CALENDAR FOR WATER YEAR 1986

1985

OCTOBER

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
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NOVEMBER

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DECEMBER

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1986

JANUARY

S	M	T	W	T	F	S
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12	13	14	15	16	17	18
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FEBRUARY

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MARCH

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30	31					

APRIL

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JUNE

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AUGUST

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31						

SEPTEMBER

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Water Resources Data Indiana

Water Year 1986

by Dale R. Glatfelter, Ronald E. Thompson, Jr., and Graham E. Nell

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT IN-86-1
Prepared in cooperation with the State of Indiana
and with other agencies

UNITED STATES DEPARTMENT OF THE INTERIOR

DONALD PAUL HODEL, Secretary

GEOLOGICAL SURVEY

Dallas L. Peck, Director

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Indianapolis, Indiana 46278

1987

PREFACE

This volume of the annual hydrologic data report of Indiana is one of a series of annual reports that document hydrologic data gathered from the U.S. Geological Survey's surface- and ground-water data-collection networks in each State, Puerto Rico, and the Trust Territories. These records of streamflow, stage, lake levels, ground-water levels, and quality of water provide the hydrologic information needed by State, local, and Federal agencies, and the private sector for developing and managing our Nation's land and water resources.

This report is the culmination of a concerted effort by dedicated personnel of the U.S. Geological Survey who collected, compiled, analyzed, verified, and organized the data, and who typed, edited, and assembled the report. In addition to the authors, who had primary responsibility for assuring that the information contained herein is accurate, complete, and adheres to Geological Survey policy and established guidelines, the following individuals contributed significantly to the collection, processing, and tabulation of the data:

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Water resources data for the 1986 water year for Indiana consist of records of discharge, stage, and water quality of streams; reservoir stage and contents; and water levels in lakes and wells. This report contains records of discharge for 189 stream-gaging stations, stage for 1 stream station, stage and contents for 1 reservoir, water quality for 5 streams, and water levels for 79 lakes and 94 observation wells. Also included are records of peak flows for 24 crest-stage, partial-record stations. Additional water data were collected at various sites, not part of the systematic data-collection program, and are shown as miscellaneous measurements. These data represent that part of the National Water Data System operated by the U.S. Geological Survey in Indiana in cooperation with State and Federal agencies.

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ILLUSTRATIONS

TABLES

STREAMFLOW STATIONS, IN DOWNSTREAM ORDER,
FOR WHICH RECORDS ARE PUBLISHED

(d-discharge, e-gage heights, c-chemical, t-temperature, s-sediment, v-contents)

LAKE-LEVEL STATIONS FOR WHICH RECORDS ARE PUBLISHED

INTRODUCTION

The Water Resources Division of the U.S. Geological Survey, in cooperation with State and Federal agencies, obtains a large amount of data pertaining to the water resources of Indiana each water year. These data, accumulated during many water years, constitute a valuable data base for developing an improved understanding of the water resources of the State. To make these data readily available to interested parties outside the U.S. Geological Survey, the data are published annually in this report series entitled "Water Resources Data - Indiana."

Water-resources data for the 1986 water year for Indiana consist of record of discharge, stage, and water quality of streams, and water levels of lakes and ground-water wells. This volume contains records for water discharge at 189 gaging stations, stage at 1 gaging station, stage and contents at 1 reservoir, water quality at 5 stream sites, water levels at 79 lakes, peak flows at 24 crest-stage partial-record sites, and water levels at 94 observation wells. Locations of the streamflow and water-quality sites, crest-stage partial-record sites, and ground-water observation wells are shown on figures 6, 7, and 9. The number of lakes by county having 1986 water-level records are shown on figure 8. Additional water data were collected at various sites not involved in the systematic data-collection program and are published as miscellaneous measurements. A systematic collection of stages on selected lakes was begun in 1943 in cooperation with the State of Indiana, Department of Natural Resources. The data collected since the beginning of record have not been published previously in the annual water data reports for Indiana. They are available in the Indiana District Office. A selected amount of lake data was published in Water-Supply Paper 1363, "Hydrology of Indiana Lakes," by J. I. Perrey and D. M. Corbett (1956). These data represent that part of the National Water Data System collected by the U.S. Geological Survey and cooperating State and Federal agencies in Indiana.

This series of annual reports for Indiana began with the 1961 water year with a report that contained only data relating to the quantities of surface water. For the 1964 water year, a similar report was introduced that contained only data relating to water quality. Beginning with the 1975 water year, the report format was changed to present, in one volume, data on quantities and quality of surface water, and ground-water levels.

Prior to introduction of this series and for several water years concurrent with it, water-resources data for Indiana were published in U.S. Geological Survey Water-Supply Papers. Data on stream discharge and stage and on lake or reservoir contents and stage, through September 1960, were published annually under the title "Surface-Water Supply of the United States." Stream discharge and stage data were published in four compilation reports (through 1950, 1951-60, 1961-65, and 1966-70 water years). Data on chemical quality, temperature, and suspended sediment for the 1941 through 1970 water years were published annually under the title "Quality of Surface Waters of

the United States," and water levels for the 1935 through 1974 water years were published under the title "Ground-Water Levels in the United States." The above-mentioned Water-Supply Papers may be consulted in the libraries of the principal cities of the United States and may be purchased from U.S. Geological Survey, Books and Open-File Reports, Federal Center, Building 41, Box 25425, Denver, CO 80225.

Publications similar to this report are published annually by the U.S. Geological Survey for all States. These official U.S. Geological Survey reports have an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this volume is identified as "U.S. Geological Survey Water-Data Report IN-86-1." For archiving and general distribution, the reports for 1971-74 water years also are identified as water-data reports. These water-data reports are for sale in paper copy or in microfiche by the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161.

Additional information, including current prices, for ordering specific reports may be obtained from the District Chief at the address given on the back of the title page or by telephone (317) 927-8640.

COOPERATION

The U.S. Geological Survey and organizations of the State of Indiana have had cooperative agreements for the systematic collection of streamflow records since 1930, for ground-water levels since 1940, for lake stages since 1943, and for water-quality records since 1951. Organizations that supplied data are acknowledged in station manuscripts. Organizations that assisted in collecting data in this report through cooperative agreement with the U.S. Geological Survey are:

State of Indiana, Department of Natural Resources, James M. Ridenour, Director, through the Bureau of Water and Mineral Resources, Thomas M. Bruns, Deputy Director

State of Indiana, Department of Environmental Management, Nancy A. Maloley, Commissioner, and David M. Wagner, Deputy Commissioner

State of Indiana, Department of Highways, John P. Isenbarger, Director

Assistance in the form of funds or services was given by the U.S. Army Corps of Engineers in collecting records for surface-water gaging stations published in this report.

The following organizations aided in collecting records: The cities of Carmel, Columbus, Elkhart, Fort Wayne, and Indianapolis; Indianapolis Water Co.; Indianapolis Power and Light Co.; Public Service Company of Indiana; Container Corporation of America; Prudential Insurance Co.; Northern Indiana Public Service Co.; and Hoosier Energy.

SUMMARY OF HYDROLOGIC CONDITIONS

Precipitation patterns in Indiana vary both seasonally and geographically. Although some precipitation falls each month, the greatest amounts usually fall during spring and early summer. Average annual amounts (fig. 1) range from about 36 inches in northern and eastern Indiana to about 44 inches in the southern part of the State. Consumption due to evapotranspiration is relatively uniform throughout Indiana and averages 26 inches per year (Clark, 1980).

Runoff generally follows the precipitation patterns. Average annual amounts (fig. 2) range from about 12 inches in northern and central Indiana to about 18 inches in the southern part of the State.

Precipitation amounts during water year 1986 departed significantly from normal over much of Indiana. The departures ranged from about -6 inches in the south to about +14 inches in the northeast and southwest (fig. 3). Concurrent runoff varied with precipitation. Runoff departures from normal ranged from about -2 inches in the south to about +6 inches in a large part of the northeast and smaller parts of the west-central and northwest (fig. 4).

Precipitation during October 1985 ranged from near normal in central areas, to slightly greater than normal in the north, to much greater than normal in the south. Monthly mean discharges at the three Indiana index stations (fig. 5)--Mississinewa River at Marion (03326500); East Fork White River at Shoals (03373500); and Wabash River at Mount Carmel, IL (03377500)--all were greater than their 1951-80 medians; flow at Shoals was more than two times greater. Ground-water levels were in the normal range.

November was an extremely wet month statewide in Indiana, with new record amounts of precipitation (from 10 to 14 inches) in the central and west-central areas. Much of the remainder of the State received twice the normal monthly amounts because of daily precipitation. All three index stations had monthly mean discharges much greater than normal with Shoals (73 years of record) and Mount Carmel (58 years of record) setting respective records of 13,400 and 63,530 ft^3/s. Ground-water levels rose, reversing the declining trend, and were above normal in most of the State by the end of the month.

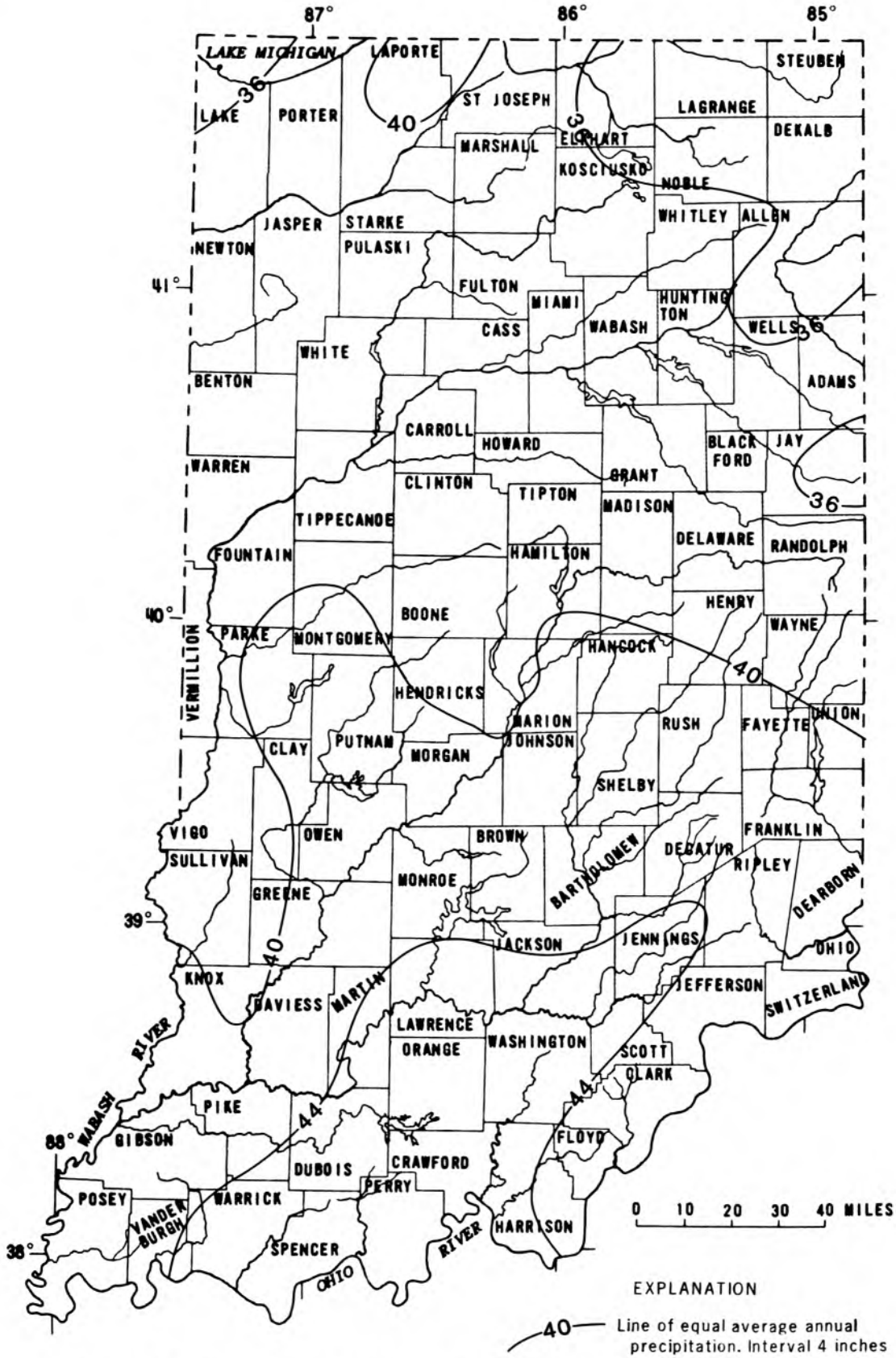

Figure 1.– Average annual precipitation in Indiana, 1951-80.

(Data from unpublished map compiled by Olson, National Oceanic and Atmospheric Administration).

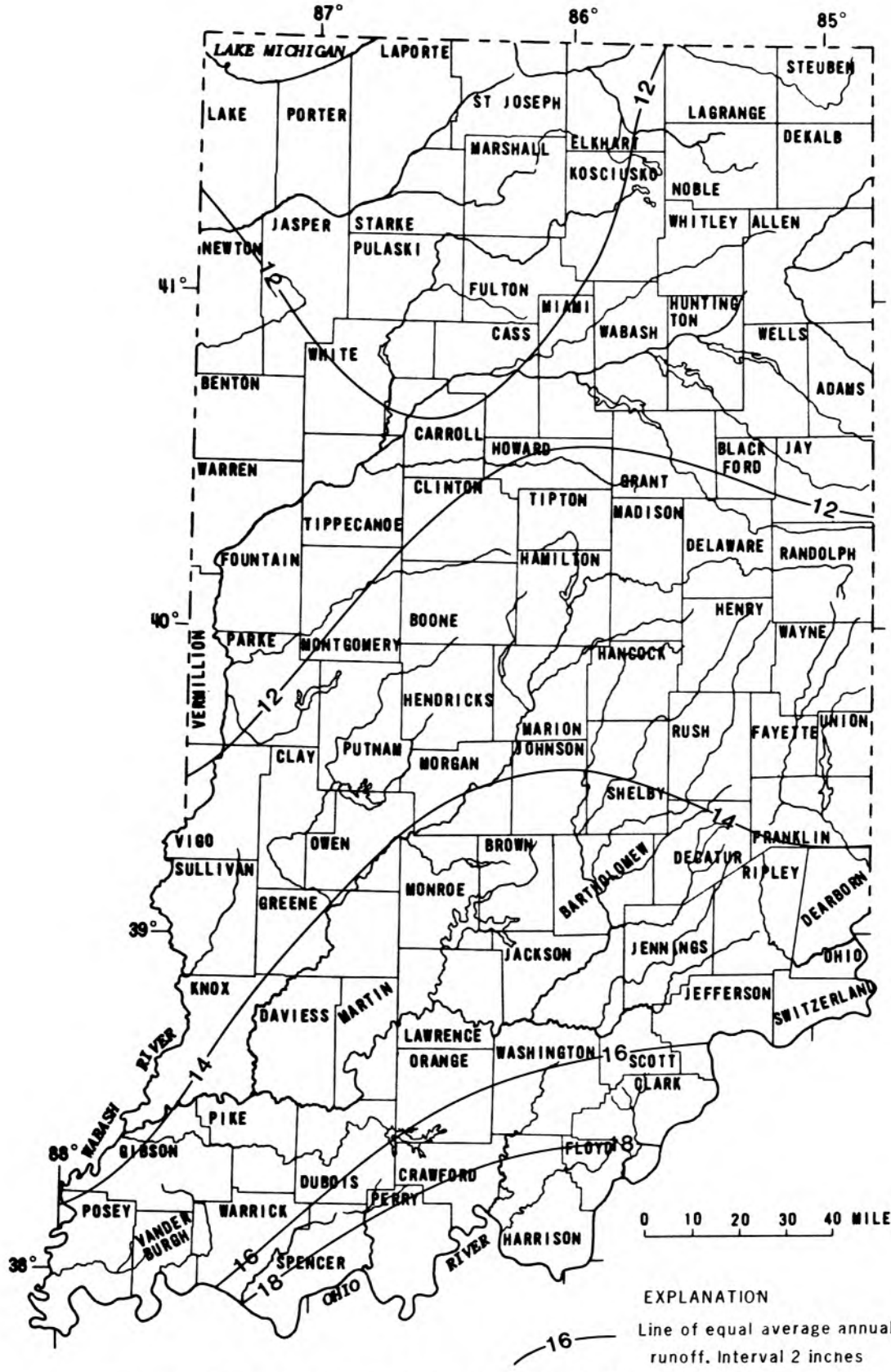

Figure 2.-- Average annual runoff in Indiana, 1951-80.

(Data from Gebert, Graczy, and Krug, 1985)

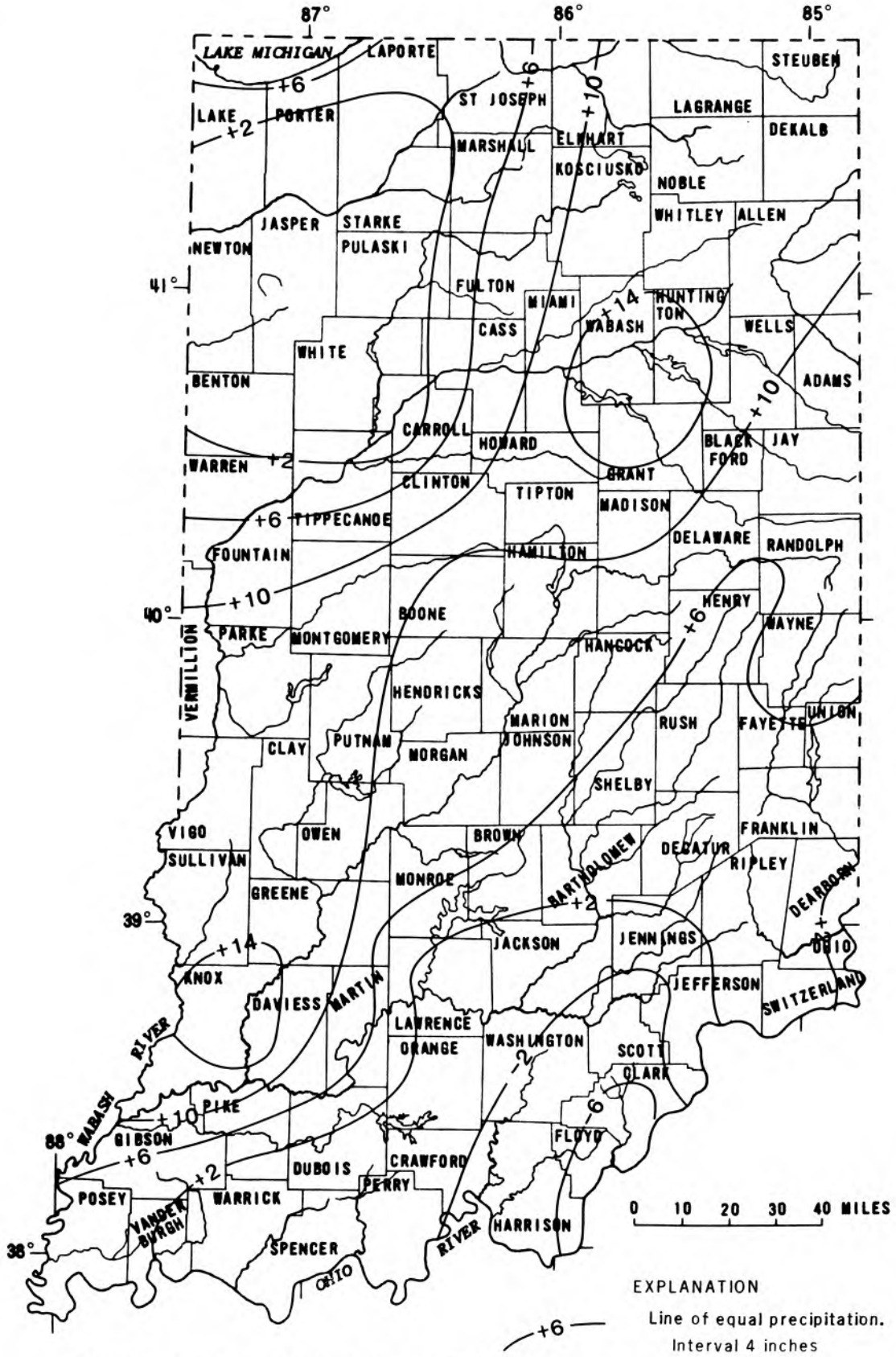

Figure 3.-- Departure of precipitation from normal in Indiana, October 1985 to September 1986.
(Data from National Oceanic and Atmospheric Administration, 1985-86)

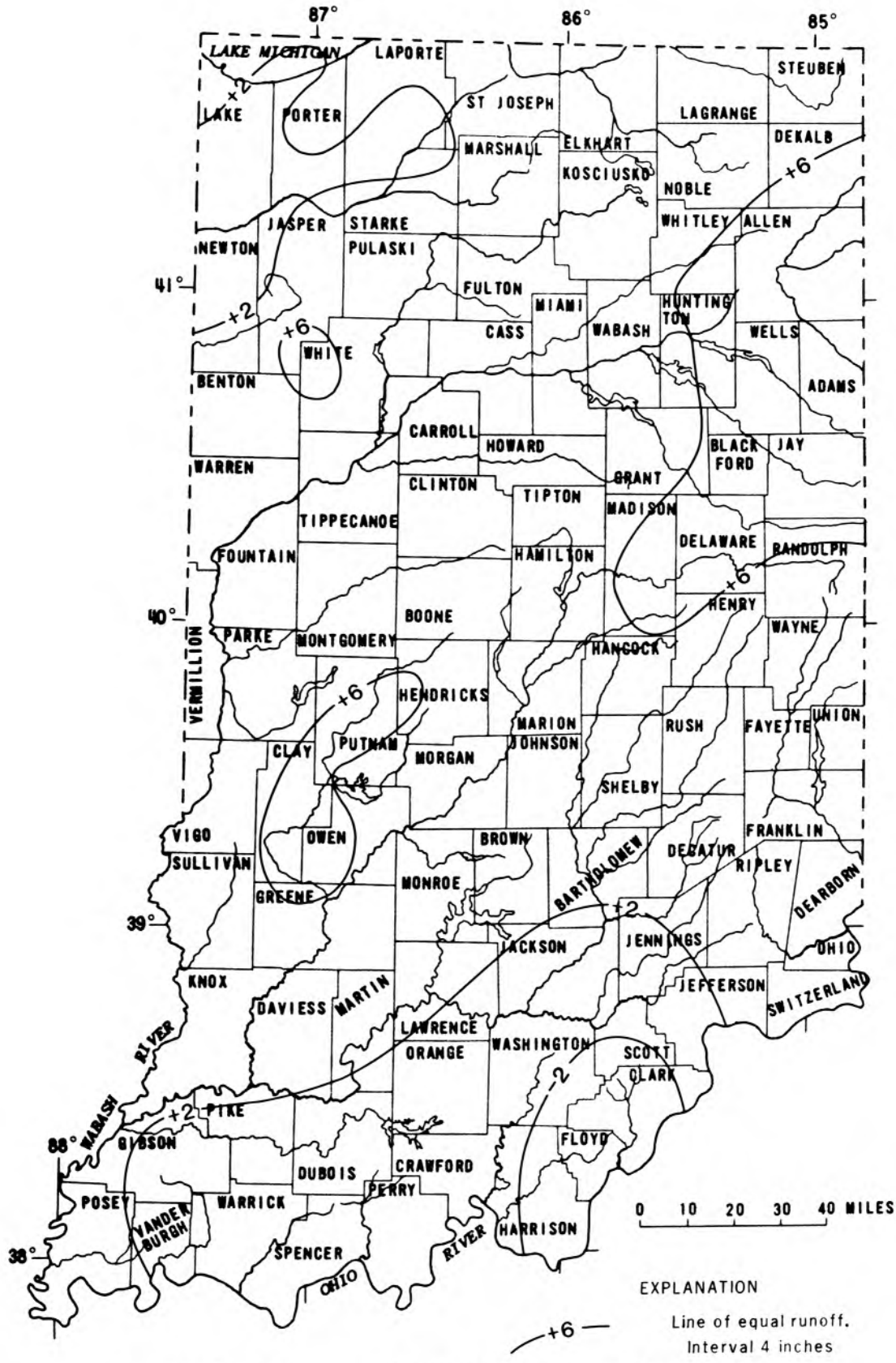

Figure 4.– Departure of runoff from normal in Indiana, October 1985 to September 1986.

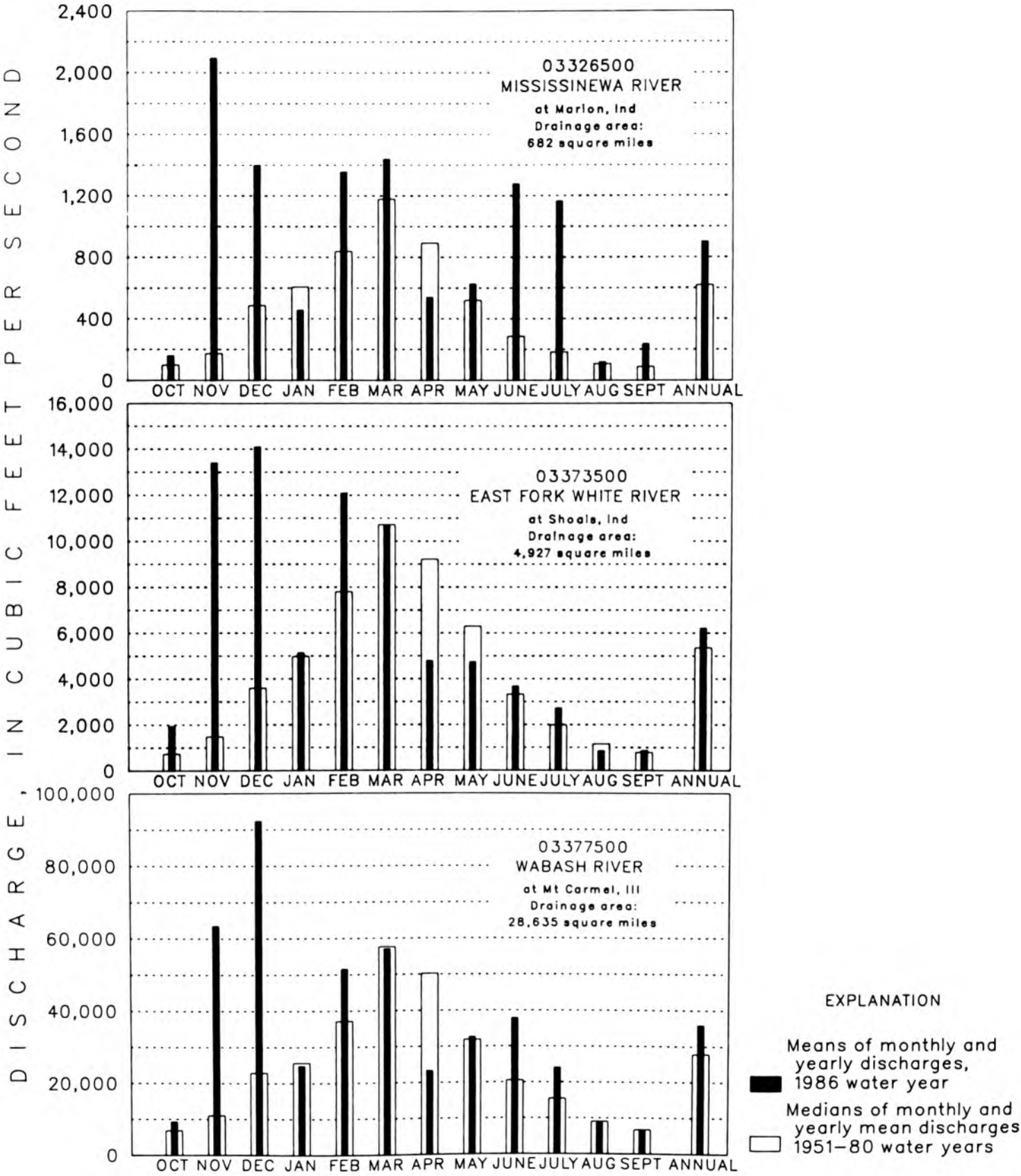

Figure 5. —— Mean discharges at Indiana index stations during 1986 water year and median discharges for period 1951–80.

During December, precipitation was slightly greater than normal in the central areas of Indiana and less than normal in the remainder of the State. Total amounts ranged from about 1 inch in the south to greater than 4 inches in the west-central area. The saturated condition of the soils, caused by November precipitation, and the frozen condition of ground surfaces during the last half of the month probably produced the relatively large discharges recorded at the index stations. The Wabash River at Mount Carmel had a monthly mean discharge of 92,350 ft^3/s--the second largest discharge of record--whereas 14,090 ft^3/s was recorded on the East Fork White River at Shoals--the seventh largest discharge of record. Although ground-water levels had started to decline by month's end, they were still above normal in most of the State.

January 1986 was a relatively dry month in Indiana; most areas received considerably less-than-normal amounts of precipitation. However, the three index stations had near-normal monthly mean discharges; the Mississinewa River at Marion showed the largest difference with 75 percent of the median flow. Ground-water levels at the end of the month were above normal in the north and near normal in the remainder of the State.

Precipitation departures from normal during February generally were positive, with amounts that increased from the northern towards the southern areas of Indiana. The three index stations all had discharges that ranged from near normal to slightly greater than normal. Ground-water levels throughout the State were in the normal range.

Monthly precipitation amounts during March ranged from slightly below normal in northwestern Indiana to near normal in the central part of the State. Monthly mean discharges at the three index stations also were normal, as were ground-water levels throughout the State.

Although precipitation during April ranged from below normal only in southern Indiana to near or greater than normal in central and northern areas, monthly mean discharges at the three index stations were about 50 percent of the median. Ground-water levels again were generally normal.

Relatively large rainfalls the last three days of April were reflected in increased monthly mean discharges during May for most of Indiana. Although discharge in the East Fork White River at Shoals was almost the same as that in April, discharges at both of the other index stations showed increases that put them very near their medians. Ground-water levels were below normal in the south and normal in the northern half of the State.

Monthly precipitation amounts ranged from less than normal in southern areas, to near normal in central areas, to above normal in northern Indiana during June. Monthly mean discharges were near normal for East Fork White River at Shoals, almost twice the median for Wabash River at Mount Carmel, and greater than 400 percent of median for Mississinewa River at Marion. Ground-water levels generally were normal throughout the State.

Although some locations in northeastern Indiana had record rainfalls during July, the rest of the State had near normal or normal amounts. The Mississinewa River at Marion recorded the greatest departure from normal monthly mean discharge--more than 600 percent of the median. Ground-water levels continued in the normal range for the month.

During August, most of Indiana was drier than normal; precipitation deficits ranged from about 0.5 to more than 2.25 inches. Despite the general deficit in rainfall, the index stations all recorded near-normal discharges: Mississinewa River at Marion had 109 percent of the median; Wabash River at Mount Carmel had 95 percent; and East Fork White River at Shoals had 73 percent. Ground-water levels declined but remained in the normal range.

Although scattered, localized thunderstorms caused flash flooding in some small drainage basins around the State during September, the two index stations with larger drainage areas had near-normal monthly mean discharges. However, Mississinewa River at Marion, which has the smallest drainage area, had over 250 percent of the median discharge. Ground-water levels declined throughout the month but ended the water year as they began it, in the normal range.

SPECIAL NETWORKS AND PROGRAMS

Hydrologic Bench-Mark Network is a network of 57 sites in small drainage basins around the country whose purpose is to provide consistent data on the hydrology, including water quality, and related factors in representative undeveloped watersheds nationwide, and to provide analyses on a continuing basis to compare and contrast conditions observed in basins more obviously affected by the activities of man.

National Stream Quality Accounting Network (NASQAN) is a nationwide data-collection network designed by the U.S. Geological Survey to meet many of the information needs of government agencies and other groups involved in natural or regional water-quality planning and management. The 500 or so sites in NASQAN are generally located at the downstream ends of hydrologic accounting units designated by the U.S. Geological Survey Office of Water Data Coordination in consultation with the Water Resources Council. The objectives of NASQAN are: (1) To obtain information on the quality and quantity of water moving within and from the United States through a systematic and uniform process of data collection, summarization, analysis, and reporting such that the data may be used for; (2) describing the areal variability of water quality in the Nation's rivers through analysis of data from this and other programs; (3) detecting changes or trends with time in the pattern of occurrence of water-quality characteristics; and (4) providing a nationally consistent data base useful for water-quality assessment and hydrologic research.

Radiochemical Program is a network of regularly sampled water-quality stations where samples are collected to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States.

EXPLANATION OF THE RECORDS

The surface-water and ground-water records published in this report are for the 1986 water year that began October 1, 1985, and ended September 30, 1986. A calendar of the water year is provided on the inside of the front cover. The records contain streamflow and stage data, stage and content data for a reservoir, water-quality data for surface water, lake-level data, peak-flow data, and ground-water-level data. The following sections of the introductory text are presented to provide users with a more detailed explanation of how the hydrologic data published in this report were collected, analyzed, computed, and arranged for presentation.

Station Identification Numbers

Each data station, whether streamsite or well, in this report is assigned a unique identification number. This number is unique in that it applies specifically to a given station and to no other. The number usually is assigned when a station is first established and is retained for that station indefinitely. The systems used by the U.S. Geological Survey to assign identification numbers for surface-water stations and for ground-water well sites differ, but both are based on geographic location. The "downstream order" system is used for regular surface-water stations and for surface-water stations where only miscellaneous measurements are made; the "latitude-longitude" system is used for wells.

Downstream Order System

Since October 1, 1950, the order of listing hydrologic-station records in U.S. Geological Survey reports is in a downstream direction along the main stream. All stations on a tributary entering upstream from a mainstream station are listed before that station. A station on a tributary that enters between two mainstream stations is listed between them. A similar order is followed in listing stations on first rank, second rank, and other ranks of

tributaries. The rank of any tributary with respect to the stream to which it is immediately tributary is indicated by an indention in the "List of Stations" in the front of this report. Each indention represents one rank. This downstream order and system of indention show which stations are on tributaries between any two stations and the rank of the tributary on which each station is situated.

The station-identification number is assigned according to downstream order. In assigning station numbers, no distinction is made between partial-record stations and other stations; therefore, the station number for a partial-record station indicates downstream-order position in a list made up of both types of stations. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete 8-digit number for each station, such as 03335500, which appears just to the left of the station name, includes the 2-digit Part number "03" plus the 6-digit downstream-order number "335500." The Part number designates the major river basin; for example, Part "03" is the Ohio River basin.

Records in this report are in Part 03 (Ohio River basin), Part 04 (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 to include all records in the basin.

Latitude-Longitude System

The identification numbers for wells are assigned according to the grid system of latitude and longitude. The number consists of 15 digits. The first six digits denote the degrees, minutes, and seconds of latitude, the next seven digits denote degrees, minutes, and seconds of longitude, and the last two digits (assigned sequentially) identify the wells or other sites within a 1-second grid. This site-identification number, once assigned, is a pure number and has no locational significance. In the rare instance where the initial determination of latitude and longitude are found to be in error, the station will retain its initial identification number; however, its true latitude and longitude will be listed in the LOCATION paragraph of the station description.

In addition, each well in Indiana carries dual-identification numbers. The second system is by county name with a sequential number of the well; that is, number one is the first well in that county for which records were obtained.

Records of Stage and Water Discharge

Records of stage and water discharge may be complete or partial. Complete records of discharge are those obtained using a continuous stage-recording device through which either instantaneous or mean daily discharges may be computed for any time, or any period of time, during the period of record.

By contrast, partial records are obtained through discrete measurements without using a continuous stage-recording device and pertain only to a few flow characteristics, or perhaps only one. The nature of the partial record is indicated by table titles such as "Crest-stage partial records" or "Low-flow partial records." Records of miscellaneous discharge measurements or of measurements from special studies, such as low-flow seepage studies, may be considered as partial records, but they are presented separately in this report.

Data Collection and Computation

The data obtained at a complete-record gaging station on a stream or canal consist of a continuous record of stage, individual measurements of discharge throughout a range of stages, and notations regarding factors that may affect the relations between stage and discharge. These data, together with supplemental information, such as weather records, are used to compute daily discharges.

Continuous records of stage are obtained with analog recorders that trace continuous graphs of stage or with digital recorders that punch stage values on paper tapes at selected time intervals. Measurements of discharge are made with current meters using methods adopted by the U.S. Geological Survey as a result of experience accumulated since 1880. These methods are described in standard textbooks, in Water-Supply Paper 2175, and in U.S. Geological Survey Techniques of Water-Resources Investigations, Book 3, Chapter A6.

In computing discharge records, results of individual measurements are plotted against the corresponding stages, and stage-discharge relation curves are then constructed. From these curves, rating tables indicating the approximate discharge for any stage within the range of the measurements are prepared. If it is necessary to define extremes of discharge outside the range of the current-meter measurements, the curves are extended using: (1) Logarithmic plotting; (2) velocity-area studies; (3) results of indirect measurements of peak discharge, such as slope-area or contracted-opening measurements, and computations of flow over dams or weirs; or (4) step-backwater techniques.

Daily mean discharges are computed by applying the instantaneous stages (gage heights) to the stage-discharge curves or tables and then assigning the arithmetic mean. 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 determined by the shifting-control method, in which correction factors based on the individual discharge measurements and notes of the personnel making the measurements are applied to the gage heights before the discharges are determined from the curves or tables. This shifting-control method also is used if the stage-discharge relation is changed temporarily because of aquatic growth or debris on the control. For some stations, formation of ice in the winter may so obscure the stage-discharge relations that daily mean discharges must be estimated from other information such as temperature and precipitation records, notes of observations, and records for other stations in the same or nearby basins for comparable periods.

At some stream-gaging stations, the stage-discharge relation is affected by the backwater from reservoirs, tributary streams, or other sources. This necessitates the use of the slope method in which the slope or fall in a reach of the stream is a factor in computing discharge. The slope or fall is obtained by means of an auxiliary gage set at some distance 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.

For some gaging stations, there are periods when no gage-height record is obtained, or the recorded gage height is so faulty that it cannot be used to compute daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods, the daily discharges are estimated from the recorded range in stage, previous or following record, discharge measurements, weather records, and comparison with other station records from the same or nearby basins. Information explaining how estimated daily-discharge values are identified in station records is included in the next two sections, "Data Presentation" (REMARKS paragraph) and "Identifying Estimated Daily Discharge."

Data Presentation

The records published for each gaging station consist of two parts, the manuscript or station description and the data table for the current water year. The manuscript provides, under various headings, descriptive information, such as station location, period of record, average discharge, historical extremes, record accuracy, and other remarks pertinent to station operation and regulation. The following information, as appropriate, is provided with each continuous record of discharge. Comments that follow clarify information presented under the various headings of the station description.

LOCATION.--Information on locations is obtained from the most accurate maps available. The location of the gage with respect to the cultural and physical features in the vicinity and with respect to the reference place mentioned in the station name is given. River mileages were determined by methods given in "River Mileage Measurement," Bulletin 14, revision of October 1968, prepared by the Water Resources Council or were provided by the U.S. Army Corps of Engineers.

DRAINAGE AREA.--Drainage areas are measured using the most accurate maps available.

PERIOD OF RECORD.--This indicates the period for which there are published records for the station or for an equivalent station. An equivalent station is one that was in operation at a time that the present station was not, and whose location was such that records from it can reasonably be considered equivalent with records from the present station.

REVISED RECORDS.--Published records, because of new information, occasionally are found to be incorrect, and revisions are printed in later reports. Listed under this heading are all the reports in which revisions have been published for the station and the water years to which the revisions apply. If a revision did not include daily, monthly, or annual figures of discharge, that fact is noted after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only peak discharges were revised. If the drainage area has been revised, the report in which the most recently revised figure was first published is given.

GAGE.--The type of gage in current use, the datum of the current gage referred to National Geodetic Vertical Datum of 1929 (see glossary), and a condensed history of the types, locations, and datums of previous gages are given under this heading.

REMARKS.--All periods of estimated daily-discharge record will either be identified by date in this paragraph of the station description for water-discharge stations or flagged in the daily-discharge table. (See next section, "Identifying Estimated Daily Discharge.") If a remarks statement is used to identify estimated record, the paragraph will begin with this information presented as the first entry. The paragraph is also used to present information relative to the accuracy of the records, to special methods of computation, to conditions that affect natural flow at the station and, possibly, to other pertinent items. For reservoir stations, information is given on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir.

COOPERATION.--Records provided by a cooperating organization or obtained for the U.S. Geological Survey by a cooperating organization are identified here.

AVERAGE DISCHARGE.--The discharge value given is the arithmetic mean of the water-year mean discharges. It is computed only for stations having at

least 5 water years of complete record, and only water years of complete record are included in the computation. It is not computed for stations where diversions, storage, or other water-use practices cause the value to be meaningless. If water developments significantly altering flow at a station are put into use after the station has been in operation for a period of years, a new average is computed as soon as 5 water years of record have accumulated following the development. The median of yearly mean discharges also is given under this heading for stations having 10 or more water years of record, if the median differs from the average given by more than 10 percent.

EXTREMES FOR PERIOD OF RECORD.--Extremes include maximum stages and maximum instantaneous discharges and minimum daily discharge. The maximum discharge is the instantaneous maximum corresponding to the highest stage that occurred. The higher stage may have been obtained from a graphic or digital recorder, a crest-stage gage, or by direct observation of a nonrecording gage. If the maximum stage did not occur on the same day as the maximum discharge or content, it is given separately.

EXTREMES OUTSIDE PERIOD OF RECORD.--Included here is information concerning major floods or unusually low flows that occurred outside the stated period of record. The information may or may not have been obtained by the U.S. Geological Survey.

EXTREMES FOR CURRENT YEAR.--Extremes given here are similar to those for the period of record, except the peak discharge listing may include secondary peaks. For stations meeting certain criteria, all peak discharges and stages occurring during the water year and greater than a selected base discharge are presented under this heading. The peaks greater than the base discharge, excluding the highest one, are referred to as secondary peaks. Peak discharges are not published for canals, ditches, drains, or streams for which the peaks are subject to substantial control by man. The time of occurrence for peaks is expressed in 24-hour local standard time. For example, 12:30 a.m. is 0030, and 1:30 p.m. is 1330. The minimum for the current water year appears below the table of peak data.

REVISIONS.--If a critical error in published records is discovered, a revision is included in the first report published following discovery of the error.

Although rare, occasionally the records of a discontinued gaging station may need revision. Because for these stations there would be no current or, possibly, future station manuscript published to document the revision in a "Revised Records" entry, users of data for these stations who obtained the record from previously published data reports may wish to contact the offices whose addresses are given on the back of the title page of this report to determine if the published records were ever revised after the station was discontinued. Of course, if the data were obtained by computer retrieval, the data would be current and there would be no need to check because any published revision of data is always accompanied by revision of the corresponding data in computer storage.

The daily table for stream-gaging stations gives mean discharge for each day and is followed by monthly and yearly summaries. In the monthly summary below the daily table, 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 is usually expressed in cubic feet per second per square mile (line headed "CFSM"), or 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 shown are the appropriate discharges for the calendar and water years.

Data collected at partial-record stations follow the information for continuous-record sites. Data for partial-record discharge stations are presented in two tables. The first is a table of annual maximum stage and discharge at crest-stage stations, and the second is a table of discharge measurements at miscellaneous sites. The measurements at miscellaneous sites 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.

Identifying Estimated Daily Discharge

Estimated daily-discharge values published in the water-discharge tables of annual State data reports are identified either by flagging individual daily values with the letter symbol "e" and printing a table footnote, "Estimated," or by listing the dates of the estimated record in the REMARKS paragraph of the station description.

Accuracy of the Records

The accuracy of streamflow records 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 measurements of stage, measurements of discharge, and interpretation of records.

The accuracy attributed to the records is indicated under "REMARKS." "Excellent" means that about 95 percent of the daily discharges are within 5 percent of their true values; "good," within 10 percent; and "fair," within 15 percent. Records that do not meet the criteria mentioned are rated "poor." Different accuracies may be attributed to different parts of a given record.

Daily mean discharges in this report are given to the nearest hundredth of a cubic foot per second for values less than 1 ft^3/s; to the nearest tenth between 1.0 and 10 ft^3/s; to whole numbers between 10 and 1,000 ft^3/s; and to 3 significant figures for more than 1,000 ft^3/s. The number of significant figures used is based solely on the magnitude of the discharge value. The same rounding rules apply to discharges listed for partial-record stations and miscellaneous sites.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumption, regulation by storage, 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 unless satisfactory adjustments can be made for diversions, for changes in contents of reservoirs, or for other changes incident to use and control. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless it is so stated. Even at those stations where adjustments are made, large errors in computed runoff may occur if adjustments or losses are large in comparison with the observed discharge.

Other Records Available

Information used in the preparation of the records in this publication, such as discharge-measurement notes, gage-height records, temperature measurements, and rating tables is on file in the Indiana District Office. Also, most of the daily mean discharges are in computer-readable form and have been analyzed statistically. Information on the availability of the unpublished information or on the results of statistical analyses of the published records may be obtained from the Indiana District Office.

Records of Surface-Water Quality

Records of surface-water quality ordinarily are obtained at or near stream-gaging stations because interpretation of records of surface-water quality nearly always requires corresponding discharge data. Records of surface-water quality in this report may involve a variety of types of data and measurement frequencies.

Classification of Records

Water-quality data for surface-water sites are grouped into one of three classifications. A continuing-record station is a site where data are collected on a regularly scheduled basis. Frequency may be one or more times daily, weekly, monthly, or quarterly. A partial-record station is a site where limited water-quality data are collected systematically over a period of years. Frequency of sampling is usually less than quarterly. A miscellaneous sampling site is a location other than a continuing or partial-record station where random samples are collected to give better areal coverage to define water-quality conditions in the river basin.

A careful distinction needs to be made between "continuing records," as used in this report, and "continuous recordings," which refers to a continuous graph or a series of discrete values punched at short intervals on a paper tape. Some records of water quality, such as temperature and specific conductance, may be obtained through continuous recordings; however, because of costs, most data are obtained only monthly or less frequently. Locations of stations for which records on the quality of surface water appear in this report are shown on figure 6.

Arrangement of Records

Water-quality records collected at a surface-water daily record station are published immediately following that record, regardless of the frequency of sample collection. Station number and name are the same for both records. Where a surface-water daily record station is not available or where the water quality differs significantly from that at the nearby surface-water station, the continuing water-quality record is published with its own station number and name in the regular downstream-order sequence. Water-quality data for partial-record stations and for miscellaneous sampling sites appear in separate tables following the table of discharge measurements at miscellaneous sites.

Onsite Measurements and Sample Collection

In obtaining water-quality data, a major concern needs to be assuring that the data obtained represent the in situ quality of the water. To assure this, certain measurements, such as water temperature, pH, and dissolved oxygen, need to be made onsite when the samples are taken. To assure that

measurements made in the laboratory also represent the in situ water, carefully prescribed procedures need to be followed in collecting the samples, in treating the samples to prevent changes in quality pending analysis, and in shipping the samples to the laboratory. Procedures for onsite measurements and for collecting, treating, and shipping samples are given in publications on "Techniques of Water-Resources Investigations," Book 1, Chap. D2; Book 3, Chap. C2; Book 5, Chap. A1, A3, and A4. All of these references are listed under "PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS" which appears at the end of the introductory text. Also, detailed information on collecting, treating, and shipping samples may be obtained from the U.S. Geological Survey, Indiana District Office.

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 stream. Some streams must be sampled through several vertical sections to obtain a representative sample needed for an accurate mean concentration and for use in calculating load. All samples obtained for the National Stream Quality Accounting Network (see definitions) are obtained from at least several verticals. Whether samples are obtained from the centroid of flow or from several verticals depends on flow conditions and other factors which must be evaluated by the collector.

Chemical-quality data published in this report are considered to be the most representative values available for the stations listed. The values reported represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. In the rare case where an apparent inconsistency exists between a reported pH value and the relative abundance of carbon dioxide species (carbonate and bicarbonate), the inconsistency is the result of a slight uptake of carbon dioxide from the air by the sample between measurement of pH in the field and determination of carbonate and bicarbonate in the laboratory.

For chemical-quality stations equipped with digital monitors, the records consist of daily maximum, minimum, and mean values for each constituent measured and are based upon hourly punches beginning at 0100 hours and ending at 2400 hours for the day of record. More detailed records (hourly values) may be obtained from the U.S. Geological Survey, Indiana District Office, whose address is given on the back of the title page of this report.

Water Temperature

Water temperatures are measured at most of the water-quality stations. Large streams have a small diurnal temperature change; 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. At stations where recording instruments are used, mean, maximum, and minimum temperatures for each day are published.

Table 1.--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.

Sediment

Suspended-sediment concentrations are determined from samples collected by using depth-integrating samplers. Samples usually are obtained at several verticals in the cross section, or a single sample may be obtained at a fixed point and a coefficient applied to determine the mean concentration in the cross sections.

During periods of rapidly changing flow or rapidly changing concentration, samples may have been collected more frequently (twice daily or, in some instances, hourly). The published sediment discharges for days of rapidly changing flow or concentration were computed by the subdivided-day method

(time-discharge weighted average). Therefore, for those days when the published sediment discharge value differs from the value computed as the product of discharge times mean concentration times 0.0027, the reader can assume that the sediment discharge for that day was computed by the subdivided-day method. For periods when no samples were collected, daily discharges of suspended sediment were estimated on the basis of water discharge, sediment concentrations observed immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge.

At other stations, suspended-sediment samples were collected periodically at many verticals in the stream cross section. Although data collected periodically may represent conditions only at the time of observations, such data are useful in establishing seasonal relations between quality and streamflow and in predicting long-term sediment-discharge characteristics of the stream.

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

Laboratory Measurements

Sediment samples, samples for biochemical-oxygen demand (BOD), samples for indicator bacteria, and daily samples for specific conductance are analyzed locally. All other samples are analyzed in the U.S. Geological Survey laboratory in Arvada, Colorado. Methods used in analyzing sediment samples and computing sediment records are given in TWRI, Book 5, Chap. C1. Methods used by the U.S. Geological Survey laboratory are given in TWRI, Book 1, Chap. D2; Book 3, Chap. C2; Book 5, Chap. A1, A3, and A4.

Data Presentation

For continuing-record stations, information pertinent to the history of station operation is provided in descriptive headings preceding the tabular data. These descriptive headings give details regarding location, drainage area, period of record, type of data available, instrumentation, general remarks, cooperation, and extremes for parameters currently measured daily. Tables of chemical, physical, biological, radiochemical data, and so forth, obtained at a frequency less than daily are presented first. Tables of "daily values" of specific conductance, pH, water temperature, dissolved oxygen, and suspended sediment then follow in sequence.

In the descriptive headings, if the location is identical to that of the discharge gaging station, neither the LOCATION nor the DRAINAGE AREA statements are repeated. The following information, as appropriate, is provided with each continuous-record station. Comments that follow clarify information presented under the various headings of the station description.

LOCATION.--See "Data Presentation" under "Records of Stage and Water Discharge."

DRAINAGE AREA.--See "Data Presentation" under "Records of Stage and Water Discharge."

PERIOD OF RECORD.--This indicates the periods for which there are published water-quality records for the station. The periods are shown separately for records of parameters measured daily or continuously and those measured less than daily. For those measured daily or continuously, periods of record are given for the parameters individually.

INSTRUMENTATION.--Information on instrumentation is given only if a water-quality monitor temperature record, sediment pumping sampler, or other sampling device is in operation at a station.

REMARKS.--Remarks provide added information pertinent to the collection, analysis, or computation of the records.

COOPERATION.--Records provided by a cooperating organization or obtained for the U.S. Geological Survey by a cooperating organization are identified here.

EXTREMES.--Maximums and minimums are given only for parameters measured daily or more frequently. None are given for parameters measured weekly or less frequently, because the true maximums or minimums may not have been sampled. Extremes, when given, are provided for both the period of record and for the current water year.

REVISIONS.--If errors in published water-quality records are discovered after publication, appropriate updates are made to the Water-Quality File in the U.S. Geological Survey's computerized data system, WATSTORE, and subsequently by monthly transfer of update transactions to the U.S. Environmental Protection Agency's STORET system. Because the usual volume of updates makes it impractical to document individual changes in the State data-report series or elsewhere, potential users of U.S. Geological Survey water-quality data are encouraged to obtain all required data from the appropriate computer file to ensure the most recent updates.

The surface-water-quality records for partial-record stations and miscellaneous sampling sites are published in separate tables following the table of discharge measurements at miscellaneous sites. No descriptive statements are given for these records. Each station is published with its own station number and name in the regular downstream-order sequence.

Remark Codes

The following remark codes may appear with the water-quality data in this report:

PRINTED OUTPUT	REMARK
E	Estimated value
>	Actual value is known to be greater than the value shown
<	Actual value is known to be less than the value shown
K	Results based on colony count outside the acceptance range (nonideal colony count)
L	Biological organism count less than 0.5 percent (organism may be observed rather than counted)
D	Biological organism count equal to or greater than 15 percent (dominant)
&	Biological organism estimated as dominant

Records of Lake Levels

Water-level data from a network of lake gaging stations are given in this report. These data are intended to provide a historical record of water-level changes in lakes where established average legal levels have been designated by the State. Numbers of lakes by county having current water-level records are shown on figure 8.

Data Collection and Computation

Measurements of water levels are made under varying conditions, but the methods are standardized to the extent possible. The equipment and measuring techniques used at each lake gage will ensure that the measurements are of consistent accuracy and reliability.

Tables of water-level data are presented by lake names arranged in alphabetical order. The prime identification number for a given lake is the "downstream-order" number previously discussed in this report and appears to the left of the lake name.

Lake-level records are obtained from direct measurement with a steel tape, from observation of steel staff gages, or from punched tape in a water-stage recorder. The water-level measurements in this report are given in feet above gage datum. Gage datum is a datum plane above the National Geodetic Vertical Datum of 1929. Water levels are reported to a hundredth of a foot.

Data Presentation

Each lake record consists of three parts, the station description, the data table of water levels observed during the year, and a yearly hydrograph. The description of the lake gage is presented first through use of descriptive headings preceding the tabular data which precedes the hydrograph. Comments that follow clarify information presented under the various headings.

LOCATION.--See "Data Presentation" under "Records of Stage and Water Discharge."

SURFACE AREA.--This entry specifies the surface area of the lake at its established legal level.

DRAINAGE AREA.--See "Data Presentation" under "Records of Stage and Water Discharge."

PERIOD OF RECORD.--This entry indicates the periods for which lake-level records at the site have been collected.

DATUM OF GAGE.--This entry indicates the datum of the current gage referred to the National Geodetic Vertical Datum of 1929 (see glossary).

GAGE.--The type of gage in current use and a condensed history of the types, locations, and datums of previous gages are given under this heading.

ESTABLISHED LEGAL LEVEL.--This entry indicates the average level in feet above gage datum and National Geodetic Vertical Datum of 1929 at which the lake is to be maintained, the data of decree, and court specifying the decreed level.

LAKE-LEVEL CONTROL.--This entry indicates the type of structure used to maintain the lake level.

INLET AND OUTLET.--This entry, if appropriate, describes where surface inflow comes into the lake and where outflow departs. Some lakes may have neither inlets, outlets, nor both; in such cases parts or all of this heading may not appear.

EXTREMES FOR PERIOD OF RECORD.--Extremes include maximum and minimum levels and the dates of occurrence.

REVISIONS.--If a critical error in published records is discovered, a revision is included in the first report published following discovery of the error.

A table of water levels follows the station description for each lake gage. Water levels are reported in feet above gage datum. Only abbreviated tables are published; water-levels at midnight (2400) are listed for every fifth day and at the end of the month (EOM). The highest and lowest 2400 levels with dates of occurrence and mean of the water year are shown on a line below the abbreviated table. Because all values are not published, the extremes may be values not listed in the table. Missing records are indicated by dashes in place of the water level.

A hydrograph of the water levels follows the table. The continuous solid line is a plot of the 2400 level for each day in the water year. Breaks in the plot indicate missing or invalid data.

Records of Ground-Water Levels

Only water-level data from a representative network of observation wells are given in this report. These data are intended to provide a sampling and historical record of water-level changes in the State's most important aquifers. Locations of the observation wells in this network in Indiana are shown on figure 9.

Data Collection and Computation

Measurements of water levels are made in many types of wells under varying conditions, but the methods of measurement are standardized to the extent possible. The equipment and measuring techniques used at each observation well ensure that measurements at each well are of consistent accuracy and reliability.

Tables of water-level data are presented by counties arranged in alphabetical order. The prime identification number for a given well is the 15-digit number that appears in the upper left corner of the table. The secondary identification number is the local well number.

Water-level records are obtained from direct measurements with a steel tape or punched tape of a water-stage recorder. The water-level measurements in this report are given in feet with reference to land-surface datum (lsd). Land-surface datum is a datum plane that is approximately at land surface at each well. If known, the elevation of the land-surface datum is given in the well description. The height of the measuring point (MP) above or below land-surface datum is given in each well description.

Water levels are reported to as many significant figures as can be justified by the local conditions. For example, in a measurement of a depth to water of several hundred feet, the error of determining the absolute value of the total depth to water may be a few tenths of a foot, whereas the error in determining the net change of water level between successive measurements may be only a hundredth or a few hundredths of a foot. For lesser depths to water, the accuracy is greater. Accordingly, most measurements are reported to a hundredth of a foot, but some are given to a tenth of a foot or a larger unit.

Data Presentation

Each well record consists of two parts, the station description and the data table of water levels observed during the water year. The description of the well is presented first through use of descriptive headings preceding the tabular data. The comments that follow clarify information presented under the various headings.

LOCATION.--This paragraph follows the well-identification number and reports the latitude and longitude (given in degrees, minutes, and seconds), a landline location designation, the hydrologic-unit number, the distance and direction from a geographic point of reference, and the owner's name.

AQUIFER.--This entry designates by name (if a name exists) and geologic age the aquifer(s) open to the well.

WELL CHARACTERISTICS.--This entry describes the well in terms of depth, diameter, casing depth and/or screened interval, method of construction, use, and additional information such as casing breaks, collapsed screen, and other changes since construction.

INSTRUMENTATION.--This paragraph provides information on both the frequency of measurement and the collection method used, allowing the user to better evaluate the reported water-level extremes by knowing whether they are based on weekly, monthly, or some other frequency of measurement.

DATUM.--This entry describes both the measuring point and the land-surface elevation at the well. The measuring point is described physically (such as top of collar, notch in top of casing, plug in pump base and so on), and in relation to land surface (such as 1.3 ft above land-surface datum). The elevation of the land-surface datum is described in feet above (or below) National Geodetic Vertical Datum of 1929 (NGVD of 1929); it is reported with a precision depending on the method of determination.

REMARKS.--This entry describes factors that may influence the water level in a well or the measurement of the water level. It should identify wells that also are water-quality observation wells and may be used to acknowledge the assistance of local (non-U.S. Geological Survey) observers.

PERIOD OF RECORD.--This entry indicates the period for which there are published records for the well. It reports the month and year of the start of publication of water-level records by the U.S. Geological Survey and the words "to current year" if the records are to be continued into the following year. Periods for which water-level records are available but are not published by the U.S. Geological Survey may be noted.

EXTREMES FOR PERIOD OF RECORD.--This entry contains the highest and lowest water levels of the period of published record, with respect to land-surface datum, and the dates of their occurrence.

Tables of water levels follow the station description for each well. Water levels are reported in feet below land-surface datum. Only abbreviated tables are published; water-level highs and lows are listed for every fifth day and at the end of the month (eom). The highest and lowest water levels of the water year and their dates of occurrence are shown on a line below the abbreviated tables. Because all values are not published, the extremes may be values that are not listed in the tables. Missing records are indicated by dashes in place of the water level.

A hydrograph of the water levels follows the tables. The continuous solid line is a plot of the highest water level for each day in the water year; the dashed line is a plot of the lowest water level for each day. Breaks in either line indicate missing or invalid data.

ACCESS TO WATSTORE DATA

The National WATer Data STOrage and REtrieval System (WATSTORE) was established for handling water data collected through the activities of the U.S. Geological Survey and to provide for more effective and efficient means of releasing the data to the public. The system is operated and maintained on the central computer facilities of the U.S. Geological Survey at its National Center in Reston, Virginia.

WATSTORE can provide a variety of useful products ranging from simple data tables to complex statistical analyses. A minimal fee, plus the actual computer cost incurred in producing a desired product, is charged to the requester. Information about the availability of specific types of data, the acquisition of data or products, and user charges can be obtained locally from the offices whose addresses are given on the back of the title page.

General inquiries about WATSTORE may be directed to:

Chief Hydrologist
U.S. Geological Survey
437 National Center
Reston, Virginia 22092

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 (SI) units on the inside of the back cover.

Acre-foot (AC-FT, ac-ft) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equal to 43,560 cubic feet or about 326,000 gallons or 1,233 cubic meters.

Adenosine triphosphate (ATP) is an organic, phosphate-rich, compound important in the transfer of energy in organisms. Its central role in living cells makes it an excellent indicator of the presence of living material in water. A measure of ATP therefore provides a sensitive and rapid estimate of biomass. ATP is reported in micrograms per liter of the original water sample.

Algae are mostly aquatic single-celled, colonial, or multi-celled plants, containing chlorophyll and lacking roots, stems, and leaves.

Algal growth potential (AGP) is the maximum algal dry weight biomass that can be produced in a natural water sample under standardized laboratory conditions. The growth potential is the algal biomass present at stationary phase and is expressed as milligrams dry weight of algae produced per liter of sample.

Aquifer is a geologic formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield significant quantities of water to wells and springs.

Artesian means confined and is used to describe a well in which the water level stands above the top of the aquifer tapped by the well. A flowing artesian well is one in which the water level is above the land surface.

Bacteria are microscopic unicellular organisms, typically spherical, rod-like, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, while others perform an essential role in nature in the recycling of materials; for example, by decomposing organic matter into a form available for reuse by plants.

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria which ferment lactose with gas formation within 48 hours at 35 °C. In the laboratory these bacteria are defined as all the organisms that produce colonies with a golden-green metallic sheen within 24 hours when incubated at 35 °C plus or minus 1.0 °C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal coliform bacteria are bacteria that are present in the intestine or feces of warm-blooded animals. They are often used as indicators of the sanitary quality of the water. In the laboratory they are defined as all organisms that produce blue colonies within 24 hours when incubated at 44.5 °C ± 0.2 °C on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal streptococcal bacteria are bacteria found also in the intestine of warm-blooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as Gram-positive, cocci bacteria which are capable of growth in brain-heart infusion broth. In the laboratory they are defined as all the organisms which produce red or pink colonies within 48 hours at 35 °C ± 1.0 °C on KF-streptococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Bed material is the sediment mixture of which a streambed, lake, pond, reservoir, or estuary bottom is composed.

Biochemical oxygen demand (BOD) is a measure of the quantity of dissolved oxygen, in milligrams per liter, necessary for the decomposition of organic matter by micro-organisms, such as bacteria.

Biomass is the amount of living matter present at any given time, expressed as the mass per unit area or volume of habitat.

Ash mass is the mass or amount of residue present after the residue from the dry mass determination has been ashed in a muffle furnace at a temperature of 500 °C for 1 hour. The ash mass values of zooplankton and phytoplankton are expressed in grams per cubic meter (g/m^3), and periphyton and benthic organisms in grams per square mile (g/m^2).

Dry mass refers to the mass of residue present after drying in an oven at 105 °C for zooplankton and periphyton, until the mass remains unchanged. This mass represents the total organic matter, ash and sediment, in the sample. Dry-mass values are expressed in the same units as ash mass.

Organic mass or volatile mass of the living substance is the difference between the dry mass and ash mass and represents the actual mass of the living matter. The organic mass is expressed in the same units as for ash mass and dry mass.

Wet mass is the mass of living matter plus contained water.

Bottom material: See Bed material.

Cells/volume refers to the number of cells of any organism which is counted by using a microscope and grid or counting cell. Many planktonic organisms are multicelled and are counted according to the number of contained cells per sample, usually milliliters (mL) or liters (L).

Chemical oxygen demand (COD) is a measure of the chemically oxidizable material in the water and furnishes an approximation of the amount of organic and reducing material present. The determined value may correlate with natural water color or with carbonaceous organic pollution from sewage or industrial wastes.

Chlorophyll refers to the green pigments of plants. Chlorophyll a and b are the two most common green pigments in plants.

Color unit is produced by 1 milligram per liter of platinum in the form of the chloro-platinate ion. Color is expressed in units of the platinum-cobalt scale.

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

Control structure as used in this report is a structure on a stream or canal that is used to regulate the flow or stage of the stream or to prevent the intrusion of salt water.

Cubic foot per second (ft^3/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to 7.48 gallons per second or 448.8 gallons per minute or 0.02832 cubic meters per second.

Cubic foot per second-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, about 646,000 gallons, or 2,445 cubic meters.

Cubic feet per second per square mile [$(ft^3/s)/mi^2$] 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.

Discharge is the volume of water (or more broadly, volume of fluid plus suspended sediment) that passes a given point within a given period of time.

Mean discharge (MEAN) is the arithmetic mean of individual daily mean discharges during a specific period.

Instantaneous discharge is the discharge at a particular instant of time.

Dissolved refers to that material in a representative water sample which passes through a 0.45-micron (µm) membrane filter. This is a convenient operational definition used by Federal agencies that collect water data. Determinations of "dissolved" constituents are made on subsamples of the filtrate.

Dissolved-solids concentration of water is determined either analytically by the "residue-on-evaporation" method, or mathematically by totaling the concentrations of individual constituents reported in a comprehensive chemical analysis. During the analytical determination of dissolved solids, the bicarbonate (generally a major dissolved component of water) is converted to carbonate. Therefore, in the mathematical calculation of dissolved-solids concentration, the bicarbonate value, in milligrams per liter, is multiplied by 0.492 to reflect the change.

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. Figures of drainage area given herein include all closed basins, or noncontributing areas, within the area unless otherwise specified.

Drainage basin is a part of the surface of the earth that is occupied by a drainage system, which consists of a surface stream or a body of impounded surface water together with all tributary surface streams and bodies of impounded surface water.

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

Gaging station is a particular site on a stream, canal, lake, or reservoir where systematic observations of hydrologic data are obtained.

Hardness of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is computed as the sum of equivalents of polyvalent cations and is expressed as the equivalent concentration of calcium carbonate ($CaCO_3$).

Hydrologic unit is a geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as delineated by the Office of Water Data Coordination on the State Hydrologic Unit Maps; each hydrologic unit is identified by an 8-digit number.

Land-surface datum (lsd) is a datum plane that is approximately at land surface at each ground-water observation well.

Measuring point (MP) is an arbitrary permanent reference point from which the distance to the water surface in a well is measured to obtain the water level.

Metamorphic stage refers to the stage of development that an organism exhibits during its transformation from an immature form to an adult form. This developmental process exists for most insects, and the degree of difference from the immature stage to the adult form varies from relatively slight to pronounced, with many intermediates. Examples of metamorphic stages of insects are egg-larva-adult or egg-nymph-adult.

Methylene blue active substances (MBAS) are apparent detergents. The determination depends on the formation of a blue color when methylene blue dye reacts with synthetic anionic detergent compounds.

Micrograms per gram (µg/g) is a unit expressing the concentration of a chemical constituent as the mass (micrograms) of the element per unit mass (gram) of material analyzed.

Micrograms per liter (UG/L, µg/L) is a unit expressing the concentration of chemical constituents in solution as mass (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 mass of solute per unit volume (liter) of water. Concentration of suspended sediment also is expressed in mg/L and is based on the mass of dry sediment per liter of water-sediment mixture.

National Geodetic Vertical Datum of 1929 (NGVD of 1929) is a geodetic datum derived from a general adjustment of the first order level nets of both the United States and Canada. It was formerly called "Sea Level Datum of 1929" or "mean sea level" in this series of reports. Although the datum was derived from the average sea level over a period of many years at 26 tide stations along the Atlantic, Gulf of Mexico, and Pacific Coasts, it does not necessarily represent local mean sea level at any particular place.

The National Trends Network (NTN) is a 150-station network for sampling atmospheric deposition in the United States. The purpose of the network is to determine the variability, both in location and in time, of the composition of atmospheric deposition, which includes snow, rain, dust particles, aerosols, and gases. The core from which the NTN was built was the already-existing deposition-monitoring network of the National Atmospheric Deposition Program (NADP).

Organism is any living entity.

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per area habitat, usually square meter (m^2), acre, or hectare. Periphyton, benthic organisms, and macrophytes are expressed in these terms.

Organism count/volume refers to the number of organisms collected and enumerated in a sample and adjusted to the number per sample volume, usually milliliter (mL) or liter (L). Numbers of planktonic organisms can be expressed in these terms.

Total organism count is the total number of organisms collected and enumerated in any particular sample.

Parameter code is a 5-digit number used in the U.S. Geological Survey computerized data system, WATSTORE, to uniquely identify a specific constituent. The codes used in WATSTORE are the same as those used in the U.S. Environmental Protection Agency data system, STORET. The U.S. Environmental Protection Agency assigns and approves all requests for new codes.

Partial-record station is a particular site where limited streamflow and/or water-quality data are collected systematically over a period of years for use in hydrologic analyses.

Particle size is the diameter, in millimeters (mm), of a particle 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 river water at the time and point of sampling).

Particle-size classification used in this report agrees with the recommendation made by the American Geophysical Union Subcommittee on Sediment Terminology. 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 distributions given in this report are not necessarily representative of all particles in transport in the stream. Most of the organic matter 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.

Percent composition is a unit for expressing the ratio of a particular part of a sample or population to the total sample or population, in terms of types, numbers, mass, or volume.

Periphyton is the assemblage of micro-organisms attached to and living upon submerged solid surfaces. While primarily consisting of algae, they also include bacteria, fungi, protozoa, rotifers, and other small organisms.

Pesticides are chemical compounds used to control undesirable organisms. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides.

Picocurie (PC, pCi) is one trillionth (1×10^{-12}) of the amount of radioactivity represented by a curie (Ci). A curie is the amount of radioactivity that yields 3.7×10^{10} radioactive disintegrations per second (dpm). A picocurie yields 2.22 dpm.

Plankton is the community of suspended, floating, or weakly swimming organisms that live in the open water of lakes and rivers.

Phytoplankton is the plant part of the plankton. They are usually microscopic and their movement is subject to the water currents. Phytoplankton growth is dependent upon solar radiation and nutrient substances. Because they are able to incorporate as well as release materials to the surrounding water, the phytoplankton have a profound effect upon the quality of the water. They are the primary food producers in the aquatic environment and are commonly known as algae.

Blue-green algae are a group of phytoplankton organisms having a blue pigment, in addition to the green pigment called chlorophyll. Blue-green algae often cause nuisance conditions in water.

Diatoms are the unicellular or colonial algae having a siliceous shell. Their concentrations are expressed as number of cells per milliliter (cells/mL) of sample.

Green algae have chlorophyll pigments similar in color to those of higher green plants. Some forms produce algae mats or floating "moss" in lakes. Their concentrations are expressed as number of cells per milliliter (cells/mL) of sample.

Zooplankton is the animal part of the plankton. Zooplankton are capable of extensive movements within the water column and are often large enough to be seen with the unaided eye. Zooplankton are secondary consumers feeding upon bacteria, phytoplankton, and detritus. Because they are the grazers in the aquatic environment, the zooplankton are a vital part of the aquatic food web. The zooplankton community is dominated by small crustaceans and rotifers.

Primary productivity is a measure of the rate at which new organic matter is formed and accumulated through photosynthetic and chemosynthetic activity of producer organisms (chiefly, green plants). The rate of primary production is estimated by measuring the amount of oxygen released (oxygen method) or the amount of carbon assimilated by the plants (carbon method).

Milligrams of carbon per area or volume per unit time [mg C/(m^2.time)] for periphyton and macrophytes and [mg C/(m^3.time)] for phytoplankton are units for expressing primary productivity. They define the amount of carbon dioxide consumed as measured by radioactive carbon (carbon 14). The carbon 14 method is of greater sensitivity than the oxygen light and dark bottle method and is preferred for use in unenriched waters. Unit time may be either the hour or day, depending on the incubation period.

Milligrams of oxygen per area or volume per unit time [mg O/(m^2.time)] for periphyton and macrophytes and [mg O/(m^3.time)] for phytoplankton are the units for expressing primary productivity. They define production and respiration rates as estimated from changes in the measured dissolved-oxygen concentration. The oxygen light and dark bottle method is preferred if the rate of primary production is sufficient for accurate measurements to be made within 24 hours. Unit time may be either the hour or day, depending on the incubation period.

Recoverable from bottom material is the amount of a given constituent that is in solution after a representative sample of bottom material has been digested by a method (usually using an acid or mixture of acids) that results in dissolution of readily soluble substances. Complete dissolution of all bottom material is not achieved by the digestion treatment and thus the determination represents less than the total amount (that is, less than 95 percent) of the constituent in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Return period is the average time interval between occurrences of a hydrological event of a given or greater magnitude, usually expressed in years. May also be called recurrence interval.

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

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 the occurrence of sediment in streams are influenced by environmental factors. Some major factors are degree of slope, length of slope, soil characteristics, land usage, and quantity and intensity of precipitation.

Bed load is the sediment that is transported in a stream by rolling, sliding, or skipping along the bed and very close to it. In this report, bed load is considered to consist of particles in transit within 0.25 ft of the streambed.

Bed load discharge (tons per day) is the quantity of bed load measured by dry weight that moves past a section as bed load in a given time.

Suspended sediment is the sediment that at any given time is maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid.

Suspended-sediment concentration is the velocity-weighted concentration 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).

Mean concentration is the time-weighted concentration of suspended sediment passing a stream section during a 24-hour day.

Suspended-sediment discharge (tons/day) is the rate at which dry mass of sediment passes a section of a stream or is the quantity of sediment, as measured by dry mass or volume, that passes a section in a given time. It is calculated in units of tons per day as follows: Concentration (mg/L) x discharge (ft^3/s) x 0.0027.

Suspended-sediment load is a general term that refers to material in suspension. It is not synonymous with either discharge or concentration.

Total-sediment discharge (tons/day) is the sum of the suspended-sediment discharge and the bed-load discharge. It is the total quantity of sediment, as measured by dry mass or volume, that passes a section during a given time.

Total-sediment load or total load is a term which refers to the total sediment (bed load plus suspended-sediment load) that is in transport. It is not synonymous with total-sediment discharge.

7-day 10-year low flow ($7\ Q_{10}$) is the discharge at the 10-year recurrence interval taken from a frequency curve of annual values of the lowest mean discharge for 7 consecutive days (the 7-day low flow).

Sodium-adsorption-ratio (SAR) is the expression of relative activity of sodium ions in exchange reactions within soil and is an index of sodium or alkali hazard to the soil. Waters range in respect to sodium hazard from those which can be used for irrigation on almost all soils to those which are generally unsatisfactory for irrigation.

Solute is any substance that is dissolved in water.

Specific conductance is a measure of the ability of a water to conduct an electrical current. It is expressed in microsiemens per centimeter at 25 °C. Specific conductance is related to the type and concentration of ions in solution and can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in microsiemens). This relation is not constant from stream to stream, and it may vary in the same source with changes in the composition of the water.

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

Streamflow is the discharge that occurs in a natural channel. Although the term "discharge" can be applied to the flow of a canal, the word "streamflow" uniquely describes the discharge in a surface stream course. The term "streamflow" is more general than "runoff," as streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

Substrate is the physical surface upon which an organism lives.

Natural substrate refers to any naturally occurring emersed or submersed solid surface, such as a rock or tree, upon which an organism lives.

Artificial substrate is a device which is purposely placed in a stream or lake for colonization of organisms. The artificial substrate simplifies the community structure by standardizing the substrate from which each sample is taken. Examples of artificial substrates are basket samplers (made of wire cages filled with clean streamside rocks), multiplate samplers (made of hardboard) for benthic organism collection, and plexiglass strips for periphyton collection.

Surface area of a lake is that area outlined on the latest U.S. Geological Survey topographic map as the boundary of the lake and measured by a planimeter in acres. In localities not covered by topographic maps, the areas are computed from the best maps available at the time planimetered. All areas shown are those for the stage when the planimetered map was made.

Surficial bed material is the part (0.1 to 0.2 ft) of the bed material that is sampled using U.S. Series Bed-Material Samplers.

Suspended (as used in tables of chemical analyses) refers to the amount (concentration) of undissolved material in a water-sediment mixture. It is associated with the material retained on a 0.45-µm filter.

Suspended, recoverable is the amount of a given constituent that is in solution after the part of a representative water-suspended sediment sample that is retained on a 0.45-µm membrane filter has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all the particulate matter is not achieved by the digestion treatment and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the sample. To achieve comparability of analytical data, equivalent digestion procedures are required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Determinations of "suspended, recoverable" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of: (1) Dissolved, and (2) total recoverable concentrations of the constituent.

Suspended, total is the total amount of a given constituent in the part of a representative water-suspended sediment sample that is retained on a 0.45-µm membrane filter. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to determine when the results should be reported as "suspended, total."

Determinations of "suspended, total" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of: (1) Dissolved; and (2) total concentrations of the constituent.

Taxonomy is the division of biology concerned with the classification and naming of organisms. The classification of organisms is based upon a hierarchial scheme beginning with Kingdom and ending with Species at the base. The higher the classification level, the fewer features the organisms have in common. For example, the taxonomy of a particular mayfly, Hexagenia limbata, is the following:

Kingdom	Animal
Phylum	Arthropoda
Class	Insecta
Order	Ephemeroptera
Family	Ephemeridae
Genus	Hexagenia
Species	Hexagenia limbata

Thermograph is an instrument that continuously records variations of temperature on a chart. The more general term "temperature recorder" is used in the table headings and refers to any instrument that records temperature whether on a chart, a tape, or any other medium.

Time-weighted average is computed by multiplying the number of days in the sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the total number of days. A time-weighted average represents the composition of water that would be contained in a vessel or reservoir that had received equal quantities of water from the stream each day for the year.

Tons per acre-foot indicates the dry mass of dissolved solids in 1 acre-foot of water. It is computed by multiplying the concentration of the constituent, in milligrams per liter, by 0.00136.

Tons per day (T/DAY) is the quantity of a substance in solution or suspension that passes a stream section during a 24-hour period.

Total is the total amount of a given constituent in a representative water-suspended sediment sample, regardless of the constituent's physical or chemical form. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent present in both the dissolved and suspended phases of the sample. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total." (Note that the word "total" does double duty here, indicating both that the sample consists of a water-suspended sediment mixture and that the analytical method determined all of the constituent in the sample.)

Total discharge is the total quantity of any individual constituent, as measured by dry mass or volume, that passes through a stream cross section per unit of time. This term needs to be qualified, such as "total sediment discharge," "total chloride discharge," and so on.

Total, recoverable is the amount of a given constituent that is in solution after a representative water-suspended sediment sample has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all particulate matter is not achieved by the digestion treatment, and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the dissolved and suspended phases of the sample. To achieve comparability of analytical data, equivalent digestion procedures are required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Water year in U.S. Geological Survey reports dealing with surface-water supply is the 12-month period October 1 through September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 1985, is called the "1985 water year."

WDR is used as an abbreviation for "Water-Data Report" in the REVISED RECORDS paragraph to refer to State annual hydrologic-data reports (WRD was used as an abbreviation for "Water-Resources Data" in reports published prior to 1976).

Weighted average is used in this report to indicate discharge-weighted average. It is computed by multiplying the discharge for a sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the sum of the discharges. A discharge-weighted average approximates the composition of water that would be found in a reservoir containing all the water passing a given location during the water year after thorough mixing in the reservoir.

WSP is used as an abbreviation for "Water-Supply Paper" in reference to previously published reports.

Table 2.--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 3.--Factors for conversion of sediment concentrations in milligrams per liter to parts per million*
(All values calculated to three significant figures)

Range of concentration in 1,000 mg/L	Divide by	Range of concentration in 1,000 mg/L	Divide by	Range of concentration in 1,000 mg/L	Divide by	Range of concentration in 1,000 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	492-508	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 and a specific gravity of sediment of 2.65.

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

The U.S. Geological Survey publishes a series of manuals describing procedures for planning and conducting specialized work in water-resources investigations. The material is grouped under major subject headings called books and is further divided into sections and chapters. For example, Section A of Book 3 (Applications of Hydraulics) pertains to surface water. The chapter, the unit of publication, is limited to a narrow field of subject matter. This format permits flexibility in revision and publication as the need arises.

The reports listed below are for sale by the U.S. Geological Survey, Books and Open- File Reports Section, Federal Center, Box 25425, Denver, Colorado 80225 (authorized agent of the Superintendent of Documents, Government Printing Office). Prepayment is required. Remittance should be sent by check or money order payable to the U.S. Geological Survey. Prices are not included because they are subject to change. Current prices can be obtained by writing to the above address. When ordering or inquiring about prices for any of these publications, please give the title, book number, chapter number, and "U.S. Geological Survey Techniques of Water-Resources Investigations."

1-D1. *Water temperature--influential factors, field measurement, and data presentation,* by H. H. Stevens, Jr., J. F. Ficke, and G. F. Smoot: USGS--TWRI Book 1, Chapter D1. 1975. 65 pages.

1-D2. *Guidelines for collection and field analysis of ground-water samples for selected unstable constituents,* by W. W. Wood: USGS--TWRI Book 1, Chapter D2. 1976. 24 pages.

2-D1. *Application of surface geophysics to ground-water investigations,* by A. A. R. Zohdy, G. P. Eaton, and D. R. Mabey: USGS--TWRI Book 2, Chapter D1. 1974. 116 pages.

2-E1. *Application of borehole geophysics to water-resources investigations,* by W. S. Keys and L. M. MacCary: USGS--TWRI Book 2, Chapter E1. 1971. 126 pages.

3-A1. *General field and office procedures for indirect discharge measurements,* by M. A. Benson and Tate Dalrymple: USGS--TWRI Book 3, Chapter A1. 1967. 30 pages.

3-A2. *Measurement of peak discharge by the slope-area method,* by Tate Dalrymple and M. A. Benson: USGS--TWRI Book 3, Chapter A2. 1967. 12 pages.

3-A3. *Measurement of peak discharge at culverts by indirect methods,* by G. L. Bodhaine: USGS--TWRI Book 3, Chapter A3. 1968. 60 pages.

3-A4. *Measurement of peak discharge at width contractions by indirect methods,* by H. F. Matthai: USGS--TWRI Book 3, Chapter A4. 1967. 44 Pages.

3-A5. *Measurement of peak discharge at dams by indirect methods,* by Harry Hulsing: USGS--TWRI Book 3, Chapter A5. 1967. 29 pages.

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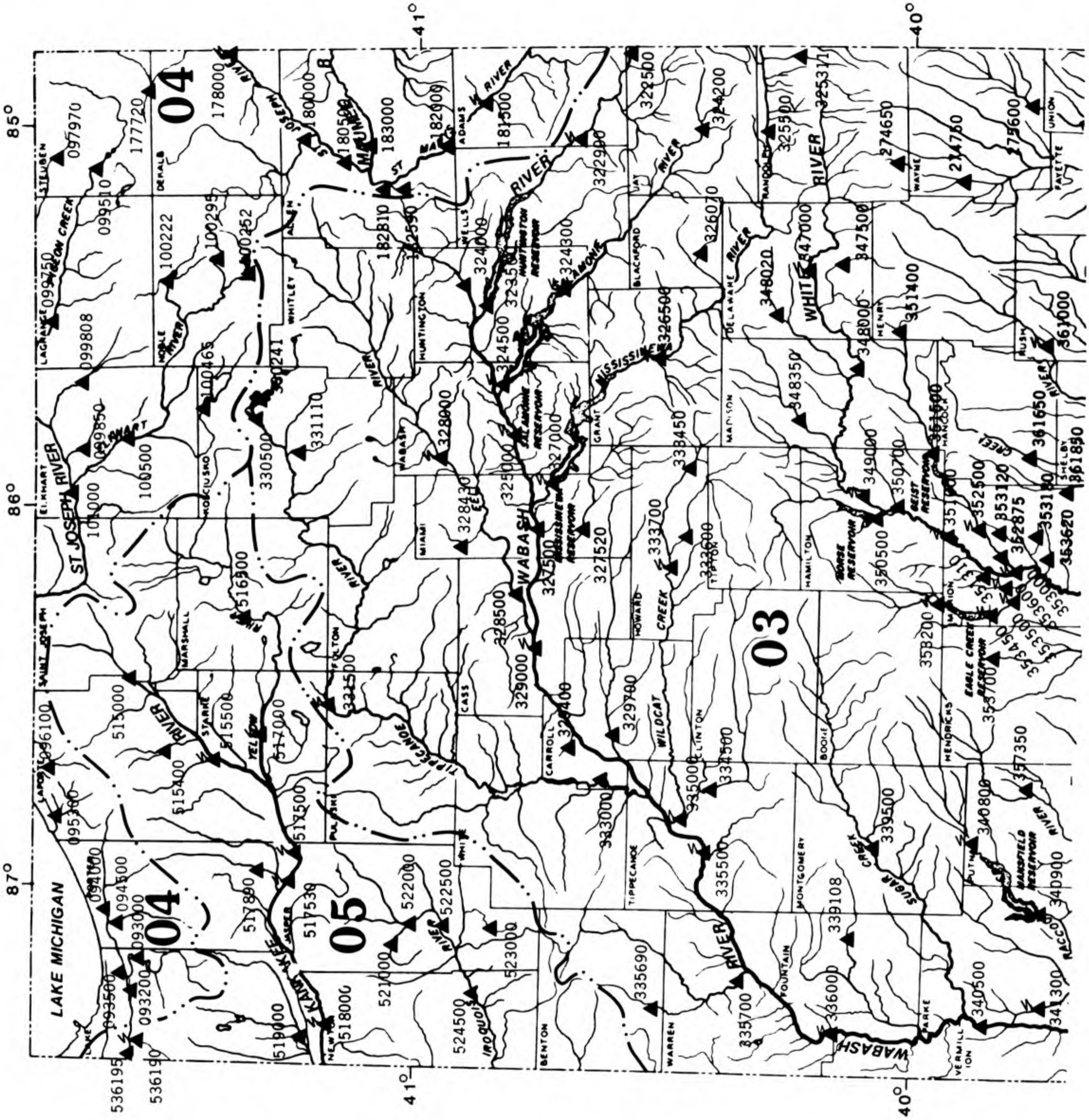
LAKE MICHIGAN
ST. JOSEPH RIVER
WABASH RIVER
WHITE RIVER
MAUMEE
TIPPECANOE RIVER
KANKAKEE
IROQUOIS
SUGAR CREEK
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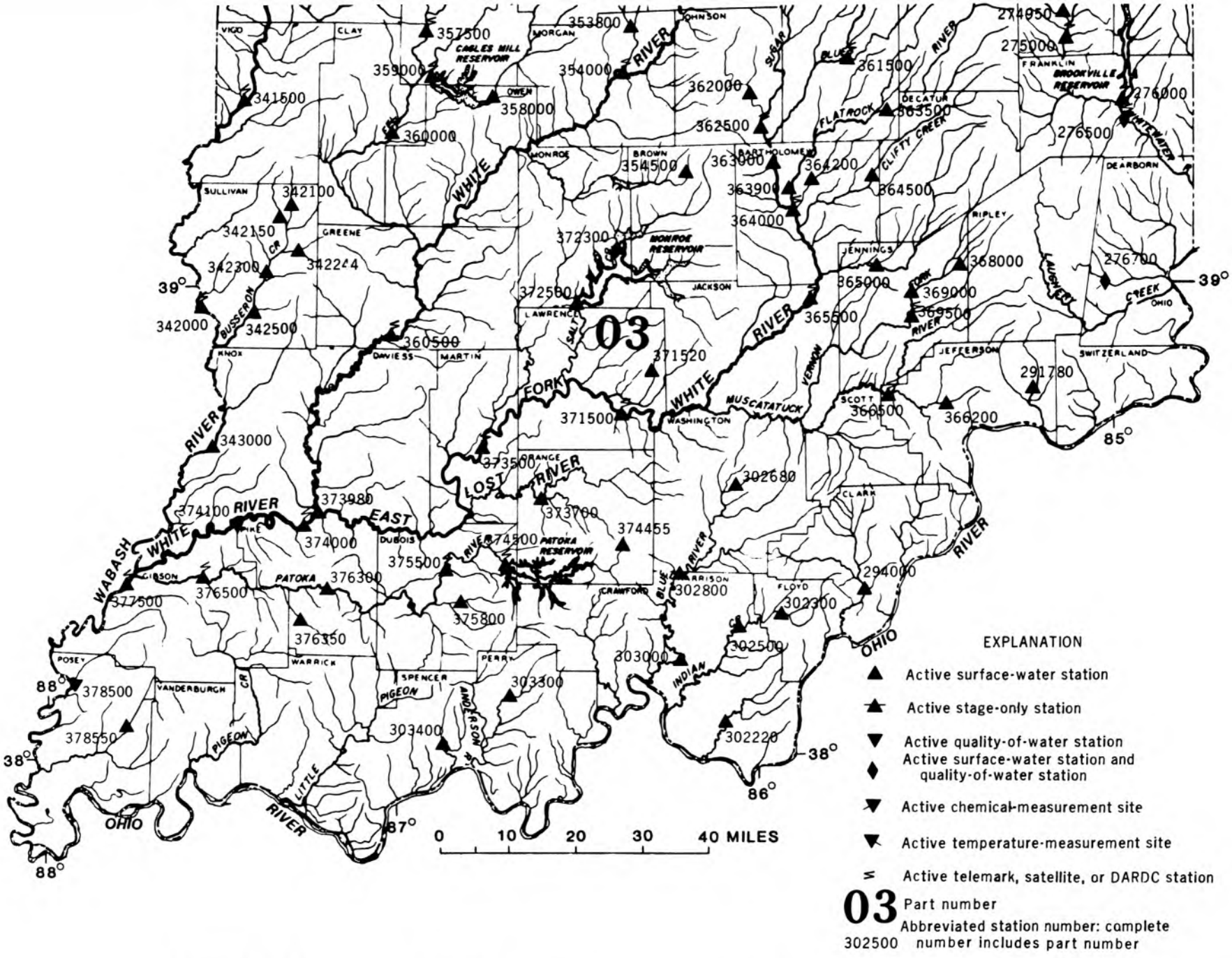


Figure 6.-- Locations of stream flow and water-quality gaging stations in Indiana.

03274650 WHITEWATER RIVER NEAR ECONOMY, IN

LOCATION.--Lat 40°00'05", long 85°06'56", in NW¼NE¼ sec.19, T.18 N., R.13 E., Wayne County, Hydrologic Unit 05080003, on right bank 6 ft downstream from bridge on Wayne County Line Road, 1.7 mi upstream from Little Creek, 2.4 mi northwest of Economy, and at mile 91.9.

DRAINAGE AREA.--10.4 mi^2.

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

REVISED RECORDS.--WRD IN 83-1: 1982.

GAGE.--Water-stage recorder. Datum of gage is 1,066.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 3-9 and Apr. 25 to June 9. Records good except those for estimated daily discharges, which are fair.

AVERAGE DISCHARGE.--16 years, 11.3 ft^3/s, 14.76 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,100 ft^3/s Aug. 20, 1979, gage height, 8.85 ft; minimum daily, 0.28 ft^3/s Jan. 17, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 200 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 26	1400	*892	*8.17	Mar. 18	2400	342	5.96
Dec. 11	0600	685	7.46	Apr. 20	1700	391	6.21
Feb. 4	0500	208	5.13	July 11	1600	379	6.15

Minimum daily discharge, 0.59 ft^3/s Oct. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.61	.80	24	5.9	8.1	8.0	7.9	20	7.9	35	2.8	.90
2	.61	.81	20	6.1	19	8.1	7.8	15	7.4	43	2.6	.90
3	.61	.79	16	6.3	24	8.0	7.6	13	7.0	21	2.5	.89
4	.60	.74	13	6.2	144	8.6	7.4	12	7.0	14	2.5	.88
5	.61	.73	11	6.1	71	13	7.4	11	7.0	11	2.4	.86
6	.61	.73	10	5.8	40	20	8.5	10	30	8.8	2.3	.80
7	.61	.74	9.4	5.4	47	12	8.0	15	25	10	2.3	.80
8	.59	.73	8.8	5.2	29	9.4	7.6	13	23	10	2.2	.77
9	.61	.93	8.5	5.3	23	9.6	7.2	11	21	8.3	2.0	.72
10	.61	17	21	5.3	17	16	7.0	10	18	9.9	2.2	.69
11	.61	24	430	5.5	12	20	6.7	9.8	14	129	2.1	.94
12	.65	10	149	5.8	9.6	24	6.7	9.4	13	60	1.9	1.1
13	.67	63	56	5.8	8.5	57	6.5	9.0	11	17	1.8	.95
14	.76	32	32	5.4	8.4	27	6.7	12	9.1	9.0	1.7	.85
15	.80	21	24	5.2	7.7	18	8.1	18	8.5	6.8	1.6	.77
16	.73	40	21	5.3	7.7	12	7.3	50	8.3	5.6	1.6	.73
17	.72	22	15	16	33	11	7.3	22	8.5	5.0	1.6	.69
18	.73	13	11	18	49	47	7.0	23	7.9	4.4	1.6	49
19	.76	30	8.8	47	33	149	6.8	18	7.6	4.1	1.5	7.7
20	1.3	30	8.4	22	23	40	133	14	21	3.9	1.4	5.2
21	1.3	16	7.7	16	18	25	124	13	11	3.7	1.4	3.0
22	1.0	12	7.8	22	13	20	49	12	8.5	3.6	1.3	2.0
23	.88	9.7	7.7	13	11	16	32	11	12	3.3	1.3	1.9
24	.85	8.4	7.4	11	11	12	25	10	8.3	3.3	1.3	1.9
25	.79	8.0	6.5	9.9	9.7	11	20	9.4	7.5	3.3	1.1	1.8
26	.77	208	6.4	9.6	11	9.9	15	10	7.0	3.4	1.3	1.7
27	.73	125	6.3	9.3	9.5	9.3	13	12	7.0	3.1	1.4	2.6
28	.73	101	6.0	7.4	8.4	8.9	12	10	66	3.1	1.2	2.8
29	.73	43	6.0	6.9	---	8.7	11	9.4	23	3.0	1.0	2.2
30	.73	28	5.9	6.2	---	8.3	13	8.8	37	2.8	1.0	2.0
31	.76	---	5.9	6.2	---	8.0	---	8.4	---	2.8	.99	---
TOTAL	23.07	868.10	970.5	311.1	705.6	654.8	586.5	429.2	449.5	451.2	53.89	98.04
MEAN	.74	28.9	31.3	10.0	25.2	21.1	19.6	13.8	15.0	14.6	1.74	3.27
MAX	1.3	208	430	47	144	149	133	50	66	129	2.8	49
MIN	.59	.73	5.9	5.2	7.7	8.0	6.5	8.4	7.0	2.8	.99	.69
CFSM	.07	2.78	3.01	.96	2.42	2.03	1.88	1.33	1.44	1.40	.17	.31
IN.	.08	3.11	3.47	1.11	2.52	2.34	2.10	1.54	1.61	1.61	.19	.35

CAL YR 1985 TOTAL 5894.07 MEAN 16.1 MAX 569 MIN .59 CFSM 1.55 IN. 21.08
WTR YR 1986 TOTAL 5601.50 MEAN 15.3 MAX 430 MIN .59 CFSM 1.47 IN. 20.04

03274750 WHITEWATER RIVER NEAR HAGERSTOWN, IN

LOCATION.--Lat 39°52'25", long 85°09'47", in NE¼NE¼ sec.3, T.16 N., R.12 E., Wayne County, Hydrologic Unit 05080003, on left bank at downstream side of bridge on Jerry Meyers Road, 1.0 mi upstream from Pronghorn Run, 1.5 mi north of Interstate 70, 2.0 mi downstream from Nettle Creek, 2.6 mi south of Hagerstown, and at mile 84.9.

DRAINAGE AREA.--58.7 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 950.00 ft above National Geodetic Vertical Datum of 1929 (Indiana Flood Control and Water Resources Commission bench mark).

REMARKS.--No estimated daily discharges. Records good.

AVERAGE DISCHARGE.--16 years, 68.7 ft^3/s, 15.89 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,300 ft^3/s Jan. 26, 1976, gage height, 10.89 ft; maximum gage height, 11.24 ft Aug. 1, 1979; minimum daily discharge, 5.3 ft^3/s Aug. 5, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1200 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 26	2400	1,630	9.64	Mar. 19	0800	1,330	8.75
Dec. 11	1500	*1,960	*10.54	Apr. 20	2200	1,400	8.95

Minimum daily discharge, 13 ft^3/s Oct. 2, 5, 6, 9, 10, 12, 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	17	123	25	48	57	62	119	46	75	28	14
2	13	16	117	25	99	57	60	82	44	98	28	16
3	14	16	80	27	114	58	58	70	42	59	27	16
4	14	16	68	27	757	58	57	64	42	47	26	15
5	13	16	62	27	361	69	56	61	42	41	26	15
6	13	16	57	26	191	96	59	59	174	36	25	15
7	14	16	51	24	282	72	57	83	144	35	25	14
8	14	15	48	21	153	60	54	71	96	59	24	14
9	13	16	46	21	126	61	52	61	71	37	24	14
10	13	95	103	21	106	85	50	58	91	37	28	14
11	14	120	1370	21	89	119	49	55	71	353	24	22
12	13	69	543	21	74	134	48	54	62	402	22	22
13	13	198	231	22	64	347	46	52	56	126	21	17
14	18	101	151	21	62	145	48	64	51	77	20	15
15	18	71	118	20	58	106	57	101	49	63	20	15
16	15	160	103	20	57	86	51	290	48	55	20	15
17	15	94	88	52	134	77	49	121	46	50	20	15
18	15	63	69	64	203	106	47	130	43	46	19	227
19	15	109	59	212	155	762	45	108	41	44	18	74
20	24	129	56	113	114	191	544	83	49	41	18	55
21	22	72	49	76	97	132	530	74	46	38	18	40
22	19	59	46	102	81	113	186	68	41	37	18	32
23	18	51	44	71	74	101	134	63	43	35	18	28
24	18	45	44	61	72	87	112	58	39	34	17	32
25	17	44	39	58	67	81	98	56	37	32	16	28
26	16	566	34	56	71	77	84	57	35	32	23	26
27	15	674	34	48	67	74	75	67	35	31	30	30
28	15	518	31	43	60	70	71	56	133	31	19	31
29	15	197	29	42	---	68	67	53	62	30	17	27
30	15	139	27	38	---	65	76	51	62	29	15	30
31	16	---	26	38	---	63	---	48	---	29	15	---
TOTAL	481	3718	3946	1443	3836	3677	2982	2437	1841	2139	669	928
MEAN	15.5	124	127	46.5	137	119	99.4	78.6	61.4	69.0	21.6	30.9
MAX	24	674	1370	212	757	762	544	290	174	402	30	227
MIN	13	15	26	20	48	57	45	48	35	29	15	14
CFSM	.26	2.11	2.16	.79	2.33	2.03	1.69	1.34	1.05	1.18	.37	.53
IN.	.30	2.36	2.50	.91	2.43	2.33	1.89	1.54	1.17	1.36	.42	.59

CAL YR 1985	TOTAL	28462	MEAN	78.0	MAX	1640	MIN	12	CFSM	1.33	IN.	18.04
WTR YR 1986	TOTAL	28097	MEAN	77.0	MAX	1370	MIN	13	CFSM	1.31	IN.	17.81

03274950 LITTLE WILLIAMS CREEK AT CONNERSVILLE, IN

LOCATION.--Lat 39°38'16", long 85°10'20", in SW¼NE¼ sec.27, T.14 N., R.12 E., Fayette County, Hydrologic Unit 05080003, on downstream left bank wingwall of bridge on State Highway 44, 1 mi west of Connersville, and 2.6 mi upstream from mouth.

DRAINAGE AREA.--9.16 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 842.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 19-22, Jan. 28-31, and Feb. 11-16. Records fair. Peak flows affected by ponding at abandoned railroad culvert 0.5 mi upstream.

AVERAGE DISCHARGE.--18 years, 10.3 ft^3/s, 15.27 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,560 ft^3/s June 22, 1974, gage height, 10.13 ft; minimum daily, 0.25 ft^3/s Sept. 10, 11, 1983.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 400 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 26	1800	*782	*6.04

Minimum daily discharge, 0.42 ft^3/s Sept. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	1.0	25	4.4	7.6	11	9.2	7.5	6.4	19	1.4	.57
2	.87	1.0	18	4.4	11	11	8.9	6.3	5.7	9.3	1.5	.69
3	.80	1.1	13	4.7	22	12	8.6	6.1	5.4	4.4	1.5	.79
4	.84	1.1	12	4.5	180	12	8.1	5.9	5.3	3.6	1.4	.72
5	.90	1.0	11	4.3	56	12	8.6	5.8	5.3	3.1	1.4	.63
6	.86	.90	10	4.2	52	13	9.5	5.7	31	2.8	1.3	.58
7	.78	.99	9.2	3.6	61	11	8.0	11	15	2.6	1.2	.56
8	.73	.93	8.9	3.4	24	10	7.6	11	10	2.4	1.2	.56
9	.79	1.0	8.3	3.4	18	11	7.3	7.1	7.6	2.4	1.2	.46
10	.86	25	16	3.6	15	14	7.1	6.3	7.4	2.8	1.6	.42
11	.94	22	137	3.6	13	15	6.8	5.8	23	16	1.7	12
12	.95	22	43	3.7	11	18	6.6	5.7	14	17	1.5	3.0
13	.96	17	22	3.4	10	39	6.5	5.8	8.8	15	1.2	1.4
14	1.3	13	14	3.3	9.5	17	7.6	16	7.1	5.2	1.1	1.2
15	1.3	13	12	3.0	9.0	14	8.5	12	6.3	4.3	1.1	1.2
16	1.1	35	11	3.1	8.5	13	7.1	24	6.1	3.8	1.4	1.2
17	.94	16	10	4.6	36	13	6.8	18	6.4	3.3	1.5	1.2
18	.90	13	7.7	7.0	31	14	6.5	11	4.9	2.9	1.4	2.3
19	1.3	17	6.5	27	23	76	6.4	9.7	4.6	2.7	1.2	1.5
20	6.1	16	6.0	11	17	23	20	8.6	4.3	2.5	1.1	1.9
21	1.8	13	6.3	8.4	17	17	18	8.0	4.0	2.3	1.2	1.4
22	1.2	11	6.7	9.7	14	15	12	7.3	3.8	2.1	1.2	1.3
23	1.1	10	6.9	7.4	14	14	11	6.7	3.6	1.9	1.1	1.3
24	1.1	9.1	6.7	6.7	14	13	9.6	6.1	3.3	1.9	1.2	3.5
25	1.0	15	5.1	6.7	13	13	8.9	10	3.1	1.8	.97	1.6
26	.95	253	4.9	6.1	14	12	8.1	18	2.9	1.9	1.1	3.3
27	.90	101	5.4	4.4	13	12	7.2	33	2.9	1.8	1.6	10
28	.90	116	4.8	4.0	12	11	7.1	14	3.8	1.8	.89	2.8
29	.90	32	4.7	3.8	---	11	6.7	11	3.2	1.8	.81	1.7
30	.91	22	4.5	3.6	---	10	7.5	9.3	3.5	1.6	.72	1.7
31	1.0	---	4.6	3.5	---	9.1	---	7.6	---	1.6	.60	---
TOTAL	36.08	800.12	461.2	174.5	725.6	496.1	261.8	320.3	218.7	145.6	38.29	61.48
MEAN	1.16	26.7	14.9	5.63	25.9	16.0	8.73	10.3	7.29	4.70	1.24	2.05
MAX	6.1	253	137	27	180	76	20	33	31	19	1.7	12
MIN	.73	.90	4.5	3.0	7.6	9.1	6.4	5.7	2.9	1.6	.60	.42
CFSM	.13	2.91	1.63	.61	2.83	1.75	.95	1.12	.80	.51	.14	.22
IN.	.15	3.25	1.87	.71	2.95	2.01	1.06	1.30	.89	.59	.16	.25

CAL YR 1985	TOTAL	4982.78	MEAN	13.7	MAX	300	MIN	.73	CFSM	1.50	IN.	20.24
WTR YR 1986	TOTAL	3739.77	MEAN	10.2	MAX	253	MIN	.42	CFSM	1.11	IN.	15.19

03275000 WHITEWATER RIVER NEAR ALPINE, IN

LOCATION.--Lat 39°34'46", long 85°09'29", in SE¼NW¼ sec.14, T.13 N., R.12 E., Fayette County, Hydrologic Unit 05080003, on right bank at Nulltown, 400 ft upstream from Wilson Creek, 0.4 mi upstream from bridge on County Road 480 South, 2.0 mi northeast of Alpine, 5.1 mi upstream from Bear Creek, and at mile 54.8.

DRAINAGE AREA.--522 mi².

PERIOD OF RECORD.--October 1928 to current year. Prior to October 1936, published as West Fork Whitewater River near Alpine.

REVISED RECORDS.--WSP 1143: 1943-44(M), 1947 (M). WSP 1335: 1929-30, 1932(M), 1938, 1946-47(m), 1949-50. WSP 1505: 1942(P). WSP 1908: 1937(M), 1944, 1949(M), drainage area. WDR IN-79-1: 1975 (P).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 750.19 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 9, 1928, nonrecording gage and Nov. 10, 1928, to Sept. 30, 1982, at site 0.5 mi downstream at same datum.

REMARKS.--Estimated daily discharges: Nov. 10, 12, Dec. 2-6, 10, 12, 14, 15, Jan. 29, 30, and Feb. 14-16. Records good except those for estimated daily discharges, which are fair.

AVERAGE DISCHARGE.--58 years, 556 ft³/s, 14.27 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 37,100 ft³/s Jan. 14, 1937, gage height, 16.61 ft; minimum daily, 6.0 ft³/s Sept. 8, 9, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 6,500 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 27	Unknown	9,000	Unknown	Feb. 4	1900	7,610	14.64
Dec. 12	1300	*12,100	a*16.48				

a From high water mark.

Minimum daily discharge, 100 ft³/s Sept. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	115	133	1250	327	360	582	510	586	373	580	174	114
2	115	135	1050	327	645	569	506	585	349	1110	166	116
3	113	135	900	331	863	571	481	489	328	710	162	116
4	113	140	780	327	5930	557	468	447	317	460	160	111
5	115	137	670	311	6190	587	456	431	319	375	158	109
6	113	135	580	292	2850	716	461	412	833	305	154	104
7	113	137	520	285	4140	743	446	535	939	271	152	100
8	113	135	500	272	2130	606	428	950	672	236	149	102
9	110	148	470	285	1500	593	410	611	499	278	142	102
10	110	700	900	288	1160	702	400	497	429	259	147	101
11	110	950	2520	284	962	1170	391	441	649	435	164	135
12	113	700	11000	286	803	1040	382	414	578	1850	149	256
13	110	810	3190	284	690	2570	372	399	434	2230	140	161
14	115	1050	1350	277	640	1720	374	688	375	830	137	135
15	123	696	1100	270	600	1140	422	577	345	600	136	124
16	123	1150	930	268	580	895	400	2440	346	455	133	118
17	118	1230	790	286	984	773	385	1570	356	382	132	113
18	118	758	680	464	1600	721	369	1070	336	325	129	135
19	123	729	610	1300	1740	4470	358	901	301	297	124	531
20	275	1130	560	1230	1280	2640	566	720	284	271	120	334
21	190	842	520	735	1090	1340	3230	617	346	256	120	307
22	163	641	510	771	926	1020	1590	557	302	248	118	245
23	155	527	500	707	810	886	1000	514	279	232	115	206
24	155	459	495	570	757	775	784	464	280	220	111	219
25	144	492	420	521	699	709	676	460	256	213	111	199
26	137	2640	380	484	707	671	601	508	225	209	119	179
27	135	7550	400	417	704	633	538	770	214	206	185	225
28	135	8600	375	367	621	589	501	603	229	200	164	209
29	130	3270	375	360	---	572	470	492	622	194	134	189
30	130	1610	348	350	---	547	445	439	388	184	124	181
31	133	---	350	337	---	526	---	404	---	178	118	---
TOTAL	4065	37769	35023	13613	41961	31633	18420	20591	12203	14599	4347	5276
MEAN	131	1259	1130	439	1499	1020	614	664	407	471	140	176
MAX	275	8600	11000	1300	6190	4470	3230	2440	939	2230	185	531
MIN	110	133	348	268	360	526	358	399	214	178	111	100
CFSM	.25	2.38	2.14	.83	2.83	1.93	1.16	1.26	.77	.89	.26	.33
IN.	.29	2.66	2.46	.96	2.95	2.22	1.30	1.45	.86	1.03	.31	.37

CAL YR 1985	TOTAL	274215	MEAN	751	MAX	11500	MIN	88	CFSM	1.42	IN.	19.28
WTR YR 1986	TOTAL	239500	MEAN	656	MAX	11000	MIN	100	CFSM	1.24	IN.	16.84

03275600 EAST FORK WHITEWATER RIVER AT ABINGTON, IN

LOCATION.--Lat 39°43'57", long 84°57'35", in NE¼SW¼ sec.2, T.12 N., R.2 W., Wayne County, Hydrologic Unit 05080003, at downstream side of center pier of bridge on county road at Abington, 3 mi downstream from Elkhorn Creek, 8 mi southwest of Richmond, and at mile 26.7.

DRAINAGE AREA.--200 mi^2.

PERIOD OF RECORD.--October 1965 to current year.

REVISED RECORDS.--WSP 2108: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 791.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Jan. 9, 10, 28-31, and Feb. 13-16. Records good.

AVERAGE DISCHARGE.--21 years, 232 ft^3/s, 15.75 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,400 ft^3/s July 20, 1969, gage height, 16.18 ft; minimum daily, 14 ft^3/s Sept. 11, 15, 1983.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 26	2300	*4,820	*11.44	Dec. 11	2000	4,770	11.39
Nov. 28	0600	3,100	9.35	Feb. 4	1300	3,480	9.85

Minimum daily discharge, 26 ft^3/s Sept. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	39	467	111	155	198	178	255	100	387	44	32
2	31	46	420	110	403	193	184	197	94	816	43	33
3	30	46	289	114	500	197	166	160	82	275	41	33
4	30	51	244	111	2960	195	162	145	80	171	39	32
5	30	44	230	110	2160	225	162	141	84	130	38	31
6	29	41	211	103	1170	284	186	135	406	107	37	29
7	29	46	184	96	1840	255	167	184	311	97	37	28
8	29	43	177	86	825	200	153	166	245	186	36	27
9	29	43	169	86	576	200	143	139	153	117	35	27
10	28	429	347	90	429	469	136	126	146	121	62	26
11	30	449	2950	92	340	981	133	119	192	424	54	185
12	31	474	2010	93	270	602	127	115	271	1230	42	176
13	30	584	812	91	220	1340	122	111	149	547	37	59
14	35	329	482	87	210	677	127	255	121	275	35	45
15	52	229	349	83	200	438	163	204	108	197	34	40
16	37	890	292	84	190	339	137	998	106	152	34	36
17	34	587	254	109	455	289	130	407	130	128	35	34
18	33	306	204	174	791	287	122	275	101	111	33	79
19	38	373	188	751	664	1910	120	222	87	97	32	63
20	120	454	186	443	448	762	442	185	156	86	31	105
21	72	297	165	279	407	460	1050	163	132	80	30	71
22	51	223	164	419	338	369	473	151	94	75	30	57
23	44	177	166	312	286	323	317	142	117	68	29	47
24	49	150	160	239	274	282	259	128	88	62	28	68
25	47	178	130	214	248	258	227	118	73	59	27	55
26	41	2000	120	202	262	245	199	121	66	60	31	48
27	38	2670	138	159	257	236	176	165	63	57	182	67
28	38	2380	123	140	213	215	165	142	429	55	51	57
29	37	1000	122	130	---	204	151	119	213	54	39	48
30	37	594	115	125	---	193	188	133	185	50	35	74
31	40	---	119	120	---	182	---	115	---	47	33	---
TOTAL	1234	15172	11987	5363	17091	13008	6465	6036	4582	6321	1294	1712
MEAN	39.8	506	387	173	610	420	216	195	153	204	41.7	57.1
MAX	120	2670	2950	751	2960	1910	1050	998	429	1230	182	185
MIN	28	39	115	83	155	182	120	111	63	47	27	26
CFSM	.20	2.53	1.93	.86	3.05	2.10	1.08	.97	.76	1.02	.21	.29
IN.	.23	2.82	2.23	1.00	3.18	2.42	1.20	1.12	.85	1.18	.24	.32

CAL YR 1985	TOTAL	97747	MEAN	268	MAX	4250	MIN	25	CFSM	1.34	IN.	18.18
WTR YR 1986	TOTAL	90265	MEAN	247	MAX	2960	MIN	26	CFSM	1.23	IN.	16.79

03276000 EAST FORK WHITEWATER RIVER AT BROOKVILLE, IN

LOCATION.--Lat 39°26'02", long 85°00'12", in NE¼NE¼ sec.20, T.9 N., R.2 W., Franklin County, Hydrologic Unit 05080003, on right bank 100 ft upstream from bridge on State Highway 101, at Brookville, 0.4 mi downstream from Brookville Lake, and 1.8 mi upstream from mouth.

DRAINAGE AREA.--380 mi^2.

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

REVISED RECORDS.--WSP 1555: 1954(M), 1955(P). WSP 1908: 1955, drainage area.

GAGE.--None. Datum of gage was 621.76 ft above National Geodetic Vertical Datum of 1929. Prior to May 22, 1954, nonrecording gage at site 100 ft downstream at datum 2.00 ft higher. May 22, 1954 to Aug. 20, 1965, water-stage recorder at site 165 ft downstream at datum 2.00 ft higher. Aug. 21, 1965 to Sept. 30, 1981, water-stage recorder at site described in "LOCATION" paragraph.

REMARKS.--Flow regulated by Brookville Lake since January 1974.

COOPERATION.--Records of daily discharge provided by U.S. Army Corps of Engineers beginning Oct. 1, 1981.

AVERAGE DISCHARGE.--32 years, 404 ft^3/s, 14.44 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 36,100 ft^3/s Jan. 21, 1959; maximum gage height, 17.35 ft May 24, 1968; no flow, July 27, 1982.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 2,970 ft^3/s Dec. 11; minimum daily, 41 ft^3/s Apr. 12-19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	57	751	490	371	370	481	226	42	201	388	57	57
2	57	751	490	371	370	481	112	42	201	1080	57	57
3	57	750	1130	371	440	481	95	42	201	1530	57	57
4	57	750	2290	371	1110	481	95	42	201	724	57	57
5	57	749	2920	371	1500	481	95	42	201	387	57	57
6	57	749	2910	371	1790	481	95	42	201	294	57	57
7	57	748	2900	371	2030	481	95	42	514	200	57	57
8	57	748	2890	371	2040	481	95	42	874	200	57	57
9	57	747	2880	370	2030	480	72	42	1370	200	57	57
10	57	747	2870	370	2030	480	56	42	1120	201	57	57
11	57	748	2970	370	2030	482	46	42	371	201	57	57
12	57	749	2880	370	2020	781	41	42	371	747	57	57
13	57	751	2880	370	2020	997	41	42	493	1900	57	57
14	57	844	2870	370	1380	998	41	42	493	2080	57	57
15	117	1010	2860	298	996	998	41	76	310	941	57	101
16	315	1010	2850	247	995	998	41	279	199	387	57	144
17	490	1020	2040	247	995	997	41	389	197	387	57	144
18	490	1020	893	247	1540	997	41	389	147	387	57	144
19	490	1010	434	393	2010	999	41	794	97	387	57	144
20	382	1330	370	481	2010	1000	42	1040	97	387	57	144
21	373	1510	370	801	2000	701	42	1030	97	255	57	144
22	473	1510	370	992	1410	486	42	1030	97	129	57	144
23	598	1510	370	992	628	486	42	460	97	57	57	144
24	892	1500	370	991	370	486	42	201	97	57	57	144
25	1020	1500	371	735	435	398	42	201	97	57	57	144
26	1020	1500	371	480	481	345	42	201	97	57	57	144
27	1020	1510	371	480	481	345	42	756	97	57	57	144
28	875	917	371	411	481	345	42	548	97	57	57	144
29	753	1410	371	370	---	345	42	201	128	57	57	144
30	753	1080	371	370	---	345	42	201	286	57	57	144
31	752	---	371	370	---	346	---	201	---	57	57	---
TOTAL	11611	30929	46894	14093	35992	18683	1872	8585	9049	13905	1767	3059
MEAN	375	1031	1513	455	1285	603	62.4	277	302	449	57.0	102
MAX	1020	1510	2970	992	2040	1000	226	1040	1370	2080	57	144
MIN	57	747	370	247	370	345	41	42	97	57	57	57

CAL YR 1985	TOTAL	215786	MEAN	591	MAX	2970	MIN	50
WTR YR 1986	TOTAL	196439	MEAN	538	MAX	2970	MIN	41

03276500 WHITEWATER RIVER AT BROOKVILLE, IN
(National stream-quality accounting network station)

LOCATION.--Lat 39°24'24", long 85°00'46", in NE¼NW¼ sec.32, T.9 N., R.2 W., Franklin County, Hydrologic Unit 05080003, on right bank at downstream side of highway bridge, 0.3 mi downstream from East Fork Whitewater River, 1.1 mi south of Brookville, and at mile 29.3.

DRAINAGE AREA.--1,224 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1915 to September 1917, October 1917 to May 1920 (gage heights only), and July 1923 to current year. Monthly discharge only for some periods, published in WSP 1305.

REVISED RECORDS.--WSP 1335: 1915-17, 1929, 1930(M), 1933(M), 1934, 1935(m), 1936. WSP 1505: 1916(M). WSP 1908: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 595.71 ft above National Geodetic Vertical Datum of 1929. Prior to July 1923, nonrecording gage at same site at datum 1.5 ft higher. July 1923 to Sept. 27, 1928, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Brookville Lake since January 1974.

AVERAGE DISCHARGE.--65 years (water years 1916-17, 1924 to current year), 1,280 ft³/s, 14.20 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 81,800 ft³/s Jan. 21, 1959, gage height, 27.78 ft, from rating curve extended above 45,000 ft³/s on basis of contracted-opening measurement of peak flow; minimum daily, 60 ft³/s July 27, 1934.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 25, 1913, reached a stage of 39.0 ft, at present datum, from floodmarks (discharge not determined).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 16,600 ft³/s Dec. 11, gage height, 11.53 ft; minimum daily, 142 ft³/s Oct. 1, 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	142	683	2650	769	825	1490	959	785	693	738	269	171
2	145	678	2670	751	1250	1450	903	896	654	2550	261	177
3	145	677	2470	765	1660	1470	840	769	603	2470	252	179
4	147	681	3190	748	11400	1440	805	693	572	1310	248	176
5	149	678	3560	742	9970	1450	778	659	566	702	243	170
6	146	672	3490	687	6100	1550	787	626	1500	615	239	162
7	148	672	3380	677	10300	1640	785	771	1530	545	239	159
8	142	666	3320	631	5450	1460	739	1980	1830	491	235	157
9	143	752	3260	612	4280	1430	673	1140	2210	473	227	152
10	144	1370	3330	617	3710	1670	632	872	1890	447	238	154
11	143	4150	8960	621	3360	3030	605	729	1170	601	247	176
12	147	4360	13200	621	3100	2810	569	663	1950	2230	245	395
13	147	2530	7600	624	2930	6280	558	631	1430	3970	225	274
14	158	2340	5020	607	2470	4100	543	929	1240	3090	217	212
15	159	2300	4300	552	2010	3030	685	1030	900	1690	212	227
16	340	7060	3980	487	1920	2580	651	3130	567	862	209	245
17	619	3180	3230	507	3930	2340	613	2550	999	736	208	238
18	620	2360	2060	673	4290	2200	582	1780	704	658	204	244
19	628	2200	1440	3080	4440	6370	562	1960	511	603	199	399
20	2730	2820	1250	2740	3830	5290	1020	2070	476	564	195	508
21	999	2740	1160	2170	3770	2980	3560	1910	479	486	193	410
22	652	2430	1110	2380	2990	2310	2540	1880	487	397	191	384
23	837	2250	1110	2220	2020	2070	1670	1230	446	353	188	334
24	1030	2120	1090	2010	1580	1860	1320	806	433	337	184	384
25	1110	2110	976	1740	1600	1570	1140	764	414	329	182	392
26	1090	4840	891	1430	1730	1370	1010	840	389	319	181	329
27	1070	12500	911	1270	1800	1350	911	2040	376	309	198	344
28	922	12200	881	1020	1600	1240	830	1610	372	304	229	402
29	688	6010	855	900	---	1170	771	956	709	293	202	337
30	685	3700	799	844	---	1120	709	854	661	284	187	318
31	684	---	793	804	---	1070	---	753	---	277	177	---
TOTAL	16909	91729	92936	34299	104315	71190	28750	38306	26761	29033	6724	8209
MEAN	545	3058	2998	1106	3726	2296	958	1236	892	937	217	274
MAX	2730	12500	13200	3080	11400	6370	3560	3130	2210	3970	269	508
MIN	142	666	793	487	825	1070	543	626	372	277	177	152
CFSM	.45	2.50	2.45	.90	3.04	1.88	.78	1.01	.73	.77	.18	.22
IN.	.51	2.79	2.82	1.04	3.17	2.16	.87	1.16	.81	.88	.20	.25

CAL YR 1985 TOTAL 603143 MEAN 1652 MAX 15600 MIN 137 CFSM 1.35 IN. 18.33
WTR YR 1986 TOTAL 549161 MEAN 1505 MAX 13200 MIN 142 CFSM 1.23 IN. 16.69

03276500 WHITEWATER RIVER AT BROOKVILLE, IN--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: October 1973 to September 1981.
CHEMICAL ANALYSES: October 1974 to September 1986. (Discontinued)
WATER TEMPERATURE: October 1974 to September 1981.
SEDIMENT DISCHARGE: October 1974 to September 1986 (Partial-record station). (Discontinued)

EXTREMES FOR PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 630 microsiemens Feb. 9, 19, 1980, July 27, 1981; minimum, 95 microsiemens Nov. 25, 1978.
WATER TEMPERATURE: Maximum, 28.0 °C July 31, Aug. 21, 1975; minimum, 0.0 °C on many days during 1976-77 winter periods, Feb. 8, 1979, Jan. 9-11, Feb 4, 1981.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE AIR (DEG C)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	BARO-METRIC PRES-SURE (MM OF HG)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
DEC											
18...	1400	1550	535	8.40	-11.0	3.5	6.2	12.6	771	650	190
MAR											
10...	1300	1350	522	8.40	16.5	6.5	3.0	13.1	738	K1000	320
JUN											
09...	1445	2360	514	7.70	29.0	13.5	28	10.8	780	2700	970
SEP											
02...	1330	184	576	8.20	26.0	21.5	--	9.7	745	2000	5200

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY, CARBON-ATE IT-FLD (MG/L - CACO3)	BICAR-BONATE IT-FLD (MG/L AS HCO3)	CAR-BONATE IT-FLD (MG/L AS CO3)	ALKA-LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
DEC											
18...	77	27	8.4	2.9	217	265	0	223	40	19	0.20
MAR											
10...	69	25	8.0	2.2	200	211	17	203	37	20	.30
JUN											
09...	62	23	8.6	2.7	179	218	0	179	44	12	.20
SEP											
02...	--	--	--	--	242	271	12	241	--	--	--

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC DIS-SOLVED (UG/L AS AS)
DEC										
18...	7.4	323	3.80	0.080	1.0	0.060	0.050	--	20	<1
MAR										
10...	5.2	304	3.80	.050	.50	.050	.030	--	10	<1
JUN										
09...	4.1	295	4.00	.070	.70	.140	.030	0.020	30	2
SEP										
02...	--	--	1.70	.040	.70	.050	.010	<.010	--	--

03276500 WHITEWATER RIVER AT BROOKVILLE, IN--Continued
(National stream-quality accounting network station)

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
DEC										
18...	65	<0.5	<1	<1	<3	2	15	2	5	11
MAR										
10...	58	<.5	<1	<1	<3	1	15	<1	4	5
JUN										
09...	56	<.5	<1	7	<3	6	17	<5	6	19
SEP										
02...	--	--	--	--	--	--	--	--	--	--

DATE	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
DEC										
18...	0.1	<10	1	<1	290	<6	3	71	297	62
MAR										
10...	<.1	<10	<1	<1	260	<6	11	67	244	60
JUN										
09...	--	<10	<1	<1	230	<6	10	139	886	95
SEP										
02...	--	--	--	--	--	--	--	27	13	97

03276700 SOUTH HOGAN CREEK NEAR DILLSBORO, IN
(Hydrologic bench-mark station)

LOCATION.--Lat 39°01'47", long 85°02'17", in SW¼NW¼ sec.7, T.4 N., R.2 W., Dearborn County, Hydrologic Unit 05090203, on left downstream abutment of bridge on county road at Dillsboro Station, 1.2 mi northeast of Dillsboro, and 1.5 mi downstream from Whitaker Creek.

DRAINAGE AREA.--38.1 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1961 to current year. Occasional low-flow measurements, water year 1960.

REVISED RECORDS.--WDR IN-72-1: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 571.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 17-31, Jan. 7-10, 27-31, Feb. 11-16, and Mar. 1, 2. Records fair except those for estimated daily discharges, and those below 1 ft^3/s, which are poor.

AVERAGE DISCHARGE.--25 years, 43.2 ft^3/s, 15.40 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,000 ft^3/s Apr. 29, 1970, maximum gage height, 12.7 ft, from floodmarks Apr. 29, 1970 and from crest-stage gage June 10, 1981; no flow at times most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jan. 21, 1959, reached a stage of 14.00 ft, discharge, 16,300 ft^3/s on basis of contracted-opening measurement.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 16	0100	*3,640	*7.57	Nov. 26	2300	3,230	7.18

Minimum daily discharge, no flow Aug. 7-9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.02	3.4	60	10	21	24	24	8.0	26	5.5	.02	.54
2	.03	3.4	72	9.5	31	27	23	6.7	54	33	.01	.32
3	.04	6.5	41	9.2	40	29	23	4.8	17	6.2	.01	.18
4	.05	14	34	9.2	532	29	20	4.1	9.4	1.9	.01	.27
5	.05	9.2	30	9.1	197	27	18	4.0	8.3	.90	.01	.21
6	.08	6.1	30	6.8	337	27	16	3.6	8.7	.53	.01	.18
7	.10	4.7	28	6.0	485	24	16	4.3	7.5	.33	.00	.20
8	.09	4.8	25	3.5	122	16	13	20	5.8	.23	.00	.15
9	.08	4.6	23	3.7	82	21	11	9.6	3.5	.16	.00	.13
10	.07	4.6	24	4.0	63	53	10	5.4	2.4	.42	.25	.13
11	.06	57	804	6.7	45	90	8.8	4.4	2.0	7.8	.67	2.4
12	.05	466	194	6.4	32	442	7.4	7.1	2.6	69	1.5	141
13	.05	132	82	6.4	23	674	6.6	18	2.7	33	.56	19
14	.06	246	53	5.0	20	94	6.5	82	1.7	48	.37	6.5
15	.09	377	47	4.5	19	57	14	31	1.2	77	.24	2.6
16	.13	1160	34	4.6	20	40	14	36	.95	13	.18	1.5
17	.20	120	25	6.7	382	31	10	19	.74	4.3	.15	.96
18	.26	64	16	62	147	31	8.0	18	.57	2.2	.10	.68
19	.57	47	11	541	77	648	6.8	16	.48	1.3	.07	.61
20	374	41	9.0	109	53	93	32	12	.31	.78	.14	1.5
21	60	36	8.0	77	51	58	131	9.0	.26	.55	.16	1.4
22	17	28	7.5	101	42	47	51	8.1	.23	.35	.13	.94
23	7.6	23	15	55	40	41	30	6.0	.23	.26	.11	.93
24	6.1	20	10	44	40	35	21	4.5	.18	.15	.10	57
25	5.0	21	8.0	42	40	31	18	4.9	.28	.10	.08	39
26	3.5	681	7.0	40	49	28	14	11	.18	.09	.08	11
27	3.2	1020	9.0	20	46	50	12	67	.13	.06	30	11
28	2.7	602	12	10	30	37	9.8	51	.12	.05	19	21
29	2.3	115	8.5	12	---	32	8.7	83	.09	.04	4.1	11
30	2.5	68	7.2	15	---	29	7.2	33	.14	.03	1.6	5.4
31	3.2	---	8.5	13	---	25	---	19	---	.02	1.0	---
TOTAL	489.18	5385.3	1742.7	1252.3	3066	2890	590.8	610.5	157.69	307.25	60.66	337.73
MEAN	15.8	180	56.2	40.4	110	93.2	19.7	19.7	5.26	9.91	1.96	11.3
MAX	374	1160	804	541	532	674	131	83	54	77	30	141
MIN	.02	3.4	7.0	3.5	19	16	6.5	3.6	.09	.02	.00	.13
CFSM	.41	4.72	1.48	1.06	2.89	2.45	.52	.52	.14	.26	.05	.30
IN.	.48	5.26	1.70	1.22	2.99	2.82	.58	.60	.15	.30	.06	.33

CAL YR 1985	TOTAL	19653.38	MEAN	53.8	MAX	1900	MIN	.02	CFSM	1.41	IN.	19.19
WTR YR 1986	TOTAL	16890.11	MEAN	46.3	MAX	1160	MIN	.00	CFSM	1.22	IN.	16.49

03276700 SOUTH HOGAN CREEK NEAR DILLSBORO, IN--Continued
(Hydrologic bench-mark station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
CHEMICAL ANALYSES: October 1968 to current year.
SEDIMENT DISCHARGE: August 1969 to current (partial-record station).

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE AIR (DEG C)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	BARO-METRIC PRES-SURE (MM OF HG)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
DEC											
19...	0930	8.8	526	8.00	-12.0	0.0	3.4	14.5	773	140	470
MAR											
11...	1015	89	384	8.10	9.0	7.5	140	11.3	750	2300	5100
JUN											
10...	0930	2.8	528	7.60	23.0	24.0	--	6.8	785	30	450
SEP											
02...	1715	0.20	K370	8.20	--	24.0	--	8.9	744	K920	K1400

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY, CARBON-ATE IT-FLD (MG/L - CACO3)	BICAR-BONATE IT-FLD (MG/L AS HCO3)	CAR-BONATE IT-FLD (MG/L AS CO3)	ALKA-LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
DEC											
19...	89	15	11	3.6	195	238	0	195	61	16	0.20
MAR											
11...	55	10	11	3.6	128	156	0	123	48	14	.40
JUN											
10...	--	--	--	--	152	186	0	152	--	--	--
SEP											
02...	--	--	--	--	132	137	12	133	--	--	--

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC DIS-SOLVED (UG/L AS AS)
DEC										
19...	9.3	344	2.60	0.070	0.90	0.050	0.040	0.010	40	<1
MAR										
11...	5.3	265	1.80	.110	2.2	.310	.060	--	180	<1
JUN										
10...	--	--	.950	.060	.50	.100	.050	.030	--	--
SEP										
02...	--	--	<.100	<.010	.50	.060	.040	.010	--	--

03276700 SOUTH HOGAN CREEK NEAR DILLSBORO, IN--Continued
(Hydrologic bench-mark station)

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
DEC										
19...	49	<0.5	<1	<1	<3	4	30	3	6	13
MAR										
11...	37	<.5	2	<1	<3	11	180	4	<4	10
JUN										
10...	--	--	--	--	--	--	--	--	--	--
SEP										
02...	--	--	--	--	--	--	--	--	--	--

DATE	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
DEC										
19...	0.2	<10	<1	<1	220	<6	18	72	1.7	28
MAR										
11...	<.1	<10	<1	1	150	<6	27	216	52	100
JUN										
10...	--	--	--	--	--	--	--	41	.31	86
SEP										
02...	--	--	--	--	--	--	--	12	.01	100

03291780 INDIAN-KENTUCK CREEK NEAR CANAAN, IN

LOCATION.--Lat 38°52'41", long 85°15'26", in SW¼NW¼ sec.13, T.5 N., R.11 E., Jefferson County, Hydrologic Unit 05140101, on downstream end of left pier of bridge on State Highway 62, 1,500 ft upstream from Wilson Fork, 2.0 mi northeast of Canaan, and at mile 16.7.

DRAINAGE AREA.--27.5 mi^2.

PERIOD OF RECORD.--October 1969 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 590 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 14 to Jan. 10, Jan. 27 to Feb. 2, Feb. 10-16, and Mar. 1, 2. Records good except those for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--17 years, 35.0 ft^3/s, 17.28 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,240 ft^3/s June 10, 1981, maximum gage height, 11.27 ft Aug. 1 1979; no flow for many days in many years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,800 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 15	2300	*4,060	*9.08	Mar. 19	0245	1,800	7.05

Minimum daily discharge, no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	3.4	53	7.0	6.0	17	15	10	11	1.6	.00	.00
2	.00	3.0	45	6.9	9.0	14	15	8.6	8.5	5.0	.00	.00
3	.00	4.8	27	6.7	24	16	14	7.4	6.5	2.1	.00	.00
4	.00	10	22	6.6	420	15	13	6.8	5.3	.70	.00	.00
5	.00	6.4	21	6.6	143	14	12	6.6	11	.24	.00	.00
6	.00	4.6	20	5.0	269	14	12	6.3	8.2	.17	.00	.00
7	.00	4.5	17	2.3	283	12	12	6.1	6.5	.09	.00	.00
8	.00	4.8	17	2.4	83	12	11	9.4	5.0	.03	.00	.00
9	.00	3.8	15	2.6	50	12	9.5	6.4	3.6	.00	.00	.00
10	.00	3.4	15	3.0	30	37	9.1	5.2	2.8	.00	.00	.00
11	.00	12	471	4.8	22	53	8.5	4.8	2.9	.01	.00	1.6
12	.00	377	165	5.3	16	280	8.0	21	3.7	31	.08	16
13	.00	122	71	5.8	12	418	7.6	22	2.1	13	.03	2.6
14	.00	96	40	5.6	11	87	8.1	120	1.6	7.3	.00	.84
15	.00	576	29	5.8	10	50	12	27	1.1	5.7	.00	.30
16	.00	804	25	5.4	11	34	10	24	.97	3.3	.00	.18
17	.00	140	21	5.9	206	26	9.1	16	4.7	2.0	.00	.10
18	.00	63	18	23	85	26	8.2	15	2.6	1.1	.00	.10
19	.00	39	13	254	48	447	8.2	12	1.6	.57	.00	.08
20	225	29	9.0	81	34	74	51	11	1.0	.29	.00	.22
21	20	22	6.6	61	29	44	62	9.8	.60	.20	.00	.71
22	5.9	19	5.5	66	23	34	29	8.6	.33	.14	.00	.51
23	3.5	16	11	31	20	28	21	7.8	.22	.09	.00	.25
24	4.5	13	7.2	25	21	22	18	6.4	.17	.03	.00	.24
25	3.1	13	6.0	22	21	20	16	14	.11	.00	.00	.39
26	1.9	108	5.0	19	25	19	15	15	.06	.00	.00	.58
27	1.4	480	6.6	12	29	30	13	24	.02	.00	.00	2.8
28	1.0	381	8.5	8.0	22	20	12	42	.00	.00	.00	3.3
29	.71	104	6.2	7.0	---	18	12	39	.00	.00	.00	1.6
30	5.3	55	5.2	5.0	---	17	10	18	.03	.00	.00	.93
31	5.0	---	6.2	5.2	---	16	---	14	---	.00	.00	---
TOTAL	277.31	3517.7	1188.0	706.9	1962.0	1926	461.3	544.2	92.21	74.66	.11	33.33
MEAN	8.95	117	38.3	22.8	70.1	62.1	15.4	17.6	3.07	2.41	.00	1.11
MAX	225	804	471	254	420	447	62	120	11	31	.08	16
MIN	.00	3.0	5.0	2.3	6.0	12	7.6	4.8	.00	.00	.00	.00
CFSM	.33	4.25	1.39	.83	2.55	2.26	.56	.64	.11	.09	.00	.04
IN.	.38	4.76	1.61	.96	2.65	2.61	.62	.74	.12	.10	.00	.05

CAL YR 1985	TOTAL	14756.32	MEAN	40.4	MAX	1430	MIN	.00	CFSM	1.47	IN.	19.96
WTR YR 1986	TOTAL	10783.72	MEAN	29.5	MAX	804	MIN	.00	CFSM	1.07	IN.	14.59

03294000 SILVER CREEK NEAR SELLERSBURG, IN

LOCATION.--Lat 38°22'15", long 85°43'35", in lot 68, Clark Military Grant, Clark County, Hydrologic Unit 05150101, on downstream side of Straws Mill bridge on Watson Road, 0.3 mi downstream from Pleasant Run, 2.4 mi southeast of Sellersburg, and 12.2 mi upstream from mouth.

DRAINAGE AREA.--189 mi^2.

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

REVISED RECORDS.--WSP 1705: 1955-58. WDR IN-72-1: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 429.78 ft above National Geodetic Vertical Datum of 1929 (levels by State of Indiana, Department of Natural Resources). Prior to Oct. 6, 1976, and Feb. 15 to Sept. 20, 1984 nonrecording gage and crest-stage gage at same site and datum.

REMARKS.--Estimated daily discharges: Oct. 1, 2, 6-11, 17-19, Apr. 27 to May 12, and Sept. 8-11. Records good except those for estimated daily discharges, which are poor. Some regulation by Deam Lake.

AVERAGE DISCHARGE.--32 years, 222 ft^3/s, 15.95 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,600 ft^3/s Jan. 22, 1959, gage height, 30.89 ft, from floodmarks, from rating curve extended above 6,300 ft^3/s on basis of contracted-opening measurements of peak flow, at site 5.2 mi upstream, drainage area, 165 mi^2, adjusted to gage site; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar. 19	1900	3,020	16.20	July 15	1400	*3,280	*16.91

Minimum daily discharge, 1.8 ft^3/s Sept. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	92	331	41	72	143	79	55	38	10	20	3.1
2	20	80	333	41	205	139	78	48	27	250	18	3.2
3	16	70	203	41	285	141	73	41	24	92	14	3.4
4	6.8	116	165	49	1060	129	67	38	19	37	12	4.4
5	6.0	92	152	43	986	121	70	50	18	22	11	5.3
6	5.9	70	148	35	704	121	70	40	108	15	12	5.0
7	5.7	57	131	30	1910	119	69	50	159	13	19	3.4
8	5.6	54	120	25	729	94	62	42	100	13	24	2.4
9	5.4	46	104	22	470	91	55	35	98	16	42	1.9
10	5.3	36	94	21	353	94	51	40	59	450	51	1.8
11	5.2	55	279	21	287	153	47	34	51	627	38	2.0
12	4.9	462	811	23	239	550	43	29	94	961	29	75
13	5.9	368	380	25	185	1910	40	90	63	467	20	37
14	12	210	260	24	179	782	39	160	49	343	16	9.1
15	13	151	174	23	171	479	63	65	33	2960	12	3.2
16	9.1	1020	160	21	160	353	54	42	25	828	9.6	1.9
17	7.4	670	161	22	766	282	48	42	225	266	8.8	11
18	6.3	280	125	34	710	239	42	29	89	169	8.0	25
19	5.8	178	91	982	436	2210	41	23	45	115	7.9	18
20	205	143	91	706	326	1090	82	30	29	83	7.9	17
21	202	126	78	401	268	455	514	28	23	64	8.1	11
22	78	100	72	306	217	332	397	28	18	53	8.3	11
23	61	82	76	214	191	266	231	23	14	45	12	9.2
24	56	71	76	167	226	202	164	21	12	38	8.5	7.8
25	43	62	60	161	261	169	134	27	10	32	5.2	7.3
26	34	112	49	144	217	146	115	78	9.3	24	4.4	7.6
27	30	1010	46	106	216	152	100	340	9.6	22	5.1	8.9
28	30	1950	51	79	171	131	87	142	9.4	20	5.6	6.1
29	25	737	50	78	---	115	76	85	8.9	16	5.1	5.0
30	179	423	42	74	---	89	64	60	8.3	15	4.2	7.2
31	165	---	41	68	---	90	---	48	---	17	3.6	---
TOTAL	1264.3	8923	4954	4027	12000	11387	3055	1863	1475.5	8083	450.3	314.2
MEAN	40.8	297	160	130	429	367	102	60.1	49.2	261	14.5	10.5
MAX	205	1950	811	982	1910	2210	514	340	225	2960	51	75
MIN	4.9	36	41	21	72	89	39	21	8.3	10	3.6	1.8
CFSM	.22	1.57	.85	.69	2.27	1.94	.54	.32	.26	1.38	.08	.06
IN.	.25	1.76	.98	.79	2.36	2.24	.60	.37	.29	1.59	.09	.06

CAL YR 1985	TOTAL	71713.1	MEAN	196	MAX	5750	MIN	1.2	CFSM	1.04	IN.	14.11
WTR YR 1986	TOTAL	57796.3	MEAN	158	MAX	2960	MIN	1.8	CFSM	.84	IN.	11.38

03302220 BUCK CREEK NEAR NEW MIDDLETOWN, IN

LOCATION.--Lat 38°07'13", long 86°05'16", in SE¼NE¼ sec.32, T.4 S., R.4 E., Harrison County, Hydrologic Unit 05140104, at downstream end of pier of bridge on State Highway 337, 0.6 mi downstream from South Fork Buck Creek, 3.6 mi southwest of New Middletown, and 14.4 mi upstream from mouth.

DRAINAGE AREA.--65.2 mi^2, of which 28.1 mi^2 does not contribute directly to surface runoff.

PERIOD OF RECORD.--October 1969 to current year.

REVISED RECORDS.--WDR IN-72-1: 1971(P).

GAGE.--Water-stage recorder. Datum of gage is 501.63 ft above National Geodetic Vertical Datum of 1929 (levels by State of Indiana, Department of Natural Resources).

REMARKS.--Estimated daily discharges: Oct. 1-19, 23-29, Dec. 18 to Jan. 17, Jan. 27 to Feb. 1, Feb. 13-16, Aug. 18-20, and Sept. 8-11. Records good except those for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--17 years, 80.0 ft^3/s, 16.66 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,700 ft^3/s Apr. 2, 1970, gage height, 14.40 ft; minimum daily, 0.90 ft^3/s Sept. 13, 1972, and Sept. 29, 1985.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,600 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 6	2100	*1,940	*6.69

Minimum daily discharge, 1.3 ft^3/s Sept. 9, 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	55	110	22	23	56	32	16	19	22	6.1	3.0
2	1.8	46	93	21	346	55	30	14	18	132	4.4	6.7
3	1.7	46	75	21	287	55	28	12	15	37	3.6	6.1
4	1.6	54	68	20	372	52	26	11	13	23	3.2	3.1
5	1.5	46	67	19	330	50	25	11	14	17	3.1	2.3
6	1.4	37	57	18	519	41	24	22	40	15	2.8	1.7
7	1.4	33	50	17	614	37	32	20	531	12	3.5	1.5
8	1.4	30	49	13	293	34	27	65	371	11	4.3	1.4
9	1.4	29	45	15	202	36	23	45	144	10	3.6	1.3
10	1.4	29	42	16	159	49	21	32	93	12	4.9	1.3
11	1.4	32	61	16	134	65	20	27	84	29	5.5	3.5
12	1.4	218	99	16	113	263	19	25	87	70	3.6	14
13	1.5	134	83	15	100	513	18	27	59	44	2.9	5.6
14	4.4	132	69	14	90	212	17	25	38	24	3.1	3.8
15	4.5	95	64	13	80	143	18	38	31	22	3.0	3.1
16	2.0	414	56	13	76	108	17	31	26	19	3.8	3.2
17	2.5	225	53	14	277	89	17	26	127	15	5.3	3.2
18	2.0	147	47	21	196	82	17	28	56	12	4.2	4.1
19	1.5	109	41	74	149	244	17	21	39	10	3.2	5.7
20	107	95	38	63	112	155	22	18	29	8.8	2.7	6.1
21	52	84	36	47	95	113	36	16	24	8.7	2.4	6.5
22	29	62	36	41	82	94	31	14	19	7.4	2.3	6.5
23	20	53	37	33	75	84	25	13	18	6.2	2.9	4.7
24	30	49	36	30	74	61	22	12	17	5.3	6.2	4.7
25	25	46	30	31	67	56	21	16	14	4.9	2.5	3.9
26	20	71	28	29	68	52	20	47	13	4.6	2.0	4.0
27	15	265	27	26	67	49	18	75	12	4.2	2.1	8.0
28	12	289	27	24	59	43	17	42	11	4.5	3.2	5.5
29	11	182	25	23	---	41	17	30	10	4.1	2.2	3.7
30	161	129	21	23	---	39	15	22	11	3.3	1.9	3.0
31	76	---	23	22	---	35	---	19	---	4.8	2.0	---
TOTAL	594.7	3236	1593	770	5059	3006	672	820	1983	602.8	106.5	131.2
MEAN	19.2	108	51.4	24.8	181	97.0	22.4	26.5	66.1	19.4	3.44	4.37
MAX	161	414	110	74	614	513	36	75	531	132	6.2	14
MIN	1.4	29	21	13	23	34	15	11	10	3.3	1.9	1.3
CFSM	.29	1.66	.79	.38	2.78	1.49	.34	.41	1.01	.30	.05	.07
IN.	.34	1.85	.91	.44	2.89	1.72	.38	.47	1.13	.34	.06	.07

CAL YR 1985	TOTAL	21747.89	MEAN	59.6	MAX	740	MIN	.90	CFSM	.91	IN.	12.41
WTR YR 1986	TOTAL	18574.2	MEAN	50.9	MAX	614	MIN	1.3	CFSM	.78	IN.	10.60

03302300 LITTLE INDIAN CREEK NEAR GALENA, IN

LOCATION.--Lat 38°19'19", long 85°55'53", in NE¼SW¼ sec.23, T.2 S., R.5 E., Floyd County, Hydrologic Unit 05140104, on right bank at downstream side of county road bridge, 2 mi south of Galena, 3.6 mi upstream from mouth, and 7.0 mi northwest of New Albany.

DRAINAGE AREA.--16.1 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 703.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 15-23, Dec. 25 to Jan. 1, Jan. 6-10, 15, Jan. 27 to Feb. 1, Feb. 11-16, Apr. 23 to May 2, July 16 to Aug. 4, Aug. 11 to Sept. 11, and Sept. 14-16. Records good except those for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--18 years, 23.6 ft^3/s, 19.91 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,500 ft^3/s July 21, 1973, gage height, 9.30 ft; from rating curve extended above 3,100 ft^3/s on basis of contracted-opening measurement at 7.34 ft; no flow for many days in 1969, 1975, 1976, 1983, 1984, and 1985.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
July 14	2330	*2,440	*6.84

Minimum daily discharge, 0.03 ft^3/s Sept. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.37	13	30	4.7	7.0	15	7.8	5.2	2.1	7.0	1.0	.05
2	.46	11	24	4.2	43	14	7.8	4.7	1.8	38	.70	.05
3	.30	16	19	4.3	45	13	7.0	4.2	1.4	4.1	.50	.05
4	.45	16	17	4.2	122	12	6.6	3.8	1.2	2.2	.35	.04
5	.36	11	16	3.8	75	12	6.1	3.5	1.2	1.4	.24	.04
6	.24	8.3	13	3.7	190	12	6.0	3.5	71	1.2	.30	.04
7	.17	7.1	12	3.4	150	11	5.9	3.3	42	.92	.42	.04
8	.13	5.8	11	3.0	60	9.4	5.3	5.2	30	.74	1.6	.04
9	.13	5.0	9.8	2.1	39	9.8	4.5	3.3	22	.62	14	.04
10	.13	4.4	8.9	2.2	29	12	4.2	2.6	18	.85	5.3	.03
11	.17	6.6	33	3.4	24	12	4.0	2.3	19	11	2.0	.30
12	.20	71	36	3.7	18	88	3.9	7.3	23	70	.80	3.5
13	.16	26	27	4.0	16	166	3.6	7.1	12	34	.30	.99
14	4.8	19	20	3.7	14	61	6.5	14	8.3	108	.19	.46
15	1.6	20	17	3.5	13	41	11	6.6	6.1	94	.12	.20
16	.49	238	14	3.3	13	29	6.4	4.7	4.8	10	.20	.07
17	.27	50	12	3.4	128	24	5.6	3.5	15	6.0	.40	.04
18	.16	28	11	12	64	30	5.4	3.2	5.5	4.0	.19	14
19	.13	20	9.4	92	43	152	6.2	2.7	3.9	2.5	.11	3.1
20	58	19	8.5	47	32	52	37	2.5	3.2	1.9	.09	2.8
21	7.5	16	7.8	33	26	33	63	2.2	2.5	1.5	.08	1.8
22	3.0	13	7.8	25	23	25	43	1.9	2.0	1.1	.07	1.1
23	3.0	11	8.0	20	19	20	25	2.0	1.5	.95	.07	1.7
24	3.7	9.6	7.6	17	23	17	14	1.6	1.2	.80	.06	3.3
25	2.7	8.8	6.7	16	20	15	11	2.1	.91	.70	.06	1.3
26	1.9	21	6.1	14	20	13	9.4	13	.90	.62	.13	.82
27	1.5	104	5.9	10	19	13	8.0	13	.62	.56	.25	.66
28	1.1	121	5.8	8.0	16	11	7.0	6.5	.55	.50	.17	.63
29	3.9	49	5.6	6.6	---	10	6.4	4.8	.49	.46	.10	.56
30	102	32	4.5	6.3	---	9.2	5.7	3.4	.36	.42	.08	.64
31	19	---	5.2	6.3	---	8.4	---	2.6	---	1.5	.06	---
TOTAL	218.02	980.6	419.6	373.8	1291.0	949.8	343.3	146.3	302.53	407.54	29.94	38.39
MEAN	7.03	32.7	13.5	12.1	46.1	30.6	11.4	4.72	10.1	13.1	.97	1.28
MAX	102	238	36	92	190	166	63	14	71	108	14	14
MIN	.13	4.4	4.5	2.1	7.0	8.4	3.6	1.6	.36	.42	.06	.03
CFSM	.44	2.03	.84	.75	2.86	1.90	.71	.29	.63	.81	.06	.08
IN.	.50	2.27	.97	.86	2.98	2.19	.79	.34	.70	.94	.07	.09

CAL YR 1985	TOTAL	6140.60	MEAN	16.8	MAX	477	MIN	.00	CFSM	1.04	IN.	14.19
WTR YR 1986	TOTAL	5500.82	MEAN	15.1	MAX	238	MIN	.03	CFSM	.94	IN.	12.71

03302500 INDIAN CREEK NEAR CORYDON, IN

LOCATION.--Lat 38°16'35", long 86°06'35", in SW¼SE¼ sec.6, T.3 S., R.4 E., Harrison County, Hydrologic Unit 05140104, on upstream side of bridge on State Highway 335, 0.6 mi upstream from Raccoon Branch, 4.5 mi north of Corydon, and at mile 33.7.

DRAINAGE AREA.--129 mi², of which 10.6 mi² does not contribute directly to surface runoff.

PERIOD OF RECORD.--October 1943 to current year. Prior to October 1961, published as Big Indian Creek near Corydon.

REVISED RECORDS.--WSP 1275: Drainage area. WSP 1385: 1951(M).

GAGE.--Water-stage recorder. Datum of gage is 577.12 ft above National Geodetic Vertical Datum of 1929. Prior to Dec. 9, 1948, nonrecording gage, and Dec. 9, 1948, to June 12, 1952, recorder records for stages above 6.3 ft at same site and datum.

REMARKS.--Estimated daily discharges: Dec. 20-23, Jan. 8-10, Jan. 28 to Feb. 1, and Feb. 14-16. Records good.

AVERAGE DISCHARGE.--43 years, 170 ft³/s, 17.90 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,700 ft³/s Mar. 5, 1964, gage height, 22.64 ft; no flow at times during 1943-44, 1951-54, 1959, 1965, 1972-73, 1976.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,500 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)
Mar. 19	1000	*3,280	*12.10

Minimum daily discharge, 0.08 ft³/s Aug. 25 (temporary regulation).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.5	122	254	41	60	109	76	47	20	12	6.4	1.5
2	3.5	89	236	39	252	106	72	43	19	326	6.9	1.6
3	4.0	75	173	40	324	102	68	38	15	106	8.0	1.3
4	4.3	108	147	38	732	91	64	35	12	42	5.5	.96
5	4.2	94	133	36	661	86	61	33	11	26	4.2	.87
6	3.9	74	121	33	480	86	58	32	44	19	3.5	.72
7	3.8	61	102	31	1430	81	55	32	225	13	3.2	.84
8	3.7	53	94	23	569	70	52	34	163	11	3.0	.74
9	3.4	44	86	22	371	69	48	35	118	8.6	40	.71
10	3.5	41	78	25	284	69	45	30	95	7.3	57	.95
11	4.5	43	131	27	235	75	44	25	93	28	24	2.5
12	4.3	223	378	28	185	232	42	26	312	337	17	74
13	3.7	209	266	29	154	1120	40	76	152	304	8.8	39
14	8.7	150	200	26	135	531	38	57	95	157	5.4	14
15	9.1	118	153	24	120	335	48	50	65	329	3.8	8.7
16	7.2	570	143	25	110	249	52	35	48	135	3.9	5.8
17	3.2	444	128	26	620	198	43	28	290	69	3.5	4.3
18	1.5	225	104	35	517	172	41	24	111	43	14	27
19	1.1	163	83	503	344	1790	39	21	59	30	6.4	131
20	198	134	77	391	262	599	54	19	42	23	3.8	44
21	183	121	69	266	218	355	259	18	32	18	2.5	36
22	54	105	68	211	177	271	235	16	25	14	1.7	38
23	33	91	70	159	153	225	155	15	21	11	.94	34
24	27	78	71	135	158	182	116	14	17	9.8	.39	79
25	39	69	54	123	161	152	97	16	13	8.8	.08	41
26	33	78	52	111	151	132	83	22	11	7.7	.41	22
27	23	573	51	85	152	128	70	86	9.1	6.6	1.3	14
28	18	1140	51	66	126	111	63	62	7.6	6.1	1.8	11
29	16	536	48	62	---	101	57	39	6.7	5.7	2.6	8.8
30	445	326	39	60	---	89	51	29	5.9	5.0	2.0	8.4
31	243	---	45	58	---	82	---	23	---	5.7	1.4	---
TOTAL	1393.1	6157	3705	2778	9141	7998	2226	1060	2137.3	2124.3	243.42	652.69
MEAN	44.9	205	120	89.6	326	258	74.2	34.2	71.2	68.5	7.85	21.8
MAX	445	1140	378	503	1430	1790	259	86	312	337	57	131
MIN	1.1	41	39	22	60	69	38	14	5.9	5.0	.08	.71
CFSM	.35	1.59	.93	.69	2.53	2.00	.58	.27	.55	.53	.06	.17
IN.	.40	1.78	1.07	.80	2.64	2.31	.64	.31	.62	.61	.07	.19

CAL YR 1985	TOTAL	50663.77	MEAN	139	MAX	3050	MIN	.45	CFSM	1.08	IN.	14.61
WTR YR 1986	TOTAL	39615.81	MEAN	109	MAX	1790	MIN	.08	CFSM	.84	IN.	11.42

03302680 WEST FORK BLUE RIVER AT SALEM, IN

LOCATION.--Lat 38°36'19", long 86°05'40", in SW¼SE¼ sec.17, T.2 N., R.4 E., Washington County, Hydrologic Unit 05140104, on left bank at downstream side of bridge on East Market Street, 0.35 mi east of County Court House in Salem, 6.0 mi upstream from Hoggatt Branch, and 6.9 mi upstream from mouth.

DRAINAGE AREA.--19.0 mi^2.

PERIOD OF RECORD.--July 1970 to current year. Prior to December 10, 1970, nonrecording gage at site 0.55 mi downstream at datum 5.04 ft lower. Low-flow records not equivalent due to effluent from factory entering stream from right bank between sites.

GAGE.--Water-stage recorder. Datum of gage is 713.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 19-22, Jan. 8-11, Jan. 27 to Feb. 1, Feb. 14-16, Aug. 3-10, Aug. 23-26, and Sept. 7-10. Records good except those for estimated daily discharges and daily discharges below 2.0 ft^3/s, which are poor.

AVERAGE DISCHARGE.--16 years, 24.8 ft^3/s, 17.73 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,400 ft^3/s May 1, 1983, gage height, 13.14 ft from rating curve extended above 900 ft^3/s by a step-backwater analysis; minimum daily, 0.02 ft^3/s Sept. 24, 1970.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 900 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 12	0815	1,060	6.85	Sept. 11	2115	979	6.61
Nov. 15	2315	*1,420	*7.77				

Minimum daily discharge, 0.04 ft^3/s Sept. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.0	26	60	5.7	8.0	15	10	7.6	1.6	45	4.2	.12
2	.91	20	43	5.9	12	15	10	6.3	1.2	125	2.4	.12
3	.72	18	31	6.5	16	14	9.7	5.7	.95	14	1.1	.12
4	.80	19	28	6.1	163	13	9.3	5.4	.77	8.0	.60	.11
5	.84	18	24	5.5	104	12	8.8	5.2	.71	6.4	.30	.11
6	.71	16	20	5.3	188	12	8.3	5.2	1.2	5.2	.35	.09
7	.77	15	18	4.5	186	11	8.3	5.2	2.4	4.0	.45	.06
8	.64	12	17	3.6	74	9.2	8.2	6.3	2.2	3.3	.41	.10
9	.74	10	15	3.2	48	9.3	7.6	4.9	1.7	4.8	.70	.06
10	.63	9.3	14	3.7	35	13	7.4	4.0	1.3	7.5	3.0	.04
11	.65	17	169	4.3	28	16	7.3	3.6	2.6	21	2.0	122
12	.58	274	98	4.9	22	180	7.0	3.9	6.6	38	.64	29
13	.77	101	57	4.4	19	238	6.8	6.2	3.8	44	.26	4.8
14	3.8	87	34	4.2	17	81	10	7.6	2.5	19	.16	2.7
15	2.4	294	27	3.6	15	50	12	5.8	2.0	14	.12	1.6
16	1.3	402	24	3.9	15	34	8.3	5.3	2.4	9.3	.16	1.1
17	1.2	134	20	4.5	79	27	7.6	4.3	47	7.4	.98	.76
18	1.0	77	15	7.3	57	37	7.1	3.2	6.5	6.2	.28	1.8
19	1.3	53	12	86	43	101	7.7	2.9	3.9	5.3	.12	2.4
20	45	44	11	43	32	45	19	2.8	2.8	4.7	.10	4.0
21	19	34	11	30	28	31	25	2.6	2.1	3.6	.10	2.6
22	10	30	11	23	23	26	18	2.4	1.7	3.0	.08	1.7
23	8.7	24	11	18	20	23	15	2.1	1.3	2.6	.07	1.3
24	11	20	10	17	25	18	13	1.8	1.1	2.2	.07	1.0
25	14	20	8.2	16	22	17	12	1.9	.75	1.9	.06	.72
26	12	92	8.0	14	24	16	11	3.7	.55	1.7	.15	2.2
27	9.6	330	8.3	11	21	15	9.1	5.5	.50	1.5	14	7.0
28	7.7	309	7.4	9.0	17	13	9.0	4.1	.45	1.3	2.2	2.2
29	7.1	121	7.0	8.0	---	13	7.9	3.0	.38	1.3	.67	1.5
30	24	72	6.2	7.5	---	12	7.1	2.3	3.1	1.1	.29	1.0
31	36	---	6.9	7.4	---	11	---	2.0	---	4.4	.17	---
TOTAL	224.86	2698.3	832.0	377.0	1341.0	1127.5	307.5	132.8	106.06	416.7	36.19	192.31
MEAN	7.25	89.9	26.8	12.2	47.9	36.4	10.2	4.28	3.54	13.4	1.17	6.41
MAX	45	402	169	86	188	238	25	7.6	47	125	14	122
MIN	.58	9.3	6.2	3.2	8.0	9.2	6.8	1.8	.38	1.1	.06	.04
CFSM	.38	4.73	1.41	.64	2.52	1.92	.54	.23	.19	.71	.06	.34
IN.	.44	5.28	1.63	.74	2.63	2.21	.60	.26	.21	.82	.07	.38

CAL YR 1985 TOTAL 11716.59 MEAN 32.1 MAX 964 MIN .45 CFSM 1.69 IN. 22.94
WTR YR 1986 TOTAL 7792.22 MEAN 21.3 MAX 402 MIN .04 CFSM 1.12 IN. 15.26

03302800 BLUE RIVER AT FREDERICKSBURG, IN

LOCATION.--Lat 38°26'02", long 86°11'31", in NE¼NW¼ sec.16, T.1 S., R.3 E., Washington County, Hydrologic Unit 05140104, on downstream side of bridge on U.S. Highway 150 at Fredericksburg, 0.5 mi downstream from South Fork Blue River, and at mile 57.1.

DRAINAGE AREA.--283 mi^2, of which 76.9 mi^2 does not contribute directly to surface runoff.

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

GAGE.--Water-stage recorder. Datum of gage is 590.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Oct. 8-14, 16-19, Dec. 18-23, 25-27, Jan. 8-11, 28-31, Feb. 14-16, Feb. 19 to Mar. 11, May 16 to June 16, July 18-21, and Aug. 13 to Sept. 2. Records good except those for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--18 years, 337 ft^3/s, 16.17 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,500 ft^3/s May 2, 1983, gage height, 24.37 ft; minimum daily, 6.1 ft^3/s Oct. 18, 1968.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jan. 21, 1959, reached a stage of 29.20 ft, from floodmark, on left upstream wingwall.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 5,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 28	0200	*4,610	*13.15

Minimum daily discharge, 9.0 ft^3/s Sept. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	227	682	89	120	240	165	97	36	53	25	14
2	16	173	630	83	244	210	156	89	36	840	25	13
3	13	143	456	84	346	205	147	77	31	321	24	13
4	11	163	385	84	1650	195	138	70	27	165	21	13
5	13	161	341	78	1760	185	128	68	25	103	20	12
6	11	136	308	69	1060	180	125	65	100	79	17	12
7	9.8	117	259	64	3040	170	123	62	70	67	15	12
8	10	100	237	56	1270	160	116	61	60	60	15	10
9	9.8	86	215	48	820	150	109	61	51	54	91	9.8
10	9.6	78	194	52	616	145	99	60	47	277	46	9.0
11	9.5	106	732	55	505	170	95	52	44	556	33	12
12	9.4	1070	1580	58	407	610	92	75	62	1340	29	345
13	10	876	808	55	342	2440	89	226	55	714	25	76
14	25	541	552	53	270	1390	84	165	49	524	21	40
15	46	529	409	52	240	838	87	160	46	866	18	26
16	20	3450	359	49	225	592	94	110	40	433	16	20
17	15	1460	318	50	508	464	96	80	255	254	30	18
18	12	744	240	57	1050	398	94	60	221	150	20	22
19	11	522	170	817	740	1670	90	50	117	100	17	30
20	104	408	160	769	550	1120	90	45	81	80	15	32
21	308	329	162	503	400	682	318	40	65	67	14	35
22	132	283	164	398	340	519	411	37	58	58	13	40
23	86	239	166	297	290	436	297	34	50	50	12	33
24	75	205	164	250	270	360	227	33	45	44	12	27
25	76	184	140	233	280	302	185	37	43	39	11	21
26	77	305	135	215	280	266	162	41	39	36	16	18
27	65	2150	130	181	275	255	136	70	37	33	25	17
28	56	3830	112	140	265	233	119	64	35	31	16	28
29	49	1520	106	125	---	213	112	58	34	29	15	25
30	99	904	91	115	---	196	107	48	32	26	14	20
31	300	---	96	110	---	180	---	40	---	25	14	---
TOTAL	1702.1	21039	10501	5289	18163	15174	4291	2235	1891	7474	685	1002.8
MEAN	54.9	701	339	171	649	489	143	72.1	63.0	241	22.1	33.4
MAX	308	3830	1580	817	3040	2440	411	226	255	1340	91	345
MIN	9.4	78	91	48	120	145	84	33	25	25	11	9.0
CFSM	.19	2.48	1.20	.60	2.29	1.73	.51	.25	.22	.85	.08	.12
IN.	.22	2.77	1.38	.70	2.39	1.99	.56	.29	.25	.98	.09	.13

CAL YR 1985 TOTAL 136539.4 MEAN 374 MAX 8870 MIN 8.7 CFSM 1.32 IN. 17.95
WTR YR 1986 TOTAL 89446.9 MEAN 245 MAX 3830 MIN 9.0 CFSM .87 IN. 11.76

03303000 BLUE RIVER NEAR WHITE CLOUD, IN

LOCATION.--Lat 38°14'15", long 86°13'42", in NW¼SE¼ sec.19, T.3 S., R.3 E., Harrison County, Hydrologic Unit 05140104, on left bank 400 ft downstream from Spring Creek, 600 ft upstream from bridge on Interstate 64, 0.2 mi upstream from bridge on State Highway 62, 0.8 mi north of White Cloud, and at mile 14.7.

DRAINAGE AREA.--476 mi², of which 192 mi² does not contribute directly to surface runoff. Also, part of flow from Indian Creek, downstream from Corydon, IN, enters Blue River via solution channel in Karst area through Harrison Spring.

PERIOD OF RECORD.--October 1930 to current year. Monthly figures only for some periods, published in WSP 1305.

REVISED RECORDS.--WSP 1335: 1921-32, 1933(M), 1935-38(M), 1944. WSP 1385: Drainage area. WSP 1555: 1953. WDR IN-75-1: 1973.

GAGE.--Water-stage recorder. Datum of gage is 434.26 ft above National Geodetic Vertical Datum of 1929 (levels by State of Indiana, Department of Natural Resources). Prior to Nov. 16, 1938, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Dec. 19-23, 26, 27, 30, 31, and Jan. 8-11, 27-31. Records good.

AVERAGE DISCHARGE.--56 years, 637 ft³/s, 18.17 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,500 ft³/s Jan. 22, 1959, gage height, 23.07 ft; minimum daily, 9.6 ft³/s Oct. 17, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 7,500 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 28	1000	*7,390	*10.65

Minimum daily discharge, 30 ft³/s Sept. 9, 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	53	869	1610	293	359	646	514	337	131	89	86	42
2	51	680	1440	278	925	599	488	308	133	532	82	41
3	50	562	1160	265	1200	585	470	281	109	1060	81	39
4	48	533	959	260	2730	557	454	254	97	436	77	38
5	47	526	864	255	4060	519	437	238	93	283	67	36
6	46	479	786	234	2590	506	423	231	625	200	61	33
7	42	426	702	221	4950	489	409	224	890	157	57	33
8	42	375	634	160	3270	456	393	243	678	131	56	31
9	42	337	590	150	2030	429	376	241	558	114	55	30
10	39	303	543	170	1520	427	355	220	371	108	149	30
11	39	284	834	175	1240	443	335	201	307	335	192	34
12	40	674	2880	184	1040	1160	318	186	348	2180	114	85
13	43	2200	1930	179	877	4980	302	317	293	1550	97	389
14	104	1340	1390	176	789	3540	288	422	288	1070	79	203
15	116	1070	1060	167	747	2040	334	375	244	744	64	106
16	54	3710	897	158	682	1480	364	338	217	1160	60	74
17	72	3900	811	161	1300	1170	347	251	326	508	70	57
18	56	1840	733	174	2260	1020	305	211	588	373	58	130
19	44	1270	600	1000	1660	3180	287	174	381	288	59	187
20	540	1000	540	1900	1300	3080	317	152	279	228	55	150
21	896	845	480	1240	1080	1740	604	142	232	190	53	135
22	582	734	460	964	922	1330	999	132	193	161	48	161
23	363	652	470	786	809	1130	803	126	163	140	43	132
24	291	574	474	658	772	975	639	121	141	124	41	193
25	265	517	443	602	826	842	554	137	123	112	38	148
26	250	551	370	569	808	762	501	155	110	103	37	111
27	227	2960	360	500	815	709	456	227	102	97	40	79
28	192	6600	358	430	745	680	418	209	95	93	41	64
29	186	3940	345	400	---	623	388	223	90	88	37	54
30	834	2170	300	400	---	584	362	178	84	82	47	49
31	1030	---	290	370	---	547	---	146	---	81	47	---
TOTAL	6684	41921	25313	13479	42306	37228	13240	7000	8289	12817	2091	2894
MEAN	216	1397	817	435	1511	1201	441	226	276	413	67.5	96.5
MAX	1030	6600	2880	1900	4950	4980	999	422	890	2180	192	389
MIN	39	284	290	150	359	427	287	121	84	81	37	30
CFSM	.45	2.93	1.72	.91	3.17	2.52	.93	.47	.58	.87	.14	.20
IN.	.52	3.28	1.98	1.05	3.31	2.91	1.03	.55	.65	1.00	.16	.23

CAL YR 1985	TOTAL	291252	MEAN	798	MAX	16000	MIN	39	CFSM	1.68	IN.	22.76
WTR YR 1986	TOTAL	213262	MEAN	584	MAX	6600	MIN	30	CFSM	1.23	IN.	16.67

03303300 MIDDLE FORK ANDERSON RIVER AT BRISTOW, IN

LOCATION.--Lat 38°08'19", long 86°43'16", in SW¼NE¼ sec.27, T.4 S., R.3 W., Perry County, Hydrologic Unit 05140201, on left bank at downstream side of bridge on State Highway 145 at Bristow, 2.0 mi downstream from Coon Branch, 5.8 mi upstream from Sulphur Fork Creek, and at mile 14.1.

DRAINAGE AREA.--39.8 mi^2.

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

REVISED RECORDS.--WDR IN-72-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 395.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 21, Jan. 29, and Aug. 21 to Sept. 2. Records good. Flow regulated by Forest Service and Middle Fork Anderson River Conservancy District control structures beginning June 1967.

AVERAGE DISCHARGE.--25 years, 59.2 ft^3/s, 20.20 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,360 ft^3/s Mar. 9, 1964; maximum gage height, 19.33 ft Mar. 4, 1964; no flow at times most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jan. 21, 1959, reached a stage of 20.0 ft, from floodmark, discharge, 15,000 ft^3/s, from rating curve extended above 7,000 ft^3/s. This is the maximum flood since 1905, from information by local resident.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 710 ft^3/s Feb. 2, gage height, 13.50 ft; minimum daily, 0.23 ft^3/s Sept. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.4	129	137	15	22	34	30	20	11	61	10	.40
2	2.3	123	98	14	489	31	28	18	8.5	134	2.8	.38
3	1.9	90	73	15	383	30	25	15	6.4	27	1.6	.37
4	1.6	67	57	14	502	27	24	12	5.1	10	1.2	.36
5	1.4	49	50	13	404	26	23	10	4.6	5.2	.92	.34
6	1.1	39	43	12	408	27	22	8.7	234	3.5	.83	.36
7	1.0	59	37	10	408	26	21	8.0	295	2.8	1.0	.36
8	1.0	57	34	8.3	318	23	19	29	236	2.3	1.8	.30
9	1.4	56	30	7.3	192	23	17	34	130	2.2	1.8	.37
10	1.3	55	29	7.1	102	23	16	24	84	2.7	3.8	.23
11	1.2	71	135	7.3	77	25	15	18	60	2.7	6.3	.88
12	1.6	153	225	7.9	60	160	13	15	53	11	2.4	1.7
13	1.9	120	151	7.6	49	359	12	13	39	16	1.5	.49
14	11	104	97	7.2	47	269	13	11	29	14	1.1	.33
15	23	83	70	6.4	43	154	27	10	22	8.5	.91	.36
16	16	235	57	6.2	52	92	31	8.7	18	4.9	1.4	.33
17	8.4	260	53	8.2	148	68	26	7.1	13	3.4	1.5	.35
18	5.0	160	43	33	141	79	22	5.9	9.6	2.5	.95	41
19	3.9	94	34	250	105	295	22	5.3	7.3	1.9	.70	120
20	72	89	32	175	79	216	38	4.7	6.0	1.5	.65	181
21	132	82	29	101	63	127	83	4.0	5.1	1.1	.64	92
22	73	65	27	68	51	86	88	3.7	4.4	.91	.58	49
23	41	51	28	49	43	68	66	3.7	3.9	.81	.54	26
24	35	41	28	39	46	54	48	3.4	4.3	.80	.49	22
25	34	36	24	35	47	46	37	3.6	3.8	.75	.46	19
26	27	46	21	31	47	41	31	42	3.2	1.3	.45	12
27	21	269	21	26	45	46	26	72	2.8	1.1	.54	7.9
28	17	431	20	22	39	43	25	47	2.6	1.4	.53	5.8
29	17	351	19	21	---	39	23	30	2.5	1.4	.50	4.5
30	96	261	17	19	---	35	20	21	2.2	1.3	.45	3.8
31	176	---	17	18	---	32	---	16	---	34	.42	---
TOTAL	828.4	3726	1736	1053.5	4410	2604	891	523.8	1306.3	361.97	48.76	591.91
MEAN	26.7	124	56.0	34.0	158	84.0	29.7	16.9	43.5	11.7	1.57	19.7
MAX	176	431	225	250	502	359	88	72	295	134	10	181
MIN	1.0	36	17	6.2	22	23	12	3.4	2.2	.75	.42	.23
CFSM	.67	3.12	1.41	.85	3.97	2.11	.75	.42	1.09	.29	.04	.49
IN.	.77	3.48	1.62	.98	4.12	2.43	.83	.49	1.22	.34	.05	.55

CAL YR 1985	TOTAL	22631.9	MEAN	62.0	MAX	618	MIN	1.0	CFSM	1.56	IN.	21.15
WTR YR 1986	TOTAL	18081.64	MEAN	49.5	MAX	502	MIN	.23	CFSM	1.24	IN.	16.90

03303400 CROOKED CREEK NEAR SANTA CLAUS, IN

LOCATION.--Lat 38°07'05", long 86°53'24", in SW¼SE¼ sec.31, T.4 S., R.4 W., Spencer County, Hydrologic Unit 05140201, on right bank at upstream side of bridge on county road, 1.3 mi east of Santa Claus Post Office, and 1.8 mi upstream from unnamed right-bank tributary.

DRAINAGE AREA.--7.86 mi^2.

PERIOD OF RECORD.--October 1969 to current year.

GAGE.--Water-stage recorder. Datum of gage is 404.34 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 18 to Jan. 11, Jan. 27-31, Feb. 11-16, and June 13-30. Records fair except those for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--17 years, 11.5 ft^3/s, 19.87 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,100 ft^3/s Apr. 28, 1970, gage height, 9.74 ft, from rating curve extended above 450 ft^3/s on basis of two indirect measurements of peak flow at site 1.6 mi downstream, drainage area, 16.0 mi^2, adjusted to gage site; no flow many days most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 2	0245	530	8.40	July 31	1100	*1,630	*9.35
June 7	1715	972	9.06				

Minimum daily discharge, 0.01 ft^3/s Sept. 9, 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.04	77	18	.50	6.8	2.9	2.2	.95	1.2	58	27	.04
2	.03	31	9.7	.60	259	3.0	1.8	.76	1.0	26	9.8	.06
3	.02	9.2	3.9	.50	94	2.8	1.8	.59	.69	2.2	4.8	.05
4	.02	3.5	2.6	.48	150	2.4	1.3	.55	.54	.87	3.8	.05
5	.02	1.5	2.2	.46	41	2.1	1.3	.65	.79	.60	1.7	.04
6	.02	.92	1.3	.52	108	2.7	1.6	.45	118	.47	1.8	.04
7	.02	.76	1.0	.44	55	1.8	1.1	3.8	187	.36	8.7	.03
8	.02	.50	.93	.36	26	1.3	1.2	19	59	.26	2.1	.02
9	.02	.44	.73	.32	18	1.5	.85	1.4	87	.23	3.8	.01
10	.02	.33	.77	.28	11	1.5	.91	.76	49	.57	22	.01
11	.02	1.1	109	.28	8.0	1.1	1.0	1.1	28	.96	7.7	4.0
12	.02	30	36	.31	5.0	72	.96	2.5	18	3.9	1.3	.69
13	.02	52	19	.29	4.0	59	.98	4.3	10	1.1	.53	.06
14	12	19	10	.27	3.5	21	6.2	3.7	6.0	.46	.30	.05
15	.24	14	7.4	.20	3.0	12	5.1	5.1	3.7	31	.17	.04
16	.07	89	7.3	.37	10	8.0	1.6	1.5	2.6	13	12	.03
17	.05	18	7.4	.57	53	6.1	1.1	1.2	2.0	2.0	1.0	.03
18	.04	8.8	3.0	39	24	23	.96	.82	1.7	.75	.32	57
19	.05	4.9	1.8	74	14	48	2.0	.63	1.5	.48	.35	116
20	37	21	1.3	20	9.6	16	13	.50	1.3	.33	.14	32
21	6.0	8.3	1.1	14	6.6	9.2	19	.43	1.1	.24	.10	11
22	.61	3.8	1.0	7.3	5.2	6.6	11	.46	1.0	.19	.10	4.7
23	.74	1.7	1.1	4.6	4.2	5.5	5.2	.52	.95	.16	.09	2.4
24	.66	1.0	.95	4.1	8.1	4.1	3.2	.43	1.3	.15	.08	1.2
25	.46	.91	.85	3.9	6.0	3.7	2.2	.64	1.0	.11	.08	.89
26	.20	9.5	.72	2.8	7.1	3.4	1.5	33	.80	30	.14	7.3
27	.11	139	.90	1.2	5.6	4.4	1.3	17	.74	1.2	.16	5.3
28	.09	77	.75	.90	3.5	3.4	1.9	6.1	.67	15	.07	2.1
29	9.6	20	.65	.80	---	3.0	1.5	4.3	.64	1.4	.06	1.4
30	50	11	.60	.70	---	2.3	.96	2.2	.62	.65	.04	4.3
31	20	---	.55	.75	---	2.0	---	1.6	---	399	.04	---
TOTAL	138.21	655.16	252.50	180.80	949.2	335.8	94.72	116.94	587.84	591.64	110.27	250.84
MEAN	4.46	21.8	8.15	5.83	33.9	10.8	3.16	3.77	19.6	19.1	3.56	8.36
MAX	50	139	109	74	259	72	19	33	187	399	27	116
MIN	.02	.33	.55	.20	3.0	1.1	.85	.43	.54	.11	.04	.01
CFSM	.57	2.77	1.04	.74	4.31	1.37	.40	.48	2.49	2.43	.45	1.06
IN.	.65	3.10	1.20	.86	4.49	1.59	.45	.55	2.78	2.80	.52	1.19

CAL YR 1985	TOTAL	4187.67	MEAN	11.5	MAX	272	MIN	.00	CFSM	1.46	IN.	19.82
WTR YR 1986	TOTAL	4263.92	MEAN	11.7	MAX	399	MIN	.01	CFSM	1.49	IN.	20.18

03322500 WABASH RIVER NEAR NEW CORYDON, IN

LOCATION.--Lat 40°33'50", long 84°48'10", in NE¼SE¼ sec.3, T.24 N., R.15 E., Jay County, Hydrologic Unit 05120101, on left bank 10 ft downstream from county bridge on Indiana-Ohio State line road, 2 mi east of New Corydon, 2.8 mi downstream from Beaver Creek, and at mile 466.0.

DRAINAGE AREA.--262 mi^2.

PERIOD OF RECORD.--April 1951 to current year.

REVISED RECORDS.--WSP 1555: 1957(P). WSP 1909: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 830.10 ft above National Geodetic Vertical Datum of 1929. Prior to June 24, 1953, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Oct. 1 to Nov. 12, Dec. 17 to Jan. 1, Jan. 27-30, Feb. 11-16, Mar. 1, Aug. 21-26, and Aug. 31 to Sept. 18. Records good except those for estimated daily discharges, which are poor. Occasional regulation by Grand Lake, diversion from or into St. Marys River basin, and into Miami and Erie Canal.

AVERAGE DISCHARGE.--35 years, 203 ft^3/s, 10.52 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,720 ft^3/s Jan. 22, 1959; gage height, 20.47 ft, from floodmarks; minimum daily, 0.8 ft^3/s Dec. 22, 23, 1963.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 12	0400	*3,730	*17.62

Minimum daily discharge, 6.4 ft^3/s Oct. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.0	7.3	233	260	70	150	114	1090	92	512	21	11
2	6.8	7.5	281	257	422	133	112	437	85	847	20	10
3	6.6	8.1	152	259	353	131	110	247	79	376	17	10
4	7.4	7.8	112	261	1580	221	105	244	44	149	15	10
5	7.2	8.1	84	262	2260	582	103	221	29	74	14	10
6	6.9	8.2	74	258	1300	824	111	206	1190	49	14	10
7	6.7	8.0	62	255	756	387	141	278	1210	37	30	10
8	6.4	7.8	56	250	468	229	116	225	799	31	33	10
9	7.2	7.8	54	250	318	181	96	201	416	29	18	11
10	6.9	9.7	102	252	220	220	85	187	190	28	24	10
11	6.6	20	2160	253	170	421	76	176	147	152	80	11
12	7.4	40	3290	256	130	614	76	157	489	1520	29	13
13	10	70	1560	260	110	1510	79	98	257	819	17	19
14	13	379	645	260	95	845	78	97	129	306	13	16
15	32	225	290	255	82	393	95	92	99	135	13	12
16	22	334	185	254	74	266	87	108	76	1010	14	9.5
17	15	279	150	283	162	219	83	133	159	751	13	9.0
18	13	124	115	376	1380	232	82	117	74	238	13	10
19	12	471	98	1030	1530	2010	76	126	52	292	13	715
20	10	682	86	771	747	1260	411	101	392	264	12	352
21	10	225	76	434	779	627	2040	87	273	221	12	187
22	11	113	72	507	451	450	1110	83	103	56	12	81
23	11	74	68	418	262	398	455	86	64	39	11	50
24	13	53	64	351	253	364	292	83	53	34	11	43
25	12	42	58	333	241	347	222	76	40	62	11	417
26	9.5	678	52	335	252	334	188	75	32	258	14	151
27	9.0	1760	50	290	211	322	165	244	28	72	154	266
28	8.3	1580	250	150	180	282	152	205	39	42	43	372
29	8.2	942	250	100	---	141	129	130	41	32	20	134
30	7.7	388	260	88	---	124	151	120	82	26	16	101
31	7.6	---	270	65	---	120	---	106	---	23	13	---
TOTAL	317.4	8559.3	11259	9633	14856	14337	7140	5836	6763	8484	740	3070.5
MEAN	10.2	285	363	311	531	462	238	188	225	274	23.9	102
MAX	32	1760	3290	1030	2260	2010	2040	1090	1210	1520	154	715
MIN	6.4	7.3	50	65	70	120	76	75	28	23	11	9.0
CFSM	.04	1.09	1.39	1.19	2.03	1.76	.91	.72	.86	1.05	.09	.39
IN.	.05	1.22	1.60	1.37	2.11	2.04	1.01	.83	.96	1.20	.11	.44

CAL YR 1985	TOTAL	81583.7	MEAN	224	MAX	6400	MIN	6.0	CFSM	.85	IN.	11.58
WTR YR 1986	TOTAL	90995.2	MEAN	249	MAX	3290	MIN	6.4	CFSM	.95	IN.	12.92

03322900 WABASH RIVER AT LINN GROVE, IN

LOCATION.--Lat 40°39'22", long 85°01'58", in SE¼SE¼ sec.34, T.26 N., R.13 E., Adams County, Hydrologic Unit 05120101, on right bank 10 ft downstream from bridge on State Highway 218, 800 ft downstream from Shoemaker ditch, 0.8 mi north of Linn Grove, and 2.2 mi upstream from Rice ditch.

DRAINAGE AREA.--453 mi^2.

PERIOD OF RECORD.--September 1964 to current year.

REVISED RECORDS.--WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 808.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 19 to Jan. 12, Jan. 27-30, and Feb. 11-16, 21, 22. Records good except those for estimated daily discharges, which are poor. Occasional regulation of Grand Lake, diversion from or into St. Marys River basin, and into Miami and Erie Canal.

AVERAGE DISCHARGE.--22 years, 380 ft^3/s, 11.40 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,560 ft^3/s Mar. 17, 1978, gage height, 13.87 ft; minimum daily, 5.1 ft^3/s Oct. 8, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in April 1964 reached a stage of 13.13 ft, from floodmark, discharge, 6,900 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,900 ft^3/s and maximum(*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 29	0200	3,210	10.26	Mar. 20	2200	2,960	9.94
Dec. 13	1300	*4,340	*11.54	Apr. 23	0300	2,150	8.72
Feb. 6	1200	3,730	10.90	May 2	0900	2,090	8.64
Feb. 20	1000	2,790	9.72	June 8	1400	2,190	8.79
Mar. 14	1800	2,330	9.02				

Minimum daily discharge, 6.0 ft^3/s Oct. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	7.0	1560	280	92	263	164	1760	172	622	44	19
2	10	7.4	961	270	364	259	156	2030	134	1500	34	17
3	9.0	8.0	529	270	639	227	153	1230	117	1420	30	17
4	8.6	7.7	254	275	1430	304	145	556	103	601	27	17
5	7.0	8.0	176	275	2680	1100	142	388	132	226	25	17
6	6.7	8.0	137	275	3650	1530	144	323	1510	118	23	17
7	6.2	7.5	112	275	3150	1290	177	346	2010	77	23	17
8	6.0	7.5	95	270	2080	654	184	377	2160	56	30	17
9	6.9	7.8	87	270	1200	396	149	298	1850	48	40	18
10	6.6	9.4	125	270	715	442	122	261	915	45	32	17
11	6.2	21	1580	270	400	929	107	243	442	58	76	18
12	7.7	71	2880	270	300	1040	96	228	472	1280	89	23
13	10	121	4190	277	240	1970	95	193	664	1750	43	33
14	13	448	3550	262	200	2260	95	141	353	1450	29	24
15	31	796	2370	253	170	1970	109	139	235	539	24	20
16	28	737	1010	252	150	1060	130	149	146	1080	23	16
17	17	1080	461	307	128	603	117	172	158	1690	22	15
18	13	460	234	551	939	438	110	183	193	1270	21	17
19	12	678	190	1120	2220	1980	103	347	95	513	21	144
20	9.6	1690	150	1530	2200	2660	118	228	819	385	20	652
21	9.7	1430	130	1200	1500	2680	1320	161	1060	324	20	314
22	11	630	120	935	1800	1680	1930	136	407	215	20	147
23	11	281	115	823	1050	963	1950	128	172	79	20	65
24	13	163	110	593	675	665	984	136	103	54	20	41
25	11	110	96	482	517	518	484	115	78	60	21	175
26	9.1	842	80	475	480	475	317	103	60	564	21	388
27	8.7	2200	77	350	436	445	258	254	50	332	47	179
28	8.0	2950	75	220	327	416	226	468	55	127	141	397
29	8.1	3150	150	140	---	310	204	290	59	78	49	294
30	7.5	2600	275	120	---	195	245	403	118	62	27	121
31	7.6	---	285	102	---	170	---	264	---	47	21	---
TOTAL	330.2	20536.3	22164	13262	29732	29892	10534	12050	14842	16670	1083	3256
MEAN	10.7	685	715	428	1062	964	351	389	495	538	34.9	109
MAX	31	3150	4190	1530	3650	2680	1950	2030	2160	1750	141	652
MIN	6.0	7.0	75	102	92	170	95	103	50	45	20	15
CFSM	.02	1.51	1.58	.94	2.34	2.13	.77	.86	1.09	1.19	.08	.24
IN.	.03	1.69	1.82	1.09	2.44	2.45	.87	.99	1.22	1.37	.09	.27

CAL YR 1985 TOTAL 149373.0 MEAN 409 MAX 7390 MIN 6.0 CFSM .90 IN. 12.27
WTR YR 1986 TOTAL 174351.5 MEAN 478 MAX 4190 MIN 6.0 CFSM 1.06 IN. 14.32

03323500 WABASH RIVER AT HUNTINGTON, IN

LOCATION.--Lat 40°51'20", long 85°29'53", in SW¼NE¼ sec.27, T.28 N., R.9 E., Huntington County, Hydrologic Unit 05120101, on right bank at the Huntington Water and Light Plant, 2 mi south of Huntington, 2.4 mi downstream from Huntington Lake, 3.2 mi upstream from Little River, and at mile 409.0.

DRAINAGE AREA.--721 mi^2.

PERIOD OF RECORD.--January 1951 to current year.

REVISED RECORDS.--WSP 1909: 1959. WSP 2109: Drainage area.

GAGE.--Data-Collection Platform. Datum of gage was 700.04 ft above National Geodetic Vertical Datum of 1929 (levels by State of Indiana, Department of Natural Resources). July 5, 1951, to Sept. 30, 1974, water-stage recorder at site described in "LOCATION" paragraph. Prior to July 5, 1951, nonrecording gage at same site and datum. Data-Collection Platform installed on June 13, 1986.

REMARKS.--Flow regulated by Huntington Lake. Daily discharge computed from relation between discharge, head, and gate openings for Huntington Lake beginning Oct. 1, 1974.

COOPERATION.--Records of daily discharge provided by U.S. Army Corps of Engineers beginning Oct. 1, 1976.

AVERAGE DISCHARGE.--35 years, 606 ft^3/s, 11.41 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,900 ft^3/s Feb. 10, 1959; maximum gage height, 23.20 ft Feb. 10, 1959 (backwater from ice); minimum daily discharge, 2.4 ft^3/s Oct. 28, 29, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913 reached a stage of 22.7 ft, from high-water mark by U.S. Army Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 4,650 ft^3/s Feb. 8; minimum daily discharge, 21 ft^3/s Aug. 6-8, Sept. 6-8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	57	84	3130	254	165	347	186	1490	335	676	126	84
2	66	89	3040	369	173	259	188	2860	238	1150	85	83
3	75	88	2870	233	340	259	213	2050	178	1380	68	83
4	77	87	1760	240	1630	282	142	1110	153	1380	62	71
5	77	87	611	252	2850	726	100	766	201	615	29	46
6	76	86	306	212	3300	1890	104	661	928	312	21	21
7	76	85	294	242	4270	2920	108	525	1680	192	21	21
8	73	84	208	216	4650	1840	110	453	1790	105	21	21
9	71	84	174	208	3470	913	114	420	2490	112	280	32
10	71	83	179	226	1970	769	116	342	2800	112	27	38
11	71	94	225	223	871	1310	118	289	2710	113	35	43
12	71	133	730	215	301	1780	119	288	1510	839	101	69
13	70	127	2590	222	105	2500	120	258	953	1470	143	94
14	72	202	3420	247	125	3700	107	300	1030	1490	136	94
15	75	771	4030	240	246	3980	72	187	1050	1480	114	112
16	113	1190	4210	214	281	3100	57	130	1040	586	94	74
17	210	1440	3310	236	217	1840	58	131	704	702	104	77
18	245	2050	1490	346	246	719	59	203	459	1240	113	92
19	314	2340	627	697	1790	1270	60	346	236	2030	61	92
20	337	2480	508	1410	3190	2890	61	666	594	991	35	284
21	327	3480	378	1750	3490	3780	64	386	1320	468	41	302
22	202	3780	247	1700	3520	3920	653	296	906	379	49	372
23	104	2160	204	1230	3400	3120	1380	211	503	229	45	402
24	102	659	188	942	2090	1740	1610	189	234	118	40	206
25	85	395	159	498	940	1020	1260	189	125	113	35	211
26	77	601	125	219	742	777	714	166	126	113	35	435
27	76	2250	133	248	501	617	352	155	126	393	47	468
28	76	3060	136	241	441	425	141	413	184	558	187	464
29	76	3500	116	237	---	376	67	354	258	304	141	269
30	75	3470	106	223	---	330	42	277	253	203	80	213
31	75	---	132	166	---	226	---	318	---	158	84	---
TOTAL	3572	35039	35636	13956	45314	49625	8495	16429	25114	20011	2460	4873
MEAN	115	1168	1150	450	1618	1601	283	530	837	646	79.4	162
MAX	337	3780	4210	1750	4650	3980	1610	2860	2800	2030	280	468
MIN	57	83	106	166	105	226	42	130	125	105	21	21

CAL YR 1985	TOTAL	241888	MEAN	663	MAX	6020	MIN	20
WTR YR 1986	TOTAL	260524	MEAN	714	MAX	4650	MIN	21

03324000 LITTLE RIVER NEAR HUNTINGTON, IN

LOCATION.--Lat 40°54'14", long 85°24'22", in NE¼NW¼ sec.9, T.28 N., R.10 E., Huntington County, Hydrologic Unit 05120101, on right bank on upstream side of highway bridge, 5 mi east of Huntington, and at mile 7.5.

DRAINAGE AREA.--263 mi^2.

PERIOD OF RECORD.--October 1943 to current year. Prior to January 1944 monthly discharge only, published in WSP 1305. Published as Little River at Huntington, January 1944 to September 1948, Little River near Huntington, October 1948 to September 1956, and Little Wabash River near Huntington, October 1956 to September 1961.

REVISED RECORDS.--WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 728.10 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1948, nonrecording gage 4 mi downstream at datum 8.79 ft lower, and Oct. 1, 1948, to Sept. 5, 1950, nonrecording gage at present site and datum.

REMARKS.--Estimated daily discharges: Dec. 15 to Jan. 18, Jan. 27 to Feb. 1, Feb. 10-17, Feb. 26 to Mar. 3, and Aug. 3-5. Records good except those for estimated daily discharges, which are fair. During periods of extreme high water in St. Marys River, some water leaves the St. Marys River basin through Junk ditch and flows into Little River basin via Graham McCulloch ditch.

AVERAGE DISCHARGE.--43 years, 230 ft^3/s, 11.87 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,990 ft^3/s Jan. 4, 1950; maximum gage height, 19.50 ft Feb. 25, 1985; minimum daily discharge, 1.1 ft^3/s Oct. 8, 1946, site then in use.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,800 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 20	0500	*3,020	13.58	Mar. 19	0600	3,000	13.53
Dec. 11	2200	2,980	13.48	July 13	0100	*3,020	*13.59
Mar. 13	0900	2,950	13.41				

Minimum daily discharge, 20 ft^3/s Oct. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	43	646	51	66	145	99	1220	84	645	128	36
2	22	43	855	50	166	135	106	644	75	1160	100	33
3	20	41	358	52	143	130	93	268	61	440	75	31
4	21	38	241	54	975	151	92	181	101	221	64	31
5	25	35	197	53	2060	572	96	146	969	145	54	37
6	27	34	169	51	1370	1680	116	123	1550	108	57	37
7	29	34	144	47	606	851	98	171	932	89	67	34
8	25	36	134	42	355	354	89	129	1430	88	76	32
9	22	36	126	42	262	296	79	99	647	95	102	31
10	25	49	591	45	180	840	73	87	377	100	116	27
11	26	176	2610	47	150	1580	68	85	743	244	136	25
12	31	124	2720	48	125	1650	65	77	449	1110	86	46
13	53	220	1620	47	110	2750	63	76	248	2550	79	50
14	40	198	663	46	105	2060	58	76	429	1590	54	42
15	78	145	320	45	97	931	67	80	738	687	49	30
16	87	1140	220	49	91	498	68	75	596	1820	45	23
17	65	1180	185	70	95	345	66	70	316	2120	58	23
18	129	832	160	440	439	329	64	121	167	1260	43	28
19	1060	2290	140	540	1980	2800	57	348	119	581	34	31
20	499	2850	120	413	1770	2170	57	256	326	320	33	37
21	242	1810	110	217	1840	822	159	165	302	200	30	37
22	153	838	96	268	1020	431	142	132	151	144	28	31
23	108	534	90	204	523	320	92	111	108	114	30	55
24	86	365	82	147	370	242	76	95	90	93	30	76
25	70	277	74	138	290	200	67	86	88	273	30	1460
26	59	1310	71	133	250	176	67	84	78	1440	33	488
27	54	1760	65	110	190	158	65	185	85	538	112	602
28	47	1250	62	80	160	136	61	195	577	569	78	328
29	42	1250	59	74	---	127	61	125	340	446	56	197
30	49	818	56	68	---	118	149	106	334	202	42	198
31	44	---	54	65	---	104	---	92	---	134	39	---
TOTAL	3259	19756	13038	3736	15788	23101	2513	5708	12510	19526	1964	4136
MEAN	105	659	421	121	564	745	83.8	184	417	630	63.4	138
MAX	1060	2850	2720	540	2060	2800	159	1220	1550	2550	136	1460
MIN	20	34	54	42	66	104	57	70	61	88	28	23
CFSM	.40	2.51	1.60	.46	2.14	2.83	.32	.70	1.59	2.40	.24	.52
IN.	.46	2.79	1.84	.53	2.23	3.27	.36	.81	1.77	2.76	.28	.59

CAL YR 1985	TOTAL	114715	MEAN	314	MAX	5500	MIN	17	CFSM	1.19	IN.	16.23
WTR YR 1986	TOTAL	125035	MEAN	343	MAX	2850	MIN	20	CFSM	1.30	IN.	17.69

03324200 SALAMONIE RIVER AT PORTLAND, IN

LOCATION.--Lat 40°25'40", long 85°02'20", in NE¼SE¼ sec.23, T.23 N., R.13 E., Jay County, Hydrologic Unit 05120102, on right bank at downstream side of county road bridge, 2.3 mi downstream from Butternut Creek, 3.2 mi west of Portland, 3.7 mi downstream from Little Salamonie River, and at mile 70.5.

