	.55	.67	.16	5.87	8.19	.09	.68	.51	.70
8	.41	4.94	.66	.32	.68	.15	6.26	7.28	.04	.67	.51	.86
9	.41	.90	.66	.16	.75	.15	.14	6.79	.01	.66	.50	.80
10	.40	.84	.66	.10	6.99	.15	5.90	.46	4.98	.68	4.49	.85
11	4.38	4.82	4.71	5.04	8.29	5.13	5.75	6.23	4.96	4.70	4.49	4.82
12	.37	.78	.75	4.98	.00	.14	.66	.17	.95	.71	4.49	.75
13	.36	.76	.78	5.08	6.93	.17	.59	.07	.94	.73	4.48	.71
14	.35	.79	.74	.61	.12	.51	.50	5.93	.92	.73	4.48	.66
15	.36	.77	.69	.88	5.76	.24	.46	.80	.91	.70	4.47	.63
16	4.36	4.80	4.66	5.56	5.54	6.07	6.64	5.69	4.89	4.67	4.46	4.61
17	.35	.91	.64	.34	.45	.19	7.09	.61	.87	.65	4.45	.59
18	.35	.91	.63	.20	.61	.87	6.89	.53	.86	.64	4.44	.57
19	.47	.85	.65	.07	.65	.83	.75	.48	.85	.63	4.44	.56
20	.50	.81	.68	.05	.67	.65	.42	.44	.84	.61	4.44	.55
21	4.51	4.82	4.74	5.09	5.64	6.42	6.17	5.40	4.82	4.61	4.44	4.54
22	.58	.93	.73	.09	.48	.20	.05	.37	.81	.60	4.46	.53
23	.65	.96	.72	.03	.40	.02	5.98	.33	.79	.59	4.45	.56
24	.65	.89	.71	.12	.56	7.18	.87	.29	.79	.58	4.44	.64
25	.61	.81	.75	.09	.51	8.98	.91	.25	.78	.57	4.46	.63
26	4.64	4.77	4.75	4.99	5.44	10.05	5.80	5.22	4.78	4.57	4.50	4.65
27	.73	.79	.77	.94	.38	8.23	.80	.18	.77	.56	4.53	.63
28	.69	5.02	.81	.94	.30	7.81	.82	.15	.76	.55	4.51	.60
29	.64	.10	.84	.93	.24	.16	.81	.13	.75	.54	-	.53
30	.64	.08	.84	.89	.19	6.68	.81	.14	.74	.54	-	.52
31	-	.02	-	5.01	.17	-	6.21	-	.73	.54	-	.49
Mean	4.47	4.86	4.74	5.11	5.70	6.19	6.06	6.34	4.91	4.64	4.49	4.64
Max.	4.73	5.10	4.98	5.88	8.29	10.05	7.09	12.17	5.12	4.73	4.54	4.86
Min.	4.35	4.65	4.63	4.72	4.89	5.13	5.46	5.13	4.73	4.54	4.44	4.49

WATER YEAR 1964 : Max. 12.17 m. Min. 4.35 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.54	2.00	4.37	2.16	3.74	7.10	25	23	6.65	2.56	1.23	1.54
2	0.52	2.48	3.74	1.92	3.92	8.32	22	19	6.55	2.48	1.17	2.08
3	0.52	2.16	3.20	1.60	3.56	7.98	19	30	6.66	2.40	1.17	2.08
4	0.48	2.56	2.32	1.54	3.65	7.65	17	30	6.55	2.40	1.17	1.68
5	0.44	3.65	2.00	3.20	6.33	8.20	18	196	6.22	2.32	1.17	1.54
6	0.52	5.20	1.68	9.28	11	7.65	17	116	6.33	2.32	1.10	1.48
7	0.56	5.50	1.41	10	12	6.77	15	61	6.33	2.24	1.04	2.32
8	0.64	4.46	1.17	7.43	12	6.77	21	43	6.00	2.40	1.04	3.65
9	0.64	4.10	1.17	5.70	13	6.77	19	33	5.50	2.32	0.98	3.12
10	0.60	2.88	1.17	5.10	32	6.77	16	26	5.20	2.48	1.04	3.56
11	0.52	2.72	1.48	4.55	57	6.55	14	21	5.00	2.32	1.04	2.96
12	0.48	2.40	1.78	4.28	51	6.66	12	19	4.91	2.40	1.04	2.40
13	0.44	2.24	2.00	5.20	31	6.99	11	18	4.82	2.56	0.98	2.08
14	0.40	1.84	1.68	11	18	11	11	16	4.64	2.56	0.98	1.68
15	0.44	1.68	1.35	15	13	7.76	10	14	4.55	2.32	0.92	1.48
16	0.44	1.92	1.17	11	12	19	28	13	4.37	2.24	0.86	1.35
17	0.40	2.80	1.04	7.98	11	19	35	12	4.19	2.08	0.81	1.23
18	0.40	2.80	0.98	6.44	13	30	33	11	4.10	2.00	0.75	1.10
19	0.88	2.32	1.10	5.10	13	29	31	10	4.10	1.92	0.75	1.04
20	1.00	2.48	1.29	4.91	13	26	26	9.92	3.92	1.76	0.75	0.98
21	1.06	2.56	1.68	5.30	13	23	22	9.40	3.74	1.76	0.75	0.92
22	1.48	3.47	1.60	5.30	11	19	20	9.53	3.65	1.68	0.86	0.86
23	2.00	3.74	1.54	4.73	9.53	17	19	9.04	3.47	1.60	0.81	1.04
24	2.00	3.12	1.48	5.40	12	35	17	8.56	3.47	1.68	0.75	1.54
25	1.68	2.08	1.76	5.10	11	69	18	8.09	3.04	1.60	0.86	1.48
26	1.92	1.76	1.76	4.19	10	98	16	7.76	2.88	1.60	1.10	1.60
27	2.64	1.92	1.92	3.74	9.28	53	16	7.32	2.80	1.54	0.92	1.48
28	2.32	4.92	2.24	3.92	8.32	47	17	6.99	2.72	1.35	1.41	1.29
29	1.92	6.99	2.48	3.83	7.65	35	17	6.77	2.64	1.29	-	0.86
30	1.92	6.77	2.48	3.47	7.10	27	17	6.88	2.56	1.29	-	0.81
31	-	4.73	-	4.55	6.88	-	23	-	2.48	1.23	-	0.63
Total	29.80	100.25	55.04	172.92	438.96	658.94	602	869.26	179.85	62.70	27.45	51.86
Mean	0.99	3.23	1.83	5.58	14.2	22.0	19.4	29.0	4.51	2.02	0.98	1.67
Max.	2.64	6.99	4.37	15	57	98	35	196	6.66	2.56	1.41	3.65
Min.	0.40	1.68	0.98	1.54	3.56	6.55	10	6.77	2.48	1.23	0.75	0.63
Runoff - mcm.	2.575	8.552	4.755	14.940	37.926	56.932	52.013	75.104	12.083	5.417	2.372	4.481

WATER YEAR 1964 : Max. 196 Min. 0.40 Mean 8.79 Annual Runoff 277.260 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Nov.5	9.00	12.42	211	Sept.26	7.00	10.17	102

WATER YEAR 1964  
KHLONG U-TAPHAO RIVER BASIN

Khlong Wat at Ton Nga Chang, Songkhla (X. 14)

Location: Lat 6° - 55' - 00" N, Long 100° - 25' - 00" E, on left bank 5 kilometers from Phet Kasem highway at Ban Tha Rae, which is 15 kilometers from Amphoe Hat Yai, Songkhla.

Drainage Area: 71 sq.km. from GSGS. 4218 Map 1:253,440.

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: + 114.589 m. (A.D.)

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 due to its stabilities.

Overbank Flow Conditions: No overbank flow.

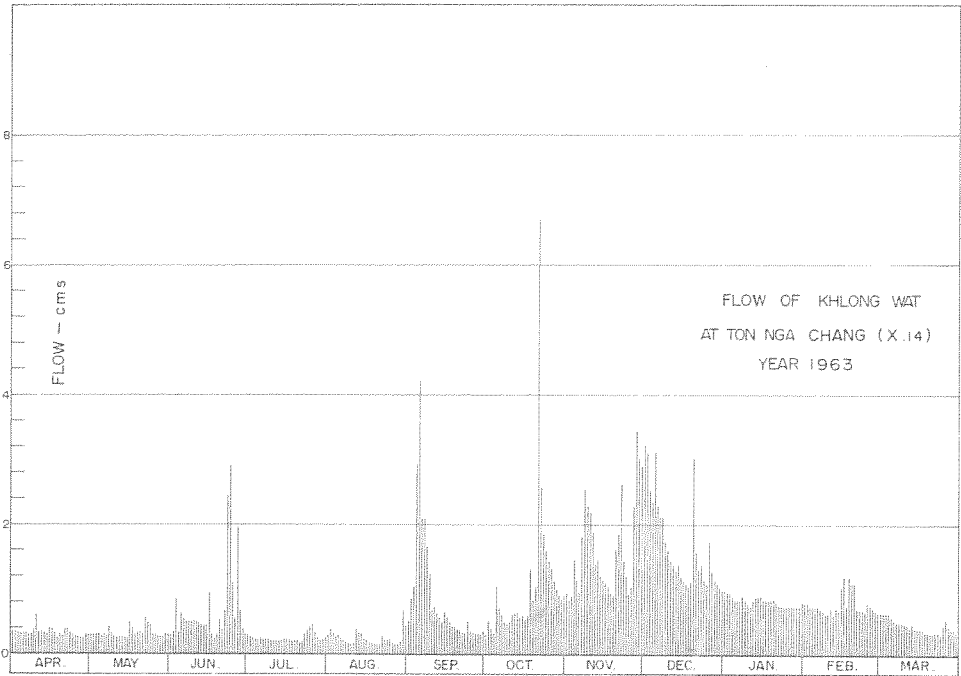
General Description: Record excellent. Stage-discharge relationship used is defined by discharge measurements made during 1964. No state diversions above gage site.

GAGE HEIGHT IN METER ( A. D. ), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	109.68	109.67	109.73	109.64	109.64	109.73	109.66	109.80	109.94	109.81	109.71	109.68
2	.68	.64	.72	.64	.65	.67	.65	.82	.89	.81	.72	.68
3	.68	.77	.71	.63	.65	.71	.64	.81	.83	.81	.79	.68
4	.67	.76	.70	.62	.66	.68	.63	.77	.83	.80	.75	.68
5	.67	.65	.69	.62	.65	.65	.62	.75	.88	.79	.72	.68
6	109.66	109.64	109.69	109.62	109.63	109.65	109.62	109.74	109.91	109.79	109.72	109.68
7	.66	.62	.69	.62	.63	.77	.61	.75	.85	.79	.72	.68
8	.66	.62	.68	.61	.62	.69	.61	.73	.83	.79	.71	.68
9	.65	.61	.69	.61	.69	.69	.61	.92	.80	.78	.71	.67
10	.65	.60	.68	.61	.64	.69	.70	.98	.79	.77	.71	.67
11	109.65	109.60	109.67	109.60	109.64	109.86	109.66	109.94	109.79	109.77	109.71	109.67
12	.63	.59	.67	.59	.63	.79	.64	.85	.81	.77	.70	.67
13	.63	.59	.67	.59	.67	.74	.66	.81	.81	.78	.70	.68
14	.63	.63	.67	.59	.65	.75	.67	.81	.93	.76	.70	.67
15	.63	.61	.66	.67	.64	.74	.68	.90	.86	.76	.69	.65
16	109.63	109.61	109.65	109.68	109.63	109.70	109.63	109.94	109.84	109.75	109.69	109.64
17	.63	.60	.65	.65	.63	.70	.62	.91	.84	.75	.72	.64
18	.63	.81	.64	.68	.64	.68	.62	110.06	.89	.75	.71	.63
19	.62	.65	.65	.67	.64	.67	.65	109.94	.88	.75	.71	.63
20	.62	.77	.63	.64	.63	.66	.71	.89	.87	.75	.70	.63
21	109.61	109.77	109.63	109.67	109.63	109.64	109.74	109.90	109.92	109.75	109.70	109.63
22	.60	.77	.62	.67	.63	.63	.72	.89	110.01	.74	.70	.63
23	.60	.82	.61	.66	.62	.63	.70	.86	109.90	.74	.69	.68
24	.61	.87	.61	.76	.62	.62	.73	.83	.89	.73	.69	.70
25	.60	.91	.64	.69	.62	.64	.70	.82	.86	.73	.69	.69
26	109.59	109.98	109.64	109.68	109.62	109.71	109.72	109.81	109.85	109.73	109.69	109.66
27	.61	.87	.63	.67	.63	.63	.76	.80	.85	.73	.69	.64
28	.60	.80	.63	.70	.64	.68	.80	.79	.88	.73	.69	.64
29	.60	.78	.63	.67	.64	.66	.82	.79	.84	.73	-	.65
30	.64	.75	.63	.67	.64	.67	.72	.85	.83	.73	-	.64
31	-	.74	-	.65	.82	-	.78	-	.82	.72	-	.63
Mean	109.63	109.71	109.66	109.65	109.64	109.69	109.68	109.85	109.86	109.76	109.71	109.66
Max.	109.68	109.98	109.73	109.76	109.82	109.86	109.82	110.06	110.01	109.81	109.79	109.70
Min.	109.59	109.59	109.61	109.59	109.62	109.62	109.61	109.73	109.79	109.72	109.69	109.63

WATER YEAR 1964 : Max. 110.06 m. Min. 109.59 m.





DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.45	0.42	0.61	0.34	0.34	0.61	0.40	0.88	1.62	0.93	0.54	0.45
2	0.45	0.34	0.58	0.34	0.37	0.42	0.37	0.98	1.31	0.93	0.58	0.45
3	0.45	0.77	0.54	0.32	0.37	0.54	0.34	0.93	1.02	0.93	0.84	0.45
4	0.42	0.73	0.50	0.29	0.40	0.45	0.32	0.77	1.02	0.88	0.69	0.45
5	0.42	0.37	0.47	0.29	0.37	0.37	0.29	0.69	1.26	0.84	0.58	0.45
6	0.40	0.34	0.47	0.29	0.32	0.37	0.29	0.65	1.42	0.84	0.58	0.45
7	0.40	0.29	0.47	0.29	0.32	0.77	0.27	0.69	1.12	0.84	0.58	0.45
8	0.40	0.29	0.45	0.27	0.29	0.47	0.27	0.61	1.02	0.84	0.54	0.45
9	0.37	0.27	0.47	0.27	0.47	0.47	0.27	1.49	0.88	0.80	0.54	0.42
10	0.37	0.24	0.45	0.27	0.34	0.47	0.50	1.87	0.84	0.77	0.54	0.42
11	0.37	0.24	0.42	0.24	0.34	1.17	0.40	1.62	0.84	0.77	0.54	0.42
12	0.32	0.22	0.42	0.22	0.32	0.84	0.34	1.12	0.93	0.77	0.50	0.42
13	0.32	0.22	0.42	0.22	0.42	0.65	0.40	0.93	0.93	0.88	0.50	0.45
14	0.32	0.32	0.42	0.22	0.37	0.69	0.42	0.93	1.55	0.73	0.50	0.42
15	0.32	0.27	0.40	0.42	0.34	0.65	0.45	1.36	1.17	0.73	0.47	0.37
16	0.32	0.27	0.37	0.45	0.32	0.50	0.32	1.62	1.07	0.69	0.47	0.34
17	0.32	0.24	0.37	0.37	0.32	0.50	0.29	1.42	1.07	0.69	0.58	0.34
18	0.32	0.93	0.34	0.45	0.34	0.45	0.29	2.41	1.31	0.69	0.54	0.32
19	0.29	0.37	0.37	0.42	0.34	0.42	0.37	1.62	1.26	0.69	0.54	0.32
20	0.29	0.77	0.32	0.34	0.32	0.40	0.54	1.31	1.22	0.69	0.50	0.32
21	0.27	0.77	0.32	0.42	0.32	0.34	0.65	1.36	1.49	0.69	0.50	0.32
22	0.24	0.77	0.29	0.42	0.32	0.32	0.58	1.31	2.07	0.65	0.50	0.32
23	0.24	0.98	0.27	0.40	0.29	0.32	0.50	1.17	1.36	0.65	0.47	0.45
24	0.27	1.22	0.27	0.73	0.29	0.29	0.61	1.02	1.31	0.61	0.47	0.50
25	0.24	1.42	0.34	0.47	0.29	0.34	0.50	0.98	1.67	0.61	0.47	0.47
26	0.22	1.87	0.34	0.45	0.29	0.54	0.58	0.93	1.12	0.61	0.47	0.40
27	0.27	1.22	0.32	0.42	0.32	0.32	0.73	0.88	1.12	0.61	0.47	0.34
28	0.24	0.88	0.32	0.50	0.34	0.45	0.88	0.84	1.26	0.61	0.47	0.34
29	0.24	0.80	0.32	0.42	0.34	0.40	0.98	0.84	1.07	0.58	-	0.37
30	0.34	0.69	0.32	0.42	0.34	0.42	0.58	1.12	1.02	0.61	-	0.34
31	-	0.65	-	0.37	0.98	-	0.80	-	0.98	0.58	-	0.32
Total	9.89	19.18	11.97	11.34	11.14	14.95	14.53	34.35	37.33	22.66	14.97	12.33
Mean	0.33	0.62	0.40	0.36	0.36	0.50	0.47	1.14	1.20	0.73	0.53	0.40
Max.	0.45	1.87	0.61	0.73	0.98	1.17	0.98	2.41	2.07	0.93	0.84	0.50
Min.	0.22	0.22	0.27	0.22	0.29	0.29	0.27	0.61	0.84	0.58	0.47	0.32
Runoff - mcm.	0.854	1.657	1.034	0.980	0.962	1.292	1.255	2.968	3.225	1.958	1.293	1.065

WATER YEAR 1964 : Max. 2.41 Min. 0.22 Mean 0.59 Annual Runoff 18.545 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Nov.9	17.00	110.52	6.96	Dec.1	18.00	110.48	6.45

WATER YEAR 1963  
KHLONG U-TAPHAO RIVER BASIN

Khlong Wat at Ton Nga Chang, Songkhla(X.14)

Location: Lat 6° - 55' - 00" N, Long 100° - 25' - 00" E, on left bank 5 kilometers from Phet Kasem highway at Ban Tha Rai, which is 15 kilometers from Amphoe Hat Yai, Songkhla.

Drainage Area: 71 sq.km. from GSGS, 4218 Map 1:253,440.

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: + 114.589 m. (A.D.)

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: Fairly stable, no shifting adjustment but mean hourly discharge is included for flow computation.

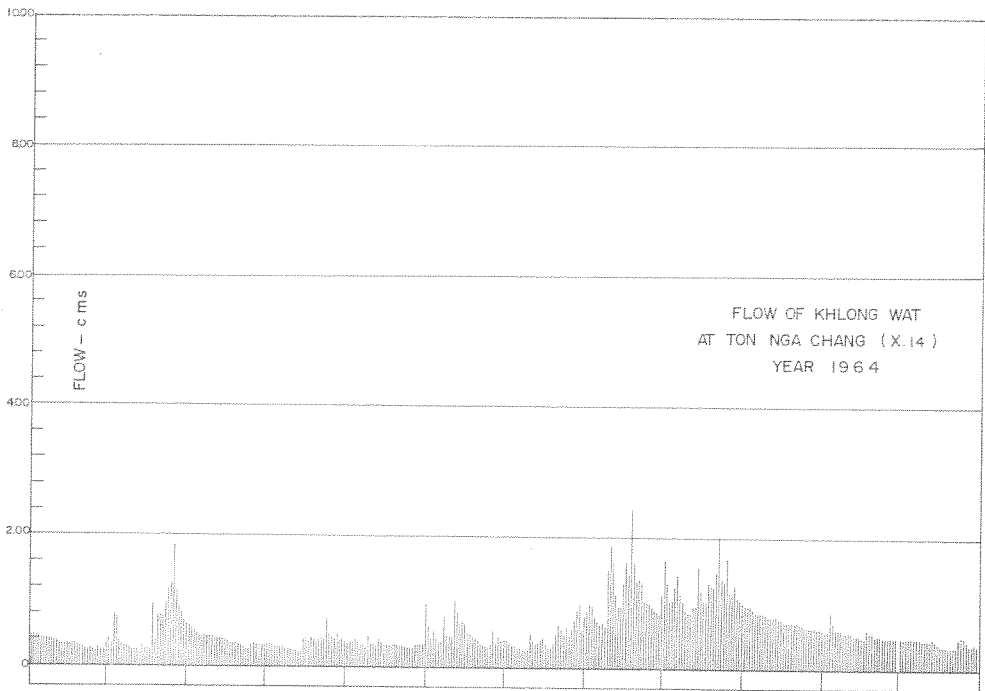
Overbank Flow Conditions: No overbank flow.

General Description: Record good. Stage - discharge relationship used is defined by discharge measurements made during 1963. No state diversions above gage site.

