1973

Water Resources Data for Wisconsin

Part 1. Surface Water Records

Part 2. Water Quality Records

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Prepared in cooperation with the State of Wisconsin and with other agencies

CALENDAR FOR WATER YEAR 1973

1972

OCTOBER

S	M	T	W	T	F	S
1	2	3	4	5	6	7
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1973

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SEPTEMBER

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Water Resources Data for Wisconsin

Part 1. Surface Water Records

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Prepared in cooperation with the State of Wisconsin
and with other agencies

Prepared in cooperation with

Wisconsin Department of Natural Resources
Wisconsin Department of Transportation
The University of Wisconsin-Extension
Geological and Natural History Survey
Southeastern Wisconsin Regional Planning Commission
City of Madison

Copies of this report may be obtained from
District Chief, Water Resources Division
U. S. Geological Survey
1815 University Avenue
Madison, Wisconsin 53706

1974

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WATER-QUALITY STATIONS, IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE PUBLISHED

(Letters after station name designate type of data: (c), chemical; (t), water temperature; (s), sediment)

WATER RESOURCES DATA FOR WISCONSIN, 1973

Part 1. Surface-Water Records
Part 2. Water-Quality Records

INTRODUCTION

Water resources data for the 1973 water year for Wisconsin including records of streamflow, lake stage, or reservoir storage at gaging stations, partial-record stations, and miscellaneous sites, and records of water-quality data on the chemical and physical characteristics of surface water, are given in this report. In Part 1, records are included for 142 gaging stations of which 101 are streamflow discharge stations, and 41 are reservoir or lake stations; also are included records for 93 low-flow partial-record stations, 134 crest-stage partial-record stations, and 72 low-flow investigation sites. Location of 101 long-term streamflow gaging stations and 12 lake stations are shown in figure 1. In Part 2, data on the quality of surface water (chemical, temperature, and sediment) were collected from designated sampling sites at predetermined intervals such as once daily, weekly, monthly, or less frequently, and at some sites data were recorded continuously on strip charts or on punched paper tape at 60-minute intervals. Records are given for 121 sampling stations of which 8 are continuous record stations, 106 are partial-record stations, and 7 are miscellaneous sites. Locations of water-quality stations are shown in figure 6. A few pertinent stations (not included above) in bordering States are also included in this report. The records were collected and computed by the Water Resources Division of the U.S. Geological Survey under the direction of C. L. R. Holt, Jr., district chief. These data represent that portion of the National Water Data System collected by the U.S. Geological Survey and cooperating State and Federal agencies in Wisconsin.

Beginning with the 1961 water year, streamflow records and related data have been released by the Geological Survey in annual reports on a State-boundary basis. Beginning with the 1955 water year, water-quality records have been released with streamflow records or in a separate part. Distribution of these reports is limited; they are designed primarily for rapid release of data shortly after the end of the water year.

Records of discharge and stage of streams, and contents and stage of lakes and reservoirs are published in a series of U.S. Geological Survey water-supply papers entitled, "Surface Water Supply of the United States." Through September 30, 1960, these water-supply papers were in an annual series and since then are in a 5-year series. Records of chemical quality, water temperatures, and suspended sediment have been published since 1941 in an annual series of water-supply papers entitled, "Quality of Surface Waters of the United States." More information is given under the headings "Publications" on pages 15 and 20.

COOPERATION

The U.S. Geological Survey and organizations of the State of Wisconsin have had cooperative agreements for the systematic collection of streamflow records since 1913, and for water-quality records collected at surface-water sites since 1955.

Organizations that assisted in collecting data through cooperative agreements with the Survey are:

Wisconsin Department of Natural Resources, L. P. Voigt, secretary.

Wisconsin Department of Transportation, N. M. Clapp, secretary, and W. A. Kline, chief bridge engineer.

The University of Wisconsin-Extension, Geological and Natural History Survey, M. E. Ostrom, state geologist and director.

Southeastern Wisconsin Regional Planning Commission, K. W. Bauer, executive director.

City of Madison, D. E. Theobald, succeeded by A. E. Milke, city engineer.

Assistance in the form of funds or services was given by:

Department of the Army, Corps of Engineers

St. Paul District	11 gaging stations
Rock Island District	7 gaging stations
Chicago District	4 gaging stations

United States Environmental Protection Agency - 2 water-quality stations.

Department of the Army, Corps of Engineers, St. Paul District - 3 water-quality stations.

The following organizations aided in collecting records:

Wisconsin Valley Improvement Co.
Lake Superior District Power Co.
Wisconsin-Michigan Power Co.
Wisconsin Public Service Corp.
Northern States Power Co.
Dairyland Power Cooperative
Wisconsin Power and Light Co.
Nekoosa-Edwards Paper Co.
Wisconsin River Power Co.
Milwaukee County Park Commission
Milwaukee Water Works, Linwood Avenue Plant

Organizations that supplied data are acknowledged in station descriptions.

DEFINITION OF TERMS

Terms related to streamflow, water-quality and other hydrologic data, as used in this report, are defined below. See also table for converting English units to International System of units (SI) on page

Acre-foot (AC-FT, Acre-ft) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equivalent to 43,560 cubic feet or about 326,000 gallons.

Bed material is the shifting portion of fragmented material in the streambed.

Biochemical oxygen demand (BOD) is the amount of oxygen required by bacteria while stabilizing decomposable organic matter under aerobic conditions.

Cfs-day is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, approximately 1.9835 acre-feet, or about 646,000 gallons, and represents a runoff of approximately 0.0372 inch from 1 square mile.

Chemical oxygen demand (COD) indicates the quantity of oxidizable compounds in water and varies with water composition, temperature, period of contact, and other factors.

Coliform organisms are a group of bacteria that indicate the sanitary quality of water. The number of coliform colonies per 100 milliliters is determined by the immediate or delayed incubation membrane filter method.

Contents is the volume of water in a reservoir or lake. Unless otherwise indicated, volume is computed on the basis of a level pool and does not include bank storage.

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

Cubic feet per second per square mile (CFSM) is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming that the runoff is distributed uniformly in time and area.

Cubic foot per second (cfs) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to approximately 7.48 gallons per second or 448.8 gallons per minute.

Discharge is the volume of fluid that passes a given point within a given period of time.

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

Instantaneous discharge is the discharge at a particular instant of time. Where this discharge is used in tables instead of the daily mean, the column heading is "Discharge (cfs)".

Drainage area of a stream at a specified location is that area, measured in a horizontal plane, enclosed by a topographic divide from which direct surface runoff from precipitation normally drains by gravity into the stream above the specified point. Drainage-area figures include the entire basin area including noncontributing areas unless otherwise noted.

Gage height (G.H.) is the water-surface height referred to an arbitrary datum. Gage height often is used interchangeably with "stage", although gage height is more appropriate when used as a gage reading.

Gaging station is a site on a stream, canal, lake or reservoir where systematic observations of gage height or discharge are obtained. When used with a discharge record, the term applies only to gaging stations having a continuous discharge record. Water-quality recorded data and samples for analyses

usually are collected at or near gaging stations. The discharge records at these stations are used in conjunction with the computations of the chemical constituents and sediment loads.

Hardness of water is a physical-chemical characteristic attributable to the presence of alkaline earths (principally calcium and magnesium) and is expressed as equivalent calcium carbonate ($CaCO_3$).

Methylene blue active substance (MBAS) is a measure of detergents in water. This determination depends on the formation of a blue color when methylene blue dye reacts with synthetic detergent compounds.

Micrograms per liter (ug/l, UG/L) is a unit expressing the concentration of chemical constituents in solution as the weight (micrograms) of solute per unit volume (liter) of water. One thousand micrograms per liter is equivalent to one milligram per liter.

Milligrams per liter (mg/l, MG/L) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per liter represents the weight of solute per unit volume of water. Milligrams or micrograms per liter may be converted to milliequivalents (one thousandth of a gram-equivalent weight of a constituent) per liter by miltiplying by the factors in table 1, page 6. Concentration of suspended sediment also is expressed in mg/l, and is based on the weight of sediment per liter of water-sediment mixutre. Sediment concentrations may be converted to parts per million by using the factors in table 2, page 6.

Partial-record station is a site where limited streamflow or water-quality data are collected systematically over a period of years.

Particle size is the diameter, in millimeters (mm), of suspended sediment or bed material determined by either sieve or sedimentation methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) determine fall diameter of particles in either distilled water (chemically dispersed) or in native water (the stream water at the time and point of sampling) (Guy, 1969).

Table 1.--Factors for conversion of chemical constituents in milligrams or micrograms per liter to milliequivalents per liter

Ion	Multiply by	Ion	Multiply by
Aluminum (Al^{+3})*...	0.11119	Iodide (I^{-1}).....	0.00788
Ammonia as NH_4^{+1}...	.05544	Iron (Fe^{+3})*.....	.05372
Barium (Ba^{+2}).....	.01456	Lead (Pb^{+2})*.....	.00965
Bicarbonate (HCO_3^{-1})	.01639	Lithium (Li^{+1})*....	.14411
Bromide (Br^{-1}).....	.01251	Magnesium (Mg^{+2})...	.08226
Calcium (Ca^{+2}).....	.04990	Manganese (Mn^{+2})*..	.03640
Carbonate (CO_3^{-2})..	.03333	Nickel (Ni^{+2})*.....	.03406
Chloride (Cl^{-1})....	.02821	Nitrate (NO_3^{-1})....	.01613
Chromium (Cr^{+6})*...	.11539	Nitrite (NO_2^{-1})....	.02174
Cobalt (Co^{+2})*.....	.03394	Phosphate (PO_4^{-3})..	.03159
Copper (Cu^{+2})*.....	.03148	Potassium (K^{+1})....	.02557
Cyanide (CN^{-1}).....	.03844	Sodium (Na^{+1}).....	.04350
Fluoride (F^{-1}).....	.05264	Strontium (Sr^{+2})*..	.02283
Hydrogen (H^{+1}).....	.99209	Sulfate (SO_4^{-2})....	.02082
Hydroxide (OH^{-1})...	.05880	Zinc (Zn^{+2})*.....	.03060

*Constituent reported in micrograms per liter; multiply by factor and divide results by 1,000.

Table 2.--Factors for conversion of sediment concentration in milligrams per liter to parts per million*
(All values calculated to three significant figures)

Range of concentration in 1000 mg/l	Divide by	Range of concentration in 1000 mg/l	Divide by	Range of concentration in 1000 mg/l	Divide by	Range of concentration in 1000 mg/l	Divide by
0 - 8	1.00	201-217	1.13	411-424	1.26	619-634	1.39
8.05- 24	1.01	218-232	1.14	427-440	1.27	636-650	1.40
24.2 - 40	1.02	234-248	1.15	443-457	1.28	652-666	1.41
40.5 - 56	1.03	250-264	1.16	460-473	1.29	668-682	1.42
56.5 - 72	1.04	266-280	1.17	476-489	1.30	684-698	1.43
72.5 - 88	1.05	282-297	1.18	492-506	1.31	700-715	1.44
88.5 -104	1.06	299-313	1.19	508-522	1.32	717-730	1.45
105 -120	1.07	315-329	1.20	524-538	1.33	732-747	1.46
121 -136	1.08	331-345	1.21	540-554	1.34	749-762	1.47
137 -152	1.09	347-361	1.22	556-570	1.35	765-780	1.48
153 -169	1.10	363-378	1.23	572-585	1.36	782-796	1.49
170 -185	1.11	380-393	1.24	587-602	1.37	798-810	1.50
186 -200	1.12	395-409	1.25	604-617	1.38		

*Based on water density of 1.000 g/ml (grams per milliliter) and a specific gravity of sediment of 2.65.

Particle-size classification used in this report agrees with recommendations made by the American Geophysical Union Subcommittee on Sediment Terminology (Lane and others, 1947). The classification is as follows:

Classification	Size (mm)	Method of analysis
Clay.....	0.00024 - 0.004	Sedimentation.
Silt.....	.004 - .062	Sedimentation.
Sand.....	.062 - 2.0	Sedimentation or sieve.
Gravel.....	2.0 - 64.0	Sieve.

The particle-size distribution given in this report are not necessarily representative of all particles in transport in the stream. Most of the organic material is removed and the sample is subjected to mechanical and chemical dispersion before analysis in distilled water. Chemical dispersion is not used for native-water analysis (Guy, 1969).

Picocurie (PC) is a unit for measuring radioactivity equal to 1×10^{-12} Curie. One Curie is equal to that quantity of any radioactive isotope undergoing 3.7×10^{10} disintegrations per second.

Plankton is the floating (or weakly swimming) animal or plant life in a body of water consisting chiefly of minute plants (as diatoms and blue-green algae) and of minute animals (as protozoan, entomostracans, and various larvae).

Runoff in inches (IN.) shows the depth to which the drainage area would be covered if all runoff for a given time period were uniformly distributed.

Sediment is solid material that originates mostly from disintegrated rocks and is transported by, suspended in, or deposited from water; it includes chemical and biochemical precipitates and decomposed organic material such as humus. The quantity, characteristics, and cause of sediment in streams are influenced by environmental factors. Some major factors are geology, topography, soil characteristics, land use, and the quantity and intensity of precipitation.

Suspended sediment is the sediment that is maintained in suspension by the upward components of turbulent currents or that is suspended as a colloid.

Suspended-sediment discharge is the rate at which a dry weight of sediment passes a stream section, or it is the dry weight or volume discharged during a time period. It is the product of the instantaneous stream discharge, the concentration (mg/l), and 0.0027.

Suspended-sediment concentration is the velocity-weighted amount of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 ft above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/l).

Sodium adsorption ratio (SAR) expresses the relative activity of sodium ions in exchange reactions with soil and is an index of the sodium or alkali hazard to the soil. This ratio is used to determine the suitability of water for irrigation.

Solute is any substance derived from the atmosphere, vegetation, soil, or rocks that is dissolved in water.

Specific conductance is a measure of the ability of water to conduct electric current and is expressed in micromhos per centimeter at 25°C. Because specific conductance is related to the number and types of ions in solution, it can be used to approximate the dissolved-solids content in water. Commonly the amount of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in micromhos). This relation differs from stream to stream and from well to well; it may even differ with the composition of ions in the water.

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

Thermograph is a thermometer that continuously and automatically records, on a chart, the water temperature of a stream. "Temperature recorder" is the term used to indicate a thermograph or digital mechanism that automatically records water temperatures on paper tape.

Tons per acre-foot indicates the dry weight of dissolved solids in 1 acre-foot of water. It is the product of the sediment concentration (in mg/l) and 0.00136.

Tons per day is the quantity of a substance in solution or suspension that passes a stream section during 24 hours.

WRD is an abbreviation for "Water-Resources Data" in the summary REVISIONS paragraph that refers to published State annual basic-data reports.

WSP is an abbreviation for "Water-Supply Paper".

SPECIAL NETWORKS AND PROGRAMS

Hydrologic bench-mark station is one that provides hydrologic data for a basin in which the hydrologic regimen will likely be governed solely by natural conditions. Data collected at a bench-mark station may be used to separate effects of natural from manmade changes in other basins which have been developed and in which the physiography, climate, and geology are similar to those in the undeveloped bench-mark basin. Index stations are located to provide current streamflow data that are representative of the area. Water-quality stations are part of a network that depicts the area variability of water-quality conditions and detects and assesses long-term changes in stream quality.

DOWNSTREAM ORDER AND STATION NUMBER

Stations are listed in a downstream direction along the main stream, and stations on tributaries are listed between stations on the main stream in the order in which those tributaries enter the main stream. Stations on tributaries entering above all mainstream stations are listed before the first mainstream station. Stations on tributaries to tributaries are listed in a similar manner. In the lists of gaging stations and water-quality stations in the front of this report the rank of tributaries is indicated by indention, each indention representing one rank.

For identification, each gaging station, partial-record station, and water-quality station has been assigned a station number. These numbers are in the same downstream order mentioned above. In assigning station numbers no distinction is made between partial-record stations and gaging stations. Water-quality stations located at or near gaging stations or partial-record stations have the same number as the gaging or partial-record station. Gaps are left in the series of numbers so that new stations may be established. The complete 8-digit number for each station, such as 05407000 appears just left of the station name and includes the 2-digit part number "05" plus the 6-digit downstream order number "407000". In this report the records are listed in downstream order by parts. The part number refers to an area bounded by certain natural major drainage lines. Records in this report are in Part 4 (St. Lawrence River basin) and Part 5 (Upper Mississippi River basin). All records for a drainage basin encompassing more than one State can be arranged in downstream order by assembling pages from the various State reports by station number.

EXPLANATION OF SURFACE WATER RECORDS

Collection and computation of data

The basic data collected at gaging stations consist of records of stage and measurements of discharge of streams and stage, surface area, and contents of lakes and reservoirs. In addition, observations of factors affecting the stage-discharge relation or the stage-capacity relation, weather records, and other information are used to supplement base data in determining the daily flow or volume of water in storage. Records of stage are obtained from direct readings on a nonrecording gage or from a water-stage recorder that gives either a continuous graph of the fluctuations or a tape punched at 5-, 15-, 30-, or 60-minute intervals. Measurements of discharge are made with a current meter, using the general methods adopted by the Geological Survey on the basis of experience in stream gaging since 1888. These methods are described in standard textbooks, in Water-Supply Paper 888, and in U.S. Geological Survey Techniques of Water Resources Investigations, book 3, chapter A6.

Rating tables giving the discharge for any stage are prepared from stage-discharge relation curves. If extensions to the rating curves are necessary to express discharges greater than those measured, they are made on the basis of indirect measurements of peak discharge (such as slope-area or contracted-opening measurements, computation of flow over dams or weirs), velocity-area studies, and logarithmic plotting. The daily mean discharge is computed from gage heights and rating tables, and the monthly and yearly mean discharges are computed from the daily figures. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is computed by the shifting-control method, in which correction factors based on individual discharge measurements and notes by engineers and observers are used in applying the gage heights to the rating tables. If the stage-discharge relation for a station is temporarily changed by the presence of aquatic growth or debris, the daily mean discharge is computed by what is basically the shifting-control method.

At some stream-gaging stations the stage-discharge relation is affected by backwater from reservoirs, tributary streams, or other sources. This necessitates the use of the slope method in computing discharge. The slope or fall is obtained by means of an auxiliary gage separated from the base gage. At some stations the stage-discharge relation is affected by changing stage; at these stations the rate of change in stage is used as a factor in computing discharge.

At some stream-gaging stations the stage-discharge relation is affected by ice and it is impossible to compute the discharge in the usual manner. Discharge for periods of ice effect is computed on the basis of the gage-height record and occasional winter discharge measurements, considering available information on temperature and precipitation, notes by gage observers and hydrologists, and comparable records of discharge for other stations in the same or nearby basins.

For some gaging stations there are periods without gage-height record or the recorded gage height is faulty. This happens when the recorder stops or fails to operate properly, intakes are plugged, the float is frozen in the well, or for other reasons. For such periods the daily discharges are estimated on the basis of recorded range in stage, adjoining good record, discharge measurements, weather records, and comparison with station records from the same or nearby basins.

Data in this report include a general description of the stations and tabulations of daily and monthly figures. A table showing the daily discharge and monthly and yearly discharges is given for gaging stations on streams or canals. A monthly summary table of stage and contents or a table showing the daily contents is given for gaging stations on lakes and reservoirs. Records are published for the water year, which begins October 1 and ends September 30. A calendar for the current water year is shown on the reverse side of the front cover to facilitate finding the day of the week for any date.

The description of the gaging stations gives the location, drainage area, period of record, type and history of gages, average discharge, extremes of discharge or contents, general remarks, and notations of revisions of previously published records. The location of the gaging station and the drainage area are obtained from the most accurate maps available. River mileage, given under "LOCATION" for some stations, is that determined and used by the Corps of Engineers or other agencies. Periods for which there are published records for the present station or for stations generally equivalent to the present one are given under "PERIOD OF RECORD." The type of gage currently in use, the datum of the present gage above mean sea level, and a condensed history of the types, locations, and datums of previous gages used during the period of record are given under "GAGE." In references to datum of gage, the phrase "mean sea level" denotes "Sea Level Datum of 1929" as used by the Topographic Division of the Geological Survey unless otherwise qualified. The average discharge for the number of years indicated is given under "AVERAGE DISCHARGE;" it is not given for stations having fewer than 5 complete years of record or for stations where changes in water development during the period of record cause the figure to have little significance. In addition, the median of yearly mean discharges is given for stream-gaging stations having 10 or more complete years of record if the median differs from the average by more than 10 percent. The maximum discharge (or contents) and the maximum gage height, the minimum discharge if there is little or no regulation (or minimum contents) and the minimum gage height if it is significant are given under "EXTREMES." The minimum daily discharge is given if there is extensive regulation (also the minimum discharge and gage height if they are abnormally low). In the first paragraph headed "Current year," the data given are for the complete current water year unless otherwise specified. In the second paragraph under "EXTREMES" headed "Period of record:" the data given are for the period of record given in PERIOD OF RECORD paragraph. Reliable information concerning major floods that occurred outside the period of record is given in the third or last paragraph under "EXTREMES." Unless otherwise qualified, the maximum discharge (or contents) corresponds to the crest stage obtained by use of a water-stage recorder (graphic or digital), a crest-stage gage, or a nonrecording gage read at the time of the crest. If the maximum gage height did not occur at the same time as the maximum discharge (or contents), it is given separately. Information pertaining to the accuracy of the discharge records, to conditions that affect the natural flow at the gaging station, and availability of Water Quality records, is given under "REMARKS."

Published records of some stations were found to be erroneous, based on data obtained later. Revisions of erroneous records usually are published with the current records in one of the annual or compilation reports. A paragraph headed "REVISIONS (WATER YEARS)" has been added to the description of all stations having published revised records. All reports in which revisions have been published are listed, each followed by the water years for which figures are revised in that report. In listing the water years, only one year is given; for instance, 1965 stands for the period October 1, 1964, to September 30, 1965. If no daily, monthly, or annual figures of discharge were revised, notations after the dates indicate the following revisions: "(M)" only instantaneous maximum discharge; "(m)" only the instantaneous minimum; and "(P)" only peak discharges. If the drainage area has been revised, the water year is given in which the revised figure was first published. For all stations with published cubic feet per second per square mile and runoff in inches, a revision of the drainage area necessitates revision of all figures based on the drainage area. Revised figures of cubic feet per second per square mile and runoff in inches, resulting from revised drainage area only, usually are not published in the annual report series.

Skeleton rating tables are published for stream-gaging stations where they are useful and where applicable dates are easily identified.

The daily table for a stream-gaging station gives the discharge corresponding to the daily mean gage height unless large or rapid changes occur in the discharge during a day. For days having large or rapid changes, discharge for the day is computed by averaging the mean discharge for several parts of a day. Where digital recorders are used, the daily mean discharge is the average discharge at each punched reading. For stations equipped with nonrecording gages, the daily discharge corresponds to once-daily readings of the gage or to the mean of twice-daily readings; for periods of rapidly changing stage the discharge is determined from a gage-height graph based on gage readings.

A monthly summary is below the daily table. For stream-gaging stations the line headed "TOTAL" gives the sum of the daily figures. The line headed "MEAN" gives the average flow in cubic feet per second during the month. The lines headed "MAX" and "MIN" give the maximum and minimum daily discharges, respectively, for the month. Discharge for the month also may be expressed in cubic feet per second per square mile (line headed "CFSM") and in inches (line headed "IN."). Figures for cubic feet per second per square mile and runoff in inches are omitted if there is extensive regulation or diversion, or if the drainage area includes large noncontributing areas.

In the yearly summary, below the monthly summary, the figures following "MAX" are the maximum daily discharges for the calendar and water years; likewise, those following "MIN" are the minimum daily discharges.

Footnotes to the daily-discharge table are introduced by the word "NOTE". Footnotes indicate periods for which the discharge is computed or estimated by special methods because of no gage-height record, backwater, or other unusual conditions. Periods of no gage-height record are indicated if the period is continuous for a month or more or includes the maximum discharge for the year. Periods of backwater, indefinite stage-discharge relation, or other unusual condition at the gage site are indicated only if they are a month or more in length and the accuracy of the records is affected. Days on which the stage-discharge relation is affected by ice are not indicated. The methods used to compute discharge for several unusual conditions have been explained.

Peak discharges, their times of occurrence, and the corresponding gage heights for many stations are listed below the yearly summary. All peaks above the selected base are listed. The base discharge, in parentheses, is selected to present about three peaks a year. Peak discharges are not published for canals, ditches, drains, or streams substantially controlled by man. Time of day is expressed in 24-hour local standard time; for example 12:30 a.m. is 0030, and 1:30 p.m. is 1330.

Information for gaging stations on lakes includes a station description and a monthly summary table of stage. Information for reservoir stations includes a description and location paragraph and month-end contents, in millions of cubic feet.

Data collected at partial-record stations and miscellaneous sites are listed in three tables at the end of the surface-water records. The first table is discharge measurements at low-flow partial-record stations, the second is annual maximum stage and discharge at crest-stage stations, and the third table lists measured discharges for low-flow investigations.

Accuracy of Data

The accuracy of discharge data depends primarily on (1) the stability of the stage-discharge relation or, if the control is unstable, the frequency of discharge measurements, and (2) the accuracy of observations of stage, measurements of discharge, and interpretation of records.

The station description under "REMARKS" states the degree of accuracy of the records. "Excellent" means that about 95 percent of the daily discharges is within 5 percent; "good" within 10 percent; and "fair" within 15 percent. "Poor" means that daily discharges have less than "fair" accuracy.

Figures of daily mean discharge are to the nearest hundredth of a cubic foot per second for discharges of less than 1 cfs; to tenths between 1.0 and 10 cfs; to whole numbers between 10 and 1,000 cfs; and to 3 significant figures above 1,000 cfs. The number of significant figures used is based on the magnitude of the figure. The same rounding rules apply to discharge figures for partial-record stations and miscellaneous sites.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to diversion, consumption, storage regulation, increase or decrease in evaporation due to artificial causes, or to other factors. For such stations, figures of cubic feet per second per square mile and of runoff in inches are not published. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents unless it is so stated. Even where adjustments are made, large errors in computed runoff may occur if adjustments or losses are large in comparison with the observed discharge.

Publications

Each Water-Supply Paper titled "Surface Water Supply of the United States" has a list of previous Water-Supply Papers containing streamflow information for the area covered by that report. There is also a list of Water-Supply Papers containing detailed information on major floods in the area. Records for stations in Wisconsin for the period October 1960 through September 1965 are in Water-Supply Papers 1911, 1914, and 1915.

Two series of summary reports titled "Compilation of Records of Surface Waters of the United States" have been published; the first series covers the entire period of record through September 1950 and the second series covers the period October 1950 through September 1960. These reports contain summaries of monthly and annual discharge and monthend storage for all published records, as well as some records not contained in the annual series of Water-Supply Papers. All records were revised where warranted. Estimated discharges fill short gaps whenever practical. The yearly summary table for each gaging station lists the numbers of the Water-Supply Papers in which daily records were published for that station. Records for stations in Wisconsin are compiled in Water-Supply Papers 1307 and 1308 through September 1950, and in 1727 and 1728 for October 1950 through September 1960.

Special reports on major floods or droughts or of other hydrologic studies for the area have been issued in publications other than Water-Supply Papers. Information relative to these reports may be obtained from the district office.

Other data available

More detailed information than that published for most gaging stations, such as discharge measurements, gage-height records, and rating tables, is on file in the district office. Also most gaging-station records are available in computer-usable form, and many statistical analyses have been made.

EXPLANATION OF WATER QUALITY RECORDS

Collection and examination of data

Water samples for analyses usually are collected at or near gaging stations. The discharge records at these stations are used with the computations of the chemical constituents and sediment loads in this report.

Description of water-quality stations located at or near streamflow stations include location, drainage area, periods of record for the various water-quality data, extremes of pertinent data, and general remarks. The format is similar to that used for streamflow gaging stations.

Water-quality information includes chemical quality, biological, microbiological, water temperature, and fluvial sediment. Chemical quality includes concentrations of dissolved constituents and certain properties or characteristics such as hardness, sodium adsorption ratio, specific conductance, and pH. The biological information includes qualitative and quantitative analyses of plankton, bottom organisms, and particulate inorganic and amorphous matter. Microbiological information includes quantitative identification of certain bacteriological indicator organisms. Water-temperature data represent once-daily observations except for stations with a continuous temperature recorder from which daily minimums and maximums are obtained. Fluvial-sediment information is given for suspended-sediment discharges and concentrations, and particle-size distribution of suspended sediment and bed material.

Before the 1968 water year, data for chemical constituents and concentration of suspended sediment were reported in parts per million (ppm), and water temperatures were reported in degrees Fahrenheit (°F). In October 1967 the U.S. Geological Survey began to use the metric system; data for chemical constituents and concentrations of suspended sediment are now reported in milligrams per liter (mg/l), and water temperatures are given in degrees Celsius (centigrade, °C). In waters with a density of 1.000 g/ml (grams per millititer), parts per million and milligrams per liter can be considered equal. In waters with a density greater than 1.000 g/ml, values in parts per million should be multiplied by the density to convert to milligrams per liter. Temperatures in degrees Celsius are converted to Fahrenheit in table 3, page 18.

In October 1968, the Geological Survey began reporting many chemical constituents and minor elements in micrograms per liter. (See "Definition of Terms," p. 3 and table for converting English units to SI units, p.23).

Table 3.--Degrees Celsius (°C) to degrees Fahrenheit (°F)*
(Temperature reported to nearest 0.5°C)

°C	°F	°C	°F	°C	°F	°C	°F	°C	°F
0.0	32	10.0	50	20.0	68	30.0	86	40.0	104
.5	33	10.5	51	20.5	69	30.5	87	40.5	105
1.0	34	11.0	52	21.0	70	31.0	88	41.0	106
1.5	35	11.5	53	21.5	71	31.5	89	41.5	107
2.0	36	12.0	54	22.0	72	32.0	90	42.0	108
2.5	36	12.5	54	22.5	72	32.5	90	42.5	108
3.0	37	13.0	55	23.0	73	33.0	91	43.0	109
3.5	38	13.5	56	23.5	74	33.5	92	43.5	110
4.0	39	14.0	57	24.0	75	34.0	93	44.0	111
4.5	40	14.5	58	24.5	76	34.5	94	44.5	112
5.0	41	15.0	59	25.0	77	35.0	95	45.0	113
5.5	42	15.5	60	25.5	78	35.5	96	45.5	114
6.0	43	16.0	61	26.0	79	36.0	97	46.0	115
6.5	44	16.5	62	26.5	80	36.5	98	46.5	116
7.0	45	17.0	63	27.0	81	37.0	99	47.0	117
7.5	45	17.5	63	27.5	81	37.5	99	47.5	117
8.0	46	18.0	64	28.0	82	38.0	100	48.0	118
8.5	47	18.5	65	28.5	83	38.5	101	48.5	119
9.0	48	19.0	66	29.0	84	39.0	102	49.0	120
9.5	49	19.5	67	29.5	85	39.5	103	49.5	121

*C = 5/9 (°F -32) or °F = 9/5 (°C) + 32.

Solutes

Methods of collecting and analyzing water samples for determining the kinds and concentrations of solutes are described by Brown, Skougstad, and Fishman (1970). One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the water. Some streams must be sampled at several verticals across the channel to determine accurately the solute load.

Temperature

Water temperatures are measured at most water-quality stations. Large streams have a small diurnal temperature change; small, shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges.

Records at stations having continuously recording thermographs include maximum and minimum daily temperatures and monthly averages.

Water temperature is usually measured at gaging stations when the discharge is measured. Although these temperatures are usually measured monthly an analysis of these data for a long period of record will indicate significant thermal characteristics of the stream.

Sediment

Suspended-sediment concentrations are determined from samples collected with depth-integrating samplers. Samples usually are obtained at a single vertical in the cross-section. During periods of high or rapidly changing flow, samples are taken twice or more throughout the day at many stations. Suspended-sediment samples are collected periodically at all stations. Although such data may represent conditions only at the time of collection, they are useful in establishing relations between sediment discharge and streamflow. These relations are used to predict long-term sediment-discharge characteristics for the stream.

In addition to the records of the quantities of suspended sediment, records of periodic measurements of the particle-size distribution of the suspended sediment and bed material are included.

For days of high flow, sediment discharges may not represent actual sediment transport because a sufficient number of samples were not collected to accurately define mean sediment concentration for the day.

Publications

The annual series of water-supply papers that contain information on quality of surface waters in Wisconsin are listed below.

Parts 3 and 4

Water year	WSP No.	Water year	WSP No.	Water year	WSP No.	Water year	WSP No.
1941	942	1948	1132	1955	1400	1962	1942
1942	950	1949	1162	1956	1450	1963	1948
1943	970	1950	1186	1957	1520	1964	1955
1944	1022	1951	1197	1958	1571	1965	1962
1945	1030	1952	1250	1959	1642	1966	1992
1946	1050	1953	1290	1960	1742	1967	2012
1947	1102	1954	1350	1961	1882		

Parts 5 and 6

1941	942	1948	1132	1955	1401	1962	1943
1942	950	1949	1162	1956	1451	1963	1949
1943	970	1950	1187	1957	1521	1964	1956
1944	1022	1951	1198	1958	1572	1965	1963
1945	1030	1952	1251	1959	1643	1966	1993
1946	1050	1953	1291	1960	1743	1967	2013
1947	1102	1954	1351	1961	1883	1968	2094

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Hem, J. D., 1970, Study and interpretation of the chemical characteristics of natural water - Revised edition: U.S. Geol. Survey Water-Supply Paper 1473, 363 p.

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_____, 1963, Determinations of fluvial sediment discharge: Rept. 14.

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Table 4.--Factors for Converting English Units to International System (SI) Units

The following factors may be used to convert the English units published herein to the International System of Units (SI). Subsequent reports will contain both the English and SI unit equivalents in the station manuscript descriptions until such time that all data will be published in SI units.

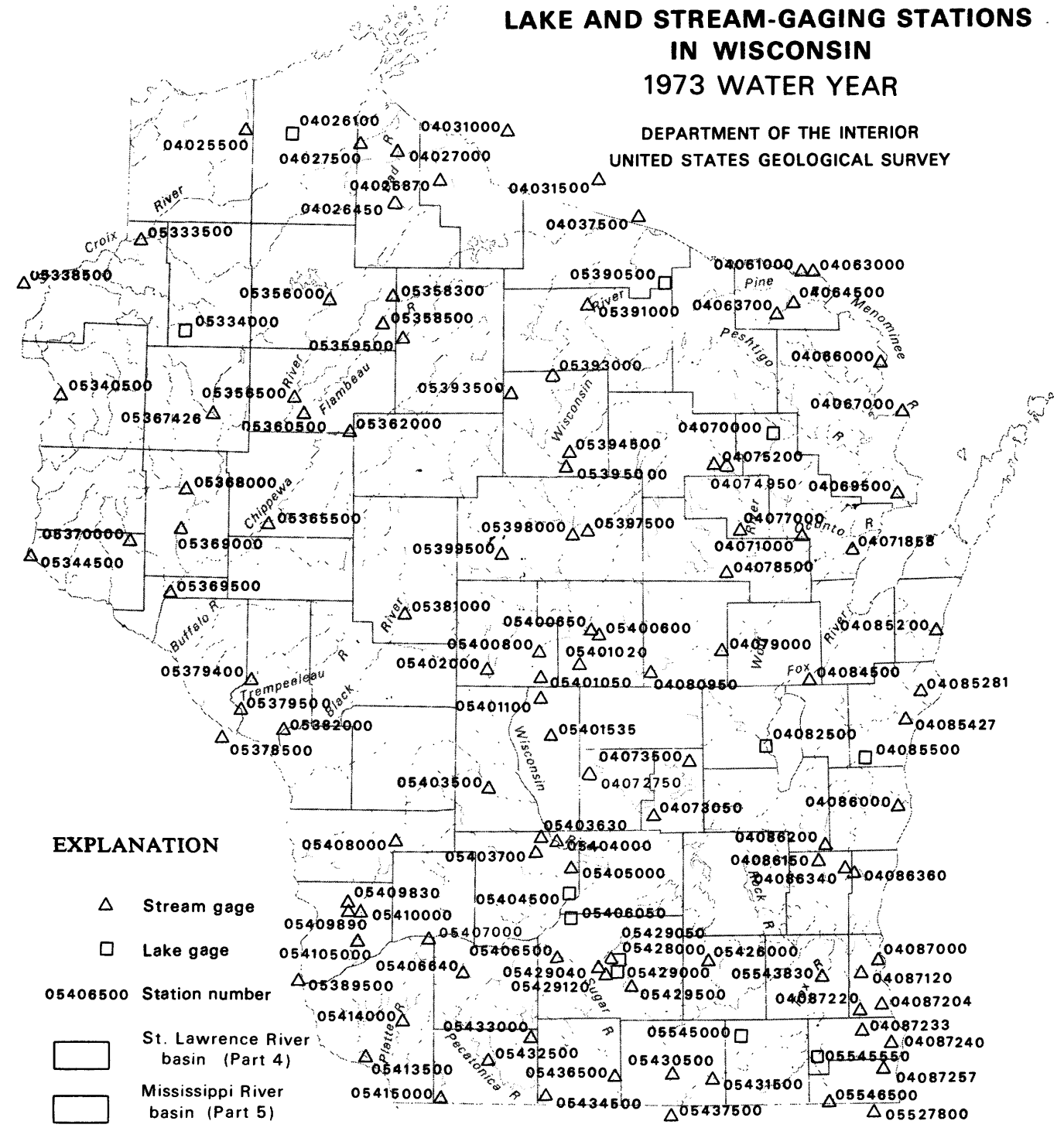
Multiply English units	By	To obtain SI units
	Length	
inches (in)	25.4	millimeters (mm)
	.0254	meters (m)
feet (ft)	.3048	meters (m)
miles (mi)	1.609	kilometers (km)
	Area	
acres	4047	square meters (m^2)
square miles (mi^2)	2.590	square kilometers (km^2)
	Volume	
cubic feet (ft^3)	.02832	cubic meters (m^3)
cfs-day (ft^3/s-day)	2447	cubic meters (m^3)
acre-feet (acre-ft)	1233	cubic meters (m^3)
	1.233×10^{-3}	cubic hectometers (hm^3)
	Flow	
cubic feet per second (ft^3/s)	.02832	cubic meters per second (m^3/s)
	Mass	
ton (short)	.9072	tonne (t)

FIGURE 1.

LAKE AND STREAM-GAGING STATIONS IN WISCONSIN

1973 WATER YEAR

DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY



EXPLANATION

△ Stream gage

□ Lake gage

05406500 Station number

St. Lawrence River basin (Part 4)

Mississippi River basin (Part 5)

PART 1. SURFACE WATER RECORDS

HYDROLOGIC CONDITIONS

Annual runoff in Wisconsin for the 1973 water year was well above normal. At many gaging stations the annual mean discharge was the greatest for the period of record. Ground-water levels were well above normal throughout the year, maintaining high base streamflow. In many areas near record high ground-water levels were reached in June. The high base flows and above normal precipitation in fall and spring were major factors causing record yearly discharges. October and November runoff was several times normal at many gaging stations in central Wisconsin. Runoff in January and February was above normal. For the months of March through June, monthly flows averaged two to six times normal at representative gaging stations. Summer flows tended to be near or below normal.

As an example of high spring flows, the discharge of the Black River at Galesville and the Lemonweir River at New Lisbon for March, April and May exceeded the total yearly mean flow. Discharge of Yellow River at Babcock for these three months was double the normal flow for a year and for May was six times the normal May flow.

Spring runoff caused unusually high peak flows at several gaging stations. Peak discharge of Wolf River at New London was 14,100 ft^3/s (399 m^3/s) on Mar. 16, a peak that is expected to occur once in about 30 years. This flow has been exceeded only twice, 15,500 ft^3/s (439 m^3/s) on Apr. 13, 1922, and 15,200 ft^3/s (430 m^3/s) on Apr. 5, 1952, in the 77 years of record.

Heavy rain across the southeast part of the State caused record high flows on several smaller streams on Easter weekend. Peak flow of Turtle Creek near Clinton was 16,500 ft^3/s (467 m^3/s) on Apr. 21. This flow exceeds that expected to occur once in 100 years. The highest flow previously recorded at this station since the record began in 1939 was 6,560 ft^3/s (186 m^3/s) Feb. 24, 1949. A discharge of 13,500 ft^3/s (382 m^3/s) occurred on the Menomonee River at Wauwatosa Apr. 21, a peak which also probably exceeds the 100-year flood.

Figure 3 illustrates the variation of monthly and yearly flows for 1973 at three gaging stations with long-term normal flows.

Figures 4 and 5 show extremes of stage during water year 1973 for selected lakes. Devils Lake near Baraboo reached a peak stage May 31 and June 1, the highest in its record of 1922-30 and 1934-73. At the end of September, North Lake near Elkhorn reached a stage 0.65 ft (0.198 m) higher than the previous record high of Mar. 25, 1939.

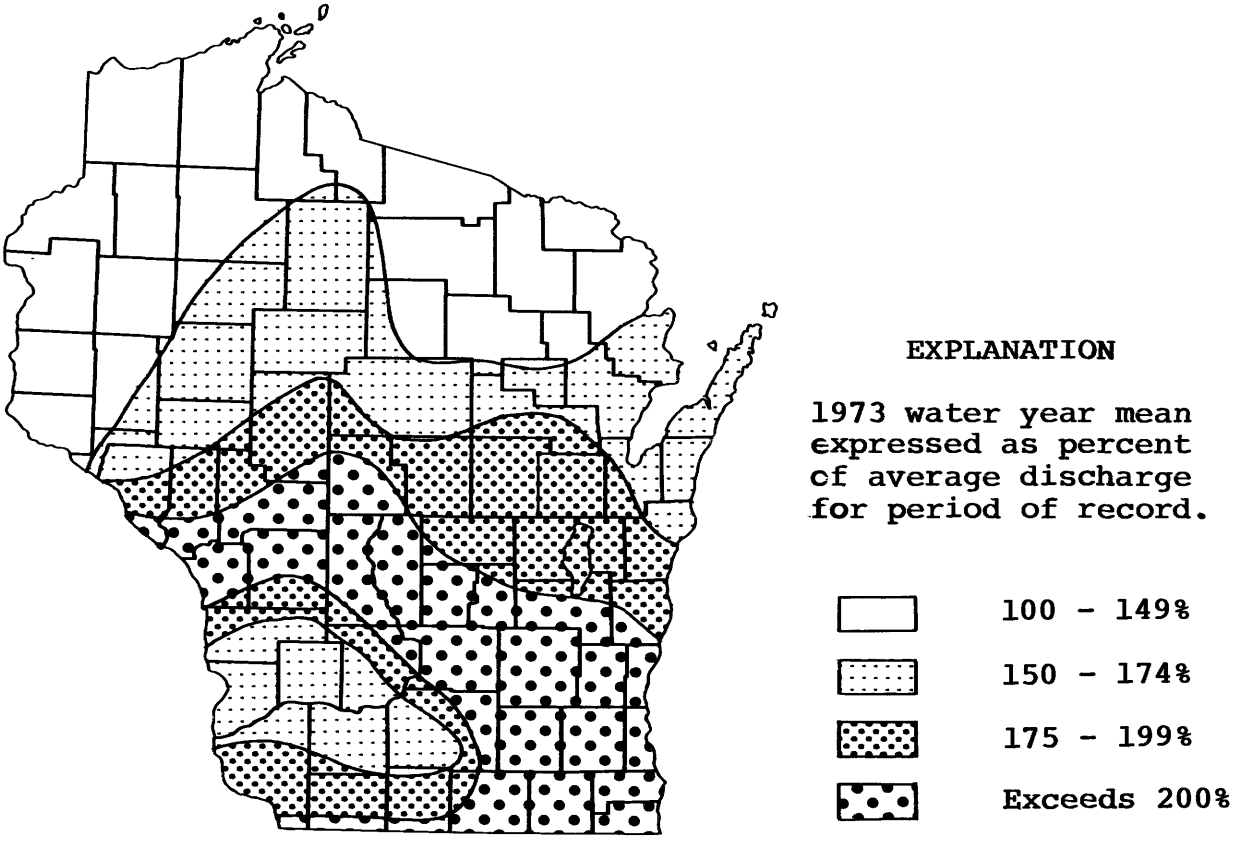


Figure 2. Variation of the 1973 runoff compared with the long-term average runoff.

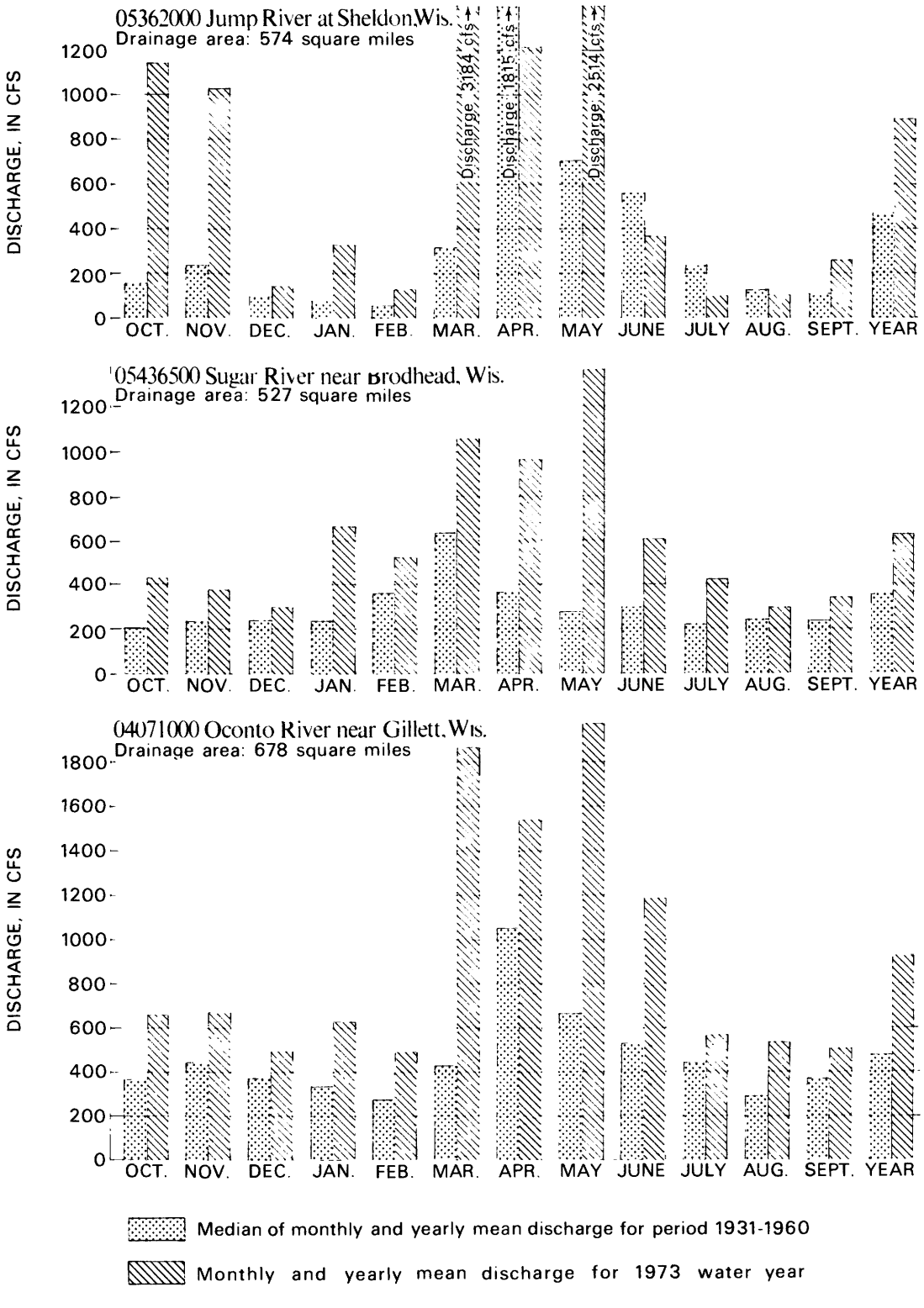


Figure 3. Comparison of discharge at three long-term representative gaging stations during 1973 water year with median discharge for period 1931-1960.

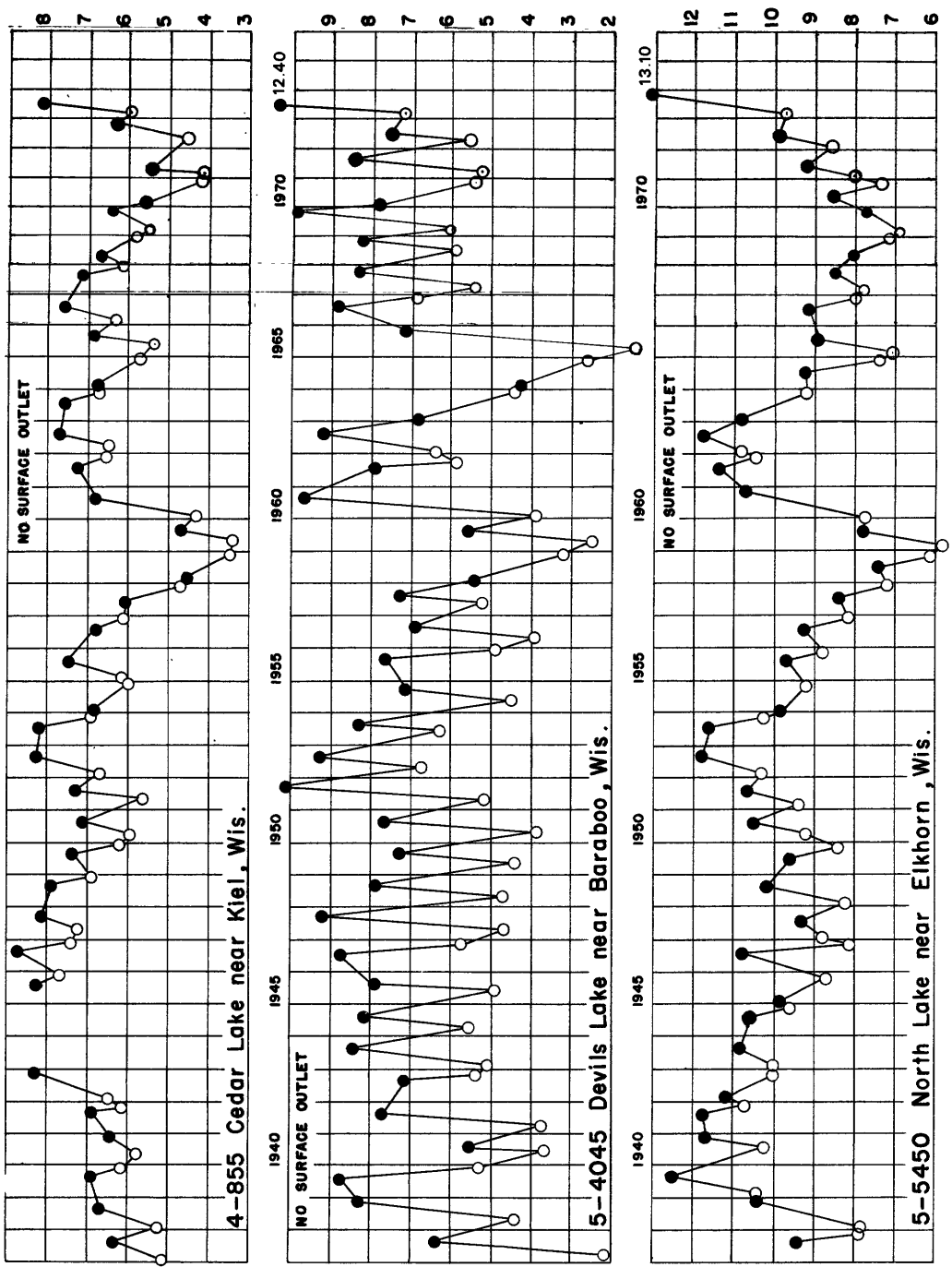


Figure 4. A comparison of extremes of stage of three southern lakes for each water year since 1937.

● Maximum stage observed ○ Minimum stage observed Connecting lines do not indicate actual stage between extremes.

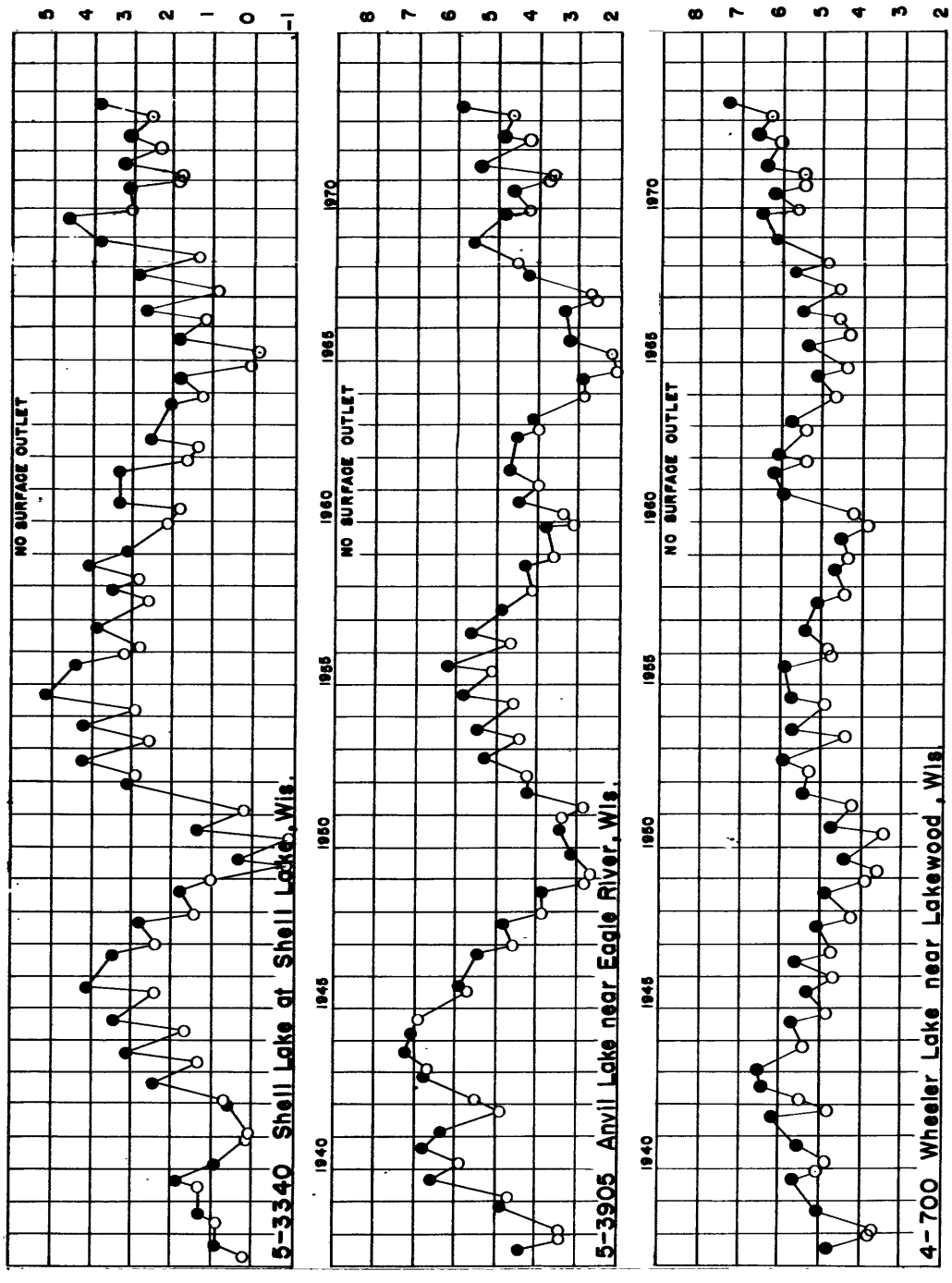


Figure 5. A comparison of extremes of stage of three northern lakes for each water year since 1937.
● Maximum stage observed. ○ Minimum stage observed. Connecting lines do not indicate actual stage between extremes.

04025500 Bois Brule River at Brule, Wis.

LOCATION.--Lat 46°32'16", long 91°35'43", in NW¼ SW¼ sec.23, T.47 N., R.10 W., Douglas County, on right bank, 1.4 mi (2.3 km) southwest of Brule Post Office, 1.4 mi (2.3 km) downstream from Nebagamon Creek, and 1.7 mi (2.7 km) upstream from Little Brule River.

DRAINAGE AREA.--120 mi^2 (311 km^2).

PERIOD OF RECORD.--October 1942 to current year. Prior to January 1943 monthly discharge only, published in WSP 1307.

GAGE.--Water-stage recorder. Datum of gage is 948.49 ft (289.100 m) above mean sea level. Prior to October 1964, nonrecording gage at same site and datum supplemented by water-stage recorder part of 1959-62.

AVERAGE DISCHARGE.--31 years, 171 ft^3/s (4.843 m^3/s), 19.35 in/yr (491 mm/yr).

EXTREMES.--Current year: Maximum discharge, 391 ft^3/s (11.1 m^3/s) Mar. 28, Aug. 15, gage height, 2.79 ft (0.850 m); maximum gage height, 3.58 ft (1.091 m) Dec. 11, backwater from ice; minimum discharge, 121 ft^3/s (3.43 m^3/s) July 22, 23, gage height, 1.47 ft (0.448 m).

Period of record: Maximum discharge, 1,520 ft^3/s (43.0 m^3/s) June 5, 1944, gage height, 5.2 ft (1.58 m), from graph based on gage readings and from rating curve extended above 750 ft^3/s (21.2 m^3/s); minimum observed, 67 ft^3/s (1.90 m^3/s) Mar. 13, 1943.

REMARKS.--Records good except those for winter periods, which are fair.

REVISIONS (WATER YEARS).--WSP 1207: Drainage area. WSP 1337: 1943(M), 1944, 1945-50(M).

Rating table (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Nov. 29 to Feb. 9.)

1.4	111	3.0	443
2.0	214		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	174	171	150	180	150	130	319	222	186	146	130	181
2	172	217	140	180	140	130	303	278	180	145	127	180
3	197	249	140	170	140	130	285	292	203	143	125	187
4	216	251	140	170	140	130	274	269	272	140	124	189
5	209	236	130	160	140	130	264	246	266	140	124	183
6	217	224	130	150	140	140	255	228	237	138	171	177
7	209	221	130	150	130	140	248	216	239	137	218	172
8	199	219	130	140	130	150	239	209	243	135	272	167
9	192	211	130	140	130	150	227	220	236	138	261	163
10	188	208	130	130	130	155	219	259	220	145	225	160
11	192	202	130	130	130	197	213	253	208	138	199	156
12	189	196	130	130	140	228	212	237	197	138	183	153
13	185	189	140	130	140	231	207	220	188	135	275	151
14	180	184	140	130	140	246	204	206	181	135	256	151
15	176	180	130	130	140	295	221	197	175	131	258	148
16	173	176	130	130	130	313	244	193	186	128	343	147
17	171	173	130	140	120	311	237	189	192	125	281	146
18	168	171	130	150	130	329	228	183	189	126	250	145
19	166	170	130	160	140	321	221	178	178	127	234	144
20	167	169	130	180	130	301	230	175	169	125	220	141
21	183	167	130	200	130	291	244	169	163	124	203	143
22	185	163	120	220	130	283	237	168	159	123	194	155
23	186	166	120	210	130	288	224	175	156	153	190	151
24	183	160	130	190	130	304	213	203	152	159	183	146
25	178	161	130	180	130	326	203	253	161	147	180	146
26	176	161	140	180	130	348	195	262	169	140	178	159
27	175	160	140	170	130	359	188	255	163	139	177	173
28	174	153	140	160	130	356	183	237	157	144	172	164
29	171	150	150	160	------	359	178	219	153	140	167	156
30	169	150	170	150	------	349	173	201	148	137	165	150
31	169	------	180	150	------	332	------	192	------	133	166	------
TOTAL	5,689	5,608	4,210	4,950	3,750	7,792	6,888	6,804	5,726	4,254	6,251	4,784
MEAN	184	187	136	160	134	251	230	219	191	137	202	159
MAX	217	251	180	220	150	386	319	292	272	159	343	189
MIN	166	150	120	130	120	130	173	168	148	123	124	141
CFSM	1.53	1.56	1.13	1.33	1.12	2.09	1.92	1.83	1.59	1.14	1.68	1.33
IN.	1.76	1.74	1.31	1.53	1.16	2.42	2.14	2.11	1.78	1.32	1.94	1.48

CAL YR 1972 TOTAL 74,292 MEAN 203 MAX 658 MIN 120 CFSM 1.69 IN 23.03
WTR YR 1973 TOTAL 66,706 MEAN 183 MAX 386 MIN 120 CFSM 1.53 IN 20.68

PEAK DISCHARGE (BASE, 300 FT^3/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
3-28	2300	2.79	391	8-15	2300	2.79	391
5- 3	0300	2.41	300				

NOTE.--No gage-height record Dec. 28 to Jan. 31.

04026100 Long Lake near Iron River, Wis.

LOCATION.--Lat 46°35'05", long 91°20'33", in SW¼ sec.35, T.48 N., R.8 W., Bayfield County, at residence of Melvin C. Platt, east side of lake, 3.6 mi (5.8 km) northeast of Iron River.

DRAINAGE AREA.--1.28 mi² (3.32 km²). Area of Long Lake, 184 acres (745,000 m²).

PERIOD OF RECORD.--October 1964 to current year (fragmentary).

GAGE.--Nonrecording gage. Altitude of gage is 1,096 ft (334 m), from topographic map.

EXTREMES.--Current year: Maximum gage height observed, 4.38 ft (1.335 m) Sept. 6; minimum observed, 3.45 ft (1.052 m) Nov. 11.

Period of record: Maximum gage height observed, 4.38 ft (1.335 m) Sept. 6, 1973; minimum observed, 1.39 ft (0.424 m) Aug. 28, 1968.

REMARKS.--Lake has no surface outlet. Lake ice covered from Nov. 15 to Apr. 15.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							4.10				3.96	
2		3.68										
3												
4		3.50								4.09		
5												
6												4.38
7	3.65										4.11	
8												
9								4.22			4.28	
10												
11		3.45										
12												
13												
14	3.65											
15												4.26
16												
17										4.08		
18												4.20
19												
20						4.30						
21	3.55											
22												
23										3.96		4.16
24											4.36	
25												
26												
27												
28	3.55		3.80									
29					------							4.26
30					------							
31		------		4.02	------		------		------			------

04026450 Bad River near Mellen, Wis.

LOCATION.--Lat 46°16'14", long 90°42'26", in NE¼ NW¼ sec.26, T.44 N., R.3 W., Ashland County, Chequamegon National Forest, on left bank 150 ft (46 m) downstream from bridge on U.S. Forest Service Road 184, 250 ft (76 m) downstream from Iron River and 4.4 mi (7.1 km) southwest of Mellen.

DRAINAGE AREA.--83.4 mi^2 (216.0 km^2).

PERIOD OF RECORD.--October 1970 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,390 ft (424 m), from topographic map.

EXTREMES.--Current year: Maximum discharge, 620 ft^3/s (17.6 m^3/s) Mar. 29, gage height, 4.17 ft (1.271 m); minimum, 10 ft^3/s (0.28 m^3/s) July 22, gage height, 0.78 ft (0.238 m).

Period of record: Maximum discharge, 2,130 ft^3/s (60.3 m^3/s) July 23, 1972, gage height, 7.61 ft (2.320 m); minimum, 8.2 ft^3/s (0.232 m^3/s) Aug. 8, 9, 13, 1971 (gage height, 0.70 ft (0.213 m).

REMARKS.--Records good except those for winter periods and period of no gage-height record, which are poor.

Rating table, except period of no gage-height record, (gage height, in feet, and discharge, in cubic feet per second). (Shifting-control method used Mar. 17 to May 23; stage-discharge relation affected by ice Nov. 16, 19-22, Dec. 1-17, Jan. 1 to Mar. 7.)

0.8	11	2.0	123
0.9	15	3.0	330
1.1	26	4.0	599
1.5	59	5.0	935

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	123	51	40	37	41	31	452	251	133	37	29	40
2	95	178	38	39	42	32	386	563	108	30	24	36
3	172	394	36	39	43	36	328	554	106	26	20	40
4	286	354	35	38	43	42	272	506	169	22	16	52
5	261	307	34	35	44	47	209	444	323	20	14	45
6	217	279	33	34	43	52	189	366	323	19	18	36
7	180	300	33	32	40	80	187	307	272	18	52	30
8	144	382	32	29	37	162	156	275	254	15	245	26
9	116	307	32	28	33	165	137	254	209	20	180	24
10	108	261	32	27	31	153	117	382	162	22	120	21
11	106	226	31	26	32	186	110	404	123	18	100	20
12	99	186	31	26	32	252	106	344	97	19	90	19
13	90	149	31	25	33	300	103	314	78	22	100	18
14	82	123	30	25	34	402	111	268	63	21	140	17
15	73	110	30	27	37	511	211	240	50	19	120	17
16	70	96	30	27	37	473	384	201	45	16	90	16
17	64	93	30	27	38	412	394	165	42	15	70	16
18	59	76	30	30	38	372	409	132	37	14	60	16
19	54	70	30	48	38	318	372	103	34	14	50	16
20	53	64	30	68	38	263	342	90	30	12	45	16
21	73	60	31	66	38	238	321	82	27	12	38	20
22	83	58	32	62	38	224	286	78	30	11	34	64
23	82	57	32	58	38	222	250	100	33	19	30	61
24	79	54	32	52	36	224	203	132	29	38	27	49
25	72	55	31	50	35	266	165	384	29	32	25	50
26	70	59	32	47	34	337	133	462	55	27	24	85
27	70	56	35	43	33	430	112	392	63	48	22	172
28	66	50	35	40	31	551	95	300	53	69	21	147
29	61	44	36	38	------	614	88	211	46	58	20	104
30	54	44	44	38	------	551	82	154	44	45	24	84
31	53	------	52	39	------	489	------	151	------	35	43	------
TOTAL	3,215	4,543	1,040	1,200	1,037	8,435	6,710	8,609	3,067	793	1,891	1,357
MEAN	104	151	33.5	38.7	37.0	272	224	278	102	25.6	61.0	45.2
MAX	286	394	52	68	44	614	452	563	323	69	245	172
MIN	53	44	30	25	31	31	82	78	27	11	14	16
CFSM	1.25	1.81	.40	.46	.44	3.26	2.69	3.33	1.22	.31	.73	.54
IN.	1.43	2.03	.46	.54	.46	3.76	2.99	3.84	1.37	.35	.84	.61

CAL YR 1972 TOTAL 49,339 MEAN 135 MAX 2,040 MIN 15 CFSM 1.62 IN 22.01
WTR YR 1973 TOTAL 41,897 MEAN 115 MAX 614 MIN 11 CFSM 1.38 IN 18.69

NOTE.--No gage-height record Jan. 6-28, Aug. 9 to Sept. 16.

04026870 Alder Creek near Upson, Wis.

LOCATION.--Lat 46°23'09", long 90°24'30", in SE¼ SE¼ sec.7, T.45 N., R.1 E., Iron County, on right bank 10 ft (3 m) upstream from State Highway 122 bridge and 1.0 mi (1.6 km) north of Upson.

DRAINAGE AREA.--22.3 mi^2 (57.8 km^2).

PERIOD OF RECORD.--April 1972 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,380.24 ft (420.697 m) above mean sea level. Prior to May 16, 1972, nonrecording gage at same site and datum.

EXTREMES.--Current year: Maximum discharge, 312 ft^3/s (8.84 m^3/s) May 2, gage height, 5.87 ft (1.789 m); minimum daily, 1.4 ft^3/s (0.040 m^3/s) Sept. 15.

Period of record: Maximum discharge, 663 ft^3/s (18.8 m^3/s) Aug. 17, 1972, gage height, 7.29 ft (2.222 m); minimum daily, 1.4 ft^3/s (0.040 m^3/s), Sept. 15, 1973.

REMARKS.--Records fair except those for winter period, periods of no gage-height record, and discharges below 3 ft^3/s (0.085 m^3/s), which are poor.

Rating table (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Dec. 27 to Mar. 9.)

Oct. 1 to Nov. 8		Nov. 9 to Sept. 30			
3.4	6.9	2.9	1.0	3.5	18
3.6	13	3.0	2.2	3.9	43
3.9	28	3.1	4.2	5.0	171
4.4	68	3.3	10	6.0	352
5.0	140				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	8.9	12	10	14	10	128	64	21	5.6	5.3	9.1
2	13	38	11	10	13	11	102	261	19	4.7	4.2	7.9
3	19	137	11	10	13	11	75	250	18	4.0	3.6	6.9
4	33	124	10	9.8	13	12	54	164	24	3.6	3.0	7.9
5	39	76	10	9.2	13	14	40	153	63	3.2	2.8	6.6
6	35	58	9.6	8.4	12	19	34	143	104	3.2	3.4	5.3
7	29	71	9.4	8.0	12	26	32	105	80	2.8	5.6	4.5
8	23	140	9.2	7.6	12	35	29	78	66	2.6	15	3.6
9	18	119	9.0	7.4	12	50	29	72	56	3.2	29	3.2
10	14	84	8.8	7.2	12	71	28	130	38	4.5	25	2.8
11	13	64	8.8	7.0	11	93	27	158	23	4.0	15	2.2
12	14	59	8.6	7.0	11	111	26	115	17	14	9.8	1.8
13	13	46	8.6	7.0	11	148	27	79	13	16	14	1.5
14	11	37	8.6	7.0	11	207	30	54	10	9.5	23	1.5
15	9.7	31	8.4	7.2	11	260	48	40	7.9	6.4	22	1.4
16	9.1	28	8.4	7.6	11	280	98	39	7.9	4.7	14	1.7
17	8.6	25	8.4	8.0	10	238	135	45	7.2	4.0	9.5	1.8
18	8.0	22	8.4	9.4	10	170	122	39	6.6	3.6	7.2	1.6
19	7.5	21	8.4	14	10	115	96	31	6.1	3.4	6.9	1.7
20	7.5	19	8.2	19	10	74	73	27	5.6	3.0	6.4	1.8
21	11	18	8.2	19	10	61	60	23	5.6	2.8	5.3	2.2
22	16	17	8.4	19	10	50	51	21	6.1	2.4	4.5	5.6
23	16	16	8.8	18	9.8	49	43	20	6.1	2.2	5.0	6.4
24	14	15	8.8	18	9.8	57	34	24	5.3	2.2	5.8	5.0
25	13	15	8.8	17	9.8	83	28	84	5.0	2.1	5.3	5.0
26	12	15	8.8	16	9.8	141	24	145	5.6	2.8	4.5	12
27	12	16	8.8	16	9.8	189	21	101	6.1	11	3.8	25
28	11	15	9.6	15	10	221	18	57	6.6	15	3.4	22
29	10	14	9.8	15	------	254	17	35	6.6	11	2.6	15
30	9.7	12	10	14	------	205	16	25	6.4	7.9	3.6	10
31	9.1	------	10	14	------	155	------	22	------	6.1	7.5	------
TOTAL	473.2	1,360.9	284.8	361.8	311.0	3,420	1,545	2,604	652.7	171.5	276.0	183.0
MEAN	15.3	45.4	9.19	11.7	11.1	110	51.5	84.0	21.8	5.53	8.90	6.10
MAX	39	140	12	19	14	280	135	261	104	16	29	25
MIN	7.5	8.9	8.2	7.0	9.8	10	16	20	5.0	2.1	2.6	1.4
CFSM	.69	2.04	.41	.52	.50	4.93	2.31	3.77	.98	.25	.40	.27
IN.	.79	2.27	.48	.60	.52	5.71	2.58	4.34	1.09	.29	.46	.31

WTR YR 1973 TOTAL 11,643.9 MEAN 31.9 MAX 280 MIN 1.4 CFSM 1.43 IN 19.42

NOTE: No gage-height record Nov. 14 to Dec. 26, Mar. 18-20.

04027000 Bad River near Odanah, Wis.

LOCATION.--Lat 46°29'15", long 90°41'45", in SE¼ sec.2, T.46 N., R.3 W., Ashland County, on left bank just downstream from Elm Hoist Bridge, 5.0 mi (8.0 km) downstream from Potato River, 8.5 mi (13.7 km) south of Odanah, and 23 mi (37 km) from mouth.

DRAINAGE AREA.--611 mi^2 (1,582 km^2).

PERIOD OF RECORD.--July 1914 to December 1922 (monthly discharge only for some periods published in WSP 1307), May 1948 to current year.

GAGE.--Water-stage recorder. Datum of gage is 668.30 ft (203.698 m) above mean sea level. May 17, 1948, to Nov. 6, 1959, and Oct. 19, 1960, to Nov. 23, 1961, water-stage recorder. Nov. 7, 1959, to Oct. 18, 1960, and Nov. 24, 1961, to July 12, 1962, nonrecording gage. Prior to Nov. 11, 1922, water-stage recorder at site 2 mi (3 km) downstream at different datum.

AVERAGE DISCHARGE.--33 years (1914-22, 1948-73), 617 ft^3/s (17.47 m^3/s), 13.71 in/yr (348 mm/yr).

EXTREMES.--Current year: Maximum discharge, about 8,000 ft^3/s (227 m^3/s) Mar. 15, gage height, 11.20 ft (3.414 m), backwater from ice; minimum, 132 ft^3/s (3.74 m^3/s) July 23, gage height, 2.35 ft (0.716 m).
Period of record: Maximum discharge, 27,700 ft^3/s (784 m^3/s) Apr. 24, 1960, gage height, 21.7 ft (6.61 m) from floodmarks and from rating curve extended above 12,000 ft^3/s (340 m^3/s) and a comparison with contracted-opening measurement of peak flow 45,600 ft^3/s (1,290 m^3/s) at Odanah, drainage area approximately 970 mi^2 (2,510 km^2); minimum 49 ft^3/s (1.39 m^3/s) Aug. 8, 1964, gage height, 2.03 ft (0.619 m).
Flood of June 24, 1946, reached a stage of at least 22.2 ft (6.77 m), top of bridge submerged, information from Indian Service.

REMARKS.--Records good except those for winter periods, which are fair.

REVISIONS (WATER YEARS).--WSP 1207: Drainage area. WSP 1337: 1922.

Rating table (gage height, in feet, and discharge, in cubic feet per second). (Shifting-control method used Nov. 9-13; stage-discharge relation affected by ice Nov. 28 to Mar. 15.)

2.0	40	6.0	2,260
2.5	174	9.0	5,000
3.0	336	10.0	6,220
4.0	830		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	605	318	250	280	310	230	2,630	1,490	748	282	321	424
2	520	310	250	290	310	240	2,440	4,970	645	246	275	348
3	555	360	230	290	320	340	2,140	4,420	575	221	239	368
4	1,120	900	220	290	320	360	1,760	3,230	872	209	209	525
5	1,120	2,700	210	270	330	400	1,490	2,640	1,450	191	191	447
6	1,060	2,400	210	250	320	420	1,310	2,240	1,630	177	194	368
7	992	2,200	210	240	300	920	1,250	1,800	1,550	163	332	306
8	836	2,000	220	220	270	1,400	1,110	1,580	1,420	157	1,520	262
9	682	1,920	220	210	250	1,900	968	1,470	1,210	149	2,330	233
10	580	1,370	220	200	230	1,700	819	2,610	920	186	1,580	215
11	535	890	220	200	240	2,100	758	2,480	742	180	1,130	200
12	530	830	220	190	240	3,000	731	1,960	605	306	792	186
13	515	764	230	190	250	4,100	720	1,530	495	402	860	174
14	495	698	230	190	250	5,000	726	1,220	419	303	1,440	171
15	419	635	230	200	270	6,200	956	1,040	360	236	1,220	168
16	385	580	240	200	270	5,960	2,000	956	321	194	932	166
17	364	555	240	200	280	4,270	2,410	956	299	171	687	163
18	344	530	240	220	280	3,220	2,260	842	279	157	540	154
19	321	495	240	390	280	2,730	1,940	748	259	152	480	154
20	299	460	240	510	280	2,160	1,700	670	233	149	406	149
21	303	428	240	500	280	1,780	1,480	600	227	141	340	154
22	389	424	240	470	280	1,510	1,340	545	233	138	296	246
23	402	456	240	440	280	1,960	1,180	550	255	143	275	314
24	406	447	240	410	270	2,160	1,010	580	252	221	265	285
25	406	447	240	380	260	2,720	866	1,880	236	268	246	262
26	389	426	240	350	250	2,940	753	2,520	262	259	233	321
27	380	410	230	330	240	3,170	670	2,040	352	415	227	742
28	364	280	250	310	230	3,840	605	1,490	368	550	209	736
29	340	260	270	300	------	4,060	545	1,110	344	535	197	600
30	325	260	310	300	------	3,530	510	866	321	424	194	480
31	318	------	370	300	------	3,000	------	770	------	376	424	------
TOTAL	16,299	24,755	7,440	9,120	7,690	77,320	39,077	51,803	17,882	7,701	18,584	9,321
MEAN	526	825	240	294	275	2,494	1,303	1,671	596	248	599	311
MAX	1,120	2,700	370	510	330	6,200	2,630	4,970	1,630	550	2,330	742
MIN	299	260	210	190	230	230	510	545	227	138	191	149
CFSM	.86	1.35	.39	.48	.45	4.08	2.13	2.73	.98	.41	.98	.51
IN.	.99	1.51	.45	.56	.47	4.71	2.38	3.15	1.09	.47	1.13	.57

CAL YR 1972 TOTAL 295,760 MEAN 808 MAX 8,680 MIN 140 CFSM 1.32 IN 18.01
WTR YR 1973 TOTAL 286,992 MEAN 786 MAX 6,200 MIN 138 CFSM 1.29 IN 17.47

PEAK DISCHARGE (BASE, 3,000 FT^3/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
3-15	--	--	a8,000	5- 2	0800	9.11	5,130
3-29	0700	8.18	4,180				

a About.

04027500 White River near Ashland, Wis.

LOCATION.--Lat 46°29'50", long 90°54'15", in NE¼ sec.6, T.46 N., R.4 W., Ashland County, at downstream end of powerplant of Lake Superior District Power Co., 0.3 mi (0.5 km) downstream from bridge on State Highway 112 over dam, and 4.5 mi (7.2 km) south of Ashland city limits.

DRAINAGE AREA.--279 mi^2 (723 km^2).

PERIOD OF RECORD.--May 1948 to current year.

GAGE.--Nonrecording gage. Datum of gage is 660.15 ft (201.214 m) above mean sea level (Lake Superior District Power Co. bench mark).

AVERAGE DISCHARGE.--25 years, 290 ft^3/s (8.213 m^3/s), 14.12 in/yr (359 mm/yr).

EXTREMES.--Current year: Maximum discharge, 1,650 ft^3/s (46.7 m^3/s) Mar. 15, gage height, 3.46 ft (1.055 m); minimum observed, 106 ft^3/s (3.00 m^3/s) Dec. 27, gage height, 0.83 ft (0.253 m); minimum daily, 120 ft^3/s (3.398 m^3/s) Jan. 30.
Period of record: Maximum discharge, 6,270 ft^3/s (178 m^3/s) July 1, 1953, gage height, 7.90 ft (2.408 m) from rating curve extended above 3,000 ft^3/s (85.0 m^3/s); minimum, 3.1 ft^3/s (0.089 m^3/s) Apr. 28-30, 1949, gage height, 0.09 ft (0.027 m).

REMARKS.--Records good except those for winter period, which are fair. Diurnal fluctuation caused by powerplant at gage.

REVISIONS.--WSP 1207: Drainage area.

Rating table (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Dec. 5 to Mar. 10.)

0.8	104	2.0	585
.9	129	3.0	1,270
1.0	158	4.0	2,160
1.5	343		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	231	236	173	190	200	190	564	982	356	231	231	273
2	242	543	158	180	230	200	482	745	352	234	210	249
3	269	527	164	150	210	200	492	657	325	214	210	278
4	453	596	161	180	180	210	468	771	416	210	198	273
5	384	771	210	190	220	220	439	653	591	204	204	265
6	389	630	190	160	190	220	416	512	522	207	207	286
7	429	574	180	220	210	340	379	420	497	204	273	214
8	463	630	140	210	140	540	366	384	458	201	804	217
9	420	522	210	240	250	520	325	339	439	204	585	194
10	393	487	190	290	230	480	286	384	370	201	596	198
11	334	463	220	230	200	937	290	420	308	238	591	201
12	282	425	210	220	250	1,250	252	393	273	220	397	179
13	273	388	220	220	270	1,210	295	352	245	194	439	188
14	361	330	210	220	200	1,590	290	303	234	194	448	220
15	260	312	210	210	190	1,580	295	321	227	198	472	170
16	286	282	230	250	190	1,230	463	321	227	198	482	198
17	303	265	220	230	180	898	492	278	191	176	411	167
18	231	260	250	240	200	745	482	269	231	188	384	242
19	182	249	260	260	220	670	406	308	204	185	343	179
20	231	242	200	280	210	591	361	238	265	185	278	188
21	299	242	180	270	210	507	339	242	198	188	230	182
22	286	245	180	250	200	463	334	249	210	167	220	210
23	249	242	210	240	210	487	330	238	214	207	210	286
24	269	245	240	240	200	517	308	256	210	265	230	214
25	249	242	260	230	200	670	282	472	198	265	230	214
26	252	242	260	210	190	665	286	624	224	252	234	224
27	220	224	240	210	190	682	231	591	299	238	234	269
28	227	198	170	210	200	745	227	502	295	269	227	290
29	227	161	220	210	------	732	227	393	290	273	220	249
30	224	161	210	120	------	670	227	343	290	273	214	242
31	252	------	200	160	------	619	------	339	------	210	227	------
TOTAL	9,169	10,936	6,426	6,720	5,770	20,638	10,634	13,499	9,159	6,693	10,239	6,759
MEAN	296	365	207	217	206	666	354	435	305	216	330	225
MAX	463	771	260	290	270	1,590	564	982	591	273	804	290
MIN	182	161	158	120	140	190	227	238	191	167	198	167
CFSM	1.10	1.36	.77	.81	.77	2.48	1.32	1.62	1.13	.80	1.23	.84
IN.	1.27	1.51	.89	.93	.80	2.85	1.47	1.87	1.27	.93	1.42	.93

CAL YR 1972 TOTAL 133,468 MEAN 365 MAX 4,100 MIN 140 CFSM 1.36 IN 18.46
WTR YR 1973 TOTAL 116,642 MEAN 320 MAX 1,590 MIN 120 CFSM 1.19 IN 16.13

04031000 Black River near Bessemer, Mich.

LOCATION.--Lat 46°30'41", long 90°04'28", in NE¼ SE¼, sec.32, T.48 N., R.46 W., Gogebic County, on right bank 450 ft (137 m) downstream from bridge on county highway, 500 ft (152 m) downstream from Powder Mill Creek, and 2.5 mi (4.0 km) northwest of Bessemer.

DRAINAGE AREA.--200 mi^2 (518 km^2).

PERIOD OF RECORD.--October 1954 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,154.3 ft (351.83 m) above sea level (levels by registered surveyor).

AVERAGE DISCHARGE.--19 years, 238 ft^3/s (6.740 m^3/s), 16.16 in/yr (410 mm/yr).

EXTREMES.--Current year: Maximum discharge, 2,000 ft^3/s (56.6 m^3/s) Mar. 15 (gage height, 5.68 ft or 1.731 m); minimum, 18 ft^3/s (0.51 m^3/s) Sept. 20 (gage height, 0.58 ft or 0.177 m).
Period of record: Maximum discharge, 14,800 ft^3/s (419 m^3/s) Apr. 24, 1960 (gage height, 14.27 ft or 4.349 m, from flood mark), from rating curve extended above 5,300 ft^3/s (150 m^3/s) on basis of slope-area measurement of peak flow; minimum, 7.8 ft^3/s (0.22 m^3/s) Sept. 9, 1970 (gage height, 0.36 ft or 0.110 m).

REMARKS.--Records good except those for winter periods, which are fair. Prior to 1967, some ground water pumped from mines at Bessemer.

REVISIONS.--WSP 1911: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	401	110	130	100	98	60	1,340	664	186	186	95	55
2	331	641	120	105	105	63	1,130	1,400	163	150	70	47
3	435	1,280	110	100	110	70	906	1,290	152	117	58	44
4	755	998	100	98	110	85	734	1,210	243	94	51	49
5	730	839	90	95	105	90	602	1,270	615	76	47	43
6	706	744	85	93	100	75	530	1,100	566	66	53	39
7	602	1,140	82	91	95	115	516	894	729	59	60	32
8	478	1,370	78	90	90	390	450	892	683	51	166	30
9	379	1,040	77	90	85	375	372	927	526	46	272	28
10	313	814	76	89	80	360	300	1,450	375	52	175	28
11	274	688	75	88	76	500	292	1,190	288	49	133	28
12	243	563	74	87	73	750	282	903	223	151	107	25
13	221	455	74	86	70	1,240	270	717	173	163	103	22
14	195	367	74	85	68	1,600	295	576	140	116	122	21
15	171	300	74	84	65	1,830	511	474	115	93	105	21
16	159	273	74	84	63	1,410	1,040	426	103	75	94	21
17	140	227	74	84	61	1,170	1,140	367	92	64	79	20
18	134	203	73	90	61	991	1,070	319	81	59	84	19
19	124	201	73	115	60	901	929	293	74	55	109	19
20	120	180	73	150	60	806	817	257	66	48	82	19
21	183	162	73	145	59	718	722	225	60	44	62	21
22	192	145	73	135	59	682	670	200	58	41	53	52
23	183	120	73	130	59	678	554	176	75	38	63	50
24	177	135	72	120	59	718	464	175	68	36	60	42
25	164	150	72	115	59	924	386	468	62	39	54	40
26	158	140	72	110	58	1,140	324	492	248	40	50	110
27	151	130	72	105	58	1,280	275	411	258	43	46	282
28	139	120	72	100	59	1,550	237	338	268	50	42	200
29	125	105	76	100	------	1,680	210	269	243	44	37	174
30	118	125	85	98	------	1,560	189	220	228	92	38	152
31	114	------	95	98	------	1,480	------	208	------	90	57	------
TOTAL	8,615	13,765	2,521	3,160	2,105	25,291	17,557	19,801	7,161	2,327	2,627	1,733
MEAN	278	459	81.3	102	75.2	816	585	639	239	75.1	84.7	57.8
MAX	755	1,370	130	150	110	1,830	1,340	1,450	729	186	272	282
MIN	114	105	72	84	58	60	189	175	58	36	37	19
CFSM	1.39	2.30	.41	.51	.38	4.08	2.93	3.20	1.20	.38	.42	.29
IN.	1.60	2.56	.47	.59	.39	4.70	3.27	3.68	1.33	.43	.49	.32

CAL YR 1972 TOTAL 109,595 MEAN 299 MAX 5,830 MIN 33 CFSM 1.50 IN 20.38
WTR YR 1973 TOTAL 106,663 MEAN 292 MAX 1,830 MIN 19 CFSM 1.46 IN 19.84

04031500 Presque Isle River at Marenisco, Mich.

LOCATION.--Lat 46°22'20", long 89°41'32", in SE¼ NW¼ sec.21, T.46 N., R.43 W., Gogebic County, on left bank 0.3 mi (0.5 km) upstream from highway bridge in Marenisco, and 1.5 mi (2.4 km) downstream from confluence of East and West Branches.

DRAINAGE AREA.--171 mi^2 (443 km^2).

PERIOD OF RECORD.--February 1945 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,489.30 ft (453.939 m) above mean sea level (levels by Michigan Department of Natural Resources). Prior to May 27, 1949, nonrecording gage at site 0.3 mi (0.5 km) downstream at different datum.

AVERAGE DISCHARGE.--28 years, 179 ft^3/s (5.069 m^3/s), 14.22 in/yr (361 mm/yr).

EXTREMES.--Current year: Maximum discharge, 1,050 ft^3/s (29.7 m^3/s) Mar. 16 (gage height, 7.34 ft or 2.237 m); maximum gage height, 7.42 ft (2.262 m) Mar. 13 (backwater from ice); minimum discharge, 57 ft^3/s (1.61 m^3/s) July 25; minimum gage height, 3.59 ft (1.094 m) Aug. 30.
Period of record: Maximum discharge, 3,520 ft^3/s (99.7 m^3/s) Apr. 25, 1960 (gage height, 11.25 ft or 3.429 m); minimum observed, 13 ft^3/s (0.37 m^3/s) Sept. 30, 1948 (gage height, 2.25 ft or 0.686 m, site and datum then in use).

REMARKS.--Records good except those for winter periods, which are fair. Occasional regulation for lake or pond level control at several places above station.

REVISIONS (WATER YEARS).--WSP 1707: 1954. WSP 1911: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	287	192	155	135	120	105	673	355	241	120	120	343
2	266	307	145	135	120	105	655	665	231	108	107	231
3	364	510	135	135	120	110	619	834	215	102	85	175
4	524	567	135	130	120	115	530	809	224	90	71	178
5	554	578	130	130	120	115	465	770	257	85	64	151
6	545	540	130	125	120	140	448	735	243	84	63	126
7	517	565	135	120	120	200	421	700	256	81	72	108
8	459	635	135	120	115	280	393	774	276	74	151	95
9	389	642	140	120	115	340	368	811	252	71	225	88
10	338	584	140	120	110	290	344	832	220	76	164	84
11	332	528	140	120	110	350	281	842	200	74	119	76
12	325	462	140	120	110	430	298	781	182	132	94	70
13	322	407	135	120	110	530	344	657	165	188	106	67
14	296	295	135	120	115	680	335	555	151	133	184	67
15	282	225	135	120	115	880	362	480	140	101	151	66
16	176	236	130	125	110	1,020	491	416	145	85	116	66
17	163	250	130	130	110	980	690	388	232	76	93	64
18	183	233	130	140	105	850	762	363	230	71	102	63
19	189	236	125	150	105	756	752	359	186	71	136	61
20	193	227	125	145	105	679	692	352	158	68	112	65
21	215	208	125	145	105	610	630	325	144	65	94	66
22	224	199	125	140	105	562	567	304	136	63	87	92
23	240	170	125	135	105	530	523	283	134	61	98	93
24	257	190	125	135	105	468	473	274	127	63	98	84
25	250	181	125	130	105	478	433	354	126	62	86	81
26	240	179	120	130	105	538	384	413	147	81	76	230
27	230	177	120	125	105	583	326	375	149	137	71	492
28	223	172	120	125	105	646	270	333	140	146	66	471
29	203	130	125	120	------	708	245	293	130	122	61	299
30	197	160	125	120	------	724	237	265	131	97	110	204
31	197	------	130	120	------	694	------	250	------	107	407	------
TOTAL	9,180	9,985	4,070	3,985	3,115	15,496	14,011	15,947	5,568	2,894	3,589	4,356
MEAN	296	333	131	129	111	500	467	514	186	93.4	116	145
MAX	554	642	155	150	120	1,020	762	842	276	188	407	492
MIN	163	130	120	120	105	105	237	250	126	61	61	61
CFSM	1.73	1.95	.77	.75	.65	2.92	2.73	3.01	1.09	.55	.68	.85
IN.	2.00	2.17	.89	.87	.68	3.37	3.05	3.47	1.21	.63	.78	.95

CAL YR 1972 TOTAL 83,947 MEAN 229 MAX 1,180 MIN 64 CFSM 1.34 IN 18.26
WTR YR 1973 TOTAL 92,196 MEAN 253 MAX 1,020 MIN 61 CFSM 1.48 IN 20.06

04037500 Cisco Branch Ontonagon River at Cisco Lake Outlet, Mich.

LOCATION.--Lat 46°15'12", long 89°27'05", in E½ sec.32, T.45 N., R.41 W., Gogebic County, on left bank 80 ft (24 m) downstream from Cisco Lake Dam, 2.5 mi (4.0 km) upstream from Langford Creek, 5.0 mi (8.0 km) upstream from U.S. Highway 2, and 13 mi (21 km) west of Watersmeet.

DRAINAGE AREA.--50.7 mi^2 (131.3 km^2).

PERIOD OF RECORD.--October 1944 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,672.69 ft (509.836 m) above mean sea level. Prior to Oct. 1, 1968, nonrecording gage at same site at datum 4.00 ft (1.219 m) higher.

AVERAGE DISCHARGE.--29 years, 47.4 ft^3/s (1.342 m^3/s), 12.70 in/yr (323 mm/yr).

EXTREMES.--Current year: Maximum discharge, 200 ft^3/s (5.66 m^3/s) May 10, 11 (gage height, 5.61 ft or 1.710 m); minimum daily, 0.34 ft^3/s (0.010 m^3/s) Sept. 20; minimum gage height, 3.88 ft (1.183 m) Sept. 19-21.
Period of record: Maximum discharge, 288 ft^3/s (8.16 m^3/s) May 1-4, 1951 (gage height, 6.10 ft or 1.859 m, present datum); minimum daily, 0.13 ft^3/s (0.004 m^3/s) Aug. 4-7, Aug. 22 to Sept. 5, 1970.

REMARKS.--Records good except those below 25 ft^3/s (0.7 m^3/s), which are fair. Flow completely regulated by Cisco Lake (usable capacity, 15,600 acre-ft or 19.2 hm^3).

REVISIONS.--WSP 1911: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	121	97	46	50	36	46	108	6.7	48	17	42	112
2	120	100	46	57	39	46	109	60	49	17	44	108
3	121	105	46	63	47	39	110	118	49	1.8	44	107
4	121	106	46	70	46	30	109	124	91	1.6	44	107
5	119	106	46	74	46	30	110	136	119	1.7	43	80
6	122	107	47	73	46	30	108	130	106	1.8	44	28
7	121	108	46	72	46	63	107	142	97	2.1	44	1.7
8	115	110	46	66	46	87	105	179	97	1.7	67	1.5
9	115	111	46	53	47	87	102	191	94	1.8	83	1.2
10	116	109	46	46	47	87	100	199	93	17	79	.55
11	129	105	46	46	47	99	87	196	42	29	77	.40
12	142	103	46	46	46	103	77	189	3.4	110	67	.40
13	139	102	47	44	36	104	76	182	3.0	163	58	.40
14	139	99	54	42	30	107	76	178	2.7	90	59	.37
15	143	98	60	33	30	113	77	178	2.1	27	43	.37
16	132	96	60	27	30	116	84	172	1.7	27	26	.37
17	129	94	59	28	31	116	91	153	2.2	27	26	.37
18	125	92	51	29	31	116	85	138	17	25	35	.37
19	123	90	44	30	31	116	86	136	27	26	43	.36
20	120	88	44	31	31	115	87	132	26	12	40	.34
21	118	87	44	31	32	113	32	94	25	1.5	33	.55
22	115	86	44	48	33	112	5.9	61	26	1.3	25	9.3
23	115	85	44	63	49	111	4.7	31	27	1.1	25	16
24	114	84	43	63	63	110	4.1	6.5	27	1.1	25	34
25	112	83	44	62	62	109	3.7	63	28	.91	25	49
26	110	82	44	61	53	109	3.2	114	27	.95	25	105
27	108	81	44	60	47	109	2.7	124	27	24	25	173
28	104	75	44	59	47	108	2.3	118	19	45	25	183
29	103	56	45	59	------	108	2.0	81	16	45	19	179
30	101	45	48	50	------	108	4.3	48	16	45	9.8	180
31	99	------	50	44	------	108	------	47	------	44	65	------
TOTAL	3,711	2,790	1,466	1,580	1,175	2,855	1,958.9	3,727.2	1,208.1	809.36	1,309.8	1,479.55
MEAN	120	93.0	47.3	51.0	42.0	92.1	65.3	120	40.3	26.1	42.3	49.3
MAX	143	111	60	74	63	116	110	199	119	163	83	183
MIN	99	45	43	27	30	30	2.0	6.5	1.7	.91	9.8	.34

CAL YR 1972 TOTAL 21,251.17 MEAN 58.1 MAX 197 MIN .19
WTR YR 1973 TOTAL 24,069.91 MEAN 65.9 MAX 199 MIN .34

04061000 Brule River near Florence, Wis.

LOCATION.--Lat 45°57'31", long 88°15'57", in SE¼ SE¼ sec.11, T.41 N., R.32 W., Michigan meridian, Iron County, on left bank 40 ft (12 m) upstream from highway bridge, 1.0 mi (1.6 km) upstream from Paint River, 2.5 mi (4.0 km) north of Florence, and 5.0 mi (8.0 km) upstream from confluence with Michigamme River.

DRAINAGE AREA.--389 mi^2 (1,008 km^2).

PERIOD OF RECORD.--January 1914 to February 1916, June 1944 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,210 ft (369 m) from topographic map (nearest 10 ft). Prior to Aug. 29, 1944, nonrecording gage at bridge 40 ft (12 m) downstream at same datum.

AVERAGE DISCHARGE.--30 years, (1914-15, 1944-73), 512 ft^3/s (14.50 m^3/s), 12.57 in/yr (319 mm/yr).

EXTREMES.--Current year: Maximum discharge, 1,660 ft^3/s (47.0 m^3/s) Mar. 16 (gage height, 4.05 ft or 1.234 m); maximum gage height, 7.43 ft (2.265 m) Mar. 13 (backwater from ice); minimum discharge, 295 ft^3/s (8.35 m^3/s) Sept. 19 (gage height, 2.20 ft or 0.671 m).
Period of record: Maximum discharge, 4,700 ft^3/s (133 m^3/s) July 2, 1953 (gage height, 6.57 ft or 2.003 m); maximum gage height, 8.27 ft (2.521 m) Dec. 26, 1969 (backwater from ice); minimum discharge, 118 ft^3/s (3.34 m^3/s) Dec. 2, 1963 (discharge measurement); minimum gage height, 1.79 ft (0.546 m) July 24, 1964.

REMARKS.--Records good except those for winter periods, which are fair. Discharge includes some mine pumpage (see sta 04060500).

REVISIONS (WATER YEARS).--WSP 1387: 1914-16. WSP 1911: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	727	436	370	380	330	310	845	681	512	392	429	537
2	622	583	370	375	335	310	945	1,200	503	377	432	467
3	592	1,030	365	370	340	315	932	1,560	503	366	377	431
4	664	1,060	360	365	345	320	872	1,530	560	350	347	428
5	639	901	355	360	340	340	770	1,210	532	343	329	399
6	740	755	350	355	335	400	700	973	505	337	318	362
7	690	722	350	355	330	600	676	891	560	337	317	337
8	593	802	350	350	325	700	650	1,190	640	325	342	322
9	538	767	345	345	320	680	602	1,350	628	323	447	313
10	493	688	345	340	310	660	563	1,310	551	387	404	310
11	490	631	340	330	305	800	542	1,270	500	398	368	307
12	484	585	340	330	310	1,050	542	1,140	476	403	353	305
13	456	545	340	325	315	1,200	518	979	444	455	349	301
14	462	514	345	325	320	1,400	510	851	420	413	387	304
15	427	482	345	330	315	1,590	623	763	413	372	386	304
16	413	463	350	335	310	1,630	1,090	716	481	351	374	303
17	398	461	350	350	305	1,420	1,420	695	473	335	422	300
18	394	449	355	380	300	1,150	1,360	653	480	323	374	300
19	373	427	355	415	300	1,010	1,090	625	458	345	359	300
20	365	434	360	440	305	943	957	608	425	361	353	308
21	403	427	360	415	310	862	938	588	410	336	337	306
22	435	410	360	400	310	802	926	566	435	318	328	356
23	501	330	365	385	310	772	844	547	538	309	329	367
24	548	452	365	370	310	742	748	539	496	311	336	348
25	504	442	370	365	310	749	671	626	451	322	329	343
26	489	414	370	360	310	799	615	792	438	344	334	360
27	509	410	375	350	310	828	575	758	437	346	341	417
28	507	396	380	340	310	853	547	674	440	389	326	416
29	478	390	370	335	------	887	527	609	422	387	316	376
30	450	380	330	330	------	873	514	550	409	356	320	360
31	436	------	370	325	------	841	------	517	------	362	503	------
TOTAL	15,820	16,786	11,055	11,130	8,875	25,836	23,112	26,961	14,540	11,073	11,266	10,587
MEAN	510	560	357	359	317	833	770	870	485	357	363	353
MAX	740	1,060	380	440	345	1,630	1,420	1,560	640	455	503	537
MIN	365	330	330	325	300	310	510	517	409	309	316	300
CFSM	1.31	1.44	.92	.92	.81	2.14	1.98	2.24	1.25	.92	.93	.91
IN.	1.51	1.61	1.06	1.06	.85	2.47	2.21	2.58	1.39	1.06	1.08	1.01

CAL YR 1972 TOTAL 169,591 MEAN 463 MAX 2,290 MIN 240 CFSM 1.19 IN 16.22
WTR YR 1973 TOTAL 187,041 MEAN 512 MAX 1,630 MIN 300 CFSM 1.32 IN 17.89

04063000 Menominee River near Florence, Wis.

LOCATION.--Lat 45°57'04", long 88°11'13", in NE¼ sec.16, T.41 N., R.31 W., Michigan meridian, Iron County, on left bank 0.5 mi (0.8 km) downstream from confluence of Brule and Michigamme Rivers, 3.5 mi (5.6 km) northeast of Florence, and at mile 117 (188 km).

DRAINAGE AREA.--1,780 mi² (4,610 km²).

PERIOD OF RECORD.--January 1914 to current year. Published as "at Twin Falls near Iron Mounty, Mich." 1914-57. Records published for both sites July 1950 to September 1957.

GAGE.--Water-stage recorder. Altitude of gage is 1,120 ft (341 m), from topographic map (nearest 10 ft). Prior to July 1950, headwater and tailwater gages and generation data entered hourly in daily log sheets by company employees at the Twin Falls Powerplant of Wisconsin-Michigan Power Co., 10.4 mi (16.7 km) downstream.

AVERAGE DISCHARGE.--59 years, 1,803 ft³/s (51.06 m³/s).

EXTREMES.--Current year: Maximum discharge, 10,400 ft³/s (295 m³/s) May 3 (gage height, 9.81 ft or 2.990 m); minimum, 226 ft³/s (6.40 m³/s) Dec. 5 (gage height, 1.94 ft or 0.591 m); minimum daily, 847 ft³/s (24.0 m³/s) Sept. 23.
Period of record: Maximum discharge, 19,500 ft³/s (552 mE/s) Apr. 26, 1960 (gage height, 14.15 ft or 4.313 m); minimum, 38 ft³/s (1.08 m³/s) Aug. 21, 1962; minimum gage height, 1.18 ft (0.360 m) Aug. 21, 1962, Nov. 4, 1965; minimum daily discharge, 154 ft³/s (4.36 m³/s) Aug. 9, 1925.

REMARKS.--Records excellent. Prior to July 1950 discharge determined from powerplant records computed on basis of load-discharge rating of hydroelectric units and rating for tailwater gage during periods of spill. Rating developed by Geological Survey. Flow regulated by powerplants, and by Michigamme Reservoir (capacity, 119,950 acre-ft or 148 hm³) and Peavy Pond (capacity, 33,860 acre-ft or 41.7 hm³) on Michigamme River, and by many smaller reservoirs above station.

REVISIONS (WATER YEARS).--WSP 1707: 1953(M). WSP 1911: Drainage area of former site.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4,080	2,370	2,030	1,980	1,670	1,860	4,660	3,880	2,330	1,940	1,860	2,050
2	3,540	2,960	1,670	2,060	1,760	2,000	4,800	6,150	2,440	2,030	1,860	1,690
3	3,510	4,240	1,420	2,000	1,680	1,660	4,810	9,140	2,200	1,770	2,040	1,520
4	3,040	4,470	2,040	1,770	1,600	1,690	4,780	9,150	2,050	1,510	1,830	1,610
5	2,640	4,370	1,850	2,290	1,760	1,900	4,420	7,440	2,230	1,430	1,430	1,600
6	2,990	4,260	2,110	1,970	1,740	2,240	3,860	6,550	2,220	1,550	1,600	2,040
7	3,810	3,840	2,230	1,730	1,990	2,270	3,280	5,450	2,470	1,330	1,590	2,060
8	3,620	3,660	1,940	2,290	1,760	2,400	3,170	7,980	2,240	1,290	1,550	2,050
9	3,550	3,800	2,040	2,160	1,930	2,420	3,270	8,910	2,010	1,550	1,590	1,630
10	3,450	3,640	1,850	2,020	1,970	2,820	3,100	9,100	2,310	1,590	1,780	1,500
11	3,390	3,940	2,250	2,080	1,880	3,770	2,850	9,090	2,330	1,600	2,120	1,550
12	2,920	4,000	2,010	1,910	2,020	4,470	2,770	9,040	2,140	1,680	2,260	1,580
13	2,060	3,550	2,330	1,420	1,750	4,410	2,850	8,700	2,080	1,990	1,900	1,460
14	1,960	3,080	2,230	1,260	1,880	4,360	2,770	6,850	2,050	1,890	1,750	1,220
15	1,620	2,730	2,200	2,080	1,960	5,200	2,890	4,950	2,000	1,490	1,930	973
16	2,180	2,450	2,050	1,730	1,820	6,000	4,060	4,410	1,880	1,600	1,870	1,060
17	2,340	2,080	1,830	1,820	1,360	5,400	5,510	4,270	1,530	1,530	1,870	1,440
18	1,790	2,190	2,160	1,810	1,350	4,570	6,240	4,000	1,780	1,510	2,140	1,440
19	1,730	2,070	2,140	1,840	1,790	4,290	7,200	3,820	1,720	1,700	2,220	1,380
20	1,740	2,140	2,270	1,940	1,640	3,970	6,420	3,770	1,760	1,930	2,250	1,270
21	1,950	2,100	2,110	1,890	1,740	3,610	5,740	3,700	1,910	1,670	2,030	1,390
22	2,020	2,270	2,080	1,800	1,760	3,470	5,650	3,630	1,850	1,760	1,860	1,060
23	2,720	2,000	2,140	1,950	1,770	3,470	5,670	2,910	1,950	1,600	1,620	847
24	3,050	2,180	2,200	1,940	1,860	3,500	5,300	2,770	1,610	1,620	1,670	1,480
25	2,420	2,200	1,840	2,000	1,800	3,460	4,680	3,160	2,010	1,650	1,340	1,400
26	2,120	2,160	2,230	2,070	1,820	3,410	4,670	3,640	2,060	1,440	1,260	1,300
27	2,180	2,330	2,030	1,930	1,980	3,620	4,370	3,270	1,960	1,710	1,580	1,490
28	2,140	2,040	2,060	1,910	2,060	4,070	3,580	3,090	2,180	1,610	1,610	1,730
29	1,930	2,180	2,130	1,880	------	4,310	2,840	2,980	2,040	1,700	1,600	1,260
30	2,300	1,630	1,840	2,030	------	4,520	3,000	2,770	2,120	2,030	1,580	1,170
31	2,400	------	1,970	1,980	------	4,710	------	2,820	------	1,870	1,960	------
TOTAL	81,190	86,930	63,280	59,540	50,100	109,850	129,210	167,390	61,460	51,570	55,550	44,250
MEAN	2,619	2,898	2,041	1,921	1,789	3,544	4,307	5,400	2,049	1,664	1,792	1,475
MAX	4,080	4,470	2,330	2,290	2,060	6,000	7,200	9,150	2,470	2,030	2,260	2,060
MIN	1,620	1,630	1,420	1,260	1,350	1,660	2,770	2,770	1,530	1,290	1,260	847

CAL YR 1972 TOTAL 845,790 MEAN 2,311 MAX 9,270 MIN 660
WTR YR 1973 TOTAL 960,320 MEAN 2,631 MAX 9,150 MIN 847

04063700 Popple River near Fence, Wis.
(Hydrologic benchmark station)

LOCATION.--Lat 45°45'49", long 88°27'47", in NW¼ sec.23, T.38 N., R.16 E., Florence County, on left bank 20 ft (6 m) upstream from bridge on U.S. Forest Service road 2159, 1.8 mi (2.9 km) downstream from Mud Creek, 2.6 mi (4.2 km) northwest of Fence, and 11.5 mi (18.5 km) upstream from mouth.

DRAINAGE AREA.--131 mi² (339 km²).

PERIOD OF RECORD.--October 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,406.16 ft (428.598 m) above mean sea level. Prior to June 18, 1964, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--10 years, 128 ft³/s (3.62 m³/s), 13.27 in/yr (337 mm/yr).

EXTREMES.--Current year: Maximum discharge, 700 ft³/s (19.8 m³/s) Mar. 18, gage height, 3.38 ft (1.030 m); minimum, 43 ft³/s (1.22 m³/s) July 24, gage height, 1.38 ft (0.421 m).

Period of record: Maximum discharge, 1,120 ft³/s (31.7 m³/s) May 2, 1972, gage height, 4.21 ft (1.283 m); minimum, 15 ft³/s (0.42 m³/s) July 19, 23, 24, 1964, gage height, 1.04 ft (0.317 m).

REMARKS.--Records good except those for winter months, which are fair. Records of chemical analysis, water temperatures, and suspended sediment loads for the water year 1973 are published in Part 2 of this report.

Rating table (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Nov. 15-17, 19, 22, 23, 25-27, 29, 30, Dec. 5-10, Dec. 13 to Mar. 15.)

1.0	17	2.6	360
1.4	50	3.0	520
1.8	120	3.7	860
2.2	230		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	428	128	74	50	66	76	412	305	242	100	120	138
2	396	179	72	49	68	78	436	460	206	90	110	135
3	360	269	70	48	70	82	448	570	185	80	90	194
4	332	296	66	48	70	84	448	620	215	74	77	200
5	302	299	64	47	70	82	424	610	230	70	66	160
6	281	296	62	47	72	80	392	565	215	65	60	122
7	260	296	62	47	74	90	368	536	197	62	56	102
8	239	293	62	47	78	250	328	575	209	56	58	86
9	218	281	60	47	84	230	305	580	260	53	62	74
10	197	263	60	48	88	210	275	580	245	66	59	66
11	179	245	59	48	92	290	254	552	224	68	56	62
12	162	224	58	48	92	320	236	516	200	80	52	53
13	142	203	58	48	92	390	215	472	162	102	53	50
14	138	179	58	48	88	420	200	428	140	92	65	48
15	130	150	58	48	82	500	233	376	125	77	66	50
16	120	140	56	48	78	620	404	340	125	70	68	47
17	116	120	56	49	76	635	520	308	160	62	68	47
18	104	112	56	49	76	665	585	278	194	58	74	46
19	92	110	56	50	78	660	605	254	209	54	82	50
20	86	102	56	50	66	635	600	230	206	52	88	47
21	102	98	56	50	64	580	605	212	182	48	82	48
22	116	94	56	50	66	472	600	191	160	47	74	62
23	162	92	56	50	68	440	560	170	179	44	72	72
24	197	88	56	52	70	412	508	158	206	44	74	72
25	203	86	54	52	74	396	460	224	168	46	71	74
26	197	84	52	54	76	388	408	311	138	46	71	77
27	188	82	52	56	76	380	356	356	122	44	68	84
28	173	80	52	58	76	380	313	368	118	53	64	82
29	162	76	50	58	------	388	284	364	112	59	59	71
30	145	74	50	60	------	400	245	328	108	92	60	70
31	135	------	50	62	------	404	------	284	------	125	108	------
TOTAL	6,062	5,039	1,807	1,566	2,130	11,037	12,027	12,121	5,442	2,079	2,233	2,489
MEAN	196	168	58.3	50.5	76.1	356	401	391	181	67.1	72.0	83.0
MAX	428	299	74	62	92	665	605	620	260	125	120	200
MIN	86	74	50	47	64	76	200	158	108	44	52	46
CFSM	1.50	1.28	.45	.39	.58	2.72	3.06	2.98	1.38	.51	.55	.63
IN.	1.72	1.43	.51	.44	.60	3.13	3.42	3.44	1.55	.59	.63	.71

CAL YR 1972 TOTAL 43,625 MEAN 119 MAX 820 MIN 28 CFSM .91 IN 12.39
WTR YR 1973 TOTAL 64,032 MEAN 175 MAX 665 MIN 44 CFSM 1.34 IN 18.18

PEAK DISCHARGE (BASE, 300 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
3-18	1000	3.33	700	5- 4	1800	3.22	620
4- 4	0600	2.77	448	5-28	1800	2.64	376
4-22	0700	3.15	610				

04064500 Pine River below Pine River Powerplant, near Florence, Wis.

LOCATION.--Lat 45°50'16", long 88°13'31", in SW¼ sec.22, T.39 N., R.18 E., Florence County, on left bank 60 ft (18 m) upstream from bridge on County Trunk N, 1.9 mi (3.1 km) downstream from powerplant of Wisconsin-Michigan Power Co., 6.0 mi (9.7 km) south of Florence, and 7.0 mi (11.3 km) downstream from Popple River.

DRAINAGE AREA.--528 mi^2 (1,368 km^2).

PERIOD OF RECORD.--October 1923 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,098.84 ft (334.926 m) above mean sea level. Prior to October 1968, record obtained from Pine River powerplant 1.9 mi (3.1 km) upstream with a drainage area of 528 mi^2 (1,368 km^2).

AVERAGE DISCHARGE.--50 years, 431 ft^3/s (12.21 m^3/s) 11.09 in/yr (282 mm/yr).

EXTREMES.--Current year: Maximum discharge, 2,300 ft^3/s (65.1 m^3/s) May 8, gage height, 6.45 ft (1.966 m); maximum gage height, 7.81 ft (2.380 m) Mar. 23, backwater from ice; minimum daily discharge, 192 ft^3/s (5.44 m^3/s) Sept. 15.
Period of record: Maximum daily discharge, 4,380 ft^3/s (124 m^3/s) Apr. 9, 1929; no flow at times during 1924, 1926-27, 1930-31, 1933, 1940.

REMARKS.--Records good except those for winter months, which are fair. Flow regulated by Pine River powerplant 1.9 mi (3.1 km) upstream; pondage is small and monthly discharge is near normal.

REVISIONS.--WSP 1237: Drainage area.

Rating table (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Nov. 28 to Mar. 23.)

1.8	128	4.5	1,130
2.5	305	5.5	1,690
3.5	665	6.5	2,330

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,200	478	340	350	330	310	1,250	960	800	470	523	482
2	1,100	688	260	390	340	290	1,470	1,500	720	456	417	515
3	960	1,100	250	420	330	300	1,460	2,100	680	384	338	577
4	840	1,140	240	360	330	320	1,520	2,230	860	380	317	683
5	900	1,110	240	330	330	330	1,360	2,080	900	350	316	595
6	940	1,050	300	330	330	350	1,240	1,840	740	311	309	462
7	880	1,040	280	340	310	640	1,140	1,780	780	306	263	386
8	800	994	260	360	270	1,000	1,000	2,090	840	304	272	315
9	720	960	300	320	280	920	900	2,160	940	336	302	352
10	648	900	330	290	260	1,000	840	2,210	900	364	311	271
11	647	800	330	340	290	1,300	740	2,150	800	418	208	299
12	623	720	330	320	300	1,500	720	2,100	700	449	337	279
13	575	640	310	310	270	1,600	660	1,900	640	506	245	253
14	555	600	300	300	270	1,900	680	1,600	520	541	313	204
15	521	520	310	290	270	2,100	832	1,380	507	462	264	192
16	503	470	320	300	300	2,100	900	1,210	511	442	289	244
17	467	500	310	340	270	1,900	1,500	1,100	540	334	378	278
18	410	500	330	370	270	1,800	2,040	1,000	600	280	304	223
19	387	460	310	450	270	1,700	1,990	920	700	329	308	223
20	330	450	290	490	270	1,600	1,890	820	620	284	359	259
21	411	410	320	420	270	1,500	1,880	780	580	258	312	221
22	474	330	310	380	270	1,400	1,860	720	580	293	294	266
23	584	340	330	360	270	1,300	1,810	700	600	261	247	303
24	689	390	320	380	270	1,220	1,560	640	640	261	276	308
25	625	460	300	400	270	1,150	1,400	760	640	260	248	351
26	629	490	310	360	270	1,160	1,250	1,000	600	307	279	323
27	627	450	330	360	290	1,210	1,000	1,200	560	329	335	397
28	625	350	330	350	270	1,200	960	1,300	520	322	275	364
29	619	310	330	340	------	1,210	900	1,200	573	320	220	415
30	576	320	330	330	------	1,290	820	1,000	470	366	272	312
31	536	------	330	330	------	1,240	------	940	------	450	431	------
TOTAL	20,401	18,970	9,530	11,010	8,070	36,840	37,572	43,370	20,061	11,135	9,562	10,352
MEAN	658	632	307	355	288	1,188	1,252	1,399	669	359	308	345
MAX	1,200	1,140	340	490	340	2,100	2,040	2,230	940	541	523	683
MIN	330	310	240	290	260	290	660	640	470	258	208	192
CFSM	1.25	1.20	.58	.67	.55	2.25	2.37	2.65	1.27	.68	.58	.65
IN.	1.44	1.34	.67	.78	.57	2.60	2.65	3.06	1.41	.78	.67	.73

CAL YR 1972 TOTAL 199,827 MEAN 546 MAX 3,680 MIN 150 CFSM 1.03 IN 14.08
WTR YR 1973 TOTAL 236,873 MEAN 649 MAX 2,230 MIN 192 CFSM 1.23 IN 16.69

NOTE.--No gage-height record Nov. 9 to Dec. 8.

04066000 Menominee River near Pembine, Wis.

LOCATION.--Lat 45°35'24", long 87°46'34", in sec.21, T.37 N., R.28 W., Michigan meridian, Menominee County, Mich., on left bank 0.1 mi (0.2 km) upstream from Pemene Creek, 4.0 mi (6.4 km) west of Nathan, Mich., 15 mi (24 km) southeast of Pembine, and at mile 65.3 (105.1 km).

DRAINAGE AREA.--3,240 mi² (8,390 km²), approximately.

PERIOD OF RECORD.--October 1949 to current year. Monthly discharge only for some periods, published in WSP 1307.

GAGE.--Water-stage recorder. Altitude of gage is 745 ft (227 m), from river-profile map.

AVERAGE DISCHARGE.--24 years, 3,018 ft³/s (85.47 m³/s).

EXTREMES.--Current year: Maximum daily discharge, 16,000 ft³/s (453 m³/s) May 10; minimum, 1,370 ft³/s (38.8 m³/s) Sept. 17, 18, gage height, 7.15 ft (2.179 m).

Period of record: Maximum discharge, 26,900 ft³/s (762 m³/s) May 8, 1960, gage height, 13.90 ft (4.237 m); minimum, 694 ft³/s (19.7 m³/s) Sept. 3, 1969, gage height, 1.66 ft (0.506 m).

REMARKS.--Records good except those for winter months, which are poor. Flow regulated by powerplants and by Michigamme Reservoir, capacity, 119,950 acre-ft (148 hm³), and Peavy Pond, capacity, 33,860 acre-ft (41.7 hm³), on the Michigamme River, and by many smaller reservoirs above station.

REVISIONS (WATER YEARS).--WSP 1277: 1952.

Rating tables (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Dec. 12-29, Jan. 2, 3, 9-16, Jan. 30 to Feb. 1, Feb. 5 to Mar. 4, Mar. 8, 9, 12-22.)

Oct. 1 to Nov. 2		Nov. 3 to Sept. 30			
3.0	2,060	7.5	1,420	11.0	6,820
5.0	4,800	9.0	2,900	12.0	9,820
7.0	8,340	10.0	4,500	14.0	18,300

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7,460	3,440	2,180	2,440	3,000	2,300	8,330	7,600	3,970	2,930	3,100	2,780
2	6,600	3,690	2,270	2,500	2,730	2,600	8,630	9,800	3,810	2,670	3,000	2,710
3	5,860	5,020	2,150	2,600	2,490	2,500	9,630	13,000	3,330	2,530	2,800	2,620
4	5,460	6,900	2,260	2,650	2,380	2,300	10,100	14,000	3,390	1,950	2,400	2,820
5	5,230	7,260	2,280	2,670	2,300	2,420	9,800	13,000	3,850	1,990	2,300	2,940
6	5,810	6,210	2,120	2,780	2,400	2,810	8,210	12,000	4,040	2,090	2,200	2,910
7	5,630	6,360	1,980	2,610	2,660	3,400	7,350	11,000	3,980	1,840	2,100	2,930
8	5,700	5,500	3,090	2,690	2,400	4,300	6,530	13,000	3,740	1,750	2,200	2,890
9	4,980	5,800	2,690	2,500	2,400	5,400	6,140	15,000	3,990	1,810	2,200	2,890
10	4,940	5,440	2,140	2,600	2,300	7,160	6,570	16,000	4,060	2,020	2,300	2,410
11	4,500	5,330	2,360	2,500	2,200	8,050	6,010	15,000	3,770	1,990	2,700	2,130
12	4,580	5,220	2,500	2,400	2,300	10,000	5,490	14,000	3,530	2,100	2,600	2,190
13	3,950	4,670	2,700	2,200	2,400	13,000	5,020	13,000	3,230	2,350	2,500	2,140
14	3,300	4,330	2,700	2,100	2,400	14,000	4,750	11,000	2,980	2,540	2,500	2,020
15	2,850	3,750	2,500	2,200	2,300	15,000	4,430	8,400	2,820	2,290	2,400	1,870
16	2,790	3,510	2,400	2,300	2,200	14,000	6,440	7,200	2,670	2,230	2,300	1,590
17	3,260	2,920	2,300	2,570	2,200	13,000	11,800	7,000	2,610	2,100	2,900	1,480
18	2,800	2,780	2,500	2,320	2,100	12,000	12,000	6,800	2,690	1,900	3,100	1,790
19	2,620	2,720	2,500	2,760	2,000	10,000	11,200	6,200	2,850	1,700	3,400	1,930
20	2,710	2,810	2,300	3,100	2,100	8,400	11,200	6,200	2,820	2,100	3,300	1,870
21	2,470	2,780	2,700	3,480	2,200	7,600	11,200	6,200	2,840	2,200	3,300	1,940
22	2,800	2,640	2,700	3,050	2,200	6,890	10,700	6,000	2,700	2,000	2,600	2,040
23	3,400	2,730	2,100	3,270	2,200	6,540	10,100	5,200	2,780	2,100	2,700	1,720
24	4,500	2,450	2,700	3,050	2,200	6,740	10,100	5,000	2,730	2,200	2,550	1,660
25	4,660	2,600	2,500	2,930	2,200	6,420	8,410	5,400	2,880	2,100	2,250	2,090
26	3,740	2,780	2,500	3,030	2,200	6,470	7,170	7,000	2,890	2,100	2,500	2,720
27	3,900	2,750	2,700	2,710	2,200	6,550	7,160	6,800	2,820	2,100	1,790	2,360
28	3,480	2,800	2,500	2,710	2,500	7,240	6,340	7,400	2,900	2,600	1,990	2,230
29	3,330	2,810	2,500	3,170	------	7,780	4,860	6,200	2,910	2,800	2,220	2,360
30	3,540	2,440	2,400	3,000	------	7,760	5,400	5,000	2,940	3,000	2,200	2,190
31	3,460	------	2,550	3,000	------	8,720	------	4,870	------	3,100	2,360	------
TOTAL	130,410	120,440	78,080	83,900	65,100	231,280	241,070	284,270	96,520	69,180	78,760	68,220
MEAN	4,207	4,015	2,519	2,706	2,325	7,461	8,036	9,170	3,217	2,232	2,541	2,274
MAX	7,460	7,260	3,090	3,480	3,000	15,000	12,000	16,000	4,060	3,100	3,400	2,940
MIN	2,470	2,440	1,980	2,100	2,000	2,300	4,430	4,870	2,610	1,700	1,790	1,480

CAL YR 1972 TOTAL 1,345,030 MEAN 3,675 MAX 18,000 MIN 1,390
WTR YR 1973 TOTAL 1,547,230 MEAN 4,239 MAX 16,000 MIN 1,480

04067000 Menominee River below Koss, Mich.

LOCATION.--Lat 45°21'16", long 87°38'55", in sec.9, T.34 N., R.27 W., Michigan meridian, Menominee County, on left bank at powerplant of Wisconsin Public Service Corp., 0.5 mi (0.8 km) upstream from Little Cedar River, 3.6 mi (5.8 km) southeast of Koss, and at mile 24.7 (39.7 km).

DRAINAGE AREA.--3,790 mi^2 (9,820 km^2), approximately.

PERIOD OF RECORD.--July 1907 to March 1909 (published as "at Koss"), July 1913 to current year.

GAGE.--Headwater and tailwater gages and generation data entered hourly in daily log sheet by company employees. Prior to June 1913, chain gage on railroad bridge 4 mi (6.4 km) upstream.

AVERAGE DISCHARGE.--61 years (1907-8, 1913-73), 3,154 ft^3/s (89.32 m^3/s).

EXTREMES.--Current year: Maximum daily discharge, 17,600 ft^3/s (498 m^3/s) May 11; minimum daily, 1,690 ft^3/s (47.9 m^3/s) Sept. 18.

Period of record: Maximum daily discharge, 33,000 ft^3/s (935 m^3/s) May 10, 1960; minimum daily, 162 ft^3/s (4.59 m^3/s) Sept. 15, 1931.

REMARKS.--Records fair. Daily discharge computed on basis of average daily load and load-discharge rating of combined hydroelectric units. Flow regulated by powerplants, and by Michigamme Reservoir, capacity, 119,950 acre-ft (148 hm^3), and Peavy Pond, capacity, 33,860 acre-ft (41.7 hm^3) on Michigamme River, and by many smaller reservoirs above station.

COOPERATION.--Records of daily discharge furnished by Wisconsin Public Service Corp. since 1913.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7,680	4,000	2,710	3,000	3,360	2,780	8,790	5,720	5,130	3,360	3,360	2,690
2	7,680	5,250	1,700	2,760	3,290	2,580	8,600	7,470	4,950	3,360	3,360	2,960
3	7,300	5,330	1,950	3,360	3,100	2,880	8,620	11,000	4,950	3,240	3,360	2,710
4	6,570	6,350	2,020	2,850	2,830	2,810	9,010	14,200	3,950	2,980	3,120	2,680
5	6,100	7,550	2,590	3,120	2,500	2,560	9,680	15,700	4,330	2,660	2,620	3,220
6	5,420	6,280	2,450	2,940	2,620	2,640	8,900	14,300	4,590	2,300	2,590	3,480
7	5,140	7,190	2,500	2,760	2,690	3,080	8,690	13,100	4,470	2,500	2,430	3,130
8	5,860	7,330	2,230	2,570	2,700	4,050	6,800	12,000	4,470	2,220	2,250	3,360
9	6,100	7,080	2,860	2,670	2,650	5,130	6,610	13,800	4,350	2,070	2,480	2,470
10	5,600	7,040	2,880	2,560	2,640	6,040	6,600	16,100	4,820	2,290	2,460	2,970
11	5,630	6,930	2,510	2,820	2,590	7,310	6,560	17,600	4,480	2,500	2,480	2,360
12	5,410	6,840	2,590	2,760	2,400	8,920	5,560	17,000	4,800	2,520	2,940	2,100
13	5,140	6,840	2,890	2,660	2,590	11,400	5,370	16,300	4,030	2,680	3,000	2,420
14	4,270	6,360	3,000	2,500	2,700	14,000	5,190	15,300	3,400	3,080	2,770	2,240
15	2,880	4,500	3,000	2,210	2,680	15,200	4,900	13,800	3,420	2,700	2,720	2,240
16	3,000	4,700	2,880	2,380	2,590	16,100	5,870	9,360	3,170	2,690	2,730	1,730
17	2,880	3,690	2,700	2,500	2,470	15,700	8,150	8,080	3,360	2,560	2,500	1,730
18	3,300	3,360	2,580	2,610	2,470	15,400	10,700	7,730	3,360	2,350	3,240	1,690
19	2,880	3,300	2,800	2,930	2,300	13,400	11,600	7,640	3,410	2,060	3,360	1,770
20	2,460	3,360	2,890	3,120	2,200	10,500	12,800	6,800	3,430	1,900	3,780	2,070
21	2,500	3,300	3,020	3,200	2,300	9,160	12,600	6,930	3,360	2,380	3,720	1,940
22	2,960	3,490	3,050	3,370	2,450	8,700	13,100	6,940	3,720	2,500	3,660	2,190
23	3,120	3,100	3,010	3,730	2,500	7,900	12,200	6,970	3,360	2,280	2,920	2,340
24	4,970	3,150	3,100	3,960	2,500	7,360	11,400	5,740	3,240	2,320	2,900	1,760
25	5,300	3,020	3,100	3,600	2,500	7,120	10,400	5,440	3,360	2,500	2,900	1,980
26	5,430	3,120	2,820	3,360	2,500	7,120	8,740	5,620	3,720	2,420	2,920	2,350
27	4,820	3,370	2,820	3,510	2,400	7,260	8,790	7,750	3,720	2,350	2,480	3,000
28	4,620	3,230	3,000	3,480	2,460	7,150	7,670	7,730	3,480	2,350	2,980	2,640
29	3,480	3,720	2,980	3,360	------	7,200	5,260	8,140	3,360	2,750	1,900	2,440
30	3,760	3,120	2,880	3,360	------	7,340	5,420	6,840	3,480	3,000	1,980	2,400
31	4,090	------	3,120	3,290	------	8,380	------	6,090	------	3,240	2,020	------
TOTAL	146,350	145,900	84,530	93,300	72,980	247,170	254,580	317,190	117,670	80,110	87,930	73,060
MEAN	4,721	4,863	2,727	3,010	2,606	7,973	8,486	10,230	3,922	2,584	2,836	2,435
MAX	7,680	7,550	3,120	3,960	3,360	16,100	13,100	17,600	5,130	3,360	3,780	3,480
MIN	2,460	3,020	1,700	2,210	2,200	2,560	4,900	5,440	3,170	1,900	1,900	1,690

CAL YR 1972 TOTAL 1,447,740 MEAN 3,956 MAX 18,700 MIN 1,360
WTR YR 1973 TOTAL 1,720,770 MEAN 4,714 MAX 17,600 MIN 1,690

04069500 Peshtigo River at Peshtigo, Wis.

LOCATION.--Lat 45°02'49", long 87°44'40", in NE¼ sec.30, T.30 N., R.23 E., Marinette County, on left bank 75 ft (23 m) downstream from Chicago and Northwestern Railway bridge, 0.5 mi (0.8 km) downstream from Wisconsin Public Service Corp. powerplant at Peshtigo, and 11.5 mi (18.5 km) upstream from mouth.

