BULLETIN NO. 38 1948

STATE OF ILLINOIS
DWIGHT H. GREEN, GOVERNOR

HYDROLOGY OF FIVE ILLINOIS WATER SUPPLY RESERVOIRS

COMPILED AND EDITED
BY
WYNDHAM J. ROBERTS

PREPARED IN COOPERATION WITH THE
UNITED STATES GEOLOGICAL SURVEY.
WATER RESOURCES BRANCH

DEPARTMENT OF REGISTRATION AND EDUCATION
FRANK G. THOMPSON, DIRECTOR

STATE WATER SURVEY DIVISION
A. M. BUSWELL, CHIEF

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LETTER OF TRANSMITTAL

State of Illinois
Department of Registration and Education
State Water Survey Division

Urbana, Illinois, March 29, 1948

Frank G. Thompson, Chairman and Member of the Board
of Natural Resources and Conservation:

Gentlemen:

Herewith I submit a report entitled "Hydrology of Five Illinois Water Supply Reservoirs" and recommend that it be published as Illinois State Water Survey Bulletin No. 38.

The precipitation and runoff data herein presented have been collected by many of the staff of the State Water Survey.

The stream gaging data were collected by the United States Geological Survey under a cooperative agreement with the State Water Survey.

The pumpage data for Lake Bloomington, Carbondale reservoir, Lake Centralia and West Frankfort were furnished in each case by the water works superintendent. The pumpage data for Lake Bracken were furnished by the operators at the Chicago, Burlington and Quincy Railroad pumping station.

The office compilation was performed by Mr. W. J. Roberts, Associate Engineer and Mr. R. J. Allen, Assistant Engineer, under the supervision of Mr. H. E. Hudson, Jr., Head, Engineering Sub-Division.

Respectfully submitted,

A. M. Buswell

A. M. Buswell, Chief

CONTENTS

Introduction.

The State Water Survey Division became interested in the hydrology of surface water supplies in the early 1920s. At that time there was very little information on the subject and some engineers were using data collected on New England reservoirs to base their designs of municipal reservoirs in Illinois. Thus there was a great need for precipitation and runoff data on small watersheds in Illinois. In November 1922, Mr. G. C. Habermeyer, the Division's engineer, started making an examination of existing reservoirs in the State with a view to setting up long-time research projects on a few of them.

Consideration was first given to Lake Centralia, Marion County. This reservoir furnished the municipal water supply for Centralia and investigation showed that very little water had passed the spillway. Pumpage data were available and there appeared to be no other water losses that could not be attributable to evaporation and transpiration. Three raingages were installed on the watershed. A staff gage was located on the intake tower and daily water levels obtained. The observers were local people who were paid $5.00

per month by this Division for making daily observations. In 1926 an automatic water level recorder was installed to give a continuous record of lake surface elevation.

The second lake chosen for study was West Frankfort reservoir in Franklin County. In November 1926 a raingage was installed at the waterworks and a weekly record of precipitation and pumpage was sent to this Division.

By the middle of 1929 four more reservoirs had been incorporated in the study. These were Lake Bracken, Knox County; Staunton reservoir, Macoupin County; Carbondale reservoir, Jackson County; and Lake Bloomington, McLean County.

Judged in the light of modern hydrologic programs it is perhaps difficult to appreciate the problems that beset those who started the project twenty-five years ago. The Water Survey had no automobiles. Inspecting a reservoir site generally involved a train ride and chartering a horse and wagon for the trip from the nearest railroad station to the lake site. Employing reliable local residents to do the observing work and checking their records involved considerable time and effort.

Mr. Habermeyer had to do this pioneer work practically single handed until his retirement in 1928. Later that year Mr. W. D. Gerber succeeded to the position of engineer and directed the project until he retired in 1944.

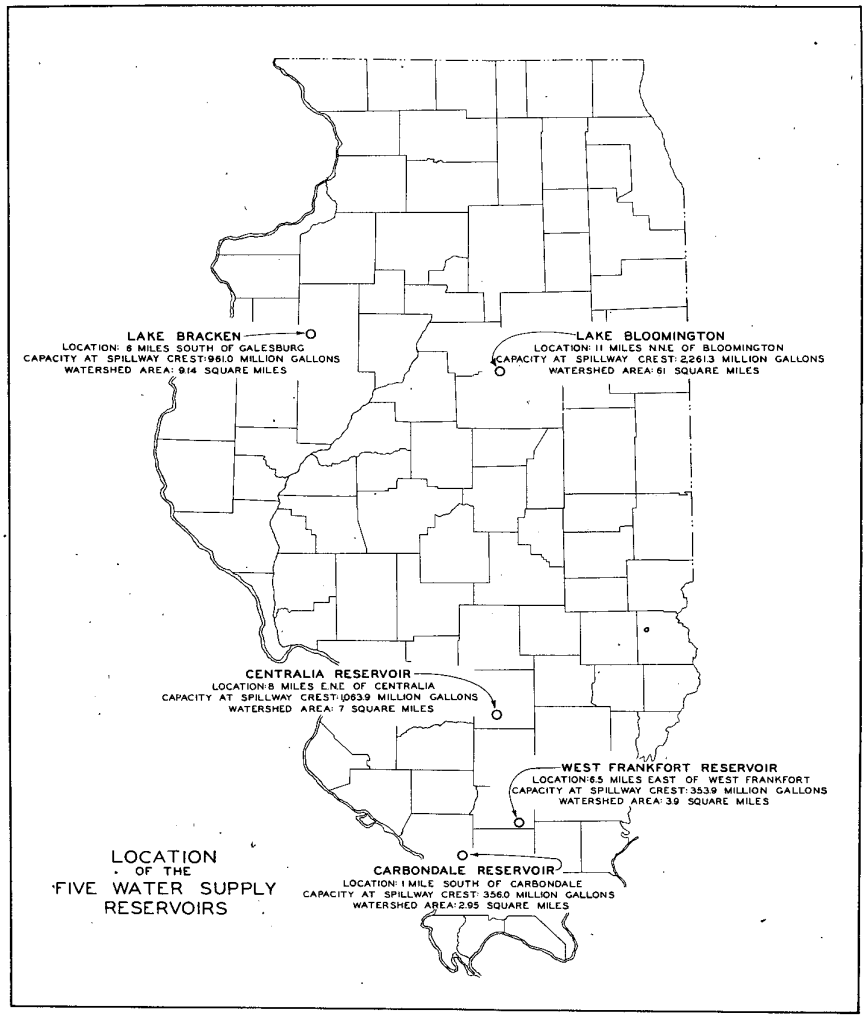

Fig. 1 - Map of Illinois showing the location of the five water supply reservoirs.

SUMMARY

This report is a summary of twenty years of continuous research on runoff conducted by the State Water Survey Division on five small watersheds in Illinois.

It presents a complete compilation of measurements of precipitation, discharge, storage, and pumpage of the following five Water Supply Reservoirs in Illinois: Lake Bloomington, Lake Bracken, Carbondale Reservoir, Centralia Reservoir, and West Frankfort Reservoir. See Fig. 1.

It also contains the results of several special studies. These are is follows: the determination of the frequency of recurrence of peak discharges; the detention effect of the reservoir storage at Lake Bloomington on peak discharges; a progress report on the investigation of periods of low flow at Lake Bloomington to determine the frequency and seriousness of the droughts and to determine a method of obtaining accurate evaporation values for reservoirs.

SOURCES OF WATER SUPPLY IN ILLINOIS

Illinois has approximately six hundred sources of public water supply and about one-sixth of these are surface supplies. Excluding Lake Michigan, over 200 municipalities obtain their municipal water from these sources, 39 of which are streams and 63 are impounding reservoirs.

The state may be divided roughly into three hydrologic sections. The northern one-third is underlain by deep sandstone aquifers which yield a supply of water for most municipal needs. The central one-third has deposits of glacial drifts and many municipal wells are finished in sand and gravel aquifers. The southern third of Illinois has less abundant ground water resources. The drift is thin and the rock aquifers, with few exceptions, yield highly mineralized water. Thus, it is in the southern half of Illinois that one finds most of the surface water supplies.

SCOPE OF STUDY

In 1926 the State Water Survey Division initiated a research program on surface water supplies. The main problem was to measure the precipitation and runoff at selected watersheds and determine what percentage of precipitation was available as runoff at each site.

The precipitation falling on a watershed is disposed of by its return to the atmosphere in a vapor form either

from plant, ground or water surface, by transpiration or plant use, by infiltration and as runoff.

The first two factors, evaporation and transpiration, account for over 50% of all precipitation. They are difficult to measure because of the many variable factors that influence their operation.

Infiltration is largely an unknown factor. Recent studies indicate that a large part of the water that was thought to percolate downward through the soil actually returns to the surface and is lost through transpiration. Runoff, on the other hand, is something that can be readily measured.

In order to carry on this work it has been necessary to enlist the help of people living on the watersheds to collect the necessary data. Four of the reservoirs are municipally operated and the fifth is owned by a railroad. In each case, the waterworks superintendent cooperates in providing daily pumpage records. Precipitation records are kept by three observers living on each watershed. These are generally farmers or members of their families, and it is interesting to note how well they keep the records. Observations are recorded on cards which are mailed to the Water Survey office once weekly. These observers render a reliable service which becomes almost an integral part of their lives.

It is seldom that inaccuracies creep into their work, and then they are easy to detect by comparison of records with those of adjacent observers.

Changes in lake volume are recorded by automatic water level recorders or by observers reading staff gages. Stream flow measurements and spillage data are secured through a cooperative agreement between the State Water Survey Division and the U. S. Geological Survey Water Resources Branch.

DEFINITION OF TERMS

The terms used in this report are taken from the U. S. Geological Survey Water Supply Papers as follows:

"Second-feet" is an abbreviation for "cubic feet per second." A second-foot is the rate of discharge of a stream whose channel is 1 square foot in cross-sectional area and whose average velocity is 1 foot per second.

"Second-feet per square mile" is the average number of cubic feet of water flowing per second from each square mile of area drained, on the assumption that the runoff is distributed uniformly both as regards time and area.

"Second-foot-day" is the volume of water represented by a flow of 1 second-foot for 24 hours. It is equivalent to 86,400 cubic feet, or 646,317 gallons and represents a runoff of 0.0372 inch from 1 square mile.

"Runoff in inches" is the depth to which an area would

be covered if all the water draining from it in a given period were uniformly distributed on its surface. It is used for comparing runoff with rainfall, which is usually expressed in inches.

"Control" is a term used to designate a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature is an artificial structure for all of these reservoirs.

"Stage-discharge relation" is an abbreviation for the term "relation between gage height and discharge."

"Contents" is a term applied to the volume of water in a reservoir, not including water in bank storage.

EXPLANATION OF DATA

The winter days during which the stage-discharge relation was affected by ice and on which discharge measurements were made are indicated in the tables by symbols referring to footnotes or are given in a general note following the table.

In the table of monthly discharge, the column headed "Second-foot-days" gives the sum for each month of the figures given in the table of daily discharge. The column headed "Maximum" gives the maximum daily discharge, not the instantaneous peak discharge. The column headed "Minimum" gives the minimum daily discharge. The column headed "Mean"

gives the average flow in cubic feet per second during the month.

TIME BASIS

At 2 a.m. on February 9, 1942, as an emergency basis, the nation shifted from standard time to "war time", and the clock time was moved ahead one hour, or to 3 a.m. Records of daily discharge prior to February 9, 1942, were computed on the basis of central standard time. At 2 a.m. on September 30, 1945, the nation shifted back from "war time" to standard time. Records between February 9, 1942, and September 30, 1945, were computed on the basis of central war time. Records subsequent to September 30, 1945, have been computed on the basis of central standard time. To convert war time to standard time, subtract one hour.

FREQUENCY OF RECURRENCE OF PEAK DISCHARGES

The peak discharges of the streams have been analyzed to determine the frequency of recurrence. The information on time, gage height, and discharge of instantaneous peak flows is taken from the stream-gaging records of the U. S. Geological Survey. Only the records obtained since the installation of continuous water-stage recorders were studied. The discharges corresponding to gage heights are taken from a rating curve on which discharges from discharge measurements are plotted as abscissas and gage heights of the

measurements as ordinates. Corrections have been applied to the gage heights to compensate for changes in the stage-discharge relation.

An arbitrary base discharge was chosen so as to include at least as many peaks as there are years of records and preferably an average of two or more peaks per year. All peak discharges are listed above the selected base without regard to the number of peaks in any time period, except that secondary peaks occurring on the same day are excluded, if they are not ten per cent greater in discharge than adjacent troughs. Some years may have several peaks above the base and other years have none.

A disadvantage of this method is that the peak discharges are not necessarily independent events, but are more or less dependent or affected by previous peaks in the same year, especially if no periods of low stage intervene.

All of the peak discharges above the base have been tabulated, numbered in order of their magnitude beginning with the highest, and the recurrence intervals computed. The recurrence intervals or the average intervals between peaks of given size regardless of time are computed by the formula $\frac{N}{M}$ where N equals the number of years of record and M equals the order of magnitude. See pages 48, 78, 125, 229 and 258 for the tabulated data.

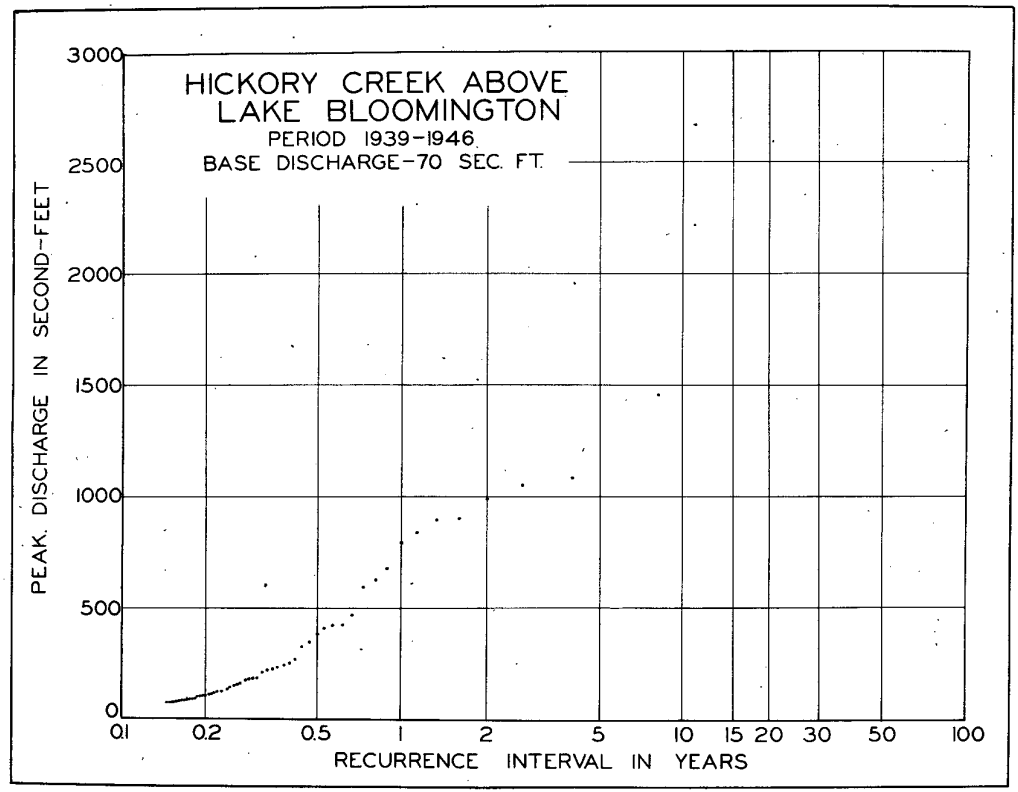

Fig. 2 - Frequency of recurrence of instantaneous peak discharges for Hickory Creek above Lake Bloomington.

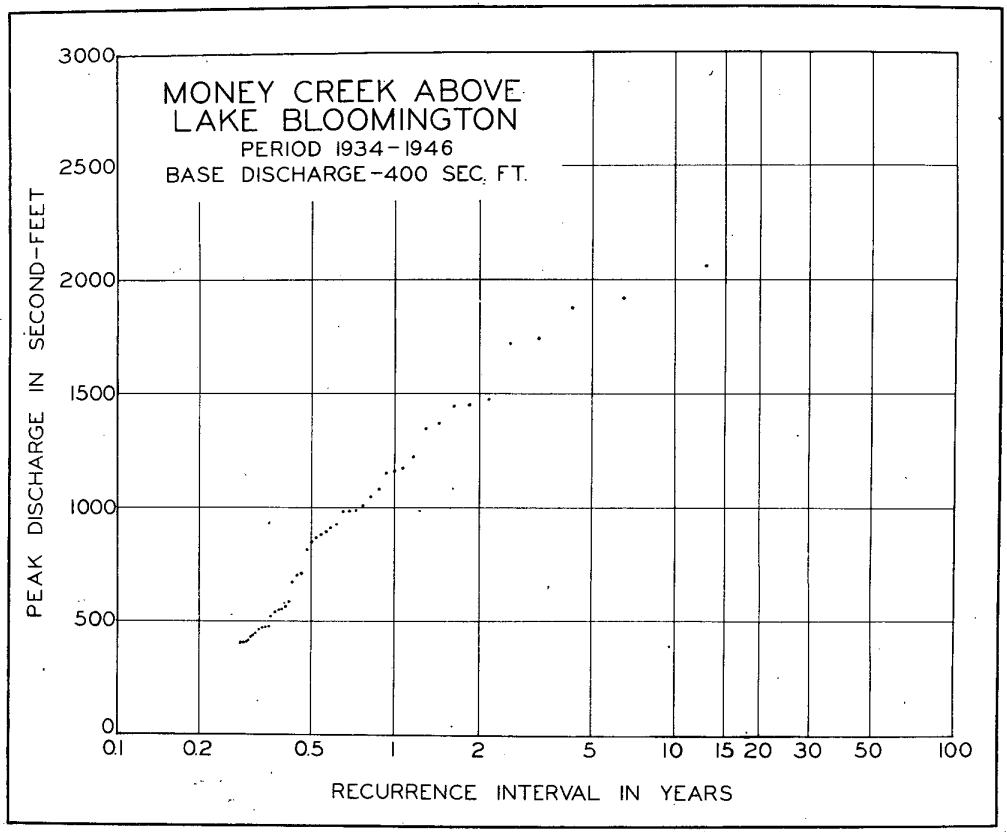

Fig. 3 - Frequency of recurrence of instantaneous peak discharges for Money Creek above Lake Bloomington.

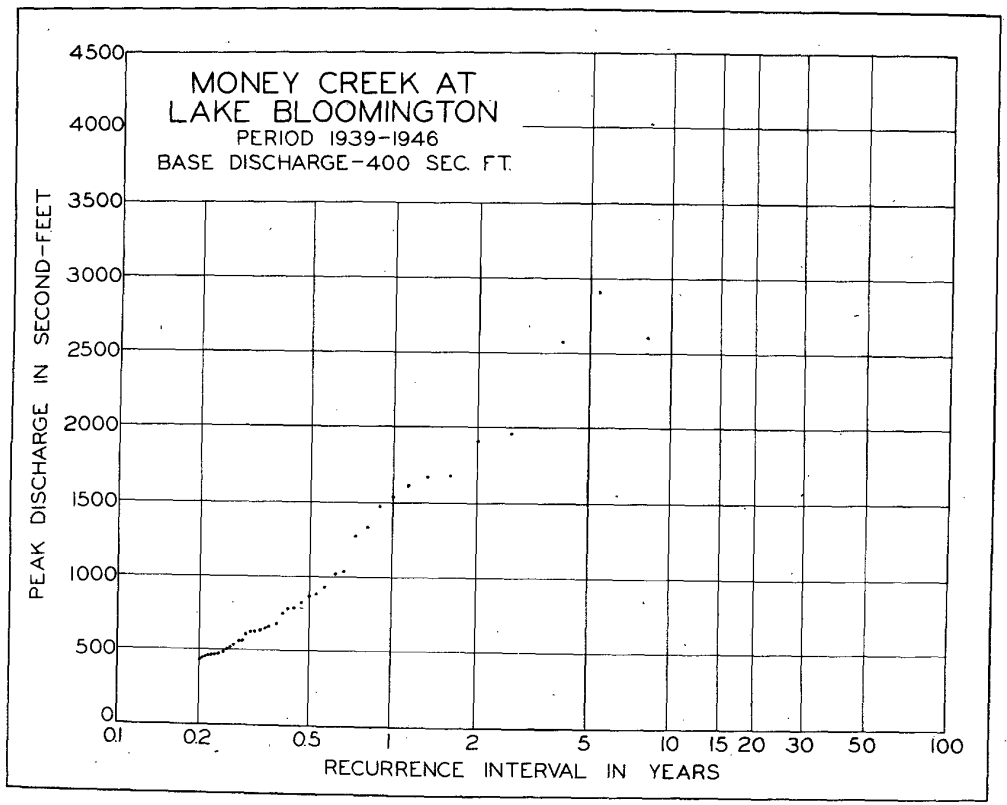

Fig. 4 - Frequency of recurrence of instantaneous peak discharges for Money Creek at Lake Bloomington.

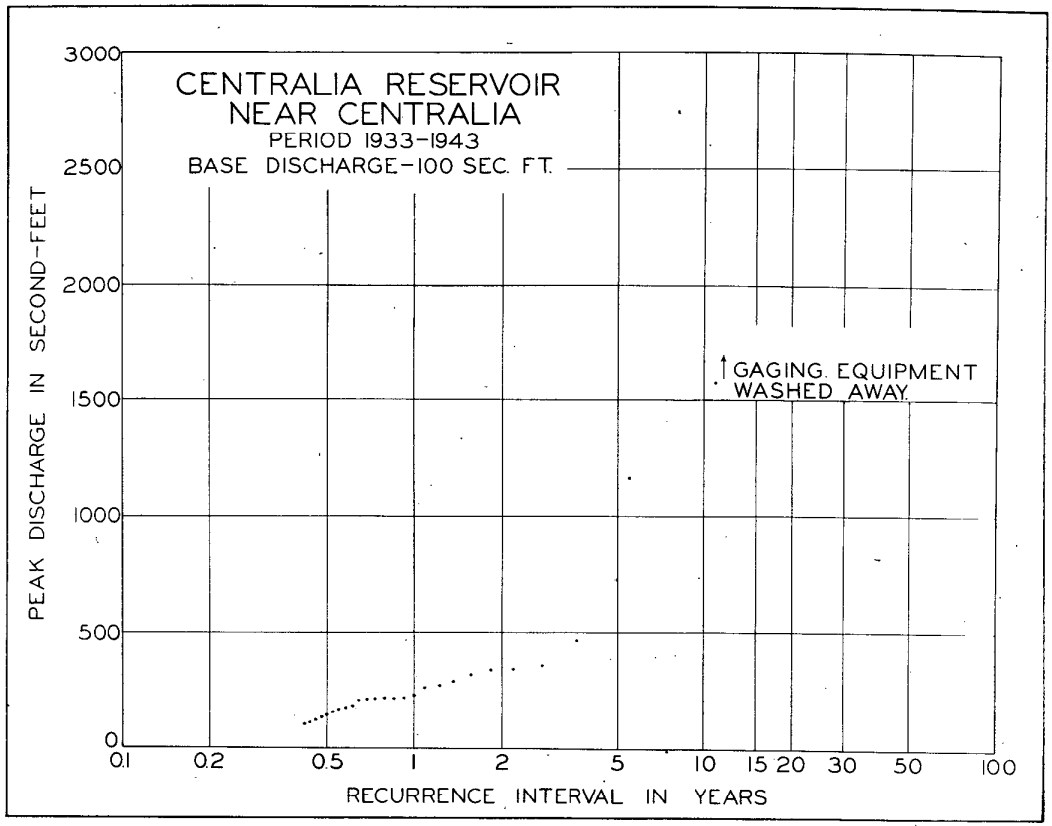

Fig. 5 - Frequency of recurrence of instantaneous peak discharges for Centralia Reservoir Creek near Centralia.

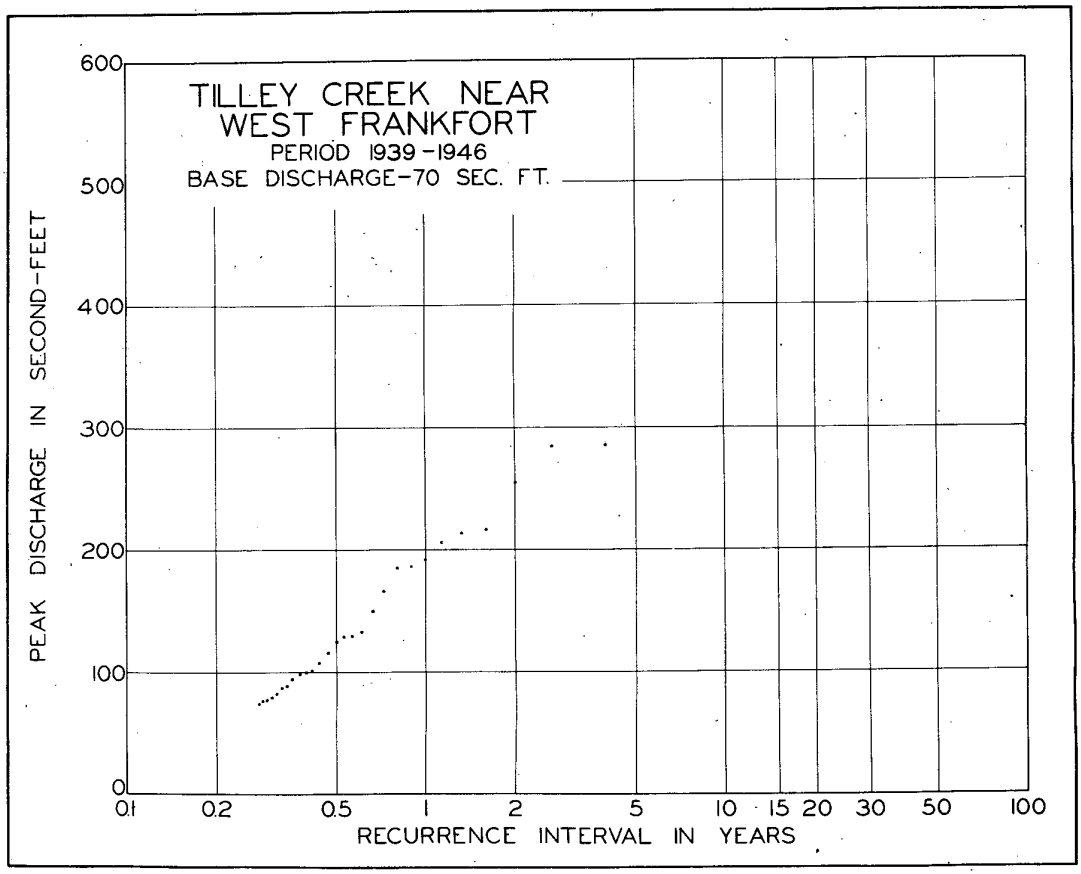

Fig. 6 - Frequency of recurrence of instantaneous peak discharges for Tilley Creek near West Frankfort.

The data are plotted on semi-log paper, with recurrence intervals on logarithmic scale and discharges on linear scale. See figures 2, 3, 4, 5, and 6.

It is believed that the period of records of these gaging stations are not of great enough length to permit accurate prediction of peak discharges above a frequency of fifteen to twenty years, as any statistical estimate based on a short record is open to question. No attempt has been made to fit a curve to the discharges plotted.

STORAGE DISCHARGE RELATION AT LAKE BLOOMINGTON

The discharge data from gaging stations on Hickory Creek and Money Creek above Lake Bloomington and Money Creek at (below) Lake Bloomington have been studied to determine the storage effect of the reservoir on the natural discharge from the drainage area. Discharge hydrographs are plotted for everal peak discharges at the above gaging stations. A summation hydrograph has been plotted for Hickory Creek and Money Creek above Lake Bloomington to show the total flow entering the reservoir. This hydrograph is compared with the hydrograph for Money Creek at Lake Bloomington, showing the discharge leaving the reservoir, to determine the effect-of storage on the discharge during peak flows.

The results showed that there was very little

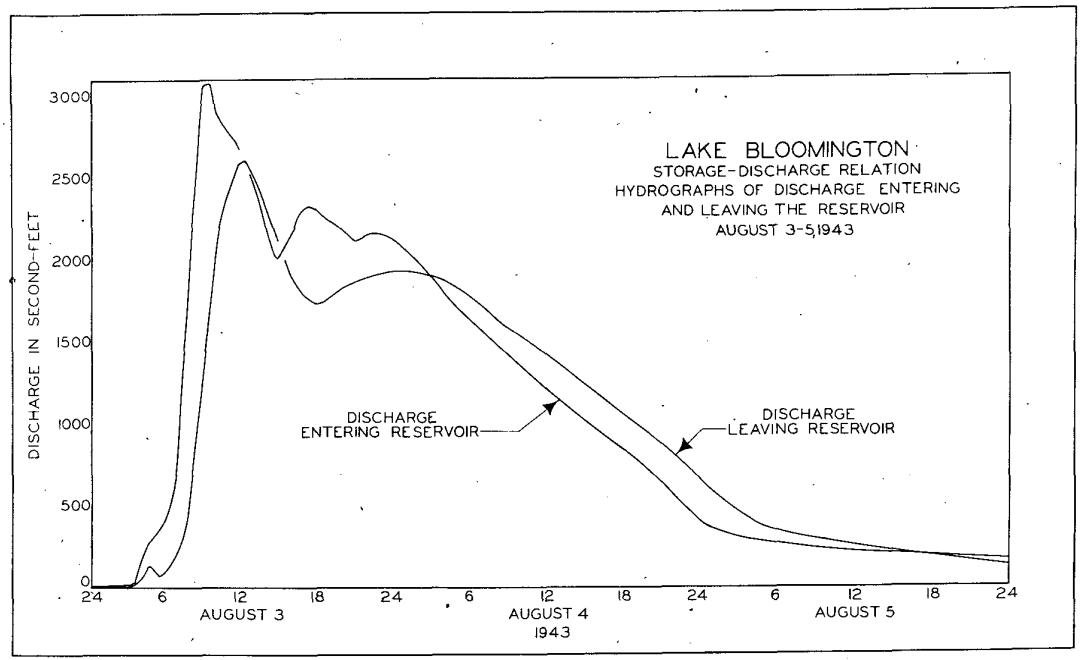

Fig. 7 - Storage-Discharge Relation for Lake Bloomington.

attenuation of peak discharges due to storage in this reservoir. The amount retained in storage averaged less than ten per cent of the total peak discharge entering the reservoir. The hydrographs of discharge entering and leaving the reservoir are very similar in shape. The discharge leaving the reservoir reached its crest on an average of three hours after the peak discharge entering the reservoir.

It is evident therefore, that in the case of Lake Bloomington where the length of spillway is 410 feet, there was no marked effect of storage in the reservoir on the discharge entering the reservoir. It is believed, however, that if adequate records on other reservoirs were available for study, that definite effect in greater magnitude would occur, particularly if the reservoirs had shorter spillways.

INVESTIGATION OF DROUGHTS AT LAKE BLOOMINGTON

An investigation has been made of the periods of low flow through Lake Bloomington, in an attempt to determine a reliable method of computing the frequency and seriousness of various length droughts, i.e., three months, six months, one year, three years, etc. Having records of both inflow and outflow of the reservoir at Bloomington, it was hoped that a method could be determined that could be applied to other similar reservoirs where only outflow records are available. It was hoped that by accounting for the losses

between inflow and outflow, reasonably accurate evaporation values could be determined.

The inflow was measured at the gages on Hickory Creek and Money Creek above the reservoir and a correction applied for the 5.9 square mile ungaged area just above the reservoir. Average monthly evaporation values were estimated, based on the evaporation occurring at Springfield, Illinois. The monthly precipitation falling directly on the water surface of the reservoir was corrected for the estimated monthly evaporation and an estimated monthly loss due to seepage. Thus, this value of loss due to evaporation and seepage and corrected for precipitation directly upon the water surface, upon being deducted from the inflow, should give the total monthly loss in the reservoir. This value should agree with the monthly loss of storage in the reservoir corrected for the monthly pumpage.

However, the loss of inflow does not check with the corrected loss of storage. Also, the discrepancies are not uniform but fluctuate, which complicates the problem of determining the cause of the discrepancies. The error does not appear to be due to errors in gaging since the flow is extremely small, if not zero, during the month studied. The discrepancies are large in certain months, ranging up to almost one-half of the average monthly pumpage. An unstable

ground water flow both into and out of the reservoir may account for some of the differences, but it is doubtful if it could account for all of the discrepancies. Errors in the estimated evaporation may account for some of the difference, but to what extent is as yet unknown due to the inconsistencies in the direction of the discrepancies.

It is intended to continue this study in the hope of obtaining more consistent results that can be applied in general to other similar reservoirs.

LAKE BLOOMINGTON

DESCRIPTION

Lake Bloomington, constructed in 1930, is owned and operated by the City of Bloomington. It is located on Money Creek, a tributary of Mackinaw River, 14 miles north northeast of the city. The drainage area is 61 square miles and the 531 acre lake holds 2,261.3 million gallons at spillway crest.

The lake has a 800-foot earth dam 45 feet high, elevation 730 feet, and a 410-foot concrete spillway section with crest at 715 feet above mean sea level.

The State Water Survey maintains three precipitation stations on the watershed and in addition has a tipping-bucket automatic gage near the dam. These stations give a fair picture of precipitation over the watershed and the records extend back to 1930.

Spillage data are collected by the U. S. Geological Survey Water Resources Branch which maintains three stations at this reservoir.

One station with water-stage recorder and concrete control is located on Money Creek at latitude 40°37'13", longitude 88°54'59", in SE 1/4 SW 1/4 Sec. 18, T. 25 N., R. 3 E.,

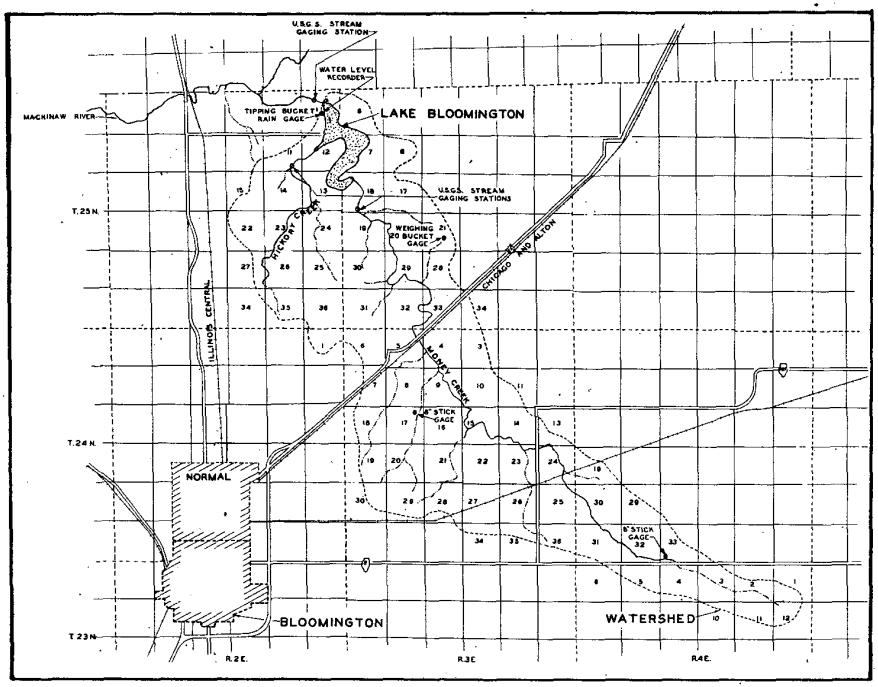

Fig. 8 - Map of Lake Bloomington Watershed.

200 feet north of line between Secs. 18 and 19 and 1 mile upstream from Lake Bloomington. It records the drainage from 45 square miles of watershed. Records are available from June 1933 to September 1946.

The second station with water-stage recorder and concrete control is located on Hickory Creek at latitude 40°38'15", longitude 88°57'00", in SE 1/4 Sec. 11, T. 25 N., R. 2 E., 100 yards downstream from an unnamed tributary, a quarter of a mile upstream from backwater from Lake Bloomington, and 3 miles northeast of Hudson. Datum of gage is 716.0 feet above mean sea level. The drainage area for this gage is 10.1 square miles. Records are available from October 1938 to September 1946.

The third station with water-stage recorder and artificial control is located on Money Creek at latitude 40°39'47", longitude 88°56'23", in NW 1/4 Sec. 1, T. 25 N., R. 2 E., 1,300 feet downstream from dam at Lake Bloomington, 2.1 miles upstream from mouth, and 4 miles northeast of Hudson. Datum of gage is 678.05 feet above mean sea level. Changes in lake capacity are measured by an auxiliary water-stage recorder located in the pumping plant just upstream from the dam. Datum of the auxiliary gage is 700.00 feet above mean sea level. This station records the drainage from 61 square miles of watershed. Records are available

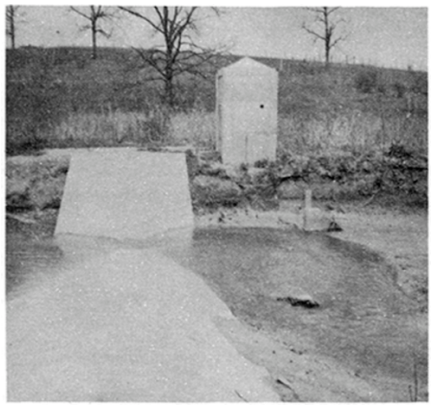

Fig. 9 - U.S.G.S. gaging station on Money Creek below Lake Bloomington; artificial concrete control and concrete water-stage recorder shelter.

Fig. 10 - Concrete Spillway at Lake Bloomington.

from October 1930 to September 1946. The flow at this station is regulated by the lake. Water is diverted from the lake by pumping for the municipal supply of Bloomington. The pumpage record is furnished by the city of Bloomington. Discharge past the gage is made up of discharge through the spillway, seepage through the dam, runoff from a 0.4 square mile area below the dam, and return flow from water diverted from the lake for use at the pumping plant and not otherwise measured. The last three items were not included in the records prior to October 1, 1940. Records are adjusted for storage and pumpage, but not for evaporation and seepage.

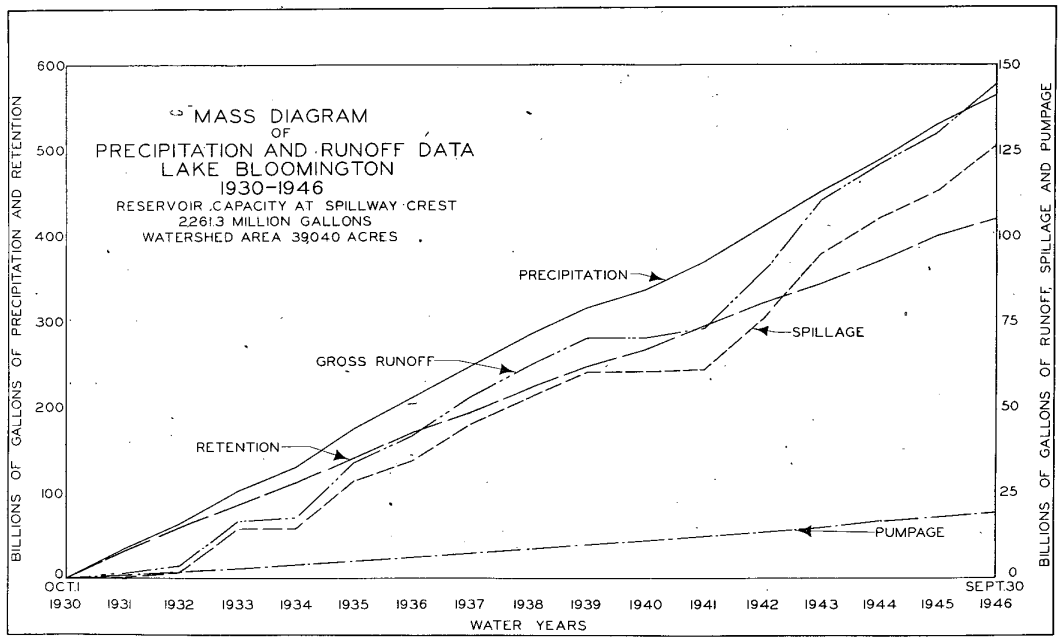

Fig. 11 - Mass Diagram of precipitation and runoff data for Lake Bloomington.

LAKE BLOOMINGTON

SUMMARY OF ANNUAL PRECIPITATION AND RUNOFF

Water Year	Precipitation (inches)	Precipitation (million gallons)	Gain or Loss (million gallons)	Spillage (million gallons)	Pumpage (million gallons)	Gross Runoff (million gallons)	Gross Runoff (inches)	Per Cent Gross Runoff	Per Cent Spillage	Per Cent Retention
1930-31	31.20	33,161.4	+464.7	99.7	875.3	1,439.7	-	4.33	0.30	95.67
1931-32	27.75	29,473.2	-339.0	1,561.2	943.1	2,165.3	2.05	7.35	5.30	92.65
1932-33	37.22	39,559.8	+51.8	12,450.9	918.7	13,421.4	12.85	33.93	31.47	66.07
1933-34	26.54	28,208.4	-250.3	0	1,128.7	878.4	0.84	3.11	0	96.89
1934-35	40.81	43,375.5	+412.5	14,317.0	1,023.4	15,752.9	14.84	36.32	33.01	63.68
1935-36	34.58	36,764.5	+179.0	6,101.8	1,154.8	7,435.6	7.02	20.22	16.60	79.78
1936-37	34.05	36,190.5	-542.0	11,149.5	1,088.0	11,695.5	11.03	32.32	30.81	67.68
1937-38	33.75	35,871.7	+199.2	7,286.7	1,188.2	8,674.1	8.17	24.18	20.31	75.82
1938-39	31.28	33,246.4	+32.2	6,616.9	1,126.3	7,775.6	7.35	23.39	19.90	76.61
1939-40	19.86	21,108.5	-288.2	195.6	1,211.4	1,118.8	1.07	5.30	0.93	94.70
1940-41	29.24	31,078.1	+202.7	599.7	1,227.9	2,030.3	1.96	6.53	1.93	93.47
1941-42	40.16	42,684.6	+200.2	15,120.6	1,230.5	16,551.4	15.63	38.78	35.42	61.22
1942-43	39.31	41,781.2	-6.7	19,474.3	1,335.7	20,803.3	19.62	49.71	46.61	50.29
1943-44	35.08	37,285.3	-164.3	9,820.3	1,358.1	11,014.0	10.39	29.54	26.34	70.46
1944-45	38.51	40,930.9	+377.1	7,822.6	1,349.8	9,549.5	9.01	23.40	19.11	76.60
1945-46	30.57	32,491.8	-389.4	13,371.3	1,329.8	14,311.6	13.48	44.05	41.15	55.95

HICKORY CREEK ABOVE LAKE BLOOMINGTON

Discharge, in second-feet, water year October 1938 to September 1939

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	0	0	0	0	0	0
November	0	0	0	0	0	0
December	0	0	0	0	0	0
January	0	0	0	0	0	0
February	253.4	45	0	9.05	0.896	0.93
March	376.4	86	3.7	12.1	1.20	1.38
April	681.0	144	3.1	22.7	2.25	2.51
May	143.5	9.3	2.0	4.63	.458	.53
June	183.9	34	1.2	6.13	.607	.68
July	128.03	28	.19	4.13	.409	.47
August	25.42	12.4	0	.820	.081	.09
September	0	0	0	0	0	0
Water year 1938-39	1,791.65	144	0	4.91	.486	6.59

Peak discharge- Feb. 9 (11:30 p.m.) 216 sec-ft.; Mar. 12 (5 a.m.) 136 sec.-ft.; Apr. 15 (11 a.m.) 350 sec.-ft.; June 10 (5:30 p.m.) 128 sec.-ft.; June 21 (6 p.m.) 91 sec.-ft.; July 17 (11 p.m.) 181 sec.ft.

HICKORY CREEK ABOVE LAKE BLOOMINGTON

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1					0	8.4	4.8	9.3	1.9	1.2	0.13	
2					0	6.2	4.2	8.4	1.9	1.0	2.1	
3					0	5.3	3.5	7.7	1.6	.96	.61	
4					0	4.8	3.5	7.3	1.4	1.0	.26	
5					0	5.3	3.9	6.9	1.4	1.4	.10	
6					0	5.3	3.4	6.3	1.4	28	.06	
7					0	4.2	3.3	6.2	1.2	13.4	12.4	
8					0	4.1	3.3	6.2	1.2	7.7	4.1	
9					19.9	3.7	3.1	5.8	1.3	5.0	1.8	
10					45	3.7	5.3	5.1	34	3.3	1.0	
11					32	25	12.5	4.5	28	2.4	.69	
12					13.4	86	9.3	4.1	14.7	1.7	.61	
13					11.3	40	7.7	3.9	10.8	1.3	.38	
14					9.6	29	9.6	4.2	8.8	.84	.23	
15					5.0	21	144	4.8	7.1	.65	.13	
16					3.1	15.4	57	3.9	5.8	.49	.08	
17					2.7	12.8	69	3.5	4.6	8.9	.05	
18					4.0	10.8	52	3.3	4.1	26	.08	
19					34	10.1	41	3.1	3.8	6.3	.04	
20					24	9.1	34	3.8	3.3	3.4	.02	
21					14.0	8.4	46	5.8	13.9	2.1	.41	
22					8.6	7.7	31	4.6	10.1	1.9	.05	
23					3.8	6.9	25	3.9	5.1	1.0	.08	
24					2.9	6.3	21	3.3	3.9	.74	.01	
25					2.2	6.2	17.8	2.9	3.0	3.5	0	
26					1.6	6.0	15.7	2.7	2.5	1.3	0	
27					2.0	5.1	14.3	3.0	2.0	.74	0	
28					14.3	4.5	13.4	2.8	2.0	.81	0	
29					–	5.0	11.6	2.2	1.7	.49	0	
30					–	5.1	10.8	2.0	1.4	.32	0	
31					–	5.0	–	2.0	–	.19	0	

HICKORY CREEK ABOVE LAKE BLOOMINGTON

Discharge, in second-feet, water year October 1939 to September 1940

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	0	0	0	0	0	0
November	0	0	0	0	0	0
December	0	0	0	0	0	0
Calendar year 1939	1,791.65	144	0	4.91	0.486	6.59
January	0	0	0	0	0	0
February	22.11	5.1	0	.762	.075	.08
March	105.83	34	.26	3.41	.338	.39
April	5.98	.41	.04	.199	.020	.02
May	34.51	3.4	.49	1.11	.110	.13
June	24.82	8.4	0	.827	.082	.09
July	0	0	0	0	0	0
August	0	0	0	0	0	0
September	0	0	0	0	0	0
Weter year 1939-40	193.25	34	0	0.528	0.052	0.71

Peak discharge- Feb. 11 (5 p.m) 14.3 sec. -ft.; Mar. 2 (11:30 p.m.) 111 sec.-ft.; June 11 (11 p.m.) 15.7 sec.-ft.