GAGE HEIGHT IN METER ( A. D. ), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	109.68	109.66	109.66	109.66	109.70	109.73	109.66	109.84	110.14	109.85	109.81	109.77
2	.68	.66	.68	.65	.70	.81	.73	.82	.13	.84	.81	.77
3	.67	.66	.82	.64	.67	.86	.70	.83	.07	.84	.80	.77
4	.67	.66	.67	.63	.65	110.06	.67	.93	.05	.83	.80	.77
5	.67	.65	.77	.63	.66	.20	.86	.88	.13	.82	.80	.75
6	109.66	109.66	109.67	109.64	109.64	110.01	109.79	109.84	110.04	109.82	109.80	109.74
7	.66	.65	.66	.63	.62	.01	.76	.98	.02	.82	.79	.73
8	.66	.71	.66	.63	.61	.80	.73	110.07	.02	.83	.78	.73
9	.69	.67	.66	.63	.60	109.89	.72	.04	109.97	.82	.77	.73
10	.76	.64	.66	.62	.60	.83	.73	.03	.95	.81	.77	.72
11	109.69	109.64	109.66	109.62	109.60	109.79	109.76	109.99	109.93	109.80	109.79	109.72
12	.68	.64	.65	.62	.70	.77	.77	.92	.92	.82	.77	.71
13	.67	.64	.64	.62	.67	.75	.77	.93	.91	.83	.79	.72
14	.66	.64	.64	.62	.66	.73	.75	.89	.92	.83	.78	.70
15	.70	.64	.64	.63	.63	.77	.76	.88	.89	.83	.86	.70
16	109.69	109.73	109.84	109.63	109.62	109.75	109.74	109.87	109.88	109.82	109.89	109.69
17	.67	.69	.66	.62	.61	.73	.76	.86	.87	.82	.80	.69
18	.64	.66	.64	.64	.60	.71	.91	.84	.86	.82	.89	.68
19	.66	.67	.66	.62	.60	.71	.82	.83	.88	.82	.87	.68
20	.65	.68	.74	.62	.59	.59	.84	.95	110.12	.82	.87	.67
21	109.70	109.66	109.69	109.61	109.59	109.69	110.34	109.99	109.95	109.81	109.79	109.67
22	.68	.75	.68	.62	.65	.67	.07	110.08	.91	.80	.78	.67
23	.67	.73	110.06	.67	.62	.67	109.98	109.93	.92	.80	.78	.67
24	.66	.72	.11	.69	.62	.73	.95	.89	.88	.80	.78	.66
25	.65	.66	109.87	.71	.63	.69	.93	.84	.87	.80	.81	.72
26	109.65	109.66	109.75	109.72	109.60	109.67	109.91	109.66	109.97	109.80	109.80	109.74
27	.64	.65	110.00	.68	.59	.66	.88	110.04	.91	.80	.79	.71
28	.64	.65	109.78	.64	.59	.66	.85	.16	.88	.80	.78	.69
29	.66	.65	.70	.62	.61	.66	.83	.12	.87	.80	.77	.69
30	.66	.66	.66	.62	.78	.68	.82	.11	.86	.80	-	.68
31	-	.66	-	.65	.71	-	.83	-	.85	.81	-	.68
Mean	109.67	109.67	109.74	109.64	109.63	109.79	109.83	109.94	109.95	109.82	109.80	109.71
Max.	109.76	109.75	110.11	109.72	109.78	110.20	110.34	110.16	110.14	109.85	109.89	109.77
Min.	109.64	109.64	109.64	109.61	109.59	109.66	109.66	109.82	109.85	109.80	109.77	109.66

WATER YEAR 1963 : Max. 110.34 m. Min. 109.59 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.35	0.31	0.31	0.31	0.31	0.50	0.31	0.95	3.22	1.00	0.80	0.64
2	0.35	0.31	0.35	0.28	0.40	0.87	0.50	0.85	3.12	0.95	0.80	0.64
3	0.33	0.31	0.85	0.26	0.33	1.05	0.40	0.90	2.54	0.95	0.75	0.64
4	0.33	0.31	0.33	0.24	0.28	2.94	0.33	1.46	2.37	0.90	0.75	0.64
5	0.33	0.28	0.64	0.24	0.31	4.20	1.05	1.15	3.12	0.85	0.75	0.57
6	0.31	0.31	0.33	0.26	0.26	2.08	0.71	0.95	2.29	0.85	0.75	0.54
7	0.31	0.28	0.31	0.24	0.22	2.08	0.61	1.81	2.12	0.85	0.71	0.50
8	0.31	0.43	0.31	0.24	0.19	1.66	0.50	2.54	2.12	0.90	0.68	0.50
9	0.38	0.33	0.31	0.24	0.17	1.26	0.47	2.29	1.74	0.85	0.64	0.50
10	0.61	0.26	0.31	0.22	0.17	0.69	0.50	2.20	1.60	0.80	0.64	0.47
11	0.33	0.26	0.31	0.22	0.17	0.75	0.61	1.88	1.46	0.75	0.71	0.47
12	0.35	0.26	0.28	0.22	0.40	0.65	0.64	1.39	1.39	0.85	0.64	0.43
13	0.33	0.26	0.26	0.22	0.33	0.57	0.64	1.46	1.32	0.90	0.71	0.47
14	0.31	0.26	0.26	0.22	0.31	0.50	0.57	1.20	1.39	0.90	0.68	0.40
15	0.40	0.26	0.26	0.24	0.24	0.64	0.61	1.15	1.20	0.90	1.05	0.40
16	0.38	0.50	0.95	0.24	0.22	0.57	0.54	1.10	1.15	0.85	1.20	0.38
17	0.33	0.38	0.31	0.22	0.19	0.50	0.61	1.05	1.10	0.85	0.75	0.38
18	0.26	0.31	0.26	0.22	0.17	0.43	1.32	0.95	1.05	0.85	1.20	0.35
19	0.31	0.33	0.31	0.22	0.17	0.43	0.85	0.90	1.15	0.85	1.10	0.35
20	0.28	0.35	0.54	0.22	0.16	0.38	1.04	1.60	3.01	0.85	1.10	0.33
21	0.40	0.31	0.38	0.19	0.16	0.38	6.70	1.88	1.60	0.80	0.71	0.33
22	0.38	0.57	0.68	0.22	0.28	0.33	2.58	2.63	1.32	0.75	0.68	0.33
23	0.33	0.50	2.46	0.33	0.22	0.33	1.85	1.46	1.39	0.75	0.68	0.33
24	0.31	0.47	2.91	0.38	0.22	0.50	1.61	1.20	1.15	0.75	0.68	0.31
25	0.28	0.31	1.10	0.43	0.24	0.38	1.45	0.95	1.10	0.75	0.80	0.47
26	0.28	0.31	0.57	0.47	0.17	0.33	1.34	1.05	1.74	0.75	0.75	0.54
27	0.26	0.28	1.95	0.35	0.16	0.31	1.13	2.29	1.32	0.75	0.71	0.43
28	0.26	0.28	0.68	0.26	0.16	0.31	1.00	3.44	1.15	0.75	0.68	0.38
29	0.31	0.28	0.40	0.22	0.19	0.31	0.90	3.01	1.10	0.75	0.64	0.38
30	0.31	0.31	0.31	0.22	0.68	0.35	0.85	2.91	1.05	0.75	-	0.35
31	-	0.31	-	0.28	0.43	-	0.90	-	1.00	0.80	-	0.35
Total	10.01	10.23	19.23	8.12	7.91	26.26	33.12	48.60	52.38	25.80	22.74	13.80
Mean	0.33	0.33	0.64	0.26	0.25	0.87	1.07	1.62	1.69	0.83	0.78	0.44
Max.	0.61	0.57	2.91	0.47	0.68	4.20	6.70	3.44	3.22	1.00	1.20	0.64
Min.	0.26	0.26	0.26	0.19	0.16	0.31	0.31	0.85	1.00	0.75	0.64	0.31
Runoff - mcm.	0.865	0.884	1.661	0.701	0.683	2.269	2.861	4.199	4.526	2.229	1.965	1.191

WATER YEAR 1963 : Max. 6.70 Min. 0.16 Mean 0.76 Annual Runoff 24,036 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Nov. 28	20.00	110.66	13	Oct. 21	09.00	110.63	13

WATER YEAR 1963  
KHLONG DUSON RIVER BASIN

Khlung 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 - Kuan Niang railway station, at Ban Thung Nui along local road to Panun Fall, Tambon Tone, Amphoe Muang, Satun.

Drainage Area: 58 sq.km. referred to GSGS. 4218 Map 1:253,440.

Type of Gage: Water - stage recorder.

Zero Gage at Bottom at: + 44.21 m. (A.D.)

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

Location: Near the gage site.  
Elevation: + 50.457 m. (A.D.)

Gage Reading Frequency: Recording.

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

Period of Available Gage Records: 1959 to date.

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 for years without actual ratings.

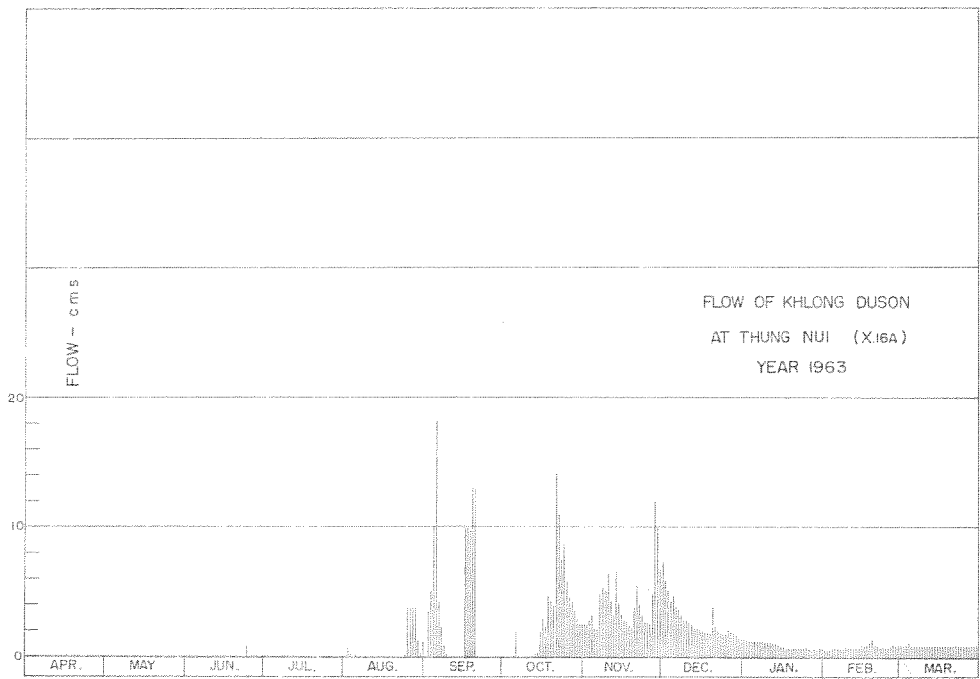
Overbank Flow Conditions: No overbank flow.

General Description: Gage height record excellent, discharge record fair. Stage - discharge relationship used is defined by discharge measurements made during 1960 - 61. No state diversions above gage site.

GAGE HEIGHT IN METER ( A. D. ), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	44.77	44.78	44.78	44.97	45.03	45.05	44.78	45.31	45.62	45.22	45.13	45.16
2	.77	.78	.78	.97	.15	.38	45.05	.31	.53	.21	.13	.16
3	.78	.78	.78	.97	.09	.48	44.96	.34	.49	.20	.13	.17
4	.78	.78	.78	45.03	.02	.77	.85	.36	.44	.20	.14	.19
5	.78	.78	.78	.03	.08	46.10	.90	.29	.46	.20	.14	.16
6	44.78	44.78	44.78	45.03	45.05	45.43	45.26	45.28	45.41	45.20	45.14	45.16
7	.78	.78	.78	.03	.03	.31	.03	.47	.39	.20	.14	.16
8	.78	.78	.78	.03	.03	.17	44.92	.50	.36	.21	.14	.16
9	.78	.78	.79	.03	.03	.08	.99	.49	.34	.20	.15	.16
10	.78	.78	.79	.03	.03	44.96	45.02	.56	.33	.19	.15	.16
11	44.78	44.78	44.79	45.03	45.02	44.92	44.96	45.44	45.32	45.19	45.15	45.16
12	.78	.78	.79	.03	.06	.89	.95	.37	.31	.19	.15	.16
13	.79	.78	.79	.03	.04	.85	45.10	.58	.29	.18	.15	.16
14	.79	.78	.79	.03	.03	.82	.11	.43	.29	.18	.15	.16
15	.78	.78	.79	.03	.03	.80	.26	.36	.28	.16	.17	.16
16	44.78	44.79	44.77	45.03	45.03	45.78	45.34	45.33	45.27	45.16	45.16	45.16
17	.78	.79	.77	.03	.03	.77	.29	.33	.26	.15	.17	.16
18	.78	.79	.77	.03	.03	.75	.46	.31	.26	.15	.18	.16
19	.78	.79	.78	.03	.03	.89	.44	.29	.25	.15	.21	.16
20	.78	.79	.78	.03	.03	.90	.41	.40	.41	.15	.17	.16
21	44.82	44.79	44.77	45.02	45.03	45.01	45.94	45.31	45.30	45.15	45.17	45.16
22	.80	.92	.78	.02	.03	44.78	.81	.42	.27	.15	.15	.16
23	.79	.80	45.02	.02	.05	.79	.63	.36	.26	.15	.15	.16
24	.78	.78	.16	.02	.07	.97	.60	.32	.25	.15	.15	.16
25	.77	.78	44.91	44.97	.40	.92	.53	.32	.25	.15	.15	.16
26	44.77	44.78	44.89	45.04	45.40	44.83	45.45	45.31	45.27	45.14	45.15	45.16
27	.77	.78	.82	.05	.40	.81	.43	.47	.26	.14	.17	.16
28	.78	.79	.80	.04	.41	.79	.39	.87	.25	.14	.16	.16
29	.78	.79	.79	.04	.21	.84	.34	.77	.24	.14	.16	.16
30	.78	.78	.77	.04	.10	.80	.31	.58	.22	.15	.15	.16
31	.78	.78		.05	.19		.31		.22	.15		.16
Mean	44.78	44.78	44.81	45.02	45.10	45.19	45.25	45.42	45.32	45.17	45.15	45.16
Max.	44.82	44.92	45.16	45.05	45.41	46.10	45.94	45.87	45.62	45.22	45.21	45.19
Min.	44.77	44.78	44.77	44.97	45.02	44.78	44.78	45.28	45.22	45.14	45.13	45.16

WATER YEAR 1963 : Max. 46.10 m. Min. 44.77 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.54	7.36	1.47	0.54	0.81
2	0.00	0.00	0.00	0.00	0.70	3.52	0.00	2.54	5.83	1.36	0.54	0.81
3	0.00	0.00	0.00	0.00	0.26	5.03	0.00	2.96	5.19	1.25	0.54	0.92
4	0.00	0.00	0.00	0.00	0.00	10	0.00	3.24	4.40	1.25	0.62	1.14
5	0.00	0.00	0.00	0.00	0.19	18	0.00	2.28	4.71	1.25	0.62	0.81
6	0.00	0.00	0.00	0.00	0.00	4.25	1.92	2.16	3.95	1.25	0.62	0.81
7	0.00	0.00	0.00	0.00	0.00	2.54	0.00	4.87	3.66	1.25	0.62	0.81
8	0.00	0.00	0.00	0.00	0.00	0.92	0.00	5.35	3.24	1.36	0.62	0.81
9	0.00	0.00	0.00	0.00	0.00	0.19	0.00	5.19	2.96	1.25	0.70	0.81
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.32	2.82	1.14	0.70	0.81
11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.40	2.68	1.14	0.70	0.81
12	0.00	0.00	0.00	0.00	0.06	0.00	0.00	3.38	2.54	1.14	0.70	0.81
13	0.00	0.00	0.00	0.00	0.00	0.00	0.33	6.66	2.28	1.03	0.70	0.81
14	0.00	0.00	0.00	0.00	0.00	0.00	0.40	4.25	2.28	1.03	0.70	0.81
15	0.00	0.00	0.00	0.00	0.00	0.00	1.92	3.24	2.16	0.81	0.92	0.81
16	0.00	0.00	0.00	0.00	0.00	10	2.96	2.82	2.04	0.81	0.81	0.81
17	0.00	0.00	0.00	0.00	0.00	10	2.28	2.82	1.92	0.70	0.92	0.81
18	0.00	0.00	0.00	0.00	0.00	9.80	4.71	2.54	1.92	0.70	1.03	0.81
19	0.00	0.00	0.00	0.00	0.00	13	4.40	2.28	1.80	0.70	1.36	0.81
20	0.00	0.00	0.00	0.00	0.00	13	3.95	3.80	3.95	0.70	0.92	0.81
21	0.00	0.00	0.00	0.00	0.00	0.00	14	5.51	2.40	0.70	0.92	0.81
22	0.00	0.00	0.00	0.00	0.00	0.00	11	4.10	2.04	0.70	0.70	0.81
23	0.00	0.00	0.00	0.00	0.00	0.00	7.54	3.24	1.92	0.70	0.70	0.81
24	0.00	0.00	0.81	0.00	0.12	0.00	8.66	2.68	1.80	0.70	0.70	0.81
25	0.00	0.00	0.00	0.00	3.80	0.00	5.83	2.68	1.80	0.70	0.70	0.81
26	0.00	0.00	0.00	0.00	3.80	0.00	4.55	2.54	2.04	0.62	0.70	0.81
27	0.00	0.00	0.00	0.00	3.80	0.00	4.25	4.87	1.92	0.62	0.92	0.81
28	0.00	0.00	0.00	0.00	3.95	0.00	3.66	12	1.80	0.62	0.81	0.81
29	0.00	0.00	0.00	0.00	1.36	0.00	2.96	10	1.69	0.62	0.81	0.81
30	0.00	0.00	0.00	0.00	0.33	0.00	2.54	6.66	1.47	0.70	0.70	0.81
31	0.00	0.00	0.00	0.00	1.14	0.00	2.54	0.00	1.47	0.70	0.70	0.81
Total	0.00	0.00	0.81	0.00	19.51	100.25	90.40	127.92	68.04	28.97	21.84	25.55
Mean	0.00	0.00	0.02	0.00	0.63	3.34	2.92	4.26	2.82	0.93	0.75	0.82
Max.	0.00	0.00	0.81	0.00	3.95	18	14	12	7.36	1.47	1.36	1.14
Min.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.16	1.47	0.62	0.54	0.81
Runoff - mcm.	0.000	0.000	0.070	0.000	1.666	8.662	7.810	11.052	7.607	2.503	1.887	2.207

WATER YEAR 1963 : Max. 18 Min. 0.00 Mean 1.37 Annual Runoff 43.484 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sept.4	21.00	46.81	37				

WATER YEAR 1964  
KHLONG DUSON RIVER BASIN

Khlung 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 - Kuan Niang railway station, at Ban Thung Nui along local road to Panun Fall, Tambon Tona, Amphoe Muang, Satun.

Drainage Area: 50 sq.km. referred to GSGS. 4218 Map 1:253,440.

Type of Gage: Water - stage recorder.

Zero Gage at Bottom at: + 44.21 m. (A.D.)

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

Location: Near the gage site.

Elevation: + 50.457 m. (A.D.)

Gage Reading Frequency: Recording.

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

Period of Available Gage Records: 1959 to date.

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 for years without actual ratings.

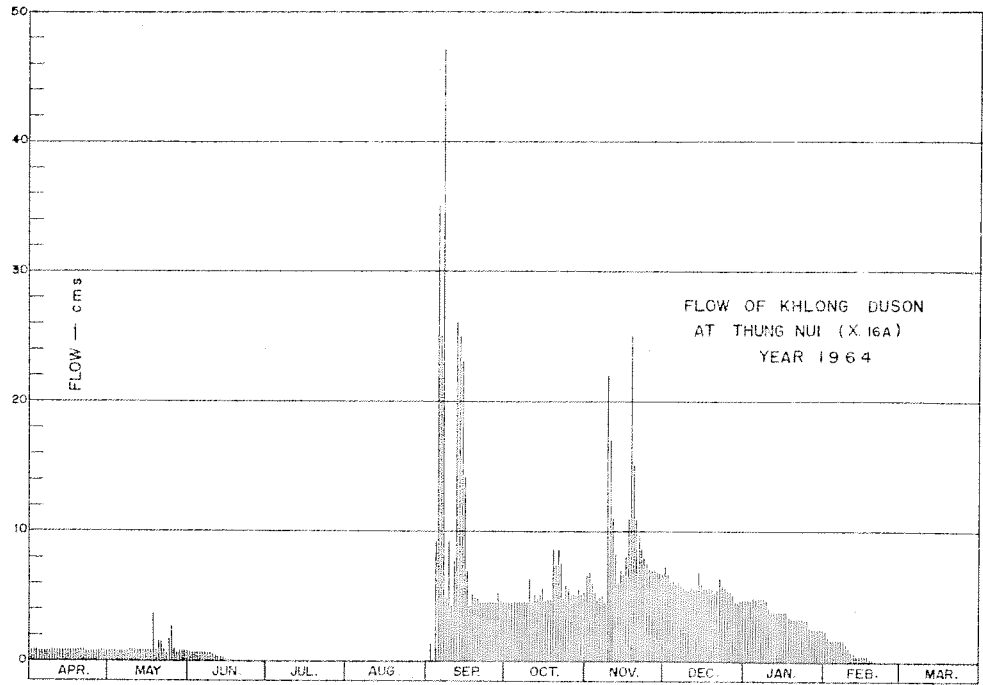
Overbank Flow Conditions: No overbank flow.

General Description: Gage height record excellent, discharge record fair. Stage - discharge relationship used is defined by discharge measurements made during 1960 - 61. No state diversions above gage site.