DRAINAGE AREA.--1,124 mi^2 (2,911 km^2).

PERIOD OF RECORD.--June 1953 to current year.

GAGE.--Water-stage recorder. Datum of gage is 584.64 ft (178.198 m) above mean sea level.

AVERAGE DISCHARGE.--20 years, 922 ft^3/s (26.11 m^3/s), 11.14 in/year (283 mm/yr).

EXTREMES.--Current year: Maximum discharge, 7,550 ft^3/s (214 m^3/s) May 30, gage height, 10.79 ft (3.289 m); minimum, 110 ft^3/s (3.12 m^3/s) Dec. 11, gage height, 1.28 ft (0.390 m); minimum daily, 399 ft^3/s (11.3 m^3/s) Dec. 2.

Period of record: Maximum discharge, 9,790 ft^3/s (277 m^3/s) May 9, 1960, gage height, 11.59 ft (3.533 m), from rating curve extended above 5,000 ft^3/s (142 m^3/s) on basis of computation of peak flow through dam gates; minimum, 17 ft^3/s (0.48 m^3/s) Nov. 29, 1966, gage height, 1.00 ft (0.305 m); minimum daily, 84 ft^3/s (2.38 m^3/s) Aug. 5, 1957.

REMARKS.--Records good except those for winter months, which are fair. Diurnal fluctuation caused by powerplants upstream.

Rating table (gage height, in feet, and discharge, in cubic feet per second). (Shifting-control method used Oct. 1 to Nov. 26, Apr. 18-24, Sept. 22-30; stage-discharge relation affected by ice Nov. 28 to Dec. 1, Dec. 3-9, Dec. 11-20, Dec. 31 to Mar. 5.)

1.9	292	5.0	1,990
2.5	515	7.0	3,590
3.5	1,000	9.0	5,400
		11.0	7,880

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,370	925	470	780	800	490	2,160	1,730	4,770	1,060	802	515
2	2,370	1,050	399	800	820	520	2,410	2,940	4,090	1,060	646	689
3	2,260	1,580	420	760	820	600	2,730	4,060	3,490	991	676	891
4	2,220	1,600	450	720	780	680	2,730	4,430	3,070	932	769	1,370
5	1,990	1,740	480	720	780	780	3,010	4,610	2,700	771	649	1,430
6	1,460	1,770	520	700	800	1,070	3,210	4,540	2,840	746	596	1,180
7	1,420	1,760	600	700	780	1,700	2,950	4,360	2,630	710	545	1,160
8	1,210	1,930	580	680	760	3,400	2,620	4,900	2,370	857	564	640
9	878	1,840	540	680	680	3,700	2,570	5,790	2,210	501	741	823
10	938	1,520	501	660	620	4,100	2,430	5,720	1,880	637	777	695
11	1,010	1,460	580	660	540	5,000	2,210	5,450	2,200	697	510	846
12	1,030	1,360	660	640	540	5,940	1,970	4,990	1,780	644	465	736
13	823	1,070	660	620	540	6,160	1,860	4,410	1,850	726	561	670
14	978	1,160	720	620	520	5,520	1,850	3,920	1,520	909	692	753
15	720	1,060	580	600	520	5,840	2,800	3,100	1,520	709	658	551
16	667	1,040	640	620	500	6,100	3,800	2,790	1,020	639	676	587
17	770	1,010	600	640	520	6,040	3,950	2,390	1,140	721	742	544
18	646	838	600	700	450	5,780	4,340	2,040	1,350	681	992	532
19	689	735	640	800	450	5,250	4,850	2,060	1,260	608	1,450	632
20	771	805	660	960	480	4,490	4,750	1,900	1,240	552	1,180	583
21	804	725	648	1,600	520	3,570	4,990	2,050	1,210	625	1,420	570
22	857	772	758	1,100	500	3,170	4,720	1,810	1,060	466	1,460	637
23	842	645	702	1,100	460	3,050	4,910	1,580	1,220	423	1,140	800
24	1,430	527	613	1,000	440	2,950	3,830	1,610	1,440	515	859	850
25	1,560	561	607	1,000	440	2,730	3,380	1,860	1,620	556	901	665
26	1,450	541	629	920	440	2,510	3,210	2,580	1,360	629	879	1,240
27	1,360	529	609	880	440	2,450	2,730	2,990	1,370	663	937	1,070
28	1,380	760	649	860	460	2,290	2,120	4,920	1,290	573	946	965
29	1,270	640	709	880	------	1,970	1,770	6,930	1,290	566	827	825
30	1,140	560	658	820	------	1,440	1,690	7,040	1,180	699	729	735
31	959	------	700	800	------	2,150	------	5,870	------	682	739	------
TOTAL	38,272	32,513	19,732	24,420	16,400	101,440	92,550	115,370	57,970	21,548	25,528	24,184
MEAN	1,235	1,084	604	788	586	3,272	3,085	3,722	1,932	695	823	806
MAX	2,370	1,930	758	1,100	820	6,160	4,990	7,040	4,770	1,060	1,460	1,430
MIN	646	527	399	600	440	490	1,690	1,580	1,020	423	465	515
CFSM	1.10	.96	.54	.70	.52	2.91	2.74	3.31	1.72	.62	.73	.72
IN.	1.27	1.08	.62	.81	.54	3.36	3.06	3.82	1.92	.71	.84	.80

* CAL YR 1972 TOTAL 399,743 MEAN 1,092 MAX 5,730 MIN 310 CFSM .97 IN 13.23
WTR YR 1973 TOTAL 568,927 MEAN 1,559 MAX 7,040 MIN 399 CFSM 1.39 IN 18.83

04070000 Wheeler Lake near Lakewood, Wis.

LOCATION.--Lat 45°19'07", long 88°28'58", in NW¼ sec.27, T.33 N., R.16 E., Oconto County, near the home of Carl Zuelzke on west shore of lake 2.3 mi (3.7 km) northeast of Lakewood.

DRAINAGE AREA.--2 mi² (5 km²), approximately. Area of Wheeler Lake, 380 acres (1.54 km²).

PERIOD OF RECORD.--August 1936 to current year (fragmentary).

GAGE.--Nonrecording gage. Datum of gage is 90.00 ft (27.4 m) above datum assumed by Wisconsin Department of Natural Resources; gage readings have been reduced to elevations above this datum. Prior to Apr. 19, 1936, nonrecording gage was located on east shore of lake. Apr. 20, 1939, to Apr. 13, 1960, nonrecording gage was located on southwest shore of lake.

EXTREMES.--Current year: Maximum elevation observed, 7.31 ft (2.228 m) June 6; minimum observed, 6.31 ft (1.923 m) Oct. 18.

Period of record: Maximum elevation observed, 7.31 ft (2.228 m) June 6, 1973; minimum observed, 3.45 ft (1.052 m) Feb. 5, 1950.

REMARKS.--Add 90 ft (27.4 m) to obtain elevation above datum assumed for this lake by Wisconsin Department of Natural Resources. Lake has no surface outlet. Lake was ice covered about Nov. 22 to Apr. 2.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		6.35									6.68	
2							6.89	7.03				
3												
4	6.44									7.05		
5												6.78
6									7.31			
7					6.72							
8		6.43									6.85	
9								7.17			6.76	
10										7.01		
11							6.88		7.27			
12												
13									7.27			6.61
14			6.50								6.73	
15		6.44										
16	6.33							7.28				
17												
18	6.31						6.97			6.92		
19												6.53
20									7.21			
21											6.71	
22		6.40										
23						6.91		7.05				
24												
25	6.35						6.95			6.86		
26												6.55
27									7.15			
28												
29					------						6.65	
30					------			7.23				
31		------			------		------		------			------

04071000 Oconto River near Gillett, Wis.

LOCATION.--Lat 44°51'53", long 88°18'00", in NW¼ sec.34, T.28 N., R.18 E., Oconto County, on left bank 300 ft (91 m) upstream from County Trunk BB bridge, 2.0 mi (3.2 km) upstream from Christy Brook, 2.0 mi (3.2 km) south of Gillett, and at mile 29 (47 km).

DRAINAGE AREA.--678 mi^2 (1,756 km^2).

PERIOD OF RECORD.--June 1906 to March 1909, October 1913 to current year. Monthly discharge only for some periods, published in WSP 1307.

GAGE.--Water-stage recorder. Datum of gage is 732.87 ft (223.379 m) above mean sea level (levels by Wisconsin Department of Transportation). See WSP 1727 for history of changes prior to Aug. 25, 1938.

AVERAGE DISCHARGE.--62 years (1906-8, 1913-73), 581 ft^3/s (16.45 m^3/s), 11.64 in/yr (296 mm/yr).

EXTREMES.--Current year: Maximum discharge, about 4,900 ft^3/s (139 m^3/s) Mar. 10, gage height, 9.08 ft (2.768 m) backwater from ice; minimum discharge, 315 ft^3/s (8.92 m^3/s) Nov. 24, gage height, 1.06 ft (0.323 m).

Period of record: Maximum discharge, 8,400 ft^3/s (238 m^3/s) Apr. 10, 1922, gage height, 11.2 ft (3.41 m) from floodmarks, caused by a failure of dam at Pulcifer 4 mi (6.4 km) above station; minimum, 93 ft^3/s (2.63 m^3/s) Nov. 26, 1941, gage height, 0.13 ft (0.040 m), flow retarded by anchor ice above station.

REMARKS.--Records good except those for winter months, which are fair.

REVISIONS (WATER YEARS).--WSP 384: Drainage area. WSP 1207: 1922. WSP 1307: 1907-8(M), 1914-16(M), 1918-21(M), 1923-33(M), 1937-38(M), 1943(M).

Rating table (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Nov. 25 to Mar. 12.)

1.0	330	5.0	2,770
1.5	559	6.0	3,520
2.0	820	7.0	4,400
3.0	1,410	8.0	5,380
4.0	2,070		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,090	605	470	600	580	450	1,150	1,270	2,580	741	499	433
2	1,080	666	480	620	580	460	1,150	1,610	2,210	709	506	456
3	1,010	804	490	640	560	490	1,220	2,150	1,930	684	489	559
4	892	879	500	660	540	540	1,390	2,410	1,740	653	467	618
5	770	926	500	640	540	640	1,500	2,360	1,630	614	443	653
6	661	955	500	640	540	800	1,510	2,130	1,560	594	424	638
7	637	960	500	640	520	1,100	1,470	2,090	1,530	579	420	613
8	627	933	500	640	520	1,500	1,390	2,330	1,490	565	438	574
9	594	895	500	620	520	2,500	1,340	2,630	1,430	535	486	530
10	564	851	500	620	500	4,700	1,280	2,730	1,320	533	505	500
11	548	821	490	600	500	3,300	1,230	2,730	1,220	555	490	490
12	544	803	490	600	500	2,700	1,210	2,580	1,160	617	461	466
13	541	767	480	600	490	3,180	1,200	2,330	1,100	658	443	443
14	528	722	470	580	480	3,190	1,200	2,060	1,030	680	433	433
15	508	688	470	580	480	3,250	1,230	1,810	987	675	433	433
16	493	643	470	580	480	3,250	1,440	1,660	943	626	471	429
17	478	612	470	580	470	3,060	1,720	1,540	895	576	485	420
18	461	577	470	600	470	2,760	2,050	1,440	865	516	554	415
19	444	571	470	620	470	2,390	2,140	1,360	856	497	679	415
20	423	564	470	640	470	2,070	2,070	1,320	844	489	754	411
21	418	546	470	680	460	1,780	2,070	1,280	814	482	798	411
22	465	538	480	700	460	1,700	2,280	1,240	779	489	776	471
23	605	526	480	700	460	1,600	2,290	1,210	767	468	716	530
24	732	474	480	700	460	1,500	2,050	1,160	820	430	628	569
25	809	480	490	680	450	1,400	1,810	1,220	907	456	564	544
26	859	480	490	660	450	1,400	1,620	1,260	940	532	554	564
27	876	480	490	640	450	1,300	1,460	1,450	903	562	549	593
28	829	480	490	620	450	1,300	1,350	2,540	853	524	525	583
29	757	470	500	620	------	1,220	1,260	3,100	812	521	500	562
30	671	470	520	600	------	1,190	1,190	3,230	782	531	476	553
31	627	------	540	600	------	1,170	------	2,950	------	514	456	------
TOTAL	20,541	20,186	15,120	19,500	13,850	57,890	46,270	61,180	35,697	17,605	16,422	15,309
MEAN	663	673	488	629	495	1,867	1,542	1,974	1,190	568	530	510
MAX	1,090	960	540	700	580	4,700	2,290	3,230	2,580	741	798	653
MIN	418	470	470	580	450	450	1,150	1,160	767	430	420	411
CFSM	.98	.99	.72	.93	.73	2.75	2.27	2.91	1.76	.84	.78	.75
IN.	1.13	1.11	.83	1.07	.76	3.18	2.54	3.36	1.96	.97	.90	.84

CAL YR 1972 TOTAL 242,205 MEAN 662 MAX 3,080 MIN 300 CFSM .98 IN 13.29
WTR YR 1973 TOTAL 339,570 MEAN 930 MAX 4,700 MIN 411 CFSM 1.37 IN 18.63

PEAK DISCHARGE (BASE, 1,500 FT^3/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
3-10	--	--	a4,900	5-11	0100	4.96	2,750
4- 5	2100	3.19	1,520	5-30	0100	5.68	3,300
4-23	0100	4.42	2,360				

a About.

04071858 Pensaukee River near Pensaukee, Wis.

LOCATION.--Lat 44°49'08", long 87°57'12", in NW¼ NE¼ sec.16, T.27 N., R.21 E., Oconto County, on right bank 300 ft (90 m) downstream from bridge on town road, 2.8 mi (4.5 km) downstream from Brookside Creek, 2.6 mi (4.2 km) west of Pensaukee, 3.5 mi (5.6 km) upstream from mouth.

DRAINAGE AREA.--137 mi^2 (355 km^2).

PERIOD OF RECORD.--October 1972 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 600 ft (182.88 m), from topographic map.

EXTREMES.--Current year: Maximum discharge, 3,880 ft^3/s (110 m^3/s) May 29, gage height, 12.97 ft (3.953 m); minimum, 5.3 ft^3/s (0.15 m^3/s) Sept. 14, 15, gage height, 2.25 ft (0.686 m).
Period of record: Maximum discharge, 3,880 ft^3/s (110 m^3/s) May 29, 1973, gage height, 12.97 ft (3.953 m); minimum, 5.3 ft^3/s (0.15 m^3/s) Sept. 14, 15, 1973, gage height, 2.25 ft (0.686 m).

REMARKS.--Records good except those for winter months, which are fair.

Rating table (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Nov. 22-24, Nov. 28 to Mar. 14.)

Oct. 1 to Apr. 17				Apr. 18 to Sept. 30			
2.4	12	5.0	460	2.2	2.2	6.0	700
2.6	33	7.0	960	2.4	16	8.0	1,270
3.0	84	9.0	1,550	3.0	82	10.0	1,870
4.0	260			4.0	244	13.0	3,920

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	518	45	22	60	140	86	168	156	558	29	9.0	6.2
2	295	90	22	62	130	94	100	710	364	25	8.4	6.1
3	183	394	20	62	130	100	176	1,010	246	21	8.3	9.6
4	126	345	20	60	120	140	273	588	266	19	7.6	9.4
5	91	235	19	58	120	220	246	342	194	16	7.0	12
6	67	156	19	56	110	350	225	222	150	14	6.5	9.7
7	56	126	19	54	110	410	201	266	113	14	6.3	7.6
8	51	143	19	52	110	620	242	1,290	85	12	11	6.5
9	44	145	19	52	100	1,100	206	1,440	66	11	31	6.5
10	38	121	19	52	100	880	126	889	52	11	21	6.2
11	33	104	19	52	94	1,000	144	635	44	11	15	6.5
12	30	90	19	50	92	1,200	231	443	110	14	13	6.3
13	28	76	19	50	88	920	339	308	90	19	12	5.9
14	25	63	19	50	86	820	457	219	61	16	11	5.9
15	23	54	19	50	84	1,190	451	167	45	15	11	5.7
16	22	47	20	52	82	852	753	137	39	14	11	5.9
17	21	42	20	56	82	558	1,260	117	40	12	9.6	6.1
18	20	42	20	64	80	358	740	102	45	9.9	9.0	6.8
19	19	38	20	74	80	271	419	95	41	9.2	9.9	6.9
20	19	35	21	100	78	222	304	85	35	9.2	11	7.2
21	18	34	21	130	78	185	593	74	30	8.4	10	7.9
22	24	33	21	170	78	155	540	65	28	8.4	8.8	17
23	58	34	22	180	78	137	350	63	28	7.8	9.8	21
24	201	31	23	190	78	127	235	68	34	7.8	9.9	15
25	256	30	24	200	78	120	172	235	33	8.4	9.9	14
26	192	30	24	190	78	117	135	453	28	9.9	9.9	21
27	137	30	25	180	80	106	109	338	28	16	9.9	18
28	100	28	27	170	82	94	90	1,930	37	11	9.0	15
29	76	26	30	160	------	85	76	2,900	37	9.9	8.1	14
30	60	24	35	150	------	77	66	1,690	33	9.9	7.1	14
31	51	------	52	140	------	69	------	843	------	9.7	6.5	------
TOTAL	2,882	2,693	698	3,026	2,646	12,663	9,377	17,900	2,960	408.5	327.5	299.9
MEAN	93.0	89.8	22.5	97.6	94.5	408	313	577	98.7	13.2	10.6	10.0
MAX	518	394	52	200	140	1,200	1,260	2,900	558	29	31	21
MIN	18	24	19	50	78	69	66	63	28	7.8	6.3	5.7
CFSM	.68	.66	.16	.71	.69	2.98	2.28	4.21	.72	.10	.08	.07
IN.	.78	.73	.19	.82	.72	3.44	2.55	4.86	.80	.11	.09	.08

WTR YR 1973 TOTAL 55,880.9 MEAN 153 MAX 2,900 MIN 5.7 CFSM 1.12 IN 15.17

PEAK DISCHARGE (BASE, 800 FT^3/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
3- 8	--	--	a1,300	5- 3	0700	7.46	1,110
3-15	1000	8.02	1,260	5- 9	0100	9.25	1,640
4-17	1000	8.35	1,360	5-29	0600	12.97	3,880

a About.

04072750 Lawrence Creek near Westfield, Wis.

LOCATION.--Lat 43°53'52", long 89°34'43", in SW¼ sec.32, T.17 N., R.8 E., Marquette County, on left bank 0.8 mi (1.3 km) upstream from Lawrence Lake and 4.0 mi (6.4 km) northwest of Westfield.

DRAINAGE AREA.--16 mi^2 (41 km^2), approximately, includes approximately 10 mi^2 (26 km^2) without surface drainage.

PERIOD OF RECORD.--November 1967 to September 1973 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 900 ft (270 m), from topographic map.

AVERAGE DISCHARGE.--5 years, 17.1 ft^3/s (0.484 m^3/s).

EXTREMES.--Current year: Maximum discharge, 95 ft^3/s (2.69 m^3/s) Mar. 7, gage height, 9.03 ft (2.752 m); minimum daily, 16 ft^3/s (0.45 m^3/s) Nov. 5, 6, 11-17, 21-24.

Period of record: Maximum discharge, 95 ft^3/s (2.69 m^3/s) Mar. 7, 1973, gage height, 9.03 ft (2.752 m); minimum daily, 12 ft^3/s (0.34 m^3/s) Jan. 23-26, 28, 31, Feb. 5, 1968.

REMARKS.--Records are fair. Flow includes large ground-water inflow.

Rating table (gage height, in feet, and discharge, in cubic feet per second).

7.8	15	8.2	33
7.9	19	8.4	45
8.0	23		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	17	17	18	19	17	22	24	21	19	19	21
2	17	17	17	19	20	17	21	25	21	19	19	21
3	17	17	17	19	19	19	20	20	22	19	19	21
4	17	17	17	19	18	18	20	20	21	19	19	21
5	17	16	17	19	18	18	19	20	21	18	18	21
6	18	16	17	20	18	22	19	20	20	18	20	21
7	17	17	17	20	18	38	19	24	20	18	20	21
8	17	17	17	19	18	22	19	24	20	18	20	21
9	17	17	17	19	18	20	20	21	20	24	21	21
10	17	17	17	19	18	23	20	20	19	20	20	21
11	18	16	18	19	18	27	20	20	21	19	19	21
12	17	16	18	18	18	22	20	20	22	18	19	21
13	17	16	18	18	18	20	20	20	20	18	20	21
14	17	16	18	19	18	25	20	20	20	18	20	21
15	18	16	18	19	18	20	22	19	20	18	20	21
16	18	16	18	19	18	20	26	19	24	18	20	22
17	17	16	18	20	18	20	20	19	21	18	20	22
18	17	17	18	22	18	19	20	19	20	18	20	21
19	17	17	18	20	18	19	20	19	20	18	22	22
20	17	17	18	19	18	19	20	19	20	18	21	22
21	19	16	18	19	18	19	20	19	19	18	21	23
22	20	16	18	20	18	19	20	21	19	18	20	27
23	22	16	18	19	18	19	19	20	20	18	21	22
24	18	16	18	19	18	19	19	19	19	23	21	22
25	18	17	18	18	18	19	19	28	19	19	21	24
26	17	17	18	18	17	19	19	22	20	19	21	22
27	17	17	18	18	17	19	19	20	20	19	21	22
28	17	17	18	18	17	19	19	22	20	19	20	22
29	17	17	19	18	------	19	20	24	20	19	20	23
30	17	17	19	18	------	18	20	21	19	19	20	22
31	17	------	19	18	------	18	------	20	------	19	20	------
TOTAL	544	499	551	587	505	632	601	648	608	583	622	653
MEAN	17.5	16.6	17.8	18.9	18.0	20.4	20.0	20.9	20.3	18.8	20.1	21.8
MAX	22	19	19	22	20	38	26	28	24	24	22	27
MIN	17	16	17	18	17	17	19	19	19	18	18	21

CAL YR 1972 TOTAL 5,147 MEAN 15.9 MAX 39 MIN 14
WTR YR 1973 TOTAL 7,032 MEAN 19.3 MAX 38 MIN 16

NOTE.--No gage-height record Jan. 21 to Feb. 26.

04073050 Grand River near Kingston, Wis.

LOCATION.--Lat 43°41'09", long 89°05'09", between secs.16 and 17, T.14 N., R.12 E., Green Lake County, on left bank just upstream of town road bridge, 1.3 mi (2.1 km) upstream and east of Grand Lake and 2.3 mi (3.7 km) east of Kingston.

DRAINAGE AREA.--73.7 mi^2 (191 km^2).

PERIOD OF RECORD.--April 1968 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 795 ft (242 m), from topographic map.

AVERAGE DISCHARGE.--5 years, 46.8 ft^3/s (1.33 m^3/s), 8.62 in/yr (219 mm/yr).

EXTREMES.--Current year: Maximum discharge, 1,540 ft^3/s (43.6 m^3/s) Mar. 7, gage height, 6.59 ft (2.009 m); minimum, 20 ft^3/s (0.57 m^3/s) Sept. 16, 17, gage height, 1.62 ft (0.494 m).
Period of record: Maximum discharge, 1,540 ft^3/s (43.6 m^3/s) Mar. 7, 1973, gage height, 6.59 ft (2.009 m); minimum, 2.0 ft^3/s (0.057 m^3/s) Nov. 28, 1970, gage height, 1.14 ft (0.348 m), result of freezeup.

REMARKS.--Records good except those for winter period, which are fair. Occasional regulation by mill about 2 mi (3.2 km) upstream.

Rating tables (gage height, in feet, and discharge, in cubic feet per second). (Shifting-control method used Oct. 1-18; stage-discharge relation affected by ice Dec. 4, 5, 10-24, 27, Dec. 30 to Feb. 5, Feb. 8-20, 25-27.)

Oct. 1 to Feb. 28

1.6	19	4.0	218
2.0	43	5.0	363
3.0	118	6.0	616

Mar. 1 to Sept. 30

Same as preceding table below

4.0 ft.			
4.0	218	6.5	1,410
5.0	390		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	123	97	51	110	153	51	108	208	155	59	34	25
2	109	118	54	120	190	113	160	351	132	56	32	25
3	97	118	55	110	160	321	154	274	119	53	32	43
4	88	107	58	100	140	375	157	258	98	50	30	34
5	78	104	56	110	120	348	148	216	112	44	28	29
6	77	101	55	100	107	378	134	183	111	40	27	26
7	73	102	56	90	94	1,030	124	206	103	40	27	25
8	69	99	53	84	90	624	115	274	99	40	31	24
9	64	92	52	78	84	538	134	252	96	40	43	24
10	61	91	52	70	80	344	116	245	88	47	43	24
11	61	88	52	68	78	359	96	219	80	45	38	23
12	61	84	52	66	76	295	141	193	82	42	34	23
13	58	79	52	68	74	269	170	169	80	40	31	22
14	58	75	52	70	73	351	170	151	75	38	32	22
15	56	70	52	72	72	298	170	139	73	38	31	21
16	56	67	52	80	70	275	247	127	104	36	30	21
17	55	65	52	120	68	243	216	122	117	36	29	21
18	53	64	52	210	64	191	186	111	100	34	35	23
19	51	63	56	370	62	166	172	117	91	33	53	23
20	50	61	54	300	60	155	183	112	86	33	44	23
21	75	61	52	280	59	142	290	107	79	33	37	22
22	110	60	52	240	59	133	270	159	74	32	33	31
23	228	56	52	170	51	125	240	155	72	32	46	31
24	182	56	50	130	51	120	210	137	71	33	55	26
25	156	58	50	110	52	116	178	210	67	34	48	30
26	155	61	47	100	54	112	155	168	67	35	41	32
27	148	62	47	94	52	105	142	189	65	37	35	28
28	136	59	45	84	52	101	132	342	65	34	30	25
29	121	51	47	90	------	98	145	237	64	32	28	26
30	107	53	60	88	------	95	163	200	61	33	26	26
31	100	------	80	85	------	92	------	180	------	34	25	------
TOTAL	2,916	2,322	1,650	3,867	2,345	7,963	5,026	6,011	2,686	1,213	1,088	778
MEAN	94.1	77.4	53.2	125	83.8	257	168	194	89.5	39.1	35.1	25.9
MAX	228	118	80	370	190	1,030	290	351	155	59	55	43
MIN	50	51	45	66	51	51	96	107	61	32	25	21
CFSM	1.28	1.05	.72	1.70	1.14	3.49	2.28	2.63	1.21	.53	.48	.35
IN.	1.47	1.17	.83	1.95	1.18	4.02	2.54	3.03	1.36	.61	.55	.39

CAL YR 1972 TOTAL 20,050.1 MEAN 54.8 MAX 500 MIN 7.3 CFSM .74 IN 10.12
WTR YR 1973 TOTAL 37,865.0 MEAN 104 MAX 1,030 MIN 21 CFSM 1.41 IN 19.11

PEAK DISCHARGE (BASE, 150 FT^3/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-23	1300	4.38	256	4-16	1200	4.50	285
1-19	--	--	a400	4-21	0600	4.64	310
2- 2	--	--	a250	5- 2	0500	5.12	423
3- 7	0600	6.59	1,540	5- 8	0800	4.50	285
4- 2	1700	3.57	171	5-28	0600	4.97	378

04073500 Fox River at Berlin, Wis.

LOCATION.--Lat 43°57'14", long 88°57'08", in NE¼ sec.16, T.17 N., R.13 E., Green Lake County, on left bank, 0.4 mi (0.6 km) downstream from government dam, 1.0 mi (1.6 km) south of Huron Street bridge in Berlin, 2.5 mi (4.0 km) upstream from Barnes Creek, and at mi 89.0 (m 143).

DRAINAGE AREA.--1,430 mi^2 (3,700 km^2), approximately.

PERIOD OF RECORD.--January 1898 to current year.

GAGE.--Water-stage recorder. Datum of gage is 744.52 ft (226.930 m) above mean tide at New York City (by Corps of Engineers). Prior to Oct. 27, 1954, nonrecording gage at site 0.3 mi (0.5 km) upstream at same datum.

AVERAGE DISCHARGE.--75 years, 1,089 ft^3/s (30.8 m^3/s), 10.34 in/yr (263 mm/yr).

EXTREMES.--Current year: Maximum discharge, 6,010 ft^3/s (170 m^3/s) Mar. 15, gage height, 15.59 ft (4.752 m); minimum, 644 ft^3/s (18.2 m^3/s) Sept. 20, 21, gage height, 8.21 ft (2.502 m).
Period of record: Maximum discharge, 6,900 ft^3/s (195 m^3/s) Mar. 17, 18, 1946, gage height, 15.5 ft (4.724 m); minimum observed, 248 ft^3/s (7.02 m^3/s) Sept. 16, 1948, gage height, 6.1 ft (1.859 m).

REMARKS.--Records good except those for October to March, which are fair. Usually less than about 5 ft^3/s (0.14 m^3/s) was diverted into the basin from the Wisconsin River at Portage Canal throughout the year.

REVISIONS.--WSP 1337: 1910.

Rating tables (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Nov. 30 to Mar. 14.)

8.5	770	12.0	2,800
9.0	1,020	14.0	4,440
10.0	1,560	16.0	6,460

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,400	2,280	1,300	1,300	1,600	1,400	3,490	3,500	3,480	1,760	680	810
2	2,400	2,340	1,200	1,300	1,600	1,400	3,460	3,720	3,410	1,700	694	780
3	2,460	2,340	1,200	1,300	1,600	1,500	3,400	3,910	3,350	1,640	702	758
4	2,460	2,340	1,200	1,200	1,600	1,600	3,370	3,970	3,280	1,610	712	766
5	2,520	2,340	1,100	1,100	1,600	1,800	3,360	3,960	3,200	1,610	702	766
6	2,590	2,340	1,100	1,100	1,500	2,000	3,320	3,940	3,090	1,600	689	743
7	2,590	2,340	1,100	1,100	1,500	2,500	3,270	4,050	3,000	1,410	689	726
8	2,590	2,340	1,100	1,100	1,400	3,500	3,230	4,300	2,900	1,090	712	736
9	2,460	2,340	1,100	1,100	1,400	5,200	3,180	4,460	2,800	1,010	752	740
10	2,400	2,280	1,100	1,100	1,500	5,400	3,120	4,530	2,700	970	795	726
11	2,340	2,280	1,100	1,100	1,500	5,400	3,060	4,510	2,610	925	810	728
12	2,280	2,280	1,100	1,100	1,500	5,400	3,060	4,460	2,560	915	805	693
13	2,280	2,220	1,100	1,100	1,500	5,600	3,100	4,370	2,480	915	815	694
14	2,280	2,220	1,100	1,100	1,400	5,800	3,140	4,280	2,390	875	795	674
15	2,220	2,160	1,100	1,100	1,400	5,970	3,190	4,180	2,320	845	770	663
16	2,160	2,160	1,100	1,100	1,300	5,930	3,390	4,050	2,310	820	780	664
17	2,100	2,100	1,100	1,100	1,200	5,870	3,570	3,920	2,310	815	775	658
18	2,100	2,100	1,100	1,200	1,200	5,780	3,640	3,780	2,290	795	775	660
19	2,100	2,040	1,100	1,300	1,200	5,660	3,630	3,670	2,260	766	810	677
20	1,980	2,040	1,200	1,400	1,200	5,530	3,710	3,560	2,220	720	825	669
21	1,980	1,980	1,200	1,500	1,300	5,390	3,970	3,450	2,170	720	795	652
22	1,980	1,980	1,200	1,600	1,300	5,230	4,120	3,380	2,130	712	800	712
23	1,980	1,980	1,200	1,700	1,300	5,060	4,100	3,310	2,100	707	835	724
24	2,100	1,980	1,200	1,800	1,300	4,860	4,040	3,210	2,080	716	865	704
25	2,100	1,980	1,200	1,800	1,400	4,650	3,910	3,210	2,050	668	875	744
26	2,160	1,980	1,200	1,800	1,400	4,470	3,840	3,180	2,000	660	890	774
27	2,220	1,920	1,200	1,800	1,400	4,280	3,730	3,140	1,970	680	895	813
28	2,220	1,860	1,200	1,700	1,400	4,080	3,630	3,340	1,930	702	890	776
29	2,220	1,800	1,200	1,600	------	3,890	3,530	3,460	1,880	676	875	770
30	2,220	1,600	1,300	1,500	------	3,730	3,470	3,520	1,820	725	860	757
31	2,280	------	1,300	1,500	------	3,560	------	3,520	------	707	835	------
TOTAL	70,170	63,940	36,000	41,600	39,500	132,440	105,030	117,840	75,090	30,464	24,502	21,757
MEAN	2,264	2,131	1,161	1,342	1,411	4,272	3,501	3,801	2,503	983	790	725
MAX	2,590	2,340	1,300	1,800	1,600	5,970	4,120	4,530	3,480	1,760	895	813
MIN	1,980	1,600	1,100	1,100	1,200	1,400	3,060	3,140	1,820	660	680	652
CFSM	1.58	1.49	.81	.94	.99	2.99	2.45	2.66	1.75	.69	.55	.51
IN.	1.83	1.66	.94	1.08	1.03	3.45	2.73	3.07	1.95	.79	.64	.57

CAL YR 1972 TOTAL 485,629 MEAN 1,327 MAX 3,420 MIN 504 CFSM .93 IN 12.63
WTR YR 1973 TOTAL 758,333 MEAN 2,078 MAX 5,970 MIN 652 CFSM 1.45 IN 19.73

NOTE.--Once daily staff gage readings used Oct. 1 to Jan. 19.

04074950 Wolf River at Langlade, Wis.

LOCATION.--Lat 45°11'24", long 88°44'00", between secs.3 and 10, T.31 N., R.14 E., Langlade County, near left bank on upstream side of bridge handrail, on State Highway 64 at Langlade, 1.5 mi (2.4 km) east of White Lake, 3.0 mi (4.8 km) upstream from White Lake Creek, and at about mile 170 (274 km) above mouth.

DRAINAGE AREA.--460 mi^2 (1,191 km^2).

PERIOD OF RECORD.--March 1966 to current year.

GAGE.--Nonrecording gage. Altitude of gage is about 1,240 ft (378 m), from topographic map.

AVERAGE DISCHARGE.--7 years, 494 ft^3/s (13.99 m^3/s), 14.58 in/yr (370 mm/yr).

EXTREMES.--Current year: Maximum discharge observed, 2,200 ft^3/s (62.3 m^3/s) Mar. 15, gage height, 9.48 ft (2.890 m); maximum gage height observed, 9.96 ft (3.036 m) Mar. 12, backwater from ice; minimum discharge observed, 274 ft^3/s (7.76 m^3/s) Sept. 19, gage height, 7.55 ft (2.301 m).

Period of record: Maximum discharge observed, 2,200 ft^3/s (62.3 m^3/s) Mar. 15, 1973, gage height, 9.48 ft (2.890 m); maximum gage height observed, 9.98 ft (3.042 m) Dec. 5, 1968, backwater from ice; minimum discharge observed, 156 ft^3/s (4.42 m^3/s) Aug. 27-29, 1970.

REMARKS.--Records good except those for winter months, which are fair.

Rating table (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Nov. 17-25, Nov. 30 to Mar. 16.)

7.5	260	9.0	1,440
8.0	540	9.5	2,230
8.5	930		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,330	560	350	370	390	320	1,030	1,240	1,120	410	377	405
2	1,210	719	360	390	380	320	1,050	1,370	1,060	399	355	666
3	1,130	766	360	400	380	320	1,080	1,650	993	399	339	860
4	1,070	758	360	410	370	320	1,100	1,660	957	388	329	939
5	1,020	727	360	410	370	320	1,040	1,580	930	382	313	948
6	966	711	370	400	370	340	1,000	1,450	783	366	308	817
7	886	711	370	400	370	450	984	1,520	742	360	318	673
8	869	742	380	400	360	1,500	904	1,560	711	355	324	540
9	817	792	380	390	360	1,300	877	1,720	696	360	313	508
10	775	860	360	390	360	1,200	817	1,780	673	360	307	476
11	735	851	370	380	360	1,100	877	1,620	651	360	308	458
12	666	825	360	380	360	1,100	800	1,550	688	405	303	440
13	615	775	360	380	360	2,000	766	1,430	758	434	298	422
14	588	711	360	390	350	2,100	719	1,320	758	458	339	410
15	567	574	360	380	350	2,200	688	1,240	742	410	339	399
16	554	464	360	380	350	2,100	1,170	1,170	574	388	334	388
17	540	520	360	390	350	1,990	1,500	1,120	527	366	534	350
18	521	540	360	400	340	2,030	1,500	1,060	514	355	514	334
19	514	540	350	420	340	2,080	1,520	1,020	508	339	615	274
20	502	580	350	420	330	2,130	1,470	984	482	339	560	318
21	527	560	350	420	330	1,480	1,490	975	482	324	489	318
22	540	520	350	410	330	1,360	1,500	948	476	324	440	405
23	601	520	350	410	330	1,170	1,480	912	476	318	422	377
24	673	540	350	410	330	1,210	1,340	886	476	318	416	360
25	651	460	350	400	330	1,170	1,230	895	452	339	416	360
26	630	446	350	400	330	1,140	1,160	1,200	458	355	410	410
27	615	440	350	400	330	1,100	1,070	1,300	446	344	394	440
28	594	434	350	400	330	1,060	993	1,390	446	355	377	416
29	581	334	360	400	------	1,050	948	1,490	440	388	366	399
30	574	350	360	390	------	1,050	886	1,390	440	377	350	394
31	567	------	360	390	------	1,030	------	1,230	------	371	410	------
TOTAL	22,427	18,370	11,140	12,300	9,840	38,040	32,989	40,660	19,459	11,446	11,918	14,504
MEAN	723	612	359	397	351	1,227	1,100	1,312	649	369	384	483
MAX	1,330	860	380	420	390	2,200	1,520	1,780	1,120	458	615	948
MIN	502	334	350	370	330	320	688	886	440	318	298	274
CFSM	1.57	1.33	.78	.86	.76	2.67	2.39	2.85	1.41	.80	.83	1.05
IN.	1.81	1.49	.90	.99	.80	3.08	2.67	3.29	1.57	.93	.96	1.17

CAL YR 1972 TOTAL 194,496 MEAN 531 MAX 1,770 MIN 220 CFSM 1.15 IN 15.73
WTR YR 1973 TOTAL 243,093 MEAN 666 MAX 2,200 MIN 274 CFSM 1.45 IN 19.66

04075200 Evergreen Creek near Langlade, Wis.

LOCATION.--Lat 45°10'11", long 88°48'12", in NW¼ sec.18, T.31 N., R.14 E., Langlade County, on right bank 30 ft (9 m) upstream from culvert on State Highway 64, 0.1 mi (0.2 km) downstream from Town Line Lake Outlet, 2.5 mi (4.0 km) upstream from mouth, 3.8 mi (6.1 km) southwest of Langlade.

DRAINAGE AREA.--8.0 mi^2 (21 km^2), approximately, of which about 4.9 mi^2 (12.7 km^2) contributes directly to surface runoff.

PERIOD OF RECORD.--Annual maximum and occasional low-flow measurements, water years 1959-64, no winter record, June 1964-67, October 1967 to September 1973 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 1,320 ft (402 m) (from topographic map). Prior to June 16, 1964, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--6 years, 12.0 ft^3/s (0.34 m^3/s), 1.50 in/yr (38 mm/yr).

EXTREMES.--Current year: Maximum discharge, 46 ft^3/s (1.30 m^3/s) Mar. 7, gage height, 10.79 ft (3.289 m); minimum, 6.9 ft^3/s (0.20 m^3/s Feb. 16, gage height, 9.53 ft (2.905 m), result of freezeup.

Period of record: Maximum discharge, 78 ft^3/s (2.21 m^3/s) Apr. 11, 1965, gage height, 11.62 ft (3.542 m); minimum recorded, 6.1 ft^3/s (0.17 m^3/s) Mar. 14, 1971, gage height, 9.45 ft (2.880 m).

REMARKS.--Records good except those for winter months, which are fair.

Rating tables (gage height, in feet, and discharge, in cubic feet per second). (Stage-discharge relation affected by ice Dec. 2-20, 29, 30, Jan. 1, 5, 8-15, 29, 30, Feb. 7-19.)

9.5	6.5	10.3	26
9.9	14	10.8	43

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	14	12	13	12	13	17	25	23	16	15	18
2	13	19	12	12	12	13	20	31	18	16	14	19
3	13	19	12	12	11	14	19	21	22	16	14	27
4	13	15	12	11	11	14	18	16	29	16	14	21
5	13	14	12	13	11	13	14	14	24	16	14	18
6	13	14	12	13	11	14	14	15	20	16	14	17
7	13	14	12	14	11	36	14	20	19	16	16	16
8	13	14	13	15	11	21	14	30	18	14	18	16
9	12	13	13	16	11	16	13	21	18	15	18	16
10	12	12	13	17	12	15	13	19	18	16	16	16
11	13	12	14	17	12	30	14	16	17	16	16	16
12	13	12	14	18	12	38	14	15	18	21	16	16
13	12	12	14	18	12	24	13	14	17	18	18	16
14	12	11	14	16	13	30	14	14	17	16	20	16
15	12	11	14	15	13	27	20	14	17	16	18	16
16	12	12	13	14	13	21	33	14	18	16	17	16
17	12	12	13	12	13	16	20	14	18	16	28	16
18	12	12	12	12	14	15	14	14	17	16	20	16
19	12	12	11	13	14	14	13	14	18	16	19	16
20	12	12	11	12	13	14	14	13	17	15	18	16
21	15	11	11	11	13	14	16	13	17	15	17	17
22	14	11	11	12	13	14	14	13	18	15	17	21
23	21	12	11	11	13	14	13	14	18	15	17	17
24	18	12	11	11	13	14	13	14	18	25	17	17
25	15	12	11	11	13	15	13	28	17	21	17	18
26	14	12	11	11	17	15	13	25	17	17	18	18
27	14	12	11	11	16	14	13	18	16	16	17	19
28	13	12	11	11	13	14	13	37	17	16	17	17
29	13	12	12	14	------	15	13	27	16	16	17	16
30	13	12	12	13	------	15	13	19	17	17	16	16
31	13	------	12	12	------	15	------	19	------	15	18	------
TOTAL	414	384	377	411	353	557	459	581	554	511	531	520
MEAN	13.4	12.8	12.2	13.3	12.6	18.0	15.3	18.7	18.5	16.5	17.1	17.3
MAX	21	19	14	18	17	38	33	37	29	25	28	27
MIN	12	11	11	11	11	13	13	13	16	14	14	16
CFSM	1.68	1.60	1.53	1.66	1.58	2.25	1.91	2.34	2.31	2.06	2.14	2.16
IN.	1.93	1.79	1.75	1.91	1.64	2.59	2.13	2.70	2.58	2.38	2.47	2.42

CAL YR 1972 TOTAL 4,154.9 MEAN 11.4 MAX 22 MIN 7.2 CFSM 1.43 IN 19.32
WTR YR 1973 TOTAL 5,652.0 MEAN 15.5 MAX 38 MIN 11 CFSM 1.94 IN 26.28

04077000 Wolf River at Keshena Falls, Wis.

LOCATION.--Lat 44°53'28", long 88°39'18", in E½ sec.22, T.28 N., R.15 E., Menominee County, on right bank 500 ft (152 m) downstream from Keshena Falls, 1.7 mi (2.7 km) upstream from Keshena, 3.1 mi (5.0 km) downstream from West Branch Wolf River, and at mile 136.4 (219.5 km).

DRAINAGE AREA.--812 mi² (2,103 km²).

PERIOD OF RECORD.--May 1907 to March 1909, October 1910 to current year. Monthly discharge only for some periods, published in WSP 1307. Published as "at Keshena" prior to April 1928.

GAGE.--Water-stage recorder. Datum of gage is 820.0 ft (249.936 m) above mean sea level (levels by Wisconsin Power and Light Co.). Prior to Mar. 23, 1928, nonrecording gage at bridge in Keshena 1.7 mi (2.7 km) downstream at datum 4.03 ft (1.23 m) lower.

AVERAGE DISCHARGE.-- 64 years (1907-8, 1910-73), 762 ft³/s (21.58 m³/s), 12.74 in/yr (324 mm/yr).

EXTREMES.--Current year: Maximum daily discharge, 5,200 ft³/s (147 m³/s) Mar. 15; maximum gage height, 13.86 ft (4.225 m) Mar. 15, backwater from ice; minimum discharge, 471 ft³/s (13.3 m³/s) Nov. 29, gage height, 5.47 ft (1.667 m).

Period of record: Maximum daily discharge, 5,200 ft³/s (147 m³/s) Mar. 15, 1973; maximum gage height, 13.86 ft (4.224 m) Mar. 15, 1973, backwater from ice; minimum discharge, 91 ft³/s (2.58 m³/s) Dec. 22, 1939, gage height, 4.67 ft (1.423 m), result of ice storage.

REMARKS.--Records good except those for winter months, which are fair.

REVISIONS (WATER YEARS).--WSP 664: Drainage area (site at Keshena). WSP 1337: 1914-15(M), 1918-19(M), 1921, 1923(M), 1926(M), 1928(M), 1933.

Rating table (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Nov. 18-26, Nov. 29 to Mar. 18.)

5.5	448	8.0	2,800
6.0	842	9.0	4,000
7.0	1,740	10.0	5,260

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,700	786	640	1,100	660	640	1,500	1,530	2,000	835	727	745
2	1,600	914	660	1,100	660	640	1,610	2,200	1,830	810	710	817
3	1,500	1,120	680	1,000	660	640	1,720	2,700	1,740	790	626	1,100
4	1,420	1,190	700	1,000	660	660	1,750	2,650	1,780	763	580	1,370
5	1,340	1,110	720	1,000	660	680	1,670	2,370	1,790	740	595	1,390
6	1,290	1,040	720	960	660	720	1,560	2,150	1,630	725	621	1,280
7	1,220	1,030	720	920	660	1,100	1,500	2,130	1,460	716	673	1,130
8	1,160	1,070	720	900	640	2,800	1,450	2,620	1,400	698	727	970
9	1,090	1,080	720	900	640	2,500	1,410	2,800	1,360	689	736	866
10	1,040	1,130	720	860	620	2,300	1,350	2,810	1,330	713	683	807
11	978	1,150	700	840	620	2,200	1,300	2,580	1,280	698	644	771
12	915	1,120	700	820	620	2,100	1,320	2,360	1,280	750	627	738
13	850	1,080	700	800	620	2,000	1,270	2,160	1,300	848	615	715
14	796	1,020	700	780	620	3,500	1,250	1,990	1,310	848	686	706
15	763	908	700	780	620	5,200	1,300	1,830	1,270	804	704	692
16	742	717	700	760	620	4,000	1,820	1,740	1,180	757	677	680
17	718	685	700	760	620	3,300	2,490	1,680	1,070	722	814	670
18	700	700	720	760	620	2,800	2,570	1,620	1,020	695	988	643
19	682	720	740	760	620	2,540	2,300	1,580	974	673	1,130	611
20	673	740	780	740	620	2,340	2,110	1,540	946	651	1,030	604
21	712	700	800	740	620	2,010	2,200	1,490	916	640	910	602
22	769	660	820	740	620	1,790	2,160	1,430	929	631	821	738
23	930	660	860	720	620	1,720	2,090	1,360	947	625	769	767
24	1,100	680	900	700	620	1,680	1,960	1,290	1,080	642	757	720
25	1,080	760	940	700	620	1,650	1,800	1,500	990	837	746	709
26	990	660	1,000	680	640	1,640	1,680	1,890	923	818	732	757
27	932	641	1,000	680	640	1,670	1,580	2,030	898	753	722	801
28	871	591	1,100	680	640	1,610	1,490	2,510	877	717	702	804
29	831	600	1,100	680	------	1,560	1,410	2,910	864	720	679	779
30	803	600	1,100	680	------	1,630	1,350	2,610	859	770	659	732
31	792	------	1,100	660	------	1,520	------	2,230	------	750	656	------
TOTAL	30,987	25,862	24,860	25,200	17,740	61,140	50,970	64,290	37,233	22,828	22,746	24,714
MEAN	1,000	862	802	813	634	1,972	1,699	2,074	1,241	736	734	824
MAX	1,700	1,190	1,100	1,100	660	5,200	2,570	2,910	2,000	848	1,130	1,390
MIN	673	591	640	660	620	640	1,250	1,290	859	625	580	602
CFSM	1.23	1.06	.99	1.00	.78	2.43	2.09	2.55	1.53	.91	.90	1.01
IN.	1.42	1.18	1.14	1.15	.81	2.80	2.34	2.95	1.71	1.05	1.04	1.13

CAL YR 1972 TOTAL 305,468 MEAN 835 MAX 2,720 MIN 410 CFSM 1.03 IN 13.99
WTR YR 1973 TOTAL 408,570 MEAN 1,119 MAX 5,200 MIN 580 CFSM 1.38 IN 18.72

PEAK DISCHARGE (BASE, 1,500 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
3-15	--	--	a5,200	5-10	0100	8.06	2,870
4-18	0300	7.87	2,660	5-29	0600	8.09	2,940

a About.

04078500 Embarrass River near Embarrass, Wis.

LOCATION.--Lat 44°43'29", long 88°44'10", in SW¼ sec.18, T.26 N., R.15 E., Shawano County, on left bank 10 ft (3 m) downstream from bridge on county road, 1.3 mi (2.1 km) downstream from Mill Creek, and 4.0 mi (6.4 km) northwest of Embarrass.

DRAINAGE AREA.--395 mi^2 (1,023 km^2).

PERIOD OF RECORD.--June 1919 to current year.

GAGE.--Water-stage recorder. Datum of gage is 803.95 ft (245.044 m) above mean sea level. Prior to Aug. 23, 1938, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--54 years, 291 ft^3/s (8.241 m^3/s), 10.00 in/yr (254 mm/yr).

EXTREMES.--Current year: Maximum discharge, about 4,000 ft^3/s (113 m^3/s) Mar. 8; maximum gage height, 9.89 ft (3.014 m) Mar. 8, backwater from ice; minimum discharge, 95 ft^3/s (2.69 m^3/s) July 22, gage height, 2.74 ft (0.835 m).

Period of record: Maximum discharge, 7,080 ft^3/s (200 m^3/s) Apr. 12, 1965, gage height, 12.13 ft (3.697 m), affected by failure of dam near Pella, 9.2 mi (14.8 km) above station; minimum observed, 23 ft^3/s (0.65 m^3/s) Aug. 3, 6, 7, 1931.

REMARKS.--Records good except those for winter months, which are fair. Slight diurnal fluctuation caused by powerplants above station.

REVISIONS (WATER YEARS).--WSP 1337: 1920-26(M), 1928, 1929-30(M), 1933-34, 1936-37, 1938(M), 1940.

Rating table (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Nov. 20, 23, Nov. 25 to Mar. 9.)

2.8	104	5.0	1,140
3.0	151	7.0	2,340
3.4	290	9.0	3,760
4.0	589		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,100	283	190	280	240	180	626	692	1,300	257	169	154
2	900	332	190	300	230	180	669	1,740	1,050	250	165	148
3	700	506	200	300	230	190	767	2,520	809	242	160	226
4	542	630	200	300	220	200	903	2,210	834	220	154	352
5	434	651	210	300	220	230	917	1,700	845	207	149	285
6	399	590	210	300	210	270	836	1,220	964	202	146	210
7	383	494	210	290	210	450	809	1,190	934	195	151	174
8	347	459	210	280	200	3,400	809	1,960	777	191	175	158
9	305	461	210	280	200	2,000	766	2,280	642	195	205	154
10	262	435	220	280	200	2,350	657	2,040	553	215	208	154
11	251	394	220	270	200	2,700	631	1,760	505	217	193	151
12	249	359	220	270	200	3,460	683	1,350	516	208	181	146
13	248	304	220	260	200	3,400	723	1,100	544	211	171	142
14	207	292	220	260	200	3,350	741	928	472	207	169	141
15	219	271	210	260	200	3,600	812	800	417	193	171	141
16	213	249	210	260	190	3,100	1,410	713	391	184	170	141
17	203	234	210	260	190	2,290	2,210	639	393	176	167	141
18	197	224	200	260	190	1,550	2,260	595	390	171	161	139
19	190	219	200	280	190	1,160	1,790	605	368	164	157	140
20	183	210	200	300	190	982	1,340	596	329	161	155	139
21	189	210	200	310	190	895	1,290	576	322	158	150	143
22	226	200	200	330	180	807	1,280	551	309	143	147	196
23	414	200	200	310	180	730	1,150	542	310	135	147	243
24	670	194	200	300	180	685	1,010	544	340	156	146	220
25	772	200	200	290	180	695	842	758	322	178	144	202
26	699	200	200	280	180	722	718	1,400	304	238	154	193
27	586	200	200	270	180	728	627	1,500	287	240	157	218
28	453	200	200	260	180	712	519	1,870	270	209	150	219
29	373	200	210	250	------	689	505	2,660	264	189	132	210
30	325	190	220	250	------	648	486	2,290	265	182	129	189
31	297	------	250	240	------	609	------	1,700	------	176	133	------
TOTAL	12,536	9,591	6,440	8,680	5,560	42,962	28,786	41,029	16,026	6,070	4,966	5,469
MEAN	404	320	208	280	199	1,386	960	1,324	534	196	160	182
MAX	1,100	651	250	330	240	3,600	2,260	2,660	1,300	257	208	352
MIN	183	190	190	240	180	180	486	542	264	135	129	139
CFSM	1.02	.81	.53	.71	.50	3.51	2.43	3.35	1.35	.50	.41	.46
IN.	1.18	.90	.61	.82	.52	4.05	2.71	3.86	1.51	.57	.47	.52

CAL YR 1972 TOTAL 130,707 MEAN 357 MAX 3,090 MIN 118 CFSM .90 IN 12.31
WTR YR 1973 TOTAL 188,115 MEAN 515 MAX 3,600 MIN 129 CFSM 1.30 IN 17.72

04079000 Wolf River at New London, Wis.

LOCATION.--Lat 44°23'32", long 88°44'25", in NE¼ SE¼ sec.12, T.22 N., R.14 E., Waupaca County, on right bank 100 ft (30 m) downstream from Pearl Street bridge in New London, 0.2 mi (0.3 km) downstream from Embarrass River, and at mile 56.3 (90.6 km).

DRAINAGE AREA.--2,240 mi^2 (5,800 km^2), approximately.

PERIOD OF RECORD.--March 1896 to current year. Prior to October 1913 monthly discharges only, published in WSP 1307.

GAGE.--Water-stage recorder. Datum of gage is 749.0 ft (228.295 m) above mean sea level (levels by Corps of Engineers). Prior to October 4, 1951, nonrecording gage.

AVERAGE DISCHARGE.--77 years, 1,729 ft^3/s (48.97 m^3/s), 10.48 in/yr (266 mm/yr).

EXTREMES.--Current year: Maximum discharge, 14,100 ft^3/s (399 m^3/s) Mar. 16, gage height, 11.22 ft (3.420 m); minimum, 1,000 ft^3/s (28.3 m^3/s) Sept. 21, gage height, 2.10 ft (0.640 m).

Period of record: Maximum daily discharge, 15,500 ft^3/s (439 m^3/s) Apr. 13, 1922, gage height, 11.4 ft (3.47 m); minimum daily, 150 ft^3/s (4.25 m^3/s) Mar. 1, 1900.

Maximum stage known, 11.6 ft (3.54 m) Apr. 16, 1888, from information by Corps of Engineers.

REMARKS.--Records good except those for winter periods, which are fair.

Rating table (gage height, in feet, and discharge, in cubic feet per second). (Shifting-control method used Oct. 1-9, July 3 to Sept. 30; stage-discharge relation affected by ice Nov. 26-28, Dec. 1 to Mar. 11.)

Oct. 1 to Mar. 11				Mar. 12 to Sept. 30			
2.0	1,060	8.0	4,990	1.9	1,020	8.0	4,890
4.0	1,910	9.0	7,540	4.0	1,910	10.0	9,890
6.0	2,950	10.0	11,000	6.0	2,950	11.5	15,300

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3,710	2,920	1,600	1,700	2,300	1,200	4,090	4,710	8,550	2,230	1,320	1,130
2	3,850	2,890	1,600	1,700	2,200	1,200	4,000	4,940	8,760	2,140	1,310	1,130
3	3,960	2,920	1,600	1,800	2,100	1,300	3,970	5,270	8,540	2,040	1,280	1,120
4	4,030	2,980	1,600	1,800	2,000	1,400	3,960	5,590	8,010	1,940	1,250	1,170
5	4,050	3,030	1,600	1,800	2,000	1,500	3,930	6,070	7,400	1,840	1,220	1,340
6	4,080	3,050	1,700	1,800	1,900	1,800	3,980	6,750	6,770	1,740	1,170	1,480
7	4,030	3,060	1,700	1,800	1,900	2,200	4,110	7,300	6,180	1,650	1,130	1,520
8	3,930	3,070	1,700	1,800	1,800	2,800	4,250	8,010	5,640	1,550	1,120	1,510
9	3,770	3,060	1,700	1,700	1,700	5,000	4,420	8,610	5,140	1,430	1,150	1,510
10	3,580	3,050	1,700	1,600	1,700	8,000	4,490	9,030	4,700	1,380	1,270	1,500
11	3,400	3,040	1,700	1,600	1,600	11,000	4,450	9,310	4,380	1,360	1,330	1,450
12	3,260	2,990	1,700	1,500	1,600	12,600	4,420	9,390	4,220	1,350	1,310	1,340
13	3,130	2,940	1,700	1,500	1,600	13,400	4,390	9,170	4,010	1,340	1,290	1,250
14	3,000	2,880	1,600	1,400	1,500	13,700	4,370	8,710	3,820	1,350	1,260	1,210
15	2,880	2,800	1,600	1,400	1,500	14,000	4,360	8,050	3,670	1,400	1,220	1,190
16	2,750	2,720	1,600	1,400	1,400	14,100	4,590	7,390	3,550	1,440	1,210	1,160
17	2,590	2,650	1,600	1,400	1,400	14,000	4,960	6,840	3,430	1,440	1,210	1,140
18	2,440	2,580	1,600	1,400	1,300	13,700	5,330	6,290	3,320	1,400	1,200	1,130
19	2,260	2,500	1,600	1,600	1,300	13,200	5,670	5,770	3,230	1,350	1,210	1,090
20	2,090	2,410	1,600	1,900	1,300	12,500	6,240	5,240	3,130	1,290	1,270	1,040
21	1,970	2,280	1,600	2,200	1,300	11,300	7,000	4,750	3,030	1,200	1,320	1,020
22	1,910	2,150	1,600	2,500	1,200	10,100	7,370	4,390	2,930	1,170	1,380	1,110
23	2,140	2,040	1,600	2,700	1,200	8,870	7,440	4,140	2,810	1,170	1,420	1,160
24	2,520	1,920	1,600	2,800	1,200	7,850	7,260	3,940	2,750	1,190	1,400	1,280
25	2,750	1,870	1,600	2,800	1,200	7,100	6,940	3,880	2,640	1,240	1,360	1,350
26	2,900	1,800	1,600	2,700	1,200	6,480	6,610	3,850	2,560	1,290	1,320	1,340
27	2,990	1,700	1,600	2,700	1,200	5,920	6,130	3,850	2,510	1,370	1,290	1,350
28	3,050	1,700	1,600	2,600	1,200	5,110	5,660	4,410	2,450	1,420	1,270	1,370
29	3,040	1,690	1,600	2,500	------	4,630	5,210	5,330	2,380	1,430	1,270	1,400
30	3,020	1,600	1,600	2,500	------	4,390	4,800	6,610	2,310	1,400	1,220	1,380
31	2,990	------	1,600	2,400	------	4,200	------	7,780	------	1,340	1,170	------
TOTAL	96,070	76,290	50,400	61,000	43,800	234,550	154,400	195,370	132,820	45,880	39,150	38,170
MEAN	3,099	2,543	1,626	1,968	1,564	7,566	5,147	6,302	4,427	1,480	1,263	1,272
MAX	4,080	3,070	1,700	2,800	2,300	14,100	7,440	9,390	8,760	2,230	1,420	1,520
MIN	1,910	1,600	1,600	1,400	1,200	1,200	3,930	3,850	2,310	1,170	1,120	1,020
CFSM	1.38	1.14	.73	.88	.70	3.38	2.30	2.81	1.98	.66	.56	.57
IN.	1.60	1.27	.84	1.01	.73	3.90	2.56	3.24	2.21	.76	.65	.63

CAL YR 1972 TOTAL 776,849 MEAN 2,123 MAX 10,200 MIN 800 CFSM .95 IN 12.90
WTR YR 1973 TOTAL 1,167,980 MEAN 3,200 MAX 14,100 MIN 1,020 CFSM 1.43 IN 19.40

04080950 Emmons Creek near Rural, Wis.

LOCATION.--Lat 44°18'55", long 89°11'34", in NW¼ NE¼ sec.8, T.21 N., R.11 E., Waupaca County, 0.8 mi (1.3 km) upstream from Long Lake and 1.8 mi (2.9 km) west of Rural.

DRAINAGE AREA.--27 mi^2 (70 km^2), approximately; the ground-water drainage area is about one-third larger than the surface-water drainage area.

PERIOD OF RECORD.--May 1968 to current year.

GAGE.--Nonrecording gage and crest-stage gage. Altitude of gage is 890 ft (270 m), by barometer.

AVERAGE DISCHARGE.--5 years, 26.6 ft^3/s (0.753 m^3/s), 13.38 in/yr (340 mm/yr).

EXTREMES.--Current year: Maximum discharge, 350 ft^3/s (9.91 m^3/s) Mar. 7, gage height, 5.46 ft (1.664 m) from rating curve extended above 140 ft^3/s (3.96 m^3/s) on basis of slope-area measurement of peak flow; minimum daily, 24 ft^3/s (0.68 m^3/s) Jan. 6, Feb. 12, 13, 15-18, 20-24, 28.
Period of record: Maximum discharge, 350 ft^3/s (9.91 m^3/s) Mar. 7, 1973, gage height, 5.46 ft (1.664 m) from rating curve extended above 140 ft^3/s (3.96 m^3/s) on basis of slope-area measurement of peak flow; minimum, 21 ft^3/s (0.59 m^3/s) Aug. 30, 1969, Feb. 14, Aug. 3, 8, 10, 15-17, 20-28, 1970, July 25, 1972.

REMARKS.--Records good.

Rating table (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Dec. 7, 8, 11, 12, 16, 17, Jan. 5, 7, 8, 10-12, Feb. 9, 16.)

2.2	23	3.5	71
2.5	32	4.0	110
3.0	48	5.0	242

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	28	26	27	26	25	37	50	36	31	29	30
2	27	41	26	26	28	25	32	70	34	31	30	29
3	28	30	26	26	27	26	31	37	36	31	29	30
4	28	28	26	26	26	28	32	35	35	34	28	30
5	27	28	26	25	26	27	30	34	35	31	28	30
6	28	28	26	24	25	28	30	34	34	28	28	28
7	27	29	26	25	25	203	35	40	34	28	34	28
8	27	27	26	25	25	54	31	46	34	28	29	29
9	26	27	26	25	25	36	32	37	33	29	30	28
10	27	27	26	25	25	34	32	36	35	30	29	28
11	27	27	26	25	25	34	31	36	33	30	30	28
12	26	26	26	25	24	43	32	36	39	30	31	28
13	26	26	26	25	24	35	31	34	34	28	30	28
14	26	26	25	25	25	52	32	34	33	29	29	28
15	26	26	25	25	24	39	32	34	33	28	29	28
16	26	26	25	25	24	32	54	33	32	29	29	28
17	27	27	25	25	24	31	35	33	34	29	29	32
18	27	26	25	28	24	31	33	33	33	28	29	30
19	27	26	25	30	25	30	32	33	32	28	32	28
20	26	26	25	28	24	31	32	33	32	28	31	28
21	27	26	25	27	24	30	36	33	32	28	30	28
22	27	26	25	27	24	30	34	38	32	29	29	36
23	42	26	25	27	24	30	33	34	32	28	33	30
24	28	26	25	26	24	30	32	33	33	36	31	29
25	27	26	25	26	25	30	32	54	33	31	30	33
26	27	26	25	25	25	30	31	36	33	29	30	30
27	27	26	25	26	25	30	31	36	32	29	30	29
28	27	26	26	26	24	30	31	65	33	28	30	29
29	27	26	28	26	------	30	31	43	32	28	29	30
30	26	26	35	25	------	29	31	36	31	31	28	29
31	28	------	29	25	------	29	------	36	------	29	29	------
TOTAL	849	815	806	801	696	1,172	988	1,202	1,004	914	922	879
MEAN	27.4	27.2	26.0	25.8	24.9	37.8	32.9	38.8	33.5	29.5	29.7	29.3
MAX	42	41	35	30	28	203	54	70	39	36	34	36
MIN	26	26	25	24	24	25	30	33	31	28	28	28
CFSM	1.01	1.01	.96	.96	.92	1.40	1.22	1.44	1.24	1.09	1.10	1.09
IN.	1.17	1.12	1.11	1.10	.96	1.61	1.36	1.66	1.38	1.26	1.27	1.21

CAL YR 1972 TOTAL 9,393 MEAN 25.7 MAX 50 MIN 21 CFSM .95 IN 12.94
WTR YR 1973 TOTAL 11,048 MEAN 30.3 MAX 203 MIN 24 CFSM 1.12 IN 15.22

04082500 Lake Winnebago at Oshkosh, Wis.

LOCATION.--Lat 44°00'41", long 88°32'01", in SW¼ sec.24, T.18 N., R.16 E., Winnebago County, in mouth of the Upper Fox River at Chicago and North Western Railway bridge, 0.2 mi (0.3 km) downstream from Main Street bridge in Oshkosh and 18 mi (29 km) south of Menasha Dam and outlet.

DRAINAGE AREA.--6,030 mi² (15,600 km²), approximately, at lake outlet at Menasha Dam.

PERIOD OF RECORD.--October 1938 to current year in reports of Geological Survey. Records from 1857 to 1938 in files of Corps of Engineers. A report on Fox River by Corps of Engineers, published as House Document No. 146, 67th Congress, 2nd session, contains semi-monthly records of inflow of Lake Winnebago for the period 1896-1917.

GAGE.--Nonrecording gage read once daily. Datum of gage is 745.05 ft (227.091 m) above mean tide at New York City (levels by Corps of Engineers). Prior to 1882, lake levels were referred to Deuchman gage at Lake outlet of Menasha Dam. Datum of Deuchman gage, which is still in existence, is 745.00 ft (227.076 m) above mean tide at New York City.

EXTREMES.--Current year: Maximum gage height observed, 3.92 ft (1.19 m) Mar. 25; minimum observed, 1.36 ft (0.41 m) Mar. 2, 3, 5.

Period of record: Maximum gage height observed, 5.33 ft (1.62 m) (Deuchman gage) Nov. 8, 1881, minimum observed, -2.00 ft (-0.61 m) (Deuchman gage) Nov. 28, 1891.

REMARKS.--Lake elevations controlled by dams at Menasha and Neenah, which are operated in the interest of navigation. Crests of both dams are at elevation 746.73 ft (227.603 m). Present limits of regulation are from 21¼ in. (540 m) above the crest of Menasha Dam to crest during navigation season, plus additional 18 in. (457 mm) below crest during winter. Oshkosh staff gage gives true level of lake, while Deuchman gage readings are affected by loss of head in the channel between lake and dam.

COOPERATION.--Records furnished by Corps of Engineers.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.86	2.88	2.43	2.44	2.08	1.40	3.66	3.38	3.33	3.28	2.88	2.92
2	2.91	2.86	2.46	2.43	2.08	1.36	3.60	3.48	3.32	3.16	2.82	2.86
3	2.94	2.96	2.44	2.44	2.10	1.36	3.60	3.49	3.24	3.24	2.80	2.86
4	2.90	2.90	2.42	2.43	2.07	1.37	3.57	3.50	3.26	3.22	2.80	2.90
5	2.94	2.88	2.44	2.39	2.04	1.36	3.51	3.50	3.20	3.19	2.75	2.83
6	2.91	2.86	2.40	2.36	2.04	1.40	3.47	3.48	3.20	3.10	2.67	2.90
7	2.94	2.78	2.40	2.32	2.04	1.54	3.47	3.44	3.16	3.12	2.77	2.86
8	2.96	2.88	2.43	2.31	2.02	1.63	3.42	3.48	3.16	3.10	2.94	2.82
9	2.98	2.86	2.40	2.28	1.99	1.72	3.50	3.54	3.24	3.07	2.96	2.76
10	2.98	2.82	2.43	2.25	1.96	1.82	3.18	3.44	3.14	3.14	2.88	2.78
11	3.01	2.78	2.42	2.22	1.94	2.00	3.18	3.56	3.12	3.06	2.86	2.78
12	3.00	2.76	2.46	2.20	1.92	2.24	3.18	3.56	3.26	3.02	2.85	2.84
13	2.94	2.87	2.50	2.16	1.87	2.42	3.16	3.65	3.20	2.90	2.84	2.81
14	2.92	2.71	2.47	2.10	1.88	2.66	3.16	3.63	3.20	2.84	2.83	2.82
15	2.86	2.66	2.46	2.10	1.86	2.81	3.16	3.61	3.15	2.90	2.83	2.76
16	2.82	2.64	2.47	2.09	1.80	3.00	3.20	3.62	3.16	2.84	2.80	2.71
17	2.88	2.58	2.44	2.07	1.78	3.16	3.22	3.65	2.86	2.80	2.80	2.80
18	2.88	2.56	2.45	2.08	1.75	3.28	3.28	3.62	3.25	2.74	2.78	2.78
19	2.81	2.54	2.44	2.22	1.73	3.44	3.27	3.63	3.23	2.83	2.85	2.73
20	2.78	2.52	2.44	2.24	1.69	3.58	3.31	3.56	3.20	2.94	2.96	2.75
21	2.76	2.50	2.43	2.22	1.64	3.66	3.36	3.52	3.14	2.92	2.97	2.77
22	2.90	2.47	2.38	2.26	1.60	3.74	3.36	3.52	3.17	2.83	2.94	2.64
23	2.92	2.44	2.36	2.26	1.56	3.78	3.48	3.48	3.20	2.83	2.86	2.66
24	2.92	2.45	2.34	2.24	1.52	3.84	3.54	3.44	3.10	2.79	2.81	2.67
25	2.91	2.44	2.34	2.22	1.54	3.92	3.51	3.34	3.06	2.82	2.60	2.82
26	2.91	2.38	2.32	2.20	1.50	3.86	3.49	3.33	3.22	2.81	2.47	2.84
27	2.90	2.38	2.32	2.18	1.46	3.85	3.46	3.36	3.17	2.85	2.56	2.92
28	2.90	2.38	2.30	2.16	1.42	3.82	3.43	3.38	3.28	2.76	2.54	2.92
29	2.90	2.44	2.29	2.14	------	3.78	3.48	3.36	3.28	2.76	2.51	2.94
30	2.90	2.40	2.34	2.10	------	3.75	3.46	3.36	3.30	2.76	2.71	2.91
31	2.92	------	2.44	2.08	------	3.73	------	3.28	------	2.76	2.94	------
MEAN	2.91	2.65	2.41	2.23	1.82	2.75	3.39	3.49	3.19	2.95	2.79	2.81
MAX	3.01	2.96	2.50	2.44	2.10	3.92	3.66	3.65	3.33	3.28	2.97	2.94
MIN	2.76	2.38	2.29	2.07	1.42	1.36	3.16	3.28	2.86	2.74	2.47	2.64

04084500 Fox River at Rapide Croche Dam, near Wrightstown, Wis.

LOCATION.--Lat 44°19'03", long 88°11'50", in SE¼ sec.4, T.21 N., R.19 E., Outagamie County, at Rapide Croche Dam, 2.0 mi (3.2 km) upstream from Wrightstown, and 18 mi (29 km) upstream from mouth.

DRAINAGE AREA.--6,150 mi² (15,930 km²), approximately.

RECORDS AVAILABLE.--March 1896 to September 1917 (monthly discharge only), October 1917 to current year.

GAGE.--Recording headwater and tailwater gages and electric generation are read three times a day and used to compute the discharge records.

AVERAGE DISCHARGE.--77 years, 4,184 ft³/s (118.5 m³/s).

EXTREMES.--Current year: Maximum daily discharge during year, 17,000 ft³/s (481 m³/s) Mar. 29; minimum daily, 1,760 ft³/s (49.8 m³/s) July 22.

Period of record: Maximum daily discharge, 24,000 ft³/s (680 m³/s) Apr. 18, 1952; minimum daily, 138 ft³/s (3.91 m³/s) Aug. 2, 1936.

REMARKS.--Records good. Flow regulated by storage in Lake Winnebago (see p. 60). Daily discharge determined from records of flow through turbines, head, gate openings, and lockages through navigation canal. Usually less than about 5 ft³/s (0.14 m³/s) diverted into basin from Wisconsin River at Portage Canal throughout the year.

COOPERATION.--Figures of daily discharge furnished by Corps of Engineers. Records reviewed by Geological Survey.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7,740	6,600	3,150	3,880	8,620	6,840	15,800	13,800	14,900	3,980	2,160	2,590
2	7,680	8,140	3,130	4,940	8,580	6,620	15,500	15,300	14,700	4,750	1,770	2,600
3	7,800	9,060	2,690	7,440	8,240	6,460	15,300	13,900	14,700	4,320	2,100	2,490
4	7,650	9,210	2,580	7,520	7,650	6,300	15,200	14,600	14,600	4,210	2,130	2,540
5	7,540	9,120	2,820	6,100	7,620	6,420	15,000	15,200	14,900	3,970	2,220	2,670
6	7,560	8,940	2,860	5,640	8,420	6,490	15,000	15,000	14,500	4,430	2,330	2,370
7	7,600	8,740	2,500	6,250	8,440	6,650	14,800	16,100	14,800	4,280	2,300	2,280
8	7,820	8,520	2,780	5,640	8,620	7,500	13,800	16,400	14,600	4,180	2,660	2,130
9	7,280	8,510	2,470	5,820	8,330	9,500	12,400	16,200	12,600	4,060	1,920	2,170
10	7,620	8,450	2,680	5,840	8,320	8,660	12,100	15,400	12,700	4,040	2,500	2,210
11	7,670	8,260	2,760	5,980	8,020	11,600	14,500	15,600	12,600	3,790	2,090	2,200
12	6,400	8,200	2,720	6,010	7,940	10,100	14,500	16,000	12,000	4,380	2,170	2,170
13	7,040	7,600	3,090	6,040	7,860	11,700	12,400	15,700	9,790	4,140	2,220	2,100
14	7,330	6,510	3,220	6,500	7,660	15,500	9,780	16,100	9,580	3,960	2,150	2,160
15	7,010	7,640	3,180	6,000	6,900	14,000	11,600	16,500	8,780	3,720	2,100	2,040
16	7,720	8,520	3,040	5,390	8,300	14,600	12,300	16,100	6,650	3,400	2,230	1,980
17	6,840	4,240	3,030	5,020	8,280	13,800	11,800	16,000	6,700	1,910	2,400	1,930
18	6,880	8,410	3,120	6,490	7,960	14,600	11,300	16,700	6,930	2,360	2,360	1,870
19	6,840	8,280	4,270	9,480	7,820	15,700	11,000	16,000	6,790	2,210	2,530	2,220
20	7,280	8,060	4,400	6,460	7,520	12,800	11,200	15,600	6,440	2,200	2,470	2,040
21	7,100	7,450	3,780	6,320	7,340	15,000	11,600	15,500	6,250	1,980	2,240	1,990
22	6,700	6,900	4,280	7,020	7,060	15,500	11,500	15,300	5,680	1,760	2,240	2,600
23	6,870	6,070	3,900	7,040	6,990	15,800	11,700	14,700	4,270	1,870	2,530	2,240
24	6,770	5,900	3,060	8,440	6,860	15,900	13,000	14,600	5,030	2,290	2,380	2,210
25	7,840	5,760	3,920	8,000	6,940	16,000	13,300	15,200	4,940	2,360	2,310	2,430
26	8,060	5,620	4,660	8,440	7,070	16,400	13,400	15,200	4,660	2,300	2,370	2,300
27	7,580	5,380	4,040	9,380	7,070	16,400	12,900	14,400	4,280	2,270	2,520	2,380
28	7,620	2,990	3,940	9,170	6,920	16,400	12,900	15,400	4,770	2,310	2,540	2,110
29	7,540	3,440	4,120	9,220	------	17,000	13,100	14,900	4,440	2,080	2,530	2,150
30	6,140	3,550	4,550	8,370	------	16,600	13,300	15,100	4,560	2,330	3,000	2,060
31	6,500	------	4,560	8,500	------	16,400	------	14,800	------	2,190	2,140	------
TOTAL	226,120	219,180	107,010	213,390	217,350	385,740	392,360	477,300	278,140	98,030	71,610	67,230
MEAN	7,294	7,306	3,452	6,884	7,763	12,440	13,080	15,400	9,271	3,162	2,310	2,241
MAX	8,060	9,290	4,400	9,480	8,620	17,000	15,800	16,700	14,900	4,750	3,000	2,670
MIN	6,140	2,990	2,500	3,880	6,860	6,300	9,780	13,800	4,270	1,760	1,770	1,870

CAL YR 1972 TOTAL 1,783,400 MEAN 4,873 MAX 13,200 MIN 1,340
WTR YR 1973 TOTAL 2,753,460 MEAN 7,544 MAX 17,000 MIN 1,760

04085200 Kewaunee River near Kewaunee, Wis.

LOCATION.--Lat 44°27'30", long 87°33'23", in SW¼ sec.14, T.23 N., R.24 E., Kewaunee County, on left bank just downstream from bridge on County Trunk F, 2.3 mi (3.7 km) west of Kewaunee, and about 7.0 mi (11.3 km) upstream from mouth.

DRAINAGE AREA.--129 mi^2 (334 km^2).

PERIOD OF RECORD.--Annual maximum, water years 1958-65, and occasional low-flow measurements, water years 1963-64. September 1964 to current year. No winter records for water years 1965 and 1966.

GAGE.--Water-stage recorder and crest-stage gage. Altitude of gage is about 590 ft (180 m), from topographic map. Apr. 3, 1957, to Sept. 2, 1964, crest-stage gage only at same site and datum.

AVERAGE DISCHARGE.--7 years, 81.0 ft^3/s (2.29 m^3/s), 8.53 in/yr (217 mm/yr).

EXTREMES.--Current year: Maximum discharge, 3,540 ft^3/s (100 m^3/s) May 28, gage height, 14.10 ft (4.298 m); minimum discharge, 17 ft^3/s (0.48 m^3/s) Dec. 2, gage height, 8.28 ft (2.524 m), result of freezeup.
Period of record: Maximum discharge, 6,500 ft^3/s (184 m^3/s) Mar. 30, 1960, gage height, 16.03 ft (4.886 m); minimum recorded, 4.5 ft^3/s (0.13 m^3/s) Nov. 3, 4, 1966, gage height, 8.14 ft (2.481 m).

REMARKS.--Records good except those for winter periods, which are fair.

Rating tables (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Nov. 29 to Mar. 5.)

Oct. 1 to May 27				May 28 to Sept. 30			
8.3	18	10.0	302	8.7	19	11.0	580
8.5	36	11.0	683	9.0	43	12.0	1,190
9.0	98	12.0	1,260	9.5	110	13.0	2,120
9.5	181			10.0	219	14.0	3,390

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	213	64	36	220	180	45	74	168	265	102	27	25
2	143	104	34	170	450	100	94	645	206	76	28	25
3	113	198	33	120	300	180	148	480	186	99	26	25
4	92	152	32	90	200	350	229	243	177	88	25	47
5	77	110	32	70	160	250	238	157	151	61	25	45
6	70	94	31	60	130	277	172	126	129	51	24	35
7	64	87	30	56	110	1,040	296	127	114	46	25	30
8	57	92	30	54	90	747	326	389	102	42	25	28
9	52	90	29	53	70	302	172	737	96	39	28	28
10	47	78	29	52	64	238	98	424	86	39	29	27
11	45	73	28	52	60	934	108	291	88	38	27	26
12	43	67	27	51	64	1,050	168	202	198	39	25	25
13	42	61	27	51	60	488	302	159	230	44	25	25
14	41	57	27	51	40	728	557	132	157	39	28	25
15	40	66	27	50	30	794	540	115	105	37	26	25
16	39	50	27	52	26	400	460	104	94	35	26	25
17	38	49	27	68	26	251	488	101	90	33	44	25
18	36	48	29	500	26	155	258	91	85	32	74	26
19	35	47	30	1,000	27	159	179	92	79	33	97	26
20	34	46	31	700	27	135	168	94	72	30	112	26
21	45	45	32	500	28	119	476	84	66	30	74	25
22	71	44	33	450	28	110	442	77	61	30	51	91
23	414	42	34	740	29	104	236	78	76	29	39	78
24	600	40	34	620	29	102	154	78	91	29	35	52
25	332	42	35	500	30	100	124	143	80	29	34	46
26	185	46	35	450	31	95	106	256	74	29	32	47
27	129	49	36	400	33	87	95	220	67	28	31	42
28	106	47	37	330	37	81	98	2,630	119	28	30	38
29	87	40	39	280	------	78	77	1,660	193	28	28	36
30	76	38	90	230	------	76	76	560	152	27	27	32
31	69	------	200	200	------	70	------	323	------	27	25	------
TOTAL	3,435	2,066	1,201	8,220	2,385	9,645	6,959	10,986	3,689	1,317	1,152	1,056
MEAN	111	68.9	38.7	265	85.2	311	232	354	123	42.5	37.2	35.2
MAX	600	198	200	1,000	450	1,050	557	2,630	265	102	112	91
MIN	34	38	27	50	26	45	74	77	61	27	24	25
CFSM	.86	.53	.30	2.05	.66	2.41	1.80	2.74	.95	.33	.29	.27
IN.	.99	.60	.35	2.37	.69	2.78	2.01	3.17	1.06	.38	.33	.30

CAL YR 1972 TOTAL 41,015 MEAN 112 MAX 2,100 MIN 13 CFSM .87 IN 11.83
WTR YR 1973 TOTAL 52,111 MEAN 143 MAX 2,630 MIN 24 CFSM 1.11 IN 15.03

PEAK DISCHARGE (BASE, 800 FT^3/S, REVISED)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
1-19	-	-	a1,200	3-14	2230	12.05	1,300
1-23	-	-	a 840	5- 9	0700	11.47	928
3- 7	2000	12.65	1,800	5-28	1500	14.10	3,540
3-11	2030	12.41	1,580				

a About.

04085281 East Twin River at Mishicot, Wis.

LOCATION.--Lat 44°14'16", long 87°38'11", in NW¼ NW¼ sec.4, T.20 N., R.24 E., Manitowoc County, on right bank 500 ft (152 m) downstream from bridge on State Highway 147, at Mishicot, 0.8 mi (1.3 km) upstream from Johnson Creek, and 9.8 mi (15.8 km) upstream from mouth.

DRAINAGE AREA.--111 mi^2 (287 km^2).

PERIOD OF RECORD.--July 1972 to current year.

GAGE.--Water-stage recorder. Datum of gage is 584.72 ft (178.223 m) above mean sea level.

EXTREMES.--July to September 1972: Maximum discharge during period, 492 ft^3/s (13.9 m^3/s) Aug. 27, gage height, 7.76 ft (2.365 m); minimum, 13 ft^3/s (0.37 m^3/s) Aug. 1,2, gage height, 3.89 ft (1.186 m).
Water year 1973: Maximum discharge, 3,090 ft^3/s (87.5 m^3/s) May 28, gage height, 13.19 ft (4.020 m); minimum, 17 ft^3/s (0.48 m^3/s) Aug. 25, gage height, 4.02 ft (1.225 m).

REMARKS.--Records good except those for winter periods, which are fair. Occasional regulation caused by recreation dam 0.3 mi (0.5 km) upstream.

Rating table (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Dec. 3 to Jan. 18, Feb. 8-28.)

3.9	13	6.0	199
4.2	24	8.0	512
4.5	35	10.0	1,080
4.8	57	12.0	2,140
5.3	109		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1											13	71
2											17	104
3											24	88
4											20	60
5											18	47
6											18	43
7											33	44
8											48	39
9											37	34
10											29	30
11											26	30
12											27	31
13											25	36
14											22	40
15											20	38
16											19	34
17											247	34
18											261	68
19											221	105
20											115	97
21											68	96
22											49	97
23											40	77
24											92	61
25											113	59
26										16	207	94
27										17	410	116
28										16	300	101
29										16	198	155
30					------					15	103	171
31		------			------		------		------	14	67	------
TOTAL											2,887	2,100
MEAN											93.1	70.0
MAX											410	171
MIN											13	30
CFSM											.84	.63
IN.											.97	.70

STREAMS TRIBUTARY TO LAKE MICHIGAN

04085281 East Twin River at Mishicot, Wis.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	163	55	35	74	93	40	76	162	380	70	21	22
2	107	78	33	78	254	67	82	403	250	62	22	22
3	78	142	31	72	221	222	113	424	160	78	22	22
4	66	134	30	66	195	359	154	307	130	56	20	26
5	58	109	28	60	154	302	176	192	110	46	19	33
6	53	85	27	52	125	350	169	142	98	40	18	31
7	49	75	26	43	114	600	253	127	90	37	19	26
8	45	77	26	37	100	720	272	257	84	35	21	24
9	43	73	25	34	80	560	217	362	76	33	22	24
10	40	68	25	32	74	400	99	362	70	31	21	23
11	39	64	25	31	46	640	110	253	74	29	21	22
12	37	60	24	30	41	620	159	183	140	34	20	21
13	35	55	24	30	39	550	233	148	180	35	20	21
14	34	52	24	30	38	560	383	122	120	33	22	21
15	33	50	24	30	37	620	505	107	86	29	25	21
16	33	48	24	30	37	497	499	95	78	28	30	21
17	31	45	24	31	36	320	468	85	72	27	36	22
18	31	46	24	130	36	216	357	78	66	25	34	25
19	30	45	25	459	35	178	244	84	62	24	93	25
20	30	44	25	451	35	151	197	90	56	25	89	24
21	34	42	26	437	35	129	384	81	52	24	41	25
22	49	42	26	396	36	115	459	73	50	24	30	84
23	147	39	27	466	36	107	345	69	60	23	28	95
24	141	40	27	439	36	74	211	72	70	22	27	63
25	165	40	28	352	36	92	151	131	64	23	25	46
26	178	44	29	238	36	102	122	231	51	24	26	52
27	128	47	30	198	37	94	103	259	51	24	25	51
28	92	46	32	163	37	85	95	1,940	79	22	24	41
29	75	38	34	152	------	82	81	2,060	116	22	23	36
30	64	41	50	114	------	80	77	670	98	22	22	34
31	59	------	70	85	------	78	------	502	------	22	23	------
TOTAL	2,167	1,825	908	4,840	2,080	9,320	6,794	10,271	3,073	1,029	869	1,003
MEAN	69.9	60.8	29.3	156	74.3	301	226	331	102	33.2	28.7	33.4
MAX	178	142	70	466	254	820	505	2,060	380	78	93	95
MIN	30	38	24	30	35	40	76	69	50	22	18	21
CFSM	.63	.55	.26	1.41	.67	2.71	2.04	2.98	.92	.30	.26	.30
IN.	.73	.61	.30	1.62	.70	3.12	2.28	3.44	1.03	.34	.30	.34

WTR YR 1973 TOTAL 44,199 MEAN 121 MAX 2,060 MIN 18 CFSM 1.09 IN 14.81

STREAMS TRIBUTARY TO LAKE MICHIGAN

04085427 Manitowoc River at Manitowoc, Wis.

LOCATION.--Lat 44°06'26", long 87°42'55", in NE¼ NW¼ sec.23, T.19 N., R.23 E., Manitowoc County, on right bank 300 ft (91 m) upstream from bridge on County Highway JJ, just west of the Manitowoc city limits and 6.6 mi (10.6 km) upstream from mouth.

DRAINAGE AREA.--530 mi² (1,373 km²)

PERIOD OF RECORD.--July 1972 to current year.

GAGE.--Water-stage recorder. Datum of gage is 610.12 ft (185.965 m) above mean sea level.

EXTREMES.--July to September 1972: Maximum discharge during period, 410 ft³/s (11.6 m³/s) Sept. 26, gage height, 5.72 ft (1.743 m); minimum, 45 ft³/s (1.27 m³/s) Aug. 1, gage height, 4.09 ft (1.247 m).

Water year 1973: Maximum discharge, 3,140 ft³/s (88.9 m³/s) Mar. 7, gage height, 9.67 ft (2.947 m); minimum, 24 ft³/s (0.68 m³/s) Sept. 14, 15, 16, 17, gage height, 3.92 ft (1.195 m).

REMARKS.--Records good except those for winter periods, which are fair.

Rating tables (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Dec. 1 to Mar. 6.)

July 26, 1972 to Mar. 13, 1973				Mar. 14 to Sept. 30, 1973			
4.1	47	6.0	511	3.9	23	6.0	590
4.5	115	7.0	1,010	4.2	69	7.0	1,080
5.0	215	8.0	1,640	4.6	150	9.0	2,490
				5.0	248	10.0	3,500

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1											48	157
2											66	164
3											64	147
4											63	140
5											60	133
6											70	137
7											84	143
8											105	128
9											130	116
10											129	108
11											131	103
12											127	101
13											120	113
14											111	119
15											99	116
16											97	113
17											143	108
18											156	196
19											146	206
20											132	198
21											128	254
22											128	260
23											113	251
24											117	246
25											117	295
26										69	118	382
27										65	129	395
28										57	142	380
29										58	144	396
30					------					57	137	397
31		------			------		------		------	54	125	------
TOTAL											3,479	6,002
MEAN											112	200
MAX											156	397
MIN											48	101
CFSM											.21	.38
IN.											.24	.42

04085427 Manitowoc River at Manitowoc, Wis.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	485	520	150	320	700	160	685	680	1,180	171	42	40
2	415	490	150	300	640	150	571	1,070	1,090	162	43	36
3	425	540	150	270	600	250	589	1,070	1,020	154	42	37
4	467	540	140	250	740	450	703	1,040	950	155	42	55
5	390	500	140	240	800	700	638	940	940	141	40	51
6	381	480	140	240	520	1,400	585	890	895	130	37	42
7	379	460	140	230	580	2,400	757	860	845	122	36	39
8	361	470	140	200	540	2,340	740	965	780	107	40	37
9	345	450	140	190	500	1,530	752	1,030	734	99	44	34
10	431	440	140	190	480	1,750	538	1,150	678	93	48	33
11	314	420	140	170	400	2,330	549	1,020	625	91	42	30
12	294	400	140	160	350	2,420	730	955	582	105	39	27
13	285	370	140	150	310	2,260	870	870	534	111	37	30
14	284	350	140	150	280	2,570	1,140	815	491	103	40	27
15	261	330	140	150	250	2,500	1,330	752	450	93	37	26
16	234	310	140	150	240	2,320	1,300	716	421	87	37	26
17	214	290	140	170	230	2,070	1,300	707	396	83	49	30
18	194	270	140	250	220	1,950	1,240	662	368	82	48	31
19	179	250	140	500	210	1,540	1,120	622	343	78	49	31
20	164	240	140	900	190	1,090	1,050	586	327	74	48	30
21	146	230	140	840	180	1,540	1,400	558	292	71	52	31
22	170	220	140	920	170	1,450	1,480	518	267	67	59	61
23	500	210	150	1,040	160	1,380	1,370	491	243	64	62	55
24	809	200	150	980	150	1,280	1,240	465	245	61	64	59
25	720	190	150	1,100	150	1,200	1,130	480	212	62	62	64
26	640	180	150	1,100	150	1,120	1,060	495	178	61	59	64
27	600	180	150	1,000	160	1,050	990	676	171	54	55	67
28	560	170	150	960	160	986	940	2,220	183	49	52	66
29	520	170	150	920	-------	900	885	2,340	178	49	48	64
30	500	170	200	880	-------	825	985	1,570	171	48	46	57
31	490	-------	350	820	-------	748	-------	1,250	-------	45	43	-------
TOTAL	11,834	10,160	4,730	15,590	10,500	43,973	28,978	28,723	15,832	2,877	1,447	1,280
MEAN	382	339	153	503	375	1,483	966	927	528	92.8	46.7	42.7
MAX	809	580	350	1,100	840	2,570	1,480	2,340	1,180	171	64	67
MIN	144	170	140	150	150	160	538	465	171	45	36	26
CFSM	.72	.64	.29	.95	.71	2.80	1.82	1.75	1.00	.18	.09	.08
IN.	.83	.71	.33	1.09	.74	3.23	2.03	2.02	1.11	.20	.10	.09

WTR YR 1973 TOTAL 177,924 MEAN 487 MAX 2,570 MIN 26 CFSM .92 IN 12.49

04085500 Cedar Lake near Kiel, Wis.

LOCATION.--Lat 43°55'35", long 87°56'25", in SW¼ sec.24, T.17 N., R.21 E., Manitowoc County, at Cedar Lake Resort on narrows of Lake, 5.8 mi (9.3 km) east of Kiel.

DRAINAGE AREA.--1.33 mi² (3.44 km²).

PERIOD OF RECORD.--August 1936 to September 1942; April 1945 to current year (fragmentary).

GAGE.--Nonrecording gage. Altitude of gage is 890 ft (271 m), from topographic map.

EXTREMES.--Current year: Maximum elevation observed, 98.17 ft (29.922 m) June 8; minimum observed, 95.98 ft (29.255 m) Oct. 21.

Period of record: Maximum elevation observed, 98.72 ft (30.090 m) Mar. 9, 1946; minimum observed, 93.34 ft (28.450 m) Oct. 4, Nov. 1, 1958, Jan. 17, 1959.

An elevation of 100.37 ft (30.592 m) was observed May 20, 1929, by Wisconsin Department of Natural Resources.

REMARKS.--Gage heights have been reduced to elevations above datum assumed for this lake by Wisconsin Department of Natural Resources. Lake ice covered about Dec. 3 to Mar. 4.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1												7.77
2								7.79	8.15			
3												
4		8.20					7.39				7.79	
5								7.75				
6												
7	8.10						7.41			7.91		
8									8.17			7.73
9												
10												
11		8.12								7.87	7.81	
12								7.77				
13												
14	8.05						7.41			7.85		
15												7.63
16								7.84	8.11			
17				8.22								
18	8.01										7.83	
19								7.81				
20											7.83	
21	8.08						7.45			7.81		
22												7.51
23									8.05		7.81	
24												
25											7.83	
26								7.91				
27												
28	8.14				8.08	7.38	7.85			7.82		
29					------							7.67
30					------	8.70			7.99			
31		------			------		------		------			------

NOTE.--Add 90 ft (27 m) to obtain elevation above datum assumed for this lake by Wisconsin Department of Natural Resources.

04086000 Sheboygan River at Sheboygan, Wis.

LOCATION.--Lat 43°44'25", long 87°45'35", in SE¼ NE¼ sec.29, T.15 N., R.23 E., Sheboygan County, on left bank 400 ft (122 m) upstream from bridge on State Highway 141, near west city limits of Sheboygan, and 4.2 mi (5.8 km) upstream from mouth.

DRAINAGE AREA.--432 mi^2 (1,119 km^2).

PERIOD OF RECORD.--June 1916 to September 1924 (published as "near Sheboygan"), October 1950 to current year. Monthly discharge only for some periods, published in WSP 1307, 1727.

GAGE.--Water-stage recorder. Datum of gage is 584.00 ft (178.00 m) above mean sea level. June 1916 to June 1924, nonrecording gage at site 0.7 mi (1.1 m) downstream at different datum. November 1950 to June 1951, nonrecording gage at site 0.3 mi (0.5 km) downstream at datum 3.15 ft 0.960 m) lower.

AVERAGE DISCHARGE.--31 years (1916-24, 1950-73), 229 ft^3/s (6.49 m^3/s), 7.20 in/yr (183 mm/yr).

EXTREMES.--Current year: Maximum discharge, 3,580 ft^3/s (101.4 m^3/s) May 28, gage height, 8.39 ft (2.56 m); minimum, 45 ft^3/s (1.27 m^3/s) July 15, gage height, 1.72 ft (0.52 m).

Period of record: Maximum discharge observed, 7,140 ft^3/s (202.2 m^3/s) Mar. 26, 1920, gage height, 9.40 ft (2.87 m) datum then in use; minimum observed, about 1 ft^3/s (0.028 m^3/s) Aug. 27, 1922, gage height, 1.48 ft (0.45 m) datum then in use, caused by shutdown of powerplants.

REVISIONS (WATER YEARS).--WSP 1307: 1917(M), 1919(M), 1921(M), 1923(M), WSP 1557: Drainage area.

REMARKS.--Records good except those for winter periods, which are fair. Diurnal fluctuation caused by numerous powerplants above station.

Rating tables (gage height, in feet, and discharge, in cubic feet per second). (Shifting-control method used Oct. 1-22; stage-discharge relation affected by ice Nov. 30, Dec. 1, Dec. 4 to Feb. 22.)

Oct. 1 to Mar. 6				Mar. 7 to Sept. 30			
2.0	57	4.0	550	1.7	41	4.0	580
2.5	135	5.0	1,000	2.0	75	6.0	1,610
3.0	240	6.0	1,620	2.5	156	8.0	3,190
3.5	371			3.0	267		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	734	503	110	220	270	139	285	1,090	830	91	58	78
2	656	690	96	210	330	252	333	1,970	692	101	60	74
3	590	823	90	200	540	778	407	1,520	620	104	59	74
4	538	644	90	190	440	1,610	407	1,100	648	95	54	95
5	484	519	90	180	360	1,760	440	800	540	88	51	130
6	437	469	92	170	310	1,660	392	720	413	83	49	101
7	390	477	94	160	290	2,750	365	712	377	78	52	90
8	341	448	96	160	270	2,420	356	1,220	359	69	57	81
9	295	448	6	150	280	1,800	362	1,130	362	62	63	72
10	226	417	98	140	250	1,410	280	925	313	65	67	68
11	154	384	100	140	220	1,920	368	772	271	66	62	67
12	152	350	100	140	200	2,060	461	692	333	61	55	71
13	133	308	100	130	180	1,900	580	608	293	55	57	82
14	172	237	98	130	160	2,260	1,020	556	240	53	66	61
15	162	261	98	130	150	2,260	1,560	497	209	48	63	60
16	130	254	98	130	140	1,870	1,560	452	196	48	62	59
17	129	242	96	150	140	1,500	1,540	425	201	49	71	66
18	106	229	96	300	140	1,240	1,170	386	196	48	86	74
19	95	215	96	800	140	1,160	850	371	186	46	94	74
20	91	204	96	640	130	1,060	760	330	166	50	89	70
21	116	197	94	580	130	940	2,220	214	153	51	83	59
22	231	189	94	540	130	815	2,290	209	135	51	71	65
23	1,380	175	94	740	127	716	1,600	203	142	52	71	86
24	1,420	152	94	660	127	660	1,100	301	151	60	74	86
25	1,040	176	96	540	123	588	845	479	144	61	83	101
26	760	168	96	480	127	464	744	772	135	66	86	123
27	570	162	96	430	166	470	668	764	130	65	86	157
28	503	152	96	390	132	315	604	2,970	123	60	86	139
29	459	123	96	320	------	230	556	1,980	104	59	82	125
30	423	130	110	280	------	274	560	1,350	95	57	86	106
31	427	------	240	250	------	274	------	1,020	------	60	81	------
TOTAL	13,335	9,849	3,136	9,780	6,002	47,625	24,683	26,538	8,757	2,002	2,164	2,594
MEAN	430	328	101	315	214	1,214	823	856	292	64.6	69.8	86.5
MAX	1,420	823	240	800	540	2,750	2,290	2,970	830	104	94	157
MIN	91	123	90	130	123	139	280	203	95	46	49	59
CFSM	1.00	.76	.23	.73	.50	2.81	1.91	1.98	.68	.15	.16	.20
IN.	1.15	.85	.27	.84	.52	3.24	2.13	2.29	.75	.17	.19	.22

CAL YR 1972 TOTAL 96,123 MEAN 263 MAX 2,340 MIN 52 CFSM .61 IN 8.28
WTR YR 1973 TOTAL 146,465 MEAN 401 MAX 2,970 MIN 46 CFSM .93 IN 12.61

PEAK DISCHARGE (BASE, 1,500 FT^3/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-23	2100	6.10	1,730	4-21	1400	7.92	3,120
3- 7	1900	8.31	3,500	5- 2	1100	7.11	2,410
3-14	1700	7.39	2,640	5-28	0700	8.39	3,580
4-15	0200	6.18	1,730				

04086150 Milwaukee River at Kewaskum, Wis.

LOCATION.--Lat 43°31'02", long 88°13'24", in SE¼ SE¼ sec.9, T.12 N., R.19 E., Washington County, on right abutment of small dam in Kewaskum, 50 ft (15 m) above unnamed tributary and 2.6 mi (4.2 km) above East Branch Milwaukee River.

DRAINAGE AREA.--146 mi^2 (378 km^2).

PERIOD OF RECORD.--April 1968 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 930 ft (283 m) from topographic map. Prior to Aug. 21, 1973, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--5 years, 84.0 ft^3/s (2.38 m^3/s), 7.81 in/yr (198 mm/yr).

EXTREMES.--Current year: Maximum discharge, 1,100 ft^3/s (31.2 m^3/s) Mar. 7, gage height, 6.50 ft (1.981 m); minimum observed, 16 ft^3/s (0.45 m^3/s) Sept. 16, 17, gage height, 2.12 ft (0.646 m).
Period of record: Maximum discharge, 1,100 ft^3/s (31.2 m^3/s) Mar. 7, gage height, 6.50 ft (1.981 m); minimum observed, 1.1 ft^3/s (0.031 m^3/s) Aug. 25-28, 1970, gage height, 1.64 ft (0.500 m).

REMARKS.--Records fair except those for the winter period, which are poor.

Rating tables (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Dec. 1 to Mar. 6.)

Oct. 1 to Mar. 6		Mar. 7 to Sept. 30			
2.6	48	2.1	15	4.0	238
3.0	89	2.5	40	5.0	472
4.0	260	3.0	88	6.0	850
5.0	535	3.5	157	7.0	1,400

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	328	286	54	130	210	150	178	381	365	90	32	23
2	300	273	52	120	270	250	249	776	282	78	32	21
3	282	260	52	110	250	450	260	752	249	72	31	21
4	234	249	50	96	240	600	278	784	231	66	29	28
5	208	238	49	84	230	700	263	580	220	56	28	29
6	204	229	48	70	170	660	260	408	210	56	28	24
7	178	225	47	56	140	1,080	227	332	199	55	25	21
8	162	216	46	46	120	1,100	220	460	188	49	25	20
9	148	204	45	42	100	1,100	188	403	169	46	24	20
10	138	196	44	38	86	616	160	392	148	46	23	20
11	126	192	44	36	74	600	154	386	128	48	23	19
12	116	185	43	34	58	586	163	368	125	42	21	18
13	113	178	42	34	46	566	191	341	122	41	21	17
14	108	172	42	33	42	586	265	332	117	40	24	17
15	105	162	42	33	42	600	360	302	114	38	24	16
16	105	156	42	33	42	534	360	294	117	37	24	16
17	99	146	42	50	44	496	350	270	122	37	23	23
18	94	143	42	400	45	386	341	242	188	34	23	27
19	87	143	42	380	46	336	306	238	172	32	23	24
20	89	140	43	350	47	300	278	231	150	32	25	22
21	94	119	43	320	47	260	664	227	128	31	20	21
22	178	99	44	290	45	231	547	238	114	31	20	23
23	470	75	45	260	45	207	508	278	125	30	29	21
24	476	73	46	240	45	188	431	263	284	31	36	20
25	416	82	46	260	47	185	350	252	188	31	32	23
26	382	92	46	300	56	175	332	238	150	32	30	30
27	349	102	47	310	64	169	274	314	134	32	28	27
28	328	68	47	310	80	157	234	760	122	32	25	25
29	318	56	48	300	------	154	260	640	107	31	23	25
30	304	56	70	290	------	150	274	540	103	31	25	24
31	286	------	150	250	------	138	------	469	------	31	26	------
TOTAL	6,825	4,815	1,543	5,305	2,731	13,710	8,925	12,491	5,071	1,338	802	665
MEAN	220	161	49.8	171	97.5	442	298	403	169	43.2	25.9	22.2
MAX	476	286	150	400	270	1,100	664	784	365	90	36	30
MIN	97	56	42	33	42	138	154	227	103	30	20	16
CFSM	1.51	1.10	.34	1.17	.67	3.03	2.04	2.76	1.16	.30	.18	.15
IN.	1.74	1.23	.39	1.35	.70	3.49	2.27	3.18	1.29	.34	.20	.17

CAL YR 1972 TOTAL 39,648 MEAN 108 MAX 1,040 MIN 11 CFSM .74 IN 10.10
WTR YR 1973 TOTAL 64,221 MEAN 176 MAX 1,100 MIN 16 CFSM 1.21 IN 16.36

PEAK DISCHARGE (BASE, 300 FT^3/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
4-23-68	2100	4.60	340	3-21-72	0700	5.50	b720
3-24-69	0800	4.88	b385	9-21-72	1410	7.06	1,060
4- 5-69	0800	4.46	b318	10-24-72	0700	4.82	b476
6-26-69	1700	6.32	615	1-18-73	--	--	a400
3-18-71	--	--	a480	1-27-73	--	--	a310
4- 1-71	0700	5.54	b736	3- 7-73	0700	6.50	a1,100
4- 8-71	0700	5.40	b680	4-21-73	0700	5.56	b664
4-13-71	0700	5.30	b640	5- 4-73	0900	5.86	b784
				5-28-73	0700	5.80	b760

a About.
b Maximum observed.

04086200 East Branch Milwaukee River at New Fane, Wis.

LOCATION.--Lat 43°33'01", long 88°11'18", in center of sec.35, T.13 N., R.19 E., Fond du Lac County, on right bank 150 ft (46 m) downstream of bridge on County Trunk Highway S, 0.4 mi (0.6 km) southwest of New Fane, 0.5 mi (0.8 km) downstream from recreation dam (formerly a mill dam), and 6.0 mi (9.6 km) upstream from mouth.

DRAINAGE AREA.--57.2 mi^2 (148 km^2).

PERIOD OF RECORD.--April 1968 to current year.

GAGE.--Water-stage recorder Aug. 3 to Sept. 30; temporary nonrecording gage 0.4 mi (0.6 km) upstream at different datum Jan. 21, 1972, to Aug. 2, 1973. Altitude of gage is 950 ft (290 m) from topographic map. Prior to Jan. 21, 1972, water-stage recorder at site 200 ft (61 m) upstream at same datum.

AVERAGE DISCHARGE.--5 years, 27.3 ft^3/s (0.773 m^3/s), 6.48 in/yr (165 mm/yr).

EXTREMES.--Current year: Maximum discharge observed, 196 ft^3/s (5.55 m^3/s) Mar. 8, gage height, 2.59 ft (0.789 m); minimum daily discharge, 11 ft^3/s (0.31 m^3/s) Aug. 6.
Period of record: Maximum discharge observed, 196 ft^3/s (5.55 m^3/s) Mar. 8, 1973, gage height, 2.59 ft (0.789 m); minimum daily, 0.76 ft^3/s (0.022 m^3/s) Sept. 16, 1971.

REVISION.--WRD Wis. 1971(M).

REMARKS.--Records fair except those for winter period, which are poor.

Rating table (gage height, in feet, and discharge, in cubic feet per second). (Shifting-control method used Mar. 21 to Apr. 14, June 26 to Sept. 19; stage-discharge relation affected by ice Dec. 2, 3, Dec. 5 to Mar. 5.)

0.6	9	1.5	49
.7	12	2.0	99
1.0	20	2.6	198

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	92	59	25	30	34	32	61	93	109	19	13	14
2	91	61	25	31	36	35	67	126	99	19	13	14
3	59	65	25	32	39	41	71	129	79	19	12	14
4	56	59	25	32	45	49	73	128	75	17	12	17
5	50	56	25	30	39	64	74	122	71	16	12	17
6	48	53	24	28	33	88	74	112	64	16	11	16
7	46	55	24	27	28	153	65	119	58	14	12	15
8	40	51	23	25	25	184	66	122	53	13	12	14
9	37	49	23	23	23	192	69	109	46	13	13	15
10	34	46	23	22	22	173	57	108	32	14	12	14
11	32	44	23	21	21	171	65	100	36	13	12	14
12	30	39	23	20	20	168	72	97	27	13	12	14
13	27	37	23	20	20	175	73	91	37	12	12	13
14	26	35	23	20	20	173	73	84	34	12	15	13
15	25	35	23	20	19	177	84	83	33	12	14	13
16	25	31	23	20	19	164	94	71	36	12	13	13
17	24	31	23	27	19	156	102	67	41	12	13	14
18	23	30	23	45	19	120	98	63	38	12	13	18
19	23	28	23	90	19	119	97	61	36	12	14	18
20	22	28	23	110	19	113	104	56	31	12	14	17
21	28	27	23	100	19	99	113	55	29	12	14	17
22	27	27	23	84	19	89	129	56	28	12	13	17
23	64	26	23	68	20	75	128	58	28	12	16	17
24	74	26	23	56	20	73	119	65	30	15	16	16
25	78	26	24	45	22	69	109	69	30	14	16	18
26	84	26	24	40	24	63	104	62	24	14	15	26
27	76	26	24	35	28	60	106	130	22	14	15	23
28	72	26	25	34	30	54	86	128	22	13	14	22
29	69	26	26	32	------	53	82	169	22	13	14	22
30	64	26	27	32	------	51	86	134	20	14	14	22
31	62	------	29	32	------	50	------	112	------	13	15	------
TOTAL	1,508	1,154	743	1,231	701	3,283	2,601	2,979	1,290	428	416	497
MEAN	48.6	38.5	24.0	39.7	25.0	106	86.7	96.1	43.0	13.8	13.4	16.6
MAX	92	65	29	110	45	192	129	169	109	19	16	26
MIN	22	26	23	20	19	32	57	55	20	12	11	13
CFSM	.85	.67	.42	.69	.44	1.85	1.52	1.68	.75	.24	.23	.29
IN.	.98	.75	.48	.80	.46	2.14	1.69	1.94	.84	.28	.27	.32

CAL YR 1972 TOTAL 11,018.0 MEAN 30.1 MAX 170 MIN 5.4 CFSM .53 IN 7.17
WTR YR 1973 TOTAL 16,831.0 MEAN 46.1 MAX 192 MIN 11 CFSM .81 IN 10.95

04086340 North Branch Milwaukee River near Fillmore, Wis.

LOCATION.--Lat 43°28'58", long 88°03'39", in NW¼ sec.25, T.12 N., R.20 E., Washington County, on right bank downstream from County Trunk Highway M, 1.1 mi (1.8 km) south of Fillmore and 2.0 mi (3.2 km) upstream from mouth.

DRAINAGE AREA.--153 mi^2 (396 km^2).

RECORDS AVAILABLE.--April 1968 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 800 ft (240 m) from topographic map.

AVERAGE DISCHARGE.--5 years, 85.7 ft^3/s (2.43 m^3/s), 7.61 in/yr (193 mm/yr).

EXTREMES.--Current year: Maximum discharge, 925 ft^3/s (26.2 m^3/s) May 29, gage height, 5.67 ft (1.728 m); minimum daily, 26 ft^3/s (0.74 m^3/s) Aug. 7.
Period of record: Maximum discharge, 955 ft^3/s (27.0 m^3/s) Mar. 22, 1972, gage height, 5.69 ft (1.73 m); minimum, 3.0 ft^3/s (0.085 m^3/s) Aug. 17, 18, 1970, gage height, 0.19 ft (0.058 m).

REVISIONS (WATER YEARS).--WRD Wis. 1971(M).

REMARKS.--Records good except those for winter period, which are fair.

Rating table (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Nov. 30 to Dec. 4, Dec. 13 to Mar. 6.)

0.90	26	4.0	276
1.0	30	5.0	470
2.0	83	5.4	620
3.0	159	5.7	970

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	195	167	68	100	110	82	126	319	400	61	34	35
2	166	181	68	110	120	100	187	448	317	57	34	34
3	140	206	66	110	150	140	229	479	256	55	33	55
4	121	207	66	98	210	250	246	435	207	51	31	71
5	107	195	64	90	150	400	246	371	249	47	29	88
6	96	181	61	80	110	500	226	321	212	44	27	75
7	88	171	56	72	90	615	206	282	188	41	26	63
8	79	166	55	64	76	748	188	330	161	38	29	51
9	72	155	56	58	70	610	165	344	143	37	34	47
10	66	146	59	54	66	488	163	328	126	38	34	43
11	63	137	61	49	62	463	141	296	109	37	30	40
12	61	128	64	45	58	463	193	256	100	35	29	37
13	59	120	64	42	56	450	222	226	102	33	27	34
14	57	112	64	42	54	488	274	202	98	31	34	33
15	55	104	64	42	52	485	387	183	91	31	37	32
16	55	98	64	43	52	450	443	164	100	31	36	33
17	56	95	64	56	52	400	458	147	126	30	34	40
18	51	91	64	110	52	341	484	134	127	30	35	57
19	51	87	66	300	52	286	359	131	117	29	37	52
20	50	85	66	330	50	242	315	125	106	29	42	46
21	79	83	66	310	50	212	465	117	94	30	39	42
22	154	81	68	280	50	187	580	129	84	31	36	42
23	305	77	68	270	50	167	534	184	89	30	40	43
24	395	76	68	250	50	154	445	196	93	32	53	40
25	391	75	70	220	52	146	369	218	85	38	49	49
26	375	79	72	200	58	138	310	250	78	38	45	71
27	337	79	72	170	64	129	253	306	73	43	40	75
28	282	76	74	150	70	123	213	668	68	39	36	72
29	235	72	76	130	------	118	200	865	65	36	32	71
30	200	70	82	110	------	114	235	660	64	36	31	68
31	174	------	90	110	------	111	------	497	------	36	38	------
TOTAL	4,615	3,600	2,066	4,095	2,136	9,680	8,774	9,611	4,208	1,174	1,091	1,539
MEAN	149	120	66.6	132	76.3	310	292	310	140	37.9	35.2	51.3
MAX	395	207	90	330	210	748	580	865	400	61	53	88
MIN	50	70	55	42	50	82	126	117	64	29	26	32
CFSM	.97	.78	.44	.86	.50	2.03	1.91	2.03	.92	.25	.23	.34
IN.	1.12	.88	.50	1.00	.52	2.33	2.13	2.34	1.02	.29	.27	.37

CAL YR 1972 TOTAL 35,817 MEAN 97.9 MAX 910 MIN 21 CFSM .64 IN 8.71
WTR YR 1973 TOTAL 52,509 MEAN 144 MAX 865 MIN 26 CFSM .94 IN 12.77

PEAK DISCHARGE (BASE, 300 FT^3/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
4-24-68	1500	4.47	329	9-21-72	2300	5.62	850
3-20-69	2400	4.60	350	10-24-72	0900	4.72	404
6-27-69	0930	5.39	460	1-20-73	--	--	a330
3-15-71	--	--	a450	3- 7-73	2400	5.56	772
4- 2-71	1400	5.53	736	4-16-73	2300	4.97	463
4-13-71	0600	5.57	784	4-22-73	0900	5.34	590
12-16-71	--	--	a330	5- 2-73	2400	5.05	485
3-22-72	0500	5.69	955	5-29-73	0600	5.67	925

a About.

04086360 Milwaukee River at Waubeka, Wis.

LOCATION.--Lat 43°28'22", long 87°59'23", in SE¼ sec.28, T.12 N., R.21 E., Ozaukee County, on right bank 100 ft (30 m) downstream from bridge on County Trunk Highway I, 800 ft (240 m) downstream from recreation pond dam at Waubeka, and 2.4 mi (3.9 km) downstream from North Branch Milwaukee River.

DRAINAGE AREA.--428 mi^2 (1,110 km^2).

PERIOD OF RECORD.--March 1968 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 770 ft (234 m), from topographic map. Prior to Aug. 1, 1968, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--5 years, 270 ft^3/s (7.646 m^3/s), 8.57 in/yr (218 mm/yr).

EXTREMES.--Current year: Maximum discharge, 2,220 ft^3/s (62.9 m^3/s) Mar. 8, gage height, 7.31 ft (2.228 m); minimum, 66 ft^3/s (1.869 m^3/s) July 17, 18, Aug. 5, gage height, 2.32 ft (0.707 m).
Period of record: Maximum discharge, 2,500 ft^3/s (70.8 m^3/s) Apr. 13, 1971, gage height, 7.35 ft (2.240 m); minimum, 19 ft^3/s (0.54 m^3/s) Aug. 18, 1970, gage height, 1.90 ft (0.579 m).

REMARKS.--Records good except those for winter period and those for period of no gage-height record, which are fair.

Rating tables (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Nov. 30 to Dec. 2, Dec. 4 to Mar. 6.)

Oct. 1 to Mar. 4				Mar. 5 to Sept. 30			
3.0	191	5.0	894	2.3	63	5.0	950
3.5	315	6.0	1,380	3.0	191	6.0	1,450
4.0	489	7.0	2,150	3.5	315	7.0	2,000
				4.0	492	8.0	2,820

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	804	587	230	290	390	250	427	1,130	1,260	215	121	123
2	718	596	220	300	430	400	607	1,460	1,040	202	118	118
3	650	644	216	310	500	740	760	1,640	870	202	114	155
4	568	622	220	290	760	1,000	810	1,660	920	180	108	187
5	432	578	220	270	580	1,500	815	1,540	773	164	72	213
6	483	545	220	250	400	1,900	769	1,350	639	162	75	180
7	429	530	220	240	320	1,990	706	1,120	580	145	81	159
8	391	527	220	220	280	2,100	647	1,220	500	141	93	139
9	356	503	220	210	250	2,050	616	1,220	440	132	114	125
10	250	479	220	200	230	1,780	513	1,180	390	137	112	120
11	284	464	220	190	220	1,660	496	1,090	360	147	103	114
12	272	440	220	180	210	1,570	598	1,010	340	129	100	110
13	264	426	220	180	190	1,570	692	905	330	120	100	105
14	249	401	220	180	180	1,740	920	706	320	118	114	102
15	235	371	220	180	180	1,680	1,290	764	310	116	120	98
16	226	357	220	190	170	1,570	1,410	692	320	112	116	95
17	216	341	220	290	170	1,440	1,350	620	420	84	116	99
18	208	328	220	600	170	1,310	1,220	529	334	96	110	170
19	203	316	220	1,100	170	1,110	1,100	559	390	95	105	147
20	198	303	220	1,100	170	845	975	521	360	95	107	139
21	248	259	220	1,000	170	845	1,560	476	330	98	107	151
22	495	274	220	960	170	737	1,830	513	330	98	103	133
23	997	254	230	920	170	661	1,720	692	300	96	118	96
24	1,090	244	230	840	170	602	1,470	688	280	102	149	112
25	1,020	250	230	740	170	563	1,270	810	334	110	141	151
26	962	257	230	660	180	525	1,100	805	380	118	137	202
27	909	258	240	600	190	402	940	1,030	350	157	125	240
28	808	247	250	520	210	446	773	1,780	258	135	116	230
29	805	225	250	450	------	431	688	1,870	260	121	107	200
30	663	220	260	380	------	413	835	1,740	241	123	110	180
31	506	------	270	380	------	395	------	1,460	------	127	133	------
TOTAL	15,939	11,846	7,036	14,220	7,400	34,225	28,907	32,780	13,959	4,077	3,445	4,393
MEAN	514	395	227	459	264	1,104	964	1,057	465	132	111	146
MAX	1,090	644	270	1,100	760	2,100	1,830	1,870	1,260	215	149	240
MIN	198	220	216	180	170	250	427	476	241	84	72	95
CFSM	1.20	.92	.53	1.07	.62	2.58	2.25	2.47	1.09	.31	.26	.34
IN.	1.39	1.03	.61	1.24	.64	2.97	2.51	2.85	1.21	.35	.30	.38

CAL YR 1972 TOTAL 115,216 MEAN 315 MAX 1,900 MIN 66 CFSM .74 IN 10.01
WTR YR 1973 TOTAL 178,227 MEAN 488 MAX 2,100 MIN 72 CFSM 1.14 IN 15.49

PEAK DISCHARGE (BASE, 1,000 FT^3/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
4-24-68	2000a	a5.55	a1,100	3-22-72	--	--	a2,100
3-22-69	1500	5.48	1,120	10-24-72	0400	5.52	1,110
6-28-69	0530	6.51	1,660	1-19-73	--	--	a1,200
3- 2-71	--	--	a1,100	3- 8-73	2100	7.31	2,220
3-15-71	--	--	a2,000	4-22-73	0500	6.76	1,860
4- 2-71	--	--	a2,100	5- 4-73	0300	6.49	1,700
4-13-71	1000	7.35	2,500	5-29-73	1700	6.83	1,900

a About.

04087000 Milwaukee River at Milwaukee, Wis.

LOCATION.--Lat 43°06'00", long 87°54'32", in NE¼ sec.5, T.7 N., R.22 E., Milwaukee County, on left bank near northeast limits of Milwaukee in Estabrook Park, 2,000 ft (600 m) downstream from Port Washington Road Bridge and 6.6 mi (10.6 km) upstream from mouth.

DRAINAGE AREA.--686 mi^2 (1,777 km^2).

PERIOD OF RECORD.--April 1914 to current year. Published as "near Milwaukee" prior to 1936.

GAGE.--Water-stage recorder. Datum of gage is 607.23 ft (185.084 m) above mean sea level (levels by Corps of Engineers). Prior to Apr. 6, 1929, nonrecording gage near present site at different datum. Apr. 6, 1929, to Jan. 8, 1934, nonrecording gage at bridge 0.5 mi (0.8 km) upstream at different datum.

AVERAGE DISCHARGE.--59 years, 389 ft^3/s (11.0 m^3/s), 7.70 in/yr (196 mm/yr).

EXTREMES.--Current year: Maximum discharge, 12,600 ft^3/s (357 m^3/s) Apr. 21, gage height, 9.29 ft (2.832 m); minimum, 70 ft^3/s (1.98 m^3/s) June 5, gage height, 1.95 ft (0.594 m), result of regulation.
Period of record: Maximum discharge, 15,100 ft^3/s (428 m^3/s) Mar. 20, 1918, Aug. 6, 1924, gage height, 9.00 ft (2.743 m) datum then in use, from floodmark for 1918, from graph based on gage reading for 1924, no flow Sept. 8, 1943.

REMARKS.--Records good except those for winter periods, which are fair. Occasional regulation caused by recreation dam approximately 600 ft (180 m) upstream. Records of chemical analyses for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 564: 1918(M). WSP 924: 1940. WSP 1207: 1936(M). WSP 1337: 1915-17(M), 1918, 1919-21(M), 1922, 1923(M), 1924, 1925-33(M). WSP 1557: Drainage area.

Rating table (gage height, in feet, and discharge, in cubic feet per second).
(Shifting-control method used Oct. 1-15; stage-discharge relation affected by ice Nov. 20, 21, Nov. 30 to Dec. 1, Dec. 3 to Jan. 13, Jan. 19 to Feb. 1, Feb. 8-28.)

2.0	84	4.0	1,750
2.2	165	5.0	3,180
2.5	325	6.0	4,900
3.0	700	8.0	9,200

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,430	838	290	1,000	620	435	747	1,720	2,040	377	190	170
2	1,240	1,050	261	840	890	827	951	2,360	1,690	345	180	165
3	1,080	1,090	250	720	1,250	1,490	1,170	2,490	1,430	397	175	152
4	925	1,090	240	620	1,370	2,020	1,310	2,410	1,280	301	170	364
5	745	996	230	600	1,250	2,410	1,290	2,190	1,020	283	156	283
6	649	895	230	520	1,050	2,540	1,200	1,930	1,080	265	138	283
7	615	895	230	430	876	2,990	1,070	1,740	933	250	147	245
8	559	866	220	390	800	3,280	960	1,820	798	230	245	210
9	505	847	220	350	720	3,170	940	1,890	661	225	265	190
10	453	819	220	320	640	2,870	838	1,780	640	215	195	190
11	377	763	230	290	580	2,580	805	1,620	602	200	170	180
12	390	709	230	270	520	2,470	1,020	1,430	602	190	147	180
13	377	666	230	260	480	2,310	1,310	1,290	521	190	161	180
14	364	632	220	246	360	3,180	2,020	1,130	483	175	161	170
15	345	599	220	242	320	3,170	3,050	990	487	165	170	170
16	528	567	210	259	310	2,820	3,480	996	739	161	165	160
17	325	543	210	354	290	2,400	3,110	950	597	165	165	180
18	307	528	230	869	280	2,020	2,480	817	685	152	165	230
19	295	513	250	1,200	270	1,750	2,040	780	642	152	161	245
20	289	500	270	1,600	260	1,380	1,720	772	587	147	161	220
21	483	480	260	1,600	260	1,210	7,030	745	518	143	156	215
22	1,070	453	260	1,500	260	1,090	4,500	1,010	472	138	152	235
23	2,280	446	260	1,400	260	968	3,660	1,050	469	143	205	205
24	2,290	411	260	1,300	270	876	2,920	1,130	527	156	185	170
25	2,090	415	270	1,200	280	809	2,180	1,590	624	156	205	301
26	1,880	423	270	1,000	290	763	1,780	1,680	624	225	205	332
27	1,640	446	280	900	300	694	1,460	2,080	567	195	200	338
28	1,480	454	300	800	340	604	1,230	3,600	475	220	185	453
29	1,300	364	330	720	------	623	1,050	3,520	432	190	170	295
30	1,150	320	450	660	------	606	1,230	3,180	397	301	161	260
31	945	------	1,200	620	------	639	------	2,620	------	195	161	------
TOTAL	28,406	19,618	8,831	23,080	15,396	54,994	58,551	53,310	22,622	6,647	5,472	6,971
MEAN	916	654	285	745	550	1,774	1,952	1,720	754	214	177	232
MAX	2,290	1,090	1,200	1,600	1,370	3,280	7,030	3,600	2,040	397	265	453
MIN	289	320	210	242	260	435	747	745	397	138	138	152
CFSM	1.34	.95	.42	1.09	.80	2.59	2.85	2.51	1.10	.31	.26	.34
IN.	1.54	1.06	.48	1.25	.83	2.98	3.18	2.89	1.23	.36	.30	.38

CAL YR 1972 TOTAL 197,827 MEAN 541 MAX 3,230 MIN 100 CFSM .79 IN 10.73
WTR YR 1973 TOTAL 303,898 MEAN 833 MAX 7,030 MIN 138 CFSM 1.21 IN 16.48

PEAK DISCHARGE (BASE, 2,000 FT^3/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-23	1800	4.60	2,440	4-21	0400	9.29	12,600
3- 8	0200	5.10	3,340	5- 3	1600	4.57	2,520
3-14	0600	5.18	3,460	5-28	1600	5.43	3,870

04087120 Menomonee River at Wauwatosa, Wis.

LOCATION.--Lat 43°02'44", long 87°59'59", in NW¼ sec.27, T.7 N., R.21 E., Milwaukee County, near left bank on downstream side of 70th Street bridge in Wauwatosa, 800 ft (200 m) downstream from Honey Creek, and 6.2 mi (10.0 km) upstream from mouth.

DRAINAGE AREA.--123 mi² (319 km²).

PERIOD OF RECORD.--October 1961 to current year.

GAGE.--Nonrecording gage and crest-stage gage. Datum of gage is 630.86 ft (192.286 m) above mean sea level.

AVERAGE DISCHARGE.--12 years, 82.1 ft³/s (2.33 m³/s), 9.06 in/yr (231 mm/yr).

EXTREMES.--Current year: Maximum discharge, 13,500 ft³/s (382 m³/s) Apr. 21, gage height, 13.92 ft (4.243 m) from rating curve extended above 6,000 ft³/s (170 m³/s) on basis of slope-area measurement of peak flow; minimum daily, 17 ft³/s (0.48 m³/s) Sept. 16.
Period of record: Maximum discharge, 13,500 ft³/s (382 m³/s) Apr. 21, 1973, gage height, 13.92 ft (4.243 m) from rating curve extended above 6,000 ft³/s (170 m³/s) on basis of slope-area measurement of peak flow; minimum daily, 2.8 ft³/s (0.079 m³/s) Jan. 18, 1964.

REMARKS.--Records fair except those for winter periods, which are poor.

Rating tables (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Dec. 2-25, Jan. 6-16, Feb. 8-26.)