DRAINAGE AREA.--85.6 mi^2.

PERIOD OF RECORD.--September 1959 to current year.

REVISED RECORDS.--WSP 2109: Drainage area. WDR IN-72-1: 1971.

GAGE.--Water-stage recorder. Datum of gage is 877.59 ft above National Geodetic Vertical Datum of 1929 (levels by State of Indiana, Department of Natural Resources). Prior to Oct. 1, 1960, nonrecording gage at site 1.4 mi upstream at datum 6.43 ft higher.

REMARKS.--Estimated daily discharges: Oct. 1-4, Dec. 18 to Jan. 7, Jan. 26-30, Feb. 24 to Mar. 1, and Sept. 13-17. Records good except those for estimated daily discharges, which are poor. Natural flow partially affected by sewage effluent.

AVERAGE DISCHARGE.--27 years, 74.1 ft^3/s, 11.76 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,460 ft^3/s Mar. 5, 1963, gage height, 16.96 ft; minimum daily, 0.4 ft^3/s Sept. 27, 1965.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,400 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 27	0100	1,810	11,73	Mar. 19	0900	1,950	12.22
Dec. 11	2100	*2,470	*13.97	Apr. 21	0400	1,840	11.85
Feb. 4	1800	1,760	11.57	July 12	1000	1,590	10.93

Minimum daily discharge, 1.6 ft^3/s Sept. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.9	3.9	91	12	18	35	16	607	12	250	4.7	3.0
2	2.3	4.0	124	12	146	32	16	145	7.9	416	4.7	3.3
3	2.4	3.3	50	11	122	32	13	62	5.6	93	4.1	3.0
4	2.9	2.8	34	11	1210	79	13	40	5.1	40	3.9	3.1
5	5.2	4.0	28	10	917	257	14	32	58	25	4.0	2.8
6	5.5	3.2	25	9.0	310	309	46	25	1860	16	3.6	2.9
7	5.4	3.6	20	8.2	253	105	53	28	1070	12	4.5	2.5
8	5.8	3.5	18	7.5	166	52	30	21	324	10	4.7	2.1
9	7.1	4.8	18	7.6	114	42	21	15	106	8.7	5.2	3.9
10	10	28	58	8.7	79	76	15	13	57	8.6	18	5.2
11	14	24	1820	8.9	57	292	13	11	86	221	14	6.2
12	24	15	1610	9.4	44	359	11	9.9	427	1190	9.2	10
13	14	69	270	11	40	852	9.4	9.4	112	269	6.6	4.5
14	12	433	111	9.2	30	225	10	11	58	94	4.5	2.5
15	19	145	73	7.8	25	109	35	15	85	43	4.8	2.5
16	14	268	48	6.9	19	68	29	17	41	170	5.8	2.3
17	11	151	37	24	70	51	28	13	32	88	4.8	1.6
18	2.5	56	34	99	778	77	25	30	20	31	4.6	115
19	5.6	571	30	530	511	1360	18	29	16	19	5.0	288
20	5.2	534	29	224	192	252	433	15	296	13	4.7	438
21	4.7	122	26	94	259	99	1280	11	108	11	4.9	60
22	3.6	60	23	206	146	66	239	9.4	36	9.9	4.9	22
23	3.1	39	19	99	74	55	105	12	23	7.8	4.9	11
24	3.6	27	17	59	62	41	66	9.6	17	6.6	4.7	8.0
25	3.8	21	14	48	54	35	50	7.2	12	11	4.6	8.8
26	3.8	522	13	40	47	32	38	7.6	9.2	41	12	8.2
27	2.9	1160	13	32	44	28	29	72	9.4	16	41	94
28	2.7	768	12	25	39	23	25	43	13	9.5	13	55
29	3.0	266	12	21	---	21	20	34	8.5	6.8	5.2	19
30	3.3	125	12	19	---	19	36	63	242	5.6	4.4	26
31	4.0	---	12	16	---	16	---	24	---	5.1	3.4	---
TOTAL	209.3	5437.1	4701	1686.2	5826	5099	2736.4	1441.1	5156.7	3147.6	224.4	1214.4
MEAN	6.75	181	152	54.4	208	164	91.2	46.5	172	102	7.24	40.5
MAX	24	1160	1820	530	1210	1360	1280	607	1860	1190	41	438
MIN	2.3	2.8	12	6.9	18	16	9.4	7.2	5.1	5.1	3.4	1.6
CFSM	.08	2.11	1.78	.64	2.43	1.92	1.07	.54	2.01	1.19	.08	.47
IN.	.09	2.36	2.04	.73	2.53	2.22	1.19	.63	2.24	1.37	.10	.53

CAL YR 1985 TOTAL 29859.4 MEAN 81.8 MAX 2950 MIN 2.3 CFSM .96 IN. 12.98
WTR YR 1986 TOTAL 36879.2 MEAN 101 MAX 1860 MIN 1.6 CFSM 1.18 IN. 16.03

03324300 SALAMONIE RIVER NEAR WARREN, IN

LOCATION.--Lat 40°42'45", long 85°27'13", in SE¼SE¼ sec.12, T.26 N., R.9 E., Huntington County, Hydrologic Unit 05120102, on right bank at downstream side of bridge on County Road 800 South, 0.4 mi downstream from Detamore ditch, 0.4 mi downstream from Interstate 69, 0.8 mi upstream from concrete and stone dam, 2.4 mi northwest of Warren, and at mile 30.0.

DRAINAGE AREA.--425 mi^2.

PERIOD OF RECORD.--March 1957 to current year.

REVISED RECORDS.--WSP 2109: Drainage area.

GAGE.--Water-stage recorder and concrete and stone control. Datum of gage is 784.65 ft above National Geodetic Vertical Datum of 1929 (levels by State of Indiana, Department of Natural Resources). Prior to July 28, 1960, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Dec. 19 to Jan. 8, Jan. 26 to Feb. 1, Feb. 25 to Mar. 2, July 18-25, July 28 to Aug. 11, Aug. 13-15, and Aug. 30 to Sept. 12. Records good except those for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--29 years, 392 ft^3/s, 12.51 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,200 ft^3/s Feb. 10, 1959, gage height, 17.05 ft; minimum daily, 5.1 ft^3/s Jan. 2, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 17	0300	3,520	10.03	Feb. 19	0900	3,190	9.77
Nov. 20	1300	4,710	11.01	Mar. 13	1600	3,670	10.14
Nov. 27	0900	4,630	10.94	Mar. 19	2100	4,900	11.16
Dec. 12	0600	5,030	11.27	May 1	1800	4,470	10.81
Jan. 20	0400	ice jam	*12.09	June 7	2100	*5,770	11.85
Feb. 5	1500	4,390	10.75	July 13	1200	3,150	9.74

Minimum daily discharge, 9.1 ft^3/s Aug. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	68	841	88	110	240	129	3950	195	1670	42	17
2	20	77	827	86	179	220	128	3070	125	1650	36	16
3	19	96	562	86	431	204	119	918	87	1310	30	15
4	20	98	350	88	1940	221	111	486	74	444	28	15
5	20	91	279	92	4240	1030	114	330	286	244	27	15
6	22	81	243	96	4000	2510	122	251	3340	155	28	15
7	19	77	211	94	2160	1260	192	215	4230	111	30	19
8	13	72	194	78	869	499	193	193	4560	87	36	16
9	10	74	183	69	600	343	142	154	2800	72	40	15
10	9.4	95	286	68	437	572	116	131	755	63	38	16
11	12	445	3100	71	329	1480	100	117	486	222	52	16
12	19	587	4820	77	212	1830	90	111	1390	1920	84	18
13	40	669	4460	87	190	3470	84	103	1070	2850	35	39
14	139	1260	3290	89	198	3020	77	104	490	1120	29	52
15	899	2340	1030	81	165	1210	81	100	350	414	24	33
16	587	3010	514	72	147	592	96	102	320	231	41	19
17	292	3080	336	119	145	404	107	116	231	296	26	20
18	168	1660	202	457	950	402	95	149	231	180	21	37
19	129	2870	190	1330	3110	4010	90	310	146	150	17	38
20	108	4540	170	1730	2450	3960	98	254	148	110	13	600
21	92	3550	160	666	1530	2350	975	162	923	88	11	1390
22	81	1300	150	647	1160	691	1870	125	339	70	9.1	455
23	74	710	140	662	649	471	647	105	167	52	11	195
24	75	505	140	367	476	348	289	92	114	40	14	118
25	70	377	130	277	400	278	205	85	85	35	13	91
26	66	2150	120	220	370	239	165	78	67	132	25	96
27	67	4380	110	170	300	209	133	200	68	247	39	74
28	63	4360	100	150	250	181	114	457	88	100	169	82
29	61	3820	94	130	---	161	103	303	101	70	58	184
30	60	1780	92	120	---	149	167	551	215	56	22	104
31	65	---	90	120	---	136	---	381	---	45	18	---
TOTAL	3342.4	44222	23414	8487	27997	32690	6952	13703	23481	14234	1066.1	3820
MEAN	108	1474	755	274	1000	1055	232	442	783	459	34.4	127
MAX	899	4540	4820	1730	4240	4010	1870	3950	4560	2850	169	1390
MIN	9.4	68	90	68	110	136	77	78	67	35	9.1	15
CFSM	.25	3.47	1.78	.64	2.35	2.48	.55	1.04	1.84	1.08	.08	.30
IN.	.29	3.87	2.05	.74	2.45	2.86	.61	1.20	2.06	1.25	.09	.33

CAL YR 1985 TOTAL 187417.4 MEAN 513 MAX 10700 MIN 9.4 CFSM 1.21 IN. 16.40
WTR YR 1986 TOTAL 203408.5 MEAN 557 MAX 4820 MIN 9.1 CFSM 1.31 IN. 17.80

03324500 SALAMONIE RIVER AT DORA, IN

LOCATION.--Lat 40°48'42", long 85°41'02", in NE¼NE¼ sec.12, T.27 N., R.7 E., Wabash County, Hydrologic Unit 05120102, on right bank, 0.4 mi downstream from Salamonie Lake, 1.5 mi northwest of Dora, and 3.0 mi upstream from mouth.

DRAINAGE AREA.--557 mi^2.

PERIOD OF RECORD.--November 1923 to current year. Monthly discharge only for some periods, published in WSP 1305.

REVISED RECORDS.--WSP 1275: 1931(M), 1932, 1933(M), 1935-36(M), 1938-40(M), 1941-42, 1945, 1952. WSP 1335: 1934(M). WSP 1555: 1952, 1955-56(M), 1957. WSP 2109: Drainage area.

GAGE.--Data-Collection Platform. Datum of gage was 673.96 ft above National Geodetic Vertical Datum of 1929 (levels by State of Indiana, Department of Natural Resources). Oct. 9, 1961, to Sept. 30, 1974, water-stage recorder at site described in "LOCATION" paragraph. Prior to Oct. 1, 1951, nonrecording gage at site 1.5 mi upstream at datum 688.59 ft National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers) and Oct. 1, 1951, to Oct. 8, 1961, water-stage recorder located on left bank 2,000 ft upstream at datum 679.77 ft National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Data-Collection Platform installed on May 1, 1986.

REMARKS.--Flow regulated by Salamonie Lake. Daily discharge computed from relation between discharge, head, and gate openings for Salamonie Lake beginning Oct. 1, 1974.

COOPERATION.-Records of daily discharge provided by U.S. Army Corps of Engineers beginning Oct. 1, 1976.

AVERAGE DISCHARGE.--62 years (1924 to current year), 514 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,500 ft^3/s May 18, 1943, gage height, 14.75 ft, from graph based on gage readings, site and datum then in use; minimum daily, 0.70 ft^3/s Oct. 30, 1968, result of abnormal regulation.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 5,400 ft^3/s Dec. 8; minimum daily, 24 ft^3/s Apr. 12-13, Apr. 15 to May 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	336	247	1150	169	240	644	176	24	332	419	26	26
2	335	246	1820	158	240	498	108	25	120	681	26	26
3	333	245	2760	142	240	399	108	363	120	1600	26	26
4	332	244	3430	142	749	328	108	509	120	2090	26	26
5	331	242	4620	142	1290	674	109	366	157	1580	26	26
6	330	241	5280	142	1800	1360	109	246	184	713	26	26
7	328	240	5360	142	2070	1650	164	301	187	507	26	26
8	327	239	5400	107	2060	1610	43	340	190	252	26	26
9	326	237	5250	120	2000	926	43	252	193	70	26	26
10	324	236	4880	152	1940	520	44	143	388	70	26	26
11	323	235	2010	160	1860	861	30	84	736	135	26	26
12	321	483	709	333	1550	1130	24	70	1210	630	85	26
13	320	549	761	257	875	536	24	70	2840	346	26	26
14	318	704	1560	127	406	588	120	70	3510	123	26	26
15	931	1090	2060	158	403	1470	24	100	2640	1230	26	177
16	899	1320	2030	136	315	2250	24	121	2610	1800	26	343
17	502	1190	2110	116	266	2420	24	162	2570	1770	100	330
18	384	864	2630	295	269	1520	24	317	2650	1750	26	329
19	383	246	2980	531	709	441	24	539	2480	1300	26	328
20	381	117	2830	1110	1100	361	24	622	2150	609	26	328
21	331	120	2670	1690	1140	816	24	521	1470	182	26	1090
22	306	427	2140	831	1540	1470	24	315	1050	140	26	1550
23	305	1110	1240	492	1710	1870	24	162	479	54	26	851
24	378	1860	552	589	1670	1960	24	120	220	26	26	572
25	410	2050	285	486	1620	1910	24	120	182	66	26	544
26	521	1510	227	337	1560	1870	24	120	182	95	26	542
27	403	1060	170	160	1490	1400	24	179	182	153	26	540
28	343	1090	184	121	990	803	24	443	249	434	26	479
29	297	1120	130	171	---	795	24	560	289	218	26	432
30	264	1140	122	223	---	786	24	820	289	26	26	459
31	249	---	157	241	---	498	---	894	---	26	26	---
TOTAL	11871	20702	67507	9980	32102	34364	1594	8978	29979	19095	939	9258
MEAN	383	690	2178	322	1147	1109	53.1	290	999	616	30.3	309
MAX	931	2050	5400	1690	2070	2420	176	894	3510	2090	100	1550
MIN	249	117	122	107	240	328	24	24	120	26	26	26

CAL YR 1985 TOTAL 238144 MEAN 652 MAX 5400 MIN 24
WTR YR 1986 TOTAL 246369 MEAN 675 MAX 5400 MIN 24

03325000 WABASH RIVER AT WABASH, IN

LOCATION.--Lat 40°47'25", long 85°49'13", in SE¼NW¼ sec.14, T.27 N., R.6 E., Wabash County, Hydrologic Unit 05120101, on right bank on upstream side of Wabash Street bridge in Wabash, 7.1 mi downstream from Salamonie River, and at mile 387.2.

DRAINAGE AREA.--1,768 mi^2.

PERIOD OF RECORD.--August 1923 to current year. Monthly discharge only for some periods, published in WSP 1305.

REVISED RECORDS.--WSP 1275: 1931-37(M), 1938-39, 1940(M). WSP 1385: 1942. WSP 1505: 1955. WSP 2109: Drainage area. WRD IN-84-1: 1983.

GAGE.--Water-stage recorder. Datum of gage is 642.66 ft above National Geodetic Vertical Datum of 1929. Prior to Sept. 30, 1954, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Dec. 26 to Jan. 17, Jan. 27 to Feb. 1, Feb. 15-17, and Mar. 30. Records good except those for estimated daily discharges, which are fair. Flow regulated by Huntington Lake and Salamonie Lake.

AVERAGE DISCHARGE.--63 years, 1,502 ft^3/s, 11.54 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 49,600 ft^3/s May 18, 1943; maximum gage height, 24.44 ft Feb. 11, 1959 (ice jam); minimum daily discharge, 19 ft^3/s July 21, 1936.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 28.7 ft Mar. 26, 1913, from floodmark, determined by U.S. Army Corps of Engineers, discharge, 90,000 ft^3/s, from rating curve extended above 49,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,400 ft^3/s Dec. 11, gage height, 13.73 ft; minimum daily, 91 ft^3/s Sept. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	424	407	5070	400	540	1580	687	2150	974	1610	427	173
2	414	416	5870	540	685	1290	574	3920	603	3560	401	169
3	421	413	5840	580	722	1040	560	3150	446	3530	288	164
4	436	406	5580	470	2590	1090	595	2230	427	3760	252	164
5	441	400	5470	480	7320	2020	432	1390	2860	3020	230	152
6	436	394	5400	480	7080	5600	455	1270	4790	1290	190	142
7	437	390	5580	480	6790	5910	513	1190	4880	1010	194	106
8	438	386	5520	430	7110	4970	380	1150	4950	666	195	95
9	434	391	5330	400	6420	2770	359	921	3760	401	284	91
10	430	403	5470	400	4640	2790	341	773	3930	398	459	92
11	433	523	8360	460	3410	4900	329	573	4260	648	355	118
12	442	811	5810	540	2760	5900	313	519	4070	1940	306	152
13	445	1200	5220	560	1550	7810	299	496	3640	5650	287	202
14	460	1310	5770	500	807	7080	379	518	4740	3950	299	197
15	891	1880	6260	460	730	6810	294	537	4920	3530	286	268
16	1290	4270	6700	440	800	6300	246	433	4560	4080	256	495
17	856	4710	6090	440	700	5310	228	424	3970	4490	285	424
18	802	4020	5150	1310	1080	3430	220	571	3420	4410	259	459
19	2020	6980	4370	2140	4470	6700	209	1260	3000	4040	257	467
20	1820	7910	3890	2970	6610	6190	207	1660	2780	2710	184	472
21	1210	5930	3400	3900	7150	5730	232	1300	3040	1060	154	1230
22	973	5360	3140	3300	6660	5810	411	956	2720	851	153	1740
23	695	4560	2250	2300	5950	5640	1350	677	1310	644	156	1530
24	664	3450	1270	2040	5230	4490	1700	499	898	364	157	971
25	687	2860	819	1640	3400	3490	1680	470	462	387	149	2350
26	734	4370	600	1130	3230	3110	972	466	436	1180	152	1930
27	590	5610	480	800	2820	2770	817	731	435	1350	245	1830
28	545	6080	450	540	2210	1690	373	990	881	2280	256	1680
29	461	6210	410	530	---	1600	291	1330	1120	1800	390	1340
30	434	5980	350	560	---	1530	252	1200	1030	724	211	921
31	410	---	340	560	---	1230	---	1350	---	549	169	---
TOTAL	21173	88030	126259	31780	103464	126580	15698	35104	79312	65882	7886	20124
MEAN	683	2934	4073	1025	3695	4083	523	1132	2644	2125	254	671
MAX	2020	7910	8360	3900	7320	7810	1700	3920	4950	5650	459	2350
MIN	410	386	340	400	540	1040	207	424	427	364	149	91
CFSM	.39	1.66	2.30	.58	2.09	2.31	.30	.64	1.50	1.20	.14	.38
IN.	.45	1.85	2.66	.67	2.18	2.66	.33	.74	1.67	1.39	.17	.42

CAL YR 1985 TOTAL 667050 MEAN 1828 MAX 14200 MIN 59 CFSM 1.03 IN. 14.04
WTR YR 1986 TOTAL 721292 MEAN 1976 MAX 8360 MIN 91 CFSM 1.12 IN. 15.18

03325311 LITTLE MISSISSINEWA RIVER AT UNION CITY, IN

LOCATION.--Lat 40°11'46", long 84°49'45", in SE¼SE¼ sec.26, T.18 N., R.1 W., Randolph County, Hydrologic Unit 05120103, on right bank 85 ft downstream from Westinghouse Road, 0.5 mi downstream from Little ditch, 0.8 mi upstream from City Drain, and 1.2 mi west of the Post Office in Union City.

DRAINAGE AREA.--9.67 mi^2.

PERIOD OF RECORD.--October 1982 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1075.50 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 20-22, 25, 26, 29-31, Jan. 9, 10, 27-30, Feb. 13-16, and Feb. 25 to Mar. 2. Records fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 241 ft^3/s Dec. 11, 1985, gage height, 7.35 ft; no flow at times for most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 140 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 26	1815	182	6.23	June 6	1900	149	5.59
Dec. 11	1600	*241	*7.35	July 1	2230	179	6.17
Mar. 19	0515	144	5.49	July 11	2215	170	6.00

Minimum daily discharge, 0.07 ft^3/s Oct. 2-4, 7-10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.09	.20	32	2.0	6.0	7.0	4.9	9.0	4.5	96	.75	.17
2	.07	.24	28	1.9	22	6.5	4.4	5.9	3.3	109	.61	.17
3	.07	.21	19	1.8	19	6.5	4.1	4.1	2.9	55	.52	.17
4	.07	.21	13	1.7	85	7.9	3.5	3.6	2.8	33	.46	.22
5	.08	.21	10	1.6	81	22	3.3	3.5	3.9	18	.43	.21
6	.08	.20	7.0	1.5	62	39	7.1	3.4	93	11	.43	.18
7	.07	.21	5.8	1.4	68	19	6.1	21	85	7.0	.43	.18
8	.07	.19	5.5	1.4	46	12	5.1	36	47	5.0	.39	.18
9	.07	.27	5.0	1.5	33	11	4.2	13	23	4.1	.36	.17
10	.07	25	19	1.8	23	20	3.8	8.6	18	3.0	.50	.16
11	.08	49	197	2.0	15	30	3.5	6.7	12	46	.40	.41
12	.12	33	128	2.3	9.9	32	3.0	5.3	9.6	100	.32	.48
13	.12	64	70	2.0	8.0	77	2.6	4.2	6.1	52	.28	.23
14	.28	38	42	1.7	6.2	43	2.9	4.1	4.9	27	.28	.17
15	.25	28	26	1.3	5.2	25	3.8	20	4.5	13	.28	.15
16	.17	38	16	1.4	4.8	15	3.1	67	5.7	8.4	.32	.17
17	.14	28	11	14	36	11	3.0	31	9.7	5.3	.28	.16
18	.13	21	7.6	21	76	19	2.7	22	4.5	3.7	.26	.67
19	.16	33	6.0	49	53	123	2.8	16	3.6	2.8	.25	.46
20	.67	34	5.0	25	34	75	65	10	62	2.2	.25	13
21	.56	24	4.7	17	27	40	109	8.0	36	1.7	.26	2.4
22	.32	18	4.4	28	20	25	68	6.6	14	1.3	.25	.87
23	.24	13	4.0	15	13	16	41	5.2	8.7	1.1	.25	.58
24	.21	9.7	3.5	11	12	10	23	4.3	5.3	.97	.23	.51
25	.18	8.7	3.2	9.9	10	9.0	12	3.9	3.6	1.2	.21	.43
26	.16	79	3.0	9.0	9.0	7.9	8.3	4.1	3.1	13	.29	.39
27	.16	115	2.9	7.0	8.0	6.6	6.5	27	2.8	3.3	.45	.85
28	.15	103	2.8	5.8	7.5	6.1	5.7	11	38	1.7	.25	.97
29	.15	55	2.7	4.8	---	5.8	3.9	8.0	19	1.2	.21	.49
30	.16	37	2.6	3.8	---	5.3	3.7	6.5	71	.97	.19	3.1
31	.19	---	2.5	3.1	---	4.8	---	5.2	---	.87	.17	---
TOTAL	5.34	855.34	689.2	250.7	799.6	737.4	420.0	384.2	607.5	628.81	10.56	28.30
MEAN	.17	28.5	22.2	8.09	28.6	23.8	14.0	12.4	20.2	20.3	.34	.94
MAX	.67	115	197	49	85	123	109	67	93	109	.75	13
MIN	.07	.19	2.5	1.3	4.8	4.8	2.6	3.4	2.8	.87	.17	.15
CFSM	.02	2.95	2.30	.84	2.96	2.46	1.45	1.28	2.09	2.10	.04	.10
IN.	.02	3.29	2.65	.96	3.08	2.84	1.62	1.48	2.34	2.42	.04	.11

CAL YR 1985	TOTAL	4156.31	MEAN	11.4	MAX	218	MIN	.07	CFSM	1.18	IN.	15.99
WTR YR 1986	TOTAL	5416.95	MEAN	14.8	MAX	197	MIN	.07	CFSM	1.53	IN.	20.84

03325500 MISSISSINEWA RIVER NEAR RIDGEVILLE, IN

LOCATION.--Lat 40°16'49", long 84°59'44", in SE¼SE¼ sec.7, T.21 N., R.14 E., Randolph County, Hydrologic Unit 05120103, on right bank 30 ft downstream from highway bridge, 0.8 mi downstream from Mud Creek, 2 mi east of Ridgeville, and at mile 99.5.

DRAINAGE AREA.--133 mi^2.

PERIOD OF RECORD.--August 1946 to current year.

REVISED RECORDS.--WSP 1235: 1948. WSP 1335: 1953. WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 965.28 ft above National Geodetic Vertical Datum of 1929 (levels by State of Indiana, Department of Natural Resources). Prior to Oct. 5, 1950, nonrecording gage at same site and datum.

REMARKS.-Estimated daily discharges: Dec. 8, 9, Dec. 19 to Jan. 10, Jan. 26-30, and Feb. 7-15, 24-28. Records fair except those for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--40 years, 127 ft^3/s, 13.01 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,900 ft^3/s June 10, 1958, gage height, 16.25 ft, from rating curve extended above 5,000 ft^3/s on basis of contracted-opening measurement of peak flow; minimum daily, 0.1 ft^3/s Oct. 24, 1946.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,400 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 27	0200	3,480	12.28	July 2	0400	3,230	12.10
Dec. 11	1700	5,290	13.35	July 12	0400	*6,400	*13.87
Apr. 21	0200	3,140	12.03	Sept. 20	1300	2,420	11.24
June 7	0500	3,750	12.46				

Minimum daily discharge, 2.3 ft^3/s, Oct. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.0	3.2	248	29	54	101	45	217	32	891	20	5.3
2	3.3	3.3	245	28	295	94	44	111	28	2060	17	4.6
3	3.1	3.6	119	27	208	93	41	69	24	399	15	5.5
4	2.9	3.0	92	26	1560	109	40	57	24	163	14	8.5
5	2.8	2.9	78	24	1070	270	37	52	292	87	14	6.7
6	3.2	3.0	66	23	494	494	91	46	2400	58	14	5.7
7	3.2	3.1	55	23	350	222	79	75	2350	44	19	4.7
8	3.0	3.2	54	22	250	135	57	219	725	37	15	3.8
9	3.1	3.3	50	22	170	123	47	79	281	33	12	4.0
10	3.2	21	170	23	150	185	42	53	256	27	20	3.9
11	3.5	229	3520	25	130	339	39	44	170	723	26	4.8
12	4.3	104	3170	28	110	318	33	39	415	4630	14	19
13	5.0	422	751	28	100	944	29	35	130	1200	11	7.9
14	5.8	321	301	25	94	371	29	36	80	228	10	5.2
15	4.8	168	186	21	86	201	48	34	66	131	9.9	3.1
16	4.5	295	135	21	77	139	40	225	88	202	11	3.3
17	3.4	208	103	74	198	112	41	111	141	119	9.3	3.3
18	3.2	102	74	183	1040	119	38	83	65	74	6.8	28
19	3.2	427	68	639	654	1270	34	75	50	58	7.6	169
20	3.8	443	62	284	331	483	875	53	840	49	7.6	1450
21	8.8	156	56	149	308	214	2160	44	243	43	9.7	233
22	4.5	97	52	286	224	147	504	39	107	39	7.6	81
23	3.4	67	47	167	157	116	277	34	91	34	7.1	55
24	3.1	51	42	114	140	89	183	30	61	31	5.4	52
25	3.0	43	37	98	130	81	130	28	47	30	4.1	41
26	2.8	1180	36	80	120	73	97	29	41	79	6.0	28
27	2.5	2410	36	70	115	65	77	183	38	51	22	134
28	2.3	1460	34	60	105	59	69	85	76	35	11	122
29	2.5	565	34	48	---	56	58	56	68	29	7.0	50
30	2.7	314	33	43	---	52	57	55	1020	24	6.0	72
31	2.9	---	32	40	---	47	---	38	---	22	5.4	---
TOTAL	110.8	9111.6	9986	2730	8720	7121	5341	2334	10249	11630	364.5	2614.3
MEAN	3.57	304	322	88.1	311	230	178	75.3	342	375	11.8	87.1
MAX	8.8	2410	3520	639	1560	1270	2160	225	2400	4630	26	1450
MIN	2.3	2.9	32	21	54	47	29	28	24	22	4.1	3.1
CFSM	.03	2.29	2.42	.66	2.34	1.73	1.34	.57	2.57	2.82	.09	.65
IN.	.03	2.55	2.79	.76	2.44	1.99	1.49	.65	2.87	3.25	.10	.73

CAL YR 1985 TOTAL 52091.9 MEAN 143 MAX 4120 MIN 2.3 CFSM 1.08 IN. 14.57
WTR YR 1986 TOTAL 70312.2 MEAN 193 MAX 4630 MIN 2.3 CFSM 1.45 IN. 19.67

03326070 BIG LICK CREEK NEAR HARTFORD CITY, IN

LOCATION.--Lat 40°25'20", long 85°21'04", in SE¼SE¼ sec.23, T.23 N., R.10 E., Blackford County, Hydrologic Unit 05120103, on right bank 6 ft downstream from bridge on County Road 100 East, and 2.0 mi southeast of Hartford City.

DRAINAGE AREA.--29.2 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 865.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 9, 18, 20, 21, 25, 26, 29, 31, Jan. 3, 12, 13, 29, Feb. 1-3, 14, 15, and Feb. 26 to Mar. 1. Records fair except those for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--15 years, 28.1 ft^3/s, 13.06 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,940 ft^3/s June 6, 1981, gage height, 16.14 ft; minimum daily, 0.19 ft^3/s Oct. 4, 1983.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 450 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 14	0900	608	11.95	Dec. 11	1200	805	13.08
Nov. 19	1700	*840	*13.24	Feb. 4	1300	524	11.31
Nov. 26	2100	679	12.44	Mar. 19	0500	703	12.57

Minimum daily discharge, 0.56 ft^3/s Sept. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	2.3	60	4.6	7.6	12	7.5	269	5.0	148	3.5	1.0
2	1.1	2.9	61	4.6	9.2	11	7.7	72	4.9	246	3.4	1.1
3	.91	3.1	23	5.0	11	11	6.8	28	5.3	73	3.3	.89
4	.88	2.1	17	5.4	375	23	6.4	16	5.8	26	3.1	.86
5	.81	1.9	14	5.6	274	75	7.0	13	6.6	12	3.1	.79
6	1.4	1.8	13	5.2	113	124	30	10	50	8.2	2.8	.80
7	1.3	2.1	11	4.2	62	40	18	12	87	6.4	2.6	.62
8	.94	2.1	11	3.6	42	19	11	9.1	129	5.5	2.5	.56
9	.96	2.1	10	3.9	33	18	8.4	7.6	28	5.0	2.2	.64
10	1.2	60	51	4.1	22	66	7.2	7.1	12	4.8	4.5	.66
11	1.5	145	631	4.3	17	114	6.4	6.9	10	61	5.5	.80
12	3.6	84	343	4.6	13	165	5.8	6.5	18	166	2.3	2.8
13	6.6	173	114	4.8	9.9	303	5.3	6.3	9.1	67	1.9	1.2
14	2.2	484	58	4.7	9.1	94	5.1	7.7	19	22	1.8	.88
15	47	197	35	3.9	8.5	48	6.7	7.9	11	11	1.8	.91
16	12	301	26	4.0	7.9	31	5.6	9.2	25	8.3	1.6	.93
17	4.0	162	18	28	23	21	5.8	7.5	48	6.4	1.7	.81
18	2.8	85	13	65	180	45	5.2	12	9.4	5.4	1.5	36
19	5.1	500	11	158	162	490	4.9	14	5.7	5.0	1.4	109
20	6.5	372	9.2	79	72	127	34	8.6	24	4.5	1.5	177
21	6.4	116	8.7	34	74	54	139	7.1	19	4.2	1.4	79
22	4.2	64	9.4	67	44	35	37	6.7	7.7	3.9	1.4	23
23	3.1	42	8.8	31	22	26	18	6.2	5.2	3.6	1.5	11
24	2.7	29	8.2	20	20	17	14	5.5	4.3	3.6	1.5	7.2
25	2.4	24	5.3	19	17	15	11	5.1	3.8	6.0	1.2	6.3
26	2.0	311	5.7	20	15	13	9.9	5.3	3.5	29	1.6	4.9
27	1.8	388	5.9	14	14	12	8.6	9.4	3.5	7.9	4.3	10
28	1.6	289	5.7	10	13	10	8.3	7.6	4.6	4.9	1.6	20
29	1.5	124	5.5	7.8	---	9.6	7.4	7.9	3.8	4.0	1.1	7.0
30	1.7	67	5.2	7.4	---	8.6	20	7.3	115	3.6	.99	6.4
31	2.0	---	4.9	7.1	---	7.7	---	5.5	---	3.5	1.0	---
TOTAL	131.40	4037.4	1602.5	639.8	1670.2	2044.9	468.0	604.0	683.2	965.7	69.59	513.05
MEAN	4.24	135	51.7	20.6	59.6	66.0	15.6	19.5	22.8	31.2	2.24	17.1
MAX	47	500	631	158	375	490	139	269	129	246	5.5	177
MIN	.81	1.8	4.9	3.6	7.6	7.7	4.9	5.1	3.5	3.5	.99	.56
CFSM	.15	4.62	1.77	.71	2.04	2.26	.53	.67	.78	1.07	.08	.59
IN.	.17	5.14	2.04	.82	2.13	2.61	.60	.77	.87	1.23	.09	.65

CAL YR 1985	TOTAL	12840.58	MEAN	35.2	MAX	1100	MIN	.78	CFSM	1.21	IN.	16.36
WTR YR 1986	TOTAL	13429.74	MEAN	36.8	MAX	631	MIN	.56	CFSM	1.26	IN.	17.11

03326500 MISSISSINEWA RIVER AT MARION, IN

LOCATION.--Lat 40°34'34", long 85°39'34", in SE¼NE¼ sec.31, T.25 N., R.8 E., Grant County, Hydrologic Unit 05120103, on left bank 12 ft downstream from Highland Avenue bridge in Marion, 0.1 mi downstream from old mill dam, 1.0 mi upstream from Hummel Creek, 4.6 mi downstream from Lugar Creek, and at mile 35.8.

DRAINAGE AREA.--682 mi².

PERIOD OF RECORD.--September 1923 to current year. Monthly discharge only for some periods, published in WSP 1305.

REVISED RECORDS.--WSP 1335: 1927(M). WSP 1385: 1948. WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 774.56 ft above National Geodetic Vertical Datum of 1929. Prior to Dec. 9, 1933, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Dec. 6-7, Dec. 20 to Jan. 15, Jan. 30 to Feb. 1, Feb. 14-16, Feb. 26-28, and Apr. 23-25. Records good except those for estimated daily discharges, which are fair. Flow periodically regulated by dam above station.

AVERAGE DISCHARGE.--63 years, 630 ft³/s, 12.54 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,000 ft³/s Mar. 21, 1927, gage height, 17.40 ft from graph based on gage readings, from rating curve extended above 18,000 ft³/s; minimum daily, 3.4 ft³/s Oct. 25, 1968.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913 reached a stage of 19.20 ft from information by State of Indiana, Department of Natural Resources.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 5,600 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 20	0300	8,460	9.83	Mar. 19	1600	6,260	8.43
Nov. 28	1200	7,210	9.07	June 8	1000	7,400	9.19
Dec. 13	0600	*10,300	*10.86	July 13	2000	6,840	8.83
Feb. 5	1400	6,000	8.25				

Minimum daily discharge, 48 ft³/s Oct. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	58	94	1680	230	250	452	329	3260	375	1980	166	88
2	55	103	1490	220	297	412	318	2170	296	3520	149	81
3	55	107	1170	215	667	396	302	1080	246	3580	137	79
4	53	101	786	220	2330	413	287	684	229	2050	129	80
5	53	96	634	235	5700	908	295	528	907	802	123	77
6	54	93	415	245	4780	1820	277	458	3070	548	118	71
7	53	89	400	240	2260	1750	409	456	5230	414	118	69
8	50	87	439	230	1710	889	402	474	7070	336	116	68
9	48	90	411	215	1260	620	292	565	3720	288	115	68
10	49	207	546	205	931	798	244	465	1290	277	167	68
11	55	977	5140	195	722	1760	217	371	1130	684	165	81
12	71	934	8940	180	551	2380	200	329	2660	3360	146	93
13	145	1180	9280	175	376	4230	184	304	2100	6560	133	88
14	244	2920	3980	165	345	3800	176	309	1000	4780	123	85
15	1150	2810	1480	170	325	1970	175	303	764	1180	114	76
16	575	3470	1030	180	335	1130	180	315	575	686	111	101
17	321	3000	765	219	363	820	202	364	577	527	144	100
18	232	2250	527	544	1140	747	187	613	788	533	111	96
19	190	4190	438	1310	3530	5080	179	698	492	366	101	95
20	158	7160	420	2190	2700	5590	206	553	250	298	96	644
21	139	3770	400	1320	1710	2620	1330	431	1150	255	90	1400
22	130	1830	375	901	1450	1250	3480	356	1010	227	82	1280
23	123	1260	350	1050	1020	916	2000	191	482	203	79	440
24	119	960	325	737	759	721	1400	281	359	186	79	284
25	126	781	310	567	646	592	800	257	314	252	77	222
26	123	2720	290	508	626	523	497	272	261	631	99	209
27	112	6090	280	428	640	478	419	720	261	539	123	191
28	99	6900	290	330	549	428	367	643	271	376	144	187
29	92	5580	270	245	---	392	337	857	238	257	113	345
30	88	2930	255	220	---	367	476	659	1190	204	102	280
31	92	---	240	210	---	342	---	470	---	176	97	---
TOTAL	4912	62779	43356	14099	37972	44594	16167	19436	38305	36075	3667	7046
MEAN	158	2093	1399	455	1356	1439	539	627	1277	1164	118	235
MAX	1150	7160	9280	2190	5700	5590	3480	3260	7070	6560	167	1400
MIN	48	87	240	165	250	342	175	191	229	176	77	68
CFSM	.23	3.07	2.05	.67	1.99	2.11	.79	.92	1.87	1.71	.17	.34
IN.	.27	3.42	2.36	.77	2.07	2.43	.88	1.06	2.09	1.97	.20	.38

CAL YR 1985 TOTAL 292993 MEAN 803 MAX 18500 MIN 48 CFSM 1.18 IN. 15.98
WTR YR 1986 TOTAL 328408 MEAN 900 MAX 9280 MIN 48 CFSM 1.32 IN. 17.91

03327000 MISSISSINEWA RIVER AT PEORIA, IN

LOCATION.--Lat 40°43'24", long 85°57'27", in SW¼SW¼ sec.3, T.26 N., R.5 E., Miami County, Hydrologic Unit 05120103, on right bank at Peoria, 0.6 mi downstream from Mississinewa Lake, 6.5 mi southeast of Peru, and 6.7 mi upstream from mouth.

DRAINAGE AREA.--808 mi^2.

PERIOD OF RECORD.--October 1952 to current year.

REVISED RECORDS.--WSP 1335: 1953. WSP 2109: Drainage area.

GAGE.--Data-Collection Platform. Datum of gage was 660.00 ft above National Geodetic Vertical Datum of 1929. Oct. 1, 1962, to Sept. 30, 1974, water-stage recorder at site described in "LOCATION" paragraph. Prior to Oct. 7, 1954, nonrecording gage and crest-stage gage on highway bridge 2,500 ft upstream, and Oct. 7, 1954, to Sept. 30, 1962, water-stage recorder on right bank at site 2,500 ft upstream at same datum. Data-Collection Platform installed on Aug. 21, 1986.

REMARKS.--Flow regulated by Mississinewa Lake. Daily discharge computed from relation between discharge, head, and gate openings for Mississinewa Lake beginning Oct. 1, 1974.

COOPERATION.--Records of daily discharge provided by U.S. Army Corps of Engineers beginning Oct. 1, 1976.

AVERAGE DISCHARGE.--34 years, 723 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,000 ft^3/s June 11, 1958, gage height, 19.26 ft, site then in use; zero flow, Sept. 11 to Oct. 2, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 5,610 ft^3/s Dec. 7; zero flow, Oct. 1, 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	933	3100	328	388	488	192	1740	450	1420	203	110
2	.00	977	3090	279	432	578	193	3040	256	2910	203	110
3	8.0	973	3080	282	464	577	193	2130	256	3710	203	110
4	26	740	3960	329	940	530	139	974	256	3700	177	98
5	48	965	5190	328	1310	800	111	616	730	1440	131	89
6	48	961	5500	229	1630	1240	112	511	982	614	91	81
7	48	1000	5610	196	2050	1600	112	523	1000	519	77	68
8	23	1030	5570	219	2060	1600	113	543	1030	371	77	68
9	13	1020	5500	255	2050	1590	113	272	1380	270	99	68
10	133	1020	5400	263	2040	1340	114	407	1860	238	219	59
11	172	1080	2190	248	2220	1270	114	477	2940	437	282	47
12	274	1440	1150	210	2340	996	114	376	3450	1710	223	69
13	305	1320	2790	243	2300	675	114	278	3440	1900	205	110
14	161	1640	4340	308	2270	709	115	234	3420	1850	192	110
15	98	1690	4670	311	2220	726	72	234	3400	2870	181	110
16	51	1080	4620	256	1960	731	48	234	3370	3410	173	110
17	14	1510	4550	227	1090	1760	48	288	3450	3380	160	110
18	40	1640	4760	398	579	3360	48	655	3500	3010	154	110
19	80	455	5020	1000	1160	2440	49	944	2800	1740	130	110
20	92	116	4970	2200	1970	1520	49	820	1160	573	98	288
21	110	1010	4900	2430	2630	2050	49	552	349	309	89	838
22	182	1800	4800	1440	2880	2550	50	454	806	233	77	1310
23	302	2590	3820	1180	2840	2990	52	395	1180	184	68	879
24	387	3320	2760	1080	2790	3410	53	246	635	167	68	553
25	742	3610	2080	628	1700	3520	53	220	289	167	68	310
26	884	2490	836	465	1020	3480	54	221	289	424	56	110
27	880	1590	373	549	1080	3430	54	499	249	650	84	110
28	876	2060	427	490	647	1730	54	835	289	682	130	110
29	872	2690	466	328	---	389	54	1090	277	528	155	196
30	868	3100	465	288	---	239	54	1470	668	248	129	388
31	863	---	396	336	---	212	---	1110	---	203	110	---
TOTAL	8600.00	45850	106383	17323	47060	48530	2690	22388	44161	39867	4312	6839
MEAN	277	1528	3432	559	1681	1565	89.7	722	1472	1286	139	228
MAX	884	3610	5610	2430	2880	3520	193	3040	3500	3710	282	1310
MIN	.00	116	373	196	388	212	48	220	249	167	56	47
CFSM	.34	1.89	4.25	.69	2.08	1.94	.11	.89	1.82	1.59	.17	.28
IN.	.40	2.11	4.90	.80	2.17	2.23	.12	1.03	2.03	1.84	.20	.31

CAL YR 1985	TOTAL	360497.80	MEAN	988	MAX	5610	MIN	.00	CFSM	1.22	IN.	16.60
WTR YR 1986	TOTAL	394003.00	MEAN	1079	MAX	5610	MIN	.00	CFSM	1.34	IN.	18.14

03327500 WABASH RIVER AT PERU, IN

LOCATION.--Lat 40°44'35", long 86°05'45", in SE¼NE¼ sec.32, T.27 N., R.4 E., Miami County, Hydrologic Unit 05120101, on right bank at upstream side of bridge on U.S. Highway 31, 0.5 mi southwest of Peru, 4.4 mi downstream from Mississinewa River, and at mile 370.5.

DRAINAGE AREA.--2,686 mi^2.

PERIOD OF RECORD.--August 1943 to current year.

REVISED RECORDS.--WSP 2109: Drainage area. WDR IN-74-1: 1973. WDR IN-81-1: 1979.

GAGE.--Water-stage recorder. Datum of gage is 617.94 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to June 20, 1961, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Dec. 28 to Jan. 17, Jan. 27 to Feb. 2, Feb. 28 to Mar. 3, June 28-30, and Aug. 22-28. Records good except those for estimated daily discharges, which are fair. Flow regulated by Huntington Lake, Salamonie Lake, and Mississinewa Lake.

AVERAGE DISCHARGE.--43 years, 2,389 ft^3/s, 12.08 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 68,000 ft^3/s May 18, 1943, gage height, 24.46 ft, from floodmark; minimum daily, 72 ft^3/s Oct. 5, 1946.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 26, 1913, reached a stage of 28.1 ft, discharge, 115,000 ft^3/s, from rating curve extended above 63,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 15,600 ft^3/s Dec. 11, gage height, 12.01 ft; minimum daily, 143 ft^3/s Sept. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	459	1430	9060	760	960	3200	1250	3420	1980	3860	868	291
2	434	1510	9720	840	1160	2200	1020	7620	1120	6670	785	286
3	431	1500	9790	890	1330	1900	976	6040	980	8200	713	276
4	457	1250	10100	870	2930	1890	956	3810	1020	8660	602	239
5	496	1480	11300	800	9080	2620	779	2470	3740	6530	499	213
6	491	1470	11300	750	9210	6860	708	2180	8800	2860	492	208
7	490	1490	11800	700	9380	8290	713	2050	6840	2260	376	174
8	488	1530	11700	680	9710	7550	719	2080	7650	1980	305	156
9	467	1530	11500	680	9220	5190	612	1830	5980	1240	270	149
10	471	1540	11500	680	7280	4270	600	1700	6150	1190	617	143
11	676	1580	13100	720	6090	6220	593	1470	6930	1670	746	150
12	711	2080	8530	780	5570	7560	575	1230	8800	4300	489	165
13	761	2820	8630	840	4250	9830	557	1100	7290	8520	488	217
14	710	2870	10900	840	3210	8700	555	978	8990	7120	449	250
15	635	3750	11700	800	3230	8300	608	1030	9380	6970	429	239
16	1550	4600	12200	720	3180	7890	451	964	8800	8080	425	421
17	990	6900	11500	720	2430	7660	409	905	8030	8640	398	449
18	784	6400	10300	1510	1710	7580	391	1300	7380	8550	409	455
19	1530	7900	9710	3060	5270	11100	382	2350	6660	6800	391	480
20	2200	9150	9190	4760	9010	8670	383	2730	4870	4690	349	605
21	1470	7330	8810	6470	10100	8480	387	2360	3930	2020	283	1630
22	1220	7800	8050	5510	10200	9070	455	1710	3660	1580	260	3070
23	1120	7740	6620	3690	9380	9470	1270	1340	3020	1270	240	2420
24	1040	7340	4530	3350	8610	8800	1890	956	2370	957	240	1690
25	1400	6880	3440	2690	5890	7610	1920	851	1230	808	230	2210
26	1690	7980	2050	1810	4560	7120	1350	844	920	2730	225	2260
27	1640	8020	1180	1400	4230	6830	1120	1290	920	3190	220	1800
28	1550	9180	910	1100	3900	4400	671	1890	1200	2970	350	1770
29	1460	9650	910	920	---	2460	516	2750	1400	3380	462	1410
30	1430	10100	850	890	---	2020	515	3130	2300	1510	463	1280
31	1390	---	760	940	---	1900	---	3060	---	1160	321	---
TOTAL	30641	144800	251640	51170	161080	195640	23331	67438	142340	130365	13394	25106
MEAN	988	4827	8117	1651	5753	6311	778	2175	4745	4205	432	837
MAX	2200	10100	13100	6470	10200	11100	1920	7620	9380	8660	868	3070
MIN	431	1250	760	680	960	1890	382	844	920	808	220	143
CFSM	.37	1.80	3.02	.61	2.14	2.35	.29	.81	1.77	1.57	.16	.31
IN.	.42	2.01	3.49	.71	2.23	2.71	.32	.93	1.97	1.81	.19	.35

CAL YR 1985	TOTAL	1118882	MEAN	3065	MAX	16100	MIN	189	CFSM	1.14	IN.	15.50
WTR YR 1986	TOTAL	1236945	MEAN	3389	MAX	13100	MIN	143	CFSM	1.26	IN.	17.13

03327520 PIPE CREEK NEAR BUNKER HILL, IN

LOCATION.--Lat 40°40'06", long 86°05'44", in NE¼SE¼ sec.29, T.26 N., R.4 E., Miami County, Hydrologic Unit 05120101, on right bank 150 ft downstream from bridge on County Road 125 West, 0.5 mi northeast of Bunker Hill, and at mile 11.4.

DRAINAGE AREA.--159 mi^2.

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1960-67; May 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is 736.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 15 to Jan. 17, Jan. 27 to Feb. 2, and Feb. 11-17. Records good except those for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--18 years, 153 ft^3/s, 13.07 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,390 ft^3/s Feb. 24, 1985, gage height, 16.59 ft; minimum daily, 3.3 ft^3/s Feb. 1, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 ft^3/s (revised) and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 17	0800	1,290	8.62	May 1	1400	1,270	8.55
Nov. 20	2300	*2,610	*12.50	June 6	0500	1,430	9.08
Nov. 27	1400	1,850	10.40	June 8	0800	2,120	11.19
Dec. 12	0800	1,700	9.96	July 12	2300	1,770	10.15
Mar. 13	0600	1,500	9.32	July 25	2400	1,480	9.24
Mar. 19	2100	1,620	9.71				

Minimum daily discharge, 12 ft^3/s Sept. 8, 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	35	501	38	58	125	96	1200	201	916	61	15
2	16	35	494	39	57	121	94	804	147	614	51	14
3	15	34	343	42	59	116	86	430	117	356	45	14
4	14	30	264	43	261	135	83	287	118	213	39	14
5	14	28	224	43	796	354	81	217	364	144	36	14
6	15	28	190	41	670	730	81	170	1170	106	34	13
7	15	27	161	39	440	479	76	157	1660	85	33	13
8	14	26	151	35	286	286	74	136	1990	74	30	12
9	13	25	138	35	217	225	70	117	1100	66	29	13
10	13	28	227	38	172	284	66	104	508	66	71	12
11	13	142	1300	44	135	738	64	97	413	436	52	14
12	16	207	1600	48	110	857	62	91	343	1560	35	19
13	17	298	1000	49	100	1410	59	85	333	1440	29	18
14	17	492	492	49	90	1100	57	98	214	561	26	16
15	223	635	300	47	84	590	62	84	168	314	24	15
16	456	871	200	46	80	399	59	79	139	208	23	14
17	266	1230	170	70	84	302	57	73	115	149	23	13
18	172	939	130	177	186	294	52	124	98	111	21	16
19	141	1570	110	227	499	1420	51	421	87	89	20	17
20	132	2390	98	192	446	1120	53	296	79	75	20	27
21	104	2120	86	133	422	500	61	203	70	64	19	30
22	84	1090	78	117	371	357	58	157	63	55	18	22
23	69	572	70	104	273	284	53	131	59	48	18	20
24	61	443	64	93	223	221	50	113	55	43	17	18
25	55	364	58	92	186	185	49	101	50	232	16	17
26	46	964	54	90	183	165	51	97	46	1370	17	17
27	42	1770	49	84	174	143	50	243	45	452	21	16
28	39	1600	46	75	141	126	49	313	56	217	19	17
29	35	1160	43	70	---	119	49	221	61	130	17	16
30	33	637	40	65	---	111	137	403	362	90	16	16
31	34	---	39	60	---	101	---	314	---	71	16	---
TOTAL	2200	19790	8720	2325	6803	13397	1990	7366	10231	10355	896	492
MEAN	71.0	660	281	75.0	243	432	66.3	238	341	334	28.9	16.4
MAX	456	2390	1600	227	796	1420	137	1200	1990	1560	71	30
MIN	13	25	39	35	57	101	49	73	45	43	16	12
CFSM	.45	4.15	1.77	.47	1.53	2.72	.42	1.50	2.14	2.10	.18	.10
IN.	.51	4.63	2.04	.54	1.59	3.13	.47	1.72	2.39	2.42	.21	.12

CAL YR 1985 TOTAL 80601 MEAN 221 MAX 4210 MIN 13 CFSM 1.39 IN. 18.86
WTR YR 1986 TOTAL 84565 MEAN 232 MAX 2390 MIN 12 CFSM 1.46 IN. 19.79

03328000 EEL RIVER AT NORTH MANCHESTER, IN

LOCATION.--Lat 40°59'55", long 85°45'50", in NE¼NE¼ sec.5, T.29 N., R.7 E., Wabash County, Hydrologic Unit 05120104, on right bank 200 ft downstream from Main Street bridge in North Manchester, 1.3 mi upstream from Pony Creek, and at mile 52.7.

DRAINAGE AREA.--417 mi², includes that of Pony Creek.

PERIOD OF RECORD.--October 1929 to current year. Prior to April 1930, monthly discharge only, published in WSP 1305. Gage-height records since November 20, 1923 are available from the district office.

REVISED RECORDS.--WSP 1275: 1930-37, 1939, 1940(M), 1942, 1948. WSP 1909: 1957. WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 738.00 ft above National Geodetic Vertical Datum of 1929. Prior to July 24, 1953, nonrecording gage on downstream side of Second Street bridge, 700 ft upstream at same datum.

REMARKS.--Estimated daily discharges: Dec. 14 to Jan. 17, Jan. 26 to Feb. 1, Feb. 9-18, and Feb. 26 to Mar. 3. Records good except those for estimated daily discharges, which are fair. Records include flow of Pony Creek.

AVERAGE DISCHARGE.--57 years, 367 ft³/s, 11.95 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,240 ft³/s Feb. 24, 1985, gage height, 13.76 ft; maximum gage height, 14.00 ft Feb. 27, 1936; minimum daily discharge, 16 ft³/s Oct. 19, 1956.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,200 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 20	0900	2,610	7.85	June 6	0800	2,370	7.46
Dec. 11	2200	*3,590	*9.28	June 15	1800	3,450	9.10
Mar. 19	1500	3,190	8.73	July 13	0300	2,260	7.27

Minimum daily discharge, 68 ft³/s Oct. 2, 3, 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	69	120	993	170	220	410	321	753	140	643	256	101
2	68	124	1200	170	337	380	311	544	130	853	253	98
3	68	117	815	175	335	370	292	340	124	573	212	95
4	70	112	591	180	747	370	281	266	122	402	178	96
5	74	109	501	185	1720	601	280	233	781	321	167	98
6	72	107	448	185	1430	1620	286	209	1940	271	161	95
7	69	106	408	180	874	1360	271	205	1300	242	161	93
8	69	105	384	160	620	818	255	193	1830	228	169	93
9	68	104	367	160	480	640	240	176	1310	218	209	91
10	69	142	972	170	400	1130	232	164	766	216	165	89
11	72	392	2940	170	350	1590	222	159	1430	578	159	126
12	81	322	3090	175	310	1560	211	156	1170	1080	145	244
13	95	382	2270	170	300	1860	200	154	775	1830	136	176
14	99	373	1500	170	280	1960	195	152	606	891	129	130
15	117	303	900	170	275	1600	205	147	2700	541	126	113
16	133	910	650	170	270	1050	205	153	2800	1170	124	103
17	113	1140	540	200	280	781	204	149	2190	1760	123	93
18	202	868	420	764	400	672	197	152	1690	1620	121	105
19	1130	1890	350	808	1720	2760	187	208	1000	1240	117	103
20	845	2450	320	590	1810	2460	184	250	813	720	114	113
21	534	1800	290	436	2040	1980	198	227	708	497	109	114
22	347	1260	260	396	1760	1490	196	203	505	387	107	103
23	259	948	240	353	1250	943	186	186	413	317	106	102
24	215	731	230	315	881	727	178	171	349	271	103	121
25	197	583	220	300	714	602	171	159	299	248	102	501
26	172	1240	210	280	620	536	168	155	265	404	104	294
27	154	1700	200	250	540	480	162	176	247	342	133	878
28	143	1280	190	230	460	432	163	181	1180	533	135	647
29	131	1210	185	220	---	396	162	165	897	638	121	390
30	122	1130	180	215	---	369	198	162	631	376	110	436
31	119	---	175	210	---	337	---	155	---	277	104	---
TOTAL	5976	22058	22039	8327	21423	32284	6561	6703	29111	19687	4459	5841
MEAN	193	735	711	269	765	1041	219	216	970	635	144	195
MAX	1130	2450	3090	808	2040	2760	321	753	2800	1830	256	878
MIN	68	104	175	160	220	337	162	147	122	216	102	89
CFSM	.46	1.76	1.71	.65	1.83	2.50	.53	.52	2.33	1.52	.35	.47
IN.	.53	1.97	1.97	.74	1.91	2.88	.59	.60	2.60	1.76	.40	.52

CAL YR 1985 TOTAL 191881 MEAN 526 MAX 7730 MIN 66 CFSM 1.26 IN. 17.12
WTR YR 1986 TOTAL 184469 MEAN 505 MAX 3090 MIN 68 CFSM 1.21 IN. 16.46

03328430 WEESAU CREEK NEAR DEEDSVILLE, IN

LOCATION.--Lat 40°54'34", long 86°07'36", in NW¼NW¼ sec.6, T.28 N., R.4 E., Miami County, Hydrologic Unit 05120104, on left bank 100 ft downstream from bridge on County Road 1000 North, and 1.5 mi west of Deedsville.

DRAINAGE AREA.--8.87 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 785.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 14 to Jan. 12; Jan. 27 to Feb. 1, and Feb. 10-17. Records good except those for estimated daily discharges, which are fair.

AVERAGE DISCHARGE.--16 years, 10.26 ft^3/s, 15.71 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 471 ft^3/s Feb. 23, 1985, gage height, 7.01 ft; maximum gage height, 7.37 ft Mar. 13, 1982; minimum daily discharge, 0.26 ft^3/s Feb. 1, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 150 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 11	0800	*283	*5.53	June 5	1600	206	4.81
Mar. 19	0200	175	4.50	June 15	0700	245	5.19
May 1	0800	260	5.32	July 12	2300	195	4.70

Minimum daily discharge, 1.4 ft^3/s Oct. 3, Sept. 8-10, 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	2.8	41	3.5	4.5	8.5	7.2	172	8.7	23	5.4	1.6
2	1.5	3.3	36	3.4	9.2	8.1	7.1	78	7.0	29	4.8	1.6
3	1.4	3.2	15	3.6	6.8	8.1	6.9	38	6.4	10	4.3	1.6
4	1.6	3.1	12	3.7	62	22	6.6	22	7.1	7.1	3.8	1.5
5	1.8	3.0	10	3.8	72	57	6.6	15	118	5.5	3.4	1.5
6	1.7	2.8	8.9	3.6	37	77	6.5	12	144	4.6	3.3	1.5
7	1.6	2.7	8.1	3.2	19	31	6.2	11	79	4.1	3.3	1.5
8	1.9	2.6	7.8	3.1	12	14	5.7	9.7	70	3.8	3.1	1.4
9	1.8	2.6	7.6	3.1	10	13	5.3	8.7	34	4.1	2.8	1.4
10	1.9	25	71	3.1	8.0	29	5.2	7.9	22	4.2	2.8	1.4
11	2.1	28	199	3.2	6.7	39	5.0	7.4	19	28	2.8	2.5
12	3.0	11	107	3.5	5.6	40	4.9	6.9	15	89	2.6	3.2
13	3.5	16	64	3.5	5.1	65	4.8	6.6	11	110	2.4	2.0
14	3.5	12	25	3.3	4.6	61	4.7	6.6	13	42	2.3	1.7
15	5.0	16	18	2.9	4.3	27	5.0	6.3	143	20	2.2	1.5
16	5.7	71	13	3.0	4.2	16	4.9	6.5	80	12	2.2	1.5
17	4.7	33	10	22	4.4	13	4.8	6.3	44	8.7	2.2	1.4
18	23	33	7.8	31	49	20	4.6	6.6	25	6.8	2.1	1.6
19	48	117	7.0	22	79	114	4.5	9.3	14	6.0	2.0	1.7
20	16	101	6.2	12	44	46	4.8	9.8	11	5.3	2.0	1.7
21	7.9	39	5.7	8.4	43	22	5.2	8.8	8.4	4.8	2.0	1.8
22	5.4	28	5.2	8.1	26	16	4.7	7.7	7.1	4.4	2.0	1.7
23	4.5	23	5.0	6.8	17	14	4.4	6.8	6.3	4.0	2.0	1.7
24	4.1	16	4.7	6.0	14	12	4.3	6.2	5.8	3.7	1.8	5.1
25	3.7	13	4.4	6.3	12	10	4.2	5.7	5.3	18	1.7	76
26	3.4	78	4.2	5.8	12	9.9	4.2	5.5	4.9	11	1.7	36
27	3.1	49	4.1	4.7	10	9.5	4.1	9.2	5.1	5.5	2.2	37
28	2.8	42	4.0	4.0	9.3	8.7	4.0	9.6	5.1	52	1.9	16
29	2.7	42	3.8	3.6	---	8.3	3.8	40	4.5	32	1.7	7.0
30	2.7	28	3.7	3.3	---	7.9	22	32	23	11	1.7	44
31	2.7	---	3.6	3.1	---	7.4	---	13	---	6.9	1.6	---
TOTAL	174.3	847.1	722.8	200.6	590.7	834.4	172.2	591.1	946.7	576.5	80.1	260.1
MEAN	5.62	28.2	23.3	6.47	21.1	26.9	5.74	19.1	31.6	18.6	2.58	8.67
MAX	48	117	199	31	79	114	22	172	144	110	5.4	76
MIN	1.4	2.6	3.6	2.9	4.2	7.4	3.8	5.5	4.5	3.7	1.6	1.4
CFSM	.63	3.18	2.63	.73	2.38	3.03	.65	2.15	3.56	2.10	.29	.98
IN.	.73	3.55	3.03	.84	2.48	3.50	.72	2.48	3.97	2.42	.34	1.09

CAL YR 1985	TOTAL	6474.0	MEAN	17.7	MAX	381	MIN	1.1	CFSM	2.00	IN.	27.15
WTR YR 1986	TOTAL	5996.6	MEAN	16.4	MAX	199	MIN	1.4	CFSM	1.85	IN.	25.15

03328500 EEL RIVER NEAR LOGANSPORT, IN

LOCATION.--Lat 40°46'55", long 86°15'50", in NE¼SE¼ sec.14, T.27 N., R.2 E., Cass County, Hydrologic Unit 05120105, on right bank at downstream side of bridge on Adamsboro Road, 5.5 mi northeast of Logansport, and 7.4 mi upstream from mouth.

DRAINAGE AREA.--789 mi^2.

PERIOD OF RECORD.--July 1943 to current year. Monthly discharge only for some periods, published in WSP 1305.

REVISED RECORDS.--WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 621.50 ft above National Geodetic Vertical Datum of 1929. Prior to Aug. 16, 1956, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Dec. 15 to Jan. 19, Jan. 27 to Feb. 2, Feb. 10-17, and Feb. 28 to Mar. 2. Records good except those for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--43 years, 753 ft^3/s, 12.96 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,700 ft^3/s Feb. 24, 1985, gage height, 12.68 ft; minimum daily, 70 ft^3/s Mar. 15, 1960, results of freezeup.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 18, 1943, reached a stage of 13.2 ft, from floodmark, discharge, 17,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 5,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 20	1500	5,040	7.76	June 7	0200	*6,980	8.76
Dec. 12	1200	6,770	8.66	June 16	1000	5,050	7.77
Mar. 20	0300	5,790	8.17				

Minimum daily discharge, 174 ft^3/s Oct. 9, 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	177	250	1860	330	430	740	652	2040	595	1340	588	213
2	176	256	2120	320	450	700	637	2390	497	1570	515	205
3	177	257	1700	340	563	686	613	1310	431	1370	484	201
4	179	262	1200	350	962	723	591	941	425	959	421	199
5	179	253	983	360	3050	1280	579	771	1340	753	379	193
6	179	234	870	350	2870	2840	576	696	6510	639	358	190
7	183	223	784	340	1990	2730	568	703	5620	565	359	185
8	179	213	734	300	1280	1770	556	675	4470	511	356	181
9	174	209	698	300	995	1230	533	594	3420	483	341	180
10	174	264	1000	320	800	1350	513	535	2230	496	392	178
11	178	526	4890	325	660	2290	496	491	1690	636	345	204
12	199	732	6540	330	540	2350	482	471	2330	1650	322	263
13	205	665	4780	330	450	3560	469	448	1700	3960	303	371
14	225	832	3140	325	520	3720	461	476	1270	2740	290	327
15	247	712	2100	320	530	2820	475	462	2950	1460	289	268
16	242	1050	1400	320	530	2100	493	448	4940	1040	287	235
17	275	2160	1000	370	520	1480	494	451	3870	2000	276	221
18	272	1550	800	1100	663	1250	482	454	2900	2100	264	234
19	828	2740	640	1400	2500	3950	469	506	2180	1880	252	242
20	1570	4840	580	1180	3010	5080	469	591	1460	1380	246	255
21	1120	3950	530	868	2900	3260	490	604	1320	936	244	244
22	804	2560	490	712	2820	2550	497	547	1110	729	242	254
23	591	1920	470	660	2220	1880	478	503	909	615	242	237
24	468	1470	440	590	1580	1370	462	468	793	538	237	241
25	396	1170	420	551	1230	1130	451	440	705	550	227	946
26	365	1660	400	529	1080	1010	452	427	637	601	230	1320
27	329	3500	380	420	998	926	469	496	599	738	243	992
28	301	2750	370	330	830	841	457	743	733	819	244	1320
29	276	2620	360	380	---	777	449	670	1580	1810	260	918
30	259	2160	350	420	---	731	505	1080	1240	1090	241	713
31	251	---	340	430	---	687	---	764	---	741	228	---
TOTAL	11178	41988	42369	15200	36971	57811	15318	22195	60454	36699	9705	11730
MEAN	361	1400	1367	490	1320	1865	511	716	2015	1184	313	391
MAX	1570	4840	6540	1400	3050	5080	652	2390	6510	3960	588	1320
MIN	174	209	340	300	430	686	449	427	425	483	227	178
CFSM	.46	1.77	1.73	.62	1.67	2.36	.65	.91	2.55	1.50	.40	.50
IN.	.53	1.98	2.00	.72	1.74	2.73	.72	1.05	2.85	1.73	.46	.55

CAL YR 1985 TOTAL 382355 MEAN 1048 MAX 16600 MIN 160 CFSM 1.33 IN. 18.03
WTR YR 1986 TOTAL 361618 MEAN 991 MAX 6540 MIN 174 CFSM 1.26 IN. 17.05

03329000 WABASH RIVER AT LOGANSPORT, IN

LOCATION.--Lat 40°44'47", long 86°22'39", in SW¼NE¼ sec.35, T.27 N., R.1 E., Cass County, Hydrologic Unit 05120105, on left bank 150 ft downstream from Cicott Street bridge in Logansport, 1,000 ft downstream from Eel River, and at mile 353.7.

DRAINAGE AREA.--3,779 mi^2.

PERIOD OF RECORD.--April to September, November and December 1903, March to November 1904, March 1905 to July 1906, May 1923 to current year. January, February, and December 1904, January and February 1905 (gage heights only). Gage-height records collected at same site December 1910 to December 1916, and since January 1926 are contained in reports of National Weather Service.

REVISED RECORDS.--WSP 783: 1934. WSP 1335: 1904, 1925(M), 1926-30, 1931(M), 1932-35, 1937-39, 1948. WSP 1385: 1903, 1905-6, 1923-25. WSP 1505: 1906(M). WSP 2109: Drainage area. WDR IN-81-1: 1979.

GAGE.--Water-stage recorder. Datum of gage is 573.28 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). See WSP 1705 for history of changes prior to Oct. 1, 1927.

REMARKS.--Estimated daily discharges: Dec. 28 to Jan. 18, and Jan. 27 to Feb. 2. Records good except those for estimated daily discharges, which are fair. Flow partially regulated by Huntington Lake, Salamonie Lake, and Mississinewa Lake.

AVERAGE DISCHARGE.--63 years (water years 1924 to current year), 3,341 ft^3/s, 12.01 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 89,800 ft^3/s May 18, 1943, gage height, 21.32 ft; minimum daily, 135 ft^3/s Sept. 26, 1941.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 25.3 ft Mar. 26, 1913, from floodmarks, discharge, 140,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 22,900 ft^3/s Dec. 11, gage height, 10.57 ft; minimum daily, 450 ft^3/s Sept. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	707	1750	11600	1150	1500	3210	2140	4820	3010	5380	1530	638
2	660	1870	12300	1250	1650	3080	1820	11100	1860	8130	1330	631
3	650	1860	11900	1300	1910	2710	1710	8540	1540	9560	1280	623
4	670	1760	11400	1300	3080	2660	1680	5430	1950	9230	1120	621
5	703	1670	12300	1250	12500	3700	1560	3650	4700	7530	992	590
6	713	1790	12200	1200	13200	9550	1430	2890	17200	3520	918	564
7	707	1780	12700	1100	12200	12000	1410	2760	14800	2610	859	545
8	701	1830	12400	1050	11400	9960	1440	2710	15200	2210	836	484
9	686	1840	12200	1050	10700	7100	1290	2440	11400	1630	807	459
10	679	1930	12300	1050	8540	5760	1240	2170	9300	1430	1030	450
11	834	2100	19600	1150	7060	8580	1220	1990	9250	1970	1370	526
12	871	2740	17400	1200	6300	10500	1190	1720	11600	6510	1120	570
13	957	3710	14700	1250	5060	15000	1150	1580	9480	12800	1010	686
14	975	3700	14400	1250	3950	14200	1130	1530	10300	10500	950	745
15	886	4990	14300	1200	3750	12200	1220	1510	11900	8070	940	702
16	1890	6020	14000	1150	3740	10700	1120	1490	13900	9110	912	715
17	1580	10000	13000	1250	3280	9370	1050	1380	12400	10200	854	920
18	1230	8870	11900	2000	2390	9200	1000	1530	10700	10500	859	933
19	1680	11600	11600	4360	7080	16400	975	2750	9340	8680	816	937
20	3870	16800	11300	5580	12400	16000	979	3480	6650	6210	772	1020
21	2740	14200	11000	7360	13400	12700	1000	3240	4990	3190	689	1430
22	2100	12100	10200	6730	13800	12200	1010	2460	4830	2200	625	3450
23	1830	10500	7840	4310	12200	11800	1340	2080	4250	1800	607	3140
24	1610	9460	5560	3990	10700	10600	2120	1700	3270	1480	586	2310
25	1720	8500	4370	3380	8010	9060	2280	1440	2030	1330	572	2780
26	2070	10400	3140	2500	5820	8310	2020	1410	1620	3580	588	4180
27	2080	13600	2150	2000	5480	7900	1580	1600	1580	4070	675	3070
28	1930	14000	1700	1550	4750	6020	1380	2730	1650	3150	703	3230
29	1840	13800	1400	1450	---	3410	1060	3430	3080	5320	797	2510
30	1780	13200	1300	1450	---	2830	1130	4240	3140	2820	897	2260
31	1750	---	1200	1500	---	2670	---	4190	---	1830	730	---
TOTAL	43099	208370	313360	68310	205850	269380	41674	93990	216920	166550	27774	41719
MEAN	1390	6946	10110	2204	7352	8690	1389	3032	7231	5373	896	1391
MAX	3870	16800	19600	7360	13800	16400	2280	11100	17200	12800	1530	4180
MIN	650	1670	1200	1050	1500	2660	975	1380	1540	1330	572	450
CFSM	.37	1.84	2.68	.58	1.95	2.30	.37	.80	1.91	1.42	.24	.37
IN.	.42	2.05	3.08	.67	2.03	2.65	.41	.93	2.14	1.64	.27	.41

CAL YR 1985	TOTAL	1639550	MEAN	4492	MAX	39100	MIN	412	CFSM	1.19	IN.	16.14
WTR YR 1986	TOTAL	1696996	MEAN	4649	MAX	19600	MIN	450	CFSM	1.23	IN.	16.71

03329400 RATTLESNAKE CREEK NEAR PATTON, IN

LOCATION.--Lat 40°42'46", long 86°41'49", in NW¼SW¼ sec.7, T.26 N., R.2 W., Carroll County, Hydrologic Unit 05120105, on left bank 5 ft downstream from bridge on County Road 900 West, and 2.5 mi northeast of Patton.

DRAINAGE AREA.--6.83 mi².

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

GAGE.--Water-stage recorder. Datum of gage is 644.97 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 28, 1979, at datum 1.00 ft higher.

REMARKS.--Estimated daily discharges: Dec. 14 to Jan. 16, Jan. 27 to Feb. 2, and Feb. 9-16. Records good except those for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--18 years, 6.97 ft³/s, 13.86 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 456 ft ³/s June 5, 1981, gage height, 5.12 ft; maximum gage height, 5.30 ft June 14, 1975; minimum daily discharge, 0.10 ft³/s Sept. 8-10, 13, 14, 1983.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 90 ft³/s (revised) and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Dec. 11	0700	139	4.14	June 5	1400	*422	*5.05
Apr. 30	2300	177	4.33	June 30	1000	255	4.63
May 15	2400	118	4.02	July 1	1700	*422	*5.05
June 4	2000	144	4.17	July 11	1700	101	3.88

Minimum daily discharge, 0.28 ft³/s Oct. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.40	.46	11	1.4	2.0	4.3	4.1	73	6.7	166	1.7	.54
2	.41	.91	8.8	1.4	2.3	4.3	3.8	22	5.6	78	1.5	.61
3	.37	.63	6.1	1.6	2.6	4.9	3.8	13	5.0	36	1.3	.58
4	.39	.49	5.2	1.6	21	11	3.7	12	34	25	1.3	.54
5	.39	.44	4.7	1.6	18	15	3.6	8.2	171	18	1.2	.49
6	.34	.42	3.9	1.5	11	18	3.5	12	66	14	1.2	.49
7	.33	.42	3.5	1.4	8.2	11	3.4	26	39	11	1.3	.51
8	.31	.41	3.5	1.3	6.5	8.2	3.3	12	28	9.1	1.1	.49
9	.28	.43	3.1	1.3	5.0	7.2	3.1	8.8	19	7.7	1.0	.45
10	.35	2.5	15	1.4	4.2	15	3.1	7.2	15	11	1.3	.44
11	.48	1.8	96	1.6	3.4	19	3.9	6.5	12	43	1.1	.82
12	.76	.91	40	1.7	2.8	13	3.1	6.0	9.4	41	.99	.59
13	.52	2.5	21	1.8	2.3	19	3.0	5.5	6.9	20	.96	.51
14	.52	1.7	12	1.8	2.2	17	3.1	25	6.5	11	.95	.51
15	.68	2.4	8.0	1.8	2.1	11	3.1	18	23	7.9	.94	.51
16	.49	6.5	6.0	1.7	2.1	9.3	2.8	36	10	6.4	.93	.51
17	.40	3.5	4.6	5.5	2.3	8.1	2.6	15	6.5	5.3	.88	.57
18	.80	4.0	3.8	6.3	7.5	8.5	2.5	13	5.4	4.7	.82	.77
19	1.0	31	3.3	5.2	9.6	16	2.6	14	4.6	4.3	.81	1.1
20	.68	28	3.0	3.9	7.8	10	2.8	12	4.0	3.9	.78	14
21	.53	13	2.8	3.5	7.1	7.9	2.7	10	3.5	3.4	.73	2.1
22	.47	8.9	2.5	3.4	6.4	7.3	2.4	8.6	3.6	3.1	.73	.86
23	.78	6.8	2.3	3.1	5.6	6.8	2.3	7.4	3.1	2.9	.75	.77
24	.64	5.4	2.2	3.2	5.1	5.9	2.7	6.1	2.7	2.6	.73	1.6
25	.31	4.9	2.0	3.3	4.8	5.8	2.5	5.9	2.4	3.0	.70	.77
26	.31	26	1.9	3.1	5.2	5.5	2.3	5.9	2.5	2.9	.74	.80
27	.32	20	1.8	2.4	4.7	4.8	2.2	5.8	2.8	2.5	.77	.90
28	.36	25	1.7	2.0	4.5	4.7	2.5	5.1	2.3	2.3	.70	.86
29	.34	16	1.6	1.7	---	4.6	2.5	18	2.0	2.1	.60	.80
30	.35	11	1.5	1.5	---	4.3	31	12	91	1.9	.60	7.8
31	.42	---	1.4	1.4	---	4.1	---	8.1	---	1.8	.57	---
TOTAL	14.73	226.42	284.2	74.4	166.3	291.5	118.0	438.1	593.5	551.8	29.68	42.29
MEAN	.48	7.55	9.17	2.40	5.94	9.40	3.93	14.1	19.8	17.8	.96	1.41
MAX	1.0	31	96	6.3	21	19	31	73	171	166	1.7	14
MIN	.28	.41	1.4	1.3	2.0	4.1	2.2	5.1	2.0	1.8	.57	.44
CFSM	.07	1.11	1.34	.35	.87	1.38	.58	2.06	2.90	2.61	.14	.21
IN.	.08	1.23	1.55	.41	.91	1.59	.64	2.39	3.23	3.01	.16	.23

CAL YR 1985	TOTAL	2588.50	MEAN	7.09	MAX	234	MIN	.19	CFSM	1.04	IN.	14.10
WTR YR 1986	TOTAL	2830.92	MEAN	7.76	MAX	171	MIN	.28	CFSM	1.14	IN.	15.42

03329700 DEER CREEK NEAR DELPHI, IN

LOCATION.--Lat 40°35'25", long 86°37'15", in NE¼NE¼ sec.27, T.25 N., R.2 W., Carroll County, Hydrologic Unit 05120105, on downstream side of left wingwall of highway bridge, 2.6 mi northeast of Delphi Post Office, and 4.8 mi upstream from mouth.

DRAINAGE AREA.--274 mi^2.

PERIOD OF RECORD.--October 1943 to current year. Prior to March 1944 monthly discharge only, published in WSP 1305.

REVISED RECORDS.--WSP 1275: 1944, 1947-48. WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 553.81 ft above National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark, levels by State of Indiana, Department of Natural Resources).

REMARKS.--Estimated daily discharges: Dec. 15 to Jan. 17, Jan. 27 to Feb. 2, Feb. 10-17, and Sept. 7-30. Records good except those for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--43 years, 243 ft^3/s, 12.04 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,400 ft^3/s June 10, 1958, gage height, 18.26 ft; minimum daily, 6.2 ft^3/s Sept. 25-28, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in May 1943 reached a stage of 19.8 ft, from floodmarks, discharge, 18,000 ft^3/s, from rating curve extended above 8,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 20	1245	2,260	6.59	Mar. 19	1530	2,390	6.76
Nov. 27	0730	2,190	6.50	May 1	1330	2,260	6.59
Dec. 11	2345	*2,910	*7.43	July 12	0500	*2,910	7.42

Minimum daily discharge, 26 ft^3/s Oct. 2, 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	36	747	64	83	212	194	1980	226	1230	92	31
2	26	42	745	65	85	210	191	1350	185	1020	82	32
3	26	38	508	68	108	203	180	698	158	543	72	30
4	28	37	392	69	286	243	174	462	146	324	65	29
5	29	36	340	67	940	523	168	352	253	233	60	27
6	28	35	296	64	872	757	165	307	1070	183	58	27
7	27	35	253	58	616	628	157	405	1380	151	59	27
8	27	34	239	56	411	408	154	271	1880	171	58	28
9	28	37	226	55	320	335	148	225	1310	136	53	30
10	29	48	287	58	250	321	140	202	669	148	60	31
11	32	50	2050	63	190	381	136	189	467	1200	106	100
12	33	72	2620	65	170	599	134	182	359	2710	73	60
13	32	140	1560	64	155	1550	128	172	283	2210	57	38
14	33	153	883	62	145	1410	126	206	237	1240	50	31
15	46	161	600	61	135	882	129	182	213	694	47	29
16	41	241	400	67	130	604	130	173	188	466	45	32
17	49	494	280	80	150	465	123	154	165	326	44	32
18	57	370	230	229	221	426	117	163	144	246	42	54
19	54	1110	190	268	565	2020	113	212	133	200	39	55
20	48	2180	170	222	576	1710	118	249	128	172	50	140
21	44	1700	150	179	514	904	128	211	121	144	38	60
22	39	926	140	161	450	614	117	186	112	123	36	41
23	36	633	120	146	373	492	108	170	107	108	35	38
24	38	476	110	136	312	390	103	155	98	97	34	39
25	36	381	100	136	270	333	101	145	91	93	32	37
26	36	880	92	136	270	302	102	143	84	410	44	100
27	34	2080	84	98	277	264	101	154	87	472	42	50
28	33	1910	77	90	234	238	102	188	118	241	38	41
29	32	1450	72	85	---	227	102	471	101	170	34	40
30	32	952	69	82	---	216	224	515	511	132	32	110
31	35	---	67	82	---	200	---	299	---	109	32	---
TOTAL	1095	16737	14097	3136	9108	18067	4113	10771	11024	15702	1609	1419
MEAN	35.3	558	455	101	325	583	137	347	367	507	51.9	47.3
MAX	57	2180	2620	268	940	2020	224	1980	1880	2710	106	140
MIN	26	34	67	55	83	200	101	143	84	93	32	27
CFSM	.13	2.04	1.66	.37	1.19	2.13	.50	1.27	1.34	1.85	.19	.17
IN.	.15	2.27	1.91	.43	1.24	2.45	.56	1.46	1.50	2.13	.22	.19

CAL YR 1985	TOTAL	109682	MEAN	300	MAX	7770	MIN	21	CFSM	1.09	IN.	14.89
WTR YR 1986	TOTAL	106878	MEAN	293	MAX	2710	MIN	26	CFSM	1.07	IN.	14.51

03330241 TIPPECANOE RIVER AT NORTH WEBSTER, IN

LOCATION.--Lat 41°18'58", long 85°41'32", in SE¼NE¼ sec.15, T.33 N., R.7 E., Kosciusko County, Hydrologic Unit 05120106, on right upstream corner of State Road 13 bridge, 0.4 mi southeast of North Webster, at the intersection of State Road 13 and County Road 550 North.

DRAINAGE AREA.--49.3 mi^2.

PERIOD OF RECORD.--May to September 1986.

GAGE.--Water-stage recorder. Datum of gage is 840.00 ft above National Geodetic Vertical Datum of 1929 (levels by State of Indiana, Department of Natural Resources).

REMARKS.--No estimated daily discharges. Records good. Flow regulated at times by dam at Webster Lake, 0.25 mi upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 294 ft^3/s June 5, 1986, gage height, 5.64 ft; minimum daily, 2.8 ft^3/s Sept. 2, 1986.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 294 ft^3/s June 5, gage height, 5.64 ft; minimum daily, 2.8 ft^3/s Sept. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								---	13	36	26	3.1
2								---	13	55	26	2.8
3								---	18	47	25	8.4
4								---	21	38	25	12
5								---	179	27	24	8.4
6								---	275	13	23	8.3
7								---	266	15	20	8.2
8								---	264	17	20	8.1
9								---	223	35	15	8.0
10								---	194	74	5.2	7.5
11								---	192	70	10	8.4
12								---	134	62	27	7.4
13								---	132	62	27	7.3
14								---	128	59	27	7.1
15								---	146	60	27	9.7
16								---	148	60	22	6.0
17								---	100	64	14	5.7
18								---	73	84	28	5.9
19								---	73	95	22	6.5
20								---	96	100	8.5	6.1
21								---	117	100	7.9	16
22								5.6	86	95	5.0	15
23								18	83	90	4.8	7.0
24								40	80	72	4.6	6.9
25								65	59	60	3.7	7.1
26								55	17	58	4.2	7.4
27								39	16	44	4.6	15
28								32	15	25	4.0	28
29								51	10	25	4.0	28
30								37	13	25	3.4	44
31								21	---	27	3.0	---
TOTAL								---	3184	1694	470.9	319.3
MEAN								---	106	54.6	15.2	10.6
MAX								---	275	100	28	44
MIN								---	10	13	3.0	2.8
CFSM								---	2.15	1.11	.31	.22
IN.								---	2.40	1.28	.36	.24

WTR YR 1986 TOTAL 6031.8 MEAN .00 MAX 275 MIN 2.8 CFSM .00 IN. .00

03330500 TIPPECANOE RIVER AT OSWEGO, IN

LOCATION.--Lat 41°19'14", long 85°47'21", in NE¼NE¼ sec.14, T.33 N., R.6 E., Kosciusko County, Hydrologic Unit 05120106, on left bank 25 ft downstream from dam at Tippecanoe Lake Outlet in Oswego, 3 mi east of Leesburg, and at mile 158.9.

DRAINAGE AREA.--113 mi^2.

PERIOD OF RECORD.--October 1949 to current year.

REVISED RECORDS.--WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 830.00 ft above National Geodetic Vertical Datum of 1929. Prior to Aug. 12, 1953, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharges. Records good. Occasional regulation by gates at lake outlet.

AVERAGE DISCHARGE.--37 years, 104 ft^3/s, 12.46 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 950 ft^3/s Mar. 21, 1982, gage height, 9.25 ft; minimum daily, 0.08 ft^3/s Aug. 4, 5, 1967.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 311 ft^3/s Mar. 22, gage height, 7.59 ft; minimum daily, 20 ft^3/s Oct. 5-11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	94	245	156	72	223	202	116	56	77	72	26
2	22	88	243	150	71	218	187	111	53	80	65	26
3	22	83	249	146	75	213	172	94	34	82	65	26
4	22	77	247	141	79	208	160	81	33	81	64	26
5	20	71	244	137	86	204	115	79	107	80	63	25
6	20	64	239	132	101	206	72	79	244	77	63	25
7	20	60	233	127	120	208	58	83	261	65	62	24
8	20	56	225	122	136	210	62	86	276	35	60	24
9	20	54	216	117	147	212	64	87	284	41	59	24
10	20	61	210	112	156	216	74	86	282	71	53	24
11	20	62	219	104	162	227	108	86	285	108	30	24
12	21	66	224	95	165	235	106	85	276	137	30	24
13	22	73	235	90	166	245	105	83	266	135	30	24
14	22	78	245	83	166	254	103	82	256	135	30	24
15	27	85	253	78	165	263	103	81	254	134	30	23
16	39	92	263	73	165	270	103	78	251	147	30	23
17	39	99	269	70	165	273	100	77	249	161	30	23
18	46	106	264	71	162	275	96	76	240	164	30	24
19	148	119	257	73	167	281	76	70	232	179	30	24
20	163	134	249	73	174	294	58	47	230	184	30	24
21	171	154	238	76	191	304	60	47	226	185	30	24
22	170	172	228	78	202	310	62	46	220	182	29	24
23	167	187	219	79	211	301	65	45	213	178	28	25
24	165	199	212	80	218	291	69	36	201	172	28	25
25	163	209	202	80	220	280	70	31	190	167	27	37
26	158	221	194	80	226	273	70	32	164	165	27	68
27	146	232	188	79	231	266	70	34	111	154	28	68
28	133	240	181	78	227	255	68	53	81	143	27	67
29	121	244	175	77	---	247	67	60	79	139	27	66
30	109	246	168	75	---	238	82	61	79	114	26	82
31	101	---	162	73	---	221	---	58	---	87	26	---
TOTAL	2359	3726	6996	3005	4426	7721	2807	2170	5733	3859	1229	973
MEAN	76.1	124	226	96.9	158	249	93.6	70.0	191	124	39.6	32.4
MAX	171	246	269	156	231	310	202	116	285	185	72	82
MIN	20	54	162	70	71	204	58	31	33	35	26	23
CFSM	.67	1.10	2.00	.86	1.40	2.20	.83	.62	1.69	1.10	.35	.29
IN.	.78	1.23	2.30	.99	1.46	2.54	.92	.71	1.89	1.27	.40	.32

CAL YR 1985	TOTAL	55504	MEAN	152	MAX	748	MIN	20	CFSM	1.35	IN.	18.27
WTR YR 1986	TOTAL	45004	MEAN	123	MAX	310	MIN	20	CFSM	1.09	IN.	14.82

03331110 WALNUT CREEK NEAR WARSAW, IN

LOCATION.--Lat 41°12'17", long 85°52'11", in NW¼NE¼ sec.30, T.32 N., R.6 E., Kosciusko County, Hydrologic Unit 05120106, on left bank 10 ft upstream from bridge on County Road 200 South, 0.3 mi downstream from small right-bank tributary, and 2.5 mi south of court house in Warsaw.

DRAINAGE AREA.--19.6 mi^2.

PERIOD OF RECORD.--October 1969 to current year.

GAGE.--Water-stage recorder. Datum of gage is 823.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 18, 19, 21, 24-28, 31, Jan. 1, 5-9, 26-28, 30, Feb. 10-16, and Feb. 26 to Mar. 2. Records good except those for estimated daily discharges, which are poor. Flow occasionally regulated by lakes upstream.

AVERAGE DISCHARGE.--17 years, 18.1 ft^3/s, 12.55 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 561 ft^3/s June 13, 1981, gage height, 5.38 ft; minimum daily, 0.44 ft^3/s Sept. 8, 1983.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 75 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 20	1800	79	2.64	Dec. 12	0500	*107	*2.91

Minimum daily discharge, 1.2 ft^3/s Oct. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	5.5	46	9.6	11	21	20	32	7.6	10	17	2.0
2	1.9	5.8	49	10	14	20	19	37	6.4	12	12	1.9
3	1.9	5.5	44	12	15	23	19	31	5.6	10	9.2	1.8
4	1.9	5.2	40	11	27	23	19	26	5.2	9.3	7.3	1.8
5	1.9	4.9	36	10	46	27	19	22	18	8.1	6.0	1.8
6	1.8	4.6	34	9.7	52	45	18	18	27	7.0	5.2	1.6
7	1.6	4.5	32	9.4	46	55	17	16	28	6.1	5.0	1.5
8	1.4	4.4	30	8.9	38	50	16	15	32	5.3	5.1	1.4
9	1.3	4.3	28	8.6	32	40	15	13	32	5.2	6.2	1.4
10	1.2	12	32	8.4	25	42	15	11	31	5.4	6.1	1.3
11	1.3	27	86	8.2	22	52	14	9.9	54	18	5.6	1.4
12	1.7	27	105	7.9	18	54	13	8.9	56	25	4.6	1.8
13	2.6	26	89	8.2	15	60	14	8.5	48	37	3.9	1.9
14	6.8	24	66	7.9	14	67	13	8.0	38	36	3.5	1.9
15	9.8	21	50	7.9	13	64	14	7.7	55	30	3.2	1.8
16	9.5	30	42	7.4	12	56	14	7.7	71	24	2.9	1.6
17	7.5	38	35	11	15	48	15	7.3	60	17	2.7	1.5
18	11	36	29	25	20	42	14	7.1	45	13	2.6	1.8
19	40	49	24	33	41	64	14	8.5	37	9.5	2.4	2.0
20	36	76	21	32	54	70	13	9.4	30	7.6	2.2	2.5
21	25	73	18	27	61	61	16	9.5	24	6.3	2.1	2.6
22	18	59	16	24	56	52	16	9.3	20	5.2	1.9	2.4
23	14	48	15	22	49	44	13	8.7	15	4.6	1.9	2.4
24	12	43	14	19	41	38	12	8.1	11	3.9	1.9	2.6
25	17	39	13	17	36	33	11	7.5	10	4.4	1.8	2.7
26	15	45	13	15	30	30	11	6.8	9.4	6.4	2.1	3.0
27	11	54	13	13	26	29	11	8.7	8.6	5.2	2.8	4.1
28	8.7	52	12	12	23	27	11	10	9.5	19	2.7	5.1
29	7.3	49	12	11	---	25	10	9.6	9.1	35	2.5	4.7
30	6.4	47	11	9.9	---	24	15	9.7	8.9	30	2.2	5.5
31	5.8	---	10	9.7	---	22	---	8.7	---	24	2.1	---
TOTAL	283.2	919.7	1065	425.7	852	1308	441	400.6	812.3	439.5	136.7	69.8
MEAN	9.14	30.7	34.4	13.7	30.4	42.2	14.7	12.9	27.1	14.2	4.41	2.33
MAX	40	76	105	33	61	70	20	37	71	37	17	5.5
MIN	1.2	4.3	10	7.4	11	20	10	6.8	5.2	3.9	1.8	1.3
CFSM	.47	1.57	1.76	.70	1.55	2.15	.75	.66	1.38	.72	.22	.12
IN.	.54	1.75	2.02	.81	1.62	2.48	.84	.76	1.54	.83	.26	.13

CAL YR 1985	TOTAL	8720.38	MEAN	23.9	MAX	342	MIN	.72	CFSM	1.22	IN.	16.55
WTR YR 1986	TOTAL	7153.5	MEAN	19.6	MAX	105	MIN	1.2	CFSM	1.00	IN.	13.58

03331500 TIPPECANOE RIVER NEAR ORA, IN

LOCATION.--Lat 41°09'26", long 86°33'49", in SE¼SE¼ sec.6, T.31 N., R.1 W., Pulaski County, Hydrologic Unit 05120106, on right bank at downstream side of bridge on County Road 700 East, 1.0 mi upstream from Bartee ditch, 1.3 mi southwest of Ora, and at mile 78.5.

DRAINAGE AREA.--856 mi^2.

PERIOD OF RECORD.--September 1943 to current year. Monthly discharge only for some periods, published in WSP 1305.

REVISED RECORDS.--WSP 1335: 1944(M). WSP 1505: 1949-50(P). WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 692.91 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to July 30, 1956, nonrecording gage on upstream side of old highway bridge, 120 ft downstream. July 30, 1956, to Dec. 20, 1964, water-stage recorder on right bank at downstream side of old highway bridge, and Dec. 21, 1964, to Aug. 19, 1965, nonrecording gage on right bank 500 ft downstream. All gages at same datum.

REMARKS.--Estimated daily discharges: Dec. 16 to Jan. 16, Jan. 27 to Feb. 2, and Feb. 9-17. Records good except those for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--43 years, 842 ft^3/s, 13.36 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,660 ft^3/s June 15, 1981, gage height, 15.08 ft; minimum daily, 87 ft^3/s Sept. 13, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,300 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 13	1200	*3,200	*11.62	June 17	1400	2,550	10.99
June 9	0800	2,570	11.01				

Minimum daily discharge, 212 ft^3/s Oct. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	219	577	1750	850	700	1200	1070	1420	865	1000	1170	311
2	214	573	1750	860	800	1150	1050	1940	734	1050	981	301
3	213	559	1770	860	873	1110	1020	1880	647	1040	819	293
4	217	545	1640	840	1010	1100	986	1510	590	946	708	288
5	222	527	1520	820	1540	1230	952	1280	905	853	619	280
6	222	507	1440	780	1720	1490	924	1160	1680	771	564	272
7	226	493	1370	750	1620	1760	892	1220	2140	704	546	271
8	222	482	1310	700	1470	1680	853	1100	2530	647	526	266
9	219	469	1270	680	1300	1500	795	987	2570	665	510	262
10	212	510	1270	650	1200	1460	746	904	2520	677	485	257
11	215	704	1690	680	1000	1550	718	829	2260	690	488	262
12	226	786	2520	680	900	1650	690	779	2090	940	473	290
13	247	828	3140	670	780	1640	674	736	2100	1320	443	287
14	272	885	2930	660	730	1780	666	710	1930	1350	405	296
15	301	889	2630	640	720	1850	689	679	2050	1160	390	287
16	315	979	2100	620	800	1750	692	686	2260	1050	378	275
17	313	1210	1600	798	900	1630	696	679	2520	953	368	268
18	364	1160	1300	996	1140	1570	695	666	2390	863	355	282
19	755	1310	1000	1210	1320	1600	679	692	2040	808	344	288
20	1150	1840	1050	1220	1560	1780	657	713	1780	755	333	308
21	1050	2200	1150	1140	1580	1770	665	713	1600	692	331	313
22	947	2140	1200	1080	1620	1650	657	684	1420	635	319	311
23	898	1890	1200	1030	1600	1570	634	636	1270	599	314	328
24	882	1720	1200	963	1540	1520	611	612	1140	573	308	332
25	861	1580	1200	923	1460	1450	597	581	1030	571	299	412
26	821	1540	1050	897	1390	1380	884	563	938	618	297	524
27	759	1720	900	760	1350	1330	1640	584	889	604	334	589
28	700	1860	850	640	1280	1270	1510	655	1020	742	355	588
29	662	1820	800	670	---	1220	1010	728	945	1560	366	553
30	630	1810	800	660	---	1160	910	1020	918	1910	343	575
31	598	---	840	680	---	1120	---	1010	---	1540	323	---
TOTAL	15152	34113	46240	25407	33903	45920	25262	28356	47771	28286	14494	10169
MEAN	489	1137	1492	820	1211	1481	842	915	1592	912	468	339
MAX	1150	2200	3140	1220	1720	1850	1640	1940	2570	1910	1170	589
MIN	212	469	800	620	700	1100	597	563	590	571	297	257
CFSM	.57	1.33	1.74	.96	1.41	1.73	.98	1.07	1.86	1.07	.55	.40
IN.	.66	1.48	2.01	1.10	1.47	2.00	1.10	1.23	2.08	1.23	.63	.44

CAL YR 1985 TOTAL 437480 MEAN 1199 MAX 8420 MIN 189 CFSM 1.40 IN. 19.01
WTR YR 1986 TOTAL 355073 MEAN 973 MAX 3140 MIN 212 CFSM 1.14 IN. 15.43

03333000 TIPPECANOE RIVER NEAR DELPHI, IN

LOCATION.--Lat 40°37'02", long 86°45'39", in NW¼NE¼ sec.16, T.25 N., R.3 W., Carroll County, Hydrologic Unit 05120106, on right bank 2 mi northeast of Springboro, 1.7 mi downstream from Big Creek, 5 mi northwest of Delphi, and at mile 15.1.

DRAINAGE AREA.--1,865 mi².

PERIOD OF RECORD.--March to December 1903, March to December 1904, March 1905 to July 1906, November and December 1908, July 1939 to current year. Published as "at Springboro" 1903-08.

REVISED RECORDS.--WSP 973: 1942. WSP 1335: 1905-6. WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 552.01 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Mar. 14, 1903, to July 20, 1906, and Nov. 2 to Dec. 31, 1908, nonrecording gage at site 5.5 mi downstream at different datum.

REMARKS.--Estimated daily discharges: Dec. 14-20. Records good. Flow regulated by upstream reservoirs.

AVERAGE DISCHARGE.--47 years (water years 1940 to current year), 1,687 ft³/s, 12.28 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,600 ft³/s Feb. 10, 1959, gage height, 15.10 ft; minimum daily, 1.0 ft³/s Nov. 2, 3, 1954, caused by repair work at Oakdale Dam, 6.5 mi upstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,400 ft³/s Dec. 11, gage height, 9.99 ft; minimum daily, 245 ft³/s Oct. 9, 11, 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1470	1040	3870	1740	1590	2330	2220	6400	2380	4640	1990	459
2	2050	1050	3700	1550	1770	2070	1690	5660	1830	6160	1530	657
3	2130	1360	3290	1700	1770	2070	1880	4080	1510	4010	1430	400
4	1520	1380	3170	1650	2610	2470	2020	3650	1810	2850	1080	569
5	525	978	2980	1560	3880	2970	1620	3020	4940	2370	1080	415
6	522	830	2600	1420	3790	4350	1810	2740	8790	2020	963	552
7	484	1040	2510	1490	3290	3770	1400	3460	7600	1730	967	373
8	257	723	2630	1510	2890	3310	1700	2810	7360	1350	974	380
9	245	275	2430	1220	2540	3140	1440	2360	5860	1530	853	588
10	248	325	2610	1250	2350	3120	1520	2050	4780	1430	1090	347
11	245	1890	8430	1360	2080	3340	1390	1970	4320	2510	776	809
12	250	1530	9520	1280	1630	3280	1250	1710	3930	3040	777	398
13	247	1930	7280	1400	1430	3810	1400	1730	3410	3650	773	348
14	253	1570	6000	1400	1610	4320	1350	1830	3120	3460	769	591
15	307	2060	4600	1250	1400	3800	1200	1600	4870	2610	724	565
16	248	2880	4500	1090	1590	3560	1370	2550	5780	2290	610	531
17	245	2850	3400	1630	1860	3190	1380	1670	4530	1830	732	392
18	251	3330	2000	2130	2430	3050	1250	1740	3980	1800	558	617
19	1270	5120	2000	2280	4060	3910	1280	1640	3690	1470	686	442
20	1600	7960	1800	2130	3680	3740	1370	1640	3220	1600	532	992
21	1850	6200	2200	2310	3680	3220	1220	1680	2730	1170	533	458
22	1710	4930	2180	1900	2960	2990	1260	1560	2710	1360	523	804
23	1530	4450	2150	1730	2990	2990	1210	1530	2110	1380	581	439
24	1380	3940	2520	1780	2940	2730	1100	1440	2160	1080	437	666
25	1380	3460	2420	1780	2670	2520	1310	1230	1770	1090	501	653
26	1360	3910	1990	1510	2700	2610	1070	1270	1630	1050	664	926
27	1030	5240	1550	1220	2580	2460	1380	1350	1710	1060	489	978
28	1020	4810	1990	984	2260	2080	2180	1390	1790	1090	638	1100
29	1100	4910	1500	1130	---	2350	2100	2800	1970	1470	574	1830
30	1120	4240	1650	1050	---	2350	2180	4270	3240	1960	459	2250
31	1020	---	1730	1310	---	1630	---	2760	---	2420	709	---
TOTAL	28867	86211	101200	47744	71030	93530	45550	75590	109530	67480	25002	20529
MEAN	931	2874	3265	1540	2537	3017	1518	2438	3651	2177	807	684
MAX	2130	7960	9520	2310	4060	4350	2220	6400	8790	6160	1990	2250
MIN	245	275	1500	984	1400	1630	1070	1230	1510	1050	437	347
CFSM	.50	1.54	1.75	.83	1.36	1.62	.81	1.31	1.96	1.17	.43	.37
IN.	.58	1.72	2.02	.95	1.42	1.87	.91	1.51	2.18	1.35	.50	.41

CAL YR 1985 TOTAL 870641 MEAN 2385 MAX 19600 MIN 245 CFSM 1.28 IN. 17.37
WTR YR 1986 TOTAL 772263 MEAN 2116 MAX 9520 MIN 245 CFSM 1.13 IN. 15.40

03333450 WILDCAT CREEK NEAR JEROME, IN

LOCATION.--Lat 40°26'29", long 85°55'08", in NE¼SE¼ sec.14, T.23 N., R.5 E., Howard County, Hydrologic Unit 05120107, on right bank at downstream side of bridge on County Road 1100 East, 0.5 mi downstream from Mud Creek, 1.5 mi southeast of Jerome, and at mile 79.9.

DRAINAGE AREA.--146 mi^2.

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

REVISED RECORDS.--WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 820.04 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 18 to Jan. 17, Jan. 27 to Feb. 2, and Feb. 9-17. Records good except those for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--25 years, 133 ft^3/s, 12.37 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,140 ft^3/s June 3, 1980, gage height, 13.34 ft; minimum daily, 0.89 ft^3/s Jan. 24-26, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913 reached a stage of about 18 ft, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 ft^3/s and maximum(*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 20	0800	*2,450	*9.77	Mar. 13	1445	1,420	7.50
Nov. 27	0645	1,990	8.90	Mar. 19	1545	1,660	8.14
Dec. 11	2400	2,250	9.42	June 7	1115	1,370	7.35

Minimum daily discharge, 5.0 ft^3/s Sept. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.4	15	530	27	42	110	81	592	190	145	29	7.5
2	8.4	17	479	27	44	105	77	539	141	686	25	6.3
3	8.0	15	316	28	49	100	70	275	110	485	21	6.3
4	7.9	13	236	29	372	108	68	181	99	248	18	6.2
5	8.4	12	195	28	888	300	67	143	107	157	16	6.6
6	8.9	12	163	26	663	379	66	118	631	109	14	5.8
7	8.6	11	136	25	448	266	62	159	1290	82	15	5.7
8	8.6	10	129	24	293	177	61	176	1010	67	14	5.2
9	8.2	11	118	23	200	159	56	125	562	59	13	5.0
10	8.4	25	149	25	155	203	52	101	353	54	17	5.4
11	11	128	1420	26	120	568	51	92	297	180	20	7.9
12	14	102	1850	27	100	676	49	84	860	251	15	12
13	22	119	1030	26	80	1290	46	76	530	162	13	11
14	25	230	605	25	78	917	44	76	301	102	11	10
15	85	261	391	25	70	539	50	72	218	76	10	8.1
16	91	563	275	28	65	356	46	87	167	61	12	7.1
17	55	735	207	31	82	261	44	73	129	50	15	7.1
18	36	511	130	151	263	239	40	212	105	43	13	9.1
19	28	1130	110	207	584	1360	37	682	94	37	10	10
20	25	2250	92	168	472	991	42	420	85	33	9.3	27
21	21	1310	78	112	389	515	69	273	74	29	7.9	30
22	17	775	64	106	329	341	64	201	68	27	7.4	24
23	15	559	55	89	244	264	50	161	168	23	7.2	18
24	15	411	49	79	193	197	45	130	166	20	6.5	16
25	12	326	44	80	158	165	45	113	100	92	6.0	15
26	11	824	39	80	162	146	44	117	76	538	7.0	14
27	12	1820	36	68	157	123	42	409	66	214	12	16
28	11	1370	33	57	123	106	42	385	70	97	10	19
29	12	992	31	50	---	101	41	275	63	60	8.4	15
30	12	676	29	46	---	93	42	488	76	43	7.2	12
31	12	---	28	43	---	84	---	276	---	34	6.9	---
TOTAL	625.8	15233	9047	1786	6823	11239	1593	7111	8206	4264	396.8	348.3
MEAN	20.2	508	292	57.6	244	363	53.1	229	274	138	12.8	11.6
MAX	91	2250	1850	207	888	1360	81	682	1290	686	29	30
MIN	7.9	10	28	23	42	84	37	72	63	20	6.0	5.0
CFSM	.14	3.48	2.00	.39	1.67	2.49	.36	1.57	1.88	.95	.09	.08
IN.	.16	3.88	2.31	.46	1.74	2.86	.41	1.81	2.09	1.09	.10	.09

CAL YR 1985	TOTAL	69573.8	MEAN	191	MAX	4340	MIN	4.0	CFSM	1.31	IN.	17.73
WTR YR 1986	TOTAL	66672.9	MEAN	183	MAX	2250	MIN	5.0	CFSM	1.25	IN.	16.99

03333600 KOKOMO CREEK NEAR KOKOMO, IN

LOCATION.--Lat 40°26'28", long 86°05'20", in NW¼SW¼ sec.16, T.23 N., R.4 E., Howard County, Hydrologic Unit 05120107, on left bank at upstream side of bridge on County Road 200 East, 2.6 mi southeast of intersection of U.S. Highways 31 and 35 in Kokomo, and 4.2 mi upstream from mouth.

DRAINAGE AREA.--24.7 mi².

PERIOD OF RECORD.--July 1959 to current year.

REVISED RECORDS.--WSP 2109: Drainage area. WDR IN-72-1: 1970-71(P).

GAGE.--Water-stage recorder. Datum of gage is 807.68 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Oct. 1-14, Dec. 16 to Jan. 17, Jan. 27 to Feb. 2, Feb. 9-17, and Aug. 23 to Sept. 30. Records fair except those for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--27 years, 22.1 ft³/s, 12.15 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,040 ft³/s Apr. 20, 1964, gage height, 9.88 ft; minimum daily, 0.08 ft³/s Aug. 20, 1975.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 260 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 16	1300	266	4.44	Mar. 19	0430	394	5.69
Nov. 20	0245	*561	*7.23	June 7	0300	269	4.47
Nov. 26	1900	422	5.95	July 11	2100	325	5.03
Dec. 11	1415	414	5.88	July 26	0445	336	5.13
Mar. 12	1315	294	4.72				

Minimum daily discharge, 0.60 ft³/s Sept. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.0	4.4	84	5.2	7.8	20	14	109	26	15	6.1	.74
2	.90	4.9	68	5.2	8.2	20	13	54	20	37	4.9	.72
3	.80	4.2	46	5.3	9.0	19	13	33	17	22	3.9	.70
4	.80	3.9	38	5.4	87	28	12	25	16	14	3.1	.68
5	2.0	3.8	33	5.3	139	61	12	22	59	11	2.6	.66
6	1.1	3.7	29	5.0	87	64	12	19	128	8.3	2.2	.65
7	1.0	3.7	26	4.7	56	41	11	19	207	7.2	2.2	.64
8	.95	3.5	25	4.5	38	30	11	16	120	6.5	1.9	.62
9	.90	3.6	23	4.4	30	28	11	14	66	6.3	1.6	.61
10	.90	10	35	4.6	24	50	9.8	13	50	7.2	2.2	.60
11	1.1	27	337	4.9	20	98	9.5	13	43	85	2.1	2.5
12	1.5	20	276	5.0	17	191	8.9	12	33	120	1.4	1.1
13	2.0	32	133	4.9	15	250	8.2	11	26	55	1.2	.85
14	4.0	54	75	4.8	14	143	8.3	13	22	30	.99	.73
15	58	47	51	4.8	13	86	8.9	11	25	20	1.0	.69
16	32	197	37	5.2	12	57	8.3	11	20	15	1.1	.66
17	16	145	28	7.5	15	42	7.7	10	16	12	1.3	.64
18	10	162	23	27	48	53	7.1	57	14	9.1	1.3	1.4
19	8.9	408	19	28	83	330	6.9	85	13	7.6	1.2	1.5
20	7.2	487	16	22	61	140	8.1	49	12	6.7	1.1	4.5
21	5.8	205	14	17	53	73	9.2	35	10	5.7	1.1	1.2
22	5.1	123	12	16	46	51	7.6	28	9.5	5.1	.90	1.0
23	4.6	91	10	14	34	40	6.5	23	9.1	4.5	.88	1.0
24	4.5	69	9.2	13	32	31	6.5	20	8.1	4.0	.84	1.0
25	3.9	61	8.3	14	28	28	6.6	18	7.2	4.0	.80	.97
26	3.5	262	7.5	14	31	25	6.7	19	6.9	213	2.0	1.3
27	3.4	325	6.8	11	27	21	6.3	59	7.0	61	1.1	1.0
28	3.2	243	6.2	9.5	23	20	6.6	43	8.9	27	.96	.88
29	3.3	149	5.8	8.5	---	18	6.5	37	7.6	15	.88	.88
30	3.1	99	5.5	8.2	---	17	11	51	11	9.7	.82	1.2
31	4.2	---	5.3	7.8	---	15	---	34	---	7.2	.77	---
TOTAL	195.65	3251.7	1492.6	296.7	1058.0	2090	274.2	963	1018.3	851.1	54.44	31.62
MEAN	6.31	108	48.1	9.57	37.8	67.4	9.14	31.1	33.9	27.5	1.76	1.05
MAX	58	487	337	28	139	330	14	109	207	213	6.1	4.5
MIN	.80	3.5	5.3	4.4	7.8	15	6.3	10	6.9	4.0	.77	.60
CFSM	.26	4.37	1.95	.39	1.53	2.73	.37	1.26	1.37	1.11	.07	.04
IN.	.29	4.90	2.25	.45	1.59	3.15	.41	1.45	1.53	1.28	.08	.05

CAL YR 1985	TOTAL	12149.54	MEAN	33.3	MAX	687	MIN	.70	CFSM	1.35	IN.	18.30
WTR YR 1986	TOTAL	11577.31	MEAN	31.7	MAX	487	MIN	.60	CFSM	1.28	IN.	17.44

03333700 WILDCAT CREEK AT KOKOMO, IN

LOCATION.--Lat 40°28'15", long 86°09'11", in SW¼NE¼ sec.2, T.23 N., R.3 E., Howard County, Hydrologic Unit 05120107, on right bank on property of Kokomo Sewage Treatment Plant in Kokomo, 250 ft downstream from Kokomo Creek, 1.0 mi upstream from Dixon Road bridge, and at mile 62.9.

DRAINAGE AREA.--242 mi^2.

PERIOD OF RECORD.--October 1955 to current year.

REVISED RECORDS.--WSP 2109: Drainage area. WDR-IN-83: 1980, 1981(P), 1982.

GAGE.--Water-stage recorder. Datum of gage is 775.62 ft above National Geodetic Vertical Datum of 1929 (levels by State of Indiana, Department of Natural Resources). Prior to May 9, 1986, recording gage at site 0.4 mi downstream at present datum.

REMARKS.--Estimated daily discharges: Dec. 20-27, and Dec. 29 to Jan. 21. Records good except those for estimated daily discharges, which are fair. Some regulation of Kokomo Reservoirs No. 1 and No. 2, combined capacity, 4,170 acre-ft, for municipal water supply and by Kokomo Sewage Treatment Plant.

AVERAGE DISCHARGE.--31 years, 234 ft^3/s, 13.13 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,100 ft^3/s Feb. 10, 1959; maximum gage height, 12.59 ft Feb. 24, 1985; minimum daily discharge, 7.2 ft^3/s Sept. 30, 1956.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,100 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 20	1430	3,720	8.75	June 6	0015	2,100	6.88
Nov. 27	1730	2,790	7.56	June 7	1900	3,950	8.60
Dec. 12	1045	3,070	7.93	July 11	1815	4,160	8.76
Mar. 20	0015	2,160	6.64	July 25	1945	*4,200	*8.79

Minimum daily discharge, 24 ft^3/s Oct. 2, 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	44	952	58	87	203	166	570	307	203	100	26
2	24	42	850	56	94	187	157	912	237	619	88	30
3	24	35	675	62	113	183	166	522	163	836	80	30
4	30	34	495	62	447	203	162	326	182	386	77	31
5	27	35	411	59	1270	414	166	256	383	235	75	29
6	26	35	354	56	1150	660	154	231	1370	163	70	27
7	26	35	311	54	814	555	150	234	3110	130	67	25
8	28	33	280	49	572	354	147	266	2960	110	63	26
9	27	37	270	49	402	278	140	210	1320	103	57	28
10	31	99	336	52	313	339	135	156	711	144	110	28
11	37	170	1630	56	255	825	125	133	509	873	60	87
12	39	227	2900	57	206	1210	112	133	942	1280	52	40
13	30	341	1960	56	166	1810	109	124	981	593	50	29
14	90	709	1120	54	164	1660	120	134	495	305	46	25
15	145	647	762	54	142	1010	110	135	336	202	45	27
16	85	1230	556	58	137	698	68	115	256	155	40	28
17	71	1330	423	65	161	516	64	117	209	127	37	28
18	90	1160	307	250	321	509	59	309	160	113	38	47
19	164	2450	247	300	783	1810	57	993	141	106	38	50
20	153	3630	210	260	803	1830	71	779	132	97	34	145
21	147	2690	160	210	681	998	68	456	117	91	31	42
22	153	1430	140	186	585	664	65	319	105	86	28	34
23	78	1020	120	169	454	506	65	251	108	79	28	34
24	65	779	110	150	350	400	65	199	192	75	27	35
25	49	664	95	143	286	313	65	169	153	604	29	32
26	42	1460	85	140	279	265	65	214	114	1800	54	43
27	36	2630	76	125	274	175	61	492	152	619	38	33
28	36	2490	68	112	229	160	67	675	125	269	32	29
29	38	1770	66	109	---	158	67	510	101	165	30	29
30	33	1210	62	97	---	155	210	738	192	125	29	40
31	43	---	60	89	---	150	---	506	---	110	26	---
TOTAL	1892	28466	16091	3297	11538	19198	3236	11184	16263	10803	1579	1137
MEAN	61.0	949	519	106	412	619	108	361	542	348	50.9	37.9
MAX	164	3630	2900	300	1270	1830	210	993	3110	1800	110	145
MIN	24	33	60	49	87	150	57	115	101	75	26	25
CFSM	.25	3.92	2.14	.44	1.70	2.56	.45	1.49	2.24	1.44	.21	.16
IN.	.29	4.38	2.47	.51	1.77	2.95	.50	1.72	2.50	1.66	.24	.17

CAL YR 1985 TOTAL 125463 MEAN 344 MAX 6970 MIN 23 CFSM 1.42 IN. 19.29
WTR YR 1986 TOTAL 124684 MEAN 342 MAX 3630 MIN 24 CFSM 1.41 IN. 19.17

03334500 SOUTH FORK WILDCAT CREEK NEAR LAFAYETTE, IN

LOCATION.--Lat 40°25'04", long 86°46'05", in SW¼SW¼ sec.21, T.23 N., R.3 W., Tippecanoe County, Hydrologic Unit 05120107, on right bank 40 ft upstream from bridge on State Highway 26, 0.5 mi upstream from Middle Fork, 4.4 mi upstream from mouth, and 5 mi east of Lafayette.

DRAINAGE AREA.--243 mi^2.

PERIOD OF RECORD.--October 1943 to current year. Prior to March 1944 monthly discharge only, published in WSP 1305.

REVISED RECORDS.--WSP 1335: 1948(M). WSP 1505: 1947. WSP 1725: 1951-53(M), 1955(M). WSP 1909: 1955(P). WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 566.60 ft above National Geodetic Vertical Datum of 1929 (Indiana Department of Highways bench mark). Prior to July 29, 1954, nonrecording gage at site 40 ft downstream at same datum.

REMARKS.--Estimated daily discharges: Nov. 20, 21, Dec. 12, Dec. 17 to Jan. 17, Jan. 28 to Feb. 3, and Feb. 13-16. Records good except those for estimated daily discharges, which are poor. Backwater from Middle Fork at times on peaks.

AVERAGE DISCHARGE.--43 years, 241 ft^3/s, 13.47 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,100 ft^3/s May 2, 1983, gage height, 15.68 ft, from rating curve extended above 6,000 ft^3/s on basis of contracted-opening measurement at 16.8 ft; minimum daily, 15 ft^3/s Sept. 19, 22, 1944, Aug. 30, 31, Sept. 1, 14, 15, 1969.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in May 1943 reached a stage of 16.8 ft, from floodmarks, discharge, 17,900 ft^3/s by contracted-opening measurement.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 20	1000	4,600	9.70	Dec. 11	1700	*4,740	*9.82
Nov. 27	0200	3,510	8.66				

Minimum daily discharge, 24 ft^3/s Sept. 8-10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	44	767	58	90	208	193	539	168	135	54	28
2	32	51	705	57	98	198	196	533	153	186	53	30
3	31	53	519	59	130	198	179	327	138	249	47	28
4	32	46	416	60	461	217	173	241	131	171	44	29
5	33	43	368	59	1090	290	169	205	131	134	43	29
6	31	42	324	58	852	379	167	187	301	114	43	26
7	31	41	279	54	602	347	156	399	2190	99	53	25
8	29	40	257	50	438	259	152	1390	1510	91	54	24
9	28	41	244	49	356	238	147	640	859	86	45	24
10	29	51	299	53	293	224	141	463	597	110	51	24
11	32	106	3150	56	243	250	136	367	461	524	56	28
12	37	116	2760	57	201	536	134	294	395	637	47	33
13	37	205	1580	57	170	1300	130	250	314	329	43	44
14	41	370	1000	55	165	1110	127	500	253	218	41	33
15	78	337	714	55	150	746	132	452	219	158	39	29
16	82	599	547	58	140	531	128	318	195	130	40	26
17	102	853	450	65	166	420	124	253	172	110	41	26
18	82	630	350	261	270	374	119	232	155	94	38	33
19	72	2130	270	307	484	2200	115	505	144	85	35	50
20	62	4080	210	256	480	1460	118	441	136	77	36	173
21	53	2290	170	201	412	859	128	342	128	70	34	106
22	48	1320	140	182	371	596	120	284	120	66	33	65
23	46	947	120	168	330	486	110	242	115	62	33	55
24	49	733	110	162	286	396	104	209	145	60	32	49
25	45	615	100	164	250	336	102	191	136	57	30	52
26	42	1460	90	164	249	307	102	195	116	83	32	47
27	41	2950	78	131	272	273	98	197	108	83	38	51
28	40	2120	72	115	238	242	103	257	158	63	37	57
29	38	1470	66	110	---	227	105	235	124	56	33	43
30	38	1020	63	100	---	214	109	216	121	51	32	42
31	40	---	59	90	---	200	---	186	---	49	30	---
TOTAL	1411	24803	16277	3371	9287	15621	4017	11090	9893	4437	1267	1309
MEAN	45.5	827	525	109	332	504	134	358	330	143	40.9	43.6
MAX	102	4080	3150	307	1090	2200	196	1390	2190	637	56	173
MIN	28	40	59	49	90	198	98	186	108	49	30	24
CFSM	.19	3.40	2.16	.45	1.37	2.07	.55	1.47	1.36	.59	.17	.18
IN.	.22	3.80	2.49	.52	1.42	2.39	.61	1.70	1.51	.68	.19	.20

CAL YR 1985	TOTAL	117784	MEAN	323	MAX	6500	MIN	27	CFSM	1.33	IN.	18.03
WTR YR 1986	TOTAL	102783	MEAN	282	MAX	4080	MIN	24	CFSM	1.16	IN.	15.73

03335000 WILDCAT CREEK NEAR LAFAYETTE, IN

LOCATION.--Lat 40°26'26", long 86°49'45", in SW¼NW¼ sec.13, T.23 N., R.4 W., Tippecanoe County, Hydrologic Unit 05120107, on right bank about 200 ft downstream of bridge on County Road 2A East, 2.8 mi downstream from South Fork Wildcat Creek, 3.7 mi northeast of courthouse in Lafayette, and 4.8 mi upstream from mouth.

DRAINAGE AREA.--794 mi^2.

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

REVISED RECORDS.--WSP 1555: 1955, 1957(M). WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 527.66 ft above National Geodetic Vertical Datum of 1929 (Indiana Flood Control and Water Resources Commission bench mark). Nonrecording gage prior to June 13, 1957, and August 31, 1974, to May 20, 1976, at present site and datum.

REMARKS.--Estimated daily discharges: Dec. 20 to Jan. 17, Jan. 27 to Feb. 2, and Feb. 11-17. Records good except those for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--32 years, 771 ft^3/s, 13.18 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,000 ft^3/s June 10, 1958, gage height, 21.52 ft, from rating curve extended above 18,000 ft^3/s; minimum daily, 46 ft^3/s Sept. 28, 29, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of March 1913 reached a stage of about 25.4 ft, from profile by State of Indiana, Department of Natural Resources.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 6,300 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 20	2000	*8,500	*13.02	Dec. 11	2200	8,180	12.76
Nov. 27	0600	7,240	11.98				

Minimum daily discharge, 82 ft^3/s Oct. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	91	141	3260	185	280	753	575	2090	916	528	293	117
2	86	178	2690	180	300	707	581	2120	700	779	270	116
3	85	172	2150	190	334	681	557	1710	594	1030	245	112
4	89	166	1680	190	858	714	533	1170	504	1040	226	111
5	91	151	1400	185	2560	963	524	897	503	692	213	110
6	87	138	1200	180	2870	1340	521	812	974	509	209	109
7	90	131	1060	170	2360	1430	493	1580	4360	404	212	105
8	89	127	948	160	1720	1150	482	2110	4640	339	211	105
9	86	128	876	160	1330	964	465	1280	3620	302	199	104
10	85	160	959	175	1070	870	444	976	2250	383	230	101
11	82	234	5540	180	900	953	428	795	1610	1960	248	112
12	86	430	7300	185	700	1790	419	678	1300	3290	241	121
13	95	680	5990	180	600	3880	400	606	1410	2720	191	165
14	104	986	4480	170	530	4080	384	919	1340	1500	178	147
15	149	1330	2660	170	470	3280	384	903	988	970	170	124
16	298	1610	1900	195	440	2140	389	697	809	711	163	108
17	296	2730	1490	250	500	1590	356	604	674	550	163	104
18	234	2530	1160	536	741	1350	324	561	585	444	158	117
19	193	4620	874	739	1300	4830	309	1020	513	385	151	144
20	215	8000	700	768	1730	4900	308	1480	471	346	140	442
21	251	7750	550	680	1640	3760	323	1260	434	315	133	385
22	238	6320	460	586	1450	2300	327	974	404	288	130	255
23	231	3720	380	503	1290	1690	308	802	377	268	123	196
24	275	2560	340	454	1120	1350	291	688	386	246	121	168
25	208	2050	300	442	968	1140	287	614	408	233	117	163
26	184	3500	270	435	905	996	290	597	388	781	119	168
27	160	7090	240	320	912	888	287	633	335	1490	128	169
28	147	6930	220	300	870	733	294	969	414	821	132	175
29	137	6330	210	290	---	672	295	1260	447	505	141	157
30	131	4670	195	285	---	635	338	1160	372	377	128	151
31	130	---	190	280	---	598	---	1120	---	321	121	---
TOTAL	4723	75562	51672	9723	30748	53127	11916	33085	32726	24527	5504	4661
MEAN	152	2519	1667	314	1098	1714	397	1067	1091	791	178	155
MAX	298	8000	7300	768	2870	4900	581	2120	4640	3290	293	442
MIN	82	127	190	160	280	598	287	561	335	233	117	101
CFSM	.19	3.17	2.10	.40	1.38	2.16	.50	1.34	1.37	1.00	.22	.20
IN.	.22	3.54	2.42	.46	1.44	2.49	.56	1.55	1.53	1.15	.26	.22

CAL YR 1985	TOTAL	374219	MEAN	1025	MAX	17100	MIN	78	CFSM	1.29	IN.	17.53
WTR YR 1986	TOTAL	337974	MEAN	926	MAX	8000	MIN	82	CFSM	1.17	IN.	15.83

03335500 WABASH RIVER AT LAFAYETTE, IN

LOCATION.--Lat 40°25'19", long 86°53'49", in NE¼SW¼ sec.20, T.23 N., R.4 W., Tippecanoe County, Hydrologic Unit 05120108, on right bank 20 ft downstream from Brown Street in Lafayette, 0.2 mi upstream from Main Street bridge, 0.3 mi downstream from Harrison Memorial Bridge, 5.1 mi downstream from Wildcat Creek, and at mile 311.9.

DRAINAGE AREA.--7,267 mi².

PERIOD OF RECORD.--February 1901 to January 1902, March to December 1902, January to May 1903 (gage heights only), October 1923 to current year. Monthly discharge only for some periods, published in WSP 1305. Gage-height records collected at present site since October 1913 are contained in reports of National Weather Service.

REVISED RECORDS.--WSP 1335: 1929, 1932-33, 1936. WSP 1505: 1950. WSP 1555: 1928(M). WSP 2109: Drainage area. WDR IN-81-1: 1979.

GAGE.--Water-stage recorder. Datum of gage is 504.14 ft above National Geodetic Vertical Datum of 1929. Prior to May 2, 1903, nonrecording gage 0.5 mi upstream at different datum. Oct. 7, 1923, to Nov. 20, 1933, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Dec. 14 to Feb. 3. Records good except those for estimated daily discharges, which are fair. Flow partially regulated by upstream reservoirs and power development.

AVERAGE DISCHARGE.--63 years (1923 to current year), 6,517 ft³/s, 12.18 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 131,000 ft³/s May 19, 1943, gage height, 28.47 ft; minimum daily, 399 ft³/s Sept. 26, 1941.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 26, 1913, reached a stage of 32.9 ft, from floodmark determined by National Weather Service, discharge, 190,000 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 41,600 ft³/s Dec. 12, gage height, 18.52 ft; minimum daily, 1,250 ft³/s Sept. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1800	3460	22800	3400	3400	8160	6270	12700	8010	11200	4830	1810
2	3190	3560	20700	3300	3800	6840	5470	20400	6120	15600	4090	1570
3	3170	3700	19900	3300	4200	6610	5110	19100	4650	16400	3660	1670
4	3380	3870	17800	3300	5760	6460	5030	14100	4290	14400	3370	1400
5	1990	3600	17300	3200	13900	7810	4940	10200	7720	12700	2970	1560
6	1710	3260	17300	3000	21600	12000	4670	8190	20700	9350	2800	1570
7	1720	3240	16800	2900	20400	17900	4260	9520	29600	6270	2600	1360
8	1600	3410	16700	2900	18000	16900	4320	9510	30800	5140	2510	1330
9	1420	2890	16400	2800	15800	13900	4200	7770	28500	4750	2440	1480
10	1400	2910	16300	2700	14100	11000	3950	6530	21600	4230	2270	1250
11	1400	3640	25300	2800	11600	11800	3710	6080	17300	6280	2660	1350
12	1610	4860	40000	2900	9880	15100	3650	5210	16500	12700	2830	1840
13	1690	6060	38100	3000	8540	20600	3630	4850	16300	17400	2560	1360
14	1800	6840	32000	3000	7810	25300	3410	5090	14800	20100	2350	1590
15	1900	7140	28000	2800	6580	23700	3630	5270	15900	14500	2220	1560
16	1890	9540	24000	2700	6650	19700	3540	5500	19400	12300	2200	1730
17	2990	13400	21000	3200	6740	16700	3390	5370	19600	12100	2010	1490
18	2570	15800	18000	4500	6720	14800	3310	4600	16700	12800	1990	1720
19	2610	18400	16000	6200	9000	20800	3170	4990	14900	11900	1830	2040
20	5130	29000	15000	8200	16000	27900	3170	6870	12700	9980	2040	2860
21	7810	34400	14500	10300	18900	24900	3290	7100	9810	7260	1710	2510
22	5170	29800	14000	10000	19400	20400	3080	6400	8420	4970	1800	2990
23	4410	23700	13000	8400	18100	18100	3150	5420	8300	4240	1550	4390
24	3920	19200	11000	7000	16500	17000	3470	4820	6840	3770	1650	3840
25	3630	16300	8800	6400	14100	14800	4260	4290	5880	3500	1470	3530
26	3800	16900	7400	5500	11200	13300	4350	3930	4760	3710	1620	4540
27	3890	26100	5600	4500	10100	12400	3820	4000	4240	7330	1820	5210
28	3660	28800	4300	3500	9280	11300	4270	4640	4660	6160	1630	4320
29	3520	28800	3600	3200	---	8770	4280	6910	4780	5890	1790	4740
30	3600	26000	3400	3100	---	7310	3870	10800	6940	7100	1810	5220
31	3400	---	3400	3200	---	6390	---	9590	---	5700	1820	---
TOTAL	91780	398580	528400	135200	328060	458650	120670	239750	390720	289730	72900	73830
MEAN	2961	13290	17050	4361	11720	14800	4022	7734	13020	9346	2352	2461
MAX	7810	34400	40000	10300	21600	27900	6270	20400	30800	20100	4830	5220
MIN	1400	2890	3400	2700	3400	6390	3080	3930	4240	3500	1470	1250
CFSM	.41	1.83	2.35	.60	1.61	2.04	.55	1.06	1.79	1.29	.32	.34
IN.	.47	2.04	2.70	.69	1.68	2.35	.62	1.23	2.00	1.48	.37	.38

CAL YR 1985	TOTAL	3258320	MEAN	8927	MAX	79200	MIN	1100	CFSM	1.23	IN.	16.68
WTR YR 1986	TOTAL	3128270	MEAN	8571	MAX	40000	MIN	1250	CFSM	1.18	IN.	16.01

03335690 MUD PINE CREEK NEAR OXFORD, IN

LOCATION.--Lat 40°31'24", long 87°20'30", in NE¼SE¼ sec.17, T.24 N., R.8 W., Benton County, Hydrologic Unit 05120108, on right bank 5 ft downstream from county road bridge, 0.3 mi north of Chase, 2 mi east of Boswell, and 5 mi west of Oxford.

DRAINAGE AREA.--39.4 mi^2.

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

REVISED RECORDS.--WDR IN-80-1: 1971-79 (P).

GAGE.--Water-stage recorder. Datum of gage is 718.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 16 to Jan. 16, Jan. 27 to Feb. 1, Feb. 10-16, and June 15 to July 14. Records good except those for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--15 years (1972 to current year), 40.8 ft^3/s, 14.06 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,420 ft^3/s June 2, 1980, gage height, 11.67 ft; minimum daily, 0.16 ft^3/s Sept. 14, 1983.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 800 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 20	0200	1,070	9.03	May 29	1100	1,090	9.08
Dec. 11	1300	887	8.64	June 7	0400	1,190	9.25
May 1	0415	1,210	9.27	June 15	0530	*2,080	*10.46
May 7	0615	1,400	9.57				

Minimum daily discharge, 0.62 ft^3/s Oct. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.76	2.6	146	8.0	11	21	23	764	92	150	3.5	.77
2	.79	50	114	8.2	12	22	22	215	63	100	3.2	.82
3	.70	31	81	8.4	14	26	22	138	52	65	3.1	.90
4	.89	20	75	8.4	335	36	21	101	48	40	2.8	.85
5	1.0	15	67	8.0	192	64	20	78	99	34	2.6	.78
6	1.1	12	56	7.5	108	99	19	114	293	27	2.5	.65
7	.76	11	52	7.0	69	69	19	666	610	23	3.3	.64
8	.63	8.2	49	6.8	52	50	18	192	187	22	2.3	.64
9	.62	8.5	45	7.0	39	43	17	118	121	21	1.8	.64
10	.73	71	96	7.5	31	50	16	88	95	23	2.2	.69
11	.96	97	674	7.8	27	71	16	71	77	200	2.2	1.4
12	1.3	68	362	7.8	23	69	15	64	63	70	1.7	2.3
13	1.1	165	184	7.8	21	86	15	58	53	45	1.5	1.1
14	1.3	120	114	7.5	19	85	15	193	71	32	1.5	.84
15	2.6	126	86	7.4	18	65	16	82	1100	26	1.3	.79
16	2.8	249	70	10	20	54	13	92	480	22	1.3	.75
17	1.4	155	50	32	25	48	12	64	190	19	1.3	.85
18	1.4	155	42	45	105	48	12	57	70	17	1.1	2.0
19	23	847	33	34	89	71	12	54	46	15	.93	2.2
20	15	668	26	23	56	55	13	49	37	13	.88	30
21	56	237	22	19	45	46	15	43	33	11	.81	6.8
22	21	174	17	19	38	42	13	40	29	9.6	.84	2.9
23	9.8	141	15	16	31	40	12	37	27	8.4	.86	2.1
24	6.8	114	13	16	27	36	11	29	25	8.1	.81	2.0
25	5.3	97	12	15	23	35	11	27	23	7.3	.78	1.8
26	4.0	412	11	16	27	34	10	27	21	6.9	.99	2.5
27	3.5	326	10	14	24	30	9.7	64	25	6.0	1.5	4.4
28	2.5	304	9.5	13	29	27	11	40	28	5.2	1.0	2.6
29	2.0	216	9.0	13	---	27	10	600	23	4.6	.82	2.0
30	1.9	157	8.5	12	---	25	132	228	31	4.0	.80	19
31	1.8	---	8.2	12	---	23	---	133	---	3.7	.80	---
TOTAL	173.44	5057.3	2557.2	424.1	1510	1497	570.7	4526	4112	1038.8	51.02	95.71
MEAN	5.59	169	82.5	13.7	53.9	48.3	19.0	146	137	33.5	1.65	3.19
MAX	56	847	674	45	335	99	132	764	1100	200	3.5	30
MIN	.62	2.6	8.2	6.8	11	21	9.7	27	21	3.7	.78	.64
CFSM	.14	4.29	2.09	.35	1.37	1.23	.48	3.71	3.48	.85	.04	.08
IN.	.16	4.77	2.41	.40	1.43	1.41	.54	4.27	3.88	.98	.05	.09

CAL YR 1985	TOTAL	17643.32	MEAN	48.3	MAX	1290	MIN	.44	CFSM	1.23	IN.	16.66
WTR YR 1986	TOTAL	21613.27	MEAN	59.2	MAX	1100	MIN	.62	CFSM	1.50	IN.	20.41

03335700 BIG PINE CREEK NEAR WILLIAMSPORT, IN

LOCATION.--Lat 40°19'03", long 87°17'26", in SW¼SE¼ sec.26, T.22 N., R.8 W., Warren County, Hydrologic Unit 05120108, on downstream side of county road bridge, 1.6 mi north of city limits of Williamsport, and 3.7 mi upstream from mouth.

DRAINAGE AREA.--323 mi^2.

PERIOD OF RECORD.--October 1955 to current year.

REVISED RECORDS.--WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 511.68 ft above National Geodetic Vertical Datum of 1929 (levels by State of Indiana, Department of Natural Resources). Prior to May 19, 1967, nonrecording gage and crest-stage gage at same site and datum.

REMARKS.--Estimated daily discharges: Dec. 15 to Jan. 16, Jan. 27 to Feb. 2, and Feb. 9-16. Records good except those for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--31 years, 274 ft^3/s, 11.52 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,600 ft^3/s Feb. 10, 1959, from rating curve extended above 8,000 ft^3/s on basis of contracted-opening measurement, gage height, 16.00 ft, from floodmark; minimum daily, 6.5 ft^3/s Oct. 6-8, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,800 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 20	1300	3,160	9.38	May 7	1800	*6,150	*12.23
Dec. 12	0800	3,120	9.33	May 29	0800	4,810	11.08
May 7	0100	4,130	10.43	June 5	1900	4,470	10.77

Minimum daily discharge, 18 ft^3/s Oct. 2, 3, 9, 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	30	965	66	98	185	208	2530	787	693	56	21
2	18	50	834	66	105	188	209	2040	504	793	53	21
3	18	166	722	68	116	213	194	1220	400	787	50	21
4	19	117	613	70	1130	241	192	799	342	458	47	21
5	21	86	487	68	1400	370	186	596	2280	325	44	20
6	21	70	439	65	1010	580	177	574	2130	252	42	20
7	20	61	391	60	664	593	167	3600	2420	208	41	20
8	19	56	377	56	464	436	167	1870	2070	182	42	20
9	18	52	351	55	367	361	159	975	1320	171	42	20
10	18	65	411	62	270	362	151	681	913	190	40	20
11	19	260	2760	64	220	449	148	543	639	699	39	22
12	25	297	2870	65	190	512	145	484	536	438	38	28
13	29	632	1790	64	170	740	140	490	438	428	36	25
14	28	559	1130	63	160	1140	137	891	382	293	34	23
15	63	505	600	62	150	852	145	652	1050	222	32	20
16	42	835	450	100	200	626	138	773	1300	186	30	20
17	33	1010	350	195	370	504	126	627	716	162	29	20
18	25	812	250	376	500	472	119	505	443	144	28	20
19	24	2070	220	346	631	668	115	441	372	130	26	20
20	32	2960	190	225	496	635	116	402	321	119	25	207
21	58	2070	170	172	411	494	126	356	274	108	24	123
22	80	1330	150	162	339	423	118	319	252	100	23	76
23	65	979	130	142	289	393	104	289	263	91	23	53
24	51	768	120	127	252	339	99	259	221	85	22	42
25	43	674	110	129	214	311	99	238	190	82	22	37
26	39	1730	97	129	215	301	100	239	176	78	21	40
27	38	1960	88	120	230	275	98	317	168	74	24	74
28	35	1960	80	110	193	251	103	335	225	68	24	61
29	33	1500	74	105	---	245	108	2150	235	63	23	46
30	30	1210	72	100	---	237	261	1380	279	59	23	96
31	28	---	67	97	---	217	---	1220	---	56	22	---
TOTAL	1011	24874	17358	3589	10854	13613	4355	27795	21646	7744	1025	1257
MEAN	32.6	829	560	116	388	439	145	897	722	250	33.1	41.9
MAX	80	2960	2870	376	1400	1140	261	3600	2420	793	56	207
MIN	18	30	67	55	98	185	98	238	168	56	21	20
CFSM	.10	2.57	1.73	.36	1.20	1.36	.45	2.78	2.24	.77	.10	.13
IN.	.12	2.86	2.00	.41	1.25	1.57	.50	3.20	2.49	.89	.12	.14

CAL YR 1985 TOTAL 125037 MEAN 343 MAX 6540 MIN 13 CFSM 1.06 IN. 14.40
WTR YR 1986 TOTAL 135121 MEAN 370 MAX 3600 MIN 18 CFSM 1.15 IN. 15.56

03336000 WABASH RIVER AT COVINGTON, IN

LOCATION.--Lat 40°08'24", long 87°24'24", in NE¼NW¼ sec.35, T.20 N., R.9 W., Warren County, Hydrologic Unit 05120108, on right approach to old U.S. Highway 136 bridge at Covington, 2.9 mi downstream from Opossum Run, 3.6 mi upstream from Spring Creek, and at mile 271.1.

DRAINAGE AREA.--8,218 mi^2.

PERIOD OF RECORD.--October 1939 to current year. Gage-height records collected at site 0.4 mi downstream January 1927 to December 1930, and at present site since January 1931 are contained in reports of National Weather Service.

REVISED RECORDS.--WDR IN-73-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 473.97 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1979, nonrecording gage on old bridge.

REMARKS.--Estimated daily discharges: Jan. 26 to Feb. 2, and Apr. 14-29. Records good. Flow partially regulated by upstream reservoirs and power development.

AVERAGE DISCHARGE.--47 years, 7,463 ft^3/s, 12.34 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 147,000 ft^3/s May 20, 1943, gage height, 32.44 ft; minimum daily, 487 ft^3/s Sept. 29, 1941.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913 reached a stage of 35.1 ft, from floodmark determined by National Weather Service, discharge, 200,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 38,800 ft^3/s Dec. 13, gage height, 22.47 ft; minimum daily, 1,240 ft^3/s Sept. 9, 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1550	3340	30500	5500	3500	10100	7120	9180	11800	9850	5810	1770
2	1860	3530	27800	5310	3900	8780	7100	18900	8880	14000	5030	1550
3	2850	3610	25000	5230	5210	7920	6150	21700	6750	17300	4270	1380
4	2960	3770	22600	5380	6570	7640	5930	19700	5470	16900	3840	1410
5	2970	3820	20100	5160	11400	8050	5910	14600	5960	14800	3450	1320
6	1990	3480	19000	4860	19500	10400	5620	10900	15600	12600	3130	1370
7	1730	3230	18100	4830	22200	15800	5440	13200	24300	8970	3030	1410
8	1750	3270	17800	4740	21600	19000	5020	15900	29000	6670	2840	1330
9	1600	3350	17500	4470	19200	17600	5070	12700	32000	5610	2700	1240
10	1440	3050	17400	4460	16600	14500	4860	9520	32100	5280	2640	1430
11	1410	3200	23300	4290	14100	12500	4700	7850	27400	6150	2610	1270
12	1440	4350	29600	4420	11700	14600	4500	7080	22200	9930	2980	1280
13	1570	6170	35900	4340	10000	18500	4400	6340	19700	15800	2830	1550
14	1670	7720	37900	4280	9160	23500	4200	6970	17500	19300	2370	1240
15	1880	7890	35000	4200	8230	26400	4200	6980	16700	19100	2280	1390
16	1920	9340	31000	4240	7330	26300	4200	7210	19100	14700	2190	1510
17	1950	12300	27400	4130	7290	23000	4100	7290	21100	13300	2160	1760
18	2720	16400	23600	4690	7540	19100	4000	6220	20400	13300	2000	1720
19	2440	21900	18600	5900	8090	19300	3900	5630	17700	13600	1940	1940
20	2570	26500	15800	7900	12700	23800	3800	6420	15500	12100	1790	3200
21	4550	30400	14900	8970	18200	27500	3800	7800	12800	10200	1810	3670
22	5340	33600	14100	10400	20000	27400	3800	7650	10200	7380	1540	2890
23	4700	32400	14500	10200	20100	24200	3700	6730	9410	5570	1600	3680
24	4200	27700	13200	8290	18900	20900	3600	5900	8660	4760	1510	4650
25	3750	22100	10800	7450	17000	18500	3700	5330	7430	4250	1410	4110
26	3500	20100	8460	6400	14600	16100	4000	4920	6190	3950	1310	3850
27	3690	23700	7220	5400	11900	14700	4500	4940	5230	4870	1550	5270
28	3710	27800	6220	4000	11100	13700	4300	4970	4990	7670	1650	5410
29	3510	30700	5620	3600	---	11900	4600	8170	5360	6300	1590	4780
30	3410	31700	5470	3300	---	9420	4690	13400	5890	7090	1720	5280
31	3450	---	5550	3300	---	8130	---	15100	---	7060	1730	---
TOTAL	84080	430420	599940	169640	357620	519240	140910	299200	445320	318360	77310	74660
MEAN	2712	14350	19350	5472	12770	16750	4697	9652	14840	10270	2494	2489
MAX	5340	33600	37900	10400	22200	27500	7120	21700	32100	19300	5810	5410
MIN	1410	3050	5470	3300	3500	7640	3600	4920	4990	3950	1310	1240
CFSM	.33	1.75	2.35	.67	1.55	2.04	.57	1.17	1.81	1.25	.30	.30
IN.	.38	1.95	2.72	.77	1.62	2.35	.64	1.35	2.02	1.44	.35	.34

CAL YR 1985	TOTAL	3685960	MEAN	10100	MAX	91100	MIN	1240	CFSM	1.23	IN.	16.69
WTR YR 1986	TOTAL	3516700	MEAN	9635	MAX	37900	MIN	1240	CFSM	1.17	IN.	15.92

03339000 VERMILION RIVER NEAR DANVILLE, IL

LOCATION.--Lat 40°06'03", long 87°35'52", in NW¼NW¼ sec.22, T.19 N., R.11 W., Vermilion County, Hydrologic Unit 05120109, on right bank at Danville sewage-treatment plant, 1.7 mi upstream from Stony Creek, 2.2 mi southeast of Danville, and at mile 19.5.

DRAINAGE AREA.--1,290 mi^2.

PERIOD OF RECORD.--October 1914 to September 1921, June 1928 to current year. Monthly discharge only for some periods, published in WSP 1305.

REVISED RECORDS.--WSP 853: 1936(M). WSP 973: 1939. WSP 1305: 1915-16, 1920, 1929. WSP 1335: 1934(m). WSP 1909: 1960. WDR IL-75-1: Drainage area. WDR IL-84-1: 1983.

GAGE.--Water-stage recorder. Datum of gage is 503.33 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to Jan. 9, 1935, nonrecording gage at site and datum. Jan. 9, 1935, to Aug. 30, 1982, at site 0.3 mi downstream at same datum.

REMARKS.--Estimated daily discharges: Jan. 2-11, 28-30, and Feb. 13-15. Records good. Flow regulated at times by storage at Lake Vermilion on North Fork Vermilion River, 4.5 mi above station, usable capacity, 7,440 acre-ft, and by Danville sewage-treatment plant. U.S. Army Corps of Engineers satellite telemeter at station.

AVERAGE DISCHARGE.--65 years, 987 ft^3/s, 10.39 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 48,700 ft^3/s Mar. 13, 1939, gage height, 28.59 ft; minimum daily, 2 ft^3/s Oct. 9-14, 1920, Aug. 10, 1930.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 7,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 21	0445	*18,900	*21.08	May 30	0815	17,200	19.85
Nov. 28	1830	11,800	15.78	June 7	1430	10,900	14.96
Dec. 12	0045	13,500	17.13				

Minimum daily discharge, 49 ft^3/s Oct. 5, Sept. 8, 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	94	287	4640	623	283	694	684	2600	3420	1270	145	61
2	120	763	4310	540	309	704	687	4170	2420	2110	154	57
3	90	2580	3230	540	346	744	678	2110	1840	2060	127	56
4	50	2290	2530	500	1910	887	659	1370	1310	1070	110	57
5	49	1380	2030	450	6310	1910	650	934	1640	766	102	52
6	50	1030	2030	430	5070	3580	610	962	5650	640	117	60
7	98	847	1650	400	2850	3880	580	3400	10300	555	141	55
8	88	712	1510	390	2150	2480	560	4860	8820	498	120	49
9	57	625	1430	380	1690	1710	536	3490	5030	454	126	49
10	59	795	1670	375	1200	1490	496	1760	3270	449	123	50
11	62	2530	10300	380	811	1960	468	1130	3340	1190	112	65
12	87	3370	12900	355	738	2060	475	937	3090	2470	132	77
13	82	4800	10400	397	690	2570	467	897	2000	1750	110	107
14	121	5590	5410	352	650	2290	484	2380	1600	1720	102	100
15	196	4990	3050	364	630	2180	491	1780	1440	2000	92	67
16	236	5080	2380	376	611	1670	486	1890	1960	1180	97	56
17	265	5970	2090	411	707	1320	438	1850	1600	767	84	51
18	190	6230	1640	508	861	1410	412	1970	1030	627	80	58
19	188	11800	1080	573	2120	1880	406	1810	698	585	73	81
20	1230	17200	1170	561	2520	2040	417	1460	708	523	69	336
21	1160	18500	1330	521	1650	1480	423	1130	830	475	67	523
22	1490	14200	1290	491	1330	1160	416	805	817	364	65	252
23	947	8030	1210	452	1070	1110	370	733	711	331	70	182
24	665	4930	1080	402	1010	1040	329	595	542	305	63	302
25	564	3710	802	399	899	968	306	453	507	281	63	248
26	564	6290	676	371	805	949	307	715	442	268	74	268
27	458	11200	791	213	842	909	304	1070	439	236	72	216
28	382	11400	852	210	780	858	315	1200	507	204	70	277
29	321	9230	771	250	---	819	326	8060	616	176	90	201
30	291	5940	693	275	---	802	342	15500	603	160	76	343
31	276	---	618	280	---	739	---	7450	---	165	62	---
TOTAL	10530	172299	85563	12769	40842	48293	14122	79471	67180	25649	2988	4356
MEAN	340	5743	2760	412	1459	1558	471	2564	2239	827	96.4	145
MAX	1490	18500	12900	623	6310	3880	687	15500	10300	2470	154	523
MIN	49	287	618	210	283	694	304	453	439	160	62	49
CFSM	.26	4.45	2.14	.32	1.13	1.21	.37	1.99	1.74	.64	.07	.11
IN.	.30	4.97	2.47	.37	1.18	1.39	.41	2.29	1.94	.74	.09	.13

CAL YR 1985	TOTAL	654636	MEAN	1794	MAX	27300	MIN	49	CFSM	1.39	IN.	18.88
WTR YR 1986	TOTAL	564062	MEAN	1545	MAX	18500	MIN	49	CFSM	1.20	IN.	16.27

03339108 EAST FORK COAL CREEK NEAR HILLSBORO, IN

LOCATION.--Lat 40°06'06", long 87°07'54", in NW¼SW¼ sec.8, T.19 N., R.6 W., Fountain County, Hydrologic Unit 05120108, at center pier on downstream side of bridge on County Road 700 East, 1.5 mi east of Hillsboro, 3.7 mi northwest of Waynetown, and 9.6 mi upstream from mouth.

DRAINAGE AREA.--33.4 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 673.76 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 14 to Jan. 17, Jan. 24 to Feb. 2, and Feb. 9-16. Records good except those for estimated daily discharges, which are fair.

AVERAGE DISCHARGE.--18 years, 38.3 ft^3/s, 15.57 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,680 ft^3/s May 1, 1983, gage height, 10.47 ft; minimum daily, 3.5 ft^3/s Jan. 16, 17, Feb. 6, 7, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 700 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 19	1030	1,030	6.61	Dec. 11	0800	1,430	7.71
Nov. 26	1615	*1,530	*7.96				

Minimum daily discharge, 5.9 ft^3/s Sept. 7-10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.2	25	114	22	21	32	24	42	31	25	11	6.4
2	8.2	71	105	22	22	30	24	29	25	39	9.3	6.7
3	7.4	31	94	22	25	30	23	22	22	25	8.3	6.5
4	8.2	23	58	21	217	31	22	20	21	19	8.1	6.3
5	8.7	20	53	20	149	33	22	18	21	16	7.8	6.0
6	8.6	18	47	18	91	35	22	19	58	15	7.7	6.0
7	8.5	18	44	17	70	37	22	91	181	14	9.0	5.9
8	7.8	16	44	17	54	36	21	85	98	13	8.7	5.9
9	8.7	17	44	17	45	32	20	43	49	13	8.1	5.9
10	9.7	72	128	17	34	35	19	32	40	13	10	5.9
11	12	81	959	18	27	45	19	26	38	24	10	6.9
12	12	76	216	18	23	156	18	23	66	42	8.2	9.0
13	13	174	128	18	22	138	18	31	39	24	7.6	8.7
14	19	121	90	18	20	101	18	112	29	17	7.3	8.0
15	30	85	62	17	19	67	18	44	25	15	7.1	7.9
16	17	255	54	17	24	51	18	32	22	14	7.4	7.1
17	14	115	45	23	35	46	18	25	21	12	7.6	7.5
18	13	151	42	37	41	91	18	24	19	12	7.6	9.9
19	13	800	38	37	49	308	17	23	18	11	7.1	10
20	13	385	35	31	45	105	17	21	18	11	6.7	29
21	13	142	33	27	44	67	18	21	17	10	6.7	12
22	13	108	30	27	42	54	17	20	17	10	6.5	7.2
23	13	85	29	25	37	49	16	19	17	9.6	6.4	7.5
24	14	68	27	24	34	42	16	18	16	9.5	6.7	48
25	13	61	26	24	31	37	16	18	16	9.5	6.7	17
26	13	839	25	23	31	35	15	30	15	9.3	6.9	9.7
27	13	339	24	18	36	32	15	55	15	9.1	7.6	9.4
28	12	236	23	19	37	30	15	35	15	8.9	7.5	9.2
29	12	149	22	19	---	27	16	132	15	8.7	7.1	8.2
30	13	117	21	20	---	25	17	57	17	8.2	6.8	8.9
31	13	---	21	21	---	24	---	41	---	9.3	6.6	---
TOTAL	382.0	4698	2681	674	1325	1861	559	1208	1001	476.1	240.1	302.6
MEAN	12.3	157	86.5	21.7	47.3	60.0	18.6	39.0	33.4	15.4	7.75	10.1
MAX	30	839	959	37	217	308	24	132	181	42	11	48
MIN	7.4	16	21	17	19	24	15	18	15	8.2	6.4	5.9
CFSM	.37	4.70	2.59	.65	1.42	1.80	.56	1.17	1.00	.46	.23	.30
IN.	.43	5.23	2.99	.75	1.48	2.07	.62	1.35	1.11	.53	.27	.34

CAL YR 1985 TOTAL 18576.9 MEAN 50.9 MAX 1220 MIN 4.5 CFSM 1.52 IN. 20.69
WTR YR 1986 TOTAL 15407.8 MEAN 42.2 MAX 959 MIN 5.9 CFSM 1.26 IN. 17.16

03339500 SUGAR CREEK AT CRAWFORDSVILLE, IN

LOCATION.--Lat 40°02'56", long 86°53'58", in SW¼NW¼ sec.32, T.19 N., R.4 W., Montgomery County, Hydrologic Unit 05120110, on left bank 327 ft upstream from Crawfordsville Electric Light and Power Co.'s dam at Crawfordsville, 0.5 mi upstream from bridge on U.S. Highway 231, 1.0 mi downstream from Walnut Fork Sugar Creek, and at mile 40.4.

DRAINAGE AREA.--509 mi^2.

PERIOD OF RECORD.--June 1938 to current year.

REVISED RECORDS.--WSP 973: 1939(M). WSP 1275: Drainage area. WSP 1335: 1949.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 657.77 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 15 to Jan. 16, Jan. 28-30, and Feb. 9-17. Records good except those for estimated daily discharges, which are fair.

AVERAGE DISCHARGE.--48 years, 493 ft^3/s, 13.14 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,300 ft^3/s June 28, 1957, gage height, 14.48 ft; minimum daily, 2.4 ft^3/s Sept. 24-27, 1941.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913 reached a stage of 17.3 ft from information by local resident, discharge, about 36,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 20	0300	9,530	7.60	Mar. 19	1000	5,870	5.24
Nov. 27	0100	7,270	6.10	June 7	0900	4,410	4.48
Dec. 11	1700	*9,740	*7.74				

Minimum daily discharge, 18 ft^3/s Sept. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	43	1700	200	177	409	306	1670	295	393	88	25
2	24	68	1610	200	190	383	300	1390	259	876	99	25
3	26	58	1110	200	188	376	277	756	224	555	67	25
4	28	52	877	195	1620	371	269	519	211	308	58	25
5	27	45	699	180	3020	448	266	409	215	222	54	23
6	28	45	582	160	2010	595	414	342	227	176	53	21
7	30	45	474	150	1510	588	496	695	3960	145	51	20
8	26	41	444	145	1090	411	359	3000	3310	130	53	20
9	23	42	423	145	780	426	299	1700	1540	118	50	20
10	24	79	698	150	560	394	267	929	987	132	61	18
11	27	184	8020	152	400	648	251	672	784	637	98	23
12	29	158	8730	157	320	1680	238	519	1960	1660	78	25
13	31	316	4070	160	280	3390	222	421	1190	811	58	28
14	39	343	2110	155	250	2290	211	1710	721	411	48	29
15	72	336	1300	150	230	1430	217	1180	522	280	45	22
16	74	1220	900	160	240	1010	210	786	414	214	62	20
17	54	1440	680	214	260	795	197	574	369	173	75	20
18	43	1150	560	429	660	790	185	730	278	143	64	23
19	40	5730	490	525	1110	5350	185	2180	243	127	49	25
20	41	8590	430	395	1050	3950	189	1220	222	110	41	369
21	41	5450	380	296	895	1810	212	843	200	97	37	179
22	40	2660	340	269	769	1220	200	643	279	88	34	79
23	37	1810	320	243	637	969	176	504	582	80	33	58
24	40	1320	290	220	526	762	164	399	345	72	30	200
25	36	1060	270	224	442	647	161	355	231	68	28	205
26	39	3590	250	224	483	564	163	377	187	511	28	114
27	38	6630	230	131	619	474	156	678	166	310	27	88
28	34	5370	220	150	514	400	162	622	159	164	27	77
29	32	3580	210	160	---	377	163	454	168	115	27	63
30	33	2250	200	165	---	346	188	394	168	91	25	56
31	35	---	200	169	---	314	---	334	---	90	25	---
TOTAL	1114	53705	38817	6473	20830	33617	7103	27005	20416	9307	1573	1925
MEAN	35.9	1790	1252	209	744	1084	237	871	681	300	50.7	64.2
MAX	74	8590	8730	525	3020	5350	496	3000	3960	1660	99	369
MIN	23	41	200	131	177	314	156	334	159	68	25	18
CFSM	.07	3.52	2.46	.41	1.46	2.13	.47	1.71	1.34	.59	.10	.13
IN.	.08	3.93	2.84	.47	1.52	2.46	.52	1.97	1.49	.68	.11	.14

CAL YR 1985	TOTAL	264575	MEAN	725	MAX	16400	MIN	21	CFSM	1.42	IN.	19.34
WTR YR 1986	TOTAL	221885	MEAN	608	MAX	8730	MIN	18	CFSM	1.19	IN.	16.22

03340500 WABASH RIVER AT MONTEZUMA, IN

LOCATION.--Lat 39°47'33", long 87°22'26", in SE¼NE¼ sec.35, T.16 N., R.9 W., Parke County, Hydrologic Unit 05120108, on downstream side of first pier from left bank of bridge on U.S. Highway 36 at Montezuma, 2.0 mi upstream from Raccoon Creek, 4.9 mi downstream from Sugar Creek, and at mile 240.0.

DRAINAGE AREA.--11,118 mi^2.

PERIOD OF RECORD.--October 1927 to current year. July 1924 to September 1927 (gage height only) in reports of State of Indiana, Department of Natural Resources.

REVISED RECORDS.--WSP 1335: 1929, 1931(M). WSP 1505: 1954. WSP 1915: 1954(m). WSP 2109: Drainage area. WDR IN-74-1: 1973.

GAGE.--Water-stage recorder. Datum of gage is 457.75 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Oct. 1, 1927, to July 12, 1950, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Dec. 19 to Jan. 2, Jan. 7-12, Jan. 27 to Feb. 2, and Feb. 15-18. Records good except those for periods of no gage-height record, which are fair. Flow partially regulated by upstream reservoirs.

AVERAGE DISCHARGE.--59 years, 9,896 ft^3/s , 12.08 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 184,000 ft^3/s May 20, 1943, gage height, 32.83 ft; minimum daily, 571 ft^3/s Sept. 24, 1941.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 27, 1913, reached a stage of 34.0 ft, from floodmarks, discharge, 230,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 58,000 ft^3/s Dec. 13, gage height, 23.89 ft; minimum daily, 1,610 ft^3/s Oct. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1850	3780	45800	8300	4700	12800	9910	8370	20900	9230	6760	2160
2	1760	4060	41900	8000	6000	11500	9280	19500	15000	15900	5760	2250
3	2440	4860	37200	7580	7740	10300	8700	23200	11500	18900	5000	2100
4	3050	5730	32400	7520	9100	10100	7950	22700	9040	19100	4380	2010
5	3130	5380	28400	7450	18800	10500	7760	19500	7650	17100	4030	1960
6	2790	4810	25300	7330	24900	13000	7750	14800	16400	15000	3640	1820
7	2020	4240	23500	7000	26700	18000	7520	14400	28000	12100	3500	1820
8	1910	4020	21900	6700	26500	21300	7120	22100	35500	9090	3360	1820
9	1870	4050	21000	6400	24900	21100	6680	21700	38400	7590	3190	1690
10	1730	4120	21000	6300	21900	18700	6560	16200	37900	6720	3150	1670
11	1630	5340	37300	6200	19000	16300	6160	12100	35900	7040	3080	1790
12	1610	6570	54600	6100	15800	17800	5930	10200	32700	11700	3120	1700
13	1640	9260	58000	6090	13000	23500	5770	9110	28100	16800	3310	1910
14	1790	12500	57100	6000	12100	26800	5590	11000	23600	19800	3140	1970
15	1960	13800	53300	6020	11000	27900	5590	13000	20500	21400	2920	1760
16	2200	16100	47800	5900	10000	28600	5550	11900	20300	18700	2840	1920
17	2200	20400	41400	5800	9800	28000	5390	11500	22000	15400	2760	1860
18	2510	22200	35000	6200	9800	25300	5300	10500	22200	14300	2680	1970
19	2880	33700	31000	7360	11200	28800	5130	10300	20400	14300	2610	1950
20	2740	51900	27000	9030	14800	30300	4940	10400	18100	13600	2490	2440
21	4120	57400	23000	10400	19500	29600	5030	10700	15900	11900	2450	3880
22	5710	56000	20000	11400	21500	29900	5010	10800	13600	9530	2420	3710
23	5740	53800	19000	12000	21800	29200	4840	9840	12000	7120	2270	3170
24	5040	48700	18000	11000	21400	26600	4660	8530	11300	5910	2220	4220
25	4520	41800	17000	9430	20000	23500	4730	7550	9480	5210	2120	4610
26	4180	36800	14000	8860	17900	20500	5330	7160	8190	4940	2060	4110
27	4080	45000	12500	7800	15600	18300	5650	8570	6950	4930	2020	4360
28	4150	49500	11000	6500	14000	16700	5380	8520	6340	7050	2130	5350
29	4010	50500	10000	5000	---	15300	5400	10300	6370	7430	2140	4840
30	3820	49000	9400	4500	---	13100	5790	22200	6800	6610	2080	4910
31	3780	---	8800	4500	---	11100	---	25600	---	7620	2160	---
TOTAL	92860	725320	903600	228670	449440	634400	186400	422250	561020	362020	95790	81730
MEAN	2995	24180	29150	7376	16050	20460	6213	13620	18700	11680	3090	2724
MAX	5740	57400	58000	12000	26700	30300	9910	25600	38400	21400	6760	5350
MIN	1610	3780	8800	4500	4700	10100	4660	7160	6340	4930	2020	1670
CFSM	.27	2.17	2.62	.66	1.44	1.84	.56	1.23	1.68	1.05	.28	.25
IN.	.31	2.43	3.02	.77	1.50	2.12	.62	1.41	1.88	1.21	.32	.27

CAL YR 1985	TOTAL	5224810	MEAN	14310	MAX	114000	MIN	1610	CFSM	1.29	IN.	17.48
WTR YR 1986	TOTAL	4743500	MEAN	13000	MAX	58000	MIN	1610	CFSM	1.17	IN.	15.87

03340800 BIG RACCOON CREEK NEAR FINCASTLE, IN

LOCATION.--Lat 39°48'45", long 86°57'14", in NW¼SW¼ sec.22, T.16 N., R.5 W., Putnam County, Hydrologic Unit 05120108, on left bank at downstream side of county road bridge, 1.6 mi upstream from Ramp Creek, 3.1 mi west of Fincastle, and at mile 48.8.

DRAINAGE AREA.--139 mi^2.

PERIOD OF RECORD.--August 1957 to current year. Prior to October 1963, published as Raccoon Creek near Fincastle.

REVISED RECORDS.--WSP 1909: 1958. WSP 2109: Drainage area. WDR IN-79-1: 1978.

GAGE.--Water-stage recorder. Datum of gage is 686.03 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 15 to Jan. 17, Jan. 27 to Feb. 1, Feb. 10-16, Feb. 28 to Mar. 2, and Mar. 7, 8. Records good except those for estimated daily discharges, which are fair.

AVERAGE DISCHARGE.--29 years, 145 ft^3/s, 14.17 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,100 ft^3/s Jan. 26, 1962; maximum gage height, 15.68 ft Jan. 26, 1962 (ice jam); minimum daily discharge, 1.8 ft^3/s Sept. 16, 17, and Oct. 5, 6, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 28, 1957, reached a stage of 19.10 ft, discharge, 39,900 ft^3/s, from slope-area measurement.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,900 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 20	0400	8,710	14.22	Dec. 11	1700	*10,400	*14.89
Nov. 27	0100	2,820	9.98	Mar. 19	1100	2,930	10.15

Minimum daily discharge, 3.6 ft^3/s Sept. 9, 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.9	11	357	65	70	125	92	554	88	359	18	6.3
2	6.1	25	342	63	91	125	88	266	77	1030	17	6.0
3	5.8	19	230	62	91	129	82	154	68	272	19	6.0
4	6.5	13	188	62	731	126	81	116	65	149	13	5.8
5	7.4	12	169	58	753	137	84	100	67	103	12	5.6
6	7.9	10	150	50	453	155	111	86	114	79	12	5.0
7	5.8	9.9	131	46	482	140	94	119	158	64	12	4.1
8	5.7	9.5	129	45	333	120	84	357	208	54	12	3.7
9	5.5	15	126	44	267	132	77	135	117	48	11	3.6
10	6.2	128	240	42	200	139	73	95	90	45	21	3.6
11	5.2	195	6120	41	165	203	70	81	88	96	24	4.1
12	5.6	111	2750	42	150	527	67	110	1050	213	15	5.5
13	6.2	166	686	42	140	721	65	88	279	129	12	5.5
14	8.6	175	434	41	130	437	60	888	164	74	11	5.2
15	13	169	340	40	120	293	65	269	123	61	11	4.8
16	7.7	869	250	40	115	221	65	161	100	55	23	4.3
17	7.7	473	220	50	125	185	60	120	137	41	15	4.4
18	8.9	611	180	115	186	248	58	324	93	34	11	8.2
19	8.8	3670	170	125	259	2150	57	483	75	29	9.5	11
20	9.5	5890	150	113	239	649	63	243	66	26	8.8	395
21	16	905	140	100	207	341	72	170	59	23	8.2	121
22	10	543	130	97	180	250	62	135	54	21	7.8	65
23	8.4	410	130	92	161	207	54	113	139	19	7.6	59
24	10	327	130	87	149	170	51	97	103	18	7.1	171
25	9.8	290	110	90	134	150	50	160	70	34	6.7	137
26	9.4	1240	87	90	147	138	50	250	56	90	6.7	79
27	8.8	1690	88	80	175	124	47	298	49	28	7.0	71
28	8.1	1480	84	72	145	113	47	181	131	21	7.4	98
29	7.7	649	80	62	---	108	48	137	95	17	7.8	74
30	8.0	415	72	58	---	102	101	115	85	15	7.2	64
31	8.5	---	70	57	---	96	---	99	---	19	6.4	---
TOTAL	249.7	20530.4	14483	2071	6398	8761	2078	6504	4068	3266	367.2	1436.7
MEAN	8.05	684	467	66.8	229	283	69.3	210	136	105	11.8	47.9
MAX	16	5890	6120	125	753	2150	111	888	1050	1030	24	395
MIN	5.2	9.5	70	40	70	96	47	81	49	15	6.4	3.6
CFSM	.06	4.92	3.36	.48	1.65	2.04	.50	1.51	.98	.76	.08	.34
IN.	.07	5.49	3.88	.55	1.71	2.34	.56	1.74	1.09	.87	.10	.38

CAL YR 1985	TOTAL	86520.5	MEAN	237	MAX	6910	MIN	5.2	CFSM	1.71	IN.	23.16
WTR YR 1986	TOTAL	70213.0	MEAN	192	MAX	6120	MIN	3.6	CFSM	1.38	IN.	18.79

03340900 BIG RACCOON CREEK AT FERNDALE, IN

LOCATION.--Lat 39°42'40", long 87°04'15", in SE¼SE¼ sec.28, T.15 N., R.6 W., Parke County, Hydrologic Unit 05120108, on right bank at upstream side of bridge on New Discovery Road, 0.5 mi downstream from Cecil M. Harden Lake, 3.7 mi upstream from Rocky Fork Creek, and at mile 33.3.

DRAINAGE AREA.--217 mi^2.

PERIOD OF RECORD.--October 1956 to current year. Prior to October 1963, published as Raccoon Creek at Ferndale.

REVISED RECORDS.--WSP 2109: Drainage area.

GAGE.--Data-Collection Platform. Datum of gage is 590.00 ft above National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark). Prior to Oct. 1, 1974, water-stage recorder at site 1.7 mi downstream and at datum 7.64 ft lower. Data-Collection Platform installed on June 27, 1986.

REMARKS.--Flow regulated by Cecil M. Harden Lake. Daily discharge computed from relation between discharge, head, and gate openings for Cecil M. Harden Lake beginning Oct. 1, 1974.

COOPERATION.--Records of daily discharge provided by U.S. Army Corps of Engineers beginning Oct. 1, 1976.

AVERAGE DISCHARGE.--30 years, 234 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 40,500 ft^3/s June 28, 1957, gage height, 19.87 ft, from rating curve extended above 5,000 ft^3/s on basis of records for station at Big Raccoon Creek at Mansfield; minimum daily, 2.7 ft^3/s Oct. 11, 1956; no flow, Aug. 23, 24, 1977, July 26, 1986, due to regulation.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1,760 ft^3/s, Dec. 18; no flow, July 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48	477	98	1650	80	231	115	27	209	132	164	17
2	48	475	98	1620	80	231	100	27	321	134	93	17
3	48	473	307	1600	99	231	101	27	189	132	16	28
4	48	470	510	1580	151	184	101	27	116	130	16	49
5	48	467	741	1560	129	156	101	27	116	130	16	48
6	48	464	935	1530	247	156	101	27	117	130	17	48
7	48	462	997	1500	410	157	102	27	117	548	17	48
8	48	459	993	1470	413	157	74	28	118	940	17	48
9	48	456	1160	1440	413	157	51	28	118	685	17	48
10	48	333	1210	1410	637	157	51	28	118	219	17	48
11	47	164	219	1370	764	158	34	28	118	239	17	48
12	47	164	70	1340	754	160	26	28	120	320	50	48
13	47	165	200	1210	744	165	26	28	260	320	68	48
14	48	166	518	801	733	168	26	28	336	320	49	48
15	48	167	869	422	723	170	26	51	336	320	33	48
16	48	104	1270	227	684	170	26	119	335	319	17	48
17	47	73	1670	177	345	171	26	165	335	256	17	48
18	47	74	1760	177	205	173	26	165	334	126	17	48
19	369	79	1750	211	293	181	26	228	333	88	17	48
20	292	87	1740	204	477	274	26	497	397	41	17	48
21	299	90	1730	177	596	398	26	672	784	32	17	66
22	402	90	1710	143	335	399	26	663	894	32	17	88
23	450	91	1700	123	177	399	26	368	795	32	17	99
24	497	91	1680	123	177	399	26	224	352	32	17	99
25	495	91	1670	102	204	375	26	208	82	13	17	123
26	492	92	1650	102	231	362	26	432	82	.00	17	164
27	490	95	1710	71	231	251	26	545	82	11	17	164
28	487	96	1730	53	231	195	26	582	83	16	17	291
29	485	97	1710	53	---	195	26	593	118	16	17	398
30	482	98	1690	53	---	195	26	336	132	16	17	360
31	479	---	1670	69	---	164	---	209	---	16	17	---
TOTAL	6578	6710	35765	22568	10563	6939	1425	6442	7847	5745.00	879	2731
MEAN	212	224	1154	728	377	224	47.5	208	262	185	28.4	91.0
MAX	497	477	1760	1650	764	399	115	672	894	940	164	398
MIN	47	73	70	53	80	156	26	27	82	.00	16	17

CAL YR 1985 TOTAL 115519 MEAN 316 MAX 1760 MIN 14
WTR YR 1986 TOTAL 114192.00 MEAN 313 MAX 1760 MIN .00

03341300 BIG RACCOON CREEK AT COXVILLE, IN

LOCATION.--Lat 39°39'09", long 87°17'37", in SW¼SW¼ sec.15, T.14 N., R.8 W., Parke County, Hydrologic Unit 05120108, on right bank at downstream side of covered bridge on county road at Coxville, 0.8 mi upstream from Rock Run, 1.5 mi downstream from Little Raccoon Creek, 2.1 mi northwest of Rosedale, and at mile 13.1.

DRAINAGE AREA.--448 mi^2.

PERIOD OF RECORD.--October 1956 to current year. Prior to October 1963, published as Raccoon Creek at Coxville.

REVISED RECORDS.--WSP 2109: Drainage area. WDR IN-74-1: 1973.

GAGE.--Water-stage recorder. Datum of gage is 494.00 ft above National Geodetic Vertical Datum of 1929 (Indiana Flood Control and Water Resources Commission bench mark).

REMARKS.--Estimated daily discharges: Sept. 10, 12. Records good. Flow regulated by Cecil M. Harden Lake.

AVERAGE DISCHARGE.--30 years, 500 ft^3/s, 15.17 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 108,000 ft^3/s June 28, 1957, gage height, 21.23 ft, from rating curve extended above 35,000 ft^3/s on basis of an estimate made by slope-area study; minimum daily, 6.5 ft^3/s Oct. 10, 1956.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 11,600 ft^3/s Nov. 20, gage height, 14.54 ft; minimum daily, 58 ft^3/s Sept. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	83	530	888	2000	203	402	365	1250	546	621	263	59
2	80	852	765	1980	225	407	337	621	497	916	228	59
3	80	613	637	1950	227	441	312	426	503	541	136	59
4	80	564	790	1930	1340	455	300	346	354	402	117	58
5	81	546	942	1890	1270	434	315	298	358	331	107	62
6	80	542	1110	1860	782	440	399	264	1300	292	98	65
7	79	523	1250	1800	1000	412	382	298	717	358	103	78
8	77	513	1260	1770	852	370	329	910	748	822	99	81
9	76	516	1310	1730	760	373	276	456	501	1020	89	79
10	76	1370	1790	1700	721	406	258	336	418	530	108	78
11	77	1210	8620	1660	929	555	241	281	392	639	125	78
12	78	730	3980	1620	904	1040	220	254	608	1120	90	79
13	78	896	2060	1560	885	1130	202	237	464	666	83	79
14	107	784	1620	1230	884	881	194	408	539	678	93	82
15	89	761	1600	709	850	687	200	428	511	570	104	81
16	84	2800	1780	515	848	570	195	632	489	492	104	80
17	81	1360	2130	433	767	507	185	411	466	449	92	80
18	79	1680	2280	436	509	597	178	524	451	333	79	81
19	115	6180	2230	422	525	2690	171	593	441	265	74	82
20	380	7700	2210	423	585	1350	194	587	431	212	71	101
21	209	2560	2170	371	771	1030	262	752	626	175	69	114
22	393	1710	2150	354	723	863	214	854	901	158	67	127
23	416	1230	2130	308	430	781	191	653	923	144	65	123
24	494	975	2110	294	412	716	181	443	612	140	64	163
25	503	823	2030	289	411	673	175	487	265	150	63	197
26	507	1770	2010	264	427	628	169	776	230	577	63	170
27	511	3150	2030	247	454	583	162	1650	213	265	63	150
28	511	2780	2100	256	421	461	167	1030	214	287	63	132
29	511	1500	2080	195	---	437	178	1530	213	267	62	331
30	511	1070	2040	187	---	416	255	1060	258	250	61	390
31	511	---	2030	185	---	399	---	650	---	265	60	---
TOTAL	7037	48238	62132	30568	19115	21134	7207	19445	15189	13935	2963	3398
MEAN	227	1608	2004	986	683	682	240	627	506	450	95.6	113
MAX	511	7700	8620	2000	1340	2690	399	1650	1300	1120	263	390
MIN	76	513	637	185	203	370	162	237	213	140	60	58
CFSM	.51	3.59	4.47	2.20	1.52	1.52	.54	1.40	1.13	1.00	.21	.25
IN.	.58	4.01	5.16	2.54	1.59	1.75	.60	1.61	1.26	1.16	.25	.28

CAL YR 1985	TOTAL	296679	MEAN	813	MAX	8620	MIN	70	CFSM	1.81	IN.	24. 63
WTR YR 1986	TOTAL	250361	MEAN	686	MAX	8620	MIN	58	CFSM	1.53	IN.	20. 79

03341500 WABASH RIVER AT TERRE HAUTE, IN

LOCATION.--Lat 39°28'33", long 87°25'07", in NE¼NW¼ sec.21, T.12 N., R.9 W., Vigo County, Hydrologic Unit 05120111, on left bank at Indiana America Water Company, Inc., 1st and Elm Streets in Terre Haute, 3.2 mi upstream from Sugar Creek, and 3.4 mi downstream from Lost Creek.

DRAINAGE AREA.--12,263 mi^2.

PERIOD OF RECORD.--August 1902 to December 1903 (gage height only), February 1905 to July 1906, October 1927 to current year. Gage-height records collected at site 3,300 ft upstream June 1891 to June 1897 and since December 1904 are contained in reports of National Weather Service.

REVISED RECORDS.--WSP 205: 1905. WSP 1335: 1944. WDR IN-73-1: Drainage area. WDR IN-84-1: 1983.

GAGE.--Water-stage recorder. Datum of gage is 442.90 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 17, 1984, water-stage recorder at Wabash Avenue bridge 4,000 ft downstream at datum 2.88 ft lower. See WSP 1725 for history of changes prior to Oct. 27, 1928.

REMARKS.--Estimated daily discharges: Feb. 11, 12, 17-19. Records good. Flow partially regulated by upstream reservoirs.

AVERAGE DISCHARGE.--59 years, 10,920 ft^3/s, 12.09 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 189,000 ft^3/s May 20, 1943, gage height, 30.50 ft; minimum daily, 701 ft^3/s Aug. 3, 1934.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 27, 1913, reached a stage of 31.3 ft (revised), present site and datum, discharge, 245,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 60,400 ft^3/s Dec. 13, gage height, 21.12 ft; minimum daily, 1,850 ft^3/s Sept. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2360	4420	51400	10400	5480	13900	11300	9940	23500	8450	7570	2290
2	2210	4970	48600	10100	7230	12700	10400	15600	17500	14000	6570	2300
3	2280	5320	45300	10100	9400	11600	9960	21900	13300	17800	5720	2320
4	3020	6350	41500	9920	10200	11200	9150	22900	10700	19100	4990	2170
5	3290	6540	37700	9850	17500	11200	8780	21100	8930	17800	4510	2180
6	3310	5920	33400	9410	23500	12400	8740	16800	15000	15800	4120	2030
7	2720	5280	29600	8810	27900	16100	8530	14000	25700	13500	3790	2020
8	2360	4820	26700	8360	28600	20300	8230	19400	32800	10700	3680	1990
9	2300	4710	24700	8090	27500	21300	7680	22500	37200	8970	3430	1950
10	2240	5340	24000	8000	25200	20200	7440	18700	39400	8000	3350	1850
11	2110	7620	35800	8140	21800	17800	7110	13900	39600	7920	3310	1920
12	2070	7560	52600	8180	17700	17700	6810	11400	39000	10900	3200	1940
13	2070	9840	59800	8240	15000	22800	6540	10100	36400	15500	3380	1890
14	2190	13500	58600	8080	13200	26500	6360	10000	30700	18600	3390	2160
15	2290	15600	56700	7630	12300	28800	6290	12900	24300	20700	3140	1970
16	2460	18600	53600	7090	11400	29900	6190	12900	21500	20000	2990	1930
17	2570	22000	49400	6990	11000	30500	6090	12100	21900	16500	2880	2020
18	2580	23300	45100	7140	11000	29500	5970	11500	22500	14700	2800	2070
19	3010	33700	40200	7960	11300	32600	5770	10800	21500	14100	2690	2060
20	3020	47400	34400	9290	13200	35100	5640	11000	19500	13900	2630	2290
21	3650	56800	27700	10700	17800	34500	5800	10900	17300	12600	2530	3270
22	5370	57700	23400	11800	20800	33800	5710	11300	15100	10900	2560	3980
23	6580	56200	21700	12000	21800	33400	5530	10800	13000	8580	2420	3410
24	6080	53700	21100	12000	21800	31700	5260	9610	12200	6880	2360	3770
25	5420	50200	19400	10700	20900	27900	5160	8600	10800	5990	2260	4730
26	4920	46100	16400	9870	19300	23500	5410	8270	9360	6570	2260	4540
27	4660	46800	13900	9160	17300	20500	5900	9620	8090	5720	2180	4290
28	4650	52500	12700	7630	15300	18400	5960	9670	7180	6250	2190	5120
29	4640	54000	11600	5470	---	16800	5750	9610	6870	7890	2290	5260
30	4450	53100	10800	5020	---	14800	6630	17900	7070	7090	2210	5020
31	4310	---	10400	5210	---	12600	---	24700	---	7540	2270	---
TOTAL	105190	779890	1038200	271340	475410	690000	210090	430420	607900	372950	103670	84740
MEAN	3393	26000	33490	8753	16980	22260	7003	13880	20260	12030	3344	2825
MAX	6580	57700	59800	12000	28600	35100	11300	24700	39600	20700	7570	5260
MIN	2070	4420	10400	5020	5480	11200	5160	8270	6870	5720	2180	1850
CFSM	.28	2.12	2.73	.71	1.38	1.81	.57	1.13	1.65	.98	.27	.23
IN.	.32	2.37	3.15	.82	1.44	2.09	.64	1.31	1.84	1.13	.31	.26

CAL YR 1985	TOTAL	5843520	MEAN	16010	MAX	110000	MIN	2070	CFSM	1.31	IN.	17.72
WTR YR 1986	TOTAL	5169800	MEAN	14160	MAX	59800	MIN	1850	CFSM	1.15	IN.	15.68

03342000 WABASH RIVER AT RIVERTON, IN

LOCATION.--Lat 39°01'13", long 87°34'07", in NE¼SW¼ sec.30, T.7 N., R.10 W., Sullivan County, Hydrologic Unit 05120111, on left bank at downstream side of Illinois Central Railroad bridge at Riverton, 0.5 mi downstream from Turtle Creek, and at mile 162.0.

DRAINAGE AREA.--13,161 mi².

PERIOD OF RECORD.--October 1938 to current year. Prior to April 1939 monthly discharge only, published in WSP 1305. June 1911 to December 1914 (gage heights only) available in the U.S. Army Corps of Engineers office, Louisville, Ky.

REVISED RECORDS.--WSP 1335: 1939, 1950. WDR IN-73-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 414.65 ft above National Geodetic Vertical Datum of 1929. Prior to July 17, 1951, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Dec. 18-23, 25-27. Records good. Flow partially regulated by upstream reservoirs.

AVERAGE DISCHARGE.--48 years, 11,990 ft³/s, 12.37 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 201,000 ft³/s May 21, 1943, gage height, 29.36 ft; minimum daily, 858 ft³/s Sept. 27-30, 1941.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 28, 1913, reached a stage of 26.4 ft, from graph based on once-daily readings by Illinois Central Railroad Co., discharge, 250,000 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 58,800 ft³/s Nov. 28, gage height, 20.47 ft; minimum daily, 2,070 ft³/s Oct. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2530	4500	56700	11600	6020	16600	14400	8910	22800	8250	9580	2700
2	2500	4720	55900	11400	6460	15200	13000	11900	22100	10800	8500	2730
3	2410	5230	54200	11200	8620	14000	12100	17700	18400	15900	7400	2730
4	2510	5530	52400	11100	13000	13000	11300	21200	14800	18400	6560	2720
5	3140	6330	49300	10900	17700	12500	10600	22100	12100	19000	5870	2550
6	3350	6400	46000	10600	21100	12700	10300	20700	11700	17900	5420	2520
7	3370	5870	42200	10100	25800	14300	10100	17200	18600	16200	5060	2390
8	2860	5290	38100	9400	27400	17600	9840	16300	23500	13900	4810	2350
9	2430	4900	34100	8930	27700	20400	9370	20500	26400	11500	4610	2320
10	2340	4880	31500	8670	27800	21300	8810	21600	28700	9880	4630	2290
11	2270	7050	32600	8610	26500	20800	8510	18700	31700	9480	4530	2270
12	2150	8330	37000	8730	23400	20200	8140	14900	34100	11700	4250	2320
13	2070	8680	41800	8810	19800	22600	7840	12600	36200	14200	4110	2310
14	2100	11100	47800	8810	16600	24700	7600	11400	37200	17100	4230	2240
15	2180	14400	53400	8590	14800	26300	7390	11900	36200	19400	4190	2440
16	2280	18500	57100	8080	13700	27500	7290	14000	32500	20800	4000	2300
17	2450	21700	57600	7760	13000	28300	7190	14200	27700	19700	3830	2230
18	2580	22700	55000	7890	13000	29400	7030	13400	25000	17100	3700	2430
19	2640	29800	52000	8210	13200	33500	6890	12700	23800	15600	3600	2370
20	3050	38700	49000	9010	13600	35200	7010	12100	22700	15100	3460	2570
21	3140	43700	45000	10300	15700	34900	7700	12000	21000	14600	3330	2840
22	3800	47700	40000	11600	19100	34600	7330	12100	19200	13300	3190	3760
23	5420	52400	36000	12500	21100	34200	6920	12200	17100	11400	3170	4310
24	6280	55900	29800	13100	22000	33800	6620	11600	15100	9290	3000	3920
25	5890	57200	26000	12600	22200	33100	6340	10500	13900	7760	2910	4340
26	5360	57000	22000	11300	21600	31800	6280	9980	12400	7080	2800	5060
27	4940	58200	18700	10400	20700	29000	6570	10600	10800	7580	2780	4940
28	4730	58500	16000	9460	18700	25000	6990	11300	9400	6760	2680	4860
29	4730	57200	14400	7680	---	21400	7050	11400	8410	7520	2670	5540
30	4700	56700	13000	6040	---	18900	6880	12400	8050	8470	2740	5610
31	4540	---	12000	5860	---	16600	---	19500	---	9300	2680	---
TOTAL	104740	779110	1216600	299240	510300	739400	253390	447590	641560	404970	134290	93960
MEAN	3379	25970	39250	9653	18230	23850	8446	14440	21390	13060	4332	3132
MAX	6280	58500	57600	13100	27800	35200	14400	22100	37200	20800	9580	5610
MIN	2070	4500	12000	5860	6020	12500	6280	8910	8050	6760	2670	2230
CFSM	.26	1.97	2.98	.73	1.39	1.81	.64	1.10	1.63	.99	.33	.24
IN.	.30	2.20	3.44	.85	1.44	2.09	.72	1.27	1.81	1.14	.38	.27

CAL YR 1985	TOTAL	6417810	MEAN	17580	MAX	115000	MIN	2070	CFSM	1.34	IN.	18.14
WTR YR 1986	TOTAL	5625150	MEAN	15410	MAX	58500	MIN	2070	CFSM	1.17	IN.	15.90

03342100 BUSSERON CREEK NEAR HYMERA, IN

LOCATION.--Lat 39°12'54", long 87°18'41", in NW¼NW¼ sec.21, T.9 N., R.8 W., Sullivan County, Hydrologic Unit 05120111, on right bank at downstream side of bridge on County Road 900 North, 1.3 mi upstream from East Fork Busseron Creek, 1.9 mi northwest of Hymera, 4.1 mi upstream from West Fork Busseron Creek, and at mile 30.3.

DRAINAGE AREA.--16.7 mi^2.

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

REVISED RECORDS.--WDR IN-72-1: 1971.

GAGE.--Water-stage recorder. Concrete control since Sept. 12, 1969. Datum of gage is 480.00 ft above National Geodetic Vertical Datum of 1929 (U.S. Soil Conservation Service benchmark).

REMARKS.--Estimated daily discharges: Oct. 2 to Nov. 1, Dec. 17-22, 25-27, Jan. 5-7, 13, 25, 26, Jan. 28 to Feb. 1, Mar. 13-17, Mar. 19 to Apr. 22, and July 17, 18. Records poor. Flow affected by U.S. Soil Conservation Service floodwater-retarding structures.

AVERAGE DISCHARGE.--20 years, 19.2 ft^3/s, 15.63 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,890 ft^3/s Sept. 12, 1974, gage height, 18.58 ft; maximum gage height, 19.16 ft July 8, 1982; no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 670 ft^3/s Nov. 19, gage height, 17.89 ft; minimum daily, 0.03 ft^3/s Sept. 7-10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.24	1.0	53	3.6	2.2	17	4.8	1.6	3.9	1.0	.99	.07
2	.19	3.2	35	3.2	5.4	15	6.7	1.1	2.8	11	.39	.07
3	.16	2.1	23	3.4	11	13	5.4	1.1	2.6	11	1.3	.07
4	.14	1.5	17	3.4	122	11	4.5	1.0	2.0	7.4	4.1	.07
5	.12	1.1	14	2.8	127	10	5.2	.95	1.3	4.9	9.4	.05
6	.11	.83	11	2.6	80	9.4	7.8	.91	13	3.8	4.2	.04
7	.10	.59	9.5	2.4	152	8.6	9.0	1.7	15	2.7	1.1	.03
8	.10	.71	7.7	2.7	76	7.8	5.1	9.6	8.9	1.6	.65	.03
9	.13	.57	6.1	2.7	55	7.4	3.8	2.9	5.0	1.0	1.8	.03
10	.11	43	46	2.7	41	10	3.3	1.7	3.2	.77	8.8	.03
11	.10	44	152	2.6	31	21	3.1	1.3	2.4	1.4	5.0	3.6
12	.09	58	129	2.7	23	43	2.9	1.1	2.5	13	2.5	1.5
13	.09	45	66	2.1	19	78	2.8	.94	2.3	15	.84	.58
14	.16	39	47	2.5	16	38	3.1	.99	1.8	12	1.1	.41
15	.91	47	34	2.6	14	25	3.4	.84	1.3	8.5	2.8	.32
16	.42	115	25	2.6	13	17	3.2	.90	.96	6.0	2.6	.23
17	.24	46	17	2.9	16	14	2.7	.69	.69	3.4	.88	.17
18	.19	37	13	3.6	21	16	2.4	7.1	.61	1.5	.23	3.6
19	.21	425	10	4.2	20	108	2.3	6.5	.61	.82	.28	.67
20	1.2	412	9.4	3.9	17	52	6.6	3.0	.53	.66	1.1	11
21	.79	111	8.8	3.7	14	28	48	2.1	.41	.55	.50	3.2
22	.56	60	8.1	3.8	12	21	17	1.5	.33	.51	.24	1.1
23	.45	43	8.0	3.5	11	17	8.3	1.4	.31	1.1	.15	.47
24	.37	31	7.6	3.2	10	13	5.0	3.8	.26	12	.11	.42
25	.32	22	4.3	2.4	11	11	3.5	3.4	1.2	19	.09	.31
26	.28	57	4.6	2.1	18	12	2.5	15	2.3	15	.09	2.2
27	.24	210	4.9	2.6	24	9.1	2.2	50	2.4	13	.10	1.1
28	.21	191	5.5	1.9	21	7.3	3.9	19	2.3	11	.08	.52
29	.20	74	4.8	1.8	---	6.3	3.3	15	1.9	11	.07	.38
30	.22	55	4.5	1.7	---	5.5	2.1	13	1.3	6.1	.07	1.2
31	.28	---	3.8	1.6	---	5.1	---	6.9	---	2.8	.06	---
TOTAL	8.93	2176.60	789.6	87.5	982.6	656.5	183.9	177.02	84.11	199.51	51.62	33.47
MEAN	.29	72.6	25.5	2.82	35.1	21.2	6.13	5.71	2.80	6.44	1.67	1.12
MAX	1.2	425	152	4.2	152	108	48	50	15	19	9.4	11
MIN	.09	.57	3.8	1.6	2.2	5.1	2.1	.69	.26	.51	.06	.03
CFSM	.02	4.35	1.53	.17	2.10	1.27	.37	.34	.17	.39	.10	.07
IN.	.02	4.85	1.76	.19	2.19	1.46	.41	.39	.19	.44	.11	.07

CAL YR 1985	TOTAL	9434.42	MEAN	25.8	MAX	629	MIN	.09	CFSM	1.54	IN.	21.02
WTR YR 1986	TOTAL	5431.36	MEAN	14.9	MAX	425	MIN	.03	CFSM	.89	IN.	12.10

03342150 WEST FORK BUSSERON CREEK NEAR HYMERA, IN

LOCATION.--Lat 39°11'10", long 87°19'44", in NW¼NW¼ sec.32, T.9 N., R.8 W., Sullivan County, Hydrologic Unit 05120111, on right bank at downstream side of bridge on State Highway 48, 1.4 mi upstream from mouth, 1.5 mi west of Hymera, and 3.7 mi east of U.S. Highway 41.

DRAINAGE AREA.--14.4 mi².

PERIOD OF RECORD.--October 1966 to September 1986. (Discontinued)

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 476.00 ft above National Geodetic Vertical Datum of 1929 (Indiana Department of Highways bench mark).

REMARKS.--Estimated daily discharges: Oct. 3 to Nov. 9, Nov. 20 to Dec. 16, Dec. 20 to Jan. 19, Jan. 27 to Feb. 2, Feb. 14-16, Mar. 28 to Apr. 19, Apr. 23 to May 6, May 10-15, June 15, 16, July 22-25, Aug. 11 to Sept. 10, and Sept. 14-19, 22-30. Records fair except those for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--20 years, 13.8 ft³/s, 13.01 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,930 ft³/s July 26, 1973, gage height, 13.23 ft; no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 19	1245	*1,770	*12.87

Minimum daily discharge, 0.05 ft³/s Sept. 8-10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.50	.23	22	.74	1.5	5.9	3.3	3.6	3.5	12	.46	.09
2	.32	4.5	15	.70	5.5	6.0	3.2	3.3	2.9	24	.30	.08
3	.14	1.1	10	.73	22	5.9	3.0	2.9	1.7	2.6	.28	.07
4	.13	.54	8.0	.76	159	5.0	2.9	2.5	1.3	.72	.23	.07
5	.13	.38	6.8	.74	37	4.8	18	2.6	1.8	.51	.19	.06
6	.12	.30	5.8	.72	21	5.8	9.5	2.8	45	.35	.17	.06
7	.11	.25	5.1	.67	25	4.2	4.1	27	11	.28	.16	.06
8	.10	.45	4.6	.64	23	2.7	3.7	40	7.5	.23	.14	.05
9	.13	.45	4.1	.62	14	3.7	3.3	9.7	5.9	.19	.14	.05
10	.11	15	7.7	.61	8.9	25	3.0	4.6	6.5	.27	6.0	.05
11	.12	17	49	.60	6.2	24	2.8	2.0	7.5	37	2.0	2.2
12	.14	40	88	.75	4.8	54	2.6	1.8	7.7	23	.54	1.4
13	.25	22	72	1.0	3.7	46	2.3	1.7	4.4	8.5	.15	.42
14	1.0	24	37	.62	3.2	20	2.5	1.8	3.0	2.7	.11	.27
15	.41	26	18	.56	2.7	11	2.6	3.7	2.0	.94	.09	.19
16	.28	106	10	.50	2.5	7.5	2.6	6.5	1.1	.66	2.3	.13
17	.21	17	6.6	.70	26	6.0	2.3	6.3	.79	.53	1.5	.09
18	.19	18	4.4	1.0	24	53	2.0	21	.73	.45	.50	3.0
19	.18	800	3.1	2.5	20	70	11	11	.56	.36	.27	.70
20	.56	70	2.8	2.0	12	22	106	7.6	.51	.30	.15	9.5
21	.45	35	2.6	1.8	8.1	13	38	5.7	.40	.25	.10	2.0
22	.28	23	2.4	2.5	6.1	10	19	4.5	.40	.21	.08	1.0
23	.26	16	2.2	1.7	5.8	9.0	7.0	3.8	.53	.19	.07	.40
24	.29	12	2.0	1.6	10	7.0	5.5	2.8	.48	.18	.06	.33
25	.29	13	1.7	2.1	16	6.9	5.4	2.1	.41	.16	.06	.23
26	.22	33	1.5	1.9	28	7.0	5.0	62	.34	.27	.07	1.7
27	.20	80	1.2	.78	21	4.8	4.5	24	.32	.22	.12	1.0
28	.19	72	1.1	.68	8.4	4.2	10	11	.29	.75	.08	.46
29	.18	25	.97	.62	---	3.7	6.4	16	.31	.34	.07	.30
30	.18	18	.90	.57	---	3.3	3.8	8.6	2.3	.22	.07	.82
31	.18	---	.81	.53	---	3.0	---	5.4	---	2.6	.06	---
TOTAL	7.85	1490.20	397.38	31.94	525.4	454.4	295.3	308.3	121.17	120.98	16.52	26.78
MEAN	.25	49.7	12.8	1.03	18.8	14.7	9.84	9.95	4.04	3.90	.53	.89
MAX	1.0	800	88	2.5	159	70	106	62	45	37	6.0	9.5
MIN	.10	.23	.81	.50	1.5	2.7	2.0	1.7	.29	.16	.06	.05
CFSM	.02	3.45	.89	.07	1.31	1.02	.68	.69	.28	.27	.04	.06
IN.	.02	3.85	1.03	.08	1.36	1.17	.76	.80	.31	.31	.04	.07

CAL YR 1985	TOTAL	5617.56	MEAN	15.4	MAX	800	MIN	.01	CFSM	1.07	IN.	14.51
WTR YR 1986	TOTAL	3796.22	MEAN	10.4	MAX	800	MIN	.05	CFSM	.72	IN.	9.81

03342244 MUD CREEK NEAR CASS, IN

LOCATION.--Lat 39°05'55", long 87°15'46", in NE¼NE¼ sec.35, T.8 N., R.8 W., Sullivan County, Hydrologic Unit 05120111, on left upstream wingwall of bridge on County Road 100 North, 1.0 mi northeast of Cass, and 2.9 mi above mouth.