HICKORY CREEK ABOVE LAKE BLOOMINGTON

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1					0	3.3	0.29	3.4	0.38			
2					0	23	.26	3.4	.29			
3					0	34	.35	3.4	.23			
4					0	10.6	.21	2.4	.19			
5					0	7.1	.15	1.9	.13			
6					0	4.8	.12	1.6	.06			
7					0	3.5	.35	1.2	.05			
8					0	2.6	.41	1.1	.05			
9					0	1.9	.32	.90	.02			
10					0	1.6	.23	.90	0			
11					4.3	1.2	.26	.74	1.9			
12					5.1	1.1	.19	.65	8.4			
13					1.8	.96	.21	.65	4.2			
14					.65	.84	.19	.68	2.7			
15					.65	.74	.21	.79	1.8			
16					.69	.74	.12	.61	1.3			
17					.45	.79	.23	.49	1.0			
18					.21	.84	.26	.53	.74			
19					.13	.74	.19	.96	.49			
20					.31	.69	.17	.90	.29			
21					.45	.61	.13	.79	.21			
22					.26	.45	.13	.84	.13			
23					.13	.35	.17	.74	.12			
24					.08	.26	.15	.69	.12			
25					0	.26	.12	.69	.02			
26					0	.29	.09	.79	0			
27					2.3	.49	.05	.65	0			
28					1.5	.61	.04	.61	0			
29					3.1	.61	.12	.53	0			
30					-	.45	.26	.49	0			
31					-	.41	-	.49	-			

HICKORY CHEEK ABOVE LAKE BLOOMINGTON

Discharge, in second-feet, water year October 1940 to September 1941

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	0	0	0	0	0	0
November	0	0	0	0	0	0
December	0	0	0	0	0	0
Calendar year 1940	193.25	34	0	0.528	0.052	0.71
January	0	0	0	0	0	0
February	.41	.21	0	.015	.0015	.002
March	.29	.08	0	.009	.00089	.001
April	20.35	3.3	.01	.678	.067	.07
May	23.10	2.2	.16	.745	.074	.09
June	162.12	23	.02	5.40	.535	.60
July	4.95	.95	0	.160	.016	.02
August	.49	.41	0	.016	.0016	.002
September	.09	.09	0	.003	.00030	.0003
Water year 1940-41	211.80	23	0	0.580	0.057	0.79

HICKORY CREEK ABOVE LAKE BLOOMINGTON

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1					0	0	0.01	0.61	0.25	0.95	0	0
2					0	0	.01	.57	.22	.65	0	0
3					0	0	.03	.46	.30	.65	0	0
4					0	0	.05	.36	.22	.57	a0	0
5					0	0	.08	.39	.13	.49	a0	0
6					0	0	.16	1.32	.08	.39	a0	0
7					0	0	.16	1.19	.05	.33	a0	0
8					0	0	.15	1.01	.02	.22	a0	0
9					0	0	.16	.74	11.5	.18	a0	0
10					0	0	.15	.57	9.1	.15	a0	0
11					0	.12	.10	.57	15.5	.12	0	0
12					0.19	.01	.10	.53	23	.06	0	0
13					.21	.03	.12	.49	11.9	.04	0	0
14					.01	.07	.12	.90	11.6	.02	0	0
15					0	.08	.15	.79	19.6	.02	0	0
16					0	.01	.18	2.2	13.3	.01	0	0
17					0	0	.15	2.1	8.4	0	0	0
18					0	0	.30	1.54	6.4	.01	.03	0
19					0	.02	2.4	1.19	5.4	0	0	0
20					0	.03	3.3	1.01	4.4	0	0	0
21					0	.01	2.4	.79	3.9	0	0	0
22					0	.01	1.88	.70	3.3	0	0	0
23					0	0	1.54	.61	3.0	.08	0	0
24					0	0	1.62	.46	2.4	.01	.14	0
25					0	0	1.13	.42	1.97	0	05	.09
26					0	0	1.01	.39	1.62	0	0	0
27					0	0	.84	.33	1.32	0	0	0
28					0	0	.79	.22	1.13	0	0	0
29					-	0	.65	.16	1.01	0	0	0
30					-	0	.61	.18	.90	0	0	0
31					-	0	-	.30	-	0	0	-

a No gage-height record; discharge computed on basis of weather records.

HICKORY CREEK ABOVE LAKE BLOOMINGTON

Discharge, in second-feet, water year October 1941 to September 1942

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	320.4	46	0	10.3	1.02	1.18
November	449.1	34	7.5	15.0	1.49	1.65
December	186.7	10.5	3.1	6.02	.596	.69
Calender year 1941	1,168.00	46	0	3.20	.317	4.31
January	97.9	7.9	2.2	3.16	.313	.36
February	781.2	258	4.4	27.9	2.76	2.88
March	552.5	127	5.8	17.8	1.76	2.03
April	633.7	144	4.8	21.1	2.09	2.33
May	205.0	16.1	3.0	6.61	.654	.75
June	123.48	16.2	1.19	4.12	.408	.45
July	30.97	6.7	.01	.999	.099	.11
August	30.21	17.3	0	.975	.197	.11
September	.97	.20	0	9.35	.926	.004
Water year 1941-42..	3,412.13	258	0	9.35	.926	12.54

Peak discharge- Oct. 6 (10:30 a.m.) 103 sec.-ft.; Feb. 6 (11 a.m.) 593 sec.-ft.; Mar. 16 (11 a.m.) 410 sec.-ft.; Apr. 6 (11:15 p.m.) 246 sec.-ft.; Apr. 7 (4:30 p.m.) 237 sec.-ft.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

HICKORY CREEK ABOVE LAKE BLOOMINGTON

Discharge,in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	34	9.5	7.9	5.8	5.8	14.6	4.6	2.6	1.07	0.01	0.20
2	0	22	8.8	6.9	5.2	6.4	13.3	4.6	2.6	1.01	0	.10
3	0	16.8	8.2	5.4	4.4	6.4	13.6	5.2	3.0	1.07	0	.07
4	8.9	14.9	8.4	4.6	24	6.6	13.0	4.2	3.0	.95	0	.06
5	10.8	13.9	7.7	4.0	42	7.3	10.8	4.0	12.2	.95	0	.03
6	46	22	6.4	b3.7	258	8.2	39	16.1	16.2	1.79	0	.03
7	28	28	6.6	b3.3	65	9.5	144	12.7	8.6	1.13	0	.07
8	15.8	22	6.4	b3.0	40	13.9	56	10.5	5.8	1.32	0	.07
9	20	18.5	5.4	b2.8	30	14.2	47	9.3	4.9	1.01	0	.07
10	15.2	15.5	4.6	b2.6	24	12.2	48	8.4	4.8	1.01	0	.04
11	11.1	13.6	4.2	b2.4	21	12.2	30	7.9	5.4	.74	0	.01
12	8.4	12.7	4.6	b2.4	18.9	10.5	23	7.3	6.4	.70	0	.01
13	6.9	11.6	*4.6	*b2.4	16.8	10.5	20	69	5.2	.65	0	0
14	6.6	10.5	3.9	b2.4	15.2	11.9	17.2	5.8	4.8	.61	0	0
15	6.2	9.8	3.9	b2.4	20	11.9	15.5	7.3	4.2	6.7	0	0
16	5.2	8.8	4.0	b2.4	*52	127	13.9	8.2	3.9	3.3	0	0
17	4.8	8.2	4.0	b2.4	33	51	14.2	7.3	3.5	1.79	0	0
18	6.4	7.5	3.9	b2.4	18.5	32	12.7	8.8	3.1	1.19	0	0
19	6.2	10.3	3.5	b2.4	14.6	24	11.4	8.2	3.1	1.07	0	0
20	5.4	22	3.1	2.6	11.6	21	10.0	7.5	2.9	.74	0	0
21	5.1	15.5	3.2	2.6	10.5	17.5	8.8	6.8	2.4	.57	0	0
22	7.1	13.3	4.0	2.6	9.5	14.6	8.4	6.4	2.2	.42	0	0
23	10.3	13.3	7.1	2.6	9.3	13.0	7.5	5.6	1.88	.33	0	0
24	8.4	12.4	6.9	2.9	7.7	11.9	7.1	5.1	1.70	.25		0
25	7.1	12.4	6.2	2.6	6.8	10.5	6.8	4.6	1.79	.18	0	0
26	6.6	13.3	10.5	2.6	6.2	10.5	6.4	4.4	1.79	.13	0	.11
27	10.3	13.6	9.1	2.4	5.8	12.2	6.2	4.0	1.62	.13	17.3	.06
28	10.5	11.9	7.9	2.2	5.4	14.2	5.4	3.7	1.46	.08	6.9	.02
29	8.8	10.8	6.9	2.2	-	14.9	5.1	3.5	1.25	.04	4.6	.01
30	13.3	10.0	6.8	2.9	-	15.2	4.8	3.1	1.19	.03	1.01	.01
31	21	-	6.4	3.9	-	15.2	-	3.0	-	.01	.39	-

* Winter discharge measurement made on this day.
b Stage-discharge relation affected by ice.

HICKORY CREEK ABOVE LAKE BLOOMINGTON

Discharge, in second-feet, water year October 1942 to September 1943

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	0.78	0.52	0	0.025	0.0025	0.003
November	420.10	56	.07	14.0	1.39	1.55
December	626.7	240	4.3	20.2	2.00	2.31
Calendar year 1942	3,503.51	258	0	9.60	.950	12.89
January	422.2	36	2.0	13.6	1.35	1.55
February	431.5	83	5.9	15.4	1.52	1.59
March	309.8	32	2	9.99	.989	1.14
April	207.8	38	2.8	6.93	.686	.77
May	2,058.1	361	8.0	66.4	6.57	7.58
June	237.2	17.3	2.8	7.91	.783	.87
July	33.98	2.5	.05	1.10	.109	.13
August	609.84	457	.03	19.7	1.95	2.25
September	.29	.07	0	.010	.00099	.001
Water year 1942-43	5,358.29	457	0	14.7	1.46	19.74

Peak discharge- Dec. 27 (5 a.m.) 430 sec.-ft.; May 11 (12 m.) 898 sec.-ft.; May 16 (2 a.m.) 390 sec.-ft.; May 17 (10 a.m.) 841 sec.-ft.; May 18 (4 a.m.) 1,060 sec.-ft.; Aug. 3 (9 a.m.) 1,460 sec.-ft.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

HICKORY CREEK ABOVE LAKE BLOOMINGTON

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	0.18	11.7	28	9.1	4.7	6.2	14.7	12.8	2.5	0.07	.01
2	0	.13	9.6	24	8.7	3.5	5.4	13.7	11.7	2.4	.09	0
3	0	.07	a9.0	30	45	3.8	5.0	11.1	10.3	2.3	457	0
4	0	.07	8.4	24	22	3.5	5.5	9.8	9.6	2.4	55	.05
5	0	.35	8.0	18.3	25	3.6	4.5	9.4	9.8	2.4	23	.07
6	0	.59	7.2	16.6	83	2.3	4.3	8.4	9.8	2.2	15.2	.05
7	0	.59	6.6	15.3	22	b2	5.0	8.0	8.9	2.0	11.5	.01
8	0	.52	6.6	14.0	20	b2	4.3	43	8.2	1.78	9.6	0
9	0	33	6.2	13.4	22	3.4	4.5	30	7.8	1.62	8.2	0
10	0	53	6.6	11.7	26	6.8	3.9	46	15.6	1.55	6.6	0
11	0	22	6.6	10.8	15.6	5.5	3.9	299	17.3	1.47	5.0	0
12	0	16.6	6.2	9.4	12.5	4.7	4.8	72	13.4	1.33	3.8	.01
13	0	12.2	5.2	8.7	9.8	4.5	4.1	43	10.8	1.19	3.0	.01
14	0	9.6	5.2	9.6	9.1	4.5	3.4	32	9.6	1.12	2.2	.02
15	0	8.4	5.5	*8.7	8.2	13.2	3.3	67	8.7	.99	1.78	.02
16	0	7.0	5.2	7.8	6.8	*32	3.5	142	8.0	.99	1.55	.03
17	0	6.2	5.4	6.6	6.6	19.0	2.8	313	6.8	.94	1.12	.01
18	0	5.2	4.8	6.4	6.2	15.3	2.8	361	6.0	.78	.88	0
19	0	4.8	4.3	2.0	7.4	30	3.0	103	5.4	.73	.73	0
20	0	4.4	4.3	b5	9.1	22	3.4	134	6.0	.64	.64	0
21	0	14.2	4.3	b6	8.0	18.3	2.9	60	5.7	.52	.55	0
22	0	29	5.4	8.0	8.0	16.0	2.9	39	5.2	.45	.48	0
23	0	56	6.8	36	8.4	14.4	3.4	32	4.5	.38	.48	0
24	0	34	10.5	31	7.6	13.1	3.3	31	4.3	.32	.38	0
25	0	26	11.1	16.0	7.0	12.0	4.4	30	3.9	.29	.29	0
26	0	20	25	11.1	5.9	10.5	7.7	24	3.6	.23	.26	0
27	0	16.0	240	8.9	6.6	9.4	38	20	3.9	.16	.18	0
28	0	14.4	66	7.8	5.9	8.0	23	17.6	3.6	.11	.11	0
29	0	13.4	56	7.2	-	7.4	20	16.0	3.2	.09	.07	0
30	.52	12.2	39	7.6	-	7.4	18.6	14.7	2.8	.05	.05	0
31	.25	-	30	12.3	-	7.0	-	13.7	-	.05	.03	-

* Winter discharge measurement made on this day.
a No gage-height record; discharge interpolated.
b Stage-discharge relation affected by ice.

HICKORY CREEK ABOVE LAKE BLOOMINGTON

Discharage, in second-feet, water year October 1943 to September 1944

Month	Second-foot days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	0	0	0	0	0	0
November	.18	.04	0	.006	.00059	.0007
December	.06	.02	0	.002	.00020	.0002
Calendar year 1943	4,310.95	457	0	11.8	1.17	15.88
January	.02	.01	0	.001	.000099	.00007
February	39.33	10.8	0	1.36	.135	.14
March	591.4	71	2.9	19.1	1.89	2.18
April	1,831.0	374	10.8	61.0	6.04	6.74
May	412.7	40	4.8	13.3	1.32	1.52
June	152.35	36	1.40	5.08	.503	.56
July	19.29	4.7	0	.622	.062	.07
August	10.34	5.0	0	.334	.033	.04
September	1.10	.67	0	.037	.0037	.004
Water year 1943-44	3,057.77	374	0	8.35	0.827	11.25

Peak discharge- Apr. 11 (4:30 a.m.) 785 sec.-ft.; Apr. 15 (9:30 a.m.) 135 sec.-ft.; Apr. 22 (5 a.m.) 1,050 sec.-ft.; Apr. 23 (5:30 a.m.) 990 sec.-ft.; Apr. 23 (9 p.m.) 156 sec.-ft.; June 14 (5 p.m.) 153 sec.-ft.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

HICKORY CREEK ABOVE LAKE BLOOMINGTON

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0	0	0	0	3.2	21	40	4.5	1.40	0	0.16
2		0	0	0	0	2.9	16.6	23	4.1	1.26	0	.01
3		0	0	0	.01	4.3	15.0	20	3.8	1.12	0	0
4		0	0	0	.01	16.3	13.1	16.6	3.4	.99	0	0
5		0	0	0	.05	12.8	11.7	15.3	2.9	.94	0	0
6		0	0	0	.13	11.4	10.8	14.0	2.8	.83	0	0
7		.04	.02	0	.11	8.7	14.0	12.5	2.5	.78	0	0
8		.01	.02	0	.16	7.8	13.4	26	2.4	.64	0	0
9		0	.02	0	.09	5.4	13.1	24	2.5	.59	0	0
10		0	0	0	.03	4.8	27	19.0	2.4	.67	0	0
11		0	0	0	0	4.8	308	16.3	2.3	4.7	0	0
12		.01	0	0	0	5.9	74	14.0	6.5	1.62	0	.15
13		.01	0	0	0	5.2	41	12.8	6.6	.94	0	.01
14		0	0	0	0	6.4	32	11.1	36	.64	0	0
15		0	0	0	0	71	85	10.0	14.4	.48	0	0
16		0	0	0	0	46	45	12.5	9.4	.38	0	0
17		0	0	0	0	32	32	11.4	6.4	.29	0	0
18		.01	0	0	0	25	26	9.8	4.8	.23	0	0
19		.02	0	0	0	19.3	23	9.1	4.1	.11	0	0
20		.02	0	0	0	16.0	24	9.4	3.4	.05	0	0
21		.02	0	0	0	15.0	21	13.0	2.9	.04	0	.67
22		.02	0	0	.84	15.0	374	12.0	5.7	.04	.40	.09
23		.01	0	0	2.8	15.0	366	10.0	4.3	.01	.09	.01
24		.01	0	0	2.5	13.1	70	8.9	2.9	.01	0	0
25		0	0	0	5.7	11.7	40	7.8	2.4	0	0	0
26		0	0	0	10.8	15.4	30	6.6	2.3	.39	0	0
27		0	0	0	6.8	47	26	6.2	2.0	.13	.05	0
28		0	0	.01	5.4	33	21	5.9	1.78	.01	0	0
29		0	0	.01	3.9	65	18.3	5.5	1.47	0	0	0
30		0	0	0	-	29	19.0	5.2	1.40	0	4.8	0
31		-	0	0	-	23	-	4.8	-	0	5.0	-

HICKORY CREEK ABOVE LAKE BLOOMINGTON

Discharge, in second-feet, water year October 1944 to September 1945

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	56.41	26	0	1.82	0.180	0.21
November	1.96	0.11	0.02	0.065	0.0064	0.007
December	0.37	0.05	0	0.012	0.0012	0.001
Calendar year 1944	3,116.27	374	0	8.51	0.843	11.47
January	0	0	0	0	0	0
February	89.39	30	0	3.19	0.316	0.33
March	122.24	7.2	1.62	3.94	0.390	0.45
April	333.8	19.6	5.7	11.1	1.10	1.23
May	830.0	108	7.2	26.8	2.65	3.06
June	478.7	106	4.8	16.0	1.58	1.76
July	407.69	66	1.62	13.2	1.31	1.50
August	254.74	90	0.23	8.22	0.814	0.94
September	154.06	25	0	5.14	0.509	0.57
Water year 1944-45	2,729.36	108	0	7.48	0.741	10.07

Peek discharge- May 14 (11:15 p.m.) 628 sec.-ft.; May 20 (1:15 p.m.) 430 sec.-ft.; June 30 (4:30 p.m.) 680 sec.-ft.; July 5 (6:30 a.m.) 266 sec.-ft.; July 13 (10:30 p.m.) 330 sec.-ft.; Aug. 5 (10:00 p.m.) 470 sec.-ft.

Time basis: Central war time, up to 2 a.m. September 30, 1945; central standard time thereafter. To convert war time to standard time, subtract one hour.

HICKORY CREEK ABOVE LAKE BLOOMINGTON

Discharge in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	0.02	0.01		0	1.78	7.0	7.6	8.7	44	1.40	0.38
2	3.5	.05	0		0	3.2	17.2	8.7	7.4	19.3	1.40	.38
3	26	.09	0		0	6.8	19.6	9.1	6.6	14.7	1.12	.38
4	8.8	.11	.01		0	5.2	16.6	8.7	6.0	12.0	.88	.26
5	4.3	.09	.03		0	4.4	12.8	7.8	5.7	66	66	.26
6	2.5	.06	.05		0	3.8	11.1	7.2	5.4	18.0	90	.32
7	1.55	.07	.05		0	3.4	9.6	25	5.2	13.1	16.9	.38
8	1.12	.07	.04		0	4.3	8.4	30	4.8	10.5	11.7	.38
9	.88	.11	.02		0	4.5	7.6	22	13.1	9.4	8.9	.26
10	.68	.11	.01		0	3.9	6.6	21	12.5	7.6	6.4	.26
11	.59	.11	.02		0	f3.4	6.0	17.6	9.6	6.6	7.5	.41
12	.48	.07	.02		0	2.9	55.7	15.6	8.9	5.9	11.4	.48
13	.41	.07	.03		4.0	a2.5	12.3	13.4	9.6	47	6.2	.01
14	.35	.11	.01		6.7	a2.2	17.2	58	8.4	44	4.8	.01
15	.26	.09	.01		4.7	a2.0	14.4	108	9.7	15.3	3.6	0
16	.21	.07	.02		2.7	f1.87	17.3	54	73	11.4	3.0	.06
17	.21	.05	.01		1.46	1.87	16.0	53	30	9.1	2.4	.13
18	.18	.05	.01		1.15	1.62	12.8	38	20	7.8	2.0	.21
19	.21	.05	0		.94	1.70	11.1	29	18.3	6.6	1.70	.52
20	.18	.05	.01		.83	3.4	9.8	102	18.6	5.7	1.40	.26
21	.28	.05	.01		30	5.7	8.7	46	14.4	5.0	1.19	.11
22	.45	.05	0		14.1	4.7	7.8	26	11.7	4.7	.88	23
23	.48	.05	0		6.7	3.9	7.6	20	10.0	4.1	.78	9.6
24	.55	.05	0		4.3	3.3	7.8	18.0	8.9	3.5	.68	25
25	.55	.04	0		3.5	4.4	7.6	16.3	13.6	3.2	.55	15.0
26	.55	.05	0		3.7	6.2	14.0	14.4	9.4	2.7	.45	8.2
27	.59	.05	0		2.7	5.4	13.0	13.1	8.2	2.4	.35	6.2
28	.39	.05	0		1.91	4.4	10.8	11.7	7.2	2.4	.26	23
29	.06	.04	0		–	5.9	9.4	10.5	7.8	2.2	.23	22
30	.06	.03	0		–	6.4	8.0	9.4	106	1.87	.29	16.6
31	.04	–	0		–	7.2	–	8.9	–	1.62	.38	–

a No gage height record; computed by interpolation.
f Computed on basis of partly estimated gage height record.

HICKORY CREEK ABOVE LAKE BLOOMINGTON

Discharge, in second-feet, water year October 1945 tzo September 1946

Month	Second-foot-days	Maximum	Minimum	Mean	Per squ are mile	Runoff in inches
October	220.4	30	2.5	7.11	0.704	0.81
November	114.69	15.2	1.62	3.82	.378	.42
December	264.82	79	1.87	8.54	.846	.98
Calendar year 1945	3,270.53	108	0	8.96	0.887	12.04
January	560.1	81	3.8	18.1	1.79	2.06
February	278.8	35	2.3	9.96	.986	1.03
March	466.7	36	5.9	15.1	1.50	1.72
April	154.5	9.4	3.3	5.15	.510	.57
May	411.6	34	5.7	13.3	1.32	1.52
June	1,157.5	250	2.4	38.6	3.82	4.26
July	108.33	9.6	.78	3.49	.346	.40
August	7.62	.70	0	.246	.024	.03
September	0	0	0	0	0	0
Water year 1945-46	3,745.06	250	0	10.3	1.02	13.80

Peak discharge - Dec. 30 (2 a.m.) 183 sec.-ft.; Jan. 4 (9:30 p.m.) 152 sec.-ft.; Jan. 9 (5 a.m.) 74 sec.-ft.; Feb. 6 (12 a.m.) 62 sec.-ft.; Mar. 14 (3 p.m.) 62 sec.-ft.; June 18 (6:15 p.m.) 890 sec.-ft.

HICKORY CREEK ABOVE LAKE BLOOMINGTON

Discharge, insecond-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	30	2.7	7.4	16.0	3.9	8.0	9.4	9.3	5.4	9.6	0.68	
2	26	2.3	8.9	12.0	3.2	7.6	8.4	30	4.8	8.7	.55	
3	19.0	2.0	8.2	9.6	3.2	7.0	7.8	24	4.4	7.8	.48	
4	15.3	1.95	7.4	67	3.6	6.4	7.0	34	4.1	7.2	.41	
5	12.8	2.1	7.2	81	4.3	5.9	6.4	26	3.9	6.8	.45	
6	11.4	1.87	6.8	40	11.2	8.7	6.2	23	3.9	6.2	.45	
7	9.6	1.87	5.9	28	3.5	8.7	6.0	23	3.5	5.7	.41	
8	8.2	2.1	5.5	22	3.4	8.9	5.9	19.7	3.2	5.0	.45	
9	7.2	1.95	4.5	52	2.3	8.0	5.0	16.9	2.9	4.8	.41	
10	6.4	1.62	4.3	32	2.9	8.0	4.8	16.0	2.5	4.4	.38	
11	5.7	1.78	3.8	24	2.9	9.4	5.0	16.0	a2.4	4.1	.26	
12	5.0	3.3	3.6	20	2.9	11.1	4.8	14.4	a130	3.5	.23	
13	4.4	6.0	4.1	16.6	14.3	10.0	4.8	12.8	a93	3.4	.23	
14	4.1	4.1	3.5	15.6	3.4	32	4.8	12.0	32	3.0	.21	
15	3.8	3.4	2.9	13.4	3.6	36	6.8	11.1	24	2.9	.21	
16	3.6	3.4	b2.9	12.0	10.0	28	5.5	10.3	20	2.8	.16	
17	3.5	3.3	2.9	10.8	20	25	5.0	9.8	16.9	2.8	.70	
18	3.2	2.8	2.7	10.3	35	23	4.7	9.8	a250	2.4	.26	
19	2.9	2.9	2.8	9.4	27	21	4.5	9.4	a220	2.2	.13	
20	2.7	2.7	2.8	8.7	19.7	18.3	4.1	9.1	a100	1.95	.09	
21	3.0	3.0	2.5	6.8	14.0	16.3	3.9	8.2	a70	1.78	.13	
22	5.5	4.3	2.3	6.8	16.9	14.7	3.8	7.6	a35	1.55	.13	
23	3.9	2.3	1.95	7.0	15.0	18.3	4.5	7.8	22	1.40	.09	
24	3.5	2.3	1.87	5.9	12.0	26	4.1	7.8	19.0	1.19	.05	
25	3.4	2.1	10.0	6.4	10.8	21	3.9	7.4	19.7	1.40	.03	
26	2.9	1.95	7.8	4.1	12.0	17.6	3.6	6.8	16.9	1.26	.01	
27	2.8	15.2	5.5	4.7	9.6	15.3	3.4	6.4	14.4	1.12	.01	
28	2.5	12.0	4.8	4.7	8.2	13.7	3.6	5.9	12.0	.94	.01	
29	2.5	9.4	28	4.7	-	12.5	3.5	5.7	11.1	.78	.01	
30	2.9	8.0	79	4.8	-	10.5	3.3	5.7	10.5	.83	0	
31	2.7	-	23	3.8	-	9.8	-	5.7	-	.83	0	

a No gage-height record; discharge computed on basis of records for stations on Money Creek above and at Lake Bloomington.

b Stage-discharge relation affected by ice; discharge interpolated.

HICKORY CREEK ABOVE LAKE BLOOMINGTON

Peak Discharges
Base Discharge – 70 Second-feet

Date			Gage height (feet)	Discharge (second-feet)	Order of magnitude	Plotting position
Year	Month	Day				
1939	Feb.	9	3.40	228	23	0.348
	Mar.	12	2.83	142	33	0.242
	Apr.	15	4.00	350	17	0.470
		17	2.37	86	48	0.167
	June	10	2.74	128	35	0.229
		21	2.40	89	47	0.170
	July	6	2.37	86	49	0.163
		17	3.11	181	28	0.286
1940	Mar.	2	2.60	111	39	0.205
1941	Oct.	6	2.27	73	55	0.145
		6	2.55	103	42	0.190
1942	Feb.	6	4.91	596	11	0.727
	Mar.	16	4.27	414	15	0.533
	Apr.	6	3.49	244	21	0.381
		7	3.44	235	22	0.364
		9	2.39	85	50	0.160
	June	5	2.74	127	37	0.216
	Aug.	27	3.40	228	24	0.333
	Nov.	9	3.15	188	26	0.308
		22	2.52	101	43	0.186
	Dec.	27	4.28	425	13	0.615
1943	Feb.	3	2.27	75	52	0.154
		6	3.52	251	20	0.400
	May	10	2.48	97	45	0.178
		11	5.73	902	5	1.600
		16	4.13	387	16	0.500
		17	5.56	841	7	1.143
		18	6.12	1058	3	2.667
		19	2.98	162	30	0.267
		20	3.32	215	25	0.320
	Aug.	3	7.12	1458	1	8.00
1944	Mar.	15	2.56	106	40	0.200
		29	2.55	105	41	0.195
	Apr.	11	5.43	795	8	1.00
		15	2.79	135	34	0.235
		22	6.19	1086	2	4.00
		23	5.96	994	4	2.00
1944	May	1	2.61	112	38	0.211
	June	14	2.92	153	31	0.258
	Aug.	30	2.48	97	44	0.182

HICKORY CREEK ABOVE LAKE BLOOMINGTON

Peak Discharges
Base Discharge - 70 Second Feet

Date			Gage height (feet)	Discharge (second-feet)	Order of magnitude	Plotting position
Year	Month	Day				
1945	Feb.	21	2.33	81	51	0.157
	Apr.	14	4.95	628	10	0.800
		20	4.28	425	14	0.571
	June	16	3.06	174	29	0.276
		16	2.26	74	54	0.148
		30	2.74	128	36	0.222
		30	5.10	680	9	0.889
	July	5	3.60	266	19	0.421
		13	3.88	325	18	0.444
	Aug.	5	4.44	467	12	0.667
	Dec.	30	3.12	183	27	0.296
1946	Jan.	4	2.90	150	32	0.250
		9	2.26	74	53	0.151
	June	10	2.42	90	46	0.174
		18	5.72	898	6	1.333

MONEY CREEK ABOVE LAKE BLOOMINGTON

Discharge, in second-feet, June 1933 to September 1933

Month	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	-	-	-	-	-
November	-	-	-	-	-
December	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	-	-	-	-	-
May	-	-	-	-	-
June 17-30	8.7	3.6	5.31	0.118	0.06
July	3.6	0	1.02	.023	.03
August	.57	0	.0366	.00081	.0009
September	0	0	0	0	0
Period 1933	-	-	-	-	-

MONEY CREEK ABOVE LAKE BLOOMINGTON

Discharge, in second-feet, June 1933 to September 1933

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1									-	3.6	0	0
2									-	3.6	0	0
3									-	3.2	.15	0
4									-	2.3	.57	0
5									-	1.8	.19	0
6									-	1.8	.08	0
7									-	1.8	.04	0
8									-	2.1	0	0
9									-	2.6	0	0
10									-	2.1	0	0
11									-	1.6	.01	0
12									-	1.1	.05	0
13									-	.89	.02	
14									-	.78	0	
15									-	.57	0	
16									-	.50	0	
17									8.7	.36	0	
18									7.6	.26	0	
19									6.7	.22	*	
20									5.9	.16	.02	
21									5.7	.14	0	0
22									5.4	.09	0	
23									4.9	.07	0	
24									4.5	.05	0	0
25									4.2	.01	0	
26									4.0	0	0	
27									3.8	0	0	
28									3.6	0	0	
29									4.5	0	0	
30									4.9	0	0	
31									-	0	0	

* Discharge less than 0.01 second-foot.

No records September 13-20, 22, 23, September 25-30.

MONEY CREEK ABOVE LAKE BLOOMINGTON

Discharge, in second-feet, water year October 1933 to September 1934

Month	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October 17-31	70	0.20	11.4	0.253	0.14
November	3.2	1.8	2.51	.056	.06
December 1-25	3.4	1.5	2.40	.053	.05
January 15-31	7.3	1.1	2.61	.058	.04
February	2.8	.50	1.20	.027	.03
March	56	.67	4.61	.102	.12
April	37	2.6	10.7	.238	.27
May	2.4	.22	1.26	.028	.03
June	-	-	-	-	-
July	.96	0	.095	.0021	.002
August	.54	0	.056	.0012	.001
September	5.7	*	.984	.022	.02
The year	-	-	-	-	-

*Discharge less than 0.01 second-feet.

MONEY CREEK ABOVE LAKE BLOOMINGTON

Discharge, in second-feet, water year October 1933 to September 1934

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		2.8	2.4		1.4	0.67	37	2.4	0.19	0.14	0	*
2		2.6	2.4		1.4	2.6	34	2.3	.14	.05	0	.64
3		3.0	2.6		1.8	5.2	29	2.3	.11	*	0	5.7
4		3.0	3.2		2.1	5.4	25	2.3	.11	*	0	1.5
5		2.6	3.2		2.1	6.2	22	2.3	.08	*	*	.49
6		2.4	3.4		2.1	6.8	18	2.4	†.07	0	*	4.0
7		2.3	3.0		1.9	4.0	15	2.1	†.02	0	*	4.7
8		2.3	2.6		2.8	3.2	14	1.6	*	0	*	1.9
9		2.1	2.4		1.0	2.2	12	1.4		0	*	1.2
10		1.8	2.3		.67	1.5	12	1.2		0	*	1.4
11		1.8	2.4		.57	1.2	11	1.2		0	*	1.0
12		2.3	1.6		.78	1.1	9.0	1.4		*	*	.45
13		2.6	1.5		1.0	1.5	8.0	1.5		*	*	.41
14		2.3	1.5		1.2	1.4	7.6	1.9		.96	*	.16
15		2.1	2.1	1.2	1.4	1.2	6.7	1.9	†.9	.84	.54	.16
16		2.1	2.3	1.4	1.6	1.1	6.5	1.5	.28	.24	.16	.06
17	0.20	2.4	2.4	1.1	1.1	1.2	5.9	1.2	3.8	.18	.05	.03
18	1.0	2.6	2.4	1.1	1.2	1.6	5.2	1.1	44	.30	.02	.01
19	.46	2.8	2.4	1.1	1.0	1.8	4.7	.89	19.7	.15	.13	.01
20	.46	2.8	2.6	1.1	.67	1.8	4.2	.78	7.5	.06	.18	*
21	3.5	3.2	2.8	1.2	.50	4.9	4.2	.67	3.6	.01	.22	*
22	70	3.2	2.3	2.3	.57	5.7	4.2	.57	3.0	*	.17	*
23	35	3.0	2.4	4.7	.89	2.8	4.0	.50	3.3	*	.07	*
24	18	3.0	2.1	7.3	1.4	2.8	3.6	.67	4.1	0	.04	*
25	12	2.8	1.8	5.7	.89	2.4	3.2	.67	4.1	0	.03	*
26	8.0	2.4		3.8	.57	2.1	3.4	.67	3.6	0	.01	*
27	6.7	2.3		4.2	.57	2.3	3.8	.50	1.7	0	*	*
28	5.4	1.9		3.6	.50	2.3	3.2	.42	.83	0	*	1.7
29	4.2	2.3		2.1	-	2.3	2.8	.36	.39	0	*	1.4
30	3.6	2.4		1.2	-	7.6	2.6	.26	.18	0		2.6
31	3.0	-		1.2	-	56	-	.22	-	0		-

* Discharge less than 0.01 second-foot.

† Estimated.

No records October 1-16, December 26-January 14, June 9-14.

MONEY CREEK ABOVE LAKE BLOOMINGTON

Discharge, in second-feet, water year October 1934 to September 1935

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	23.62	4.6	0	0.762	0.017	0.02
November	497.8	85	1.4	16.6	.369	.41
December	701.0	69	4.4	22.6	.502	.58
January	1,556.0	242	6.3	50.2	1.12	1.29
February	1,948.8	410	9.4	69.6	1.55	1.61
March	2,738	252	44	88.3	1.96	2.26
April	1,657	205	24	55.2	1.23	1.37
May	5,607	966	24	181	4.02	4.64
June	2,493.6	420	14.4	83.1	1.85	2.06
July	1,289.5	169	10.6	41.6	.924	1.07
August	136.58	15.8	.16	4.41	.098	.11
September	14.76	2.8	0	.492	.011	.01
Water Year 1934-35	18,663.66	966	0	51.1	1.14	15.43

MONEY CREEK ABOVE LAKE BLOOMINGTON

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.3	1.6	69	6.3	16.8	72	38	24	37	85	15.8	0.16
2	.69	1.4	51	8.4	19.2	72	34	58	35	152	13.6	1.7
3	1.0	1.6	48	10.2	19.9	69	31	702	32	86	11.6	2.8
4	.74	2.5	64	8.5	19.2	71	29	380	27	62	10.2	2.2
5	.42	4.0	53	8.4	16.3	68	29	211	24	51	9.2	1.2
6	.21	8.6	44	11	10.0	57	26	243	24	42	8.9	.74
7	.11	9.5	36	45	9.4	98	28	297	24	35	7.4	.48
8	.08	8.6	31	242	34	100	33	187	21	30	6.2	.59
9	.04	6.7	27	221	54	77	40	966	19.2	26	5.5	1.2
10	.02	5.3	17.1	123	56	252	41	447	19.2	23	4.9	1.0
11	.02	4.4	16.9	98	40	252	144	196	19.9	21	4.2	.74
12	.01	3.6	21	83	24	157	205	158	16.8	18.6	3.5	.51
13	.01	3.3	19.2	72	92	124	158	374	15.3	16.8	2.9	.33
14	0	3.0	13	61	252	103	124	238	14.8	15.3	2.4	.20
15	0	2.8	15	61	126	91	96	146	14.4	14.4	2.2	.11
16	0	2.5	11	56	83	78	75	122	28	12.8	3.1	.07
17	0	2.3	13	54	54	60	64	105	77	11.6	3.6	.04
18	0	2.7	8.1	42	41	52	57	88	176	10.6	6.3	.02
19	0	3.1	24	40	35	52	51	75	202	11.6	2.8	0
20	0	3.3	6.9	39	31	51	45	68	142	12.8	2.4	0
21	.04	5.0	15	29	27	106	41	60	110	11.2	2.1	0
22	.04	36	11	b35	25	80	37	52	91	13.6	2.6	0
23	.06	54	4.4	31	22	80	35	48	71	21	1.4	0
24	.23	40	8.4	28	40	72	32	42	57	169	1.1	0
25	1.0	30	13	30	410	88	28	37	103	93	.74	0
26	1.2	25	11	26	202	83	27	34	420	77	.55	0
27	4.6	21	9.3	19.2	112	71	31	35	166	48	.48	.11
28	4.4	50	9.3	17.4	78	58	27	48	134	40	.30	.23
29	3.0	85	12	18.0	–	53	27	69	260	35	.25	.23
30	2.4	71	11	16.8	–	47	24	53	113	25	.20	.10
31	2.0	–	8.4	15.8	–	44	–	44	–	19.2	.16	–

b Stage-discharge relation affected by ice.

MONEY CREEK ABOVE LAKE BLOOMINGTON

Discharge in second-feet, water year October 1935 to September 1936

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October.....	2.46	0.35	0	0.079	0.0018	0.002
November.....	475.72	47	.92	15.9	.363	.39
December.....	185.7	9.2	2.3	5.99	.133	.15
Calendar year 1935	18,105.12	966	0	49.6	1.10	14.962
January.....	418.7	67	4.6	13.5	.300	.35
February.....	2,936.0	1,040	2.8	101	2.24	2.42
March	1,394 7	125	18.0	45.0	1.00	1.15
April	514.9	30	10.6	17.2	.382	.43
May	2,527.4	813	13.2	81.5	1.81	2.09
June	161.7	12.8	1.4	5.39	.120	.13
July	7.94	2.0	0	.256	.0057	.007
August.....	533.99	138	0	17.2	.382	.44
September.....	1,552.3	387	1.4	51.7	1.15	1.28
Water year 1935-36	10,711.51	1,040	0	29.3	.0651	8.839

MONEY CREEK ABOVE LAKE BLOOMINGTON

Discharge in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.04	0.92	7.7	4.6	b6.0	96	28	37	12.8	2.0	0	4.9
2	.04	1.1	5.7	4.9	b6.0	83	28	813	12.4	1.6	0	14.4
3	.03	1.2	6.5	6.2	b6.0	71	24	294	10.2	1.3	0	51
4	.02	26	5.1	8.6	b6.7	67	21	182	9.5	.97	0	31
5	.01	47	6.0	8.4	b6.0	57	24	144	9.2	.74	0	14.8
6	.01	27	7.0	8.9	b5.2	48	24	113	9.2	.51	0	8.9
7	0	16.8	8.4	8.0	b4.3	44	21	89	8.9	.35	0	5.3
8	0	12.4	8.9	7.2	b4.0	39	18.6	72	8.0	.2	0	3.4
9	.01	11.6	9.2	7.2	b3.6	36	18.0	61	7.7	.12	0	2.4
10	.04	14.0	8	7.0	b3.2	34	18.6	56	8.0	.10	35	1.8
11	.08	19.2	6	7.0	b2.8	33	17.4	99	7.2	.04	8.2	1.4
12	.10	36	8	12.7	b3.0	30	16.3	67	6.2	.01	2.1	5.9
13	.12	36	8	67	b3.9	26	15.8	56	5.3	0	.64	220
14	.08	27	7.7	52	b4.0	26	15.3	44	5.1	0	.23	130
15	.04	22	8	41	b4.0	24	14.4	39	4.6	0	.09	46
16	.04	19.2	7	26	b4.1	19.9	12.8	35	4.2	0	1.8	47
17	.03	16.8	7.4	23	b3.7	18.6	12.4	31	3.8	0	8.1	44
18	.02	15.3	6.7	17.4	b3.4	18.0	12.4	34	3.4	0	2.5	24
19	.02	14.8	4.3	12.8	b3.0	18.0	12.0	36	3.3	0	.73	15.3
20	.02	14.0	4.8	B11.5	b2.9	19.2	11.6	26	2.9	0	124	11.2
21	.04	12.8	4.6	B10.5	b2.9	21	12.8	22	2.5	0	30	8.6
22	.06	10.9	5.1	B9.2	b2.8	21	11.6	19.9	2.4	0	9.3	6.7
23	.07	9.4	5.7	8.0	b8.5	21	10.6	18.6	2.2	0	3.8	5.5
24	.11	9.2	6	7.0	b350	125	10.6	25	2.2	0	1.8	4.6
25	.11	9.8	4.2	B6.5	622	108	10.6	19.9	2.1	0	4.3	3.6
26	.10	9.5	3.1	B6.3	1,040	77	10.6	19.2	2.0	0	62	6.6
27	.10	10.9	2.3	B6.0	545	61	11.2	17.4	1.9	0	16.7	387
28	.19	10.2	2.8	B6.0	157	47	16.3	15.8	1.7	0	138	263
29	.25	6.7	3.5	B5.9	122	40	25	14.4	1.4	0	57	113
30	.33	8.0	3.6	B5.9	-	36	30	14.0	1.4	0	19.0	71
31	.35	-	4.4	B6.0	-	30	-	13.2	-	0	8.7	-

b Stage-discharge relation affected by ice; discharge computed on basis of one discharge measurement, gage-heights, weather records, and records of inflow into Lake Bloomington.

MONEY CREEK ABOVE LAKE BLOOMINGTON

Discharge, in second-feet, water year October 1936 to September 1937

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	915.5	86	7.2	29.5	0.656	0.76
November	2,188.70	588	8.0	73.0	1.62	1.81
December	611.5	126	4.9	19.7	0.438	.50
Calendar year 1936	13,763.33	1,040	0	37.6	0.836	11.367
January	2,737	252	41	88.3	1.96	2.26
February	1,614.20	243	19.2	57.6	1.28	0.62
March	756.1	37	15.3	24.4	0.542	1.63
April	1,969.20	126	16.8	65.6	1.46	1.49
May	1,798.60	566	17.4	58.0	1.29	1.71
June	2,063.20	96	12.0	68.8	1.53	0.43
July	518.1	315	2.1	16.7	0.371	0.88
August	1,061.50	8.6	1.3	34.2	0.760	0.04
September	45.19		0.12	1.51	0.034	
Water year 1936-37	16,278.79	588	0.12	44.6	0.991	13.46

MONEY CREEK ABOVE LAKE BLOOMINGTON

Discharge in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a61	10.6	8.6	93	b39	35	16.8	112	16.3	38	1.7	8.6
2	a58	429	10.9	86	b37	33	17.4	137	15.8	32	1.4	3.0
3	a56	588	10.2	81	b34	31	27	193	15.8	25	1.3	2.2
4	a54	209	8.6	65	b25	33	53	178	15.3	21	315	2.4
5	a53	148	6.7	52	26	35	115	148	15.3	18.0	155	2.9
6	a51	115	14.4	44	38	36	119	108	15.8	15.3	37	2.5
7	a49	91	b7.0	46	26	37	98	88	12.8	14	18	1.6
8	a48	75	b9.5	194	75	37	78	75	12.0	12.4	12	1.4
9	a83	62	11.6	252	57	32	64	65	14.0	11.2	9.2	1.2
10	a86	51	11.2	148	57	33	54	56	22	10.2	7.2	1.6
11	54	44	b4.9	110	49	28	46	51	17.4	8.9	5.3	4.4
12	29	39	b8.0	89	34	26	41	48	14.8	13.6	64	2.8
13	23	d35	8.6	93	28	24	39	42	19.9	15.3	30	2.0
14	18.6	d31	8.4	164	25	21	40	38	380	96	14	1.5
15	15.8	28	8	148	26	22	49	37	124	45	8.4	1.2
16	14.4	24	8.6	117	21	22	37	35	77	30	5.5	.97
17	13.6	22	8.4	105	19.2	21	35	31	65	19.9	4.2	.82
18	12.4	19.9	5.9	94	34	22	34	31	49	15.3	3.3	.62
19	11.2	17.4	5.9	78	65	21	32	28	39	12.8	6.9	.45
20	9.5	18.6	6.5	77	166	21	32	27	33	10.9	5.3	.42
21	9.5	17.4	6	86	243	18	85	26	27	8.4	131	.37
22	8.9	15.8	5.5	b62	b148	16.3	126	28	22	7.2	124	.33
23	7.7	15.8	6.7	b57	98	16.8	91	29	19.2	6	33	.27
24	7.2	14.4	6.5	b52	74	19.2	105	24	16.8	5.3	19.9	.19
25	7.4	14	7	b48	b48	18.0	96	23	36	6.7	13.6	.27
26	12.4	12	8.9	b48	b42	15.8	78	34	566	5.3	10.2	.28
27	14.4	10.2	48	b56	b42	15.3	80	27	202	3.8	7.7	.27
28	13.6	12	88	51	38	16.8	86	22	91	3.3	6.0	.28
29	12.8	11.6	65	42	–	16.8	85	21	62	2.8	4.8	.23
30	10.9	8	72	b41	–	16.8	110	19.2	47	2.4	3.6	.12
31	10.2	–	126	b58	–	16.3	–	17.4	–	2.1	3.0	–

a No gage-heights; discharge computed on basis of records for station at Lake Bloomington.
b Stage-discharge relation affected by ice; discharge computed on basis of gage-heights and weather records.
d. Discharge interpolated.

MONEY CREEK ABOVE LAKE BLOOMINGTON

Discharge, in second-feet, water year October 1937 to September 1938

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	25.34	2.6	0.04	0.817	0.018	0.02
November	22.5	1.4	.33	0.75	.017	.02
December	356.09	85	.45	11.5	.256	.3
Calendar Year 1937 ..	12,967.02	566	.04	33.5	.789	10.73
January	866.6	315	2.1	28	.622	.72
February	1,126.50	106	13.2	40.2	.893	.93
March	2,387	196	27	77	1.71	1.97
April	2,833	288	29	94.4	2.1	2.34
May	1,215.90	180	13.2	39.2	.871	1
June	1,260.40	134	12.8	42	.933	1.04
July	362.9	37	1.7	11.7	.26	.3
August	20.95	5.2	0	.676	.015	.02
September	5.16	1.6	0	.172	.0038	.004
Water Year 1937-38 ..	10,482.34	315	0	28.7	.638	8.66

Peak discharge- Jan. 24(12 m.) 440 sec.-ft.; Mar. 26 (4 a.m.) 279 sec.-ft.; Apr. 7 (8 a.m.) 360 sec.-ft.