Oct. 1 to Apr. 21				Apr. 22 to Sept. 30			
0.90	29	2.0	287	1.1	12	5.0	1,640
1.2	65	3.0	700	1.5	53	7.0	3,190
1.5	131	5.0	1,770	2.0	165	9.0	5,150
				3.0	520	11.0	7,460

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	280	114	45	396	139	139	180	547	143	36	26	25
2	220	236	42	353	350	353	180	592	122	96	24	23
3	162	180	39	632	217	444	165	338	223	64	24	34
4	124	145	35	327	148	312	230	220	105	43	27	28
5	111	128	33	174	116	338	195	179	152	30	25	39
6	106	111	31	130	111	236	137	154	105	30	26	25
7	86	151	28	98	93	510	121	324	81	30	30	24
8	82	126	27	60	80	294	118	378	69	28	390	22
9	74	106	26	50	70	243	130	272	66	34	55	18
10	73	108	26	45	60	214	162	176	53	34	40	20
11	80	99	26	42	50	334	204	149	52	32	24	20
12	67	88	25	41	47	305	294	135	89	28	20	20
13	60	86	25	40	47	211	473	112	53	31	23	22
14	54	97	25	48	54	1,060	746	110	49	26	30	22
15	50	84	25	42	45	440	1,440	103	53	25	27	21
16	50	69	26	54	40	316	1,410	94	320	25	25	17
17	54	65	28	230	37	250	881	85	346	25	27	202
18	54	62	32	319	36	208	582	77	110	26	25	43
19	49	59	45	250	40	171	323	83	66	27	22	28
20	46	62	70	204	45	151	709	73	66	34	28	25
21	192	59	54	171	41	128	6,380	73	53	24	27	24
22	606	56	50	342	40	126	1,860	272	49	22	25	48
23	848	50	49	253	40	111	928	165	50	20	77	24
24	825	48	49	180	48	106	587	135	55	26	36	22
25	614	76	49	124	41	111	299	390	55	26	24	217
26	346	65	50	93	56	93	208	286	50	205	24	117
27	217	60	52	116	69	88	173	664	47	35	28	45
28	182	52	54	111	76	84	138	1,170	46	25	25	196
29	134	49	153	49	------	82	143	570	42	22	25	58
30	114	46	1,160	64	------	86	307	364	39	25	25	46
31	118	------	934	80	------	128	------	196	------	30	31	------
TOTAL	5,996	2,737	3,313	5,110	2,228	7,672	19,543	8,486	2,809	1,164	1,265	1,467
MEAN	193	91.2	107	165	79.6	247	651	274	93.6	37.5	40.8	48.9
MAX	848	236	1,160	632	350	1,060	6,380	1,178	346	205	390	217
MIN	46	46	25	40	36	82	118	73	39	20	20	17
CFSM	1.57	.74	.87	1.34	.65	2.01	5.29	2.23	.76	.30	.33	.40
IN.	1.81	.83	1.00	1.55	.67	2.32	5.91	2.57	.85	.35	.38	.44

CAL YR 1972 TOTAL 50,062 MEAN 137 MAX 2,520 MIN 14 CFSM 1.11 IN 15.14
WTR YR 1973 TOTAL 61,792 MEAN 169 MAX 6,380 MIN 17 CFSM 1.37 IN 18.69

PEAK DISCHARGE (BASE, 700 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-23	--	3.84	1,110	4-15	--	5.14	1,850
12-30	--	4.52	1,480	4-21	--	13.92	13,500
1- 3	--	3.21	797	5-27	--	5.75	2,180
3-14	--	4.04	1,210	6-16	--	4.02	1,020

04087204 Oak Creek at South Milwaukee, Wis.

LOCATION.--Lat 42°55'30", long 87°52'12", in NW¼ sec.2, T.5 N., R.22 E., Milwaukee County, on left bank 25 ft (8.0 m) downstream from 15th Avenue bridge in South Milwaukee and 2.8 mi (4.5 km) upstream from mouth.

DRAINAGE AREA.--25.0 mi² (64.8 km²).

PERIOD OF RECORD.--October 1963 to current year.

GAGE.--Water-stage recorder and crest-stage indicator. Altitude of gage is 630 ft (192 m), from topographic map.

AVERAGE DISCHARGE.--10 years, 20.3 ft³/s (0.57 m³/s) 11.03 in/yr (280 mm/yr).

EXTREMES.--Current year: Maximum discharge, 774 ft³/s (21.9 m³/s) Apr. 21, gage height, 7.10 ft (2.16 m); minimum, 0.76 ft³/s (0.022 m³/s) Sept. 16, 17, gage height, 2.27 ft (0.692 m).
Period of record: Maximum discharge, 916 ft³/s (25.9 m³/s) Sept. 18, 1972, gage height, 8.23 ft (2.51 m); minimum, 0.40 ft³/s (0.011 m³/s) Jan. 3, 1964, gage height, 2.33 ft (0.710 m).

REMARKS.--Records good except those for winter periods and periods of backwater from vegetation, which are fair. Low flows may occasionally be affected by activity of gravel pit upstream.

Rating table (gage height, in feet, and discharge, in cubic feet per second).
(Shifting-control method used Oct. 22-26, Nov. 2; stage-discharge relation affected by ice Dec. 7-17, Jan. 7-15, Feb. 10-26.)

2.2	0.2	3.0	37
2.3	1.0	4.0	143
2.4	2.6	5.0	303
2.5	6.8	6.0	506
2.7	17	7.0	748

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	22	12	131	14	38	59	230	16	3.4	3.4	3.4
2	19	48	12	66	113	121	42	245	13	9.3	3.2	3.4
3	16	43	11	81	61	127	28	72	13	11	3.0	3.9
4	17	28	11	189	25	68	46	39	17	8.3	2.6	18
5	16	23	9.7	37	20	167	49	28	31	5.1	2.6	14
6	13	20	8.8	21	17	104	26	24	24	3.9	2.6	8.3
7	13	26	6.8	12	15	201	21	31	15	3.0	3.0	6.0
8	13	28	6.2	10	13	96	19	67	12	2.6	6.0	4.3
9	13	21	5.6	9.0	11	56	17	39	9.7	5.5	6.4	2.1
10	12	19	5.2	8.0	9.2	48	17	29	8.3	7.3	6.0	1.5
11	14	17	5.0	7.0	8.4	89	32	21	6.8	4.3	4.3	1.3
12	13	14	4.8	6.4	7.6	69	103	18	6.8	3.0	3.0	1.2
13	12	15	4.8	6.0	7.8	45	316	16	6.0	3.2	3.0	1.2
14	12	29	4.6	5.8	8.0	410	484	15	5.1	3.2	3.4	1.0
15	10	33	4.6	5.6	7.6	149	504	14	8.3	3.4	3.4	.92
16	9.3	23	4.6	6.4	6.0	58	382	13	22	3.4	3.4	.84
17	8.8	20	4.8	17	5.2	48	150	12	33	3.4	3.4	11
18	7.8	18	5.5	40	4.6	44	66	11	16	3.4	3.0	12
19	7.3	15	7.3	50	4.8	35	59	11	11	5.6	3.4	4.7
20	6.8	14	9.3	21	5.2	29	46	11	8.3	12	3.0	2.1
21	14	14	10	18	5.4	23	639	9.3	6.8	7.2	2.6	2.0
22	165	13	10	83	5.4	21	567	17	6.0	5.4	3.0	4.3
23	337	13	8.8	51	5.4	19	203	18	5.5	4.2	7.3	3.9
24	167	13	8.3	21	5.4	17	79	13	6.0	3.6	6.4	3.0
25	79	14	8.3	17	5.4	17	46	26	5.1	3.8	5.1	12
26	48	17	9.3	16	5.6	16	36	18	4.7	6.0	3.9	7.8
27	38	17	9.3	16	7.8	14	25	69	4.3	7.0	3.4	3.4
28	33	13	8.3	16	13	14	21	343	3.9	4.0	3.4	29
29	35	12	17	12	------	14	22	60	3.9	3.6	3.4	32
30	26	12	502	12	------	14	84	29	3.9	4.0	3.4	13
31	22	------	436	9.7	------	18	------	20	------	4.2	3.9	------
TOTAL	1,227.0	614	1,170.9	1,000.9	416.8	2,189	4,188	1,568.3	332.4	157.3	117.9	211.56
MEAN	39.6	20.5	37.8	32.3	14.9	70.6	140	50.6	11.1	5.07	3.80	7.05
MAX	337	48	502	189	113	410	639	343	33	12	7.3	32
MIN	6.8	12	4.6	5.6	4.6	14	17	9.3	3.9	2.6	2.6	.84
CFSM	1.58	.82	1.51	1.29	.60	2.82	5.60	2.02	.44	.20	.15	.28
IN.	1.83	.91	1.74	1.49	.62	3.26	6.23	2.33	.49	.23	.18	.31

CAL YR 1972 TOTAL 11,516.90 MEAN 31.5 MAX 710 MIN 1.0 CFSM 1.26 IN 17.14
WTR YR 1973 TOTAL 13,194.06 MEAN 36.1 MAX 639 MIN .84 CFSM 1.44 IN 19.63

PEAK DISCHARGE (BASE, 250 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-22	2300	a6.57	402	3-14	1200	6.22	555
12-30	1900	6.74	680	4-14	2215	6.52	627
1- 4	0215	5.25	350	4-21	1115	7.10	774
3- 5	1445	4.79	265	5- 2	8515	5.34	368
3- 7	1230	5.00	303	5-28	0400	6.15	539

a Backwater from vegetation.

04087220 Root River near Franklin, Wis.

LOCATION.--Lat 42°52'25", long 87°59'45", in SE¼ sec.22, T.5 N., R.21 E., Milwaukee County, on right bank 400 ft (120 m) upstream from State Highway 100, 2.1 mi (3.4 km) upstream from Root River Canal, 2.4 mi (3.9 km) southeast of Franklin, 5.5 mi (8.8 km) southeast of Hales Corners, and about 24 mi (39 km) upstream from mouth.

DRAINAGE AREA.--49.3 mi^2 (127.7 km^2).

RECORDS AVAILABLE.--October 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 674.5 ft (205.6 m) above mean sea level.

AVERAGE DISCHARGE.--10 years, 42.8 ft^3/s (1.21 m^3/s), 11.79 in/yr (299 mm/yr).

EXTREMES.--Current year: Maximum discharge, 3,700 ft^3/s (105 m^3/s) Apr. 21, gage height, 9.31 ft (2.84 in); minimum, 7.1 ft^3/s (0.20 m^3/s) Aug. 22, Sept. 2, 3, 12, gage height, 1.82 ft (0.555 m).
Period of record: Maximum discharge, 3,700 ft^3/s (105 m^3/s) Apr. 21, 1973, gage height, 9.31 ft (2.84 m); minimum, 0.38 ft^3/s (0.011 m^3/s) Aug. 10, 1971, gage height, 1.45 ft (0.442 m).
Flood of Mar. 30, 1960, reached a stage of 9.57 ft (2.92 m) discharge, 5,130 ft^3/s (145 m^3/s), from rating curve extended above 2,000 ft^3/s (56.6 m^3/s) on basis of contracted-opening measurement of peak flow.

REMARKS.--Records good except those for winter periods, which are fair.

Rating table (gage height, in feet, and discharge, in cubic feet per second).
(Shifting-control method used Oct. 23-24; stage-discharge relation affected by ice Dec. 1-28, Jan. 6-18, Feb. 6-28.)

1.8	6.4	3.0	93	7.0	880
1.9	9.8	4.0	155	8.0	1,830
2.1	21	5.0	246	9.0	3,200
2.5	53	6.0	436		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	106	50	29	338	39	68	106	238	45	17	12	7.4
2	68	97	27	272	200	166	97	320	38	18	11	7.1
3	53	88	25	224	140	247	68	156	45	24	10	7.4
4	46	60	21	400	62	159	97	103	56	23	9.8	20
5	42	51	18	231	50	161	121	81	51	14	9.5	39
6	41	48	17	120	40	133	67	72	42	16	9.5	12
7	40	56	16	80	35	232	49	85	34	15	9.1	9.1
8	34	64	16	50	30	156	46	193	28	15	9.5	8.4
9	30	48	16	35	26	108	65	125	26	15	20	8.4
10	27	43	16	25	24	93	84	86	24	15	18	8.4
11	29	41	16	23	22	123	73	67	23	14	11	8.1
12	32	39	15	22	21	106	124	55	27	12	9.1	8.1
13	29	39	15	22	20	83	227	49	23	13	8.8	7.8
14	28	53	15	22	19	479	543	49	21	13	9.1	7.8
15	29	54	15	22	19	267	950	49	22	13	9.1	7.4
16	30	48	15	35	18	120	894	42	81	13	8.8	7.4
17	28	46	15	80	18	100	388	38	148	13	8.4	22
18	27	43	16	120	18	92	155	36	50	12	8.4	28
19	26	40	16	144	18	73	127	40	35	12	8.1	12
20	26	38	17	67	18	61	100	36	31	36	9.1	9.5
21	42	36	18	47	18	51	2,390	33	27	19	8.4	8.8
22	235	36	18	138	18	45	1,540	50	24	14	7.4	14
23	611	36	18	118	18	43	371	50	22	13	10	13
24	369	33	17	52	19	41	171	40	22	13	13	9.5
25	189	36	17	44	19	40	127	87	21	14	9.5	25
26	118	46	17	42	19	37	103	72	20	13	8.4	23
27	84	43	21	42	20	35	86	88	15	27	8.4	12
28	65	36	27	41	25	34	74	443	15	12	7.8	89
29	78	32	31	39	------	35	75	179	17	12	7.4	153
30	60	31	660	47	------	35	154	80	17	11	7.4	48
31	51	------	999	32	------	37	------	55	------	12	7.8	------
TOTAL	2,673	1,411	2,199	2,974	993	3,460	9,472	3,097	1,050	483	303.8	640.6
MEAN	86.2	47.0	70.9	95.9	35.5	112	316	99.9	35.0	15.6	9.80	21.4
MAX	611	97	999	400	200	479	2,390	443	148	36	20	153
MIN	26	31	15	22	18	34	46	33	15	11	7.4	7.1
CFSM	1.75	.95	1.44	1.95	.72	2.27	6.41	2.03	.71	.32	.20	.43
IN.	2.02	1.06	1.66	2.24	.75	2.61	7.15	2.34	79	.36	.23	.48

CAL YR 1972 TOTAL 25,402.6 MEAN 69.4 MAX 1,380 MIN 2.5 CFSM 1.41 IN 19.17
WTR YR 1973 TOTAL 28,756.4 MEAN 78.8 MAX 2,390 MIN 7.1 CFSM 1.60 IN 21.70

PEAK DISCHARGE (BASE, 350 FT^3/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-23	1100	7.20	670	4-15	1600	7.17	999
12-31	1000	7.37	1,160	4-21	1600	9.31	3,700
1- 4	0900	6.27	516	5-28	1100	6.99	874
3-14	1900	6.72	712				

04087233 Root River Canal near Franklin, Wis.

LOCATION.--Lat 42°48'55", long 87°59'40", in SE¼ sec.10, T.4 N., R.21 E., Racine County, on right bank 10 ft (3 m) downstream from highway bridge 3.5 mi (5.6 km) upstream from mouth, 5.5 mi (8.8 km) southeast of intersection U.S. 45 and State 100 in Franklin, and 8.7 mi (14 km) southeast of Hales Corners.

DRAINAGE AREA.--57.2 mi² (148.1 km²).

PERIOD OF RECORD.--October 1963 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 670 ft (204 m), from topographic map.

AVERAGE DISCHARGE.--10 years, 41.8 ft³/s (1.184 m³/s) 9.92 in/yr (252 mm/yr).

EXTREMES.--Current year: Maximum discharge, 740 ft³/s (21.0 m³/s) Apr. 15, gage height, 9.39 ft (2.86 m); minimum, 1.6 ft³/s (0.045 m³/s) gage height, 2.20 ft (0.67 m).

Period of record: Maximum discharge, 774 ft³/s (21.9 m³/s) Feb. 11, 1966, gage height, 9.27 ft (2.83 m); minimum daily, 0.40 ft³/s (0.011 m³/s) Dec. 19, 1963, result of freezeup.

REMARKS.--Record fair except those below 3.0 ft³/s (0.085 m³/s), which are poor.

Rating table (gage height, in feet, and discharge, in cubic feet per second). (Shifting-control method used Apr. 28, 29, May 11-27, May 30 to June 4, June 12-16, June 19 to July 21; stage-discharge relation affected by ice Dec. 1-29, Jan. 1 to Feb. 1, Feb. 7-25.)

2.0	0.50	3.5	32	7.0	223
2.2	2.8	4.0	47	8.0	340
2.5	7.8	5.0	87	9.0	580
3.0	19	6.0	143	10.0	1,060

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	132	69	34	500	37	92	86	373	48	12	6.0	4.0
2	93	113	30	300	145	177	103	505	41	12	5.5	4.0
3	79	101	26	110	176	164	94	308	38	12	4.8	3.6
4	70	80	23	240	83	121	93	161	53	13	4.5	4.2
5	62	68	20	170	63	145	102	113	337	8.6	4.2	5.0
6	57	60	18	100	50	145	77	93	195	7.6	3.7	3.8
7	54	64	17	70	41	229	62	91	92	6.7	3.6	3.4
8	49	63	16	40	34	199	54	154	65	5.8	3.6	3.2
9	43	56	16	30	2	125	44	135	51	6.9	3.7	3.6
10	39	54	16	25	2	105	61	98	43	19	3.6	3.2
11	44	50	16	23	23	143	72	79	37	12	3.1	3.1
12	45	45	16	22	2	133	98	68	40	9.2	3.0	3.1
13	40	44	16	21	2	98	264	59	37	8.4	2.8	3.2
14	37	69	16	21	1	328	506	62	30	7.8	2.7	3.4
15	32	87	15	22	1	297	706	58	28	7.3	2.7	3.2
16	33	87	15	25	19	152	541	51	93	6.4	2.7	3.1
17	31	82	15	74	18	113	390	46	236	5.5	3.1	4.5
18	28	69	16	138	14	98	221	42	113	4.6	2.8	6.2
19	26	60	16	126	18	85	159	42	68	4.5	2.7	3.8
20	26	53	17	70	18	76	126	38	52	14	2.5	3.4
21	38	50	17	49	18	65	429	34	44	48	2.0	3.4
22	209	50	18	87	17	57	603	36	38	21	1.9	4.5
23	583	45	18	86	17	51	391	36	32	14	2.7	4.3
24	555	41	19	51	17	48	199	34	31	11	3.4	3.4
25	379	42	18	41	17	44	130	37	27	10	3.2	6.0
26	213	49	18	39	17	40	99	34	25	8.8	3.2	5.7
27	136	48	18	42	20	35	83	50	22	8.0	3.1	4.2
28	108	41	19	43	37	33	73	213	22	7.1	2.8	15
29	104	37	20	36	------	34	70	110	18	6.5	3.0	18
30	87	36	360	30	------	34	185	73	15	6.2	3.4	23
31	76	------	666	27	------	35	------	58	------	6.2	3.8	------
TOTAL	3,508	1,813	1,565	2,658	1,039	3,501	6,121	3,291	1,971	330.1	103.8	162.5
MEAN	113	60.4	50.5	85.7	37.1	113	204	106	65.7	10.6	3.35	5.42
MAX	583	113	666	500	176	328	706	505	337	48	6.0	23
MIN	26	36	15	21	17	33	44	34	15	4.5	1.9	3.1
CFSM	1.98	1.06	.88	1.50	.65	1.98	3.57	1.85	1.15	.19	.06	.09
IN.	2.28	1.18	1.02	1.73	.68	2.28	3.98	2.14	1.28	.21	.07	.11

CAL YR 1972 TOTAL 27,933.4 MEAN 76.3 MAX 684 MIN 2.8 CFSM 1.33 IN 18.17
WTR YR 1973 TOTAL 26,063.4 MEAN 71.4 MAX 706 MIN 1.9 CFSM 1.25 IN 16.95

PEAK DISCHARGE (BASE, 300 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-23	1700	9.11	624	5- 2	1100	8.85	535
3-14	1900	8.43	423	6- 5	0800	8.19	373
4-15	1400	9.39	740				

04087240 Root River at Racine, Wis.

LOCATION.--Lat 42°45'05", long 87°49'25", in NE¼ sec.6, T.3 N., R.23 E., Racine County, on left bank 30 ft (9 m) downstream from State Highway 38 bridge in Racine, 350 ft (110 m) downstream from Horlick Dam, and 5.2 mi (8.4 km) upstream from mouth.

DRAINAGE AREA.--187 mi² (484 km²).

PERIOD OF RECORD.--August 1963 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 610 ft (187 m), from topographic map. Prior to Feb. 5, 1964 nonrecording gage on bridge 30 ft (9 m) upstream.

AVERAGE DISCHARGE.--10 years, 146 ft³/s (4.135 m³/s), 10.60 in/yr (269 mm/yr).

EXTREMES.--Current year: Maximum discharge, 3,790 ft³/s (107.3 m³/s) Apr. 22, gage height, 7.88 ft (2.40 m); minimum, 8.0 ft³/s (0.23 m³/s) Sept. 1, 2, gage height, 2.09 ft (0.64 m).

Period of record: Maximum discharge, 3,790 ft³/s (107.3 m³/s) Apr. 22, 1973, gage height, 7.88 ft (2.40 m); minimum daily, 1.3 ft³/s (0.037 m³/s) Oct. 12, Dec. 31, 1963, Jan. 1, 2, 1964.

REMARKS.--Records good except those for winter periods, which are fair.

Rating table (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Dec. 1-29, Jan. 5 to Mar. 1.)

2.1	8.0	4.0	610
2.3	20	5.0	1,250
2.5	42	6.0	2,020
3.0	164	8.0	3,910

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	658	210	110	1,190	106	110	275	606	221	40	23	8.0
2	479	200	96	1,180	265	413	333	1,060	169	43	19	8.0
3	286	300	92	886	473	484	329	1,090	155	47	19	8.6
4	235	280	76	712	438	572	299	838	161	52	16	11
5	204	210	68	780	269	582	347	506	316	47	16	17
6	182	190	60	860	240	550	338	342	448	36	14	40
7	173	180	58	500	150	582	243	299	333	30	14	19
8	164	210	56	280	110	640	275	384	204	28	15	12
9	135	220	56	180	100	628	275	484	144	26	12	12
10	122	180	54	130	94	469	161	428	115	34	18	10
11	108	164	54	100	80	433	218	299	111	38	24	10
12	119	150	52	90	74	479	365	235	91	32	19	11
13	122	141	52	84	66	418	610	201	93	28	13	10
14	109	176	52	82	64	582	970	185	81	25	13	8.6
15	95	239	52	82	60	802	1,610	195	73	23	13	9.1
16	88	235	52	110	58	874	2,140	170	103	21	12	9.1
17	88	211	54	130	56	566	1,860	147	342	20	14	12
18	88	206	54	300	54	403	1,060	135	375	20	11	17
19	88	185	54	400	52	351	664	130	254	18	10	27
20	86	164	56	450	52	299	484	127	152	27	12	19
21	86	150	60	300	52	246	820	122	121	76	11	14
22	150	141	64	270	52	218	2,680	119	95	91	12	14
23	600	135	62	450	52	188	2,980	152	93	54	11	15
24	860	130	60	300	52	170	1,440	147	78	40	12	19
25	900	122	52	200	52	158	790	147	69	34	14	20
26	800	138	46	170	54	141	544	218	64	32	13	23
27	600	155	38	160	56	127	403	197	56	30	11	32
28	350	141	32	150	60	113	307	533	50	37	10	36
29	270	122	50	150	------	113	273	718	47	28	10	101
30	300	108	423	140	------	113	379	646	43	22	8.6	141
31	250	------	1,050	110	------	116	------	316	------	20	8.6	------
TOTAL	8,798	5,395	3,145	10,920	3,299	11,940	23,472	11,368	4,657	1,101	428.2	693.4
MEAN	284	180	103	352	118	385	782	367	155	35.5	13.8	23.1
MAX	900	300	1,050	1,190	479	874	2,980	1,090	448	91	24	141
MIN	86	108	32	82	52	110	161	119	43	18	8.6	8.0
CFSM	1.52	.96	.55	1.88	.63	2.06	4.18	1.96	.83	.19	.07	.12
IN.	1.75	1.07	.63	2.17	.66	2.38	4.67	2.26	.93	.22	.09	.14

CAL YR 1972 TOTAL 82,780.6 MEAN 226 MAX 2,570 MIN 9.2 CFSM 1.21 IN 16.47
WTR YR 1973 TOTAL 85,256.6 MEAN 234 MAX 2,980 MIN 8.0 CFSM 1.25 IN 16.96

PEAK DISCHARGE (BASE, 500 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10- 1	1145	4.12	682	3-16	0300	4.60	970
10-24	-	-	a1,500	4-16	1430	6.38	2,350
11- 1	-	-	a1,210	4-22	2130	7.88	3,790
12- 4	0300	3.82	511	5- 2	2000	4.83	1,130
				5-30	2200	4.35	1,820

a About.

04087257 Pike River near Racine, Wis.

LOCATION.--Lat 42°30'49", long 87°51'30", in SE¼ NE¼ sec.11, T.2 N., R.22 E., Kenosha County, on right bank just downstream from unnamed tributary, 1.7 mi (2.7 km) downstream from Pike Creek, 6.8 mi (10.9 km) southwest of Racine post office and 9.0 mi (14.5 km) upstream from mouth.

DRAINAGE AREA.--38.7 mi^2 (100 km^2).

PERIOD OF RECORD.--October 1971 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 620 ft (189 m), from topographic map.

EXTREMES.--Current year: Maximum discharge, 824 ft^3/s (23.3 m^3/s) Apr. 22, gage height, 6.71 ft (2.05 m); minimum, 2.2 ft^3/s (0.062 m^3/s) July 23, 24, gage height, 1.92 ft (0.59 m).

Period of record: Maximum discharge, 1,200 ft^3/s (34.0 m^3/s) June 15, 1972, gage height, 7.60 ft (2.32 m) from floodmark; minimum daily, 0.53 ft^3/s (0.015 m^3/s) Nov. 11, 1971.

REMARKS.--Records good except those for winter periods, which are fair. Low flows may be affected by occasional regulation of small recreation dam 1.1 mi (1.8 km) upstream.

Rating table (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Dec. 1-20, Jan. 11-14, Feb. 9-28.)

2.0	3.0	3.0	64
2.1	5.0	4.0	167
2.2	8.2	5.0	336
2.3	12	6.0	600
2.5	24		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	63	38	19	131	25	65	68	416	37	6.3	6.9	5.3
2	40	82	17	91	110	113	54	347	34	11	6.6	4.8
3	42	60	15	124	79	87	46	153	31	15	6.3	4.8
4	35	54	14	326	49	71	60	101	33	14	6.0	14
5	33	38	13	326	42	126	56	86	53	10	6.8	8.6
6	32	41	12	102	37	105	33	64	57	9.9	5.0	6.3
7	30	42	12	53	31	128	31	71	32	9.5	5.3	5.6
8	28	41	11	27	26	99	31	109	31	9.1	5.6	4.8
9	20	38	11	20	22	78	40	77	25	6.0	5.6	4.8
10	18	36	11	17	20	71	54	70	20	16	6.0	4.8
11	29	33	11	15	16	101	52	49	18	10	5.6	5.6
12	33	23	11	14	15	93	60	49	18	9.1	5.0	6.0
13	12	35	11	13	15	72	100	39	18	9.1	4.4	6.3
14	23	76	11	13	16	106	200	50	17	7.9	5.0	6.9
15	17	83	11	13	14	117	400	41	16	6.9	5.6	6.6
16	18	62	11	16	13	80	350	40	33	6.6	5.6	6.3
17	20	52	12	44	12	71	150	31	41	6.9	6.0	13
18	18	45	15	70	12	66	50	34	31	7.2	6.0	15
19	18	40	16	69	12	65	40	34	26	7.2	5.6	8.0
20	18	34	10	37	12	61	35	27	23	23	5.0	7.4
21	28	31	16	28	12	52	347	26	20	22	4.8	7.2
22	151	30	14	86	11	45	481	28	15	12	4.4	8.8
23	219	28	13	67	11	42	169	33	12	7.2	5.3	8.0
24	134	27	13	35	11	39	109	30	14	6.3	6.0	9.0
25	93	28	13	28	11	36	80	41	13	9.1	5.3	15
26	72	31	14	28	12	32	65	31	13	7.6	4.4	10
27	63	16	14	32	15	17	53	52	13	7.6	4.6	9.0
28	48	33	14	31	26	35	48	129	15	6.9	4.8	25
29	54	26	23	28	------	25	47	97	14	6.6	5.0	54
30	49	21	421	24	------	39	142	58	13	6.3	5.3	44
31	45	------	284	19	------	69	------	50	------	6.9	5.3	------
TOTAL	1,503	1,224	1,101	1,927	687	2,286	3,451	2,463	736	299.2	168.3	334.9
MEAN	48.5	40.8	35.5	62.2	24.5	73.7	115	79.5	24.5	9.65	5.43	11.2
MAX	219	83	421	326	110	186	481	416	57	23	6.9	54
MIN	12	16	11	13	11	17	31	26	12	6.0	4.4	4.8
CFSM	1.25	1.05	.92	1.61	.63	1.90	2.97	2.05	.63	.25	.14	.29
IN.	1.44	1.18	1.06	1.85	.66	2.20	3.32	2.37	.71	.29	.16	.32

CAL YR 1972 TOTAL 18,432.5 MEAN 50.4 MAX 560 MIN 2.1 CFSM 1.30 IN 17.72
WTR YR 1973 TOTAL 16,180.4 MEAN 44.3 MAX 481 MIN 4.4 CFSM 1.14 IN 15.55

05333500 St. Croix River near Danbury, Wis.

LOCATION.--Lat 46°04'28", long 92°14'50", in SW¼ sec.33, T.42 N., R.15 W., Burnett County, on left bank at downstream side of bridge on State Highway 35, 3.5 mi (5.6 km) downstream from Namekagon River, 10 mi (16 km) northeast of Danbury, and at mile 129.2 (207.9 m).

DRAINAGE AREA.--1,588 mi² (4,113 km²).

PERIOD OF RECORD.--March 1914 to current year. Prior to October 1933, published as "at Swiss".

GAGE.--Water-stage recorder. Datum of gage is 882.21 ft (268.898 m) above mean sea level. Prior to Apr. 23, 1937, nonrecording gage 40 ft (12 m) downstream at same datum. Apr. 23, 1937, to Jan. 5, 1939, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--59 years, 1,301 ft³/s (36.84 m³/s), 11.13 in/yr (283 mm/yr).

EXTREMES.--Current year: Maximum discharge, 4,070 ft³/s (115 m³/s) Mar. 13, gage height, 3.95 ft (1.204 m); minimum, 742 ft³/s (21.0 m³/s) July 23, gage height, 0.57 ft (0.174 m).

Period of record: Maximum discharge, 10,200 ft³/s (289 m³/s) May 6, 1950, gage height, 8.22 ft (2.505 m); minimum observed, 393 ft³/s (11.1 m³/s) Aug. 6, 13, 1934, gage height, -0.20 ft (-0.061 m), site then in use.

REMARKS.--Records good except those for winter period, which are fair.

REVISIONS (WATER YEARS).--WSP 1208: Drainage area. WSP 1438: 1915(M), 1919-20, 1923-24(M), 1927(M), 1931(M), 1934, 1935-37(M). WSP 1628: 1918.

Rating table (gage height, in feet, and discharge, in cubic feet per second). (Stage-discharge relation affected by ice Nov. 17-19, 21-24, 26-29, Dec. 2 to Mar. 12.)

0.6	760	2.0	1,940
.8	900	3.0	3,010
1.0	1,060	4.0	4,130

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,350	1,290	1,110	1,300	1,100	1,500	2,650	1,710	2,030	1,180	954	1,520
2	1,250	1,550	1,100	1,200	1,100	1,500	2,420	2,140	1,920	1,150	981	1,550
3	1,510	2,100	1,000	1,200	1,100	1,600	2,240	2,310	1,880	1,130	972	1,680
4	1,710	2,160	940	1,100	1,100	1,700	2,160	2,210	2,050	1,060	983	1,930
5	1,900	2,090	960	1,100	1,100	1,800	2,100	2,130	2,080	1,000	886	1,840
6	1,970	1,990	980	1,100	1,100	2,000	2,000	2,070	2,070	954	901	1,720
7	1,860	2,000	1,000	1,100	1,200	2,200	1,920	2,030	1,950	995	1,050	1,620
8	1,690	1,980	1,000	1,100	1,200	2,500	1,850	1,940	1,910	910	1,390	1,510
9	1,630	1,910	1,000	1,100	1,200	2,800	1,720	1,940	1,880	930	1,700	1,450
10	1,610	1,900	1,100	1,100	1,200	3,100	1,720	2,040	1,820	1,040	1,790	1,290
11	1,620	1,890	1,100	1,100	1,200	3,300	1,600	2,050	1,760	917	1,780	1,260
12	1,650	1,820	1,100	1,100	1,200	3,500	1,510	2,010	1,670	875	1,910	1,120
13	1,530	1,780	1,100	1,100	1,200	3,970	1,500	1,960	1,490	883	1,950	1,070
14	1,440	1,750	1,100	1,100	1,200	3,790	1,510	1,940	1,390	955	1,960	1,070
15	1,390	1,560	1,100	1,100	1,200	3,810	1,570	1,800	1,290	878	1,760	1,030
16	1,370	1,350	1,100	1,100	1,200	3,900	1,860	1,690	1,290	946	1,940	1,050
17	1,300	1,400	1,100	1,100	1,200	3,810	1,890	1,600	1,360	945	1,940	958
18	1,280	1,400	1,000	1,200	1,200	3,750	1,920	1,650	1,340	852	1,87	998
19	1,270	1,400	1,000	1,200	1,300	3,630	1,930	1,630	1,330	851	1,850	967
20	1,260	1,360	1,100	1,200	1,300	3,730	2,010	1,600	1,210	833	1,910	981
21	1,350	1,300	1,100	1,200	1,300	3,390	2,040	1,400	1,180	873	1,710	1,020
22	1,500	1,300	1,100	1,200	1,300	2,880	2,050	1,400	1,190	836	1,520	1,240
23	1,420	1,300	1,100	1,100	1,300	2,940	1,890	1,760	1,150	870	1,480	1,210
24	1,470	1,200	1,100	1,100	1,400	2,990	1,970	1,880	1,200	1,020	1,420	1,080
25	1,430	1,220	1,100	1,100	1,400	3,050	1,800	3,020	1,240	1,000	1,360	1,270
26	1,330	1,200	1,100	1,100	1,400	3,080	1,740	3,650	1,310	996	1,320	1,290
27	1,390	1,200	1,100	1,100	1,400	3,030	1,710	3,510	1,300	1,060	1,350	1,540
28	1,260	1,100	1,100	1,100	1,500	2,990	1,620	3,220	1,260	1,170	1,260	1,500
29	1,300	1,100	1,200	1,100	------	2,960	1,560	3,040	1,210	1,210	1,190	1,420
30	1,270	1,110	1,200	1,100	------	2,870	1,530	2,640	1,210	1,170	1,220	1,380
31	1,320	------	1,200	1,100	------	2,750	------	2,160	------	1,020	1,360	------
TOTAL	45,630	46,710	33,390	35,000	34,600	90,820	55,890	66,130	45,970	30,509	45,687	39,564
MEAN	1,472	1,557	1,077	1,129	1,236	2,930	1,863	2,133	1,532	984	1,474	1,319
MAX	1,970	2,160	1,200	1,300	1,500	3,970	2,650	3,650	2,080	1,210	1,960	1,930
MIN	1,250	1,100	940	1,100	1,100	1,500	1,500	1,400	1,150	833	886	958
CFSM	.93	.98	.68	.71	.78	1.85	1.17	1.34	.96	.62	.93	.83
IN.	1.07	1.09	.78	.82	.81	2.13	1.31	1.55	1.08	.71	1.07	.93

CAL YR 1972 TOTAL 587,783 MEAN 1,606 MAX 6,460 MIN 883 CFSM 1.01 IN 13.77
WTR YR 1973 TOTAL 569,900 MEAN 1,561 MAX 3,970 MIN 833 CFSM .98 IN 13.35

PEAK DISCHARGE (BASE, 3,000 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
3-13	0700	3.95	4,070	5-26	1500	3.64	3,710

05334000 Shell Lake at Shell Lake, Wis.

LOCATION.--Lat 45°44'46", long 91°55'00", in NE¼ sec.25, T.38 N., R.13 W., Washburn County, 500 ft (150 m) east of Peterson Boat Factory in the village of Shell Lake.

DRAINAGE AREA.--34.0 mi² (88 km²), approximately. Area of Shell Lake, 3,200 acres (13 km²).

PERIOD OF RECORD.--August 1936 to current year (fragmentary).

GAGE.--Nonrecording gage. Datum of gage is 1,215.88 ft (370.600 m) above mean sea level. May 3, 1952, to Apr. 21, 1961, 2.3 mi (3.7 km) southeast of village of Shell Lake at same datum.

EXTREMES.--Current year: Maximum gage height observed, 3.86 ft (1.177 m) June 9; minimum observed, 2.54 ft (0.774 m) Oct. 28.

Period of record: Maximum gage height observed, 5.13 ft (1.564 m) July 17, 1954; minimum observed, -0.92 ft (-0.280 m) Nov. 28, 1949.

REMARKS.--Lake has no surface outlet. Lake ice covered from Dec. 1 to Apr. 1.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1					2.83							3.20
2									3.80			
3												
4		2.56		2.81							3.06	
5								3.50				
6		2.70					3.40			3.50	3.10	
7	2.76									3.64		
8												3.20
9									3.86			
10		2.64						3.56				
11											3.16	
12								3.56				
13	2.68											
14										3.36		3.09
15												
16									3.76			
17		2.62										
18											3.16	
19								3.50				
20												
21	2.60									3.20		
22												2.94
23									3.64			
24		2.60					3.48					
25											3.14	
26								3.76				
27												
28	2.54						3.46			3.20		
29					------							3.00
30					------							
31		------			------		------		------			------

05338500 Snake River near Pine City, Minn.

LOCATION.--Lat 45°50'30", long 92°56'00", in SE¼ NW¼ sec.26, T.39 N., R.21 W., Pine County, on left bank at site of former powerplant and dam, 0.5 mi (0.8 km) downstream from Cross Lake and 1.5 mi (2.4 km) northeast of Pine City.

DRAINAGE AREA.--958 mi² (2.480 km²).

RECORDS AVAILABLE.--June 1913 to September 1917, July 1951 to current year.

GAGE.--Water-stage recorder. Datum of gage is 919.00 ft (280.11 m) above mean sea level, datum of 1929. June 25, 1913, to Sept. 30, 1917, nonrecording gage at site 500 ft (152 m) downstream at different datum. July 1 to Oct. 28, 1951, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--26 years, 597 ft³/s (16.9 m³/s), 8.46 in/yr (215 mm/yr).

EXTREMES.--Current year: Maximum discharge, 5,560 ft³/s (157 m³/s) Mar. 18 (gage height, 7.20 ft or 2.195 m); minimum, 60 ft³/s (1.70 m³/s) July 22 (gage height, 2.94 ft or 0.896 m).
Period of record: Maximum discharge, 14,300 ft³/s (405 m³/s) July 27, 1972 (gage height, 10.38 ft or 3.164 m); minimum, 5.5 ft³/s (0.16 m³/s) Oct. 1, 1964 (gage height, 2.57 ft or 0.783 m), result of dam rehabilitation 0.5 mi (0.8 km) upstream.
A discharge measurement of 12,500 ft³/s (354 m³/s) was made May 9, 1950.

REMARKS.--Records good except those for winter periods, which are fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	507	464	290	146	170	169	1,750	562	2,040	252	190	368
2	478	577	270	147	170	168	1,640	662	1,750	281	195	380
3	546	875	250	148	170	178	1,500	715	1,570	254	185	426
4	562	1,370	230	149	170	189	1,360	742	1,390	252	180	488
5	585	1,800	210	150	170	201	1,250	760	1,340	252	169	497
6	594	2,060	200	152	170	220	1,120	770	1,320	271	190	483
7	562	2,130	185	153	170	249	1,000	751	1,270	263	196	465
8	546	2,030	175	154	170	286	899	742	1,200	246	335	429
9	493	1,930	160	155	170	342	797	780	1,050	233	455	399
10	471	1,790	150	156	170	444	774	816	920	215	582	376
11	478	1,610	145	158	170	688	706	830	806	190	667	338
12	457	1,410	135	160	168	1,020	629	853	699	185	655	297
13	471	1,200	130	161	168	1,670	580	880	595	174	632	271
14	471	1,090	129	162	168	2,480	546	891	503	152	543	261
15	442	935	129	164	168	3,570	577	881	441	135	474	239
16	442	826	129	165	168	4,640	628	801	419	121	427	218
17	402	733	130	168	168	5,200	636	710	430	115	398	218
18	370	662	130	172	168	5,530	688	639	435	114	389	201
19	358	602	130	172	168	5,430	724	577	477	112	440	181
20	352	554	130	172	168	5,090	760	534	516	84	429	164
21	376	500	131	172	168	4,640	836	480	500	73	402	164
22	376	464	132	172	168	4,140	836	485	471	69	407	233
23	402	422	133	172	168	3,640	817	470	436	108	404	187
24	428	402	134	172	169	3,210	826	547	406	190	399	174
25	457	416	135	172	166	2,870	817	990	388	183	389	256
26	457	409	136	172	168	2,630	798	1,510	385	182	372	294
27	464	383	137	172	164	2,450	742	1,970	343	188	356	348
28	457	340	138	172	165	2,310	670	2,260	314	194	333	385
29	428	322	140	171	------	2,180	594	2,400	290	191	317	418
30	416	310	143	170	------	2,050	554	2,400	273	197	308	436
31	442	------	145	170	------	1,900	------	2,260	------	194	360	------
TOTAL	14,290	28,616	4,941	5,051	4,718	69,784	26,054	30,668	22,977	5,670	11,778	9,594
MEAN	461	954	159	163	169	2,251	868	989	766	183	380	320
MAX	594	2,130	290	172	170	5,530	1,750	2,400	2,040	281	667	497
MIN	352	310	129	146	164	168	546	470	273	69	169	164
CFSM	.48	1.00	.17	.17	.18	2.35	.91	1.03	.80	.19	.40	.33
IN.	.55	1.11	.19	.20	.18	2.71	1.01	1.19	.89	.22	.46	.37

CAL YR 1972 TOTAL 396,595 MEAN 1,084 MAX 14,200 MIN 129 CFSM 1.13 IN 15.40
WTR YR 1973 TOTAL 234,141 MEAN 641 MAX 5,530 MIN 69 CFSM .67 IN 9.09

05340500 St. Croix River at St. Croix Falls, Wis.

LOCATION.--Lat 45°24'25", long 92°38'49", in NW¼ sec.30, T.34 N., R.18 W., Polk County, on left bank, 1,800 ft (550 m) downstream from powerplant of Northern States Power Co., in St. Croix Falls, and at mile 52.2 (84.0 km).

DRAINAGE AREA.--5,930 mi² (15,360 km²), approximately.

PERIOD OF RECORD.--January 1902 to current year. Prior to January 1910, monthly discharge only, published in WSP 1308. Prior to October 1939, published as "near St. Croix Falls."

GAGE.--Water-stage recorder. Datum of gage is 689.94 ft (210.294 m) above mean sea level. Prior to July 1905, gage heights and discharge measurements were used by Loweth and Wolff, consulting engineers of St. Paul, Minn., to determine the flow. July 1905 to February 1940, records were computed from power generation at the St. Croix Falls powerplant.

AVERAGE DISCHARGE.--71 years, 4,158 ft³/s (117.8 m³/s), 9.52 in/yr (242 mm/yr).

EXTREMES.--Current year: Maximum discharge, 25,100 ft³/s (711 m³/s) Mar. 18, gage height, 11.89 ft (3.624 m), minimum daily, 1,860 ft³/s (52.7 m³/s) July 22.

Period of record: Maximum discharge, 54,900 ft³/s (1,550 m³/s) May 8, 1950, gage height, 25.19 ft (7.678 m); minimum daily, 75 ft³/s (2.12 m³/s) July 17, 1910.

REMARKS.--Records are good. Diurnal fluctuation caused by St. Croix Falls powerplant 1,800 ft (550 m) upstream.

REVISIONS (WATER YEARS).--WSP 1115: 1929.

Rating table (gage height, in feet, and discharge, in cubic feet per second).

2.2	1,840	4.0	6,950
2.3	2,050	6.0	11,900
2.6	2,720	8.0	16,400
3.0	3,800	12.0	25,400

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5,250	4,510	2,800	2,910	2,410	2,340	11,300	5,910	10,100	2,880	3,010	4,900
2	4,570	5,160	2,900	2,970	2,740	2,670	11,500	6,300	8,810	3,620	2,110	4,700
3	5,070	6,350	2,140	3,060	2,760	2,410	9,360	5,750	8,240	2,860	2,570	4,290
4	6,260	10,100	2,110	3,030	2,760	2,750	7,860	7,350	8,050	2,910	2,350	4,580
5	5,500	11,500	2,120	2,780	2,500	3,090	8,520	7,340	8,150	3,040	2,000	5,300
6	5,590	11,600	2,320	2,820	2,890	3,200	7,860	7,370	8,010	3,040	2,290	5,570
7	5,770	10,800	2,320	2,990	2,870	3,190	7,590	7,230	7,680	2,800	3,190	5,230
8	5,540	10,200	2,980	2,510	2,820	3,430	7,100	6,590	7,370	2,370	2,160	4,530
9	5,270	9,640	2,830	2,540	2,750	3,940	6,740	7,110	6,990	3,820	4,440	4,100
10	5,270	8,830	2,870	2,160	2,590	4,670	6,150	7,000	6,290	2,310	5,670	4,230
11	5,250	8,390	3,160	2,400	2,590	5,710	5,690	7,290	6,960	2,540	5,390	3,470
12	4,660	7,740	2,980	2,910	2,560	8,320	5,630	7,310	5,680	3,170	4,960	3,630
13	4,770	7,240	2,980	2,520	2,390	11,600	5,280	7,350	4,490	2,090	4,990	3,380
14	4,900	6,850	2,730	2,640	2,520	14,100	4,900	7,210	4,540	2,400	4,950	3,030
15	4,560	6,470	2,830	2,850	2,610	20,700	5,270	6,330	4,520	1,990	4,470	3,020
16	4,460	6,350	2,700	2,900	2,440	22,700	5,660	6,150	3,550	2,460	4,790	2,440
17	4,330	5,120	2,740	2,600	2,450	24,500	6,290	5,890	3,600	1,910	4,750	2,750
18	3,180	4,990	2,790	2,600	2,360	24,800	6,560	5,420	4,430	2,550	4,890	2,920
19	3,840	4,900	3,020	3,110	2,620	24,300	6,400	4,960	3,620	2,140	4,300	2,380
20	3,730	4,920	2,400	3,120	2,360	22,800	6,620	4,830	3,770	2,000	4,280	2,730
21	4,020	4,500	2,860	2,830	2,520	20,500	7,010	4,530	3,720	2,050	4,820	2,930
22	3,890	4,410	2,940	3,360	2,440	18,300	7,760	4,860	3,350	1,660	5,120	2,550
23	4,230	3,520	2,360	2,970	2,630	16,500	8,030	4,330	3,140	2,410	4,540	2,780
24	4,920	3,910	2,570	3,040	2,290	15,400	7,530	5,890	3,260	2,510	4,490	3,110
25	4,170	4,710	3,150	3,070	2,470	15,000	7,180	8,040	3,060	2,510	4,220	3,210
26	4,070	4,320	3,030	2,840	2,740	14,700	6,770	13,500	3,510	2,620	3,720	4,000
27	4,550	3,790	2,740	2,990	2,340	14,400	6,440	15,500	3,510	2,590	3,670	3,990
28	4,180	3,440	2,810	2,950	2,690	14,000	6,350	16,100	3,240	2,630	3,550	4,310
29	4,290	2,710	2,890	3,090	------	13,200	5,250	15,100	3,140	2,650	3,470	4,060
30	3,870	2,800	2,780	2,920	------	12,700	5,140	13,300	2,900	2,950	3,280	3,950
31	4,100	------	2,800	2,800	------	12,000	------	11,700	------	2,580	4,500	------
TOTAL	144,060	189,770	84,450	88,680	72,510	378,460	209,860	244,640	157,120	79,460	122,940	112,070
MEAN	4,647	6,326	2,724	2,861	2,590	12,210	6,995	7,892	5,237	2,563	3,966	3,736
MAX	6,260	11,600	3,160	3,360	2,890	24,800	11,600	16,100	10,100	3,620	5,670	5,570
MIN	3,180	2,710	2,120	2,160	2,290	2,340	4,900	4,330	2,900	1,660	2,000	2,380
CFSM	.78	1.07	.46	.48	.44	2.06	1.18	1.33	.88	.43	.67	.63
IN.	.90	1.19	.53	.56	.45	2.37	1.32	1.53	.99	.50	.77	.70

CAL YR 1972 TOTAL 2,416,600 MEAN 6,603 MAX 42,500 MIN 2,110 CFSM 1.11 IN 15.16
WTR YR 1973 TOTAL 1,884,020 MEAN 5,162 MAX 24,800 MIN 1,860 CFSM .87 IN 11.92

05344500 Mississippi River at Prescott, Wis.

LOCATION.--Lat 44°44'45", long 92°48'00", in sec.9, T.26 N., R.20 W., Pierce County, on left bank at Prescott, 200 ft (61 m) downstream from St. Croix River, 300 ft (91 m) south of Chicago, Burlington & Quincy Railroad bridge, 800 ft (244 m) south of bridge on U.S. Highway 10, and at mile 811.4 (1,305 km) upstream from Ohio River.

DRAINAGE AREA.--44,800 mi^2 (116,000 km^2), approximately.

PERIOD OF RECORD.--June 1928 to current year.

GAGE.--Water-stage recorder. Datum of gage is 649.50 ft (197.97 m) above mean sea level, datum of 1929. Prior to Aug. 2, 1932, nonrecording gage at railroad bridge 300 ft (91 m) upstream at following datums: June 3, 1928, to Sept. 30, 1929, 19.27 ft (5.873 m) higher; Oct. 1, 1929, to Sept. 30, 1930, 17.68 ft (5.390 m) higher; Oct. 1, 1930, to Aug. 1, 1932, 19.28 ft (5.877 m) higher. Aug. 2, 1932, to Oct. 30, 1938, water-stage recorder at present site at datum 19.28 ft (5.877 m) higher; Nov. 1, 1938, to Sept. 7, 1971, water-stage recorder at present site at datum 50.00 ft (15.240 m) lower.

AVERAGE DISCHARGE.--45 years, 16,011 ft^3/s (453 m^3/s), 4.88 in/yr (124 mm/yr).

EXTREMES.--Current year: Maximum discharge, 78,300 ft^3/s (2,220 m^3/s) Mar. 20 (gage height, 33.83 ft or 10.311 m); minimum daily, 5,300 ft^3/s (150 m^3/s) Dec. 4; minimum gage height, 24.49 ft (7.465 m) Dec. 3. Period of record: Maximum discharge, 228,000 ft^3/s (6,460 m^3/s) Apr. 18, 1965 (gage height, 43.11 ft or 13.140 m); minimum daily, 1,380 ft^3/s (39.1 m^3/s) July 13, 1940; minimum gage height, 15.08 ft (4.596 m) Aug. 29, 1934, present datum.

REMARKS.--Records good except those for winter periods, which are fair. Some regulation by reservoirs, navigation dams, and powerplants at low and medium stages. Flood flow not materially affected by artificial storage.

REVISIONS (WATER YEARS).--WSP 1508: 1941.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20,300	18,000	12,500	8,400	10,500	9,900	47,900	29,400	38,300	12,300	11,400	12,200
2	19,800	19,200	11,500	8,300	9,600	10,900	46,800	30,100	37,300	12,400	11,900	12,800
3	19,100	22,500	9,600	10,300	9,000	11,600	45,200	30,500	36,600	12,700	11,300	13,200
4	19,600	24,000	5,300	10,100	9,400	11,800	43,200	31,800	35,700	12,500	10,700	12,800
5	19,300	27,200	5,400	9,200	9,500	16,100	40,600	33,300	34,900	12,300	10,400	12,600
6	19,300	30,700	7,500	8,600	9,200	16,400	39,500	34,400	33,900	12,300	9,400	12,600
7	18,900	33,500	6,500	8,500	8,800	17,900	38,900	35,700	32,400	12,300	10,300	13,000
8	18,800	33,900	6,800	8,900	8,000	20,400	37,100	36,200	31,600	11,800	10,800	13,500
9	18,000	33,700	6,700	8,400	8,000	21,900	36,000	35,900	30,200	10,300	10,800	13,100
10	17,600	33,700	7,200	8,500	8,700	25,600	33,600	36,800	28,900	9,510	12,000	12,300
11	18,200	32,800	9,600	8,600	8,200	28,100	32,500	37,100	27,600	10,000	13,600	11,500
12	18,100	31,700	11,200	8,800	8,400	31,500	31,500	36,600	26,300	10,000	14,300	10,500
13	17,300	30,500	10,500	8,900	9,400	36,000	29,800	36,400	24,700	10,200	14,800	9,930
14	17,000	29,100	10,800	8,500	8,500	43,800	28,800	36,400	23,900	9,980	15,500	9,510
15	16,500	29,000	10,600	8,700	6,900	53,000	28,400	35,900	21,700	10,100	15,300	9,460
16	15,800	28,600	10,500	9,600	6,600	61,700	28,800	34,700	20,000	10,000	15,700	9,080
17	15,700	27,700	7,500	9,600	6,500	68,200	27,400	32,300	19,000	10,500	15,600	8,600
18	14,900	26,100	8,200	9,300	6,400	73,700	28,900	31,100	18,100	10,100	14,200	8,750
19	14,300	25,300	9,500	8,700	7,500	76,700	30,700	29,400	17,700	8,710	14,200	9,170
20	14,500	24,500	10,900	9,000	8,000	78,000	31,100	27,800	17,400	8,480	13,600	9,300
21	14,800	24,100	10,000	9,100	7,200	77,000	32,000	26,700	17,000	8,640	13,300	10,600
22	15,400	23,400	9,500	10,000	8,300	74,200	32,200	26,400	16,000	8,750	13,500	9,880
23	15,600	21,900	9,600	11,000	9,200	70,900	32,800	25,900	14,600	8,760	16,300	10,200
24	15,700	21,000	9,100	10,400	9,000	67,800	33,000	25,300	14,600	9,300	15,400	10,400
25	16,200	20,200	9,600	10,600	8,500	64,900	32,900	26,300	14,400	9,290	13,000	10,600
26	16,000	20,300	10,000	10,600	8,700	62,100	32,200	28,300	13,500	8,920	12,900	11,900
27	16,000	19,400	9,700	10,500	8,900	59,800	31,100	31,900	12,900	8,980	12,800	13,200
28	16,400	17,000	8,800	10,000	8,600	58,100	30,400	35,300	12,700	9,150	12,300	11,600
29	16,800	15,000	9,000	9,100	------	55,400	29,700	37,500	12,200	10,200	11,700	11,700
30	16,900	14,000	11,100	9,000	------	53,100	29,200	38,400	12,100	10,200	11,700	12,100
31	17,500	------	10,800	9,900	------	49,700	------	38,700	------	10,400	11,700	------
TOTAL	530,300	758,000	285,500	289,100	235,500	1,406.2M	1,022.2M	1,012.5M	696,200	319,070	400,400	336,080
MEAN	17,110	25,270	9,210	9,326	8,411	45,360	34,070	32,660	23,210	10,290	12,920	11,200
MAX	20,300	33,900	12,500	11,000	10,500	78,000	47,900	38,700	38,300	12,700	16,300	13,500
MIN	14,300	14,000	5,300	8,300	6,400	9,900	27,400	25,300	12,100	8,480	9,400	8,600
CFSM	.38	.56	.21	.21	.19	1.01	.76	.73	.52	.23	.29	.25
IN.	.44	.63	.24	.24	.20	1.17	.85	.84	.58	.26	.33	.28

CAL YR 1972 TOTAL 10,063,600 MEAN 27,500 MAX 94,800 MIN 5,300 CFSM .61 IN 8.36
WTR YR 1973 TOTAL 7,291,050 MEAN 19,980 MAX 78,000 MIN 5,300 CFSM .45 IN 6.05

M Expressed in thousands.

05356000 Chippewa River at Bishops Bridge, near Winter, Wis.

LOCATION.--Lat 45°50'57", long 91°04'44", in sec.23, T.39 N., R.6 W., Sawyer County, on right bank 15 ft (5 m) upstream from highway bridge on County Trunk G, 3.2 mi (5.1 km) downstream from Lake Chippewa Dam, and 3.7 mi (6.0 km) northwest of Winter.

DRAINAGE AREA.--787 mi^2 (2,038 km^2).

PERIOD OF RECORD.--February 1912 to current year. December to April 1913, monthly discharge only, published in WSP 1308.

GAGE.--Water-stage recorder. Altitude of gage is 1,270 ft (387 m), from Lake Chippewa datum. See WSP 1708 or 1728 for history of changes prior to July 23, 1930.

AVERAGE DISCHARGE.--61 years, 716 ft^3/s (20.28 m^3/s).

EXTREMES.--Current year: Maximum discharge, 2,990 ft^3/s (84.7 m^3/s) Nov. 10, gage height, 7.50 ft (2.286 m); minimum, 86 ft^3/s (2.44 m^3/s) Mar. 9, gage height, 3.80 ft (1.158 m); minimum daily 88 ft^3/s (2.49 m^3/s) Mar. 10.

Period of record: Maximum discharge, 7,520 ft^3/s (213 m^3/s) Sept. 4, 5, 1914, gage height, 11.05 ft (3.368 m); minimum, 14 ft^3/s (0.40 m^3/s) Apr. 17-20, 1925, gage height, 3.25 ft (0.991 m).

REMARKS.--Records good. Flow regulated by Moose Lake and Lake Chippewa (see p. 98).

REVISIONS (WATER YEARS).--WSP 1208: Drainage area. WSP 1438: 1913(M), 1915-18(M), 1919, 1920-23(M), 1924, 1925(M), 1927(M), 1928, 1929-30(M), 1939(M).

Rating table (gage height, in feet, and discharge, in cubic feet per second).
(Shifting-control method used Sept. 3.)

3.8	86	6.0	1,370
4.2	196	7.0	2,430
4.6	350	8.0	3,770
5.0	560		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	227	919	1,530	1,390	1,210	319	169	1,020	2,250	444	970	1,130
2	308	946	1,530	1,380	1,210	319	170	1,040	2,030	444	965	1,130
3	914	927	1,530	1,370	1,200	320	170	1,030	1,390	442	846	1,170
4	1,120	905	1,520	1,370	1,190	321	164	1,780	1,280	440	859	1,140
5	1,120	1,150	1,520	1,370	1,190	321	174	2,310	1,060	440	696	1,130
6	1,520	1,660	1,520	1,360	1,180	323	239	2,310	816	440	703	1,110
7	2,040	1,350	1,510	1,350	1,180	334	238	2,300	753	440	777	1,100
8	2,030	806	1,500	1,350	1,170	337	238	2,470	946	438	976	1,100
9	1,760	931	1,500	1,340	1,170	290	237	2,590	1,160	442	1,340	1,090
10	2,010	2,030	1,500	1,340	1,170	88	238	2,610	1,160	439	1,460	1,080
11	1,850	2,840	1,490	1,330	1,150	120	239	2,600	1,150	434	1,450	1,070
12	1,600	2,330	1,490	1,330	1,140	129	238	2,580	1,020	440	1,440	891
13	1,340	1,890	1,440	1,320	1,140	168	238	2,570	865	440	1,440	400
14	1,220	1,590	1,470	1,310	1,130	253	239	2,390	862	439	1,440	350
15	1,220	1,600	1,470	1,310	1,130	292	248	1,660	744	438	1,450	344
16	1,020	1,600	1,460	1,300	1,120	224	262	1,400	613	438	1,480	342
17	881	1,590	1,460	1,290	1,120	205	257	1,020	609	437	1,450	338
18	881	1,580	1,450	1,290	1,110	222	253	1,020	603	436	1,440	337
19	881	1,580	1,440	1,280	1,090	195	249	872	466	435	1,430	336
20	890	1,580	1,440	1,270	1,090	169	250	714	420	435	1,440	320
21	891	1,570	1,440	1,270	1,000	189	248	713	452	435	1,440	209
22	888	1,570	1,430	1,260	642	177	245	717	451	435	1,240	197
23	891	1,570	1,420	1,260	318	172	240	717	450	523	1,100	194
24	898	1,560	1,420	1,260	319	179	436	732	447	511	1,110	195
25	999	1,560	1,420	1,250	319	184	1,010	1,330	451	471	1,100	203
26	898	1,550	1,410	1,240	327	182	1,000	2,320	451	606	1,110	281
27	904	1,550	1,410	1,230	319	178	997	2,500	449	723	1,100	345
28	902	1,540	1,400	1,230	320	176	993	2,480	448	727	1,110	340
29	901	1,540	1,400	1,230	------	173	988	2,350	448	719	1,110	338
30	902	1,540	1,360	1,230	------	171	985	2,260	445	881	1,100	338
31	911	------	1,390	1,220	------	168	------	2,250	------	974	1,120	------
TOTAL	34,717	45,354	45,340	40,330	26,654	6,898	11,652	54,695	24,591	15,791	36,532	18,548
MEAN	1,120	1,512	1,463	1,301	952	223	388	1,763	823	509	1,178	618
MAX	2,040	2,840	1,530	1,390	1,210	337	1,010	2,610	2,250	974	1,480	1,170
MIN	227	806	1,390	1,220	318	88	164	714	420	435	696	194

CAL YR 1972 TOTAL 375,565 MEAN 1,026 MAX 5,900 MIN 93
WTR YR 1973 TOTAL 361,162 MEAN 989 MAX 2,840 MIN 88

05356500 Chippewa River near Bruce, Wis.

LOCATION.--Lat 45°27'08", long 91°15'39", in SE¼ sec.5, T.34 N., R.7 E., Rusk County, on right bank 1.0 mi (1.6 km) east of Bruce and 1.0 mi (1.6 km) downstream from Thornapple River.

DRAINAGE AREA.--1,630 mi² (4,220 km²), approximately.

PERIOD OF RECORD.--December 1913 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,059.62 ft (322.972 m) above mean sea level. Prior to May 28, 1935, nonrecording gage at railroad bridge 0.8 mi (1.3 km) upstream at datum 2.30 ft (0.701 m) higher.

AVERAGE DISCHARGE.--59 years, 1,453 ft³/s (41.15 m³/s).

EXTREMES.--Current year: Maximum discharge, 17,100 ft³/s (484 m³/s) Mar. 15, gage height, 14.94 ft (4.554 m); minimum, 728 ft³/s (20.6 m³/s) Sept. 15, gage height, 2.00 ft (0.610 m).

Period of record: Maximum discharge, 25,800 ft³/s (731 m³/s) Sept. 1, 1941, gage height, 20.46 ft (6.236 m), from floodmarks, from rating curve extended above 20,000 ft³/s (566 m³/s); minimum, 155 ft³/s (4.39 m³/s) June 10, 1932, gage height, 0.9 ft (0.274 m), site and datum then in use.

REMARKS.--Records good except those for winter period, which are fair. Flow from 48 percent of the drainage area regulated by Moose Lake and Lake Chippewa (see p. 98).

REVISIONS (WATER YEARS).--WSP 875: 1936-38. WSP 1278: Drainage area. WSP 1308: 1922, 1937(M). WSP 1508: 1914-26(M), 1927, 1928-31(M), 1932, 1933(M), 1934-36, 1938.

Rating table (gage height, in feet, and discharge, in cubic feet per second). (Shifting-control method used Mar. 29 to Apr. 22, June 9 to July 31; stage-discharge relation affected by ice Nov. 29 to Mar. 10.)

2.0	728	8.0	6,410
3.0	1,420	11.0	10,460
5.0	3,040	14.0	15,510

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,420	1,390	1,900	2,000	1,700	1,000	1,570	2,370	3,150	927	1,630	2,480
2	1,190	1,770	1,600	1,900	1,700	1,000	1,560	3,900	3,070	986	1,590	2,400
3	1,330	3,120	1,500	1,800	1,800	1,000	1,560	4,760	2,690	970	1,570	2,280
4	2,660	2,970	1,400	1,800	1,800	1,000	1,460	4,600	2,460	919	1,510	2,590
5	2,730	2,580	1,400	1,800	1,800	1,100	1,380	4,570	3,190	905	1,400	2,410
6	2,500	2,620	1,400	1,800	1,800	1,200	1,350	4,220	2,870	892	1,350	2,100
7	2,960	3,050	1,400	1,800	1,800	1,400	1,190	4,010	2,300	886	1,340	1,940
8	2,930	3,180	1,400	1,800	1,800	1,900	1,220	4,330	2,220	869	2,100	1,870
9	2,730	2,870	1,500	1,800	1,800	3,000	1,130	4,800	2,280	859	2,460	1,830
10	2,400	2,780	1,500	1,800	1,800	3,300	1,140	5,300	2,130	923	2,580	1,800
11	2,540	3,870	1,600	1,800	1,800	4,190	1,160	5,540	1,990	877	2,540	1,760
12	2,360	3,870	1,700	1,800	1,700	6,920	1,160	5,500	1,890	898	2,220	1,740
13	2,110	3,160	1,700	1,800	1,700	8,990	1,140	5,190	1,650	903	2,130	1,550
14	1,810	2,590	1,800	1,800	1,700	11,500	1,120	4,760	1,460	908	2,190	906
15	1,730	2,360	1,800	1,800	1,700	14,800	1,230	4,120	1,400	910	2,150	832
16	1,730	2,270	1,900	1,800	1,700	13,100	2,070	3,480	1,260	900	2,240	850
17	1,460	2,260	1,900	1,800	1,700	9,020	2,810	2,610	1,190	884	2,330	885
18	1,380	2,120	1,900	1,800	1,700	5,830	2,760	2,140	1,160	895	2,230	888
19	1,350	2,080	1,900	1,800	1,700	4,190	2,500	2,060	1,140	896	2,190	864
20	1,340	2,060	1,900	1,800	1,700	3,280	2,300	1,840	997	906	2,160	888
21	1,410	2,040	1,900	1,800	1,600	2,780	2,170	1,720	907	901	2,120	868
22	1,490	1,960	1,900	1,800	1,500	2,550	1,870	1,650	948	907	2,100	971
23	1,620	2,030	2,000	1,800	1,000	2,380	1,670	1,750	962	1,050	1,890	971
24	1,770	1,980	2,000	1,800	960	2,440	1,540	1,840	963	1,920	1,810	895
25	1,650	1,980	2,000	1,800	960	2,450	1,690	3,040	957	1,780	1,790	968
26	1,580	1,990	2,000	1,800	980	2,440	2,050	5,810	1,020	1,480	1,770	1,330
27	1,520	1,970	2,000	1,700	980	2,320	2,060	6,310	1,030	1,580	1,770	2,400
28	1,470	1,930	2,000	1,700	980	2,190	2,040	5,280	956	1,640	1,750	2,420
29	1,440	1,900	2,000	1,700	------	2,020	2,010	4,370	977	1,620	1,720	1,870
30	1,410	1,900	2,000	1,700	------	1,880	2,000	3,750	931	1,560	1,730	1,760
31	1,400	------	2,000	1,700	------	1,700	------	3,320	------	1,620	2,020	------
TOTAL	57,420	72,650	54,900	55,600	43,860	122,870	50,930	118,940	50,148	34,173	60,580	47,316
MEAN	1,852	2,422	1,771	1,794	1,566	3,964	1,698	3,837	1,672	1,102	1,954	1,577
MAX	2,960	3,870	2,000	2,000	1,800	14,800	2,810	6,310	3,190	1,920	2,580	2,590
MIN	1,190	1,390	1,400	1,700	960	1,000	1,120	1,650	907	859	1,350	832

CAL YR 1972 TOTAL 695,781 MEAN 1,901 MAX 8,130 MIN 536
WTR YR 1973 TOTAL 769,387 MEAN 2,108 MAX 14,800 MIN 832

05358300 Pine Creek near Oxbo, Wis.

LOCATION.--Lat 45°54'12", long 90°41'00", in SE¼ sec.36, T.40 N., R.3 W., Sawyer County, Chequamegon National Forest, on right bank just downstream from culvert on County Trunk Highway EE, 2.0 mi (3.2 km) upstream from mouth and 3.0 mi (4.8 km) northeast of Oxbo.

DRAINAGE AREA.--37.8 mi² (97.9 km²).

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1967-70. October 1970 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,400 ft (427 m), from topographic map.

EXTREMES.--Current year: Maximum discharge, not determined; minimum daily 12 ft³/s (.340 m³/s) Dec. 26-30.

Period of record: Maximum discharge, 670 ft³/s (19.0 m³/s) Aug. 18, 1972, gage height, 5.00 ft (1.524 m), discharge not determined for 1973 water year; minimum daily, 12 ft³/s (.340 m³/s) Dec. 26, 1972.

REMARKS.--Records fair except those for period of no gage-height record and winter period, which are poor.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	53	93	24	14	24	18	240	160	58	24	22	50
2	46	82	22	14	24	19	200	330	54	24	19	37
3	69	174	21	15	25	21	170	310	56	24	19	34
4	107	146	21	15	25	25	150	280	78	22	17	45
5	98	117	20	15	25	28	120	240	125	21	16	38
6	82	100	19	15	25	32	110	200	115	20	18	30
7	70	125	19	15	23	48	94	170	96	19	30	26
8	57	174	18	15	21	94	84	143	98	19	72	24
9	51	151	17	15	19	96	76	140	83	20	76	23
10	49	124	17	15	18	96	66	151	65	24	45	22
11	53	110	16	14	18	110	62	145	53	26	33	21
12	48	94	16	14	19	150	60	135	46	24	28	20
13	43	82	16	14	19	160	62	110	40	26	33	19
14	41	70	15	14	20	250	80	89	36	23	53	19
15	38	63	15	14	20	300	140	73	33	21	38	19
16	37	54	15	14	21	270	210	71	33	20	40	19
17	35	50	14	15	22	240	230	66	33	19	32	19
18	33	45	14	17	22	210	230	61	31	19	33	19
19	30	43	14	34	22	160	210	56	28	19	42	19
20	31	42	14	40	22	140	190	53	27	19	41	19
21	43	42	13	35	22	130	150	51	30	18	31	20
22	44	42	13	35	22	130	160	50	36	18	26	29
23	53	37	13	32	22	130	140	59	33	18	25	28
24	48	36	13	30	21	130	110	69	30	20	24	25
25	42	34	13	29	20	160	90	176	28	21	24	28
26	40	32	12	27	19	190	72	234	31	21	22	70
27	34	30	12	26	19	240	60	193	31	24	22	122
28	38	28	12	25	18	310	52	129	30	30	20	76
29	34	26	12	23	------	340	50	90	28	28	19	51
30	33	25	12	23	------	300	48	71	27	26	21	42
31	30	------	13	23	------	260	------	62	------	23	64	------
TOTAL	1,507	2,213	495	658	594	4,807	3,746	4,171	1,492	680	985	1,013
MEAN	48.6	73.8	16.0	21.0	21.4	155	125	135	49.7	21.9	31.8	33.8
MAX	107	174	24	40	25	340	240	330	125	30	76	122
MIN	30	25	12	14	18	18	48	56	27	18	16	19
CFSM	1.29	1.95	.42	.56	.57	4.10	3.31	3.57	1.31	.58	.84	.89
IN.	1.48	2.18	.49	.64	.59	4.73	3.69	4.10	1.47	.67	.97	1.00

CAL YR 1972 TOTAL 20,387 MEAN 55.6 MAX 637 MIN 12 CFSM 1.47 IN 20.02
WTR YR 1973 TOTAL 22,349 MEAN 61.2 MAX 340 MIN 12 CFSM 1.62 IN 21.99

NOTE.--No gage-height record Dec. 4 to May 7.

05358500 Flambeau River at Babbs Island, near Winter, Wis.

LOCATION.--Lat 45°46'07", long 90°45'41", in SE¼ sec.17, T.38 N., R.3 W., Sawyer County, on right bank 3.6 mi (5.8 km) upstream from Connors Creek, 11.5 mi (18.5 km) upstream from South Fork Flambeau River, 13 mi (21 km) east of Winter, and at mile 61.9 (99.6 km).

DRAINAGE AREA.--1,000 mi² (2,590 km²).

PERIOD OF RECORD.--August 1929 to current year. Monthly discharge only for some periods, published in WSP 1308.

GAGE.--Water-stage recorder. Altitude of gage is 1,330 ft (405 m), from river profile map. Prior to Oct. 1, 1934, at bridge 300 ft (91 m) upstream at datum 9.0 ft (2.7 m) lower. Oct. 1, 1934, to Sept. 8, 1938, at bridge 300 ft (91 m) upstream at present datum.

AVERAGE DISCHARGE.--44 years, 990 ft³/s (28.04 m³/s).

EXTREMES.--Current year: Maximum discharge, 5,440 ft³/s (154 m³/s) Mar. 16, gage height, 6.29 ft (1.917 m); maximum gage height, 6.52 ft (1.987 m) Mar. 15, backwater from ice; minimum discharge, 744 ft³/s (21.1 m³/s) Sept. 20, gage height, 1.61 ft (0.49 m).

Period of record: Maximum discharge, 9,440 ft³/s (267 m³/s) June 25, 1946, gage height, 9.45 ft (2.880 m); minimum, 86 ft³/s (2.44 m³/s) Oct. 21, 22, 1948, gage height, 0.20 ft (0.061 m); minimum daily, 118 ft³/s (3.34 m³/s) Oct. 10, 1948.

REMARKS.--Records good except those for winter periods or backwater from vegetation, which are fair. Flow regulated by Rest Lake and Flambeau Flowage reservoirs (see p. 98).

REVISIONS (WATER YEARS).--WSP 855: 1935-36. WSP 1175: Drainage area. WSP 1508: 1930.

Rating table except periods of backwater from vegetation (gage height, in feet, and discharge, in cubic feet per second). (Stage-discharge relation affected by ice Dec. 2 to Mar. 15.)

1.6	750	3.0	1,850
2.0	1,020	4.0	2,900
2.5	1,420	6.0	5,320
		7.0	6,530

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,510	1,410	1,300	1,600	1,200	1,400	1,590	1,420	1,820	1,140	957	1,060
2	1,430	1,620	1,300	1,300	1,200	1,400	1,550	3,130	1,720	967	921	990
3	1,490	2,420	1,100	1,400	1,300	1,500	1,520	3,290	1,680	1,010	839	1,020
4	2,130	2,380	1,000	1,400	1,300	1,500	1,470	3,120	1,620	1,010	842	1,120
5	1,980	2,070	960	1,300	1,300	1,600	1,410	3,010	2,680	1,010	873	1,040
6	2,160	2,210	940	1,200	1,300	1,800	1,350	2,820	2,780	929	792	979
7	2,150	2,180	900	1,300	1,300	2,300	1,530	2,800	2,740	977	902	986
8	1,880	3,100	880	1,300	1,200	2,200	1,510	2,880	2,670	982	1,230	874
9	2,150	3,250	880	1,300	1,200	2,100	1,410	2,990	2,530	972	1,410	862
10	1,890	2,770	900	1,300	1,200	2,000	1,370	3,020	2,380	1,040	1,080	853
11	1,900	2,860	940	1,400	1,200	2,500	1,310	3,170	2,230	1,040	975	854
12	1,950	2,460	960	1,400	1,100	3,000	1,430	3,060	1,960	1,030	968	876
13	1,850	2,140	980	1,500	1,100	3,300	1,490	2,850	1,820	935	1,010	859
14	1,910	1,890	1,000	1,500	1,100	4,000	1,340	2,600	1,490	1,010	1,160	816
15	1,770	1,580	1,000	1,500	1,100	5,200	1,510	2,520	1,340	999	1,180	826
16	1,670	1,530	1,100	1,500	1,100	5,360	2,110	2,320	1,450	999	1,020	833
17	1,560	1,540	1,100	1,400	1,000	3,560	2,460	2,420	1,330	995	1,080	834
18	1,610	1,480	1,200	1,400	1,000	1,680	2,350	2,420	1,250	963	1,070	842
19	1,370	1,470	1,200	1,300	1,100	1,590	2,580	2,270	1,170	968	1,080	818
20	1,430	1,470	1,200	1,300	1,100	1,490	2,710	2,160	1,250	961	1,060	796
21	1,470	1,440	1,200	1,400	1,100	1,420	2,480	2,060	1,190	960	967	817
22	1,470	1,420	1,200	1,400	1,100	1,310	2,740	1,630	1,360	957	939	904
23	1,570	1,430	1,200	1,400	1,200	1,410	2,370	1,720	1,210	932	915	838
24	1,660	1,430	1,100	1,400	1,200	1,400	2,100	1,790	1,160	961	853	861
25	1,510	1,390	1,100	1,300	1,200	1,480	2,080	2,660	1,120	980	887	884
26	1,380	1,430	1,100	1,100	1,200	1,630	1,740	3,530	1,170	993	890	1,070
27	1,560	1,380	1,200	1,100	1,300	1,820	1,500	3,550	1,080	1,130	885	1,830
28	1,490	1,360	1,200	1,100	1,300	1,770	1,360	3,110	1,220	951	874	1,650
29	1,470	1,360	1,200	1,100	------	1,840	1,210	2,590	1,070	989	844	1,220
30	1,340	1,370	1,300	1,200	------	1,820	1,160	2,440	1,070	982	849	1,170
31	1,340	------	1,200	1,200	------	1,650	------	2,050	------	928	989	------
TOTAL	52,050	55,840	33,840	41,300	33,000	67,030	52,740	81,400	49,560	30,700	30,341	29,382
MEAN	1,679	1,861	1,092	1,332	1,179	2,162	1,758	2,626	1,652	990	979	979
MAX	2,160	3,250	1,300	1,600	1,300	5,360	2,740	3,550	2,780	1,140	1,410	1,830
MIN	1,340	1,360	880	1,100	1,000	1,310	1,160	1,420	1,070	928	792	796

CAL YR 1972 TOTAL 486,370 MEAN 1,329 MAX 5,460 MIN 609
WTR YR 1973 TOTAL 557,183 MEAN 1,527 MAX 5,360 MIN 792

NOTE.--Backwater from aquatic vegetation July 24 to Sept. 27.

05359500 South Fork Flambeau River near Phillips, Wis.

LOCATION.--Lat 45°42'08", long 90°36'58", in NW¼ SW¼ sec.10, T.37 N., R.2 W., Price County, on left bank at downstream side of bridge on County Trunk W, 0.4 mi (0.6 km) downstream from Big Elk River and 12 mi (19 km) west of Phillips.

DRAINAGE AREA.--615 mi^2 (1,593 km^2).

PERIOD OF RECORD.--August 1929 to current year. Monthly discharge only for some periods, published in WSP 1308.

GAGE.--Water-stage recorder. Altitude of gage is 1,360 ft (415 m), by barometer. Prior to Jan. 11, 1954, nonrecording gage at site 600 ft (183 m) downstream at same datum. Jan. 12, 1954, to Sept. 4, 1968, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--44 years, 594 ft^3/s (16.82 m^3/s), 13.12 in/yr (333 mm/yr).

EXTREMES.--Current year: Maximum discharge, 5,510 ft^3/s (156 m^3/s) Mar. 16, gage height, 11.52 ft (3.511 m); minimum, 195 ft^3/s (5.52 m^3/s) Aug. 6, gage height, 5.08 ft (1.548 m).

Period of record: Maximum discharge, 10,200 ft^3/s (289 m^3/s) June 18, 1943, gage height, 14.32 ft (4.365 m); minimum, 39 ft^3/s (1.10 m^3/s) Aug. 31, Sept. 3-5, 1933.

REMARKS.--Records good except those for winter period, which are fair.

REVISIONS (WATER YEARS).--WSP 975: 1934. WSP 1175: Drainage area. WSP 1308: 1931-34(M), 1936-42(M), 1944-45(M), 1947-50(M).

Rating table (gage height, in feet, and discharge, in cubic feet per second).
(Shifting-control method used Mar. 17-20; stage-discharge relation affected by ice Nov. 24 to Mar. 12.)

5.0	189	8.0	1,880
5.5	364	9.0	2,780
6.0	580	10.0	3,730
7.0	1,140	12.0	6,230

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,490	778	500	430	640	620	1,680	1,100	1,540	561	237	562
2	1,190	1,050	500	460	640	600	1,630	2,530	1,490	551	228	559
3	1,230	1,840	470	450	660	580	1,580	3,660	1,500	512	219	678
4	1,810	2,360	420	440	660	280	1,490	3,830	1,690	457	210	790
5	2,200	2,390	400	440	680	580	1,400	3,650	2,490	418	202	667
6	2,290	2,200	380	430	700	580	1,290	3,130	3,560	365	201	575
7	2,270	2,100	360	420	760	800	1,190	2,580	3,770	277	220	495
8	2,470	2,300	350	400	800	1,200	1,130	2,350	3,400	267	309	417
9	2,310	2,370	350	390	820	1,400	1,070	2,530	2,640	263	431	372
10	1,690	2,130	350	390	840	1,500	1,000	3,450	2,070	302	406	346
11	1,420	1,940	350	390	840	2,100	843	3,500	1,640	314	371	323
12	1,240	1,740	350	390	840	3,000	760	3,090	1,360	300	339	306
13	1,110	1,590	360	380	820	3,420	731	2,380	1,210	289	346	295
14	1,030	1,300	360	380	820	3,890	709	2,040	1,150	280	402	279
15	974	1,080	370	380	820	4,850	835	1,890	1,200	281	389	258
16	938	951	370	390	800	5,360	1,590	1,920	1,290	269	324	240
17	890	970	380	400	780	4,810	2,180	1,760	1,410	257	303	231
18	850	858	390	410	780	3,900	2,550	1,570	1,610	247	287	225
19	800	751	400	420	760	2,970	2,500	1,430	1,330	243	284	220
20	757	710	410	430	760	2,320	2,270	1,310	1,030	236	273	215
21	800	649	410	450	740	1,950	1,730	1,200	809	226	257	224
22	827	591	410	470	720	1,830	1,490	1,090	794	223	253	273
23	944	605	410	480	700	1,770	1,390	1,030	728	216	252	286
24	1,030	600	410	490	680	1,720	1,270	1,410	671	216	252	290
25	1,040	640	410	520	660	1,750	1,130	2,730	679	228	250	308
26	1,020	660	410	540	640	1,790	1,030	3,590	708	229	250	703
27	972	580	430	580	640	1,890	968	3,470	688	257	247	1,360
28	950	500	420	600	620	1,980	895	2,780	656	285	235	1,330
29	896	480	470	620	------	1,950	843	2,170	621	282	224	1,020
30	839	500	450	640	------	1,890	777	1,840	593	271	224	781
31	873	------	410	640	------	1,810	------	1,660	------	251	477	------
TOTAL	39,150	37,213	12,460	14,250	20,620	65,090	39,951	72,670	44,327	9,373	8,902	14,628
MEAN	1,263	1,240	402	460	736	2,100	1,332	2,344	1,478	302	287	488
MAX	2,470	2,390	500	640	840	5,360	2,550	3,830	3,770	561	477	1,360
MIN	757	480	350	380	620	280	709	1,030	593	216	201	215
CFSM	2.05	2.02	.65	.75	1.20	3.41	2.17	3.81	2.40	.49	.47	.79
IN.	2.37	2.25	.75	.86	1.25	3.94	2.42	4.40	2.68	.57	.54	.88

CAL YR 1972 TOTAL 324,031 MEAN 885 MAX 5,240 MIN 202 CFSM 1.44 IN 19.60
WTR YR 1973 TOTAL 378,634 MEAN 1,037 MAX 5,360 MIN 201 CFSM 1.69 IN 22.90

NOTE.--No gage-height record May 17 to June 18.

05360500 Flambeau River near Bruce, Wis.

LOCATION.--Lat 45°22'21", long 91°12'34", in lot 7 of NW¼ sec.2, T.33 N., R.7 W., Rusk County, on right bank 2.5 mi (4.0 km) downstream from Thornapple powerplant, 6.0 mi (9.7 km) upstream from mouth, and 7.0 mi (11.3 km) southeast of Bruce.

DRAINAGE AREA.--1,897 mi² (4,913 km²).

PERIOD OF RECORD.--August 1951 to current year.

GAGE.--Water-stage recorder. Altitude of gage, 1,060 ft (323 m), by river survey, WSP 417.

AVERAGE DISCHARGE.--22 years, 1,844 ft³/s (52.22 m³/s).

EXTREMES.--Current year: Maximum discharge, 12,300 ft³/s (348 m³/s) Mar. 17, gage height, 8.89 ft (2.710 m); minimum, 590 ft³/s (16.7 m³/s) Aug. 18, gage height, 2.73 ft (0.832 m).

Period of record: Maximum discharge, 17,400 ft³/s (493 m³/s) May 1, 1954, gage height, 10.90 ft (3.322 m); minimum, about 100 ft³/s (2.83 m³/s) Aug. 7, 9, 1957, gage height, 2.06 ft (0.628 m).

REMARKS.--Records good except those for winter periods, which are fair. Flow regulated by several powerplants above station and by Rest Lake and Flambeau Flowage reservoirs (see p. 98).

Rating table (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Dec. 1 to Mar. 13.)

3.1	905	4.0	1,930
3.4	1,210	5.0	3,480
3.7	1,550	7.0	7,610
		9.0	12,600

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3,110	2,080	1,900	1,900	2,000	2,000	4,100	3,340	3,450	1,690	1,320	1,740
2	3,680	3,290	2,000	2,000	2,000	2,300	4,030	5,600	3,260	1,990	1,220	2,290
3	3,060	3,930	2,200	2,100	2,000	2,500	3,470	8,970	2,840	1,770	1,310	2,190
4	3,730	5,460	2,200	2,000	2,000	2,900	3,270	8,300	2,900	1,530	1,030	1,700
5	5,080	5,510	2,000	2,000	2,000	3,100	3,420	7,870	4,270	1,460	1,030	1,910
6	5,070	4,940	1,600	1,900	2,000	3,500	3,280	7,090	7,990	1,470	1,230	1,980
7	5,010	5,830	1,500	1,900	1,900	4,100	3,040	6,050	6,460	1,460	1,400	1,560
8	4,900	5,540	1,500	1,800	1,900	4,600	2,800	6,130	6,190	1,260	1,100	1,730
9	4,780	6,370	1,600	1,800	1,800	6,200	2,780	6,630	4,720	1,240	1,680	1,380
10	4,340	6,480	1,500	1,800	1,700	6,800	2,850	7,390	4,180	1,470	2,030	1,180
11	4,120	5,580	1,500	1,900	1,600	7,800	2,410	8,030	4,310	1,290	1,680	1,120
12	3,510	5,000	1,400	1,900	1,500	8,200	2,320	7,550	4,050	1,450	1,240	1,160
13	3,230	4,610	1,400	1,900	1,500	8,000	2,250	6,160	3,700	1,320	1,350	1,160
14	3,270	4,060	1,500	1,900	1,400	9,620	2,530	5,340	2,950	1,480	1,550	1,280
15	3,140	3,640	1,600	2,000	1,400	11,600	2,420	4,810	2,650	1,170	1,640	1,260
16	2,970	2,920	1,500	2,100	1,400	11,600	4,020	4,730	1,960	1,290	1,630	1,180
17	2,770	2,650	1,500	2,300	1,500	10,600	5,910	4,770	2,460	1,330	1,530	982
18	2,780	2,410	1,400	1,800	1,500	8,270	6,110	4,310	2,850	1,360	1,450	988
19	2,370	2,580	1,600	1,900	1,500	6,250	5,740	4,470	3,220	1,200	1,760	937
20	2,420	2,570	1,700	2,200	1,600	5,070	6,040	3,960	2,660	1,070	1,320	1,220
21	2,570	2,420	1,700	2,400	1,600	4,540	4,830	3,550	2,440	1,200	1,250	1,080
22	2,410	2,400	1,600	2,300	1,600	4,010	4,420	3,370	2,270	1,090	1,270	1,100
23	2,950	1,920	1,500	2,300	1,700	3,630	4,780	3,110	2,240	1,260	1,290	1,090
24	2,830	2,030	1,500	2,200	1,800	3,970	4,180	3,010	2,400	1,290	1,120	1,180
25	3,290	2,470	1,600	2,100	1,800	3,960	3,710	4,830	1,930	1,190	1,200	1,270
26	3,000	2,340	1,400	2,000	1,800	3,700	3,140	6,900	2,070	1,300	1,180	2,000
27	2,700	2,530	1,500	1,900	1,900	4,090	3,260	7,530	1,990	1,320	1,220	3,120
28	2,870	2,350	1,500	1,900	1,900	4,420	2,490	6,640	1,980	1,480	1,240	3,920
29	2,970	2,190	1,600	2,000	------	4,470	2,480	5,480	2,000	1,580	1,170	3,520
30	2,370	1,800	1,700	2,000	------	4,190	2,260	4,670	1,900	1,250	997	2,370
31	2,680	------	1,800	2,000	------	4,200	------	4,370	------	1,300	1,210	------
TOTAL	103,980	107,900	50,500	62,200	48,300	170,190	108,340	174,960	98,290	42,560	41,647	49,597
MEAN	3,354	3,597	1,629	2,006	1,725	5,490	3,611	5,644	3,276	1,373	1,343	1,653
MAX	5,080	6,480	2,200	2,400	2,000	11,600	6,110	8,970	7,990	1,990	2,030	3,920
MIN	2,370	1,800	1,400	1,800	1,400	2,000	2,250	3,010	1,900	1,070	997	937

CAL YR 1972 TOTAL 892,336 MEAN 2,438 MAX 10,500 MIN 809
WTR YR 1973 TOTAL 1,058,464 MEAN 2,900 MAX 11,600 MIN 937

05362000 Jump River at Sheldon, Wis.

LOCATION.--Lat 45°18'29", long 90°57'23", in sec.26, T.33 N., R.5 W., Rusk County, on right bank just downstream from highway bridge in Sheldon, 1,500 ft (460 m) upstream from Shoulder Creek and 11 mi (18 km) upstream from mouth.

DRAINAGE AREA.--574 mi² (1,487 km²).

PERIOD OF RECORD.--July 1915 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,092.75 ft (333.070 m) above mean sea level. Prior to Feb. 9, 1939, and Sept. 1, 1941 to Apr. 1, 1953, Feb. 18, 1954 to Sept. 27, 1964, nonrecording gage at same site and datum. Apr. 2, 1953 to Feb. 18, 1954, nonrecording gage in creamery wellhouse 400 ft (122 m) upstream at same datum. Feb. 9, 1939 to Aug. 31, 1941, and from Sept. 27, 1964, water-stage recorder at present site and datum.

AVERAGE DISCHARGE.--58 years, 516 ft³/s (14.61 m³/s), 12.21 in/yr (310 mm/yr).

EXTREMES.--Current year: Maximum discharge, 13,100 ft³/s (371 m³/s) Mar. 15, gage height, 12.17 ft (3.709 m); minimum, 58 ft³/s (1.64 m³/s) Aug. 28-30, gage height, 3.42 ft (1.042 m).

Period of record: Maximum discharge observed, 46,000 ft³/s (1,300 m³/s) Aug. 31, 1941, gage height, 18.8 ft (5.73 m) from floodmark, from rating curve extended above 13,000 ft³/s (368 m³/s) on basis of contracted-opening measurement of peak flow; minimum observed, 11 ft³/s (0.31 m³/s) Dec. 18, 1943, gage height, 3.99 ft (1.216 m).

REMARKS.--Records good except those for winter period, which are fair.

REVISIONS (WATER YEARS).--WSP 975: 1938. WSP 1175: Drainage area. WSP 1438: 1916-17(M), 1919(M), 1920, 1921(M), 1922, 1925-26(M), 1927, 1928-31(M), 1932, 1933-37(M), 1945-46(M), 1948-50(M).

Rating tables (gage height, in feet, and discharge, in cubic feet per second). (Shifting-control method used Oct. 1-5, Mar. 22 to Apr. 30; stage-discharge relation affected by ice Nov. 25 to Mar. 15.)

Oct. 1 to Apr. 29				Apr. 30 to Sept. 30			
3.8	108	6.5	1,540	3.4	54	6.0	1,230
4.0	155	8.0	3,290	3.6	83	7.0	2,130
4.6	342	10.0	6,810	4.0	184	9.0	4,880
5.5	756	13.0	16,000	4.5	362	11.0	9,300
				5.0	600	12.0	12,200

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,840	512	140	220	210	150	857	2,740	666	123	127	319
2	1,320	929	170	280	200	180	835	8,550	540	130	101	426
3	1,340	3,210	160	340	190	200	826	9,900	460	126	89	391
4	3,620	3,450	160	350	180	230	816	6,870	623	116	78	568
5	3,460	2,750	150	340	170	309	806	4,190	1,170	105	72	578
6	2,980	1,890	150	330	160	600	759	2,770	946	95	76	412
7	2,530	1,960	140	310	140	1,400	725	1,990	635	87	76	287
8	1,850	2,460	140	280	140	3,000	678	2,390	486	82	97	208
9	1,360	2,360	140	250	130	3,500	607	2,690	492	79	134	167
10	1,030	1,810	140	220	120	3,400	529	3,310	468	78	136	142
11	844	1,430	140	210	120	6,490	485	3,220	368	78	120	130
12	748	1,160	140	200	120	9,600	551	2,820	307	73	99	112
13	699	943	140	200	120	10,200	566	2,130	270	73	89	99
14	620	782	140	200	120	11,600	556	1,550	228	76	84	89
15	562	649	140	210	120	12,800	640	1,180	198	76	82	87
16	485	530	140	210	120	9,330	2,870	963	184	74	82	82
17	428	526	140	210	120	3,980	5,330	864	214	72	183	80
18	388	492	140	260	120	2,940	4,600	761	307	68	236	78
19	367	360	140	340	120	2,600	3,120	671	315	74	147	73
20	374	357	140	470	120	1,990	2,150	603	246	79	108	70
21	366	320	150	460	120	1,660	1,650	548	196	78	89	70
22	440	242	150	420	120	1,470	1,310	488	332	74	82	73
23	693	216	150	380	120	1,360	1,040	452	243	68	74	76
24	1,310	200	150	300	120	1,320	848	465	221	68	72	91
25	1,310	190	150	440	120	1,360	720	2,020	183	72	68	99
26	1,180	190	150	420	130	1,400	631	4,360	165	91	66	246
27	933	190	140	360	130	1,370	527	3,600	160	110	64	758
28	799	190	140	330	130	1,260	450	2,420	149	99	61	908
29	687	190	170	280	------	1,130	388	1,550	138	103	60	685
30	585	190	140	250	------	1,030	354	1,070	132	127	61	505
31	529	------	190	220	------	940	------	797	------	122	174	------
TOTAL	35,575	31,030	4,990	10,130	3,830	98,700	36,224	77,932	11,042	2,776	3,087	7,909
MEAN	1,148	1,034	161	327	137	3,184	1,207	2,514	368	89.5	99.6	264
MAX	3,620	3,450	190	560	210	12,800	5,330	9,900	1,170	130	236	908
MIN	324	190	140	200	120	150	354	452	132	68	60	70
CFSM	2.00	1.80	.28	.57	.24	5.55	2.10	4.38	.64	.16	.17	.46
IN.	2.31	2.01	.30	.66	.25	6.40	2.35	5.05	.72	.18	.20	.51

CAL YR 1972 TOTAL 270,751 MEAN 739 MAX 10,300 MIN 69 CFSM 1.29 IN 17.53
WTR YR 1973 TOTAL 322,925 MEAN 885 MAX 12,800 MIN 60 CFSM 1.54 IN 20.93

PEAK DISCHARGE (BASE, 3,500 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10- 4	1500	8.72	4,190	4-17	1400	9.19	5,520
11- 3	2200	8.17	3,600	S- 3	0300	11.48	10,600
3-15	1000	12.17	13,100	S-26	1000	8.81	4,540

05365500 Chippewa River at Chippewa Falls, Wis.

LOCATION.--Lat 44°55'37", long 91°24'33", in lot 1, sec.12, T.28 N., R.9 W., Chippewa County, on right bank at Chippewa Falls, 1.0 mi (1.6 km) downstream from Duncan Creek.

DRAINAGE AREA.--5,600 mi^2 (14,500 km^2), approximately.

PERIOD OF RECORD.--June 1888 to current year. Monthly discharge only for some periods, published in WSP 1308.

GAGE.--Water-stage recorder. Datum of gage is 798.46 ft (243.371 m) above mean sea level. Prior to January 1914, nonrecording gage, and January 1914 to June 19, 1932, water-stage recorder at site 1 mi (1.6 km) upstream at different datum. June 19, 1932, to current year, water-stage recorder at present site and datum.

AVERAGE DISCHARGE.--85 years, 5,113 ft^3/s (144.8 m^3/s).

EXTREMES.--Current year: Maximum discharge, 58,600 ft^3/s (1,660 m^3/s) Mar. 15, gage height, 18.91 ft (5.764 m); minimum daily, 313 ft^3/s (8.86 m^3/s) Aug. 5.

Period of record: Maximum discharge, 102,000 ft^3/s (2,890 m^3/s) Sept. 1, 1941, gage height, 24.8 ft (7.56 m); minimum, 22 ft^3/s (0.623 m^3/s) Apr. 2, 1934, gage height, 0.63 ft (0.192 m); minimum daily, 40 ft^3/s (1.13 m^3/s) Feb. 4, 1917. Maximum stage known, 26.94 ft (8.211 m) Sept. 10, 1884, site and datum in use to June 1932.

REMARKS.--Records good. Considerable regulation by Moose Lake, Lake Chippewa, Rest Lake, Flambeau Flowage, and Lake Wissota reservoirs (see p. 98). Diurnal fluctuation caused by hydroelectric plant 1.1 mi (1.8 km) upstream.

REVISIONS (WATER YEARS).--WSP 785: 1934(M). WSP 1508: 1897, 1905, 1918(M), 1924(M).

Rating table (gage height, in feet, and discharge, in cubic feet per second).

1.4	287	8.0	11,200
1.5	325	12.0	24,500
2.0	583	16.0	42,400
3.0	1,440	19.0	59,100
5.0	4,440		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11,500	5,670	4,840	4,880	4,260	5,430	8,220	13,100	9,860	1,400	2,440	3,380
2	9,710	6,320	3,360	4,390	4,960	4,940	8,260	32,500	8,870	4,580	3,890	5,310
3	7,960	12,900	4,060	5,410	4,300	5,140	8,430	41,900	8,500	4,720	4,050	6,040
4	12,500	17,600	2,860	6,810	4,410	4,090	7,670	37,000	8,430	1,450	3,520	5,110
5	16,700	16,900	4,250	4,840	4,730	4,940	6,990	24,700	11,100	3,830	313	5,590
6	15,800	13,100	2,510	4,240	4,400	6,050	5,680	21,900	18,600	3,960	2,790	5,360
7	14,200	13,700	3,640	4,800	4,370	7,300	7,330	16,900	16,200	985	3,860	5,180
8	14,000	18,500	4,490	4,720	4,390	8,500	5,840	17,100	11,700	1,090	3,090	3,740
9	11,500	18,600	4,300	5,160	4,270	9,780	6,140	18,300	11,000	3,650	3,020	2,950
10	10,200	15,900	3,100	5,620	3,870	9,810	6,640	22,600	8,920	2,740	7,100	3,870
11	9,970	14,200	3,200	6,060	3,320	13,600	5,790	23,400	7,280	3,000	5,100	3,760
12	9,770	14,100	6,100	5,560	4,520	34,000	5,090	23,100	9,890	2,970	4,020	3,330
13	7,890	13,300	4,140	5,280	5,340	41,300	5,090	18,500	6,370	2,700	3,850	3,440
14	7,710	10,100	3,500	5,050	5,320	47,500	5,190	15,200	6,230	1,930	3,480	3,540
15	7,650	9,400	4,290	5,280	5,120	56,200	6,220	13,600	5,760	1,300	4,000	1,100
16	6,320	8,140	3,500	4,190	4,920	56,000	12,700	11,000	5,840	2,860	3,860	759
17	7,520	6,650	4,940	5,030	4,910	46,800	23,700	10,000	3,010	2,250	4,200	2,660
18	5,260	6,150	3,930	5,650	3,210	30,300	23,600	10,200	4,540	2,760	4,810	2,630
19	4,910	6,540	5,080	4,770	4,830	23,400	16,900	9,850	6,040	2,490	3,360	2,190
20	5,520	5,990	4,000	5,680	5,030	15,400	14,700	8,430	5,300	2,110	3,760	2,570
21	5,680	6,390	4,670	6,390	5,140	13,700	14,100	7,540	3,830	1,750	3,590	2,950
22	4,430	5,890	4,410	6,200	4,630	12,300	10,300	8,810	4,650	833	4,380	1,770
23	6,540	5,110	4,290	6,490	4,830	9,890	9,360	7,500	4,000	2,770	4,320	778
24	8,670	4,560	3,950	5,630	4,530	10,000	9,800	7,580	2,150	4,040	3,940	3,030
25	9,390	5,960	4,480	5,230	2,850	10,200	7,650	11,500	4,990	3,480	2,520	3,070
26	8,580	5,470	4,470	6,410	3,940	10,200	6,090	25,900	3,330	3,810	1,750	4,930
27	7,270	6,140	4,580	5,130	5,030	10,100	6,760	26,600	4,670	3,940	3,600	7,750
28	7,290	6,430	4,340	4,710	4,510	10,100	7,190	21,600	3,540	2,160	3,710	8,410
29	6,880	4,700	4,010	5,050	------	10,000	6,420	15,100	3,340	3,320	3,460	8,480
30	6,040	4,440	4,580	4,950	------	9,940	5,290	13,000	4,040	3,580	2,670	8,100
31	6,230	------	4,670	4,850	------	9,750	------	12,000	------	3,680	4,090	------
TOTAL	273,590	288,850	128,540	164,460	125,940	546,660	273,140	546,410	211,980	86,138	112,543	121,777
MEAN	8,825	9,628	4,146	5,305	4,498	17,630	9,105	17,630	7,066	2,779	3,630	4,059
MAX	16,700	18,600	6,100	6,810	5,340	56,200	23,700	41,900	18,600	4,720	7,100	8,480
MIN	4,430	4,440	2,510	4,190	2,850	4,090	5,090	7,500	2,150	833	313	759

CAL YR 1972 TOTAL 2,435,671 MEAN 6,655 MAX 38,400 MIN 362
WTR YR 1973 TOTAL 2,880,028 MEAN 7,890 MAX 56,200 MIN 313

05367426 Red Cedar River near Cameron, Wis.

LOCATION.--Lat 45°23'20", long 91°45'55", SW¼ NW¼ sec.32, T.34 N., R.11 W., Barron County, on downstream side of bridge on town road, 0.8 mi (1.3 km) upstream of Cranberry Creek, 1.6 mi (2.6 km) southwest of Cameron and 4.3 mi (6.9 km) east of Barron.

DRAINAGE AREA.--453 mi² (1,173 km²).

PERIOD OF RECORD.--June 1971 to September 1973 (discontinued).

GAGE.--Nonrecording gage. Altitude of gage is 1,060 ft (323 m) from topographic map. April 1966 to September 1970, nonrecording gage 2.1 mi (3.4 km) upstream at different datum.

EXTREMES.--Current year: Maximum discharge, 1,230 ft³/s (34.8 m³/s) Mar. 13, gage height, 8.00 ft (2.438 m); minimum daily, 194 ft³/s (5.49 m³/s) Aug. 3, 5.

Period of record: Maximum discharge, 1,860 ft³/s (52.7 m³/s) July 23, 1972, gage height, 9.21 ft (2.81 m); minimum, 179 ft³/s (5.07 m³/s) July 17, 1971, gage height, 5.14 ft (1.567 m).

REMARKS.--Records fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	400	388	340	290	320	320	541	434	605	277	221	317
2	396	462	320	280	330	310	541	488	593	280	197	353
3	422	470	290	280	340	310	492	499	610	274	194	353
4	450	486	250	280	350	300	480	502	601	274	197	350
5	481	458	250	280	340	297	381	514	626	274	194	343
6	506	436	240	280	330	297	353	502	618	277	215	327
7	541	454	240	270	320	466	388	495	593	277	261	317
8	526	462	260	260	310	648	388	499	554	277	360	314
9	506	436	240	250	310	593	385	492	470	274	280	307
10	502	430	300	250	310	506	385	585	411	274	236	310
11	488	422	300	240	320	1,210	367	597	363	271	227	307
12	481	403	240	240	330	1,190	353	605	376	261	233	307
13	470	392	290	240	340	1,230	343	589	388	264	239	300
14	462	385	280	250	350	1,220	327	580	385	268	239	293
15	446	378	280	250	350	1,220	314	563	374	264	236	293
16	446	360	270	250	350	1,190	360	533	363	258	261	297
17	434	356	270	250	360	1,160	367	529	343	236	271	297
18	434	353	270	250	370	1,040	363	514	350	236	271	300
19	415	346	270	260	380	1,000	367	488	343	227	277	293
20	415	343	280	270	370	945	367	411	343	218	274	280
21	419	337	280	280	360	855	388	367	337	212	284	290
22	415	343	250	290	360	825	374	411	327	203	321	280
23	422	330	250	290	350	748	363	442	307	203	363	310
24	415	327	240	290	340	770	363	630	277	236	363	310
25	411	327	230	300	340	720	367	850	274	274	353	304
26	403	330	230	320	340	601	363	890	277	274	340	388
27	400	337	230	320	340	597	360	875	280	264	330	374
28	385	330	240	320	330	614	363	820	277	258	307	307
29	385	324	260	310	------	614	353	720	277	242	287	297
30	370	334	280	300	------	601	353	679	274	242	304	280
31	374	------	290	300	------	580	------	665	------	233	307	------
TOTAL	13,620	11,545	8,320	8,540	9,540	23,021	11,429	17,768	12,218	7,902	8,442	9,398
MEAN	439	385	268	275	341	743	381	573	407	255	272	313
MAX	541	488	340	320	380	1,230	541	890	626	280	363	388
MIN	370	324	230	240	310	297	314	367	274	203	194	280

CAL YR 1972 TOTAL 143,318 MEAN 392 MAX 1,860 MIN 194
WTR YR 1973 TOTAL 141,743 MEAN 388 MAX 1,230 MIN 194

NOTE.--No gage-height record Oct. 1 to Dec. 1.

05368000 Hay River at Wheeler, Wis.

LOCATION.--Lat 45°02'52", long 91°54'39", in SW¼ sec.25, T.30 N., R.13 W., Dunn County, on right bank 25 ft (7.6 m) downstream from highway bridge in Wheeler, 1.8 mi (2.9 km) upstream from Otter Creek, and 2.4 mi (3.9 km) downstream from South Fork Hay River.

DRAINAGE AREA.--426 mi² (1,103 km²).

PERIOD OF RECORD.--October 1950 to current year.

GAGE.--Water-stage recorder. Datum of gage is 889.30 ft (271.059 m), revised, above mean sea level. Prior to Mar. 25, 1951, nonrecording gage.

AVERAGE DISCHARGE.--23 years, 288 ft³/s (8.156 m³/s), 9.18 in/yr (233 mm/yr).

EXTREMES.--Current year: Maximum discharge, 3,790 ft³/s (107 m³/s) Mar. 13, gage height, 10.06 ft (3.066 m); minimum daily, 190 ft³/s (5.38 m³/s) Dec. 11, 12.

Period of record: Maximum discharge, 13,600 ft³/s (385 m³/s) Mar. 31, 1967, gage height, 15.04 ft (4.584 m), from rating curve extended above 9,000 ft³/s (255 m³/s); minimum, 55 ft³/s (1.56 m³/s) Mar. 13, 1954, gage height, 2.32 ft (0.707 m), result of freezeup.

Maximum stage known since 1915, 16.6 ft (5.06 m) in April 1934, from floodmarks.

REMARKS.--Records good except those for winter periods, which are fair.

REVISIONS.--WSP 1338: Drainage area.

Rating table (gage height, in feet, and discharge, in cubic feet per second). (Shifting-control method used Mar. 20 to Apr. 16, May 17 to June 5; stage-discharge relation affected by ice Nov. 30 to Feb. 3, Feb. 8 to Mar. 19.)

2.7	182	6.0	1,310
3.0	242	8.0	2,250
4.0	536	10.0	3,730

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	319	315	260	270	250	260	399	565	443	257	231	317
2	305	401	260	270	260	260	416	1,110	412	269	227	288
3	327	746	250	250	260	270	408	1,040	394	261	218	277
4	471	607	240	240	258	280	387	697	388	248	212	270
5	432	473	230	230	235	300	367	557	437	243	206	265
6	384	421	220	230	272	330	354	506	400	244	214	260
7	380	407	200	230	250	370	356	487	385	244	220	255
8	354	422	200	230	250	520	342	584	385	240	210	251
9	327	414	200	230	240	900	333	574	385	235	220	247
10	314	402	200	230	240	970	322	746	369	240	231	241
11	328	390	190	220	250	1,230	319	744	353	238	227	238
12	339	370	190	220	250	2,490	323	614	351	234	227	233
13	321	349	200	230	260	3,610	308	523	338	232	220	230
14	311	331	200	230	270	3,480	299	471	324	231	220	229
15	295	324	200	230	270	3,420	336	426	318	230	217	229
16	291	317	200	240	260	2,630	572	395	326	228	234	230
17	287	315	200	250	260	1,610	663	370	336	229	206	233
18	279	312	210	260	250	1,150	491	359	334	227	262	232
19	273	305	210	270	250	917	425	352	329	224	230	231
20	271	306	220	280	250	790	413	341	313	227	222	230
21	299	303	220	280	250	708	423	347	301	218	216	230
22	324	297	230	280	250	639	406	585	294	212	228	266
23	351	281	240	280	260	589	383	646	295	218	348	245
24	377	291	240	280	260	563	367	592	285	266	303	238
25	329	292	250	290	260	547	361	993	281	233	267	264
26	315	292	260	290	250	532	348	1,370	291	242	257	351
27	311	288	270	300	250	495	340	1,010	277	231	250	494
28	302	277	280	300	250	467	335	712	269	227	242	358
29	291	270	280	280	------	440	330	585	261	220	233	300
30	286	260	280	260	------	421	327	519	260	279	235	275
31	301	------	280	250	------	405	------	478	------	238	303	------
TOTAL	10,094	10,778	7,110	7,930	7,115	31,593	11,453	19,298	10,134	7,365	7,416	8,007
MEAN	326	359	229	256	254	1,019	382	623	338	238	239	267
MAX	471	746	280	300	272	3,610	663	1,370	443	279	348	494
MIN	271	260	190	220	235	260	299	341	260	212	206	229
CFSM	.77	.84	.54	.60	.60	2.39	.90	1.46	.79	.56	.56	.63
IN.	.88	.94	.62	.69	.62	2.76	1.00	1.69	.88	.64	.65	.70

CAL YR 1972 TOTAL 118,275 MEAN 323 MAX 1,640 MIN 190 CFSM .76 IN 10.33
WTR YR 1973 TOTAL 138,293 MEAN 379 MAX 3,610 MIN 190 CFSM .89 IN 12.08

PEAK DISCHARGE (BASE, 1,000 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
3-13	0700	10.06	3,790	5-26	1000	6.37	1,420
5- 2	1800	5.68	1,180				

05369000 Red Cedar River at Menomonie, Wis.

LOCATION.--Lat 44°53'02", long 91°55'57", in NW¼ sec.26, T.28 N., R.13 W., Dunn County, on right bank at Menomonie, 900 ft (274 m) downstream from powerplant of Northern States Power Co., and 1,000 ft (305 m) downstream from Wilson Creek.

DRAINAGE AREA.--1,760 mi² (4,560 km²), approximately.

PERIOD OF RECORD.--June 1907 to September 1908, May 1913 to current year. Monthly discharge only for some periods, published in WSP 1308.

GAGE.--Water-stage recorder. Datum of gage is 780 ft (237.7 m) above mean sea level (Northern States Power Co. bench mark). Prior to Sept. 3, 1908, nonrecording gage at site 1 mi (1.6 km) downstream at different datum. May 9, 1913, to Sept. 30, 1923, water-stage recorder at same site at datum 0.42 ft (0.128 m) lower than present datum.

AVERAGE DISCHARGE.--61 years, 1,235 ft³/s (34.98 m³/s).

EXTREMES.--Current year: Maximum discharge, 11,600 ft³/s (328 m³/s) Mar. 13, gage height, 6.69 ft (2.039 m); minimum, 250 ft³/s (7.08 m³/s) Nov. 20, gage height, 1.13 ft (0.344 m); minimum daily, 746 ft³/s (21.1 m³/s) June 14.

Period of record: Maximum discharge, 40,000 ft³/s (1,133 m³/s) Apr. 4, 1934, gage height, 16.0 ft (4.88 m), from floodmarks, from rating curve extended above 27,000 ft³/s (765 m³/s) on basis of computed flow over Cedar Falls Dam 6 mi (10 km) upstream; minimum, 21 ft³/s (0.59 m³/s) Dec. 9, 1928, gage height, 0.65 ft (0.198 m).

REMARKS.--Records good. Flow regulated by powerplants at Menomonie and Cedar Falls.

REVISIONS.--WSP 805: Drainage area.

Rating tables (gage height, in feet, and discharge, in cubic feet per second).

Oct. 1 to Aug. 12				Aug. 13 to Sept. 30	
1.8	700	4.0	4,440	2.0	940
2.0	965	5.0	6,580	3.0	2,390
2.5	1,730	7.0	12,600	4.0	3,990
3.0	2,620				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,490	1,700	1,260	1,380	1,390	1,300	1,680	3,690	2,440	1,200	1,210	1,340
2	1,640	2,390	1,240	1,420	1,300	1,280	1,990	3,480	2,250	1,300	1,180	1,210
3	1,640	2,430	766	1,590	1,330	1,480	2,110	3,650	2,260	1,360	1,190	1,600
4	2,000	2,530	869	1,380	1,300	1,460	2,230	2,790	2,510	1,190	1,040	1,540
5	2,140	2,310	939	1,170	1,360	1,760	1,920	2,980	3,620	1,130	830	1,430
6	2,050	2,150	1,040	1,230	1,290	2,020	1,830	2,800	2,630	1,240	1,230	1,630
7	2,400	2,280	1,150	1,220	1,240	2,090	1,820	2,930	2,560	1,210	1,300	1,270
8	1,590	2,490	1,190	1,140	1,170	3,160	1,760	2,770	2,280	1,190	1,170	1,230
9	1,670	2,570	1,250	1,130	1,050	3,780	1,770	2,600	2,440	1,170	1,360	1,110
10	1,730	2,280	1,280	1,230	1,160	3,750	1,660	3,280	2,180	1,260	1,590	1,210
11	1,680	1,810	1,290	1,180	1,160	5,080	1,750	3,440	2,910	1,090	1,090	1,100
12	1,800	2,050	1,320	1,040	1,280	7,870	1,810	2,570	2,700	1,270	1,070	1,080
13	2,100	1,590	1,340	1,080	1,260	9,920	1,620	2,550	1,810	1,030	1,130	1,130
14	1,790	1,810	1,230	1,130	1,360	10,800	1,680	2,550	746	1,160	1,020	1,050
15	1,750	1,730	1,270	1,080	1,140	9,810	2,130	2,500	1,260	1,070	1,080	1,170
16	1,730	1,770	1,330	1,310	1,130	9,180	3,060	2,320	1,910	1,120	1,060	1,040
17	1,570	1,570	1,220	1,240	1,040	7,690	3,070	1,940	1,510	1,070	1,250	973
18	1,500	1,670	1,050	1,820	1,210	6,210	2,460	2,250	1,820	1,150	1,320	1,060
19	1,490	1,670	1,450	1,450	1,200	5,250	2,460	1,970	1,560	921	1,160	1,040
20	1,360	1,620	1,410	1,340	1,280	4,510	2,170	1,940	1,540	1,040	1,050	1,090
21	1,700	1,560	1,450	1,390	1,240	3,790	2,050	1,960	1,380	919	952	1,060
22	1,740	1,660	1,410	1,600	1,130	3,320	1,550	2,600	1,690	902	1,380	1,100
23	1,790	1,190	1,410	1,460	1,290	3,330	1,770	3,130	1,390	1,020	1,300	1,080
24	1,880	1,480	1,340	1,430	1,260	3,290	1,750	2,680	1,410	1,500	1,510	1,180
25	1,730	1,910	1,420	1,550	1,230	2,960	1,900	3,690	1,240	1,230	1,250	1,370
26	1,740	1,460	1,210	1,370	1,220	2,850	1,650	3,800	1,430	1,440	1,310	2,050
27	1,560	1,760	1,450	1,370	1,230	2,740	1,680	4,260	1,350	1,200	1,220	2,590
28	1,790	1,450	1,290	1,310	1,370	2,630	1,750	4,170	1,290	1,250	1,140	2,090
29	1,550	1,330	1,660	1,160	------	2,140	1,100	3,660	1,390	1,260	1,170	1,700
30	1,580	1,400	1,520	1,360	------	1,390	2,090	2,950	1,300	1,560	1,090	1,420
31	1,730	------	1,580	1,280	------	1,570	------	2,480	------	1,360	1,280	------
TOTAL	53,910	55,620	39,634	40,840	34,620	128,410	58,270	90,380	56,806	36,812	36,932	39,943
MEAN	1,739	1,854	1,279	1,317	1,236	4,142	1,942	2,915	1,894	1,187	1,191	1,331
MAX	2,400	2,570	1,660	1,820	1,390	10,800	3,070	4,260	3,620	1,560	1,590	2,590
MIN	1,360	1,190	766	1,040	1,040	1,280	1,100	1,940	746	902	830	973

CAL YR 1972 TOTAL 582,106 MEAN 1,590 MAX 6,480 MIN 577
WTR YR 1973 TOTAL 672,177 MEAN 1,842 MAX 10,800 MIN 746

05369500 Chippewa River at Durand, Wis.

LOCATION.--Lat 44°37'40", long 91°58'10", in SW¼ sec.21, T.25 N., R.13 W., Pepin County, on left bank in Durand, 75 ft (23 m) downstream from bridge on U.S. Highway 10, and 9.5 mi (15.3 km) downstream from Red Cedar River.

DRAINAGE AREA.--9,010 mi² (23,340 km²), approximately.

PERIOD OF RECORD.--July 1928 to current year.

GAGE.--Water-stage recorder. Datum of gage is 694.59 ft (211.711 m) above mean sea level. Prior to Dec. 9, 1930, nonrecording gage at bridge 400 ft (122 m) downstream at same datum.

AVERAGE DISCHARGE.--45 years, 7,496 ft³/s (212.3 m³/s).

EXTREMES.--Current year: Maximum discharge, 73,300 ft³/s (2,076 m³/s) Mar. 16, gage height, 14.26 ft (4.346 m); minimum daily, 2,960 ft³/s (83.8 m³/s) July 23.

Period of record: Maximum discharge, 123,000 ft³/s (3,483 m³/s) Apr. 2, 1967, gage height, 16.93 ft (5.160 m); minimum observed, 1,020 ft³/s (28.9 m³/s) Nov. 24, 1950, gage height, 0.12 ft (0.037 m).

Maximum stage known, 18.4 ft (5.61 m) Sept. 12, 1884.

REMARKS.--Records good except those for winter period, which are fair. Flow regulated by powerplants, Moose Lake, Lake Chippewa, Rest Lake, Flambeau Flowage, and Lake Wissota on Chippewa and Flambeau Rivers (see p. 98).

REVISIONS (WATER YEARS).--WSP 785: 1930, 1934(M). WSP 875: 1930 (monthly and yearly runoff). WSP 925: 1938. WSP 1508: 1929(M), 1932.

Rating tables (gage height, in feet, and discharge, in cubic feet per second). (Shifting-control method used July 6-10; stage-discharge relation affected by ice Nov. 22 to Mar. 12.)

Oct. 1 to Mar. 9		Mar. 10 to Sept. 30			
2.0	4,790	0.5	2,780	5.0	13,600
3.0	7,070	1.0	3,480	8.0	25,000
5.0	12,700	2.0	5,350	11.0	40,700
8.0	23,700	3.0	7,820	15.0	83,500

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18,500	9,730	6,800	7,400	7,200	7,400	13,200	13,700	17,000	6,340	5,270	5,670
2	15,600	10,400	6,600	7,400	7,000	8,400	12,200	26,700	14,500	4,810	4,510	5,770
3	13,500	11,900	6,000	7,600	7,400	7,800	12,600	39,700	13,200	6,670	5,220	6,070
4	13,200	19,100	5,000	8,200	6,800	8,000	12,200	53,100	12,800	7,030	5,310	6,080
5	17,400	22,900	5,200	9,400	7,000	7,000	12,000	53,500	15,100	4,230	4,830	6,080
6	20,400	21,500	6,000	8,600	7,400	8,000	11,700	37,500	17,700	5,780	3,430	6,100
7	19,400	17,400	5,800	8,000	7,000	9,200	10,500	28,200	23,800	5,900	4,360	6,100
8	18,200	19,400	6,200	8,000	6,800	11,000	11,100	24,700	18,600	3,830	5,120	5,950
9	16,800	23,200	6,600	7,800	6,800	14,000	10,000	23,900	15,500	3,820	5,310	5,750
10	14,000	22,900	5,400	7,600	6,400	16,000	10,500	26,500	14,100	5,080	5,670	5,320
11	13,400	19,800	4,900	8,000	6,000	17,000	10,600	29,400	12,200	4,730	5,750	5,270
12	12,900	18,200	5,800	8,600	6,000	25,000	9,860	28,800	12,900	4,850	5,730	5,560
13	12,600	17,200	7,800	7,600	6,600	45,500	9,140	27,500	12,300	4,670	5,6.0	5,200
14	11,300	15,300	7,200	7,600	7,800	66,600	9,260	22,600	10,200	4,390	5,250	5,230
15	11,200	13,100	6,000	7,600	8,400	69,100	10,800	20,600	8,790	3,790	5,260	5,140
16	10,500	12,200	6,800	7,800	8,000	71,900	15,700	17,600	9,130	3,500	5,410	3,630
17	9,830	11,000	7,000	6,800	7,600	70,400	25,300	14,500	9,300	4,240	5,500	3,380
18	9,710	10,400	7,000	7,400	7,200	59,900	32,100	14,400	6,710	3,950	5,830	3,910
19	8,320	9,590	6,600	8,600	6,000	44,800	34,000	13,900	9,720	4,290	5,720	4,190
20	7,490	9,540	6,800	7,600	7,000	30,200	24,800	13,100	10,500	4,120	5,320	4,000
21	8,630	9,130	7,000	8,400	7,600	23,100	21,500	11,700	8,570	3,990	5,330	4,170
22	8,610	8,400	7,400	9,200	7,600	20,800	18,600	12,500	6,930	3,300	5,320	4,870
23	8,190	8,000	7,200	9,400	7,200	17,900	13,900	13,800	7,100	2,960	5,970	3,750
24	10,400	7,800	7,000	9,600	7,600	16,400	14,200	13,300	7,170	4,540	5,940	3,330
25	12,700	7,400	6,800	8,800	7,000	15,600	13,300	14,700	5,840	5,190	5,710	4,540
26	13,600	7,200	6,800	8,600	5,800	15,900	12,100	21,900	7,070	5,140	4,900	6,130
27	12,300	7,200	7,000	9,000	6,000	15,400	10,100	32,100	5,970	5,140	4,660	9,390
28	11,100	7,000	7,000	8,000	7,200	14,900	10,400	35,300	7,090	5,260	4,960	11,200
29	10,400	6,800	7,000	7,400	------	14,500	10,300	29,400	6,120	4,540	5,330	11,000
30	9,940	6,800	7,000	7,600	------	13,500	9,190	22,700	5,810	4,980	5,230	10,500
31	9,310	------	7,400	7,800	------	13,400	------	20,900	------	5,200	4,930	------
TOTAL	389,430	390,490	203,100	251,400	196,400	778,600	431,150	758,200	331,720	146,260	162,700	173,280
MEAN	12,560	13,020	6,552	8,110	7,014	25,120	14,370	24,460	11,060	4,718	5,248	5,776
MAX	20,400	23,200	7,800	9,600	8,400	71,900	34,000	53,500	23,800	7,030	5,970	11,200
MIN	7,490	6,800	4,900	6,800	5,800	7,000	9,140	11,700	5,810	2,960	3,430	3,330

CAL YR 1972 TOTAL 3,585,970 MEAN 9,798 MAX 41,700 MIN 2,790
WTR YR 1973 TOTAL 4,212,730 MEAN 11,540 MAX 71,900 MIN 2,960

05370000 Eau Galle River at Spring Valley, Wis.

LOCATION.--Lat 44°51'10", long 92°14'17", in SE¼ NE¼ sec.6, T.27 N., R.15 W., Pierce County, on right bank, at Spring Valley, 1,500 ft (460 m) upstream from Mines Creek.

DRAINAGE AREA.--64.8 mi^2 (167.8 km^2).

PERIOD OF RECORD.--March 1944 to current year.

GAGE.--Water-stage recorder and V-notch sharp-crested weir. Datum of gage is mean sea level (levels by Corps of Engineers). Prior to July 31, 1957, nonrecording gage at site 850 ft (260 m) downstream at datum of 912.45 ft (278.115 m) above mean sea level. Aug. 1, 1957, to June 6, 1966, nonrecording gage at downstream site at datum of 910.45 ft (277.505 m) above mean sea level. June 7, 1966, to Oct. 31, 1968, nonrecording gage at downstream site at datum of 909.45 ft (277.200 m) above mean sea level.

AVERAGE DISCHARGE.--5 years (1969-73) 29.3 ft^3/s (0.830 m^3/s), 6.14 in/yr (156 mm/yr) since operation of flood-control reservoir.

EXTREMES.--Current year: Maximum discharge, 1,790 ft^3/s (50.7 m^3/s) Mar. 11, gage height, 917.48 ft (279.648 m); minimum, 2.0 ft^3/s (0.057 m^3/s) Dec. 26, 27, gage height, 912.42 ft (278.106 m).

Period of record: Maximum discharge, 7,000 ft^3/s (198 m^3/s) Apr. 15, 1954, gage height, 12.50 ft (3.810 m), datum then in use; no flow Aug. 11-15, 1971, flow shut off at flood-control dam upstream; minimum observed prior to dam construction period, 5.8 ft^3/s (0.16 m^3/s) Sept. 25, 27, 28, 30, 1949.

Maximum stage known since at least 1894, 19.98 ft (6.090 m) Sept. 18, 1942, with datum at 909.45 ft (277.200 m) above mean sea level, from floodmarks, discharge, 33,000 ft^3/s (930 m^3/s) estimated by Corps of Engineers on basis of slope-area measurement by Geological Survey of peak discharge of 39,000 ft^3/s (1,100 m^3/s) at Elmwood, drainage area, 91.9 mi^2 (238.0 km^2).

REMARKS.--Records good. Flow slightly regulated by flood-control dam 770 ft (235 m) upstream.

REVISIONS (WATER YEARS).--WRD Wis. 1967: 1966.

Rating table (gage height, in feet, and discharge, in cubic feet per second).

12.9	5.8	14.6	131
13.4	12	15.0	251
13.7	21	15.5	472
14.0	41	16.0	760
14.3	77	17.0	1,410

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	16	15	14	14	13	23	464	32	29	16	8.0
2	18	121	15	23	15	13	23	376	30	37	16	9.0
3	23	168	14	22	14	13	22	222	31	30	16	9.0
4	24	63	14	16	14	14	22	91	31	26	15	9.0
5	24	38	14	12	14	14	22	57	34	24	16	13
6	24	29	14	25	13	15	23	44	30	24	20	12
7	20	25	14	13	13	49	22	41	28	23	21	14
8	18	26	14	8.6	13	216	21	104	29	21	19	14
9	15	26	14	7.6	13	182	23	103	28	19	18	13
10	15	24	13	7.7	13	114	22	179	26	19	16	13
11	15	22	13	7.7	13	1,020	22	190	27	18	15	24
12	15	22	14	7.7	13	566	23	110	29	18	15	38
13	15	19	15	7.8	13	576	27	75	28	18	15	24
14	14	17	14	7.8	14	676	29	53	27	17	16	10
15	13	16	21	9.4	13	320	43	42	26	17	15	10
16	15	16	27	15	12	126	272	37	28	17	36	9.0
17	13	16	27	14	13	83	110	33	28	17	42	9.0
18	13	15	23	16	13	59	57	32	29	16	27	10
19	13	15	27	20	13	44	40	31	29	19	22	10
20	14	15	27	19	13	36	33	31	28	17	18	9.0
21	16	19	16	19	12	32	29	31	29	16	16	8.0
22	15	15	7.3	24	13	30	28	32	29	16	35	8.0
23	31	15	7.3	20	13	29	27	31	31	16	81	10
24	47	15	7.2	17	13	28	25	32	29	28	35	10
25	32	15	7.3	15	13	27	24	102	31	23	27	10
26	25	15	5.9	15	13	27	23	123	32	20	24	24
27	20	15	5.9	14	12	26	23	76	32	22	19	27
28	16	14	7.2	14	13	25	22	49	30	19	35	23
29	15	14	7.6	14	------	24	22	39	28	19	61	20
30	15	14	18	14	------	23	24	68	29	22	23	17
31	17	------	17	14	------	23	------	45	------	18	8.0	------
TOTAL	592	860	455.7	453.3	368	4,443	1,126	2,943	878	645	759.0	424.0
MEAN	19.1	28.7	14.7	14.6	13.1	143	37.5	94.9	29.3	20.8	24.5	14.1
MAX	47	168	27	25	15	1,020	272	464	34	37	81	38
MIN	13	14	5.9	7.6	12	13	21	31	26	16	8.0	8.0
CFSM	.29	.44	.23	.23	.20	2.21	.58	1.46	.45	.32	.38	.22
IN.	.34	.49	.26	.26	.21	2.55	.65	1.69	.50	.37	.44	.24

CAL YR 1972 TOTAL 8,925.5 MEAN 24.4 MAX 634 MIN 5.9 CFSM .38 IN 5.12
WTR YR 1973 TOTAL 13,947.0 MEAN 38.2 MAX 1,020 MIN 5.9 CFSM .59 IN 8.01

Reservoirs in Chippewa River Basin

The five reservoirs listed below are used to stabilize the flow of the Chippewa and Flambeau Rivers for power utilization, and are also used for recreational purposes. The first four are operated by Chippewa-Flambeau Improvement Co. The remaining one is operated by the Northern States Power Co., which also furnishes the gage heights and capacity tables for all the reservoirs. Month-end contents are computed by the Geological Survey. The usable capacity of these reservoirs is usually less in summer than in winter, because the allowable summer drawdown is limited by the Department of Natural Resources in the interest of riparian property owners. There are occasionally formal or informal changes in capacity and in minimum drawdown levels. Usable capacity figures listed below are for winter regulation.

05355400 Moose Lake on West Fork Chippewa River, lat 46°02'00", long 91°04'32", in NE¼ sec.14, T.41 N., R.6 W., Sawyer County, 15.0 mi (24.1 km) north of Winter, Wis., completed in 1893, has a usable capacity of 400,000,000 ft³ ((11,000,000 m³). Drainage area, 225 mi² (583 km²). Datum of gage is at mean sea level (Northern States Power Co. bench mark).