DRAINAGE AREA.--9.16 mi^2.

PERIOD OF RECORD.--October 1981 to current year.

GAGE.--Water-stage recorder. Datum of gage is 474.73 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Nov. 14 to Dec. 18, Dec. 20-24, Jan. 6-11, 14-16, 25-31, Feb. 13-16, 23-24, Apr. 10-19, May 21-24, June 4, 5, July 5-9, 19-23, 27, 28, Aug. 12-14, 18-25, 29-31, and Sept. 1. Records poor. Flow affected by surface-mined areas.

AVERAGE DISCHARGE.--5 years, 15.6 ft^3/s, 23.13 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge recorded, 458 ft^3/s May 29, 1986, gage height, 10.9 ft but may have been greater during period of no gage-height record Nov. 14 to Dec. 18, 1985; minimum daily, 0.64 ft^3/s Sept. 22, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum discharge recorded, 458 ft^3/s May 29, gage height, 10.9 ft but may have been greater during period of no gage-height record Nov. 14 to Dec. 18; minimum daily, 1.2 ft^3/s Aug. 31, Sept. 7-10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	80	58	7.0	30	8.5	9.7	6.9	24	16	2.5	1.3
2	1.8	43	38	7.7	30	9.0	10	5.9	20	13	2.2	1.6
3	1.7	9.0	26	8.0	38	8.9	9.6	5.6	18	6.9	2.1	1.5
4	1.7	5.0	23	7.9	125	8.3	8.7	5.7	17	6.0	2.0	1.4
5	1.6	3.5	19	7.0	51	8.1	9.9	6.3	16	5.6	2.0	1.7
6	1.3	2.9	16	6.3	53	8.6	8.8	5.9	37	5.3	2.5	1.4
7	1.3	2.9	14	5.5	63	7.7	7.8	5.5	42	5.2	2.6	1.2
8	1.3	2.4	13	5.4	24	7.1	7.1	6.0	38	5.0	2.4	1.2
9	1.3	11	30	5.3	14	8.0	6.5	5.1	27	5.0	2.2	1.2
10	1.4	33	100	5.2	11	58	6.0	4.7	29	7.0	4.7	1.2
11	1.6	48	170	6.0	9.2	34	5.6	4.8	42	21	2.5	25
12	2.6	82	140	6.8	7.8	100	5.4	5.1	47	24	2.0	7.0
13	3.0	42	86	6.3	7.6	40	5.3	7.8	23	12	1.6	2.9
14	8.6	25	53	5.5	7.3	24	5.5	9.2	14	6.7	1.5	2.4
15	5.0	80	35	5.1	6.9	16	6.0	45	9.8	6.1	2.1	2.4
16	2.6	58	19	6.0	6.8	13	5.7	39	8.3	5.6	2.8	2.5
17	2.3	35	12	8.4	33	11	4.9	14	7.9	5.3	2.5	2.6
18	2.3	100	10	11	24	89	4.7	39	6.6	5.0	2.3	4.4
19	14	400	9.6	11	17	90	4.5	21	6.3	4.9	2.0	21
20	25	350	9.4	8.4	13	29	112	12	6.2	4.7	1.7	25
21	7.0	230	9.2	8.7	11	19	44	10	6.2	4.5	1.6	4.8
22	4.5	150	8.9	8.5	9.8	16	20	9.1	8.8	4.4	1.5	3.6
23	3.9	90	8.7	7.1	9.1	15	12	8.3	7.2	4.3	1.4	3.3
24	3.6	56	8.5	6.8	8.8	14	9.9	7.6	5.9	5.5	1.3	3.9
25	2.9	74	8.3	6.4	11	12	9.7	11	5.6	6.2	3.1	3.5
26	2.6	170	8.2	6.1	14	11	8.9	76	5.6	7.1	3.5	3.5
27	2.6	200	8.0	5.9	13	11	8.2	43	5.6	5.7	2.4	9.8
28	2.6	180	7.8	5.7	9.8	10	9.1	21	5.6	4.0	1.9	3.6
29	2.6	120	7.3	5.6	---	9.7	7.6	219	5.6	2.4	1.6	2.9
30	3.6	74	7.1	5.4	---	9.3	6.5	43	19	2.0	1.3	16
31	3.7	---	7.8	5.2	---	8.8	---	28	---	5.9	1.2	---
TOTAL	122.2	2756.7	970.8	211.2	658.1	714.0	379.6	730.5	514.2	222.3	67.0	163.8
MEAN	3.94	91.9	31.3	6.81	23.5	23.0	12.7	23.6	17.1	7.17	2.16	5.46
MAX	25	400	170	11	125	100	112	219	47	24	4.7	25
MIN	1.3	2.4	7.1	5.1	6.8	7.1	4.5	4.7	5.6	2.0	1.2	1.2
CFSM	.43	10.0	3.42	.74	2.57	2.51	1.39	2.58	1.87	.78	.24	.60
IN.	.50	11.20	3.94	.86	2.67	2.90	1.54	2.97	2.09	.90	.27	.67

CAL YR 1985	TOTAL	7990.87	MEAN	21.9	MAX	400	MIN	.64	CFSM	2.39	IN.	32.45
WTR YR 1986	TOTAL	7510.4	MEAN	20.6	MAX	400	MIN	1.2	CFSM	2.25	IN.	30.50

03342300 BUSSERON CREEK NEAR SULLIVAN, IN

LOCATION.--Lat 39°04'33", long 87°23'11", in SE¼NW¼ sec.2, T.7 N., R.9 W., Sullivan County, Hydrologic Unit 05120111, on left bank at upstream side of bridge on State Highway 54, 1.5 mi southeast of Sullivan, 1.6 mi east of intersection of U.S. Highway 41 and State Highway 54, 1.7 mi upstream from Buttermilk Creek, and at mile 16.7.

DRAINAGE AREA.--138 mi^2.

PERIOD OF RECORD.--June 1966 to September 1986. (Discontinued)

REVISED RECORDS.--WDR IN-72-1: 1971.

GAGE.--Water-stage recorder. Datum of gage is 440.00 ft above National Geodetic Vertical Datum of 1929 (Indiana Department of Highways bench mark).

REMARKS.--Estimated daily discharges: Dec. 19-22, Dec. 25 to Jan. 2, Jan. 6-15, Jan. 27 to Feb. 2, and Feb. 12-16. Records good except those for estimated daily discharges, which are fair. Flow affected by surface-mined areas and U.S. Soil Conservation Service floodwater-retarding structures.

AVERAGE DISCHARGE.--20 years, 154 ft^3/s, 15.13 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,050 ft^3/s July 29, 1979, gage height, 16.28 ft; minimum daily, 0.9 ft^3/s Sept. 8, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,810 ft^3/s Nov. 20, gage height, 15.43 ft; minimum daily, 2.9 ft^3/s Sept. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	32	611	49	36	112	80	74	124	153	39	4.3
2	8.6	316	483	52	62	102	87	66	100	184	24	4.4
3	7.8	116	304	54	117	97	79	62	77	91	19	4.6
4	7.1	68	217	52	947	88	74	55	68	53	16	4.4
5	7.2	79	188	51	1360	81	80	46	70	39	17	4.1
6	6.5	94	163	45	807	81	88	42	248	31	20	4.1
7	5.9	85	139	39	1160	78	75	41	242	27	20	3.8
8	5.9	71	127	35	949	65	67	114	173	24	16	4.3
9	6.4	52	113	33	476	63	61	60	116	21	13	3.3
10	5.9	84	220	34	320	117	56	42	94	21	18	2.9
11	6.2	452	961	35	254	455	52	38	104	26	36	13
12	6.4	488	1630	37	162	611	50	38	179	274	19	39
13	7.3	493	1300	36	126	978	48	37	111	165	13	14
14	13	298	649	34	118	485	46	44	75	104	10	8.0
15	24	292	394	33	106	294	46	59	60	72	9.2	6.1
16	15	757	293	35	100	216	44	148	52	53	18	5.6
17	11	520	207	39	161	173	40	56	45	41	22	4.9
18	9.5	276	154	46	287	212	37	135	36	34	16	7.3
19	14	1050	142	59	243	1430	35	154	33	28	10	42
20	54	3760	130	52	182	1760	385	83	32	24	8.0	82
21	40	3290	122	47	149	869	870	61	30	21	7.3	70
22	29	1820	112	47	123	448	320	51	27	30	6.5	35
23	18	1100	104	42	110	305	188	44	26	30	6.1	23
24	15	700	100	39	127	232	141	41	22	24	5.5	19
25	13	467	66	40	145	186	117	42	21	26	4.9	16
26	11	640	76	42	175	156	100	183	21	30	4.9	15
27	10	1490	72	26	218	137	83	432	22	25	7.0	53
28	9.7	1890	67	28	146	116	82	177	21	25	6.1	37
29	9.4	1640	62	26	---	103	97	621	21	23	5.1	24
30	10	931	53	25	---	92	79	392	32	27	4.6	27
31	12	---	51	25	---	84	---	176	---	81	4.4	---
TOTAL	408.8	23351	9310	1237	9166	10226	3607	3614	2282	1807	425.6	581.1
MEAN	13.2	778	300	39.9	327	330	120	117	76.1	58.3	13.7	19.4
MAX	54	3760	1630	59	1360	1760	870	621	248	274	39	82
MIN	5.9	32	51	25	36	63	35	37	21	21	4.4	2.9
CFSM	.10	5.64	2.17	.29	2.37	2.39	.87	.85	.55	.42	.10	.14
IN.	.11	6.29	2.51	.33	2.47	2.76	.97	.97	.62	.49	.11	.16

CAL YR 1985 TOTAL 93200.8 MEAN 255 MAX 3760 MIN 5.9 CFSM 1.85 IN. 25.12
WTR YR 1986 TOTAL 66015.5 MEAN 181 MAX 3760 MIN 2.9 CFSM 1.31 IN. 17.80

03342500 BUSSERON CREEK NEAR CARLISLE, IN

LOCATION.--Lat 38°58'26", long 87°25'33", in NW¼ survey 17, Vincennes Tract, Sullivan County, Hydrologic Unit 05120111, on left bank 10 ft downstream from bridge on State Highway 58, 1.5 mi northwest of Carlisle, and 7.2 mi upstream from mouth.

DRAINAGE AREA.--228 mi^2.

PERIOD OF RECORD.--October 1943 to current year.

REVISED RECORDS.--WSP 1335: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 425.36 ft above National Geodetic Vertical Datum of 1929 (Indiana Department of Highways bench mark). Prior to Nov. 8, 1950, nonrecording gage at same site and datum. Nov. 8, 1950, to Oct. 31, 1969, at site 200 ft upstream at same datum.

REMARKS.--Estimated daily discharges: Dec. 19 to Jan. 10, Jan. 28 to Feb. 1, Feb. 13-16, 24, 25, Apr. 8 to May 8, and July 24-31. Records good except those for estimated daily discharges, which are fair. Flow affected by U.S. Soil Conservation Service floodwater-retarding structures and surface-mined areas.

AVERAGE DISCHARGE.--43 years, 232 ft^3/s, 13.82 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,800 ft^3/s Jan. 5, 1950, gage height, 20.05 ft; maximum gage height, 20.30 ft May 9, 1961; no flow many days in 1954.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,200 ft^3/s and maximum(*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 22	0200	*3,900	*16.54	Mar. 19	0800	2,250	13.83
Nov. 28	1100	2,340	14.11				

Minimum daily discharge, 3.9 ft^3/s Sept. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	58	1360	74	42	167	108	105	227	142	194	6.0
2	13	448	910	70	186	154	116	92	169	219	68	7.0
3	12	230	535	65	194	146	108	85	122	143	45	9.0
4	12	118	324	62	1100	129	98	77	115	71	33	6.9
5	11	96	279	59	1320	117	106	68	146	51	29	6.0
6	12	125	244	56	1300	117	119	62	420	40	30	5.7
7	11	109	211	53	1420	110	104	58	422	34	30	5.7
8	10	99	192	51	1280	89	94	180	299	30	23	5.5
9	10	79	174	49	963	87	83	105	187	30	19	7.4
10	12	140	293	48	508	242	76	65	143	28	31	3.9
11	11	545	1320	52	307	723	71	57	145	33	51	65
12	10	764	1770	57	234	1030	68	55	309	258	31	127
13	11	811	1630	52	195	1210	66	84	187	254	21	27
14	17	581	1430	50	170	1000	64	225	116	145	16	15
15	29	515	870	49	160	587	65	275	90	93	14	10
16	25	1070	503	50	150	371	65	688	75	69	38	8.4
17	18	944	341	58	230	282	63	187	63	58	36	7.8
18	17	574	275	69	378	416	60	462	52	50	24	9.2
19	45	1730	210	92	343	2050	52	399	46	42	17	122
20	143	3120	170	82	264	1780	200	203	41	37	13	334
21	83	3520	160	72	218	1760	1000	134	37	33	12	145
22	50	3710	140	76	186	1180	900	102	33	34	9.9	66
23	35	2850	130	67	166	607	600	86	34	41	9.3	38
24	27	1840	120	60	180	384	280	74	33	32	8.7	27
25	21	1050	110	60	200	291	175	70	28	34	7.4	22
26	19	925	94	62	221	239	145	629	26	40	7.4	17
27	16	1760	87	40	270	202	115	823	27	33	11	73
28	15	2260	84	35	210	172	115	420	26	34	11	66
29	15	2140	82	33	---	151	135	829	25	30	8.8	30
30	15	1910	78	31	---	132	115	862	25	34	7.7	30
31	17	---	77	29	---	119	---	401	---	592	6.7	---
TOTAL	756	34121	14203	1763	12395	16044	5366	7962	3668	2764	862.9	1302.5
MEAN	24.4	1137	458	56.9	443	518	179	257	122	89.2	27.8	43.4
MAX	143	3710	1770	92	1420	2050	1000	862	422	592	194	334
MIN	10	58	77	29	42	87	52	55	25	28	6.7	3.9
CFSM	.11	4.99	2.01	.25	1.94	2.27	.79	1.13	.54	.39	.12	.19
IN.	.12	5.57	2.32	.29	2.02	2.62	.88	1.30	.60	.45	.14	.21

CAL YR 1985	TOTAL	146868	MEAN	402	MAX	3710	MIN	10	CFSM	1.76	IN.	23.96
WTR YR 1986	TOTAL	101207.4	MEAN	277	MAX	3710	MIN	3.9	CFSM	1.21	IN.	16.51

03343000 WABASH RIVER AT VINCENNES, IN

LOCATION.--Lat 38°42'19", long 87°31'14", T.3 N., R.10 W., Lawrence County, IL, Hydrologic Unit 05120111, on right bank 30 ft east of Illinois State Highway 33, 300 ft upstream from Kelso Creek, 570 ft downstream from U.S. Highway 50 bridge, 5.1 mi downstream from Maria Creek, 7.5 mi upstream from Embarras River and at mile 129.6.

DRAINAGE AREA.--13,706 mi^2.

PERIOD OF RECORD.--October 1929 to current year. Prior to December 1929 monthly discharge only, published in WSP 1305. Gage-height records for flood peaks in 1867 and 1883, intermittent records 1887-1904, and continuous since November 1904, collected at site 1.8 mi downstream, are contained in reports of National Weather Service.

REVISED RECORDS.--WSP 1173: 1943 (maximum gage height only). WSP 1335: 1930-31, 1933, 1936. WSP 1909: 1955. WDR IN-73-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 394.43 ft above National Geodetic Vertical Datum of 1929. Oct. 1, 1968, to June 19, 1979, recording gage at site 570 ft upstream at same datum. Oct. 1, 1960, to September 30, 1968, nonrecording gage at site 1.8 mi downstream at same datum. Oct. 1, 1960, to Sept. 30, 1968, auxiliary water-stage recorder at site 2.8 mi upstream from base gage at datum 0.80 ft lower. See WSP 1725 for history of changes prior to Oct. 1, 1960.

REMARKS.--No estimated daily discharges. Records good. Flow partially regulated by upstream reservoirs.

AVERAGE DISCHARGE.--57 years, 12,130 ft^3/s, 12.02 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 189,000 ft^3/s May 22, 23, 1943, gage height, 29.33 ft, at former site 1.8 mi downstream and at present datum; minimum daily, 770 ft^3/s Aug. 4, 5, 1934.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 29, 1913, reached a stage of 26.3 ft, at former site 1.8 mi downstream and at present datum, from floodmarks, determined by U.S. Army Corps of Engineers, discharge, 255,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 57,300 ft^3/s Nov. 28, gage height, 22.57 ft; minimum daily, 2,350 ft^3/s Sept. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2570	5500	54600	12600	6280	19000	16600	7870	21600	8700	11200	2800
2	2560	6570	54200	12300	7150	17000	14700	10800	23200	10900	9630	2860
3	2520	5950	52900	12100	8080	15600	13500	14900	21100	14300	8450	2880
4	2450	5980	51200	11800	14000	14400	12600	19700	17300	17600	7320	2910
5	2790	6390	49000	11600	19700	13500	11800	21600	14300	19000	6500	2830
6	3380	6910	46200	11300	22700	13200	11300	21700	12300	18800	5870	2720
7	3610	6660	42900	10900	26400	13900	11000	19200	16600	17500	5440	2680
8	3510	6120	39700	10200	28700	16300	10800	16600	22000	15700	5080	2590
9	2990	5630	36700	9620	29400	19400	10400	18700	24900	13400	4830	2570
10	2760	5480	34400	9230	29000	21400	9720	21300	26700	11400	4770	2560
11	2700	6390	34500	9080	28000	22700	9260	20500	27800	10400	4860	2700
12	2620	9800	36500	9170	26300	22800	8920	17100	29400	12000	4510	3390
13	2560	10400	38000	9240	23200	25000	8530	14100	30800	15600	4270	2720
14	2700	11400	40700	9250	19400	26100	8240	12600	32100	17800	4220	2590
15	2570	14500	45300	9100	16600	26800	7980	12500	32700	19900	4300	2630
16	2550	20000	50400	8750	15100	27200	7640	16100	32400	20900	4330	2660
17	2690	23300	53300	8350	14300	27400	7450	15500	30400	21000	4050	2350
18	2800	24700	51400	8300	14500	28100	7320	15000	27400	19100	3870	2440
19	3790	27600	50200	8570	14600	32600	7170	14500	25500	17000	3730	2940
20	5790	34100	49800	9010	14600	35000	7810	13200	24300	15900	3600	3170
21	4140	39200	47000	10000	15400	36200	9630	12700	22500	15400	3470	3250
22	3860	45500	42800	11400	18100	36500	9140	12500	20300	14500	3340	3220
23	4820	50600	38900	12300	20500	35900	8080	12700	18100	13000	3280	4190
24	6230	53600	34700	13100	21900	34200	7390	12400	16000	11000	3200	4210
25	6370	54600	30500	13200	22700	33000	6970	11500	14600	9050	3070	3950
26	5890	55100	27500	12200	22700	32100	6710	12600	13300	7820	3030	4730
27	5450	56300	22900	11100	22300	30900	6720	13000	11800	7800	3030	5090
28	5080	57000	19100	10200	21200	28700	7170	12500	10400	7800	2910	4950
29	4950	55900	16700	8940	---	25500	7500	13400	9240	7290	2790	5160
30	5050	54900	15000	7000	---	22200	7260	13400	8580	8560	2830	5710
31	4930	---	13500	6120	---	19300	---	17100	---	9880	2840	---
TOTAL	116680	766080	1220500	316030	542810	771900	279310	467270	637620	429000	144620	99450
MEAN	3764	25540	39370	10190	19390	24900	9310	15070	21250	13840	4665	3315
MAX	6370	57000	54600	13200	29400	36500	16600	21700	32700	21000	11200	5710
MIN	2450	5480	13500	6120	6280	13200	6710	7870	8580	7290	2790	2350
CFSM	.27	1.86	2.87	.74	1.41	1.82	.68	1.10	1.55	1.01	.34	.24
IN.	.32	2.08	3.31	.86	1.47	2.10	.76	1.27	1.73	1.16	.39	.27

CAL YR 1985	TOTAL	6571330	MEAN	18000	MAX	100000	MIN	2450	CFSM	1.31	IN.	17.84
WTR YR 1986	TOTAL	5791270	MEAN	15870	MAX	57000	MIN	2350	CFSM	1.16	IN.	15.72

03345500 EMBARRAS RIVER AT STE. MARIE, IL

LOCATION.--Lat 38°56'10", long 88°01'10", in NW¼NW¼ sec.30, T.6 N., R.14 W., Jasper County, Hydrologic Unit 05120112, on right bank at upstream side of highway bridge at Ste. Marie and at mile 48.2.

DRAINAGE AREA.--1,516 mi².

PERIOD OF RECORD.--October 1909 to December 1912, August 1914 to current year.

REVISED RECORDS.--WSP 1083: 1934. WSP 1113: 1910-31, 1933, 1939-40, 1945(M). WDR IL-75-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 445.75 ft above National Geodetic Vertical Datum of 1929. (levels by U.S. Army Corps of Engineers). Prior to June 29, 1940, nonrecording gage and June 29, 1940, to Jan. 24, 1967, water-stage recorder at same site at datum 1.00 ft higher.

REMARKS.--Estimated daily discharges: Dec. 22 to Jan. 7, Jan. 29 to Feb. 2, and Aug. 21 to Sept. 7. Records good except those for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--75 years, 1,237 ft³/s, 11.08 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 44,800 ft³/s Jan. 4, 1950, gage height, 25.95 ft, present datum, from rating curve extended above 29,000 ft³/s; maximum gage height, 26.54 ft, present datum, June 30, 1957; minimum discharge, 1 ft³/s Oct. 5-9, 1914.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 6,500 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 21	0945	*19,100	*22.23	Dec. 13	1615	15,900	21.29
Nov. 29	0830	12,100	20.03	Mar. 19	2215	6,610	16.21

Minimum daily discharge, 44 ft³/s Sept. 9-11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	63	73	7630	460	200	1220	752	315	1560	254	720	56
2	61	133	6900	430	250	1050	731	382	1910	577	975	54
3	58	239	6160	410	393	957	716	711	2050	459	473	52
4	55	433	4130	390	2510	921	678	838	1750	431	355	50
5	54	342	2930	370	5260	995	675	710	1250	437	268	49
6	54	324	2340	360	3920	1150	666	580	907	362	214	48
7	53	287	1950	350	3450	1330	630	515	871	280	183	47
8	51	242	1670	346	3290	1440	652	481	1710	229	161	46
9	49	212	1510	367	2590	1450	560	433	2030	194	182	45
10	48	199	2030	403	2170	1390	516	400	2080	176	199	45
11	47	696	5560	403	1760	1290	512	375	1770	232	573	54
12	46	1580	8400	402	1460	1780	482	350	1790	999	213	64
13	48	1070	14000	409	1160	2900	467	336	2120	3300	142	56
14	51	1530	12400	391	958	2820	459	922	1590	2920	120	50
15	48	2180	10500	380	854	2250	453	896	1170	1420	107	47
16	87	4260	9910	371	909	1910	448	701	910	1050	110	48
17	102	5600	8880	390	985	1760	446	780	756	739	110	47
18	77	4660	6340	411	1260	1990	434	822	653	562	101	65
19	68	8350	2850	459	1330	5880	414	752	571	456	94	66
20	63	16500	1980	491	1230	5670	524	652	503	372	88	119
21	59	18400	1580	495	1100	3010	551	577	460	310	82	264
22	56	13900	1300	478	1080	1980	465	535	422	265	78	169
23	54	9880	1100	441	1040	1640	421	474	385	233	76	153
24	54	8190	950	401	1100	1410	395	423	379	208	72	106
25	53	7910	850	369	1110	1260	370	460	346	186	68	81
26	53	7660	800	353	1140	1130	345	515	329	168	66	68
27	54	8160	700	276	1620	1030	327	379	292	152	64	65
28	53	9900	650	243	1700	959	337	356	259	154	62	71
29	55	11700	600	230	---	886	338	382	238	143	60	62
30	54	9890	550	220	---	827	327	651	242	190	58	56
31	54	---	500	210	---	786	---	1220	---	175	56	---
TOTAL	1782	154500	127650	11709	45829	55071	15091	17923	31303	17633	6130	2203
MEAN	57.5	5150	4118	378	1637	1776	503	578	1043	569	198	73.4
MAX	102	18400	14000	495	5260	5880	752	1220	2120	3300	975	264
MIN	46	73	500	210	200	786	327	315	238	143	56	45
CFSM	.04	3.40	2.72	.25	1.08	1.17	.33	.38	.69	.38	.13	.05
IN.	.04	3.79	3.13	.29	1.12	1.35	.37	.44	.77	.43	.15	.05

CAL YR 1985 TOTAL 775735 MEAN 2125 MAX 26700 MIN 46 CFSM 1.40 IN. 19.04
WTR YR 1986 TOTAL 486824 MEAN 1334 MAX 18400 MIN 45 CFSM .88 IN. 11.95

03346000 NORTH FORK EMBARRAS RIVER NEAR OBLONG, IL

LOCATION.--Lat 39°00'37", long 87°56'47", in NW¼NW¼ sec.35, T.7 N., R.14 W., Crawford County, Hydrologic Unit 05120112, on left bank at downstream side of bridge on State Highway 33, 0.8 mi upstream from Illinois Central Gulf Railroad bridge, 2 mi west of Oblong, and at mile 10.5.

DRAINAGE AREA.--318 mi².

PERIOD OF RECORD.--October 1940 to current year.

GAGE.--Water-stage recorder. Datum of gage is 456.19 ft above National Geodetic Vertical Datum of 1929. Prior to Dec. 11, 1940, nonrecording gage and Dec. 11, 1940, to Sept. 30, 1964, water-stage recorder at same site at datum 2.00 ft higher. Oct. 8, 1971, to May 15, 1979, water-stage recorder at site 0.8 mi downstream at present datum.

REMARKS.--Estimated daily discharges: Oct. 23-30, Dec. 20 to Jan. 9, Jan. 26 to Feb. 1, Feb. 13-17, May 24-27, and May 29 to June 23. Records good except those for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--46 years, 263 ft³/s, 11.23 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,100 ft³/s Jan. 4, 1950, gage height, 24.38 ft, present datum, from rating curve extended above 16,000 ft³/s; no flow for many days in 1953-54, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 20	0015	*16,300	*21.77	Dec. 12	1930	8,130	19.39
Nov. 28	1900	5,200	18.19	Mar. 19	2345	4,250	17.60

Minimum daily discharge, 0.91 ft³/s Oct. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.2	9.2	534	45	25	214	72	38	70	11	1070	3.1
2	2.9	58	548	43	41	133	72	38	50	144	353	3.0
3	2.9	56	318	42	100	123	80	36	40	103	78	2.9
4	2.7	44	170	41	1230	120	71	29	30	27	32	2.9
5	2.7	16	142	40	2610	104	80	26	25	15	21	2.9
6	2.3	8.8	124	39	1840	101	107	25	30	11	16	2.8
7	2.3	6.0	104	38	1350	107	89	33	40	9.5	14	2.5
8	2.1	4.5	91	37	1150	80	80	42	100	8.3	62	2.3
9	1.7	3.2	89	36	412	62	71	36	800	7.3	29	2.3
10	1.6	4.2	526	35	246	68	57	25	760	6.9	80	2.1
11	1.8	257	2440	35	137	90	52	22	250	121	460	2.9
12	1.2	436	6420	36	96	551	47	20	56	969	71	3.0
13	.91	350	4690	34	75	1500	43	21	44	1590	18	3.3
14	1.4	346	1150	35	60	1030	40	123	37	1020	13	3.8
15	1.6	414	395	33	50	670	39	68	32	158	10	4.2
16	1.9	1340	317	34	50	304	39	41	28	56	9.7	3.1
17	1.7	2290	255	36	120	198	38	32	25	36	11	2.8
18	1.0	2020	184	58	382	418	37	29	23	28	11	12
19	1.2	7500	140	93	418	3080	35	24	20	23	8.9	28
20	1.9	13200	110	95	363	3350	70	22	18	19	7.5	45
21	2.4	6930	94	75	261	871	207	21	16	16	6.8	171
22	2.6	2640	82	62	191	309	114	19	14	14	6.4	29
23	2.3	596	74	58	126	236	63	19	13	11	5.9	12
24	2.0	322	66	50	156	193	46	18	12	12	5.2	8.0
25	1.7	224	62	44	200	157	40	30	11	11	5.0	5.6
26	1.5	467	58	35	362	133	37	25	9.6	10	4.3	4.3
27	1.3	2700	54	30	863	117	34	24	8.9	10	4.2	4.2
28	1.2	4880	52	27	582	104	36	200	8.4	10	3.8	3.6
29	1.1	4020	50	24	---	93	53	500	8.0	12	3.8	3.2
30	1.0	1580	47	22	---	85	55	200	7.7	11	3.4	3.1
31	.97	---	46	20	---	78	---	100	---	57	3.2	---
TOTAL	57.08	52721.9	19432	1332	13496	14679	1904	1886	2586.6	4537.0	2427.1	378.9
MEAN	1.84	1757	627	43.0	482	474	63.5	60.8	86.2	146	78.3	12.6
MAX	3.2	13200	6420	95	2610	3350	207	500	800	1590	1070	171
MIN	.91	3.2	46	20	25	62	34	18	7.7	6.9	3.2	2.1
CFSM	.01	5.53	1.97	.14	1.52	1.49	.20	.19	.27	.46	.25	.04
IN.	.01	6.17	2.27	.16	1.58	1.72	.22	.22	.30	.53	.28	.04

CAL YR 1985	TOTAL	187288.68	MEAN	513	MAX	13200	MIN	.91	CFSM	1.61	IN.	21.91
WTR YR 1986	TOTAL	115437.58	MEAN	316	MAX	13200	MIN	.91	CFSM	.99	IN.	13.50

03347000 WHITE RIVER AT MUNCIE, IN

LOCATION.--Lat 40°12'15", long 85°23'14", in SE¼NW¼ Hackley Reserve, Delaware County, Hydrologic Unit 05120201, on right bank 200 ft downstream from Walnut Street bridge in Muncie, 6 mi upstream from Bell Creek, and at mile 315.8.

DRAINAGE AREA.--241 mi^2.

PERIOD OF RECORD.--November 1930 to current year. Prior to October 1948, published as West Fork White River at Muncie. Daily gage heights from July 1923 to December 1929 are available in the district office.

REVISED RECORDS.--WSP 1335: 1931-32(M), 1936(M), 1938, 1948. WSP 1435: 1955. WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 917.10 ft above National Geodetic Vertical Datum of 1929 (city of Muncie bench mark). See WSP 1705 for history of changes prior to Jan. 28, 1942. Jan. 28, 1942, to Apr. 27, 1964, water-stage recorder at present site at datum 3.00 ft higher.

REMARKS.--Estimated daily discharges: Nov. 12, Dec. 1-3, 16-31, Jan. 1-4, 6-16, 26-31, and Feb. 12-16. Records good except those for periods of ice effect, Dec. 1-3, 16-31, Jan. 1-4, 6-16, and Feb. 12-16, which are fair. Natural flow affected by regulation of Prairie Creek Reservoir and by diversion of municipal water supply by Muncie Water Works Co. above gage. Records of diversion available since October 1937.

AVERAGE DISCHARGE.--55 years (1931 to current year), 210 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,300 ft^3/s Apr. 21, 1964, gage height, 14.98 ft present datum; maximum gage height, 21.07 ft Jan. 15, 1937, present datum; minimum daily discharge, 1.1 ft^3/s Sept. 16, 17, 23-25, 1954, and Oct. 10, 1956.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 22.6 ft in March 1913, present datum, discharge, 20,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,500 ft^3/s and maximum(*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 27	1800	2,630	8.26	Apr. 21	1700	3,160	8.22
Dec. 12	1000	*4,970	*10.99	June 7	2100	2,610	7.71
Mar. 19	2000	2,640	7.74	July 2	1500	2,520	7.63

Minimum daily discharge, 25 ft^3/s Aug. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	34	546	140	132	174	126	472	103	1120	45	32
2	30	34	440	128	265	168	125	361	88	2290	41	30
3	30	36	365	118	335	162	118	260	77	1260	39	30
4	29	34	263	105	1470	158	116	211	72	523	35	31
5	29	33	220	102	1990	227	114	185	93	340	34	29
6	29	34	191	91	1150	478	236	175	665	253	33	29
7	28	34	161	81	1000	428	236	397	2280	192	34	29
8	27	34	146	72	826	275	163	1980	1400	154	33	28
9	26	26	138	75	566	228	133	900	561	133	32	28
10	26	64	189	80	415	262	120	470	371	119	47	27
11	27	302	2450	81	320	583	111	337	337	538	44	32
12	34	333	4230	81	285	606	108	264	755	1650	38	38
13	33	346	2230	84	260	1530	101	221	433	686	32	50
14	35	684	855	80	230	1020	99	254	283	376	30	37
15	30	432	576	78	212	557	116	240	224	273	28	33
16	32	385	440	74	192	374	117	535	190	206	32	44
17	32	510	375	87	247	292	110	580	434	154	30	44
18	33	302	330	287	991	307	107	429	267	123	26	96
19	36	375	280	809	1030	2260	103	410	173	110	27	173
20	38	798	260	693	645	1620	515	305	377	97	25	174
21	41	454	240	381	475	712	2810	245	552	84	33	137
22	54	271	228	441	395	447	1620	207	283	77	33	119
23	42	211	225	368	318	349	743	179	566	68	33	146
24	38	163	200	269	274	287	492	150	328	60	33	147
25	35	139	175	228	240	245	373	137	199	81	30	163
26	38	375	148	223	232	219	304	136	143	119	41	227
27	38	2450	155	205	233	195	253	163	124	123	46	239
28	33	2340	164	170	198	173	221	153	685	88	48	231
29	33	1620	158	153	---	155	193	133	644	63	38	223
30	33	815	154	143	---	143	198	132	527	51	36	216
31	33	---	150	137	---	133	---	114	---	51	35	---
TOTAL	1030	13668	16682	6064	14926	14767	10181	10735	13234	11462	1091	2862
MEAN	33.2	456	538	196	533	476	339	346	441	370	35.2	95.4
MAX	54	2450	4230	809	1990	2260	2810	1980	2280	2290	48	239
MIN	26	26	138	72	132	133	99	114	72	51	25	27
CFSM	.14	1.89	2.23	.81	2.21	1.98	1.41	1.44	1.83	1.54	.15	.40
IN.	.16	2.11	2.57	.94	2.30	2.28	1.57	1.66	2.04	1.77	.17	.44

CAL YR 1985	TOTAL	93462	MEAN	256	MAX	5840	MIN	11	CFSM	1.06	IN.	14.43
WTR YR 1986	TOTAL	116702	MEAN	320	MAX	4230	MIN	25	CFSM	1.33	IN.	18.01

03347500 BUCK CREEK NEAR MUNCIE, IN

LOCATION.--Lat 40°08'05", long 85°22'25", in SW¼SE¼ sec.34, T.20 N., R.10 E., Delaware County, Hydrologic Unit 05120201, on left bank at downstream side of bridge on County Road 400 South, 1.0 mi upstream from Muncie Water Works Co. pumping station, 4.2 mi southeast of court house in Muncie, and at mile 10.6.

DRAINAGE AREA.--35.5 mi^2.

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

REVISED RECORDS.--WSP 1909: 1955, 1957. WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 944.67 ft above National Geodetic Vertical Datum of 1929. Prior to May 5, 1955, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Dec. 26, 27, Jan. 14, 28-31, and Feb. 8-13. Records good.

AVERAGE DISCHARGE.--32 years, 36.4 ft^3/s, 13.94 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,780 ft^3/s Apr. 21, 1964, gage height, 13.96 ft; minimum daily, 4.7 ft^3/s Jan. 17, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, about 15 ft, from information by local residents. Date unknown.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 400 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 26	1800	503	8.42	Mar. 19	0500	646	9.43
Dec. 12	0100	*1,090	*11.58	Apr. 20	2000	409	7.63

Minimum daily discharge, 13 ft^3/s Oct. 2-4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	15	60	30	29	37	36	106	31	81	19	15
2	13	15	58	30	42	34	36	59	30	124	19	14
3	13	14	43	31	42	35	35	47	29	57	18	15
4	13	14	39	30	239	38	34	43	29	43	18	15
5	14	14	36	30	165	48	34	40	29	36	18	15
6	15	14	33	29	94	59	46	39	117	33	18	14
7	15	14	31	28	103	45	38	82	87	30	18	14
8	15	14	30	28	73	40	35	96	53	29	18	14
9	16	16	29	27	61	40	34	56	41	28	18	14
10	17	45	53	28	52	63	33	47	38	30	19	14
11	18	65	770	28	46	85	32	42	41	46	20	17
12	19	36	489	28	41	122	31	39	132	66	19	20
13	21	149	145	27	39	212	30	37	55	39	18	17
14	22	75	94	25	37	100	31	55	42	33	18	16
15	20	50	72	24	35	69	33	49	37	30	17	16
16	16	76	62	24	34	57	31	69	34	28	17	16
17	16	55	56	37	69	51	31	49	32	26	17	16
18	15	39	49	49	119	72	30	45	30	24	17	27
19	16	106	44	132	88	362	29	42	28	24	17	22
20	20	97	42	69	61	118	187	39	29	23	17	24
21	19	51	39	49	54	77	225	37	27	22	16	20
22	17	40	38	54	48	62	103	36	40	21	16	18
23	16	34	37	43	43	54	71	35	53	21	16	17
24	17	30	36	39	42	48	56	33	32	20	16	19
25	17	29	35	37	40	46	49	32	27	20	15	18
26	15	224	34	36	42	43	46	34	25	22	16	18
27	15	268	33	33	42	40	42	54	25	21	21	21
28	14	254	32	31	38	38	41	40	88	20	16	19
29	14	112	32	29	---	37	39	36	41	20	16	18
30	14	72	31	27	---	35	46	34	60	19	15	19
31	17	---	31	26	---	35	---	32	---	19	15	---
TOTAL	503	2037	2613	1138	1818	2202	1544	1484	1362	1055	538	522
MEAN	16.2	67.9	84.3	36.7	64.9	71.0	51.5	47.9	45.4	34.0	17.4	17.4
MAX	22	268	770	132	239	362	225	106	132	124	21	27
MIN	13	14	29	24	29	34	29	32	25	19	15	14
CFSM	.46	1.91	2.37	1.03	1.83	2.00	1.45	1.35	1.28	.96	.49	.49
IN.	.53	2.13	2.74	1.19	1.91	2.31	1.62	1.56	1.43	1.11	.56	.55

CAL YR 1985	TOTAL	16355	MEAN	44.8	MAX	884	MIN	11	CFSM	1.26	IN.	17.14
WTR YR 1986	TOTAL	16816	MEAN	46.1	MAX	770	MIN	13	CFSM	1.30	IN.	17.62

03348000 WHITE RIVER AT ANDERSON, IN

LOCATION.--Lat 40°06'20", long 85°40'16", in NW¼NW¼ sec.18, T.19 N., R.8 E., Madison County, Hydrologic Unit 05120201, on downstream side of abandoned Twelfth Street bridge abutment, 250 ft upstream from municipal water-supply plant in Anderson, 1 mi upstream from Killbuck Creek, and at mile 293.3.

DRAINAGE AREA.--406 mi^2.

PERIOD OF RECORD.--July 1925 to September 1926, October 1931 to current year. Monthly discharge only for some periods, published in WSP 1305. Gage-height records collected at site 950 ft downstream December 1910 to February 1918, 250 ft downstream from February 1918 to Sept. 14, 1973, and at present site since Sept. 15, 1973, are contained in reports of National Weather Service. Prior to October 1948, published as West Fork White River at Anderson.

REVISED RECORDS.--WSP 1335: 1932, 1934-35, 1936(M), 1938-40. WSP 1385: 1950(P). WSP 1725: 1956 (P). WSP 1909: 1956. WSP 2109: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 825.02 ft above National Geodetic Vertical Datum of 1929. Prior to May 12, 1934, nonrecording gage at present site and datum. May 12, 1934, to Sept. 14, 1973, nonrecording gage at site 250 ft downstream at same datum. Sept. 15, 1973, to Sept. 23, 1976, nonrecording gage at present site and datum.

REMARKS.--Estimated daily discharges: Nov. 21-17, Dec. 2, 3, 18-22, Dec. 25 to Jan. 4, Jan. 7-16, 27-31, and Feb. 14, 15. Records good after May 12 and fair before. Prior to Sept. 15, 1973, the City of Anderson diverted water for its municipal supply above the gage then in use.

AVERAGE DISCHARGE.--56 years, 386 ft^3/s, 12.91 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,700 ft^3/s Apr. 21, 1964, gage height, 19.41 ft; maximum gage height, 19.96 ft June 14, 1958; minimum daily discharge, 9.1 ft^3/s Sept. 24, 1940.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 23.6 ft Mar. 25, 1913, at site 250 ft downstream and at present datum, based on determination of National Weather Service at site then in use, discharge, 28,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,700 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 28	0700	5,190	9.92	Apr. 21	2400	4,180	8.92
Dec. 12	2100	*11,000	*14.50	May 8	2400	3,400	8.37
Mar. 13	1800	2,910	7.95	June 8	0200	3,310	8.23
Mar. 19	2000	5,650	10.31	July 2	2100	3,190	8.19

Minimum daily discharge, 84 ft^3/s Oct. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	107	111	1290	430	276	357	382	971	321	1250	165	107
2	95	119	1100	400	373	341	389	923	284	2640	159	108
3	93	108	900	360	525	338	363	645	261	2270	151	110
4	92	109	725	330	1350	336	355	540	250	1040	147	109
5	93	106	634	283	1840	412	368	496	249	711	142	107
6	87	106	575	257	1770	628	547	469	878	549	139	105
7	87	105	503	240	1520	702	606	756	2990	437	147	101
8	85	104	470	200	1340	502	472	2290	2510	351	143	101
9	84	109	452	200	995	433	418	2020	1030	313	137	101
10	85	185	502	210	770	455	392	870	679	274	162	101
11	89	481	4470	220	614	899	376	641	597	608	170	111
12	109	518	9820	220	497	951	359	515	1240	2420	142	148
13	131	601	8190	210	438	2390	342	462	935	1320	129	127
14	104	1290	2280	200	400	1900	336	549	600	687	121	124
15	107	790	1290	200	350	1030	358	537	482	519	117	113
16	92	680	1050	220	321	712	361	690	422	423	119	108
17	92	910	1020	243	372	571	349	901	547	363	122	116
18	94	609	900	430	1170	576	336	728	515	312	119	240
19	104	884	800	1020	1570	4050	326	669	382	268	117	236
20	125	1590	760	1230	1060	4110	457	561	342	249	117	289
21	135	1100	700	743	801	2070	3320	471	782	228	113	232
22	127	900	670	655	678	1260	3170	428	523	218	119	188
23	135	800	623	665	573	913	1350	401	733	212	119	198
24	120	700	590	519	505	677	890	371	639	200	118	225
25	113	600	500	454	460	576	714	341	421	196	117	207
26	109	1000	450	422	439	548	619	353	342	335	128	257
27	106	4500	470	350	451	518	537	550	301	252	198	315
28	108	4950	500	250	406	471	496	484	632	225	140	298
29	102	3570	490	230	---	450	469	412	1050	191	135	268
30	103	1870	470	240	---	426	464	377	726	175	121	266
31	107	---	450	250	---	396	---	355	---	167	113	---
TOTAL	3220	29505	43644	11881	21864	29998	19921	20776	21663	19403	4186	5116
MEAN	104	984	1408	383	781	968	664	670	722	626	135	171
MAX	135	4950	9820	1230	1840	4110	3320	2290	2990	2640	198	315
MIN	84	104	450	200	276	336	326	341	249	167	113	101
CFSM	.26	2.42	3.47	.94	1.92	2.38	1.64	1.65	1.78	1.54	.33	.42
IN.	.30	2.70	4.00	1.09	2.00	2.75	1.83	1.90	1.98	1.78	.38	.47

CAL YR 1985 TOTAL 210389 MEAN 576 MAX 12100 MIN 65 CFSM 1.42 IN. 19.28
WTR YR 1986 TOTAL 231177 MEAN 633 MAX 9820 MIN 84 CFSM 1.56 IN. 21.18

03348020 KILLBUCK CREEK NEAR GASTON, IN

LOCATION.--Lat 40°15'45", long 85°30'53", in SE¼SW¼ sec.16, T.21 N., R.9 E., Delaware County, Hydrologic Unit 05120201, on right bank 30 ft upstream from bridge on County Road 500 North, 3.6 mi southwest of Gaston, and at mile 15.6.

DRAINAGE AREA.--25.5 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 873.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Oct. 15 to Nov. 9, Dec. 22 to Jan. 10, Jan. 22-29, and Feb. 14-16. Records fair except those for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--18 years, 25.4 ft^3/s, 13.53 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1200 ft^3/s June 2, 1980, gage height, 12.70 ft; minimum daily, 0.76 ft^3/s Jan. 19, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 250 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 20	0200	370	10.24	Feb. 4	2300	259	9.49
Nov. 27	0600	320	9.96	Mar. 19	1000	394	10.35
Dec. 12	1100	*626	*11.09				

Minimum daily discharge, 1.5 ft^3/s Sept. 9, 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	3.4	65	11	11	20	18	80	13	22	8.4	2.4
2	2.1	4.2	58	11	15	19	18	55	11	70	7.7	2.3
3	2.0	3.7	40	11	17	18	16	34	10	36	7.2	2.2
4	2.2	3.3	34	11	159	18	16	26	11	21	6.8	2.2
5	2.6	3.1	30	10	203	32	16	22	10	15	6.3	2.0
6	2.5	2.9	27	9.8	104	49	39	19	32	12	6.1	1.7
7	2.5	2.8	24	9.4	70	37	40	40	110	9.9	6.7	1.6
8	2.5	2.7	23	9.0	54	25	28	32	70	8.9	6.8	1.6
9	2.3	3.2	22	8.6	46	23	22	23	43	8.0	5.9	1.5
10	2.6	16	28	9.0	37	30	19	19	32	7.7	7.2	1.6
11	3.1	36	378	9.8	30	61	18	17	26	86	9.5	2.1
12	5.1	23	572	11	24	87	16	15	29	189	6.6	3.5
13	8.1	45	217	11	19	210	15	14	26	101	5.4	2.8
14	8.9	44	85	10	18	118	14	16	20	57	4.7	2.1
15	21	33	58	8.9	16	68	15	18	17	36	4.4	1.8
16	18	63	47	8.8	15	50	14	22	15	25	4.5	1.7
17	12	60	39	16	27	41	13	18	20	18	4.0	1.5
18	9.4	36	32	32	113	43	13	18	16	14	3.8	2.5
19	7.6	202	27	62	118	352	12	26	13	12	3.7	13
20	6.4	304	25	53	72	197	19	20	12	11	3.6	20
21	5.2	110	22	34	58	79	87	17	11	9.5	3.3	14
22	4.4	68	20	32	47	60	51	15	9.9	8.4	3.1	7.0
23	3.9	51	19	27	35	51	34	14	9.7	7.6	3.3	5.2
24	3.4	40	17	24	31	42	27	12	8.8	7.0	3.0	5.5
25	2.9	34	15	21	27	37	24	11	8.1	8.5	3.0	8.7
26	2.7	122	13	18	29	33	20	11	7.8	56	2.8	6.1
27	2.8	290	12	16	27	29	18	32	7.5	23	4.3	14
28	2.6	224	12	14	23	26	17	26	8.9	15	3.8	21
29	2.8	128	12	12	---	24	15	19	8.8	12	2.9	12
30	2.8	79	12	11	---	22	15	16	9.3	10	2.6	11
31	2.9	---	11	11	---	19	---	14	---	9.2	2.6	---
TOTAL	159.3	2037.3	1996	542.3	1445	1920	689	721	625.8	925.7	154.0	174.6
MEAN	5.14	67.9	64.4	17.5	51.6	61.9	23.0	23.3	20.9	29.9	4.97	5.82
MAX	21	304	572	62	203	352	87	80	110	189	9.5	21
MIN	2.0	2.7	11	8.6	11	18	12	11	7.5	7.0	2.6	1.5
CFSM	.20	2.66	2.53	.69	2.02	2.43	.90	.91	.82	1.17	.19	.23
IN.	.23	2.97	2.91	.79	2.11	2.80	1.01	1.05	.91	1.35	.22	.25

CAL YR 1985	TOTAL	12671.0	MEAN	34.7	MAX	717	MIN	1.3	CFSM	1.36	IN.	18.48
WTR YR 1986	TOTAL	11390.0	MEAN	31.2	MAX	572	MIN	1.5	CFSM	1.22	IN.	16.62

03348350 PIPE CREEK AT FRANKTON, IN

LOCATION.--Lat 40°13'38", long 85°45'58", in SE¼NE¼ sec.31, T.21 N., R.7 E., Madison County, Hydrologic Unit 05120201, on right bank 20 ft downstream from bridge on County Road 500 West, at northeast edge of Frankton.

DRAINAGE AREA.--113 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 810.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 18-31, Jan. 1-11, 24-31, and Feb. 1-3, 9-17. Records good except those for estimated daily discharges, which are fair.

AVERAGE DISCHARGE.--18 years, 105 ft^3/s, 12.62 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,340 ft^3/s June 3, 1980, gage height, 14.78 ft; minimum daily, 3.6 ft^3/s Oct. 3, 1983.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 10, 1958, reached a stage of 15.5 ft, from floodmark determined by State of Indiana, Department of Natural Resources, discharge, 4,900 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 700 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 20	0200	1,750	10.51	Mar. 13	1700	829	8.23
Nov. 27	1000	1,410	9.75	Mar. 19	1700	1,430	9.81
Dec. 12	0100	*1,970	*10.95	June 7	0800	889	8.43
Feb. 5	0600	800	8.12				

Minimum daily discharge, 6.1 ft^3/s Oct. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.0	8.6	386	44	42	86	70	428	75	84	19	10
2	7.9	9.4	362	44	44	81	68	323	63	363	18	11
3	7.3	8.9	243	43	56	79	63	169	54	189	16	11
4	7.9	8.6	178	41	380	80	61	120	61	107	14	11
5	7.7	8.1	150	38	744	151	61	101	100	73	13	10
6	6.6	7.6	131	36	524	232	262	88	564	57	13	9.8
7	6.8	8.0	115	35	341	169	206	153	805	46	13	9.7
8	7.0	7.5	108	33	230	115	129	124	372	39	13	9.4
9	6.6	8.6	103	32	200	106	99	93	202	36	12	9.3
10	7.5	41	126	33	160	140	84	78	141	33	23	9.0
11	6.1	154	1110	34	130	306	75	71	115	168	26	11
12	14	127	1580	38	80	374	67	67	184	257	17	19
13	19	225	832	39	104	769	61	62	121	254	14	12
14	15	278	488	36	47	553	59	64	90	156	12	12
15	40	251	323	34	47	320	61	60	77	95	12	10
16	49	433	236	32	50	213	58	60	67	69	43	9.9
17	29	471	180	52	64	160	57	55	61	53	30	9.9
18	19	325	165	118	309	172	53	59	53	43	19	13
19	14	1040	130	260	490	1100	50	77	48	37	16	151
20	13	1490	115	224	358	759	67	67	45	32	14	161
21	12	813	100	131	277	389	178	59	40	28	13	92
22	11	511	90	131	221	264	133	54	43	26	13	47
23	11	381	80	111	155	202	94	51	90	23	12	32
24	9.8	290	72	100	128	153	79	46	50	21	12	28
25	9.6	226	68	90	110	128	73	43	39	20	11	26
26	8.7	425	62	80	111	116	67	56	35	107	11	23
27	8.7	1240	57	60	112	102	62	282	32	59	17	65
28	8.2	1010	54	54	100	92	61	266	33	35	13	83
29	7.5	773	50	59	---	86	57	144	31	28	12	54
30	8.0	497	47	52	---	79	67	122	38	23	11	41
31	8.1	---	45	47	---	73	---	94	---	21	11	---
TOTAL	395.0	11076.3	7786	2161	5614	7649	2582	3536	3729	2582	493	1000.0
MEAN	12.7	369	251	69.7	201	247	86.1	114	124	83.3	15.9	33.3
MAX	49	1490	1580	260	744	1100	262	428	805	363	43	161
MIN	6.1	7.5	45	32	42	73	50	43	31	20	11	9.0
CFSM	.11	3.27	2.22	.62	1.78	2.19	.76	1.01	1.10	.74	.14	.29
IN.	.13	3.65	2.56	.71	1.85	2.52	.85	1.16	1.23	.85	.16	.33

CAL YR 1985	TOTAL	50886.1	MEAN	139	MAX	2690	MIN	6.1	CFSM	1.23	IN.	16.75
WTR YR 1986	TOTAL	48603.3	MEAN	133	MAX	1580	MIN	6.1	CFSM	1.18	IN.	16.00

03349000 WHITE RIVER AT NOBLESVILLE, IN

LOCATION.--Lat 40°02'50", long 86°01'00", in SE¼SE¼ sec.36, T.19 N., R.4 E., Hamilton County, Hydrologic Unit 05120201, on right bank at downstream side of Logan Street bridge in Noblesville, 1.5 mi upstream from Cicero Creek, 5.1 mi downstream from dam at Clare, and at mile 263.5.

DRAINAGE AREA.--858 mi².

PERIOD OF RECORD.--October 1946 to current year. Gage-height records collected at present site from December 1913 to December 1935, and at site 400 ft downstream January 1936 to May 1951, are contained in reports of National Weather Service. Prior to October 1948, published as West Fork White River at Noblesville.

REVISED RECORDS.--WSP 1335: 1949. WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 738.16 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Jan. 1, 6, 7, 9-11, 29-31, Feb. 14-17, Mar. 20 to Apr. 2, Apr. 21-23, May 1, 2, July 16 to Aug. 5, and Sept. 1-9. Records fair. Flow slightly regulated by powerplant above station.

AVERAGE DISCHARGE.--40 years, 843 ft³/s, 13.34 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,800 ft³/s Apr. 22, 1964, gage height, 21.31 ft; minimum daily, 44 ft³/s Sept. 28, 1954.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 6,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 20	2300	6,910	12,95	Dec. 13	1300	*10,900	*16.17
Nov. 28	1300	7,700	13.72	Mar. 20	1200	7,400	13.43

Minimum daily discharge, 126 ft³/s Oct. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	143	151	2870	530	427	726	675	2000	698	1290	295	164
2	144	159	2430	491	467	659	695	2300	610	2890	276	162
3	138	157	1910	481	624	648	655	1610	552	3470	262	165
4	138	148	1390	458	2110	642	624	1070	531	1940	248	162
5	138	148	1130	402	5370	819	603	858	557	1100	236	160
6	134	146	982	450	5020	1320	978	744	1820	786	226	157
7	130	144	842	360	3360	1670	1550	1520	3880	640	234	154
8	133	143	753	313	2700	1380	1060	3560	4450	568	234	152
9	131	148	695	300	2090	1210	805	3530	2630	526	230	154
10	126	183	753	320	1620	1130	687	1860	1550	508	254	153
11	131	454	5390	338	1290	1970	623	1240	1200	740	319	163
12	150	683	9340	345	1020	2660	581	975	2120	2710	269	200
13	189	718	10600	347	730	4820	549	818	2450	3010	239	203
14	177	1350	7300	343	610	5250	523	925	1380	1730	223	180
15	190	1490	3080	323	545	3280	528	979	971	1120	216	174
16	189	1410	2120	310	505	2130	521	1020	800	810	227	162
17	192	2000	1720	347	590	1610	514	1360	716	665	235	157
18	181	1700	1370	579	1660	1420	492	1580	879	570	217	200
19	169	3400	998	1350	3410	5200	476	2320	679	495	206	405
20	169	6500	1120	2250	2940	6800	502	1630	584	450	197	585
21	182	5980	1030	1550	2080	4650	1200	1110	768	420	194	571
22	179	3430	1010	1110	1690	2480	3150	873	841	385	193	378
23	174	2180	958	1140	1370	1830	1900	755	1010	375	196	291
24	185	1580	894	940	1120	1500	1390	668	1210	358	191	315
25	169	1200	721	795	965	1220	1050	614	737	344	187	318
26	157	1890	499	724	916	1090	861	694	576	515	191	292
27	152	5850	683	607	939	980	740	1580	521	810	251	433
28	146	7560	760	433	837	895	664	1800	622	550	250	538
29	148	6760	778	380	---	830	628	1260	1250	435	195	447
30	144	4310	747	365	---	760	622	982	1010	365	183	405
31	145	---	626	390	---	710	---	836	---	325	170	---
TOTAL	4873	61972	65499	19071	47005	62289	25846	43071	37602	30900	7044	8000
MEAN	157	2066	2113	615	1679	2009	862	1389	1253	997	227	267
MAX	192	7560	10600	2250	5370	6800	3150	3560	4450	3470	319	585
MIN	126	143	499	300	427	642	476	614	521	325	170	152
CFSM	.18	2.41	2.46	.72	1.96	2.34	1.00	1.62	1.46	1.16	.26	.31
IN.	.21	2.69	2.84	.83	2.04	2.70	1.12	1.87	1.63	1.34	.31	.35

CAL YR 1985 TOTAL 399051 MEAN 1093 MAX 15700 MIN 126 CFSM 1.27 IN. 17.30
WTR YR 1986 TOTAL 413172 MEAN 1132 MAX 10600 MIN 126 CFSM 1.32 IN. 17.91

03350500 CICERO CREEK AT NOBLESVILLE, IN

LOCATION.--Lat 40°03'20", long 86°02'30", in NW¼NE¼ sec.35, T.19 N., R.4 E., Hamilton County, Hydrologic Unit 05120201, on right bank 150 ft downstream from bridge on Stage Highway 38, 1.0 mi northwest of Noblesville, 1.9 mi downstream from Hinkle Creek, and 3.2 mi upstream from mouth.

DRAINAGE AREA.--216 mi^2.

PERIOD OF RECORD.--July 1950 to September 1980 and October 1985 to current year.

REVISED RECORDS.--WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 750.00 ft above National Geodetic Vertical Datum of 1929 (levels by State of Indiana, Department of Natural Resources).

REMARKS.--Estimated daily discharges: Jan. 26, 28-31, Feb. 13-16, and Feb. 25 to Mar. 1. Records good. Flow regulated by Morse Reservoir.

AVERAGE DISCHARGE.--31 years, 198 ft^3/s, 12.45 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,800 ft^3/s June 28, 1957, gage height, 15.26 ft; minimum daily, 0.25 ft^3/s Oct. 21, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,740 ft^3/s Dec. 12, gage height, 12.58 ft; minimum daily, 0.67 ft^3/s Oct. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	.95	751	81	76	156	133	1060	202	136	35	4.2
2	.78	3.3	702	76	92	151	124	1090	158	311	26	1.9
3	.67	13	500	77	98	154	106	584	117	271	29	1.3
4	.69	29	354	77	597	169	102	352	113	172	9.2	1.4
5	1.7	28	288	74	1320	242	112	244	121	123	8.4	1.8
6	.99	1.5	240	65	1030	321	269	204	282	93	3.9	3.6
7	.75	5.3	197	62	733	307	484	619	862	68	8.3	3.2
8	.68	1.5	182	52	511	215	344	2120	893	53	11	2.5
9	.80	1.2	170	49	389	211	220	1030	571	51	19	1.6
10	1.1	15	203	51	311	255	160	539	353	45	23	1.7
11	1.8	39	2410	55	247	582	128	354	279	153	25	2.7
12	3.5	56	3410	66	188	843	117	271	945	332	17	2.8
13	6.5	101	2150	81	150	1710	105	211	984	228	12	3.4
14	6.3	152	1060	80	135	1300	100	236	524	160	8.7	5.3
15	13	158	690	67	130	773	105	250	327	115	7.1	2.3
16	5.0	318	493	62	132	517	117	384	246	88	17	2.7
17	4.2	704	367	83	147	372	94	299	201	67	27	2.1
18	3.9	536	257	177	352	344	81	596	141	55	10	2.9
19	8.3	1620	202	289	770	1950	78	1490	115	51	8.2	2.1
20	15	3300	198	251	673	1780	124	923	109	52	8.7	6.5
21	4.9	2560	168	188	510	880	198	565	96	17	5.7	13
22	2.3	1290	157	156	386	564	174	391	79	16	5.2	2.8
23	2.0	875	155	136	307	425	127	294	210	13	13	5.3
24	9.2	656	153	121	259	324	110	229	256	13	9.5	15
25	6.9	507	111	118	200	251	107	197	150	19	2.1	18
26	7.7	920	107	110	190	228	106	237	104	219	1.4	18
27	11	2440	107	98	173	199	97	529	89	236	5.4	40
28	11	2250	96	86	165	162	89	509	132	132	3.7	41
29	3.8	1570	93	80	---	148	91	358	104	81	1.7	12
30	5.8	1010	89	70	---	146	147	310	89	49	3.1	16
31	3.2	---	85	71	---	133	---	244	---	32	5.4	---
TOTAL	144.66	21160.75	16145	3109	10271	15812	4349	16719	8852	3451	369.7	237.1
MEAN	4.67	705	521	100	367	510	145	539	295	111	11.9	7.90
MAX	15	3300	3410	289	1320	1950	484	2120	984	332	35	41
MIN	.67	.95	85	49	76	133	78	197	79	13	1.4	1.3

WTR YR 1986 TOTAL 100620.21 MEAN 276 MAX 3410 MIN .67

03350700 STONY CREEK NEAR NOBLESVILLE, IN

LOCATION.--Lat 40°01'44", long 85°59'42", in NE¼NE¼ sec.7, T.18 N., R.5 E., Hamilton County, Hydrologic Unit 05120201, on left bank at downstream side of county road bridge, 1.4 mi upstream from mouth, and 1.4 mi southeast of Noblesville.

DRAINAGE AREA.--50.8 mi^2.

PERIOD OF RECORD.--July 1967 to current year.

REVISED RECORDS.--WDR IN-82-1: 1981.

GAGE.--Water-stage recorder. Datum of gage is 749.00 ft above National Geodetic Vertical Datum of 1929 (Indiana Department of Highways bench mark).

REMARKS.--Estimated daily discharges: Dec. 18 to Jan. 31, Feb. 1, 2, 6-16, and Feb. 25 to Mar. 1. Records fair except those for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--19 years, 48.7 ft^3/s, 13.02 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,640 ft^3/s Feb. 23, 1979; maximum gage height, 7.67 ft Dec. 11, 1985; minimum daily discharge, 2.3 ft^3/s Aug. 4, 5, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 300 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 20	0145	584	5.36	Mar. 13	1430	396	4.27
Nov. 27	0345	573	5.31	Mar. 19	1000	716	5.93
Dec. 11	1345	*1,210	*7.67	May 1	0645	373	4.37
Feb. 4	1945	456	4.77	May 27	0945	344	4.23

Minimum daily discharge, 4.2 ft^3/s Oct. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.7	5.1	164	36	33	65	51	305	58	73	13	7.1
2	5.5	5.7	149	34	50	63	51	141	51	170	12	6.7
3	5.1	5.4	96	33	70	67	50	81	45	83	12	6.3
4	5.0	5.2	74	32	331	74	48	58	46	54	11	6.2
5	5.0	4.8	64	31	332	87	48	53	49	46	11	6.0
6	5.2	4.7	58	30	215	90	91	53	168	41	11	5.9
7	4.8	4.7	49	29	170	84	76	63	190	35	11	5.9
8	4.3	4.6	42	28	135	68	56	97	119	30	11	5.9
9	4.2	4.7	39	27	110	65	51	64	77	37	11	5.7
10	4.3	14	58	28	97	72	47	53	60	33	12	5.6
11	4.3	31	967	28	82	129	45	50	59	44	13	6.3
12	5.5	19	734	30	72	199	43	49	208	80	11	10
13	7.1	32	316	33	64	345	41	49	113	66	11	8.2
14	6.0	30	205	30	56	256	40	139	73	45	10	6.6
15	5.6	26	164	28	50	203	40	98	59	40	9.6	6.2
16	6.3	50	142	27	55	171	39	106	66	34	9.6	5.7
17	5.8	53	120	40	72	151	38	73	69	23	9.6	5.6
18	5.3	35	105	90	137	164	37	67	48	17	9.0	8.6
19	5.4	329	96	139	162	618	37	72	44	16	8.4	11
20	6.6	445	85	130	131	294	43	57	42	15	8.0	12
21	6.2	200	79	118	117	174	84	52	39	14	7.4	13
22	5.9	141	70	100	105	134	57	49	38	13	7.4	10
23	5.4	107	65	90	95	106	47	46	41	13	7.5	9.2
24	5.4	79	59	80	82	82	43	44	38	13	7.2	11
25	5.2	65	54	71	76	71	41	41	29	23	7.5	14
26	5.1	239	50	62	75	65	39	89	36	126	7.6	11
27	4.9	485	47	52	71	61	37	289	33	44	12	9.5
28	4.7	422	45	45	68	58	36	158	50	26	9.8	14
29	4.7	258	43	41	---	56	35	136	45	16	8.4	12
30	4.6	169	40	35	---	54	69	104	46	14	7.9	10
31	4.9	---	37	31	---	52	---	72	---	14	7.6	---
TOTAL	164.0	3273.9	4316	1608	3113	4178	1460	2808	2039	1298	304.5	255.2
MEAN	5.29	109	139	51.9	111	135	48.7	90.6	68.0	41.9	9.82	8.51
MAX	7.1	485	967	139	332	618	91	305	208	170	13	14
MIN	4.2	4.6	37	27	33	52	35	41	29	13	7.2	5.6
CFSM	.10	2.15	2.74	1.02	2.19	2.66	.96	1.78	1.34	.82	.19	.17
IN.	.12	2.40	3.16	1.18	2.28	3.06	1.07	2.06	1.49	.95	.22	.19

CAL YR 1985	TOTAL	22256.4	MEAN	61.0	MAX	967	MIN	3.9	CFSM	1.20	IN.	16.30
WTR YR 1986	TOTAL	24817.6	MEAN	68.0	MAX	967	MIN	4.2	CFSM	1.34	IN.	18.17

03351000 WHITE RIVER NEAR NORA, IN

LOCATION.--Lat 39°54'35", long 86°06'20", in NW¼NW¼ sec.20, T.17 N., R.4 E., Marion County, Hydrologic Unit 05120201, on downstream side of center pier of bridge on 82nd Street, 2 mi east of Nora, 14 mi upstream from Fall Creek, and at mile 247.9.

DRAINAGE AREA.--1,219 mi^2.

PERIOD OF RECORD.--October 1929 to current year. Prior to April 1930, monthly discharge only, published in WSP 1305. Prior to October 1948, published as West Fork White River near Nora.

REVISED RECORDS.--WSP 1335: 1930-31, 1934(m), 1936, 1941, 1943, 1945, 1947-48. WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 710.94 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Oct. 26, 1929 to July 29, 1942, at site 200 ft downstream at same datum. Supplemental water-stage recorder 4.5 mi downstream.

REMARKS.--Estimated daily discharges: Oct. 1 to Nov. 3, Nov. 10-14, Dec. 30 to Jan. 1, Jan. 8, 10, 11, 28-31, and Feb. 13-17. Records good. Flow slightly regulated by Morse Reservoir.

AVERAGE DISCHARGE.--57 years, 1,109 ft^3/s, 12.35 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32,400 ft^3/s May 19, 1943; maximum gage height, 18.65 ft Apr. 23, 1964; minimum daily discharge, 49 ft^3/s Sept. 17, 1941.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 26, 1913, reached a stage of 22.4 ft, from floodmark, determined by Indiana Department of Highways, discharge, 58,500 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 7,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 21	0800	9,050	10.76	Feb. 6	0300	7,800	9.50
Nov. 28	2100	9,980	11.42	Mar. 14	0800	8,030	9.66
Dec. 13	2200	*14,400	*13.80	Mar. 20	1800	10,400	11.30

Minimum daily discharge, 152 ft^3/s Oct. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	177	182	3900	820	700	1180	1020	3260	1150	1400	400	231
2	174	197	3180	775	758	1090	1020	4220	991	2990	379	225
3	172	185	2510	762	885	1080	948	2640	840	4010	352	217
4	169	201	1880	747	2730	1050	896	1720	808	2630	339	221
5	168	215	1550	689	6560	1170	887	1370	825	1500	317	212
6	164	205	1360	621	7170	1600	1220	1180	1630	1100	303	204
7	161	187	1180	591	5090	1980	2270	1700	4020	881	310	201
8	159	187	1060	530	3850	1660	1810	4570	5600	749	307	194
9	156	200	997	516	3110	1340	1370	4900	3900	662	309	190
10	152	394	1020	525	2450	1310	1110	2870	2220	622	349	191
11	158	608	6880	540	1970	2320	980	1790	1660	788	406	220
12	188	837	12300	561	1580	3620	895	1460	2640	2650	395	271
13	236	969	14100	582	1220	6330	832	1250	3670	3610	338	277
14	220	1710	12200	576	1030	7560	780	1590	2290	2260	307	244
15	242	1580	5020	554	920	5160	816	1510	1580	1430	295	232
16	232	1560	3200	524	860	3290	825	1760	1280	1080	291	210
17	234	2180	2540	559	990	2430	813	1740	1190	876	305	198
18	219	2100	2120	856	1850	2120	741	2040	1150	737	311	292
19	210	4300	1770	1640	4180	6780	708	3710	1020	646	275	414
20	224	8190	1610	2640	4240	9790	792	2920	856	582	259	682
21	224	8610	1470	2180	3170	7610	1690	1950	821	530	244	697
22	219	5290	1390	1570	2530	4010	3990	1510	1130	478	239	547
23	209	3100	1370	1480	2100	2950	2860	1280	1140	450	243	420
24	229	2230	1320	1340	1760	2370	1670	1110	1540	422	242	473
25	209	1770	1150	1160	1510	1950	1320	1020	1150	405	232	448
26	197	2320	897	1060	1420	1720	1130	1330	849	731	243	427
27	195	6780	961	960	1480	1550	997	2520	710	1110	315	542
28	188	9580	1100	740	1360	1370	903	2690	849	782	371	670
29	182	9310	977	630	---	1240	853	1940	1200	597	290	608
30	180	6400	940	600	---	1160	1110	1590	1380	487	263	533
31	178	---	880	640	---	1080	---	1350	---	432	243	---
TOTAL	6025	81577	92832	27968	67473	89870	37256	66490	50089	37627	9472	10491
MEAN	194	2719	2995	902	2410	2899	1242	2145	1670	1214	306	350
MAX	242	9580	14100	2640	7170	9790	3990	4900	5600	4010	406	697
MIN	152	182	880	516	700	1050	708	1020	710	405	232	190
CFSM	.16	2.23	2.46	.74	1.98	2.38	1.02	1.76	1.37	1.00	.25	.29
IN.	.18	2.49	2.83	.85	2.06	2.74	1.14	2.03	1.53	1.15	.29	.32

CAL YR 1985	TOTAL	562267	MEAN	1540	MAX	23100	MIN	151	CFSM	1.26	IN.	17.16
WTR YR 1986	TOTAL	577170	MEAN	1581	MAX	14100	MIN	152	CFSM	1.30	IN.	17.61

03351310 CROOKED CREEK AT INDIANAPOLIS, IN

LOCATION.--Lat 39°49'47", long 86°12'22", in NW¼SE¼ sec.16, T.16 N., R.3 E., Marion County, Hydrologic Unit 05120201, on left bank 150 ft downstream from 42nd Street bridge in Indianapolis, and at mile 1.6.

DRAINAGE AREA.--17.9 mi².

PERIOD OF RECORD.--June 1969 to current year.

GAGE.--Water-stage recorder. Datum of gage is 711.00 ft above National Geodetic Vertical Datum of 1929 (Indiana Department of Highways bench mark).

REMARKS.--Estimated daily discharges: Dec. 5-9, 18-21, 24, 25, 28, 30, 31, Jan. 8, 12-14, 17, 29, and Feb. 9-13, 15, 17, 24, 25. Records fair.

AVERAGE DISCHARGE.--17 years, 18.9 ft³/s, 14.34 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,500 ft³/s June 26, 1978, gage height, 13.31 ft; minimum daily, 0.47 ft³/s Dec. 2, 1971.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 400 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 19	1215	*1,430	*7.77	May 1	0200	1,020	6.56
Nov. 26	1700	469	4.83	May 7	2045	565	5.14
Dec. 11	0830	1,420	7.75	May 14	0015	460	4.80
Mar. 19	0315	905	6.21	May 26	2345	457	4.79
Apr. 30	1830	1,220	7.18				

Minimum daily discharge, 1.1 ft³/s Sept. 8-10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.9	2.8	32	6.8	8.2	13	13	370	18	67	4.7	1.2
2	2.9	6.9	27	6.8	13	12	14	54	16	61	3.2	1.3
3	2.4	5.3	18	7.1	20	13	11	31	14	14	2.5	1.2
4	2.4	3.8	16	6.9	159	13	11	23	66	9.0	2.2	1.4
5	2.7	3.3	14	7.0	65	13	14	20	35	7.3	2.0	1.6
6	2.5	3.3	12	6.4	43	14	19	16	36	6.3	2.4	2.4
7	2.2	3.1	11	6.0	52	12	15	97	39	5.7	3.8	1.3
8	2.1	2.9	9.7	5.5	31	10	12	56	47	5.4	3.9	1.1
9	2.0	11	9.0	4.8	22	11	11	25	24	5.3	3.3	1.1
10	2.3	105	30	4.9	16	30	10	19	19	7.7	20	1.1
11	3.0	46	778	5.1	13	29	10	15	53	32	7.1	13
12	9.8	24	108	5.2	12	98	9.9	74	77	75	3.5	18
13	5.1	59	48	5.0	12	120	9.6	64	23	18	2.7	5.0
14	7.8	31	29	5.1	11	43	12	196	15	8.6	2.3	3.2
15	9.3	26	23	4.9	10	27	15	100	12	7.1	5.9	2.5
16	4.7	58	20	4.8	11	22	17	113	11	5.9	4.4	2.5
17	2.8	26	17	7.4	15	18	15	39	13	5.2	2.4	2.5
18	2.3	32	14	14	33	93	12	117	12	4.4	1.9	50
19	4.4	691	11	23	30	323	11	74	12	4.0	1.6	28
20	11	169	10	14	23	49	45	34	11	3.4	1.6	82
21	8.0	48	9.6	11	19	29	39	26	11	3.1	1.5	21
22	4.7	33	11	11	16	24	23	23	18	3.0	1.6	12
23	3.7	26	11	9.1	14	20	17	19	24	2.7	1.6	10
24	8.5	20	9.5	8.4	12	17	15	16	11	2.8	1.5	62
25	8.2	23	8.4	8.8	13	15	14	29	9.5	2.7	1.6	24
26	4.4	186	9.3	8.7	18	15	13	176	8.6	5.4	1.7	18
27	3.5	114	8.9	7.6	20	14	11	200	7.1	3.6	5.1	38
28	3.1	154	8.6	5.8	15	13	13	46	18	3.3	3.1	28
29	3.0	49	7.8	5.3	---	13	13	30	7.3	3.2	1.8	15
30	2.6	31	7.6	5.2	---	12	341	25	16	2.6	1.3	26
31	2.6	---	7.3	5.2	---	11	---	21	---	5.2	1.2	---
TOTAL	138.9	1993.4	1335.7	236.8	726.2	1146	785.5	2148	683.5	389.9	103.4	474.4
MEAN	4.48	66.4	43.1	7.64	25.9	37.0	26.2	69.3	22.8	12.6	3.34	15.8
MAX	11	691	778	23	159	323	341	370	77	75	20	82
MIN	2.0	2.8	7.3	4.8	8.2	10	9.6	15	7.1	2.6	1.2	1.1
CFSM	.25	3.71	2.41	.43	1.45	2.07	1.46	3.87	1.27	.70	.19	.88
IN.	.29	4.14	2.78	.49	1.51	2.38	1.63	4.46	1.42	.81	.21	.99

CAL YR 1985	TOTAL	8137.4	MEAN	22.3	MAX	778	MIN	1.4	CFSM	1.25	IN.	16.91
WTR YR 1986	TOTAL	10161.7	MEAN	27.8	MAX	778	MIN	1.1	CFSM	1.55	IN.	21.12

03351400 SUGAR CREEK NEAR MIDDLETOWN, IN

LOCATION.--Lat 40°02'27", long 85°31'30", in NW¼SE¼ sec.5, T.18 N., R.9 E., Henry County, Hydrologic Unit 05120201, on right bank 90 ft upstream from bridge on County Road 750 North, 1 mi southeast of Middletown.

DRAINAGE AREA.--5.80 mi^2.

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

REVISED RECORDS.--WDR IN-75-1: 1969-74.

GAGE.--Water-stage recorder. Datum of gage is 950.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 18 to Jan. 16, Jan. 27-30, Feb. 12-15, Feb. 28 to Mar. 1, Mar. 8, Sept. 3-10, and Sept. 14-17. Records fair except those for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--18 years, 5.88 ft^3/s, 13.77 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,100 ft^3/s April 28, 1975, gage height, 7.72 ft; minimum daily, 0.02 ft^3/s Aug. 30 to Sept. 2, 1972.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 120 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 26	1600	177	5.65	June 6	0445	157	5.50
Dec. 11	0700	*402	*6.91	June 12	0015	189	5.74
Mar. 19	0015	246	6.11				

Minimum daily discharge, 0.14 ft^3/s Oct. 10, 16-18, 26-30, and Nov. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.21	.16	14	1.1	2.7	3.8	2.5	47	2.4	2.5	.24	.20
2	.20	.16	11	1.0	6.9	3.6	2.3	13	1.9	4.0	.23	.20
3	.19	.16	6.2	1.0	10	3.5	2.2	7.3	1.7	2.0	.23	.20
4	.20	.16	5.1	1.0	85	5.5	2.1	5.4	1.6	1.5	.23	.20
5	.23	.16	4.5	1.0	47	8.7	2.2	4.4	1.6	1.3	.23	.19
6	.20	.15	3.7	.98	23	11	3.1	7.0	55	.98	.23	.19
7	.17	.15	3.4	.92	22	6.4	2.6	27	17	.84	.23	.18
8	.16	.14	3.3	.90	13	5.0	2.3	29	6.4	.80	.23	.18
9	.16	.20	3.1	.95	9.7	4.5	2.1	9.4	3.5	2.3	.23	.17
10	.14	1.3	12	1.0	7.1	13	2.0	5.8	3.2	1.5	.33	.17
11	.16	2.2	250	1.0	5.5	14	1.9	4.5	11	11	.28	.30
12	.19	1.5	61	1.1	4.5	33	1.8	3.8	40	23	.23	.31
13	.17	12	28	1.0	3.8	66	1.6	3.4	7.5	13	.23	.24
14	.18	5.1	14	1.0	3.2	22	1.8	10	4.1	4.5	.23	.22
15	.15	3.8	9.0	.90	2.5	11	1.9	9.4	3.1	2.7	.25	.22
16	.14	8.4	6.5	.90	2.8	7.4	1.7	14	2.4	2.0	.23	.21
17	.14	5.9	5.0	4.2	17	5.8	1.6	6.6	1.9	1.5	.23	.20
18	.14	3.9	4.0	7.0	31	30	1.6	6.8	1.7	1.2	.22	1.5
19	.17	27	3.5	27	20	99	1.6	5.3	1.5	1.0	.20	.78
20	.24	20	3.0	10	11	25	34	3.7	1.4	.85	.21	1.1
21	.18	8.4	2.5	6.5	8.2	12	44	3.2	1.2	.70	.21	.74
22	.16	5.9	2.3	7.4	6.5	8.0	17	2.9	1.2	.59	.20	.55
23	.15	4.3	2.1	5.4	5.2	6.2	9.2	2.5	1.3	.50	.20	.49
24	.18	3.4	2.0	4.6	4.8	4.7	6.7	2.1	1.1	.45	.20	.92
25	.15	3.3	1.5	4.3	4.4	4.4	5.1	2.1	.98	.43	.20	1.2
26	.14	62	1.7	4.1	5.4	4.0	4.1	3.3	.97	.45	.28	1.2
27	.14	56	1.5	3.3	4.4	3.4	3.4	9.7	1.0	.38	.29	1.3
28	.14	64	1.4	2.5	4.1	3.1	3.4	5.0	3.0	.36	.24	1.2
29	.14	25	1.3	2.0	---	3.0	2.7	3.8	1.5	.30	.22	1.1
30	.14	14	1.2	1.7	---	2.7	10	4.0	2.2	.26	.20	1.4
31	.15	---	1.1	1.9	---	2.4	---	2.9	---	.24	.20	---
TOTAL	5.21	338.84	468.9	107.65	370.7	432.1	178.5	264.3	183.35	83.13	7.16	17.06
MEAN	.17	11.3	15.1	3.47	13.2	13.9	5.95	8.53	6.11	2.68	.23	.57
MAX	.24	64	250	27	85	99	44	47	55	23	.33	1.5
MIN	.14	.14	1.1	.90	2.5	2.4	1.6	2.1	.97	.24	.20	.17
CFSM	.03	1.95	2.60	.60	2.28	2.40	1.03	1.47	1.05	.46	.04	.10
IN.	.03	2.17	3.01	.69	2.38	2.77	1.14	1.70	1.18	.53	.05	.11

CAL YR 1985	TOTAL	2478.52	MEAN	6.79	MAX	250	MIN	.08	CFSM	1.17	IN.	15.90
WTR YR 1986	TOTAL	2456.90	MEAN	6.73	MAX	250	MIN	.14	CFSM	1.16	IN.	15.76

03351500 FALL CREEK NEAR FORTVILLE, IN

LOCATION.--Lat 39°57'15", long 85°52'05", in NW¼NE¼ sec.5, T.17 N., R.6 E., Hamilton County, Hydrologic Unit 05120201, on right bank 100 ft downstream from bridge on State Highway 238, 0.2 mi downstream from Lick Creek, 2 mi northwest of Fortville, and at mile 26.1.

DRAINAGE AREA.--169 mi^2.

PERIOD OF RECORD.--July 1941 to current year.

REVISED RECORDS.--WSP 1435: 1949(P). WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 787.43 ft above National Geodetic Vertical Datum of 1929 (levels by Indianapolis Water Co.). Prior to June 27, 1942, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Dec. 16 to Jan. 16, Jan. 24 to Feb. 1, Feb. 13-17, and Feb. 24 to Mar. 4. Records good except for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--45 years, 167 ft^3/s, 13.42 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,750 ft^3/s Apr. 21, 1964, gage height, 9.88 ft; minimum daily, 5.0 ft^3/s Sept. 23, 24, 1941.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, about 12 ft March 1913 (information by local resident).

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,300 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 27	1900	1,470	6.03	Mar. 20	0100	2,120	6.99
Dec. 12	1800	*3,640	*8.16				

Minimum daily discharge, 28 ft^3/s Oct. 8 and Sept. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	39	412	118	115	175	175	850	171	179	60	36
2	32	41	383	116	171	170	179	611	152	295	54	36
3	33	39	283	112	220	175	167	385	137	226	53	36
4	30	38	236	109	864	190	161	306	133	159	51	36
5	32	38	210	100	1160	225	160	267	135	135	51	35
6	33	37	190	98	697	257	186	238	618	119	50	32
7	31	37	168	96	569	243	233	467	971	108	52	31
8	28	36	159	90	461	196	191	891	498	101	51	31
9	30	40	152	88	388	189	171	514	318	103	48	29
10	29	79	161	86	326	207	160	349	253	116	55	28
11	30	190	1430	85	275	426	152	286	243	194	67	32
12	33	134	3340	83	230	477	147	248	777	444	54	55
13	34	268	1900	83	205	1020	138	220	509	455	49	47
14	38	313	712	84	175	781	134	380	313	291	43	39
15	36	217	474	88	140	476	145	337	250	195	49	36
16	36	269	400	90	130	361	142	357	221	153	69	33
17	36	294	300	114	155	301	139	300	220	127	53	30
18	35	195	250	204	472	336	131	255	177	111	46	40
19	38	479	215	410	516	1560	123	257	157	100	42	78
20	45	779	200	385	399	1450	181	222	143	92	41	80
21	51	445	175	265	330	621	737	200	131	85	40	76
22	44	302	165	245	282	452	526	186	124	80	39	54
23	42	235	155	218	249	385	342	174	123	77	39	46
24	43	189	150	190	215	336	271	156	118	72	36	66
25	43	163	140	170	210	294	235	149	107	72	34	79
26	40	244	138	155	195	269	208	264	103	98	37	62
27	38	1320	135	140	180	251	185	505	100	78	75	91
28	39	1300	132	135	175	227	174	351	162	71	59	80
29	36	912	130	115	---	212	166	267	154	67	43	60
30	36	542	122	110	---	203	192	228	138	61	40	54
31	38	---	118	110	---	190	---	200	---	61	37	---
TOTAL	1121	9214	13135	4492	9504	12655	6251	10420	7656	4525	1517	1468
MEAN	36.2	307	424	145	339	408	208	336	255	146	48.9	48.9
MAX	51	1320	3340	410	1160	1560	737	891	971	455	75	91
MIN	28	36	118	83	115	170	123	149	100	61	34	28
CFSM	.21	1.82	2.51	.86	2.01	2.41	1.23	1.99	1.51	.86	.29	.29
IN.	.25	2.03	2.89	.99	2.09	2.79	1.38	2.29	1.69	1.00	.33	.32

CAL YR 1985	TOTAL	75411	MEAN	207	MAX	3340	MIN	24	CFSM	1.22	IN.	16.60
WTR YR 1986	TOTAL	81958	MEAN	225	MAX	3340	MIN	28	CFSM	1.33	IN.	18.04

03352500 FALL CREEK AT MILLERSVILLE, IN

LOCATION.--Lat 39°51'07", long 86°05'15", in NE¼NE¼ sec.9, T.16 N., R.4 E., Marion County, Hydrologic Unit 05120201, on right bank at downstream side of Emerson Way bridge at Millersville, and 9.2 mi upstream from mouth.

DRAINAGE AREA.--298 mi^2.

PERIOD OF RECORD.--October 1929 to current year. Monthly discharges only for some periods, published in WSP 1305. Twice-daily chain gage readings at former site from July 1925 to September 1926 are available in the district office.

REVISED RECORDS.--WSP 1335: 1930-31, 1933, 1936-38, 1942-43. WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 722.16 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 21, 1961, water-stage recorder at site 500 ft downstream at same datum.

REMARKS.--Estimated daily discharges: Dec. 26, Jan. 10-15, 29, 30, Feb. 14, 15, and Feb. 26 to Mar. 3. Records good except those for estimated daily discharges, which are poor. Flow regulated by Geist Reservoir.

AVERAGE DISCHARGE.--57 years, 286 ft^3/s, 13.03 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,900 ft^3/s May 28, 1956, gage height, 13.53 ft; minimum daily, 7.8 ft^3/s Sept. 28, 1941.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 16.3 ft Mar. 26, 1913, from floodmarks, discharge, 22,000 ft^3/s by slope-area measurement.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,430 ft^3/s Dec. 12, gage height, 10.68 ft; minimum daily, 45 ft^3/s Sept. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	52	53	955	154	183	280	263	1870	288	311	75	66
2	50	54	814	165	249	270	281	1450	274	604	72	62
3	49	52	654	166	322	280	240	850	197	456	71	61
4	50	51	511	163	1490	291	227	580	200	294	68	60
5	50	51	442	161	2180	310	232	449	212	221	75	60
6	49	51	394	156	1630	356	252	378	526	177	77	67
7	48	51	341	146	1240	381	312	614	1380	156	76	66
8	48	51	316	133	961	320	281	1340	1310	137	75	66
9	50	62	300	130	761	281	243	1080	695	126	76	67
10	51	305	346	125	627	325	215	669	439	149	82	67
11	52	455	3120	125	500	587	200	487	389	287	75	82
12	57	202	5290	125	404	918	194	467	959	850	64	74
13	61	443	4130	120	337	1690	197	377	1040	999	66	65
14	71	558	1840	120	290	1620	172	664	636	693	64	54
15	58	568	1010	125	252	1020	186	740	424	439	66	56
16	54	745	732	129	255	710	207	743	324	300	67	68
17	53	760	615	144	329	543	204	605	355	226	67	67
18	51	542	510	242	622	614	183	493	276	172	68	99
19	49	1780	451	586	895	2790	168	437	230	146	64	73
20	59	2660	366	709	778	2870	363	381	205	135	64	102
21	58	1470	349	535	639	1560	908	335	185	117	63	56
22	55	847	311	427	502	917	931	302	164	102	63	45
23	54	624	304	375	430	698	637	283	169	93	62	53
24	59	485	292	324	406	576	465	255	155	86	62	120
25	56	429	274	301	354	472	378	259	136	84	62	80
26	54	892	260	279	330	439	328	513	123	134	68	81
27	53	2260	240	251	310	399	286	1140	116	125	72	133
28	52	2830	216	213	290	345	256	881	217	94	69	93
29	61	2140	203	194	---	314	245	576	212	78	56	71
30	60	1290	187	180	---	298	557	431	209	77	63	71
31	52	---	183	172	---	280	---	343	---	75	72	---
TOTAL	1676	22761	25956	7194	17566	22754	9611	19992	12045	7943	2124	2185
MEAN	54.1	759	837	232	627	734	320	645	402	256	68.5	72.8
MAX	71	2830	5290	709	2180	2870	931	1870	1380	999	82	133
MIN	48	51	183	120	183	270	168	255	116	75	56	45
CFSM	.18	2.55	2.81	.78	2.10	2.46	1.07	2.16	1.35	.86	.23	.24
IN.	.21	2.84	3.24	.90	2.19	2.84	1.20	2.50	1.50	.99	.27	.27

CAL YR 1985	TOTAL	153481	MEAN	420	MAX	5680	MIN	47	CFSM	1.41	IN.	19.16
WTR YR 1986	TOTAL	151807	MEAN	416	MAX	5290	MIN	45	CFSM	1.40	IN.	18.95

03352875 FALL CREEK AT 16TH STREET AT INDIANAPOLIS, IN

LOCATION.--Lat 39°47'20", long 86°10'40", in SW¼NW¼ sec.35, T.16 N., R.3 E., Marion County, Hydrologic Unit 05120201, on left bank 120 ft upstream from 16th Street on Aqueduct Street, 1.3 mi upstream from mouth.

DRAINAGE AREA.--317 mi².

PERIOD OF RECORD.--October 1985 to current year.

GAGE.--Water-stage recorder. Datum of gage is 675.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Oct. 1 to Nov. 11, Dec. 13 to Feb. 28, Mar. 15-18, June 4-8, and July 5-10. Records fair except those for estimated daily discharges, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,370 ft³/s Dec. 12, 1985, gage height, 12.81 ft; minimum daily, 30 ft³/s Sept. 22, 23, 1986.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,370 ft³/s Dec. 12, gage height, 12.81 ft; minimum daily, 30 ft³/s Sept. 22, 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	58	56	789	160	190	295	265	1970	321	317	56	51
2	56	59	654	170	220	274	277	1530	301	514	76	40
3	53	56	540	180	450	270	249	869	217	396	67	35
4	54	54	421	175	1500	276	219	579	220	253	57	41
5	55	52	368	170	2000	296	215	441	230	210	57	34
6	54	52	318	165	1700	324	253	406	500	170	67	39
7	52	52	299	155	1300	364	292	657	1400	155	92	50
8	52	52	273	142	1050	325	270	1250	1300	135	71	47
9	53	64	251	140	820	275	252	1090	734	125	69	41
10	54	300	281	135	680	327	222	695	470	160	113	39
11	55	470	2730	135	540	495	203	503	431	463	93	113
12	64	207	5050	135	420	909	197	555	820	754	62	75
13	70	335	4300	140	350	1700	197	406	982	938	61	49
14	80	410	1900	140	320	1890	184	621	679	651	54	36
15	69	449	1100	140	280	1300	202	732	469	432	59	33
16	61	559	800	140	250	800	221	691	363	308	90	35
17	60	608	640	150	290	600	214	592	366	231	74	42
18	58	449	500	300	430	640	188	503	305	202	69	150
19	55	1640	400	630	880	3070	174	412	252	163	76	88
20	66	2420	330	700	750	3250	359	368	220	147	70	156
21	64	1570	275	560	600	1860	791	325	212	140	68	53
22	63	814	300	450	520	953	924	292	200	98	55	30
23	61	533	330	400	430	710	635	275	190	104	45	30
24	66	420	300	360	380	591	501	255	160	85	48	106
25	64	371	270	330	330	499	375	297	133	82	43	72
26	62	684	240	300	300	427	321	589	107	152	42	73
27	60	1810	225	270	360	398	292	1070	96	180	57	147
28	58	2690	210	230	300	332	279	953	228	115	49	89
29	67	2180	195	210	---	306	246	605	197	88	50	66
30	64	1220	180	190	---	286	752	479	186	73	44	98
31	55	---	170	170	---	280	---	385	---	88	55	---
TOTAL	1863	20636	24639	7672	17640	24322	9769	20395	12289	7929	1989	1958
MEAN	60.1	688	795	247	630	785	326	658	410	256	64.2	65.3
MAX	80	2690	5050	700	2000	3250	924	1970	1400	938	113	156
MIN	52	52	170	135	190	270	174	255	96	73	42	30

WTR YR 1986 TOTAL 151101 MEAN 414 MAX 5050 MIN 30

03353000 WHITE RIVER AT INDIANAPOLIS, IN

LOCATION.--Lat 39°45'05", long 86°10'30", in NW¼NW¼ sec.14, T.15 N., R.3 E., Marion County, Hydrologic Unit 05120201, on downstream side of second pier from right bank of Morris Street bridge in Indianapolis, 2.6 mi downstream from Fall Creek, 3.4 mi upstream from Eagle Creek, and at mile 230.3.

DRAINAGE AREA.--1,635 mi^2.

PERIOD OF RECORD.--March 1904 to July 1906 and April 1930 to current year. Gage-height record published in reports of National Weather Service for site 1.1 mi upstream Feb. 8, 1911, to Mar. 25, 1913, and at site 2.3 mi upstream since Oct. 16, 1913. Prior to October 1948, published as West Fork White River at Indianapolis.

REVISED RECORDS.--WSP 1335: 1932-33, 1937, 1939-41. WSP 1505: 1938. WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 662.26 ft above National Geodetic Vertical Datum of 1929. March 1904 to July 1906, nonrecording gage at railroad bridge 0.8 mi upstream at datum approximately 2.9 ft higher. April 1930 to July 20, 1931, nonrecording gage at Indianapolis sanitation plant, 2.5 mi downstream at datum 660.00 ft lower. July 21, 1931 to Mar. 2, 1932, nonrecording gage and March 3, 1932, to September 30, 1960, water-stage recorder at present site at datum 660.00 ft lower.

REMARKS.--Estimated daily discharges: Dec. 18-30, and Jan. 27-31. Records fair. Natural flow affected by regulation of Morse Reservoir and Geist Reservoir, and by diversion of municipal water supply by the Indianapolis Water Company. Stage-discharge relation affected at times by releases from Eagle Creek Reservoir.

AVERAGE DISCHARGE.--57 years (water years 1905, 1931 to current year), 1,410 ft^3/s, 11.71 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 37,200 ft^3/s May 18, 1943; maximum gage height, 21.57 ft Jan. 16, 1937; minimum daily discharge, 8.0 ft^3/s Sept. 29, 1941.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 26, 1913, reached a stage of 30.0 ft, from floodmarks determined by Indianapolis Water Company, discharge, 70,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 8,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 19	2000	13,200	12.33	Feb. 6	0400	8,950	10.29
Nov. 28	1600	13,400	12.43	Mar. 14	1100	8,930	10.28
Dec. 12	0800	*19,300	*14.69	Mar. 20	1500	12,200	11.88

Minimum daily discharge, 112 ft^3/s Oct. 10, 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	151	163	5360	992	895	1540	1370	6580	1680	1780	373	162
2	129	184	4330	943	1020	1430	1340	5800	1420	3210	319	161
3	134	167	3560	931	1130	1400	1240	3970	1130	3890	303	149
4	134	164	2760	883	4170	1350	1180	2710	1710	3080	272	139
5	130	160	2320	907	7750	1410	1150	2100	1500	1860	255	133
6	117	165	1990	739	8530	1800	1400	1830	1930	1300	247	120
7	120	170	1740	703	6600	2210	2290	2510	4320	955	269	119
8	121	159	1530	661	4730	2070	2160	5490	6590	778	262	124
9	114	271	1430	585	3850	1690	1670	5780	4910	652	253	119
10	112	1600	1530	621	3070	1820	1360	3950	3030	721	327	115
11	112	1570	12100	649	2530	2610	1170	2570	2370	1450	333	352
12	121	1120	18600	683	2060	4450	1080	2760	3500	2950	292	349
13	161	1910	18800	655	1640	7490	968	1930	4430	4250	242	193
14	236	1800	15600	662	1480	8750	942	3090	3200	3050	216	178
15	200	2390	7480	698	1520	6390	1010	2820	2380	1970	203	161
16	174	2740	4070	619	1340	4110	1040	3340	1800	1400	229	143
17	166	3010	3180	639	1480	3040	991	2610	1620	1040	213	133
18	163	3000	2650	976	2170	3160	929	3020	1450	836	213	382
19	191	8480	2200	1930	4280	10100	834	4410	1380	705	198	388
20	359	12300	2020	2870	4830	11900	1790	3710	1110	607	174	1120
21	228	10300	1870	2760	3740	9710	2380	2680	963	551	168	652
22	190	6900	1750	2040	3000	5160	4370	2160	1220	456	155	526
23	180	4230	1680	1740	2560	3690	3880	1810	1350	403	142	339
24	209	3140	1630	1660	2240	3020	2480	1560	1620	366	140	603
25	209	2630	1390	1450	1970	2510	1930	1660	1450	358	146	508
26	185	3820	1140	1290	1840	2280	1650	2720	1040	568	144	441
27	170	9000	1190	1140	1920	2030	1400	4500	809	1030	186	746
28	159	12900	1210	950	1790	1800	1320	3880	1080	879	218	735
29	150	11900	1180	800	---	1640	1200	2990	1240	611	225	642
30	147	8380	1140	760	---	1500	2680	2400	1750	466	175	590
31	164	---	1080	790	---	1380	---	2000	---	453	169	---
TOTAL	5136	114723	128510	33726	84135	113440	49204	99340	63982	42625	7061	10522
MEAN	166	3824	4145	1088	3005	3659	1640	3205	2133	1375	228	351
MAX	359	12900	18800	2870	8530	11900	4370	6580	6590	4250	373	1120
MIN	112	159	1080	585	895	1350	834	1560	809	358	140	115
CFSM	.10	2.34	2.54	.67	1.84	2.24	1.00	1.96	1.30	.84	.14	.21
IN.	.12	2.61	2.92	.77	1.91	2.58	1.12	2.26	1.46	.97	.16	.24

CAL YR 1985	TOTAL	740055	MEAN	2028	MAX	27000	MIN	112	CFSM	1.24	IN. 16.84
WTR YR 1986	TOTAL	752404	MEAN	2061	MAX	18800	MIN	112	CFSM	1.26	IN. 17.12

03353120 PLEASANT RUN AT ARLINGTON AVENUE AT INDIANAPOLIS, IN

LOCATION.--Lat 39°46'33", long 86°03'50", in SW¼NW¼ sec.2, T.15 N., R.4 E., Marion County, Hydrologic Unit 05120201, on right bank 46 ft upstream from Arlington Avenue bridge in Indianapolis, 0.5 mi downstream from small left-bank tributary, and at mile 7.9.

DRAINAGE AREA.--7.58 mi².

PERIOD OF RECORD.--December 1959 to current year.

REVISED RECORDS.--WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 780.00 ft above National Geodetic Vertical Datum of 1929 (levels by State of Indiana, Department of Natural Resources).

REMARKS.--Estimated daily discharges: Dec. 19 to Jan. 18, Jan. 28-31, Feb. 11-17, and Feb. 23-26. Records fair.

AVERAGE DISCHARGE.--26 years (water years 1961 to current year), 7.86 ft³/s, 14.08 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,600 ft³/s June 25, 1978, gage height, 13.86 ft; no flow at times in 1960-62.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in May 1956 reached a stage of 16.0 ft, from information by local resident.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 450 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 10	1245	646	6.79	May 7	1945	455	5.88
Nov. 19	1000	*834	*7.52	May 26	1115	459	5.90
Dec. 11	0515	517	6.17	July 11	1845	748	7.17
Mar. 18	2230	634	6.69				

Minimum daily discharge, 0.20 ft³/s Sept. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	2.9	26	1.4	13	4.1	7.9	58	2.8	37	1.1	.20
2	.59	3.4	11	1.3	8.7	5.0	4.4	8.9	2.2	12	.71	1.5
3	.55	.74	7.7	1.2	30	6.1	3.0	5.1	2.0	2.7	.58	.31
4	.98	.64	6.5	1.2	89	4.6	2.6	3.9	27	1.5	.67	.27
5	.57	.72	6.7	1.2	24	4.2	5.5	3.1	5.7	1.0	.73	.26
6	.40	.74	5.9	1.2	25	5.9	12	4.5	38	.97	1.1	.30
7	.40	1.2	5.1	1.1	22	3.8	3.5	66	14	.91	2.2	.36
8	.40	.78	4.8	1.0	14	3.0	2.7	22	25	4.5	.71	.38
9	.44	16	4.5	1.0	9.5	3.2	2.4	7.6	5.3	1.7	.54	.29
10	.54	187	31	1.0	7.0	26	2.6	4.8	4.6	18	6.1	.29
11	1.1	26	272	1.0	5.0	8.9	2.5	3.9	8.1	106	1.2	38
12	1.3	25	27	1.1	4.0	50	2.0	27	8.3	52	.56	6.6
13	1.3	48	13	1.0	3.2	40	1.6	10	3.2	12	.59	1.3
14	5.5	15	8.8	.97	2.8	12	7.4	36	2.2	4.9	.62	.74
15	1.0	16	7.0	.93	2.6	7.0	4.6	18	1.9	3.2	1.6	.56
16	.71	43	6.5	.90	2.4	5.1	10	16	2.1	2.3	3.2	.50
17	.69	11	5.3	1.3	10	4.2	5.8	7.0	1.7	1.8	.74	.60
18	.75	7.0	4.0	2.3	13	142	3.0	9.2	1.3	1.8	.47	26
19	6.2	227	3.1	30	9.7	79	2.4	5.8	1.1	1.5	.40	15
20	20	31	2.7	8.6	7.1	14	131	4.4	1.1	1.3	.39	41
21	2.3	12	2.3	6.1	6.6	8.5	24	3.8	1.1	1.3	.55	3.8
22	1.0	11	2.6	5.2	4.9	6.6	9.1	3.3	1.3	1.1	.63	1.8
23	.87	7.5	3.0	4.1	4.3	5.5	6.0	2.8	1.9	.99	.62	1.2
24	4.6	6.0	2.8	4.5	3.9	4.6	4.3	2.4	1.0	.98	.54	24
25	.84	16	2.2	4.0	4.5	4.3	3.7	15	.87	5.3	.50	4.2
26	.68	125	1.9	3.1	5.1	4.3	3.0	86	.89	5.0	1.5	17
27	.62	70	1.7	2.4	7.6	3.6	2.6	19	5.2	1.0	.82	15
28	.67	59	1.6	2.1	4.9	3.2	4.8	8.1	14	1.6	.37	4.0
29	.72	15	1.5	2.0	---	3.0	2.4	5.9	1.7	1.1	.30	2.0
30	.84	10	1.5	1.8	---	2.8	67	4.4	8.9	.94	.24	8.4
31	.98	---	1.4	1.7	---	2.5	---	3.4	---	4.2	.21	---
TOTAL	58.84	994.62	481.1	96.70	343.8	477.0	343.8	475.3	194.46	290.59	30.49	215.86
MEAN	1.90	33.2	15.5	3.12	12.3	15.4	11.5	15.3	6.48	9.37	.98	7.20
MAX	20	227	272	30	89	142	131	86	38	106	6.1	41
MIN	.40	.64	1.4	.90	2.4	2.5	1.6	2.4	.87	.91	.21	.20
CFSM	.25	4.38	2.04	.41	1.62	2.03	1.52	2.02	.85	1.24	.13	.95
IN.	.29	4.88	2.36	.47	1.69	2.34	1.69	2.33	.95	1.43	.15	1.06

CAL YR 1985	TOTAL	3938.52	MEAN	10.8	MAX	272	MIN	.40	CFSM	1.42	IN.	19.33
WTR YR 1986	TOTAL	4002.56	MEAN	11.0	MAX	272	MIN	.20	CFSM	1.45	IN.	19.64

03353180 BEAN CREEK AT INDIANAPOLIS, IN

LOCATION.--Lat 39°43'45", long 86°07'14", in NW¼SW¼ sec.20, T.15 N., R.4 E., Marion County, Hydrologic Unit 05120201, on left bank 80 ft upstream from Keystone Avenue bridge and west edge of Sarah Shank Golf Course in Indianapolis, and at mile 1.8.

DRAINAGE AREA.--4.40 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 735.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Oct. 8-13, 15-19, Oct. 22 to Nov. 9, Dec. 20-24, Dec. 26 to Jan. 17, Jan. 27-31, Feb. 11-17, 28, Mar. 1, 8, 9, 19-21, and June 28 to Aug. 7. Records good except those for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--16 years, 5.30 ft^3/s, 16.36 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 770 ft^3/s June 25, 1978, gage height, 7.77 ft; minimum daily, 0.38 ft^3/s Oct. 2, 1983.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 200 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 19	0945	*366	*5.67	May 7	1800	268	4.97
Dec. 11	1100	206	4.45	May 14	0145	219	4.57
Mar. 18	2230	272	5.00				

Minimum daily discharge, 0.85 ft^3/s Aug. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	3.5	16	2.2	6.3	3.0	5.1	19	3.0	22	1.7	.91
2	1.5	6.5	7.6	2.4	3.9	2.6	2.9	4.9	2.7	8.0	1.3	2.0
3	1.5	3.3	5.2	2.2	13	3.1	2.6	3.5	2.5	2.7	1.2	1.1
4	1.8	2.0	4.8	2.0	40	2.8	2.5	2.9	15	2.1	1.1	1.1
5	1.5	2.2	4.7	1.8	16	2.7	2.9	2.7	5.2	2.0	1.0	1.0
6	1.3	2.2	4.2	1.7	15	3.3	2.8	4.6	11	1.8	1.1	1.0
7	1.2	3.2	3.9	1.7	15	2.5	2.3	40	8.1	1.8	1.5	.87
8	1.2	2.6	3.6	1.6	7.8	2.2	2.3	16	5.6	4.5	1.2	.94
9	1.5	9.5	3.4	1.6	5.8	2.0	2.2	5.7	3.5	2.2	1.1	1.0
10	2.7	44	15	1.6	4.2	13	2.3	4.0	4.9	15	2.2	1.0
11	4.5	11	109	1.7	3.6	5.1	2.2	3.1	5.5	50	1.2	14
12	4.7	17	23	1.7	3.2	25	2.1	47	6.2	30	1.1	2.2
13	4.8	20	12	1.6	2.9	22	1.9	12	3.2	12	1.1	1.2
14	6.8	8.4	8.2	1.6	2.6	7.9	4.0	43	2.8	7.0	1.2	1.0
15	4.1	9.5	6.6	1.6	2.5	5.3	2.6	14	2.6	4.5	1.6	1.0
16	3.2	19	6.2	1.7	2.3	4.0	4.6	13	3.2	3.7	1.7	1.1
17	2.9	6.4	5.5	3.1	9.0	3.6	3.0	5.8	2.5	3.2	1.0	1.1
18	3.2	5.1	5.0	7.0	6.1	56	2.4	6.8	2.3	3.8	.93	14
19	9.5	108	4.4	13	5.5	70	2.1	4.8	2.2	2.7	.93	4.6
20	15	21	3.6	4.2	4.1	16	61	3.7	2.2	2.1	.99	17
21	5.0	9.3	3.0	3.5	3.6	8.0	18	3.2	2.1	2.3	.96	2.0
22	3.5	7.8	3.3	3.3	3.1	5.5	7.9	2.9	2.0	2.0	.95	1.6
23	3.0	5.5	3.5	3.0	2.9	4.6	5.3	3.0	2.0	1.8	.93	1.6
24	6.5	4.3	3.4	2.9	4.3	4.0	4.3	2.7	2.0	1.7	.85	8.3
25	3.4	10	3.3	3.0	3.1	3.7	3.7	10	2.0	4.0	.86	1.8
26	2.1	49	3.1	2.7	4.6	3.6	3.3	46	1.9	2.5	2.6	3.0
27	1.8	40	2.8	2.3	4.1	3.2	2.8	18	2.2	1.7	1.9	3.1
28	1.9	35	2.5	1.8	3.6	3.0	3.9	7.6	8.0	2.4	1.1	1.5
29	2.6	12	2.3	1.9	---	2.7	2.6	5.3	2.8	1.8	1.0	1.5
30	3.5	8.0	2.2	2.2	---	2.5	16	4.6	11	1.6	.93	5.2
31	2.8	---	2.1	1.9	---	2.5	---	3.6	---	3.0	.92	---
TOTAL	110.7	485.3	283.4	84.5	198.1	295.4	181.6	363.4	130.2	205.9	38.15	97.72
MEAN	3.57	16.2	9.14	2.73	7.07	9.53	6.05	11.7	4.34	6.64	1.23	3.26
MAX	15	108	109	13	40	70	61	47	15	50	2.6	17
MIN	1.2	2.0	2.1	1.6	2.3	2.0	1.9	2.7	1.9	1.6	.85	.87
CFSM	.81	3.68	2.08	.62	1.61	2.17	1.37	2.66	.99	1.51	.28	.74
IN.	.94	4.10	2.40	.71	1.67	2.50	1.54	3.07	1.10	1.74	.32	.83

CAL YR 1985	TOTAL	2591.9	MEAN	7.10	MAX	123	MIN	1.1	CFSM	1.61	IN.	21.91
WTR YR 1986	TOTAL	2474.37	MEAN	6.78	MAX	109	MIN	.85	CFSM	1.54	IN.	20.92

03353200 EAGLE CREEK AT ZIONSVILLE, IN

LOCATION.--Lat 39°56'56", long 86°15'22", in SW¼NW¼ sec.1, T.17 N., R.2 E., Boone County, Hydrologic Unit 05120201, on downstream side of second pier from right bank of bridge on State Highway 334 at Zionsville, 200 ft upstream from Long Branch, and at mile 24.7.

DRAINAGE AREA.--103 mi^2.

PERIOD OF RECORD.--October 1957 to current year.

REVISED RECORDS.--WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 816.85 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 9, 1957, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Dec. 15, 18, 19, 21, 25, 29, 31, Jan. 6-8, 12-15, 26, 27, 29, and Feb. 11-13, 15. Records good. Low flow is affected by the Zionsville well field located on the right bank below the gage.

AVERAGE DISCHARGE.--29 years, 101.8 ft^3/s, 13.42 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,400 ft^3/s Apr. 20, 1964, gage height, 14.64 ft; no flow at times during 1959, 1963-68, 1970, 1971, 1983, 1984.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 28, 1957, reached a stage of 19.20 ft, from floodmark.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 19	2000	4,130	10.17	Mar. 19	0400	3,090	9.00
Nov. 26	2100	2,440	8.06	May 1	0300	1,620	6.62
Nov. 28	0500	1,500	6.40	May 18	1600	1,500	6.40
Dec. 11	1400	*5,580	*11.27				

Minimum daily discharge, 0.12 ft^3/s Sept. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.80	3.6	344	34	36	86	54	1040	80	338	7.1	.68
2	.58	4.7	312	32	50	77	53	377	63	529	7.2	1.8
3	.44	4.5	170	34	62	77	48	205	50	203	6.1	.66
4	.42	4.3	131	32	956	82	46	134	49	96	4.4	.52
5	.42	4.2	113	32	723	98	51	103	52	61	4.0	.35
6	.34	3.9	95	28	446	122	144	80	103	43	3.8	.29
7	.41	3.6	80	24	383	99	106	102	304	33	4.8	.24
8	.41	3.5	76	21	270	79	76	134	316	28	4.8	.25
9	.34	6.1	73	22	209	74	62	86	139	24	4.7	.21
10	.30	37	188	24	149	143	54	64	86	24	5.8	.12
11	.34	66	4060	25	114	304	49	54	105	81	7.1	.47
12	.87	38	1180	26	88	684	45	58	546	356	4.9	1.8
13	.92	71	545	28	74	754	45	49	228	161	3.6	1.2
14	3.2	85	335	27	67	411	42	142	121	67	3.2	2.6
15	4.2	77	225	25	58	257	46	135	85	44	3.0	1.3
16	3.8	446	160	24	54	173	47	194	65	32	7.0	1.1
17	6.4	338	122	54	106	130	45	105	56	24	4.4	1.1
18	3.1	275	98	113	335	282	40	751	44	19	3.7	4.0
19	4.3	2600	86	143	417	1760	38	588	38	17	1.7	2.2
20	4.3	2170	76	94	279	503	71	324	34	15	1.4	11
21	4.0	661	58	70	209	283	151	210	30	12	1.2	4.8
22	3.5	439	65	68	160	197	90	147	68	10	1.0	3.9
23	3.5	313	64	58	119	152	69	112	145	8.9	.88	2.8
24	4.3	223	61	54	108	114	61	86	49	7.4	.93	11
25	4.4	175	50	57	94	98	58	91	31	6.8	.98	5.5
26	4.2	1070	48	50	120	87	52	324	25	61	1.7	3.4
27	6.6	1130	49	46	137	76	47	510	23	34	2.2	11
28	3.6	1130	43	40	102	70	44	263	52	16	.86	14
29	3.2	545	40	34	---	68	41	197	34	11	.66	5.8
30	3.2	377	38	32	---	63	197	144	85	7.9	.57	4.3
31	3.5	---	36	30	---	56	---	108	---	7.4	.52	---
TOTAL	79.89	12304.4	9021	1381	5925	7459	1972	6917	3106	2377.4	104.20	98.39
MEAN	2.58	410	291	44.5	212	241	65.7	223	104	76.7	3.36	3.28
MAX	6.6	2600	4060	143	956	1760	197	1040	546	529	7.2	14
MIN	.30	3.5	36	21	36	56	38	49	23	6.8	.52	.12
CFSM	.03	3.98	2.83	.43	2.06	2.34	.64	2.17	1.01	.74	.03	.03
IN.	.03	4.44	3.26	.50	2.14	2.69	.71	2.50	1.12	.86	.04	.04

CAL YR 1985 TOTAL 56024.50 MEAN 153 MAX 4060 MIN .30 CFSM 1.49 IN. 20.23
WTR YR 1986 TOTAL 50745.28 MEAN 139 MAX 4060 MIN .12 CFSM 1.35 IN. 18.33

03353450 EAGLE CREEK RESERVOIR NEAR INDIANAPOLIS, IN

LOCATION.--Lat 39°49'20", long 86°18'11", in NW¼NW¼ sec. 22, T.16 N., R.2 E., Marion County, Hydrologic Unit 05120201, in outlet structure of reservoir on Eagle Creek, 800 ft upstream from Interstate Highway 74, 0.5 mi downstream from School Branch, 1.0 mi northeast of Clermont, and 2 mi west of Indianapolis.

DRAINAGE AREA.--162 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 780.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Reservoir is formed by earth-fill dam. Low flow is controlled through a 48-inch diameter conduit. Spillway elevation, 783 ft is an ogee section with 6 taintor gates, each 40 ft wide and 25 ft high. Permanent pool capacity is 24,000 acre-ft, elevation, 790.00 ft. Reservoir is used for flood control, low-flow maintenance, water supply, and recreation. Reservoir put into operation Nov. 27, 1969.

COOPERATION.--Water-stage elevations and capacity tables furnished by Indianapolis Flood Control District.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 27,350 acre-ft June 26, 1978, elevation, 792.39 ft; minimum, 13,750 acre-ft Nov. 28, 1971, elevation, 781.25 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 25,760 acre-ft July 2, elevation, 791.26 ft; minimum, 19,970 acre-ft Nov. 9, elevation, 786.89 ft.

MONTHEND ELEVATION AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	787.68	20,980	
Oct. 31	787.04	20,150	-830
Nov. 30	790.64	24,900	+4,750
Dec. 31	790.50	24,700	-200
CAL YR 1985			+620
Jan. 31	790.49	24,690	-10
Feb. 28	790.52	24,730	+40
Mar. 31	790.61	24,850	+120
Apr. 30	790.68	24,950	+100
May 31	790.56	24,780	-170
June 30	791.08	25,510	+730
July 31	790.78	25,090	-420
Aug. 31	789.40	23,220	-1.870
Sept. 30	789.16	22,910	-310
WTR YR 1986			+1,930

03353500 EAGLE CREEK AT INDIANAPOLIS, IN

LOCATION.--Lat 39°46'33", long 86°15'01", in NW¼NW¼ sec.6, T.15 N., R.3 E., Marion County, Hydrologic Unit 05120201, on right bank at downstream side of bridge on Lynhurst Drive, approximately 600 ft south of intersection of West 10th Street and Lynhurst Drive, 0.5 mi downstream from West 10th Street bridge, 1.0 mi upstream from Vermont Street bridge, 3.0 mi upstream from Little Eagle Creek, and 7.1 mi upstream from mouth.

DRAINAGE AREA.--174 mi^2.

PERIOD OF RECORD.--November 1938 to current year.

REVISED RECORDS.--WSP 953: 1939. WSP 1625: 1958. WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 699.00 ft above National Geodetic Vertical Datum of 1929. Aug. 8, 1957 to June 30, 1958, temporary site during reconstruction of bridge on Lynhurst Drive, a nonrecording gage on downstream side of 10th Street bridge. Mar. 10, 1966 to Aug. 16, 1967, during channelization of Eagle Creek, a nonrecording gage on downstream side of Lynhurst Drive bridge. Prior to Oct. 1, 1967, at datum 7.21 ft higher.

REMARKS.--Estimated daily discharges: Oct. 1-10, Dec. 20 to Jan. 11, and Jan. 27-29. Records fair. Flow regulated since November 1969 by Eagle Creek Reservoir, 4.7 mi upstream (see sta 03353450).

AVERAGE DISCHARGE.--47 years (water years 1940 to current year), 158 ft^3/s, 12.33 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,800 ft^3/s June 28, 1957, gage height, 23.59 ft present datum from rating curve extended above 9,000 ft^3/s on basis of a combined current-meter measurement and slope-area measurement; no flow for several days in August 1941.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913 reached a stage of 23.2 ft present datum, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 11,000 ft^3/s Dec. 11, gage height, 10.13 ft; minimum daily, 4.2 ft^3/s Nov. 7, 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.0	6.3	520	15	26	82	149	2000	128	332	18	14
2	6.8	6.7	424	190	129	174	107	632	99	864	19	12
3	6.6	6.2	182	17	151	131	25	336	22	221	19	10
4	6.6	5.8	243	18	1450	148	120	287	265	137	19	9.6
5	6.6	5.9	183	170	1250	129	115	154	181	25	18	10
6	6.0	4.4	109	21	722	169	184	130	180	127	20	10
7	6.4	4.2	146	21	634	190	147	264	261	23	20	10
8	6.4	4.2	102	21	435	140	108	355	419	21	19	11
9	5.9	15	183	21	240	117	115	154	205	21	19	9.9
10	5.4	106	128	21	287	257	114	124	98	34	28	9.2
11	5.8	37	7230	21	181	407	23	77	181	184	21	22
12	10	22	3820	109	142	1070	99	200	742	433	20	12
13	5.6	55	991	26	87	1440	21	118	163	175	20	10
14	7.7	27	536	25	163	668	124	320	26	125	20	10
15	5.7	26	406	116	135	372	33	397	373	28	25	10
16	5.5	57	247	24	74	283	99	483	37	23	22	9.7
17	5.9	33	214	24	80	190	23	175	28	23	20	10
18	5.6	29	166	217	420	537	97	1080	26	23	19	24
19	6.4	3700	189	241	663	3160	20	1040	21	22	18	17
20	12	4440	102	140	366	840	211	433	19	21	18	58
21	6.0	1100	56	135	345	431	240	364	24	22	17	15
22	5.5	644	220	133	205	285	133	239	22	20	17	12
23	5.4	439	16	79	202	290	122	154	146	20	16	11
24	6.1	261	110	69	248	153	98	157	21	20	14	15
25	7.0	314	15	117	202	186	63	222	32	21	13	12
26	5.8	1390	90	91	194	161	81	610	62	22	12	18
27	5.6	2160	15	20	162	122	20	964	20	22	13	22
28	5.3	1810	15	120	238	105	153	422	116	21	13	12
29	5.1	785	15	20	---	115	21	335	26	19	12	10
30	4.8	525	150	78	---	123	1070	184	39	20	11	16
31	5.0	---	15	74	---	25	---	166	---	22	13	---
TOTAL	195.5	18018.7	16838	2394	9431	12500	3935	12576	3982	3091	553	431.4
MEAN	6.31	601	543	77.2	337	403	131	406	133	99.7	17.8	14.4
MAX	12	4440	7230	241	1450	3160	1070	2000	742	864	28	58
MIN	4.8	4.2	15	15	26	25	20	77	19	19	11	9.2
CFSM	.04	3.45	3.12	.44	1.94	2.32	.75	2.33	.76	.57	.10	.08
IN.	.04	3.85	3.60	.51	2.02	2.67	.84	2.69	.85	.66	.12	.09

CAL YR 1985	TOTAL	90732.6	MEAN	249	MAX	7230	MIN	4.2	CFSM	1.43	IN.	19.40
WTR YR 1986	TOTAL	83945.6	MEAN	230	MAX	7230	MIN	4.2	CFSM	1.32	IN.	17.95

03353600 LITTLE EAGLE CREEK AT SPEEDWAY, IN

LOCATION.--Lat 39°47'15", long 86°13'41", in NE¼SW¼ sec.32, T.16 N., R.3 E., Marion County, Hydrologic Unit 05120201, on right bank at upstream side of 16th Street bridge in Speedway, 0.6 mi upstream from Dry Run, and 2.3 mi upstream from mouth.

DRAINAGE AREA.--23.9 mi^2 including 5.57 mi^2 from Dry Run basin. Since June 1964 part of the flow from the 5.57 mi^2 of Dry Run basin has been diverted into Little Eagle Creek above gage.

PERIOD OF RECORD.--October 1959 to current year. Figures of runoff for June 1964 to September 1966 have been found to be in error and should not be used.

GAGE.--Water-stage recorder. Datum of gage is 707.82 ft above National Geodetic Vertical Datum of 1929 (levels by State of Indiana, Department of Natural Resources). Prior to June 13, 1975, at datum 3.00 ft higher.

REMARKS.--Estimated daily discharges: Oct. 1-11, Nov. 5-8, Nov. 19, Dec. 5-9, 19-21, 23-25, 29, Jan. 1-5, 13-16, Jan. 24 to Feb. 11, Feb. 19 to Mar. 24, 28, 29, 31, Apr. 3, 4, June 11, 12, 16-23, July 19-24, July 26 to Aug. 1, Aug. 31, and Sept. 1, 3-5, 7-10, 15-17. Records fair except those for estimated daily discharge, which are poor.

AVERAGE DISCHARGE.--22 years (water years 1965 to current year) 22.0 ft^3/s, 12.50 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,330 ft^3/s July 28, 1979, gage height, 12.13 ft; no flow at times in 1960-64, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 450 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 10	1300	491	4.96	Apr. 30	1815	*1,820	*8.53
Nov. 19	1040	1,790	8.47	May 12	0330	563	5.21
Nov. 26	1900	575	5.25	May 26	1300	502	5.00
Dec. 11	0945	1,460	7.71	June 4	1630	1,710	8.29
Mar. 19	Unknown	Unknown	Unknown	July 12	1730	468	4.88

Minimum daily discharge, 1.0 ft^3/s Sept. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.0	5.9	63	7.8	9.0	15	16	446	15	62	3.9	1.1
2	2.1	11	47	7.4	14	13	18	74	11	62	2.8	1.2
3	1.8	6.1	30	7.8	24	14	12	40	10	18	2.3	1.1
4	1.8	4.7	27	7.8	210	13	11	28	268	12	2.0	1.2
5	2.5	4.0	24	7.4	130	12	15	23	64	9.8	2.1	1.3
6	2.3	4.0	21	7.1	58	16	27	19	54	8.2	1.7	1.6
7	2.1	3.5	19	4.8	70	13	14	93	58	7.1	2.9	1.2
8	1.9	3.1	18	3.7	44	10	12	90	39	6.5	1.7	1.1
9	1.8	36	17	3.6	35	10	10	28	20	5.8	1.3	1.1
10	2.6	240	68	3.7	28	40	8.4	20	17	16	35	1.0
11	4.0	85	905	3.9	22	39	8.3	15	60	100	7.5	36
12	25	46	159	3.9	18	160	7.9	220	100	185	2.6	25
13	6.9	147	76	3.6	12	120	7.1	78	27	60	1.8	4.6
14	14	66	44	3.7	9.6	19	16	174	17	21	1.6	2.2
15	12	50	35	4.0	9.4	16	17	147	13	17	7.4	1.3
16	4.5	111	31	3.9	8.4	15	16	131	10	13	8.2	1.2
17	3.5	45	24	13	42	22	15	49	11	10	3.5	1.2
18	6.6	49	20	20	41	80	11	165	10	7.0	2.3	61
19	13	1100	16	35	39	430	9.5	92	9.0	6.0	2.0	28
20	33	228	14	17	33	150	95	43	8.0	4.5	2.2	131
21	8.8	82	13	12	25	40	67	32	9.0	3.3	2.4	13
22	4.4	62	15	12	21	32	32	26	24	2.5	1.6	7.0
23	3.7	43	15	9.5	18	27	20	21	35	2.0	1.3	4.3
24	13	31	14	9.2	16	23	19	16	8.1	2.0	1.3	51
25	6.8	44	11	10	13	19	17	71	6.1	6.5	1.2	14
26	4.5	274	13	9.0	20	18	15	253	5.0	14	1.1	31
27	3.4	212	12	7.8	26	17	14	148	7.9	4.6	1.6	44
28	2.6	245	11	6.8	18	16	17	48	31	3.7	2.2	16
29	3.4	86	10	6.0	---	14	15	36	6.8	2.5	1.5	7.9
30	2.4	57	8.8	6.0	---	13	588	24	28	2.0	1.3	28
31	2.7	---	8.5	6.0	---	12	---	18	---	7.0	1.1	---
TOTAL	201.1	3381.3	1789.3	263.4	1013.4	1438	1150.2	2668	981.9	681.0	111.4	519.6
MEAN	6.49	113	57.7	8.50	36.2	46.4	38.3	86.1	32.7	22.0	3.59	17.3
MAX	33	1100	905	35	210	430	588	446	268	185	35	131
MIN	1.8	3.1	8.5	3.6	8.4	10	7.1	15	5.0	2.0	1.1	1.0
CFSM	.27	4.73	2.41	.36	1.51	1.94	1.60	3.60	1.37	.92	.15	.72
IN.	.31	5.26	2.79	.41	1.58	2.24	1.79	4.15	1.53	1.06	.17	.81

CAL YR 1985	TOTAL	12717.75	MEAN	34.8	MAX	1100	MIN	.92	CFSM	1.46	IN.	19.79
WTR YR 1986	TOTAL	14198.6	MEAN	38.9	MAX	1100	MIN	1.0	CFSM	1.63	IN.	22.10

03353620 LICK CREEK AT INDIANAPOLIS, IN

LOCATION.--Lat 39°42'21", long 86°06'13", in NE¼NE¼ sec.32, T.15 N., R.4 E., Marion County, Hydrologic Unit 05120201, on left bank at upstream side of Sherman Drive bridge in Indianapolis, and at mile 6.2.

DRAINAGE AREA.--15.6 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 742.00 ft above National Geodetic Vertical Datum of 1929 (Indiana Flood Control and Water Resources Commission bench mark).

REMARKS.--Estimated daily discharges: Dec. 15, 18-31, Jan. 1-17, 27-31, Feb. 8-17, and Feb. 24-26. Records good above 1 ft^3/s and fair below.

AVERAGE DISCHARGE.--16 years, 19.5 ft^3/s, 16.98 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,500 ft^3/s June 25, 1978, gage height, 9.61 ft; minimum daily, 0.05 ft^3/s Sept. 19, 1983.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 19	1115	946	5.59	Apr. 20	1145	504	4.10
Nov. 26	1615	536	4.19	May 7	2100	550	4.27
Dec. 11	1115	849	5.28	May 26	1300	501	4.09
Mar. 19	0100	*1,010	*5.77				

Minimum daily discharge, 0.24 ft^3/s Sept. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.5	2.5	44	4.3	16	12	9.6	79	7.9	29	1.9	.26
2	1.3	4.1	29	4.0	20	11	10	19	6.5	17	2.0	1.3
3	1.1	2.2	21	4.5	40	13	7.1	12	5.8	6.0	1.3	.93
4	1.2	1.7	17	4.5	226	11	6.5	10	52	3.1	.91	.45
5	1.3	1.6	16	4.1	88	11	8.1	8.9	27	2.2	.73	.35
6	1.2	1.6	13	3.8	56	14	9.9	7.4	59	1.7	.83	.31
7	1.0	1.9	11	3.5	68	11	6.7	126	44	1.6	1.7	.25
8	1.0	1.8	11	3.5	41	9.3	5.9	100	37	8.9	1.2	.24
9	1.2	5.1	10	3.5	26	8.8	5.5	27	15	4.0	.80	.25
10	1.4	188	45	3.5	18	47	5.2	15	13	23	2.6	.27
11	1.8	89	522	3.5	14	40	5.1	10	20	61	2.4	30
12	1.9	73	119	3.8	12	110	4.8	58	48	79	1.9	9.4
13	2.0	100	51	3.5	10	126	4.6	21	14	35	.78	2.0
14	3.8	42	33	3.3	9.2	39	8.0	114	9.1	11	.64	1.0
15	4.6	34	21	3.1	8.6	25	9.2	41	7.2	8.3	.68	.73
16	1.5	85	17	3.0	8.0	17	13	55	8.3	5.9	1.4	.79
17	1.3	32	15	6.0	20	14	12	24	5.5	3.2	1.3	.75
18	1.5	22	10	19	36	169	6.6	20	4.0	2.2	.98	30
19	3.6	440	8.8	73	32	335	5.7	16	3.7	1.8	1.3	9.0
20	14	119	7.4	23	22	58	246	12	3.3	1.5	1.1	48
21	4.4	47	6.6	16	17	28	91	9.7	2.8	1.3	1.3	5.6
22	2.6	33	7.0	14	14	19	35	8.2	2.5	1.2	1.5	2.8
23	2.1	23	8.5	11	12	16	19	7.0	2.4	1.1	1.1	2.3
24	3.3	17	7.9	9.8	11	12	14	6.0	2.3	.92	.52	21
25	2.2	37	7.0	9.8	10	11	10	35	2.1	3.8	.82	7.3
26	1.6	264	6.5	9.4	15	10	8.4	195	2.1	7.0	3.2	5.7
27	1.5	214	6.0	7.5	21	9.6	6.9	79	2.7	1.5	2.9	19
28	1.5	191	5.5	6.7	15	8.4	8.2	30	8.4	1.3	.83	6.5
29	1.5	55	5.2	6.0	---	7.7	6.4	19	2.7	1.1	.39	3.2
30	1.6	33	4.9	5.5	---	7.2	37	12	7.4	.81	.31	7.2
31	1.9	---	4.5	5.0	---	6.7	---	9.6	---	3.3	.25	---
TOTAL	73.4	2160.5	1090.8	281.1	885.8	1216.7	625.4	1185.8	425.7	328.73	39.57	216.88
MEAN	2.37	72.0	35.2	9.07	31.6	39.2	20.8	38.3	14.2	10.6	1.28	7.23
MAX	14	440	522	73	226	335	246	195	59	79	3.2	48
MIN	1.0	1.6	4.5	3.0	8.0	6.7	4.6	6.0	2.1	.81	.25	.24
CFSM	.15	4.62	2.26	.58	2.03	2.51	1.33	2.46	.91	.68	.08	.46
IN.	.18	5.15	2.60	.67	2.11	2.90	1.49	2.83	1.02	.78	.09	.52

CAL YR 1985	TOTAL	9530.73	MEAN	26.1	MAX	537	MIN	.91	CFSM	1.67	IN.	22.73
WTR YR 1986	TOTAL	8530.38	MEAN	23.4	MAX	522	MIN	.24	CFSM	1.50	IN.	20.34

03353700 WEST FORK WHITE LICK CREEK AT DANVILLE, IN

LOCATION.--Lat 39°45'36", long 86°30'47", in NW¼NE¼ sec.10, T.15 N., R.1 W., Hendricks County, Hydrologic Unit 05120201, on downstream side of bridge on U.S. Highway 36, 0.1 mi east of city limits of Danville, 0.5 mi upstream from small left-bank tributary, and 7 mi west of Avon.

DRAINAGE AREA.--28.8 mi^2.

PERIOD OF RECORD.--May 1958 to current year.

REVISED RECORDS.--WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 828.83 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 23, 1968, nonrecording gage and crest-stage gage on upstream side of bridge at same datum. Oct. 23, 1968, to Aug. 6, 1970, water-stage recorder on upstream side of bridge at same datum.

REMARKS.--Estimated daily discharges: Dec. 14 to Jan. 1, Jan. 5-10, 13, 14, 27-31, Feb. 10-16, Aug. 3-10, 12-15, and Aug. 17 to Sept. 19. Records good except those for estimated daily discharges, which are poor. Low flow affected by releases from Danville Filtration Plant.

AVERAGE DISCHARGE.--28 years, 30.1 ft^3/s, 14.19 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,330 ft^3/s July 14, 1962, gage height, 11.32 ft; maximum gage height, 12.13 ft July 13, 1979; no flow at times during most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 28, 1957, reached a stage of 16.0 ft, from floodmarks, discharge, 6,660 ft^3/s, from contracted-opening measurement.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 700 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 19	1000	1,660	8.78	Mar. 19	0145	1,080	6.61
Dec. 11	1000	1,760	9.08	Apr. 30	1715	*1,810	*9.22

Minimum daily discharge, 0.03 ft^3/s, Sept. 9, 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.46	1.9	113	8.0	10	26	16	588	19	47	1.8	.07
2	.20	2.8	92	7.7	11	23	15	176	16	93	1.5	.10
3	.15	2.4	58	8.0	17	24	14	94	13	24	1.0	.08
4	.19	2.0	46	7.5	290	26	13	59	13	11	.74	.05
5	.38	1.9	41	7.0	201	32	17	40	13	7.9	.65	.05
6	.41	1.8	33	6.3	137	37	34	29	17	6.3	.60	.05
7	.26	1.8	29	6.0	165	30	27	38	49	5.2	.70	.04
8	.20	1.9	28	5.7	97	27	20	72	43	4.9	.80	.04
9	.16	4.6	27	5.7	72	25	17	31	20	4.5	.70	.03
10	.18	145	78	6.0	45	55	15	23	17	5.6	4.0	.03
11	.25	159	1240	6.3	32	86	14	20	40	25	2.2	.30
12	.79	96	352	7.4	27	199	13	36	122	99	.80	.09
13	.83	136	169	8.0	24	157	12	29	38	65	.50	.07
14	1.9	113	90	7.0	22	94	13	43	20	30	.38	.06
15	1.5	99	65	6.4	20	62	13	37	15	21	.80	.05
16	1.3	236	45	6.2	19	44	13	47	25	8.6	1.8	.05
17	.91	123	30	19	40	35	11	36	46	6.1	1.1	.04
18	.69	116	24	29	62	126	11	223	15	4.8	.60	.09
19	.84	1000	21	29	71	507	11	167	10	4.0	.30	.15
20	1.7	473	18	17	55	155	25	90	8.5	3.5	.19	27
21	1.6	197	15	13	43	83	38	57	7.1	2.8	.16	3.2
22	1.4	132	14	13	35	57	22	40	6.7	2.5	.15	1.5
23	1.6	98	13	11	29	41	17	30	6.6	2.2	.14	1.0
24	1.6	75	12	10	28	31	15	24	5.9	1.9	.13	3.2
25	2.6	70	12	11	26	27	15	53	5.0	3.9	.12	4.4
26	2.4	326	11	9.9	33	25	14	171	4.9	4.3	.11	2.4
27	1.5	364	10	8.0	41	21	12	137	5.1	2.2	.10	6.0
28	1.3	384	9.4	6.0	31	20	13	67	6.7	2.0	.09	6.0
29	1.2	180	8.8	4.5	---	18	12	41	5.0	1.4	.09	1.9
30	1.2	123	8.5	3.5	---	17	590	29	6.4	1.3	.08	1.9
31	1.3	---	8.2	8.0	---	15	---	23	---	2.5	.07	---
TOTAL	31.00	4666.1	2720.9	301.1	1683	2125	1072	2550	618.9	503.4	22.40	59.94
MEAN	1.00	156	87.8	9.71	60.1	68.5	35.7	82.3	20.6	16.2	.72	2.00
MAX	2.6	1000	1240	29	290	507	590	588	122	99	4.0	27
MIN	.15	1.8	8.2	3.5	10	15	11	20	4.9	1.3	.07	.03
CFSM	.03	5.42	3.05	.34	2.09	2.38	1.24	2.86	.72	.56	.02	.07
IN.	.04	6.03	3.51	.39	2.17	2.74	1.38	3.29	.80	.65	.03	.08

CAL YR 1985 TOTAL 17508.57 MEAN 48.0 MAX 1240 MIN .14 CFSM 1.67 IN. 22.62
WTR YR 1986 TOTAL 16353.74 MEAN 44.8 MAX 1240 MIN .03 CFSM 1.56 IN. 21.12

03353800 WHITE LICK CREEK AT MOORESVILLE, IN

LOCATION.--Lat 39°36'28", long 86°22'56", in NE¼SE¼ sec.35, T.14 N., R.1 E., Morgan County, Hydrologic Unit 05120201, on right bank at downstream side of bridge on State Highway 42 at Mooresville, 0.9 mi downstream from McCracken Creek, 2.0 mi upstream from East Fork White Lick Creek, and at mile 11.4.

DRAINAGE AREA.--212 mi^2.

PERIOD OF RECORD.--August 1957 to current year.

GAGE.--Water-stage recorder. Datum of gage is 644.64 ft above National Geodetic Vertical Datum of 1929. Dec. 10, 1963 to Sept. 30, 1964, nonrecording gage at bridge 1,950 ft upstream at datum 1.39 ft higher.

REMARKS.--Estimated daily discharges: Dec. 20-22, 25-30, Jan. 27-31, and Feb. 13-16. Records good.

AVERAGE DISCHARGE.--29 years, 223 ft^3/s, 14.28 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,000 ft^3/s July 13, 1979, gage height, 23.31 ft; minimum daily, 2.0 ft^3/s Dec. 24, 25, 1960, Sept. 2, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 28, 1957, reached a stage of 22.5 ft, from levels to high-water mark by State of Indiana, Department of Natural Resources.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 19	2100	9,240	20.51	Dec. 11	1800	*9,520	*20.61
Nov. 27	0200	4,230	16.53	Mar. 19	0500	5,370	17.99
Nov. 28	0600	3,240	15.08	May 1	0100	5,950	18.58

Minimum daily discharge, 7.6 ft^3/s Sept. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	18	553	101	83	233	142	3640	178	91	40	11
2	18	20	516	98	129	205	152	996	146	544	33	14
3	18	21	313	100	144	199	133	590	123	241	30	12
4	18	20	242	97	1500	198	126	416	116	127	27	11
5	17	19	209	96	1450	208	129	320	155	93	25	10
6	17	19	183	88	829	225	157	254	278	76	25	9.0
7	25	19	153	83	1080	226	211	266	246	66	29	8.8
8	32	18	142	76	675	182	158	756	394	65	25	8.4
9	32	20	132	75	509	184	133	397	214	63	23	8.2
10	28	263	249	76	385	282	122	260	152	68	24	7.6
11	17	809	6180	78	288	659	114	204	133	102	40	14
12	16	399	3260	79	219	1040	107	304	671	449	32	35
13	21	622	1140	81	180	1330	102	279	382	454	24	20
14	20	459	723	80	160	719	99	606	215	169	22	14
15	21	384	539	75	150	496	107	497	154	216	21	12
16	20	793	430	74	140	370	104	1120	127	106	33	10
17	17	639	353	78	182	304	99	466	332	80	32	9.7
18	16	375	268	155	370	459	95	989	161	68	24	13
19	16	4860	226	235	477	3470	89	1100	115	59	20	22
20	23	4090	210	185	441	1020	222	594	100	52	19	155
21	29	1250	185	137	375	635	369	420	89	46	16	80
22	25	779	180	127	302	472	226	319	81	43	16	44
23	22	565	188	113	254	385	162	254	83	42	15	28
24	22	429	186	105	252	304	137	206	97	38	14	40
25	24	415	140	105	243	277	123	323	77	38	14	41
26	21	1320	123	104	237	238	114	1200	68	58	13	41
27	20	2590	125	85	304	210	105	1260	63	45	14	97
28	18	2460	115	78	291	187	101	590	72	38	13	75
29	17	1050	110	75	---	171	100	391	75	35	12	53
30	17	657	105	73	---	159	948	284	68	32	12	40
31	17	---	107	70	---	147	---	220	---	37	11	---
TOTAL	642	25382	17585	3082	11649	15194	4986	19521	5165	3641	698	943.7
MEAN	20.7	846	567	99.4	416	490	166	630	172	117	22.5	31.5
MAX	32	4860	6180	235	1500	3470	948	3640	671	544	40	155
MIN	16	18	105	70	83	147	89	204	63	32	11	7.6
CFSM	.10	3.99	2.67	.47	1.96	2.31	.78	2.97	.81	.55	.11	.15
IN.	.11	4.45	3.09	.54	2.04	2.67	.87	3.43	.91	.64	.12	.17

CAL YR 1985	TOTAL	118106	MEAN	324	MAX	6180	MIN	14	CFSM	1.53	IN.	20.72
WTR YR 1986	TOTAL	108488.7	MEAN	297	MAX	6180	MIN	7.6	CFSM	1.40	IN.	19.04

03354000 WHITE RIVER NEAR CENTERTON, IN

LOCATION.--Lat 39°29'51", long 86°24'02", in NE¼NE¼ sec.10, T.12 N., R.1 E., Morgan County, Hydrologic Unit 05120201, on right bank at upstream side of bridge on Blue Bluff Road, 0.8 mi downstream from White Lick Creek, 1 mi south of Centerton, and at mile 199.3.

DRAINAGE AREA.--2,444 mi².

PERIOD OF RECORD.--July 1925 to September 1930 (gage heights only), October 1930 to March 1932, October 1946 to current year. Monthly discharge only for October and November 1946, published in WSP 1305. Published as West Fork White River at Martinsville prior to March 1932, and as West Fork White River near Centerton October 1946 to September 1948.

REVISED RECORDS.--WSP 1335: 1948-49. WSP 1909: 1931(M). WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 595.44 ft above National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark), levels by Indianapolis Power and Light Co. See WSP 1725 for history of changes prior to July 1953. July 1953 to Aug. 7, 1975, water-stage recorder at site 0.4 mi downstream at same datum.

REMARKS.--Estimated daily discharges: Oct. 26 to Nov. 9, and Nov. 11-20. Records good. Flow regulated by upstream reservoirs.

AVERAGE DISCHARGE.--41 years (1930-31, 1946 to current year), 2,446 ft³/s, 13.59 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 50,500 ft³/s Apr. 22, 1964, gage height, 17.57 ft, at site 0.4 mile downstream; minimum daily, 131 ft³/s Nov. 15, 1930.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913 reached a stage of 22.8 ft at Martinsville site (from information by Indiana State Highway Commission) and 21.9 ft at site 0.4 mi downstream (from information by Corps of Engineers), discharge, 90,000 ft³/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 9,500 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 20	0800	*29,200	*16.00	Mar. 13	1400	11,600	10.09
Nov. 28	1200	19,900	13.81	Mar. 19	1500	19,500	13.70
Dec. 12	0900	27,900	15.75	May 1	1500	15,100	11.98
Feb. 7	0500	12,900	10.88				

Minimum daily discharge, 323 ft³/s Oct. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	418	375	10700	1830	1660	2820	2470	12700	3050	2460	1030	431
2	386	385	7840	1720	2220	2580	2510	9610	2650	4410	837	447
3	360	395	6130	1740	2210	2540	2360	6990	2290	4930	782	464
4	373	400	4990	1630	8100	2490	2220	4810	2070	4700	715	428
5	372	395	4170	1680	11100	2490	2130	3760	3530	3350	702	414
6	357	390	3740	1520	11500	2800	2280	3230	3430	2440	650	400
7	323	380	3310	1400	12100	3060	2930	3110	5280	2030	676	359
8	326	370	2970	1310	8440	3170	3360	6750	7720	1670	673	344
9	335	350	2760	1260	6470	2840	2860	7420	7420	1700	652	374
10	340	1090	3090	1210	5210	2780	2390	6250	5050	1580	662	369
11	340	4500	12600	1240	4290	4410	2220	4310	3820	2060	889	418
12	335	3000	26000	1310	3590	6470	1950	4220	4820	4410	766	1180
13	386	2500	23900	1260	3010	11100	1900	3710	5780	6180	758	701
14	483	2600	21800	1250	2660	11300	1710	4870	5070	4940	679	538
15	562	2700	18700	1250	2640	10400	1930	4730	3970	3800	632	482
16	470	3200	8710	1250	2440	6900	1790	7650	3130	2790	699	461
17	411	3100	5770	1200	2730	5120	1920	4940	3510	2240	684	428
18	395	2900	4780	1580	3530	4680	1710	4640	2730	1830	623	556
19	405	7500	3840	3020	5010	17200	1660	7220	2450	1540	631	1050
20	842	25100	3560	3700	6520	17000	3410	6170	2190	1370	575	1910
21	925	19900	3310	4000	5770	15100	5030	4770	1900	1240	538	1660
22	581	14700	3050	3280	4630	10500	4940	3820	1810	1170	522	1190
23	495	8550	3050	2780	4020	6340	5660	3320	2090	1050	481	994
24	448	5790	2860	2660	3650	5110	4170	2900	2280	974	446	991
25	503	4890	2640	2450	3270	4380	3340	2890	2330	916	436	1370
26	470	7350	2320	2280	3150	3910	2900	4980	1950	1080	454	998
27	440	16300	2010	2090	3430	3580	2500	8470	1560	1320	498	1350
28	410	19100	2070	1810	3240	3240	2280	6400	1670	1620	535	1500
29	395	18700	2040	1710	---	2960	2320	5130	1850	1320	573	1230
30	385	16000	1920	1590	---	2760	2150	4120	2100	1090	527	1090
31	380	---	2010	1660	---	2600	---	3470	---	1000	446	---
TOTAL	13651	192910	206640	58670	136590	182630	81000	167360	99500	73210	19771	24127
MEAN	440	6430	6666	1893	4878	5891	2700	5399	3317	2362	638	804
MAX	925	25100	26000	4000	12100	17200	5660	12700	7720	6180	1030	1910
MIN	323	350	1920	1200	1660	2490	1660	2890	1560	916	436	344
CFSM	.18	2.63	2.73	.77	2.00	2.41	1.10	2.21	1.36	.97	.26	.33
IN.	.21	2.94	3.15	.89	2.08	2.78	1.23	2.55	1.51	1.11	.30	.37

CAL YR 1985 TOTAL 1284809 MEAN 3520 MAX 29400 MIN 323 CFSM 1.44 IN. 19.56
WTR YR 1986 TOTAL 1256059 MEAN 3441 MAX 26000 MIN 323 CFSM 1.41 IN. 19.12

03354500 BEANBLOSSOM CREEK AT BEANBLOSSOM, IN

LOCATION.--Lat 39°15'45", long 86°14'55", in SW¼NW¼ sec.31, T.10 N., R.3 E., Brown County, Hydrologic Unit 05120202, on right bank 15 ft downstream from bridge on State Highway 135, 0.3 mi south of Beanblossom, 2.7 mi upstream from North Fork Beanblossom Creek, and at mile 42.1.

DRAINAGE AREA.--14.6 mi^2.

PERIOD OF RECORD.--October 1951 to current year. Prior to October 1965, published as Bean Blossom Creek at Bean Blossom.

REVISED RECORDS.--WSP 1555: 1952, 1953(M), 1956-57. WSP 1705: 1952(P). WDR IN-79-1: 1978.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 673.65 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 20-24, 26, 27, 31. Records good except those for estimated daily discharges, which are fair.

AVERAGE DISCHARGE.--35 years, 16.2 ft^3/s, 15.07 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,140 ft^3/s June 23, 1960, gage height, 11.78 ft, from curve extended above 2,000 ft^3/s on basis of contracted-opening measurement at gage height 11.78 ft; no flow for many days in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 700 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 26	2200	*937	*7.48	July 1	2215	845	7.05

Minimum daily discharge, no flow, Aug. 9, Sept. 8-10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.26	1.9	41	4.6	10	16	7.4	9.3	6.9	112	.29	.12
2	.20	1.9	37	4.5	25	15	6.7	7.9	5.2	73	.22	.30
3	.37	1.7	25	4.7	27	14	6.5	7.1	4.2	11	.23	.23
4	.48	1.5	22	4.7	226	14	6.0	6.4	3.8	5.8	.23	.16
5	.47	1.4	20	4.2	91	14	5.3	6.0	3.8	3.6	.22	.10
6	.38	1.4	17	4.1	83	15	4.5	5.4	18	2.6	.10	.05
7	.33	1.4	16	3.2	96	13	4.1	5.0	12	2.0	.09	.01
8	.26	1.3	15	2.9	45	12	4.0	6.2	14	1.7	.04	.00
9	.21	1.8	14	2.8	33	12	3.3	5.0	8.8	1.5	.00	.00
10	.23	29	30	2.8	24	49	3.0	4.2	6.5	1.4	.99	.00
11	.27	61	212	2.7	21	48	2.8	3.9	6.8	1.9	1.1	1.1
12	.27	87	77	2.8	22	123	2.4	3.8	11	30	.66	.84
13	.31	45	43	2.7	13	119	2.3	3.6	6.8	13	.56	.28
14	.46	33	32	2.6	12	36	2.2	14	4.9	5.9	.71	.20
15	.55	39	27	2.4	11	23	2.2	64	3.9	4.2	.49	.15
16	.47	167	20	2.4	11	16	2.1	100	3.5	3.1	.62	.12
17	.36	46	17	3.1	75	13	1.9	28	8.3	2.3	.50	.11
18	.33	29	20	8.4	57	19	1.8	18	4.0	1.8	.36	.91
19	.85	195	11	86	41	79	1.7	15	3.0	1.5	.33	.57
20	68	74	10	30	29	28	76	13	2.4	1.3	.28	2.9
21	18	39	9.8	21	24	19	73	11	2.1	1.1	.22	.49
22	10	28	9.2	16	20	15	33	9.3	1.7	.93	.21	.21
23	6.5	21	8.8	13	17	13	22	7.7	1.6	.83	.20	.14
24	5.3	17	8.3	11	18	9.6	17	6.7	1.3	.67	.21	2.0
25	4.3	17	7.5	11	16	8.2	16	6.7	1.2	.50	.14	.48
26	3.4	272	7.2	9.3	20	7.5	15	56	1.1	.42	.13	.33
27	2.9	230	6.8	8.9	22	6.8	12	35	1.0	.37	.31	1.7
28	2.5	147	6.2	6.4	19	5.8	12	21	.87	.31	.27	.45
29	2.3	52	5.8	6.9	---	5.7	12	16	.82	.26	.24	.13
30	2.1	37	5.1	5.3	---	6.2	9.7	11	.68	.22	.16	.71
31	2.0	---	4.9	5.2	---	7.0	---	8.9	---	.23	.09	---
TOTAL	134.36	1679.3	785.6	295.6	1108	781.8	367.9	515.1	150.17	285.44	10.20	14.79
MEAN	4.33	56.0	25.3	9.54	39.6	25.2	12.3	16.6	5.01	9.21	.33	.49
MAX	68	272	212	86	226	123	76	100	18	112	1.1	2.9
MIN	.20	1.3	4.9	2.4	10	5.7	1.7	3.6	.68	.22	.00	.00
CFSM	.30	3.84	1.73	.65	2.71	1.73	.84	1.14	.34	.63	.02	.03
IN.	.34	4.28	2.00	.75	2.82	1.99	.94	1.31	.38	.73	.03	.04

CAL YR 1985	TOTAL	9036.23	MEAN	24.8	MAX	889	MIN	.00	CFSM	1.70	IN.	23.02
WTR YR 1986	TOTAL	6128.26	MEAN	16.8	MAX	272	MIN	.00	CFSM	1.15	IN.	15.61

03357350 PLUM CREEK NEAR BAINBRIDGE, IN

LOCATION.--Lat 39°45'42", long 86°43'46", in SW¼SE¼ sec.3, T.15 N., R.3 W., Putnam County, Hydrologic Unit 05120203, on right upstream wingwall of bridge on U.S. Highway 36, 0.5 mi west of Groveland, and 4.5 mi east of Bainbridge.

DRAINAGE AREA.--3.00 mi^2.

PERIOD OF RECORD.--July 1969 to current year.

GAGE.--Water-stage recorder. Datum of gage is 828.44 ft above National Geodetic Vertical Datum of 1929 (Indiana Department of Highways bench mark).

REMARKS.--Estimated daily discharges: Dec. 14-31, and Jan. 5-9, 28-31. Records fair.

AVERAGE DISCHARGE.--17 years, 3.77 ft^3/s, 17.07 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 744 ft^3/s June 30, 1977, gage height, 5.75 ft; no flow at times during 1970, 1975-77, 1983-86.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 150 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 19	0900	468	4.54	Mar. 18	2245	252	3.50
Nov. 26	1515	163	3.22	Apr. 30	1615	262	3.69
Dec. 11	0200	*470	*4.55	Apr. 30	2300	171	3.39

Minimum daily discharge, no flow Oct. 1-12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.10	9.9	1.0	1.2	2.1	1.6	25	2.2	7.7	.10	.02
2	.00	.27	6.8	1.2	1.5	2.3	1.5	5.4	1.8	5.4	.04	.02
3	.00	.18	4.8	1.2	2.9	2.5	1.4	4.0	1.4	2.3	.04	.02
4	.00	.14	4.5	1.2	32	3.1	1.2	3.4	1.4	1.1	.03	.02
5	.00	.12	4.4	1.0	13	3.6	1.4	3.2	1.7	.71	.03	.01
6	.00	.11	3.9	.80	12	4.3	4.4	2.9	1.9	.47	.03	.01
7	.00	.11	3.8	.60	11	3.3	2.5	7.9	2.7	.34	.03	.01
8	.00	.09	3.8	.50	6.7	2.5	1.9	4.8	2.1	.27	.03	.01
9	.00	.11	3.6	.56	5.0	2.6	1.6	3.1	1.0	.24	.03	.01
10	.00	33	22	.70	3.7	7.9	1.5	2.4	1.3	.35	1.6	.01
11	.00	14	192	.73	2.8	7.0	1.4	2.1	8.2	6.5	.15	.03
12	.00	11	15	.85	2.0	25	1.3	2.7	3.0	14	.04	.02
13	.01	14	8.3	.72	1.7	10	1.1	2.1	1.9	4.0	.03	.02
14	.46	13	5.0	.69	1.7	6.4	1.2	2.0	1.6	1.9	.03	.02
15	.20	12	4.0	.55	1.5	4.6	1.3	2.0	1.5	1.3	.98	.02
16	.16	40	3.3	.63	1.6	3.7	1.3	2.3	1.4	.86	.19	.02
17	.09	9.9	2.8	3.3	4.6	3.3	1.1	1.6	1.3	.59	.05	.02
18	.08	28	2.4	3.2	5.2	38	.98	23	1.1	.44	.03	.02
19	.08	218	2.2	2.6	5.1	42	.98	10	.91	.33	.02	.02
20	.13	39	2.0	1.7	4.3	8.3	2.4	6.0	.76	.25	.02	4.3
21	.14	11	1.8	1.5	3.6	5.3	2.5	4.5	.61	.18	.02	.03
22	.12	8.0	2.0	1.5	3.1	4.2	2.0	3.8	.55	.14	.02	.02
23	.11	6.1	2.0	1.2	2.6	3.6	1.7	2.9	.54	.10	.02	.03
24	.13	5.0	1.8	1.2	2.6	2.8	1.5	2.3	.41	.08	.02	2.0
25	.13	5.5	1.2	1.3	2.3	2.7	1.4	4.1	.33	1.8	.02	.15
26	.10	64	1.3	1.1	3.1	2.7	1.4	9.4	.31	1.2	.02	.04
27	.09	35	1.3	.70	3.3	2.2	1.2	6.1	.28	.23	.02	.91
28	.08	31	1.2	.58	2.4	1.9	1.6	4.2	.45	.17	.02	.17
29	.08	11	1.1	.46	---	1.6	1.2	3.3	.29	.10	.02	.05
30	.08	8.0	1.1	.42	---	1.5	60	2.6	.62	.06	.02	.06
31	.08	---	1.1	.60	---	1.4	---	2.2	---	.34	.02	---
TOTAL	2.35	617.73	320.4	34.29	142.5	212.4	106.56	161.3	43.56	53.45	3.72	8.09
MEAN	.08	20.6	10.3	1.11	5.09	6.85	3.55	5.20	1.45	1.72	.12	.27
MAX	.46	218	192	3.3	32	42	60	25	8.2	14	1.6	4.3
MIN	.00	.09	1.1	.42	1.2	1.4	.98	1.6	.28	.06	.02	.01
CFSM	.03	6.87	3.43	.37	1.70	2.28	1.18	1.73	.48	.57	.04	.09
IN.	.03	7.66	3.97	.43	1.77	2.63	1.32	2.00	.54	.66	.05	.10

CAL YR 1985 TOTAL 2181.46 MEAN 5.98 MAX 218 MIN .00 CFSM 1.99 IN. 27.05
WTR YR 1986 TOTAL 1706.35 MEAN 4.67 MAX 218 MIN .00 CFSM 1.56 IN. 21.16

03357500 BIG WALNUT CREEK NEAR REELSVILLE, IN

LOCATION.--Lat 39°32'11", long 86°58'35", in NW¼SW¼ sec.28, T.13 N., R.5 W., Putnam County, Hydrologic Unit 05120203, on left bank at downstream side of county highway bridge, 1.5 mi southwest of Reelsville, and 4.1 mi upstream from Mill Creek.

DRAINAGE AREA.--326 mi^2.

PERIOD OF RECORD.--July 1949 to current year. Published as Eel River near Reelsville, October 1952 to September 1956.

REVISED RECORDS.--WSP 1335: 1950. WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 588.24 ft above National Geodetic Vertical Datum of 1929 (levels by State of Indiana, Department of Natural Resources). Prior to Dec. 10, 1949, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Dec. 19-22, 27-30, and Jan. 27 to Feb. 2. Records good except those for estimated daily discharges, which are fair. Flow partly regulated by Soil Conservation Service control structures on tributaries to Little Walnut Creek beginning in 1971.

AVERAGE DISCHARGE.--37 years, 354 ft^3/s, 14.75 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,400 ft^3/s June 28, 1957, gage height, 18.63 ft, from rating curve extended above 18,000 ft^3/s on basis of slope-conveyance method; minimum daily, 1.4 ft^3/s Sept. 8, 1954.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,800 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 10	2100	3,220	9.34	Dec. 12	0500	*9,940	*15.97
Nov. 20	0700	9,510	15.76	Feb. 4	2200	3,320	9.48
Nov. 27	0300	5,680	12.59	Mar. 19	0700	6,170	13.17
Nov. 28	0600	4,870	11.59	May 1	0600	6,170	13.17

Minimum daily discharge, 23 ft^3/s Sept. 8-10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	51	1100	189	110	304	236	5140	306	199	70	27
2	30	125	1040	182	146	305	263	1880	263	689	58	27
3	30	76	739	182	233	334	229	938	223	537	51	27
4	31	64	615	176	2500	338	215	630	201	290	48	26
5	31	58	539	168	2330	360	222	477	208	197	45	25
6	31	54	485	149	1310	403	266	380	398	148	44	25
7	31	53	421	130	1570	390	338	368	424	121	43	24
8	31	51	384	132	1060	315	267	1330	751	105	43	23
9	31	58	359	125	794	315	224	755	464	96	41	23
10	31	1080	551	122	606	426	201	481	355	105	44	23
11	32	1600	7040	120	485	854	185	365	556	206	65	26
12	32	851	8630	123	405	1570	172	312	1910	658	49	36
13	32	955	3010	122	355	1870	163	283	1000	631	43	32
14	39	781	1880	121	329	1170	156	327	585	311	39	30
15	47	754	1180	113	312	831	166	497	411	207	39	28
16	51	1850	900	117	275	635	162	538	321	156	78	26
17	46	1270	720	154	325	523	150	390	322	121	51	25
18	43	1100	572	257	488	819	140	804	278	101	43	25
19	41	5820	460	289	605	5400	133	1750	222	88	38	26
20	42	9050	405	260	594	2450	265	962	193	79	35	83
21	45	4110	380	215	506	1300	378	651	172	72	33	161
22	45	2190	365	193	422	903	269	497	155	67	32	73
23	45	1500	384	172	373	710	209	401	172	62	32	57
24	46	1040	362	157	361	572	180	336	284	57	30	65
25	46	895	298	159	321	470	164	567	184	82	29	88
26	44	1890	251	154	347	415	152	948	142	281	29	75
27	44	4570	260	145	408	373	140	1250	125	97	30	84
28	43	4230	230	133	353	325	149	789	119	74	28	92
29	43	2160	220	125	---	295	150	563	153	65	28	84
30	43	1360	210	118	---	270	1970	442	130	58	28	71
31	42	---	206	112	---	247	---	363	---	66	27	---
TOTAL	1200	49646	34196	4914	17923	25492	7914	25414	11027	6026	1293	1437
MEAN	38.7	1655	1103	159	640	822	264	820	368	194	41.7	47.9
MAX	51	9050	8630	289	2500	5400	1970	5140	1910	689	78	161
MIN	30	51	206	112	110	247	133	283	119	57	27	23
CFSM	.12	5.08	3.38	.49	1.96	2.52	.81	2.52	1.13	.60	.13	.15
IN.	.14	5.67	3.90	.56	2.05	2.91	.90	2.90	1.26	.69	.15	.16

CAL YR 1985 TOTAL 205032 MEAN 562 MAX 9050 MIN 29 CFSM 1.72 IN. 23.40
WTR YR 1986 TOTAL 186482 MEAN 511 MAX 9050 MIN 23 CFSM 1.57 IN. 21.28

03358000 MILL CREEK NEAR CATARACT, IN

LOCATION.--Lat 39°26'00", long 86°45'48", in NE¼SE¼ sec.32, T.12 N., R.3 W., Owen County, Hydrologic Unit 05120203, on right bank at downstream side of bridge on U.S. Highway 231, 3 mi east of Cataract, and at mile 17.5.

DRAINAGE AREA.--245 mi^2.

PERIOD OF RECORD.--July 1949 to current year.

REVISED RECORDS.--WSP 1505: 1956(P). WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 706.40 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 8, 1949, nonrecording gage, and Nov. 8, 1949, to Sept. 22, 1968, water-stage recorder at site 100 ft upstream at same datum.

REMARKS.--Estimated daily discharges: Oct. 1 to Nov. 9, Nov. 19, 20, Dec. 11, 12, Dec. 19 to Feb. 3, Feb. 7, 13-17, Feb. 21 to Mar. 14, Mar. 18-20, Mar. 27 to Apr. 19, Apr. 24 to May 2, May 10-12, and May 21 to Sept. 17. Records poor.

AVERAGE DISCHARGE.--37 years, 265 ft^3/s, 14.69 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,400 ft^3/s June 24, 1960, gage height, 22.58 ft; minimum daily, 0.1 ft^3/s Sept. 7, 28, 1954.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 20	2300	*6,130	*17.88	Feb. 5	0500	2,980	13.18
Nov. 28	0500	3,830	14.61	Mar. 19	2200	3,850	14.65
Dec. 12	0400	5,460	17.00	May 1	1500	2,990	13.20

Minimum daily discharge, 3.8 ft^3/s Sept. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	24	703	78	45	245	142	2900	270	250	18	5.1
2	19	27	672	80	80	220	153	1500	280	230	17	4.9
3	18	27	374	82	100	200	143	433	210	120	15	4.8
4	18	27	305	78	2370	200	135	290	205	100	14	4.7
5	17	26	276	67	2720	210	130	227	250	77	14	4.5
6	17	25	247	60	1060	225	140	196	280	58	13	4.3
7	16	24	208	52	1600	230	150	195	300	45	13	4.2
8	16	23	202	52	739	225	145	372	260	41	13	4.1
9	15	22	195	51	504	220	140	228	200	39	12	3.9
10	15	212	411	49	381	250	130	170	180	38	15	3.8
11	16	1130	3100	48	280	470	125	145	2000	50	30	8.0
12	17	554	5300	49	230	1300	115	140	900	450	22	16
13	21	857	3390	50	200	1800	110	189	360	900	16	11
14	23	606	893	48	170	940	105	261	240	300	14	7.7
15	24	502	449	47	155	577	107	231	160	200	13	5.8
16	24	1400	351	47	140	351	108	652	130	140	25	4.8
17	23	905	287	54	150	283	105	768	110	100	20	4.2
18	22	448	237	80	251	400	100	692	98	70	16	5.1
19	21	2740	220	120	310	3300	96	856	88	54	14	10
20	27	5710	200	123	347	3300	478	729	82	40	12	174
21	35	5410	180	110	320	863	861	500	77	30	11	100
22	38	2640	183	97	270	445	351	300	75	27	9.6	26
23	35	855	185	80	240	350	224	173	80	24	8.7	14
24	33	483	175	73	210	272	175	150	90	23	7.8	16
25	30	456	145	68	183	234	140	210	75	22	7.3	32
26	28	1590	123	62	195	211	125	740	67	70	6.6	21
27	27	3380	123	56	230	190	110	800	63	40	6.4	38
28	26	3650	115	52	270	175	100	450	68	29	6.0	94
29	25	2510	100	48	---	165	130	320	70	24	5.8	38
30	25	918	92	46	---	155	297	260	67	21	5.6	23
31	24	---	82	45	---	150	---	220	---	20	5.4	---
TOTAL	714	37181	19523	2052	13750	18156	5370	15297	7335	3632	406.2	692.9
MEAN	23.0	1239	630	66.2	491	586	179	493	245	117	13.1	23.1
MAX	38	5710	5300	123	2720	3300	861	2900	2000	900	30	174
MIN	15	22	82	45	45	150	96	140	63	20	5.4	3.8
CFSM	.09	5.06	2.57	.27	2.00	2.39	.73	2.01	1.00	.48	.05	.09
IN.	.11	5.65	2.96	.31	2.09	2.76	.82	2.32	1.11	.55	.06	.11

CAL YR 1985	TOTAL	155945	MEAN	427	MAX	5710	MIN	12	CFSM	1.74	IN.	23.68
WTR YR 1986	TOTAL	124109.1	MEAN	340	MAX	5710	MIN	3.8	CFSM	1.39	IN.	18.84

03359000 MILL CREEK NEAR MANHATTAN, IN

LOCATION.--Lat 39°29'22", long 86°55'50", in SW¼SE¼ sec.11, T.12 N., R.5 W., Putnam County, Hydrologic Unit 05120203, on left bank 200 ft downstream from Cagles Mill, 0.7 mi downstream from Cagles Mill Lake, 0.8 mi upstream from Deer Creek, 5.8 mi south of Manhattan, and at mile 2.0.

DRAINAGE AREA.--294 mi^2.

PERIOD OF RECORD.--May to September 1931 (fragmentary), October 1938 to current year. Monthly discharge only for some periods, published in WSP 1305.

REVISED RECORDS.--WSP 1335: 1940-41. WSP 2109: Drainage area.

GAGE.--Data-Collection Platform. Datum of gage is 581.83 ft above National Geodetic Vertical Datum of 1929. May 12, 1941 to Sept. 30, 1974, water-stage recorder at site described in "LOCATION" paragraph. Data-Collection Platform installed on Apr. 22, 1986. See WSP 1725 for history of changes prior to May 12, 1941.

REMARKS.--Flow regulated by Cagles Mill Lake. Daily discharge computed from relation between discharge, head, and gate openings for Cagles Mill Lake beginning Oct. 1, 1974.

COOPERATION.--Records of daily discharge provided by U.S. Army Corps of Engineers beginning Oct. 1, 1976.

AVERAGE DISCHARGE.--48 years (1938 to current year), 311 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,960 ft^3/s Jan. 5, 1950, gage height, 18.38 ft; no flow Aug. 7, 1953.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 2,190 ft^3/s Dec. 27; minimum daily, 19 ft^3/s Aug. 30 to Sept. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	33	104	2180	125	451	1430	280	388	50	69	19
2	33	33	105	2150	256	204	1000	122	80	332	47	19
3	33	33	287	2120	288	234	841	123	104	353	33	19
4	33	33	797	2090	172	275	728	325	117	99	33	19
5	33	33	1270	2060	104	288	546	446	117	70	33	19
6	33	33	1600	2020	106	332	411	445	121	84	25	19
7	33	33	1840	2020	108	411	333	600	127	90	20	19
8	33	33	1990	2050	109	410	166	953	131	90	20	19
9	33	33	1970	2010	109	301	102	1070	132	90	20	19
10	33	33	1760	1970	461	204	95	1060	132	90	20	19
11	33	65	625	1720	1110	209	83	976	629	222	20	19
12	33	100	104	1270	1470	213	83	661	466	479	20	19
13	33	143	106	1040	1600	220	83	268	314	628	20	19
14	33	220	107	957	1600	224	83	107	439	337	20	19
15	33	221	107	544	1620	225	71	180	809	91	20	19
16	33	224	107	109	1590	226	47	212	1200	69	20	19
17	33	228	354	78	1560	510	47	214	1110	69	20	19
18	33	311	996	105	1360	904	48	134	470	61	20	19
19	33	194	1760	195	1030	359	48	102	117	50	20	19
20	33	90	2050	290	1020	112	50	240	117	50	20	19
21	33	94	2030	289	684	280	134	827	116	50	20	20
22	33	97	2020	211	255	805	215	1340	116	42	20	36
23	33	98	2000	126	305	987	216	1480	116	33	20	68
24	33	256	1990	205	358	1220	216	1020	107	33	20	89
25	33	886	1970	153	410	1560	216	283	75	28	20	89
26	33	447	2070	102	277	1660	215	210	50	68	20	88
27	33	100	2190	95	343	1630	215	214	50	120	20	88
28	33	102	2170	82	685	1710	290	216	50	139	20	88
29	33	103	2140	82	---	1800	569	533	50	139	20	88
30	33	104	2120	82	---	1760	636	1050	50	138	19	88
31	33	---	2140	82	---	1730	---	1040	---	114	19	---
TOTAL	1023	4413	40879	28487	19115	21454	9217	16731	7900	4308	738	1122
MEAN	33.0	147	1319	919	683	692	307	540	263	139	23.8	37.4
MAX	33	886	2190	2180	1620	1800	1430	1480	1200	628	69	89
MIN	33	33	104	78	104	112	47	102	50	28	19	19

CAL YR 1985 TOTAL 179813 MEAN 493 MAX 2190 MIN 20
WTR YR 1986 TOTAL 155387 MEAN 426 MAX 2190 MIN 19

03360000 EEL RIVER AT BOWLING GREEN, IN

LOCATION.--Lat 39°22'58", long 87°01'14", in NE¼NE¼ sec.24, T.11 N., R.6 W., Clay County, Hydrologic Unit 05120203, on left bank 500 ft downstream from bridge on State Highway 46 at Bowling Green, 0.2 mi downstream from Jordan Creek, and at mile 38.4.

DRAINAGE AREA.--830 mi^2.

PERIOD OF RECORD.--January 1931 to current year. Prior to October 1934, published as "near Centerpoint".

REVISED RECORDS.--WSP 893: 1935, 1937-39. WSP 973: 1937-38, 1939(M). WSP 1335: 1931(M). WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 548.02 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). See WSP 1725 for history of changes prior to Dec. 1, 1949.

REMARKS.--Estimated daily discharges: May 7-16. Records good. Flow regulated by Cagles Mill Lake.

AVERAGE DISCHARGE.--55 years, 885 ft^3/s, 14.48 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 34,000 ft^3/s Jan. 4, 1950, gage height, 23.53 ft; minimum daily, 11 ft^3/s Oct. 7, 8, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, about 30.0 ft in 1875, present datum, from information by U.S. Army Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 17,900 ft^3/s Nov. 20, gage height, 20.71 ft; minimum daily, 53 ft^3/s Sept. 10, 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	92	125	1880	2330	295	1150	1900	8070	1240	309	247	64
2	89	530	1860	2300	596	682	1590	4500	513	968	195	64
3	86	276	1390	2290	735	716	1270	1690	459	1150	154	63
4	85	204	1530	2260	4260	768	1190	1290	443	553	140	62
5	87	178	1970	2220	4670	798	1020	1260	445	365	133	60
6	84	168	2180	2160	2240	833	886	1110	1720	304	126	57
7	83	163	2300	2100	2390	931	928	1020	1910	275	119	56
8	80	154	2450	2100	1800	840	712	2100	2240	251	115	55
9	78	152	2420	2080	1270	785	544	1600	1120	235	109	54
10	76	542	2680	2050	1030	1010	490	1650	844	276	114	53
11	75	3240	7210	1960	1540	2060	438	1500	889	900	130	64
12	77	1560	14300	1580	1810	2640	410	1000	3780	1450	128	93
13	78	1660	9580	1250	1870	3400	388	850	1910	1500	109	71
14	81	1550	3000	1210	1880	2080	372	900	1380	1010	98	64
15	95	1560	1890	980	1910	1440	392	1250	1240	489	92	59
16	100	3010	1480	463	1900	1130	361	1120	1610	354	114	55
17	100	2590	1280	356	1950	994	338	913	1640	298	131	53
18	92	1680	1510	472	2140	1880	317	1140	1230	260	107	58
19	91	7820	2110	579	1870	8350	304	2500	517	224	94	64
20	102	17000	2490	691	1820	5920	1220	1510	449	202	87	110
21	106	12500	2440	628	1670	2180	1540	1450	408	185	82	221
22	104	4300	2400	595	903	1960	884	1800	374	173	78	153
23	96	2290	2410	398	840	2050	688	1930	359	156	75	117
24	96	1660	2400	443	834	1930	608	1750	426	147	73	151
25	110	1880	2280	450	882	2150	564	949	382	211	71	160
26	99	3150	2200	379	919	2230	533	1440	297	2480	70	170
27	93	7490	2410	343	994	2160	501	2130	263	447	73	164
28	90	7730	2370	291	1070	2100	500	1400	244	342	70	228
29	86	4790	2330	279	---	2180	729	1080	247	299	67	188
30	85	2340	2270	271	---	2120	1400	1690	254	269	65	170
31	85	---	2270	264	---	2060	---	1600	---	280	64	---
TOTAL	2781	92292	91290	35772	46088	61527	23017	54192	28833	16362	3330	3001
MEAN	89.7	3076	2945	1154	1646	1985	767	1748	961	528	107	100
MAX	110	17000	14300	2330	4670	8350	1900	8070	3780	2480	247	228
MIN	75	125	1280	264	295	682	304	850	244	147	64	53
CFSM	.11	3.71	3.55	1.39	1.98	2.39	.92	2.11	1.16	.64	.13	.12
IN.	.12	4.14	4.09	1.60	2.07	2.76	1.03	2.43	1.29	.73	.15	.13

CAL YR 1985	TOTAL	536320	MEAN	1469	MAX	17000	MIN	75	CFSM	1.77	IN.	24.04
WTR YR 1986	TOTAL	458485	MEAN	1256	MAX	17000	MIN	53	CFSM	1.51	IN.	20.55

03360500 WHITE RIVER AT NEWBERRY, IN

LOCATION.--Lat 38°55'39", long 87°00'41", in NE¼NW¼ sec.30, T.6 N., R.5 W., Greene County, Hydrologic Unit 05120202, on left bank 0.4 mi upstream from bridge on State Highway 57 at Newberry, 1.9 mi downstream from Doans Creek, and at mile 113.0.

DRAINAGE AREA.--4,688 mi².

PERIOD OF RECORD.--September 1928 to current year. Prior to October 1948, published as West Fork White River at Newberry.

REVISED RECORDS.--WSP 873: 1937(M). WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 465.59 ft above National Geodetic Vertical Datum of 1929. Nonrecording gage prior to Oct. 21, 1928. Prior to Aug. 5, 1982, recording gage 0.3 mi downstream at same datum.

REMARKS.--Estimated daily discharges: Nov. 24, 25, Dec. 1-5, 24, 25, Jan. 6-9, Feb. 21-23, Mar. 15 to Apr. 1. Records fair. Flow regulated by upstream reservoirs.

AVERAGE DISCHARGE.--58 years, 4,781 ft³/s, 13.85 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 76,900 ft³/s May 21, 1943, gage height, 24.19 ft; minimum daily, 200 ft³/s Oct. 1, 1941.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1875, 27.5 ft Mar. 27, 1913, from floodmarks by Indiana Department of Highways, discharge, 130,000 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 34,600 ft³/s Nov. 24, gage height, 20.41 ft; minimum daily, 815 ft³/s Sept. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	885	1030	31000	5250	3070	6340	6400	4640	7440	4430	2030	1030
2	843	3070	28500	5550	4250	5970	6030	9470	6140	6390	1950	969
3	845	2930	24700	5310	5140	5230	5700	13300	4800	6790	1810	951
4	875	1850	17100	5200	10700	4950	5200	13200	4400	7030	1650	930
5	905	1410	11200	4720	16600	4880	4900	9310	4190	6360	1540	923
6	899	1200	9710	4840	18500	4820	4680	7080	5300	5160	1460	895
7	884	1090	9040	4680	21000	4840	4420	5880	9120	4010	1420	893
8	864	1020	8470	4620	21400	5080	4680	5510	11700	3380	1390	866
9	853	1000	8030	4570	19900	5200	5170	7490	11900	2970	1360	836
10	847	1310	8200	4460	16600	5210	4750	9510	11100	2720	1380	815
11	847	4520	12100	4360	11400	7860	4250	9390	9930	2740	1570	892
12	832	10400	18100	4290	9340	10600	3880	7960	9330	4340	1560	1630
13	835	11500	20800	3990	8270	14800	3630	6410	9510	6010	1480	1490
14	900	9840	25100	3720	7440	16000	3460	6300	9290	7550	1400	1470
15	1000	9460	31900	3590	6830	16900	3340	5970	8340	7410	1320	1160
16	1060	12100	33700	3410	6430	16500	3300	10600	6890	5750	1320	978
17	1050	13900	29600	3100	6980	15100	3310	10300	6150	4460	1370	882
18	967	12200	23200	2970	8770	13300	3230	10000	5810	3640	1330	883
19	1040	11500	12600	3800	9380	12800	3150	8680	5220	3140	1280	965
20	3140	17700	9330	4360	9410	15000	4260	9550	4140	2760	1220	1660
21	3640	22000	8620	5270	9970	18100	11000	9730	3690	2480	1200	1950
22	2570	26100	8250	5630	9900	19800	12000	8470	3360	2270	1170	2360
23	1920	31800	7860	5420	8740	19800	9860	7410	3110	2130	1100	2090
24	1540	34000	7450	4690	7680	17100	8990	6620	3030	2010	1080	1730
25	1350	28200	6550	4320	7220	14000	7870	5920	3080	1890	1040	1640
26	1260	18200	6710	4230	6840	12200	6260	8280	3190	2670	1010	1690
27	1230	20800	6370	3910	7030	10700	5310	15500	3040	5410	1040	1810
28	1140	26000	5970	3480	6840	9500	4720	13900	2750	3150	1050	1800
29	1060	28500	5820	3270	---	8400	4350	12700	2540	2460	1030	1950
30	1030	30400	5520	3170	---	7300	4230	10900	2650	2370	1020	1950
31	1010	---	5680	3060	---	6600	---	8920	---	2160	1040	---
TOTAL	38121	395030	447180	133240	285630	334880	162330	278900	181140	126040	41620	40088
MEAN	1230	13170	14430	4298	10200	10800	5411	8997	6038	4066	1343	1336
MAX	3640	34000	33700	5630	21400	19800	12000	15500	11900	7550	2030	2360
MIN	832	1000	5520	2970	3070	4820	3150	4640	2540	1890	1010	815
CFSM	.26	2.81	3.08	.92	2.18	2.30	1.15	1.92	1.29	.87	.29	.28
IN.	.30	3.13	3.55	1.06	2.27	2.66	1.29	2.21	1.44	1.00	.33	.32

CAL YR 1985 TOTAL 2722978 MEAN 7460 MAX 42400 MIN 832 CFSM 1.59 IN. 21.61
WTR YR 1986 TOTAL 2464199 MEAN 6751 MAX 34000 MIN 815 CFSM 1.44 IN. 19.55

03361000 BIG BLUE RIVER AT CARTHAGE, IN

LOCATION.--Lat 39°44'38", long 85°34'33", in SW¼SW¼ sec.18, T.15 N., R.9 E., Rush County, Hydrologic Unit 05120204, on right bank 300 ft upstream from highway bridge, 0.5 mi northwest of Carthage, 2.2 mi downstream from Three Mile Creek, and at mile 50.7.

DRAINAGE AREA.--184 mi^2.

PERIOD OF RECORD.--October 1950 to current year. Prior to October 1961, published as Blue River at Carthage.

REVISED RECORDS.--WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 859.33 ft above National Geodetic Vertical Datum of 1929. Prior to July 19, 1951, nonrecording gage at site 300 ft downstream at same datum.

REMARKS.--Estimated daily discharges: Dec. 20, 26, 27, Jan. 8, 9, 28, 29, and Feb. 14, 15. Records good. Flow partly regulated by Big Blue River Conservancy District control structures on tributaries to Big Blue River beginning in 1969.

AVERAGE DISCHARGE.--36 years, 200 ft^3/s, 14.76 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,900 ft^3/s Mar. 4, 1963, gage height, 14.62 ft, from floodmarks, from rating curve extended above 6,200 ft^3/s; minimum daily, 17 ft^3/s Jan. 18, Aug. 5, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft^3/s and maximum (*);

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 27	0500	2,360	7.78	Dec. 11	2400	*3,630	*9.28

Minimum daily discharge, 47 ft^3/s Sept. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	61	59	413	133	148	187	169	395	161	186	75	54
2	53	59	406	132	299	182	172	305	145	338	72	58
3	52	58	294	133	307	189	161	234	134	202	72	58
4	52	59	248	130	1430	187	157	207	132	147	69	56
5	52	57	222	131	1390	221	159	193	133	124	69	54
6	51	57	201	126	713	280	164	179	286	110	68	51
7	51	58	180	120	745	248	156	196	261	102	71	49
8	50	58	169	118	551	202	149	342	300	134	69	49
9	50	59	160	117	448	195	142	229	205	116	71	49
10	51	286	230	116	367	219	139	190	178	119	81	47
11	52	549	1830	115	309	389	136	176	178	360	81	65
12	54	353	2400	118	258	391	133	167	177	612	69	130
13	54	551	856	119	223	787	129	163	161	753	66	72
14	68	426	546	115	208	537	130	313	138	387	63	64
15	67	307	416	111	198	381	159	294	129	273	63	60
16	62	480	346	110	187	300	146	765	126	217	65	56
17	60	435	299	147	268	256	140	485	136	175	64	56
18	56	282	255	219	503	251	131	358	118	147	60	163
19	59	449	230	583	513	1270	126	293	113	129	59	166
20	79	635	215	436	392	678	630	242	109	118	57	144
21	85	366	199	281	326	446	1330	214	104	109	56	118
22	73	269	191	276	276	352	649	197	101	104	57	94
23	66	217	188	237	242	307	454	182	101	99	57	82
24	65	191	183	206	231	264	360	168	96	93	53	134
25	63	187	164	194	214	239	300	188	91	91	53	119
26	60	672	159	185	224	225	256	215	90	95	54	93
27	59	1850	153	165	222	213	225	359	90	89	110	138
28	57	1330	149	158	198	197	209	276	158	85	68	143
29	57	789	145	145	---	188	192	218	124	82	61	108
30	57	519	138	134	---	180	202	208	128	77	58	109
31	59	---	140	130	---	172	---	180	---	76	56	---
TOTAL	1835	11667	11725	5440	11390	10133	7605	8131	4403	5749	2047	2639
MEAN	59.2	389	378	175	407	327	254	262	147	185	66.0	88.0
MAX	85	1850	2400	583	1430	1270	1330	765	300	753	110	166
MIN	50	57	138	110	148	172	126	163	90	76	53	47
CFSM	.32	2.11	2.05	.95	2.21	1.78	1.38	1.42	.80	1.01	.36	.48
IN.	.37	2.36	2.37	1.10	2.30	2.05	1.54	1.64	.89	1.16	.41	.53

CAL YR 1985	TOTAL	89284	MEAN	245	MAX	3740	MIN	43	CFSM	1.33	IN.	18.05
WTR YR 1986	TOTAL	82764	MEAN	227	MAX	2400	MIN	47	CFSM	1.23	IN.	16.73

03361500 BIG BLUE RIVER AT SHELBYVILLE, IN

LOCATION.--Lat 39°31'45", long 85°46'55", in SE¼SE¼ sec.31, T.13 N., R.7 E., Shelby County, Hydrologic Unit 05120204, on left bank 0.2 mi downstream from bridge on State Highway 9 in Shelbyville, 0.6 mi downstream from Little Blue River, and at mile 23.9.

DRAINAGE AREA.--421 mi².

PERIOD OF RECORD.--September 1943 to current year. Prior to October 1961, published as Blue River at Shelbyville.

REVISED RECORDS.--WSP 1505: 1944. WSP 1909: 1959(M). WSP 2109: Drainage area. WDR IN-79-1: 1975.

GAGE.--Water-stage recorder. Datum of gage is 737.67 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1953, nonrecording gage at bridge 0.2 mi upstream at datum 3.5 ft higher.

REMARKS.--Estimated daily discharges: Dec. 20, Jan. 28-30, and Feb. 14, 15. Records good.

AVERAGE DISCHARGE.--43 years, 467 ft³/s, 15.06 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,800 ft³/s Mar. 5, 1963, gage height, 17.70 ft; minimum daily, 27 ft³/s Jan. 18, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913 reached a stage of about 20.2 ft from floodmarks.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,400 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 28	0600	*5,970	*13.78	Feb. 5	1900	4,410	12.17
Dec. 13	0100	5,870	13.68				

Minimum daily discharge, 67 ft³/s Sept. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	89	114	1470	284	289	464	349	572	403	253	128	78
2	95	113	1380	275	655	432	347	628	359	568	123	87
3	87	111	1000	279	791	431	329	458	322	480	122	80
4	85	109	790	273	2760	424	319	391	303	323	117	79
5	85	108	686	268	4260	458	310	360	300	249	114	77
6	85	106	610	252	2880	531	314	339	560	206	113	74
7	83	106	531	241	2210	557	310	380	754	180	112	71
8	81	106	491	217	1750	450	293	1200	826	180	114	69
9	81	107	463	223	1360	426	278	750	544	199	110	67
10	79	261	545	229	1040	466	268	508	410	190	121	68
11	80	1930	2150	221	819	922	260	419	396	335	132	94
12	82	1660	4960	223	653	974	251	383	365	1150	118	151
13	85	1950	4510	226	535	1940	242	349	343	1620	110	133
14	95	1730	1710	218	495	1660	237	527	296	968	107	101
15	113	1260	1160	211	460	1090	267	807	270	611	104	92
16	109	1580	901	203	430	790	264	2190	254	435	108	84
17	103	1680	751	225	644	642	256	1730	258	343	106	79
18	101	1110	618	399	1260	589	239	1180	243	287	102	93
19	110	1250	506	1240	1390	2150	228	879	221	249	97	250
20	159	2150	490	1270	1100	2290	577	679	208	221	93	191
21	207	1420	457	784	871	1280	2540	563	195	199	91	200
22	185	975	446	668	721	911	1890	494	183	185	91	149
23	153	738	436	605	620	741	1110	446	177	172	89	125
24	137	597	418	503	570	624	804	401	172	162	86	148
25	142	584	362	456	530	550	647	401	163	154	80	196
26	134	1520	303	435	557	505	541	664	156	155	79	152
27	126	4690	367	370	616	466	467	1190	152	152	93	156
28	119	5670	333	350	532	426	424	928	168	145	120	282
29	113	3620	321	320	---	404	392	656	229	141	90	205
30	111	1940	297	298	---	383	357	531	185	132	83	167
31	111	---	295	275	---	362	---	463	---	130	80	---
TOTAL	3425	39295	29757	12041	30798	24338	15110	21466	9415	10774	3233	3798
MEAN	110	1310	960	388	1100	785	504	692	314	348	104	127
MAX	207	5670	4960	1270	4260	2290	2540	2190	826	1620	132	282
MIN	79	106	295	203	289	362	228	339	152	130	79	67
CFSM	.26	3.11	2.28	.92	2.61	1.86	1.20	1.64	.75	.83	.25	.30
IN.	.30	3.47	2.63	1.06	2.72	2.15	1.34	1.90	.83	.95	.29	.34

CAL YR 1985	TOTAL	231135	MEAN	633	MAX	7760	MIN	70	CFSM	1.50	IN.	20.42
WTR YR 1986	TOTAL	203450	MEAN	557	MAX	5670	MIN	67	CFSM	1.32	IN.	17.98

03361650 SUGAR CREEK AT NEW PALESTINE, IN

LOCATION.--Lat 39°42'51", long 85°53'08", in SE¼SW¼ sec.29, T.15 N., R.6 E., Hancock County, Hydrologic Unit 05120204, on left bank 10 ft downstream from bridge on County Road 450 West, 0.5 mi south of New Palestine, 3.1 mi upstream from Little Sugar Creek, and 37.3 mi upstream from mouth.

DRAINAGE AREA.--93.9 mi^2.

PERIOD OF RECORD.--October 1967 to current year.

REVISED RECORDS.--WDR IN-76-1: 1975.

GAGE.--Water-stage recorder. Datum of gage is 786.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 19-22, 25-31, Jan. 1, 2, 6-11, 13-16, 28-31, Feb. 12-15, and Mar. 20, 21. Records good except those for estimated daily discharges, which are fair.

AVERAGE DISCHARGE.--19 years, 103 ft^3/s, 14.90 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,880 ft^3/s Feb. 24, 1985, gage height, 9.19 ft; maximum gage height, 10.34 ft Feb. 23, 1979 (ice jam); minimum daily discharge, 2.4 ft^3/s Oct. 3, 1983.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 950 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 28	1100	987	7.02	Mar. 19	0800	997	7.08
Dec. 13	0500	*1,410	*8.29				

Minimum daily discharge, 5.5 ft^3/s Sept. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.1	11	319	41	53	91	70	307	87	65	17	7.6
2	6.2	11	274	42	73	84	69	334	73	237	16	7.7
3	6.2	10	200	47	113	88	65	195	64	179	15	7.1
4	6.3	9.9	146	45	540	90	62	140	61	99	14	6.8
5	7.0	9.8	122	44	670	100	61	112	71	69	14	6.6
6	7.2	9.7	106	39	595	119	60	95	140	55	13	6.2
7	6.9	9.9	93	35	410	121	59	97	317	46	14	5.8
8	6.6	10	85	33	312	99	56	256	309	41	13	5.7
9	6.6	12	80	34	241	88	52	250	181	37	13	5.7
10	8.8	103	105	35	188	106	49	150	123	39	14	5.5
11	7.7	292	896	38	149	222	47	112	110	50	14	8.9
12	7.7	227	1200	39	102	285	47	96	142	205	12	14
13	8.3	275	1260	38	76	548	45	83	172	306	12	9.8
14	10	292	570	36	66	533	44	254	108	275	12	8.7
15	9.8	200	284	35	73	332	46	252	83	147	11	7.9
16	9.6	246	205	36	80	209	47	273	71	99	12	7.3
17	8.6	251	165	39	97	160	45	227	73	74	13	7.2
18	9.1	177	132	68	226	188	43	157	70	59	11	27
19	13	436	99	237	303	887	42	137	58	49	9.9	18
20	14	563	85	259	242	740	236	115	50	42	9.6	41
21	12	453	74	168	184	430	488	96	45	37	9.1	23
22	10	252	78	131	152	266	436	84	41	33	8.9	16
23	9.9	171	82	118	128	202	250	76	38	29	8.6	14
24	10	128	76	99	114	163	172	69	36	27	8.2	18
25	11	114	67	89	104	134	134	82	33	24	7.5	25
26	9.8	401	58	85	107	120	111	287	31	25	7.9	23
27	9.4	768	55	71	122	104	94	429	29	24	10	37
28	8.9	942	52	60	107	92	82	297	38	22	8.7	35
29	8.8	799	49	53	---	85	74	183	51	20	8.2	25
30	9.3	525	46	49	---	80	75	134	52	19	8.0	23
31	10	---	43	50	---	73	---	106	---	18	7.5	---
TOTAL	275.8	7708.3	7106	2193	5627	6839	3161	5485	2757	2451	352.1	453.5
MEAN	8.90	257	229	70.7	201	221	105	177	91.9	79.1	11.4	15.1
MAX	14	942	1260	259	670	887	488	429	317	306	17	41
MIN	6.2	9.7	43	33	53	73	42	69	29	18	7.5	5.5
CFSM	.09	2.74	2.44	.75	2.14	2.35	1.12	1.88	.98	.84	.12	.16
IN.	.11	3.05	2.82	.87	2.23	2.71	1.25	2.17	1.09	.97	.14	.18

CAL YR 1985	TOTAL	45594.6	MEAN	125	MAX	1750	MIN	6.2	CFSM	1.33	IN.	18.06
WTR YR 1986	TOTAL	44408.7	MEAN	122	MAX	1260	MIN	5.5	CFSM	1.30	IN.	17.59

03361850 BUCK CREEK AT ACTON, IN

LOCATION.--Lat 39°39'25", long 85°57'27", in NW¼SE¼ sec.15, T.14 N., R.5 E., Marion County, Hydrologic Unit 05120204, on left bank 30 ft downstream from McGregor Road bridge, 0.5 mi east of Acton, and 4.1 mi upstream from mouth.

DRAINAGE AREA.--78.8 mi^2.

PERIOD OF RECORD.--October 1967 to current year.

REVISED RECORDS.--WDR IN-79-1: 1969 (M).

GAGE.--Water-stage recorder. Datum of gage is 757.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 8, 9, 19-21, 26-28, 30, 31, Jan. 7, 8, 12-15, 26-30, and Feb. 13-15, 24. Records good. Low flow is effected by regulation.