MONEY CREEK ABOVE LAKE BLOOMINGTON

Discharge in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.07	0.55	0.82	15.8	b13.6	62	98	26	67	37	4.6	1.6
2	.04	.51	.78	12.8	b13.2	56	78	25	62	37	2.8	.37
3	.04	.48	.87	10.9	b17.4	47	67	24	46	32	1.7	.11
4	.35	.62	1.4	8.0	15.3	42	56	24	40	25	1.2	.04
5	1.4	.97	1.2	8.4	18.6	52	49	23	34	22	1.2	.02
6	.92	1.1	b1.1	6.5	25	53	136	19.9	34	19.2	1.2	0
7	.62	1.2	b.92	2.9	22	46	279	18	35	17.4	.74	.79
8	.48	1.2	b.82	b2.2	18.6	40	209	19.2	28	16.3	.55	.84
9	.33	.92	b.69	b2.1	18	36	288	18	25	14.4	.48	.11
10	.23	.78	b.62	b2.1	16.8	36	227	17.4	32	12.8	.37	.04
11	.19	.74	b.51	b2.3	18	34	164	15.8	134	11.6	.25	.02
12	.15	.74	b.45	b2.5	42	32	130	15.3	60	11.2	.16	.02
13	.19	.69	b.51	b2.9	64	30	108	14.8	40	10.6	.11	.07
14	.21	.65	1.6	3.0	45	27	91	18	41	11.2	.05	.04
15	.23	.65	2.8	3.4	32	45	78	16.3	41	8.9	.02	.01
16	.19	.65	6.5	3.6	26	155	74	13.2	29	8	.12	0
17	.19	.65	12.4	4.2	27	112	93	25	24	8	.12	.13
18	.55	.65	11.2	4.4	77	88	71	32	21	8.6	.05	.25
19	1.4	.69	7.0	3.8	106	72	61	48	18.6	7	.02	.23
20	1.7	.65	5.3	3.4	78	61	71	54	16.8	6	.01	.28
21	2.6	.58	5.5	11.6	64	52	60	28	15.8	5.3	0	.12
22	2.2	.48	14.4	37	56	48	49	25	14.8	4.9	0	.05
23	1.7	.37	22	25	49	148	46	42	14.4	4.9	0	.02
24	1.6	.33	30	315	46	151	45	89	13.2	3.8	0	0
25	1.4	.45	22	211	44	154	39	62	12.8	3.1	0	0
26	1.4	.62	15.3	b29	45	196	37	51	71	2.7	0	0
27	1.3	.78	38	b32	54	122	35	45	121	4.2	0	0
28	1.2	1.4	85	b25	75	96	34	74	74	3.3	0	0
29	1.1	1.4	31	b28	-	88	31	180	53	2.2	0	0
30	.78	1	18	b32	-	78	29	101	42	1.7	0	0
31	.58	-	17.4	b15.8	-	128		72	-	2.6	5.2	-

b Stage-discharge relation affected by ice; discharge computed On basis of one discharge measurement, gage-heights, weather records, and records for station at Lake Bloomington

MONEY CREEK ABOVE LAKE BLOOMINGTON

Discharge, in second-feet, water year October 1938 to September 1939

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	0	0	0	0	0	0
November	0.18	.04	0	.006	.00013	.0001
December	5.18	1.4	0	.167	.0037	.004
Calendar Year 1938	10,083.77	315	0	27.6	.613	8.33
January	9.22	1.2	0	.297	.007	.008
February	1,414.41	207	.06	50.5	1.12	1.17
March	2,873.90	823	19.9	92.7	2.06	2.37
April	3,465.50	588	16.3	116	2.58	2.88
May	715.9	46	10.2	23.1	.513	.59
June	935.4	329	7	31.2	.693	.77
July	758.4	176	2.4	24.5	.544	.63
August	53.19	9.8	.06	1.72	.38	.04
September	.07	.04	0	.002	0	0
Water Year 1938-39 ..	10,231.35	823	0	28.0	6.22	8.46

Peak discharge- Feb. 10 (12 m.) 333 sec.-ft.; Feb. 19 (11:50 p.m.) 315 sec.-ft.; Mar. 12 (7 p.m.) 980 sec.-ft.; Apr. 15 (8 p.m.) 750 sec.-ft.; June 11 (5 a.m.) 566 sec.-ft.; July 6 (10 p.m.) 370 sec.-ft.

MONEY CREEK ABOVE LAKE BLOOMINGTON

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0	0.04	0	0.06	78	26	46	9.5	6.0	2.1	0.04
2		0	.08	.07	.12	44	21	41	10.9	5.3	2.5	.02
3		0	.58	.16	.58	35	19.2	38	9.5	4.9	2.6	.01
4		0	1.4	.25	.35	30	18.0	37	7.4	5.1	1.6	0
5		0	.87	1.2	.33	30	19.2	36	7.0	5.3	1.2	0
6		0	.45	.78	.62	30	19.2	33	7.0	165	.92	0
7		0	.25	.87	.65	24	16.3	32	7.0	176	9.8	0
8		0	.20	.45	1.1	24	19.2	32	7.4	54	5.7	0
9		0	.16	.51	14.8	23	17.4	33	7.7	31	3.1	0
10		0	.13	.48	194	19.9	23	29	125	19.2	2.3	0
11		0	.11	.45	112	186	67	25	329	14.0	1.6	0
12		0	.10	.30	64	823	54	22	96	10.9	1.4	0
13		0	.07	.30	48	426	44	21	54	9.2	1.3	0
14		0	.06	.30	52	191	52	23	37	7.2	1.1	0
15		0	.04	.30	29	146	588	27	29	5.7	.82	0
16		0	.04	.35	13.6	108	494	21	24	4.9	.58	0
17		0	.06	.30	18.0	85	324	19.2	19.2	6.2	.40	0
18		0	.03	.30	13.2	68	252	17.4	16.3	108	.45	0
19		0	.03	.27	157	60	203	16.8	15.3	34	.62	0
20		0	.04	.23	207	54	166	16.8	15.3	16.3	1.3	0
21		0	.04	.25	94	48	187	18.0	14.8	10.6	2.6	0
22		0	.02	.15	88	47	167	16.3	14.0	8.0	4.2	0
23		0	.06	.11	52	42	135	14.8	12.0	6.5	2.3	0
24		.02	.08	.12	48	39	113	13.6	10.2	5.7	1.1	0
25		.04	.09	.10	29	37	96	12.4	9.2	11.6	.62	0
26		.03	.12	.11	27	35	83	12.0	8.9	9.5	.35	0
27		.02	.03	.08	24	31	72	14.0	8.4	5.3	.23	0
28		.01	0	.10	126	27	64	14.8	8.6	4.2	.16	0
29		.02	0	.20	-	27	54	12.4	8.6	3.5	.10	0
30		.04	0	.02	-	29	52	11.2	7.2	2.9	.08	0
31		-	0	.11	-	27	-	10.2	-	2.4	.06	-

MONEY CREEK ABOVE LAKE BLOOMINGTON

Discharge, in second-feet, water year October 1939 to September 1940

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	0	0	0	0	0	0
November	0	0	0	0	0	0
December	2.38	.25	.02	.077	.0017	.002
Calendar year 1939	10,228.37	823	0	28.0	.622	8.46
January	.01	.01	0	.0003	.00001	.00001
February	59.9	20	0	2.07	.046	.05
March	497	140	4	16.0	.356	.41
April	113.1	5.5	2.4	3.77	.084	.09
May	298.7	32	4.6	9.64	.214	.25
June	128.46	25	.48	4.28	.095	.11
July	5.26	1.7	0	.170	.0038	.004
August	0	0	0	0	0	0
September	0	0	0	0	0	0
Water year 1939-40	1,104.81	140	0	3.02	.067	.92

MONEY CREEK ABOVE LAKE BLOOMINGTON

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.
1			0	0.01	0	a10	a4	6.0	5.7	0.51		
2			.23	0	0	a40	a4	32	4.6	.35		
3			.25	0	0	a140	a4	29	3.5	.23		
4			.23	0	0	a70	4.4	21	3.0	.16		
5			.17	0	0	a40	4.0	15.8	2.7	.07		
6			.15	0	0	a30	3.5	13.6	2.5	.02		
7			.11	0	0	a20	4.4	12.0	2.3	0		
8			.09	0	0	a16	5.5	10.2	2.4	0		
9			.08	0	0	a12	4.8	8.9	2.2	0		
10			.07	0	0	a10	3.8	8.4	2.0	0		
11			.06	0	b2.0	a8	3.5	7.4	2.5	0		
12			.06	0	20	a7	3.4	7.7	25	1.7		
13			.06	0	f10.6	a7	3.5	7.0	15.3	1.4		
14			.04	0	a5	a6	3.4	7.0	8.6	.51		
15			.04	0	a3	a6	3.6	8.0	6.5	.21		
16			.05	0	a2	a6	3.5	6.5	6.9	.08		
17			.06	0	a2	a5	3.6	5.5	6.7	.02		
18			.05	0	a2	a5	4.8	5.3	4.2	0		
19			.05	0	a1	a5	4.6	7.4	3.5	0		
20			.04	0	a1	a5	4.4	9.2	2.8	0		
21			.04	0	a.8	a5	4.0	9.5	2.3	0		
22			.03	0	a.6	a5	3.6	8.0	2.2	0		
23			.03	0	a.4	a5	3.6	6.7	2.0	0		
24			.03	0	a.3	a5	4.2	6.5	2.1	0		
25			.02	0	a.1	a5	3.4	6.5	1.9	0		
26			.02	0	a.1	a4	3.0	7.0	1.6	0		
27			.03	0	a1	a4	2.6	6.5	1.2	0		
28			.06	0	a3	a4	2.5	5.3	1.0	0		
29			.10	0	a5	a4	2.4	5.1	.78	0		
30			.08	0	-	a4	3.1	4.6	.48	0		
31			.05	0	-	a4	-	5.1	-	0		

a No gage-height records; discharge computed on basis of records for Hickory Creek above Lake Bloomington.

b Stage-discharge relation affected by ice.

f Gage-height partly estimated.

Note: Discharge computed from doubtful gage-heights June 18 to July 11.

MONEY CREEK ABOVE LAKE BLOOMINGTON

Discharge, in second-feet, water year October 1940 to September 1941

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	0	0	0	0	0	0
November	0	0	0	0	0	0
December	0	0	0	0	0	0
Calendar year 1940	1,102.43	140	0	3.01	.067	.91
January	-	-	-	-	-	-
February	-	-	-	-	-	-
March	-	-	-	-	-	-
April	-	-	-	-	-	-
May 19-31	116.2	15.8	4.0	8.94	.199	.10
June	2,023.8	608	1.7	67.5	1.50	1.67
July	175.14	24	.01	5.65	.126	1.45
August	2.48	.94	0	.080	.0018	.02
September	2.31	.77	0	.077	.0017	.02
Water Year 1940-41	-	-	-	-	-	-

MONEY CREEK ABOVE LAKE BLOOMINGTON

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1				0.01	-			-	5.3	24	0	0
2					-			-	4.2	21	0	0
3					-			-	4.8	15.8	a0	0
4					-			-	4.4	24	a0	0
5					-			-	3.4	15.8	a0	0
6					-			-	2.6	11.6	a0	0
7					-			-	2.1	8.9	a0	0
8					-			-	1.7	7.2	a0	0
9					-			-	30	6.0	a0	0
10					-			-	95	5.3	a0	.12
11					-			-	385	5.3	0	.17
12					*0.3			-	608	4.2	0	.02
13					-			-	172	3.4	0	0
14					-			-	118	2.8	0	0
15					4.4			-	120	2.5	0	0
16					-			-	93	2.3	0	0
17					-		*4.6	-	67	2.0	0	0
18					-			-	51	2.1	.22	0
19					-			10.6	39	1.6	.94	0
20					-			11.2	32	1.4	.33	0
21					-			15.8	25	.92	.08	0
22					-			11.6	21	.69	.02	0
23					-			9.8	18.0	1.8	0	0
24					-			8.6	24	1.6	.09	0
25					-			13.5	17.4	1.4	.66	.77
26					-			11.1	13.2	.79	.12	.75
27					-			6.0	10.9	.40	.02	.36
28					-			4.9	10.2	.21	0	.07
29					-			4.0	10.6	.10	0	.03
30					-			4.0	35	.03	0	.02
31					-			5.1	-	.01	0	-

* Discharge measurement made on this day.

a No gage-height record; discharge computed on basis of weather records.

MONEY CREEK ABOVE LAKE BLOOMINGTON
Discharge, in second-feet, water year October 1941 to September 1942

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	2,043.02	279	0	65.9	1.46	1.69
November	2,865	260	45	95.5	2.12	2.37
December	1,020.30	57	17.4	32.9	0.731	0.84
Calendar year 1941..	-	-	-	-	-	-
January	619.7	42	12.4	20	0.444	0.51
February	3,970	752	26	142	3.16	3.28
March	3,137	742	27	101	2.24	2.59
April	2,538	339	24	84.6	1.88	2.1
May	1,673	137	22	54	1.2	1.38
June	763.2	80	8.4	25.4	0.564	0.63
July	252.8	54	1.1	8.15	0.181	0.21
August	63.67	23	0	2.05	0.046	0.05
September	20.22	7.6	0	0.674	0.015	0.02
Water year 1941-42..	18,965.91	752	0	52.0	1.16	15.67

Peak discharge- Oct. 5 (2:30 a.m.) 344 sec.-ft.; Oct.6 (11:55 p.m.) 439 sec.-ft.; Feb. 5 (3:30 p.m.) 522 sec.-ft.; Feb. 6 (9 p.m.) 982 sec.-ft.; Mar. 17 (4 a.m.) 1,170 sec.-ft.; Apr.8 (5:30 a.m.) 473 sec.-ft.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

MONEY CREEK ABOVE LAKE BLOOMINGTON

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	.01	a260	A55	42	31	27	72	24	21	7.7	0.87	7.6
2	0	a240	a50	42	26	30	68	23	19.2	7.2	.69	2.4
3	.01	a130	a50	-42	27	29	65	49	26	7.0	.51	1.1
4	5.0	a100	a45	31	123	29	60	35	22	7.2	.40	.65
5	231	a90	a40	a25	427	30	54	27	31	6.5	.30	.40
6	228	a120	a30	b24	752	33	72	87	80	8.9	.21	.27
7	279	a220	a35	b22	570	37	269	82	65	7.7	.16	.35
8	141	a160	a25	b20	228	60	339	60	41	8.4	.15	.58
9	118	a120	a25	b18	168	86	202	51	33	10.2	.12	.58
10	130	a90	a22	b16	132	69	201	44	29	8.6	.35	.48
11	82	a90	a20	b16	108	68	148	40	26	7.0	.30	.33
12	62	a80	a22	b16	92	60	118	39	42	5.5	.13	.19
13	49	a70	27	*b16	80	54	101	60	39	5.1	.06	.11
14	45	a60	23	b16	69	58	88	67	34	8.0	.02	.06
15	42	a55	23	b16	82	61	76	80	29	15.1	0	.02
16	35	a50	23	b16	*244	335	65	137	26	54	0	.01
17	31	a45	23	16.8	211	742	62	88	23	21	0	0
18	34	a45	22	19.2	128	228	57	96	21	11.6	0	0
19	34	a50	19.9	16.8	92	159	51	92	21	8.6	0	0
20	32	a90	18.0	15.8	69	132	45	74	18.6	7.2	0	0
21	30	a80	17.4	14.8	54	109	42	64	15.8	5.7	0	0
22	33	a75	21	15.8	48	90	39	56	14.0	4.6	0	0
23	37	a70	33	16.3	45	76	36	48	12.8	3.8	0	0
24	a30	a65	38	16.3	40	68	34	42	11.6	3.3	0	0
25	a25	a60	32	15.8	35	61	33	37	11.2	2.9	0	0
26	a35	a65	54	14.0	32	57	32	35	12.4	2.5	0	.84
27	a30	a75	57	14.0	30	61	32	33	11.2	2.2	22	2.1
28	a45	a80	49	12.8	27	71	28	30	9.8	1.6	4.6	.97
29	a45	a70	42	12.4	–	71	25	27	9.2	1.4	23	.78
30	a55	a60	41	14.4	–	72	24	24	8.4	1.2	7.0	.40
31	a100	–	*38	27	–	74	–	22	–	1.1	2.8	–

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of records for stations at lake Bloomington and Hickory Creek above lake Bloomington.

b Stage-discharge relation affected by ice; discharge computed on basis of one discharge measurement and weather records

MONEY CREEK ABOVE LAKE BLOOMINGTON

Discharge, in second-feet, water year October 1942 to September 1943

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October.....	8.10	3.4	0	0.261	0.0058	0.007
November.....	2,200.70	350	2.5	73.4	1.63	1.82
December.....	2,865	650	25	92.4	2.05	2.37
Calendar year 1942..	18,111.39	752	0	49.6	1.10	14.97
January.....	2,181.50	180	17.5	70.4	1.56	1.8
February.....	1,802	342	21	64.4	1.43	1.49
March.....	1,498.50	136	10	48.3	1.07	1.24
April.....	956.7	161	14.4	31.9	.709	.79
May.....	9,517	1,620	23	307	6.82	7.87
June.....	1,673	184	21	55.8	1.24	1.38
July.....	259.2	18.0	2.2	8.36	.186	0.21
August.....	2,758.50	1,060	1.4	89.0	1.98	2.28
September.....	20.93	3.0	.04	.698	.016	.02
Water year 1942-43..	25,741.13	1,620	0	70.5	1.57	21.28

Peak discharge- May 8 (4 p.m.) 548 sec.-ft.; May 11 (9 p.m.) 1,350 sec.-ft.; May 16 (12 m.) 698 sec.-ft.; May 18 (11 a.m.) 2,050 sec.-ft.; May 20 (4 p.m.) 595 sec.-ft.; Aug. 3 (6 p.m.) 1,880 sec.-ft.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

MONEY CREEK ABOVE LAKE BLOOMINGTON

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.23	6.0	a50	a150	38	19.9	31	45	81	18.0	1.9	1.2
2	.15	4.4	a40	a130	46	11.0	26	40	71	16.3	1.8	.92
3	.08	3.0	a35	a130	164	b12	24	33	58	15.3	1,020	.74
4	.06	2.5	a50	a130	132	b14	25	25	52	16.3	1,060	2.2
5	.04	2.9	a45	a110	75	16.8	24	24	46	16.8	188	a3.0
6	.04	5.7	a40	a100	342	12.0	22	23	46	14.4	112	a2.2
7	.03	9.5	a35	a100	121	b11	24	37	42	13.2	80	a1.5
8	.02	8.0	a35	a90	76	b10	24	421	39	11.6	58	a1.0
9	.03	35	a35	a80	80	16.8	22	332	37	10.9	45	a.8
10	.03	218	a40	a70	100	39	22	255	106	9.8	34	a.6
11	.03	118	a40	a60	81	54	19.2	792	184	9.5	25	a.5
12	.02	68	a35	a60	60	33	24	804	81	a8.5	21	a.5
13	.01	61	a30	a40	b42	28	21	292	60	a7.5	18.0	a.4
14	0	38	a30	a35	b35	25	18.0	214	76	a7.0	14.8	a.4
15	0	33	a30	*a40	*b38	36	16.3	228	56	a6.0	12.0	a.6
16	0	28	a30	38	b32	118	17.4	637	47	6.5	9.8	1.0
17	0	24	a30	32	b31	128	15.3	894	39	7.0	8.0	.78
18	0	19.9	a25	25	30	84	14.4	1,620	33	10.2	6.7	.55
19	0	18.0	a25	17.5	33	106	15.3	639	29	6.7	5.7	.45
20	0	16.8	a25	26	36	136	17.4	490	34	6.5	5.1	.35
21	.01	61	a30	34	30	93	16.3	337	68	5.7	4.6	.30
22	.05	a150	a30	a55	28	76	14.4	228	39	4.9	4.2	.25
23	.06	a360	a40	a100	30	67	17.4	181	32	4.4	4.0	.20
24	.08	a350	a60	a180	27	61	17.4	163	27	4.0	3.5	.16
25	.08	a170	a60	a100	24	56	19.9	182	79	3.8	3.1	.09
26	.08	a110	a120	a50	21	49	33	139	72	3.8	2.8	.07
27	.08	a90	a650	a45	23	44	161	113	58	3.3	2.4	.05
28	.09	a80	a550	a45	27	38	121	96	36	2.7	2.2	.04
29	.10	a70	a250	40	–	35	72	86	25	2.9	1.9	.04
30	3.3	a60	a200	34	–	35	62	78	21	3.5	1.6	.04
31	3.4	0	a170	45	–	34	–	69	–	2.2	1.4	–

* Winter discharge measurements made on this day.

a No gage-height record; discharge computed on basis of records for Hickory Creek above Lake Bloomington and Money Creek at Lake Bloomington.

b Stage-discharge relation affected by ice; discharge computed on basis of records for Hickory Creek above Lake Bloomington and Money Creek at Lake Bloomington.

MONEY CREEK ABOVE LAKE BLOOMINGTON

Discharge, in second-feet, water year October 1943 to September 1944

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	3.40	0.40	0	.110	0.0024	0.003
November	25.13	4.0	.27	.838	.019	.02
December	10.87	.69	.07	.351	.0078	.009
Calendar year 1943	20,706.73	1,620	0	56.7	1.26	17.11
January	16.87	2.7	.08	.544	.012	.01
February	284.97	60	.08	9.83	.218	.24
March	1,889.5	173	17.4	61.0	1.36	1.56
April	8,481	1,500	44	283	6.29	7.01
May	2,126	132	30	68.6	1.52	1.76
June	492.3	37	5.5	16.4	.364	.41
July	73.56	9.4	.03	2.37	.053	.06
August	13.73	10	0	.443	.0098	.01
September	41.79	18.3	0	1.39	.031	.03
Water year 1943-44	13,459.12	1,500	0	36.8	.818	11.12

Peak discharge- Mar. 15 (1 p.m.) 186 sec.-ft.; Mar. 29 (6 a.m.) 202 sec.-ft.; Apr. 11 (11:30 a.m.) 1,740 sec.-ft.; Apr. 15 (5:30 p.m.) 560 sec.-ft.; Apr. 22 (12 m.) 1,400 sec.-ft.; Apr. 23 (11:30 a.m.) 1,930 sec.-ft.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

MONEY CREEK ABOVE LAKE BLOOMINGTON

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	0.27	0.55	0.28	1.0	18.6	84	98	26	5.1	0.04	1.2
2	.02	.33	.55	.30	1.3	17.4	67	93	24	4.8	.01	.42
3	.01	.30	.51	.33	1.2	18.0	58	84	22	4.6	0	.12
4	.01	.28	.51	.40	1.1	36	54	75	19.9	4.0	0	.03
5	.01	.27	.48	.42	1.1	33	47	68	17.4	3.6	0	0
6	0	.40	.55	.37	.82	32	44	62	15.8	3.3	0	0
7	0	.82	.55	.28	a.8	24	51	54	15.3	3.0	0	0
8	0	1.4	.51	.17	a.8	22	53	80	14.8	9.4	0	0
9	0	4.0	.51	.16	a.7	24	56	132	14.8	8.8	0	0
10	0	2.8	.69	.17	.27	19.2	164	104	15.3	3.4	0	0
11	0	1.6	.69	.19	.08	21	1,220	87	14.0	2.9	0	9.3
12	0	1.3	.65	.13	b.1	19.9	649	78	18.8	2.7	0	18.3
13	0	.97	.42	.08	b.1	17.4	298	69	26	2.4	0	2.9
14	0	.87	.33	.08	b.1	18.0	211	61	26	2.2	0	1.0
15	0	.97	.13	.12	.27	145	430	54	37	1.6	0	.45
16	0	.87	.08	.17	.33	155	318	104	18.0	1.4	0	.23
17	.12	.74	.07	.21	.37	125	199	123	14.0	1.2	0	.11
18	.16	.69	.09	.21	.37	*95	164	87	11.6	1.1	0	.04
19	.10	.62	.13	.28	.45	76	141	69	11.2	.92	0	.01
20	.09	.62	.19	.30	.69	65	132	65	11.6	.69	0	3.3
21	.18	.62	.23	.37	.62	53	118	69	10.2	.42	0	3.0
22	.28	.55	.23	.42	6.4	49	964	60	16.1	.28	.11	.48
23	.30	.51	.15	.42	36	48	1,500	52	30	.15	0.17	.23
24	.40	.45	.10	.42	31	44	556	46	14.0	.08	a.1	.16
25	.30	.45	.13	.62	38	40	238	45	11.2	.03	a0	.09
26	.23	.45	.20	.87	60	44	177	39	9.5	2.4	a0	.05
27	.23	.48	.28	1.4	45	111	152	35	8.9	1.9	a.3	.03
28	.25	.48	.33	2.7	32	123	125	38	7.4	.72	a1.2	.10
29	.23	.51	.33	1.8	24	173	111	33	6.0	.25	a.9	.13
30	.20	.51	.35	1.6	-	128	100	32	5.5	.1	a.9	.11
31	.25	-	.35	1.6	-	95	-	30	-	.09	a10	-

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of weather records, recorded range in stage, and records for Hickory Creek above Lake Bloomington.

b Stage-discharge relation affected by ice.

MONEY CREEK ABOVE LAKE BLOOMINGTON

Discharge, in second-feet, water year October 1944 to September 1945

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	39.46	25	0.07	1.27	0.028	0.03
November	5.37	0.21	0.07	0.179	0.004	0.004
December	7.80	0.97	0.06	0.252	0.0056	0.006
Calendar year 1944	13,472.35	1500	0	37.1	0.824	11.13
January	38.78	1.6	0.69	1.25	0.028	0.03
February	334.9	90	1.2	12.0	0.267	0.28
March	412.6	33	4.6	13.3	0.296	0.34
April	1,555	137	25	51.8	1.15	1.29
May	4,336	602	33	140	3.11	3.58
June	3,565.4	573	18.6	119	2.64	2.95
July	908.2	244	4.8	29.3	0.651	0.75
August	373.42	103	0.51	12.0	0.267	0.31
September	718.91	291	0.01	24.0	0.533	0.59
Water year 1944-45	12,295.84	602	0.01	33.7	0.749	10.16

Peak discharge- May 8 (9:00 a.m.) 318 sec.-ft.; May 15 (9:00 a.m.) 810 sec.-ft.; May 20 (11:00 p.m.) 645 sec.ft.; June 9 (5:00 p.m.) 412 sec.-ft.; June 16 (4:00 p.m.) 790 sec.-ft.; June 25 (1:15 p.m.) 504 sec.-ft.

Time basis: Central war time up to 2 a.m. September 30, 1945; Central standard time thereafter. To convert war time to standard time, subtract one hour.

MONEY CREEK ABOVE LAKE BLOOMINGTON

Discharge, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.08	0.07	0.17	1.1	1.2	4.9	38	34	34	244	3.8	0.37
2	2.9	.08	.13	.92	1.2	8.4	88	35	31	80	3.8	.30
3	25	.09	.10	.69	1.2	19.2	137	37	26	53	3.3	.17
4	3.3	.15	.10	.78	1.6	17.4	100	38	23	42	3.8	.09
5	2.2	.15	.16	.82	a1.6	13.6	a70	35	21	44	33	.06
6	1.5	.15	.20	.97	a1.7	12.4	a55	33	19.9	32	103	.04
7	.82	.13	.23	1.1	a1.7	12.4	a40	93	19.9	26	23	.02
8	.51	.15	.27	1.2	a1.8	14.8	40	260	18.6	24	11.6	.02
9	.42	.20	.27	1.2	a1.8	16.8	37	148	223	24	8.4	.01
10	.35	.20	.23	1.2	a1.8	14.8	31	118	234	19.9	6.2	.02
11	.28	.20	.28	1.2	a2	12.4	28	96	95	16.8	12.0	.03
12	.25	.20	.30	1.2	a5	10.6	25	82	69	15.8	38	.04
13	.23	a.2	.28	1.2	a15	8.9	71	67	72	40	23	.74
14	.19	a.2	.20	1.2	a29	8.0	72	130	61	58	14.4	3.4
15	.15	a.2	.16	1.3	35	8.0	56	602	56	29	29	1.9
16	.11	a.2	.19	1.4	13.6	7.4	60	342	573	19.2	12.4	a1.1
17	.09	a.2	.16	1.4	3.5	5.7	65	354	480	15.8	8.9	a.6
18	.08	a.2	.09	1.4	a3	4.6	48	268	252	14.4	7.0	a.9
19	.08	a.2	.09	1.4	a2.5	5.1	40	196	187	13.2	5.1	a2.5
20	.08	a.2	.15	1.4	a2	7.2	38	355	123	12	5.1	a1.2
21	.08	a.2	.09	1.3	a90	14.0	34	318	116	10.9	3.6	a.6
22	.08	a.2	.06	1.4	a50	12.4	28	170	72	10.9	2.9	28
23	.08	a.2	.08	1.4	a25	10.9	27	104	60	10.2	2.4	38
24	.08	a.2	.09	1.4	a13	9.8	28	80	52	8.9	2.1	48
25	.08	a.2	.15	1.4	a9	15.5	26	69	212	7.7	1.7	44
26	.08	a.2	.16	1.4	a9	24	59	60	109	7.2	1.5	24
27	.08	a.2	.27	1.4	a7.4	18.6	74	52	56	6.5	1.3	16.8
28	.07	a.2	.51	1.5	5.3	14.8	56	47	45	6.5	1.1	63
29	.07	.21	.74	1.6	-	21	46	41	39	6.2	.82	291
30	.07	.19	.92	1.5	-	26	38	37	186	5.3	.69	152
31	.07	-	.97	1.4	-	33	-	35	-	4.8	.51	-

a No gage-height record; discharge computed on basis of weather records, and records for stations at Lake Bloomingtion and Hickory Creek above Lake Bloomington.

MONEY CREEK ABOVE LAKE BLOOMINGTON

Discharge, in second-feet water year October 1945 to September 1946

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	790.2	150	6.5	25.5	0.567	0.65
November	319.0	37	5.3	10.6	0.236	0.26
December	1,281.10	457	7.0	41.3	0.918	1.06
Calendar year 1945 .	14,633.51	602	0.01	40.0	0.889	12.09
January	3,968.2	630	14.0	128	2.84	3.28
February	1,791.7	200	9.6	64.0	1.42	1.48
March	3,602	354	27	116	2.58	2.98
April	702.1	45	14	23.4	0.520	0.58
May	2,773	268	27	89.4	1.99	2.29
June	4,910	898	12.4	164	3.64	4.06
July	410.2	40	1.6	13.2	0.293	0.34
August	27.69	4.8	0	0.893	0.020	0.02
September	1.4	1.4	0	0.047	0.001	0.001
Water year 1945-46 .	20,576.59	898	0	56.4	1.25	17.01

Peak discharge- Dec. 30 (4 p.m.) 548 sec.-ft.; Jan. 5 (1 a.m.) 850 sec.-ft.; Feb. 14 (12:30 a.m.) 456 sec.-ft.; Mar. 15 (5:30 a.m.) 412 sec.-ft.; June 13 (6 a.m.) 990 sec.-ft.; June 20 (2 p.m.) 1,740 sec.-ft.

MONEY CREEK ABOVE LAKE BLOOMINGTON

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	150	7.0	21	244	18.6	37	45	27	30	a40	h1.8	0
2	146	6.5	21	118	14.8	35	41	206	27	30	h1.6	0
3	76	6.0	21	68	12.8	32	37	202	24	27	a1.4	0
4	49	5.3	19.2	194	16.3	30	34	268	21	25	a1.2	0
5	40	5.3	18.6	630	19.2	27	31	252	19.9	23	h1.1	0
6	34	5.5	19.2	381	63	49	30	199	19.2	21	h2.2	0
7	28	5.3	18.0	291	24	86	28	173	18.0	19.2	h1.8	0
8	24	5.7	16.3	223	18.6	64	29	141	16.3	18.0	h1.0	0
9	19.2	7.2	14.4	298	22	53	25	106	14.4	17.4	h.65	0
10	18.0	7.2	10.2	284	9.6	46	23	86	12.8	18.0	a.5	0
11	16.3	6.0	12.0	223	14.5	52	24	86	12.4	19.2	a.3	0
12	14.8	6.5	10.6	177	15.3	81	24	80	362	15.3	h.17	0
13	13.2	14.8	11.2	139	b90	69	23	65	809	14.4	h. 15	0
14	12.0	15.3	11.2	106	b120	191	24	60	342	13.6	a.15	0
15	11.2	11.2	9.8	81	b40	354	27	53	236	12.4	a.15	0
16	10.6	9.8	9.8	68	b40	276	24	48	177	12.4	.76	0
17	10.2	9.8	a10	49	b80	260	19.9	45	132	11.6	4.6	0
18	9.8	9.2	a10	46	b150	236	19.2	47	92	10.9	4.8	0
19	9.5	8.6	a9	41	b200	225	18.6	42	87	9.8	1.8	0
20	8.6	9.2	9.2	37	b180	186	18.0	42	898	8.4	.82	0
21	10.2	8.6	7.7	b35	106	159	16.3	40	a500	7.4	.08	0
22	11.2	6.5	7.2	b35	95	125	16.3	36	a300	6.7	.16	0
23	9.8	8.4	7.0	31	137	130	18.6	36	a160	6.0	.20	0
24	8.4	7.7	8.0	31	74	182	17.4	60	a120	h4.2	.11	0
25	8.0	7.4	21	27	60	157	16.3	111	a120	h3.5	.08	0
26	7.7	7.0	24	16.8	75	123	15.3	64	a120	h3.6	.06	0
27	7.0	26	19.9	19.2	56	95	14.0	51	a80	a3	.04	0
28	7.0	37	18.6	21	40	76	14.4	42	a60	a3	.01	0
29	6.5	26	41	19.2	-	67	14.8	38	a50	h2.4	0	0
30	7.0	23	457	21	-	53	14.0	35	a50	h1.6	0	1.4
31	7.0	-	388	14.0	-	46	-	32	-	h2.2	0	-

a No gage-height records; discharge computed on basis of records for stations at Lake Bloomington and Hickory Creek above Lake Bloomington

b Stage-discharge relation affected by ice; discharge computed on basis of records for stations at Lake Bloomington and Hickory Creek above Lake Bloomington.

h Discharge computed from staff gage readings.

MONEY CREEK ABOVE LAKE BLOOMINGTON

Peak Discharges

Base Discharge - 400 Second-feet

Date			Gage height (feet)	Discharge (second-feet)	Order of magnitude	Plotting position
Year	Month	Day				
1935	Feb.	25	4.58	476	38	0.342
	May	3	6.20	847	26	0.5
		9	7.21	1448	8	1.625
		13	5.62	707	28	0.464
	June	26	5.46	670	30	0.433
		29	4.56	472	39	0.353
1936	Feb	24	6.69	1084	15	0.867
		26	7.22	1456	7	1.857
	May	2	7.24	1472	6	2.167
	Sept.	27	5.09	586	31	0.419
	Nov.	2	6.56	1010	17	0.765
1937	June	14	4.93	551	34	0.382
		26	6.06	812	27	0.481
	Aug	4	4.23	406	45	0.289
1938	Jan.	24	4.38	436	43	0.302
1939	Mar.	12	6.51	985	20	0.65
	Apr.	15	6.84	1178	12	1.083
	June	11	4.99	564	32	0.406
1941	June	11	6.82	1152	14	0.929
	Oct.	6	4.75	439	42	0.309
1942	Feb.	5	5.09	520	36	0.361
		6	6.51	987	19	0.684
	Mar.	17	6.84	1164	13	1
	Apr.	8	4.92	478	37	0.351
1943	Feb.	6	4.90	465	40	0.325
	May	8	5.32	553	33	0.394
		11	7.02	1370	9	1.444
		16	6.86	1228	11	1.182
		18	7.60	2060	1	13
		20	6.51	996	18	0.722
	June	10	4.54	402	47	0.277
	Aug.	3	7.46	1878	3	4.333
1944	Apr.	11	7.35	1740	4	3.250
		15	6.37	925	21	0.619
		22	7.00	1350	10	1.3
		23	7.49	1917	2	6.5
1945	May	15	6.34	910	22	0.591
		20	5.84	706	29	0.448
	June	9	4.62	415	44	0.295
		16	6.30	890	23	0.565
		25	6.25	870	24	0.542
	Dec.	30	5.29	546	35	0.371
1946	Jan.	4	6.24	866	25	0.52
	Feb.	14	4.81	449	41	0.317
	Mar.	15	4.56	406	46	0.283
	June	13	6.60	1050	16	0.812
		20	7.34	1728	5	2.6

MONEY CREEK AT LAKE BLOOMINGTON

Monthly discharge and rainfall, water year October 1930 to September 1931

Month	Discharge From Spillway (million gallons)	Pumpage (million gallons)	Change In Contents (million gallons)	Adjusted for change in reservoir contents and pumpage*				Rainfa11 (inches)
				Runoff (million gallons)	Discharge per square mi1e		Run off (inches)	
					Million gallons per day	Second-feet		
October	0	49.20	-80.1	-30.90	-0.0230	-0.036	-0.03	0.14
November	0	68.89	-55.3	13.59	.0743	.115	.13	2.53
December	0	75.51	-77.9	-2.39	-.00126	-.0019	-.002	.35
January	0	75.57	-78.2	-2.63	-.00139	-.0022	-.003	b.24
February	0	63.80	-54.8	8.90	.00521	.0081	.008	b.90
March	0	70.80	-27.5	43.30	.0230	.036	.04	b2.81
April	0	71.77	-30.0	41.77	.0228	.035	.04	b3.14
May	0	73.36	+570.1	643.46	.341	.528	.61	5.58
June	0	77.37	+300.2	377.57	.207	.320	.36	2.46
July	99.67	84.78	-21.9	162.55	.0859	.133	.15	4.27
August	0	86.06	-47.3	38.76	.0205	.032	.04	3.40
September	0	78.17	+67.5	145.67	.0797	.123	.14	5.38
Water year 1930-31	99.67	875.28	+464.7	1,439.65	-	-	-	31.20

* Negative figures indicate that evaporation from the reservoir exceeded the inflow.
b Average of onIy 2 stations.

MONEY CREEK AT LAKE BLOOMINGTON

Spillage, in second-feet, water year October 1930 to September 1931

Month	Second-foot-days	Maximum	Minimum	Mean
October	0	0	0	0
November	0	0	0	0
December	0	0	0	0
January	0	0	0	0
February	0	0	0	0
March	0	0	0	0
April	0	0	0	0
May	0	0	0	0
June	0	0	0	0
July	154.22	48.0	0	5.14
August	0	0	0	0
September	0	0	0	0
Water year 1930-31	154.22	48.0	0	0.422

MONEY CREEK AT LAKE BLOOMIGTON
Spillage, in second-feet, water year October 1930 to September 1931

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1									0			
2									0			
3									48			
4									38			
5									11.5			
6									8.24			
7									0			
8									0			
9									0			
10									0			
11									0			
12									0			
13									0			
14									0			
15									0			
16									0			
17									0			
18									0			
19									0			
20									15.1			
21									11.5			
22									19.0			
23									2.88			
24									0			
25									0			
26									0			
27									0			
28									0			
29									0			
30									0			
31									0			

Note: No spillage except July 3-6 and 20-23.

MONEY CREEK AT LAKE BLOOMINGTON

Monthly discharge and rainfall, water year October 1931 to September 1932

Month	Discharge from spillway (million gallons)	Pumpage (million gallons)	Change in contents (million gallons)	Adjusted for change in reservoir contents and pumpage*				Rainfall (inches)
				Runoff (million gallons)	Discharge per square mile		Run off (inches)	
					Million gallons per day	Second-feet		
October	0	81.33	-28.7	52.63	.0279	.043	.05	2.03
November	400.1	71.77	61.5	533.37	.292	.452	.50	4.21
December	189.8	74.47	-14.2	250.07	.132	.204	.24	1.63
January	326.0	75.94	-5.1	396.84	.210	.325	.37	2.43
February	53.57	77.46	+1.7	132.73	.0751	.116	.13	.88
March	101.5	80.31	+17.6	199.41	.105	.162	.19	2.08
April	224.6	79.49	-5.3	298.79	.163	.252	.28	1.82
May	225.7	85.68	-12.3	299.08	.158	.244	.28	1.96
June	39.90	75.96	-16.9	98.96	.0541	.084	.09	2.28
July	0	84.62	-109.8	-25.18	-.0133	-.021	-.02	2.59
August	0	80.61	-116.1	-35.49	-.0187	-.029	-.03	2.97
September	0	75.45	-111.4	-35.95	-.0197	-.030	-.03	2.87
Water year 1931-32.....	1,561.17	943.09	-339.0	2,165.26	.0970	.150	2.05	27.75

* Negative figures indicate that evaporation from reservoir exceeded the inflow.

MONEY CREEK AT LAKE BLOOMINGTON

Spillage, in second-feet water year October 1931 to September 1932

Month	Second-foot-days	Maximum	Minimum	Mean
October	0	0	0	0
November	619.0	121.0	0	20.6
December	293.60	33.0	0	9.47
January	504.35	48.0	0	16.3
February	82.88	28.0	0	2.86
March	157.08	38.0	0	5.07
April	347.49	28.0	2.88	11.6
May	349.20	33.0	0	11.3
June	61.74	23.0	0	2.06
Ju1y	0	0	0	0
August	0	0	0	0
September	0	0	0	0
Water Year 1931-32...	2,415.34	121.0	0	6.60

MONEY CREEK AT LAKE BLOOMINGTON

Spillage, in second-feet, water year October 1931 to September 1932

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0	15.1	19.0	0	0	28	11.5	0			
2		0	15.1	19.0	0	2.88	19.0	11.5	0			
3		0	11.5	15.1	0	0	19.0	11.5	0			
4		0	19.0	8.24	0	0	5.35	11.5	0			
5		0	19.0	11.5	0	2.88	8.24	11.5	0			
6		0	11.5	33	0	0	11.5	11.5	0			
7		0	11.5	28	0	0	11.5	23	0			
8		0	11.5	19.0	0	1.03	11.5	33	0			
9		0	15.1	15.1	0	0	11.5	33	0			
10		0	11.5	8.24	0	0	11.5	28	0			
11		0	15.1	2.88	23	0	11.5	23	0			
12		0	33	1.03	28	1.03	11.5	19.0	0			
13		0	23	11.5	11.5	0	11.5	23	0			
14		0	19.0	19.0	8.24	0	11.5	15.1	0			
15		0	15.1	23	5.35	0	11.5	11.5	0			
16		0	15.1	33	2.88	0	11.5	8.24	0			
17		0	11.5	43	1.03	1.03	8.24	11.5	2.88			
18		0	8.24	48	2.88	0	8.24	8.24	2.88			
19		0	5.35	33	0	0	5.35	8.24	23			
20		79	5.35	23	0	0	2.88	8.24	15.1			
21		121	1.03	19.0	0	0	5.35	11.5	11.5			
22		85	1.03	15.1	0	0	11.5	5.35	5.35			
23		60	0	15.1	0	0	11.5	2.88	1.03			
24		60	0	11.5	0	2.88	11.5	1.03	0			
25		54	0	8.24	0	5.35	19.0	5.35	0			
26		48	0	8.24	0	33	15.1	1.03	0			
27		33	0	5.35	0	38	11.5	0	0			
28		33	0	2.88	0	23	11.5	0	0			
29		23	0	5.35	0	23	8.24	0	0			
30		23	0	0	–	0	11.5	0	0			
31		–	0	0	–	23	–	0	–			

MONEY CREEK AT LAKE BLOOMINGTON

Monthly discharge and rainfall, water year October 1932 to September 1933

Month	Discharge from spillway (million gallons)	Pumpage (million gallons)	Change in contents (million gallons)	Adjusted for change in reservoir contents and pumpage*				Rainfall (inches)
				Runoff (million gallons)	Discharge per square mile		Run off (inches)	
					Million gallons per day	Second-feet		
October	0	74.4	-46.0	28.4	0.015	0.023	0.03	4.61
November	0	69.7	-67.4	2.3	.001	.0015	.002	1.01
December	0	75.4	+359.5	434.9	.230	.356	.41	3.84
January	846.7	70.2	+139.8	1,056.7	.559	.865	1.00	2.94
February	1,290.7	66.5	0	1,357.2	.795	1.23	1.28	1.19
March	1,995.8	68.7	+97.4	2,161.9	1.14	1.76	2.03	3.63
April	3,132.7	67.0	-100.9	3,098.8	1.69	2.61	2.91	4.43
May	5,018.7	71.0	-3.6	5,086.1	2.69	4.16	4.80	7.26
June	166.3	88.3	-39.8	214.8	.117	.181	.20	.57
July	0	93.3	-161.6	-68.3	-.036	-.056	-.06	.92
August	0	90.9	-135.3	-44.4	-.023	-.036	-.04	2.20
September	0	83.3	+9.7	93.0	.051	.079	.09	4.02
Water year 1932-33.....	12,450.9	918.7	+51.8	13,421.4	.603	.933	12.85	37.22

* Negative figures indicate that evaporation and seepage from reservoir exceeded the inflow.

MONEY CREEK AT LAKE BLOOMINGTON

Spillage, in second feet, water year October 1932 to September 1933

Month	Second-foot-days	Maximum	Minimum	Mean
October	0	0	0	0
November	0	0	0	0
December	0	0	0	0
Calendar year 1932.....	1,502.74	48	0	4.11
January	1,310	143	0	42.3
February	1,997	143	0	71.3
March	3,088	269	28	99.6
April	4,847	817	48	162
May	7,765	1,740	43	250
June	257.31	43	0	8.58
July	0	0	0	0
August	0	0	0	0
September	0	0	0	0
Water year 1932-33	19,264.31	1,740	0	52.8

MONEY CREEK AT LAKE BLOOMINGTON

Spillage, in second-feet, water year October 1932 to September 1933

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1				0	85	60	817	75	43			
2				0	99	60	513	143	38			
3				0	92	54	336	105	38			
4				0	79	54	220	82	28			
5				0	53	46	164	126	23			
6				0	48	43	171	164	23			
7				0	67	48	164	127	15.1			
8				0	54	48	143	124	10.3			
9				0	79	38	115	189	8.24			
10				0	72	38	99	251	8.24			
11				0	60	38	92	1,740	5.35			
12				0	48	43	90	747	5.35			
13				0	43	38	72	1,410	2.88			
14				0	43	38	85	495	2.88			
15				0	38	33	85	263	2.88			
16				0	33	28	158	213	1.03			
17				0	33	28	248	213	1.03			
18				0	33	124	213	164	1.03			
19				64	40	269	163	153	0			
20				143	66	220	133	153	0			
21				107	107	159	115	115	0			
22				133	115	120	99	107	0			
23				124	143	107	88	98	0			
24				107	124	99	85	79	0			
25				99	107	107	85	72	0			
26				92	85	178	66	79	0			
27				99	79	255	66	72	0			
28				99	72	199	60	66	0			
29				92	-	148	54	54	0			
30				79	-	124	48	43	0			
31				72	-	244	-	43	-			

MONEY CREEK AT LAKE BLOOMINGTON

Monthly discharge and rainfall, water year October 1933 to September 1934

Month	Discharge from spillway (million gallons)	Pumpage (million gallons)	Change in contents (million gallons)	Adjusted for change in reservoir contents and pumpage*				Rainfall (inches)
				Runoff (million gallons)	Discharge per square mile		Run off (inches)	
					Million gallons per day	Second-feet		
October	0	86.46	+133.7	220.16	0.116	0.179	0.21	4.15
November ...	0	83.83	-74.1	9.73	.00532	.0082	.009	0.38
December ...	0	88.05	-67.7	20.35	.0108	.017	.02	0.79
January	0	90.09	-34.5	55.59	.0294	.045	.05	0.97
February ...	0	81.92	-55.2	26.72	.0156	.024	.03	.38
March	0	92.49	+88.1	180.59	.0955	.148	.17	1.83
April	0	88.81	+155.0	243.81	.133	.206	.23	1.00
May	0	99.71	-135.7	-35.99	-.0190	-.029	-.03	.49
June	0	111.59	-52.2	59.39	.0325	.05	.06	3.72
July	0	107.89	-150.9	-43.01	-.0227	-.035	-.04	2.66
August	0	102.02	-71.4	30.62	.0162	.025	.03	4.35
September ..	0	95.83	+14.6	110.43	.0603	.093	.10	5.82
Water year 1933-34...	0	1,128.69	-250.3	878.39	.0395	.061	.84	26.54

* Negative figures indicate that evaporation and seepage from reservoir exceeded the inflow.