GAGE HEIGHT IN METER ( A. D. ), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	45.16	45.16	45.15	44.96	44.96	44.96	45.45	45.58	45.62	45.46	45.30	45.03
2	.17	.16	.15	.96	.96	45.21	.45	.59	.58	.46	.25	.03
3	.17	.16	.15	.95	.96	44.85	.45	.54	.55	.46	.24	.03
4	.16	.16	.15	.95	.96	45.72	.45	.50	.55	.47	.24	.03
5	.16	.16	.15	.95	.96	46.75	.45	.46	.54	.47	.24	.03
6	45.16	45.16	45.15	44.93	44.96	46.38	45.45	45.47	45.55	45.47	45.24	45.01
7	.16	.16	.15	.92	.96	47.16	.45	.48	.53	.47	.24	.00
8	.16	.16	.15	.96	.96	45.47	.45	.45	.52	.47	.23	.00
9	.17	.17	.15	.94	.96	.72	.45	46.28	.51	.46	.21	.00
10	.17	.17	.14	.93	.96	.43	.56	.06	.51	.42	.19	.00
11	45.17	45.17	45.12	44.93	44.96	45.67	45.44	45.81	45.52	45.40	45.15	44.99
12	.17	.17	.11	.93	.96	46.44	.49	.67	.51	.40	.14	45.00
13	.17	.17	.10	.94	.96	.40	.46	.54	.51	.40	.12	.00
14	.17	.17	.10	.96	.96	.30	.49	.66	.59	.40	.12	.00
15	.17	.17	.08	.96	.96	45.93	.52	.58	.54	.40	.12	.00
16	45.17	45.17	45.07	44.95	44.96	45.60	45.46	45.66	45.51	45.40	45.11	44.99
17	.17	.17	.06	.95	.96	.43	.46	.82	.51	.40	.11	45.00
18	.17	.39	.07	.97	.96	.49	.46	46.38	.52	.36	.08	44.96
19	.17	.17	.06	.96	.96	.47	.69	.00	.51	.35	.07	.96
20	.17	.23	.05	.95	.96	.47	.62	45.81	.50	.36	.06	.96
21	45.17	45.23	45.05	44.94	44.96	45.45	45.69	45.75	45.51	45.36	45.05	44.96
22	.16	.17	.05	.96	.96	.45	.65	.69	.57	.36	.05	.94
23	.16	.14	.04	.95	.96	.45	.46	.65	.53	.36	.05	.94
24	.16	.24	.03	.96	.96	.45	.53	.63	.52	.36	.04	.93
25	.16	.32	.01	.95	.96	.45	.52	.61	.50	.36	.04	.93
26	45.16	45.19	44.95	44.96	44.96	45.45	45.49	45.60	45.50	45.31	45.04	44.93
27	.16	.15	.95	.96	.96	.45	.49	.66	.49	.31	.04	.94
28	.17	.16	.95	.96	.96	.50	.48	.59	.45	.31	.04	.93
29	.16	.16	.95	.96	.96	.45	.51	.59	.45	.31		.93
30	.16	.16	.96	.95	.96	.45	.58	.58	.46	.31		.94
31		.16	.95	.95	.96		.50		.46	.31		.94
Mean	45.16	45.18	45.07	44.95	44.96	45.68	45.50	45.68	45.52	45.39	45.14	44.98
Max.	45.17	45.39	45.15	44.97	44.96	47.16	45.69	46.38	45.62	45.47	45.30	45.03
Min.	45.16	45.14	44.95	44.92	44.96	44.85	45.44	45.45	45.45	45.31	45.04	44.93

WATER YEAR 1964 : Max. 47.16 m. Min. 44.85 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.81	0.81	0.70	0.00	0.00	0.00	4.55	6.66	7.36	4.71	2.40	0.00
2	0.92	0.81	0.70	0.00	0.00	1.35	4.55	6.83	6.66	4.71	1.80	0.00
3	0.92	0.81	0.70	0.00	0.00	0.00	4.55	5.99	6.15	4.71	1.69	0.00
4	0.81	0.81	0.70	0.00	0.00	9.23	4.55	5.35	6.15	4.87	1.69	0.00
5	0.81	0.81	0.70	0.00	0.00	35	4.55	4.71	5.99	4.87	1.69	0.00
6	0.81	0.81	0.70	0.00	0.00	25	4.55	4.87	6.15	4.87	1.69	0.00
7	0.81	0.81	0.70	0.00	0.00	47	4.55	5.03	5.83	4.87	1.69	0.00
8	0.81	0.81	0.70	0.00	0.00	4.87	4.55	4.55	5.67	4.87	1.58	0.00
9	0.92	0.92	0.70	0.00	0.00	9.23	4.55	22	5.51	4.71	1.36	0.00
10	0.92	0.92	0.62	0.00	0.00	4.25	6.32	17	5.51	4.10	1.14	0.00
11	0.92	0.92	0.47	0.00	0.00	7.73	4.40	11	5.67	3.80	0.70	0.00
12	0.92	0.92	0.40	0.00	0.00	26	5.19	8.28	5.51	3.80	0.62	0.00
13	0.92	0.92	0.33	0.00	0.00	25	4.71	5.99	5.51	3.80	0.47	0.00
14	0.92	0.92	0.33	0.00	0.00	23	5.19	7.00	6.83	3.80	0.47	0.00
15	0.92	0.92	0.19	0.00	0.00	14	5.67	6.66	5.99	3.80	0.47	0.00
16	0.92	0.92	0.12	0.00	0.00	7.00	4.71	8.09	5.51	3.80	0.40	0.00
17	0.92	0.92	0.06	0.00	0.00	4.25	4.71	11	5.51	3.80	0.40	0.00
18	0.92	3.66	0.12	0.00	0.00	5.19	4.71	25	5.67	3.24	0.19	0.00
19	0.92	0.92	0.06	0.00	0.00	4.87	8.66	15	5.51	3.24	0.12	0.00
20	0.92	1.58	0.00	0.00	0.00	4.87	7.36	11	5.35	3.24	0.06	0.00
21	0.92	1.58	0.00	0.00	0.00	4.55	8.66	9.80	5.51	3.24	0.00	0.00
22	0.81	0.92	0.00	0.00	0.00	4.55	7.54	8.66	5.49	3.24	0.00	0.00
23	0.81	0.62	0.00	0.00	0.00	4.55	4.71	7.90	5.83	3.24	0.00	0.00
24	0.81	1.69	0.00	0.00	0.00	4.55	5.83	7.54	5.67	3.24	0.00	0.00
25	0.81	2.68	0.00	0.00	0.00	4.55	5.67	7.18	5.35	3.24	0.00	0.00
26	0.81	1.14	0.00	0.00	0.00	4.55	5.19	7.00	5.35	2.54	0.00	0.00
27	0.81	0.70	0.00	0.00	0.00	4.55	5.19	7.00	5.19	2.54	0.00	0.00
28	0.92	0.81	0.00	0.00	0.00	5.35	5.03	6.83	4.55	2.54	0.00	0.00
29	0.81	0.81	0.00	0.00	0.00	4.55	5.51	6.83	4.55	2.54	0.00	0.00
30	0.81	0.81	0.00	0.00	0.00	4.55	5.03	6.66	4.71	2.54	0.00	0.00
31		0.81	0.00	0.00	0.00		5.35		4.71	2.54		0.00
Total	26.06	33.49	9.00	0.00	0.00	30.41	166.29	267.41	175.95	115.05	20.63	0.00
Mean	0.87	1.08	0.30	0.00	0.00	1.01	5.36	8.91	5.67	3.71	0.74	0.00
Max.	0.92	3.66	0.70	0.00	0.00	47	8.66	25	7.36	4.87	2.40	0.00
Min.	0.81	0.62	0.00	0.00	0.00	0.00	4.40	4.55	4.55	2.54	0.00	0.00
Runoff - mcm.	2.251	2.893	0.778	0.000	0.000	2.627	14.367	23.104	15.202	9.940	1.732	0.000

WATER YEAR 1964 : Max. 47 Min. 0.00 Mean 2.31 Annual Runoff 72.947 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Sept. 3	16.00	48.33	87				

WATER YEAR 1963  
KHLONG SAO THONG RIVER BASIN

Khlong Sao Thong at Khun Thale, Nakhon Si Thammarat (X.18A)

Location: Lat 08° - 20' - 18" N., Long 99° - 50' - 03" E., on left bank, 6 kilometers from the left side at Km. 35 of Nakhon Si Thammarat highway 200 meters from Khlong Sao Thong Irrigation Project, Amphoe Lan Saka, Nakhon Si Thammarat.

Drainage Area: 163 sq.km. referred to AMS Map 1:50,000.

Type of Gage: Water - stage recorder.

Zero Gage at Bottom at: + 22.52 m. (A.D.)

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

Location: On left bank near the camp of station X.18A.

Elevation: B.M.1 + 28.081 m. (A.D.) and B.M.2 + 27.900 m. (A.D.)

Gage Reading Frequency: Recording.

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

Period of Available Gage Records: 1962 - 67.

Rating Operation:

Period of Rating: 1962 - 67.

Rated by Float:

Rated by Current Meter: 1962 - 67.

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

Overbank Flow Conditions: No overbank flow.

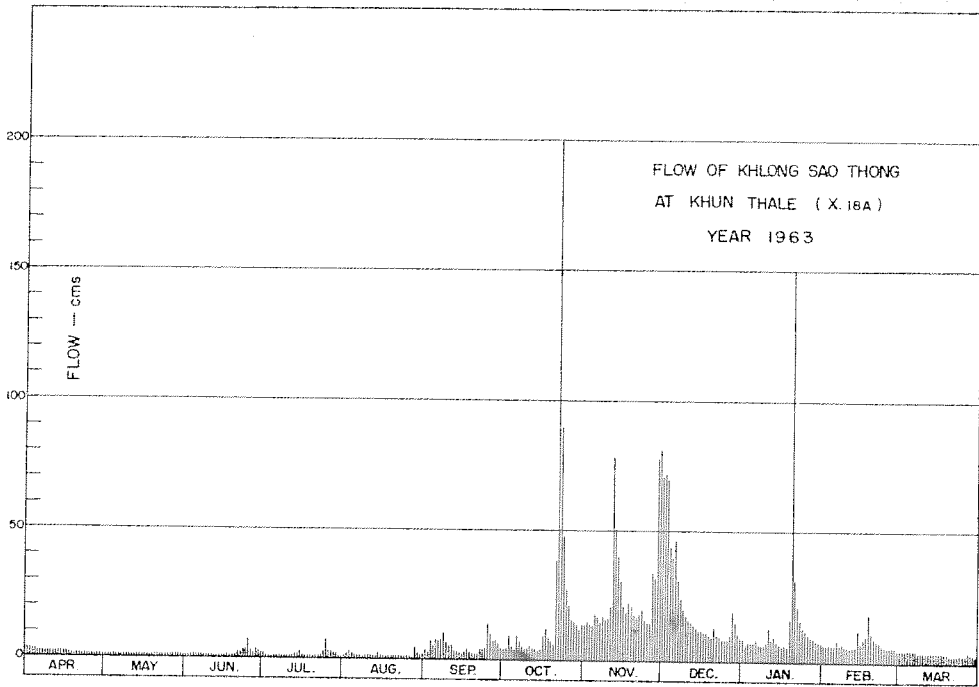
General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1963. No state diversions above gage site.

GAGE HEIGHT IN METER ( A. D. ), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	22.96	22.78	22.71	22.86	22.78	22.98	23.01	23.73	25.59	23.45	23.35	23.20
2	.94	.78	.74	.80	.86	.90	.03	.77	.64	.30	.33	.19
3	.92	.78	.74	.78	.95	23.22	.34	.70	.57	.38	.35	.19
4	.91	.78	.74	.76	.86	.12	.09	.73	24.84	.36	.33	.19
5	.89	.78	.74	.75	.82	.26	.05	.91	.71	.36	.32	.17
6	22.87	22.78	22.74	22.75	22.81	23.25	23.35	23.83	24.89	23.42	23.41	23.16
7	.86	.77	.74	.74	.79	.26	.21	.77	.40	.35	.33	.15
8	.85	.77	.74	.74	.78	.45	.08	.84	.13	.34	.29	.14
9	.85	.77	.74	.73	.77	.21	.03	.81	23.99	.32	.27	.14
10	.85	.77	.74	.74	.77	.07	.04	.84	.89	.39	.25	.13
11	22.84	22.77	22.74	22.73	22.80	23.09	23.11	24.01	23.81	23.64	23.24	23.12
12	.84	.76	.74	.73	.77	22.98	.03	25.80	.76	.42	.24	.11
13	.84	.76	.74	.84	.78	.93	.04	.04	.72	.49	.29	.11
14	.84	.76	.74	.83	.86	.90	22.97	24.70	.68	.39	.62	.10
15	.83	.75	.74	.92	.79	.87	.99	.40	.63	.34	.37	.09
16	22.82	22.75	22.74	22.83	22.76	22.92	23.33	24.01	23.59	23.32	23.45	23.08
17	.82	.75	.74	.77	.75	23.02	.50	23.94	.55	.30	.53	.07
18	.81	.74	.74	.75	.74	22.92	.31	24.04	.54	.29	.90	.07
19	.80	.74	.74	.74	.74	.88	.23	.01	.51	.78	.56	.06
20	.80	.74	.78	.73	.74	.86	.25	23.91	.47	27.34	.42	.04
21	22.80	22.74	22.88	22.72	22.74	22.86	24.67	23.87	23.65	24.39	23.37	23.02
22	.80	.74	.89	.73	.73	23.03	28.20	.88	.50	.03	.36	.03
23	.79	.73	.95	.81	.76	.00	26.09	.99	.45	23.80	.30	.03
24	.79	.73	23.31	.91	.75	.03	24.96	.81	.42	.68	.27	.03
25	.79	.73	.24	23.25	.79	.64	.28	.77	.40	.59	.24	.01
26	22.79	22.72	22.95	22.92	22.75	23.43	24.01	23.74	23.41	23.53	23.24	23.11
27	.79	.72	.89	.91	.73	.22	23.80	24.51	.52	.48	.26	.22
28	.79	.71	.98	.88	23.04	.25	.75	.44	.93	.45	.24	.10
29	.79	.71	.91	.82	22.86	.14	.69	25.78	.74	.42	.21	.04
30	.78	.71	.85	.79	.80	.05	.62	.88	.54	.40	.40	.03
31		.71		.78	.84		.69		.47	.37		.02
Mean	22.83	22.75	22.82	22.81	22.80	23.09	23.67	24.18	23.96	23.62	23.36	23.10
Max.	22.96	22.78	23.31	23.25	23.04	23.64	28.20	25.88	25.64	27.34	23.90	23.22
Min.	22.78	22.71	22.71	22.72	22.73	22.86	22.97	23.70	23.40	23.29	23.21	23.01

WATER YEAR 1963 : Max. 28.20 m. Min. 22.71 m.





DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	3.72	1.64	1.08	2.52	1.64	3.96	4.34	14	71	8.47	6.90	4.70
2	3.48	1.64	1.32	1.80	2.52	3.00	4.62	15	72	6.10	6.54	4.58
3	3.24	1.64	1.32	1.64	3.60	7.32	9.24	14	70	7.44	6.90	4.58
4	3.12	1.64	1.32	1.48	2.52	5.88	5.46	14	44	7.08	6.54	4.58
5	2.88	1.64	1.32	1.40	2.04	7.96	4.90	18	40	7.08	6.36	4.34
6	2.64	1.64	1.32	1.40	1.92	7.80	9.40	17	46	8.28	8.09	4.22
7	2.52	1.56	1.32	1.32	1.72	7.96	7.16	15	31	6.90	6.54	4.10
8	2.40	1.56	1.32	1.32	1.64	11	5.32	17	24	6.72	5.96	3.98
9	2.40	1.56	1.32	1.24	1.56	7.16	4.62	16	20	6.36	5.68	3.98
10	2.40	1.56	1.32	1.32	1.56	5.18	4.76	17	18	7.62	5.40	3.86
11	2.28	1.56	1.32	1.24	1.80	5.46	5.74	21	16	13	5.26	3.74
12	2.28	1.48	1.32	1.24	1.56	3.72	4.62	78	15	8.28	5.26	3.62
13	2.28	1.48	1.32	2.28	1.64	3.36	4.76	51	14	9.61	5.96	3.62
14	2.28	1.48	1.32	2.16	2.52	3.00	3.84	40	13	7.62	12	3.50
15	2.16	1.40	1.32	3.24	1.72	2.64	4.08	31	12	6.72	7.26	3.41
16	2.04	1.40	1.32	2.16	1.48	3.24	9.08	21	12	6.36	8.85	3.32
17	2.04	1.40	1.32	1.56	1.40	4.48	12	19	11	6.10	10	3.23
18	1.92	1.32	1.32	1.40	1.32	3.24	8.76	22	11	5.96	18	3.23
19	1.80	1.32	1.32	1.32	1.32	2.76	7.48	21	10	16	11	3.14
20	1.80	1.32	1.64	1.24	1.32	2.52	6.45	18	9.35	150	8.28	2.96
21	1.80	1.32	2.76	1.16	1.32	2.52	39	17	13	31	7.26	2.78
22	1.80	1.32	2.88	1.24	1.24	4.62	200	18	10	21	7.08	2.87
23	1.72	1.24	3.60	1.92	1.48	4.20	90	20	9.25	16	6.10	2.87
24	1.72	1.24	8.76	3.12	1.40	4.62	48	16	8.80	13	5.68	2.87
25	1.72	1.24	7.64	7.80	1.72	14	28	15	8.50	12	5.26	2.69
26	1.72	1.16	3.60	3.24	1.40	11	21	15	8.65	10	5.26	3.62
27	1.72	1.16	2.88	3.12	1.24	7.32	16	34	10	9.42	5.54	4.98
28	1.72	1.08	3.96	2.76	4.76	7.80	15	32	19	8.85	5.26	3.50
29	1.72	1.08	3.12	2.04	2.52	6.16	14	78	15	8.28	4.84	2.96
30	1.64	1.08	2.40	1.72	1.80	4.90	12	81	11	7.90		2.87
31		1.08		1.64	2.28		14		9.23	7.26		2.78
Total	66.96	43.24	68.08	63.04	57.96	168.78	623.63	805	681.78	446.41	289.06	111.48
Mean	2.23	1.39	2.47	2.03	1.87	5.63	20.1	26.8	22.0	14	7.21	3.60
Max.	3.72	1.64	8.76	7.80	4.76	14	200	81	72	150	18	4.98
Min.	1.64	1.08	1.08	1.16	1.24	2.52	3.84	14	8.50	5.96	4.84	2.69
Runoff - mcm.	5.785	3.736	5.882	5.447	5.008	14.582	53.882	69.552	58.906	38.570	18.063	9.632

WATER YEAR 1963 : Max. 200 Min. 1.08 Mean 9.14 Annual Runoff 289.044 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Jan. 20	4.00	29.02	273				

WATER YEAR 1964  
KHLONG SAO THONG RIVER BASIN

Khlong Sao Thong at Khun Thale, Nakhon Si Thammarat (X.18A)

Location: Lat  $08^{\circ} - 20' - 18''$  N., Long  $99^{\circ} - 50' - 03''$  E., on left bank 6 kilometers from the left side at Km.35 of Nakhon Si Thammarat Highway, 200 meters from Khlong Sao Thong Irrigation Project, Amphoe Lan Saka, Nakhon Si Thammarat.

Drainage Area: 163 sq.km. referred to AMS Map 1:50,000.

Type of Gage: Water - stage recorder.

Zero Gage at Bottom at: + 22.52 m. (A.D.)

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

Location: On left bank near the camp of station X.18A.  
Elevation: B.M.1 + 26.061 m. (A.D.) and B.M.2 + 27.900 m. (A.D.)

Gage Reading Frequency: Recording.

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

Period of Available Gage Records: 1962 - 67.

Rating Operation:

Period of Rating: 1962 - 67.

Rated by Float: -

Rated by Current Meter: 1962 - 67.

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

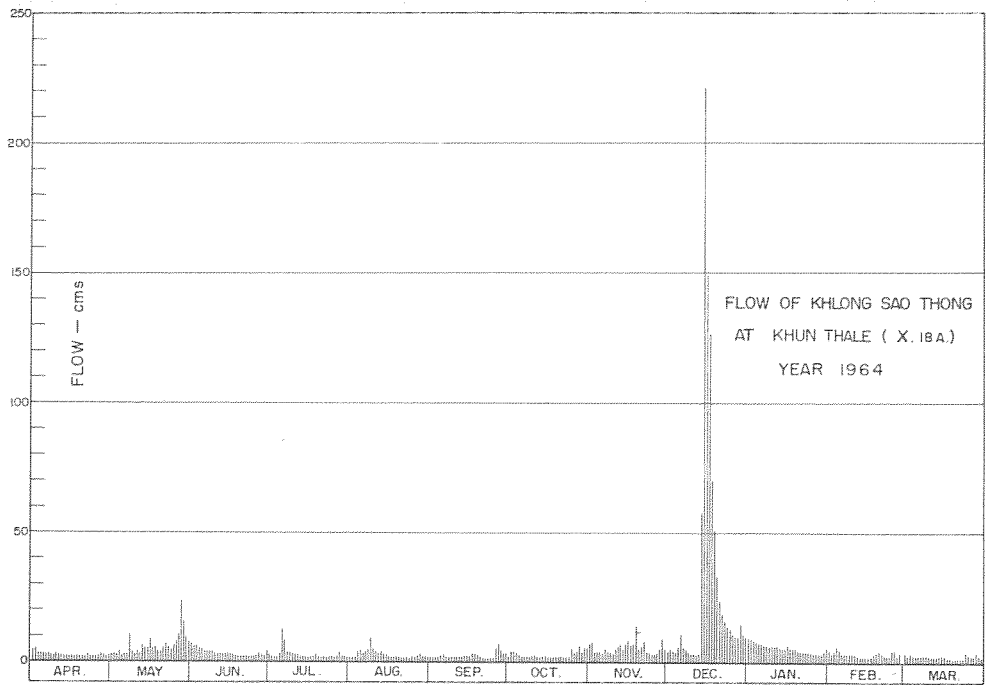
Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1964. No state diversions above gage site.