AVERAGE DISCHARGE.--19 years, 91.9 ft^3/s, 15.84 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,140 ft^3/s July 20, 1969, gage height, 14.99 ft; minimum daily, 0.60 ft^3/s Oct. 1, 4, 1967.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 10	2400	1,080	7.77	Dec. 11	2300	*2,230	*10.45
Nov. 19	2300	1,760	9.71	Feb. 4	1300	1,030	7.59
Nov. 27	0200	1,820	9.81	Mar. 19	1300	2,110	10.28
Nov. 28	1000	1,400	8.77	Apr. 20	2000	1,060	7.74

Minimum daily discharge, 0.96 ft^3/s Sept. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.6	14	247	26	34	74	39	412	59	31	14	5.1
2	9.8	18	223	25	70	66	41	229	48	159	12	3.6
3	6.2	9.1	131	26	99	72	39	132	40	88	12	3.1
4	4.0	4.9	101	25	899	71	37	92	61	46	10	4.6
5	10	4.2	88	25	678	75	36	75	150	32	5.2	5.8
6	7.4	4.0	75	23	345	84	38	61	301	25	3.4	6.5
7	3.7	8.1	63	20	377	71	36	101	302	21	4.9	6.1
8	10	14	54	19	239	57	34	454	289	21	9.7	3.4
9	11	16	48	17	179	56	32	179	137	26	9.1	.97
10	9.5	376	130	15	126	109	31	104	90	48	11	1.4
11	9.6	661	1350	16	95	267	30	77	81	88	13	9.2
12	10	403	1400	16	74	375	29	161	145	390	9.5	18
13	10	502	518	16	62	748	27	109	92	288	8.4	5.1
14	8.1	315	248	17	54	337	27	470	60	124	7.4	2.6
15	5.0	224	157	17	48	201	33	232	50	71	3.5	.96
16	6.3	413	114	18	46	134	33	332	42	49	4.2	2.4
17	7.3	275	93	24	104	101	33	166	36	38	10	5.9
18	10	179	71	47	252	184	24	121	31	28	9.0	35
19	14	931	60	338	251	1730	22	105	30	26	7.9	18
20	25	1030	51	189	171	562	465	81	27	23	3.6	52
21	25	373	44	107	131	245	568	68	25	20	5.4	22
22	13	231	50	95	105	166	257	59	23	18	7.5	11
23	9.0	164	51	74	88	126	156	52	22	14	6.7	6.9
24	19	122	50	60	74	93	110	46	20	20	6.3	18
25	23	145	42	60	80	78	86	83	19	15	4.2	24
26	17	786	38	49	98	69	69	342	18	19	2.6	17
27	15	1400	35	38	128	59	58	512	17	16	4.3	51
28	7.8	1170	33	34	95	52	54	223	27	12	5.4	40
29	5.5	502	32	31	---	49	48	136	22	7.7	6.7	25
30	8.5	291	30	29	---	45	68	95	20	12	6.7	28
31	13	---	28	26	---	41	---	73	---	13	6.5	---
TOTAL	338.3	10585.3	5655	1522	5002	6397	2560	5382	2284	1788.7	230.1	432.63
MEAN	10.9	353	182	49.1	179	206	85.3	174	76.1	57.7	7.42	14.4
MAX	25	1400	1400	338	899	1730	568	512	302	390	14	52
MIN	3.7	4.0	28	15	34	41	22	46	17	7.7	2.6	.96
CFSM	.14	4.48	2.31	.62	2.27	2.61	1.08	2.21	.97	.73	.09	.18
IN.	.16	5.00	2.67	.72	2.36	3.02	1.21	2.54	1.08	.84	.11	.20

CAL YR 1985 TOTAL 44025.7 MEAN 121 MAX 2060 MIN 2.5 CFSM 1.54 IN. 20.78
WTR YR 1986 TOTAL 42177.03 MEAN 116 MAX 1730 MIN .96 CFSM 1.47 IN. 19.91

03362000 YOUNGS CREEK NEAR EDINBURGH, IN

LOCATION.--Lat 39°25'08", long 86°00'18", in SE¼SW¼ sec.5, T.11 N., R.5 E., Johnson County, Hydrologic Unit 05120204, on left bank at upstream side of county highway bridge, 0.5 mi southwest of Amity, 2.0 mi upstream from mouth, and 5 mi northwest of Edinburgh.

DRAINAGE AREA.--107 mi^2.

PERIOD OF RECORD.--October 1942 to current year. Prior to December 1942 monthly discharge only, published in WSP 1305. Prior to October 1977, published as "near Edinburg".

REVISED RECORDS.--WSP 1335: 1944. WSP 1909: 1958. WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 670.20 ft above National Geodetic Vertical Datum of 1929. Prior to June 30, 1955, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Jan. 27-29 and Feb. 13, 14. Records good.

AVERAGE DISCHARGE.--44 years, 108 ft^3/s, 13.71 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,700 ft^3/s Jan. 27, 1952, gage height, 13.4 ft; minimum daily, 0.5 ft^3/s Sept. 29, Oct. 20, 21, 1953.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,300 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 20	0915	1,700	7.78	Feb. 4	2345	1,770	7.93
Nov. 27	2115	*2,120	*8.55	Mar. 19	1345	1,380	6.98
Dec. 12	1000	1,920	8.21				

Minimum daily discharge, 3.3 ft^3/s Sept. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	26	347	41	59	111	62	73	76	40	9.8	3.9
2	9.3	25	346	40	211	97	62	69	63	53	8.6	6.9
3	8.5	22	202	43	246	93	60	56	54	30	7.0	5.7
4	7.7	20	159	41	1390	88	58	51	51	21	6.2	4.6
5	7.5	20	139	41	1190	89	55	50	49	18	6.1	4.5
6	6.6	19	123	35	554	97	55	47	236	16	6.3	4.3
7	6.2	19	106	35	838	89	53	49	308	14	6.4	3.8
8	7.0	19	100	30	451	75	50	69	289	13	6.1	3.3
9	7.6	20	93	30	320	78	47	56	133	20	5.9	3.6
10	8.1	124	154	33	217	138	44	45	103	27	7.3	3.4
11	8.6	646	974	33	152	255	44	42	95	42	8.8	14
12	8.7	598	1530	34	111	437	42	40	97	104	8.1	32
13	8.4	688	503	34	80	906	39	39	72	213	6.1	15
14	16	437	288	32	75	427	39	114	57	91	5.5	7.1
15	23	363	198	30	72	258	44	142	51	64	5.4	4.7
16	15	868	155	29	67	178	40	684	49	48	7.9	4.3
17	11	548	132	34	241	139	39	285	142	35	7.0	4.2
18	11	311	102	48	360	147	37	175	80	28	5.5	7.2
19	17	892	87	404	355	1170	36	138	56	23	5.9	8.9
20	193	1440	84	248	256	478	280	106	47	20	5.5	22
21	183	472	71	154	202	256	713	88	39	17	5.3	19
22	99	306	70	138	160	185	314	76	34	16	5.1	11
23	69	224	73	115	133	152	194	66	31	14	4.9	7.7
24	54	180	70	100	132	121	142	59	28	13	4.6	16
25	45	170	55	95	128	107	117	55	25	12	4.0	23
26	40	727	52	92	163	97	97	284	23	10	4.6	14
27	34	1980	54	70	224	86	83	476	21	9.9	8.7	29
28	30	1540	47	60	150	79	79	224	20	9.3	7.3	34
29	27	640	45	55	---	74	70	145	23	8.6	5.8	17
30	26	384	42	49	---	69	62	109	22	8.1	5.3	15
31	26	---	44	46	---	64	---	89	---	9.3	4.3	---
TOTAL	1023.2	13728	6445	2269	8537	6640	3057	4001	2374	1047.2	195.3	349.1
MEAN	33.0	458	208	73.2	305	214	102	129	79.1	33.8	6.30	11.6
MAX	193	1980	1530	404	1390	1170	713	684	308	213	9.8	34
MIN	6.2	19	42	29	59	64	36	39	20	8.1	4.0	3.3
CFSM	.31	4.28	1.94	.68	2.85	2.00	.95	1.21	.74	.32	.06	.11
IN.	.36	4.77	2.24	.79	2.97	2.31	1.06	1.39	.83	.36	.07	.12

CAL YR 1985	TOTAL	58141.5	MEAN	159	MAX	2810	MIN	6.2	CFSM	1.49	IN.	20.21
WTR YR 1986	TOTAL	49665.8	MEAN	136	MAX	1980	MIN	3.3	CFSM	1.27	IN.	17.27

03362500 SUGAR CREEK NEAR EDINBURGH, IN

LOCATION.--Lat 39°21'39", long 85°59'51", in SW¼SE¼ sec.29, T.11 N., R.5 E., Johnson County, Hydrologic Unit 05120204, on left bank 50 ft upstream from highway bridge in Camp Atterbury, 1.3 mi upstream from confluence with Blue River, 1.5 mi northwest of Edinburgh, and at mile 1.3.

DRAINAGE AREA.--474 mi².

PERIOD OF RECORD.--October 1942 to current year. Prior to February 1943 monthly discharge only, published in WSP 1305. Prior to October 1977, published as "near Edinburg".

REVISED RECORDS.--WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 646.23 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1952, nonrecording gage on downstream side of old highway bridge, 100 ft downstream at same datum.

REMARKS.--Estimated daily discharges: Dec. 26-28, and Jan. 7-10, 28-30. Records good.

AVERAGE DISCHARGE.--44 years, 494 ft³/s, 14.15 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,600 ft³/s May 29, 1956, gage height, 18.38 ft; minimum daily, 9.2 ft³/s Sept. 19, 1954.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,200 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 20	1900	4,830	10.80	Feb. 5	1000	4,970	10.95
Nov. 28	1500	*7,410	*12.87	Mar. 20	1700	4,580	10.52
Dec. 13	0700	6,360	12.12				

Minimum daily discharge, 33 ft³/s Sept. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	58	82	1840	221	239	569	325	617	452	177	81	40
2	54	84	1750	213	483	479	320	1140	375	270	77	49
3	53	82	1210	214	637	455	302	761	315	491	72	44
4	54	79	916	208	3010	444	290	499	284	325	68	40
5	51	74	744	202	4790	453	278	405	339	222	66	38
6	49	71	631	183	3540	494	271	353	735	176	64	36
7	51	72	526	180	3160	508	271	321	1700	152	62	35
8	49	71	477	170	2170	438	258	865	1760	135	59	34
9	46	75	443	160	1590	408	244	986	1140	141	58	34
10	49	128	498	150	1190	447	231	604	687	153	62	33
11	49	2150	2250	159	905	1080	223	424	563	255	67	41
12	50	2080	5450	159	665	1390	216	366	507	859	66	79
13	50	2440	5900	163	529	3130	208	426	534	1390	59	86
14	57	2120	3230	159	467	2810	200	649	435	1010	56	57
15	71	1580	1480	153	426	1730	204	1120	341	629	54	47
16	64	2230	1040	148	375	1160	207	2510	297	399	56	42
17	55	2300	833	154	613	872	202	1780	406	290	54	39
18	53	1410	639	188	1310	718	195	1070	309	229	52	45
19	58	1960	582	1160	1690	3100	180	866	260	189	51	80
20	263	4410	476	1450	1390	4390	450	658	229	165	49	101
21	361	3500	440	919	1100	2430	3000	516	205	146	47	135
22	224	1740	427	683	886	1370	2140	436	187	131	45	104
23	154	1200	393	570	727	1030	1330	383	174	121	44	72
24	125	922	367	474	648	808	912	336	163	109	44	75
25	111	773	313	429	607	646	674	309	154	106	42	86
26	116	1610	280	408	652	557	526	706	146	99	43	100
27	102	5040	290	338	902	493	437	2670	139	99	45	100
28	93	7110	275	310	782	433	385	2050	133	94	45	193
29	85	5480	262	290	---	400	349	1130	150	89	42	154
30	80	2990	256	260	---	373	306	775	153	81	41	104
31	78	---	238	244	---	346	---	561	---	81	40	---
TOTAL	2813	53863	34456	10719	35483	33961	15134	26292	13272	8813	1711	2123
MEAN	90.7	1795	1111	346	1267	1096	504	848	442	284	55.2	70.8
MAX	361	7110	5900	1450	4790	4390	3000	2670	1760	1390	81	193
MIN	46	71	238	148	239	346	180	309	133	81	40	33
CFSM	.19	3.79	2.34	.73	2.67	2.31	1.06	1.79	.93	.60	.12	.15
IN.	.22	4.23	2.70	.84	2.78	2.67	1.19	2.06	1.04	.69	.13	.17

CAL YR 1985 TOTAL 264087 MEAN 724 MAX 8880 MIN 46 CFSM 1.53 IN. 20.73
WTR YR 1986 TOTAL 238640 MEAN 654 MAX 7110 MIN 33 CFSM 1.38 IN. 18.73

03363000 DRIFTWOOD RIVER NEAR EDINBURGH, IN

LOCATION.--Lat 39°20'21", long 85°59'11", in NW¼SW¼ sec.4, T.10 N., R.5 E., Bartholomew County, Hydrologic Unit 05120204, on left bank at downstream side of highway bridge, 0.8 mi downstream from confluence of Big Blue River and Sugar Creek, 1.5 mi southwest of Edinburgh, and at mile 14.1.

DRAINAGE AREA.--1,060 mi^2.

PERIOD OF RECORD.--October 1940 to current year. Prior to July 1941 monthly discharge only, published in WSP 1305. Prior to October 1977, published as "near Edinburg".

REVISED RECORDS.--WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 636.99 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 7, 1941, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Oct. 1-8, Dec. 14, 18-22, 25, 26, Jan. 27-30, and Feb. 12-16. Records good.

AVERAGE DISCHARGE.--46 years, 1,160 ft^3/s, 14.86 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 40,500 ft^3/s Mar. 6, 1963, gage height, 16.97 ft; minimum daily, 38 ft^3/s Sept. 23, 1941.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913 reached a stage of 20.3 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 7,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 20	2200	7,850	11.54	Feb. 6	0100	9,360	12.42
Nov. 28	1800	*14,700	*14.22	Mar. 20	2000	8,080	11.72
Dec. 13	1500	13,300	13.79				

Minimum daily discharge, 142 ft^3/s Sept. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	190	260	4950	665	649	1440	1010	1240	1250	577	307	169
2	185	264	4140	643	1000	1290	990	2110	1090	788	295	197
3	180	259	3110	636	1490	1240	955	1620	957	1320	282	181
4	185	252	2320	628	4770	1220	919	1250	880	979	273	172
5	190	243	1930	613	8690	1230	890	1080	900	728	264	164
6	190	238	1690	585	8760	1320	873	989	1340	608	257	157
7	188	239	1470	559	7350	1410	861	938	2750	538	252	153
8	185	232	1330	511	5640	1280	829	1800	3020	492	249	148
9	177	239	1240	518	4160	1170	795	2260	2220	502	245	145
10	177	288	1270	540	3140	1180	766	1540	1530	516	255	142
11	176	3200	3680	514	2430	2110	746	1190	1310	642	265	163
12	181	4670	9030	510	2000	2790	728	1050	1210	1640	266	244
13	181	5060	12700	512	1650	5290	708	1070	1190	3040	243	294
14	193	5010	8720	505	1400	6000	692	1230	1050	2810	232	234
15	215	3870	3910	492	1250	4100	699	2100	895	1770	226	200
16	221	4370	2620	478	1200	2740	721	4360	818	1240	229	182
17	211	5110	2080	485	1470	2090	703	4780	922	940	225	169
18	205	3610	1700	573	2760	1770	689	3110	819	760	217	183
19	215	3640	1500	1940	3730	4680	658	2310	744	648	211	256
20	452	7060	1350	3280	3340	7650	887	1830	686	573	201	379
21	624	6890	1200	2210	2650	5780	4990	1510	640	516	195	387
22	527	3930	1150	1600	2170	3260	5650	1310	603	474	188	353
23	420	2690	1070	1420	1850	2440	3620	1180	574	440	184	278
24	361	2070	1010	1210	1660	1990	2370	1070	549	412	180	286
25	332	1740	950	1080	1570	1690	1830	990	525	390	174	306
26	334	2840	880	1020	1570	1520	1510	1550	504	374	172	344
27	311	8080	816	920	1860	1390	1300	4440	487	369	178	316
28	290	13700	789	860	1740	1270	1170	4020	476	353	196	454
29	272	13200	759	800	---	1190	1080	2450	525	337	201	479
30	261	8360	703	740	---	1120	982	1780	540	319	181	369
31	258	---	694	678	---	1060	---	1460	---	313	173	---
TOTAL	8087	111614	80761	27725	81949	74710	40621	59617	31004	25408	7016	7504
MEAN	261	3720	2605	894	2927	2410	1354	1923	1033	820	226	250
MAX	624	13700	12700	3280	8760	7650	5650	4780	3020	3040	307	479
MIN	176	232	694	478	649	1060	658	938	476	313	172	142
CFSM	.25	3.51	2.46	.84	2.76	2.27	1.28	1.81	.97	.77	.21	.24
IN.	.28	3.92	2.83	.97	2.88	2.62	1.43	2.09	1.09	.89	.25	.26

CAL YR 1985 TOTAL 607473 MEAN 1664 MAX 15400 MIN 160 CFSM 1.57 IN. 21.32
WTR YR 1986 TOTAL 556016 MEAN 1523 MAX 13700 MIN 142 CFSM 1.44 IN. 19.51

03363500 FLATROCK RIVER AT ST. PAUL, IN

LOCATION.--Lat 39°25'03", long 85°38'03", in SE¼NE¼ sec.9, T.11 N., R.8 E., Shelby County, Hydrologic Unit 05120205, on right bank 500 ft downstream from highway bridge, 0.8 mi southwest of St. Paul, 1.5 mi downstream from Mill Creek, and at mile 34.4.

DRAINAGE AREA.--303 mi^2.

PERIOD OF RECORD.--October 1930 to current year. Prior to October 1958, published as Flatrock Creek at St. Paul.

REVISED RECORDS.--WSP 853: 1934-36. WSP 973: 1942. WSP 1335: 1933, 1936. WSP 1725: 1957(M). WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 764.84 ft above National Geodetic Vertical Datum of 1929 (levels by State of Indiana, Department of Natural Resources). Prior to Oct. 21, 1938, nonrecording gage at site 500 ft upstream at same datum.

REMARKS.--Estimated daily discharges: Dec. 18-22, Dec. 25 to Jan. 1, Jan. 5-16, 27-30, and Feb. 12-16. Records good except those for estimated daily discharges, which are fair.

AVERAGE DISCHARGE.--56 years, 321 ft^3/s, 14.39 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,500 ft^3/s Jan. 5, 1949, gage height, 10.60 ft; maximum recorded gage height, 12.37 ft May 24, 1968; minimum daily discharge, 0.6 ft^3/s Aug. 7, 1931.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913 reached a stage of approximately 20.5 ft, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 28	1100	*4,440	*5.75	Feb. 4	1700	3,620	5.14
Dec. 13	0700	2,940	4.56				

Minimum daily discharge, 7.0 ft^3/s Sept. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	32	1130	150	187	334	225	190	205	105	38	15
2	14	34	981	138	384	302	221	228	189	244	35	19
3	13	32	728	136	590	296	210	206	171	268	33	16
4	15	31	527	131	2930	277	203	184	162	164	30	15
5	14	32	438	130	3070	286	200	176	163	122	28	13
6	14	30	373	125	2720	345	202	174	1080	100	26	13
7	13	31	308	115	2480	369	197	196	901	88	25	12
8	12	29	284	110	1770	307	191	881	796	80	26	10
9	12	46	265	110	1230	293	182	573	350	82	24	7.5
10	12	93	321	120	855	301	175	315	250	85	28	7.0
11	12	654	1670	120	619	531	169	232	264	129	29	14
12	12	1010	2400	115	450	778	166	205	661	857	30	56
13	11	1020	2710	112	350	1430	163	183	310	1130	25	63
14	13	865	1660	110	325	1370	165	318	218	930	21	41
15	13	662	840	105	300	969	186	586	186	380	20	28
16	17	1180	620	100	280	659	184	999	167	241	21	20
17	20	1220	508	102	724	510	174	1350	208	180	22	16
18	17	825	400	144	1140	453	164	1170	179	141	22	18
19	22	738	320	672	1170	1710	160	673	151	119	18	26
20	99	1070	305	826	968	1750	208	462	141	104	17	43
21	113	923	290	513	754	1240	763	354	133	92	18	63
22	87	628	275	514	625	728	1160	289	124	83	16	48
23	63	461	259	482	519	575	658	247	121	76	15	41
24	53	357	243	370	466	474	429	216	116	69	14	61
25	44	316	235	320	425	401	337	211	109	64	13	87
26	40	1160	210	295	445	361	283	220	100	61	12	55
27	39	3000	215	240	493	326	243	416	95	57	19	54
28	35	4090	205	220	401	292	221	536	92	53	21	74
29	31	2820	195	210	---	272	202	352	93	48	21	79
30	31	1840	185	200	---	255	183	271	97	44	19	68
31	31	---	175	188	---	238	---	228	---	40	16	---
TOTAL	936	25229	19275	7223	26670	18432	8224	12641	7832	6236	702	1082.5
MEAN	30.2	841	622	233	953	595	274	408	261	201	22.6	36.1
MAX	113	4090	2710	826	3070	1750	1160	1350	1080	1130	38	87
MIN	11	29	175	100	187	238	160	174	92	40	12	7.0
CFSM	.10	2.78	2.05	.77	3.15	1.96	.90	1.35	.86	.66	.07	.12
IN.	.11	3.10	2.37	.89	3.27	2.26	1.01	1.55	.96	.77	.09	.13

CAL YR 1985	TOTAL	156446.9	MEAN	429	MAX	5130	MIN	8.3	CFSM	1.42	IN.	19.21
WTR YR 1986	TOTAL	134482.5	MEAN	368	MAX	4090	MIN	7.0	CFSM	1.21	IN.	16.51

03363900 FLATROCK RIVER AT COLUMBUS, IN

LOCATION.--Lat 39°14'06", long 85°55'36", in NE¼SW¼ sec.12, T.9 N., R.5 E., Bartholomew County, Hydrologic Unit 05120205, on left bank at downstream side of bridge on U.S. Highway 31, 0.2 mi northwest of Columbus city limits, and 2.6 mi upstream from mouth.

DRAINAGE AREA.--534 mi^2.

PERIOD OF RECORD.--October 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 610.14 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 18-25, 27-31, Jan. 1-7, 10-17, 27, 31, and Feb. 1, 13-17. Records good above 3,500 ft^3/s and below 650 ft^3/s and fair between, except for estimated daily discharges, which are fair.

AVERAGE DISCHARGE.--19 years, 601 ft^3/s, 15.28 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 20,000 ft^3/s May 25, 1968, gage height, 15.87 ft; minimum daily, 22 ft^3/s Oct. 5, 1967.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 29	0600	*6,840	*11.66	Feb. 5	1300	5,330	10.72
Dec. 12	1300	4,590	10.17				

Minimum daily discharge, 43 ft^3/s Sept. 9, 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	53	86	2430	310	350	648	435	348	414	196	100	51
2	52	84	2030	300	422	587	426	347	374	301	96	55
3	50	84	1580	295	722	560	408	354	338	387	92	57
4	51	83	1130	290	2170	534	391	325	312	343	88	53
5	52	80	901	285	4990	514	380	305	300	265	84	50
6	52	78	782	281	4380	541	377	295	427	220	81	49
7	51	78	685	270	4190	575	370	291	1790	192	80	47
8	49	76	621	242	3310	550	355	590	1480	166	79	45
9	49	86	584	241	2460	512	341	1100	917	150	76	43
10	48	103	571	260	1800	513	326	656	612	157	80	43
11	48	497	1380	250	1280	693	315	488	513	186	81	48
12	48	1480	4090	245	926	1080	307	429	657	589	78	53
13	47	1910	3810	240	654	2100	297	410	663	1390	74	59
14	51	1670	3170	230	600	2280	288	436	465	1440	72	80
15	50	1480	1880	225	560	1840	298	783	392	881	68	70
16	48	1790	1240	220	530	1210	307	1280	352	543	68	61
17	48	2340	946	227	700	896	295	1870	357	418	66	55
18	47	1830	746	249	1820	756	281	1770	359	340	63	54
19	56	1440	577	592	1980	1800	267	1170	309	284	62	53
20	101	1910	522	1300	1770	2540	285	804	278	247	59	56
21	219	1860	500	949	1370	2170	692	644	257	216	56	60
22	211	1460	465	721	1100	1310	1290	554	237	192	55	76
23	175	1070	455	752	921	959	1070	493	222	174	55	73
24	140	797	430	648	802	792	688	447	209	159	53	78
25	123	642	400	576	744	678	568	412	196	146	51	87
26	108	833	367	540	728	620	504	456	183	138	50	120
27	100	4050	360	480	848	582	454	628	172	132	53	94
28	95	5700	350	410	778	535	418	770	163	126	52	86
29	91	6210	340	385	---	502	394	659	157	115	52	93
30	89	3750	330	375	---	479	364	532	161	108	52	109
31	88	---	320	370	---	457	---	463	---	105	51	---
TOTAL	2490	43557	33992	12758	42905	29813	13191	20109	13266	10306	2127	1958
MEAN	80.3	1452	1097	412	1532	962	440	649	442	332	68.6	65.3
MAX	219	6210	4090	1300	4990	2540	1290	1870	1790	1440	100	120
MIN	47	76	320	220	350	457	267	291	157	105	50	43
CFSM	.15	2.72	2.05	.77	2.87	1.80	.82	1.22	.83	.62	.13	.12
IN.	.17	3.03	2.37	.89	2.99	2.08	.92	1.40	.92	.72	.15	.14

CAL YR 1985	TOTAL	284062	MEAN	778	MAX	7540	MIN	46	CFSM	1.46	IN.	19.79
WTR YR 1986	TOTAL	226472	MEAN	620	MAX	6210	MIN	43	CFSM	1.16	IN.	15.78

03364000 EAST FORK WHITE RIVER AT COLUMBUS, IN

LOCATION.--Lat 39°12'00", long 85°55'32", in NE¼NW¼ sec.25, T.9 N., R.5 E., Bartholomew County, Hydrologic Unit 05120205, on left bank at abutment of abandoned bridge at west end of Second Street in Columbus, 0.6 mi downstream from confluence of Driftwood River and Flatrock River, 1.3 mi upstream from Haw Creek, and at mile 238.7.

DRAINAGE AREA.--1,707 mi^2.

PERIOD OF RECORD.--October 1947 to current year. Prior to January 1948 monthly discharge only, published in WSP 1305.

REVISED RECORDS.--WSP 1335: 1948-49. WSP 2109: Drainage area.

GAGE.--Water-stage recorder above concrete control. Datum of gage is 603.12 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 22, 1952, nonrecording gage 600 ft upstream at same datum.

REMARKS.--Estimated daily discharges: Jan. 27 to Feb. 1. Records good.

AVERAGE DISCHARGE.--39 years, 1,852 ft^3/s, 14.73 in/yr.

EXTREMES FOR PERIOD OF RECORD.---Maximum discharge, 52,300 ft^3/s Mar. 6, 1963, gage height, 16.23 ft; minimum daily, 87 ft^3/s Sept. 29, 1954.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 10,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 29	1000	*21,300	*10.06	Feb. 6	0200	13,900	7.36
Dec. 14	0100	16,500	8.40				

Minimum daily discharge, 186 ft^3/s Sept. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	284	419	8390	1130	1180	1980	1410	1410	1510	800	389	197
2	278	416	5940	1090	1430	1790	1370	2020	1360	1510	370	216
3	280	409	4770	1080	2160	1710	1330	1890	1240	1580	354	220
4	276	404	3450	1070	5600	1670	1280	1590	1130	1340	336	201
5	271	385	2810	1040	12700	1640	1240	1430	1090	996	321	193
6	265	376	2460	989	13900	1700	1230	1330	1380	811	310	202
7	262	375	2170	959	13300	1790	1200	1340	2720	700	306	216
8	259	367	1960	872	9660	1710	1180	1650	3160	620	298	212
9	253	432	1820	863	6270	1600	1160	2720	2610	585	290	204
10	250	533	1950	916	4620	1740	1130	2010	1780	615	313	186
11	250	2480	4420	891	3360	2220	1120	1580	1580	700	322	205
12	250	5600	11300	878	2610	3610	1090	1420	1500	1660	315	291
13	251	5850	14900	865	2100	6030	1060	1470	1480	4370	293	328
14	272	5740	14900	852	1940	7400	1060	1800	1340	4600	275	340
15	281	5080	7420	839	1840	5620	1080	2310	1170	2920	264	278
16	297	5970	4240	812	1680	3750	1110	3680	1080	1860	267	244
17	290	6680	3150	824	2360	2700	1090	4920	1080	1390	265	223
18	283	5200	2540	910	3850	2450	1050	4010	1070	1100	251	235
19	301	4430	2060	2190	4880	5230	1010	2790	1020	910	241	247
20	773	7080	1940	4250	4680	8910	1500	2340	935	795	229	447
21	986	8600	1800	3280	3770	8720	4240	2050	876	705	221	450
22	846	5500	1670	2410	2940	4680	5820	1780	818	633	213	491
23	705	3620	1670	2230	2500	3110	4770	1640	770	583	209	404
24	600	2740	1610	1990	2370	2500	3050	1520	726	542	202	409
25	541	2340	1460	1790	2110	2140	2350	1420	687	509	197	422
26	521	3420	1310	1680	2090	1960	2000	2120	660	488	198	495
27	496	11600	1260	1580	2330	1820	1760	3690	639	473	209	451
28	463	17600	1280	1360	2290	1660	1610	4300	615	459	205	501
29	464	20600	1220	1290	---	1580	1510	2830	596	434	231	608
30	447	15300	1170	1280	---	1510	1400	2000	629	411	209	530
31	439	---	1150	1210	---	1450	---	1700	---	405	199	---
TOTAL	12434	149546	118190	43420	120520	96380	52210	68760	37251	35504	8302	9646
MEAN	401	4985	3813	1401	4304	3109	1740	2218	1242	1145	268	322
MAX	986	20600	14900	4250	13900	8910	5820	4920	3160	4600	389	608
MIN	250	367	1150	812	1180	1450	1010	1330	596	405	197	186
CFSM	.23	2.92	2.23	.82	2.52	1.82	1.02	1.30	.73	.67	.16	.19
IN.	.27	3.26	2.58	.95	2.63	2.10	1.14	1.50	.81	.77	.18	.21

CAL YR 1985 TOTAL 933950 MEAN 2559 MAX 23200 MIN 247 CFSM 1.50 IN. 20.35
WTR YR 1986 TOTAL 752163 MEAN 2061 MAX 20600 MIN 186 CFSM 1.21 IN. 16.39

03364200 HAW CREEK NEAR CLIFFORD, IN

LOCATION.--Lat 39°16'04", long 85°51'22", in NW¼SW¼ sec.34, T.10 N., R.6 E., Bartholomew County, Hydrologic Unit 05120205, on left bank 20 ft downstream from bridge on County Road 450 North, 1.2 mi southeast of Clifford, 5.8 mi northeast of Columbus, and 7.6 mi upstream from mouth.

DRAINAGE AREA.--47.5 mi^2.

PERIOD OF RECORD.--August 1967 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 643.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Oct. 14-19, Nov. 18, 19, Jan. 13-16, 27-29, and Feb. 14-16. Records good except those for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--19 years, 50.5 ft^3/s, 14.44 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,560 ft^3/s May 24, 1968, gage height, 13.9 ft, from floodmark; no flow at times during September and October 1967 due to diversion for irrigation.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 ft^3/s and maximum (*).

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 27	0100	*1,890	*12.20	Mar. 19	0400	1,260	9.97

Minimum daily discharge, 1.6 ft^3/s Oct. 9-11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.4	7.1	133	22	22	41	28	20	22	111	5.6	2.2
2	2.2	6.5	130	22	25	39	29	19	19	303	5.2	48
3	2.2	6.4	80	22	32	37	27	18	18	74	4.9	10
4	2.1	6.4	66	22	498	35	27	18	17	41	4.5	4.9
5	2.0	6.1	59	22	274	35	26	17	17	28	4.2	3.7
6	1.9	6.1	54	21	195	36	26	16	20	21	4.0	2.9
7	1.8	6.1	48	19	449	35	24	16	26	18	3.9	2.6
8	1.7	6.1	45	18	154	28	24	17	20	16	4.0	2.5
9	1.6	19	42	18	110	28	19	16	16	14	4.6	2.3
10	1.6	80	70	18	79	38	20	15	15	14	5.9	2.2
11	1.6	246	585	18	61	71	20	15	19	46	11	5.6
12	1.7	447	315	18	49	165	20	14	63	209	4.9	37
13	2.0	254	153	17	39	353	20	17	26	105	4.0	9.6
14	2.4	147	104	17	36	139	20	37	20	84	3.5	5.2
15	2.5	134	80	16	33	93	22	33	17	161	3.3	4.1
16	2.5	716	67	16	30	69	22	81	16	56	3.3	3.5
17	2.3	211	61	17	186	58	21	46	79	33	3.3	3.0
18	2.2	126	48	18	190	56	19	34	26	24	3.3	2.8
19	2.5	272	44	147	150	612	19	27	19	19	3.0	2.8
20	106	228	42	89	107	157	32	24	16	16	2.9	4.0
21	47	129	36	58	85	98	80	21	14	13	2.6	6.6
22	23	99	36	52	70	76	46	20	13	12	2.6	5.0
23	15	73	34	43	59	63	34	18	13	11	2.6	4.0
24	12	61	33	38	56	51	28	17	11	9.7	2.6	15
25	9.9	58	28	37	55	47	26	16	10	8.9	2.5	22
26	9.1	392	27	36	60	44	24	62	10	8.5	2.4	10
27	8.3	971	27	30	68	40	21	96	9.8	7.7	2.4	8.9
28	7.6	593	26	25	50	36	20	50	9.3	7.1	2.4	8.6
29	7.1	214	25	24	---	34	20	36	8.9	6.7	2.2	6.9
30	7.2	150	23	23	---	33	20	29	9.7	6.3	2.2	5.4
31	7.3	---	23	23	---	31	---	24	---	5.8	2.2	---
TOTAL	298.7	5670.8	2544	966	3222	2678	784	889	599.7	1489.7	116.0	251.3
MEAN	9.64	189	82.1	31.2	115	86.4	26.1	28.7	20.0	48.1	3.74	8.38
MAX	106	971	585	147	498	612	80	96	79	303	11	48
MIN	1.6	6.1	23	16	22	28	19	14	8.9	5.8	2.2	2.2
CFSM	.20	3.98	1.73	.66	2.42	1.82	.55	.60	.42	1.01	.08	.18
IN.	.23	4.44	1.99	.76	2.52	2.10	.61	.70	.47	1.17	.09	.20

CAL YR 1985	TOTAL	23837.3	MEAN	65.3	MAX	971	MIN	1.4	CFSM	1.37	IN.	18.67
WTR YR 1986	TOTAL	19509.2	MEAN	53.4	MAX	971	MIN	1.6	CFSM	1.12	IN.	15.28

03364500 CLIFTY CREEK AT HARTSVILLE, IN

LOCATION.--Lat 39°16'25", long 85°42'10", in NW¼NW¼ sec.36, T.10 N., R.7 E., Bartholomew County, Hydrologic Unit 05120206, at downstream side of left abutment of county highway bridge, 0.2 mi north of Hartsville, 5.9 mi upstream from Duck Creek, and at mile 20.0.

DRAINAGE AREA.--91.4 mi^2.

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

REVISED RECORDS.--WSP 1335: 1950. WSP 1725: 1949(M). WSP 2109: Drainage area. WDR IN-74-1: 1973.

GAGE.--Water-stage recorder. Datum of gage is 677.34 ft above National Geodetic Vertical Datum of 1929. Prior to Sept. 24, 1952, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Dec. 19-27, Jan. 7, 28-31, and Feb. 14. Records good except those below 1 ft^3/s, which are poor.

AVERAGE DISCHARGE.--38 years, 97.6 ft^3/s, 14.50 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,300 ft^3/s Jan. 21, 1959, gage height, 14.29 ft; no flow at times most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1913 reached an elevation of 702.4 ft National Geodetic Vertical Datum of 1929, from floodmarks, upstream from bridge.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,300 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 12	1800	1,490	5.05	Feb. 4	2000	2,370	6.49
Nov. 16	1100	1,580	5.22	Feb. 7	0600	1,600	5.24
Nov. 26	2200	*2,640	*6.89	Mar. 19	1000	1,460	5.00
Dec. 11	2100	1,960	5.84				

Minimum daily discharge, 0.03 ft^3/s Oct. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.08	12	299	35	50	101	49	32	20	87	1.8	.58
2	.04	13	282	34	87	87	50	32	17	173	1.7	6.6
3	.03	12	182	33	146	81	45	27	15	76	1.5	2.6
4	.04	11	143	32	1750	70	43	26	13	18	1.2	1.6
5	.08	9.5	125	30	1050	69	42	26	12	11	1.1	1.0
6	.07	8.6	110	26	524	79	40	29	53	7.7	.84	.56
7	.09	8.1	91	24	1080	77	38	33	166	6.0	.62	.38
8	.08	7.1	87	23	429	59	37	61	47	5.0	.50	.34
9	.05	29	78	25	288	68	35	68	32	4.7	.50	.27
10	.04	450	124	27	198	75	33	40	21	5.0	.56	.21
11	.05	717	1040	26	142	241	32	36	61	10	.63	8.1
12	.06	1030	963	25	105	337	31	35	243	43	.97	15
13	.06	728	413	24	85	762	29	33	80	111	1.4	6.5
14	.15	412	254	22	76	376	29	60	29	39	1.6	3.6
15	.16	348	185	22	69	234	35	68	20	26	1.5	2.5
16	.14	1240	142	22	64	164	36	194	31	13	1.3	2.0
17	.12	604	119	24	440	126	31	136	41	8.8	1.2	1.6
18	.12	341	84	33	549	124	28	81	13	6.8	.77	1.6
19	.17	539	70	334	440	954	26	52	12	6.2	.56	1.8
20	344	666	66	254	297	398	38	37	11	5.2	.39	1.9
21	287	362	64	145	228	223	125	32	9.7	4.2	.37	2.9
22	115	251	60	178	182	159	78	28	8.8	3.8	.32	2.5
23	65	185	66	148	148	131	49	25	8.1	2.9	.28	2.2
24	46	148	60	113	139	104	39	22	7.7	2.6	.24	5.8
25	34	133	39	101	128	89	35	23	6.8	2.3	.18	11
26	26	732	45	95	147	83	33	28	6.0	2.2	.16	11
27	21	1670	50	63	176	77	30	31	5.1	2.1	.15	8.2
28	18	1340	49	60	132	65	29	33	4.8	2.0	.15	7.6
29	17	575	44	58	---	62	30	25	4.6	1.9	.19	5.4
30	15	362	40	54	---	56	29	34	4.4	1.7	.64	3.8
31	13	---	41	50	---	51	---	29	---	1.8	.66	---
TOTAL	1002.63	12943.3	5415	2140	9149	5582	1204	1416	1003.0	689.9	23.98	119.14
MEAN	32.3	431	175	69.0	327	180	40.1	45.7	33.4	22.3	.77	3.97
MAX	344	1670	1040	334	1750	954	125	194	243	173	1.8	15
MIN	.03	7.1	39	22	50	51	26	22	4.4	1.7	.15	.21
CFSM	.35	4.72	1.91	.75	3.58	1.97	.44	.50	.37	.24	.01	.04
IN.	.41	5.27	2.20	.87	3.72	2.27	.49	.58	.41	.28	.01	.05

CAL YR 1985	TOTAL	50855.02	MEAN	139	MAX	2210	MIN	.03	CFSM	1.52	IN.	20.70
WTR YR 1986	TOTAL	40687.95	MEAN	111	MAX	1750	MIN	.03	CFSM	1.21	IN.	16.56

03365000 SAND CREEK NEAR BREWERSVILLE, IN

LOCATION.--Lat 39°05'03", long 85°39'32", in NW¼NE¼ sec.5, T.7 N., R.8 E., Jennings County, Hydrologic Unit 05120206, on left bank at downstream side of county highway bridge, 2.5 mi west of Brewersville, 5.7 mi upstream from Wyaloosing Creek, and 16.0 mi upstream from mouth.

DRAINAGE AREA.--155 mi^2.

PERIOD OF RECORD.--February 1948 to September 1986. (Discontinued)

REVISED RECORDS.--WSP 1335: 1949. WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 629.13 ft above National Geodetic Vertical Datum of 1929 (levels by State of Indiana, Department of Natural Resources). Prior to Oct. 6, 1952, nonrecording gage at site 1.7 mi upstream at datum approximately 8 ft higher.

REMARKS.--Estimated daily discharges: Dec. 19-29, Jan. 28 to Feb. 1, and Feb. 14, 15. Records good except for estimated daily discharges, which are fair.

AVERAGE DISCHARGE.--38 years, 173 ft^3/s, 15.16 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,900 ft^3/s Jan. 21, 1959, gage height, 21.70 ft inside, 22.20 ft outside, from rating curve extended above 6,500 ft^3/s on basis of contracted-opening measurement of peak flow; no flow at times during 1948, 1949, 1953-55, 1964, 1965, 1967.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,900 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 16	1000	4,200	10.69	Dec. 11	1900	4,630	11.31
Nov. 27	0500	*7,780	*14.55	Feb. 4	1600	3,080	8.98
Nov. 28	0500	3,430	9.53				

Minimum daily discharge, 1.4 ft^3/s Sept. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.7	21	413	57	73	148	75	53	80	192	6.4	3.0
2	6.1	16	492	54	113	135	76	60	50	546	6.0	3.1
3	5.8	15	230	56	172	132	73	47	33	126	5.2	6.5
4	7.4	16	184	57	2170	123	67	41	28	65	4.6	7.7
5	4.8	14	160	52	1240	115	63	38	26	44	3.6	6.8
6	3.3	14	151	53	655	118	63	38	45	33	3.3	5.3
7	2.4	13	128	45	1700	119	86	38	93	31	2.9	3.5
8	2.2	12	118	34	527	97	66	123	125	36	2.9	2.6
9	1.8	12	110	35	316	97	57	107	104	19	3.0	1.9
10	2.1	66	133	37	228	112	52	66	60	17	5.6	1.6
11	1.9	1000	2280	37	179	673	49	50	115	36	15	91
12	1.4	1960	1390	39	156	719	46	43	265	377	23	262
13	2.8	1040	492	39	123	1560	43	43	140	358	13	55
14	2.8	547	293	34	112	541	42	139	82	122	7.7	16
15	2.1	708	210	35	105	314	71	87	55	193	5.2	6.3
16	2.1	3320	185	32	110	227	73	234	42	74	4.1	10
17	4.4	798	163	36	543	186	60	176	172	46	3.6	8.7
18	3.1	364	118	69	803	169	53	105	50	33	3.7	3.4
19	2.0	266	93	1070	505	1250	49	80	30	25	4.0	4.7
20	756	475	88	428	308	492	84	66	24	20	3.6	22
21	455	293	82	238	388	262	333	69	20	17	3.1	21
22	145	214	80	247	316	195	176	69	23	14	2.5	13
23	84	175	80	191	222	171	117	49	18	11	2.7	6.0
24	68	147	81	155	216	147	94	36	16	10	8.7	109
25	55	130	72	144	221	129	82	35	13	9.6	4.4	113
26	41	1460	60	139	225	121	75	60	11	9.6	2.8	38
27	31	4580	60	93	282	123	67	62	10	9.0	27	86
28	24	2550	58	83	186	108	60	67	10	8.2	19	65
29	20	736	57	78	---	96	58	112	10	7.3	13	29
30	20	395	56	73	---	87	52	65	9.8	6.0	6.8	16
31	24	---	58	68	---	80	---	75	---	6.4	4.2	---
TOTAL	1789.2	21357	8175	3808	12194	8846	2362	2333	1759.8	2501.1	220.6	1017.1
MEAN	57.7	712	264	123	436	285	78.7	75.3	58.7	80.7	7.12	33.9
MAX	756	4580	2280	1070	2170	1560	333	234	265	546	27	262
MIN	1.4	12	56	32	73	80	42	35	9.8	6.0	2.5	1.6
CFSM	.37	4.59	1.70	.79	2.81	1.84	.51	.49	.38	.52	.05	.22
IN.	.43	5.13	1.96	.91	2.93	2.12	.57	.56	.42	.60	.05	.24

CAL YR 1985 TOTAL 79788.5 MEAN 219 MAX 4580 MIN 1.4 CFSM 1.41 IN. 19.15
WTR YR 1986 TOTAL 66362.8 MEAN 182 MAX 4580 MIN 1.4 CFSM 1.17 IN. 15.93

03365500 EAST FORK WHITE RIVER AT SEYMOUR, IN

LOCATION.--Lat 38°58'57", long 85°53'57", in NW¼NE¼ sec.7, T.6 N., R.6 E., Jackson County, Hydrologic Unit 05120206, on left bank 1,700 ft downstream from highway bridge, 1 mi north of Seymour, 9.5 mi downstream from Sand Creek, and at mile 214.6.

DRAINAGE AREA.--2,341 mi^2.

PERIOD OF RECORD.--October 1927 to current year. Yearly maximum discharge only for water years 1924-27 published in WSP 1305. Daily gage heights from May 1923 to September 1927 are available in the district office.

REVISED RECORDS.--WSP 743: 1928-29, 1931-32. WSP 783: 1934. WSP 873: 1938. WSP 1335: 1928(M), 1929-30, 1932- 33(M), 1937(M), 1942. WSP 1435: 1949. WSP 1705: 1958. WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 550.67 ft above National Geodetic Vertical Datum of 1929. Oct. 1, 1927 to July 2, 1931, nonrecording gage 1,700 ft upstream at datum 7.61 ft higher. July 3, 1931 to July 16, 1934, nonrecording gage at site 100 ft downstream at present datum.

REMARKS.--Estimated daily discharges: Jan. 27-31. Records good.

AVERAGE DISCHARGE.--59 years, 2,475 ft^3/s, 14.36 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 78,500 ft^3/s Jan. 5, 1949, gage height, 19.67 ft; minimum daily, 86 ft^3/s Sept. 28, 30, 1941.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 26, 1913, reached a stage of 21.0 ft, from information by Corps of Engineers and Indiana Department of Highways, discharge, 120,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 12,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 13	1400	12,400	13.90	Feb. 7	1700	26,000	16.53
Nov. 17	0400	21,100	15.83	Mar. 14	0100	12,000	13.74
Nov. 28	1900	*33,400	*17.44	Mar. 21	1800	12,500	13.96
Dec. 14	1700	22,300	16.00				

Minimum daily discharge, 289 ft^3/s Sept. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	378	543	20200	1670	1590	3450	2230	1780	2290	985	641	336
2	368	530	11600	1600	1660	3060	2150	2100	2010	2860	616	336
3	362	515	8770	1580	2400	2860	2090	2590	1740	2440	599	374
4	364	507	6480	1540	5500	2730	2000	2190	1550	2000	575	366
5	358	497	4900	1520	15700	2610	1920	1860	1450	1510	556	339
6	352	480	4170	1450	20300	2630	1860	1690	1480	1210	537	325
7	346	476	3700	1380	24100	2730	1830	1590	2840	1070	523	310
8	340	465	3330	1310	20700	2700	1790	1570	4390	967	511	302
9	335	462	3070	1260	12400	2460	1690	3010	4400	899	500	295
10	329	590	2920	1270	8840	2390	1610	3220	3260	875	508	289
11	324	2320	4990	1280	6410	3440	1550	2400	2450	896	532	302
12	320	6860	17400	1260	4690	4970	1500	1940	2440	1230	511	577
13	317	11800	19800	1250	3740	9820	1450	1770	2700	3870	510	608
14	333	10300	21600	1220	3260	11700	1410	2170	2200	4690	490	514
15	342	9220	17800	1200	3060	10400	1430	2640	1810	4300	470	442
16	339	12700	8920	1190	2810	7750	1480	4010	1570	3040	457	383
17	348	18100	5650	1170	3020	5170	1450	6440	1540	2090	454	347
18	343	11400	4400	1200	6490	4070	1400	6850	1690	1610	441	355
19	360	7870	3580	2780	7770	7220	1360	5180	1410	1320	426	356
20	938	8430	3220	5560	7860	12200	1360	3810	1270	1150	412	395
21	2800	10900	3060	5450	6920	12400	3220	3130	1190	1030	399	521
22	1570	10900	2780	4030	6040	10100	6390	2660	1120	947	387	547
23	1120	7280	2710	3530	4600	6240	7070	2310	1070	885	380	528
24	894	4780	2630	3180	4010	4590	4980	2050	1020	837	367	499
25	780	3840	2420	2830	3840	3860	3580	1850	981	793	356	767
26	705	4150	2090	2600	3620	3440	3000	1770	948	760	349	659
27	662	18600	1980	2200	3900	3180	2580	3500	921	731	375	672
28	617	33100	1980	1700	3940	2930	2250	5180	897	708	356	739
29	586	30900	1890	1730	---	2690	2050	4700	878	689	362	698
30	575	28400	1790	1700	---	2510	1890	3410	894	662	364	689
31	558	---	1710	1650	---	2360	---	2720	---	648	345	---
TOTAL	18363	256915	201540	63290	199170	158660	70570	92090	54409	47702	14309	13870
MEAN	592	8564	6501	2042	7113	5118	2352	2971	1814	1539	462	462
MAX	2800	33100	21600	5560	24100	12400	7070	6850	4400	4690	641	767
MIN	317	462	1710	1170	1590	2360	1360	1570	878	648	345	289
CFSM	.25	3.66	2.78	.87	3.04	2.19	1.00	1.27	.77	.66	.20	.20
IN.	.29	4.08	3.20	1.01	3.16	2.52	1.12	1.46	.86	.76	.23	.22

CAL YR 1985 TOTAL 1435423 MEAN 3933 MAX 33100 MIN 317 CFSM 1.68 IN. 22.81
WTR YR 1986 TOTAL 1190888 MEAN 3263 MAX 33100 MIN 289 CFSM 1.39 IN. 18.92

03366200 HARBERTS CREEK NEAR MADISON, IN

LOCATION.--Lat 38°46'55", long 85°29'08", in SW¼SE¼ sec.14, T.4 N., R.9 E., Jefferson County, Hydrologic Unit 05120207, attached to left downstream wingwall of bridge on County Road 533 West, 0.2 mi west of Smyrna, 3.7 mi upstream from Big Creek, and 4 mi northwest of Madison.

DRAINAGE AREA.--9.31 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 725.75 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 14-25, Jan. 5-7, 14-16, June 1-5, 9-11, 13-16, 18-30, July 4-11, and July 18-24. Records fair.

AVERAGE DISCHARGE.--18 years, 13.3 ft^3/s, 19.40 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,540 ft^3/s Apr. 2, 1970, gage height, 7.89 ft; no flow at times many years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 12	1000	706	5.99	Mar. 19	0200	649	5.85
Nov. 15	2300	*861	*6.38				

Minimum daily discharge, no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.12	1.7	20	3.2	2.2	4.9	3.4	1.9	.85	2.8	2.1	.00
2	.15	1.2	19	2.9	7.2	4.5	3.7	1.6	.75	4.4	.81	.00
3	.11	4.7	8.0	3.7	17	5.2	3.9	1.5	.68	1.1	.29	.00
4	.06	8.8	5.6	3.6	166	4.8	4.1	1.3	.60	.80	.07	.06
5	.05	2.9	6.0	2.8	43	4.1	3.6	1.3	1.7	.50	.02	.52
6	.04	1.7	8.4	2.3	66	5.0	2.7	1.3	2.1	.35	.00	.04
7	.02	1.7	4.9	1.9	88	4.3	2.7	1.3	2.0	.25	.00	.00
8	.00	2.2	4.1	1.7	25	3.1	2.8	1.6	1.2	.20	.00	.00
9	.00	1.2	3.4	1.6	15	3.7	2.1	1.2	.80	.15	.00	.00
10	.00	.95	3.1	2.0	9.8	25	1.8	1.1	.50	.13	2.6	.00
11	.00	3.7	163	1.9	7.0	38	2.0	1.0	1.7	.11	1.5	11
12	.00	247	65	2.1	5.5	133	2.0	10	2.0	6.4	.59	12
13	.43	43	34	1.7	3.7	140	1.8	8.1	.95	4.2	.29	.71
14	2.5	37	21	1.6	3.5	32	2.0	81	.60	12	.11	.32
15	.61	131	13	1.6	3.2	19	3.5	8.3	.40	10	.06	1.4
16	.31	325	10	1.5	3.6	12	3.1	4.0	.60	1.0	.04	.03
17	.14	41	8.0	2.1	79	8.9	3.3	2.6	1.8	.51	.02	.00
18	.09	19	6.0	8.3	30	23	3.1	2.8	.80	.40	.00	.10
19	.13	12	4.4	101	19	195	3.1	1.9	.60	.25	.00	.33
20	50	12	4.4	35	13	24	29	1.6	.43	.17	.00	1.2
21	8.2	8.3	4.5	25	10	12	29	1.4	.35	.11	.00	1.1
22	1.5	5.5	4.7	24	8.2	8.2	11	1.4	.29	.08	.00	.44
23	.84	3.9	5.0	11	6.1	6.4	5.7	1.4	.24	.06	.00	.14
24	2.2	2.9	4.5	7.4	8.0	5.2	4.3	1.2	.20	.04	.00	.10
25	1.6	2.8	4.1	6.7	11	4.2	3.8	1.4	.16	.03	.00	.13
26	.86	32	3.5	5.7	17	4.2	3.3	1.6	.14	.10	.00	.01
27	.57	199	3.8	3.4	16	8.3	2.8	2.1	.13	.17	2.8	.07
28	.40	148	3.3	2.4	8.0	5.5	2.5	1.5	.11	.03	1.1	.23
29	.54	32	3.1	2.2	---	4.3	2.3	1.3	.10	.00	.31	.26
30	9.3	18	2.7	1.6	---	4.0	2.0	1.1	.30	.00	.08	.13
31	3.9	---	3.2	1.7	---	3.3	---	.96	---	.28	.00	---
TOTAL	84.67	1350.15	453.7	273.6	691.0	755.1	150.4	150.76	23.08	46.62	12.79	30.32
MEAN	2.73	45.0	14.6	8.83	24.7	24.4	5.01	4.86	.77	1.50	.41	1.01
MAX	50	325	163	101	166	195	29	81	2.1	12	2.8	12
MIN	.00	.95	2.7	1.5	2.2	3.1	1.8	.96	.10	.00	.00	.00
CFSM	.29	4.83	1.57	.95	2.65	2.62	.54	.52	.08	.16	.04	.11
IN.	.34	5.39	1.81	1.09	2.76	3.02	.60	.60	.09	.19	.05	.12

CAL YR 1985	TOTAL	5341.74	MEAN	14.6	MAX	686	MIN	.00	CFSM	1.57	IN.	21.34
WTR YR 1986	TOTAL	4022.19	MEAN	11.0	MAX	325	MIN	.00	CFSM	1.18	IN.	16.07

03366500 MUSCATATUCK RIVER NEAR DEPUTY, IN

LOCATION.--Lat 38°48'15", long 85°40'26", in SW¼NE¼ sec.7, T.4 N., R.8 E., Jefferson County, Hydrologic Unit 05120207, on left bank at downstream side of highway bridge, 1.4 mi northwest of Deputy, 1.9 mi upstream from Coffee Creek, 2.4 mi downstream from confluence of Graham Creek and Big Creek, and at mile 50.0.

DRAINAGE AREA.--293 mi^2.

PERIOD OF RECORD.--November 1947 to current year.

REVISED RECORDS.--WSP 1335: 1948. WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 540.00 ft above National Geodetic Vertical Datum of 1929. Prior to June 22, 1955, nonrecording gage at same site. Prior to Aug. 25, 1983, at datum 1.17 ft higher.

REMARKS.--Estimated daily discharges: Dec. 22-26, Jan. 6-10, 26-31, and Feb. 11-16. Records fair except those for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--38 years (water years 1949 to current year), 351 ft^3/s, 16.27 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 52,200 ft^3/s Jan. 21, 1959, from rating curve extended above 25,000 ft^3/s on basis of contracted-opening measurement of peak flow, gage height, 34.3 ft, present datum, from floodmarks; no flow at times many years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 7,500 ft^3/s and maximum (*).

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 16	1400	*13,900	*23.74

Minimum daily discharge, 1.6 ft^3/s Oct. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	88	549	93	117	210	151	71	42	5.8	3.0	3.2
2	2.5	76	737	96	148	170	145	65	31	103	2.7	3.0
3	2.6	69	433	96	188	163	138	59	25	115	2.6	2.9
4	2.4	100	282	97	2440	156	133	53	21	37	2.5	2.8
5	2.0	123	247	101	2350	149	124	48	20	19	2.4	2.6
6	1.6	100	260	90	1010	146	118	45	22	11	2.3	2.4
7	1.8	88	248	80	3240	141	114	44	24	7.4	2.4	2.1
8	1.9	79	214	50	1120	130	152	48	38	5.8	2.5	1.9
9	1.9	78	190	53	624	121	124	46	27	4.6	2.5	1.9
10	1.8	73	177	58	428	147	106	40	20	4.0	3.6	2.5
11	1.8	78	1790	68	320	776	96	37	16	3.8	4.4	6.6
12	1.8	3290	4360	69	250	1170	90	36	26	12	4.1	279
13	1.8	3120	982	69	200	5110	86	185	26	80	4.9	107
14	2.6	1150	581	66	175	1420	82	390	16	147	4.2	62
15	3.6	1620	365	65	165	688	99	275	13	776	3.7	35
16	2.9	11300	288	63	150	457	100	142	11	193	3.4	24
17	3.9	3020	270	67	930	329	101	97	58	65	3.1	16
18	3.7	802	241	79	1250	268	97	78	29	35	2.9	14
19	3.5	488	188	1560	647	2880	93	71	14	21	2.6	15
20	521	368	172	1330	422	1130	164	62	14	14	2.3	16
21	1370	333	141	698	313	535	1150	51	11	9.6	2.1	15
22	284	260	135	711	268	354	642	45	8.5	7.3	2.0	13
23	135	205	130	492	229	282	301	43	6.9	5.9	2.0	11
24	106	169	125	306	227	235	193	40	5.9	4.8	2.3	10
25	97	148	120	254	285	201	149	40	5.0	4.0	2.5	9.3
26	94	239	110	230	280	182	127	40	4.3	3.7	2.7	8.5
27	75	3300	115	170	347	265	108	49	4.0	3.5	4.6	18
28	60	6010	109	100	304	335	94	61	3.7	3.3	4.5	21
29	50	1710	101	110	---	233	85	53	3.7	3.0	3.4	15
30	66	731	95	110	---	192	75	79	3.6	2.8	4.4	17
31	112	---	96	110	---	167	---	65	---	2.9	3.7	---
TOTAL	3016.3	39215	13851	7541	18427	18742	5237	2458	549.6	1710.2	96.3	737.7
MEAN	97.3	1307	447	243	658	605	175	79.3	18.3	55.2	3.11	24.6
MAX	1370	11300	4360	1560	3240	5110	1150	390	58	776	4.9	279
MIN	1.6	69	95	50	117	121	75	36	3.6	2.8	2.0	1.9
CFSM	.33	4.46	1.53	.83	2.25	2.06	.60	.27	.06	.19	.01	.08
IN.	.38	4.98	1.76	.96	2.34	2.38	.66	.31	.07	.22	.01	.09

CAL YR 1985	TOTAL	156679.3	MEAN	429	MAX	13600	MIN	1.4	CFSM	1.46	IN.	19.89
WTR YR 1986	TOTAL	111581.1	MEAN	306	MAX	11300	MIN	1.6	CFSM	1.04	IN.	14.17

03368000 BRUSH CREEK NEAR NEBRASKA, IN

LOCATION.--Lat 39°04'13", long 85°29'10" in NW¼NE¼ sec.11, T.7 N., R.9 E., Jennings County, Hydrologic Unit 05120207, on right bank at downstream side of county road bridge, 1.5 mi northwest of Nebraska, 2.9 mi northeast of Butlerville, and 3.6 mi upstream from Brush Creek Dam.

DRAINAGE AREA.--11.4 mi^2.

PERIOD OF RECORD.--May 1955 to current year.

REVISED RECORDS.--WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 717.17 ft above National Geodetic Vertical Datum of 1929 (levels by State of Indiana, Department of Natural Resources).

REMARKS.--Estimated daily discharges: Dec. 20-25, Jan. 5-7, 27-29, and Feb. 11-16. Records fair except for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--31 years, 13.3 ft^3/s, 15.84 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,360 ft^3/s June 10, 1981, gage height, 12.99 ft, from rating curve extended above 550 ft^3/s on basis of slope-area measurement of peak flow and a contracted-opening measurement at gage height, 10.20 ft; no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 950 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 15	2315	*2,120	*9.78	Mar. 19	0200	1,150	7.48
Nov. 26	2330	1,350	8.00	June 7	1730	1,290	7.85
Dec. 11	1345	1,210	7.64	July 14	2145	1,330	7.94

Minimum daily discharge, no flow on many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.96	29	1.7	4.0	6.4	4.0	3.2	1.1	118	.24	.00
2	.00	1.0	15	1.9	8.0	6.1	4.2	2.3	1.1	35	.14	2.2
3	.00	1.1	7.1	2.3	19	6.8	3.6	1.9	.82	5.1	.03	.30
4	.00	1.3	6.1	2.1	227	6.4	3.3	1.8	.71	2.4	.00	.24
5	.00	1.3	6.1	1.7	49	5.8	3.1	1.6	.82	1.5	.00	.16
6	.00	1.1	5.7	1.3	147	6.9	2.9	1.5	3.7	1.2	.00	.01
7	.00	1.4	4.5	1.1	99	5.5	2.7	1.8	193	.94	.00	.00
8	.00	1.5	4.3	.94	24	4.3	2.4	4.2	30	.79	.00	.00
9	.00	1.5	3.9	.98	16	4.7	2.1	1.8	15	.68	.00	.00
10	.00	6.5	10	1.2	11	15	2.0	1.5	6.1	1.1	.06	.00
11	.00	40	360	1.3	7.0	16	1.9	1.4	18	4.0	.23	126
12	.00	246	45	1.4	5.8	121	1.8	1.4	11	24	.18	26
13	.00	41	17	1.3	4.5	140	1.6	1.4	4.5	9.9	.02	2.9
14	.00	55	9.7	1.2	4.0	23	2.1	27	3.1	144	.00	1.5
15	.00	268	7.4	1.2	3.5	14	3.8	4.1	2.2	27	.00	1.1
16	.00	420	6.8	1.1	3.5	9.7	2.7	5.8	9.8	6.6	.00	1.1
17	.00	26	6.4	1.8	96	7.9	2.4	2.5	19	3.7	.00	1.4
18	.00	14	4.1	25	39	22	2.1	1.9	2.0	2.4	.00	1.8
19	.06	10	3.3	124	20	225	2.4	1.7	1.4	1.7	.00	2.2
20	75	9.8	3.0	25	13	20	36	1.5	1.2	1.4	.00	3.2
21	6.0	6.9	2.8	25	11	12	29	1.4	.93	1.2	.00	1.9
22	1.6	5.4	2.5	24	9.0	8.5	12	1.4	.82	1.0	.00	1.5
23	1.1	4.4	2.8	9.9	8.0	7.4	8.3	1.3	1.0	.90	.01	2.3
24	2.2	3.8	2.9	7.5	12	6.3	6.4	1.1	.69	.77	.42	31
25	1.5	4.6	2.3	7.4	11	5.6	5.4	3.0	.49	.70	.01	5.1
26	1.1	246	1.9	6.6	19	6.3	4.5	2.2	.43	.69	.00	2.4
27	.93	299	2.3	3.5	16	9.8	3.8	2.2	.39	.58	7.1	7.0
28	.86	179	2.0	2.7	7.9	6.6	3.3	1.5	.38	.44	.53	4.3
29	.81	25	1.8	2.8	---	5.8	2.8	1.5	.38	.34	.13	2.0
30	1.0	13	1.6	2.7	---	5.2	2.4	1.3	.67	.24	.01	1.5
31	1.0	---	2.0	2.9	---	4.5	---	1.0	---	.23	.00	---
TOTAL	93.16	1934.56	579.3	293.52	894.2	744.5	165.0	88.2	330.73	398.50	9.11	229.11
MEAN	3.01	64.5	18.7	9.47	31.9	24.0	5.50	2.85	11.0	12.9	.29	7.64
MAX	75	420	360	124	227	225	36	27	193	144	7.1	126
MIN	.00	.96	1.6	.94	3.5	4.3	1.6	1.0	.38	.23	.00	.00
CFSM	.26	5.66	1.64	.83	2.80	2.11	.48	.25	.96	1.13	.03	.67
IN.	.30	6.31	1.89	.96	2.92	2.43	.54	.29	1.08	1.30	.03	.75

CAL YR 1985	TOTAL	6185.89	MEAN	16.9	MAX	607	MIN	.00	CFSM	1.48	IN.	20.19
WTR YR 1986	TOTAL	5759.89	MEAN	15.8	MAX	420	MIN	.00	CFSM	1.39	IN.	18.80

03369000 VERNON FORK MUSCATATUCK RIVER NEAR BUTLERVILLE, IN

LOCATION.--Lat 39°02'55", long 85°32'40", in NW¼SE¼ sec.17, T.7 N., R.9 E., Jennings County, Hydrologic Unit 05120207, on left bank 0.3 mi downstream from Muscatatuck State School dam, 1.1 mi downstream from Brush Creek, 2 mi northwest of Butlerville, and at mile 50.6.

DRAINAGE AREA.--85.9 mi^2.

PERIOD OF RECORD.--February 1942 to current year. Prior to October 1960, published as North Fork of Vernon Fork near Butlerville, and as Vernon Fork near Butlerville, October 1960 to September 1979.

REVISED RECORDS.--WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 669.40 ft above National Geodetic Vertical Datum of 1929. Prior to Aug. 19, 1942, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Dec. 15, 16, Dec. 18 to Jan. 8, Jan. 12-14, 27-31, and Feb. 10-16. Records good except those for estimated daily discharges, which are poor. Water supply for the Muscatatuck State School is diverted and the sewage effluent returned above station. Flow regulated by Brush Creek Reservoir.

AVERAGE DISCHARGE.--44 years, 94.5 ft^3/s, 14.94 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,200 ft^3/s Jan. 21, 1959, gage height, 25.41 ft, from rating curve extended above 10,000 ft^3/s on basis of slope-area measurement at gage height 25.41 ft; no flow at times during 1944, 1945, 1949, and 1968.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 16	0400	*7,460	*15.15	Dec. 11	1700	4,720	11.85
Nov. 27	0400	6,610	14.17	July 14	2300	4,150	11.09

Minimum daily discharge, 0.83 ft^3/s Oct. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.1	7.7	178	16	32	57	38	31	13	142	2.2	1.7
2	1.4	7.3	213	17	58	53	41	28	12	310	1.9	2.0
3	1.0	7.7	88	18	96	54	37	23	8.8	64	1.6	5.2
4	.98	8.1	69	19	1590	50	34	20	7.3	28	1.5	3.3
5	1.0	8.4	62	15	470	49	32	19	7.1	16	1.5	2.0
6	1.1	7.8	59	12	424	52	34	18	26	10	1.3	1.5
7	1.0	8.5	50	9.8	1050	51	70	17	221	7.4	1.3	1.4
8	1.0	8.4	46	9.0	211	39	41	82	191	5.7	1.2	1.2
9	.96	9.3	43	9.8	132	42	32	36	87	4.5	1.2	1.1
10	1.0	16	65	11	90	50	28	23	40	5.2	2.7	1.4
11	1.3	466	1870	11	60	187	26	19	142	13	2.5	186
12	1.3	1120	549	12	50	349	24	17	194	212	3.0	269
13	1.4	350	180	13	40	1050	22	16	61	149	2.0	39
14	13	273	106	12	35	215	23	63	35	528	1.7	15
15	38	583	70	10	30	134	42	44	23	429	1.6	7.9
16	1.2	3380	66	9.5	30	98	36	82	18	80	1.5	5.0
17	.83	336	64	13	367	78	31	48	153	30	1.4	3.2
18	1.4	164	35	29	357	76	28	31	30	19	1.2	3.7
19	3.1	130	31	775	197	753	27	25	17	13	1.2	4.8
20	406	92	27	213	136	176	143	20	12	9.6	1.1	8.7
21	101	55	24	125	158	108	290	17	8.7	7.2	1.1	11
22	31	43	22	176	108	84	126	15	6.9	6.1	1.2	7.1
23	19	35	24	97	80	73	84	13	6.4	5.1	1.3	9.6
24	19	29	23	73	84	62	65	11	4.7	4.2	2.5	126
25	20	29	20	66	99	54	55	16	3.7	3.7	35	62
26	13	1160	17	66	106	52	47	22	3.4	4.0	34	20
27	11	2920	16	30	141	66	42	24	3.0	3.4	47	31
28	8.5	1540	17	25	78	56	36	28	3.0	3.0	8.3	46
29	7.1	294	17	26	---	50	32	30	2.8	2.5	3.1	15
30	7.6	147	17	26	---	45	27	20	2.7	2.3	2.0	8.3
31	8.0	---	17	25	---	41	---	14	---	2.4	1.5	---
TOTAL	724.27	13235.2	4085	1969.1	6309	4304	1593	872	1343.5	2119.3	170.6	899.1
MEAN	23.4	441	132	63.5	225	139	53.1	28.1	44.8	68.4	5.50	30.0
MAX	406	3380	1870	775	1590	1050	290	82	221	528	47	269
MIN	.83	7.3	16	9.0	30	39	22	11	2.7	2.3	1.1	1.1
CFSM	.27	5.13	1.54	.74	2.62	1.62	.62	.33	.52	.80	.06	.35
IN.	.31	5.73	1.77	.85	2.73	1.86	.69	.38	.58	.92	.07	.39

CAL YR 1985	TOTAL	43510.54	MEAN	119	MAX	3380	MIN	.83	CFSM	1.39	IN.	18.84
WTR YR 1986	TOTAL	37624.07	MEAN	103	MAX	3380	MIN	.83	CFSM	1.20	IN.	16.29

03369500 VERNON FORK MUSCATATUCK RIVER AT VERNON, IN

LOCATION.--Lat 38°58'34", long 85°37'13", in NW¼SE¼ sec.10, T.6 N., R.8 E., Jennings County, Hydrologic Unit 05120207, at downstream end of left bank bridge pier, 1 mi southwest of Vernon, 3.1 mi downstream from Otter Creek, and at mile 36.4.

DRAINAGE AREA.--198 mi^2.

PERIOD OF RECORD.--October 1939 to current year. Monthly discharge only for some periods, published in WSP 1305. Prior to October 1979, published as Vernon Fork at Vernon.

REVISED RECORDS.--WSP 1335: 1940, 1953. WSP 1909: 1952-53. WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 585.00 ft above National Geodetic Vertical Datum of 1929, (levels by State of Indiana, Department of Natural Resources). Prior to Jan. 14, 1940, and June 23 to Nov. 13, 1967, nonrecording gage, and Jan. 14, 1940, to June 22, 1967, water-stage recorder at site on right bank. Prior to Aug. 8, 1983, datum 2.30 ft higher.

REMARKS.--Estimated daily discharges: Dec. 15, 16, 18-29, Jan. 1, 5-10, 14-16, 27-30, Feb. 11-16, and Sept. 15-24. Records good except those for estimated daily discharges, which are poor. Diversion above station for municipal water supply of North Vernon and Vernon. Part of this diversion returned above gage as sewage effluent by North Vernon Sewage Treatment Plant. Some regulation at times at low flow by Old Timbers Lake on Jefferson Proving Grounds.

AVERAGE DISCHARGE.--47 years, 223 ft^3/s, 15.29 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 56,800 ft^3/s Jan. 21, 1959, from rating curve extended above 24,000 ft^3/s on basis of slope-area measurement of peak flow, gage height, 35.13 ft, present datum, from high-water mark. No flow at times in 1940, 1943-44.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 6,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 16	0900	*12,800	*19.32	Dec. 11	1900	8,390	15.43
Nov. 27	0800	9,500	16.48				

Minimum daily discharge, 1.2 ft^3/s Oct. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.7	18	394	49	73	132	93	52	26	257	5.5	4.1
2	3.9	18	620	50	107	118	95	55	38	676	4.8	3.1
3	2.4	17	256	52	216	119	91	46	20	168	3.9	2.9
4	1.4	20	185	55	3050	114	83	41	17	66	3.3	3.4
5	1.9	22	163	45	1410	107	78	39	16	37	2.5	6.0
6	2.2	20	160	36	735	108	77	38	17	24	1.9	6.1
7	2.3	20	135	29	2800	112	103	37	65	18	1.7	3.5
8	2.6	21	118	27	659	90	89	66	530	14	1.5	2.3
9	2.4	22	109	31	398	82	70	80	152	11	1.4	1.6
10	2.5	24	114	33	277	99	61	51	77	6.6	2.5	1.6
11	2.8	676	3470	35	180	375	57	41	43	11	6.1	6.1
12	2.2	2890	1860	37	130	817	54	39	329	188	6.3	1000
13	1.2	1280	583	39	100	2840	52	39	113	422	4.0	127
14	2.6	832	345	35	90	671	49	98	58	182	3.0	50
15	6.3	1190	200	31	80	388	72	121	39	1580	2.5	25
16	32	7510	190	29	80	265	86	89	29	234	3.0	17
17	5.8	1120	179	37	842	202	74	93	151	85	3.1	7.0
18	1.8	519	100	51	1030	180	65	59	74	62	2.5	8.0
19	1.4	377	92	1870	517	2030	62	46	34	49	2.0	10
20	1250	299	80	721	328	560	185	39	22	38	2.3	16
21	494	221	70	391	279	313	929	35	17	31	2.2	23
22	104	160	68	500	260	227	310	30	13	26	2.1	16
23	57	131	70	298	180	189	172	28	11	23	2.0	11
24	51	107	70	201	173	161	122	25	8.6	20	5.3	80
25	48	104	64	174	231	147	103	25	6.1	16	4.5	212
26	37	1100	52	169	206	132	87	37	4.7	13	31	71
27	29	5590	50	80	328	195	74	44	3.5	11	52	55
28	22	3910	50	65	199	163	66	43	3.9	8.9	57	109
29	18	897	50	70	---	133	60	85	3.5	7.6	24	62
30	18	468	51	70	---	114	52	56	2.3	6.6	11	37
31	19	---	50	68	---	103	---	35	---	5.6	7.0	---
TOTAL	2228.4	29583	9998	5378	14958	11286	3571	1612	1923.6	4297.3	261.9	1976.7
MEAN	71.9	986	323	173	534	364	119	52.0	64.1	139	8.45	65.9
MAX	1250	7510	3470	1870	3050	2840	929	121	530	1580	57	1000
MIN	1.2	17	50	27	73	82	49	25	2.3	5.6	1.4	1.6
CFSM	.36	4.98	1.63	.87	2.70	1.84	.60	.26	.32	.70	.04	.33
IN.	.42	5.56	1.88	1.01	2.81	2.12	.67	.30	.36	.81	.05	.37

CAL YR 1985	TOTAL	103422.4	MEAN	283	MAX	7510	MIN	1.2	CFSM	1.43	IN.	19.43
WTR YR 1986	TOTAL	87073.9	MEAN	239	MAX	7510	MIN	1.2	CFSM	1.21	IN.	16.36

03371500 EAST FORK WHITE RIVER NEAR BEDFORD, IN

LOCATION.--Lat 38°46'10", long 86°24'30", in SW¼NE¼ sec.21, T.4 N., R.1 E., Lawrence County, Hydrologic Unit 05120208, on downstream side of center pier of bridge on county road, 0.4 mi upstream from Mill Creek, 2.9 mi downstream from Sugar Creek, 3.9 mi northeast of Mitchell, 7.8 mi southeast of Bedford, and at mile 153.3.

DRAINAGE AREA.--3,861 mi².

PERIOD OF RECORD.--May 1939 to current year (high-water records only October 1943 to September 1957).

REVISED RECORDS.--WSP 2109: Drainage area. WDR IN-73-1: 1972.

GAGE.--Water-stage recorder. Datum of gage is 473.59 ft above National Geodetic Vertical Datum of 1929. Prior to Feb. 6, 1940, nonrecording gage, and Feb. 6, 1940, to Sept. 24, 1957, water-stage recorder, at site 9.8 mi downstream at datum 4.39 ft lower.

REMARKS.--Estimated daily discharges: Dec. 18 to Jan. 7, and Jan. 27 to Feb. 18. Records good, except those for periods of no gage-height record, which are fair.

AVERAGE DISCHARGE.--33 years (1939-43, 1957 to current year), 4,002 ft³/s, 14.08 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 75,700 ft³/s Mar. 12, 1964; maximum gage height, 35.97 ft May 11, 1961; minimum daily discharge, 138 ft³/s Sept. 7, 1941.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913 reached a stage of 47.5 ft, from floodmark determined by U.S. Army Corps of Engineers, discharge, 155,000 ft³/s, at former site.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 13,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 20	1200	25,800	23.69	Feb. 9	----	23,500	----
Dec. 2	0800	*32,800	*26.85	Mar. 16	2400	16,300	18.47
Dec. 17	0300	21,800	21.69	Mar. 23	1100	16,200	18.41

Minimum daily discharge, 448 ft³/s Sept. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	560	1220	31100	2600	2500	5830	3810	2850	3830	1160	886	526
2	561	1220	32700	2500	2500	5390	3530	2640	3220	1540	847	514
3	549	1170	30800	2400	3000	4760	3330	2530	2780	2160	811	498
4	539	1110	26300	2400	4500	4310	3180	2870	2470	3450	776	487
5	528	1070	20800	2350	6000	4050	3110	2890	2250	2950	746	483
6	518	1060	14800	2300	12000	3950	2990	2590	2110	2370	726	483
7	512	1070	10400	2200	18000	3800	2820	2340	2220	1900	707	475
8	501	1030	7290	2180	21000	3700	2730	2210	3060	1610	687	461
9	492	980	5710	2060	23000	3680	2780	2110	4330	1420	670	449
10	484	943	5050	1980	23000	3580	2680	2400	5060	1290	678	448
11	477	945	5600	1910	21000	3670	2480	3370	4570	1210	709	456
12	466	3390	8850	1890	15000	5840	2310	3180	3750	1280	699	561
13	462	8020	10800	1870	10000	10400	2200	2760	3250	1700	673	673
14	474	9770	14700	1830	7000	11900	2110	2530	3330	2890	654	1230
15	475	12300	18800	1800	5200	13900	2080	2570	3130	4730	645	1280
16	477	20400	20800	1750	4400	15900	2100	3350	2670	5770	641	955
17	476	22500	21400	1710	4500	16000	2110	4040	2490	5800	664	754
18	472	22100	16000	1690	6000	13900	2120	5170	2580	4300	606	654
19	482	23600	13000	2480	8270	13000	2060	6110	2610	3120	586	601
20	2040	25500	10000	4750	9870	11300	2040	6170	2300	2380	572	579
21	3450	24300	7000	7210	10700	12200	2340	5230	1960	1970	556	577
22	4760	21600	5400	8550	10300	15100	4180	4240	1740	1700	543	581
23	4940	19700	4500	8510	9090	16100	6680	3640	1600	1510	535	620
24	3420	17900	4200	7280	7800	14100	7700	3180	1490	1370	521	645
25	2320	14400	3800	5930	6630	10300	7280	2850	1380	1260	507	643
26	1830	10400	3600	4930	6150	7100	5760	2640	1290	1180	500	633
27	1550	10000	3400	4500	5940	5800	4590	2560	1230	1090	520	728
28	1380	13700	3200	4200	5810	5230	3930	3160	1170	1040	525	832
29	1250	17900	3100	3800	---	4900	3470	4570	1120	988	530	850
30	1170	25400	2900	3100	---	4540	3090	5220	1090	933	526	859
31	1160	---	2800	2700	---	4120	---	4690	---	908	524	---
TOTAL	38775	334698	368800	105360	269160	258350	101590	106660	76080	66979	19770	19535
MEAN	1251	11160	11900	3399	9613	8334	3386	3441	2536	2161	638	651
MAX	4940	25500	32700	8550	23000	16100	7700	6170	5060	5800	886	1280
MIN	462	943	2800	1690	2500	3580	2040	2110	1090	908	500	448
CFSM	.32	2.89	3.08	.88	2.49	2.16	.88	.89	.66	.56	.17	.17
IN.	.37	3.22	3.55	1.02	2.59	2.49	.98	1.03	.73	.65	.19	.19

CAL YR 1985 TOTAL 2294349 MEAN 6286 MAX 36500 MIN 462 CFSM 1.63 IN. 22.11
WTR YR 1986 TOTAL 1765757 MEAN 4838 MAX 32700 MIN 448 CFSM 1.25 IN. 17.01

03371520 BACK CREEK AT LEESVILLE, IN

LOCATION.--Lat 38°50'48", long 86°18'06", in SW¼SE¼ sec.21, T.5 N., R.2 E., Lawrence County, Hydrologic Unit 05120208, on left bank at downstream side of county road bridge, 0.9 mi west of Leesville, 2.5 mi upstream from Jones Defeat Hollow, and 7 mi above mouth.

DRAINAGE AREA.--24.1 mi^2.

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

REVISED RECORDS.--WRD IN-72-1: 1971.

GAGE.--Water-stage recorder. Datum of gage is 575.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 18-30, and Jan. 7-11, 27-31. Records fair.

AVERAGE DISCHARGE.--16 years, 34.8 ft^3/s, 19.62 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,300 ft^3/s July 21, 1973, gage height, 14.0 ft, from floodmarks, from rating extended above 550 ft^3/s on basis of step-backwater analysis and contracted-opening and flow-over-road measurement of peak flow; no flow at times during 1971, 1975, 1976, 1981, and 1984.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1913 reached a stage of 18.1 ft from information by local resident.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct. 20	0745	2,040	6.91	Nov. 26	1330	1,650	6.44
Nov. 12	0945	2,120	7.00	Dec. 11	1300	1,230	5.86
Nov. 16	0200	2,130	7.01	Mar. 19	0100	*2,770	*7.66

Minimum daily discharge, 0.13 ft^3/s Sept. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	16	63	10	26	34	14	17	9.2	8.0	.83	.17
2	1.8	18	49	9.5	31	31	15	12	7.6	21	.61	.17
3	1.7	17	34	10	34	30	13	10	5.9	5.8	.57	.17
4	1.8	18	30	9.4	404	28	12	9.2	5.0	3.2	.50	.18
5	1.8	17	28	9.4	151	26	11	8.4	6.2	2.0	.33	.21
6	1.6	16	23	8.5	155	27	11	7.5	8.2	1.5	.22	.19
7	1.5	16	20	8.5	157	25	10	8.1	52	1.1	.20	.17
8	1.5	15	19	8.4	78	23	17	13	25	.83	.20	.15
9	1.5	21	15	8.0	59	23	13	8.0	15	.71	.19	.14
10	1.4	24	17	7.8	49	31	12	6.5	10	1.6	6.9	.13
11	1.5	32	334	7.6	45	41	11	5.6	8.2	3.5	5.3	7.0
12	1.6	525	122	7.1	36	238	9.9	5.1	12	44	1.0	12
13	1.4	141	68	7.5	36	220	9.4	5.3	7.3	24	.59	1.2
14	3.2	193	44	7.0	36	87	9.1	6.9	5.4	11	.47	.64
15	5.4	334	36	7.3	34	61	10	7.8	4.3	7.5	.38	.47
16	3.7	652	28	7.3	28	50	9.4	41	3.7	5.2	.49	.37
17	2.9	120	27	8.0	66	44	8.7	16	22	3.7	.58	.30
18	2.6	72	25	16	69	82	8.1	12	6.2	2.6	.48	.67
19	19	90	23	128	55	457	7.7	9.7	4.1	1.9	.35	1.4
20	431	87	22	60	48	88	23	7.8	3.0	1.6	.25	6.1
21	70	57	21	48	45	55	37	6.8	2.3	1.3	.21	2.9
22	39	44	20	43	39	43	25	5.9	1.8	.98	.19	1.3
23	30	33	18	35	36	36	20	6.9	2.1	.82	.18	.82
24	24	27	17	32	42	29	17	5.3	1.8	.72	.17	.73
25	20	30	16	30	43	25	16	4.9	1.2	.62	.14	.61
26	17	426	15	27	46	23	14	70	.96	.57	.16	.52
27	16	455	13	21	43	22	12	40	.81	.52	.30	1.5
28	14	303	13	18	37	20	13	24	.81	.67	.41	2.4
29	13	105	12	16	---	18	11	18	.80	.62	.25	.91
30	14	66	12	14	---	17	9.8	14	1.8	.46	.20	.70
31	17	---	11	13	---	15	---	11	---	.86	.18	---
TOTAL	762.7	3970	1195	642.3	1928	1949	409.1	423.7	234.68	158.88	22.83	44.22
MEAN	24.6	132	38.5	20.7	68.9	62.9	13.6	13.7	7.82	5.13	.74	1.47
MAX	431	652	334	128	404	457	37	70	52	44	6.9	12
MIN	1.4	15	11	7.0	26	15	7.7	4.9	.80	.46	.14	.13
CFSM	1.02	5.48	1.60	.86	2.86	2.61	.56	.57	.32	.21	.03	.06
IN.	1.18	6.13	1.84	.99	2.98	3.01	.63	.65	.36	.25	.04	.07

CAL YR 1985	TOTAL	16275.74	MEAN	44.6	MAX	760	MIN	.58	CFSM	1.85	IN.	25.12
WTR YR 1986	TOTAL	11740.41	MEAN	32.2	MAX	652	MIN	.13	CFSM	1.34	IN.	18.12

03372300 STEPHENS CREEK NEAR BLOOMINGTON, IN

LOCATION.--Lat 39°10'11", long 86°25'07", in NE¼NW¼ sec.4, T.8 N., R.1 E., Monroe County, Hydrologic Unit 05120208, on downstream side of right pier of bridge on State Highway 46, 0.2 mi downstream from Kerr Creek, 4.0 mi west of Belmont, and 6.1 mi east of Bloomington.

DRAINAGE AREA.--10.9 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 550.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 18 to Feb. 26. Records good except those for estimated daily discharges, which are fair.

AVERAGE DISCHARGE.--16 years, 14.6 ft^3/s, 18.19 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,400 ft^3/s July 13, 1979, gage height, 13.18 ft from rating curve extended above 1,200 ft^3/s on basis of contracted-opening measurements at gage heights of 11.52 ft and 13.18 ft; no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 350 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct. 20	0700	400	7.28	Feb. 4	----	Unknown	Unknown
Nov. 19	1130	557	8.08	Mar. 18	2030	383	7.16
Nov. 26	1400	540	7.92	Apr. 20	0100	401	7.26
Nov. 26	1945	*1,170	*10.25	July 1	1930	909	9.49
Dec. 11	1145	384	7.14	July 12	1700	479	7.65

Minimum daily discharge, 0.04 ft^3/s, Oct. 10, 12, 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.30	4.0	32	3.8	7.5	13	6.1	6.3	5.0	68	.20	.12
2	.23	4.7	26	3.6	19	13	5.8	5.6	3.8	29	.27	.15
3	.17	4.2	18	3.4	20	12	5.6	5.0	2.9	11	1.3	.12
4	.14	3.6	15	3.3	170	11	5.4	4.6	2.4	6.9	.52	.10
5	.14	3.1	13	3.2	68	10	5.5	4.3	2.3	4.7	.31	.09
6	.11	2.9	11	3.1	62	11	5.6	3.8	3.0	3.3	.23	.07
7	.08	2.7	9.6	2.9	72	9.7	5.1	5.2	6.2	2.4	1.7	.07
8	.06	2.5	8.9	2.8	34	9.4	5.1	4.1	8.5	1.8	.71	.07
9	.05	7.9	8.1	2.6	25	9.0	4.6	3.3	4.6	1.4	.46	.07
10	.04	31	26	2.3	18	35	4.2	2.8	3.7	1.2	1.9	.07
11	.05	59	191	2.2	16	29	3.9	2.6	4.1	1.7	2.0	4.7
12	.04	100	72	1.9	16	154	3.6	2.3	6.8	55	.98	3.8
13	.04	50	38	1.8	9.8	95	3.3	2.7	4.6	24	.61	.66
14	.34	33	26	1.7	9.0	40	3.4	3.2	3.4	17	.40	.37
15	.46	35	21	1.7	8.2	25	3.7	18	2.6	16	.30	.39
16	.44	173	14	1.7	8.2	18	3.5	17	2.0	9.6	.38	.67
17	.57	50	11	2.3	56	15	3.3	9.2	1.9	6.5	.41	1.0
18	.85	27	10	6.3	43	83	3.1	7.4	1.3	4.7	.32	8.2
19	11	191	8.8	64	31	85	12	6.3	1.0	3.4	.27	3.0
20	132	81	8.2	22	22	34	151	5.5	.84	2.4	.22	11
21	35	40	7.7	16	18	22	38	4.7	.67	1.7	.20	4.5
22	18	22	7.4	12	16	17	21	4.0	.54	1.2	.19	2.7
23	11	13	6.8	9.8	14	14	17	3.4	.44	.91	.16	1.7
24	8.9	9.3	6.6	8.2	13	12	14	2.8	.35	.65	.15	4.0
25	7.2	8.6	6.2	8.2	12	10	11	2.7	.30	.48	.14	3.3
26	5.8	275	5.7	7.0	15	9.7	9.6	65	.25	.47	.15	2.5
27	4.8	204	5.3	6.7	16	8.4	9.6	80	.20	.37	.48	12
28	4.2	137	4.8	4.8	14	7.6	7.7	22	.19	.32	.19	7.1
29	4.1	54	4.6	5.2	---	6.9	7.2	14	.16	.25	.13	4.4
30	4.0	34	4.3	4.0	---	6.4	7.4	9.3	1.8	.22	.13	4.2
31	3.9	---	4.0	3.9	---	5.8	---	6.7	---	.35	.12	---
TOTAL	254.01	1662.5	631.0	222.4	832.7	830.9	386.3	333.8	75.84	276.92	15.53	81.12
MEAN	8.19	55.4	20.4	7.17	29.7	26.8	12.9	10.8	2.53	8.93	.50	2.70
MAX	132	275	191	64	170	154	151	80	8.5	68	2.0	12
MIN	.04	2.5	4.0	1.7	7.5	5.8	3.1	2.3	.16	.22	.12	.07
CFSM	.75	5.08	1.87	.66	2.72	2.46	1.18	.99	.23	.82	.05	.25
IN.	.87	5.67	2.15	.76	2.84	2.84	1.32	1.14	.26	.95	.05	.28

CAL YR 1985 TOTAL 8019.04 MEAN 22.0 MAX 667 MIN .02 CFSM 2.02 IN. 27.37
WTR YR 1986 TOTAL 5603.02 MEAN 15.4 MAX 275 MIN .04 CFSM 1.41 IN. 19.12

03372500 SALT CREEK NEAR HARRODSBURG, IN

LOCATION.--Lat 39°00'16", long 86°30'31", in NE¼NW¼ sec.34, T.7 N., R.1 W., Monroe County, Hydrologic Unit 05120208, on right bank 0.35 mi downstream from Monroe Lake, 0.9 mi upstream from Clear Creek, 2.2 mi southeast of Harrodsburg, and 25.7 mi upstream from mouth.

DRAINAGE AREA.--432 mi^2.

PERIOD OF RECORD.--May 1955 to current year.

REVISED RECORDS.--WSP 1705: 1959. WSP 1725: 1956(M). WSP 2109: Drainage area.

GAGE.--None. Datum of gage was 480.00 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Oct. 1, 1960, to Sept. 30, 1974, water-stage recorder at site described in "LOCATION" paragraph. Prior to Oct. 1, 1960, nonrecording gage at site 0.7 mi upstream at datum 2.41 ft higher.

REMARKS.--Flow regulated by Monroe Lake. Daily discharge computed from relation between discharge, head, and gate openings for Monroe Lake beginning Oct. 1, 1974.

COOPERATION.--Records of daily discharge provided by U.S. Army Corps of Engineers beginning Oct. 1, 1976.

AVERAGE DISCHARGE.--31 years, 500 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,000 ft^3/s June 25, 1960, gage height, 32.76 ft site and datum then in use; maximum gage height at present site and datum, 35.35 ft May 9, 1961; no flow Sept. 29 to Dec. 2, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 2,160 ft^3/s Jan. 7; minimum daily, 40 ft^3/s Apr. 19, 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	54	55	236	1920	462	1550	1770	367	1070	54	54	54
2	54	55	236	1910	462	1540	1520	427	1070	54	54	54
3	54	55	401	1900	462	1540	1150	463	1060	54	54	54
4	54	55	491	1900	466	1530	568	463	726	54	54	54
5	54	55	813	1890	474	1210	282	260	369	54	54	54
6	54	55	1360	2050	479	870	200	56	369	54	54	54
7	54	55	1530	2160	484	730	200	56	369	54	54	54
8	54	54	1530	2150	488	728	201	56	369	54	54	54
9	54	54	1850	2140	490	501	201	56	369	54	54	54
10	54	55	2020	2140	783	365	201	56	286	54	54	54
11	54	55	1080	2120	1000	366	201	56	203	54	54	54
12	54	55	410	2110	1120	368	200	56	204	54	54	54
13	54	56	677	2100	1480	373	200	56	204	55	54	54
14	54	56	886	2090	1600	376	200	56	151	55	54	54
15	54	56	1260	2080	1590	378	200	56	54	55	54	54
16	54	57	1770	2070	1580	379	200	252	54	55	54	54
17	54	58	2010	1640	1580	379	200	371	54	55	54	54
18	54	160	2000	1390	1590	379	93	371	54	55	54	54
19	54	222	2000	1390	1590	385	40	372	54	55	54	54
20	146	225	1990	1390	1590	651	40	471	54	54	54	54
21	110	226	1990	1390	1580	1290	259	772	54	54	54	54
22	55	394	1980	1390	1580	1430	602	891	54	54	54	54
23	55	514	1980	1390	1580	1420	1110	774	54	54	54	54
24	55	514	1970	1380	1570	1740	1090	565	54	54	54	54
25	55	514	1960	1380	1570	2020	888	220	54	54	54	54
26	55	370	1960	1370	1560	2010	886	152	54	54	54	54
27	55	230	1950	1370	1560	2010	999	206	54	54	54	54
28	55	233	1950	1130	1550	2000	946	208	54	54	54	54
29	55	235	1940	979	---	1990	546	208	54	54	54	54
30	55	236	1930	789	---	1980	367	438	54	54	54	54
31	55	---	1920	534	---	1970	---	910	---	54	54	---
TOTAL	1832	5014	46080	51642	32320	34458	15560	9721	7683	1681	1674	1620
MEAN	59.1	167	1486	1666	1154	1112	519	314	256	54.2	54.0	54.0
MAX	146	514	2020	2160	1600	2020	1770	910	1070	55	54	54
MIN	54	54	236	534	462	365	40	56	54	54	54	54

CAL YR 1985 TOTAL 260881 MEAN 715 MAX 2240 MIN 46
WTR YR 1986 TOTAL 209285 MEAN 573 MAX 2160 MIN 40

03373500 EAST FORK WHITE RIVER AT SHOALS, IN

LOCATION.--Lat 38°40'02", long 86°47'31", in SW¼NW¼ sec.30, T.3 N., R.3 W., Martin County, Hydrologic Unit 05120208, at left downstream side of U.S. Highway 50 bridge at Shoals, 340 ft upstream from Baltimore and Ohio Railroad bridge, 0.9 mi upstream from Beaver Creek, 6.6 mi downstream from Indian Creek, and at mile 105.3.

DRAINAGE AREA.--4,927 mi^2.

PERIOD OF RECORD.--June 1903 to July 1906, October 1908 to September 1916, June 1923 to current year. Monthly discharge only for some periods, published in WSP 1305. Published as East Branch White River at Shoals, 1903-06, 1908-16. Gage-height records collected at same site since May 1908 are contained in reports of the National Weather Service.

REVISED RECORDS.--WSP 353: 1912. WSP 1335: 1903-6. WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 442.25 ft above National Geodetic Vertical Datum of 1929. See WSP 1725 for history of changes prior to Oct. 26, 1932.

REMARKS.--No estimated daily discharges. Records good. Flow partially regulated by upstream reservoirs.

AVERAGE DISCHARGE.--72 years (1903-5, 1909-16, 1923 to current year), 5,477 ft^3/s, 15.09 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 160,000 ft^3/s Mar. 28, 1913, gage height, 42.2 ft, from rating curve extended above 100,000 ft^3/s; minimum daily, 64 ft^3/s Oct. 6, 1935, as a result of filling Williams Reservoir.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 20,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 17	1400	28,600	18.82	Dec. 18	0200	22,000	14.97
Dec. 3	1900	*31,600	*20.29	Feb. 11	0800	24,200	16.43

Minimum daily discharge, 547 ft^3/s Sept. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	666	1640	24800	4540	3470	7770	6530	4140	6080	1640	1160	721
2	665	1740	28800	4460	3500	7550	6120	3890	5390	2550	1080	711
3	660	1750	31200	4400	3630	6980	5650	3500	4810	2720	1050	710
4	648	1630	31100	4340	6020	6430	5200	3310	4390	3230	997	651
5	616	1500	27800	4290	13100	6090	4540	3560	3830	3860	934	639
6	604	1440	21900	4230	13400	5720	4110	3440	3410	3330	885	630
7	596	1440	15900	4240	15800	5230	3820	3130	3690	2770	861	632
8	586	1400	11400	4210	19800	4860	3660	3100	5280	2290	864	619
9	577	1340	8590	4050	21700	4800	3810	2940	5540	1970	845	590
10	558	1340	7500	3980	23400	4620	3700	2780	6420	1810	876	547
11	553	1540	8970	3920	24100	4830	3450	3320	6410	1680	1050	582
12	557	4110	14800	3860	22200	6850	3200	3920	5910	1650	1130	772
13	600	11600	14600	3830	17900	14900	3100	3580	5240	2610	958	1030
14	648	11900	14600	3810	13500	16600	3010	3290	4400	2920	877	1100
15	700	14200	17300	3770	9610	15500	2990	3170	4230	4320	832	1560
16	707	23000	19600	3730	7180	16400	2990	5750	3720	6080	853	1410
17	642	28200	21300	3710	6860	17100	2990	6550	3270	6670	839	1090
18	613	26900	21500	3480	8790	16500	2980	6150	3150	6080	855	940
19	686	24600	18000	4450	10100	17000	2850	6730	3190	4410	786	890
20	4290	26600	12400	6480	11500	16200	2790	7210	3100	3310	792	898
21	10100	27800	8470	7850	12700	13900	4130	6980	2760	2710	710	883
22	6590	25700	6970	9430	12900	15400	5360	6400	2420	2290	727	873
23	6030	22800	6510	10100	12000	17200	6990	5710	2170	2010	709	829
24	5120	20200	6180	9490	10800	17300	8800	4930	2000	1800	672	834
25	3640	17900	5940	8110	9610	15200	9150	4180	1850	1630	627	833
26	2790	15600	5710	6710	8710	11600	8170	4120	1700	1610	606	826
27	2330	18100	5420	5870	8320	9070	6920	6760	1610	1450	653	854
28	2030	21800	5150	5320	7940	8080	6200	6160	1550	1340	890	1020
29	1810	22200	4920	4690	---	7610	5620	5410	1460	1270	801	1120
30	1680	21900	4790	4070	---	7260	4740	6200	1420	1180	718	1130
31	1620	---	4660	3700	---	6850	---	6400	---	1140	700	---
TOTAL	59912	401870	436780	159120	338540	331400	143570	146710	110400	84330	26337	25924
MEAN	1933	13400	14090	5133	12090	10690	4786	4733	3680	2720	850	864
MAX	10100	28200	31200	10100	24100	17300	9150	7210	6420	6670	1160	1560
MIN	553	1340	4660	3480	3470	4620	2790	2780	1420	1140	606	547
CFSM	.39	2.72	2.86	1.04	2.45	2.17	.97	.96	.75	.55	.17	.18
IN.	.45	3.03	3.30	1.20	2.56	2.50	1.08	1.11	.83	.64	.20	.20

CAL YR 1985	TOTAL	2901344	MEAN	7949	MAX	38800	MIN	553	CFSM	1.61	IN.	21.91
WTR YR 1986	TOTAL	2264893	MEAN	6205	MAX	31200	MIN	547	CFSM	1.26	IN.	17.10

03373700 LOST RIVER NEAR WEST BADEN SPRINGS, IN

LOCATION.--Lat 38°35'10", long 86°38'03", in SW¼SE¼ sec.21, T.2 N., R.2 W., Orange County, Hydrologic Unit 05120208, on left bank 20 ft downstream from bridge on U.S. Highway 150, 1.7 mi northwest of West Baden Springs, 3.8 mi downstream from Lick Creek, and at mile 34.8.

DRAINAGE AREA.--287 mi^2.

PERIOD OF RECORD.--December 1964 to current year. Prior to October 1965, published as Lost River near West Baden.

GAGE.--Water-stage recorder. Datum of gage is 457.92 ft above National Geodetic Vertical Datum of 1929 (levels by State of Indiana, Department of Natural Resources).

REMARKS.--No estimated daily discharges. Records good.

AVERAGE DISCHARGE.--21 years, 377 ft^3/s, 17.84 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,100 ft^3/s May 1, 1983, gage height, 26.55 ft; minimum daily, 7.5 ft^3/s Oct. 8, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1964 reached a stage of 28.1 ft, from floodmarks, discharge, 14,500 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base discharge of 2,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 16	1400	*8,600	*25.38	Mar. 13	2200	2,330	20.59
Nov. 29	0700	2,950	21.56				

Minimum daily discharge, 16 ft^3/s Oct. 9, 11-13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	196	1690	161	131	263	226	101	57	105	47	18
2	20	225	1260	148	353	243	211	102	53	657	46	19
3	19	209	870	146	481	233	197	87	49	640	44	19
4	19	182	647	141	1240	215	185	81	47	313	39	20
5	18	163	561	135	1720	200	173	77	46	170	36	20
6	18	146	509	126	1450	197	162	74	114	104	34	21
7	17	133	454	118	1660	192	153	75	260	77	34	20
8	17	122	409	106	1640	173	145	248	677	66	33	21
9	16	110	363	98	1210	164	135	206	366	58	34	20
10	17	102	336	98	792	215	127	122	407	59	42	20
11	16	116	652	99	602	548	120	94	244	85	77	26
12	16	949	1390	96	502	1200	116	84	220	518	61	125
13	16	1650	1130	94	429	2180	110	80	217	874	41	144
14	47	1490	756	89	383	2180	106	78	135	751	35	61
15	72	1540	575	85	339	1640	122	83	102	425	32	41
16	53	7250	499	82	305	1070	131	93	84	275	34	36
17	38	7180	452	81	650	702	113	86	73	191	34	34
18	31	4630	393	91	1090	582	103	70	64	149	33	38
19	29	2610	334	640	814	1380	98	65	59	122	30	45
20	717	1760	305	735	617	1350	114	62	56	103	28	65
21	1300	1280	282	514	507	909	240	59	52	87	28	67
22	643	893	263	392	422	658	258	56	49	76	27	50
23	304	656	260	302	365	557	197	55	47	68	27	69
24	206	515	255	250	356	475	157	52	45	61	27	56
25	161	451	234	226	381	410	140	51	43	56	26	43
26	134	522	206	209	356	364	128	77	41	56	27	39
27	115	1300	198	187	344	348	116	202	39	52	38	44
28	99	2390	190	159	305	328	110	129	39	50	32	47
29	90	2830	179	152	---	297	106	85	38	48	26	33
30	94	2280	168	143	---	269	97	69	60	45	21	29
31	134	---	163	130	---	246	---	62	---	45	19	---
TOTAL	4497	43880	15983	6033	19444	19788	4396	2865	3783	6386	1092	1290
MEAN	145	1463	516	195	694	638	147	92.4	126	206	35.2	43.0
MAX	1300	7250	1690	735	1720	2180	258	248	677	874	77	144
MIN	16	102	163	81	131	164	97	51	38	45	19	18
CFSM	.51	5.10	1.80	.68	2.42	2.22	.51	.32	.44	.72	.12	.15
IN.	.58	5.69	2.07	.78	2.52	2.56	.57	.37	.49	.83	.14	.17

CAL YR 1985	TOTAL	187205	MEAN	513	MAX	7990	MIN	16	CFSM	1.79	IN.	24.26
WTR YR 1986	TOTAL	129437	MEAN	355	MAX	7250	MIN	16	CFSM	1.24	IN.	16.78

03373980 WHITE RIVER ABOVE PETERSBURG, IN

LOCATION.--Lat 38°31'42", long 87°15'14", in NE¼SW¼ sec.12, T.1 N., R.8 W., Pike County, Hydrologic Unit 05120202, on left bank 100 ft upstream from intake structure of Indianapolis Power and Light Company's generating plant, 1.5 mi downstream from East Fork White River, 2.2 mi upstream from State Highway 61, 2.8 mi northeast of Petersburg, and at mile 48.0.

DRAINAGE AREA.--11,123 mi^2.

PERIOD OF RECORD.--October 1976 to current year.

GAGE.--Water-stage recorder. Datum of gage is 401.52 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Discharges below 1500 ft^3/s only published. For a complete record of White River in this vicinity use records of White River at Petersburg, IN (sta. 03374000), 2.3 mi downstream.

03374000 WHITE RIVER AT PETERSBURG, IN

LOCATION.--Lat 38°30'39", long 87°17'22", in SE¼SW¼ sec.15, T.1 N., R.8 W., Pike County, Hydrologic Unit 05120202, on left bank 300 ft downstream from bridge on State Highway 61, 0.4 mi upstream from Prides Creek, 1.4 mi north of Petersburg, and at mile 45.7.

DRAINAGE AREA.--11,125 mi^2.

PERIOD OF RECORD.--October 1927 to current year. Monthly discharge only for October 1927, published in WSP 1305. Published as "at Hazleton" October 1927 to September 1938. Records published for both sites October 1937 to September 1938. Gage-height records collected at present site and datum since January 1935 are contained in reports of National Weather Service.

REVISED RECORDS.--WSP 1305: 1930(M). WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 400.00 ft above National Geodetic Vertical Datum of 1929. See WSP 1725 for history of changes prior to Apr. 1, 1941.

REMARKS.--No estimated daily discharges. Records good. Flow partially regulated by upstream reservoirs.

AVERAGE DISCHARGE.--59 years, 11,920 ft^3/s, 14.55 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 183,000 ft^3/s Jan. 22, 1937, gage height, 28.3 ft present datum, 31.58 ft site and datum then in use; minimum daily, 573 ft^3/s Oct. 1, 1941.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913, reached a stage of 29.5 ft, present site and datum, from floodmarks by U.S. Army Corps of Engineers, discharge, 235,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 75,000 ft^3/s Dec. 4, gage height, 23.52 ft; minimum daily, 1,600 ft^3/s Sept. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2000	4110	64200	12200	8520	16500	15300	10100	19400	4890	6210	1900
2	1900	8680	68400	12000	11100	15800	14500	9740	16100	7760	4400	1900
3	1830	7950	72300	11900	11800	15200	13700	11700	13600	10200	4170	1850
4	1790	6940	74600	11700	16700	14100	12800	14400	11700	10800	3740	1800
5	1790	5410	73000	11500	24400	13100	11900	16000	10900	10600	3430	1770
6	1770	4460	64900	11300	29700	12600	11100	15500	11100	10700	3180	1740
7	1740	3920	52400	11100	34200	12100	10400	12400	12800	9670	2990	1720
8	1720	3600	39300	10900	38300	11500	9880	10600	14500	8190	2870	1680
9	1710	3360	27900	10700	43100	11200	9630	9810	17100	6840	2770	1640
10	1690	3210	21600	10400	47400	11300	9990	10400	19100	6190	3020	1600
11	1680	3320	21800	10200	48800	12100	9770	11800	19500	6010	3660	1610
12	1670	7900	28200	10100	47000	17100	9210	12600	19500	7910	3100	2400
13	1670	18200	32700	9910	41300	26300	8680	12700	17400	12400	3130	2570
14	1960	24900	35500	9670	33900	31600	8260	11300	15800	13700	2910	2660
15	2070	28100	37900	9370	25700	34500	7880	10700	14800	12000	2730	2700
16	1960	37300	42500	9140	20100	35600	7580	13800	13600	12400	2780	2780
17	1980	43000	50700	8980	17800	36700	7390	17700	12100	12300	2760	2630
18	1970	45900	55400	8850	18800	37200	7340	18800	10800	11600	2570	2460
19	2230	48700	57200	10500	21100	37300	7210	18000	10100	10300	2530	3150
20	7740	52000	54700	11700	22300	37100	7350	17100	9660	8730	2480	5800
21	16500	52800	41600	13600	23000	37200	8770	17000	8750	7250	2330	4360
22	17400	54100	27600	15100	23800	37700	13400	17300	7860	6140	2230	3690
23	12700	55900	20600	16400	24200	40400	16700	15900	7050	5470	2170	3610
24	10200	57400	17800	16800	23100	44400	18100	14100	6390	5000	2090	3500
25	8580	58900	16400	15600	21200	46100	18500	12600	5950	4630	2020	3040
26	6640	61000	15500	14100	19400	42100	18100	12700	5770	4310	1970	2820
27	5300	64300	14700	12600	18000	33100	15800	16600	5680	4460	1940	2720
28	4540	66000	14000	11400	17200	24200	13500	20900	5510	6630	1940	2770
29	4000	63900	13400	10500	---	19900	11900	25200	5220	6030	1920	2840
30	3720	63100	12900	9610	---	17700	10900	24000	4920	4680	1930	3000
31	3590	---	12600	8930	---	16400	---	22100	---	6370	1910	---
TOTAL	136040	958360	1182300	356760	731920	798100	345540	463550	352660	254160	87880	78710
MEAN	4388	31950	38140	11510	26140	25750	11520	14950	11760	8199	2835	2624
MAX	17400	66000	74600	16800	48800	46100	18500	25200	19500	13700	6210	5800
MIN	1670	3210	12600	8850	8520	11200	7210	9740	4920	4310	1910	1600
CFSM	.39	2.87	3.43	1.03	2.35	2.31	1.04	1.34	1.06	.74	.25	.24
IN.	.45	3.20	3.95	1.19	2.45	2.67	1.16	1.55	1.18	.85	.29	.26

CAL YR 1985	TOTAL	6819320	MEAN	18680	MAX	84500	MIN	1670	CFSM	1.68	IN.	22.80
WTR YR 1986	TOTAL	5745980	MEAN	15740	MAX	74600	MIN	1600	CFSM	1.41	IN.	19.21

03374100 WHITE RIVER AT HAZLETON, IN
(National stream-quality accounting network station)

LOCATION.--Lat 38°29'23", long 87°33'00", in SE¼NW¼ sec.29, T.1 N., R.10 W., Gibson County, Hydrologic Unit 05120202, on downstream side of county road bridge (Old U.S. 41) at Hazleton, and at mi 18.7.

DRAINAGE AREA.--11,305 mi².

PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: October 1973 to September 1981.
CHEMICAL ANALYSES: February 1973 to September 1986. (Discontinued)
WATER TEMPERATURE: October 1973 to September 1981.
SEDIMENT DISCHARGE: October 1973 to September 1986 (partial-record station). (Discontinued)
WATER DISCHARGE: October 1927 to September 1938.

REMARKS.--Water discharge obtained from station White River at Petersburg (see sta 03374000).

EXTREMES FOR PERIOD OF RECORD.--
WATER TEMPERATURE: Maximum, 33.5 °C, Aug. 14, 1976; 0.0 °C on several days during winter period 1975-76.
SPECIFIC CONDUCTANCE: Maximum, 882 microsiemens, July 21, 1977; minimum, 192 microsiemens, Nov. 6, 1974.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE AIR (DEG C)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	BARO-METRIC PRES-SURE (MM OF HG)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
DEC											
12...	1430	28700	417	7.90	0.0	6.5	100	10.7	259	3100	15000
MAR											
13...	0915	25700	394	7.90	14.5	9.0	490	9.5	745	3800	51000
JUN											
11...	1400	19500	440	7.10	--	24.0	120	6.3	781	2000	--
SEP											
03...	1430	2090	636	8.50	26.0	24.5	--	9.7	748	K160	890

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY, CARBON-ATE IT-FLD (MG/L - CACO3)	BICAR-BONATE IT-FLD (MG/L AS HCO3)	CAR-BONATE IT-FLD (MG/L AS CO3)	ALKA-LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
DEC											
12...	50	14	9.5	4.3	128	156	0	126	44	15	0.20
MAR											
13...	44	14	11	2.3	111	136	0	116	51	14	.30
JUN											
11...	54	16	11	2.8	132	161	0	132	48	13	.20
SEP											
03...	--	--	--	--	195	140	48	195	--	--	--

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC DIS-SOLVED (UG/L AS AS)
DEC										
12...	8.1	250	2.50	0.210	1.5	0.240	0.090	--	120	<1
MAR										
13...	6.0	252	2.70	.160	4.6	.470	.050	0.030	200	<1
JUN										
11...	7.7	253	2.80	.030	.60	.330	.070	.060	30	<1
SEP										
03...	--	--	<.100	<.010	1.8	.150	.020	<.010	--	--

03374100 WHITE RIVER AT HAZLETON, IN--Continued
(National stream-quality accounting network station)

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
DEC										
12...	47	<0.5	<1	<1	<3	6	110	3	4	17
MAR										
13...	42	<.5	<1	<1	<3	5	180	3	<4	10
JUN										
11...	52	<.5	<1	<1	<3	2	21	<5	5	<1
SEP										
03...	--	--	--	--	--	--	--	--	--	--

DATE	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
DEC										
12...	<0.1	<10	<1	<1	120	<6	26	353	27400	94
MAR										
13...	0.4	<10	<1	1	130	<6	12	1650	114000	99
JUN										
11...	0.2	<10	<1	<1	150	<6	13	345	18200	98
SEP										
03...	--	--	--	--	--	--	--	151	852	100

03374455 PATOKA RIVER NEAR HARDINSBURG, IN

LOCATION.--Lat 38°26'41", long 86°23'14", in NW¼SE¼ sec.10, T.1 S., R.1 E., Orange County, Hydrologic Unit 05120209, on downstream edge of center pier of county road bridge, 0.3 mi downstream from Fudge Creek, 0.7 mi northeast of Valeene, 6.0 mi southwest of Hardinsburg, and at mile 158.0.

DRAINAGE AREA.--12.8 mi^2.

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 606.89 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Oct. 6-13, 16-20, Dec. 17-22, 24-27, Jan. 27-30, and Feb. 14, 15. Records fair.

AVERAGE DISCHARGE.--18 years, 25.8 ft^3/s, 27.35 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,270 ft^3/s July 26, 1979, gage height, 11.35 ft; no flow for several days in 1971, 1972, 1975, 1983, 1984.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 800 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 27	1430	*536	*4.81

Minimum daily discharge, 0.09 ft^3/s Sept. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.82	40	44	3.6	6.8	17	15	6.5	1.4	1.1	1.2	.17
2	.67	40	42	3.4	89	16	9.8	5.3	1.3	8.4	.86	.18
3	.62	28	28	3.4	75	14	8.9	4.4	1.2	3.1	.79	.19
4	.61	23	23	3.2	243	12	7.8	4.0	1.2	1.7	.62	.20
5	.60	17	20	3.0	119	11	6.9	3.7	1.4	1.1	.56	.15
6	.57	12	17	2.8	138	12	6.4	3.4	29	.80	.57	.13
7	.60	10	14	2.4	165	11	5.8	3.3	25	.62	.98	.12
8	.55	7.9	13	2.3	73	9.0	5.4	8.2	24	.74	.89	.10
9	.59	6.7	10	2.2	48	9.1	4.7	4.8	16	.43	.80	.09
10	.56	6.6	9.5	2.3	36	12	4.3	3.4	8.8	.54	1.2	.10
11	.53	11	162	2.3	29	23	4.0	2.9	5.8	2.2	1.4	.12
12	.52	135	102	2.0	23	188	3.7	2.7	11	75	1.0	.50
13	.60	74	50	1.8	19	220	3.4	3.0	5.5	69	.79	.95
14	3.6	45	33	1.8	16	78	9.2	3.6	3.3	20	.69	.29
15	3.1	73	26	1.7	14	48	34	3.1	2.5	7.4	.60	.25
16	1.4	283	22	1.5	16	35	18	2.9	2.0	4.2	.75	.20
17	.96	82	17	1.6	109	27	12	2.6	1.8	4.3	.79	.18
18	.76	43	13	5.2	66	33	9.6	2.6	1.4	3.2	.71	.30
19	.94	30	11	157	45	145	11	2.5	1.2	2.6	.50	.45
20	34	30	9.3	63	33	58	41	2.3	1.0	2.2	.38	.62
21	30	25	8.5	40	27	38	67	2.1	.91	1.8	.35	.50
22	12	20	8.2	29	22	30	45	2.0	.76	1.5	.30	.41
23	7.8	14	9.0	21	19	25	30	1.9	.69	1.3	.24	.36
24	9.2	11	7.3	17	29	20	23	1.8	.59	1.0	.20	.44
25	7.5	11	6.1	16	29	18	19	1.9	.50	.88	.18	.41
26	5.9	82	5.7	14	27	16	15	2.5	.45	1.0	.51	.45
27	4.7	313	5.9	11	26	24	12	3.1	.41	.82	.71	.35
28	3.6	228	5.6	8.6	20	20	10	2.5	.36	1.1	.51	.27
29	3.7	80	5.2	7.2	---	17	8.7	2.0	.34	1.1	.50	.32
30	58	47	4.5	6.4	---	15	7.1	1.8	.40	.60	.65	.26
31	76	---	4.1	6.1	---	13	---	1.5	---	1.3	.19	---
TOTAL	271.00	1828.2	735.9	442.8	1561.8	1214.1	457.7	98.3	150.21	221.03	20.42	9.06
MEAN	8.74	60.9	23.7	14.3	55.8	39.2	15.3	3.17	5.01	7.13	.66	.30
MAX	76	313	162	157	243	220	67	8.2	29	75	1.4	.95
MIN	.52	6.6	4.1	1.5	6.8	9.0	3.4	1.5	.34	.43	.18	.09
CFSM	.68	4.76	1.85	1.12	4.36	3.06	1.20	.25	.39	.56	.05	.02
IN.	.79	5.31	2.14	1.29	4.54	3.53	1.33	.29	.44	.64	.06	.03

CAL YR 1985	TOTAL	10457.69	MEAN	28.7	MAX	880	MIN	.45	CFSM	2.24	IN.	30.39
WTR YR 1986	TOTAL	7010.52	MEAN	19.2	MAX	313	MIN	.09	CFSM	1.50	IN.	20.37

03374500 PATOKA RIVER NEAR CUZCO, IN

LOCATION.--Lat 38°26'30", long 86°43'01", in SW¼SW¼ sec.11, T.1 S., R.3 W., Dubois County, Hydrologic Unit 05120209, on right bank 20 ft upstream from bridge on Cuzco Road South, 2.3 mi south of Cuzco, 0.7 mi downstream from Patoka Lake, 4.5 mi upstream from Dillon Creek, and at mile 117.8.

DRAINAGE AREA.--170 mi^2.

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

GAGE.--Data-Collection Platform. Datum of gage is 477.00 ft above National Geodetic Vertical Datum of 1929 (levels by State of Indiana, Department of Natural Resources). Prior to Oct. 1, 1961, nonrecording gage on downstream side of bridge, 1.7 mi downstream at same datum. Oct. 1, 1961 to Sept. 30, 1981, water-stage recorder at site described above. Prior to October 1979, published as "near Ellsworth". Data-Collection Platform installed on July 25, 1985.

REMARKS.--Flow regulated by Patoka Lake. Daily discharge computed from relation between discharge, head, and gate openings for Patoka Lake beginning Oct. 1, 1981.

COOPERATION.--Records of daily discharge provided by U.S. Army Corps of Engineers beginning Oct. 1, 1981.

AVERAGE DISCHARGE.--25 years, 228 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,700 ft^3/s Mar. 10, 1964, gage height, 20.02 ft; no flow Oct. 30, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913 reached a stage of 19.1 ft according to information by local resident, discharge, 12,300 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 802 ft^3/s Jan. 10; minimum daily, 19 ft^3/s May 23 to June 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	148	49	53	709	494	604	601	25	19	32	32	32
2	148	49	53	707	217	603	562	25	19	32	32	32
3	148	49	124	706	104	602	406	25	19	32	32	32
4	148	49	160	705	75	601	310	25	19	32	32	32
5	148	83	192	704	63	601	310	25	19	32	32	32
6	148	100	240	703	63	552	309	25	19	32	32	32
7	148	100	256	701	63	495	242	25	19	32	32	32
8	148	100	256	700	63	495	207	25	19	32	32	32
9	148	100	256	758	64	494	207	25	19	32	32	32
10	148	100	256	802	92	386	207	25	19	32	32	32
11	148	100	138	800	232	143	168	25	19	32	32	32
12	148	100	54	799	434	104	103	25	19	32	32	32
13	148	70	85	797	504	105	103	25	19	32	32	32
14	148	52	101	796	503	105	103	25	19	32	32	32
15	148	52	101	794	503	105	82	25	19	32	32	32
16	148	53	165	793	503	105	54	25	19	32	32	32
17	148	53	267	760	299	105	50	25	19	32	32	32
18	148	53	368	708	175	105	50	25	19	32	32	32
19	148	53	442	569	434	105	50	25	19	32	32	32
20	78	53	494	500	503	105	51	25	19	32	32	32
21	49	53	494	500	503	218	51	25	19	32	32	32
22	49	53	493	500	502	314	51	23	19	32	32	39
23	49	88	556	499	502	314	42	19	19	32	32	45
24	49	105	604	499	502	427	25	19	24	32	32	45
25	49	133	603	498	558	522	25	19	32	32	32	45
26	119	117	603	497	606	521	25	19	32	32	32	45
27	148	68	602	497	605	521	25	19	32	32	32	45
28	148	53	601	496	605	579	25	19	32	40	32	45
29	148	53	600	496	---	604	25	19	32	36	32	45
30	78	53	665	496	---	603	25	19	32	32	32	45
31	49	---	710	495	---	602	---	19	---	32	32	---
TOTAL	3825	2194	10592	19984	9771	11745	4494	719	653	1004	992	1071
MEAN	123	73.1	342	645	349	379	150	23.2	21.8	32.4	32.0	35.7
MAX	148	133	710	802	606	604	601	25	32	40	32	45
MIN	49	49	53	495	63	104	25	19	19	32	32	32

CAL YR 1985	TOTAL	103442	MEAN	283	MAX	1000	MIN	20
WTR YR 1986	TOTAL	67044	MEAN	184	MAX	802	MIN	19

03375500 PATOKA RIVER AT JASPER, IN

LOCATION.--Lat 38°24'49", long 86°52'36", in NW¼SE¼ sec.20, T.1 S., R.4 W., Dubois County, Hydrologic Unit 05120209, on left bank 0.3 mi upstream from unnamed outlet of Jasper Lake, 1.0 mi downstream from Coon Seitz bridge, 1.2 mi downstream from Beaver Creek, 3.3 mi northeast of Jasper, and at mile 91.5.

DRAINAGE AREA.--262 mi^2.

PERIOD OF RECORD.--November 1947 to current year.

REVISED RECORDS.--WSP 1909: 1958. WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 446.00 ft above National Geodetic Vertical Datum of 1929 (levels by State of Indiana, Department of Natural Resources). Nonrecording gage at bridge 5.6 mi downstream, used for high-water periods when flow exceeds about 2,500 ft^3/s, at datum 0.34 ft lower. Prior to Sept. 18, 1956, nonrecording gage at bridge 5.6 mi downstream at datum 0.34 ft lower.

REMARKS.--Estimated daily discharges: July 14-18. Records good. Flow regulated by Beaver Creek Reservoir beginning Oct. 11, 1955, and by Patoka Lake beginning Feb. 13, 1978.

AVERAGE DISCHARGE.--38 years (water years 1949 to current year), 369 ft^3/s, 19.13 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,100 ft^3/s Mar. 11, 1964, gage height, 15.17 ft at downstream gage; maximum gage height at upstream gage, 21.20 ft Mar. 11, 1964, from floodmarks; no flow at times during 1948, 1952-56, 1963-65.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913 reached a stage of 15.9 ft at downstream site, from floodmark furnished by local residents, discharge, 16,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,090 ft^3/s Nov. 17, gage height, 15.88 ft; minimum daily, 25 ft^3/s June 4, 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	153	304	356	919	614	803	771	53	29	46	70	37
2	149	525	361	918	977	795	766	52	28	72	43	37
3	147	278	236	917	891	791	736	50	27	68	39	37
4	147	174	270	913	1140	783	571	51	25	48	37	37
5	147	138	299	908	1240	777	446	49	25	44	36	37
6	147	149	307	911	712	778	435	48	439	43	37	36
7	147	166	340	912	957	714	426	48	843	42	38	35
8	147	161	345	906	588	625	343	53	494	42	38	36
9	148	154	342	906	336	618	298	50	276	41	37	36
10	149	151	359	967	246	701	292	47	212	42	45	36
11	149	167	689	1000	243	838	288	46	128	65	52	39
12	149	601	1020	1020	410	931	239	47	166	342	43	75
13	153	913	497	1010	617	1360	144	49	129	664	39	57
14	266	639	345	1010	667	1260	131	48	84	288	38	39
15	236	776	301	1010	662	585	132	54	67	106	37	35
16	174	2010	293	1010	660	344	121	47	56	69	41	35
17	165	2930	362	1010	911	280	97	45	68	56	44	35
18	165	2210	453	1000	742	262	88	45	61	49	38	40
19	168	1300	527	1200	503	925	86	44	58	44	37	465
20	741	520	596	1150	679	766	94	43	53	40	37	687
21	962	259	623	848	698	371	129	42	31	38	37	222
22	314	184	624	741	676	428	127	42	28	36	37	177
23	152	147	630	693	659	507	107	41	28	36	37	154
24	127	161	696	667	690	487	93	32	28	36	36	211
25	118	189	709	655	717	564	70	26	27	35	35	135
26	105	378	696	641	776	624	63	48	35	34	35	114
27	153	1050	691	624	842	635	58	64	44	35	38	105
28	180	1430	687	607	826	630	55	48	45	35	39	100
29	183	1350	685	615	---	728	57	38	45	41	37	98
30	280	625	682	611	---	776	54	34	45	52	36	94
31	304	---	852	605	---	778	---	31	---	65	36	---
TOTAL	6725	20039	15873	26904	19679	21464	7317	1415	3624	2654	1229	3281
MEAN	217	668	512	868	703	692	244	45.6	121	85.6	39.6	109
MAX	962	2930	1020	1200	1240	1360	771	64	843	664	70	687
MIN	105	138	236	605	243	262	54	26	25	34	35	35
CFSM	.83	2.55	1.95	3.31	2.68	2.64	.93	.17	.46	.33	.15	.42
IN.	.95	2.85	2.25	3.82	2.79	3.05	1.04	.20	.51	.38	.17	.47

CAL YR 1985	TOTAL	174197	MEAN	477	MAX	2930	MIN	61	CFSM	1.82	IN.	24.73
WTR YR 1986	TOTAL	130204	MEAN	357	MAX	2930	MIN	25	CFSM	1.36	IN.	18.49

03375800 HALL CREEK NEAR ST. ANTHONY, IN

LOCATION.--Lat 38°21'45", long 86°49'43", in NW¼NW¼ sec.11, T.2 S., R.4 W., Dubois County, Hydrologic Unit 05120209, on downstream side of right pier of bridge on County Road 125 South, 0.7 mi upstream from Grassy Fork, 3.3 mi north of St. Anthony, and at mile 4.1.

DRAINAGE AREA.--21.8 mi^2.

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

REVISED RECORDS.--WDR IN-75-1: 1971-74.

GAGE.--Water-stage recorder. Datum of gage is 459.22 ft above National Geodetic Vertical Datum of 1929 (levels by State of Indiana, Department of Natural Resources).

REMARKS.--Estimated daily discharges: Oct. 1-13, 18, 19, Dec. 19-31, Jan. 1-16, 27-31, Feb. 14, 15, May 18-22, 24, 25, 29-31, June 1-5, 15-30, July 1, 4-11, 18-31, Aug. 2-10, 12-31, Sept. 1-11, 13-18. Records poor.

AVERAGE DISCHARGE.--16 years, 34.5 ft^3/s, 21.49 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,500 ft^3/s July 26, 1979, gage height, 15.30 ft from contracted-opening and flow-over-the-road measurements at gage height of 15.30 ft; no flow for many days in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 950 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 15	2400	*2,610	11.72	July 12	0100	1,450	10.97
Nov. 27	1400	1,180	10.56	July 13	0800	1,840	11.32
Mar. 12	0900	1,170	10.54	Sept. 19	1700	2,540	11.69
Mar. 19	0100	1,000	10.01	Sept. 23	2400	1,990	11.41
June 6	1400	1,250	10.70				

Minimum daily discharge, 0.05 ft^3/s, Sept. 9, 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.80	102	54	2.5	9.5	11	6.9	3.7	1.5	7.0	4.8	.20
2	.70	68	34	3.0	274	10	5.9	2.7	1.3	9.5	4.0	.30
3	.52	27	19	2.5	139	9.3	5.2	2.3	1.2	4.7	3.0	.21
4	.40	15	17	2.4	376	8.1	4.7	2.0	1.0	3.4	2.2	.20
5	.37	11	16	2.3	106	7.7	4.4	2.3	1.5	1.7	1.6	.18
6	.33	8.3	12	2.5	184	9.6	4.4	2.1	274	1.2	1.2	.17
7	.29	7.1	10	2.3	127	7.4	4.3	16	101	.90	2.0	.14
8	.25	5.6	9.5	2.0	59	6.0	4.1	34	43	.70	1.5	.10
9	.35	4.6	8.1	1.7	38	6.1	3.9	4.4	33	.60	1.0	.05
10	.31	3.9	8.9	1.5	25	22	3.7	3.0	26	1.0	12	.05
11	.28	9.2	218	1.5	21	19	3.6	2.9	19	142	5.0	4.0
12	.25	129	78	1.8	15	354	3.4	48	19	263	3.4	6.5
13	.40	163	41	2.0	13	188	3.4	14	10	538	2.0	3.5
14	18	65	24	1.7	12	61	8.2	7.1	7.2	33	1.3	1.5
15	2.7	428	18	1.5	11	38	7.2	8.1	5.6	14	.80	.40
16	2.1	689	17	2.4	41	26	4.4	6.1	4.4	7.2	30	.22
17	1.6	75	17	3.8	115	19	4.2	2.9	3.0	5.1	4.5	.15
18	1.3	38	15	25	50	63	3.9	2.5	2.5	3.7	1.2	27
19	1.0	24	8.0	110	33	230	4.4	2.0	2.1	2.4	1.5	901
20	70	39	6.0	34	23	50	15	1.7	1.8	1.5	.80	169
21	15	26	5.5	21	19	31	16	1.5	1.5	1.2	.50	35
22	6.3	22	5.0	14	15	22	10	1.7	1.3	.81	.45	18
23	4.8	13	5.5	11	13	18	7.5	2.2	1.0	.76	.42	408
24	5.4	10	4.7	9.5	32	14	6.5	1.7	1.5	.70	.40	376
25	19	9.1	4.0	9.4	20	12	5.7	1.5	1.1	.50	.40	34
26	5.9	148	3.5	8.8	21	12	4.9	13	.90	5.0	3.0	15
27	4.3	626	4.5	5.0	18	16	4.4	5.9	.84	3.0	.80	9.6
28	3.0	267	3.6	3.5	13	12	5.8	2.7	.78	2.2	.40	7.7
29	6.8	71	3.3	3.2	---	10	4.6	2.4	.72	1.6	.26	6.1
30	91	41	3.0	3.0	---	8.7	4.2	2.1	.90	1.0	.20	15
31	53	---	2.7	3.5	---	7.7	---	1.8	---	21	.18	---
TOTAL	316.45	3144.8	675.8	298.3	1822.5	1308.6	174.8	204.3	568.64	1078.37	90.81	2039.27
MEAN	10.2	105	21.8	9.62	65.1	42.2	5.83	6.59	19.0	34.8	2.93	68.0
MAX	91	689	218	110	376	354	16	48	274	538	30	901
MIN	.25	3.9	2.7	1.5	9.5	6.0	3.4	1.5	.72	.50	.18	.05
CFSM	.47	4.82	1.00	.44	2.99	1.94	.27	.30	.87	1.60	.13	3.12
IN.	.54	5.37	1.15	.51	3.11	2.23	.30	.35	.97	1.84	.15	3.48

CAL YR 1985	TOTAL	16506.35	MEAN	45.2	MAX	1740	MIN	.20	CFSM	2.07	IN.	28.17
WTR YR 1986	TOTAL	11722.64	MEAN	32.1	MAX	901	MIN	.05	CFSM	1.47	IN.	20.00

03376300 PATOKA RIVER AT WINSLOW, IN

LOCATION.--Lat 38°22'48", long 87°13'00", in SW¼SW¼ sec.32, T.1 S., R.7 W., Pike County, Hydrologic Unit 05120209, on right bank at abandoned bridge abutment, 65 ft upstream from bridge on State Highway 61, 100 ft downstream from dam of Winslow Water Company, and 41.3 mi above mouth.

DRAINAGE AREA.--603 mi^2.

PERIOD OF RECORD.--October 1963 to September 1974, May 1986 to curent year. Discharge measurements and gage readings June 1961 to September 1963, obtained by State of Indiana, Department of Natural Resources, are available in the district office.

GAGE.--Water-stage recorder. Datum of gage is 400.00 ft above National Geodetic Vertical Datum of 1929 (levels by State of Indiana, Department of Natural Resources). Prior to Nov. 21, 1963, nonrecording gage on downstream side of bridge 65 ft downstream at same datum.

REMARKS.--No estimated daily discharges. Records good. An average 0.13 ft^3/s is diverted for municipal water supply 100 ft above gage.

AVERAGE DISCHARGE.--11 years, 678 ft^3/s, 15.27 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,500 ft^3/s Mar. 13, 1964, gage height, 28.84 ft; minimum daily, 0.5 ft^3/s Aug. 5, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in January 1937 reached a stage of 28.9 ft, from floodmarks, information from State of Indiana, Department of Natural Resources.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,380 ft^3/s July 13, gage height, 20.70 ft; minimum daily, 33 ft^3/s June 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								---	108	57	1690	46
2								---	93	80	1580	47
3								---	87	133	1310	47
4								---	92	133	754	44
5								---	69	92	319	42
6								---	347	66	151	40
7								---	1200	48	106	38
8								---	1490	41	86	38
9								---	1590	40	79	38
10								---	1830	51	88	39
11								---	1760	83	140	50
12								---	1690	799	190	100
13								---	1420	1990	122	170
14								---	971	2060	82	124
15								---	548	2000	65	84
16								---	282	1920	108	57
17								---	168	1560	308	45
18								---	129	980	258	55
19								---	114	504	128	288
20								---	99	223	85	1040
21								---	88	117	65	1290
22								---	78	90	55	1390
23								---	62	75	50	1300
24								---	46	67	47	1020
25								---	40	60	46	1050
26								---	38	52	43	816
27								---	33	81	48	402
28								---	35	159	91	218
29								374	42	260	79	165
30								230	50	168	56	147
31								148	---	941	45	---
TOTAL								---	14599	14930	8274	10230
MEAN								---	487	482	267	341
MAX								---	1830	2060	1690	1390
MIN								---	33	40	43	38

WTR YR 1986 TOTAL 49234 MEAN .00 MAX 2060 MIN 33

03376350 SOUTH FORK PATOKA RIVER NEAR SPURGEON, IN

LOCATION.--Lat 38°17'50", long 87°15'39", in SE¼NE¼ sec.35, T.2 S., R.8 W., Pike County, Hydrologic Unit 05120209, on right bank at downstream side of bridge on State Highway 61, 0.5 mi north of Enos Corner, 3.1 mi north of Spurgeon, and at mile 8.0.

DRAINAGE AREA.--42.8 mi^2.

PERIOD OF RECORD.--October 1964 to September 1986. (Discontinued)

REVISED RECORDS.--WSP 2109: Drainage area. WDR IN-75-1: 1965-74(P).

GAGE.--Water-stage recorder. Datum of gage is 420.88 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 15 to Jan. 16, Jan. 27-31, and Feb. 11-16. Records good except those for estimated daily discharges, which are fair. Regulation by coal-washing operation and strip-mining above gage.

AVERAGE DISCHARGE.--22 years, 52.0 ft^3/s, 16.50 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,900 ft^3/s June 9, 1979, gage height, 15.07 ft, from rating curve extended above 3,300 ft^3/s on basis of contracted-opening and flow over-the-road measurements at gage height of 15.07 ft; no flow Jan. 20-31, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1964 reached a stage of 13.09 ft, from floodmarks, discharge, 4,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 15	2300	*2,220	*11.51	Mar. 12	1000	1,040	8.85

Minimum daily discharge, 5.1 ft^3/s Aug. 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	262	136	22	26	31	32	22	18	30	15	6.8
2	9.1	180	76	20	385	32	31	19	27	29	10	8.2
3	7.7	59	49	19	184	32	30	19	18	18	8.8	7.1
4	7.7	35	46	18	418	31	28	18	19	15	8.0	6.3
5	7.9	28	45	18	166	29	29	17	18	15	7.8	5.8
6	8.8	27	39	18	167	30	33	17	148	14	7.8	5.4
7	9.1	25	38	17	158	28	30	17	66	13	8.4	10
8	8.7	21	39	17	86	25	28	43	38	12	8.3	8.3
9	8.3	18	35	17	62	27	24	21	234	15	10	6.0
10	7.7	15	37	17	51	132	23	18	110	105	18	5.6
11	8.1	23	257	18	45	96	22	22	51	45	12	22
12	7.8	89	121	19	40	432	23	21	49	126	8.5	16
13	8.6	220	72	18	37	261	23	19	32	108	7.6	7.4
14	93	113	50	17	34	114	25	19	27	33	7.2	6.1
15	22	397	40	16	31	78	25	52	24	21	6.9	5.8
16	12	638	34	16	30	58	24	38	24	15	18	6.2
17	10	129	30	20	222	49	22	24	30	13	10	5.5
18	13	77	27	58	95	76	23	29	28	12	8.1	35
19	12	58	25	179	60	266	24	26	22	10	7.6	29
20	214	115	23	55	47	85	56	22	16	9.6	7.2	18
21	44	53	21	41	41	59	53	20	15	8.2	7.4	12
22	23	43	20	34	39	50	35	17	20	7.8	6.9	11
23	17	38	30	28	35	46	28	19	17	7.3	7.8	17
24	17	34	28	27	50	41	25	18	14	7.0	7.4	12
25	19	34	23	29	40	39	25	19	13	7.4	6.9	10
26	14	197	21	28	42	41	25	53	13	8.0	8.1	8.0
27	13	631	20	25	39	43	24	37	13	7.8	9.5	7.2
28	11	311	19	22	32	37	25	33	13	12	7.0	7.3
29	18	126	18	19	---	35	23	29	15	13	5.5	8.2
30	114	87	18	18	---	34	20	21	16	8.8	5.2	11
31	67	---	23	17	---	33	---	17	---	43	5.1	---
TOTAL	846.5	4083	1460	887	2662	2370	838	766	1148	788.9	272.0	324.2
MEAN	27.3	136	47.1	28.6	95.1	76.5	27.9	24.7	38.3	25.4	8.77	10.8
MAX	214	638	257	179	418	432	56	53	234	126	18	35
MIN	7.7	15	18	16	26	25	20	17	13	7.0	5.1	5.4
CFSM	.64	3.18	1.10	.67	2.22	1.79	.65	.58	.89	.59	.20	.25
IN.	.74	3.55	1.27	.77	2.31	2.06	.73	.67	1.00	.69	.24	.28

CAL YR 1985	TOTAL	25067.2	MEAN	68.7	MAX	1330	MIN	6.8	CFSM	1.61	IN.	21.79
WTR YR 1986	TOTAL	16445.6	MEAN	45.1	MAX	638	MIN	5.1	CFSM	1.05	IN.	14.29

03376500 PATOKA RIVER NEAR PRINCETON, IN

LOCATION.--Lat 38°23'30", long 87°32'55", in Location 107, T.1 S., R.10 W., Gibson County, Hydrologic Unit 05120209, on left bank 75 ft upstream from dam of Princeton Water and Lighting Co., 0.1 mi downstream from bridge on State Highway 65, 0.6 mi downstream from Indian Creek, 2 mi northeast of Princeton, and at mile 21.5.

DRAINAGE AREA.--822 mi^2.

PERIOD OF RECORD.--August 1934 to current year. Published as "at Patoka" August 1934 to September 1940. Records published for both sites October 1939 to September 1940 (monthly discharge only at present site, for October, November 1939, published in WSP 1305).

REVISED RECORDS.--WSP 1275: 1952. WSP 1335: 1935-36, 1938-39, 1949(M), 1940-50. WSP 1385: 1951-52. WSP 2109: Drainage area.

GAGE.--Water-stage recorder and Data-Collection Platform. Concrete control removed Aug. 12, 1986. Datum of gage is 394.14 ft above National Geodetic Vertical Datum of 1929. See WSP 1725 for history of changes prior to Jan. 21, 1941.

REMARKS.--Estimated daily discharges: Aug. 12-24. Records good. Flow regulated by Patoka Lake.

AVERAGE DISCHARGE.--52 years, 1,038 ft^3/s, 17.15 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,700 ft^3/s Jan. 26, 1937, gage height, 26.80 ft, site and datum then in use; no flow Aug. 29 to Sept. 12, 1936.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,900 ft^3/s Nov. 27, gage height, 14.06 ft; minimum daily, 48 ft^3/s Sept. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	213	1700	3570	794	845	1320	1040	214	441	92	1210	57
2	216	2180	3450	866	1810	1280	1010	199	590	203	1420	59
3	195	2000	3360	942	1930	1230	987	179	244	133	1460	62
4	189	1980	3310	983	2290	1190	963	168	195	199	1360	62
5	180	1950	3250	997	2450	1140	922	155	187	134	896	57
6	171	1870	3130	983	2600	1100	810	151	1010	98	447	53
7	170	1640	2990	966	2830	1070	678	148	1700	80	343	50
8	170	1180	2780	945	2940	1040	613	371	1690	71	246	54
9	165	725	2510	974	3020	979	576	412	1850	68	209	53
10	163	440	2290	928	3070	933	463	411	1880	149	271	48
11	163	378	2120	923	3110	1220	410	303	1900	342	345	57
12	162	920	2010	947	3120	1930	395	232	1950	922	390	136
13	156	1350	1940	977	3050	2170	392	217	1940	1680	270	183
14	556	1710	1950	998	2950	2270	372	234	1880	1740	210	187
15	459	2150	1970	1010	2740	2410	315	410	1630	1800	180	122
16	555	3050	1960	1030	2500	2480	286	1230	1010	1880	258	86
17	392	2910	1910	1050	2340	2530	316	869	485	1920	299	64
18	261	3080	1730	1100	2260	2540	278	527	307	1890	389	59
19	210	3360	1470	1540	2200	2560	235	392	180	1630	278	135
20	1080	3610	1220	1600	2160	2540	333	302	135	961	200	583
21	1470	3640	1100	1640	2100	2510	558	224	115	467	130	780
22	1370	3660	996	1680	2030	2480	546	184	106	318	110	847
23	1330	3660	945	1710	1930	2430	479	165	98	185	80	876
24	1170	3660	908	1690	1810	2350	408	149	82	134	70	868
25	761	3660	861	1630	1650	2220	365	143	70	123	65	811
26	475	3650	832	1500	1520	2020	336	861	63	115	62	782
27	402	3780	823	1330	1440	1750	284	1100	60	109	64	578
28	310	3830	816	1110	1370	1470	240	951	57	222	83	325
29	249	3710	813	953	---	1290	228	951	57	380	111	220
30	510	3630	795	842	---	1140	217	524	63	396	82	180
31	911	---	789	811	---	1070	---	355	---	416	62	---
TOTAL	14784	75063	58598	35449	64065	54662	15055	12731	21975	18857	11600	8434
MEAN	477	2502	1890	1144	2288	1763	502	411	733	608	374	281
MAX	1470	3830	3570	1710	3120	2560	1040	1230	1950	1920	1460	876
MIN	156	378	789	794	845	933	217	143	57	68	62	48
CFSM	.54	2.84	2.14	1.30	2.59	2.00	.57	.47	.83	.69	.42	.32
IN.	.62	3.17	2.47	1.50	2.70	2.31	.63	.54	.93	.80	.49	.36

CAL YR 1985	TOTAL	529044	MEAN	1449	MAX	6690	MIN	69	CFSM	1.64	IN.	22.31
WTR YR 1986	TOTAL	391273	MEAN	1072	MAX	3830	MIN	48	CFSM	1.22	IN.	16.50

03377500 WABASH RIVER AT MOUNT CARMEL, IL

LOCATION.--Lat 38°24'07", long 87°45'10", in SE¼NW¼ sec.28, T.1 S., R.12 W., Wabash County, Illinois, Hydrologic Unit 05120113, on right bank on downstream side of Southern Railway bridge at Mount Carmel, 0.2 mi downstream from Patoka River, and at mile 94.4.

DRAINAGE AREA.--28,635 mi^2.

PERIOD OF RECORD.--January 1908 to September 1913 (gage heights only), October 1927 to current year. Gage-height records collected in this vicinity November 1874 to December 1878, are contained in files of Louisville office of the U.S. Army Corps of Engineers and since June 1884, are contained in reports of National Weather Service.

REVISED RECORDS.--WDR IN-73-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 369.46 ft above National Geodetic Vertical Datum of 1929. Oct. 1, 1949, to Feb. 8, 1977, at datum 2.00 ft higher. See WSP 1725 for history of changes prior to Sept. 30, 1949.

REMARKS.--Estimated daily discharges: Dec. 18-23, and June 8, 9. Records good. Flow partially regulated by upstream reservoirs.

AVERAGE DISCHARGE.--59 years, 27,800 ft^3/s, 13.18 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 305,000 ft^3/s May 25, 1943; maximum gage height, 30.62 ft Feb. 5, 6, 1969, present datum; minimum daily discharge, 1,650 ft^3/s Sept. 27, 28, 1941.

EXTREMES OUTSIDE THE PERIOD OF RECORD.--(1874-78, 1884 to 1985) Maximum discharge, 428,000 ft^3/s Mar. 30, 1913, from rating curve extended above 310,000 ft^3/s, gage height, 33.0 ft, present site and datum.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 145,000 ft^3/s Nov. 29, gage height, 27.16 ft; minimum daily, 4,690 ft^3/s Sept. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5380	11700	140000	28600	17600	43400	39100	19200	42700	13900	19000	5250
2	5280	19900	139000	27700	23000	39800	35000	20000	45100	16700	17900	5240
3	5190	20300	139000	27300	27300	36800	32100	23000	45100	21400	16500	5270
4	5140	17500	139000	26900	32800	34300	30000	31000	41900	27500	14200	5250
5	5050	16000	137000	26500	47000	31800	28100	37500	36200	30200	12200	5170
6	5500	15300	134000	25900	55500	30200	26300	40200	30700	31300	10600	4980
7	5930	14300	128000	25000	62300	29700	24700	38700	29100	30400	9550	4900
8	6040	12900	116000	24000	67300	30800	23400	33000	35300	27300	8900	4790
9	5650	11600	102000	23100	71400	33600	22300	29600	45600	23600	8430	4690
10	5190	10700	85700	22400	75300	36300	21600	31900	50900	20700	8480	4730
11	4970	10400	74200	21800	77900	39000	21000	34100	52600	18400	9020	4830
12	4950	14900	73700	21600	78400	43100	20100	34000	54200	19800	8950	5820
13	4930	25900	77200	21600	76400	52900	19000	31400	54900	27000	8530	6210
14	5580	36200	81400	21400	70800	59700	18100	28000	54800	37400	8000	5780
15	5820	44700	87400	21000	62200	63600	17300	25900	54400	39300	7680	5700
16	5620	57000	95300	20400	51200	66100	16700	30600	53100	38700	7910	5780
17	5580	64600	105000	19800	42100	67400	16200	35400	50200	38400	7750	5830
18	5540	69500	112000	19600	39700	68500	15900	36600	45500	36700	7370	5820
19	6680	74900	114000	20600	40800	72900	15500	37600	40900	33000	7080	5830
20	13100	84300	113000	22700	42500	79500	15900	35900	38200	29100	6770	7550
21	19500	93400	108000	24800	43400	82100	19700	33200	35800	25900	6490	10100
22	23100	103000	99400	27700	45300	83700	22300	32000	32400	23400	6280	9300
23	21700	116000	88400	30600	48600	84200	25400	31700	29000	20900	6090	9110
24	19200	125000	72500	32800	50800	83300	26900	30400	25600	18200	5900	9480
25	17600	131000	60900	33400	51100	82600	27200	28100	22900	15500	5740	8990
26	15300	135000	53000	31700	49600	82600	27000	30600	21100	13300	5650	8670
27	13000	139000	47500	28800	47300	80500	25700	35800	19200	12100	5610	8960
28	11300	144000	40900	26100	45600	73400	23600	35600	17400	12900	5420	8580
29	10300	144000	36000	23800	---	62200	22000	37700	15800	14200	5290	8320
30	9970	143000	32800	21000	---	51200	20600	41500	14400	13800	5210	8720
31	10200	---	30400	18500	---	44100	---	41300	---	14200	5230	---
TOTAL	288290	1906000	2862700	767100	1443200	1769300	698700	1011500	1135000	745200	267730	199650
MEAN	9300	63530	92350	24750	51540	57070	23290	32630	37830	24040	8636	6655
MAX	23100	144000	140000	33400	78400	84200	39100	41500	54900	39300	19000	10100
MIN	4930	10400	30400	18500	17600	29700	15500	19200	14400	12100	5210	4690
CFSM	.32	2.22	3.23	.86	1.80	1.99	.81	1.14	1.32	.84	.30	.23
IN.	.37	2.48	3.72	1.00	1.87	2.30	.91	1.31	1.47	.97	.35	.26

CAL YR 1985	TOTAL	15782480	MEAN	43240	MAX	196000	MIN	4930	CFSM	1.51	IN.	20.50
WTR YR 1986	TOTAL	13094370	MEAN	35870	MAX	144000	MIN	4690	CFSM	1.25	IN.	17.01

03378000 BONPAS CREEK AT BROWNS, IL

LOCATION.--Lat 38°23'11", long 87°58'32", in NW¼SE¼ sec.33, T.1 S., R.14 W., Wabash County, Hydrologic Unit 05120113, on right bank at downstream side of bridge on State Highway 15, 0.5 mi north of Browns, 0.7 mi upstream from Southern Railway bridge, and at mile 14.6.

DRAINAGE AREA.--228 mi².

PERIOD OF RECORD.--October 1940 to current year.

GAGE.--Water-stage recorder. Datum of gage is 372.92 ft above National Geodetic Vertical Datum of 1929. Prior to Dec. 11, 1968, water-stage recorder and concrete dam at site 0.4 mi downstream at datum 2.0 ft higher. Dec. 11, 1968, to Aug. 13, 1969, nonrecording gage at site 0.5 mi downstream at datum 1.0 ft lower. Prior to Oct. 1, 1982, auxiliary nonrecording gage near mouth on Wabash River at Grayville read twice daily.

REMARKS.--Estimated daily discharges: Nov. 3, 5, 6, 8-12, 21-25, Nov. 28 to Dec. 9, Dec. 13-16, Dec. 18 to Jan. 1, Jan. 3-23, 28-30, and Feb. 10-15. Records fair except those for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--46 years, 232 ft³/s, 13.82 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,500 ft³/s May 9, 1961, gage height, 24.04 ft, site and datum then in use; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,250 ft³/s Feb. 4, gage height, 18.31 ft; no flow Sept. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.85	647	300	29	129	43	33	25	26	5.6	5.2	.14
2	.68	1800	220	28	1380	39	32	23	248	395	4.1	.11
3	.58	2500	170	26	1230	39	30	18	137	340	2.6	.11
4	.57	1500	140	25	3160	37	30	14	54	32	1.8	.12
5	.50	600	110	23	1250	35	30	13	167	9.2	1.5	.10
6	.41	300	90	22	82	37	33	12	110	5.5	1.3	.07
7	.40	100	80	21	37	36	35	11	168	3.4	1.2	.05
8	.40	60	70	20	28	32	35	11	95	2.3	1.1	.04
9	.37	40	70	20	19	31	30	13	1170	12	1.1	.02
10	.37	35	293	20	16	37	28	10	1550	677	3.5	.00
11	.44	30	467	20	14	184	26	8.2	1360	373	20	11
12	.45	300	367	20	13	899	23	8.2	1040	430	6.1	93
13	.73	1000	290	20	12	1070	22	14	478	299	2.5	14
14	52	1460	230	20	12	1060	21	15	46	60	1.6	4.1
15	62	2040	190	20	15	831	20	282	19	20	1.3	1.5
16	14	2080	160	20	52	283	19	1050	15	12	35	.77
17	4.9	1540	125	22	253	73	19	881	12	8.8	21	1.2
18	2.6	2480	90	25	565	211	19	815	9.2	6.8	4.5	1.1
19	395	2410	60	40	329	1140	19	631	7.7	5.0	2.1	.51
20	1600	577	50	70	139	737	205	141	6.8	4.1	1.3	.99
21	1680	400	45	50	80	851	575	40	5.8	3.5	.79	1.3
22	1490	300	40	45	70	738	390	24	5.1	3.0	.57	1.1
23	1090	250	40	37	70	283	86	19	4.5	2.7	.52	1.1
24	427	200	40	34	61	73	38	15	4.1	2.6	.44	.89
25	72	400	40	30	60	58	28	33	3.6	2.4	.36	.74
26	36	1020	40	23	57	50	23	2120	3.3	2.2	.31	.72
27	24	663	38	16	59	46	19	2050	2.9	2.0	.30	.59
28	18	500	35	14	53	42	79	1610	2.6	2.2	.28	.50
29	16	350	34	13	---	39	178	1480	2.3	2.5	.25	.42
30	75	300	32	12	---	37	45	764	2.0	2.2	.20	.33
31	179	---	30	15	---	35	---	108	---	3.9	.16	---
TOTAL	7244.25	25882	3986	800	9245	9106	2170	12258.4	6754.9	2729.9	122.98	136.62
MEAN	234	863	129	25.8	330	294	72.3	395	225	88.1	3.97	4.55
MAX	1680	2500	467	70	3160	1140	575	2120	1550	677	35	93
MIN	.37	30	30	12	12	31	19	8.2	2.0	2.0	.16	.00
CFSM	1.03	3.79	.57	.11	1.45	1.29	.32	1.73	.99	.39	.02	.02
IN.	1.18	4.22	.65	.13	1.51	1.49	.35	2.00	1.10	.45	.02	.02

CAL YR 1985	TOTAL	117750.28	MEAN	323	MAX	4570	MIN	.37	CFSM	1.42	IN.	19.21
WTR YR 1986	TOTAL	80436.05	MEAN	220	MAX	3160	MIN	.00	CFSM	.96	IN.	13.12

03378500 WABASH RIVER AT NEW HARMONY, IN
(National stream-quality accounting network station)

LOCATION.--Lat 38°07'55", long 87°56'25", in SE¼SE¼ sec.35, T.4 S., R.14 W., Posey County, Hydrologic Unit 05120113, at bridge on U.S. Highway 460 at New Harmony, at Indiana-Illinois State Line, and at mile 51.5.

DRAINAGE AREA.--29,234 mi². Flood of March 1913 reached a stage of 27.7 ft. Flood of Jan. 31, 1937, reached a stage of 24.4 ft.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
CHEMICAL ANALYSES: October 1974 to current year.
WATER TEMPERATURE: October 1974 to September 1980.
SEDIMENT DISCHARGE: October 1974 to current year (partial-record station).
WATER DISCHARGE: October 1938 to September 1947.

REMARKS.--Water discharge obtained from station Wabash River at Mount Carmel, Ill. (See sta 03377500). Code 80010-U.S. Geological Survey; code 17002-Illinois Environmental Protection Agency.

EXTREMES FOR PERIOD OF RECORD.--
WATER DISCHARGE: Maximum, 339,000 ft³/s May 26, 1943, gage height, 23.84 ft; minimum daily discharge, 1,800 ft³/s Sept. 29, 30, 1941.
SPECIFIC CONDUCTANCE: Maximum conductance, 805 microsiemens Feb. 15, 1977; minimum, 200 microsiemens Mar. 3, 1979.
WATER TEMPERATURE: Maximum, 32.0 °C June 28, 1978, July 14-18, 1980; minimum, freezing point on many days during winter periods.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	AGENCY COLLECTING SAMPLE (CODE NUMBER)	AGENCY ANALYZING SAMPLE (CODE NUMBER)	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE AIR (DEG C)	TEMPERATURE WATER (DEG C)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	BAROMETRIC PRESSURE (MM OF HG)
DEC											
12...	1100	1028	80020	73400	484	8.10	1.5	5.0	53	11.2	762
MAR											
12...	1100	1028	80020	39000	540	8.20	18.5	7.5	130	10.8	746
JUN											
11...	1000	1028	80020	52500	378	7.10	--	24.0	350	6.0	750
11...	1005	17002	17002	--	378	7.10	29.0	24.0	280	6.0	--
SEP											
04...	1010	17002	17002	--	587	8.00	29.0	24.0	--	10.5	--
04...	1100	1028	80020	4980	K587	8.00	--	24.0	--	10.5	748

DATE	OXYGEN DEMAND, CHEMICAL (LOW LEVEL) (MG/L)	COLIFORM, FECAL, 0.45 UM-MF (COLS./ 100 ML)	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	CALCIUM TOTAL RECOVERABLE (MG/L AS CA)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, TOTAL RECOVERABLE (MG/L AS MG)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, TOTAL RECOVERABLE (MG/L AS NA)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, TOTAL RECOVERABLE (MG/L AS K)
DEC											
12...	--	--	630	7200	--	58	--	18	--	11	--
MAR											
12...	--	--	K150	2800	--	65	--	21	--	14	--
JUN											
11...	--	--	K1900	--	--	42	--	13	--	8.1	--
11...	38	<10	--	--	54	46	18	14	7.9	7.9	4.9
SEP											
04...	27	--	--	--	56	51	28	28	29	28	3.1
04...	--	--	K110	K160	--	--	--	--	--	--	--

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	ALKALINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, TOTAL (MG/L AS F)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED (MG/L)	SOLIDS, VOLATILE, SUSPENDED (MG/L)
DEC											
12...	4.1	145	151	53	20	--	0.20	9.0	287	--	--
MAR											
12...	2.2	169	167	59	29	--	.30	6.4	340	--	--
JUN											
11...	2.8	116	110	44	10	--	.20	6.5	204	--	--
11...	3.3	78	--	41	15	0.2	--	--	--	496	48
SEP											
04...	3.0	163	--	79	40	.3	--	--	--	4	4
04...	--	--	160	--	--	--	--	--	--	--	--

03378500 WABASH RIVER AT NEW HARMONY, IN--Continued
(National stream-quality accounting network station)

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	AMMONIA UNIONIZED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, DISSOLVED (MG/L AS P)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)
DEC											
12...	--	3.50	0.130	0.120	--	0.90	0.200	0.090	--	--	100
MAR											
12...	--	5.10	.080	.070	--	1.6	.350	.060	--	--	100
JUN											
11...	--	4.00	--	.070	--	.90	.610	.080	0.060	--	20
11...	3.80	--	<.100	--	<0.001	2.1	.420	.350	--	11000	<50
SEP											
04...	.110	--	<.100	--	<.005	1.3	.150	.010	--	480	<50
04...	--	<.100	<.010	<.010	--	1.7	.110	.040	<.010	--	--

DATE	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	BORON, DISSOLVED (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)
DEC											
12...	--	--	51	--	<0.5	--	--	--	1	--	<1
MAR											
12...	--	--	48	--	<.5	--	--	--	<1	--	<1
JUN											
11...	--	--	44	--	<.5	--	--	--	1	--	6
11...	4	100	42	<1.0	<.5	50	60	<3	<3	23	<5
SEP											
04...	1	70	57	<.5	<.5	130	130	<3	<3	<5	<5
04...	--	--	--	--	--	--	--	--	--	--	--

DATE	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)
DEC											
12...	--	<3	--	8	--	94	--	3	4	--	17
MAR											
12...	--	<3	--	6	--	97	--	3	6	--	15
JUN											
11...	--	<3	--	5	--	15	--	<5	6	--	1
11...	<5	<5	15	5	13000	<50	<50	<50	--	470	<5
SEP											
04...	<5	<5	91	<5	720	<50	<50	<50	--	200	7
04...	--	--	--	--	--	--	--	--	--	--	--

03378500 WABASH RIVER AT NEW HARMONY, IN--Continued
(National stream-quality accounting network station)

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, TOTAL RECOV-ERABLE (UG/L AS SR)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)
DEC										
12...	--	<0.1	<10	--	2	1	--	<1	--	160
MAR										
12...	--	<.1	<10	--	<1	1	--	1	--	210
JUN										
11...	--	.5	<10	--	3	<1	--	<1	--	120
11...	0.10	--	--	12	<5	--	<3	<3	150	130
SEP										
04...	.07	--	--	<5	<5	--	<3	<3	240	230
04...	--	--	--	--	--	--	--	--	--	--

DATE	VANA-DIUM, TOTAL (UG/L AS V)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)	CYANIDE TOTAL (MG/L AS CN)	PHENOLS TOTAL (UG/L)	OIL AND GREASE, TOTAL RECOV. GRAVI-METRIC (MG/L)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
DEC										
12...	--	<6	--	28	--	--	--	162	32100	88
MAR										
12...	--	<6	--	15	--	--	--	422	44400	98
JUN										
11...	--	<6	--	19	--	--	--	536	76000	99
11...	20	<5	<100	<50	<0.010	<5	<1	--	--	--
SEP										
04...	<5	<5	<50	<50	<.005	<5	1	--	--	--
04...	--	--	--	--	--	--	--	83	1120	100

03378550 BIG CREEK NEAR WADESVILLE, IN

LOCATION.--Lat 38°04'58", long 87°46'10", in SW¼SW¼ sec.16, T.5 S., R.12 W., Posey County, Hydrologic Unit 05120113, on left bank at downstream side of bridge on State Highway 66, 0.6 mi northwest of Blairsville, and 1.6 mi southeast of Wadesville.

DRAINAGE AREA.--104 mi².

PERIOD OF RECORD.--July 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is 370.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 15 to Jan. 7, Jan. 10-17, 24-31, Feb. 13-15, and Mar. 1-3. Records fair except those for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--21 years, 119 ft³/s, 15.52 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,880 ft³/s May 1, 1983; maximum gage height, 19.72 ft Apr. 24, 1975; no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,400 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Oct. 20	1200	2,510	16.82	Mar. 12	1030	3,800	17.67
Nov. 1	2000	4,730	18.08	May 15	2130	3,740	17.64
Nov. 16	0100	3,460	17.50	June 9	1530	2,880	17.14
Nov. 27	1615	2,990	17.22	Sept. 18	1215	3,880	17.71
Feb. 2	1245	*6,840	18.79				

Minimum daily discharge, 0.10 ft³/s, Sept. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.66	1770	306	17	140	40	19	7.3	42	2.8	1.7	.10
2	.34	2920	184	17	5370	39	17	5.6	35	23	1.0	.12
3	.25	463	82	20	2690	38	17	4.8	24	4.7	.93	.13
4	.51	118	71	20	1680	37	16	5.0	76	1.8	.74	.18
5	.39	78	69	17	500	37	15	5.5	40	1.2	.57	.18
6	.29	60	60	16	613	38	14	5.0	143	.99	.73	.13
7	.23	50	55	15	530	32	13	4.2	252	.94	.85	.11
8	.19	40	55	13	171	27	13	3.7	177	.90	.86	.13
9	.17	35	51	11	127	32	10	3.3	1150	347	70	.13
10	.29	31	53	12	95	212	10	2.9	493	1330	50	.16
11	.24	29	730	12	78	247	9.8	3.2	102	70	19	7.4
12	.20	97	414	13	63	2100	9.7	7.5	75	219	2.4	42
13	.24	700	150	11	50	735	8.9	5.9	44	65	1.1	5.1
14	412	307	90	10	43	188	8.3	26	33	22	.61	1.4
15	32	605	70	9.5	41	113	8.1	976	32	12	.51	.97
16	5.1	2430	62	9.0	80	80	7.5	1110	24	7.4	103	.80
17	1.9	402	62	13	934	64	7.1	91	16	5.0	47	.62
18	1.2	152	40	67	227	61	6.8	142	12	3.4	5.0	1760
19	1.0	145	34	490	134	107	8.5	74	10	2.7	1.4	788
20	1230	642	31	139	96	53	37	46	8.6	2.1	.96	50
21	214	157	29	95	76	40	77	35	6.7	1.6	.88	9.6
22	22	107	28	70	65	39	41	28	5.4	1.3	.84	3.7
23	13	80	28	53	58	38	22	26	4.6	1.2	.73	9.9
24	9.5	65	27	48	74	31	18	21	3.8	1.3	.82	3.6
25	12	60	24	40	63	30	16	128	3.0	1.2	.68	1.8
26	6.9	372	22	32	69	29	13	718	2.5	.99	.34	1.5
27	4.4	1890	23	26	66	29	11	134	2.3	.95	.30	1.3
28	2.9	1170	24	23	47	26	12	312	2.0	1.0	.29	.92
29	37	251	22	22	---	24	11	573	1.9	.91	.24	.95
30	811	153	19	20	---	22	8.0	89	1.7	.81	.16	1.1
31	274	---	18	17	---	20	---	56	---	.83	.11	---
TOTAL	3093.90	15379	2933	1377.5	14180	4608	484.7	4648.9	2822.5	2134.02	313.75	2692.03
MEAN	99.8	513	94.6	44.4	506	149	16.2	150	94.1	68.8	10.1	89.7
MAX	1230	2920	730	490	5370	2100	77	1110	1150	1330	103	1760
MIN	.17	29	18	9.0	41	20	6.8	2.9	1.7	.81	.11	.10
CFSM	.96	4.93	.91	.43	4.87	1.43	.16	1.44	.90	.66	.10	.86
IN.	1.11	5.50	1.05	.49	5.07	1.65	.17	1.66	1.01	.76	.11	.96

CAL YR 1985	TOTAL	56428.82	MEAN	155	MAX	5020	MIN	.01	CFSM	1.49	IN.	20.18
WTR YR 1986	TOTAL	54667.30	MEAN	150	MAX	5370	MIN	.10	CFSM	1.44	IN.	19.55

03381500 LITTLE WABASH RIVER AT CARMI, IL

LOCATION.--Lat 38°03'40", long 88°09'35", in NW¼SE¼ sec.25, T.5 S., R.9 E., White County, Hydrologic Unit 05120114, on right bank at upstream side of Possum Bridge, 2.3 mi south of Main Street Bridge in Carmi, 7.8 mi downstream from Skillet Fork, and at mile 30.5.

DRAINAGE AREA.--3,102 mi^2.

PERIOD OF RECORD.--October 1908 to December 1912 (gage heights only), October 1939 to current year.

REVISED RECORDS.--WDR IL-75-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 339.91 ft above National Geodetic Vertical Datum of 1929. Prior to December 1912, nonrecording gage at site 3.1 mi upstream at datum 0.4 ft higher. Oct. 1 to Nov. 9, 1939, nonrecording gage at present site and datum. Since Nov. 14, 1939, auxiliary water-stage recorder 3.1 mi upstream.

REMARKS.--Estimated daily discharges: Dec. 19-21, 26, Dec. 31 to Feb. 7, and Feb. 13-15. Records good except those for estimated daily discharges, which are fair. There was no diversion through McHenry Slough during the year. U.S. Army Corps of Engineers satellite telemeter and rain gage at station.

AVERAGE DISCHARGE.--47 years, 2,635 ft^3/s, 11.54 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 46,900 ft^3/s May 12, 1961; maximum gage height, 36.70 ft May 13, 1961; no flow Sept. 16-17, 1952, result of temporary dam upstream; minimum unregulated discharge, 0.6 ft^3/s Sept. 9, 1953, July 31, 1954.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 25,200 ft^3/s Nov. 28, maximum gage height, 33.46 ft Nov. 28; minimum daily discharge, 40 ft^3/s Sept. 9, 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	64	850	21100	700	425	1070	918	528	1320	114	323	49
2	58	4410	20300	650	8260	996	641	454	637	214	437	49
3	55	5110	19000	650	10200	988	554	392	432	934	401	48
4	54	3870	18700	600	11400	978	505	343	424	807	418	47
5	52	2860	18500	600	12800	890	510	306	700	832	556	46
6	51	1930	17700	550	13500	777	817	286	834	1200	592	44
7	48	1170	16900	500	14300	673	1090	266	1050	1100	432	42
8	47	710	15800	460	14600	607	1010	250	792	678	296	41
9	48	488	15200	446	14800	564	847	232	4550	432	253	40
10	48	370	14200	431	14600	568	674	218	8650	3120	292	40
11	52	321	13700	405	14200	708	619	224	7140	4490	280	58
12	50	616	13600	439	13800	2650	650	266	5170	5520	224	337
13	51	3010	13300	460	13200	5960	612	278	2980	5530	186	235
14	467	6160	13500	406	12500	6540	563	288	1490	4270	178	258
15	232	7520	13400	363	11600	6570	490	448	991	3100	352	244
16	123	10500	13000	347	10500	6370	418	2970	739	2900	1980	260
17	94	11300	12800	372	9650	5750	373	2620	579	2570	1550	233
18	171	11500	13200	464	8870	5110	345	2110	470	2230	521	1940
19	251	12100	12900	818	7890	6320	338	2000	366	1520	226	2420
20	781	13200	12400	844	6600	7560	536	1200	281	808	162	1170
21	2520	13900	12000	712	5160	8080	3230	704	228	428	120	372
22	1630	15100	11400	645	3680	8350	4510	475	195	281	98	233
23	823	17000	10200	582	2670	8610	3940	365	178	224	94	191
24	464	19500	9300	546	2040	8430	2630	333	164	186	94	161
25	294	21400	8250	522	1660	7940	1790	996	145	159	82	204
26	226	22900	6920	478	1400	7260	1050	4750	131	139	77	234
27	178	24400	5040	408	1240	6480	698	8080	126	126	74	214
28	147	25100	2130	353	1170	5780	722	6210	120	318	71	180
29	136	24500	1120	335	---	5040	825	4300	115	590	63	152
30	287	23200	781	303	---	3680	643	3680	110	325	57	133
31	493	---	750	285	---	1980	---	2570	---	236	51	---
TOTAL	9995	304995	377091	15674	242715	133279	32548	48142	41107	45381	10540	9675
MEAN	322	10170	12160	506	8668	4299	1085	1553	1370	1464	340	323
MAX	2520	25100	21100	844	14800	8610	4510	8080	8650	5530	1980	2420
MIN	47	321	750	285	425	564	338	218	110	114	51	40
CFSM	.10	3.28	3.92	.16	2.79	1.39	.35	.50	.44	.47	.11	.10
IN.	.12	3.66	4.52	.19	2.91	1.60	.39	.58	.49	.54	.13	.12

CAL YR 1985	TOTAL	1995033	MEAN	5466	MAX	25100	MIN	47	CFSM	1.76	IN.	23.92
WTR YR 1986	TOTAL	1271142	MEAN	3483	MAX	25100	MIN	40	CFSM	1.12	IN.	15.24

04093000 DEEP RIVER AT LAKE GEORGE OUTLET AT HOBART, IN

LOCATION.--Lat 41°32'10", long 87°15'25", in NW¼NW¼ sec.32, T.36 N., R.7 W., Lake County, Hydrologic Unit 04040001, on left bank at upstream side of bridge on Center Street in Hobart, 300 ft upstream from Duck Creek, and 400 ft downstream from Lake George Dam.

DRAINAGE AREA.--124 mi^2.

PERIOD OF RECORD.--April 1947 to current year.

REVISED RECORDS.--WSP 1337: 1953. WSP 1507: 1956. WDR IN-72-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 588.17 ft above National Geodetic Vertical Datum of 1929 (levels by State of Indiana, Department of Natural Resources). Prior to July 29, 1952, nonrecording gage, and July 30, 1952, to July 20, 1955, water-stage recorder at site 400 ft upstream at datum 11.80 ft higher.

REMARKS.--Estimated daily discharges: Feb. 19, 20. Records good. Periods of unusual regulation by Lake George Dam, Apr. 21-23.

AVERAGE DISCHARGE.--39 years, 109 ft^3/s, 11.94 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,000 ft^3/s June 14, 1981; maximum gage height, 19.48 ft, Oct. 11, 1954, present datum, site then in use; no flow Nov. 5, 1978, due to regulation of Lake George Dam.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 700 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 17	1200	902	9.29	Nov. 20	0500	*2,780	*14.67

Minimum daily discharge, 3.9 ft^3/s Apr. 22, regulation.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	43	284	36	42	73	70	72	37	70	22	14
2	19	84	347	35	50	80	76	66	30	62	21	13
3	16	125	298	37	52	98	73	57	29	52	30	14
4	27	100	224	38	90	120	68	52	28	43	26	13
5	41	80	184	38	337	139	67	45	37	36	20	12
6	40	69	163	36	368	173	65	43	75	31	18	9.5
7	30	65	146	33	247	185	61	49	202	26	20	10
8	26	60	132	30	173	137	56	49	508	26	19	11
9	20	64	124	28	136	121	56	42	423	135	16	10
10	24	182	128	28	106	135	54	37	241	230	19	13
11	25	366	205	29	93	197	51	36	233	147	20	15
12	30	333	314	32	84	193	48	33	220	99	19	19
13	24	251	269	32	72	181	50	31	163	84	15	19
14	29	225	174	30	65	187	56	32	128	68	15	16
15	37	206	130	29	60	170	74	37	242	56	15	15
16	33	507	121	29	56	147	73	55	316	50	14	12
17	31	864	98	43	67	130	64	56	205	41	13	13
18	40	690	80	82	121	121	57	55	143	34	12	15
19	132	2040	71	100	500	202	86	75	108	30	11	19
20	179	2510	67	84	630	260	75	82	88	32	11	30
21	134	1540	60	69	470	202	40	67	77	29	11	32
22	118	953	55	65	266	164	3.9	55	67	26	11	27
23	93	704	55	61	188	140	30	47	55	24	12	62
24	79	566	56	56	149	120	39	43	48	21	12	58
25	75	468	48	55	120	112	40	41	48	42	12	47
26	66	423	42	52	108	99	42	41	45	52	26	52
27	55	418	41	48	105	92	38	52	45	37	46	66
28	49	382	40	47	98	89	39	55	58	45	39	56
29	44	341	39	46	---	81	38	51	55	54	27	57
30	40	304	37	43	---	72	49	51	57	39	19	113
31	38	---	37	39	---	70	---	45	---	29	16	---
TOTAL	1615	14963	4069	1410	4853	4290	1638.9	1552	4011	1750	587	862.5
MEAN	52.1	499	131	45.5	173	138	54.6	50.1	134	56.5	18.9	28.7
MAX	179	2510	347	100	630	260	86	82	508	230	46	113
MIN	16	43	37	28	42	70	3.9	31	28	21	11	9.5
CFSM	.42	4.02	1.06	.37	1.40	1.11	.44	.40	1.08	.46	.15	.23
IN.	.48	4.49	1.22	.42	1.46	1.29	.49	.47	1.20	.52	.18	.26

CAL YR 1985	TOTAL	58171.0	MEAN	159	MAX	2670	MIN	8.9	CFSM	1.28	IN.	17.45
WTR YR 1986	TOTAL	41601.4	MEAN	114	MAX	2510	MIN	3.9	CFSM	.92	IN.	12.48

04093200 LITTLE CALUMET RIVER AT GARY, IN

LOCATION.--Lat 41°34'19", long 87°19'13", in NE¼SE¼ sec.15, T.36 N., R.8 W., Lake County, Hydrologic Unit 04040001, on right bank 100 ft upstream of Pennsylvania Railroad bridge, 800 ft upstream of Martin Luther King Avenue bridge at Gary, 1.3 mi downstream of highway 53, and 1.5 mi upstream from confluence with Deep River.

DRAINAGE AREA.--5.8 mi^2, approximately.

PERIOD OF RECORD.--June 1958 to September 1967, October 1968 to September 30, 1971 (discharge), December 13, 1984 to current year (gage heights only).

GAGE.--Water-stage recorder. Wooden control since Dec. 13, 1984. Datum of gage is 580.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Stage affected by backwater from Deep River during times of flood. Minimum gage height for the period of record may have been lower prior to December 13, 1984.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 11.59 ft, Nov. 21, 1985; minimum gage height, 5.74 ft, Sept. 10, 15-19, 1986. Minimum gage height not reported prior to December 13, 1984.

EXTREMES OUTSIDE PERIOD OF RECORD.-- Flood in October 1954 reached a stage of 13.09 ft, from flood mark.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 11.59 ft, Nov. 21, 1985; minimum gage height, 5.74 ft, Sept. 10, 15-19.

GAGE HEIGHT (FEET), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
2400 HR VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.50	6.76	8.55	6.17	6.51	7.00	7.37	7.12	7.12	6.78	6.15	5.85
2	6.33	6.98	8.54	6.26	6.57	7.72	7.37	6.90	6.85	6.69	7.21	5.86
3	6.18	6.99	8.48	6.22	6.65	7.50	7.29	6.75	6.71	6.58	6.65	5.84
4	6.77	7.34	8.38	6.22	7.51	7.52	7.28	6.68	6.78	6.50	6.36	6.57
5	6.74	7.05	8.22	6.22	7.96	7.81	7.19	6.63	7.55	6.43	6.23	6.18
6	6.64	6.76	8.00	6.22	8.11	7.73	7.18	7.34	7.22	6.28	6.76	6.06
7	6.37	6.72	7.82	6.22	7.98	6.82	7.16	7.01	8.45	6.08	6.09	5.85
8	6.29	6.63	7.69	6.22	7.83	6.51	7.11	6.80	8.49	6.59	6.91	5.78
9	6.29	7.08	7.60	6.22	7.56	6.69	7.06	6.64	8.53	7.53	6.28	5.75
10	6.27	7.87	7.71	6.18	7.29	7.00	7.03	6.76	8.55	7.63	6.52	5.74
11	6.23	8.02	7.92	6.17	7.01	8.38	7.03	6.53	8.50	7.47	6.02	5.84
12	6.18	8.06	8.04	6.14	6.83	8.47	7.02	6.52	8.35	7.31	6.34	5.92
13	6.64	7.78	7.95	6.14	6.69	8.39	7.03	6.98	8.07	7.32	5.93	5.92
14	6.34	7.68	---	6.14	6.62	8.32	7.26	7.26	7.85	6.94	5.91	5.75
15	6.29	7.85	7.56	6.14	6.52	8.24	7.35	7.85	8.28	6.90	5.91	5.74
16	6.25	8.23	7.35	6.18	6.55	8.04	7.34	8.02	8.38	6.70	5.91	5.74
17	6.21	8.34	7.08	6.50	6.90	7.89	6.98	8.33	8.32	6.49	5.88	5.74
18	7.59	8.82	6.82	6.72	7.67	7.99	6.86	8.48	8.68	6.32	5.86	5.75
19	7.68	9.72	6.68	6.71	8.24	8.20	6.82	8.74	8.72	6.42	5.82	5.87
20	7.41	11.36	6.61	6.69	8.44	8.33	6.75	8.82	7.91	6.24	5.82	6.55
21	7.30	11.57	6.48	6.80	8.48	8.28	6.71	8.76	7.35	6.18	5.79	6.53
22	7.01	11.02	6.45	6.80	8.35	8.08	6.63	8.68	7.07	6.08	5.80	6.16
23	6.90	10.37	6.67	6.85	8.04	7.91	6.60	7.80	6.86	6.03	5.78	6.55
24	6.82	9.95	---	6.89	7.92	7.72	6.55	7.21	6.75	5.97	5.77	6.52
25	6.72	9.69	---	6.57	7.51	7.59	6.55	7.49	6.62	8.00	5.77	6.43
26	6.66	9.42	---	---	7.29	7.58	6.49	7.69	6.45	7.41	6.56	7.01
27	6.60	9.19	---	---	7.15	7.48	6.45	8.23	6.77	6.86	6.37	6.64
28	6.49	8.98	---	---	7.06	7.39	6.49	8.29	6.84	6.90	6.34	6.44
29	6.46	8.77	---	---	---	7.40	6.51	8.11	6.65	6.65	6.28	7.73
30	6.41	8.62	6.18	6.30	---	7.27	7.25	7.69	7.02	6.34	6.90	7.45
31	6.40	---	6.18	6.29	---	7.27	---	7.39	---	6.17	5.93	---
MEAN	6.61	8.45	---	---	7.40	7.69	6.96	7.53	7.59	6.70	6.19	6.19
MAX	7.68	11.57	---	---	8.48	8.47	7.37	8.82	8.72	8.00	7.21	7.73
MIN	6.18	6.63	---	---	6.51	6.51	6.45	6.52	6.45	5.97	5.77	5.74

WTR YR 1986 MEAN 7.09 HIGH 11.57 NOV 21 LOW 5.74 SEP 10 AND OTHERS

04093500 BURNS DITCH AT GARY, IN

LOCATION.--Lat 41°34'30", long 87°17'20", in SE¼NW¼ sec.13, T.36 N., R.8 W., Lake County, Hydrologic Unit 04040001, on left bank at downstream side of bridge on Central Avenue, 0.4 mi east of Gary, and 0.4 mi downstream from confluence of Deep River and Little Calumet River.

DRAINAGE AREA.--160 mi². During times of floods flow may leave the basin by flowing west through Little Calumet River into the western portion of Calumet River basin; or during times of floods on Hart ditch, flow may enter the basin from western portion of the Little Calumet River basin.

PERIOD OF RECORD.--October 1943 to current year (since 1951 water year, backwater free periods only).

REVISED RECORDS.--WSP 1034: 1944. WSP 1337: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 577.04 ft above National Geodetic Vertical Datum of 1929. Prior to July 28, 1955, nonrecording gage at same site and datum.

REMARKS.--Records poor. Burns ditch is an artificial channel which reverses the direction of flow of part of Little Calumet River and flows into Lake Michigan at Ogden Dunes. During high levels on Lake Michigan, only periods free from backwater are shown.

AVERAGE DISCHARGE.--28 years (1943-50, 1955-73, 1977, 1978, 1982), 140 ft³/s, 11.88 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,430 ft³/s Oct. 11, 1954; maximum gage height, 16.44 ft Mar. 16, 1944, from graph based on gage readings.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,320 ft³/s Nov. 20, gage height, 14.14 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		---			---				---			
2		---			---				---			
3		---			---				---			
4		---			---				---			
5		---			---				---			
6		---			---				---			
7		---			---				---			
8		---			---				613			
9		---			---				638			
10		---			---				---			
11		---			---				---			
12		---			---				---			
13		---			---				---			
14		---			---				---			
15		---			---				---			
16		---			---				---			
17		880			---				---			
18		901			---				---			
19		1510			---				---			
20		2210			786				---			
21		2190			---				---			
22		1720			---				---			
23		1270			---				---			
24		1010			---				---			
25		---			---				---			
26		---			---				---			
27		---			---				---			
28		---			---				---			
29		---			---				---			
30		---			---				---			
31		---			---				---			
TOTAL		---			---				---			
MEAN		---			---				---			
MAX		---			---				---			
MIN		---			---				---			
CFSM		---			---				---			
IN.		---			---				---			

WTR YR 1986 TOTAL 13728 MEAN .00 MAX 2210 MIN 613 CFSM .00 IN. .00

04094000 LITTLE CALUMET RIVER AT PORTER, IN

LOCATION.--Lat 41°37'18", long 87°05'13", in NE¼NE¼ sec.34, T.37 N., R.6 W., Porter County, Hydrologic Unit 04040001, on right bank at downstream end of county road bridge, 200 ft upstream from bridge on U.S. Highway 20, 0.8 mi northwest of Porter, and 4.5 mi upstream from Salt Creek.

DRAINAGE AREA.--66.2 mi^2.

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

REVISED RECORDS.--WSP 1084: 1945. WSP 1337: 1946-47. WDR IN-72-1: Drainage area. WDR IN-83-1: 1982.

GAGE.--Water-stage recorder. Datum of gage is 603.48 ft above National Geodetic Vertical Datum of 1929. Prior to June 26, 1952, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--41 years, 74.4 ft^3/s, 15.26 in/yr.

REMARKS.--Estimated daily discharges: Dec. 3, Dec. 14 to Jan. 16, and Jan. 26 to Feb. 1. Records fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,110 ft^3/s Oct. 10, 1954, gage height, 11.66 ft; minimum daily, 17 ft^3/s Aug. 24, 1965.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 700 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 19	2100	*1,800	*9.31

Minimum daily discharge, 26 ft^3/s Sept. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	45	111	34	62	71	60	62	51	54	32	29
2	29	106	153	34	94	74	69	51	45	47	31	28
3	28	99	110	35	96	78	62	45	42	42	53	28
4	32	69	86	36	153	87	59	43	41	38	38	28
5	41	59	83	37	330	125	57	41	74	36	33	27
6	34	55	86	36	234	168	56	44	72	34	32	27
7	31	62	84	35	147	129	54	64	130	32	34	27
8	30	63	80	35	114	89	51	51	232	32	33	27
9	33	63	80	36	94	83	48	45	143	113	31	27
10	35	191	90	37	77	134	48	42	96	85	32	26
11	37	227	152	40	73	177	47	39	201	186	33	31
12	37	134	173	42	73	128	46	39	162	156	31	40
13	38	116	119	42	64	115	48	39	101	123	30	33
14	39	104	87	43	60	113	53	39	80	80	29	31
15	42	91	72	46	54	98	80	41	140	99	29	30
16	40	215	60	50	55	87	70	60	129	126	30	30
17	38	314	54	80	68	80	62	59	82	86	29	29
18	44	193	41	141	110	78	56	83	63	62	29	31
19	132	1100	42	189	255	144	53	107	54	49	28	33
20	85	1150	41	129	261	124	51	98	50	44	27	41
21	73	482	42	94	197	95	52	73	45	39	27	37
22	61	266	43	93	139	92	49	62	42	36	27	35
23	53	193	41	80	105	87	47	55	38	34	27	79
24	53	150	37	69	90	78	46	50	36	32	27	54
25	50	124	35	66	82	72	45	46	35	62	27	51
26	46	136	34	63	84	71	45	46	33	57	31	77
27	45	143	34	52	82	74	43	79	35	42	51	113
28	44	122	34	45	76	68	44	94	47	47	38	67
29	44	127	34	50	---	65	45	75	41	42	35	69
30	43	109	34	52	---	62	55	71	48	36	31	212
31	43	---	34	58	---	59	---	58	---	34	29	---
TOTAL	1412	6308	2206	1879	3329	3005	1601	1801	2388	1985	994	1397
MEAN	45.5	210	71.2	60.6	119	96.9	53.4	58.1	79.6	64.0	32.1	46.6
MAX	132	1150	173	189	330	177	80	107	232	186	53	212
MIN	28	45	34	34	54	59	43	39	33	32	27	26
CFSM	.69	3.17	1.08	.92	1.80	1.46	.81	.88	1.20	.97	.48	.70
IN.	.79	3.54	1.24	1.06	1.87	1.69	.90	1.01	1.34	1.12	.56	.79

CAL YR 1985	TOTAL	30526	MEAN	83.6	MAX	1150	MIN	26	CFSM	1.26	IN.	17.15
WTR YR 1986	TOTAL	28305	MEAN	77.5	MAX	1150	MIN	26	CFSM	1.17	IN.	15.91

04094500 SALT CREEK NEAR McCOOL, IN

LOCATION.--Lat 41°35'48", long 87°08'40", in SE¼SE¼ sec.6, T.36 N., R.6 W., Porter County, Hydrologic Unit 04040001, on left bank on downstream side of highway bridge, 50 ft downstream from Conrail Railroad bridge, 1.2 mi north of McCool, and 1.5 mi upstream from Little Calumet River.

DRAINAGE AREA.--74.6 mi^2.

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

REVISED RECORDS.--WSP 1337: 1946-48(M), 1950(M). WSP 1911: 1958. WDR IN-72-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 594.10 ft above National Geodetic Vertical Datum of 1929 (levels by State of Indiana, Department of Natural Resources). Prior to July 25, 1955, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Dec. 15 to Jan. 13, Jan. 27-30, and Feb. 9-16. Records good except those for estimated daily discharges, which are fair.

AVERAGE DISCHARGE.--41 years, 75.6 ft^3/s, 13.76 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,180 ft^3/s Oct. 11, 1954, gage height, 14.12 ft; minimum daily, 14 ft^3/s Sept. 8, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharges of 600 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 19	2000	*1,370	8.98

Minimum daily discharge, 19 ft^3/s, Aug. 23, 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	51	52	137	38	61	78	72	111	45	57	38	21
2	41	134	192	38	99	85	83	88	40	46	43	20
3	38	129	132	39	86	98	70	64	37	42	67	20
4	47	97	113	40	169	107	69	58	39	34	44	21
5	76	77	108	41	297	131	66	53	59	31	41	21
6	55	68	106	40	233	167	64	55	97	31	43	20
7	42	81	102	39	161	129	61	65	167	32	46	22
8	37	79	100	39	135	99	59	56	189	32	45	21
9	48	82	102	40	120	96	57	50	120	198	43	21
10	46	238	112	41	96	131	55	45	96	164	44	22
11	49	300	170	44	87	170	53	45	175	153	56	34
12	50	191	203	47	83	134	51	44	121	103	43	51
13	49	162	137	47	74	130	52	45	87	87	38	33
14	60	140	96	47	68	134	64	45	69	60	38	31
15	65	131	80	46	67	122	104	47	176	52	35	30
16	54	323	68	46	72	109	78	77	121	48	32	28
17	47	436	60	88	100	101	67	60	78	41	33	28
18	56	340	45	142	131	100	62	73	58	37	31	34
19	184	1030	46	146	216	192	59	101	50	34	29	34
20	131	1010	46	110	259	157	57	95	45	35	27	42
21	129	639	47	89	185	124	59	67	41	32	26	38
22	118	418	47	88	137	122	56	56	38	31	24	38
23	90	235	45	79	112	116	54	51	35	37	19	97
24	85	159	41	70	102	104	53	49	33	31	20	54
25	70	136	38	68	95	97	52	44	33	84	19	51
26	59	160	38	64	98	96	56	43	32	61	35	71
27	53	167	37	42	95	96	50	57	34	39	60	94
28	50	144	37	45	85	85	50	58	51	78	42	57
29	48	146	37	48	---	79	57	52	38	62	34	66
30	46	130	37	49	---	74	74	59	52	43	26	199
31	46	---	37	50	---	69	---	52	---	35	22	---
TOTAL	2020	7434	2596	1850	3523	3532	1864	1865	2256	1850	1143	1319
MEAN	65.2	248	83.7	59.7	126	114	62.1	60.2	75.2	59.7	36.9	44.0
MAX	184	1030	203	146	297	192	104	111	189	198	67	199
MIN	37	52	37	38	61	69	50	43	32	31	19	20
CFSM	.87	3.32	1.12	.80	1.69	1.53	.83	.81	1.01	.80	.49	.59
IN.	1.01	3.71	1.29	.92	1.76	1.76	.93	.93	1.12	.92	.57	.66

CAL YR 1985	TOTAL	39679	MEAN	109	MAX	1290	MIN	32	CFSM	1.46	IN.	19.79
WTR YR 1986	TOTAL	31252	MEAN	85.6	MAX	1030	MIN	19	CFSM	1.15	IN.	15.58

04095300 TRAIL CREEK AT MICHIGAN CITY, IN

LOCATION.--Lat 41°43'00", long 86°51'34", in NE¼SE¼ sec.27, T.38 N., R.4 W., LaPorte County, Hydrologic Unit 04040001, on right upstream side of bridge on Springland Avenue in Michigan City, 1.0 mi upstream from Otter Creek, and 4.2 mi upstream from mouth.

DRAINAGE AREA.--54.1 mi^2.

PERIOD OF RECORD.--June 1969 to current year.

GAGE.--Water-stage recorder. Datum of gage is 584.02 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 19, 20, 23-29, Jan. 26-30, and Feb. 13-16. Records good.

AVERAGE DISCHARGE.--17 years, 73.5 ft^3/s, 18.45 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,430 ft^3/s July 15, 1986, gage height, 11.88 ft; minimum daily, 20 ft^3/s Aug. 1, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 19	1000	1,850	11.34	July 9	0600	501	6.63
June 8	0200	618	7.64	July 15	1600	*2,430	*11.88

Minimum daily discharge, 34 ft^3/s Oct. 2, 3, Aug. 25, Sept. 2-4, 6-10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	51	117	55	77	69	68	76	65	70	45	35
2	34	131	123	56	108	72	70	62	61	63	44	34
3	34	81	89	58	99	74	63	56	59	52	45	34
4	44	63	83	57	256	87	61	54	58	46	44	34
5	46	58	83	58	273	113	60	53	113	43	43	35
6	38	56	85	57	149	156	60	91	81	40	44	34
7	37	69	84	56	107	96	57	105	230	40	46	34
8	35	61	81	53	93	71	55	65	355	43	46	34
9	36	82	87	56	84	80	55	58	114	353	43	34
10	37	279	107	57	76	118	54	54	105	102	47	34
11	39	141	158	57	73	112	54	52	240	201	46	49
12	37	89	140	58	64	90	54	55	105	161	40	49
13	37	90	92	58	60	92	54	54	84	104	40	41
14	39	82	70	58	58	94	70	55	70	66	39	39
15	39	78	69	56	56	82	83	58	104	1100	38	38
16	37	278	67	56	58	75	70	77	79	366	38	37
17	36	159	61	85	77	72	65	90	63	94	37	37
18	50	168	61	190	131	75	61	120	57	69	36	41
19	157	1220	60	190	246	114	58	167	55	59	36	42
20	69	598	59	113	179	87	57	139	52	55	35	45
21	61	237	57	88	142	76	59	98	50	52	35	42
22	55	155	57	89	102	74	57	83	47	49	35	42
23	50	127	57	76	84	71	54	74	46	48	35	80
24	52	106	56	71	79	68	53	70	46	46	35	58
25	49	97	56	71	75	66	53	67	45	70	34	54
26	47	117	56	67	79	70	53	68	44	57	62	103
27	47	110	56	56	77	69	51	115	61	50	52	86
28	46	106	55	58	72	65	53	116	69	102	43	56
29	45	110	55	60	---	63	53	89	51	60	40	92
30	46	97	55	60	---	61	80	83	93	50	38	164
31	46	---	57	58	---	58	---	72	---	48	36	---
TOTAL	1463	5096	2393	2238	3034	2570	1795	2476	2702	3759	1277	1537
MEAN	47.2	170	77.2	72.2	108	82.9	59.8	79.9	90.1	121	41.2	51.2
MAX	157	1220	158	190	273	156	83	167	355	1100	62	164
MIN	34	51	55	53	56	58	51	52	44	40	34	34
CFSM	.87	3.14	1.43	1.33	2.00	1.53	1.11	1.48	1.67	2.24	.76	.95
IN.	1.01	3.50	1.65	1.54	2.09	1.77	1.23	1.70	1.86	2.58	.88	1.06

CAL YR 1985	TOTAL	31233	MEAN	85.6	MAX	1440	MIN	29	CFSM	1.58	IN.	21.48
WTR YR 1986	TOTAL	30340	MEAN	83.1	MAX	1220	MIN	34	CFSM	1.54	IN.	20.86

04096100 GALENA RIVER NEAR LAPORTE, IN

LOCATION.--Lat 41°44'54", long 86°40'30", in SE¼NW¼ sec.17, T.38 N., R.2 W., LaPorte County, Hydrologic Unit 04040001, on left bank at downstream side of bridge on County Road 125 East, 1.3 mi upstream from Indiana-Michigan State line, and 9.8 mi north of Courthouse in LaPorte.

DRAINAGE AREA.--17.2 mi^2, of which 2.30 mi^2 does not contribute directly to surface runoff.

PERIOD OF RECORD.--October 1969 to current year.

REVISED RECORDS.--WDR IN-80-1: 1970, 1971(P), 1972, 1973, 1974(P), 1975 (M), 1976 (P), and 1978 (P).