MONEY CREEK AT LAKE BLOOMINGTON

Monthly discharge and rainfall, water year October 1934 to September 1935

Month	Discharge from spillway (million gallons)	Pumpage (million gallons)	Change in contents (million gallons)	Adjusted for change in reservoir contents and pumpage				Rainfall (inches)
				Runoff (million gallons)	Discharge per square mile		Run off (inches)	
					Million gallons per day	Second-feet		
October	0	98.79	-78.3	20.49	0.011	0.017	0.02	2.07
November ..	0	90.85	+428.4	519.25	.284	.439	.49	4.46
December ..	296.6	86.78	+214.9	598.28	.316	.489	.56	1.37
Calendar year 1934 .	296.6	1,146.77	+322.8	1,766.17	.079	.123	1.67	29.12
January ...	1,204.1	75.85	+3.5	1,283.45	.679	1.05	1.21	2.08
February ..	1,543.0	69.59	+23.0	1,635.59	.958	1.48	1.54	2.48
March	2,065.3	79.60	-12.4	2,132.50	1.13	1.75	2.01	2.82
April	1,396.2	77.99	-5.3	1,468.89	.803	1.24	1.38	2.74
May	4,594.0	80.20	+5.3	4,697.50	2.47	3.83	4.42	7.91
June	2,058.9	83.18	+19.5	2,161.58	1.18	1.83	2.04	6.00
July	1,069.8	93.91	-26.6	1,137.11	.601	.930	1.07	4.19
August	89.1	97.31	-75.0	111.41	.059	.091	.10	1.67
September ..	0	89.37	-84.5	4.87	.0027	.0041	.005	3.02
Water year 1934-35 ..	14,317.0	1,023.42	+412.5	15,752.92	.708	1.09	14.84	40.81

MONEY CREEK AT LAKE BLOOMINGTON

Spillage, in second-feet, water year October 1934 to September 1935

Month	Second-foot-days	Maximum	Minimum	Mean
October	0	0	0	0
November	0	0	0	0
December	458.85	43	0	14.8
Calendar Year 1934	458.85	43	0	1.26
January	1,862.7	286	8.24	60.1
February	2,387	485	19	85.2
March	3,195	316	54	103
April	2,160	227	33	72.0
May	7,107	1,190	28	229
June	3,185.1	449	15.1	106
July	1,655.04	164	8.24	53.4
August	137.89	28	0	4.45
September	0	0	0	0
Water Year 1934-35	22,148.58	1,190	0	60.7

MONEY CREEK AT LAKE BLOOMINGTON

Spillage, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			0	8.24	19.0	85	48	28	48	107	23	
2			0	8.24	23	79	43	108	43	143	19.0	
3			0	8.24	23	79	38	914	43	107	15.1	
4			0	8.24	23	72	38	516	43	79	15.1	
5			19	8.24	23	66	38	297	33	66	8.24	
6			43	11.5	19.0	72	33	311	33	60	2.88	
7			43	39	19.0	115	38	373	38	48	2.88	
8			38	246	38	115	43	255	38	43	2.88	
9			33	286	60	92	48	1,190	33	38	2.88	
10			23	185	60	316	48	672	28	38	1.03	
11			19	143	48	312	153	269	28	28	0	
12			19	115	33	199	227	199	28	23	0	
13			19	99	108	143	227	308	23	23	0	
14			15.1	72	288	115	164	332	19.0	23	0	
15			15.1	72	164	99	124	164	15.1	19	0	
16			11.5	66	104	79	107	143	19.0	15.1	8.66	
17			11.5	66	72	66	92	124	60	11.5	28	
18			8.24	48	54	60	85	107	222	8.24	8.24	
19			19.0	48	43	60	72	99	269	15.1	0	
20			11.5	48	38	72	66	85	164	23	0	
21			15.1	43	38	99	60	79	124	15.1	0	
22			11.5	33	38	92	54	66	107	19.0	0	
23			5.35	33	28	92	48	66	92	43	0	
24			8.24	23	62	85	43	60	72	164	0	
25			11.5	23	485	107	33	54	160	133	0	
26			11.5	23	254	99	33	48	449	99	0	
27			8.24	23	124	79	43	48	227	66	0	
28			8.24	19.0	99	72	38	48	165	72	0	
29			11.5	19.0	-	66	43	48	409	60	0	
30			11.5	19.0	-	54	33	48	153	38	0	
31			8.24	19.0	-	54	-	48	-	28	0	

MONEY CREEK AT LAKE BLOOMINGTON

Monthly discharge and rainfall, water year October 1935 to September 1936

Month	Discharge from spillway (million gallons)	Pumpage (million -gallons)	Change in contents (million gallons)	Adjusted for change in reservoir contents and pumpage *				Rainfall (inches)
				Runoff (million gallons)	Discharge per square mile		Runoff (inches)	
					Million gallons per day	Second-feet		
October	0	91.85	-96.2	-4.35	-0.0023	-0.0036	-0.004	1.13
November	282.1	86.85	+245.1	614.05	.336	.519	.58	5.19
December	76.3	92.97	0	169.27	.09	.138	.16	.98
Calendar year 1935	14,378.8	1,018.67	-3.6	15,393.87	.691	1.07	14.511	40.21
January	302.4	93.31	+3.6	399.31	.211	.327	.38	1.28
February	2,185.1	105.54	+28.3	2,318.94	1.31	2.03	2.19	1.98
March	698.7	102.21	-24.8	776.11	.410	.635	.73	1.57
April	141.7	88.39	-5.3	224.79	.123	.19	.21	1.29
May	1,403.80	92.37	-1.8	1,494.37	.790	1.22	1.41	4.79
June	.7	94.60	-110.0	-14.70	-.0080	-.012	-.01	.24
July	0	111.07	-202.7	-91.63	-.048	-.075	-.09	1.16
August	0	101.10	+239.8	340.90	.180	.279	.32	6.39
September	1,011.0	94.56	+103	1,208.56	.660	1.02	1.14	8.58
Water year 1935-36	6,101.8	1,154.82	+179.0	7,435.62	.333	.515	7.016	34.58

* Negative figures indicate that evaporation from the reservoir exceeded the inflow.

MONEY CREEK AT LAKE BLOOMINGTON

Spillage, in second-feet, Water year October 1935 to September 1936

Month	Second-foot-days	Maximum	Minimum	Mean
October	0	0	0	0
November	436.48	54	0	14.1
December	117.98	8.24	0	3.81
Calendar Year 1935	22,244.19	1,190	0	60.9
January	467.88	48	0	15.1
February	3,380.91	1,190	0	117
March	1,081.04	92	0	34.9
April	219.26	19	0	7.31
May	2,171.99	654	2.88	70.1
June	1.03	1.03	0	.034
July	0	0	0	0
August	0	0	0	0
September	1,564.28	445	0	52.1
Water Year 1935-36	9,440.85	1,190	0	25.8

MONEY CREEK AT LAKE BLOOMINGTON

Spillage, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0	5.35	b0	b0	92	19.0	15.1	1.03			0
2		0	5.35	19	b0	79	19.0	654	0			0
3		0	2.88	28	b0	66	19.0	394	0			0
4		0	2.88	19	b0	54	11.5	184	0			11.5
5		0	2.88	11.5	b0	48	8.24	124	0			8.24
6		0	2.16	15.1	b0	43	15.1	92	0			1.44
7		0	.34	8.24	b0	43	11.5	72	0			0
8		0	2.88	11.5	b0	38	8.24	60	0			0
9		0	8.24	8.24	b0	28	2.88	48	0			0
10		0	5.35	5.35	b0	23	8.24	43	0			0
11		7.86	5.35	5.35	b0	23	15.1	72	0			0
12		43	5.35	11.5	b0	19.0	11.5	60	0			.34
13		54	5.35	48	b0	23	11..5	54	0			167
14		48	8.24	48	b0	23	5.35	38	0			137
15		43	8.24	48	b0	23	5.35	33	0			38
16		38	8.24	43	b0	15.1	2.88	23	0			33
17		33	5.35	33	b0	15.1	2.88	23	0			33
18		28	5.35	23	b0	15.1	2.88	43	0			19.0
19		23	2.88	19	b0	11.5	2.88	33	0			11.5
20		23	1.03	19	b0	19.0	1.03	19.0	0			5.35
21		11.5	2.88	15.1	b0	19.0	5.35	11.5	0			2.88
22		19.0	2.88	11.5	0	8.24	2.88	8.24	0			1.03
23		19.0	8.24	8.24	.91	0	1.03	5.35	0			0
24		8.24	5.35	b5.35	463	56	.52	1.5	0			0
25		5.35	2.88	b2.88	723	92	0	15.1	0			0
26		8.24	1.03	b1.03	1,190	54	0	11.5	0			0
27		5.35	1.03	b0	727	38	.34	8.24	0			445
28		5.35	b0	b0	162	38	5.35	5.35	0			370
29		8.24	b0	b0	115	19.0	8.24	2.88	0			170
30		5.35	b0	b0	-	33	11.5	2.88	0			110
31		-	b0	b0	-	23	-	5.35	-			-

b Stage-discharge relation affected by ice; discharge computed on basis of gage-heights, weather records, and observations of plant foreman.

MONEY CREEK AT LAKE BLOOMINGTON

Monthly discharge and rainfall, water year October 1936 to September 1937

Month	Discharge from spillway (million gallons)†	Pumpage (million gallons)	Gain or loss in storage (million gallons)	Adjusted for change in reservoir contents and pumpage*				Rainfall (inches)
				Runoff (million gallons)	Discharge per square mile		Run off (inches)	
					Million gallons per day	Second-feet		
October	576.4	91.29	-31.9	635.79	0.336	0.520	0.60	2.13
November ..	1,626.2	90.38	-91.3	1,625.28	.888	1.37	1.53	3.05
December ..	66.2	88.73	+100.2	255.13	.135	.209	.24	2.44
Calendar year 1936 .	8,012.2	1,153.55	+7.1	9,172.85	.411	.636	8.65	34.90
January ...	2,047.2	85.19	-96.9	2,035.49	1.08	1.67	1.92	3.03
February ...	1,194.4	80.71	-27.0	1,248.11	.731	1.13	1.18	1.11
March	1,028.9	87.37	-451.9	664.37	.351	.544	.63	.59
April	1,142.7	84.74	+430.0	1,657.44	.906	1.40	1.56	5.02
May	1,402.9	87.32	-231.9	1,258.32	.665	1.03	1.19	2.80
June	936.2	91.97	+336.6	1,364.77	.746	1.15	1.28	5.07
July	592.0	101.03	-422.4	270.63	.143	.221	.25	2.52
August	536.4	102.82	+56.7	695.92	.368	.569	.66	4.29
September ..	0	96.48	-112.2	-15.72	-.0086	-.013	-.01	2.00
Water year 1936-37 ..	11,149.5	1,088.03	-542.0	11,695.53	.525	.813	11.03	34.05

† Includes spillage by siphoning during construction.
* Negative figures indicate that evaporation and seepage from reservoir exceeded the inflow.

MONEY CREEK AT LAKE BLOOMINGTON

Spillage, in second-feet, water year October 1936 to September 1937

Month	Second foot-days†	Maximum	Minimum	Mean
October	891.79	85	2.88	28.8
November	2,516.12	742	0	83.9
December	1.37	1.37	0	.044
Calendar year 1936	12,275.67	1,190	0	33.5
January	1,584.44	269	0	51.1
February	0	0	0	0
March	0	0	0	0
April	0	0	0	0
May	429.61	115	0	13.9
June	428.56	190	0	14.3
July	0	0	0	0
August	0	0	0	0
September	0	0	0	0
Water year 1936-37	5,851.89	742	0	16.0

† Includes spill by siphoning during construction.

MONEY CREEK AT LAKE BLOOMTINGTON

Spillage, in second-feet, water year October 1936 to Seotember 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Ju1y	Aug.	Sept.
1	85	2.88	0	54				0	0			
2	72	395	0	85				0	0			
3	54	742	0	66				93	0			
4	38	297	0	43				115	0			
5	33	185	0	38				99	0			
6	28	143	0	23				60	0			
7	28	124	0	28				38	0			
8	23	99	0	153				19	0			
9	60	79	0	269				5.35	0			
10	79	66	0	133				.26	0			
11	54	60	0	85				0	0			
12	43	54	0	60				0	0			
13	33	48	0	60				0	0			
14	23	43	0	115				0	34			
15	19.0	43	0	124				0	79			
16	19.0	38	0	72				0	28			
17	19.0	33	0	48				0	19.0			
18	19.0	28	0	38				0	1.44			
19	15.1	28	0	23				0	0			
20	5.35	8.24	0	23				0	0			
21	2.88	0	0	28				0	0			
22	8.24	0	0	15.1				0	0			
23	8.24	0	0	1.34				0	0			
24	11.5	0	0	0				0	0			
25	8.24	0	0	0				0	0			
26	19.0	0	0	0				0	46			
27	19.0	0	0	0				0	190			
28	19.0	0	0	0				0	28			
29	19.0	0	0	0				0	3.12			
30	19.0	0	0	0				0	0			
31	8.24	-	1.37	0				0	-			
Discharge through siphons--												
	-	-	101	1,583	1,848	1,592	1,1768	1,741	1,202	916	830	-

MONEY CREEK AT LAKE BLOOMINGTON

Monthly discharge and rainfall, water year October 1937 to September 1938

Month	Discharge from spillway (million gallons)	Pumpage (million gallons)	Change in contents (million gallons)	Adjusted for change in reservoir contents and pumpage*				Rainfall (inches)
				Runoff (million gallons)	Discharge per square mile		Run off (inches)	
					Million gallons per day	Second-feet		
October	0	92.83	-87.4	5.4	0.0029	0.0045	0.005	2.36
November ...	0	85.71	-80.5	5.2	.0028	.0043	.005	1.32
December ...	0	96.24	+178.1	274.3	.145	.224	.26	1.64
Calendar year 1937 .	8,880.7	1,092.41	-508.8	9,464.3	.425	.657	8.92	31.75
January	88.8	99.61	+514.1	702.5	.371	.574	.66	2.06
February ...	861.5	90.03	+15.9	967.4	.566	.876	.91	2.14
March	1,764.4	99.54	+7.1	1,871.0	.989	1.53	1.76	3.95
April	2,590.4	98.78	-19.5	2,669.7	1.46	2.26	2.52	3.84
May	945.6	101.56	+8.9	1,056.1	.558	.863	.99	4.63
June	826.3	103.32	-8.9	920.7	.503	.778	.87	4.37
July	209.8	112.47	-58.4	263.9	.140	.217	.25	2.69
August	0	108.85	-141.4	-32.6	-.017	-.026	-.03	3.08
September ..	0	99.29	-128.8	-29.5	.016	-.025	-.03	1.67
Water year 1939-40 ..	7,286.7	1,188.23	+199.2	8,674.1	.390	.603	8.17	33.75

* Negative figures indicate that evaporation and seepage from reservoir exceeded inflow.

MONEY CREEK AT LAKE BLOOMINGTON

Spillage, in second-feet, water year October 1937 to September 1938

Month	Second-foot-days	Maximum	Minimum	Mean
October	0	0	0	0
November	0	0	0	0
December	0	0	0	0
Calendar year 1937....	2,442.61	269	0	6.69
January	137.35	48	0	4.43
February	1,333	124	19	47.6
March	2,730	255	33	88.1
April	4,008	421	38	134
May	1,463.1	185	15.1	47.2
June	1,278.4	133	11.5	42.6
July	324.65	60	0	10.5
August	0	0	0	0
September	0	0	0	0
Water year 1937-38....	11,274.50	421	0	30.9

MONEY CREEK AT LAKE BLOOMINGTON

Spillage, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1				0	19	72	115	43	79	33		
2				0	19	66	85	33	66	60		
3				0	23	54	79	33	48	48		
4				0	23	54	72	23	43	33		
5				0	23	54	72	15.1	33	23		
6				0	28	60	175	23	28	19.0		
7				0	28	54	405	28	38	19.0		
8				0	33	48	421	28	28	19.0		
9				0	28	48	421	28	15.1	15.1		
10				0	23	43	357	28	43	11.5		
11				0	33	43	241	28	133	8.24		
12				0	38	38	175	23	72	5.35		
13				0	60	33	143	23	48	5.35		
14				0	54	38	115	38	43	8.24		
15				0	43	60	107	33	43	2.88		
16				0	38	164	99	28	33	2.88		
17				0	38	133	124	38	23	2.88		
18				0	66	99	92	38	23	5.35		
19				0	124	85	79	66	19.0	2.88		
20				0	92	79	85	48	15.1	0		
21				0	79	60	79	38	15.1	0		
22				0	72	48	66	33	15.1	0		
23				0	60	133	60	60	11.5	0		
24				0	54	185	60	92	11.5	0		
25				0	54	164	60	66	19.0	0		
26				0	48	255	54	48	60	0		
27				5.35	54	153	43	43	115	0		
28				28	79	115	38	66	66	0		
29				28	–	92	43	185	54	0		
30				48	–	85	43	115	38	0		
31				28	–	115	–	72	–	0		

MONEY CREEK AT LAKE BLOOMINGTON

Monthly discharge and rainfall, water year October 1938 to September 1939

Month	Discharge from spillway (million gallons)	Pumpage (million gallons)	Change in contents (million gallons)	Adjusted for change in reservoir contents and pumpage*				Rainfall (inches)
				Runoff (million gallons)	Discharge per square mile		Runoff (inches)	
					Million gallons per day	Second-feet		
October	0	96.68	-137.6	-40.9	-0.022	-0.034	-0.04	1.05
November ...	0	88.71	-108.2	-19.5	.011	-.017	-.02	1.22
December ...	0	93.37	-85.4	8.0	.0042	.0065	.007	1.27
Calendar year 1938 .	7,286.7	1,192.21	-142.2	8,336.8	.374	.579	7.85	31.97
January	0	91.81	-46.9	44.9	.024	.037	.04	2.64
February ..	315.7	85.35	+719.1	1,120.2	.656	1.02	1.06	2.76
March	2,096.5	91.40	-17.7	2,170.2	1.15	1.78	2.05	3.32
April	2,730.6	88.39	+8.9	2,827.9	1.55	2.40	2.68	4.89
May	345.8	96.16	-17.7	424.3	.224	.347	.40	1.90
June	622.7	96.28	-3.6	715.4	.391	.605	.67	3.94
July	492.4	97.77	-8.6	581.6	.308	.477	.55	4.81
August	13.2	98.93	-86.1	26.0	.014	.022	.03	3.37
September ..	0	101.49	-184.0	-82.5	-.045	-.070	-.08	.11
Water year 1938-39 ..	6,616.9	1,126.34	+32.2	7,775.6	.349	.540	7.35	31.28

* Negative figures indicate that the evaporation and seepage from reservoir exceeded the inflow.

MONEY CREEK AT LAKE BLOOMINGTON

Spillage, in second-feet, water year October 1938 to September 1939

Month	Second-foot-days	Maximum	Minimum	Mean
October	0	0	0	0
November	0	0	0	0
December	0	0	0	0
Calendar year 1938	11,274.50	421	0	30.9
January	0	0	0	0
February	488.56	107	0	17.4
March	3,244	855	23	105
April	4,225.2	710	15.1	141
May	535.11	48	0	17.3
June	963.59	357	0	32.1
July	761.84	185	0	24.6
August	20.43	11.5	0	.659
September	0	0	0	0
Water year 1938-39	10,238.73	855	0	28.0

MONEY CREEK AT LAKE BLOOMINGTON

Spillage, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1					0	107	33	48	8.24	2.88	0	
2					0	66	23	43	8.24	1.03	0	
3					0	43	23	38	8.24	0	0	
4					0	43	15.1	33	2.88	0	0	
5					0	38	15.1	33	.34	1.56	0	
6					0	33	19.0	28	0	62	0	
7					0	28	19.0	23	0	185	5.49	
8					0	28	23	28	0	85	11.5	
9					0	23	23	33	0	43	2.88	
10					0	23	38	28	80	23	.56	
11					0	131	66	19.0	357	19.0	0	
12					0	855	66	15.1	164	5.35	0	
13					0	602	54	19.0	60	0	0	
14					0	241	148	19.0	33	0	0	
15					0	164	710	19.0	23	0	0	
16					0	115	621	15.1	11.5	0	0	
17					0	92	421	11.5	8.24	1.37	0	
18					0	79	341	8.24	15.1	153	0	
19					0	60	269	5.35	19.0	66	0	
20					.56	54	213	8.24	23	28	0	
21					72	54	227	15.1	23	19.0	0	
22					72	48	185	11.5	33	8.24	0	
23					54	48	143	8.24	23	8.24	0	
24					54	43	107	2.88	15.1	5.35	0	
25					48	43	92	0	11.5	15.1	0	
26					43	38	79	0	8.24	15.1	0	
27					38	33	72	0	5.35	8.24	0	
28					107	28	66	1.03	11.5	5.35	0	
29					-	28	60	5.35	8.24	1.03	0	
30					-	28	54	8.24	2.88	0	0	
31					-	28	-	8.24	-	0	0	

MONEY CREEK AT LAKE BLOOMINGTON

Monthly discharge and rainfall, water year October 1939 to September 1940

Month	Discharge from spillway (million gallons)	Pumpage (million gallons)	Change in contents (million gallons)	Adjusted for change in reservoir contents and pumpage*				Rainfall (inches)
				Runoff (million gallons)	Discharge per square mile		Run off (inches)	
					Million gallons per day	Second-feet		
October	0	99.40	-114.6	-15.20	-0.0080	-0.012	-0.01	2.12
November ..	0	93.55	-100.8	-7.25	-.0040	-.0062	-.007	1.11
December ..	0	94.97	-91.7	3.27	.0017	.0026	.003	.85
Calendar year 1939 .	6,616.9	1,135.50	+56.3	7,808.82	.351	.543	7.39	31.82
January ...	0	109.30	-108.7	.60	.0003	.00046	.0005	.83
February ..	0	99.08	+0	99.08	.056	.087	.09	.71
March	113.55	97.80	+684.2	895.55	.474	.733	.85	2.14
April	0	91.31	-30.4	60.91	.033	.051	.06	1.94
May	72.44	101.95	+37.2	211.59	.112	.173	.20	3.39
June	9.59	108.22	-70.9	46.91	.026	.040	.05	2.22
July	0	113.14	-186.6	-73.46	-.039	-.060	-.07	1.42
August	0	101.21	-155.3	-54.09	-.029	-.045	-.05	2.36
September ..	0	101.49	-150.6	-49.11	-.027	-.042	-.05	.77
Water year 1939-40 ..	195.58	1,211.42	-288.2	1,118.80	.050	.077	1.07	19.86

* Negative figures indicate that the evaporation and seepage from the reservoir exceeded the inflow.

MONEY CREEK AT LAKE BLOOMINGTON

Spillage, in second-feet water year October 1939 to September 1940

Month	Second-foot-days	Maximum	Minimum	Mean
October	0	0	0	0
November	0	0	0	0
December	0	0	0	0
Calendar year 1939	10,238.73	855	0	28.0
January	0	0	0	0
February	0	0	0	0
March	175.7	33	0	5.67
April	0	0	0	0
May	112.08	25	0	3.62
June	14.84	6.6	0	.495
July	0	0	0	0
August	0	0	0	0
September	0	0	0	0
Water year 1939-40	302.62	33	0	0.827

MONEY CREEK AT LAKE BLOOMINGTON

Spillage, in second-feet, Water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1						0		0	0			
2						0		2.3	0			
3						0		21	0			
4						0		25	0			
5						0		8.8	0			
6						15		1.3	0			
7						33		2.9	0			
8						28		5.4	0			
9						19		5.4	0			
10						15		7.4	0			
11						12		8.2	0			
12						12		4.8	0			
13						12		.39	2.6			
14						8.2		.26	6.6			
15						5.4		.60	4.2			
16						2.9		0	1.4			
17						2.9		0	.04			
18						5.4		0	0			
19						2.9		.26	0			
20						1.0		0	0			
21						1.0		.57	0			
22						0		5.4	0			
23						0		2.9	0			
24						0		2.0	0			
25						0		.60	0			
26						0		2.2	0			
27						0		2.4	0			
28						0		1.0	0			
29						0		1.0	0			
30						0		0	0			
31						0		0	-			

MONEY CREEK AT LAKE BLOOMINGTON

Monthly discharge and rainfall, water year October 1940 to September 1941

Month	Discharge past lower gage (million gallons)	Pumpage (million gallons)	Change in contents (million gallons)	Adjusted for change in reservoir contents and pumpage*				Rainfall (inches)
				Runoff (million gallons)	Discharge per square mile		Run off (inches)	
					Million gallons per day	Second-feet		
October	4.83	101.29	-115.2	-9.08	-0.0048	-0.0074	-0.009	1.56
November ..	4.66	97.70	-101.5	.86	.0005	.00077	.0008	2.11
December ..	4.85	97.27	-91.5	10.62	.0056	.0087	.01	1.25
Calendar year 1940 .	209.92	1,219.76	-289.3	1,140.38	.051	.079	1.08	20.70
January ...	5.55	97.11	-60.7	41.96	.022	.034	.04	2.36
February ..	5.51	89.93	-51.8	43.64	.026	.040	.04	.57
March	5.58	99.57	-67.4	37.75	.020	.031	.04	.64
April	7.37	99.80	+174.7	281.87	.154	.238	.27	3.62
May	4.92	105.05	+77.1	187.07	.099	.153	.18	3.21
June	493.75	105.79	+791.3	1,390.84	.760	1.18	1.13	5.89
July	51.39	118.50	-94.6	75.29	.040	.062	.07	2.15
August	5.87	110.52	-127.1	-10.71	-.0057	-.0088	.01	2.85
September ..	5.38	105.38	-130.6	-19.84	-.011	-.017	.02	3.03
Water year 1940-41 ..	599.66	1,227.91	+202.7	2,030.27	.091	.141	1.96	29.24

† Includes spillage over dam, diversion from lake for washing filters, sanitary facilities at pumping plant, seepage through dam, and runoff from small drainage area of about 0.4 square mile below the dam.

* Negative figures indicate that the evaporation and seepage from the reservoir exceeded the Inflow.

MONEY CREEK AT LAKE BLOOMINGTON

Spillage, in second-feet, water year October 1940 to September 1941

Month	Second-foot-days	Maximum	Minimum	Mean
October	7.47	0.35	0.18	0.241
November	7.21	.46	.14	.240
December	7.51	.42	.16	.242
Calendar Year 1940	324.81	33	0	0.887
January	8.58	0.58	0.16	0.277
February	8.52	1.11	.12	.304
March	8.63	.41	.20	.278
April	11.40	.78	.16	.380
May	7.61	.50	.12	.245
June	763.94	133	.14	25.5
July	79.51	20.3	.18	2.56
August	9.08	.70	.18	.293
September	8.33	1.32	.18	.278
Water Year 1940-41	927.79	133	0.12	2.54

MONEY CREEK AT LAKE BLOOMINGTON

* Spillage, in second-feet, water year October 1940 to October 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	d0.24	0.20	0.23	0.46	0.23	0.26	0.26	0.18	0.29	20.3	0.20	0.18
2	d.24	.18	.16	.32	.26	.26	.20	.16	.18	11.0	.20	.18
3	d.24	.20	.42	.20	.26	.29	.59	.12	.26	9.4	.20	.34
4	d.24	.29	.20	.16	.18	.20	.54	.23	.29	9.6	.23	.20
5	d.24	.26	.18	.35	.26	.26	.42	.20	.16	9.7	.26	.18
6	d.24	.18	.20	.23	.23	.26	.35	.50	.16	7.2	.23	.18
7	d.24	.20	.35	.18	.18	.23	.39	.26	.23	1.02	.23	.23
8	d.24	.46	.20	.23	.37	.26	.35	.18	.14	.85	.23	.20
9	d.24	.26	.23	.20	.26	.23	.39	.20	1.44	2.8	.41	.23
10	d.24	.23	.32	.18	.20	.41	.78	.18	.42	.98	.20	.20
11	d.24	.35	.20	.20	.26	.35	.35	.18	.97	.50	.31	.23
12	d.24	.32	.26	.20	1.08	.23	.35	.18	.50	.35	.20	.20
13	d.24	.18	.26	.20	1.11	.35	.32	.16	99.2	.36	.18	.23
14	d.24	.14	.23	.20	.29	.20	.32	.39	125	.23	.70	.26
15	d.24	.20	.36	.23	.23	.39	.32	.29	133	.23	.26	.26
16	d.24	.20	.41	.35	.23	.26	.42	.39	105	.32	.29	.32
17	d.24	.18	.26	.39	.20	.28	.35	.29	71	.23	.37	.26
18	d.24	.16	.20	.28	.29	.23	.42	.35	52	.38	.55	.48
19	d.24	.32	.26	.46	.12	.35	.77	.29	39	.20	.26	.35
20	d.24	.35	.23	.18	.23	.32	.50	.26	28	.23	.29	.23
21	d.24	.23	.20	.23	.28	.23	.35	.23	22	.26	.20	.20
22	d.24	.20	.23	.58	.18	.32	.39	.20	17.4	.26	.34	.26
23	d.24	.23	.23	.20	.18	.23	.39	.16	12.6	1.22	.23	.23
24	.18	.23	.20	.26	.39	.20	.35	.16	12.4	.26	.66	.20
25	.26	.18	.26	.23	.23	.26	.39	.14	14.3	.29	.32	1.32
26	.18	.23	.26	.41	.28	.29	.32	.20	7.5	.29	.29	.26
27	.23	.32	.20	.29	.23	.35	.26	.29	2.6	.26	.26	.23
28	.29	.20	.20	.18	.28	.32	.20	.23	3.6	.23	.26	.23
29	.23	.18	.23	.42	-	.26	.20	.42	4.3	.20	.23	.23
30	.23	.35	.16	.35	-	.29	.16	.20	10.0	.18	.26	.23
31	.35	-	.18	.23	-	.26	-	.39	-	.18	.23	-

d Well and control filled with lime; discharge estimated on basis of record for November and December.

* Includes diversion from lake for washing filters, sanitary facilities at pumping plant, seepage through dam, and runoff from about 0.4 square mile below dam.

MONEY CREEK AT LAKE B1OOMINGTON

Month1y discharge and rainfa11, water year October 1941 to September 1942

Month	Discharge past auxiliary gage (million gallons)†	Pumpage (million gallons)	Change in contents (million gallons)	Adjusted for change in reservoir contents and pumpage*				Rainfall (inches)
				Runoff (million gallons)	Discharge per square mile		Run off (inches)	
					Million gallons per day	Second-feet		
October	1,392.38	103.53	+405.0	1,900.91	1.005	1.55	1.79	8.86
November ..	2,432.74	99.68	-5.4	2,527.02	1.381	2.14	2.39	2.91
December ..	742.42	99.31	-8.8	832.93	.440	.681	.79	1.02
Calendar year 1941 .	5,152.86	1,234.17	+901.7	7,288.73	.327	.506	6.89	37.11
January ...	373.31	104.16	-3.6	473.87	.251	.388	.45	.90
February ..	3,563.79	92.94	-1.7	3,655.03	2.140	3.31	3.45	3.45
March	2,603.36	102.15	+12.4	2,717.91	1.437	2.22	2.56	3.36
April	2,241.43	99.67	-19.5	2,321.60	1.269	1.96	2.19	2.32
May	1,54.77	100.17	0	1,254.94	.664	1.03	1.19	4.40
June	511.30	100.09	-12.4	598.99	.327	.506	.56	3.21
July	79.26	111.56	-54.3	136.52	.072	.111	.13	3.12
August	16.10	112.41	+6.8	135.31	.072	.111	.13	3.63
September ..	9.74	104.87	-118.3	-3.69	-.0020	-.0031	-.003	2.98
Water year 1941-42 ..	15,120.62	1,230.54	+200.2	16,551.36	.743	1.15	15.63	40.16

† This inc1udes spi11age over dam, diversion from 1ake for washing fi1ters, sanitary faci1ities at pumping p1ant, seepage through dam and runoff from about 0.4 square mi1e be1ow dam.

* Negative figures indicate that evaporation and seepage from reservoir exceeded inf1ow.

Time basis: Centra1 standard time prior to 2 a.m., Feb. 9, 1942; centra1 war time thereafter. To convert war time to standard time, subtract 1 hour.

MONEY CREEK AT LAKE BLOOMINGTON

Spillage, in second-feet, water year October 1941 to September 1942

Month	Second-foot-days	Maximum	Minimum	Mean
October	2,154.33	439	0.37	69.5
November	3,764	365	53	125
December	1,148.7	69	15.4	37.0
Calendar Year 1941	7,972.63	439	0.12	21.8
January	577.6	52	10.8	18.6
February	5,514	1,180	27	197
March	4,028	1,020	30	130
April	3,468	469	23	116
May	1,786.7	145	8.7	57.6
June	791.10	117	0.60	26.4
July	122.64	36	0.37	3.96
August	24.91	8.6	0.37	0.80
September	15.07	0.94	0.40	0.50
Water Year 1941-42	23,395.05	1,180	0.37	64.1

MONEY CREEK AT LAKE BLOOMINGTON

*Spillage, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.37	365	69	52	27	a30	88	35	14.5	0.73	0.44	0.44
2	.71	334	63	43	28	a35	78	8.7	16.7	.69	.40	.40
3	.55	175	58	34	29	a35	93	33	25	2.8	.44	.44
4	4.7	136	55	24	130	a35	93	32	23	.89	.40	.44
5	2.0	119	48	23	546	a35	52	28	27	.84	.40	.44
6	131	161	37	20	1,180	a40	117	101	117	7.4	.40	.51
7	439	294	42	15.4	885	a45	469	103	93	3.6	.55	.51
8	193	209	31	14.8	334	a70	469	71	48	4.2	.55	.64
9	162	150	32	b14	250	a90	312	55	36	6.1	.51	.64
10	152	126	26	b14	177	a80	323	48	32	3.2	.51	.55
11	108	109	24	b14	144	79	203	45	30	1.85	.48	.48
12	72	99	25	b14	125	67	150	42	39	5.8	.48	.48
13	59	88	25	b14	107	66	131	61	42	2.5	.48	.51
14	43	73	23	14.5	94	69	114	58	36	.73	.48	.48
15	40	67	22	13.6	105	72	101	81	27	2.0	.48	.48
16	34	60	22	13.9	291	463	84	145	23	36	.44	.51
17	30	57	29	15.1	323	1,020	76	142	23	23	.44	.48
18	39	53	15.4	18.0	164	345	64	106	20	11.4	.44	.48
19	34	65	18.3	17.0	a120	218	56	105	22	3.4	.48	.51
20	31	131	20	13.9	a80	168	50	84	20	.51	.51	.48
21	27	113	23	13.3	a65	132	45	66	13.3	.40	.44	.44
22	44	93	25	13.3	a60	107	42	55	8.9	.37	1.04	.44
23	45	88	33	14.9	a55	93	40	48	5.6	.51	.55	.44
24	35	78	37	14.5	a50	80	33	41	5.8	.51	.48	.40
25	30	76	38	14.5	a40	72	36	38	11.6	.60	.37	.60
26	43	82	57	13.0	a40	67	32	33	8.5	.48	.55	.94
27	36	100	64	12.5	a35	73	33	32	9.4	.40	8.6	.55
28	58	101	54	10.8	a30	81	23	28	9.8	.44	1.77	.44
29	54	87	46	11.6	-	85	29	25	3.4	.44	.77	.48
30	73	75	45	17.0	-	88	32	20	.60	.48	.55	.44
31	134	-	42	41	-	88	-	17.0	-	.37	.48	-

a No gage-height record; discharge computed on basis of records for station above Lake Bloomington.

b Stage-discharge relation affected by ice; discharge computed on basis of one discharge measurement and weather records.

* Includes diversion from lake for washing filters, sanitary facilities at pumping plant, seepage through dam, and runoff from about 0.4 square mile below dam.

MONEY CREEK AT LAKE BLOOMINGTON

Monthly discharge and rainfall, water year October 1942 to September 1943

Month	Discharge past lower gage (million gallons)†	Pumpage (million gallons)	Change in contents (million gallons)	Adjusted for change in reservoir contents and pumpage*				Rainfall (inches)
				Runoff (million gallons)	Discharge per square mile		Run off (inches)	
					Million gallons per day	Second-feet		
October	7.97	110.29	-111.5	6.76	0.0036	0.0056	0.006	1.98
November ..	1,536.32	105.30	+305.6	1,947.22	1.064	1.65	1.84	5.10
December ..	2,061.75	110.68	+21.3	2,193.73	1.160	1.79	2.06	2.14
Calendar year 1942 .	14,159.10	1,254.29	+24.8	15,438.19	.693	1.07	14.56	36.59
January ...	1,644.49	110.73	-26.6	1,728.62	.914	1.41	1.63	1.27
February ..	1,377.30	99.18	-8.8	1,467.68	.859	1.33	1.38	1.00
March	1,149.93	109.67	-3.6	1,255.90	.664	1.03	1.19	2.16
April	787.15	107.96	+26.6	921.71	.504	.780	.87	3.67
May	7,578.71	108.21	-8.9	7,678.02	4.060	6.28	7.24	9.48
June	1,057.76	109.76	-19.4	1,148.12	.627	.970	1.08	2.81
July	58.55	125.52	-73.3	110.77	.059	.091	.10	1.44
August	2,209.06	124.14	+25.3	2,358.53	1.247	1.93	2.23	6.50
September ..	5.32	114.37	-133.4	-13.71	-.0075	-.012	-.01	1.76
Water year 1942-43 ..	19,474.31	1,335.71	-6.7	20,803.35	.934	1.44	19.62	39.31

† Include spillage over dam, diversion from Lake for washing filters, sanitary facilities at pumping plant seepage through dam, and runoff from about 0.4 square mile below dam.

* Negative figures indicate that evaporation and seepage from reservoir exceeded inflow.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

MONEY CREEK AT LAKE BLOOMINGTON

Spillage, in second-feet, water year October 1942 to September 1943

Month	Second-foot-days	Maximum	Minimum	Mean
October	12.33	1.07	0.30	0.398
November	2,377.04	465	0.33	79.2
December	3,190	700	25	103
Calendar Year 1942	21,907.39	1,180	0.30	60.0
January	2,544.4	235	17.4	82.1
February	2,131	420	21	76.1
March	1,779.2	158	8.8	57.4
April	1,217.9	247	6.7	40.6
May	11,726	1,920	33	378
June	1,636.6	220	13.5	54.6
July	90.59	12.9	0.19	2.92
August	3,417.92	390	0.22	110
September	8.23	0.44	0.19	0.274
Water Year 1942-43	30,131.21	1,920	0.19	82.6

MONEY CREEK AT LAKE BLOOMINGTON

* Spillage in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.33	0.37	67	a180	46	19.6	26	88	74	11.6	0.22	0.44
2	.37	.33	52	a150	44	11.1	22	75	87	10.5	.80	.33
3	.30	.33	41	a160	151	12.1	27	62	59	9.8	1310	.19
4	.37	.33	a50	a160	194	15.2	24	55	52	8.8	1390	.40
5	.37	.47	a45	a130	101	15.8	14.9	55	54	12.9	289	.30
6	.33	.44	a45	a110	420	18.4	26	33	52	9.1	127	.30
7	.37	.40	a40	a110	158	12.7	19.9	54	42	5.1	85	.33
8	.30	.40	a40	a100	104	18.5	17.4	377	36	3.1	62	.30
9	.47	4.1	a40	a90	101	8.8	24	368	34	2.7	44	.25
10	.37	1.07	a40	a85	a120	30	20	307	79	2.4	33	.27
11	.30	80	a40	a70	87	51	24	1,020	220	3.2	24	.27
12	.37	89	a35	a60	74	41	19.6	1,040	107	1.58	15.5	.40
13	.40	62	a30	a45	51	31	17.7	354	66	1.50	12.1	.37
14	.37	53	a30	a50	35	28	14.6	249	75	.65	6.9	.27
15	.44	54	a35	52	f41	61	19.8	281	58	.33	7.5	.27
16	.40	49	a35	45	f36	149	14.1	762	45	1.94	2.5	.27
17	.40	5.2	a35	38	31	149	6.7	1,100	34	.51	.65	.25
18	.40	13.8	a30	32	28	107	9.5	1,920	28	.80	.30	.27
19	.30	29	a25	24	34	146	9.8	911	26	.75	.98	.25
20	.37	13.8	a25	17.4	46	158	19.6	632	33	.40	1.28	.22
21	.30	47	a30	26	37	117	16.8	437	59	.44	.33	.22
22	.44	200	a35	33	33	94	21	279	40	.27	.70	.22
23	.33	465	a40	138	34	81	12.4	213	28	.30	.75	.22
24	.40	450	a65	235	31	71	17.1	193	22	.33	.33	.22
25	.33	222	a70	134	27	66	28	200	50	.33	.22	.22
26	.40	151	a120	51	21	57	55	160	47	.25	.44	.22
27	.37	114	a700	52	22	50	247	130	70	.19	.22	.22
28	.40	100	a550	42	24	43	191	110	30	.19	.33	.22
29	.40	93	a350	39	-	46	144	96	16.1	.19	.75	.25
30	1.07	78	a250	36	-	44	109	85	13.5	.19	.56	.27
31	.56	-	a200	50	-	27	-	80	-	.25	.56	-

a No gage-height record; discharge computed on basis of records for Money creek above Lake Bloomington and Hickory Creek above Lake Bloomington , discharge over lake spillway, and water diverted from lake.

f Discharge computed on basis of partly estimated gage-height record.

* Includes diversion from lake for washing filters, sanitary facilities at pumping plant, seepage through dam, and runoff from about 0.4 square mile below dam.

MONEY CREEK AT LAKE BLOOMINGTON

Monthly discharge and rainfall, water year October 1943 to September 1944

Month	Discharge past lower gage (million gallons)†	Pumpage (million gallons)	Change in contents (million gallons)	Adjusted for change in reservoir contents and pumpage *				Rainfall (inches)
				Runoff (million gallons)	Discharge per square mile		Runoff (inches)	
					Million gallons per day	Second-feet		
October	7.41	102.29	-127	-17.7	-0.0094	-0.015	-0.02	1.68
November ...	7.37	107.06	-95.2	19.23	.011	.017	.02	1.83
December ...	8.52	113.55	-112	9.67	.0051	.0079	.009	.24
Calendar year 1943 .	15,891.57	1,332.34	-557	16,666.84	.749	1.16	15.72	33.84
January	9.69	115.6	-96.1	29.19	.015	.023	.03	.53
February ...	10.5	101.74	150	262.54	.148	.229	.25	2.65
March	1,229.43	109.64	492	1,831.37	.968	1.50	1.73	4.48
April	6,774.05	105.29	-1.8	6,877.54	3.758	5.81	6.49	9.01
May	1,464.55	111.72	-24.8	1,551.47	.820	1.27	1.46	3.06
June	272.82	122.20	-26.1	368.92	.202	3.13	.35	2.71
July	7.3	128.16	-141.9	-6.44	-.0034	-.0053	-.006	2.19
August	11.66	128.4	-99.2	40.86	.022	.034	.04	3.43
September ..	16.97	112.4	-82	47.37	.026	.040	.04	3.27
Water year 1943-44 ..	9,820.26	1,358.05	-164	11,014.02	.493	.763	10.39	35.08

† Includes spillage over dam, seepage through dam, runoff from area below dam (0.4 square mile), and return flow from water diverted from lake for use at pumping plant and not otherwise measured

* Negative figures indicate that evaporation and seepage from reservoir exceeded inflow.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

MONEY CREEK AT LAKE BLOOMINGTON

Spillage, in second-feet, water year October 1943 to September 1944

Month	Second-foot-days	Maximum	Minimum	Mean
October	11.46	0.65	0.25	0.370
November	11.41	.59	.33	.380
December	13.18	.51	.37	.425
Calendar Year 1943 ..	24,587.89	1,920	.19	67.4
January	15.00	0.80	0.40	0.484
February	16.24	1.39	.40	.560
March	1,902.21	270	.44	61.4
April	10,481	1,770	49	349
May	2,266	144	21	73.1
June	422.11	64	.33	14.1
July	11.29	1.03	.25	.364
August	18.04	3.2	.37	.582
September	26.25	1.34	.65	.875
Water Year 1943-44 ...	15,194.19	1,770	0.25	41.5

MONEY CREEK AT LAKE BLOOMINGTON

*Spillage, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.37	0.37	0.37	0.44	0.44	0.47	102	144	21	0.30	0.37	0.65
2	.30	.37	.37	.40	.44	.44	79	114	18.0	.57	.44	.65
3	.25	.37	.37	.44	.44	.82	66	100	20	.37	.37	.80
4	.27	.37	.37	.44	.44	1.14	59	75	23	.33	.37	.75
5	.27	.37	.37	.44	.44	.47	50	72	6.6	.33	.37	.70
6	.30	.37	.37	.44	.44	.51	49	64	.56	.52	.37	.70
7	.27	.59	.37	.47	.44	.51	62	58	.56	.27	.37	.86
8	.33	.47	.37	.56	.44	.51	62	96	7.0	.30	.37	.86
9	.37	.40	.40	.56	.40	.47	58	142	5.4	.30	.47	.75
10	.37	.37	.40	.56	.85	.47	157	118	4.5	.33	.44	.70
11	.37	.37	.40	.51	b.4	.47	1,430	96	7.7	.37	.44	.92
12	.37	.37	.40	.51	b.4	.71	962	82	26	.27	.51	1.34
13	a.4	.37	.40	.47	.63	.47	390	68	34	.33	.44	1.14
14	.44	.37	.40	.44	.47	1.65	276	62	51	..30	.40	1.07
15	.37	.37	b.4	.40	.47	12.1	450	55	64	.33	.40	1.07
16	.37	.37	.44	.40	.44	187	420	81	28	.27	.44	1.07
17	.47	.37	.47	.40	.44	170	264	126	16.8	.27	.47	.75
18	.65	.37	.47	.40	.47	124	200	89	12.5	.33	.51	.70
19	.47	.37	.47	.44	.65	94	166	70	4.8	.33	.44	.80
20	.37	.37	.47	.44	.47	77	156	65	3.6	.27	.44	.80
21	.47	.37	.47	.56	.51	66	134	91	10.5	.37	.44	.80
22	.40	.33	.47	.47	1.18	60	1,270	76	9.6	.37	.86	.86
23	.37	.37	.44	.47	.51	58	1.770	54	14.9	.30	.61	1.07
24	.37	.37	.44	.47	.51	57	800	47	10.3	.25	.51	.92
25	.40	.37	.44	.60	1.04	45	300	43	8.2	.30	.47	.99
26	a.4	.37	.44	.56	1.39	62	214	36	6.4	1.03	.44	1.07
27	a.3	.37	.44	.80	.51	151	170	32	5.7	.44	.65	.86
28	.27	.37	.47	.56	.51	166	134	31	.83	.33	.65	.99
29	a.3	.37	.51	.47	.47	270	118	30	.33	.40	.60	.86
30	a.4	.37	.51	.44	-	174	113	28	.33	.37	3.2	.75
31	a.4	-	.47	.44	-	120	-	21	-	.44	1.18	-

a No gage-height record; discharge computed on basis of records for Money Creek above Lake Bloomington and Hickory Creek above Lake Bloomington.

b Stage-discharge relation affected by ice; discharge computed on basis of records for Money Creek above Lake Bloomington and Hickory Creek above Lake Bloomington.