GAGE HEIGHT IN METER (A. D. ), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	23.06	23.00	23.26	22.99	22.90	22.96	22.98	23.25	23.10	23.39	23.06	23.00
2	.18	.03	.22	.98	.92	.93	23.06	.30	.16	.37	.04	22.97
3	.05	22.99	.21	.95	.93	.94	.11	.09	.11	.33	.08	23.02
4	.02	23.07	.15	.98	23.08	.91	.07	.07	.07	.30	.12	22.98
5	.00	22.98	.12	23.03	.11	.90	22.99	.11	.20	.28	.09	.95
6	22.99	23.01	23.10	23.56	23.01	22.97	22.95	23.05	23.45	23.27	23.04	22.93
7	.99	22.99	.09	.40	.08	.99	.93	.14	.20	.24	.03	.92
8	.98	23.49	.09	.10	.10	.94	.92	.07	.13	.23	.01	.92
9	.98	.10	.07	.08	.38	.90	.92	.06	.07	.21	.00	.91
10	23.00	.02	.05	.03	.14	.90	.93	.05	.05	.20	22.99	.91
11	22.99	23.11	23.03	23.01	23.07	22.91	22.99	23.15	23.03	23.20	22.98	22.90
12	.97	.03	.02	.00	.04	.96	.91	.21	.02	.20	.97	.89
13	.96	.23	.01	22.97	.07	.95	.90	.27	.02	.18	.97	.86
14	.96	.13	.01	.96	.00	.92	.95	.14	25.03	.17	.96	.93
15	.95	.16	.02	.94	.00	.94	.98	.25	27.89	.18	.95	.93
16	22.95	23.38	23.02	22.93	22.97	22.91	22.95	23.34	26.77	23.20	22.95	22.90
17	.98	.17	22.99	.95	.96	.96	.90	.24	.37	.15	.95	.88
18	.95	.21	.98	.93	.95	23.03	.92	.26	25.30	.13	23.00	.87
19	.94	.10	.97	.99	.95	.02	.90	.61	24.84	.12	.06	.87
20	.94	.08	.97	.95	.94	22.94	.91	.10	.32	.10	.06	.86
21	22.93	23.19	22.96	22.93	22.90	22.91	22.94	23.19	24.01	23.09	23.03	22.86
22	.99	.27	.98	.98	.89	.88	.90	.31	23.83	.08	22.97	.86
23	.95	.20	.95	.93	.89	.87	.90	.10	.70	.08	.95	23.05
24	.95	.14	.98	.95	.88	.87	.91	.07	.61	.07	.94	22.94
25	.94	.19	23.05	.97	.90	.87	23.18	.04	.55	.05	23.06	.89
26	22.94	23.34	23.03	22.94	22.90	23.17	23.09	23.02	23.48	23.05	23.07	22.89
27	23.00	.48	.05	.97	.89	.27	.09	.01	.43	.04	22.98	.94
28	.03	24.00	.00	23.07	.97	.13	.23	.16	.41	.03	23.00	23.00
29	22.97	23.69	22.98	22.97	23.01	.05	.06	.37	.63	.03		22.90
30	.95	.41	23.11	.93	22.92	.02	.16	.13	.47	.08		.88
31		.33		.92	.94		.17		.43	.18		.90
Mean	22.98	23.18	23.05	23.01	22.99	22.96	22.99	23.17	23.89	23.17	23.01	22.92
Max.	23.18	24.00	23.26	23.56	23.38	23.27	23.23	23.61	27.89	23.39	23.12	23.05
Min.	22.93	22.98	22.95	22.92	22.88	22.87	22.90	23.01	23.02	23.03	22.94	22.86

WATER YEAR 1964 : Max. 27.89 m. Min. 22.86 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	4.13	3.28	7.31	3.07	2.10	2.75	2.96	7.14	4.70	9.67	4.13	3.28
2	5.96	3.71	6.62	2.96	2.32	2.42	4.13	8.00	5.65	9.30	3.85	2.86
3	3.99	3.07	6.45	2.64	2.42	2.53	4.86	4.56	4.86	8.56	4.42	3.56
4	3.56	4.27	5.49	2.96	4.42	2.21	4.27	4.27	4.27	8.00	5.02	2.96
5	3.28	2.96	5.02	3.71	4.86	2.10	3.07	4.86	6.28	7.66	4.42	2.64
6	3.07	3.42	4.70	13	3.42	2.86	2.64	3.99	11	7.48	3.85	2.42
7	3.07	3.07	4.56	9.86	4.42	3.07	2.42	5.53	6.28	6.97	3.71	2.32
8	2.96	12	4.56	4.70	4.70	2.53	2.32	4.27	5.17	6.80	3.42	2.32
9	2.96	4.70	4.27	4.42	9.49	2.10	2.32	4.13	4.27	6.45	3.28	2.21
10	3.28	3.56	3.99	3.71	5.53	2.10	2.42	3.99	3.99	6.28	3.07	2.21
11	3.07	4.86	3.71	3.42	4.27	2.21	3.07	5.49	3.71	6.28	2.96	2.10
12	2.86	3.71	3.56	3.28	3.85	2.75	2.21	6.45	3.56	6.28	2.86	2.01
13	2.75	6.80	3.42	2.86	4.27	2.64	2.10	7.48	3.56	5.96	2.86	2.01
14	2.75	5.17	3.42	2.75	3.28	2.32	2.64	5.53	59	5.81	2.75	2.42
15	2.64	5.65	3.56	2.53	3.28	2.53	2.96	7.14	221	5.96	2.64	2.42
16	2.64	9.49	3.56	2.42	2.86	2.21	2.64	8.74	149	6.28	2.64	2.10
17	2.96	5.81	3.07	2.42	2.75	2.75	2.10	6.97	126	5.49	2.64	1.91
18	2.64	6.45	2.96	2.42	2.64	3.71	2.32	7.51	70	5.17	3.28	1.82
19	2.53	4.70	2.86	3.07	2.64	3.56	2.10	14	51	5.02	4.13	1.82
20	2.53	4.42	2.86	2.64	2.53	2.53	2.21	5.96	33	4.70	4.13	1.73
21	2.42	6.12	2.75	2.42	2.10	2.21	2.53	6.12	24	4.56	3.71	1.73
22	3.07	7.48	2.96	2.96	2.01	1.91	2.10	8.19	19	4.42	2.86	1.73
23	2.64	6.28	2.64	2.42	2.01	1.82	2.10	4.70	16	4.42	2.64	3.99
24	2.64	5.33	2.96	2.64	1.91	1.82	2.21	4.27	14	4.27	2.53	2.53
25	2.53	6.12	3.99	2.86	2.10	1.82	5.96	3.85	13	3.99	4.13	2.01
26	2.53	8.74	3.71	2.53	2.10	5.81	4.56	3.56	11	3.99	4.27	2.01
27	3.28	11	3.99	2.86	2.01	7.48	4.56	3.42	10	3.85	2.96	2.53
28	3.71	24	3.28	4.27	2.86	5.17	6.80	5.65	10	3.71	3.28	3.28
29	2.86	16	2.96	2.86	3.42	3.99	4.13	9.30	15	3.71		2.10
30	2.64	10	4.86	2.42	2.52	3.56	5.65	5.17	11	4.42		1.91
31		8.56		2.32	2.53		5.81		10	5.96		2.10
Total	91.95	210.73	120.05	109.40	101.22	87.47	102.17	179.64	929.30	181.42	96.44	73.04
Mean	3.06	6.80	4.00	3.53	3.26	2.91	3.29	5.99	29.9	5.85	3.44	2.36
Max.	5.96	24	7.31	13	9.49	7.48	6.80	14	221	9.67	5.02	3.99
Min.	2.42	2.96	2.64	2.32	1.91	1.82	2.10	3.42	3.56	3.71	2.53	1.73
Runoff - mcm.	7.944	18.207	10.372	9.452	8.745	7.557	8.827	15.521	80.291	15.675	8.332	6.511

WATER YEAR 1964 : Max. 221 Min. 1.73 Mean 6.25 Annual Runoff 197.236 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Dec. 15	9.00	28.52	265				

WATER YEAR 1963  
KHLONG AI TO RIVER BASIN

Khlung Tha Chiat at Ban Thung Chang Kra, Phatthalung (X.21)

Location: Lat  $07^{\circ} - 20' - 50''$  N., Long  $100^{\circ} - 06' - 40''$  E., at Ban Thung Chang Kra, Tambon Ta Mote, Amphoe Khao Chaison, Phatthalung.

Drainage Area: 176 sq.km. referred to AMS Map 1:50,000.

Type of Gage: Staff gage.

Zero Gage at Bottom at: + 19.40 m. (M.S.L.)

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

Location: Near the 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 to date.

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 for years without actual ratings.

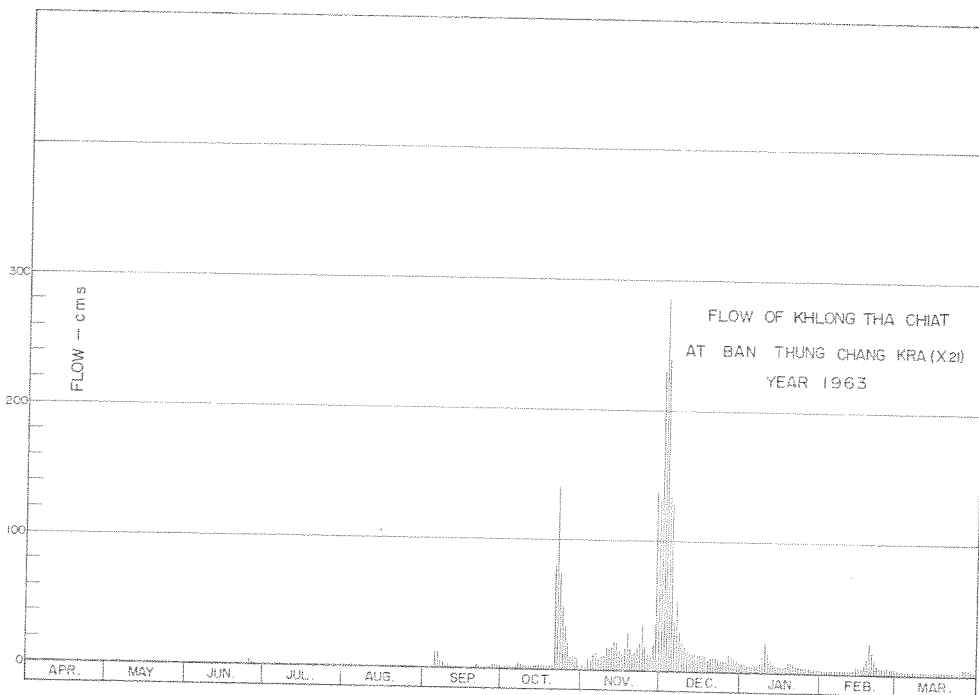
Overbank Flow Conditions: No overbank flow.

General Description: Gage height record good, discharge record fair. Stage - discharge relationship used is defined by discharge - measurements made during 1961. No state diversions above gage site.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	19.95	19.86	19.80	19.81	19.70	19.67	19.98	20.29	24.29	20.54	20.24	20.23
2	.95	.85	.79	.79	.70	.71	.96	.21	.71	.51	.23	.22
3	.94	.85	.82	.78	.75	.76	20.06	.65	.35	.48	.22	.21
4	.94	.85	.80	.77	.78	.85	.10	.55	23.35	.47	.24	.23
5	.95	.84	.77	.77	.74	20.84	.02	.87	.27	.44	.23	.21
6	19.94	19.84	19.77	19.77	19.78	20.86	20.03	20.89	21.80	20.42	20.22	20.19
7	.94	.88	.77	.77	.74	.48	.40	.64	22.16	.41	.24	.18
8	.93	.88	.75	.76	.71	.35	.28	.74	21.59	.63	.23	.17
9	.93	.86	.73	.75	.69	.22	.16	.80	.34	.88	.21	.16
10	.95	.85	.73	.75	.69	.12	.06	21.07	.17	21.31	.20	.15
11	19.99	19.85	19.74	19.74	19.68	20.02	20.01	21.07	21.04	20.97	20.19	20.14
12	.98	.83	.75	.76	.69	19.95	.03	.11	20.97	.75	.18	.16
13	.95	.83	.77	.75	.70	.91	.14	.29	.94	.61	.22	.16
14	.93	.82	.76	.93	.77	.85	.08	.26	.94	.49	.42	.15
15	.93	.82	.74	.87	.76	.81	.18	20.98	.92	.45	.37	.14
16	19.93	19.82	19.74	19.83	19.74	19.82	20.16	20.86	20.89	20.42	20.36	20.13
17	.93	.82	.75	.79	.70	.90	.10	21.08	.87	.40	.57	.13
18	.92	.82	.74	.78	.68	.87	.07	.53	.83	.37	.90	.12
19	.91	.79	.73	.77	.66	.82	.12	.10	.69	.66	21.35	.11
20	.96	.83	.73	.76	.67	.81	.15	20.90	.79	.67	.08	.10
21	19.90	19.81	19.75	19.75	19.68	20.05	21.58	20.94	20.78	20.60	20.83	20.09
22	.90	.81	.76	.75	.66	19.97	23.40	21.09	.80	.48	.56	.09
23	.92	.88	.83	.77	.67	.89	22.53	.28	.75	.44	.46	.08
24	.89	.86	.92	.78	.67	.85	.08	.70	.67	.39	.40	.10
25	.89	.83	20.36	.93	.68	.90	21.69	.14	.62	.36	.37	.16
26	19.88	19.81	20.07	19.94	19.69	20.02	21.21	20.96	20.62	20.33	20.37	20.45
27	.87	.80	19.94	.87	.67	.23	20.76	.85	.97	.30	.36	.37
28	.87	.79	.89	.77	.66	.21	.79	21.20	.86	.27	.37	.30
29	.86	.79	.77	.73	.65	.07	.74	23.38	.76	.24	.37	.21
30	.86	.78	.73	.73	.64	.04	.72	.30	.65	.21		.12
31		.79		.71	.66		.02		.58	.19		.10
Mean	19.92	19.83	19.81	19.79	19.70	20.03	20.57	21.12	21.45	20.51	20.41	20.17
Max.	19.99	19.88	20.36	19.94	19.78	20.86	23.40	23.38	24.71	21.31	21.35	20.45
Min.	19.86	19.78	19.73	19.71	19.64	19.67	19.96	20.21	20.58	20.19	20.18	20.08

WATER YEAR 1963 : Max. 24.71 m. Min. 19.64 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	1.45	1.04	0.80	0.84	0.50	0.00	1.60	3.91	230	6.84	3.46	3.37
2	1.45	1.00	0.77	0.77	0.50	0.53	1.50	3.19	285	6.36	3.37	3.28
3	1.40	1.00	0.88	0.74	0.59	0.68	2.12	8.28	240	5.96	3.28	3.19
4	1.40	1.00	0.80	0.71	0.74	1.00	2.40	7.00	135	5.84	3.46	3.37
5	1.45	0.96	0.71	0.71	0.62	12	1.84	12	128	5.48	3.37	3.19
6	1.40	0.96	0.71	0.71	0.74	12	1.91	13	38	5.24	3.28	3.03
7	1.40	1.12	0.71	0.71	0.62	5.96	5.00	8.44	54	5.12	3.46	2.96
8	1.35	1.12	0.65	0.68	0.53	4.50	3.82	10	31	8.28	3.37	2.89
9	1.35	1.04	0.59	0.65	0.00	3.28	2.82	11	23	13	3.19	2.82
10	1.45	1.00	0.59	0.65	0.00	2.54	2.12	17	19	23	3.10	2.75
11	1.65	1.00	0.62	0.62	0.00	1.84	1.77	17	16	14	3.03	2.68
12	1.60	0.92	0.65	0.68	0.00	1.45	1.91	18	14	10	2.96	2.82
13	1.45	0.92	0.71	0.65	0.50	1.25	2.68	22	14	7.96	3.28	2.82
14	1.35	0.88	0.68	1.35	0.71	1.00	2.26	21	14	6.08	5.24	2.75
15	1.35	0.88	0.62	1.08	0.68	0.84	2.96	15	13	5.60	4.70	2.68
16	1.35	0.88	0.62	0.92	0.62	0.88	2.82	12	13	5.24	4.60	2.61
17	1.35	0.88	0.65	0.77	0.50	1.20	2.40	17	12	5.00	7.32	2.61
18	1.30	0.88	0.62	0.74	0.00	1.08	2.19	29	12	4.70	13	2.54
19	1.25	0.77	0.59	0.71	0.00	0.88	2.54	17	9.24	8.76	24	2.47
20	1.50	0.92	0.59	0.68	0.00	0.84	2.75	13	11	8.92	17	2.40
21	1.20	0.84	0.65	0.65	0.00	2.05	30	14	11	7.80	12	2.33
22	1.20	0.84	0.68	0.65	0.00	1.55	140	17	11	5.96	7.16	2.33
23	1.30	1.12	0.92	0.71	0.00	1.16	74	22	10	5.48	5.72	2.33
24	1.16	1.12	1.30	0.74	0.00	1.00	50	35	8.92	4.90	5.00	2.40
25	1.16	0.92	4.60	1.35	0.00	1.20	34	18	8.12	4.60	4.70	2.82
26	1.12	0.84	2.19	1.40	0.00	1.84	20	14	8.12	4.30	4.70	5.60
27	1.08	0.80	1.40	1.08	0.00	3.37	10	12	14	4.00	4.60	4.70
28	1.08	0.77	1.16	0.77	0.00	3.19	11	20	12	3.73	4.70	4.00
29	1.04	0.77	0.71	0.59	0.00	2.19	10	138	10	3.46	4.70	3.19
30	1.04	0.74	0.59	0.59	0.00	1.98	9.72	130	8.60	3.19	2.54	2.54
31	0.77	0.77	0.53	0.53	0.00	1.04	1.04		7.48	3.03	2.40	2.40
Total	39.63	28.70	27.76	24.43	7.85	73.28	439.97	694.82	1,420.48	211.83	171.75	91.87
Mean	1.32	0.92	0.92	0.79	0.25	2.44	14.2	23.2	45.8	6.83	5.92	2.96
Max.	1.65	1.12	4.60	1.40	0.74	12	140	138	285	23	24	5.60
Min.	1.04	0.74	0.59	0.53	0.00	0.00	1.50	3.19	7.48	3.03	2.96	2.33
Runoff - mcm.	3.424	2.480	2.398	2.111	0.678	6.331	38.013	60.032	122.729	18.302	14.839	7.937

WATER YEAR 1963 : Max. 285 Min. 0.00 Mean 8.83 Annual Runoff 279.277 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Dec. 2	18.00	24.81	305				

WATER YEAR 1964  
KHLONG AI TO RIVER BASIN

Khlong Tha Chiat at 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, Amphoe Khao Chaison, Phatthalung.

Drainage Area: 176 sq.km. referred to AMS Map 1:50,000.

Type of Gage: Staff gage.

Zero Gage at Bottom at: + 19.40 m. (M.S.L.)

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

Location: Near the 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 to date.

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 for years without actual ratings.

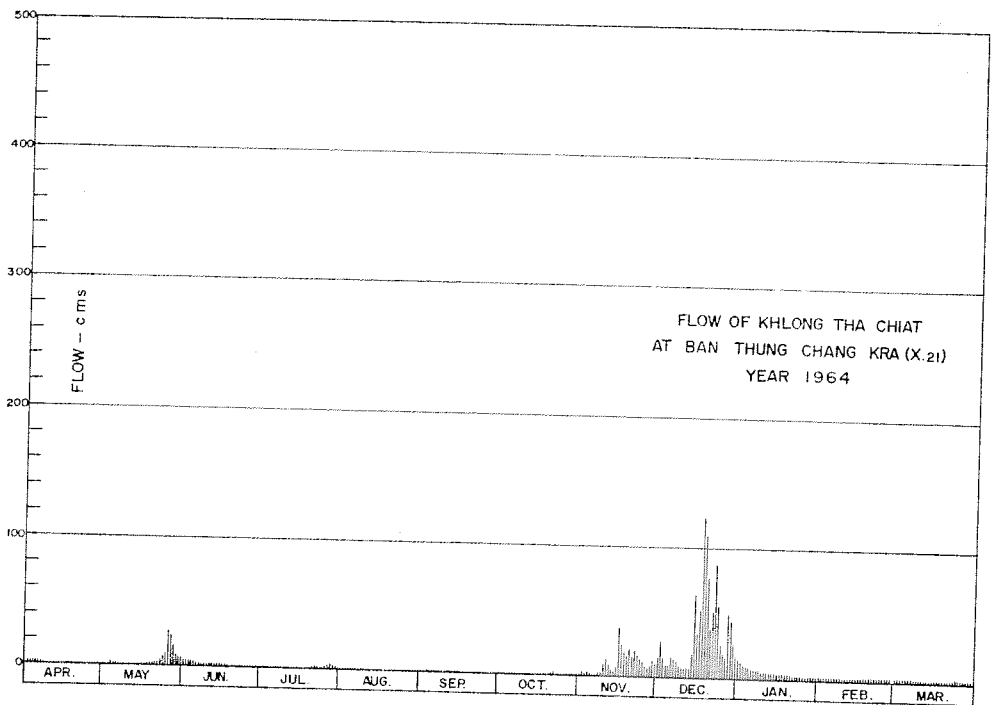
Overbank Flow Conditions: No overbank flow.

General Description: Gage height record good, discharge record fair. Stage - discharge relationship used is defined by discharge - measurements made during 1961. No state diversions above gage site.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	20.10	20.07	20.46	20.01	19.99	19.90	19.83	20.02	20.99	20.97	20.20	20.09
2	.10	.00	.43	.00	.97	.91	.82	.20	21.49	.68	.19	.68
3	.09	19.97	.40	19.99	.95	.88	.81	.01	20.99	.77	.16	.07
4	.08	20.13	.37	.98	.95	20.03	.80	.08	.68	.71	.17	.68
5	.07	.07	.34	.98	.95	19.95	.79	.65	.73	.66	.16	.07
6	20.07	20.05	20.29	19.97	19.95	19.92	19.79	20.01	21.06	20.60	20.16	20.07
7	.06	.02	.25	.97	20.00	.90	.78	19.97	20.93	.57	.16	.06
8	.04	.00	.24	.99	19.98	.88	.79	20.09	.88	.54	.14	.06
9	.03	19.98	.19	20.01	.96	.87	.78	.11	.68	.51	.13	.05
10	.03	.97	.16	.01	.95	.86	.79	.74	.56	.48	.15	.04
11	20.02	19.95	20.15	19.97	19.94	19.85	19.80	20.92	20.50	20.46	20.14	20.03
12	.02	.98	.14	.96	.93	.94	.84	.65	.57	.44	.13	.02
13	.01	.96	.13	.96	.92	.89	.82	.43	.57	.42	.12	.01
14	.06	.94	.12	.95	.91	.88	.83	.21	21.21	.40	.11	.00
15	19.98	.94	.11	.94	.91	.95	.82	.72	22.35	.38	.10	.01
16	19.98	19.96	20.09	19.96	19.93	19.96	19.83	21.77	21.65	20.37	20.09	20.02
17	.97	.96	.08	.98	.91	.91	.82	.37	22.12	.36	.10	.01
18	.96	20.14	.06	.97	.90	.89	.81	.15	23.22	.35	.13	.01
19	.96	.15	.04	.98	.89	.88	.81	.00	.64	.33	.12	.00
20	.96	.11	.03	.96	.88	.87	.83	.24	22.58	.32	.14	19.99
21	19.96	20.12	20.02	19.96	19.87	19.86	19.89	20.98	21.77	20.30	20.13	19.98
22	.96	.22	.02	20.10	.87	.85	20.11	21.22	22.10	.29	.11	.97
23	.96	.45	.01	.06	.86	.84	19.96	.05	.73	.28	.10	20.01
24	.95	.58	.00	19.98	.85	.84	.93	20.90	.20	.27	.09	.07
25	.95	.77	.00	.97	.85	.83	.94	.84	21.45	.26	.10	.07
26	19.94	21.51	20.01	20.07	19.84	19.83	19.93	20.59	21.18	20.25	20.13	20.04
27	.99	.41	.01	.29	.84	.87	20.03	.50	.01	.23	.13	.04
28	.97	.10	.00	.36	.83	.85	19.92	.69	22.09	.22	.11	.02
29	.96	20.75	.00	.24	.84	.84	.85	.88	21.94	.21	.01	.01
30	.96	.60	19.99	.08	.84	.84	.84	.73	.47	.23	.00	.00
31		.53	.00	.00	.84		.98		.08	.22		19.99
Mean	20.00	20.27	20.14	20.02	19.88	19.88	19.86	20.64	21.48	20.43	20.13	20.03
Max.	20.10	21.51	20.46	20.36	20.00	20.03	20.11	21.77	23.22	20.97	20.20	20.09
Min.	19.94	19.94	19.99	19.94	19.83	19.83	19.78	19.97	20.50	20.21	20.09	19.97