05355600 Lake Chippewa on Chippewa River, lat 45°53'20", long 91°04'40", in SE¼ sec.2, T.39 N., R.6 W., Sawyer County, 3.2 mi (5.2 km) upstream from Geological Survey river-gaging station, 5.5 mi (8.8 km) northwest of Winter, Wis., completed in 1923, has a usable capacity of 10,000,000,000 ft³ (283,000,000 m³). Drainage area, 775 mi² (2,007 km²). Datum of gage is at mean sea level (Northern States Power Co. bench mark).

05357300 Rest Lake on Manitowish River, lat 46°08'20", long 89°53'05", in NW¼ sec.9, T.42 N., R.5 E., Vilas County, 6.2 mi (10 km) east of Manitowish, Wis., used as a reservoir since 1887, has a capacity of 660,000,000 ft³ (19,000,000 m³) between gage heights 105.00 ft (32.00 m) and 108.50 ft (33.07 m). This reservoir includes nine lakes controlled by the same dam. Drainage area, 243 mi² (629 km²). Altitude of gage is 1,600 ft (488 m), by U.S. Geological Survey topographic map.

05357400 Flambeau Flowage on North Fork Flambeau River, lat 46°04'13", long 90°13'23", in SE¼ sec.34, T.42 N., R.2 E., Iron County, 0.5 mi (0.8 km) upstream from discontinued Geological Survey river-gaging station, 10.2 mi (16.4 km) southwest of Mercer, Wis., completed in 1926, has a usable capacity of 5,895,000,000 ft³ (167,000,000 m³). Drainage area, 666 mi² (1,725 km²). Datum of gage is at mean sea level (Northern States Power Co. bench mark).

05364200 Lake Wissota on Chippewa River, lat 44°56'18", long 91°20'27", in NW¼ sec.3, T.28 N., R.8 W., Chippewa County, 2.0 mi (3.2 km) east of Chippewa Falls, Wis., city limits, completed in 1917, has a usable capacity of 3,547,000,000 ft³ (100,500,000 m³). Drainage area, 5,548 mi² (14,369 km²). Datum of gage is at mean sea level (Northern States Power Co. bench mark).

Month-end contents, in millions of cubic feet, water year October 1972 to September 1973

	Moose Lake	Lake Chippewa	Rest Lake	Flambeau Flowage	Lake Wissota
Sept. 30.....	393	9,280	973	5,634	3,978
Oct. 31.....	198	9,424	463	5,752	3,906
Nov. 30.....	35	8,838	350	5,678	3,884
Dec. 31.....	25	6,460	350	4,728	3,911
Jan. 31.....	30	4,212	350	3,743	3,898
Feb. 28.....	15	2,846	350	2,808	2,435
Mar. 31.....	190	6,890	520	5,052	3,940
Apr. 30.....	393	9,892	733	5,826	3,857
May 31.....	400	9,892	991	5,752	4,024
June 30.....	393	9,856	973	5,308	3,857
July 31.....	386	9,640	973	4,226	3,943
Aug. 31.....	393	8,974	1,105	3,714	3,868
Sept. 30.....	407	9,076	973	3,772	3,967

05378500 Mississippi River at Winona, Minn.

LOCATION.--Lat 44°03'20", long 91°38'15", in sec.23, T.107 N., R.7 W., Winona County, on right bank at Winona pumping station in Winona, 9.5 mi (15.3 km) upstream from Trempealeau River and at mile 725.7 (1,167.7 km) upstream from the Ohio River.

DRAINAGE AREA.--59,200 mi^2 (153,300 km^2), approximately.

PERIOD OF RECORD.--June 1928 to current year. Gage-height records collected in this vicinity since 1878 are contained in reports of Mississippi River Commission.

GAGE.--Water-stage recorder. Datum of gage is 639.64 ft (194.96 m) above mean sea level, datum of 1929. June 10, 1928, to Apr. 15, 1931, nonrecording gage at site 800 ft (244 m) upstream. Prior to Oct. 1, 1929, at datum 0.20 ft (0.06 m) higher and Oct. 1, 1929, to Apr. 15, 1931, at datum 0.12 ft (0.04 m) lower. Apr. 16, 1931, to Nov. 12, 1934, nonrecording gage at present site and datum. Since Mar. 31, 1937, auxiliary water-stage recorder 2.7 mi (4.3 km) upstream at tailwater of navigation dam 5A.

AVERAGE DISCHARGE.--45 years, 25,980 ft^3/s (1,019 m^3/s), 5.96 in/yr (151 mm/yr).

EXTREMES.--Current year: Maximum discharge, 136,000 ft^3/s (3,850 m^3/s) Mar. 20 (gage height, 14.58 ft or 4.444 m); minimum, 9,390 ft^3/s (266 m^3/s) Sept. 22, result of regulation; minimum gage height, 4.81 ft (1,466 m) Aug. 28.
Period of record: Maximum discharge, 268,000 ft^3/s (7,590 m^3/s) Apr. 19, 1965 (gage height, 20.77 ft or 6.331 m, from floodmark); minimum, 2,250 ft^3/s (63.7 m^3/s) Dec. 29, 1933 (gage height, -1.18 ft or -0.360 m); minimum gage height, -3.38 ft (1.030 m) Aug. 31, 1934.
Flood of June 18, 1880, reached an elevation of 657.14 ft, according to Corps of Engineers (discharge not determined).

REMARKS.--Records good. Records of chemical analyses for the current year are published in Part 2 of this report. Some regulation by reservoirs, navigation dams, and powerplants at low and medium stages. Flood flow not materially affected by artificial storage.

REVISIONS.--WSP 700: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47,000	31,100	24,300	22,900	22,400	17,700	71,400	50,100	63,700	21,300	16,200	20,600
2	46,000	32,800	22,000	22,800	22,500	19,300	69,000	55,000	62,000	21,000	16,400	20,400
3	43,900	34,200	18,900	22,700	22,600	22,300	67,000	63,100	60,100	21,400	16,700	20,500
4	42,800	36,500	13,700	22,600	22,600	26,500	65,100	72,100	58,500	21,700	16,900	21,100
5	39,200	41,100	12,300	21,700	22,600	27,900	63,000	76,900	57,300	22,100	19,100	24,400
6	39,600	43,400	12,600	21,700	21,500	31,400	61,800	84,400	55,800	21,700	22,200	25,100
7	40,700	50,100	13,000	21,700	21,500	36,100	60,000	87,600	54,800	21,500	20,100	23,100
8	42,800	51,900	13,000	20,900	21,300	42,000	58,000	82,200	54,900	20,900	15,100	22,000
9	42,000	54,000	13,000	20,600	19,800	45,300	57,100	75,100	55,600	20,200	16,200	21,500
10	39,600	55,200	17,000	20,600	19,500	47,300	56,300	71,300	54,800	18,700	16,800	22,400
11	36,000	57,000	17,000	20,700	19,500	54,300	53,100	69,600	51,700	17,300	20,000	21,900
12	38,100	57,300	17,900	20,500	19,000	65,300	51,000	69,300	49,300	16,000	21,700	19,900
13	38,600	55,600	19,000	20,500	19,000	78,400	49,900	69,200	47,000	14,800	23,900	18,900
14	37,700	54,100	19,400	20,500	19,200	82,500	45,400	69,100	43,400	13,900	26,400	16,300
15	32,800	52,500	19,600	20,500	20,200	93,100	46,100	68,000	41,000	14,700	24,800	14,100
16	31,400	50,800	20,100	20,600	20,500	109,000	51,300	65,200	39,500	15,500	24,200	16,000
17	32,300	48,400	22,000	20,900	20,600	120,000	53,200	62,300	38,800	15,400	23,900	16,100
18	29,300	46,400	22,100	23,800	21,000	129,000	58,300	58,800	36,000	15,100	23,800	14,700
19	27,900	43,000	22,100	26,700	20,000	134,000	59,700	56,000	33,200	15,200	23,800	12,100
20	26,800	40,200	22,300	27,200	18,500	135,000	60,300	53,200	31,100	15,000	23,900	11,400
21	25,200	39,400	22,700	27,200	18,800	130,000	63,600	50,800	31,300	14,200	23,000	12,700
22	24,100	37,800	23,000	26,900	18,800	123,000	62,300	47,800	30,700	13,600	21,800	12,600
23	28,200	37,400	23,100	26,600	18,800	113,000	59,700	47,500	29,900	13,500	28,000	13,700
24	29,300	34,600	22,900	26,500	19,700	106,000	56,700	46,200	29,600	12,700	30,100	15,900
25	29,600	33,300	22,800	26,400	19,500	99,600	54,300	44,100	26,800	13,700	26,200	15,300
26	30,300	32,400	22,800	26,400	19,400	93,200	54,200	45,700	24,800	14,400	26,500	19,200
27	30,100	31,000	22,700	26,300	18,500	88,000	51,900	46,400	24,500	16,400	26,900	24,400
28	31,800	29,000	22,700	26,300	18,500	82,900	50,000	54,500	22,900	17,600	21,300	27,000
29	32,000	27,200	22,600	24,800	------	80,500	46,500	59,800	22,300	17,100	19,700	27,200
30	31,700	26,400	22,700	23,500	------	77,400	46,700	63,700	21,600	16,200	20,500	27,200
31	32,100	------	22,900	22,400	------	74,400	------	64,700	------	16,500	20,500	------
TOTAL	1,078.9M	1,264.1M	612,200	723,400	565,800	2,384.4M	1,702.9M	1,929.7M	1,252.9M	529,300	676,600	577,700
MEAN	34,800	42,140	19,750	23,340	20,210	76,920	56,760	62,250	41,760	17,070	21,830	19,260
MAX	47,000	57,300	24,300	27,200	22,600	135,000	71,400	87,600	63,700	22,100	30,100	27,200
MIN	24,100	26,400	12,300	20,500	18,500	17,700	45,400	44,100	21,600	12,700	15,100	11,400
CFSM	.59	.71	.33	.39	.34	1.30	.96	1.05	.71	.29	.37	.33
IN.	.68	.79	.38	.45	.36	1.50	1.07	1.21	.79	.33	.43	.36

CAL YR 1972 TOTAL 14,393,900 MEAN 39,330 MAX 98,400 MIN 12,300 CFSM .66 IN 9.04
WTR YR 1973 TOTAL 13,297,900 MEAN 36,430 MAX 135,000 MIN 11,400 CFSM .62 IN 8.36

M Expressed in thousands.

05379400 Trempealeau River at Arcadia, Wis.

LOCATION.--Lat 44°15'15", long 91°30'25", in SW¼ sec.32, T.21 N., R.9 W., Trempealeau County, near right bank on downstream side of bridge on State Highway 93 and 95 in Arcadia, 0.5 mi (0.8 km) downstream from Turton Creek.

DRAINAGE AREA.--552 mi^2 (1,430 km^2).

PERIOD OF RECORD.--July 1960 to current year.

GAGE.--Nonrecording gage and crest-stage gage. Datum of gage is 719.61 ft (219.337 m) above mean sea level.

AVERAGE DISCHARGE.--13 years, 376 ft^3/s (10.65 m^3/s), 9.25 in/yr (235 mm/yr).

EXTREMES.--Current year: Maximum discharge, 5,580 ft^3/s (158 m^3/s) Mar. 11, gage height, 6.59 ft (2.009 m); minimum daily, 240 ft^3/s (6.80 m^3/s) Feb. 16.
Period of record: Maximum discharge, 9,740 ft^3/s (276 m^3/s) Apr. 6, 1965, gage height, 7.15 ft (2.179 m), from graph based on gage readings and from rating curve extended above 7,000 ft^3/s (198 m^3/s); maximum gage height observed, 8.04 ft (2.451 m) Mar. 2, 1965 (backwater from ice); minimum discharge observed, 110 ft^3/s (3.12 m^3/s) Aug. 8, 9, 19, 1964.

REMARKS.--Records good except those for winter periods, which are fair.

REVISIONS (WATER YEARS).--WRD Wis. 1970: 1968, 1969.

Rating tables (gage height, in feet, and discharge, in cubic feet per second). (Shifting-control method used Mar. 7-30; stage-discharge relation affected by ice Dec. 2 to Feb. 26.)

Oct. 1 to May 28				May 29 to Sept. 30	
1.1	210	4.0	1,390	1.8	324
1.5	332	5.0	1,930	2.0	400
2.0	518	6.0	2,820	3.0	850
3.0	934	7.0	4,950	4.0	1,490
				5.0	2,300

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,450	615	425	560	460	395	657	1,480	892	512	385	452
2	997	926	400	560	470	440	783	2,690	760	560	373	432
3	774	1,240	380	560	470	648	779	2,360	826	600	362	460
4	926	867	360	520	470	1,040	783	1,910	946	520	351	500
5	808	732	350	520	460	1,070	728	1,490	1,190	472	362	440
6	812	648	350	450	450	812	665	1,110	796	456	370	408
7	732	825	350	470	420	1,860	858	1,070	730	448	560	392
8	636	968	350	520	400	3,050	888	1,530	695	432	808	400
9	566	791	350	580	380	2,320	724	1,400	654	416	850	396
10	522	716	360	560	350	1,640	678	1,290	627	400	681	392
11	530	648	370	560	320	4,620	741	1,090	584	392	504	392
12	534	606	380	540	300	4,770	842	1,020	654	392	440	385
13	510	582	400	540	280	3,060	1,000	879	681	389	416	370
14	482	558	410	540	260	2,150	1,100	837	618	385	416	370
15	425	542	430	520	250	2,620	1,610	795	576	381	420	366
16	440	542	410	520	240	1,810	2,270	770	572	381	420	377
17	432	538	380	520	260	1,460	3,110	758	886	370	456	385
18	417	530	330	700	300	1,150	2,360	741	640	373	432	392
19	402	518	310	900	370	980	1,510	749	740	970	392	377
20	388	510	330	800	420	909	1,260	749	654	492	392	370
21	470	502	360	740	430	846	1,080	741	592	408	385	362
22	510	490	400	680	430	800	972	833	560	400	408	358
23	871	478	420	640	440	762	905	825	576	385	1,720	354
24	951	470	450	580	430	745	833	825	592	381	1,360	354
25	762	494	470	560	420	724	787	1,120	536	400	1,080	389
26	665	514	480	540	410	699	745	1,100	536	408	568	584
27	582	502	450	520	402	678	699	968	636	452	528	922
28	534	478	440	480	388	661	674	1,150	552	440	504	600
29	502	455	460	440	------	641	674	2,090	536	408	468	448
30	478	451	520	440	------	615	724	1,690	524	416	448	432
31	546	------	580	440	------	586	------	1,240	------	404	436	------
TOTAL	19,654	18,736	12,455	17,500	10,680	44,561	31,439	37,300	20,361	13,843	17,295	12,859
MEAN	634	625	402	565	381	1,437	1,048	1,203	679	447	558	429
MAX	1,450	1,240	580	900	470	4,770	3,110	2,690	1,190	970	1,720	922
MIN	388	451	310	440	240	395	657	741	524	370	351	354
CFSM	1.15	1.13	.73	1.02	.69	2.60	1.90	2.18	1.23	.81	1.01	.78
IN.	1.32	1.26	.84	1.18	.72	3.00	2.12	2.51	1.37	.93	1.17	.87

CAL YR 1972 TOTAL 172,821 MEAN 472 MAX 3,740 MIN 200 CFSM .86 IN 11.65
WTR YR 1973 TOTAL 256,683 MEAN 703 MAX 4,770 MIN 240 CFSM 1.27 IN 17.30

05379500 Trempealeau River at Dodge, Wis.

LOCATION.--Lat 44°07'55", long 91°33'14", in SE¼ sec.10, T.19 N., R.10 W., on Trempealeau County line, near left bank on downstream side of highway bridge in Dodge, 9.0 mi (14.5 km) upstream from mouth.

DRAINAGE AREA.--643 mi² (1,665 km²).

PERIOD OF RECORD.--December 1913 to September 1919, April 1934 to current year.

GAGE.--Nonrecording gage and crest-stage gage. Datum of gage is 661.42 ft (201.601 m) above mean sea level. Prior to Oct. 1, 1966, datum 2.00 ft (0.610 m) higher.

AVERAGE DISCHARGE.--44 years (1914-19, 1934-73), 402 ft³/s (11.38 m³/s), 8.49 in/yr (216 mm/yr).

EXTREMES.--Current year: Maximum discharge, 5,500 ft³/s (156 m³/s) Mar. 13, gage height, 10.14 ft (3.091 m); minimum daily, 350 ft³/s (9.91 m³/s) Dec. 19, Feb. 12, 18.
Period of record: Maximum discharge, 17,400 ft³/s (493 m³/s) Apr. 4, 1956, gage height, 10.35 ft (3.155 m); minimum daily, 98 ft³/s (2.78 m³/s) Jan. 10, 1938.

REMARKS.--Records are fair.

COOPERATION.--Gage-height record collected in cooperation with Corps of Engineers.

REVISIONS (WATER YEARS).--WSP 1238: Drainage area. WSP 1388: 1919(M). WSP 1438: 1914, 1915-18(M), 1934-44(M), 1946-49(M).

Rating table (gage height, in feet, and discharge, in cubic feet per second.)
(Shifting-control method used Oct. 3-22, Mar. 11, 12; stage-discharge relation affected by ice Dec. 4 to Feb. 28.)

2.5	310	6.0	1,450
3.0	430	8.0	2,440
4.0	720	9.0	3,390
5.0	1,060	10.0	5,540

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,500	666	422	600	500	760	659	1,260	1,470	552	438	502
2	1,880	872	410	740	500	802	806	1,710	1,010	585	415	499
3	1,330	1,280	392	660	540	908	863	3,040	881	653	402	527
4	1,090	1,350	370	620	560	908	863	2,740	978	608	392	588
5	1,060	1,010	380	600	540	1,220	851	2,310	1,070	538	390	543
6	939	799	400	560	540	1,050	767	1,860	1,140	504	385	485
7	925	834	380	500	520	1,240	800	1,460	912	491	538	457
8	775	1,080	360	560	500	1,710	1,050	1,430	806	470	698	444
9	657	1,030	370	640	480	2,710	968	1,550	752	459	920	472
10	624	886	420	680	460	2,390	839	1,520	692	457	833	467
11	591	768	380	680	390	2,290	869	1,490	647	446	671	457
12	588	711	380	660	350	4,520	902	1,270	665	431	538	444
13	567	663	400	640	380	5,140	982	1,100	782	410	480	431
14	552	627	430	600	400	4,220	1,090	968	698	425	496	433
15	510	567	440	560	400	2,990	1,330	893	653	415	488	423
16	504	576	450	540	410	2,850	1,810	830	635	410	480	444
17	489	564	440	540	380	2,080	3,280	797	659	402	483	459
18	475	555	400	700	350	1,740	3,830	764	978	395	488	467
19	462	546	350	1,000	400	1,310	2,930	749	883	436	477	464
20	448	530	400	1,100	440	1,060	2,060	737	764	653	451	457
21	498	525	420	1,100	560	947	1,660	722	677	462	431	449
22	573	510	440	1,000	620	869	1,170	785	623	436	431	438
23	852	486	460	840	680	827	1,170	836	606	400	950	441
24	1,770	480	470	740	700	803	1,040	839	632	410	1,360	441
25	1,050	472	500	640	720	782	929	917	597	395	1,200	472
26	862	486	540	540	700	767	881	1,160	574	436	1,100	477
27	720	507	500	620	660	740	827	1,160	674	459	761	902
28	642	498	460	660	700	713	791	1,240	665	485	623	809
29	591	492	500	620	------	692	776	1,460	608	444	549	779
30	552	478	600	580	------	686	812	1,610	597	560	529	543
31	585	------	780	540	------	671	------	1,720	------	475	494	------
TOTAL	25,661	20,848	13,644	21,060	14,380	50,395	37,605	40,927	23,328	14,702	18,891	15,214
MEAN	828	695	440	679	514	1,626	1,254	1,320	778	474	609	507
MAX	2,500	1,350	780	1,100	720	5,140	3,830	3,040	1,470	653	1,360	902
MIN	448	472	350	500	350	671	659	722	574	395	385	423
CFSM	1.29	1.08	.68	1.06	.80	2.53	1.95	2.05	1.21	.74	.95	.79
IN.	1.48	1.21	.79	1.22	.83	2.92	2.18	2.37	1.35	.85	1.09	.88

CAL YR 1972 TOTAL 74,270 MEAN 203 MAX 5,210 MIN 210 CFSM .32 IN 4.30
WTR YR 1973 TOTAL 296,655 MEAN 813 MAX 5,140 MIN 350 CFSM 1.26 IN 17.16

05381000 Black River at Neillsville, Wis.

LOCATION.--Lat 44°33'35", long 90°36'54", in sec.15, T.24 N., R.2 W., Clark County, on right bank at downstream side of bridge on U.S. Highway 10 in Neillsville, 1.0 mi (1.6 km) downstream from O'Neill Creek, and 2.6 mi (4.2 km) upstream from Cunningham Creek.

DRAINAGE AREA.--756 mi^2 (1,958 km^2).

PERIOD OF RECORD.--April 1905 to March 1909, October 1913 to current year. Monthly discharge only for some periods, published in WSP 1308.

GAGE.--Water-stage recorder. Datum of gage is 962.77 ft (293.452 m) above mean sea level (levels by U.S. Weather Bureau). Prior to Oct. 24, 1934, nonrecording gage.

AVERAGE DISCHARGE.--63 years (1905-8, 1913-73), 584 ft^3/s (16.54 m^3/s), 10.49 in/yr (266 mm/yr).

EXTREMES.--Current year: Maximum discharge, 19,900 ft^3/s (564 m^3/s) May 2, gage height, 15.91 ft (4.849 m); minimum, 38 ft^3/s (1.08 m^3/s) July 22, gage height, 2.60 ft (0.792 m).

Period of record: Maximum discharge, 48,800 ft^3/s (1,380 m^3/s) Sept. 10, 1938, gage height, 23.8 ft (7.25 m); minimum, 0.6 ft^3/s (0.017 m^3/s) Aug. 15, 1936, gage height, 1.84 ft (0.561 m).

REMARKS.--Records good except those for winter periods, which are fair.

REVISIONS (WATER YEARS).--WSP 805: Drainage area. WSP 1308: 1914. WSP 1438: 1905, 1906-8(M), 1914-17(M), 1918-19, 1920-25(M), 1926-27, 1928-29(M), 1930, 1931(M), 1932, 1933(M), 1934, 1935(M), 1936. WSP 1508: 1950.

Rating table (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Nov. 24-27, Nov. 30 to Mar. 11.)

2.6	37	4.0	401	10.0	6,760
2.8	65	5.0	870	12.0	10,600
3.0	101	6.0	1,520	14.0	15,100
3.5	226	8.0	3,520	15.0	17,600

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3,600	438	150	1,200	280	130	647	5,090	821	91	59	43
2	1,980	2,450	150	1,000	270	140	961	15,200	645	249	60	41
3	1,200	5,900	150	880	260	300	2,940	12,200	619	260	57	114
4	1,290	4,510	140	820	240	800	2,440	7,430	602	140	54	289
5	1,680	2,780	140	720	230	2,100	1,860	4,150	799	113	49	277
6	1,560	1,850	140	640	210	1,800	1,380	2,240	596	98	48	382
7	1,330	2,170	140	600	200	5,800	2,190	2,140	508	85	68	425
8	990	2,490	130	540	190	6,800	1,390	3,280	406	76	95	333
9	755	1,960	130	500	180	5,800	1,060	2,590	339	71	129	219
10	568	1,420	130	470	170	5,000	798	2,130	271	68	122	157
11	503	1,030	130	450	160	8,000	735	1,960	238	62	141	125
12	518	823	120	430	150	16,600	973	1,600	294	59	136	105
13	490	691	120	400	140	13,800	1,720	1,260	262	56	107	93
14	421	563	120	380	130	14,300	2,900	956	215	51	87	84
15	354	460	120	370	130	12,300	4,640	749	183	49	74	76
16	306	385	120	370	130	8,630	13,600	603	188	51	66	70
17	269	337	120	370	130	5,430	10,900	493	679	49	61	66
18	240	317	120	500	120	3,840	6,410	422	390	46	57	63
19	217	284	110	1,500	120	1,960	3,550	371	298	47	55	58
20	201	268	110	1,200	120	1,390	2,080	327	289	42	66	56
21	225	260	110	940	120	1,090	1,410	305	164	41	86	53
22	280	215	110	800	120	905	1,080	796	139	40	78	54
23	2,060	173	110	700	120	805	946	746	131	46	105	53
24	3,170	180	110	600	120	756	863	1,060	123	46	79	52
25	2,500	180	110	520	120	756	715	11,800	107	44	68	58
26	1,670	170	110	450	120	783	569	9,600	101	45	62	64
27	1,100	170	120	400	120	800	459	5,110	97	62	59	86
28	807	168	130	360	120	758	382	6,540	96	61	56	143
29	633	162	140	330	------	701	328	4,800	95	62	51	351
30	508	160	180	310	------	660	383	2,440	95	65	47	368
31	466	------	600	300	------	628	------	1,380	------	61	45	------
TOTAL	31,811	32,964	4,420	19,050	4,520	122,762	69,329	109,688	9,710	2,336	2,327	4,358
MEAN	1,026	1,099	143	615	161	3,960	2,311	3,538	324	75.4	75.1	145
MAX	3,600	5,900	600	1,500	280	16,600	13,600	15,200	821	260	141	425
MIN	201	160	110	300	120	138	383	305	95	40	45	41
CFSM	1.36	1.45	.19	.81	.21	5.24	3.06	4.68	.43	.10	.10	.19
IN.	1.57	1.62	.22	.94	.22	6.04	3.41	5.40	.48	.11	.11	.21

CAL YR 1972 TOTAL 367,939 MEAN 1,005 MAX 13,600 MIN 38 CFSM 1.33 IN 18.10
WTR YR 1973 TOTAL 413,275 MEAN 1,132 MAX 16,600 MIN 40 CFSM 1.50 IN 20.34

PEAK DISCHARGE (BASE, 5,000 FT^3/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11- 3	0500	9.75	6,310	5- 2	1500	15.91	19,900
3-11	-	-	a17,000	5-25	0700	13.49	13,800
4-16	1200	13.93	14,900				

a About.

05382000 Black River near Galesville, Wis.

LOCATION.--Lat 44°04'22", long 91°17'41", in SW¼ sec.1, T.18 N., R.8 W., LaCrosse County, on left bank 1,000 ft (305 m) upstream from bridge on U.S. Highway 53, 4.5 mi (7.2 km) southeast of Galesville, and 4.8 mi (7.7 km) downstream from Fleming Creek.

DRAINAGE AREA.--2,120 mi² (5,490 km²), approximately.

PERIOD OF RECORD.--December 1931 to current year.

GAGE.--Water-stage recorder. Datum of gage is 658.43 ft (200.689 m) above mean sea level, unadjusted. Prior to Apr. 2, 1941, nonrecording gage on bridge 1,000 ft (305 m) downstream at same datum. Apr. 3, 1941, to Oct. 1, 1971, water-stage recorder at site 1,100 ft (335 m) downstream at same datum.

AVERAGE DISCHARGE.--41 years (1932-73), 1,686 ft³/s (47.75 m³/s) 10.80 in/yr (274 mm/yr).

EXTREMES.--Current year: Maximum discharge, 36,300 ft³/s (1,030 m³/s) Mar. 13, gage height, 14.51 ft (4.423 m); minimum daily, 630 ft³/s (17.8 m³/s) Sept. 15.
Period of record: Maximum discharge, 65,500 ft³/s (1,850 m³/s) Apr. 1, 1967, gage height, 14.63 ft (4.459 m); minimum observed, 180 ft³/s (5.10 m³/s) Dec. 20, 1932.

REMARKS.--Records good except those for winter periods, which are fair. Flow partly regulated by Hatfield dam powerplant where drainage area is 1,290 mi² (3,340 km²) and storage capacity is 272,000,000 ft³ (7.70 hm³). Water diverted periodically from basin into Lemonweir River basin for cranberry culture.

REVISIONS (WATER YEARS).--WSP 1438: 1932-34, 1935-36(M).

Rating tables (gage height, in feet, and discharge, in cubic feet per second).
(Shifting-control method used Nov. 14 to Dec. 2; stage-discharge relation affected by ice Dec. 3 to Mar. 7.)

Oct. 1 to Mar. 12				Mar. 13 to Sept. 30			
2.0	530	6.0	4,050	1.3	600	8.0	6,790
2.5	840	8.0	6,790	2.0	1,020	10.0	10,600
3.0	1,180	10.0	10,600	2.5	1,320	12.0	16,600
4.0	1,950	12.0	16,600	3.0	1,660	14.0	29,600
		13.0	21,000	4.0	2,370	14.5	36,100
				6.0	4,130		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13,000	2,050	1,320	2,300	2,100	1,600	2,260	2,700	9,750	1,180	709	692
2	11,500	2,400	1,300	2,800	2,300	1,700	2,350	3,850	5,880	1,120	667	685
3	9,000	3,020	1,100	3,400	2,400	1,900	2,670	10,600	3,660	1,170	659	676
4	7,400	5,020	1,000	3,500	2,400	1,900	3,630	29,800	3,130	1,220	633	672
5	6,200	7,820	960	3,200	2,300	2,000	4,440	19,000	2,990	1,210	645	700
6	4,800	8,880	900	2,500	2,100	3,000	4,810	13,400	2,940	1,160	750	720
7	4,500	6,350	840	1,800	2,000	3,800	4,630	9,440	3,140	1,200	991	760
8	3,200	5,060	800	1,900	1,800	4,570	4,500	6,530	2,550	1,140	1,010	700
9	2,600	4,760	780	2,000	1,400	10,500	5,530	6,460	2,380	956	1,060	660
10	2,200	4,810	740	2,000	1,100	19,100	5,400	8,660	2,150	944	941	660
11	2,100	4,230	680	2,000	1,100	18,000	4,570	7,950	1,680	985	870	700
12	1,980	3,330	640	1,900	940	20,500	3,630	6,500	1,760	893	786	700
13	1,670	2,260	700	1,900	860	34,200	3,440	5,500	1,980	873	747	684
14	1,610	2,180	800	1,800	800	30,500	4,150	4,680	2,410	856	744	650
15	1,590	2,130	960	1,700	800	27,400	5,290	3,270	2,430	786	772	630
16	1,530	2,020	940	1,600	800	27,800	7,770	2,960	2,310	769	745	640
17	1,400	1,880	880	1,600	800	20,400	16,900	2,700	2,310	764	713	640
18	1,320	1,730	840	1,500	820	15,600	32,500	2,500	3,160	833	718	640
19	1,290	1,670	800	2,100	800	11,400	20,700	2,380	4,610	802	721	693
20	1,260	1,610	840	2,400	760	7,790	13,800	2,260	4,430	747	655	640
21	1,260	1,570	940	3,000	1,000	4,730	9,440	2,160	3,450	755	646	637
22	1,270	1,530	1,100	3,700	1,200	3,170	6,570	1,870	2,630	770	669	720
23	1,570	1,510	1,200	3,600	1,200	2,940	4,750	2,160	2,320	721	1,170	696
24	2,940	1,480	1,300	3,300	1,200	2,890	4,230	2,300	2,110	701	1,280	720
25	4,920	1,430	1,300	2,600	1,200	2,790	3,830	2,590	1,650	734	1,160	672
26	6,740	1,400	1,300	2,500	1,200	2,720	3,370	4,330	1,510	700	1,090	744
27	5,960	1,390	1,200	2,400	1,300	2,600	2,860	13,900	1,570	742	924	780
28	4,490	1,370	1,400	2,300	1,400	2,510	2,660	16,400	1,500	686	898	714
29	2,890	1,350	1,500	2,100	------	2,460	2,530	12,400	1,410	758	818	732
30	2,270	1,330	1,700	2,000	------	2,390	2,440	14,800	1,320	803	769	714
31	2,090	------	1,900	2,000	------	2,300	------	13,800	------	737	738	------
TOTAL	116,550	87,490	32,660	73,400	38,080	295,160	195,650	237,850	85,120	27,715	25,698	20,671
MEAN	3,760	2,916	1,054	2,368	1,360	9,521	6,522	7,673	2,837	894	829	689
MAX	13,000	8,880	1,900	3,700	2,400	34,200	32,500	29,800	9,750	1,220	1,280	780
MIN	1,260	1,330	640	1,500	760	1,600	2,260	1,870	1,320	686	633	630
CFSM	1.77	1.38	.50	1.12	.64	4.49	3.08	3.62	1.34	.42	.39	.33
IN.	2.05	1.54	.57	1.29	.67	5.18	3.43	4.17	1.49	.49	.45	.36

CAL YR 1972 TOTAL 773,405 MEAN 2,113 MAX 15,600 MIN 394 CFSM 1.00 IN 13.57
WTR YR 1973 TOTAL 1,236,044 MEAN 3,386 MAX 34,200 MIN 630 CFSM 1.60 IN 21.69

PEAK DISCHARGE (BASE 12,500 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
3-13	0600	14.51	36,300	5- 4	0900	14.28	33,300
4-18	0600	14.49	36,000	5-27	2100	12.40	18,300

05389500 Mississippi River at McGregor, Iowa

LOCATION.--Lat 43°01'29", long 91°10'21", in SE¼ SE¼ sec.22, T.95 N., R.3 W., Clayton County, on right bank in city park at east end of Main Street in McGregor, 2.6 mi (4.2 km) upstream from Wisconsin River, 4.3 mi (6.9 km) downstream from Yellow River, and at mile 633.4 (1,019.1 km) upstream from Ohio River.

DRAINAGE AREA.--67,500 mi² (174,800 km²), approximately.

PERIOD OF RECORD.--August 1936 to current year.

GAGE.--Water-stage recorder. Datum of gage is 605.30 ft (184.50 m) above mean sea level, adjustment of 1912. Prior to June 1, 1937, and since June 2, 1939, auxiliary water-stage recorder; June 1, 1937 to June 1, 1939, auxiliary nonrecording gage 14.1 mi (22.7 km) upstream in tailwater of dam 9, at datum 5.30 ft (1.615 m) lower.

AVERAGE DISCHARGE.--37 years, 33,530 ft³/s (950 m³/s), 6.75 in/yr (171 mm/yr), 24,290,000 acre-ft/yr (29,900 hm³/yr).

EXTREMES.--Current year: Maximum daily discharge, 151,000 ft³/s (4,280 m³/s) Mar. 22, 23; maximum gage height, 20.15 ft (6.142 m) Mar. 21; minimum daily discharge, 13,000 ft³/s (368 m³/s) Dec. 11; minimum gage height, 6.38 ft (1.945 m) July 25.
Period of record: Maximum daily discharge, 276,000 ft³/s (7,820 m³/s) Apr. 24, 1965; maximum gage height, 25.38 ft (7.736 m) Apr. 24, 1965; minimum daily discharge, 6,200 ft³/s (176 m³/s) Dec. 9, 1936; minimum gage height, -0.86 ft (-0.262 m) Aug. 18, 1936.
Maximum stage since at least 1828, that of Apr. 24, 1965.

REMARKS.--Records good except those for winter period, which are fair. Stage-discharge relation affected by backwater from Wisconsin River and Dam 10. Flow regulated by reservoirs and navigation dams.

COOPERATION.--Gage height record at Dam 9 collected in cooperation with Corps of Engineers.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	73,700	42,900	33,400	36,000	33,000	25,000	98,600	69,600	86,600	28,800	24,300	21,300
2	78,200	42,300	30,200	36,000	35,000	26,000	95,400	69,600	88,700	28,600	23,300	25,100
3	77,800	42,800	27,900	37,000	37,000	28,000	92,500	73,800	89,800	28,800	22,300	27,800
4	76,100	44,700	25,000	36,000	37,000	29,000	90,000	80,000	88,000	30,000	22,000	29,000
5	74,500	47,100	20,000	35,000	37,000	31,000	86,800	88,400	85,900	30,300	20,600	28,400
6	71,800	49,900	18,000	34,000	33,000	32,400	84,800	97,800	83,300	30,600	23,600	29,400
7	68,500	58,500	16,500	33,000	30,000	37,300	83,100	104,000	80,900	29,900	28,700	30,000
8	66,100	64,400	15,000	31,000	28,000	45,400	81,100	110,000	77,400	29,100	34,000	29,800
9	61,400	67,700	14,500	29,000	26,000	52,300	80,200	114,000	73,800	28,100	33,100	30,000
10	58,500	69,100	13,500	27,500	27,000	59,600	79,600	112,000	71,600	26,100	30,300	28,700
11	56,100	70,600	13,000	26,000	29,000	73,100	77,200	108,000	70,500	24,200	26,400	27,100
12	52,700	72,200	14,000	26,500	26,000	83,100	75,200	105,000	69,500	22,000	25,300	25,600
13	48,200	73,400	18,000	27,000	26,000	92,700	72,900	102,000	65,500	19,200	26,400	25,100
14	47,100	74,200	20,000	27,000	26,000	101,000	69,800	100,000	60,300	16,400	31,400	23,800
15	44,100	73,100	22,000	27,000	25,000	112,000	65,600	97,900	57,500	16,200	32,900	22,300
16	42,200	70,000	23,000	27,000	24,000	120,000	69,600	95,800	54,100	17,900	32,300	20,100
17	40,500	66,100	24,000	27,000	24,500	127,000	74,800	91,800	52,600	19,200	31,600	18,200
18	38,300	62,600	25,000	27,000	25,000	134,000	81,700	89,100	49,800	19,800	30,900	18,500
19	37,300	59,000	25,000	33,000	25,000	139,000	88,100	86,600	47,900	20,500	29,500	18,700
20	34,700	53,800	27,000	38,000	25,000	143,000	94,000	83,100	46,200	21,100	29,100	17,400
21	32,600	49,800	28,000	43,000	25,000	148,000	94,100	77,700	44,500	19,800	28,600	16,600
22	34,700	47,300	28,500	44,000	24,500	151,000	92,500	73,600	42,700	19,100	28,100	16,700
23	36,800	43,800	29,000	44,000	24,000	151,000	91,600	70,300	40,900	18,800	30,500	17,800
24	37,100	43,000	29,000	44,000	24,000	148,000	89,400	62,300	39,900	18,400	35,300	18,000
25	39,100	42,400	29,500	45,000	25,000	142,000	87,200	60,000	38,100	18,700	39,200	20,600
26	41,900	41,700	30,000	44,000	25,000	135,000	84,600	58,800	36,900	19,500	39,200	25,500
27	44,800	40,000	31,000	41,500	24,500	127,000	81,300	57,800	35,100	21,200	35,400	28,600
28	47,900	35,400	31,000	41,000	24,000	119,000	78,400	61,500	32,500	23,200	33,300	31,500
29	48,200	35,200	30,000	38,000	------	114,000	75,400	69,900	29,100	24,200	29,500	35,600
30	46,900	34,900	31,000	35,000	------	108,000	72,800	76,100	28,200	24,600	25,300	37,500
31	45,300	------	33,000	34,000	------	102,000	------	82,200	------	25,100	22,200	------
TOTAL	1,603.1M	1,617.9M	755,000	1,073.5M	774,500	2,935.9M	2,488.3M	2,628.7M	1,767.8M	719,400	904,600	744,700
MEAN	51,710	53,930	24,350	34,630	27,660	94,710	82,940	84,800	58,930	23,210	29,180	24,820
MAX	78,200	74,200	33,400	45,000	37,000	151,000	98,600	114,000	89,800	30,600	39,200	37,500
MIN	32,600	34,900	13,000	26,000	24,000	25,000	65,600	57,800	28,200	16,200	20,600	16,600
CFSM	.77	.80	.36	.51	.41	1.40	1.23	1.26	.87	.34	.43	.37
IN.	.88	.89	.42	.59	.43	1.62	1.37	1.45	.97	.40	.50	.41
AC-FT	3,180M	3,209M	1,498M	2,129M	1,536M	5,823M	4,936M	5,214M	3,506M	1,427M	1,794M	1,477M

CAL YR 1972 TOTAL 17,505,800 MEAN 47,830 MAX 116,000 MIN 1,900 CFSM .71 IN 9.65 AC-FT 34,720,000
WTR YR 1973 TOTAL 18,013,400 MEAN 49,350 MAX 151,000 MIN 13,000 CFSM .73 IN 9.93 AC-FT 35,730,000

M Expressed in thousands.

05390500 Anvil Lake near Eagle River, Wis.

LOCATION.--Lat 45°57'10", long 89°03'11", in sec.13, T.40 N., R.11 E., Vilas County, near the home of Violet Waggoner on north side of lake, 11 mi (17.7 km) northeast of Eagle River.

DRAINAGE AREA.--3 mi^2 (8 km^2), approximately. Area of Anvil Lake, 380 acres (1.54 km^2).

PERIOD OF RECORD.--August 1936 to current year (fragmentary).

GAGE.--Nonrecording gage. Datum of gage is 90.00 ft (27.4 m) above datum assumed by Wisconsin Department of Natural Resources; gage readings have been reduced to elevations above this datum. Prior to Aug. 13, 1950, staff gage 0.3 mi (0.5 km) south at same datum

EXTREMES.--Current year: Maximum elevation observed, 5.89 ft (1.795 m) May 5; minimum observed, 4.64 ft (1.414 m) Oct. 28.

Period of record: Maximum elevation observed, 7.20 ft (2.195 m) May 3, 7, 17, 21, 24, 28, June 20, 24, 1943; minimum observed, 2.10 ft (0.640 m) July 31, 1964.

REMARKS.--Add 90 ft (27.4 m) to obtain elevation above datum assumed for this lake by Wisconsin Department of Natural Resources. Lake has no surface outlet. Lake was ice covered about Nov. 20 to Apr. 10.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1												
2									5.79			
3												
4		4.74									5.52	
5								5.89				
6												
7	4.69						5.24			5.62		
8												
9			4.69						5.79			
10												
11		4.74									5.52	
12								5.74				
13				4.79					5.76			
14										5.67		
15												
16		4.69										
17												
18											5.52	
19								5.69				
20						5.15						
21							5.49			5.57		
22											5.49	
23												
24							5.38					
25		4.69								5.61		
26								5.74				
27			4.71									
28	4.64						5.44			5.52		
29					------							
30			4.79		------							5.62
31		------			------		------		------			------

05391000 Wisconsin River at Rainbow Lake, near Lake Tomahawk, Wis.

LOCATION.--Lat 45°49'58", long 89°32'51", in S½ SW¼ sec.30, T.39 N., R.8 E., Oneida County, on right bank 400 ft (122 m) upstream from Gilmore Creek, 0.3 mi (0.5 km) downstream from Rainbow Lake, and 2.5 mi (4.0 km) northeast of Lake Tomahawk. Records include flow of Gilmore Creek.

DRAINAGE AREA.--750 mi² (1,940 km²), approximately, includes that of Gilmore Creek.

PERIOD OF RECORD.--July 1936 to current year. Prior to October 1955, published as "at Rainbow Reservoir, near Lake Tomahawk."

GAGE.--Water-stage recorder. Datum of gage is 1,570.05 ft (478.551 m) above mean sea level (Public Service Commission of Wisconsin bench mark).

AVERAGE DISCHARGE.--37 years, 705 ft³/s (19.97 m³/s).

EXTREMES.--Current year: Maximum discharge, 2,770 ft³/s (78.4 m³/s) May 7, gage height, 6.30 ft (1.920 m); minimum daily, 265 ft³/s (7.50 m³/s) Mar. 15.

Period of record: Maximum discharge, 3,570 ft³/s (101 m³/s) Sept. 5, 1941, gage height, 7.59 ft (2.313 m); minimum, 17 ft³/s (0.48 m³/s) Oct. 10-12, 1940; minimum daily, 35 ft³/s (0.99 m³/s) Apr. 6, 1955.

REMARKS.--Records good. Flow regulated by Rainbow Lake and 12 smaller reservoirs above station (see p.137).

REVISIONS (WATER YEARS).--WSP 895: 1937(M), WSP 1508: 1944.

Rating table (gage height, in feet, and discharge, in cubic feet per second).

0.8	173	3.0	875
1.3	284	4.0	1,350
1.8	430	5.0	1,920
2.4	630	7.0	3,270

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,500	789	1,010	1,030	996	989	961	1,020	979	819	683	514
2	1,380	1,360	1,010	1,030	995	1,010	1,160	2,010	1,200	794	663	520
3	1,200	1,800	1,010	1,020	995	1,000	1,130	2,250	1,200	801	725	618
4	1,470	1,750	1,010	1,020	991	994	1,240	2,260	1,220	790	797	498
5	1,560	1,700	1,010	1,020	993	984	1,280	2,260	1,230	782	838	547
6	1,560	1,700	1,010	1,020	989	971	1,260	2,280	1,150	784	827	708
7	1,390	1,840	1,000	1,020	1,000	653	1,360	2,530	1,020	771	760	833
8	1,200	1,880	997	1,020	1,020	375	1,380	2,630	1,000	755	641	794
9	1,040	1,520	995	1,020	1,020	451	1,380	2,460	1,160	756	518	688
10	1,010	1,440	997	1,020	1,020	534	1,220	2,520	1,250	754	626	676
11	1,020	1,470	998	1,010	1,020	412	871	2,500	1,220	776	808	721
12	1,020	1,460	997	1,010	1,010	270	593	2,430	1,130	792	881	772
13	1,010	1,390	999	1,010	1,000	338	667	2,290	1,100	756	916	790
14	1,020	1,110	1,000	1,010	997	316	754	2,110	1,100	751	906	833
15	1,000	937	998	1,010	997	265	923	1,890	1,080	786	829	804
16	928	899	996	1,010	999	346	1,560	1,660	1,050	718	732	820
17	889	879	1,000	1,000	997	395	1,790	1,340	1,010	689	418	837
18	767	837	996	1,000	989	396	1,980	1,150	880	752	571	836
19	785	810	990	1,000	979	481	2,080	1,300	844	841	757	834
20	849	869	989	1,000	976	496	2,140	1,280	844	870	749	791
21	878	902	987	1,000	991	433	2,000	1,080	820	852	662	797
22	804	904	989	1,000	1,020	454	1,890	1,240	804	844	689	755
23	772	907	984	1,000	1,010	528	1,880	1,290	843	839	674	667
24	771	906	983	1,000	1,010	558	1,770	1,180	893	798	636	742
25	963	905	983	999	999	623	1,560	1,560	883	662	635	833
26	1,110	902	982	997	992	663	1,470	1,900	837	666	638	857
27	1,110	902	981	993	983	547	1,260	1,780	768	728	677	739
28	1,100	919	994	993	974	503	996	1,750	737	763	755	623
29	1,030	937	1,020	998	———	520	727	1,620	755	779	883	655
30	982	981	1,020	997	———	564	625	1,320	807	758	769	842
31	862	———	1,030	997	———	672	———	852	———	737	674	———
TOTAL	32,980	35,605	30,965	31,254	27,962	17,741	39,907	55,742	29,814	23,963	22,257	21,944
MEAN	1,064	1,187	999	1,008	999	572	1,330	1,798	994	773	718	731
MAX	1,560	1,880	1,030	1,030	1,020	1,010	2,140	2,630	1,250	870	916	857
MIN	767	789	981	993	974	265	593	852	737	662	418	498

CAL YR 1972 TOTAL 307,395 MEAN 840 MAX 1,880 MIN 346
WTR YR 1973 TOTAL 370,134 MEAN 1,014 MAX 2,630 MIN 265

05393000 Tomahawk River at Bradley, Wis.

LOCATION.--Lat 45°32'21", long 89°44'47", in NW¼ NW¼ sec.9, T.35 N., R.6 E., Lincoln County, at dam at outlet of Lake Nokomis, 0.5 mi (0.8 km) northeast of Bradley, 4.0 mi (6.4 km) upstream from Jersey powerplant, and 4.7 mi (7.6 km) upstream from mouth.

DRAINAGE AREA.--545 mi^2 (1,412 km^2).

PERIOD OF RECORD.--January 1930 to September 1973 (discontinued). Prior to October 1951, published as "at Tomahawk".

GAGE.--Nonrecording gage and concrete dam, supplemented by frequent readings of tainter-gate openings. Datum of gage is 1,448.24 ft (441.424 m) above mean sea level. Prior to October 1951, powerplant records at site 4.0 mi (6.4 km) downstream.

AVERAGE DISCHARGE.--43 years, 542 ft^3/s (15.35 m^3/s).

EXTREMES.--Current year: Maximum discharge, 2,250 ft^3/s (63.7 m^3/s) May 4; minimum, 70 ft^3/s (1.98 m^3/s) Mar. 11.

Period of record: Maximum discharge, 2,690 ft^3/s (76.2 m^3/s) Oct. 2, 1959; no flow at times in 1931, 1932, 1934, 1940, 1957.

REMARKS.--Records good except those below 250 ft^3/s (7.08 m^3/s), which are poor. Flow completely regulated by four reservoirs operated by Wisconsin Valley Improvement Company (see p. 137).

COOPERATION.--Record of lake elevations and gate openings furnished by Wisconsin Valley Improvement Company.

REVISIONS (WATER YEARS).--WSP 875: 1932, 1935, 1938. WSP 1278: 1952.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	506	675	1,110	963	748	835	424	997	824	766	726	88
2	506	874	1,060	968	742	826	482	1,620	1,140	761	729	89
3	688	1,130	1,020	959	761	815	539	1,910	1,430	752	623	91
4	882	1,170	1,060	924	758	807	611	2,110	1,190	745	665	91
5	730	1,330	1,070	901	757	795	686	2,080	1,130	667	748	202
6	596	1,330	1,070	946	755	785	520	2,080	1,050	695	762	303
7	505	1,380	1,060	971	752	596	433	2,020	951	739	731	324
8	415	1,300	1,060	963	809	282	448	2,080	958	742	666	408
9	415	1,150	1,050	959	845	134	471	2,080	869	702	560	457
10	476	1,060	1,050	956	834	136	540	2,090	861	641	645	634
11	898	1,040	1,050	922	829	98	426	2,080	1,060	752	747	749
12	957	1,000	1,050	865	825	73	302	2,080	1,180	790	807	746
13	732	1,010	1,050	843	765	76	270	1,950	1,180	632	830	775
14	648	1,010	1,000	843	721	78	311	1,560	986	485	801	835
15	506	1,010	970	843	749	80	551	1,520	869	492	789	844
16	564	1,000	969	844	761	83	1,150	1,540	780	557	567	848
17	654	1,000	968	844	756	84	982	1,450	544	725	182	897
18	744	931	1,000	819	756	86	746	1,240	511	764	163	921
19	776	887	985	790	882	139	916	890	554	764	514	917
20	810	882	965	789	855	172	987	714	674	748	672	914
21	830	881	967	788	895	173	840	873	773	824	624	912
22	828	878	967	787	904	175	751	1,280	612	855	606	881
23	829	928	967	786	895	230	655	1,150	638	857	574	850
24	827	960	967	817	885	264	658	1,020	811	695	587	855
25	826	956	966	851	878	265	731	1,240	816	587	546	864
26	826	1,060	966	888	865	371	781	1,420	787	676	510	864
27	798	1,040	965	776	856	414	851	1,420	786	752	569	641
28	732	820	964	774	846	410	835	1,560	783	785	678	562
29	711	907	963	804	———	300	775	1,680	778	745	717	658
30	712	1,080	963	824	———	268	775	1,510	736	649	713	737
31	712	———	963	820	———	325	———	1,030	———	610	485	———
TOTAL	21,631	30,679	31,235	26,739	22,604	10,175	19,367	48,274	26,181	21,874	19,376	18,949
MEAN	698	1,023	1,008	863	807	328	646	1,557	873	706	625	632
MAX	957	1,380	1,110	971	904	835	1,150	2,110	1,430	857	830	921
MIN	415	675	963	774	721	73	270	714	511	485	163	88

CAL YR 1972 TOTAL 255,769 MEAN 699 MAX 1,380 MIN 16
WTR YR 1973 TOTAL 297,084 MEAN 814 MAX 2,110 MIN 73

05393500 Spirit River at Spirit Falls, Wis.

LOCATION.--Lat 45°26'58", long 89°58'47", in NW¼ sec.10, T.34 N., R.4 E., Lincoln County, near center of span on downstream side of bridge 0.2 mi (0.3 km) south of Spirit Falls, 0.6 mi (1.0 km) upstream from Squaw Creek, and 2.0 mi (3.2 km) downstream from Richie Creek.

DRAINAGE AREA.--82 mi^2 (212 km^2), approximately.

PERIOD OF RECORD.--April 1942 to current year.

GAGE.--Nonrecording gage and crest-stage gage. Altitude of gage is 1,450 ft (442 m), from dam and reservoir data.

AVERAGE DISCHARGE.--31 years, 84.2 ft^3/s (2.384 m^3/s), 13.94 in/yr (354 mm/yr).

EXTREMES.--Current year: Maximum discharge, 2,290 ft^3/s (64.8 m^3/s) May 2, gage height, 7.20 ft (2.194 m); minimum observed, 6.5 ft^3/s (0.18 m^3/s) July 18, 22, 23, gage height, 1.21 ft (0.369 m).

Period of record: Maximum discharge, 4,180 ft^3/s (118 m^3/s) Sept. 18, 1942, gage height, 10.00 ft (3.048 m), from rating curve extended above 2,500 ft^3/s (70.8 m^3/s); minimum observed, 1.0 ft^3/s (0.028 m^3/s) Aug. 11, 1964, gage height, 0.85 ft (0.259 m).

REMARKS.--Records good except those for winter months, which are fair.

REVISIONS (WATER YEARS).--WSP 1208: Drainage area. WSP 1308: 1943(M), 1948-50(M).

Rating table (gage height, in feet, and discharge, in cubic feet per second). (Stage-discharge relation affected by ice Nov. 17 to Dec. 10, Dec. 13 to Mar. 14.)

1.2	6.2	2.5	122	5.0	830
1.4	12	3.0	220	6.0	1,370
1.6	21	3.5	335	7.0	2,130
2.0	52	4.0	470	8.0	3,090

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	290	91	33	58	47	15	182	467	101	14	16	156
2	230	350	33	52	49	16	178	2,170	91	13	13	94
3	172	1,020	32	47	47	19	196	1,490	80	15	11	57
4	382	527	35	43	43	27	222	1,310	85	13	14	148
5	380	380	36	41	36	42	208	563	109	12	11	124
6	268	285	35	39	31	60	194	385	80	11	8.5	63
7	236	242	34	38	29	92	174	335	62	10	10	40
8	184	338	32	36	27	350	156	503	57	8.8	17	30
9	148	270	30	35	25	270	135	476	80	7.8	24	28
10	115	218	29	34	29	230	84	730	80	7.8	20	23
11	96	192	28	34	26	500	117	518	57	8.0	16	20
12	108	166	28	34	24	2,000	131	380	48	7.5	15	17
13	94	133	27	33	22	1,500	124	258	48	7.8	11	15
14	82	109	26	34	20	1,300	115	212	31	8.3	15	18
15	73	90	25	35	18	1,640	285	166	28	6.7	16	16
16	61	63	25	38	18	1,020	1,290	144	30	6.7	13	15
17	58	66	25	34	17	670	1,110	138	44	6.7	20	14
18	48	60	26	40	17	479	587	117	62	6.5	48	13
19	43	54	26	110	16	365	395	104	45	7.0	31	12
20	39	52	26	98	16	315	312	96	40	8.8	24	12
21	49	50	26	92	16	236	288	84	27	7.0	19	12
22	72	52	26	86	15	232	295	74	23	6.5	15	18
23	94	48	24	82	15	240	234	67	28	6.5	11	20
24	214	43	24	80	15	238	188	61	26	7.2	12	19
25	194	42	23	78	15	254	148	335	22	58	12	20
26	192	42	24	74	15	295	124	530	20	22	11	26
27	200	42	25	70	15	292	106	335	19	19	11	248
28	166	40	26	60	15	254	85	238	18	21	10	180
29	135	37	29	54	------	236	78	158	16	25	8.8	111
30	109	34	36	50	------	214	68	111	15	18	8.3	77
31	93	------	68	48	------	194	------	87	------	18	37	------
TOTAL	4,625	5,136	920	1,687	678	13,595	7,809	12,642	1,472	394.6	508.6	1,646
MEAN	149	171	29.7	54.4	24.2	439	260	408	49.1	12.7	16.4	54.9
MAX	382	1,020	68	110	49	2,000	1,290	2,170	109	58	48	248
MIN	39	34	23	33	15	15	68	61	15	6.5	8.3	12
CFSM	1.82	2.09	.36	.66	.30	5.35	3.17	4.98	.60	.15	.20	.67
IN.	2.10	2.33	.42	.77	.31	6.17	3.54	5.74	.67	.18	.23	.75

CAL YR 1972 TOTAL 39,749.0 MEAN 109 MAX 1,750 MIN 5.5 CFSM 1.33 IN 18.03
WTR YR 1973 TOTAL 51,113.2 MEAN 140 MAX 2,170 MIN 6.5 CFSM 1.71 IN 23.19

05394500 Prairie River near Merrill, Wis.

LOCATION.--Lat 45°14'09", long 89°38'59", on line between secs.20 and 29, T.32 N., R.7 E., Lincoln County, on left bank 40 ft (12 m) upstream from County Highway C bridge, 1.5 mi (2.4 km) upstream from Meadow Creek, 4.5 mi (7.2 km) northeast of Merrill, and 8.0 mi (12.9 km) upstream from mouth.

DRAINAGE AREA.--181 mi² (469 km²).

PERIOD OF RECORD.--January 1914 to September 1931, August 1939 to current year. Monthly discharge only for some periods, published in WSP 1308.

GAGE.--Water-stage recorder. Altitude of gage is 1,300 ft (396 m), from topographic map. Prior to Oct. 9, 1968, nonrecording gage 40 ft (12 m) downstream at same datum.

AVERAGE DISCHARGE.--51 years (1914-31, 1939-73), 181 ft³/s (5.126 m³/s), 13.58 in/yr (345 mm/yr).

EXTREMES.--Current year: Maximum discharge, 2,390 ft³/s (67.7 m³/s) Mar. 15, gage height, 6.66 ft (2.030 m); minimum, 84 ft³/s (2.38 m³/s) Aug. 29.

Period of record: Maximum discharge, 5,800 ft³/s (164 m³/s) Aug. 31, 1941, gage height, 9.45 ft (2.880 m), from flood marks, based on rating curve extended above 2,200 ft³/s (62.3 m³/s); minimum observed, 34 ft³/s (0.96 m³/s) Oct. 26, 1947, gage height, 1.39 ft (0.424 m).

REMARKS.--Records good except those for winter months, which are fair.

REVISIONS (WATER YEARS).--WSP 1308: 1915-17(M), 1919-21(M), 1923-31(M), 1942-43(M), 1945(M), 1948-50(M). WSP 1558: Drainage area.

Rating table (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Nov. 26 to Mar. 9.)

2.0	75	4.0	645
2.3	123	5.0	1,170
3.0	285	6.0	1,860
3.5	445	7.0	2,700

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	660	169	120	150	130	98	301	469	267	121	101	586
2	520	323	120	160	130	100	322	1,250	244	114	97	644
3	452	662	120	160	120	110	377	1,840	231	110	94	549
4	376	651	120	150	120	110	405	1,450	296	104	90	514
5	332	535	120	150	120	110	369	956	333	101	88	441
6	295	418	120	150	120	120	321	663	278	99	88	343
7	263	391	120	150	110	140	300	575	238	97	90	249
8	242	393	120	150	110	660	270	703	226	95	93	193
9	206	360	120	150	110	520	250	739	222	93	95	169
10	191	301	120	150	110	617	240	738	210	108	90	152
11	219	267	120	150	110	1,350	230	668	187	104	89	135
12	226	243	120	150	110	1,870	240	589	178	103	87	127
13	204	219	120	150	110	1,680	260	477	166	101	94	119
14	190	196	120	150	110	2,070	320	400	150	103	120	115
15	170	179	120	150	110	2,350	580	324	141	97	133	110
16	161	171	120	160	110	1,880	1,300	303	138	94	119	107
17	155	170	130	160	110	1,180	1,630	268	141	92	193	108
18	150	158	130	170	110	797	1,240	259	138	90	254	104
19	141	152	130	190	110	639	828	252	133	89	234	102
20	137	150	130	200	110	548	613	240	127	88	185	102
21	155	151	130	180	110	441	520	217	127	88	143	109
22	180	134	130	170	110	388	463	197	134	92	118	125
23	252	139	130	160	100	363	401	188	131	87	111	127
24	322	137	120	160	98	359	347	189	124	94	112	124
25	294	136	120	150	94	367	301	434	121	102	107	131
26	258	130	120	140	92	377	250	610	120	106	101	150
27	236	130	120	140	92	371	232	595	131	109	97	194
28	218	130	120	130	96	351	214	557	129	118	93	211
29	200	120	120	130	------	343	197	488	125	118	88	174
30	177	120	140	130	------	342	187	373	124	113	88	150
31	169	------	160	130	------	319	------	288	------	105	225	------
TOTAL	7,751	7,435	3,850	4,770	3,072	20,970	13,508	17,299	5,310	3,135	3,717	6,464
MEAN	250	248	124	154	110	676	450	558	177	101	120	215
MAX	660	662	160	200	130	2,350	1,630	1,840	333	121	254	644
MIN	137	120	120	130	92	98	187	188	120	87	87	102
CFSM	1.38	1.37	.69	.85	.61	3.73	2.49	3.08	.98	.56	.66	1.19
IN.	1.59	1.53	.79	.98	.63	4.31	2.78	3.56	1.09	.64	.76	1.33

CAL YR 1972 TOTAL 74,755 MEAN 204 MAX 1,990 MIN 56 CFSM 1.13 IN 15.36
WTR YR 1973 TOTAL 97,281 MEAN 267 MAX 2,350 MIN 87 CFSM 1.48 IN 19.99

05395000 Wisconsin River at Merrill, Wis.

LOCATION.--Lat 45°10'41", long 89°40'52", on line between secs.12 and 13, T.31 N., R.6 E., Lincoln County, on left bank 300 ft (91 m) downstream from Highway 51 bridge at east end of Merrill, and 0.5 mi (0.8 km) downstream from Prairie River.

DRAINAGE AREA.--2,780 mi² (7,200 km²), approximately.

PERIOD OF RECORD.--November 1902 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,228.85 ft (374.553 m) above mean sea level. Prior to June 18, 1903, nonrecording gage at different datum. June 18, 1903, to Sept. 10, 1914, nonrecording gage at present datum.

AVERAGE DISCHARGE.--70 years (1903-73), 2,696 ft³/s (76.35 m³/s).

EXTREMES.--Current year: Maximum discharge, 22,000 ft³/s (623 m³/s) May 3, gage height, 12.60 ft (3.840 m); minimum, 766 ft³/s (21.7 m³/s) Mar. 1, gage height, 3.77 ft (1.149 m).

Period of record: Maximum discharge, 49,400 ft³/s (1,400 m³/s) Aug. 31, 1941, gage height, 18.26 ft (5.566 m) from rating curve extended above 20,000 ft³/s (566 m³/s); minimum, about 90 ft³/s (2.55 m³/s) Sept. 26, 1908, gage height, 2.45 ft (0.747 m).

REMARKS.--Records good except those for winter months, which are fair. Flow regulated by 20 reservoirs (see p. 137) and 9 powerplants above station.

REVISIONS (WATER YEARS).--WSP 805: Drainage area. WSP 1308: 1904-7, 1909-11, 1913. WSP 1508: 1908, 1915-16 (M), 1917, 1920-21(M), 1925(M), 1930, 1935-36.

Rating table (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Nov. 25-29, Dec. 2 to Mar. 14.)

4.5	1,510	9.0	9,900
5.0	2,130	11.0	16,200
6.0	3,690	12.0	19,800
7.0	5,630	13.0	23,600

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7,200	3,110	2,750	2,600	2,600	2,500	4,680	6,070	4,080	2,050	1,930	4,620
2	6,000	5,010	2,700	2,600	2,700	2,600	4,110	16,000	3,860	2,540	1,890	4,010
3	5,660	9,150	2,800	2,600	2,800	2,500	5,020	20,300	4,370	2,060	2,030	3,390
4	6,720	10,300	2,900	2,500	2,600	2,500	5,470	16,500	4,360	2,300	2,060	3,360
5	5,910	8,340	3,000	2,500	2,500	2,600	4,910	12,500	4,480	2,020	1,870	3,120
6	5,850	7,050	2,900	2,500	2,500	2,700	4,680	11,300	4,540	1,690	1,970	3,250
7	5,370	7,040	2,700	2,500	2,500	3,400	4,760	10,500	3,980	2,090	2,010	2,540
8	4,620	7,280	2,800	2,500	2,500	5,400	4,250	11,200	3,790	1,890	2,090	2,430
9	4,110	6,900	3,000	2,500	2,500	4,000	4,020	11,400	4,140	1,850	2,040	2,310
10	3,480	5,970	2,900	2,500	2,600	3,300	4,490	10,900	3,400	2,030	1,870	2,350
11	3,110	5,380	2,800	2,600	2,500	5,800	4,610	11,500	3,650	2,180	1,840	2,430
12	4,340	4,580	2,900	2,700	2,400	9,000	4,130	10,200	3,560	1,770	1,900	2,300
13	3,790	4,680	2,900	2,800	2,500	11,000	3,660	9,150	3,540	2,020	2,040	2,280
14	3,490	4,180	2,800	2,700	2,600	14,000	3,420	7,750	3,320	2,060	2,440	2,560
15	2,990	3,400	2,700	2,700	2,500	17,400	3,350	6,210	3,030	2,160	2,110	2,350
16	2,720	4,210	2,600	2,800	2,400	16,400	6,660	6,530	2,850	1,800	2,050	2,350
17	3,130	3,420	2,600	2,800	2,400	10,100	14,400	5,240	2,850	1,710	2,790	2,350
18	2,870	3,320	2,600	2,800	2,400	8,340	11,400	5,320	2,770	1,780	2,710	2,210
19	2,670	3,040	2,500	2,800	2,400	6,650	9,870	4,490	2,710	1,950	2,180	2,180
20	2,580	3,040	2,500	2,900	2,500	5,660	8,680	3,980	2,400	2,180	1,970	2,300
21	2,540	3,040	2,500	3,000	2,500	4,290	6,620	3,880	2,250	1,870	2,040	2,310
22	2,890	2,970	2,500	3,000	2,500	4,550	7,430	4,420	2,400	1,800	1,990	2,550
23	3,970	2,790	2,500	2,900	2,500	4,170	7,000	4,490	2,770	1,930	1,840	2,490
24	4,380	2,770	2,500	2,900	2,400	4,340	5,410	4,260	2,280	1,970	1,930	2,430
25	3,910	2,800	2,400	2,800	2,400	4,500	4,890	6,140	2,450	2,430	2,050	2,310
26	4,190	2,800	2,400	2,800	2,400	4,490	4,450	8,910	2,180	1,810	2,190	2,490
27	4,000	2,700	2,400	2,700	2,500	4,350	4,930	8,470	2,370	2,070	2,110	2,790
28	4,450	2,700	2,400	2,600	2,500	4,430	3,720	7,770	2,280	2,010	1,890	2,640
29	4,170	2,800	2,400	2,500	------	3,970	3,370	6,760	2,300	2,080	2,020	2,510
30	3,210	2,670	2,500	2,500	------	3,800	3,160	5,920	2,290	2,010	2,000	2,290
31	3,110	------	2,500	2,400	------	3,310	------	4,970	------	2,210	3,350	------
TOTAL	127,430	137,440	82,350	83,000	70,100	182,050	167,550	263,030	95,250	62,320	65,200	79,500
MEAN	4,111	4,581	2,656	2,677	2,504	5,873	5,585	8,485	3,175	2,010	2,103	2,650
MAX	7,200	10,300	3,000	3,000	2,800	17,400	14,400	20,300	4,540	2,540	3,350	4,620
MIN	2,540	2,670	2,400	2,400	2,400	2,500	3,160	3,880	2,180	1,690	1,840	2,180

CAL YR 1972 TOTAL 1,153,480 MEAN 3,152 MAX 15,800 MIN 1,720
WTR YR 1973 TOTAL 1,415,220 MEAN 3,877 MAX 20,300 MIN 1,690

05397500 Eau Claire River at Kelly, Wis.

LOCATION.--Lat 44°55'06", long 89°33'00", on line between secs.9 and 10, T.28 N., R.8 E., Marathon County, on right bank 50 ft (15 m) downstream from County Highway SS bridge, 0.7 mi (1.1 km) northeast of Kelly, 1.3 mi (2.1 km) upstream from Big Sandy Creek, 4.5 mi (7.2 km) upstream from mouth, and 5.0 mi (8.0 km) southeast of Wausau.

DRAINAGE AREA.--326 mi^2 (844 km^2).

PERIOD OF RECORD.--January 1914 to November 1926, August 1939 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,177.88 ft (359.018 m) above mean sea level. Prior to Sept. 17, 1953, nonrecording gage at same site at datum 1.00 ft (0.30 m) higher.

AVERAGE DISCHARGE.--46 years, 252 ft^3/s (7.137 m^3/s), 10.50 in/yr (267 mm/yr).

EXTREMES.--Current year: Maximum daily discharge, 5,000 ft3/s (142 m^3/s) Mar. 11; maximum gage height, 10.28 ft (3.133 m) Mar. 8 backwater from ice; minimum discharge, 74 ft^3/s (2.10 m^3/s) Nov. 23, gage height, 1.16 ft (0.353 m), result of freezeup.

Period of record: Maximum discharge, 8,300 ft^3/s (235 m^3/s) Aug. 21, 1926, gage height, 8.4 ft (2.56 m) from graph based on gage readings, from rating curve extended above 6,000 ft^3/s (170 m^3/s); minimum observed, 8 ft^3/s (0.23 m^3/s) July 17, 1944, gage height, 0.17 ft (0.052 m), probably result of temporary regulation.

REMARKS.--Records good except those for winter months, which are fair.

REVISIONS (WATER YEARS).--WSP 1508: 1915, 1916-17(M), 1919-26(M), 1940(M), 1945(M), 1950(M).

Rating tables (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Nov. 24 to Mar. 12, Mar. 15-17.)

1.2	83	4.0	1,390
1.5	157	5.0	2,140
2.0	325	7.0	3,820
3.0	780	9.0	5,900

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,000	275	170	180	160	140	376	665	541	146	114	108
2	740	475	170	180	160	140	458	2,220	464	140	109	160
3	574	1,150	170	180	160	150	652	2,960	414	133	103	205
4	521	1,070	160	180	160	160	753	2,710	421	130	98	217
5	470	952	160	180	160	170	724	1,590	568	126	95	233
6	426	638	160	180	150	210	599	947	445	122	93	204
7	389	531	160	180	150	540	552	770	344	117	99	162
8	353	566	150	180	150	4,100	504	1,410	329	115	106	140
9	311	541	150	180	140	3,000	442	1,620	318	112	106	126
10	276	483	150	180	140	2,400	376	1,510	298	116	104	120
11	263	432	140	180	140	5,000	376	1,190	268	125	101	113
12	294	382	140	180	140	4,600	452	914	259	127	93	106
13	304	340	140	180	140	4,420	476	714	248	119	94	102
14	277	306	140	180	140	4,180	512	579	228	130	102	101
15	254	273	140	180	130	3,500	794	496	212	118	102	97
16	239	250	140	180	130	2,300	2,620	446	211	112	96	94
17	226	242	140	180	130	1,700	2,940	416	211	107	93	95
18	211	232	140	190	130	1,400	2,610	385	201	103	232	94
19	196	230	140	200	130	929	1,390	374	191	101	196	95
20	198	224	140	220	130	776	940	384	178	97	156	96
21	212	202	140	230	130	649	1,310	337	171	96	134	95
22	260	186	140	230	130	563	1,290	314	175	94	120	108
23	570	148	140	220	130	512	1,250	331	177	91	110	127
24	753	150	140	210	130	489	1,030	313	171	129	105	122
25	623	160	140	200	130	486	690	1,040	162	157	103	117
26	535	160	140	190	130	487	535	1,140	156	139	101	128
27	455	170	140	180	130	471	446	945	157	126	98	142
28	387	170	140	180	130	448	388	1,400	152	119	94	149
29	334	170	150	170	------	426	355	1,480	150	115	92	143
30	295	170	160	170	------	410	330	984	152	117	113	130
31	275	------	170	170	------	389	------	676	------	121	91	------
TOTAL	12,221	11,278	4,600	5,820	3,910	45,145	26,170	31,260	7,972	3,700	3,453	3,929
MEAN	394	376	148	188	140	1,456	872	1,008	266	119	111	131
MAX	1,000	1,150	170	230	160	5,000	2,940	2,960	568	157	232	233
MIN	196	148	140	170	130	140	330	313	150	91	91	94
CFSM	1.21	1.15	.45	.58	.43	4.47	2.67	3.09	.82	.37	.34	.40
IN.	1.39	1.29	.52	.66	.45	5.15	2.99	3.57	.91	.42	.39	.45

CAL YR 1972 TOTAL 127,986 MEAN 349 MAX 5,780 MIN 66 CFSM 1.07 IN 14.60
WTR YR 1973 TOTAL 159,458 MEAN 437 MAX 5,000 MIN 91 CFSM 1.34 IN 18.20

PEAK DISCHARGE (BASE, 1,500 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
3-11	-	-	a5,000	5- 2	0200	6.15	3,100
4-16	2000	6.25	3,140	5- 9	0100	4.46	1,760
				5-28	2100	4.74	1,960

a About.

05398000 Wisconsin River at Rothschild, Wis.

LOCATION.--Lat 44°53'09", long 89°38'05", in sec.26, T.28 N., R.7 E., Marathon County, on left bank at Rothschild, 0.5 mi (0.8 km) downstream from Rothschild Dam, 1.7 mi (2.7 km) north of bridge on U.S. Highway 51, 2.0 mi (3.2 km) downstream from Eau Claire River, and 5.0 mi (8.0 km) upstream from Black Creek.

DRAINAGE AREA.--4,000 mi^2 (10,360 km^2), approximately.

PERIOD OF RECORD.--October 1944 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,135.86 ft (346.210 m) above mean sea level. Auxiliary water-stage recorder in Mosinee Pond 8 mi (12.9 km) downstream. Prior to July 23, 1964, nonrecording auxiliary gage at same site and datum, read hourly.

AVERAGE DISCHARGE.--29 years, 3,456 ft^3/s (97.87 m^3/s).

EXTREMES.--Current year: Maximum discharge, 42,000 ft^3/s (1,190 m^3/s) May 3, gage height, 16.98 ft (5.176 m); minimum daily, 1,930 ft^3/s (54.7 m^3/s) July 17.

Period of record: Maximum discharge, 49,200 ft^3/s (1,390 m^3/s) Apr. 12, 1965, Mar. 31, 1967, gage height, 18.46 ft (5.627 m); minimum daily, 680 ft^3/s (19.3 m^3/s) Oct. 17, 1948.

Flood of Sept. 1, 1941, reached stage of 22.3 ft (6.80 m) from tailwater data at Rothschild Dam, discharge, 75,000 ft^3/s (2,120 m^3/s) from rating curve extended above 45,000 ft^3/s (1,270 m^3/s) by logarithmic plotting).

REMARKS.--Records good except those for winter months, or discharge below 1,500 ft^3/s (42.5 m^3/s), which are fair. Flow regulated by 20 reservoirs (see p. 137) and 12 powerplants above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12,900	4,530	3,200	4,300	3,100	3,000	5,340	8,180	6,980	2,790	2,440	4,790
2	9,380	6,760	3,000	4,500	3,100	3,100	6,360	25,400	5,730	3,000	2,290	5,270
3	8,040	15,500	2,800	4,300	3,600	3,200	8,240	39,300	6,260	3,000	2,310	4,730
4	8,920	15,600	2,700	4,000	3,300	3,400	9,840	30,400	6,530	2,700	2,200	4,470
5	8,740	12,600	3,000	3,800	3,500	4,000	8,810	19,800	6,600	3,000	2,030	4,710
6	7,550	10,200	3,100	3,600	3,400	4,930	7,480	15,700	6,600	2,480	2,340	4,140
7	7,910	9,610	3,100	3,200	3,100	12,200	7,130	14,300	5,200	2,250	2,440	3,550
8	6,790	10,400	2,900	3,400	3,000	23,100	7,030	17,900	5,600	2,340	2,420	2,800
9	5,380	9,660	3,000	3,300	3,000	18,400	6,270	18,300	5,800	2,380	2,740	2,580
10	5,010	8,350	3,100	3,100	2,900	13,000	6,160	16,400	4,600	2,310	2,550	2,640
11	4,660	7,250	3,000	3,700	2,600	22,500	6,030	15,500	5,200	2,660	2,230	3,110
12	5,440	6,820	3,000	3,900	2,500	35,200	6,230	14,100	4,700	2,570	2,150	2,710
13	5,400	6,030	3,000	3,400	2,800	32,500	6,030	12,100	4,500	2,450	2,490	2,610
14	4,950	6,080	3,300	3,000	3,000	33,600	6,230	10,400	4,400	2,220	2,680	2,730
15	4,210	4,700	3,100	3,200	3,100	38,700	8,550	8,330	4,000	2,360	2,810	2,570
16	3,390	5,520	3,100	3,100	3,000	33,600	24,300	8,150	3,800	2,470	2,350	2,310
17	3,760	4,530	3,000	3,000	2,800	20,500	33,300	7,350	4,200	1,930	2,840	2,750
18	3,720	4,750	2,900	3,500	2,600	13,100	23,300	6,180	3,500	2,100	3,480	2,570
19	3,510	4,000	2,900	4,700	2,700	11,200	15,600	6,950	3,700	2,160	2,920	2,540
20	3,240	4,250	3,200	5,200	2,800	8,820	12,900	5,440	3,400	2,640	2,510	2,420
21	3,260	3,980	3,200	4,700	2,700	7,650	11,800	5,700	3,400	2,210	2,410	2,720
22	3,720	3,700	3,200	4,900	2,900	7,070	12,400	5,460	3,400	1,970	2,460	3,030
23	5,750	3,540	3,100	4,600	2,900	6,920	11,400	5,820	3,400	2,220	2,370	2,230
24	8,980	3,690	3,100	4,000	3,000	6,900	9,330	5,960	3,300	2,600	2,130	2,740
25	7,100	3,960	3,100	3,600	2,900	7,080	7,490	10,200	3,300	3,200	2,280	2,970
26	6,820	3,750	3,100	3,700	2,900	7,190	6,920	15,300	3,100	2,310	2,250	2,740
27	6,060	3,500	3,000	3,900	3,000	7,000	6,810	12,900	3,110	2,810	2,540	2,900
28	5,800	3,500	3,200	3,600	2,900	6,760	6,080	12,900	3,220	2,440	2,070	3,240
29	5,840	3,400	3,200	3,700	------	6,360	5,220	14,200	3,000	2,060	2,120	3,370
30	4,600	3,300	3,700	3,400	------	6,150	4,610	9,270	3,030	2,640	2,680	2,800
31	4,310	------	4,000	3,100	------	5,220	------	7,760	------	2,900	3,100	------
TOTAL	185,140	193,460	96,300	117,400	83,100	412,350	297,190	405,650	133,560	77,170	76,680	94,740
MEAN	5,972	6,449	3,106	3,787	2,968	13,300	9,906	13,090	4,452	2,489	2,474	3,158
MAX	12,900	15,600	4,000	5,200	3,600	38,700	33,300	39,300	6,980	3,200	3,480	5,270
MIN	3,240	3,300	2,700	3,000	2,500	3,000	4,610	5,440	3,000	1,930	2,030	2,230

CAL YR 1972 TOTAL 1,751,040 MEAN 4,784 MAX 40,000 MIN 1,780
WTR YR 1973 TOTAL 2,172,740 MEAN 5,953 MAX 39,300 MIN 1,930

05399500 Big Eau Pleine River near Stratford, Wis.

LOCATION.--Lat 44°49'19", long 90°04'46", on line between sec.13, T.27 N., R.3 E., and sec.18, T.27 N., R.4 E., Marathon County, on left bank 15 ft (4.6 m) upstream from bridge on State Highway 97, 1.0 mi (1.6 km) north of Stratford, and 1.4 mi (2.2 km) downstream from small tributary.

DRAINAGE AREA.--224 mi^2 (580 km^2).

PERIOD OF RECORD.--July 1914 to December 1925, April 1937 to current year. Monthly discharge only for some periods, published in WSP 1308.

GAGE.--Water-stage recorder. Datum of gage is 1,154.24 ft (351.812 m) above mean sea level. July 24, 1914, to Dec. 31, 1925, nonrecording gage at site 0.5 mi (0.8 km) upstream at different datum. Apr. 30, 1937, to Sept. 15, 1938, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--47 years (1914-25, 1937-73), 174 ft^3/s (4.928 m^3/s), 10.55 in/yr (268 mm/yr).

EXTREMES.--Current year: Maximum discharge, 8,840 ft^3/s (250 m^3/s) May 2, gage height, 15.62 ft (4.761 m); maximum gage height, 16.41 ft (5.00 m) Mar. 11, backwater from ice; minimum discharge, 3.3 ft^3/s (0.093 m^3/s) Aug. 26, 27, gage height, 2.41 ft (0.735 m).

Period of record: Maximum discharge, 41,000 ft^3/s (1,160 m^3/s) Sept. 9, 1938, gage height, 24.5 ft (7.47 m), from floodmarks, based on rating curve extended above 24,000 ft^3/s (680 m^3/s); no flow Aug. 17, 1947, Jan. 22 to Feb. 5, 1961.

Flood of June 5, 1914, reached a stage of 20.7 ft (6.31 m), from floodmarks, discharge, 40,000 ft^3/s 1,130 m^3/s), former site and datum.

REMARKS.--Records good except those for winter months, which are fair.

REVISIONS (WATER YEARS).--WSP 1308: 1917, 1920-22, 1926, 1946, 1948, 1950. WSP 1508: 1915-25(M), 1937, 1946(M), 1948(M).

Rating table (gage height, in feet, and discharge, in cubic feet per second). (Rate of change in stage used as factor Nov. 2, 3, Apr. 15-17, May 1-3, 25, 26, 28, 29; stage-discharge relation affected by ice Nov. 21, 22, Nov. 26 to Mar. 26.)

2.4	3.5	4.0	175	10.0	2,690
2.6	12	5.0	410	12.0	4,400
3.0	38	6.0	690	14.0	6,540
3.5	88	8.0	1,500	16.0	9,450

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	280	79	28	250	76	28	190	2,610	190	13	13	4.5
2	230	1,940	26	220	72	32	506	5,980	138	22	22	4.8
3	202	2,280	25	190	68	70	1,500	2,340	113	26	22	14
4	416	817	25	170	62	200	1,330	757	112	26	16	55
5	327	429	25	150	58	780	716	382	129	16	10	68
6	316	305	26	130	54	500	427	256	133	12	8.6	31
7	332	542	26	120	52	3,300	622	492	86	10	8.6	19
8	196	649	26	110	50	2,600	422	1,490	62	9.1	27	14
9	129	362	26	110	48	1,900	249	678	52	8.0	48	12
10	91	252	27	100	46	1,200	167	676	44	7.1	48	9.7
11	105	200	26	92	43	4,000	179	500	37	6.5	27	7.6
12	216	157	27	88	42	3,000	290	375	48	5.9	18	6.5
13	139	120	27	82	40	2,300	685	260	45	5.5	15	6.0
14	98	91	26	80	38	3,800	1,240	170	36	5.1	13	5.7
15	73	71	26	78	37	1,600	2,750	119	29	4.8	21	5.3
16	60	62	25	76	35	920	6,800	93	26	5.0	25	5.1
17	52	56	25	78	34	640	2,090	74	44	4.6	16	4.7
18	45	52	24	90	33	540	732	62	185	4.6	11	4.6
19	40	49	24	160	32	420	389	56	77	4.9	9.2	4.6
20	38	43	24	300	31	330	276	50	47	5.2	7.5	4.4
21	47	38	24	250	30	290	240	46	33	4.8	6.3	4.5
22	66	36	24	210	29	250	310	95	28	4.9	5.9	4.5
23	1,310	34	24	180	28	220	183	113	24	4.7	6.2	5.2
24	1,330	34	24	160	27	200	129	230	21	6.8	6.3	4.9
25	548	33	24	150	27	210	100	5,520	18	8.4	6.3	6.4
26	321	35	24	140	27	220	80	1,780	16	8.9	6.9	6.9
27	222	37	25	120	27	218	67	708	15	12	5.1	7.3
28	154	34	26	110	27	189	58	3,430	14	14	5.5	6.1
29	112	32	29	100	------	175	51	1,350	14	12	4.9	14
30	85	30	35	90	------	178	49	521	14	11	5.1	14
31	77	------	130	82	------	161	------	282	------	13	5.5	------
TOTAL	7,657	8,899	903	4,266	1,173	30,471	22,827	31,495	1,830	301.8	449.9	360.3
MEAN	247	297	29.1	138	41.9	983	761	1,016	61.0	9.74	14.5	12.0
MAX	1,330	2,280	130	300	76	4,000	6,800	5,980	190	26	48	68
MIN	38	30	24	76	27	28	49	46	14	4.6	4.9	4.4
CFSM	1.10	1.33	.13	.62	.19	4.39	3.40	4.54	.27	.04	.06	.05
IN.	1.27	1.48	.15	.71	.19	5.06	3.79	5.23	.30	.05	.07	.06

CAL YR 1972 TOTAL 92,193.2 MEAN 252 MAX 9,300 MIN 4.9 CFSM 1.13 IN 15.31
WTR YR 1973 TOTAL 110,633.0 MEAN 303 MAX 6,800 MIN 4.4 CFSM 1.35 IN 18.37

PEAK DISCHARGE (BASE, 2,500 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11- 2	2400	11.90	4,230	5- 2	1330	15.62	8,840
3-11	-	-	a5,600	5-25	0600	14.98	7,870
4-16	1200	15.26	8,280				

a About.

05400600 Little Plover River near Arnott, Wis.

LOCATION.--Lat 44°28'05", long 89°29'20", in NE¼ sec.24, T.23 N., R.8 E., Portage County, 150 ft (46 m) below bridge on town road 2.2 mi (3.6 km) northwest of Arnott and 3.5 mi (5.6 km) upstream from mouth.

DRAINAGE AREA.--1.5 mi^2 (3.89 km^2), approximately, of which a portion is noncontributing.

PERIOD OF RECORD.--July 1959 to current year.

GAGE.--Water-stage recorder and Parshall flume. Datum of gage is 1,087.37 ft (331.430 m) above mean sea level (levels by Wisconsin Department of Natural Resources). Prior to April 1960, nonrecording gage at same site and datum 0.26 ft (0.08 m) higher.

AVERAGE DISCHARGE.--14 years, 3.84 ft^3/s (0.109 m^3/s).

EXTREMES.--Current year: Maximum discharge, 72 ft^3/s (2.04 m^3/s) Mar. 7, gage height, 3.25 ft (0.991 m); minimum, 3.5 ft^3/s (0.099 m^3/s) Feb. 25, gage height, 0.91 ft (0.277 m).

Period of record: Maximum discharge, 72 ft^3/s (2.04 m^3/s) Mar. 7, 1973, gage height, 3.25 ft (0.991 m); minimum, 0.8 ft^3/s (0.023 m^3/s) for many days in July, August, and September 1959.

REMARKS.--Records good.

Rating table (gage height, in feet, and discharge, in cubic feet per second).
(Shifting-control method used May 9 to July 6, Aug. 16 to Sept. 30.)

1.0	4.0	2.0	19
1.3	6.0	2.8	51
1.6	8.4		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.9	6.7	5.8	7.4	5.7	5.2	8.7	17	9.9	9.3	9.7	7.3
2	7.0	11	5.7	6.6	6.0	5.7	9.2	28	9.1	9.2	8.3	7.2
3	6.8	9.9	5.6	6.5	5.6	12	9.2	15	10	8.9	8.1	8.9
4	6.6	7.5	5.6	6.3	5.5	8.0	10	12	10	8.9	8.1	8.7
5	6.5	6.9	5.7	5.8	5.3	6.2	8.4	11	20	8.9	7.9	7.9
6	6.8	6.9	5.7	5.7	5.3	10	11	11	9.8	9.0	8.1	7.7
7	6.5	7.7	5.7	5.5	5.2	50	14	21	9.7	9.0	8.8	7.8
8	6.3	7.2	5.7	5.5	5.0	18	11	20	8.9	8.9	11	7.9
9	5.9	6.9	5.7	5.6	5.0	13	8.6	15	8.8	9.3	9.7	7.4
10	5.8	6.9	5.7	5.6	4.7	14	9.9	14	8.4	9.5	8.6	7.9
11	5.9	6.7	5.7	5.6	4.8	32	11	12	18	9.0	8.3	7.2
12	5.7	6.5	5.7	5.5	4.8	20	11	11	20	9.1	8.0	7.0
13	5.8	6.3	5.7	5.4	4.9	16	12	10	11	9.3	8.0	7.0
14	5.6	6.3	5.5	5.4	5.0	27	13	9.6	9.9	9.6	8.0	7.0
15	5.5	6.1	5.4	5.3	4.9	17	20	9.4	9.6	8.3	7.9	7.0
16	5.8	6.1	5.4	5.5	4.8	14	32	9.9	9.8	8.6	8.1	7.3
17	5.4	6.2	5.4	5.7	4.8	13	17	9.2	10	8.4	8.0	7.1
18	5.3	6.0	5.6	11	5.0	12	13	9.5	9.4	8.4	8.3	7.0
19	5.2	6.0	5.6	11	5.0	11	13	10	9.3	8.6	8.3	7.1
20	5.3	6.0	5.6	7.3	4.9	11	14	9.8	9.5	8.2	7.6	6.7
21	6.2	6.0	5.5	6.6	4.9	10	15	9.4	9.0	7.9	7.5	7.4
22	7.0	5.9	5.5	6.6	5.1	10	13	12	9.2	7.8	7.7	8.8
23	13	5.9	5.5	6.2	5.0	10	11	11	9.2	7.9	8.2	7.5
24	9.2	6.0	5.3	5.9	4.8	10	10	11	9.5	14	8.0	7.3
25	8.2	6.2	5.5	5.7	4.9	10	10	18	9.8	14	7.7	8.0
26	7.2	6.4	5.4	5.8	4.7	10	9.2	11	9.2	9.9	7.9	7.3
27	6.9	6.1	5.4	5.8	4.8	10	9.5	11	9.3	9.9	7.2	7.3
28	6.7	5.7	5.3	5.6	5.0	10	8.6	34	9.6	9.9	7.3	7.1
29	6.4	5.6	5.7	5.4	------	10	9.4	14	9.7	9.4	7.2	7.1
30	6.3	5.8	9.2	5.5	------	9.8	9.1	10	9.4	12	7.1	6.9
31	6.7	------	9.0	5.3	------	8.3	------	9.6	------	11	7.5	------
TOTAL	205.4	199.4	179.8	192.6	141.4	423.2	360.8	415.4	315.0	292.1	252.1	223.8
MEAN	6.63	6.65	5.80	6.21	5.05	13.7	12.0	13.4	10.5	9.42	8.13	7.46
MAX	13	11	9.2	11	6.0	50	32	34	20	14	11	8.9
MIN	5.2	5.6	5.3	5.3	4.7	5.2	8.4	9.2	8.4	7.8	7.1	6.7

CAL YR 1972 TOTAL 1,825.7 MEAN 4.99 MAX 28 MIN 2.5
WTR YR 1973 TOTAL 3,201.0 MEAN 8.77 MAX 50 MIN 4.7

05400650 Little Plover River at Plover, Wis.

LOCATION.--Lat 44°28'26", long 89°31'44", in SW¼ sec.14, T.23 N., R.8 E., Portage County, on right bank at bridge on town road, 1.0 mi (1.6 km) northeast of Plover and 1.2 mi (1.9 km) upstream from mouth.

DRAINAGE AREA.--15 mi² (39 km²), approximately, of which a large portion is noncontributing.

PERIOD OF RECORD.--July 1959 to current year.

GAGE.--Water-stage recorder and Parshall flume. Datum of gage is 1,068.34 ft (325.630 m) above mean sea level (levels by Wisconsin Department of Natural Resources). Prior to May 1960, nonrecording gage at same site and datum 0.88 ft (0.268 m) lower.

AVERAGE DISCHARGE.--14 years, 10.57 ft³/s (0.299 m³/s).

EXTREMES.--Current year: Maximum discharge, about 99 ft³/s (2.80 m³/s) Mar. 7; minimum, 9.0 ft³/s (0.26 m³/s) Feb. 15, gage height, 0.93 ft (0.283 m).

Period of record: Maximum discharge, about 99 ft³/s (2.80 m³/s) Mar. 7, 1973; minimum, 2.4 ft³/s (0.068 m³/s) May 23, 1965, gage height, 0.41 ft (0.125 m), result of temporary dam at flume entrance; minimum daily, 4.3 ft³/s (0.12 m³/s) Aug. 19, 20, 1959.

REMARKS.--Records good except those for period of no gage-height record, which are fair.

Rating table (gage height, in feet, and discharge, in cubic feet per second). (Shifting-control method used June 5 to July 18, Aug. 18 to Sept. 4, Sept. 16-30.)

1.0	10	2.0	29
1.5	19	2.5	44
		3.0	84

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	15	14	16	13	12	19	29	24	20	18	16
2	18	18	14	15	14	14	20	49	22	20	16	15
3	17	18	14	15	13	22	20	31	24	19	15	17
4	17	16	14	15	13	16	20	26	35	19	15	18
5	16	16	14	14	13	14	19	25	52	19	15	16
6	16	15	14	14	13	15	20	25	29	19	15	15
7	16	16	14	14	12	81	25	38	26	19	16	15
8	16	16	14	14	12	44	21	46	24	18	17	15
9	16	15	13	14	12	23	20	38	23	18	20	15
10	15	15	13	14	12	21	20	34	22	19	18	15
11	15	15	13	14	12	52	21	29	21	18	17	15
12	14	15	13	14	12	40	22	27	46	18	16	15
13	14	15	13	13	12	30	21	26	35	18	16	15
14	14	15	13	13	12	48	22	25	26	18	16	15
15	14	14	13	13	11	32	29	24	23	18	16	15
16	15	14	13	13	11	27	52	24	23	18	16	15
17	14	14	13	14	12	25	33	23	23	18	16	16
18	14	14	13	18	12	23	26	23	22	17	16	15
19	14	14	13	21	12	22	25	23	22	16	16	15
20	14	14	13	17	12	22	27	23	22	16	15	15
21	15	14	13	16	12	21	28	23	22	16	15	16
22	16	14	13	15	12	20	26	24	21	15	15	19
23	20	14	13	15	12	20	24	23	21	15	16	17
24	18	14	13	14	12	20	22	27	21	19	16	14
25	17	14	13	14	12	20	22	38	21	22	16	15
26	16	14	13	14	12	19	21	28	21	19	16	14
27	16	14	13	14	12	19	21	29	21	18	15	14
28	16	14	13	13	12	19	21	66	21	18	16	14
29	15	14	14	14	------	19	20	35	21	17	15	14
30	15	14	16	13	------	18	21	26	21	19	16	14
31	15	------	18	13	------	18	------	23	------	21	15	------
TOTAL	488	444	420	450	341	796	708	930	755	564	496	459
MEAN	15.7	14.8	13.5	14.5	12.2	25.7	23.6	30.0	25.2	18.2	16.0	15.3
MAX	20	18	18	21	14	81	52	66	52	22	20	19
MIN	14	14	13	13	11	12	19	23	21	15	15	14

CAL YR 1972 TOTAL 4,486.6 MEAN 12.3 MAX 60 MIN 7.5
WTR YR 1973 TOTAL 6,851.0 MEAN 18.8 MAX 81 MIN 11

PEAK DISCHARGE (BASE, 22 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
3- 7	-	-	a99	5- 7	2100	2.53	55
3-14	-	-	a65	5-28	-	-	a69
4-16	1700	2.54	55	6- 5	0400	2.68	70
5- 2	1400	2.58	58	6-12	-	-	a66

a About.

NOTE.--No gage-height record Dec. 3 to Jan. 28, Mar. 7, 8.

05400800 Wisconsin River at Wisconsin Rapids, Wis.

LOCATION.--Lat 44°22'05", long 89°51'30", in SW¼ sec.24, T.22 N., R.5 E., Wood County, at Centralia powerplant of Nekoosa-Edwards Paper, Inc., 1.6 mi (2.6 km) downstream from Chicago and Northwestern Railway bridge in Wisconsin Rapids.

DRAINAGE AREA.--5,400 mi² (14,000 km²), approximately.

PERIOD OF RECORD.--May 1914 to March 1950 (published as "near Nekoosa"), October 1957 to current year.

GAGE.--Water-stage recorders on headwater and tailwater. Elevation of powerplant pond is 980 ft (299 m) and datum of powerplant gages is 887.83 ft (270.611 m) above mean sea level (levels by Wisconsin Valley Improvement Co.). May 1914 to March 1950, at site 7.0 mi (11.3 km) downstream at different datum.

AVERAGE DISCHARGE.--51 years (1914-50, 1957-73), 4,976 ft³/s (140.9 m³/s).

EXTREMES.--Current year: Maximum discharge, 52,600 ft³/s (1,490 m³/s) Mar. 15; minimum daily, 2.100 ft³/s (59.5 m³/s) July 4.

Period of record: Maximum discharge, 70,400 ft³/s (1,990 m³/s) Sept. 12, 1938, gage height, 19.10 ft (5.822 m), from rating curve extended above 58,000 ft³/s (1,640 m³/s); minimum, 26 ft³/s (0.74 m³/s) Sept. 7, 1942; minimum daily, 165 ft³/s (4.67 m³/s) Aug. 12, 1934.

REMARKS.--Records good. Discharge computed from powerplant records on basis of load-discharge rating of hydroelectric units as developed by Geological Survey and tainter-gate ratings and spillway ratings based on theoretical formulas and discharge measurements. Flow regulated by 21 reservoirs (see p. 137) and many powerplants above station. Water diverted periodically from pond of Wisconsin Rapids powerplant 2.6 mi (4.2 km) upstream into Cranberry Creek, a tributary of Yellow River, for cranberry culture. Probably most of the water diverted is losted by evaporation and transpiration. These diversions in cubic feet per second, for water year October 1972 to September 1973, were as follows:

Oct. 13	100	July 18	71	Aug. 31	100	Sept. 11	100	Sept. 21	100
Oct. 14	100	July 19	100	Sept. 1	100	Sept. 12	100	Sept. 22	100
Oct. 15	100	July 20	100	Sept. 2	50	Sept. 13	100	Sept. 23	100
Oct. 16	100	July 21	100	Sept. 4	100	Sept. 14	100	Sept. 24	100
Oct. 17	4	July 22	100	Sept. 5	100	Sept. 15	100	Sept. 25	100
Oct. 19	94	July 23	100	Sept. 6	100	Sept. 16	100	Sept. 26	100
Oct. 20	100	July 24	100	Sept. 7	100	Sept. 17	100	Sept. 27	100
Oct. 21	100	July 25	21	Sept. 8	100	Sept. 18	100	Sept. 28	100
Oct. 22	31	Aug. 30	100	Sept. 9	100	Sept. 19	100	Sept. 29	100
				Sept.10	100	Sept. 20	100	Sept. 30	100

REVISIONS (WATER YEARS).--WSP 1308 1915 (M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20,100	5,740	4,530	5,330	5,220	4,560	6,590	10,700	11,700	3,400	3,360	3,820
2	16,700	9,800	4,550	6,240	5,240	4,470	7,630	30,700	7,980	3,960	3,260	4,410
3	14,000	19,600	3,850	6,590	5,000	4,860	11,300	46,800	8,030	2,420	3,400	5,370
4	12,500	22,800	3,840	6,710	4,680	5,390	15,500	46,200	10,000	2,100	3,370	5,790
5	13,200	18,100	3,640	6,880	4,860	6,460	13,300	41,100	9,980	3,810	2,800	4,900
6	11,900	15,100	3,780	6,160	4,990	8,780	11,000	25,600	9,770	3,660	3,240	4,580
7	9,760	14,800	3,910	4,670	5,030	19,200	10,900	24,200	9,630	3,500	3,300	4,320
8	9,070	14,300	4,060	4,850	5,040	30,400	12,700	25,500	8,760	3,370	3,360	3,710
9	7,780	12,900	4,070	4,820	4,840	32,900	12,200	24,200	5,300	3,730	3,340	3,000
10	6,010	12,900	3,060	4,760	4,600	27,800	9,970	25,200	5,310	3,880	3,200	3,380
11	5,600	10,300	4,110	5,060	4,450	28,800	8,060	22,900	6,000	3,840	2,990	3,270
12	5,680	9,470	4,350	4,670	4,580	43,600	7,040	20,800	6,650	3,900	2,820	3,350
13	6,190	7,960	4,360	4,540	4,560	44,000	9,160	17,000	6,840	3,950	2,980	3,530
14	6,140	7,790	4,250	4,390	4,540	48,200	10,200	13,400	6,270	3,920	3,160	3,140
15	5,020	8,660	4,270	4,720	4,520	51,300	15,000	11,500	5,580	2,930	3,320	3,020
16	4,900	5,610	4,210	4,900	4,610	46,600	33,900	11,300	5,490	3,410	3,230	2,860
17	4,360	8,070	4,090	5,280	4,400	35,400	46,400	9,830	4,860	3,390	3,270	3,360
18	4,140	5,950	4,170	5,340	4,570	22,600	37,900	7,700	4,790	3,330	3,470	2,880
19	4,520	5,390	4,350	5,620	4,600	17,300	28,700	7,360	4,500	3,280	3,640	2,700
20	4,330	5,000	4,450	6,200	4,600	12,800	23,100	7,420	4,210	2,810	3,670	2,700
21	4,190	4,930	4,500	6,960	4,490	11,300	19,100	6,310	4,020	2,580	3,500	2,700
22	4,930	4,500	4,500	7,950	4,570	11,400	17,400	6,410	3,900	2,550	3,060	2,790
23	9,160	5,240	4,390	7,350	4,620	9,650	17,900	8,840	3,890	2,600	3,010	3,380
24	13,700	4,560	3,580	6,590	4,530	8,260	14,700	7,620	3,930	2,830	3,080	2,990
25	14,600	4,750	3,440	5,250	4,540	8,860	9,250	16,700	3,830	3,660	3,000	3,080
26	10,800	4,200	4,440	5,480	4,540	9,210	7,540	23,400	3,920	3,340	2,970	3,680
27	8,960	4,650	4,530	5,220	4,480	9,060	8,480	22,300	4,010	3,290	3,280	3,920
28	8,080	4,680	4,490	5,140	4,540	9,060	8,260	23,900	3,970	3,660	3,370	3,930
29	7,960	4,200	4,590	5,150	------	9,020	6,710	25,500	3,830	3,680	3,310	3,940
30	7,150	5,160	5,160	5,300	------	7,220	6,160	20,800	3,780	3,480	3,250	3,120
31	6,440	------	5,200	5,150	------	6,240	------	15,700	------	3,350	3,200	------
TOTAL	267,870	259,110	130,720	173,270	131,240	594,700	446,050	606,890	180,730	103,610	100,230	107,540
MEAN	8,641	8,637	4,217	5,589	4,687	19,180	14,870	19,580	6,024	3,342	3,233	3,585
MAX	20,100	22,800	5,200	7,950	5,240	51,300	46,400	46,800	11,700	3,960	3,670	5,790
MIN	4,140	4,160	3,060	4,390	4,400	4,470	6,160	6,310	3,780	2,100	2,800	2,700

CAL YR 1972 TOTAL 2,346,800 MEAN 6,412 MAX 44,100 MIN 1,000
WTR YR 1973 TOTAL 3,101,960 MEAN 8,499 MAX 51,300 MIN 2,100

05401020 Tenmile Creek ditch 5 near Bancroft, Wis.

LOCATION.--Lat 44°18'08", long 89°32'59", in NE¼ sec.16, T.21 N., R.8 E., Portage County, at bridge on country road, 1.2 mi (1.9 km) west of U.S. Highway 51 and 1.8 mi (2.9 km) southwest of Bancroft.

DRAINAGE AREA.--8.8 mi^2 (22.8 km^2), approximately.

PERIOD OF RECORD.--June 1964 to September 1973 (discontinued).

GAGE.--Water-stage recorder and 90° V-notch sharp-crested weir in one bay of dam and broad-crested weir in other bay. Datum of gage is 1,063.57 ft (324.176 m) above mean sea level (levels by Wisconsin Works Progress Administration).

AVERAGE DISCHARGE.--9 years, 8.12 ft^3/s (0.230 m^3/s).

EXTREMES.--Current year: Maximum discharge, 332 ft^3/s (9.40 m^3/s) Mar. 7, gage height, 5.75 ft (1.75 m); minimum daily, 5.2 ft^3/s (0.147 m^3/s) Aug. 28, Sept. 14-16, 20.

Period of record: Maximum discharge, 332 ft^3/s (9.40 m^3/s) Mar. 7, 1973, gage height, 5.75 ft (1.75 m); minimum, 2.1 ft^3/s (0.059 m^3/s) Jan. 18, 1967, gage height, 0.81 ft (0.247 m); minimum daily, 2.2 ft^3/s (0.062 m^3/s) Aug. 11, 13, 14, 17-19, 1967, Aug. 27, 1970.

REMARKS.--Records good, except those for periods when stop logs are moved, which are fair. There is approximately 2 mi (3.2 km) of dredged drainage ditching above this gage. Sprinkler irrigation from ground-water wells is quite extensive in the basin. Records of water temperatures for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	14	11	14	11	8.1	13	20	26	12	6.8	8.6
2	15	18	10	13	12	8.8	14	36	20	11	7.4	8.3
3	14	16	10	12	11	14	14	31	18	11	8.3	8.4
4	14	15	10	12	11	23	14	26	20	10	6.6	8.3
5	13	14	10	11	11	17	14	21	26	10	5.7	8.0
6	14	14	9.7	11	11	17	15	21	21	10	5.6	6.6
7	13	14	9.4	10	10	166	15	30	20	9.8	8.3	6.2
8	13	14	9.8	10	9.4	56	15	50	18	9.6	9.8	5.9
9	12	14	9.7	9.7	9.1	23	15	35	17	9.4	8.3	5.8
10	12	13	9.5	9.4	9.0	21	15	27	16	9.0	7.8	5.9
11	13	13	9.4	9.4	8.8	50	15	25	21	9.0	7.2	6.2
12	12	13	9.7	9.3	8.7	38	16	23	31	9.0	6.8	6.6
13	12	12	9.5	9.3	8.6	23	16	21	24	8.6	6.3	5.6
14	12	12	9.5	9.4	8.7	34	17	19	18	8.3	6.2	5.2
15	11	12	9.5	9.3	8.5	26	18	18	16	8.0	5.9	5.2
16	11	12	9.0	9.3	8.2	23	21	17	22	7.9	5.6	5.2
17	11	12	9.2	9.8	8.2	21	32	17	25	7.6	5.5	5.8
18	10	12	9.4	18	8.3	19	24	17	17	7.4	5.8	6.1
19	10	11	9.7	20	8.3	18	21	17	16	7.6	6.3	5.6
20	10	11	9.5	15	8.2	18	22	17	18	9.2	5.8	5.2
21	11	11	9.5	13	8.2	17	23	16	16	7.8	5.5	7.2
22	12	11	9.4	13	8.3	17	22	18	15	6.6	5.8	9.0
23	19	11	9.4	12	8.2	16	20	21	13	6.6	6.8	8.0
24	15	11	9.4	11	8.1	16	18	20	12	7.0	8.0	7.0
25	14	11	9.4	11	8.1	15	17	32	12	7.0	6.8	7.0
26	13	11	9.3	11	8.0	15	17	28	13	6.8	6.4	7.0
27	13	11	9.3	12	8.0	14	16	41	13	7.2	5.9	6.6
28	12	11	9.3	11	8.0	14	15	50	13	7.4	5.2	6.1
29	12	11	9.7	11	------	14	15	30	13	7.2	5.5	6.0
30	12	11	15	10	------	14	16	27	13	6.8	7.0	5.7
31	12	------	16	10	------	13	------	23	------	6.8	8.8	------
TOTAL	394	376	309.2	355.9	253.9	788.9	525	794	543	261.6	207.7	198.3
MEAN	12.7	12.5	9.97	11.5	9.07	25.4	17.5	25.6	18.1	8.44	6.70	6.61
MAX	19	18	16	20	12	166	32	50	31	12	9.8	9.0
MIN	10	11	9.0	9.3	8.0	8.1	13	16	12	6.6	5.2	5.2

CAL YR 1972 TOTAL 3,170.0 MEAN 8.66 MAX 33 MIN 3.4
WTR YR 1973 TOTAL 5,007.5 MEAN 13.7 MAX 166 MIN 5.2

05401050 Tenmile Creek near Nekoosa, Wis.

LOCATION.--Lat 44°15'44", long 89°48'38", in NE¼ sec.32, T.21 N., R.6 E., Wood County, on left bank upstream from bridge on State Highway 13, 5.8 mi (9.3 km) southeast of Nekoosa.

DRAINAGE AREA.--64 mi^2 (166 km^2), approximately.

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1962-63. October 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 967.39 ft (294.860 m) above mean sea level. Prior to May 13, 1964, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--10 years, 61.8 ft^3/s (1.750 m^3/s).

EXTREMES.--Current year: Maximum discharge, 411 ft^3/s (11.6 m^3/s) Mar. 15, age height, 6.47 ft (1.972 m); minimum, 41 ft^3/s (1.16 m^3/s) Feb. 25, gage height, 4.13 ft (1.259 m).

Period of record: Maximum discharge, 411 ft^3/s (11.6 m^3/s) Mar. 15, 1973, gage height, 6.47 ft (1.972 m); minimum, 9.5 ft^3/s (0.27 m^3/s) Dec. 16, 1964.

REMARKS.--Records good. Approximately 40 mi (64 km) of drainage ditches and 22 check dams are used to control the water table in the basin. Sprinkler irrigation from ground-water sources affects natural flow of creek.

Rating tables (gage height. in feet, and discharge, in cubic feet per second).

Oct. 1 to Jan. 29				Jan. 30 to Sept. 30			
4.4	60	5.5	210	4.2	46	5.5	196
5.0	129	6.0	310	4.5	70	6.0	290
				5.0	124	6.5	420

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	220	110	82	94	80	64	129	154	182	104	64	61
2	200	121	77	91	85	64	135	210	165	104	63	61
3	185	134	75	96	85	69	137	282	157	100	62	61
4	171	128	74	86	83	84	139	252	156	96	61	59
5	158	122	76	72	82	92	135	215	171	93	60	57
6	150	117	70	75	80	90	134	188	189	91	61	56
7	143	117	71	72	76	142	149	192	170	89	64	54
8	136	117	71	72	64	335	149	307	156	86	66	54
9	128	113	72	69	69	295	140	359	145	84	66	54
10	122	110	70	67	67	230	120	331	135	83	63	53
11	119	107	69	67	68	245	137	280	136	82	61	51
12	117	105	67	65	66	350	146	239	170	80	60	50
13	113	102	64	65	66	310	144	210	188	78	59	50
14	111	100	67	66	65	313	150	188	161	77	59	50
15	108	97	67	67	60	393	159	173	146	76	58	50
16	106	95	63	68	58	338	214	162	147	74	57	49
17	103	94	65	72	59	282	309	154	156	73	56	53
18	100	92	67	88	61	241	266	148	149	71	57	52
19	97	90	66	113	62	214	227	145	141	70	57	50
20	96	89	68	106	63	196	205	140	133	69	57	49
21	102	88	69	96	63	182	224	136	125	68	55	49
22	108	87	70	93	61	169	232	151	121	68	55	54
23	131	85	70	88	64	160	205	168	120	67	68	53
24	145	85	71	84	63	153	185	153	118	70	59	52
25	137	85	72	81	52	149	170	166	114	69	58	52
26	131	87	72	80	61	143	161	185	111	67	58	52
27	124	86	70	82	60	137	152	168	111	66	56	50
28	118	83	73	88	64	134	144	189	110	66	54	50
29	112	81	72	68	------	130	138	267	108	65	53	49
30	109	82	88	76	------	126	137	248	105	66	53	49
31	110	------	186	74	------	123	------	206	------	65	59	------
TOTAL	4,010	3,089	2,234	2,473	1,887	5,953	5,072	6,358	4,296	2,417	1,831	1,584
MEAN	129	100	72.1	79.8	67.4	192	169	205	143	78.0	59.1	52.8
MAX	220	134	186	113	85	393	309	359	189	104	66	61
MIN	96	81	63	65	52	64	120	136	105	65	53	49

CAL YR 1972 TOTAL 26,081 MEAN 71.0 MAX 240 MIN 23
WTR YR 1973 TOTAL 41,124 MEAN 113 MAX 393 MIN 49

05401100 Fourteenmile Creek near New Rome, Wis.

LOCATION.--Lat 44°12'15", long 89°48'29", in S½ sec.17, T.20 N., R.6 E., Adams County, 50 ft (15 m) above twin culverts on State Highway 13, and 2.7 mi (4.3 km) southeast of New Rome.

DRAINAGE AREA.--77 mi^2 (199 km^2), approximately.

PERIOD OF RECORD.--Annual maximum and occasional low-flow measurements, water years 1961-64. March 1964 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Altitude of gage is 980 ft (300 m), from topographic map. Prior to Mar. 2, 1964, crest-stage gage only at datum 7.03 ft (2.143 m) lower, and Mar. 2, 1964, to Aug. 27, 1964, nonrecording gage and crest-stage gage.

AVERAGE DISCHARGE.--9 years, 46.6 ft^3/s (1.320 m^3/s).

EXTREMES.--Current year: Maximum discharge, 546 ft^3/s (15.5 m^3/s) May 9, gage height, 6.05 ft (1.844 m); minimum daily, 9.2 ft^3/s (0.26 m^3/s) Sept. 12, 13, 15, 16.

Period of record: Maximum discharge, 546 ft^3/s (15.5 m^3/s) May 9, 1973, gage height, 6.05 ft (1.844 m); minimum, 0.65 ft^3/s (0.018 m^3/s) Jan. 25-27, 1968, gage height, 1.45 ft (0.442 m).

REMARKS.--Records good. Some regulation caused by manipulation of gates at recreation dam above station.

Rating table (gage height, in feet, and discharge, in cubic feet per second).
(Shifting-control method used Oct. 30 to Nov. 14, Mar. 1-25, Apr. 8, 9, 15, 25, May 2 to June 1, June 12-19, Sept. 2-3.)

1.9	2.6	3.5	125
2.1	10	4.0	165
2.3	23	4.5	205
2.7	54	5.0	260
3.0	81	5.7	378

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	309	188	64	48	52	39	38	126	209	71	28	17
2	260	185	66	48	46	44	24	192	180	71	26	17
3	219	178	66	49	44	43	26	342	160	68	24	21
4	192	173	66	48	44	42	26	344	144	63	24	20
5	173	176	64	48	52	41	36	268	131	59	23	15
6	155	177	64	48	57	42	52	210	138	56	25	13
7	137	176	62	48	57	82	68	221	135	54	29	12
8	127	175	58	48	57	163	100	443	130	52	31	12
9	119	175	56	48	57	187	130	533	127	49	31	12
10	110	174	52	58	56	183	94	520	113	48	27	11
11	109	173	50	65	55	187	85	421	119	45	24	10
12	104	174	48	64	47	192	95	309	240	41	23	9.2
13	99	125	47	63	38	263	111	241	348	40	21	9.2
14	95	82	46	61	39	356	132	181	296	40	21	10
15	90	66	45	51	40	451	157	171	225	39	20	9.2
16	97	60	45	45	32	421	260	160	201	36	18	9.2
17	97	60	45	46	27	356	432	127	187	35	17	14
18	91	59	45	47	28	292	484	123	169	33	21	14
19	83	59	45	48	28	244	315	123	151	32	20	14
20	78	72	45	52	28	230	256	104	133	32	17	13
21	88	76	45	59	28	228	256	108	118	32	15	13
22	92	76	45	59	29	226	260	123	91	32	16	15
23	99	73	45	67	29	185	223	123	87	29	24	14
24	111	65	46	73	28	165	189	123	88	31	24	14
25	123	56	46	73	29	166	165	149	85	31	21	15
26	151	54	46	72	29	89	143	165	83	30	20	15
27	135	60	46	70	29	124	131	167	82	29	19	16
28	112	62	46	70	29	152	122	199	80	28	17	15
29	113	62	47	69	------	115	115	336	75	29	15	15
30	159	64	48	68	------	71	111	331	73	36	15	13
31	204	------	48	57	------	60	------	274	------	31	15	------
TOTAL	4,131	3,355	1,587	1,770	1,114	5,439	4,556	7,257	4,398	1,382	671	406.8
MEAN	133	112	51.2	57.1	39.8	175	152	234	147	42.0	21.6	13.6
MAX	309	188	66	73	57	451	432	533	348	71	31	21
MIN	78	54	45	45	27	39	24	104	73	28	15	9.2

CAL YR 1972 TOTAL 18,075.6 MEAN 49.4 MAX 309 MIN 2.1
WTR YR 1973 TOTAL 35,986.8 MEAN 98.6 MAX 533 MIN 9.2

05401535 Big Roche a Cri Creek near Adams, Wis.

LOCATION.--Lat 44°05'52", long 89°46'30", in SW¼ sec.22, T.19 N., R.6 E., Adams County, at culverts on Brown Deer Avenue, 0.5 mi (0.8 km) upstream from Dry Creek, and 10 mi (16.1 km) north of Adams.

DRAINAGE AREA.--54 mi^2 (140 km^2), approximately.

PERIOD OF RECORD.--October 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 959.45 ft (292.440 m) above mean sea level. Prior to May 15, 1964, nonrecording gage at same site at datum 1.71 ft (0.52 m) higher.

AVERAGE DISCHARGE.--10 years, 61.0 ft^3/s (1.728 m^3/s).

EXTREMES.--Current year: Maximum discharge, 623 ft^3/s (17.6 m^3/s) Mar. 9, gage height, 6.82 ft (2.079 m) from high-water mark in well; minimum, 43 ft^3/s (1.22 m^3/s) Feb. 26, gage height, 1.95 ft (0.594 m), result of freezeup.

Period of record: Maximum discharge, 623 ft^3/s (17.6 m^3/s) Mar. 9, 1973, gage height, 6.82 ft (2.079 m) from high-water mark in well; minimum, 24 ft^3/s (0.68 m^3/s) Dec. 31, 1970, gage height, 1.36 ft (0.415 m) result of freezeup, Feb. 28, 1970, gage height, 1.47 ft (0.448 m).

REMARKS.--Records good except those for winter periods, which are fair. There is some irrigation from ground-water sources in the upper portion of basin.

Rating table (gage height, in feet, and discharge, in cubic feet per second). (Shifting-control method used May 8 to June 25, Sept. 29, 30; stage-discharge relation affected by ice Dec. 30 to Jan. 15.)

2.0	45	5.0	200
2.5	65	6.0	333
3.0	90	6.5	473
4.0	140		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	180	104	74	70	73	59	110	129	156	85	57	58
2	160	109	70	68	81	60	123	175	143	82	55	54
3	149	119	72	72	81	65	128	292	135	81	54	57
4	136	117	62	74	77	83	129	245	130	77	53	54
5	127	110	72	66	75	86	128	191	130	74	52	51
6	123	104	71	70	74	110	125	166	131	72	53	49
7	121	103	70	72	71	180	127	168	124	70	61	48
8	118	105	73	72	59	350	129	307	117	68	59	49
9	112	101	72	72	71	460	126	415	114	66	61	50
10	107	98	71	70	71	300	112	331	117	68	56	49
11	106	95	69	72	65	200	105	251	112	66	54	48
12	106	92	66	74	64	350	121	202	146	64	53	47
13	102	90	69	76	63	200	133	176	214	63	52	47
14	99	88	70	78	64	254	138	162	192	62	54	47
15	96	86	70	74	61	320	145	152	156	61	52	47
16	94	84	69	74	55	284	174	144	146	61	52	47
17	93	84	64	74	72	224	284	137	156	60	51	51
18	90	83	67	82	63	191	261	131	158	59	53	52
19	89	81	68	83	63	170	203	128	146	58	54	48
20	88	80	67	84	63	158	179	126	130	57	52	47
21	94	80	68	84	60	149	180	121	118	57	50	47
22	102	78	67	83	59	142	184	124	111	58	51	58
23	120	76	65	81	59	136	171	129	106	56	67	54
24	136	76	63	78	59	131	157	128	102	58	64	50
25	138	77	63	75	56	127	146	136	96	58	57	51
26	129	80	63	76	55	123	138	150	94	56	55	51
27	120	78	62	77	61	119	131	151	95	59	53	50
28	112	76	62	77	61	115	125	158	95	57	51	50
29	107	73	63	65	------	111	121	216	90	56	50	50
30	102	73	66	75	------	108	120	222	88	68	49	50
31	102	------	70	75	------	105	------	180	------	60	51	------
TOTAL	3,558	2,700	2,098	2,323	1,836	5,470	4,453	5,743	3,848	1,997	1,686	1,511
MEAN	115	90.0	67.7	74.9	65.6	176	148	185	128	64.4	54.4	50.4
MAX	180	119	74	84	81	460	284	415	214	85	67	58
MIN	88	73	62	65	55	59	105	121	88	56	49	47

CAL YR 1972 TOTAL 26,024 MEAN 71.1 MAX 250 MIN 38
WTR YR 1973 TOTAL 37,223 MEAN 102 MAX 460 MIN 47

PEAK DISCHARGE (BASE, 110 FT^3/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-24	2200	3.98	139	4-17	1400	5.87	306
11- 3	1500	3.60	120	5- 3	1100	5.96	310
3- 9	--	6.82	623	5- 9	0500	6.50	433
3-15	1000	6.00	333	5-29	2100	5.57	238
4- 8	0100	3.79	130	6-13	1200	5.43	225

05402000 Yellow River at Babcock, Wis.

LOCATION.--Lat 44°18'05", long 90°07'15", in NW¼ sec.14, T.21 N., R.3 E., Wood County, on right bank at downstream side of bridge on State Highway 80 at Babcock, 1.9 mi (3.1 km) upstream from Hemlock Creek.

DRAINAGE AREA.--223 mi^2 (578 km^2).

PERIOD OF RECORD.--March 1944 to current year.

GAGE.--Water-stage recorder. Datum of gage is 954.75 ft (291.008 m) above mean sea level. Prior to Oct. 28, 1948, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--29 years, 144 ft^3/s (4.078 m^3/s), 8.77 in/yr (223 mm/yr).

EXTREMES.--Current year: Maximum discharge, 7,550 ft^3/s (214 m^3/s) Apr. 17, gage height, 15.46 ft (4.712 m); minimum, 5.0 ft^3/s (0.142 m^3/s) Sept. 19, gage height, 1.85 ft (0.564 m).

Period of record: Maximum discharge, 11,600 ft^3/s (329 m^3/s) Apr. 2, 1952, gage height, 17.38 ft (5.297 m); minimum observed, 1.0 ft^3/s (0.028 m^3/s) Oct. 1, 1948, gage height, 1.22 ft (0.372 m).

REMARKS.--Records good except those for winter periods, which are fair. There is a large recreation dam about 5 mi (8.0 km) upstream.

REVISIONS (WATER YEARS).--WSP 1308: 1944(M), 1946-47(M), 1949(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,220	194	27	100	58	28	137	140	649	29	12	9.9
2	685	162	25	220	54	29	182	1,250	303	96	11	10
3	389	1,110	24	400	52	32	414	4,720	240	76	11	14
4	252	1,990	23	320	50	45	681	2,310	189	58	11	15
5	151	1,150	22	280	47	170	769	1,050	138	41	11	18
6	160	659	21	230	45	700	757	605	198	32	11	20
7	187	538	21	200	43	2,130	775	388	159	28	14	16
8	85	501	20	180	40	6,000	1,370	916	171	23	14	13
9	106	594	20	160	38	3,780	902	1,430	141	20	15	10
10	101	462	19	140	36	2,110	858	1,120	118	18	14	8.5
11	96	306	19	130	35	2,840	192	809	82	17	14	7.7
12	88	252	18	120	34	6,350	144	689	428	16	14	7.6
13	85	190	18	110	33	3,560	493	443	559	15	14	6.4
14	84	160	17	100	32	2,980	839	328	456	15	15	5.9
15	77	140	17	90	32	3,840	1,140	145	153	14	14	5.7
16	70	120	17	82	31	2,330	4,430	143	203	13	13	5.6
17	68	100	17	78	31	1,190	5,990	132	223	13	13	5.4
18	58	92	16	74	30	762	2,080	117	335	13	13	5.1
19	56	80	16	70	30	564	1,010	104	198	12	14	5.0
20	52	70	16	80	30	413	580	90	107	12	14	6.5
21	56	64	16	98	29	338	587	80	72	11	14	6.5
22	62	56	16	110	29	191	674	91	56	11	12	7.7
23	248	50	16	100	29	215	889	169	47	11	14	7.9
24	1,410	46	16	98	28	195	541	247	42	11	14	6.2
25	1,350	42	16	92	28	180	227	3,200	38	12	13	6.0
26	889	38	16	84	28	176	194	5,420	36	11	14	6.2
27	528	35	16	78	28	176	162	2,390	33	11	13	6.6
28	369	32	17	72	28	172	132	1,440	32	11	12	6.9
29	165	30	19	70	------	164	117	3,480	31	11	12	6.5
30	162	28	30	66	------	153	111	2,210	30	13	11	6.6
31	210	------	45	52	------	145	------	1,030	------	12	10	------
TOTAL	9,519	9,291	616	4,094	1,008	41,958	27,377	36,686	5,467	686	401	262.4
MEAN	307	310	19.9	132	36.0	1,353	913	1,183	182	22.1	12.9	8.75
MAX	1,410	1,990	45	400	58	6,350	5,990	5,420	649	96	15	20
MIN	52	28	16	62	28	28	111	80	30	11	10	5.0
CFSM	1.38	1.39	.09	.59	.16	6.07	4.09	5.30	.82	.10	.06	.04
IN.	1.59	1.55	.10	.68	.17	7.00	4.57	6.12	.91	.11	.07	.04

CAL YR 1972 TOTAL 91,185.0 MEAN 249 MAX 3,630 MIN 11 CFSM 1.12 IN 15.21
WTR YR 1973 TOTAL 137,365.4 MEAN 376 MAX 6,350 MIN 5.0 CFSM 1.69 IN 22.91

PEAK DISCHARGE (BASE, 1,200 FT^3/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-24	1600	9.95	1,800	4-17	0400	15.46	7,550
11- 4	0200	10.44	2,140	5- 3	1000	14.01	5,270
3-12	1000	15.05	7,050	5- 9	1700	9.31	1,490
4- 8	0400	9.31	1,480	5-25	2100	15.16	7,110

05403500 Lemonweir River at New Lisbon, Wis.

LOCATION.--Lat 43°52'47", long 90°09'40", in SE¼ sec.8, T.16 N., R.3 E., Juneau County, near center of span on downstream side of bridge on State Highway 80 in New Lisbon, 200 ft (60 m) downstream from recreation dam and 1.2 mi (1.9 km) upstream from Webster Creek.

DRAINAGE AREA.--500 mi² (1,300 km²), approximately.

PERIOD OF RECORD.--March 1944 to current year.

GAGE.--Nonrecording gage. Datum of gage is 867.05 ft (264.277 m) above mean sea level. Prior to May 5, 1948, nonrecording gage at site 100 ft (30 m) downstream at same datum.

AVERAGE DISCHARGE.--29 years, 364 ft³/s (10.3 m³/s), 9.89 in/yr (251 mm/yr).

EXTREMES.--Current year: Maximum discharge observed, 4,980 ft³/s (141 m³/s) Apr. 18, gage height, 12.48 ft (3.804 m); minimum observed, 83 ft³/s (2.35 m³/s) Aug. 7, gage height, 1.32 ft (0.402 m).
Period of record: Maximum discharge, 6,880 ft³/s (195 m³/s) May 8, 1960, gage height, 12.94 ft (3.944 m) from graph based on gage readings; minimum observed, 36 ft³/s (1.02 m³/s) Aug. 15, 1944, gage height, -0.06 ft (-0.018 m).

REMARKS.--Records good except those for winter periods, which are fair. Occasional regulation by dam 200 ft (60 m) upstream. Water diverted periodically into the basin from the Yellow and Black River basins for cranberry culture.

REVISIONS (WATER YEARS).--WSP 1308: 1944(M), 1949-50(M). WSP 1728: Drainage area.

Rating table (gage height, in feet, and discharge, in cubic feet per second).
(Shifting-control method used Oct. 1-12, May 6 to Aug. 7; stage-discharge relation affected by ice Nov. 17-20, Nov. 22 to Feb. 8, Feb. 15 to Mar. 5.)