* Includes diversion from lake for washing filters, sanitary facilities at pumping plant, seepage through dam, and runoff from about 0.4 square mile below dam.

MONEY CREEK AT LAKE BLOOMINGTON

Monthly discharge and rainfall, water year October 1944 to September 1945

Month	Discharge past lower gage (million gallons)†	Pumpage (million gallons)	Change in contents (million gallons)	Adjusted for change in reservoir contents and pumpage *				Rainfall (inches)
				Runoff (million gallons)	Discharge per square mile		Runoff (inches)	
					Million gallons per day	Second-feet		
October	11.45	116.68	-36.8	91.33	.048	.074	.09	1.80
November	8.84	107.50	-114.8	1.54	.00084	.0013	.001	.76
December	12.75	117.50	-113.6	16.65	.0088	.014	.02	1.09
Calendar year 1944	9,830.01	1,376.83	-96.1	11,110.74	.498	.771	10.50	34.98
January	7.06	114.02	-117.5	3.58	.0019	.0029	.003	.38
February	5.12	103.90	+312.2	421.22	.247	.382	.40	1.13
March	12.02	108.18	+327.4	447.60	.237	.367	.42	3.74
April	1,048.26	104.75	+104.2	1,257.21	.687	1.06	1.18	4.50
May	2,954.96	109.60	0.0	3,064.56	1.62	2.51	2.89	5.64
June	2,213.12	116.84	+63.8	2,393.76	1.31	2.03	2.26	6.83
July	800.32	118.75	-95.4	823.67	.436	.675	.78	1.51
August	384.63	120.47	-57.4	447.70	.237	.367	.42	4.40
September	364.03	111.64	+105.0	580.67	.317	.490	.55	6.73
Water year 1944-45 ...	7,822.56	1,349.83	+377.1	9,549.49	.429	.664	9.01	38.51

† Includes spill over dam, diversion from the lake for washing filters, sanitary facilities at pumping plant, seepage through dam, and runoff from about 0.4 sq. mile below the dam.

* Negative figures indicate that evaporation and seepage from reservoir exceeded inflow.

Time basis: Central war time up to 2 a.m. September 30, 1945; Central Standard time thereafter. To convert war time to standard time, subtract one hour.

MONEY CREEK AT LAKE BLOOMINGTON

Spillage, in second-feet, water year October 1944 to September 1945

Month	Second-foot-days	Maximum	Minimum	Mean
October	17.72	3.28	0.30	0.572
November	13.68	.56	.33	.456
December	19.73	1.37	.47	.636
Calendar Year 1944 ..	15,209.27	1,770	0.25	41.6
January	10.93	0.47	0.27	0.353
February	7.92	.65	.19	.283
March	18.60	.75	.47	.600
April	1,621.90	132	.60	54.1
May	4,572	701	36	147
June	3,424.2	478	13.2	114
July	1,238.28	273	.65	39.9
August	595.11	260	.25	19.2
September	563.24	198	.25	18.8
Water Year 1944-45 ...	12,103.31	701	0.19	33.2

MONEY CREEK AT LAKE BLOOMINGTON

Spillage, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.86	0.44	0.51	0.47	0.25	0.70	0.60	36	43	273	0.41	0.27
2	3.28	.47	.51	.47	.25	.65	7.2	42	26	106	.37	.27
3	1.95	.44	.60	.47	.19	.70	132	45	24	69	.37	.27
4	.80	.37	.60	.47	.19	.65	110	41	22	52	.40	.27
5	.65	.33	.65	.47	.19	.65	81	38	20	128	82	.27
6	.47	.44	.65	.47	.19	.65	73	36	22	59	260	.27
7	.37	.40	.60	.47	.19	.65	45	60	23	38	52	.27
8	.37	.40	.60	.47	.19	.60	38	46	13.2	36	21	.26
9	.37	.40	.60	.47	.09	.60	49	76	88	29	12.1	.25
10	.37	.37	.75	.47	.19	.60	26	99	216	20	8.8	.25
11	.33	.40	.51	.47	.22	.60	28	112	114	17.1	16.6	.27
12	.37	.44	.65	.30	.25	.60	14.1	93	83	17.4	32	.30
13	.30	.47	.80	.33	.25	.60	76	81	79	68	36	.73
14	.33	.44	.99	.33	.25	.56	98	143	67	134	21	.63
15	.30	.44	.86	.33	.25	.51	72	701	65	50	19.2	.47
16	.30	.44	.65	.33	.27	.51	89	375	476	30	13.2	.40
17	.33	.44	.75	.30	.27	.47	66	360	478	20	7.5	.27
18	.33	.44	1.37	.30	.27	.47	56	270	222	17.1	6.7	.37
19	.40	.47	.60	.30	.27	.47	48	195	164	14.9	2.2	.88
20	.40	.47	.70	.27	.27	.75	39	220	130	13.2	.89	.51
21	.40	.51	.65	.27	.27	.70	36	461	112	11.8	.54	.47
22	.37	.47	.60	.27	.30	.60	35	435	83	11.1	.25	2.00
23	.44	.51	.60	.27	.33	.56	26	113	65	7.1	.27	2.30
24	.40	.47	.56	.27	.33	.51	37	99	54	7.1	.30	28
25	.47	.56	.51	.27	.32	.75	32	82	174	2.8	.25	68
26	.47	.51	.51	.27	.47	.56	63	71	151	1.74	.30	38
27	.47	.51	.47	.27	.65	.70	87	69	75	.65	.33	27
28	.44	.51	.47	.27	.65	.51	66	51	54	.86	.33	59
29	.44	.56	.47	.27	-	.65	52	47	49	.92	.25	198
30	.47	.56	.47	.27	-	.51	40	42	232	.86	.25	133
31	.47	-	.47	.27	-	.56	-	43	-	1.65	.30	-

* Includes diversion from lake for washing filters, sanitary facilities at pumping plant, seepage through dam, and runoff from about 0.4 square mile below dam.

MONEY CREEK AT LAKE BLOOMINGTON

Monthly discharge and rainfall, water year October 1945 to September 1946

Month	Discharge from Spillway (million gallons)†	Pumpage (million gallons)	Change in contents (million gallons)	Adjusted for change in reservoir contents and pumpage*				Rainfall (inches)
				Runoff (million gallons)	Discharge per square mile		Run off (inches)	
					Million gallons per day	Second-feet		
October	518.99	110.44	-30.1	599.33	.317	.490	.56	1.32
November ..	199.89	109.03	+12.4	321.32	.176	.272	.30	2.00
December ..	752.18	116.43	+33.6	902.21	.477	.738	.85	2.39
Calendar year 1945 .	9,260.58	1,344.05	+390.2	10,994.83	.494	.764	10.61	40.57
January ...	2,367.46	118.33	-40.7	2,445.09	1.29	2.00	2.31	0.97
February ..	1,145.79	101.60	+1.8	1,249.19	.731	1.13	1.18	1.37
March	2,138.02	109.03	+12.4	2,259.45	1.19	1.84	2.12	2.97
April	486.74	106.52	-17.7	575.56	.315	.487	.54	1.63
May	1,754.75	100.29	+10.6	1,865.64	.987	1.53	1.76	5.59
June	3,768.80	107.21	+1.7	3,877.71	2.12	3.28	3.66	7.21
July	210.36	121.68	-58.6	273.44	.145	.224	.26	1.49
August	13.31	117.55	-148.1	-17.24	-.009	-.014	-.02	2.20
September ..	14.97	111.67	-166.7	-40.06	-.022	-.034	-.04	1.43
Water year 1945-46 ..	13,371.26	1,329.78	-389.4	14,311.64	.643	.995	13.48	30.57

† Includes spillage over dam, diversion from the lake for washing filters, sanitary facilities at pumping plant, seepage through dam,~ and runoff from about 0.4 sq. mile below the dam.

* Negative figures indicate that evaporation end seepage from reservoir exceeded inflow.

MONEY CREEK AT LAKE BLOOMINGTON

Spillage, in second-feet, water year October 1945 to September 1946

Month	Second-foot-days	Maximum	Minimum	Mean
October	803.0	148	2.4	25.9
November	309.28	52	.15	10.3
December	1,163.8	345	7	37.5
Calendar Year 1945	14,328.26	701	0.15	39.3
January	3,663	652	16	118
February	1,772.8	191	13	63.3
March	3,308	360	26	107
April	753.1	51	11.1	25.1
May	2,715	235	34	87.6
June	5,831.2	1,150	9.3	194
July	325.47	42	.51	10.5
August	20.59	1.20	.47	.664
September	23.16	.92	.60	.772
Water Year 1945-46	20,688.40	1,150	0.15	56.7

MONEY CREEK AT LAKE BLOOMINGTON

* Spillage, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Ju1y	Aug.	Sept.
1	148	15.0	38	146	a19	37	51	44	30	42	0.75	0.92
2	122	.19	26	86	a15	40	45	155	27	33	.65	.86
3	88	.19	26	63	a13	50	43	178	24	28	.70	.80
4	65	4.9	26	164	a18	26	30	235	20	22	.60	.70
5	50	4.2	26	652	a25	41	32	222	21	21	.70	.65
6	42	9.3	26	420	a35	53	30	168	24	21	.75	.60
7	37	6.9	22	267	16.8	68	35	147	15.9	20	.70	.65
8	22	16.4	24	182	18.8	70	24	124	9.3	17.1	.65	.65
9	20	.15	14.1	303	18.4	62	25	106	12.1	17.4	.65	.65
10	19.6	.25	11.1	273	13.8	58	21	96	14.9	21	.56	.70
11	16.8	.52	11.6	184	13.2	66	25	94	32	9.5	.56	.75
12	14.3	10.9	11.8	134	15.8	70	26	88	730	10.3	.56	.75
13	12.7	.25	15.8	103	96	64	27	78	830	10.3	.56	.70
14	10.8	.40	14.1	a85	125	158	25	69	267	9.1	.56	.70
15	9.5	9.9	11.3	a75	34	360	39	66	164	6.5	.56	.70
16	9.3	25	a10	a65	42	255	28	58	128	6.9	.56	.70
17	12.9	2.4	a10	a55	82	212	24	58	98	13.2	1.20	.70
18	15.5	3.2	a10	a50	158	189	18	63	455	4.0	.65	.70
19	2.6	.78	a10	a45	191	174	25	57	150	1.75	.75	.70
20	4.5	12.9	a9	a40	170	142	13.5	50	565	.60	.86	.92
21	6.7	5.1	a8	a35	98	122	18.8	45	300	.60	.56	.92
22	15.2	2.3	a7	a35	93	106	12.9	47	187	.51	.47	.92
23	9.8	1.07	a7	a30	114	121	25	50	136	3.4	.60	.92
24	8.4	3.5	a10	a30	82	151	20	44	108	.86	.47	.92
25	7.7	1.28	a20	a25	70	133	14.1	89	115	.60	.47	.80
26	2.8	11.3	a25	a20	69	110	11.1	71	115	.60	.80	.86
27	7.9	37	a20	a20	66	95	11.1	56	82	1.40	.60	.92
28	6.1	52	a20	a20	61	82	24	45	63	.70	.56	.80
29	2.4	40	40	a20	-	73	13.5	41	55	.70	.75	.80
30	9.5	32	345	a20	-	62	16.1	37	53	.75	.86	.80
31	4.0	-	309	a16	-	58	-	34	-	.70	.92	-

a No gage-height; discharge computed on basis of records for station above Lake Bloomington and Hickory Creek above Lake Bloomington.

* Includes diversion from lake for washing filters, sanitary facilities at pumping plant, seepage through dam, and runoff from about 0.4 square mile below dam

MONEY CREEK AT LAKE BLOOMINGTON

Peak Discharges

Base Discharge - 400 second-feet

Date			Gage height (feet)	Discharge (second-feet)	Order of magnitude	Plotting position
Year	Month	Day				
1939	Mar.	13	4.16	512	31	0.258
	Apr.	15	5.36	928	14	0.571
		17	3.95	450	38	0.211
	June	11	4.03	475	34	0.236
1941	Oct.	7	4.51	628	25	0.320
	Nov.	2	3.98	463	36	0.222
1942	Feb.	5	4.50	625	26	0.308
		6	6.70	1470	9	0.890
	Mar.	16	4.90	783	19	0.421
		17	6.22	1268	11	0.727
	Apr.	6	4.04	481	33	0.242
		7	4.52	632	24	0.334
	May	1	4.87	749	20	0.400
		2	4.59	655	22	0.364
		3	3.87	430	40	0.200
		5	3.88	433	39	0.205
	Nov.	24	4.43	645	23	0.348
1943	Feb.	6	4.02	502	32	0.250
	May	8	4.01	553	29	0.276
		10	3.88	459	37	0.216
		11	6.78	1606	7	1.14
		16	5.11	863	16	0.500
		18	7.62	2580	2	4.00
		20	4.83	784	18	0.445
	Aug.	3	7.63	2600	1	8.00
		4	7.17	1913	4	2.00
1944	Apr.	11	6.88	1676	5	1.60
		15	4.17	554	28	0.286
		22	6.68	1538	8	1.00
		23	7.21	1951	3	2.67
1945	May	15	5.15	875	15	0.533
		20	4.31	603	27	0.296
	June	16	4.50	670	21	0.382
		30	4.13	640	30	0.267
	Aug.	6	3.90	465	35	0.229
1946	Jan.	5	4.96	818	17	0.471
	June	12	5.47	1009	13	0.615
		13	6.31	1325	10	0.8
		18	6.87	1669	6	1.33
		19	5.60	1020	12	0.667

LAKE BRACKEN

DESCRIPTION

Lake Bracken, constructed in 1923, is owned and operated by the Chicago, Burlington and Quincy Railroad. The water is used for locomotives and in a tie-treating plant. The lake receives the drainage of Brush Creek and small tributaries. Brush Creek flows for a distance of 10 miles in a southeast direction to join Haw Creek three miles above its confluence with the Spoon River, which flows into the Illinois River. The drainage area is 9.14 square miles and the 183.96 acre lake holds 961.0 million gallons at spillway crest.

The lake has a 650-foot earth dam 49 feet high, and a 214-foot concrete spillway section with crest at 700 feet above mean sea level. Water approaching the spillway has to travel through a flat-bottomed channel about 100 feet long and 25 feet wide. In 1931 calibrated iron V-notched weir plates were installed along the crest in order to facilitate measuring spillage.

The State Water Survey maintains three precipitation stations on the watershed with records extending back to 1929.

Spillage data are collected by the U. S. Geological

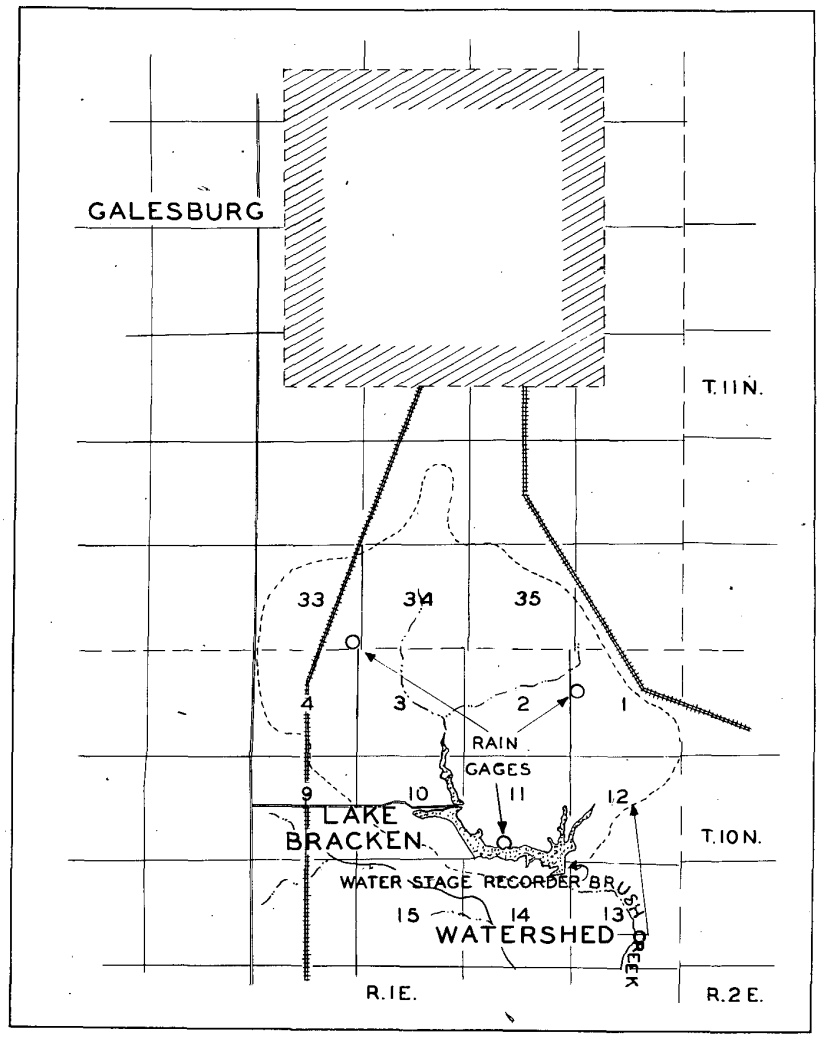

Fig. 12 - Map of Lake Bracken Watershed.

Survey Water Resources Branch which maintains a station at this reservoir. This station with a water-stage recorder and 23 V-notch weirs is located in the lake outlet, at latitude 40°51'30", longitude 90°20'57", in NE 1/4 Sec. 14, T. 10 N., R. 1 E., in the outlet channel below the spillway of the lake, 6 miles south of Galesburg. Changes in Lake capacity are measured by daily readings of a staff gage located near the pumping plant, across the lake and about 1 mile northwest of the lake outlet. Datum of gage is 670.00 feet above mean sea level. Records are available from April 1932 to September 1946. The flow is regulated by the lake. The records are adjusted for change in contents, leakage from lake around the outlet channel as determined from readings on the staff gage, and pumpage, but not for evaporation and seepage losses. The pumpage and lake level records are furnished by the Chicago, Burlington and Quincy Railroad.

A sedimentation survey of the lake in 1936 revealed that in the nearly 13 years since the reservoir was built the loss of original lake capacity had been 0.61 per cent per year or a total capacity loss of 7.67 per cent to 1936.

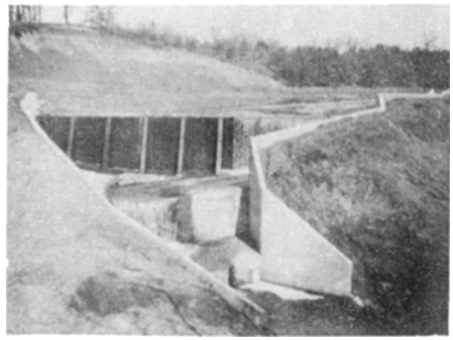

Fig. 13 - Concrete steps in spillway channel below spillway crest at Lake Bracken. Photograph taken prior to installation of gaging station.

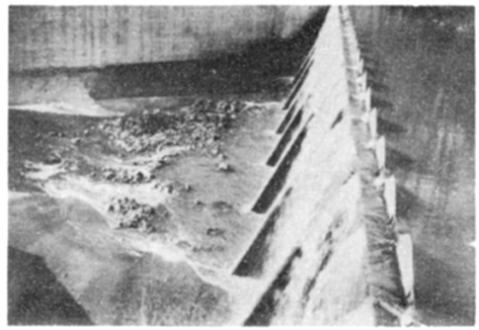

Fig. 14 - U.S.G.S. gaging station at Lake Bracken; artificial control consisting of calibrated iron V-notch weir plates along the spillway crest.

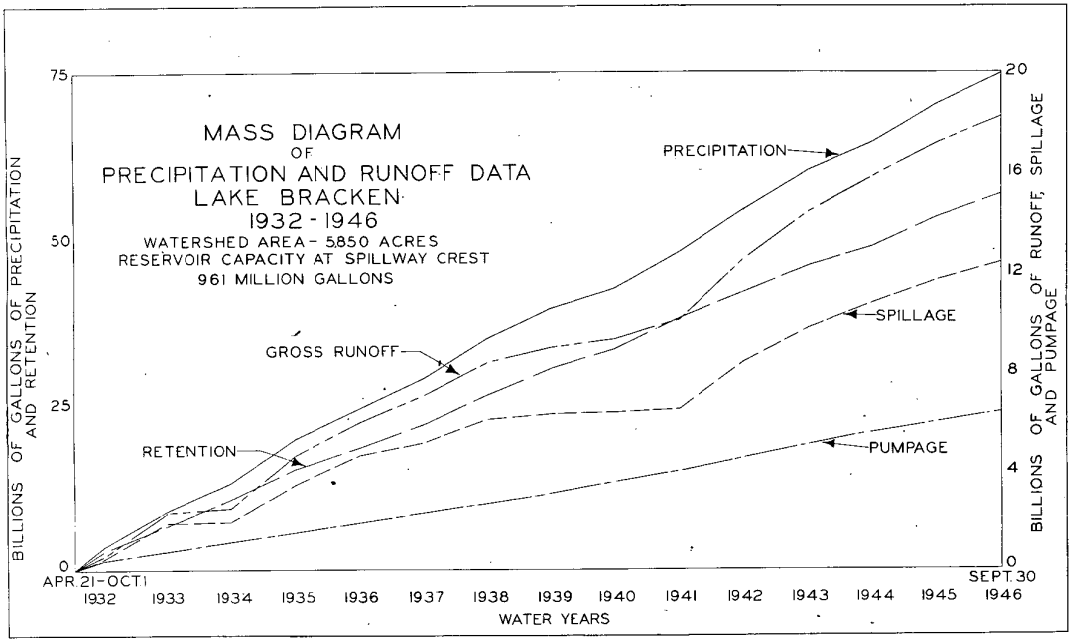

Fig. 15 - Mass Diagram of precipitation and runoff data for Lake Bracken.

LAKE BRACKEN

SUMMARY OF ANNUAL PRECIPITATION AND RUNOFF

Water Year	Precipitation (inches)	Precipitation (million gallons)	Gain or Loss (million gallons)	Spillage (million gallons)	Pumpage (million gallons)	Gross Runoff (million gallons)	Gross Runoff (inches)	Per Cent Gross Runoff	Per Cent Spillage	Per Cent Retention
1929-30	25.56	3,966.4	-	-	-	-	-	-	-	-
1930-31	30.45	4,725.3	-	-	418.9	-	-	-	-	-
1931-32	36.21	5,619.1	-16.3	424.1	413.0	-	-	-	-	-
1932-33	35.08	5,443.8	-67.8	1,472.9	355.6	1,760.6	11.10	32.34	27.06	67.66
1933-34	26.53	4,117.0	-240.0	7.2	372.9	140.2	0.90	3.41	0.17	96.59
1934-35	43.76	6,790.8	+292.0	1,492.7	362.4	2,147.1	13.52	31.62	21.98	68.38
1935-36	29.00	4,501.8	-121.4	1,061.0	381.3	1,321.0	8.33	29.34	23.57	70.66
1936-37	29.92	4,643.0	+46.4	619.1	403.9	1,069.4	6.73	23.03	13.33	76.97
1937-38	37.18	5,769.7	+9.1	955.8	367.4	1,332.4	8.39	23.09	16.57	76.91
1938-39	29.87	4,635.3	-26.8	240.4	398.3	612 0	3.85	13.20	5.19	86.80
1939-40	19.46	3,019.8	-145.2	8.9	440.1	303.8	1.93	10.06	0.29	89.94
1940-41	35.63	5,529.1	+173.4	143.1	477.2	793.7	5.01	14.35	2.59	85.65
1941-42	40.74	6,322.1	-4.6	1,899.1	507.2	2,401.7	15.15	37.19	30.04	62.01
1942-43	37.69	5,848.8	+28.8	1,361.7	523.5	1,914.1	12.04	32.73	23.28	67.27
1943-44	27.95	4,337.3	-60.5	993.7	477.6	1,410.8	8.87	32.53	22.91	67.47
1944-45	36.97	5,737.1	+22.4	954.0	415.9	1,392.4	8.78	24.27	16.63	75.73
1945-46	30.49	4,731.5	-10.2	705.1	385.9	1,080.8	6.81	22.84	14.90	77.16

BRUSH CREEK AT LAKE BRACKEN

Monthly discharge and rainfall, April 1932 to September 1932

Month	Discharge from spillway (million gallons) †	Pumpage (million gallons)	Change in contents (million gallons)	Adjusted for change in reservoir contents and pumpage				Rainfall (inches)
				Runoff (million gallons)	Discharge per square mile		Runoff (inches)	
					Million gallons per day	Second-feet		
April 21-30.....	9.11	8.52	0	17.63	0.193	0.298	0.11	0.45
May.....	39.13	28.08	-10.84	56.37	.199	.308	.36	2.79
June.....	87.85	25.25	0	113.10	.412	.638	.71	5.12
July.....	75.46	27.25	-10.84	91.87	.324	.502	.58	4.10
August.....	197.32	27.56	21.68	246.56	.870	1.35	1.56	7.70
September.....	15.21	26.44	-16.26	25.39	.093	.143	.16	2.25
The period	424.08	143.1	-16.26	550.92	.370	.572	3.48	22.41

† Includes small amount of leakage through the dam.

BRUSH CREEK AT LAKE BRACKEN

Spillage, in second-feet, period April 21, 1932 to September 1932

Month	Second-foot-days	Maximum	Minimum	Mean
October	-	-	-	-
November	-	-	-	-
December	-	-	-	-
January	-	-	-	-
February	-	-	-	-
March	-	-	-	-
April 21-30	13.6	1.6	1.2	0.45
May	59.04	4.3	.35	1.90
June	134.44	12.7	.84	4.48
July	115.26	21.6	0	3.72
August	303.79	54	0	9.80
September	22.09	2.3	0	.74
Period 1932	648.22	54	0	3.98

BRUSH GREEK AT LAKE BRACKEN

Spillage, in second-feet, period April 21, 1932 to September 30, 1932

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								1.4	0.84	0.70	0	2.3
2								1.2	1.6	.35	.005	2.1
3								2.3	2.9	2.6	.002	1.8
4								2.9	2.6	7.4	0	1.4
5								2.9	5.7	4.0	0	1.2
6								2.9	9.6	21.6	0	.84
7								3.9	12.7	13.4	0	.70
8								4.3	9.6	9.6	0	.45
9								4.3	7.9	7.4	0	.35
10								3.5	6.4	9.0	0	.18
11								3.2	5.0	7.9	.98	.08
12								2.6	4.3	6.4	1.6	.43
13								2.3	3.5	5.0	34	1.6
14								2.1	3.9	4.3	28	1.6
15								1.6	6.4	3.5	42	1.4
16								1.8	5.5	2.9	54	1.0
17								1.6	4.6	2.6	32	.84
18								1.4	7.9	2.1	21.6	.84
19								1.2	6.4	1.6	15.6	.84
20								1.4	5.5	1.2	12.0	.70
21							1.2	1.2	4.6	.70	10.2	.57
22							1.2	1.0	3.5	.45	9.0	.45
23							1.4	.70	2.6	.35	7.4	.26
24							1.6	.45	2.1	.12	6.4	.08
25							1.6	1.4	1.8	.03	5.5	.002
26							1.6	1.6	1.8	.04	5.0	0
27							1.4	1.4	1.6	.02	4.6	.06
28							1.2	1.0	1.4	0	4.3	.02
29							1.2	.57	1.2	0	3.5	0
30							1.2	.35	1.0	0	3.2	0
31							-	.57	-	0	2.9	-

BRUSH CREEK AT LAKE BRACKEN

Monthly discharge and rainfall, water year October 1932 to September 1933

Month	Discharge from spillway (million gallons)	Pumpage (million hallons)	Change in contents (million gallons)	Adjusted for change in reservoir contents and pumpage *				Rainfall (inches)
				Runoff (million gallons)	Discharge per square mile		Runoff (inches)	
					Million gallons per day	Second-feet		
October	15.82	29.24	+16.26	61.32	0.216	0.335	0.39	3.73
November	13.76	30.01	-10.84	32.93	.120	.186	.21	.88
December	130.15	35.70	+21.68	187.53	.662	1.02	1.18	3.53
January	193.22	34.12	+10.84	238.18	.841	1.30	1.50	2.27
February	95.78	29.35	-5.42	119.71	.468	.724	.75	.83
March	114.11	27.88	+49.67	191.66	.676	1.05	1.21	2.96
April	246.32	26.15	-49.67	222.80	.813	1.26	1.41	2.87
May	584.19	26.90	.00	611.09	2.16	3.34	3.85	8.20
June	64.82	28.23	-16.26	76.79	.280	.433	.48	2.10
July	12.99	30.06	-37.29	5.76	.020	.031	.04	1.49
August	.91	29.73	-31.21	-.57	-.0020	-.0031	-.004	2.92
September	.82	28.23	-15.61	13.44	.049	.076	.08	3.30
Water year 1932-33	1,472.89	355.60	-67.85	1,760.64	.528	.816	11.096	35.08

* Negative figures indicate that evaporation from reservoir exceeded inflow.
Note: Discharge from spillway includes small amount of leakage through the dam.

BRUSH CREEK AT LAKE BRACKEN
Spillage, in second-feet, water year October 1932 to September 1933

Month	Second-foot-days	Maximum	Minimum	Mean
October	22.99	1.6	0	0.74
November	19.84	1.6	.12	.66
December	199.86	47	.1	6.45
January	297.4	37	2.6	9.59
February	146.8	8.4	2.6	5.24
March	175.0	40	1.6	5.65
April	379.6	52	5.0	12.65
May	902.3	210	10.2	29.11
June	98.83	10.8	.02	3.29
July	18.63	2.6	0	.60
August	0	0	0	0
September	0	0	0	0
Water Year 1932-33.....	2,261.25	210	0	6.20

BRUSH CREEK AT LAKE BRACKEN

Spillage, in second-feet, water year October 1932 to September 1933

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	0.70	0.12	7.4	8.4	4.3	52	11.0	10.8	2.6		
2	0	.70	.12	6.9	7.4	3.9	33	19.8	9.6	2.6		
3	0	.57	.35	6.4	6.9	3.9	23.5	13.4	8.4	2.1		
4	0	.45	.84	5.9	6.4	3.5	20.7	10.2	7.9	1.6		
5	0	.45	.70	5.5	5.5	3.2	18.9	10.8	7.4	1.2		
6	0	.57	1.0	5.0	4.6	2.9	17.2	10.2	6.9	1.0		
7	0	.57	1.2	4.6	5.9	2.9	15.6	10.8	6.4	.84		
8	0	1.0	b1.0	4.3	b5.0	2.9	14.1	14.1	5.5	1.2		
9	.08	1.6	b.9	3.9	b4.5	2.3	12.0	12.0	4.6	1.2		
10	1.2	1.6	b.8	3.9	b4.0	1.8	11.4	35	4.3	1.2		
11	1.6	1.4	b.7	3.5	b3.8	1.6	10.2	210	3.9	.84		
12	1.6	1.2	b.6	3.2	b3.5	1.8	8.4	66	3.2	.70		
13	1.6	1.0	b.6	2.9	b3.2	2.3	7.9	54	2.6	.57		
14	1.6	1.2	b.6	2.9	b3.0	1.8	7.9	37	2.3	.45		
15	1.4	1.0	b.5	2.6	2.9	2.1	7.9	27.6	2.1	.45		
16	1.4	.57	b.5	2.6	2.9	1.6	10.2	22.5	1.6	.08		
17	1.2	.57	b.4	2.6	2.9	1.8	12.0	24.5	1.4	0		
18	1.2	.57	b.3	21.7	2.6	4.6	11.4	21.6	1.2	0		
19	.84	.57	b.2	37	3.5	5.5	10.8	20.7	1.0	0		
20	.84	.57	b.1	25.5	6.4	5.5	9.6	29.8	.84	0		
21	.70	.45	.12	20.7	7.9	5.9	9.0	25.5	.70	0		
22	.70	.45	.21	18.0	7.9	5.5	7.9	29.8	.57	0		
23	.84	.35	28.5	14.8	7.9	5.0	7.4	23.5	.26	0		
24	.57	.35	47	14.1	7.4	5.5	6.9	18.9	.18	0		
25	.70	.35	32	12.7	6.9	6.4	6.4	15.6	.08	0		
26	.84	.35	20.7	11.4	5.9	6.9	5.9	36	.02	0		
27	.84	.26	16.4	11.4	5.0	10.8	5.5	28.7	.13	0		
28	.70	.18	13.4	10.2	4.6	10.2	5.0	20.7	.45	0		
29	1.0	.12	11.4	9.0	-	9.6	5.0	17.2	1.9	0		
30	.84	.12	10.2	8.4	-	9.0	5.9	13.4	2.6	0		
31	.70	-	8.4	8.4	-	40	-	12.0	-	0		

b Intake frozen; discharge estimated.

BRUSH CREEK AT LAKE BRACKEN

Monthly discharge and rainfall, water year October 1933 to September 1934

Month	Discharge from spillway (million gallons)	Pumpage (million gallons)	Change in contents (million gallons)	Adjusted for change in reservoir contents and pumpage*				Rainfall (inches)
				Runoff (million gallons)	Discharge per square mile		Runoff (inches)	
					Million gallons per day	Second-feet		
October.....	0.83	31.09	-24.92	7.00	0.025	0.038	0.04	2.03
November.....	.76	30.29	-34.88	-3.83	-.014	-.022	-.02	.41
December.....	.75	31.82	-19.06	13.51	.048	.074	.09	.96
Calendar year 1933	1,315.50	353.85	-173.81	1,495.54	.448	.694	9.426	30.34
January.....	.72	32.68	-19.06	14.34	.051	.078	.09	.68
February.....	.60	29.90	-32.69	-2.19	-.0086	-.013	-.01	.48
March.....	.64	31.36	-9.09	22.91	.081	.125	.14	.88
April.....	.61	28.86	-18.18	11.29	.041	.064	.07	2.21
May.....	.57	30.39	-39.59	-8.63	-.030	-.047	-.05	.81
June.....	.48	30.86	-34.23	-2.89	-.011	-.016	-.02	3.45
July.....	.45	31.85	-33.09	-.79	-.0028	-.0043	-.005	3.85
August.....	.39	33.61	-44.06	-10.06	-.036	-.055	-.06	2.15
September	.43	30.24	+68.88	99.55	.363	.562	.63	8.62
Water year 1933-34	7.23	372.95	-239.97	140.21	.042	.065	.895	26.53

* Negative figures indicate that evaporation from reservoir exceeded inflow.
Note: No spillage during year; discharge entirely made up of leakage through the dam.

BRUSH CREEK AT LAKE BRACKEN

Monthly discharge and rainfall, water year October 1934 to September 1935

Month	Discharge from Spillway (million gallons)	Pumpage (million gallons)	Change in contents (million gallons)	Adjusted for change in reservoir contents and pumpage *				Rainfall (inches)
				Runoff (million gallons)	Discharge per square mile		Runoff (inches)	
					Million gallons per day	Second-feet		
October	0.44	29.34	-20.68	9.10	0.032	0.050	0.06	1.51
November ...	.41	28.80	+93.69	122.90	.448	.693	.77	5.81
December ...	.66	35.11	+59.53	93.30	.329	.509	.59	.82
Calendar year 1934 ..	6.40	371.00	-28.57	348.83	.105	.162	2.205	31.27
January	.78	33.56	+87.51	121.85	.430	.665	.77	1.83
February ...	80.69	29.35	+109.47	219.51	.858	1.33	1.38	2.32
March	281.11	32.09	+10.84	324.04	1.14	1.77	2.04	4.13
April	188.53	29.01	-5.42	212.12	.774	1.20	1.34	2.64
May	446.96	29.13	0	476.09	1.68	2.60	3.00	8.31
June	322.10	29.13	+10.84	362.07	1.32	2.04	2.28	5.97
July	123.08	29.68	-37.95	114.81	.405	.627	.72	2.97
August	45.18	29.67	-15.83	59.02	.208	.322	.37	3.52
September ..	2.72	29.57	0	32.29	.118	.182	.20	3.93
Water year 1934-35 ..	1,492.66	362.44	+292.00	2,147.10	.644	.996	13.52	43.76

Note: Discharge fromspillway includee small amount of leakage through the dam.

BRUSH CREEK AT LAKE BRACKEN

Spillage, in second-feet, water year October 1934 to September 1935

Month	Second-foot-days	Maxmium	Minimum	Mean
October	0	0	0	0
November	0	0	0	0
December	0	0	0	0
January	0	0	0	0
February	123.56	38	0	4.41
March	433.4	34	5.9	13.98
April	290.2	37	4.3	9.67
May	690.0	76	5.0	22.26
June	496.9	62	5.0	16.66
July	188.94	18.9	.7	6.09
August	68.43	16.4	0	2.21
September	2.82	.7	0	.09
Water Year 1934-35 ...	2,294.25	76	0	6.29

BRUSH CREEK AT LAKE BRACKEN

Spillage, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1					0	7.9	7.9	5.0	15.6	18.9	1.4	0.00
2					0	6.4	7.4	8.8	50	14.1	1.1	.20
3					0	5.9	6.4	76	34	16.4	16.4	.45
4					0	6.2	5.5	44	22.5	14.1	11.4	.35
5					0	9.6	5.0	26.5	16.4	12.0	8.4	.12
6					0	10.2	5.0	24.5	14.8	10.2	5.9	.007
7					0	22.5	5.5	20.7	12.7	8.4	4.3	.00
8					0	18.0	6.4	21.4	10.8	6.9	2.9	.33
9					0	15.4	6.4	72	9.6	5.9	2.1	.70
10					0	34	7.7	41	9.0	5.0	1.4	.45
11					0	26.6	31.0	27.6	9.0	4.3	1.0	.18
12					0	18.9	37	27.6	7.4	3.5	.70	.03
13					0	15.6	25.5	23.5	6.9	2.9	.18	0
14					0.06	12.7	18.9	18.9	5.9	2.3	.01	0
15					4.2	11.4	14.1	16.4	5.5	2.1	0	0
16					5.9	10.8	10.8	14.8	5.0	1.6	0	0
17					5.5	9.6	9.6	12.7	5.5	1.4	0	0
18					5.0	7.9	9.0	10.8	20.2	1.0	0	0
19					4.6	7.9	8.4	10.8	18.9	.70	0	0
20					3.9	22.2	6.9	11.4	14.8	.84	2.7	0
21					3.5	25.3	5.9	11.4	12.7	1.0	3.5	0
22					3.2	16.4	5.5	10.2	10.2	1.2	2.3	0
23					2.9	12.7	5.9	10.2	9.0	3.0	1.4	0
24					6.8	10.8	5.9	9.6	7.9	15.6	.70	0
25					38	18.0	5.0	8.4	6.9	11.4	.45	0
26					18.4	15.6	5.0	7.9	7.9	7.9	.18	0
27					12.0	13.4	6.9	8.4	9.0	5.0	.01	0
28					9.6	12.7	5.9	32	47	4.3	0	0
29					-	10.8	5.5	36	62	2.9	0	0
30					-	9.6	4.3	23.5	29.8	2.3	0	0
31					-	8.4	-	18.0	-	1.8	0	-

BRUSH CREEK AT LAKE BRACKEN

Monthly discharge and rainfall, water year October 1935 to September 1936

Month	Discharge from spillway (million gallons)	Pumpage (million gallons)	Change in contents (million gallons)	Adjusted for change in reservoir contents and pumpage *				Rainfall (inches)
				Runoff (million gallons)	Discharge per square mile		Runoff (inches)	
					Million gallons per day	Second feet		
October.....	0.90	29.32	-26.01	4.21	0.015	0.023	0.03	1.60
November.....	210.08	29.61	+47.26	286.95	1.05	1.62	1.81	5.81
December.....	86.65	33.96	-5.42	115.19	.407	0.629	.73	1.25
Calendar year 1935.....	1,788.78	364.08	+175.29	2,328.15	0.698	1.08	14.67	44.28
January.....	90.22	30.01	+10.84	131.07	0.463	0.716	.83	1.20
February.....	351.87	35.89	+27.11	414.87	1.57	2.42	2.61	1.90
March.....	153.63	31.43	-32.53	152.53	.538	.833	.96	0.89
April.....	48.44	28.89	5.42	82.75	.302	.467	.52	1.95
May.....	114.15	29.09	-5.42	137.82	.486	.752	.87	2.84
June.....	2.79	31.05	-42.06	-8.22	-0.030	-0.046	-0.05	0.66
July.....	.85	34.16	-66.10	-31.09	-.110	-0.17	-0.20	1.38
August.....	.76	35.13	-48.74	-12.85	-0.045	-0.07	-0.08	2.68
September.....	.69	32.77	14.29	+47.75	0.174	.269	.30	6.84
Water year 1935-36	1,061.03	381.31	-121.36	1,320.98	0.395	0.611	8.33	29.00

* Negative figures indicate that evaporation from reservoir exceeded inflow.

Note: Discharge from spillway includes small amount of leakage through the dam.

BRUSH CREEK AT LAKE BRACKEN

Spillage, in second-feet, water year October 1935 to September 1936

Month	Second-foot-days	Maximum	Minimum	Mean
October	0	0	0	0
November	323.58	29.5	0	10.79
December	132.6	7.4	2.3	4.28
Calendar Year 1935	2,750.43	76	0	7.54
January	138.1	6.4	2.3	4.45
February	543.0	245	1.4	18.72
March	236.2	20.7	2.3	7.62
April	73.5	4.6	1.0	2.45
May	175.1	11.6	1.4	5.65
June	2.93	1.0	0	.098
July	0	0	0	0
August	0	0	0	0
September	0	0	0	0
Water Year 1935-36	1,625.01	245	0	4.44

BRUSH CREEK AT LAKE BRACKEN

Spillage, in second -feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0	7.4	2.3	b2.6	20.7	2.3	2.9	1.0			
2		0	6.4	3.2	b2.6	17.2	2.6	5.0	.84			
3		0.08	6.4	3.5	b2.6	16.4	2.9	4.3	.70			
4		29.5	5.9	4.3	b2.6	16.4	2.9	4.6	.35			
5		23.5	5.5	4.3	b2.6	13.4	3.9	4.6	.04			
6		17.2	5.5	4.3	b2.6	11.4	4.6	4.6	0			
7		14.8	5.5	3.9	b2.6	9.6	4.3	4.3	0			
8		13.4	5.5	4.3	b2.6	9.0	2.9	3.9	0			
9		12.0	5.5	4.3	b2.6	8.4	3.5	3.9	0			
10		12.7	5.0	4.3	b2.6	8.4	3.5	4.3	0			
11		11.4	4.3	4.3	b2.6	9.0	a2.6	3.9	0			
12		13.4	4.3	4.3	b2.6	8.4	a2.6	7.0	0			
13		14.1	3.9	4.6	b2.6	6.9	a2.6	11.2	0			
14		14.1	4.3	5.0	b2.6	6.9	a2.6	11.6	0			
15		13.4	5.0	5.9	b2.6	6.4	a2.6	6.9	0			
16		12.0	4.6	6.4	b2.6	5.9	a2.6	5.5	0			
17		12.0	4.6	6.4	b2.6	5.5	a2.6	4.6	0			
18		10.8	4.3	5.9	b2.6	4.6	1.0	6.4	0			
19		10.8	3.9	5.5	b2.6	5.0	1.2	9.0	0			
20		10.2	3.5	5.0	b2.6	5.5	1.2	8.4	0			
21		9.6	2.9	4.6	b2.6	5.0	1.8	9.6	0			
22		8.4	2.9	4.6	b2.6	4.3	1.8	7.4	0			
23		7.4	3.2	b4.1	1.4	4.6	1.6	5.9	0			
24		6.9	3.2	b4.1	28.9	5.5	1.6	7.4	0			
25		6.9	3.2	b4.1	72	4.6	1.6	7.9	0			
26		6.9	3.2	b4.1	245	3.9	1.6	6.9	0			
27		8.4	2.9	b4.1	76	3.2	1.8	4.6	0			
28		8.4	2.6	b4.1	37	2.9	2.3	3.2	0			
29		7.9	2.6	b4.1	25.5	2.6	2.3	2.3	0			
30		7.4	2.3	b4.1	-	2.3	2.1	1.6	0			
31		-	2.3	b4.1	-	2.3	-	1.4	-			

a No gage-height records; discharge estimated.
b Stage-discharge relation affected by ice; discharge estimated

BRUSH CREEK AT LAKE BRACKEN

Monthly discharge and rainfall, water year October 1936 to September 1937

Month	Discharge from spillway (million gallons)†	Pumpage (million gallons)	Change in contents (million gallons)	Adjusted for change in reservoir contents and pumpage *				Rainfall (inches)
				Runoff (million gallons)	Discharge per square mile		Runoff (inches)	
					Million gallons per day	Second-feet		
October	0.80	35.86	+45.8	82.46	0.291	0.450	0.52	3.63
November	.81	34.43	+.6	35.84	.131	.202	.23	.77
December	.80	36.77	+23.4	60.97	.215	.333	.38	3.00
Calendar year 1936	765.81	395.48	-67.39	1,093.90	.327	.506	6.89	27.74
January	144.00	37.41	+109.6	291.01	1.03	1.59	1.83	3.23
February	97.44	35.69	-30.4	102.73	.401	.621	.65	.62
March	58.70	35.82	0	94.52	.334	.516	.59	1.02
April	119.70	29.89	+15.2	164.79	.601	.930	1.04	3.82
May	180.91	32.16	-35.0	178.07	.628	.972	1.12	3.55
June	13.31	30.21	-15.4	28.12	.103	.159	.18	2.13
July	.92	31.56	-14.8	17.68	.062	.097	.11	2.94
August	.89	32.57	-4.7	28.76	.102	.157	.18	3.44
September	.82	31.56	-47.9	-15.52	-.057	-.088	-.10	1.77
Water year 1936-37	619.10	403.93	+46.4	1,069.43	.321	.496	6.73	29.92

† Includes leakage varying from .01 million gallons per day at 23 feet (elev. 677.0 feet) to .036 at 32.0 feet gage height.

* Negative figures indicate that evaporation and seepage from reservoir exceeded inflow.