WATER YEAR 1964 : Max. 23.22 m. Min. 19.78 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	2.40	2.19	5.72	1.77	1.65	1.20	0.92	1.84	15	14	3.10	2.33
2	2.40	1.70	5.36	1.70	1.55	1.25	0.88	3.10	28	13	3.03	2.26
3	2.33	1.55	5.00	1.65	1.45	1.12	0.84	1.77	15	10	2.96	2.19
4	2.26	2.61	4.70	1.60	1.45	1.91	0.80	2.26	9.08	9.56	2.89	2.26
5	2.19	2.19	4.40	1.60	1.45	1.45	0.77	2.05	9.88	8.76	2.82	2.19
6	2.19	2.05	3.91	1.55	1.45	1.30	0.77	1.77	16	7.80	2.82	2.19
7	2.12	1.84	3.55	1.55	1.70	1.20	0.74	1.55	14	7.32	2.82	2.12
8	1.98	1.70	3.46	1.65	1.60	1.12	0.77	2.33	13	6.84	2.68	2.12
9	1.91	1.60	3.03	1.77	1.50	1.08	0.74	2.47	9.08	6.36	2.61	2.05
10	1.91	1.55	2.82	1.77	1.45	1.04	0.77	10	7.16	5.96	2.75	1.98
11	1.84	1.45	2.75	1.55	1.40	1.00	0.80	13	6.20	5.72	2.68	1.91
12	1.84	1.60	2.68	1.50	1.35	1.40	0.96	8.60	7.32	5.48	2.61	1.84
13	1.77	1.50	2.61	1.50	1.30	1.16	0.88	5.36	7.32	5.24	2.54	1.77
14	1.70	1.40	2.54	1.45	1.25	1.12	0.92	3.19	20	5.00	2.47	1.70
15	1.60	1.40	2.47	1.40	1.25	1.45	0.88	9.72	64	4.80	2.40	1.77
16	1.60	1.50	2.33	1.50	1.35	1.50	0.92	37	33	4.70	2.33	1.84
17	1.55	1.50	2.26	1.60	1.25	1.25	0.88	24	52	4.60	2.40	1.77
18	1.50	2.68	2.12	1.55	1.20	1.16	0.84	19	123	4.50	2.61	1.77
19	1.50	2.75	1.98	1.60	1.16	1.12	0.84	15	109	4.30	2.54	1.70
20	1.50	2.47	1.91	1.50	1.12	1.08	0.92	21	77	4.20	2.68	1.65
21	1.50	2.54	1.84	1.50	1.08	1.04	1.16	15	37	4.00	2.61	1.60
22	1.50	3.28	1.84	2.40	1.08	1.00	2.47	20	51	3.91	2.47	1.55
23	1.50	5.60	1.77	2.12	1.04	0.96	1.50	16	87	3.82	2.40	1.77
24	1.45	7.48	1.70	1.60	1.00	0.96	1.35	13	56	3.73	2.33	2.19
25	1.45	10	1.70	1.55	1.00	0.92	1.40	12	27	3.64	2.40	2.19
26	1.40	28	1.77	2.19	0.96	0.92	1.35	7.64	19	3.55	2.61	1.98
27	1.65	25	1.77	3.91	0.96	1.08	1.91	6.20	15	3.37	2.61	1.98
28	1.55	17	1.70	4.60	0.92	1.00	1.30	9.24	50	3.28	2.47	1.84
29	1.50	10	1.70	3.46	0.96	0.96	1.00	13	44	3.19	2.77	1.77
30	1.50	7.80	1.65	2.26	0.96	0.96	0.96	9.88	27	3.37	2.77	1.70
31		6.68	1.70	1.70	0.96		1.60		17	3.28		1.65
Total	53.09	160.61	83.04	59.05	38.80	34.71	32.84	306.97	1,065.04	177.28	73.64	59.63
Mean	1.77	5.18	2.77	1.90	1.25	1.16	1.06	10.2	34.3	5.72	2.63	1.92
Max.	2.40	28	5.72	4.60	1.70	1.91	2.47	37	123	14	3.10	2.33
Min.	1.40	1.40	1.65	1.40	0.92	0.92	0.74	1.55	6.20	3.19	2.33	1.55
Runoff - mcm.	4.587	13.877	7.175	5.102	3.352	2.999	2.837	26.522	92.019	15.317	6.362	5.152

WATER YEAR 1964 : Max. 123 Min. 0.74 Mean 5.87 Annual Runoff 185.302 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Dec. 18	12.00	23.32	132				

WATER YEAR 1963  
KHLONG AI TO RIVER BASIN

Khlong Ai To at Tha Chiat Weir, Phatthalung (X.21A)

Location: Lat 7°- 21' - 31" N., Long 100°- 06' - 23" E., about 500 meters downstream from the confluence with Khlong Bang Kao Ban Thung Chang Kr'a, Amphoe Khao Chaison, Phatthalung.

Drainage Area: 324 sq.km. referred to AMS Map 1:50,000.

Type of Gage: Staff gage.

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

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

Location: Near the gage site.  
Elevation: + 24.240 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: 1963 - 67.

Rating Operation:

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

Stability of Channel Regimes: Fairly 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 1963. No state diversions above gage site.

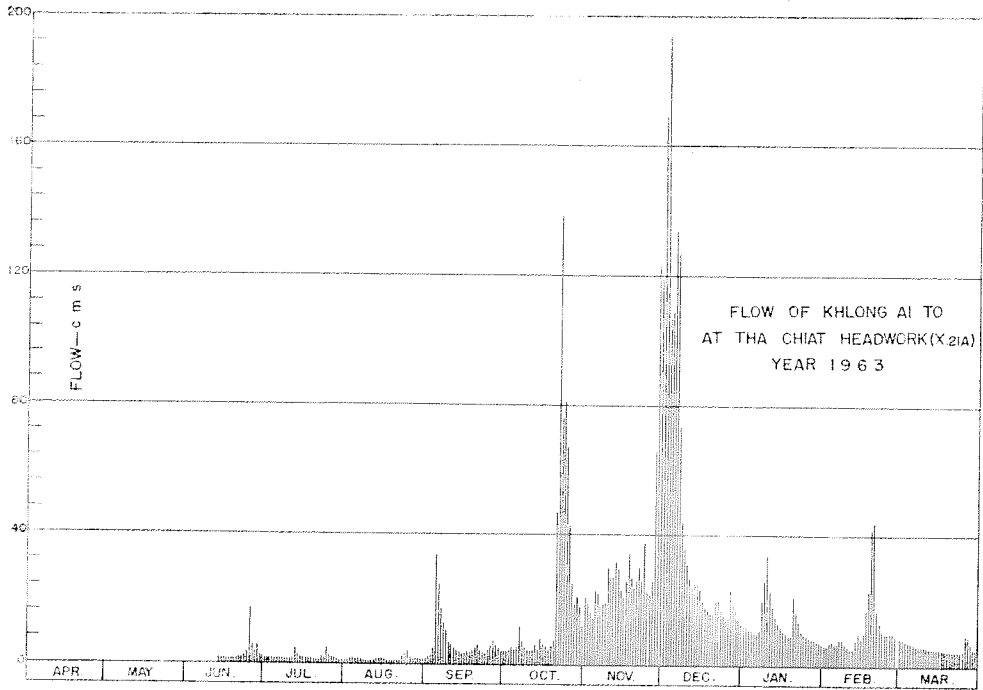
Remark: Gage height began to record on June 22.

GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1				18.45	18.33	18.36	18.66	19.60	23.26	19.17	18.64	18.94
2				.43	.35	.57	.65	.47	.79	.15	.82	.92
3				.41	.40	.58	.69	.35	.32	.13	.89	.89
4				.40	.42	.70	.74	.26	22.10	.10	.91	.67
5				.39	.41	20.13	.67	.66	.60	.06	.83	.85
6				18.37	18.38	19.76	18.69	19.65	22.46	19.05	18.83	18.83
7				.37	.37	.42	19.17	.45	21.10	.12	.94	.80
8				.38	.34	.41	18.87	.58	20.47	.53	.94	.79
9				.36	.33	.68	.74	.60	.18	.79	.85	.79
10				.36	.32	18.90	.66	.97	19.99	20.13	.81	.79
11				18.35	18.32	18.80	18.65	19.83	19.84	19.70	18.77	18.75
12			18.37	.37	.35	.73	.67	.86	.73	.44	.77	.74
13			.37	.70	.37	.68	.78	20.04	.75	.31	.89	.74
14			.37	.51	.40	.63	.69	19.98	.76	.21	19.02	.73
15			.35	.46	.40	.59	.93	.70	.70	.16	18.94	.72
16			18.35	18.41	18.37	18.57	18.80	19.59	19.56	19.10	19.03	18.70
17			.37	.39	.33	.62	.73	.81	.46	.06	.43	.70
18			.35	.38	.32	.61	.68	20.15	.40	.04	.66	.69
19			.35	.37	.31	.66	.78	19.79	.36	.01	20.40	.67
20			.37	.35	.31	.79	.86	.72	.34	.59	19.71	.67
21			18.38	18.35	18.32	18.78	20.57	19.80	19.53	19.39	19.40	18.66
22			.38	.35	.32	.63	22.71	.97	.49	.24	.22	.65
23			.50	.50	.47	.59	21.35	.81	.39	.12	.12	.65
24			.57	.40	.57	.56	.47	20.25	.32	.06	.06	.64
25			19.43	.71	.68	.68	20.86	19.87	.25	.01	.05	.64
26			18.76	18.51	18.46	18.78	20.42	19.65	19.29	18.99	19.06	19.00
27			.61	.47	.40	.90	19.76	.79	.72	.96	.07	18.98
28			.76	.40	.42	.75	.52	20.83	.52	.92	.00	.83
29			.53	.37	.38	.70	.61	22.39	.42	.89	.00	.75
30			.47	.35	.36	.69	.47	.31	.31	.87		.70
31				.33	.36		.18		.23	.85		.67
Mean				18.42	18.38	18.82	19.35	19.96	20.28	19.23	19.08	18.74
Max.				18.71	18.68	20.13	22.71	22.39	23.79	20.13	20.40	19.00
Min.				18.33	18.31	18.36	18.65	19.26	19.23	18.85	18.77	18.64

WATER YEAR 1963 : Max. 23.79 m. Min. - m.





DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1				2.35	1.41	1.62	4.52	21	167	12	6.86	
2				2.17	1.55	3.50	4.40	18	194	12	6.58	
3				1.99	1.90	3.60	4.88	16	170	11	7.56	
4				1.90	2.80	5.00	5.52	14	109	11	7.86	
5				1.83	1.99	34	4.64	23	134	10	6.72	
6				1.69	1.76	25	4.88	22	127	10	6.72	
7				1.69	1.69	17	12	18	66	11	8.34	
8				1.76	1.48	17	7.78	21	44	20	8.34	
9				1.62	1.41	11	5.32	21	36	26	7.60	
10				1.62	1.34	7.70	4.52	30	31	34	6.44	
11				1.55	1.34	6.30	4.40	27	27	23	5.91	
12			1.69	1.69	1.55	5.39	4.64	27	24	18	5.91	
13			1.69	5.00	1.69	4.76	6.04	32	25	15	7.56	
14			1.69	2.90	1.90	4.16	4.88	30	25	13	9.64	
15			1.55	2.44	1.90	3.70	8.18	23	23	12	8.34	
16			1.55	1.99	1.69	3.50	6.30	21	20	11	9.81	
17			1.69	1.83	1.41	4.04	5.59	26	18	10	17	
18			1.55	1.76	1.34	3.92	4.76	35	17	9.98	25	
19			1.55	1.69	1.27	4.52	6.04	27	16	9.47	42	
20			1.69	1.55	1.27	6.17	7.14	24	16	21	24	
21			1.76	1.55	1.34	6.04	47	26	20	17	17	
22			1.76	1.55	1.34	4.16	139	30	20	14	13	
23			2.80	2.80	2.53	3.70	76	26	17	11	11	
24			3.50	1.90	3.50	3.40	81	38	15	10	10	
25			17	5.13	4.76	4.76	57	27	14	9.47	10	
26			5.78	2.90	2.62	6.04	43	22	15	9.14	10	
27			3.92	2.53	1.90	7.70	25	26	24	8.66	10	
28			5.78	1.90	2.08	5.65	19	56	19	8.02	9.30	
29			3.10	1.69	1.76	5.00	21	123	17	7.56	9.30	
30			2.53	1.55	1.62	4.88	18	119	15	7.28		
31				1.41	1.62		12		13	7.00		
Total				65.93	57.04	223.21	653.93	966	1,478	408.58	325.19	
Mean				2.13	1.84	7.44	21.1	36.3	47.6	13.2	11.2	
Max.				5.13	4.76	34	139	123	194	34	42	
Min.				1.41	1.27	1.62	4.40	14	13	7.00	5.91	
Runoff - mcm.				5.696	4.928	19.285	56.499	83.722	127.699	35.301	28.096	

WATER YEAR 1963 : Max. 194 Min. - Mean - Annual Runoff - mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Dec. 2	15.00	23.87	199				

WATER YEAR 1964  
KHLONG AI TO RIVER BASIN

Khlong Ai To at Tha Chiat Weir, Phatthalung (X.21A)

Location: Lat 07°- 21' - 31" N., Long 100°- 06' - 23" E., about 500 meters downstream from the confluence with Khlong Bang Kaeo Ban Thung Chang Kra, Amphoe Khao Chaison, Phatthalung.

Drainage Area: 324 sq.km. referred to AMS Map 1:50,000.

Type of Gage: Staff gage.

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

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

Location: Near the gage site.  
Elevation: + 24.240 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: 1963 - 67.

Rating Operation:

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

Stability of Channel Regimes: Fairly stable, no shifting adjustment for flow computation for years without actual ratings.

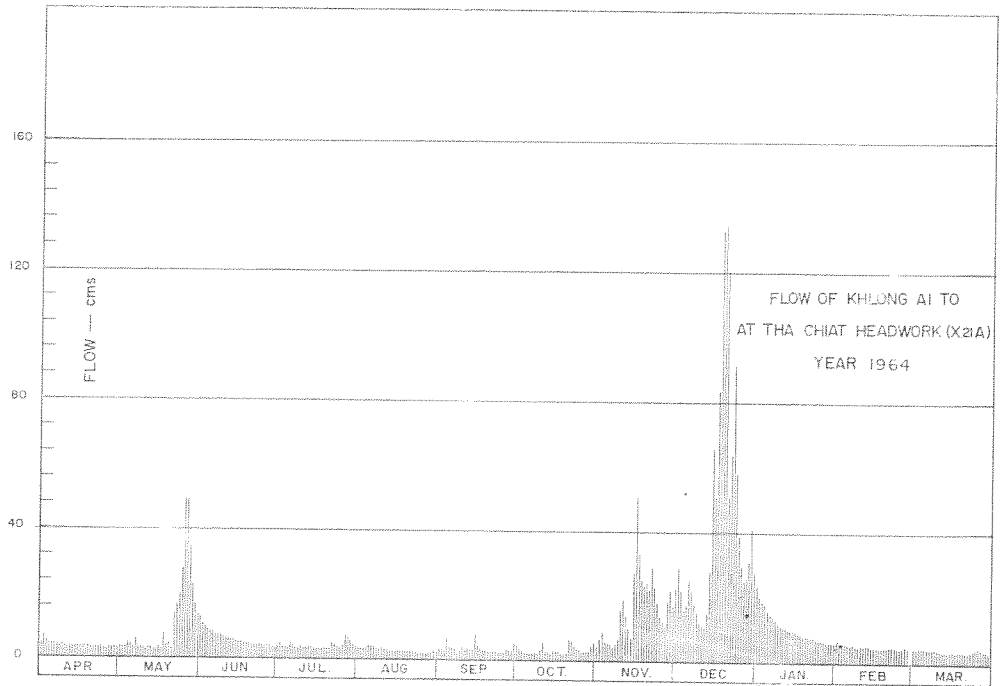
Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1963. No state diversions above gage site.

**GAGE HEIGHT IN METER (M.S.L.), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965**

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	18.67	18.61	19.18	18.62	18.58	18.55	18.68	18.65	19.70	19.76	18.79	18.68
2	.86	.57	.09	.69	.56	.55	.58	.85	.93	.57	.78	.67
3	.74	.61	.02	.61	.55	.50	.48	.97	.63	.52	.77	.68
4	.67	.69	18.98	.58	.56	.84	.46	.95	.35	.45	.76	.66
5	.64	.65	.95	.61	.64	.60	.45	.75	.46	.38	.75	.65
6	18.63	18.60	18.93	18.77	18.64	18.55	18.44	18.70	19.75	19.31	18.74	18.65
7	.62	.80	.90	.62	.62	.58	.44	.63	.62	.26	.75	.65
8	.61	.59	.88	.61	.59	.49	.45	.74	.51	.22	.73	.65
9	.60	.55	.87	.60	.55	.47	.46	.85	.32	.17	.72	.64
10	.62	.54	.84	.62	.56	.58	.50	19.35	.17	.12	.73	.63
11	18.61	18.53	18.81	18.58	18.54	18.53	18.76	19.48	19.11	19.09	18.72	18.61
12	.59	.58	.80	.57	.53	.57	.52	.26	.13	.08	.71	.60
13	.59	.54	.78	.61	.52	.54	.47	.04	.32	.05	.70	.59
14	.58	.52	.76	.57	.51	.52	.45	18.85	.91	.04	.69	.58
15	.58	.53	.74	.55	.50	.55	.50	19.86	21.09	.02	.68	.59
16	18.58	18.55	18.73	18.54	18.53	18.65	18.50	20.66	20.68	19.00	18.67	18.59
17	.58	.53	.72	.55	.50	.57	.47	.07	.85	18.98	.66	.58
18	.57	.88	.71	.55	.49	.52	.50	19.78	22.56	.97	.68	.57
19	.57	.65	.76	.57	.49	.50	.44	.69	.61	.95	.69	.56
20	.56	.67	.69	.55	.48	.49	.46	.72	.31	.93	.71	.55
21	18.56	18.56	18.68	18.55	18.48	18.48	18.83	19.62	20.68	18.92	18.72	18.54
22	.55	19.26	.67	.73	.47	.47	.77	.93	21.04	.91	.70	.54
23	.55	.39	.65	.65	.46	.46	.68	.67	.70	.89	.69	.57
24	.54	.54	.64	.58	.45	.45	.57	.47	20.91	.87	.68	.63
25	.53	.89	.62	.56	.45	.45	.58	.28	.28	.85	.69	.65
26	18.54	20.61	18.62	18.65	18.44	18.46	18.46	19.16	19.96	18.83	18.73	18.67
27	.59	.61	.63	.87	.44	.52	.53	.10	.78	.82	.70	.64
28	.57	.15	.62	.85	.45	.52	.50	.51	.80	.81	.69	.59
29	.55	19.66	.61	.78	.44	.51	.51	.64	20.00	.79	.57	.57
30	.54	.42	.60	.68	.50	.70	.72	.41	.37	.80	.54	.54
31		.25		.62	.46		.74		19.88	.80		.53
Mean	18.56	18.98	18.78	18.63	18.51	18.54	18.54	19.32	20.21	19.07	18.71	18.61
Max.	18.86	20.61	19.18	18.87	18.64	18.84	18.83	20.66	22.61	19.76	18.79	18.68
Min.	18.53	18.52	18.60	18.54	18.44	18.45	18.44	18.63	19.11	18.79	18.66	18.53

WATER YEAR 1964 : Max. 22.61 m. Min. 18.44 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	4.64	3.92	13	4.04	3.60	3.30	4.76	4.40	23	25	6.17	4.76
2	7.14	3.50	11	4.88	3.40	3.30	3.60	7.00	29	20	6.04	4.64
3	5.52	3.92	10	3.92	3.30	2.80	2.62	8.82	22	19	5.91	4.76
4	4.64	4.88	8.98	3.60	3.40	6.86	2.44	5.65	16	18	5.78	4.52
5	4.28	4.40	8.50	3.92	4.28	3.80	2.35	5.65	18	16	5.65	4.40
6	4.16	3.80	8.18	5.91	4.28	3.40	2.26	5.00	25	15	5.52	4.40
7	4.04	6.30	7.70	4.04	4.04	3.60	2.26	4.16	22	14	5.65	4.28
8	3.80	3.70	7.42	3.92	3.70	2.71	2.35	5.52	19	13	5.39	4.40
9	4.04	3.40	7.28	3.80	3.30	2.53	2.44	7.00	15	12	5.26	4.28
10	4.04	3.20	6.86	4.04	3.40	3.60	2.80	16	12	11	5.39	4.04
11	3.92	3.10	6.44	3.60	3.20	3.10	5.78	19	11	11	5.26	3.92
12	3.80	3.60	6.30	3.50	3.10	3.50	3.00	14	11	11	5.13	3.80
13	3.70	3.20	6.04	3.92	3.00	3.20	2.53	10	15	10	5.00	3.70
14	3.60	3.00	5.78	3.50	2.90	3.00	2.35	7.00	28	10	4.88	3.60
15	3.60	3.10	5.52	3.30	2.80	8.50	2.80	27	65	10	4.76	3.70
16	3.60	3.30	5.39	3.20	3.10	4.40	2.80	50	51	9.14	4.64	3.70
17	3.60	3.10	5.26	3.30	2.80	3.50	2.53	33	57	8.98	4.52	3.60
18	3.50	7.42	5.13	3.30	2.71	3.00	2.35	25	132	8.82	4.76	3.60
19	3.50	4.40	5.00	3.50	2.71	2.80	2.26	23	134	8.50	4.88	3.40
20	3.40	4.64	4.88	3.30	2.62	2.71	2.44	24	120	8.18	5.13	3.30
21	3.40	3.40	4.76	3.30	2.62	2.62	6.72	22	51	8.02	5.26	3.20
22	3.30	14	4.64	5.39	2.53	2.53	5.91	29	64	7.86	5.00	3.10
23	3.30	17	4.40	4.40	2.44	2.44	4.64	23	91	7.56	4.88	3.50
24	3.20	20	4.28	3.60	2.35	2.35	3.50	18	59	7.28	4.76	4.16
25	3.10	28	4.04	3.50	2.35	2.35	3.60	14	39	7.00	4.88	4.40
26	3.20	49	4.04	4.40	2.26	2.44	2.44	12	30	6.72	5.39	4.64
27	3.70	49	4.16	7.28	2.26	3.00	3.10	11	25	6.58	5.00	4.28
28	3.50	35	4.04	7.00	2.35	3.00	2.80	19	26	6.44	4.88	3.70
29	3.30	23	3.92	6.04	2.26	2.90	2.90	22	31	6.17	-	3.50
30	3.20	17	3.80	4.76	2.80	5.26	5.26	17	41	6.44	-	3.20
31	-	14	-	4.04	2.44	-	5.52	-	28	6.17	-	3.10
Total	115.72	349.28	186.74	130.20	92.30	102.50	103.11	488.20	1,310	334.86	145.76	121.48
Mean	3.86	11.3	6.22	4.20	2.98	3.42	3.33	16.3	42.2	10.8	5.20	3.92
Max.	7.14	49	13	7.28	4.28	6.86	6.72	50	134	25	6.17	4.76
Min.	3.10	3.10	3.80	3.20	2.26	2.35	2.26	4.16	11	6.17	4.52	3.10
Runoff - mcm.	9.998	30.178	16.134	11.249	7.975	8.856	8.909	42.180	113.184	28.932	12.594	10.496

WATER YEAR 1964 : Max. 134 Min. 2.26 Mean 9.53 Annual Runoff 300.685 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Dec. 19	18.00	22.76	142				

WATER YEAR 1964  
KHLONG AI TO RIVER BASIN  
Khlong Ai to at Wat Mahanpawat, Phatthalung. (X 21 B)

Location: Lat  $7^{\circ} - 23' - 09''$  N, Long  $100^{\circ} - 06' - 27''$  E, on right bank at Wat Mahanpawat, 6 kilometers downstream from Tha Chiat weir. Ban Tha Madua, Amphoe Khao Chaison, Phatthalung.