GAGE.--Water-stage recorder. Datum of gage is 625.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 14-31, Jan. 8, 9, 26-31, Feb. 12-16, Mar. 8, June 20-27, July 4-8, 20-25, July 31 to Aug. 26, Aug. 28 to Sept. 11, and Sept. 13-19. Records good except those for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--17 years, 25.6 ft^3/s, 20.21 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 650 ft^3/s Mar. 4, 1979, gage height, 7.02 ft; minimum daily, 6.7 ft^3/s Sept. 13, 1973.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 100 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 10	1200	101	3.60	Nov. 19	0300	*381	*6.32
Nov. 16	1500	101	3.61	Feb. 4	2400	128	4.08

Minimum daily discharge, 10 ft^3/s Aug. 20-25, Sept. 1-10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	19	37	20	30	26	22	27	21	28	15	10
2	12	57	40	20	42	26	24	21	19	25	15	10
3	11	38	33	21	37	26	21	18	18	21	15	10
4	13	29	32	21	77	31	21	17	18	17	15	10
5	18	27	32	22	90	38	22	17	32	16	14	10
6	17	24	33	21	51	51	22	18	27	15	14	10
7	14	29	32	20	37	34	20	22	38	14	14	10
8	12	27	31	20	33	29	19	19	56	14	14	10
9	15	35	33	20	30	33	19	18	29	69	14	10
10	15	90	40	20	26	46	19	16	26	33	13	10
11	17	58	53	20	24	42	18	17	45	56	13	11
12	16	42	47	21	23	33	19	17	32	49	12	17
13	16	44	33	20	21	35	19	18	28	35	12	14
14	17	40	27	22	20	36	21	17	25	24	12	12
15	18	37	25	22	19	31	28	17	30	34	11	11
16	17	85	24	21	19	28	25	20	25	35	11	11
17	16	58	23	35	25	27	22	38	22	24	11	11
18	20	66	22	74	38	27	21	44	20	19	11	12
19	59	271	22	67	66	40	20	66	19	17	11	13
20	34	156	21	44	57	36	19	44	18	16	10	16
21	25	78	21	36	51	30	20	32	17	15	10	15
22	23	51	21	38	37	29	19	30	16	14	10	18
23	21	43	20	30	31	27	18	27	16	14	10	29
24	21	38	20	27	30	25	17	24	15	13	10	23
25	20	36	20	28	28	24	17	22	15	17	10	21
26	19	43	20	25	30	25	17	21	15	19	17	23
27	18	39	20	20	29	24	16	36	17	17	21	31
28	17	38	20	21	27	23	17	34	24	21	15	22
29	17	38	20	22	---	22	17	27	20	19	13	24
30	18	34	20	22	---	21	28	25	25	17	12	48
31	18	---	20	22	---	20	---	22	---	15	11	---
TOTAL	588	1670	862	842	1028	945	607	791	728	742	396	482
MEAN	19.0	55.7	27.8	27.2	36.7	30.5	20.2	25.5	24.3	23.9	12.8	16.1
MAX	59	271	53	74	90	51	28	66	56	69	21	48
MIN	11	19	20	20	19	20	16	16	15	13	10	10
CFSM	1.10	3.24	1.62	1.58	2.13	1.77	1.17	1.48	1.41	1.39	.74	.94
IN.	1.27	3.61	1.86	1.82	2.22	2.04	1.31	1.71	1.57	1.60	.86	1.04

CAL YR 1985	TOTAL	10368	MEAN	28.4	MAX	359	MIN	11	CFSM	1.65	IN.	22.42
WTR YR 1986	TOTAL	9681	MEAN	26.5	MAX	271	MIN	10	CFSM	1.54	IN.	20.94

04097970 LIME LAKE OUTLET AT PANAMA, IN

LOCATION.--Lat 41°42'46", long 85°07'10", in NW¼NW¼ sec.35, T.38 N., R.12 E., Steuben County, Hydrologic Unit 04050001, on right bank 10 ft downstream from dam for Lime Lake, 30 ft upstream from bridge on Orland Road, and 0.7 mi northwest of Panama.

DRAINAGE AREA.--17.5 mi^2, of which 3.68 mi^2 does not contribute directly to surface runoff.

PERIOD OF RECORD.--October 1969 to September 1986. (Discontinued)

GAGE.--Water-stage recorder. Datum of gage is 950.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Occasional regulation by control structure for Lime Lake.

AVERAGE DISCHARGE.--17 years, 8.06 ft^3/s, 6.25 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 52 ft^3/s Apr. 10, 1985, gage height, 4.87 ft; no flow at times during 1971, 1972, and 1984.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 36 ft^3/s July 17, gage height, 4.56 ft; minimum daily, 1.1 ft^3/s Apr. 14 (regulation).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.3	6.2	20	13	8.0	12	17	10	7.7	7.5	11	2.6
2	2.2	6.0	20	12	8.0	12	17	8.5	6.5	8.3	9.6	2.5
3	2.1	5.7	20	12	7.8	12	16	7.3	5.8	7.6	8.4	2.4
4	2.2	5.4	20	12	8.4	12	17	6.8	5.6	7.0	7.2	3.7
5	2.2	5.1	20	12	8.8	12	17	6.1	7.3	6.3	6.6	3.9
6	2.1	5.1	20	11	8.8	13	16	6.2	8.4	6.1	6.2	3.5
7	2.1	5.0	20	11	9.4	13	16	6.6	8.5	5.8	6.2	3.2
8	1.9	4.8	19	11	9.6	13	15	6.1	8.9	5.6	6.0	2.9
9	1.8	5.0	18	10	9.6	13	15	5.6	8.2	7.0	5.5	2.7
10	1.9	7.4	19	10	9.6	13	14	5.3	7.9	6.5	5.7	2.6
11	2.0	8.0	20	9.9	9.6	14	13	4.9	9.1	6.5	5.7	3.5
12	2.3	8.1	20	9.7	9.5	14	13	4.4	8.9	6.4	5.4	4.8
13	2.5	8.3	19	9.6	9.4	15	7.6	4.0	8.2	6.9	5.1	4.4
14	7.5	8.4	18	9.5	9.3	15	1.1	3.8	7.7	6.3	4.8	4.1
15	15	8.5	19	9.3	9.3	15	1.8	3.8	8.5	6.3	4.7	3.8
16	13	9.4	18	9.1	9.3	15	2.4	3.8	8.2	22	4.7	3.3
17	12	9.4	17	9.0	9.6	15	3.1	5.1	7.3	31	4.6	3.1
18	12	9.9	17	9.0	9.6	16	3.9	7.5	6.8	32	4.1	3.1
19	14	12	16	9.0	9.9	19	4.6	9.6	7.2	29	3.8	3.1
20	12	13	16	9.0	10	19	5.2	8.9	8.3	26	3.5	3.1
21	11	14	15	9.0	12	20	5.8	8.3	7.8	24	3.2	3.0
22	11	14	15	8.8	12	20	5.9	8.1	7.7	22	3.0	3.0
23	10	15	15	8.7	12	20	6.6	8.0	7.9	20	2.8	3.6
24	9.9	15	15	8.5	12	20	7.2	7.7	6.8	11	2.5	3.7
25	9.4	15	14	8.5	12	20	7.4	7.6	6.2	6.6	2.4	4.5
26	8.9	17	14	8.4	12	20	7.9	7.4	5.8	7.1	3.1	4.7
27	8.3	17	14	8.4	12	19	8.2	8.1	6.0	8.3	3.9	5.5
28	7.7	18	13	8.3	12	19	8.8	9.6	7.4	9.6	3.4	5.4
29	7.1	19	13	8.2	---	19	8.4	9.4	6.8	9.9	3.1	5.5
30	6.6	19	13	8.2	---	18	9.9	9.0	7.3	10	2.9	6.7
31	6.3	---	13	8.2	---	17	---	8.5	---	11	2.8	---
TOTAL	209.3	313.7	530	300.3	279.5	494	291.8	216.0	224.7	379.6	151.9	111.9
MEAN	6.75	10.5	17.1	9.69	9.98	15.9	9.73	6.97	7.49	12.2	4.90	3.73
MAX	15	19	20	13	12	20	17	10	9.1	32	11	6.7
MIN	1.8	4.8	13	8.2	7.8	12	1.1	3.8	5.6	5.6	2.4	2.4
CFSM	.39	.60	.98	.55	.57	.91	.56	.40	.43	.70	.28	.21
IN.	.44	.67	1.13	.64	.59	1.05	.62	.46	.48	.81	.32	.24

CAL YR 1985	TOTAL	4947.1	MEAN	13.6	MAX	51	MIN	1.5	CFSM	.78	IN.	10.52
WTR YR 1986	TOTAL	3502.7	MEAN	9.60	MAX	32	MIN	1.1	CFSM	.55	IN.	7.45

04099000 ST. JOSEPH RIVER AT MOTTVILLE, MI

LOCATION.--41°48'03", long 85°45'22", in SW¼ sec.6, T.8 S., R.12 W., Michigan Meridian, St. Joseph County, Hydrologic Unit 04050001, on right bank 500 ft upstream from bridge on U.S. Highway 12 at Mottville, 0.4 mi downstream from Michigan Power Co. hydroelectric plant, 4 mi upstream from Pigeon River, and at mile 96.

DRAINAGE AREA.--1,866 mi^2.

PERIOD OF RECORD.--October 1923 to current year. Monthly discharge only for some periods, published in WSP 1307.

REVISED RECORDS.--WSP 1387: 1930, 1932, 1938, 1940-42, 1945. WSP 1911: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 755.3 ft, Michigan Power Co. datum. Prior to Oct. 1, 1951, at site 0.4 mi upstream at datum 4.2 ft higher.

REMARKS.--Estimated daily discharges: Dec. 16-19, and Dec. 25 to Jan. 3. Records good except those for estimated daily discharges, which are fair. Flow regulated by powerplants upstream from station. Several measurements of water temperature were made during the year. National Weather Service gage-height telemeter at station.

AVERAGE DISCHARGE.--63 years, 1,601 ft^3/s, 11.65 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,700 ft^3/s Apr. 27, 1950, gage height, 10.76 ft, present datum; minimum daily, 39 ft^3/s Oct. 19, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,700 ft^3/s July 17, gage height, 6.36 ft; minimum daily, 595 ft^3/s Oct. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	998	1500	3270	2000	1820	2640	2630	1760	1850	1690	1720	1130
2	976	1730	3180	2050	1830	2480	2600	1790	1740	1560	1830	1080
3	958	1230	3270	2080	1840	2430	2410	1880	1700	1620	1400	1100
4	706	1400	3190	2090	1870	2410	2420	1940	1510	1650	1170	1110
5	595	1460	3170	2050	2220	2300	2480	1890	1410	1650	1290	1100
6	735	1430	3110	2010	2380	2430	2400	1620	1850	1540	1080	1140
7	1180	1360	3040	1980	2610	2470	2310	1770	2520	1340	1110	1070
8	1040	1210	2880	1960	2560	2440	2380	1940	3260	1300	1520	951
9	913	1130	2840	1830	2570	2420	2230	1730	3240	1550	1340	1020
10	919	1780	2790	1720	2470	2490	2110	1630	3140	1570	1370	1090
11	982	1990	2810	1700	2130	2920	2100	1640	3110	1480	1590	1060
12	698	2010	2840	1690	2140	3400	2080	1630	3170	1860	1490	1200
13	764	2160	2820	1740	2070	3880	1930	1570	3180	1870	1280	1220
14	1040	2420	2790	1810	1910	4070	1900	1460	2980	2010	1280	925
15	1100	2420	2620	1670	2080	4240	2080	1260	2550	2090	1320	761
16	1100	2470	2350	1740	2040	4310	1990	1570	2490	3440	1330	1350
17	1010	2540	2200	1670	1940	4230	2020	1690	2540	4420	1310	1040
18	792	2650	2100	1790	2180	4060	2050	1660	2250	4210	1170	1010
19	788	2830	2050	2020	2180	4200	2060	1800	2420	4270	1170	923
20	1860	3220	2000	2310	2240	3990	2050	2140	2320	3930	973	1060
21	2100	3450	2010	2300	2530	3890	2090	2310	2350	3880	976	1000
22	2160	3580	2200	2330	2810	3700	2000	2380	2330	3620	596	1150
23	2120	3840	2130	2280	3100	3690	1970	2420	2290	3170	730	1320
24	2100	3620	2240	2280	3320	3420	1900	2390	2040	2890	1100	1500
25	2000	3480	2200	2080	3180	3270	1890	2330	1940	2570	1290	1410
26	1920	3270	1950	1980	3080	3170	1840	2100	1770	2480	880	1470
27	1800	3370	1820	1830	3030	3100	1850	2060	1790	2380	1150	2020
28	1810	3370	1800	1660	2640	3070	1750	2130	1880	1990	1250	2390
29	1760	3320	1800	1640	---	2870	1780	2090	1870	2230	1240	1940
30	1650	3280	1810	1720	---	2880	1800	1910	1780	2080	904	2850
31	1530	---	1940	1780	---	2960	---	1910	---	1840	1290	---
TOTAL	40104	73520	77220	59790	66770	99830	63100	58400	69270	74180	38149	38390
MEAN	1294	2451	2491	1929	2385	3220	2103	1884	2309	2393	1231	1280
MAX	2160	3840	3270	2330	3320	4310	2630	2420	3260	4420	1830	2850
MIN	595	1130	1800	1640	1820	2300	1750	1260	1410	1300	596	761
CFSM	.69	1.31	1.33	1.03	1.28	1.73	1.13	1.01	1.24	1.28	.66	.69
IN.	.80	1.47	1.54	1.19	1.33	1.99	1.26	1.16	1.38	1.48	.76	.77

CAL YR 1985	TOTAL	823510	MEAN	2256	MAX	9620	MIN	495	CFSM	1.21	IN.	16.42
WTR YR 1986	TOTAL	758723	MEAN	2079	MAX	4420	MIN	595	CFSM	1.11	IN.	15.13

04099510 PIGEON CREEK NEAR ANGOLA, IN

LOCATION.--Lat 41°38'04", long 85°06'35", in NW¼SE¼ sec.26, T.37 N., R.12 E., Steuben County, Hydrologic Unit 04050001, on left bank 5 ft upstream from bridge on U.S. Highway 20, 1.3 mi downstream from outlet of Hogback Lake, 1.3 mi southeast of Flint, and 5.8 mi west of Angola.

DRAINAGE AREA.--106 mi^2, of which 22.5 mi^2 does not contribute directly to surface runoff.

PERIOD OF RECORD.--October 1945 to current year. Prior to October 1947, published as "near Flint". Published as Pigeon Creek at Hogback Lake Outlet near Angola, October 1947 to September 1971, and Pigeon Creek and Hogback Lake near Angola, October 1971 to September 1974.

REVISED RECORDS.--WSP 1144: 1948. WSP 2111: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 940.00 ft above National Geodetic Vertical Datum of 1929. Prior to October 1947, nonrecording gage at site 0.3 mi downstream at different datum. Oct. 1947 to Aug. 3, 1953, nonrecording gage at site 1.2 mi upstream at same datum. Aug. 4, 1953, to Apr. 3, 1974, recording gage at site 1.3 mi upstream at same datum. Apr. 18, 1974, to Sept. 2, 1974, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharges. Records good.

AVERAGE DISCHARGE.--41 years, 80.7 ft^3/s, 10.3 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 795 ft^3/s Mar. 22, 1982, gage height, 13.90 ft; minimum daily, 3.4 ft^3/s Oct. 25-27, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 325 ft^3/s Mar. 15; gage height, 9.48 ft; minimum daily discharge, 18 ft^3/s Aug. 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	65	303	78	74	167	125	69	109	67	66	50
2	31	63	296	76	75	151	119	72	100	69	60	46
3	29	60	288	75	79	138	114	73	92	68	55	42
4	28	57	272	74	86	126	111	72	85	68	51	42
5	28	55	251	74	113	120	109	70	85	66	47	40
6	28	54	230	72	148	126	107	69	92	63	44	38
7	26	52	212	71	171	142	105	73	106	61	43	37
8	25	51	196	69	171	150	102	76	116	58	41	35
9	25	52	183	68	160	149	98	75	118	62	39	33
10	26	72	173	66	145	161	94	72	116	63	38	31
11	29	116	179	65	131	205	90	67	116	67	37	33
12	33	164	207	64	119	250	87	63	115	67	35	35
13	37	196	231	63	108	288	83	60	112	66	33	35
14	40	207	236	63	100	314	81	56	106	63	31	35
15	46	207	220	62	93	323	81	55	102	62	29	33
16	50	213	200	62	89	318	81	54	97	105	28	32
17	52	230	180	61	86	299	82	60	90	187	26	31
18	55	244	162	70	85	275	83	81	85	251	25	32
19	70	257	146	87	105	277	81	121	81	281	24	32
20	93	277	133	108	169	297	80	155	85	278	23	32
21	111	289	122	123	241	303	80	168	93	251	21	32
22	117	290	115	125	288	291	79	165	94	218	20	31
23	114	281	109	121	297	266	79	157	90	188	20	33
24	109	266	104	115	282	241	78	145	84	160	19	35
25	103	247	100	109	257	219	75	133	79	139	18	39
26	95	244	94	102	231	200	73	122	74	122	23	43
27	89	277	90	95	208	183	72	114	70	107	43	49
28	83	308	86	89	186	168	70	113	69	96	61	53
29	77	320	83	84	---	155	68	114	67	86	62	53
30	72	315	81	80	---	143	68	118	66	78	59	55
31	68	---	80	76	---	133	---	116	---	72	55	---
TOTAL	1823	5529	5362	2547	4297	6578	2655	2958	2794	3589	1176	1147
MEAN	58.8	184	173	82.2	153	212	88.5	95.4	93.1	116	37.9	38.2
MAX	117	320	303	125	297	323	125	168	118	281	66	55
MIN	25	51	80	61	74	120	68	54	66	58	18	31
CFSM	.55	1.74	1.63	.78	1.44	2.00	.83	.90	.88	1.09	.36	.36
IN.	.64	1.94	1.88	.89	1.51	2.31	.93	1.04	.98	1.26	.41	.40

CAL YR 1985	TOTAL	48694	MEAN	133	MAX	689	MIN	25	CFSM	1.25	IN.	17.09
WTR YR 1986	TOTAL	40455	MEAN	111	MAX	323	MIN	18	CFSM	1.05	IN.	14.20

04099750 PIGEON RIVER NEAR SCOTT, IN

LOCATION.--Lat 41°44'56", long 85°34'35", in SE¼NW¼ sec.14, T.38 N., R.8 E., Lagrange County, Hydrologic Unit 04050001, on right bank 20 ft downstream from bridge on County Road 750 North, 1,200 ft downstream from Page ditch, 0.7 mi south of Indiana-Michigan State line, and 1.2 mi northwest of Scott.

DRAINAGE AREA.--361 mi², of which 53.9 mi² does not contribute directly to surface runoff.

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

REVISED RECORDS.--WSP 2111: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 815.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 16 to Jan. 20, Jan. 27 to Feb. 3, Feb. 9-18, and Mar. 7, 8. Records good except those for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--18 years, 373 ft³/s, 14.03 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,370 ft³/s Mar. 21, 1982, gage height, 7.85 ft; minimum daily, 42 ft³/s Oct. 21, 1971.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,150 ft³/s July 17, gage height, 5.54 ft; minimum daily, 133 ft³/s Aug. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	201	288	1020	320	300	704	543	348	392	316	279	236
2	175	291	1040	320	310	647	529	358	368	333	248	227
3	160	285	1040	310	320	607	505	325	343	334	237	221
4	168	274	998	310	396	569	484	308	324	295	221	232
5	200	262	963	300	558	553	481	299	339	274	205	248
6	199	256	928	300	604	604	482	303	391	261	193	236
7	181	252	881	290	590	600	467	396	391	247	224	224
8	168	247	830	280	591	610	447	396	424	238	198	214
9	163	251	784	280	570	602	425	364	445	288	195	206
10	164	467	757	270	540	669	409	344	416	386	197	205
11	165	748	788	260	520	797	394	326	431	348	229	220
12	168	784	879	260	500	865	378	309	448	333	209	341
13	202	674	905	260	460	911	367	297	423	334	190	300
14	209	665	855	250	420	994	358	285	399	314	181	233
15	225	688	767	250	380	1040	382	274	392	283	171	212
16	222	743	700	250	370	1030	408	275	382	671	168	197
17	200	806	650	250	350	1010	400	305	349	1050	156	187
18	202	826	580	270	350	987	384	389	320	1070	148	197
19	334	864	540	330	519	1000	369	448	311	894	135	206
20	453	997	500	390	710	1020	366	507	358	838	133	203
21	429	1040	470	432	836	978	395	520	360	809	142	195
22	400	1010	440	444	878	941	375	525	340	776	140	191
23	397	961	420	441	891	920	351	526	348	715	142	220
24	404	933	400	426	911	885	336	510	331	632	152	223
25	401	894	380	417	922	845	327	482	309	578	142	249
26	379	890	370	404	891	795	329	454	289	551	187	256
27	359	940	350	390	844	754	320	445	280	500	440	316
28	341	990	340	360	776	703	308	513	319	459	394	331
29	324	984	340	340	---	648	303	509	320	408	274	283
30	307	994	330	320	---	606	315	440	297	350	257	297
31	295	---	320	310	---	568	---	410	---	318	249	---
TOTAL	8195	20304	20565	10034	16307	24462	11937	12190	10839	15203	6436	7106
MEAN	264	677	663	324	582	789	398	393	361	490	208	237
MAX	453	1040	1040	444	922	1040	543	526	448	1070	440	341
MIN	160	247	320	250	300	553	303	274	280	238	133	187
CFSM	.73	1.88	1.84	.90	1.61	2.19	1.10	1.09	1.00	1.36	.58	.66
IN.	.84	2.09	2.12	1.03	1.68	2.52	1.23	1.26	1.12	1.57	.66	.73

CAL YR 1985	TOTAL	190539	MEAN	522	MAX	2080	MIN	137	CFSM	1.45	IN.	19.63
WTR YR 1986	TOTAL	163578	MEAN	448	MAX	1070	MIN	133	CFSM	1.24	IN.	16.86

04099808 LITTLE ELKHART RIVER AT MIDDLEBURY, IN

LOCATION.--Lat 41°40'31", long 85°42'01", in NE¼SE¼ sec.10, T.37 N., R.7 E., Elkhart County, Hydrologic Unit 04050001, on left bank 15 ft downstream from bridge on County Road 16, 0.1 mi east of Middlebury, and 1.7 mi downstream from Rowe Eden ditch.

DRAINAGE AREA.--97.6 mi², of which 5.89 mi² does not contribute directly to surface runoff.

PERIOD OF RECORD.--October 1979 to current year.

REVISED RECORDS.--WRD IN-82-1: 1980, 1981.

GAGE.--Water-stage recorder. Datum of gage is 810.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Jan. 27, 28. Records good.

AVERAGE DISCHARGE.--7 years, 107 ft³/s, 14.89 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,470 ft³/s, Feb. 24, 1985, gage height, 10.52 ft; minimum daily, 32 ft³/s Aug. 30, 31, 1984.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 10	2000	516	7.13	July 16	1700	*982	*8.39
Nov. 20	0800	526	7.17				

Minimum daily discharge, 52 ft³/s Aug. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	57	83	206	97	93	126	112	101	65	66	77	61
2	56	88	252	96	126	123	109	91	63	68	74	59
3	55	86	188	96	105	120	107	83	62	63	72	57
4	57	83	174	94	174	121	114	79	61	60	70	58
5	60	81	167	93	276	137	111	76	71	58	68	57
6	60	79	160	92	193	271	108	81	72	57	69	56
7	58	79	156	88	157	193	103	109	71	55	71	56
8	58	76	153	86	139	156	100	91	86	54	68	55
9	58	87	152	85	127	158	97	82	77	71	66	55
10	58	382	186	85	119	239	94	77	74	61	69	54
11	59	357	334	85	114	259	93	74	92	63	70	61
12	61	238	334	85	108	196	92	73	84	65	66	76
13	77	198	238	84	108	277	90	72	78	67	64	67
14	80	186	191	83	101	262	90	71	73	60	63	61
15	91	172	167	81	98	214	94	70	73	58	62	58
16	89	283	154	80	97	187	94	70	70	588	60	55
17	82	247	146	108	99	171	93	86	66	538	59	54
18	88	203	137	171	126	164	89	83	65	296	57	57
19	214	344	130	165	336	236	86	91	65	213	55	56
20	174	455	127	132	336	188	90	87	66	170	54	56
21	137	282	124	118	329	161	96	84	63	142	53	55
22	120	236	122	114	231	152	88	81	62	123	52	54
23	109	214	120	106	186	147	84	77	60	110	54	62
24	110	190	118	100	167	139	83	74	59	101	54	60
25	103	175	111	99	154	133	82	72	59	109	53	72
26	98	249	120	97	149	133	82	70	58	123	87	77
27	93	273	108	90	141	129	79	75	61	102	132	111
28	88	226	104	67	132	125	79	72	70	96	87	104
29	86	216	103	87	---	121	77	71	63	90	74	91
30	84	198	101	84	---	116	82	68	65	85	68	119
31	83	---	99	83	---	113	---	67	---	81	64	---
TOTAL	2703	6066	4982	3031	4521	5267	2798	2458	2054	3893	2092	1974
MEAN	87.2	202	161	97.8	161	170	93.3	79.3	68.5	126	67.5	65.8
MAX	214	455	334	171	336	277	114	109	92	588	132	119
MIN	55	76	99	67	93	113	77	67	58	54	52	54
CFSM	.89	2.07	1.65	1.00	1.65	1.74	.96	.81	.70	1.29	.69	.67
IN.	1.03	2.31	1.90	1.16	1.72	2.01	1.07	.94	.78	1.48	.80	.75

CAL YR 1985	TOTAL	51339	MEAN	141	MAX	2040	MIN	46	CFSM	1.44	IN.	19.57
WTR YR 1986	TOTAL	41839	MEAN	115	MAX	588	MIN	52	CFSM	1.18	IN.	15.95

04099850 PINE CREEK NEAR ELKHART, IN

LOCATION.--Lat 41°40'53", long 85°52'57", in NE¼NW¼ sec.7, T.37 N., R.6 E., Elkhart County, Hydrologic Unit 04050001, on right bank 50 ft upstream from bridge on County Road 14, 0.3 mi east of the intersection of County Roads 17 and 14, and 3.1 mi east of Elkhart.

DRAINAGE AREA.--31.0 mi^2, of which 8.75 mi^2 does not contribute directly to surface runoff.

PERIOD OF RECORD.--October 1979 to current year.

GAGE.--Water-stage recorder. Datum of gage is 755.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Oct. 1-18, Oct. 24 to Nov. 9, Dec. 28 to Jan. 17, Jan. 27 to Feb. 1, Apr. 1 to May 18, May 20 to July 8, July 10-15, 23-25, July 28 to Aug. 26, Aug. 29 to Sept. 26, and Sept. 28-30. Records good except those for estimated daily discharges, which are fair.

AVERAGE DISCHARGE.--7 years, 20.4 ft^3/s, 8.92 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 577 ft^3/s Feb. 24, 1985, gage height, 7.45 ft; maximum gage height, 9.74 ft July 26, 1981; minimum daily discharge, 3.8 ft^3/s July 26, 1980.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 170 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
July 16	2300	*163	*5.03

Minimum daily discharge, 8.7 ft^3/s Aug. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.8	13	34	18	17	24	20	21	14	14	17	12
2	9.5	14	40	18	20	23	19	19	14	14	17	12
3	9.2	14	31	18	18	23	19	18	14	14	16	11
4	9.4	13	29	18	35	23	19	17	13	13	16	11
5	9.7	13	28	17	51	28	20	17	15	13	15	11
6	9.8	12	27	17	35	46	20	18	15	12	16	10
7	9.6	12	27	17	28	33	20	19	16	12	16	10
8	9.1	12	26	16	26	28	19	17	18	12	14	10
9	9.0	14	26	16	24	29	19	17	16	28	14	10
10	9.1	60	29	16	23	37	19	16	15	17	15	10
11	9.2	59	44	16	22	38	19	16	20	15	14	11
12	9.4	36	46	16	21	32	19	16	19	15	13	14
13	12	30	34	16	20	39	18	16	17	15	12	12
14	12	29	28	16	20	36	18	16	16	14	12	11
15	13	27	26	15	19	31	19	16	16	13	11	10
16	14	48	25	15	19	28	19	16	15	109	10	10
17	13	39	24	19	20	26	19	20	14	91	10	10
18	14	33	24	32	25	26	18	19	14	39	9.7	10
19	34	58	23	30	54	36	18	22	14	29	9.4	10
20	26	85	22	23	53	29	19	19	14	24	9.0	10
21	21	52	22	21	54	25	20	18	14	22	8.8	10
22	19	40	22	21	39	24	19	17	14	21	8.7	10
23	18	36	21	20	32	23	19	17	13	20	9.0	11
24	17	32	21	19	30	22	18	16	13	18	9.1	11
25	16	29	20	19	28	22	18	15	12	22	9.0	13
26	15	38	19	19	27	22	18	15	12	27	20	14
27	15	37	20	17	26	22	18	16	13	21	45	21
28	14	34	19	14	25	21	18	16	16	19	23	16
29	13	33	19	16	---	21	17	15	14	19	18	15
30	13	31	19	16	---	21	17	15	14	18	15	17
31	13	---	19	16	---	21	---	15	---	18	13	---
TOTAL	424.8	983	814	567	811	859	562	530	444	738	444.7	353
MEAN	13.7	32.8	26.3	18.3	29.0	27.7	18.7	17.1	14.8	23.8	14.3	11.8
MAX	34	85	46	32	54	46	20	22	20	109	45	21
MIN	9.0	12	19	14	17	21	17	15	12	12	8.7	10
CFSM	.44	1.06	.85	.59	.94	.89	.60	.55	.48	.77	.46	.38
IN.	.51	1.18	.98	.68	.97	1.03	.67	.64	.53	.89	.53	.42

CAL YR 1985	TOTAL	8867.3	MEAN	24.3	MAX	436	MIN	8.6	CFSM	.78	IN.	10.64
WTR YR 1986	TOTAL	7530.5	MEAN	20.6	MAX	109	MIN	8.7	CFSM	.66	IN.	9.04

04100222 NORTH BRANCH ELKHART RIVER AT COSPERVILLE, IN

LOCATION.--Lat 41°28'54", long 85°28'32", in NE¼NW¼ sec.22, T.35 N., R.9 E., Noble County, Hydrologic Unit 04050001, on right bank at downstream side of bridge on County Road 900 North at Cosperville, 1,300 ft downstream from Boyd ditch, 1.7 mi upstream from Hustin ditch, and 3.1 mi downstream from Waldron Lake.

DRAINAGE AREA.--142 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 880.12 ft above National Geodetic Vertical Datum of 1929 (levels by State of Indiana, Department of Natural Resources).

REMARKS.--Estimated daily discharges: Dec. 17 to Jan. 2, Jan. 6-9, 13-15, Jan. 27 to Feb. 3, and Feb. 9 to Mar. 14. Records good except those for estimated daily discharges, which are poor. Flow regulated at times by dam at Waldron Lake.

AVERAGE DISCHARGE.--15 years, 143 ft^3/s, 13.68 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 919 ft^3/s Mar. 23, 1982, gage height, 8.12 ft; minimum daily, 2.4 ft^3/s Nov. 21, 1971.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 507 ft^3/s Dec. 1, gage height, 6.23 ft; minimum daily, 7.3 ft^3/s Aug. 19 (regulation).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	106	143	500	155	93	240	213	111	142	92	125	58
2	106	140	496	150	91	220	206	116	137	93	112	55
3	100	135	492	146	90	195	196	116	130	91	103	51
4	98	128	476	144	90	175	193	113	122	87	94	54
5	97	122	460	142	136	160	189	110	129	82	89	56
6	96	116	445	140	160	163	184	115	142	77	84	53
7	93	110	428	135	185	190	178	160	152	72	82	50
8	91	105	411	125	180	210	170	195	161	67	79	47
9	89	103	395	120	158	210	162	201	157	68	77	45
10	87	149	384	116	150	220	152	196	152	67	75	43
11	87	191	408	114	143	260	145	186	150	71	75	49
12	91	212	427	113	138	300	140	175	146	61	72	60
13	96	225	429	110	130	320	135	165	140	33	69	68
14	100	232	414	105	125	340	131	154	136	44	66	98
15	103	246	395	103	120	356	131	148	135	53	63	83
16	105	272	377	99	113	354	133	140	131	264	60	72
17	104	286	360	108	108	343	134	148	128	397	48	64
18	112	294	340	137	108	348	132	164	122	445	9.8	60
19	162	318	320	158	125	371	130	188	118	431	7.3	58
20	193	356	290	160	165	380	130	199	114	405	7.9	56
21	208	379	280	159	240	371	130	203	109	371	9.9	55
22	213	390	260	158	270	359	128	204	104	335	18	54
23	214	397	240	152	300	346	124	202	101	299	24	56
24	214	396	230	146	320	333	121	195	95	265	27	56
25	211	394	220	142	330	309	118	187	90	243	28	22
26	205	437	200	139	320	296	116	179	84	232	45	29
27	196	469	190	125	295	282	114	174	84	207	90	93
28	186	487	180	115	260	266	111	168	91	191	91	121
29	175	494	180	108	---	251	105	162	91	173	80	131
30	162	497	170	103	---	237	106	155	91	154	71	132
31	151	---	160	98	---	225	---	149	---	142	64	---
TOTAL	4251	8223	10557	4025	4943	8630	4357	5078	3684	5612	1945.9	1929
MEAN	137	274	341	130	177	278	145	164	123	181	62.8	64.3
MAX	214	497	500	160	330	380	213	204	161	445	125	132
MIN	87	103	160	98	90	160	105	110	84	33	7.3	22
CFSM	.96	1.93	2.40	.92	1.25	1.96	1.02	1.15	.87	1.27	.44	.45
IN.	1.11	2.15	2.77	1.05	1.29	2.26	1.14	1.33	.97	1.47	.51	.51

CAL YR 1985	TOTAL	83101	MEAN	228	MAX	831	MIN	15	CFSM	1.61	IN.	21.77
WTR YR 1986	TOTAL	63234.9	MEAN	173	MAX	500	MIN	7.3	CFSM	1.22	IN.	16.57

04100252 FORKER CREEK NEAR BURR OAK, IN

LOCATION.--Lat 41°19'58", long 85°25'25", in SE¼NE¼ sec.12, T.33 N., R.9 E., Noble County, Hydrologic Unit 04050001, on right bank 300 ft downstream from bridge on State Highway 9, 400 ft downstream from Miller Lake Outlet, 0.8 mi northeast of Burr Oak, and 4.5 mi south of Albion.

DRAINAGE AREA.--19.2 mi^2.

PERIOD OF RECORD.--June 1969 to current year.

GAGE.--Water-stage recorder. Datum of gage is 889.00 ft above National Geodetic Vertical Datum of 1929 (Indiana Department of Highways bench mark).

REMARKS.--Estimated daily discharges: Oct. 28-31, Dec. 25 to Jan. 2, and Jan. 27-30. Records fair. Occasional regulation at Miller Lake Outlet.

AVERAGE DISCHARGE.--17 years, 18.4 ft^3/s, 12.98 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 480 ft^3/s Feb. 24, 1985, gage height, 7.00 ft; minimum daily, 0.13 ft^3/s Sept. 10, 1972.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 233 ft^3/s July 17, gage height, 6.02 ft; minimum daily, 1.1 ft^3/s Oct. 3, 4, 7-10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	7.5	60	7.0	7.6	18	11	12	10	22	16	3.7
2	1.2	7.8	64	6.8	9.3	16	11	13	9.1	23	14	3.4
3	1.1	7.8	60	7.0	11	15	10	13	8.5	24	13	3.1
4	1.1	7.6	49	7.0	19	14	15	12	8.2	23	10	3.2
5	1.2	6.6	40	7.0	46	15	17	12	32	20	8.3	3.0
6	1.2	6.1	34	6.7	60	29	19	12	79	18	7.4	2.7
7	1.1	6.0	28	6.3	55	39	18	13	108	16	6.5	2.4
8	1.1	5.9	24	5.9	42	37	17	13	123	15	5.9	2.2
9	1.1	5.6	21	5.6	33	31	15	12	107	14	5.2	2.1
10	1.1	6.8	22	5.3	25	41	13	11	85	13	4.5	1.9
11	1.2	13	61	5.3	20	61	12	10	73	19	4.0	2.0
12	1.5	19	100	5.3	17	66	12	9.2	63	31	3.5	2.2
13	1.8	21	100	5.3	15	75	10	8.6	54	38	3.0	1.7
14	2.0	20	84	5.3	14	83	9.2	9.0	51	33	2.7	1.3
15	2.4	27	73	5.1	13	74	9.8	9.6	62	27	2.4	1.3
16	2.6	45	45	5.1	12	59	12	9.2	61	85	2.3	1.3
17	2.8	60	35	5.7	10	45	14	13	54	203	2.3	1.2
18	5.6	64	26	12	12	39	14	15	42	207	2.1	1.3
19	30	74	21	23	36	70	12	18	34	146	1.9	1.3
20	76	95	17	28	72	88	12	21	29	103	1.8	1.4
21	100	95	15	26	93	76	12	22	24	81	1.7	1.4
22	89	81	14	23	86	59	12	21	22	71	1.6	1.4
23	73	69	12	19	69	46	11	19	20	59	1.5	1.6
24	58	58	11	16	53	39	11	17	18	49	1.4	1.7
25	42	48	10	14	41	30	11	15	17	41	1.3	2.0
26	31	52	9.4	14	34	26	11	14	16	37	1.7	3.1
27	24	70	8.7	12	27	23	11	14	16	30	2.8	5.4
28	19	73	8.1	11	22	20	11	13	17	27	3.4	4.7
29	14	65	7.8	9.7	---	18	10	13	19	24	4.0	3.6
30	10	62	7.4	8.8	---	16	11	12	22	20	4.1	3.7
31	8.7	---	7.2	7.8	---	14	---	12	---	18	4.0	---
TOTAL	606.0	1178.7	1074.6	326.0	953.9	1282	374.0	417.6	1283.8	1537	144.3	71.3
MEAN	19.5	39.3	34.7	10.5	34.1	41.4	12.5	13.5	42.8	49.6	4.65	2.38
MAX	100	95	100	28	93	88	19	22	123	207	16	5.4
MIN	1.1	5.6	7.2	5.1	7.6	14	9.2	8.6	8.2	13	1.3	1.2
CFSM	1.02	2.05	1.81	.55	1.78	2.16	.65	.70	2.23	2.58	.24	.12
IN.	1.17	2.28	2.08	.63	1.85	2.48	.72	.81	2.49	2.98	.28	.14

CAL YR 1985	TOTAL	9559.05	MEAN	26.2	MAX	431	MIN	.58	CFSM	1.36	IN.	18.52
WTR YR 1986	TOTAL	9249.2	MEAN	25.3	MAX	207	MIN	1.1	CFSM	1.32	IN.	17.92

04100295 RIMMELL BRANCH NEAR ALBION, IN

LOCATION.--Lat 41°23'07", long 85°22'14", in NE¼SE¼ sec.21, T.34 N., R.10 E., Noble County, Hydrologic Unit 04050001, on right bank 900 ft downstream from culvert on County Road 300 East, 0.75 mi south of State Highway 8, 3.0 mi east of intersection of State Highway 9 and State Highway 8 in Albion.

DRAINAGE AREA.--10.7 mi^2.

PERIOD OF RECORD.--November 1979 to current year.

GAGE.--Water-stage recorder. Datum of gage is 935.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Oct. 4-17, Dec. 17 to Jan. 16, Jan. 27 to Feb. 1, Feb. 10-17, and Feb. 23 to Mar. 4. Records good except those for estimated daily discharges, which are fair.

AVERAGE DISCHARGE.--6 years, 12.3 ft^3/s, 15.61 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 418 ft^3/s July 16, 1986, gage height, 11.55 ft; maximum gage height, 12.82 ft, Apr. 14, 1981, minimum daily discharge, 0.14 ft^3/s, many days during 1980.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 100 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct. 19	0730	131	8.03	Mar. 19	0230	145	8.27
Dec. 11	0730	132	8.05	June 5	1315	109	7.66
Feb. 19	1745	118	7.82	July 16	1230	*418	*11.55
Feb. 21	0115	107	7.62				

Minimum daily, 0.57 ft^3/s Oct. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.65	3.5	36	3.2	7.0	7.0	7.8	9.4	2.7	8.7	3.1	1.4
2	.62	4.7	34	3.1	14	6.5	6.9	6.8	2.2	8.6	2.8	1.3
3	.57	4.6	18	3.1	8.1	6.2	5.7	5.1	2.0	5.8	2.5	1.2
4	.62	4.0	14	3.0	47	6.1	11	4.4	2.0	4.3	2.3	1.4
5	.70	3.6	13	2.9	57	18	11	3.8	52	3.4	2.2	1.2
6	.66	3.2	11	2.9	31	54	9.9	4.3	48	2.8	2.1	1.4
7	.63	3.1	10	2.9	18	26	8.0	7.8	33	2.4	2.1	1.2
8	.60	2.8	9.6	2.8	13	20	6.7	5.4	35	2.1	2.0	1.1
9	.60	2.8	10	2.8	9.6	25	5.8	4.1	20	2.4	1.9	1.1
10	.60	32	18	2.8	8.4	53	5.2	3.5	13	2.6	1.9	1.1
11	.80	29	104	2.8	7.2	50	4.7	3.1	17	16	1.8	1.2
12	1.4	18	66	2.7	6.0	42	4.3	2.9	12	7.8	1.7	1.3
13	2.0	17	35	2.7	5.4	73	4.0	2.7	9.3	5.2	1.6	1.1
14	2.0	15	21	2.7	4.9	59	4.2	2.6	7.4	3.5	1.6	1.1
15	2.4	13	13	2.7	4.6	36	6.4	2.4	23	3.7	1.6	1.1
16	2.0	56	10	2.7	4.4	27	6.7	2.6	13	349	1.5	1.0
17	1.7	34	8.0	16	4.3	21	7.0	6.6	8.1	226	1.4	.96
18	34	31	7.0	27	30	24	5.9	13	6.1	94	1.4	1.1
19	106	72	6.2	23	100	98	5.2	24	5.1	62	1.4	1.1
20	57	70	5.4	14	72	41	5.2	14	4.5	46	1.4	1.1
21	33	33	5.0	10	73	26	6.8	10	3.8	38	1.3	1.1
22	20	32	4.5	9.3	39	18	5.7	8.3	3.3	30	1.3	1.3
23	12	28	4.2	7.5	25	16	4.8	6.5	2.9	23	1.4	1.7
24	11	19	4.0	6.5	16	13	4.5	5.2	2.5	18	1.3	1.5
25	8.5	15	3.8	6.4	13	12	4.2	4.4	2.2	14	1.3	2.1
26	6.7	52	3.7	5.8	11	10	4.2	4.0	2.1	10	13	6.3
27	5.5	42	3.6	5.4	9.0	9.4	3.9	4.3	14	7.7	23	12
28	4.6	30	3.5	4.8	8.0	8.4	4.0	3.8	40	7.9	5.2	4.5
29	4.1	31	3.4	4.4	---	7.7	3.8	3.5	12	6.7	2.5	3.1
30	3.7	32	3.3	4.0	---	6.8	4.8	4.5	9.0	5.7	1.9	9.2
31	3.5	---	3.2	3.7	---	6.4	---	3.2	---	4.4	1.6	---
TOTAL	328.15	733.3	491.4	193.6	645.9	826.5	178.3	186.2	407.2	1021.7	92.1	66.26
MEAN	10.6	24.4	15.9	6.25	23.1	26.7	5.94	6.01	13.6	33.0	2.97	2.21
MAX	106	72	104	27	100	98	11	24	52	349	23	12
MIN	.57	2.8	3.2	2.7	4.3	6.1	3.8	2.4	2.0	2.1	1.3	.96
CFSM	.99	2.28	1.49	.58	2.16	2.50	.56	.56	1.27	3.08	.28	.21
IN.	1.14	2.55	1.71	.67	2.25	2.87	.62	.65	1.42	3.55	.32	.23

CAL YR 1985 TOTAL 5587.76 MEAN 15.3 MAX 327 MIN .34 CFSM 1.43 IN. 19.43
WTR YR 1986 TOTAL 5170.61 MEAN 14.2 MAX 349 MIN .57 CFSM 1.33 IN. 17.98

04100465 TURKEY CREEK AT SYRACUSE, IN

LOCATION.--Lat 41°25'35", long 85°45'16", in NE¼SE¼ sec.6, T.34 N., R.7 E., Kosciusko County, Hydrologic Unit 04050001, on right bank 75 ft upstream from Main Street bridge in Syracuse and 1,500 ft downstream from dam at outlet of Syracuse Lake.

DRAINAGE AREA.--43.8 mi^2.

PERIOD OF RECORD.--October 1969 to current year.

GAGE.--Water-stage recorder. Datum of gage is 848.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by dam on Syracuse Lake.

AVERAGE DISCHARGE.--17 years, 38.2 ft^3/s, 11.86 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 243 ft^3/s Mar. 31, 1985, gage height, 5.52 ft; minimum daily, 0.82 ft^3/s Oct. 8, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 184 ft^3/s June 7, gage height, 4.90 ft; minimum daily, 3.2 ft^3/s Oct. 2, 3, 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.3	57	65	76	21	81	80	10	11	63	13	7.4
2	3.2	57	65	75	51	80	79	8.5	12	60	12	7.4
3	3.2	56	64	75	51	80	78	7.6	9.9	58	11	7.1
4	3.9	55	63	73	55	81	78	6.7	8.7	56	11	7.1
5	3.2	54	62	72	60	83	78	6.8	76	30	10	6.4
6	3.3	54	62	72	59	91	77	13	131	17	10	5.9
7	3.6	54	62	71	57	90	76	15	158	16	11	5.6
8	3.7	30	61	69	55	86	75	11	177	16	11	5.2
9	3.6	13	60	69	54	85	30	9.1	150	17	10	4.9
10	4.3	16	62	68	54	92	8.4	8.2	160	23	12	5.0
11	4.1	16	70	68	53	94	7.9	7.5	172	45	11	8.1
12	4.6	16	74	68	53	91	7.3	7.3	157	35	10	6.8
13	4.2	15	71	67	52	96	6.7	7.1	147	31	9.5	5.8
14	5.4	15	68	67	52	97	7.1	7.3	140	29	9.1	5.9
15	5.4	15	66	40	52	94	6.9	8.4	142	29	8.6	5.8
16	5.2	46	69	30	52	90	7.2	8.9	136	105	8.3	5.3
17	5.6	60	66	31	45	89	6.9	11	126	105	8.0	5.6
18	31	60	63	32	68	91	6.5	12	112	91	7.9	6.4
19	51	64	62	34	61	96	6.3	15	80	85	7.5	6.7
20	48	65	60	34	74	90	7.0	15	77	81	6.9	7.0
21	47	65	60	33	83	84	7.2	15	42	79	6.3	7.5
22	46	64	59	32	73	82	6.8	16	22	76	6.3	7.9
23	45	62	59	31	89	81	6.6	17	30	73	5.6	9.8
24	45	60	59	31	87	82	6.8	17	42	34	5.3	10
25	44	60	59	31	86	82	6.8	18	41	17	5.4	11
26	54	67	68	31	86	81	7.4	17	33	16	14	13
27	58	69	81	31	70	81	7.0	19	22	15	11	14
28	58	67	77	16	82	81	7.3	17	27	18	8.8	13
29	58	65	77	6.5	---	80	7.0	15	25	16	8.5	14
30	57	64	77	6.3	---	79	8.0	14	49	15	8.1	42
31	57	---	76	6.5	---	79	---	12	---	15	7.8	---
TOTAL	768.8	1461	2047	1446.3	1735	2669	800.1	372.4	2515.6	1366	284.9	267.6
MEAN	24.8	48.7	66.0	46.7	62.0	86.1	26.7	12.0	83.9	44.1	9.19	8.92
MAX	58	69	81	76	89	97	80	19	177	105	14	42
MIN	3.2	13	59	6.3	21	79	6.3	6.7	8.7	15	5.3	4.9
CFSM	.57	1.11	1.51	1.07	1.42	1.97	.61	.27	1.92	1.01	.21	.20
IN.	.65	1.24	1.74	1.23	1.47	2.27	.68	.32	2.14	1.16	.24	.23

CAL YR 1985	TOTAL	19295.1	MEAN	52.9	MAX	239	MIN	2.5	CFSM	1.21	IN.	16.39
WTR YR 1986	TOTAL	15733.7	MEAN	43.1	MAX	177	MIN	3.2	CFSM	.98	IN.	13.36

04100500 ELKHART RIVER AT GOSHEN, IN

LOCATION.--Lat 41°35'36", long 85°50'55", in NE¼NE¼ sec.8, T.36 N., R.6 E., Elkhart County, Hydrologic Unit 04050001, on right bank 20 ft downstream from River Avenue bridge at Goshen, 0.4 mi upstream from Rock Run, and at mile 16.1.

DRAINAGE AREA.--594 mi^2.

PERIOD OF RECORD.--April 1931 to current year.

REVISED RECORDS.--WSP 1337: 1939(M). WSP 1557: 1954. WSP 2111: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 769.43 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 20, 1931, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Dec. 14 to Jan. 1, Jan. 6-10, 13-17, 27-29, Feb. 9-17, Feb. 21 to Mar. 2, and Mar. 7-9. Records good except those for estimated daily discharges, which are fair.

AVERAGE DISCHARGE.--55 years, 523 ft^3/s, 11.96 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,360 ft^3/s Feb. 24, 1985; maximum gage height, 11.94 ft Mar. 14, 1982; minimum daily discharge, 7.0 ft^3/s Aug. 11, 1964, result of extreme regulation.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,800 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 20	2400	1,800	5.36	Dec. 12	1700	*1,810	*5.37

Minimum daily discharge, 186 ft^3/s Aug. 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	280	554	1390	620	499	970	820	515	475	609	622	306
2	278	549	1510	614	593	950	803	534	445	594	558	294
3	273	525	1480	614	597	918	767	489	420	566	522	282
4	270	509	1310	602	672	889	770	466	403	526	468	277
5	278	494	1250	582	1110	930	747	449	551	497	430	267
6	280	477	1220	520	1200	1220	726	455	981	456	404	257
7	280	459	1160	510	989	1300	701	1030	1170	416	408	246
8	265	439	1130	500	835	1050	678	1270	1140	391	397	236
9	260	455	1100	490	780	1000	656	944	1170	400	369	230
10	257	742	1110	490	740	1120	616	787	1050	386	360	222
11	267	1080	1380	494	710	1290	573	717	1000	528	379	237
12	269	966	1760	492	680	1280	547	655	1030	707	349	294
13	294	860	1640	470	670	1270	529	608	1010	635	326	248
14	315	834	1250	450	660	1440	520	565	948	503	314	240
15	334	816	1100	440	640	1370	531	532	931	453	306	259
16	331	940	1050	430	640	1280	536	522	925	1070	287	254
17	318	1130	970	450	640	1230	537	527	871	1510	273	237
18	330	1060	940	715	658	1210	522	601	812	1250	258	248
19	610	1220	900	913	1030	1330	509	658	784	1090	228	238
20	872	1670	880	820	1490	1470	516	701	749	1070	204	222
21	772	1710	870	722	1500	1320	558	694	710	1070	195	221
22	706	1400	860	686	1450	1230	538	676	645	1060	188	216
23	681	1270	840	660	1250	1190	507	662	593	1040	186	240
24	687	1220	830	621	1200	1160	491	640	554	1000	188	249
25	680	1180	790	609	1200	1110	481	613	534	1050	188	275
26	676	1250	760	595	1170	1080	481	589	504	1320	245	289
27	659	1620	710	450	1120	1040	472	602	567	1120	429	335
28	661	1640	680	370	1030	990	465	579	794	932	402	431
29	619	1490	660	400	---	941	452	548	669	896	360	429
30	600	1420	640	483	---	895	453	566	586	776	330	521
31	579	---	630	486	---	855	---	511	---	688	318	---
TOTAL	13981	29979	32800	17298	25753	35328	17502	19705	23021	24609	10491	8300
MEAN	451	999	1058	558	920	1140	583	636	767	794	338	277
MAX	872	1710	1760	913	1500	1470	820	1270	1170	1510	622	521
MIN	257	439	630	370	499	855	452	449	403	386	186	216
CFSM	.76	1.68	1.78	.94	1.55	1.92	.98	1.07	1.29	1.34	.57	.47
IN.	.88	1.88	2.05	1.08	1.61	2.21	1.10	1.23	1.44	1.54	.66	.52

CAL YR 1985	TOTAL	316211	MEAN	866	MAX	6010	MIN	142	CFSM	1.46	IN.	19.80
WTR YR 1986	TOTAL	258767	MEAN	709	MAX	1760	MIN	186	CFSM	1.19	IN.	16.21

04101000 ST. JOSEPH RIVER AT ELKHART, IN

LOCATION.--Lat 41°41'30", long 85°58'30", in SW¼NE¼ sec.5, T.37 N., R.5 E., Elkhart County, Hydrologic Unit 04050001, on left bank 200 ft downstream from Elkhart River, 200 ft upstream from Main Street bridge in Elkhart, 2,000 ft downstream from Christiana Creek, 0.5 mi downstream from Elkhart Hydroelectric Plant, and at mile 76.5.

DRAINAGE AREA.--3,370 mi^2.

PERIOD OF RECORD.--August 1947 to current year. Gage heights at site 0.8 mi downstream at different datum from September 1924 to March 1926 are available from the district office.

REVISED RECORDS.--WSP 2111: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 700.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 16 to Jan. 16, and Jan. 26 to Mar. 8. Records good except those for estimated daily discharges, which are fair. The flow is regulated by Elkhart Hydroelectric Plant.

AVERAGE DISCHARGE.--39 years, 3,220 ft^3/s, 12.98 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,800 ft^3/s Feb. 27, 1985; maximum gage height, 27.91 ft Mar. 21, 1982; minimum daily discharge, 336 ft^3/s Aug. 5, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,640 ft^3/s July 17, gage height, 22.69 ft; minimum daily, 1,450 ft^3/s Oct. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1970	2680	6380	3700	3200	5000	4910	3420	3390	3260	3340	2330
2	1740	2830	6640	3800	3300	4700	4810	3400	3170	3000	3360	2110
3	1770	2680	6600	3800	3400	4500	4550	3380	2970	3140	3030	2100
4	1550	2500	6290	3700	3500	4500	4450	3410	2890	3030	2460	2120
5	1450	2610	6170	3600	3800	4500	4540	3340	2800	2950	2600	2050
6	1460	2560	6050	3500	4200	4700	4410	3180	3710	2810	2490	2040
7	1920	2510	5880	3400	4600	5200	4270	3470	4550	2590	2280	2070
8	1990	2290	5680	3400	4700	4900	4210	4290	5220	2250	2240	1820
9	1700	2230	5510	3300	4500	4980	4190	3810	5640	2990	2560	1990
10	1720	3570	5500	3200	4200	5220	3900	3350	5290	2780	2600	1860
11	1710	4520	5930	3100	3900	5840	3810	3240	5260	2950	2710	2030
12	1480	4350	6540	3100	3800	6440	3760	3170	5470	3420	2870	2190
13	1590	4320	6290	3000	3700	7010	3600	3080	5320	3440	2380	2260
14	1830	4540	5670	3000	3600	7450	3430	2890	4910	3340	2380	2080
15	1960	4500	5020	2900	3600	7670	3710	2700	4930	3550	2380	1710
16	1900	4910	4500	2900	3600	7600	3700	2840	4380	5420	2370	2100
17	1920	5170	4300	3230	3700	7540	3650	3330	4270	7510	2310	2210
18	1670	5190	4100	3720	3800	7320	3680	3270	4200	7520	2200	1920
19	2040	5790	4000	4280	4100	7580	3660	3470	4070	7040	2060	1990
20	3080	7000	3900	4360	4400	7680	3650	3910	4010	6770	2060	1880
21	3710	7070	3900	4320	4700	7250	3780	4270	3990	6350	1730	2080
22	3730	6950	3900	4230	5200	6960	3680	4120	3970	6180	1610	1960
23	3600	6840	4000	4130	5500	6730	3500	4200	3860	5720	1540	2520
24	3500	6780	4200	4070	5800	6490	3440	4170	3670	5310	1830	2260
25	3500	6360	4100	3910	5900	6220	3370	4070	3030	4990	2140	2730
26	3350	6380	3500	3500	5800	6000	3310	3910	3420	5340	2070	2550
27	3250	6680	3400	3100	5700	5890	3270	3630	3100	4920	2260	3140
28	3160	6840	3400	2900	5400	5700	3220	3890	3710	4090	2710	3750
29	3090	6600	3400	2900	---	5510	3160	3910	3430	4060	2460	3290
30	2990	6440	3500	3000	---	5130	3310	3690	3300	4070	2140	4170
31	2780	---	3600	3100	---	5340	---	3380	---	3670	2210	---
TOTAL	73110	143690	151850	108150	121600	187550	114930	110190	121930	134460	73380	69310
MEAN	2358	4790	4898	3489	4343	6050	3831	3555	4064	4337	2367	2310
MAX	3730	7070	6640	4360	5900	7680	4910	4290	5640	7520	3360	4170
MIN	1450	2230	3400	2900	3200	4500	3160	2700	2800	2250	1540	1710
CFSM	.70	1.42	1.45	1.04	1.29	1.80	1.14	1.05	1.21	1.29	.70	.69
IN.	.81	1.59	1.68	1.19	1.34	2.07	1.27	1.22	1.35	1.48	.81	.77

CAL YR 1985	TOTAL	1613570	MEAN	4421	MAX	17900	MIN	1210	CFSM	1.31	IN.	17.81
WTR YR 1986	TOTAL	1410150	MEAN	3863	MAX	7680	MIN	1450	CFSM	1.15	IN.	15.57

04101500 ST. JOSEPH RIVER AT NILES, MI
(National stream-quality accounting network station)

LOCATION.--Lat 41°49'45", long 86°15'35", in SW¼ sec.26, T.7 S., R.17 W., Berrien County, Hydrologic Unit 04050001, on right bank 100 ft upstream from Main Street bridge in Niles, 0.6 mi downstream from dam at French Paper Co., 1 mi upstream from Dowagiac River, and at mile 44.

DRAINAGE AREA.--3,666 mi^2.

PERIOD OF RECORD.--October 1930 to current year. Monthly discharge only for some periods, published in WSP 1307.

REVISED RECORDS.--WSP 1387: 1931, 1933-36, 1940-43, 1945-46(M). WSP 1911: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 633.02 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1968, at datum 2.00 ft higher. Oct. 1, 1930, to Feb. 11, 1931, nonrecording gage on Main Street bridge, and Feb. 12 to June 30, 1931, nonrecording gage 50 ft upstream from present site (gage heights referred to NGVD). Since Apr. 13, 1970, auxiliary water-stage recorder at sewage-treatment plant, 1.1 mi downstream from base gage at same datum. Oct. 1, 1943, to Apr. 12, 1970, auxiliary gage was headwater gage at hydroelectric plant at Buchanan Dam, 8 mi downstream from base gage at different datum.

REMARKS.--Estimated daily discharges: Dec. 17, 20-24, 27-30, Jan. 26 to Feb. 8, and Feb. 11 to Mar. 23. Records good except those for estimated daily discharges, which are fair. Flow regulated by powerplants upstream from station.

AVERAGE DISCHARGE.--56 years, 3,306 ft^3/s, 12.25 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 20,200 ft^3/s Apr. 5, 1950, gage height, 15.10 ft, present datum; minimum daily, 420 ft^3/s Aug. 30, 1931.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9,110 ft^3/s Nov. 21, gage height, 9.49 ft; minimum daily, 1,800 ft^3/s Aug. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2510	3170	6430	4100	3600	5300	5470	3850	3820	3670	3850	2600
2	2230	3230	6870	4330	3650	5100	5290	3950	3620	3550	3510	2560
3	2110	3380	7080	4280	3700	4950	5120	3890	3390	3500	3500	2410
4	2220	2810	6940	4200	3850	4800	4990	3780	3330	3420	2950	2340
5	2010	3010	6430	4140	4300	4750	4950	3730	3470	3450	2830	2490
6	1860	3000	6420	4030	4700	4750	4930	3820	3820	3350	2900	2360
7	2040	3000	6330	3900	5100	4750	4710	3560	4590	3110	2700	2260
8	2320	2840	6170	3640	5200	4800	4690	4500	5760	2870	2830	2330
9	2230	2840	5840	3640	5300	5000	4700	4470	5960	3430	2610	2220
10	2130	3770	5890	3600	5060	5200	4420	3900	5790	3470	2870	2260
11	2300	5240	6450	3770	4500	5800	4270	3680	6020	3320	2940	2140
12	2610	5120	7280	3600	4250	6600	4240	3510	6030	3760	3090	2340
13	2100	4810	7030	3550	4150	7600	4240	3490	5830	4120	3030	2500
14	2100	4860	6500	3550	4100	8000	4080	3410	5650	3720	2640	2670
15	2610	5080	5460	3810	4050	8400	4130	3240	5670	3680	2710	2270
16	2480	5290	5000	3250	4050	8600	4240	3270	4980	5800	2670	1950
17	2500	6020	4700	3670	4100	8600	4190	4040	4820	8070	2670	2520
18	2490	5560	4430	4330	4200	8500	4190	3980	4760	8360	2590	2490
19	2700	6370	4430	5280	4400	8400	4080	4030	4320	7440	2420	2300
20	2910	7760	4300	4920	4700	8100	4110	4360	4470	7340	2340	2280
21	3770	8210	4210	5010	5200	7900	4290	4630	4330	6690	2120	2270
22	3680	7540	4200	4770	5700	7500	4210	4630	4380	6460	2150	2310
23	3870	7360	4400	4630	6200	7200	4040	4670	4260	6090	1890	2840
24	3840	7320	4700	4470	6600	6880	3990	4640	4210	5680	1800	3210
25	3880	6840	4500	4170	6500	6510	3780	4630	3800	5650	2240	2460
26	3750	6770	3760	3850	6200	6430	3940	4460	3360	5720	2830	2840
27	3660	6990	3700	3650	5900	6350	3710	4320	3760	5710	2700	3480
28	3570	7470	3700	3350	5500	6100	3600	4370	4460	4680	2810	4030
29	3600	7250	3700	3350	---	5980	3550	4300	4260	4550	2890	3930
30	3350	6990	3750	3400	---	5640	3800	4200	3590	4200	2730	4110
31	3310	---	3920	3500	---	5690	---	3890	---	4060	2390	---
TOTAL	86740	159900	164520	123740	134760	200180	129950	125200	136510	148920	84200	78770
MEAN	2798	5330	5307	3992	4813	6457	4332	4039	4550	4804	2716	2626
MAX	3880	8210	7280	5280	6600	8600	5470	4670	6030	8360	3850	4110
MIN	1860	2810	3700	3250	3600	4750	3550	3240	3330	2870	1800	1950
CFSM	.76	1.45	1.45	1.09	1.31	1.76	1.18	1.10	1.24	1.31	.74	.72
IN.	.88	1.62	1.67	1.26	1.37	2.03	1.32	1.27	1.39	1.51	.85	.80

CAL YR 1985	TOTAL	1791790	MEAN	4909	MAX	19300	MIN	1650	CFSM	1.34	IN.	18.18
WTR YR 1986	TOTAL	1573390	MEAN	4311	MAX	8600	MIN	1800	CFSM	1.18	IN.	15.97

04177720 FISH CREEK AT HAMILTON, IN

LOCATION.--Lat 41°31'55", long 84°54'12", in SE¼SW¼ sec.34, T.36 N., R.14 E., Steuben County, Hydrologic Unit 04100003, on left bank 6 ft upstream from bridge on County Road 775 South, 0.5 mi downstream from Hamilton Lake outlet, and 0.5 mi southeast of Hamilton.

DRAINAGE AREA.--37.5 mi^2.

PERIOD OF RECORD.--October 1969 to current year.

GAGE.--Water-stage recorder. Datum of gage is 876.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 16-21, 25, 29, Jan. 5, 6, 26-30, and Feb. 14, 15. Records good.

AVERAGE DISCHARGE.--17 years, 33.5 ft^3/s, 12.13 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 654 ft^3/s Feb. 24, 1985, gage height, 11.95 ft; minimum daily, 0.52 ft^3/s Aug. 31, 1971.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 140 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct. 20	0100	143	6.19	Mar. 13	1700	212	7.00
Nov. 20	0500	180	6.83	Mar. 19	1500	245	6.94
Nov. 27	0200	*274	*7.76	June 8	0500	179	5.07
Dec. 12	0300	150	4.25	July 16	2300	243	7.61
Feb. 21	0700	244	6.91				

Minimum daily discharge, 3.6 ft^3/s Aug. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.2	11	119	16	20	41	33	24	22	20	10	18
2	3.8	13	127	15	30	37	32	20	16	20	8.9	15
3	3.7	12	96	17	27	35	29	17	12	17	7.3	13
4	3.8	12	74	16	63	33	34	16	11	14	5.1	14
5	4.3	10	15	17	129	38	36	22	28	12	5.7	14
6	3.8	8.3	14	16	115	77	42	37	124	11	5.7	11
7	3.7	8.8	52	15	89	73	39	58	151	9.8	6.4	8.6
8	3.8	7.6	49	14	69	60	37	50	166	9.0	6.2	7.0
9	3.8	8.4	47	13	57	59	31	39	115	16	6.4	6.0
10	3.8	58	50	12	48	117	26	29	83	13	6.1	6.8
11	4.0	85	110	12	40	191	22	23	81	18	3.9	9.9
12	5.5	79	147	12	32	163	18	19	87	17	3.6	8.8
13	6.9	71	118	12	27	195	18	17	71	17	3.9	6.6
14	7.2	69	84	12	24	197	19	15	57	13	4.0	5.2
15	8.4	62	62	14	22	161	29	13	62	12	4.2	4.7
16	6.8	111	48	11	23	125	29	15	56	187	4.0	4.1
17	5.4	126	40	20	27	94	28	33	44	223	5.6	3.7
18	31	107	35	49	41	81	25	59	32	160	7.3	4.7
19	123	138	29	68	136	220	23	74	35	103	6.8	4.8
20	129	171	26	64	200	204	25	65	81	68	6.3	5.4
21	95	137	25	54	235	149	33	55	71	50	5.7	5.3
22	69	112	24	49	186	107	26	48	54	36	5.3	5.5
23	54	105	23	41	138	83	21	41	41	27	5.1	12
24	45	83	22	34	98	67	19	33	30	22	4.7	15
25	34	67	21	31	74	59	19	27	21	19	4.5	32
26	27	184	21	26	64	56	17	24	17	19	33	31
27	23	256	20	23	57	52	15	27	16	16	103	41
28	18	207	19	20	48	46	14	40	20	14	71	34
29	15	161	17	18	---	41	13	36	17	14	45	26
30	13	138	19	17	---	38	14	32	18	12	30	29
31	12	---	17	17	---	33	---	26	---	11	23	---
TOTAL	770.9	2618.1	1570	755	2119	2932	766	1034	1639	1199.8	447.7	402.1
MEAN	24.9	87.3	50.6	24.4	75.7	94.6	25.5	33.4	54.6	38.7	14.4	13.4
MAX	129	256	147	68	235	220	42	74	166	223	103	41
MIN	3.7	7.6	14	11	20	33	13	13	11	9.0	3.6	3.7
CFSM	.66	2.33	1.35	.65	2.02	2.52	.68	.89	1.46	1.03	.38	.36
IN.	.76	2.60	1.56	.75	2.10	2.91	.76	1.03	1.63	1.19	.44	.40

CAL YR 1985 TOTAL 16986.1 MEAN 46.5 MAX 609 MIN 2.2 CFSM 1.24 IN. 16.85
WTR YR 1986 TOTAL 16253.6 MEAN 44.5 MAX 256 MIN 3.6 CFSM 1.19 IN. 16.12

04178000 ST. JOSEPH RIVER NEAR NEWVILLE, IN

LOCATION.--Lat 41°23'08", long 84°48'06", in SW¼SW¼ sec.18, T.5 N., R.1 E., Defiance County, Ohio, Hydrologic Unit 04100003, on left bank at bridge on Ohio State Highway 249, 3.5 mi northeast of Newville, 6.5 mi northwest of Hicksville, Ohio, and at mile 42.3.

DRAINAGE AREA.--610 mi^2.

PERIOD OF RECORD.--October 1946 to current year. Monthly discharge only for some periods, published in WSP 1307.

REVISED RECORDS.--WSP 2112: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 795.40 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 22, 1947, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Dec. 14-31, Jan. 1-31, Feb. 1-3, 9-18, 25-28, and Mar. 1-13. Records good, except those for estimated daily discharges, which are fair.

AVERAGE DISCHARGE.--40 years, 534 ft^3/s, 11.89 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,710 ft^3/s Apr. 6, 1950, gage height, 17.05 ft; maximum gage height, 17.96 ft Mar. 17, 1982; minimum daily discharge, 14 ft^3/s Sept. 10, 16, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,960 ft^3/s Mar. 14, gage height, 13.57 ft; minimum daily, 45 ft^3/s Aug. 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	88	173	2400	270	330	1100	557	275	327	213	130	109
2	92	161	2310	270	360	730	522	416	269	261	131	94
3	81	146	2050	260	450	580	494	490	228	272	119	83
4	72	143	1780	260	768	500	602	404	193	270	101	78
5	73	143	1520	250	1580	570	630	337	231	219	92	79
6	68	141	1260	240	1750	900	733	304	584	184	86	89
7	68	145	982	230	1760	1300	681	498	1320	156	86	96
8	68	150	818	230	1590	1200	642	476	1770	133	84	83
9	69	140	761	230	1300	1000	591	363	1930	135	87	73
10	63	300	809	230	1000	1500	514	296	1640	152	89	66
11	57	923	1530	230	800	2600	445	248	1110	185	86	108
12	61	1220	2020	230	680	3400	415	213	983	191	80	218
13	75	1330	2040	230	560	3700	392	204	1060	207	76	142
14	93	1390	2000	210	500	3880	322	201	1110	173	74	108
15	115	1450	1800	200	450	3580	303	192	1470	156	70	105
16	146	1780	1500	180	420	3080	403	187	1350	996	69	94
17	173	2010	1200	210	400	2580	497	351	878	1810	74	82
18	246	2020	800	260	390	2210	493	406	589	2090	72	77
19	921	2230	660	500	1340	2570	454	706	436	2110	64	71
20	1340	2600	600	800	2010	2750	412	766	677	1440	62	69
21	1280	2610	530	950	2420	2660	421	685	711	671	57	68
22	976	2460	470	920	2570	2470	446	558	594	438	54	68
23	656	2270	420	880	2740	2200	462	459	429	326	51	67
24	483	2090	380	800	2770	1860	414	388	362	259	47	74
25	391	1830	350	680	2600	1410	351	334	327	247	45	132
26	336	1760	330	580	2300	1090	316	291	268	301	64	212
27	304	2110	310	470	1900	908	334	267	228	219	465	349
28	281	2370	300	380	1400	805	315	257	204	201	505	416
29	248	2460	290	270	---	726	256	416	199	184	299	357
30	210	2480	280	350	---	661	220	526	208	159	189	319
31	187	---	270	320	---	601	---	414	---	139	135	---
TOTAL	9321	41035	32770	12120	37138	55121	13637	11928	21685	14497	3643	3986
MEAN	301	1368	1057	391	1326	1778	455	385	723	468	118	133
MAX	1340	2610	2400	950	2770	3880	733	766	1930	2110	505	416
MIN	57	140	270	180	330	500	220	187	193	133	45	66
CFSM	.49	2.24	1.73	.64	2.17	2.91	.75	.63	1.19	.77	.19	.22
IN.	.57	2.50	2.00	.74	2.26	3.36	.83	.73	1.32	.88	.22	.24

CAL YR 1985	TOTAL	287382	MEAN	787	MAX	9110	MIN	57	CFSM	1.29	IN.	17.53
WTR YR 1986	TOTAL	256881	MEAN	704	MAX	3880	MIN	45	CFSM	1.15	IN.	15.67

04180000 CEDAR CREEK NEAR CEDARVILLE, IN

LOCATION.--Lat 41°13'08", long 85°04'35", in NW¼NW¼ sec.19, T.32 N., R.13 E., Allen County, Hydrologic Unit 04100003, on left bank at downstream side of bridge on State Highway 427, 3 mi northwest of Cedarville, 5.8 mi upstream from mouth, and 10 mi south of Auburn.

DRAINAGE AREA.--270 mi^2.

PERIOD OF RECORD.--October 1946 to current year.

REVISED RECORDS.--WSP 1912: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 780.09 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 4, 1947, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Dec. 18-22, 26-31, Jan. 7-10, 26-29, and Feb. 11-15. Records good except those for estimated daily discharges, which are fair.

AVERAGE DISCHARGE.--40 years, 248 ft^3/s, 12.47 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,340 ft^3/s Mar. 14, 1982, gage height, 12.98 ft; minimum daily, 13 ft^3/s Oct. 3, 1949.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft^3/s and maximum (*).

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 20	1500	2,200	6.79	Mar. 13	2400	2,180	6.74
Dec. 12	0500	2,410	7.26	Mar. 19	2400	2,760	8.10
Feb. 20	1200	2,230	6.86	July 17	0900	*3,690	*10.03
Mar. 11	1300	2,260	6.91				

Minimum daily discharge, 36 ft^3/s Aug. 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	58	132	854	132	128	247	219	181	125	167	142	61
2	55	133	1070	126	324	234	217	197	107	336	124	55
3	53	127	645	128	242	220	201	164	94	240	111	53
4	52	122	473	123	507	212	266	148	89	167	98	65
5	63	117	397	121	1620	269	333	143	296	137	91	61
6	52	110	346	109	1130	880	336	141	936	121	84	53
7	50	105	311	110	601	794	292	360	796	106	87	47
8	50	99	290	110	430	446	249	372	1020	98	82	42
9	48	94	280	105	334	401	217	270	674	115	79	39
10	47	221	407	105	261	1270	195	212	403	109	73	38
11	50	666	1500	103	240	2070	181	177	443	677	71	89
12	60	493	2250	102	215	1510	168	156	461	462	66	167
13	83	442	1350	98	200	1910	159	144	316	362	61	93
14	106	403	770	96	185	1800	153	134	243	216	59	63
15	131	391	522	86	170	1100	182	126	1170	159	55	53
16	148	866	383	87	155	747	184	130	1210	1880	55	49
17	129	1250	308	139	152	567	182	220	577	3550	53	45
18	193	804	280	430	201	488	172	393	363	2420	49	50
19	1340	1430	260	498	1170	1980	161	528	269	1100	47	51
20	1580	2050	240	413	2080	2210	158	498	384	686	46	52
21	986	1400	230	284	1990	1130	193	359	409	477	44	45
22	627	854	210	245	1330	719	187	288	258	363	42	42
23	446	835	193	213	821	543	165	242	201	290	41	48
24	345	605	173	184	583	444	152	201	164	240	38	52
25	285	471	170	175	448	384	146	170	143	239	36	129
26	236	823	170	160	393	348	144	152	131	301	54	143
27	200	1600	160	145	340	321	140	147	138	210	365	289
28	173	1090	150	135	279	291	140	142	304	225	225	219
29	156	950	145	130	---	267	140	135	203	199	139	144
30	145	988	140	125	---	247	144	165	158	158	103	192
31	137	---	135	119	---	227	---	151	---	140	75	---
TOTAL	8084	19671	14812	5136	16529	24276	5776	6846	12085	15950	2695	2529
MEAN	261	656	478	166	590	783	193	221	403	515	86.9	84.3
MAX	1580	2050	2250	498	2080	2210	336	528	1210	3550	365	289
MIN	47	94	135	86	128	212	140	126	89	98	36	38
CFSM	.97	2.43	1.77	.61	2.19	2.90	.71	.82	1.49	1.91	.32	.31
IN.	1.11	2.71	2.04	.71	2.28	3.34	.80	.94	1.67	2.20	.37	.35

CAL YR 1985 TOTAL 145141 MEAN 398 MAX 4910 MIN 23 CFSM 1.47 IN. 20.00
WTR YR 1986 TOTAL 134389 MEAN 368 MAX 3550 MIN 36 CFSM 1.36 IN. 18.52

04180500 ST. JOSEPH RIVER NEAR FORT WAYNE, IN

LOCATION.--Lat 41°10'41", long 85°03'19", in NW¼NE¼ sec.3, T.31 N., R.13 E., Allen County, Hydrologic Unit 04100003, on left bank 0.8 mi downstream from Ely Run, 1.3 mi upstream from Ely Bridge and Mayhew Road, 8.0 mi northeast of the Fort Wayne Court House.

DRAINAGE AREA.--1,060 mi^2.

PERIOD OF RECORD.--October 1983 to current year. July 1941 to September 1955 gage located 1.3 mi downstream at Ely Bridge.

GAGE.--Water-stage recorder. Datum of gage is 750.00 ft above National Geodetic Vertical Datum of 1929 (levels by State of Indiana).

REMARKS.--Estimated daily discharges: Dec. 19-25, 28-31, Jan. 1-4, 28-31, Feb. 1, Feb. 13-17, and Apr. 20-23. Records good except those for estimated daily discharges, which are poor. Flow regulated by Cedarville Reservoir and some flow diverted into storage of Hurshtown Reservoir.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,200 ft^3/s Feb. 26, 1985, gage height, 17.79 ft; minimum daily, 73 ft^3/s Oct. 11, 1983

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,410 ft^3/s July 17, gage height, 12.46 ft; minimum daily, 137 ft^3/s Oct. 7, 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	212	345	3990	690	610	1250	823	421	627	503	417	281
2	237	359	4270	670	991	1130	640	511	470	735	335	262
3	189	330	3360	650	1020	855	611	675	370	811	347	225
4	240	282	2740	620	1540	985	717	647	425	535	264	240
5	231	263	2260	610	3970	944	801	545	585	518	267	242
6	189	288	1910	595	3470	2390	1030	427	1600	411	284	204
7	137	281	1630	566	2500	2520	909	727	1910	378	279	189
8	137	270	1280	540	2270	1890	948	980	2560	361	253	194
9	143	266	1180	538	1850	1790	473	797	2720	361	235	204
10	150	356	1760	391	1560	3400	612	568	2510	320	236	190
11	165	1250	4580	466	1270	5480	515	428	2220	1460	256	271
12	162	1800	5290	447	1160	5330	676	416	1870	1270	230	819
13	177	1990	4260	370	1150	6390	581	358	1580	1090	220	536
14	196	1870	3240	344	1050	6540	509	332	1510	520	188	269
15	275	2080	2540	372	980	5770	447	426	2910	572	194	241
16	368	3170	2030	294	920	5250	451	391	3770	5030	199	235
17	362	4130	1740	372	880	4380	515	608	2050	6770	204	214
18	535	3530	1550	1000	823	3910	484	1550	1340	5490	207	210
19	3180	4880	1450	1490	2840	5980	519	1770	1010	3750	194	214
20	3460	5750	1300	1710	4840	6530	500	1570	1360	3110	173	211
21	2800	5010	1200	1600	5290	4800	560	1330	1620	1930	151	193
22	2150	4080	1050	1550	4410	4210	660	988	1180	1050	162	163
23	1480	3810	950	1520	3840	3660	720	895	896	1010	169	183
24	1240	3250	900	1310	3710	3030	666	736	730	675	156	210
25	901	2820	860	1310	3390	2420	555	641	658	1020	151	345
26	713	3400	804	967	3100	1820	522	567	511	1210	177	510
27	688	4240	795	883	2240	1500	412	475	480	702	847	1290
28	527	3810	780	840	1390	1320	449	444	824	782	936	923
29	477	4090	750	800	---	1180	488	498	559	502	770	661
30	488	4120	740	720	---	1090	409	728	484	465	412	594
31	395	---	720	660	---	1000	---	801	---	473	278	---
TOTAL	22604	72120	61909	24895	63064	98744	18202	22250	41339	43814	9191	10523
MEAN	729	2404	1997	803	2252	3185	607	718	1378	1413	296	351
MAX	3460	5750	5290	1710	5290	6540	1030	1770	3770	6770	936	1290
MIN	137	263	720	294	610	855	409	332	370	320	151	163
CFSM	.69	2.27	1.88	.76	2.12	3.00	.57	.68	1.30	1.33	.28	.33
IN.	.79	2.53	2.17	.87	2.21	3.47	.64	.78	1.45	1.54	.32	.37

CAL YR 1985	TOTAL	536678	MEAN	1470	MAX	13100	MIN	134	CFSM	1.39	IN.	18.83
WTR YR 1986	TOTAL	488655	MEAN	1339	MAX	6770	MIN	137	CFSM	1.26	IN.	17.15

04181500 ST. MARYS RIVER AT DECATUR, IN

LOCATION.--Lat 40°50'55", long 84°56'16", in SW¼SW¼ sec.27, T.28 N., R.14 E., Adams County, Hydrologic Unit 04100004, on right bank 10 ft downstream from bridge on U.S. Highway 27, 0.5 mi upstream from Holthouse ditch, 1.3 mi north of Decatur, and at mile 29.1.

DRAINAGE AREA.--621 mi^2.

PERIOD OF RECORD.--October 1946 to current year. Monthly discharge only for some periods, published in WSP 1307. Gage-height records collected at site 0.5 mi upstream January 1932 to November 1954, and at present site thereafter are contained in reports of National Weather Service.

REVISED RECORDS.--WSP 1174: 1948. WSP 1337: 1947. WSP 1627: 1950. WSP 1912: 1955, drainage area.

GAGE.--Water-stage recorder. Datum of gage is 760.44 ft above National Geodetic Vertical Datum of 1929. Prior to July 27, 1948, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Feb. 9 to Feb. 16. Records good except for periods Dec. 15-28, Jan. 5-8, 27-31, and Feb. 9-16, which are poor. Flow regulated by Grand Lake. Slight diversion from or into Wabash River basin and into Miami and Erie Canal.

AVERAGE DISCHARGE.--40 years, 497 ft^3/s, 10.87 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,300 ft^3/s Feb. 10, 11, 1959; maximum gage height, 24.40 ft Mar. 14, 1982; minimum daily discharge, 5.4 ft^3/s Oct. 18, 1960.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,900 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 28	1800	2,950	15.73	Mar. 13	1900	3,180	16.44
Dec. 12	1000	3,230	16.56	Mar. 19	2100	*3,770	*17.73
Feb. 6	0400	3,380	16.91	July 16	2100	3,220	16.55
Feb. 21	2000	3,190	16.46				

Minimum daily discharge, 15 ft^3/s Oct. 29, 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	17	2190	98	181	473	176	1790	207	555	255	88
2	24	19	1960	92	263	378	170	1860	179	979	231	69
3	22	19	1360	88	345	315	152	1050	161	1250	154	54
4	23	20	877	84	1410	306	142	916	138	1030	111	53
5	22	18	592	81	3130	826	147	761	139	1030	90	47
6	21	18	399	79	3350	2430	162	523	433	945	77	44
7	21	27	270	76	3230	2190	144	348	769	666	70	43
8	20	32	209	72	3130	1430	135	251	1410	366	61	42
9	19	35	182	71	2510	1280	134	254	773	221	56	44
10	19	51	233	66	1600	1620	143	264	480	179	116	42
11	17	70	1930	65	1000	2020	141	222	396	286	151	44
12	25	81	3180	69	800	1850	129	181	532	1040	118	58
13	22	148	2740	78	640	3000	116	152	401	1050	111	72
14	46	200	2230	82	510	2920	106	145	604	872	153	58
15	262	247	1900	82	420	2190	108	131	1690	921	140	58
16	158	1050	1400	77	380	1730	111	125	908	2620	274	65
17	101	1350	1100	91	303	1420	107	116	462	2990	130	57
18	72	996	800	163	520	1130	102	142	312	2110	87	84
19	57	1640	650	524	2430	3290	100	226	224	1620	65	72
20	44	2430	520	840	2780	3450	121	269	607	1530	57	56
21	33	1480	400	674	3100	2420	934	220	1120	1290	50	47
22	28	836	310	757	3010	1790	1140	186	638	884	45	43
23	26	695	270	831	2390	1650	1050	159	543	484	42	77
24	26	572	230	772	1780	1230	1530	134	481	243	42	104
25	23	413	178	695	1320	786	1480	118	325	348	39	2270
26	20	1240	140	570	986	538	1030	116	200	1200	54	1260
27	18	2750	130	450	772	386	637	237	162	708	174	801
28	17	2870	105	380	585	289	402	387	339	657	155	546
29	15	2790	112	290	---	245	275	287	250	631	101	501
30	15	2450	103	240	---	219	265	318	343	426	108	449
31	17	---	101	205	---	193	---	266	---	280	110	---
TOTAL	1256	24564	26801	8742	42875	43994	11389	12154	15226	29411	3427	7248
MEAN	40.5	819	865	282	1531	1419	380	392	508	949	111	242
MAX	262	2870	3180	840	3350	3450	1530	1860	1690	2990	274	2270
MIN	15	17	101	65	181	193	100	116	138	179	39	42
CFSM	.07	1.32	1.39	.45	2.47	2.29	.61	.63	.82	1.53	.18	.39
IN.	.08	1.47	1.61	.52	2.57	2.64	.68	.73	.91	1.76	.21	.43

CAL YR 1985	TOTAL	195527	MEAN	536	MAX	10100	MIN	15	CFSM	.86	IN.	11.71
WTR YR 1986	TOTAL	227087	MEAN	622	MAX	3450	MIN	15	CFSM	1.00	IN.	13.60

04182000 ST. MARYS RIVER NEAR FORT WAYNE, IN

LOCATION.--Lat 40°59'16", long 85°06'03", in A. LaFontaine Reserve, T.29 N., R.12 E., Allen County, Hydrologic Unit 04100004, on left bank 130 ft downstream from Anthony Boulevard Extension, 0.8 mi downstream from Houk ditch, 5 mi south of Fort Wayne, and 10.8 mi upstream from mouth.

DRAINAGE AREA.--762 mi^2.

PERIOD OF RECORD.--October 1930 to current year. Monthly discharge only for some periods, published in WSP 1307. Fragmentary gage-height records for period November 1924 to October 1927 are available from the District Office.

REVISED RECORDS.--WSP 974: 1942. WSP 1337: 1933, 1947. WSP 1912: 1954, 1955, 1960, drainage area. WDR IN-82-1: 1973, 1974, 1978, 1979.

GAGE.--Water-stage recorder. Datum of gage is 748.97 ft above National Geodetic Vertical Datum of 1929 (levels by State of Indiana, Department of Natural Resources). Prior to Apr. 13, 1939, nonrecording gage on upstream highway bridge at same datum.

REMARKS.--Estimated daily discharges: Dec. 16 to Jan. 18, Jan. 28 to Feb. 2, and Feb. 12-19. Records good except for estimated daily discharges, which are poor. The flow is sometimes regulated by Grand Lake. Slight diversion from or into Wabash River basin and into Miami and Erie Canal. During extreme floods, some water bypasses gage and flows through Houk ditch and Paul Trier ditch into the Maumee River.

AVERAGE DISCHARGE.--56 years, 583 ft^3/s, 10.39 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,600 ft^3/s Feb. 11, 1959; maximum gage height, 19.66 ft, Mar. 14, 1982; minimum daily discharge, 3.4 ft^3/s Oct. 19, 1934.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater then base discharge of 4,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 28	2400	4,010	10.26	Mar. 13	2400	4,340	10.73
Dec. 12	1600	4,390	10.80	Mar. 20	0400	4,800	11.36
Feb. 6	0600	4,460	10.89	July 16	1700	*5,690	*12.50
Feb. 21	0800	4,350	10.75				

Minimum daily discharge, 20 ft^3/s Oct. 30, 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	24	2850	120	260	579	207	1720	284	832	426	104
2	30	25	2610	120	300	489	198	2400	216	996	344	85
3	30	26	1960	115	493	396	180	1390	186	1420	241	68
4	28	26	1280	110	1630	365	162	1040	170	1190	151	80
5	28	27	859	105	4120	757	158	909	552	1110	112	61
6	27	27	583	100	4410	2720	190	668	721	1070	93	53
7	24	25	415	95	4160	2910	182	465	1120	853	89	48
8	22	28	302	91	3930	1770	160	340	2250	553	77	45
9	22	41	250	88	3580	1380	148	278	1280	353	67	44
10	21	56	328	85	2520	1770	147	306	770	236	120	46
11	22	77	2520	82	1630	2530	153	283	790	355	231	48
12	26	95	4310	87	1200	2530	146	225	651	1380	169	55
13	33	123	4000	96	900	4060	131	181	584	2410	119	63
14	34	207	2910	100	750	4150	118	171	528	1120	133	71
15	147	253	2610	100	610	3040	116	156	1780	1010	158	63
16	280	985	2000	100	520	2020	120	140	1360	4660	265	61
17	154	1890	1600	120	450	1620	122	130	657	4560	258	64
18	97	1510	1300	200	420	1350	114	160	421	3240	123	68
19	84	2450	780	653	1100	4010	108	371	308	2190	84	85
20	66	3600	630	1230	3980	4710	112	374	355	1990	65	80
21	51	2540	500	1170	4300	3670	620	328	1210	1770	58	66
22	39	1320	420	1160	4100	2120	1380	262	861	1370	52	57
23	34	975	370	1330	3260	1800	1080	214	600	818	48	58
24	33	804	270	1270	2180	1490	1430	174	543	429	45	91
25	32	616	230	1130	1590	1020	1590	146	438	715	43	2570
26	30	1330	200	982	1240	688	1270	129	296	3100	47	2370
27	27	3450	170	723	953	498	822	267	211	1360	110	1630
28	23	3760	150	600	710	383	518	450	471	1040	195	942
29	21	3840	135	500	---	321	367	405	404	1020	142	693
30	20	3280	130	400	---	279	348	377	336	688	101	608
31	20	---	125	320	---	239	---	363	---	432	105	---
TOTAL	1532	33410	36797	13382	55296	55664	12397	14822	20353	44270	4271	10377
MEAN	49.4	1114	1187	432	1975	1796	413	478	678	1428	138	346
MAX	280	3840	4310	1330	4410	4710	1590	2400	2250	4660	426	2570
MIN	20	24	125	82	260	239	108	129	170	236	43	44
CFSM	.06	1.46	1.56	.57	2.59	2.36	.54	.63	.89	1.87	.18	.45
IN.	.07	1.63	1.80	.65	2.70	2.72	.61	.72	.99	2.16	.21	.51

CAL YR 1985 TOTAL 262076 MEAN 718 MAX 12300 MIN 20 CFSM .94 IN. 12.79
WTR YR 1986 TOTAL 302571 MEAN 829 MAX 4710 MIN 20 CFSM 1.09 IN. 14.77

04182590 HARBER DITCH AT FORT WAYNE, IN

LOCATION.--Lat 41°00'27", long 85°10'58", in NE¼SW¼ sec.33, T.30 N., R.12 E., Allen County, Hydrologic Unit 04100004, on left bank 50 ft upstream from bridge on Baer Road in Fort Wayne, 3.2 mi upstream from mouth. The stream name changes to Fairfield ditch 0.7 mi downstream at bridge on Lower Huntington Road.

DRAINAGE AREA.--21.9 mi^2.

PERIOD OF RECORD.--May 1964 to current year. Discharge measurements available October 1960 to May 1964 and gage heights January 1961 to May 1964 at site 0.7 mi downstream.

REVISED RECORDS.--WDR IN-82-1: 1980 (P), 1981 (P).

GAGE.--Water-stage recorder. Datum of gage is 757.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Nov. 20 to Jan. 15, Jan. 29-31, Feb. 14, 15, 26, 27, Apr. 18, 19, and July 13 to Aug. 14. Records good above 5 cfs, poor below.

AVERAGE DISCHARGE.--22 years, 18.6 ft^3/s, 11.54 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 101 ft^3/s July 16, 1986; maximum gage height, 12.25 ft Mar. 14, 1982; minimum daily discharge, 0.06 ft^3/s Oct. 27, 1974.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 250 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 19	1915	483	8.93	June 11	0100	254	6.47
Feb. 19	1945	253	6.46	July 1	1715	398	8.13
Mar. 12	1515	344	7.55	July 12	1800	457	8.70
Mar. 19	0445	467	8.79	July 16	----	a*1,010	----
June 5	1900	383	7.98	Sept. 25	0015	289	6.77
June 7	2215	338	7.47				

Minimum daily discharge, 0.14 ft^3/s Sept. 17.

a Estimated

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.43	1.4	50	3.0	7.3	3.6	7.7	133	2.0	135	13	.42
2	.25	1.7	58	2.8	10	4.8	6.6	42	.92	151	6.3	.37
3	.18	.79	26	2.7	8.4	7.8	6.1	20	1.7	32	4.4	.41
4	1.1	.53	17	2.5	130	16	4.5	14	13	15	3.4	11
5	1.1	.53	13	2.3	170	76	8.6	11	215	9.0	3.8	2.0
6	.22	.62	10	1.9	79	140	5.7	11	141	6.4	9.2	.97
7	.15	.62	8.8	1.7	29	51	4.6	10	132	5.3	6.2	.54
8	.20	.58	8.0	1.6	14	25	4.3	6.8	172	5.8	28	.36
9	.19	.82	7.5	1.7	9.1	23	3.4	4.5	56	11	12	.33
10	.54	6.5	35	1.9	5.9	65	2.9	3.5	55	6.0	13	.29
11	1.1	1.5	230	2.2	4.3	73	2.7	2.6	101	49	8.4	7.6
12	3.6	2.1	205	2.1	2.8	198	2.8	1.7	34	205	4.9	2.2
13	.44	3.1	125	1.8	1.7	234	2.5	1.2	18	62	2.4	.40
14	1.6	2.2	68	1.6	1.5	93	5.9	3.6	30	20	1.6	.35
15	5.6	5.1	35	1.5	1.4	48	7.2	1.2	63	8.5	2.1	.21
16	.87	86	20	2.7	1.3	29	4.8	.83	25	660	1.7	.16
17	.53	43	15	13	2.7	21	3.8	.67	12	160	1.4	.14
18	14	102	13	30	42	41	3.0	18	7.1	41	1.2	4.5
19	2.2	296	10	36	180	297	2.4	37	5.9	25	.97	2.1
20	.94	240	9.2	24	147	78	11	19	62	15	.83	5.4
21	.79	150	8.7	13	149	36	20	10	30	11	.70	.96
22	.40	90	8.1	16	51	23	9.7	7.7	11	8.7	.47	.47
23	.29	45	7.2	12	23	19	8.8	3.8	6.9	7.1	.40	9.0
24	.79	26	5.8	8.5	18	14	5.7	2.0	4.8	5.8	.37	17
25	.55	15	4.8	8.4	12	11	4.6	1.2	3.2	225	.37	158
26	.31	46	4.6	8.1	7.8	11	4.5	4.3	2.4	68	12	59
27	.33	150	4.6	7.1	5.5	8.4	2.9	30	20	28	7.3	52
28	.33	115	4.5	5.8	4.4	7.0	3.2	16	54	98	2.8	22
29	.33	105	4.2	4.5	---	6.9	2.6	7.4	13	29	1.4	12
30	.33	75	3.9	3.7	---	6.1	39	9.4	32	14	.70	19
31	.83	---	3.5	2.9	---	4.7	---	4.8	---	8.3	.48	---
TOTAL	40.52	1612.09	1023.4	227.0	1118.1	1671.3	201.5	438.20	1323.92	2124.9	151.79	389.18
MEAN	1.31	53.7	33.0	7.32	39.9	53.9	6.72	14.1	44.1	68.5	4.90	13.0
MAX	14	296	230	36	180	297	39	133	215	660	28	158
MIN	.15	.53	3.5	1.5	1.3	3.6	2.4	.67	.92	5.3	.37	.14
CFSM	.06	2.45	1.51	.33	1.82	2.46	.31	.64	2.01	3.13	.22	.59
IN.	.07	2.74	1.74	.39	1.90	2.84	.34	.74	2.25	3.61	.26	.66

CAL YR 1985 TOTAL 8432.89 MEAN 23.1 MAX 710 MIN .15 CFSM 1.05 IN. 14.32
WTR YR 1986 TOTAL 10321.90 MEAN 28.3 MAX 660 MIN .14 CFSM 1.29 IN. 17.53

04182810 SPY RUN CREEK AT FORT WAYNE, IN

LOCATION.--Lat 41°06'18", long 85°09'12", in SW¼SW¼ sec.26, T.31 N., R.12 E., Allen County, Hydrologic Unit 04100004, on right bank 50 ft upstream from Sherman Boulevard bridge in Fort Wayne, and at mile 2.2 above mouth.

DRAINAGE AREA.--14.0 mi^2.

PERIOD OF RECORD.--October 1983 to current year.

GAGE.--Water-stage recorder. Datum of gage is 760.00 ft above National Geodetic Vertical Datum of 1929 (levels by City of Fort Wayne).

REMARKS.--Estimated daily discharges: Dec. 15-27, Jan. 26-31, and Feb. 14-16. Records good except those for estimated daily discharges, which are fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,270 ft^3/s July 16, 1986, gage height, 10.32 ft; minimum daily, 2.2 ft^3/s July 14, 1984.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of March 14, 1982 reached a stage of 10.75 ft, present site and datum.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct. 18	1815	804	8.66	July 16	0945	*1,270	*10.32
Dec. 11	0630	774	8.54	July 25	2230	922	9.13
Mar. 19	0345	847	8.83				

Minimum daily discharge, 2.3 ft^3/s Aug. 31, Sept. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.8	6.3	57	2.8	13	7.9	9.4	75	2.9	33	8.2	2.3
2	4.9	11	35	3.2	13	7.0	8.3	15	2.8	31	5.2	2.5
3	4.7	5.2	12	5.1	7.7	8.9	5.4	11	2.8	9.4	4.3	2.7
4	5.3	4.3	9.8	4.2	121	23	6.6	9.2	3.1	6.8	4.0	31
5	6.4	4.5	9.0	3.7	97	59	12	8.0	99	4.5	4.0	5.3
6	3.6	4.7	8.5	3.4	38	82	7.8	8.9	37	3.8	6.8	3.6
7	3.2	5.0	8.2	3.3	17	24	6.0	16	21	3.5	9.2	3.1
8	3.1	4.7	7.5	3.2	14	13	5.5	6.4	22	3.5	21	3.0
9	3.4	6.4	7.4	3.2	11	23	4.4	4.4	7.6	18	8.9	3.2
10	5.0	36	152	3.3	9.2	117	4.4	3.7	11	6.1	10	3.2
11	6.7	16	343	3.6	7.7	61	4.3	3.1	72	53	6.7	29
12	19	11	64	4.0	6.4	146	4.0	3.1	14	118	4.3	13
13	7.2	17	27	3.8	5.4	169	3.6	3.1	8.0	44	3.8	4.5
14	7.0	10	15	3.6	4.5	45	7.6	3.8	7.5	11	3.7	3.3
15	16	12	9.7	3.5	4.3	24	11	3.6	121	6.9	3.6	3.1
16	7.2	151	8.0	3.6	4.2	16	7.4	6.7	68	595	3.5	3.1
17	6.7	29	7.0	21	9.9	13	8.4	6.1	13	46	3.2	3.1
18	215	87	5.7	33	91	43	5.2	28	6.8	20	3.4	5.3
19	72	154	5.0	40	125	288	4.4	25	5.3	12	3.5	5.0
20	20	95	4.6	19	76	34	13	8.9	7.1	9.1	3.6	7.0
21	11	27	4.4	12	106	18	24	5.7	4.4	7.7	3.7	3.6
22	8.8	27	5.5	15	33	16	8.4	5.5	3.7	6.9	3.8	3.2
23	7.2	19	5.2	9.2	21	14	6.2	4.3	3.6	6.6	3.5	16
24	7.9	12	4.6	7.4	19	10	5.4	3.1	3.4	5.6	3.0	11
25	5.8	16	4.2	8.2	16	8.7	5.0	2.7	3.4	204	3.1	43
26	4.9	121	3.9	5.4	15	8.7	4.7	3.1	3.3	93	17	51
27	4.4	41	3.7	4.3	13	7.7	4.0	16	88	20	15	37
28	4.1	48	3.4	3.7	10	5.6	4.5	4.7	43	80	4.1	8.1
29	4.0	53	3.3	3.5	---	4.7	4.6	3.8	8.2	20	3.5	5.1
30	4.0	41	3.2	3.3	---	4.3	51	3.4	22	10	2.9	13
31	5.7	---	3.0	3.5	---	4.4	---	3.1	---	7.7	2.3	---
TOTAL	489.0	1075.1	839.8	246.0	908.3	1305.9	256.5	304.4	714.9	1496.1	182.8	327.3
MEAN	15.8	35.8	27.1	7.94	32.4	42.1	8.55	9.82	23.8	48.3	5.90	10.9
MAX	215	154	343	40	125	288	51	75	121	595	21	51
MIN	3.1	4.3	3.0	2.8	4.2	4.3	3.6	2.7	2.8	3.5	2.3	2.3
CFSM	1.13	2.56	1.94	.57	2.31	3.01	.61	.70	1.70	3.45	.42	.78
IN.	1.30	2.86	2.23	.65	2.41	3.47	.68	.81	1.90	3.98	.49	.87

CAL YR 1985	TOTAL	7395.0	MEAN	20.3	MAX	713	MIN	2.4	CFSM	1.45	IN.	19.65
WTR YR 1986	TOTAL	8146.1	MEAN	22.3	MAX	595	MIN	2.3	CFSM	1.59	IN.	21.65

04183000 MAUMEE RIVER AT NEW HAVEN, IN

LOCATION.--Lat 41°05'06", long 85°01'20", in SE¼NE¼ sec.2, T.30 N., R.13 E., Allen County, Hydrologic Unit 04100005, on left bank 600 ft upstream from bridge on Landin Road, 1,400 ft upstream from the Norfolk and Western Railroad bridge, 1.1 mi northwest of New Haven, 2.8 mi upstream from Sixmile Creek and at mile 129.0.

DRAINAGE AREA.--1,967 mi^2.

PERIOD OF RECORD.--December 1946 to September 1956 (high-water records only), October 1956 to current year.

REVISED RECORDS.--WSP 2112: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 724.51 ft above National Geodetic Vertical Datum of 1929. Prior to Sept. 7, 1956, nonrecording gage and Sept. 7, 1956, to Sept. 14, 1965, water-stage recorder at site 500 ft downstream at same datum.

REMARKS.--Estimated daily discharges: Dec. 16-26, 28-31, Jan. 1-3, 8-10, 29-31, and Feb. 13-17. Records good except those for estimated daily discharges, which are fair. Flow regulated by hydro-powerplant on the St. Joseph River 10.3 mi upstream from station. Flow slightly regulated by upstream reservoirs.

AVERAGE DISCHARGE.--30 years (1956 to current year), 1,703 ft^3/s, 11.76 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,600 ft^3/s Mar. 17, 1982, gage height, 25.49 ft; minimum daily, 48 ft^3/s Oct. 6, 13, 1963.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 9,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 20	0900	10,700	15.79	Mar. 13	2200	11,600	16.64
Dec. 12	0800	10,500	15.59	Mar. 20	1700	11,600	16.62
Feb. 21	1900	10,700	15.81	July 17	0100	*13,500	*18.22

Minimum daily discharge, 113 ft^3/s Oct. 8; regulation.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	209	444	7700	800	944	1880	1360	2900	1050	1920	1050	481
2	233	478	7580	750	1180	1830	1320	3440	810	2640	943	440
3	196	437	6520	700	1500	1560	1210	2520	585	2320	804	369
4	829	379	4930	666	2600	1590	1220	1900	704	1840	602	629
5	336	314	3700	623	8180	1840	1560	1700	1870	1640	542	472
6	227	321	3000	700	8840	5120	1570	1380	2490	1530	599	361
7	454	352	2320	614	7550	6410	1650	1350	3140	1330	662	297
8	113	337	1910	570	6710	4610	1360	1500	5400	1030	718	276
9	159	338	1570	500	6020	3460	1300	1340	4640	900	510	293
10	192	567	2760	460	4900	5190	1230	1090	3770	689	645	283
11	244	1120	7550	432	3140	8290	1140	906	4230	1780	776	491
12	338	1890	10500	534	2420	9110	944	800	2880	3840	663	966
13	269	2210	9710	495	2200	11100	1010	777	2400	6670	512	834
14	259	2120	7530	489	2000	11500	891	404	1980	2140	442	467
15	401	2470	5660	489	1800	10300	990	642	4510	1730	469	358
16	653	4370	4800	474	1700	8520	876	671	6120	10100	489	369
17	668	6630	3700	534	1600	7040	1050	664	3490	12900	657	308
18	1260	6090	2900	1150	1660	5910	975	1830	2040	10900	477	391
19	3450	8000	2700	2010	5290	9920	1060	2320	1450	7180	367	353
20	4050	10500	2400	2760	9440	11500	1020	2210	1480	5680	322	429
21	3390	9340	2100	2740	10500	10300	1320	1810	2930	4460	277	352
22	2450	6720	1900	2540	9840	7750	2140	1530	2130	3020	245	261
23	1860	5580	1650	2630	8310	6160	1970	1300	1640	2170	256	477
24	1310	4820	1450	2430	6860	5370	2040	1040	1340	1380	254	366
25	1140	4120	1300	2370	5810	4120	2330	957	1170	2060	208	2350
26	806	4960	1200	2010	5040	3040	2020	824	865	6870	298	3300
27	773	7900	1060	1570	3880	2370	1570	928	1030	3040	1040	3190
28	693	8250	1000	1020	2630	1920	1220	972	1750	2490	1210	2280
29	569	8550	950	950	---	1750	686	1040	1160	1990	1110	2140
30	566	8350	900	900	---	1540	1110	1230	1020	1450	772	1520
31	531	---	850	870	---	1490	---	1280	---	1120	497	---
TOTAL	28628	117957	113800	35780	132544	172490	40142	43255	70074	108809	18416	25103
MEAN	923	3932	3671	1154	4734	5564	1338	1395	2336	3510	594	837
MAX	4050	10500	10500	2760	10500	11500	2330	3440	6120	12900	1210	3300
MIN	113	314	850	432	944	1490	686	404	585	689	208	261
CFSM	.47	2.00	1.87	.59	2.41	2.83	.68	.71	1.19	1.78	.30	.43
IN.	.54	2.23	2.15	.68	2.51	3.26	.76	.82	1.33	2.06	.35	.47

CAL YR 1985	TOTAL	882660	MEAN	2418	MAX	23700	MIN	113	CFSM	1.23	IN.	16.69
WTR YR 1986	TOTAL	906998	MEAN	2485	MAX	12900	MIN	113	CFSM	1.26	IN.	17.15

05515000 KANKAKEE RIVER NEAR NORTH LIBERTY, IN

LOCATION.--Lat 41°33'50", long 86°29'50", in NW¼NE¼ sec.23, T.36 N., R.1 W., St. Joseph County, Hydrologic Unit 07120001, on left bank at downstream side of bridge on county highway named "New Road", 2.7 mi upstream from Little Kankakee River, 4 mi northwest of North Liberty, and at mile 126.9.

DRAINAGE AREA.--174 mi^2, of which 58.2 mi^2 does not contribute directly to surface runoff.

PERIOD OF RECORD.--January 1951 to current year.

REVISED RECORDS.--WSP 1915: 1952, 1956-59. WSP 2115: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 680.04 ft above National Geodetic Vertical Datum of 1929 (levels by State of Indiana, Department of Natural Resources). Prior to June 26, 1956, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Nov. 11, 16-24, Dec. 12, 13, 26, Jan. 19, 20, 28, Feb. 5-8, 19-24, and Mar. 6, 7, 10-15. Records good except those for periods of variable backwater from downstream tributaries, Nov. 11, 16-24, Dec. 12, 13, Jan. 19, 20, Feb. 5-8, 19-24, and Mar. 6, 7, 10-15, which are fair.

AVERAGE DISCHARGE.--35 years, 153 ft^3/s, 11.95 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 908 ft^3/s Mar. 17, 1982, gage height, 9.01 ft; maximum gage height, 9.04 ft June 27, 1968; minimum daily discharge, 46 ft^3/s Sept. 9, 10, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 410 ft^3/s Nov. 20, (backwater); maximum gage height, 6.69 ft Nov. 20; minimum daily discharge, 73 ft^3/s Aug. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	100	127	256	147	171	224	199	161	145	158	120	94
2	99	134	262	149	204	221	197	153	137	155	117	92
3	100	138	238	153	215	215	196	144	131	145	115	87
4	102	139	229	152	257	217	193	143	132	136	107	85
5	106	136	225	154	350	250	191	140	143	128	105	83
6	103	134	219	151	370	275	189	148	141	125	109	87
7	97	134	212	144	360	290	186	162	144	124	112	86
8	96	132	208	140	340	280	181	158	171	116	109	86
9	97	134	204	142	301	267	179	150	158	146	105	86
10	99	231	212	144	275	285	177	147	156	147	104	87
11	99	280	287	140	256	300	171	142	188	161	103	91
12	104	263	310	142	240	290	165	141	220	155	95	94
13	112	242	300	137	226	290	172	141	210	153	94	92
14	114	235	268	138	222	300	170	140	193	140	99	91
15	117	227	243	134	212	295	179	138	196	137	96	90
16	116	285	225	134	208	282	175	141	198	157	93	87
17	113	310	213	149	214	263	171	151	183	148	89	92
18	117	300	199	249	223	255	169	153	172	136	87	95
19	198	350	192	275	250	300	167	162	166	133	81	99
20	205	390	190	270	295	300	167	176	162	133	77	100
21	180	400	183	248	300	271	166	171	157	125	76	99
22	164	390	182	237	295	256	161	165	154	114	74	99
23	154	370	181	220	290	247	157	160	146	110	77	109
24	151	330	178	209	275	233	152	156	138	109	78	111
25	145	301	173	203	260	227	150	152	132	129	75	110
26	141	306	170	197	257	224	153	150	137	166	87	109
27	138	320	159	193	245	220	149	157	136	142	116	124
28	133	298	152	185	232	216	150	158	146	145	104	119
29	130	281	152	180	---	213	150	156	140	145	101	118
30	128	266	150	172	---	207	154	153	146	130	98	152
31	126	---	151	167	---	200	---	149	---	127	96	---
TOTAL	3884	7583	6523	5455	7343	7913	5136	4718	4778	4275	2999	2954
MEAN	125	253	210	176	262	255	171	152	159	138	96.7	98.5
MAX	205	400	310	275	370	300	199	176	220	166	120	152
MIN	96	127	150	134	171	200	149	138	131	109	74	83
CFSM	.72	1.45	1.21	1.01	1.51	1.47	.98	.87	.91	.79	.56	.57
IN.	.83	1.62	1.39	1.17	1.57	1.69	1.10	1.01	1.02	.91	.64	.63

CAL YR 1985 TOTAL 74972 MEAN 205 MAX 800 MIN 92 CFSM 1.18 IN. 16.03
WTR YR 1986 TOTAL 63561 MEAN 174 MAX 400 MIN 74 CFSM 1.00 IN. 13.59

05515400 KINGSBURY CREEK NEAR LAPORTE, IN

LOCATION.--Lat 41°32'49", long 86°43'48", in SW¼SE¼ sec.23, T.36 N., R.3 W., LaPorte County, Hydrologic Unit 07120001, on left bank at upstream side of bridge on County Road 400 South, 0.5 mi east of State Highway 39, 1.5 mi west of U.S. Highway 35, and 3 mi south of LaPorte city limits.

DRAINAGE AREA.--7.08 mi^2, of which 4.07 mi^2 does not contribute directly to surface runoff.

PERIOD OF RECORD.--October 1970 to September 30, 1986. (Discontinued)

REVISED RECORDS.--WDR IN-83-1: 1981 (P).

GAGE.--Water-stage recorder. Datum of gage is 753.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good.

AVERAGE DISCHARGE.--16 years, 4.26 ft^3/s, 8.16 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 306 ft^3/s July 26, 1981, gage height, 6.83 ft from rating curve extended above 20 ft^3/s on the basis of contracted-opening measurement at gage height 6.18 ft; minimum daily, 0.83 ft^3/s Dec. 3, 1971.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 30 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 18	2300	*138	*6.07	July 15	0900	99	5.79
Nov. 19	2200	60	5.41				

Minimum daily discharge, 1.8 ft^3/s Sept. 6-10, 15-17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	2.5	6.1	4.0	4.4	5.0	5.6	4.9	3.3	3.4	3.0	2.0
2	2.2	5.2	5.8	4.0	4.8	5.2	5.5	4.3	3.1	3.3	2.9	2.0
3	2.1	3.3	5.2	4.1	4.7	5.2	5.3	4.2	3.1	3.0	2.8	1.9
4	2.4	2.8	5.1	4.1	11	5.7	5.3	4.2	3.1	2.9	2.6	1.9
5	2.3	2.6	5.2	4.1	10	6.6	5.3	4.1	3.4	2.8	2.6	1.9
6	2.1	2.5	5.1	3.9	7.4	7.3	5.2	4.5	3.2	2.7	2.9	1.8
7	2.0	2.6	5.0	3.8	6.1	5.7	5.1	4.6	4.0	2.6	3.3	1.8
8	1.9	2.4	4.9	3.8	5.6	5.2	4.9	4.2	3.7	2.7	2.9	1.8
9	2.0	2.9	4.9	3.8	5.3	6.2	4.9	4.0	3.2	3.5	2.7	1.8
10	2.0	7.4	6.4	3.8	4.9	8.8	4.9	3.8	3.7	3.7	2.9	1.8
11	2.0	4.3	9.2	3.8	4.8	7.3	4.9	3.8	4.9	5.5	2.8	1.9
12	2.1	3.7	7.3	3.9	4.5	6.5	4.9	3.9	4.2	4.2	2.6	2.0
13	2.1	3.6	6.0	3.7	4.2	7.1	4.9	3.8	3.7	3.9	2.5	1.9
14	2.3	3.6	5.3	3.8	4.3	6.9	5.4	3.9	3.5	3.2	2.5	1.9
15	2.3	3.6	5.0	3.6	4.2	6.4	5.5	3.9	4.4	34	2.5	1.8
16	2.1	12	5.0	3.6	4.4	6.0	5.1	4.0	3.7	13	2.5	1.8
17	2.0	5.7	4.8	4.4	5.3	5.9	4.9	4.1	3.3	6.5	2.4	1.8
18	2.8	22	4.5	9.3	6.9	6.9	4.8	5.0	3.1	4.6	2.3	1.9
19	4.9	41	4.3	7.5	9.0	8.7	4.7	5.6	3.1	4.0	2.3	1.9
20	3.1	15	4.3	5.9	8.2	6.6	4.8	4.7	3.0	3.7	2.2	2.0
21	2.8	7.2	4.2	5.5	6.9	6.1	4.8	4.3	2.9	3.3	2.2	1.9
22	2.6	6.3	4.4	5.5	6.1	6.0	4.6	4.1	2.8	3.1	2.1	1.9
23	2.5	5.6	4.4	4.7	5.6	5.9	4.5	3.9	2.8	3.0	2.1	2.2
24	2.8	5.1	4.5	4.5	5.4	5.7	4.4	3.7	2.7	2.9	2.0	2.1
25	2.5	5.0	4.3	4.5	5.3	5.7	4.4	3.6	2.7	5.1	1.9	2.1
26	2.4	7.6	4.4	4.3	5.7	6.0	4.3	3.6	2.8	3.8	2.8	2.2
27	2.3	6.1	4.3	4.2	5.3	5.8	4.2	4.1	3.0	3.3	2.9	2.5
28	2.3	5.7	4.2	4.0	5.0	5.7	4.4	3.8	3.2	7.6	2.4	2.2
29	2.2	5.3	4.2	4.0	---	5.6	4.3	3.8	3.0	3.9	2.2	3.1
30	2.2	5.0	4.2	3.8	---	5.5	5.0	3.6	3.4	3.3	2.1	5.7
31	2.2	---	4.2	3.8	---	5.3	---	3.4	---	3.1	2.0	---
TOTAL	73.7	207.6	156.7	137.7	165.3	192.5	146.8	127.4	100.0	155.6	77.9	63.5
MEAN	2.38	6.92	5.05	4.44	5.90	6.21	4.89	4.11	3.33	5.02	2.51	2.12
MAX	4.9	41	9.2	9.3	11	8.8	5.6	5.6	4.9	34	3.3	5.7
MIN	1.9	2.4	4.2	3.6	4.2	5.0	4.2	3.4	2.7	2.6	1.9	1.8
CFSM	.34	.98	.71	.63	.83	.88	.69	.58	.47	.71	.35	.30
IN.	.39	1.09	.82	.72	.87	1.01	.77	.67	.53	.82	.41	.33

CAL YR 1985 TOTAL 1861.0 MEAN 5.10 MAX 47 MIN 1.9 CFSM .72 IN. 9.78
WTR YR 1986 TOTAL 1604.7 MEAN 4.40 MAX 41 MIN 1.8 CFSM .62 IN. 8.43

05515500 KANKAKEE RIVER AT DAVIS, IN

LOCATION.--Lat 41°24'00", long 86°42'04", in SE¼NE¼ sec.13, T.34 N., R.3 W., Starke County, Hydrologic Unit 07120001, on left bank at downstream side of bridge on U.S. Highway 30 at Davis, 0.5 mi downstream from Mill Creek, 4 mi east of Hanna, and at mile 110.9.

DRAINAGE AREA.--537 mi^2, of which 137 mi^2 does not contribute directly to surface runoff.

PERIOD OF RECORD.--July 1905 to July 1906 and October 1924 to current year. Monthly discharge only for some periods, published in WSP 1308.

REVISED RECORDS.--WSP 1338: 1953. WSP 2115: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 664.68 ft above National Geodetic Vertical Datum of 1929. July 13, 1905, to July 21, 1906, nonrecording gage at site 50 ft downstream at different datum. July 28, 1925, to May 18, 1929, nonrecording gage on bridge 0.5 mi downstream at different datum. Apr. 19, 1931, to Nov. 3, 1953, nonrecording gage at present site and datum.

REMARKS.--Estimated daily discharges: Dec. 19-21, Dec. 26 to Jan. 3, and Jan. 29 to Feb. 2. Records good.

AVERAGE DISCHARGE.--62 years, (1924 to current year), 507 ft^3/s, 12.82 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,920 ft^3/s Mar. 20, 1982; maximum gage height, 13.52 ft Mar. 5, 1985; minimum daily discharge, 154 ft^3/s Aug. 30 to Sept. 3, 1941.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,300 ft^3/s Nov. 20; gage height, 12.04 ft; minimum daily, 290 ft^3/s Sept. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	318	387	845	495	550	737	688	601	493	494	466	319
2	307	442	841	500	600	726	671	642	469	502	437	312
3	298	469	813	520	734	718	662	594	451	493	420	302
4	303	452	780	540	801	723	653	555	442	462	403	307
5	327	438	764	538	1080	778	641	533	492	439	383	304
6	325	426	752	531	1150	880	632	524	615	417	385	295
7	320	421	736	526	1100	924	621	547	640	408	412	290
8	311	416	724	514	1030	880	610	544	779	392	410	292
9	307	414	712	512	963	843	598	522	773	471	399	299
10	307	596	719	519	907	858	595	504	681	495	391	295
11	308	863	841	514	860	903	585	492	746	583	397	307
12	315	846	981	520	811	898	571	484	781	635	381	324
13	329	793	961	526	760	897	567	484	740	610	369	322
14	350	757	881	526	740	931	567	479	679	555	366	314
15	369	723	819	518	712	918	586	476	677	559	363	307
16	371	827	773	515	691	884	585	497	700	609	356	301
17	366	972	731	537	693	849	581	510	649	582	347	297
18	380	925	686	701	710	837	565	523	595	517	340	314
19	537	1110	665	866	800	900	555	537	559	474	328	322
20	628	1280	650	851	901	929	555	560	540	454	314	330
21	583	1270	630	796	939	889	567	552	521	429	307	331
22	528	1210	637	758	937	855	558	535	503	405	308	325
23	488	1130	624	722	899	842	544	517	485	397	305	352
24	467	1050	621	690	859	815	535	501	462	387	305	367
25	456	975	587	670	823	786	527	487	453	406	300	371
26	439	944	580	659	808	771	530	481	440	485	313	370
27	421	957	560	574	794	759	539	509	443	470	377	397
28	408	933	530	596	762	737	529	542	475	504	364	398
29	403	900	510	575	---	722	526	537	477	672	347	383
30	392	874	500	550	---	711	534	526	465	583	336	469
31	384	---	510	540	---	694	---	510	---	507	325	---
TOTAL	12045	23800	21963	18399	23414	25594	17477	16305	17225	15396	11254	9916
MEAN	389	793	708	594	836	826	583	526	574	497	363	331
MAX	628	1280	981	866	1150	931	688	642	781	672	466	469
MIN	298	387	500	495	550	694	526	476	440	387	300	290
CFSM	.72	1.48	1.32	1.11	1.56	1.54	1.09	.98	1.07	.93	.68	.62
IN.	.83	1.65	1.52	1.27	1.62	1.77	1.21	1.13	1.19	1.07	.78	.69

CAL YR 1985	TOTAL	243007	MEAN	666	MAX	1610	MIN	273	CFSM	1.24	IN.	16.83
WTR YR 1986	TOTAL	212788	MEAN	583	MAX	1280	MIN	290	CFSM	1.09	IN.	14.74

05516500 YELLOW RIVER AT PLYMOUTH, IN

LOCATION.--Lat 41°20'25", long 86°18'16", in SE¼NW¼ sec.13, T.33 N., R.2 E., Marshall County, Hydrologic Unit 07120001, on left bank 50 ft upstream from LaPorte Street footbridge in Plymouth, 1.1 mi downstream from Elmer Seltenright (formerly Baker) ditch, 8.1 mi upstream from Wolf Creek, and at mile 41.3.

DRAINAGE AREA.--294 mi^2, of which 22 mi^2 does not contribute directly to surface runoff.

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

REVISED RECORDS.--WSP 1338: 1950-51. WSP 2115: Drainage area. WDR IN-73-1: 1972(M).

GAGE.--Water-stage recorder. Datum of gage is 764.78 ft above National Geodetic Vertical Datum of 1929 (levels by State of Indiana, Department of Natural Resources). Prior to Aug. 27, 1959, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Dec. 20 to Jan. 9, Jan. 11-16, Jan. 27 to Feb. 4, and Feb. 13-17, 27, 28. Records good except those for estimated daily discharges, which are fair.

AVERAGE DISCHARGE.--38 years, 263 ft^3/s, 12.14 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,390 ft^3/s Oct. 12, 13, 1954, gage height, 17.13 ft; minimum daily, 13 ft^3/s Dec. 3, 7, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,100 ft^3/s June 8, gage height, 12.33 ft; minimum daily, 34 ft^3/s Oct. 3, 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	72	518	132	162	284	194	525	324	268	200	66
2	36	85	681	128	188	273	191	683	240	349	183	63
3	34	91	677	126	212	261	182	447	199	297	163	60
4	39	88	444	124	440	277	180	319	183	234	135	59
5	39	79	379	116	1030	557	176	265	680	204	119	59
6	39	72	350	112	1320	893	174	273	1650	183	115	56
7	37	71	324	104	1310	1140	167	623	1990	167	117	57
8	35	70	327	92	947	991	161	726	2070	161	111	55
9	34	75	330	120	555	592	154	455	1940	187	104	53
10	35	290	365	126	402	613	148	302	1690	194	101	53
11	36	751	747	124	328	808	143	254	1520	608	99	53
12	41	800	1120	122	269	818	138	227	1300	857	93	68
13	45	574	1290	118	190	722	135	207	1040	767	87	71
14	59	426	1080	114	162	916	137	191	707	490	84	64
15	65	355	616	112	154	838	152	179	737	311	84	59
16	62	469	378	116	148	575	152	244	763	385	83	56
17	57	785	301	163	174	439	152	333	543	465	80	53
18	79	687	231	607	219	392	145	337	384	293	75	52
19	224	731	232	929	553	586	143	319	316	221	72	66
20	338	1150	215	938	789	797	142	370	325	187	70	63
21	229	1400	202	583	888	574	160	312	316	165	71	61
22	173	1400	190	415	984	403	157	266	262	151	70	58
23	140	1100	186	352	781	358	141	236	236	141	70	68
24	127	749	182	292	518	318	135	210	213	136	67	80
25	123	513	176	268	418	288	146	192	194	166	65	102
26	112	587	132	253	389	280	422	181	182	247	70	109
27	100	873	166	216	336	274	475	253	195	199	99	138
28	87	912	144	192	302	245	324	325	391	572	107	139
29	76	739	142	164	---	232	267	341	343	554	85	114
30	73	613	138	150	---	218	261	616	252	286	73	200
31	71	---	135	154	---	202	---	502	---	214	70	---
TOTAL	2681	16607	12398	7562	14168	16164	5654	10713	21185	9659	3022	2255
MEAN	86.5	554	400	244	506	521	188	346	706	312	97.5	75.2
MAX	338	1400	1290	938	1320	1140	475	726	2070	857	200	200
MIN	34	70	132	92	148	202	135	179	182	136	65	52
CFSM	.29	1.88	1.36	.83	1.72	1.77	.64	1.18	2.40	1.06	.33	.26
IN.	.34	2.10	1.57	.96	1.79	2.05	.72	1.36	2.68	1.22	.38	.29

CAL YR 1985 TOTAL 140612 MEAN 385 MAX 3800 MIN 34 CFSM 1.31 IN. 17.79
WTR YR 1986 TOTAL 122068 MEAN 334 MAX 2070 MIN 34 CFSM 1.14 IN. 15.45

05517000 YELLOW RIVER AT KNOX, IN

LOCATION.--Lat 41°18'10", long 86°37'14", in SW¼SW¼ sec.14, T.33 N., R.2 W., Starke County, Hydrologic Unit 07120001, on right bank 40 ft upstream from bridge on U.S. Highway 35 in Knox, 1.4 mi downstream from Eagle Creek, and at mile 11.6.

DRAINAGE AREA.--435 mi^2, of which 51 mi^2 does not contribute directly to surface runoff.

PERIOD OF RECORD.--August 1905 to July 1906, August 1943 to current year.

REVISED RECORDS.--WSP 1278: 1952. WSP 2115: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 679.93 ft above National Geodetic Vertical Datum of 1929 (levels by State of Indiana, Department of Natural Resources). August 1905 to July 1906, nonrecording gage at same site at different datum. August 1943 to July 17, 1952, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Dec. 19-23, Dec. 31 to Jan. 11, Jan. 26 to Feb. 3, Feb. 12-19, and Feb. 27 to Mar. 2. Records good except those for estimated daily discharges, which are fair.

AVERAGE DISCHARGE.--43 years (water years 1944 to current year), 400 ft^3/s, 12.50 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,660 ft^3/s Oct. 15, 16, 1954, gage height, 13.75 ft; minimum daily, 50 ft^3/s Jan. 21-31, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,060 ft^3/s June 9, gage height, 8.73 ft; minimum daily, 115 ft^3/s Oct. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	124	182	850	295	285	490	383	674	665	476	447	163
2	123	190	790	287	310	480	377	888	469	499	401	158
3	121	198	842	280	400	475	366	914	369	548	361	154
4	123	200	843	270	634	472	356	691	323	472	323	152
5	124	197	679	258	883	531	352	523	416	395	287	151
6	123	187	607	230	1100	806	347	451	1060	351	268	146
7	120	180	569	205	1300	1020	341	591	1550	323	265	143
8	120	177	542	180	1400	1160	330	831	1930	303	258	141
9	117	177	537	200	1200	1140	320	905	2040	349	245	139
10	115	218	548	230	822	871	310	670	2010	369	238	136
11	117	456	692	255	639	856	303	488	1940	542	240	142
12	120	748	999	264	480	951	295	425	1860	876	226	161
13	124	865	1180	262	390	995	288	388	1630	1060	216	159
14	129	761	1330	258	335	969	287	357	1410	1000	208	150
15	140	619	1300	255	300	1040	300	334	1280	736	200	143
16	141	583	912	250	270	1010	312	342	1200	534	197	139
17	139	685	668	263	280	797	313	400	1100	604	194	135
18	147	859	601	407	315	668	306	486	881	603	187	152
19	310	925	545	756	380	676	295	498	674	450	178	169
20	475	1040	500	946	758	815	300	504	573	374	174	180
21	496	1210	470	987	924	918	319	526	569	330	167	174
22	391	1370	442	771	1010	773	316	460	529	302	162	170
23	319	1500	425	601	1080	626	300	404	469	280	161	174
24	277	1350	418	529	977	569	283	361	425	260	158	194
25	253	1040	348	477	743	525	274	329	387	269	156	207
26	238	838	274	395	649	497	505	312	357	345	170	235
27	225	886	408	330	580	489	1000	335	355	395	236	294
28	210	1000	367	305	535	471	809	419	455	451	226	309
29	217	1060	339	285	---	439	573	478	595	1040	204	284
30	210	971	317	270	---	421	491	644	535	933	181	304
31	189	---	305	265	---	401	---	774	---	573	169	---
TOTAL	6077	20672	19647	11566	18979	22351	11351	16402	28056	16042	7103	5358
MEAN	196	689	634	373	678	721	378	529	935	517	229	179
MAX	496	1500	1330	987	1400	1160	1000	914	2040	1060	447	309
MIN	115	177	274	180	270	401	274	312	323	260	156	135
CFSM	.45	1.58	1.46	.86	1.56	1.66	.87	1.22	2.15	1.19	.53	.41
IN.	.52	1.77	1.68	.99	1.62	1.91	.97	1.40	2.40	1.37	.61	.46

CAL YR 1985	TOTAL	204998	MEAN	562	MAX	3980	MIN	109	CFSM	1.29	IN.	17.53
WTR YR 1986	TOTAL	183604	MEAN	503	MAX	2040	MIN	115	CFSM	1.16	IN.	15.70

05517500 KANKAKEE RIVER AT DUNNS BRIDGE, IN

LOCATION.--Lat 41°13'17", long 86°57'52", in NE¼SE¼ sec.15, T.32 N., R.5 W., Jasper County, Hydrologic Unit 07120001, on left bank at downstream side of abandoned bridge at Dunns Bridge, 1.8 mi north of Tefft, 3.6 mi upstream from Davis ditch, and at mile 90.8.

DRAINAGE AREA.--1,352 mi², of which 192 mi² does not contribute directly to surface runoff.

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

REVISED RECORDS.--WSP 1728: 1954(m). WSP 2115: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 649.65 ft above National Geodetic Vertical Datum of 1929 (levels by State of Indiana, Department of Natural Resources). Prior to July 17, 1956, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Dec. 14 to Jan. 17, Jan. 30 to Feb. 3, and Feb. 12-18. Records good except those for periods of ice effect, Dec. 25 to Jan. 17, Jan. 30 to Feb. 3, and Feb. 15-18, which are fair.

AVERAGE DISCHARGE.--38 years, 1,341 ft³/s, 13.47 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,870 ft³/s Mar. 23, 1982; maximum gage height, 13.38 ft Mar. 20, 1982; minimum daily discharge, 280 ft³/s Jan. 25-29, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,190 ft³/s Nov. 24; gage height, 9.66 ft; minimum daily, 553 ft³/s Sept. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	582	826	2690	1300	1200	1910	1680	1570	1630	1420	1360	640
2	582	916	2580	1350	1300	1830	1640	1800	1480	1450	1200	628
3	580	1010	2470	1350	1500	1780	1590	1890	1300	1460	1110	613
4	588	1010	2410	1300	1800	1770	1570	1950	1200	1400	1040	607
5	617	951	2310	1300	2110	1840	1550	1680	1210	1280	963	601
6	619	919	2220	1250	2410	2010	1520	1540	1570	1170	911	586
7	607	869	2140	1200	2630	2200	1490	1510	2080	1100	920	581
8	594	844	2080	1200	2770	2330	1470	1620	2460	1060	927	572
9	580	830	2030	1150	2810	2410	1430	1730	2760	1140	906	570
10	579	953	2000	1100	2690	2430	1390	1710	2940	1300	869	553
11	577	1380	2130	1150	2430	2370	1380	1520	3030	1380	870	556
12	579	1700	2380	1150	2120	2370	1350	1390	3090	1650	856	602
13	614	1860	2580	1150	1900	2410	1330	1330	3100	1870	815	635
14	662	1950	2700	1100	1770	2440	1310	1290	3030	1950	782	624
15	693	1940	2650	1100	1700	2460	1310	1260	2970	1860	772	616
16	700	1990	2520	1100	1600	2480	1320	1270	2850	1670	752	582
17	682	2160	2400	1240	1550	2440	1310	1300	2690	1530	731	567
18	686	2260	2100	1460	1600	2350	1290	1350	2480	1500	720	587
19	839	2550	2000	1790	1820	2320	1290	1410	2190	1380	693	632
20	1110	2890	1900	2000	1990	2330	1260	1420	1900	1240	653	673
21	1200	3030	1800	2100	2190	2360	1280	1450	1680	1150	636	679
22	1230	3110	1700	2110	2320	2380	1290	1420	1570	1070	620	667
23	1150	3170	1650	2000	2380	2300	1240	1360	1450	1010	613	692
24	1080	3190	1600	1880	2400	2190	1200	1300	1350	957	613	726
25	1020	3150	1500	1770	2320	2110	1190	1230	1260	937	605	814
26	967	3020	1450	1670	2180	2030	1190	1200	1190	1000	613	832
27	919	2870	1400	1490	2090	1980	1500	1220	1160	1080	696	875
28	858	2810	1400	1320	2000	1910	1700	1280	1300	1130	752	910
29	822	2800	1350	1200	---	1850	1580	1410	1380	1440	716	893
30	823	2770	1300	1150	---	1780	1460	1520	1440	1780	679	951
31	812	---	1300	1150	---	1730	---	1610	---	1630	658	---
TOTAL	23951	59728	62740	43580	57580	67100	42110	45440	59740	41994	25051	20074
MEAN	773	1991	2024	1406	2056	2165	1404	1466	1991	1355	808	669
MAX	1230	3190	2700	2110	2810	2480	1700	1890	3100	1950	1360	961
MIN	577	826	1300	1100	1200	1730	1190	1200	1160	937	605	553
CFSM	.57	1.47	1.50	1.04	1.52	1.60	1.04	1.08	1.47	1.00	.60	.49
IN.	.66	1.64	1.73	1.20	1.58	1.85	1.16	1.25	1.64	1.16	.69	.55

CAL YR 1985 TOTAL 646092 MEAN 1770 MAX 5350 MIN 514 CFSM 1.31 IN. 17.78
WTR YR 1986 TOTAL 549088 MEAN 1504 MAX 3190 MIN 553 CFSM 1.11 IN. 15.11

05517530 KANKAKEE RIVER NEAR KOUTS, IN

LOCATION.--Lat 41°15'14", long 87°02'02", in SW¼NE¼ sec.6, T.32 N., R.5 W., Jasper County, Hydrologic Unit 07120001, on left bank, 20 ft downstream from bridge on State Highway 49, 4.5 mi south of Kouts, 0.7 mi upstream from Cook ditch, and at mile 86.7.

DRAINAGE AREA.--1,376 mi², of which 194 mi² does not contribute directly to surface runoff.

PERIOD OF RECORD.--October 1974 to current year.

REVISED RECORDS.--WDR IN-77-1: 1975(M).

GAGE.--Water-stage recorder. Datum of gage is 645.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Nov. 13-25, Dec. 20 to Jan. 16, Jan. 28 to Feb. 3, and Feb. 15-18. Records fair except those for periods of ice effect, Dec. 20 to Jan. 16, and Jan. 28 to Feb. 3, which are poor.

AVERAGE DISCHARGE.--12 years, 1,510 ft³/s, 14.90 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,420 ft³/s Mar. 24, 1982, gage height, 14.52 ft; minimum daily, 335 ft³/s Sept. 12, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 3,260 ft³/s Nov. 24; minimum daily, 475 ft³/s Oct. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	564	780	2770	1300	1250	1970	1720	1610	1660	1550	1380	583
2	562	900	2680	1350	1400	1880	1670	1820	1550	1520	1210	573
3	527	1030	2550	1400	1500	1840	1610	1910	1370	1550	1100	573
4	543	1030	2480	1350	1840	1850	1590	1880	1260	1510	1060	571
5	601	952	2390	1300	2170	1900	1590	1750	1230	1390	1010	551
6	564	952	2310	1300	2450	2090	1550	1620	1540	1250	942	543
7	520	901	2250	1250	2670	2260	1510	1560	2080	1160	929	566
8	517	894	2190	1200	2790	2380	1480	1620	2460	1110	936	564
9	523	860	2140	1150	2830	2450	1440	1730	2760	1260	889	553
10	508	928	2100	1100	2740	2480	1420	1770	2930	1460	812	539
11	475	1370	2220	1200	2540	2440	1450	1580	3000	1500	810	514
12	483	1590	2470	1200	2270	2430	1440	1420	3050	1680	827	543
13	548	1900	2660	1150	2020	2460	1410	1360	3030	1910	778	589
14	609	2000	2710	1150	1880	2480	1370	1320	3000	2020	733	588
15	617	2000	2710	1100	1700	2490	1360	1340	2970	1960	713	581
16	615	2000	2660	1100	1600	2500	1360	1360	2860	1770	708	562
17	592	2200	2490	1240	1600	2490	1360	1360	2700	1620	657	546
18	625	2260	2250	1520	1650	2420	1330	1330	2500	1590	640	545
19	738	2600	2110	1330	1900	2380	1330	1400	2280	1490	627	567
20	1070	2850	2000	2020	2060	2360	1300	1420	2020	1380	602	613
21	1200	3000	1850	2130	2250	2400	1320	1480	1770	1320	595	615
22	1250	3150	1800	2150	2370	2460	1350	1460	1650	1250	601	601
23	1180	3220	1700	2080	2400	2390	1300	1400	1540	1180	622	605
24	1160	3260	1630	1940	2410	2280	1240	1320	1430	1120	632	608
25	1080	3220	1550	1810	2380	2160	1230	1240	1350	1080	625	668
26	980	3110	1500	1700	2270	2090	1230	1200	1290	1110	624	684
27	929	3030	1450	1530	2160	2030	1500	1240	1230	1160	647	779
28	851	2910	1400	1400	2060	2010	1770	1310	1380	1250	677	824
29	842	2830	1350	1250	---	1940	1630	1450	1450	1450	641	781
30	800	2840	1300	1200	---	1820	1500	1550	1530	1780	575	828
31	762	---	1300	1200	---	1770	---	1630	---	1650	601	---
TOTAL	22885	60687	64940	44600	59160	68900	43360	46440	60870	45030	24203	18257
MEAN	738	2023	2095	1439	2113	2223	1445	1498	2029	1453	781	609
MAX	1250	3260	2770	2150	2830	2500	1770	1910	3050	2020	1380	828
MIN	475	780	1300	1100	1250	1770	1230	1200	1230	1080	575	514
CFSM	.54	1.47	1.52	1.05	1.54	1.62	1.05	1.09	1.47	1.06	.57	.44
IN.	.62	1.64	1.76	1.21	1.60	1.86	1.17	1.26	1.65	1.22	.65	.49

CAL YR 1985	TOTAL	678774	MEAN	1860	MAX	5340	MIN	475	CFSM	1.35	IN.	18.35
WTR YR 1986	TOTAL	559332	MEAN	1532	MAX	3260	MIN	475	CFSM	1.11	IN.	15.12

05517890 COBB DITCH NEAR KOUTS, IN

LOCATION.--Lat 41°20'19", long 87°04'30", in NW¼SE¼ sec. 2, T.33 N., R.6 W., Porter County, Hydrologic Unit 07120001, on left bank 15 ft upstream from bridge on County Road 50 West, 1.6 mi upstream from mouth, and 3 mi northwest of Kouts.

DRAINAGE AREA.--30.3 mi^2.

PERIOD OF RECORD.--July 1968 to current year. Prior to October 1971, published as State ditch near Kouts.

GAGE.--Water-stage recorder. Datum of gage is 652.00 ft above National Geodetic Vertical Datum of 1929 (Indiana Department of Highways bench mark). Prior to Oct. 19, 1978, water-stage recorder at site 1.4 mi downstream at same datum.

REMARKS.--Estimated daily discharges: Dec. 14 to Jan. 16, Jan. 27 to Feb. 1, and Feb. 10-17. Records good except those for estimated daily discharges, which are fair.

AVERAGE DISCHARGE.--18 years, 33.8 ft^3/s, 15.15 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,070 ft^3/s Nov. 19, 1985; maximum gage height, 17.95 ft Mar. 29, 1985; minimum daily discharge, 8.9 ft^3/s Sept. 11, 12, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 300 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 16	1100	352	11.92	July 9	0900	317	11.59
Nov. 19	0800	*1,070	*16.81				

Minimum daily discharge, 13.0 ft^3/s Sept. 3-10, 12-19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	19	66	31	28	30	24	26	17	24	18	14
2	15	27	72	31	35	31	24	23	16	24	17	14
3	15	26	55	30	31	35	23	21	17	23	17	13
4	16	23	51	30	123	41	23	20	17	22	17	13
5	17	22	50	30	111	48	22	20	53	21	17	13
6	16	21	46	29	60	61	22	19	32	21	17	13
7	15	21	44	29	46	43	21	19	72	21	17	13
8	15	21	44	29	42	35	21	18	52	21	17	13
9	15	22	43	29	37	33	21	18	36	207	17	13
10	15	148	45	29	34	41	21	18	31	56	17	13
11	16	105	86	29	33	47	21	18	35	42	17	14
12	16	69	77	29	32	38	21	18	29	35	17	13
13	16	68	56	29	31	38	20	18	27	31	17	13
14	18	69	47	29	30	40	21	18	26	27	17	13
15	17	64	42	29	30	36	22	18	45	24	17	13
16	17	246	39	28	30	33	21	18	30	22	17	13
17	16	118	37	48	30	31	21	18	27	22	17	13
18	20	125	36	57	89	31	21	18	25	21	16	13
19	43	846	35	47	135	60	20	19	25	20	16	13
20	29	439	34	38	78	42	20	19	24	20	16	14
21	28	156	34	35	55	35	20	18	24	19	16	14
22	25	120	33	35	45	35	20	18	23	19	16	14
23	23	97	33	33	39	35	19	18	23	19	16	18
24	22	82	32	33	35	31	20	17	23	18	16	15
25	21	73	32	32	33	30	20	17	23	19	16	15
26	21	79	32	31	33	29	19	17	22	19	21	17
27	20	75	32	31	32	28	19	18	22	18	18	17
28	19	68	32	30	30	27	19	17	22	23	17	15
29	19	64	32	29	---	26	18	18	22	19	16	19
30	19	59	31	29	---	25	20	17	23	18	15	28
31	19	---	31	28	---	25	---	17	---	18	14	---
TOTAL	599	3372	1359	1006	1367	1120	624	576	863	913	519	436
MEAN	19.3	112	43.8	32.5	48.8	36.1	20.8	18.6	28.8	29.5	16.7	14.5
MAX	43	846	86	57	135	61	24	26	72	207	21	28
MIN	15	19	31	28	28	25	18	17	16	18	14	13
CFSM	.64	3.70	1.45	1.07	1.61	1.19	.69	.61	.95	.97	.55	.48
IN.	.74	4.14	1.67	1.24	1.68	1.38	.77	.71	1.06	1.12	.64	.54

CAL YR 1985	TOTAL	16447	MEAN	45.1	MAX	846	MIN	13	CFSM	1.49	IN.	20.19
WTR YR 1986	TOTAL	12754	MEAN	34.9	MAX	846	MIN	13	CFSM	1.15	IN.	15.66

05518000 KANKAKEE RIVER AT SHELBY, IN

LOCATION.--Lat 41°10'58", long 87°20'33", in SW¼NE¼ sec.33, T.32 N., R.8 W., Lake County, Hydrologic Unit 07120001, on right bank 25 ft upstream from Monon Railroad bridge, 1 mi south of Shelby, 7.7 mi upstream from Beaver Lake ditch, and at mile 67.9.

DRAINAGE AREA.--1,779 mi^2, of which 201 mi^2 does not contribute directly to surface runoff.

PERIOD OF RECORD.--October 1922 to current year. Monthly discharge only for some periods, published in WSP 1308.

REVISED RECORDS.--WSP 1005: 1928(M). WSP 2115: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 628.13 ft above National Geodetic Vertical Datum of 1929. Prior to Dec. 19, 1934, nonrecording gage at highway bridge about 400 ft upstream. Dec. 19, 1934, to Oct. 4, 1965, water-stage recorder on left bank 50 ft downstream, and Oct. 5, 1965, to Sept. 21, 1966, nonrecording gage on right bank 200 ft upstream. All at same datum.

REMARKS.--Estimated daily discharges: Dec. 21 to Jan. 16, and Jan. 29 to Feb. 2. Records good, except those for periods of ice effect, Dec. 21 to Jan. 16, and Jan. 29 to Feb. 2, which are poor.

AVERAGE DISCHARGE.--64 years, 1,632 ft^3/s, 12.46 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 7,650 ft^3/s Mar. 26, 1982; maximum gage height, 12.98 ft Mar. 24, 1982; minimum daily discharge, 260 ft^3/s Jan. 13-15, 1954.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,700 ft^3/s Nov. 21; gage height, 10.59 ft; minimum daily, 654 ft^3/s Sept. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	715	1070	3620	1700	1600	2350	2050	1800	1830	1780	1560	762
2	698	1140	3540	1700	1700	2260	2010	1950	1810	1790	1380	732
3	699	1270	3400	1750	1840	2200	1940	2050	1670	1770	1280	732
4	734	1310	3240	1750	2010	2180	1890	2070	1560	1730	1240	720
5	772	1280	3130	1700	2470	2210	1850	2020	1520	1650	1180	709
6	779	1250	3000	1650	2680	2360	1830	1910	1630	1510	1130	673
7	751	1230	2900	1600	2900	2520	1800	1830	1990	1430	1090	664
8	724	1190	2800	1550	3090	2600	1760	1790	2540	1360	1100	667
9	729	1170	2720	1500	3220	2670	1710	1830	2850	1450	1080	654
10	730	1290	2650	1400	3270	2740	1670	1890	3120	1670	1020	717
11	705	1700	2730	1400	3200	2820	1660	1850	3270	1680	993	699
12	693	1950	3000	1450	2990	2850	1670	1710	3380	1760	1000	677
13	709	2140	3160	1450	2700	2850	1650	1620	3430	1940	980	710
14	780	2280	3210	1450	2490	2870	1620	1570	3440	2070	942	737
15	828	2360	3200	1400	2340	2890	1620	1550	3570	2090	885	730
16	827	2540	3290	1500	2220	2910	1600	1600	3660	1960	890	708
17	803	2960	3140	1630	2120	2890	1590	1600	3480	1780	851	674
18	845	2990	2920	1780	2060	2870	1560	1600	3220	1670	809	690
19	1070	3570	2670	1970	2340	2870	1540	1630	2910	1600	797	704
20	1270	4380	2480	2130	2490	2870	1520	1680	2560	1510	759	786
21	1390	4670	2350	2250	2560	2800	1520	1700	2240	1440	748	817
22	1430	4580	2250	2330	2640	2810	1540	1720	2000	1380	732	807
23	1430	4420	2150	2340	2710	2820	1520	1670	1860	1290	701	836
24	1400	4330	2050	2270	2730	2730	1470	1610	1740	1240	725	867
25	1370	4220	2000	2160	2730	2590	1440	1530	1630	1200	733	988
26	1310	4110	1900	2050	2680	2490	1420	1490	1570	1170	766	1070
27	1240	4020	1850	1900	2580	2410	1480	1500	1500	1180	825	1190
28	1190	3900	1800	1720	2460	2340	1720	1530	1550	1280	863	1240
29	1140	3780	1750	1600	---	2280	1800	1590	1600	1360	864	1230
30	1130	3690	1700	1550	---	2180	1730	1740	1680	1600	774	1350
31	1080	---	1700	1550	---	2090	---	1800	---	1720	759	---
TOTAL	29971	80790	82300	54180	70820	80320	50180	53430	70810	49060	29456	24540
MEAN	967	2693	2655	1748	2529	2591	1673	1724	2360	1583	950	818
MAX	1430	4670	3620	2340	3270	2910	2050	2070	3660	2090	1560	1350
MIN	693	1070	1700	1400	1600	2090	1420	1490	1500	1170	701	654
CFSM	.54	1.51	1.49	.98	1.42	1.46	.94	.97	1.33	.89	.53	.46
IN.	.63	1.69	1.72	1.13	1.48	1.68	1.05	1.12	1.48	1.03	.62	.51

CAL YR 1985	TOTAL	826917	MEAN	2266	MAX	6290	MIN	590	CFSM	1.27	IN.	17.29
WTR YR 1986	TOTAL	675857	MEAN	1852	MAX	4670	MIN	654	CFSM	1.04	IN.	14.13

05519000 SINGLETON DITCH AT SCHNEIDER, IN

LOCATION.--Lat 41°12'44", long 87°26'44", in SW¼NW¼ sec.22, T.32 N., R.9 W., Lake County, Hydrologic Unit 07120001, on left bank 15 ft upstream from bridge on Ackerman Avenue, 0.5 mi upstream from Bruce ditch, 1.5 mi downstream from Cedar Creek, 1.6 mi north of Schneider, and at mile 10.1.

DRAINAGE AREA.--123 mi^2.

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

REVISED RECORDS.--WSP 1915: 1956-59. WSP 2115: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 623.67 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1949, nonrecording gage at same site at datum 2.00 ft higher. Oct. 1, 1949, to Aug. 13, 1951, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Dec. 14 to Jan. 2, Jan. 6-15, Jan. 27 to Feb. 1, and Feb. 11-17. Records good except those for estimated daily discharges, which are fair.

AVERAGE DISCHARGE.--38 years, 109 ft^3/s, 12.03 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,550 ft^3/s Mar. 5, 1976; maximum gage height, 12.37 ft June 25, 1975; minimum daily discharge, 3.6 ft^3/s Sept. 7, 8, 10, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 730 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 16	1400	848	6.54	Nov. 20	0400	*2,070	*11.24

Minimum daily discharge, 8.7 ft^3/s Aug. 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	49	322	82	61	93	88	105	56	65	17	14
2	24	76	374	82	63	89	85	114	53	62	16	14
3	23	93	270	82	61	124	82	91	47	56	16	14
4	28	100	227	80	188	169	79	78	47	51	13	14
5	31	99	206	77	408	201	77	73	52	44	12	14
6	28	95	193	74	231	258	77	69	88	40	15	13
7	26	80	181	72	177	210	75	78	122	39	15	14
8	26	60	174	66	150	157	70	66	253	39	16	13
9	26	57	167	62	106	139	66	61	182	45	15	13
10	26	227	165	61	87	155	64	58	131	61	15	13
11	27	353	276	63	80	201	62	56	116	73	18	14
12	27	256	359	64	75	188	60	55	105	72	16	22
13	26	238	272	64	71	189	59	54	97	73	14	18
14	32	278	220	62	68	188	59	56	91	60	13	15
15	32	269	170	60	67	173	65	55	195	51	13	15
16	31	676	150	61	66	157	63	72	197	45	13	15
17	29	628	140	68	77	144	60	71	136	41	12	14
18	34	510	130	98	139	167	57	68	109	31	11	14
19	95	1860	120	103	467	238	55	68	96	30	9.3	20
20	109	1880	115	89	424	186	54	67	83	28	9.1	38
21	96	1400	105	81	272	164	55	64	75	25	9.5	30
22	89	1010	102	77	210	154	54	60	65	23	9.7	25
23	80	777	101	74	175	142	53	56	60	24	9.8	31
24	73	617	100	71	141	129	50	54	58	16	9.4	36
25	68	506	98	70	125	126	49	52	52	18	8.7	45
26	63	463	97	67	120	121	48	51	46	19	13	47
27	58	433	94	65	114	113	47	65	46	15	27	77
28	55	379	91	64	104	110	46	68	57	28	22	60
29	53	352	88	63	---	104	48	63	53	40	18	52
30	50	317	86	62	---	93	59	63	60	27	17	110
31	49	---	83	62	---	88	---	59	---	20	15	---
TOTAL	1440	14138	5276	2226	4327	4770	1866	2070	2828	1261	437.5	834
MEAN	46.5	471	170	71.8	155	154	62.2	66.8	94.3	40.7	14.1	27.8
MAX	109	1880	374	103	467	258	88	114	253	73	27	110
MIN	23	49	83	60	61	88	46	51	46	15	8.7	13
CFSM	.38	3.83	1.38	.58	1.26	1.25	.51	.54	.77	.33	.11	.23
IN.	.44	4.28	1.60	.67	1.31	1.44	.56	.63	.86	.38	.13	.25

CAL YR 1985 TOTAL 57399.3 MEAN 157 MAX 1880 MIN 9.1 CFSM 1.28 IN. 17.36
WTR YR 1986 TOTAL 41473.5 MEAN 114 MAX 1880 MIN 8.7 CFSM .93 IN. 12.54

05520500 KANKAKEE RIVER AT MOMENCE, IL

LOCATION.--Lat 41°09'36", long 87°40'07", in SW¼NE¼ sec.24, T.31 N., R.13 E., Kankakee County, Hydrologic Unit 07120001, on right bank at Hill Street in Momence, 0.2 mi downstream from bridge on State Highways 1 and 17, 1.2 mi upstream from Tower Creek, and at mile 47.9.

DRAINAGE AREA.--2,294 mi^2, of which 201 mi^2 does not contribute directly to surface runoff.

PERIOD OF RECORD.--February to December 1905, February to July 1906, December 1914 to current year.

REVISED RECORDS.--WSP 1238: 1916, 1930. WSP 1308: 1915(M), 1917(M), 1919(M), 1922(M), 1926(M), 1934-35(M), 1938(M). WDR IL-75-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 609.18 ft above National Geodetic Vertical Datum of 1929. Prior to Aug. 1, 1938, nonrecording gage at site 0.2 mi upstream at datum 1.00 ft higher. Aug. 1, 1938, to Aug. 8, 1969, water-stage recorder at present site at datum 1.00 ft higher.

REMARKS.--Estimated daily discharges: Dec. 22 to Feb. 21. Records good except those for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--71 years (water years 1916-86), 1,985 ft^3/s, 11.75 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,000 ft^3/s, Mar. 6, 1979, gage height, 10.51 ft, ice jam; minimum observed, 306 ft^3/s, Sept. 1, 6, 17, 1919.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9,080 ft^3/s Nov. 19, gage height, 5.65 ft; maximum gage height, 7.62 ft, Dec. 22, ice jam; minimum discharge, 620 ft^3/s Sept. 9, 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	699	1190	4840	2150	2200	2990	2660	2530	2140	2110	1720	750
2	696	1310	4970	2150	2300	3000	2610	2550	2140	2140	1630	731
3	678	1470	4620	2200	2400	3040	2520	2550	2110	2120	1460	711
4	723	1530	4390	2150	2500	3120	2420	2590	2000	2070	1340	708
5	762	1540	4180	2050	2700	3200	2350	2600	1940	1990	1260	693
6	796	1490	4000	2100	2800	3360	2300	2530	1940	1870	1230	678
7	776	1460	3840	2050	3100	3300	2250	2410	2290	1700	1190	653
8	747	1390	3710	1980	3200	3290	2220	2250	3380	1580	1140	648
9	727	1350	3640	1920	3300	3350	2170	2160	3250	1500	1130	632
10	732	1880	3590	1900	3400	3520	2120	2130	3300	1740	1110	628
11	731	2540	3900	1950	3500	3640	2080	2160	3480	2340	1060	704
12	702	2570	4170	1950	3500	3650	2050	2130	3580	2200	1030	685
13	696	2820	4120	1900	3300	3690	2060	2010	3620	2270	1030	680
14	758	3100	4210	1850	3000	3700	2070	1920	3680	2310	986	708
15	827	3260	4100	1850	2800	3680	2100	1860	3980	2380	944	716
16	851	4360	4100	2000	2700	3620	2070	1910	4090	2400	907	704
17	837	4680	3900	2100	2500	3580	2030	1930	4000	2280	898	667
18	854	4610	3650	2200	2700	3570	2000	1930	3890	2080	853	669
19	1100	8320	3400	2400	3100	3920	1980	1950	3700	1910	817	717
20	1400	8680	3150	2490	3500	3850	1990	1970	3480	1780	799	850
21	1520	7860	3000	2570	3400	3700	2000	2000	3170	1640	769	909
22	1620	7320	2850	2720	3400	3590	1990	2010	2820	1540	746	911
23	1640	6680	2750	2750	3420	3520	1990	2000	2490	1430	724	918
24	1620	6140	2650	2730	3390	3470	1960	1940	2250	1330	701	981
25	1600	5780	2550	2680	3360	3400	1930	1860	2060	1260	710	1090
26	1550	5540	2450	2560	3330	3310	1930	1790	1890	1220	738	1160
27	1470	5410	2380	2350	3220	3190	1930	1960	1870	1200	798	1270
28	1380	5220	2320	2150	3090	3090	2020	1990	1900	1260	831	1340
29	1300	5050	2280	2100	---	2990	2210	1970	1810	1360	851	1380
30	1240	4870	2200	2150	---	2880	2390	2040	2020	1430	820	1550
31	1210	---	2150	2200	---	2750	---	2100	---	1600	751	---
TOTAL	32242	119420	108060	68300	85110	104960	64400	65730	84270	56040	30973	25441
MEAN	1040	3981	3486	2203	3040	3386	2147	2120	2809	1808	999	848
MAX	1640	8680	4970	2750	3500	3920	2660	2600	4090	2400	1720	1550
MIN	678	1190	2150	1850	2200	2750	1930	1790	1810	1200	701	628
CFSM	.45	1.74	1.52	.96	1.33	1.48	.94	.92	1.22	.79	.44	.37
IN.	.52	1.94	1.75	1.11	1.38	1.70	1.04	1.07	1.37	.91	.50	.41

CAL YR 1985	TOTAL	10008551	MEAN	2763	MAX	8800	MIN	565	CFSM	1.20	IN.	16.35
CAL YR 1986	TOTAL	844946	MEAN	2315	MAX	8680	MIN	628	CFSM	1.01	IN.	13.70

05521000 IROQUOIS RIVER AT ROSEBUD, IN

LOCATION.--Lat 41°02'00", long 87°10'49", in NW¼SW¼ sec.24, T.30 N., R.7 W., Jasper County, Hydrologic Unit 07120002, on right bank 100 ft downstream from bridge on county road, 0.5 mi north of Rosebud, 0.5 mi downstream from confluence of Swain and Dexter ditches, 1.5 mi upstream from Davidson ditch, 2 mi east of Parr, and at mile 93.5.

DRAINAGE AREA.--35.6 mi^2.

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

REVISED RECORDS.--WSP 1338: 1950-53. WSP 1728: 1959-60(M). WSP 1915: 1949-60. WSP 2115: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 661.47 ft above National Geodetic Vertical Datum of 1929 (levels by State of Indiana, Department of Natural Resources). Prior to Oct. 1, 1953, nonrecording gage on downstream side of county road bridge at same datum.

REMARKS.--Estimated daily discharges: Dec. 16 to Jan. 19, Jan. 27 to Feb. 3, Feb. 10-17, and Feb. 22 to Mar. 4. Records good except those for estimated daily discharges, which are fair.

AVERAGE DISCHARGE.--38 years, 27.2 ft^3/s, 10.38 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 475 ft^3/s May 2, 1983; maximum gage height, 8.86 ft Feb. 10, 1959; minimum daily discharge, 0.5 ft^3/s Oct. 11, 12, 19, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 150 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 20	0200	242	3.98	June 6	0100	248	4.04
Dec. 11	1600	233	3.89	June 8	0100	237	3.93
Feb. 19	0100	168	3.22	June 15	0900	178	3.33
May 1	1100	241	3.97	July 12	1900	206	3.62
May 29	1700	*344	*4.84				

Minimum daily discharge, 2.8 ft^3/s Sept. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.6	7.0	66	16	11	16	22	182	77	38	7.9	3.3
2	4.4	16	71	16	12	16	22	112	55	78	7.4	3.1
3	4.7	15	49	16	12	22	21	73	43	45	7.0	3.2
4	5.1	14	44	16	60	35	21	53	36	32	6.6	3.7
5	5.9	11	43	16	88	67	20	40	143	23	6.0	2.9
6	4.5	9.6	39	15	49	78	19	32	192	19	6.7	2.9
7	4.2	9.4	37	14	33	54	19	34	151	17	7.7	2.9
8	3.9	9.0	37	14	26	40	18	29	181	17	6.5	3.0
9	3.4	8.7	36	13	22	34	17	24	105	18	6.0	2.8
10	5.2	27	62	13	20	41	17	22	83	19	7.0	2.9
11	4.3	43	203	14	18	46	16	21	70	121	6.2	4.2
12	4.4	31	176	15	17	45	16	20	56	137	5.7	4.5
13	3.9	32	110	15	15	48	15	18	45	135	5.4	3.7
14	4.6	35	76	15	15	45	16	19	65	71	4.8	3.5
15	5.0	30	55	15	14	39	17	19	153	49	4.6	3.3
16	4.5	94	43	14	14	34	17	37	99	38	4.6	3.0
17	4.1	78	36	15	14	31	15	30	68	30	4.6	3.3
18	6.1	59	32	21	64	37	14	32	52	26	4.8	3.9
19	14	166	27	20	129	81	15	41	43	22	4.3	4.4
20	15	204	25	18	80	54	16	37	36	19	4.7	11
21	10	118	23	17	59	41	16	29	31	17	3.8	6.9
22	8.1	91	22	17	40	37	15	25	28	15	3.5	5.0
23	6.8	76	21	15	29	36	13	23	24	14	4.5	7.3
24	8.0	63	20	15	23	30	12	19	21	11	4.0	6.7
25	6.6	56	19	17	20	29	13	19	19	11	3.6	10
26	6.0	66	18	15	18	29	13	19	18	11	4.3	9.4
27	5.5	72	18	13	17	27	12	24	18	9.7	4.4	12
28	5.5	71	17	12	16	25	14	26	17	9.3	4.0	8.9
29	5.7	72	17	11	---	24	13	208	17	7.5	3.7	9.1
30	5.5	63	17	11	---	23	44	195	27	7.3	3.5	20
31	5.4	---	16	11	---	21	---	115	---	7.7	3.4	---
TOTAL	184.9	1646.7	1475	465	935	1185	518	1577	1973	1074.5	161.2	170.8
MEAN	5.96	54.9	47.6	15.0	33.4	38.2	17.3	50.9	65.8	34.7	5.20	5.69
MAX	15	204	203	21	129	81	44	208	192	137	7.9	20
MIN	3.4	7.0	16	11	11	16	12	18	17	7.3	3.4	2.8
CFSM	.17	1.54	1.34	.42	.94	1.07	.49	1.43	1.85	.97	.15	.16
IN.	.19	1.72	1.54	.49	.98	1.24	.54	1.65	2.06	1.12	.17	.18

CAL YR 1985	TOTAL	11821.2	MEAN	32.4	MAX	415	MIN	2.4	CFSM	.91	IN.	12.35
WTR YR 1986	TOTAL	11366.1	MEAN	31.1	MAX	208	MIN	2.8	CFSM	.87	IN.	11.88

05522000 IROQUOIS RIVER NEAR NORTH MARION, IN

LOCATION.--Lat 40°58'12", long 87°06'50", in NE¼NW¼ sec.16, T.29 N., R.6 W., Jasper County, Hydrologic Unit 07120002, on downstream side of county highway bridge, 1.2 mi upstream from Ryan ditch, 2 mi east of North Marion, 3.5 mi northeast of Rensselaer, and at mile 87.7.

DRAINAGE AREA.--144 mi^2.

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

REVISED RECORDS.--WSP 2115: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 646.68 ft above National Geodetic Vertical Datum of 1929. Prior to Sept. 6, 1955, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Nov. 20-24, Dec. 12 to Mar. 20, May 2-5, May 31 to June 1, June 8, 9, July 27-31, and Sept. 4-9. Records good except those for estimated daily discharges, which are poor. Water from Oliver ditch, an upstream tributary, can be diverted to Ryan ditch and thus enter the Iroquois River below station. Streamflow affected by irrigation. Variable backwater conditions exist on some rises.

AVERAGE DISCHARGE.--37 years (water years 1950 to current year), 133 ft^3/s, 12.54 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,040 ft^3/s June 10, 1958, gage height, 15.09 ft; minimum daily, 1.6 ft^3/s Sept. 15, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 800 ft^3/s Nov. 21, gage height, 9.67 ft; minimum daily, 10 ft^3/s Sept. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	34	311	70	50	73	111	624	400	279	33	13
2	15	75	309	70	52	72	118	700	336	456	29	12
3	13	111	260	70	56	80	115	450	204	390	30	11
4	14	93	214	69	190	130	107	300	159	236	28	13
5	18	81	190	68	380	215	104	220	285	156	27	12
6	16	68	180	66	340	300	100	181	638	123	28	12
7	14	68	167	64	210	280	92	178	745	103	25	12
8	16	57	166	62	140	215	86	175	760	96	23	12
9	15	52	165	58	120	170	84	141	720	103	22	11
10	15	102	205	60	92	145	81	123	647	114	22	12
11	18	218	532	62	80	190	80	110	478	366	21	13
12	17	210	740	63	73	200	84	103	341	550	19	17
13	16	193	720	64	70	220	78	96	237	684	18	17
14	17	191	450	64	68	225	75	94	213	621	18	18
15	19	171	320	63	66	215	79	95	430	435	18	14
16	19	286	220	62	65	190	78	153	626	261	17	12
17	16	417	170	61	64	170	74	141	555	168	16	10
18	20	394	130	95	110	150	69	129	373	132	16	12
19	88	509	110	90	330	230	65	139	242	110	15	14
20	103	720	100	84	390	360	70	154	184	94	14	22
21	78	780	97	80	290	270	76	136	151	83	17	26
22	70	700	93	72	180	222	68	121	134	75	18	18
23	58	580	90	68	125	198	64	108	119	67	17	17
24	55	450	86	65	92	177	62	96	104	61	16	20
25	50	366	83	73	85	163	59	87	94	53	15	35
26	44	312	81	68	82	154	57	85	86	45	14	34
27	40	352	77	58	78	157	54	98	85	44	14	36
28	39	366	75	54	75	144	55	105	136	42	14	38
29	37	369	73	50	---	135	58	283	121	35	15	31
30	39	348	72	48	---	123	117	659	155	35	15	40
31	34	---	71	49	---	111	---	600	---	34	14	---
TOTAL	1028	8673	6557	2050	3953	5684	2420	6684	9758	6051	608	564
MEAN	33.2	289	212	66.1	141	183	80.7	216	325	195	19.6	18.8
MAX	103	780	740	95	390	360	118	700	760	684	33	40
MIN	13	34	71	48	50	72	54	85	85	34	14	10
CFSM	.23	2.01	1.47	.46	.98	1.27	.56	1.50	2.26	1.35	.14	.13
IN.	.27	2.24	1.69	.53	1.02	1.47	.63	1.73	2.52	1.56	.16	.15

CAL YR 1985 TOTAL 58886.9 MEAN 161 MAX 1440 MIN 9.3 CFSM 1.12 IN. 15.21
WTR YR 1986 TOTAL 54030 MEAN 148 MAX 780 MIN 10 CFSM 1.03 IN. 13.96

05522500 IROQUOIS RIVER AT RENSSELAER, IN

LOCATION.--Lat 40°56'00", long 87°07'44", in NW¼SE¼ sec.29, T.29 N., R.6 W., Jasper County, Hydrologic Unit 07120002, on right bank 20 ft downstream from bridge on State Highway 114, 0.8 mi east of Rensselaer, 1.5 mi downstream from Ryan ditch, 5.5 mi upstream from Slough Creek, and at mile 84.9.

DRAINAGE AREA.--203 mi^2.

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

REVISED RECORDS.--WSP 2115: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 642.29 ft above National Geodetic Vertical Datum of 1929 (levels by State of Indiana, Department of Natural Resources). Prior to July 8, 1949, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Dec. 17 to Jan. 17, Jan. 27 to Feb. 3, Feb. 9-17, and Feb. 24 to Mar. 3. Records good except those for estimated daily discharges, which are poor. Streamflow affected by irrigation.

AVERAGE DISCHARGE.--38 years, 170 ft^3/s, 11.37 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,550 ft^3/s June 10, 1958, gage height, 16.54 ft; minimum daily, 2.2 ft^3/s Sept. 9, 15, 16, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,130 ft^3/s Nov. 21, gage height, 10.99 ft; minimum daily, 14 ft^3/s Sept. 9, 16, 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	45	420	91	63	115	117	1040	584	377	45	18
2	17	112	409	90	65	110	124	974	369	718	44	17
3	16	157	328	91	68	125	124	706	236	618	42	17
4	17	124	269	92	281	248	116	456	216	396	39	19
5	21	105	240	90	589	411	109	290	590	244	39	18
6	19	86	223	87	468	501	107	228	930	182	39	17
7	17	86	205	82	274	431	96	238	960	147	44	16
8	18	72	203	77	185	287	90	215	1040	128	41	15
9	18	67	198	74	130	232	87	170	944	138	38	14
10	18	166	281	76	110	236	85	147	740	124	38	15
11	20	350	816	82	96	285	82	129	564	446	39	17
12	20	330	1070	87	90	283	85	121	422	708	36	20
13	18	336	995	88	86	311	79	116	302	876	33	19
14	20	331	765	88	83	339	76	114	271	816	31	21
15	22	298	532	86	80	298	80	114	654	617	30	17
16	21	497	360	84	78	257	79	174	807	397	29	14
17	19	604	240	90	78	218	74	154	681	246	29	14
18	27	553	140	169	222	214	69	144	477	182	27	15
19	145	781	130	153	704	424	67	158	316	148	26	20
20	149	1090	125	117	690	464	73	167	236	123	28	34
21	105	1080	120	102	503	341	78	145	193	108	27	37
22	90	932	115	98	337	274	70	128	170	97	25	27
23	73	766	110	91	243	238	64	114	151	86	24	29
24	69	603	105	86	190	205	63	100	130	78	24	32
25	62	473	105	92	160	190	62	92	118	77	20	49
26	55	440	100	82	140	174	60	93	108	72	23	45
27	51	497	100	70	130	176	57	107	100	60	26	50
28	49	505	98	65	120	162	60	113	152	57	25	48
29	46	509	96	63	---	152	62	584	155	56	23	43
30	48	468	94	62	---	136	240	906	174	52	21	77
31	43	---	92	62	---	121	---	807	---	44	20	---
TOTAL	1331	12463	9084	2767	6263	7958	2635	9044	12790	8418	975	794
MEAN	42.9	415	293	89.3	224	257	87.8	292	426	272	31.5	26.5
MAX	149	1090	1070	169	704	501	240	1040	1040	876	45	77
MIN	16	45	92	62	63	110	57	92	100	44	20	14
CFSM	.21	2.04	1.44	.44	1.10	1.27	.43	1.44	2.10	1.34	.16	.13
IN.	.24	2.28	1.66	.51	1.15	1.46	.48	1.66	2.34	1.54	.18	.15

CAL YR 1985	TOTAL	78617	MEAN	215	MAX	1920	MIN	14	CFSM	1.06	IN.	14.41
WTR YR 1986	TOTAL	74522	MEAN	204	MAX	1090	MIN	14	CFSM	1.00	IN.	13.66

05523000 BICE DITCH NEAR SOUTH MARION, IN

LOCATION.--Lat 40°52'00", long 87°05'32", in NE¼NW¼ sec.22, T.28 N., R.6 W., Jasper County, Hydrologic Unit 07120002, on left bank at upstream side of bridge on State Highway 16, 2.3 mi upstream from mouth, 3 mi southeast of South Marion, and 5 mi southeast of Rensselaer.

DRAINAGE AREA.--21.8 mi^2.

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

REVISED RECORDS.--WSP 1508: 1956. WSP 2115: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 651.30 ft above National Geodetic Vertical Datum of 1929. Prior to Aug. 5, 1955, nonrecording gage, and Aug. 5, 1955, to Sept. 30, 1965, water-stage recorder at present site at datum 2.00 ft higher.

REMARKS.--Estimated daily discharges: Dec. 18 to Jan. 14, Jan. 27 to Feb. 2, Feb. 11-17, and Feb. 24 to Mar. 2. Records fair except those for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--37 years (water years 1950 to current year), 17.8 ft^3/s, 11.09 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,080 ft^3/s Mar. 4, 1979; maximum gage height, 14.02 ft June 13, 1958, at present datum; no flow at times during 1952, 1955, and 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 340 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 20	0300	411	7.61	June 5	2300	*708	9.69
Dec. 11	1200	548	8.53	June 16	0400	584	8.80
May 29	1300	629	9.13	July 1	2200	553	8.57

Minimum daily discharge, 0.44 ft^3/s Sept. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.74	1.8	46	2.9	3.2	12	9.3	139	52	193	1.7	.73
2	.79	29	38	2.9	3.4	12	12	66	30	327	1.6	.67
3	.79	24	23	3.0	3.4	20	12	38	21	112	1.5	.63
4	.90	13	19	3.1	85	37	10	29	39	55	1.5	.65
5	1.1	8.6	18	2.9	75	71	8.3	23	359	32	1.4	.52
6	.96	6.8	17	2.8	37	88	7.3	21	478	22	1.4	.53
7	.83	5.9	16	2.6	25	51	6.3	36	378	16	1.5	.47
8	.75	4.7	17	2.4	19	31	5.9	26	171	13	1.4	.50
9	.68	4.2	17	2.4	16	27	5.0	19	83	11	1.3	.44
10	.64	21	46	2.5	14	35	4.7	15	59	9.7	1.4	.45
11	.71	42	417	2.8	12	40	4.6	14	46	47	1.5	.61
12	.76	25	292	2.9	10	37	4.2	13	31	90	1.3	.78
13	.80	46	127	3.1	9.2	46	4.1	12	24	49	1.2	.57
14	.81	37	58	3.0	8.7	43	4.2	11	20	27	1.2	.51
15	.86	38	34	2.9	8.5	32	4.8	9.6	174	19	1.2	.47
16	.83	141	25	2.9	8.4	26	4.6	13	351	15	1.1	.47
17	.74	82	19	8.0	9.0	24	4.2	11	97	11	1.2	.50
18	1.1	60	14	17	61	24	3.9	11	51	7.2	1.1	.67
19	17	320	11	16	109	63	3.8	13	33	5.4	.98	.74
20	12	309	9.8	11	51	37	4.3	13	23	4.4	.94	31
21	4.5	124	8.0	8.7	38	26	5.5	10	17	3.5	.91	6.0
22	4.2	82	7.0	9.4	30	24	4.3	7.9	14	3.0	.90	2.2
23	2.6	59	6.0	8.2	25	23	3.6	6.5	12	2.6	.88	1.9
24	2.3	42	5.3	8.3	20	17	3.4	5.3	9.5	2.4	.89	1.7
25	3.1	34	4.7	9.4	18	16	3.4	4.8	7.2	2.3	.86	1.7
26	2.5	70	4.2	8.1	15	16	3.4	5.3	6.4	2.3	.94	1.7
27	2.1	87	3.7	5.5	14	15	3.1	20	5.6	2.1	1.1	1.7
28	1.8	88	3.5	4.0	13	14	3.6	19	5.4	2.0	1.1	1.7
29	1.6	74	3.3	3.4	---	12	3.8	336	4.4	1.7	.90	1.6
30	1.6	51	3.2	3.0	---	11	7.5	233	52	1.8	.84	11
31	1.6	---	3.0	2.8	---	9.0	---	97	---	1.7	.77	---
TOTAL	71.69	1930.0	1315.7	167.9	740.8	939.0	165.1	1277.4	2653.5	1091.1	36.51	73.11
MEAN	2.31	64.3	42.4	5.42	26.5	30.3	5.50	41.2	88.5	35.2	1.18	2.44
MAX	17	320	417	17	109	88	12	336	478	327	1.7	31
MIN	.64	1.8	3.0	2.4	3.2	9.0	3.1	4.8	4.4	1.7	.77	.44
CFSM	.11	2.95	1.94	.25	1.22	1.39	.25	1.89	4.06	1.61	.05	.11
IN.	.12	3.29	2.25	.29	1.26	1.60	.28	2.18	4.53	1.86	.06	.12

CAL YR 1985	TOTAL	10586.51	MEAN	29.0	MAX	637	MIN	.64	CFSM	1.33	IN.	18.07
WTR YR 1986	TOTAL	10461.81	MEAN	28.7	MAX	478	MIN	.44	CFSM	1.32	IN.	17.85

05524500 IROQUOIS RIVER NEAR FORESMAN, IN

LOCATION.--Lat 40°52'14", long 87°18'24", in NE¼SE¼ sec.15, T.28 N., R.8 W., Newton County, Hydrologic Unit 07120002, on right bank at downstream side of bridge on State Highway 55, 0.2 mi north of intersection of State Highways 16 and 55, 0.5 mi downstream from Mosquito Creek, 0.6 mi west of Foresman, 3 mi east of Brook, and at mile 72.7.

DRAINAGE AREA.--449 mi^2.

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

REVISED RECORDS.--WSP 1338: 1953. WSP 1438: 1955. WSP 1508: 1956. WSP 2115: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 624.00 ft above National Geodetic Vertical Datum of 1929. Prior to Sept. 7, 1955, nonrecording gage 2.5 mi upstream at datum 3.54 ft higher.

REMARKS.--Estimated daily discharges: Dec. 14-16, Dec. 22 to Jan. 17, Jan. 27 to Feb. 3, Feb. 10-17, and Feb. 26 to Mar. 3. Records good except those for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--37 years (water years 1950 to current year), 387 ft^3/s, 11.70 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,930 ft^3/s June 14, 1958, gage height, 24.42 ft; minimum daily, 6.3 ft^3/s Sept. 10, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,600 ft^3/s Nov. 21, gage height, 18.45 ft; minimum daily, 19 ft^3/s Sept. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	101	1150	220	150	280	292	1160	1720	805	82	28
2	27	236	1080	220	155	270	303	1670	1480	1570	81	26
3	29	395	953	220	160	300	305	1710	1180	1760	76	25
4	28	339	792	220	417	474	292	1550	878	1630	71	25
5	33	270	646	220	936	762	270	1300	971	1370	67	26
6	36	226	544	210	984	944	261	1030	1650	1050	65	25
7	31	203	475	190	854	999	242	855	1960	738	72	22
8	27	181	451	180	604	893	226	722	2150	465	72	21
9	28	163	435	170	400	713	211	550	2100	328	67	20
10	29	269	482	180	280	601	201	417	1890	280	67	19
11	32	638	1080	185	240	632	194	349	1630	534	68	23
12	35	689	1780	195	220	652	189	314	1380	852	61	32
13	35	710	2040	200	210	670	187	288	1110	986	56	34
14	37	786	1940	200	200	719	175	282	860	1010	51	31
15	44	794	1690	195	190	700	190	270	1170	952	48	29
16	42	1010	1420	190	180	614	188	343	1560	813	49	23
17	39	1230	1120	220	180	524	178	348	1630	584	45	21
18	54	1270	831	371	377	484	166	357	1480	381	40	23
19	310	1580	627	412	961	843	158	381	1240	284	37	28
20	419	2360	517	317	1120	1060	163	408	961	235	35	131
21	328	2590	431	245	1080	988	184	364	692	202	36	128
22	262	2450	360	227	939	816	173	315	467	179	35	65
23	212	2210	330	211	730	686	152	276	349	160	34	47
24	184	1930	300	199	537	574	142	244	287	147	33	46
25	175	1650	280	205	425	500	140	220	249	140	32	57
26	160	1440	260	205	370	457	140	214	228	133	33	69
27	139	1370	240	160	340	438	132	357	211	120	42	63
28	121	1340	235	150	310	413	133	420	223	110	38	75
29	111	1310	230	145	---	386	140	969	252	103	35	67
30	105	1250	225	140	---	350	246	1740	354	98	33	216
31	101	---	220	140	---	312	---	1870	---	92	29	---
TOTAL	3239	30990	23164	6542	13549	19054	5973	21293	32312	18111	1590	1445
MEAN	104	1033	747	211	484	615	199	687	1077	584	51.3	48.2
MAX	419	2590	2040	412	1120	1060	305	1870	2150	1760	82	216
MIN	26	101	220	140	150	270	132	214	211	92	29	19
CFSM	.23	2.30	1.66	.47	1.08	1.37	.44	1.53	2.40	1.30	.11	.11
IN.	.27	2.57	1.92	.54	1.12	1.58	.49	1.76	2.68	1.50	.13	.12

CAL YR 1985	TOTAL	179075	MEAN	491	MAX	4210	MIN	17	CFSM	1.09	IN.	14.84
WTR YR 1986	TOTAL	177262	MEAN	486	MAX	2590	MIN	19	CFSM	1.08	IN.	14.69

05525000 IROQUOIS RIVER AT IROQUOIS, IL

LOCATION.--Lat 40°49'25", long 87°34'55", in SE¼ sec.15, T.27 N., R.11 W., Iroquois County, Hydrologic Unit 07120002, on left bank at upstream side of bridge on U.S. Highway 52 in Iroquois, 500 ft upstream from Penn Central bridge, 4.5 mi downstream from Indiana-Illinois State line, and at mile 50.4.

DRAINAGE AREA.--686 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 614.34 ft above National Geodetic Vertical Datum of 1929. Prior to Aug. 5, 1945, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Dec. 14 to Jan. 11, Feb. 21-24, and Mar. 7-9. Records good except those for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--42 years, 562 ft^3/s, 11.13 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,400 ft^3/s June 13, 1958, gage height, 26.31 ft; minimum, 5.2 ft^3/s Sept. 13, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,650 ft^3/s Nov. 21, gage height, 20.20 ft; minimum, 28 ft^3/s Sept. 10, 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	146	2200	285	201	446	408	2560	3170	1090	96	36
2	31	213	2060	290	209	428	393	3250	2890	2620	86	34
3	31	465	1910	295	216	459	393	3330	2460	3130	79	33
4	35	545	1640	300	465	587	392	3170	1950	3130	74	32
5	36	459	1210	285	1440	1050	372	2800	1880	2840	70	31
6	36	374	972	270	1600	1510	348	2300	2640	2340	66	31
7	38	316	812	260	1520	1600	331	1780	3230	1710	66	32
8	38	275	731	240	1190	1450	312	1390	3630	1090	68	31
9	35	243	685	240	778	1300	291	1080	3670	672	69	29
10	34	275	694	245	470	1050	273	800	3540	500	66	28
11	37	783	1720	250	400	955	262	624	3260	864	67	28
12	39	1020	3000	265	340	994	253	536	2840	1400	66	30
13	41	1110	3430	270	320	1020	246	481	2110	1580	62	32
14	47	1240	3200	260	290	1050	240	489	1890	1600	55	36
15	49	1340	2800	250	280	1070	240	476	2710	1560	51	36
16	54	1860	2400	240	270	990	242	571	3210	1410	48	36
17	57	2200	2000	278	270	850	236	617	3160	1140	47	32
18	60	2250	1600	372	424	743	225	752	2950	777	44	31
19	172	2950	1400	534	1290	824	216	812	2590	525	40	36
20	519	4370	1100	450	1620	1070	210	833	2120	398	39	50
21	564	4640	900	350	1900	1190	220	735	1550	322	39	121
22	472	4530	700	310	1450	1120	226	621	1020	270	39	110
23	372	4260	580	280	1100	955	214	528	683	234	39	98
24	302	3880	500	260	750	809	196	455	519	204	37	71
25	259	3420	450	245	650	697	188	398	424	184	36	56
26	238	2990	380	235	585	631	187	361	368	170	37	58
27	214	2760	340	225	549	583	181	516	331	156	38	72
28	187	2590	300	220	496	553	176	784	305	137	43	72
29	166	2490	270	210	---	524	178	1410	308	123	42	78
30	155	2350	275	205	---	489	382	2990	420	112	40	123
31	149	---	280	206	---	444	---	3210	---	105	38	---
TOTAL	4498	56344	40539	8625	21073	27441	8031	40659	61828	32393	1687	1523
MEAN	145	1878	1308	278	753	885	268	1312	2061	1045	54.4	50.8
MAX	564	4640	3430	534	1900	1600	408	3330	3670	3130	96	123
MIN	31	146	270	205	201	428	176	361	305	105	36	28
CFSM	.21	2.74	1.91	.41	1.10	1.29	.39	1.91	3.00	1.52	.08	.07
IN.	.24	3.06	2.20	.47	1.14	1.49	.44	2.20	3.35	1.76	.09	.08

CAL YR 1985	TOTAL	304675	MEAN	835	MAX	6010	MIN	24	CFSM	1.22	IN.	16.52
WTR YR 1986	TOTAL	304641	MEAN	835	MAX	4640	MIN	28	CFSM	1.22	IN.	16.52

05536190 HART DITCH AT MUNSTER, IN

LOCATION.--Lat 41°33'40", long 87°28'50", in SE¼NW¼ sec.20, T.36 N., R.9 W., Lake County, Hydrologic Unit 07120003, on left bank at city limits of Munster, 0.2 mi downstream from Ridge Road, and 0.4 mi upstream from mouth.

DRAINAGE AREA.--70.7 mi^2.

PERIOD OF RECORD.--September 1942 to current year.

REVISED RECORDS.--WDR IN-72-1: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 591.27 ft above National Geodetic Vertical Datum of 1929 (levels by State of Indiana, Department of Natural Resources). Since Sept. 11, 1959, auxiliary water-stage recorder 1,200 ft upstream from base gage, at same datum.

REMARKS.--Estimated daily discharges: Dec. 15 to Jan. 15, Jan. 27 to Feb. 2, Feb. 10-15, and Feb. 23-25. Records fair except those for estimated daily discharges, which are poor. High flow occasionally in backwater from Little Calumet River.

AVERAGE DISCHARGE.--44 years, 62.5 ft^3/s, 12.00 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,670 ft^3/s Apr. 28, 1959; maximum gage height, 8.04 ft June 14, 1981; minimum daily discharge, 1.6 ft^3/s Dec. 24-26, 31, 1963, Jan. 1, 2, Sept. 4-9, 14-17, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 800 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 19	----	a*1,700	b*6.99

Minimum daily discharge, 4.3 ft^3/s Aug. 21.

a Estimated.
b Due to backwater from Little Calumet River, peak stage occurred later than peak discharge.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	63	305	19	18	40	47	39	31	32	9.3	5.2
2	14	115	354	19	19	50	39	30	24	27	16	6.6
3	14	79	150	19	23	92	34	21	21	21	9.7	5.7
4	55	52	123	18	236	109	31	19	18	17	7.0	6.1
5	27	40	102	18	436	104	30	18	47	14	7.1	5.4
6	20	36	88	18	176	152	28	32	35	13	8.4	5.0
7	16	35	79	18	90	112	27	45	497	13	7.8	6.1
8	20	30	74	18	72	68	25	31	508	41	6.4	6.1
9	17	103	73	17	52	80	24	22	206	108	6.0	6.0
10	23	290	106	17	38	176	23	17	200	49	9.8	7.5
11	18	208	253	18	33	210	22	16	140	31	7.2	47
12	20	129	225	18	27	137	22	17	84	34	6.5	7.3
13	19	128	119	18	25	126	22	16	62	29	6.1	5.8
14	25	114	81	18	23	136	37	30	56	21	6.5	5.3
15	21	147	62	17	21	120	33	53	362	23	7.5	5.1
16	21	630	45	18	30	96	29	47	152	22	11	5.3
17	21	378	36	27	64	81	25	45	83	17	8.8	4.9
18	75	490	32	52	214	129	23	50	59	15	6.3	6.9
19	191	1600	27	64	494	385	21	106	46	15	6.4	27
20	87	1350	25	44	441	200	21	68	42	18	6.0	17
21	60	790	23	34	191	119	21	42	43	11	4.3	12
22	43	550	22	36	94	93	20	35	30	9.7	4.9	16
23	34	340	22	31	62	78	19	29	26	9.7	5.5	26
24	32	208	21	30	50	67	18	24	21	9.5	5.6	17
25	30	140	21	30	41	57	16	21	18	51	4.9	14
26	25	137	20	27	53	56	15	27	16	12	42	32
27	24	122	20	22	50	49	15	74	45	8.9	18	10
28	22	113	19	20	43	42	19	91	26	44	15	9.6
29	22	107	19	18	---	39	16	71	20	15	6.6	88
30	21	91	19	18	---	37	53	70	56	11	6.2	61
31	21	---	19	17	---	34	---	43	---	12	5.1	---
TOTAL	1052	8615	2584	758	3116	3274	775	1249	2974	753.8	277.9	476.9
MEAN	33.9	287	83.4	24.5	111	106	25.8	40.3	99.1	24.3	8.96	15.9
MAX	191	1600	354	64	494	385	53	106	508	108	42	88
MIN	14	30	19	17	18	34	15	16	16	8.9	4.3	4.9
CFSM	.48	4.06	1.18	.35	1.57	1.50	.36	.57	1.40	.34	.13	.22
IN.	.55	4.53	1.36	.40	1.64	1.72	.41	.66	1.56	.40	.15	.25

CAL YR 1985	TOTAL	34395.3	MEAN	94.2	MAX	1900	MIN	6.0	CFSM	1.33	IN.	18.10
WTR YR 1986	TOTAL	25905.6	MEAN	71.0	MAX	1600	MIN	4.3	CFSM	1.00	IN.	13.63

05536195 LITTLE CALUMET RIVER AT MUNSTER, IN

LOCATION.--Lat 41°34'07", long 87°31'18", in SE¼NW¼ sec.13, T.36 N., R.10 W., Lake County, Hydrologic Unit 07120003, on left bank 200 ft upstream from Hohman Street bridge at north city limits of Munster, 0.4 mi upstream from Indiana-Illinois State line, and 4.6 mi upstream from Thorn Creek.

DRAINAGE AREA.--90.0 mi^2. During times of floods on Deep River, flow may enter basin from eastern portion of Little Calumet River basin; or, during times of floods on Hart ditch, flow may leave the basin and enter eastern portion of the Little Calumet River basin.

PERIOD OF RECORD.--June 1958 to current year.

GAGE.--Water-stage recorder. Datum of gage is 580.72 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Nov. 19-30, Dec. 14 to Jan. 16, Jan. 27 to Feb. 2, Feb. 10-17, Feb. 20 to Mar. 2, and Mar. 7-9. Records fair except those for estimated daily discharges, which are poor. Flow from eastern portion of Little Calumet River basin is diverted to Lake Michigan by Burns ditch.

AVERAGE DISCHARGE.--28 years, 74.4 ft^3/s, 11.23 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,510 ft^3/s Apr. 28, 1959, gage height, 13.67 ft; maximum gage height, 16.40 ft June 14, 1981; minimum daily discharge, 1.9 ft^3/s Aug. 20, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 750 ft^3/s Nov. 19, gage height, 14.04 ft (backwater); minimum daily, 6.5 ft^3/s Aug. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	37	218	20	19	39	42	37	29	28	13	7.7
2	11	101	290	20	20	45	39	28	23	23	10	8.9
3	11	66	169	20	21	80	34	22	20	20	17	8.0
4	41	44	134	20	129	90	31	18	16	16	10	8.0
5	28	35	106	20	294	88	29	18	39	14	9.8	7.8
6	18	29	86	19	169	130	28	21	30	12	11	7.5
7	14	32	72	19	110	90	26	38	212	12	12	7.7
8	16	26	65	19	73	64	26	30	328	17	9.9	7.4
9	17	66	63	19	56	74	25	23	189	159	9.4	7.6
10	18	252	77	19	41	140	24	18	169	45	13	7.4
11	17	202	157	19	33	149	23	17	161	41	10	41
12	16	123	168	19	30	116	22	17	96	35	9.5	17
13	15	109	110	19	27	104	23	16	66	28	8.4	9.4
14	17	100	80	19	25	103	32	30	51	21	8.5	8.9
15	16	105	60	19	24	90	35	34	308	20	8.5	8.2
16	14	360	45	18	30	74	29	51	189	22	8.7	8.4
17	13	329	37	33	50	62	26	36	103	17	7.9	8.5
18	38	284	32	43	152	80	24	45	63	14	7.7	9.9
19	180	680	29	51	316	235	21	88	47	15	7.2	18
20	83	640	27	39	260	167	21	61	36	18	7.0	36
21	65	510	25	32	150	115	22	44	38	12	6.7	16
22	40	420	24	32	100	87	20	34	27	10	6.5	12
23	30	350	23	28	70	72	19	29	23	10	6.8	34
24	25	280	23	27	50	62	19	23	20	9.4	7.5	18
25	24	240	22	27	40	53	18	20	17	57	6.7	19
26	21	210	22	25	45	50	17	21	15	17	29	50
27	20	170	21	24	46	45	16	56	31	13	27	23
28	18	150	21	21	41	42	18	73	31	34	20	13
29	18	130	21	20	---	38	19	60	20	17	11	71
30	16	110	20	19	---	35	55	56	47	13	8.7	98
31	16	---	20	19	---	33	---	42	---	13	8.2	---
TOTAL	889	6190	2267	748	2421	2652	783	1106	2444	782.4	336.6	597.3
MEAN	28.7	206	73.1	24.1	86.5	85.5	26.1	35.7	81.5	25.2	10.9	19.9
MAX	180	680	290	51	316	235	55	88	328	159	29	98
MIN	11	26	20	18	19	33	16	16	15	9.4	6.5	7.4
CFSM	.32	2.29	.81	.27	.96	.95	.29	.40	.91	.28	.12	.22
IN.	.37	2.56	.94	.31	1.00	1.10	.32	.46	1.01	.32	.14	.25

CAL YR 1985	TOTAL	28233.5	MEAN	77.4	MAX	780	MIN	5.8	CFSM	.86	IN.	11.67
WTR YR 1986	TOTAL	21216.3	MEAN	58.1	MAX	680	MIN	6.5	CFSM	.65	IN.	8.77

05536195 LITTLE CALUMET RIVER AT MUNSTER, IN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1983 to September 1986. (Discontinued)

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 10...	1105	19	53	2.7	93
NOV 27...	1235	170	141	65	93
JAN 16...	1125	18	45	2.2	98
APR 10...	1200	24	20	1.3	96
JUN 05...	1545	48	37	4.8	98
JUL 09...	1523	96	127	33	94
AUG 20...	1550	7.1	11	.21	99

05536275 THORN CREEK AT THORNTON, IL

LOCATION.--Lat 41°34'05", long 87°36'30", near center of N½ sec.34, T.36 N., R.14 E., Cook County, Hydrologic Unit 07120003, on right bank at downstream side of bridge on Margaret Street in Thornton, 1.0 mi downstream from North Creek, and at mile 4.2.

DRAINAGE AREA.--104 mi^2.

PERIOD OF RECORD.--May 1948 to current year. Prior to October 1974, records published with those for streams in the St. Lawrence River basin (WSP 1307, 1727, 1911, 2111, WDR IL 1971-74).

REVISED RECORDS.--WSP 1707: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 586.43 ft above National Geodetic Vertical Datum of 1929. Prior to Dec. 18, 1948, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharges. Records good. Some diurnal fluctuation caused by pumping operations above station. Figures of discharge include about 16 ft^3/s pumped from ground-water sources for municipal supply and an undetermined amount of ground-water pumpage for industrial use.

AVERAGE DISCHARGE.--38 years, 100 ft^3/s, 13.06 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,700 ft^3/s July 13, 1957, gage height, 16.00 ft; maximum gage height, 17.06 ft June 14, 1981; minimum daily discharge, 4.4 ft^3/s Sept. 11, 1949.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Apr. 5, 1947, reached a stage of 14.34 ft, from floodmark, discharge, 4,200 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 900 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 19	1345	*1,630	*12.25

Minimum daily discharge, 20 ft^3/s Aug. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	95	446	31	32	41	44	62	65	86	33	27
2	28	289	524	32	36	51	43	40	58	64	31	25
3	29	108	230	35	35	81	38	34	55	56	31	26
4	94	58	156	34	324	79	36	33	56	50	31	28
5	86	43	127	33	525	92	35	32	85	44	36	35
6	48	39	111	32	245	183	34	29	69	42	38	36
7	36	48	93	30	107	100	32	30	181	44	39	37
8	46	37	83	29	91	64	32	28	266	53	33	36
9	49	165	82	28	72	77	31	26	147	175	31	35
10	52	595	126	28	58	212	28	24	141	78	42	34
11	47	307	305	29	50	243	28	24	173	78	37	86
12	41	162	266	31	44	144	28	23	101	73	33	60
13	36	142	147	30	40	137	29	24	74	64	31	40
14	43	135	98	29	38	134	41	32	68	48	28	34
15	40	155	82	28	37	108	43	59	581	97	26	32
16	33	655	69	28	34	83	36	100	381	67	30	34
17	31	435	58	49	76	69	32	74	160	54	31	36
18	60	350	50	67	259	110	30	115	97	45	30	37
19	296	1440	46	66	591	393	28	253	71	40	25	58
20	129	1190	42	51	485	235	28	151	59	56	20	97
21	71	660	39	71	195	136	29	77	53	35	26	52
22	48	336	38	48	94	97	27	58	54	32	28	49
23	34	225	40	42	66	78	28	50	50	34	24	91
24	31	164	39	40	54	67	27	46	43	38	25	59
25	28	135	35	42	48	60	28	48	42	61	23	81
26	30	161	32	38	50	57	28	50	44	47	76	141
27	29	143	34	35	50	50	29	198	102	36	64	140
28	26	146	33	32	42	46	30	123	171	92	35	62
29	26	129	33	31	---	43	29	139	64	51	33	130
30	25	112	33	31	---	39	88	121	124	40	26	308
31	23	---	33	30	---	37	---	82	---	37	24	---
TOTAL	1626	8659	3530	1160	3778	3346	1019	2235	3635	1817	1020	1946
MEAN	52.5	289	114	37.4	135	108	34.0	72.1	121	58.6	32.9	64.9
MAX	296	1440	524	71	591	393	88	253	581	175	76	308
MIN	23	37	32	28	32	37	27	23	42	32	20	25
CFSM	.50	2.78	1.10	.36	1.30	1.04	.33	.69	1.16	.56	.32	.62
IN.	.58	3.10	1.26	.41	1.35	1.20	.36	.80	1.30	.65	.36	.70

CAL YR 1985	TOTAL	43230	MEAN	118	MAX	1820	MIN	18	CFSM	1.13	IN.	15.46
WTR YR 1986	TOTAL	33771	MEAN	92.5	MAX	1440	MIN	20	CFSM	.89	IN.	12.08

05536290 LITTLE CALUMET RIVER AT SOUTH HOLLAND, IL

LOCATION.--Lat 41°36'25", long 87°35'52", in NE¼SE¼ sec.15, T.36 N., R.14 E., Cook County, Hydrologic Unit 07120003, on left bank at downstream side of bridge on Cottage Grove Avenue in South Holland, 2.0 mi downstream from Thorn Creek, and at mile 23.0.