BRUSH CREEK AT LAKE BRACKEN

Spillage, in second-feet, water year October 1936 to September 1937

Month	Second-foot-days	Maximum	Minimum	Mean
October	0	0	0	0
November	0	0	0	0
December	0	0	0	0
Calendar Year 1936	1,168.83	245	0	3.19
January	221.3	30.2	0	7.14
February	149.4	18	1.6	5.34
March	89.3	6.4	1.4	2.88
April	183.7	12.7	1.8	6.12
May	278.4	22.7	2.3	8.98
June	19.17	2.1	0	0.64
July	0	0	0	0
August	0	0	0	0
September	0	0	0	0
Water Year 1936-37	941.27	30.2	0	2.58

BRUSH CREEK AT LAKE BRACKEN

Spillage, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1				0	15.1	3.2	1.8	7.4	2.1			
2				0	10.8	3.2	1.8	10.2	1.6			
3				0	7.4	3.5	2.1	17.7	1.4			
4				0	5.9	5.9	2.9	22.5	1.0			
5				0	4.6	6.4	5.0	22.7	1.0			
6				0	3.9	5.9	5.5	19.8	.70			
7				0	3.2	5.9	5.5	14.1	.45			
8				2.8	3.2	5.5	6.4	12.0	.26			
9				5.0	2.9	4.6	6.4	12.0	.35			
10				5.0	2.3	4.3	5.9	10.2	.35			
11				4.3	1.8	3.5	5.5	9.6	.18			
12				3.5	1.8	3.2	5.0	9.0	.08			
13				6.8	2.1	2.9	5.0	9.0	.68			
14				13.4	1.8	2.6	4.6	7.9	1.0			
15				9.6	1.8	2.1	4.3	11.4	.84			
16				6.9	1.8	1.8	3.5	9.0	1.2			
17				5.9	1.6	1.8	3.5	6.9	1.8			
18				4.6	2.1	1.8	3.2	5.9	1.2			
19				3.5	3.5	1.6	2.9	5.0	1.0			
20				24.9	7.1	1.6	2.9	7.8	1.0			
21				25.1	18.0	1.4	10.9	8.4	.70			
22				14.3	12.0	1.4	9.6	7.4	.26			
23				10.8	9.0	1.4	9.6	5.9	.02			
24				8.4	7.4	1.6	12.6	4.3	0			
25				6.9	5.9	1.6	12.7	3.9	0			
26				5.5	4.6	1.6	10.8	3.9	0			
27				4.6	4.3	1.8	9.6	3.5	0			
28				3.5	3.5	1.8	8.4	2.9	0			
29				3.2	-	1.8	7.9	3.2	0			
30				12.6	-	1.8	7.9	2.6	0			
31				30.2	-	1.8	-	2.3	-			

BRUSH CREEK AT LAKE BRACKEN

Monthly discharge and rainfall, water year October 1937 to September 1938

Month	Discharge from spilway (million gallons)†	Pumpage (million gallons)	Change in contents (million gallons)	Adjusted for change in reservoir contents and pumpage *				Rainfall (inches)
				Runoff (million gallons)	Discharge per square mile		Runoff (inches)	
					Million gallons per day	Second-feet		
October....	0.81	34.73	-19.1	16.44	0.058	0.090	0.10	2.83
November...	.76	31.93	-18.5	14.19	.052	.080	.09	1.36
December...	.74	35.68	0	36.42	.129	.200	.23	1.27
Calendar year 1937.	619.00	399.21	-61.0	957.21	.287	.444	6.02	27.98
January....	261.42	33.12	+160.3	454.84	1.61	2.49	2.87	4.08
February...	69.90	27.99	-35.1	62.79	.245	.379	.39	1.40
March.....	87.83	27.99	+35.1	150.92	.533	.825	.95	4.69
April.....	282.87	27.29	-35.1	275.06	1.00	1.55	1.73	3.62
May.....	128.50	27.68	+9.6	165.78	.585	.905	1.04	5.18
June.....	50.03	27.64	-15.0	62.67	.229	.354	.40	3.58
July.....	67.31	30.20	+5.4	102.91	.363	.562	.65	5.06
August.....	4.81	32.18	-39.7	-2.71	-.0096	-.015	-.02	2.56
September..	.84	31.02	-38.8	-6.94	-.025	-.039	-.04	1.55
Water year 1937-38 .	955.82	367.45	+9.1	1,332.37	.399	.617	8.39	37.18

† Includes leakage varying from 0.01 million gallons per day at gage height 23 feet (elev. 677.0 feet) to 0.036 million gallons at gage height 32.0 feet.

* Negative figures indicate that evaporation and seepage from reservoir exceeded inflow.

BRUSH CREEK AT LAKE BRACKEN

Spillage, in second-feet water year October 1937 to September 1938

Month	Second-foot-days	Maximum	Minimum	Mean
October	0	0	0	0
November	0	0	0	0
December	0	0	0	0
Calendar Year 1937	941.27	30.2	0	2.58
January	403.2	219	0	13.01
February	106.8	16.4	1.0	3.81
March	134.4	38	0.26	4.34
April	436.2	46	2.3	14.54
May	197.32	23.7	0.45	6.37
June	75.99	12	0	2.53
July	102.67	18.9	0	3.31
August	6.01	1.4	0	0.20
September	0	0	0	0
Water Year 1937-38	1,462.59	219	0	4.01

BRUSH CREEK AT LAKE BRACKEN

Spillage , in second -feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1				0	16.4	1.8	23.5	2.1	a12.0	.57	1.4	
2				0	10.2	1.6	15.6	1.8	9.0	16.7	1.0	
3				0	6.9	1.2	11.4	1.8	6.4	18.9	.57	
4				0	4.6	2.1	7.9	2.4	5.5	12.0	.35	
5				0	5.9	2.6	6.4	5.0	3.5	7.9	.20	
6				0	7.4	1.8	42	3.9	2.9	6.0	.18	
7				0	5.5	1.4	46	2.9	3.2	10.2	0	
8				0	3.9	1.0	32	2.3	2.3	9.0	.36	
9				0	3.2	.84	28.7	1.6	1.4	6.9	1.0	
10				0	2.6	.84	36	1.2	2.3	5.0	.70	
11				0	3.2	.70	34	1.0	5.5	3.5	.25	
12				0	2.9	.57	25.5	.57	4.6	2.1	0	
13				0	3.2	.45	19.8	.45	3.5	1.8	0	
14				0	2.6	.26	15.6	2.9	3.2	1.0	0	
15				0	1.6	.35	12.0	2.6	2.6	.35	0	
16				0	1.0	.84	10.8	1.8	1.6	.05	0	
17				0	2.1	.57	9.0	23.7	1.0	.14	0	
18				0	2.9	.35	8.4	22.5	.57	.12	0	
19				0	3.5	.45	7.9	16.4	.26	0	0	
20				0	2.9	.45	6.9	12.7	.08	0	0	
21				0	2.3	.26	5.5	9.6	0	0	0	
22				0	2.1	.57	4.6	7.9	.05	0	0	
23				0	1.8	3.5	4.3	6.9	.12	0	0	
24				a219	1.6	2.9	4.3	5.5	.04	0	0	
25				49	1.2	4.3	3.9	4.3	.26	0	0	
26				22.5	1.4	5.0	3.2	10.4	2.1	0	0	
27				12.7	2.1	3.9	2.9	9.6	1.2	0	0	
28				7.9	1.8	3.3	3.2	8.4	.57	0	0	
29				6.8	-	21.6	2.6	a6.9	.12	0	0	
30				55	-	30.9	2.3	a7.4	.12	0	0	
31				30.3	-	38	-	a10.8	-	.44	0	

a Discharge estimated.

BRUSH CREEK AT LAKE BRACKEN

Monthly discharge and rainfall, water year October 1938 to September 1939

Month	Discharge from spillway (million. gallons)†	Pumpage (million gallons)	Change in contents (million gallons)	Adjusted for change in reservoir contents and pumpage *				Rainfall (inches)
				Runoff (million gallons)	Discharge per square mile		Runoff (inches)	
					Million gallons per day	Second-feet		
October.....	0.83	32.84	-32.7	0.97	0.0034	0.0053	0.006	1.49
November.....	.76	32.12	-22.8	10.08	.037	.057	.06	2.04
December.....	.75	36.32	-26.0	11.07	.039	.060	.07	1.16
Calendar year 1938 ...	955.85	366.39	-34.80	1,287.44	.386	.597	8.11	35.32
January.....	.71	35.27	-13.0	22.98	.081	.125	.14	1.50
February.....	.64	34.59	+13.0	48.23	.188	.291	.30	1.13
March.....	.83	34.37	121.7	156.90	.554	.857	.99	4.05
April.....	184.79	31.31	+44.5	260.60	.950	1.47	1.64	4.94
May.....	31.12	30.29	-10.2	51.21	.181	.280	.32	2.32
June.....	9.20	30.72	+10.2	50.12	.183	.283	.32	3.98
July.....	9.06	33.27	-44.5	-2.17	-.0077	-.012	-.01	1.84
August.....	.91	33.97	-4.7	30.18	.107	.166	.19	4.98
September.....	.83	33.26	-62.3	-28.21	-.103	-.159	-.18	.44
Water year 1938-39....	240.43	398.33	-26.8	611.96	.183	.283	3.85	29.87

† Includes leakage varying from 0.01 million gallons per day at gage height 23 feet (elev. 677.0 feet) to 0.036 million gallons per day at gage height 32.0.

* Negative figures indicate that evaporation and seepage from reservoir exceeded inflow.

BRUSH CREEK AT LAKE BRACKEN

Spillage, in second-feet, water year October 1938 to September 1939

Month	Second-foot-days	Maximum	Minimum	Mean
October	0	0	0	0
November	0	0	0	0
December	0	0	0	0
Calendar Year 1938	1,462.59	219	0	4.01
January	0	0	0	0
February	0	0	0	0
March	0	0	0	0
April	284.5	61	0	9.48
May	46.64	2.1	0.70	1.50
June	12.80	1.8	0.45	0.43
July	12.56	2.1	0	0.41
August	0	0	0	0
September	0	0	0	0
Water Year 1938-39	356.5	61	0	0.98

BRUSH CREEK AT LAKE BRACKEN

Spillage, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							0	2.1	0.70	1.0		
2							0	1.8	.45	1.0		
3							0	1.4	.45	1.2		
4							0	1.6	.18	1.4		
5							0	1.4	.01	1.6		
6							0	1.0	0	2.1		
7							0	.70	0	1.6		
8							0	1.4	0	1.4		
9							0	1.8	0	1.0		
10							0	1.8	0	.26		
11							0	2.1	0	0		
12							0	1.6	0	0		
13							0	1.8	0	0		
14							0	1.8	0	0		
15							16.0	1.8	0	0		
16							26.5	1.8	0	0		
17							61	1.8	0	0		
18							52	1.6	0	0		
19							30.9	1.6	0	0		
20							22.5	1.4	0	0		
21							17.2	2.1	.79	0		
22							13.4	1.4	.85	0		
23							10.8	1.0	.57	0		
24							9.0	1.4	.70	0		
25							7.9	1.2	.70	0		
26							5.5	1.2	1.8	0		
27							3.9	1.2	1.8	0		
28							3.2	1.2	1.4	0		
29							2.6	1.6	1.2	0		
30							2.1	1.2	1.2	0		
31							-	.84	-	0		

BRUSH CREEK AT LAKE BRACKEN

Monthly discharge and rainfall, water year October 1939 to September 1940

Month	Discharge from spillway (million gallons)†	Pumpage (million gallons)	Change in contents (million gallons)	Adjusted for change in reservoir contents and pumpage *				Rainfall (inches)
				Runoff (million gallons)	Discharge per square mile		Runoff (inches)	
					Million gallons per day	Second-feet		
October	0.78	36.26	+19.1	56.14	0.198	0.306	0.35	4.11
November	.77	34.82	-28.1	7.49	.027	.042	.05	0.92
December	.75	36.29	-31.3	5.74	.020	.031	.04	0.50
Calendar year 1939...	240.39	404.42	+14.4	659.21	.198	.306	4.15	30.71
January.....	.69	44.00	-39.0	5.69	.020	.031	.04	1.09
February.....	.61	36.67	+13.0	50.28	.190	.294	.32	0.13
March.....	.86	37.83	+123.3	161.99	.572	.885	1.02	1.60
April.....	.85	34.10	0.0	34.95	.127	.196	.22	2.87
May.....	.87	33.66	-14.5	20.03	.071	.110	.13	1.87
June.....	.80	33.74	-42.5	-7.96	-.029	-.045	-.05	1.32
July.....	.73	37.70	-57.5	-19.07	-.067	-.104	-.12	1.35
August.....	.66	38.39	-34.6	4.45	.016	.025	03	3.17
September	.56	36.58	-53.1	-15.96	-.058	-.090	-.10	0.53
Water year 1939-40 ...	8.93	440.04	-145.2	303.77	.091	.141	1.93	19.46

† Includes leakage through dam around station varying between 0.01 end 0.036 million gallons per day, depending on stage of lake. No spillage during year.

* Negative figures indicate that evaporation and seepage from reservoir exceeded inflow.

BRUSH CREEK AT LAKE BRACKEN

Monthly discharge and rainfall, water year October 1940 to September 1941

Month	Discharge from spillway (million gallons)†	Pumpage (million gallons)	Change in contents (million gallons)	Adjusted for change in reservoir contents and pumpage *				Rainfall (inches)
				Runoff (million gallons)	Discharge per square mile		Runoff (inches)	
					Million gallons per day	Second-feet		
October	0.50	39.06	-26.9	12.66	0.045	0.070	0.08	3.06
November	.43	37.42	-34.1	3.75	.014	022	.02	1.87
December	.40	41.56	-10.9	31.06	.110	.170	.20	1.43
Calendar year 1939...	7.96	450.71	-176.8	28.87	.084	.130	1.79	20.29
January.....	.39	41.82	+3.3	45.51	.161	.249	.29	2.55
February.....	.39	38.4	+26.1	64.83	.253	.391	.41	.47
March.....	.45	41.6	+4.1	46.01	.162	.251	.29	.65
April.....	.54	36.28	+104.3	141.11	.515	.797	.89	4.18
May.....	.74	39.53	+156.3	196.57	.694	1.07	1.24	5.55
June.....	115.16	37.79	+24.3	177.25	.646	1.00	1.12	5.71
July.....	22.42	41.99	-24.3	40.11	.142	.220	.25	2.25
August.....	.86	42.90	-57.9	-14.14	-.050	-.077	-.09	1.95
September	.82	39.08	+9.1	49.00	.179	.277	.31	5.96
Water year 1939-40	143.09	477.23	+173.4	793.72	.238	.368	5.01	35.63

† Includes leakage through dam around station, varying between 0.01 and 0.036 million gallons per day, depending on stage of lake.

* Negative figures indicate that evaporation end seepage from reservoir exceeded inflow.

BRUSH CREEK AT LAKE BRACKEN

Spillage, in second-feet, water year October 1940 to September 1941

Month	Second-foot-days	Maximum	Minimum	Mean
October	0	0	0	0
November	0	0	0	0
December	0	0	0	0
January	0	0	0	0
February	0	0	0	0
March	0	0	0	0
April	0	0	0	0
May	0	0	0	0
June	176.74	32	0	5.89
July	33.23	8.6	0	1.07
August	0	0	0	0
September	0	0	0	0
Water year 1940-41	209.97	32	0	0.58

BRUSH CREEK AT LAKE BRACKEN

Spillage, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1									0	4.3		
2									0	3.9		
3									0	2.1		
4									0.23	1.0		
5									.57	.57		
6									.57	.26		
7									.70	.16		
8									.45	0		
9									23.8	0		
10									32	8.6		
11									23.5	5.9		
12									17.2	3.5		
13									12.7	1.8		
14									9.6	.84		
15									12.7	.26		
16									10.2	.04		
17									7.9	0		
18									5.5	0		
19									4.3	0		
20									3.2	0		
21									2.3	0		
22									1.9	0		
23									2.6	0		
24									1.8	0		
25									1.0	0		
26									.57	0		
27									.35	0		
28									.08	0		
29									.16	0		
30									.86	0		
31									-	0		

BRUSH CREEK AT LAKE BRACKEN

Monthly discharge and rainfall, water year October 1941 to September 1942

Month	Discharge from spillway (million gallons) †	Pumpage (million gallons)	Change in contents (million gallons)	Adjusted for change in reservoir contents and pumpage *				Rainfall (inches)
				Runoff (million gallons)	Discharge per square mile		Runoff (inches)	
					Million gallons per day	Second-feet		
October	544.55	42.11	+98.3	648.96	2.42	3.74	4.32	12.15
November ...	180.81	39.80	-15.0	205.61	.750	1.16	1.29	1.30
December ...	76.97	44.71	0.0	121.68	.429	.664	.77	1.54
Calendar year 1941 .	944.09	485.81	+328.6	1,758.50	.527	.815	11.09	44.26
January	54.37	46.47	-4.8	95.04	.339	.525	.61	.73
February ...	307.05	40.41	+4.8	352.26	1.38	2.14	2.23	3.08
March	216.84	42.51	0.0	259.35	.915	1.42	1.64	2.34
April	149.68	38.88	+10.2	198.76	.725	1.12	1.25	2.17
May	104.06	41.05	-10.2	134.91	.476	.736	.85	4.07
June	166.72	42.10	0.0	208.82	.762	1.18	1.32	4.70
July	96.32	43.73	-15.0	125.05	.441	.682	.78	3.47
August	.90	43.64	-44.1	.44	.002	.003	.004	2.07
September ..	.83	41.80	-28.8	13.83	.050	.077	.09	3.12
Water year 1941-42..	1,899.10	507.21	-4.6	2,401.71	.720	1.11	15.15	40.74

† Includes leakage through dam around station varying between 0.01 and 0.036 million gallons per day, depending on stage of lake.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

BRUSH CREEK AT LAKE BRACKEN

Spillage, in second-feet, water year October 1941 to September 1942

Month	Second-foot-days	Maximum	Minimum	Mean
October	841.02	115	0	27.13
November	278.3	28.7	4.3	9.28
December	118.0	7.9	1.4	3.81
Calendar Year 1941 ...	1,447.29	115	0	3.97
January	82.64	6.9	0.70	2.67
February	473.7	88	2.3	16.92
March	334.0	47	4.3	10.77
April	230.1	18.0	2.9	7.67
May	159.5	10.2	2.6	5.15
June	256.5	33	2.6	8.55
July	147.55	28.8	0	4.76
August	0	0	0	0
September	0	0	0	0
Water Year 1941-42....	2,921.31	115	0	8.00

BRUSH CREEK AT LAKE BRACKEN

Spillage, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	28.7	4.6	6.9	3.2	5.5	5.0	4.3	2.9	2.9		
2	.02	23.5	4.6	6.9	2.6	5.5	5.0	2.9	2.6	1.8		
3	57	19.8	4.3	f5.9.	2.3	5.5	5.0	3.9	2.6	2.9		
4	38	17.2	3.9	a4	4.5	5.5	4.3	3.5	2.6	2.6		
5	26.5	15.6	3.9	a3	10.2	5.5	2.9	3.5	5.4	1.8		
6	115	14.1	3.2	a2	88	5.0	3.2	5.0	6.4	28.8		
7	83	12.7	2.6	a2	58	5.0	4.3	5.0	3.5	22.5		
8	39	12.0	2.9	f1.4	37	5.0	3.5	4.6	5.5	15.6		
9	57	10.8	2.3	1.2	28.7	4.6	5.5	4.6	6.8	10.8		
10	45	9.0	2.1	.84	22.5	4.3	17.2	4.6	11.4	9.0		
11	29.8	8.4	1.8	.70	18.9	4.6	18.0	5.0	33	7.4		
12	21.6	7.4	2.1	.70	15.6	4.3	14.1	5.5	27.6	5.9		
13	21.6	6.9	2.1	1.2	13.4	4.3	12.7	5.0	17.2	5.9		
14	24.5	6.4	1.6	1.8	11.4	5.5	11.4	3.5	12.0	7.9		
15	19.8	5.9	1.6	2.3	11.4	5.9	9.6	6.1	9.6	5.9		
16	16.4	5.5	1.6	2.3	21.6	42	7.9	6.9	6.9	5.0		
17	14.1	5.0	1.6	2.3	23.5	47	13.8	5.9	5.9	3.5		
18	15.6	5.0	1.6	3.5	18.9	30.9	12.0	10.2	5.9	2.6		
19	14.1	5.9	1.4	3.5	14.8	22.5	9.0	9.0	5.0	1.8		
20	12.7	7.4	1.4	3.2	12.0	18.9	6.9	7.9	8.3	1.4		
21	11.4	6.4	1.4	2.9	9.6	15.6	5.5	6.9	7.9	.84		
22	15.4	5.9	3.8	2.6	8.4	12.0	4.6	6.4	5.9	.45		
23	19.8	5.9	6.9	2.3	7.9	10.2	4.3	5.9	4.3	.26		
24	17.2	5.5	6.9	2.3	6.9	9.0	4.3	4.6	3.5	0		
25	14.1	5.0	6.4	2.3	5.9	7.9	4.3	3.5	4.4	0		
26	14.8	4.6	7.9	2.1	5.5	9.0	3.9	5.0	18.0	0		
27	23.5	4.3	7.9	2.1	5.5	7.9	7.8	5.9	12.0	0		
28	22.5	4.3	7.4	1.8	5.5	6.9	10.8	5.0	8.4	0		
29	18.0	4.6	6.4	1.8	-	6.4	7.4	3.9	6.4	0		
30	15.6	4.6	5.9	2.9	-	5.9	5.9	2.6	4.6	0		
31	18.0	-	5.9	3.9	-	5.9	-	2.9	-	0		

a No gage height record.

f Discharge computed on basis of partly estimated gage-height record.

BRUSH CREEK AT LAKE BRACKEN

Monthly discharge and rainfall, water year October 1942 to September 1943

Month	Discharge from spillway (million gallons) †	Pumpage (million gallons)	Change in contents (million gallons)	Adjusted for change in reservoir contents and pumpage *				Rainfall (inches)
				Runoff (million gallons)	Discharge per square mile		Runoff (inches)	
					Million gallons per day	Second-feet		
October	0.80	44.34	-37.6	7.54	0.027	0.042	0.05	0.82
November ...	.78	43.17	+66.4	110.35	.402	.622	.69	5.37
December ...	56.51	47.01	+84.5	188.02	.664	1.03	1.18	2.82
Calendar year 1942 .	1,154.86	515.11	+25.4	1,695.37	.508	.786	10.69	34.76
January	121.27	44.12	-20.6	144.79	.511	.791	.91	1.27
February ...	192.19	41.80	-15.0	218.99	.856	1.32	1.38	.90
March	54.82	46.15	+5.4	106.37	.375	.580	.67	1.38
April	94.80	40.58	+35.1	170. 48	.622	.962	1.07	4.45
May	373.60	40.80	-25.5	388.90	1.37	2.12	2.45	5.67
June	300.06	42.84	-15.0	327.90	1.20	1.86	2.06	4.74
July	58.76	45.72	0	104.48	.369	.571	.66	4.30
August	107.25	43.63	-4.8	146.08	.516	.798	.92	4.87
September ..	.88	43.37	-44.1	.15	.001	.001	.001	1.10
Water year 1942-43..	1,361.72	523.53	+28.8	1,914.05	.574	.888	12.04	37.69

† Includes leakage through dam.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

BRUSH CREEK AT LAKE BRACKEN

Spillage, in second-feet, water year October 1942 to September 1943

Month	Second-foot-days	Maximum	Minimum	Mean
October	0	0	0	0
November	0.02	0.02	0	0.0007
December	86.05	21	0	2.78
Calendar Year 1943 ...	1,770.06	88	0	4.85
January	186.1	14	2.3	6.00
February	296.0	35	1.8	10.57
March	83.33	9.0	0.35	2.69
April	145.22	35	0.57	4.84
May	576.50	44	6.5	18.60
June	462.8	62	2.3	15.43
July	89.43	13	0	2.88
August	164.47	37	0	5.31
September	0	0	0	0
Water Year 1943-44 ...	2,089.92	62	0	5.73

BRUSH CREEK AT LAKE BRACKEN

Spillage, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0	0	14	3.2	1.8	2.3	12	9.0	1.6	0.18	
2		0	0	13	2.9	.70	2.1	10	8.5	1.4	1.6	
3		0	0	13	27	.45	1.0	9.0	9.7	1.0	37	
4		0	0	11	35	.45	.84	8.0	62	1.6	22	
5		0	0	10	24	.35	1.0	7.0	36	6.1	14	
6		0	0	9.5	35	.84	.84	7.0	31	11	10	
7		0	0	9.0	17	.70	1.4	6.5	26	13	8.5	
8		0	0	8.5	14	.45	1.4	29	22	9.0	6.5	
9		0	0	7.5	24	.35	1.4	26	19	7.0	11	
10		0	0	6.5	30	.84	1.8	20	22	5.0	10	
11		0	0	6.0	18	1.2	1.6	18	24	3.9	8.0	
12		0	0	5.5	13	1.2	1.8	13	21	3.2	6.5	
13		0	0	5.0	9.0	1.4	1.6	11	16	2.6	7.0	
14		0	0	5.0	6.0	1.8	1.8	9.0	14	2.1	6.0	
15		0	0	5.0	4.3	3.3	1.6	10	12	1.4	4.6	
16		0	0	5.0	3.2	9.0	1.6	22	14	4.1	3.5	
17		0	0	4.6	2.6	7.5	1.4	36	15	4.6	2.1	
18		0	0	4.6	2.1	6.0	1.4	44	12	3.2	1.4	
19		0	0	4.3	2.3	7.0	1.2	37	9.0	2.3	.57	
20		0	0	3.5	3.2	6.0	1.0	39	10	1.8	.26	
21		.02	0	3.5	3.2	5.5	.57	36	11	1.2	.08	
22		0	0	3.5	2.9	4.6	.57	28	9.5	.57	.08	
23		0	0	4.3	2.9	3.9	1.2	22	11	.18	1.0	
24		0	0	4.3	2.9	3.9	1.2	21	9.0	.04	1.0	
25		0	0	3.5	2.3	3.9	1.6	19	8.0	.02	.84	
26		0	.05	2.9	2.1	2.9	3.0	17	6.5	0	.57	
27		0	12	2.6	2.1	1.2	35	15	5.5	0	.18	
28		0	21	2.6	1.8	1.2	30	13	4.6	.21	.01	
29		0	21	2.3	-	1.4	24	11	3.2	.70	0	
30		0	17	2.6	-	1.4	19	11	2.3	.35	0	
31		-	15	3.5	-	2.1	-	10	-	.26	0	

BRUSH CREEK AT LAKE BRACKEN

Monthly discharge and rainfall, water year October 1943 to September 1944

Month	Discharge from Spillway (million gallons) †	Pumpage (million gallons)	Change in contents (million gallons)	Adjusted for change in reservoir contents and pumpage *				Rainfall (inches)
				Runoff (million gallons)	Discharge per square mile		Runoff (inches)	
					Million Gallons per day	Second-feet		
October	0.84	43.12	-28.8	15.16	0.054	0.084	0.09	2.45
November ...	.81	40.38	-14.1	27.09	.099	.153	.17	.87
December ...	.78	44.88	-32.2	13.46	.048	.074	.09	.30
Calendar year 1943 .	1,306.06	517.39	-159.6	1,663.85	.499	.772	10.47	32.30
January	.71	46.46	-26.0	21.17	.075	.116	.13	.50
February ...	.64	43.74	+4.2	48.58	.183	.283	.31	1.40
March	182.76	40.09	+175.9	398.75	1.41	2.18	2.51	5.20
April	491.80	37.31	.0	529.11	1.93	2.99	3.34	5.23
May	286.02	40.30	-19.0	307.32	1.08	1.67	1.92	4.03
June	26.87	36.65	-10.2	53.32	.194	.300	.33	1.93
July	.90	36.47	-39.0	-2.63	-.009	-.014	-.02	1.78
August	.84	36.29	-48.3	-11.17	-.039	-.060	-.07	2.27
September ..	.75	32.87	-23.0	10.62	.039	.060	.07	1.99
Water year 1943-44..	993.72	477.56	-60.5	1,410.78	.422	.653	8.87	27.95

† Includes leakage through dam.

* Negative figures indicate that evaporation and seepage from reservoir exceeded inflow.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

BRUSH CREEK AT LAKE BRACKEN

Spillage, in second-feet, water year October 1943 to September 1944

Month	Second-foot-days	Maximum	Minimum	Mean
October	0	0	0	0
November	0	0	0	0
December	0	0	0	0
Calendar Year 1943 ...	2,003.85	62	0	5.49
January	0	0	0	0
February	0	0	0	0
March	281.43	44	0	9.08
April	759.4	141	5.5	25.31
May	441.0	40	5.0	14.23
June	40.13	4.6	0	1.34
July	0	0	0	0
August	0	0	0	0
September	0	0	0	0
Water Year 1943-44	1,521.96	141	0	4.16

BRUSH CREEK AT LAKE BRACKEN

Spillage, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1						0	7.0	22	4.6			
2						0	6.5	19	3.9			
3						0	6.0	40	2.9			
4						0	5.5	34	2.3			
5						0	9.4	g26	1.8			
6						0	15	21	1.0			
7						0	12	g16	.57			
8						0	9.0	g17	.57			
9						0	7.0	g22	1.5			
10						0	12	18	1.6			
11						0	22	16	1.4			
12						0	19	13	1.2			
13						0	17	9.5	1.2			
14						.13	16	15	1.0			
15						11	24	12	.70			
16						39	28	6.5	1.6			
17						44	23	7.5	1.4			
18						34	21	9.0	1.5			
19						28	19	9.0	2.9			
20						23	16	8.0	1.4			
21						20	16	8.5	.84			
22						18	42	9.0	1.4			
23						16	141	9.0	1.4			
24						12	77	16	.70			
25						6.0	51	14	.35			
26						4.6	38	11	.26			
27						4.6	32	8.5	.12			
28						4.6	24	7.0	.02			
29						5.5	22	6.5	0			
30						5.5	22	6.0	0			
31						5.8	-	5.0	-			

g Discharge computed from graph based on gage readings.

BRUSH CREEK AT LAKE BRACKEN

Monthly discharge and rainfall, water year October 1944 to September 1945

Month	Discharge from spillway (million gallons)†	Pumpage (million gallons)	Change in contents (million gallons)	Adjusted for change in reservoir contents and pumpage *				Rainfall (inches)
				Runoff (million gallons)	Discharge per square mile		Runoff (inches)	
					Million gallons per day	Second-feet		
October.....	0.75	37.18	-39.0	-1.07	-0.004	-0.006	-0.007	1.82
November.....	.69	33.06	-10.9	22.85	.083	.128	.14	2.16
December.....	.68	37.15	-27.1	10.73	.038	.059	.07	1.25
Calendar year 1944	993.41	456.57	-62.4	1,387.58	.415	.642	8.72	29.56
January.....	.63	37.86	-27.5	10.99	.039	.060	.07	0.59
February.....	.56	32.15	+59.7	92.41	.361	.559	.58	1.18
March.....	.80	32.43	+116.9	150.13	.530	.820	.95	4.31
April.....	154.63	33.02	+20.9	208.55	.761	1.18	1.32	5.15
May.....	460.13	35.02	-10.2	484.95	1.71	2.65	3.06	6.71
June.....	311.82	35.00	+7.9	354.72	1.29	2.00	2.23	6.09
July.....	21.50	34.86	-20.2	36.16	.128	.198	.23	1.54
August.....	.93	34.00	-44.0	-9.07	-.032	-.050	-.06	.68
September.....	.90	34.22	-4.1	31.02	.113	.175	.20	5.49
Water year 1944-45	954.02	415.95	+22.4	1,392.37	.417	.645	8.78	36.97

† Includes leakage through dam.
* Negative figures indicate that evaporation and seepage from reservoir exceeded inflow.
Time basis: Central war time up to 2 a.m. September 30, 1945; central standard time thereafter.
To convert war time to standard time, subtract 1 hour.

BRUSH CREEK AT LAKE BRACKEN

Spillage, in second-feet, water year October 1944 to September 1945

Month	Second-foot-days	Maximum	Minimum	Mean
October	0	0	0	0
November	0	0	0	0
December	0	0	0	0
Calendar Year 1944	1,521.96	141	0	4.16
January	0	0	0	0
February	0	0	0	0
March	0	0	0	0
April	237.8	28	0	7.93
May	710.4	75	5.4	22.92
June	481.0	163	2.9	16.03
July	31.83	4.2	0	1.03
August	0	0	0	0
September	0	0	0	0
Water Year 1944-45	1,461.03	163	0	4.00

BRUSH CREEK AT LAKE BRACKEN

Spillage, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							0	5.4	7.2	4.2		
2							1.3	5.8	5.8	3.5		
3							1.1	6.7	4.2	2.6		
4							2.1	6.7	3.5	2.3		
5							1.7	6.2	2.9	2.1		
6							1.5	5.8	3.9	1.7		
7							1.5	66	4.6	1.1		
8							1.7	61	4.2	3.9		
9							1.7	31	9.2	2.9		
10							1.5	23	8.8	1.7		
11							2.1	18	6.7	.95		
12							5.4	14	5.0	.81		
13							20	11	4.6	.68		
14							12	19	3.9	.95		
15							10	67	18	.95		
16							15	62	163	.56		
17							15	75	48	.37		
18							12	54	24	.30		
19							9.2	36	43	.12		
20							8.2	26	31	.03		
21							6.7	20	19	0		
22							5.8	14	12	0		
23							5.4	11	8.8	.03		
24							8.0	9.9	7.2	.03		
25							9.9	9.2	5.8	.05		
26							28	8.2	4.6	0		
27							23	8.2	5.0	0		
28							15	8.2	5.4	0		
29							7.6	7.2	6.7	0		
30							5.4	7.2	5.0	0		
31							-	7.7	-	0		

BRUSH CREEK AT LAKE BRACKEN

Monthly discharge and rainfall, water year October 1945 to September 1946

Month	Discharge from spillway (million gallons)†	Pumpage (million gallons)	Change in contents (million gallons)	Adjusted for change in reservoir contents and pumpage *				Rainfall (inches)
				Runoff (million gallons)	Discharge per square mile		Runoff (inches)	
					Million gallons per day	Second-feet		
October.....	0.84	35.80	-21.6	+15.04	0.053	0.082	0.09	1.06
November.....	.77	33.90	-11.7	+22.97	.084	.130	.15	2.24
December.....	.78	34.82	+6.1	+41.70	.147	.227	.26	1.87
Calendar year 1945 ...	954.29	413.08	+72.2	+1439.57	.432	.668	9.08	36.91
January.....	184.50	35.37	+85.2	+305.07	1.08	1.67	1.93	2.53
February.....	10.73	32.19	+2.3	+45.22	.177	.274	.29	.41
March.....	174.23	32.70	+22.2	+229.13	.809	1.25	1.44	4.19
April.....	61.11	27.24	-25.1	+63.25	.231	.357	.40	1.44
May.....	115.74	25.98	+2.9	+144 .62	.510	.789	.91	4.97
June.....	149.84	30.37	+3.0	+183.21	.668	1.03	1.15	5.36
July.....	4.82	31.82	-29.5	+7.14	.025	.039	.04	1.00
August.....	.91	33.31	-4.2	+30.02	.106	.164	.19	4.01
September.....	.83	32.43	-39.8	-6.54	-.024	-.37	-.04	1.41
Water year 1945-46....	705.10	385.93	-10.2	+1080.93	.324	.501	6.81	30.49

† Includes leakage through dam.

* Negative figures indicate that evaporation and seepage from reservoir exceeded inflow.

BRUSH CREEK AT LAKE BRACKEN

Spillage, in second-feet, water year October 1945 to September 1946

Month	Second-foot-days	Maximum	Minimum	Mean
October	0	0	0	0
November	0	0	0	0
December	0	0	0	0
Calendar Year 1945 ..	1,461.03	163	0	4.00
January	283.99	56	0	9.16
February	15.28	1.7	0.1	0.55
March	268.08	28	0.68	8.65
April	93.12	12	0.46	3.10
May	177.6	18	1.3	5.73
June	230.41	32	0	7.68
July	6.03	2.1	0	0.19
August	0	0	0	0
September	0	0	0	0
Water Year 1945-46 ..	1,074.51	56	0	2.94

BRUSH CREEK AT LAKE BRACKEN

Spillage, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1				0	0.30	0.81	2.9	2.4	0.95	2.1		
2				0	.12	.81	2.6	4.6	.81	1.3		
3				0	.05	.68	2.9	10	.68	.68		
4				0	.03	.68	2.3	18	.46	.46		
5				56	.17	1.5	2.3	14	.30	.37		
6				55	.30	2.3	12	12	.22	.30		
7				28	.17	1.9	9.9	11	.08	.30		
8				20	.17	2.1	7.7	9.2	.01	.30		
9				36	.08	2.1	5.8	8.2	0	.17		
10				22	.05	2.6	4.2	7.7	0	.05		
11				13	.02	2.6	4.6	7.2	0	0		
12				9.2	.01	3.5	4.2	5.8	32	0		
13				7.2	.05	5.0	3.5	5.0	20	0		
14				5.8	.17	6.7	3.2	4.2	15	0		
15				4.6	.17	7.7	3.9	4.2	12	0		
16				4.2	.08	9.4	2.9	4.6	10	0		
17				3.5	.56	25	2.3	3.9	8.8	0		
18				3.2	1.7	28	2.1	5.4	17	0		
19				2.9	1.5	25	1.7	5.0	23	0		
20				2.3	1.5	21	1.3	5.0	20	0		
21				2.1	1.1	23	1.1	4.2	15	0		
22				1.7	1.1	22	1.3	3.5	12	0		
23				1.5	1.1	19	2.3	2.9	9.9	0		
24				1.3	1.1	16	2.1	3.9	7.2	0		
25				1.1	.95	13	1.3	3.9	6.7	0		
26				.95	1.1	9.2	.68	3.2	5.4	0		
27				.68	.95	5.4	.46	2.6	4.6	0		
28				.56	.68	3.9	.46	1.9	3.5	0		
29				.37	-	2.3	.56	1.5	1.9	0		
30				.46	-	2.3	.56	1.3	2.9	0		
31				.37	-	2.6	-	1.3	-	0		

CARBONDALE RESERVOIR

DESCRIPTION

Carbondale reservoir, constructed in 1926, is owned and operated by the City of Carbondale. It is located on Piles Fork, which flows northward into the Big Muddy River, about one mile south of the city and about one-quarter of a mile west of State Highway No. 2, in Sec. 33, T. 9 S., R. 1 W. The drainage area is 2.95 square miles and the 145 acre lake holds 356.0 million gallons at spillway crest.

The lake has a 2,600-foot earth dam and a concrete spillway section almost 100 feet in length with crest at 437.03 feet above mean sea level. Approximately 100 feet from the main spillway is a weir composed of two rectangular notches each ten feet long. Below this weir a concrete spillway floor extends ten feet to a series of stone steps which conduct the discharge into a channel. No spillage measurements are taken at this reservoir.

The State Water Survey maintains three precipitation stations on the watershed with records extending back to 1929. Changes in lake capacity are measured by daily readings of a staff gage mounted on the intake tower. The pumpage records are supplied by the superintendent of the

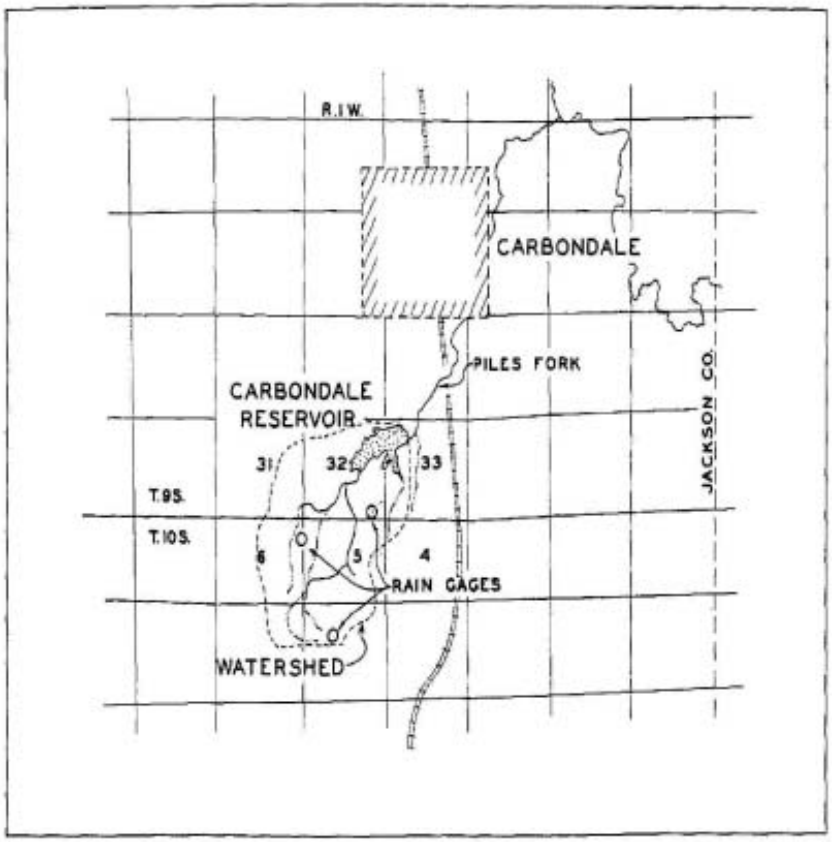

Fig. 16 - Map of Carbondale Reservoir Watershed.

municipal water works.

Although spillage has taken place only a few times in the life of the reservoir, the lack of discharge data prevents the preparation of a more complete hydrologic picture.

A topographic survey of the lake in 1941 revealed that since the last survey made in 1930, the loss of lake capacity due to sedimentation had been 0.84 per cent per year or a total capacity loss of 9.2 per cent to 1941.

Fig. 17 - Silt range marker located on dam at Carbondale Reservoir

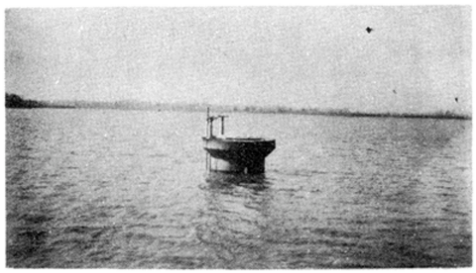

Fig. 18 - Intake tower with staff gage in Carbondale Reservoir.

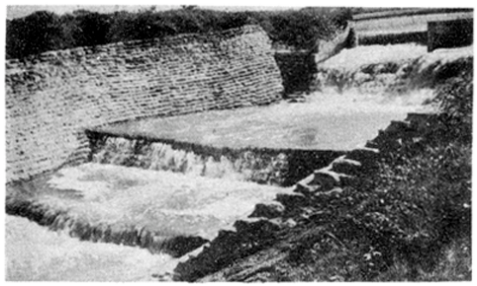

Fig. 19 - Stone steps in spillway channel below spillway crest at Carbondale Reservoir.