Drainage Area: 330 sq.km. referred to AMS. Map 1:50,000.

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 meters along the measuring line.

Elevation: 21.091 m. (M.S.L.)

Gage Reading Frequency: Recording

Basin of Mean Daily Gage Height: Arithmetic mean of 24 hourly 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: Stable, no shifting adjustment for flow computation due to its stability.

Overbank Flow Conditions: No overbank flow.

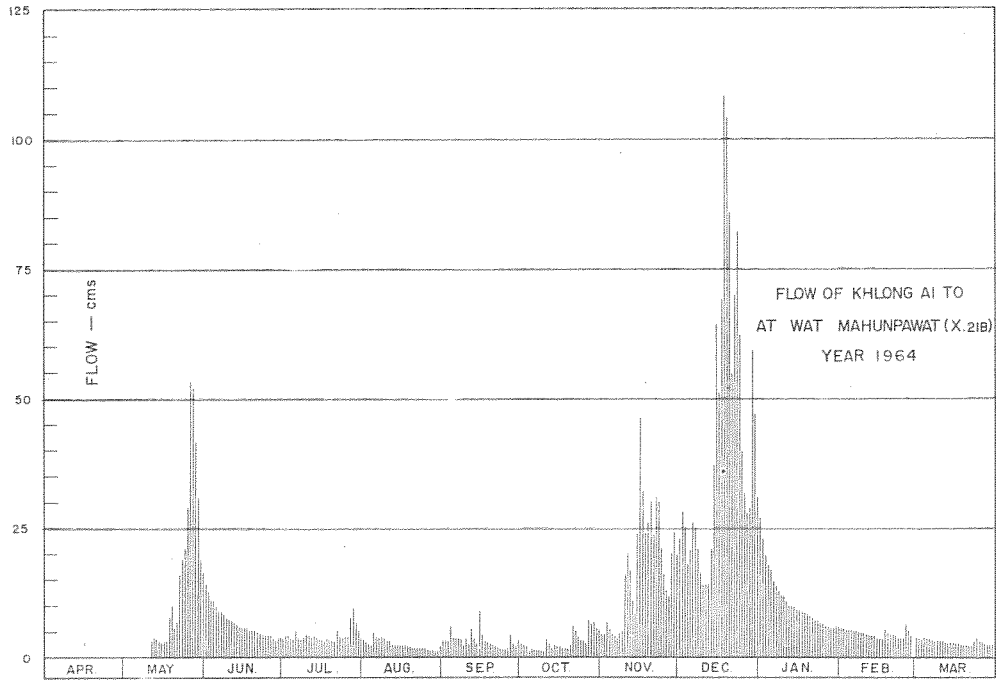
General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1964. No state diversions above gage site.

Remark: Gage height began to record on May. 11

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1			15.94	15.31	15.28	15.27	15.22	15.35	16.28	16.45	15.45	15.32
2			.85	.34	.25	.28	.20	.36	.48	.30	.45	.30
3			.77	.35	.22	.27	.17	.52	.36	.18	.44	.29
4			.74	.30	.18	.47	.15	.47	.07	.10	.44	.33
5			.69	.30	.38	.32	.13	.39	.19	.02	.43	.30
6			15.64	15.42	15.33	15.30	15.11	15.35	16.42	15.96	15.42	15.30
7			.63	.33	.31	.31	.10	.31	.35	.92	.41	.29
8			.62	.29	.32	.30	.10	.39	.19	.87	.40	.27
9			.58	.33	.30	.21	.09	.42	.04	.83	.39	.28
10			.55	.35	.28	.28	.09	.99	15.90	.80	.39	.27
11		15.27	15.53	15.54	15.26	15.23	15.30	16.15	15.92	15.75	15.37	15.27
12		.33	.51	.32	.23	.43	.23	.04	.93	.73	.36	.25
13		.28	.50	.34	.20	.30	.16	15.74	16.19	.71	.35	.24
14		.26	.47	.31	.20	.22	.20	.61	.82	.70	.34	.25
15		.25	.46	.29	.21	.64	.17	16.32	17.83	.67	.33	.25
16		15.32	15.45	15.29	15.21	15.39	15.18	17.18	17.35	15.67	15.33	15.24
17		.28	.45	.28	.20	.26	.15	16.65	18.00	.65	.32	.22
18		.57	.41	.30	.17	.25	.16	.31	19.26	.64	.43	.21
19		.71	.42	.29	.17	.23	.14	.39	.14	.61	.39	.21
20		.47	.41	.28	.16	.19	.22	.57	18.56	.60	.37	.20
21		15.52	15.40	15.27	15.16	15.18	15.48	16.34	17.48	15.58	15.37	15.20
22		16.08	.38	.44	.16	.14	.44	.61	.91	.56	.35	.19
23		.13	.36	.33	.16	.13	.33	.38	18.44	.55	.32	.26
24		.22	.35	.33	.16	.13	.28	.19	17.73	.53	.31	.30
25		.53	.34	.36	.15	.13	.27	.00	16.94	.53	.31	.27
26		17.43	15.34	15.33	15.11	15.16	15.25	15.85	16.65	15.50	15.51	15.24
27		.38	.33	.58	.11	.35	.54	.80	.47	.48	.42	.22
28		.02	.32	.68	.10	.24	.50	16.18	.51	.47	.35	.21
29		16.45	.31	.59	.10	.19	.52	.31	17.62	.46	-	.21
30		.20	.30	.43	.12	.29	.45	.18	.19	.49	-	.21
31		.05	-	.33	.17	-	.43	-	16.59	.47	-	.20
Mean			15.50	15.36	15.20	15.27	15.25	15.98	16.99	15.73	15.38	15.25
Max.			15.94	15.68	15.38	15.64	15.54	17.18	19.26	16.45	15.51	15.33
Min.			15.30	15.27	15.10	15.13	15.09	15.31	15.90	15.46	15.31	15.19

WATER YEAR 1964 : Max. 19.26 m. Min. m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1			15	3.68	3.29	3.16	2.57	4.20	23	27	5.60	3.81
2			13	4.07	2.90	3.29	2.35	4.34	28	23	5.60	3.55
3			11	4.20	2.57	3.16	2.02	6.72	25	20	5.46	3.42
4			11	3.55	2.13	5.92	1.08	5.92	18	18	5.46	3.94
5			9.72	3.55	4.62	3.81	1.06	4.76	21	17	5.32	3.55
6			8.82	5.18	3.94	3.55	1.40	4.20	26	15	5.18	3.55
7			8.64	3.94	3.68	3.68	1.30	3.68	25	14	5.04	3.42
8			8.46	3.42	3.81	3.55	1.30	4.76	21	13	4.90	3.16
9			7.74	3.94	3.55	2.46	1.20	5.32	17	12	4.76	3.29
10			7.20	4.20	3.29	3.29	1.20	16	14	12	4.76	3.16
11		3.16	6.88	4.07	3.03	2.68	3.55	20	14	11	4.48	3.16
12		3.94	6.56	3.81	2.68	5.32	2.68	17	14	10	4.34	2.90
13		3.29	6.40	4.07	2.35	3.55	1.91	11	21	10	4.20	2.79
14		3.03	5.92	3.68	2.35	2.57	2.35	8.28	37	9.90	4.07	2.90
15		2.90	5.76	3.42	2.46	8.82	2.02	24	64	9.36	3.94	2.90
16		3.81	5.60	3.42	2.46	4.76	2.13	46	51	9.36	3.94	2.79
17		3.29	5.60	3.29	2.35	3.03	1.80	32	69	9.00	3.81	2.57
18		7.56	5.04	3.55	2.02	2.90	1.91	24	108	8.82	5.32	2.46
19		10	5.18	3.42	2.02	2.68	1.70	26	104	8.28	4.76	2.46
20		5.92	5.04	3.29	1.91	2.24	2.57	30	86	8.10	4.48	2.35
21		6.72	4.09	3.16	1.91	2.13	6.08	24	55	7.74	4.48	2.35
22		16	4.62	5.46	1.91	1.70	5.46	31	67	7.38	4.20	2.24
23		19	4.34	3.94	1.91	1.60	3.94	25	82	7.20	3.81	3.03
24		21	4.20	3.94	1.91	1.60	3.29	21	62	6.88	3.68	3.55
25		29	4.07	4.34	1.70	1.60	3.16	16	40	6.88	3.68	3.16
26		53	4.07	3.94	1.40	1.91	2.90	13	32	6.40	6.56	2.79
27		52	3.94	7.74	1.40	4.20	7.04	12	28	6.08	5.18	2.57
28		42	3.81	9.54	1.30	2.79	6.04	20	29	5.92	4.20	2.46
29		32	3.68	7.92	1.30	2.24	6.72	24	59	5.76	-	2.46
30		21	3.55	5.32	1.30	3.42	5.60	20	47	6.24	-	2.46
31		17	-	3.94	2.02	-	5.32	-	31	5.92	-	2.35
Total			199.74	134.99	75.47	97.61	94.01	504.18	1,318	337.22	131.21	91.55
Mean			6.66	4.35	2.43	3.25	3.03	16.8	42.5	10.9	4.69	2.95
Max.			15	9.54	4.62	8.82	7.04	46	108	27	6.56	3.94
Min.			3.55	3.16	1.30	1.60	1.20	3.68	14	5.76	3.68	2.24
Runoff - BCM.			17.257	11.663	6.544	8.433	8.122	43.561	113.875	29.136	11.336	7.910

WATER YEAR 1964 : Max. 108 Min. Mean Annual Runoff mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Dec.18	14.00	19.44	116				

WATER YEAR 1963  
KHLONG PHYA HONG RIVER BASIN

Khlung Phya Hong at Ban Charat, Phatthalung.(X.23)

Location: Lat  $7^{\circ} - 27' - 36''$  N, Long  $99^{\circ} - 58' - 06''$  E, on left bank about 1 kilometer downstream from the confluence of Khlung Khao Ta Khrai with Khlung Lai Pham at Ban Phya Hong, Amphoe Muang, Phatthalung.

Drainage Area: 63 sq.km. referred to AMS Map 1:50,000.

Type of Gage: Staff gage.

Zero Gage at Bottom at: + 30.94 m. (A.D.)

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

Location: On left bank 150 meters downstream side of the gage

Elevation: + 33.929 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: 1959 to date.

Rating Operation:

Period of Rating: 1963.

Rated by Float: -

Rated by Current Meter: 1963

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation due to its stability.

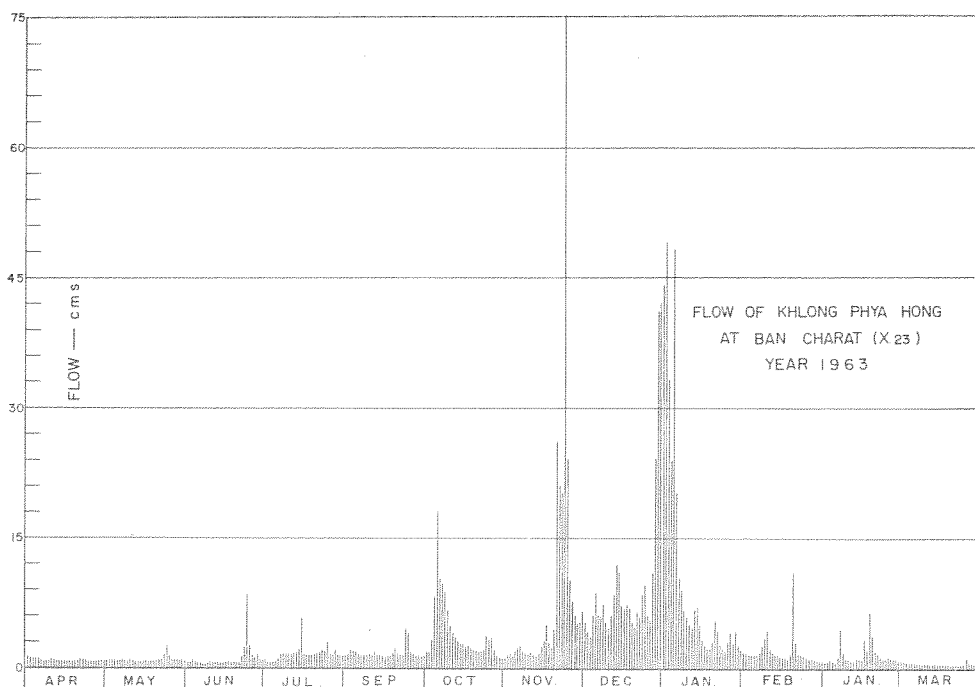
Overbank Flow Conditions: No overbank flow.

General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1963. No state diversions above gage site.

GAGE HEIGHT IN METER ( A. D.), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0.89	0.84	0.83	0.85	0.94	0.98	0.87	1.22	2.17	0.99	0.81	0.83
2	.88	.84	.83	.83	.96	.98	.94	.16	.24	.97	.81	.81
3	.86	.84	.86	.83	1.02	1.10	.97	.13	.00	.95	.86	.80
4	.85	.84	.82	.83	0.97	.35	.90	.27	1.83	.93	.82	.79
5	.86	.84	.80	.82	.96	.68	1.00	.38	2.23	.93	.81	.78
6	0.84	0.86	0.79	0.89	0.95	1.43	1.02	1.26	1.75	0.95	0.81	0.71
7	.82	.85	.78	.97	.94	.43	.05	.25	.45	.97	1.18	.76
8	.82	.84	.76	.96	.93	.39	0.99	.33	.39	1.05	0.99	.76
9	.83	.83	.78	.96	.94	.29	.96	.23	.29	.12	.88	.76
10	.86	.84	.81	.96	.96	.21	.95	.18	.25	.18	.85	.75
11	0.85	0.84	0.80	0.95	0.94	1.16	0.98	1.28	1.21	1.03	0.82	0.75
12	.83	.83	.81	.97	.99	.12	.94	.37	.19	0.98	.81	.74
13	.83	.82	.81	.99	.94	.10	.93	.51	.30	.95	.88	.74
14	.83	.81	.80	1.02	.93	.08	.96	.42	.31	.93	.88	.73
15	.82	.82	.80	.25	.92	.06	1.05	.32	.20	.91	.85	.73
16	0.81	0.84	0.80	0.97	0.92	1.04	1.10	1.30	1.10	0.91	1.10	0.72
17	.80	.83	.82	.95	.92	.05	.21	.33	.05	.90	.00	.70
18	.80	.82	.80	.95	.93	.02	.08	.31	.02	.86	.28	.70
19	.81	.82	.82	.95	.95	.01	.02	.22	.02	.92	.13	.69
20	.82	.84	.83	.94	1.02	.00	.18	.19	.18	1.48	.00	.69
21	0.85	0.85	0.82	0.94	0.96	0.99	1.88	1.28	1.23	1.08	0.97	0.69
22	.92	.85	.92	.98	.93	1.00	.76	.25	.17	0.94	.91	.69
23	.86	.95	1.05	1.01	.93	.00	.73	.38	.05	.93	.88	.69
24	.83	1.05	.38	.00	1.19	.14	2.57	.42	.02	.91	.87	.69
25	.82	0.90	.05	.09	.15	.10	1.61	.27	0.99	.90	.90	.69
26	0.80	0.86	0.93	0.95	0.98	1.13	1.45	1.23	1.08	0.88	0.89	0.87
27	.82	.85	.90	.95	.95	.00	.31	.48	.16	.87	.88	.77
28	.82	.85	.94	1.02	.92	0.92	.27	.84	.07	.86	.86	.72
29	.83	.85	.86	0.95	.93	.90	.20	2.13	.17	.85	.84	.70
30	.84	.85	.86	.94	.92	.99	.23	.15	.05	.83	-	.69
31	-	.83	-	.94	.91	-	.29	-	.01	.82	-	.69
Mean	0.84	0.85	0.86	0.95	0.96	1.12	1.21	1.37	1.33	0.96	0.95	0.74
Max.	0.92	1.05	1.38	1.25	1.19	1.68	2.57	2.15	2.24	1.48	1.28	0.87
Min.	0.80	0.81	0.76	0.82	0.91	0.90	0.87	1.13	0.99	0.82	0.81	0.69

WATER YEAR 1963 : Max. 2.57 m. Min. 0.69 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	1.24	0.94	0.88	1.00	1.58	1.86	1.12	5.20	44	1.93	0.76	0.88
2	1.18	0.94	0.88	0.88	1.72	1.86	1.58	4.16	49	1.79	0.76	0.76
3	1.06	0.94	1.06	0.88	2.24	3.20	1.79	3.68	33	1.65	1.06	0.70
4	1.00	0.94	0.82	0.88	1.79	7.90	1.30	6.20	24	1.51	0.82	0.67
5	1.06	0.94	0.70	0.82	1.72	18	2.00	8.56	48	1.51	0.76	0.64
6	0.94	1.06	0.67	1.24	1.65	9.84	2.24	6.00	20	1.65	0.76	0.61
7	0.82	1.00	0.64	1.79	1.58	9.84	2.60	5.80	10	1.79	4.48	0.58
8	0.82	0.94	0.58	1.72	1.51	8.78	1.93	7.46	8.78	2.60	1.97	0.58
9	0.88	0.88	0.64	1.72	1.58	6.60	1.72	5.40	6.60	3.52	1.18	0.58
10	1.06	0.94	0.76	1.72	1.72	5.00	1.65	4.48	5.80	4.48	1.00	0.55
11	1.00	0.94	0.70	1.65	1.58	4.16	1.86	6.40	5.00	2.36	0.82	0.55
12	0.88	0.88	0.76	1.79	1.93	3.52	1.58	8.34	4.64	1.86	0.76	0.52
13	0.88	0.82	0.76	1.93	1.58	3.20	1.51	12	6.80	1.65	1.18	0.52
14	0.88	0.76	0.70	2.24	1.51	2.96	1.72	11	7.02	1.51	1.18	0.49
15	0.82	0.82	0.70	5.80	1.44	2.72	2.60	7.24	4.80	1.37	1.00	0.49
16	0.76	0.94	0.70	1.79	1.44	2.48	3.20	6.80	3.20	1.37	3.20	0.46
17	0.70	0.88	0.82	1.65	1.44	2.60	5.00	7.46	2.60	1.30	2.00	0.40
18	0.70	0.82	0.70	1.65	1.51	2.24	2.96	7.02	2.24	1.06	6.40	0.40
19	0.76	0.82	0.82	1.65	1.65	2.12	2.24	5.20	2.24	1.44	3.68	0.38
20	0.82	0.94	0.88	1.58	2.24	2.00	4.48	4.64	4.48	11	2.00	0.38
21	1.00	1.00	0.82	1.58	1.72	1.93	26	6.40	5.40	2.96	1.79	0.38
22	1.44	1.00	1.44	1.86	1.51	2.00	21	5.80	4.32	1.58	1.37	0.38
23	1.06	1.65	2.60	2.12	1.51	2.00	20	8.56	2.60	1.51	1.18	0.38
24	0.88	2.60	8.56	2.00	4.64	3.84	76	9.56	2.24	1.37	1.12	0.38
25	0.82	1.30	2.60	3.08	4.00	3.70	15	6.20	1.97	1.30	1.30	0.38
26	0.70	1.06	1.51	1.65	1.86	3.68	10	5.40	2.96	1.18	1.24	1.12
27	0.82	1.00	1.30	1.65	1.65	2.00	7.02	11	4.16	1.12	1.18	0.61
28	0.82	1.00	1.58	2.24	1.44	1.44	6.20	24	2.84	1.06	1.06	0.46
29	0.88	1.00	1.06	1.65	1.51	1.30	4.80	41	4.32	1.00	0.94	0.40
30	0.94	1.00	1.06	1.58	1.44	1.24	5.40	42	2.60	0.88	-	0.38
31	-	0.88	-	1.58	1.37	-	6.60	-	2.12	0.82	-	0.38
Total	27.62	31.63	37.70	55.37	56.06	123.51	243.10	292.96	327.73	62.13	46.95	16.39
Mean	0.92	1.02	1.26	1.79	1.81	4.12	7.84	9.76	10.6	2.00	1.68	0.53
Max.	1.44	2.60	8.56	5.80	4.64	18	76	42	49	11	6.40	1.12
Min.	0.70	0.76	0.58	0.82	1.37	1.24	1.12	3.68	1.97	0.82	0.76	0.38
Runoff - mcm.	2.386	2.733	3.257	4.784	4.843	10.671	21.004	25.312	28.316	5.368	4.056	1.416

WATER YEAR 1963 : Max. 76 Min. 0.38 Mean 3.61 Annual Runoff 114.147 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Oct. 23	23.00	3.19	150				

WATER YEAR 1964  
KHLONG PHYA HONG RIVER BASIN

Khlung Phya Hong at Ban Charat, Phatthalung. (X. 23A)

Location: Lat 7° - 27' - 38" N, Long 99° - 57' - 41" E, on right bank 1 kilometer upstream from Phya Hong weir at Ban Charat, Amphoe Muang, Phatthalung.

Drainage Area: 62 sq. km. referred to AMS Map 1:50,000.

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 the 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 hourly 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: Stable, no shifting adjustment for flow computation due to its stability.