DRAINAGE AREA.--208 mi^2.

PERIOD OF RECORD.--October 1947 to current year. Prior to October 1974, records published with those for streams in the St. Lawrence River basin (WSP 1307, 1727, 1911, 2111, WDR IL 1971-74).

REVISED RECORDS.--WSP 1507: 1950, 1953. WDR IL-81-2: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 575.00 ft above National Geodetic Vertical Datum of 1929 (Illinois Department of Transportation bench mark). Prior to Oct. 27, 1947, nonrecording gage and Oct. 27, 1947, to Mar. 31, 1981, water-stage recorder at site 1.4 mi upstream at same datum. Apr. 1 to Nov. 8, 1981, nonrecording gage at same site and datum. Nov. 17, 1947, to Nov. 19, 1970, auxiliary water-stage recorder at Dixmoor, 4.7 mi downstream; prior to Nov. 17, 1947, nonrecording gage at the Dixmoor site read twice daily.

REMARKS.--Estimated daily discharges: Dec. 15 to Jan. 16, Feb. 8-16, and Feb. 22 to Mar. 18. Records fair except those for estimated daily discharges, which are poor. Flow from upper Little Calumet River is diverted to Lake Michigan by Burns ditch. Calumet Sag Channel, 6.6 mi below station, diverts the entire flow to the Mississippi River basin.

AVERAGE DISCHARGE.--39 years, 185 ft^3/s, 12.08 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,440 ft^3/s July 14, 1957, gage height, 20.11 ft, site then in use; maximum gage height, 20.20 ft June 14, 1981; minimum daily discharge, 7.9 ft^3/s Oct. 6, 1950.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Apr. 6, 1947, reached a stage of 19.24 ft, from floodmarks, discharge, 4,760 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,510 ft^3/s Nov. 20, gage height, 16.33 ft; minimum daily, 32 ft^3/s Aug. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	127	594	54	48	88	92	158	108	130	64	37
2	37	495	869	52	55	100	99	87	88	110	40	38
3	36	239	456	64	50	170	80	64	82	85	51	39
4	124	131	313	60	360	180	77	56	78	73	42	44
5	185	96	237	56	803	190	71	53	137	55	42	45
6	79	82	199	52	460	330	67	47	131	57	47	47
7	55	92	163	50	239	230	63	68	321	73	55	49
8	58	73	143	49	150	160	61	61	685	108	46	50
9	76	235	136	50	120	190	58	48	430	444	38	45
10	65	939	186	52	96	380	57	42	360	148	53	45
11	75	613	409	50	80	420	51	39	395	143	57	138
12	52	352	459	56	70	270	52	40	225	136	44	140
13	50	284	300	50	60	260	56	43	150	105	42	56
14	52	276	213	48	56	250	72	145	120	64	41	44
15	56	280	150	47	52	210	102	97	778	110	40	38
16	47	983	110	46	50	170	72	215	693	84	42	36
17	48	848	90	76	192	140	61	134	332	67	44	41
18	88	712	77	113	471	200	55	237	186	60	43	44
19	524	2010	72	128	903	621	50	421	132	54	39	93
20	290	2350	66	97	859	479	48	286	100	79	32	211
21	178	1540	68	101	496	302	50	158	95	60	34	79
22	114	865	70	86	250	224	48	105	89	46	38	63
23	83	613	70	71	180	182	46	86	81	48	37	159
24	68	483	68	65	140	152	47	71	74	51	36	106
25	62	383	58	66	110	133	47	70	67	146	33	124
26	57	372	54	60	112	119	47	72	73	93	92	259
27	58	333	56	50	115	111	47	271	121	51	150	279
28	52	306	58	49	95	97	49	257	343	136	66	89
29	46	271	56	45	---	89	54	227	111	98	48	217
30	46	233	57	44	---	82	173	220	139	60	39	531
31	43	---	58	43	---	75	---	151	---	56	34	---
TOTAL	2854	16616	5915	1930	6672	6604	1952	4029	6724	3030	1509	3186
MEAN	92.1	554	191	62.3	238	213	65.1	130	224	97.7	48.7	106
MAX	524	2350	869	128	903	621	173	421	778	444	150	531
MIN	36	73	54	43	48	75	46	39	67	46	32	36
CFSM	.44	2.66	.92	.30	1.14	1.02	.31	.62	1.08	.47	.23	.51
IN.	.51	2.97	1.06	.35	1.19	1.18	.35	.72	1.20	.54	.27	.57

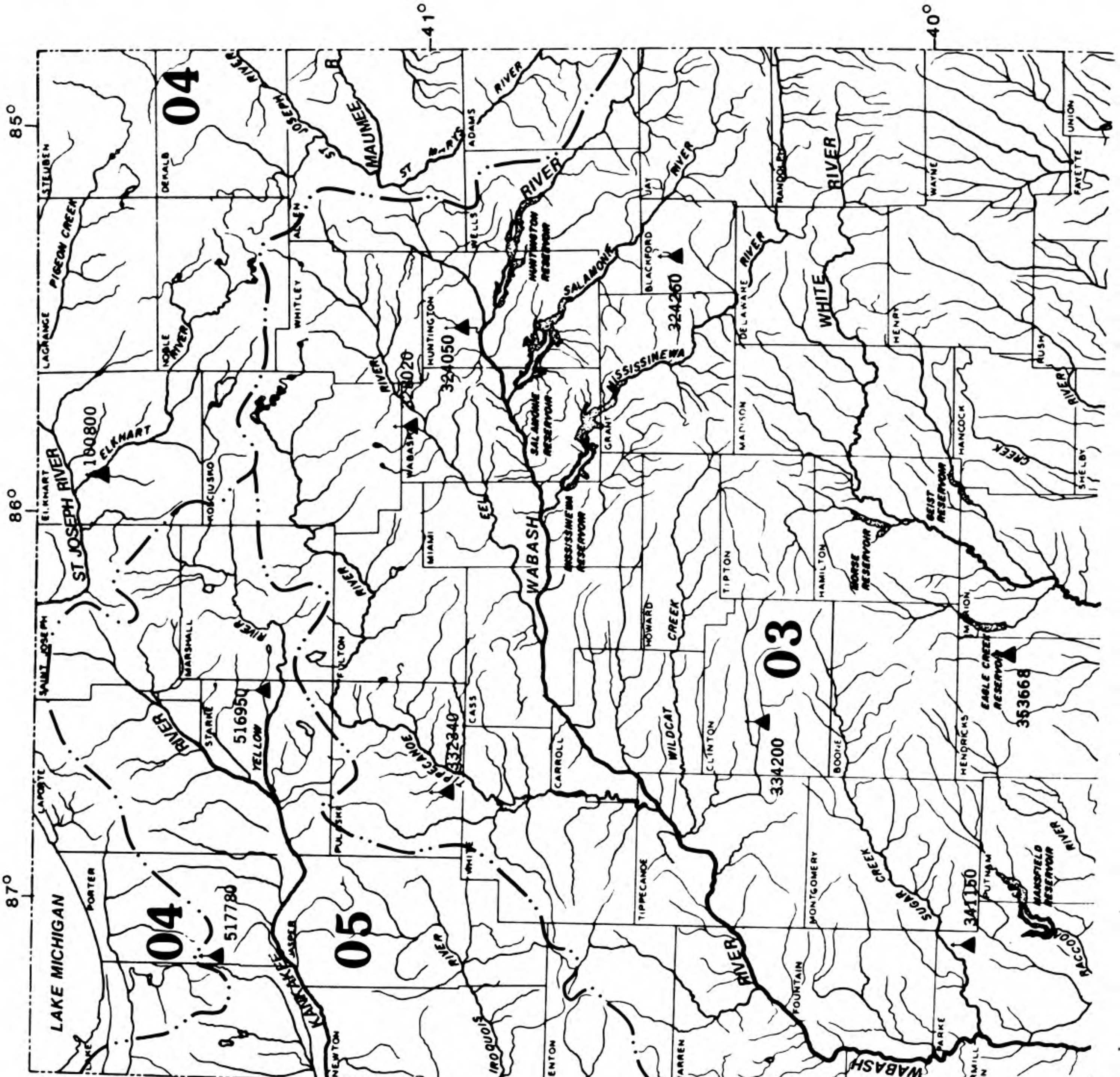
CAL YR 1985	TOTAL	78897	MEAN	216	MAX	2900	MIN	26	CFSM	1.04	IN.	14.11
WTR YR 1986	TOTAL	61021	MEAN	167	MAX	2350	MIN	32	CFSM	.80	IN.	10.91

The following table lists all discontinued stream-gaging stations in Indiana. Continuous daily streamflow records were collected and published for the period of record, shown in water years, for each station.

Station no.	Station name	County	Drainage area (mi^2)	Period of record
03275500	East Fork Whitewater River at Richmond	Wayne	121	1949-78
03277000	Laughery Creek near Farmers Retreat	Ohio	248	1941-73[a]
03303276	Friday Branch tributary near Saint Meinrad	Dubois	.096	1981[b]
03304000	Little Pigeon Creek near Tennyson	Warrick	187	1944-47
03322100	Pigeon Creek at Evansville	Vanderburgh	323	1960-85
03323000	Wabash River at Bluffton	Wells	532	1931-71[b]
03326000	Mississinewa River near Eaton	Delaware	310	1952-71[b]
03329500	Wabash River at Delphi	Carroll	4,072	1940-71
03331000	Tippecanoe River near Warsaw	Kosciusko	126	1943-49
03332000	Tippecanoe River at Pulaski	Pulaski	1,089	1928-31
03332300	Little Indian Creek near Royal Center	White	35.0	1959-73a
03332400	Big Monon Creek near Francesville	Pulaski	152	1959-73[a]
03332500	Tippecanoe River near Monticello	White	1,732	1932-81[c]
03333500	Wildcat Creek at Greentown	Howard	168	1945-61
03334000	Wildcat Creek at Owasco	Carroll	396	1944-73[a]
03339120	Coal Creek at Coal Creek	Fountain	214	1965-72
03339150	Little Vermilion River near Newport	Vermillion	237	1965-72
03339855	Sugar Creek tributary near Deer Mill	Montgomery	.45	1981[b]
03340000	Sugar Creek near Byron	Parke	670	1941-71[b]
03341000	Big Raccoon Creek at Mansfield	Parke	248	1939-58[d]
03341200	Little Raccoon Creek near Catlin	Parke	134	1957-71[d,e]
03341420	Brouilletts Creek near Universal	Vermillion	321	1966-71[b]
03341470	North Coal Creek near Terre Haute	Vigo	1.91	1974-76
03341570	Honey Creek near Riley	Vigo	5.79	1981[b]
03342250	Mud Creek near Dugger	Sullivan	11.9	1966-81
03342350	Buttermilk Creek near Paxton	Sullivan	16.5	1966-73
03342360	Buttermilk Creek near Sullivan	Sullivan	17.6	1975-78
03342800	South Fork Smalls Creek at Bruceville	Knox	4.94	1972-75[b,e]
03348100	Killbuck Creek near Anderson	Madison	97.8	1964-68
03348500	White River near Noblesville	Hamilton	828	1915-26, 1929-74[b]
03349500	Cicero Creek near Arcadia	Hamilton	131	1955-76[a]
03349700	Little Cicero Creek near Arcadia	Hamilton	40.4	1956-76[a]
03350000	Cicero Creek near Cicero	Hamilton	196	1946-54
03350100	Hinkle Creek near Cicero	Hamilton	18.5	1956-76[a]
03350500	Cicero Creek at Noblesville	Hamilton	216	1950-80[d]
03352000	Lawrence Creek at Fort Benjamin Harrison	Marion	2.74	1952-56, 1958-69
03352200	Mud Creek at Indianapolis	Marion	42.4	1958-76[a]
03353160	Pleasant Run at Brookville Road at Indianapolis	Marion	10.1	1960-81
03355000	Bear Creek near Trevlac	Brown	6.94	1952-73[a]
03356000	Beanblossom Creek at Dolan	Monroe	100	1946-78
03356500	Beanblossom Creek near Bloomington	Monroe	112	1931-33
03357000	White River at Spencer	Owen	2,988	1925-71[d]
03357420	Big Walnut Creek at Greencastle	Putnam	216	1975-1982
03359500	Deer Creek near Putnamville	Putnam	59.0	1955-65, 1968-72
03359980	Jordan Creek near Jordan	Owen	25.9	1981[b]
03366000	Graham Creek near Vernon	Jennings	77.2	1955-73
03367000	Muscatatuck River near Austin	Jackson	359	1932-43, 1944-71[f]
03367500	Stucker Creek near Austin	Scott	127	1932-33
03370000	Vernon Fork near Crothersville	Jackson	391	1932-33
03370500	Muscatatuck River near Tampico	Washington	960	1939
03371000	Muscatatuck River near Vallonia	Jackson	1,134	1932-33
03371600	South Fork Salt Creek at Kurtz	Jackson	38.2	1961-71g
03371650	North Fork Salt Creek at Nashville	Brown	76.1	1962-76[a]
03372000	North Fork Salt Creek near Belmont	Brown	120	1946-71
03372700	Clear Creek near Harrodsburg	Monroe	55.2	1960-71
03373000	Salt Creek near Peerless	Lawrence	573	1939-50, 1957-71[d]
03373200	Indian Creek near Springville	Lawrence	60.7	1961-73[a]
03374100	White River at Hazleton	Gibson	11,305	1928-38[h]
03376000	Patoka River near Jasper	Dubois	348	1944-47[e]
03376260	Flat Creek near Otwell	Pike	21.3	1965-1982
03376279	Little Flat Creek near Otwell	Dubois	6.56	1981[b]
03376300	Patoka River at Winslow	Pike	603	1964-74
03378500	Wabash River at New Harmony	Posey	29,234	1939-47[h]

Station no.	Station name	County	Drainage area (mi^2)	Period of record
	STREAMS TRIBUTARY TO LAKE MICHIGAN			
04093200	Little Calumet River at Gary	Lake	5.82	1958-67, 1969-71
04090500	Dunes Creek at Porter	Porter	3.40	1979-1982
04095100	Derby ditch at Beverly Shores	Porter	4.64	1980
04098000	Fawn River at Orland	Steuben	86.4	1943-47
04099500	Pigeon Creek and Hogback Lake near Angola	Steuben	103	1946-74
04099610	Pretty Lake Inlet near Stroh	Lagrange	1.96	1963-80
04100000	Christiana Creek at Elkhart	Elkhart	127	1947-52
04100220	North Branch Elkhart River near Cosperville	Noble	134	1951-71
	STREAMS TRIBUTARY TO LAKE ERIE			
04178500	St. Joseph River at Hursh	Allen	734	1950-54
04179000	St. Joseph River at Cedarville	Allen	763	1931-32, 1956-81
04179500	Cedar Creek near Auburn	DeKalb	87.3	1943-73[a]
04180500	St. Joseph River near Ft. Wayne	Allen	1,057	1905-06, 1941-55
04182700	St. Marys River at Ft. Wayne	Allen	810	1905-06
	UPPER MISSISSIPPI RIVER BASIN			
05516000	Yellow River near Bremen	Marshall	135	1955-73[a]
05518500	Singleton ditch near Hebron	Lake	34.2	1949-51
05519500	West Creek near Schneider	Lake	54.7	1948-52, 1954-72
05520000	Singleton ditch at Illinoi, IL	Kankakee, IL	220	1945-77
05521500	Oliver ditch near Aix	Jasper	79.6	1948-51
05523500	Slough Creek near Collegeville	Jasper	83.7	1948-52 1953-82
05524000	Carpenter Creek at Egypt	Jasper	44.8	1948-52 1953-82

[a]Continued as a crest-stage and low-flow partial-record station through 1984.
[b]Some quality of water data available.
[c]Records of daily discharges furnished by Northern Indiana Public Service Company.
[d]Continued as a stage only station through 1984.
[e]Some record fragmentary.
[f]High-water records only.
[g]Stage only station 1972-75.
[h]Some quality of water data available after discontinuing of station for stream-gaging records.


85°
86°
87°
41°
40°
04
05
03
LAKE MICHIGAN
ST JOSEPH RIVER
ELKHART
100800
PIGEON CREEK
MAUMEE
ST MARYS
JOSEPH
RIVER
WABASH
RIVER
EEL
RIVER
SALAMONIE
SALAMONIE RESERVOIR
HUNTINGTON RESERVOIR
MISSISSINEWA
MISSISSINEWA RESERVOIR
WHITE
RIVER
KANKAKEE
YELLOW
TIPPECANOE
IROQUOIS
WILDCAT
CREEK
SUGAR
CREEK
RACCOON
MANSFIELD RESERVOIR
MORSE RESERVOIR
GEIST RESERVOIR
EAGLE CREEK RESERVOIR
324050
324260
332340
334200
341150
353668
516950
517780
STEUBEN
LAGRANGE
ELKHART
DEKALB
NOBLE
KOSCIUSKO
WHITLEY
ALLEN
ADAMS
WELLS
HUNTINGTON
WABASH
MIAMI
FULTON
MARSHALL
STARKE
PULASKI
CASS
CARROLL
HOWARD
TIPTON
GRANT
BLACKFORD
JAY
RANDOLPH
DELAWARE
MADISON
HAMILTON
HENRY
WAYNE
UNION
FAYETTE
RUSH
HANCOCK
SHELBY
MARION
HENDRICKS
BOONE
CLINTON
TIPPECANOE
WHITE
BENTON
WARREN
FOUNTAIN
MONTGOMERY
PUTNAM
PARKE
VERMILLION
NEWTON
JASPER
PORTER
LAPORTE
LAKE
SAINT JOSEPH

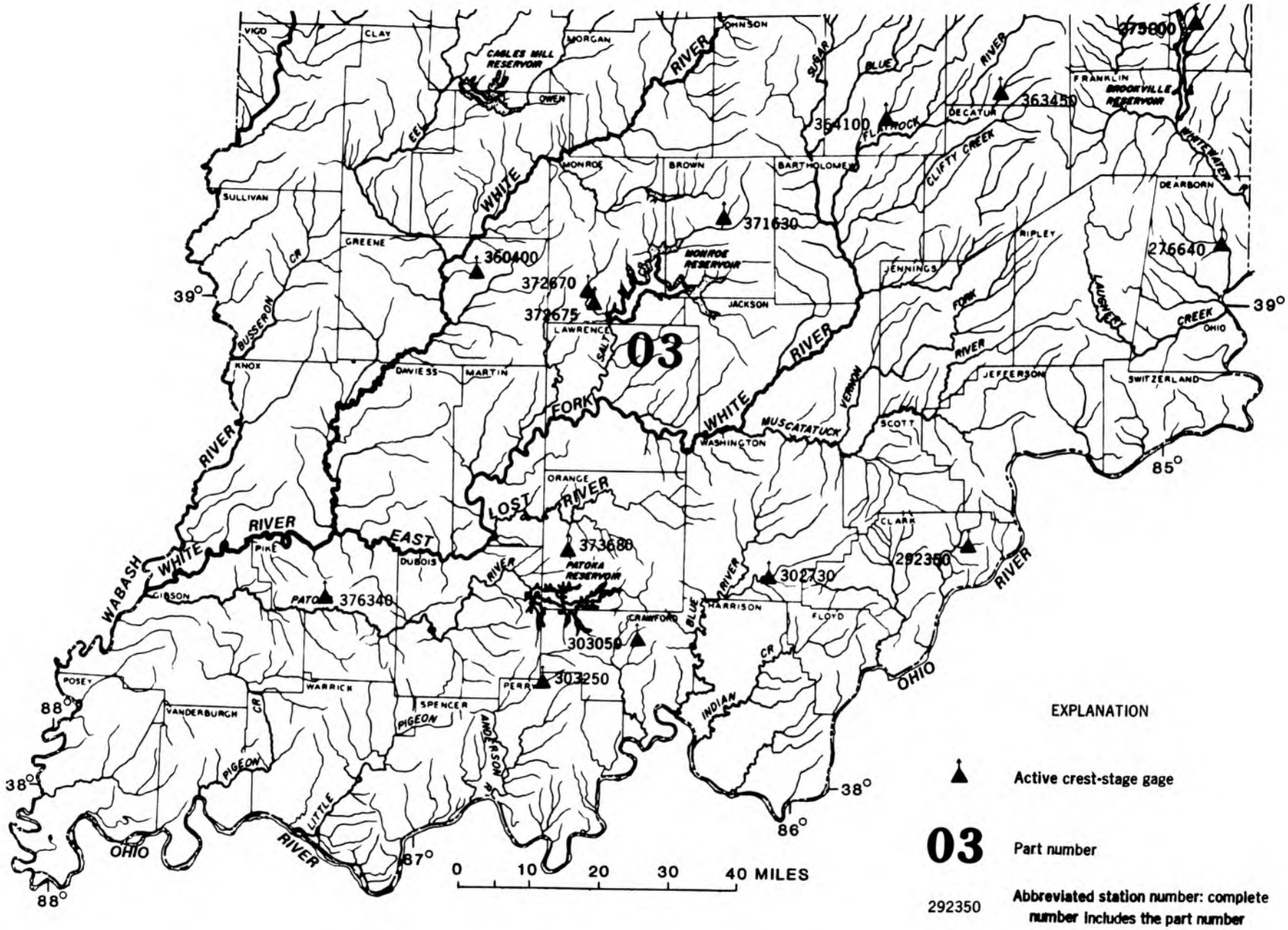


Figure 7.– Locations of crest-stage partial-record stations in Indiana.

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.

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.

Station number	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum Date	Annual maximum Gage height (ft)	Annual maximum Discharge (ft^3/s)
		OHIO RIVER BASIN					
		Great Miami River basin					
03275800	West Run near Liberty, IN	Lat 39°38'24", long 84°57'18", in SE¼SE¼SW¼ sec.2, T.14 N., R.2 W., Union County, at culvert on State Highway 44, 4.8 miles east of Fayette-Union County Line, 1.1 miles west of Liberty.	0.26	1973-	06-06-86	8.11	141
		Tanners Creek basin					
03276640	Tanners Creek tributary near Lawrenceburg, IN	Lat 39°09'18", long 84°52'20", in NW¼SW¼NE¼ sec.27, T.6 N., R.1 W., Dearborn County, at culvert on State Highway 1, 0.25 mile east of Salt Fork Road.	.19	1973-	11-15-85	13.54	173
		Fourteenmile Creek basin					
03292350	Flag Run tributary near New Washington, IN	Lat 38°31'08", long 85°32'29", in NW¼NW¼NE¼ sec.20, T.1 N., R.9 E., Clark County, at culvert on State Highway 62, 3.0 miles south of New Washington.	.16	1973-	07-14-86	--	6.5
		Blue River basin					
03302730	South Fork Blue River near Palmyra, IN	Lat 38°28'07", long 86°04'55", in NE¼NW¼ sec.4, T. 15 N., R.4 E., Washington County, at bridge on Old Palmyra Road, 0.2 mile north of State Highway 135 and 4.7 miles north of the intersection of U.S. Highway 150 and State Highway 135 in Palmyra.	64.3	1974-	07-12-86	13.96	1,260
		Little Blue River basin					
03303050	Bird Hollow Creek at English, IN	Lat 38°21'02", long 86°28'01", in SE¼NE¼NW¼ sec.13, T.2 S., R.1 W., Crawford County, at bridge on State Highway 37, 0.7 mile north of State Highway 64.	9.31	1974-	06-06-86	12.73	1,550
		Anderson River basin					
03303250	Sigler Creek tributary at Uniontown, IN	Lat 38°13'21", long 86°41'50", in NW¼SW¼SW¼ sec.25, T.3 S., R.3 W., Perry County, at culvert on State Highway 145, 0.1 mile south of State Highway 62 and U.S. Highway 460.	.15	1973-	06-07-86	7.61	78
		Wabash River basin					
03324050	Clear Creek near Huntington, IN	Lat 40°54'57", long 85°32'42", in SE¼NE¼NW¼ sec.5, T.28 N., R.9 E., Huntington County, at bridge on State Highway 16, 0.8 mile west of State Highway 5, and 3.4 miles northwest of Huntington.	49[a]	1974-80 1983-	07-12-86	11.91	1,550

Crest-stage partial-record stations--Continued

Station number	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum Date	Gage height (ft)	Discharge (ft^3/s)
		OHIO RIVER BASIN--Continued					
		Wabash River basin--Continued					
03324260	Salamonie River tributary near Montpelier, IN	Lat 40°33'06", long 85°19'25", in NW¼NW¼NE¼ sec.7, T.24 N., R.11 E., Blackford County, at culvert on State Highway 18, 2.5 miles east of State Highway 3.	0.86	1973-	06-06-86	5.59	40
03328020	Otter Creek tributary near North Manchester, IN	Lat 40°59'59", long 85°49'37", in SW¼SE¼SW¼ sec.35, T.30 N., R.6 E., Wabash County, at culvert on State Highway 114, 1.7 miles west of State Highway 13.	.92	1973-	12-12-85	5.79	74
03332340	Weltzin ditch tributary near Francesville, IN	Lat 40°48'00", long 86°46'33", in SW¼NW¼NW¼ sec.16, T.29 N., R.3 W., Pulaski County, at culvert on State Highway 39, 6.1 miles south of State Highway 14.	.50	1973-	12-11-85	5.54	10
03334200	Prairie Creek tributary near Frankfort, IN	Lat 40°15'14", long 86°30'36", in NW¼SE¼NE¼ sec.22, T.21 N., R.1W., Clinton County, at culvert on State Highways 38 and 39, 1.8 miles south of State Highway 28 in Frankfort.	2.61	1973-	04-30-86	10.83	210
03341150	Demeree Creek tributary near Byron, IN	Lat 39°52'39", long 87°05'56", in NW¼SW¼NE¼ sec.33, T.17 N., R.6 W., Parke County, at culvert on State Highway 47, 0.5 mile west of Montgomery County Line.	.15	1973-	06-07-86	7.10	46
03353668	White Lick Creek tributary near Brownsburg, IN	Lat 39°53'54", long 86°23'34", in SE¼NE¼SE¼ sec.22, T.17 N., R.1 E., Hendricks County, at culvert on State Highway 267, 4.0 miles north of U.S. Highway 136 in Brownsburg.	.31	1973-	05-07-86	6.15	75
03360400	Doans Creek tributary near Doans, IN	Lat 38°55'12", long 86°50'54", in SW¼SW¼SW¼ sec.27, T.6 N., R.4 W., Greene County, at culvert on State Highway 58 at Doans.	.20	1973-	05-26-86	7.30	84
03363450	Little Flatrock River at Milroy, IN	Lat 39°29'49", long 85°28'24", in NE¼NW¼ sec.13, T.12 N., R.9 E., Rush County, at bridge on State Highway 244, 800 ft east of State Highway 3, and at west edge of Milroy.	34.8	1974-	06-06-86	11.12	1,200
03364100	Tough Creek near Norristown, IN	Lat 39°22'19", long 85°45'38", in SW¼SW¼NW¼ sec.28, T.11 N., R.7 E., Shelby County, at culvert on county road, 0.5 mile north of Norristown.	1.46	1973-	11-27-85	6.67	72
03371630	North Fork Salt Creek tributary near Nashville, IN	Lat 39°11'38", long 86°12'11", in NE¼NE¼NW¼ sec.28, T.9 N., R.3 E., Brown County, at culvert on State Highway 46, 2.6 miles east of State Highway 135 in Nashville.	.22	1973-	02-04-86	6.95	30
03372670	Jackson Creek near Bloomington, IN	Lat 39°07'17", long 86°30'50", in SW¼SW¼ sec.15, T.8 N., R.1 W., Monroe County, at bridge on Rhorer Road 0.95 mile east of State Highway 37 on the south side of Bloomington.	4.66	1974-	02-04-86	5.08	1,280
03372675	Jackson Creek at Clear Creek, IN	Lat 39°06'01", long 86°32'18", in SE¼NE¼ sec.29, T.8 N., R.1 W., Monroe County, at bridge on Rogers Street, 400 ft north of State Highway 37 and 0.5 mile south of Clear Creek Road in Clear Creek.	10.8	1976-	02-04-86	7.05	2,750

Crest-stage partial-record stations--continued

Station number	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum Date	Gage height (ft)	Discharge (ft^3/s)
		OHIO RIVER BASIN--Continued					
		Wabash River basin--Continued					
03373680	French Lick Creek tributary near French Lick, IN	Lat 38°30'08", long 86°36'20", in SW¼NW¼SW¼ sec.23, T.1 N., R.2 W., Orange County, at culvert on State Highway 145, 4.3 miles south of intersection of State Highways 145 and 56 in French Lick.	0.29	1973-	11-16-85	8.21	130
03376340	Patoka River tributary near Glezen, IN	Lat 38°23'41", long 87°19'05", in NE¼SE¼SE¼ sec.29, T.1 S., R.8 W., Pike County, at culvert on State Highway 57, 7.9 miles south of intersection of State Highways 61, 56, and 57 in Petersburg.	.84	1973-	02-04-86	7.64	147
		STREAMS TRIBUTARY TO LAKE MICHIGAN					
		St. Joseph River basin					
04100800	Yellow Creek at Dunlap, IN	Lat 41°38'44", long 85°56'00", in NE¼NE¼ sec.27, T.37 N., R.5 E., Elkhart County, at bridge on U.S. Highway 33, at northwest edge of Dunlap.	33[a]	1974	07-16-86	11.59	440
		UPPER MISSISSIPPI RIVER BASIN					
		Illinois River basin					
05516950	Eagle Creek near Grovertown, IN	Lat 41°18'44", long 86°31'27", in NE¼SE¼NE¼ sec.16, T.33 N., R.1 W., Starke County, at bridge on State Highway 23, 0.3 mile south of County Road 100 north, and 5.2 miles south of U.S. Highway 30 in Grovertown.	32[a]	1973-	No marks all year		<130
05517780	Cobb ditch near Valparaiso, IN	Lat 41°24'41", long 87°08'08", in NE¼NE¼SW¼ sec.8, T.34 N., R.6 W., Porter County, at culvert on State Highway 2, 5.7 miles southwest of Valparaiso.	.39	1973-	07-09-86	7.65	34

[a] About.

Measurements at miscellaneous sites

Measurements of streamflow at points other than gaging stations are given for 1986 in the following table.

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		OHIO RIVER BASIN				
		Wabash River basin				
Fall Creek	White River	Lat 39°53'27", long 85°59'51", in NE¼SE¼ sec. 30, T.17N., R.5E., Marion County, at East 75th Street bridge, in Indianapolis.	217	1983,84	08-28-86	64.8
Fall Creek	White River	Lat 39°49'37", long 86°07'45", in SW¼SE¼ sec. 18, T.16N., R.4E., Marion County, at East 39th Street bridge, in Indianapolis.		1983,84	08-28-86	19.2
Pogues Run	White River	Lat 39°25'44", long 86°10'21", in NW¼SW¼ sec. 11, T.15N., R.3E., Marion County, at mouth, and 1,900 ft north of Morris Street bridge, in Indianapolis.		1982-84	08-26-86	.54
Pleasant Run	White River	Lat 39°43'58", long 86°09'21", in SW¼NW¼ sec. 24, T.15N., R.3E., Marion County, between Madison Avenue and Meridian Street, in Indianapolis.	20.6	1983-85	08-26-86	2.89
Eagle Creek	White River	Lat 39°44'10", long 86°11'47", on line between secs. 21 and 22, T.15N., R.3E., Marion County, at Raymond Street bridge, in Indianapolis.		1982-85	08-26-86	25.4
White River	Wabash River	Lat 39°39'47", long 86°14'10", on line between secs. 7 and 18, T.14N., R.3E., Marion County, at Southport Road bridge, 0.25 mi downstream from Little Buck Creek and 0.7 mi west of Southport WWTP.	1,945	1965, 1982-84	08-27-86	466

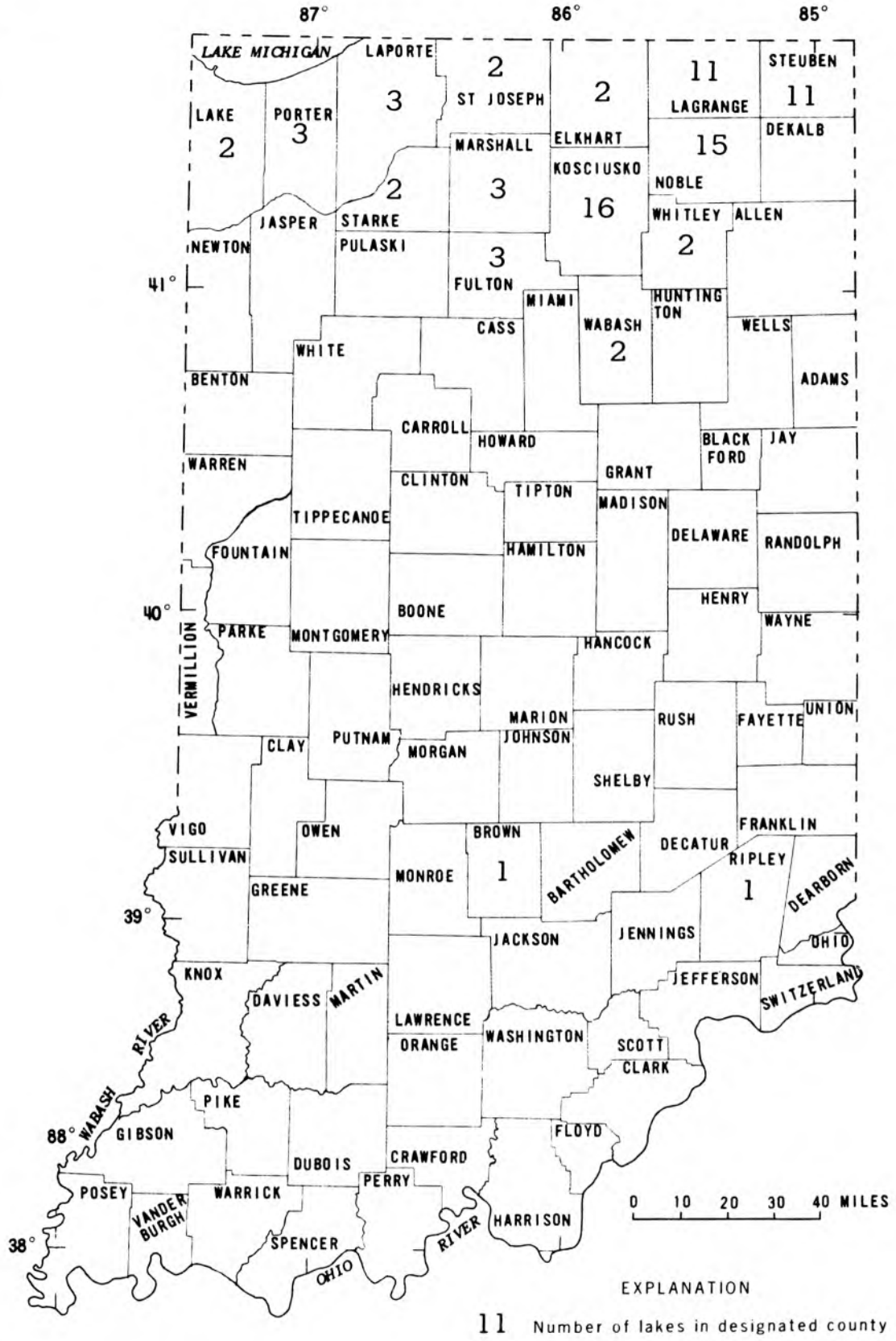


Figure 8.-- Number of lakes by county having 1986 water-level records.

04100030 ADAMS LAKE NEAR WOLCOTTVILLE, IN

LOCATION.--Lat 41°33'15", long 86°19'11", in NE¼NE¼NW¼ sec.25, T.36 N., R.10 E., Lagrange County, Hydrologic Unit 04050001 (WOLCOTTVILLE, IN quadrangle). The gage is on the east side of the lake on a dredged inlet, at the public access site, and 3.1 mi northeast of Wolcottville.

SURFACE AREA.--308 acres.

DRAINAGE AREA.--5.62 mi^2.

PERIOD OF RECORD.--1946 to current year.

DATUM OF GAGE.--949.90 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is attached to the southwest wall of the dam on the outlet channel about 500 ft downstream from the lake.

ESTABLISHED LEGAL LEVEL.--3.69 ft gage datum or 953.59 ft above National Geodetic Vertical Datum of 1929 as decreed on Dec. 17, 1949, by the Lagrange County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam with a fixed crest "V" notch weir.

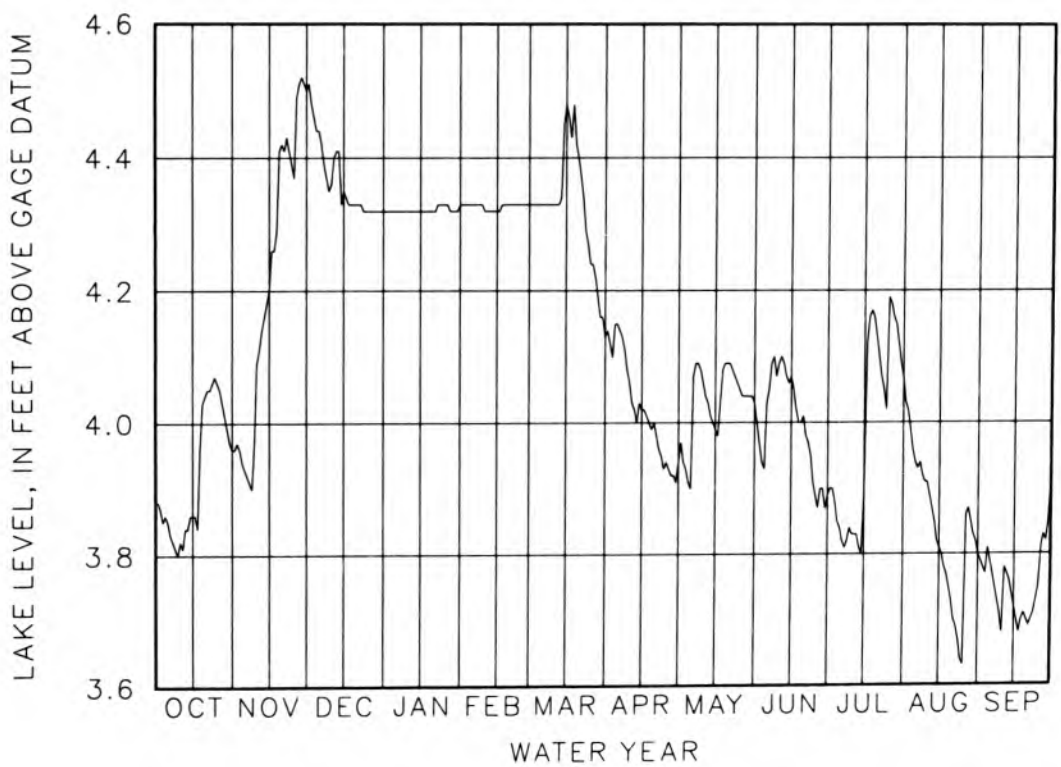
INLET AND OUTLET.--One inlet enters on the east side from Blackman Lake 2.3 mi upstream. The other inlet enters on the northeastern shore from Eve Lake. The outlet flows from the lake on the southern shore and into Little Elkhart Creek 1.7 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 5.32 ft June 15, 1981; minimum stage, 2.12 ft Jan. 8, 1954.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
2400 HR VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.85	3.93	4.44	4.32	4.33	4.33	4.15	3.90	4.03	3.84	3.94	3.79
10	3.82	4.09	4.36	4.32	4.32	4.33	4.06	4.06	4.09	3.83	3.91	3.68
15	3.86	4.20	4.35	4.32	4.32	4.48	4.02	3.99	4.07	3.89	3.81	3.72
20	4.04	4.42	4.33	4.32	4.33	4.40	4.00	4.09	4.01	4.13	3.73	3.70
25	4.06	4.37	4.32	4.33	4.33	4.24	3.94	4.05	3.89	4.19	3.63	3.75
EOM	3.96	4.50	4.32	4.33	4.33	4.13	3.94	4.03	3.89	4.07	3.80	3.91

WTR YR 1986 MEAN 4.09 HIGH 4.52 NOV 28 LOW 3.63 AUG 25



04177680 BALL LAKE NEAR HAMILTON, IN

LOCATION.--Lat 41°32'12", long 84°56'18", in SE¼SW¼NE¼ sec.32, T.36 N., R.14 E., Steuben County, Hydrologic Unit 04100003 (HAMILTON, IN quadrangle). The gage is on the northeastern shore of the lake, south of the bridge over the outlet, and 1.3 mi west of Hamilton.

SURFACE AREA.--87 acres.

DRAINAGE AREA.--11.6 mi^2.

PERIOD OF RECORD.--1961 to current year.

DATUM OF GAGE.--889.81 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is driven into the lake bed near the recording gage and a high-water staff gage is attached to the control dam.

ESTABLISHED LEGAL LEVEL.--4.95 ft gage datum or 894.76 ft above National Geodetic Vertical Datum of 1929.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete sill with movable boards.

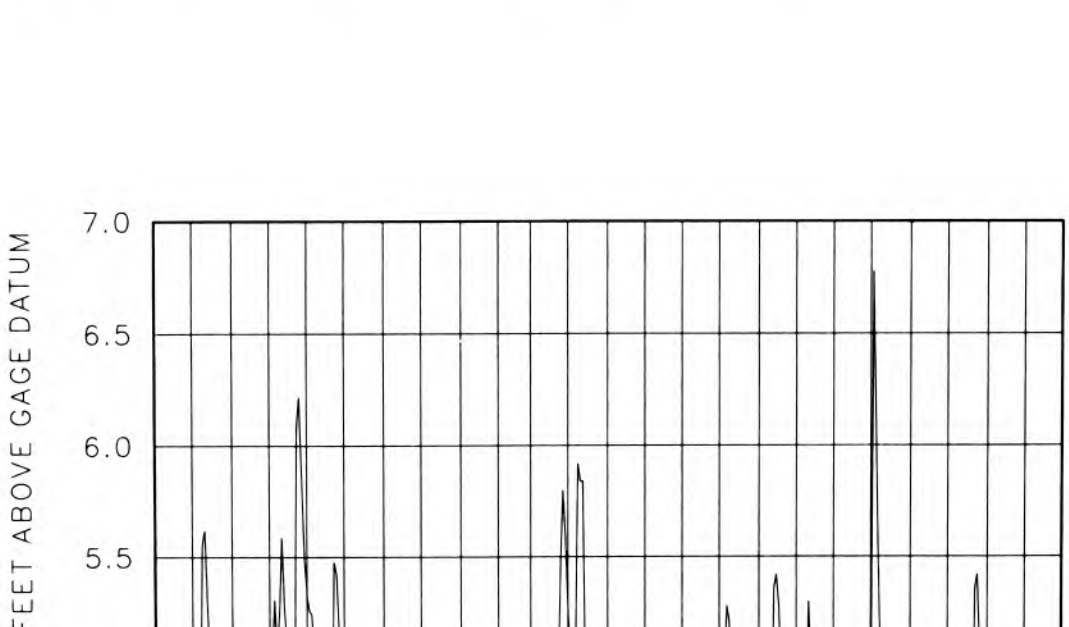
INLET AND OUTLET.--Fish Creek flows through the lake, entering at the western end and leaving at the northeastern end. Fish Creek empties into the St. Joseph River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 10.02 ft Dec. 26, 1965; minimum stage, 3.96 ft Oct. 19-31, Nov. 1-12, 1978.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
2400 HR VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.57	4.35	4.78	4.30	4.74	4.85	4.50	4.85	4.42	4.24	4.44	4.29
10	4.55	4.37	4.66	4.30	4.85	4.86	4.42	4.49	4.84	4.21	4.40	4.15
15	4.75	4.77	4.77	4.24	4.85	5.28	4.41	4.24	4.61	4.24	4.52	4.12
20	5.62	5.59	4.50	4.73	4.85	5.84	4.39	4.96	5.30	4.80	4.33	4.12
25	4.61	4.81	4.40	4.42	4.86	4.66	4.31	4.46	4.46	4.35	4.14	4.43
EOM	4.38	5.33	4.40	4.41	4.86	4.46	4.64	4.39	4.30	4.49	4.61	4.37

WTR YR 1986 MEAN 4.63 HIGH 6.78 JUL 16 LOW 4.08 SEP 16 AND OTHERS



05517200 BASS LAKE AT BASS LAKE, IN

LOCATION.--Lat 41°12'28", long 86°36'07", in NW¼NW¼SW¼ sec.24, T.32 N., R.2 W., Starke County, Hydrologic Unit 07120001 (BASS LAKE, IN quadrangle). The gage is on the southern shore of the lake, just north of the junction of U.S. Highway 35 and State Highway 10, at the town of Bass Lake.

SURFACE AREA.--1,400 acres.

DRAINAGE AREA.--5.18 mi^2.

PERIOD OF RECORD.--1943 to current year.

DATUM OF GAGE.--700.00 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage in two sections is at the site.

ESTABLISHED LEGAL LEVEL.--13.65 ft gage datum or 713.65 ft above National Geodetic Vertical Datum of 1929 as decreed on Aug. 10, 1948, by the Starke County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a steel sheet piling dam.

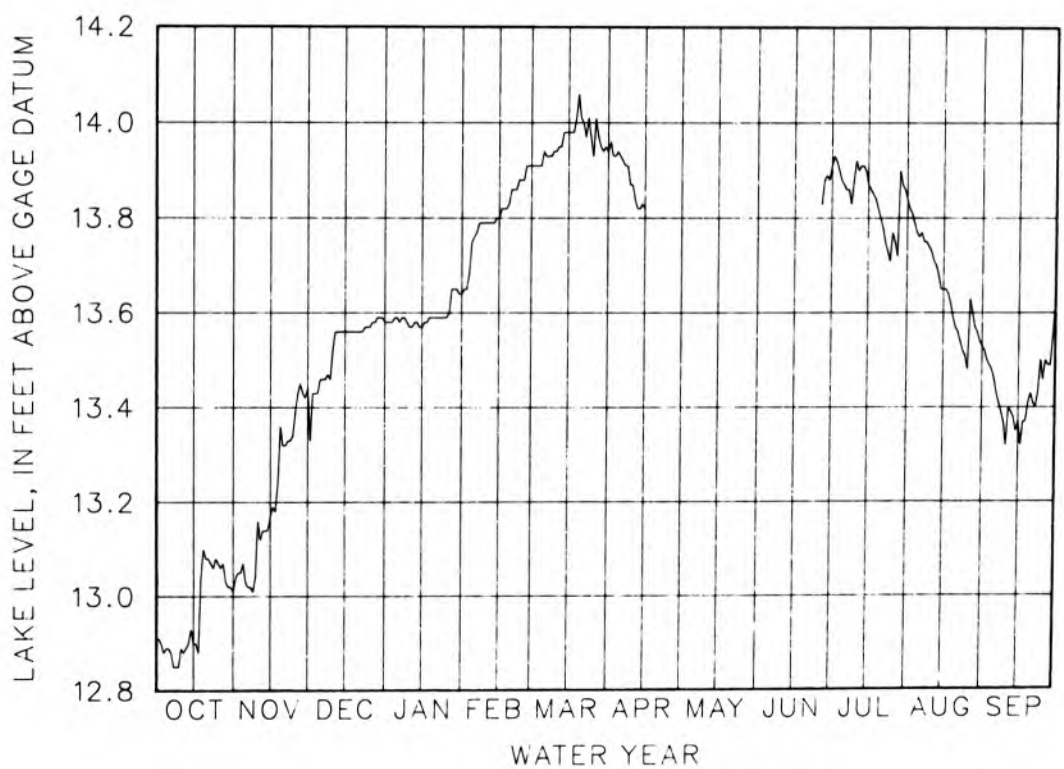
INLET AND OUTLET.--Several small unnamed ditches enter the lake at various locations. The outlet flows from the western shore, into Cedar Lake ditch, and eventually into the Kankakee River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 15.03 ft June 18, 1981; minimum stage, 10.52 ft Nov. 12, 13, 1964.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
2400 HR VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	12.89	13.03	13.46	13.59	13.76	13.94	13.93		---	13.87	13.76	13.46
10	12.89	13.16	13.52	13.57	13.79	13.94	13.87		---	13.92	13.73	13.32
15	12.90	13.17	13.56	13.57	13.80	13.98	13.82		---	13.87	13.65	13.37
20	13.08	13.32	13.56	13.59	13.86	14.01	---		---	13.80	13.57	13.43
25	13.07	13.39	13.57	13.59	13.88	13.93	---		---	13.77	13.48	13.46
EOM	13.01	13.44	13.58	13.64	13.91	13.94	---		13.91	13.84	13.53	13.63

WTR YR 1986 MEAN 13.58 HIGH 14.06 MAR 19 LOW 12.85 OCT 7 AND OTHERS



04100260 BEAR LAKE NEAR WOLFLAKE, IN

LOCATION.--Lat 41°19'07", long 85°30'49", in SW¼NW¼ sec.17, T.33 N., R.9 E., Noble County, Hydrologic Unit 04050001 (ORMAS, IN quadrangle). The gage is on the southern shore of the lake on a dredged channel, at the end of the gravel lane to the Merry Lea Nature Center, 1.1 mi southwest of the town of Wolflake.

SURFACE AREA.--136 acres.

DRAINAGE AREA.--6.98 mi^2.

PERIOD OF RECORD.--1943 to current year.

DATUM OF GAGE.--889.90 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well on the west side of the dredged channel.

ESTABLISHED LEGAL LEVEL.--4.70 ft gage datum or 894.60 ft above National Geodetic Vertical Datum of 1929.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a steel sheet piling dam.

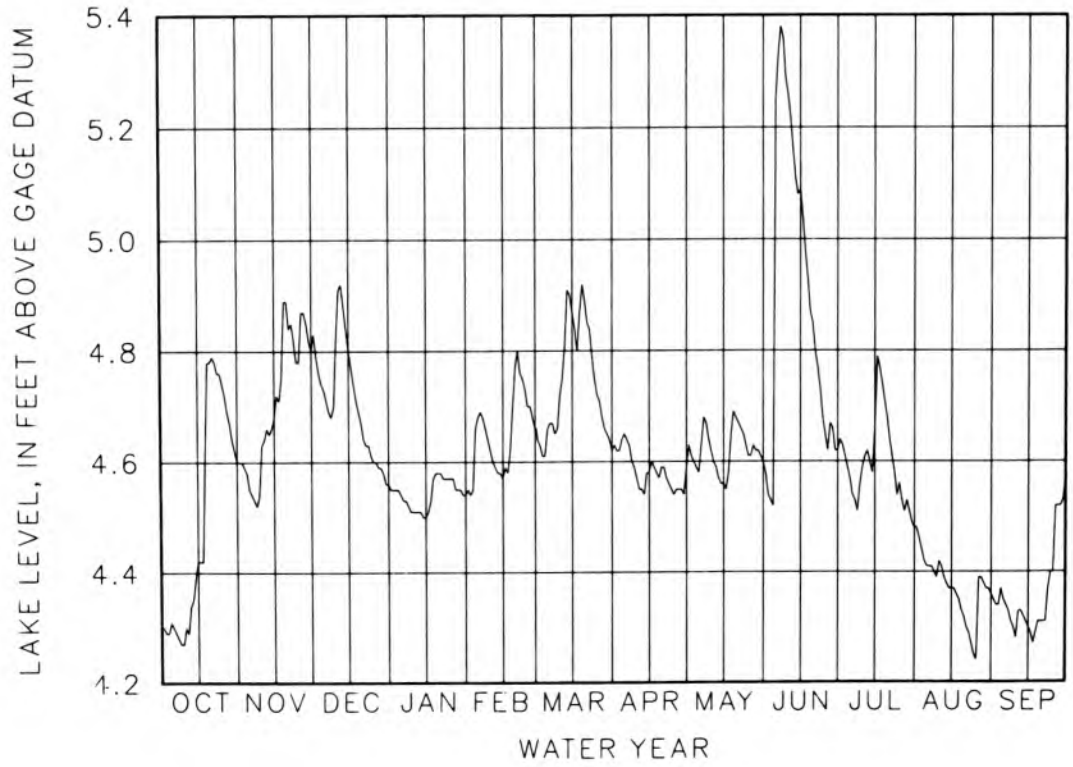
INLET AND OUTLET.--There are two inlets to the lake, one enters on the southwest shore from High Lake, 0.6 mi upstream, and the other enters from the northeast. The outlet, Carrol Creek, leaves the lake on the southeast tip, flows into Muncie Lake, 3.1 mi downstream, and eventually into the Elkhart River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 8.25 ft Dec. 30, 1942 (before dredging of the outlet channel). Maximum stage, 6.61 ft Apr. 12, 1944 (after dredging); minimum stage, 2.90 ft Oct. 31, Nov. 1-3, 7-17, 1952, October 22-24, 29-31, Nov. 1-3, 6, 7, 1966.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
2400 HR VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.30	4.55	4.73	4.54	4.68	4.66	4.65	4.58	5.25	4.57	4.41	4.35
10	4.30	4.63	4.82	4.51	4.62	4.72	4.57	4.62	5.26	4.59	4.42	4.28
15	4.42	4.68	4.80	4.50	4.57	4.87	4.58	4.56	5.09	4.66	4.37	4.30
20	4.78	4.89	4.67	4.58	4.77	4.89	4.59	4.68	4.85	4.68	4.32	4.31
25	4.74	4.78	4.60	4.57	4.70	4.72	4.54	4.61	4.65	4.56	4.24	4.40
EOM	4.60	4.80	4.56	4.54	4.66	4.62	4.59	4.60	4.62	4.48	4.36	4.57

WTR YR 1986 MEAN 4.61 HIGH 5.38 JUN 7 LOW 4.24 AUG 25



03331010 BIG CHAPMAN LAKE NEAR WARSAW, IN

LOCATION.--Lat 41°16'53", long 85°46'47", in NW¼SE¼SW¼ sec.25, T.33 N., R.6 E., Kosciusko County, Hydrologic Unit 05120106 (LEESBURG, IN quadrangle). The gage is on the south-eastern shore of the lake, at the public fishing site, 4.9 mi northeast of Warsaw.

SURFACE AREA.--581 acres.

DRAINAGE AREA.--4.17 mi^2.

PERIOD OF RECORD.--1945-68, 1971, 1976 to current year.

DATUM OF GAGE.--820.00 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder and an electric tape gage (ETG) are installed in an aluminum shelter over a 15-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--7.75 ft gage datum or 827.75 ft above National Geodetic Vertical Datum of 1929 as established on Oct. 18, 1949, by the Kosciusko County Circuit Court. Little Chapman Lake has the same established level and hence the same lake levels for the period of record.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam with a fixed crest at the outlet channel downstream from Little Chapman Lake.

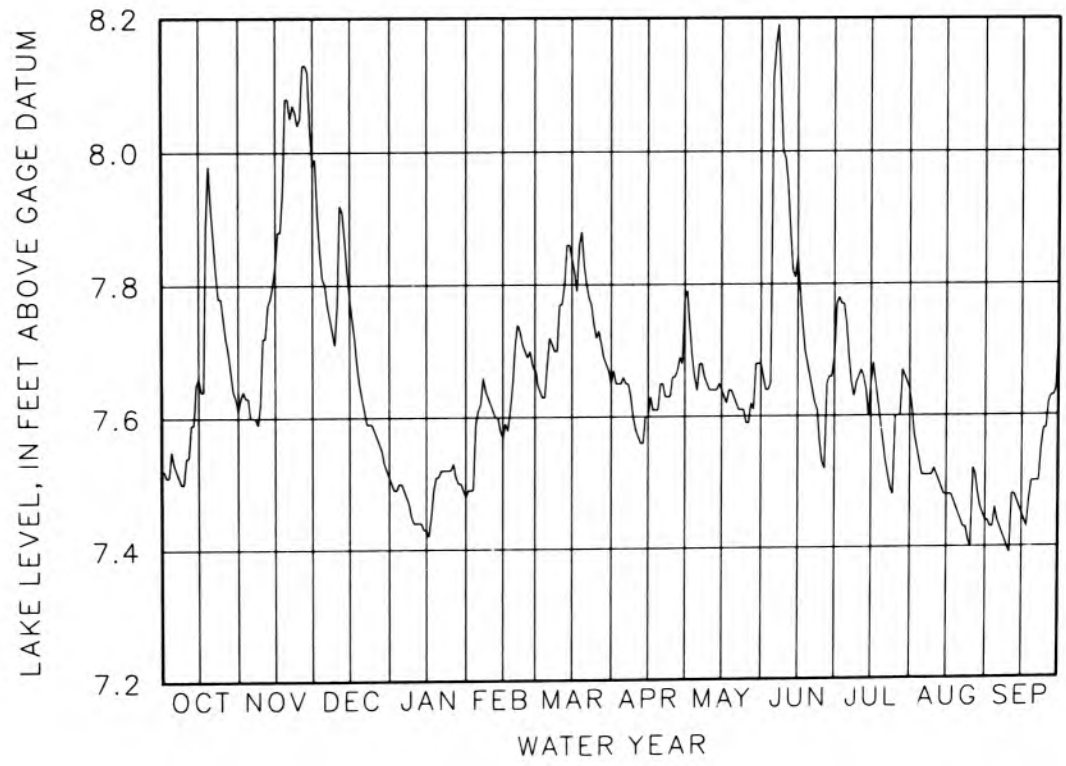
INLET AND OUTLET.--Several small ditches enter the lake at various points. The outlet flows into Little Chapman Lake to the south, then into Deeds Creek, and eventually into the Tippecanoe River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 9.37 ft Oct. 11, 1954; minimum stage, 6.75 ft Oct. 20, 1953.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
2400 HR VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.53	7.60	7.80	7.50	7.61	7.68	7.66	7.64	8.11	7.74	7.51	7.44
10	7.54	7.72	7.77	7.44	7.62	7.77	7.58	7.64	7.99	7.66	7.52	7.39
15	7.66	7.83	7.78	7.43	7.57	7.84	7.60	7.64	7.84	7.65	7.48	7.45
20	7.92	8.08	7.63	7.51	7.71	7.83	7.65	7.63	7.66	7.56	7.45	7.50
25	7.75	8.05	7.58	7.52	7.69	7.72	7.66	7.59	7.53	7.60	7.40	7.58
EOM	7.61	7.98	7.51	7.48	7.67	7.65	7.78	7.68	7.69	7.64	7.44	7.72

WTR YR 1986 MEAN 7.65 HIGH 8.19 JUN 7 LOW 7.39 SEP 10



03330040 BIG LAKE NEAR WOLFLAKE, IN

LOCATION.--Lat 41°16'33", long 85°30'43", in NW¼SE¼NW¼ sec.32, T.33 N., R.9 E., Noble County, Hydrologic Unit 05120106 (ORMAS, IN quadrangle). The gage is at the head of the outlet channel, approximately 20 feet north of the control structure and 4 mi southwest of the town of Wolflake.

SURFACE AREA.--228 acres.

DRAINAGE AREA.--8.89 mi².

PERIOD OF RECORD.--1943-74, 1978 to current year.

DATUM OF GAGE.--890.00 ft.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--9.05 ft gage datum or 898.18 ft above National Geodetic Vertical Datum of 1929.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a fixed concrete sill with a wide "V" notch between the bridge abutements at the outlet.

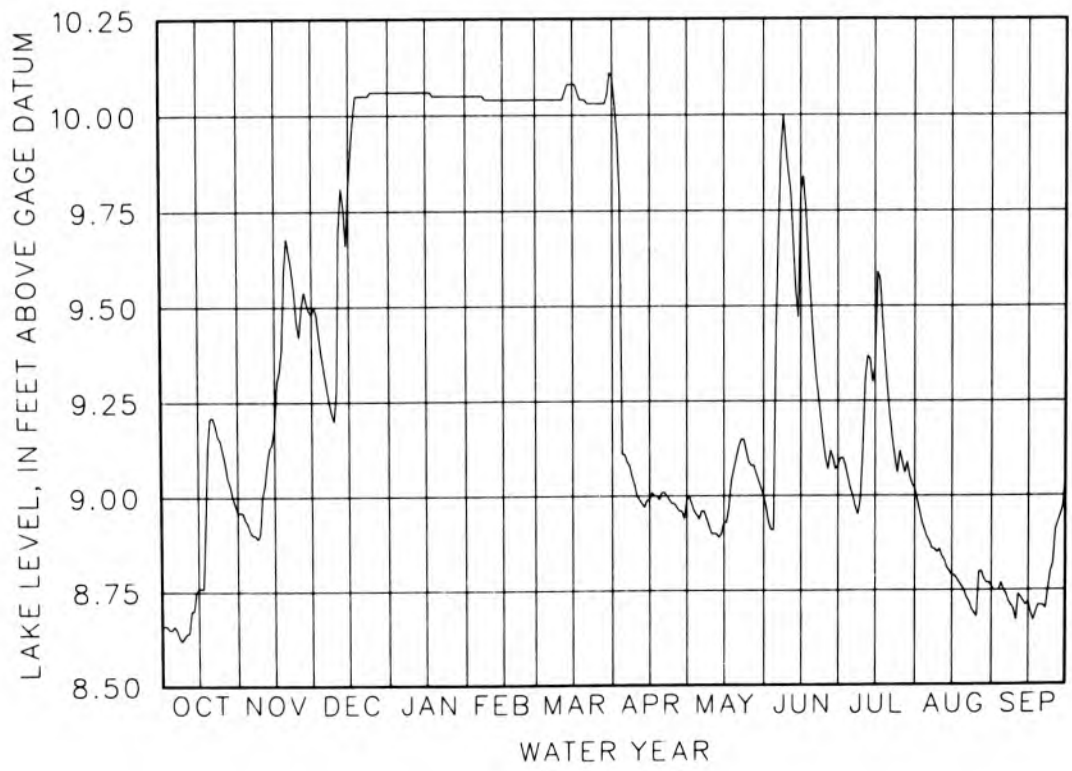
INLET AND OUTLET.--The main inlet enters from Crooked Lake to the east. Three other inlets flow from Crane Lake to the east, Green Lake to the north, and Sell Brook to the south. The outlet leaves the lake at the extreme west end and forms the headwaters of the Tippecanoe River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 12.76 ft Apr. 4, 1950; minimum stage, 7.18 ft Dec. 11-31, 1953, Jan. 1-30, 1954.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
2400 HR VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.66	8.91	9.33	10.06	10.05	10.04	9.11	8.94	9.43	9.02	8.89	8.75
10	8.64	9.00	9.28	10.06	10.04	10.04	9.00	8.90	9.85	9.12	8.86	8.67
15	8.76	9.19	9.81	10.06	10.04	10.08	8.99	8.93	9.80	9.34	8.79	8.72
20	9.21	9.68	10.05	10.05	10.04	10.04	9.01	9.10	9.42	9.28	8.75	8.71
25	9.12	9.42	10.06	10.05	10.04	10.03	8.98	9.09	9.10	9.12	8.68	8.82
EOM	8.96	9.48	10.06	10.05	10.04	10.10	8.99	9.00	9.08	9.02	8.76	9.05

WTR YR 1986 MEAN 9.35 HIGH 10.11 MAR 30 LOW 8.62 OCT 8



04099600 BIG LONG LAKE NEAR STROH, IN

LOCATION.--Lat 41°33'17", long 85°13'47", in NE¼NW¼NW¼ sec.26, T.36 N., R.11 E., Lagrange County, Hydrologic Unit 04050001 (STROH, IN quadrangle). The gage is on the northeast shore near the east end of the Shady Nook Addition in the vicinity of the Shady Nook Tavern, 2.4 mi southwest of Stroh.

SURFACE AREA.--388 acres.

DRAINAGE AREA.-- 4.77 mi^2.

PERIOD OF RECORD.--1954 to current year.

DATUM OF GAGE.--950.00 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--6.21 ft gage datum or 956.21 ft above National Geodetic Vertical Datum of 1929 as decreed on July 22, 1965.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam with a fixed sill and removable boards.

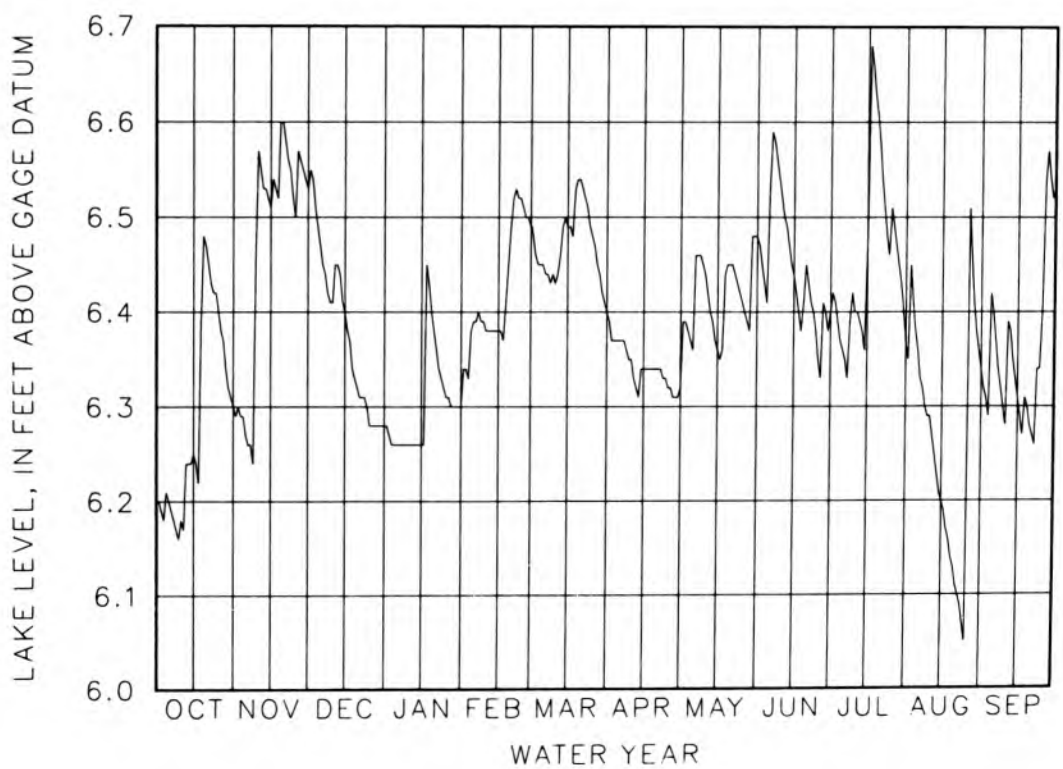
INLET AND OUTLET.--The one inlet is a small ditch that enters at the extreme western tip. The outlet flows from the extreme northern tip, northeastward to Mud and Little Turkey Lakes, thence to Turkey Creek.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 7.49 ft Mar. 31, 1978; minimum stage, 4.58 ft Nov. 27, 1964.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
2400 HR VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.20	6.27	6.47	6.26	6.39	6.45	6.37	6.36	6.53	6.36	6.36	6.40
10	6.18	6.57	6.41	6.26	6.38	6.43	6.35	6.44	6.52	6.40	6.29	6.28
15	6.25	6.51	6.40	6.26	6.38	6.49	6.34	6.36	6.44	6.47	6.20	6.31
20	6.47	6.60	6.32	6.38	6.49	6.54	6.34	6.45	6.45	6.58	6.13	6.28
25	6.40	6.50	6.28	6.31	6.51	6.48	6.32	6.41	6.35	6.51	6.05	6.40
EOM	6.30	6.53	6.28	6.30	6.49	6.40	6.32	6.48	6.40	6.37	6.34	6.53

WTR YR 1986 MEAN 6.38 HIGH 6.68 JUL 16 LOW 6.05 AUG 25



04100140 BIXLER LAKE AT KENDALLVILLE, IN

LOCATION.--Lat 41°26'13", long 85°15'10", in NE¼NE¼NE¼ sec.4, T.34 N., R.11 E., Noble County, Hydrologic Unit 04050001 (KENDALLVILLE, IN quadrangle). The gage is on the south bank of the outlet channel on the southwest shore of the lake and 0.7 mi southeast of City Hall in Kendallville.

SURFACE AREA.--120 acres.

DRAINAGE AREA.--5.28 mi^2.

PERIOD OF RECORD.--1946 to current year.

DATUM OF GAGE.--960.10 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is bolted to a concrete pier 20 ft upstream from from the control dam.

ESTABLISHED LEGAL LEVEL.--3.55 ft gage datum or 963.65 ft above National Geodetic Vertical Datum of 1929 as decreed on Apr. 25, 1952, by the Noble County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a fixed deep-notch concrete dam with two flood gates.

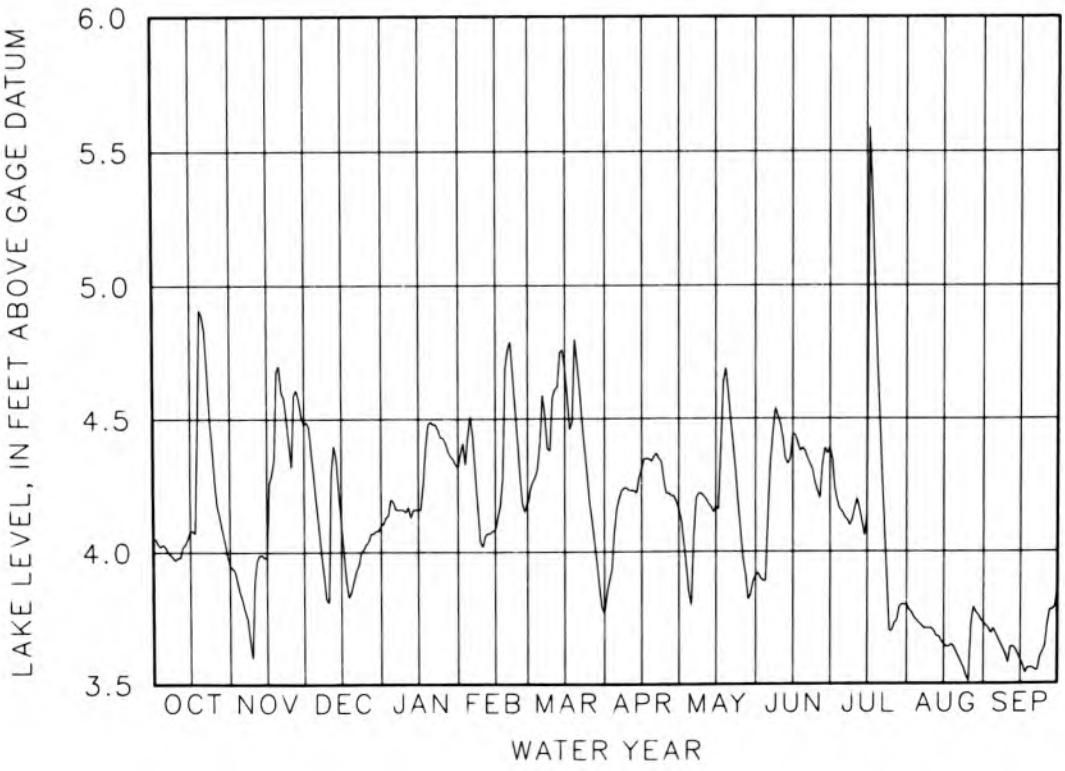
INLET AND OUTLET.--Riddle ditch enters the lake from the north, Sherman ditch from the from the east, Shaffer ditch from the southeast, and an unnamed ditch from the southwest. The outlet leaves at the southwest corner and flows into Henderson Lake, 1.9 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 6.26 ft Feb. 24, 1985; minimum stage, 1.24 ft Jan. 13-15, 18, 1954.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
2400 HR VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.02	3.82	4.18	4.19	4.51	4.41	4.16	3.80	4.14	4.15	3.73	3.69
10	3.98	3.89	3.81	4.15	4.02	4.58	4.23	4.21	4.48	4.16	3.71	3.58
15	4.08	3.98	4.11	4.16	4.08	4.69	4.31	4.17	4.44	4.14	3.65	3.59
20	4.89	4.70	3.89	4.49	4.76	4.71	4.36	4.60	4.38	4.54	3.62	3.56
25	4.26	4.32	4.03	4.43	4.29	4.19	4.22	4.07	4.23	3.70	3.51	3.64
EOM	3.95	4.48	4.10	4.32	4.19	3.77	4.16	3.91	4.39	3.80	3.73	3.86

WTR YR 1986 MEAN 4.13 HIGH 5.59 JUL 16 LOW 3.51 AUG 25



03327600 BLUE LAKE NEAR CHURUBUSCO, IN

LOCATION.--Lat 41°14'30", long 85°21'04", in SW¼NE¼SE¼ sec.10, T.32 N., R.10 E., Whitley County, Hydrologic Unit 05120104 (CHURUBUSCO, IN quadrangle). Gage is located on a dredged channel at the extreme east end of the lake, approximately 2.0 mi west of Churubusco.

SURFACE AREA.--239 acres.

DRAINAGE AREA.--3.58 mi^2.

PERIOD OF RECORD.--1946-68, 1976 to current year.

DATUM OF GAGE.--840.00 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder installed in an aluminum shelter over a 15-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--10.28 ft gage datum or 850.28 ft above National Geodetic Vertical Datum as decreed on July 23, 1948, by the Whitley County Circuit Court.

LAKE-LEVEL CONTROL.--A concrete dam with a fixed crest is located in the outlet channel about 300 feet downstream from the lake.

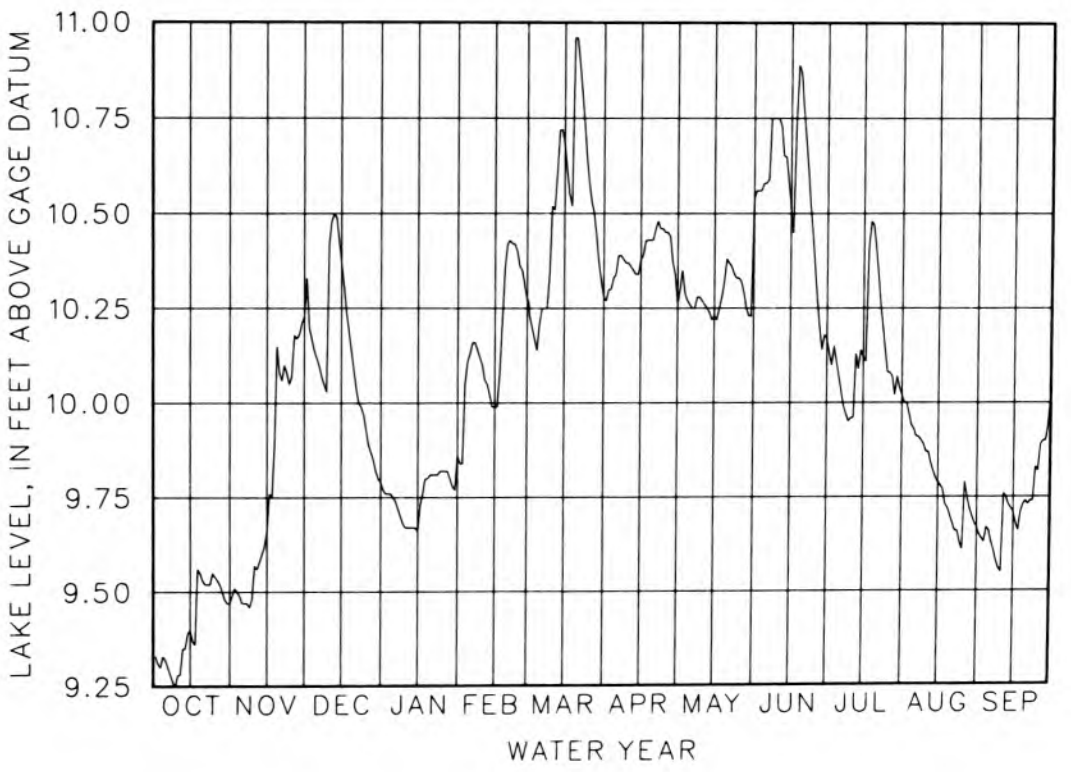
INLET AND OUTLET.--Maloney ditch enters at the eastern tip of the lake. The outlet flows from the lake at the northwest end and joins Carter Creek (Blue River) 0.2 mi downstream. Carter Creek eventually flows into Eel River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 15.80 ft Dec. 10, 1966; minimum stage, 7.64 ft Nov. 19, 20, 1952.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
2400 HR VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.32	9.47	10.12	9.75	10.13	10.21	10.34	10.26	10.58	10.07	9.93	9.66
10	9.28	9.57	10.42	9.67	10.10	10.52	10.37	10.27	10.75	9.96	9.87	9.55
15	9.40	9.66	10.37	9.66	9.99	10.68	10.38	10.23	10.51	10.12	9.79	9.71
20	9.53	10.08	10.09	9.81	10.42	10.96	10.43	10.38	10.78	10.41	9.70	9.74
25	9.54	10.07	9.93	9.82	10.36	10.58	10.45	10.33	10.36	10.08	9.61	9.82
EOM	9.47	10.23	9.79	9.86	10.27	10.28	10.26	10.54	10.17	10.02	9.67	10.02

WTR YR 1986 MEAN 10.05 HIGH 10.96 MAR 19 AND OTHERS LOW 9.25 OCT 9



04099250 BOWER LAKE NEAR PLEASANT LAKE, IN

LOCATION.--Lat 41°36'03", long 85°03'24", in SW¼SW¼SE¼ sec.5, T.36 N., R.13 E., Steuben County, Hydrologic Unit 04050001 (ASHLEY, IN quadrangle). The gage is located at the public fishing site on the northwestern edge of the lake, 3.9 mi southwest of Angola.

SURFACE AREA.--25 acres.

DRAINAGE AREA.--84.6 mi^2.

PERIOD OF RECORD.--1946-1970, 1977 to current year.

DATUM OF GAGE.--940.00 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary wire-weight gage is attached to the bridge over the outlet.

ESTABLISHED LEGAL LEVEL.--8.50 ft gage datum or 948.50 ft above National Geodetic Vertical Datum of 1929, as decreed on Oct. 28, 1959, by Steuben County Circuit Court. Golden Lake near Pleasant Lake has the same established level and hence the same lake levels for the period of record.

LAKE-LEVEL CONTROL.--The lake level is controled by the outlet channel or the outlet of Golden Lake.

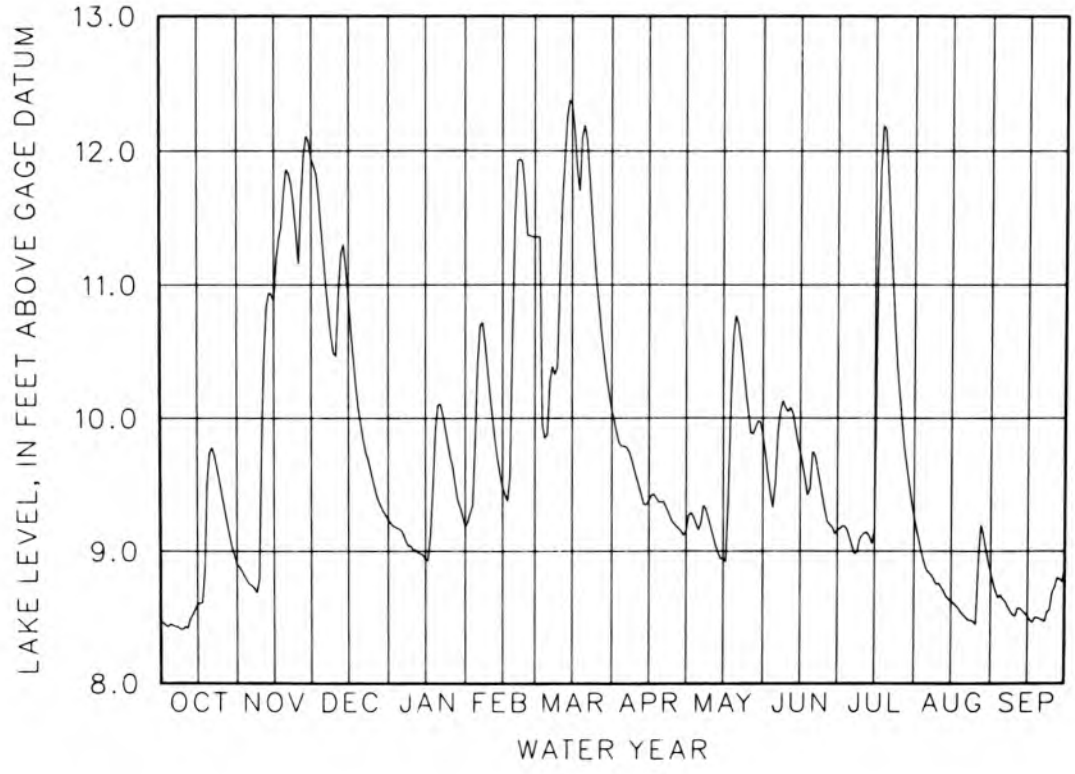
INLET AND OUTLET.--Pigeon Creek flows through the lake, entering at the southern shore and leaving at the western end to flow into Golden Lake and eventually into the St. Joseph River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 17.13 ft Mar. 22, 1982; minimum stage, 7.88 ft Sept. 14, 15, 1964.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
2400 HR VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.44	8.75	11.21	9.16	10.41	9.88	9.79	9.16	9.51	9.10	8.86	8.64
10	8.43	9.79	10.47	9.01	10.17	11.01	9.55	9.18	10.05	9.12	8.76	8.51
15	8.60	10.88	10.89	8.94	9.48	12.34	9.38	8.95	9.75	9.15	8.62	8.51
20	9.74	11.86	9.95	10.10	11.51	12.19	9.37	10.77	9.75	11.83	8.52	8.49
25	9.42	11.16	9.52	9.71	11.37	10.99	9.21	10.05	9.31	10.18	8.45	8.69
EOM	8.90	11.94	9.24	9.19	11.36	10.06	9.15	9.87	9.16	9.26	8.84	8.87

WTR YR 1986 MEAN 9.73 HIGH 12.38 MAR 14 LOW 8.41 OCT 8 AND OTHERS



04099810 CASS LAKE NEAR SHIPSHEWANA, IN

LOCATION.--Lat 41°41'42", long 85°38'18", in SW¼NW¼NW¼ sec.5, T.37 N, R.8 E., Lagrange County, Hydrologic Unit 04050001 (MIDDLEBURY, IN quadrangle). The gage is on the northeast shore of the lake, at the beach area in the Foxwood Hills Addition, and 3.3 mi northwest of Shipshewana.

SURFACE AREA.--89 acres.

DRAINAGE AREA.--0.68 mi^2.

PERIOD OF RECORD.--1971 to current year.

DATUM OF GAGE.--840.95 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--Not established.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by the outlet channel.

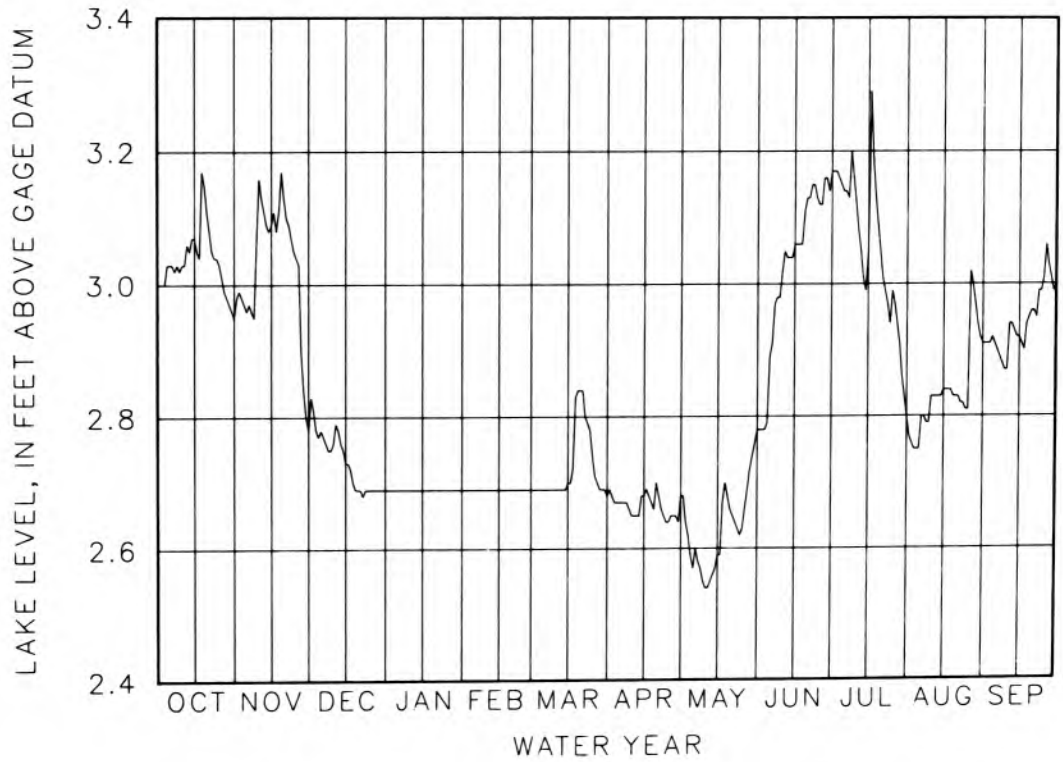
INLET AND OUTLET.--A small unnamed ditch enters on the northwestern shore. The outlet leaves the lake at the southwest and flows into Mather ditch 1.0 mi downstream. Mather ditch eventually empties into the Little Elkhart River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 3.81 ft July 28, 1981; minimum stage, 1.80 ft May 15, 1971.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
2400 HR VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.03	2.96	2.78	2.69	2.69	2.69	2.67	2.57	2.89	3.14	2.75	2.91
10	3.03	3.16	2.76	2.69	2.69	2.69	2.65	2.54	3.02	3.12	2.83	2.87
15	3.07	3.09	2.73	2.69	2.69	2.70	2.68	2.59	3.06	3.05	2.84	2.92
20	3.11	3.13	2.69	2.69	2.69	2.84	2.70	2.66	3.13	3.05	2.83	2.96
25	3.03	3.04	2.69	2.69	2.69	2.74	2.64	2.63	3.12	2.99	2.81	3.01
EOM	2.95	2.78	2.69	2.69	2.69	2.68	2.68	2.78	3.17	2.80	2.91	3.00

WTR YR 1986 MEAN 2.84 HIGH 3.29 JUL 16 LOW 2.54 MAY 10 AND OTHERS



05518700 CEDAR LAKE AT CEDAR LAKE, IN

LOCATION.--Lat 41°21'58", long 87°25'36", in NE¼SW¼SW¼ sec.26, T.34 N., R.9 W., Lake County, Hydrologic Unit 07120001 (LOWELL, IN quadrangle). The gage is on the south bank of the outlet channel on the east shore of the lake, upstream from the first bridge over the outlet, and 0.5 mi east of the town of Cedar Lake.

SURFACE AREA.--781 acres.

DRAINAGE AREA.--8.14 mi^2.

PERIOD OF RECORD.--1943 to current year.

DATUM OF GAGE.--690.00 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 24-inch diameter stilling well. An auxiliary staff gage is driven into the channel bed.

ESTABLISHED LEGAL LEVEL.--2.85 ft gage datum or 692.85 ft above National Geodetic Vertical Datum of 1929.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a fixed-crest concrete dam.

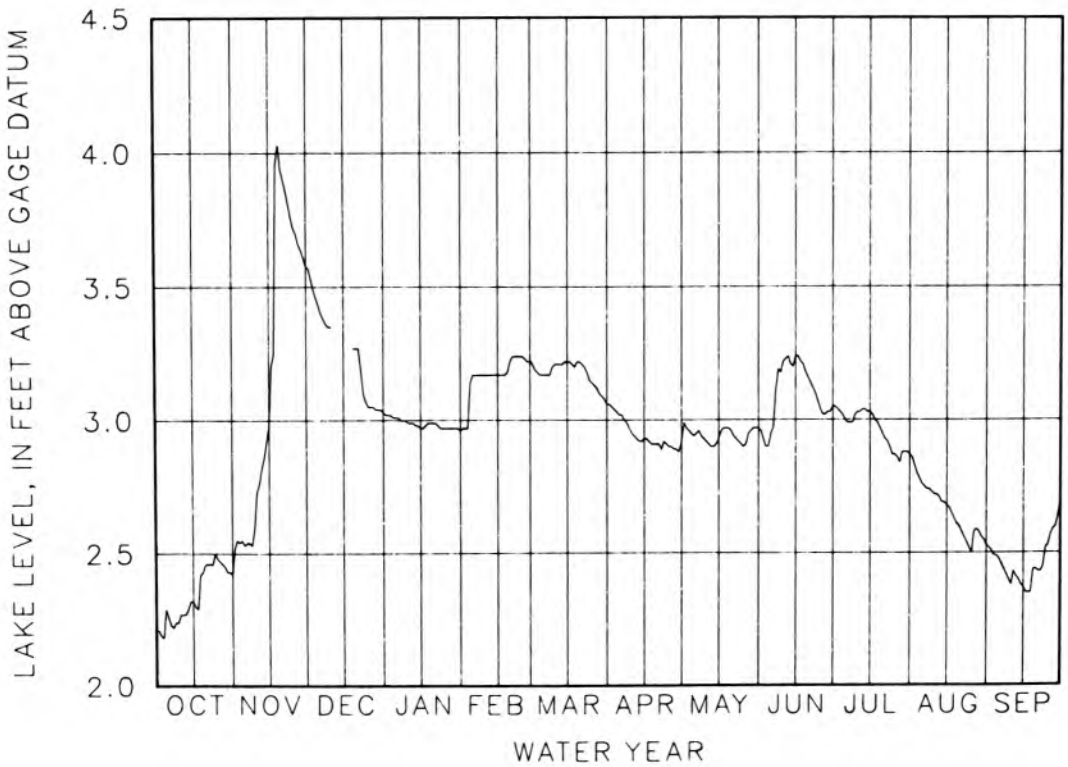
INLET AND OUTLET.--Several small ditches enter the lake at various points. The outlet, Cedar Creek, flows from the lake on the eastern shore of the center lobe, into Dalecarlia Lake, 1.5 mi downstream, and eventually into the Kankakee River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 4.30 ft May 15, 1970; minimum stage, 1.66 ft Dec. 21-23, 1964.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
2400 HR VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.26	2.53	3.43	3.01	3.17	3.17	3.02	2.94	2.95	3.00	2.76	2.48
10	2.27	2.73	3.35	2.99	3.17	3.21	2.95	2.92	3.22	3.03	2.72	2.38
15	2.32	2.98	---	2.97	3.17	3.22	2.93	2.93	3.24	3.03	2.68	2.37
20	2.46	3.94	3.27	2.99	3.22	3.22	2.91	2.96	3.16	2.95	2.60	2.44
25	2.48	3.72	3.05	2.97	3.24	3.14	2.90	2.90	3.04	2.87	2.50	2.53
EOM	2.42	3.58	3.03	2.96	3.22	3.06	2.92	2.97	3.05	2.87	2.53	2.70

WTR YR 1986 MEAN 2.92 HIGH 4.03 NOV 19 LOW 2.18 OCT 3



03331160 CENTER LAKE AT WARSAW, IN

LOCATION.--Lat 41°15'02", long 85°51'32", in NE¼SW¼SW¼ sec.5, T.32 N., R.6 E., Kosciusko County, Hydrologic Unit 05120106 (LEESBURG, IN quadrangle). The gage is on the northwestern side of the lake, mounted on a sea wall behind the house at 300 Gilliam Drive, 0.9 mi north of the court house, Warsaw.

SURFACE AREA.--120 acres.

DRAINAGE AREA.--0.73 mi^2.

PERIOD OF RECORD.--1943-1968, 1971 to current year.

DATUM OF GAGE.--800.00 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is attached to the control dam at the outlet.

ESTABLISHED LEGAL LEVEL.--3.86 ft gage datum or 803.86 ft above National Geodetic Vertical Datum of 1929.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam at the western end of the lake.

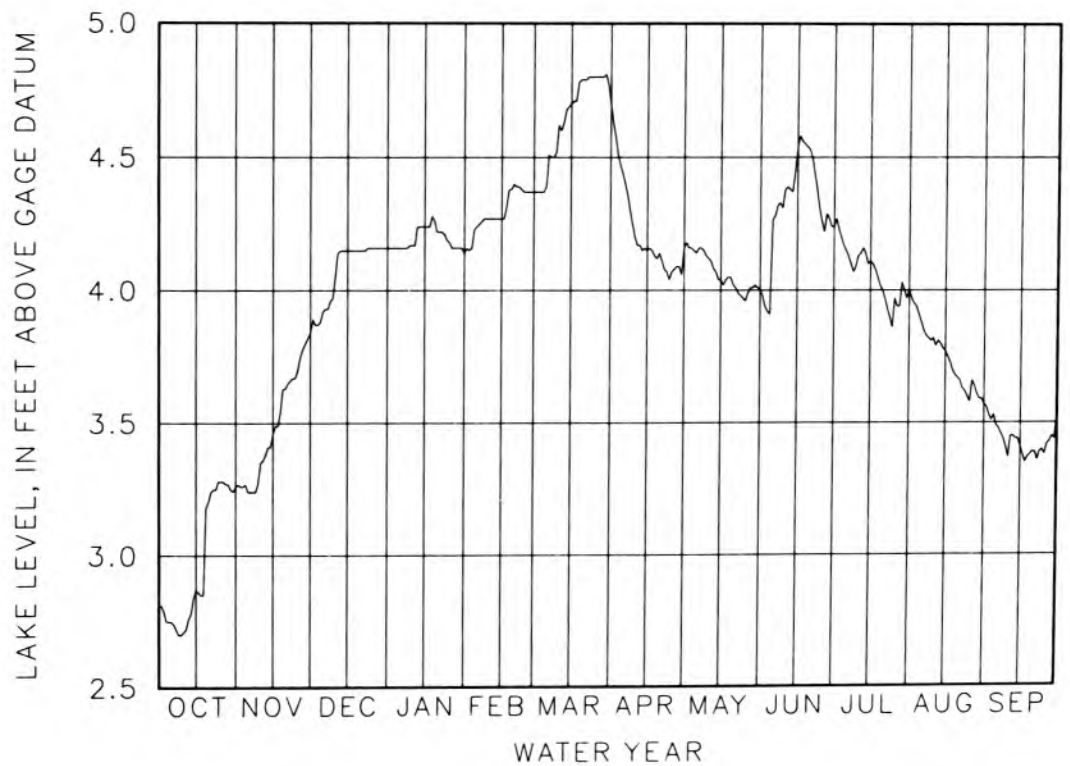
INLET AND OUTLET.--The one inlet flows through a 24-inch diameter tile from Pike Lake and enters the lake on the southeastern side. The outlet flows from the western shore and joins Walnut Creek 0.65 mi downstream, which in turn flows into the Tippecanoe River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 7.24 ft Oct. 15, 1954; minimum stage, 0.17 ft Oct. 4, 1955.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
2400 HR VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.75	3.24	3.92	4.16	4.24	4.39	4.44	4.14	4.27	4.15	3.88	3.49
10	2.71	3.35	4.05	4.17	4.27	4.62	4.20	4.12	4.38	4.13	3.82	3.37
15	2.87	3.46	4.15	4.24	4.27	4.70	4.15	4.04	4.54	4.11	3.77	3.41
20	3.20	3.63	4.15	4.22	4.40	4.79	4.14	4.02	4.53	4.00	3.67	3.39
25	3.28	3.70	4.16	4.18	4.37	4.80	4.07	3.96	4.26	3.97	3.58	3.38
EOM	3.26	3.84	4.16	4.14	4.37	4.70	4.16	4.00	4.24	4.00	3.57	3.53

WTR YR 1986 MEAN 3.96 HIGH 4.81 MAR 29 LOW 2.70 OCT 8 AND OTHERS



04177200 CLEAR LAKE AT CLEAR LAKE, IN

LOCATION.--Lat 41°44'52", long 84°50'25", in SW¼SW¼ sec.17, T.38 N., R.15 E., Steuben County, Hydrologic Unit 04100003 (CLEAR LAKE, IN-OH-MI quadrangle). The gage is on the northern shore of the lake, at the channel between Clear and Round Lakes, and 4.75 mi northeast of Fremont.

SURFACE AREA.--800 acres.

DRAINAGE AREA.--6.86 mi^2.

PERIOD OF RECORD.--1943 to current year.

DATUM OF GAGE.--1030.00 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder is installed in a wooden shelter over a 24-inch stilling well. An auxiliary staff gage is attached to the north end of the upstream culvert.

ESTABLISHED LEGAL LEVEL.--7.38 ft gage datum or 1037.38 ft above National Geodetic Vertical Datum of 1929 as decreed on June 1, 1950, by the Steuben County Circuit Court. Round Lake at Clear Lake has the same established level and hence the same lake levels for the period of record.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a fixed-crest concrete dam with an auxiliary slide gate at the outlet of Round Lake.

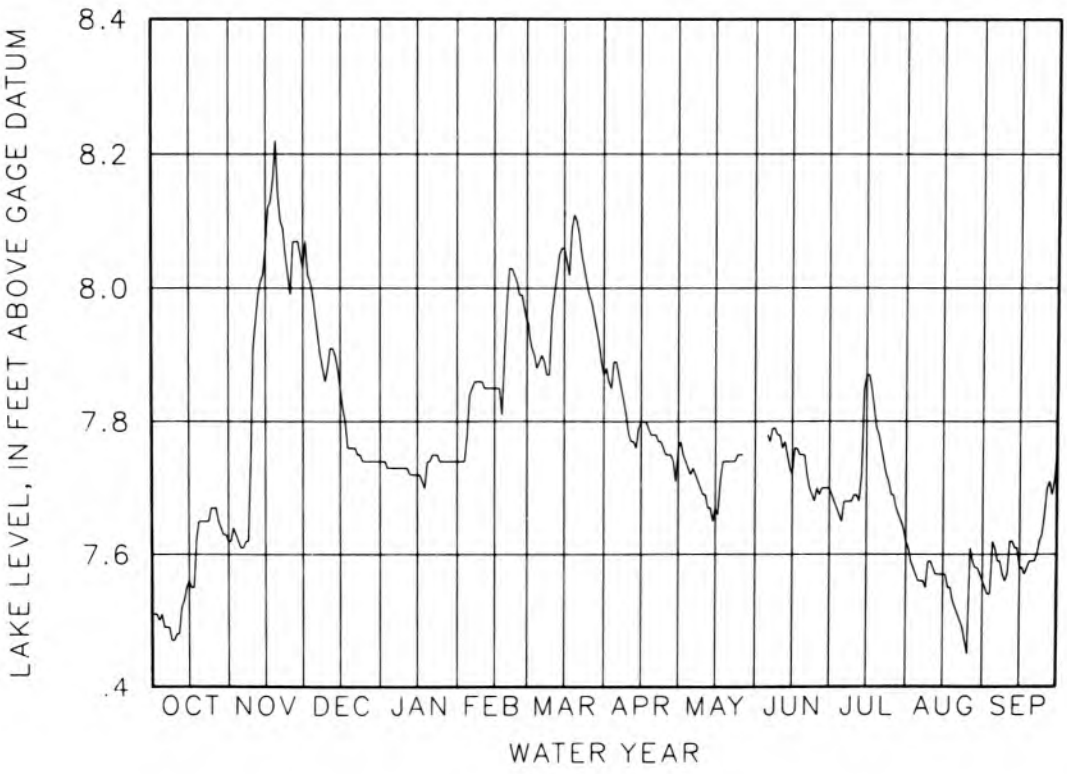
INLET AND OUTLET.--Two unnamed ditches enter the lake on the southern shore. The outlet is a short channel connecting Clear and Round Lakes. The outlet of Round Lake flows from the northeast end and eventually into the West Branch of the St. Joseph River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 9.24 ft May 20, 1943 (from high-water mark); maximum recorded stage, 8.49 ft Mar. 20, 21, 1982; minimum stage, 6.24 ft Sept. 30, 1962.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
2400 HR VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.49	7.61	7.96	7.73	7.84	7.89	7.89	7.72	7.78	7.65	7.56	7.61
10	7.48	7.91	7.88	7.73	7.86	7.96	7.78	7.69	7.78	7.69	7.59	7.57
15	7.56	8.06	7.85	7.72	7.85	8.06	7.80	7.67	7.72	7.87	7.57	7.58
20	7.65	8.14	7.76	7.74	7.98	8.10	7.78	7.74	7.75	7.78	7.52	7.59
25	7.67	7.99	7.74	7.74	7.99	7.99	7.75	7.75	7.70	7.69	7.45	7.66
EOM	7.62	8.03	7.74	7.74	7.95	7.87	7.76	---	7.70	7.62	7.56	7.76

WTR YR 1986 MEAN 7.76 HIGH 8.22 NOV 19 LOW 7.45 AUG 25



05515240 CLEAR LAKE AT LAPORTE, IN

LOCATION.--Lat 41°37'25", long 86°43'11", in NE¼SE¼SE¼ sec.26, T.37 N., R.3 W., LaPorte County, Hydrologic Unit 07120001 (LAPORTE EAST, IN quadrangle). The gage is on the northeast shore of the lake, 100 ft south of the entrance to Fox Memorial Park, in LaPorte.

SURFACE AREA.--106 acres.

DRAINAGE AREA.--0.65 mi^2.

PERIOD OF RECORD.--1942-49, 1952-75, 1979 to current year.

DATUM OF GAGE.--790.00 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is attached to the north wingwall of the inlet culvert on the west side of the lake.

ESTABLISHED LEGAL LEVEL.--8.20 ft gage datum or 798.20 ft above National Geodetic Vertical Datum of 1929 as decreed on Aug. 31, 1949, by the LaPorte County Circuit Court.

LAKE-LEVEL CONTROL.--During periods of high water, water may be released through the main sewer system of the city of LaPorte and diverted into the Kankakee River.

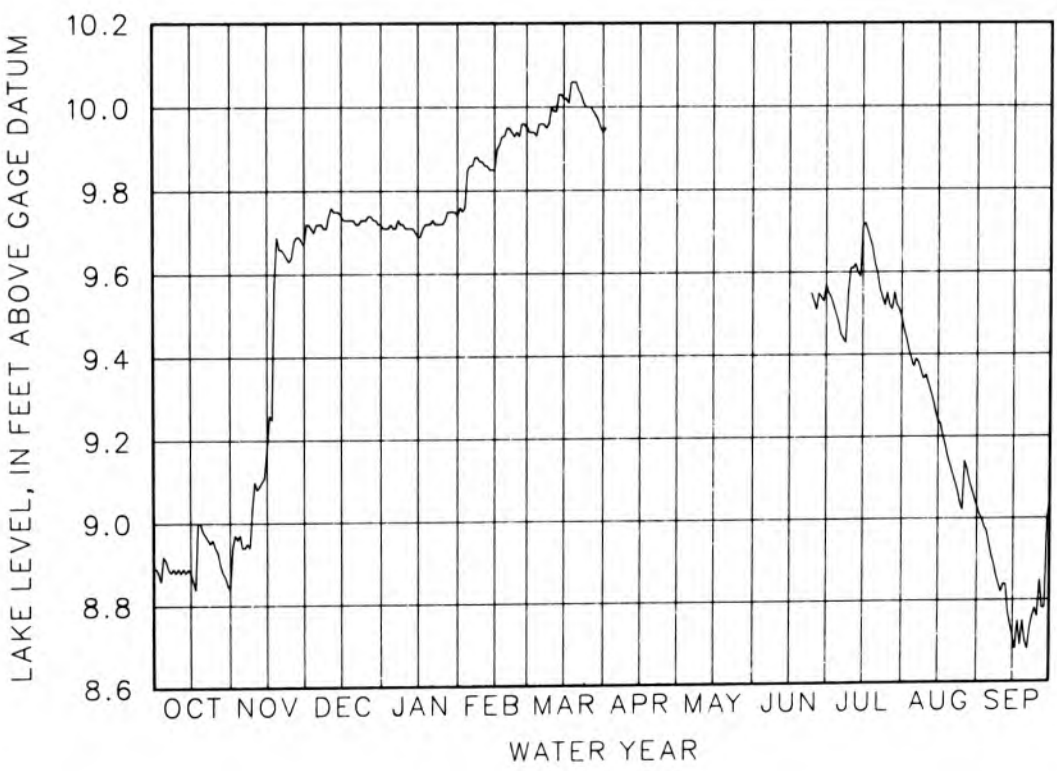
INLET AND OUTLET.--A small ditch enters on the west shore. There is no outlet during periods of low and medium water levels. When water levels are high, water may flow from the lake into the city sewer system.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 11.20 ft Apr. 23, 1973; minimum stage, 3.98 ft Nov. 27, 1964.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
2400 HR VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.91	8.94	9.72	9.71	9.86	9.96	---		---	9.48	9.37	8.94
10	8.89	9.10	9.74	9.71	9.87	10.00	---		---	9.61	9.35	8.82
15	8.88	9.18	9.74	9.69	9.85	10.02	---		---	9.71	9.24	8.71
20	8.98	9.66	9.73	9.72	9.95	10.06	---		---	9.62	9.13	8.70
25	8.94	9.64	9.73	9.72	9.93	10.00	---		9.53	9.55	9.02	8.76
EOM	8.84	9.67	9.72	9.74	9.95	9.94	---		9.57	9.49	9.03	9.04

WTR YR 1986 MEAN 9.46 HIGH 10.06 MAR 18 AND OTHERS LOW 8.68 SEP 16 AND OTHERS



04097850 CROOKED LAKE AT CROOKED LAKE, IN

LOCATION.--Lat 41°40'14", long 85°02'04", in NE¼NW¼NE¼ sec.16, T.37 N., R.13 E., Steuben County, Hydrologic Unit 04050001 (ANGOLA WEST, IN quadrangle). The gage is on an inlet channel on the lower eastern shore of the lake, 3.1 mi northwest of Angola.

SURFACE AREA.--828 acres.

DRAINAGE AREA.--10.4 mi^2.

PERIOD OF RECORD.--1946-70, 1972 to current year.

DATUM OF GAGE.--980.00 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is driven into the channel bed between the Second and Third Basins under County Road 400 West.

ESTABLISHED LEGAL LEVEL.--8.17 ft gage datum or 988.17 ft above National Geodetic Vertical Datum of 1929 as decreed on June 17, 1948, by the Steuben County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a fixed-crest dam with an adjustable gate at the western end of the Third Basin.

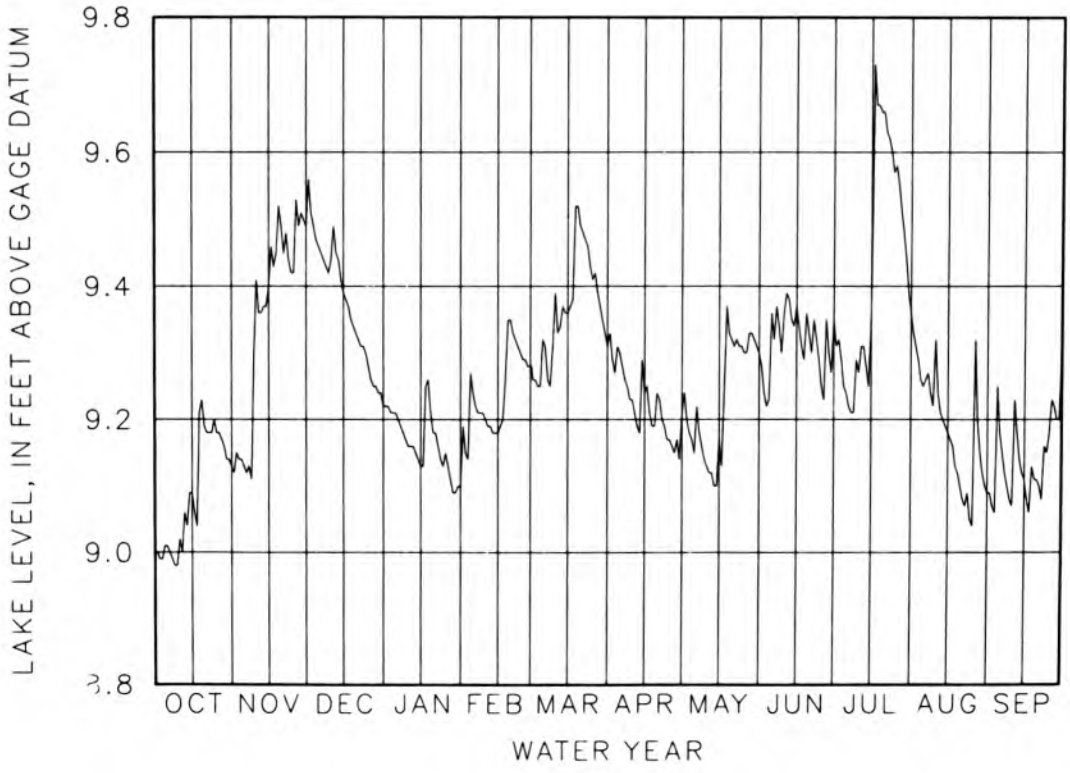
INLET AND OUTLET.--The principal inlets enter the lake from the south, from Loon and Buck Lakes, and the southeast, from Center Lake. Another ditch enters from the east. The outlet flows from the western end of the Third Basin into Lake Gage 1.4 mi downstream and eventually into the St. Joseph River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 10.07 ft Apr. 6, 1985; minimum stage, 7.05 ft Nov. 13-15, 1964.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
2400 HR VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.01	9.13	9.46	9.21	9.24	9.32	9.30	9.15	9.36	9.24	9.25	9.18
10	9.02	9.41	9.44	9.16	9.20	9.39	9.23	9.13	9.36	9.27	9.32	9.07
15	9.09	9.40	9.39	9.13	9.18	9.36	9.24	9.17	9.37	9.35	9.18	9.11
20	9.19	9.49	9.33	9.18	9.35	9.49	9.24	9.32	9.33	9.66	9.10	9.11
25	9.18	9.42	9.28	9.15	9.29	9.41	9.17	9.30	9.25	9.58	9.04	9.18
EOM	9.13	9.49	9.22	9.10	9.28	9.31	9.21	9.30	9.35	9.36	9.09	9.31

WTR YR 1986 MEAN 9.26 HIGH 9.73 JUL 16 LOW 8.98 OCT 8 AND OTHERS



04100470 DEWART LAKE NEAR LEESBURG, IN

LOCATION.--Lat 41°22'27", long 85°47'07", in NW¼SW¼NW¼ sec.25, T.34 N., R.6 E., Kosciusko County, Hydrologic Unit 04050001 (LEESBURG, IN quadrangle). The gage is on the west shore of the lake, 0.1 mi east of County Road 300 East at the Dewart Lake Marina, and 4.5 mi northeast of Leesburg.

SURFACE AREA.--551 acres.

DRAINAGE AREA.--8.05 mi^2.

PERIOD OF RECORD.--1945 to current year.

DATUM OF GAGE.--859.90 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 24-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--7.80 ft gage datum or 867.70 ft above National Geodetic Vertical Datum of 1929 as decreed on Oct. 18, 1949, by the Kosciusko County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a steel sheet piling dam.

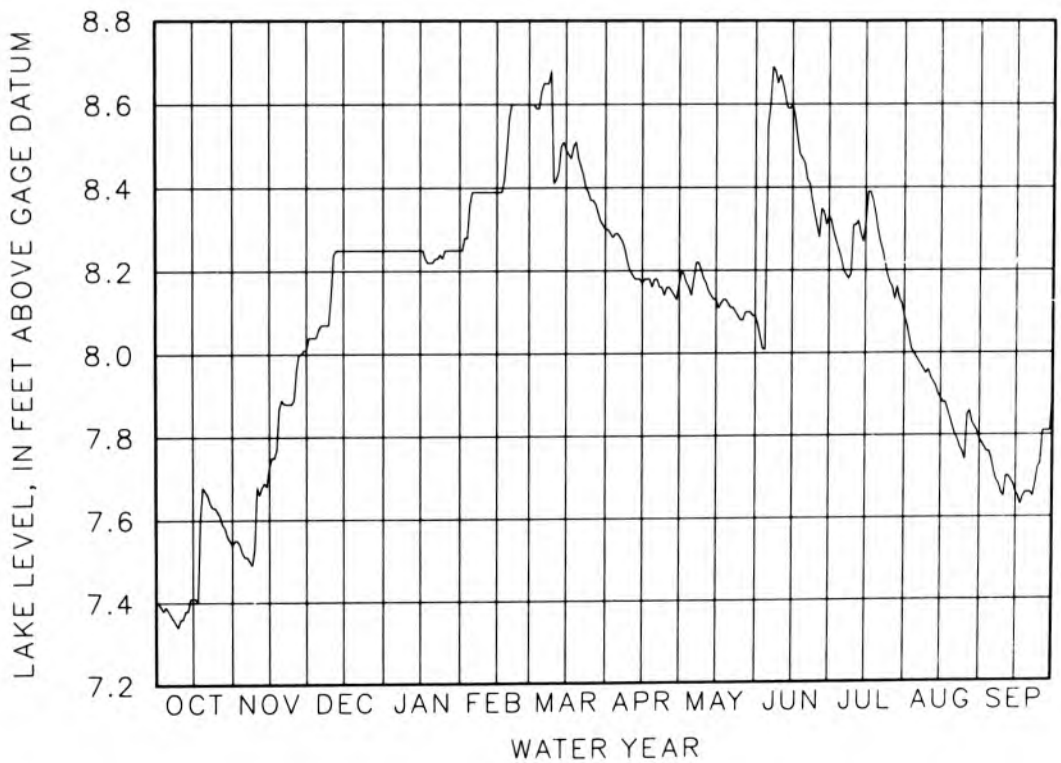
INLET AND OUTLET.--Cable Run enters the lake on the southeastern tip, and an unnamed ditch enters on the eastern shore. The outlet, Hammond ditch, flows from the lake on the northwestern shore and into Wahee Lake, 2.3 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 9.57 ft June 14, 1981; minimum stage, 3.95 ft Dec. 21-24, 1964.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
2400 HR VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.38	7.51	8.06	8.25	8.39	8.63	8.29	8.14	8.55	8.23	7.99	7.74
10	7.36	7.68	8.14	8.25	8.39	8.41	8.20	8.18	8.67	8.31	7.96	7.65
15	7.41	7.73	8.25	8.25	8.39	8.49	8.17	8.13	8.60	8.31	7.89	7.66
20	7.67	7.89	8.25	8.22	8.57	8.47	8.18	8.12	8.46	8.30	7.82	7.66
25	7.62	7.89	8.25	8.25	8.60	8.37	8.16	8.08	8.31	8.17	7.74	7.73
EOM	7.54	8.01	8.25	8.25	8.60	8.30	8.17	8.09	8.33	8.09	7.79	7.90

WTR YR 1986 MEAN 8.10 HIGH 8.69 JUN 7 LOW 7.34 OCT 9



03331320 DIAMOND LAKE NEAR SILVER LAKE, IN

LOCATION.--Lat 41°06'23", long 85°56'05", in SW¼NW¼SE¼ sec.26, T.31 N., R.5 E., Kosciusko County, Hydrologic Unit 05120106 (SILVER LAKE, IN quadrangle). The gage is on the inlet channel on the northern shore of the lake, 2.2 mi northwest of the town of Silver Lake.

SURFACE AREA.--79 acres.

DRAINAGE AREA.--3.92 mi^2.

PERIOD OF RECORD.--1954-72, 1975 to current year.

DATUM OF GAGE.--849.90 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--Not established.

LAKE-LEVEL CONTROL.--The lake level is controled by Yellow Creek Lake, 0.3 mi downstream.

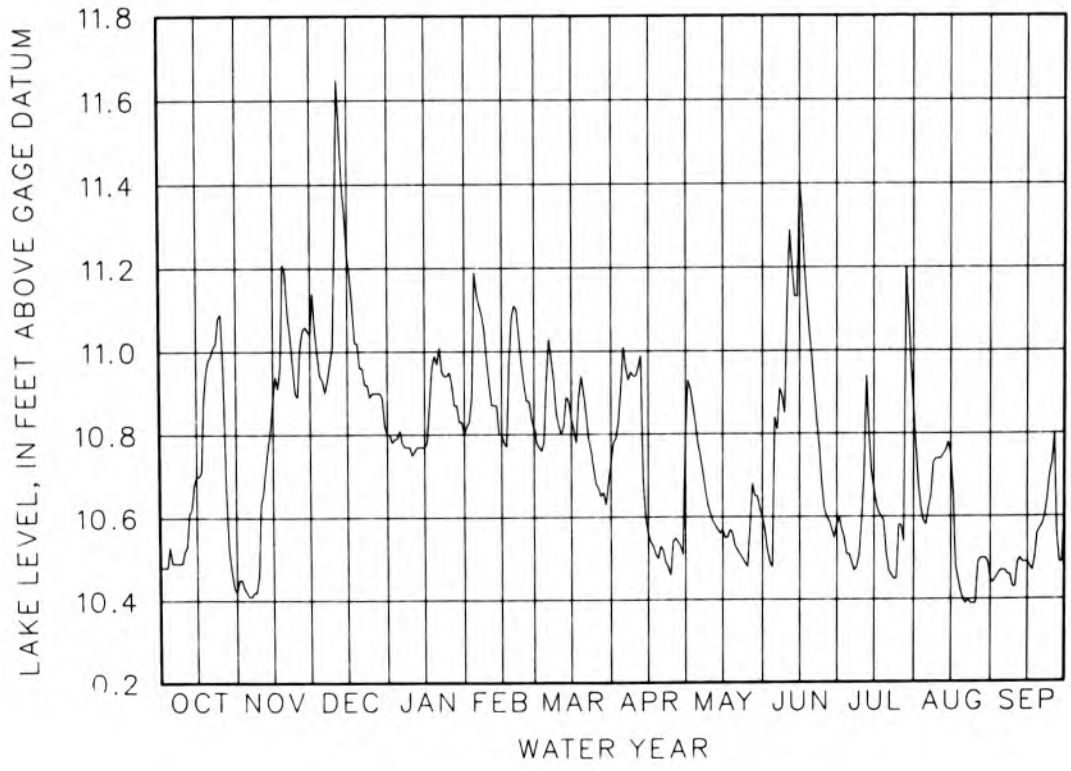
INLET AND OUTLET.--There are two inlets. One enters from the north and east from Hill Lake, one enters from the southeast. The one outlet flows from the western shore and into Yellow Creek Lake, 0.3 mi downstream. Yellow Creek Lake flows into Yellow Creek, which eventually discharges into the Tippecanoe River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 13.47 July 9, 1964; minimum stage, 9.87 ft June 3, 4, 7, 1977; Sept, 18, Oct, 11, 1983.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
2400 HR VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.49	10.41	10.93	10.81	11.14	10.93	11.01	10.78	10.84	10.51	10.58	10.47
10	10.52	10.63	11.26	10.75	10.92	10.82	10.94	10.61	11.12	10.59	10.74	10.43
15	10.70	10.88	11.23	10.77	10.80	10.84	10.56	10.57	11.41	10.67	10.75	10.49
20	10.98	11.19	10.96	10.97	11.11	10.90	10.53	10.53	10.98	10.51	10.40	10.57
25	11.09	10.89	10.90	10.95	10.88	10.68	10.54	10.48	10.62	10.58	10.39	10.73
EOM	10.42	11.04	10.80	10.80	10.81	10.73	10.80	10.60	10.58	10.87	10.45	10.60

WTR YR 1986 MEAN 10.75 HIGH 11.65 DEC 11 LOW 10.39 AUG 21 AND OTHERS



04100350 DIAMOND LAKE NEAR WAWAKA, IN

LOCATION.--Lat 41°26'15", long 85°31'05",in NE¼NW¼NW¼, sec.5, T.34 N., R.9 E., Noble County, Hydrologic Unit 04050001 (LIGONIER, IN quadrangle). The gage is located on the southeastern edge of the lake at a public fishing site, 2.5 mi southwest of the town of Wawaka.

SURFACE AREA.--105 acres.

DRAINAGE AREA.--4.80 mi^2.

PERIOD OF RECORD.--1946 to current year.

DATUM OF GAGE.--870.00 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxillary staff gage is mounted on a piling driven into the lake bed on the northern edge of the lake.

ESTABLISHED LEGAL LEVEL.--Not established.

LAKE-LEVEL CONTROL.--The lake level is controlled by a riffle at the head of the outlet channel.

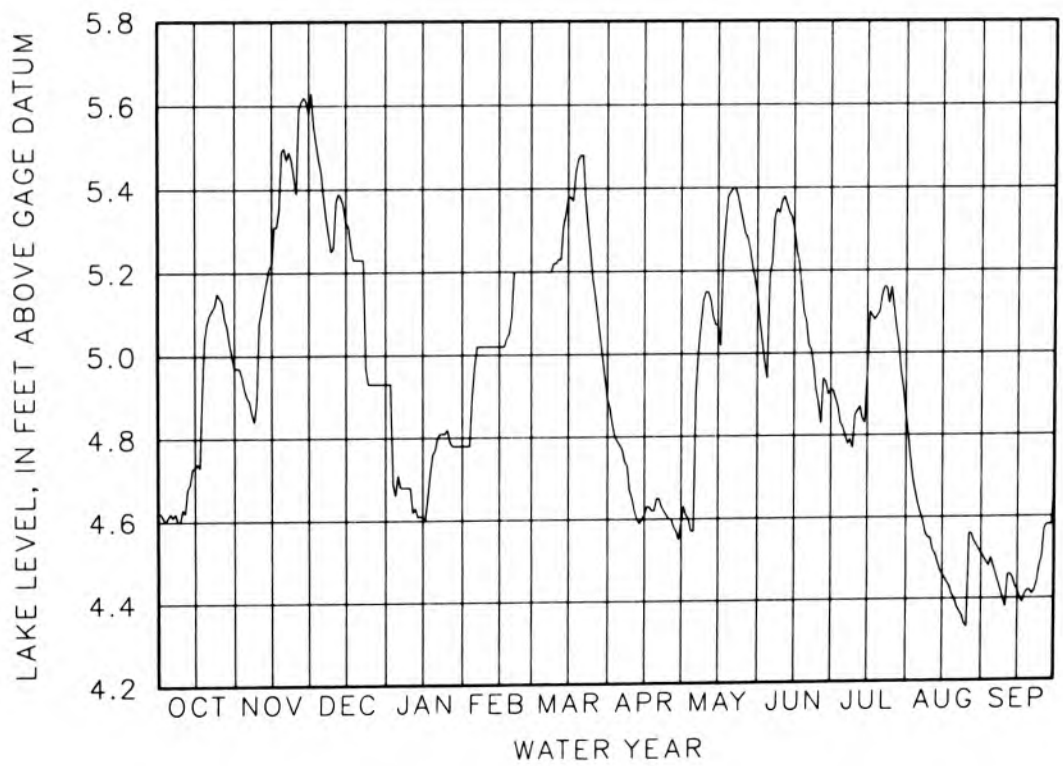
INLET AND OUTLET.--Willets Ditch enters at the southwestern tip of the lake from Eagle Lake, 0.6 mi upstream. One unnamed ditch enters the lake from the south. The outlet flows from the lake at the southeastern edge and joins the South Branch of the Elkhart River, 0.8 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 7.83 ft Mar. 20, 1982; minimum stage, 2.29 ft Oct. 17, 1946.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
2400 HR VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.62	4.90	5.44	4.71	4.97	5.20	4.78	4.57	5.19	4.82	4.63	4.48
10	4.63	5.08	5.26	4.68	5.02	5.22	4.65	5.15	5.37	4.85	4.55	4.38
15	4.73	5.22	5.32	4.61	5.02	5.38	4.61	5.07	5.30	4.95	4.46	4.42
20	5.08	5.50	5.23	4.77	5.09	5.48	4.65	5.39	5.08	5.10	4.40	4.42
25	5.14	5.39	4.93	4.82	5.20	5.18	4.60	5.32	4.88	5.16	4.33	4.50
EOM	4.97	5.58	4.93	4.78	5.20	4.89	4.59	5.14	4.91	4.85	4.51	4.67

WTR YR 1986 MEAN 4.93 HIGH 5.63 DEC 1 LOW 4.33 AUG 25



04100370 ENGLE LAKE NEAR LIGONIER, IN

LOCATION.--Lat 41°26'08", long 85°34'30", in SE¼NW¼NW¼ sec.2, T.34 N., R.8 E., Noble County, Hydrologic Unit 04050001 (LIGONIER, IN quadrangle). The gage is located at a public access site on the eastern side of the lake, 2.2 mi south of the town of Ligonier.

SURFACE AREA.--48 acres.

DRAINAGE AREA.--4.19 mi².

PERIOD OF RECORD.--1950-67, 1977 to current year.

DATUM OF GAGE.--870.00 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--8.90 ft gage datum or 878.90 ft above National Geodetic Vertical Datum of 1929.

LAKE-LEVEL CONTROL.--The lake level is controlled by the outlet channel at low water and the first culvert downstream at higher stages.

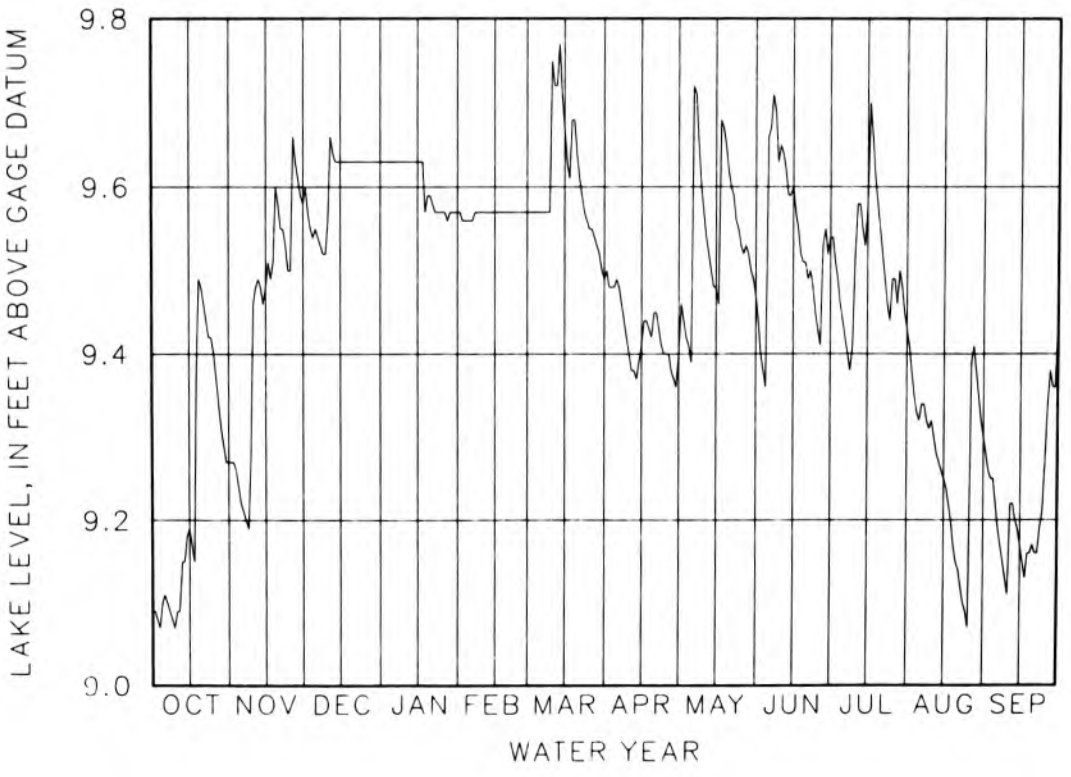
INLET AND OUTLET.--Sparta Lake ditch feeds the lake from the south, flowing from Sparta Lake. The outlet flows from the northern shore through Indian Lake and into the Elkhart River, 1.7 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage 10.53 ft Mar. 29, 1985; minimum stage, 7.48 ft Nov. 17, 1964.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
2400 HR VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.11	9.22	9.55	9.63	9.56	9.57	9.49	9.39	9.66	9.44	9.32	9.22
10	9.09	9.46	9.56	9.63	9.57	9.75	9.40	9.57	9.65	9.52	9.32	9.11
15	9.19	9.48	9.63	9.63	9.57	9.67	9.41	9.48	9.60	9.58	9.25	9.17
20	9.48	9.58	9.63	9.59	9.57	9.64	9.45	9.62	9.51	9.55	9.15	9.17
25	9.40	9.50	9.63	9.57	9.57	9.55	9.40	9.53	9.43	9.49	9.07	9.27
EOM	9.27	9.58	9.63	9.57	9.57	9.49	9.40	9.47	9.54	9.43	9.30	9.44

WTR YR 1986 MEAN 9.46 HIGH 9.77 MAR 13 LOW 9.07 OCT 3 AND OTHERS



04099670 FISH LAKE NEAR PLATO, IN

LOCATION.--Lat 41°37'27", long 85°19'56", in SW¼NE¼NE¼ sec.35, T.37 N., R.10 E., Lagrange County, Hydrologic Unit 04050001 (WOLCOTTVILLE, IN quadrangle). The gage is on the northeast bank of the outlet channel, approximately 15 ft downstream of the lake on the northwest side, and 1.2 mi south of Plato.

SURFACE AREA.--100 acres.

DRAINAGE AREA.--10.6 mi^2.

PERIOD OF RECORD.--1945 to current year.

DATUM OF GAGE.--930.75 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is mounted on a tree stump on the northern bank of the outlet channel at the same site.

ESTABLISHED LEGAL LEVEL.--5.75 ft gage datum or 936.50 ft above National Geodetic Vertical Datum of 1929.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by the outlet channel.

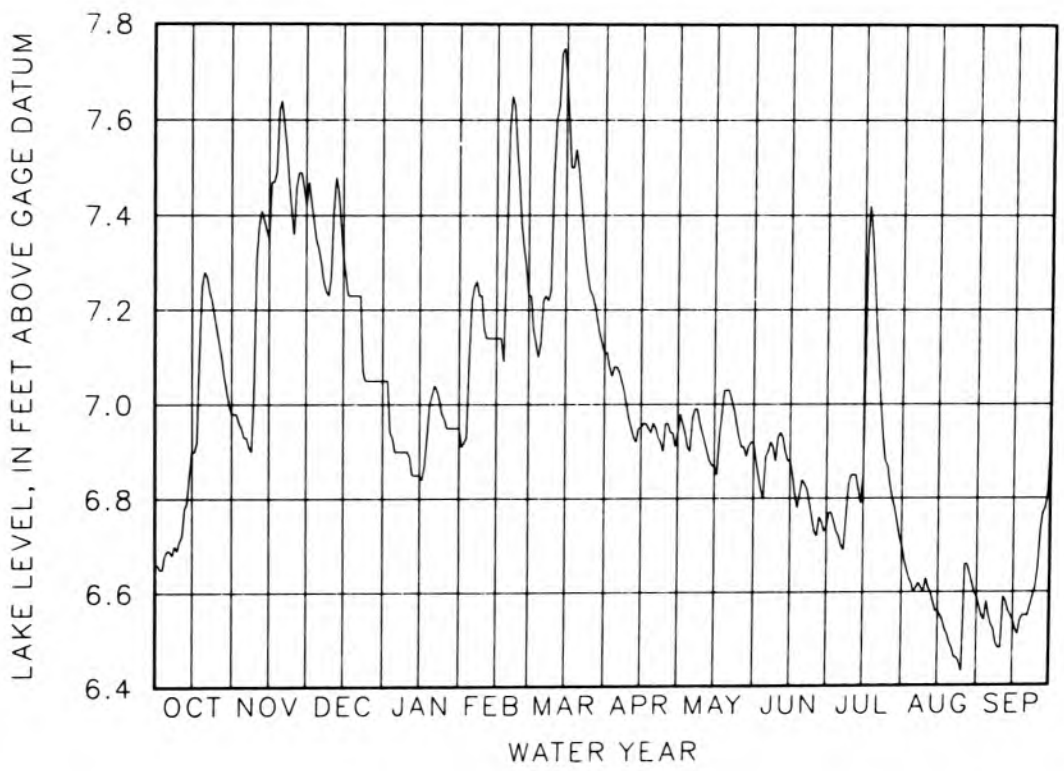
INLET AND OUTLET.--One inlet enters at the extreme southern tip from Royer Lake 700 ft upstream. The other enters on the north shore of the east lobe from Grass Lake, approximately 1.4 mi upstream. The outlet, East Fly Creek, flows from the lake on the northwest shore and joins Fly Creek, which empties into Pigeon River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 9.23 ft June 14, 15, 1981; minimum stage, 5.32 ft Nov. 17-20, 1953.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
2400 HR VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.69	6.93	7.33	6.90	7.22	7.13	7.08	6.90	6.89	6.72	6.60	6.55
10	6.71	7.31	7.27	6.90	7.16	7.49	6.97	6.94	6.93	6.85	6.63	6.48
15	6.90	7.35	7.31	6.85	7.14	7.69	6.95	6.87	6.88	6.85	6.56	6.54
20	7.28	7.64	7.23	7.02	7.58	7.50	6.96	7.03	6.84	7.17	6.49	6.55
25	7.16	7.36	7.05	6.97	7.38	7.24	6.96	6.93	6.73	6.87	6.43	6.65
EOM	6.98	7.42	7.05	6.95	7.23	7.11	6.94	6.92	6.74	6.70	6.59	6.92

WTR YR 1986 MEAN 6.98 HIGH 7.75 MAR 14 LOW 6.43 AUG 25



04099760 FISH LAKE NEAR SCOTT, IN

LOCATION.--Lat 41°45'25", long 85°38'54", in NW¼NW¼SE¼ sec.7, T.38 N.,R.8 E., Lagrange County, Hydrologic Unit 04050001 (MIDDLEBURY, IN quadrangle). The gage is on the northwest shore of the lake, on the north side of the outlet channel, 4.8 mi northwest of Scott.

SURFACE AREA.--139 acres.

DRAINAGE AREA.--6.21 mi^2.

PERIOD OF RECORD.--1954-69, 1978 to current year.

DATUM OF GAGE.--809.84 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is attached to the dam at the same site.

ESTABLISHED LEGAL LEVEL.--4.58 ft gage datum or 814.42 ft above National Geodetic Vertical Datum of 1929.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a fixed concrete sill with removable boards.

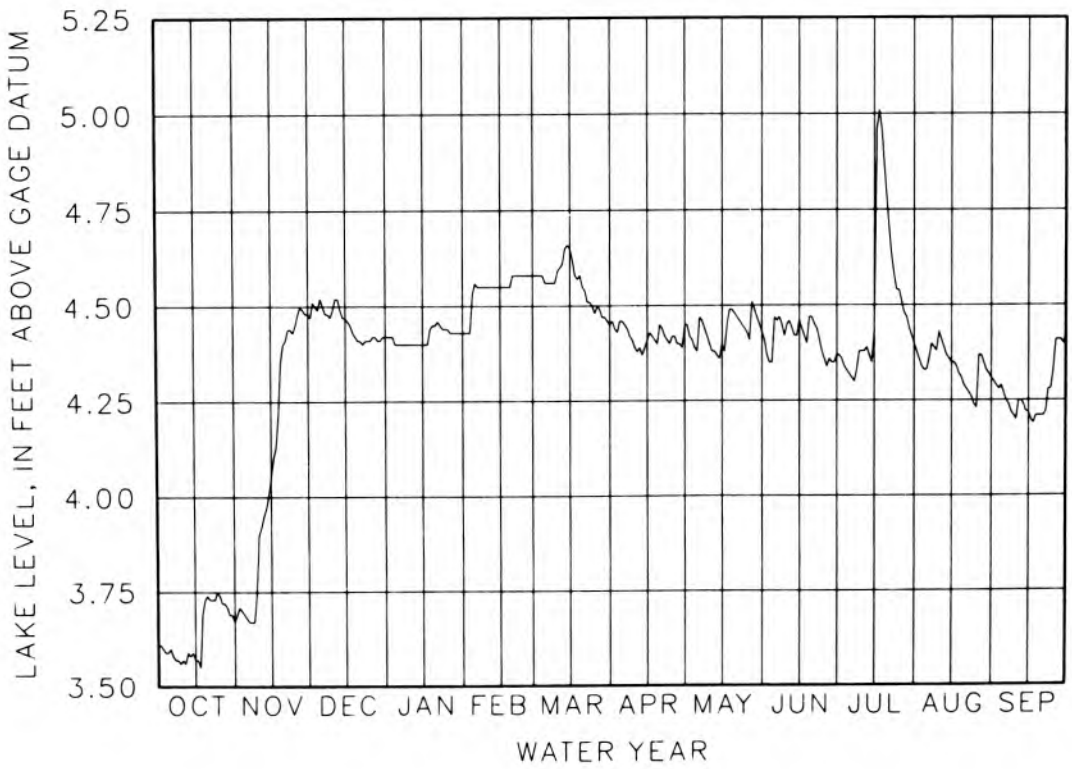
INLET AND OUTLET.--The inlet, Fetch ditch, enters on the southeastern shore. The outlet flows from the lake at the lower west shore and empties into Pigeon River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 5.61 ft Feb. 26, 1985; minimum stage, 1.54 ft Nov. 26, 1964.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
2400 HR VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.60	3.68	4.52	4.40	4.56	4.56	4.46	4.38	4.47	4.32	4.33	4.27
10	3.57	3.90	4.49	4.40	4.55	4.59	4.39	4.40	4.45	4.38	4.43	4.20
15	3.57	4.05	4.47	4.40	4.55	4.65	4.41	4.40	4.46	4.43	4.35	4.22
20	3.74	4.40	4.41	4.45	4.58	4.55	4.45	4.48	4.47	4.78	4.29	4.21
25	3.74	4.45	4.41	4.44	4.58	4.48	4.42	4.43	4.36	4.54	4.23	4.33
EOM	3.67	4.48	4.42	4.43	4.58	4.45	4.45	4.43	4.37	4.40	4.31	4.42

WTR YR 1986 MEAN 4.34 HIGH 5.01 JUL 17 LOW 3.55 OCT 17



05517700 FLINT LAKE NEAR VALPARAISO, IN

LOCATION.--Lat 41°30'41", long 87°02'23", in NE¼SW¼ sec.6, T.35 N., R.5 W., Porter County, Hydrologic Unit 07120001 (CHESTERTON, IN quadrangle). The gage is on the southeast shore of the lake, at the outlet and the Valparaiso Water Works, 3.2 mi northeast of Valparaiso.

SURFACE AREA.--86 acres.

DRAINAGE AREA.--2.62 mi^2.

PERIOD OF RECORD.--1946-1985. From Jan. 1, 1911, to Aug. 14, 1946, readings of the lake level were taken approximately once per week by Water Works personnel. These data are available upon request.

DATUM OF GAGE.--780.00 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder is installed inside the Valparaiso Water Works. An auxiliary staff gage is located lakeward of the concrete block pumping station.

ESTABLISHED LEGAL LEVEL.--17.66 ft gage datum or 797.66 ft above National Geodetic Vertical Datum of 1929 as decreed on Aug. 19, 1963.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by the outlet channel and two 30-inch corrugated metal pipes under the road, 600 ft downstream.

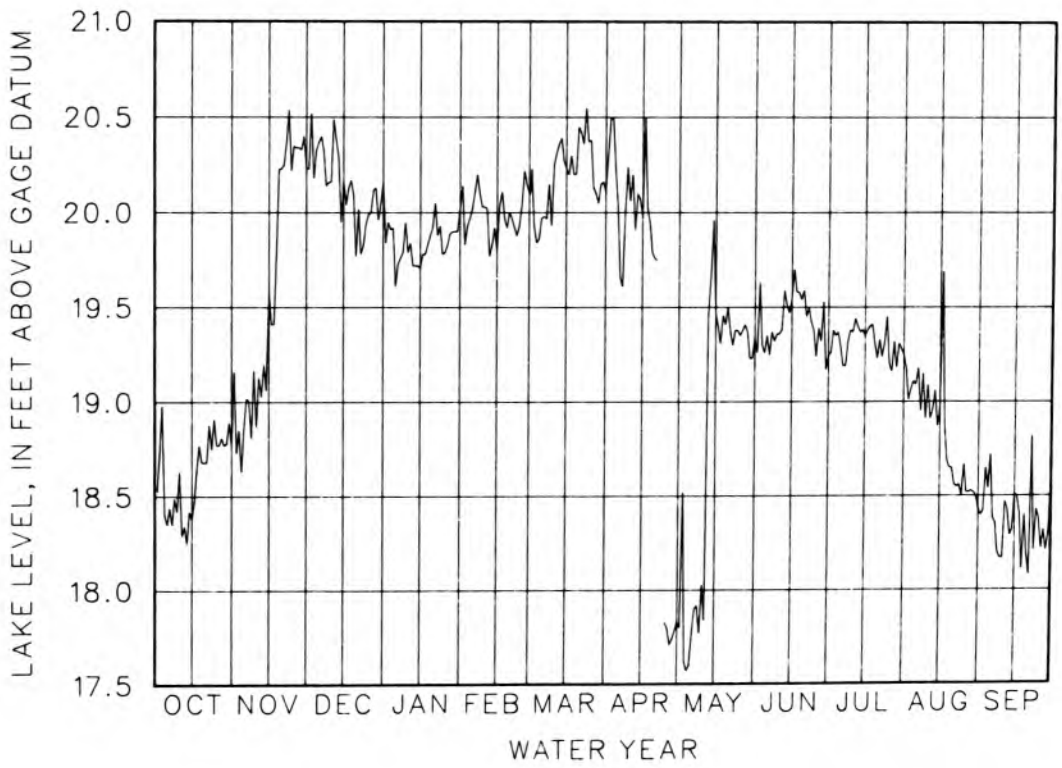
INLET AND OUTLET.--There are two inlets. One drains Long Lake to the northwest and the other drains Loomis Lake to the west. The outlet flows from the lake at the southeast corner and into the West Branch of Crooked Creek, approximately 5.0 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 21.10 ft Apr. 22, 1973; minimum stage, 12.59 ft Dec. 29, 1948.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
2400 HR VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	18.35	18.86	20.37	19.61	20.02	19.97	20.04	17.60	19.35	19.29	19.09	18.72
10	18.63	18.87	20.16	19.79	20.03	20.25	20.06	18.03	19.36	19.37	19.09	18.17
15	18.38	19.58	20.17	19.71	19.80	20.23	19.98	19.47	19.55	19.35	18.97	18.51
20	18.68	20.23	19.77	19.92	20.00	20.45	19.76	19.50	19.59	19.23	18.65	18.19
25	18.77	20.35	19.99	19.79	20.04	20.38	17.83	19.35	19.24	19.20	18.67	18.38
EOM	18.77	20.23	20.16	20.02	20.10	20.11	17.83	19.34	19.25	19.25	18.43	18.58

WTR YR 1986 MEAN 19.39 HIGH 20.55 MAR 23 LOW 17.57 MAY 4



03330160 GILBERT LAKE NEAR WASHINGTON CENTER, IN

LOCATION.--Lat 41°19'50", long 85°35'48", in NE¼NE¼SE¼ sec.9, T.33 N., R.8 E., Noble County, Hydrologic Unit 05120106 (ORMAS, IN quadrangle). The gage is at the extreme west end of the lake on the east side of County Road 925 West, approximately 400 ft south of Gilbert Lake Road, and 0.4 mi north of Washington Center.

SURFACE AREA.--28 acres.

DRAINAGE AREA.--0.37 mi^2.

PERIOD OF RECORD.--1954-59, 1961 to current year.

DATUM OF GAGE.--884.85 ft (revised) above National Geodetic Vertical Datum of 1929 (determined from levels of State of Indiana, Department of Natural Resources, 1974-75).

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage in one section is driven into the lake bed approximately 100 ft south of the primary gage.

ESTABLISHED LEGAL LEVEL.--Not established.

LAKE-LEVEL CONTROL.--The level is controlled by the outlet through the swamp, east of the lake.

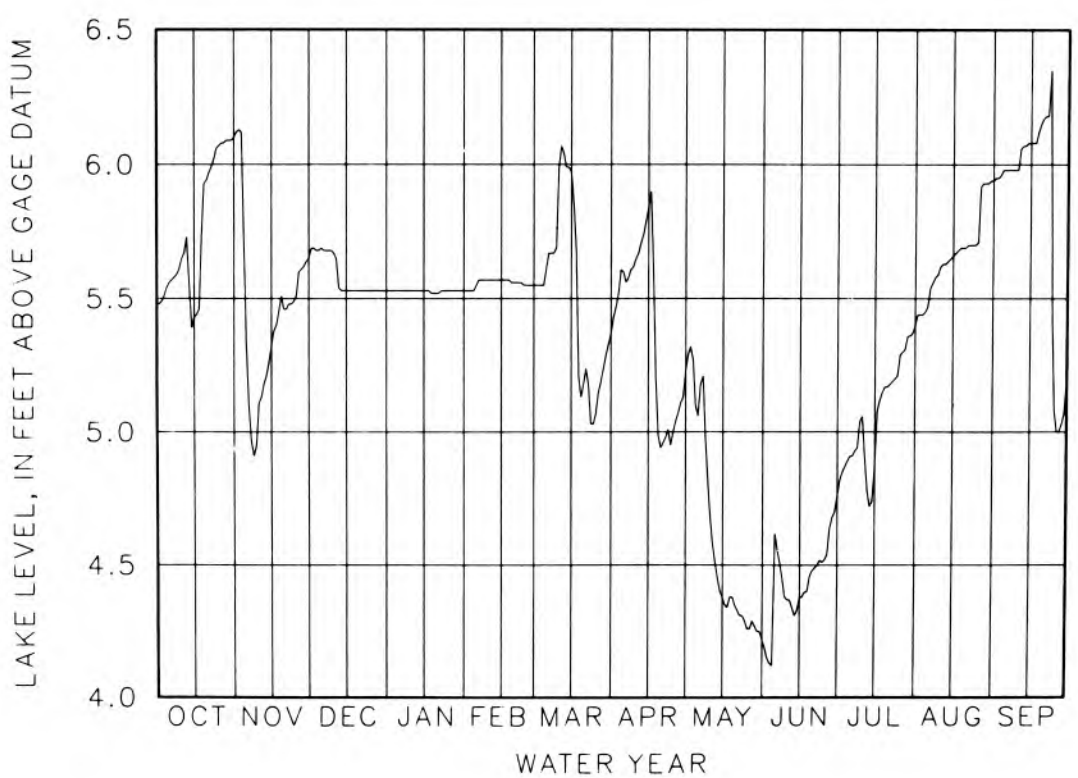
INLET AND OUTLET.--The lake has no inlet. The outlet leaves from the southeastern side and flows into Stump Lake.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 6.35 ft Sept. 23, 1986; minimum stage, 3.53 ft Nov. 1, 1963.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
2400 HR VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.56	5.33	5.69	5.53	5.55	5.61	5.60	5.06	4.62	4.91	5.47	5.98
10	5.65	5.11	5.67	5.53	5.57	5.99	5.65	4.68	4.37	5.06	5.62	5.98
15	5.43	5.32	5.53	5.53	5.57	5.97	5.84	4.38	4.38	4.87	5.66	6.08
20	5.94	5.46	5.53	5.52	5.56	5.18	4.94	4.35	4.48	5.17	5.69	6.17
25	6.07	5.51	5.53	5.53	5.55	5.07	5.00	4.26	4.52	5.29	5.71	5.08
EOM	6.10	5.65	5.53	5.53	5.55	5.37	5.23	4.22	4.76	5.40	5.94	5.20

WTR YR 1986 MEAN 5.36 HIGH 6.35 SEP 23 LOW 4.12 JUN 4



04100110 HACKENBURG LAKE NEAR WOLCOTTVILLE, IN

LOCATION.--Lat 41°33'25", long 85°26'17", in NE¼SW¼SW¼ sec.24, T.36 N., R.9 E., Lagrange County, Hydrologic Unit 04050001 (OLIVER LAKE, IN quadrangle). The gage is on the north shore of the outlet channel at the bridge on County Road 75 West, and 4.2 mi northwest of Wolcottville.

SURFACE AREA.--42 acres.

DRAINAGE AREA.--55.4 mi².

PERIOD OF RECORD.--1945 to current year.

DATUM OF GAGE.--890.00 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder is installed in a wooden shelter over a 24-inch diameter stilling well. An auxiliary staff gage is bolted to the downstream side of the bridge at the same site.

ESTABLISHED LEGAL LEVEL.--7.36 ft gage datum or 897.36 ft above National Geodetic Vertical Datum of 1929 as decreed on Feb. 2, 1954, by the Lagrange County Circuit Court. Witmer, Westler, Dallas, and Messick Lakes, all near Wolcottville, have the same established level and hence the same lake levels for the period of record.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete sill with removable stop logs located at the outlet of Messick Lake.

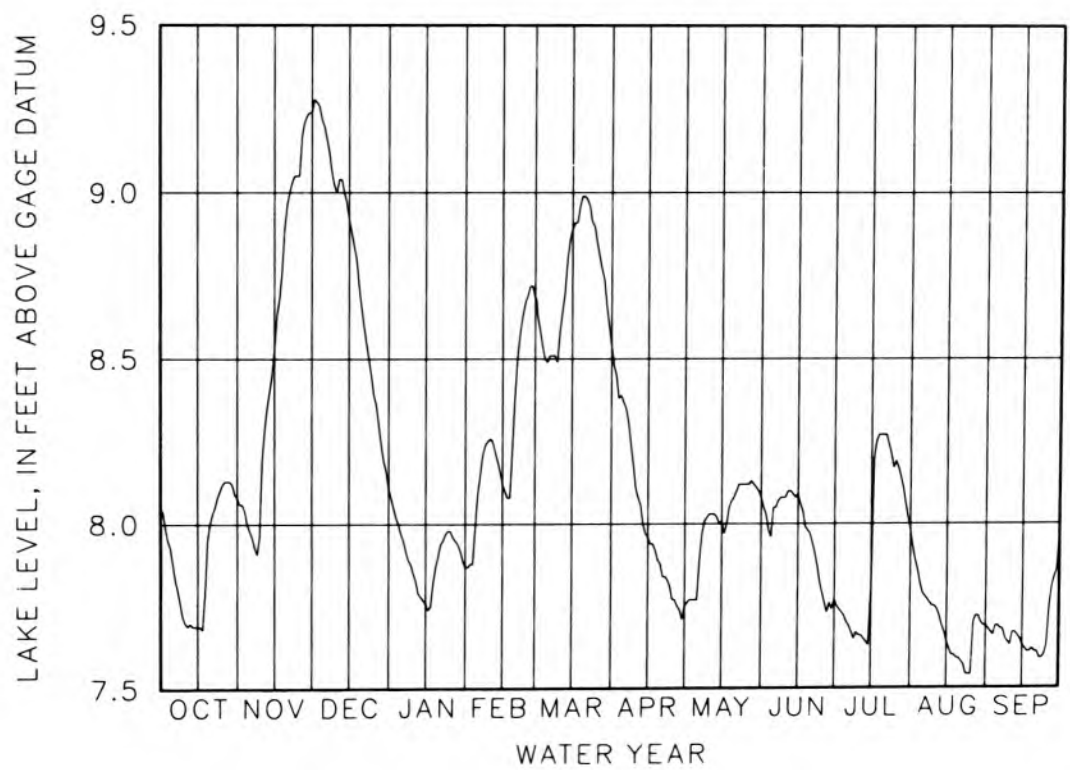
INLET AND OUTLET.--One inlet enters on the north shore from Oliver Lake 1.6 mi upstream. The other inlet enters on the east shore from Dallas Lake 0.5 mi upstream, which is part of a chain of lakes including Westler and Witmer Lakes. The outlet flows from the lake on the southwest shore and into Messick Lake about 0.5 mi downstream. Messick Lake empties into the North Branch of the Elkhart River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 11.17 ft Apr. 7, 1978; minimum stage, 6.34 ft Oct. 10, 1953.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
2400 HR VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.88	7.98	9.20	7.97	8.09	8.49	8.37	7.77	8.05	7.70	7.79	7.69
10	7.70	8.19	9.00	7.85	8.26	8.58	8.11	8.03	8.08	7.66	7.75	7.63
15	7.69	8.53	8.92	7.76	8.12	8.89	7.96	8.01	8.09	7.80	7.64	7.63
20	8.00	8.96	8.66	7.90	8.39	8.99	7.88	8.08	7.97	8.27	7.59	7.61
25	8.12	9.05	8.39	7.98	8.69	8.85	7.77	8.12	7.79	8.19	7.54	7.63
EOM	8.08	9.24	8.11	7.87	8.68	8.54	7.75	8.08	7.77	7.98	7.69	7.97

WTR YR 1986 MEAN 8.12 HIGH 9.28 DEC 1 LOW 7.54 AUG 23 AND OTHERS



04177700 HAMILTON LAKE AT HAMILTON, IN

LOCATION.--Lat 41°32'10", long 84°54'45", in SW¼SW¼NW¼ sec.34, T.36 N., R.14 E., Steuben County, Hydrologic Unit 04100003 (HAMILTON, IN quadrangle). The gage is on the eastern shore of the southern lobe at the outlet, in the town of Hamilton.

SURFACE AREA.--802 acres.

DRAINAGE AREA.--16.5 mi^2.

PERIOD OF RECORD.--1943 to current year.

DATUM OF GAGE.--890.10 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--8.73 ft gage datum or 898.83 ft above National Geodetic Vertical Datum of 1929 as decreed on July 3, 1947, by the Steuben County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by two dams. The northernmost dam is concrete and steel sheet piling with a fixed crest. The southern dam has adjustable gates.

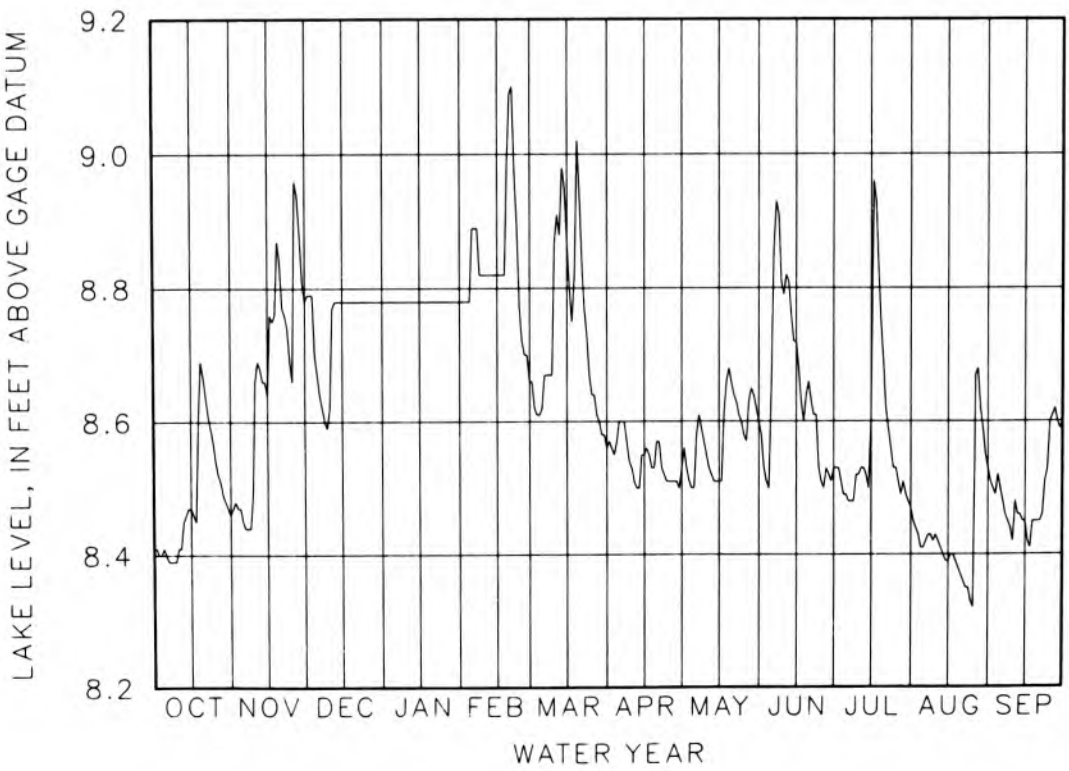
INLET AND OUTLET.--Black Creek enters the lake on the northeast shore. Two small ditches enter from the east and the north. There are two outlets, both on the southern lobe, that flow into Fish Creek thence into the St. Joseph River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 10.14 ft Dec. 30, 1965; minimum stage, 7.27 ft Jan. 4-9, 1953.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
2400 HR VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.40	8.45	8.67	8.78	8.89	8.62	8.60	8.50	8.65	8.49	8.41	8.50
10	8.41	8.66	8.62	8.78	8.82	8.87	8.53	8.55	8.79	8.52	8.43	8.42
15	8.47	8.64	8.78	8.78	8.82	8.87	8.55	8.51	8.72	8.60	8.39	8.45
20	8.67	8.84	8.78	8.78	9.09	8.94	8.57	8.66	8.66	8.69	8.37	8.45
25	8.54	8.66	8.78	8.78	8.72	8.64	8.51	8.58	8.51	8.53	8.32	8.60
EOM	8.46	8.78	8.78	8.78	8.66	8.56	8.53	8.60	8.53	8.47	8.53	8.60

WTR YR 1986 MEAN 8.63 HIGH 9.10 FEB 21 LOW 8.32 AUG 25



04099860 HEATON LAKE NEAR ELKHART, IN

LOCATION.--Lat 41°44'14", long 85°54'42", in NW¼NE¼NE¼ sec.23, T.38 N., R.5 E., Elkhart County, Hydrologic Unit 04050001 (ELKHART, IN quadrangle). The gage is on the east bank of the inlet on the north shore of the lake, 4.7 mi northeast of the main Post Office in Elkhart.

SURFACE AREA.--87 acres.

DRAINAGE AREA.--9.33 mi^2.

PERIOD OF RECORD.--1946-53, 1970-75, 1977 to current year.

DATUM OF GAGE.--760.00 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--7.30 ft gage datum or 767.30 ft above National Geodetic Vertical Datum of 1929 as decreed on Sept. 25, 1950, by the Elkhart County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a fixed-crest concrete dam.

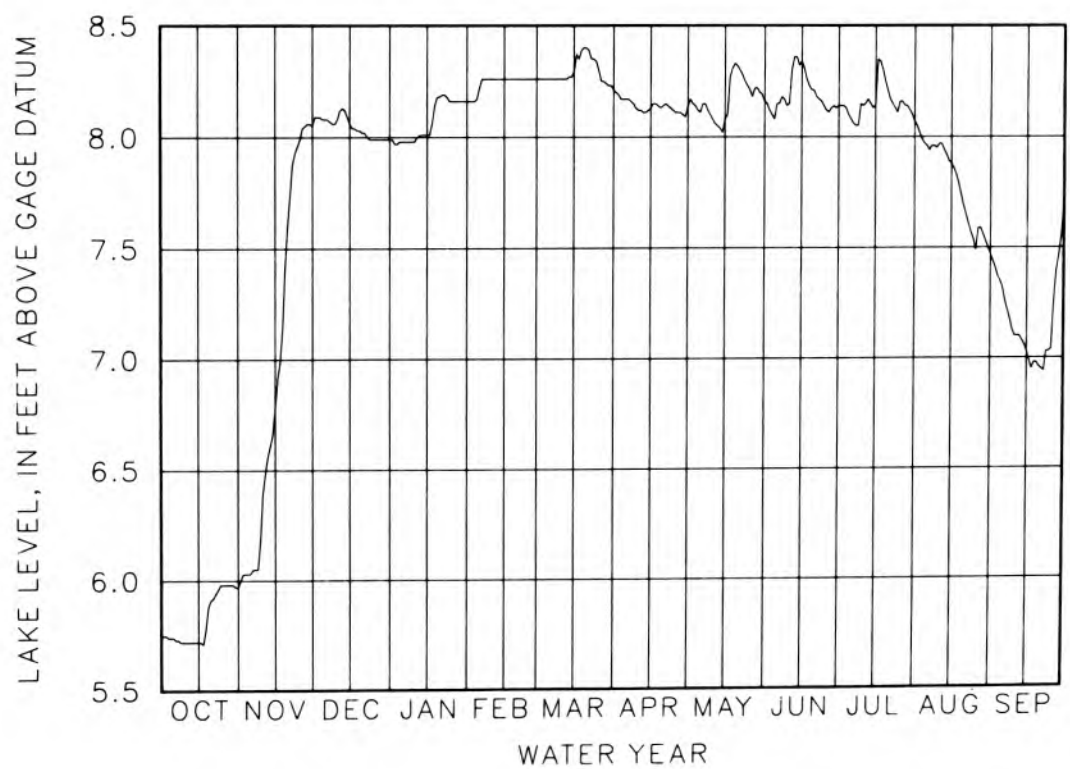
INLET AND OUTLET.--The one inlet enters the lake at the extreme northern point of the lake. The outlet, Puterbaugh Creek, flows from the west end of the lake and enters the St. Joseph River approximately 4.0 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 9.73 ft Feb. 26, 1985; minimum stage, 4.55 ft Nov. 12-18, 1971.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
2400 HR VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.74	6.03	8.08	7.98	8.22	8.26	8.17	8.11	8.15	8.08	7.96	7.32
10	5.72	6.39	8.08	7.98	8.26	8.26	8.12	8.08	8.15	8.14	7.97	7.10
15	5.72	6.78	8.06	8.01	8.26	8.29	8.13	8.08	8.34	8.14	7.88	7.03
20	5.91	7.60	8.02	8.18	8.26	8.40	8.14	8.32	8.21	8.21	7.69	6.96
25	5.98	7.99	7.99	8.16	8.26	8.30	8.11	8.21	8.12	8.16	7.49	7.04
EOM	5.97	8.05	7.99	8.16	8.26	8.21	8.14	8.16	8.14	8.07	7.47	7.71

WTR YR 1986 MEAN 7.75 HIGH 8.40 MAR 19 AND OTHERS LOW 5.71 OCT 17



04100258 HIGH LAKE NEAR WOLFLAKE, IN

LOCATION.--Lat 41°18'51", long 85°31'49", in SW¼NE¼SW¼ sec.18, T.33 N., R.9 E., Noble County, Hydrologic Unit 04050001 (ORMAS, IN quadrangle). The gage is on a dredged channel on the west shore of the east lobe, 2.1 mi southwest of Wolflake.

SURFACE AREA.--123 acres.

DRAINAGE AREA.--4.43 mi^2.

PERIOD OF RECORD.--1961-68, 1970 to current year.

DATUM OF GAGE.--890.00 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is driven into the lake bed at the same site.

ESTABLISHED LEGAL LEVEL.--6.35 ft gage datum or 896.35 ft above National Geodetic Vertical Datum of 1929 as decreed on Feb. 25, 1963, by the Noble County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete, fixed-crest dam with a rectangular notch.

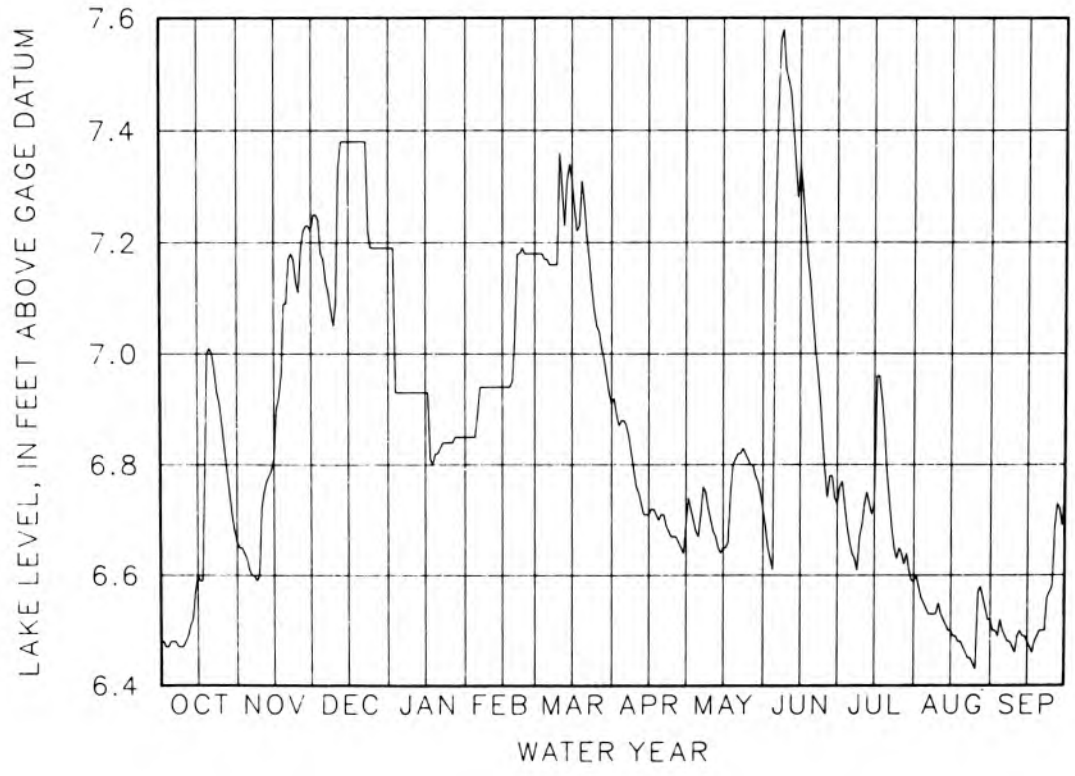
INLET AND OUTLET.--The one inlet, Beal Branch, enters the lake on the southeast shore. The outlet flows from the east side of the north lobe, through Bear Lake, 0.6 mi downstream, into Carrol Creek, and eventually into the Elkhart River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 7.70 ft June 28, 1968; minimum stage, 5.30 ft Nov. 15, 25-28, 1964, Oct. 13, 26-31, Nov. 1-3, 1966.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
2400 HR VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.48	6.61	7.17	6.93	6.89	7.17	6.88	6.67	7.26	6.66	6.54	6.50
10	6.48	6.72	7.09	6.93	6.94	7.36	6.76	6.70	7.49	6.69	6.55	6.46
15	6.60	6.81	7.38	6.93	6.94	7.31	6.71	6.65	7.34	6.73	6.50	6.48
20	7.01	7.09	7.38	6.82	7.03	7.27	6.71	6.81	7.07	6.79	6.47	6.50
25	6.87	7.11	7.19	6.84	7.18	7.05	6.67	6.81	6.79	6.65	6.43	6.58
EOM	6.66	7.22	7.19	6.85	7.18	6.91	6.69	6.72	6.73	6.59	6.52	6.75

WTR YR 1986 MEAN 6.85 HIGH 7.58 JUN 8 LOW 6.43 AUG 25



03331300 HILL LAKE NEAR SILVER LAKE, IN

LOCATION.--Lat 41°06'16", long 85°54'35", in SE¼NE¼SE¼ sec.25, T.31 N., R.5 E., Kosciusko County, Hydrologic Unit 05120106 (SILVER LAKE, IN quadrangle). The gage is located on the northern shore of the southwestern lobe of the lake, 2.5 mi northwest of the town of Silver Lake.

SURFACE AREA.--67 acres.

DRAINAGE AREA.--0.85 mi^2.

PERIOD OF RECORD.--1952 to current year.

DATUM OF GAGE.--860.00 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is located on the southernmost tip of the lake. The staff is mounted on a board driven into the lake bed.

ESTABLISHED LEGAL LEVEL.--11.50 ft gage datum or 871.50 ft above National Geodetic Vertical Datum of 1929 as decreed on Sept. 10, 1959, by the Kosciusko County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete fixed sill with removable boards.

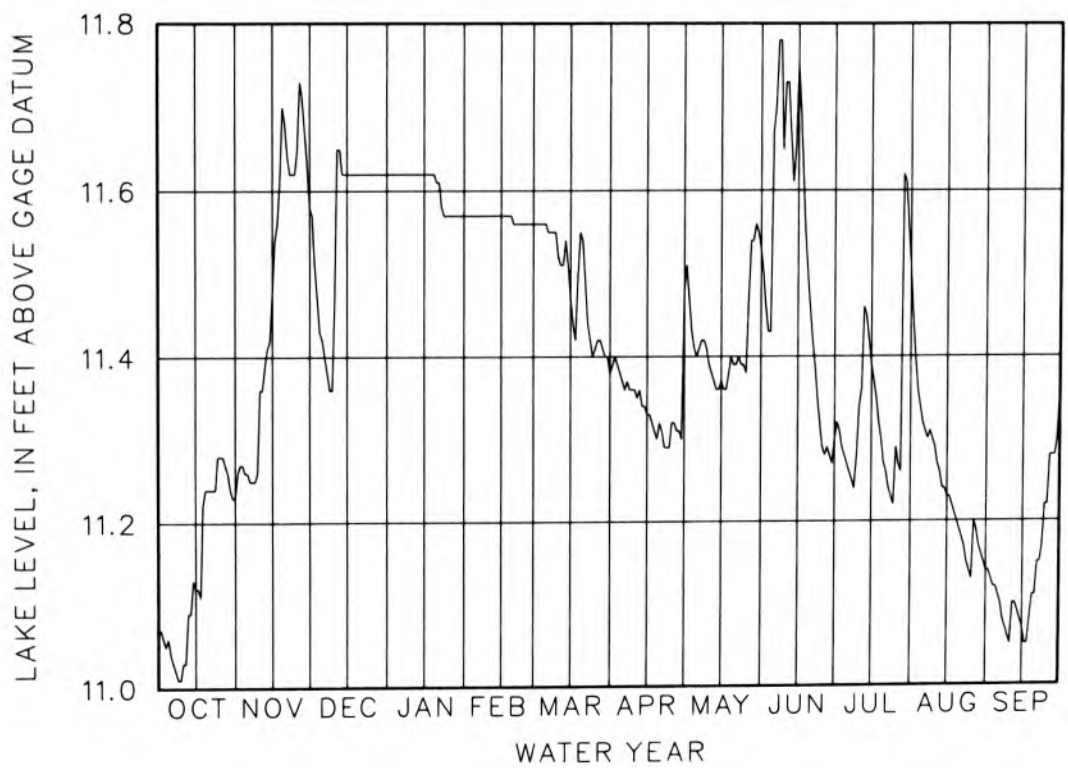
INLET AND OUTLET.--There are no surface inlets. The one outlet flows from the western edge of the lake and empties into Diamond Lake, 1.5 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 12.54 ft July 21, 1963; minimum stage, 9.86 ft Jan. 18, 19, 1954.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
2400 HR VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.04	11.26	11.42	11.62	11.57	11.56	11.37	11.40	11.67	11.27	11.32	11.11
10	11.03	11.36	11.47	11.62	11.57	11.52	11.36	11.39	11.73	11.34	11.29	11.05
15	11.12	11.48	11.62	11.62	11.57	11.47	11.33	11.37	11.75	11.39	11.23	11.07
20	11.24	11.68	11.62	11.61	11.56	11.54	11.32	11.39	11.46	11.27	11.19	11.11
25	11.28	11.65	11.62	11.57	11.56	11.41	11.32	11.38	11.29	11.29	11.13	11.22
EOM	11.23	11.58	11.62	11.57	11.56	11.38	11.48	11.53	11.30	11.51	11.14	11.36

WTR YR 1986 MEAN 11.40 HIGH 11.78 JUN 7 AND OTHERS LOW 11.01 OCT 8 AND OTHERS



04099500 HOGBACK LAKE NEAR ANGOLA, IN

LOCATION.--Lat 41°37'39", long 85°04'59", in SE¼SE¼SE¼ sec.25, T.37 N., R.12 E., Steuben County, Hydrologic Unit 04050001 (ANGOLA WEST, IN quadrangle). The gage is on the northeast shore, 0.5 mi south of the Tri-State Airport, on County Road 500 West, and 4.4 mi southwest of Angola.

SURFACE AREA.--146 acres.

DRAINAGE AREA.--103 mi^2.

PERIOD OF RECORD.--1946-73, 1977 to current year.

DATUM OF GAGE.--940.00 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage in one section is attached to a tree at the same site.

ESTABLISHED LEGAL LEVEL.--8.50 ft gage datum or 948.50 ft above National Geodetic Vertical Datum of 1929 as decreed on Oct. 28, 1959, by the Steuben County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by the outlet channel (Pigeon Creek).

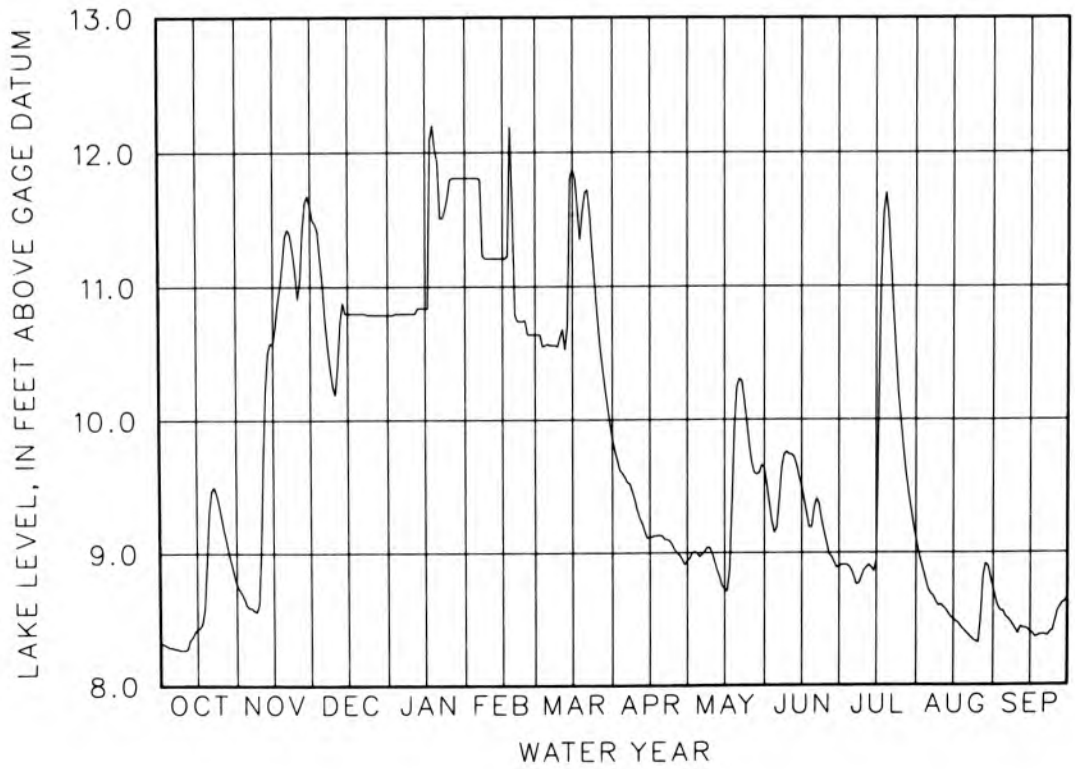
INLET AND OUTLET.--There are three inlets to the lake. One unnamed ditch enters from the north. A small tributary enters on the eastern tip from Silver Lake, 0.7 mi upstream. Pigeon Creek flows through the lake, entering at the southeastern shore from Golden Lake, 1.2 mi upstream and leaving at the north end of the western lobe. Pigeon Creek joins Turkey Creek to become Pigeon River and eventually empties into the St. Joseph River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 17.07 ft Mar. 22, 1982; minimum stage, 7.24 ft Sept. 9, 10, 1953.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
2400 HR VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.29	8.59	11.01	10.80	11.81	10.57	9.57	8.97	9.19	8.87	8.72	8.52
10	8.27	9.08	10.19	10.80	11.21	10.62	9.32	9.00	9.74	8.87	8.61	8.39
15	8.43	10.57	10.80	10.84	11.21	11.87	9.12	8.73	9.50	8.94	8.50	8.40
20	9.30	11.38	10.80	11.93	10.79	11.70	9.13	10.25	9.33	11.51	8.40	8.38
25	9.27	10.91	10.79	11.80	10.64	10.78	9.02	9.81	9.08	9.99	8.32	8.48
EOM	8.77	11.60	10.79	11.81	10.64	9.86	8.94	9.64	8.90	9.11	8.73	8.66

WTR YR 1986 MEAN 9.81 HIGH 12.20 JAN 18 LOW 8.27 OCT 8 AND OTHERS



05514741 HUDSON LAKE AT HUDSON LAKE, IN

LOCATION.--Lat 41°42'42", long 86°32'13", in SE¼SW¼ sec.28, T.38 N., R.1 W., LaPorte County, Hydrologic Unit 07120001 (NEW CARLISLE, IN quadrangle). The gage is on the southeast shore of the lake, and 0.7 mi west of the town line of New Carlisle.

SURFACE AREA.--432 acres.

DRAINAGE AREA.--7.92 mi^2.

PERIOD OF RECORD.--1946-76, 1978 to current year.

DATUM OF GAGE.--750.00 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1965, the datum of the gage was 760.00 ft above National Geodetic Vertical Datum of 1929. All levels listed below are at the present datum.

GAGE.--A water-stage recorder is installed in a wooden shelter over a 24-inch diameter stilling well. An auxiliary staff gage is driven into the lake bed.

ESTABLISHED LEGAL LEVEL.--13.09 ft gage datum or 763.09 ft above National Geodetic Vertical Datum of 1929 as decreed on Aug. 31, 1949.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a 24-in reinforced concrete pipe with a gate chamber and slide gate.

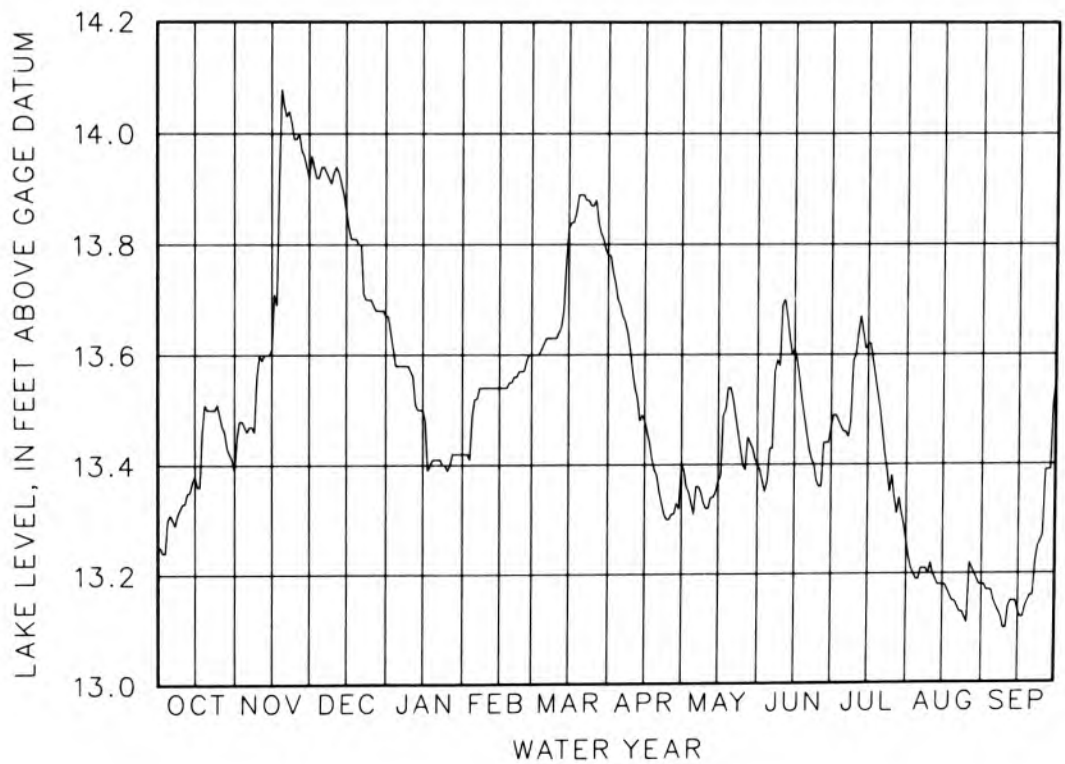
INLET AND OUTLET.--The one inlet flows into the lake at the extreme northeast tip from Saugany Lake, approximately 1.7 mi upstream. The outlet flows from the lake on the east shore to Geyer ditch and eventually into the Kankakee River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 16.90 ft May 3, 1983; minimum stage, 7.60 ft Nov. 15, 1964.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
2400 HR VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.31	13.46	13.94	13.58	13.52	13.62	13.69	13.31	13.43	13.46	13.19	13.15
10	13.33	13.60	13.93	13.57	13.54	13.63	13.57	13.32	13.69	13.60	13.22	13.10
15	13.38	13.61	13.86	13.50	13.54	13.83	13.48	13.37	13.61	13.62	13.18	13.13
20	13.50	14.05	13.80	13.41	13.55	13.89	13.38	13.54	13.46	13.50	13.15	13.16
25	13.49	13.99	13.70	13.39	13.57	13.87	13.30	13.40	13.36	13.38	13.11	13.27
EOM	13.39	13.92	13.67	13.42	13.60	13.78	13.40	13.40	13.47	13.26	13.18	13.55

WTR YR 1986 MEAN 13.50 HIGH 14.08 NOV 19 LOW 13.10 SEP 9 AND OTHERS



04097680 JIMMERSON LAKE AT NEVADA MILLS, IN

LOCATION.--Lat 41°43'31", long 85°04'55", in SW¼NW¼ sec.30, T.38 N., R.13 E., Steuben County, Hydrologic Unit 04050001 (ANGOLA WEST, IN quadrangle). The gage is at the extreme west end of the lake on the abutment of the concrete spillway structure and dam in the town of Nevada Mills, 4.6 mi east of Orland.

SURFACE AREA.--434 acres.

DRAINAGE AREA.--51.6 mi^2.

PERIOD OF RECORD.--1937-44, 1946 to current year. (Lake level readings were made once a week by employees of Northern Indiana Public Service Company from 1937 to 1944.)

DATUM OF GAGE.--959.85 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a stilling well attached to the control structure. An auxiliary staff gage is bolted to the same wall.

ESTABLISHED LEGAL LEVEL.--4.81 ft gage datum or 964.66 ft above National Geodetic Vertical Datum of 1929.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete fixed-crest dam.

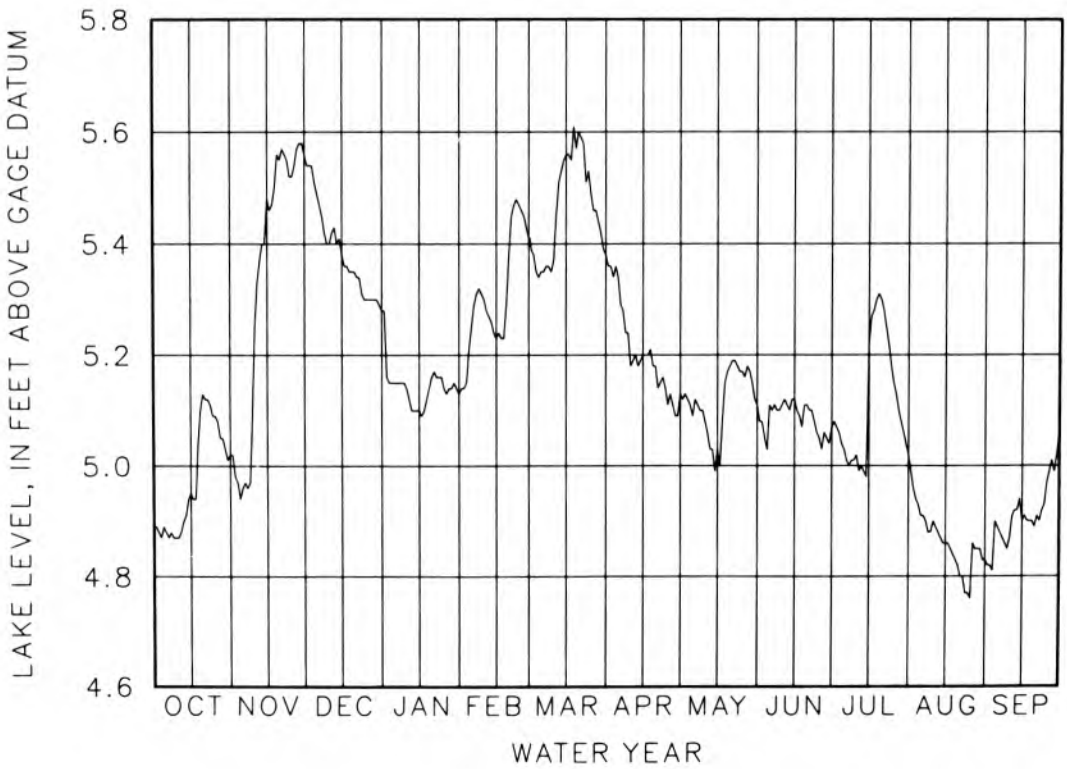
INLET AND OUTLET.--Crooked Creek flows through the lake, entering from Lake James at the extreme southeast end, and leaving from the northwest. Crooked Creek flows through Tamarack Lake and becomes Fawn River, which eventually empties into the St. Joseph River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 6.22 ft May 27, 1943; minimum stage, 3.71 ft Feb. 16, 17, 1948.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
2400 HR VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.88	4.96	5.49	5.15	5.25	5.35	5.34	5.09	5.11	5.03	4.91	4.89
10	4.87	5.25	5.40	5.14	5.30	5.37	5.18	5.08	5.11	5.02	4.90	4.87
15	4.95	5.48	5.38	5.10	5.23	5.56	5.20	5.03	5.12	5.22	4.86	4.90
20	5.13	5.55	5.35	5.16	5.38	5.60	5.18	5.18	5.11	5.30	4.82	4.89
25	5.09	5.52	5.30	5.14	5.46	5.49	5.11	5.17	5.05	5.15	4.76	4.97
EOM	5.02	5.56	5.28	5.13	5.41	5.38	5.13	5.11	5.07	5.02	4.83	5.06

WTR YR 1986 MEAN 5.16 HIGH 5.61 MAR 18 LOW 4.76 AUG 25



03331438 KING LAKE NEAR DELONG, IN

LOCATION.--Lat 41°07'48", long 86°25'23", in NW¼SW¼SE¼ sec.16, T.31 N., R.1 E., Fulton County, Hydrologic Unit 05120106 (CULVER, IN quadrangle). The gage is located on the northern shore of the lake, on the lake access road, 0.6 mi southwest of Delong.

SURFACE AREA.--18 acres.

DRAINAGE AREA.--1.98 mi^2.

PERIOD OF RECORD.--1970-72, 1975 to current year.

DATUM OF GAGE.--730.00 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--Not established.

LAKE-LEVEL CONTROL.--The lake level is normally controlled by the outlet channel bed. At high stages the control changes to the outlet culvert under old State Highway 17. The culvert is located about 700 ft north of the lake.

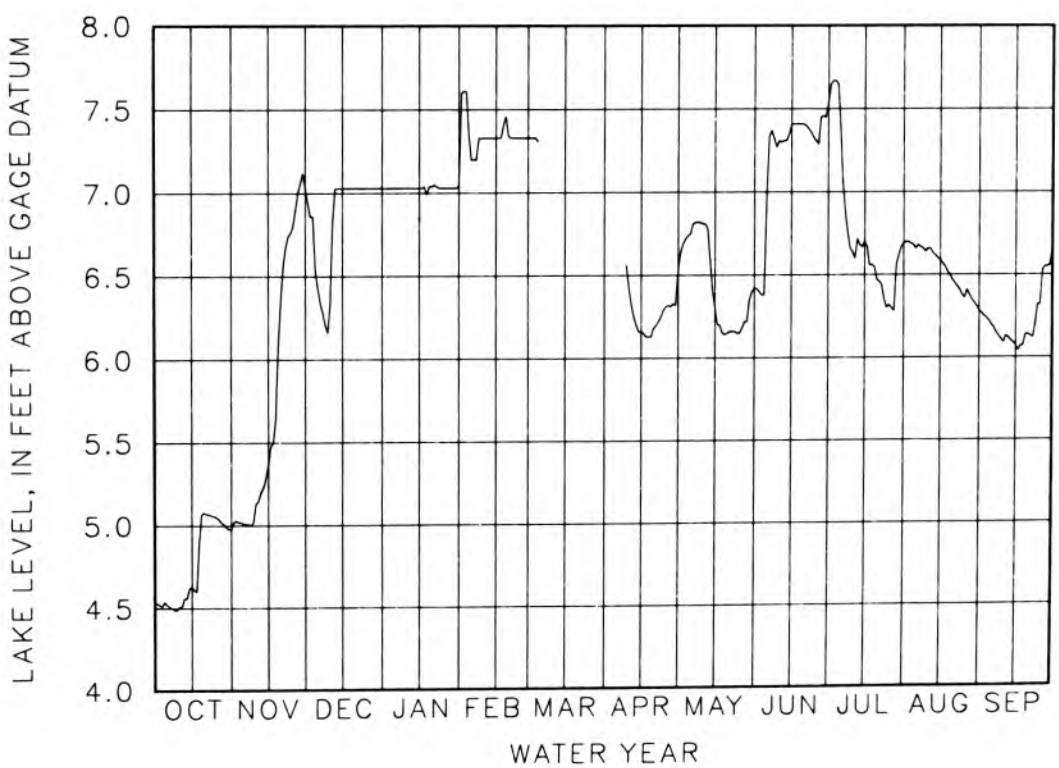
INLET AND OUTLET.--The inlet is an unnamed ditch which enters the lake from the southeastern side. The outlet exits the lake on the northern side and flows north approximately 1.5 mi to the Tippecanoe River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 8.69 ft June 14, 1981; minimum stage, 3.60 ft Oct. 23-26, 28-31, November 1, 2, 1974.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
2400 HR VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.52	5.01	6.43	7.03	7.20	.00	---	6.75	6.99	7.40	6.66	6.20
10	4.51	5.13	6.34	7.03	7.33	---	6.43	6.81	7.31	6.64	6.66	6.09
15	4.63	5.37	7.03	7.03	7.33	---	6.16	6.31	7.41	6.70	6.59	6.07
20	5.08	6.34	7.03	7.04	7.34	---	6.18	6.15	7.41	6.47	6.47	6.14
25	5.05	6.80	7.03	7.03	7.33	---	6.31	6.15	7.31	6.32	6.36	6.32
EOM	4.98	7.03	7.03	7.04	7.33	---	6.53	6.42	7.54	6.69	6.28	6.67

WTR YR 1986 MEAN 6.49 HIGH 7.67 JUL 2 AND OTHERS LOW 4.49 OCT 8 AND OTHERS



04100390 KNAPP LAKE NEAR WASHINGTON CENTER, IN

LOCATION.--Lat. 41°20'36", long 85°36'17", in SW¼NE¼SW¼ sec.4, T.33 N., R.8 E., Noble County, Hydrologic Unit 04050001 (ORMAS, IN quadrangle). The gage is at a public fishing site on the east side of the lake, and 5.8 mi west of the town of Wolflake.

SURFACE AREA.--88 acres.

DRAINAGE AREA.--6.02 mi^2.

PERIOD OF RECORD.--1946-74, 1976 to current year.

DATUM OF GAGE.--870.00 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--8.25 ft gage datum or 878.25 ft above National Geodetic Vertical Datum of 1929 as decreed on Oct. 7, 1954, by the Noble County Circuit Court. Harper Lake, Moss Lake, and Hindman Lake, all near Washington Center, have the same established level as Knapp Lake and hence the same lake levels for the period of record.

LAKE-LEVEL CONTROL.--The lake level is controlled by the outlet channel.

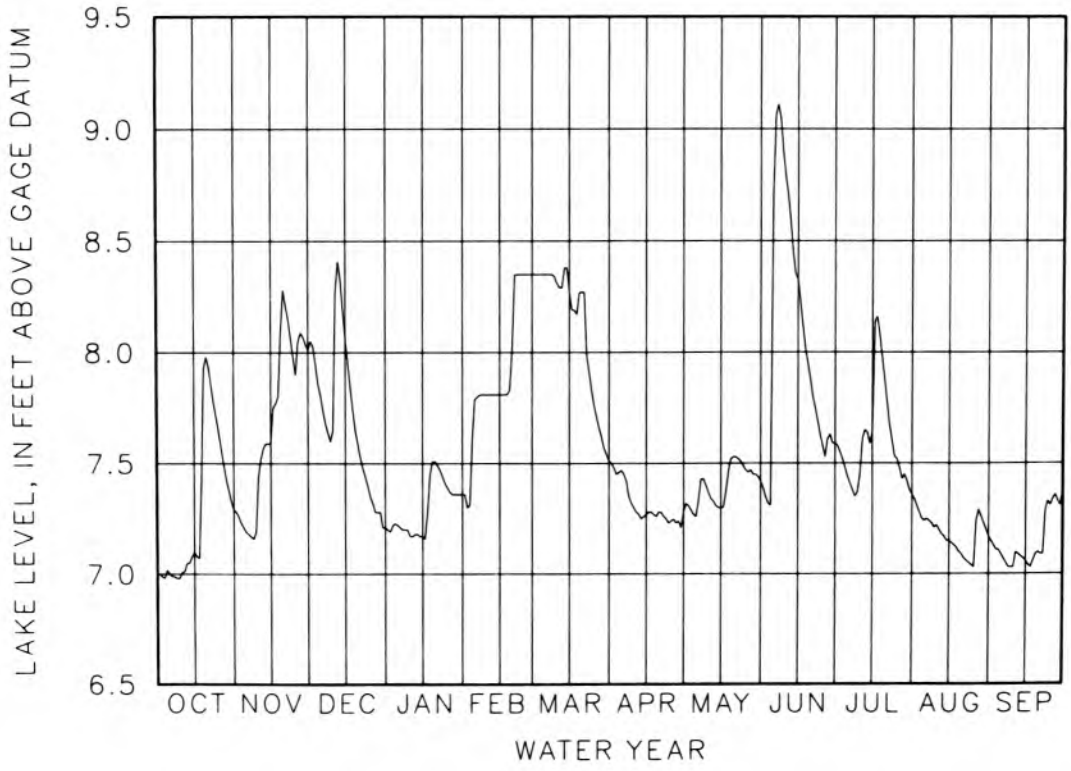
INLET AND OUTLET.--There are three inlets. The outlet of Little Knapp Lake enters at the southeastern corner, the outlet of Harper Lake enters at the southernmost tip, and Galloway ditch enters on the eastern shore. The outlet flows from the lake on the western shore, through a series of lakes, into Turkey Creek and eventually into the Elkhart River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 11.10 ft June 27, 1968; minimum stage, 6.87 ft Sept. 14, 15, 1983.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
2400 HR VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.00	7.19	7.81	7.22	7.79	8.35	7.47	7.26	8.71	7.44	7.24	7.09
10	7.01	7.44	7.65	7.17	7.81	8.31	7.30	7.37	8.79	7.45	7.22	7.03
15	7.10	7.59	8.06	7.17	7.81	8.27	7.27	7.30	8.33	7.64	7.15	7.06
20	7.98	8.28	7.59	7.51	8.02	8.27	7.28	7.53	7.88	7.87	7.09	7.10
25	7.64	7.90	7.35	7.39	8.35	7.76	7.24	7.47	7.58	7.52	7.03	7.31
EOM	7.29	8.01	7.21	7.36	8.35	7.51	7.28	7.42	7.59	7.36	7.17	7.38

WTR YR 1986 MEAN 7.56 HIGH 9.11 JUN 7 LOW 6.98 OCT 3 AND OTHERS



05515600 KOONTZ LAKE AT KOONTZ LAKE, IN

LOCATION.--Lat 41°24'42", long 86°29'18", in SW¼SE¼NE¼ sec.11, T.34 N., R.1 W., Starke County, Hydrologic Unit 07120001 (WALKERTON, IN quadrangle). The gage is on the western tip of the lake, at the control dam on State Highway 23, at the town of Koontz Lake.

SURFACE AREA.--346 acres.

DRAINAGE AREA.--6.25 mi^2.

PERIOD OF RECORD.--1943 to current year.

DATUM OF GAGE.--710.00 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--4.56 ft gage datum or 714.56 ft above National Geodetic Vertical Datum of 1929 as decreed on Sept. 15, 1948, by the Starke County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a steel sheet piling dam with a fixed crest.