LAKE CARBONDALE

SUMMARY OF ANNUAL PRECIPITATION AND STORAGE

Water Years	Precipitation (inches)	Precipitation (million gallons)	Pumpage (million gallons)	Gain or Loss in Storage (million gallons)
1929-30	32.02	1,645.8	304.6	-
1930-31	32.04	1,646.9	261.7	-
1931-32	48.56	2,496.0	242.7	+326.0
1932-33	50.08	2,574.1	233.6	-112.9
1933-34	28.49	1,464.4	262.1	-
1934-35	52.24	2,685.1	274.9	-
1935-36	28.57	1,468.5	286.0	-
1936-37	51.42	2,643.0	296.8	+160.9
1937-38	44.58	2,291.4	272.0	-13.6
1938-39	42.71	2,195.3	295.8	-46.0
1939-40	28.47	1,463.4	322.8	-102.0
1940-41	27.06	1,390.9	220.8	-123.9
1941-42	46.91	2,411.2	369.4	-215.7
1942-43	45.31	2,328.9	401.8	+33.8
1943-44	30.70	1,578.0	388.2	-121.8
1944-45	62.23	3,198.6	405.1	+186.2
1945-46	40.02	2,057.0	372.9	-138.8

LAKE CARBONDALE
Monthly precipitation and storage, water year October 1930 to September 1931

Month	Precipitation		Pumpage (million gallons)	Gain or Loss in Storage (million gallons)
	(inches)	(million gallons)		
October	1.42	73.0	24.25	-
November	2.42	124.4	23.46	-27.0
December	1.14	58.6	23.88	-13.0
January	0.85	43.7	22.64	-38.0
February	2.42	124.4	18.10	-3.0
March	3.69	189.7	21.02	+27.0
April	3.82	196.3	20.92	-
May	6.30	323.8	21.62	+96.0
June	0.44	22.6	22.32	-36.0
July	0.77	39.6	22.43	-26.0
August	4.69	241.1	20.62	-26.0
September	4.08	209.9	20.48	-10.0
Water year 1930-31.....	32.04	1,646.9	261.7	-

LAKE CARBONDALE

Monthly precipitation and storage, water year October 1931 to September 1932

Month	Precipitation		Pumpage (million gallons)	Gain or Loss in Storage (million gallons)
	(inches)	(million gallons)		
October	3.60	185.0	20.85	-15.0
November	7.35	377.8	19.56	+86.0
December	4.90	251.9	20.19	+101.0
January	5.74	295.0	21.21	+53.0
February	1.99	102.3	19.43	+101.0
March	2.94	151.1	20.94	-
April	3.02	155.2	20.23	-
Hay	1.08	55.5	20.04	-
June	1.77	91.0	19.97	-41.0
July	2.57	132.1	21.67	-26.0
August	8.93	459.0	19.25	-32.0
September	4.67	240.0	19.25	+99.0
Water year 1931-32....	48.56	2,496.0	242.7	+326.0

LAKE CARBONDALE
Monthly precipitation and storage, water year October 1932 to September 1933

Month	Precipitation		Pumpage (million gallons)	Gain or Loss in Storage (million gallons)
	(inches)	(million gallons)		
October	4.22	216.9	20.42	-19.0
November	2.09	107.4	18.42	+22.0
December	7.13	366.5	19.33	-7.0
January	4.19	215.4	18.65	-4.1
February	2.36	121.3	17.38	+7.4
March	5.45	280.1	18.85	+16.0
April	5.37	276.0	17.48	-12.8
May	10.05	516.6	19.69	-7.3
June	0.02	1.0	21.00	-48.9
July	2.95	151.6	21.24	-26.4
August	2.75	141.3	21.19	-31.2
September	3.50	179.9	19.92	-1.6
Water year 1932-33.....	50.08	2,574.1	233.6	-112.9

LAKE CARBONDALE

Monthly precipitation and storage, water year October 1933 to September 1934

Month	Precipitation		Pumpage (million gallons)	Gain or Loss in Storage (million gallons)
	(inches)	(million gallons)		
October	2.25	115.6	20.08	-28.4
November	0.99	50.9	19.26	-25.6
December	1.58	81.2	18.52	-18.4
January	1.82	93.6	19.53	-12.8
February	1.32	67.8	19.65	-24.0
March	2.60	133.6	20.84	+26.4
April	3.25	167.0	22.59	-6.4
May	2.25	115.6	23.44	-22.7
June	2.42	124.4	24.42	-31.3
July	1.89	97.1	25.91	-34.2
August	3.16	162.4	24.04	-
September	4.96	254.9	23.84	-
Water year 1933-34 ..	28.49	1,464.4	262.1	-

LAKE CARBONDALE

Monthly precipitation and storage, water year October 1934 to September 1935

Month	Precipitation		Pumpage (million gallons)	Gain or Loss in Storage (million gallons)
	(inches)	(million gallons)		
October	1.83	94.1	24.79	-
November	7.47	384.0	21.18	+84.4
December	1.80	92.6	23.54	-3.7
January	3.18	163.5	23.83	+58.9
February	1.47	75.6	20.98	+12.8
March	8.83	453.9	22.53	+161.0
April	3.23	166.0	22.35	-8.8
May	6.61	339.8	23.31	-0.8
June	11.31	581.3	22.93	-1.6
July	1.45	74.5	24.34	-27.7
August	2.14	110.0	23.76	-37.1
September	2.92	150.1	21.41	-23.2
Water Year 1934-35	52.24	2,685.1	274.9	-

LAKE CARBONDALE

Monthly precipitation and storage, water year October 1935 to September 1936

Month	Precipitation		Pumpage (million gallons)	Gain or Loss in Storage (million gallons)
	(inches)	(million gallons)		
October	3.73	191.7	20.8	-
November	3.38	173.7	21.4	-
December	.93	47.8	23.2	-
January	.77	39.6	24.6	-7.6
February	1.67	85.8	24.3	+17.2
March	2.43	124.9	24.3	+8.8
April	2.62	134.7	23.1	+12.8
May	1.73	88.9	25.4	-35.2
June	1.51	77.6	25.2	-42.4
July	1.77	91.0	25.2	-49.6
August	0.16	8.2	25.7	-47.9
September	7.87	404.5	22.8	+23.8
Water Year 1935-36	28.57	1,468.5	286.0	-

LAKE CARBONDALE

Monthly precipitation and storage, water year October 1936 to September 1937

Month	Precipitation		Pumpage (million gallons)	Gain or Loss in Storage (million gallons)
	(inches)	(million gallons)		
October	6.59	338.7	22.4	+56.9
November	2.38	122.3	21.4	+28.8
December	3.19	164.0	23.3	+40.0
January	12.06	619.9	24.9	+121.0
February	1.47	75.6	23.5	-24.3
March	1.00	51.4	26.3	-17.2
April	4.99	256.5	25.5	+43.1
May	4.37	224.6	27.1	-25.0
June	7.38	379.3	25.7	-0.9
July	3.44	176.8	26.8	-2.4
August	0.41	21.1	26.9	-40.7
September	4.14	212.8	23.0	-18.4
Water Year 1936-37	51.42.	2,643.0	296.8	+160.9

LAKE CARBONDALE

Monthly precipitation and storage, water year October 1937 to September 1938

Month	Precipitation		Pumpage (million gallons)	Gain or Loss in Storage (million gallons)
	(inches)	(million gallons)		
October	4.08	209.7	23.9	-48.0
November	3.23	166.0	22.6	-11.2
December	2.64	135.7	23.0	+32.0
January	3.48	178.9	23.2	+72.3
February	2.82	144.9	19.8	+23.8
March	6.05	311.0	21.9	+16.1
April	2.29	117.7	21.7	-25.9
May	3.96	203.6	22.1	-10.7
June	6.15	316.1	21.2	+8.2
July	3.76	193.3	25.6	-27.8
August	4.31	221.6	23.4	-12.0
September	1.81	93.0	23.6	-30.4
Water Year 1937-38	44.58	2,291.4	272.0	-13.6

LAKE CARBONDALE

Monthly precipitation and storage, water year October 1938 to September 1939

Month	Precipitation		Pumpage (million gallons)	Gain or Loss in Storage (million gallons)
	(inches)	(million gallons)		
October	0.83	42.7	23.5	-34.4
November	3.61	185.6	21.6	-8.4
December	1.78	91.5	24.2	-19.2
January	5.64	289.9	25.4	+83.2
February	5.06	260.1	24.3	+77.8
March	4.61	237.0	25.7	-25.9
April	7.96	409.1	24.4	+9.8
May	1.99	102.3	24.6	-25.4
June	5.62	288.9	23.0	+4.9
July	2.04	104.9	26.0	-35.6
August	2.80	143.9	25.9	-28.0
September	.77	39.6	27.3	-44.8
Water Year 1938-39	42.71	2,195.3	295.8	-46.0

LAKE CARBONDALE

Monthly precipitation and storage, water year October 1939 to September 1940

Month	Precipitation		Pumpage (million gallons)	Gain or Loss in Storage (million gallons)
	(inches)	(million gallons)		
October	0.92	47.3	28.0	-38.4
November	1.96	100.7	28.0	-24.8
December	1.74	89.3	28.5	-30.2
January	1.39	71.4	28.0	-23.5
February	3.81	195.8	25.5	+20.9
March	3.20	164.5	26.2	+19.8
April	5.57	286.3	26.6	+128.8
May	3.37	173.2	25.6	+4.0
June	1.62	83.3	25.1	-36.0
July	2.83	145.5	27.6	-39.2
August	1.53	78.6	27.7	-40.8
September	.53	27.2	26.0	-42.6
Water Year 1939-40	28.47	1,463.4	322.8	-102.0

LAKE CARBONDALE

Monthly precipitation and storage, water year October 1940 to September 1941

Month	Precipitation		Pumpage (million gallons)	Gain or Loss in Storage (million gallons)
	(inches)	(million gallons)		
October	0.54	27.3	27.3	-32.6
November	4.32	222.0	25.5	-18.5
December	3.19	164.0	27.0	-15.5
January	3.26	167.6	27.1	-1.6
February	.79	40.6	25.2	-19.2
March	1.97	101.3	26.7	-14.5
April	3.57	183.5	25.0	+14.2
May	1.48	76.1	26.6	-23.7
June	.51	26.2	10.4	-14.6
July	.92	47.3	0	-3.5
August	3.53	181.4	0	-3.0
September	2.98	153.2	0	-2.9
Water Year 1940-41	27.06	1,390.9	220.8	-123.9

LAKE CARBONDALE

Monthly precipitation and storage, water year October 1941 to September 1942

Month	Precipitation		Pumpage (million gallons)	Gain or Loss in Storage (million gallons)
	(inches)	(million gallons)		
October	8.41	432.3	0	+19.0
November	3.35	172.2	28.8	+13.5
December	3.36	172.7	24.0	+31.5
January	2.97	152.7	36.7	+23.9
February	4.10	210.7	33.8	+93.3
March	4.14	212.8	36.9	+92.3
April	3.49	179.4	37.2	+60.3
May	5.48	281.7	36.9	+12.9
June	4.19	215.4	33.8	-21.3
July	2.04	104.9	34.2	-41.8
August	3.58	184.0	33.6	-28.5
September	1.80	92.5	33.5	-39.4
Water Year 1941-42	46.91	2,411.2	369.4	+215.7

LAKE CARBONDALE

Monthly precipitation and storage, water year October 1942 to September 1943

Month	Precipitation		Pumpage (million gallons)	Gain or Loss in Storage (million gallons)
	(inches)	(million gallons)		
October	2.61	134.2	35.4	-31.9
November	6.69	343.9	32.8	+38.2
December	1.77	91.0	35.5	-1.4
January	.16	8.2	33.4	-23.5
February	1.37	70.4	30.3	-11.3
March	5.09	261.6	34.0	+115.6
April	3.85	197.9	32.8	+41.7
May	7.15	367.5	34.1	+8.3
June	4.19	215.4	32.7	-17.6
July	4.47	229.8	34.7	-10.3
August	1.57	80.7	34.7	-45.8
September	6.39	328.4	31.4	-28.2
Water Year 1942-43	45.31	2,328.9	401.8	+33.8

LAKE CARBONDALE

Monthly precipitation and storage, water year October 1943 to September 1944

Month	Precipitation		Pumpage (million gallons)	Gain or Loss in Storage (million gallons)
	(inches)	(million gallons)		
October	1.81	93.0	33.0	-33.0
November	3.01	154.7	30.8	-32.5
December	2.08	106.9	32.2	-17.7
January	.42	21.6	31.3	-22.2
February	3.14	161.4	31.1	+33.2
March	3.61	185.6	32.8	+53.7
April	4.28	220.0	32.3	+79.4
May	3.48	178.9	34.5	-27.9
June	2.08	106.9	35.0	-49.0
July	.73	37.5	33.5	-51.0
August	3.59	184.5	33.1	-27.3
September	2.47	127.0	28.6	-27.5
Water Year 1943-44	30.70	1,578.0	388.2	-121.8

LAKE CARBONDALE

Monthly precipitation and storage, water year October 1944 to September 1945

Month	Precipitation		Pumpage (million gallons)	Gain or Loss in Storage (million gallons)
	(inches)	(million gallons)		
October	0.53	27.2	30.1	-36.3
November	1.81	93.0	30.8	-50.1
December	2.79	143.4	33.5	+1.2
January	1.59	81.7	34.7	-26.8
February	6.54	336.2	31.8	+125.0
March	11.46	589.0	35.7	+164.0
April	9.14	469.8	34.8	-8.7
May	2.83	145.5	36.8	-21.4
June	8.76	450.3	36.5	+20.6
July	2.10	107.9	35.7	-27.8
August	7.49	385.0	34.0	+25.9
September	7.19	369.6	30.7	+20.6
Water Year 1944-45 ...	62.23	3,198.6	405.1	+186.2

LAKE CARBONDALE

Monthly precipitation and storage, water year October 1945 to September 1946

Month	Precipitation		Pumpage (million gallons)	Gain or Loss in Storage (million gallons)
	(inches)	(million gallons)		
October	3.03	155.7	30.7	-20.5
November	4.17	214.3	31.1	+14.8
December	1.18	60.7	33.2	-28.9
January	2.80	143.9	31.8	-4.4
February	3.37	173.2	28.4	-6.0
March	1.42	73.0	29.9	-41.8
April	3.18	163.5	29.4	-7.8
May	6.71	344.9	29.1	+50.6
June	1.00	51.4	32.1	-63.3
July	2.19	112.6	34.1	-45.7
August	7.94	408.1	32.8	+34.0
September	3.03	155.7	30.4	-19.8
Water Year 1945-46 ...	40.02	2,057.0	372.9	-138.8

CENTRALIA RESERVOIR

DESCRIPTION

Centralia reservoir, constructed in 1910, is owned and operated by the City of Centralia. It is located on Centralia Creek about 7.5 miles northeast of Centralia and one mile above the confluence with Crooked Creek which flows into the Kaskaskia River. The drainage area is 7 square miles and the 261 acre lake holds 1,063.9 million gallons at spillway crest.

The reservoir has a 720-foot earth dam with a maximum height of 30 feet and a 150-foot concrete spillway section at the north end of the dam with the low point of the crest at 510.29 feet above mean sea level.

The State Water Survey maintains three precipitation stations on the watershed with records extending back to 1926. Changes in lake capacity are measured daily by a staff gage located along the walkway between the dam and the intake tower.

Spillage data are collected by the U. S. Geological Survey Water Resources Branch which maintains a station at this reservoir. This station with a water-stage recorder and concrete control is located at latitude 38°33'34",

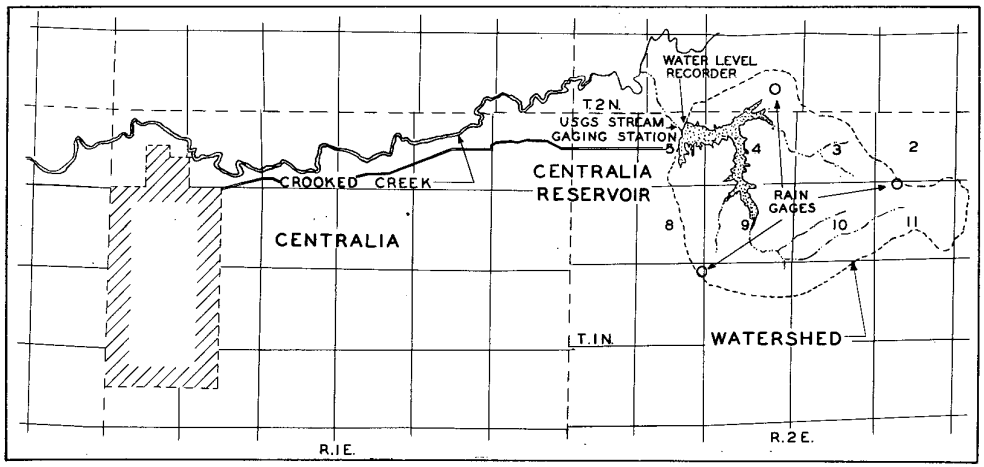

Fig. 20 - Map of Centralia Reservoir Watershed.

longitude 89°00'23", in NW 1/4 NE 1/4 Sec. 5, T. 1 N., R. 2 E., at the bridge over outlet of the reservoir, 1 mile upstream from the confluence with Crooked Creek and 7.5 miles northeast of Centralia. Datum of the gage is 479.74 feet above mean sea level. Records are available from March 1932 to September 1943. They have been temporarily discontinued, due to the high floods of May 1943 damaging the recorder house. The flow is regulated by the lake. The discharge is adjusted for pumpage and change in contents, but not for evaporation and seepage. Pumpage records are furnished by the City of Centralia.

A new reservoir was constructed in 1942 on Raccoon Creek, about 1 mile northeast of Centralia and one-half mile above the confluence with Crooked Creek. The 740 acre reservoir has a 1500-foot earth dam and a 166-foot concrete spillway section, located in NE 1/4 Sec. 8, T. 1 N., R. 1 E.

Water is pumped from Raccoon Creek reservoir when the gravity supply from Centralia reservoir is inadequate. On occasions when the water level in Centralia reservoir is seriously lowered, the gravity line is shut off and the city's entire demand is pumped from Raccoon Creek reservoir.

The location of Raccoon Creek reservoir is not shown on the map of the Centralia Reservoir Watershed.

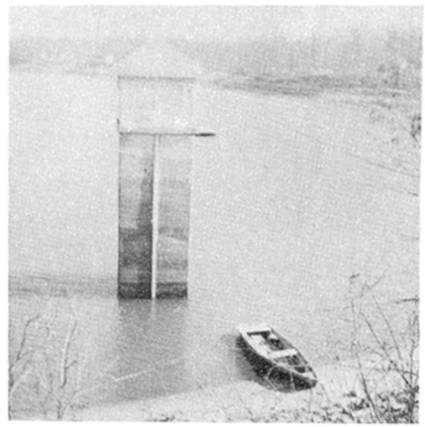

Fig. 21 - Staff gage mounted on concrete intake tower in Centralia Reservoir.

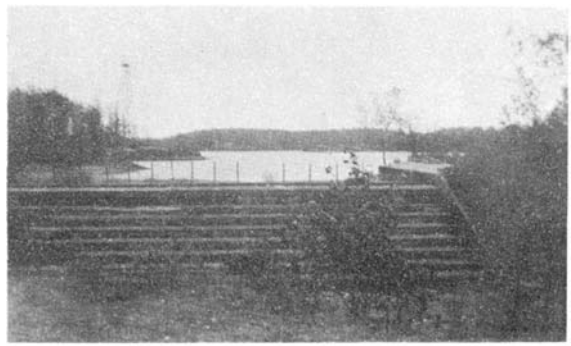

Fig. 22 - Steps in spillway apron below spillway crest at Centralia Reservoir.

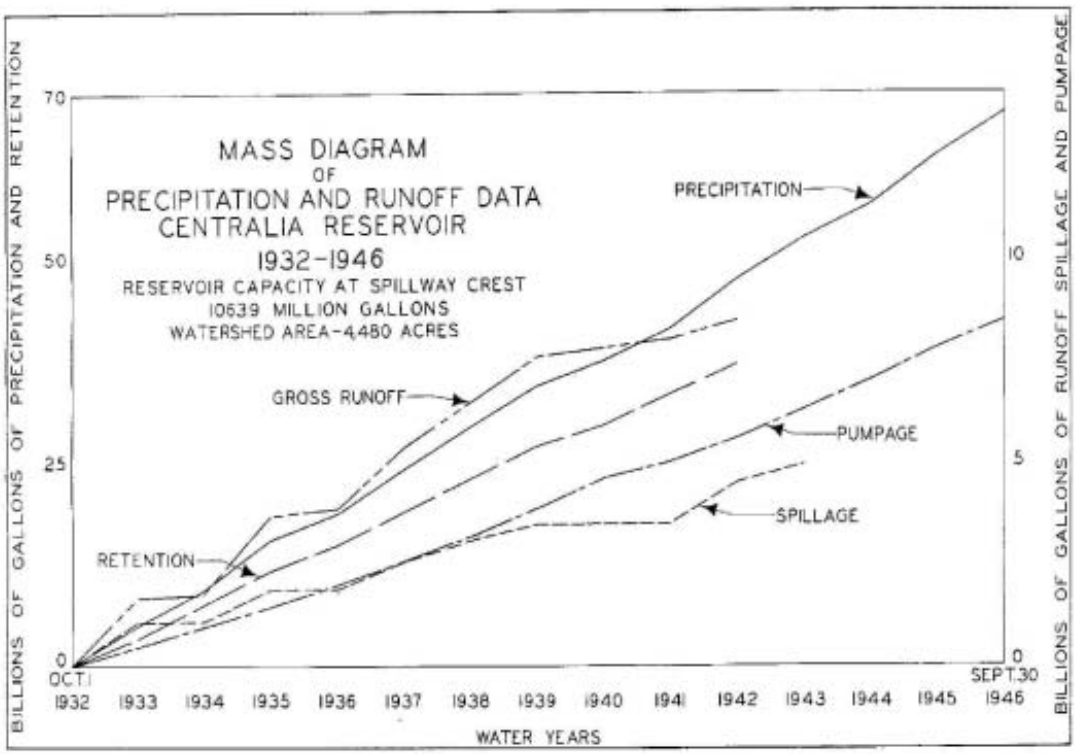

Fig. 23 - Mass Diagram of precipitation and runoff data for Centralia Reservoir.

CENTRALIA RESERVOIR

SUMMARY OF ANNUAL PRECIPITATION AND RUNOFF

Water Year	Precipitation (inches)	Precipitation (million gallons)	Gain or Loss (million gallons)	Spillage (million gallons)	Pumpage (million gallons)	Gross Runoff (million gallons)	Gross Runoff (inches)	Per Cent Gross Runoff	Per Cent Spillage	Per Cent Retention
1926-27	49.40	6,025.2	-	-	685.2	-	-	-	-	-
1927-28	44.13	5,382.4	-	-	690.7	-	-	-	-	-
1928-29	44.12	5,381.2	-235.3	-	674.3	-	-	-	-	-
1929-30	34.51	4,209.1	-319.0	-	626.5	-	-	-	-	-
1930-31	40.97	4,997.0	+159.0	-	457.4	-	-	-	-	-
1931-32	41.22	5,027.5	-185.0	-	494.6	-	-	-	-	-
1932-33	40.14	4,895.7	+93.0	1,073.0	476.6	1,642.6	13.47	33.55	21.92	66.45
1933-34	35.09	4,279.9	-391.1	0	494.9	103.8	0.84	2.43	0	97.57
1934-35	50.29	6,133.8	+678.1	786.8	468.0	1,932.9	15.88	31.51	12.83	68.49
1935-36	26.96	3,288.3	-402.7	0	548.6	145.9	1.18	4.43	0	95.57
1936-37	44.33	5,406.8	+286.8	672.4	550.8	1,510.0	12.42	27.93	12.44	72.07
1937-38	43.34	5,286.1	-35.5	526.0	596.3	1,087.0	8.93	20.56	9.95	79.44
1938-39	41.58	5,071.4	+41.6	407.8	691.9	1,141.3	9.38	22.50	8.04	77.50
1939-40	23.41	2,855.3	-550.8	0	769.7	218.9	1.86	7.67	0	92.33
1940-41	31.73	3,870.0	-182.1	0	384.3	202.2	1.65	5.22	0	94.78
1941-42	50.28	6,132.6	+851.9	1,023.1	575.1	2,450.1	20.14	39.95	16.68	60.05
1942-43	42.17	5,143.4	-157.6	434.5	715.8	-	-	-	8.45	-
1943-44	33.38	4,071.3	-224.6	-	703.5	-	-	-	-	-
1944-45	48.12	5,869.1	+175.3	-	769.8	-	-	-	-	-
1945-46	43.00	5,244.6	-117.7	-	719.1	-	-	-	-	-

CENTRALIA RESERVOIR CREEK NEAR CENTRALIA

Monthly discharge and rainfall, March 1932 to September 1932

Month	Discharge from Spillway (million gallons) †	Pumpage (million gallons)	Change in contents (million gallons)	Adjusted for change in reservoir contents and pumpage *				Rainfall (inches)
				Runoff (million gallons)	Discharge per square mile		Runoff (inches)	
					Million gallons per day	Second-feet		
March	0	42.403	-26.0	+16.4	+0.0756	+0.117	+0.13	2.05
April	0	38.516	-31.5	+7.02	+.0334	+.052	+.06	2.11
May	0	42.2625	-64.5	-22.2	-.102	-.158	-.18	1.66
June	0	40.282	-63.9	-23.6	-.112	-.173	-.19	2.35
July	0	42.906	-82.4	-39.5	-.182	-.282	-.33	3.16
August	0	41.1585	-48.8	-7.64	-.0351	-.054	-.06	5.54
September ..	0	39.8855	-64.5	-24.6	-.117	-.181	-.20	3.08

* Negative figures indicate that evaporation and seepage from reservoir exceeded inflow.

CENTRALIA RESERVOIR CREEK NEAR CENTRALIA

Monthly discharge and rainfall, water year October 1932 to September 1933

Month	Discharge from spillway (million gallons)	Pumpage (million gallons)	Change in contents (million gallons)	Adjusted for change in reservoir contents and pumpage *				Rainfall (inches)
				Runoff (million gallons)	Discharge per square mile		Runoff (inches)	
					Million gallons per day	Second-feet		
October	0	41.6	-45	-3.4	-0.016	-0.025	-0.03	4.14
November	0	39.3	-29	10.3	.049	.076	.08	2.27
December	0	39.7	+161	200.7	.920	1.42	1.64	4.12
January	0	38.6	+239	277.6	1.28	1.98	2.28	3.41
February	0	36.4	-16	20.4	.104	.161	.17	1.49
March	120	37.2	+138	295.2	1.36	2.10	2.42	4.50
April	390	35.7	-49	376.7	1.79	2.77	3.09	5.59
May	563	38.7	-5	596.7	2.75	4.25	4.90	8.02
June	0	40.9	-107	-66.1	-.315	-.487	-.54	.02
July	0	41.8	-89	-47.2	-.218	-.337	-.39	2.06
August	0	46.7	-88	-41.3	-.190	-.294	-.34	1.23
September	0	40.0	-17	23.0	.110	.170	.19	3.29
Water year 1932-33	1,073	476.6	+93	1,642.6	.643	.995	13.47	40.14

* Negative figures indicate that evaporation and seepage from reservoir exceeded inflow.

CENTRALIA RESERVOIR CREEK NEAR CENTRALIA

Spillage, in second-feet, water year October 1932 to September 1933

Month	Second-foot-days	Maximum	Minimum	Mean
October	0	0	0	0
November	0	0	0	0
December	0	0	0	0
January	0	0	0	0
February	0	0	0	0
March	185	154	0	5.97
April	603.5	175	0	20.1
May	871.5	171	0	28.1
June	0	0	0	0
July	0	0	0	0
August	0	0	0	0
September	0	0	0	0
Water Year 1932-33	1,660	175	0	4.55

CENTRALIA RESERVOIR CREEK NEAR CENTRALIA

Spillage, in second-feet, water year October 1932 to September 1933

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1						0	120	0.5				
2						0	33	1.1				
3						0	12	.3				
4						0	4.0	0				
5						0	3.0	162				
6						0	30	59				
7						0	12	18				
8						0	4.2	20				
9						0	1.8	7.8				
10						0	1.0	5.2				
11						0	1.9	11				
12						0	1.6	8.9				
13						0	.5	130				
14						0	9.2	171				
15						0	175	64				
16						0	163	41				
17						0	20	20				
18						0	7.1	10				
19						0	2.5	1.5				
20						0	.9	.1				
21						0	.2	0				
22						0	.0	15				
23						0	.0	7.9				
24						0	0	.4				
25						0	0	34				
26						0	0	41				
27						0	0	17				
28						0	0	17				
29						0	0	7.6				
30						31	.6	.2				
31						154	-	-				

CENTRALIA RESERVOIR CREEK NEAR CENTRALIA

Monthly discharge and rainfall, water year October 1933 to September 1934

Month	Discharge from spillway (million gallons)	Pumpage (million gallons)	Change in contents (million gallons)	Adjusted for change in reservoir contents and pumpage *				Rainfall (inches)
				Runoff (million gallons)	Discharge per square mile		Runoff (inches)	
					Million gallons per day	Second-feet		
October	0	39.0	-42.8	-3.8	-0.018	-0.028	-0.03	3.79
November	0	38.9	-54.2	-15.3	-.073	-.113	-.13	.82
December	0	40.2	-49.9	-9.7	-.045	-.070	-.08	1.49
January	0	40.1	-25.7	+14.4	+.066	+.102	+.12	1.96
February	0	39.2	-38.0	+1.2	+.0061	+.0094	+.01	1.15
March	0	45.2	-20.6	+24.6	+.113	+.175	+.20	3.53
April	0	37.9	+12.2	+50.1	+.239	+.370	+.41	3.35
May	0	42.2	+2.5	+44.7	+.206	+.319	+.37	2.93
June	0	43.3	-66.0	-22.7	-.108	-.167	-.19	3.65
July	0	44.9	-64.3	-19.4	-.089	-.138	-.16	2.53
August	0	43.6	-66.5	-22.9	-.106	-.164	-.19	3.23
September	0	40.4	+22.2	+62.6	+.298	+.461	+.51	6.66
Water year 1933-34	0	494.9	-391.1	+103.8	+.041	+.063	+.84	35.09

* Negative figures indicate that evaporation and seepage from reservoir exceeded inflow.

CENTRALIA RESERVOIR CREEK NEAR CENTRALIA

Monthly discharge and rainfall, water year October 1934 to September 1935

Month	Discharge from spillway (million gallons)	Pumpage (million gallons)	Change in contents (million gallons)	Adjusted for change in reservoir contents and pumpage *				Rainfall (inches)
				Runoff (million gallons)	Discharge per square mile		Runoff (inches)	
					Million gallons per day	Second-feet		
October	0	39.9	-121.3	-81.4	-0.375	-0.580	-0.67	2.19
November	0	36.1	+94.0	130.1	.620	.959	1.07	6.53
December	0	40.8	+66.3	107.1	.494	.764	.88	2.46
Calendar year 1934	0	493.6	-205.2	288.4	.113	.175	2.36	40.17
January	0	41.8	+182.6	224.4	1.03	1.60	1.84	3.20
February	0	36.7	-10.4	26.3	.134	.208	.22	.63
March	0	43.0	+493.3	536.3	2.47	3.82	4.40	7.46
April	0	36.4	+61.0	97.4	.464	.717	.80	2.96
May	739.2	38.2	+44.7	822.1	3.79	5.86	6.76	10.83
June	0	36.1	-27.5	8.6	.041	.063	.07	4.29
July	47.6	39.0	+26.7	113.3	.522	.808	.93	5.94
August	0	42.7	-129.7	-87.0	-.401	.620	-.71	.97
September	0	37.3	-1.6	35.7	.170	.263	.29	2.83
Water year 1934-35	786.8	468.0	+678.1	1,932.9	.756	1.17	15.88	50.29

* Negative figures indicate that evaporation and seepage from reservoir exceeded inflow.

CENTRALIA RESERVOIR CREEK NEAR CENTRALIA

Spillage, in second-feet, water year October 1934 to September 1935

Month	Second-foot-days	Maximum	Minimum	Mean
October	0	0	0	0
November	0	0	0	0
December	0	0	0	0
January	0	0	0	0
February	0	0	0	0
March	0	0	0	0
April	0	0	0	0
May	1,143.5	221	0	36.9
June	0	0	0	0
July	73.7	15	0	2.38
August	0	0	0	0
September	0	0	0	0
Water Year 1934-35 ...	1,217.2	221	0	3.33

CENTRALIA RESERVOIR CREEK NEAR CENTRALIA

Spillage, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								0		0		
2								60		0		
3								116		0		
4								20		0		
5								50		0		
6								104		0		
7								32		0		
8								14		0		
9								10		0		
10								7.3		0		
11								5.2		0		
12								3.2		0		
13								43		0		
14								221		0		
15								40		0		
16								17		0		
17								12		0		
18								8.1		0		
19								23		0		
20								116		0		
21								68		0		
22								19		0		
23								82		12		
24								34		15		
25								14		10		
26								9.3		14		
27								6.4		11		
28								4.9		6.8		
29								2.3		3.4		
30								1.1		1.1		
31								.7		.4		

CENTRALIA RESERVOIR CREEK NEAR CENTRALIA

Monthly discharge and rainfall, water year October 1935 to September 1936

Month	Discharge from spillway (million gallons)	Pumpage (million gallons)	Change in contents (million gallons)	Adjusted for change in reservoir contents and pumpage *				Rainfall (inches)
				Runoff (million gallons)	Discharge per square mile		Runoff (inches)	
					Million gallons per day	Second-feet		
October	0	37.6	-51.6	-14.0	-0.065	-0.100	-0.12	2.35
November	0	38.0	+20.8	58.8	.280	.433	.48	5.08
December	0	39.7	-30.6	9.1	.042	.065	.07	1.32
Calendar year 1935 ..	786.8	466.5	+577.7	1,831.0	.717	1.11	15.03	47.86
January	0	45.2	+2.4	47.6	.219	.339	.39	1.41
February	0	51.9	+14.1	66.0	.325	.503	.54	1.64
March	0	46.0	+82.7	128.7	.593	.918	1.06	1.70
April	0	43.0	-15.8	27.2.	.130	.200	.22	2.04
May	0	45.9	-72.0	-26.1	-.120	-.186	-.21	1.41
June	0	44.2	-72.2	-28.0	-.133	-.206	-.23	3.88
July	0	54.4	-106.5	-52.1	-.240	-.371	-.43	1.34
August	0	53.3	-109.1	-55.8	-.257	-.398	-.46	1.02
September ...	0	49.4	-64.9	-15.5	-.074	-.114	-.15	3.77
Water year 1935-36...	0	548.6	-402.7	145.9	.057	.088	1.18	26.96

* Negative figures indicate that evaporation and seepage from reservoir exceeded inflow.

CENTRALIA RESERVOIR CREEK NEAR CENTRALIA

Monthly discharge and rainfall, water year October 1936 to September 1937

Month	Discharge from spillway (million gallons)	Pumpage (million gallons)	Change in contents (million gallons)	Adjusted for change in reservoir contents and pumpage *				Rainfall (inches)
				Runoff (million gallons)	Discharge per square mile		Runoff (inches)	
					Million gallons per day	Second-feet		
October	0	51.2	-54.3	-3.1	-0.014	-0.022	-0.03	4.11
November ...	0	46.0	+3.4	49.4	.235	.364	.41	2.95
December ...	0	48.3	-36.4	11.9	.055	.085	.10	2.73
Calendar year 1936 .	0	578.8	-428.6	150.2	.059	.091	1.23	28.00
January	104.1	48.2	+618.7	771.0	3.55	5.50	6.34	8.64
February ...	163.0	45.3	-1.7	206.6	1.05	1.63	1.70	1.81
March	21.3	50.9	-3.5	68.7	.317	.490	.56	1.51
April	226.3	42.3	+30.2	298.8	1.42	2.20	2.46	6.04
May	155.4	43.5	-83.5	115.4	.532	.823	.95	3.58
June	2.3	40.1	+15.5	57.9	.276	.427	.48	4.97
July	0	42.0	-66.3	-24.3	-.112	-.173	-.20	2.72
August	0	49.1	-64.6	-15.5	-.071	-.110	-.13	3.15
September ..	0	43.9	-70.7	-26.8	-.128	-.197	-.22	2.13
Water year 1936-37	672.4	550.8	+286.8	1,510.0	.591	.914	12.42	44.34

* Negative figures indicate that evaporation and seepage from reservoir exceeded inflow.

CENTRALIA RESERVOIR CREEK NEAR CENTRALIA

Spillage, in second-feet water year October 1936 to September 1937

Month	Second-foot-days	Maximum	Minimum	Mean
October	0	0	0	0
November	0	0	0	0
December	0	0	0	0
January	161	115	0	5.19
February	252.2	60	0	9.01
March	33.0	6.6	0	1.06
April	350.1	76	0	11.7
May	240.6	124	0	7.76
June	3.6	3.0	0	.120
July	0	0	0	0
August	0	0	0	0
September	0	0	0	0
Water Year 1936-37 ...	1,040.4	124	0	2.85

CENTLIA RESERVOIR CREEK NEAR CENTRALIA

Spillage, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1				0	18.5	0	0	19.0	0			
2				0	10.5	0	0	124	0			
3				0	7.3	0	0	38	0			
4				0	5.1	0	0	15.6	0			
5				0	2.8	0	3.7	11.8	0			
6				0	1.8	0	11.8	12.1	0			
7				0	1.3	0	9.3	8.6	0			
8				0	60	0	8.1	5.9	0			
9				0	46	0	7.0	3.4	.1			
10				0	13.5	0	4.8	1.6	3.0			
11				0	9.3	0	2.8	.5	.5			
12				0	7.6	0	1.6	0	0			
13				0	6.7	0	1.1	0	0			
14				0	8.1	0	2.8	0	0			
15				0	6.6	0	2.4	0	0			
16				0	5.0	0	1.6	0	0			
17				0	3.6	.1	2.1	0	0			
18				0	4.9	2.2	.5	0	0			
19				0	5.1	6.6	0	0	0			
20				0	4.4	6.1	2.2	0	0			
21				0	7.2	4.6	76	0	0			
22				0	6.8	3.0	22	0	0			
23				0	5.0	2.1	12.7	0	0			
24				0	3.2	4.0	54	0	0			
25				0	1.4	2.8	16.8	0	0			
26				0	.5	1.2	11.6	0	0			
27				0	0	.3	9.3	0	0			
28				0	0	0	12.9	0	0			
29				0	-	0	22.0	0	0			
30				46	-	0	51	0	0			
31				115	-	0	-	0	-			

CENTRALIA RESERVOIR CREEK NEAR CENTRALIA

Monthly discharge and rainfall, water year October 1937 to September 1938

Month	Discharge from spillway (million gallons)	Pumpage (million gallons)†	Change in contents (million gallons)	Adjusted for change in reservoir contents and pumpage *				Rainfall (inches)
				Runoff (million gallons)	Discharge per square mile		Runoff (inches)	
					Million gallons per day	Second-feet		
October	0.0	42.97	-37.0	+6.0	0.028	0.043	0.05	4.01
November	0	40.40	-49.2	-8.8	-.042	-.065	-.07	1.54
December	1.1	45.46	+67.6	+114.2	.526	.814	.94	3.83
Calendar year 1937 ..	673.5	534.2	355.5	1,563.2	.612	.947	12.86	43.93
January	.8	43.49	-21.4	+22.9	.106	.164	.19	1.53
February	2.1	39.47	+98.0	+139.6	.712	1.10	1.14	2.62
March	428.1	47.33	+270.5	+745.9	3.437	5.32	6.13	8.84
April	91.3	50.01	-108.0	+33.3	.159	.246	.27	2.19
May	1.6	54.36	-34.4	+21.6	.100	.155	.18	5.04
June	.5	56.17	-38.5	+18.2	.087	.135	.15	3.15
July	.1	+61.16	-56.1	+5.2	.024	.037	.04	4.51
August	.1	+55.48	-54.8	+.8	.004	.006	.01	3.94
September ...	.3	+59.99	-72.2	-11.9	-.057	-.088	-.10	2.14
Water year 1937-38...	526.0	+596.29	-35.5	1,087.0	.425	.658	8.93	43.34

* Negative figures indicate that evaporation and seepage from reservoir exceeded inflow.

† Includes pumpage to oil companies as well as metered pumpage.

CENTRALIA RESERVOIR CREEK NEAR CENTRALIA

Spillage, in second-feet, water year October 1937 to September 1938

Month	Second-foot-days	Maximum	Minimum	Mean
October	0	0	0	0
November	0	0	0	0
December	1.7	.3	0	.055
Calendar Year 1937	1,042.1	124	0	2.86
January	1.3	0.1	0	0.042
February	3.3	.3	.1	.118
March	662.3	172	0	21.4
April	141.3	37	.1	4.71
May	2.4	.3	0	.77
June	.7	.1	0	.023
July	.1	.1	0	.003
August	.1	.1	0	.003
September	.4	.1	0	.013
Water Year 1937-38	813.6	172	0	2.23

CENTRALIA RESERVOIR CREEK NEAR CENTRALIA

Spillage, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			0	.1	.1	.1	22	.1	.1	0	.1	0
2			0	.1	.1	.1	9.2	.1	.1	0	0	0
3			0	0	.1	.3	37	.1	.1	0	0	0
4			0	0	.1	.2	.8	.1	.1	0	0	0
5			0	0	.1	.2	.4	.1	0	0	0	0
6			0	0	.1	.2	.4	.1	0	0	0	0
7			0	0	.1	.1	.2	.1	0	0	0	0
8			0	0	.1	.1	24	.1	0	0	0	0
9			0	0	.1	.1	23	.1	0	0	0	0
10			0	0	.1	.1	12	.1	0	0	0	0
11			0	0	.1	.1	6.9	0	.1	0	0	0
12			0	0	.1	.1	2.2	0	.1	0	0	0
13			0	0	.1	.3	.7	0	.1	0	0	0
14			0	0	.1	.3	.5	0	0	0	0	.1
15			0	0	.1	56	.2	0	0	0	0	0
16			0	0	.1	40	.4	0	0	0	0	0
17			.3	0	.1	14	.1	0	0	0	0	0
18			.1	0	.3	8	.1	0	0	.1	0	.1
19			.1	0	.3	4.1	.1	0	0	0	0	0
20			.1	0	.2	1.8	.1	0	0	0	0	.1
21			.1	.1	.1	.6	.1	.1	0	0	0	.1
22			.1	.1	.1	.4	.1	.1	0	0	0	0
23			.1	.1	.1	6.9	.1	.3	0	0	0	0
24			.1	.1	.1	10	.1	.2	0	0	0	0
25			.1	.1	.1	79	.1	.1	0	0	0	0
26			.1	.1	.1	29	.1	.1	0	0	0	0
27			.1	.1	.1	12	.1	.1	0	0	0	0
28			.1	.1	.1	7.2	.1	.1	0	0	0	0
29			.1	.1	-	87	.1	.1	0	0	0	0
30			.1	.1	-	135	.1	.1	0	0	0	0
31			.1	.1	-	172	-	.1	-	0	0	-

CENTRALIA RESERVOIR CREEK NEAR CENTRALIA

Monthly discharge and rainfall, water year October 1938 to September 1939

Month	Discharge from spillway (million gallons)	Pumpage (million gallons)†	Change in contents (million gallons)	Adjusted for change in reservoir contents and pumpage *				Rainfall (inches)
				Runoff (million gallons)	Discharge per square mile		Runoff (inches)	
					Million gallons per day	Second-feet		
October	0	60.40	-86.2	-25.8	-0.119	-0.184	-0.21	1.11
November	0	57.95	-58.0	0	0	0	0	2.57
December	0	64.02	-62.3	1.7	.0078	.012	.01	2.26
Calendar year 1938	524.9	649.83	-223.4	951.5	.372	.576	7.81	39.90
January	0	62.41	0	62.4	.288	.446	.51	4.57
February	0	54.89	+293.5	348.4	1.78	2.75	2.86	3.22
March	59.4	62.74	+169.0	291.1	1.34	2.07	2.39	3.12
April	338.3	59.25	+25.8	423.4	2.03	3.13	3.49	7.58
May	.3	55.30	-51.6	4.0	.018	.028	.03	2.50
June	9.8	51.99	+34.4	96.2	.458	.709	.79	5.61
July	0	55.00	-78.0	-23.0	-.106	-.164	-.19	3.02
August	0	50.69	-46.2	4.5	.021	.032	.04	4.27
September	0	57.24	-98.8	-41.6	-.198	-.306	-.34	1.75
Water year 1938-39	407.8	691.9	+41.6	1,141.3	.447	.692	9.38	41.58

* Negative figures indicate that evaporation and seepage from reservoir exceeded inflow.

† Includes pumpage to oil companies as well as metered pumpage.

CENTRALIA RESERVOIR CREEK NEAR CENTRALIA

Spillage, in second-feet, water year October 1938 to September 1939

Month	Second-foot-days	Maximum	Minimum	Mean
October	0	0	0	0
November	0	0	0	0
December	0	0	0	0
Calendar Year 1938 ...	811.9	172	0	2.22
January	0	0	0	0
February	0	0	0	0
March	91.9	35	0	2.96
April	523.5	198	0	17.4
May	.5	.2	0	.016
June	15.1	6.6	0	.503
July	0	0	0	0
August	0	0	0	0
September	0	0	0	0
Water Year 1938-39 ...	631.0	198	0	1.73

CENTRALIA RESERVOIR CREEK NEAR CENTRALIA

Spillage, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1						0	0	0.2	0			
2						0	0	0	0			
3						0	0	0	0			
4						0	0	0	0			
5						0	.4	.2	0			
6						0	2.2	.1	0			
7						0	3.1	0	0			
8						0	2.6	0	0			
9						0	1.7	0	0			
10						0	1.3	0	0			
11						2.2	1.4	0	0			
12						11	1.1	0	0			
13						35	.8	0	0			
14						19	.8	0	0			
15						10	1.2	0	0			
16						5.4	194	0	0			
17						3.5	198	0	0			
18						2.2	46	0	0			
19						1.8	12	0	0			
20						1.8	6.9	0	.5			
21						0	17	0	6.6			
22						0	12	0	5.6			
23						0	6.6	0	1.3			
24						0	2.9	0	.6			
25						0	.8	0	.3			
26						0	3.2	0	.1			
27						0	4.3	0	.1			
28						0	2.2	0	0			
29						0	.6	0	0			
30						0	.4	0	0			
31						0	-	0	-			

CENTRALIA RESERVOIR CREEK NEAR CENTRALIA

Monthly discharge and rainfall, water year October 1939 to September 1940

Month	Discharge from spillway (million gallons)	Pumpage (million gallons)†	Change in contents (million gallons)	Adjusted for change in reservoir contents and pumpage *				Rainfall (inches)
				Runoff (million gallons)	Discharge per square mile		Runoff (inches)	
					Million gallons per day	Second-feet		
October	0	57.67	-83.4	-25.73	-0.119	-0.184	-0.21	0.95
November	0	60.83	-67.8	-6.97	-.033	-.051	-.06	2.07
December	0	66.14	-50.4	15.74	.073	.113	.13	1.39
Calendar year 1939	407.8	694.15	+46.5	1,148.45	.449	.695	9.44	40.05
January	0	78.55	-53.2	25.35	.117	.181	.21	1.59
February	0	71.08	-76.0	-4.92	-.024	-.037	-.04	1.92
March	0	71.69	-5.9	65.79	.303	.469	.54	2.17
April	0	68.50	+95.3	163.80	.780	1.21	1.35	4.46
May	0	66.60	+36.9	103.50	.477	.738	.90	2.15
June	0	62.35	-83.4	-21.05	-.100	-.155	-.17	2.44
July	0	58.13	-89.1	-30.97	-.143	-.221	-.25	1.32
August	0	63.08	-95.0	-31.92	-.147	-.227	-.26	2.36
September	0	45.06	-78.8	-33.74	-.161	-.249	-.28	.59
Water year 1939-40	0	769.68	-550.8	218.88	.085	.132	1.86	23.41

* Negative figures indicate that evaporation and seepage from reservoir exceeded inflow.

† Includes pumpage to oil companies as well as metered pumpage.

CENTRALIA RESERVOIR CREEK NEAR CENTRALIA

Monthly discharge and rainfall, water year October 1940 to September 1941

Month	Discharge from spillway (million gallons)	Pumpage (million gallons)	Change in contents (million gallons)	Adjusted for change in reservoir contents and pumpage *				Rainfall (inches)
				Runoff (million gallons)	Discharge per square mile		Runoff (inches)	
					Million gallons per day	Second-feet		
October	0	47.3	-58.3	-11.0	-0.051	-0.079	-0.90	2.87
November	0	45.7	-39.3	6.4	.030	.046	.05	3.49
December	0	48.3	-31.5	16.8	.077	.119	.14	3.27
Calendar year 1940.....	0	726.5	-478.3	248.2	.097	.150	2.10	28.63
January	0	41.8	-4.8	37.0	.171	.265	.30	2.23
February	0	39.1	-38.7	.4	.0020	.0031	.003	.71
March	0	41.8	-39.4	2.4	.011	.017	.02	.57
April	0	16.6	+127.0	143.6	.684	1.06	1.18	3.99
May	0	23.7	-31.2	-7.5	-.035	-.054	-.06	1.73
June	0	27.8	-4.3	23.5	.112	.173	.19	4.54
July	0	15.6	-39.1	-23.5	-.108	-.167	-.19	1.73
August	0	29.3	-41.0	-11.7	-.054	-.084	-.10	2.08
September	0	7. 3	+18.5	25.8	.123	.190	.21	4.52
Water year 1940-41	0	384.3	-182.1	202.2	.079	.122	1.65	31.73

* Negative figures indicate that evaporation end seepage from reservoir exceeded inflow.

CENTRALIA RESERVOIR CREEK NEAR CENTRALIA

Monthly discharge and rainfall, water year October 1941 to September 1942

Month	Discharge from spillway (million gallons)	Pumpage (million gallons)	Change in contents (million gallons)	Adjusted for change in reservoir contents and pumpage *				Rainfall (inches)
				Run off (million gallons)	Discharge per square mile		Runoff (inches)	
					Million gallons per day	Second-feet		
October	0	4.3	+42.8	47.1	0.217	0.336	0.39	5.67
November	0	10.0	+205.8	215.8	1.03	1.59	1.77	4.26
December	0	29.8	+14.3	44.1	.203	.341	.36	1.37
Calendar year 1941	0	287.1	+209.9	497.0	.195	.301	4.07	33.40
January	0	35.3	+43.4	78.7	.363	.561	.65	1.65
February	0	45.2	+226.4	271.6	1.39	2.14	2.23	3.20
March	0	61.5	+192.5	254.0	1.17	1.81	2.09	3.08
April	0	63.7	+109.9	173.6	.827	1.28	1.43	2.79
May	0	68.3	-40.8	27.5	.127	.196	.23	3.52
June	507.9	64.1	+187.4	759.4	3.62	5.60	6.24	11.63
July	515.2	64.8	-34.4	545.6	2.51	3.89	4.48	8.02
August	0	67.0	.0	67.0	.309	.478	.55	3.89
September	0	61.1	-95.4	-34.3	-.163	-.253	-.28	1.20
Water year1941-42	1,023.1	575.1	-851.9	2,450.1	.959	1.48	20.14	50.28

* Negative figures Indicate that evaporation and seepage from reservoir exceeded inflow.
Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

CENTRALIA RESERVOIR CREEK NEAR CENTRALIA
Spillage, in second-feet, water year October 1941 to September 1942

Month	Second-foot-days	Maximum	Minimum	Mean
October.....	0	0	0	0
November.....	0	0	0	0
December.....	0	0	0	0
January.....	0	0	0	0
February.....	0	0	0	0
March	0	0	0	0
April	0	0	0	0
May	0	0	0	0
June	785.8	339	0	26.2
July	797.10	471	0	26.7
August	0	0	0	0
September.....	0	0	0	0
Water Year1941-42...	1,582.90	471	0	4.34

CENTRALIA RESERVOIR CREEK NEAR CENTRALIA

Spillage, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1									0	0.46		
2									0	.03		
3									0	Trace		
4									0	do.		
5									0	0		
6									0	0		
7									0	0		
8									0	243		
9									0	471		
10									0	60		
11									0	13.0		
12									0	5.4		
13									0	2.8		
14									0	1.1		
15									0	.28		
16									0	.03		
17									0	Trace		
18									0	do.		
19									0	do.		
20									0	0		
21									339	0		
22									207	0		
23									16.5	0		
24									4.6	0		
25									2.0	0		
26									160	0		
27									41	0		
28									10.3	0		
29									3.2	0		
30									2.2	0		
31									-	0		

Trace--less than .01 sec.-ft.