Overbank Flow Conditions: No overbank flow.

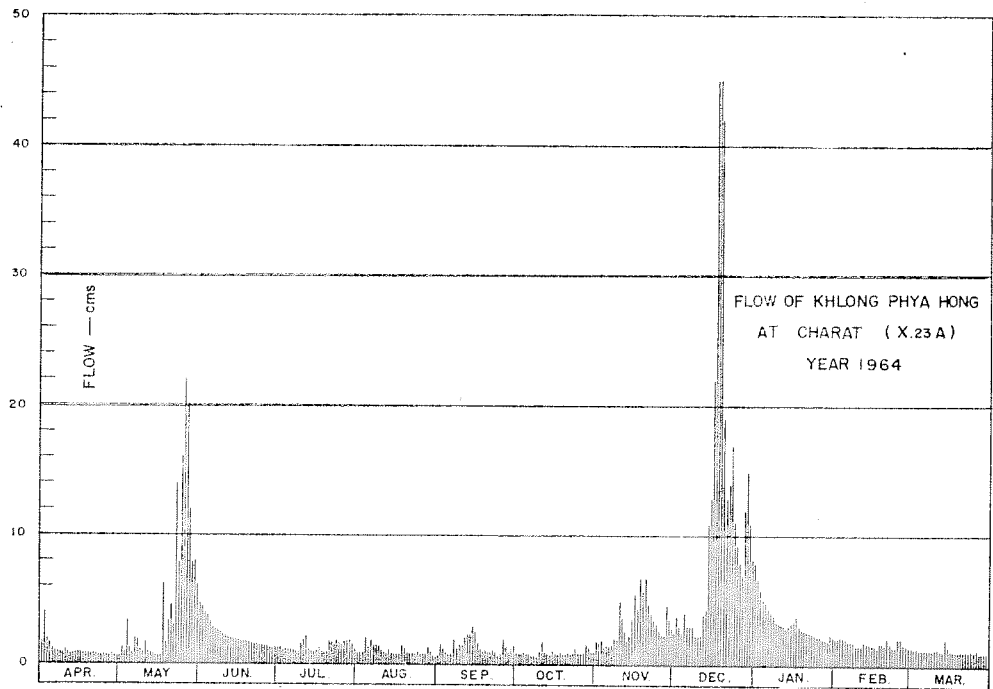
General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1964. No state diversions above gage site.

GAGE HEIGHT IN METER (M. S. L.), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	31.88	31.75	32.11	31.83	31.80	31.77	31.79	31.89	31.94	32.27	31.91	31.84
2	32.04	.83	.08	.84	.80	.86	.79	.87	32.03	.21	.91	.83
3	31.91	.81	.05	.82	.80	.81	.79	.89	31.98	.16	.92	.83
4	.86	32.01	.04	.82	.90	.79	.80	.84	.94	.12	.91	.82
5	.82	31.83	.01	.82	.84	.78	.78	.85	32.06	.10	.90	.82
6	31.80	31.78	31.98	31.82	31.89	31.78	31.77	31.84	31.99	32.08	31.89	31.82
7	.79	.90	.97	.82	.85	.89	.76	.86	.99	.06	.89	.82
8	.79	.90	.96	.81	.85	.83	.76	.90	.99	.04	.87	.82
9	.79	.82	.94	.80	.85	.86	.74	.91	.93	.01	.86	.82
10	.81	.80	.93	.87	.81	.85	.80	32.11	.93	.01	.86	.83
11	31.78	31.88	31.92	31.90	31.80	31.91	31.89	32.02	31.94	32.00	31.86	31.83
12	.77	.80	.91	.92	.79	.93	.79	31.95	32.05	31.99	.88	.82
13	.77	.78	.90	.83	.80	.83	.78	.89	.07	.98	.87	.82
14	.77	.78	.90	.80	.77	.98	.77	.93	.42	.99	.87	.91
15	.79	.76	.90	.80	.77	.95	.81	32.06	.49	32.00	.86	.85
16	31.79	31.75	31.89	31.81	31.78	31.88	31.78	32.14	32.78	32.02	31.85	31.81
17	.78	.75	.88	.84	.79	.81	.78	.07	33.33	.04	.84	.81
18	.77	32.18	.88	.80	.85	.81	.79	.21	.33	31.99	.87	.81
19	.77	31.87	.88	.80	.83	.81	.77	.15	.28	.97	.87	.81
20	.77	32.02	.87	.80	.79	.80	.78	.21	32.69	.96	.86	.81
21	31.77	32.09	31.86	31.89	31.79	31.80	31.79	32.10	32.48	31.96	31.91	31.81
22	.76	31.99	.86	.87	.79	.81	.78	.06	.51	.95	.87	.81
23	.76	32.54	.86	.86	.79	.80	.79	.02	.62	.94	.85	.81
24	.76	.27	.85	.89	.80	.76	.83	.00	.42	.94	.85	.82
25	.75	.60	.85	.86	.78	.78	.79	31.96	.33	.92	.91	.81
26	31.75	32.77	31.85	31.86	31.78	31.89	31.80	31.93	32.27	31.92	31.91	31.82
27	.75	.72	.84	.89	.78	.84	.80	.93	.22	.90	.86	.80
28	.77	.43	.83	.89	.84	.80	.86	32.09	.46	.90	.85	.80
29	.75	.27	.83	.89	.81	.83	.84	.02	.57	.90	-	.80
30	.74	.28	.83	.86	.76	.85	.80	31.97	.39	.94	-	.80
31	-	.19	-	.82	.75	-	.81	-	.29	.92	-	.81
Mean	31.79	32.04	31.91	31.84	31.81	31.84	31.79	31.99	32.34	32.01	31.88	31.82
Max.	32.04	32.77	32.11	31.92	31.90	31.98	31.89	32.21	33.33	32.27	31.92	31.91
Min.	31.74	31.75	31.83	31.80	31.75	31.76	31.74	31.84	31.93	31.90	31.84	31.80

WATER YEAR 1964 : Max. 33.33 m. Min. 31.74 m.





DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	1.80	0.70	4.98	1.30	1.00	0.82	0.94	1.90	2.48	7.86	2.12	1.40
2	3.84	1.30	4.48	1.40	1.00	1.60	0.94	1.70	3.68	6.78	2.12	1.30
3	2.12	1.10	4.00	1.20	1.00	1.10	0.90	1.90	2.96	5.88	2.24	1.30
4	1.60	3.36	3.84	1.20	2.00	0.94	1.00	1.40	2.48	5.16	2.12	1.20
5	1.20	1.30	3.36	1.20	1.40	0.88	0.88	1.50	4.16	4.80	2.00	1.20
6	1.00	0.88	2.96	1.20	1.90	0.88	0.82	1.40	3.08	4.48	1.90	1.20
7	0.94	2.00	2.84	1.20	1.50	1.90	0.76	1.60	3.08	4.16	1.90	1.20
8	0.94	2.00	2.72	1.10	1.50	1.30	0.76	2.00	3.08	3.84	1.70	1.20
9	0.94	1.20	2.48	1.00	1.50	1.60	0.64	2.12	2.36	3.36	1.60	1.20
10	1.10	1.00	2.36	1.70	1.10	1.50	1.00	4.98	2.36	3.36	1.60	1.30
11	0.88	1.80	2.24	2.00	1.00	2.12	1.90	3.52	2.48	3.20	1.60	1.30
12	0.82	1.00	2.12	2.24	0.94	2.36	0.94	2.60	4.00	3.08	1.80	1.20
13	0.82	0.88	2.00	1.30	1.20	1.30	0.88	1.90	4.32	2.96	1.70	1.20
14	0.82	0.88	2.00	1.00	0.82	2.96	0.82	2.36	11	3.08	1.70	2.12
15	0.94	0.76	2.00	1.00	0.82	2.60	1.10	4.16	13	3.20	1.60	1.50
16	0.94	0.70	1.90	1.10	0.88	1.80	0.88	5.52	22	3.52	1.50	1.10
17	0.88	0.70	1.80	1.40	0.94	1.10	0.88	4.32	45	3.84	1.40	1.10
18	0.82	6.24	1.80	1.00	1.50	1.10	0.94	6.78	45	3.08	1.70	1.10
19	0.82	1.70	1.80	1.00	1.30	1.10	0.82	5.70	42	2.84	1.70	1.10
20	0.82	3.52	1.70	1.00	0.94	1.00	0.88	6.78	19	2.72	1.60	1.10
21	0.82	4.64	1.60	1.90	0.94	1.00	0.94	4.80	13	2.72	2.12	1.10
22	0.76	3.08	1.60	1.70	0.94	1.10	0.88	4.16	14	2.60	1.70	1.10
23	0.76	14	1.60	1.60	0.94	1.00	0.94	3.52	17	2.48	1.50	1.10
24	0.76	7.86	1.50	1.90	1.00	0.76	1.30	3.20	11	2.48	1.50	1.20
25	0.70	16	1.50	1.60	0.88	0.88	0.94	2.72	9.29	2.24	2.12	1.10
26	0.70	22	1.50	1.60	0.88	1.90	1.00	2.36	7.86	2.24	2.12	1.20
27	0.70	20	1.40	1.90	0.88	1.40	1.00	2.36	6.96	2.00	1.60	1.00
28	0.82	12	1.30	1.90	1.40	1.00	1.60	4.64	12	2.00	1.50	1.00
29	0.70	7.86	1.30	1.90	1.10	1.30	1.40	3.52	15	2.00	-	1.00
30	0.64	8.04	1.30	1.60	0.76	1.50	1.00	2.84	11	2.48	-	1.00
31	-	6.42	-	1.20	0.70	-	1.10	-	8.22	2.24	-	1.00
Total	31.40	154.92	67.98	44.34	34.66	41.80	30.88	98.26	362.85	106.68	49.76	37.22
Mean	1.05	5.00	2.27	1.43	1.12	1.39	1.00	3.27	11.7	3.44	1.78	1.20
Max.	3.84	22	4.98	2.24	2.00	2.96	1.90	6.78	45	7.86	2.24	2.12
Min.	0.64	0.70	1.30	1.00	0.70	0.76	0.64	1.40	2.36	2.00	1.40	1.00
Runoff - mcm.	2.713	13.385	5.873	3.831	2.995	3.611	2.668	8.490	31.350	9.217	4.299	3.216

WATER YEAR 1964 : Max. 45 Min. 0.64 Mean 2.91 Annual Runoff 91.649 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Dec.17	19.00	34.43	101				

WATER YEAR 1963  
KHLONG THEPHA RIVER BASIN

Khlung Thepha at Huai Prak Pring, Songkhla. (X. 27)

Location: Lat  $7^{\circ} - 35' - 24''$  N, Long  $100^{\circ} - 00' - 04''$  E, on right bank at Ban Huai Prak Pring 8 kilometers upstream from state railway bridge crossing Khlung Thepha, Amphoe Thepha, Songkhla.

Drainage Area: 1,449 sq.km. referred to GSGS. 4218 Map 1:253,440.

Type of Gage: Staff gage.

Zero Gage at Bottom at: + 39.04 m. (A.D.)

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

Location: On right bank near the camp of station X. 27

Elevation: B.M.1 + 48.636 m. (A.D.) and B.M.2 + 45.428 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: 1960 to date.

Rating Operation:

Period of Rating: 1960 to date.

Rated by Float: -

Rated by Current Meter: 1960 to date.

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation due to its stability.

Overbank Flow Conditions: No overbank flow.

General Description: Records good except those for period of no gage height record. Stage discharge relationship used is defined by discharge measurements made during 1963. No state diversions above gage site.

Remark: No gage height record for Dec. 1 - Mar. 31.

GAGE HEIGHT IN METER ( A. D. ), WATER YEAR APRIL 1, 1963 TO MARCH 31, 1964

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	39.70	39.60	40.18	39.67	40.04	40.05	40.71	42.14				
2	.69	.61	.04	.65	.00	.00	.51	.10				
3	.69	.62	39.98	.64	39.97	39.99	.35	.40				
4	.68	.61	.89	.63	40.04	.98	.30	.05				
5	.67	.61	.84	.62	.05	.98	.71	.27				
6	39.67	39.65	39.80	39.61	39.97	39.98	40.73	42.09				
7	.66	.74	.78	.61	.97	40.36	.96	43.11				
8	.66	.76	.82	.60	.98	.23	41.20	.09				
9	.65	.89	.80	.59	.92	.10	40.87	42.87				
10	.66	.97	.77	.59	.86	.02	.62	43.43				
11	39.65	39.87	39.74	39.58	39.83	39.98	40.74	44.09				
12	.64	.77	.71	.59	.93	40.09	41.58	.45				
13	.64	.73	.70	.62	40.03	.32	42.01	.35				
14	.64	.68	.80	.60	39.96	.12	.06	43.86				
15	.64	.66	.82	.64	.92	.00	41.91	.59				
16	39.63	39.64	39.76	39.82	39.92	39.92	42.23	43.43				
17	.68	.73	.72	.82	.87	40.23	.15	.09				
18	.74	.71	.70	.77	.83	.68	41.95	42.69				
19	.71	.71	.69	.73	.83	.46	43.10	.28				
20	.68	.72	.68	.70	.84	.37	.76	41.98				
21	39.66	39.76	39.66	39.66	39.83	40.38	43.97	41.92				
22	.64	.86	.66	.64	.80	.66	44.11	.95				
23	.63	.84	.67	.63	.79	.57	.19	.73				
24	.69	40.04	.67	.82	.79	.52	.30	.60				
25	.70	.25	.69	40.40	.97	.39	43.99	.48				
26	39.67	40.24	39.72	41.05	40.34	40.26	43.23	41.45				
27	.65	.16	.70	40.50	.19	.20	.02	.68				
28	.63	.22	.70	.27	.14	.68	42.61	.64				
29	.62	.17	.69	.73	.07	41.55	.07	42.81				
30	.61	.58	.68	.36	39.99	.08	41.83	43.73				
31	-	.39	-	.15	40.02	-	42.20	-				
Mean	39.66	39.88	39.77	39.85	39.96	40.30	41.94	42.64				
Max.	39.74	40.58	40.18	41.05	40.34	41.55	44.30	44.45				
Min.	39.61	39.60	39.66	39.58	39.79	39.92	40.30	41.45				

WATER YEAR 1963 : Max.                      m.                      Min.                      m.



WATER YEAR 1964  
KHLONG THEPHA RIVER BASIN

Khlung Thepha at Huai Prak Pring, Songkhla. (X.27)

Location: Lat  $7^{\circ} - 35' - 24''$  N, Long  $100^{\circ} - 00' - 04''$  E, on right bank at Ban Huai Prak Pring, 8 kilometers upstream from state railway bridge crossing Khlung Thepha, Amphoe Thepha, Songkhla.

Drainage Area: 1,449 sq.km. referred to GSGS. 4218 Map 1:253,440.

Type of Gage: Water - stage recorder.

Zero Gage at Bottom at: 39.04 m. (A.D.)

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

Location: On right bank near the camp of station X. 27.

Elevation: B.M.1 + 48.636 m. (A.D.) and B.M.2 + 45.428 m. (A.D.)

Gage Reading Frequency: Recording.

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

Period of Available Gage Records: 1960 to date.

Rating Operation:

Period of Rating: 1960 to date.

Rated by Float: -

Rated by Current Meter: 1960 to date.

Stability of Channel Regimes: Stable, no shifting adjustment for flow computation due to its stability.

Overbank Flow Conditions: No overbank flow.

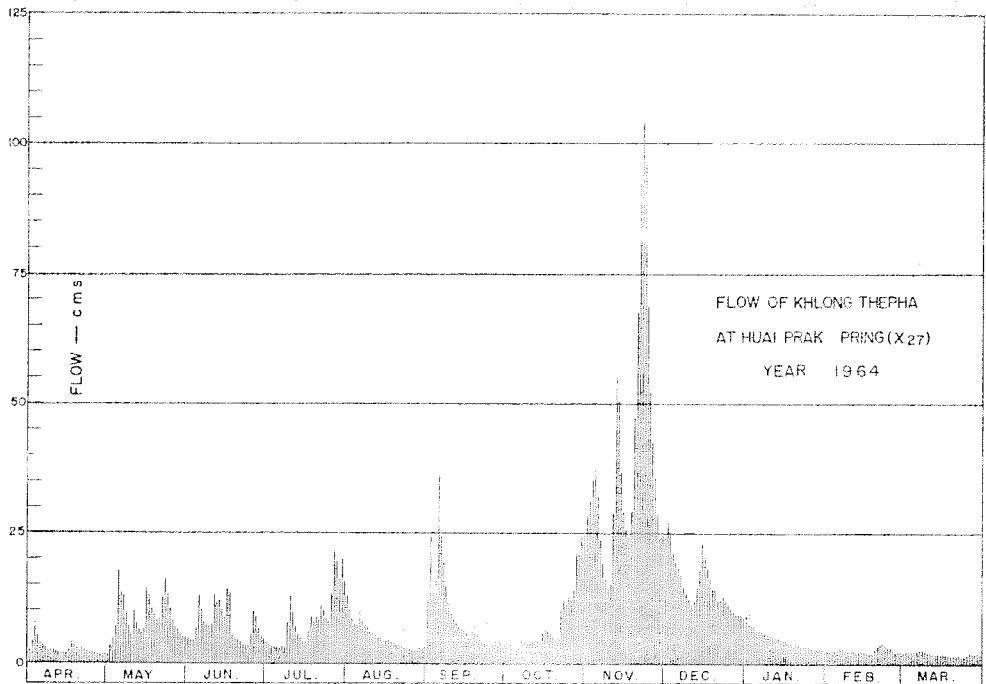
General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1964. No state diversions above gage site.

Remarks: Water - stage recorder beginning on Sep. 1964.

GAGE HEIGHT IN METER ( A. D. ), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	39.78	39.77	40.03	39.94	40.64	40.44	40.04	41.62	41.41	40.31	39.81	39.77
2	.96	.87	39.99	.97	.46	41.39	39.98	.74	.57	.27	.81	.77
3	40.30	40.01	.98	.89	.33	40.69	.94	.88	.36	.24	.81	.77
4	.06	.25	40.26	.87	.25	.93	.91	42.14	.14	.21	.81	.77
5	39.93	41.01	.70	.87	.25	42.02	.88	41.80	.11	.18	.82	.78
6	39.87	40.69	40.52	39.86	40.49	41.33	40.01	41.34	41.03	40.16	39.86	39.81
7	.83	.68	.29	.89	.35	.10	.05	.07	40.90	.13	.83	.80
8	.81	.40	.26	.86	.26	40.78	.00	40.93	.78	.11	.81	.80
9	.79	.21	.21	40.26	.20	.55	39.97	.81	.69	.10	.79	.78
10	.78	.10	.26	.69	.14	.42	.96	.88	.62	.08	.79	.77
11	39.77	40.48	40.72	40.40	40.12	40.32	39.98	41.61	40.55	40.07	39.79	39.75
12	.75	.27	.49	.19	.09	.26	40.01	42.89	.61	.05	.79	.74
13	.74	.17	.62	.08	.06	.21	.00	.66	.84	.04	.78	.73
14	.74	.11	.47	.02	.03	.18	39.97	41.93	41.09	.02	.77	.72
15	.72	.11	.34	39.98	.01	.12	40.20	.61	.30	.00	.77	.72
16	39.78	40.80	40.19	39.96	39.98	40.08	40.19	41.44	41.16	39.98	39.76	39.72
17	.96	.70	.12	40.22	40.00	.05	.15	.41	.03	.96	.75	.71
18	.90	.47	.07	.39	39.98	.16	.13	.73	40.87	.95	.75	.70
19	.83	.39	.02	.26	.94	.24	.03	42.64	.79	.94	.84	.69
20	.80	.28	39.99	.38	.91	.10	39.98	43.16	.76	.93	.91	.69
21	39.82	40.36	39.95	40.32	39.90	40.00	40.01	43.99	40.65	39.92	39.93	39.69
22	.79	.68	.91	.58	.88	39.94	.48	44.40	.64	.91	.95	.68
23	.77	.89	.91	.50	.85	.94	.65	.15	.69	.89	.88	.67
24	.75	.71	.91	.33	.84	.91	.58	43.35	.67	.88	.85	.67
25	.73	.45	40.10	.28	.83	.90	.70	42.58	.59	.87	.82	.70
26	39.73	40.30	40.50	40.69	39.82	39.90	40.64	42.14	40.51	39.86	39.80	39.72
27	.70	.22	.34	41.29	.81	.98	.69	41.91	.46	.85	.79	.71
28	.70	.16	.16	.07	.83	40.05	41.22	.61	.42	.83	.78	.72
29	.70	.09	.06	40.82	.84	39.99	.19	.41	.41	.83	-	.75
30	.70	.06	39.99	41.13	.84	.95	.38	.43	.40	.82	-	.72
31	-	.04	-	40.83	.89	-	.42	-	.35	.81	-	.71
Mean	39.82	40.35	40.21	40.31	40.06	40.36	40.30	42.07	40.85	40.01	39.82	39.73
Max.	40.30	41.01	40.72	41.29	40.64	42.02	41.42	44.40	41.57	40.31	39.95	39.81
Min.	39.70	39.77	39.91	39.86	39.81	39.90	39.88	40.81	40.35	39.81	39.75	39.67

WATER YEAR 1964 : Max. 44.40 m. Min. 39.67 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	2.22	2.13	4.63	3.70	12	9.48	4.74	28	24	7.92	2.49	2.13
2	3.90	3.03	4.20	3.40	9.72	24	4.10	31	27	7.44	2.49	2.13
3	7.80	4.41	4.10	3.21	8.16	13	3.70	33	24	7.08	2.49	2.13
4	4.96	7.20	7.32	3.03	7.20	16	3.40	39	20	6.72	2.49	2.13
5	3.60	18	13	3.03	7.20	36	3.12	32	19	6.36	2.58	2.22
6	3.03	13	10	2.94	10	23	4.41	23	18	6.12	2.94	2.49
7	2.67	13	7.68	3.21	8.40	19	4.85	19	16	5.76	2.67	2.40
8	2.49	9.00	7.32	2.94	7.32	14	4.30	16	14	5.52	2.49	2.40
9	2.31	6.72	6.72	7.32	6.60	11	4.00	14	13	5.40	2.31	2.22
10	2.22	5.40	7.32	13	5.88	9.24	3.90	16	12	5.18	2.31	2.13
11	2.13	9.96	13	9.00	5.64	8.04	4.10	28	11	5.07	2.31	1.95
12	1.95	7.44	10	6.48	5.29	7.32	4.41	55	12	4.65	2.31	1.86
13	1.86	6.24	12	5.18	4.96	6.72	4.30	50	15	4.74	2.22	1.77
14	1.86	5.52	9.84	4.52	4.63	6.36	4.00	34	19	4.52	2.13	1.68
15	1.68	5.52	8.28	4.10	4.41	5.64	6.00	28	23	4.30	2.13	1.68
16	2.22	14	6.48	3.90	4.10	5.18	6.48	25	20	4.10	2.04	1.68
17	3.90	13	5.64	6.84	4.30	4.85	6.00	24	18	3.90	1.95	1.59
18	3.30	9.84	5.07	8.88	4.10	6.12	5.76	30	16	3.80	1.95	1.50
19	2.67	8.88	4.52	7.32	3.70	7.08	4.63	49	14	3.70	2.76	1.42
20	2.40	7.59	4.20	8.76	3.40	5.40	4.10	62	14	3.60	3.40	1.42
21	2.58	8.52	3.80	8.04	3.30	4.30	4.41	88	12	3.50	3.60	1.42
22	2.31	13	3.40	11	3.12	3.70	9.96	104	12	3.40	3.80	1.34
23	2.13	16	3.40	10	2.85	3.70	12	94	13	3.21	3.12	1.26
24	1.95	13	3.40	8.16	2.76	3.40	11	68	12	3.12	2.85	1.26
25	1.77	9.60	5.40	7.56	2.67	3.30	13	68	11	3.03	2.58	1.50
26	1.77	7.80	10	13	2.59	3.30	12	39	10	2.94	2.40	1.68
27	1.50	6.84	8.28	22	2.49	4.10	13	34	9.72	2.85	2.31	1.59
28	1.50	6.12	6.12	19	2.67	4.85	21	28	9.24	2.67	2.22	1.68
29	1.50	5.29	4.96	15	2.76	4.20	21	24	9.12	2.67	-	1.95
30	1.50	4.96	4.20	20	2.76	3.80	24	25	9.00	2.58	-	1.68
31	-	4.74	-	15	3.21	-	25	-	8.40	2.49	-	1.59
Total	77.68	266.74	204.28	259.52	158.19	276.08	256.67	1,188	464.48	138.54	71.34	55.88
Mean	2.59	8.60	6.81	8.37	5.10	9.20	8.29	39.6	15.0	4.47	2.55	1.80
Max.	7.80	18	13	22	12	36	25	104	27	7.92	3.80	2.49
Min.	1.50	2.13	3.40	2.94	2.49	3.30	3.12	14	8.40	2.49	1.95	1.26
Runoff - mm.	6.739	22.982	17.626	22.378	13.651	23.846	22.205	102.643	40.090	11.923	6.134	4.838

WATER YEAR 1964 : Max. 104 Min. 1.26 Mean 9.36 Annual Runoff 295.055 mm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Nov.22	18.00	44.44	106				

WATER YEAR 1964  
TA PI RIVER BASIN

Phum Duang River at Ban Yan Lon, Surat Thani. (X.38)

**Location:** Lat  $8^{\circ} - 53' - 51''$  N, Long  $98^{\circ} - 52' - 32''$  E, on right bank at Ban Yan Lon about 2 kilometers downstream from the confluence of Khlong Phra Saeng with Khlong Sok, 30 kilometers upstream from Amphoe Khiri Rattanakhom, Surat Thani.