1.2	82	7.0	1,030
2.0	143	9.0	1,870
3.0	250	11.0	3,370
5.0	560	12.5	5,010

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,920	882	310	400	430	270	673	1,130	2,360	350	95	195
2	2,350	934	300	490	480	280	897	1,750	1,890	356	100	228
3	1,800	1,010	290	480	520	300	973	2,630	1,550	336	104	360
4	1,450	1,060	280	470	560	400	983	2,950	1,290	345	109	307
5	1,190	1,080	270	540	560	600	1,000	2,680	1,150	347	107	276
6	1,000	1,080	260	560	540	874	1,010	2,100	1,060	312	106	248
7	918	1,040	250	520	500	1,430	1,020	2,060	908	283	93	217
8	864	1,000	240	470	480	2,040	978	2,870	848	257	159	192
9	812	968	240	440	446	2,300	950	3,110	808	214	324	187
10	762	929	230	410	426	2,310	884	2,840	745	184	402	182
11	726	887	230	390	400	2,500	848	2,440	628	175	357	180
12	704	830	230	370	379	3,120	929	2,010	470	168	294	171
13	669	788	230	350	356	3,580	1,130	1,660	470	163	244	167
14	618	740	230	340	351	3,830	1,500	1,410	442	161	208	157
15	560	671	220	340	340	4,100	2,030	1,190	451	159	183	147
16	424	638	220	340	330	3,860	3,360	1,030	453	158	164	160
17	411	600	220	350	320	3,500	4,490	835	442	156	151	169
18	480	560	220	390	300	3,010	4,890	764	440	152	141	181
19	475	540	220	800	290	2,500	4,410	724	461	135	139	195
20	467	490	220	960	290	2,110	3,660	689	493	120	136	204
21	478	450	220	980	290	1,800	3,460	650	515	121	129	206
22	506	450	220	960	280	1,560	3,280	660	528	123	128	250
23	921	430	220	880	280	1,360	2,800	660	504	122	234	284
24	1,060	420	220	800	280	1,150	2,280	656	475	123	386	287
25	1,170	400	210	720	270	973	1,800	812	430	124	482	326
26	1,350	390	210	640	270	887	1,510	965	405	125	519	363
27	1,400	380	210	560	270	702	1,240	1,180	392	109	644	360
28	1,310	370	210	490	270	708	1,010	1,680	286	108	689	365
29	1,130	340	220	460	------	713	985	2,240	349	108	549	366
30	994	330	240	440	------	678	890	2,570	363	108	326	411
31	916	------	320	420	------	636	------	2,680	------	104	215	------
TOTAL	30,835	20,695	7,410	16,760	10,508	54,081	55,790	51,545	21,526	5,806	7,917	7,341
MEAN	995	690	239	541	375	1,745	1,860	1,663	718	187	255	245
MAX	2,920	1,080	320	980	560	4,100	4,890	3,110	2,360	356	689	411
MIN	411	330	210	340	270	270	673	650	286	104	93	147
CFSM	1.99	1.38	.48	1.08	.75	3.49	3.72	3.33	1.44	.37	.51	.49
IN.	2.29	1.54	.55	1.25	.78	4.02	4.15	3.83	1.60	.43	.59	.55

CAL YR 1972 TOTAL 192,963 MEAN 527 MAX 4,240 MIN 88 CFSM 1.05 IN 14.36
WTR YR 1973 TOTAL 290,214 MEAN 795 MAX 4,890 MIN 93 CFSM 1.59 IN 21.59

05403630 Hulburt Creek near Wisconsin Dells, Wis.

LOCATION.--Lat 43°37'37", long 89°48'36", in SW¼ sec.5, T.13 N., R.6 E., Sauk County, on left bank 300 ft (91 m) upstream from highway bridge, 2.0 mi (3.2 km) west of Wisconsin Dells, and 1.6 mi (2.6 km) upstream from mouth.

DRAINAGE AREA.--11.1 mi^2 (28.7 km^2).

RECORDS AVAILABLE.--October 1970 to current year.

GAGE.--Water-stage recorder.

EXTREMES.--Current year: Maximum discharge, 93 ft^3/s (2.63 m^3/s) Mar. 7, gage height, 4.37 ft (1.332 m); minimum, 2.9 ft^3/s (0.082 m^3/s) Aug. 27.

Period of record: Maximum discharge, 93 ft^3/s (2.63 m^3/s) Mar. 7, 1973, gage height, 4.37 ft (1.332 m), Aug. 26, 1972, gage height, 4.76 ft (1.451 m); minimum, 1.3 ft^3/s (0.037 m^3/s) June 24, 1972.

REMARKS.--Records fair except those periods of no gage-height record and winter periods, which are poor.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.2	6.8	4.7	6.0	10	7.7	14	30	10	5.4	4.9	4.8
2	6.2	9.4	4.4	4.9	20	11	20	37	9.8	5.3	4.7	4.0
3	5.6	7.9	4.3	4.8	8.4	10	12	19	12	5.2	4.7	5.7
4	5.4	6.5	3.8	5.2	7.0	8.2	12	15	9.8	5.0	4.4	4.6
5	5.4	6.1	3.5	4.7	6.2	6.2	9.2	13	9.7	4.8	4.4	4.3
6	6.2	6.4	3.6	4.4	6.1	12	9.0	13	8.5	4.8	4.6	4.1
7	5.6	8.2	3.4	4.3	5.6	58	8.4	30	7.9	4.7	4.7	3.8
8	5.2	7.1	3.4	4.2	5.2	14	8.5	35	7.6	4.6	5.1	3.9
9	5.0	6.2	3.3	4.1	4.9	10	8.6	22	7.1	7.4	8.0	4.3
10	4.8	6.2	3.3	4.0	4.9	14	10	16	6.7	7.0	5.0	4.4
11	5.2	6.2	3.2	3.8	4.9	36	10	13	6.7	4.9	4.0	4.9
12	5.2	6.0	3.2	3.7	4.9	20	12	12	8.4	4.6	4.0	4.4
13	4.8	5.8	3.2	3.6	4.9	13	14	11	6.8	4.4	3.9	4.3
14	4.8	5.7	3.2	3.8	5.0	33	23	10	6.2	4.4	4.2	4.4
15	5.0	5.4	3.2	3.9	5.2	17	33	9.8	6.8	4.6	4.0	4.9
16	5.4	5.0	3.2	4.1	4.9	14	51	9.7	6.2	4.6	3.9	5.2
17	5.2	5.3	3.2	16	4.9	13	25	9.4	8.6	4.6	3.9	6.5
18	4.9	5.3	3.2	27	4.9	11	18	9.1	6.8	4.4	3.6	6.2
19	4.8	4.8	3.3	20	4.9	10	16	9.6	6.5	4.4	3.6	5.6
20	4.9	4.9	3.5	7.4	5.0	9.6	16	9.0	6.1	4.8	3.8	5.8
21	8.4	5.2	3.7	6.0	4.6	9.0	22	8.8	6.0	5.0	3.5	5.3
22	9.8	4.9	4.1	5.8	5.0	8.6	18	11	5.8	5.7	3.5	10
23	20	4.8	4.2	6.2	5.2	8.8	13	9.7	6.2	5.0	7.9	6.7
24	10	4.7	4.2	5.6	5.0	8.4	11	11	6.0	7.7	5.4	5.4
25	7.9	5.2	4.3	6.1	4.9	8.4	11	19	5.7	6.0	4.4	7.4
26	7.4	5.8	4.3	6.0	4.8	8.0	10	10	5.8	5.4	3.9	6.7
27	6.8	5.3	4.2	6.1	4.9	7.6	9.4	22	6.1	6.0	3.3	6.7
28	6.4	4.7	4.3	5.7	4.9	7.6	9.2	41	6.0	5.3	3.3	6.7
29	6.2	4.2	4.6	5.4	------	7.6	26	18	5.7	4.9	3.3	11
30	6.1	4.6	10	5.0	------	7.3	21	12	5.7	5.4	3.5	9.1
31	6.7	------	9.8	5.0	------	7.3	------	11	------	4.9	3.9	------
TOTAL	202.5	174.6	127.8	202.8	167.1	416.3	480.3	506.1	217.2	161.2	135.3	170.9
MEAN	6.53	5.82	4.12	6.54	5.97	13.4	16.0	16.3	7.24	5.20	4.36	5.70
MAX	20	9.4	10	27	20	58	51	41	12	7.7	8.0	11
MIN	4.8	4.2	3.2	3.6	4.6	6.2	8.4	8.8	5.7	4.4	3.3	3.6
CFSM	.59	.52	.37	.59	.54	1.21	1.44	1.47	.65	.47	.39	.51
IN.	.68	.59	.43	.68	.56	1.40	1.61	1.70	.73	.54	45	.57

CAL YR 1972 TOTAL 1,899.8 MEAN 5.19 MAX 59 MIN 1.8 CFSM .47 IN 6.37
WTR YR 1973 TOTAL 2,962.1 MEAN 8.12 MAX 58 MIN 3.2 CFSM .73 IN 9.93

PEAK DISCHARGE (BASE, 30 FT^3/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
1-18	0200	2.70	32	4-14	2130	2.89	38
2- 2	a0500	2.74	34	4-16	1200	3.68	64
3- 7	0830	4.37	93	4-29	1500	3.02	42
3-11	0500	2.93	39	5- 1	1430	2.99	41
3-14	1000	3.09	44	5- 2	0900	3.19	47
				5-28	0100	3.70	65

a About.

05403700 Dell Creek near Lake Delton, Wis.

LOCATION.--Lat 43°33'05", long 89°51'55", in NW¼ sec.2, T.12 N., R.5 E., Sauk County, on right bank 50 ft (15 m) upstream from highway bridge, 6.0 mi (9.7 km) southwest of Lake Delton, and 7.0 mi (11.3 km) upstream from mouth.

DRAINAGE AREA.--44.9 mi^2 (116.3 km^2).

RECORDS AVAILABLE.--September 1957 to September 1965, October 1970 to current year.

GAGE.--Water-stage recorder. Datum of gage is 847.49 ft (258.315 m) above mean sea level, datum of 1929. Prior to Oct. 4, 1957, wire-weight gage 50 ft (15 m) downstream at same datum.

AVERAGE DISCHARGE.--11 years (1957-65, 1970-73), 29.0 ft^3/s (0.821 m^3/s), 8.77 in/yr (222 mm/yr).

EXTREMES.--Current year: Maximum discharge, 586 ft^3/s (16.6 m^3/s) Mar. 7, gage height, 7.54 ft (2.298 m); minimum daily, 19 ft^3/s (0.54 m^3/s) Dec. 14-19.

Period of record: Maximum discharge, 992 ft^3/s (28.1 m^3/s) Mar. 2, 1965, gage height, 8.38 ft (2.554 m); minimum, 11 ft^3/s (0.31 m^3/s) Aug. 1, 2, 1959, gage height, 1.75 ft (0.533 m).

REMARKS.--Records good except those for periods of no gage-height record, winter periods, and periods of backwater from beaver dams, which are fair.

Rating tables (gage height, in feet, and discharge, in cubic feet per second). (Stage-discharge relation affected by beaver dams Oct. 1 to Nov. 30; stage-discharge relation affected by ice Dec. 1 to Jan. 16, Jan. 22-23, 29, Feb. 8-11, 16-18.)

Oct. 1 to Feb. 1				Feb. 2 to Sept. 30			
2.4	19	4.0	68	2.4	18	5.0	118
3.0	32	5.0	130	3.0	31	6.0	217
3.5	47	6.0	247	3.5	44	7.0	410
				4.0	63	7.6	610

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	35	27	37	65	50	52	131	56	34	27	34
2	31	57	26	30	141	78	95	172	54	32	26	33
3	28	53	25	28	62	72	66	111	60	32	25	46
4	28	38	24	29	37	59	56	69	52	32	25	32
5	28	34	23	27	36	42	49	59	62	30	25	29
6	32	33	22	26	33	54	43	58	50	29	24	27
7	29	43	22	26	32	458	41	124	46	29	26	26
8	27	41	21	25	30	204	40	184	43	28	31	26
9	26	34	21	25	29	57	44	137	42	29	44	30
10	25	33	20	25	28	54	49	85	39	32	33	29
11	27	32	20	24	27	156	50	65	38	29	27	28
12	26	31	20	24	27	137	54	59	51	28	26	26
13	25	30	20	23	27	77	58	56	42	27	26	26
14	24	30	19	23	28	134	70	54	38	27	28	26
15	24	29	19	23	28	118	100	52	39	27	27	26
16	27	29	19	24	27	70	260	50	44	27	26	27
17	26	30	19	133	27	60	180	48	56	27	26	31
18	25	29	19	192	27	54	100	48	42	26	26	32
19	24	28	19	176	27	50	74	63	42	26	26	28
20	24	28	20	75	28	46	68	52	38	26	26	28
21	44	29	22	35	28	44	109	48	37	27	25	28
22	54	28	23	34	28	41	88	58	36	32	28	67
23	122	27	24	33	30	39	61	46	36	28	64	40
24	104	27	24	32	33	39	54	57	36	32	47	30
25	53	30	25	35	29	39	50	93	34	29	34	40
26	42	34	25	37	27	38	49	56	34	28	28	35
27	38	30	25	36	26	44	47	131	41	29	26	32
28	35	28	26	33	27	36	45	224	37	27	25	32
29	34	25	29	30	------	36	80	139	36	26	25	39
30	33	26	58	28	------	36	130	69	35	28	25	41
31	34	------	60	28	------	35	------	58	------	27	27	------
TOTAL	1,135	981	766	1,356	994	2,457	2,262	2,656	1,296	890	904	974
MEAN	36.6	32.7	24.7	43.7	35.5	79.3	75.4	85.7	43.2	28.7	29.2	32.5
MAX	122	57	60	192	141	458	260	224	62	34	64	67
MIN	24	25	19	23	26	35	40	46	34	26	24	26
CFSM	.82	.73	.55	.97	.79	1.77	1.68	1.91	.96	.64	.65	.72
IN.	.94	.81	.63	1.12	.82	2.04	1.87	2.20	1.07	.74	.75	.81

CAL YR 1972 TOTAL 11,519 MEAN 31.5 MAX 213 MIN 17 CFSM .70 IN 9.54
WTR YR 1973 TOTAL 16,671 MEAN 45.7 MAX 458 MIN 19 CFSM 1.02 IN 13.81

PEAK DISCHARGE (BASE, 110 FT^3/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-23	1800	5.12	129	4-21	0800	4.92	112
1-18	2300	5.88	228	4-30	0500	5.41	152
2- 2	-	-	a160	5- 2	0600	5.83	196
3- 7	1300	7.54	586	5- 8	1100	5.88	202
3-11	1800	5.68	179	5-28	0200	6.37	274
3-14	0600	5.37	148				

a About.

05404000 Wisconsin River near Wisconsin Dells, Wis.

LOCATION.--Lat 43°36'22", long 89°45'25", in NW¼ sec.14, T.13 N., R.6 E., Sauk County, on right bank 0.5 mi (0.8 km) downstream from Dell Creek and 3.0 mi (4.8 km) downstream from Wisconsin Dells.

DRAINAGE AREA.--7,830 mi² (20,300 km²), approximately.

PERIOD OF RECORD.--October 1934 to current year.

GAGE.--Water-stage recorder. Datum of gage is 801.48 ft (244.291 m) above mean sea level (levels by Corps of Engineers). Prior to Oct. 1, 1963, water-stage recorder at same site at datum 5.00 ft (1.524 m) higher.

AVERAGE DISCHARGE.--39 years, 6,819 ft³/s (193.1 m³/s).

EXTREMES.--Current year: Maximum discharge, 62,600 ft³/s (1,770 m³/s) Mar. 16, gage height, 20.70 ft (6.309 m); minimum daily, 3,510 ft³/s (99.4 m³/s) Aug. 6.
Period of record: Maximum discharge, 72,200 ft³/s (2,040 m³/s) Sept. 14, 1938, gage height, 23.83 ft (7.263 m), present datum; minimum daily, 1,060 ft³/s (30.0 m³/s) Aug. 19, 1936.

REMARKS.--Records good. Flow regulated by 23 reservoirs above station (see p.137). In 1938, when the maximum of record occurred, there were 21 reservoirs above station, the two large reservoirs, Petenwell and Castle Rock, not in existence. Diurnal fluctuation caused by powerplant of Wisconsin Power and Light Co. at Wisconsin Dells, which shuts down frequently to 1,000 KWH, about 660 ft³/s (18.7 m³/s), from powerplant records.

REVISIONS (WATER YEARS).--WSP 1728: 1936(m). WSP 1914: 1951, 1953-55.

Rating table (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Dec. 3-5, Dec. 8 to Feb. 11.)

5.0	2,750	15.0	33,500
7.0	7,180	18.0	47,300
9.0	12,200	21.0	64,500
12.0	21,300		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41,600	11,300	6,410	7,000	7,200	7,600	11,400	15,400	27,600	6,780	4,200	5,340
2	40,000	10,600	6,410	7,000	7,300	7,800	12,100	23,000	23,000	6,550	4,240	4,990
3	29,900	13,800	6,000	7,000	7,300	8,000	13,000	25,000	17,500	5,790	4,090	5,580
4	25,100	21,900	5,800	7,000	7,200	8,200	15,100	45,000	15,900	6,430	3,930	5,790
5	18,000	24,300	5,600	7,400	7,200	8,360	19,600	48,000	15,500	5,770	3,930	5,860
6	16,400	21,000	5,520	7,600	7,300	8,720	17,200	45,000	17,400	5,680	3,510	5,860
7	17,800	21,300	5,210	7,700	7,300	11,000	14,100	42,800	16,900	6,040	4,440	5,540
8	15,100	20,000	5,200	7,800	7,300	16,200	14,500	42,000	13,800	5,270	4,990	5,540
9	12,500	19,000	5,400	7,800	7,300	30,600	15,100	37,400	11,800	5,540	5,360	4,750
10	9,950	17,900	5,400	7,800	7,400	34,900	16,500	33,500	11,600	5,700	5,360	4,500
11	10,200	15,400	5,600	8,000	7,200	39,000	16,200	31,700	10,300	5,680	4,940	5,050
12	10,700	14,100	5,600	8,000	7,200	43,500	12,800	30,400	13,000	5,490	4,970	4,970
13	10,300	11,800	5,700	7,900	7,040	43,600	12,500	30,600	13,300	5,410	4,640	4,330
14	9,420	11,700	5,700	7,700	7,010	47,500	13,200	25,100	13,400	5,520	4,350	4,590
15	8,850	11,400	5,600	7,700	6,890	56,300	14,900	18,200	14,200	5,300	4,330	4,350
16	8,450	10,300	5,400	7,600	6,960	61,900	27,000	17,000	14,200	5,030	4,420	4,020
17	7,680	9,700	5,600	7,400	6,780	61,500	44,200	15,800	13,700	5,300	4,170	3,840
18	7,230	9,220	5,600	7,400	6,960	57,200	50,000	13,900	10,800	5,450	3,950	4,040
19	7,010	8,260	5,800	7,400	7,010	46,300	54,000	13,400	11,000	4,900	3,980	4,090
20	6,600	7,900	6,000	7,400	7,180	32,500	54,000	12,300	9,370	4,370	4,640	4,110
21	6,320	7,660	6,100	7,400	7,080	24,400	48,500	11,500	9,420	4,000	4,830	4,090
22	6,620	7,520	6,200	7,400	7,400	15,500	37,800	12,000	8,720	3,700	4,370	4,350
23	9,270	7,370	6,100	7,400	7,520	14,300	29,800	12,600	8,330	3,630	4,770	3,740
24	14,600	6,850	6,000	7,200	7,400	16,000	25,400	11,100	8,210	4,090	4,700	3,760
25	15,200	6,620	5,800	7,200	7,400	14,900	18,400	14,100	7,680	3,840	4,970	4,460
26	17,300	6,550	5,600	7,400	7,400	13,400	14,500	21,200	7,250	4,610	4,900	4,390
27	15,600	6,550	5,800	7,400	7,400	13,000	14,700	25,400	7,110	4,130	4,990	5,030
28	12,300	6,660	6,200	7,200	7,600	13,400	14,600	33,800	7,060	4,350	5,230	5,160
29	12,500	6,500	6,400	7,200	------	13,400	13,600	39,100	7,300	3,630	5,470	5,630
30	11,000	6,410	6,800	7,200	------	13,200	12,800	36,500	7,180	3,870	5,810	5,520
31	11,700	------	6,800	7,200	------	12,000	------	32,800	------	4,310	6,110	------
TOTAL	445,200	359,570	181,350	230,800	202,230	794,180	677,500	825,600	372,530	156,160	144,590	143,270
MEAN	14,360	11,990	5,850	7,445	7,223	25,620	22,580	26,630	12,420	5,037	4,664	4,776
MAX	41,600	24,300	6,800	8,000	7,600	61,900	54,000	48,000	27,600	6,780	6,110	5,860
MIN	6,320	6,410	5,200	7,000	6,780	7,600	11,400	11,100	7,060	3,630	3,510	3,740

CAL YR 1972 TOTAL 3,310,770 MEAN 9,046 MAX 43,200 MIN 2,980
WTR YR 1973 TOTAL 4,532,980 MEAN 12,420 MAX 61,900 MIN 3,510

05404500 Devils Lake near Baraboo, Wis.

LOCATION.--Lat 43°25'18", long 89°43'38", in NW¼ NE¼ sec.24, T.11 N., R.6 E., Sauk County, in Devils Lake State Park, 3.5 mi (5.6 km) south of Baraboo.

DRAINAGE AREA.--5.64 mi^2 (14.61 km^2). Area of Devils Lake, 361 acres (1.46 km^2).

PERIOD OF RECORD.--June 1922 to August 1930, June to August 1932, June 1934 to current year (fragmentary).

GAGE.--Nonrecording gage. Elevation of lake from reference mark read about twice a week except in winter. Datum of gage is 956.39 ft (291.508 m) above mean sea level, unadjusted.

EXTREMES.--Current year: Maximum gage height observed, 12.40 ft (3.780 m) May 31, June 1; minimum observed, 7.19 ft (2.192 m) Oct. 18.

Period of record: Maximum gage height observed, 12.40 ft (3.780 m) May 31, June 1, 1973; minimum observed, 1.49 ft (0.454 m) Feb. 8, 1965.

REMARKS.--Lake has no surface outlet. Lake was ice covered Dec. 7 to Mar. 17. Add 955.00 ft (291.084 m) to obtain elevation above mean sea level.

COOPERATION.--Observer services furnished by Ralph T. Tuttle, custodian, Devils Lake State Park.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			7.35			8.15		11.48	12.40	11.72	11.07	10.54
2		7.43			8.17							
3							9.85	11.76				10.52
4								11.86	12.34			
5	7.37									11.60		10.36
6		7.45				8.13	9.97		12.38			
7						8.63		11.96			10.90	
8					8.17	8.69						10.30
9				7.50		8.75		12.08		11.48		
10								12.14		11.66		10.28
11	7.25										10.84	
12						9.25	10.09		12.22			
13							10.33			11.48		
14			7.33			9.55		12.22			10.78	10.16
15		7.47			8.15	9.65						
16						9.75	10.53			11.47	10.74	10.12
17				7.47								
18	7.19						10.91	12.18	12.10			10.08
19				7.79				12.16				
20						9.77	11.10			11.26	10.64	
21		7.41						12.14				10.02
22				7.89	8.15							
23	7.31								11.98			9.94
24	7.39											
25				7.91					11.92		10.58	
26										11.20		
27							11.18				10.56	9.94
28						9.73		12.32				
29					------				11.76			
30					------		11.31			11.17		9.90
31		------			------	9.71	------	12.40	------			------

05405000 Baraboo River near Baraboo, Wis.

LOCATION.--Lat 43°28'51", long 89°38'09", in NW¼ sec.35, T.12 N., R.7 E., Sauk County, on left bank 50 ft (15 m) downstream from highway bridge, 0.3 mi (0.5 km) downstream from Rowley Creek and 5.3 mi (8.5 km) east of Baraboo.

DRAINAGE AREA.--600 mi^2 (1,554 km^2).

PERIOD OF RECORD.--December 1913 to March 1922. September 1942 to current year.

GAGE.--Water-stage recorder. Datum of gage is 788.21 ft (240.246 m) above mean sea level. Dec. 18, 1913, to Mar. 31, 1922, nonrecording gage at bridge 2.3 mi (3.7 km) upstream at datum 7.6 ft (2.32 m) higher. Sept. 24, 1942, to June 10, 1963, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--38 years (1914-21, 1942-current year), 370 ft^3/s (10.5 m^3/s), 8.37 in/yr (213 mm/yr).

EXTREMES.--Current year: Maximum discharge, 4,310 ft^3/s (122 m^3/s) Apr. 19, gage height, 20.06 ft (6.114 m); minimum daily, 160 ft^3/s (4.53 m^3/s) Dec. 11-19.
Period of record: Maximum discharge observed, 7,900 ft^3/s (224 m^3/s) Mar. 26, 1917, gage height, 17.5 ft (5.33 m), estimated, site and datum then in use, from rating curve extended above 6,000 ft^3/s (170 m^3/s); minimum observed, 9 ft^3/s (0.25 m^3/s) Feb. 17, 1944, gage height, 5.08 ft (1.548 m); minimum daily, 26 ft^3/s (0.74 m^3/s) Oct. 6, 1950.
Flood of Aug. 6, 1935, reached a stage of 15.8 ft (4.82 m) from floodmarks, site and datum in use in 1922, discharge, 5,100 ft^3/s (144 m^3/s).

REMARKS.--Records good except those for winter periods, which are fair. Diurnal fluctuation from several powerplants at Baraboo.

REVISIONS (WATER YEARS).--WSP 455: 1915. WSP 505: 1917(M). WSP 1438: 1914-15(M), 1916-17, 1918-20(M), 1944(M), 1949(M). WSP 1728: Drainage area. WSP 1914: 1948, 1950, 1956.

Rating table (gage height, in feet, and discharge, in cubic feet per second).
(Shifting-control method used June 11 to Sept. 6; stage-discharge relation affected by ice Dec. 4 to Jan. 21, Jan. 29-31, Feb. 9-11, 15-22.)

6.6	146	14.0	2,050
8.0	436	16.0	2,750
10.0	925	18.0	3,490
12.0	1,440	20.0	4,290

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,000	458	284	500	528	378	406	1,600	1,880	406	359	336
2	2,500	508	252	780	1,070	605	653	2,410	1,840	399	341	334
3	2,400	673	232	740	1,210	783	825	2,400	1,600	380	320	355
4	2,000	763	220	700	1,090	885	870	2,230	1,300	374	303	454
5	1,380	768	210	660	1,040	930	893	2,100	1,100	294	294	610
6	850	680	200	580	943	885	805	2,030	1,000	359	288	623
7	519	585	190	450	685	1,700	695	2,000	875	341	286	458
8	436	543	180	320	508	1,800	600	2,320	870	334	292	357
9	397	533	170	290	430	2,000	573	2,340	793	374	328	336
10	368	521	170	270	390	2,200	545	2,190	653	366	374	359
11	349	485	160	260	340	2,670	520	2,300	545	336	410	320
12	334	440	160	250	313	2,940	480	2,340	510	334	391	311
13	334	412	160	250	286	2,710	460	2,060	492	328	345	311
14	349	399	160	240	280	2,740	948	1,600	487	317	313	305
15	349	328	160	240	260	3,000	1,800	1,200	476	311	307	301
16	326	359	160	250	250	2,900	2,500	960	476	307	301	292
17	311	345	160	350	240	2,610	3,500	800	476	303	309	303
18	307	332	160	700	240	2,290	4,210	660	485	301	305	311
19	305	328	160	1,800	240	1,940	4,260	580	498	296	294	320
20	299	322	170	1,900	240	1,560	4,220	520	510	296	290	324
21	311	313	170	1,700	250	1,160	3,850	480	496	296	286	317
22	391	311	180	1,470	260	830	3,230	450	458	322	286	332
23	985	309	180	1,390	273	633	2,560	460	445	351	336	451
24	1,330	303	190	1,160	296	543	2,100	500	418	334	414	508
25	1,250	299	190	748	317	501	1,800	640	412	322	515	478
26	1,210	307	190	536	296	476	1,400	800	410	332	565	406
27	1,220	317	190	524	284	449	1,100	1,400	406	338	505	397
28	1,180	322	200	526	265	423	960	1,950	406	334	391	404
29	963	322	200	500	------	401	800	2,040	406	336	338	380
30	653	305	230	440	------	385	900	1,880	406	389	322	362
31	498	------	370	400	------	370	------	1,810	------	393	328	------
TOTAL	26,104	12,890	6,008	20,924	12,824	43,697	48,463	47,050	21,129	10,503	10,736	11,355
MEAN	842	430	194	675	458	1,410	1,615	1,518	704	339	346	379
MAX	2,500	768	370	1,900	1,210	3,000	4,260	2,410	1,880	406	565	623
MIN	299	299	160	240	240	370	406	450	406	294	286	292
CFSM	1.40	.72	.32	1.13	.76	2.35	2.69	2.53	1.17	.57	.58	.63
IN.	1.62	.80	.37	1.30	.80	2.71	3.00	2.92	1.31	.65	.67	.70

CAL YR 1972 TOTAL 168,947 MEAN 462 MAX 3,280 MIN 124 CFSM .77 IN 10.47
WTR YR 1973 TOTAL 271,683 MEAN 744 MAX 4,260 MIN 160 CFSM 1.24 IN 16.84

05406050 Fish Lake near Sauk City, Wis.

LOCATION.--Lat 43°17'02", long 89°39'15", in NE¼ SW¼ sec.3, T.9 N., R.7 E., Dane County, on south side of lake near Ganser's Tavern and Dance Hall, 0.4 mi (0.6 km) southwest of Crystal Lake, and 3.1 mi (5.0 km) east of Sauk City.

DRAINAGE AREA.--3.79 mi² (9.82 km²). Area of Fish Lake, 252 acres (1.02 km²).

PERIOD OF RECORD.--November 1966 to current year (fragmentary).

GAGE.--Nonrecording gage in lake bed. Altitude of gage is 853 ft (260 m), from topographic map.

EXTREMES.--Current year: Maximum gage height observed, 5.81 ft (1.771 m) June 2; minimum observed, 3.76 ft (1.146 m) Oct. 16.

Period of record: Maximum gage height observed, 5.81 ft (1.771 m) June 2, 1973; minimum observed, 3.02 ft (0.920 m) Aug. 29, 1970.

REMARKS.--Lake has no surface outlet. Lake ice covered Nov. 18 to Apr. 12.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1												5.50
2									5.81			
3												
4		3.92							5.79		5.42	
5								5.55				
6									5.78	5.50		
7	3.85											5.52
8												
9									5.75			
10												
11		3.92		4.11				5.71			5.48	
12							5.11			5.48		
13												
14	3.81											
15												5.47
16	3.76								5.71			
17												
18		3.86									5.54	
19								5.65				
20												
21	3.83						5.19			5.39		
22												5.45
23									5.66			
24											5.56	
25											5.54	
26								5.67				
27												
28	3.87				4.41		5.27			5.45		
29					------							5.47
30					------				5.56			
31		------			------		------		------			------

05406500 Black Earth Creek at Black Earth, Wis.

LOCATION.--Lat 43°08'03", long 89°43'56", in SW¼ sec.25, T.8 N., R.6 E., Dane County, on right bank, 0.8 mi (1.3 km) east of Black Earth and 2.1 mi (3.4 km) upstream from Vermont Creek.

DRAINAGE AREA.--46.4 mi^2 (120.2 km^2), includes 3.6 mi^2 (9.3 km^2) without surface drainage.

PERIOD OF RECORD.--February 1954 to current year.

GAGE.--Water-stage recorder. Datum of gage is 812.95 ft (247.787 m) above mean sea level.

AVERAGE DISCHARGE.--19 years. 29.5 ft^3/s (0.835 m^3/s), 8.36 in/yr (212 mm/yr).

EXTREMES.--Current year: Maximum discharge, 577 ft^3/s (16.3 m^3/s) Mar. 7, gage height, 4.87 ft (1.484 m); minimum daily, 16 ft^3/s (0.45 m^3/s) Dec. 13-18.
Period of record: Maximum discharge, 1,750 ft^3/s (49.6 m^3/s) July 3, 1954, gage height, 6.58 ft (2.006 m); minimum, 4.8 ft^3/s (0.14 m^3/s) Nov. 29, 1958, gage height, 1.39 ft (0.424 m), result of freezeup.

REMARKS.--Records good.

Rating table (gage height, in feet, and discharge, in cubic feet per second). (Shifting-control method used Oct. 1 to Dec. 13, Sept. 8-30; stage-discharge relation affected by ice Dec. 5-8, 11, 12, 14-20.

1.6	12	3.0	169
1.8	26	3.5	256
2.0	43	4.0	360
2.5	96		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	32	28	35	120	96	47	100	60	43	40	36
2	30	36	28	30	140	117	56	264	58	42	40	39
3	29	35	27	30	48	95	53	112	58	42	40	41
4	30	35	25	29	39	52	49	93	57	43	40	44
5	28	33	24	27	37	40	47	83	57	42	39	48
6	29	32	23	25	34	54	44	81	55	41	39	41
7	29	34	21	25	33	351	44	125	54	40	39	38
8	28	34	20	24	32	84	44	194	53	40	41	38
9	28	33	18	24	30	61	43	122	52	41	47	42
10	28	33	17	25	29	59	44	99	50	43	42	41
11	28	32	17	25	29	104	46	88	49	40	39	39
12	28	32	17	24	28	68	49	83	51	39	39	39
13	28	32	16	24	28	59	58	78	50	38	46	38
14	27	32	16	24	28	101	88	75	48	39	46	39
15	27	32	16	24	28	64	92	72	48	39	41	38
16	28	31	16	28	28	60	117	70	49	41	39	39
17	27	31	16	70	27	57	81	68	52	39	39	44
18	26	31	16	61	27	51	68	67	49	39	38	44
19	26	30	17	122	27	49	65	85	49	39	38	40
20	26	30	17	41	28	48	71	70	48	39	37	39
21	30	29	17	38	27	46	94	68	47	41	35	40
22	39	28	17	37	28	45	83	67	47	44	35	40
23	56	28	17	36	29	44	68	66	48	42	46	41
24	44	29	17	32	30	43	64	63	46	54	43	40
25	38	29	17	32	27	43	61	70	45	45	39	48
26	35	30	18	32	27	41	59	64	46	43	38	45
27	34	29	18	33	28	39	58	95	46	42	35	44
28	32	28	17	35	28	39	56	104	46	41	35	48
29	32	28	19	31	------	39	61	73	45	40	35	56
30	32	28	60	30	------	39	85	66	44	41	35	55
31	32	------	63	29	------	44	------	62	------	40	35	------
TOTAL	965	936	675	1,082	1,044	2,132	1,895	2,827	1,507	1,282	1,220	1,264
MEAN	31.1	31.2	21.8	34.9	37.3	68.8	63.2	91.2	50.2	41.4	39.4	42.1
MAX	56	36	63	122	140	351	117	264	60	54	47	56
MIN	26	28	16	24	27	39	43	62	44	38	35	36
CFSM	.67	.67	.47	.75	.80	1.48	1.36	1.97	1.08	.89	.85	.91
IN.	.77	.75	.54	.87	.84	1.71	1.52	2.27	1.21	1.03	.98	1.01

CAL YR 1972 TOTAL 38,803 MEAN 106 MAX 320 MIN 16 CFSM 2.28 IN 31.11
WTR YR 1973 TOTAL 16,829 MEAN 46.1 MAX 351 MIN 16 CFSM .99 IN 13.49

PEAK DISCHARGE (BASE, 200 FT^3/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
3-11-72	2100	3.30	219	3- 1-73	2200	3.46	250
3-17-72	2300	4.39	451	3- 7-73	1000	4.87	577
1-19-73	0500	3.31	221	5- 2-73	0900	4.16	396
2- 1-73	1900	3.53	262	5- 8-73	1400	3.61	278

05406640 Otter Creek near Highland, Wis.

LOCATION.--Lat 43°01'42", long 90°16'38", in NE¼ sec.5, T.6 N., R.2 E., Iowa County, on left bank 50 ft (15 m) upstream from bridge on town road, 0.3 mi (0.5 km) downstream from recreation reservoir outlet, 0.4 mi (0.6 km) upstream from unnamed tributary, 2.2 mi (3.5 km) upstream from Flint Creek and 5.3 mi (8.5 km) southeast of Highland.

DRAINAGE AREA.--16.6 mi^2 (43.0 km^2).

PERIOD OF RECORD.--May 1968 to June 1969, August 1970 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 840 ft (256 m), from topographic map. Prior to August 1970 at site 100 ft (30 m) upstream.

EXTREMES.--Current year: Maximum discharge, 86 ft^3/s (2.44 m^3/s) Mar. 7, gage height, 2.10 ft (0.640 m); maximum gage height, 2.11 ft (0.643 m) Jan. 18; minimum daily, 4.7 ft^3/s (0.13 m^3/s) Oct. 10, 18, 19.
Period of record: Maximum discharge, 148 ft^3/s (4.19 m^3/s) Mar. 17, 1969, gage height, 3.72 ft (1.13 m); minimum, 0.07 ft^3/s (0.002 m^3/s) Aug. 27, 1970, gage height, 0.57 ft (0.174 m), result of shutdown of dam outlet.

REMARKS.--Records good. Flow regulated by Black Hawk Lake reservoir 0.3 mi (0.5 km) upstream. Pool surface area of reservoir is 222 acres (898,000 m^2). Supplemental discharge measurements on Narvison Branch which enters Otter Creek 0.5 mi (0.8 km) downstream, are obtained to provide additional data for the drainage basin.

Narvison Branch discharge measurements (discharge in cubic feet per second and cubic meters per second)

Nov. 3, 1972.....	1.70 ft^3/s (0.048 m^3/s)	Jan. 29, 1973.....	1.37 ft^3/s (0.038 m^3/s)
Dec. 13, 1972.....	1.19 ft^3/s (0.034 m^3/s)		

Rating table (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Feb. 13-19.)

1.1	4.4	1.6	37
1.2	10	1.8	52
1.4	23	2.1	87

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.8	8.5	7.2	37	45	16	17	43	24	14	11	10
2	5.4	11	7.2	26	67	25	18	54	24	15	10	9.5
3	5.4	11	7.2	21	43	27	18	52	31	17	10	10
4	5.4	10	6.9	18	30	23	18	45	28	18	10	10
5	5.4	9.0	6.9	15	22	19	18	40	26	17	10	9.5
6	5.8	9.0	6.9	13	18	22	16	37	24	16	10	8.5
7	5.8	9.5	6.5	11	14	77	16	41	22	15	10	8.0
8	5.4	9.0	6.5	9.0	13	54	15	42	21	14	11	8.5
9	5.1	8.5	6.9	8.5	12	36	20	40	19	14	12	11
10	4.7	8.5	6.9	7.6	11	30	19	36	18	16	12	11
11	5.4	8.0	6.9	7.2	9.5	43	18	33	18	15	12	9.5
12	5.4	8.0	8.0	6.9	9.0	37	18	32	18	14	11	9.0
13	5.8	8.0	8.0	6.5	9.0	31	19	30	18	13	11	9.0
14	5.8	8.0	7.6	5.4	9.0	43	22	29	17	12	11	9.0
15	5.4	7.6	7.6	5.8	9.0	40	26	27	17	12	10	8.5
16	5.4	7.6	7.6	6.5	9.0	34	48	26	22	12	10	8.5
17	5.1	7.6	7.2	22	8.5	30	51	25	28	12	10	11
18	4.7	7.2	6.9	42	8.5	26	45	25	24	11	9.5	11
19	4.7	7.2	6.2	70	8.0	23	40	26	22	11	10	10
20	5.1	7.2	6.5	44	8.0	21	41	25	19	11	9.5	9.5
21	6.9	7.2	6.5	31	7.6	19	46	24	18	11	9.0	9.0
22	10	7.2	6.5	24	7.6	18	42	24	17	14	9.0	9.5
23	16	7.2	6.5	20	9.0	18	37	24	18	14	12	9.0
24	15	7.2	6.5	16	11	17	33	24	18	14	12	8.5
25	14	7.6	6.2	16	10	16	31	24	17	14	12	11
26	13	8.0	6.2	16	9.0	16	29	23	18	14	12	11
27	12	8.0	6.2	19	8.5	15	26	27	19	13	12	11
28	11	7.6	6.2	25	8.5	15	25	35	17	12	12	10
29	9.5	7.2	6.9	18	------	14	27	32	16	12	11	11
30	9.0	7.2	38	15	------	14	39	29	15	12	10	11
31	8.5	------	56	13	------	15	------	26	------	11	10	------
TOTAL	231.9	244.8	293.3	595.4	433.7	834	838	1,000	613	420	331.0	292.0
MEAN	7.48	8.16	9.46	19.2	15.5	26.9	27.9	32.3	20.4	13.5	10.7	9.73
MAX	16	11	56	70	67	77	51	54	31	18	12	11
MIN	4.7	7.2	6.2	5.4	7.6	14	15	23	15	11	9.0	8.0

CAL YR 1972 TOTAL 2,671.2 MEAN 7.30 MAX 68 MIN 1.6
WTR YR 1973 TOTAL 6,127.1 MEAN 16.8 MAX 77 MIN 4.7

05407000 Wisconsin River at Muscoda, Wis.

LOCATION.--Lat 43°11'54", long 90°26'26", in NW¼ sec.1, T.8 N., R.1 W., Grant County, on left bank at bridge on State Highway 80, 0.5 mi (0.8 km) upstream from Eagle Mill Creek and 1.0 mi (1.6 km) north of Muscoda.

DRAINAGE AREA.--10,300 mi² (26,700 km²), approximately.

PERIOD OF RECORD.--December 1902 to December 1903, October 1913 to current year. Monthly discharge only for October and November 1913, published in WSP 1308. Gage-height records collected at same site November 1908 to December 1912 are contained in reports of U.S. Weather Bureau.

GAGE.--Water-stage recorder. Datum of gage is 667.05 ft (230.32 m) above mean sea level. Prior to Nov. 22, 1929, nonrecording gage on bridge 200 ft (61 m) upstream at same datum. Nov. 22, 1929, to Mar. 15, 1930, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--60 years (1913-73), 8,617 ft³/s (244.0 m³/s).

EXTREMES.--Current year: Maximum discharge, 65,000 ft³/s (1,840 m³/s) Mar. 20, gage height, 10.36 ft (3.16 m); minimum, 4,790 ft³/s (136 m³/s) July 27, gage height, 0.62 ft (0.19 m); minimum daily, 5,160 ft³/s (146 m³/s) Aug. 6.

Period of record: Maximum discharge, 80,800 ft³/s (2,290 m³/s) Sept. 16, 1938, gage height, 11.48 ft (3.50 m); minimum daily, 2,000 ft³/s (56.6 m³/s) Feb. 11, 1918.

REMARKS.--Records good except those for winter periods, which are fair. Flow regulated by 23 reservoirs and many powerplants above station (see p. 137). In 1938 when the maximum of record occurred, there were 21 reservoirs above station, the two large reservoirs, Petenwell and Castle Rock not yet in existence. Usually less than about 5 ft³/s (0.14 m³/s) was diverted out of basin through Portage canal to Fox River throughout the year.

REVISIONS (WATER YEARS).--WSP 785: 1921(m). WSP 875: 1921. WSP 1308: 1915(M), 1917-18(M), 1920-21(M), 1924(M).

Rating tables (gage height, in feet, and discharge, in cubic feet per second). (Shifting-control method used Oct. 1-7, Nov. 7-11; stage-discharge relation affected by ice Dec. 8 to Mar. 10.)

Oct. 1 to Mar. 18				Mar. 19 to Sept. 30			
1.0	4,720	7.0	34,300	0.7	5,000	6.0	27,800
2.0	7,800	9.0	51,500	1.0	5,810	8.0	42,500
3.0	11,700	10.5	66,400	2.0	9,190	10.5	66,400
5.0	21,100			4.0	17,400		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34,500	13,600	8,720	12,000	12,000	11,000	17,300	20,000	41,200	10,200	5,450	7,420
2	42,100	14,900	8,830	11,000	12,000	11,000	16,300	20,600	38,700	9,410	5,840	7,920
3	43,000	14,100	8,200	11,000	12,000	11,000	16,000	23,700	35,000	9,410	5,660	6,780
4	42,400	13,700	7,870	10,000	13,000	12,000	16,500	27,700	30,000	8,590	5,970	7,560
5	39,500	16,700	7,010	11,000	12,000	12,000	17,800	38,100	25,400	7,720	5,610	7,360
6	33,000	20,500	6,680	11,000	12,000	12,000	19,100	46,800	21,100	8,860	5,160	7,410
7	27,400	23,400	7,000	11,000	12,000	13,000	22,600	49,100	20,200	7,610	5,550	7,540
8	21,000	24,200	7,200	11,000	12,000	15,000	22,500	49,900	21,200	7,500	6,090	8,070
9	20,400	22,900	7,800	11,000	11,000	19,000	19,300	53,100	20,100	8,060	5,700	7,620
10	18,100	22,700	8,400	11,000	11,000	22,000	21,100	50,000	17,700	8,390	6,880	7,250
11	15,400	21,500	8,800	11,000	11,000	29,700	18,900	47,000	15,400	8,390	7,030	6,190
12	14,300	20,300	8,800	10,000	10,000	40,100	20,500	41,300	15,500	7,820	7,000	6,380
13	13,600	17,900	8,600	10,000	10,000	46,600	19,600	38,100	15,000	7,370	6,580	6,470
14	12,900	17,200	9,200	9,800	9,800	47,500	17,400	36,500	16,000	7,090	6,500	6,660
15	13,000	14,000	9,400	9,600	9,600	51,000	17,300	34,500	16,700	7,030	6,840	6,170
16	11,500	13,600	9,000	9,400	9,200	53,500	21,200	32,800	16,500	7,300	6,180	5,540
17	11,500	13,600	8,800	9,600	9,200	57,100	25,500	25,900	17,600	6,370	5,940	6,400
18	10,500	13,200	8,800	11,000	9,600	63,000	29,500	23,000	17,800	6,610	5,940	6,480
19	10,200	11,700	9,000	12,000	10,000	64,600	41,000	20,400	16,400	6,940	6,100	5,570
20	9,430	11,600	9,200	13,000	10,000	63,500	52,100	19,500	14,800	6,930	5,310	6,010
21	9,360	10,900	9,400	13,000	11,000	56,200	58,300	17,900	13,900	6,920	5,720	5,510
22	10,300	9,780	9,600	13,000	11,000	45,500	59,000	16,200	12,700	6,850	5,940	6,240
23	11,400	10,100	9,800	13,000	11,000	34,000	57,700	16,000	12,400	5,650	6,900	5,510
24	12,000	9,470	9,400	12,000	10,000	24,000	46,600	16,000	12,000	5,770	6,780	6,430
25	13,300	9,980	9,000	12,000	10,000	20,700	40,800	16,400	11,000	5,790	6,970	5,950
26	17,000	9,510	8,800	12,000	10,000	20,800	33,200	16,000	10,800	6,380	6,120	6,150
27	17,900	8,860	8,800	13,000	11,000	18,400	27,500	18,600	10,500	5,520	6,840	6,330
28	19,600	9,090	9,000	13,000	11,000	17,200	21,500	24,200	9,640	6,340	7,070	6,450
29	18,000	8,900	9,600	13,000	------	17,000	20,300	29,400	9,830	6,030	6,390	7,320
30	15,700	8,830	10,000	12,000	------	17,100	20,600	32,400	9,260	6,260	6,620	7,720
31	14,900	------	11,000	12,000	------	16,900	------	38,600	------	5,950	6,940	------
TOTAL	603,190	436,720	271,710	353,400	302,400	942,400	837,000	939,700	544,330	225,060	193,620	200,330
MEAN	19,460	14,560	8,765	11,400	10,800	30,400	27,900	30,310	18,140	7,260	6,246	6,678
MAX	43,000	24,200	11,000	13,000	13,000	64,600	59,000	53,100	41,200	10,200	7,070	8,070
MIN	9,360	8,830	6,680	9,400	9,200	11,000	16,000	16,000	9,260	5,520	5,160	5,510

CAL YR 1972 TOTAL 4,195,490 MEAN 11,460 MAX 47,700 MIN 4,090
WTR YR 1973 TOTAL 5,849,860 MEAN 16,030 MAX 64,600 MIN 5,160

05408000 Kickapoo River at La Farge, Wis.

LOCATION.--Lat 43°34'27", long 90°38'35", on east-west quarter section line in W½ sec.29, T.13 N., R.2 W., Vernon County, on left bank 10 ft (3 m) upstream from bridge on State Highway 82, in La Farge, 0.3 mi (0.5 km) upstream from Otter Creek, and 1.3 mi (2.1 km) downstream from powerplant.

DRAINAGE AREA.--266 mi² (689 km²).

PERIOD OF RECORD.--October 1938 to current year.

GAGE.--Water-stage recorder. Datum of gage is 782.00 ft (238.354 m) above mean sea level, adjustment of 1912. Prior to Dec. 4, 1939, nonrecording gage on highway bridge at same datum.

AVERAGE DISCHARGE.--35 years, 169 ft³/s (4.786 m³/s), 8.63 in/yr (219 mm/yr).

EXTREMES.--Current year: Maximum discharge, 4,670 ft³/s (132 m³/s) Apr. 16, gage height, 11.92 ft (3.633 m); minimum daily, 120 ft³/s (3.40 m³/s) Dec. 7, Jan. 6, 29, Feb. 16.
Period of record: Maximum discharge, 9,910 ft³/s (281 m³/s) Feb. 9, 1966, gage height, 13.67 ft (4.167 m); minimum, 1.8 ft³/s (0.051 m) Mar. 24, 1951; minimum daily, 36 ft³/s (1.02 m³/s) Nov. 3, 1939.

REMARKS.--Records good except those for winter months, which are fair. Considerable diurnal fluctuation caused by operation of powerplant 1.3 mi (2.1 km) upstream. Records of chemical analyses for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1388: 1951(M), 1954(M). WSP 1438: 1944-45(M), 1946, 1948, 1950(M).

Rating table (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice, Dec. 2 to Mar. 2.)

2.0	112	6.0	917
3.0	257	8.0	1,500
4.0	448	10.0	2,250
5.0	662	12.0	4,880

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	288	240	142	200	250	200	259	854	351	209	177	166
2	245	293	140	190	560	450	271	1,400	325	218	169	171
3	220	241	140	200	230	381	221	1,080	384	210	160	209
4	206	218	130	150	190	351	233	582	355	190	163	188
5	186	201	130	130	160	212	215	483	396	185	169	169
6	182	194	130	120	130	221	200	454	319	200	156	148
7	190	212	120	130	130	1,310	192	1,170	289	169	217	159
8	177	221	130	130	130	713	190	1,540	279	180	252	156
9	166	194	130	130	140	300	184	760	270	192	319	176
10	160	186	130	140	140	295	159	604	261	189	247	170
11	190	173	130	150	140	1,630	259	504	255	182	200	163
12	180	173	130	160	140	952	262	456	264	170	159	156
13	162	169	130	160	140	444	302	408	250	180	170	148
14	157	163	130	170	140	1,280	444	378	240	171	311	158
15	150	156	130	180	130	684	1,080	355	247	157	180	161
16	160	157	130	190	120	440	3,390	341	270	163	160	159
17	163	159	140	250	130	382	2,360	326	268	163	170	163
18	148	156	140	800	130	300	740	313	398	163	167	178
19	141	150	130	600	130	268	565	343	286	162	170	192
20	141	149	130	270	140	247	582	322	248	157	170	189
21	184	149	130	250	140	230	882	311	242	169	167	166
22	221	146	130	240	140	217	544	349	237	189	166	296
23	676	144	130	210	140	213	442	334	240	189	653	184
24	394	144	130	190	140	207	386	313	235	166	343	177
25	273	150	130	190	140	204	357	418	217	177	223	232
26	238	157	130	190	140	196	338	340	196	171	201	188
27	223	150	130	200	140	188	311	355	242	189	194	219
28	196	142	130	170	140	184	298	1,260	230	173	179	154
29	189	130	140	120	------	182	523	773	217	169	173	184
30	174	140	200	160	------	176	735	466	215	240	157	210
31	206	------	400	180	------	173	------	390	------	188	167	------
TOTAL	6,586	5,307	4,422	6,590	4,520	13,230	16,924	17,982	8,226	5,630	6,509	5,389
MEAN	212	177	143	211	161	427	564	580	274	182	210	180
MAX	676	293	400	800	560	1,630	3,390	1,540	398	240	653	296
MIN	141	130	120	120	120	173	159	311	196	157	156	148
CFSM	.80	.67	.54	.79	.61	1.61	2.12	2.18	1.03	.68	.79	.68
IN.	.92	.74	.62	.92	.63	1.85	2.37	2.51	1.15	.79	.91	.75

CAL YR 1972 TOTAL 67,729 MEAN 185 MAX 1,830 MIN 89 CFSM .70 IN 9.47
WTR YR 1973 TOTAL 101,275 MEAN 277 MAX 3,390 MIN 120 CFSM 1.04 IN 14.16

PEAK DISCHARGE (BASE, 1,700 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
3- 8	0015	8.90	1,810	5- 3	0045	8.64	1,730
3-11	1830	9.37	2,000	5- 8	0745	8.99	1,870
4-16	1630	11.92	4,670				

05409830 North Fork Nederlo Creek near Gays Mills, Wis.

LOCATION.--Lat 43°21'47", long 90°54'34", in NE¼ sec.12, T.10 N., R.5 W., Crawford County, on right bank 160 ft (50 m) upstream from town-road bridge, 0.3 mi (0.5 km) above the confluence with South Fork Nederlo Creek, and 4.5 mi (7.2 km) northwest of Gays Mills.

DRAINAGE AREA.--2.3 mi² (6.0 km²).

PERIOD OF RECORD.--October 1967 to current year.

GAGE.--Water-stage recorder. Concrete control since Oct. 8, 1968. Altitude of gage is 800 ft (240 m) from topographic map.

AVERAGE DISCHARGE.--6 years, 0.78 ft³/s (0.022 m³/s), 4.61 in/yr (117 mm/yr).

EXTREMES.--Current year: Maximum discharge, about 35 ft³/s (0.99 m³/s) Feb. 1; minimum daily, 0.66 ft³/s (0.019 m³/s) Dec. 7 to 16.
Period of record: Maximum discharge, 541 ft³/s (15.3 m³/s) June 23, 1968, gage height, 14.60 ft (4.45 m) from rating curve extended above 3 ft³/s (0.08 m³/s) on basis of contracted-opening measurement made at 14.60 ft (4.45 m), computation of flow through culvert made at gage height 13.80 ft (4.21 m) and slope-area measurement made at gage height 13.10 ft (3.99 m); minimum, 0.34 ft³/s (0.01 m³/s) Feb. 22, 1971, gage height, 10.65 ft (3.25 m), result of freezeup.

REMARKS.--Records fair.

REVISIONS (WATER YEARS).--WRD Wis. 1970: Drainage area.

Rating table (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Dec. 6, 7, Jan. 5-8, Feb. 9, 17.)

10.7	0.46	11.4	4.6
10.8	.80	11.7	9.0
11.0	1.6	12.0	18
11.2	2.8		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.88	.88	.73	.80	11	1.0	.84	1.1	.91	.88	.88	.91
2	.80	1.0	.73	.80	1.0	.88	.84	1.5	.91	.91	.88	.91
3	.80	.88	.73	.80	.88	.95	.80	1.1	.95	.88	.88	.95
4	.77	.88	.73	.77	.88	.84	.80	.95	.91	.88	.91	.95
5	.77	.88	.73	.76	.80	.84	.80	.91	.91	.88	.88	.91
6	.80	.88	.70	.74	.80	1.5	.80	.91	.88	.88	.91	.91
7	.77	.88	.66	.72	.77	2.1	.80	3.0	.88	.88	1.1	.91
8	.77	.88	.66	.70	.77	.99	.84	.88	.88	.88	1.7	.91
9	.73	.84	.66	.70	.76	.95	.80	1.2	.88	.88	1.2	.95
10	.77	.84	.66	.73	.80	2.0	.77	1.1	.88	.88	.99	.95
11	.85	.80	.66	.73	.80	1.8	.77	.99	.88	.88	.95	.95
12	.77	.80	.66	.73	.80	1.2	.91	.95	.88	.88	.95	.88
13	.77	.80	.66	.73	.80	1.1	.99	.91	.84	.88	.99	.88
14	.77	.80	.66	.73	.80	2.1	1.1	.91	.84	.88	.91	.88
15	.77	.80	.66	.73	.80	1.1	1.4	.88	.88	.88	.91	.91
16	.77	.77	.66	.73	.80	1.1	3.2	.88	.91	.88	.91	.91
17	.77	.73	.68	.80	.78	1.0	1.4	.88	.91	.88	.88	.95
18	.77	.73	.70	1.1	.73	.95	1.2	.88	.91	.88	.91	.91
19	.73	.73	.73	.91	.73	.95	1.0	.88	.88	.88	.91	.91
20	.80	.73	.73	.80	.73	.91	1.1	.88	.88	.88	.88	.84
21	.88	.73	.73	.80	.73	.88	1.1	.88	.88	.91	.91	1.6
22	1.6	.73	.73	.80	.77	.88	.99	.88	1.0	.95	.99	1.2
23	1.6	.73	.73	.77	.77	.84	.91	.88	.99	.91	1.1	.99
24	1.0	.73	.73	.80	.73	.84	.88	.91	.91	.91	.99	1.1
25	.99	.77	.73	.77	.73	.84	.88	.91	.88	.88	.91	1.4
26	.95	.77	.73	.77	.73	.80	.88	.84	.95	.95	.91	1.1
27	.88	.73	.73	.77	.73	.80	.84	1.2	.95	.91	.91	1.0
28	.88	.73	.73	.77	.73	.80	.84	1.3	.88	.88	.91	1.0
29	.88	.73	.80	.73	------	.80	.95	1.0	.88	.88	.91	1.4
30	.84	.73	.99	.73	------	.80	.95	.95	.88	.88	.95	1.2
31	.91	------	.88	.73	------	.80	------	.91	------	.88	.95	------
TOTAL	27.04	23.91	22.30	23.95	32.15	33.34	30.38	32.35	27.00	27.57	29.97	30.27
MEAN	.87	.80	.72	.77	1.15	1.08	1.01	1.04	.90	.89	.97	1.01
MAX	1.6	1.0	.99	1.1	11	2.1	3.2	3.0	1.0	.95	1.7	1.6
MIN	.73	.73	.66	.70	.73	.80	.77	.84	.84	.88	.88	.84
CFSM	.38	.35	.31	.33	.50	.47	.44	.45	.39	.39	.42	.44
IN.	.44	.39	.36	.39	.52	.54	.49	.52	.44	.45	.48	.49

CAL YR 1972 TOTAL 334.07 MEAN .91 MAX 5.4 MIN .60 CFSM .40 IN 5.40
WTR YR 1973 TOTAL 340.23 MEAN .93 MAX 11 MIN .66 CFSM .40 IN 5.50

05409890 Nederlo Creek near Gays Mills, Wis.

LOCATION.--Lat 43°21'43", long 90°52'44", in NW¼ sec.8, T.10 N., R.4 W., Crawford County, on right bank just upstream from bridge on private road, 1.2 mi (1.9 km) upstream from Tainter Creek and 3.4 mi (5.5 km) north of Gays Mills.

DRAINAGE AREA.--9.6 mi^2 (24.8 km^2).

PERIOD OF RECORD.--October 1967 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 740 ft (230 m), from topographic map.

AVERAGE DISCHARGE.--6 years, 4.51 ft^3/s (0.128 m^3/s), 6.38 in/yr (162 mm/yr).

EXTREMES.--Current year: Maximum discharge, 140 ft^3/s (3.96 m^3/s) Sept. 21, gage height, 12.71 ft (3.874 m); minimum daily, 3.8 ft^3/s (0.11 m^3/s) Jan. 9-15.
Period of record: Maximum discharge, 2,600 ft^3/s (73.6 m^3/s) June 23, 1968, gage height, 17.06 ft (5.20 m) from rating curve extended above 20 ft^3/s (0.57 m^3/s) on basis of slope-area measurement at site 1.2 mi (1.9 km) upstream at gage height 17.06 ft (5.20 m), computation of flow through culvert at gage height 14.80 ft (4.51 m) and slope-area measurement made at gage height 13.36 ft (4.072 m); minimum, 1.7 ft^3/s (0.05 m^3/s) Feb. 16, 1968, gage height, 10.78 ft (3.286 m), result of freezeup.

REMARKS.--Records good except those for winter periods, which are fair. Hydrologic studies are being made in the Nederlo Creek basin and additional data at upstream sites are available.

REVISIONS (WATER YEARS).--WRD Wis. 1970: Drainage area.

Rating tables (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Dec. 12, Feb. 14.)

Oct. 1 to Jan. 3				Jan. 4 to Sept. 30			
10.7	3.4	11.2	14	10.7	4.1	11.2	14
10.8	4.2	11.3	19	10.8	5.1	11.3	19
10.9	5.3	11.4	25	10.9	6.2	11.4	25
11.0	7.5	11.5	32	11.0	8.0	11.5	32
11.1	10	11.8	55	11.1	10.4	11.8	55

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.0	4.8	4.1	4.2	45	6.6	5.2	8.0	5.8	5.2	5.2	5.3
2	4.8	5.7	4.1	4.0	7.5	5.7	5.1	12	5.8	5.5	5.2	5.5
3	4.6	4.9	4.1	4.1	4.8	5.8	4.9	6.5	6.1	5.2	5.1	5.6
4	4.6	4.6	4.0	4.0	5.0	5.0	4.9	6.1	5.8	5.2	5.3	5.6
5	4.6	4.6	3.9	4.0	4.6	5.0	4.8	5.9	5.8	5.1	5.2	5.3
6	4.6	4.6	3.9	4.0	4.5	9.8	4.7	6.2	5.8	5.2	5.3	5.3
7	4.5	5.0	3.9	3.9	4.4	16	4.7	29	5.6	5.1	5.9	5.3
8	4.4	4.5	3.9	3.9	4.4	5.7	4.9	11	5.6	5.1	9.8	5.3
9	4.4	4.4	3.9	3.8	4.4	5.2	5.3	8.0	5.5	5.2	6.6	5.6
10	4.5	4.4	3.9	3.8	4.2	16	5.3	7.2	5.3	5.2	5.6	5.5
11	5.2	4.4	3.9	3.8	4.2	17	5.0	6.8	5.3	5.1	5.3	5.5
12	4.4	4.3	3.9	3.8	4.2	7.3	5.2	6.5	5.3	5.1	5.3	5.3
13	4.4	4.3	3.9	3.8	4.2	6.8	5.8	6.2	5.2	5.1	5.6	5.3
14	4.3	4.3	3.9	3.8	4.4	17	6.6	6.2	5.2	5.1	5.6	5.3
15	4.2	4.2	3.9	3.8	4.2	7.3	12	6.1	5.3	5.1	5.5	5.5
16	4.3	4.2	3.9	4.0	4.2	6.8	31	6.2	5.5	5.1	5.3	5.5
17	4.2	4.2	3.9	6.4	4.2	6.2	7.8	5.9	5.8	5.1	5.3	5.5
18	4.2	4.2	3.9	14	4.2	5.8	7.0	6.1	5.7	5.1	5.3	5.6
19	4.2	4.2	3.9	4.9	4.2	5.6	6.6	6.1	5.5	5.1	5.3	5.6
20	4.5	4.2	3.9	4.2	4.2	5.5	8.0	5.8	5.3	5.2	5.3	5.6
21	4.9	4.2	3.9	4.2	4.2	5.3	7.3	5.9	5.2	5.3	5.3	15
22	13	4.2	3.9	4.2	4.5	5.2	6.5	5.9	6.8	5.6	5.7	9.8
23	12	4.2	3.9	4.1	4.7	5.1	6.1	5.8	6.1	5.3	6.2	6.1
24	5.7	4.2	4.0	4.1	4.5	5.1	5.8	6.2	5.3	5.5	5.7	6.2
25	5.1	4.3	4.0	4.2	4.2	5.2	5.8	6.2	5.3	5.3	5.6	8.0
26	5.0	4.3	4.0	4.2	4.2	5.0	5.6	5.8	5.6	5.5	5.5	6.2
27	4.9	4.2	4.0	4.2	4.2	4.9	5.6	11	5.6	5.5	5.3	6.1
28	4.6	4.1	4.0	4.1	4.4	4.9	5.5	8.7	5.3	5.3	5.3	5.9
29	4.6	4.0	4.2	4.1	------	4.8	6.2	6.6	5.3	5.3	5.7	7.2
30	4.6	4.0	7.2	4.1	------	4.7	6.6	6.1	5.2	5.3	5.6	6.6
31	4.5	------	4.8	4.1	------	4.8	------	5.8	------	5.3	5.5	------
TOTAL	158.8	131.7	126.6	137.8	165.9	221.1	205.8	235.8	166.9	162.3	174.4	186.1
MEAN	5.12	4.39	4.08	4.45	5.93	7.13	6.86	7.61	5.56	5.24	5.63	6.20
MAX	13	5.7	7.2	14	45	17	31	29	6.8	5.6	9.8	15
MIN	4.2	4.0	3.9	3.8	4.2	4.7	4.7	5.8	5.2	5.1	5.1	5.3
CFSM	.53	.46	.43	.46	.62	.74	.71	.79	.58	.55	.59	.65
IN.	.62	.51	.49	.53	.64	.86	.80	.91	.65	.63	.68	.72

CAL YR 1972 TOTAL 1,853.4 MEAN 5.06 MAX 54 MIN 3.4 CFSM .53 IN 7.18
WTR YR 1973 TOTAL 2,073.2 MEAN 5.68 MAX 45 MIN 3.8 CFSM .59 IN 8.03

05410000 Kickapoo River at Gays Mills, Wis.

LOCATION.--Lat 43°19'10", long 90°51'08", in NE¼ sec.28, T.10 N., R.4 W., Crawford County, on upstream side of bridge on State Highway 171, 300 ft (91 m) downstream from dam in Gays Mills and 3.3 mi (5.3 km) downstream from Taintor Creek.

DRAINAGE AREA.--616 mi² (1,595 km²).

PERIOD OF RECORD.--December 1913 to September 1934. Monthly discharge only July to September 1934, published in WSP 1308. April 1964 to current year.

GAGE.--Nonrecording gage. Datum of gage is 685.75 ft (209.017 m) above mean sea level.

AVERAGE DISCHARGE.--29 years (1914-34, 1964-73), 421 ft³/s (11.92 m³/s), 9.28 in/yr (236 mm/yr).

EXTREMES.--Current year: Maximum discharge, 5,090 ft³/s (144 m³/s) Apr. 17, gage height, 14.45 ft (4.404 m) from graph based on gage readings; minimum daily, 310 ft³/s (8.78 m³/s) Dec. 7, 8.
Period of record: Maximum discharge, 10,600 ft³/s (300 m³/s) Feb. 10, 1966, gage height, 16.00 ft (4.877 m); minimum observed, 48 ft³/s (1.36 m³/s) July 27, 1931, gage height, 0.51 ft (0.155 m).
Flood in 1913 reached a stage of 15.2 ft (4.63 m) from floodmark (backwater from ice probable).
Flood in 1961 reached a stage of 16.37 ft (4.990 m) from floodmark.

REMARKS.--Records good except those for winter periods, which are fair. Occasional regulation caused by dam 300 ft (91 m) upstream.

REVISIONS (WATER YEARS).--WSP 1438: 1915-16(M), 1917, 1918-19(M), 1920-23, 1924-26(M), 1927-30, 1931(M), 1932, 1933-34(M).

Rating table (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Dec. 4 to Mar. 1.)

4.0	272	10.0	1,280
6.0	560	12.0	2,100
8.0	888	14.2	4,550

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,740	557	403	600	470	440	539	1,160	1,080	598	497	479
2	928	709	382	560	1,000	669	608	1,330	992	581	490	510
3	746	717	354	470	600	704	678	1,500	953	568	476	542
4	645	630	348	450	520	723	605	1,920	920	556	470	545
5	584	590	340	440	470	675	589	1,930	886	533	470	526
6	560	554	320	420	430	570	582	1,400	863	526	467	488
7	566	554	310	410	400	1,000	551	1,380	787	520	485	454
8	563	563	310	400	380	1,210	533	1,740	733	514	573	455
9	495	557	320	400	360	1,250	516	2,040	710	509	691	455
10	497	532	320	400	350	1,180	521	2,360	672	515	630	450
11	524	516	320	390	400	1,280	551	1,840	653	503	576	440
12	536	491	320	380	400	1,510	650	1,390	658	496	492	446
13	506	480	320	380	380	1,740	691	1,140	653	485	479	456
14	488	478	320	380	360	2,130	787	1,010	621	482	509	460
15	458	468	320	380	340	1,830	1,060	937	632	473	598	456
16	460	470	320	390	330	1,620	1,400	872	664	467	467	458
17	461	464	320	430	360	1,510	3,440	846	788	485	486	461
18	452	464	330	620	380	1,070	4,440	902	733	464	479	455
19	422	454	330	940	400	846	2,590	812	677	468	476	467
20	434	437	330	1,000	380	749	1,890	821	626	480	470	473
21	409	431	330	720	370	688	1,420	788	616	482	472	482
22	874	434	330	600	360	654	1,340	782	621	494	467	500
23	944	431	330	540	390	634	1,300	802	611	506	532	551
24	1,090	431	330	490	400	618	1,210	782	614	524	739	594
25	1,020	432	330	460	370	592	933	829	610	497	677	602
26	726	432	330	440	360	582	850	897	595	494	573	608
27	677	448	330	410	360	562	795	899	613	494	539	608
28	598	431	340	390	360	546	760	931	611	497	500	614
29	548	422	370	380	------	534	762	1,220	610	536	490	605
30	534	404	420	370	------	527	968	1,300	624	565	500	592
31	532	------	500	400	------	526	------	1,410	------	530	482	------
TOTAL	20,017	14,981	10,577	15,240	11,680	29,169	33,559	37,970	21,426	15,842	16,252	15,232
MEAN	646	499	341	492	417	941	1,119	1,225	714	511	524	508
MAX	1,740	717	500	1,000	1,000	2,130	4,440	2,360	1,080	598	739	614
MIN	409	404	310	370	330	440	516	782	595	464	467	440
CFSM	1.05	.81	.55	.80	.68	1.53	1.82	1.99	1.16	.83	.85	.82
IN.	1.21	.90	.64	.92	.71	1.76	2.03	2.29	1.29	.96	.98	.92

CAL YR 1972 TOTAL 168,581 MEAN 461 MAX 2,260 MIN 240 CFSM .75 IN 10.18
WTR YR 1973 TOTAL 241,945 MEAN 663 MAX 4,440 MIN 310 CFSM 1.08 IN 14.61

05410500 Kickapoo River at Steuben, Wis.

LOCATION.--Lat 43°11'27", long 90°52'28", in NW¼ sec.8, T.8 N., R.4 W., Crawford County, on right bank 0.8 mi (1.3 km) upstream from Duffy Creek, 1.0 mi (1.6 km) northwest of Steuben and 14 mi (23 km) upstream from mouth.

DRAINAGE AREA.--690 mi² (1,790 km²).

PERIOD OF RECORD.--May 1933 to current year.

GAGE.--Water-stage recorder. Datum of gage is 657.82 ft (200.50 m) above mean sea level, adjustment of 1912. Prior to Oct. 20, 1938, nonrecording gage at site 1.0 mi (1.6 km) upstream at datum 1.3 ft(0.4 m) higher.

AVERAGE DISCHARGE.--40 years, 458 ft³/s (12.97 m³/s), 9.01 in/yr (228 mm/yr).

EXTREMES.--Current year: Maximum discharge, 5,070 ft³/s (144 m³/s) Apr. 18, gage height, 10.20 ft (3.11 m); minimum daily, 380 ft³/s (10.8 m³/s) Dec. 6, Feb. 17.

Period of record: Maximum discharge, 10,800 ft³/s (306 m³/s) Mar. 28, 1961, gage height, 12.33 ft (3.76 m); minimum observed, 161 ft³/s (4.56 m³/s) Aug. 9, 1936, gage height, 0.76 ft (0.23 m) site and datum then in use.

REMARKS.--Records good except those for winter period, which are fair.

REVISIONS (WATER YEARS).--WSP 855: Drainage area. WSP 1438: 1933-38.

Rating table (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Dec. 2 to Mar. 1.)

3.0	303	7.0	1,000
4.0	450	8.0	1,250
5.0	600	9.0	2,080
6.0	780	10.0	4,570

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,550	587	450	760	500	440	572	1,160	1,460	644	594	543
2	2,400	656	440	580	1,000	622	605	1,300	1,340	642	554	542
3	1,560	740	430	520	1,000	778	682	1,420	1,180	640	534	566
4	899	760	420	480	800	798	666	1,570	1,120	642	530	596
5	700	673	400	440	540	736	627	2,020	1,080	614	528	588
6	646	613	380	430	500	651	622	2,220	1,020	598	522	558
7	611	600	390	430	480	981	600	2,000	952	592	539	534
8	590	602	400	420	460	1,150	584	1,890	864	598	586	528
9	570	610	400	420	440	1,220	597	2,020	812	578	758	532
10	546	594	400	420	460	1,280	591	2,470	776	580	712	549
11	543	570	400	420	470	1,420	576	2,600	746	574	706	554
12	575	557	400	420	460	1,420	640	2,250	742	567	586	537
13	566	540	400	430	450	1,460	712	1,790	738	561	556	528
14	540	533	400	430	430	1,850	806	1,450	719	556	554	528
15	516	522	400	440	410	2,270	1,040	1,250	693	552	591	524
16	507	513	400	460	390	2,020	1,370	1,120	697	550	618	524
17	501	507	400	480	380	1,790	1,760	1,030	762	542	550	534
18	501	504	400	700	400	1,740	4,400	974	877	538	538	552
19	494	500	400	860	470	1,400	3,570	954	873	536	534	561
20	482	492	400	1,000	460	1,010	2,570	929	786	532	532	552
21	500	486	400	980	440	818	2,250	931	732	536	530	536
22	554	482	410	800	420	742	1,810	902	695	554	530	635
23	931	477	410	600	410	698	1,560	891	695	566	567	652
24	1,090	473	400	540	430	671	1,480	877	697	580	712	664
25	1,140	473	400	500	430	654	1,370	911	684	578	924	619
26	974	482	390	480	410	634	1,150	947	664	567	713	637
27	764	488	390	460	400	614	978	1,010	684	567	614	640
28	675	486	400	430	400	597	888	1,120	679	562	584	594
29	629	473	420	410	------	584	862	1,220	688	555	562	606
30	590	458	470	390	------	574	962	1,280	659	552	556	652
31	579	------	540	410	------	566	------	1,360	------	603	561	------
TOTAL	24,723	16,451	12,740	16,540	13,840	32,188	36,900	43,866	25,114	17,856	18,475	17,165
MEAN	798	548	411	534	494	1,038	1,230	1,415	837	576	596	572
MAX	2,550	760	540	1,000	1,000	2,270	4,400	2,600	1,460	644	924	664
MIN	482	458	380	390	380	440	572	877	659	532	522	524
CFSM	1.16	.79	.60	.77	.72	1.50	1.78	2.05	1.21	.83	.86	.83
IN.	1.33	.89	.69	.89	.75	1.74	1.99	2.36	1.35	.96	1.00	.93

CAL YR 1972 TOTAL 193,902 MEAN 530 MAX 2,550 MIN 296 CFSM .77 IN 10.45
WTR YR 1973 TOTAL 275,858 MEAN 756 MAX 4,400 MIN 380 CFSM 1.10 IN 14.87

PEAK DISCHARGE (BASE, 1,900 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10- 1	1400	9.21	2,700	4-18	1600	10.20	5,070
3-15	0600	9.17	2,340	5-10	2200	9.24	2,670

Reservoirs in Wisconsin River Basin

The 24 reservoirs listed below are used to stabilize the flow of the Wisconsin and Tomahawk Rivers for power utilization and are also used for recreational purposes. The first 21 reservoirs are owned and operated by the Wisconsin Valley Improvement Co., which furnished the gage heights and capacity tables. Revised capacity tables for all 21 reservoirs were received from the company in April 1957 and were used to compute month-end usable contents beginning Sept. 30, 1955. Another revised capacity table for Burnt Rollways Reservoir was used to compute month-end usable contents beginning Sept. 30, 1964. Lake Dubay is owned by the Consolidated Water Power Co., Petenwell and Castle Rock are owned and operated by the Wisconsin River Power Co., which furnished the gage heights and capacity tables for these two reservoirs. Month-end contents are computed by the U.S. Geological Survey. The usable capacity of these reservoirs is usually less in summer than in winter because the allowable summer drawdown is limited by the Department of Natural Resources in the interest of riparian property owners. There are occasionally formal or informal changes in capacity and in minimum drawdown levels. Usable capacity figures listed below are for winter regulation.

05390100 Lac Vieux Desert on Wisconsin River, lat 46°07'18", long 89°09'07", in SE¼ NW¼ sec.17, T.42 N., R.11 E., Vilas County, 4.8 mi (7.7 km) northwest of Phelps, Wis., used as a reservoir since 1908, has a usable capacity of 652,000,000 ft³ (18,500,000 m³). Drainage area, 28 mi² (72 km²). Datum of gage is 1,679.53 ft (511.42 m) above mean sea level.

05390150 Twin Lakes on Twin River, lat 46°01'20", long 89°10'05", in SW¼ NE¼ sec.19, T.41 N., R.11 E., Vilas County, 5.0 mi (8.0 km) southwest of Phelps, Wis., used as a reservoir since 1908, has a usable capacity of 313,000,000 ft³ (8,860,000 m³). Drainage area, 26 mi² (67 km²). Altitude of gage is 1,640 ft (500 m), from river-profile map.

05390200 Buckatabon Lakes on Buckatabon Creek, lat 46°01'18", long 89°18'40", in SE¼ NE¼ sec.24, T.41 N., R.9 E., Vilas County, 3.3 mi (5.3 km) southwest of Conover, Wis., used as a reservoir since 1908, has a usable capacity of 130,000,000 ft³ (3,680,000 m³). Drainage area, 14 mi² (36 km²). Datum of gage is 1,637.85 ft (499.22 m) above mean sea level (levels by Wisconsin Valley Improvement Co.).

05390250 Sevenmile Lake on Sevenmile Creek, lat 45°52'30", long 89°04'07", in SE¼ NE¼ sec.11, T.39 N., R.11 E., Oneida County, 9.1 mi (14.6 km) southeast of town of Eagle River, Wis., used as a reservoir since 1908, has a usable capacity of 93,000,000 ft³ (2,630,000 m³). Drainage area, 14 mi² (36 km²). Datum of gage is 1,646.30 ft (501.79 m) above mean sea level (levels by Wisconsin Valley Improvement Co.).

05390300 Lower Ninemile Lake on Ninemile Creek, lat 45°53'37", long 89°07'15", in NE¼ NW¼ sec.4, T.39 N., R.11 E., Oneida County, 6.6 mi (10.6 km) southeast of town of Eagle River, Wis., used as a reservoir since 1908, has a usable capacity of 121,000,000 ft³ (3,430,000 m³). Drainage area, 25 mi² (65 km²). Datum of gage is 1,638.27 ft (499.34 m) above mean sea level (levels by Wisconsin Valley Improvement Co.).

05390350 Burnt Rollways Reservoir on Eagle River, lat 45°53'40", long 89°08'28", in NE¼ NW¼ sec.5, T.39 N., R.11 E., Oneida County, 5.3 mi (8.5 km) southeast of town of Eagle River, Wis., used as a reservoir since 1908, has a usable capacity of 779,000,000 ft³ (22,100,000 m³). This reservoir includes 18 lakes controlled by the same dam. Drainage area, 129 mi² (334 km²). Altitude of gage is 1,620 ft (494 m), from river-profile map.

05390400 Long Lake on Deerskin River, lat 46°02'37", long 89°02'44", in NW¼ SE¼ sec.7, T.41 N., R.12 E., Vilas County, 2.5 mi (4.0 km) southeast of Phelps, Wis., used as a reservoir since 1908, has a usable capacity of 400,000,000 ft³ (11,300,000 m³). Drainage area, 35 mi² (91 km²). Datum of gage is 1,695.14 ft (516.68 m) above mean sea level (levels by Wisconsin Valley Improvement Co.).

05390600 Deerskin Lake on Little Deerskin River, lat 45°59'07", long 89°09'40", in SE¼ sec.31, T.41 N., R.11 E., Vilas County, 6.3 mi (10.1 km) northeast of town of Eagle River, Wis., used as a reservoir since 1908, has a usable capacity of 22,000,000 ft³ (623,000 m³). Drainage area, 5 mi² (13 km²). Datum of gage is 1,640.16 ft (499.92 m) above mean sea level (levels by Wisconsin Valley Improvement Co.).

05390650 Sugar Camp Reservoir on Sugar Camp Creek, lat 45°52'19", long 89°23'40", in NE¼ sec.17, T.39 N., R.9 E., Oneida County, 7.6 mi (12.2 km) southwest of town of Eagle River, Wis., used as a reservoir since 1908, has a usable capacity of 471,000,000 ft³ (13,300,000 m³). Drainage area, 59 mi² (153 km²). Datum of gage is 1,591.94 ft (485.22 m) above mean sea level (levels by Wisconsin Valley Improvement Co.).

05390700 Little St. Germain Lake on Little St. Germain Creek, lat 45°53'57", long 89°27'08", in SE¼ sec.35, T.40 N., R.8 E., Vilas County, 9.6 mi (15.4 km) west of town of Eagle River, Wis., used as a reservoir since 1908, has a usable capacity of 79,000,000 ft³ (2,240,000 m³). Drainage area, 19 mi² (49 km²). Datum of gage is 1,611.54 ft (491.20 m) above mean sea level (levels by Wisconsin Valley Improvement Co.).

05390750 Big St. Germain Lake on St. Germain River, lat 45°55'06", long 89°31'55", in SE¼ sec.30, T.40 N., R.8 E., Vilas County, 5.0 mi (8.0 km) south of Sayner, Wis., used as a reservoir since 1908, has a usable capacity of 202,000,000 ft³ (5,720,000 m³). Drainage area, 69 mi² (179 km²). Datum of gage is 1,588.32 ft (484.12 m) above mean sea level (levels by Public Service Commission of Wisconsin).

05390800 Pickerel Lake on St. Germain River, lat 45°52'22", long 89°31'47", in NE¼ sec.18, T.39 N., R.8 E., Oneida County, 5.0 mi (8.0 km) northeast of town of Lake Tomahawk, Wis., used as a reservoir since 1935, has a usable capacity of 338,000,000 ft³ (9,570,000 m³). Drainage area, 78 mi² (202 km²). Datum of gage is 1,582.00 ft (482.19 m) above mean sea level (levels by Wisconsin Valley Improvement Co.).

05390900 Rainbow Lake on Wisconsin River, lat 45°50'02", long 89°32'42", in SW¼ sec.30, T.39 N., R.8 E., Oneida County, 800 ft (244 m) upstream from U.S. Geological Survey river gaging station, 2.7 mi (4.3 km) northeast of town of Lake Tomahawk, Wis., used as a reservoir since 1935, has a usable capacity of 2,181,000,000 ft³ (61,770,000 m³). Drainage area, 740 mi² (1,917 km²). Datum of gage is 1,570.00 ft (478.54 m) above mean sea level (levels by Wisconsin Valley Improvement Co.).

05391100 South Pelican Lake on Pelican River, lat 45°31'37", long 89°12'24", in S½ sec.11, T.35 N., R.10 E., Oneida County, 2.8 mi (4.5 km) northwest of town of Pelican Lake, Wis., used as a reservoir since 1909, has a usable capacity of 305,000,000 ft³ (8,640,000 m³). Drainage area, 22 mi² (57 km²). Datum of gage is 1,589.98 ft (484.63 m) above mean sea level (levels by Wisconsin Valley Improvement Co.).

Reservoirs in Wisconsin River Basin--Continued

05391300 North Pelican Lakes (includes Moen Lakes) on North Branch Pelican River, lat 45°38'05", long 89°14'38", in SE¼ sec.4, T.36 N., R.10 E., Oneida County, 0.2 mi (0.3 km) below Twin Lakes Creek and 8.0 mi (12.9 km) east of Rhinelander, Wis., city limits, used as a reservoir since 1908, has a usable capacity of 218,000,000 ft³ (6,170,000 m³). Drainage area, 71 mi² (184 km²). Datum of gage is 1,569.10 ft (478.26 m) above mean sea level (levels by Wisconsin Valley Improvement Co.).

05392100 Minocqua Lake on Tomahawk River, lat 45°52'35", long 89°43'38", on line between secs.10 and 15, T.39 N., R.6 E., Oneida County, 1.0 mi (1.6 km) west of Minocqua, Wis., used as a reservoir since 1910, has a usable capacity of 628,000,000 ft³ (17,800,000 m³). Drainage area, 89 mi² (231 km²). Datum of gage is 1,584.56 ft (482.97 m) above mean sea level (levels by Wisconsin Valley Improvement Co.).

05392200 Squirrel Lake on Squirrel River, lat 45°50'37", long 89°54'13", in NE¼ sec.30, T.39 N., R.5 E., Oneida County, 9.4 mi (15.1 km) west of Minocqua, Wis., used as a reservoir since 1908, has a usable capacity of 182,000,000 ft³ (5,150,000 m³). Drainage area, 17 mi² (44 km²). Datum of gage is 1,560.93 ft (475.77 m) above mean sea level (levels by Wisconsin Valley Improvement Co.).

05392300 Willow Reservoir on Tomahawk River, lat 45°42'45", long 89°50'38", in NE¼ sec.10, T.37 N., R.5 E., Oneida County, 8.8 mi (14.2 km) southwest of Hazelhurst, Wis., used as a reservoir since 1927, has a usable capacity of 3,302,000,000 ft³ (93,510,000 m³). Drainage area, 327 mi² (847 km²). Datum of gage is 1,505.87 ft (458.99 m) above mean sea level (levels by Wisconsin Valley Improvement Co.).

05392500 Lake Nokomis on Tomahawk River, lat 45°32'20", long 89°44'48", in NW¼ sec.9, T.35 N., R.6 E., Lincoln County, at U.S. Geological Survey river gaging station, 0.5 mi (0.8 km) east of Bradley, Wis., used as a reservoir since 1912, has a usable capacity of 1,808,000,000 ft³ (51,200,000 m³). Drainage area, 548 mi² (1,419 km²). Datum of gage is 1,448.24 ft (441.42 m) above mean sea level.

05393600 Spirit River Flowage on Spirit River, lat 45°26'18", long 89°44'30", in NE¼ sec.16, T.34 N., R.6 E., Lincoln County, 2.0 mi (3.2 km) south of Tomahawk, Wis., used as a reservoir since 1923, has a usable capacity of 756,000,000 ft³ (21,400,000 m³). Drainage area, 174 mi² (451 km²). Datum of gage is 1,420.53 ft (432.98 m) above mean sea level.

05399600 Big Eau Pleine Reservoir on Big Eau Pleine River, lat 44°43'52", long 89°45'35", in SW¼ sec.14, T.26 N., R.6 E., Marathon County, 3.0 mi (4.8 km) northeast of Dancy, Wis., used as a reservoir since 1937, has a usable capacity of 4,457,000,000 ft³ (126,200,000 m³). Drainage area, 365 mi² (945 km²). Datum of gage is 1,115.00 ft (339.85 m) above mean sea level (levels by Wisconsin Valley Improvement Co.).

05400295 Lake Dubay on Wisconsin River, lat 44°39'54", long 89°39'03", in sec.10, T.25 N., R.7 E., Wood County, 1.5 mi (2.4 km) downstream from Little Eau Pleine River and 10.5 mi (16.9 km) northwest of Stevens Point, has a usable capacity of 2,117,000,000 ft³ (59,950,000 m³). Drainage area, 4,890 mi² (12,665 km²). Datum of gage is at mean sea level (power company levels).

05401400 Petenwell Flowage on Wisconsin River, lat 44°03'26", long 90°01'18", in SE¼ sec.4, T.18 N., R.4 E., Adams County, 5.2 mi (8.4 km) upstream from Roche a Cri Creek, 2.4 mi (3.9 km) west of Strongs Prairie, Wis., and 3.5 mi (5.6 km) northeast of Necedah, Wis., used as a reservoir since 1950, has a total capacity of 19,880,000,000 ft³ (563,000,000 m³). Drainage area, 5,869 mi² (15,201 km²). Datum of gage is 790.2 ft (240.9 m) above mean sea level (levels by Wisconsin River Power Co.).

05403200 Castle Rock Flowage on Wisconsin River, lat 43°51'48", long 89°57'38", in sec.13, T.16 N., R.4 E., Adams County, 4.5 mi (7.2 km) upstream from Duck Creek, and 2.0 mi (3.2 km) south of Germantown, Wis., and 7.0 mi (11.3 km) northeast of Mauston, Wis., used as a reservoir since 1950, has a total capacity of 7,630,000,000 ft³ (216,000,000 m³). Drainage area, 6,860 mi² (17,767 km²). Datum of gage is 790.2 ft (240.9 m) above mean sea level (levels by Wisconsin River Power Co.).

Month-end contents, in millions of cubic feet, water year October 1972 to September 1973

	Lac Vieux Desert	Twin Lakes	Buckatabon Lake	Sevenmile Lake	Lower Ninemile Lake	Burnt Rollways Reservoir	Long Lake	Deerskin Lake
Sept. 30.....	340	289	118	86	123	738	246	14
Oct. 31.....	231	255	108	85	117	718	240	11
Nov. 30.....	170	224	88	76	108	671	202	7
Dec. 31.....	114	130	42	42	44	464	152	6
Jan. 31.....	100	29	24	21	2	92	40	7
Feb. 28.....	24	0	21	11	14	0	2	6
Mar. 31.....	235	104	87	67	119	752	242	8
Apr. 30.....	399	193	120	84	128	752	253	16
May 31.....	380	286	118	81	120	755	247	16
June 30.....	358	283	119	84	126	752	244	16
July 31.....	388	276	120	80	120	698	242	15
Aug. 31.....	401	309	122	86	129	759	261	17
Sept. 30.....	263	244	102	70	100	651	199	14

Reservoirs in Wisconsin River Basin--Continued

Month-end contents, in millions of cubic feet, water year October 1972 to September 1973

	Sugar Camp Reservoir	Little St. Germain Lake	Big St. Germain Lake	Pickerel Lake	Rainbow Lake	South Pelican Lake	North Pelican Lakes	Minocqua Lake
Sept. 30.....	451	75	171	266	2,155	318	144	529
Oct. 31.....	462	71	170	265	2,127	267	148	517
Nov. 30.....	388	43	120	250	2,137	216	114	478
Dec. 31.....	298	28	94	241	1,968	146	61	394
Jan. 31.....	223	12	69	228	1,786	139	50	308
Feb. 28.....	21	3	2	184	1,165	76	34	222
Mar. 31.....	392	58	159	241	2,119	282	139	523
Apr. 30.....	441	77	174	252	2,149	282	157	538
May 31.....	418	76	163	270	2,117	292	136	562
June 30.....	404	75	162	267	1,859	241	140	517
July 31.....	410	75	163	265	1,339	231	140	535
Aug. 31.....	408	77	165	269	1,120	276	136	568
Sept. 30.....	352	65	151	268	1,251	254	136	437

	Squirrel Lake	Willow Reservoir	Lake Nokomis	Spirit Lake Flowage	Big Eau Pleine Reservoir	Lake Dubay	Petenwell Flowage	Castle Rock Flowage
Sept. 30.....	158	2,826	1,786	725	4,302	4,548	18,800	6,779
Oct. 31.....	148	3,222	1,752	728	4,399	4,501	18,926	6,837
Nov. 30.....	138	2,956	1,595	710	4,399	4,318	18,863	6,750
Dec. 31.....	83	1,919	1,387	429	3,934	4,537	18,890	6,750
Jan. 31.....	35	1,354	1,094	466	3,700	4,348	18,656	6,486
Feb. 28.....	11	795	645	125	1,281	4,436	17,782	5,276
Mar. 31.....	118	2,262	1,754	688	4,383	4,804	19,727	7,562
Apr. 30.....	161	3,216	1,772	711	4,327	4,818	19,736	7,577
May 31.....	161	3,295	1,746	698	4,346	4,726	19,664	7,562
June 30.....	161	3,251	1,497	549	3,987	4,268	18,512	6,599
July 31.....	158	2,320	1,574	378	2,775	4,355	18,451	6,614
Aug. 31.....	175	2,084	1,495	415	1,925	4,271	18,372	6,621
Sept. 30.....	155	2,188	1,551	562	1,693	4,362	18,571	6,586

05413500 Grant River at Burton, Wis.

LOCATION.--Lat 42°43'13", long 90°49'09", in NW¼ sec.23, T.3 N., R.4 W., Grant County, on right bank at downstream side of highway bridge at Burton, 5.9 mi (9.5 km) northwest of Potosi and 9.5 mi (15.3 km) upstream from mouth.

DRAINAGE AREA.--267 mi^2 (691 km^2).

PERIOD OF RECORD.--October 1934 to current year. Published as "near Burton" October 1934 to September 1947. Records published for both sites March to September 1947. October 1934, monthly discharge only, published in WSP 1308.

GAGE.--Water-stage recorder. Datum of gage is 606.89 ft (184.980 m) above mean sea level, adjustment of 1912. Oct. 17, 1934, to Sept. 30, 1947, nonrecording gage at site 6 mi (10 km) upstream at datum 33.18 ft (10.113 m) higher. Mar. 18, 1947, to July 27, 1949, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--39 years, 162 ft^3/s (4.588 m^3/s), 8.24 in/yr (209 mm/yr).

EXTREMES.--Current year: Maximum discharge, 6,770 ft^3/s (192 m^3/s) Dec. 30, gage height, 21.14 ft (6.443 m); minimum, 127 ft^3/s (3.59 m^3/s) Feb. 8, gage height, 5.73 ft (1.746 m), result of freezeup.
Period of record: Maximum discharge, 25,000 ft^3/s (708 m^3/s) July 16, 1950, gage height, 24.82 ft (7.565 m), from rating curve extended above 18,000 ft^3/s (510 m^3/s) on basis of slope-area measurement of peak flow; minimum, 21 ft^3/s (0.59 m^3/s) Mar. 4, 1954, result of freezeup.

REMARKS.--Records good except those for winter period, which are fair.

COOPERATION.--Four discharge measurements furnished by Corps of Engineers.

REVISIONS (WATER YEARS).--WSP 1308: 1935-37(M), 1941(M), 1945-46(M), 1949(M). WSP 1728: 1942(M).

Rating tables (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Dec. 4-29, Jan. 2-16, Feb. 8-22.)

Oct. 1 to Feb. 2				Feb. 3 to Sept. 30			
6.0	152	14.0	1,151	6.0	152	12.0	1,075
8.0	296	16.0	1,491	7.0	253	14.0	1,575
10.0	536	18.0	2,220	8.0	368	16.0	2,240
12.0	825	20.0	4,480	10.0	635		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	208	226	193	372	2,020	231	354	553	404	315	243	217
2	203	325	192	340	850	397	344	626	396	312	239	214
3	199	290	188	300	297	277	310	554	462	698	238	270
4	197	241	190	250	235	232	304	491	421	445	271	222
5	196	232	190	190	226	214	296	462	462	338	276	220
6	207	226	180	180	208	289	287	463	394	320	240	198
7	206	241	180	170	197	1,910	282	595	375	312	251	196
8	197	233	180	170	180	390	278	830	366	300	249	201
9	192	223	180	170	170	297	294	636	354	298	249	312
10	187	222	180	160	170	345	240	561	345	320	242	246
11	213	218	170	160	160	1,230	324	508	342	292	232	218
12	195	213	170	160	160	558	351	497	386	285	227	207
13	188	211	170	160	160	414	396	459	379	283	226	205
14	187	216	170	170	160	1,200	464	437	337	275	248	206
15	183	210	170	180	160	602	680	422	455	274	233	199
16	186	207	170	230	160	485	1,670	415	1,320	270	229	201
17	186	208	170	2,230	160	456	925	403	1,150	265	224	244
18	181	206	170	1,960	160	402	641	400	521	263	226	244
19	180	204	170	963	170	374	561	412	516	261	270	211
20	180	203	170	250	170	361	648	385	432	265	233	205
21	228	202	170	219	180	343	965	378	404	274	222	246
22	252	201	170	219	190	328	724	378	384	339	224	267
23	504	197	170	225	280	319	582	378	373	296	285	209
24	327	197	170	196	320	308	525	375	362	278	266	202
25	280	204	170	217	210	304	484	447	351	273	234	251
26	262	211	170	244	180	295	460	386	356	272	229	227
27	242	205	170	225	190	280	434	533	360	284	222	211
28	229	196	180	323	200	274	419	805	339	257	214	205
29	220	190	210	177	------	273	436	497	325	252	211	221
30	211	190	4,010	190	------	264	474	446	321	256	208	232
31	210	------	1,710	184	------	264	------	420	------	248	209	------
TOTAL	6,836	6,548	10,853	11,184	7,923	13,916	15,152	15,152	13,392	9,420	7,370	6,707
MEAN	221	218	350	361	283	449	505	489	446	304	238	224
MAX	504	325	4,010	2,230	2,020	1,910	1,670	830	1,320	698	285	312
MIN	180	190	170	160	160	214	240	375	321	248	208	196
CFSM	.83	.82	1.31	1.35	1.06	1.68	1.89	1.83	1.67	1.14	.89	.84
IN.	.95	.91	1.51	1.56	1.10	1.94	2.11	2.11	1.87	1.31	1.03	.93

CAL YR 1972 TOTAL 81,258 MEAN 222 MAX 4,010 MIN 64 CFSM .83 IN 11.32
WTR YR 1973 TOTAL 124,453 MEAN 341 MAX 4,010 MIN 160 CFSM 1.28 IN 17.34

PEAK DISCHARGE (BASE, 2,400 FT^3/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
12-30	2200	21.14	6,770	3- 7	0845	16.91	2,620
1-17	1915	19.52	3,750	4-16	1400	16.48	2,430
2- 1	2230	20.06	4,590	6-16	2315	19.51	4,280

05414000 Platte River near Rockville, Wis.

LOCATION.--Lat 42°43'52", long 90°38'25", in SW¼ sec.17, T.3 N., R.2 W., Grant County, on right bank just downstream from bridge on County Trunk Highway B, 0.8 mi (1.3 km) upstream from Blakely Branch, 2.2 mi (3.5 km) east of Rockville, 4.5 mi (7.2 km) northeast of Potosi, and 15.2 mi (24.5 km) upstream from mouth.

DRAINAGE AREA.--139 mi² (360 km²).

PERIOD OF RECORD.--October 1934 to current year. Monthly discharge only for October and November 1934, published in WSP 1308.

GAGE.--Water-stage recorder. Datum of gage is 642.96 ft (195.974 m) above mean sea level, adjustment of 1912. Prior to Oct. 1, 1941, nonrecording gage at site 1.3 mi (2.1 km) upstream at datum 12.55 ft (3.82 m) higher. Oct. 1, 1941, to June 29, 1949, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--39 years, 95.8 ft³/s (2.713 m³/s), 9.36 in/yr (238 mm/yr).

EXTREMES.--Current year: Maximum discharge, 5,250 ft³/s (149 m³/s) Dec. 30, gage height, 10.83 ft (3.30 m); minimum, 59 ft³/s (1.67 m³/s) Dec. 4, gage height, 3.23 ft (0.985 m), result of freezeup.
Period of record: Maximum discharge, 43,500 ft³/s (1,230 m³/s) July 16, 1950, gage height, 17.26 ft (5.26 m), from rating curve extended above 7,000 ft³/s (198 m³/s) on basis of slope-area measurement of peak flow; no flow Nov. 24, 1950.

REMARKS.--Records fair.

COOPERATION.--Four discharge measurements furnished by Corps of Engineers.

REVISIONS (WATER YEARS).--WSP 1438: 1935-36, 1937(M), 1939(M), 1941-43, 1946(M).

Rating tables (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Dec. 5, 7-29, Jan. 3-17, Feb. 9-22.)

Oct. 1 to Dec. 30				Dec. 31 to Sept. 30			
3.3	77	6.0	750	3.3	61	6.0	750
3.6	109	7.0	1,050	3.6	113	7.0	1,050
4.0	184	8.0	1,500	4.0	194	8.0	1,600
5.0	450	9.0	2,340	5.0	450		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	96	114	93	212	1,130	167	150	349	198	159	107	96
2	91	139	91	175	444	264	167	639	196	155	105	438
3	88	131	86	140	155	216	145	432	212	500	104	279
4	87	119	86	120	125	143	153	368	201	270	107	184
5	86	116	86	90	115	121	149	318	238	190	109	129
6	90	116	84	82	107	318	141	313	205	170	105	113
7	88	119	84	80	100	1,270	129	357	173	160	105	107
8	86	116	82	80	82	255	120	468	165	150	105	109
9	83	112	82	78	80	175	120	379	167	140	109	151
10	81	112	82	78	78	155	110	326	159	140	105	129
11	88	109	80	76	76	660	149	318	161	135	96	117
12	86	106	80	76	76	303	153	310	203	129	94	107
13	81	106	80	76	76	262	184	291	184	127	100	104
14	81	109	78	76	74	945	198	264	167	119	131	104
15	79	105	78	82	74	396	333	248	205	127	104	104
16	79	103	78	100	74	303	1,070	243	999	125	100	104
17	79	105	78	900	74	262	600	234	432	123	100	135
18	77	103	78	492	76	230	420	214	272	121	100	129
19	77	105	78	450	76	205	346	230	255	121	100	113
20	79	105	78	173	78	184	288	236	218	119	102	105
21	105	103	78	140	82	177	405	220	201	119	98	157
22	130	99	80	137	92	167	362	207	192	163	98	127
23	278	97	80	151	151	163	357	203	209	139	151	111
24	184	96	80	98	181	153	286	194	190	129	127	107
25	160	99	80	141	98	153	279	207	177	125	113	161
26	146	102	80	181	84	153	252	190	177	129	109	127
27	133	99	80	175	89	133	238	346	175	131	104	119
28	126	93	82	281	89	129	225	320	169	123	100	115
29	119	91	88	104	------	149	240	255	163	119	100	167
30	112	93	1,840	188	------	133	260	225	161	119	96	143
31	112	------	582	145	------	131	------	212	------	113	96	------
TOTAL	3,287	3,222	4,792	5,377	4,036	8,475	8,029	9,116	6,824	4,689	3,280	4,191
MEAN	106	107	155	173	144	273	268	294	227	151	106	140
MAX	278	139	1,840	900	1,130	1,270	1,070	639	999	500	151	438
MIN	77	91	78	76	74	121	110	190	159	113	94	96
CFSM	.76	.77	1.12	1.24	1.04	1.96	1.93	2.12	1.63	1.09	.76	1.01
IN.	.88	.86	1.28	1.44	1.08	2.27	2.15	2.44	1.83	1.25	.88	1.12

CAL YR 1972 TOTAL 40,716 MEAN 111 MAX 1,840 MIN 42 CFSM .80 IN 10.90
WTR YR 1973 TOTAL 65,318 MEAN 179 MAX 1,840 MIN 74 CFSM 1.29 IN 17.48

PEAK DISCHARGE (BASE, 2,100 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
12-30	1615	10.83	5,250	3- 7	0300	9.30	2,700
1-17	--	--	a2,400	6-16	1815	9.95	3,620
2- 1	1615	9.76	3,330				

a About.

05415000 Galena River at Buncombe, Wis.

LOCATION.--Lat 42°30'49", long 90°22'40", in SW¼ sec.33, T.1 N., R.1 E., Lafayette County, on left bank at Buncombe, 0.6 mi (1.0 km) upstream from Coon Branch, 1.5 mi (2.4 km) upstream from Scrabble Branch, 2.0 mi (3.2 km) upstream from Wisconsin-Illinois State line, and 3.5 mi (5.6 km) southeast of Hazel Green.

DRAINAGE AREA.--128 mi^2 (332 km^2).

PERIOD OF RECORD.--September 1939 to current year.

GAGE.--Water-stage recorder. Datum of gage is 682.77 ft (208.108 m) above mean sea level, adjustment of 1912 (Corps of Engineers bench mark). Prior to Dec. 1, 1939, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--34 years, 75.6 ft^3/s (2.141 m^3/s), 8.02 in/yr (204 mm/yr).

EXTREMES.--Current year: Maximum discharge, about 3,200 ft^3/s (90.6 m^3/s) Dec. 30, gage height, 13.47 ft (4.106 m), backwater from ice; minimum, 31 ft^3/s (0.88 m^3/s) Feb. 16, gage height, 2.92 ft (0.890 m), result of freezeup.
Period of record: Maximum discharge, 29,700 ft^3/s (841 m^3/s) June 29, 1969, gage height, 19.57 ft (5.965 m) from rating curve extended above 8,100 ft^3/s (229 m^3/s) on basis of slope-area measurements at gage heights 15.68 ft (4.779 m) and 19.57 ft (5.965 m); minimum, 0.8 ft^3/s (0.023 m^3/s) Mar. 3, 1954.
Flood in February 1937 reached a stage of about 17.1 ft (5.212 m), from information by local resident, discharge, 18,000 ft^3/s (510 m^3/s).

REMARKS.--Records good except those for winter periods, which are fair.

REVISIONS (WATER YEARS).--WSP 1438: 1942(P), 1943(M), 1944(P), 1945(M).

Rating tables (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Dec. 1 to Jan. 19, Feb. 7-25.)

Oct. 1 to Dec. 29				Dec. 30 to Sept. 30			
3.5	63	5.0	314	3.3	57	6.0	650
4.0	127	6.0	602	3.6	86	7.0	1,000
				4.0	146	8.0	1,420
				5.0	362	9.0	1,950

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	144	133	90	160	826	291	184	440	204	114	86	71
2	129	188	86	110	390	368	194	981	208	112	84	104
3	119	158	84	100	139	234	166	421	216	275	84	115
4	114	141	80	82	108	141	164	340	198	173	84	82
5	109	135	72	78	102	122	155	306	194	130	88	76
6	119	132	66	74	92	115	144	298	180	120	84	71
7	112	136	68	72	88	250	141	404	173	114	82	69
8	103	129	68	68	80	820	141	373	168	108	84	70
9	94	123	68	66	74	350	122	301	159	106	86	88
10	89	121	68	66	74	180	108	271	153	105	84	82
11	98	119	68	66	72	382	168	250	150	99	78	73
12	91	114	68	66	72	252	190	248	168	99	78	69
13	87	114	68	68	70	212	216	232	157	101	78	70
14	85	120	68	72	68	502	262	222	144	98	80	70
15	80	117	68	80	66	260	401	214	159	96	82	67
16	85	116	68	250	62	236	605	208	204	96	81	68
17	79	116	70	380	62	230	337	198	256	94	78	101
18	75	112	72	520	64	196	282	198	173	92	78	85
19	73	107	74	580	68	184	260	210	182	92	82	73
20	75	105	78	157	70	173	429	192	153	92	84	71
21	117	103	82	137	70	162	587	186	142	94	82	220
22	195	102	80	210	72	155	457	200	137	100	70	157
23	468	99	78	198	80	148	329	194	137	120	90	84
24	219	99	76	111	150	139	286	188	137	100	85	77
25	184	107	76	123	180	139	264	212	128	98	78	126
26	169	113	74	150	88	132	246	188	132	98	75	91
27	155	103	74	148	111	123	230	590	128	98	71	99
28	147	94	74	258	109	122	220	382	123	96	68	117
29	139	90	110	97	------	123	269	260	118	90	67	311
30	129	93	1,700	123	------	118	275	234	115	90	66	133
31	132	------	460	106	------	125	------	216	------	90	68	------
TOTAL	4,014	3,539	4,336	4,776	3,507	6,984	7,832	9,157	4,896	3,390	2,464	2,990
MEAN	129	118	140	154	125	225	261	295	163	109	79.5	99.7
MAX	468	188	1,700	580	826	820	605	981	256	275	90	311
MIN	73	90	66	66	62	115	108	186	115	90	66	67
CFSM	1.01	.92	1.09	1.20	.98	1.76	2.04	2.30	1.27	.85	.62	.78
IN.	1.17	1.03	1.26	1.39	1.02	2.03	2.28	2.66	1.42	.99	.72	.87

CAL YR 1972 TOTAL 33,891 MEAN 92.6 MAX 1,740 MIN 16 CFSM .72 IN 9.85
WTR YR 1973 TOTAL 57,885 MEAN 159 MAX 1,700 MIN 62 CFSM 1.24 IN 16.82

PEAK DISCHARGE (BASE, 3,000 FT^3/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
12-30	--	--	a3,200	1-16	--	--	a3,000

a About.

05426000 Crawfish River at Milford, Wis.

LOCATION.--Lat 43°06'00", long 88°50'58", in SW¼ sec.4, T.7 N., R.14 E., Jefferson County, near left bank on upstream side of highway bridge in Milford, 1.4 mi (2.2 km) downstream from Rock Creek and 9.8 mi (15.8 km) upstream from mouth.

DRAINAGE AREA.--732 mi² (1,896 km²).

PERIOD OF RECORD.--June 1931 to current year.

GAGE.--Water-stage recorder. Datum of gage is 779.40 ft (237.561 m) above mean sea level. Prior to July 28, 1966, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--42 years, 345 ft³/s (9.770 m³/s), 6.40 in/yr (163 mm/yr).

EXTREMES.--Current year: Maximum discharge, 3,440 ft³/s (97.4 m³/s) Mar. 17, gage height, 8.21 ft (2.502 m); minimum, 45 ft³/s (1.27 m³/s) Aug. 7, gage height, 1.69 ft (0.515 m).
Period of record: Maximum discharge, 6,140 ft³/s (174 m³/s) Apr. 6, 1959, gage height, 11.15 ft (3.398 m); minimum observed, 0.2 ft³/s (0.006 m³/s) Sept. 15, 1958, gage height, 1.11 ft (0.338 m).

REMARKS.--Records good except those for winter periods, which are fair. Some diurnal fluctuation at low flow possible, due to small dams upstream.

REVISIONS (WATER YEARS).--WSP 805: Drainage area. WSP 975: 1937-38. WSP 1438: 1932-33(M), 1935(M), 1937, 1938-41(M), 1943-44(M), 1947-48(M).

Rating table (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Nov. 30 to Dec. 29, Jan. 8-18, Feb. 15-20.)

1.8	63	5.0	1,450
2.0	112	7.0	2,550
2.5	280	9.0	4,100
3.0	495		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,780	1,190	310	710	1,490	461	1,380	2,400	2,210	217	123	94
2	1,750	1,170	300	775	1,670	616	1,370	2,650	2,140	213	115	102
3	1,670	1,190	290	843	1,730	834	1,390	2,920	2,030	196	102	96
4	1,620	1,190	270	915	1,800	996	1,460	3,050	1,960	196	89	102
5	1,550	1,170	260	947	1,870	1,140	1,430	3,050	1,880	179	86	118
6	1,490	1,160	250	920	1,880	1,300	1,450	2,980	1,800	140	77	126
7	1,390	1,180	230	871	1,820	1,870	1,480	2,940	1,660	129	70	129
8	1,330	1,150	230	800	1,900	2,150	1,470	2,980	1,510	153	91	129
9	1,250	1,110	220	660	1,890	2,470	1,480	2,920	1,450	156	104	134
10	1,160	1,090	220	540	1,720	2,720	1,410	2,900	1,340	169	109	134
11	1,110	1,060	210	500	1,570	2,890	1,240	2,900	1,220	156	112	143
12	1,080	1,030	210	490	1,440	3,050	1,240	2,840	1,170	115	112	129
13	1,000	1,020	210	410	1,310	3,040	1,240	2,730	1,070	150	102	118
14	966	1,020	210	400	1,200	3,140	1,250	2,590	959	156	115	118
15	877	929	210	400	1,100	3,200	1,250	2,440	863	150	102	109
16	808	893	210	430	1,000	3,350	1,330	2,300	798	137	96	104
17	764	870	210	450	920	3,400	1,450	2,210	729	126	96	120
18	695	848	210	600	820	3,230	1,580	2,050	666	120	102	118
19	620	821	210	956	720	3,060	1,640	1,960	608	123	118	109
20	544	775	210	1,130	660	2,930	1,680	1,860	540	129	140	134
21	529	725	210	1,310	599	2,760	2,070	1,740	491	120	123	107
22	586	673	210	1,490	558	2,590	2,430	1,680	455	115	104	120
23	798	584	210	1,630	496	2,440	2,780	1,610	410	109	115	134
24	926	524	210	1,710	444	2,320	2,970	1,510	396	118	126	118
25	1,010	499	210	1,750	413	2,230	2,990	1,550	348	118	129	120
26	1,100	486	220	1,780	411	2,110	2,900	1,550	320	120	132	120
27	1,210	463	230	1,770	446	1,940	2,760	1,650	308	120	137	140
28	1,270	396	250	1,740	444	1,810	2,570	1,950	292	129	132	170
29	1,270	363	280	1,670	------	1,700	2,430	2,110	261	107	126	180
30	1,250	350	433	1,570	------	1,580	2,400	2,210	234	112	115	180
31	1,220	------	633	1,500	------	1,460	------	2,230	------	129	112	------
TOTAL	34,623	25,929	7,776	31,667	32,321	68,787	54,520	72,460	30,118	4,407	3,412	3,755
MEAN	1,117	864	251	1,022	1,154	2,219	1,817	2,337	1,004	142	110	125
MAX	1,780	1,190	633	1,780	1,900	3,400	2,990	3,050	2,210	217	140	180
MIN	529	350	210	400	411	461	1,240	1,510	234	107	70	94
CFSM	1.53	1.18	.34	1.40	1.58	3.03	2.48	3.19	1.37	.19	.15	.17
IN.	1.76	1.32	.40	1.61	1.64	3.50	2.77	3.68	1.53	.22	.17	.19

CAL YR 1972 TOTAL 188,301 MEAN 514 MAX 2,260 MIN 56 CFSM .70 IN 9.57
WTR YR 1973 TOTAL 369,775 MEAN 1,013 MAX 3,400 MIN 70 CFSM 1.38 IN 18.79

PEAK DISCHARGE (BASE, 1,250 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-28	1900	4.69	1,280	3-17	0800	8.21	3,440
2- 9	0900	5.99	2,000	5- 4	1800	7.77	3,090

05428000 Lake Mendota at Madison, Wis.

LOCATION.--Lat 43°05'42", long 89°22'12", in SE¼ sec.12, T.7 N., R.9 E., Dane County, attached to left wall of lock of dam at outlet, in Madison.

DRAINAGE AREA.--233 mi^2 (603 km^2), revised. Area of Lake Mendota, 15.2 mi^2 (39.4 km^2).

PERIOD OF RECORD.--December 1902 to May 1903, January 1916 to current year (incomplete).

GAGE.--Water-stage recorder. Datum of gage is 847.82 ft (258.416 m) above mean sea level, or 2.22 ft (0.677 m) above city of Madison datum. Prior to Nov. 15, 1971, nonrecording gage at same site and datum.

EXTREMES.--Current year: Maximum gage height, 3.33 ft (1.015 m) Mar. 15, 16, 17; minimum, 1.39 ft (0.424 m) Sept. 22.
Period of record: Maximum gage height observed, 4.19 ft (1.277 m) Apr. 5, 1959; minimum observed, 0.20 ft (0.061 m) Feb. 24 to Mar. 10, 1920.

REMARKS.--Lake level regulated by concrete dam with two 12-foot tainter gates and 20-foot lock at outlet.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.36	2.25	1.88	1.75	1.94	1.79	2.69	2.78	2.97	2.34	1.79	1.43
2	2.34	2.30	1.87	1.75	2.07	1.85	2.76	2.96	2.95	2.33	1.75	1.46
3	2.32	2.32	1.85	1.76	2.18	1.93	2.75	3.04	2.95	2.31	1.71	1.59
4	2.32	2.32	1.81	1.77	2.24	2.00	2.75	3.03	2.96	2.31	1.67	1.65
5	2.31	2.30	1.79	1.77	2.26	2.04	2.71	3.01	2.96	2.27	1.64	1.71
6	2.30	2.30	1.85	1.76	2.26	2.07	2.68	2.98	2.93	2.24	1.60	1.71
7	2.27	2.33	1.82	1.75	2.26	2.51	2.65	3.02	2.91	2.19	1.56	1.68
8	2.25	2.31	1.82	1.73	2.25	2.86	2.62	3.14	2.89	2.16	1.57	1.66
9	2.21	2.30	1.82	1.71	2.23	3.05	2.66	3.20	2.86	2.21	1.65	1.68
10	2.17	2.30	1.82	1.71	2.21	3.13	2.66	3.20	2.84	2.34	1.65	1.68
11	2.18	2.30	1.79	1.71	2.19	3.22	2.61	3.18	2.83	2.33	1.63	1.66
12	2.18	2.29	1.80	1.68	2.17	3.26	2.60	3.15	2.82	2.31	1.61	1.63
13	2.17	2.27	1.81	1.65	2.15	3.25	2.58	3.11	2.79	2.29	1.59	1.60
14	2.16	2.25	1.79	1.64	2.16	3.30	2.55	3.08	2.76	2.26	1.60	1.59
15	2.12	2.21	1.78	1.62	2.13	3.31	2.56	3.04	2.72	2.23	1.58	1.57
16	2.12	2.18	1.75	1.61	2.11	3.31	2.65	3.00	2.71	2.20	1.57	1.54
17	2.09	2.16	1.75	1.62	2.08	3.31	2.68	2.96	2.71	2.16	1.56	1.56
18	2.05	2.13	1.74	1.68	2.05	3.26	2.69	2.91	2.68	2.13	1.55	1.56
19	2.02	2.11	1.73	1.82	2.02	3.21	2.68	2.95	2.66	2.11	1.54	1.53
20	2.00	2.09	1.72	1.89	2.01	3.17	2.68	2.92	2.64	2.08	1.54	1.51
21	2.05	2.07	1.71	1.93	1.98	3.12	2.79	2.90	2.60	2.04	1.50	1.48
22	2.12	2.05	1.69	1.96	1.95	3.07	2.84	2.89	2.57	2.04	1.47	1.50
23	2.22	2.02	1.68	1.96	1.93	3.02	2.84	2.87	2.55	2.01	1.51	1.48
24	2.25	1.99	1.67	1.95	1.90	2.98	2.82	2.84	2.53	2.02	1.53	1.45
25	2.24	1.98	1.66	1.94	1.88	2.94	2.79	2.86	2.49	2.02	1.53	1.49
26	2.24	1.99	1.65	1.94	1.85	2.89	2.75	2.85	2.47	2.00	1.53	1.50
27	2.25	1.97	1.64	1.94	1.82	2.83	2.72	2.87	2.46	1.97	1.53	1.52
28	2.26	1.95	1.62	1.95	1.80	2.79	2.67	2.97	2.44	1.91	1.51	1.54
29	2.25	1.91	1.64	1.93	------	2.74	2.66	2.99	2.40	1.87	1.50	1.57
30	2.23	1.90	1.70	1.93	------	2.70	2.71	2.99	2.37	1.86	1.47	1.60
31	2.23	------	1.74	1.92	------	2.66	------	2.99	------	1.83	1.46	------
MEAN	2.20	2.16	1.75	1.80	2.07	2.82	2.69	2.99	2.71	2.14	1.58	1.57
MAX	2.36	2.33	1.88	1.96	2.26	3.31	2.84	3.20	2.97	2.34	1.79	1.71
MIN	2.00	1.90	1.62	1.61	1.80	1.79	2.55	2.78	2.37	1.83	1.46	1.43

05429000 Lake Monona at Madison, Wis.

LOCATION.--Lat 43°03'48", long 89°23'49", in SW¼ sec.23, T.7 N., R.9 E., Dane County, at end of concrete storm sewer in Brittingham Park, in Madison.

DRAINAGE AREA.--279 mi² (723 km²), revised. Area of Lake Monona, 5.3 mi² (13.7 km²).

PERIOD OF RECORD.--September 1915 to current year (fragmentary) in reports of the Geological Survey. For 1856 to March 1917 in reports of Wisconsin Railroad Commission, Volume 19.

GAGE.--Water-stage recorder. Datum of gage is 843.61 ft (257.132 m) above mean sea level, or 1.99 ft (0.606 m) below city of Madison datum. Prior to Nov. 15, 1971, nonrecording gage at same site and datum.

EXTREMES.--Current year: Maximum gage height, 2.93 ft (0.893 m) May 8, 9; minimum, 1.31 ft (0.399 m) Dec. 6, 7. Period of record: Maximum gage height observed, 3.66 ft (1.116 m) July 28, 1929; minimum observed, -0.39 ft (-0.119 m) Jan. 20, 1965.

REMARKS.--Lake level regulated by concrete dam with four 12-foot stop-log sections and 12-foot lock at outlet of Lake Waubesa.

REVISION.--WSP 1338: Lake area.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.77	1.63	1.38	1.58	1.43	1.43	2.25	2.67	2.79	2.60	2.11	1.75
2	1.76	1.65	1.37	1.58	1.56	1.46	2.32	2.81	2.79	2.58	2.10	1.74
3	1.75	1.65	1.36	1.60	1.65	1.50	2.33	2.80	2.79	2.57	2.10	1.75
4	1.75	1.62	1.34	1.62	1.67	1.52	2.32	2.78	2.81	2.56	2.09	1.77
5	1.74	1.60	1.33	1.61	1.66	1.54	2.28	2.76	2.80	2.54	2.08	1.76
6	1.74	1.58	1.32	1.60	1.63	1.57	2.28	2.76	2.78	2.52	2.08	1.73
7	1.71	1.56	1.31	1.60	1.60	2.06	2.25	2.83	2.77	2.51	2.07	1.71
8	1.68	1.54	1.32	1.59	1.59	2.26	2.23	2.93	2.77	2.50	2.07	1.70
9	1.67	1.53	1.32	1.59	1.59	2.33	2.31	2.93	2.77	2.55	2.10	1.74
10	1.65	1.51	1.33	1.58	1.57	2.36	2.25	2.89	2.76	2.56	2.07	1.72
11	1.67	1.48	1.33	1.58	1.57	2.51	2.24	2.85	2.76	2.51	2.04	1.69
12	1.65	1.46	1.38	1.57	1.55	2.56	2.25	2.81	2.80	2.46	2.00	1.67
13	1.62	1.47	1.40	1.52	1.52	2.58	2.25	2.78	2.79	2.42	1.98	1.66
14	1.59	1.46	1.40	1.48	1.52	2.69	2.27	2.77	2.78	2.39	1.97	1.64
15	1.56	1.47	1.40	1.46		2.68	2.31	2.73	2.79	2.36	1.94	1.62
16	1.53	1.50	1.39	1.45		2.69	2.39	2.69	2.81	2.33	1.91	1.61
17	1.49	1.52	1.40	1.46		2.63	2.41	2.67	2.83	2.30	1.89	1.66
18	1.47	1.51	1.41	1.48		2.56	2.40	2.67	2.82	2.28	1.90	1.66
19	1.44	1.50	1.41	1.60		2.54	2.41	2.72	2.81	2.27	1.91	1.64
20	1.44	1.48	1.42	1.62		2.51	2.45	2.72	2.79	2.26	1.87	1.63
21	1.51	1.48	1.42	1.62		2.47	2.67	2.71	2.77	2.23	1.83	1.64
22	1.61	1.46	1.43	1.62		2.44	2.72	2.73	2.76	2.25	1.81	1.64
23	1.73	1.44	1.43	1.60		2.42	2.71	2.73	2.76	2.25	1.87	1.64
24	1.74	1.44	1.42	1.58		2.39	2.68	2.74	2.77	2.25	1.88	1.64
25	1.74	1.44	1.42	1.56		2.37	2.64	2.80	2.76	2.24	1.85	1.72
26	1.73	1.43	1.42	1.53		2.32	2.60	2.80	2.74	2.23	1.83	1.73
27	1.73	1.41	1.42	1.50		2.29	2.55	2.85	2.71	2.20	1.82	1.76
28	1.71	1.39	1.41	1.49		2.26	2.50	2.87	2.66	2.17	1.81	1.76
29	1.68	1.39	1.43	1.46	------	2.24	2.52	2.86	2.62	2.16	1.79	1.79
30	1.66	1.38	1.52	1.44	------	2.21	2.59	2.84	2.61	2.16	1.78	1.81
31	1.65	------	1.58	1.43	------	2.22	------	2.80	------	2.13	1.76	------
MEAN	1.65	1.50	1.39	1.55		2.25	2.41	2.78	2.77	2.37	1.95	1.70
MAX	1.77	1.65	1.58	1.62		2.69	2.72	2.93	2.83	2.60	2.11	1.81
MIN	1.44	1.38	1.31	1.43		1.43	2.23	2.67	2.61	2.13	1.76	1.61

05429040 Manitou Way Storm Sewer at Madison, Wis.

LOCATION.--Lat 43°02'41", long 89°26'24", in NW¼ NW¼ sec.33, T.7 N., R.9 E., Dane County, at inlet to storm sewer on Manitou Way near intersection with Mandan Crescent, in Madison.

DRAINAGE AREA.--0.22 mi² (0.57 km²), revised.

PERIOD OF RECORD.--October 1970 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 840 ft (256 m), from topographic map.

EXTREMES.--Current year: Maximum discharge, 58 ft³/s (1.64 m³/s) Mar. 6, gage height, 12.79 ft (3.90 m); no flow many days during year.

Period of record: Maximum discharge, 66 ft³/s (1.87 m³/s) Apr. 12, 1971, gage height, 12.97 ft (3.95 m); no flow many days in 1971-73.

REMARKS.--Records fair. Discharge at more frequent intervals is available in the district office. Data for Mallatt Storm Sewer, Knickerbocker Storm Sewer, Van Buren Storm Sewer, Marshland Creek, and Murphy Creek at Beld Street are available in the district office.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.06	.01	0	1.1	.73	.60	.59	0	0	0	0
2	0	.27	0	0	2.0	.46	.40	.65	.15	0	0	.59
3	0	.01	0	.19	.40	.28	0	0	.08	.17	0	.06
4	0	0	0	.01	.01	.02	.02	0	.02	0	0	.14
5	0	0	0	0	0	.03	0	.05	0	0	0	0
6	.04	.01	0	0	0	3.0	0	.02	0	0	.01	0
7	0	.04	0	0	0	.79	0	.54	0	0	0	0
8	0	0	0	0	0	0	0	.61	0	0	.22	0
9	0	0	0	0	0	0	0	0	0	.21	.20	.18
10	0	0	0	0	0	.38	.14	.08	0	0	0	0
11	.20	0	0	0	0	.33	.11	0	.11	0	0	0
12	0	0	0	0	0	0	.23	0	.15	0	0	0
13	.06	.12	0	0	0	.13	.14	0	.01	0	.02	0
14	0	.01	0	0	0	.05	.19	0	0	0	0	0
15	.01	0	0	.01	0	0	.09	0	.03	0	0	0
16	0	0	0	.09	0	.07	.46	0	.18	0	0	0
17	0	0	0	.46	0	0	0	0	.03	0	0	.51
18	0	0	0	1.0	0	0	.06	.08	.01	0	0	0
19	0	0	.06	.19	0	0	.02	.40	.01	0	.03	0
20	.15	0	.04	0	.07	0	.72	0	.02	0	0	0
21	.18	0	0	0	0	0	.72	.06	0	0	0	.12
22	.76	0	0	.22	.01	0	0	.03	0	.31	.05	0
23	.38	0	0	0	.02	0	0	.01	.09	0	.59	0
24	0	0	0	0	0	0	0	.29	0	.13	0	.03
25	0	.04	0	.01	0	0	0	.26	0	0	0	.29
26	0	.01	0	.01	0	0	0	.02	0	0	0	.03
27	0	0	0	.09	.01	0	0	.89	.01	0	0	.04
28	0	0	0	.01	0	0	.01	.01	0	0	0	.16
29	0	0	.14	0	------	0	.40	0	0	0	0	.38
30	0	0	.42	0	------	0	2.3	0	0	0	0	.03
31	0	------	0	0	------	.22	------	0	------	0	.01	------
TOTAL	1.78	.57	1.07	2.29	3.62	6.99	6.61	4.59	.90	.82	1.13	2.56
MEAN	.057	.019	.035	.074	.13	.23	.22	.15	.030	.027	.037	.085
MAX	.76	.27	.42	1.0	2.0	3.0	2.3	.89	.18	.31	.59	.59
MIN	0	0	0	0	0	0	0	0	0	0	0	0
CFSM	.26	.09	.16	.34	.59	1.05	1.00	.68	.14	.12	.17	.39
IN.	.30	.10	.18	.39	.61	1.18	1.12	.78	.15	.14	.19	.43

CAL YR 1972 TOTAL 30.49 MEAN .083 MAX 2.0 MIN 0 CFSM .38 IN 5.16
WTR YR 1973 TOTAL 32.93 MEAN .090 MAX 3.0 MIN 0 CFSM .41 IN 5.57

05429050 Nakoma Storm Sewer at Madison, Wis.

LOCATION.--Lat 43°02'55", long 89°26'16", in SE¼ SW¼ sec.28, T.7 N., R.9 E., Dane County, near the junction of Manitou Way and Nakoma Road, in the University of Wisconsin Arboretum, in Madison.

DRAINAGE AREA.--2.35 mi² (6.09 km²), revised.

PERIOD OF RECORD.--December 1971 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 865 ft (264 m), from topographic map.

EXTREMES.--Current year: Maximum discharge, 81 ft³/s (2.29 m³/s) Sept. 2, gage height, 13.13 ft (4.00 m); no flow Dec. 5-18, Jan. 5-14, Feb. 14-20, July 29.

Period of record: Maximum discharge, 188 ft³/s (5.32 m³/s) Feb. 23, 1972, gage height, 14.6 ft (4.45 m); no flow many days 1972-73.