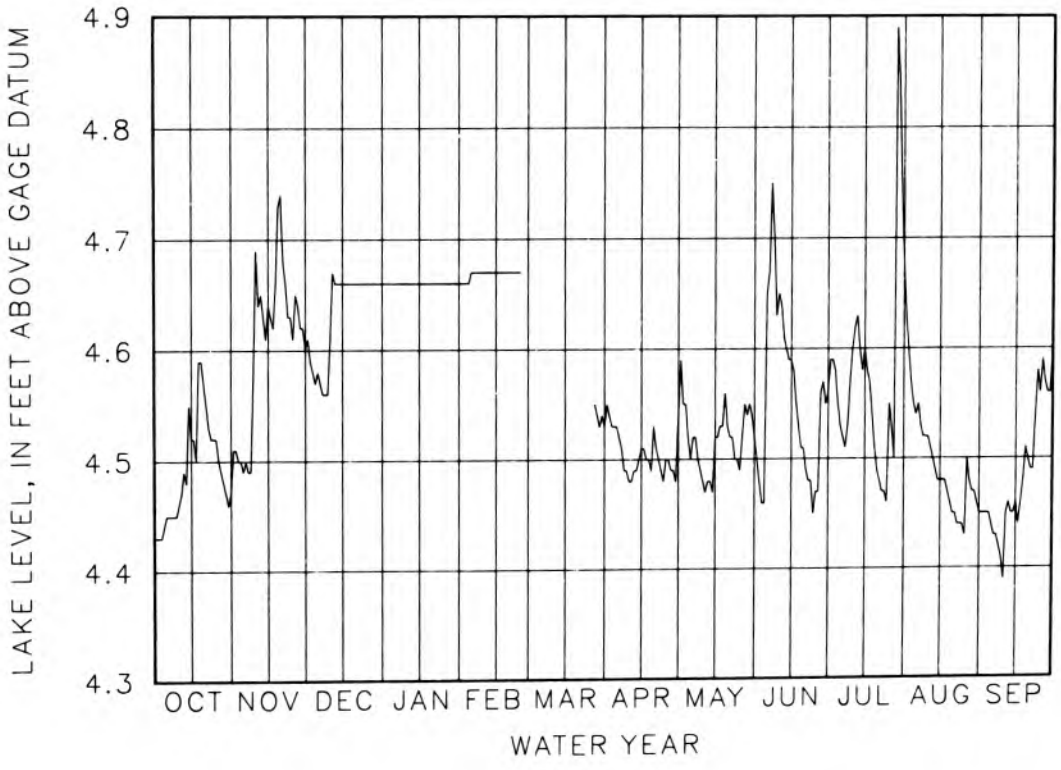
INLET AND OUTLET.--Lawrence Pontius ditch and an unnamed ditch enter the lake on the south shore of the east lobe. The outlet flows from the lake at the western tip and into Robbins ditch 1400 ft downstream. Robbins ditch empties into the Kankakee River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 6.10 ft Oct. 11, 1954; minimum stage, 3.10 ft Oct. 12, 1970.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
2400 HR VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.45	4.49	4.58	4.66	4.67	---	4.53	4.50	4.65	4.53	4.54	4.44
10	4.46	4.69	4.61	4.66	4.67	---	4.48	4.48	4.65	4.60	4.52	4.39
15	4.52	4.64	4.66	4.66	4.67	---	4.51	4.52	4.59	4.60	4.48	4.46
20	4.57	4.74	4.66	4.66	4.67	---	4.53	4.53	4.51	4.49	4.45	4.50
25	4.52	4.61	4.66	4.66	4.67	---	4.50	4.49	4.47	4.55	4.43	4.56
EOM	4.47	4.60	4.66	4.66	---	4.53	4.54	4.52	4.56	4.68	4.45	4.60

WTR YR 1986 MEAN 4.56 HIGH 4.89 JUL 28 LOW 4.39 SEP 10



05517800 LAKE ELIZA NEAR BEATRICE, IN

LOCATION.--Lat 41°25'55", long 87°10'33", in SW¼NE¼NW¼ sec.1, T.34 N., R.7 W., Porter County, Hydrologic Unit 07120001 (PALMER, IN quadrangle). The gage is on the east bank of a boat channel off the northernmost end of the lake, south of the bridge over the channel, and at the town of Lake Eliza.

SURFACE AREA.--45 acres.

DRAINAGE AREA.--1.70 mi^2.

PERIOD OF RECORD.--1954-74, 1976 to current year.

DATUM OF GAGE.--735.00 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is attached to the bridge piling.

ESTABLISHED LEGAL LEVEL.--3.70 ft gage datum or 738.70 ft above National Geodetic Vertical Datum of 1929.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by the outlet channel.

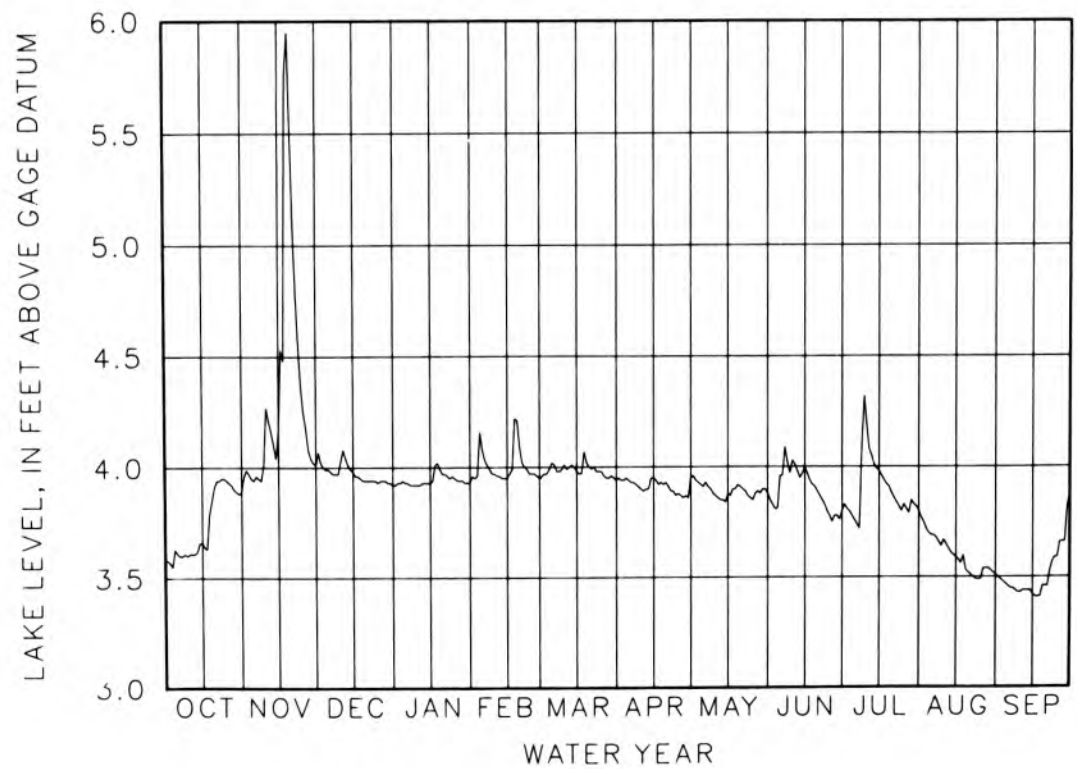
INLET AND OUTLET.--Two small inlets enter the lake from the northwest and the northeast. The outlet flows from the lake on the south side through a dredged channel, forms the head waters of Wolf Creek, and eventually joins the Kankakee River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 7.24 ft June 14, 1981; minimum stage, 2.68 ft Nov. 28-30, 1956.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
2400 HR VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.61	3.94	3.99	3.93	4.08	4.02	3.94	3.91	3.96	3.76	3.69	3.46
10	3.61	4.27	4.03	3.92	3.97	4.01	3.90	3.87	4.03	4.19	3.67	3.43
15	3.66	4.17	3.98	3.93	3.95	3.98	3.95	3.88	4.00	3.98	3.59	3.42
20	3.91	5.53	3.94	3.97	4.09	4.00	3.93	3.91	3.89	3.88	3.52	3.46
25	3.94	4.25	3.93	3.95	3.97	3.98	3.88	3.85	3.78	3.83	3.49	3.59
EOM	3.89	4.01	3.92	3.93	3.95	3.94	3.95	3.88	3.80	3.80	3.51	3.88

WTR YR 1986 MEAN 3.89 HIGH 5.95 NOV 19 LOW 3.41 SEP 16 AND OTHERS



04097950 LAKE GAGE AT PANAMA, IN

LOCATION.--Lat 41°42'32", long 85°06'53", in SE¼SE¼NW¼ sec.35, T.38 N., R.12 E., Steuben County, Hydrologic Unit 04050001 (ANGOLA WEST, IN quadrangle). The gage is at the bridge over the outlet on the northern tip of the lake, 0.4 mi northwest of Panama, and 3.3 mi southeast of Orland.

SURFACE AREA.--332 acres.

DRAINAGE AREA.--17.3 mi^2.

PERIOD OF RECORD.--1946 to current year.

DATUM OF GAGE.--950.00 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder is installed in a wooden shelter over a 24-inch diameter stilling well at the downstream side of the bridge. An auxiliary staff gage is at the same site.

ESTABLISHED LEGAL LEVEL.--4.25 ft gage datum or 954.25 ft above National Geodetic Vertical Datum of 1929 as decreed on July 3, 1947, by the Steuben County Circuit Court. Lime Lake at Panama has the same established level and hence the same lake levels for the period of record.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam with a fixed crest and one adjustable gate at the outlet of Lime Lake.

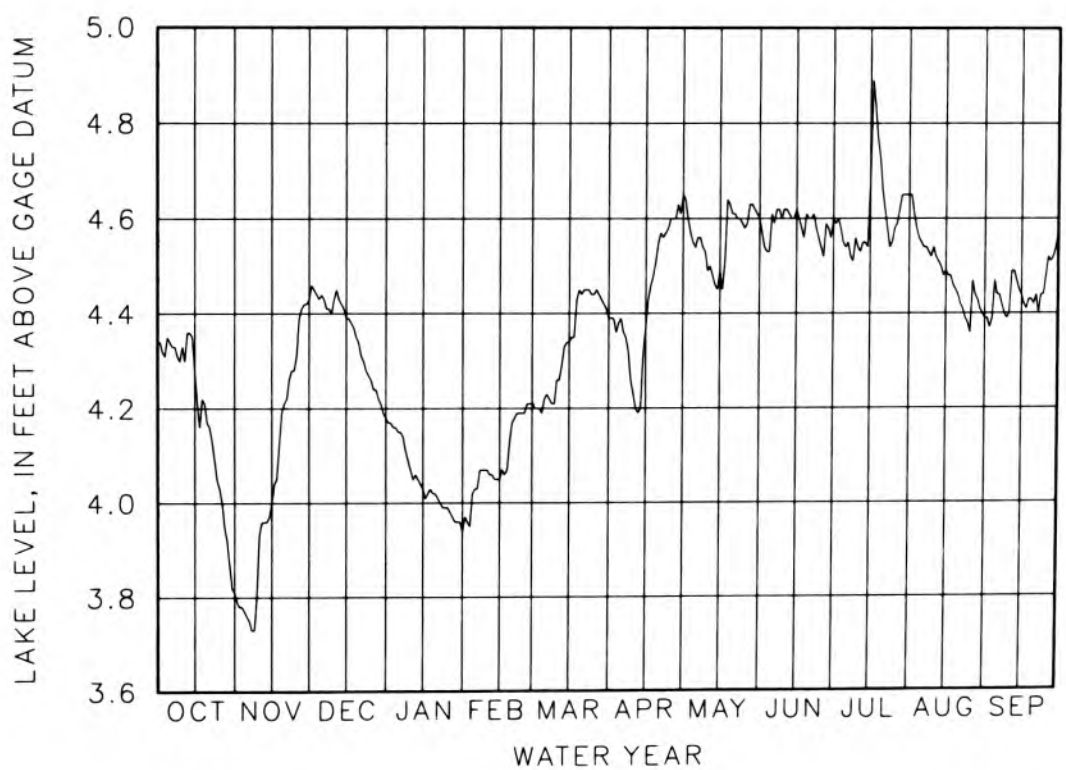
INLET AND OUTLET.--The one inlet flows into the lake on the extreme eastern shore from the Third Basin of Crooked Lake, 1.4 mi upstream. The outlet flows from the northern tip into Lime Lake approximately 600 ft downstream, then eventually into the St. Joseph River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 5.55 ft Apr. 25, 1950; minimum stage, 3.41 ft Nov. 13, 15-20, 1953.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
2400 HR VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.34	3.76	4.44	4.15	4.03	4.22	4.39	4.54	4.61	4.54	4.55	4.44
10	4.33	3.93	4.43	4.07	4.07	4.26	4.23	4.49	4.62	4.54	4.54	4.40
15	4.28	4.00	4.39	4.03	4.05	4.34	4.37	4.49	4.62	4.67	4.49	4.44
20	4.17	4.21	4.34	4.02	4.17	4.44	4.55	4.61	4.60	4.66	4.44	4.42
25	4.03	4.31	4.26	3.99	4.19	4.44	4.60	4.58	4.54	4.58	4.36	4.48
EOM	3.81	4.43	4.18	3.94	4.21	4.39	4.65	4.60	4.60	4.65	4.39	4.57

WTR YR 1986 MEAN 4.35 HIGH 4.89 JUL 16 LOW 3.73 NOV 7 AND OTHERS



04092990 LAKE GEORGE AT HOBART, IN

LOCATION.--Lat 41°32'07", long 87°15'30", in NW¼NW¼NW¼ sec.32, T.36 N., R.7 W., Lake County, Hydrologic Unit 04040001 (GARY, IN quadrangle). The gage is on the northeast end of the lake, 70 ft northwest of the dam and 400 ft upstream of the Ridge Road bridge, in Hobart.

SURFACE AREA.--282 acres.

DRAINAGE AREA.--124 mi^2.

PERIOD OF RECORD.--1947 to current year.

DATUM OF GAGE.--600.00 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder is installed in a steel shelter over an 18-inch diameter clay stilling well.

ESTABLISHED LEGAL LEVEL.--2.23 ft gage datum or 602.23 ft above National Geodetic Vertical Datum of 1929 as decreed on Sept. 18, 1959, by the Lake County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam with removable boards.

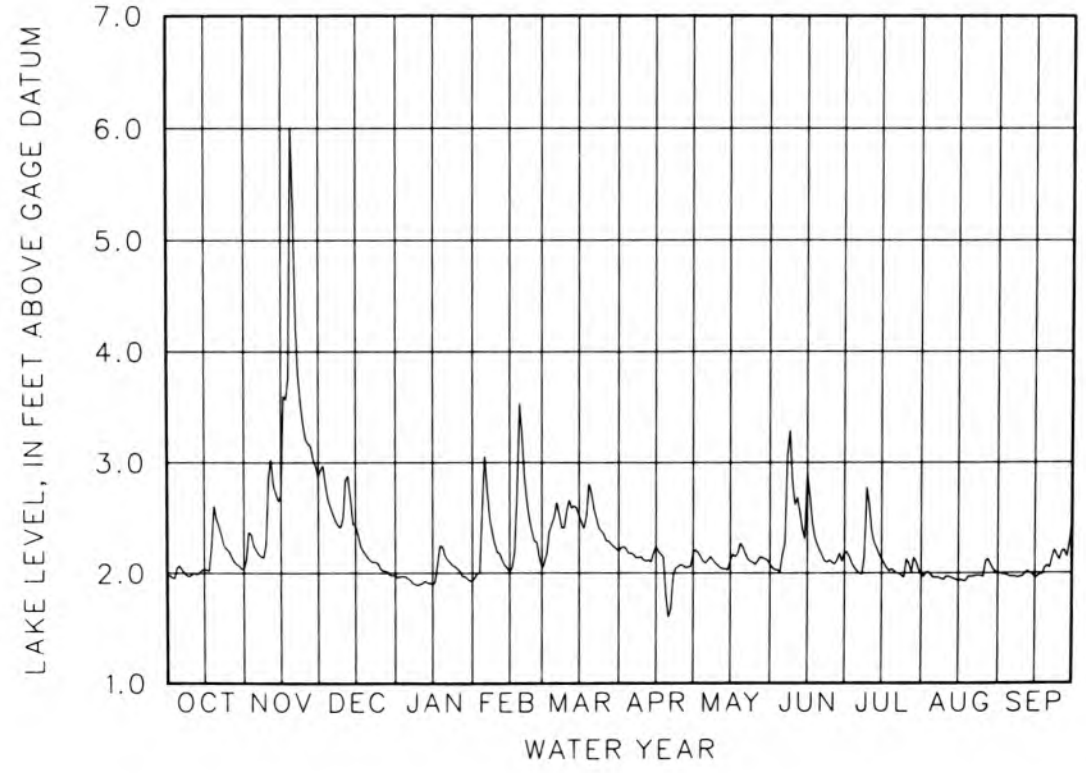
INLET AND OUTLET.--The two principal inlets are Turkey Creek, entering from the extreme southwestern tip, and Deep River, entering on the northeastern shore of the southern lobe. Three unnamed tributaries enter from the northwest, south, and southeast. The outlet, Deep River, flows from the lake at the northeast end and eventually joins the Calumet River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 7.14 ft Oct. 11, 1954; minimum stage, 0.27 ft Nov. 6, 1978 (while the lake was being drained).

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
2400 HR VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.07	2.21	2.59	1.95	3.06	2.51	2.18	2.09	2.17	2.02	1.96	1.97
10	1.99	2.85	2.50	1.90	2.19	2.56	2.12	2.07	2.62	2.62	1.97	1.97
15	2.03	2.70	2.43	1.90	2.01	2.52	2.24	2.12	2.91	2.13	1.93	1.96
20	2.49	5.28	2.14	2.16	3.24	2.73	1.60	2.24	2.21	2.02	1.97	2.07
25	2.20	3.21	2.04	2.04	2.29	2.35	2.08	2.08	2.10	2.13	1.97	2.12
EOM	2.04	2.87	1.98	1.93	2.06	2.20	2.19	2.08	2.19	1.99	2.00	2.46

WTR YR 1986 MEAN 2.26 HIGH 6.01 NOV 19 LOW 1.60 APR 20



04097550 LAKE GEORGE AT JAMESTOWN, IN

LOCATION.--Lat 41°44'58", long 85°01'01", in SE¼NW¼SE¼ sec.15, T.38 N., R.13 E., Steuben County, Hydrologic Unit 04050001 (ANGOLA WEST, IN quadrangle). The gage is 25 ft east of the outlet dam on the southwest end of the lake at Jamestown, 8.0 mi north of Angola.

SURFACE AREA.--488 acres.

DRAINAGE AREA.--14.7 mi^2.

PERIOD OF RECORD.--1946 to current year.

DATUM OF GAGE.--980.00 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--5.28 ft gage datum or 985.28 ft above National Geodetic Vertical Datum of 1929 as decreed on Oct. 12, 1945, by the Steuben County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam with removable boards.

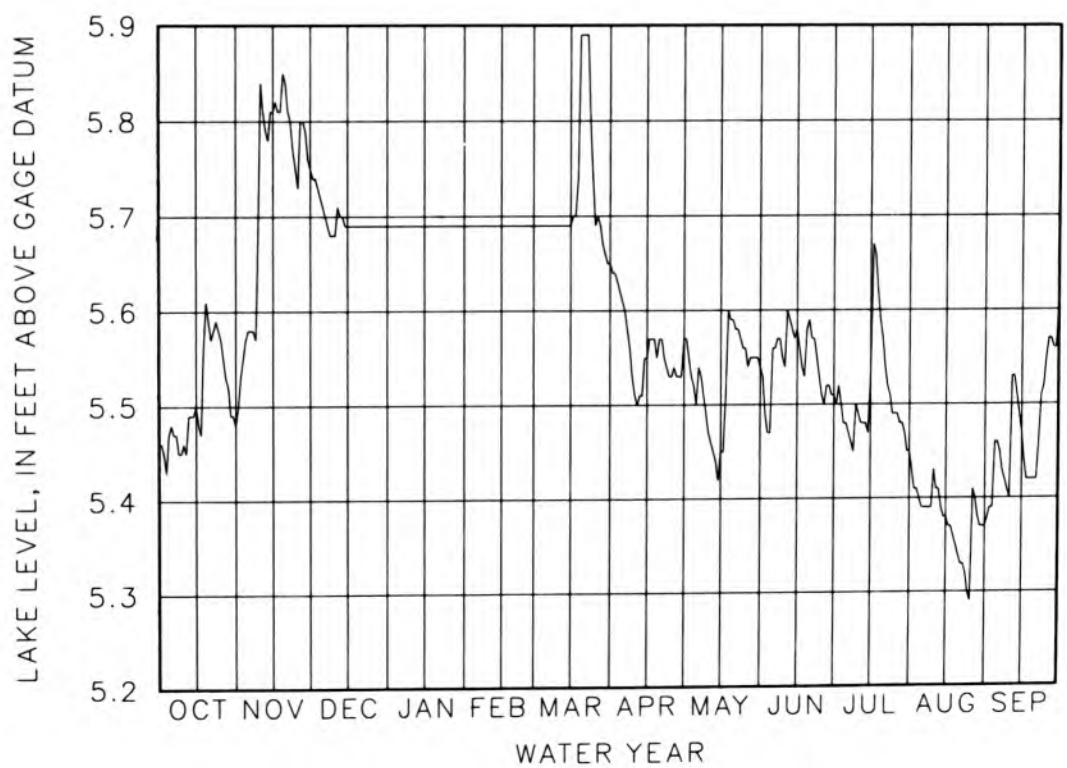
INLET AND OUTLET.--The inlet flows from Silver Lake, 0.8 mi upstream, and enters on the north shore. The outlet flows from the southwest end of the lake and forms Crooked Creek. Crooked Creek flows into Mud Lake, 0.8 mi downstream, then enters Snow Lake.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 6.20 ft Apr. 4, 25, 1950; minimum stage, 4.20 ft Dec. 6, 7, 1946; Oct. 23-31, 1948.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
2400 HR VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.48	5.58	5.71	5.69	5.69	5.69	5.61	5.50	5.56	5.48	5.39	5.46
10	5.46	5.84	5.68	5.69	5.69	5.69	5.51	5.47	5.54	5.49	5.43	5.40
15	5.50	5.81	5.69	5.69	5.69	5.69	5.55	5.45	5.58	5.53	5.38	5.47
20	5.59	5.84	5.69	5.69	5.69	5.89	5.57	5.59	5.59	5.57	5.34	5.42
25	5.57	5.73	5.69	5.69	5.69	5.69	5.53	5.56	5.51	5.49	5.29	5.55
EOM	5.48	5.75	5.69	5.69	5.69	5.65	5.57	5.54	5.51	5.45	5.37	5.61

WTR YR 1986 MEAN 5.58 HIGH 5.89 MAR 19 AND OTHERS LOW 5.29 AUG 25



03331380 LAKE MANITOU AT ROCHESTER, IN

LOCATION.--Lat 41°03'00", long 86°10'06", NW¼SW¼NW¼ sec.14, T.30 N., R.3 E., Fulton County, Hydrologic Unit 05120106 (ROCHESTER, IN quadrangle). The gage is located at the Public Fishing Site on the eastern side of the lake, and 2.6 mi southeast of the courthouse in Rochester.

SURFACE AREA.--1,158 acres.

DRAINAGE AREA.--44.2 mi^2.

PERIOD OF RECORD.--1943 to current year.

DATUM OF GAGE.--770.00 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder is installed in a aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is located at the northwest end of the lake at the fish hatchery.

ESTABLISHED LEGAL LEVEL.--8.41 ft gage datum or 778.41 ft above National Geodetic Vertical Datum of 1929.

LAKE-LEVEL CONTROL.--The lake level is controlled by a concrete dam and the gate of a feeder canal at the lake outlet.

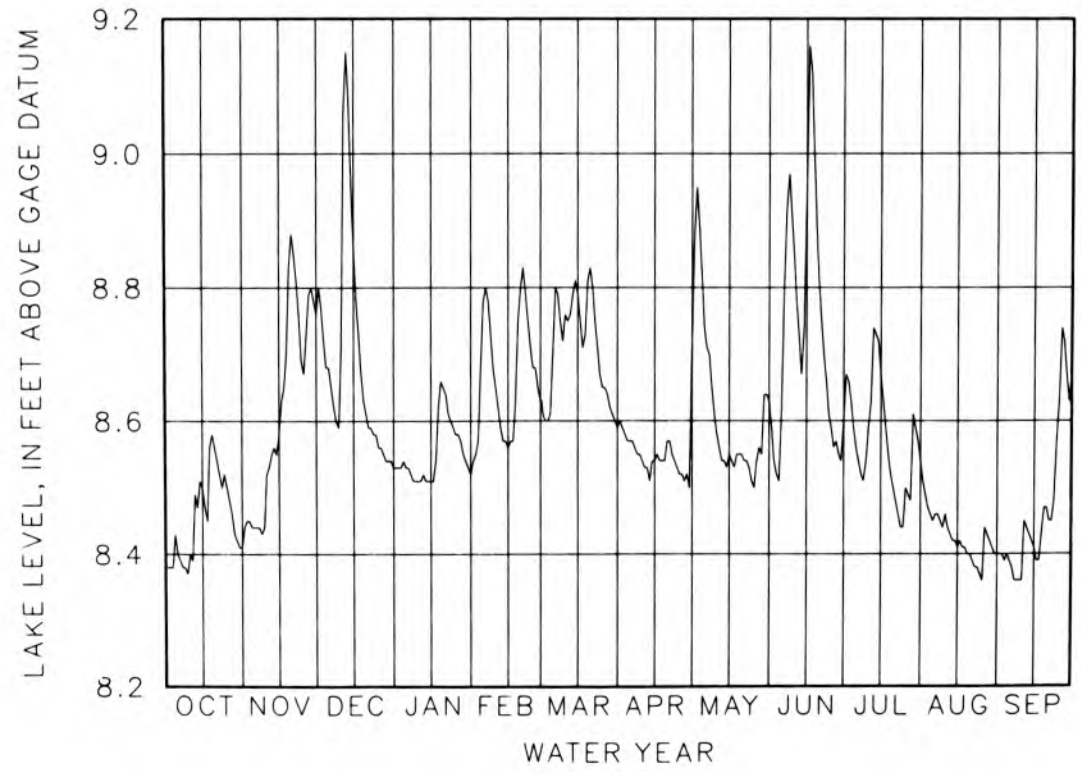
INLET AND OUTLET.--Rain Creek is the main inlet and enters at the southeastern edge of the lake. The other inlet is located on the eastern shore of the lake at the site of the gage. The outlet is Mill Creek, which exits at the northwestern tip of the lake and flows 3.5 mi to the Tippecanoe River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 10.14 ft Mar. 13, 1982; minimum stage, 6.48 ft Nov. 14, 25-27, 1964.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
2400 HR VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.40	8.44	8.68	8.53	8.78	8.70	8.57	8.74	8.62	8.56	8.45	8.39
10	8.40	8.52	8.71	8.51	8.65	8.76	8.54	8.58	8.85	8.59	8.46	8.36
15	8.50	8.58	8.86	8.51	8.56	8.79	8.54	8.55	8.95	8.67	8.41	8.41
20	8.56	8.88	8.61	8.65	8.80	8.83	8.57	8.55	8.81	8.50	8.40	8.47
25	8.50	8.67	8.56	8.58	8.68	8.65	8.52	8.50	8.59	8.50	8.36	8.63
EOM	8.41	8.76	8.53	8.52	8.63	8.59	8.72	8.63	8.60	8.54	8.40	8.67

WTR YR 1986 MEAN 8.59 HIGH 9.16 JUN 16 LOW 8.36 AUG 25 AND OTHERS



05516200 LAKE OF THE WOODS NEAR BREMEN, IN

LOCATION.--Lat 41°25'04", long 86°13'44", in SW¼NW¼NW¼ sec.7, T.34 N., R.3 E., Marshall County, Hydrologic Unit 07120001 (BREMEN, IN quadrangle). The gage is on the southwest shore of the lake, at the public fishing site, and 4.7 mi southwest of Bremen.

SURFACE AREA.--416 acres.

DRAINAGE AREA.--9.45 mi^2.

PERIOD OF RECORD.--1945 to current year.

DATUM OF GAGE.--800.00 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is driven into the outlet channel.

ESTABLISHED LEGAL LEVEL.--3.85 ft gage datum or 803.85 ft above National Geodetic Vertical Datum of 1929 as decreed on Aug. 9, 1948, by the Marshall County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam with a 13 ft by 1 ft notch. The dam is equipped with a lift gate.

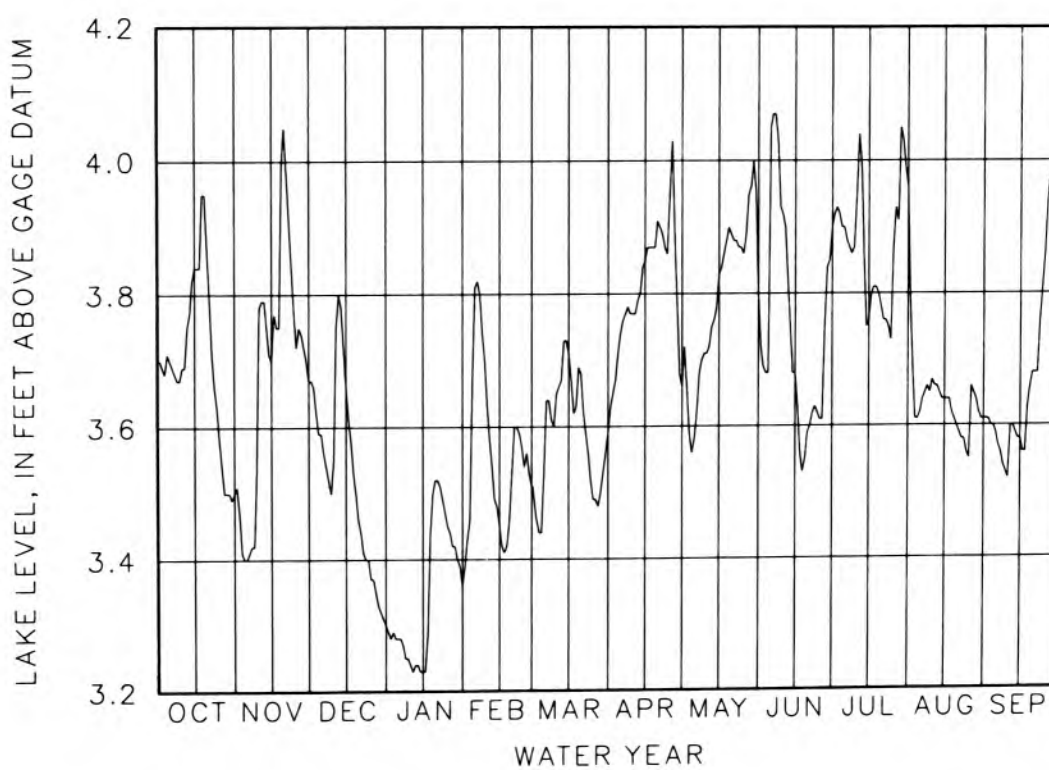
INLET AND OUTLET.--Three ditches, Kimble, Martin, and Seltenright, enter the lake on the northwest shore. Scofield ditch enters at the west lobe. The outlet, Clark ditch, flows from the lake at the southern end and eventually into Yellow River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 7.68 ft Oct. 12, 1954; minimum stage, 2.75 ft Nov. 18-20, 1953.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
2400 HR VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.70	3.40	3.59	3.28	3.81	3.53	3.74	3.58	4.05	3.90	3.62	3.59
10	3.69	3.78	3.55	3.24	3.63	3.65	3.77	3.71	3.92	3.95	3.67	3.52
15	3.84	3.70	3.66	3.23	3.45	3.71	3.85	3.83	3.68	3.76	3.64	3.58
20	3.87	4.05	3.46	3.52	3.53	3.68	3.91	3.89	3.59	3.78	3.60	3.68
25	3.58	3.72	3.37	3.45	3.54	3.49	3.95	3.86	3.61	3.87	3.55	3.86
EOM	3.50	3.67	3.30	3.36	3.51	3.59	3.66	3.80	3.90	3.96	3.61	3.95

WTR YR 1986 MEAN 3.66 HIGH 4.07 JUN 6 AND OTHERS LOW 3.23 JAN 11 AND OTHERS



04099580 LAKE OF THE WOODS NEAR HELMER, IN

LOCATION.--Lat 41°32'30", long 85°11'42", in SE¼SE¼SE¼ sec.25, T.36 N., R.11 E., Lagrange County, Hydrologic Unit 04050001 (STROH, IN quadrangle). The gage is on the west shore of Duck Pond, a basin connecting Lake of the Woods and McClish Lake, approximately 100 ft south of the bridge over the channel, and 1.5 mi northwest of Helmer.

SURFACE AREA.--136 acres.

DRAINAGE AREA.--5.25 mi^2.

PERIOD OF RECORD.--1951-74, 1977 to current year.

DATUM OF GAGE.--940.00 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--11.09 ft gage datum or 951.09 ft above National Geodetic Vertical Datum of 1929 as decreed on July 21, 1960, by the Lagrange County Circuit Court. McClish Lake near Helmer has the same established level and hence the same lake levels for the period of record.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam with a fixed sill.

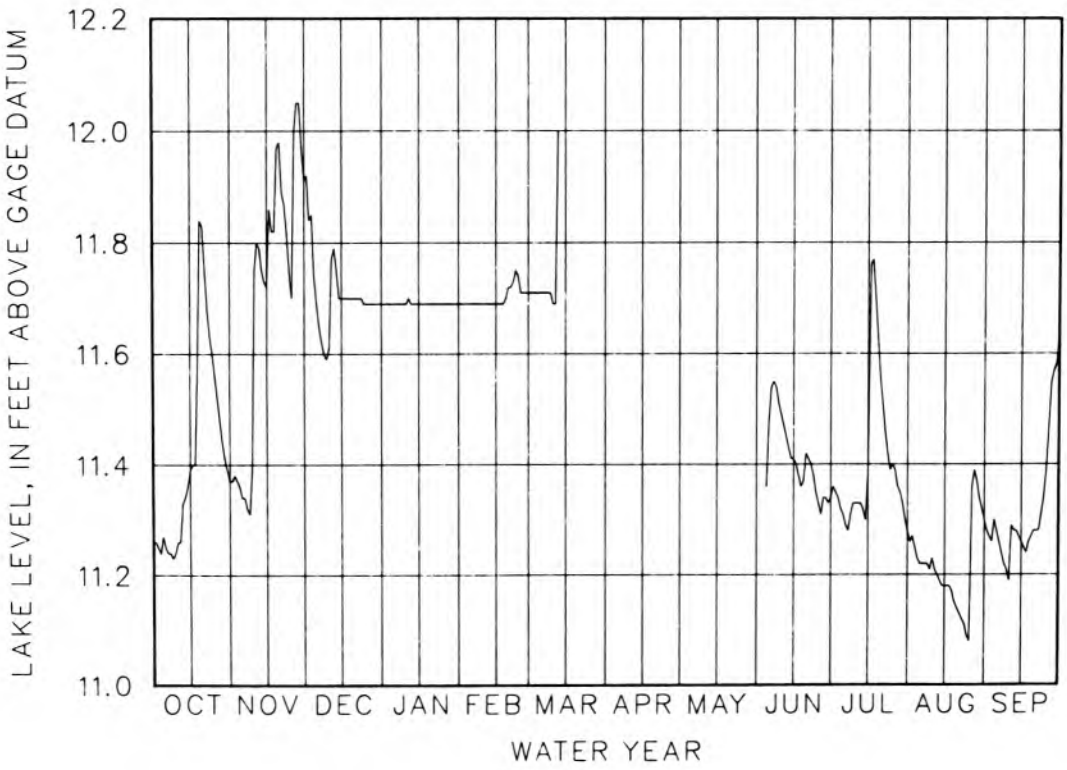
INLET AND OUTLET.--There are four inlets to the lake. Spectacle Lakes drain into the west shore, Maumee ditch enters from the south, Goose Pond flows through a short channel to the southwest shore, and McClish Lake drains into the lake on the southeast shore. The outlet flows to the north from the east end of the lake and through Taylor, Mud, and Little Turkey Lakes to Turkey Creek, thence into Pigeon River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 13.00 ft Dec. 24, 25, 1967; minimum stage, 9.81 ft Nov. 17-20, 1953.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
2400 HR VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.25	11.34	11.69	11.69	11.69	11.71			11.48	11.31	11.22	11.28
10	11.26	11.75	11.61	11.69	11.69	11.69			11.49	11.33	11.23	11.19
15	11.39	11.72	11.70	11.69	11.69	---			11.41	11.38	11.18	11.26
20	11.83	11.98	11.70	11.69	11.72	---			11.42	11.56	11.14	11.28
25	11.56	11.70	11.69	11.69	11.71	---			11.33	11.40	11.08	11.39
EOM	11.37	11.91	11.69	11.69	11.71	---			11.34	11.28	11.30	11.64

WTR YR 1986 MEAN 11.52 HIGH 12.05 NOV 27 AND OTHERS LOW 11.08 AUG 25



04097520 LAKE PLEASANT NEAR NEVADA MILLS, IN

LOCATION.--Lat 41°45'18", long 85°06'10", in NW¼SW¼NW¼ sec.13, T.38 N., R.12 E., Steuben County, Hydrologic Unit 04050001 (KINDERHOOK, MI-IN quadrangle). The gage is at a bridge over a boat channel on the south shore of the lake, 2.3 mi northwest of Nevada Mills.

SURFACE AREA.--424 acres.

DRAINAGE AREA.--3.18 mi^2.

PERIOD OF RECORD.--1954-69, 1971, 1976 to current year.

DATUM OF GAGE.--960.40 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-in diameter stilling well. An auxiliary staff gage is attached to the southwest bridge abutment at the site.

ESTABLISHED LEGAL LEVEL.--1.10 ft gage datum or 961.50 ft above National Geodetic Vertical Datum of 1929.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by the outlet channel.

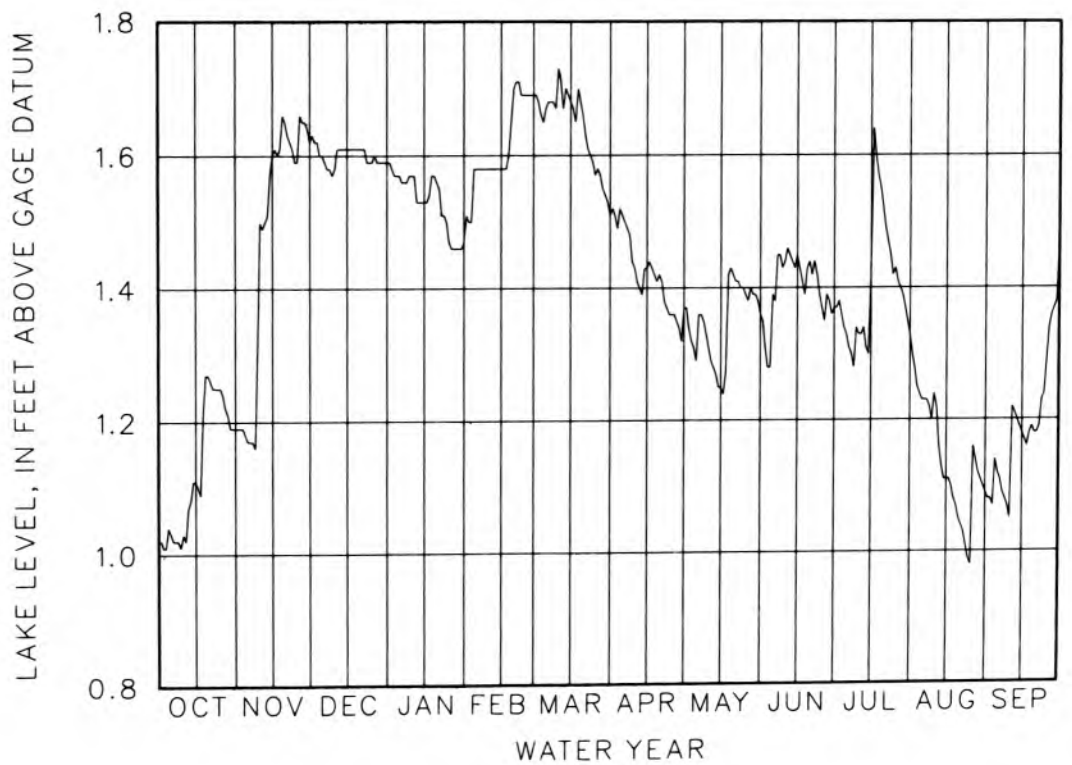
INLET AND OUTLET.--The one inlet enters the lake on the west side. The outlet flows from the northern shore, enters Michigan, and eventually empties into Prairie River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 2.04 ft Mar. 17, 1980; minimum stage, -0.14 ft Nov. 6-14, 1964.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
2400 HR VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	1.03	1.17	1.60	1.57	1.58	1.67	1.51	1.29	1.39	1.33	1.23	1.12
10	1.03	1.50	1.58	1.57	1.58	1.73	1.43	1.31	1.44	1.33	1.24	1.05
15	1.11	1.60	1.61	1.53	1.58	1.68	1.43	1.25	1.45	1.43	1.11	1.18
20	1.27	1.65	1.61	1.56	1.70	1.66	1.42	1.42	1.44	1.52	1.05	1.18
25	1.25	1.59	1.59	1.47	1.69	1.57	1.36	1.39	1.37	1.43	.98	1.29
EOM	1.19	1.62	1.59	1.47	1.69	1.51	1.37	1.36	1.37	1.33	1.09	1.47

WTR YR 1986 MEAN 1.41 HIGH 1.73 MAR 10 LOW .98 AUG 25



04100160 LITTLE LONG LAKE AT KENDALLVILLE, IN

LOCATION.--Lat 41°27'49", long 85°15'27", in SE¼NW¼NE¼ sec.28, T.35 N., R.11 E., Noble County, Hydrologic Unit 04050001 (KENDALLVILLE, IN quadrangle). The gage is on the south side of the lake at the bridge over the dredged channel in Wakeville Village, 1.6 mi northeast of City Hall in Kendallville.

SURFACE AREA.--71 acres.

DRAINAGE AREA.--4.55 mi^2.

PERIOD OF RECORD.--1954 to current year.

DATUM OF GAGE.--950.00 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage in one section is attached to the west wingwall on the south side of the bridge.

ESTABLISHED LEGAL LEVEL.--4.50 ft gage datum or 954.50 ft above National Geodetic Vertical Datum of 1929 as decreed on Mar. 26, 1970. Round Lake at Kendallville has the same established level and hence the same lake levels for the period of record.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a fixed-crest concrete dam.

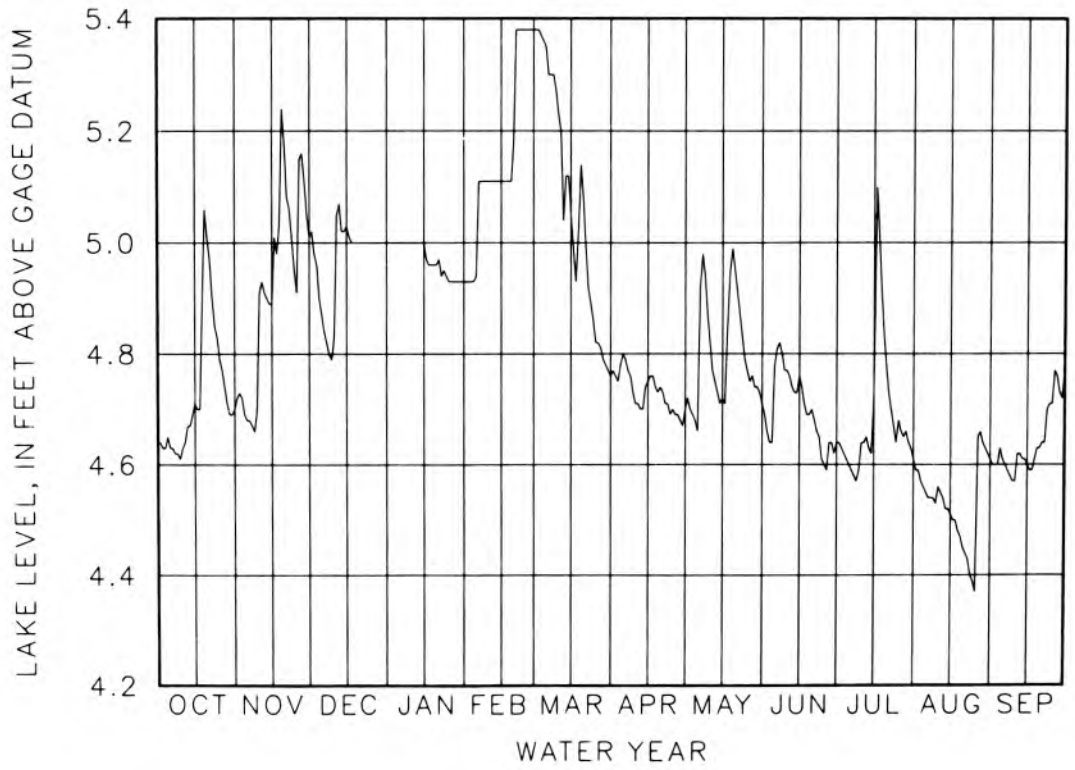
INLET AND OUTLET.--The one inlet enters on the east side from Round Lake. The outlet, Waterhouse ditch, flows from the lake at the southwest end and into Henderson Lake ditch, thence into Sylvan Lake 4.8 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 6.75 ft Jan. 31, 1969; minimum stage, 3.33 ft Nov. 17, 18, 1964.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
2400 HR VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.63	4.68	4.87	5.00	4.94	5.35	4.80	4.66	4.78	4.60	4.55	4.61
10	4.63	4.91	4.83	5.00	5.11	5.23	4.71	4.82	4.77	4.64	4.56	4.57
15	4.71	4.89	5.03	5.00	5.11	5.05	4.75	4.72	4.76	4.72	4.51	4.60
20	5.01	5.18	5.00	4.96	5.18	5.08	4.74	4.95	4.70	4.78	4.45	4.63
25	4.79	4.91	5.00	4.93	5.38	4.82	4.70	4.77	4.60	4.68	4.37	4.71
EOM	4.70	5.01	5.00	4.93	5.38	4.76	4.70	4.71	4.64	4.61	4.61	4.77

WTR YR 1986 MEAN 4.82 HIGH 5.38 FEB 21 AND OTHERS LOW 4.37 AUG 25



03328100 LONG LAKE AT LAKETON, IN

LOCATION.--Lat 40°59'08", long 85°50'20", in NE¼NW¼NE¼ sec.10, T.29 N., R.6 E., Wabash County, Hydrologic Unit 05120104 (NORTH MANCHESTER SOUTH, IN quadrangle). The gage is located on the north shore of the lake, 0.3 mi west of Crill Road, and 0.8 mi north of Laketon.

SURFACE AREA.--48 acres.

DRAINAGE AREA.--0.55 mi^2.

PERIOD OF RECORD.--1946-51, 1959 to current year.

DATUM OF GAGE.--740.00 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage, driven into the lake bed, is located 50 ft lakeward of the primary gage.

ESTABLISHED LEGAL LEVEL.--11.19 ft gage datum or 751.19 ft above National Geodetic Vertical Datum of 1929 as decreed on July 26, 1951, by the Wabash County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by an 18-inch corrugated metal pipe draining into a clay tile.

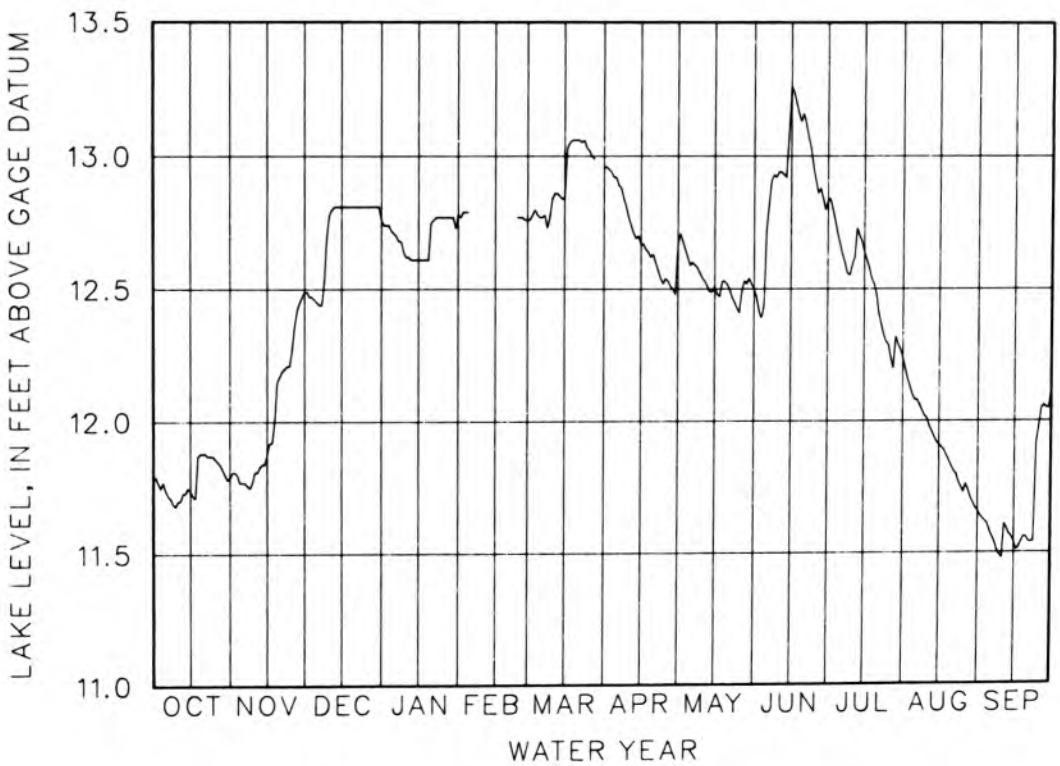
INLET AND OUTLET.--Two tile ditches flow into the lake. The outlet flows from the west end of the lake, joins the outlet of Mud Lake, continues through Round Lake, then into Eel River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 13.66 ft Mar. 22, 1982; minimum stage, 8.68 ft Dec. 1-3, 1964.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
2400 HR VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.74	11.77	12.45	12.71	.00	12.77	12.92	12.59	12.72	12.67	12.08	11.58
10	11.70	11.81	12.78	12.62	---	12.84	12.77	12.54	12.94	12.59	12.01	11.48
15	11.74	11.88	12.81	12.61	---	12.84	12.67	12.51	13.26	12.64	11.91	11.54
20	11.88	12.17	12.81	12.75	---	13.06	12.63	12.52	13.16	12.48	11.83	11.56
25	11.86	12.27	12.81	12.77	12.77	13.02	12.54	12.41	12.91	12.29	11.73	11.98
EOM	11.79	12.49	12.76	12.78	12.76	12.96	12.67	12.50	12.83	12.24	11.66	12.12

WTR YR 1986 MEAN 12.40 HIGH 13.26 JUN 15 LOW 11.48 SEP 10



04099200 LONG LAKE AT MOONLIGHT, IN

LOCATION.--Lat 41°35'01", long 85°01'43", in NE¼NE¼NE¼ sec.16, T.36 N., R.13 E., Steuben County, Hydrologic Unit 04050001 (ASHLEY, IN quadrangle). The gage is located on the northern shore, 0.4 mi east of the lake outlet and 2.5 mi north of Steubenville.

SURFACE AREA.--92 acres.

DRAINAGE AREA.--67.9 mi^2.

PERIOD OF RECORD.--1946 to current year.

DATUM OF GAGE.--940.10 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is located near the gage in two sections. One section is mounted on a post which is driven into the lake bed. The other section is mounted to a tree near the gage.

ESTABLISHED LEGAL LEVEL.--Not established.

LAKE-LEVEL CONTROL.--The lake level is controlled by the downstream channel.

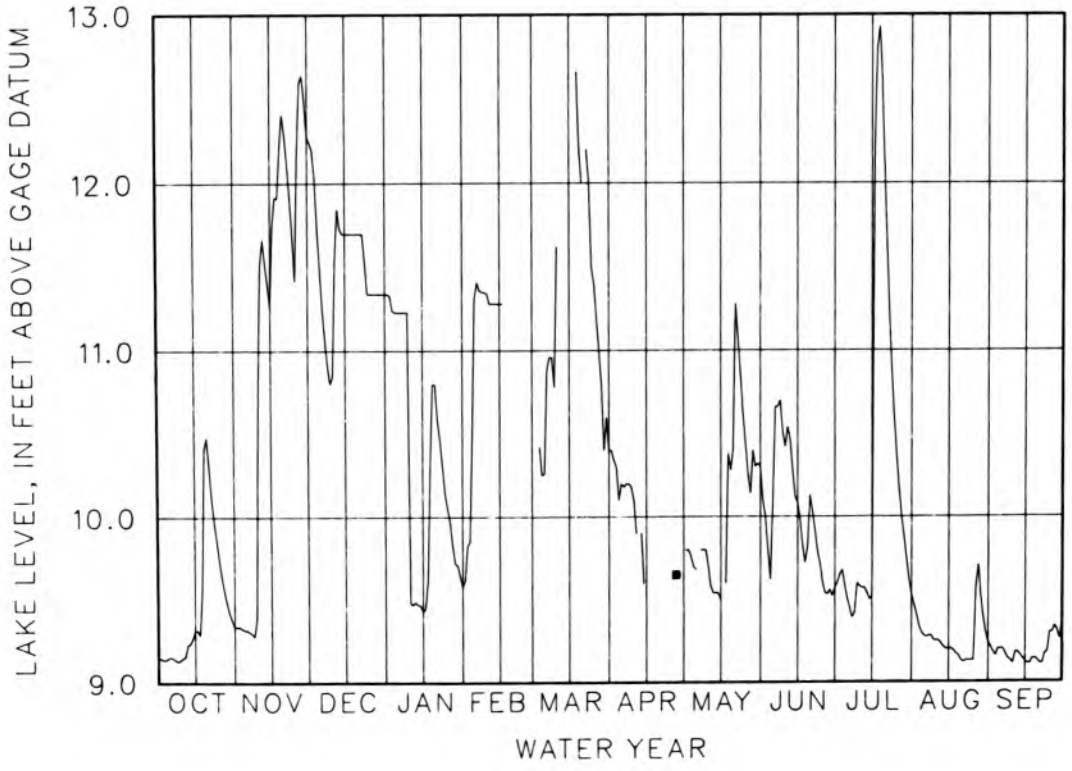
INLET AND OUTLET.--Pigeon Creek flows into Long Lake at the eastern end of the lake and exits at the western end.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 17.42 ft Mar. 22, 1982; minimum stage, 8.98 ft Oct. 5-8, 1964.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
2400 HR VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.16	9.32	11.48	11.23	11.31	10.26	10.20	9.68	10.11	9.51	9.28	9.20
10	9.15	10.76	10.85	9.48	11.34	11.62	10.10	9.70	10.42	9.58	9.25	9.11
15	9.32	11.26	11.70	9.43	11.28	---	---	9.50	10.08	9.52	9.20	9.12
20	10.48	12.41	11.70	10.80	---	12.00	---	10.40	10.13	12.11	9.13	9.13
25	9.73	11.42	11.34	10.05	---	11.40	---	10.44	9.61	10.36	9.13	9.30
EOM	9.34	12.28	11.34	9.58	---	10.40	---	10.30	9.57	9.53	9.24	9.37

WTR YR 1986 MEAN 10.25 HIGH 12.93 JUL 18 LOW 9.11 SEP 10 AND OTHERS



03331460 LOST LAKE NEAR CULVER, IN

LOCATION.--Lat 41°12'02", long 86°25'17", in NE¼NW¼NW¼ sec.28, T.32 N., R.1 E., Marshall County, Hydrologic Unit 05120106 (CULVER, IN quadrangle). The gage is on the northern shore of the lake at the east end of West 19th Road (lake access road), 1.1 mi south of the center of Culver.

SURFACE AREA.--40 acres.

DRAINAGE AREA.--14.2 mi².

PERIOD OF RECORD.--1954-61, 1963-74, 1976 to current year. (Formerly published as Hawks Lake near Culver.)

DATUM OF GAGE.--720.00 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--12.00 ft gage datum or 732.00 ft above National Geodetic Vertical Datum of 1929 as decreed on Feb. 17, 1960, by the Marshall County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam and sill with removable boards in the outlet channel approximately 850 ft downstream from the main body of the lake.

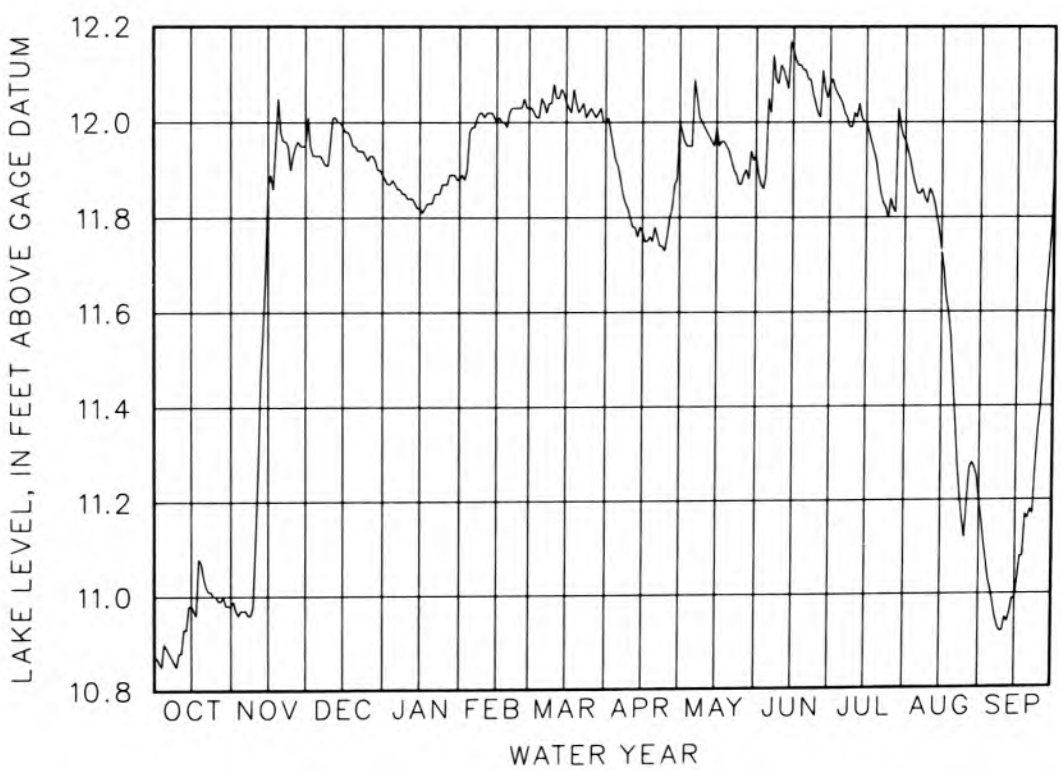
INLET AND OUTLET.--The one inlet flows into the lake from Maxinkuckee Lake and enters on the north shore. The outlet flows from the south end of the lake to the Tippecanoe River 3.7 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 13.05 ft June 15, 1981; minimum stage, 10.12 ft July 9, 1959.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
2400 HR VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.89	10.97	11.93	11.87	11.99	12.05	11.91	11.95	12.05	12.04	11.85	11.01
10	10.88	11.12	11.96	11.84	12.01	12.08	11.80	11.99	12.12	12.02	11.86	10.92
15	10.98	11.87	11.99	11.82	12.00	12.04	11.77	11.99	12.15	12.00	11.73	10.99
20	11.04	11.98	11.95	11.83	12.02	12.02	11.78	11.94	12.11	11.88	11.46	11.16
25	11.00	11.93	11.92	11.87	12.03	12.03	11.76	11.87	12.02	11.84	11.12	11.40
EOM	10.98	11.95	11.89	11.88	12.03	12.00	12.00	11.93	12.08	11.96	11.20	11.92

WTR YR 1986 MEAN 11.74 HIGH 12.17 JUN 14 LOW 10.85 OCT 3 AND OTHERS



03328400 LUKENS LAKE NEAR DISKO, IN

LOCATION.--Lat 40°58'09", long 85°56'06", in SW¼NW¼NE¼ sec.14, T.29 N., R.5 E., Wabash County, Hydrologic Unit 05120104 (ROANN, IN quadrangle). The gage is 25 ft north of the outlet on the southwest side of the lake, 4.1 mi north of Roann.

SURFACE AREA.--46 acres.

DRAINAGE AREA.--1.76 mi^2.

PERIOD OF RECORD.--1948-49, 1959 to current year.

DATUM OF GAGE.--760.00 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage in one section is driven into the lake bed about 5 ft upstream from the outlet culvert.

ESTABLISHED LEGAL LEVEL.--3.60 ft gage datum or 763.60 ft above the National Geodetic Vertical Datum of 1929 as decreed on Mar. 29, 1978, by the Wabash County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by two 18-inch corrugated metal culverts at the outlet.

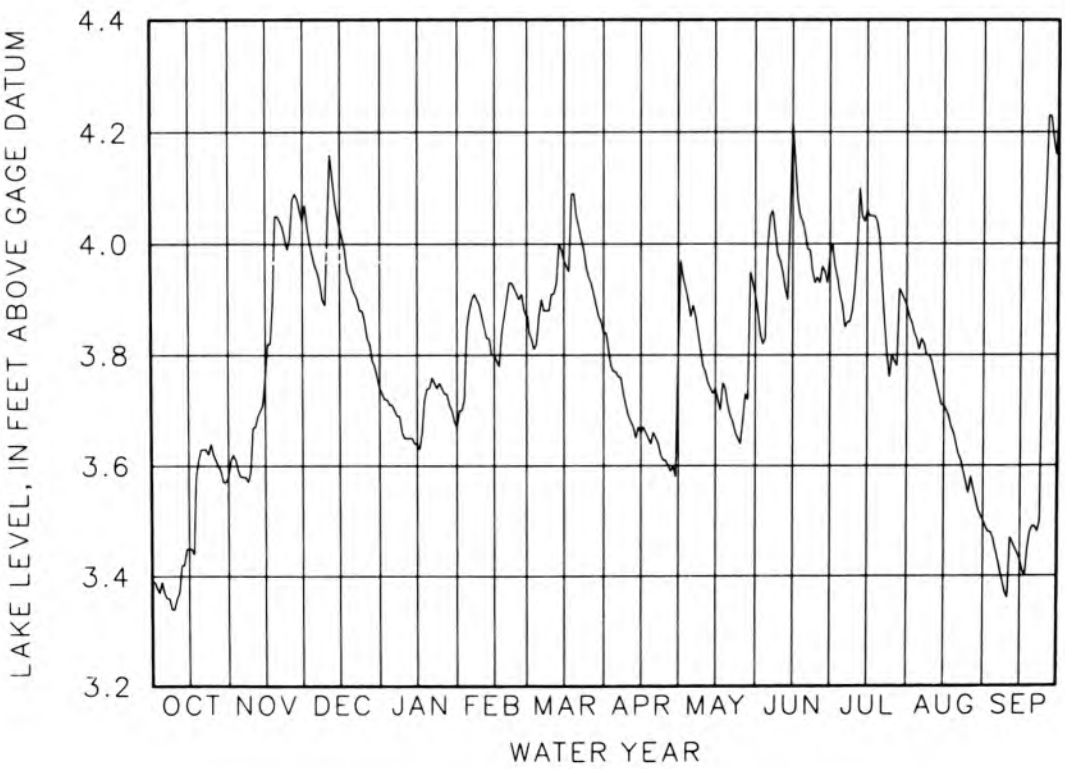
INLET AND OUTLET.--The principal inlet is a tile drain from McColley Lake, 0.5 mi to the north. The outlet flows from the southwestern shore, into Bolley Ditch 0.7 mi downstream, thence into Squirrel Creek, and eventually into Eel River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 5.10 ft May 16, 1968; minimum stage, 2.32 ft Oct. 12, 1983.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
2400 HR VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.37	3.58	3.96	3.71	3.88	3.87	3.77	3.87	4.00	3.89	3.81	3.45
10	3.36	3.67	4.02	3.65	3.87	3.91	3.69	3.78	3.97	3.92	3.79	3.36
15	3.45	3.76	4.03	3.64	3.80	3.97	3.66	3.74	4.22	4.06	3.71	3.43
20	3.63	4.05	3.92	3.74	3.90	4.05	3.66	3.71	4.02	4.01	3.64	3.49
25	3.62	4.01	3.86	3.74	3.90	3.94	3.61	3.64	3.94	3.80	3.55	4.09
EOM	3.58	4.04	3.74	3.67	3.87	3.84	3.79	3.91	3.98	3.89	3.50	4.23

WTR YR 1986 MEAN 3.78 HIGH 4.23 SEP 26 AND OTHERS LOW 3.34 OCT 8 AND OTHERS



03331440 MAXINKUCKEE LAKE AT CULVER, IN

LOCATION.--Lat 41°11'48", long 86°25'00", in NE¼SE¼NW¼ sec.28, T.32 N., R.1 E., Marshall County, Hydrologic Unit 05120106 (CULVER, IN quadrangle). The gage is on the lower west side of the lake, at the public fishing site, 1.4 mi south of the center of Culver.

SURFACE AREA.--1,864 acres.

DRAINAGE AREA.--13.7 mi^2.

PERIOD OF RECORD.--1943 to current year.

DATUM OF GAGE.--730.00 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is attached to the upstream side of the north abutment of the outlet dam.

ESTABLISHED LEGAL LEVEL.--3.12 ft gage datum or 733.12 ft above National Geodetic Vertical Datum of 1929 as decreed on Aug. 9, 1948, by the Marshall County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam with a fixed crest at the outlet channel.

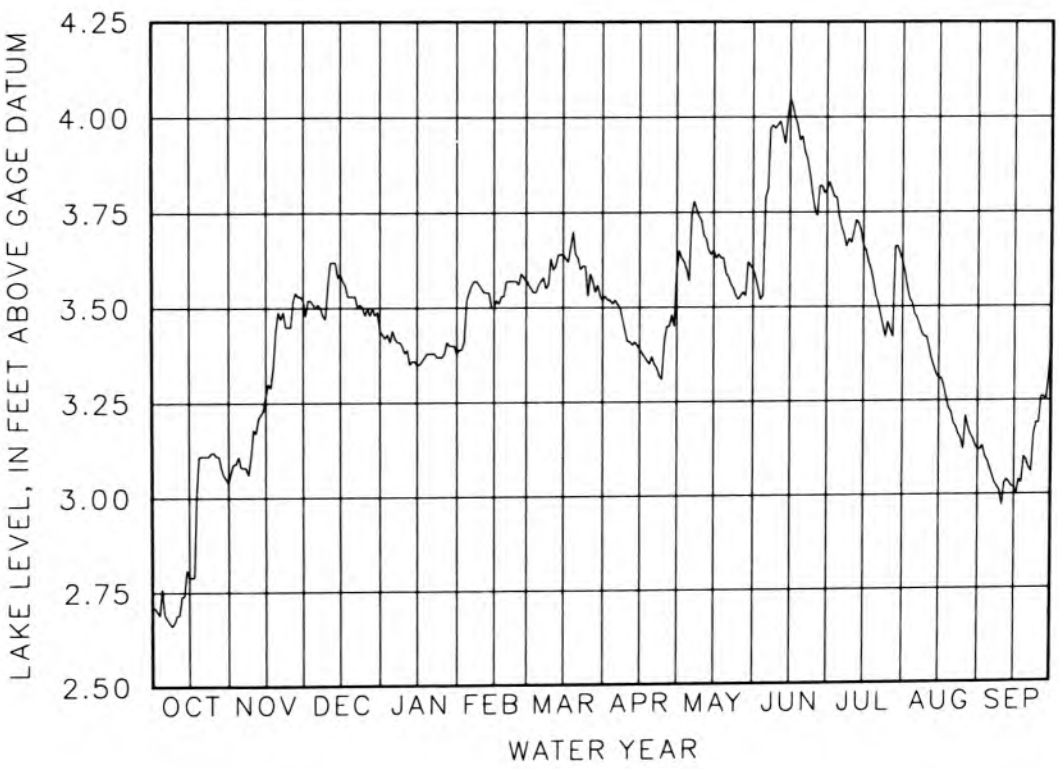
INLET AND OUTLET.--Wilson ditch enters the lake at the northeast corner, Curtiss ditch enters at the east center, and Norris inlet enters at the southeast corner. The outlet leaves the lake at the western shore, north of the point, and flows into Lost Lake 1,600 ft downstream, thence into the Tippecanoe River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 5.48 ft June 14, 15, 1981; minimum stage, 2.12 ft Nov. 19, 1953 and Nov. 19, 1956.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
2400 HR VALUES

DAY	OCT	NOV	DEC	JAN	PEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.69	3.08	3.50	3.44	3.54	3.56	3.52	3.57	3.79	3.74	3.48	3.07
10	2.69	3.18	3.56	3.38	3.55	3.63	3.41	3.73	3.98	3.67	3.42	2.97
15	2.79	3.27	3.59	3.35	3.50	3.64	3.39	3.65	4.05	3.66	3.31	3.02
20	3.11	3.49	3.53	3.38	3.57	3.64	3.37	3.59	3.95	3.53	3.22	3.09
25	3.12	3.45	3.48	3.37	3.56	3.53	3.41	3.52	3.76	3.46	3.12	3.19
EOM	3.04	3.52	3.44	3.38	3.57	3.52	3.60	3.60	3.81	3.62	3.12	3.39

WTR YR 1986 MEAN 3.43 HIGH 4.05 JUN 15 LOW 2.66 OCT 8



04100280 MUNCIE LAKE NEAR BURR OAK, IN

LOCATION.--Lat 41°19'37", long 85°27'28", in NE¼SW¼SW¼ sec.11, T.33 N., R.9 E., Noble County, Hydrologic Unit 04050001 (MERRIAM, IN quadrangle). The gage is on the southwest shore of the lake, just north of the gravel road on the Addis farm, and 1.3 mi northwest of Burr Oak.

SURFACE AREA.--47 acres.

DRAINAGE AREA.--42.8 mi^2.

PERIOD OF RECORD.--1954 to current year.

DATUM OF GAGE.--880.00 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--Not established.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by the outlet channel.

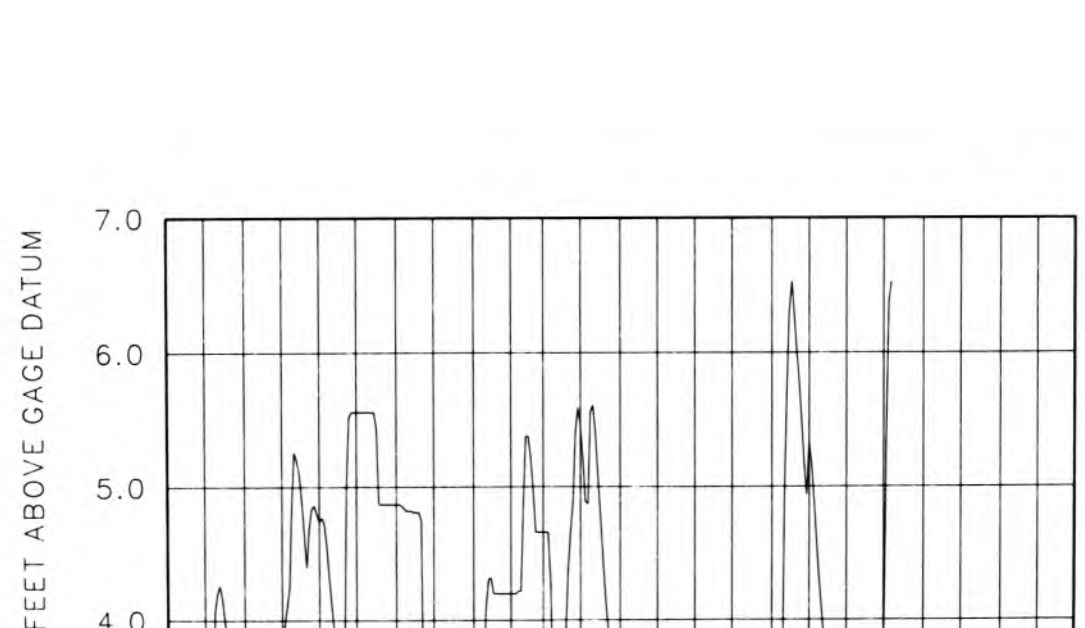
INLET AND OUTLET.--There are three inlets to the lake. Forker Creek flows into the lake from the east, Brown Ditch from the southeast, and Carrol Creek from the west. The outlet flows from the northwest shore into Williams Lake, then into the South Branch of the Elkhart River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 9.47 ft Mar. 24, 25, 1978, Feb. 25, 26, 1985; minimum stage, 1.97 ft Aug. 3, 1985.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
2400 HR VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.54	2.82	4.10	4.82	4.11	3.49	3.32	2.90	4.86	3.12	---	2.54
10	2.55	3.05	3.64	4.75	4.20	4.38	3.13	2.89	6.01	3.11	---	2.46
15	2.71	3.43	5.56	2.75	4.20	5.46	3.03	2.80	5.34	3.54	---	2.49
20	4.20	5.26	5.56	3.45	4.88	5.61	3.04	3.29	4.10	---	---	2.51
25	3.64	4.40	4.87	3.11	4.66	4.20	2.94	3.02	3.16	---	---	2.59
EOM	2.96	4.74	4.87	2.86	4.66	3.24	2.92	2.84	3.20	---	2.59	2.93

WTR YR 1986 MEAN 3.69 HIGH 6.53 JUN 8 LOW 2.46 SEP 9 AND OTHERS



04099700 NORTH TWIN LAKE NEAR HOWE, IN

LOCATION.--Lat 41°43'45", long 85°27'49", in SE¼SW¼SW¼ sec.23, T.38 N., R.9 E., Lagrange County, Hydrologic Unit 04050001 (LAGRANGE, IN quadrangle). The gage is in the channel between North and South Twin Lakes, 100 ft upstream from the county road bridge, and 2.2 mi northwest of Howe.

SURFACE AREA.--135 acres.

DRAINAGE AREA.--1.54 mi^2.

PERIOD OF RECORD.--1953 to current year.

DATUM OF GAGE.--840.00 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A staff gage is attached to the east concrete retaining wall of the control dam.

ESTABLISHED LEGAL LEVEL.--3.56 ft gage datum or 843.56 ft above National Geodetic Vertical Datum of 1929 as decreed on Sept. 11, 1959, by the Lagrange County Circuit Court. South Twin Lake near Howe has the same established level and hence the same lake levels for the period of record.

LAKE-LEVEL CONTROL.--Prior to Oct. 1, 1982, the low water control was a fixed-crest dam with removable boards at the upstream end of the channel between the two lakes. At high stages the outlet channel of South Twin Lake was the control. After Oct. 1, 1982, a concrete dam with a fixed crest was installed in the outlet of South Twin Lake. This is now the control structure for both North and South Twin Lakes, although the original structure is still in place.

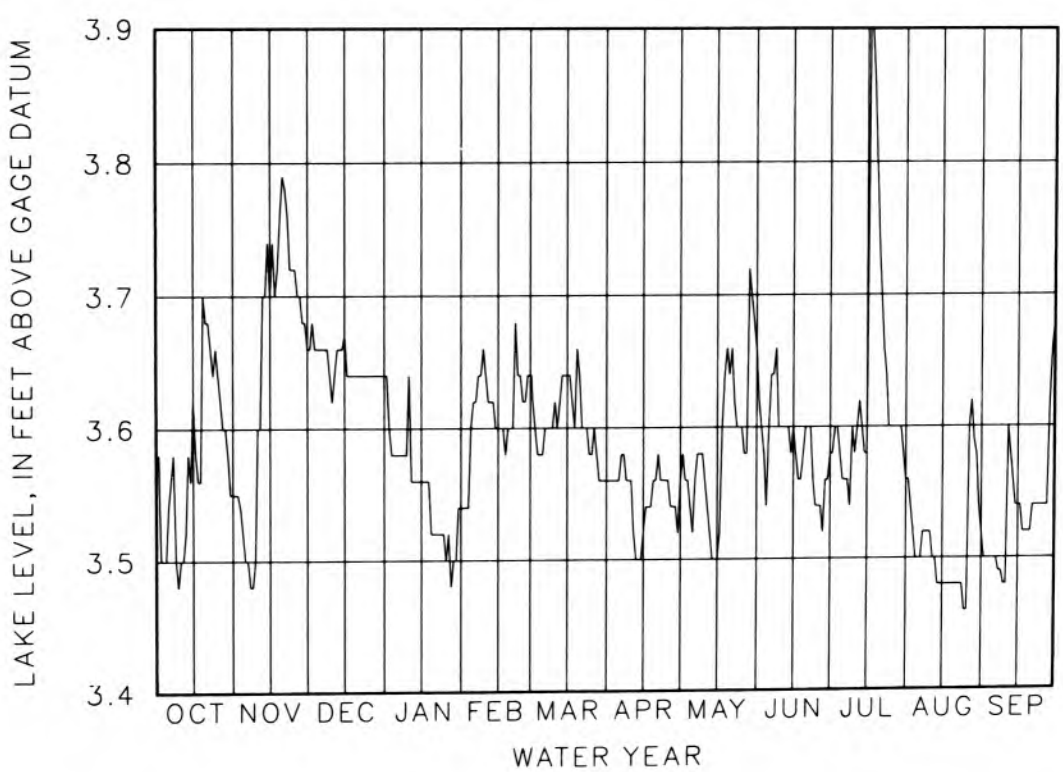
INLET AND OUTLET.--There are two inlets to the lake. One enters at the southeast shore from Still Lake 0.9 mi upstream, and the other, which drains the adjacent marsh land, enters on the northwest shore. The outlet flows from the southwest shore and into South Twin Lake approximately 200 ft downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 5.20 ft Feb. 26, 1985; minimum stage, 2.97 ft Aug. 20, 1964.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
2400 HR VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.54	3.50	3.66	3.58	3.62	3.58	3.56	3.52	3.60	3.56	3.50	3.50
10	3.50	3.60	3.62	3.64	3.64	3.62	3.56	3.56	3.60	3.58	3.52	3.48
15	3.62	3.70	3.67	3.56	3.60	3.64	3.52	3.50	3.60	3.58	3.48	3.54
20	3.68	3.79	3.64	3.52	3.60	3.64	3.56	3.64	3.60	3.74	3.48	3.52
25	3.64	3.72	3.64	3.50	3.62	3.58	3.56	3.60	3.54	3.60	3.46	3.54
EOM	3.55	3.66	3.64	3.54	3.64	3.56	3.56	3.66	3.58	3.56	3.52	3.68

WTR YR 1986 MEAN 3.59 HIGH 3.90 JUL 16 AND OTHERS LOW 3.46 AUG 24 AND OTHERS



03331400 NYONA LAKE NEAR GREENOAK, IN

LOCATION.--Lat 40°57'40", long 86°11'20", in SE¼SE¼NE¼ sec.16, T.29 N., R.3 E., Fulton County, Hydrologic Unit 05120106 (MACY, IN quadrangle). The gage is on the northwest shore of the southern lobe of the lake, at the public fishing site, and 2.4 mi south of Greenoak.

SURFACE AREA.--104 acres.

DRAINAGE AREA.--7.59 mi^2.

PERIOD OF RECORD.--1946 to current year.

DATUM OF GAGE.--790.00 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--3.91 ft gage datum or 793.91 ft above National Geodetic Vertical Datum of 1929.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam with a fixed crest.

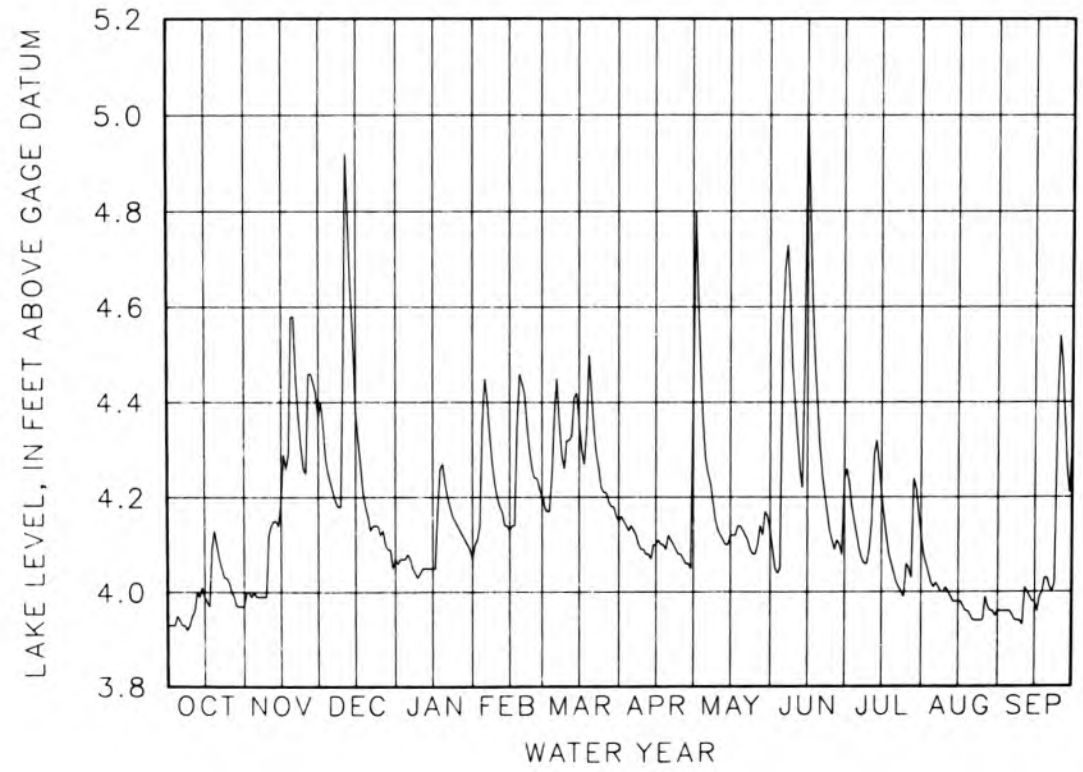
INLET AND OUTLET.--The lake is fed by two small ditches entering from the east and northeast. The outlet flows from the lake at the southwest corner and into Mud Creek, which eventually joins the Tippecanoe River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 6.00 ft June 14, 1958; minimum stage, 2.98 ft Oct. 12-19, 25, 26, 1953.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
2400 HR VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.94	3.99	4.23	4.08	4.45	4.37	4.14	4.28	4.56	4.12	4.01	3.96
10	3.95	4.12	4.48	4.04	4.20	4.32	4.09	4.13	4.40	4.09	4.01	3.93
15	3.99	4.19	4.38	4.05	4.13	4.36	4.10	4.12	5.02	4.21	3.98	3.98
20	4.10	4.58	4.16	4.23	4.44	4.42	4.12	4.13	4.31	4.04	3.95	4.03
25	4.02	4.25	4.12	4.14	4.24	4.21	4.08	4.08	4.11	4.06	3.94	4.54
EOM	3.97	4.37	4.07	4.07	4.20	4.15	4.42	4.13	4.24	4.12	3.96	4.32

WTR YR 1986 MEAN 4.16 HIGH 5.02 JUN 15 LOW 3.92 OCT 8



03371700 OGLE LAKE NEAR NASHVILLE, IN

LOCATION.--Lat 39°09'35", long 86°14'54", in NE¼SE¼NE¼ sec.1, T.8 N., R.2 E., Brown County, Hydrologic Unit 05120208 (NASHVILLE, IN quadrangle). The gage is on the dam, near the concrete intake structure on the west side of the lake, 3.3 mi south of Nashville.

SURFACE AREA.--20 acres.

DRAINAGE AREA.--1.03 mi^2.

PERIOD OF RECORD.--1954 to current year.

DATUM OF GAGE.--710.00 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--Not established.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete flood spillway with a fixed crest.

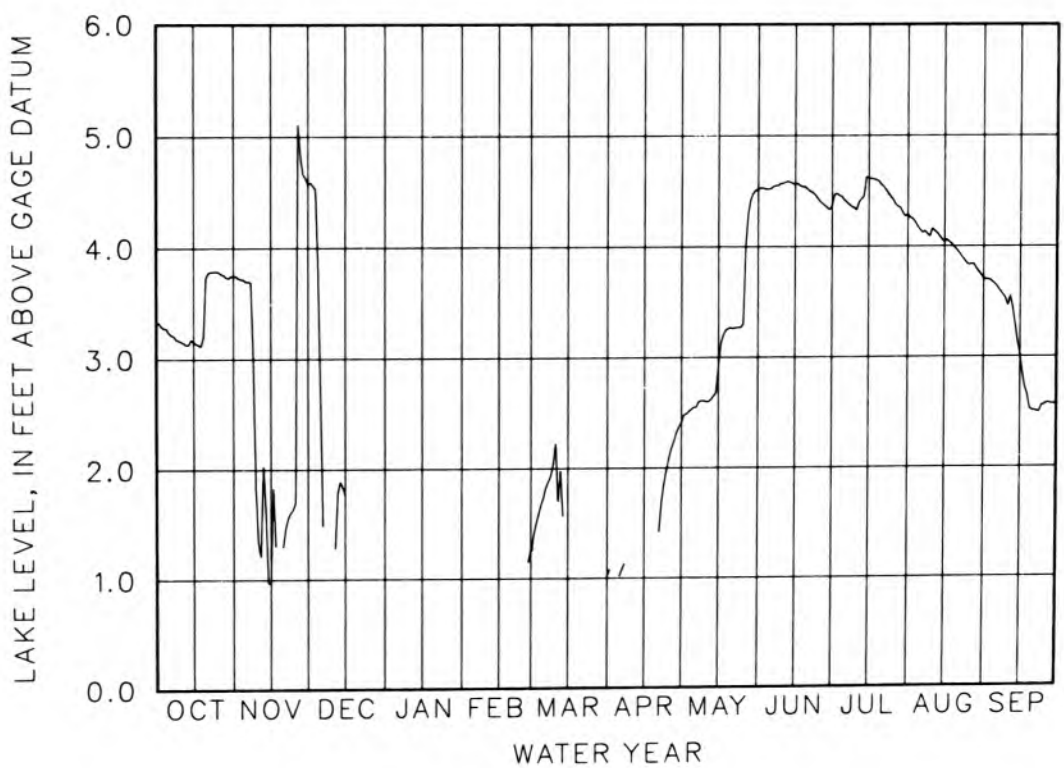
INLET AND OUTLET.--Two ditches enter the lake, one from the east and one from the southeast. The outlet flows into Upper Schooner Creek, which joins Lower Schooner Creek, then flows into the North Fork of Salt Creek. The North Fork of Salt Creek empties into Monroe Reservoir.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 6.80 ft June 23, 1960; minimum stage, -2.70 ft Feb. 12, 13, 1977.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
2400 HR VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.24	3.70	2.70		---	1.73	1.02	2.55	4.52	4.42	4.15	3.65
10	3.16	1.34	---		---	2.23	---	2.60	4.57	4.33	4.16	3.46
15	3.16	.97	1.78		---	---	---	2.90	4.56	4.62	4.04	3.02
20	3.74	1.30	---		---	---	---	3.27	4.52	4.56	3.97	2.51
25	3.79	1.70	---		---	---	2.09	3.30	4.41	4.42	3.83	2.56
EOM	3.75	4.57	---		1.26	1.02	2.41	4.52	4.37	4.29	3.71	2.58

WTR YR 1986 MEAN 3.36 HIGH 5.11 NOV 26 LOW .97 NOV 14 AND OTHERS



04100100 OLIVER LAKE NEAR VALENTINE, IN

LOCATION.--Lat 41°34'37", long 85°24'44", in SE¼SW¼NE¼ sec.18, T.36 N., R.10 E., Lagrange County, Hydrologic Unit 04050001 (OLIVER LAKE, IN quadrangle). The gage is at the public fishing site on the northwest side of the lake, and 1.6 mi southwest of Valentine.

SURFACE AREA.--362 acres.

DRAINAGE AREA.--11.1 mi^2.

PERIOD OF RECORD.--1945 to current year.

DATUM OF GAGE.--889.75 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is attached to the dam in the outlet.

ESTABLISHED LEGAL LEVEL.--9.70 ft gage datum or 899.45 ft above National Geodetic Vertical Datum of 1929 as decreed on Sept. 29, 1952, by the Lagrange County Circuit Court. Martin and Olin Lakes near Valentine have the same established level as Oliver Lake and hence the same lake levels for the period of record.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a fixed sill and dam with movable boards.

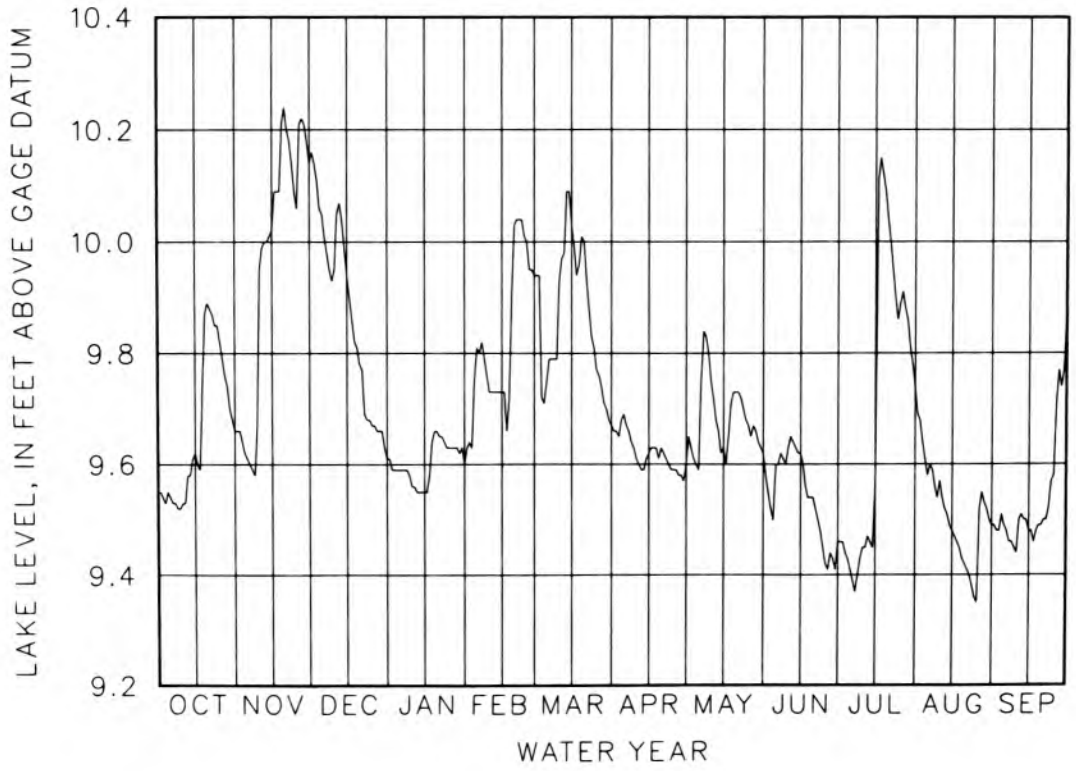
INLET AND OUTLET.--The lake has several inlets. Dove Creek enters on the northwest, the outlet of Holsinger Hole on the north, Hart ditch on the east, and the channel between Oliver and Olin Lakes on the southeast shore. The Oliver Lake outlet flows from the southwest lobe of the lake, through a wetland, into Hackenburg Lake 1.6 mi downstream, and eventually into the North Branch of the Elkhart River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 11.77 ft June 14, 1981; minimum stage, 8.42 ft Jan. 18, 19, Feb. 3-5, 1961.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
2400 HR VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.54	9.61	10.05	9.59	9.81	9.75	9.69	9.59	9.60	9.41	9.58	9.49
10	9.53	9.95	9.95	9.56	9.73	9.93	9.61	9.75	9.63	9.45	9.57	9.44
15	9.62	10.02	9.94	9.55	9.73	10.03	9.62	9.63	9.62	9.56	9.48	9.48
20	9.89	10.24	9.78	9.66	10.03	10.00	9.63	9.73	9.54	10.04	9.42	9.49
25	9.82	10.06	9.67	9.63	10.00	9.77	9.59	9.67	9.42	9.89	9.35	9.58
EOM	9.66	10.14	9.61	9.60	9.94	9.67	9.60	9.62	9.46	9.74	9.49	9.88

WTR YR 1986 MEAN 9.70 HIGH 10.24 NOV 20 LOW 9.35 AUG 25



03331180 PALESTINE LAKE AT PALESTINE, IN

LOCATION.--Lat 41°10'48", long 85°56'54", in NE¼NE¼SW¼ sec.33, T.32 N., R.5 E., Kosciusko County, Hydrologic Unit 05120106 (BURKET, IN quadrangle). The gage is near the extreme northwestern corner of the lake, at the public access site, in the town of Palestine.

SURFACE AREA.--290 acres.

DRAINAGE AREA.--32.4 mi².

PERIOD OF RECORD.--1954 to current year.

DATUM OF GAGE.--815.00 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage in one section is driven into the lake bed just north of the public access site.

ESTABLISHED LEGAL LEVEL.--1.62 ft gage datum or 816.62 ft above National Geodetic Vertical Datum of 1929.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by an old mill dam of stone and concrete (fixed crest) at the west lobe of the far northern shore.

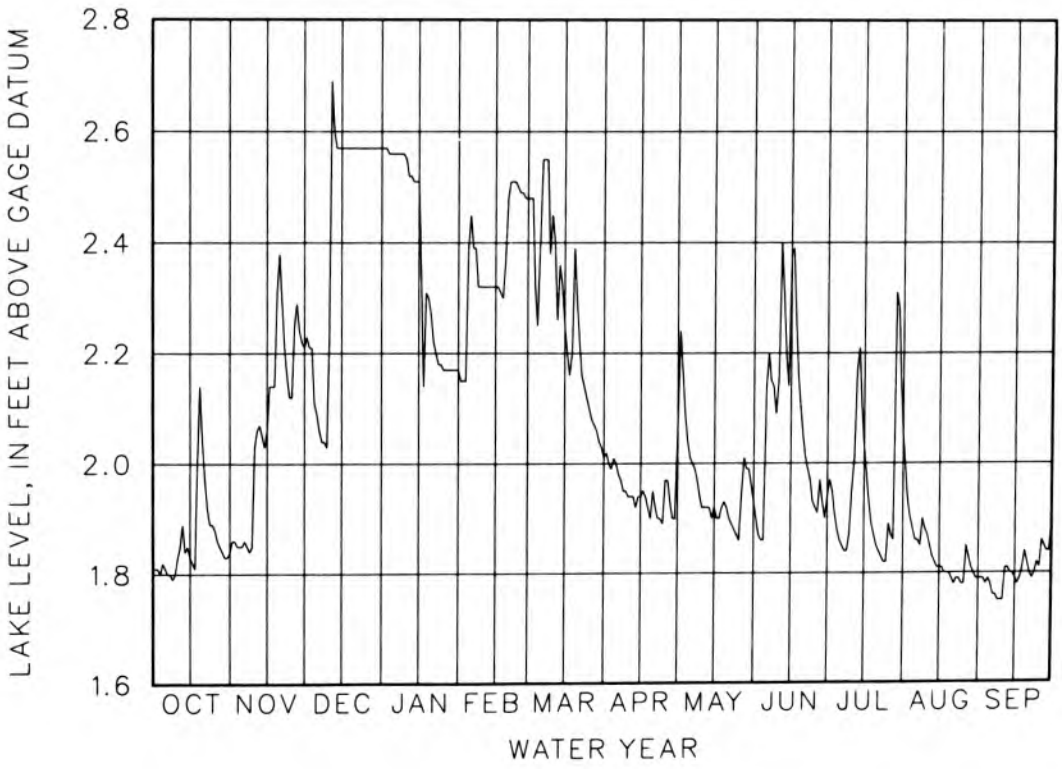
INLET AND OUTLET.--There are four inlets to the lake. Magee ditch enters from the north, Williamson ditch from the west and the confluence of Adams and Sloan ditches from the southeast. Trimble Creek flows through the lake, entering on the extreme southeastern end, leaving at the northwestern lobe and flowing into the Tippecanoe River 7.5 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 4.35 ft June 13, 1981; minimum stage, 0.48 ft Oct. 2, 1962.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
2400 HR VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	1.81	1.85	2.09	2.56	2.45	2.40	2.00	2.01	2.14	1.86	1.86	1.78
10	1.83	2.03	2.22	2.55	2.32	2.45	1.94	1.92	2.15	1.95	1.87	1.75
15	1.83	2.06	2.57	2.51	2.32	2.25	1.94	1.92	2.38	2.03	1.81	1.79
20	2.04	2.38	2.57	2.27	2.48	2.30	1.95	1.92	2.05	1.85	1.79	1.82
25	1.88	2.12	2.57	2.17	2.49	2.10	1.97	1.86	1.92	1.89	1.78	1.81
EOM	1.84	2.21	2.57	2.17	2.48	2.01	2.07	1.93	1.94	2.05	1.79	1.89

WTR YR 1986 MEAN 2.08 HIGH 2.69 DEC 11 LOW 1.75 SEP 8 AND OTHERS



03331040 PIKE LAKE AT WARSAW, IN

LOCATION.--Lat 41°15'44", long 85°51'00", in NE¼NW¼NE¼ sec.5, T.32 N., R.6 E., Kosciusko County, Hydrologic Unit 05120106 (LEESBURG, IN quadrangle). The gage is on the extreme northwestern point of the lake at the bridge over the outlet, 1.6 mi north of Warsaw.

SURFACE AREA.--203 acres.

DRAINAGE AREA.--41.5 mi^2.

PERIOD OF RECORD.--1954 to current year.

DATUM OF GAGE.--800.00 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well attached to the upstream abutment of the control structure.

ESTABLISHED LEGAL LEVEL.--5.64 ft gage datum or 805.64 ft above National Geodetic Vertical Datum of 1929 as decreed on Dec. 12, 1963, by the Kosciusko County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam with a fixed crest and removable boards.

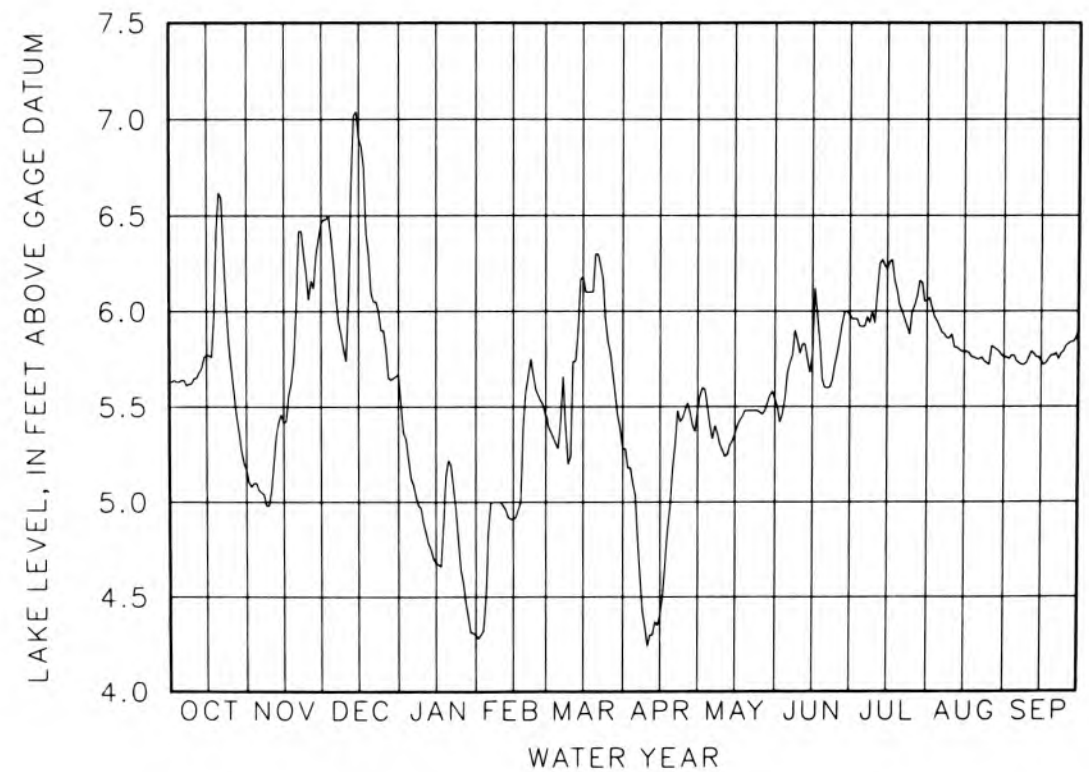
INLET AND OUTLET.--The one inlet, Deeds Creek, flows from Little Chapman Lake 3.4 mi upstream, and enters the lake on the lower northern shore. The outlet flows to the west from the extreme northern end of the lake and enters the Tippecanoe River 0.9 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 10.79 ft Oct. 15, 1954; minimum stage, 3.71 ft Sept. 21, 22, 1955.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
2400 HR VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.64	5.06	6.25	5.12	4.84	5.28	5.04	5.40	5.68	5.92	5.92	5.74
10	5.65	5.06	5.74	4.89	5.00	5.24	4.24	5.27	5.78	5.94	5.88	5.76
15	5.77	5.42	6.90	4.68	4.91	6.18	4.40	5.36	5.77	6.22	5.79	5.74
20	6.62	6.00	6.10	5.22	5.58	6.30	5.18	5.48	5.60	6.03	5.75	5.77
25	5.70	6.06	5.90	4.64	5.56	5.84	5.48	5.47	5.78	6.00	5.72	5.82
EOM	5.17	6.46	5.67	4.30	5.45	5.28	5.48	5.54	5.98	6.06	5.76	5.90

WTR YR 1986 MEAN 5.59 HIGH 7.04 DEC 14 LOW 4.24 APR 10



05515220 PINE LAKE AT LAPORTE, IN

LOCATION.--Lat 41°37'01", long 86°44'58", in NE¼SE¼NW¼ sec.34, T.37 N., R.3 W., LaPorte County, Hydrologic Unit 07120001 (LAPORTE EAST, IN quadrangle). The gage is at the highway bridge over the channel connecting Pine and Stone Lakes, on Waverly Beach Road, in LaPorte.

SURFACE AREA.--564 acres.

DRAINAGE AREA.--10.7 mi².

PERIOD OF RECORD.--1946-75, 1980 to current year.

DATUM OF GAGE.--780.00 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1964, the datum of the gage was 790.00 ft. All levels given below are at the present datum.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is driven into the channel bed at the same site.

ESTABLISHED LEGAL LEVEL.--16.20 ft gage datum or 796.20 ft above National Geodetic Vertical Datum of 1929, as decreed on Aug. 31, 1949, by the LaPorte County Circuit Court. Stone Lake at LaPorte has the same established level and hence the same lake levels during the periods of record when the channel between the two lakes is open and flowing, water years 1946-63 and 1968-85.

LAKE-LEVEL CONTROL.--Pine and Stone Lakes form a closed basin.

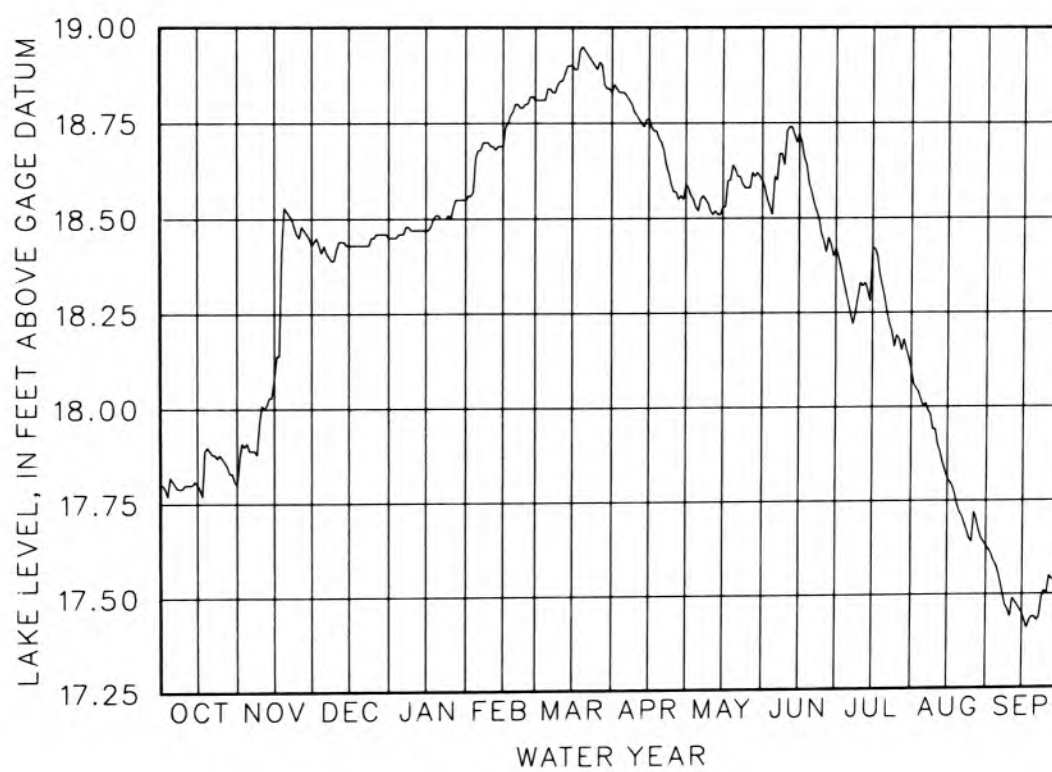
INLET AND OUTLET.--Kabelin Ditch enters Pine Lake from the northwest through a large drain tile. Pine Lake is connected to Stone Lake by a channel on the southern tip.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 20.81 ft May 7, 22, 1983; minimum stage, 9.00 ft Nov. 14, 1964.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
2400 HR VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	17.81	17.89	18.43	18.46	18.68	18.84	18.83	18.52	18.61	18.28	18.00	17.56
10	17.80	18.01	18.42	18.47	18.69	18.86	18.77	18.52	18.73	18.33	17.94	17.44
15	17.80	18.08	18.43	18.47	18.69	18.90	18.76	18.53	18.72	18.42	17.81	17.45
20	17.89	18.52	18.43	18.51	18.80	18.94	18.70	18.63	18.57	18.29	17.72	17.44
25	17.87	18.45	18.45	18.50	18.80	18.89	18.57	18.58	18.44	18.19	17.64	17.50
EOM	17.80	18.43	18.45	18.55	18.81	18.83	18.59	18.60	18.42	18.10	17.63	17.68

WTR YR 1986 MEAN 18.33 HIGH 18.95 MAR 19 LOW 17.41 SEP 17



05515800 RIDDLES LAKE NEAR LAKEVILLE, IN

LOCATION.--Lat 41°30'19", long 86°15'31", in NW¼NE¼ sec.11, T.35 N., R.2 E., St. Joseph County, Hydrologic Unit 07120001 (LAKEVILLE, IN quadrangle). The gage is on the east side of the lake, about 1.4 mi southeast of Lakeville.

SURFACE AREA.--77 acres.

DRAINAGE AREA.--11.7 mi^2.

PERIOD OF RECORD.--1946-71, 1976 to current year.

DATUM OF GAGE.--810.00 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is attached to a wingwall of the control dam.

ESTABLISHED LEGAL LEVEL.--7.50 ft gage datum or 817.50 ft above National Geodetic Vertical Datum of 1929 as decreed on July 3, 1953, by the St. Joseph County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a steel and concrete dam with a fixed crest. Boards may be added to raise the water level.

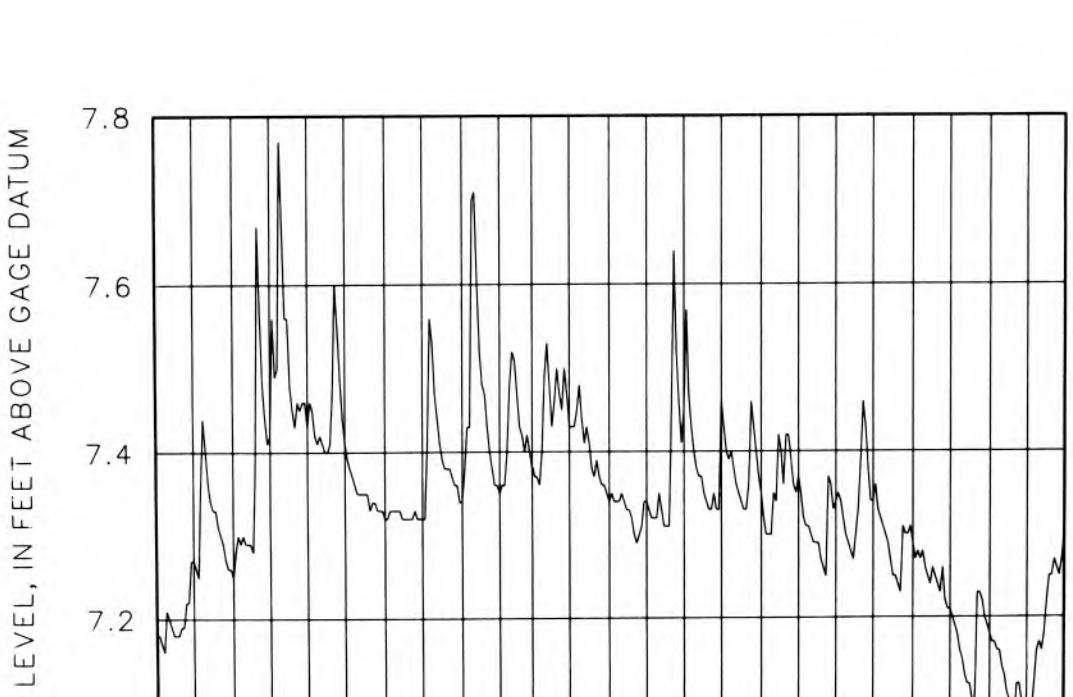
INLET AND OUTLET.--Heston ditch flows through the lake, entering on the northern shore and leaving on the southern. The outflow eventually enters Yellow River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 11.49 ft Apr. 5, 1950; minimum stage, 6.40 ft July 25-31, Aug. 1-9, 22-31, Sept. 1-30, 1971.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
2400 HR VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.20	7.29	7.42	7.33	7.71	7.49	7.35	7.38	7.35	7.29	7.26	7.14
10	7.19	7.67	7.47	7.32	7.43	7.50	7.30	7.33	7.42	7.39	7.24	7.07
15	7.27	7.42	7.41	7.32	7.35	7.43	7.34	7.46	7.37	7.34	7.21	7.09
20	7.40	7.67	7.35	7.47	7.52	7.44	7.35	7.38	7.30	7.30	7.15	7.17
25	7.31	7.43	7.33	7.38	7.40	7.37	7.45	7.33	7.26	7.24	7.09	7.25
EOM	7.25	7.43	7.32	7.34	7.38	7.34	7.45	7.35	7.34	7.29	7.18	7.30

WTR YR 1986 MEAN 7.34 HIGH 7.77 NOV 19 LOW 7.07 SEP 10 AND OTHERS



03330300 RIDINGER LAKE NEAR PIERCETON, IN

LOCATION.--Lat 41°15'07", long 85°39'34", in SW¼SW¼SE¼ sec.1, T.32 N., R.7 E., Whitley County, Hydrologic Unit 05120106 (NORTH WEBSTER, IN quadrangle). The gage is on the inlet channel, attached to the Adams Road bridge, 0.4 mi upstream from the lake and 4.4 mi northeast of Pierceton.

SURFACE AREA.--136 acres.

DRAINAGE AREA.--34.6 mi^2.

PERIOD OF RECORD.--1943 to current year.

DATUM OF GAGE.--840.00 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well attached to the right downstream wingwall of the bridge. An auxiliary staff gage in two sections is at the control dam.

ESTABLISHED LEGAL LEVEL.--3.12 ft gage datum or 843.12 ft above National Geodetic Vertical Datum of 1929, as decreed on Apr. 11, 1949, by the Kosciusko County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam with a fixed crest and a sluice-way with a steel gate for controlling high water. The dam is located in the outlet, 300 ft downstream from the lake.

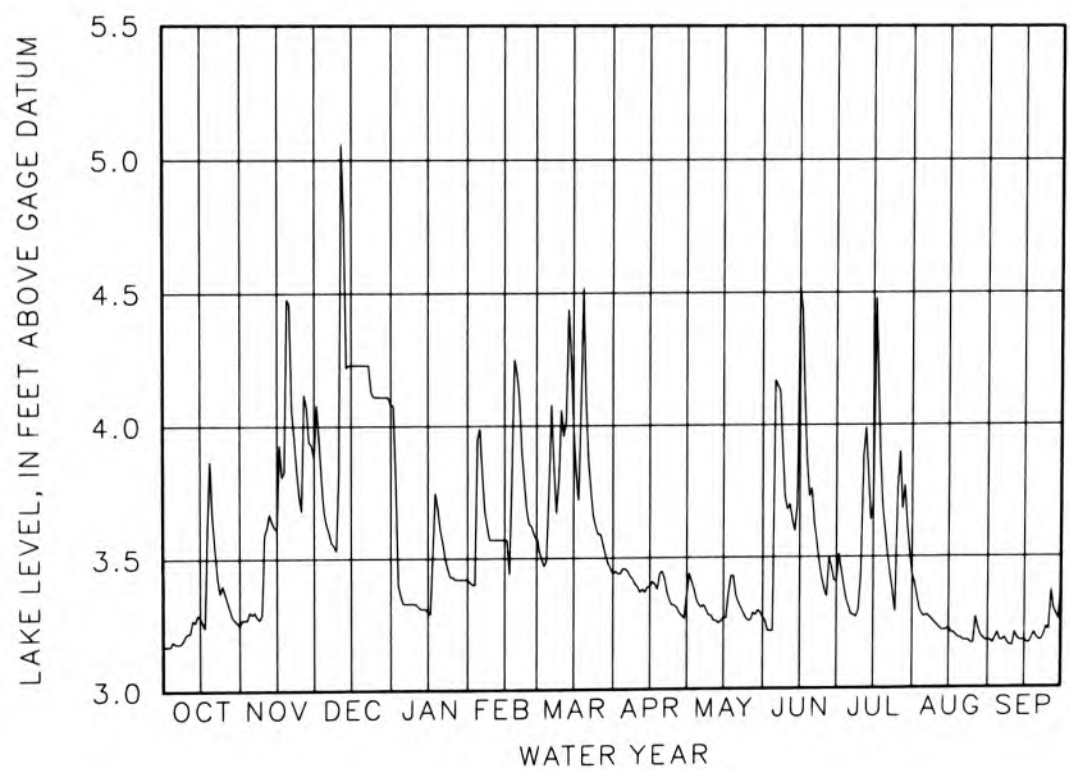
INLET AND OUTLET.--Grassy Creek flows through the lake, entering at the southwestern end. Grassy Creek is formed 1.5 mi upstream by the outlet of Robinson Lake and Cedar Lake Branch. Grassy Creek leaves the lake at the northwestern end and flows into Big Barbee Lake, 3.5 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 9.01 ft Feb. 24, 1985; minimum stage, 1.35 ft Jan. 17-19, 1944.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
2400 HR VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.18	3.29	3.63	3.33	3.99	3.77	3.46	3.32	4.17	3.31	3.27	3.18
10	3.22	3.59	3.82	3.33	3.57	4.06	3.39	3.28	3.68	3.44	3.24	3.16
15	3.28	3.61	4.23	3.30	3.57	4.00	3.39	3.27	4.52	3.70	3.23	3.18
20	3.66	4.46	4.23	3.61	4.20	4.12	3.45	3.36	3.76	3.59	3.19	3.19
25	3.37	3.68	4.11	3.43	3.63	3.59	3.32	3.26	3.38	3.76	3.17	3.22
EOM	3.25	3.88	4.08	3.42	3.57	3.44	3.36	3.27	3.41	3.43	3.18	3.37

WTR YR 1986 MEAN 3.54 HIGH 5.06 DEC 11 LOW 3.16 SEP 9 AND OTHERS



03330460 SAWMILL LAKE NEAR NORTH WEBSTER, IN

LOCATION.--Lat 41°17'22", long 85°42'52", in NE¼SW¼NE¼ sec.28, T.33 N., R.7 E., Kosciusko County, Hydrologic Unit 05120106 (NORTH WEBSTER, IN quadrangle). The gage is near the southeastern corner of the county road bridge over the channel between Big Barbee Lake and Little Barbee Lake, 2.6 mi southwest of North Webster.

SURFACE AREA.--36 acres.

DRAINAGE AREA.--51.8 mi^2.

PERIOD OF RECORD.--1945-1970, 1972 to current year.

DATUM OF GAGE.--830.00 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is attached to the stilling well.

ESTABLISHED LEGAL LEVEL.--7.50 ft gage datum or 837.50 ft above National Geodetic Vertical Datum of 1929 as decreed on Oct. 18, 1949, by the Kosciusko County Circuit Court. All lakes in the Barbee Chain have the same established level and hence the same lake levels for the period of record. The lakes are as follows: Kuhn, Big Barbee, Little Barbee, Irish, Banning, Sechrist and Sawmill.

LAKE-LEVEL CONTROL.--The level of the lakes is controlled by a concrete dam with a fixed crest, located 600 ft upstream of the County Road 500 North bridge over the outlet of Sawmill Lake.

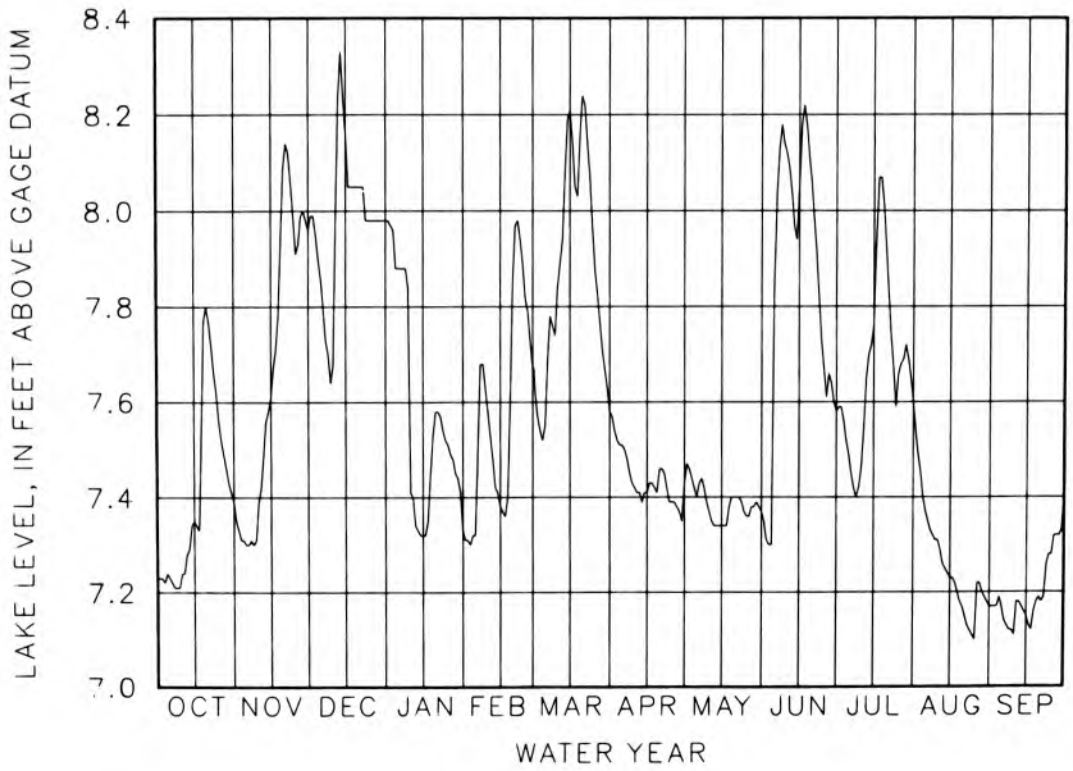
INLET AND OUTLET.--There are four inlets to the Barbee Chain. Grassy Creek flows into Big Barbee Lake at the southeastern side. The outlet of Heron Lake flows into Kuhn Lake from the north. Puntney ditch enters Little Barbee Lake from the south. The outlet from Shoe Lake flows into Banning Lake on the northeastern shore. The outlet, Grassy Creek, leaves Sawmill Lake at the northwestern tip and flows into Tippecanoe Lake 1.7 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 10.53 ft Mar. 20, 1982; minimum stage, 5.45 ft Jan. 29-31, Feb. 1-28, Mar. 1, 2, 1978.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
2400 HR VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.23	7.30	7.86	7.88	7.32	7.55	7.51	7.40	7.84	7.49	7.37	7.17
10	7.24	7.39	7.68	7.41	7.58	7.84	7.42	7.37	8.12	7.46	7.31	7.11
15	7.35	7.61	8.16	7.32	7.38	8.21	7.41	7.34	8.05	7.76	7.23	7.15
20	7.80	8.09	8.05	7.58	7.85	8.24	7.46	7.40	8.06	7.92	7.17	7.19
25	7.56	7.91	7.98	7.51	7.82	7.88	7.39	7.36	7.67	7.66	7.10	7.28
EOM	7.39	7.96	7.98	7.33	7.67	7.58	7.43	7.37	7.58	7.60	7.17	7.40

WTR YR 1986 MEAN 7.57 HIGH 8.33 DEC 13 LOW 7.10 AUG 25



03331120 SHERBURN LAKE NEAR PIERCETON, IN

LOCATION.--Lat 41°09'40", long 85°44'43", in SE¼SE¼SE¼ sec.4, T.31 N., R.7 E., Kosciusko County, Hydrologic Unit 05120106 (PIERCETON, IN quadrangle). The gage is at the extreme northern end of the lake on the outlet channel just south of County Road 500 South, 3.4 mi southwest of Pierceton.

SURFACE AREA.--15 acres.

DRAINAGE AREA.--5.51 mi^2.

PERIOD OF RECORD.--1954 to current year. (Formerly published as Johnson Lake near Pierceton.)

DATUM OF GAGE.--870.00 ft above National Geodetic Vertical Datum of 1929. Pior to Oct. 1, 1980, the datum of the gage was 880.00 ft. All levels listed below are at the present datum.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is driven into the lake bed just south of the western lobe of the lake, 400 ft south of County Road 500 South on the first drive west of the outlet.

ESTABLISHED LEGAL LEVEL.--11.00 ft gage datum or 881.00 ft above National Geodetic Vertical Datum of 1929.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by the invert of the culvert under the first east-west road north of the lake.

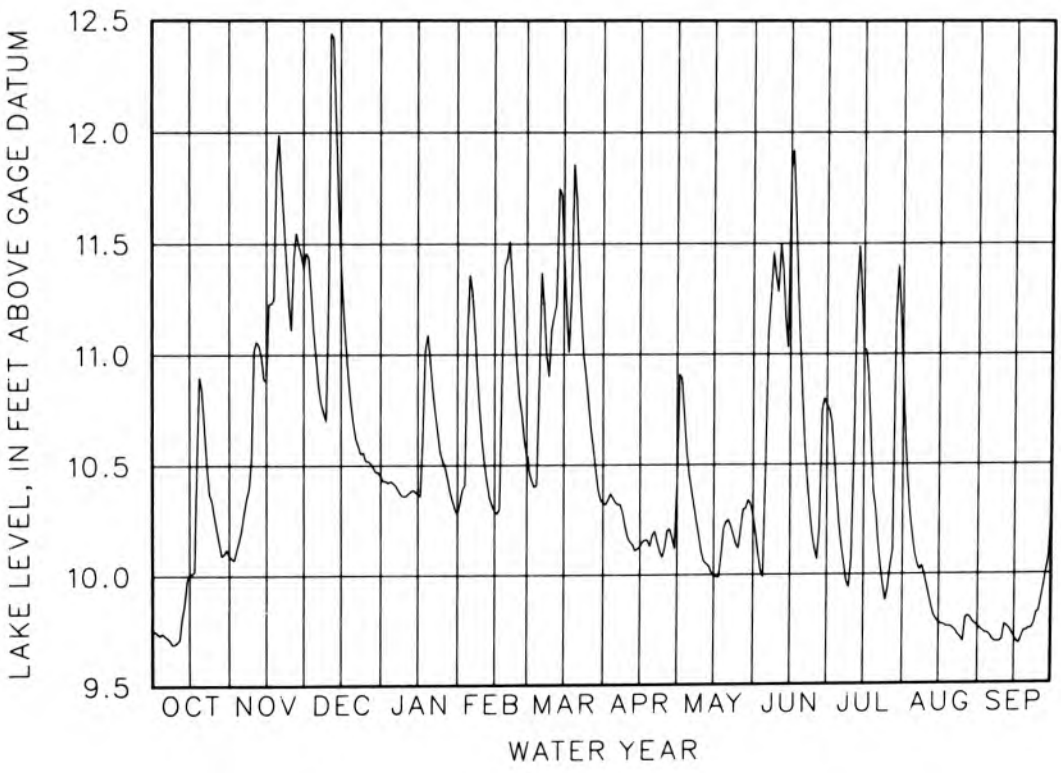
INLET AND OUTLET.--The one inlet flows from Sellers Lake 0.35 mi upstream. The outlet flows from the northern shore through Wyland ditch and into Winona Lake, 6.7 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 15.10 ft Feb. 24, 1985; minimum stage, 9.20 ft Sept. 14-18, 1983.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
2400 HR VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.73	10.21	10.98	10.42	11.36	10.84	10.33	10.45	10.50	10.23	10.10	9.72
10	9.70	11.02	11.26	10.36	10.60	11.11	10.17	10.10	11.28	10.07	9.95	9.70
15	10.01	10.88	11.42	10.37	10.29	11.46	10.13	10.00	11.83	11.02	9.78	9.71
20	10.84	11.99	10.69	10.97	11.43	11.71	10.18	10.24	10.81	10.30	9.76	9.74
25	10.27	11.11	10.52	10.52	10.81	10.79	10.12	10.12	10.12	9.94	9.69	9.83
EOM	10.09	11.39	10.45	10.28	10.54	10.33	10.41	10.27	10.77	10.93	9.76	10.28

WTR YR 1986 MEAN 10.49 HIGH 12.44 DEC 11 LOW 9.68 SEP 17



04099740 SHIPSHEWANA LAKE NEAR SHIPSHEWANA, IN

LOCATION.--Lat 41°40'53", long 85°36'03", in SE¼NE¼NE¼ sec.9, T.37 N., R.8 E., Lagrange County, Hydrologic Unit 04050001 (SHIPSHEWANA, IN quadrangle). The gage is on the south shore of the lake at the public fishing site, 1.1 mi northwest of Shipshewana.

SURFACE AREA.--202 acres.

DRAINAGE AREA.--6.74 mi^2.

PERIOD OF RECORD.--1951 to current year.

DATUM OF GAGE.--850.00 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is attached to a wingwall of the control dam at the extreme eastern end of the lake.

ESTABLISHED LEGAL LEVEL.--2.04 ft gage datum or 852.04 ft above National Geodetic Vertical Datum of 1929 as decreed on Mar. 8, 1956, by the Lagrange County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a sheet piling dam with a fixed crest at three elevations.

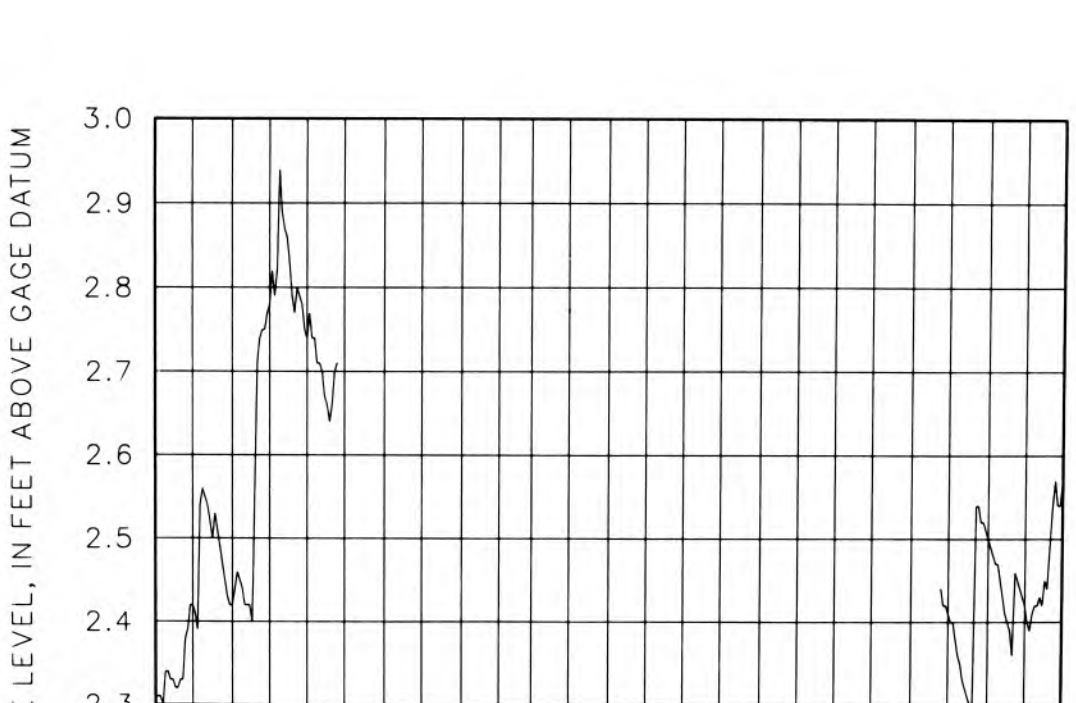
INLET AND OUTLET.--The principal inlet enters on the southern shore from Cotton Lake 2.0 mi upstream. Another small ditch enters on the western shore. The outlet is on the extreme eastern tip of the lake and flows to the northeast through Page ditch, which empties into Pigeon River, 6.1 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 3.33 ft Mar. 20, 1982; minimum stage, 1.39 ft Sept. 19-22, 1955.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
2400 HR VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.34	2.42	2.71								---	2.45
10	2.33	2.71	2.66								---	2.36
15	2.42	2.78	---								2.41	2.42
20	2.55	2.89	---								2.35	2.42
25	2.51	2.77	---								2.29	2.49
EOM	2.42	2.74	---								2.50	2.57

WTR YR 1986 MEAN 2.52 HIGH 2.94 NOV 19 LOW 2.29 AUG 25



03330380 SHOE LAKE NEAR OSWEGO, IN

LOCATION.--Lat 41°18'32", long 85°45'10", in SE¼SW¼SE¼ sec.18, T.33 N., R.7 E., Kosciusko County, Hydrologic Unit 05120106 (LEESBURG, IN quadrangle). The gage is on the extreme western end of the lake on County Road 475 East, 2.0 mi southeast of Oswego.

SURFACE AREA.--40 acres.

DRAINAGE AREA.--0.34 mi².

PERIOD OF RECORD --1946-52, 1972-74, 1977 to current year.

DATUM OF GAGE.--830.00 ft above National Geodetic Vertical Datum of 1929. Prior to 1972, the datum of the gage was 840.00 ft above National Geodetic Vertical Datum of 1929. All levels listed below are at the present datum.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--11.57 ft gage datum or 841.57 ft above National Geodetic Vertical Datum of 1929 as decreed on Oct. 18, 1948, by the Kosciusko County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by removable boards placed in wooden support posts in the outlet channe , upstream of the culvert under County Road 450 North.

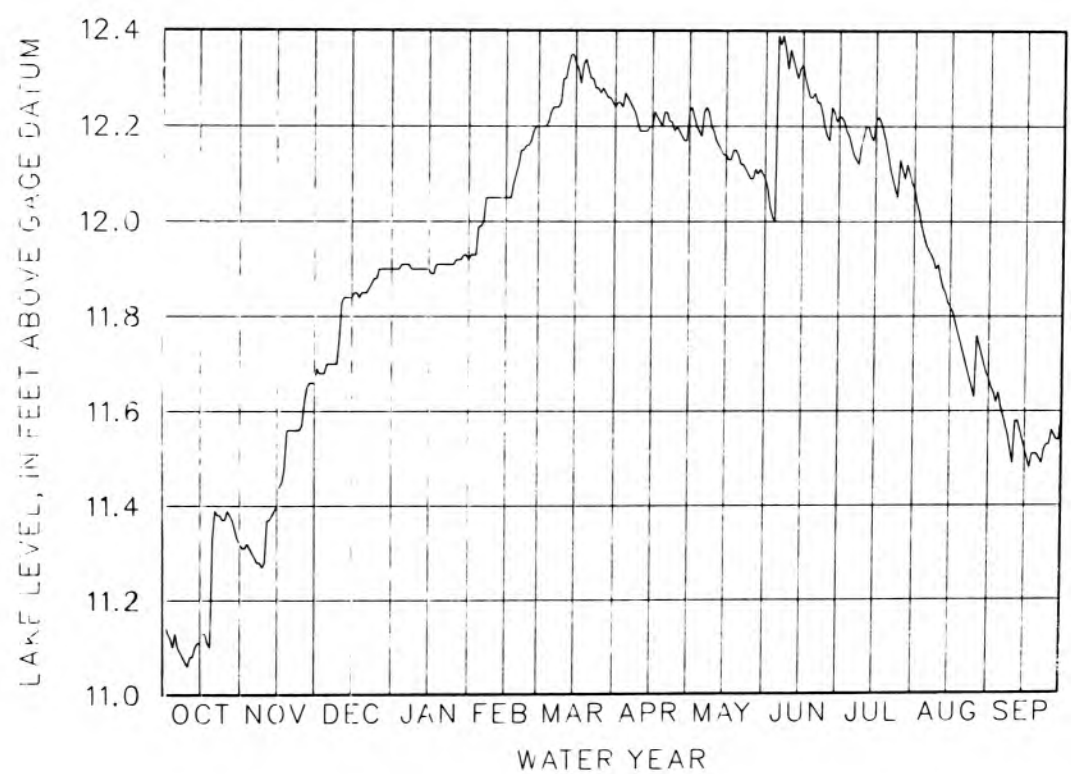
INLET AND OUTLET.--There is no inlet except for small drainage ditches. The outlet leaves the lake at the southeastern end and flows into Banning Lake 0.3 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 12.95 ft Dec. 13-15, 1972; minimum stage, 10.52 ft Feb. 10, 1977.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
2400 HR VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.13	11.30	11.70	11.91	11.99	12.23	12.26	12.18	12.39	12.16	11.95	11.61
10	11.06	11.38	11.75	11.90	12.05	12.30	12.19	12.19	12.36	12.18	11.91	11.49
15	11.11	11.40	11.84	11.90	12.06	12.33	12.20	12.14	12.33	12.21	11.82	11.52
20	11.33	11.56	11.85	11.91	12.12	12.32	12.23	12.14	12.27	12.14	11.73	11.51
25	11.37	11.57	11 88	11.91	12.17	12.27	12.20	12.09	12.18	12.13	11.63	11.53
EOM	11.32	11.56	11.90	11.92	12.20	12.24	12.23	12.09	12.22	12.07	11.67	11.60

WTR YR 1986 MEAN 11.90 HIGH 12.39 JUN 5 AND OTHERS LOW 11.06 OCT 10



03327650 SHRINER LAKE AT TRI-LAKES, IN

LOCATION.--Lat 41°14'37", long 85°26'24", in SE¼SW¼NW¼ sec.12, T.32 N., R.9 E., Whitley County, Hydrologic Unit 05120104 (COLUMBIA CITY, IN quadrangle). The gage is at the head of the outlet channel at the east end of the lake, 6.2 mi northeast of Columbia City.

SURFACE AREA.--111 acres.

DRAINAGE AREA.--0.94 mi².

PERIOD OF RECORD.--1943-74, 1976-78, 1980 to current year.

DATUM OF GAGE.--900.20 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage in one section is attached to the concrete head wall at the outlet.

ESTABLISHED LEGAL LEVEL.--6.84 ft gage datum or 907.04 ft above National Geodetic Vertical Datum of 1929.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam in the outlet channel 300 ft downstream of the lake.

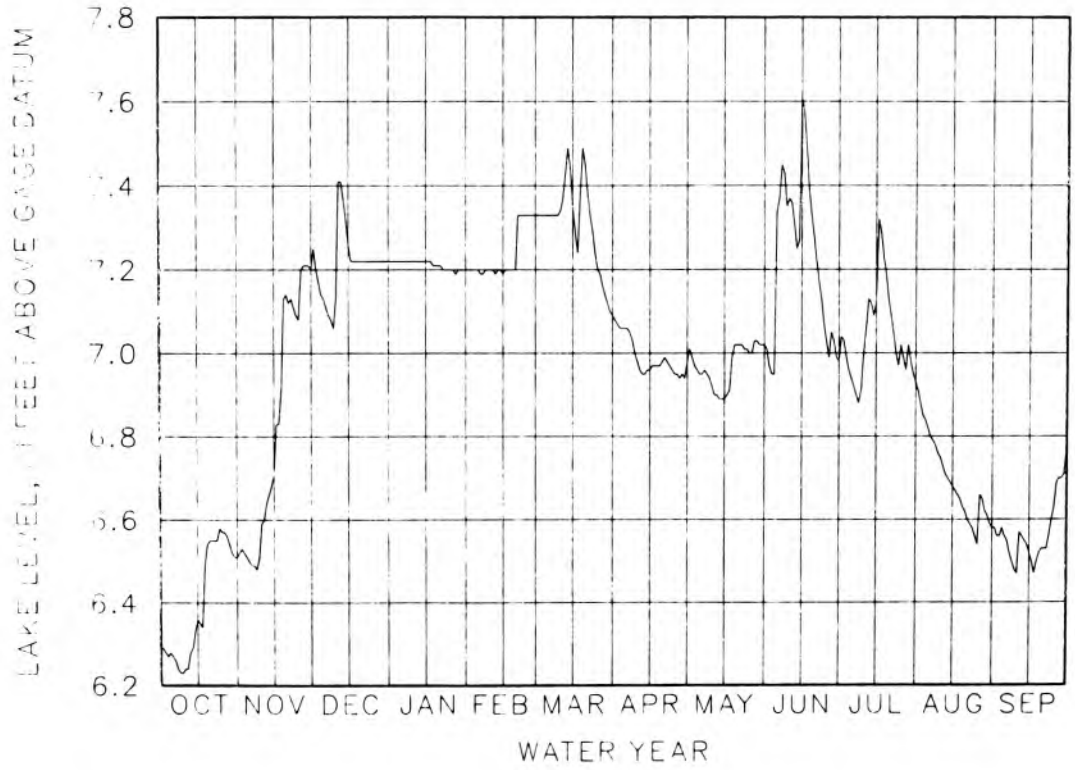
INLET AND OUTLET.--A ditch from Catfish Lake, 650 ft upstream, enters at the extreme western end of the lake. Two small ditches enter on the southern shore. The outlet is a dredged channel at the eastern edge of the lake that empties into Round Lake 930 ft downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 8.16 ft Apr. 4, 5, 1950; minimum stage, 5.44 ft Dec. 9-11, 23-30, 1944.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
2400 HR VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.27	6.50	7.13	7.22	7.20	7.33	7.06	6.95	7.34	6.94	6.82	6.56
10	6.24	6.59	7.13	7.22	7.20	7.34	6.98	6.92	7.37	7.00	6.75	6.47
15	6.36	6.71	7.26	7.22	7.19	7.45	6.96	6.89	7.61	7.12	6.68	6.52
20	6.55	7.14	7.22	7.21	7.20	7.45	6.98	7.02	7.28	7.13	6.62	6.53
25	6.57	7.08	7.22	7.20	7.33	7.20	6.95	7.00	7.03	7.02	6.54	6.63
EOM	6.51	7.20	7.22	7.20	7.33	7.09	6.98	7.02	6.98	6.93	6.58	6.79

WTR YR 1986 MEAN 6.97 HIGH 7.61 JUN 15 LOW 6.23 OCT 8 AND OTHERS



03328350 SILVER LAKE AT SILVER LAKE, IN

LOCATION.--Lat 41°04'49", long 85°54'29", in SE¼SE¼NE¼ sec.1, T.30 N., R.5 E., Kosciusko County, Hydrologic Unit 05120104 (SILVER LAKE, IN quadrangle). The gage is located at the outlet channel on the west side of the lake, approximately 30 feet above the control structure and 1.1 mi northwest of the town of Silver Lake.

SURFACE AREA.--102 acres.

DRAINAGE AREA.--6.31 mi^2.

PERIOD OF RECORD.--1947 to current year.

DATUM OF GAGE.--859.85 ft above National Geodetic Vertical Datum of 1929 (determined from State of Indiana, Department of Natural Resources levels of 1974). Prior to 1974, the datum of the gage was 860.00 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage in one section is attached to the dam.

ESTABLISHED LEGAL LEVEL.--1.88 ft gage datum or 861.73 ft above National Geodetic Vertical Daum of 1929 as decreed on Sept. 20, 1948, by the Kosciusko County Circuit Court. North Little Lake at Silver Lake has the same established level and hence the same lake levels for the period of record.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a steel sheet piling dam with a fixed crest.

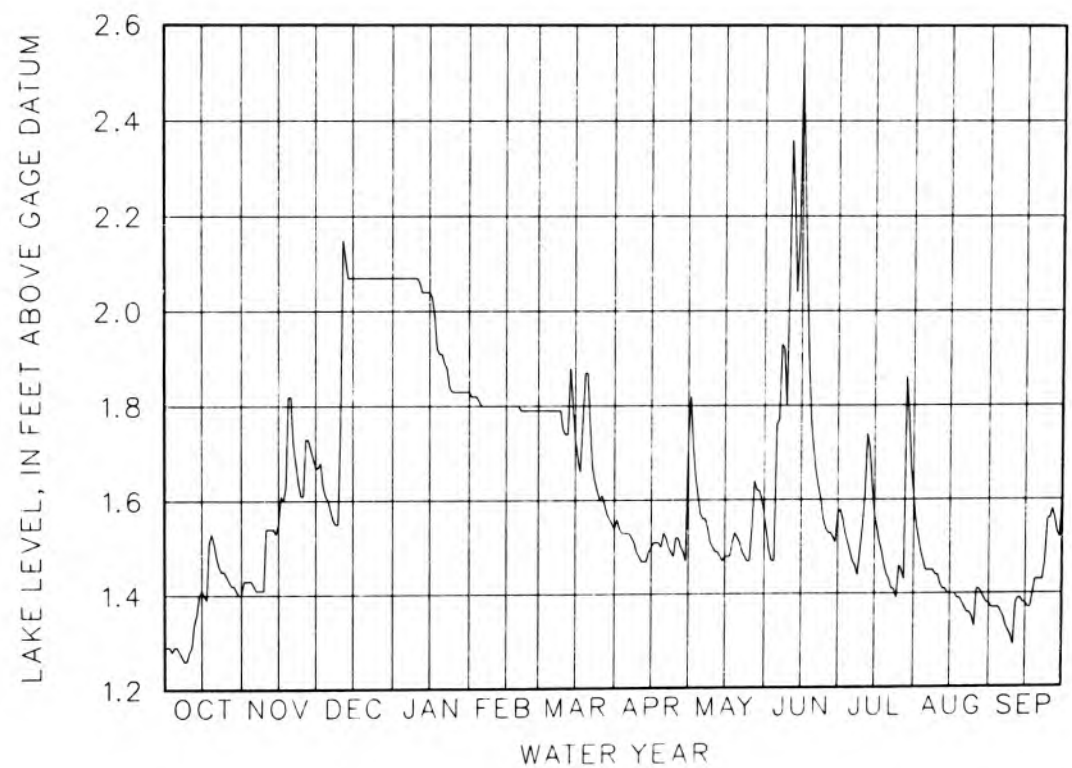
INLET AND OUTLET.--The outlet from North Little Lake enters from the north and two ditches enter from the east and southeast. The outlet leaves from the western side and flows into South Little Lake, then into Silver Creek, which joins Eel River 12 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 3.80 ft Dec. 10, 1966; minimum stage, -0.20 ft Sept. 21, 1959.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
2400 HR VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	1.29	1.42	1.60	2.07	1.80	1.79	1.53	1.57	1.76	1.49	1.45	1.36
10	1.28	1.54	1.75	2.07	1.80	1.75	1.48	1.50	2.09	1.54	1.44	1.29
15	1.41	1.55	2.07	2.04	1.80	1.73	1.50	1.48	2.52	1.57	1.40	1.38
20	1.51	1.82	2.07	1.91	1.80	1.87	1.53	1.52	1.71	1.44	1.38	1.43
25	1.44	1.61	2.07	1.83	1.79	1.60	1.52	1.47	1.54	1.46	1.33	1.56
EOM	1.40	1.67	2.07	1.83	1.79	1.54	1.73	1.57	1.57	1.61	1.38	1.61

WTR YR 1986 MEAN 1.63 HIGH 2.52 JUN 15 LOW 1.26 OCT 8 AND OTHERS



04099880 SIMONTON LAKE NEAR ELKHART, IN

LOCATION.--Lat 41°45'05", long 85°57'28", in NE¼NE¼NW¼ sec.16, T.38 N., R.5 E., Elkhart County, Hydrologic Unit 04050001 (ELKHART, IN quadrangle). The gage is on the southern shore between the two large lobes of the lake, at the public fishing site, 4.5 mi north of the main Post Office in Elkhart.

SURFACE AREA.--303 acres.

DRAINAGE AREA.--7.44 mi².

PERIOD OF RECORD.--1946 to current year.

DATUM OF GAGE.--770.00 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--2.19 ft gage datum or 772.19 ft above National Geodetic Vertical Datum of 1929 as decreed on Sept. 25, 1950, by the Elkhart County Circuit Court.

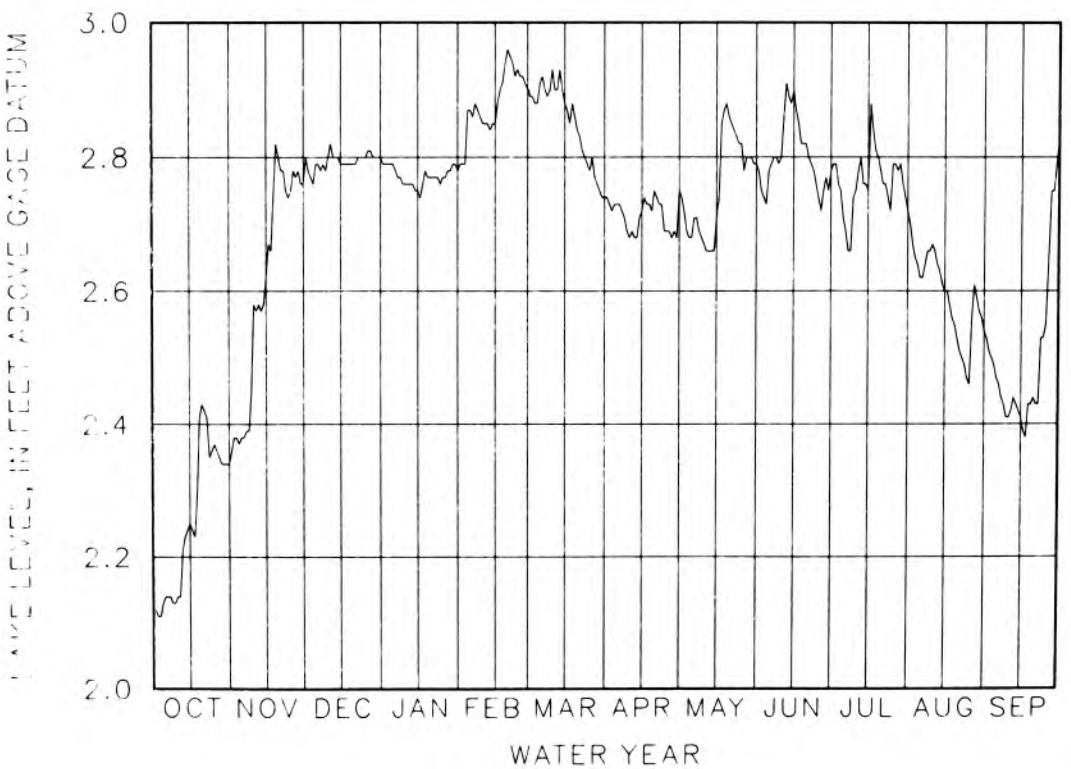
LAKE-LEVEL CONTROL.--The level of the lake is controlled by the outlet channel.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 3.42 ft Feb. 24, 1985; minimum stage, 1.36 ft Sept. 7, 1946.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
2400 HR VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.14	2.38	2.79	2.79	2.87	2.91	2.73	2.68	2.78	2.71	2.62	2.47
1	2.14	2.58	2.80	2.76	2.85	2.93	2.68	2.67	2.80	2.75	2.67	2.41
1	2.25	2.62	2.79	2.75	2.85	2.88	2.72	2.71	2.90	2.75	2.60	2.41
2	2.43	2.80	2.79	2.77	2.96	2.84	2.75	2.86	2.82	2.78	2.53	2.44
2	2.37	2.75	2.80	2.77	2.92	2.78	2.69	2.82	2.74	2.79	2.46	2.55
EOM	2.34	2.76	2.80	2.78	2.90	2.74	2.75	2.79	2.78	2.72	2.54	2.83

WTR YR 1986 MEAN 2.69 HIGH 2.96 FEB 20 LOW 2.11 OCT 2 AND OTHERS



04100300 SKINNER LAKE NEAR ALBION, IN

LOCATION.--Lat 41°24'12", long 85°22'37", in SE¼SE¼NW¼ sec.16, T.34 N., R.10 E., Noble County, Hydrologic Unit 04050001 (ALBION, IN quadrangle). The gage is on the upstream side of the bridge over the outlet channel on the northwest lobe of the lake, and 2.5 mi northeast of Albion.

SURFACE AREA.--125 acres.

DRAINAGE AREA.--14.0 mi^2.

PERIOD OF RECORD.--1945-72, 1976 to current year.

DATUM OF GAGE.--920.00 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is driven into the channel bed at the same site.

ESTABLISHED LEGAL LEVEL.--7.74 ft gage datum or 927.74 ft above National Geodetic Vertical Datum of 1929, as decreed on Aug. 31, 1955, by the Noble County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a steel sheet piling dam with a fixed crest.

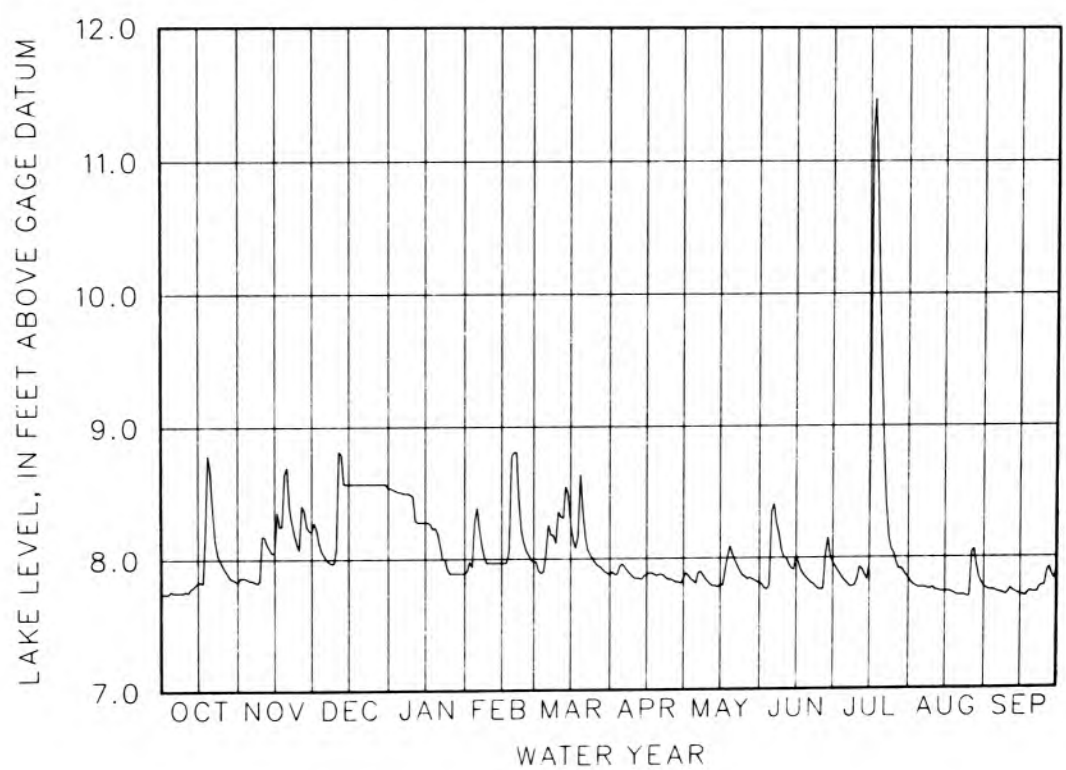
INLET AND OUTLET.--Rimmell Branch enters the lake on the southern shore, a small ditch enters on the southeast tip, and the outlet channel of Sweet Lake flows into the lake from the northeast. The outlet, Croft ditch, flows from the lake on the south shore of the northwest lobe, and into the South Branch of the Elkhart River, 5.6 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 12.60 ft Apr. 5, 1950; minimum stage, 6.14 ft Oct. 16, 17, 1946.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
2400 HR VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.75	7.84	8.03	8.51	8.39	8.04	7.96	7.81	8.35	7.82	7.77	7.74
10	7.76	8.18	8.08	8.48	7.97	8.36	7.85	7.82	8.00	7.84	7.77	7.73
15	7.83	8.05	8.57	8.28	7.97	8.27	7.88	7.80	8.02	7.96	7.74	7.71
20	8.66	8.70	8.57	8.20	8.81	8.37	7.88	8.03	7.83	9.36	7.71	7.73
25	7.95	8.07	8.57	7.89	8.06	7.97	7.84	7.86	7.76	8.03	7.70	7.78
EOM	7.83	8.21	8.54	7.89	7.98	7.88	7.85	7.81	7.96	7.84	7.77	7.91

WTR YR 1986 MEAN 8.05 HIGH 11.47 JUL 17 LOW 7.70 AUG 24 AND OTHERS



03330140 SMALLEY LAKE NEAR WASHINGTON CENTER, IN

LOCATION.--Lat 41°18'52", long 85°35'04", in SW¼NW¼SE¼ sec.15, T.33 N., R.8 E., Noble County, Hydrologic Unit 05120106 (ORMAS, IN quadrangle). The gage is located on the north side of the outlet channel, 300 ft upstream from the first bridge over the outlet, and 0.9 mi southeast of Washington Center.

SURFACE AREA.--69 acres.

DRAINAGE AREA.--27.1 mi^2.

PERIOD OF RECORD.--1943 to current year.

DATUM OF GAGE.--880.00 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 24-inch diameter stilling well. An auxiliary staff gage is driven into the channel bed.

ESTABLISHED LEGAL LEVEL.--Not established.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a riffle in the outlet channel 500 ft below the lake.

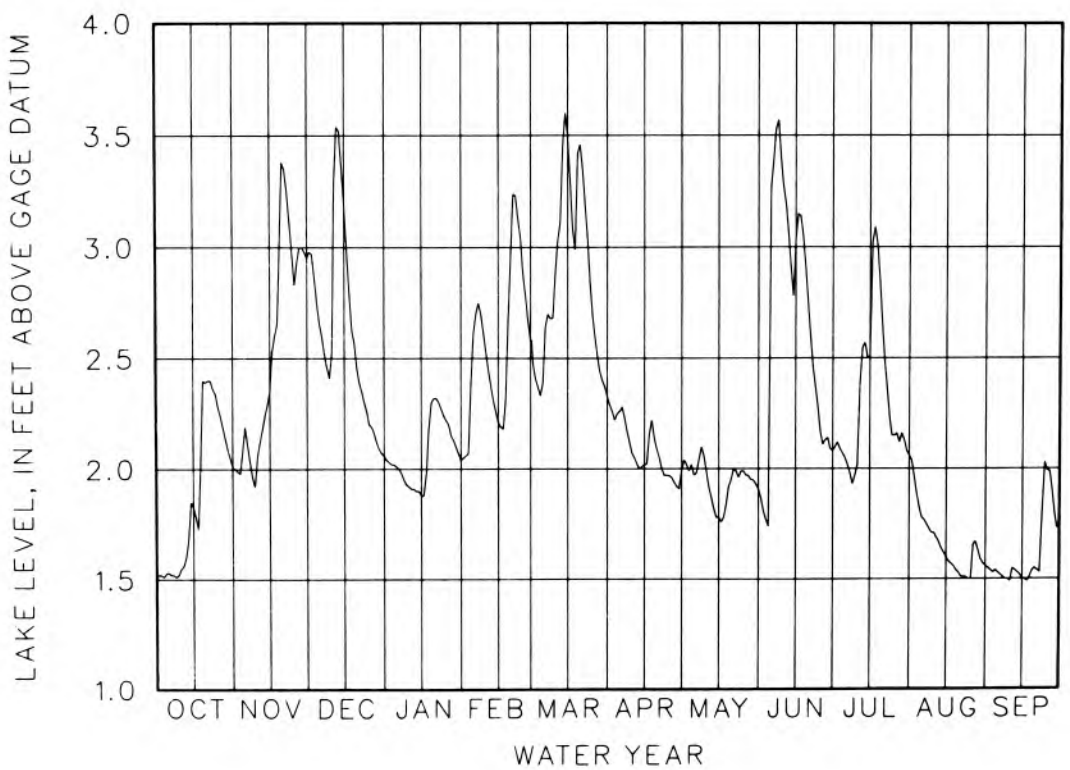
INLET AND OUTLET.--The Tippecanoe River flows through the lake, entering at the south end from Big Lake, 4.2 mi upstream, and flowing from the lake at the northwestern end into Baugher Lake, 1.2 mi downstream. Another inlet enters on the north shore from Gilbert Lake, 0.9 mi upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 7.00 ft Mar. 24, 1978; minimum stage, 1.10 ft Aug. 7, 1963.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
2400 HR VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	1.53	2.19	2.66	2.01	2.61	2.39	2.26	1.97	3.27	2.05	1.78	1.53
10	1.55	2.06	2.52	1.92	2.53	2.88	2.07	1.99	3.27	2.02	1.71	1.49
15	1.83	2.35	3.19	1.88	2.21	3.50	2.02	1.78	3.03	2.51	1.60	1.50
20	2.39	3.38	2.46	2.32	2.95	3.46	2.09	1.95	2.75	2.65	1.53	1.55
25	2.28	2.83	2.20	2.22	2.88	2.70	1.97	1.99	2.17	2.15	1.50	1.99
EOM	2.01	2.95	2.06	2.04	2.58	2.33	1.99	1.91	2.08	2.06	1.56	1.77

WTR YR 1986 MEAN 2.23 HIGH 3.60 MAR 14 LOW 1.49 SEP 10 AND OTHERS



04099780 STONE LAKE NEAR SCOTT, IN

LOCATION.--Lat 41°44'32", long 85°39'03", in SE¼SE¼SW¼ sec.18, T.38 N., R.8 E., Lagrange County, Hydrologic Unit 04050001 (MIDDLEBURY, IN quadrangle). The gage is on the southeast shore of the lake approximately 200 ft west of the intersection of County Road 1150 West and the lake access road, and 5.4 mi northeast of Middlebury.

SURFACE AREA.--152 acres.

DRAINAGE AREA.--1.51 mi^2.

PERIOD OF RECORD.--1954-71, 1975-76, 1978 to current year.

DATUM OF GAGE.--810.00 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--8.76 ft gage datum or 818.76 ft above National Geodetic Vertical Datum of 1929 as decreed on July 28, 1966, by the Lagrange County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a fixed-crest concrete sill.

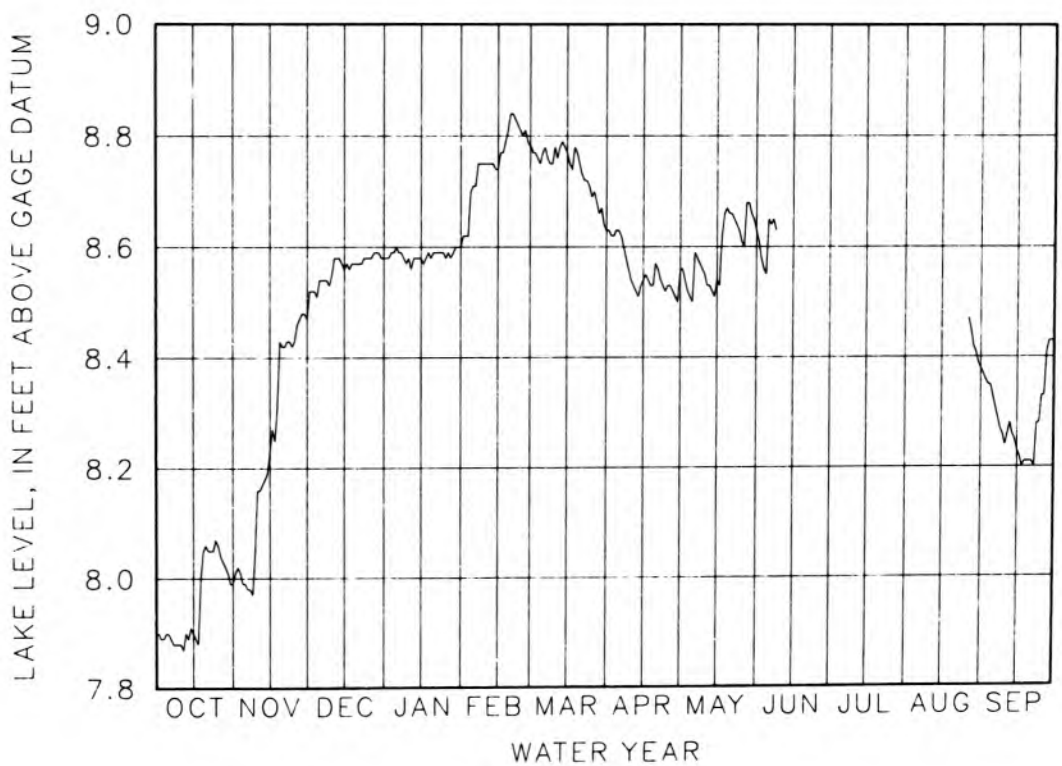
INLET AND OUTLET.--The inlet enters on the eastern end of the south shore from Brokesha Lake 0.2 mi upstream. The outlet flows from the lake at the northern shore.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 9.60 ft Apr. 16-30, 1969; minimum stage, 5.34 ft Nov. 26, 1964.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
2400 HR VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.90	7.99	8.54	8.60	8.71	8.77	8.63	8.50	8.65		---	8.33
10	7.88	8.16	8.55	8.58	8.75	8.78	8.54	8.55	---		---	8.24
15	7.90	8.23	8.56	8.58	8.74	8.77	8.54	8.54	---		---	8.23
20	8.06	8.42	8.57	8.59	8.84	8.75	8.57	8.66	---		---	8.21
25	8.06	8.43	8.58	8.58	8.80	8.69	8.53	8.61	---		---	8.33
EOM	7.99	8.47	8.58	8.60	8.78	8.63	8.56	8.63	---		8.38	8.43

WTR YR 1986 MEAN 8.48 HIGH 8.84 FEB 20 AND OTHERS LOW 7.87 OCT 11



04100180 SYLVAN LAKE AT ROME CITY, IN

LOCATION.--Lat 41°29'53", long 85°22'38", in SE¼SE¼SW¼ sec.9, T.35 N., R.10 E., Noble County, Hydrologic Unit 04050001 (ALBION, IN quadrangle). The gage is at the south, upstream side of the bridge over the outlet on the extreme western end of the lake, and at the northern edge of Rome City.

SURFACE AREA.--669 acres.

DRAINAGE AREA.--33.8 mi².

PERIOD OF RECORD.--1943 to current year.

DATUM OF GAGE.--907.00 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1978, the datum of the gage was 910.00 ft. The annual extreme levels given below are at the present datum.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is attached to the north downstream wall of the footbridge.

ESTABLISHED LEGAL LEVEL.--9.20 ft present gage datum or 916.20 ft above National Geodetic Vertical Datum of 1929 as decreed on June 14, 1951, by the Noble County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam with movable gates.

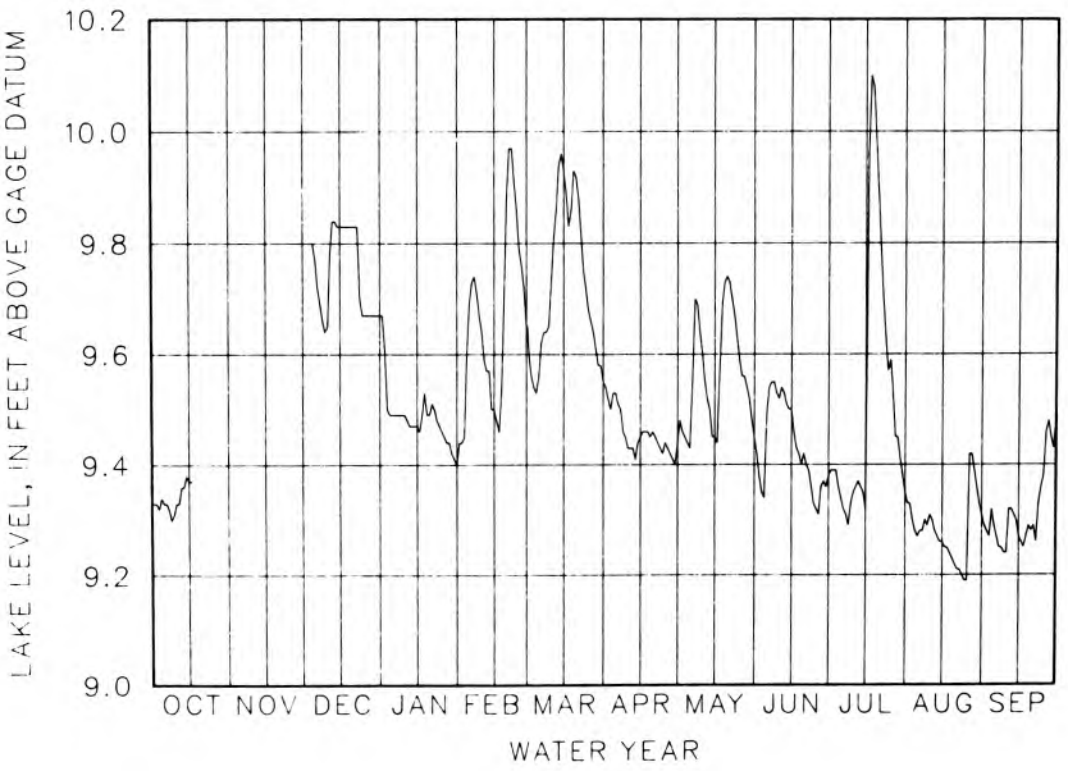
INLET AND OUTLET.--Barr Lake, 0.2 mi upstream, empties into Sylvan Lake on the southeast shore of the northwest lobe. Oviatt ditch and Henderson Lake ditch both enter the lake on the extreme eastern end. The outlet flows from the lake at the western tip, into Jones Lake 2.8 mi downstream and eventually into the North Branch of the Elkhart River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 10.76 ft Feb. 25 1985; minimum stage, 2.72 ft Nov. 8, 1979.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
2400 HR VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.33		9.77	9.49	9.69	9.56	9.53	9.43	9.49	9.34	9.27	9.29
10	9.33		9.65	9.49	9.64	9.73	9.43	9.60	9.52	9.35	9.31	9.24
15	9.37		9.83	9.47	9.50	9.93	9.45	9.45	9.50	9.32	9.26	9.27
20	---		9.83	9.49	9.88	9.92	9.46	9.74	9.42	9.89	9.22	9.28
25	---		9.67	9.46	9.79	9.68	9.44	9.59	9.32	9.59	9.19	9.38
EOM	---		9.67	9.40	9.65	9.55	9.44	9.45	9.38	9.35	9.31	9.49

WTR YR 1986 MEAN 9.51 HIGH 10.10 JUL 17 LOW 9.19 AUG 24 AND OTHERS



04100460 SYRACUSE LAKE AT SYRACUSE, IN

LOCATION.--Lat 41°25'26", long 85°44'59", in SW¼SW¼ sec.5, T.34 N., R.7 E., Kosciusko County, Hydrologic Unit 04050001 (LAKE WAWASEE, IN quadrangle). The gage is at the southwestern end of the lake, on the south abutment of the dam, and just west of the State Road 13 bridge in the town of Syracuse.

SURFACE AREA.--414 acres.

DRAINAGE AREA.--38.2 mi².

PERIOD OF RECORD.--1943 to current year.

DATUM OF GAGE.--849.85 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder is installed in a concrete shelter over a stilling well in the south abutment of the control structure. Two auxiliary staff gages are at the site. One is attached to the upstream side of the south abutment and the other is bolted to the seawall just west of the bridge over the outlet.

ESTABLISHED LEGAL LEVEL.--8.02 ft gage datum or 857.87 ft above National Geodetic Vertical Datum of 1929 as decreed on Sept. 20, 1948, by the Kosciusko County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam with two steel lift gates.

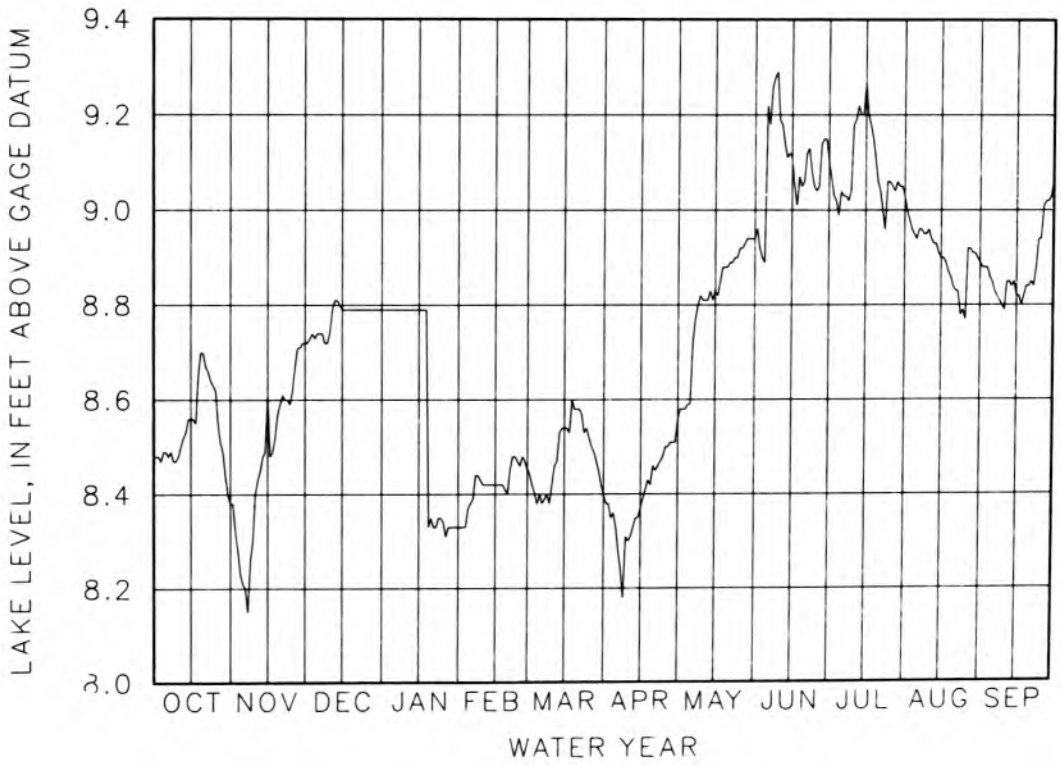
INLET AND OUTLET.--The one inlet is the outlet channel from Lake Wawasee on the southern shore of the lake. The outlet, Turkey Creek, flows from the lake at the southwest end and eventually into the Elkhart River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 10.15 ft Jan. 27, 28, 1950; minimum stage, 7.00 ft Nov. 19-21, 1953.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
2400 HR VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.49	8.21	8.74	8.79	8.38	8.40	8.33	8.59	9.22	9.04	8.94	8.85
10	8.48	8.40	8.74	8.79	8.42	8.42	8.30	8.81	9.19	9.18	8.96	8.79
15	8.56	8.61	8.79	8.79	8.42	8.54	8.37	8.83	9.11	9.27	8.90	8.82
20	8.70	8.59	8.79	8.35	8.40	8.58	8.46	8.88	9.06	9.06	8.84	8.84
25	8.62	8.62	8.79	8.34	8.46	8.52	8.50	8.92	9.04	9.06	8.77	8.94
EOM	8.38	8.72	8.79	8.33	8.45	8.40	8.56	8.94	9.10	9.03	8.89	9.06

WTR YR 1986 MEAN 8.71 HIGH 9.29 JUN 9 LOW 8.15 NOV 7



03330480 TIPPECANOE LAKE AT OSWEGO, IN

LOCATION.--Lat 41°19'15", long 85°47'20", in NW¼NE¼NE¼ sec.14, T.33 N., R.6 E., Kosciusko County, Hydrologic Unit 05120106 (LEESBURG, IN quadrangle). The gage is on the south side of the dam at the extreme southwest end of the lake, in the outlet channel, at Oswego.

SURFACE AREA.--768 acres.

DRAINAGE AREA.--113 mi^2.

PERIOD OF RECORD.--1943 to current year.

DATUM OF GAGE.--830.00 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is attached to the upstream side of the south abutment of the dam.

ESTABLISHED LEGAL LEVEL.--6.40 ft gage datum or 836.40 ft above National Geodetic Vertical Datum of 1929 as decreed on Oct. 18, 1949, by the Kosciusko County Circuit Court. James Lake at Oswego and Oswego Lake at Oswego have the same established level and hence the same lake levels for the period of record.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam with multiple slide gates on the outlet channel of the lake.

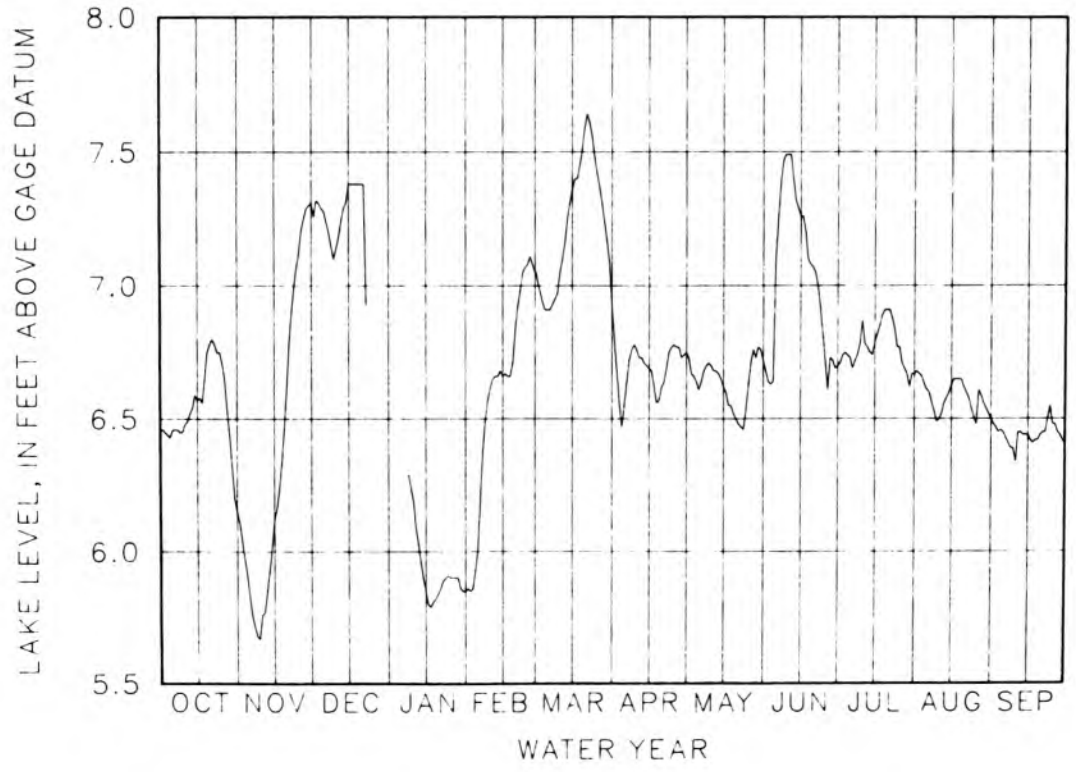
INLET AND OUTLET.--The lake has two principal inlets. The Tippecanoe River flows from Webster Lake, enters James Lake, and flows into Tippecanoe Lake on the eastern side. The outlet from the Barbee Chain of Lakes enters from the southeast. The outlet, the Tippecanoe River, leaves the lake on the southwestern side.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 9.43 ft May 21, 1943; minimum stage, 4.90 ft Feb. 13-17, 1963.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
2400 HR VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.46	5.83	7.28	---	6.01	6.91	6.55	6.61	7.11	6.73	6.61	6.45
10	6.48	5.76	7.14	6.19	6.62	7.05	6.76	6.70	7.49	6.87	6.50	6.34
15	6.57	6.12	7.38	5.85	6.66	7.36	6.69	6.62	7.26	6.79	6.63	6.44
20	6.78	6.61	7.38	5.84	6.83	7.59	6.62	6.50	7.07	6.91	6.62	6.44
25	6.71	7.12	---	5.90	7.08	7.42	6.78	6.63	6.72	6.77	6.48	6.48
EOM	6.15	7.31	---	5.85	7.05	6.93	6.75	6.72	6.70	6.67	6.50	6.41

WTR YR 1986 MEAN 6.68 HIGH 7.64 MAR 21 LOW 5.67 NOV 9



04100320 UPPER LONG LAKE NEAR WOLFLAKE, IN

LOCATION.--Lat 41°21'33", long 85°29'09", in NE¼NE¼SE¼ sec.33, T.34 N., R.9 E., Noble County, Hydrologic Unit 04050001 (MERRIAM, IN quadrangle). The gage is on the northeast shore of the lake, at the northernmost boat slip, and 1.8 mi north-northeast of the town of Wolflake.

SURFACE AREA.--86 acres.

DRAINAGE AREA.--2.08 mi².

PERIOD OF RECORD.--1956 to current year.

DATUM OF GAGE.--880.00 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is also located in the boat slip.

ESTABLISHED LEGAL LEVEL.--11.19 ft gage datum or 891.19 ft above National Geodetic Vertical Datum of 1929.

LAKE-LEVEL CONTROL.--The lake level is controlled by a fixed-sill concrete dam.

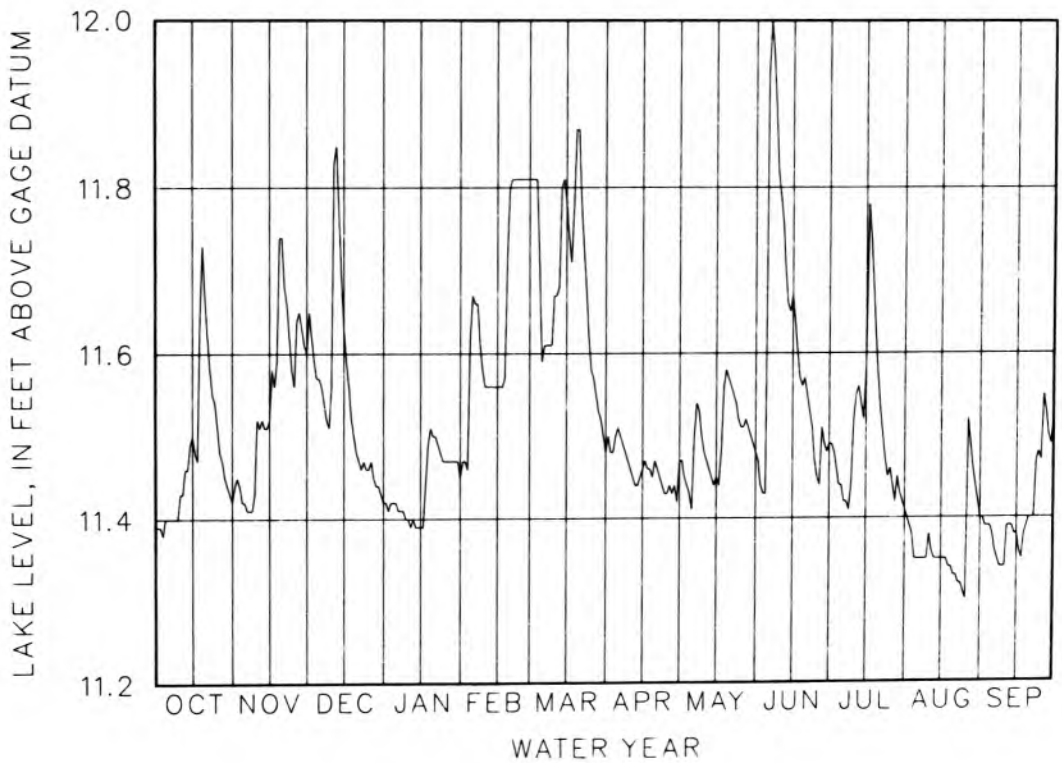
INLET AND OUTLET.--There is one inlet that enters the lake from the eastern side. The outlet flows to the north through Dollar Lake, and eventually into the South Branch Elkhart River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 13.40 ft June 27, 1968; minimum stage, 9.95 ft May 11, 1970.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
2400 HR VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.40	11.42	11.57	11.42	11.67	11.59	11.51	11.41	11.94	11.44	11.35	11.38
10	11.43	11.52	11.56	11.40	11.56	11.67	11.46	11.48	11.79	11.52	11.38	11.34
15	11.50	11.52	11.63	11.39	11.56	11.78	11.46	11.45	11.67	11.58	11.35	11.38
20	11.67	11.74	11.48	11.50	11.80	11.87	11.47	11.57	11.57	11.57	11.33	11.40
25	11.51	11.56	11.46	11.47	11.81	11.58	11.43	11.51	11.45	11.46	11.30	11.47
EOM	11.42	11.60	11.42	11.45	11.81	11.48	11.47	11.48	11.49	11.41	11.40	11.52

WTR YR 1986 MEAN 11.52 HIGH 12.00 JUN 6 LOW 11.30 AUG 25



03276800 VERSAILLES LAKE NEAR VERSAILLES, IN

LOCATION.--Lat 39°04'50", long 85°14'02", in NE¼NE¼SW¼ sec.6, T.7 N., R.12 E., Ripley County, Hydrologic Unit 05090203 (MILAN, IN quadrangle). The gage is on the eastern side of the lake, on the downstream side of the bridge over Falling Timber Creek in Versailles State Park.

SURFACE AREA.--232 acres.

DRAINAGE AREA.--168 mi^2.

PERIOD OF RECORD.--1958 to current year.

GAGE.--A water-stage recorder installed in an aluminum shelter over a 12-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--Not established.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete spillway dam with a movable gate.

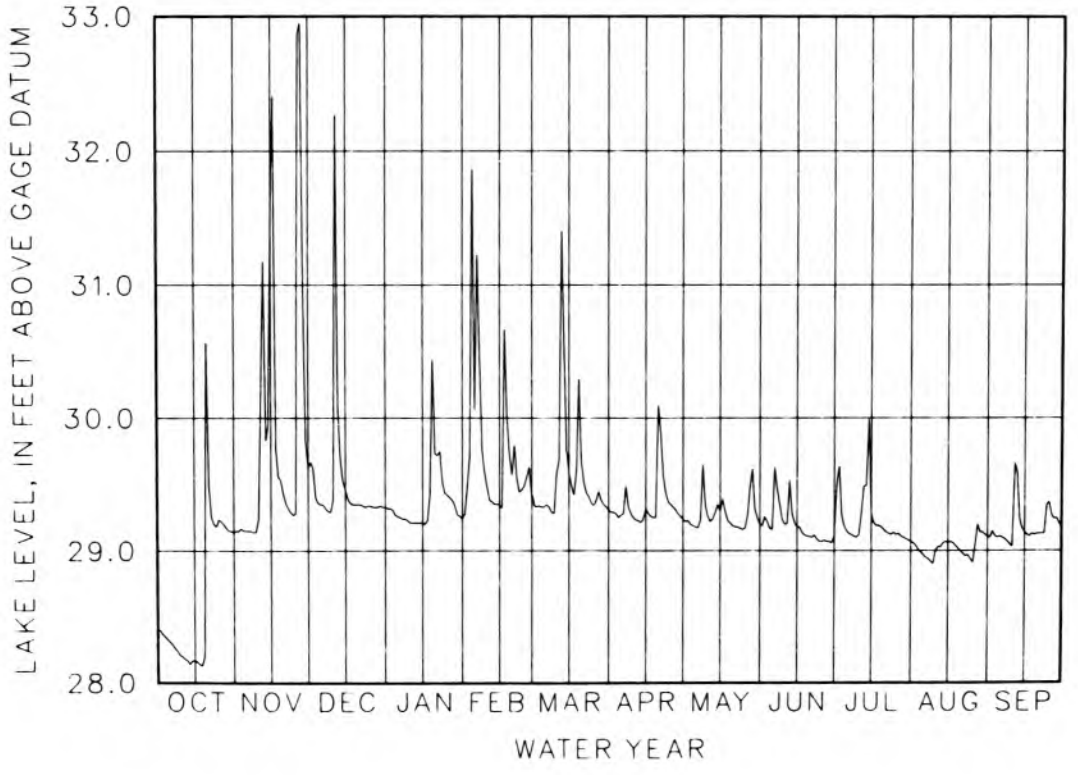
INLET AND OUTLET.--The inlets are Laughery Creek, Falling Timber Creek, and Cedar Creek. The outlet is Laughery Creek, which flows southeasterly and empties into the Ohio River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 36.43 ft Jan. 21, 1959, as determined by the U.S. Geological Survey from high-water marks during an indirect measurement of discharge; minimum stage, 18.05 ft Apr. 12, 1970.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
2400 HR VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	28.31	29.15	29.35	29.26	30.06	29.33	29.27	29.18	29.16	29.15	28.97	29.11
10	28.20	29.24	29.39	29.21	29.48	29.59	29.25	29.26	29.20	29.12	29.01	29.03
15	28.17	31.54	29.46	29.21	29.35	29.59	29.32	29.30	29.18	29.28	29.06	29.14
20	30.57	29.43	29.35	29.73	29.57	29.67	30.10	29.19	29.11	29.16	29.00	29.13
25	29.24	29.28	29.34	29.42	29.49	29.34	29.35	29.17	29.07	29.12	28.91	29.37
EOM	29.14	29.62	29.33	29.24	29.41	29.31	29.24	29.20	29.11	29.07	29.11	29.17

WTR YR 1986 MEAN 29.33 HIGH 32.95 NOV 27 LOW 28.13 OCT 18



04100220 WALDRON LAKE NEAR COSPERVILLE, IN

LOCATION.--Lat 41°29'34", long 85°26'55", in SE¼NW¼NE¼ sec.14, T.35 N., R.9 E., Noble County, Hydrologic Unit 04050001 (ALBION, IN quadrangle). The gage is on a dredged channel at the public fishing site west of County Road 125 West at Dukes Bridge, and 6.8 mi northwest of Albion.

SURFACE AREA.--216 acres.

DRAINAGE AREA.--134 mi^2.

PERIOD OF RECORD.--1948 to current year.

DATUM OF GAGE.--880.00 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary wire-weight gage is attached to the upstream side of Dukes Bridge.

ESTABLISHED LEGAL LEVEL.--5.55 ft gage datum or 885.55 ft above National Geodetic Vertical Datum of 1929 as decreed on May 6, 1968, by the Noble County Circuit Court. Jones, Steinbarger and Tamarack Lakes, all near Cosperville, have the same established level as Waldron Lake and hence the same lake levels for the period of record.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a fixed-crest concrete dam with removable boards.

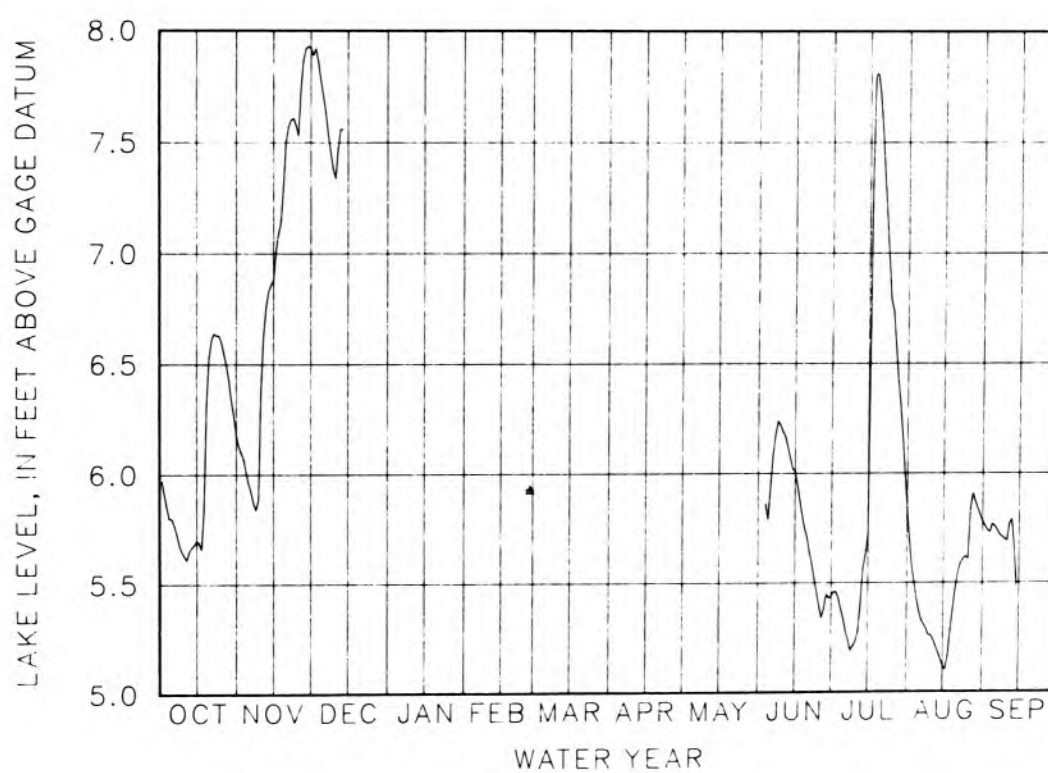
INLET AND OUTLET.--The North Branch of the Elkhart River flows through the lake, entering through Jones Lake at the north and leaving at the west end of Waldron Lake. Another inlet enters at the southeast from Steinbarger Lake, 0.1 mi upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 10.16 ft Mar. 22, 1982; minimum stage, 4.44 ft Aug. 9-11, Sept. 14-17, 1964.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
2400 HR VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.80	5.96	7.71		---				5.95	5.34	5.37	5.76
10	5.63	6.39	7.34		---				6.19	5.23	5.26	5.69
15	5.70	6.88	---		---				6.01	5.73	5.12	.00
20	6.53	7.50	---		---				5.71	7.56	5.48	---
25	6.60	7.53	---		---				5.40	6.74	5.61	---
EOM	6.18	7.92	---		---				5.44	5.85	5.78	---

WTR YR 1986 MEAN 6.16 HIGH 7.93 NOV 29 LOW 5.10 AUG 15



05517600 WAUHOB LAKE NEAR VALPARAISO, IN

LOCATION.--Lat 41°32'02", long 87°02'42", in NW¼NW¼NW¼ sec.31, T.36 N., R.5 W., Porter County, Hydrologic Unit 07120001 (CHESTERTON, IN quadrangle). The gage is on the northwest shore of the lake, 4.7 mi north of Valparaiso.

SURFACE AREA.--21 acres.

DRAINAGE AREA.--0.40 mi^2.

PERIOD OF RECORD.--1946 to current year.

DATUM OF GAGE.--790.00 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A staff gage in one section is driven into the lake bed, 75 ft from Arthur J. Knoblich's cottage. An auxiliary staff gage is 20 ft lakeward of the main gage.

ESTABLISHED LEGAL LEVEL.--Not established.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by the outlet channel.

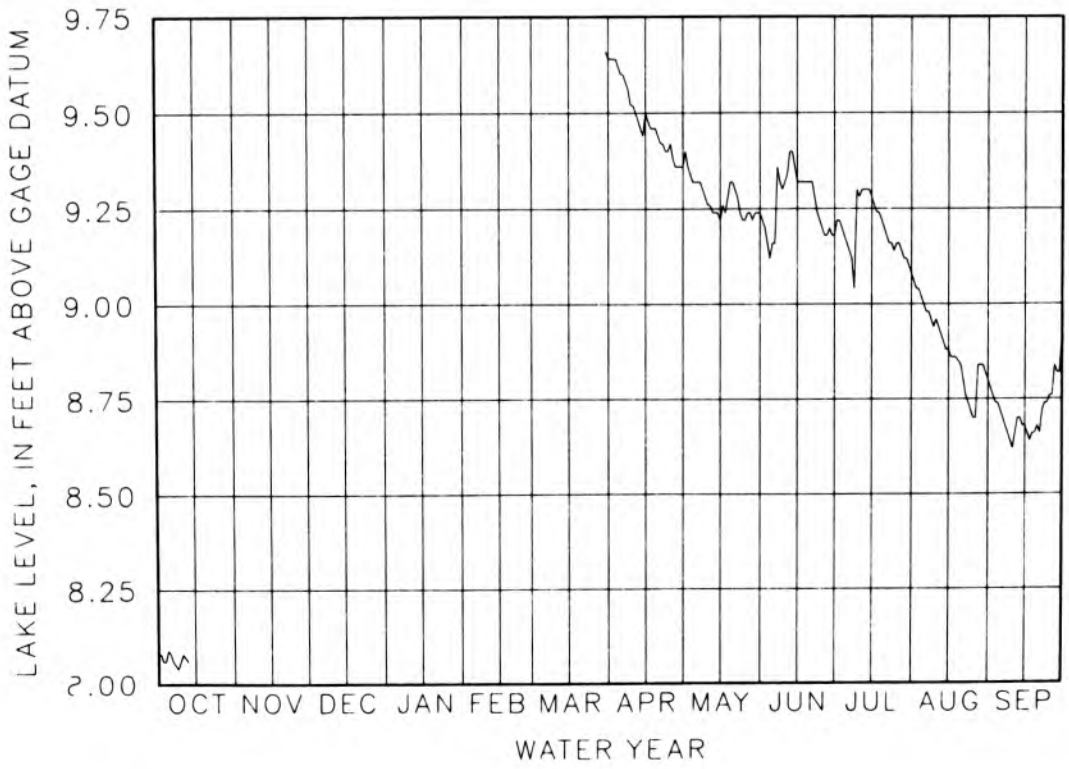
INLET AND OUTLET.--The lake has one inlet entering on the northeast side from Mink Lake, 0.3 mi upstream. The outlet flows from the southeast shore, southwesterly through a swamp to Canada Lake, 0.3 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 11.05 ft Apr. 23, 1973; minimum stage, 6.58 ft Sept. 17, 1964.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
2400 HR VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.08					---	9.60	9.32	9.16	9.16	9.00	8.72
10	8.08					---	9.52	9.26	9.32	9.28	8.96	8.62
15	---					---	9.50	9.22	9.32	9.28	8.88	8.68
20	---					---	9.44	9.32	9.32	9.20	8.84	8.68
25	---					---	9.42	9.22	9.20	9.16	8.70	8.76
EOM	---					9.64	9.36	9.24	9.18	9.08	8.80	8.92

WTR YR 1986 MEAN 9.08 HIGH 9.66 MAR 30 LOW 8.04 OCT 8



03330240 WEBSTER LAKE AT NORTH WEBSTER, IN

LOCATION.--Lat 41°19'09", long 85°41'20", in NE¼SW¼NW¼ sec.14, T.33 N., R.7 E., Kosciusko County, Hydrologic Unit 05120106 (NORTH WEBSTER, IN quadrangle). The gage is on the southwest side of the lake at the outlet, 0.3 mi northeast of the intersection of State Road 13 and County Road 550 North and approximately 0.6 mi southeast of the center of North Webster.

SURFACE AREA.--774 acres.

DRAINAGE AREA.--49.2 mi^2.

PERIOD OF RECORD.--1943 to current year.

DATUM OF GAGE.--839.93 ft above National Geodetic Vertical Datum of 1929 (from levels of State of Indiana, Department of Natural Resources, 1973-74).

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage in one section is bolted to the southeast face of the concrete wall of the approach channel to the control dam.

ESTABLISHED LEGAL LEVEL.--12.82 ft gage datum or 852.75 ft above National Geodetic Vertical Datum of 1929 as decreed July 2, 1945, by the Kosciusko County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete notch dam with seven adjustable gates at the head of the outlet channel.