**Drainage Area:** 2,690 sq.km. referred to AMS Map 1:50,000.

**Type of Gage:** Staff gage.

**Zero Gage at Bottom at:** + 16.40 m. (A.D.)

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

**Location:** Near the camp of station X.38

**Elevation:** + 30.000 m. (A.D.)

**Gage Reading Frequency:** 24 - time daily readings.

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

**Period of Available Gage Records:** 1963 to date.

**Rating Operation:**

**Period of Rating:** 1964 to date.

**Rated by Float:** -

**Rated by Current Meter:** 1964 to date.

**Stability of Channel Regimes:** Rather unstable, shifting adjustment and mean hourly discharge are included for flow computation.

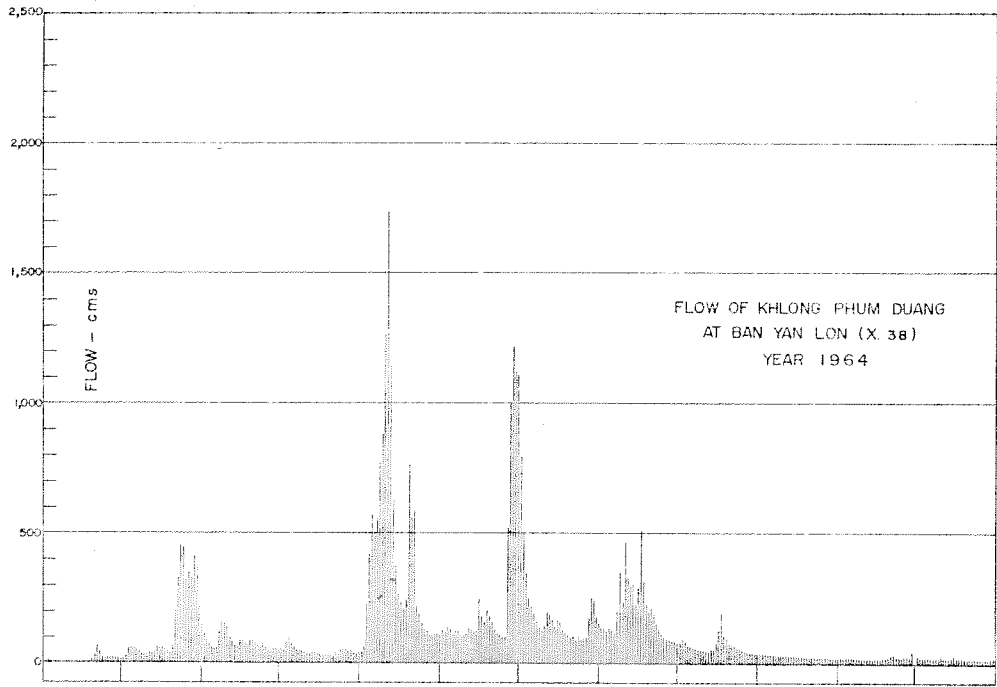
**Overbank Flow Conditions:** No overbank flow.

**General Description:** Gage height record good, discharge record fair. Stage - discharge relationship used is defined by discharge measurements made during 1964. No state diversions above gage site.

GAGE HEIGHT IN METER ( A. D. ), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	17.28	17.53	18.90	18.18	17.85	19.13	24.27	19.31	18.53	17.90	17.62	17.77
2	.26	.79	.60	.08	18.10	.02	22.48	.19	.71	.89	.59	.60
3	.27	18.23	.42	.52	20.20	.23	21.33	.12	.59	.87	.58	.55
4	.32	.25	.26	.71	21.59	.24	20.55	.20	.39	.86	.60	.64
5	.31	.18	.16	.46	22.23	18.89	.05	.08	.29	.83	.64	.63
6	17.33	18.17	18.27	18.25	21.85	19.09	19.75	18.97	18.23	17.81	17.59	17.54
7	.31	17.98	19.03	.13	22.15	.08	.47	20.05	.19	.79	.56	.57
8	.29	.92	.40	.12	23.45	19.91	.27	21.22	.13	.79	.56	.59
9	.31	.89	.33	.02	24.00	.01	.15	20.18	.11	.79	.54	.52
10	.33	.87	.15	17.96	25.47	18.96	.37	22.03	.08	.79	.53	.75
11	17.34	17.95	18.72	17.92	27.11	19.21	19.91	21.09	18.06	17.78	17.52	17.55
12	.35	.92	.56	.88	25.44	.17	.79	20.84	.03	.77	.52	.49
13	.31	18.01	.36	.95	23.01	.08	.53	21.02	.22	.76	.51	.47
14	.28	.27	.35	.93	21.26	.10	.23	.24	.16	.74	.51	.60
15	.26	.21	.60	.86	20.37	20.24	.52	.79	.76	.73	.50	.72
16	17.24	18.26	18.56	17.83	19.97	19.59	19.42	22.32	19.27	17.71	17.49	17.54
17	.28	.15	.48	.79	.62	.40	.17	20.99	.92	.70	.55	.48
18	.32	17.97	.40	.78	.92	.88	.04	.08	.02	.69	.59	.45
19	.42	.91	.58	.78	23.49	.61	18.88	19.81	18.73	.68	.63	.45
20	.89	18.39	.54	.75	22.54	.42	.79	.98	.53	.67	.88	.45
21	18.35	19.83	18.44	17.75	22.95	19.07	18.92	19.75	18.40	17.67	17.78	17.43
22	17.96	20.96	.32	.97	20.18	18.92	.71	.43	.27	.66	.60	.45
23	.60	21.90	.24	.84	19.73	.81	.85	.18	.21	.65	.60	.46
24	.47	.87	.41	18.12	.39	.77	.66	18.99	.14	.65	.56	.43
25	.61	20.89	.12	.12	.15	.75	.76	.85	.10	.64	.65	.42
26	17.64	21.14	18.03	18.11	19.10	21.55	18.78	18.73	18.05	17.63	17.63	17.41
27	.58	20.96	.05	17.98	18.91	24.87	19.70	.66	.02	.61	.58	.40
28	.54	21.61	.13	18.01	.90	25.98	20.36	.64	17.99	.61	.96	.38
29	.58	.32	.19	17.93	19.04	.61	.26	.61	.98	.60	-	.40
30	.55	20.07	.07	.86	.07	.63	19.67	.49	.98	.59	-	.44
31	-	19.31	-	.88	.00	-	.33	-	.93	.62	-	.42
Mean	17.45	19.05	18.49	18.01	21.13	20.14	19.71	19.89	18.35	17.70	17.60	17.52
Max.	18.35	21.90	19.40	18.71	27.11	25.98	24.27	22.32	19.92	17.90	17.96	17.77
Min.	17.24	17.53	18.03	17.75	17.85	18.75	18.66	18.49	17.95	17.59	17.49	17.38

WATER YEAR 1964 : Max. 27.11 m. Min. 17.24 m.



DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	7.40	17	112	56	43	129	798	137	79	37	22	29
2	6.80	30	87	49	60	119	497	135	93	36	20	21
3	7.10	59	73	81	228	138	341	120	84	35	20	18
4	8.80	60	61	96	418	136	249	132	68	35	21	23
5	8.40	56	54	76	566	105	218	105	65	33	23	22
6	9.20	55	62	60	509	123	188	111	60	32	20	18
7	8.40	42	124	52	554	122	160	215	58	30	19	19
8	7.70	38	158	51	777	107	133	350	53	30	19	20
9	8.40	36	151	44	886	107	122	228	52	30	18	17
10	9.20	35	134	41	1,261	111	145	463	48	30	17	28
11	9.60	40	97	38	1,731	134	199	324	46	30	17	18
12	10	38	84	36	1,144	130	187	294	43	29	17	16
13	8.40	44	68	40	630	121	161	307	56	29	16	15
14	7.40	62	67	39	376	123	135	219	52	26	16	21
15	6.80	58	87	35	266	243	163	295	85	27	16	27
16	6.20	61	84	33	232	177	153	510	128	26	16	18
17	7.40	53	77	30	203	158	125	310	191	26	18	15
18	8.80	41	71	30	243	206	113	221	106	25	20	14
19	13	38	85	30	760	178	107	194	95	25	22	14
20	36	70	82	28	555	159	94	211	79	24	36	14
21	67	201	74	28	584	126	105	188	69	24	30	13
22	41	327	65	41	221	113	88	156	63	24	21	14
23	21	452	60	33	185	103	102	128	59	23	21	14
24	15	448	72	51	151	100	87	111	54	23	19	13
25	21	319	51	51	129	98	95	99	51	23	23	13
26	23	350	45	51	125	387	97	93	44	22	22	12
27	20	327	46	42	107	908	182	98	42	21	20	12
28	18	411	52	44	107	1,219	250	86	40	21	41	11
29	20	374	56	39	110	1,115	239	84	39	21	-	12
30	18	225	48	35	113	1,104	179	74	39	20	-	14
31	-	149	-	36	107	-	145	-	36	22	-	13
Total	459.00	4,516	2,396	1,396	13,381	8,189	5,857	6,008	2,077	841	590	528
Mean	15.3	146	79.5	45.0	432	273	189	200	67.0	27.1	21.0	17.0
Max.	67	452	158	96	1,731	1,219	798	510	191	37	41	29
Min.	6.20	17	45	28	43	98	87	74	36	20	16	11
Runoff - mcm.	39.658	390.182	206.237	120.614	1,156.118	707.530	506.045	519.091	179.453	72.662	50.976	45.619

WATER YEAR 1964 : Max. 1,731 Min. 6.20 Mean 127 Annual Runoff 3,994,186 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Aug. 11	13.00	27.34	1,804	Sept. 28	23.00	26.30	1,382

WATER YEAR 1964  
PATTANI RIVER BASIN

Pattani River at Muang Yala. (X. 40)

Location: Lat  $6^{\circ} - 35' - 00''$  N, Long  $101^{\circ} - 20' - 00''$  E, on right bank, 500 meters downstream from state railway bridge at Ban Streng Nok, Amphoe Muang, Yala.

Drainage Area: 3,295 sq.km. referred to GSGS. 4218 Map 1:253,440.

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 gage site.

Elevation: B.M.<sub>1</sub> + 14.009 m.(M.S.L.) and B.M.<sub>2</sub> + 14.240 m. (M.S.L.)

Gage Reading Frequency: 24 --time daily readings.

Basis of Mean Daily Gage Height: Arithmetic mean of 24 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: Stable, no shifting adjustment for flow computation due to its stability.

Overbank Flow Conditions: No overbank flow.

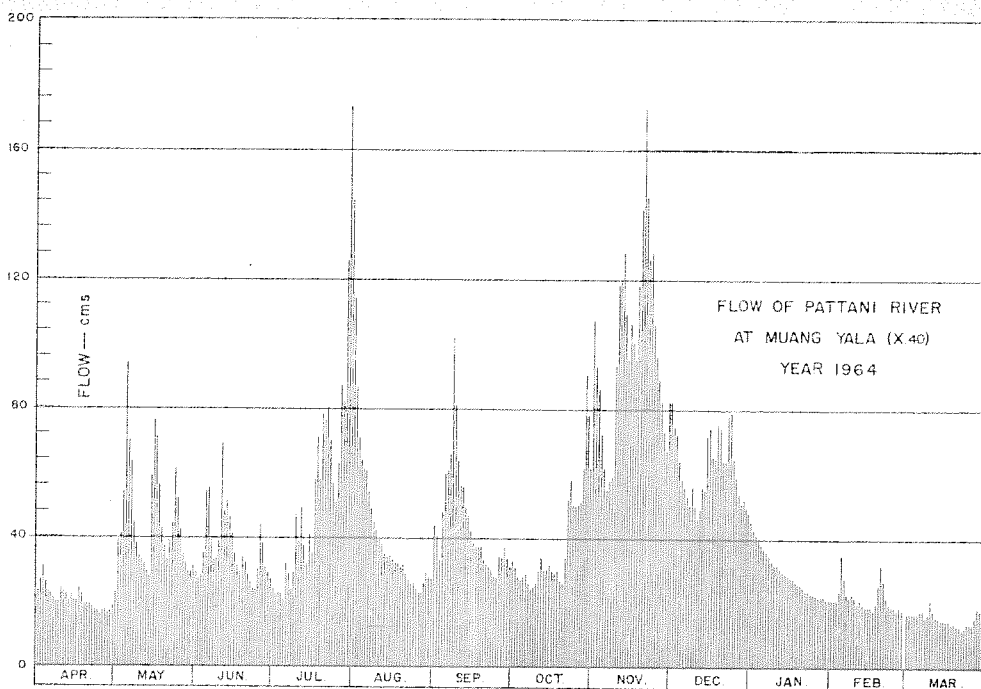
General Description: Records good. Stage - discharge relationship used is defined by discharge measurements made during 1964. No state diversions above gage site.

GAGE HEIGHT IN METER ( M. S. L.), WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	10.68	10.67	10.79	10.71	11.99	11.06	10.87	11.92	11.62	11.08	10.63	10.55
2	.76	.99	.75	.67	.68	.02	.83	.75	.53	.05	.63	.54
3	.84	11.01	.78	.67	.47	10.88	.78	.67	.49	.02	.64	.54
4	.73	.23	.92	.67	.37	.92	.76	.48	.37	.00	.71	.54
5	.67	.75	11.23	.64	.33	11.31	.77	.34	.29	10.97	.91	.54
6	10.66	11.45	11.24	10.86	11.33	11.33	10.80	11.24	11.26	10.95	10.77	10.57
7	.63	.36	.00	.79	.22	.40	.74	.29	.21	.95	.69	.56
8	.62	.09	10.88	.71	.15	.84	.71	.30	.17	.91	.66	.53
9	.61	10.97	.87	.81	.09	.60	.72	.75	.25	.88	.69	.54
10	.71	.90	.98	11.12	.03	.37	.73	12.03	.16	.86	.66	.64
11	10.68	10.88	11.44	10.99	11.00	11.25	10.81	12.05	11.10	10.85	10.64	10.57
12	.66	.85	.13	11.15	10.96	.25	.89	.14	.14	.83	.63	.53
13	.62	.79	.18	10.95	.91	.17	.81	11.94	.25	.82	.62	.51
14	.66	.77	.10	.86	.89	.12	.82	.78	.24	.80	.60	.50
15	.61	11.30	.01	11.02	.91	.04	.85	.90	.49	.79	.60	.49
16	10.62	11.54	10.91	10.91	11.87	10.96	10.82	11.85	11.51	10.78	10.60	10.49
17	.70	.47	.83	11.28	.86	.94	.80	.78	.39	.77	.58	.50
18	.65	.25	.79	.47	.86	.95	.81	12.03	.39	.76	.61	.47
19	.60	.05	.90	.28	.84	.94	.76	.28	.53	.74	.74	.46
20	.60	10.95	.86	.57	.85	.88	.73	.19	.51	.73	.86	.45
21	10.60	10.88	10.77	11.54	11.79	10.85	10.90	12.32	11.37	10.72	10.75	10.44
22	.57	.98	.73	.59	.76	.83	11.20	.12	.37	.71	.66	.43
23	.54	11.08	.71	.45	.74	.81	.29	.14	.57	.70	.62	.44
24	.54	.32	.71	.27	.73	.78	.17	11.90	.58	.69	.60	.47
25	.53	.20	.81	.18	.71	.77	.16	.79	.39	.69	.59	.46
26	10.55	11.03	11.06	11.35	11.69	10.90	11.17	11.70	11.30	10.68	10.58	10.47
27	.54	10.92	10.96	.68	.68	.89	.18	.62	.23	.66	.59	.51
28	.53	.86	.83	.61	.73	.95	.34	.50	.18	.66	.57	.60
29	.55	.80	.80	12.11	.79	.89	.72	.42	.20	.65	-	.56
30	.59	.79	.75	.57	.78	.83	.56	.61	.16	.64	-	.51
31	-	.84	-	.31	.77	-	.34	-	.13	.64	-	.50
Mean	10.63	11.06	10.92	11.26	11.45	11.06	10.96	11.79	11.33	10.80	10.66	10.53
Max.	10.84	11.75	11.44	12.57	11.99	11.84	11.72	12.32	11.62	11.08	10.91	10.64
Min.	10.53	10.67	10.71	10.64	10.89	10.77	10.71	11.24	11.10	10.64	10.57	10.43

WATER YEAR 1964 : Max. 12.57 m. Min. 10.43 m.





DISCHARGE, IN CUBIC METERS PER SECOND, WATER YEAR APRIL 1, 1964 TO MARCH 31, 1965

Day	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	23	23	29	24	114	44	33	107	82	45	21	17
2	27	39	27	23	87	41	31	93	75	43	21	17
3	31	41	28	23	71	33	28	86	72	41	21	17
4	26	54	35	23	64	35	27	72	64	40	24	17
5	23	93	54	21	61	60	28	62	58	38	35	17
6	22	70	55	32	61	61	29	55	56	37	28	18
7	21	63	40	29	54	66	26	58	53	36	23	18
8	20	45	33	24	49	101	24	59	50	35	22	16
9	20	38	33	30	45	81	25	93	56	33	23	17
10	24	34	39	47	42	64	26	118	50	32	22	21
11	23	33	69	39	40	56	30	119	46	32	21	18
12	22	32	48	49	38	56	34	128	49	31	21	16
13	20	29	51	37	35	50	30	109	56	30	20	16
14	22	28	46	32	34	47	30	95	55	29	19	15
15	20	59	41	41	35	42	32	106	72	29	19	15
16	20	76	35	35	33	38	30	101	74	28	19	15
17	24	71	31	58	32	37	29	95	65	28	18	15
18	22	56	29	71	32	37	30	118	65	27	20	14
19	19	43	34	58	31	37	27	141	75	26	26	14
20	19	37	32	78	32	33	26	138	74	26	32	13
21	19	33	28	76	29	32	34	145	64	25	27	13
22	18	39	26	80	27	31	52	126	64	24	22	12
23	17	45	24	70	26	30	58	128	78	24	20	13
24	17	61	24	57	26	28	50	106	79	23	19	14
25	16	52	30	51	24	28	50	96	65	23	19	14
26	17	42	44	63	23	34	50	89	59	23	18	14
27	17	35	38	87	23	34	51	82	54	22	19	16
28	16	32	31	82	26	37	62	73	51	22	18	19
29	17	29	29	125	29	34	90	67	52	22	-	18
30	19	29	27	173	28	31	78	82	50	21	-	16
31	-	31	-	144	28	-	62	-	48	21	-	15
Total	621	1,392	1,090	1,782	1,279	1,338	1,212	2,947	1,911	916	617	490
Mean	20.7	44.9	36.3	57.4	41.2	44.6	39.0	98.2	61.6	29.5	22.0	15.8
Max.	31	93	69	173	114	101	90	145	82	45	35	21
Min.	16	23	24	21	23	28	24	55	46	21	18	12
Runoff - mcm.	53.654	120.269	94.176	153.965	110.506	115.603	104.717	254.621	165.110	79.142	53.309	42.336

WATER YEAR 1964 : Max. 173 Min. 12 Mean 42.7 Annual Runoff 1,347.408 mcm.

Momentary Peak Discharge

Date	Time	Gage-Height	Discharge	Date	Time	Gage-Height	Discharge
Jul.30	16.00	12.70	189	Nov.21	6.00	12.39	152