REMARKS.--Records fair. Discharge at more frequent intervals is available in the district office. Data for Mallatt Storm Sewer, Knickerbocker Storm Sewer, Van Buren Storm Sewer, Marshland Creek, Murphy Creek at Beld Street are available in the district office.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.20	.27	.03	3.3	9.0	7.0	3.5	5.4	.14	.05	.05	.17
2	.17	1.7	.04	.53	19	7.3	4.8	14	.14	.07	.07	5.0
3	.17	.56	.02	.12	6.0	5.3	2.2	6.2	.70	.67	.05	3.7
4	.15	.32	.01	.06	1.9	1.9	.82	3.4	.66	.06	.05	2.5
5	.14	.15	0	0	.40	.81	.52	3.7	.24	.03	.05	1.2
6	.29	.15	0	0	.29	8.7	.22	1.6	.06	.02	.04	.74
7	.12	.50	0	0	.17	26	.19	4.8	.08	.08	.04	.48
8	.09	.12	0	0	.44	5.1	.09	7.9	.04	.10	1.0	.36
9	.06	.08	0	0	.32	2.6	.36	3.4	.03	.80	.81	1.2
10	.07	.08	0	0	.14	2.5	.76	2.2	.03	.06	.08	.32
11	.78	.07	0	0	.10	4.8	1.9	.56	.62	.06	.05	.25
12	.06	.06	0	0	.04	3.0	2.7	.13	.74	.14	.04	.19
13	.23	.10	0	0	.02	1.6	3.0	.15	.13	.06	.17	.16
14	.04	.07	0	0	0	6.1	4.4	.46	.06	.08	.08	.16
15	.25	.05	0	.55	0	2.6	4.1	.10	.15	.11	.08	.14
16	.09	.04	0	2.6	0	1.4	6.8	.07	.71	.06	.07	.14
17	.03	.04	0	3.5	0	.90	3.5	.03	.38	.11	.04	2.5
18	.01	.05	0	7.0	0	.33	.82	.58	.20	.10	.04	.44
19	.01	.06	.36	8.2	0	.36	.55	3.2	.17	.04	.16	.25
20	.59	.05	2.3	2.0	0	.32	5.3	.78	.17	.05	.04	.22
21	.88	.05	1.7	.41	.08	.22	7.8	.52	.06	.04	.03	.74
22	6.4	.05	.52	2.9	.11	.25	5.2	.58	.05	1.4	.17	.28
23	7.3	.05	.07	1.4	.22	.22	4.8	.26	.34	.25	2.8	.17
24	2.4	.04	.04	.25	.06	.16	2.6	1.0	.03	1.1	.62	.36
25	.70	.04	.03	.17	.03	.22	1.1	3.2	.04	.22	.52	2.1
26	.24	.09	.03	.14	.05	.17	.88	.71	.13	.22	.48	.88
27	.12	.05	.03	.56	.13	.16	1.1	5.7	.09	.05	.32	.74
28	.09	.06	.03	.42	.13	.13	.94	3.7	.03	.03	.22	2.5
29	.08	.04	.03	.15	------	.05	2.9	2.1	.03	0	.22	3.8
30	.09	.93	1.8	.12	------	.04	5.3	.47	.04	.04	.19	1.8
31	.08	------	8.9	.11	------	.57	------	.18	------	.04	.28	------
TOTAL	21.90	5.02	15.94	34.49	38.65	90.81	79.15	77.08	6.29	6.14	8.86	33.49
MEAN	.71	.17	.51	1.11	1.38	2.93	2.64	2.49	.21	.20	.29	1.12
MAX	7.3	1.7	8.9	8.2	19	26	7.8	14	.74	1.4	2.8	5.0
MIN	.01	.03	0	0	0	.04	.09	.03	.03	0	.03	.14
CFSM	.30	.07	.22	.47	.59	1.25	1.12	1.06	.09	.09	.12	.48
IN.	.35	.08	.25	.55	.61	1.44	1.25	1.22	.10	.10	.14	.53

CAL YR 1972 TOTAL 350.41 MEAN .96 MAX 25 MIN 0 CFSM .41 IN 5.55
WTR YR 1973 TOTAL 417.82 MEAN 1.14 MAX 26 MIN 0 CFSM .49 IN 6.61

05429120 Lake Wingra Outlet at Madison, Wis.

LOCATION.--Lat 43°03'28", long 89°24'22", in NE¼ NE¼ sec.27, T.7 N., R.9 E., Dane County, at outlet of Lake Wingra in Madison.

DRAINAGE AREA.--6.08 mi² (15.7 km²), revised.

PERIOD OF RECORD.--December 1970 to current year.

GAGE.--Water-stage recorder. Datum of gage is 846.8 ft (258.10 m) above mean sea level and 1.2 ft (0.37 m) above city of Madison datum.

EXTREMES.--Current year: Maximum discharge, 40 ft³/s (1.13 m³/s) Mar. 7, gage height, 1.62 ft (0.49 m) observed reading; no flow July 15-25, July 28 to Aug. 9, Aug. 11-24.

Period of record: Maximum discharge, 40 ft³/s (1.13 m³/s) Mar. 7, 1973, gage height, 1.62 ft (0.49 m) observed reading; no flow many days in 1971-73.

REMARKS.--Records fair. Water from Lake Wingra lagoons bypasses gage through a 30-inch storm sewer.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.1	2.8	.89	6.0	5.3	2.8	5.3	14	7.5	.15	0	.14
2	4.1	5.1	.89	5.1	13	6.4	9.4	17	6.6	.16	0	.10
3	3.6	4.9	.65	5.1	19	8.0	10	17	6.4	.28	0	.65
4	3.2	4.4	.48	6.0	16	8.2	9.4	16	6.2	.44	0	2.9
5	2.6	4.3	.65	4.9	13	8.0	8.2	13	5.8	.20	0	2.9
6	2.4	3.5	.52	3.8	11	8.0	6.6	12	5.1	.20	0	2.0
7	2.2	4.4	.36	4.5	8.7	33	5.8	13	4.4	.18	0	1.4
8	1.6	4.1	.56	3.1	7.1	27	5.1	18	4.1	.18	0	1.3
9	.83	3.2	.65	2.6	6.4	24	6.4	18	3.1	.16	0	2.0
10	.60	2.4	.77	2.4	5.3	21	8.0	16	2.9	.48	.01	2.1
11	1.2	2.4	.65	2.2	4.5	25	7.8	14	2.4	.25	0	1.6
12	1.2	1.9	1.7	1.9	4.1	22	8.4	11	3.2	.15	0	1.2
13	1.3	1.1	2.1	1.9	3.8	16	8.9	8.9	2.9	.12	0	.95
14	.89	1.4	1.7	1.8	3.9	17	9.4	7.8	2.6	.01	0	.77
15	.56	1.5	1.5	1.7	3.5	19	11	7.1	2.4	0	0	.52
16	.89	1.4	1.2	1.6	2.9	16	14	5.8	2.4	0	0	1.2
17	.32	1.3	.77	2.9	2.6	12	13	4.4	3.1	0	0	2.0
18	.14	.95	1.2	5.1	2.6	8.4	12	4.1	2.9	0	0	2.0
19	.06	.89	1.2	9.6	2.6	9.9	11	5.7	2.7	0	0	2.3
20	.12	.83	1.2	10	2.5	8.4	11	5.8	2.2	0	0	1.6
21	.95	.71	1.2	8.9	2.4	7.5	17	5.5	1.6	0	0	1.6
22	3.8	.65	1.2	8.9	2.3	7.3	19	5.7	1.1	0	0	2.2
23	5.1	.71	1.1	8.4	2.2	6.6	16	5.7	1.2	0	0	1.7
24	10	.71	.95	7.1	2.1	5.1	13	5.5	1.2	0	.16	1.9
25	9.1	1.0	.95	6.4	1.9	4.4	11	8.0	1.0	.03	.25	2.0
26	7.8	1.6	1.0	5.7	1.8	4.3	9.6	7.5	1.0	.06	.44	4.3
27	6.4	1.5	1.1	5.3	1.6	3.6	8.4	7.5	1.0	.01	.65	3.9
28	5.3	1.0	.83	5.1	1.7	3.6	7.1	12	1.0	0	.52	3.6
29	4.1	.65	1.2	4.4	------	3.2	7.5	11	.36	0	.32	3.5
30	3.3	.77	4.1	4.1	------	3.1	10	9.9	.15	0	.20	3.2
31	2.9	------	6.9	3.8	------	2.7	------	8.9	------	0	.14	------
TOTAL	91.46	62.07	40.27	149.3	154.0	351.5	299.3	315.8	88.51	3.06	2.69	57.53
MEAN	2.95	2.07	1.30	4.82	5.50	11.3	9.98	10.2	2.95	.099	.087	1.92
MAX	10	5.1	6.9	10	19	33	19	18	7.5	.48	.65	4.3
MIN	.06	.65	.36	1.6	1.6	2.7	5.1	4.1	.15	0	0	.10

CAL YR 1972 TOTAL 1,213.21 MEAN 3.31 MAX 23 MIN 0
WTR YR 1973 TOTAL 1,615.49 MEAN 4.43 MAX 33 MIN 0

05429500 Yahara River near McFarland, Wis.

LOCATION.--Lat 43°00'32", long 89°18'18", in SW¼ sec.3, T.6 N., R.10 E., Dane County, on left bank just upstream from bridge on U.S. Highway 51, at dam at outlet of Lake Waubesa and 1.0 mi (1.6 km) southwest of McFarland.

DRAINAGE AREA.--327 mi^2 (847 km^2), revised.

PERIOD OF RECORD.--September 1930 to current year.

GAGE.--Water-stage recorder. Datum of gage is 840.00 ft (256.032 m) above mean sea level (levels by Wisconsin Department of Natural Resources). Prior to Dec. 23, 1934, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--43 years, 148 ft^3/s (4.191 m^3/s), 6.22 in/yr (158 mm/yr).

EXTREMES.--Current year: Maximum discharge, 542 ft^3/s (15.3 m^3/s) Mar. 17, gage height, 5.37 ft (1.637 m); maximum gage height, 5.81 ft (1.771 m) May 29, backwater from aquatic vegetation; minimum daily discharge, 57 ft^3/s (1.61 m^3/s) Oct. 19.

Period of record: Maximum discharge, 867 ft^3/s (24.6 m^3/s) Apr. 10, 1959, gage height, 5.82 ft (1.774 m); maximum gage height, 6.33 ft (1.929 m) July 23, 24, 1950, backwater from aquatic vegetation; minimum discharge, 1.0 ft^3/s (0.028 m^3/s) Oct. 18, 1964.

REMARKS.--Records fair. Flow regulated by dams at outlets of Lake Mendota and Lake Waubesa. The Madison Metropolitan Sewerage District diverted an average of 33.72 mgd (1.48 m^3/s) of effluent into the Badfish Creek basin during 1972. Prior to 1958 the effluent was discharged into the Yahara River above McFarland.

REVISIONS.--WSP 805, WRD Wis. 1971: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	184	168	133	205	188	255	417	472	332	232	205	147
2	179	179	129	198	228	270	441	509	318	228	205	145
3	177	181	131	196	255	288	448	517	318	232	203	145
4	170	184	127	196	242	295	446	506	305	235	198	156
5	170	177	125	193	228	302	441	490	300	232	198	168
6	168	177	122	180	218	310	433	477	295	228	198	154
7	165	184	122	179	203	495	428	485	282	220	198	145
8	156	181	120	174	203	482	422	514	275	220	205	140
9	142	177	120	170	193	482	430	523	265	230	208	145
10	120	177	120	165	191	482	435	514	255	242	212	145
11	116	172	118	163	180	504	425	501	245	240	208	142
12	112	170	125	156	180	517	425	490	242	230	205	136
13	110	168	129	161	180	512	425	477	228	225	200	133
14	101	168	131	165	191	531	420	472	232	222	198	131
15	95	170	136	170	193	537	422	487	235	220	193	127
16	68	188	140	172	205	539	438	454	240	212	191	125
17	76	170	140	179	205	542	441	435	250	208	186	136
18	67	170	142	193	205	528	435	428	248	205	179	138
19	57	170	147	225	210	514	433	422	252	203	177	131
20	58	172	152	232	215	501	441	409	250	205	177	127
21	65	172	161	230	222	487	490	396	248	205	170	125
22	67	170	163	238	228	480	514	396	250	210	163	125
23	125	163	165	240	230	469	509	386	255	212	168	125
24	149	158	165	240	232	459	495	381	252	212	172	120
25	161	156	168	242	235	451	482	383	250	210	170	133
26	156	154	168	235	238	446	469	376	248	215	168	133
27	154	152	165	228	240	435	459	381	248	215	165	138
28	168	147	168	222	242	428	443	386	248	210	165	140
29	168	142	172	220	------	425	438	381	240	205	161	149
30	168	138	184	203	------	417	451	363	235	205	156	152
31	170	------	198	191	------	409	------	345	------	205	152	------
TOTAL	4,042	5,055	4,486	6,161	5,980	13,792	13,396	13,756	7,841	6,773	5,754	4,156
MEAN	130	169	145	199	214	445	447	444	261	218	186	139
MAX	184	188	198	242	255	542	514	523	332	242	212	168
MIN	57	138	118	156	180	255	417	345	228	203	152	120
CFSM	.40	.52	.44	.61	.65	1.36	1.37	1.36	.80	.67	.57	.43
IN.	.46	.58	.51	.70	.68	1.57	1.52	1.56	.89	.77	.65	.47

CAL YR 1972 TOTAL 49,810 MEAN 136 MAX 320 MIN 28 CFSM .42 IN 5.67
WTR YR 1973 TOTAL 91,192 MEAN 250 MAX 542 MIN 57 CFSM .76 IN 10.37

05430500 Rock River at Afton, Wis.

LOCATION.--Lat 42°36'33", long 89°04'14", in NE¼ sec.28, T.2 N., R.12 E., Rock County, on right bank in Afton, 0.3 mi (0.5 km) downstream from highway bridge and 1.1 mi (1.8 km) upstream from Bass Creek.

DRAINAGE AREA.--3,331 mi² (8,627 km²).

PERIOD OF RECORD.--January 1914 to current year. Monthly discharge only for January 1914, published in WSP 1308.

GAGE.--Water-stage recorder. Datum of gage is 742.36 ft (226.271 m) above mean sea level. Prior to Aug. 21, 1932, a nonrecording gage, and Aug. 21, 1932, to Sept. 30, 1933, water-stage recorder, at same site at datum 1 ft (0.30 m) higher.

AVERAGE DISCHARGE.--59 years, 1,723 ft³/s (48.80 m³/s), 7.02 in/yr (178 mm/yr).

EXTREMES.--Current year: Maximum discharge, 9,680 ft³/s (274 m³/s) May 8, gage height, 10.81 ft (3.295 m); minimum, 599 ft³/s (16.96 m³/s) Sept. 21, gage height, 2.85 ft (0.869 m).
Period of record: Maximum discharge, 13,000 ft³/s (368 m³/s) Mar. 23, 24, 1929, gage height, 11.81 ft (3.600 m) present datum; maximum gage height observed, 13.05 ft (3.978 m) Feb. 5, 1916, present datum (backwater from ice); minimum discharge, 22 ft³/s (0.62 m³/s) Sept. 9, 1964; minimum daily, 42 ft³/s (1.189 m³/s) Aug. 25, 26, 1934; minimum gage height, 0.09 ft (0.027 m) Aug. 26, 1934.

REMARKS.--Records good except those for winter periods, which are fair. Diurnal fluctuation caused by power-plants above station. Records of water temperature for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1238: 1916(M), 1919(M), 1933, 1937-38, 1943. WRD Wis. 1971: Drainage area.

Rating table (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Dec. 5-28, Jan. 5-16, Feb. 6-23.)

3.0	740	7.0	4,210
4.0	1,440	8.0	5,480
5.0	2,220	9.0	6,860
6.0	3,160	11.0	10,000

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5,180	4,460	2,410	1,980	3,480	2,380	6,570	8,820	6,370	2,630	1,040	887
2	5,190	4,450	2,220	2,240	5,060	2,620	6,390	9,290	6,430	2,520	1,030	866
3	5,160	4,370	2,210	3,160	5,160	2,660	6,360	9,300	6,430	2,520	1,040	908
4	5,170	4,390	1,860	3,410	4,180	2,700	6,260	9,110	6,300	2,610	1,010	971
5	5,180	4,340	1,800	3,100	4,400	2,980	6,080	9,050	6,180	2,490	978	957
6	5,170	4,330	1,700	3,200	4,300	3,200	5,900	9,110	6,090	2,330	957	915
7	5,040	4,340	1,700	3,200	4,200	4,920	6,000	9,190	5,860	2,220	929	936
8	4,880	4,300	1,500	3,100	4,000	5,780	6,040	9,560	5,640	2,160	985	950
9	4,800	4,310	1,500	2,900	4,000	5,510	6,210	9,490	5,510	2,130	1,040	978
10	4,640	4,310	1,400	2,600	3,900	5,870	6,050	9,100	5,360	2,130	1,020	971
11	4,560	4,180	1,400	2,400	3,700	6,360	5,570	8,920	4,950	2,050	1,010	999
12	4,510	4,110	1,300	2,200	3,600	6,770	5,580	8,870	5,020	1,880	1,010	1,100
13	4,370	4,270	1,300	2,100	3,500	7,080	5,560	8,740	4,880	1,670	971	1,100
14	4,160	4,430	1,200	2,100	3,300	7,500	5,600	8,540	4,570	1,240	1,030	985
15	4,040	4,000	1,200	2,000	3,200	7,610	5,680	8,260	4,400	1,060	1,060	929
16	3,870	3,850	1,200	2,100	3,100	7,960	5,730	7,940	4,040	1,120	1,030	901
17	3,820	3,760	1,200	2,100	3,100	8,210	5,940	7,820	4,440	1,130	1,010	999
18	3,790	3,720	1,100	2,240	3,000	8,210	6,050	7,620	4,200	1,180	1,010	1,120
19	3,670	3,670	1,100	2,560	2,900	8,220	6,140	7,520	4,470	1,170	1,030	1,040
20	3,500	3,580	1,100	2,660	2,800	8,200	6,230	7,340	4,270	1,250	1,080	824
21	3,430	3,480	1,100	2,680	2,800	8,210	7,200	7,020	4,060	1,270	1,100	754
22	3,630	3,400	1,100	2,890	2,700	8,120	7,660	6,820	3,940	1,260	1,130	950
23	4,060	3,210	1,100	2,990	2,700	8,000	7,640	6,600	3,850	1,220	1,100	957
24	4,100	3,060	1,000	3,060	2,620	7,860	7,860	6,330	3,700	1,170	1,130	1,030
25	3,920	3,040	1,000	3,170	2,690	7,820	8,040	6,320	3,510	1,120	1,140	1,270
26	3,950	3,010	1,000	3,260	2,520	7,600	8,140	6,180	3,390	1,120	1,030	1,360
27	4,130	2,840	1,000	3,350	2,420	7,300	8,040	6,370	3,180	1,020	985	1,370
28	4,330	2,720	1,000	3,440	2,320	7,010	7,940	6,670	2,990	922	971	1,520
29	4,390	2,660	1,200	3,340	------	6,830	7,980	6,540	2,810	985	992	1,970
30	4,410	2,470	1,800	3,360	------	6,570	8,280	6,420	2,700	971	964	1,950
31	4,460	------	2,400	3,430	------	6,530	------	6,370	------	1,060	894	------
TOTAL	135,430	113,060	54,100	86,320	95,650	196,510	198,720	245,230	139,540	49,608	31,706	32,467
MEAN	4,369	3,769	1,423	2,785	3,416	6,339	6,624	7,911	4,651	1,600	1,023	1,082
MAX	5,190	4,460	2,410	3,440	5,160	8,220	8,280	9,560	6,430	2,630	1,140	1,970
MIN	3,430	2,470	1,000	1,980	2,320	2,380	5,560	6,180	2,700	922	894	754
CFSM	1.31	1.13	.43	.84	1.03	1.90	1.99	2.38	1.40	.48	.31	.32
IN.	1.51	1.26	.49	.96	1.07	2.19	2.22	2.74	1.56	.55	.35	.36

CAL YR 1972 TOTAL 829,016 MEAN 2,265 MAX 5,190 MIN 300 CFSM .68 IN 9.26
WTR YR 1973 TOTAL 1,368,341 MEAN 3,749 MAX 9,560 MIN 754 CFSM 1.13 IN 15.28

05431500 Turtle Creek near Clinton, Wis.

LOCATION.--Lat 42°35'47", long 88°51'50", in SE¼ sec.29, T.2 N., R.14 E., Rock County, on left bank 15 ft (5 m) downstream from bridge on State Highway 140, 2.7 mi (4.3 km) north of Clinton, 11 mi (18 km) northeast of Beloit, and 16 mi (26 km) upstream from mouth.

DRAINAGE AREA.--202 mi² (523 km²).

PERIOD OF RECORD.--September 1939 to current year.

GAGE.--Water-stage recorder. Datum of gage is 817.00 ft (249.022 m) above mean sea level (levels by Corps of Engineers).

AVERAGE DISCHARGE.--34 years, 110 ft³/s (3.115 m³/s), 8.03 in/yr (204 mm/yr).

EXTREMES.--Current year: Maximum discharge, 16,500 ft³/s (467 m³/s) Apr. 21, gage height, 12.85 ft (3.917 m) from rating curve extended above 6,500 ft³/s (184 m³/s) on basis of slope-area measurement of peak flow; minimum, 93 ft³/s (2.63 m³/s) Feb. 26, gage height, 2.76 ft (0.841 m).
Period of record: Maximum discharge, 16,500 ft³/s (467 m³/s) Apr. 21, 1973, gage height, 12.85 ft (3.917 m) from rating curve extended above 6,500 ft³/s (184 m³/s) on basis of slope-area measurement of peak flow; minimum discharge, 8 ft³/s (0.23 m³/s) Dec. 29, 1956, gage height, 2.04 ft (0.622 m), result of freezeup.

REMARKS.--Records good except those for winter periods, which are fair. Some seasonal regulation caused by dams used to maintain levels of Turtle and Delavan Lakes.

REVISIONS (WATER YEARS).--WSP 955: 1940. WSP 1308: 1950(M). WRD Wis. 1971: Drainage area.

Rating tables (gage height, in feet, and discharge, in cubic feet per second.)
(Stage-discharge relation affected by ice Dec. 3-25, Jan. 4-17, 29, 30, Feb. 8-13, 15-20.)

Oct. 1 to Apr. 21				Apr. 21 to Sept. 30			
2.8	100	5.0	918	3.3	93	8.0	2,550
3.0	142	6.0	1,460	4.0	241	9.0	4,000
3.5	282	7.0	2,280	5.0	560	11.0	8,640
4.0	469	9.0	4,780	6.0	1,000	13.0	12,340
				7.0	1,600		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	220	272	147	441	154	194	291	1,030	240	148	122	120
2	200	394	144	382	839	296	359	1,030	200	148	119	122
3	195	363	130	382	553	370	335	1,690	196	155	115	123
4	200	316	130	450	273	292	321	818	210	234	113	225
5	214	289	120	500	233	280	311	604	240	223	112	195
6	217	269	120	540	204	700	278	560	270	174	110	156
7	214	272	120	500	188	1,700	261	652	240	161	107	145
8	203	269	110	420	180	587	260	860	217	151	105	124
9	192	256	110	390	180	418	258	624	182	153	125	117
10	189	250	110	370	180	394	272	487	175	179	143	114
11	269	241	110	350	170	432	261	461	166	151	121	108
12	256	235	110	340	170	410	315	433	167	136	118	104
13	223	232	110	340	160	394	455	384	165	130	137	104
14	206	235	110	330	151	691	560	311	160	139	142	103
15	195	229	110	330	150	530	537	278	161	136	171	100
16	195	229	110	330	140	437	568	234	290	133	174	98
17	187	226	120	350	140	424	530	224	700	132	121	148
18	171	220	120	390	140	381	437	221	510	130	104	149
19	169	214	130	296	140	349	398	255	460	126	104	123
20	171	212	130	203	140	302	380	239	410	128	101	112
21	220	209	130	171	136	203	6,400	227	340	134	97	118
22	394	206	130	214	137	176	2,080	239	240	157	97	175
23	639	200	130	198	135	167	1,160	254	205	147	103	154
24	449	195	130	152	131	162	996	251	217	172	107	143
25	382	192	120	142	112	158	846	305	188	146	105	275
26	327	176	120	140	102	151	754	277	173	142	105	230
27	296	169	135	156	101	142	696	342	165	153	107	179
28	272	154	120	214	117	141	637	525	158	129	97	298
29	299	144	127	200	------	144	709	447	156	124	94	325
30	272	144	1,590	160	------	143	1,060	444	151	122	94	470
31	260	------	996	133	------	148	------	348	------	129	108	------
TOTAL	7,896	7,012	6,129	9,522	5,456	11,316	22,725	15,054	7,352	4,622	3,578	4,957
MEAN	255	234	198	307	195	365	758	486	245	149	115	165
MAX	639	394	1,590	540	839	1,700	6,400	1,690	700	234	174	470
MIN	169	144	110	133	101	141	258	221	151	122	94	98
CFSM	1.37	1.26	1.06	1.65	1.05	1.96	4.08	2.61	1.32	.80	.62	.89
IN.	1.58	1.40	1.23	1.90	1.09	2.26	4.55	3.01	1.47	.92	.72	.99

CAL YR 1972 TOTAL 75,444 MEAN 206 MAX 1,740 MIN 42 CFSM 1.11 IN 15.09
WTR YR 1973 TOTAL 105,619 MEAN 289 MAX 6,400 MIN 94 CFSM 1.55 IN 21.12

PEAK DISCHARGE (BASE, 1,200 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
12-30	1800	7.02	2,300	4-21	0800	12.85	16,500
2- 2	1800	5.55	1,200	5- 2	0800	7.84	2,320
3- 7	1230	6.52	1,850				

05432500 Pecatonica River at Darlington, Wis.

LOCATION.--Lat 42°40'40", long 90°07'07", in NE¼ sec.3, T.2 N., R.3 E., Lafayette County, on right bank in Darlington, 0.3 mi (0.5 km) downstream from Vinegar Branch, and 3.6 mi (5.8 km) upstream from Otter Creek.

DRAINAGE AREA.--274 mi^2 (710 km^2).

PERIOD OF RECORD.--September 1939 to current year.

GAGE.--Water-stage recorder. Datum of gage is 802.42 ft (244.578 m) above mean sea level.

AVERAGE DISCHARGE.--34 years, 181 ft^3/s (5.13 m^3/s), 8.97 in/yr (228 mm/yr).

EXTREMES.--Current year: Maximum discharge, 2,440 ft^3/s (69.1 m^3/s) Dec. 31, gage height, 12.83 ft (3.911 m); minimum, 100 ft^3/s (2.83 m^3/s) Apr. 10, gage height, 2.08 ft (0.634 m).
Period of record: Maximum discharge, 22,000 ft^3/s (623 m^3/s), July 16, 1950, gage height, 20.71 ft (6.312 m), from rating curve extended above 11,000 ft^3/s (312 m^3/s) on basis of slope-area determination of peak flow; minimum, 17 ft^3/s (0.48 m^3/s) Nov. 29, 1966, gage height, 2.09 ft (0.637 m), result of freezeup; minimum gage height, 1.07 ft (0.326 m), Dec. 6, 1968, result of freezeup.
Flood of Feb. 21, 1937, reached a stage of 17.6 ft (5.36 m), from floodmarks.

REMARKS.--Records good except those for winter periods, which are fair.

Rating table (gage height, in feet, and discharge, in cubic feet per second). (Stage-discharge relation affected by ice Nov. 30 to Dec. 29, Jan. 4-16, 29, 30, Feb. 8-21.)

2.0	92	7.0	720
2.5	144	9.0	1,070
3.0	200	11.0	1,620
5.0	447	13.0	2,550

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	210	224	150	1,800	773	301	330	772	419	283	190	155
2	196	267	140	583	1,720	587	384	1,460	403	277	185	153
3	185	291	140	436	822	539	342	1,600	434	346	180	193
4	179	246	130	380	284	337	316	1,000	438	584	180	179
5	173	226	130	330	237	244	313	741	411	349	187	163
6	176	219	130	300	218	260	286	699	388	292	178	150
7	179	226	130	250	201	1,580	278	822	360	277	175	144
8	167	230	130	230	130	1,440	274	1,090	349	262	176	144
9	157	212	130	210	150	433	248	851	333	254	194	167
10	150	207	130	190	160	362	184	716	321	273	190	180
11	166	205	130	180	160	774	320	642	313	260	173	158
12	166	198	130	180	160	675	390	630	361	241	167	150
13	153	194	130	180	160	457	443	583	384	236	163	145
14	150	206	130	180	150	836	500	553	318	230	174	148
15	143	198	130	190	140	783	635	531	309	228	173	144
16	144	196	130	260	130	544	935	507	371	223	166	144
17	143	196	130	956	120	521	970	486	1,190	218	162	183
18	136	193	140	1,470	120	439	660	470	910	213	158	201
19	133	185	160	1,910	130	396	581	488	509	211	161	163
20	132	181	170	1,320	130	373	609	467	419	214	163	153
21	189	180	170	378	130	346	1,190	443	376	223	154	175
22	262	179	160	382	140	327	1,160	454	351	230	154	193
23	577	175	150	430	202	316	925	447	350	264	224	158
24	481	173	150	278	334	306	698	429	362	230	254	148
25	342	181	140	312	229	301	611	467	328	224	187	190
26	303	199	140	376	143	292	562	438	322	216	176	194
27	277	189	130	346	175	274	519	596	322	218	166	183
28	256	175	140	607	175	266	487	936	310	208	158	187
29	241	157	150	230	------	264	536	591	297	198	154	216
30	226	150	1,420	210	------	256	671	491	290	198	150	214
31	222	------	2,350	232	------	255	------	446	------	194	150	------
TOTAL	6,614	6,058	7,820	15,316	7,623	15,084	16,357	20,846	12,248	7,874	5,422	5,075
MEAN	213	202	252	494	272	487	545	672	408	254	175	169
MAX	577	291	2,350	1,910	1,720	1,580	1,190	1,600	1,190	584	254	216
MIN	132	150	130	180	120	244	184	429	290	194	150	144
CFSM	.78	.74	.92	1.80	.99	1.78	1.99	2.45	1.49	.93	.64	.62
IN.	.90	.82	1.06	2.08	1.03	2.05	2.22	2.83	1.66	1.07	.74	.69

CAL YR 1972 TOTAL 67,300 MEAN 184 MAX 2,350 MIN 50 CFSM .67 IN 9.14
WTR YR 1973 TOTAL 126,337 MEAN 346 MAX 2,350 MIN 120 CFSM 1.26 IN 17.15

PEAK DISCHARGE (BASE, 1,500 FT^3/S, REVISED)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
12-31	1900	12.83	2,440	3- 8	0100	12.26	2,110
1-19	1900	11.88	1,950	5- 3	0600	11.24	•1,700
2- 2	1300	11.86	1,910	6-17	2300	10.60	1,500

05433000 East Branch Pecatonica River near Blanchardville, Wis.

LOCATION.--Lat 42°47'10", long 89°51'40", in SE¼ sec.26, T.4 N., R.5 E., Lafayette County, on left bank at downstream side of bridge on State Highway 78, 1.8 mi (2.9 km) south of Blanchardville and 4.5 mi (7.2 km) upstream from Sawmill Creek.

DRAINAGE AREA.--221 mi² (572 km²).

PERIOD OF RECORD.--September 1939 to current year.

GAGE.--Water-stage recorder. Datum of gage is 796.8 ft (242.86 m) above mean sea level, unadjusted. Prior to Dec. 20, 1939, nonrecording gage at bridge 50 ft (15 m) upstream at same datum. Auxiliary nonrecording gage 2.7 mi (4.3 km) upstream at same datum read every six hours or more often when stages exceed 10 ft (3 m).

AVERAGE DISCHARGE.--34 years, 138 ft³/s (3.91 m³/s), 8.48 in/yr (2.58 mm/yr).

EXTREMES.--Current year: Maximum discharge, 2,380 ft³/s (67.4 m³/s) Feb. 2, gage height, 12.50 ft (3.81 m); minimum daily, 94 ft³/s (2.66 m³/s) Dec. 17.

Period of record: Maximum discharge, 11,700 ft³/s (331 m³/s) Feb. 28, 1948, gage height, 15.74 ft (4.80 m); minimum, 18 ft³/s (0.51 m³/s) Nov. 29, 1966.

REMARKS.--Records good except those for winter periods, which are fair.

Rating tables (gage height, in feet, and discharge, in cubic feet per second). (Stage-discharge relation affected by ice Dec. 1-31, Jan. 3-18, Jan. 30, Feb. 7-23.)

Oct. 1 to Dec. 30				Dec. 31 to Sept. 30			
3.3	94	7.0	420	3.4	98	8.0	584
4.0	150	9.0	632	4.0	144	10.0	932
5.0	230	11.0	990	6.0	349	12.0	1,860

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	138	139	120	610	498	207	251	687	332	208	153	139
2	131	177	110	415	1,710	670	346	1,440	320	202	151	132
3	125	187	110	340	505	646	305	1,290	330	205	148	154
4	126	157	110	240	206	304	261	816	323	272	146	152
5	123	148	100	180	179	183	256	642	314	220	149	150
6	122	145	100	160	162	204	228	593	300	200	145	134
7	124	152	100	150	140	1,440	221	714	285	193	144	130
8	120	151	100	140	110	721	216	1,180	279	188	146	130
9	115	144	98	140	120	314	200	828	268	182	161	141
10	111	141	98	140	120	262	183	664	259	193	150	140
11	120	140	96	140	120	590	294	582	252	182	142	133
12	120	136	96	140	110	451	287	547	265	177	139	129
13	113	135	96	140	110	331	340	498	270	174	137	128
14	112	140	96	140	110	633	432	464	244	172	162	129
15	108	137	96	150	100	542	505	440	242	170	146	126
16	109	135	96	170	100	505	663	420	338	168	140	126
17	109	136	94	350	100	397	661	401	638	167	137	146
18	106	138	96	780	100	326	496	390	337	164	134	154
19	104	140	100	1,250	100	295	446	435	303	163	134	134
20	104	136	110	423	100	278	428	391	269	164	135	133
21	128	131	110	199	110	262	754	366	251	167	130	130
22	173	131	110	197	110	244	735	370	248	178	133	139
23	369	129	100	154	130	237	574	363	248	184	164	130
24	277	128	100	162	198	228	493	347	259	175	179	126
25	190	129	100	169	136	225	444	348	234	168	146	171
26	173	135	100	207	119	219	411	357	230	163	141	163
27	162	139	100	179	126	207	381	465	231	165	136	145
28	154	138	110	319	148	201	360	862	223	158	133	154
29	148	132	140	144	------	199	380	483	217	156	130	215
30	142	124	360	130	------	194	555	383	212	156	129	192
31	139	------	920	146	------	190	------	351	------	154	130	------
TOTAL	4,395	4,230	4,272	8,204	5,877	11,705	12,106	18,117	8,521	5,588	4,450	4,305
MEAN	142	141	138	265	210	378	404	584	284	180	144	144
MAX	369	187	920	1,250	1,710	1,440	754	1,440	638	272	179	215
MIN	104	124	94	130	100	183	183	347	212	154	129	126
CFSM	.64	.64	.62	1.20	.95	1.71	1.83	2.64	1.29	.81	.65	.65
IN.	.74	.71	.72	1.38	.99	1.97	2.04	3.05	1.43	.94	.75	.72

CAL YR 1972 TOTAL 47,028 MEAN 128 MAX 1,230 MIN 66 CFSM .58 IN 7.92
WTR YR 1973 TOTAL 91,770 MEAN 251 MAX 1,710 MIN 94 CFSM 1.14 IN 15.45

PEAK DISCHARGE (BASE, 1,300 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
1-19	1400	11.84	1,720	5- 2	1900	12.05	1,900
2- 2	0700	12.50	2,380	5- 8	0500	11.18	1,320
3- 7	2000	12.13	1,980				

05434500 Pecatonica River at Martintown, Wis.

LOCATION.--Lat 42°30'34", long 89°47'58", in SE¼ sec.32, T.1 N., R.6 E., Green County, on right bank about 400 ft (120 m) downstream from highway bridge in Martintown, 0.3 mi (0.5 km) upstream from Wisconsin-Illinois State line and 8.8 mi (14.1 km) downstream from Skinner Creek.

DRAINAGE AREA.--1,034 mi² (2,678 km²).

RECORDS AVAILABLE.--October 1939 to current year.

GAGE.--Water-stage recorder. Datum of gage is 757.9 ft (231.01 m) above mean sea level. Prior to Jan. 6, 1940, nonrecording gage at same site and datum. Auxiliary nonrecording gage 1.2 mi (1.9 km) downstream read several times daily during high water.

AVERAGE DISCHARGE.--34 years, 696 ft³/s (19.7 m³/s), 9.14 in/yr (232 mm/yr).

EXTREMES.--Current year: Maximum discharge, 5,690 ft³/s (161 m³/s) May 5, gage height, 15.84 ft (4.828 m); minimum daily, 470 ft³/s (13.3 m³/s) Dec. 10-15.
Period of record: Maximum discharge, 15,100 ft³/s (428 m³/s) July 1, 1969, gage height, 21.46 ft (6.541 m); no flow for part of Dec. 14, 1939.

REMARKS.--Records good except those for winter periods, which are fair.

REVISIONS (WATER YEARS).--WSP 1308: 1949-50(M). WRD Wis. 1971: Drainage area.

Rating table (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Dec. 6 to Feb. 26.)

4.0	440	12.0	2,640
6.0	900	14.0	3,810
8.0	1,430	16.0	5,900
10.0	1,990		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,360	1,030	761	2,600	1,200	1,040	1,180	2,780	2,330	1,090	781	606
2	1,110	1,230	756	2,900	2,500	1,690	1,460	3,680	2,010	1,070	769	613
3	997	1,350	722	3,500	3,100	2,090	1,640	4,390	1,820	1,140	756	636
4	931	1,290	588	3,700	3,700	2,100	1,600	5,280	1,750	1,580	743	749
5	911	1,170	536	3,300	3,300	1,870	1,490	5,650	1,750	1,750	740	744
6	878	1,080	520	2,500	2,200	1,510	1,380	5,190	1,690	1,490	739	689
7	859	1,050	500	2,000	1,200	2,950	1,290	4,630	1,600	1,210	727	641
8	856	1,040	480	1,500	730	3,240	1,230	4,670	1,520	1,090	716	618
9	816	1,020	480	1,200	600	4,080	1,210	4,690	1,450	1,030	725	627
10	776	985	470	1,100	580	4,370	1,110	4,780	1,390	997	739	653
11	803	958	470	960	560	3,800	1,140	4,500	1,330	981	733	670
12	818	942	470	760	560	3,080	1,390	4,020	1,330	970	700	646
13	808	922	470	660	540	2,770	1,630	3,520	1,390	931	678	620
14	769	920	470	620	540	2,770	1,860	3,090	1,400	907	673	608
15	729	935	470	600	540	2,630	2,060	2,790	1,310	892	688	604
16	715	922	480	580	520	2,640	2,330	2,540	1,310	880	697	602
17	716	912	480	860	520	2,660	2,550	2,330	1,650	867	676	634
18	703	908	490	1,600	540	2,390	2,740	2,190	1,920	854	660	715
19	681	888	500	1,900	540	2,090	2,890	2,110	2,120	842	650	739
20	667	869	520	2,200	540	1,820	2,830	2,060	2,060	877	643	682
21	727	859	520	2,500	560	1,620	3,090	2,010	1,730	882	649	679
22	1,050	847	540	3,100	560	1,470	3,530	1,990	1,450	885	635	821
23	1,820	838	520	3,300	560	1,370	3,870	1,990	1,340	884	666	804
24	2,020	823	520	2,700	740	1,300	4,000	1,950	1,320	911	760	698
25	1,950	826	520	2,200	1,100	1,260	3,800	1,950	1,300	894	821	806
26	1,680	852	520	1,400	1,000	1,220	3,350	1,940	1,250	871	748	915
27	1,410	869	500	1,300	836	1,180	2,880	2,030	1,200	850	693	940
28	1,260	845	500	1,300	841	1,140	2,480	2,370	1,190	835	662	869
29	1,170	799	500	1,200	------	1,100	2,260	2,580	1,160	816	638	935
30	1,100	763	1,900	1,000	------	1,080	2,380	2,790	1,120	796	622	1,050
31	1,050	------	2,400	800	------	1,070	------	2,700	------	793	613	------
TOTAL	32,140	28,742	19,573	55,840	30,707	65,400	66,650	99,190	46,190	30,865	21,740	21,613
MEAN	1,037	958	631	1,801	1,097	2,110	2,222	3,200	1,540	996	701	720
MAX	2,020	1,350	2,400	3,700	3,700	4,370	4,000	5,650	2,330	1,750	821	1,050
MIN	667	763	470	580	520	1,040	1,110	1,940	1,120	793	613	602
CFSM	1.00	.92	.61	1.73	1.05	2.03	2.14	3.08	1.48	.96	.67	.69
IN.	1.15	1.03	.70	2.00	1.10	2.34	2.38	3.55	1.65	1.10	.78	.77

CAL YR 1972 TOTAL 278,767 MEAN 762 MAX 3,940 MIN 280 CFSM .73 IN 9.97
WTR YR 1973 TOTAL 518,650 MEAN 1,421 MAX 5,650 MIN 470 CFSM 1.37 IN 18.55

PEAK DISCHARGE (BASE, 4,000 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
3-10	0400	14.82	4,470	5- 5	0500	15.84	5,690
4-24	0700	14.29	4,010				

05436500 Sugar River near Brodhead, Wis.

LOCATION.--Lat 42°36'42", long 89°23'53", in SW¼ sec.26, T.2 N., R.9 E., Green County, on left bank at downstream side of highway bridge, 1.2 mi (1.9 km) southwest of Brodhead, and 1.9 mi (3.1 km) upstream from Sylvester Creek.

DRAINAGE AREA.--523 mi² (1,355 km²), revised.

PERIOD OF RECORD.--January 1914 to current year. Monthly discharge only for January and February 1914, published in WSP 1308.

GAGE.--Water-stage recorder. Datum of gage is 768.14 ft (234.129 m) above mean sea level. Prior to Oct. 17, 1938, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--59 years, 338 ft³/s (9.57 m³/s), 8.78 in/yr (223 mm/yr).

EXTREMES.--Current year: Maximum discharge, 3,840 ft³/s (109 m³/s), Mar. 8, gage height, 7.42 ft (2.262 m); minimum, 170 ft³/s (4.81 m³/s) Dec. 4, gage height, 0.54 ft (0.165 m), result of freezeup.
Period of record: Maximum discharge, 14,800 ft³/s (419 m³/s) Sept. 13, 1915, gage height, 11.4 ft (3.47 m) from floodmarks, from rating curve extended above 7,500 ft³/s (212 m³/s); minimum, 35 ft³/s (0.99 m³/s) Sept. 19, 1959, gage height, -0.16 ft (-0.049 m).

REMARKS.--Records good except those for winter periods, which are fair.

REVISIONS (WATER YEARS).--WSP 1238: 1914-16, 1918, 1922, 1927, 1933. WSP 1508: 1916-17(M), 1919(M), 1920, 1921(M), 1927-28(M), 1930(M), 1931, 1936(M), 1943(M). WRD Wis. 1971: Drainage area.

Rating tables (gage height, in feet, and discharge, in cubic feet per second). (Stage-discharge relation affected by ice Dec. 1 to Jan. 18, Jan. 27-30, Feb. 10-23.)

Oct. 1 to Feb. 2				Feb. 3 to Sept. 30			
0.7	217	3.0	912	1.0	257	5.0	1,750
1.0	280	4.0	1,270	2.0	539	6.0	2,270
2.0	561	5.0	1,630	3.0	884	7.0	3,210
				4.0	1,280	8.0	4,980

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	452	422	300	1,600	425	370	489	1,370	806	404	314	267
2	392	451	290	1,300	1,290	701	671	2,620	691	410	314	264
3	367	512	280	950	2,330	1,000	838	3,010	657	407	309	274
4	344	539	250	850	2,200	1,230	877	2,310	643	540	304	337
5	336	490	220	750	1,240	1,500	789	1,630	667	916	306	387
6	330	437	230	580	694	1,900	657	1,230	657	938	299	362
7	326	415	240	520	464	2,520	562	1,210	620	667	294	309
8	324	403	250	480	379	3,590	508	2,140	562	467	296	284
9	313	397	260	470	335	2,550	511	3,040	537	431	311	304
10	304	387	260	450	330	1,400	422	2,450	511	437	337	311
11	316	375	260	430	340	1,100	431	1,710	461	419	322	309
12	310	366	260	420	320	1,200	559	1,290	527	399	299	289
13	322	359	260	400	290	1,310	719	1,090	540	376	291	281
14	309	365	260	380	280	1,260	960	990	521	356	289	279
15	299	361	260	350	270	1,500	1,170	916	482	354	291	279
16	308	356	260	310	260	1,260	1,430	848	492	348	286	279
17	286	358	270	350	260	1,020	1,430	792	817	343	284	316
18	285	358	270	450	250	810	1,360	747	1,240	337	281	356
19	284	355	300	1,340	250	729	1,080	688	1,040	340	279	370
20	285	348	310	1,450	250	640	913	870	736	348	281	335
21	324	343	300	1,340	260	579	1,380	848	582	359	274	322
22	431	342	290	961	260	537	2,230	789	518	356	269	337
23	903	338	280	750	280	502	2,410	747	492	359	296	332
24	1,000	332	280	707	294	492	1,550	722	518	365	332	306
25	1,070	333	270	621	260	476	1,080	750	502	362	343	365
26	902	347	260	459	250	464	880	792	470	362	322	437
27	626	355	260	438	250	449	785	902	464	362	301	446
28	457	347	250	400	250	434	715	1,420	446	348	291	425
29	435	328	260	370	------	425	733	1,700	431	329	271	572
30	426	319	300	350	------	419	920	1,510	404	324	269	654
31	428	------	1,200	392	------	416	------	1,080	------	322	267	------
TOTAL	13,499	11,440	9,240	20,618	14,561	32,803	29,059	42,411	18,034	13,085	9,222	10,388
MEAN	435	381	298	665	520	1,058	969	1,368	601	422	297	346
MAX	1,070	539	1,200	1,600	2,330	3,590	2,410	3,040	1,240	938	343	654
MIN	284	319	220	310	250	370	422	722	404	322	267	264
CFSM	.83	.73	.57	1.27	.99	2.02	1.85	2.62	1.15	.81	.57	.66
IN.	.96	.81	.66	1.47	1.04	2.33	2.07	3.02	1.28	.93	.66	.74

CAL YR 1972 TOTAL 134,405 MEAN 367 MAX 1,630 MIN 140 CFSM .70 IN 9.56
WTR YR 1973 TOTAL 224,359 MEAN 615 MAX 3,590 MIN 220 CFSM 1.18 IN 15.96

PEAK DISCHARGE (BASE, 1,300 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
1- 1	--	--	a1,650	4-23	0600	6.47	2,630
1-19	1300	4.65	1,510	5- 3	0300	6.96	3,160
2- 3	2300	6.34	2,520	5- 9	0600	6.91	3,090
3- 8	1400	7.42	3,840	5-29	1200	5.04	1,770
3-13	0200	4.23	1,380	6-18	1300	4.06	1,300
4-16	1800	4.69	1,600				

a About.

05437500 Rock River at Rockton, Ill.

LOCATION.--Lat 42°26'55", long 89°04'11", SW¼ SW¼ sec.24, T.46 N., R.1 E., Winnebago County, on right bank 750 ft (229 m) downstream from State Highway 75 in Rockton, 1.0 mi (1.6 km) downstream from Pecatonica River.

DRAINAGE AREA.--6,361 mi² (16,475 km²).

PERIOD OF RECORD.--June 1903 to July 1906, October 1906 to March 1909, July 1914 to Sept. 1919, October 1939 to current year. Published as "below mouth of Pecatonica River at Rockton" 1903-09; as "at Rockford" 1914-19. Monthly discharge only for some periods, published in WSP 1308.

GAGE.--Water-stage recorder. Datum of gage is 707.94 ft (215.780 m) above mean sea level (levels by Corps of Engineers). Prior to Oct. 1, 1906, nonrecording gage at same site at datum about 1 ft (0.30 m) higher. Oct. 1, 1906, to Mar. 31, 1909, nonrecording gage at same site at datum about 2 ft (0.61 m) higher. July 30, 1914, to Apr. 30, 1919, nonrecording gage at site at Rockford about 21 mi (34 km) downstream, at different datum. Oct. 1, 1939, to Aug. 10, 1973, at site 800 ft (244 m) upstream at same datum.

AVERAGE DISCHARGE.--41 years (1903-05, 1919-19, 1939-73), 3,779 ft³/s (107.0 m³/s), 8.07 in/yr (205 mm/yr), discharge for site at Rockford adjusted for difference in drainage area.

EXTREMES.--Current year: Maximum discharge, 24,300 ft³/s (688 m³/s) Apr. 22 (gage height, 13.40 ft or 4.084 m); minimum daily, 2,750 ft³/s (77.9 m³/s) Sept. 1, 3.
Period of record: Maximum discharge, 32,500 ft³/s (920 m³/s) Mar. 30, 1916 (gage height, 13.06 ft or 3.981 m, site and datum then in use); minimum daily, 501 ft³/s (14.2 m³/s) Sept. 14, 1958.
Flood in February 1937 reached a stage of 14.6 ft (4.450 m), backwater from ice, from painted floodmark.

REMARKS.--Records good. Low flow regulated by powerplant above station.

REVISIONS (WATER YEARS).--WSP 325: 1909-9. WSP 895: 1904(M). WSP 1508: 1915, 1916-17(M). WRD Ill. 1972: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10,400	8,640	5,200	9,040	7,770	5,840	10,500	18,700	14,200	5,820	3,270	2,750
2	10,500	8,780	4,960	9,840	10,400	6,900	11,000	21,000	14,000	5,610	3,290	2,760
3	10,300	9,010	4,830	10,600	13,200	7,820	11,200	21,800	13,700	5,630	3,400	2,750
4	9,750	9,210	4,090	12,200	12,100	7,920	11,400	21,700	13,300	7,230	3,190	3,040
5	9,300	9,250	4,160	12,200	12,400	8,350	11,500	21,600	13,000	7,700	3,090	3,600
6	8,950	9,060	3,700	11,900	12,700	9,080	11,300	21,400	12,700	6,730	3,110	4,090
7	8,710	8,850	3,400	11,700	12,400	13,600	11,100	21,100	12,200	6,570	3,160	3,750
8	8,320	8,570	3,830	11,000	11,400	14,500	10,900	21,800	11,600	6,490	3,170	3,400
9	8,120	8,350	3,860	10,300	10,600	15,000	10,700	22,500	11,000	6,020	3,400	3,300
10	7,880	8,190	3,920	9,500	10,000	16,000	10,600	23,000	10,500	5,520	3,380	3,150
11	7,880	8,020	4,000	8,520	8,680	16,500	9,930	23,200	9,920	5,190	3,320	3,060
12	8,100	7,790	3,800	8,200	7,520	16,400	9,910	22,700	9,520	4,830	3,160	3,250
13	7,900	7,720	3,620	7,080	7,080	16,200	10,400	21,500	9,290	4,490	3,200	3,210
14	7,510	8,030	3,720	6,000	6,920	16,800	11,000	20,200	8,910	4,060	3,170	3,100
15	7,260	7,750	3,800	5,530	6,600	17,400	11,500	18,900	8,450	3,530	3,230	3,050
16	6,930	7,360	3,660	5,190	5,400	17,200	12,100	17,800	8,130	3,780	3,200	3,000
17	6,750	7,300	3,910	5,000	5,150	17,300	12,800	16,800	9,190	3,620	3,110	3,100
18	6,690	7,160	3,670	5,820	5,540	17,000	13,100	16,000	9,170	3,630	3,040	3,200
19	6,430	7,090	3,630	6,880	5,690	16,400	13,400	15,600	9,460	3,570	3,060	3,300
20	6,150	6,980	3,380	7,560	5,730	16,000	13,600	15,100	9,510	3,620	3,100	3,500
21	6,300	6,750	3,650	7,710	5,620	15,500	20,100	14,200	9,360	3,680	3,220	3,350
22	6,770	6,660	3,550	8,450	5,300	14,900	23,200	13,700	9,070	3,840	3,050	3,480
23	8,720	6,430	3,530	8,970	5,180	14,300	21,100	13,300	8,660	3,810	3,110	4,550
24	9,400	6,090	3,540	8,920	5,130	13,600	20,400	12,800	8,320	3,720	3,120	4,800
25	9,430	6,120	3,580	8,930	5,430	12,900	20,200	12,900	7,710	3,750	3,170	4,650
26	9,550	6,110	3,500	9,020	5,640	12,300	19,600	12,700	7,310	3,800	3,250	5,100
27	9,820	5,940	3,370	9,260	5,550	11,600	18,600	12,700	6,930	3,700	3,300	5,400
28	9,920	5,840	3,430	9,780	5,420	11,000	17,700	13,900	6,540	3,580	3,070	5,300
29	9,830	5,580	3,290	9,320	------	10,700	17,100	14,000	6,160	3,490	2,990	5,200
30	9,380	5,360	7,500	8,810	------	10,300	16,100	14,100	6,040	3,400	2,940	6,300
31	8,920	------	10,400	8,460	------	10,100	------	14,300	------	3,370	2,810	------
TOTAL	261,870	223,990	128,480	271,690	220,550	409,410	424,040	551,000	293,850	143,780	98,080	112,490
MEAN	8,447	7,466	4,145	8,764	7,877	13,210	14,130	17,770	9,795	4,638	3,164	3,750
MAX	10,500	9,250	10,400	12,200	13,200	17,400	23,200	23,200	14,200	7,700	3,400	6,300
MIN	6,150	5,360	3,290	5,000	5,130	5,840	9,910	12,700	6,040	3,370	2,810	2,750
CFSM	1.34	1.19	.66	1.39	1.25	2.10	2.25	2.83	1.56	.74	.50	.60
IN.	1.55	1.32	.76	1.61	1.30	2.42	2.51	3.26	1.74	.85	.58	.67

CAL YR 1972 TOTAL 1,947,010 MEAN 5,320 MAX 11,800 MIN 1,080 CFSM .85 IN 11.51
WTR YR 1973 TOTAL 3,139,230 MEAN 8,601 MAX 23,200 MIN 2,750 CFSM 1.37 IN 18.57

05527800 Des Plaines River at Russell, Ill.

LOCATION.--Lat 42°29'22", long 87°55'32", in SE¼ sec.3, T.46 N., R.11 E., Lake County, at center on downstream side of bridge on Russell Road, 0.3 mi (0.5 km) west of Russell, 7.2 mi (11.6 km) upstream from Mill Creek, and at mile 109.14 (175.61 km).

DRAINAGE AREA.--124 mi² (321 km²).

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1961-63, and annual maximum stages, water years 1962-66, June 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 662.00 ft (201.778 m) above mean sea level. Oct. 17, 1961 to June 29, 1967, crest-stage gage at left downstream side of bridge at datum 4.29 ft (1.308 m) higher.

AVERAGE DISCHARGE.--6 years, 91.4 ft³/s (2.588 m³/s), 10.01 in/yr (254 mm/yr).

EXTREMES.--Current year: Maximum discharge, 1,100 ft³/s (31.2 m³/s) Apr. 23 (gage height, 7.74 ft or 2.359 m); minimum, 0.84 ft³/s (0.024 m³/s) Sept. 1.
Period of record: Maximum discharge, 1,100 ft³/s (31.2 m³/s) Apr. 23, 1973 (gage height, 7.74 ft or 2.359 m); maximum gage height, 9.40 ft (2.865 m) Sept. 22, 1972; no flow at times most years.
Maximum stage since 1938, 9.69 ft (2.954 m), present datum, in April 1960, from floodmark.

REMARKS.--Records good except those for winter periods, which are poor.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	434	258	85	505	76	88	133	296	254	19	3.0	.90
2	407	249	79	559	103	148	180	575	195	16	3.0	1.1
3	379	247	75	588	150	194	221	776	141	15	2.8	1.4
4	354	247	76	610	180	227	242	755	110	14	2.6	1.8
5	329	242	69	588	186	261	246	595	105	13	2.5	3.1
6	301	229	60	533	178	316	239	458	116	12	2.3	4.1
7	270	213	50	450	152	375	223	361	140	9.8	2.2	3.9
8	239	197	42	280	122	410	200	313	143	8.5	1.8	3.0
9	205	180	39	210	97	417	180	300	138	8.0	1.8	3.4
10	170	164	38	170	80	399	169	298	104	8.2	1.9	3.7
11	146	148	37	120	66	378	170	275	76	12	1.8	3.4
12	136	132	36	90	58	365	219	240	56	13	1.5	3.2
13	130	120	39	65	53	345	304	205	43	9.0	1.4	3.0
14	118	153	40	47	49	375	432	185	34	7.3	1.4	2.7
15	102	196	39	39	45	426	575	174	29	7.0	1.4	2.7
16	87	214	38	35	41	432	705	162	60	7.0	1.1	2.7
17	77	217	36	45	38	408	725	144	114	6.8	1.1	3.9
18	68	211	35	69	37	348	620	124	151	6.1	1.1	5.6
19	59	198	37	109	36	298	515	109	146	5.0	1.2	6.1
20	51	181	40	150	35	266	412	101	110	4.2	1.3	5.4
21	52	163	48	200	37	236	372	92	80	4.2	1.4	4.5
22	82	145	51	230	36	212	655	83	60	6.8	1.3	5.2
23	185	126	52	240	37	189	1,060	84	48	8.7	1.3	4.7
24	253	113	49	237	38	170	938	86	44	7.8	1.4	4.2
25	303	104	46	220	37	150	675	86	40	7.0	1.5	6.0
26	333	107	47	187	34	131	478	87	34	6.6	1.7	7.5
27	342	114	49	158	33	116	351	87	30	6.3	1.5	7.5
28	338	114	47	140	45	102	270	160	28	5.6	1.3	7.5
29	324	103	49	129	------	95	221	241	24	4.7	1.1	8.7
30	303	91	160	103	------	96	213	303	22	4.4	1.1	18
31	280	------	389	90	------	99	------	298	------	3.7	1.0	------
TOTAL	6,857	5,176	1,977	7,196	2,079	8,072	11,943	8,053	2,675	266.7	51.8	138.90
MEAN	221	173	63.8	232	74.3	260	398	260	89.2	8.60	1.67	4.63
MAX	434	258	389	610	186	432	1,060	776	254	19	3.0	18
MIN	51	91	35	35	33	88	133	83	22	3.7	1.0	.90
CFSM	1.78	1.40	.51	1.87	.60	2.10	3.21	2.10	.72	.07	.01	.04
IN.	2.06	1.55	.59	2.16	.62	2.42	3.58	2.42	.80	.08	.02	.04

CAL YR 1972 TOTAL 64,435.00 MEAN 176 MAX 809 MIN 2.3 CFSM 1.42 IN 19.33
WTR YR 1973 TOTAL 54,485.40 MEAN 149 MAX 1,060 MIN .90 CFSM 1.20 IN 16.35

05543830 Fox River at Waukesha, Wis.

LOCATION.--Lat 43°99'17", long 88°14'37", in SW¼ sec.3, T.6 N., R.18 E., Waukesha County, on left bank 20 ft (6.10 m) downstream from Prairie Street bridge in Waukesha, 1.0 mi (1.6 km) downstream from dam and 3.2 mi (5.1 km) downstream from Pewaukee River.

DRAINAGE AREA.--127 mi^2 (329 km^2).

PERIOD OF RECORD.--January 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 793.04 ft (241.718 m) above mean sea level (levels by city of Waukesha).

AVERAGE DISCHARGE.--10 years, 80.8 ft^3/s (2.288 m^3/s), 8.64 in/yr (219 mm/yr).

EXTREMES.--Current year: Maximum discharge, 2,260 ft^3/s (64.0 m^3/s) Apr. 22, gage height, 7.42 ft (2.262 m); minimum, 4.8 ft^3/s (0.14 m^3/s) Sept. 16, 17, gage height, 1.58 ft (0.482 m).
Period of record: Maximum discharge, 2,260 ft^3/s (64.0 m^3/s) Apr. 22, 1973, gage height, 7.42 ft (2.262 m); minimum, 3.0 ft^3/s (0.085 m^3/s) Jan. 1, 1964, gage height, 1.52 ft (0.463 m).

REMARKS.--Records good except those for winter periods, which are fair. Occasional regulation from mill dam one mile upstream.

Rating table (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Dec. 5-20, Jan. 6-15, Jan. 28 to Feb. 1, Feb. 9-12, 14-28.)

Oct. 1 to Apr. 20				Apr. 21 to Sept. 30			
2.1	36	4.0	395	1.6	5.2	4.0	402
2.5	81	5.0	705	1.7	7.7	5.0	790
3.0	162	6.0	1,120	1.9	15	6.0	1,320
				2.1	25	7.0	1,960
				2.5	60	8.0	2,720
				3.0	144		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	386	236	93	480	100	95	166	374	275	79	31	19
2	357	231	89	448	235	140	193	472	239	74	32	19
3	331	230	87	357	304	264	195	489	210	82	30	21
4	313	215	78	323	291	310	209	393	167	80	28	64
5	306	199	70	265	288	327	228	304	176	80	27	61
6	281	184	58	240	236	307	211	262	172	74	27	51
7	259	184	56	180	198	320	186	259	157	68	27	48
8	235	183	52	150	150	330	172	307	138	63	28	27
9	210	177	52	120	120	305	158	332	129	59	32	22
10	190	168	50	110	100	283	126	301	116	57	33	24
11	148	164	49	96	92	274	182	267	104	40	33	23
12	195	159	48	86	100	276	180	239	100	52	29	20
13	158	152	47	78	107	262	214	222	93	58	28	19
14	147	142	46	70	100	355	303	229	88	52	24	19
15	139	139	46	66	88	411	529	222	99	50	28	12
16	133	145	45	92	58	400	768	205	172	48	25	5.7
17	127	143	43	109	52	352	828	187	277	45	22	29
18	120	133	46	203	52	305	642	144	280	33	13	67
19	113	122	54	295	52	262	467	167	232	37	22	47
20	109	117	60	241	54	222	360	174	203	35	26	27
21	127	114	67	221	52	205	1,490	165	178	39	21	26
22	189	110	71	229	52	184	2,160	174	152	34	23	26
23	295	106	70	248	50	138	1,800	189	138	33	31	26
24	363	103	69	218	50	156	990	199	121	34	29	27
25	378	103	69	190	49	144	522	269	114	32	27	45
26	361	106	70	167	49	137	359	282	107	53	25	76
27	337	109	67	150	50	135	275	309	104	48	25	57
28	312	107	70	130	54	133	249	584	93	42	23	71
29	284	98	79	100	------	133	237	632	92	33	23	109
30	258	97	260	90	------	137	267	489	85	37	21	104
31	245	------	471	80	------	140	------	359	------	33	22	------
TOTAL	7,406	4,476	2,532	5,832	3,183	7,442	14,666	9,200	4,611	1,584	815	1,191.7
MEAN	239	149	81.7	188	114	240	489	297	154	51.1	26.3	39.7
MAX	386	236	471	480	304	411	2,160	632	280	82	33	109
MIN	109	97	43	66	49	95	126	144	85	32	13	5.7
CFSM	1.88	1.17	.64	1.48	.90	1.89	3.85	2.34	1.21	.40	.21	.31
IN.	2.17	1.31	.74	1.71	.93	2.18	4.30	2.69	1.35	.46	.24	.35

CAL YR 1972 TOTAL 50,595.0 MEAN 138 MAX 1,010 MIN 25 CFSM 1.09 IN 14.82
WTR YR 1973 TOTAL 62,938.7 MEAN 172 MAX 2,160 MIN 5.7 CFSM 1.35 IN 18.44

05545000 North Lake near Elkhorn, Wis.

LOCATION.--Lat 42°44'38", long 88°37'45", in SE¼ sec.5, T.3 N., R.16 E., Walworth County, attached to post in lake near end of road at south end of lake, 6.5 mi (10.5 km) northwest of Elkhorn.

DRAINAGE AREA.--1 mi^2 (3 km^2), approximately. Area of North Lake, 350 acres (1.42 km^2), approximately, at high stage.

PERIOD OF RECORD.--May 1937 to current year (fragmentary). Published as Holden Lake prior to October 1958.

GAGE.--Nonrecording gage read about once weekly or more often except during winter. Altitude of gage is 900 ft (274 m), from topographic map.

EXTREMES.--Current year: Maximum gage height observed, 13.10 ft (3.993 m) Sept. 29; minimum observed, 9.74 ft (2.969 m) Oct. 14, 21.

Period of record: Maximum gage height observed, 13.10 ft (3.993 m) Sept. 29, 1973; lake dry for parts of period July to December 1958.

REMARKS.--Lake has no surface outlet. Lake ice covered Nov. 18 to Mar. 3.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1												12.72
2												
3											12.82	
4		9.93										
5												
6												
7	9.75						10.90		12.45	12.78		
8		9.92										12.82
9									12.42			
10								11.91				
11		9.93								12.82	12.82	
12								12.06				
13												
14	9.74						11.10			12.78		
15												12.85
16									12.50			
17												
18											12.79	
19								12.07				
20			9.96									
21	9.74					10.84	11.52			12.78		
22											12.74	12.92
23									12.65			
24						10.79						
25							11.63				12.79	
26								12.02				
27												
28	9.84						11.53			12.80		
29					------							13.10
30					------				12.64			
31		------		10.37	------	10.79	------	12.38	------			------

05545550 Rockland Lake near Burlington, Wis.

LOCATION.--Lat 42°40'34", long 88°14'57", in NE¼ SE¼ sec.33, T.3 N., R.19 E., Racine County, about 0.8 mi (1.3 km) east of Burlington at Camp MacLean.

DRAINAGE AREA.--0.99 mi² (2.56 km²). Area of Rockland Lake, 45 acres (182,000 m²).

PERIOD OF RECORD.--January 1967 to current year.

GAGE.--Nonrecording gage. Altitude of gage is 758 ft (231 m), from topographic map.

EXTREMES.--Current year: Maximum gage height observed, 5.44 ft (1.658 m) Apr. 24; minimum observed, 4.58 ft (1.396 m) Sept. 11, 22.

Period of record: Maximum gage height observed, 5.58 ft (1.701 m) July 30, 1969; minimum gage height, 4.49 ft (1.369 m) Sept. 22, 1971.

REMARKS.--Lake ice covered Dec. 3 to Mar. 11.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			4.95			4.95			5.12		4.91	
2												
3												
4		5.06		5.15								
5								5.21				4.62
6	5.06		4.93				5.06			4.98		
7						5.10					4.89	
8					5.04				5.10			
9		5.04										
10												
11							5.15			4.98		4.58
12								5.17	5.10			
13			5.01	5.06								
14	5.08											
15		5.06									4.82	
16					5.00	5.12						
17												
18				5.00								
19								5.15	5.10	4.87		
20	5.00											
21			4.98			5.06	5.25				4.70	
22						5.06						4.58
23			4.96									
24					4.96		5.44					
25		4.96		5.06				5.14				
26									5.08			
27	5.18						5.23					
28										4.89		4.64
29					------						4.66	
30			5.10		------	5.02						
31		------		5.00	------		------		------			------

05546500 Fox River at Wilmot, Wis.

LOCATION.--Lat 42°30'40", long 88°10'45", in SW¼ sec.30, T.1 N., R.20 E., Kenosha County, on right bank 100 ft (30 m) downstream from bridge on County Trunk C, 300 ft (90 m) upstream from Wilmot Dam, 1.0 mi (1.6 km) north of Wisconsin-Illinois State line, and 6.0 mi (9.6 km) upstream from Fox chain of lakes.

DRAINAGE AREA.--868 mi² (2,248 km²).

PERIOD OF RECORD.--October 1939 to current year.

GAGE.--Water-stage recorder and concrete dam. Datum of gage is 735.22 ft (224.095 m) above mean sea level. Prior to Sept. 1, 1956, nonrecording gage and concrete dam.

AVERAGE DISCHARGE.--34 years, 484 ft³/s (13.71 m³/s), 7.57 in/yr (192 mm/yr).

EXTREMES.--Current year: Maximum discharge, 6,530 ft³/s (185 m³/s) Apr. 23, gage height, 7.65 ft (2.332 m); minimum daily, 222 ft³/s (6.29 m³/s) Sept. 2.
Period of record: Maximum discharge, 7,520 ft³/s (213 m³/s) Mar. 31, 1960, gage height, 9.25 ft (2.819 m), from graph based on gage readings; no flow part of day Oct. 26, 1945; minimum daily discharge, 35 ft³/s (0.99 m³/s) Sept. 9, 1958.

REMARKS.--Records good except those for winter periods, which are fair. Three 6 ft (1.8 m) lift gates in Wilmot Dam were in operation during the year; discharge through gates computed by weir and orifice formulas and added to flow over dam.

REVISIONS (WATER YEARS).--WSP 1308: 1943(M), 1945(M). WRD Wis. 1967: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,650	1,420	734	1,900	1,010	688	1,040	3,530	1,620	650	640	233
2	2,470	1,430	728	1,710	1,090	973	1,280	3,810	1,540	608	648	222
3	2,250	1,480	742	1,620	1,520	1,310	1,380	3,920	1,470	613	588	230
4	2,060	1,500	620	1,500	1,590	1,350	1,400	3,670	1,490	590	505	272
5	1,900	1,450	543	1,400	1,510	1,390	1,420	3,170	1,650	632	449	410
6	1,780	1,380	536	1,300	1,360	1,550	1,400	2,770	1,760	590	394	530
7	1,670	1,340	480	1,200	1,260	1,700	1,340	2,500	1,680	539	374	511
8	1,590	1,290	470	1,100	997	1,900	1,260	2,410	1,510	507	282	468
9	1,500	1,260	450	980	889	2,010	1,250	2,540	1,310	522	373	438
10	1,380	1,190	440	880	840	1,960	1,260	2,620	1,120	550	438	415
11	1,310	1,160	430	800	800	1,900	1,310	2,430	1,000	556	421	394
12	1,310	1,080	420	740	820	1,880	1,380	2,190	919	491	394	373
13	1,220	1,040	410	700	860	1,840	1,520	2,020	904	430	362	342
14	1,090	1,050	410	640	865	1,850	1,720	1,880	834	414	327	317
15	1,020	1,050	410	600	749	2,130	2,030	1,770	769	419	317	272
16	919	989	410	625	680	2,320	2,350	1,670	982	399	294	250
17	865	973	421	682	640	2,300	2,500	1,570	1,410	371	299	312
18	828	966	433	934	600	2,170	2,440	1,450	1,740	371	303	394
19	798	950	427	1,160	580	2,000	2,370	1,320	1,760	361	303	421
20	749	927	427	1,270	600	1,790	2,150	1,300	1,540	366	294	400
21	791	911	450	1,230	620	1,630	2,280	1,250	1,310	399	332	404
22	1,090	904	456	1,200	620	1,520	4,530	1,240	1,090	409	272	410
23	1,660	889	456	1,430	620	1,410	6,430	1,270	997	419	250	427
24	2,160	850	468	1,360	620	1,310	6,140	1,290	966	419	255	404
25	2,290	820	468	1,230	600	1,250	5,510	1,270	919	434	263	410
26	2,170	798	473	1,160	560	1,190	4,960	1,310	828	439	285	450
27	1,950	828	473	1,120	560	1,130	4,570	1,320	813	449	299	456
28	1,760	828	486	1,000	567	1,040	4,170	1,510	777	455	294	542
29	1,600	728	492	880	------	989	3,750	1,800	749	419	285	832
30	1,520	722	892	840	------	934	3,500	1,850	707	385	263	920
31	1,450	------	1,540	800	------	966	------	1,760	------	455	247	------
TOTAL	47,800	32,203	16,595	33,991	24,027	48,380	78,640	64,410	36,164	14,661	11,050	12,459
MEAN	1,542	1,073	535	1,096	858	1,561	2,621	2,078	1,205	473	356	415
MAX	2,650	1,500	1,540	1,900	1,590	2,320	6,430	3,920	1,760	650	648	920
MIN	749	722	410	600	560	688	1,040	1,240	707	361	247	222
CFSM	1.78	1.24	.62	1.26	.99	1.80	3.02	2.39	1.39	.54	.41	.48
IN.	2.05	1.38	.71	1.46	1.03	2.07	3.37	2.76	1.55	.63	.47	.53

CAL YR 1972 TOTAL 324,287 MEAN 886 MAX 3,250 MIN 170 CFSM 1.02 IN 13.90
WTR YR 1973 TOTAL 420,380 MEAN 1,152 MAX 6,430 MIN 222 CFSM 1.33 IN 18.02

As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in low-flow or flood-flow analyses, depending on the type of data collected. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Records collected at partial-record stations are presented in two tables. The first is a table of discharge measurements at low-flow partial-record stations and the second is a table of annual maximum stage and discharge at crest-stage stations. Discharge measurements made at miscellaneous sites for both low flow and high flow are given in a third table.

Low-flow partial-record stations

Measurements of streamflow in the area covered by this report made at low-flow partial-record stations are given in the following table. Most of these measurements were made during periods of base flow when streamflow is primarily from ground-water storage. These measurements, when correlated with the simultaneous discharge of a nearby stream where continuous records are available, will give a picture of the low-flow potentiality of the stream. The column headed "Period of record" shows the water years in which measurements were made at the same, or practically the same, site. Measurements have been made at numerous other stations throughout the State since 1961. These measurements are published in preceding Water Resources Data for Wisconsin publications.

Discharge measurements made at low-flow partial-record stations during water year 1973

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Measurements	
					Date	Discharge (ft^3/s)
		Streams tributary to Lake Superior				
04024350	Black River near Chaffey, Wis.	S½ sec.19, T.46 N., R.14 W., at bridge on State Highway 35, 4.0 mi (6.4 km) southeast of Patzau.	d53.6	1964 1967 1969-73	5-23-73 9-18-73	50.6 2.55
04025000	Amnicon River near Poplar, Wis.	On common boundary of secs.29 and 32, T.48 N., R.12 W., at bridge on U.S. Highway 2, 4.5 mi (7.2 km) northwest of Poplar.	112	1964 1967 1969-73	5-23-73 9-18-73	98.3 14.0
04025100	Middle River near Poplar, Wis.	SE¼ sec.12, T.48 N., R.12 W., at bridge on State Highway 13, 4.6 mi (7.4 km) north of Poplar.	51.6	1964 1967 1969-73	5-23-73 9-18-73	25.7 9.26
04026030	Reefer Creek near Port Wing, Wis.	NW¼ sec.4, T.49 N., R.9 W., at bridge on State Highway 13, 5.8 mi (9.3 km) southwest of Port Wing.	d10.9	1964 1967 1969-73	5-23-73 9-18-73	4.38 4.44
04026120	Flag River at Port Wing, Wis.	Center of sec.28, T.50 N., R.8 W., at bridge on State Highway 13, just northeast of Port Wing.	d33.9	1964 1967 1969-73	5-23-73 9-18-73	35.0 30.0
04026190	Sand River near Red Cliff, Wis.	NE¼ sec.14, T.51 N., R.5 W., at bridge on State Highway 13, 8.5 mi (13.7 km) northwest of Red Cliff.	28.2	1964 1967 1969-73	5-22-73 9-18-73	7.19 5.36
04026350	North Fish Creek near Ashland, Wis.	SW¼ sec.2, T.47 N., R.5 W., at bridge on U.S. Highway 2, 3.0 mi (4.8 km) west of Ashland.	d88.1	1967 1969-73	5-22-73 9-19-73	98.8 79.6
04026500	Bad River at Mellen, Wis.	NW¼ sec.6, T.44 N., R.2 W., at State Highway 13 at Mellen.	d105	1948-55ƒ 1969-73	5-22-73 9-19-73	96.1 16.2
04026550	Tyler Forks River near Upson, Wis.	SE¼ sec.28, T.45 N., R.1 W., at culvert on State Highway 77, 4.3 mi (6.9 km) southwest of Upson.	41.3	1967 1969-73	5-21-73 9-19-73	39.0 6.12
04026600	Marengo River near Marengo, Wis.	NW¼ sec.36, T.46 N., R.4 W., at bridge on State Highway 13, 0.2 mi (0.3 km) north of Marengo.	a101	1967 1969-73	5-22-73 9-19-73	75.0 36.6
04026650	Trout Brook near Highbridge, Wis.	SW¼ sec.8, T.45 N., R.3 W., at culvert on State Highway 13, 1.9 mi (3.0 km) west of Highbridge.	d8.60	1967 1969-73	5-22-73 9-19-73	11.2 2.46
04026900	Potato River near Gurney, Wis.	SW¼ sec.16, T.46 N., R.1 W., at bridge on State Highway 169, 0.7 mi (1.1 km) south of Gurney.	a92.7	1967 1969-73	5-22-73 9-19-73	86.5 10.3
04027900	Layman Creek near Hurley, Wis.	NE¼ sec.6, T.44 N., R.3 E., at bridge on U.S. Highway 51, 8.0 mi (12.9 km) southeast of Montreal.	a17.8	1967 1969-73	6-14-73 9-19-73	13.8 .90

a Approximately.
d Revised.
ƒ Operated as a continuous-record gaging station.

Discharge measurements made at low-flow partial-record stations during water year 1973

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Measurements	
					Date	Discharge (ft^3/s)
		Streams tributary to Lake Michigan				
04059800	Brule Creek at Alvin, Wis.	NW¼ sec.34, T.41 N., R.13 E., at bridge on Forest Service Road 2458, 1.6 mi (2.6 km) northwest of Alvin.	37	1969-73	6-27-73 8-29-73	35.8 22.3
04060990	Montagne Creek near Florence, Wis.	SE¼ SW¼ sec.11, T.40 N., R.17 E., at town road, 4.8 mi (7.7 km) northwest of Florence.	14.4	1969-70 1972-73	6-27-73 8-29-73	16.4 6.95
04063600	Pine River near Three Lakes, Wis.	NW¼ sec.30, T.39 N., R.13 E., at bridge on U.S. Forest Service Road 2182, 12.4 mi (20.0 km) northeast of Three Lakes.	16.2	1966 1969-73	6-27-73 8-30-73	15.2 .93
04063690	South Branch Popple River near Fence, Wis.	SW¼ NE¼ sec.25, T.38 N., R.15 E., at U.S. Forest Service Road 2159, 6.5 mi (10.4 km) west of Fence.	10.2	1969 1972-73	6-27-73 8-29--3	15.0 7.91
04065970	South Branch Pemebowon River near Pembine, Wis.	SE¼ SE¼ sec.19, T.37 N., R.20 E., at County Trunk O, 2.8 mi (4.5 km) northwest of Pembine.	26.6	1969-70 1972-73	6-27-73 8-29-73	19.8 9.23
04066250	South Branch Pike River near Dunbar, Wis.	NE¼ SE¼ sec.36, T.36 N., R.18 E., at town road, 6.9 mi (11.1 km) south of Dunbar.	72.4	1969-70 1972-73	6-27-73 8-29-73	86.5 42.3
04067700	North Branch Peshtigo River near Argonne, Wis.	NW¼ SW¼ sec.24, T.37 N., R.13 E., at U.S. Forest Service Road 2387, 2.9 mi (4.7 km) northeast of Argonne.	32.4	1969 1972-73	6-26-73 8-30-73	22.0 11.2
04067750	Camp Eight Creek near Cavour, Wis.	NE¼ NE¼ sec.36, T.37 N., R.14 E., at County Trunk G, 2.3 mi (3.7 km) west of Cavour.	15.0	1969 1972-73	6-26-73 8-30-73	8.63 15.4
04067900	Rat River near Wabeno, Wis.	SE¼ sec.28, T.35 N., R.16 E., at bridge on U.S. Forest Service Road 2134, 8.0 mi (12.9 km) northeast of Wabeno.	82.6	1969-70 1972-73	6-26-73 8-30-73	112 118
04067990	Eagle Creek near Athelstene, Wis.	On common boundary of secs.24 and 25, T.34 N., R.18 E., at bridge on County Trunk C, 4.5 mi (7.2 km) southwest of Athelstene.	38.6	1969-70 1972-73	8-30-73	19.2
04068100	North Fork Thunder River near Lakewood, Wis.	NE¼ sec.23, T.33 N., R.17 E., at culvert on U.S. Forest Service Road 2101, 9.7 mi (15.6 km) northeast of Lakewood.	20.0	1969-70 1972-73	8-30-73	10.1
04069290	Middle Inlet near Middle Inlet, Wis.	On common boundary of secs.30 and 31, T.33 N., R.21 E., at bridge on County Trunk X, 2.7 mi (4.3 km) east of Middle Inlet.	56.9	1968-70 1973	8-29-73	41.1
04069350	South Branch Beaver Creek near Beaver, Wis.	SW¼ NE¼ sec.28, T.31 N., R.20 E., at U.S. Highway 141, 0.5 mi (0.8 km) south of Beaver.	53.9	1969 1972-73	8-28-73	19.5
04069390	Little Peshtigo River near Coleman, Wis.	SE¼ SW¼ sec.18, T.30 N., R.21 E., at County Trunk B, 1.9 mi (3.0 km) east of Coleman.	49.9	1969 1972-73	8-28-73	12.9
04069480	Trout Creek near Peshtigo, Wis.	On common boundary of secs.23 and 24, T.30 N., R.22 E., at bridge, 1.5 mi (2.4 km) west of Peshtigo.	24.3	1969-73	8-28-73	.16
04070100	North Branch Oconto River near Mountain, Wis.	On common boundary of secs.23 and 26, T.31 N., R.16 E., at bridge on U.S. Forest Service Road 2106, 3.2 mi (5.1 km) north of Mountain.	178	1969-70 1972-73	6-26-73 8-30-73	279 168
04070300	Waupee River near Mountain, Wis.	SW¼ sec.30, T.31 N., R.17 E., at bridge on State Highway 32, 4.2 mi (6.8 km) southeast of Mountain.	47.9	1969-70 1972-73	6-25-73 8-30-73	77.8 23.9
04070600	Hills Pond Creek near Langlade, Wis.	SE¼ sec.4, T.31 N., R.15 E., at bridge on State Highway 64, 5.5 mi (8.8 km) east of Langlade.	9.15	1969-70 1972-73	6-26-73 8-30-73	17.5 8.60

Discharge measurements made at low-flow partial-record stations during water year 1973

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Measurements	
					Date	Discharge (ft^3/s)
		Streams tributary to Lake Michigan--Continued				
04070800	Pecore Creek near Hayes, Wis.	NE¼ sec.8, T.29 N., R.17 E., at culvert on country road, 1.2 mi (1.9 km) northwest of Hayes.	30.4	1969-70 1972-73	7-10-73 8-14-73	24.3 19.6
04071730	Kelly Brook near Lena, Wis.	SE¼ NW¼ sec.22, T.29 N., R.20 E., at U.S. Highway 141, 1.5 mi (2.4 km) north of Lena.	79.6	1969 1972-73	6-25-73 8-28-73	84.4 10.5
*04071800	Pensaukee River near Pulaski, Wis.	NE¼ sec.1, T.26 N., R.18 E., at bridge on State Highway 32, 6.1 mi (9.8 km) north of Pulaski.	43.2	1961 1963-67 1969 1972-73	8-02-73	1.88
04072000	Suamico River at Suamico, Wis.	NW¼ sec.22, T.25 N., R.20 E., at bridge on County Trunk B, 0.5 mi (0.8 km) west of Suamico, 7.5 mi (12.1 km) north of Green Bay and 3.0 mi (5.0 km) upstream from mouth.	57.0	1969 1972-73	10-17-72 8-03-73	8.45 4.96
04072050	Duck Creek near Oneida, Wis.	SE¼ sec.17, T.23 N., R.19 E., at bridge on country road, 2.9 mi (4.7 km) southwest of Oneida.	92.2	1968-70 1972-73	8-02-73	1.24
04073900	Eightmile Creek at Fish, Wis.	SW¼ sec.11, T.17 N., R.15 E., at bridge on County Trunk FF at Fish.	22.8	1969-70 1973	7-19-73 8-21-73	.12 .01 est.
04076000	West Branch Wolf River at Neopit, Wis.	NE¼ sec.20, T.29 N., R.14 E., in Neopit.	108	1969-70 1972-73	8-02-72 7-10-73 8-14-73	113 143 122
04076400	Little West Branch near Neopit, Wis.	NW¼ sec.11, T.29 N., R.14 E., at culvert on County Trunk M, 3.8 mi (6.1 km) northeast of Neopit.	21.1	1969-70 1972-73	7-10-73 8-14-73	15.6 17.6
04078050	Shioc River at Nichols, Wis.	SW¼ sec.7, T.24 N., R.17 E., at bridge on State Highway 156, 0.8 mi (1.3 km) west of Nichols.	92.0	1968-70 1972-73	8-01-72 7-10-73 8-14-73	2.62 7.66 5.57
04078055	Black Creek at Black Creek, Wis.	NE¼ sec.8, T.23 N., R.17 E., at bridge on State Highway 47, 0.3 mi (0.5 km) north of Black Creek.	55.9	1969-73	7-10-73 8-14-73	2.78 .70
04078080	Bear Creek at Stephensville, Wis.	NE¼ sec.20, T.22 N., R.16 E., at bridge on State Highway 76, at Stephensville.	59.4	1969-73	7-10-73 8-13-73	6.55 2.33
04078490	Mill Creek near Pella, Wis.	NW¼ sec.12, T.26 N., R.14 E., at bridge on country road, 2.8 mi (4.5 km) east of Pella.	23.1	1969-70 1972-73	7-11-73 8-15-73	16.7 13.3
04078600	North Branch Pigeon River near Marion, Wis.	NE¼ sec.5, T.25 N., R.13 E., at farm bridge, 2.8 mi (4.5 km) west of Marion.	10.8	1969-73	7-11-73 8-15-73	6.27 4.85
04078800	Bear Creek near Sugar Bush, Wis.	SE¼ sec.5, T.23 N., R.15 E., at bridge on country road, 1.9 mi (3.0 km) northeast of Sugar Bush.	26.3	1969-70 1972-73	7-12-73 8-15-73	1.61 .35
*04081000	Waupaca River near Waupaca, Wis.	On north line of sec.1, T.21 N., R.12 E., on right bank 10 ft (3.0 m) downstream from highway bridge, 4.0 mi (6.4 km) upstream from Weyauwega Lake dam, 4.5 mi (7.2 km) southeast of Waupaca.	272	1962-64 [b]1964-66 [c]1966-70 1972-73	7-12-73 8-15-73	284 265
04081800	Daggets Creek near Butte des Morts, Wis.	SW¼ sec.20, T.19 N., R.16 E., at bridge on country road, 1.5 mi (2.4 km) east of Butte des Morts.	10.3	1969-70 1973	8-21-73	.76
04085070	Ashwaubenon Creek near De Pere, Wis.	On common boundary of land grants 28 and 29, T.23 N., R.20 E., at culverts on County Trunk G, 0.5 mi (0.8 km) west of De Pere.	25.2	1969-70 1972-73	8-02-73	.38

* Also a crest-stage station.
b Operated as a seasonal continuous-record gaging station.
c Operated as a seasonal continuous-record gaging station without records being published.

Discharge measurements made at low-flow partial-record stations during water year 1973

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Measurements	
					Date	Discharge (ft^3/s)
		Streams tributary to Lake Michigan--Continued				
04085110	East River near De Pere, Wis.	SE¼ sec.3, T.22 N., R.20 E., at bridge on State Highway 32, 2.5 mi (4.0 km) south of De Pere.	58.4	1969-70 1972-73	8-02-73	1.54
04085170	Hibbard Creek at Jacksonport, Wis.	SE¼ sec.14, T.29 N., R.27 E., at culvert on State Highway 57, 0.8 mi (1.3 km) northeast of Jacksonport.	22.5	1969-70 1972-73	8-01-73	3.75
04085180	Stoney Creek near Algoma, Wis.	NW¼ sec.5, T.25 N., R.26 E., at bridge on County Trunk U, 5.5 mi (8.8 km) northeast of Algoma.	24.8	1969-70 1972-73	8-01-73	2.92
04085190	Silver Creek near Algoma, Wis.	NE¼ sec.19, T.25 N., R.25 E., at bridge on County Trunk D, 3.5 mi (5.6 km) northwest of Algoma.	58.0	1969-70 1972-73	8-01-73	1.11
04085280	East Twin River at Mishicot, Wis.	NW¼ sec.4, T.20 N., R.24 E., at bridge on State Highway 147, at Mishicot.	109	1969-70 1972-73	10-11-72 7-31-73	37.6 15.8
04085330	West Twin River near Francis Creek, Wis.	SW¼ sec.7, T.20 N., R.24 E., at bridge on County Trunk Q, 2.3 mi (3.7 km) northeast of Francis.	146	1969-70 1972-73	7-31-73	21.5
04085390	South Branch Manitowoc River near Chilton, Wis.	NW¼ sec.17, T.18 N., R.20 E., at bridge on country road, 1.1 mi (1.8 km) northeast of Chilton.	75.2	1969-73	10-10-72 7-31-73	54.5 5.19
*04085400	Killsnake River near Chilton, Wis.	E½ sec.6, T.18 N., R.20 E., at bridge on country road, 2.4 mi (3.9 km) northeast of Chilton.	29.5	1963-67 1969-73	7-31-73	3.20
04085410	Mud Creek near Reedsville, Wis.	SW¼ sec.2, T.19 N., R.21 E., at bridge on country road, 1.0 mi (1.6 km) south of Reedsville.	38.7	1969-70 1972-73	8-01-73	1.85
04085420	Branch River near Cato, Wis.	SE¼ sec.22, T.20 N., R.22 E., at bridge on country road, 3.3 mi (5.3 km) north of Cato.	80.7	1969-70 1972-73	8-01-73	18.1
04085460	Pigeon River near Millersville, Wis.	SW¼ sec.6, T.15 N., R.23 E., at bridge on country road, 2.1 mi (3.4 km) southeast of Millersville.	66.1	1969-70 1972-73	7-12-73 8-21-73	5.69 32.6
04085800	Onion River near Waldo, Wis.	On common boundary of secs.10 and 11, T.14 N., R.21 E., at bridge on County Trunk AC, 1.4 mi (2.2 km) northwest of Waldo.	18.2	1969-70 1972-73	7-11-73 8-20-73	10.7 14.0
04087020	Menomonee River at Menomonee Falls, Wis.	SE¼ sec.33, T.9 N., R.20 E., at culvert on County Trunk Q, 1.2 mi (1.9 km) northwest of Menomonee Falls.	32.0	1962-67 1973	7-18-73	4.21
04087050	Little Menomonee River near Freistadt, Wis.	On common boundary sec.29 and 32, T.9 N., R.21 E., at bridge on Donges Bay Road, 2.0 mi (3.0 km) south of Freistadt.	7.96	1961-67 1973	7-18-73	.60
		St. Croix River Basin				
05331590	Lower Ox Creek near Gordon, Wis.	NE¼ SE¼ sec.16, T.44 N., R.11 W., at town road, 4.6 mi (7.4 km) northeast of Gordon.	99.4	1969-73	5-22-73 9-20-73	24.4 21.8
05331700	Moose River near Solon Springs, Wis.	On common boundary of secs.14 and 23, T.44 N., R.13 W., at bridge on County Trunk M, 7.8 mi (12.6 km) southwest of Solon Springs.	49.9	1964 1967 1969-73	9-20-73	6.89
05331900	Chippanazie Creek at Stanberry, Wis.	NW¼ sec.33, T.41 N., R.10 W., at culvert on U.S. Highway 63, 0.8 mi (1.3 km) southwest of Stanberry.	a33.8	1964 1967 1969-73	9-20-73	13.2

* Also a crest-stage station.
a Approximately.

Discharge measurements made at low-flow partial-record stations during water year 1973

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Measurements	
					Date	Discharge (ft^3/s)
		St. Croix River Basin--Continued				
05331950	Bean Brook near Spring Brook, Wis.	NE¼ sec.1, T.39 N., R.11 W., at culvert on County Trunk M, 3.5 mi (5.6 km) southeast of Spring Brook.	a38.1	1964 1967 1969-73	9-20-73	35.0
05332700	Stuntz Brook near Minong, Wis.	SW¼ sec.23, T.41 N., R.13 W., at culvert on County Trunk F, 8.8 mi (14.2 km) southwest of Minong.	18.2	1964 1967 1969-73	5-22-73 9-20-73	7.19 3.07
05333060	Ounce River near Gordon, Wis.	SW¼ sec.30, T.43 N., R.10 W., at bridge on country road, 7.8 mi (12.6 km) southeast of Gordon.	a41.7	1964 1967 1969-73	5-22-73 9-20-73	29.3 17.1
05333080	Frog Creek near Minong, Wis.	NW¼ sec.20, T.42 N., R.11 W., at bridge on country road, 2.4 mi (3.9 km) northeast of Minong.	a31.7	1964 1967 1969-73	5-22-73 9-20-73	20.0 5.65
*05333100	Little Frog Creek near Minong, Wis.	NW¼ sec.29, T.42 N., R.11 W., at culvert on country road, 2.5 mi (4.0 km) east of Minong.	13.6	1961 1963-73	5-22-73 9-20-73	6.24 .95
05333510	Chases Brook near Danbury, Wis.	NE¼ sec.32, T.42 N., R.15 W., at bridge on country road, 7.0 mi (11.3 km) northeast of Danbury.	a38.0	1964 1967 1969-73	9-25-73	6.76
05334500	Yellow River at Webster, Wis.	On common boundary of secs.4 and 5, T.39 N., R.16 W., at bridge on State Highway 35, 1.3 mi (2.1 km) north of Webster.	228	1914ƒ 1964 1967 1969-73	5-24-73 9-25-73	232 258
05338900	Wood River near Siren, Wis.	On common boundary of secs.27 and 28, T.38 N., R.17 W., at bridge on country road, 4.8 mi (7.7 km) southwest of Siren.	26.8	1964 1967 1969-73	5-23-73 9-25-73	5.96 1.94
05338950	North Fork Wood River near Grantsburg, Wis.	E½ sec.8, T.38 N., R.18 W., at bridge on country road, 3.5 mi (5.6 km) northeast of Grantsburg.	67.3	1964 1967 1969-73	5-23-73 9-25-73	24.5 9.67
05340400	Wolf Creek near St. Croix Falls, Wis.	SE¼ sec.33, T.36 N., R.19 W., at bridge on County Trunk G, 11 mi (17.7 km) northwest of St. Croix Falls.	29.3	1964 1967 1969-73	5-24-73 9-25-73	20.9 5.79
		Chippewa River Basin				
05355530	East Fork Chippewa River near Glidden, Wis.	On common boundary of secs.12 and 13, T.42 N., R.2 W., at bridge on State Highway 13, 0.7 mi (1.1 km) southeast of Glidden.	a94.6	1967 1970-73	6-18-73	59.2
05357350	Lost Creek near Powell, Wis.	SE¼ sec.27, T.42 N., R.4 E., at bridge on State Highway 47, 1.0 mi (1.6 km) west of Powell.	14.5	1967 1969 1972-73	8-07-73	7.50
		Trempealeau River Basin				
05379200	Trempealeau River at Taylor, Wis.	East boundary sec.5, T.21 N., R.6 W., at bridge on County Trunk P, 0.4 mi (0.6 km) north of Taylor.	110	1964 1966-70 1972-73	8-10-72 6-27-73 9-12-73	52.8 124 74.5
		Wisconsin River Basin				
05390140	Muskrat Creek at Conover, Wis.	SE¼ SW¼ sec.4, T.41 N., R.8 E., at U.S. Highway 45, at Conover.	9.95	1969-70 1972-73	5-14-73 6-20-73 8-29-73	12.1 5.65 2.99
05390180	Wisconsin River at Conover, Wis.	NE¼ sec.8, T.41 N., R.10 E., at bridge on County Trunk K, 0.5 mi (0.8 km) downstream from Pioneer Creek and 0.6 mi (1.0 km) southwest of Conover.	176	1967-71ƒ 1973	6-20-73 8-29-73	174 115

* Also a crest-stage station.
a Approximately.
ƒ Operated as a continuous-record gaging station.

Discharge measurements made at low-flow partial-record stations during water year 1973

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Measurements	
					Date	Discharge (ft^3/s)
		Wisconsin River Basin--Continued				
05390450	Deerskin River near Eagle River, Wis.	NW¼ SW¼ sec.25, T.41 N., R.11 E., at U.S. Forest Service Road 2178, 10.5 mi (16.9 km) northeast of Eagle River.	32.5	1969-70 1972-73	6-20-73 8-29-73	20.6 16.0
05391200	Monico Creek near Monico, Wis.	SW¼ NW¼ sec.29, T.36 N., R.11 E., at U.S. Highway 45, 0.3 mi (0.5 km) northeast of Monico.	19.8	1969-70 1972-73	6-21-73 8-30-73	5.87 4.51
05391250	Gudegast Creek near Rhinelander, Wis.	NE¼ SE¼ sec.9, T.37 N., R.10 E., at town road, 9.5 mi (15.3 km) northeast of Rhinelander.	11.3	1969-70 1972-73	6-21-73 8-30-73	11.6 7.92
05391900	Noisy Creek near Rhinelander, Wis.	SW¼ SW¼ sec.36, T.36 N., R.8 E., at State Highway 17, 6.0 mi (9.6 km) southwest of Rhinelander.	36.8	1969-70 1972-73	6-21-73 8-30-73	24.0 19.5
05392290	Willow River near Hazelhurst, Wis.	SE¼ sec.19, T.38 N., R.4 E., at culvert on country road, 14.9 mi (24.0 km) west of Hazelhurst.	7.97	1969-73	8-29-73	1.86
05392320	Rocky Run Creek near Goodnow, Wis.	SE¼ sec.17, T.37 N., R.6 E., on country road, 4.3 mi (6.9 km) west of Goodnow.	20.3	1969-73	6-20-73 8-29-73	29.7 25.3
05392450	Little Rice River near Bradley, Wis.	NE¼ sec.23, T.36 N., R.5 E., at culvert on Kelly Fire Lane, 5.4 mi (8.7 km) northwest of Bradley.	25.9	1969-73	6-20-73 8-28-73	19.4 23.2
05393200	Somo River[e] near Tripoli, Wis.	NW¼ sec.10, T.35 N., R.4 E., at bridge on County Trunk T, 1.8 mi (2.9 km) southeast of Tripoli.	a44.1	1967 1969-73	6-20-73 8-28-73	10.6 3.95
05393630	Little Pine Creek near Tomahawk, Wis.	On common boundary of secs.31 and 32, T.34 N., R.7 E., at culverts on County Trunk V, 6.5 mi (10.4 km) southeast of Tomahawk.	21.1	1967 1969-73	6-21-73 8-28-73	13.2 8.68
*05404200	Narrows Creek at Loganville, Wis.	SE¼ sec.8, T.11 N., R.4 E., at bridge on State Highway 23 and 154, and 0.25 mi (0.40 km) north of Loganville.	40.0	1961 1963 1964-66ƒ c1967 1973	6-13-73 7-24-73	23.2 14.8
05406820	Pine River near Richland Center, Wis.	SE¼ sec.27, T.10 N., R.1 E., at bridge on County Trunk O, 2.5 mi (4.0 km) southeast of Richland Center.	198	1963 1966-70 1972-73	7 6-72 10-18-72 6-27-73 8-22-73	74.3 110 189 129
		GRANT RIVER BASIN				
*05413400	Pigeon Creek near Lancaster, Wis.	SW¼ sec.15, T.4 N., R.3 W., at culvert on country road, 2.0 mi (3.2 km) south of Lancaster.	6.81	1961 1963-64 1964-66ƒ 1967-70 1972-73	6-21-72 8-31-72 8- 2-73	2.66 4.71 4.91
		ROCK RIVER BASIN				
05432800	Dodge Branch at Hollandale, Wis.	NE¼ sec.30, T.5 N., R.5 E., at bridge on State Highway 191, in Hollandale.	66.1	1963 1966-70 1972-73	6- 2-72 8-10-72 7-31-73	29.3 21.7 54.9

* Also a crest-stage station.
a Approximately.
c Operated as a seasonal continuous-record gaging station without records being published.
e Formerly published as Big Somo River.
ƒ Operated as a continuous-record gaging station.

Crest-stage partial-record stations

The following table contains annual maximum discharges for crest-stage stations. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower floods may have been obtained but is not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.

Annual maximum discharge at crest-stage partial-record stations

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum		
					Data	Gage height (ft)	Discharge (ft^3/s)
		Streams tributary to Lake Superior					
04024400	Stony Brook near Superior, Wis.	SE¼ sec.4, T.47 N., R.14 W., at box culvert on State Highway 35, 12.5 mi (20.1 km) south of toll bridge on U.S. Highways 2 and 35 at St. Louis River in Superior.	2.20	1959-73	3-12-73	13.14	115
04025200	Pearson Creek near Maple, Wis.	Common boundary of secs.11 and 14, T.48 N., R.11 W., at box culvert on State Highway 13, 4 mi (6.4 km) north of Maple.	4.01	1957-73	8- 8-73	12.29	230
04026200	Sand River tributary near Red Cliff, Wis.	NE¼ sec.14, T.51 N., R.5 W., at box culvert on State Highway 13, 8 mi (12.9 km) northwest of Red Cliff.	1.14	1959-73	8- 7-73	10.49	65
*04026300	Sioux River near Washburn, Wis.	NE¼ sec.35, T.49 N., R.5 W., on County Trunk C, 2.5 mi (4.0 km) west of Washburn.	d35.2	1959-65 1966≠ 1967-73	8- 8-73	11.35	340
*04026400	Spillerberg Creek near Cayuga, Wis.	NW¼ sec.21, T.43 N., R.2 W., at concrete culvert pipe on State Highway 13, 4.2 mi (6.8 km) southeast of Cayuga.	6.18	1958-73	3-11-73	11.29	50
04026700	Trout Brook tributary near Marengo, Wis.	NE¼ sec.7, T.45 N., R.3 W., at box culvert on State Highway 13, 2.6 mi (4.2 km) southeast of Marengo.	.77	1960-73	5- 2-73	10.72	95
04026850	Apple Creek near Upson, Wis.	SE¼ sec.30, T.45 N., R.1 E., at 2-barrel corrugated culvert on graveled O'Brien Lake Road, 1.5 mi (2.4 km) south of Upson.	5.39	1970-73	5- 2-73	11.33	/
*04027200	Pearl Creek at Grandview, Wis.	NE¼ sec.22, T.45 N., R.6 W., at box culvert on U.S. Highway 63, 0.8 mi (1.3 km) east of Grandview.	e16.9	1960-73	3-11-73	12.20	210
*04029700	Boomer Creek near Saxon, Wis.	N½ sec.3, T.46 N., R.1 E., at concrete culvert pipe on U.S. Highway 2, 3 mi (4.8 km) east of Saxon.	5.94	1958-73		i	/
		Streams tributary to Lake Michigan					
*04059900	Allen Creek tributary near Alvin, Wis.	North boundary sec.7, T.40 N., R.14 E., at culvert on State Highway 70, 2.2 mi (3.5 km) southeast of Alvin.	a1.9	1960-73	4-16-73	10.51	9
04063640	North Branch Pine River at Windsor Dam near Alvin, Wis.	SE¼ sec.21, T.40 N., R.13 E., at bridge on country road at Windsor Dam 3.8 mi (6.1 km) upstream from confluence of North and South Forks, 4 mi (6.4 km) southwest of Alvin.	29.4	1967-68≠ 1970-73	5- 2-73	2.67	75
04063688	South Branch Popple River near Newald, Wis.	NW¼ sec.26, T.38 N., R.15 E., at corrugated twin barrel culvert on unmarked gravel Forest Road 2159, 5.4 mi (8.7 km) east of Newald.	8.44	1970-73	10- 3-72	12.24	56

* Also a low-flow partial-record station.
≠ Operated as a continuous-record gaging station.
/ Discharge not determined.
a Approximately.
d Includes 20.3 mi^2 without surface drainage.
e Includes 6.4 mi^2 without surface drainage.
i Backwater from beaver dam.

Annual maximum discharge at crest-stage partial-record stations

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum		
					Date	Gage height (ft)	Discharge (ft^3/s)
		Streams tributary to Lake Michigan--Continued					
*04063800	Woods Creek near Fence, Wis.	SE¼ sec.29, T.39 N., R.17 E., at box culvert on State Highway 101, 6 mi (9.7 km) north of Fence.	41.4	1958-73	5- 2-73	11.25	190
04064800	Little Popple River near Aurora, Wis.	SW¼ sec.1, T.38 N., R.18 E., at 3-barrel corrugated culvert on County Trunk Highway N, 5.5 mi (8.8 km) west of Aurora.	35.0	1970-73	3-15-73	13.62	475
*04066300	Cole Creek near Dunbar, Wis.	South boundary sec.34, T.37 N., R.19 E., at culvert on U.S. Highway 8, 3.6 mi (5.8 km) southeast of Dunbar.	a3.2	1960-73	3-15-73	10.63	24
04066700	McCall Creek at Wausaukee, Wis.	NW¼ sec.1, T.33 N., R.20 E., at culvert on U.S. Highway 141, 1 mi (1.6 km) south of Wausaukee.	1.48	1959-73	3-13-73	11.85	30
04067500	Menominee River near McAllister, Wis.	Sec.17, T.33 N., R.23 E., 300 ft above highway bridge on County Trunk JJ, 2.9 mi (4.7 km) east of McAllister.	a4,020	1945-61≠ 1962-73	5-11-73	16.65	21,600
04067760	Peshtigo River near Cavour, Wis.	SW¼ sec.29, T.37 N., R.15 E., at bridge on U.S. Highway 8, 0.7 mi (1.1 km) northwest of Cavour.	153	1970-73	3-16-73	14.35	1,160
*04067800	Armstrong Creek near Armstrong Creek, Wis.	W½ sec.27, T.37 N., R.16 E., at bridge on U.S. Highway 8, 1.8 mi (2.9 km) northwest of Armstrong Creek.	23.1	1958-73	5- 2-73	10.39	125
04069700	North Branch Oconto River near Wabeno, Wis.	SW¼ sec.9, T.34 N., R.15 E., at pipe arch culvert on County Trunk Highway C, 0.6 mi (1.0 km) east of intersection with State Highway 32 in Wabeno.	32.2	1970-73	3-15-73	12.61	228
04071700	North Branch Little River near Coleman, Wis.	On common boundary of secs.2 and 3, T.29 N., R.20 E., at bridge on U.S. Highway 141, 3.8 mi (6.1 km) south of Coleman.	23.3	1958-73	5-28-73	14.12	510
*04071800	Pensaukee River near Pulaski, Wis.	NE¼ sec.1, T.26 N., R.18 E., at bridge on State Highway 32 and 6.1 mi (9.8 km) north of Pulaski.	41.8	1961-73	5-28-73	17.1	1,700
*04073400	Bird Creek at Wautoma, Wis.	S½ sec.34, T.19 N., R.10 E., at concrete culvert on State Highway 21, 0.2 mi (0.3 km) west of Wautoma.	3.59	1959-73	3- 7-73	13.07	190
04074300	Mud Creek near Nashville, Wis.	SW¼ sec.30, T.36 N., R.12 E., at concrete circular culvert on U.S. Highway 8, 3.5 mi (5.6 km) north of Nashville.	10.0	1970-73	3-11-73	12.76	72
*04074700	Hunting River near Elcho, Wis.	N½ sec.24, T.34 N., R.10 E., at twin culverts on U.S. Highway 45 and State Highway 47, 1.5 mi (2.4 km) south of Elcho.	a9.0	1958-73	9- 2-73	12.23	105
*04074850	Lily River near Lily, Wis.	SE¼ sec.11, T.33 N., R.13 E., at culvert on County Trunk Highway A, 3.2 mi (5.1 km) north from junction of State Highways 55 and 52 in Lily.	52.4	1970-73	3-11-73	10.90	142
*04075200	Evergreen Creek near Langlade, Wis.	NW¼ sec.18, T.31 N., R.14 E., at culvert on State Highway 64, 3.5 mi (5.6 km) southwest of Langlade.	a8.0	1959-65 1966-72≠ 1973	3- 7-73	10.79	43
*04079700	Spaulding Creek near Big Falls, Wis.	On common boundary of secs.14 and 15, T.25 N., R.12 E., at culvert on County Trunk E, 1.5 mi (2.4 km) north of Big Falls.	a4.9	1959-65 1966≠ 1967-73	5-28-73	11.23	74

* Also a low-flow partial-record station.
≠ Operated as a continuous-record gaging station.
a Approximately.

Annual maximum discharge at crest-stage partial-record stations

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum		
					Date	Gage height (ft)	Discharge (ft^3/s)
		Streams tributary to Lake Michigan--Continued					
04081010	Waupaca River tributary near Waupaca, Wis.	NW¼ sec.1, T.21 N., R.12 E., at culvert on U.S. Highway 10, 5 mi (8.0 km) southeast of Waupaca.	a1.0	1960-73	3- 7-73	15.09	106
04081900	Sawyer Creek at Oshkosh, Wis.	SW¼ sec.15, T.18 N., R.16 E., at bridge on U.S. Highway 41, 1 mi (1.6 km) southwest of Algoma Street Fox River bridge in Oshkosh.	15.3	1961-73	3-14-73	11.92	395
04083400	East Branch Fond du Lac River tributary near Eden, Wis.	NE¼ sec.14, T.14 N., R.17 E., at culvert on U.S. Highway 41, 3 mi (4.8 km) west of Eden.	1.19	1961-73	5- 2-73	11.39	60
*04085030	Apple Creek near Kaukauna, Wis.	On west boundary sec.2, T.21 N., R.18 E., at bridge on State Highway 55, 3 mi (4.8 km) north of Kaukauna.	14.6	1960-73	3-14-73	14.76	1,150
04085100	East River tributary at Greenleaf, Wis.	NE¼ sec.8, T.21 N., R.20 E., at railroad box culvert, 0.5 mi (0.8 km) south of Greenleaf.	8.0	1958-73	3- 7-73	11.85	245
04085300	Neshota River tributary near Denmark, Wis.	NE¼ sec.7, T.22 N., R.22 E., at box culvert on U.S. Highway 141, 3.8 mi (6.1 km) northwest of Denmark.	3.08	1959-73	5-27-73	14.1	300
*04085400	Killsnake River near Chilton, Wis.	E½ sec.6, T.18 N., R.20 E., at bridge on country road, 2.4 mi (3.9 km) northeast of Chilton.	29.5	1961-73	3- 7-73	12.0	710
*04085700	Sheboygan River tributary near Plymouth, Wis.	On common boundary of secs.2 and 11, T.15 N., R.21 E., at concrete culvert on County Trunk J, 3.5 mi (5.6 km) northeast of Plymouth.	5.51	1959-73	10-23-72	10.9	150
04086400	Milwaukee River tributary near Fredonia, Wis.	SE¼ sec.1, T.11 N., R.21 E., at culvert on country road, 2.3 mi (3.7 km) southeast of Fredonia.	.84	1962-73	5-27-73	12.41	90
*04087050	Little Menomonee River near Freistadt, Wis.	On common boundary of secs.29 and 32, T.9 N., R.21 E., at bridge on Donges Bay Road, 2 mi (3.2 km) south of Freistadt.	7.96	1958-73	4-21-73	13.14	360
04087100	Honey Creek at Milwaukee, Wis.	SE¼ sec.15, T.6 N., R.21 E., 400 ft upstream from bridge on S. 68th Street, and 6 mi (9.7 km) southwest from mouth of Milwaukee River in Milwaukee.	3.34	1959-73	4-21-73	21.40	640
*04087200	Oak Creek near South Milwaukee, Wis.	On common boundary of secs.21 and 22, T.5 N., R.22 E., at bridge on west Nicholson Road, 3 mi (4.8 km) southwest of South Milwaukee.	13.9	1958-73	4-21-73	16.28	260
04087230	West Branch Root River Canal tributary near North Cape, Wis.	SE¼ sec.33, T.4 N., R.21 E., at culvert on County Trunk U, 3 mi (4.8 km) southeast of North Cape.	3.92	1962-73	4-21-73	10.96	48
*04087250	Pike Creek near Kenosha, Wis.	W½ sec.27, T.2 N., R.22 E., at box culvert on State Highway 43, 3 mi (4.8 km) northwest of Kenosha.	7.25	1960-73	4-21-73	15.10	90
		St. Croix River Basin					
*05333100	Little Frog Creek near Minong, Wis.	NW¼ sec.29, T.42 N., R.11 W., at culvert on country road, 2.5 mi (4.0 km) east of Minong.	13.0	1961-73	3-11-73	13.15	124

* Also a low-flow partial-record station.
a Approximately.

Annual maximum discharge at crest-stage partial-record stations

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum		
					Date	Gage height (ft)	Discharge (ft^3/s)
		St. Croix River Basin--Continued					
05334100	Sawyer Creek near Shell Lake, Wis.	SE¼ sec.13, T.38 N., R.13 W., at box culvert on U.S. Highway 63, 2 mi (3.2 km) north of Shell Lake.	1.04	1960-73	3-11-73	10.82	32
*05335380	Bashaw Brook near Shell Lake, Wis.	SW¼ sec.8, T.38 N., R.14 W., at twin box culvert on country road 10.5 mi (16.9 km) northwest of Shell Lake.	24.9	1959-65 1966≠ 1967-73	3-13-73	13.32	160
*05340300	Trade River near Frederic, Wis.	SW¼ sec.4, T.36 N., R.17 W., at box culvert on State Highways 35 and 48, 2.5 mi (4.0 km) southwest of Frederic.	6.34	1958-73	3-11-73	11.15	90
05341700	Willow River tributary near New Richmond, Wis.	NW¼ sec.17, T.30 N., R.17 W., at twin box culvert on County Trunk GG, 3.6 mi (5.8 km) southeast of New Richmond.	1.40	1959-73	3-11-73	11.84	65
05341900	Kinnickinnic River tributary at River Falls, Wis.	NE¼ sec.14, T.27 N., R.19 W., at bridge on County Trunk FF, 1.6 mi (2.6 km) southwest of River Falls.	7.26	1959-73	3-14-73	11.25	270
		Trimbelle Creek Basin					
*05346600	Little Trimbelle Creek near Bay City, Wis.	S½ sec.21, T.25 N., R.18 W., at bridge on County Trunk K, 7 mi (11.3 km) northwest of Bay City.	19.9	1961-73	9-26-73	10.73	430
		Chippewa River Basin					
05356200	Kenyon Creek near Radisson, Wis.	NW¼ sec.22, T.38 N., R.6 W., at bridge on State Highway 27, 5 mi (8.0 km) east of Radisson.	a7.5	1960-73	3-11-73	12.45	276
05357360	Bear River near Powell, Wis.	NE¼ sec.32, T.42 N., R.4 E., at bridge on State Highway 182, 3 mi (4.8 km) west of Powell.	118	1972-73	5- 2-73	12.82	625
05357390	Weber Creek near Mercer, Wis.	SE¼ sec.21, T.43 N., R.3 E., at culvert on U.S. Highway 51, 3.7 mi (6.0 km) northeast of Mercer.	5.86	1970-73	5- 2-73	10.94	65
05358100	Smith Creek near Park Falls, Wis.	NE¼ sec.15, T.40 N., R.1 W., at culvert on State Highway 13, 1.5 mi (2.4 km) northeast of Park Falls.	9.11	1970-73	5- 2-73	12.72	184
05359200	South Fork Flambeau River tributary near Park Falls, Wis.	SW¼ sec.15, T.40 N., R.1 E., at culvert on State Highway 182, 5.1 mi (8.2 km) east of Park Falls.	.86	1960-73	3-11-73	10.53	32
*05359600	Price Creek near Phillips, Wis.	SW¼ sec.31, T.38 N., R.2 W., at culvert on County Trunk W, 13 mi (20.9 km) west of Phillips.	14.7	1958-65 1966≠ 1967-73	3-12-73	12.49	155
05360200	Flambeau River tributary at Ladysmith, Wis.	SW¼ sec.27, T.35 N., R.6 W., at culvert on State Highway 27, 1 mi (1.6 km) north of Ladysmith.	a0.8	1960-73	5-23-73	11.33	17
*05361400	Hay Creek near Prentice, Wis.	SE¼ sec.4, T.35 N., R.1 E., at culvert on U.S. Highway 8, 3.5 mi (5.6 km) west of Prentice.	21.9	1961-73	3-11-73	13.73	870
05361420	Douglas Creek near Prentice, Wis.	NE¼ sec.17, T.35 N., R.2 E., at culvert on County Trunk Highway C, 2.3 mi (3.7 km) southeast from intersection with State Highway 13 in Prentice.	24.6	1970-73	3-11-73	13.87	665

* Also a low-flow partial-record station.
≠ Operated as a continuous-record gaging station.
a Approximately.

Annual maximum discharge at crest-stage partial-record stations

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum		
					Date	Gage height (ft)	Discharge (ft^3/s)
		Chippewa River Basin--Continued					
05361600	North Fork Jump River near Phillips, Wis.	SW¼ sec.5, T.36 N., R.1 E., at culvert on State Highway 13, 4 mi (6.4 km) south of Phillips.	10.4	1970-73	3-11-73	12.38	195
*05364000	Yellow River at Cadott, Wis.	NE¼ sec.31, T.29 N., R.6 W., at bridge on State Highway 27, in Cadott.	351	1943-61ǂ 1962-73	3-12-73	13.22	10,000
05364100	Seth Creek near Cadott, Wis.	SW¼ sec.17, T.29 N., R.6 W., at culvert on State Highway 27, 3.1 mi (5.0 km) north of Cadott.	3.04	1962-73	5- 1-73	13.91	355
05364500	Duncan Creek at Bloomer, Wis.	Sec.8, T.30 N., R.9 W., 0.2 mi (0.3 km) below Bloomer Dam at Bloomer.	49.2	1945-51ǂ 1958-73	3-11-73	8.40	1,340
*05365700	Goggle-eye Creek near Thorp, Wis.	West boundary sec.19, T.29 N., R.3 W., at culvert on State Highway 73, 1.3 mi (2.1 km) north of Thorp.	6.70	1958-73	3-11-73	14.21	720
*05366500	Eau Claire River near Fall Creek, Wis.	NW¼ sec.19, T.27 N., R.7 W., 500 ft east of County Trunk K, 3.2 mi (5.1 km) north of Fall Creek.	758	1943-55ǂ 1958-73	3-12-73	15.6	16,400
05367030	Willow Creek near Eau Claire, Wis.	On common boundary of secs.14 and 15, T.26 N., R.9 W., at box culvert on State Highway 93, 4 mi (6.4 km) south of Eau Claire.	4.38	1958-73	3-11-73	12.63	250
*05367480	East Branch Pine Creek tributary near Dallas, Wis.	SW¼ sec.1, T.32 N., R.12 W., at culvert on County Trunk O, 1.5 mi (2.4 km) north of Dallas.	3.85	1960-73	3-11-73	13.58	222
05367500	Red Cedar River near Colfax, Wis.	SW¼ sec.22, T.30 N., R.11 W., 3.2 mi (5.1 km) below Trout Creek and 4.7 mi (7.6 km) north of Colfax.	a1,110	1914-61ǂ 1962-73	5- 2-73	6.52	8,800
05367700	Lightning Creek at Almena, Wis.	NW¼ sec.19, T.34 N., R.13 W., at bridge on County Trunk P, in Almena.	19.8	1958-73	3-11-73	11.38	650
05369800	Eau Galle River tributary near Hersey, Wis.	SW¼ sec.5, T.28 N., R.15 W., at box culvert on Interstate Highway 94, 2 mi (3.2 km) southwest of Hersey.	.65	1960-73	3-11-73	11.17	103
05370600	Arkansaw Creek tributary near Arkansaw, Wis.	SW¼ sec.14, T.25 N., R.14 W., at box culvert on U.S. Highway 10, 1.2 mi (1.9 km) northwest of Arkansaw.	2.56	1959-73	3-11-73	11.99	165
*05370900	Spring Creek near Durand, Wis.	S½ sec.9, T.24 N., R.13 W., at bridge on country road, 4 mi (6.4 km) south of Chippewa River bridge in Durand.	6.49	1962-73	9-26-73	12.60	200
		By Golly Creek Basin					
05371300	By Golly Creek near Nelson, Wis.	SW¼ sec.28, T.23 N., R.13 W., at culvert on County Trunk D, 3 mi (4.8 km) northeast of Nelson.	.28	1962-73	1973	c	/
		Buffalo River Basin					
05371800	Buffalo River tributary near Osseo, Wis.	S½ sec.3, T.24 N., R.6 W., at culvert on U.S. Highway 10, 6.5 mi (10.5 km) east of Osseo.	1.44	1960-73	4-16-73	10.93	78

* Also a low-flow partial-record station.
ǂ Operated as a continuous-record gaging station.
/ Discharge not determined.
a Approximately.
c Gage not operating.

Annual maximum discharge at crest-stage partial-record stations

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum		
					Date	Gage height (ft)	Discharge (ft^3/s)
		Waumandee Creek Basin					
*05378200	Eagle Creek near Fountain City, Wis.	SW¼ sec.33, T.20 N., R.11 W., at bridge on County Trunk G, 2.5 mi (4.0 km) north of Fountain City.	26.8	1961-73	3-11-73	13.17	660
		Black River Basin					
05380800	Black River tributary near Whittlesey, Wis.	SW¼ sec.35, T.32 N., R.1 E., at bridge on State Highway 13, 1.1 mi (1.8 km) south of Whittlesey.	2.12	1960-73	3-11-73	12.10	175
*05380900	Poplar River near Owen, Wis.	NW¼ sec.25, T.28 N., R.2 W., at bridge on County Trunk N, 4.2 mi (6.8 km) south of Owen.	157	1958-65 1966≠ 1967-73	5- 2-73	18.50	8,800
*05380970	Cawley Creek near Neillsville, Wis.	SW¼ sec.25, T.25 N., R.2 W., at bridge on State Highway 73, 3.7 mi (6.0 km) north of Neillsville.	38.6	1961-73	5- 2-73	16.87	3,080
*05382200	French Creek near Ettrick, Wis.	NE¼ sec.27, T.20 N., R.8 W., at bridge on County Trunk D and T, 2.5 mi (4.0 km) west of Ettrick.	14.3	1960-73	3-11-73	10.32	240
		La Crosse River Basin					
05382300	Beaver Creek tributary near Sparta, Wis.	NW¼ sec.11, T.17 N., R.4 W., at box culvert on State Highways 27 and 71, 1.9 mi (3.1 km) north of Sparta.	1.72	1959-73	3-11-73	11.70	103
*05382500	Little La Crosse River near Leon, Wis.	NE¼ sec.3, T.16 N., R.4 W., 4 mi (6.4 km) upstream from mouth and 1.5 mi (2.4 km) northwest of Leon.	77.1	1934-61≠ 1962-73	4-16-73	5.9	960
		Mormon Creek Basin					
*05386300	Mormon Creek near La Crosse, Wis.	NE¼ sec.19, T.15 N., R.6 W., at bridge on country road, 6 mi (9.7 km) southeast of La Crosse.	25.5	1961-73	1973	b	<400
		Bad Axe River Basin					
*05387100	North Fork Bad Axe River near Genoa, Wis.	SW¼ sec.36, T.13 N., R.7 W., at bridge on State Highway 56, 4.1 mi (6.6 km) southeast of Genoa.	68.8	1959-65 1966≠ 1967-73	4-16-73	c	g1,400
		Du Charme Creek Basin					
05388460	Du Charme Creek at Eastman, Wis.	NE¼ sec.13, T.8 N., R.6 W., at culvert on County Trunk D in Eastman.	.30	1961-73	1973	b	<30
		Wisconsin River Basin					
*05390140	Muskrat Creek at Conover, Wis.	SW¼ sec.4, T.41 N., R.10 E., at corrugated culvert on U.S. Highway 45, 0.1 mi (0.2 km) north of Conover.	9.95	1970-73	3-13-73	12.33	81
05390240	Fourmile Creek near Three Lakes, Wis.	NE¼ sec.26, T.39 N., R.11 E., at 2-barrel corrugated culvert on blacktop forest road, 5.5 mi (8.8 km) northeast of Three Lakes.	11.6	1970-73	5- 2-73	11.61	77

* Also a low-flow partial-record station.
≠ Operated as a continuous-record gaging station.
b Peak did not reach bottom of the gage.
c Gage not operating.
g Based on peaks at Kickapoo at LaFarge, Wis.

Annual maximum discharge at crest-stage partial-record stations

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum		
					Date	Gage height (ft)	Discharge (ft^3/s)
		Wisconsin River Basin--Continued					
05391260	Gudegast Creek near Starks, Wis.	NW¼ sec.16, T.37 N., R.10 E., at corrugated culvert on country road, 3 mi (4.8 km) northwest of Starks.	13.0	1970-73	5- 2-73	12.24	78
05391950	Squaw Creek near Harrison, Wis.	SW¼ sec.3, T.35 N., R.8 E., at culvert on County Trunk Highway A, 5 mi (8.0 km) northeast of Harrison.	3.19	1970-73	8-20-73	10.68	18
*05392150	Mishonagon Creek near Woodruff, Wis.	NE¼ sec.32, T.40 N., R.6 E., at twin culvert on State Highway 47, 3 mi (4.8 km) northwest of Woodruff.	11.9	1958-73	11- 2-72	10.89	95
*05392350	Bearskin Creek near Harshaw, Wis.	SW¼ sec.36, T.37 N., R.6 E., at culvert on County Trunk K, 2.1 mi (3.4 km) southwest of Harshaw.	27.8	1958-65 1966ƒ 1967-73	5- 2-73	9.97	100
05393620	Skanawan Creek near Tomahawk, Wis.	SW¼ sec.13, T.34 N., R.6 E., at culvert on State Highway 107, 3.5 mi (5.6 km) southeast of Tomahawk.	6.59	1970-73	5- 2-73	h13.26	70
05393640	Little Pine Creek near Irma, Wis.	NW¼ sec.31, T.34 N., R.7 E., at box culvert on U.S. Highway 51, 3 mi (4.8 km) north of Irma.	22.9	1970-73	3-15-73	13.53	225
*05394000	New Wood River near Merrill, Wis.	E½ sec.15, T.32 N., R.5 E., at bridge on County Trunk E, 9.5 mi (15.3 km) northwest of Merrill.	a83.1	1953-61ƒ 1962-73	3-15-73	5.99	2,050
*05394200	Devil Creek near Merrill, Wis.	N½ sec.30, T.31 N., R.6 E., at culvert on County Trunk F, 5.8 mi (9.3 km) southwest of Merrill.	10.1	1961-73	5- 2-73	13.26	380
05395020	Lloyd Creek near Doering, Wis.	SE¼ sec.21, T.32 N., R.9 E., at bridge on County Trunk C, 4.5 mi (7.2 km) east of Doering.	8.54	1970-73	3-12-73	12.90	265
05395100	Trappe River tributary near Merrill, Wis.	SW¼ sec.28, T.31 N., R.8 E., at culvert on County Trunk P, 9.5 mi (15.3 km) southeast of Merrill.	a2.2	1959-73	3-12-73	12.42	112
05396100	Pet Brook tributary near Edgar, Wis.	SE¼ sec.31, T.29 N., R.5 E., at culvert on State Highway 29, 1.5 mi (2.4 km) northeast of Edgar.	6.69	1962-73	9-26-72 4-16-73	19.1 14.5	1,960 i 580
05397600	Big Sandy Creek near Wausau, Wis.	SE¼ sec.31, T.30 N., R.9 E., at bridge on State Highway 52, 10 mi (16.1 km) northeast of Wausau.	a9.9	1959-73	5- 2-73	11.99	340
05399200	Randall Creek tributary near Abbotsford, Wis.	South boundary of sec.36, T.29 N., R.2 E., at concrete culvert, on State Highway 29, 5.8 mi (9.3 km) east of Abbotsford.	.56	1959-73	3-12-73	12.55	185
05400025	Johnson Creek near Knowlton, Wis.	SE¼ NE¼ sec.13, T.26 N., R.7 E., at bridge on County Trunk X, 2.7 mi (4.3 km) east of Knowlton.	25.6	1973	5- 2-73	18.59	5,000
05401800	Yellow River tributary near Pittsville, Wis.	On common boundary of secs.11 and 14, T.23 N., R.3 E., at bridge on County Trunk C, 2 mi (3.2 km) north of Pittsville.	7.27	1959-73	5- 2-73	13.02	810
*05403520	Webster Creek at New Lisbon, Wis.	NE¼ sec.19, T.16 N., R.3 E., at bridge on State Highway 80, 1.2 mi (1.9 km) south of New Lisbon.	11.5	1961-73	5- 7-73	13.74	270
*05403550	One Mile Creek near Mauston, Wis.	SE¼ sec.24, T.15 N., R.3 E., at bridge on State Highway 50, 2.4 mi (3.9 km) south of Mauston.	30.4	1950-73	3- 7-73	15.22	770
05403610	Wisconsin River tributary at Wisconsin Dells, Wis.	NE¼ sec.3, T.13 N., R.6 E., at culvert on State Highway 13, 0.8 mi (1.3 km) north of Wisconsin Dells.	1.16	1962-73	3- 7-73	10.84	27

* Also a low-flow partial-record station.
ƒ Operated as a continuous-record gaging station.
a Approximately.
h Backwater from Wisconsin River.
i Revised.

Annual maximum discharge at crest-stage partial-record stations

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum		
					Date	Gage height (ft)	Discharge (ft^3/s)
Wisconsin River Basin--Continued							
*05403700	Dell Creek near Lake Delton, Wis.	NW¼ sec.2, T.12 N., R.5 E., at bridge on town road, 0.2 mi (0.3 km) north of State Highway 23, and 5 mi (8.0 km) southwest of Lake Delton.	44.9	1957-65≠ 1966-73	3- 7-73	7.54	586
*05404200	Narrows Creek at Loganville, Wis.	SE¼ sec.8, T.11 N., R.4 E., at bridge on State Highways 23 and 154, and 0.2 mi (0.3 km) north of Loganville.	40.0	1958-65 1966≠ 1967-73	4-16-73	14.47	1,850
*05405600	Rowan Creek at Poynette, Wis.	S½ sec.35, T.11 N., R.9 E., at bridge on U.S. Highway 51, in Poynette.	10.1	1961-73	5- 2-73	16.50	1,330
05406800	Rocky Branch near Richland Center, Wis.	E½ sec.29, T.10 N., R.1 E., at culvert on State Highway 80, 1.5 mi (2.4 km) south of Richland Center.	1.71	1960-73	5- 7-73	11.35	70
*05407100	Richland Creek near Plugtown, Wis.	NW¼ sec.9, T.8 N., R.3 W., at bridge on U.S. Highway 61, 2 mi (3.2 km) south of Plugtown.	19.2	1958-73	2- 1-73	14.58	490
*05407200	Crooked Creek near Boscobel, Wis.	SE¼ sec.2, T.7 N., R.3 W., at bridge on U.S. Highway 61, 1.6 mi (2.6 km) south of Boscobel.	13.1	1959-73	3- 7-73	11.70	330
*05407400	Morris Creek tributary near Norwalk, Wis.	NW¼ sec.21, T.16 N., R.2 W., at bridge on County Trunk T, 2 mi (3.2 km) north of Norwalk.	4.67	1960-73	4-16-73	11.84	500
Grant River Basin							
*05413400	Pigeon Creek near Lancaster, Wis.	SW¼ sec.15, T.4 N., R.3 W., at culvert on country road, 2 mi (3.2 km) south of Lancaster.	6.81	1960-65 1966≠ 1967-73	6-17-73	17.06	1,360
Platte River Basin							
*05414200	Bear Branch near Platteville, Wis.	NE¼ sec.4, T.3 N., R.1 W., at box culvert on State Highway 81, 2.3 mi (3.7 km) northwest of Platteville.	2.80	1958-73	12-30-72	13.08	325
Galena River Basin							
*05414900	Pats Creek near Elk Grove, Wis.	SW¼ sec.4, T.2 N., R.1 E., at bridge on State Highway 81, 7 mi (11.3 km) southeast of Platteville.	8.49	1960-73	3- 7-73	13.16	310
Rock River Basin							
05423000	West Branch Rock River near Waupun, Wis.	SW¼ sec.24, T.14 N., R.15 E., on right bank 700 ft (213 m) downstream from bridge on U.S. Highway 151, 4.5 mi (7.2 km) northeast of Waupun.	41.4	1949-70≠ 1972-73	3- 7-73	5.73	750
*05423300	South Branch Rock River tributary near Waupun, Wis.	S½ sec.22, T.14 N., R.14 E., at concrete culvert on country road 4.5 mi (7.2 km) northwest of Waupun.	11.9	1959-73	3- 7-73	12.1	400
*05423800	East Branch Rock River tributary near Slinger, Wis.	S½ sec.26, T.11 N., R.18 E., at culvert on U.S. Highway 41, 4 mi (6.4 km) northwest of Slinger.	3.04	1960-73	5-27-73	11.41	115

* Also a low-flow partial-record station.
≠ Operated as a continuous-record gaging station.