CENTRALIA RESERVOIR CREEK NEAR CENTRALIA

Monthly discharge and rainfall, water year October 1942 to September 1943

Month	Discharge from Spillway (million gallons)	Pumpage (million gallons)	Change in contents (million gallons)	Adjusted for change in reservoir contents and pumpage *				Rainfall (inches)
				Runoff (million gallons)	Discharge per square mile		Runoff (inches)	
					Million gallons per day	Second-feet		
October	0	63.3	-57.6	5.7	0.026	0.040	0.05	2.98
November ...	0	57.4	+83.6	141.0	.671	1.04	1.16	5.59
December ...	0	64.3	+43.6	107.9	.497	.770	.89	1.53
Calendar year 1942 .	1,023.1	716.0	+658.6	2,397.7	.938	1.45	19.72	49.08
January	0	62.7	-43.6	19.1	.088	.136	.16	1.32
February ...	1.0	54.4	+60.8	116.2	.593	.918	.96	.66
March	0	64.1	-8.6	55.5	.256	.396	.46	1.29
April	.5	52.6	+43.0	96.1	.458	.708	.79	3.28
May	‡433.0	59.1	0	-	-	-	-	13.30
June	-	58.4	-9.6	-	-	-	-	6.78
July	0	59.3	-104.2	-44.9	-.207	-.320	-.37	.39
August	0	63.8	-92.2	-28.4	-.131	-.202	-.23	1.18
September ..	0	56.4	-73.8	-17.4	-.083	-.128	-.14	3.87
Water year 1942-43..	††434.5	715.8	-157.6	-	-	-	-	42.17

* Negative figures indicate that evaporation and seepage from reservoir exceeded inflow.
‡ May 1-18; no record May 19 to June 29 except the peak.
†† For period Oct. 1 to May 18 only.
Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

CENTRALIA RESERVOIR CREEK NEAR CENTRALIA

Spillage, in second-feet, water year October 1942 to September 1943

Month	Second-foot-days	Maximum	Minimum	Mean
October	0	0	0	0
November	0	0	0	0
December	0	0	0	0
Calendar Year 1942 ...	1,582.90	471	0	4.34
January	0	0	0	0
February	1.47	.39	0	.053
March	0	0	0	0
April	.72	.23	0	.024
May	670.0	198	0	21.6
June	0	0	0	0
July	0	0	0	0
August	0	0	0	0
September	0	0	0	0
Water Year 1942-43....	672.19	198	0	1.84

CENTRALIA RESERVOIR CREEK NEAR CENTRALIA

Spillage, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1					0		0	0	-			
2					0		0	0	-			
3					0		0	0	-			
4					.12		0	0	-			
5					.12		0	0	-			
6					.39		0	0	-			
7					.33		0	8.9	-			
8					.23		0	27	-			
9					.09		0	12.3	-			
10					.05		0	152	-			
11					.05		0	198	-			
12					.03		0	35	-			
13					.03		0	19.6	-			
14					.02		0	16.2	-			
15					.01		0	33	-			
16					0		0	101	-			
17					0		0	25	-			
18					0		0	42	-			
19					0		0	-	-			
20					0		0	-	-			
21					0		0	-	-			
22					0		0	-	-			
23					0		0	-	-			
24					0		0	-	-			
25					0		.07	-	-			
26					0		.19	-	-			
27					0		.15	-	-			
28					0		.05	-	-			
29					-		.23	-	-			
30					-		.03	-	0			
31					-		-	-	-			

Recorder and its housing structure were demolished by the flood of May 19 or 20. Reservoir was spilling during the period of no record at this station, May 19 to June 29.

CENTRALIA RESERVOIR CREEK NEAR CENTRALIA

Monthly precipitation and storage, water year October 1943 to September 1944

Month	Precipitation		Pumpage (million gallons)	Gain or Loss in Storage (million gallons)
	(inches)	(million gallons)		
October	2.19	267.1	55.4	-52.2
November	2.93	357.4	51.8	-22.2
December	2.15	262.2	53.7	-44.0
January	.18	22.0	54.8	-71.0
February	1.64	200.0	51.2	-26.8
March	2.45	298.8	55.7	+62.8
April	8.11	989.2	57.3	+318.8
May	3.36	409.8	62.2	-25.8
June	1.83	223.2	61.4	-95.4
July	2.08	253.7	66.3	-103.6
August	3.93	479.3	70.3	-91.3
September	2.53	308.6	63.4	-73.8
Water Year 1943-44 ...	33.38	4,071.3	703.5	-224.6

CENTRALIA RESERVOIR CREEK NEAR CENTRALIA

Monthly precipitation and storage, water year October 1944 to September 1945

Month	Precipitation		Pumpage (million gallons)	Gain or Loss in Storage (million gallons)
	(inches)	(million gallons)		
October	0.23	28.0	63.9	-91.7
November	.75	91.5	59.8	-71.7
December	.99	120.7	64.2	-91.5
January	.84	102.5	61.3	-16.5
February	2.94	358.6	52.7	-5.6
March	11.49	1,401.4	65.4	+740.1
April	5.98	729.4	66.1	-63.2
May	6.01	733.0	67.5	-17.2
June	9.13	1,113.6	66.2	+8.2
July	1.04	126.8	67.1	-86.4
August	2.68	326.9	73.3	-106.4
September	6.04	736.7	62.3	-22.8
Water Year 1944-45	48.12	5,869.1	769.8	+175.3

CENTRALIA RESERVOIR CREEK NEAR CENTRALIA
Monthly precipitation and storage, water year October 1945 to September 1946

Month	Precipitation		Pumpage (million gallons)	Change in contents (million gallons)
	(inches)	(million gallons)		
October	1.98	241.5	64.8	-61.5
November	3.89	474.5	66.1	+23.2
December	1.14	139.0	67.2	+15.2
January	1.91	233.0	69.0	+61.3
February	3.52	429.3	62.9	+162.8
March	.95	115.9	69.4	-34.4
April	2.77	377.9	65.3	-69.6
May	7.25	884.3	65.1	+104.0
June	5.10	622.0	59.6	-34.4
July	1.55	189.0	35.9	-111.0
August	11.41	1,391.6	46.1	-94.9
September	1.53	186.6	47.7	-78.4
Water year 1945-46	43.00	5,244.6	719.1	-117.7

CENTRALIA RESERVOIR CREEK NEAR CENTRALIA

Peak Discharges
Base Discharge - 100 Second-feet

Date			Gage height (feet)	Discharge (second-feet)	Order of magnitude	Plotting Position
Year	Month	Day				
1933	Mar.	30	3.42	216	13	0.846
		31	3.46	223	11	1.00
	Apr.	15	4.30	339	6	1.833
	May	5	3.93	318	7	1.571
		13	4.11	357	4	2.75
		25	2.84	113	25	0.440
1935	May	3	4.10	202	17	0.647
		14	4.94	268	10	1.100
		20	4.22	212	15	0.733
1937	Jan.	31	4.15	206	16	0.688
	Feb.	8	3.73	172	19	0.579
	Mar.	21	3.20	124	24	0.458
		24	3.01	105	26	0.423
	May	2	3.91	187	18	0.611
1938	Mar.	15	3.35	138	23	0.478
		25	3.72	172	20	0.550
		29	3.56	157	21	0.524
		30	4.31	219	12	0.917
		31	4.96	269	9	1.222
1939	Apr.	16	4.28	216	14	0.786
		16	5.23	288	8	1.375
1942	June	21	5.68	1164	2	5.50
		26	4.41	463	3	3.667
	July	8	6.09	1572	1	11.00
1943	May	11	5.25	340	5	2.200
		16	4.09	149	22	0.500

WEST FRANKFORT RESERVOIR

DESCRIPTION

West Frankfort reservoir, constructed in 1930, is owned and operated by the City of West Frankfort. It is located on Tilley Creek about 6 miles east of the city. Tilley Creek is a tributary of Ewing Creek which flows into the Middle Fork of Big Muddy River. The drainage area is 3.9 square miles and the 149 acre lake holds 353.9 million gallons at spillway crest.

The lake has an 800-foot earth dam and a 100-foot concrete spillway section with crest at 441.86 feet above mean sea level.

The State Water Survey maintains three precipitation stations on the watershed, two of which are standard stick gages and one an automatic weighing bucket gage. These records extend back to 1928. Changes in lake capacity are measured by an automatic water level recorder located southeast of the spillway.

Spillage data are collected by the U. S. Geological Survey Water Resources Branch. This station with a water-stage recorder and concrete control is located on Tilley Creek at latitude 37°53'40", longitude 88°48'45", in SW 1/4 SW 1/4

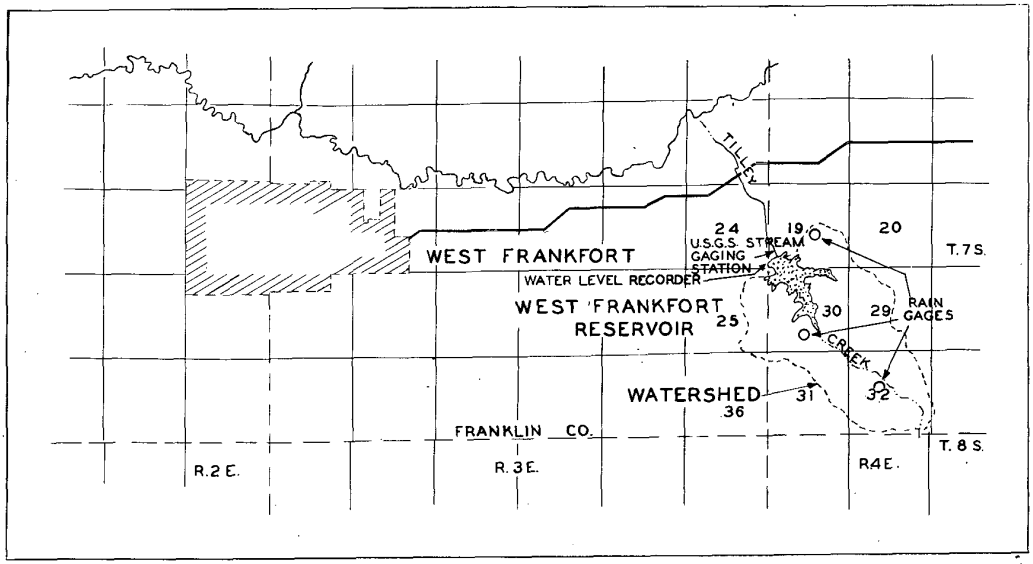

Fig. 24 - Map of West Frankfort Reservoir Watershed.

Sec. 19, T. 7 S., R. 4 E., 200 feet downstream from the outlet of the lake and 6 miles east of West Frankfort. Datum of the gage is 420.98 feet above mean sea level. Records are available from October 1938 to September 1946. The flow at this station is regulated by the lake. The discharge is adjusted for pumpage and change in reservoir contents, but not for evaporation and seepage. The pumpage records are supplied by the city of West Frankfort.

The construction of a new reservoir in 1946 on nearby Stevens Creek has made it difficult to estimate pumpage from the first reservoir, due to the fact that the new reservoir is connected to the old pipe line running from the first reservoir to the filter plant. Formerly water flowed by gravity from the old reservoir to the filter plant, but pumping is necessary to draw water from the new lake. Also the pool elevation of the Tilley Creek reservoir is approximately 6 feet higher than that of the new lake and consequently there is some movement of water between the lakes when the pumps at the filter plant are shut down.

A sedimentation survey of the lake in 1936 revealed that in the 10 year period since the reservoir was built the lose of original lake capacity had been 0.81 per cent per year or a total capacity lose of 8.09 per cent to 1936.

Fig. 25 - U.S.G.S. gaging station at West Frankfort Reservoir; artificial concrete control and concrete water-stage recorder shelter.

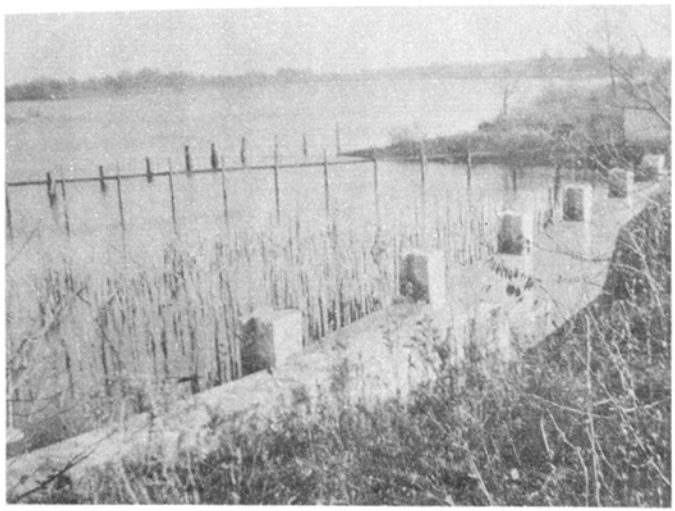

Fig. 26 - Spillway crest at West Frankfort Reservoir.

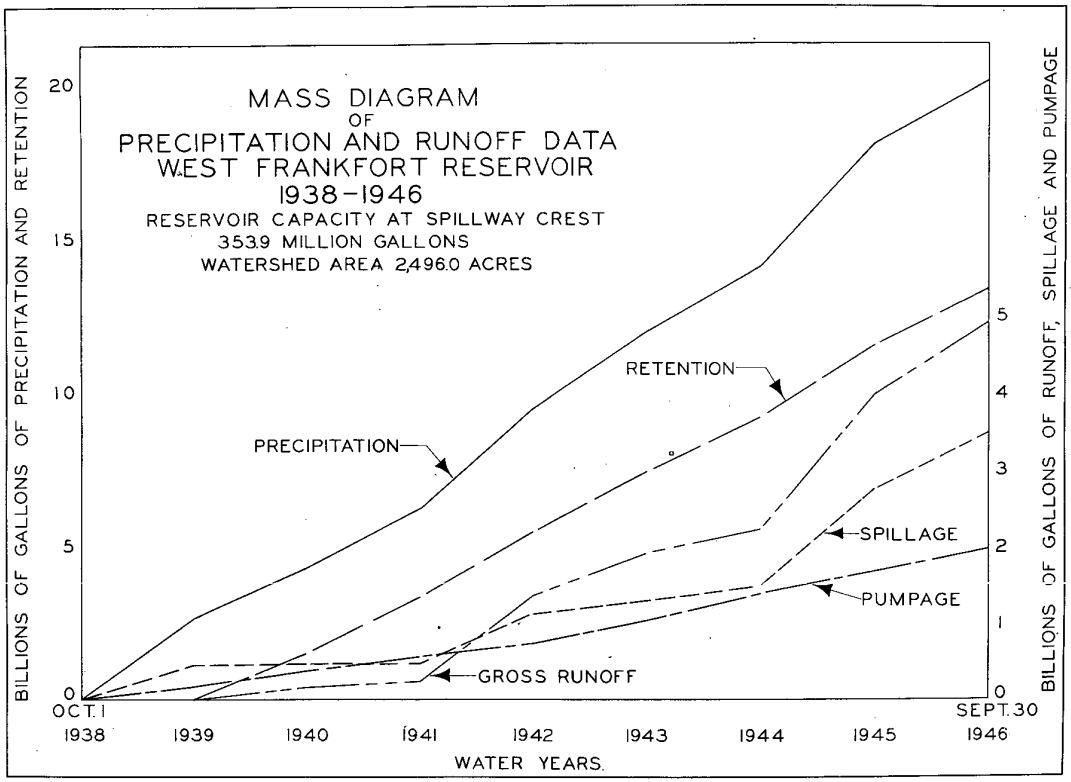

Fig. 27 - Mass Diagram of precipitation and runoff data for West Frankfort Reservoir.

WEST FRANKFORT RESERVOIR

SUMMARY OF ANNUAL PRECIPITATION AND RUNOFF

Water Year	Precipitation (inches)	Precipitation (million gallons)	Gain or Loss (million gallons)	Spillage (million gallons)	Pumpage (million gallons)	Gross Runoff (million gallons)	Gross Runoff (inches)	Per Cent Gross Runoff	Per Cent Spillage	Per Cent Retention
1928-29	56.56	3,736.7	-	-	-	-	-	-	-	-
1929-30	32.34	2,136.6	-	-	204.0	-	-	-	-	-
1930-31	32.94	2,176.2	-	-	183.2	-	-	-	-	-
1931-32	47.39	3,130.9	-	-	161.2	-	-	-	-	-
1932-33	51.46	3,399.8	-	-	156.1	-	-	-	-	-
1933-34	30.86	2,038.8	-	-	160.8	-	-	-	-	-
1934-35	53.83	3,556.4	-	-	144.4	-	-	-	-	-
1935-36	25.32	1,672.8	-144.7	-	199.5	-	-	-	-	-
1936-37	48.91	3,231.3	-	-	177.1	-	-	-	-	-
1937-38	37.10	2,451.1	+14.1	-	168.6	-	-	-	-	-
1938-39	39.63	2,618.2	-	450.0	175.8	-	-	-	-	-
1939-40	25.26	1,668.9	-38.6	11.0	197.0	169.5	2.51	10.17	0.66	89.83
1940-41	29.10	1,922.5	-109.4	0	188.2	78.8	1.16	4.09	0	95.91
1941-42	48.78	3,222.7	+274.7	661.8	185.1	1,121.6	16.55	33.93	20.54	79.46
1942-43	37.76	2,494.7	+27.0	222.4	292.9	542.3	8.00	21.20	8.91	78.80
1943-44	31.77	2,098.9	-155.7	132.0	335.9	312.2	4.59	14.45	6.29	85.55
1944-45	61.54	4,065.8	+185.5	1,268.6	285.8	1,739.9	25.68	41.73	31.20	58.27
1945-46	42.20	2,788.0	-90.5	738.6	300.4	948.5	14.00	34.03	26.49	65.97

TILLEY CREEK NEAR WEST FRANKFORT

Monthly discharge and rainfall, water year October 1938 to September 1939

Month	Discharge from spillway (million gallons)	Pumpage (million gallons)	Change in contents (million gallons)	Adjusted for change in reservoir contents and pumpage *				Rainfall (inches)
				Runoff (million gallons)	Discharge per square mile		Runoff (inches)	
					Millions gallons per day	Second-feet		
October	0	15.63	-	-	-	-	-	0.39
November	0	15.26	-	-	-	-	-	3.81
December	.14	16.01	-23.4	-7.2	-0.060	-0.093	-0.11	1.87
January	.10	14.41	+65.0	79.5	.658	1.02	1.18	4.85
February	2.97	13.47	+161.8	178.2	1.63	2.52	2.62	4.32
March	168.76	14.37	-19.8	163.3	1.35	2.09	2.41	4.07
April	239.80	13.93	+11.1	264.8	2.26	3.50	3.90	7.09
May	1.64	13.02	-27.4	-12.7	-.105	-.163	-.19	1.75
June	36.47	12.44	+10.7	59.6	.509	.788	.88	6.70
July	.03	14.60	-43.2	-28.6	-.237	-.366	-.42	1.54
August	03	14.79	-37.1	-22.3	-.184	-.285	-.33	2.80
September	.08	17.92	-45.5	-27.5	-.235	-.364	-.41	.44
Water year 1938-39	450.02	175.85	-	-	-	-	-	39.63

* Negative figures indicate that evaporation and seepage from reservoir exceeded inflow.

TILLEY CREEK NEAR WEST FRANKFORT

Spillage, in second-feet, water year October 1938 to September 1939

Month	Second-foot-days	Maximum	Minimum	Mean
October	0	0	0	0
November	0	0	0	0
December	.22	.01	0	.007
January	.15	.02	0	.005
February	4.60	4.4	0	.16
March	261.13	122	0	8.42
April	371.05	75	0	12.4
May	2.54	2.0	0	.08
June	56.43	20	0	1.88
July	.05	.01	0	.002
August	.04	.01	0	.001
September	.12	.01	0	.004
Water Year 1938-39	693.33	122	0	1.90

TILLEY CREEK NEAR WEST FRANKFORT

Spillage, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			0	0.02	a0	3.4	0	0.33	2.8	0	0	0
2			0	.02	a0	2.8	0	.13	1.8	0	0	0
3			.01	.02	a0	2.0	0	.05	.78	0	.01	0
4			0	.02	a0	9.2	0	.02	.26	0	.01	0
5			0	0	a0	122	31	.01	.08	0	.01	0
6			0	0	a0	48	71	0	.03	0	.01	0
7			0	0	a0	18.9	21	0	.01	0	0	0
8			0	0	a0	8.2	10.0	0	.07	0	0	0
9			.01	0	a0	4.2	5.7	0	.37	0	0	0
10			.01	0	0	5.0	3.4	0	5.2	0	0	0
11			.01	0	0	5.0	2.4	0	20	0	0	0
12			0	0	0	8.2	1.6	0	7.1	0	0	0
13			0	.01	0	8.8	.99	0	4.1	0	0	0
14			0	.01	0	5.5	.60	0	2.4	0	0	0
15			0	.01	0	3.4	.56	0	1.1	.01	0	0
16			.01	.01	0	2.2	52	0	.50	.01	0	0
17			.01	.01	0	1.6	75	0	.16	0	0	0
18			.01	.01	0	.99	28	0	.05	0	0	0
19			.01	.01	0	.72	17.0	0	.03	.01	0	.01
20			.01	a0	0	.41	10.6	0	2.1	0	0	.01
21			.01	a0	0	.29	8.0	0	4.2	0	0	.01
22			.01	a0	0	.20	8.7	0	2.1	0	0	.01
23			.01	a0	0	.08	7.8	0	.88	.01	0	.01
24			.01	a0	0	.03	5.2	0	.26	.01	0	.01
25			.01	a0	0	.01	3.4	0	.04	0	0	.01
26			.01	a0	0	0	2.5	0	.01	0	0	.01
27			.01	a0	.20	0	1.9	0	0	0	0	.01
28			.01	a0	4.4	0	1.3	0	0	0	0	.01
29			.01	a0	-	0	.85	0	0	0	0	.01
30			.02	a0	-	0	.55	0	0	0	0	.01
31			.02	a0	-	0	-	2.0	-	0	0	-

a Discharge computed from reservoir stages.

TILLEY CREEK NEAR WEST FRANKFORT

Monthly discharge and rainfall, water year October 1939 to September 1940

Month	Discharge from spillway (million gallons)	Pumpage (million gallons)	Change in contents (million gallons)	Adjusted for change in reservoir contents and pumpage *				Rainfall (inches)
				Runoff (million gallons)	Discharge per square mile		Runoff (inches)	
					Million gallons per day	Second-feet		
October	0	17.87	-36.4	-18.53	-0.153	-0.237	-0.27	1.30
November	0	16.67	-26.7	-10.03	-.086	-.133	-.15	1.45
December	0	17.22	-22.8	-5.58	-.046	-.071	-.08	1.58
Calendar year 1939 ..	449.88	180.71	-10.3	620.16	.436	.675	9.14	37.89
January	0	22.16	-22.8	-.64	-.0053	-.0082	-.009	1.38
February	0	19.43	+28.3	47.73	.422	.653	.70	3.71
March	0	13.83	+10.8	24.63	.204	.316	.36	1.79
Apri1	0	12.19	+162.8	174.99	1.50	2.32	2.59	5.45
May	11.01	12.26	+17.7	40.97	.339	.525	.61	2.82
June	0	13.34	-40.3	-26.96	-.230	-.356	-.40	1.13
July	0	16.74	-35.6	-18.86	-.156	-.241	-.28	2.44
August	0	17.86	-36.8	-18.94	-.157	-.243	-.28	1.63
September ...	0	17.47	-36.8	-19.33	-.165	-.255	-.28	.58
Water year 1939-40 ...	11.01	197.04	-8.6	169.45	.119	.184	2.51	25.26

* Negative figures indicate that evaporation and seepage from reservoir exceeded inflow.
Note: Raw water main broken Dec. 24-30, loss not estimated.

TILLEY CREEK NEAR WEST FRANKFORT

Spillage, in second-feet, water year October 1939 to September 1940

Month	Second-foot-days	Maximum	Minimum	Mean
October	0	0	0	0
November	0	0	0	0
December	0	0	0	0
Calendar year 1939 ..	693.11	122	0	1.90
January	0	0	0	0
February	0	0	0	0
March	0	0	0	0
April	0	0	0	0
May	17.04	7.0	0	.550
June	0	0	0	0
July	0	0	0	0
August	0	0	0	0
September	0	0	0	0
Water Year 1939-40 ..	17.04	7.0	0	0.047

TILLEY CREEK NEAR WEST FRANKFORT

Spillage, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								7.0				
2								5.0				
3								2.7				
4								1.4				
5								.60				
6								.20				
7								.11				
8								.02				
9								.01				
10								0				
11								0				
12								0				
13								0				
14								0				
15								0				
16								0				
17								0				
18								0				
19								0				
20								0				
21								0				
22								0				
23								0				
24								0				
25								0				
26								0				
27								0				
28								0				
29								0				
30								0				
31								0				

TILLEY CREEK NEAR WEST FRANKFORT

Monthly discharge and rainfall, water year October 1940 to September 1941

Month	Discharge from spillway (million gallons)	Pumpage (million gallons)	Change in contents (million gallons)	Adjusted for change in reservoir contents and pumpage *				Rainfall (inches)
				Runoff (million gallons)	Discharge per square mile		Runoff (inches)	
					Million gallons per day	Second-feet		
October	0	16.9	-32.2	-15.3	-0.127	-0.196	-0.23	0.30
November	0	18.4	-18.0	.4	.0034	.0053	.006	4.22
December	0	18.8	-18.4	.4	.0033	.0051	.006	2.44
Calendar year 1940	11.0	199.4	-21.3	189.1	.132	.204	2.79	27.89
January	0	18.0	-10.8	7.2	.060	.093	.11	2.46
February	0	16.2	-29.3	-13.1	-.120	-.186	-.19	.56
March	0	17.8	-	-	-	-	-	1.08
April	0	14.5	†-22. 8	† 9.5	† .040	† .062	† .14	2.19
May	0	10.6	-17.2	-6.6	-.055	-.085	-.10	1.24
June	0	6.3	+35.8	42.1	.360	.557	.62	4.53
July	0	15.6	+21.2	36.8	.304	.470	.54	3.65
August	0	18.2	+8.0	26.2	.217	.336	.39	4.23
September	0	16.9	-25.7	-8.8	-.075	-.116	-.13	2.20
Water year 1940-41	0	188.2	-109.4	78.8	.055	.085	1.16	29.10

* Negative figures indicate that evaporation and seepage from reservoir exceeded inflow.
† Total for March and April.

TILLEY CREEK NEAR WEST FRANKFORT

Monthly discharge and rainfall, water year October 1941 to September 1942

Month	Discharge from spillway (million gallons)	Pumpage (million gallons)	Change in contents (million gallons)	Adjusted for change in reservoir contents and pumpage *				Rainfall (inches)
				Runoff (million gallons)	Discharge per square mile		Runoff (inches)	
					Million gallons per day	Second-feet		
October.....	0	14.1	+105.7	119.8	0.991	1.53	1.77	9.09
November.....	0	12.6	-	-	-	-	-	2.97
December.....	0	14.9	-	-	-	-	-	3.34
Calendar year 1941 .	0	175.7	-	-	-	-	-	37.54
January.....	.4	17.9	-	-	-	-	-	2.24
February.....	194.9	13.2	-	-	-	-	-	3.20
March	184.9	13.8	-	-	-	-	-	4.11
April	107.4	13.5	-	-	-	-	-	3.40
May	73.7	14.7	-	-	-	-	-	5.03
June	0	16.5	-	-	-	-	-	4.20
July	13.6	18.9	-	-	-	-	-	3.24
August	86.9	17.4	-	-	-	-	-	7.30
September.....	0	17.6	-41.9	-24.3	-.208	-.321	-.36	.66
Water year 1941-42 ..	661.8	185.1	+274.7	1,121.6	.788	1.22	16.55	48.78

* Negative figures indicate that evaporation and seepage from reservoir exceeded inflow.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Note: Water level recorder out of commission from November 1941 through August 1942.

TILLEY CREEK NEAR WEST FRANKFORT

Spillage, in second-feet, water year October 1941 to September 1942

Month	Second-foot-days	Maximum	Minimum	Mean
October	0	0	0	0
November	0	0	0	0
December	0	0	0	0
January	0.68	0.68	0	0.22
February	301.48	52	0.94	10.8
March	286.13	51	0.44	9.23
April	166.25	73	0	5.54
May	114.09	42	0	3.68
June	0	0	0	0
July	21.02	13.7	0	0.678
August	134.50	66	0	4.34
September	0	0	0	0
Water Year 1941-42	1,024.15	73	0	2.81

TILLEY CREEK NEAR WEST FRANKFORT

Spillage, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1					1.3	7.4	0.72	0		0	0	
2					1.0	7.4	.66	0		0	0	
3					.94	6.6	.39	0		0	.02	
4					23	3.9	.39	0		0	66	
5					20	1.9	.23	0		0	38	
6					52	1.5	.17	42		0	7.2	
7					26	.94	.12	12.9		0	10.8	
8					9.0	51	47	3.4		0	8.9	
9					5.8	34	73	1.2		13.7	2.5	
10					6.6	9.4	25	.49		5.4	.74	
11					3.7	3.0	7.4	.31		1.4	.23	
12					2.3	1.9	3.0	.20		.44	.08	
13					1.5	44	1.6	.15		.08	.03	
14					1.0	22	1.0	.08		Trace	0	
15					1.3	29	.66	26		0	0	
16					27	15.8	.44	9.0		0	0	
17					23	5.6	1.7	2.6		0	0	
18					7.6	2.3	1.7	1.0		0	0	
19					3.3	1.2	.60	.44		0	0	
20					1.7	1.0	.31	8.6		0	0	
21					1.1	1.4	.15	4.1		0	0	
22					.94	1.1	.01	1.3		0	0	
23					16.6	.79	0	.31		0	0	
24					30	.60	0	.01		0	0	
25					12.6	.44	0	0		0	0	
26					7.1	.66	0	0		0	0	
27					6.3	14.3	0	0		0	0	
28					8.8	10.2	0	0		0	0	
29					-	4.0	0	0		0	0	
30					-	1.8	0	0		0	0	
31					-	1.0	-	0		0	0	

Trace--less than .01 sec.-ft.

TILLEY CREEK NEAR WEST FRANKFORT

Monthly discharge and rainfall, water year October 1942 to September 1943

Month	Discharge from spillway (million gallons)	Pumpage (million gallons)	Change in contents (million gallons)	Adjusted for change in reservoir contents and pumpage *				Rainfall (inches)
				Runoff (million gallons	Discharge per square mile		Runoff (inches)	
					Million gallons per day	Second-feet		
October	0	23.5	-32.7	-9.2	-0.076	-0.118	-0.14	2.08
November	0	20.9	+55.5	76.4	.653	1.01	1.13	5.91
December	0	23.2	† -1.0	22.2	.184	.285	.33	.97
Calendar year 1942 .	661.9	211.1	-	-	-	-	-	42.34
January	0	24.0	† -2.6	21.4	.177	.274	.32	.23
February	0	24.5	-6.2	18.3	.168	.260	.27	1.61
March	103.8	24.3	+52.5	180.6	1.49	2.31	2.66	4.07
April	25.8	23.8	0	49.6	.424	.656	.73	3.17
May	92.7	21.8	+99.3	213.8	1.77	2.74	3.16	6.44
June	.1	20.2	-18.3	2.0	.017	.026	.03	3.80
July	0	30.5	-62.9	-32.4	-.268	-.415	-.48	1.70
August	0	27.4	-38.6	-11.2	-.093	-.144	-.17	2.16
September	0	28.8	-18.0	10.8	.092	.142	.16	5.62
Water year 1942-43 ..	222.4	292.9	+27.0	542.3	.381	.589	8.00	37.76

* Negative figures indicate that evaporation and seepage from reservoir exceeded inflow.

† Partly estimated.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

TILLEY CREEK NEAR WEST FRANKFORT

Spillage, in second-feet, water year October 1942 to September 1943

Month	Second-foot-days	Maximum	Minimum	Mean
October	0	0	0	0
November	0	0	0	0
December	0	0	0	0
Calendar Year 1942 ...	1,024.15	73	0	2.81
January	0	0	0	0
February	0	0	0	0
March	160.55	60	0	5.18
April	39.90	12.6	0	1.33
May	143.36	42	0	4.62
June	.22	.05	0	.007
July	0	0	0	0
August	0	0	0	0
September	0	0	0	0
Water Year 1942-43....	344.03	60	0	0.943

TILLEY CREEK NEAR WEST FRANKFORT

Spillage, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1						0	0.10	0	0.04			
2						0	0	0	.05			
3						0	0	0	.02			
4						0	0	0	.03			
5						0	0	0	.02			
6						0	0	0	.03			
7						0	0	0	.03			
8						0	0	0	0			
9						0	0	0	0			
10						0	0	0	0			
11						0	0	17.8	0			
12						0	0	9.3	0			
13						0	0	3.8	0			
14						0	0	2.0	0			
15						0	0	1.7	0			
16						0	0	1.3	0			
17						0	0	.66	0			
18						0	0	22	0			
19						20	0	42	0			
20						60	0	27	0			
21						32	0	9.0	0			
22						18.2	0	3.4	0			
23						11.2	11.9	1.6	0			
24						6.6	12.6	.86	0			
25						4.1	8.2	.49	0			
26						2.9	5.6	.23	0			
27						2.2	1.5	.07	0			
28						1.5	0	.04	0			
29						.94	0	.03	0			
30						.60	0	.03	0			
31						.31	-	.05	-			

TILLEY CREEK NEAR WEST FRANKFORT

Monthly discharge and rainfall, water year October 1943 to September 1944

Month	Discharge from spillway (million gallons) †	Pumpage (million gallons)	Change in contents (million gallons)	Adjusted for change in reservoir contents and pumpage *				Rainfall (inches)
				Runoff (million gallons)	Discharge per square mile		Runoff (inches)	
					Million gallons per day	Second-feet		
October	0	26.5	-40.5	-14.0	-0.116	-0.179	-0.21	1.64
November ...	0	29.0	-16.0	13.0	.111	.172	.19	2.12
December ...	0	28.6	-34.4	-5.8	-.048	-.074	-.09	1.63
Calendar year 1943 .	222.4	309.4	-85.7	446.1	.313	.484	6.57	34.19
January	0	30.3	-26.3	4.0	.033	.051	.06	.46
February ...	0	29.8	+28.4	58.2	.515	.797	.86	2.95
March	0	25.2	+124.9	150.1	1.24	1.92	2.21	4.04
April	97.3	23.3	-5.8	114.8	.981	1.52	1.69	5.30
May	34.7	27.3	-16.0	46.0	.380	.588	.68	3.73
June	0	29.1	-57.4	-28.3	-.242	-.374	-.42	1.64
July	0	33.4	-50.5	-17.1	-.141	-.218	-.25	1.99
August	0	28.6	-21.7	6.9	.057	.088	.10	5.13
September ..	0	24.8	-40.4	-15.6	-.133	-.206	-.23	1.14
Water year 1943-44..	132.0	335.9	-155.7	312.2	.219	.339	4.59	31.77

* Negative figures indicate that evaporation and seepage from reservoir exceeded inflow.
Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

TILLEY CREEK NEAR WEST FRANKFORT

Spillage, in second-feet, water year October 1943 to September 1944

Month	Second-foot-days	Maximum	Minimum	Mean
October	0	0	0	0
November	0	0	0	0
December	0	0	0	0
Calendar Year 1943 ...	344.03	60	0	0.943
January	0	0	0	0
February	0	0	0	0
March	0	0	0	0
April	150.52	57	0	5.02
May	53.65	13.3	0	1.73
June	0	0	0	0
July	0	0	0	0
August	0	0	0	0
September	0	0	0	0
Water Year 1943-44....	204.17	57	0	0.558

TILLEY CREEK NEAR WEST FRANKFORT

Spillage, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							0	2.6				
2							0	4.1				
3							0	2.8				
4							0	1.3				
5							0	2.7				
6							0	2.2				
7							0	1.6				
8							0	1.4				
9							0	13.3				
10							0	12.4				
11							57	5.4				
12							15.8	2.3				
13							5.6	.86				
14							3.2	.39				
15							1.6	.20				
16							.60	.07				
17							.39	.02				
18							.17	.01				
19							.08	0				
20							.07	0				
21							.03	0				
22							2.4	0				
23							43	0				
24							12.4	0				
25							4.2	0				
26							1.8	0				
27							.86	0				
28							.44	0				
29							.23	0				
30							.65	0				
31							-	0				

TILLEY CREEK NEAR WEST FRANKFORT

Monthly discharge and rainfall, water year October 1944 to September 1945

Month	Discharge from spillway (million gallons) †	Pumpage (million gallons)	Change in contents (million gallons)	Adjusted for change in reservoir contents and pumpage *				Rainfall (inches)
				Runoff (million gallons)	Discharge per square mile		Runoff (inches)	
					Million gallons per day	Second-feet		
October	0	22.1	-33.0	-10.9	-0.090	-0.139	-0.16	1.00
November ...	0	29.8	-29.5	+.3	.0026	.004	.004	2.74
December ...	0	29.7	-19.2	+10.5	.087	.135	.16	2.24
Calendar year 1944 .	132.0	333.4	-146.5	+318.9	.223	.345	4.70	32.36
January	0	28.7	-20.5	+8.2	.068	.105	.12	1.14
February ...	0	22.9	+120.2	+143.1	1.31	2.03	2.11	6.21
March	464.8	21.6	+176.1	+662.5	5.48	8.48	9.78	11.17
April	237.9	19.9	-5.2	+252.6	2.16	3.34	3.73	7.51
May	10.4	22.0	-8.8	+23.6	.195	.302	.35	3.03
June	289.1	21.5	-3.2	+307.4	2.63	4.07	4.54	9.77
July	14.2	22.9	-37.7	-.6	-.0050	-.008	-.009	.87
August	171.9	23.6	+97.7	+293.1	2.42	3.74	4.31	9.38
September ..	80.3	21.2	-51.4	+50.1	.428	.662	.74	6.48
Water year 1944-45..	1,268.6	285.8	+185.5	+1,739.9	1.22	1.89	25.68	61.54

* Negative figures indicate that evaporation and seepage from reservoir exceeded inflow.

Time basis: Central war time up to 2 a.m. September 30, 1945; central standard time thereafter.

To convert war time to standard time, subtract 1 hour.

TILLEY CREEK NEAR WEST FRANKFORT

Spillage, in second-feet, water year October 1944 to September 1945

Month	Second-foot-days	Maximum	Minimum	Mean
October	0	0	0	0
November	0	0	0	0
December	0	0	0	0
Calendar Year 1944....	204.17	57	0	0.558
January	0	0	0	0
February	0	0	0	0
March	719.15	154	0	23.2
April	368.08	119	.07	12.3
May	16.03	2.9	0	.517
June	447.34	105	0	14.9
July	22.00	15	0	.710
August	265.91	109	0	8.58
September	124.21	57	0	4.14
Water Year 1944-45....	1,962.72	154	0	5.38

TILLEY CREEK NEAR WEST FRANKFORT

Spillage, in second-feet, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1						0	a20	0.68	0	15.0	0	0.05
2						3.5	a8	2.0	0	4.7	0	.05
3						22	a4	2.9	0	1.5	0	.04
4						9.8	a2	2.4	0	.54	0	.04
5						36	a1	1.5	0	.20	0	.03
6						154	a1	.86	0	.05	0	0
7						36	a1	1.0	.63	.01	0	0
8						10.1	a.5	.54	64	0	0	0
9						4.3	a.2	.39	35	0	0	0
10						2.0	a.1	.27	105	0	0	0
11						1.4	a.1	.23	72	0	109	0
12						.72	.07	.08	25	0	84	0
13						.49	24	.07	27	0	46	0
14						.44	119	.43	8.2	0	10.1	0
15						1.6	79	.70	3.0	0	6.0	0
16						1.4	46	.94	1.2	0	2.4	0
17						15.7	19.5	.39	54	0	1.3	0
18						11.5	6.3	.17	30	0	.66	0
19						145	2.9	.10	9.8	0	.39	0
20						95	2.2	.17	3.6	0	.23	0
21						25	1.1	.20	1.4	0	.17	0
22						9.7	.66	.01	.86	0	.12	0
23						4.9	.86	0	.31	0	1.7	0
24						2.7	1.3	0	.07	0	1.6	0
25						2.7	1.9	0	.09	0	.94	0
26						7.1	14.2	0	.12	0	.49	13
27						3.6	5.6	0	.08	0	.31	40
28						a1.5	3.0	0	.06	0	.23	57
29						a1.0	1.8	0	.02	0	.12	a10
30						a30	.79	0	5.9	0	.08	a4
31						a80	-	-	-	0	.07	-

a No gage-height record.

TILLEY CREEK NEAR WEST FRANKFORT

Monthly discharge and rainfall, water year October 1945 to September 1946

Month	Discharge from spillway (million gallons) †	Pumpage (million gallons)	Change in contents (million gallons)	Adjusted for change in reservoir contents and pumpage *				Rainfall (inches)
				Runoff (million gallons)	Discharge per square mile		Runoff (inches)	
					Million gallons per day	Second-feet		
October	49.1	22.3	-13.7	57.7	0.477	0.738	0.85	1.97
November ...	80.7	22.6	+5.5	108.8	.930	1.44	1.61	4.22
December ...	21.4	27.9	+0.6	49.9	.413	.639	.74	1.08
Calendar year 1945 .	1,419.8	277.0	+259.6	1,956.4	1.37	2.12	28.87	62.83
January	106.2	26.9	-3.8	129.3	1.07	1.66	1.91	2.73
February ...	157.0	24.6	+3.1	184.7	1.69	2.61	2.72	3.64
March	.8	25.5	-6.4	19.9	.165	.255	.29	1.29
April	0	19.9	+3.3	23.2	.198	.306	.34	2.74
May	182.8	19.6	-2.7	199.7	1.65	2.55	2.94	7.35
June	.5	25.5	-5.2	20.8	.178	.275	.31	.64
July	0	30.1	-2.8	27.3	.226	.350	.40	3.97
August	140.1	26.7	0.0	166.8	1.38	2.14	2.47	10.62
September ..	0	28.8	-68.4	-39.6	-.338	-.523	-.58	1.95
Water year 1945-46..	738.6	300.4	-90.5	948.5	.666	1.03	14.00	42.20

* Negative figures indicate that evaporation and seepage from reservoir exceeded inflow.

TILLEY CREEK NEAR WEST FRANKFORT

Spillage, in second-feet, water year October 1945 to September 1946

Month	Second-foot-days	Maximum	Minimum	Mean
October	76.03	35	0	2.45
November	124.81	24	0	4.16
December	33.08	7	0	1.07
Calendar Year 1945 ...	2,196.64	154	0	6.02
January	164.26	70	.23	5.30
February	242.89	103	.05	8.67
March	1.25	.31	0	.040
April	0	0	0	0
May	282.91	70	.03	9.13
June	.79	.31	0	.026
July	0	0	0	0
August	216.77	142	0	6.99
September	0	0	0	0
Water Year 1945-46....	1,142.79	142	0	3.13

TILLEY CREEK NEAR WEST FRANKFORT

Spillage, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a35	0	0.79	a1.3	0.15	0.31		5.4	0.27		0	
2	28	.15	.54	a.9	.08	.10		24	.31		0	
3	7.1	.15	.35	a.6	.05	.23		11.5	.15		0	
4	2.6	.12	.17	a.4	.30	.10		4.5	.04		0	
5	1.5	.12	.12	a.3	4.3	.12		1.7	.02		0	
6	.79	.12	.08	a.3	14.6	.15		.72	0		0	
7	.54	.12	.05	a1	6.3	.03		.23	0		0	
8	.20	.17	.04	a7	3.2	.03		.08	0		0	
9	.07	23	.03	a70	1.6	.02		.03	0		0	
10	.04	24	.03	a17	.86	.02		6.4	0		0	
11	.03	12.6	.02	12.0	.66	.03		a70	0		0	
12	.02	7.1	.02	11.1	.60	.02		a20	0		0	
13	.02	15.0	.02	4.9	103	.02		a5	0		0	
14	.01	6.6	.02	2.7	71	.02		2.4	0		0	
15	.01	2.9	0	1.5	15.5	.01		1.7	0		.16	
16	.01	1.9	0	.86	5.6	.03		8.6	0		142	
17	.01	.79	0	.54	2.4	.01		30	0		31	
18	0	.39	0	.39	1.6	0		38	0		33	
19	0	.20	0	.35	2.4	0		9.8	0		7.6	
20	0	.15	0	5.2	2.7	0		4.1	0		2.1	
21	a.05	7.8	0	12.2	1.8	0		1.6	0		.54	
22	a.03	5.1	0	4.9	1.1	0		.66	0		.23	
23	0	2.2	0	2.4	.72	0		.86	0		.10	
24	0	1.2	a2	1.9	.49	0		2.6	0		.04	
25	0	.54	a7	1.4	.66	0		16.4	0		0	
26	0	.39	a6	1.4	.60	0		8.2	0		0	
27	0	5.3	a5	.60	.31	0		4.5	0		0	
28	0	3.7	a4	.39	.31	0		2.0	0		0	
29	0	1.9	a3	.23	-	0		1.0	0		0	
30	0	1.1	a2	.27	-	0		.54	0		0	
31	0	-	a1.8	.23	-	0		.39	-		0	

a No gage-height record; discharge computed on basis of rainfall records, recorded range of stage and correlation with records for Cache River at Forman and Big Creek near Wetaug.

TILLEY CREEK NEAR WEST FRANKFORT

Peak Discharges
Base Discharge - 70 Second-feet

Date			Gage height (feet)	Discharge (second-feet)	Order of magnitude	Plotting position
Year	Month	Day				
1939	Mar.	5	2.33	187	9	0.889
	Apr.	5	2.16	150	12	0.667
		16	2.59	255	4	2.00
1942	Feb.	6	1.70	76	28	0.286
	Mar.	8	1.96	108	18	0.444
	Apr.	8	2.10	130	14	0.571
	May.	6	1.86	95	22	0.364
	Aug.	4	2.45	193	8	1.00
1943	Mar.	19	1.73	79	26	0.308
	May.	19	1.71	77	27	0.296
1944	Apr.	10	1.89	99	21	0.381
		23	1.67	73	29	0.276
1945	Mar.	6	2.85	284	3	2.667
		19	2.11	132	13	0.615
		19	2.91	300	1	8.00
	Apr.	14	2.31	166	11	0.727
		15	2.01	116	17	0.471
	June	8	2.07	125	16	0.500
		10	2.55	214	6	1.333
		11	2.10	130	15	0.533
		17	1.75	82	25	0.320
	Aug.	11	2.56	216	5	1.600
		12	2.42	187	10	0.800
	Sept.	27	1.90	100	20	0.400
	Oct.	1	1.80	87	24	0.333
1946	Feb.	1	2.52	207	7	1.143
	May.	11	1.91	101	19	0.421
		17	1.81	88	23	0.348
	Aug.	16	2.85	284	2	4.00

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