Annual maximum discharge at crest-stage partial-record stations

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum		
					Date	Gage height (ft)	Discharge (ft^3/s)
		Rock River Basin--Continued					
05424300	Rock River tributary near Watertown, Wis.	NE¼ sec.18, T.8 N., R.16 E., at concrete culvert on old U.S. Highway 16, 5 mi (8.0 km) east of Watertown.	4.58	1959-73	3- 7-73	13.01	140
*05425700	Robbins Creek near Columbus, Wis.	SE¼ sec.11, T.10 N., R.12 E., at culvert on U.S. Highway 16, in Columbus.	8.54	1960-73	5-27-73	13.38	175
05425827	Maunesha River near Sun Prairie, Wis.	SE¼ SW¼ sec.23, T.9 N., R.11 E., at bridge on town road, 4.2 mi (6.8 km) northeast of Sun Prairie.	26.2	1973	3- 7-73	12.41	475
05426100	Scuppernong Creek near Wales, Wis.	NE¼ sec.6, T.6 N., R.18 E., at culvert on U.S. Highway 18, 1.8 mi (2.9 km) northwest of Wales.	8.28	1962-73	4-21-73	11.22	195
*05427200	Allen Creek near Fort Atkinson, Wis.	NE¼ sec.17, T.5 N., R.14 E., at box culvert on State Highway 26, 2.5 mi (4.0 km) southwest of Fort Atkinson.	10.2	1958-73	12-30-72	11.6	205
*05427800	Token Creek near Madison, Wis.	SW¼ sec.4, T.8 N., R.10 E., at culvert on U.S. Highway 51, 8 mi (12.9 km) northeast of State Capitol in Madison.	24.2	1961-65 1966≠ 1967-73	3- 7-73	14.29	570
*05431400	Little Turtle Creek at Allens Grove, Wis.	NE¼ sec.6, T.1 N., R.15 E., at bridge on country road, 0.2 mi (0.3 km) south of Allens Grove.	41.8	1962-73	4-21-73	18.28	8,400
*05432300	Rock Branch near Mineral Point, Wis.	SE¼ sec.8, T.4 N., R.3 E., at box culvert on State Highway 23, 2.5 mi (4.0 km) south of Mineral Point.	4.83	1959-73	3- 7-73	12.09	260
*05433500	Yellowstone River near Blanchardville, Wis.	NE¼ sec.34, T.4 N., R.4 E., 0.6 mi (1.0 km) upstream from bridge on County Trunk F, and 7 mi (11.3 km) west-southwest of Blanchardville.	28.5	1954-65≠ 1966-73	3- 7-73	9.51	1,750
05434200	Skinner Creek tributary near Monroe, Wis.	S½ sec.14, T.2 N., R.7 E., at culvert on State Highway 69, 2.4 mi (3.9 km) north of Monroe.	.48	1959-73	5- 8-73	12.54	80
05435900	Sugar River tributary near Pine Bluff, Wis.	SE¼ sec.27, T.7 N., R.7 E., at culvert on County Trunk J, 1.1 mi (1.8 km) southeast of Pine Bluff.	7.46	1961-73	3- 7-73	12.66	165
*05436200	Gill Creek near Brooklyn, Wis.	NW¼ sec.16, T.4 N., R.9 E., at culvert on State Highway 92, 4.3 mi (6.9 km) west of Brooklyn.	3.34	1961-73	3- 7-73	13.9	150
*05437200	East Fork Raccoon Creek tributary near Beloit, Wis.	On common boundary of secs.30 and 31, T.1 N., R.12 E., at culvert on State Highway 81, 2.9 mi (4.7 km) west of Beloit.	4.67	1958-73	7- 4-73	13.55	350
		Illinois River Basin					
05544300	Mukwonago River tributary near Mukwonago, Wis.	S½ sec.36, T.5 N., R.18 E., at culvert on State Highway 83, 1.5 mi (2.4 km) southeast of Mukwonago.	1.32	1960-73	4-21-73	10.89	31
05545100	Sugar Creek at Elkhorn, Wis.	SW¼ sec.29, T.3 N., R.17 E., at culvert on State Highway 11, 2 mi (3.2 km) northeast of Elkhorn.	6.68	1962-73	4-21-73	17.47	900
05545200	White River tributary near Burlington, Wis.	On common boundary of secs.27 and 34, T.3 N., R.18 E., at box culvert on State Highway 11, 4.5 mi (7.2 km) west of Burlington.	2.42	1958-73	4-21-73	14.10	290

* Also a low-flow partial-record station.
≠ Operated as a continuous-record gaging station.

Annual maximum discharge at crest-stage partial-record stations

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum		
					Date	Gage height (ft)	Discharge (ft^3/s)
		Illinois River Basin--Continued					
*05545300	White River near Burlington, Wis.	NW¼ sec.1, T.2 N., R.18 E., at bridge on State Highway 36, 2.2 mi (3.5 km) southwest of Burlington.	97.5	1958-65 1966≠ 1967-73	4-21-73	13.72	1,470
*05548150	North Branch Nippersink Creek tributary near Genoa City, Wis.	E½ sec.32, T.1 N., R.18 E., at bridge on County Trunk B, 3 mi (4.8 km) west of Genoa City.	13.8	1962-73	12-30-72	11.99	240

* Also a low-flow partial-record station.
≠ Operated as a continuous-record gaging station.

Series of base-flow discharge measurements were made in various areas of the State during the 1973 water year. These measurements were made as part of a comprehensive program now being carried on in cooperation with the Department of Natural Resources, the object of which is to obtain information on the variability of base flow within small basins.

The measurements for each study are listed in order proceeding downstream, and each tributary is inserted in the order in which it enters the main stream. The data collected in these series of measurements were used in determining the base-flow yields of various parts of the basins. Drainage areas shown were determined from the most recent U.S. Geological Survey maps of the area. Water temperature, dissolved oxygen, and specific conductance measurements were obtained at the time the discharge measurements were made and are available upon request to the district office.

STREAMS TRIBUTARY TO LAKE SUPERIOR

Montreal River basin low-flow investigation

A series of base-flow discharge measurements was made in the Montreal River basin, upstream from Ironwood, Michigan, during the period June 14, 15, 1973. In the week prior to and including the dates the measurements were made, weather records indicate an average of 0.93 in. (23.6 mm) of precipitation in the area. Based on weather records and recorded streamflow data in the region, the discharge measurements are considered to represent medium to high-range base flow.

Stream	Location	Drainage area (mi^2)	Measured Discharge		
			Date	ft^3/s	$(ft^3/s)/mi^2$
	Discharge measurements of Montreal River and tributaries				
Montreal River tributary	SE¼ NW¼ sec.33, T.44 N., R.3 E., Iron County, at bridge on town road, 14.2 mi (22.8 km) south of Hurley.	2.92	6-14-73	1.27	.44
Montreal River	NE¼ NW¼ sec.29, T.44 N., R.3 E., Iron County, at culvert at outlet of Pine Lake.	7.74	6-14-73	16.9	2.18
Montreal River tributary	SW¼ SW¼ sec.20, T.44 N., R.3 E., Iron County, at culvert on U.S. Highway 51 and 12.6 mi (20.3 km) south of Hurley.	.59	6-14-73	.16	.27
Do	NW¼ SW¼ sec.8, T.44 N., R.3 E., Iron County, at culvert on U.S. Highway 51, 10.2 mi (16.4 km) south of Hurley.	.25	6-14-73	-	-
Montreal River	SW¼ NE¼ sec.33, T.45 N., R.3 E., Iron County, just above confluence with Laymans Creek, 8.4 mi (13.5 km) south of Hurley.	18.31	6-14-73	-	-
Laymans Creek	NE¼ SW¼ sec.1, T.44 N., R.2 E., Iron County, at culvert on town road, 9.3 mi (15.0 km) south of Hurley.	.40	6-14-73	3.48	.87
Do	SW¼ NW¼ sec.6, T.44 N., R.3 E., Iron County, above confluence with tributary, and 9.0 mi (14.5 km) south of Hurley.	5.02	6-14-73	6.68	1.33
Laymans Creek tributary	NW¼ SW¼ sec.6, T.44 N., R.3 E., Iron County, at culverts on town road 9.1 mi (14.6 km) south of Hurley.	9.0	6-14-73	9.62	1.07
Do	NE¼ NE¼ sec.6, T.44 N., R.3 E., Iron County, at Schomberg Park, 8.6 mi (13.8 km) south of Hurley.	2.17	6-14-73	1.65	1.01
Laymans Creek	NE¼ NE¼ sec.6, T.44 N., R.3 E., Iron County, at bridge on U.S. Highway 51, 8.8 mi (14.2 km) south of Hurley.	17.5	6-14-73	13.8	1.52
Do	NW¼ NE¼ sec.32, T.45 N., R.3 E., Iron County, at bridge on town road, 8.0 mi (12.9 km) south of Hurley.	18.4	6-14-73	15.3	.83
Montreal River	SE¼ NE¼ sec.28, T.45 N., R.3 E., Iron County, at end of town road and 7.5 mi (12.1 km) south of Hurley.	39.1	6-14-73	37.6	.96
Montreal River tributary	NE¼ NE¼ sec.29, T.45 N., R.3 E., Iron County, at culvert on town road 6.8 mi (10.9 km) south of Hurley.	.68	6-14-73	.23	.34
Do	NE¼ SE¼ sec.20, T.45 N., R.3 E., Iron County, at culverts on town road 6.2 mi (10.0 km) south of Hurley.	1.84	6-14-73	.53	.29
Do	NE¼ NW¼ sec.20, T.45 N., R.3 E., Iron County, at culvert on town road, 5.8 mi (9.3 km) south of Hurley.	3.03	6-14-73	.49	.16
Whitney Creek	NE¼ NE¼ sec.13, T.46 N., R.46 W., Gogebic County, at bridge on town road, 5.4 mi (8.7 km) south of Ironwood, Mich.	4.18	6-14-73	1.23	.29
Montreal River	SE¼ SE¼ sec.8, T.45 N., R.3 E., Iron County, at bridge on County Trunk Highway C, 4.7 mi (7.6 km) south of Hurley.	52.1	6-14-73	43.3	.83
Do	NW¼ NW¼ sec.6, T.45 N., R.3 E., Iron County, beyond end of town road, 2.8 mi (4.5 km) south of Hurley.	54.7	6-14-73	52.0	.95
Do	NE¼ SE¼ sec.24, T.46 N., R.2 E., Iron County, at Aurora Street bridge between Hurley, Wis., and Ironwood, Mich.	63.8	6-15-73	42.3	.66

STREAMS TRIBUTARY TO MISSISSIPPI RIVER

Pine River basin low-flow investigation

A series of base-flow discharge measurements was made in the Pine River basin during the period October 17-18, 1972. In the week prior to the measurements, weather records at Richland Center indicate 0.47 in. (11.9 mm) of precipitation October 11. Based on recorded streamflow in the region, the discharge measurements are considered to represent high-range base flow.

Stream	Location	Drainage area (mi^2)	Measured Discharge		
			Date	ft^3/s	$(ft^3/s)/mi^2$
	Discharge measurements of Pine River and tributaries				
Pine River	NW¼ SW¼ sec.1, T.12 N., R.1 W., Richland County, at bridge on private road, 0.9 mi (1.4 km) northwest of Yuba.	9.68	10-17-72	4.36	0.45
Pine River tributary	NE¼ NE¼ sec.1, T.12 N., R.1 W., Richland County, just above confluence with unnamed tributary (Greenwood Valley branch), and 0.9 mi (1.4 km) north of Yuba.	7.37	10-17-72	3.85	.52
Tributary to Pine River tributary	NE¼ NE¼ sec.1, T.12 N., R.1 W., Richland County, at mouth, and 0.9 mi (1.4 km) north of Yuba.	8.13	10-17-72	3.94	.48
Pine River	SW¼ SW¼ sec.6, T.12 N., R.1 E., Richland County, at bridge on State Highway 80, at Yuba.	27.2	10-17-72	12.9	.47
Indian Creek	SW¼ SE¼ sec.7, T.12 N., R.1 E., Richland County, at bridge on town road, and 1.1 mi (1.8 km) southeast of Yuba.	2.59	10-17-72	1.02	.39
Melancthon Creek	SE¼ NW¼ sec.27, T.12 N., R.1 E., Richland County, at bridge on County Trunk C, 1.3 mi (2.1 km) north of Hub City.	14.3	10-18-72	8.90	.62
Pine River	NE¼ SW¼ sec.27, T.12 N., R.1 E., Richland County, at bridge on County Trunk C, 1.2 mi (1.9 km) north of Hub City.	55.6	10-18-72	39.6	.71
Soules Creek	NW¼ SE¼ sec.34, T.12 N., R.1 E., Richland County, at bridge on State Highway 80, at Hub City.	4.40	10-18-72	1.86	.42
Hawkins Creek	SW¼ NE¼ sec.3, T.11 N., R.1 E., Richland County, at bridge on private road 0.7 mi (1.1 km) south of Hub City.	15.2	10-18-72	10.2	.67
West Branch Pine River	NE¼ NW¼ sec.26, T.12 N., R.1 W., Richland County, at bridge on County Trunk H, at Bloom City.	14.6	10-17-72	8.89	.61
West Branch Pine River tributary	NW¼ SW¼ sec.26, T.12 N., R.1 W., Richland County, at bridge on County Trunk "H", 0.5 mi (0.8 km) south of Bloom City.	6.11	10-17-72	4.16	.68
West Branch Pine River	NE¼ NE¼ sec.9, T.11 N., R.1 E., Richland County, at bridge on County Trunk D, 0.5 mi (0.8 km) west of Rockbridge.	37.6	10-18-72	20.3	.54
Pine River	SE¼ NW¼ sec.10, T.11 N., R.1 E., Richland County, at bridge on State Highway 80, at Rockbridge.	117	10-18-72	76.2	.65
South Buck Creek	NE¼ NW¼ sec.22, T.11 N., R.1 E., Richland County, at bridge on State Highway 80, at Buck Creek.	4.95	10-18-72	1.25	.25
Pine River	NE¼ NW¼ sec.27, T.11 N., R.1 E., Richland County, at bridge on State Highway 80, 1.0 mi (1.6 km) south of Buck Creek.	128	10-18-72	86.3	.67
Fancy Creek	SW¼ NE¼ sec.14, T.11 N., R.1 W., Richland County, at bridge on County Trunk Z, near Gillingham.	8.58	10-17-72	4.32	.50
Fancy Creek tributary	SW¼ SW¼ sec.14, T.11 N., R.1 W., Richland County, at bridge on private road, 1.0 mi (1.6 km) west of Gillingham.	6.19	10-17-72	3.70	.60
Do	NW¼ SW¼ sec.13, T.11 N., R.1 W., Richland County, at bridge on State Highway 56, at Gillingham.	2.28	10-17-72	1.04	.46
Fancy Creek	NE¼ SE¼ sec. 32, T.11 N., R.1 E., Richland County, at bridge on State Highway 56 and 80, 3.5 mi (5.6 km) north of Richland Center.	28.4	10-17-72	13.4	.47
Horse Creek	SW¼ SE¼ sec.5, T.10 N., R.1 E., Richland County, at bridge on State Highway 56-80, 2.3 mi (3.7 km) north of Richland Center.	8.90	10-18-72	4.31	.48
Brush Creek	SW¼ NE¼ sec.17, T.10 N., R.1 E., Richland County, at bridge on private road in Richland Center.	6.77	10-18-72	3.07	.45
Center Creek	SW¼ NE¼ sec.20, T.10 N., R.1 E., Richland County, at bridge on (city) street, in Richland Center.	2.57	10-18-72	0.87	.34
Pine River	SW¼ NE¼ sec.21, T.10 N., R.1 E., Richland County, at sewage treatment plant, at Richland Center.	190	10-18-72	110	.58
Rocky Branch	NE¼ SE¼ sec.29, T.10 N., R.1 E., Richland County, at culvert on State Highway 80, 1.5 mi (2.4 km) south of Richland Center.	1.68	10-18-72	0.59	.35
Pine River	SE¼ SE¼ sec.27, T.10 N., R.1 E., at bridge on County Trunk O, 2.5 mi (4.0 km) southeast of Richland Center.	198	10-18-72	131	.66
Spring Creek	NE¼ SW¼ sec.26, T.10 N., R.1 E., Richland County, at bridge on U.S. Highway 14, 2.7 mi (4.3 km) southeast of Richland Center.	2.74	10-18-72	0.56	.20

STREAMS TRIBUTARY TO MISSISSIPPI RIVER

Pine River basin low-flow investigation--continued

Stream	Location	Drainage area (mi^2)	Measured Discharge		
			Date	ft^3/s	$(ft^3/s)/mi^2$
Discharge measurements of Pine River and tributaries--continued					
Ash Creek	NW¼ NE¼ sec.9, T.9 N., R.1 E., Richland County, at bridge on County Trunk "O", 4.3 mi (6.9 km) south of Richland Center.	7.95	10-17-72	3.46	0.44
Do	SE¼ NE¼ sec.2, T.9 N., R.1 E., Richland County, at bridge on County Trunk TB, 4.0 mi (6.4 km) southeast of Richland Center.	18.4	10-17-72	6.08	.33
Willow Creek	SE¼ SW¼ sec.6, T.9 N., R.2 E., Richland County, just above junction with (left bank) tributsry, 150 ft (45.7 m) above US 14 bridge.	79.3	10-17-72	53.0	.67
Willow Creek tributary	SW¼ SE¼ sec.6, T.9 N., R.2 E., Richland County, at bridge on County Trunk B, at Sextonville, 0.10 mi (0.16 km) above mouth.	2.93	10-17-72	0.28	.10
Pine River	SE¼ SW¼ sec.30, T.9 N., R.2 E., Richland County, at bridge on State Highway 60, at Gotham.	320	10-17-72	238	.74

Blue River basin low-flow investigation

A series of hase-flow measurements was made in the Blue River basin during the period October 17-19, 1972. In the week prior to the measurements, waather records indicate about 0.48 in. (12.2 mm) of precipitation fell in the area. Based on recorded streamflow in the region, the discharge measurements ere considered to represent high-range bsse flow.

Discherge measurements of Blue River and tributeries					
Blue River	NW¼ SE¼ sec.17, T.6 N., R.1 E., Iowa County, just ebove confluence with Blue River tributery, 2.6 mi (4.2 km) northeast of Montfort.	4.88	10-19-72	1.47	.30
Blue River tributary	SW¼ NE¼ sec.17, T.6 N., R.1 E., Iowe County, at bridge on town road, 2.6 mi (4.2 km) northeast of Montfort.	3.22	10-19-72	.18	.06
Do	NW¼ SW¼ sec.8, T.6 N., R.1 W., Iowe Connty, at culvert on town road, 3.2 mi (5.1 km) southwest of Highland.	3.93	10-19-72	.04	.01
Blue River	NW¼ NW¼ ssc.2, T.6 N., R.1 W., Grent County, at bridge on town road, 4.5 mi (7.2 km) west of Highlend.	29.8	10-19-72	12.5	.42
Big Rock Branch	NE¼ SE¼ sec.26, T.7 N., R.1 W., Grant County, at bridge on town road, 3.8 mi (6.1 km) west of Highland.	9.42	10-19-72	.61	.06
Blue River	NW¼ SW¼ sec.10, T.7 N., R.1 W., Grant County, at bridge on town road, and 6.7 mi (10.8 km) south of Muscoda.	50.0	10-17-72	20.7	.41
Six Mile Branch	SW¼ SW¼ sec.2, T.7 N., R.1 W., Grant County, at bridge on town road, 5.8 mi (9.3 km) south of Muscoda.	11.3	10-19-72	2.68	.24
Big Spring Branch	SW¼ SE¼ sec.18, T.7 N., R.1 E., Iowa County, at bridge on town road, 7.6 mi (12.2 km) south of Muscoda.	7.26	10-19-72	1.42	.20
Do	SE¼ NW¼ sec.11, T.7 N., R.1 W., Grant County, at bridge on privete road, 6.1 mi (9.8 km) south of Muscoda.	12.0	10-19-72	4.39	.37
Blue River	SE¼ NE¼ sec.32, T.8 N., R.1 W., Grent County, et bridge on County Trunk G, 4.8 mi (7.7 km) southeast of Blue River.	79.6	10-17-72	35.5	.45
Fennimore Fork	NW¼ SW¼ sec.11, T.6 N., R.2 W., Grant County, et bridge on County Trunk Q, 3.8 mi (6.1 km) southwest of Castle Rock.	7.10	10-18-72	1.27	.18
Do	NE¼ SW¼ sec.36, T.7 N., R.2 W., Grant County, at bridge on County Trunk Q, 1.7 mi (2.7 km) southwast of Castle Rock.	23.3	10-18-72	1.38	.06
Fennimore Fork tributary	NE¼ NE¼ sec.1, T.6 N., R.2 W., Grant County, at bridge on town road, 1.4 mi (2.3 km) sonthwest of Castle Rock.	15.5	10-18-72	4.66	.30
Do	NE¼ NE¼ sec.31, T.7 N., R.1 W., Grant County, at bridge on town road at Csstle Rock.	3.73	10-18-72	.12	.03
Do	SW¼ SE¼ sec.13, T.7 N., R.2 W., Grent County, st bridge on private road, 7.8 mi (12.6 km) south of Blue River.	10.7	10-18-72	3.69	.34

STREAMS TRIBUTARY TO MISSISSIPPI RIVER

Blue River basin low-flow investigation--continued

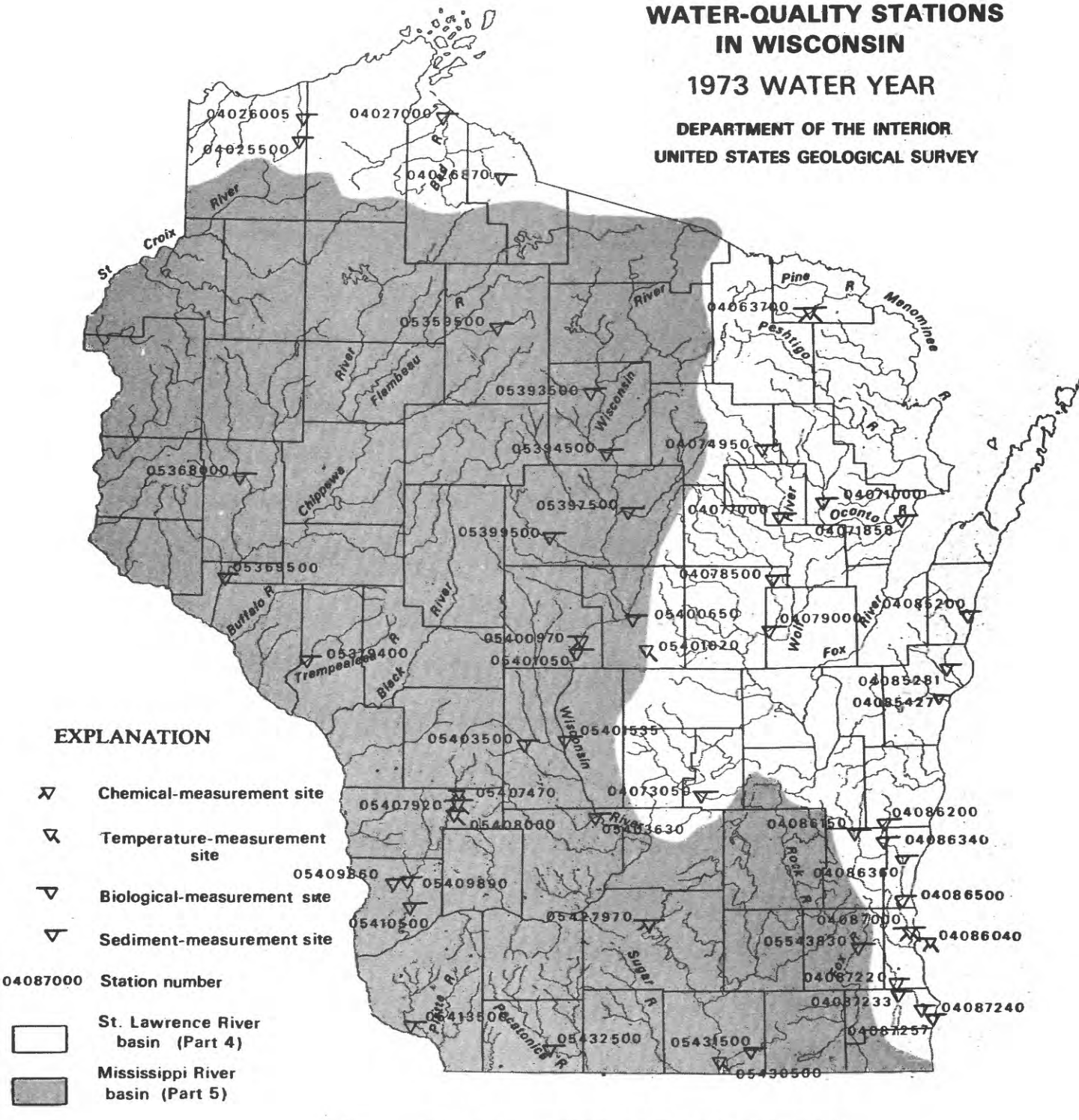
Stream	Location	Drainage area (mi^2)	Measured Discharge		
			Date	ft^3/s	$(ft^3/s)/mi^2$
	Discharge measurements of Blue River and tributaries--continued				
Fennimore Fork	SW¼ NW¼ sec.18, T.7 N., R.1 W., Grant County, at bridge on town road, 7.3 mi (11.7 km) south of Blue River.	61.2	10-18-72	25.1	0.41
Do	NE¼ NE¼ sec.6, T.7 N., R.1 W., Grant County, just above confluence with unnamed tributary, 5.2 mi (8.4 km) south of Blue River.	68.8	10-18-72	31.6	.46
Fennimore Fork tributary	NE¼ NE¼ sec.6, T.7 N., R.1 W., Grant County, at mouth, 5.2 mi (8.4 km) south of Blue River.	8.34	10-18-72	2.26	.27
Sand Branch	SE¼ NE¼ sec.21, T.8 N., R.1 W., Grant County, at bridge on County Trunk G, 3.3 mi (5.3 km) southwest of Muscoda.	8.42	10-17-72	2.86	.34
Blue River tributary	SW¼ NE¼ sec.15, T.8 N., R.1 W., Grant County at bridge on County Trunk G, 2.0 mi (3.2 km) southwest of Muscoda.	2.82	10-17-72	0	0
Blue River	NW¼ NW¼ sec.16, T.8 N., R.1 W., Grant County, at bridge on town road (Forest Road) and 3.2 mi (5.1 km) east of Blue River.	181	10-17-72	77.1	.43
Do	NE¼ NW¼ sec.12, T.8 N , R.2 W., Grant County, at bridge on State Highway 133 at Blue River.	188	10-17-72	79.3	.42

FIGURE 6.

WATER-QUALITY STATIONS IN WISCONSIN

1973 WATER YEAR

DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY



EXPLANATION

- Chemical-measurement site
- Temperature-measurement site
- Biological-measurement site
- Sediment-measurement site
- 04087000 Station number
- St. Lawrence River basin (Part 4)
- Mississippi River basin (Part 5)

PART 2. WATER QUALITY RECORDS

04063700 POPPLE RIVER NEAR FENCE, WIS.
(Hydrologic bench-mark station)

LOCATION.--Lat 45°45'49", long 88°27'47", in NW¼ sec.23, T.38 N., R.16 E., Florence County, temperature recorder at gaging station, on left bank 20 ft (6.1 m) upstream from bridge on U.S. Forest Service Road 2159, 1.8 mi (2.90 km) downstream from Mud Creek, 2.6 mi (4.18 km) northwest of Fence, and at mile 11.5 (18.5 km).
DRAINAGE AREA.--131 mi² (339 km²).
PERIOD OF RECORD.--Chemical analyses: October 1968 to September 1973.
Water Temperatures: June 1964 to September 1973.
EXTREMES, 1972-73.--Water temperatures: Maximum, 24.5°C Aug. 29, 30, 1973; minimum, freezing point on many days during November to April.
EXTREMES, 1964-73.--Water temperatures: Maximum, 29.0°C July 1, 2, 1970; minimum, freezing point on many days during winter months.
REMARKS.--Miscellaneous samples of chemical data published for water years 1964-67. Laboratory analyses of biological constituents furnished by State Laboratory of Hygiene, Madison, Wisconsin.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	DISSOLVED SILICA (SIO2) (MG/L)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	PERCENT SODIUM
OCT.											
17...	1230	4.0	111	9.7	7.2	125	14	6.8	1.3	.1	4
NOV.											
02...	1230	3.5	153	9.6	7.0	109	13	6.1	1.3	.1	5
DEC.											
07...	1030	.0	63	12	7.3	220	25	8.5	1.2	.1	3
JAN.											
09...	1215	.0	47	15	7.5	205	25	10	1.6	.1	3
FEB.											
05...	1500	.0	71	14	7.2	210	22	9.9	1.3	.1	3
MAR.											
21...	1630	2.0	565	--	6.7	75	--	--	--	--	--
APR.											
25...	1230	18.0	487	2.0	6.8	75	10	3.4	.8	.1	4
JUNE											
14...	1300	14.5	160	6.0	7.2	140	14	8.2	1.2	.1	4
JULY											
19...	1040	15.5	52	8.2	7.0	240	22	12	1.5	.1	3
AUG.											
23...	1130	12.0	69	10	7.4	200	24	10	1.4	.1	3

DATE	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)
OCT.										
17...	.5	65	0	53	5.6	3.5	.3	.10	.08	103
NOV.										
02...	.6	63	0	52	.6	3.0	.3	.20	.07	75
DEC.										
07...	.8	103	0	84	7.0	3.0	.4	.30	.05	128
JAN.										
09...	.9	118	0	97	7.0	3.0	.2	.40	.05	123
FEB.										
05...	.8	109	0	89	6.4	4.0	.2	.20	.08	116
MAR.										
21...	--	--	--	--	--	--	--	--	--	--
APR.										
25...	.6	33	0	27	3.8	3.0	.2	.10	.02	77
JUNE										
14...	.5	77	0	63	1.0	5.0	.2	.10	.05	97
JULY										
19...	.9	116	0	95	3.8	6.0	.2	.06	.02	125
AUG.										
23...	.7	115	0	94	3.2	2.0	.1	.03	.04	121

04063700 POPPLE RIVER NEAR FENCE, WIS.--Continued

DATE	DIS-SOLVED SOLIDS (TONS PER DAY)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	NON-CAR-BONATE HARD-NESS (MG/L)	HARD-NESS (CA,MG) (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	BIO-CHEM-ICAL OXYGEN DEMAND (MG/L)	DIS-SOLVED OXYGEN (MG/L)	PER-CENT SATUR-ATION	IMME-DIATE COLI-FORM (COL. PER 100 ML)	FECAL COLI-FORM (COL. PER 100 ML)
OCT. 17...	30.9	.14	10	63	6.6	1.2	12.0	92	--	--
NOV. 02...	31.0	.10	6	58	10	2.5	11.6	87	--	--
DEC. 07...	21.8	.17	13	98	8.3	1.0	10.5	72	300	<10
JAN. 09...	15.6	.17	8	100	6.0	.8	12.8	88	110	<5
FEB. 05...	22.2	.16	6	96	11	--	11.4	79	200	<5
MAR. 21...	--	--	--	--	--	--	13.0	94	500	<5
APR. 25...	101	.10	12	39	8.4	.7	9.2	72	--	--
JUNE 14...	41.9	.13	6	68	7.8	1.3	8.9	91	--	<10
JULY 19...	17.5	.17	10	100	19	.7	7.9	--	600	20
AUG. 23...	22.9	.16	8	100	7.3	1.9	7.4	72	600	140

DATE	TIME	INSTAN-TANEOUS DIS-CHARGE (CFS)	DIS-SOLVED ARSENIC (AS) (UG/L)	DIS-SOLVED CAD-MIUM (CD) (UG/L)	DIS-SOLVED CHRO-MIUM (CR) (UG/L)	DIS-SOLVED COBALT (CO) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)
JUNE 14...	1300	160	0	0	0	0	1

DATE	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)
JUNE 14...	620	6	100	3	20	<.5

04063700 POPPLE RIVER NEAR FENCE, WIS.--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
7	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
8	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
9	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
13	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
14	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
15	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
16	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
18	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
19	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MONTH	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
7	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
8	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
9	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
13	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
14	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
15	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
16	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
18	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
19	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MONTH	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
YEAR	[illegible]	[illegible]										

04063700 POPPLE RIVER NEAR FENCE, WIS.--Continued

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
OCT., 1972					
17...	1205	---	111	8	2.4
NOV.					
02...	1200	---	153	10	4.1
DEC.					
07...	1025	---	63	0	.00
JAN., 1973					
02...	1700	---	49	6	.79
09...	1730	---	48	2	.26
10...	1100	---	48	2	.26
16...	1410	---	48	4	.52
23...	1445	---	48	4	.52
30...	1730	---	60	2	.32
FEB.					
05...	1200	---	71	1	.19
06...	1715	---	60	1	.16
13...	1340	---	92	14	3.5
20...	1400	---	66	7	1.2
27...	1745	---	76	8	1.6
MAR.					
03...	1400	---	82	6	1.3
08...	1115	---	250	8	5.4
09...	1325	---	230	6	3.7
10...	1555	---	210	5	2.8
11...	2125	---	290	4	3.1
12...	1510	---	320	13	11
13...	1400	---	390	13	14
14...	1750	---	420	8	9.1
15...	1430	---	500	6	8.1
16...	1410	---	620	3	5.0
17...	1450	---	635	10	17
18...	1640	---	665	16	29
19...	1755	---	660	10	18
20...	1730	---	635	8	14
21...	1635	2.0	580	8	12
22...	2010	---	472	3	3.8
23...	1240	---	440	5	5.9
23...	1925	---	440	2	2.4
24...	1755	---	412	4	4.4
25...	2100	---	396	4	4.3
26...	1640	---	388	3	3.1
27...	1635	---	380	4	4.1
28...	1810	---	380	5	5.1
29...	1930	---	388	4	4.2
30...	2030	---	400	6	6.5
31...	2055	---	404	7	7.6
APR.					
01...	2015	---	412	4	4.4
02...	1505	---	436	4	4.7
03...	1325	---	448	4	4.8
04...	1445	---	448	3	3.6
05...	1450	---	424	4	4.6
06...	1450	---	392	4	4.2
07...	1800	---	368	8	7.9
08...	1725	---	328	2	1.8
09...	1500	---	305	4	3.3
10...	1415	---	275	4	3.0
11...	1405	---	254	2	1.4
12...	1500	---	236	5	3.2
13...	1510	---	215	2	1.2
14...	1600	---	200	6	3.2
15...	1645	---	233	4	2.5
16...	1845	---	404	4	4.4
24...	1150	5.0	508	6	8.2
JUNE					
14...	1245	19.5	140	6	2.3
AUG.					
23...	1200	16.5	72	4	.78

04086040 LAKE MICHIGAN AT MILWAUKEE, WIS.

LOCATION.--Lat 43°04'56", long 87°50'44", in SW¼ SW¼ NW¼ sec.12, T.7 N., R.22 E., Milwaukee County, at City of Milwaukee public water supply intake, 1.1 mi (1.8 km) offshore and at mile 624.40 (1,004.7 km).
DRAINAGE AREA.--67,900 mi² (175,900 km²). Surface area: 22,400 mi² (58,016 km²).
PERIOD OF RECORD.--Chemical analyses: October 1969 to June 1973 (discontinued).
REMARKS.--Samples are taken from the raw water tap in the Linwood Purification Plant Laboratory. Analyses are performed by purification plant personnel, USGS, and EPA-WQO. Drainage area and surface area provided by EPA-WQO. Station operated by EPA during period August 1960 to September 1969.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TEMPERATURE (DEG C)	TURBIDITY (JTU)	COLOR (PLATINUM-COBALT UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND (MG/L)	CHEMICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	PH (UNITS)	CARBON DIOXIDE (CO2) (MG/L)
OCT.											
02...	0800	9.3	2	1	265	10.4	91	.7	--	8.3	--
09...	0800	11.0	3	--	--	10.5	95	--	11	8.3	--
16...	0800	10.6	5	1	--	10.4	93	.9	19	8.3	1.0
23...	0800	8.9	1	1	--	10.5	90	.5	10	8.2	--
30...	0800	8.3	10	3	--	10.8	91	2.0	11	8.3	1.1
NOV.											
06...	0800	8.4	3	--	286	10.9	92	.2	--	8.4	--
13...	0800	7.6	5	1	--	10.9	95	.5	9	8.3	--
20...	0800	5.9	5	--	--	11.8	95	.5	10	8.2	1.3
27...	0800	5.7	1	1	--	11.9	94	.3	13	8.4	.8
DEC.											
04...	0800	4.6	4	1	267	12.1	93	.4	--	8.4	.8
11...	0800	2.0	2	1	--	12.7	92	.1	--	8.4	.8
18...	0800	1.4	7	--	--	12.7	91	.8	--	8.3	1.0
26...	1030	2.4	--	--	--	12.6	92	--	--	8.4	--
JAN.											
02...	0800	2.6	1	1	264	12.9	95	.5	12	8.2	1.3
15...	0800	1.7	2	1	--	13.1	94	.4	12	8.3	1.0
22...	0800	1.4	10	1	--	13.0	93	1.1	11	8.2	1.4
29...	0800	2.1	12	1	--	13.1	95	.4	11	8.3	1.0
FEB.											
05...	0800	1.9	10	1	269	13.4	96	.5	9	8.2	1.3
12...	0800	.6	11	1	--	13.3	92	.5	9	8.3	1.0
19...	0800	.2	4	1	--	13.8	94	.2	9	8.3	1.0
26...	0800	.2	11	1	--	14.0	96	.4	8	8.3	1.1
MAR.											
02...	0800	--	--	--	--	--	--	--	10	--	--
05...	0800	1.1	8	1	--	13.7	96	.5	10	8.3	1.1
12...	0800	2.5	5	10	302	13.0	96	.7	10	8.2	1.4
19...	0800	2.1	10	1	--	13.6	98	.4	7	8.3	1.1
26...	0800	2.2	5	1	--	13.1	95	.4	7	8.4	.8
APR.											
02...	0800	2.7	2	1	--	13.0	96	.3	40	8.4	.8
03...	1000	--	--	--	267	--	--	--	--	--	--
09...	0800	3.0	13	1	--	12.7	94	.5	8	8.4	.8
16...	0800	2.2	13	1	--	11.1	80	.7	6	8.3	1.1
30...	0800	5.7	7	1	--	12.1	96	.7	8	8.4	.8
MAY											
07...	0800	6.6	8	1	--	11.1	91	2.6	10	8.4	.9
07...	1100	--	--	--	276	--	--	--	--	--	--
14...	0800	6.4	4	--	--	11.6	94	.9	5	8.4	.9
21...	0800	6.4	3	1	--	11.8	97	.8	9	8.4	.9
29...	0800	8.3	5	1	--	11.3	95	.7	10	8.3	1.0
JUNE											
04...	0800	8.0	2	1	--	11.3	95	.2	10	8.4	.8
04...	1240	--	--	--	273	--	--	--	--	--	--
11...	0800	7.0	2	1	--	11.3	93	.5	9	8.2	1.3
18...	0800	6.7	3	--	--	11.3	93	.5	10	8.2	1.3
25...	0800	6.4	2	--	--	11.2	--	.4	10	8.2	--

04086040 LAKE MICHIGAN AT MILWAUKEE, WIS.--Continued

DATE	ALKALINITY AS CACO3 (MG/L)	CARBONATE ALKALINITY AS CACO3 (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ORGANIC NITROGEN (N) (MG/L)	AMMONIA NITROGEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	PHOSPHATE (PO4) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED PHOSPHORUS (P) (MG/L)
OCT.										
02...	106	0	129	0	.20	.04	.20	--	.03	.01
09...	104	0	127	0	--	--	.23	.00	--	--
16...	107	0	130	0	--	--	.30	.00	--	--
23...	103	0	126	0	--	--	.10	.00	--	--
30...	111	1	132	2	--	--	.36	.00	--	--
NOV.										
06...	109	--	--	--	.10	.03	.20	.00	.14	.09
13...	--	0	--	0	--	--	.25	--	--	--
20...	104	0	127	0	--	--	--	.00	--	--
27...	106	2	123	3	--	--	.23	--	--	--
DEC.										
04...	107	2	127	3	.04	.00	.20	.00	.20	.10
11...	103	1	122	2	--	--	.27	.00	--	--
18...	103	0	126	0	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--
JAN.										
02...	107	0	131	0	.05	.00	.20	--	.04	.03
15...	106	0	129	0	--	--	.27	--	--	--
22...	117	0	143	0	--	--	.43	.10	--	--
29...	106	0	129	0	--	--	.38	.00	--	--
FEB.										
05...	109	0	133	0	.21	.02	.30	.00	.05	.02
12...	105	0	128	0	--	--	.33	.10	--	--
19...	105	0	128	0	--	--	.25	.00	--	--
26...	111	0	135	0	--	--	.34	.00	--	--
MAR.										
02...	--	--	--	--	--	--	--	--	--	--
05...	109	0	133	0	--	--	.38	.00	--	--
12...	110	0	134	0	.27	.04	.30	.00	.04	.02
19...	111	0	135	0	--	--	.27	.00	--	--
26...	109	4	119	7	--	--	.52	.00	--	--
APR.										
02...	104	--	127	--	--	--	.30	.00	--	--
03...	--	--	--	--	.06	.05	.30	--	.04	.12
09...	109	2	127	3	--	--	.25	.00	--	--
16...	109	0	133	0	--	--	.36	.00	--	--
30...	107	3	121	5	--	--	.11	.00	--	--
MAY										
07...	112	4	123	7	--	--	.36	.00	--	--
07...	--	--	--	--	.32	.08	.20	--	.03	.02
14...	113	1	134	2	--	--	--	--	--	--
21...	112	2	131	3	--	--	.16	.00	--	--
29...	106	0	129	0	--	--	--	.00	--	--
JUNE										
04...	107	3	121	5	--	--	.23	.00	--	--
04...	--	--	--	--	.28	.12	.20	--	.09	.09
11...	108	0	132	0	--	--	--	--	--	--
18...	108	0	132	0	--	--	--	--	--	--
25...	105	--	--	--	--	--	--	--	--	--

04086040 LAKE MICHIGAN AT MILWAUKEE, WIS.--Continued

DATE	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	IMMEDIATE COLIFORM (COL. PER 100 ML)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)
OCT.										
02...	131	26	8.5	20	.2	.8	1300	.0	144	.20
09...	131	27	8.7	20	.2	.5	--	--	156	.21
16...	142	36	10	21	.1	2.3	150	--	170	.23
23...	132	29	8.3	22	.2	1.0	29	--	150	.20
30...	137	26	9.2	33	.4	1.2	1100	--	168	.23
NOV.										
06...	138	29	8.6	--	.2	1.0	350	.0	168	.23
13...	136	--	8.2	24	.2	1.1	60	--	165	.22
20...	134	30	8.0	--	--	--	52	--	154	.21
27...	128	22	7.8	19	.2	--	7	--	144	.20
DEC.										
04...	133	24	8.0	20	.2	1.0	14	.0	146	.20
11...	132	28	7.8	21	.2	--	30	--	153	.21
18...	--	--	8.3	19	--	--	35	--	154	.21
26...	--	--	--	21	--	--	13	--	151	.21
JAN.										
02...	133	26	8.5	21	--	--	1	.0	157	.21
15...	134	28	9.4	20	.1	1.0	39	--	151	.21
22...	150	33	16	26	.2	1.7	12000	--	183	.25
29...	133	28	8.3	21	.1	1.3	140	--	158	.21
FEB.										
05...	133	24	8.8	22	.1	1.3	180	.0	156	.21
12...	134	29	8.0	20	.2	1.3	80	--	143	.19
19...	134	29	8.3	18	.1	1.3	71	--	151	.21
26...	136	26	9.0	22	.2	1.2	100	--	161	.22
MAR.										
02...	--	--	--	--	--	--	--	--	--	--
05...	137	28	10	23	.2	1.1	29	--	161	.22
12...	144	34	14	24	.2	1.5	1500	.0	156	.21
19...	133	22	8.1	21	.1	1.0	54	--	154	.21
26...	137	28	8.5	21	.1	1.0	31	--	143	.19
APR.										
02...	135	31	8.0	22	.2	1.0	--	--	154	.21
03...	--	--	--	--	--	--	--	.0	--	--
09...	137	28	8.3	19	.1	.8	70	--	148	.20
16...	134	25	8.9	21	.2	.8	300	--	--	--
30...	137	29	9.8	21	.1	.5	80	--	144	.20
MAY										
07...	139	26	11	23	.2	.7	770	--	166	.23
07...	--	--	--	--	--	--	--	.0	--	--
14...	135	22	10	21	.2	.8	44	--	158	.21
21...	135	23	9.4	--	.1	.8	68	--	163	.22
29...	131	25	8.4	20	.2	.8	110	--	151	.21
JUNE										
04...	133	26	8.2	20	.1	.9	55	--	146	.20
04...	--	--	--	--	.1	--	--	.0	--	--
11...	135	27	--	20	.2	--	460	--	154	.21
18...	134	27	8.5	19	--	--	200	--	151	.21
25...	133	28	8.3	20	.1	--	3500	--	153	.21

04087000 MILWAUKEE RIVER AT MILWAUKEE, WIS.
(National Stream Quality Accounting Network Station)

LOCATION.--Lat 43°06'00", long 87°54'32", in NE¼ sec.5, T.7 N., R.22 E., Milwaukee County, temperature recorder at gaging station, on left bank near northeast limits of Milwaukee in Estabrook Park, 2,000 ft (609.6 m) downstream from Port Washington Road bridge and 6.6 mi (10.6 km) upstream from mouth.
DRAINAGE AREA.--686 mi² (1,777 km²).
PERIOD OF RECORD.--Chemical analyses: December 1972 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	PERCENT SODIUM	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)
JAN. 25...	1230	--	.5	8.2	58	28	15	.4	11	4.0	248	0
FEB. 22...	1400	--	--	12	98	37	31	.7	14	3.0	370	0
MAR. 20...	1000	--	4.5	5.8	67	28	14	.4	10	3.0	278	0
APR. 30...	1300	3060	10.5	1.9	64	36	20	.5	12	3.2	298	0
MAY 24...	1030	745	16.0	1.7	68	40	16	.4	9	2.4	334	0
JUNE 19...	1200	642	22.5	11	66	43	13	.3	7	1.9	348	0
JULY 31...	1000	--	24.0	2.4	48	24	19	.6	16	2.4	222	0
AUG. 14...	1000	--	24.0	2.6	55	34	27	.7	17	3.3	292	0
SEP. 19...	1430	--	16.0	6.9	59	35	24	.6	15	3.2	298	0

DATE	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL NITRATE (NO3) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL PHOSPHORUS (PO4) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	HARDNESS (CA,MG) (MG/L)
JAN. 25...	37	34	.2	1.3	.11	6.0	.20	.62	325	312	.44	260
FEB. 22...	48	56	.2	1.3	1.5	6.0	.23	.72	478	467	.65	380
MAR. 20...	37	30	.3	.70	1.2	3.1	.21	.64	338	322	.46	280
APR. 30...	39	41	.3	.80	1.3	3.6	.50	1.5	394	352	.54	310
MAY 24...	34	34	.3	.80	1.2	3.6	.15	.45	400	361	.54	330
JUNE 19...	28	32	.4	.70	1.9	3.2	.29	.89	388	384	.53	340
JULY 31...	31	34	.3	.10	1.7	.40	.23	.72	286	270	.39	220
AUG. 14...	35	42	.3	.10	1.7	.40	.29	.89	356	343	.48	280
SEP. 19...	44	38	.3	.30	.86	1.5	.17	.52	372	358	.51	290

04087000 MILWAUKEE RIVER AT MILWAUKEE, WIS.--Continued

DATE	NON-CARBONATE HARDNESS (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TURBIDITY (JTU)	PHYTOPLANKTON TOTAL COUNT (CELLS/ML)	IMMEDIATE COLIFORM (COL. PER 100 ML)	FECAL COLIFORM (COL. PER 100 ML)	STREPTOCOCCI (COLONIES PER 100 ML)
JAN.										
25...	58	203	10	295	7.6	6	0	--	--	--
FEB.										
22...	73	303	9.4	425	7.8	4	--	74000	4800	1200
MAR.										
20...	56	228	8.9	340	7.7	4	--	94000	30000	--
APR.										
30...	64	244	19	470	7.4	10	520	660000	838000	660000
MAY										
24...	60	274	5.3	550	8.0	1	4400	--	1600	18000
JUNE										
19...	56	285	3.5	565	8.2	--	9100	--	25000	82000
JULY										
31...	38	182	11	470	7.5	25	4400	--	49000	8700
AUG.										
14...	37	239	7.4	597	7.8	10	5000	--	--	--
SEP.										
19...	49	244	3.1	525	8.1	10	2200	28000	960	--

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TOTAL NITROGEN IN BOTTOM DEPOSITS (N) (MG/KG)	TOTAL NITRITE PLUS NITRATE IN BOT. DEP. (MG/KG)	TOTAL PHOSPHORUS IN BOTTOM DEPOSITS (MG/KG)	TOTAL ORGANIC CARBON (C) (MG/L)	ORGANIC CARBON IN BED MATERIAL (C) (G/KG)	DISSOLVED ARSENIC (AS) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL ARSENIC IN BOTTOM DEPOSITS (UG/G)
JAN.										
25...	1230	--	--	--	--	--	--	0	0	--
JUNE										
19...	1200	642	--	--	--	--	--	14	14	--
AUG.										
14...	1000	--	--	--	--	--	--	9	9	--
15...	1000	165	380	.9	280	16	1.5	--	--	2

DATE	DISSOLVED CADMIUM (CD) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	TOTAL CADMIUM IN BOTTOM DEPOSITS (UG/G)	TOTAL CHROMIUM IN BOTTOM DEPOSITS (UG/G)	DISSOLVED CHROMIUM (CR) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	DISSOLVED COBALT (CO) (UG/L)	TOTAL COBALT (CO) (UG/L)	TOTAL COBALT IN BOTTOM DEPOSITS (UG/G)	DISSOLVED COPPER (CU) (UG/L)
JAN.										
25...	0	0	--	--	0	3	0	1	--	4
JUNE										
19...	0	0	--	--	0	0	0	1	--	9
AUG.										
14...	0	0	--	--	0	2	1	1	--	9
15...	--	--	3	32	--	--	--	--	10	--

B Results based on colony count outside the acceptable range (non-ideal colony count).

04087000 MILWAUKEE RIVER AT MILWAUKEE, WIS.--Continued

DATE	TOTAL COPPER (CU) (UG/L)	TOTAL COPPER IN BOTTOM DEPOSITS (UG/G)	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL LEAD IN BOTTOM DEPOSITS (UG/G)	TOTAL MANGANESE IN BOTTOM DEPOSITS (UG/G)	TOTAL MANGANESE (MN) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
JAN.										
25...	5	--	380	140	0	1	--	--	38	38
JUNE										
19...	18	--	280	70	4	4	--	--	75	0
AUG.										
14...	15	--	400	20	7	12	--	--	180	30
15...	--	23	--	--	--	--	95	230	--	--

DATE	DISSOLVED ZINC (ZN) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ZINC IN BOTTOM DEPOSITS (UG/G)	DISSOLVED SELENIUM (SE) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	TOTAL SELENIUM IN BOTTOM DEPOSITS (UG/G)	DISSOLVED MERCURY (HG) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL MERCURY IN BOTTOM DEPOSITS (UG/G)
JAN.									
25...	60	60	--	2	3	--	.5	.5	--
JUNE									
19...	20	60	--	0	0	--	<.5	<.5	--
AUG.									
14...	60	70	--	0	0	--	<.5	1.2	--
15...	--	--	87	--	--	0	--	--	3.0

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
FEB.					
06...	1100	.0	1080	18	52
APR.					
30...	1300	10.5	3060	39	322
MAY					
24...	1030	16.0	745	30	60
30...	2005	--	318	44	38
JUNE					
19...	1200	22.5	642	71	123
20...	1615	24.0	550	28	42
JULY					
12...	1555	26.0	196	17	9.0
AUG.					
01...	1530	23.0	184	28	14
15...	1000	24.0	165	41	18
21...	1540	--	151	47	19
SEP.					
19...	1530	--	225	13	7.9

05400970 WISCONSIN RIVER AT NEKOOSA, WIS.

LOCATION.--Lat 44°18'52", long 89°53'18", in SE¼ sec.10, T.21 N., R.5 E., Wood County, at bridge on Highway 73 at Nekoosa, and at mile 201.5 (km 324.2).
DRAINAGE AREA.--5,500 mi² (14,245 km²).
PERIOD OF RECORD.--Chemical analyses: October 1972 to June 1973 (discontinued).
REMARKS.--Station run in cooperation with Environmental Protection Agency.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TEMPERATURE (DEG C)	TURBIDITY (JTU)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND (MG/L)	PH (UNITS)	TOTAL RESIDUE (MG/L)	LOSS ON IGNITION (MG/L)	TOTAL NONFILTRABLE RESIDUE (MG/L)	VOL. NONSETTLEABLE RESIDUE (MG/L)
OCT.												
11...	1030	12.0	5	162	9.4	87	2.5	7.1	132	78	21	78
NOV.												
09...	1230	5.0	5	128	12.4	97	<3.1	7.3	103	--	3	38
DEC.												
13...	0835	.0	6	164	8.8	60	<8.5	7.5	172	69	19	--
JAN.												
09...	1015	.0	5	164	10.0	74	8.4	6.4	260	132	26	--
FEB.												
13...	1300	1.0	5	85	--	--	3.0	7.6	128	52	0	--
MAR.												
08...	1400	1.0	10	134	13.8	97	5.4	6.9	148	--	42	42
APR.												
17...	1100	7.0	10	86	12.0	98	--	7.8	124	38	54	--
MAY												
29...	0900	13.0	15	95	9.5	90	2.4	6.5	130	17	50	--
JUNE												
29...	1000	20.5	5	148	5.0	58	5.8	6.5	120	28	18	--

DATE	ORGANIC NITROGEN (N) (MG/L)	AMMONIA NITROGEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED PHOSPHORUS (P) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	IMMEDIATE COLIFORM (COL. PER 100 ML)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED MERCURY (HG) (UG/L)
OCT.											
11...	.82	.10	.50	.16	.10	9.0	15	12000	111	.15	<.5
NOV.											
09...	.91	.02	.30	.59	.34	9.0	29	6200	100	.14	<.5
DEC.											
13...	.78	.09	.30	.19	.03	12	22	38000	153	.21	.9
JAN.											
09...	.87	.10	.30	.12	.06	18	27	78000	234	.32	<.5
FEB.											
13...	.24	.06	.60	.07	.05	12	15	3500	128	.17	<.5
MAR.											
08...	1.1	.15	.70	.26	.08	8.0	13	--	106	.14	--
APR.											
17...	.99	.04	.30	.67	.27	10	10	2000	70	.10	--
MAY											
29...	.87	.21	.30	.60	.55	6.0	15	4300	80	.11	1.3
JUNE											
29...	.68	.22	.30	.09	.05	10	14	100000	102	.14	<.5

05407470 KICKAPOO RIVER AT ONTARIO, WIS.

LOCATION.--Lat 43°43'14", long 90°35'15", NW¼ sec.2, T.14 N., R.2 W., Vernon County, at bridge on State Highway 33, at Ontario.
DRAINAGE AREA.--116 mi² (300 km²).
PERIOD OF RECORD.--Chemical analyses: December 1972 to September 1973.
Water temperatures: December 1972 to September 1973.
Sediment records: December 1972 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	DISSOLVED SILICA (SIO2) (MG/L)	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO
DEC.											
13...	1530	83	9.6	--	60	--	160	43	35	3.2	.1
JAN.											
11...	1315	--	12	280	250	170	170	67	23	3.2	.1
FEB.											
09...	1300	68	11	--	80	--	460	58	28	3.3	.1
MAR.											
09...	1000	107	9.1	90	70	120	120	55	13	2.6	.1
APR.											
19...	1100	524	9.1	--	60	--	40	39	21	2.9	.1
JUNE											
06...	1700	102	7.1	--	10	--	50	47	26	2.8	.1
JULY											
27...	1300	69	11	--	50	--	94	53	25	2.5	.1
SEP.											
05...	1415	318	11	--	40	--	56	51	29	3.1	.1

DATE	PERCENT SODIUM	DISSOLVED POTASSIUM (K) (MG/L)	ALKALINITY AS CACO3 (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)
DEC.											
13...	3	1.4	213	260	0	19	10	.1	240	255	.33
JAN.											
11...	3	1.5	233	284	0	19	8.0	.1	271	279	.37
FEB.											
09...	3	2.0	233	284	0	19	8.0	.1	270	274	.37
MAR.											
09...	3	3.8	166	202	0	18	5.0	.2	205	213	.28
APR.											
19...	3	2.5	161	196	0	17	6.0	.1	196	199	.27
JUNE											
06...	3	1.7	210	256	0	14	9.0	.1	220	236	.30
JULY											
27...	3	2.0	215	262	0	15	6.0	.2	245	248	.33
SEP.											
05...	3	2.2	221	270	0	15	5.0	.2	262	252	.36

05407470 KICKAPOO RIVER AT ONTARIO, WIS.--Continued

DATE	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	DISSOLVED NITRATE (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (PO4) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	CARBON DIOXIDE (CO2) (MG/L)
DEC.											
13...	250	40	410	8.1	.0	5	1.2	.11	.26	.08	1.3
JAN.											
11...	260	28	448	7.7	.0	5	1.0	.11	.24	.07	9.1
FEB.											
09...	251	26	427	8.2	1.0	5	.80	.34	.24	.09	2.9
MAR.											
09...	190	24	322	7.8	4.0	15	1.2	.67	.52	.17	8.1
APR.											
14...	180	24	320	7.8	11.5	10	1.1	.65	.45	.14	5.0
JUNE											
06...	220	14	350	8.0	19.5	20	.40	.56	.84	.22	4.1
JULY											
27...	240	20	356	7.7	23.5	5	.70	.67	1.1	.36	8.4
SEP.											
05...	240	24	418	7.6	20.0	5	.60	.17	.26	.08	11

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TURBIDITY (JTU)	PH (UNITS)	BIOCHEMICAL OXYGEN DEMAND (MG/L)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	IMMEDIATE COLIFORM (COL. PER 100 ML)	FECAL COLIFORM (COL. PER 100 ML)
DEC.											
07...	1400	.0	--	432	3	8.6	1.2	14.6	101	28000	3600
13...	1530	.0	43	416	--	8.1	<1.2	14.0	96	25000	2300
22...	1430	.5	62	400	2	8.0	2.4	12.5	87	30000	700
29...	1100	.5	44	396	3	8.3	.9	15.4	106	15000	210
JAN.											
03...	1215	.0	446	363	2	8.5	2.6	14.4	99	25000	860
11...	1315	.0	--	438	--	7.7	--	10.1	69	--	--
12...	1130	.5	--	--	--	--	--	--	--	13000	800
18...	1615	1.0	440	168	--	7.4	7.8	11.5	81	7500000	3200
23...	1130	.5	581	391	3	8.2	3.7	13.8	96	28000	600
FEB.											
02...	1315	1.0	118	176	--	8.1	4.3	13.3	94	170000	1300
09...	1300	1.0	68	427	7	8.2	.7	13.2	97	1500	<10
16...	1200	1.0	59	406	4	8.1	1.3	12.8	94	600	10
21...	0945	.5	44	434	6	7.8	2.0	13.4	97	5800	10
MAR.											
02...	1300	1.5	152	234	15	7.5	7.3	12.5	88	--	--
09...	1000	4.0	107	322	9	7.6	2.2	12.5	96	11000	400
15...	1330	7.5	234	294	4	7.8	1.3	11.9	99	25000	480
23...	1300	6.0	90	379	3	7.1	1.0	13.0	10	--	--
29...	1230	9.0	282	383	7	6.9	2.6	9.0	78	--	--
APR.											
06...	1230	8.0	84	378	3	8.5	1.0	12.2	103	2300	B92
13...	1330	6.0	114	343	5	8.0	.8	12.2	98	--	72
19...	1100	11.5	524	320	--	7.8	--	--	--	5100	B380
20...	1100	16.0	405	394	6	--	1.1	--	--	--	--
24...	1300	12.0	148	354	7	7.6	1.1	10.8	100	B460	420
MAY											
04...	1300	8.5	204	319	6	7.2	.8	10.8	92	14000	350
10...	1500	14.0	200	334	6	--	.6	9.4	88	6200	B190
17...	1200	12.0	114	360	3	7.6	.8	11.8	92	B50	B30
25...	1300	13.0	145	428	15	7.2	3.4	10.4	98	40000	B8200
31...	1130	15.0	138	362	9	8.4	1.9	10.0	98	1020	550
JUNE											
06...	1700	19.5	102	350	8	8.0	.9	10.4	112	660	290
13...	1500	22.0	--	402	3	7.8	.7	9.6	109	4200	170
21...	1330	18.0	245	415	--	8.1	1.1	9.1	100	30000	1500
26...	1430	20.5	79	394	6	--	1.0	9.3	109	5100	1200
JULY											
06...	1040	20.0	239	455	--	--	1.0	8.3	96	39000	1000

B Results based on colony count outside the acceptable range (non-ideal colony count).

05407470 KICKAPOO RIVER AT ONTARIO, WIS.--Continued

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TURBIDITY (JTU)	PH (UNITS)	BIOCHEMICAL OXYGEN DEMAND (MG/L)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	IMMEDIATE COLIFORM (COL. PER 100 ML)	FECAL COLIFORM (COL. PER 100 ML)
JULY											
13...	1200	23.5	65	390	9	9.2	1.2	9.1	112	590	580
20...	1100	20.0	62	406	8	--	2.3	8.0	91	70000	900
27...	1300	20.5	69	396	8	7.7	1.5	8.9	103	5800	2300
AUG.											
03...	1200	18.0	59	403	7	7.6	1.1	8.8	97	27000	640
09...	1200	18.5	312	300	50	7.4	2.4	7.1	79	1400000	--
16...	1230	21.5	234	410	15	7.6	1.5	7.3	86	2800	--
23...	1205	16.0	868	222	45	6.5	5.8	--	--	540000	70000
30...	1050	21.0	260	401	25	7.6	1.5	7.2	84	37000	2000
SEP.											
05...	1415	20.0	318	418	4	7.6	1.7	9.3	101	180000	1000
08...	1730	16.0	--	--	--	--	--	--	--	--	--
13...	1430	15.0	323	418	2	8.5	2.2	8.7	86	130000	1700
21...	1300	11.0	58	425	3	7.6	2.8	10.0	91	7800	780
27...	0920	16.0	191	388	5	6.7	.8	8.4	85	150000	3400

DATE	TIME	ALDRIN (UG/L)	CHLORDANE (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DIELDRIN (UG/L)	ENDRIN (UG/L)	HEPTACHLOR (UG/L)	HEPTACHLOR EPOXIDE (UG/L)	LINDANE (UG/L)	TOXAPHENE (UG/L)
APR.												
19...	1100	.00	.0	.00	.00	.00	.00	.00	.00	.00	.00	.0
SEP.												
08...	1730	.00	.0	.00	.00	.00	.00	.00	.00	--	.00	.0

DATE	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)	DIAZINON (UG/L)	ETHION (UG/L)	MALATHION (UG/L)	METHYL PARATHION (UG/L)	METHYL TRITHION (UG/L)	PARATHION (UG/L)	TRITHION (UG/L)	PCB (UG/L)
APR.											
19...	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0
SEP.											
08...	.00	.00	<.01	.00	.00	.00	.00	.00	.00	.00	.0

DATE	TIME	ALDRIN IN BOTTOM DEPOSITS (UG/KG)	CHLORDANE IN BOTTOM DEPOSITS (UG/KG)	DDD IN BOTTOM DEPOSITS (UG/KG)	DDE IN BOTTOM DEPOSITS (UG/KG)	DDT IN BOTTOM DEPOSITS (UG/KG)	DIELDRIN IN BOTTOM DEPOSITS (UG/KG)
APR.							
19...	1100	.0	0	.0	.0	.0	<.1

DATE	ENDRIN IN BOTTOM DEPOSITS (UG/KG)	HEPTACHLOR IN BOTTOM DEPOSITS (UG/KG)	HEPTACHLOR EPOXIDE IN BOTTOM DEPOSITS (UG/KG)	LINDANE IN BOTTOM DEPOSITS (UG/KG)	TOXAPHENE IN BOTTOM DEPOSITS (UG/KG)	PCB IN BOTTOM DEPOSITS (UG/KG)
APR.						
19...	.0	.0	.0	.0	0	0

05407470 KICKAPOO RIVER AT ONTARIO, WIS.--Continued

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	0.5	3.0	3.5	6.5	9.0	15.0	18.5	16.0	---
2	---	---	---	1.5	1.5	4.0	6.0	9.5	17.0	20.5	17.0	---
3	---	---	---	2.0	1.5	3.0	6.0	8.0	15.0	20.0	18.0	---
4	---	---	---	1.0	2.0	3.0	5.0	7.5	17.0	20.5	18.0	---
5	---	---	---	0.5	3.5	4.0	4.0	9.0	---	20.0	20.0	---
6	---	---	---	0.5	3.5	4.0	8.0	11.0	17.0	20.5	21.5	---
7	---	---	---	0.5	1.5	3.5	8.0	12.0	17.0	21.5	18.0	---
8	---	---	---	0.5	0.5	4.0	7.0	10.0	18.0	21.5	21.5	---
9	---	---	---	0.5	1.0	4.0	10.0	10.0	18.5	22.5	19.5	---
10	---	---	---	1.0	0.5	4.0	1.0	13.0	18.0	20.0	16.0	---
11	---	---	---	0.5	1.0	4.5	1.0	11.5	22.0	20.0	20.0	---
12	---	---	---	0.5	2.0	---	2.0	10.0	21.0	20.5	19.5	---
13	---	---	0.5	1.0	1.5	1.5	4.5	9.0	18.0	23.0	20.0	---
14	---	---	0.5	2.0	1.5	4.0	---	8.0	18.0	19.5	16.0	---
15	---	---	1.0	1.5	1.5	8.0	8.0	10.0	18.0	18.0	20.0	---
16	---	---	0.5	2.0	0.5	5.5	5.0	9.5	20.0	16.0	18.5	---
17	---	---	0.5	2.0	1.0	3.0	---	10.0	18.5	16.0	19.5	---
18	---	---	1.0	4.0	1.0	2.5	8.5	10.0	---	18.5	19.0	---
19	---	---	1.0	1.5	2.0	3.5	10.5	14.0	18.5	---	20.5	---
20	---	---	1.0	1.0	1.0	4.5	13.0	15.0	16.5	20.0	19.5	---
21	---	---	1.0	1.0	1.0	3.0	13.0	14.0	16.5	18.0	17.5	---
22	---	---	1.0	2.0	2.0	4.0	14.0	14.0	16.5	20.0	---	---
23	---	---	1.0	2.0	2.0	5.0	9.0	13.0	18.0	20.0	17.0	---
24	---	---	1.0	1.5	2.0	8.0	10.0	14.0	18.0	20.0	16.0	---
25	---	---	1.5	2.0	1.5	8.0	11.0	14.5	16.5	24.0	18.0	15.5
26	---	---	1.5	2.0	2.0	7.0	10.0	13.0	16.0	22.0	---	17.0
27	---	---	1.5	3.5	2.0	6.0	11.0	13.5	15.5	18.0	---	17.0
28	---	---	1.5	1.0	2.0	8.5	8.0	14.0	14.0	20.0	---	15.0
29	---	---	1.5	0.5	---	8.0	10.0	13.5	15.0	20.0	22.5	15.0
30	---	---	---	1.5	---	9.0	8.5	13.0	15.5	20.0	---	15.5
31	---	---	1.5	2.0	---	8.0	---	15.0	---	20.0	---	---
MONTH	---	---	---	1.5	1.5	5.0	8.0	11.5	17.5	20.0	19.0	---
YEAR	MAX	24.0	MIN	0.5	MEAN	9.5						

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DECEMBER

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	--	--	--
2	--	--	--
3	--	--	--
4	--	--	--
5	--	--	--
6	--	--	--
7	--	--	--
8	--	--	--
9	--	--	--
10	--	--	--
11	--	--	--
12	--	--	--
13	83	10	2.2
14	83	20	4.5
15	83	8	1.8
16	78	12	2.5
17	78	7	1.5
18	83	6	1.3
19	83	18	4.0
20	78	7	1.5
21	73	4	.79
22	62	4	.67
23	58	93	15
24	54	79	12
25	54	38	5.5
26	49	25	3.3
27	78	27	5.7
28	49	26	3.4
29	44	20	2.4
30	127	46	16
31	152	79	32
MONTH	1449	--	116.86

05407470 KICKAPOO RIVER AT ONTARIO, WIS.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

	JANUARY			FEBRUARY			MARCH		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	78	20	4.2	47	11	1.4	126	95	32
2	83	21	4.7	168	--	--	152	158	65
3	62	36	6.0	56	31	4.7	132	106	38
4	58	3	.47	47	30	3.8	88	86	20
5	94	6	1.5	57	19	2.9	77	24	5.0
6	90	6	1.5	53	21	3.0	71	10	1.9
7	74	20	4.0	35	39	3.7	1960	3340	17700
8	70	10	1.9	108	11	3.2	140	202	76
9	52	10	1.4	68	12	2.2	104	97	27
10	62	8	1.3	49	15	2.0	92	75	19
11	64	7	1.2	44	14	1.7	589	--	--
12	64	8	1.4	44	10	1.2	270	403	294
13	74	20	4.0	40	17	1.8	172	172	80
14	74	20	4.0	45	16	1.9	1050	3360	9530
15	74	6	1.2	45	12	1.5	868	314	736
16	64	8	1.4	80	11	2.4	164	243	108
17	110	53	16	90	5	1.2	132	91	32
18	380	506	519	51	12	1.7	114	72	22
19	109	98	29	51	10	1.4	98	44	12
20	78	14	2.9	51	8	1.1	93	31	7.8
21	58	18	2.8	46	11	1.4	88	59	14
22	63	18	3.1	43	8	.93	78	24	5.1
23	59	12	1.9	47	12	1.5	88	34	8.1
24	45	4	.49	47	16	2.0	78	25	5.3
25	45	11	1.3	27	8	.58	78	23	4.8
26	46	14	1.7	62	14	2.3	78	13	2.7
27	55	36	5.3	53	4	.57	78	18	3.8
28	46	19	2.4	48	7	.91	83	11	2.5
29	80	8	1.7	--	--	--	78	16	3.4
30	46	8	.99	--	--	--	68	10	1.8
31	47	9	1.1	--	--	--	68	22	4.0
TOTAL	2404	--	629.85	1602	--	52.99	7355	--	28861.2

	APRIL			MAY			JUNE		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	109	62	18	378	214	218	114	25	7.7
2	104	39	11	1120	1680	5080	104	10	2.8
3	88	18	4.3	309	136	113	178	42	20
4	104	24	6.7	208	86	48	109	12	3.5
5	78	16	3.4	158	118	50	132	104	37
6	78	17	3.6	152	113	46	104	12	3.4
7	68	10	1.8	268	445	322	93	15	3.8
8	62	16	2.7	396	341	365	88	12	2.9
9	49	68	9.0	275	190	141	88	16	3.8
10	62	50	8.4	208	88	49	83	12	2.7
11	88	82	19	171	136	63	78	15	3.2
12	93	32	8.0	164	13	5.8	98	20	5.3
13	104	48	13	132	64	23	78	10	2.1
14	109	247	73	126	18	6.1	78	11	2.3
15	378	206	210	126	21	7.1	104	17	4.8
16	1880	1910	9700	120	33	11	83	22	4.9
17	450	626	761	109	14	4.1	200	169	91
18	284	--	--	109	22	6.5	78	--	--
19	230	77	48	145	180	70	78	41	8.6
20	200	96	52	114	12	3.7	78	37	7.8
21	245	310	205	88	8	1.9	78	50	11
22	208	389	218	126	18	6.1	78	38	8.0
23	158	40	17	120	12	3.9	78	44	9.3
24	145	44	17	104	7	2.0	78	38	8.0
25	120	27	8.7	158	76	32	78	37	7.8
26	120	20	6.5	132	14	5.0	78	40	8.4
27	109	28	8.2	126	13	4.4	126	134	46
28	109	22	6.5	742	805	1610	83	--	--
29	626	1060	1790	252	128	87	78	27	5.7
30	326	242	213	158	26	11	78	32	6.7
31	--	--	--	132	22	7.8	--	--	--
TOTAL	6784	--	13442.8	6926	--	8403.4	2879	--	328.5

05407470 KICKAPOO RIVER AT ONTARIO, WIS.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

	JULY			AUGUST			SEPTEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	78	28	5.9	63	27	4.6	54	17	2.5
2	78	29	6.1	58	26	4.1	58	6	.94
3	68	66	12	58	26	4.1	78	24	5.1
4	68	40	7.3	58	22	3.4	68	20	3.7
5	68	32	5.9	54	24	3.5	63	18	3.1
6	68	102	19	58	28	4.4	58	17	2.7
7	62	28	4.7	78	48	10	58	20	3.1
8	54	26	3.8	68	35	6.4	63	23	3.9
9	54	33	4.8	343	913	846	73	26	5.1
10	58	18	2.8	78	68	14	63	22	3.7
11	58	21	3.3	63	58	9.9	58	23	3.6
12	54	28	4.1	63	26	4.4	58	19	3.0
13	54	29	4.2	58	30	4.7	58	20	3.1
14	54	18	2.6	88	286	68	58	23	3.6
15	54	20	2.9	63	64	11	58	16	2.5
16	54	24	3.5	63	46	7.8	58	16	2.5
17	54	28	4.1	63	28	4.8	78	25	5.3
18	54	28	4.1	58	26	4.1	68	21	3.9
19	54	25	3.6	54	22	3.2	63	15	2.6
20	54	13	1.9	63	22	3.7	58	14	2.2
21	58	26	4.1	58	20	3.1	58	13	2.0
22	68	26	4.8	58	--	--	54	486	71
23	63	45	7.7	622	17	29	68	52	9.5
24	63	40	6.8	98	96	25	68	27	5.0
25	58	40	6.3	78	50	11	98	66	17
26	58	34	5.3	73	24	4.7	73	29	5.7
27	68	35	6.4	68	30	5.5	73	24	4.7
28	63	10	1.7	68	23	4.2	68	24	4.4
29	58	46	7.2	63	32	5.4	63	24	4.1
30	88	131	31	58	20	3.1	63	30	5.1
31	68	32	5.9	54	22	3.2	--	--	--
TOTAL	1913	--	193.8	2850	--	1116.3	1937	--	194.64

DATE	TIME	TEMPER-ATURE (DEG C)	INSTAN-TANEOUS DIS-CHARGE (CFS)	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	SUS. SED. SIEVE DIAM. % FINER THAN .125 MM.	SUS. SED. SIEVE DIAM. % FINER THAN .500 MM
JAN.											
18...	1615	1.0	440	18	24	30	41	59	71	76	100
MAR.											
14...	1115	--	--	23	30	40	52	69	86	97	100
APR.											
16...	0900	--	--	17	21	26	38	57	72	84	100
AUG.											
23...	1205	16.0	868	24	32	40	54	71	82	91	--

DATE	TIME	INSTAN-TANEOUS DIS-CHARGE (CFS)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM
JAN.										
11...	1315	--	0	0	13	82	94	95	96	97
APR.										
19...	1100	524	1	1	5	68	94	97	99	99
SEP.										
08...	1730	--	2	13	53	97	100	100	100	--

05407920 KICKAPOO RIVER NEAR ROCKTON, WIS.

LOCATION.--Lat 43°36'46", long 90°37'34", in SE¼ SW¼ sec.9, T.13 N., R.2 W., Vernon County, at bridge on State Highway 131, and 2.0 mi (3.2 km) southwest of Rockton.
DRAINAGE AREA.--264 mi² (684 km²), approximately.
PERIOD OF RECORD.--Chemical analyses: November 1971 to September 1973.
Water temperatures: November 1971 to September 1973.
Sediment records: November 1971 to September 1973.
EXTREMES, 1972-73.--Water temperatures: Maximum, 23.0°C July 24, 1973; minimum, freezing point on many days during winter period.
Sediment discharges: Maximum daily, 14,700 tons (13,336 t) Mar. 7, 1973; minimum daily, 0.59 tons (0.54 t) Feb. 16, 1973.
1971-73.--Water temperatures: Maximum, 25.0°C Aug. 20, 1972; minimum, freezing point on many days during winter period.
Sediment discharges: Maximum daily, 14,700 tons (13,336 t) Mar. 7, 1973; minimum daily, 0.59 tons (0.54 t) Feb. 16, 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	DISSOLVED SILICA (SIO2) (MG/L)	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO
OCT.											
11...	0730	145	11	50	0	120	100	67	19	2.5	.1
NOV.											
15...	1330	159	6.7	60	--	77	--	53	30	2.7	.1
DEC.											
13...	1650	211	10	--	50	--	94	59	27	2.4	.1
JAN.											
11...	1500	222	12	50	40	100	100	90	10	2.0	.1
FEB.											
09...	1130	218	11	--	50	--	260	60	29	2.4	.1
MAR.											
09...	1300	314	9.5	140	90	100	100	52	17	2.7	.1
APR.											
19...	1100	577	7.8	--	10	--	74	42	23	2.6	.1
JUNE											
06...	1200	288	8.5	--	10	--	50	49	28	2.5	.1
JULY											
27...	1100	172	11	--	50	--	100	55	28	2.5	.1
SEP.											
05...	1215	--	11	--	30	--	43	54	29	2.4	.1

DATE	PERCENT SODIUM	DISSOLVED POTASSIUM (K) (MG/L)	ALKALINITY AS CACO3 (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)
OCT.											
11...	2	2.5	225	274	0	18	9.0	.2	250	268	.34
NOV.											
15...	2	1.5	228	278	0	17	15	.1	308	267	.42
DEC.											
13...	2	1.2	223	272	0	17	6.0	.3	252	260	.34
JAN.											
11...	2	1.4	248	302	0	18	8.0	.1	262	294	.36
FEB.											
09...	2	2.0	239	292	0	19	5.5	.1	279	277	.38
MAR.											
09...	3	3.8	176	214	0	17	6.0	.6	216	218	.29
APR.											
19...	3	2.5	172	210	0	16	6.0	.1	206	208	.28
JUNE											
06...	2	1.7	213	260	0	14	8.0	.1	234	243	.32
JULY											
27...	2	1.5	233	284	0	15	5.0	.1	253	261	.34
SEP.											
05...	2	1.9	233	284	0	15	3.0	.2	274	260	.37

05407920 KICKAPOO RIVER NEAR ROCKTON, WIS.--Continued

DATE	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	DIS-SOLVED NITRATE (N) (MG/L)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (PO4) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	CARBON DIOXIDE (CO2) (MG/L)
OCT.											
11...	250	22	445	7.4	9.5	10	.80	1.1	1.2	.40	--
NOV.											
15...	260	27	480	8.2	1.5	10	.90	.13	.19	.06	2.8
DEC.											
13...	260	34	240	8.1	.0	5	.77	.41	1.0	.32	3.5
JAN.											
11...	270	19	260	7.9	.0	5	1.0	.14	.20	.06	6.1
FEB.											
09...	270	32	--	8.0	.0	3	.80	.37	.31	.10	4.7
MAR.											
09...	200	25	350	7.9	4.0	15	1.1	1.1	--	--	4.3
APR.											
19...	200	26	--	7.4	11.5	5	1.0	.84	.65	.21	13
JUNE											
06...	240	25	445	--	16.5	10	.50	.67	1.0	.32	--
JULY											
27...	250	20	430	7.8	18.5	5	.70	.72	.58	.19	7.2
SEP.											
05...	260	22	410	8.5	18.5	3	.50	.24	.28	.09	144

DATE	TIME	TEMPER-ATURE (DEG C)	INSTAN-TANEOUS DIS-CHARGE (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TUR-BID-ITY (JTU)	PH (UNITS)	BIO-CHEM-ICAL OXYGEN DEMAND (MG/L)	DIS-SOLVED OXYGEN (MG/L)	PER-CENT SATUR-ATION	IMME-DIATE COLI-FORM (COL. PER 100 ML)	FECAL COLI-FORM (COL. PER 100 ML)
OCT.											
04...	1100	13.5	220	360	20	7.6	1.0	8.7	83	18000	100
10...	1300	9.5	167	320	10	8.3	--	9.9	86	--	--
11...	0730	9.5	145	445	3	7.9	1.8	--	--	78000	660
19...	1030	3.5	143	265	--	7.7	1.0	12.6	95	5400	40
27...	1030	7.5	272	350	5	8.4	1.0	10.7	88	36000	160
NOV.											
02...	1000	7.0	366	325	30	8.0	<2.7	10.3	85	240000	5900
09...	1230	5.5	190	340	2	8.6	<.3	11.8	93	7200	120
15...	1330	1.5	159	400	3	8.2	<.9	14.4	103	7200	130
22...	1145	2.5	104	255	3	7.9	<.5	13.9	102	29000	610
29...	1015	.5	138	220	15	8.5	1.1	14.0	97	16000	140
DEC.											
07...	1515	.0	272	260	4	8.3	1.1	12.4	85	9500	230
13...	1650	.0	211	240	--	8.1	<1.8	12.8	88	550	55
22...	1230	.0	245	240	2	8.0	1.0	12.4	85	5600	700
29...	0915	.0	195	400	5	7.4	.7	14.5	98	2700	270
JAN.											
03...	1030	.0	--	250	4	7.9	2.2	12.0	82	5500	340
11...	1500	.0	222	260	--	7.9	--	9.8	67	--	--
12...	1030	1.5	--	--	--	--	.7	--	--	1800	410
18...	1000	.5	1411	105	--	7.6	7.6	10.6	74	>500000	4600
18...	1610	1.0	--	--	--	--	--	--	--	--	--
23...	1030	.5	360	396	3	7.7	2.6	13.3	92	10000	330
FEB.											
02...	1300	1.0	795	202	40	7.6	6.7	13.0	92	120000	3600
09...	1130	.0	218	--	15	8.0	1.2	12.7	93	700	10
16...	1045	.5	132	422	2	8.1	.5	12.5	89	400	10
21...	1100	.0	--	467	5	7.8	1.1	13.4	97	12000	40
MAR.											
02...	1100	1.5	532	252	40	7.4	>7.0	12.4	87	--	--
09...	1300	4.0	314	350	15	7.9	2.0	12.4	94	4100	300
15...	1000	8.0	681	284	55	7.6	2.2	10.8	91	31000	400
23...	1000	5.5	237	399	15	8.0	1.0	12.0	95	--	--
29...	1400	9.0	222	396	15	7.8	1.6	8.7	77	--	--
APR.											
06...	1030	8.0	314	392	5	8.2	7.1	11.2	94	1330	280
13...	1100	4.5	314	360	7	--	1.0	11.6	90	740	360
19...	1100	11.5	577	--	--	7.4	--	--	--	B3300	B580
20...	1300	16.0	--	385	30	--	.3	--	--	--	--
24...	1030	10.0	388	290	15	7.9	.8	11.2	99	3000	150

B Results based on colony count outside the acceptable range (non-ideal colony count).

05407920 KICKAPOO RIVER NEAR ROCKTON, WIS.--Continued

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TURBIDITY (JTU)	PH (UNITS)	BIOCHEMICAL OXYGEN DEMAND (MG/L)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	IMMEDIATE COLIFORM (COL. PER 100 ML)	FECAL COLIFORM (COL. PER 100 ML)
MAY											
04...	1030	8.5	689	380	10	--	1.0	10.1	86	14000	480
10...	1400	13.0	582	345	10	--	.7	9.4	88	3600	440
17...	1000	10.5	307	384	8	7.6	.4	8.4	79	1600	160
25...	1130	13.0	483	400	20	8.1	2.2	9.9	93	15000	380
31...	1000	14.0	374	383	--	8.1	2.1	9.4	90	3400	510
JUNE											
06...	1200	16.5	288	445	9	--	.7	9.5	97	8800	290
13...	1345	19.0	395	395	3	7.7	1.0	9.2	99	430	190
21...	1115	21.5	204	405	--	6.3	1.1	9.3	109	2900	320
26...	1100	18.0	212	413	7	--	.8	8.8	97	20000	11000
JULY											
06...	0945	20.0	154	408	--	--	.7	8.0	92	8000	560
13...	1000	22.0	146	419	7	7.9	1.1	7.6	90	3900	360
20...	1000	20.5	138	419	10	8.8	2.0	7.6	89	28000	100
27...	1100	18.5	172	430	17	7.8	.8	8.3	92	6500	1900
AUG.											
03...	1030	17.0	137	416	13	7.8	1.0	8.4	90	3200	670
09...	1000	16.5	234	368	40	7.4	1.2	7.8	87	68000	--
16...	1100	19.5	143	425	24	7.6	1.0	7.7	87	--	1000
23...	1100	15.0	818	305	52	7.0	5.2	--	--	1100000	B15000
30...	1000	21.0	158	440	36	7.6	1.7	7.6	88	22000	1800
SEP.											
05...	1215	16.5	--	410	7	6.5	8.8	8.7	92	23000	400
13...	1015	15.0	150	390	6	6.3	1.7	8.6	84	35000	3000
21...	1000	10.5	151	454	5	6.9	1.7	9.9	88	6500	750
27...	0815	16.5	187	390	8	6.5	.8	8.3	85	110000	1700

DATE	TIME	DISSOLVED ALUMINUM (AL) (UG/L)	DISSOLVED ARSENIC (AS) (UG/L)	DISSOLVED COBALT (CO) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	DISSOLVED NICKEL (NI) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)	DISSOLVED CADMIUM (CD) (UG/L)	DISSOLVED SILVER (AG) (UG/L)
OCT.										
10...	1300	100	6	0	4	2	2	20	1	0

DATE	TIME	ALDRIN (UG/L)	CHLORDANE (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DIELDRIN (UG/L)	ENDRIN (UG/L)	HEPTACHLOR (UG/L)	HEPTACHLOR EPOXIDE (UG/L)	LINDANE (UG/L)	METHOXYCHLOR (UG/L)
OCT.												
10...	1300	.00	E.0	.00	.00	.00	.00	.00	.00	.00	.00	.0
APR.												
19...	1100	.00	.0	.00	.00	.00	.00	.00	.00	.00	.00	.0

DATE	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)	DIAZINON (UG/L)	ETHION (UG/L)	MALATHION (UG/L)	METHYL PARATHION (UG/L)	METHYL TRITHION (UG/L)	PARATHION (UG/L)	TRITHION (UG/L)	PCB (UG/L)
OCT.											
10...	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	E.0
APR.											
19...	.00	.01	.00	.00	.00	.00	.00	.00	.00	.00	.0

DATE	TIME	ALDRIN IN BOTTOM DEPOSITS (UG/KG)	CHLORDANE IN BOTTOM DEPOSITS (UG/KG)	DDD IN BOTTOM DEPOSITS (UG/KG)	DDE IN BOTTOM DEPOSITS (UG/KG)	DDT IN BOTTOM DEPOSITS (UG/KG)	DIELDRIN IN BOTTOM DEPOSITS (UG/KG)
OCT.							
10...	1300	.0	E0	.0	.0	.0	.0
APR.							
19...	1100	.0	0	.0	.0	<.1	.0

DATE	ENDRIN IN BOTTOM DEPOSITS (UG/KG)	HEPTACHLOR IN BOTTOM DEPOSITS (UG/KG)	HEPTACHLOR EPOXIDE IN BOTTOM DEPOSITS (UG/KG)	LINDANE IN BOTTOM DEPOSITS (UG/KG)	TOXAPHENE IN BOTTOM DEPOSITS (UG/KG)	PCB IN BOTTOM DEPOSITS (UG/KG)
OCT.						
10...	.0	.0	.0	.0	0	E0
APR.						
19...	.0	.0	.0	.0	0	0

B Results based on colony count outside the acceptable range (non-ideal colony count).

05407920 KICKAPOO RIVER NEAR ROCKTON, WIS.--Continued

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	8.0	1.5	0.5	---	---	6.5	---	14.0	---	16.0	20.5
2	10.5	9.0	1.0	0.5	---	2.0	6.0	8.0	---	---	---	21.0
3	13.5	8.0	1.0	0.5	1.0	3.0	5.5	6.0	---	19.5	---	20.0
4	13.5	7.0	---	0.5	1.0	4.5	5.0	7.0	18.0	19.5	---	19.5
5	12.0	---	---	---	---	4.0	---	9.0	17.0	19.0	---	18.0
6	13.0	7.0	---	---	2.5	4.0	6.5	9.0	---	19.0	---	15.5
7	---	9.5	0.0	---	0.0	3.0	7.5	---	16.0	---	18.0	---
8	9.5	8.0	0.0	0.0	0.0	4.0	---	10.0	17.5	22.0	---	15.5
9	9.0	7.0	---	0.0	0.5	4.0	---	11.0	17.0	21.5	19.0	15.0
10	---	---	0.0	0.0	0.5	4.0	---	11.5	---	19.0	21.0	15.0
11	12.0	8.0	---	0.0	---	---	---	10.5	20.5	18.5	18.0	14.5
12	12.0	---	---	0.0	0.0	6.0	---	11.5	20.0	19.5	18.0	13.5
13	12.0	6.5	0.5	0.0	0.5	7.0	7.0	9.0	17.0	---	19.0	14.5
14	10.0	5.5	---	0.5	0.5	8.5	---	9.0	17.0	19.0	18.0	13.5
15	6.5	4.5	0.5	0.5	0.5	8.0	---	8.0	19.0	18.0	17.0	13.0
16	10.0	4.0	0.5	0.5	0.0	5.5	---	10.0	18.0	---	---	11.0
17	---	4.5	---	0.5	0.0	3.5	---	9.5	17.0	18.0	---	11.5
18	6.5	5.0	0.5	1.0	0.0	---	8.0	11.0	17.5	---	19.0	---
19	---	4.0	1.0	1.0	0.0	4.0	---	13.0	---	20.5	19.5	11.0
20	---	4.5	1.0	0.5	1.0	5.0	12.0	---	17.0	20.5	18.0	11.0
21	6.0	4.5	1.0	0.5	0.5	5.5	12.5	---	16.0	18.5	17.0	10.5
22	6.5	4.5	1.0	---	1.0	6.0	11.0	12.0	14.5	---	---	12.0
23	7.0	---	0.5	---	1.0	7.5	9.0	12.0	16.0	19.0	15.0	12.0
24	7.0	3.5	1.0	0.5	---	7.0	8.5	---	---	23.0	15.0	11.5
25	8.5	3.5	1.0	2.0	---	6.5	10.0	13.0	17.5	---	15.5	14.5
26	10.0	4.0	0.5	2.0	---	---	8.5	11.0	---	21.0	17.0	---
27	8.0	---	0.5	1.5	---	8.5	9.0	---	16.5	18.5	20.0	11.5
28	8.0	2.0	1.0	---	---	6.5	8.0	12.0	16.0	18.0	---	14.5
29	8.0	1.0	1.0	1.0	---	6.5	10.0	11.0	---	---	20.5	14.5
30	6.5	2.0	1.5	0.5	---	6.5	8.0	12.0	---	18.5	20.0	13.5
31	8.0	---	1.0	0.0	---	7.5	---	13.0	---	18.5	---	---
MONTH	9.0	5.5	---	0.5	---	5.5	---	10.5	---	---	---	14.5
YEAR	MAX	23.0	MIN	0.0	MEAN	9.0						

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

	OCTOBER			NOVEMBER			DECEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	--	--	--	261	44	31	141	6	2.3
2	274	94	70	312	114	96	137	7	2.6
3	245	88	58	305	87	72	140	32	12
4	220	71	42	226	28	17	--	--	--
5	211	58	33	--	--	--	--	--	--
6	206	62	34	196	17	9.0	--	--	--
7	--	--	--	217	26	15	130	400	140
8	188	38	19	214	12	6.9	130	233	82
9	167	34	15	287	20	15	--	--	--
10	--	--	--	--	--	--	140	7	2.6
11	196	47	25	188	21	11	--	--	--
12	170	22	10	--	--	--	--	--	--
13	165	15	6.7	172	11	5.1	130	16	5.6
14	165	20	8.9	168	11	5.0	--	--	--
15	150	14	5.7	162	10	4.4	130	44	15
16	173	12	5.6	161	13	5.7	130	11	3.9
17	--	--	--	163	10	4.4	--	--	--
18	141	6	2.3	157	10	4.2	130	12	4.2
19	--	--	--	150	8	3.2	130	6	2.1
20	--	--	--	149	10	4.0	130	4	1.4
21	192	27	14	149	8	3.2	130	4	1.4
22	211	16	9.1	146	7	2.8	130	6	2.1
23	816	274	604	--	--	--	130	4	1.4
24	339	67	61	145	8	3.1	130	5	1.8
25	258	28	20	156	8	3.4	130	3	1.1
26	248	27	18	162	10	4.4	130	5	1.8
27	214	16	9.2	--	--	--	130	13	4.6
28	200	15	8.1	141	5	1.9	130	7	2.5
29	186	8	4.0	142	8	3.1	140	5	1.9
30	181	12	5.9	136	4	1.5	190	38	19
31	244	19	13	--	--	--	380	118	121
TOTAL	5760	--	1101.5	4665	--	332.3	3348	--	432.3

05407920 KICKAPOO RIVER NEAR ROCKTON, WIS.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

	JANUARY			FEBRUARY			MARCH		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	190	10	5.1	--	--	--	--	--	--
2	180	3	1.5	540	673	981	420	738	837
3	190	--	--	220	88	52	490	345	456
4	140	26	9.8	180	74	36	348	284	267
5	--	--	--	--	--	--	224	66	40
6	--	--	--	120	28	9.1	193	40	21
7	--	--	--	120	26	8.4	1760	3090	14700
8	120	73	24	120	36	12	420	330	374
9	120	50	16	130	34	12	321	136	118
10	130	28	9.8	130	29	10	264	92	66
11	140	10	3.8	--	--	--	--	--	--
12	150	9	3.6	130	31	11	773	606	1260
13	150	10	4.1	130	28	9.8	501	261	353
14	160	10	4.3	130	29	10	1400	2750	10400
15	170	6	2.8	120	18	5.8	775	685	1430
16	180	6	2.9	110	2	.59	472	258	329
17	240	24	16	120	4	1.3	442	174	208
18	780	488	1030	120	4	1.3	--	--	--
19	580	198	310	120	9	2.9	312	104	88
20	260	20	14	130	6	2.1	302	96	78
21	240	20	13	130	7	2.5	252	76	52
22	--	--	--	130	2	.70	242	62	41
23	--	--	--	130	9	3.2	232	60	38
24	180	71	35	--	--	--	229	72	45
25	180	41	20	--	--	--	223	61	37
26	180	36	17	--	--	--	--	--	--
27	160	70	30	--	--	--	202	42	23
28	--	--	--	--	--	--	199	44	24
29	110	58	17	--	--	--	196	45	24
30	150	32	13	--	--	--	188	40	20
31	170	36	17	--	--	--	183	39	19
TOTAL	5250	--	1619.7	3060	--	1171.69	11563	--	31348

	APRIL			MAY			JUNE		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	274	94	70	--	--	--	356	82	79
2	336	140	127	1690	1330	6070	--	--	--
3	247	52	35	966	451	1180	--	--	--
4	245	28	19	618	192	320	336	53	48
5	--	--	--	497	138	185	413	150	167
6	217	32	19	474	116	148	298	56	45
7	204	22	12	--	--	--	280	61	46
8	--	--	--	1700	554	2540	268	50	36
9	--	--	--	766	236	488	258	49	34
10	--	--	--	642	186	322	--	--	--
11	263	60	43	530	142	203	229	50	31
12	282	54	41	474	103	132	253	62	42
13	332	69	62	424	66	76	229	40	25
14	456	168	207	388	80	84	214	38	22
15	1160	--	--	361	69	67	212	42	24
16	--	--	--	339	80	73	244	51	34
17	--	--	--	324	65	57	377	188	191
18	794	342	733	309	53	44	266	62	45
19	616	227	378	316	56	48	--	--	--
20	523	144	203	--	--	--	229	64	40
21	1020	652	1800	--	--	--	223	68	41
22	553	181	270	351	64	61	211	68	39
23	465	128	161	343	49	45	218	76	45
24	407	92	101	--	--	--	--	--	--
25	373	92	93	463	153	191	200	78	42
26	351	76	72	341	98	90	212	80	46
27	319	70	60	--	--	--	237	112	72
28	300	54	44	1500	778	3150	222	89	53
29	461	256	319	680	274	503	--	--	--
30	589	336	534	488	128	169	--	--	--
31	--	--	--	404	104	113	--	--	--
TOTAL	10787	--	5403	15388	--	16359	5985	--	1247

05407920 KICKAPOO RIVER NEAR ROCKTON, WIS.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

	JULY			AUGUST			SEPTEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	--	--	--	161	82	36	157	62	26
2	210	54	31	--	--	--	151	52	21
3	206	80	44	--	--	--	284	134	74
4	183	66	33	--	--	--	185	67	33
5	168	70	32	--	--	--	164	48	21
6	167	69	31	--	--	--	154	54	22
7	--	--	--	186	175	88	--	--	--
8	163	64	28	--	--	--	149	38	15
9	159	68	29	229	183	113	177	50	24
10	165	72	32	186	107	54	321	40	35
11	157	70	30	168	78	35	162	34	15
12	155	65	27	157	65	28	150	24	9.7
13	--	--	--	147	56	22	151	36	15
14	152	72	30	158	996	425	157	40	17
15	152	74	30	172	168	78	149	45	18
16	--	--	--	156	74	31	157	30	13
17	147	72	29	--	--	--	178	22	11
18	--	--	--	147	66	26	--	--	--
19	149	78	31	150	81	33	162	20	8.7
20	144	80	31	156	74	31	157	18	7.6
21	150	79	32	143	60	23	155	29	12
22	--	--	--	144	56	22	298	194	156
23	158	76	32	555	--	--	176	115	55
24	170	57	26	316	232	198	169	54	25
25	--	--	--	216	102	59	204	96	53
26	162	84	37	189	78	40	--	--	--
27	176	98	47	177	86	41	188	48	24
28	156	74	31	--	--	--	173	45	21
29	--	--	--	157	54	27	176	44	21
30	314	398	337	164	89	39	222	62	37
31	165	145	65	--	--	--	--	--	--
TOTAL	3928	--	1075	4234	--	1449	4846	--	790.8

DATE	TIME	TEMPER-ATURE (DEG C)	INSTAN-TANEOUS DIS-CHARGE (CFS)	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	SUS. SED. SIEVE DIAM. % FINER THAN .125 MM	SUS. SED. SIEVE DIAM. % FINER THAN .500 MM
JAN. 18...	1000	.5	1410	27	33	42	54	74	93	98	--
APR. 15...	1430	--	--	23	28	34	46	68	83	91	100
AUG. 23...	1730	--	--	24	31	39	50	71	84	92	100

DATE	TIME	INSTAN-TANEOUS DIS-CHARGE (CFS)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM
OCT. 04...	1100	220	2	5	14	76	99	100	100	100
JAN. 11...	1500	222	20	34	50	90	99	100	100	--
APR. 19...	1100	577	23	53	75	99	100	100	100	--
SEP. 08...	1300	--	3	5	9	69	99	100	100	100

05408000 KICKAPOO RIVER AT LA FARGE, WIS.

LOCATION.--Lat 43°34'27", long 90°38'35", temperature recorder on east-west quarter section line in W½ sec.29, T.13 N., R.2 W., Vernon County, on left bank 10 ft (3.05 m) upstream from bridge on State Highway 82, in La Farge, 0.3 mi (0.48 km) upstream from Otter Creek, and 1.3 mi (2.09 km) downstream from powerplant.
DRAINAGE AREA.--266 mi² (689 km²).
PERIOD OF RECORD.--Water temperatures: July 1971 to September 1973.
Sediment records: October 1971 to September 1973.
EXTREMES, 1972-73.--Water temperatures: Maximum daily, 25.0°C July 8, 1973; minimum daily, freezing point on many days during winter period.
Sediment discharge: Maximum daily, 10,200 tons (9,253 t), Mar. 7, 1973; minimum daily, 0 ton (0 t), Jan. 28, 1973.
1971-73.--Water temperatures: Maximum daily, 26.5°C July 22, Aug. 18, 1972; minimum daily, freezing point many days during winter period.
Specific conductance: Maximum daily, 500 micromhos on many days during year; minimum daily, 170 micromhos Apr. 17, 1973.
Turbidity: Maximum daily, 150 Jackson Turbidity Units (JTU) Mar. 7, 1973; minimum daily, 0 JTU on May 4-7, 1973.
Sediment discharge: Maximum daily, 10,500 tons (9,526 t) Apr. 13, 1972; minimum daily, 0 ton (0 t) Dec. 25, 1971, Jan. 28, 1973.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

Continuous recorder

	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	17.0	14.5	16.0	7.0	6.5	6.5	0.5	0.0	0.5	0.0	0.0	0.0
2	18.0	16.5	17.0	7.5	7.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0
3	19.0	18.0	18.5	7.5	6.5	7.0	0.0	0.0	0.0	0.0	0.0	0.0
4	19.0	18.5	19.0	6.5	6.5	6.5	0.0	0.0	0.0	0.0	0.0	0.0
5	18.5	17.0	18.0	6.5	5.5	6.0	0.0	0.0	0.0	0.0	0.0	0.0
6	18.0	16.5	17.5	7.5	6.5	7.0	0.0	0.0	0.0	0.0	0.0	0.0
7	17.5	15.0	16.5	8.0	7.0	7.5	0.0	0.0	0.0	0.0	0.0	0.0
8	16.5	15.5	16.0	7.0	6.0	6.5	0.0	0.0	0.0	0.0	0.0	0.0
9	15.5	14.5	15.0	6.0	6.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0
10	14.5	14.0	14.5	6.5	6.0	6.5	0.0	0.0	0.0	0.0	0.0	0.0
11	15.5	13.0	15.0	7.0	6.5	6.5	0.0	0.0	0.0	0.0	0.0	0.0
12	15.5	15.0	15.5	6.5	6.0	6.5	0.0	0.0	0.0	0.0	0.0	0.0
13	15.0	14.0	14.5	6.0	4.5	5.5	0.0	0.0	0.0	0.0	0.0	0.0
14	14.5	14.0	14.5	4.5	3.0	3.5	0.0	0.0	0.0	0.0	0.0	0.0
15	14.0	11.5	12.5	3.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
16	11.5	11.0	11.5	2.5	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
17	11.0	10.0	10.5	3.0	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0
18	10.0	8.5	9.5	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0
19	8.5	6.5	8.0	2.5	1.5	2.0	0.0	0.0	0.0	0.0	0.0	0.0
20	7.0	5.5	6.5	2.5	1.5	2.0	0.0	0.0	0.0	0.0	0.0	0.0
21	7.0	6.5	6.5	3.0	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0
22	8.0	7.0	7.5	2.5	2.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0
23	7.0	5.5	6.0	2.0	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0
24	6.0	5.0	5.5	2.0	1.5	2.0	0.0	0.0	0.0	0.0	0.0	0.0
25	6.5	2.5	6.0	3.0	2.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0
26	8.5	6.5	7.5	3.0	2.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0
27	9.0	8.5	8.5	2.5	2.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0
28	8.5	7.5	8.0	2.0	0.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0
29	7.0	6.0	6.5	0.5	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0
30	6.0	5.5	6.0	1.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0
31	6.5	6.0	6.0	---	---	---	0.0	0.0	0.0	0.0	0.0	0.0
MONTH	19.0	2.5	11.5	8.0	0.0	4.0	0.5	0.0	0.0	0.0	0.0	0.0

05408000 KICKAPOO RIVER AT LA FARGE, WIS.--Continued

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

	FEBRUARY			MARCH			APRIL			MAY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	0.0	0.0	0.0	1.0	0.0	0.5	6.5	5.5	6.0	10.0	8.0	9.0
2	0.0	0.0	0.0	2.0	1.0	1.5	5.5	5.0	5.5	10.0	7.5	9.0
3	0.0	0.0	0.0	3.5	2.0	3.0	5.0	4.5	5.0	8.5	6.5	7.5
4	0.5	0.0	0.0	4.0	3.5	3.5	5.0	4.5	5.0	10.0	8.0	9.0
5	2.0	0.5	1.5	4.0	3.0	3.5	6.0	3.5	5.0	10.0	9.0	9.5
6	2.5	2.0	2.0	3.5	3.0	3.5	8.0	6.0	7.0	9.5	8.5	9.0
7	2.0	0.0	1.0	3.5	2.0	2.5	7.5	5.5	7.0	10.0	9.5	10.0
8	0.0	0.0	0.0	4.0	2.0	3.0	5.5	2.0	4.0	11.5	10.0	10.5
9	0.0	0.0	0.0	4.0	3.5	3.5	2.0	0.0	0.0	12.0	11.0	11.5
10	0.0	0.0	0.0	3.0	3.0	3.0	2.0	0.0	0.5	13.0	11.5	12.0
11	0.5	0.0	0.0	3.0	2.0	2.5	1.5	0.0	1.0	12.5	11.5	12.0
12	0.5	0.0	0.0	5.0	3.0	4.0	4.5	2.0	3.0	12.0	10.5	11.0
13	0.0	0.0	0.0	6.5	5.0	5.5	5.5	3.0	4.5	10.5	9.5	10.0
14	0.0	0.0	0.0	7.5	6.0	7.0	7.5	4.5	6.0	10.5	9.0	10.0
15	0.0	0.0	0.0	7.5	6.5	7.5	7.0	5.5	6.5	11.5	8.5	10.0
16	0.0	0.0	0.0	6.5	4.0	5.0	6.5	5.0	6.0	12.5	11.0	12.0
17	0.0	0.0	0.0	4.0	3.0	3.5	7.5	4.0	6.0	12.5	10.0	11.5
18	0.0	0.0	0.0	3.5	2.0	3.0	9.0	6.5	8.0	13.5	11.5	12.5
19	0.0	0.0	0.0	4.0	2.5	3.5	11.5	9.0	10.5	14.0	13.5	14.0
20	0.0	0.0	0.0	4.0	3.5	4.0	12.0	11.5	12.0	15.0	12.5	13.5
21	0.5	0.0	0.0	4.5	2.5	3.5	13.5	10.0	12.5	14.5	13.0	14.0
22	0.5	0.0	0.0	5.0	3.5	4.0	13.5	11.5	12.5	13.0	12.5	12.5
23	0.5	0.0	0.0	7.0	4.5	5.5	11.5	9.5	10.5	14.5	12.0	13.0
24	0.0	0.0	0.0	7.0	6.5	7.0	11.0	9.0	10.5	15.0	14.0	14.5
25	0.0	0.0	0.0	7.0	6.0	6.5	11.0	10.0	10.5	14.5	12.5	13.5
26	0.5	0.0	0.0	8.5	6.0	7.5	11.5	9.0	10.5	13.5	11.5	12.5
27	0.5	0.0	0.0	8.5	6.5	7.5	11.0	9.5	10.5	13.5	12.0	13.0
28	.5	0.0	0.5	8.5	7.0	7.5	11.0	8.5	10.0	12.0	11.0	11.5
29	---	---	---	8.5	7.0	8.0	11.0	8.5	10.0	13.5	11.0	12.0
30	---	---	---	9.5	7.0	8.5	8.5	8.0	8.0	15.5	13.0	14.0
31	---	---	---	9.0	6.5	7.5	---	---	---	16.5	14.0	15.5
MONTH	2.5	0.0	0.5	9.5	0.0	4.5	13.5	0.0	7.0	16.5	6.5	11.5

	JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	18.5	15.5	17.0	19.5	16.5	18.5	19.0	17.5	18.5	23.0	21.0	22.0
2	19.0	17.0	18.0	22.0	19.5	21.0	19.5	17.5	19.0	22.0	21.5	22.0
3	19.0	17.5	18.0	22.5	21.0	21.5	19.5	16.5	18.5	21.5	20.5	21.0
4	19.0	17.0	18.0	22.0	21.0	21.5	19.5	16.5	19.0	21.0	20.0	20.5
5	19.5	17.5	18.5	21.5	20.5	21.0	21.5	19.0	20.0	20.5	19.5	20.0
6	19.0	17.0	18.0	21.5	20.5	21.0	21.0	20.0	20.5	19.5	17.0	18.5
7	19.0	17.5	18.5	23.0	20.5	22.0	20.5	19.0	20.0	17.5	16.5	17.0
8	20.0	18.5	19.5	25.0	22.5	23.5	21.0	20.5	21.0	16.5	16.0	16.5
9	20.5	18.5	19.5	24.0	22.0	23.5	21.0	20.0	20.5	16.5	15.5	16.0
10	22.0	19.5	21.0	22.5	21.0	22.0	21.0	19.0	20.0	17.0	16.0	16.5
11	23.0	21.5	22.0	22.0	20.5	21.5	21.0	19.5	20.0	17.0	16.0	16.5
12	22.0	20.5	21.5	23.0	21.0	22.0	21.0	19.5	20.0	16.0	15.5	15.5
13	20.5	18.5	19.5	23.5	22.0	23.0	20.0	19.0	19.5	15.5	15.0	15.0
14	20.5	18.5	19.5	22.0	20.0	21.0	19.0	18.0	18.5	16.0	14.5	15.0
15	20.0	19.0	19.5	20.5	19.0	19.5	19.5	16.0	18.5	15.0	13.0	14.0
16	19.5	18.5	19.0	20.0	18.5	19.5	20.0	15.5	19.5	13.0	12.0	12.5
17	19.5	18.0	19.0	21.0	19.0	20.0	21.0	19.5	20.0	12.5	11.5	12.0
18	19.0	17.0	18.5	21.5	20.0	21.0	21.5	20.0	20.5	12.5	11.0	11.5
19	19.0	16.5	18.0	23.0	21.0	22.0	20.5	20.0	20.5	12.0	11.5	11.5
20	19.5	18.0	18.5	22.0	20.5	21.5	20.5	19.0	20.0	12.0	11.0	11.5
21	19.0	16.5	17.5	20.5	18.0	19.5	19.5	16.0	18.5	11.5	11.0	11.0
22	18.5	16.0	17.0	18.5	17.0	18.0	17.5	16.0	16.5	13.5	11.5	12.5
23	19.5	17.5	18.5	20.0	18.5	19.5	16.0	15.5	15.5	14.0	13.0	13.5
24	20.0	18.0	19.0	21.5	20.0	21.0	16.0	15.5	16.0	14.0	12.5	13.0
25	19.5	18.0	19.0	23.0	21.0	22.0	18.5	16.0	17.0	15.5	13.5	15.0
26	19.5	16.5	19.0	22.5	20.5	21.5	21.5	16.0	19.5	17.0	15.5	16.0
27	19.5	18.0	18.5	20.5	19.5	20.5	23.0	21.0	21.5	16.5	16.0	16.5
28	19.0	16.5	18.0	20.5	19.5	20.0	23.0	21.5	22.0	16.0	15.0	15.5
29	16.5	15.0	15.5	21.0	19.5	20.0	23.5	21.5	22.5	15.0	14.5	14.5
30	17.0	14.5	16.0	20.5	19.5	20.0	22.5	21.5	22.0	14.0	14.0	14.0
31	---	---	---	19.5	18.5	19.0	22.0	21.0	21.5	---	---	---
MONTH	23.0	14.5	18.5	25.0	16.5	21.0	23.5	15.5	19.5	23.0	11.0	15.5
YEAR	25.0	0.0	9.5									

05408000 KICKAPOO RIVER AT LA FARGE, WIS.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	410	360	400	380	---	---	440	---	440	---	415	400
2	---	360	400	360	380	350	---	295	---	---	---	400
3	405	370	400	340	310	340	410	260	---	400	---	360
4	365	375	---	---	400	340	415	350	425	410	---	375
5	400	---	---	---	---	360	---	400	395	430	---	405
6	410	380	---	---	445	440	410	400	420	410	---	405
7	425	400	405	---	460	320	430	---	425	420	425	---
8	420	400	400	410	500	300	---	260	450	430	---	400
9	410	400	400	400	500	400	---	350	425	440	390	400
10	415	---	400	410	500	400	410	370	---	410	370	400
11	420	350	---	420	---	280	400	400	425	420	400	400
12	410	---	---	445	475	290	410	400	420	440	450	410
13	410	360	400	435	465	350	400	425	410	---	445	400
14	425	360	---	425	450	300	390	410	410	420	310	410
15	420	365	400	400	450	300	500	430	380	440	360	410
16	---	350	420	400	460	360	290	430	370	---	425	395
17	---	400	---	375	500	400	170	435	380	430	---	---
18	---	390	415	240	500	---	300	440	400	---	430	400
19	---	350	410	240	475	445	350	400	430	---	435	405
20	---	350	400	325	460	440	380	---	390	430	440	395
21	---	360	400	400	450	450	340	---	420	430	440	415
22	---	---	400	---	---	425	375	450	430	---	450	400
23	---	350	400	---	---	415	400	450	410	430	400	345
24	---	350	390	450	---	445	400	---	---	410	290	380
25	---	360	380	475	---	410	430	440	410	440	400	390
26	370	400	380	455	---	---	450	440	390	---	445	---
27	375	---	390	450	---	425	430	---	420	440	445	405
28	380	---	400	---	---	420	440	340	400	445	---	410
29	380	375	390	455	---	425	425	340	---	---	450	420
30	355	370	390	500	---	420	320	400	---	445	390	410
31	350	---	275	480	---	410	---	425	---	490	---	---
MONTH	---	371	---	---	---	382	389	390	411	---	---	398
YEAR	MAX	500	MIN	170	MEAN	400						

TURBIDITY (JTU), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4	6	3	4	---	---	15	---	10	---	20	20
2	---	15	1	3	55	4	1	55	---	---	---	15
3	30	25	2	3	20	15	15	5	---	15	---	30
4	75	9	---	---	5	20	10	0	9	10	---	15
5	35	---	---	---	---	25	---	0	35	7	---	10
6	25	4	---	---	5	8	9	0	10	8	---	9
7	30	5	2	---	2	150	8	0	10	15	25	---
8	30	5	3	7	4	50	---	60	6	8	---	10
9	25	5	2	8	4	9	---	35	8	9	30	15
10	20	---	3	4	3	15	10	30	---	10	20	8
11	25	4	---	3	---	40	9	20	7	15	20	8
12	50	---	---	1	3	60	6	25	9	20	10	8
13	25	4	2	2	4	5	5	15	5	---	15	10
14	15	2	---	1	3	25	15	15	10	25	70	10
15	10	2	3	2	2	50	60	15	9	20	50	8
16	---	2	2	3	3	40	55	8	15	---	30	8
17	---	3	---	7	4	35	55	9	40	15	---	---
18	---	2	3	45	3	---	45	9	20	---	25	6
19	---	2	2	25	4	20	30	8	15	---	15	6
20	---	2	2	15	4	20	30	---	20	20	15	5
21	---	2	2	5	5	20	50	---	20	10	15	4
22	---	---	2	---	---	10	40	7	25	---	25	40
23	---	3	1	---	---	15	30	6	25	15	90	20
24	---	2	2	4	---	20	20	---	---	15	45	3
25	---	2	4	4	---	15	15	15	25	15	25	9
26	4	3	2	5	---	---	15	8	30	---	9	---
27	4	---	3	5	---	15	15	---	15	15	15	9
28	5	---	10	---	---	10	10	50	15	15	---	15
29	3	3	7	3	---	10	20	45	---	---	20	10
30	5	2	5	2	---	10	50	25	---	20	30	15
31	5	---	40	2	---	15	---	20	---	35	---	---
MONTH	---	4	---	---	---	25	25	20	15	---	---	10
YEAR	MAX	150	MIN	0	MEAN	15						

05408000 KICKAPOO RIVER AT LA FARGE, WIS.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

	OCTOBER			NOVEMBER			DECEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	288	--	--	240	23	15	142	5	1.9
2	245	124	82	293	28	22	140	5	1.9
3	220	117	69	291	58	46	140	11	4.2
4	206	102	57	218	16	9.4	130	--	--
5	186	102	51	201	16	8.7	130	--	--
6	182	54	27	194	--	--	130	--	--
7	190	34	18	212	9	5.2	120	5	1.6
8	177	24	11	221	12	7.2	130	6	2.1
9	166	16	7.2	194	10	5.2	130	4	1.4
10	160	29	13	186	--	--	130	5	1.8
11	190	28	14	173	8	3.7	130	--	--
12	180	64	31	173	--	--	130	--	--
13	162	50	22	169	10	4.6	130	4	1.4
14	157	14	5.9	163	6	2.6	130	--	--
15	150	10	4.1	156	10	4.2	130	6	2.1
16	160	10	4.3	157	8	3.4	130	4	1.4
17	163	--	--	159	8	3.4	140	--	--
18	148	31	12	156	7	2.9	140	6	2.3
19	141	--	--	150	6	2.4	130	4	1.4
20	141	8	3.0	149	6	2.4	130	4	1.4
21	184	14	7.0	149	8	3.2	130	2	.70
22	221	12	7.2	146	6	2.4	130	4	1.4
23	676	265	484	144	--	--	130	2	.70
24	394	38	40	144	6	2.3	130	4	1.4
25	273	14	10	150	8	3.2	130	6	2.1
26	238	10	6.4	157	10	4.2	130	3	1.1
27	223	10	6.0	150	--	--	130	4	1.4
28	196	6	3.2	142	2	.77	130	76	27
29	189	5	2.6	130	4	1.4	140	38	14
30	174	4	1.9	140	5	1.9	200	20	11
31	206	6	3.3	--	--	--	400	100	108
TOTAL	6586	--	1003.1	5307	--	167.67	4422	--	193.70

	JANUARY			FEBRUARY			MARCH		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	200	14	7.6	250	--	--	200	--	--
2	190	15	7.7	560	777	1170	450	409	497
3	200	12	6.5	230	74	46	381	102	105
4	150	4	1.6	190	45	23	351	96	91
5	130	--	--	160	--	--	212	34	19
6	120	--	--	130	19	6.7	221	56	33
7	130	--	--	130	12	4.2	1310	2880	10200
8	130	28	9.8	130	18	6.3	713	224	431
9	130	42	15	140	25	9.5	300	58	47
10	140	153	58	140	17	6.4	295	30	24
11	150	6	2.4	140	20	7.6	1630	1780	7830
12	160	6	2.6	140	12	4.5	952	872	2260
13	160	4	1.7	140	--	--	444	241	292
14	170	4	1.8	140	17	6.4	1280	2460	8570
15	180	5	2.4	130	16	5.6	684	760	1400
16	190	3	1.5	120	12	3.9	440	246	292
17	250	19	13	130	11	3.9	382	171	178
18	800	394	851	130	9	3.2	300	--	--
19	600	192	311	130	8	2.8	268	90	66
20	270	27	20	140	8	3.0	247	79	53
21	250	19	13	140	7	2.6	238	60	37
22	240	--	--	140	8	3.0	217	54	32
23	210	--	--	140	8	3.0	213	52	30
24	190	14	7.2	140	--	--	207	62	35
25	190	15	7.7	140	--	--	204	50	28
26	190	14	7.2	140	--	--	196	--	--
27	200	2	1.1	140	--	--	188	40	20
28	170	0	0	140	--	--	184	42	21
29	120	18	5.8	--	--	--	182	36	18
30	160	32	14	--	--	--	176	37	18
31	180	35	17	--	--	--	173	40	19
TOTAL	6550	--	1386.6	4520	--	1321.6	13230	--	32646

05408000 KICKAPOO RIVER AT LA FARGE, WIS.--Continued
SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

	APRIL			MAY			JUNE		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	259	54	38	854	--	--	351	74	70
2	271	165	121	1400	1000	3780	325	--	--
3	221	58	35	1080	512	1510	384	--	--
4	233	42	26	582	169	266	355	44	42
5	215	--	--	483	112	146	396	158	169
6	200	44	24	454	90	111	319	46	40
7	192	22	11	1170	--	--	289	48	
8	190	--	--	1540	781	3250	279	39	
9	104	--	--	760	218	449	270	36	26
10	159	52	22	604	158	258	261	--	--
11	259	40	28	504	123	167	255	35	24
12	262	52	37	456	100	123	264	54	38
13	302	64	52	408	68	75	250	43	29
14	444	143	171	378	54	55	240	34	22
15	1080	--	--	355	46	44	247	42	28
16	3390	558	5110	341	60	55	270	53	37
17	2360	376	2400	326	41	36	268	154	149
18	740	405	809	313	40	34	398	60	47
19	565	233	355	343	44	41	286	--	--
20	582	172	270	322	--	--	248	68	44
21	882	706	1680	311	--	--	242	65	41
22	544	206	303	349	46	43	237	64	40
23	442	124	148	334	34	30	240	70	45
24	386	93	97	313	--	--	235	--	--
25	357	86	83	418	124	139	217	73	43
26	338	66	60	340	60	55	196	74	40
27	311	59	50	355	--	--	242	37	25
28	298	46	37	1260	908	3090	230	34	22
29	523	96	136	773	324	674	217	--	--
30	735	406	809	466	132	165	215	--	--
31	--	--	--	390	94	98	--	--	--
TOTAL	16924	--	12912	17982	--	14694	8226	--	1021

	JULY			AUGUST			SEPTEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	209	--	--	177	64	31	166	52	23
2	218	--	--	169	--	--	171	72	33
3	210	35	20	160	--	--	209	95	54
4	190	26	13	163	--	--	188	45	23
5	185	28	14	169	--	--	169	35	16
6	200	28	15	156	--	--	140	40	16
7	169	64	29	217	118	69	159	--	--
8	180	30	15	252	--	--	156	30	13
9	192	36	19	319	78	67	176	92	44
10	189	47	24	247	67	45	170	38	17
11	182	44	22	200	49	26	163	28	12
12	170	44	20	159	46	20	156	28	11
13	180	--	--	170	53	24	148	37	16
14	171	48	22	311	343	288	158	56	24
15	157	48	20	180	104	51	161	29	12
16	163	--	--	160	87	38	159	59	26
17	163	44	19	170	--	--	163	--	--
18	163	--	--	167	87	39	178	33	17
19	162	54	24	170	47	22	192	22	11
20	157	42	18	170	42	19	189	24	11
21	169	44	20	167	44	20	166	16	11
22	189	--	--	166	141	63	296	143	81
23	189	48	24	653	--	--	184	94	46
24	166	33	15	343	166	154	177	28	16
25	177	--	--	223	53	32	232	27	15
26	171	39	18	201	44	24	188	--	--
27	189	50	26	194	46	24	219	83	37
28	173	44	21	179	--	--	154	38	19
29	169	--	--	173	142	66	184	34	19
30	240	70	45	157	162	69	210	46	26
31	188	90	46	167	--	--	--	--	--
TOTAL	5630	--	509	6509	--	1191	5389	--	649

TOTAL DISCHARGE FOR YEAR (CFS-DAYS) 101275

05408000 KICKAPOO RIVER AT LA FARGE, WIS.--Continued

DATE	TIME	TEMPERATURE (DEG C)	SUSPENDED SEDIMENT (MG/L)	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	SUS. SED. SIEVE DIAM. % FINER THAN .125 MM	SUS. SED. SIEVE DIAM. % FINER THAN .500 MM
JAN.											
18...	1620	1.0	441	27	35	42	55	75	84	89	100
APR.											
16...	0910	--	--	43	55	63	72	81	86	90	100
AUG.											
23...	0740	--	--	52	66	78	89	94	96	98	--

DATE	TIME	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM
OCT.									
10...	1500	5	10	30	52	58	58	58	60
APR.									
19...	0900	8	23	69	96	96	97	98	100
SEP.									
08...	1130	4	15	57	90	99	100	100	100

05430500 ROCK RIVER AT AFTON, WIS.

LOCATION.--Lat 42°36'33", long 89°04'14", in NE¼ sec.28, T.2 N., R.12 E., Rock County, temperature recorder at gaging station on right bank in Afton, 0.3 mi (0.48 km) downstream from highway bridge, and 1.1 mi (1.77 km) upstream from Bass Creek.
DRAINAGE AREA.--3,300 mi² (8,547 km²), approximately.
PERIOD OF RECORD.--Water temperatures: September 1954 to September 1973.
EXTREMES, 1972-73.--Water temperatures: Maximum, 26.5°C on several days during July and August; minimum, freezing point on many days during January and February.
EXTREMES, 1954-73.--Water temperatures: Maximum, 32.0°C July 27-30, Aug. 4, 1955; July 26, 28, 1964; minimum, freezing point on many days during winter months 1954-68, 1971-73.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	14.5	14.0	7.0	7.0	3.0	3.0	2.0	2.0	0.5	0.0	2.0	2.0
2	15.0	14.5	7.0	7.0	3.0	3.0	2.0	1.5	1.0	0.5	3.0	2.0
3	15.5	15.0	7.0	7.0	3.0	3.0	1.5	1.0	1.0	0.5	4.0	3.0
4	15.5	15.5	7.0	7.0	3.0	1.5	1.5	1.0	1.0	0.5	4.0	3.5
5	16.0	15.5	6.5	6.0	1.5	1.5	1.5	1.5	1.0	1.0	4.0	4.0
6	16.0	15.5	6.5	6.0	1.5	1.5	1.5	1.5	1.0	1.0	4.0	3.5
7	15.5	15.0	6.5	6.5	1.5	1.5	1.5	1.5	1.0	0.5	4.5	3.5
8	15.0	14.5	6.5	6.5	1.5	1.5	1.5	1.5	0.5	0.0	4.5	4.5
9	14.5	14.0	6.5	6.5	1.5	1.5	1.5	1.0	0.0	0.0	4.5	4.0
10	14.0	13.0	6.5	6.5	3.0	2.0	1.0	0.5	0.5	0.0	4.0	3.5
11	13.0	13.0	6.5	6.5	3.0	3.0	0.5	0.5	0.5	0.5	4.5	3.5
12	13.0	13.0	6.5	6.5	3.0	1.5	0.5	0.5	0.5	0.5	5.0	4.5
13	13.0	13.0	6.5	6.5	1.5	1.5	0.5	0.0	0.5	0.5	4.5	4.5
14	13.0	13.0	6.5	4.5	2.0	1.5	0.5	0.0	0.5	0.5	5.0	1.0
15	13.0	11.5	4.5	4.0	2.0	2.0	1.0	0.5	0.5	0.5	5.5	5.0
16	11.5	10.5	4.0	4.0	2.0	2.0	1.5	1.0	0.5	0.5	5.5	5.0
17	10.5	10.0	4.0	4.0	2.0	2.0	1.5	1.0	0.5	0.5	5.0	4.5
18	10.0	9.0	4.0	4.0	2.0	1.5	3.0	1.5	1.0	0.5	4.5	4.0
19	9.0	8.0	4.5	4.0	1.5	1.5	3.0	2.0	0.5	0.5	4.0	4.0
20	8.0	7.0	4.0	4.0	2.0	1.5	2.0	1.5	1.0	0.5	4.5	4.0
21	7.0	7.0	4.0	4.0	2.0	1.5	1.5	1.0	1.5	1.0	4.0	4.0
22	7.0	7.0	4.0	4.0	1.5	1.5	1.0	1.0	1.5	1.0	4.5	4.0
23	7.0	7.0	4.0	4.0	2.0	1.5	1.5	1.0	1.5	1.0	5.0	4.5
24	7.0	7.0	4.0	3.5	1.5	1.5	1.5	1.0	2.0	1.5	5.0	5.0
25	7.0	7.0	3.5	3.5	1.5	1.5	1.0	1.0	2.0	1.5	5.0	5.0
26	7.0	7.0	3.5	3.5	1.5	1.5	1.0	1.0	1.5	1.5	5.0	5.0
27	7.0	7.0	3.5	3.5	1.5	1.5	1.0	1.0	2.0	1.5	6.0	5.0
28	7.0	7.0	3.5	3.0	1.5	1.5	1.0	1.0	2.0	2.0	6.0	6.0
29	7.0	7.0	3.0	3.0	1.5	1.0	1.0	0.0	---	---	6.0	6.0
30	7.0	7.0	3.0	3.0	2.0	1.5	0.0	0.0	---	---	7.0	6.0
31	7.0	7.0	---	---	2.0	2.0	0.0	0.0	---	---	7.0	7.0
MONTH	16.0	7.0	7.0	3.0	3.0	1.0	3.0	0.0	2.0	0.0	7.0	1.0

05430500 ROCK RIVER AT AFTON, WIS.--Continued

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	7.0	7.0	13.5	12.0	19.0	18.0	23.0	20.5	22.0	20.0	26.0	23.5
2	7.0	7.0	14.0	13.5	19.0	18.5	24.0	22.0	23.0	19.5	25.0	23.5
3	7.0	6.5	14.0	13.0	19.5	19.0	24.5	23.5	23.0	19.5	25.0	23.5
4	6.5	6.0	13.0	12.0	20.0	19.5	25.0	23.5	22.0	19.5	24.0	23.0
5	6.5	6.5	13.0	13.0	20.5	20.0	25.0	23.5	24.5	20.5	24.0	21.5
6	6.5	6.5	13.0	13.0	21.0	20.0	25.5	23.5	24.0	21.0	23.0	20.0
7	8.0	8.0	13.5	13.0	21.0	21.0	26.5	24.5	24.5	21.0	22.0	19.5
8	8.0	6.5	13.0	13.0	21.5	21.0	26.5	25.0	24.0	23.0	21.5	19.5
9	6.5	4.5	14.0	13.0	23.0	21.5	26.5	25.0	24.5	22.0	20.0	19.0
10	4.5	3.5	14.5	14.0	23.5	23.0	26.5	25.0	25.0	22.0	20.0	18.5
11	3.5	3.5	15.0	14.5	24.0	23.0	26.0	24.5	25.5	22.0	20.5	18.0
12	4.5	3.5	15.0	14.5	24.5	24.0	25.5	23.5	25.5	21.5	20.5	18.0
13	5.5	4.5	14.5	14.0	24.5	23.5	26.0	23.0	24.5	21.5	19.5	18.5
14	6.5	5.5	14.0	14.0	24.5	24.0	26.0	23.0	24.0	22.0	20.0	18.0
15	8.0	6.5	14.0	14.0	24.5	24.0	24.0	20.5	24.0	20.5	19.5	17.0
16	9.0	8.0	14.0	14.0	24.0	23.0	24.0	21.0	24.5	21.0	17.0	16.0
17	9.5	9.0	14.0	14.0	23.0	22.0	24.5	20.5	24.5	21.0	16.5	15.0
18	10.0	9.5	14.5	14.5	22.0	21.5	25.0	21.0	25.0	21.5	16.0	14.0
19	11.0	10.0	15.0	14.5	23.0	22.0	25.5	22.0	24.0	22.0	15.5	14.0
20	12.0	11.0	15.0	15.0	23.0	22.0	24.5	23.0	24.0	21.5	15.5	14.0
21	13.5	12.0	16.0	15.5	22.0	22.0	23.0	22.0	23.0	20.5	15.0	13.5
22	14.5	13.5	15.5	15.5	22.0	21.0	22.0	20.5	21.5	20.0	17.0	14.5
23	14.5	14.0	15.5	15.5	21.5	21.0	22.0	20.5	21.0	19.0	16.5	14.5
24	14.5	14.5	17.0	15.5	22.0	21.0	24.0	21.0	19.5	18.5	18.0	14.5
25	14.5	14.5	17.0	17.0	22.0	21.5	24.5	21.5	21.0	19.0	18.5	16.5
26	14.5	14.0	17.0	16.5	22.0	21.5	24.5	22.0	23.5	19.5	19.5	17.0
27	14.0	14.0	17.0	16.0	23.0	21.5	24.5	21.5	25.0	21.0	19.0	19.0
28	14.5	14.0	16.0	15.5	23.0	21.0	24.0	20.5	26.0	23.0	19.0	18.0
29	14.0	13.0	16.0	15.0	21.0	20.5	23.5	20.5	26.5	23.5	18.0	16.5
30	13.0	12.0	16.0	16.0	21.0	20.0	24.0	21.0	25.5	23.5	16.5	15.5
31	---	---	16.0	16.0	---	---	23.5	21.0	26.0	23.5	---	---
MONTH	14.5	3.5	15.0	12.0	24.5	18.0	26.5	20.5	26.5	18.5	26.0	13.5
YEAR	26.5	0.0										

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	DISSOLVED SILICA (SIO2) (MG/L)	TOTAL IRON (FE) (UG/L	DISSOLVED IRON (FE) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)
STREAMS TRIBUTARY TO LAKE MICHIGAN											
04073180 - MECAN RIVER NR. MANCOCK, WIS. (LAT 44 03 04 LONG 089 27 50)											
DEC., 1972											
15...	1100	1.5	--	8.0	20	--	22	--	43	20	1.6
JUNE, 1973											
28...	1300	18.5	--	14	--	20	--	10	42	22	1.6

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	DISSOLVED SILICA (SIO2) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO
CHIPPEWA RIVER BASIN										
05368000 - HAY RIVER AT WHEELER, WIS. (LAT 45 02 52 LONG 091 54 39)										
OCT., 1972										
26...	--	9.0	--	6.7	40	38	38	18	5.2	.2
AUG., 1973										
13...	1235	18.5	220	--	--	--	--	--	--	--

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TOTAL AMMONIA NITROGEN IN BOTTOM DEP. (MG/KG)	TOTAL NITRITE PLUS NITRATE IN BOT. DEP. (MG/KG)	TOTAL PHOSPHORUS IN BOTTOM DEPOSITS (MG/KG)	INORGANIC CARBON IN BED MATERIAL (G/KG)	ORGANIC CARBON IN BED MATERIAL (C) (G/KG)	TOTAL ARSENIC IN BOTTOM DEPOSITS (UG/G)	TOTAL BARIUM IN BOTTOM DEPOSITS (UG/G)	TOTAL BERYLLIUM IN BOTTOM DEPOSITS (UG/G)	TOTAL CADMIUM IN BOTTOM DEPOSITS (UG/G)	TOTAL CHROMIUM IN BOTTOM DEPOSITS (UG/G)
AUG.												
29...	1300	239	.6	.5	17	.0	.6	0	0	0	0	0

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	DISSOLVED SILICA (SIO2) (MG/L)	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)
ROCK RIVER BASIN											
05425970 - ROCK CREEK NR. LAKE MILLS, WIS. (LAT 43 03 17 LONG 088 55 35)											
APR., 1973											
19...	1130	13.0	--	--	--	--	--	--	--	--	--
05426410 - SCUPPERNONG AT PALMYRA, WIS. (LAT 42 52 42 LONG 088 34 55)											
APR., 1973											
19...	1400	15.0	--	--	--	--	--	--	--	--	--
05426435 - SPRING CREEK NR. PALMYRA, WIS. (LAT 42 51 29 LONG 088 36 34)											
APR., 1973											
19...	1430	-	--	--	--	--	--	--	--	--	--
05427490 - TRIBUTARY TO LAKE RIPLEY NR. CAMBRIDGE, WIS. (LAT 43 00 02 LONG 088 58 17)											
APR., 1973											
19...	1015	14.0	--	--	--	--	--	--	--	--	--
05427502 - KOSHKONONG CREEK TRIB. AT CAMBRIDGE, WIS. (LAT 43 00 27 LONG 089 00 05)											
APR., 1973											
19...	0945	11.0	--	--	--	--	--	--	--	--	--

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	SODIUM ADSORPTION RATIO	PERCENT SODIUM	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED NITRATE (N) (MG/L)	TOTAL NITRATE (NO3) (MG/L)	DISSOLVED NITRATE (NO3) (MG/L)
STREAMS TRIBUTARY TO LAKE MICHIGAN--Continued											
04073180 - MECAN RIVER NR. HANCOCK, WIS. (LAT 44 03 04 LONG 089 27 50)											
DEC., 1972 15...	.1	2	.7	218	0	7.0	2.5	.0	1.5	--	6.6
JUNE, 1973 28...	.0	2	.4	216	0	7.0	3.4	.1	1.2	5.2	5.3

DATE	PERCENT SODIUM	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED NITRATE (N) (MG/L)	DISSOLVED NITRATE (ND3) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)
CHIPPEWA RIVER BASIN--Continued										
05368000 - HAY RIVER AT WHEELER, WIS. (LAT 45 02 52 LONG 091 54 39)										
OCT., 1972 26...	6	2.5	190	0	11	7.5	.1	1.2	5.2	184
AUG., 1973 13...	--	--	--	--	--	--	--	--	--	--

DATE	TOTAL COBALT IN BOTTOM DEPOSITS (UG/G)	TOTAL COPPER IN BOTTOM DEPOSITS (UG/G)	TOTAL LEAD IN BOTTOM DEPOSITS (UG/G)	TOTAL MANGANESE IN BOTTOM DEPOSITS (UG/G)	TOTAL MOLYBDENUM IN BOTTOM DEPOSITS (UG/G)	TOTAL NICKEL IN BOTTOM DEPOSITS (UG/G)	TOTAL SILVER IN BOTTOM DEPOSITS (UG/G)	TOTAL STRONTIUM IN BOTTOM DEPOSITS (UG/G)	TOTAL VANADIUM IN BOTTOM DEPOSITS (UG/G)	TOTAL ZINC IN BOTTOM DEPOSITS (UG/G)	TOTAL ALUMINUM IN BOTTOM DEPOSITS (UG/G)	TOTAL SELENIUM IN BOTTOM DEPOSITS (UG/G)
AUG. 29...	0	2	<5	340	<5	<2	0	0	620	3	380	3

DATE	SODIUM ADSORPTION RATIO	PERCENT SODIUM	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED NITRATE (N) (MG/L)	TOTAL NITRATE (NO3) (MG/L)	DISSOLVED NITRATE (NO3) (MG/L)
ROCK RIVER BASIN--Continued											
05425970 - ROCK CREEK NR. LAKE MILLS, WIS. (LAT 43 03 17 LONG 088 55 35)											
APR., 1973 19...	--	--	--	274	0	42	14	.4	.40	--	1.6
05426410 - SCUPPERNONG AT PALMYRA, WIS. (LAT 42 52 42 LONG 088 34 55)											
APR., 1973 19...	--	--	--	270	0	42	16	.3	.80	--	3.4
05426435 - SPRING CREEK NR. PALMYRA, WIS. (LAT 42 51 29 LONG 088 36 34)											
APR., 1973 19...	--	--	--	252	0	28	8.0	.4	.60	--	2.8
05427490 - TRIBUTARY TO LAKE RIPLEY NR. CAMBRIDGE, WIS. (LAT 43 00 02 LONG 088 58 17)											
APR., 1973 19...	--	--	--	256	0	51	20	.4	3.6	--	16
05427502 - KOSHKONONG CREEK TRIB. AT CAMBRIDGE, WIS. (LAT 43 00 27 LONG 089 00 05)											
APR., 1973 19...	--	--	--	238	0	330	18	.2	.60	--	2.7

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	ALKA-LINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	COLOR (PLAT-INUM-COBALT UNITS)
STREAMS TRIBUTARY TO LAKE MICHIGAN--Continued										
04073180 - MECAN RIVER NR. HANCOCK, WIS. (LAT 44 03 04 LONG 089 27 50)										
DEC., 1972 15...	206	194	.28	190	10	179	5.5	356	7.8	5
JUNE, 1973 28...	208	202	.28	200	18	177	4.4	340	7.9	5

DATE	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	ALKA-LINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	COLOR (PLAT-INUM-COBALT UNITS)
CHIPPEWA RIVER BASIN--Continued									
05368000 - HAY RIVER AT WHEELER, WIS. (LAT 45 02 52 LONG 091 54 39)									
OCT., 1972 26...	187	.25	170	13	156	12	330	7.4	10
AUG., 1973 13...	--	--	--	--	--	--	340	--	--

DATE	TOTAL IRON IN BOTTOM DE-POSITS (UG/G)	TOTAL MERCURY IN BOTTOM DE-POSITS (UG/G)	ALDRIN (UG/L)	LINDANE IN BOTTOM DE-POSITS (UG/KG)	CHLOR-DANE IN BOTTOM DE-POSITS (UG/KG)	DDD IN BOTTOM DE-POSITS (UG/KG)	DDE IN BOTTOM DE-POSITS (UG/KG)	DDT IN BOTTOM DE-POSITS (UG/KG)	DI-ELDRIN IN BOTTOM DE-POSITS (UG/KG)	ENDRIN IN BOTTOM DE-POSITS (UG/KG)	ETHION IN BOTTOM DE-POSITS (UG/KG)
AUG. 29...	3400	.0	.00	.0	0	.0	.0	.0	.0	.0	.0

DATE	FOX-APHENE IN BOTTOM DE-POSITS (UG/KG)	HEPTA-CHLOR IN BOTTOM DE-POSITS (UG/KG)	MALA-THION IN BOTTOM DE-POSITS (UG/KG)	PARA-THION IN BOTTOM DE-POSITS (UG/KG)	DI-AZINON IN BOTTOM DE-POSITS (UG/KG)	METHYL PARA-THION IN BOTTOM DE-POSITS (UG/KG)	2,4-D IN BOTTOM DE-POSITS (UG/KG)	2,4,5-T IN BOTTOM DE-POSITS (UG/KG)	SILVEX IN BOTTOM DE-POSITS (UG/KG)	TRI-THION IN BOTTOM DE-POSITS (UG/KG)	METHYL TRI-THION IN BOTTOM DE-POSITS (UG/KG)
AUG. 29...	0	.0	.0	.0	.0	.0	0	0	0	.0	.0

DATE	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	ALKA-LINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	COLOR (PLAT-INUM-COBALT UNITS)
ROCK RIVER BASIN--Continued										
05425970 - ROCK CREEK NR. LAKE MILLS, WIS. (LAT 43 03 17 LONG 088 55 35)										
APR., 1973 19...	308	--	.42	280	55	225	11	497	7.6	--
05426410 - SCUPPERNONG AT PALMYRA, WIS. (LAT 42 52 42 LONG 088 34 55)										
APR., 1973 19...	332	--	.45	280	58	221	11	501	7.6	--
05426435 - SPRING CREEK NR. PALMYRA, WIS. (LAT 42 51 29 LONG 088 36 34)										
APR., 1973 19...	252	--	.34	240	34	207	5.1	433	7.9	--
05427490 - TRIBUTARY TO LAKE RIPLEY NR. CAMBRIDGE, WIS. (LAT 43 00 02 LONG 088 58 17)										
APR., 1973 19...	336	--	.46	300	90	210	21	529	7.3	--
05427502 - KOSHKONONG CREEK TRIB. AT CAMBRIDGE, WIS. (LAT 43 00 27 LONG 089 00 05)										
APR., 1973 19...	2	--	.00	260	64	195	4.8	447	7.9	--

MISCELLANEOUS ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

The following table contains a series of periodic specific conductance measurements obtained as part of water-resources investigations at stream gaging stations in Wisconsin. The purpose of these measurements is to determine the range in specific conductance under various streamflow conditions.

Specific Conductance (Micromhos/cm at 25°C), October 1972 to September 1973

Date	Time	Water temperature (°C)	Discharge (cfs)	Specific conductance	Date	Time	Water temperature (°C)	Discharge (cfs)	Specific conductance
STREAMS TRIBUTARY TO LAKE SUPERIOR									
04025500 BOIS BRULE RIVER AT BRULE, WIS (LAT 46 32 16 LONG 091 35 43)									
Nov. 2, 1972	1215	5.5	253	105	May 10, 1973	0930	9.0	259	70
Dec. 28, 1972	1135	0.5	145	140	July 5, 1973	1035	17.0	144	120
Jan. 31, 1973	1030	0.0	152	110	Aug. 7, 1973	1145	18.0	234	120
Mar. 20, 1973	1310	2.5	300	100	Sept.18, 1973	0930	9.0	150	120
04027000 BAD RIVER NEAR ODANAH, WIS (LAT 46 29 15 LONG 090 41 45)									
Nov. 9, 1972	1330	3.0	1,830	110	May 8, 1973	1720	15.0	1,620	90
Dec. 27, 1972	1250	0.0	232	150	July 3, 1973	1630	26.5	218	110
Jan. 11, 1973	1240	0.0	200	130	Aug. 8, 1973	1300	19.5	1,650	120
Jan. 30, 1973	1350	0.0	294	90	Aug. 21, 1973	1410	20.0	336	100
Apr. 5, 1973	1305	3.5	1,470	100	Sept.19, 1973	1000	9.5	154	100
04027500 WHITE RIVER NEAR ASHLAND, WIS (LAT 46 29 50 LONG 090 54 15)									
Nov. 2, 1972	0815	5.5	269	170	May 9, 1973	1310	9.0	352	160
Dec. 27, 1972	1440	0.0	146	180	July 4, 1973	0830	20.0	182	170
Jan. 30, 1973	1515	0.5	129	160	Aug. 16, 1973	1030	18.0	482	120
Mar. 21, 1973	0810	1.5	512	170	Sept.18, 1973	1150	11.0	231	150
STREAMS TRIBUTARY TO LAKE MICHIGAN									
04064500 PINE RIVER BELOW PINE RIVER POWERPLANT NEAR FLORENCE, WIS (LAT 45 50 16 LONG 088 13 31)									
Oct. 16, 1972	1545	7.0	448	160	Apr. 25, 1973	0945	4.5	1,420	85
Nov. 2, 1972	1510	3.5	625	150	June 14, 1973	0955	10.5	179	180
Jan. 9, 1973	1100	0.0	382	150	July 18, 1973	1105	22.0	310	140
Feb. 6, 1973	1150	0.0	330	295	Aug. 23, 1973	1605	-	686	-
Mar. 23, 1973	1115	0.5	1,380	75					
04066000 MENOMINEE RIVER NEAR PEMBINE, WIS (LAT 45 35 24 LONG 087 46 34)									
Oct. 16, 1972	1710	8.0	2,920	180	May 30, 1973	1830	-	4,770	-
Nov. 3, 1972	1200	4.5	5,370	210	July 17, 1973	1130	21.5	2,110	260
Mar. 22, 1973	1050	3.0	6,700	150	Aug. 24, 1973	1330	19.5	2,640	230
Apr. 20, 1973	0900	5.0	11,000	-					
04069500 PESHTIGO RIVER AT PESHTIGO, WIS (LAT 45 02 49 LONG 087 44 40)									
Oct. 16, 1972	1300	12.0	613	210	Apr. 17, 1973	1210	-	3,880	-
Dec. 6, 1972	0920	0.0	559	-	June 18, 1973	1350	-	1,640	-
Jan. 10, 1973	1045	1.0	395	100	July 31, 1973	1220	22.5	821	280
Feb. 7, 1973	1050	1.0	436	200	Sept.13, 1973	1340	19.5	651	280
Mar. 14, 1973	1720	-	4,810	-					
04071000 OCONTO RIVER NEAR GILLETT, WIS (LAT 44 51 53 LONG 088 18 00)									
Oct. 25, 1972	1210	5.0	768	200	Mar. 28, 1973	1400	-	1,220	-
Nov. 29, 1972	1310	0.0	543	220	Apr. 27, 1973	1300	8.5	1,420	200
Dec. 28, 1972	1245	0.0	497	280	May 29, 1973	1510	10.0	3,330	280
Jan. 26, 1973	1150	0.0	672	300	June 29, 1973	1355	17.5	771	-
Feb. 26, 1973	1320	0.0	427	360	July 31, 1973	1700	19.5	492	300
Mar. 8, 1973	1735	-	1,850	-	Aug. 28, 1973	1600	23.0	490	240
Mar. 13, 1973	1010	2.0	3,390	-	Sept.27, 1973	1325	17.0	566	260

MISCELLANEOUS ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

Date	Time	Water temperature (°C)	Discharge (cfs)	Specific conductance	Date	Time	Water temperature (°C)	Discharge (cfs)	Specific conductance
STREAMS TRIBUTARY TO LAKE MICHIGAN--Continued									
04071858 PENSAUKEE RIVER NEAR PENSAUKEE, WIS (LAT 44 49 07 LONG 087 57 11)									
Nov. 14, 1972	1600	3.0	62	560	Mar. 13, 1973	1330	1.0	945	-
Dec. 5, 1972	1530	0.0	19	650	Mar. 15, 1973	1120	4.0	1,290	-
Jan. 10, 1973	1315	0.0	50	650	Apr. 17, 1973	1510	-	1,340	-
Feb. 6, 1973	1645	0.0	115	570	May 29, 1973	1150	-	3,750	-
Mar. 8, 1973	1245	0.5	2,770	-	July 31, 1973	1500	-	9.5	320
Mar. 8, 1973	1615	0.5	2,400	-	Sept.13, 1973	1435	17.0	5.7	450
Mar. 9, 1973	1000	0.5	1,210	200					
04072750 LAWRENCE CREEK NEAR WESTFIELD, WIS (LAT 43 53 52 LONG 089 34 43)									
Oct. 13, 1972	1030	8.0	17	340	Mar. 7, 1973	1745	6.0	27	280
Nov. 16, 1972	1000	4.0	16	320	May 31, 1973	1415	17.5	21	340
Jan. 8, 1973	1300	2.0	19	310	July 11, 1973	1315	15.0	19	325
Feb. 20, 1973	1315	8.0	18	300	Sept. 6, 1973	1045	11.5	21	-
04073050 GRAND RIVER NEAR KINGSTON, WIS (LAT 43 41 09 LONG 089 05 09)									
Oct. 19, 1972	1245	4.5	51	750	Mar. 13, 1973	1000	4.6	259	520
Dec. 1, 1972	1100	0.0	54	800	Apr. 6, 1973	1045	7.5	134	655
Jan. 19, 1973	1230	0.0	353	340	May 17, 1973	1345	12.5	116	675
Mar. 1, 1973	1445	-	50	725	July 10, 1973	1030	22.0	46	680
Mar. 7, 1973	1515	6.0	1,110	200	Aug. 28, 1973	1045	24.0	32	730
Mar. 9, 1973	1030	1.0	569	270					
04073500 FOX RIVER AT BERLIN, WIS (LAT 43 57 14 LONG 088 57 08)									
Dec. 1, 1972	1200	0.0	1,300	-	May 9, 1973	1230	12.5	4,440	290
Mar. 9, 1973	1400	1.0	5,350	150	June 19, 1973	1100	23.0	2,240	395
Mar. 12, 1973	1100	1.5	5,440	120	July 25, 1973	1115	21.0	651	380
Mar. 19, 1973	1430	2.0	5,630	200	Sept. 6, 1973	1130	22.0	745	380
Apr. 26, 1973	1415	14.5	3,830	320					
04074950 WOLF RIVER AT LANGLADE, WIS (LAT 45 11 24 LONG 088 44 00)									
Oct. 2, 1972	1430	9.5	1,140	200	Mar. 15, 1973	1600	0.5	2,170	80
Nov. 7, 1972	1400	5.5	707	150	Apr. 11, 1973	1410	3.0	874	-
Dec. 14, 1972	1300	0.0	358	210	May 18, 1973	1200	9.5	1,100	200
Jan. 22, 1973	1200	0.0	422	240	July 6, 1973	1540	23.0	361	210
Feb. 20, 1973	1210	0.0	332	180	Aug. 9, 1973	1335	19.5	313	260
Mar. 13, 1973	1100	0.5	1,910	100	Sept.27, 1973	1100	15.0	424	220
04075200 EVERGREEN CREEK NEAR LANGLADE, WIS (LAT 45 10 11 LONG 088 48 12)									
Oct. 2, 1972	1150	8.0	12	300	Apr. 11, 1973	1135	6.0	13	-
Nov. 7, 1972	1450	6.5	13	320	May 18, 1973	1345	-	13	-
Dec. 14, 1972	1105	0.0	12	320	July 6, 1973	1435	16.0	16	310
Jan. 22, 1973	1120	1.5	12	400	Aug. 9, 1973	1200	14.0	17	340
Feb. 20, 1973	1335	2.0	14	360	Sept.27, 1973	0955	11.0	20	300
Mar. 13, 1973	1742	3.0	22	180					
04077000 WOLF RIVER AT KESHENA FALLS, WIS (LAT 44 53 28 LONG 088 39 18)									
Oct. 3, 1972	1215	10.0	1,560	160	Mar. 16, 1973	1415	0.0	4,100	100
Nov. 9, 1972	1145	3.5	1,130	200	May 9, 1973	1145	5.5	2,880	-
Dec. 28, 1972	1500	0.0	1,080	240	July 10, 1973	1235	22.5	742	270
Jan. 26, 1973	1425	0.0	688	220	Aug. 28, 1973	1355	21.5	742	220
Feb. 26, 1973	1525	0.0	640	280					
04078500 EMBARRASS RIVER NEAR EMBARRASS, WIS (LAT 44 43 29 LONG 088 44 10)									
Oct. 3, 1972	1430	9.5	696	300	Mar. 12, 1973	1810	1.5	3,600	140
Nov. 9, 1972	1345	4.0	441	280	Apr. 27, 1973	1135	8.0	653	210
Dec. 15, 1972	1450	0.0	211	340	June 18, 1973	1350	19.5	408	380
Jan. 17, 1973	1150	0.0	259	360	Aug. 1, 1973	0955	18.5	174	440
Feb. 27, 1973	0935	0.0	203	400	Sept.13, 1973	1200	17.0	146	420
Mar. 8, 1973	1540	2.0	3,870	140					

MISCELLANEOUS ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

Date	Time	Water temperature (°C)	Discharge (cfs)	Specific conductance	Date	Time	Water temperature (°C)	Discharge (cfs)	Specific conductance
STREAMS TRIBUTARY TO LAKE MICHIGAN--Continued									
04079000 WOLF RIVER AT NEW LONDON, WIS (LAT 44 23 32 LONG 088 44 25)									
Oct. 3, 1972	1340	12.0	3,800	300	Mar. 13, 1973	1525	1.5	13,500	170
Nov. 15, 1972	1205	3.0	2,800	280	Mar. 21, 1973	1350	4.0	10,400	350
Jan. 17, 1973	1450	0.0	1,410	290	May 9, 1973	1430	5.5	8,760	400
Feb. 27, 1973	1220	0.0	1,200	420	July 10, 1973	1600	25.0	1,330	440
Mar. 12, 1973	1400	4.0	12,240	160	Aug. 29, 1973	1230	25.0	1,240	400
04080950 EMMONS CREEK NEAR RURAL, WIS (LAT 44 18 55 LONG 089 11 34)									
Oct. 17, 1972	1145	4.5	26	380	Apr. 24, 1973	1100	8.5	32	360
Nov. 14, 1972	1245	3.9	25	380	May 8, 1973	1230	10.0	48	305
Dec. 19, 1972	1500	3.9	25	380	June 26, 1973	1330	14.0	33	360
Jan. 23, 1973	1345	4.0	26	360	July 17, 1973	1500	12.5	29	360
Mar. 8, 1973	1030	2.5	57	270	Aug. 14, 1973		13.0	29	360
04085200 KEWAUNEE RIVER NEAR KEWAUNEE, WIS (LAT 44 27 30 LONG 087 33 23)									
Oct. 16, 1972	1415	8.5	40	650	Apr. 23, 1973	1215	12.5	238	520
Nov. 13, 1972	1500	3.0	59	690	May 21, 1973	1345	16.0	83	590
Jan. 23, 1973	1445	0.0	834	720	June 25, 1973	1415	17.5	82	600
Feb. 19, 1973	1345	0.0	26	700	Sept.24, 1973	1414	15.5	50	-
Mar. 26, 1973	1300	7.5	99	600	Sept.25, 1973	1745	15.5	44	-
04086000 SHEBOYGAN RIVER AT SHEBOYGAN, WIS (LAT 43 44 25 LONG 087 45 37)									
Oct. 18, 1972	0915	5.5	109	710	Mar. 27, 1973	1545	8.5	458	540
Nov. 29, 1972	0900	0.0	90	295	May 16, 1973	1015	14.0	465	570
Jan. 17, 1973	1015	0.5	140	810	July 12, 1973	1015	20.5	72	260
Feb. 28, 1973	0915	0.0	154	1,000	Aug. 23, 1973	0900	19.5	65	580
Mar. 16, 1973	1230	-	1,860	400					
04086150 MILWAUKEE RIVER AT KEWASKUM, WIS (LAT 43 31 02 LONG 088 13 24)									
Oct. 17, 1972	1045	5.0	95	740	Mar. 26, 1973	1445	7.5	173	595
Nov. 28, 1972	0830	0.0	65	37	May 15, 1973	1400	11.0	282	560
Jan. 16, 1973	1030	0.0	33	720	July 12, 1973	1130	23.0	40	400
Feb. 27, 1973	1015	0.0	63	745	Aug. 21, 1973	1500	22.5	21	695
04086200 EAST BRANCH MILWAUKEE RIVER NEAR NEW FANE, WIS (LAT 43 33 01 LONG 088 11 18)									
Oct. 17, 1972	1045	6.5	26	480	May 15, 1973	1145	12.5	86	435
Nov. 28, 1972	1045	0.0	26	335	July 12, 1973	1245	21.5	13	490
Jan. 16, 1973	1230	0.5	21	530	Aug. 21, 1973	1015	18.5	14	475
Feb. 27, 1973	1145	0.0	29	505	Oct. 2, 1973	1145	16.0	22	500
Mar. 26, 1973	1545	8.5	66	460					
04086340 NORTH BRANCH MILWAUKEE RIVER NEAR FILLMORE, WIS (LAT 43 28 58 LONG 088 03 39)									
Oct. 17, 1972	1345	7.0	52	700	Apr. 5, 1973	1030	5.0	242	575
Nov. 28, 1972	1315	0.0	78	720	May 31, 1973	1600	18.0	504	430
Jan. 16, 1973	1515	0.0	42	705	July 5, 1973	1715	25.5	46	650
Feb. 27, 1973	1415	0.0	64	670	Aug. 22, 1973	1215	19.0	38	605
04086360 MILWAUKEE RIVER AT WAUBEKA, WIS (LAT 43 28 22 LONG 087 59 23)									
Oct. 17, 1972	1530	8.0	202	600	May 15, 1973	1830	-	753	570
Nov. 28, 1972	1730	0.5	241	525	July 5, 1973	1530	24.0	166	620
Feb. 27, 1973	1645	0.0	149	750	Aug. 22, 1973	1330	19.5	104	660
Apr. 5, 1973	1300	7.5	832	580					
04087000 MILWAUKEE RIVER AT MILWAUKEE, WIS (LAT 43 06 00 LONG 087 54 32)									
Dec. 28, 1972	1345	1.0	300	840	July 12, 1973	1615	26.0	196	640
Feb. 6, 1973	1124	0.0	1,110	560	Aug. 1, 1973	1545	23.0	185	640
May 30, 1973	2000	15.5	3,060	450	Aug. 21, 1973	1545	24.0	151	630
June 20, 1973	1600	24.0	550	640	Oct. 2, 1973	1545	16.0	267	650

MISCELLANEOUS ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

Date	Time	Water temperature (°C)	Discharge (cfs)	Specific conductance	Date	Time	Water temperature (°C)	Discharge (cfs)	Specific conductance
STREAMS TRIBUTARY TO LAKE MICHIGAN--Continued									
04087120 MENOMONEE RIVER AT WAUWATOSA, WIS (LAT 43 02 44 LONG 087 54 32)									
Nov. 8, 1972	1330	7.0	120	1,000	Apr. 26, 1973	0930	11.0	222	1,080
Dec. 28, 1972	1630	4.0	53	1,600	May 31, 1973	1145	16.0	217	940
Feb. 5, 1973	1500	3.0	122	1,120	July 12, 1973	1345	22.5	32	1,180
Mar. 23, 1973	1000	6.0	116	1,200	July 18, 1973	1600	22.0	27	1,140
Apr. 4, 1973	1600	6.0	242	980	Aug. 1, 1973	1115	19.0	27	1,100
Apr. 21, 1973	1400	15.0	6,000	380	Aug. 22, 1973	0900	19.0	19	
Apr. 21, 1973	1415	15.0	5,460	380					
04087204 OAK CREEK AT SOUTH MILWAUKEE, WIS (LAT 42 55 30 LONG 087 52 12)									
Nov. 9, 1972	0930	6.5	21	1,110	Apr. 21, 1973	1715	16.5	712	360
Dec. 29, 1972	1245	1.0	11	2,600	May 30, 1973	1600	16.0	27	950
Feb. 6, 1973	1430	3.0	16	1,300	July 12, 1973	1930	26.0	3.1	1,200
Mar. 21, 1973	1545	6.0	24	-	Aug. 22, 1973	1330	22.0	3.0	940
04087220 ROOT RIVER NEAR FRANKLIN, WIS (LAT 42 52 25 LONG 087 59 45)									
Nov. 9, 1972	1130	6.5	46	1,000	Apr. 26, 1973	1145	12.5	82	945
Dec. 29, 1972	1115	0.0	23	1,300	May 30, 1973	1245	15.0	76	800
Feb. 2, 1973	1115	1.5	205	1,070	July 13, 1973	0915	23.0	12	1,200
Mar. 22, 1973	1100	5.0	48	1,300	Aug. 22, 1973	1545	21.5	8.0	1,100
Apr. 21, 1973	1900	16.0	3,590	330	Oct. 3, 1973	1845	17.0	30	90
Apr. 22, 1973	0815	15.0	1,810	400					
04087233 ROOT RIVER CANAL NEAR FRANKLIN, WIS (LAT 42 48 55 LONG 087 59 40)									
Nov. 9, 1972	1400	6.5	56	810	May 30, 1973	1115	11.0	75	750
Dec. 22, 1972	1200	0.0	18	1,140	July 12, 1973	1330	22.0	9.5	-
Feb. 1, 1973	1715	1.0	27	860	Aug. 2, 1973	1030	19.0	5.4	1,000
Mar. 22, 1973	1400	5.0	56	850	Aug. 22, 1973	1730	21.5	1.7	1,150
Apr. 22, 1973	1030	14.5	652	420	Oct. 3, 1973	1500	17.5	21	850
04087240 ROOT RIVER AT RACINE, WIS (LAT 42 45 05 LONG 087 49 25)									
Nov. 10, 1972	1000	6.5	172	930	Apr. 26, 1973	1545	12.5	537	660
Dec. 22, 1972	1030	0.0	74	1,220	May 30, 1973	1545	15.5	620	700
Feb. 1, 1973	1445	0.5	99	870	July 12, 1973	1145	21.0	32	-
Mar. 22, 1973	1345	6.0	217	900	Aug. 21, 1973	1145	20.5	10	1,000
Apr. 23, 1973	0630	14.0	3,520	-	Oct. 3, 1973	1645	17.0	129	-
04087257 PIKE RIVER NEAR RACINE, WIS (LAT 42 38 49 LONG 087 51 38)									
Nov. 9, 1972	1645	8.0	36	890	May 30, 1973	1730	14.0	57	810
Dec. 21, 1972	1515	0.5	15	980	July 11, 1973	1930	22.0	9.3	-
Feb. 1, 1973	1000	1.5	19	870	Aug. 1, 1973	1900	21.0	6.8	550
Mar. 22, 1973	1000	3.5	45	870	Aug. 21, 1973	1415	21.0	4.6	495
Apr. 22, 1973	0945	13.0	547	425					
ST. CROIX RIVER BASIN									
05333500 ST. CROIX RIVER NEAR DANBURY, WIS (LAT 46 04 28 LONG 092 14 50)									
Nov. 6, 1972	1400	5.0	2,010	120	May 10, 1973	1045	9.5	2,050	100
Dec. 28, 1972	1200	0.0	1,100	110	July 5, 1973	1315	25.0	1,130	130
Jan. 9, 1973	1200	0.0	1,070	110	Aug. 10, 1973	0945	21.0	1,850	140
Feb. 1, 1973	1200	0.0	1,160	100	Sept.14, 1973	1045	14.0	1,180	130
Mar. 21, 1973	1300	3.5	3,350	90					
05340500 ST. CROIX RIVER AT ST. CROIX FALLS, WIS (LAT 45 24 25 LONG 092 38 49)									
Oct. 11, 1972	1350	11.0	5,420	160	Mar. 29, 1973	1250	6.5	13,000	100
Nov. 15, 1972	1145	1.0	6,460	150	May 14, 1973	1320	12.0	7,390	140
Jan. 2, 1973	1125	1.5	4,610	200	July 9, 1973	1140	24.0	4,610	210
Feb. 6, 1973	1020	0.5	4,580	180					

MISCELLANEOUS ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

Date	Time	Water temperature (°C)	Discharge (cfs)	Specific conductance	Date	Time	Water temperature (°C)	Discharge (cfs)	Specific conductance
CHIPPEWA RIVER BASIN									
05356000 CHIPPEWA RIVER AT BISHOPS BRIDGE NEAR WINTER, WIS (LAT 45 50 57 LONG 091 04 44)									
Nov. 1, 1972	0915	5.0	920	70	May 7, 1973	1315	9.5	2,300	<50
Nov. 10, 1972	1125	4.0	1,910	90	Sept. 3, 1973	1340	21.5	1,220	70
Mar. 6, 1973	1100	2.0	323	100					
05356500 CHIPPEWA RIVER NEAR BRUCE, WIS (LAT 45 47 08 LONG 091 15 39)									
Oct. 30, 1972	1350	4.0	1,400	80	July 6, 1973	1115	23.0	876	90
Jan. 8, 1973	1230	0.0	1,790	90	July 11, 1973	1015	22.0	867	80
Apr. 3, 1973	1245	4.0	1,450	70	Aug. 14, 1973	1355	21.5	2,200	80
May 21, 1973	1315	12.0	1,740	80	Sept.28, 1973	1045	16.0	2,520	90
05358500 FLAMBEAU RIVER AT BABBS ISLAND, NEAR WINTER, WIS (LAT 45 46 07 LONG 090 45 41)									
Oct. 31, 1972	1430	4.0	1,340	120	July 11, 1973	1315	25.0	1,040	100
Nov. 10, 1972	1440	3.5	2,680	90	July 23, 1973	1210	22.0	939	110
Dec. 21, 1972	1350	0.0	1,210	100	Aug. 6, 1973	1110	21.5	778	100
Jan. 26, 1973	1045	0.0	1,180	90	Aug. 17, 1973	1100	23.0	1,010	110
Mar. 19, 1973	1330	2.0	1,710	90	Sept. 3, 1973	1215	23.0	997	100
May 7, 1973	1620	10.0	2,780	100	Sept.14, 1973	1300	18.0	789	100
June 27, 1973	0950	21.0	1,080	90					
05359500 SOUTH FORK FLAMBEAU RIVER NEAR PHILLIPS, WIS (LAT 45 42 08 LONG 090 36 58)									
Oct. 31, 1972	1340	4.0	765	110	June 26, 1973	1200	22.0	690	65
Dec. 21, 1972	1050	0.0	413	90	Aug. 6, 1973	1400	21.0	196	90
Jan. 26, 1973	1230	0.0	530	100	Aug. 17, 1973	1120	24.0	299	80
Mar. 19, 1973	1500	2.0	3,000	70	Sept.14, 1973	1000	17.5	274	100
05360500 FLAMBEAU RIVER NEAR BRUCE, WIS (LAT 45 22 21 LONG 091 12 34)									
Oct. 30, 1972	1130	5.0	2,370	80	May 21, 1973	1145	13.5	3,350	60
Jan. 8, 1973	0930	0.0	1,780	100	July 6, 1973	1540	22.5	1,680	80
Feb. 13, 1973	1040	0.0	1,120	90	Aug. 14, 1973	1015	22.0	905	100
Apr. 3, 1973	1130	3.5	3,120	80	Sept.28, 1973	1100	16.5	4,020	90
05362000 JUMP RIVER AT SHELDON, WIS (LAT 45 18 29 LONG 090 57 23)									
Oct. 20, 1972	1030	5.0	370	110	Apr. 30, 1973	1140	9.5	357	80
Nov. 20, 1972	1045	0.5	402	-	May 22, 1973	1545	15.0	490	80
Dec. 22, 1972	1200	0.0	149	100	June 28, 1973	1030	19.5	173	90
Jan. 25, 1973	1140	0.0	477	100	July 25, 1973	1330	26.0	73	160
Feb. 22, 1973	1150	0.0	122	180	Aug. 28, 1973	1220	21.5	63	-
Mar. 15, 1973	1350	2.0	12,700	<50	Sept.26, 1973	1030	17.5	249	130
Mar. 27, 1973	1410	3.5	1,330	90					
05365500 CHIPPEWA RIVER AT CHIPPEWA FALLS, WIS (LAT 44 55 35 LONG 091 24 33)									
Oct. 10, 1972	1010	11.5	10,500	95	Aug. 3, 1973	0840	24.0	273	150
Jan. 3, 1973	1415	0.5	7,480	110	Aug. 20, 1973	1030	22.5	4,300	140
Feb. 8, 1973	0920	0.0	5,780	130	Sept.28, 1973	1020	16.0	8,370	150
Mar. 29, 1973	1300	4.0	9,780	90					
05368000 HAY RIVER AT WHEELER, WIS (LAT 45 02 52 LONG 091 54 39)									
Oct. 12, 1972	1310	11.5	336	320	Apr. 23, 1973	1350	11.0	382	290
Nov. 14, 1972	1510	1.0	330	300	May 17, 1973	0820	10.0	354	290
Jan. 2, 1973	1200	0.0	268	310	June 25, 1973	0935	17.5	319	320
Feb. 7, 1973	1550	0.5	266	300	July 10, 1973	1400	23.5	242	340
Mar. 13, 1973	0950	4.5	3,590	140	Aug. 13, 1973	1225	18.5	218	340
Mar. 30, 1973	1000	9.0	405	150	Sept.24, 1973	1130	12.5	238	400

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Date	Time	Water temperature (°C)	Discharge (cfs)	Specific conductance	Date	Time	Water temperature (°C)	Discharge (cfs)	Specific conductance
CHIPPEWA RIVER BASIN--Continued									
05369000 RED CEDAR RIVER AT MENOMONIE, WIS (LAT 44 53 02 LONG 091 55 57)									
Oct. 12, 1972	1010	11.5	1,530	180	May 17, 1973	1015	13.5	2,930	180
Nov. 14, 1972	1300	1.5	3,860	200	May 30, 1973	1145	17.0	2,390	290
Jan. 2, 1973	1350	1.0	1,370	210	July 9, 1973	1300	24.0	1,890	220
Feb. 7, 1973	1000	0.5	2,410	210	Aug. 13, 1973	1505	20.5	1,330	220
Mar. 13, 1973	1530	1.5	10,700	160	Sept. 5, 1973	1030	21.0	1,930	200
Apr. 3, 1973	1340	7.5	2,470	170	Sept.24, 1973	1350	15.0	1,970	220
05369500 CHIPPEWA RIVER AT DURAND, WIS (LAT 44 37 40 LONG 091 58 10)									
Oct. 17, 1972	1500	7.0	10,900	110	May 18, 1973	1000	14.5	14,300	120
Nov. 16, 1972	0930	1.5	13,400	130	July 10, 1973	0810	24.0	5,780	140
Jan. 10, 1973	1200	0.0	7,910	130	July 24, 1973	1610	26.5	4,280	140
Mar. 14, 1973	1040	2.0	66,200	100	Aug. 20, 1973	1100	23.5	5,920	130
Mar. 28, 1973	1200	5.5	14,800	110	Sept.26, 1973	0830	16.0	6,840	150
05370000 EAU GALLE RIVER AT SPRING VALLEY, WIS (LAT 44 51 10 LONG 092 14 17)									
Oct. 12, 1972	1140	12.0	15	320	Apr. 3, 1973	1210	3.5	22	240
Nov. 16, 1972	1350	3.5	16	380	May 17, 1973	1110	15.0	34	260
Dec. 19, 1972	1140	3.0	27	420	Sept.25, 1973	1130	15.0	11	340
Mar. 11, 1973	1450	2.0	1,780	190					
TREMPEALEAU RIVER BASIN									
05379400 TREMPEALEAU RIVER AT ARCADIA, WIS (LAT 44 15 15 LONG 091 30 25)									
Oct. 2, 1972	1100	14.5	403	225	Mar. 13, 1973	1440	6.0	3,090	140
Nov. 15, 1972	1125	1.5	537	230	Apr. 4, 1973	0700	-	814	-
Jan. 3, 1973	1425	0.0	570	-	June 29, 1973	1135	15.0	545	270
Feb. 16, 1973	1020	0.0	190	365	Aug. 29, 1973	1645	26.0	466	230
Mar. 12, 1973	1605	4.5	4,400	115					
05379500 TREMPEALEAU RIVER AT DODGE, WIS (LAT 44 07 55 LONG 091 33 14)									
Oct. 11, 1972	1420	11.5	570	275	Apr. 4, 1973	1240	-	870	-
Nov. 14, 1972	1630	2.0	597	260	May 23, 1973	1500	15.0	838	230
Jan. 3, 1973	1230	0.0	630	-	June 29, 1973	1115	16.0	603	320
Feb. 16, 1973	1510	0.0	338	265	Aug. 30, 1973	0935	23.5	512	270
Mar. 12, 1973	1810	3.0	5,330	120					
BLACK RIVER BASIN									
05381000 BLACK RIVER AT NEILLSVILLE, WIS (LAT 44 33 35 LONG 090 36 54)									
Oct. 18, 1972	1300	8.0	236	200	Mar. 12, 1973	1235	3.5	15,800	130
Nov. 14, 1972	1230	2.0	561	140	May 7, 1973	1315	5.5	1,630	95
Dec. 19, 1972	1510	0.0	112	200	June 21, 1973	1300	-	173	-
Jan. 29, 1973	1315	0.0	338	250	Aug. 16, 1973	1210	24.0	70	200
Mar. 7, 1973	1545	2.0	12,700	150					
05382000 BLACK RIVER NEAR GALESVILLE, WIS (LAT 44 03 42 LONG 091 17 30)									
Oct. 11, 1972	1100	-	2,140	-	May 23, 1973	1040	14.0	2,160	85
Nov. 14, 1972	1300	-	2,280	-	June 12, 1973	0820	-	1,700	-
Jan. 17, 1973	1130	0.0	1,600	-	June 27, 1973	1320	-	1,460	-
Feb. 15, 1973	1655	0.0	864	100	July 31, 1973	1505	-	714	-
Mar. 13, 1973	1050	2.0	34,400	60	Aug. 30, 1973	1225	25.0	740	135
Apr. 3, 1973	1310	-	2,410	-	Sept.13, 1973	1205	-	690	-

MISCELLANEOUS ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

Date	Time	Water temperature (°C)	Discharge (cfs)	Specific conductance	Date	Time	Water temperature (°C)	Discharge (cfs)	Specific conductance
WISCONSIN RIVER BASIN									
05391000 WISCONSIN RIVER AT RAINBOW LAKE, NEAR LAKE TOMAHAWK, WIS (LAT 45 49 58 LONG 089 32 51)									
Oct. 5, 1972	1245	12.0	1,530	70	May 3, 1973	1430	4.0	2,260	50
Nov. 13, 1972	1545	3.5	1,390	-	June 7, 1973	1330	15.0	1,000	75
Jan. 3, 1973	1430	0.5	1,070	80	July 25, 1973	1200	22.0	580	120
Feb. 14, 1973	1420	0.5	1,010	140	Sept. 7, 1973	1400	21.0	818	180
Mar. 15, 1973	1315	1.5	292	75					
05393500 SPIRIT RIVER AT SPIRIT FALLS, WIS (LAT 45 26 58 LONG 089 58 47)									
Oct. 2, 1972	1445	12.0	195	75	Apr. 20, 1973	1330	6.5	345	50
Oct. 31, 1972	1245	2.0	85	75	May 2, 1973	1445	6.0	2,240	50
Dec. 12, 1972	1430	0.0	29	140	June 4, 1973	1500	21.0	80	140
Jan. 23, 1973	1445	0.0	82	220	July 16, 1973	1545	10.5	7.0	180
Mar. 15, 1973	1415	2.0	1,650	50	Aug. 15, 1973	1615	20.5	15	150
05394500 PRAIRIE RIVER NEAR MERRILL, WIS (LAT 45 14 09 LONG 089 38 59)									
Oct. 24, 1972	1500	3.0	335	120	Apr. 16, 1973	1300	6.5	1,230	70
Nov. 28, 1972	1130	0.0	134	150	May 14, 1973	1530	7.0	384	100
Dec. 21, 1972	1530	0.0	124	200	June 20, 1973	1115	-	132	-
Jan. 18, 1973	1445	0.0	175	280	July 26, 1973	1130	19.5	107	200
Feb. 22, 1973	1445	0.5	107	220	Aug. 21, 1973	1530	20.5	144	150
Mar. 14, 1973	1315	1.5	2,080	50	Sept.25, 1973	1515	15.5	139	225
05395000 WISCONSIN RIVER AT MERRILL, WIS (LAT 45 10 41 LONG 089 40 52)									
Oct. 26, 1972	1200	7.0	4,220	200	Apr. 6, 1973	1200	12.0	4,770	120
Dec. 13, 1972	1530	0.0	2,800	250	Apr. 17, 1973	1600	7.0	15,800	120
Jan. 16, 1973	1445	0.5	2,750	195	June 4, 1973	1030	15.0	4,700	120
Feb. 22, 1973	1100	0.5	969	200	July 30, 1973	1130	22.0	1,910	195
Mar. 14, 1973	0900	2.0	13,370	120	Sept. 5, 1973	1515	22.0	3,350	150
05397500 EAU CLAIRE RIVER AT KELLY, WIS (LAT 44 55 06 LONG 089 33 00)									
Oct. 12, 1972	1445	13.0	311	180	Mar. 14, 1973	1600	3.0	4,390	50
Nov. 8, 1972	1500	5.0	597	140	Apr. 16, 1973	1645	5.5	2,980	100
Dec. 12, 1972	1300	0.0	144	280	May 14, 1973	1230	8.5	614	180
Jan. 18, 1973	1130	0.0	184	280	June 27, 1973	1500	22.5	164	300
Feb. 9, 1973	1330	0.0	138	360	Aug. 1, 1973	1400	20.0	119	300
Mar. 9, 1973	1400	0.5	2,960	80	Sept. 7, 1973	1200	17.0	168	260
05398000 WISCONSIN RIVER AT ROTHSCHILD, WIS (LAT 44 53 09 LONG 089 38 05)									
Oct. 30, 1972	1230	5.5	3,650	170	June 27, 1973	1300	22.0	3,290	220
Mar. 15, 1973	1315	3.5	37,900	140	Aug. 14, 1973	1230	19.5	2,450	260
May 9, 1973	1145	-	17,300	-					
05399500 BIG EAU PLEINE RIVER NEAR STRATFORD, WIS (LAT 44 49 19 LONG 090 04 46)									
Oct. 30, 1972	1345	3.0	81	180	Apr. 19, 1973	1215	7.0	397	95
Dec. 19, 1972	1230	0.0	24	280	May 31, 1973	1115	17.0	277	140
Jan. 24, 1973	1330	0.0	125	300	July 13, 1973	1215	22.0	5.0	240
Mar. 2, 1973	1415	0.0	32	100	Aug. 17, 1973	1100	26.5	16	220
Mar. 7, 1973	1245	1.0	4,300	100					
05400600 LITTLE PLOVER RIVER NEAR ARNOTT, WIS (LAT 44 28 05 LONG 089 29 20)									
Oct. 16, 1972	1230	9.0	5.5	320	Apr. 11, 1973	1030	5.0	8.6	260
Nov. 9, 1972	1315	7.0	6.9	375	Apr. 16, 1973	1400	5.5	39	265
Dec. 19, 1972	1145	1.0	5.7	460	June 5, 1973	1345	17.0	19	280
Jan. 29, 1973	1130	1.5	5.2	280	July 17, 1973	1230	14.5	8.8	330
Mar. 5, 1973	1030	3.5	6.5	340	Aug. 10, 1973	1345	16.0	8.9	360
05400650 LITTLE PLOVER RIVER AT PLOVER, WIS (LAT 44 28 26 LONG 089 31 44)									
Oct. 16, 1972	1130	8.0	14	300	Apr. 11, 1973	1200	7.0	20	280
Oct. 26, 1972	1215	9.0	17	415	Apr. 16, 1973	1145	5.5	52	200
Nov. 9, 1972	1130	6.5	16	355	June 5, 1973	1145	15.0	57	220
Dec. 19, 1972	1100	1.0	13	400	July 17, 1973	1400	15.0	18	300
Jan. 29, 1973	1230	2.0	12	410	Aug. 10, 1973	1115	14.0	18	320
Mar. 5, 1973	1145	4.0	14	260					

MISCELLANEOUS ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

WISCONSIN RIVER BASIN--Continued

05401020 TENMILE CREEK DITCH 5 NEAR BANCROFT, WIS (LAT 44 18 08 LONG 089 32 59)

Date	Time	Water temperature (°C)	Discharge (cfs)	Specific conductance	Date	Time	Water temperature (°C)	Discharge (cfs)	Specific conductance
Oct. 16, 1972	1445	9.0	11	300	Apr. 11, 1973	1530	4.5	14	-
Oct. 31, 1972	1400	6.5	12	315	Apr. 16, 1973	1230	6.5	38	215
Nov. 9, 1972	1445	6.5	14	340	May 10, 1973	1530	-	27	-
Dec. 19, 1972	1345	1.5	9.8	410	June 5, 1973	1445	17.0	25	350
Jan. 29, 1973	1400	3.0	12	410	July 18, 1973	1445	18.0	6.8	325
Mar. 5, 1973	1315	3.0	18	200	Aug. 28, 1973	1200	18.0	5.2	320

05401050 TENMILE CREEK NEAR NEKOOSA, WIS (LAT 44 15 44 LONG 089 48 38)

Oct. 17, 1972	1515	8.0	101	300	Mar. 13, 1973	0845	4.0	316	200
Nov. 10, 1972	1245	7.0	106	330	Apr. 12, 1973	1345	5.5	149	220
Dec. 20, 1972	1000	0.5	71	360	June 5, 1973	1445	17.0	178	320
Jan. 30, 1973	1100	0.5	71	380	July 19, 1973	1145	15.5	69	340
Mar. 5, 1973	1645	3.5	99	260	Aug. 29, 1973	1030	15.5	51	260

05401100 FOURTEENMILE CREEK NEAR NEW ROME, WIS (LAT 44 12 15 LONG 089 48 29)

Oct. 5, 1972	1230	12.0	172	200	Mar. 6, 1973	1015	3.0	40	340
Oct. 5, 1972	1500	-	204	-	Apr. 12, 1973	1200	4.5	98	240
Oct. 17, 1972	1400	9.0	96	240	June 5, 1973	1330	-	118	-
Nov. 10, 1972	1200	6.0	177	350	July 19, 1973	1015	23.5	31	320
Dec. 20, 1972	1100	2.0	47	430	Aug. 28, 1973	1530	23.5	15	710
Jan. 30, 1973	0945	7.0	67	400					

05401535 BIG ROCHE A CRI CREEK NEAR ADAMS, WIS (LAT 44 05 52 LONG 089 46 30)

Oct. 2, 1972	1630	11.5	160	250	Mar. 13, 1973	1115	4.0	281	140
Nov. 10, 1972	1030	6.5	93	270	Apr. 12, 1973	0945	4.0	117	150
Dec. 19, 1972	1600	1.0	69	300	June 5, 1973	1145	15.0	125	280
Jan. 30, 1973	1000	1.0	68	350	July 18, 1973	1815	18.0	61	305
Mar. 5, 1973	1545	3.5	89	180	Aug. 28, 1973	1545	18.5	53	470

05402000 YELLOW RIVER AT BABOCK, WIS (LAT 44 18 05 LONG 090 07 15)

Oct. 18, 1972	1015	7.0	55	100	Apr. 12, 1973	1600	6.0	107	85
Nov. 10, 1972	1510	5.5	433	140	June 8, 1973	1325	21.0	165	120
Dec. 20, 1972	0945	0.0	15	300	July 19, 1973	1415	21.0	12	130
Jan. 29, 1973	1555	0.0	83	210	Aug. 29, 1973	1250	23.0	12	150
Mar. 8, 1973	1000	3.5	6,750	90					

05403500 LEMONWEIR RIVER AT NEW LISBON, WIS (LAT 43 52 47 LONG 090 09 40)

Oct. 12, 1972	1400	10.0	669	120	May 24, 1973	1100	15.0	630	105
Mar. 9, 1973	1230	0.5	2,340	80	July 11, 1973	1645	-	163	145
Mar. 13, 1973	1445	3.0	3,560	-	Sept. 5, 1973	1530	-	280	190
Apr. 5, 1973	1015	5.5	963	135					

05403630 HULBURT CREEK NEAR WISCONSIN DELLS, WIS (LAT 43 37 37 LONG 089 48 36)

Oct. 17, 1972	1115	4.5	5.2	110	Apr. 5, 1973	1500	9.5	9.4	80
Nov. 16, 1972	1600	2.0	5.2	105	June 1, 1973	1115	16.0	10	115
Jan. 9, 1973	0930	-	4.1	110	July 12, 1973	1115	19.-	4.5	110
Feb. 2, 1973	1400	0.5	20	85	Sept. 6, 1973	1430	16.5	4.1	130

05404000 WISCONSIN RIVER NEAR WISCONSIN DELLS, WIS (LAT 43 36 22 LONG 089 45 25)

Oct. 16, 1972	1200	10.0	8,670	140	June 1, 1973	1615	19.5	26,700	90
Mar. 12, 1973	1900	2.0	45,100	180	July 10, 1973	1500	26.0	6,140	120
Apr. 11, 1973	1530	4.5	14,400	125					

05405000 BARABOO RIVER NEAR BARABOO, WIS (LAT 43 28 51 LONG 089 38 09)

Oct. 16, 1972	1515	9.5	309	360	Apr. 17, 1973	1915	9.5	4,120	170
Nov. 21, 1972	1515	1.5	309	380	May 31, 1973	2045	12.5	1,840	-
Jan. 9, 1973	1345	0.0	278	340	July 5, 1973	1515	23.0	376	325
Feb. 13, 1973	1115	0.0	280	-	Sept. 6, 1973	1630	20.0	622	310
Apr. 6, 1973	1300	6.5	834	320					

MISCELLANEOUS ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

Date	Time	Water temperature (°C)	Discharge (cfs)	Specific conductance	Date	Time	Water temperature (°C)	Discharge (cfs)	Specific conductance
WISCONSIN RIVER BASIN--Continued									
05406500 BLACK EARTH CREEK AT BLACK EARTH, WIS (LAT 43 08 03 LONG 089 43 56)									
Nov. 22, 1972	1145	4.5	29	550	May 19, 1973	1200	12.5	95	505
Jan. 11, 1973	1545	-	25	525	July 13, 1973	1415	20.0	36	540
Feb. 28, 1973	1645	6.0	30	510	July 27, 1973	1315	18.5	41	-
Mar. 7, 1973	1515	6.5	431	140	Sept. 4, 1973	1445	18.5	41	345
Apr. 13, 1973	1445	10.5	56	540					
05406640 OTTER CREEK NEAR HIGHLAND, WIS (LAT 43 01 40 LONG 090 16 40)									
Nov. 3, 1972	1200	8.0	9.4	-	May 22, 1973	1745	10.5	24	560
Dec. 13, 1972	1500	2.5	7.4	490	June 28, 1973	1730	19.5	17	510
Mar. 8, 1973	1120	4.0	51	380	Aug. 22, 1973	1030	20.0	9.3	480
05407000 WISCONSIN RIVER AT MUSCODA, WIS (LAT 43 11 54 LONG 090 26 26)									
Jan. 16, 1973	1530	0.0	9,720	250	July 17, 1973	1415	25.5	7,600	220
05410000 KICKAPOO RIVER AT GAYS MILLS, WIS (LAT 43 19 10 LONG 090 51 08)									
Nov. 3, 1972	1045	7.0	702	275	June 27, 1973	1215	19.0	628	590
Mar. 5, 1973	1200	4.5	691	355	Aug. 27, 1973	1400	17.5	545	450
Mar. 14, 1973	1545	8.0	2,130	-					
05410500 KICKAPOO RIVER AT STEUBEN, WIS (LAT 43 11 27 LONG 090 52 28)									
Nov. 3, 1972	1300	7.5	758	300	Mar. 5, 1973	1615	4.5	741	350
Jan. 24, 1973	1345	0.5	548	-	Mar. 14, 1973	1800	8.0	1,950	<50
GRANT RIVER BASIN									
05413500 GRANT RIVER AT BURTON, WIS (LAT 42 43 13 LONG 090 49 09)									
Oct. 31, 1972	1300	6.5	220	615	June 28, 1973	1115	16.5	336	655
Dec. 15, 1972	1215	0.5	173	655	Aug. 1, 1973	1430	23.0	247	-
Mar. 8, 1973	0930	4.0	375	-	Aug. 30, 1973	1115	22.0	245	540
Mar. 11, 1973	1515	9.0	964	350	Sept. 5, 1973	1345	19.0	212	-
PLATTE RIVER BASIN									
05414000 PLATTE RIVER NEAR ROCKVILLE, WIS (LAT 42 43 52 LONG 090 38 25)									
Oct. 5, 1972	1215	7.0	92	-	Mar. 11, 1973	1330	8.0	508	350
Oct. 31, 1972	1530	8.0	118	580	Aug. 20, 1973	1315	21.0	103	570
Mar. 8, 1973	0915	10.0	269	-	Sept. 5, 1973	1450	22.5	127	-
GALENA RIVER BASIN									
05415000 GALENA RIVER AT BUNCOMBE, WIS (LAT 42 30 49 LONG 090 22 40)									
Nov. 1, 1972	0945	7.0	127	800	Mar. 11, 1973	1745	9.0	450	470
Dec. 18, 1972	1545	0.5	78	830	Mar. 12, 1973	0945	7.5	253	650
Jan. 25, 1973	1600	0.5	109	-	May 23, 1973	1345	14.5	203	745
Mar. 6, 1973	1200	5.5	118	885	Aug. 22, 1973	1430	18.5	74	-
ROCK RIVER BASIN									
05426000 CRAWFISH RIVER AT MILFORD, WIS (LAT 43 06 00 LONG 088 50 58)									
Oct. 16, 1972	1015	9.5	806	580	Apr. 3, 1973	1015	6.0	1,390	530
Nov. 27, 1972	0915	0.5	475	610	May 18, 1973	1015	13.5	2,050	510
Jan. 15, 1973	1015	0.0	390	710	July 6, 1973	1045	25.0	163	650
Mar. 2, 1973	1230	0.5	619	600	Aug. 20, 1973	0915	21.0	143	490

MISCELLANEOUS ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

Date	Time	Water temperature (°C)	Discharge (cfs)	Specific conductance	Date	Time	Water temperature (°C)	Discharge (cfs)	Specific conductance
ROCK RIVER BASIN--Continued									
05429500 YAHARA RIVER NEAR MC FARLAND, WIS (LAT 43 00 32 LONG 089 18 18)									
Oct. 12, 1972	1030	14.0	131	400	Mar. 8, 1973	1700	4.5	482	440
Oct. 26, 1972	1015	8.0	153	400	Apr. 12, 1973	1500	6.0	429	455
Nov. 10, 1972	1530	6.0	172	445	May 16, 1973	1245	12.0	454	460
Nov. 21, 1972	1045	3.5	172	440	May 31, 1973	1145	19.5	346	675
Dec. 12, 1972	1130	0.0	125	460	June 13, 1973	1545	25.5	228	430
Dec. 29, 1972	1430	0.5	171	480	July 24, 1973	1145	24.0	210	425
Jan. 12, 1973	1445	1.5	154	510	Aug. 8, 1973	1130	23.5	199	425
Feb. 8, 1973	1430	3.5	203	445	Aug. 31, 1973	1400	26.0	152	405
Mar. 1, 1973	1530	3.0	254	465	Sept.17, 1973	1030	18.0	151	420
05430500 ROCK RIVER AT AFTON, WIS (LAT 42 56 33 LONG 089 04 14)									
Nov. 8, 1972	1230	6.5	4,390	670	Apr. 23, 1973	1500	15.5	7,630	515
Dec. 29, 1972	1145	1.4	1,130	750	May 9, 1973	1730	14.0	9,390	520
Jan. 30, 1973	1200	0.0	3,430	640	July 11, 1973	1915	26.0	2,130	650
Mar. 9, 1973	1215	4.0	5,410	610	Aug. 23, 1973	1330	19.5	1,080	640
Mar. 19, 1973	1230	4.0	8,190	440					
05431500 TURTLE CREEK NEAR CLINTON, WIS (LAT 42 35 47 LONG 088 51 50)									
Nov. 8, 1972	1515	6.5	257	670	May 10, 1973	1115	14.0	464	580
Dec. 20, 1972	1230	0.0	128	740	May 31, 1973	1600	18.5	357	645
Jan. 30, 1973	1460	0.0	217	710	June 30, 1973	1245	20.0	154	-
Mar. 7, 1973	1500	8.0	1,710	250	July 11, 1973	1515	24.5	146	680
Mar. 9, 1973	1600	4.5	413	540	Aug. 22, 1973	1630	21.0	100	720
May 2, 1973	1315	13.0	2,030	385					
05432500 PECATONICA RIVER AT DARLINGTON, WIS (LAT 42 40 40 LONG 090 07 07)									
Nov. 1, 1972	1215	-	217	650	May 23, 1973	1700	14.5	464	645
Dec. 13, 1972	1215	0.5	125	370	Aug. 23, 1973	1045	17.5	205	620
Jan. 25, 1973	1200	0.5	287	-					
05433000 EAST BRANCH PECATONICA RIVER NEAR BLANCHARDVILLE, WIS (LAT 42 47 10 LONG 089 51 40)									
Nov. 1, 1972	1500	7.0	138	540	Mar. 6, 1973	1715	0.5	188	480
Dec. 19, 1972	1330	0.5	99	540	May 24, 1973	1030	14.5	380	545
05434500 PECATONICA RIVER AT MARTINTOWN, WIS (LAT 42 30 34 LONG 089 47 58)									
Nov. 2, 1972	-	-	1,180	615	May 23, 1973	1000	14.5	2,080	470
May 9, 1973	1200	13.0	370						
05436500 SUGAR RIVER NEAR BRODHEAD, WIS (LAT 42 36 42 LONG 089 23 53)									
Nov. 2, 1972	1000	7.5	417	540	May 2, 1973	1730	13.0	3,090	305
Dec. 8, 1972	1030	0.5	252	560	May 24, 1973	1700	17.5	708	600
Jan. 26, 1973	1515	1.0	439	-	Aug. 23, 1973	1330	19.0	296	520
Mar. 19, 1973	1500	5.5	711	550					
ILLINOIS RIVER BASIN									
05543830 FOX RIVER AT WAUKESHA, WIS (LAT 43 00 17 LONG 088 14 37)									
Nov. 8, 1972	1130	6.1	186	820	Apr. 22, 1973	1700	17.0	2,240	360
Dec. 28, 1972	1215	0.5	70	1,080	Apr. 25, 1973	1845	14.5	609	575
Feb. 5, 1973	1215	1.0	292	585	June 1, 1973	1130	19.5	290	650
Feb. 13, 1973	1415	1.2	109	820	July 12, 1973	1130	22.0	53	740
Mar. 21, 1973	1015	3.5	208	760	Aug. 21, 1973	1245	23.0	14	970
Apr. 21, 1973	1800	14.5	1,640	370					
05546500 FOX RIVER AT WILMOT, WIS (LAT 42 30 40 LONG 088 10 45)									
Mar. 22, 1973	1200	7.0	1,460	720	Apr. 23, 1973	1315	17.0	6,610	-
Apr. 23, 1973	1045	-	6,560	350	Apr. 27, 1973	1215	15.5	4,590	460

SEDIMENT ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
STREAMS TRIBUTARY TO LAKE SUPERIOR					
04024300 - NEMADJI RIVER NR. BOREA, WIS. (LAT 46 34 41 LONG 092 10 54)					
JULY, 1973					
02...	1315	--	64	31	5.4
AUG.					
10...	1025	19.0	366	196	194
SEP.					
13...	1145	14.5	72	52	10
04024325 - BALSAM CREEK NR. PATZAU, WIS. (LAT 46 33 28 LONG 092 11 54)					
JULY, 1973					
02...	1400	--	7.5	25	.51
04024387 - BLACK RIVER NR. BOYLSTON, WIS. (LAT 46 34 44 LONG 092 08 24)					
JULY, 1973					
03...	1230	--	18	14	.71
AUG.					
10...	1140	19.0	199	80	43
SEP.					
13...	1230	13.5	12	13	.44
04024430 - NEMADJI RIVER NR. SOUTH SUPERIOR, WIS. (LAT 46 38 00 LONG 092 05 38)					
JULY, 1973					
02...	1130	--	108	36	10
AUG.					
10...	1400	20.0	670	194	351
SEP.					
13...	1330	15.0	96	23	6.0

DATE	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM
SEP.						
13...	0	4	74	96	99	100

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
04025500 - BOIS BRULE RIVER AT BRULE, WIS. (LAT 46 32 16 LONG 091 35 43)					
NOV., 1972					
02...	1300	5.6	234	19	12
JAN., 1973					
11...	1010	.0	630	4	6.8
31...	1030	.0	156	5	2.1
MAR.					
12...	1530	--	236	32	20
15...	0915	--	285	20	15
20...	1300	4.5	302	33	27
MAY					
10...	0930	9.0	259	19	13
JULY					
05...	1045	17.0	135	7	2.6
AUG.					
07...	1[illegible]	18.0	190	26	13
07...	1[illegible]	20.0	218	46	27
08...	1[illegible]	19.0	272	198	145
SEP.					
18...	0930	12.0	145	4	1.6
18...	1130	14.0	145	6	2.3

SEDIMENT ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

STREAMS TRIBUTARY TO LAKE SUPERIOR--Continued

04025500 BOIS BRULE RIVER AT BRULE, WIS.--Continued

DATE	TIME	TEMPER-ATURE (DEG C)	INSTAN-TANEOUS DIS-CHARGE (CFS)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM
SEP.												
18...	0930	12.0	150	0	1	12	14	14	14	14	16	31

DATE	TIME	TEMPER-ATURE (DEG C)	INSTAN-TANEOUS DIS-CHARGE (CFS)	SUS-PENDED SEDI-MENT (MG/L)	SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY)
04026005 - BOIS BRULE RIVER NR. LAKE SUPERIOR, WIS. (LAT 46 42 20 LONG 091 36 07)					
NOV., 1972					
02...	1040	4.0	338	76	69
FEB., 1973					
15...	1245	1.0	159	14	6.0
MAR.					
13...	1715	--	468	84	106
14...	1035	--	535	100	144
15...	1045	--	702	254	481
MAY					
09...	1530	12.5	268	15	11
16...	1345	--	221	20	12
JULY					
05...	1030	18.5	154	18	7.5

DATE	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	SUS. SED. SIEVE DIAM. % FINER THAN .125 MM	SUS. SED. SIEVE DIAM. % FINER THAN .250 MM	SUS. SED. SIEVE DIAM. % FINER THAN .500 MM
MAR.						
13...	46	51	56	61	75	81

DATE	TIME	INSTAN-TANEOUS DIS-CHARGE (CFS)	SUS-PENDED SEDI-MENT (MG/L)	SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM
MAR.							
13...	1715	468	84	106	30	36	41

DATE	TIME	TEMPER-ATURE (DEG C)	INSTAN-TANEOUS DIS-CHARGE (CFS)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM
NOV.												
02...	1200	--	--	2	22	40	46	52	54	56	64	65
SEP.												
18...	1130	10.0	153	0	0	1	1	2	2	2	2	2

SEDIMENT ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

STREAMS TRIBUTARY TO LAKE SUPERIOR--Continued

04026300 - SIOUX RIVER NR. WASHBURN, WIS. (LAT 46 41 20 LONG 090 57 02)

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
MAR., 1973					
14...	1500	--	150	70	28

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM
MAR.							
14...	1500	150	106	43	20	26	32

DATE	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	SUS. SED. SIEVE DIAM. % FINER THAN .125 MM	SUS. SED. SIEVE DIAM. % FINER THAN .250 MM	SUS. SED. SIEVE DIAM. % FINER THAN .500 MM
MAR.						
14...	36	40	44	49	54	62

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)

04026870 - ALDER CREEK NR. UPSON, WIS. (LAT 46 23 09 LONG 090 24 30)

NOV., 1972					
01...	1250	38.0	7.4	2	.04
08...	1615	33.0	148	3	1.2
JAN., 1973					
11...	1400	.0	14	4	.15
30...	1000	.0	15	1	.04
MAR.					
20...	1415	.5	78	4	.84
APR.					
05...	1440	2.0	41	2	.22
MAY					
08...	1415	10.5	86	6	1.4
JUNE					
15...	1010	21.0	22	6	.36
AUG.					
07...	1620	22.5	6.8	7	.13
SEP.					
18...	1005	10.5	1.5	2	.01

DATE	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM
AUG.						
07...	22.5	6.8	6	57	99	100

SEDIMENT ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

STREAMS TRIBUTARY TO LAKE SUPERIOR--Continued

04027000 - BAD RIVER NR. ODANAH, WIS. (LAT 46 29 15 LONG 090 41 45)

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
NOV., 1972					
09...	1450	--	1833	40	198
JAN., 1973					
11...	1225	.0	280	283	214
30...	1210	.0	296	8	6.4
APR.					
05...	1310	3.5	1410	373	1420
20...	1320	--	1473	71	282
28...	1022	--	615	12	20
MAY					
05...	0950	--	2714	198	1450
08...	1700	15.0	1600	85	367
16...	1700	--	980	0	1.9
19...	1410	--	736	14	28
28...	1915	--	1347	34	124
JUNE					
02...	1333	--	635	14	24
06...	1212	--	1948	62	326
11...	1203	--	726	14	27
16...	1156	--	321	10	8.7
23...	1128	--	255	9	6.2
JULY					
03...	1315	25.0	218	7	4.1
15...	1215	--	660	17	30
AUG.					
08...	1320	19.5	1804	1920	9350
12...	1330	--	781	40	84
26...	1540	--	671	9	16
SEP.					
15...	1040	--	181	6	2.9
19...	1245	11.5	154	34	14
29...	0910	--	615	17	28

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM
MAY										
16...	1700	11.0	980	1	10	78	98	99	99	100

STREAMS TRIBUTARY TO LAKE MICHIGAN

04064500 - PINE R BELOW PINE R PWRPLANT NR. FLORENCE, WIS. (LAT 45 58 16 LONG 088 13 31)

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
MAR., 1973					
23...	1000	--	1310	10	35

04071000 - OCONTO RIVER NR. GILLETT, WIS. (LAT 44 51 53 LONG 088 18 00)

NOV., 1972					
29...	--	--	543	2	2.9
DEC.					
28...	--	--	497	2	2.7
JAN., 1973					
26...	1100	--	672	3	5.4
FEB.					
26...	1325	--	427	1	1.2
APR.					
27...	1300	8.5	1460	6	24
MAY					
29...	1530	--	3100	20	167
JUNE					
29...	1245	17.5	820	13	29
JULY					
31...	1710	--	521	1	1.4
AUG.					
28...	1620	--	542	1	1.5
SEP.					
27...	1325	--	600	1	1.6

SEDIMENT ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

STREAMS TRIBUTARY TO LAKE MICHIGAN--Continued

04071858 - PENSAUKEE RIVER NR. PENSAUKEE, WIS. (LAT 44 49 09 LONG 087 57 15)

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
OCT., 1972					
07...	1430	--	56	17	2.6
14...	1450	--	25	16	1.1
21...	1408	--	18	14	.68
28...	1300	--	100	14	3.8
NOV.					
04...	1500	--	224	2	1.2
11...	1500	--	102	2	.55
14...	1615	--	62	22	3.7
18...	1400	--	42	3	.34
25...	1530	--	30	3	.24
DEC.					
05...	1530	--	19	16	.82
JAN., 1973					
10...	1330	--	50	2	.27
FEB.					
06...	1600	--	115	2	.62
MAR.					
08...	1015	--	2330	41	258
08...	1140	--	1340	42	152
08...	1240	--	1340	44	159
08...	1340	--	1340	45	163
08...	1445	--	1340	58	210
09...	0905	--	1670	22	99
09...	1320	--	1670	30	135
10...	1000	--	934	45	113
11...	1230	--	1340	53	192
11...	1400	--	1340	47	170
11...	1430	--	1340	50	181
11...	1630	--	1340	44	159
12...	0830	--	1730	35	163
13...	1340	--	1060	67	192
14...	1600	--	961	31	80
15...	1045	--	1190	21	67
15...	1650	--	1190	20	64
23...	1300	--	137	7	2.6
31...	1540	--	69	6	1.1
APR.					
04...	1400	--	273	20	15
10...	1620	--	126	8	2.7
14...	1000	--	457	43	53
14...	1505	--	457	37	46
16...	1150	--	753	93	189
16...	1800	--	753	44	89
17...	0830	--	1260	22	75
17...	1230	--	1260	20	68
17...	1500	--	1260	18	61
20...	1515	--	319	56	48
28...	1545	--	93	18	4.5
MAY					
02...	1500	--	720	64	124
05...	1700	--	359	8	7.8
08...	1000	--	1270	32	110
09...	0800	--	1420	22	84
12...	1600	--	454	17	21
19...	1600	--	98	6	1.6
28...	1400	--	1910	64	330
28...	1800	--	1910	62	320
29...	0800	--	2840	54	414
29...	1100	--	2650	48	343
29...	1220	--	2840	50	383
29...	1305	--	2840	44	337
29...	1500	--	2840	43	330
29...	1830	--	2840	32	245
30...	0930	--	1650	20	89
30...	1600	--	1650	20	89
JUNE					
02...	1305	--	379	22	23
09...	0910	--	68	8	1.5
16...	1400	--	38	7	.72
23...	1140	--	25	10	.67
30...	0905	--	32	18	1.6

SEDIMENT ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

STREAMS TRIBUTARY TO LAKE MICHIGAN--Continued

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
04071858 - PENSAUKEE RIVER NR. PENSAUKEE, WIS. (LAT 44 49 09 LONG 087 57 15)					
JULY					
08...	1020	--	12	18	.58
14...	1755	--	16	16	.69
21...	0905	--	8.4	20	.45
28...	1550	--	11	20	.59
31...	1500	--	11	17	.50
AUG.					
04...	1455	--	7.6	7	.14
11...	1015	--	15	10	.40
19...	1005	--	9.9	16	.43
25...	1000	--	9.9	2	.05
SEP.					
01...	0955	--	6.2	11	.18
08...	1000	--	6.5	10	.18
13...	1530	--	5.9	5	.08
15...	1320	--	5.7	2	.03
22...	1300	--	17	5	.23
23...	1440	--	25	4	.27
30...	1610	--	14	2	.08
04072500 - SILVER LAKE AT PORTAGE, WIS. (LAT 43 33 10 LONG 089 07 58)					
MAR., 1973					
07...	1750	--	26	18	1.3
04072750 - LAWRENCE CREEK NR. WESTFIELD, WIS. (LAT 43 53 52 LONG 089 34 43)					
MAR., 1973					
07...	1750	--	27	18	1.3
04073050 - GRAND RIVER NR. KINGSTON, WIS. (LAT 43 41 09 LONG 089 05 09)					
OCT., 1972					
19...	1240	--	51	12	1.7
JAN., 1973					
19...	1245	.0	370	84	84
MAR.					
01...	1400	--	51	11	1.5
07...	1520	--	1030	412	1150
09...	1030	--	538	129	187
13...	0945	4.0	269	23	17
APR.					
06...	1045	--	137	32	12
MAY					
17...	1230	12.5	116	24	7.5
JULY					
10...	0930	22.0	45	22	2.7
AUG.					
28...	1035	24.0	31	22	1.9

DATE	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	SUS. SED. SIEVE DIAM. % FINER THAN .125 MM	SUS. SED. SIEVE DIAM. % FINER THAN .250 MM
MAR.											
07...	1030	394	1100	72	86	94	97	99	99	99	100

SEDIMENT ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
STREAMS TRIBUTARY TO LAKE MICHIGAN--Continued					
04073500 - FOX RIVER AT BERLIN, WIS. (LAT 43 57 15 LONG 088 57 10)					
MAR., 1973					
09...	1510	--	5750	34	528
12...	1510	1.5	5770	24	374
19...	1355	--	5690	24	369
04074950 - WOLF RIVER AT LANGLADE, WIS. (LAT 45 11 24 LONG 088 44 00)					
MAR., 1973					
15...	1600	.5	2300	54	335
04077000 - WOLF RIVER AT KESHENA FALLS, WIS (LAT 44 53 30 LONG 088 39 20)					
MAR., 1973					
16...	1420	--	4790	27	349
MAY					
09...	1200	--	3380	9	82
04078500 - EMBARRASS RIVER NR. EMBARRASS, WIS. (LAT 44 43 29 LONG 088 44 10)					
OCT., 1972					
03...	1435	--	711	10	19
NOV.					
09...	1345	--	441	3	3.6
FEB., 1973					
27...	0930	--	203	3	1.6
MAR.					
08...	1545	--	3870	232	2420
12...	1810	--	3460	55	514
APR.					
27...	1100	8.0	652	5	8.8
JUNE					
18...	1400	19.5	392	12	13
AUG.					
01...	0900	65.0	169	5	2.3
SEP.					
13...	1205	--	143	2	.77
04079000 - WOLF RIVER AT NEW LONDON, WIS (LAT 44 23 30 LONG 088 44 25)					
MAR., 1973					
12...	1430	--	12600	31	1060
13...	1145	--	13400	12	434
13...	1330	--	13400	30	1090
MAY					
08...	1430	--	8810	11	238
04080900 - TOMORROW RIVER AT AMHERST, WIS. (LAT 44 26 33 LONG 089 17 10)					
MAR., 1973					
08...	1040	--	5.4	24	.35

SEDIMENT ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
STREAMS TRIBUTARY TO LAKE MICHIGAN--Continued					
04085200 - KEWAUNEE RIVER NR. KEWAUNEE, WIS. (LAT 44 27 42 LONG 087 32 40)					
OCT., 1972					
06...	1600	--	68	24	4.4
13...	1600	--	42	20	2.3
20...	1600	--	34	18	1.7
23...	0930	--	431	107	125
23...	1700	--	570	112	172
24...	0800	--	660	67	119
25...	0900	--	348	58	54
27...	1630	--	132	15	5.3
NOV.					
03...	1600	--	213	40	23
10...	1600	--	80	25	5.4
JAN., 1973					
19...	0730	--	1000	70	189
20...	0700	--	700	16	30
26...	1600	--	450	18	22
MAR.					
05...	1600	--	236	24	15
06...	1600	--	261	19	13
07...	1600	--	1660	222	995
08...	1230	--	773	52	109
11...	1700	--	1362	161	592
30...	1600	--	77	20	4.2
APR.					
05...	1000	--	84	22	5.0
06...	1300	--	332	26	23
13...	1630	--	344	110	102
14...	1130	--	600	48	78
16...	1700	--	488	28	37
17...	0930	--	570	48	62
21...	1500	--	614	128	212
28...	1600	--	840	6	14
MAY					
01...	2000	--	288	34	26
02...	1830	--	732	113	223
03...	0900	--	632	100	171
04...	1730	--	224	21	13
08...	1900	--	591	59	94
09...	0930	--	956	85	219
10...	1830	--	396	33	35
19...	0800	--	98	4	1.1
25...	1700	--	46	27	3.4
26...	0830	--	91	46	11
28...	0800	--	3200	611	5280
29...	0800	--	1220	179	590
30...	0800	--	610	74	122
31...	0800	--	336	36	33
JUNE					
01...	0800	--	274	26	19
08...	0800	--	105	38	11
12...	0800	--	211	38	22
15...	0800	--	105	18	5.1
22...	1600	--	60	30	4.9
29...	1600	--	219	132	78
JULY					
06...	1600	--	206	20	11
20...	1600	--	30	22	1.8
27...	1600	--	28	24	1.8
AUG.					
04...	1600	--	25	20	1.3
10...	1600	--	29	21	1.6
18...	0900	--	104	42	12
25...	0900	--	38	16	1.6
SEP.					
01...	0900	--	25	22	1.5
08...	0900	--	28	18	1.4
22...	1130	--	116	35	11
29...	0900	--	32	9	.78

SEDIMENT ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

STREAMS TRIBUTARY TO LAKE MICHIGAN--Continued

04085281 - EAST BRANCH TWIN RIVER AT MISHICOT, WIS. (LAT 44 14 16 LONG 087 38 11)

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
JAN., 1973					
18...	1235	.5	130	10	3.5
FEB.					
28...	1515	.0	37	4	.40
MAR.					
07...	1430	--	442	80	95
07...	1605	--	442	96	115
08...	0850	--	456	36	44
27...	1225	--	89	18	4.3
MAY					
17...	0830	9.5	88	10	2.4
JULY					
11...	1335	24.5	29	15	1.2
AUG.					
23...	1600	18.0	28	18	1.4

04085427 - MANITOWOC RIVER NR. MANITOWOC, WIS. (LAT 44 06 26 LONG 087 42 56)

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
NOV., 1972					
30...	1005	.0	--	78	35
FEB., 1973					
28...	1400	.0	155	10	4.2
MAR.					
07...	1710	--	2400	360	2330
08...	1145	.5	2340	220	1390
27...	1030	--	1000	10	27
MAY					
16...	1900	14.5	740	14	28
JULY					
11...	1040	23.0	92	37	9.2
AUG.					
24...	0950	18.0	61	9	1.5

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM
MAR.							
07...	1710	2400	502	3250	27	34	41

DATE	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	SUS. SED. SIEVE DIAM. % FINER THAN .125 MM	SUS. SED. SIEVE DIAM. % FINER THAN .250 MM	SUS. SED. SIEVE DIAM. % FINER THAN .500 MM	SUS. SED. SIEVE DIAM. % FINER THAN 1.00 MM
MAR.							
07...	48	57	62	69	83	97	100

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
04086000 - SHEBOYGAN RIVER AT SHEBOYGAN, WIS. (LAT 43 44 25 LONG 087 45 37)					
MAR., 1973					
16...	1225	--	1900	40	205

SEDIMENT ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
STREAMS TRIBUTARY TO LAKE MICHIGAN--Continued					
04086150 - MILWAUKEE RIVER AT KEWASKUM, WIS. (LAT 43 31 02 LONG 088 13 22)					
OCT., 1972					
17...	1030	--	97	13	3.4
JAN., 1973					
10...	1040	--	38	32	3.3
FEB.					
27...	1020	.0	63	6	1.0
MAR.					
07...	1700	--	1080	38	111
26...	1445	--	173	6	3.1
MAY					
15...	0950	11.0	263	12	8.5
JULY					
12...	1145	23.0	40	22	2.4
AUG.					
21...	1500	22.5	20	18	1.0
04086200 - E. BR. MILWAUKEE RIVER NR. NEW FANE, WIS. (LAT 43 33 01 LONG 088 11 18)					
JAN., 1973					
16...	1220	12.2	21	0	.00
FEB.					
27...	1145	.0	29	2	.16
MAR.					
08...	0910	--	85	12	2.8
26...	1550	--	11	6	.19
MAY					
15...	1150	12.5	86	6	1.4
JULY					
12...	1300	21.5	13	6	.21
AUG.					
22...	1005	18.5	13	4	.15
04086300 - N. BR. MILWAUKEE RIVER NR. CASCADE, WIS. (LAT 43 36 03 LONG 088 00 43)					
MAR., 1973					
08...	1740	--	2170	36	211
04086340 - N. BR. MILWAUKEE RIVER NR. FILMORE, WIS. (LAT 43 28 58 LONG 088 03 39)					
OCT., 1972					
17...	1340	--	51	16	2.2
NOV.					
28...	1325	.0	78	88	19
JAN., 1973					
16...	1515	.0	42	26	2.9
FEB.					
27...	1410	.0	64	8	1.4
MAR.					
08...	1540	--	763	8	16
09...	0915	--	616	14	23
APR.					
05...	1040	--	242	8	5.2
MAY					
31...	1630	--	504	7	9.5
JULY					
05...	1700	25.5	46	66	8.2
AUG.					
22...	1140	19.0	38	160	16
04086500 - CEDAR CREEK NR. CEDARBURG, WIS. (LAT 43 19 45 LONG 087 58 50)					
JULY, 1973					
05...	1130	23.0	41	11	1.2
AUG.					
20...	1415	24.0	21	11	.63

SEDIMENT ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
STREAMS TRIBUTARY TO LAKE MICHIGAN--Continued					
04087020 - MENOMONEE RIVER AT MENOMONEE FALLS, WIS. (LAT 43 11 32 LONG 088 07 58)					
JULY, 1973					
18...	1140	22.0	4.2	32	.36
04087050 - LITTLE MENOMONEE RIVER NR. FREISTADT, WIS. (LAT 43 12 24 LONG 088 02 24)					
APR., 1973					
05...	0800	4.0	10	39	1.1
JULY					
18...	1245	20.0	.60	48	.08
04087088 - UNDERWOOD CREEK AT WAUWATOSA, WISCONSIN (LAT 43 03 25 LONG 088 02 36)					
APR., 1973					
04...	1300	5.5	29	98	7.8
JULY					
18...	1000	25.5	3.2	21	.18
04087119 - HONEY CREEK AT WAUWATOSA, WISCONSIN (LAT 43 02 38 LONG 088 00 10)					
APR., 1973					
04...	1115	6.0	70	182	34
05...	0910	8.0	18	66	3.3
JULY					
18...	0845	14.5	9.4	53	1.3
04087120 - MENOMONEE RIVER AT WAUWATOSA, WIS. (LAT 43 02 44 LONG 087 59 59)					
APR., 1973					
04...	0955	1.5	44	48	5.7
04...	1405	6.0	242	86	56
21...	1330	--	5460	979	14400
JULY					
18...	1505	22.0	27	35	2.6
04087204 - OAK CREEK AT SOUTH MILWAUKEE, WIS. (LAT 42 55 30 LONG 087 52 12)					
NOV., 1972					
09...	0920	6.5	21	67	3.8
FEB., 1973					
06...	1400	3.0	16	24	1.0
MAR.					
21...	1600	--	18	12	.58
APR.					
21...	1640	--	523	678	957
MAY					
30...	1600	--	27	29	2.1
JULY					
12...	1920	26.0	3.1	38	.32
AUG.					
22...	1315	22.0	2.9	12	.10

SEDIMENT ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
STREAMS TRIBUTARY TO LAKE MICHIGAN--Continued					
04087220 - ROOT RIVER NR. FRANKLIN, WIS. (LAT 42 52 25 LONG 087 59 45)					
FEB., 1973					
02...	1120	1.5	205	114	63
MAR.					
22...	1100	--	39	8	.84
APR.					
21...	1830	--	2740	689	5100
22...	0655	--	1810	280	1370
22...	0810	--	1560	242	1020
26...	1200	--	98	40	11
MAY					
30...	1250	--	76	27	5.6
JULY					
13...	0910	29.5	12	74	2.4
AUG.					
22...	1540	22.0	8.0	40	.86

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	SUS. SED. SIEVE DIAM. % FINER THAN .125 MM	SUS. SED. SIEVE DIAM. % FINER THAN .250 MM
APR.												
21...	1830	2740	734	5430	74	88	94	97	99	99	99	100

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
04087233 - ROOT RIVER CANAL NR. FRANKLIN, WIS. (LAT 42 48 55 LONG 087 59 40)					
APR., 1973					
22...	0915	--	603	476	775
AUG.					
02...	--	19.0	5.4	120	1.8
04087240 - ROOT RIVER AT RACINE, WIS. (LAT 42 45 05 LONG 087 49 25)					
NOV., 1972					
10...	0900	6.5	180	68	33
DEC.					
22...	0845	.0	64	48	8.3
FEB., 1973					
01...	1315	.5	99	174	47
MAR.					
22...	1435	6.0	189	21	11
APR.					
22...	1240	--	3070	542	4490
23...	0450	--	3400	377	3460
24...	0605	--	3400	444	4080
26...	1720	--	537	72	104
MAY					
30...	1515	15.5	612	48	79
JULY					
12...	1010	21.0	32	127	11
AUG.					
21...	1045	20.5	10	133	3.7

SEDIMENT ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
STREAMS TRIBUTARY TO LAKE MICHIGAN--Continued					
04087257 - PIKE RIVER NR. RACINE, WIS. (LAT 42 38 49 LONG 087 51 38)					
NOV., 1972					
09...	1600	7.8	37	76	7.6
DEC.					
21...	1435	.6	16	9	.41
FEB., 1973					
01...	0910	2.0	21	17	1.0
MAR.					
22...	1050	3.5	44	19	2.3
APR.					
21...	1400	--	349	588	554
22...	0930	13.0	546	817	1200
MAY					
30...	1645	14.0	57	40	6.2
JULY					
11...	1845	22.0	9.3	22	.55
AUG.					
01...	1800	--	6.7	14	.26
21...	1306	21.0	4.6	9	.11
CHIPPEWA RIVER BASIN					
05369500 - S. FK. FLAMBEAU RIVER NR. PHILLIPS, WIS. (LAT 45 42 08 LONG 090 36 58)					
OCT., 1972					
03...	0905	--	1990	8	43
06...	0930	--	2360	8	51
17...	0905	--	926	8	20
26...	1000	--	1050	6	17
31...	1215	4.0	759	2	4.1
NOV.					
04...	1000	--	2380	7	45
07...	0835	--	2040	2	11
14...	0925	--	1440	1	3.9
21...	0930	--	667	1	1.8
28...	0925	--	481	1	1.3
DEC.					
05...	1000	--	844	6	14
12...	0915	--	459	200	248
19...	0930	--	444	1	1.2
26...	1045	--	420	3	3.4
JAN., 1973					
09...	1510	--	488	22	29
16...	0900	--	472	4	5.1
26...	1405	1.0	531	3	4.3
30...	0900	--	741	4	8.0
FEB.					
06...	0920	--	778	4	8.4
14...	0910	--	676	4	7.3
20...	0905	--	611	2	3.3
27...	0815	--	600	2	3.2
MAR.					
06...	0830	--	602	8	13
12...	0840	--	3110	10	84
12...	1600	--	3370	10	91
13...	0805	--	3390	7	64
13...	1700	--	3420	9	83
14...	0900	--	3730	5	50
14...	1700	--	4030	6	65
15...	1500	--	5070	11	151
16...	0900	--	5340	9	130
17...	1600	--	5070	6	82
19...	1650	2.0	3020	6	49
20...	0900	--	2560	2	14
27...	0905	--	1880	4	23

SEDIMENT ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

CHIPPEWA RIVER BASIN--Continued

05359500 - S. FK. FLAMBEAU RIVER NR. PHILLIPS, WIS. (LAT 45 42 08 LONG 090 36 58)

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
APR., 1973					
03...	0900	--	1580	2	11
10...	0915	--	1000	2	5.4
17...	0910	--	2100	3	17
24...	0855	--	1270	6	21
MAY					
03...	0915	--	3660	12	119
04...	1430	12.0	3830	10	103
08...	0900	--	2357	8	51
15...	0920	--	1890	8	41
22...	0805	--	1112	9	27
29...	0830	--	2222	14	84
JUNE					
05...	0905	--	2231	8	48
13...	0830	--	1231	9	30
18...	0900	--	1550	8	33
26...	0840	--	708	6	11
26...	1345	22.0	709	2	3.8
JULY					
03...	0840	--	512	0	.00
10...	0845	--	302	2	1.6
17...	0905	--	257	0	.00
24...	0810	--	216	2	1.2
31...	0925	--	251	2	1.4
AUG.					
06...	1300	21.0	201	4	2.2
07...	0900	--	220	2	1.2
14...	0910	--	402	2	2.2
17...	1300	24.0	303	4	3.3
21...	0930	--	257	1	.69
27...	0845	--	247	2	1.3
SEP.					
04...	0855	--	790	3	6.4
11...	0830	--	323	3	2.6
14...	1115	17.5	286	2	1.5
18...	0907	--	246	0	.00
25...	0854	--	314	3	2.5

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM
OCT.												
31...	1200	--	--	0	2	16	28	42	61	80	88	100
AUG.												
17...	1300	24.0	299	0	19	86	98	100	100	--	--	--

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
05362000 - JUMP RIVER AT SHELDON, WIS. (LAT 45 18 30 LONG 090 57 20)					
MAR., 1973					
15...	1300	2.0	12600	24	816
05365500 - CHIPPEWA RIVER AT CHIPPEWA FALLS, WIS. (LAT 44 55 37 LONG 091 24 33)					
MAR., 1973					
13...	1540	--	52500	48	6800

SEDIMENT ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
CHIPPEWA RIVER BASIN--Continued					
05368000 - HAY RIVER AT WHEELER, WIS. (LAT 45 02 52 LONG 091 54 39)					
OCT., 1972					
12...	1330	11.7	321	9	7.8
NOV.					
14...	1455	1.1	312	7	5.9
JAN., 1973					
02...	1320	.0	267	10	7.2
FEB.					
07...	1550	.5	264	8	5.7
MAR.					
11...	1400	3.5	1250	178	601
12...	1800	3.5	2800	233	1760
13...	1000	4.5	3590	134	1300
13...	1100	4.5	3590	132	1280
30...	1105	9.0	403	23	25
APR.					
05...	1545	--	289	14	11
14...	1415	--	347	10	9.4
20...	1350	--	412	32	36
23...	1505	11.0	370	10	10
28...	1500	--	335	10	9.0
MAY					
08...	1430	--	603	50	81
13...	0930	10.0	536	139	201
17...	0930	10.0	354	8	7.6
21...	1458	14.0	361	13	13
27...	0825	14.0	1110	166	497
JUNE					
03...	0900	17.0	421	22	25
10...	0800	19.0	400	16	17
20...	0820	17.0	300	22	18
25...	1225	17.5	270	16	12
JULY					
04...	0815	18.0	248	27	18
10...	1400	23.5	234	18	11
14...	0700	17.0	231	18	11
21...	1406	20.0	212	11	6.3
31...	1330	18.0	238	14	9.0
AUG.					
13...	1235	18.5	220	9	5.3
23...	1410	18.0	348	31	29
29...	1300	22.5	233	22	14
SEP., 1973					
13...	0850	15.0	230	18	11
22...	0305	--	266	12	8.6
24...	1230	12.5	238	20	13

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM
SEP.										
24...	1300	12.5	226	0	3	38	80	96	99	100

SEDIMENT ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
CHIPPEWA RIVER BASIN--Continued					
05369500 - CHIPPEWA RIVER AT DURAND, WIS. (LAT 44 37 40 LONG 091 58 10)					
MAR., 1973					
14...	1030	2.0	65200	144	25400
TREMPEALEAU RIVER BASIN					
05379400 - TREMPEALEAU RIVER AT ARCADIA, WIS. (LAT 44 15 15 LONG 091 30 25)					
NOV., 1972					
15...	1115	--	518	88	123
MAR., 1973					
12...	1600	--	4400	632	7510
APR.					
04...	0810	--	728	121	238
MAY					
23...	1415	--	808	130	284
AUG.					
29...	1645	26.0	466	100	126
BLACK RIVER BASIN					
05381000 - BLACK RIVER AT NEILLSVILLE, WIS. (LAT 44 33 35 LONG 090 36 50)					
NOV., 1972					
14...	1230	--	561	4	6.1
MAY , 1973					
07...	1315	5.5	1710	38	175
AUG.					
16...	1100	24.0	66	1	.18
05381350 - LEVIS CREEK AT BLACK RIVER FALLS, WIS. (LAT 44 18 42 LONG 090 48 23)					
OCT., 1972					
12...	0845	--	39	7	.74
NOV.					
15...	1410	--	45	4	.49
APR., 1973					
02...	1720	--	73	12	2.4
MAY					
22...	1735	--	139	14	5.3
JUNE					
29...	1430	--	37	32	3.2
AUG.					
29...	1430	--	69	4	.75
WISCONSIN RIVER BASIN					
05393500 - SPIRIT RIVER AT SPIRIT FALLS, WIS. (LAT 45 26 58 LONG 089 58 47)					
OCT., 1972					
02...	1500	--	195	4	2.1
31...	1255	--	85	0	.00
DEC.					
12...	--	--	29	4	.31
JAN., 1973					
19...	1230	--	110	4	1.2
MAR.					
15...	1425	--	1570	6	25
APR.					
20...	1145	6.5	345	9	8.4
MAY					
02...	1500	7.5	2200	24	143
JUNE					
04...	1540	21.0	80	8	1.7
AUG.					
15...	1600	20.5	16	2	.09

SEDIMENT ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
		WISCONSIN RIVER BASIN--Continued			
05394500 - PRAIRIE RIVER NR. MERRILL, WIS. (LAT 45 14 09 LONG 089 38 59)					
MAR., 1973					
14...	1320	--	2100	8	45
APR.					
16...	1310	--	1300	22	77
05395000 - WISCONSIN RIVER AT MERRILL, WIS. (LAT 45 10 40 LONG 089 40 45)					
APR., 1973					
06...	1200	--	4770	11	142
SEP.					
05...	1500	21.0	3120	5	42
05397500 - EAU CLAIRE RIVER AT KELLY, WIS. (LAT 44 55 06 LONG 089 33 00)					
OCT., 1972					
12...	1500	46.0	311	3	2.5
NOV.					
08...	1500	--	597	3	4.8
DEC.					
12...	1400	--	152	2	.82
JAN., 1973					
18...	1100	--	184	3	1.5
FEB.					
09...	1330	--	138	0	.00
MAR.					
06...	1300	--	194	2	1.0
14...	1445	--	4390	8	95
APR.					
16...	1440	--	2980	25	201
MAY					
14...	1240	--	614	8	13
JUNE					
27...	--	--	164	8	3.5
AUG.					
01...	1330	20.0	114	1	.31
SEP.					
07...	1100	--	162	2	.87
05399500 - BIG EAU PLEINE RIVER NR. STRATFORD, WIS. (LAT 44 49 19 LONG 090 04 46)					
OCT., 1972					
02...	0845	--	229	6	3.7
09...	0745	--	146	6	2.4
16...	1605	--	63	4	.68
23...	1600	--	1830	40	198
24...	0745	--	1650	26	116
25...	1330	--	40	10	1.1
29...	1045	--	127	2	.69
NOV.					
02...	1615	--	2600	86	604
03...	1215	--	2470	52	347
06...	1215	--	305	12	9.9
11...	1530	--	200	4	2.2
20...	1020	--	43	6	.70
27...	1145	--	42	4	.45
DEC.					
19...	1230	--	24	1	.06
JAN., 1973					
24...	1340	--	125	1	.34
MAR.					
02...	1410	--	31	6	.50
07...	1205	--	4400	39	463
07...	1605	--	5300	43	615
08...	0730	--	3180	16	137
08...	1130	--	3180	22	189
09...	1630	--	1780	13	62
10...	0755	--	1300	4	14
11...	0800	--	5970	62	999
11...	1145	--	6540	82	1450
12...	1150	--	3380	27	246
14...	0805	--	4400	72	855
14...	1200	--	4550	54	663
14...	1245	--	1700	20	92
15...	1150	--	2080	26	146
26...	1315	--	252	2	1.4

SEDIMENT ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)

WISCONSIN RIVER BASIN--Continued

05399500 - BIG EAU PLEINE RIVER NR. STRATFORD, WIS. (LAT 44 49 19 LONG 090 04 46)

APR., 1973					
03...	1135	--	1380	16	60
10...	1140	--	195	2	1.1
15...	1655	--	3600	130	1260
16...	0820	--	7690	102	2120
16...	1635	--	7510	53	1080
17...	0800	--	2500	28	189
18...	0800	--	806	10	22
19...	0945	--	384	16	17
20...	1145	--	345	9	8.4
23...	1115	--	183	5	2.5
MAY					
01...	1200	--	2200	84	499
02...	1500	--	2200	24	143
02...	1615	--	8600	140	3250
03...	0745	--	3000	36	292
07...	0800	--	216	16	9.3
08...	0800	--	1780	33	159
09...	0800	--	731	12	24
14...	1310	--	159	6	2.6
22...	1535	--	105	8	2.3
25...	0800	--	7480	115	2320
25...	1605	--	5310	68	975
26...	0745	--	2170	30	176
28...	1130	--	4750	66	846
28...	1635	--	4900	46	609
29...	0735	--	1700	18	83
31...	1120	--	284	12	9.2
JUNE					
04...	1425	--	1570	6	25
04...	1440	--	108	8	2.3
10...	1930	--	42	10	1.1
18...	0910	--	220	13	7.7
25...	1650	--	18	12	.58
JULY					
02...	1115	--	29	16	1.3
09...	1100	--	8.0	11	.24
13...	1220	22.0	5.5	1	.01
16...	1210	--	5.0	7	.09
24...	0915	--	6.8	11	.20
30...	1210	--	11	12	.36
AUG.					
06...	1640	--	8.6	13	.30
13...	1945	--	15	2	.08
17...	1100	22.0	19	2	.10
19...	1920	--	9.2	3	.07
27...	1935	--	5.1	2	.03
29...	0945	--	5.9	9	.14
SEP.					
02...	1930	--	4.8	4	.05
10...	0720	--	9.7	0	.00
17...	0845	--	4.7	0	.00
24...	1000	--	4.9	1	.01

05400600 - LITTLE PLOVER RIVER NR. ARNOTT, WIS. (LAT 44 28 05 LONG 089 29 20)

JUNE, 1973					
05...	1345	--	41	8	.89

SEDIMENT ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
		WISCONSIN RIVER BASIN--Continued			
05400650 - LITTLE PLOVER RIVER AT PLOVER, WIS. (LAT 44 28 26 LONG 089 31 44)					
OCT., 1972					
16...	1130	46.0	14	2	.08
NOV.					
09...	1130	--	16	2	.09
DEC.					
19...	1055	--	13	8	.28
JAN., 1973					
29...	1230	--	13	2	.07
MAR.					
05...	1140	--	14	1	.04
APR.					
11...	1200	--	20	10	.54
16...	1145	--	52	13	1.8
JUNE					
05...	1145	--	55	20	3.0
AUG.					
10...	1120	14.0	9.7	1	.03
05401020 - TENMILE CREEK DITCH 5 NR. BANCROFT, WIS. (LAT 44 18 08 LONG 089 32 59 01)					
MAY , 1973					
10...	1400	9.0	27	96	7.0
JUNE					
05...	1450	--	25	18	1.2
05401050 - TENMILE CREEK NR. NEKOOSA, WIS. (LAT 44 15 44 LONG 089 48 38)					
NOV., 1972					
10...	1250	--	106	10	2.9
DEC.					
20...	1000	--	71	8	1.5
JAN., 1973					
30...	1100	--	71	3	.58
MAR.					
05...	1640	--	99	9	2.4
13...	0845	--	316	35	3A
APR.					
12...	1230	--	149	16	6.4
JUNE					
05...	1440	--	178	25	12
JULY					
19...	1040	60.0	70	8	1.5
AUG.					
29...	1030	--	54	15	2.2
05401535 - BIG ROCHE A CRI CREEK NR. ADAMS, WIS. (LAT 44 05 52 LONG 089 46 30)					
OCT., 1972					
02...	1645	11.0	167	8	3.6
NOV.					
10...	1030	--	93	5	1.3
DEC.					
19...	1605	--	69	10	1.9
JAN., 1973					
30...	1000	--	68	2	.37
MAR.					
05...	1540	--	89	6	1.4
13...	1120	--	281	15	11
APR.					
12...	0810	--	117	10	3.2
JUNE					
05...	1030	--	139	8	3.0
JULY					
18...	1715	--	59	10	1.6
AUG.					
28...	1545	--	51	2	.28
05402000 - YELLOW RIVER NR. BABCOCK, WIS. (LAT 44 18 05 LONG 090 07 15)					
MAR., 1973					
08...	1000	--	6750	26	474
JUNE					
08...	1315	21.0	181	11	5.4

SEDIMENT ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
		WISCONSIN RIVER BASIN--Continued			
05403500 - LEMONWEIR RIVER AT NEW LISBON, WIS. (LAT 43 52 47 LONG 090 09 48)					
OCT., 1972					
12...	1355	--	720	18	35
13...	1700	--	667	10	18
20...	1700	--	469	6	7.6
24...	1700	--	1070	14	40
25...	1700	--	1210	11	36
26...	1700	--	1390	8	30
27...	1700	--	1420	6	23
28...	1700	--	1300	6	21
29...	1700	--	811	6	18
NOV.					
03...	1700	--	1020	8	22
04...	1700	--	1060	8	23
05...	1700	--	1110	6	18
06...	1700	--	1110	4	12
07...	1700	--	1070	6	17
10...	1700	--	952	3	7.7
13...	1120	--	827	2	4.5
17...	1630	--	630	2	3.4
24...	1630	--	440	4	4.8
DEC.					
01...	1630	--	310	5	4.2
08...	1630	--	240	6	3.9
15...	1630	--	220	5	3.0
22...	1600	--	220	4	2.4
29...	1600	--	220	9	5.3
30...	1600	--	240	8	5.2
31...	1600	--	320	15	13
JAN., 1973					
01...	1600	--	400	11	12
02...	1600	--	490	9	12
03...	1600	--	480	5	6.5
04...	1600	--	470	6	7.6
05...	1600	--	538	6	8.7
06...	1600	--	560	4	6.0
FEB.					
23...	1630	--	276	1	.75
MAR.					
02...	1630	--	280	4	3.0
03...	1630	--	300	16	13
04...	1630	--	480	9	9.7
05...	1630	--	600	8	13
06...	1630	--	819	4	8.8
07...	1630	--	1560	20	84
08...	1630	--	2130	18	104
09...	1230	--	2340	22	139
09...	1630	--	2299	6	37
10...	1630	--	2278	6	37
11...	1630	--	2546	9	62
12...	1630	--	3064	26	215
13...	1630	--	3560	6	58
14...	1630	--	3950	6	64
15...	1630	--	3950	10	107
16...	1630	--	3780	4	41
17...	1630	--	3380	4	37
18...	1630	--	2890	4	31
19...	1630	--	2404	2	13
20...	1630	--	2020	2	11
21...	1630	--	1735	5	23
22...	1630	--	1485	6	24
23...	1630	--	1270	4	14
24...	1630	--	1060	8	23
25...	1630	--	910	8	20
26...	1630	--	814	7	15
27...	1630	--	550	6	8.9
28...	1630	--	687	6	11
29...	1630	--	646	6	10
30...	1630	--	447	4	4.8
31...	1630	--	592	11	18

SEDIMENT ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
		WISCONSIN RIVER BASIN--Continued			
05403500 - LEMONWEIR RIVER AT NEW LISBON, WIS. (LAT 43 52 47 LONG 090 09 40)					
APR., 1973					
01...	1630	--	652	8	14
02...	1630	--	898	12	29
03...	1630	--	931	8	20
04...	1630	--	1070	7	20
05...	1025	5.5	963	7	18
05...	1630	--	961	5	13
06...	1630	--	1000	6	16
07...	1630	--	1030	9	25
08...	1630	--	925	4	10
09...	1630	--	886	5	12
10...	1630	--	808	4	8.7
11...	1630	--	794	4	8.6
12...	1630	--	907	4	9.8
13...	1630	--	1146	8	25
14...	1630	--	1545	8	33
15...	1630	--	2180	8	47
16...	1630	--	3710	28	280
17...	1630	--	5350	18	260
18...	1505	--	5020	16	217
18...	1630	--	4841	14	183
19...	1630	--	4230	10	114
24...	1700	--	2159	3	17
25...	1700	--	1725	6	28
26...	1700	--	1415	5	19
27...	1700	--	1150	5	16
28...	1700	--	937	6	15
29...	1700	--	847	6	14
30...	1700	--	850	12	28
MAY					
01...	1700	--	1290	18	63
02...	1700	--	1972	20	106
03...	1700	--	2834	12	92
10...	1700	--	2834	10	77
11...	1700	--	2397	6	39
12...	1700	--	1984	10	54
13...	1700	--	1635	8	35
14...	1700	--	1858	6	30
15...	1700	--	1146	6	19
16...	1700	--	997	6	16
17...	1700	--	734	5	9.9
18...	1700	--	732	7	14
19...	1700	--	691	7	13
20...	1700	--	660	7	12
21...	1700	--	630	7	12
22...	1700	--	644	8	14
23...	1700	--	640	8	14
24...	1105	--	644	12	21
24...	1700	--	640	10	17
25...	1700	--	847	14	32
26...	1700	--	1009	11	30
27...	1700	--	1274	8	28
28...	1700	--	1864	14	70
29...	1700	--	2467	15	100

SEDIMENT ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
		WISCONSIN RIVER BASIN--Continued			
05403500 - LEMONWEIR RIVER AT NEW LISBON, WIS. (LAT 43 52 47 LONG 090 09 40)					
MAY , 1973					
30...	1700	--	2750	3	22
31...	1700	--	2700	1	7.3
JUNE					
01...	1700	--	2360	2	13
02...	1700	--	1880	2	10
03...	1700	--	1570	2	8.5
04...	1700	--	1250	1	3.4
05...	1700	--	1140	18	55
06...	1700	--	1040	4	11
07...	1700	--	865	3	7.0
08...	1700	--	816	6	13
09...	1700	--	778	6	13
10...	1700	--	703	6	11
11...	1700	--	578	8	12
12...	1700	--	377	13	13
13...	1700	--	438	8	9.5
14...	1700	--	423	10	11
15...	1700	--	442	8	9.5
16...	1700	--	436	6	7.1
17...	1700	--	424	6	6.9
18...	1700	--	425	10	11
19...	1700	--	460	12	15
20...	1700	--	481	13	17
21...	1700	--	502	11	15
22...	1700	--	506	7	9.6
23...	1700	--	478	10	13
24...	1700	--	447	16	19
25...	1700	--	409	24	27
26...	1700	--	385	14	15
27...	1700	--	364	20	20
28...	1700	--	256	9	6.2
29...	1700	--	355	26	25
30...	1700	--	347	48	45
JULY					
06...	1700	--	301	32	26
11...	1355	--	163	9	4.0
13...	1700	--	177	40	19
20...	1700	--	130	25	8.8
27...	1700	--	117	20	6.3
AUG.					
03...	1700	--	112	10	3.0
10...	1700	--	403	12	13
17...	1700	--	151	14	5.7
24...	1700	--	461	20	25
31...	1700	--	189	16	8.2
SEP.					
05...	1530	--	230	10	6.2
07...	1700	--	211	22	13
14...	1700	--	147	15	6.0
21...	1700	--	207	10	5.6
28...	1700	--	382	5	5.2
05403630 - HULBERT CREEK NR. WISCONSIN DELLS, WIS. (LAT 43 37 37 LONG 089 49 36)					
NOV., 1972					
16...	1350	2.2	5.2	6	.08
JAN., 1973					
09...	0950	--	4.0	8	.09
FEB.					
02...	1300	.5	19	22	1.2
APR.					
05...	1800	9.5	9.4	9	.23
JUNE					
01...	1110	16.0	10	34	.96
JULY					
12...	1030	19.0	4.5	12	.15
05404000 - WISCONSIN RIVER NR. WISCONSIN DELLS, WIS. (LAT 43 36 22 LONG 089 45 25)					
MAR., 1973					
12...	1730	--	45100	18	2190

SEDIMENT ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

WISCONSIN RIVER BASIN--Continued

05404168 - BARABOO RIVER NR. REEDSBURG, WIS. (LAT 43 30 43 LONG 089 54 40)

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
APR., 1973					
17...	1715	9.0	4120	81	901

05409830 - N. FK. NEDERLO CREEK NR. GAYS MILLS, WIS. (LAT 43 21 47 LONG 090 54 34 01)

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM
MAR.										
06...	1755	2.7	2290	17	51	67	82	94	99	100
MAR., 1973										
06...	1755	--	2.7	2290	17					
APR.										
16...	1100	--	3.2	141	1.2					
SEP.										
25...	0915	--	1.3	117	.41					

05409860 - S. FK. NEDERLO CREEK NR. GAYS MILLS, WIS. (LAT 43 21 36 LONG 090 54 31 01)

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM
MAR.									
06...	1815	4.6	187	2.3	40	50	58	72	100
MAR., 1973									
06...	1815	--	4.6	187	2.3				
APR.									
16...	1130	--	13	304	11				
SEP.									
25...	0940	--	1.6	28	.12				

SEDIMENT ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
			WISCONSIN RIVER BASIN--Continued		
05409870 - NEDERLO CREEK NR. GAYS MILLS, WIS. (LAT 43 21 30 LONG 090 53 49 01)					
OCT., 1972					
22...	1745	--	5.7	50	.77
22...	1910	--	6.7	111	2.0
22...	2010	--	7.0	124	2.3
22...	2110	--	7.0	194	3.7
22...	2210	--	8.2	114	2.5
22...	2310	--	10	115	3.3
23...	0010	--	9.7	126	3.3
23...	0110	--	8.9	170	4.1
23...	0210	--	7.6	101	2.1
23...	0310	--	7.0	76	1.4
23...	0410	--	6.4	63	1.1
23...	0510	--	5.7	52	.80
JAN., 1973					
17...	1030	--	2.1	4	.02
MAR.					
06...	1725	--	8.6	526	12
06...	1755	--	8.9	262	6.3
06...	1825	--	9.3	268	6.7
06...	1845	--	8.9	382	9.2
06...	1855	--	9.7	803	21
06...	1925	--	10	821	22
06...	1955	--	10	698	19
06...	2025	--	8.9	392	9.4
06...	2110	--	9.3	330	8.3
06...	2125	--	9.3	296	7.4
06...	2225	--	8.9	208	5.0
06...	2255	--	8.2	170	3.8
06...	2325	--	7.6	170	3.5
06...	2355	--	7.6	272	5.6
07...	0025	--	8.0	384	8.3
07...	0055	--	8.9	303	7.3
07...	0125	--	12	305	9.9
07...	0155	--	13	367	13
07...	0225	--	16	491	21
07...	0255	--	18	668	32
07...	0325	--	19	637	33
07...	0445	--	15	337	14
07...	0455	--	15	357	14
07...	0555	--	11	219	6.5
07...	0625	--	9.3	198	5.0
07...	0655	--	8.2	161	3.6
07...	0725	--	7.3	136	2.7
10...	1725	--	8.2	241	5.3
10...	1745	--	9.7	260	6.8
10...	1815	--	12	331	11
10...	1845	--	14	776	29
10...	1915	--	14	1200	45
10...	1945	--	13	827	29
10...	2015	--	13	947	33
10...	2045	--	11	768	23
10...	2115	--	10	605	16
10...	2145	--	9.7	494	13
10...	2245	--	13	355	9.6
10...	2315	--	15	391	16
10...	2345	--	15	395	16
11...	0015	--	15	582	24
11...	0045	--	14	650	25
11...	0145	--	11	417	14
14...	0115	--	7.6	1440	30
14...	0145	--	14	781	30
14...	0215	--	18	652	32
14...	0245	--	20	2810	152
14...	0315	--	19	2040	105
14...	0345	--	16	1650	71
14...	0415	--	13	1510	53
14...	0445	--	10	1050	28
14...	0515	--	8.6	765	18
14...	0545	--	9.7	911	24
14...	0615	--	9.3	459	12
14...	0645	--	8.2	378	8.4

SEDIMENT ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
		WISCONSIN RIVER BASIN--Continued			
05409870 - NEDERLD CREEK NR. GAYS MILLS, WIS. (LAT 43 21 30 LONG 090 53 49 01)					
APR., 1973					
15...	1255	--	8.9	114	2.7
15...	2330	--	7.6	113	2.3
15...	2345	--	7.6	102	2.1
16...	0045	--	7.6	120	2.5
16...	0115	--	8.0	155	3.3
16...	0215	--	9.7	165	4.3
16...	0245	--	9.7	173	4.5
16...	0315	--	12	177	5.7
16...	0345	--	12	168	5.4
16...	0415	--	14	233	8.8
16...	0445	--	15	316	13
16...	0515	--	17	485	22
16...	0545	--	20	650	35
16...	0615	--	23	601	37
16...	0645	--	24	547	35
16...	0715	--	31	985	82
16...	0745	--	36	1100	107
16...	0815	--	36	1130	110
16...	0845	--	37	1060	106
16...	0915	--	38	1080	111
16...	0945	--	35	904	85
16...	1015	--	29	794	62
16...	1115	--	20	442	24
16...	1145	--	17	384	18
16...	1210	--	15	268	11
16...	1215	--	14	275	10
16...	1245	--	13	216	7.6
16...	1315	--	11	342	10
16...	1345	--	10	151	4.1
16...	1415	--	8.9	130	3.1
16...	1445	--	8.2	115	2.5
16...	1515	--	8.0	132	2.9
16...	1545	--	7.3	88	1.7
MAY					
02...	0445	--	8.0	145	3.1
02...	0535	--	11	208	6.2
02...	0605	--	10	185	5.0
02...	1325	--	3.2	35	.30
07...	0220	--	8.0	671	14
07...	0240	--	8.9	636	15
07...	0310	--	12	489	16
07...	0340	--	18	559	27
07...	0410	--	18	660	32
07...	0440	--	16	1050	45
07...	0510	--	19	741	38
07...	0540	--	17	638	29
07...	0610	--	14	666	25
07...	0640	--	11	537	16
07...	0710	--	10	392	11
07...	0740	--	8.9	300	7.2
07...	0810	--	8.2	230	5.1

SEDIMENT ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

WISCONSIN RIVER BASIN--Continued

05409870 - NEDERLO CREEK NR. GAYS MILLS, WIS. (LAT 43 21 30 LONG 090 53 49 01)

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
MAY 7, 1973					
07...	0840	--	8.0	175	3.8
07...	1145	--	8.0	79	1.7
07...	1215	--	8.6	77	1.8
07...	1245	--	9.7	76	2.0
07...	1315	--	11	89	2.6
07...	1345	--	13	109	3.8
07...	1415	--	15	112	4.5
07...	1515	--	16	164	7.1
07...	1545	--	15	193	7.8
07...	1615	--	15	182	7.4
07...	1645	--	16	156	6.7
07...	1815	--	13	117	4.1
07...	1845	--	11	100	3.0
07...	1915	--	10	81	2.2
07...	2015	--	8.9	73	1.8
07...	2045	--	8.6	68	1.6
07...	2115	--	8.0	63	1.4
07...	2145	--	7.6	57	1.2
07...	2215	--	7.3	51	1.0
JUNE					
22...	2200	--	13	3594	126
AUG.					
08...	1215	14.5	7.0	89	1.7
08...	1240	14.5	10	132	3.6
SEP.					
29...	1645	--	7.7	55	1.1

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM
OCT.							
23...	1130	7.3	112	2.2	62	71	78
MAR.							
06...	2110	9.3	330	8.3	51	60	69
07...	0455	15	357	14	55	69	77
11...	0145	11	417	14	52	69	81
APR.							
16...	0745	36	1100	107	25	34	45

DATE	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	SUS. SED. SIEVE DIAM. % FINER THAN .125 MM	SUS. SED. SIEVE DIAM. % FINER THAN .250 MM	SUS. SED. SIEVE DIAM. % FINER THAN .500 MM
OCT.						
23...	85	92	95	97	98	100
MAR.						
06...	75	83	91	95	98	100
07...	86	93	96	97	98	100
11...	90	96	97	98	99	100
APR.						
16...	57	78	87	91	94	100

SEDIMENT ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
WISCONSIN RIVER BASIN--Continued					
05409890 - NEDERLO CREEK NR. GAYS MILLS, WIS. (LAT 43 21 43 LONG 090 52 44)					
JAN., 1973					
17...	1000	--	5.8	40	.63
MAY					
02...	1230	--	18	67	3.3
AUG.					
08...	1310	--	20	315	17
08...	1340	--	18	402	20
08...	1410	--	11	446	13
08...	1440	--	8.0	460	9.9
SEP.					
25...	0855	--	4.1	134	1.5
25...	0955	--	4.1	132	1.5
25...	1040	--	7.3	128	2.5
05410000 - KICKAPOO RIVER AT GAYS MILLS, WIS. (LAT 43 19 10 LONG 090 51 08)					
MAR., 1973					
05...	1155	--	691	970	1810
12...	1145	--	1514	329	1350
APR.					
16...	1550	--	1800	422	2050
MAY					
02...	1500	--	1362	166	610
23...	1210	--	792	51	109
28...	1355	--	1118	168	507
JUNE					
27...	1210	19.0	628	132	224
AUG.					
27...	1355	17.5	545	95	140
SEP.					
25...	1200	--	602	111	180

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	SUS. SED. SIEVE DIAM. % FINER THAN .125 MM	SUS. SED. SIEVE DIAM. % FINER THAN .250 MM
MAY												
02...	1500	1362	160	588	34	39	47	58	77	92	98	100

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
05410500 - KICKAPOO RIVER AT STEUBEN, WIS. (LAT 43 11 27 LONG 090 52 28)					
JAN., 1973					
24...	1330	.5	548	30	44
MAR.					
05...	1555	--	509	114	157
MAY					
23...	1700	--	901	90	219

SEDIMENT ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
GRANT RIVER BASIN					
05413500 - GRANT RIVER AT BURTON, WIS. (LAT 42 43 13 LONG 090 49 09)					
OCT., 1972					
31...	1310	--	221	62	37
JAN., 1973					
24...	1650	--	192	492	255
MAR.					
07...	0730	--	2400	9570	62000
07...	1445	--	1580	5190	22100
APR.					
16...	1500	--	2340	4670	29500
16...	1605	--	2060	4160	23100
MAY					
22...	1230	--	389	98	103
JUNE					
28...	1115	16.5	362	207	202
AUG.					
20...	1110	22.0	245	166	110

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM
MAR.								
07...	1446	6.5	1530	1	11	92	99	100

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
PLATTE RIVER BASIN					
05414000 - PLATTE RIVER NR. ROCKVILLE, WIS. (LAT 42 43 55 LONG 090 38 25)					
MAR., 1973					
07...	1000	--	1910	4780	24700

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM
MAR.							
07...	1000	1910	4830	24900	24	31	39

DATE	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	SUS. SED. SIEVE DIAM. % FINER THAN .125 MM	SUS. SED. SIEVE DIAM. % FINER THAN .250 MM	SUS. SED. SIEVE DIAM. % FINER THAN .500 MM
MAR.						
07...	51	70	95	97	98	100

SEDIMENT ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
			ROCK RIVER BASIN		
05426000 - CRAWFISH RIVER AT MILFORD, WIS. (LAT 43 06 00 LONG 088 51 00)					
MAR., 1973					
02...	1230	--	619	4	6.7
MAY					
18...	1010	--	2050	70	387
AUG.					
20...	0840	21.0	127	83	28

05427970 WILLOW CREEK AT MADISON, WIS. (LAT 43 04 27 LONG 089 25 21)

DATE	TIME	SUSPENDED SEDIMENT (MG/L)	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM
JAN.								
17...	1140	114	63	82	93	98	99	100

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
05430500 - ROCK RIVER AT AFTON, WIS. (LAT 42 36 33 LONG 089 04 14)					
MAR., 1973					
19...	1155	--	8190	64	1420
APR.					
23...	1445	--	7660	80	1660
MAY					
07...	1700	14.0	9840	42	1120
05431500 - TURTLE CREEK NR. CLINTON, WIS. (LAT 42 35 47 LONG 088 51 50)					
MAR., 1973					
07...	1505	--	1700	434	1990
APR.					
21...	1040	--	9800	2430	64300
21...	1145	--	11020	2380	70800
21...	2020	--	N.04	1745	115000
25...	1335	--	837	64	145
MAY					
02...	1110	--	2020	96	524
02...	1255	--	2810	300	2280
10...	1100	14.0	462	48	60

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM
APR.							
21...	1145	11020	2380	70800	50	62	72

SEDIMENT ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

ROCK RIVER BASIN--Continued

05431500 TURTLE CREEK NR CLINTON, WIS.--Continued

DATE	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	SUS. SED. SIEVE DIAM. % FINER THAN .125 MM	SUS. SED. SIEVE DIAM. % FINER THAN .250 MM	SUS. SED. SIEVE DIAM. % FINER THAN .500 MM	SUS. SED. SIEVE DIAM. % FINER THAN 1.00 MM
APR. 21...	78	83	85	88	95	98	100

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
JAN., 1973					
25...	1300	--	287	73	57
MAR.					
06...	1430	--	226	62	38
07...	1115	--	1582	3250	13900
07...	1220	--	1620	2170	9490
07...	1320	6.0	1620	1790	7830
MAY					
23...	1700	--	465	86	108
AUG.					
23...	1035	17.5	205	155	86

05432500 - PECATONICA RIVER AT DARLINGTON, WIS. (LAT 42 40 40 LONG 090 07 07)

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM
MAR.							
07...	1115	--	1620	2570	11200	34	44
07...	1320	6.0	1620	1790	7830	16	20

DATE	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	SUS. SED. SIEVE DIAM. % FINER THAN .125 MM	SUS. SED. SIEVE DIAM. % FINER THAN .250 MM
MAR.						
07...	56	71	90	97	99	100
07...	25	36	77	--	--	--

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM
MAR. 07...	1320	6.0	1620	40	58	70	75	78	82	88	95	100

SEDIMENT ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
		ROCK RIVER BASIN--Continued			
05434500 - PECATONICA RIVER AT MARTINTOWN, WIS. (LAT 42 30 35 LONG 089 48 00)					
MAY , 1973					
09...	1145	--	4450	54	649
23...	0930	--	2080	94	528
05436500 - SUGAR RIVER NR. BRODHEAD, WIS. (LAT 42 36 40 LONG 089 23 50)					
MAR., 1973					
07...	1710	--	2340	220	1390
08...	1810	--	3740	162	1640
MAY					
02...	1515	--	2960	113	903
02...	1715	--	2960	149	1190
		ILLINOIS RIVER BASIN			
05543830 - FOX RIVER AT WAUKESHA, WIS. (LAT 43 00 17 LONG 088 14 37)					
MAR., 1973					
21...	1010	--	208	2	1.1
APR.					
21...	1800	--	1640	198	877
22...	1610	--	2240	144	871
25...	1700	--	609	20	33
JUNE					
01...	1130	--	290	10	7.8
JULY					
12...	1130	22.0	52	20	2.9
AUG.					
21...	1235	23.0	14	24	.94
05544200 - MUKWONAGO RIVER AT MUKWONAGO, WIS. (LAT 42 51 24 LONG 088 19 39)					
APR., 1973					
21...	1615	--	335	33	30
05545300 - WHITE RIVER NR. BURLINGTON, WIS. (LAT 42 39 57 LONG 088 19 03)					
APR., 1973					
21...	1550	--	1460	558	2200
05545334 - FOX RIVER AT BURLINGTON, WISCONSIN (LAT 42 40 46 LONG 088 16 18)					
APR., 1973					
21...	1350	--	4680	168	2120
05546500 - FOX RIVER AT WILMOT, WIS. (LAT 42 30 40 LONG 088 10 45)					
APR., 1973					
23...	0850	--	5980	198	3200

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