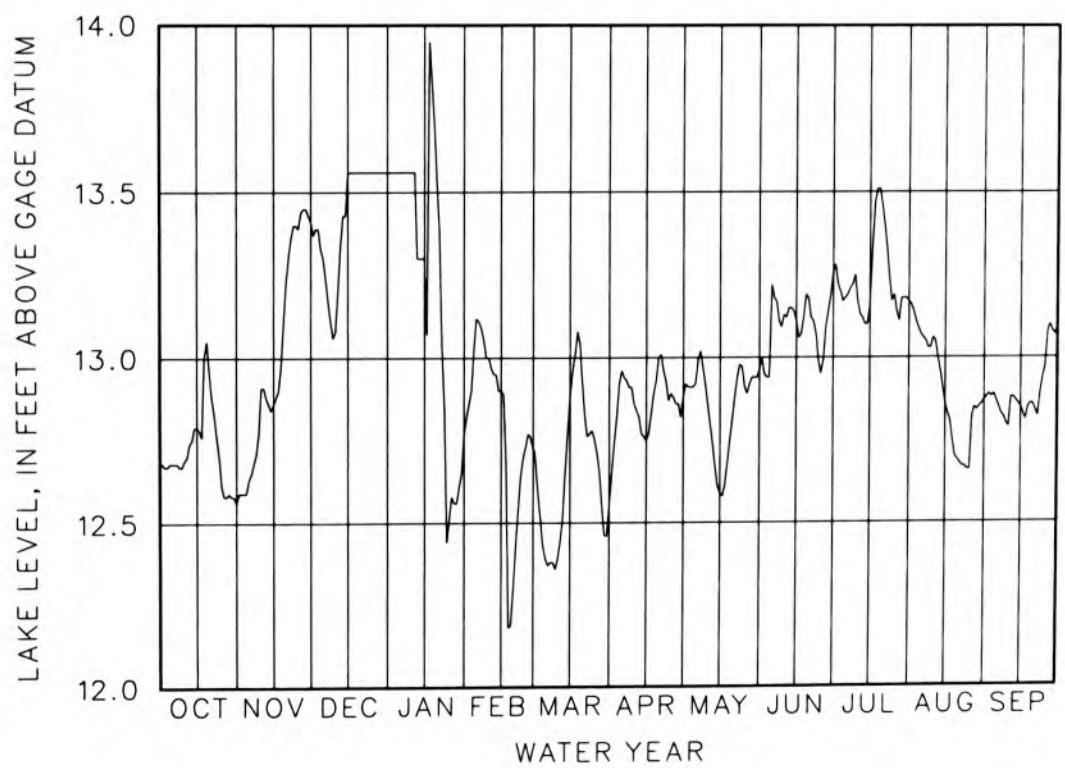
INLET AND OUTLET.--The Tippecanoe River flows through Webster Lake, entering at the southeast end and leaving at the southwest side. The Tippecanoe River enters James Lake, 2.1 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 15.15 ft Feb. 11, 1984; minimum stage, 9.79 ft (during repair of the dam) Oct. 5, 1962.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
2400 HR VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	12.68	12.63	13.30	13.56	13.12	12.39	12.96	12.92	13.22	13.18	13.07	12.87
10	12.69	12.91	13.08	13.56	13.00	12.39	12.86	12.86	13.13	13.17	13.06	12.79
15	12.79	12.86	13.56	13.30	12.90	12.88	12.75	12.59	13.11	13.16	12.86	12.85
20	12.96	13.22	13.56	13.53	12.30	12.92	13.00	12.81	13.18	13.46	12.69	12.86
25	12.61	13.39	13.56	12.51	12.73	12.75	12.89	12.91	12.95	13.19	12.66	12.97
EOM	12.56	13.41	13.56	12.77	12.72	12.55	12.88	12.96	13.26	13.17	12.87	13.09

WTR YR 1986 MEAN 12.97 HIGH 13.95 JAN 17 LOW 12.18 FEB 18



05514770 WHARTON LAKE NEAR SOUTH BEND, IN

LOCATION.--Lat 41°36'11", long 86°18'36", in NW¼SW¼NW¼ sec.4, T.36 N., R.2 E., St. Joseph County, Hydrologic Unit 07120001 (LAKEVILLE, IN quadrangle). The gage is on the east side of the lake, in a channel west of a storage shed at the Calvert Rod and Gun Club property, and 5.7 mi northwest of Lakeville.

SURFACE AREA.--18 acres (measured on U.S. Geological Survey topographic map, scale 1:24000).

DRAINAGE AREA.--1.85 mi^2.

PERIOD OF RECORD.--1960-76, 1982 to current year.

DATUM OF GAGE.--770.00 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--Not established.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a 48-inch round concrete tile in the outlet channel.

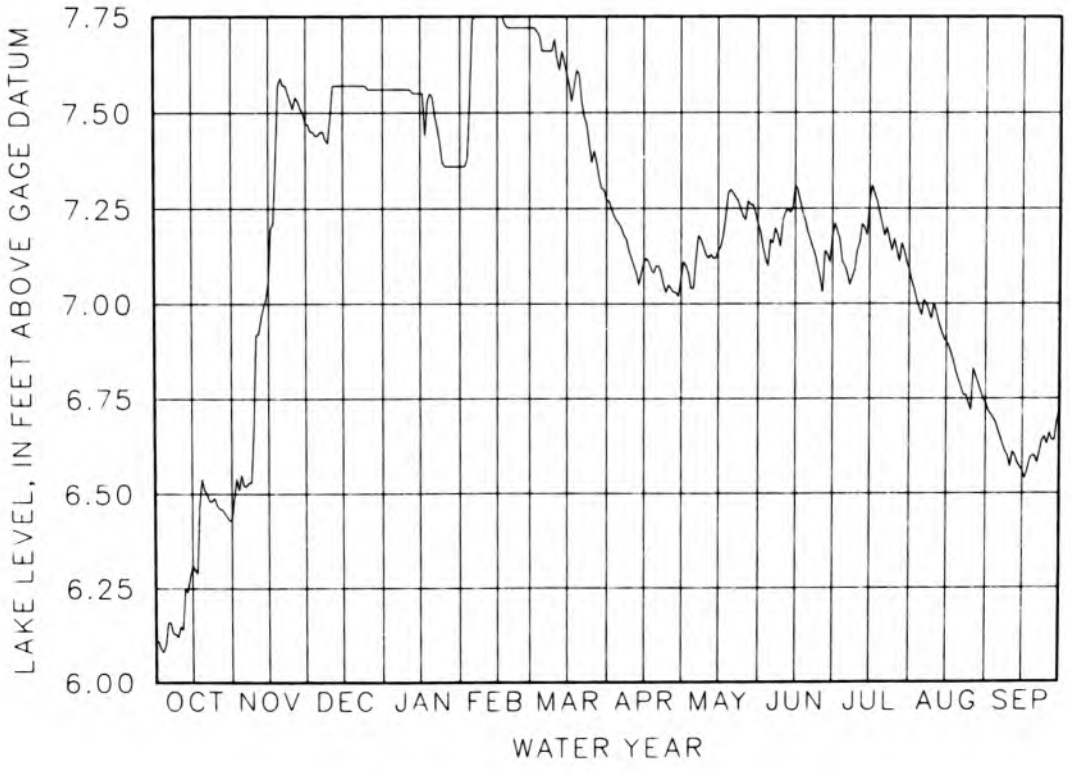
INLET AND OUTLET.--The one inlet enters the lake on the southeastern shore and drains the immediately surrounding area. The outlet flows from the lake on the western shore.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 8.41 ft Feb. 24, 1985; minimum stage, 4.97 ft Aug. 31, 1962.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
2400 HR VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.16	6.52	7.44	7.56	7.74	7.66	7.21	7.04	7.17	7.10	6.97	6.67
10	6.15	6.92	7.49	7.56	7.75	7.69	7.12	7.13	7.22	7.14	7.00	6.57
15	6.31	7.06	7.57	7.55	7.75	7.60	7.11	7.14	7.31	7.27	6.90	6.56
20	6.51	7.59	7.57	7.54	7.72	7.60	7.10	7.30	7.19	7.21	6.80	6.60
25	6.47	7.51	7.56	7.36	7.72	7.37	7.05	7.23	7.07	7.17	6.72	6.63
EOM	6.43	7.47	7.56	7.36	7.72	7.27	7.07	7.21	7.18	7.09	6.74	6.72

WTR YR 1986 MEAN 7.15 HIGH 7.75 FEB 6 AND OTHERS LOW 6.08 OCT 3



03331140 WINONA LAKE AT WARSAW, IN

LOCATION.--Lat 41°13'34", long 85°50'46", in NW¼NE¼SE¼ sec.17, T.32 N., R.6 E., Kosciusko County, Hydrologic Unit 05120106 (WARSAW, IN quadrangle). The gage is on the western side of the lake, 20 ft east of the dam on the northern side of the outlet channel, 1.0 mi south of Warsaw.

SURFACE AREA.--562 acres.

DRAINAGE AREA.--32.1 mi^2.

PERIOD OF RECORD.--1943-78, 1980 to current year.

DATUM OF GAGE.--800.10 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 17, 1977, the datum of the gage was 810.10 ft above National Geodetic Vertical Datum of 1929. All levels listed below are at the present datum.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is attached to the stilling well.

ESTABLISHED LEGAL LEVEL.--10.96 ft gage datum or 811.06 ft above National Geodetic Vertical Datum of 1929.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete fixed-crest dam with steel lift gates.

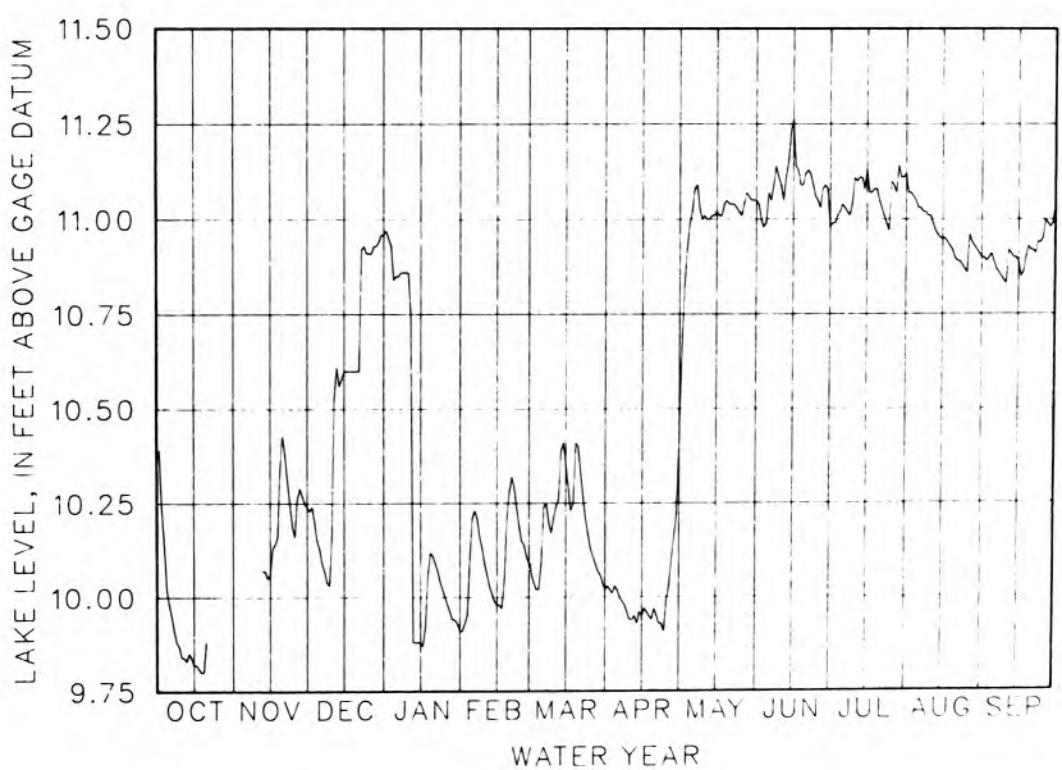
INLET AND OUTLET.--There are three inlets to the lake. Wyland ditch enters on the eastern shore from Sherburn Lake 6.7 mi upstream. Keefer-Evans ditch enters on the southeastern shore and Paterson ditch on the southwestern shore. The outlet, Eagle Creek, flows from the western lobe of the lake into Walnut Creek 1.4 mi downstream, thence into the Tippecanoe River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 13.31 ft June 14, 1981; minimum stage, 9.40 ft Feb. 15, 1982.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
2400 HR VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.98	---	10.13	10.85	10.21	10.09	10.02	11.02	11.07	11.04	11.03	10.84
10	9.84	---	10.16	10.86	10.09	10.21	9.94	11.01	11.09	11.11	11.01	10.83
15	9.82	10.06	10.60	9.88	9.98	10.35	9.95	11.02	11.26	11.13	10.95	10.89
20	9.88	10.43	10.60	10.11	10.28	10.40	9.97	11.04	11.12	11.05	10.90	10.92
25	---	10.16	10.91	10.00	10.15	10.13	9.99	11.01	11.05	11.10	10.86	10.95
EOM	---	10.24	10.96	9.91	10.09	10.02	10.41	11.05	10.98	11.12	10.90	11.04

WTR YR 1986 MEAN 10.56 HIGH 11.26 JUN 15 LOW 9.80 OCT 18 AND OTHERS



For many years, records of the water-surface elevations of many of the lakes in Indiana have been collected by the Geological Survey under cooperative agreement with the Indiana Department of Natural Resources. Basic data for a few selected lakes have been published in WSP 1363, entitled "Hydrology of Indiana Lakes." Records which have not been published are available in the files of the District Office of the Geological Survey in Indianapolis, Indiana. In general, the records before 1976 were based on once-daily readings of a staff gage by a local observer and consist of daily, monthly, and yearly mean water-surface elevations. Starting in 1976, water-stage recorders were installed at many stations which had previously been nonrecording gages. Discharge measurements, made at the outflow, are also available in some instances.

The lakes for which records have been collected are listed by downstream order number in the following table. The established level, sometimes referred to as the legal level, is that elevation set by the courts to which the average level of the lake is to be held; it is normally set at about the average level that has prevailed for a number of years prior to the establishment of the level. Surface area and capacity of the lake is that surface area and capacity at the established level. Depth contour maps are only those surveyed by the Water Resources Division of the Geological Survey. The inclusive years that records of stage have been collected at a lake are shown in the last column. If records are still being collected on a current basis, there is no closing date shown.

Lakes in the Ohio River basin for which records are available

	Lake	County	Drainage (square miles)	Surface area (acres)	Established levelxx	Capacity (acre-feet)	Contour map available	Records available
		LAUGHERY CREEK BASIN						
03276800	Versailles Lake near Versailles	Ripley	168.0	232	--------	------	-	1957-
		BAYOU DRAIN BASIN						
03322300	Hovey Lake near Mount Vernon	Posey	6.36	253	--------	------	-	1950-69
		WABASH RIVER BASIN						
03327550	Everett Lake at Levert	Allen	1.07	43	835.13	650	+	1946-66
03327600	Blue Lake near Churubusco	Whitley	3.58	239	850.28	5,010	+	1946-69, 1975-
03327650	Shriner Lake at Tri-Lakes	Whitley	.94	111	907.04	------	-	1943-
03327700	Cedar Lake at Tri-Lakes	Whitley	.79	131	901.90	------	-	1943-49
03327750	Round Lake at Tri-Lakes	Whitley	3.36	125	901.90	------	-	1943-53
03327800	Wilson Lake near Larwill	Whitley	.46	29	865.39	390	+	1946-52
03327850	Little Wilson Lake near Larwill	Whitley	.52	8	865.39	130	+	1946-52
03328100	Long Lake at Laketon	Wabash	.55	48	751.19	760	+	1946-51, 1959-
03328250	North Little Lake at Silver Lake	Kosciusko	2.89	12	861.73	170	+	1947-
03328350	Silver Lake at Silver Lake	Kosciusko	6.31	102	861.73	1,520	+	1947-
03328400	Lukens Lake near Disko	Wabash	1.76	46	763.60	1,010	+	1948-49, 1959-
03330020	Crooked Lake near Wolflake	Noble	1.51	206	905.69	9,040	+	1943-53
03330040	Big Lake near Wolflake	Noble	8.89	228	898.18	5,630	+	1943-75 1976-
03330060	Goose Lake near Lorane	Whitley	1.51	84	910.96	2,180	+	1945-53
03330080	Loon Lake at Ormas	Whitley	11.1	222	895.14	5,730	+	1943-66
03330100	New Lake near Etna	Whitley	.29	50	903.91	880	+	1945-53
03330120	Old Lake near Etna	Whitley	2.81	32	898.07	620	+	1949-66
03330140	Smalley Lake near Washington Center	Noble	27.1	59	--------	1,520	+	1943-
03330160	Gilbert Lake near Washington Center	Noble	.37	28	--------	490	+	1954-
03330180	Horseshoe Lake nr Washington Center	Noble	1.62	18	901.80	250	+	1945-66
03330200	Baugher Lake near Washington Center	Noble	31.0	32	878.52	390	+	1945-51
03330220	Wilmot Pond at Wilmot[1]	Noble	35.2	10	--------	------	-	1945-51
03330240	Webster Lake at North Webster	Kosciusko	49.2	774	852.75	7,170	+	1943-
03330243	James Lake at Oswego	Kosciusko	55.9	282	836.40	7,580	+	1943-
03330260	Robinson Lake near Pierceton	Kosciusko	7.15	59	851.09	1,170	+	1946-51
03330280	Troy Cedar Lake near Lorane	Whitley	5.33	93	905.41	2,540	+	1945-52
03330300	Ridinger Lake near Pierceton	Kosciusko	34.6	136	843.12	2,900	+	1943-
03330320	Kuhn Lake near North Webster	Kosciusko	3.85	137	837.50	1,290	+	1945-
03330340	Big Barbee Lake near North Webster	Kosciusko	44.7	304	837.50	5,640	+	1945-
03330360	Little Barbee Lake nr North Webster	Kosciusko	49.0	74	837.50	960	+	1945-
03330380	Shoe Lake near Oswego	Kosciusko	.34	40	841.57	------	-	1946-53, 1972,74, 1976-
03330400	Banning Lake near North Webster	Kosciusko	.48	12	837.50	110	+	1945-
03330420	Irish Lake near North Webster	Kosciusko	50.9	182	837.50	2,330	+	1945-
03330440	Sechrist Lake near North Webster	Kosciusko	.58	105	837.50	2,490	+	1945-
03330460	Sawmill Lake near North Webster	Kosciusko	51.8	36	837.50	370	+	1945-
03330480	Tippecanoe Lake at Oswego	Kosciusko	113	768	836.40	28,380	+	1943-
03330495	Oswego Lake at Oswego	Kosciusko	113	83	836.40	780	+	1943-
03331010	Big Chapman Lake near Warsaw[2]	Kosciusko	4.17	581	827.75	6,080	+	1945-72, 1976-
03331020	Little Chapman Lake near Warsaw	Kosciusko	7.13	177	827.75	1,990	+	1945-72, 1976-
03331040	Pike Lake at Warsaw	Kosciusko	41.5	203	805.64	2,830	+	1954-
03331060	Fish Lake near Warsaw	Kosciusko	4.93	15	845.52	------	-	1951-66
03331080	Muskellunge Lake near Warsaw	Kosciusko	11.8	32	842.67	300	+	1943-53, 1959-71
03331100	Carr Lake near Claypool	Kosciusko	2.27	79	848.88	1,340	+	1947-53
03331120	Sherburn Lake near Pierceton[3]	Kosciusko	5.51	15	881.00	230	+	1954-
03331140	Winona Lake at Warsaw	Kosciusko	32.1	562	811.06	16,680	+	1943-

Lakes in the Ohio River basin for which records are available--Continued

	Lake	County	Drainage (square miles)	Surface area (acres)	Established levelxx	Capacity (acre-feet)	Contour map available	Records available
		WABASH RIVER BASIN--Continued						
03331160	Center Lake at Warsaw	Kosciusko	0.73	120	803.86	2,060	+	1945-
03331180	Palestine Lake at Palestine	Kosciusko	32.4	290	--------	1,170	+	1954-
03331200	Crystal Lake near Atwood	Kosciusko	.45	76	789.69	930	+	1945-51
03331220	Hoffman Lake at Atwood	Kosciusko	8.07	180	785.85	3,160	+	1945-53
03331240	Beaver Dam Lake near Silver Lake	Kosciusko	2.83	146	868.95	3,280	+	1947-53
03331260	Loon Lake near Silver Lake	Kosciusko	3.59	40	865.74	670	+	1947-53
03331280	McClures Lake near Silver Lake	Kosciusko	1.29	32	865.85	410	+	1945-52
03331300	Hill Lake near Silver Lake	Kosciusko	.85	67	871.50	1,300	+	1952-
03331320	Diamond Lake near Silver Lake	Kosciusko	3.92	79	--------	1,280	+	1954-
03331340	Yellow Creek Lake near Silver Lake	Kosciusko	11.1	151	860.50	4,730	+	1945-53
03331360	Rock Lake near Akron	Kosciusko	2.74	56	847.29	360	+	1946-66
03331370	Town Lake near Akron	Fulton	2.77	23	--------	220	+	1949-50
03331380	Lake Manitou at Rochester	Fulton	44.2	1,158	778.41	10,165	+	1943-
03331390	Zink Lake near Rochester	Fulton	1.11	19	810.68	------	-	1952-55
03331400	Nyona Lake near Greenoak	Fulton	7.59	104	793.91	1,340	+	1946-
03331420	South Mud Lake near Fulton	Fulton	4.53	94	793.42	1,020	+	1946-66
03331438	King Lake near Delong	Fulton	1.98	18	--------	180	+	1971-
03331440	Maxinkuckee Lake at Culver	Marshall	13.7	1,864	733.12	45,600	+	1943-
03331460	Lost Lake near Culver[4]	Marshall	14.2	40	732.00	------	-	1954-
03331480	Langenbaum Lake near Monterey	Starke	.72	48	717.96	260	+	1954-66
03331700	Bruce Lake at Bruce Lake	Pulaski	6.38	245	723.69	1,790	+	1943-53
03332200	Fletcher Lake at Fletcher	Fulton	.67	45	783.20	880	+	1946-53
03370900	Starve Hollow Lake near Vallonia	Jackson	6.67	145	--------	980	+	1946-61, 1963-71
03371700	Ogle Lake near Nashville	Brown	1.03	20	--------	250	+	1954-

Lakes in the St. Lawrence River basin for which records are available

		STREAMS TRIBUTARY TO LAKE MICHIGAN						
04092500	Wolf Lake at Hammond[9]	Lake	5.72	999	--------	------	-	1946-49
04092990	Lake George at Hobart	Lake	124	282	602.23	------	-	1946-
04097520	Lake Pleasant near Nevada Mills	Steuben	3.18	424	961.50	3,490	+	1954-69, 1971, 1976-
04097550	Lake George at Jamestown	Steuben	[8]14.7	488	985.28	------	-	1946-
04097596	Marsh Lake near Fremont	Steuben	14.9	-----	--------	------	-	1967-69
04097600	Little Otter Lake near Fremont	Steuben	15.7	34	965.18	740	+	1946-53
04097640	Big Otter Lake near Fremont	Steuben	21.3	69	965.18	1,780	+	1946-53
04097650	Snow Lake at Lake James	Steuben	[8]40.2	310	964.96	7,998	+	1943-49
04097660	Lake James at Lake James	Steuben	[8]47.8	1,034	964.96	33,585	+	1943-49
04097680	Jimmerson Lake at Nevada Mills[5]	Steuben	[8]51.6	434	964.66	4,394	+	1946-
04097780	Loon Lake near Angola	Steuben	2.13	138	1,011.98	630	+	1954-66
04097850	Crooked Lake at Crooked Lake	Steuben	10.4	828	988.17	10,555	+	1946-
04097950	Lake Gage at Panama	Steuben	[8]17.3	332	954.25	10,140	+	1946-
04097960	Lime Lake at Panama	Steuben	[8]17.5	57	954.25	427	+	1946-
04098100	Wall Lake near Orland	Lagrange	1.61	141	942.25	1,640	+	1953-54
04098110	Mud Lake near Orland	Steuben	1.85	25	939.01	------	-	1956-67
04098300	Cedar Lake near Ontario	Lagrange	1.60	120	871.90	1,020	+	1948-51
04099050	Pigeon Lake near Angola	Steuben	[8]35.2	61	988.24	930	+	1954-63
04099100	Fox Lake near Angola	Steuben	[8]1.25	142	1,018.83	3,150	+	1946-53
04099190	Pleasant Lake at Pleasant Lake	Steuben	[8]1.12	53	953.52	1,190	+	1946-66
04099200	Long Lake at Moonlight	Steuben	[8]67.9	92	--------	1,540	+	1946-
04099250	Bower Lake near Pleasant Lake	Steuben	[8]84.6	25	948.50	280	+	1946-71, 1976-
04099260	Golden Lake near Pleasant Lake	Steuben	[8]88.8	119	948.50	1,810	+	1946-71, 1976-
04099400	Silver Lake near Angola	Steuben	[8]3.79	238	959.40	2,540	+	1945-53
04099430	Bass Lake near Angola	Steuben	[8].39	61	979.68	450	+	1954-66
04099440	Howard Lake near Angola	Steuben	[8]3.90	27	977.34	130	+	1954-63
04099500	Hogback Lake near Angola	Steuben	[8]103	146	948.50	1,450	+	1946-
04099520	Otter Lake near Flint	Steuben	[8]6.91	118	934.15	1,960	+	1954-66
04099540	Story Lake near Hudson	DeKalb	3.16	77	942.20	1,020	+	1946, 1954-66
04099560	Big Turkey Lake at Stroh	Lagrange	35.8	450	926.61	7,300	+	1945-66
04099575	McClish Lake near Helmer	Lagrange	1.28	35	951.09	1,210	+	1951-74, 1976-
04099580	Lake of the Woods near Helmer	Lagrange	5.25	136	951.09	5,470	+	1951-74, 1976-
04099600	Big Long Lake near Stroh	Lagrange	4.77	388	956.2	------	-	1954-
04099620	Pretty Lake near Stroh	Lagrange	2.89	184	965.50	4,720	+	1949-53, 1963-65
04099640	Little Turkey Lake at Elmira	Lagrange	56.5	135	925.72	1,550	+	1945-66
04099660	Royer Lake near Plato	Lagrange	4.69	69	936.50	1,630	+	1952-
04099670	Fish Lake near Plato	Lagrange	[8]10.6	100	936.50	4,050	+	1945-
04099700	North Twin Lake near Howe	Lagrange	1.54	135	843.56	2,120	+	1953-
04099710	South Twin Lake near Howe	Lagrange	2.22	116	843.56	3,600	+	1953-70
04099740	Shipshewana Lake near Shipshewana	Lagrange	[8]6.74	202	852.04	1,350	+	1951-
04099760	Fish Lake near Scott	Lagrange	[8]6.21	139	814.42	2,560	+	1954-73, 1976-

Lakes in the St. Lawrence River basin for which records are available--Continued

	Lake	County	Drainage (square miles)	Surface area (acres)	Established levelxx	Capacity (acre-feet)	Contour map available	Records available
	STREAMS TRIBUTARY TO LAKE MICHIGAN--Continued							
04099780	Stone Lake near Scott	Lagrange	1.51	152	818.76	2,060	+	1954-73, 1976-
04099800	Emma Lake near Emma	Lagrange	13.6	42	880.87	700	+	1954-66
04099810	Cass Lake near Shipshewana	Lagrange	.68	89	--------	873	+	1970-
04099820	Hunter Lake near Middlebury	Elkhart	.51	99	856.90	1,120	+	1946-53
04099840	Wolf Lake near Goshen	Elkhart	[8]1.29	100	813.00	------	-	1947-57
04099860	Heaton Lake near Elkhart	Elkhart	9.33	87	767.30	640	+	1946-53, 1959-74, 1976-
04099880	Simonton Lake near Elkhart	Elkhart	7.44	303	772.19	1,560	+	1946-
04099950	Indiana Lake near Bristol	Elkhart	.62	122	759.73	3,400	+	1946-53
04100010	Cree Lake near Kendallville	Noble	4.85	58	945.23	910	+	1949-66
04100020	Blackman Lake near Wolcottville	Lagrange	.98	67	974.20	1,210	+	1953-59
04100030	Adams Lake near Wolcottville	Lagrange	5.62	308	953.59	7,690	+	1946-
04100040	Atwood Lake near Wolcottville	Lagrange	1.23	170	899.99	1,560	+	1948-53
04100050	Witmer Laker near Wolcottville	Lagrange	36.1	204	897.36	7,040	+	1945-
04100060	Westler Lake near Wolcottville	Lagrange	37.8	88	897.36	1,770	+	1945-
04100070	Dallas Lake near Wolcottville	Lagrange	39.8	283	897.36	9,970	+	1945-
04100080	Martin Lake near Valentine	Lagrange	4.93	26	899.45	890	+	1945-
04100090	Olin Lake neaqr Valentine	Lagrange	5.81	103	899.45	9,180	+	1945-
04100100	Oliver Lake near Valentine	Lagrange	11.1	362	899.45	15,358	+	1945-
04100110	Hackenburg Lake near Wolcottville	Lagrange	55.4	42	897.36	510	+	1945-
04100120	Messick Lake near Wolcottville	Lagrange	56.4	68	897.36	1,450	+	1945-
04100130	Jones Lake near Cosperville[6]	Noble	70.3	114	885.55	960	+	1948-
04100140	Bixler Lake at Kendallville	Noble	5.28	120	963.65	2,090	+	1945-
04100150	Round Lake at Kendallville	Noble	3.47	99	954.50	2,140	+	1954-
04100160	Little Long Lake at Kendallville	Noble	4.55	71	954.50	1,750	+	1954-
04100170	Latta Lake near Rome City	Noble	2.52	42	918.71	900	+	1954-66
04100180	Sylvan Lake at Rome City	Noble	33.8	669	916.20	5,986	+	1943-
04100190	Sacarider Lake near Kendallville	Noble	1.43	33	--------	740	+	1954-63
04100200	Tamarack Lake near Cosperville	Noble	15.9	50	885.55	880	+	1948-
04100210	Steinbarger Lake near Cosperville	Noble	24.3	73	885.55	1,590	+	1948-
04100220	Waldron Lake near Cosperville	Noble	134	216	885.55	3,120	+	1948-
04100230	Long Lake near Burr Oak	Noble	12.0	40	895.82	630	+	1954-71
04100240	Sand Lake near Burr Oak	Noble	14.9	47	893.56	1,270	+	1946-51
04100250	Rivir Lake near Burr Oak	Noble	18.6	24	--------	380	+	1954-65
04100258	High Lake near Wolflake	Noble	4.43	123	896.35	1,240	+	1961-
04100260	Bear Lake near Wolflake	Noble	6.98	136	894.60	3,030	+	1943-
04100280	Muncie Lake near Burr Oak	Noble	42.3	47	--------	580	+	1954-
04100290	Silver Lake near Wolflake	Noble	.28	34	--------	220	+	1953-63
04100300	Skinner Lake near Albion	Noble	14.0	125	927.74	1,750	+	1945-72, 1977-
04100310	Pleasant Lake near Wolflake	Noble	.29	20	--------	540	+	1952-53
04100320	Upper Long Lake near Wolflake	Noble	2.08	86	891.19	1,900	+	1956-
04100330	Lower Long Lake near Albion	Noble	4.35	66	889.81	1,560	+	1946-52
04100340	Eagle Lake near Kimmel	Noble	3.22	81	--------	1,050	+	1946-48
04100350	Diamond Lake near Wawaka	Noble	4.80	105	--------	2,580	+	1946-
04100360	Sparta Lake at Kimmel	Noble	.69	31	888.50	170	+	1946-51
04100370	Engle Lake near Ligonier	Noble	[8]4.19	48	878.90	670	+	1956-71, 1977-
04100380	Harper Lake near Washington Center	Noble	2.76	11	878.25	160	+	1946-
04100390	Knapp Lake near Washington Center	Noble	6.02	88	878.25	3,040	+	1946-
04100400	Moss Lake near Washington Center	Noble	6.12	9	878.25	80	+	1946-
04100410	Hindman Lake near Washington Center	Noble	8.66	13	878.25	140	+	1946-
04100420	Gordy Lake near Cromwell	Noble	9.40	31	876.68	680	+	1953-66
04100425	Rider Lake near Cromwell	Noble	10.9	5	876.68	30	+	1953-66
04100430	Duely Lake near Cromwell[7]	Noble	11.2	21	876.68	180	+	1953-66
04100440	Village Lake near Cromwell	Noble	12.0	12	876.68	160	+	1953-66
04100446	Flatbelly Lake near Syracuse	Kosciusko	4.66	326	--------	------	-	1964-69
04100448	Papakeechie Lake near Syracuse	Kosciusko	5.52	300	--------	------	-	1964-59
04100450	Wawasee Lake at Wawasee	Kosciusko	36.9	3,060	858.89	67,210	+	1943-66
04100460	Syracuse Lake at Syracuse	Kosciusko	38.2	414	858.87	5,360	+	1943-
04100470	Dewart Lake near Leesburg	Kosciusko	[8]8.05	551	867.70	9,000	+	1945-
04100480	Wabee Lake near Milford	Kosciusko	[8]14.6	187	829.79	4,750	+	1946-53
	STREAMS TRIBUTARY TO LAKE ERIE							
04177200	Clear Lake at Clear Lake	Steuben	6.86	800	1,037.38	24,990	+	1943-
04177210	Round Lake at Clear Lake	Steuben	7.25	30	1,037.38	340	+	1943-
04177300	Long Lake near Ray	Steuben	2.80	154	--------	1,840	+	1961-63
04177680	Ball Lake near Hamilton	Steuben	11.6	87	994.76	3,520	+	1961-
04177700	Hamilton Lake at Hamilton	Steuben	16.5	802	898.83	16,600	+	1943-
04179200	Indian Lake near Corunna	DeKalb	3.76	56	--------	1,220	+	1957
04179300	Cedar lake near Waterloo	DeKalb	23.4	28	896.76	230	+	1943-56

Lakes in the Upper Mississippi River basin for which records are available

	ILLINOIS RIVER BASIN							
05514740	Saugany Lake near Rolling Prairie	LaPorte	[8]2.34	74	781.21	2,190	+	1946-50
05514741	Hudson Lake at Hudson Lake	LaPorte	7.92	432	763.09	5,060	+	1946-

Lakes in the Upper Mississippi River basin for which records are available--Continued

	Lake	County	Drainage (square miles)	Surface area (acres)	Established levelxx	Capacity (acre-feet)	Contour map available	Records available
		ILLINOIS RIVER BASIN--Continued						
05514750	North Chain Lake at Lydick	St. Joseph	[8]3.89	88	721.17	1,400	+	1946-53
05514760	South Chain Lake at Westfield	St. Joseph	[8]6.32	90	717.04	270	-	1946-53
05514770	Wharton Lake near South Bend	St. Joseph	[8]1.85	-----	--------	------	-	1960-
05514900	Silver Lake near Rolling Prairie	LaPorte	1.72	54	795.20	------	-	1946-66
05515200	Upper Fish Lake near Stillwell	LaPorte	[8]9.65	139	688.22	1,040	+	1946-53
05515210	Lower Fish Lake near Stillwell	LaPorte	[8]10.4	134	688.22	870	+	1946-53
05515220	Pine Lake at LaPorte	LaPorte	[8]10.7	564	796.20	------	-	1945-75 1980-
05515230	Stone Lake at LaPorte	LaPorte	[8]10.7	140	796.20	------	-	1946-75 1980-
05515240	Clear Lake at LaPorte	LaPorte	.65	106	798.20	760	+	1942-49, 1952-75 1980-
05515600	Koontz Lake at Koontz Lake	Starke	[8]6.25	346	714.56	3,170	+	1943-
05515800	Riddles Lake near Lakeville	St. Joseph	[8]11.7	77	817.50	640	+	1946-73, 1976-
05516200	Lake of the Woods near Bremen	Marshall	[8]9.45	416	803.85	6,810	+	1945-
05516600	Pretty Lake near Plymouth	Marshall	.85	97	787.36	2,140	+	1954-66
05516700	Myers Lake near Twin Lakes	Marshall	1.41	96	768.69	2,000	+	1945-53
05516800	Mill Pond and Kreighbaum Lake near Twin Lakes	Marshall	[8]5.34	168	767.75	1,020	+	1945-53
05516900	Eagle Lake near Ober	Starke	[8]25.5	24	713.25	160	+	1946-53
05517100	Skitz Lake near Knox	Starke	------	1,000	--------	------	-	1949-53
05517200	Bass Lake at Bass Lake	Starke	5.18	1,400	713.65	------	-	1943-
05517600	Wauhob Lake near Valparaiso	Porter	.40	21	--------	------	-	1946-
05517650	Long Lake near Valparaiso	Porter	1.31	65	797.66	520	+	1947-52
05517670	Spectacle Lake near Valparaiso	Porter	.53	62	812.82	540	+	1946-53
05517700	Flint Lake near Valparaiso	Porter	2.62	86	797.66	------	-	1946-
05517800	Lake Eliza near Beatrice	Porter	1.70	45	738.70	------	-	1954-74, 1976-
05518700	Cedar Lake at Cedar Lake	Lake	8.14	781	--------	6,750	+	1943-
05518800	Dalecarlia Lake near Creston	Lake	20.1	193	--------	------	-	1947-52
05521300	Ringneck Lake near Medaryville	Jasper	1.94	1,400	--------	------	-	1949-55
05525700	J.C. Murphy Lake near Morocco	Newton	13.0	1,515	--------	------	-	1952-61

[+]Depth contour maps available for sale by Indiana Department of Natural Resources, State Office Building, Indianapolis, Indiana.
xxElevation, in feet, above mean sea level.
[1]Formerly published as Rider Lake at Wilmot.
[2]Formerly published as Chapman Lake near Warsaw.
[3]Formerly published as Johnson Lake near Pierceton.
[4]Formerly published as Hawks Lake near Culver.
[5]Formerly published as Jimerson Lake at Nevada Mills.
[6]Formerly published as Sanford Lake near Cosperville.
[7]Formerly published as Duley Lake near Cromwell, and Druely Lake near Cromwell, and Druley Lake near Cromwell.
[8]Contains drainage area (5 percent or greater) that does not contribute directly to surface-water runoff.
[9]Same as Wolf Lake at Chicago, Illinois WRD District.

The lakes in Indiana which are not included in the cooperative stabilization program but which have been mapped for recreational purposes are shown in the following table. Surface area and capacities are related to reference mean sea level elevation at time of mapping. Additional data is shown on map which are available for sale by the Indiana Department of Natural Resources, State Office Building, Indianapolis, Indiana.

Lake	County	Surface area (acres)	Capacity (acre-feet)	Lake	County	Surface area (acres)	Capacity (acre-feet)
			OHIO RIVER BASIN				
Barr Lake	Fulton	22	470	Lake 16	Fulton	27	220
Bischoff Reservoir	Ripley	200	1,920	Larwill Lake	Whitley	9	170
Black Lake	Whitley	24	400	Lenape Lake	Greene	36	330
Bowen Lake	Scott	7	60	Lincoln Park Lake	Spencer	58	520
Brown Lake	Whitley	23	580	Little Pike Lake	Kosciusko	25	140
Caldwell Lake	Kosciusko	45	800	McColley Lake	Wabash	28	410
Crane Lake	Noble	28	360	Round Lake	Wabash	48	540
Crosley Lake	Jennings	14	130	Scales Lake	Warrick	66	520
Ferdinand Lake	Dubois	42	440	Schlamm Lake	Clark	19	170
Franke Lake	Clark	9	70	Sellers Lake	Kosciusko	32	340
Hartz Lake	Starke	28	370	Shakamak Lake	Sullivan	56	610
Kunkel Lake	Wells	25	150	Twin Lakes	Wabash	18	190
Lake Freeman	Carroll	1,547	26,000	Whitewater Lake	Union	199	3,650
Lake Shafer	White	1,291	13,120	Yellowwood Lake	Brown	133	1,890
			STREAMS TRIBUTARY TO LAKE MICHIGAN				
Appleman Lake	Lagrange	52	590	Mateer Lake	Lagrange	18	150
Bartley Lake	Noble	34	430	Miller Lake	Noble	11	160
Barton Lake	Steuben	94	1,340	Millers Lake	Noble	28	410
Bell Lake	Steuben	38	510	Mud Lake	Noble	8	70
Boner Lake	Kosciusko	40	370	Norman Lake	Noble	14	280
Bowen Lake	Noble	30	1,080	Pigeon Lake	Lagrange	61	1,160
Bristol Lake	Noble	27	740	Port Mitchell Lake	Noble	15	180
Buck Lake	Lagrange	18	150	Rainbow Lake	Lagrange	16	250
Center Lake	Steuben	46	390	Schockopee Lake	Noble	21	280
Cline Lake	Lagrange	20	350	Shock Lake	Kosciusko	37	1,210
Deer Lake	Noble	36	420	Smith Hole	Lagrange	2	10
Dock Lake	Noble	16	230	Still Lake	Lagrange	30	620
Eve Lake	Lagrange	31	670	Sweet Lake	Noble	16	210
Fish Lake	Steuben	59	750	Tamarack Lake	Noble	84	1,340
Hog Lake	LaPorte	59	690	Walters Lake	Steuben	53	550
Hog Lake	Steuben	48	570	Weir Lake	Lagrange	6	70
Lime Lake	Steuben	30	330	Wible Lake	Noble	49	650
Little Turkey Lake	Steuben	58	780	Williams Lake	Noble	46	1,070
Marl Lake	Noble	30	510	Wyland Lake	Kosciusko	6	100
			STREAMS TRIBUTARY TO LAKE ERIE				
Dunton Lake	DeKalb	21	340	Mirror Lake	Steuben	9	120
Handy Lake	Steuben	16	290	Terry Lake	DeKalb	17	160
Lake Anne	Steuben	17	280				
			UPPER MISSISSIPPI RIVER BASIN				
Cook Lake	Marshall	93	1,650	Gilbert Lake	Marshall	37	490
Dixon Lake	Marshall	33	480	Holem Lake	Marshall	40	390
Flat Lake	Marshall	26	210	Lawrence Lake	Marshall	69	1,580

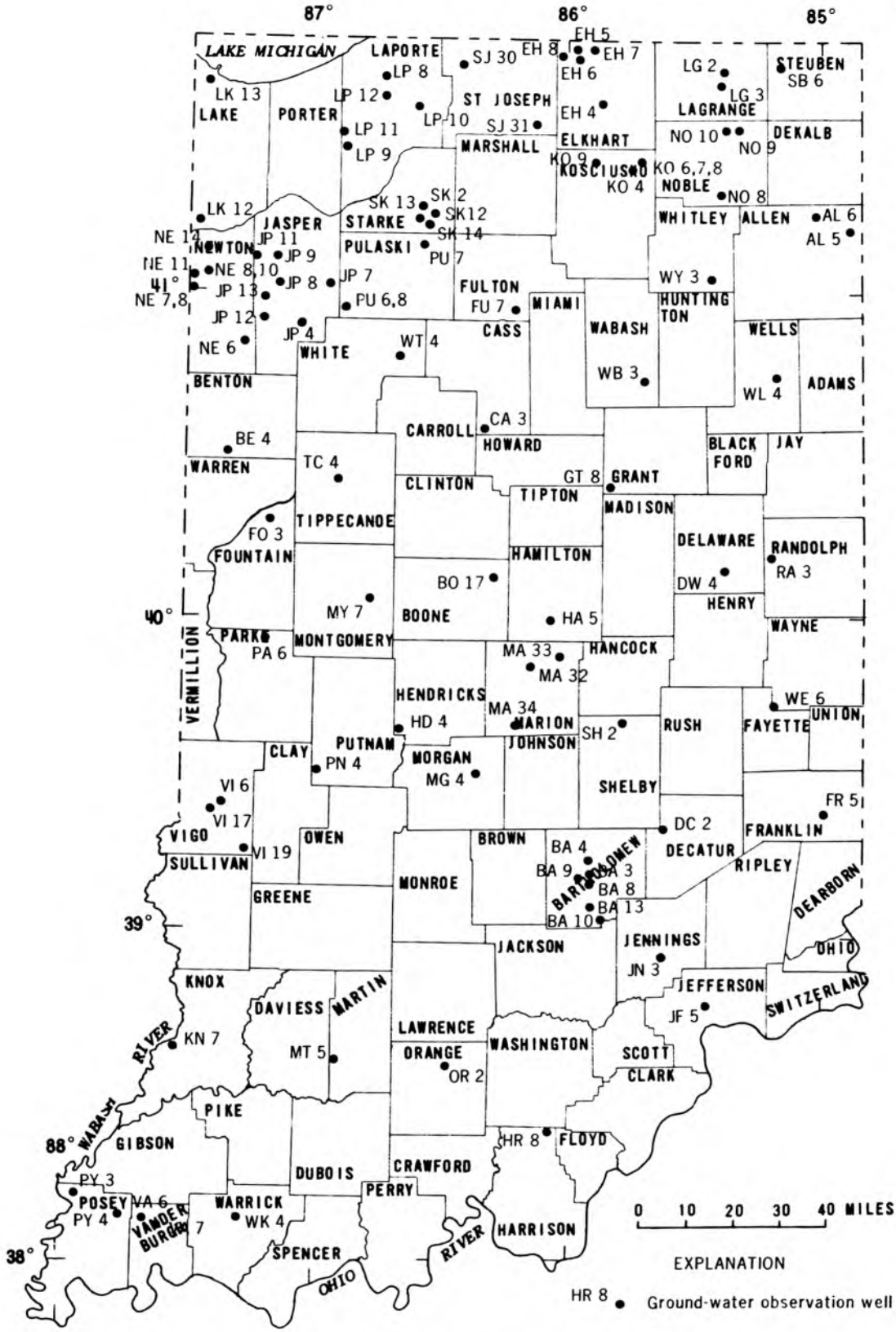


Figure 9.-- Locations of ground-water observation wells.

ALLEN COUNTY

410426084495201. Local number, AL 5.

LOCATION.--Lat 41°04'26", long 84°49'52", in NW¼NE¼SE¼ sec.9, T.30 N., R.15 E., Allen County, Hydrologic Unit 04100005, 1.3 mi west of Edgerton.
Owner: Noel Gerig.

AQUIFER.--Limestone of Salina Formation of Silurian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 4 in., depth 97 ft, cased to 40 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 760 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of floor of shelter, 0.00 ft above land-surface datum.

REMARKS.--Nearby quarry operations were shut down in 1980, and since that time water levels have been rising.

PERIOD OF RECORD.--July 1962 to December 1971, January 1973 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 10.04 ft below land-surface datum, July 8, 9, 1962; lowest, 38.41 ft below land-surface datum, May 4, 1967.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

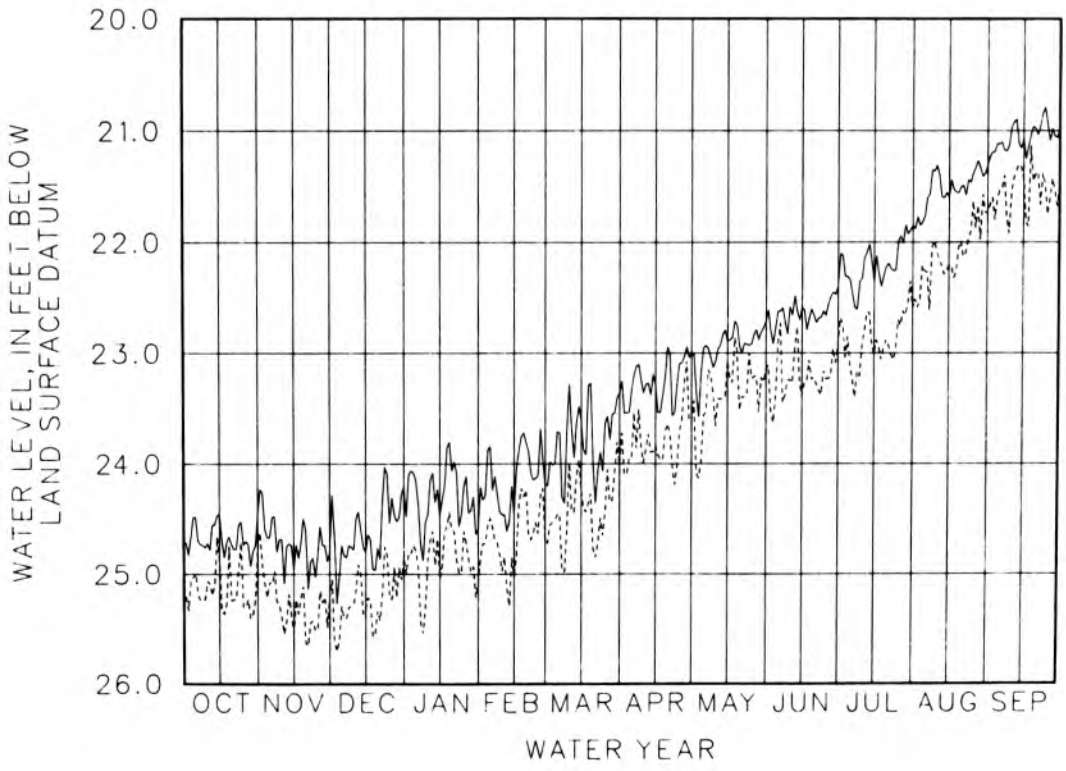
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	24.48	24.67	24.74	24.15	23.84	23.71	23.34	22.95	22.62	22.34	21.77	21.12
10	24.72	24.68	24.78	24.46	24.46	23.28	23.36	23.08	22.58	22.33	21.31	20.97
15	24.45	24.96	24.80	24.47	24.44	23.61	23.29	22.90	22.59	22.36	21.60	21.07
20	24.73	24.59	24.76	24.07	23.81	24.00	22.94	22.94	22.66	22.22	21.50	20.98
25	24.74	24.83	24.54	24.20	24.11	23.63	23.09	22.92	22.66	21.99	21.38	20.94
EOM	24.45	24.80	24.21	24.59	24.19	23.36	23.01	22.71	22.40	21.85	21.31	20.98

WTR YR 1986 HIGH 20.79 SEP 24

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	24.99	25.07	25.29	24.79	24.49	24.46	23.95	23.56	22.92	23.11	22.26	21.53
10	25.06	25.39	25.28	24.86	24.97	23.99	23.99	23.66	23.24	22.93	22.08	21.54
15	24.87	25.53	25.32	25.04	25.01	24.24	23.84	23.07	23.39	23.01	22.21	21.44
20	25.24	25.62	25.33	24.59	24.24	24.77	23.64	23.52	23.22	22.88	21.99	21.39
25	25.30	25.50	25.20	24.61	24.63	24.45	23.71	23.23	23.23	22.70	21.63	21.75
EOM	24.76	25.21	24.85	25.08	24.69	24.01	23.62	23.16	22.91	22.59	21.74	21.51

WTR YR 1986 LOW 25.70 DEC 3



ALLEN COUNTY

410932084561101. Local number, AL 6.

LOCATION.--Lat 41°09'32", long 84°56'11", in SW¼SW¼NE¼ sec.10, T.31 N., R.14 E., Allen County, Hydrologic Unit 04100005, at the intersection of Ehle and Thimler Roads, 10 mi northeast of New Haven. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 84 ft, cased to 81.5 ft, screened to 83.5 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 760 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of floor of shelter, 2.50 ft above land-surface datum.

REMARKS.--Water level affected by pumpage.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 8.17 ft below land-surface datum, Mar. 13, 14, 1986; lowest, 14.77 ft below land-surface datum, Oct. 29, 1978.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

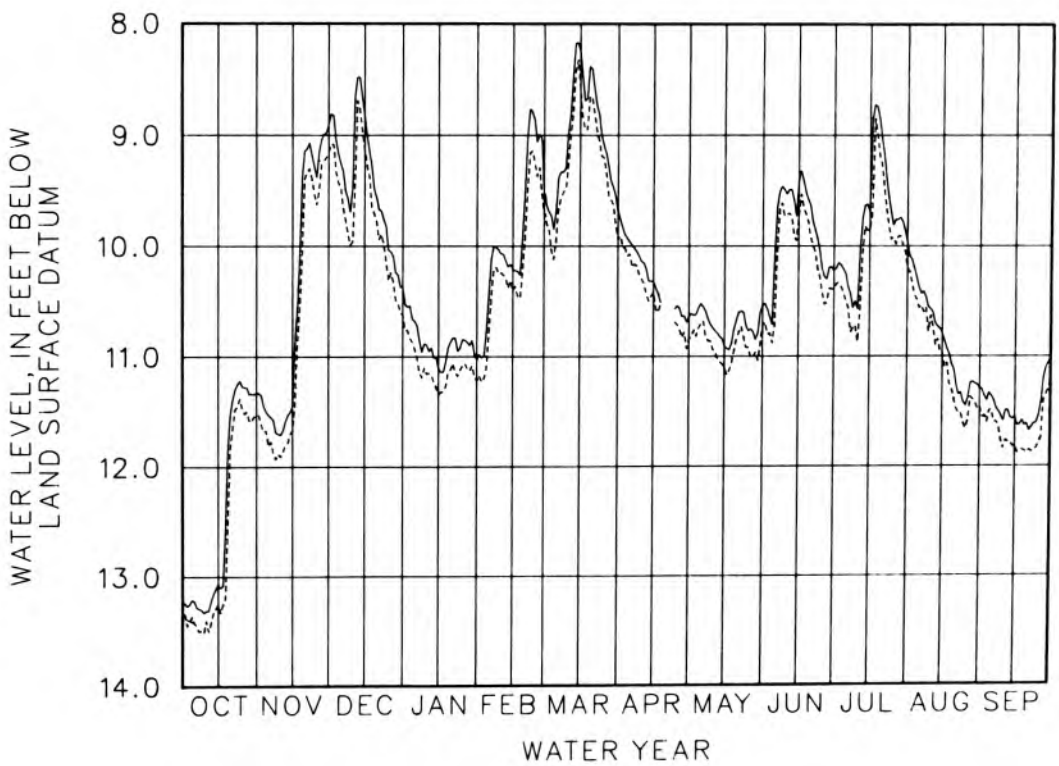
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.22	11.53	9.25	10.68	10.44	9.69	9.96	10.52	10.10	10.25	10.37	11.36
10	13.31	11.71	9.47	10.89	10.07	8.99	10.14	10.74	9.53	10.57	10.57	11.59
15	13.07	11.45	8.82	11.11	10.21	8.25	10.32	10.91	9.40	9.69	10.79	11.55
20	11.53	9.14	9.56	10.87	9.52	8.40	---	10.67	9.63	9.03	11.12	11.61
25	11.27	9.38	10.04	10.84	9.06	9.09	10.54	10.77	10.20	9.81	11.45	11.54
EOM	11.33	8.90	10.37	11.02	9.53	9.68	10.64	10.54	10.22	9.96	11.29	11.02

WTR YR 1986 HIGH 8.17 MAR 13 AND OTHERS

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.42	11.81	9.46	10.93	10.78	9.94	10.07	10.70	10.73	10.50	10.56	11.49
10	13.40	11.91	9.96	11.16	10.24	9.28	10.30	10.94	9.72	10.87	10.63	11.84
15	13.25	11.67	9.13	11.34	10.40	8.59	10.42	11.10	9.72	9.85	10.97	11.81
20	11.85	9.39	9.78	11.12	9.94	8.66	---	10.84	9.92	9.27	11.40	11.88
25	11.47	9.63	10.31	11.08	9.37	9.20	10.71	10.92	10.42	9.92	11.66	11.79
EOM	11.55	9.15	10.62	11.22	9.71	9.94	10.84	10.72	10.39	10.20	11.46	11.21

WTR YR 1986 LOW 13.51 OCT 9



BARTHOLOMEW COUNTY

391320085534601. Local number, BA 3.

LOCATION.--Lat 39°13'20", long 85°53'46", in NE¼NE¼SE¼ sec.18, T.9 N., R.6 E., Bartholomew County, Hydrologic Unit 05120205, in northeast corner of Lincoln Park in the city of Columbus.
Owner: City of Columbus.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 123 ft, cased to 116 ft, screened to 121 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 639.8 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of floor of shelter, 2.50 ft above land-surface datum.

REMARKS.--Water level affected by pumpage for water and sewage utilities.

PERIOD OF RECORD.--January 1965 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 16.75 ft below land-surface datum, Feb. 24, 25, 1975; lowest, 28.74 ft below land-surface datum, Oct. 9, 1971.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

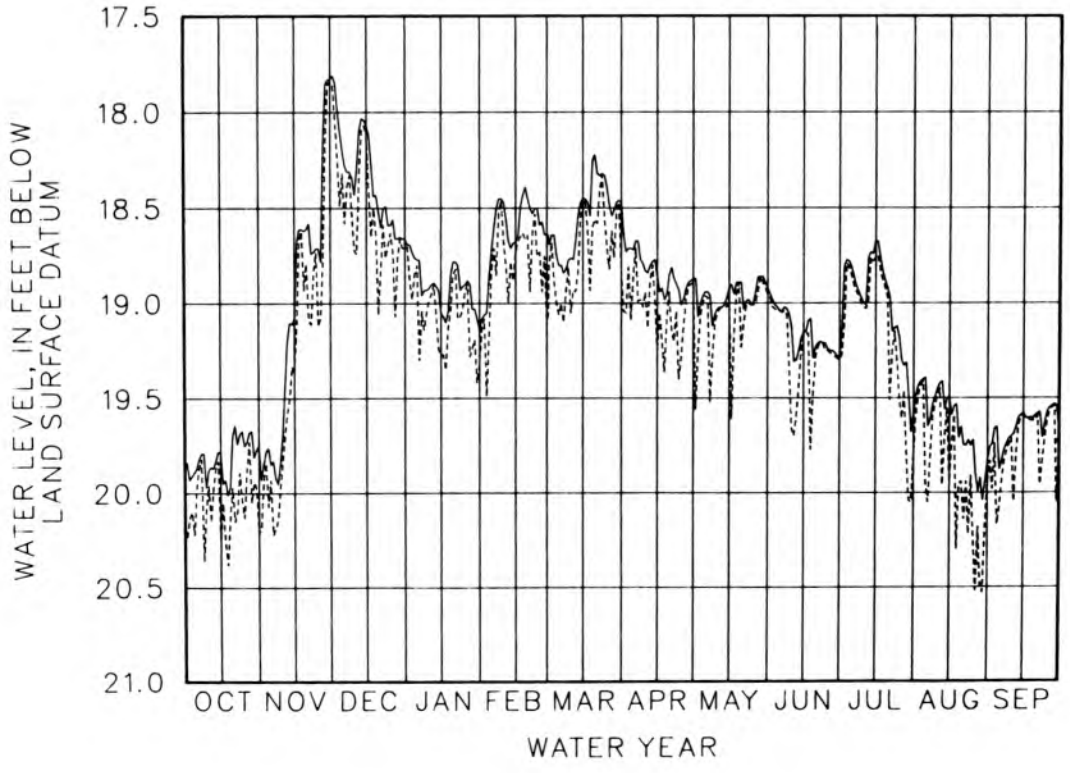
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	19.87	19.85	18.20	18.77	18.72	18.80	18.72	18.94	19.04	18.81	19.39	19.88
10	19.88	19.69	18.43	18.92	18.47	18.76	18.83	19.03	19.13	19.00	19.45	19.70
15	19.78	19.08	18.07	19.05	18.68	18.45	18.86	18.92	19.15	18.67	19.49	19.58
20	19.70	18.61	18.52	18.78	18.45	18.22	18.85	18.89	19.23	18.92	19.65	19.59
25	19.75	18.71	18.59	18.90	18.59	18.39	19.01	19.00	19.24	19.18	19.72	19.57
EOM	19.75	17.83	18.66	19.14	18.64	18.47	18.87	18.92	19.28	19.58	19.83	19.66

WTR YR 1986 HIGH 17.81 DEC 1

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	19.97	19.93	18.32	18.80	18.83	19.06	18.85	18.96	19.04	18.86	19.94	20.08
10	19.96	19.83	18.72	18.98	18.67	19.05	18.94	19.06	19.66	19.02	19.49	19.71
15	20.25	19.37	18.11	19.27	18.73	18.46	19.26	18.97	19.17	18.76	19.94	19.59
20	19.97	18.79	19.06	18.85	18.64	18.56	18.94	19.23	19.28	18.97	19.94	19.62
25	20.13	19.12	18.63	18.93	18.73	18.70	19.29	19.01	19.25	19.50	20.23	19.62
EOM	20.21	17.84	18.70	19.32	19.08	18.83	18.89	18.95	19.30	19.80	19.94	19.80

WTR YR 1986 LOW 20.53 AUG 29



391627085534401. Local number, BA 4.

LOCATION.--Lat 39°16'27", long 85°53'44", in NE¼NE¼NE¼ sec.31, T.10 N., R.6 E., Bartholomew County, Hydrologic Unit 05120205, by a cemetery on the north side of Bakalar AFB at the northern city limits of Columbus. Owner: Bartholomew County.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 93 ft, cased to 85 ft, screened to 90 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 654.04 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of floor of shelter, 2.60 ft above land-surface datum.

PERIOD OF RECORD.--January 1965 to current year.

REVISED RECORDS.--WDR IN-80-1: 1979.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 14.25 ft below land-surface datum, Mar. 23, 1979; lowest, 21.15 ft below land-surface datum, Feb. 11, 12, 1977.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

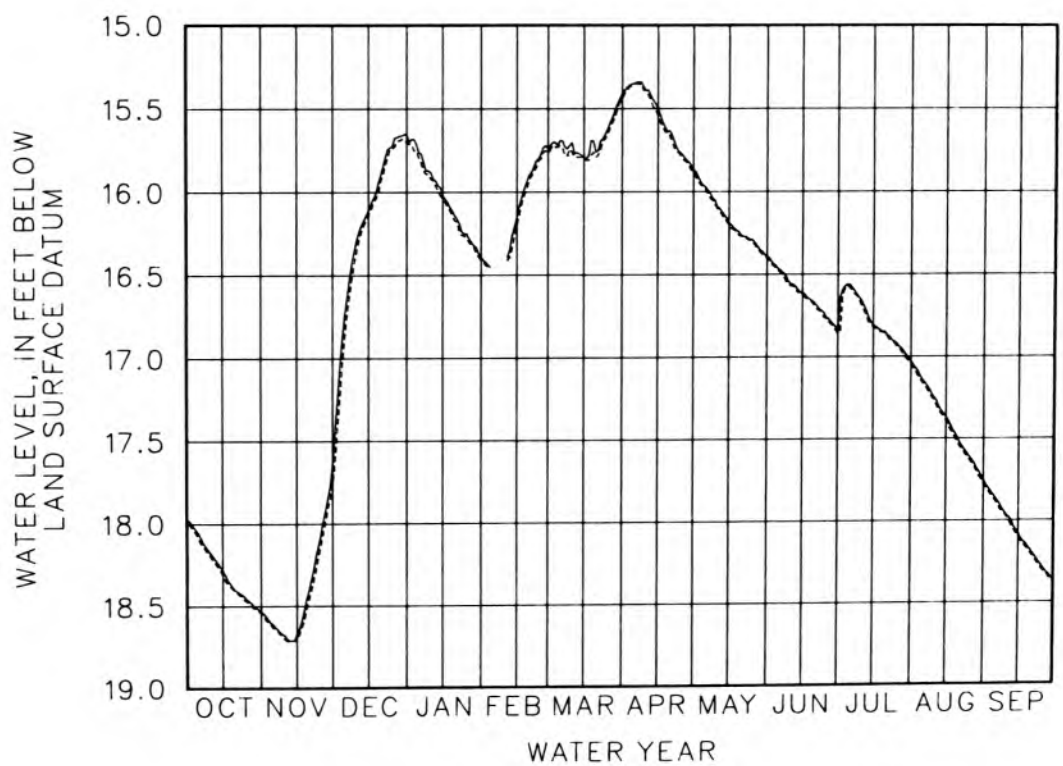
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	18.06	18.61	16.75	15.76	---	15.69	15.35	15.97	16.47	16.56	17.14	17.86
10	18.18	18.68	16.29	15.88	---	15.70	15.39	16.09	16.56	16.66	17.25	17.97
15	18.28	18.67	16.11	16.02	16.15	15.79	15.50	16.19	16.61	16.81	17.37	18.08
20	18.40	18.41	15.90	16.14	15.90	15.76	15.63	16.26	16.67	16.85	17.50	18.18
25	18.46	18.07	15.72	16.25	15.77	15.62	15.77	16.29	16.76	16.92	17.61	18.28
EOM	18.53	17.64	15.65	16.39	15.74	15.41	15.87	16.39	16.84	17.03	17.75	18.37

WTR YR 1986 HIGH 15.34 APR 6 AND OTHERS

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	18.09	18.63	16.88	15.79	---	15.72	15.35	15.98	16.48	16.58	17.16	17.88
10	18.20	18.70	16.36	15.92	---	15.76	15.39	16.10	16.57	16.69	17.27	17.98
15	18.31	18.71	16.14	16.04	16.20	15.80	15.54	16.20	16.62	16.82	17.39	18.10
20	18.41	18.46	15.94	16.17	15.94	15.79	15.66	16.27	16.69	16.86	17.53	18.20
25	18.47	18.14	15.74	16.28	15.80	15.65	15.79	16.31	16.77	16.94	17.63	18.30
EOM	18.54	17.76	15.70	16.41	15.76	15.44	15.88	16.40	16.86	17.04	17.78	18.38

WTR YR 1986 LOW 18.71 NOV 11 AND OTHERS



BARTHOLOMEW COUNTY

390950085553501. Local number, BA 8.

LOCATION.--Lat 39°09'50", long 85°55'35", in NE¼NW¼SW¼ sec.1, T.8 N., R.5 E., Bartholomew County, Hydrologic Unit 05120206, on property of Meadows Metal Products Co., 4 mi south of Columbus.
Owner: Meadows Metal Products Co., Inc.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 49 ft, casing length unknown.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 615.48 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of floor of shelter, 3.00 ft above land-surface datum.

PERIOD OF RECORD.--February 1967 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 8.06 ft below land-surface datum, June 3, 1968; lowest, 23.17 ft below land-surface datum, Nov. 30, 1977.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

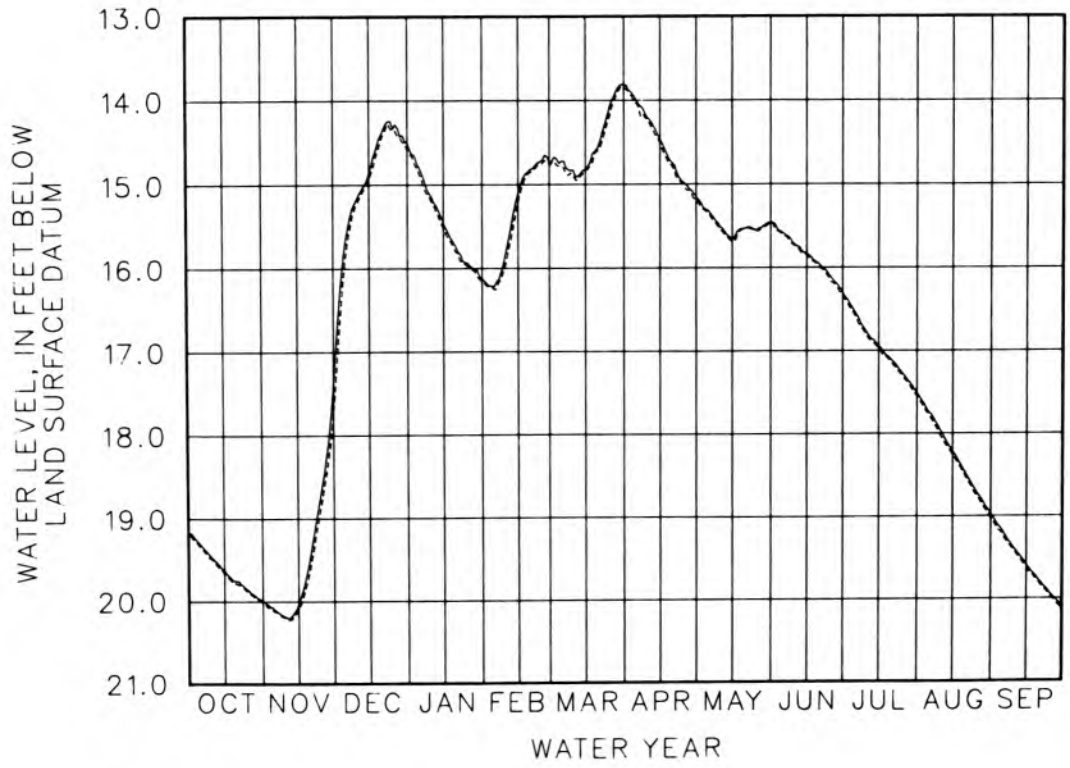
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	19.30	20.10	15.70	14.80	16.22	14.72	13.99	15.31	15.58	16.53	17.74	19.18
10	19.47	20.19	15.16	15.14	15.79	14.83	14.21	15.51	15.72	16.78	17.97	19.40
15	19.62	20.03	14.86	15.46	15.10	14.82	14.46	15.67	15.83	16.94	18.21	19.59
20	19.75	19.46	14.40	15.73	14.82	14.57	14.74	15.53	15.95	17.10	18.46	19.77
25	19.86	18.63	14.33	15.93	14.71	14.08	14.98	15.55	16.11	17.27	18.71	19.94
EOM	19.99	17.39	14.49	16.13	14.74	13.82	15.15	15.46	16.30	17.51	18.97	20.09

WTR YR 1986 HIGH 13.81 MAR 30

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	19.34	20.12	15.92	14.87	16.25	14.78	14.03	15.34	15.60	16.57	17.77	19.23
10	19.49	20.21	15.23	15.20	15.93	14.90	14.24	15.53	15.74	16.82	18.03	19.43
15	19.66	20.10	14.95	15.52	15.20	14.83	14.51	15.68	15.85	16.97	18.26	19.63
20	19.78	19.59	14.46	15.80	14.85	14.60	14.77	15.53	15.98	17.13	18.50	19.80
25	19.89	18.79	14.36	15.97	14.75	14.19	15.01	15.56	16.17	17.31	18.75	19.97
EOM	20.01	17.73	14.59	16.15	14.76	13.84	15.18	15.46	16.35	17.55	19.03	20.19

WTR YR 1986 LOW 20.22 NOV 11 AND OTHERS



391035085560401. Local number, BA 9.

LOCATION.--Lat 39°10'35", long 85°56'04", in SW¼NE¼SW¼ sec.35, T.9 N., R.5 E., Bartholomew County, Hydrologic Unit 05120206, at the Bartholomew County Home on the 4-H Fairgrounds, 3.0 mi south of Columbus. Owner: City of Columbus.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 115 ft, cased to 106 ft, screened to 111 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 621.58 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of floor of shelter, 1.65 ft above land-surface datum.

REMARKS.--Water level affected by pumpage from municipal supply well field.

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

REVISED RECORDS.--WDR IN-80-1: 1979.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 12.75 ft below land-surface datum, Apr. 27-30, 1973; lowest, 38.75 ft below land-surface datum, Sept. 15, 1977.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

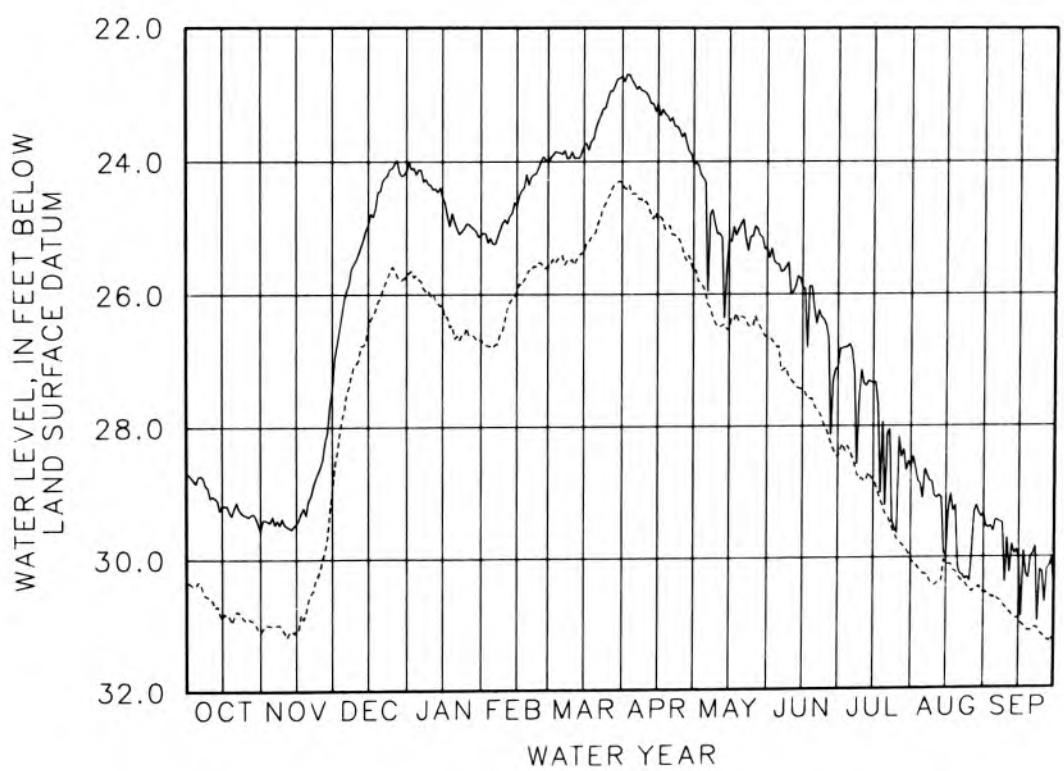
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	28.74	29.35	26.08	24.12	25.24	23.87	22.84	24.30	25.55	26.75	29.10	29.43
10	29.07	29.47	25.47	24.35	24.87	23.85	22.97	25.09	25.99	27.14	29.07	29.71
15	29.17	29.46	24.95	24.53	24.66	23.75	23.13	25.16	25.89	27.35	29.98	30.03
20	29.22	29.11	24.44	24.90	24.35	23.49	23.40	24.93	26.22	29.21	30.15	30.00
25	29.33	28.60	24.10	24.93	24.00	23.05	23.63	25.12	26.46	29.63	30.37	30.23
EOM	29.57	27.43	24.14	25.10	23.99	22.73	24.04	25.30	27.11	28.62	29.33	30.47

WTR YR 1986 HIGH 22.69 APR 2

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	30.33	31.00	27.74	25.77	26.80	25.44	24.48	25.95	26.79	28.36	30.25	30.59
10	30.61	31.10	27.04	26.02	26.40	25.47	24.60	26.48	27.29	28.79	30.43	30.80
15	30.89	31.06	26.49	26.16	25.96	25.38	24.87	26.53	27.45	28.82	30.09	30.93
20	30.86	30.61	26.05	26.66	25.63	25.06	24.96	26.34	27.68	29.33	30.29	31.13
25	30.92	30.14	25.58	26.50	25.52	24.55	25.26	26.48	28.04	29.72	30.50	31.19
EOM	31.10	28.96	25.72	26.67	25.57	24.32	25.65	26.65	28.47	30.03	30.54	31.33

WTR YR 1986 LOW 31.33 SEP 30



BARTHOLOMEW COUNTY

390317085523701. Local number, BA 10.

LOCATION.--Lat 39°03'17", long 85°52'37", in NE¼NE¼NE¼ sec.16, T.7 N., R.6 E., Bartholomew County, Hydrologic Unit 05120206, 0.8 mi east of State Highway 11 and 1.0 mi southeast of Jonesville.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 85 ft, cased to 80 ft, screened to 85 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 580 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of floor of shelter, 3.50 ft above land-surface datum.

PERIOD OF RECORD.--October 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.67 ft below land-surface datum, Apr. 14, 1979; lowest, 11.85 ft below land-surface datum, Nov. 12, 1982.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

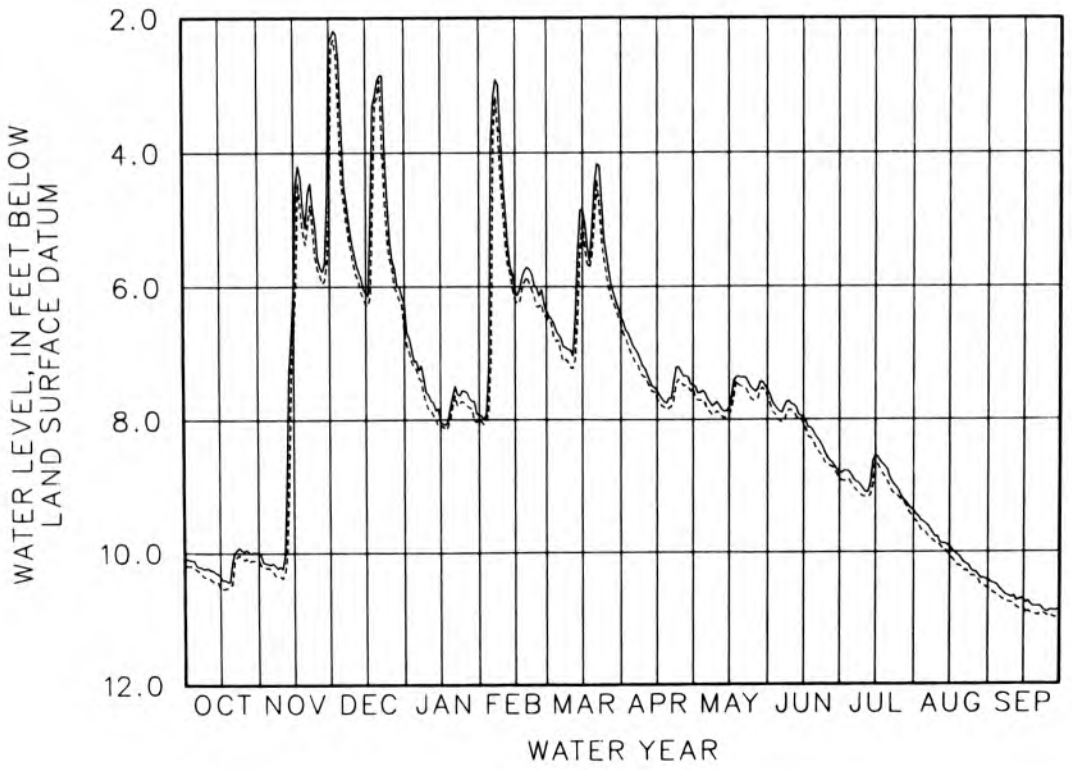
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.19	10.17	3.59	7.11	3.87	6.72	6.89	7.60	7.88	8.84	9.57	10.56
10	10.23	10.24	5.47	7.62	4.43	6.95	7.23	7.73	7.77	9.05	9.76	10.69
15	10.35	6.02	6.10	8.03	6.06	4.84	7.56	7.82	7.96	8.54	9.92	10.72
20	10.14	5.12	2.93	7.65	5.70	4.46	7.67	7.37	8.24	8.75	10.11	10.82
25	9.97	5.56	5.32	7.57	6.14	5.53	7.28	7.55	8.57	9.09	10.30	10.91
EOM	9.99	2.37	6.24	7.93	6.38	6.45	7.48	7.55	8.81	9.37	10.42	10.89

WTR YR 1986 HIGH 2.19 DEC 2

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.25	10.24	4.46	7.24	7.11	6.80	7.05	7.75	8.02	8.97	9.70	10.68
10	10.36	10.38	5.67	7.85	4.86	7.21	7.36	7.87	7.86	9.16	9.86	10.77
15	10.53	6.72	6.27	8.11	6.21	5.02	7.69	7.92	8.06	8.65	10.06	10.85
20	10.46	5.37	3.19	7.79	5.85	5.02	7.82	7.50	8.41	8.93	10.23	10.95
25	10.10	5.75	5.58	7.75	6.30	5.82	7.43	7.71	8.66	9.18	10.36	10.97
EOM	10.11	4.57	6.68	7.98	6.46	6.56	7.53	7.65	8.88	9.51	10.55	11.02

WTR YR 1986 LOW 11.02 SEP 30



390658085572201. Local number, BA 13.

LOCATION.--Lat 39°06'58", long 85°57'22", in SW¼NW¼SE¼ sec.22, T.8 N., R.5 E., Bartholomew County, Hydrologic Unit 05120206, at the end of farm access road, 0.3 mi north of County Road 600 South at its intersection with Interstate Highway 65.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 55.6 ft, cased to 50.6 ft, screened to 55.6 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 633.91 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of floor of shelter, 3.40 ft above land-surface datum.

PERIOD OF RECORD.--July 1986 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 20.85 ft below land-surface datum, July 11, 1986; lowest, 21.79 ft below land-surface datum, Sept. 16, 1986.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

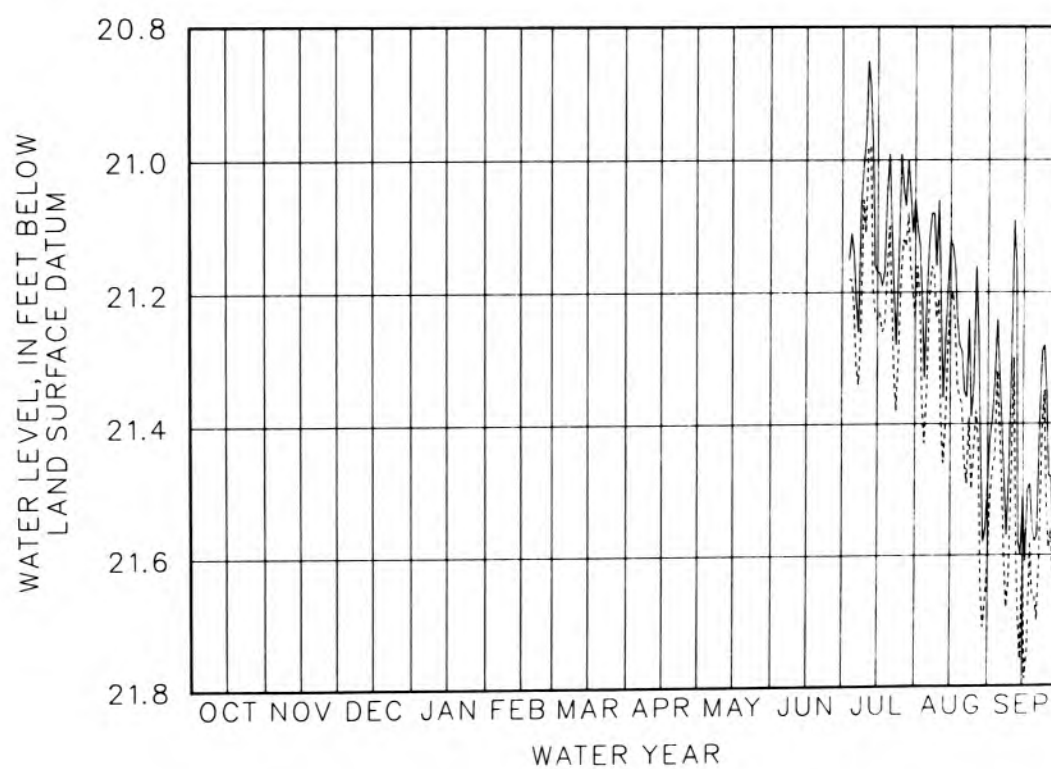
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5										21.14	21.21	21.32
10										20.97	21.06	21.31
15										21.17	21.12	21.51
20										20.99	21.29	21.58
25										20.99	21.34	21.35
EOM										21.06	21.49	21.48

WTR YR 1986 HIGH 20.85 JUL 11

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5										21.22	21.35	21.40
10										21.11	21.21	21.48
15										21.24	21.22	21.60
20										21.10	21.37	21.66
25										21.17	21.44	21.52
EOM										21.24	21.61	21.56

WTR YR 1986 LOW 21.79 SEP 16



BENTON COUNTY

402851087213501. Local Number, BE 4.

LOCATION.--Lat 40°28'51", long 87°21'35", in SE¼NE¼SE¼ sec.31, T.24 N., R.8 W., Benton County, Hydrologic Unit 05120108, on north side of county road, 3.6 mi southeast of Boswell.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 310 ft, cased to 300 ft, screened to 305 ft.

INSTRUMENTATION.-- Water-level recorder.

DATUM.--Elevation of land-surface datum is 710 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of floor of shelter, 2.15 ft above land-surface datum.

PERIOD OF RECORD.--November 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 10.65 ft below land-surface datum, May 7, 1982; lowest, 16.11 ft below land-surface datum, Feb. 13, 1981.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

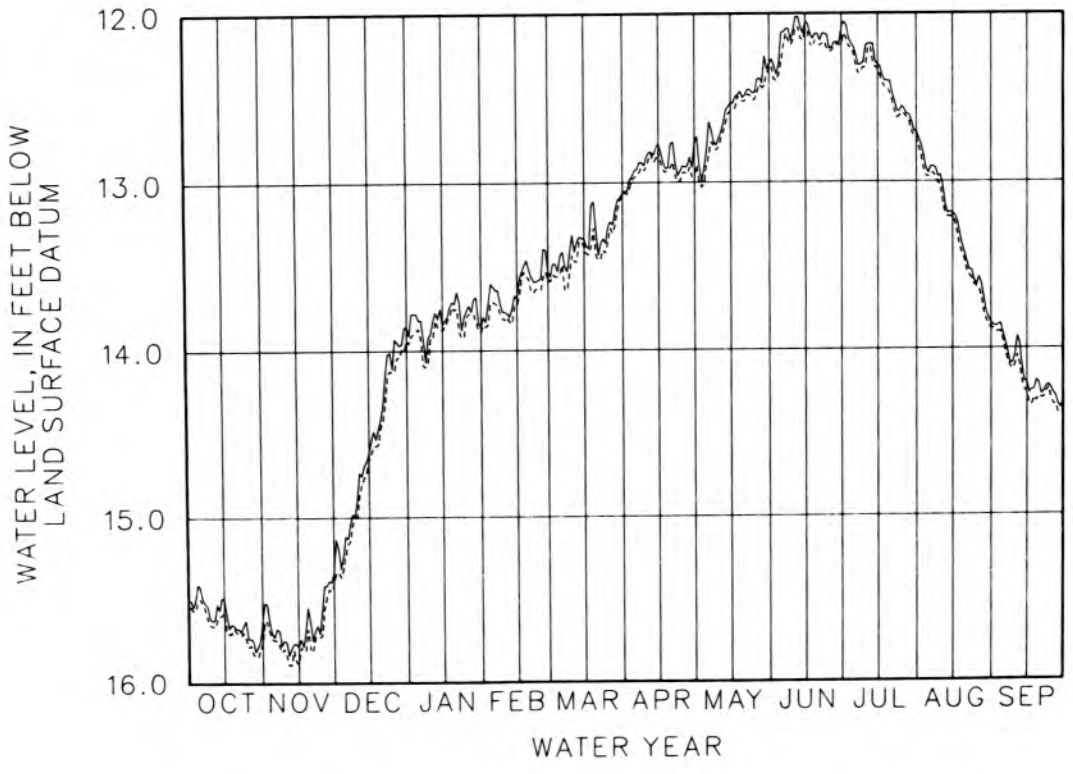
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	15.42	15.72	15.11	13.82	13.62	13.43	12.93	12.82	12.11	12.20	12.95	13.91
10	15.62	15.75	14.89	13.90	13.77	13.31	12.85	12.74	12.10	12.19	12.96	14.04
15	15.49	15.78	14.61	13.85	13.69	13.33	12.77	12.53	12.05	12.30	13.19	14.20
20	15.67	15.63	14.41	13.72	13.52	13.28	12.77	12.50	12.12	12.40	13.43	14.21
25	15.73	15.56	14.11	13.76	13.57	13.26	12.90	12.47	12.21	12.55	13.62	14.24
EOM	15.62	15.33	13.86	13.86	13.54	13.06	12.76	12.30	12.08	12.70	13.85	14.31

WTR YR 1986 HIGH 12.02 JUN 11 AND OTHERS

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	15.49	15.74	15.22	13.87	13.71	13.54	12.97	12.90	12.29	12.24	12.97	13.95
10	15.65	15.83	14.99	13.93	13.82	13.43	12.91	12.79	12.16	12.32	13.02	14.10
15	15.57	15.88	14.66	13.88	13.73	13.38	12.82	12.58	12.10	12.33	13.21	14.27
20	15.69	15.79	14.46	13.76	13.57	13.43	12.91	12.52	12.18	12.47	13.47	14.29
25	15.78	15.71	14.13	13.80	13.64	13.35	12.94	12.51	12.23	12.59	13.63	14.30
EOM	15.75	15.40	13.94	13.89	13.58	13.09	12.96	12.33	12.18	12.73	13.88	14.38

WTR YR 1986 LOW 15.89 NOV 11 AND OTHERS



BOONE COUNTY

400532086183901. Local Number, BO 17.

LOCATION.--Lat 40°05'32", long 86°18'39", in SW¼SE¼NW¼ sec.16, T.19 N., R.2 E., Boone County, Hydrologic Unit 05120201, 0.6 mi north along U.S. Highway 421 from the intersection of U.S. Highway 421 and County Road 300 North at Waugh on the west side of the highway at the residence of John Sheets.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 171.8 ft, cased to 166.8 ft, screened to 171.8 ft.

INSTRUMENTATION.-- Water-level recorder.

DATUM.--Elevation of land-surface datum is 956.50 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Mark on top of casing, 3.50 ft above land-surface datum.

PERIOD OF RECORD.--July 1986 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 45.87 ft below land-surface datum, July 11-13, 1986; lowest, 46.84 ft below land-surface datum, Sept. 16, 17, 1986.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

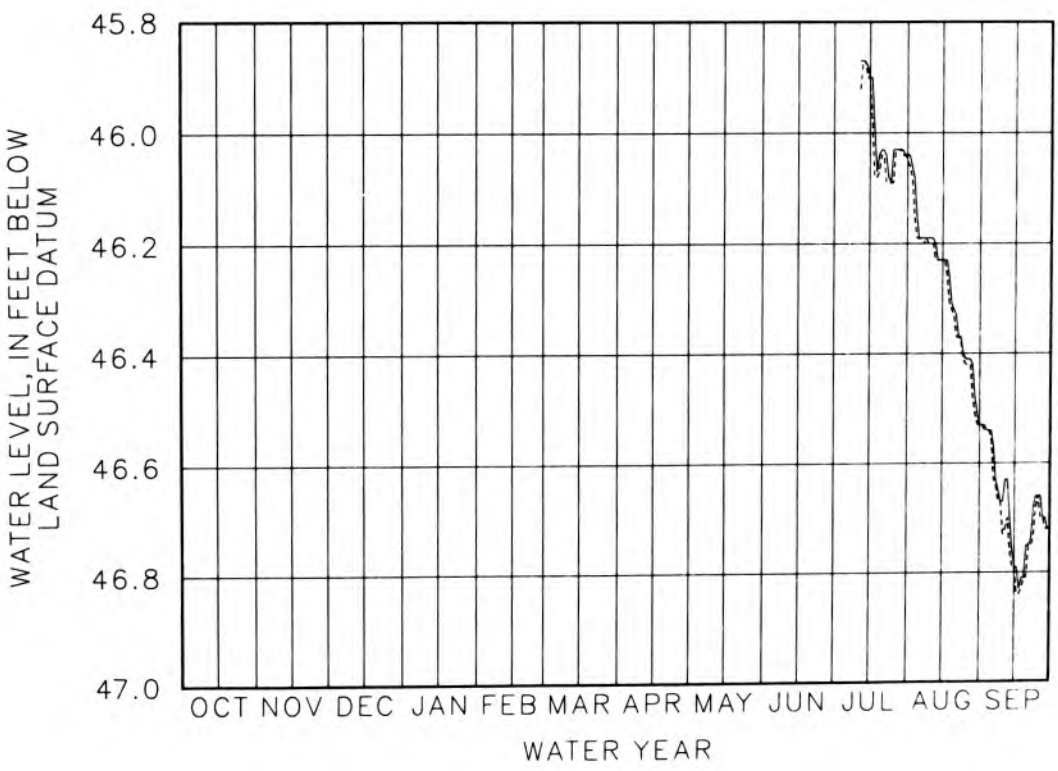
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5										---	46.19	46.54
10										---	46.19	46.67
15										45.90	46.23	46.79
20										46.03	46.32	46.75
25										46.03	46.41	46.66
EOM										46.04	46.53	46.72

WTR YR 1986 HIGH 45.87 JUL 11 AND OTHERS

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5										---	46.19	46.56
10										---	46.20	46.73
15										45.90	46.23	46.79
20										46.04	46.33	46.81
25										46.09	46.42	46.66
EOM										46.05	46.53	46.72

WTR YR 1986 LOW 46.84 SEP 16 AND OTHERS



CASS COUNTY

403407086175701. Local number, CS 3.

LOCATION.--Lat 40°34'07", long 86°17'57", in NE¼NE¼SE¼ sec.33, T.25 N., R.2 E., Cass County, Hydrologic Unit 05120105, at intersection of State Highway 18 and County Road 400 East, 2.5 mi east of Young America. Owner: U.S. Geological Survey.

AQUIFER.--Dolomitic limestone of Devonian-Silurian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 130 ft, cased to 78 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 781.74 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of floor of shelter, 2.65 ft above land-surface datum.

PERIOD OF RECORD.--August 1967 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.85 ft below land-surface datum, Feb. 2, 1968; lowest, 8.46 ft below land-surface datum, Oct. 27, 28, 1985.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

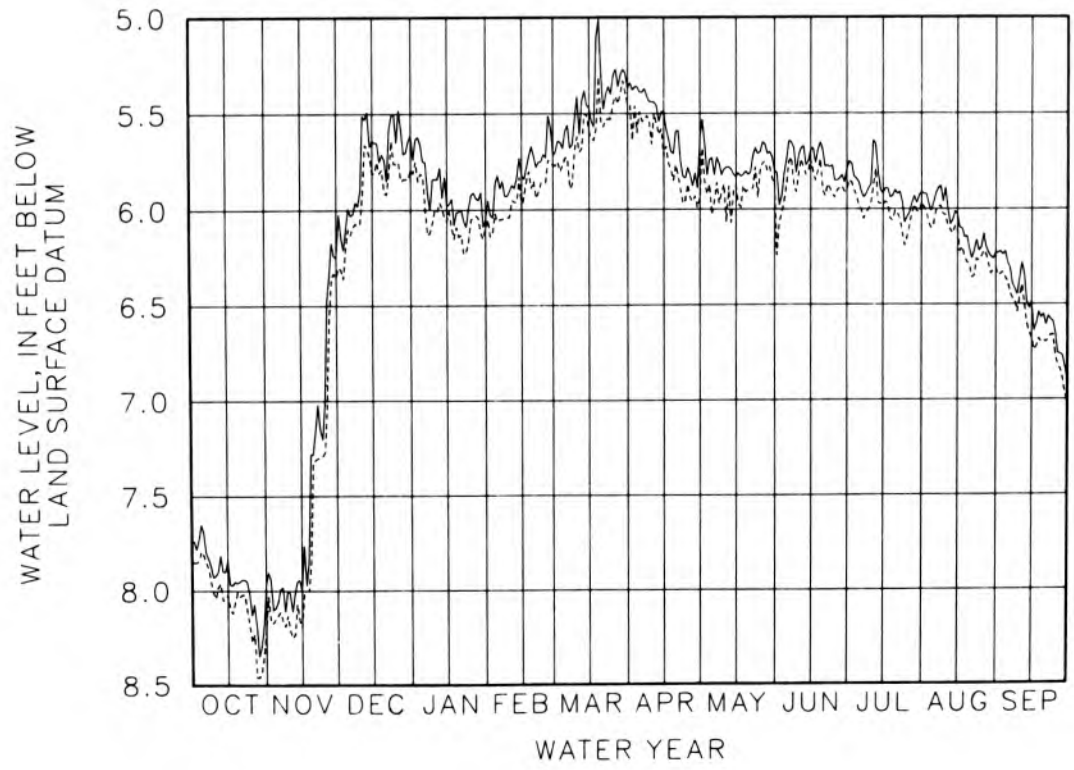
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.69	8.06	5.99	5.75	5.82	5.59	5.39	5.73	5.74	5.86	5.97	6.28
10	7.92	8.01	5.90	5.84	5.90	5.41	5.44	5.79	5.72	5.87	5.89	6.37
15	7.84	8.00	5.64	5.98	5.82	5.47	5.49	5.83	5.69	5.92	6.03	6.49
20	7.95	7.28	5.74	6.01	5.72	5.30	5.59	5.82	5.69	5.90	6.21	6.55
25	8.13	7.01	5.65	5.92	5.73	5.30	5.78	5.70	5.85	6.04	6.20	6.65
EOM	7.97	6.25	5.61	6.05	5.71	5.37	5.63	5.80	5.79	5.91	6.23	6.90

WTR YR 1986 HIGH 5.01 MAR 19

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.81	8.13	6.10	5.82	6.06	5.73	5.49	6.03	5.87	5.98	6.08	6.38
10	8.04	8.21	6.07	6.00	6.04	5.62	5.66	5.87	5.82	5.97	6.03	6.46
15	8.02	8.19	5.81	6.06	5.99	5.59	5.72	5.88	5.74	5.98	6.11	6.68
20	8.03	7.33	5.91	6.14	5.85	5.54	5.77	5.90	5.90	6.01	6.29	6.69
25	8.27	7.27	5.76	6.05	5.86	5.45	5.87	5.80	5.94	6.15	6.25	6.77
EOM	8.20	6.35	5.79	6.10	5.77	5.45	5.94	5.87	5.90	5.97	6.31	7.00

WTR YR 1986 LOW 8.46 OCT 27 AND OTHERS



DECATUR COUNTY

392022085371801. Local number, DC 2.

LOCATION.--Lat 39°20'22", long 85°37'18", in SE¼NE¼SW¼ sec.3, T.10 N., R.8 E., Decatur County, Hydrologic Unit 05120206, at the intersection of County Roads 50 North and 750 West and 7.5 mi west of Greensburg. Owner: U.S. Geological Survey.

AQUIFER.--Limestone of Devonian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 49 ft, cased to 12.5 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 840.8 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of floor of shelter, 3.02 ft above land-surface datum.

PERIOD OF RECORD.--September 1966 to October 1971, September 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.16 ft below land-surface datum, Dec. 10, 1966; lowest, 9.25 ft below land-surface datum, Feb. 9-11, 1977.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

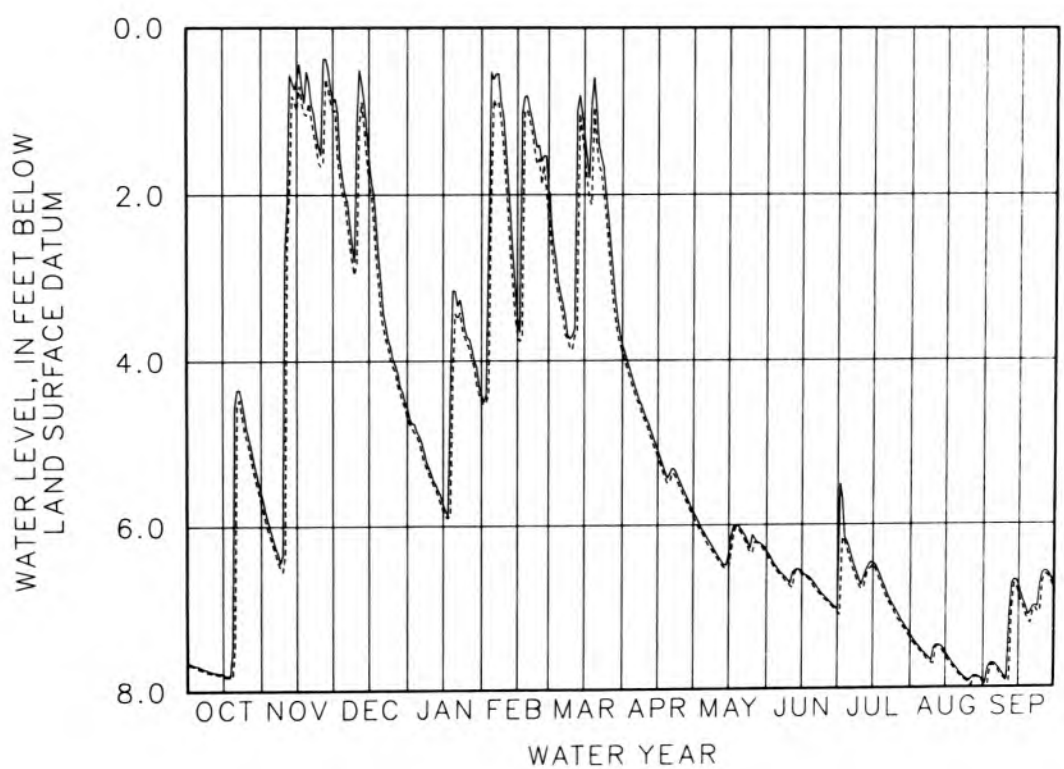
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.70	6.16	1.99	4.91	.62	3.19	4.29	6.11	6.55	6.29	7.55	7.71
10	7.76	2.73	1.15	5.36	1.40	3.70	4.70	6.36	6.71	6.74	7.51	7.90
15	7.79	.63	1.55	5.74	3.47	1.28	5.09	6.35	6.57	6.47	7.57	6.75
20	4.56	.66	3.07	3.16	.97	.95	5.38	6.05	6.71	6.76	7.78	7.08
25	4.83	1.52	3.98	3.72	1.60	2.23	5.52	6.12	6.89	7.06	7.92	6.60
EOM	5.59	.89	4.55	4.41	1.98	3.81	5.84	6.32	7.04	7.35	7.91	6.73

WTR YR 1986 HIGH .37 NOV 26 AND OTHERS

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.73	6.25	2.07	4.98	.86	3.31	4.38	6.17	6.59	6.40	7.58	7.75
10	7.78	6.35	2.82	5.44	1.80	3.87	4.76	6.40	6.75	6.79	7.71	7.93
15	7.81	.98	1.84	5.81	3.66	1.53	5.17	6.53	6.61	6.49	7.62	6.86
20	7.44	.90	3.43	3.43	1.09	1.38	5.49	6.09	6.76	6.84	7.82	7.22
25	4.94	1.66	4.07	3.78	1.87	2.54	5.58	6.34	6.92	7.13	7.95	6.72
EOM	5.71	.99	4.69	4.49	2.29	3.89	5.90	6.36	7.07	7.40	7.94	6.81

WTR YR 1986 LOW 7.98 AUG 26 AND OTHERS



DELAWARE COUNTY

400541085213701. Local number, DW 4.

LOCATION.--Lat 40°05'41", long 85°21'37", in SE¼NW¼SW¼ sec.9, T.19 N., R.10 E., Delaware County, Hydrologic Unit 05120201, on property owned by Monroe Township Conservation Club, and 8.0 mi south of Muncie. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 91 ft, cased to 89 ft, screened to 91 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 1,005 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of floor of shelter, 2.88 ft above land-surface datum.

PERIOD OF RECORD.--October 1966 to October 1971, October 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 43.98 ft below land-surface datum, Dec. 11, 1985; lowest, 49.50 ft below land-surface datum, Oct. 13, 14, 1966.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

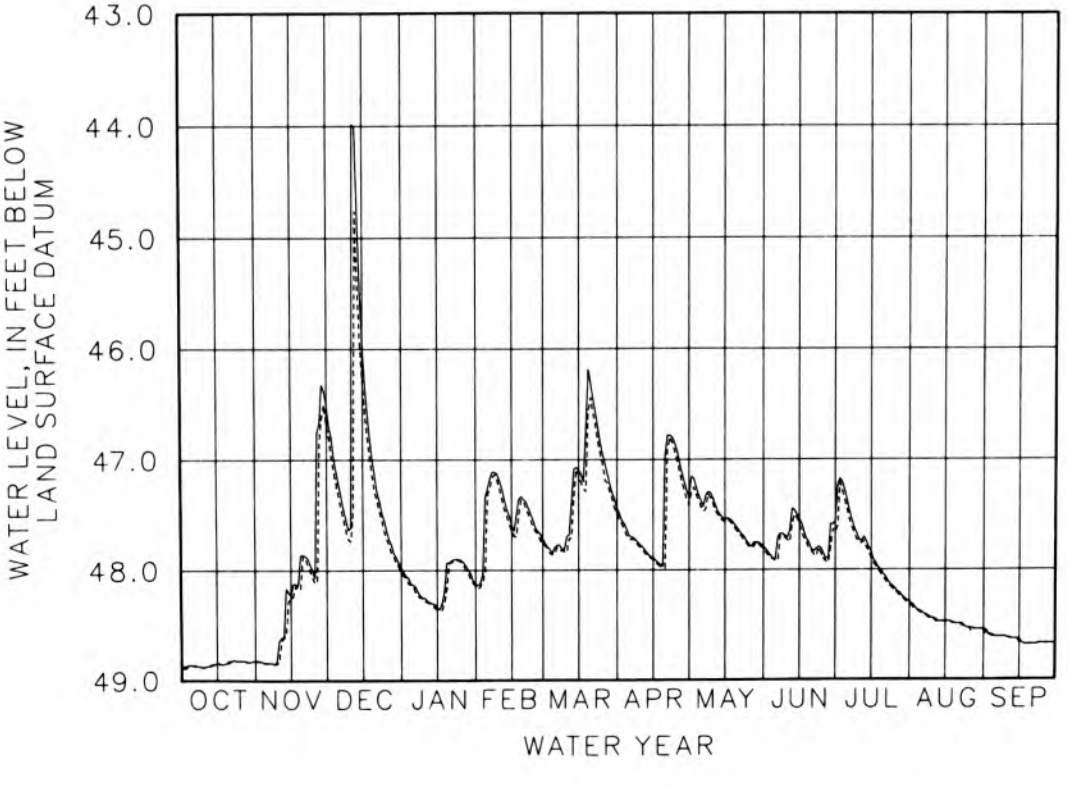
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	48.86	48.84	47.22	48.13	47.26	47.79	47.69	47.37	47.90	47.37	48.38	48.61
10	48.87	48.64	47.61	48.25	47.19	47.69	47.78	47.35	47.71	47.73	48.44	48.62
15	48.84	48.23	45.96	48.35	47.59	47.09	47.89	47.55	47.54	47.84	48.47	48.63
20	48.82	47.86	47.14	47.93	47.36	46.31	46.96	47.62	47.81	48.04	48.49	48.68
25	48.82	48.07	47.65	47.91	47.62	46.95	46.92	47.77	47.85	48.17	48.53	48.67
EOM	48.82	46.51	47.97	48.12	47.73	47.44	47.34	47.79	47.56	48.29	48.55	48.67

WTR YR 1986 HIGH 43.98 DEC 11

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	48.86	48.84	47.33	48.15	47.32	47.85	47.72	47.43	47.92	47.46	48.40	48.61
10	48.88	48.83	47.74	48.28	47.26	47.84	47.80	47.40	47.73	47.76	48.45	48.62
15	48.85	48.27	46.29	48.35	47.64	47.13	47.91	47.57	47.58	47.90	48.47	48.67
20	48.84	47.87	47.29	47.93	47.38	46.44	47.98	47.65	47.83	48.06	48.49	48.68
25	48.82	48.11	47.72	47.93	47.65	47.04	47.01	47.79	47.90	48.20	48.53	48.67
EOM	48.83	46.69	48.02	48.14	47.75	47.49	47.41	47.81	47.66	48.31	48.55	48.67

WTR YR 1986 LOW 48.89 OCT 1 AND OTHERS



ELKHART COUNTY

413121085481301. Local number, EH 4.

LOCATION.--Lat 41°31'21", long 85°48'13", in SW¼SE¼SW¼ sec.35, T.36 N., R.6 E., Elkhart County, Hydrologic Unit 04050001, at the southwest corner of Goshen Municipal Airport.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 62 ft, cased to 58 ft, screened to 60 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 818 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of floor of shelter, 2.60 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 10.60 ft below land-surface datum, Apr. 14, 1985; lowest, 16.18 ft below land-surface datum, Dec. 1-5, 1971.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

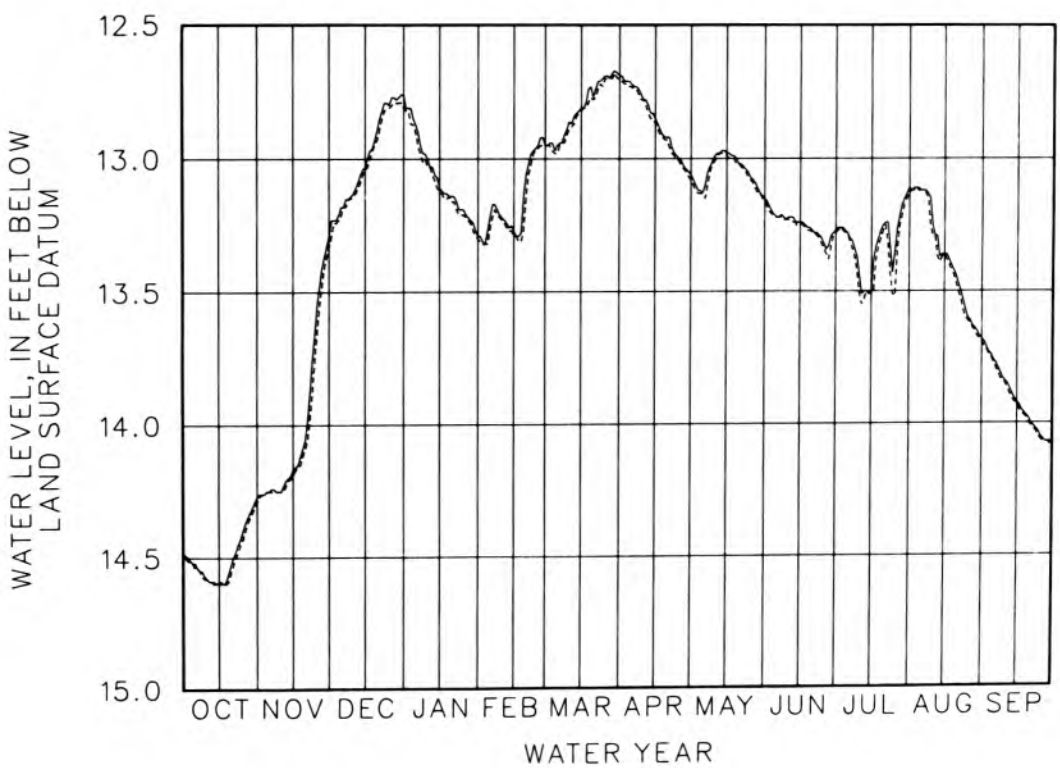
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	14.52	14.25	13.18	12.87	13.22	12.95	12.72	13.13	13.22	13.28	13.12	13.76
10	14.58	14.25	13.13	13.00	13.22	12.86	12.78	12.99	13.22	13.44	13.25	13.84
15	14.59	14.17	13.03	13.11	13.27	12.81	12.85	12.98	13.24	13.51	13.36	13.92
20	14.53	14.06	12.89	13.14	13.06	12.77	12.92	13.02	13.27	13.25	13.44	13.98
25	14.40	13.55	12.80	13.19	12.95	12.69	13.00	13.07	13.32	13.35	13.60	14.05
EOM	14.27	13.29	12.76	13.29	12.95	12.69	13.06	13.15	13.27	13.11	13.68	14.07

WTR YR 1986 HIGH 12.67 MAR 29

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	14.54	14.25	13.21	12.90	13.26	12.98	12.73	13.14	13.22	13.29	13.12	13.77
10	14.58	14.25	13.14	13.03	13.23	12.89	12.78	13.01	13.23	13.51	13.29	13.85
15	14.59	14.19	13.04	13.12	13.29	12.82	12.87	12.99	13.24	13.51	13.36	13.93
20	14.56	14.09	12.93	13.16	13.14	12.78	12.93	13.02	13.28	13.27	13.47	14.00
25	14.43	13.65	12.81	13.21	12.96	12.70	13.01	13.08	13.34	13.52	13.61	14.06
EOM	14.29	13.33	12.81	13.30	12.95	12.70	13.08	13.16	13.28	13.13	13.69	14.08

WTR YR 1986 LOW 14.60 OCT 13 AND OTHERS



ELKHART COUNTY

414419085544601. Local number, EH 5.

LOCATION.--Lat 41°44'19", long 85°54'46", in NW¼NE¼NE¼ sec.23, T.38 N., R.5 E., Elkhart County, Hydrologic Unit 04050001, on the inlet to Heaton Lake, and 3.5 mi east of Elkhart.
Owner: State of Indiana.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 1.5 in., depth 13 ft, cased to 11 ft, screened to 13 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 770 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of floor of shelter, 2.10 ft above land-surface datum.

PERIOD OF RECORD.--May 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 1.37 ft below land-surface datum, June 16, 1981; lowest, 5.57 ft below land-surface datum, Jan. 28, 1977.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

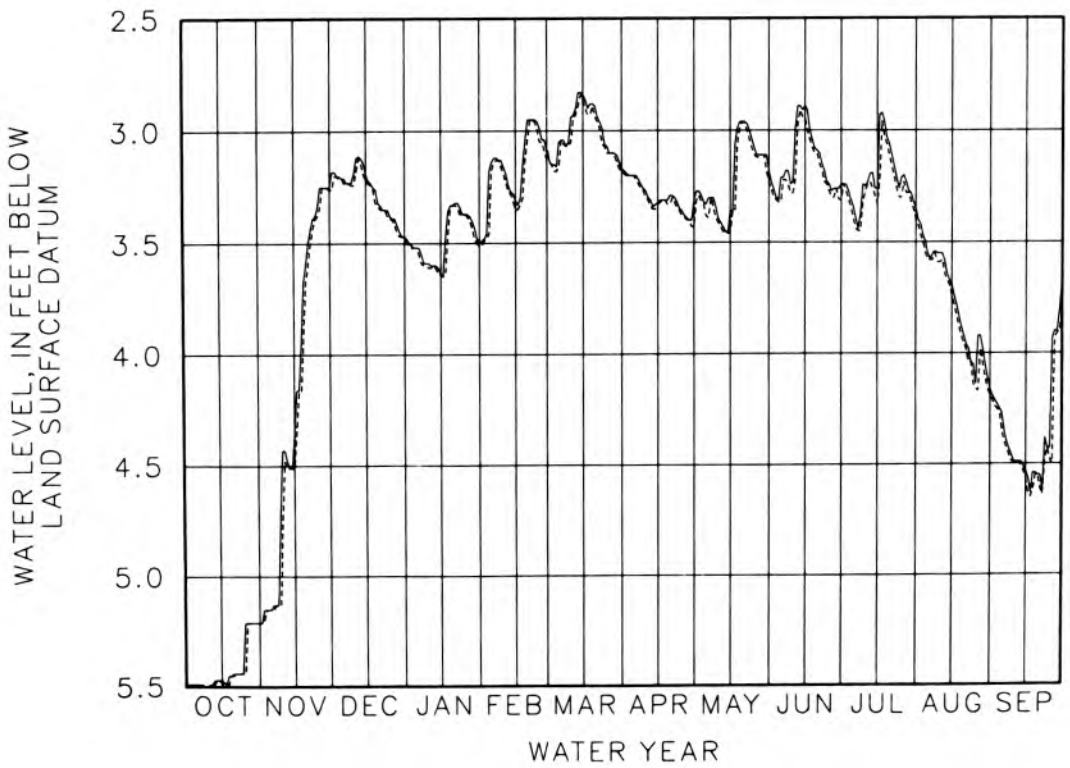
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.49	5.15	3.21	3.52	3.14	3.05	3.20	3.33	3.21	3.34	3.55	4.27
10	5.49	4.43	3.19	3.59	3.16	2.94	3.27	3.39	3.23	3.25	3.55	4.49
15	5.47	4.37	3.19	3.64	3.31	2.84	3.32	3.36	2.89	3.26	3.69	4.53
20	5.44	3.60	3.32	3.33	2.95	2.89	3.29	2.96	3.09	3.06	3.92	4.55
25	5.21	3.34	3.38	3.37	2.99	3.07	3.36	3.08	3.24	3.21	4.14	4.43
EOM	5.21	3.25	3.47	3.50	3.09	3.17	3.31	3.18	3.24	3.35	4.16	3.67

WTR YR 1986 HIGH 2.83 MAR 13 AND OTHERS

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.49	5.15	3.21	3.52	3.18	3.16	3.20	3.38	3.32	3.39	3.58	4.35
10	5.50	4.74	3.24	3.61	3.19	3.05	3.30	3.41	3.28	3.27	3.59	4.49
15	5.48	4.51	3.22	3.64	3.35	2.86	3.33	3.46	2.94	3.33	3.74	4.56
20	5.45	3.67	3.33	3.33	3.04	2.94	3.33	2.96	3.10	3.11	3.96	4.55
25	5.44	3.38	3.39	3.37	3.05	3.10	3.38	3.11	3.27	3.30	4.16	4.48
EOM	5.21	3.26	3.48	3.51	3.13	3.18	3.43	3.23	3.31	3.40	4.19	3.80

WTR YR 1986 LOW 5.50 OCT 2 AND OTHERS



ELKHART COUNTY

414351085540401. Local number, EH 6.

LOCATION.--Lat 41°43'51", long 85°54'04", in NW¼NE¼SW¼ sec.24, T.38 N., R.5 E., Elkhart County, Hydrologic Unit 04050001, on the southeast shore of Heaton Lake, and 4.0 mi east of Elkhart.
Owner: State of Indiana.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 1.5 in., depth 22 ft, cased to 20 ft, screened to 22 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 770 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of floor of shelter, 2.50 ft above land-surface datum.

PERIOD OF RECORD.--May 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 5.10 ft below land-surface datum, June 16-19, 1981; lowest, 10.43 ft below land-surface datum, Nov. 10 to Dec. 3, 1978.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

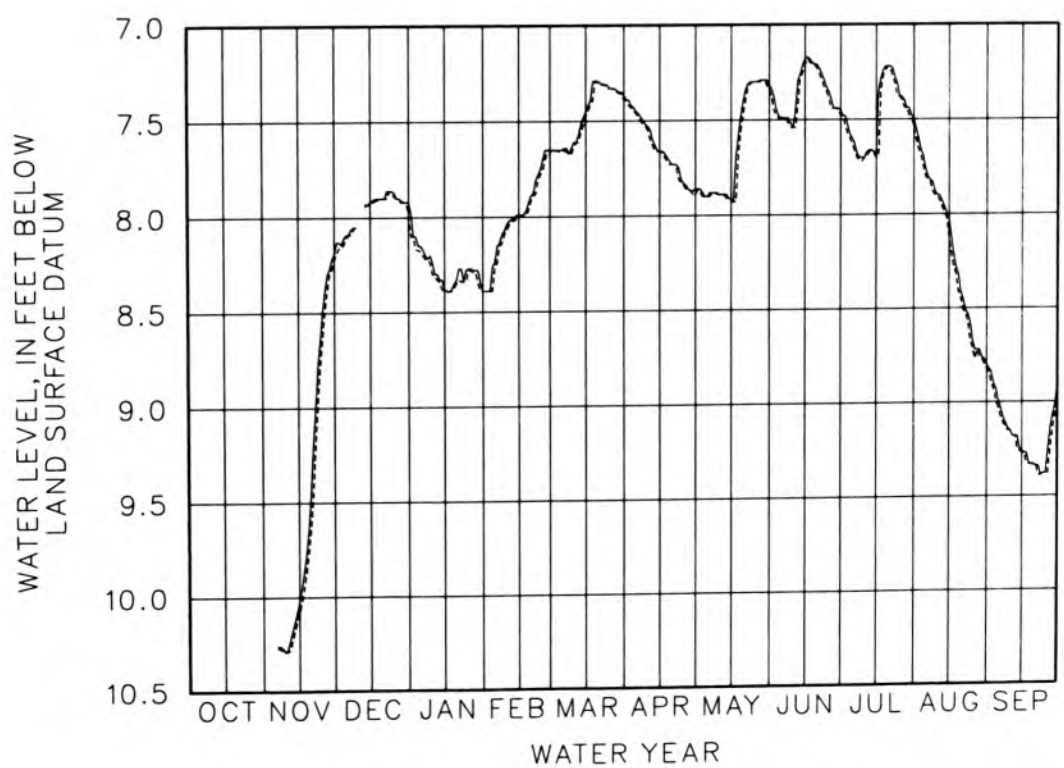
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5		---	8.09	8.15	8.24	7.65	7.45	7.90	7.49	7.60	7.76	8.99
10		10.28	---	8.24	8.04	7.61	7.53	7.89	7.54	7.70	7.90	9.15
15		10.02	7.92	8.38	7.99	7.45	7.66	7.92	7.18	7.68	8.02	9.26
20		9.45	7.90	8.33	7.89	7.29	7.73	7.40	7.21	7.22	8.41	9.33
25		8.50	7.87	8.27	7.70	7.33	7.83	7.30	7.35	7.38	8.67	9.38
EOM		8.19	7.92	8.39	7.65	7.37	7.86	7.32	7.45	7.49	8.80	8.92

WTR YR 1986 HIGH 7.17 JUN 16

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5		---	8.11	8.18	8.26	7.66	7.46	7.90	7.49	7.63	7.80	9.03
10		10.29	---	8.30	8.07	7.64	7.55	7.89	7.54	7.70	7.90	9.15
15		10.08	7.93	8.39	7.99	7.48	7.66	7.92	7.21	7.70	8.12	9.27
20		9.63	7.90	8.35	7.92	7.30	7.73	7.47	7.23	7.22	8.45	9.34
25		8.64	7.89	8.28	7.75	7.33	7.84	7.30	7.39	7.38	8.71	9.38
EOM		8.22	7.98	8.39	7.65	7.39	7.89	7.34	7.48	7.55	8.82	9.00

WTR YR 1986 LOW 10.29 NOV 8 AND OTHERS



ELKHART COUNTY

414514085505001. Local number, EH 7.

LOCATION.--Lat 41°45'14", long 85°50'50", in SW¼SE¼SW¼ sec.9, T.38 N., R.6 E., Elkhart County, Hydrologic Unit 04050001, on north side of County Road 2, 200 ft east of County Road 21, and 2.7 mi northwest of Bristol. Owner: U.S. Geological Survey.

AQUIFER.--Fine to medium sand of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 61 ft, cased to 56 ft, screened to 61 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 781 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of floor of shelter, 3.70 ft above land-surface datum.

PERIOD OF RECORD.--June 1981 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 5.50 ft below land-surface datum, Feb. 24, 1985; lowest, 11.95 ft below land-surface datum, Sept. 3, 4, 1985.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

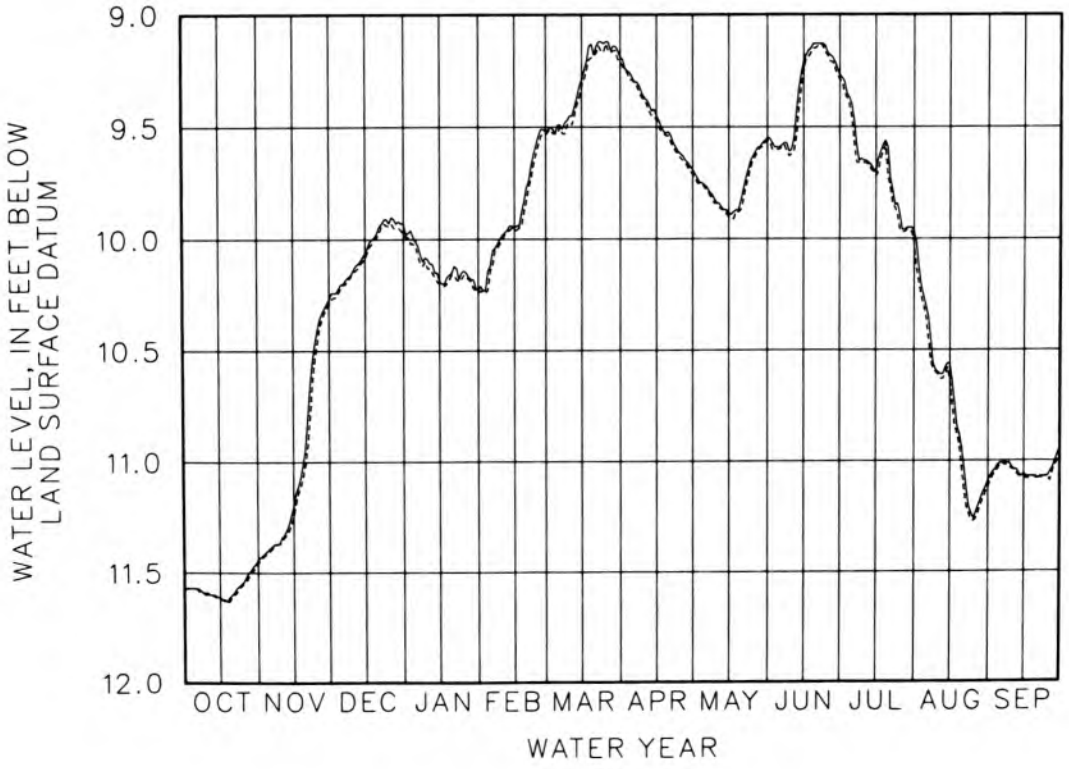
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.57	11.39	10.20	10.01	10.12	9.49	9.28	9.76	9.59	9.40	10.30	11.01
10	11.59	11.34	10.14	10.09	9.98	9.45	9.37	9.84	9.60	9.65	10.60	11.03
15	11.61	11.20	10.06	10.19	9.95	9.29	9.45	9.89	9.21	9.70	10.56	11.06
20	11.60	10.94	9.97	10.15	9.77	9.18	9.52	9.83	9.13	9.59	10.94	11.07
25	11.54	10.41	9.93	10.14	9.54	9.12	9.62	9.63	9.17	9.89	11.26	11.07
EOM	11.44	10.27	9.93	10.23	9.52	9.19	9.69	9.55	9.27	9.97	11.09	10.94

WTR YR 1986 HIGH 9.12 MAR 22 AND OTHERS

LOWEST WATER LEVEL, IN FERT BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.57	11.40	10.22	10.03	10.14	9.53	9.29	9.77	9.60	9.46	10.35	11.02
10	11.60	11.36	10.15	10.13	10.00	9.48	9.38	9.84	9.62	9.66	10.61	11.04
15	11.62	11.24	10.08	10.20	9.96	9.32	9.47	9.90	9.25	9.72	10.64	11.07
20	11.61	11.01	9.99	10.16	9.83	9.19	9.54	9.87	9.15	9.72	11.03	11.08
25	11.55	10.47	9.94	10.16	9.58	9.13	9.64	9.65	9.18	9.96	11.27	11.08
EOM	11.46	10.29	9.98	10.24	9.53	9.21	9.71	9.56	9.29	10.02	11.12	10.97

WTR YR 1986 LOW 11.63 OCT 17 AND OTHERS



ELKHART COUNTY

414446086002501. Local number, EH 8.

LOCATION.--Lat 41°44'46", long 86°00'25", in SW¼SE¼SW¼ sec.36, T.38 N., R.4 E., Elkhart County, Hydrologic Unit 04050001, 50 ft north of Bristol Street (C. R. 10), 400 ft west of intersection of Bristol Street (10), and Nappanee Street extension, in Elkhart.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 5 in., depth 80 ft, cased to 70 ft, screened to 80 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 763.36 ft above National Geodetic Vertical Datum of 1929. Measuring point: "V" notch filed on top of well casing, 2.5 ft above land-surface datum.

PERIOD OF RECORD.--March 1983 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 7.43 ft below land-surface datum, Apr. 10, 1985; lowest, 12.54 ft below land-surface datum, Oct. 16, 17, 1985.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

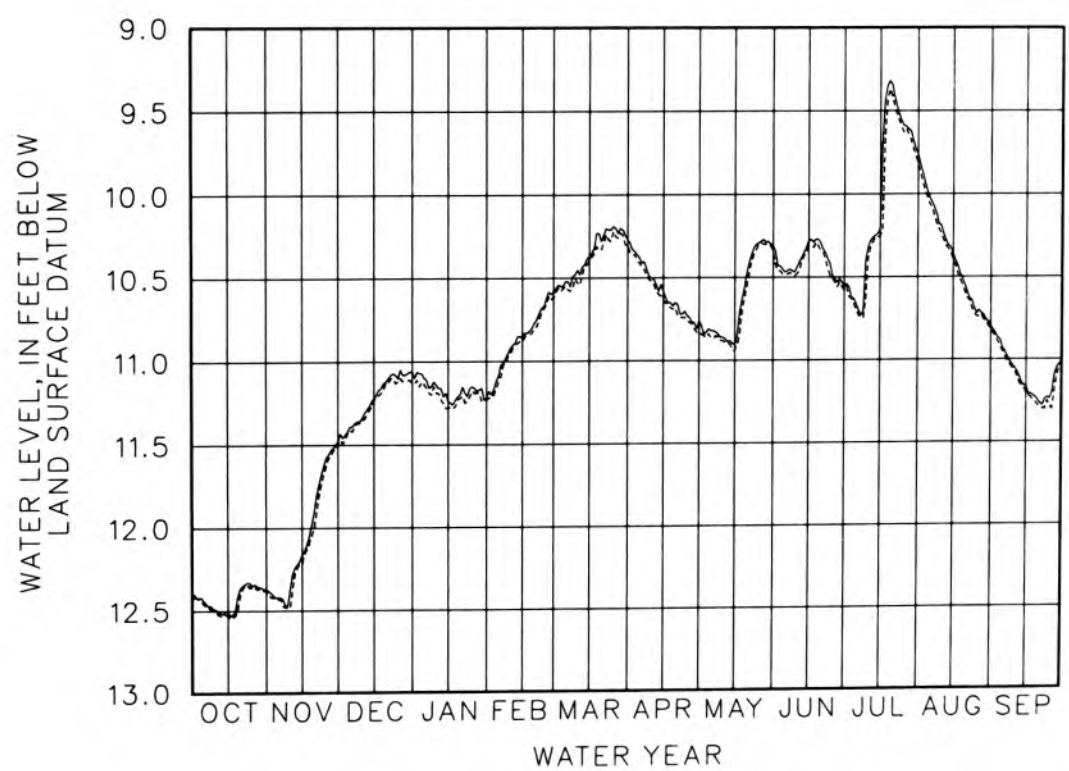
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	12.44	12.42	11.39	11.10	11.09	10.52	10.38	10.82	10.47	10.66	10.02	10.93
10	12.49	12.37	11.34	11.14	10.92	10.45	10.50	10.86	10.44	10.32	10.19	11.05
15	12.50	12.16	11.22	11.24	10.86	10.37	10.58	10.90	10.28	10.21	10.36	11.16
20	12.37	11.91	11.12	11.20	10.77	10.28	10.65	10.47	10.29	9.34	10.55	11.25
25	12.35	11.58	11.10	11.15	10.62	10.19	10.73	10.29	10.49	9.59	10.72	11.24
EOM	12.37	11.48	11.06	11.22	10.58	10.27	10.76	10.31	10.56	9.76	10.80	11.01

WTR YR 1986 HIGH 9.32 JUL 19

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	12.46	12.43	11.41	11.14	11.12	10.55	10.41	10.86	10.48	10.70	10.06	10.95
10	12.51	12.48	11.36	11.19	10.95	10.53	10.52	10.88	10.48	10.39	10.24	11.07
15	12.53	12.21	11.23	11.28	10.88	10.39	10.63	10.94	10.31	10.25	10.40	11.21
20	12.42	12.00	11.13	11.22	10.80	10.33	10.68	10.55	10.34	9.41	10.59	11.28
25	12.36	11.63	11.12	11.18	10.66	10.22	10.76	10.30	10.51	9.63	10.74	11.29
EOM	12.38	11.50	11.13	11.23	10.61	10.30	10.83	10.34	10.58	9.82	10.82	11.04

WTR YR 1986 LOW 12.54 OCT 16 AND OTHERS



FOUNTAIN COUNTY

401200087121701. Local number, FO 3.

LOCATION.--Lat 40°12'00", long 87°12'17", in NW¼NW¼NW¼ sec.10, T.20 N., R.7 W., Fountain County, Hydrologic Unit 05120108, on the southwest corner of the Union Church property on County Road 520 North, about 6.5 mi southeast of Attica.
Owner: U.S. Geological Survey.

AQUIFER.--Shale and sandstone of the Mississippian Period.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 102 ft, cased to 22 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 670.99 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.60 ft above land-surface datum.

PERIOD OF RECORD.--July 1986 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 10.97 ft below land-surface datum, July 31, 1986; lowest, 12.59 ft below land-surface datum, Sept. 22-26, 29, 30, 1986.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

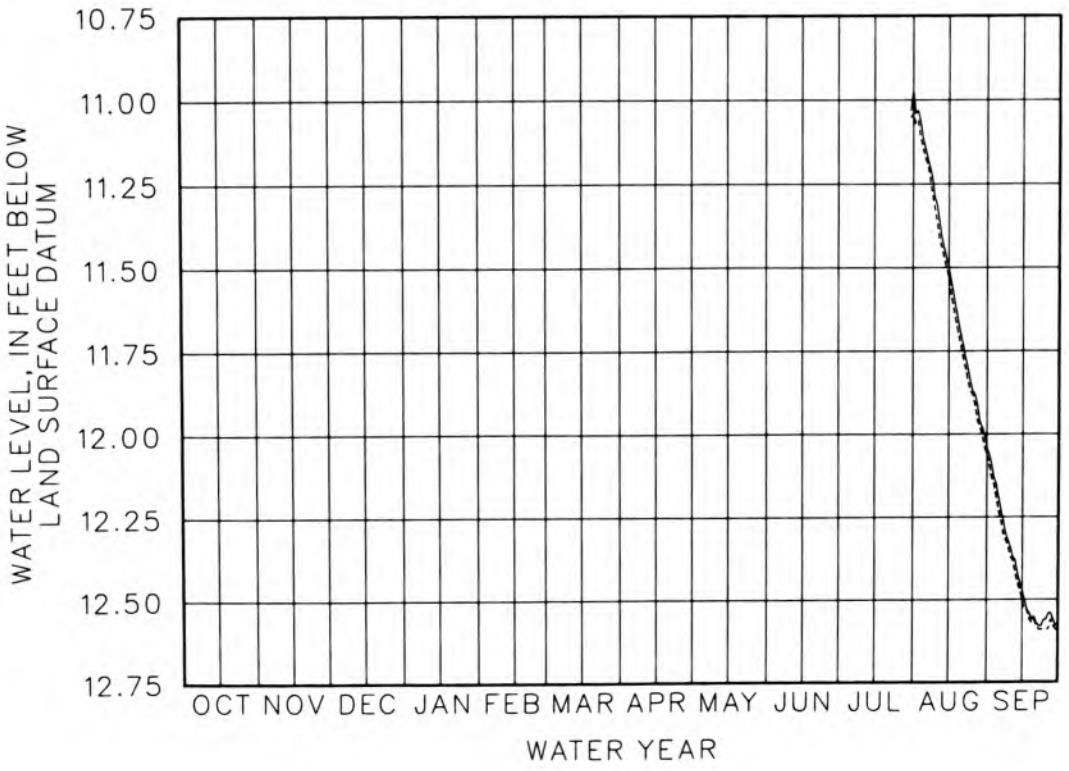
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5										---	11.14	12.19
10										---	11.31	12.34
15										---	11.50	12.47
20										---	11.70	12.55
25										---	11.87	12.56
EOM										10.97	12.04	12.57

WTR YR 1986 HIGH 10.97 JUL 31

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5										---	11.17	12.23
10										---	11.36	12.37
15										---	11.53	12.50
20										---	11.73	12.56
25										---	11.88	12.59
EOM										11.04	12.06	12.59

WTR YR 1986 LOW 12.59 SEP 22 AND OTHERS



FRANKLIN COUNTY

392416085004301. Local number, FR 5.

LOCATION.--Lat 39°24'16", long 85°00'43", in SE¼NE¼NW¼ sec.32, T.9 N., R.2 W., Franklin County, Hydrologic Unit 05080003, adjacent to property of Franklin County Conservation Club, 1.0 mi south of Brookville. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 61 ft, cased to 57 ft, screened to 59 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 621.79 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of floor of shelter, 2.70 ft above land-surface datum.

PERIOD OF RECORD.--March 1968 to October 1971, September 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 11.95 ft below land-surface datum, May 24, 1968; lowest, 27.32 ft below land-surface datum, Feb. 1, 1977.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

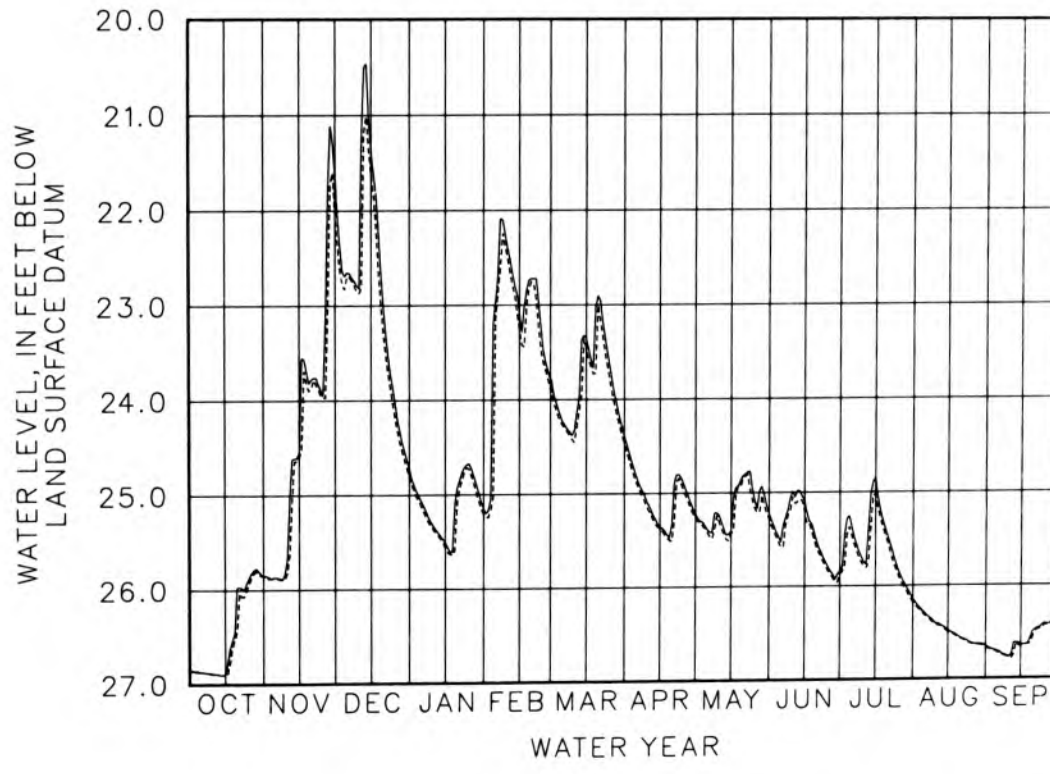
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	26.87	25.87	22.65	25.07	22.97	24.23	24.81	25.39	25.53	25.37	26.29	26.71
10	26.89	25.67	22.82	25.33	22.39	24.33	25.11	25.24	24.99	25.75	26.41	26.77
15	26.90	24.54	21.36	25.51	23.09	23.35	25.36	25.41	25.09	24.85	26.48	26.65
20	25.97	23.78	22.98	24.93	22.72	22.90	25.34	24.82	25.51	25.45	26.56	26.50
25	25.87	23.95	24.03	24.67	23.48	23.65	24.90	25.09	25.80	25.85	26.62	26.41
EOM	25.85	21.62	24.72	25.15	23.79	24.39	25.22	25.22	25.85	26.14	26.65	26.42

WTR YR 1986 HIGH 20.46 DEC 13

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	26.87	25.88	22.69	25.12	23.15	24.27	24.88	25.42	25.58	25.47	26.32	26.72
10	26.89	25.82	22.87	25.37	22.50	24.45	25.17	25.31	25.05	25.80	26.42	26.78
15	26.90	24.60	21.61	25.56	23.27	23.46	25.37	25.43	25.20	25.03	26.50	26.66
20	26.44	23.88	23.26	25.08	22.75	23.00	25.51	24.86	25.59	25.52	26.57	26.56
25	25.93	23.97	24.19	24.73	23.61	23.81	24.97	25.17	25.84	25.91	26.63	26.43
EOM	25.85	22.05	24.82	25.20	23.90	24.46	25.27	25.28	25.87	26.18	26.67	26.43

WTR YR 1986 LOW 26.90 OCT 11 AND OTHERS



FULTON COUNTY

405829086175801. Local number, FU 7.

LOCATION.--Lat 40°58'29", long 86°17'58", in NW¼NW¼SW¼ sec.10, T.29 N., R.2 E., Fulton County, Hydrologic Unit 05120106, 2.5 mi northwest of Fulton.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 102 ft, cased to 96 ft, screened to 102 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 776.45 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of floor of shelter, 2.50 ft above land-surface datum.

PERIOD OF RECORD.--August 1967 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 6.35 ft below land-surface datum, Apr. 23-27, 1973; lowest, 12.62 ft below land-surface datum, Oct. 19, 1983.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

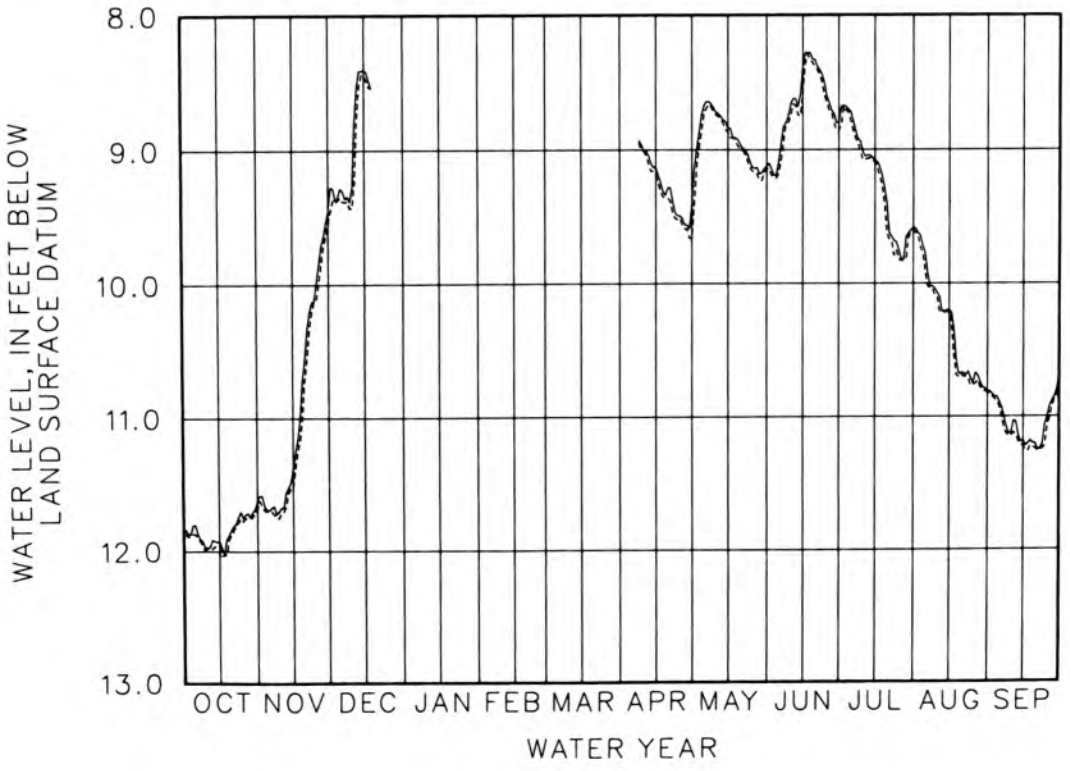
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.80	11.69	9.28				---	8.67	9.09	8.72	9.77	10.89
10	11.97	11.67	9.27				9.00	8.72	8.66	9.02	10.07	11.12
15	11.92	11.38	8.40				9.13	8.84	8.37	9.08	10.20	11.18
20	11.84	10.57	---				9.28	8.96	8.33	9.40	10.67	11.20
25	11.75	9.99	---				9.49	9.13	8.60	9.75	10.75	11.01
EOM	11.62	9.45	---				9.41	9.12	8.80	9.58	10.81	10.70

WTR YR 1986 HIGH 8.28 JUN 16 AND OTHERS

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.87	11.70	9.35				---	8.73	9.18	8.79	9.91	10.93
10	11.98	11.71	9.43				9.01	8.74	8.75	9.08	10.10	11.14
15	11.96	11.52	8.44				9.19	8.87	8.58	9.09	10.22	11.22
20	11.88	10.72	---				9.36	8.99	8.38	9.62	10.68	11.24
25	11.77	10.12	---				9.51	9.16	8.65	9.82	10.76	11.07
EOM	11.68	9.54	---				9.66	9.14	8.86	9.60	10.82	10.80

WTR YR 1986 LOW 12.03 OCT 16 AND OTHERS



402322085481901. Local number, GT 8.

LOCATION.--Lat 40°23'22", long 85°48'19", in NW¼SW¼NW¼ sec.1, T.22 N., R.6 E., Grant County, Hydrologic Unit 05120107, located on County Road 700 West right-of-way, and 1.0 mi northwest of Rigdon.
Owner: U.S. Geological Survey.

AQUIFER.--Limestone of Silurian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 35 ft, cased to 20 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 880 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of floor of shelter, 3.10 ft above land-surface datum.

PERIOD OF RECORD.--October 1966 to October 1971, July 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 1.16 ft below land-surface datum, Mar. 21, 1984: lowest, 10.66 ft below land-surface datum, Oct. 29, 1966.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

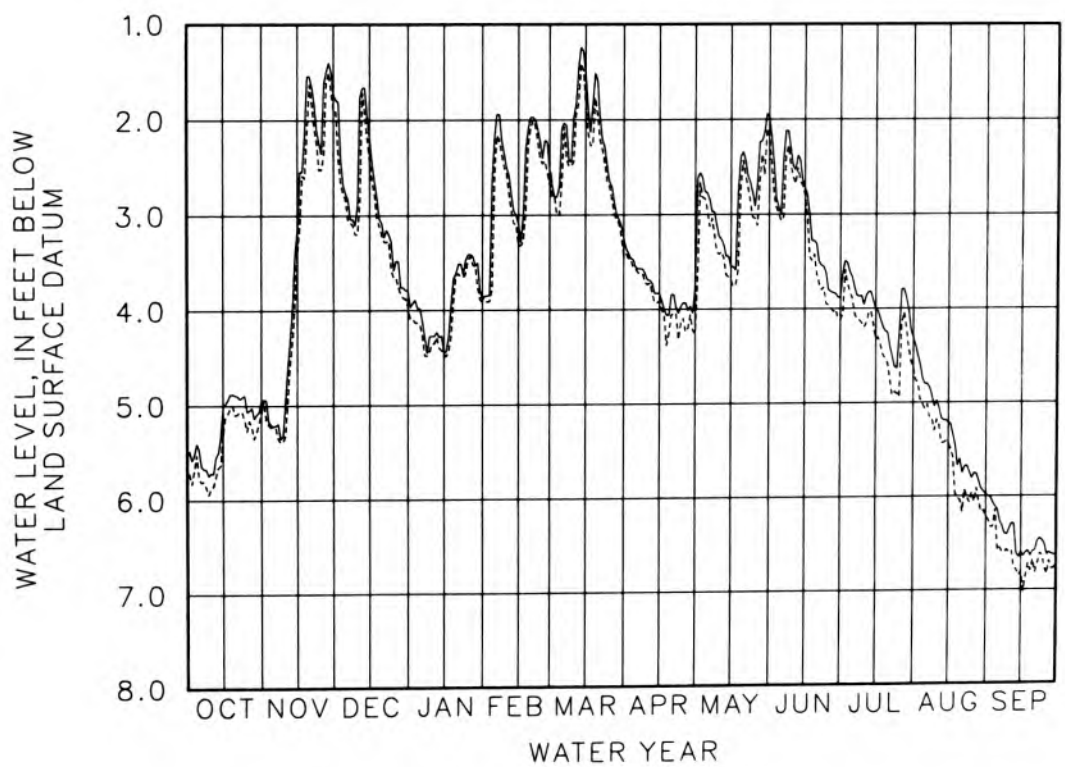
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.46	5.22	2.77	3.98	2.19	2.09	3.55	2.77	2.99	3.66	4.80	6.14
10	5.71	4.96	2.88	4.27	2.50	1.97	3.69	3.23	2.49	3.96	4.98	6.35
15	5.01	3.16	2.19	4.45	3.09	1.50	3.83	3.55	2.72	4.00	5.21	6.60
20	4.89	1.54	3.08	3.61	1.97	1.58	3.84	2.34	3.31	4.25	5.60	6.59
25	5.07	2.35	3.58	3.41	2.40	2.65	3.93	2.91	3.80	4.23	5.81	6.51
EOM	4.94	1.73	3.79	3.89	2.55	3.24	3.76	1.98	3.88	4.31	5.98	6.63

WTR YR 1986 HIGH 1.24 MAR 13

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.77	5.23	2.83	4.15	2.57	2.65	3.57	2.95	3.07	3.89	5.07	6.58
10	5.88	5.32	3.20	4.35	2.56	2.44	3.74	3.42	2.60	4.20	5.18	6.60
15	5.31	3.41	2.43	4.48	3.32	1.84	3.91	3.70	2.80	4.32	5.43	6.81
20	5.10	1.63	3.21	3.64	2.09	1.95	4.06	2.43	3.63	4.58	6.04	6.68
25	5.27	2.52	3.65	3.47	2.46	2.70	4.09	3.04	3.96	4.94	5.96	6.76
EOM	5.08	1.91	3.97	3.91	2.69	3.42	4.25	2.18	4.12	4.62	6.22	6.71

WTR YR 1986 LOW 7.02 SEP 16



HAMILTON COUNTY

400000086023001. Local number, HA 5.

LOCATION.--Lat 40°00'00", long 86°02'30", in NE¼NE¼NW¼ sec.23, T.18 N., R.4 E., Hamilton County, Hydrologic Unit 05120201, on south side of 146th Street, 1.0 mi west of White River, 1.2 mi west of Allisonville Road, and 3.5 mi southwest of Noblesville.
Owner: Earlham College.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 86 ft, cased to 82 ft, screened to 86 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 755.47 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of floor of shelter, 2.76 ft above land-surface datum.

PERIOD OF RECORD.--July 1965 to September 1971, July 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 8.00 ft below land-surface datum, Feb. 24, 25, 1982; lowest, 11.66 ft below land-surface datum, Sept. 19, 1966.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

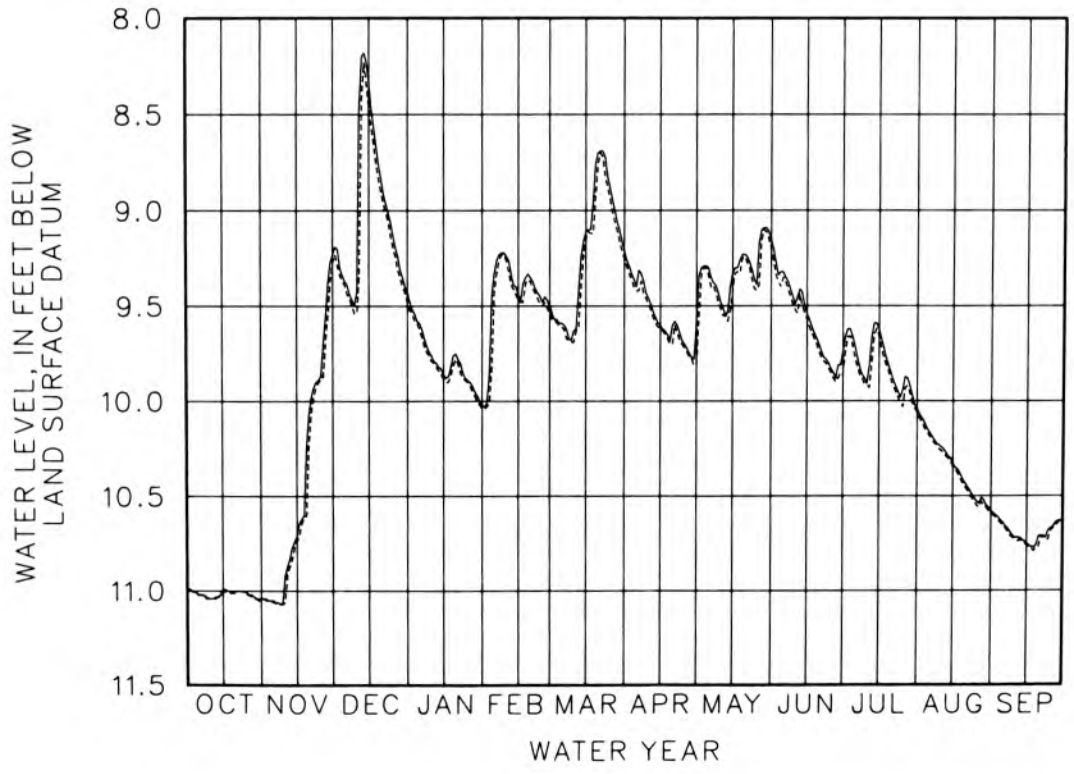
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.02	11.05	9.37	9.59	9.33	9.59	9.40	9.30	9.32	9.71	10.16	10.64
10	11.04	10.92	9.42	9.76	9.24	9.63	9.46	9.48	9.49	9.91	10.24	10.72
15	10.99	10.71	8.34	9.86	9.44	9.11	9.60	9.33	9.54	9.62	10.33	10.75
20	11.00	10.07	8.83	9.75	9.35	8.70	9.60	9.23	9.70	9.85	10.43	10.71
25	11.01	9.87	9.13	9.89	9.48	8.88	9.70	9.39	9.83	9.94	10.53	10.67
EOM	11.04	9.23	9.43	10.02	9.51	9.21	9.58	9.15	9.74	10.04	10.58	10.63

WTR YR 1986 HIGH 8.18 DEC 13

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.02	11.06	9.39	9.62	9.43	9.61	9.42	9.34	9.35	9.77	10.18	10.66
10	11.04	11.06	9.54	9.79	9.26	9.69	9.49	9.51	9.52	9.92	10.26	10.73
15	11.01	10.74	8.46	9.88	9.47	9.15	9.62	9.42	9.57	9.66	10.34	10.76
20	11.01	10.23	8.90	9.78	9.37	8.76	9.70	9.24	9.74	9.89	10.45	10.77
25	11.02	9.89	9.19	9.90	9.50	8.94	9.72	9.42	9.85	10.03	10.55	10.68
EOM	11.05	9.27	9.48	10.04	9.54	9.25	9.81	9.20	9.86	10.06	10.59	10.64

WTR YR 1986 LOW 11.07 NOV 7 AND OTHERS



HARRISON COUNTY

382323086044501. Local number, HR 8.

LOCATION.--Lat 38°23'23", long 86°04'45", in NW¼NW¼NE¼ sec.33, T.1 S., R.4 E., Harrison County, Hydrologic Unit 05140104, on Harrison County road right-of-way, 2.0 mi southeast of Palmyra.
Owner: U.S. Geological Survey.

AQUIFER.--Limestone of Mississippian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 93 ft, cased to 54 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 827 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of floor of shelter, 3.10 ft above land-surface datum.

PERIOD OF RECORD.--November 1965 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.98 ft below land-surface datum, Apr. 2, 1979; lowest, 19.71 ft below land-surface datum, Nov. 5, 1966.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

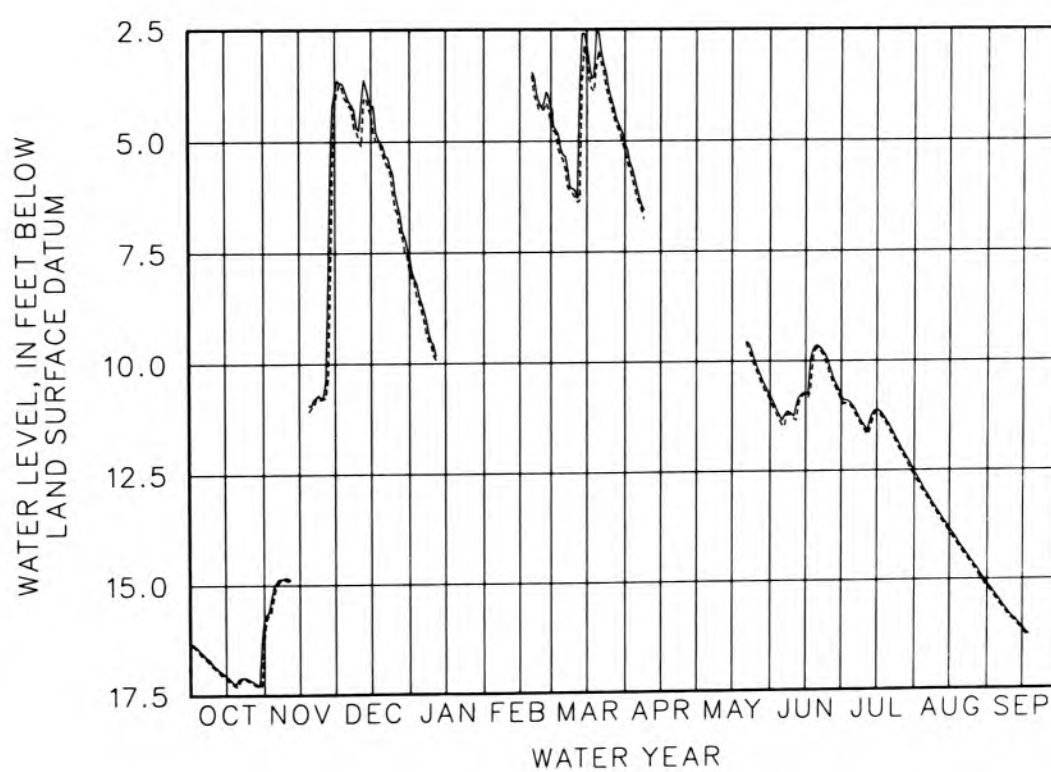
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	16.54	14.96	4.00	8.63	---	5.31	6.07	---	11.35	11.03	13.00	15.45
10	16.83	14.84	4.75	9.58	---	6.10	---	---	11.26	11.51	13.43	15.82
15	17.05	---	4.24	---	---	2.88	---	---	10.73	11.12	13.84	16.10
20	17.15	10.95	5.11	---	3.46	2.58	---	---	9.65	11.43	14.25	---
25	17.16	10.75	6.18	---	4.15	4.01	---	10.05	10.12	11.95	14.62	---
EOM	15.79	3.90	7.58	---	4.28	5.05	---	10.79	10.79	12.54	15.10	---

WTR YR 1986 HIGH 2.52 MAR 19

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	16.60	15.06	4.11	8.81	---	5.41	6.28	---	11.45	11.11	13.08	15.53
10	16.87	14.89	4.96	9.82	---	6.28	---	---	11.32	11.60	13.51	15.88
15	17.10	---	4.39	---	---	3.23	---	---	10.76	11.14	13.92	16.17
20	17.30	11.00	5.33	---	3.55	2.98	---	---	9.69	11.53	14.32	---
25	17.19	10.79	6.48	---	4.29	4.16	---	10.18	10.28	12.04	14.69	---
EOM	16.26	4.17	7.91	---	4.67	5.20	---	10.88	10.90	12.62	15.17	---

WTR YR 1986 LOW 17.31 OCT 29



HENDRICKS COUNTY

394025086400801. Local number, HD 4.

LOCATION.--Lat 39°40'25", long 86°40'08", in NW¼NW¼NW¼ sec.8, T.14 N., R.2 W., Hendricks County, Hydrologic Unit 05120203, at the intersection of State Highway 75 and County Road 600 South on county right-of-way, and 1.0 mi south of Coatesville.
Owner: U.S. Geological Survey.

AQUIFER.--Sandstone of Mississippian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 85 ft, cased to 70 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 860 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of floor of shelter, 1.92 ft above land-surface datum.

REMARKS.--Water level affected by pumpage.

PERIOD OF RECORD.--October 1966 to September 1971, November 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 18.65 ft below land-surface datum, Jan. 30, 1976; lowest, 28.00 ft below land-surface datum, January 1977.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

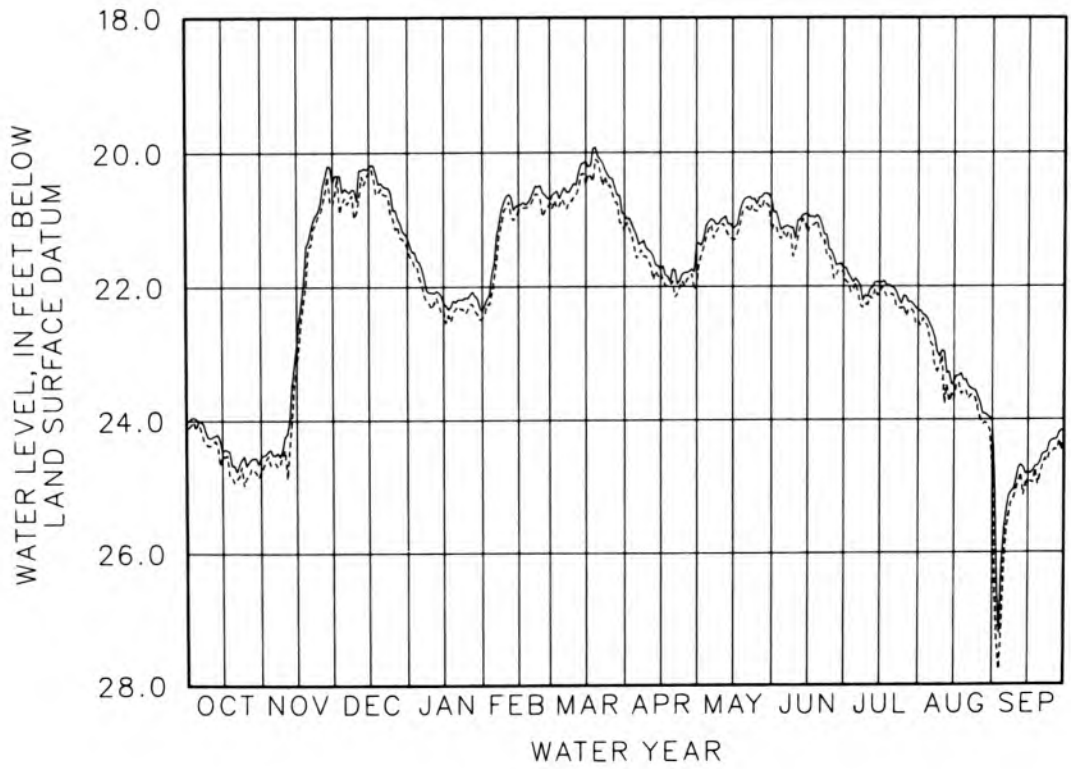
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	24.00	24.52	20.53	21.63	21.65	20.59	21.23	21.03	21.12	21.88	22.57	25.65
10	24.26	24.24	20.71	22.08	20.65	20.46	21.46	21.01	21.28	22.16	22.96	24.91
15	24.46	22.88	20.22	22.24	20.79	20.14	21.74	21.13	20.91	21.95	23.44	24.79
20	24.67	21.32	20.45	22.23	20.68	20.06	21.74	20.69	20.97	22.01	23.40	24.64
25	24.68	20.76	20.86	22.17	20.60	20.38	21.79	20.77	21.46	22.14	23.65	24.31
EOM	24.55	20.45	21.26	22.37	20.69	20.92	21.35	20.69	21.72	22.36	24.02	24.18

WTR YR 1986 HIGH 19.92 MAR 19

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	24.02	24.66	20.67	21.87	21.86	20.69	21.58	21.14	21.18	21.95	22.83	26.10
10	24.37	24.44	20.89	22.33	20.81	20.66	21.62	21.08	21.44	22.28	23.04	25.04
15	24.53	23.22	20.30	22.35	20.87	20.48	21.80	21.29	21.20	22.10	23.69	24.92
20	24.93	21.40	20.53	22.33	20.77	20.13	21.92	20.84	21.18	22.11	23.56	24.83
25	24.85	20.90	20.98	22.34	20.95	20.48	22.00	20.88	21.62	22.29	23.87	24.49
EOM	24.77	20.78	21.40	22.48	20.76	21.17	21.98	21.16	21.79	22.53	24.68	24.27

WTR YR 1986 LOW 27.78 SEP 3



410249087011201. Local number, JP 4.

LOCATION.--Lat 41°02'49", long 87°01'12", in SW¼NE¼SW¼ sec.17, T.30 N., R.5 W., Jasper County, Hydrologic Unit 07120002, on property of William Gehring, Inc., 0.9 mi east of Newland.
Owner: William Gehring, Inc.

AQUIFER.--Limestone of Devonian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 16 in., depth 300 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 676.93 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of floor of shelter, 0.00 ft above land-surface datum.

REMARKS.--Water level may be affected by irrigation pumpage.

PERIOD OF RECORD.--July 1956 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.95 ft below land-surface datum, Apr. 9, 1962; lowest, 40.17 ft below land-surface datum, July 25, 1980.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

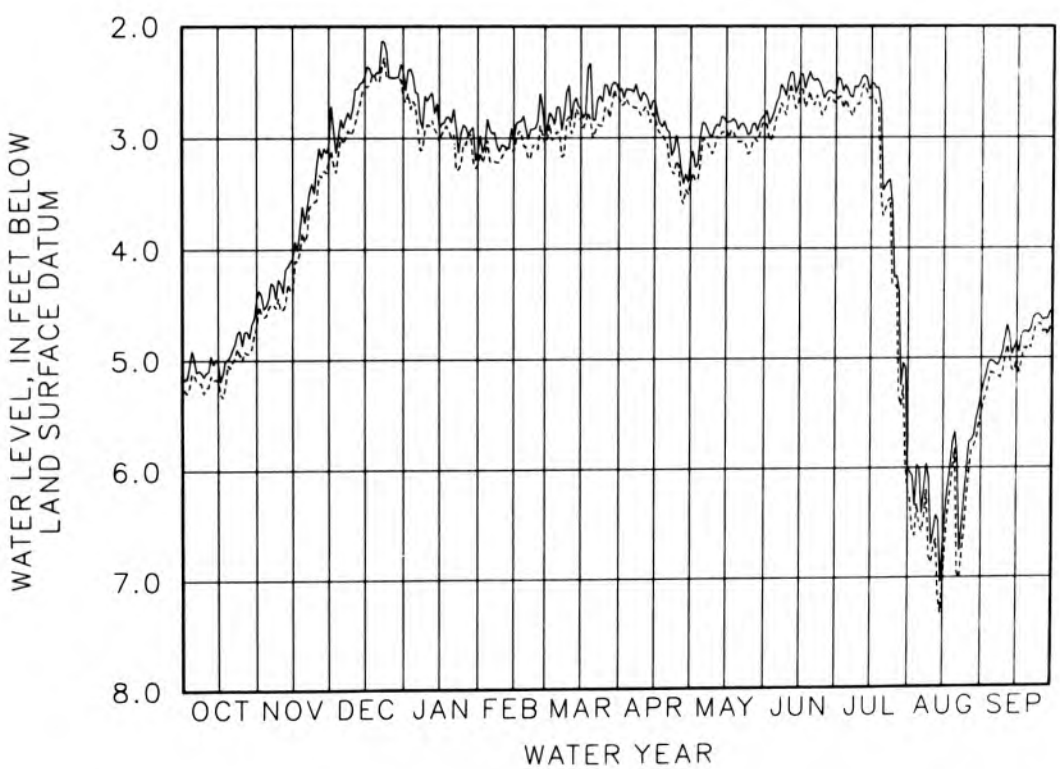
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.99	4.45	2.83	2.59	2.92	2.72	2.57	2.86	2.69	2.57	6.01	5.03
10	5.11	4.31	2.73	2.67	3.06	2.53	2.59	2.92	2.49	2.52	6.70	4.82
15	5.01	4.08	2.44	2.91	3.02	2.74	2.67	2.86	2.44	2.52	6.69	4.85
20	4.96	3.76	2.41	2.86	2.91	2.84	2.93	2.93	2.47	3.48	5.67	4.77
25	4.87	3.25	2.46	2.88	2.85	2.52	3.09	2.96	2.65	4.27	6.01	4.62
EOM	4.44	3.07	2.40	3.12	2.96	2.58	3.19	2.80	2.58	5.99	5.34	4.57

WTR YR 1986 HIGH 2.13 DEC 22

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.13	4.53	2.99	2.71	3.21	2.94	2.70	3.01	2.82	2.72	6.53	5.14
10	5.25	4.55	2.94	2.88	3.17	2.81	2.76	3.09	2.65	2.70	6.87	5.00
15	5.18	4.39	2.54	3.03	3.12	2.85	2.82	2.93	2.55	2.64	7.03	5.01
20	5.07	3.93	2.50	3.00	3.08	3.00	3.03	3.04	2.69	3.71	5.83	4.88
25	5.00	3.56	2.46	3.05	3.10	2.73	3.25	3.13	2.77	4.35	6.28	4.69
EOM	4.70	3.21	2.64	3.24	3.05	2.64	3.40	2.86	2.69	6.21	5.51	4.67

WTR YR 1986 LOW 7.33 AUG 14



JASPER COUNTY

410809087580801. Local number, JP 7.

LOCATION.--Lat 41°08'10", long 86°58'08", in SE¼SE¼NE¼ sec.15, T.31 N., R.5 W., Jasper County, Hydrologic Unit 07120002, in northwest corner of intersection of County Roads 850 North and 400 East, 4.0 mi south of Tefft. Owner: U.S. Geological Survey.

AQUIFER.--Dolomite of Middle Devonian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 130 ft, cased to 94 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 699.38 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of floor of shelter, 2.75 ft above land-surface datum.

REMARKS.--Water level affected by pumpage.

PERIOD OF RECORD.--May 1967 to current year. (Semi-annual tape-down readings only September 1971 to May 1978)

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 6.04 ft below land-surface datum, Apr. 5, 1985; lowest, 16.04 ft below land-surface datum, Sept. 6, 1984.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

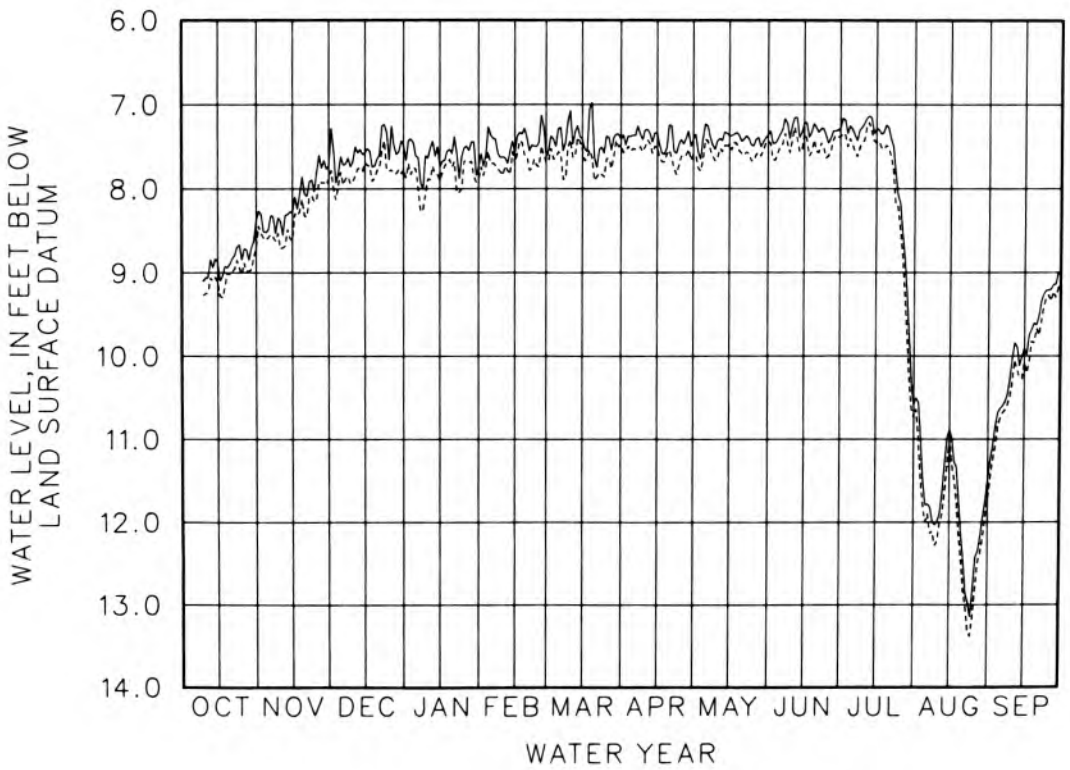
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	8.49	7.61	7.61	7.36	7.28	7.36	7.23	7.35	7.29	11.79	10.63
10	9.06	8.38	7.67	7.64	7.62	7.07	7.30	7.43	7.25	7.22	11.99	10.03
15	8.87	8.28	7.57	7.75	7.58	7.41	7.34	7.37	7.22	7.29	10.88	9.90
20	8.90	8.06	7.64	7.58	7.39	7.63	7.24	7.44	7.27	7.27	12.16	9.63
25	8.85	7.80	7.66	7.51	7.45	7.37	7.41	7.49	7.46	8.17	12.80	9.21
EOM	8.37	7.73	7.48	7.74	7.60	7.41	7.41	7.36	7.28	10.59	11.48	9.01

WTR YR 1986 HIGH 6.97 MAR 19

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	8.58	7.80	7.76	7.70	7.56	7.52	7.41	7.50	7.47	12.00	10.75
10	9.25	8.71	7.91	7.88	7.84	7.42	7.50	7.64	7.41	7.42	12.23	10.30
15	9.12	8.61	7.69	7.90	7.70	7.55	7.51	7.48	7.34	7.45	11.01	10.08
20	9.02	8.32	7.78	7.74	7.61	7.90	7.54	7.58	7.55	7.50	12.46	9.67
25	9.02	8.13	7.79	7.67	7.74	7.64	7.61	7.67	7.61	8.49	13.15	9.27
EOM	8.71	7.88	7.77	7.89	7.69	7.48	7.59	7.43	7.39	10.74	11.73	9.13

WTR YR 1986 LOW 13.38 AUG 24



JASPER COUNTY

410535087035801. Local number, JP 8.

LOCATION.--Lat 41°05'35", long 87°03'58", in NE¼NE¼SE¼ sec.35, T.31 N., R.6 W., Jasper County, Hydrologic Unit 07120002, 1.7 mi north of Gifford.
Owner: William Gehring, Inc.

AQUIFER.--Limestone of Silurian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 12 in., depth 310 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 686 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Lower lip of 2 in. tapedown pipe, 2.10 ft above land-surface datum.

REMARKS.--Water level may be affected by irrigation pumpage.

PERIOD OF RECORD.--May 1978 to current year. Record prior to October 1, 1978 available in District files.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 8.77 ft below land-surface datum, May 3, 4, 1983; lowest, 25.11 ft below land-surface datum, July 26, 1980.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

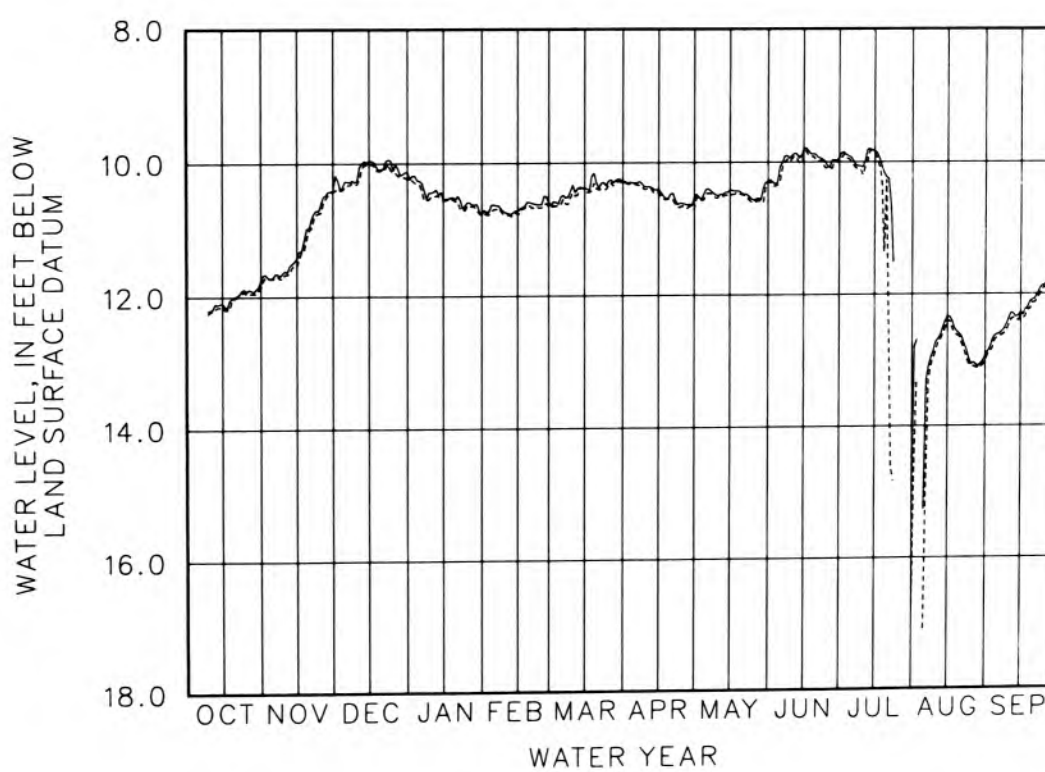
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	11.71	10.26	10.26	10.62	10.50	10.30	10.40	10.07	9.93	15.26	12.61
10	12.20	11.61	10.26	10.44	10.74	10.33	10.36	10.50	9.90	10.08	12.72	12.37
15	12.09	11.42	9.97	10.54	10.72	10.37	10.40	10.42	9.80	9.84	12.34	12.28
20	12.00	10.97	10.08	10.54	10.59	10.30	10.47	10.47	9.88	10.23	12.60	12.09
25	11.92	10.60	10.10	10.58	10.62	10.27	10.61	10.57	10.06	---	13.07	11.87
EOM	11.75	10.40	10.13	10.76	10.60	10.29	10.52	10.29	9.94	15.07	12.93	11.72

WTR YR 1986 HIGH 9.79 JUN 16

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	11.73	10.35	10.31	10.69	10.62	10.32	10.47	10.30	9.99	17.08	12.66
10	12.22	11.66	10.31	10.49	10.77	10.45	10.40	10.53	9.95	10.20	12.86	12.47
15	12.14	11.54	9.99	10.55	10.76	10.39	10.45	10.49	9.90	9.86	12.40	12.34
20	12.02	10.99	10.10	10.57	10.64	10.39	10.55	10.49	9.96	10.27	12.64	12.13
25	11.95	10.73	10.14	10.63	10.67	10.34	10.65	10.60	10.09	---	13.08	11.89
EOM	11.85	10.42	10.23	10.77	10.65	10.30	10.70	10.30	10.01	16.70	13.00	11.79

WTR YR 1986 LOW 17.08 AUG 5



JASPER COUNTY

410713087063201. Local number, JP 9.

LOCATION.--Lat 41°07'13", long 87°06'32", in NE¼SW¼SE¼ sec.21, T.31 N., R.6 W., Jasper County, Hydrologic Unit 07120002, 4.4 mi northwest of Gifford.
Owner: William Gehring, Inc.

AQUIFER.--Silurian limestone.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 18 in., depth 260 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 685 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Lower lip of 2 in. tapedown pipe, 2.10 ft above land-surface datum.

REMARKS.--Water level may be affected by irrigation pumpage.

PERIOD OF RECORD.--July 1978 to current year. Record prior to October 1, 1978 available in District files.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 4.18 ft below land-surface datum, Apr. 3, 1982; lowest, 30.25 ft below land-surface datum, July 28, Aug. 12-14, 1983.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

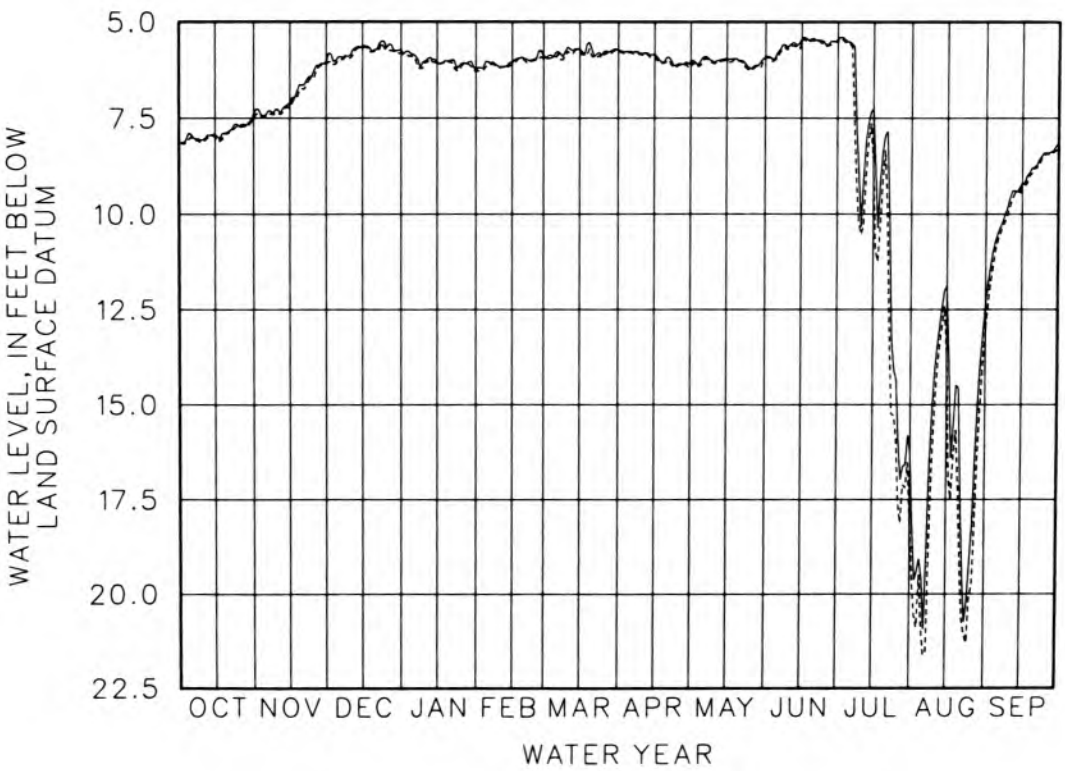
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.91	7.42	5.91	5.84	6.03	5.79	5.77	5.92	5.79	5.52	19.56	10.51
10	8.06	7.27	5.87	6.02	6.17	5.65	5.82	6.04	5.61	10.32	14.15	9.58
15	7.92	7.10	5.64	6.07	6.05	5.72	5.84	5.97	5.44	7.25	11.88	9.20
20	7.87	6.65	5.72	6.02	5.95	5.71	5.92	6.00	5.43	7.94	14.56	8.78
25	7.71	6.26	5.68	6.08	5.96	5.77	6.08	6.22	5.59	14.35	19.06	8.40
EOM	7.38	6.04	5.74	6.26	5.90	5.75	6.03	5.91	5.46	16.21	12.41	8.18

WTR YR 1986 HIGH 5.40 JUN 16 AND OTHERS

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.99	7.44	6.01	5.90	6.12	5.93	5.80	6.01	5.93	5.57	20.89	10.70
10	8.08	7.38	5.95	6.05	6.19	5.76	5.86	6.08	5.69	10.52	15.14	9.81
15	7.98	7.23	5.67	6.10	6.11	5.78	5.90	6.01	5.55	8.61	13.71	9.29
20	7.91	6.74	5.77	6.05	5.98	5.90	6.04	6.01	5.48	8.34	17.21	8.79
25	7.76	6.45	5.75	6.14	6.00	5.87	6.12	6.25	5.63	15.88	20.02	8.41
EOM	7.53	6.09	5.82	6.29	5.97	5.77	6.17	5.95	5.52	18.11	13.07	8.22

WTR YR 1986 LOW 21.62 AUG 6



410322087163101. Local number, JP 11.

LOCATION.--Lat 41°03'22", long 87°16'31", in NW¼NW¼NW¼ sec.18, T.30 N., R.7 W., Jasper County, Hydrologic Unit 07120002, on Prudential Life Insurance Company of America property, 3.2 mi north of State Highway 14, and 1.5 mi southwest of Fair Oaks.
Owner: Prudential Insurance Company of America.

AQUIFER.--Limestone of Devonian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 16 in., depth 630 ft, cased to 63 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 680 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of floor of shelter, 3.50 ft above land-surface datum.

REMARKS.--Water level may be affected by irrigation pumpage.

PERIOD OF RECORD.--March 1981 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.04 ft above land-surface datum, Apr. 3, 1982; lowest, 51.48 ft below land-surface datum, July 20, 1984.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

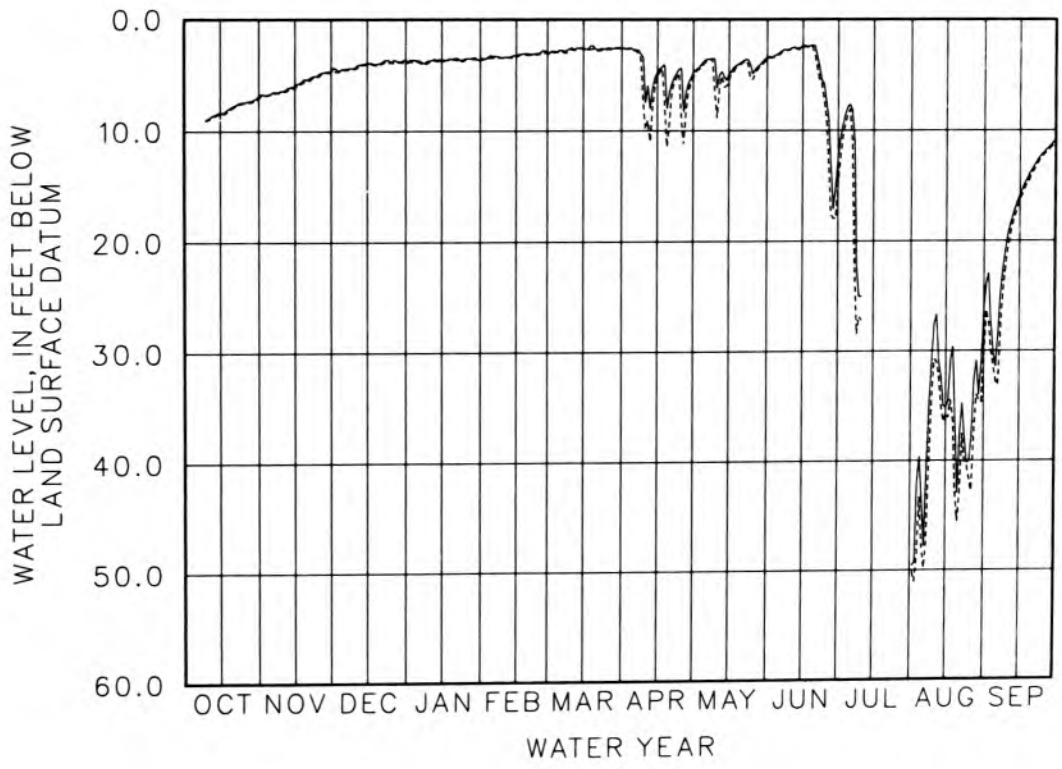
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	6.65	4.42	3.70	3.30	2.76	2.74	3.67	3.02	7.62	43.59	31.46
10	8.88	6.40	4.31	3.71	3.39	2.53	7.48	6.17	2.62	25.00	27.55	19.47
15	8.34	5.93	3.95	3.70	3.27	2.58	4.71	4.95	2.41	---	35.17	15.84
20	7.80	5.43	3.94	3.55	3.09	2.64	6.58	3.87	2.38	---	42.94	13.58
25	7.44	4.89	3.87	3.51	3.00	2.56	4.37	4.92	7.35	---	40.09	12.00
EOM	6.85	4.63	3.68	3.58	3.00	2.58	4.76	3.44	12.54	---	26.43	10.85

WTR YR 1986 HIGH 2.33 JUN 19

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	6.72	4.52	3.78	3.44	2.93	2.80	3.85	3.18	8.09	47.73	32.76
10	8.96	6.46	4.42	3.78	3.48	2.69	9.85	8.87	2.74	27.18	30.74	20.78
15	8.40	6.14	3.99	3.77	3.31	2.66	5.14	5.45	2.52	---	35.73	16.31
20	7.93	5.51	3.99	3.61	3.17	2.80	9.27	4.01	3.15	---	45.55	13.88
25	7.52	5.11	3.90	3.56	3.13	2.68	8.98	5.39	8.86	---	41.67	12.19
EOM	7.07	4.69	3.83	3.66	3.04	2.61	5.26	3.58	15.00	---	30.83	11.06

WTR YR 1986 LOW 51.04 AUG 2



JASPER COUNTY

410145087130401. Local number, JP 12.

LOCATION.--Lat 41°01'45", long 87°13'04", in NW¼SW¼SW¼ sec.22, T.30 N., R.7 W., Jasper County, Hydrologic Unit 07120002, in Old Union Township school yard, 200 ft east of County Road 900 West, 750 ft north of State Highway 14, and in Parr.
Owner: Prudential Insurance Company of America.

AQUIFER.--Limestone/dolomite of Silurian/Devonian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 5 in., depth 150 ft, cased to 103 ft, open end.

INSTRUMENTATION.--Water-level recorder, data-collection platform, and incremental encoder.

DATUM.--Elevation of land-surface datum is 695 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of well casing, 2.6 ft(revised) above land-surface datum.

REMARKS.--Water level may be affected by irrigation pumpage.

PERIOD OF RECORD.-- May 1982 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 14.08 ft below land-surface datum, May 22, 1983; lowest, 49.63 ft below land-surface datum, Aug. 6, 1986.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

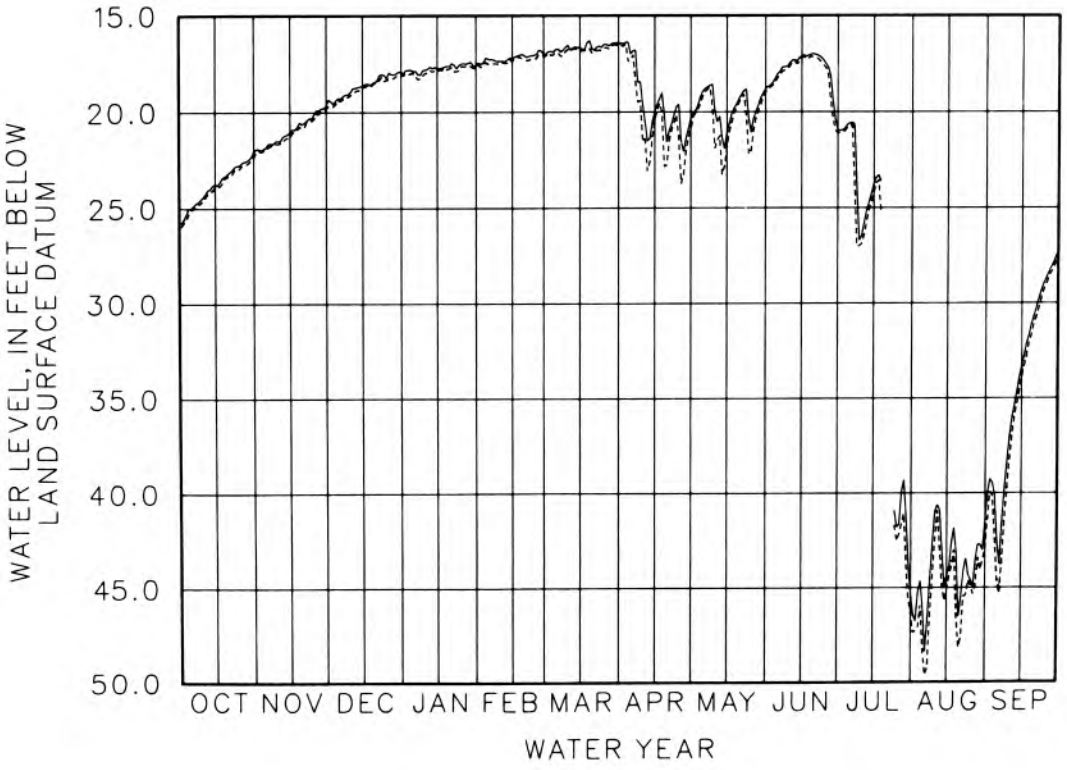
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	25.00	21.83	19.26	17.88	17.25	16.74	17.01	18.91	18.03	20.59	46.04	42.52
10	24.40	21.49	18.96	17.83	17.36	16.53	19.57	19.95	17.47	26.46	40.96	37.11
15	23.73	21.04	18.63	17.79	17.26	16.66	19.98	21.06	17.10	23.75	44.37	33.33
20	23.21	20.63	18.43	17.62	17.08	16.71	21.56	19.31	16.98	---	46.54	30.72
25	22.78	20.09	18.24	17.49	17.01	16.49	19.58	21.07	17.50	41.80	44.60	28.75
EOM	22.04	19.66	17.92	17.57	17.02	16.46	20.29	18.80	20.97	45.27	41.44	27.33

WTR YR 1986 HIGH 16.31 MAR 19

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	25.07	21.92	19.37	17.98	17.52	16.94	17.31	19.16	18.25	20.73	48.32	44.58
10	24.55	21.63	19.14	17.96	17.52	16.75	21.51	21.90	17.64	26.88	42.50	38.33
15	23.87	21.34	18.70	17.88	17.38	16.81	20.41	21.87	17.19	24.21	45.12	33.86
20	23.35	20.83	18.50	17.74	17.26	16.94	22.77	19.52	17.17	---	48.15	31.08
25	22.95	20.34	18.33	17.62	17.22	16.69	21.39	22.00	17.70	42.52	44.90	29.05
EOM	22.33	19.83	18.06	17.66	17.11	16.59	20.83	18.99	21.08	46.32	42.95	27.56

WTR YR 1986 LOW 49.63 AUG 6



JASPER COUNTY

405902087141501. Local number, JP 13.

LOCATION.--Lat 40°59'02", long 87°14'15", in NW¼NW¼NW¼ sec.9, T.29 N., R.7 W., Jasper County, Hydrologic Unit 07120002, at southwest corner of North Newton school, and 4.6 mi northwest of Rensselaer.
Owner: Prudential Insurance Company of America.

AQUIFER.--Dolomite of Silurian/Devonian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 5 in., depth 150 ft, cased to 106 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 700 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of well casing, 3.4 ft above land-surface datum.

REMARKS.--Water level may be affected by irrigation pumpage.

PERIOD OF RECORD.--March 1982 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 20.98 ft below land-surface datum, Apr. 3, 1982; lowest, 51.90 ft below land-surface datum, Aug. 4, 1984.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

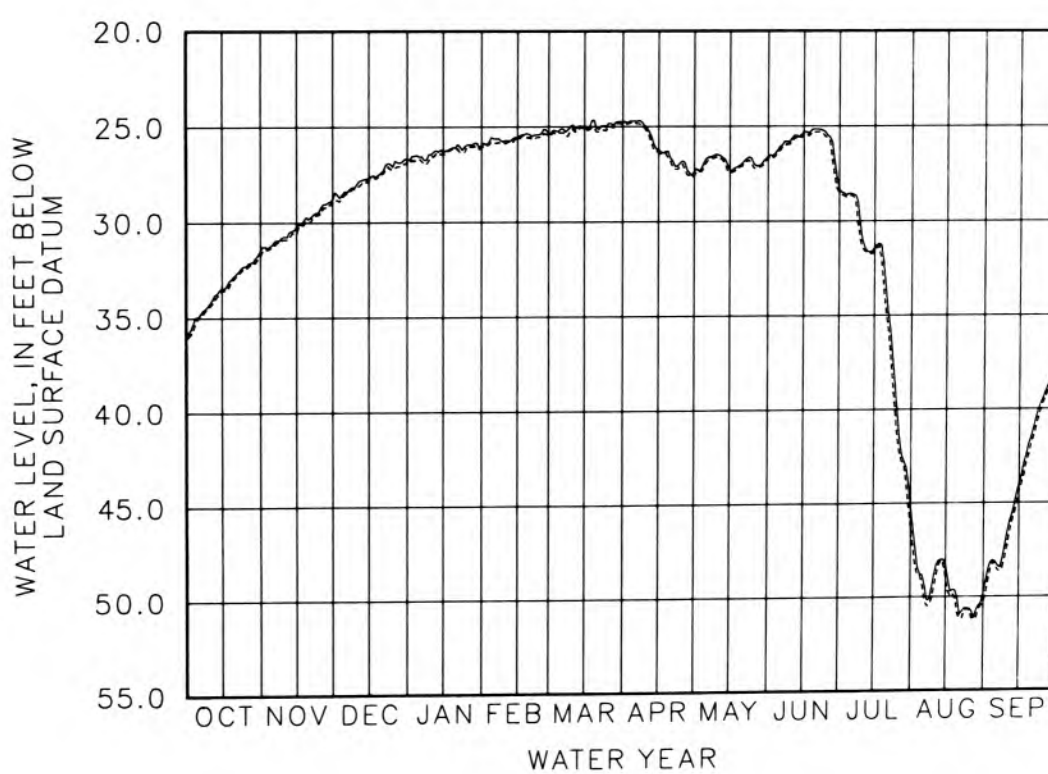
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	34.95	31.14	28.36	26.55	25.61	25.10	24.71	26.69	26.06	28.54	48.80	48.13
10	34.23	30.73	28.00	26.43	25.71	24.89	25.04	26.48	25.64	31.05	48.84	46.62
15	33.44	30.21	27.67	26.33	25.60	25.01	26.22	27.32	25.31	31.40	48.28	43.98
20	32.79	29.82	27.39	26.08	25.40	25.08	26.65	26.97	25.15	33.49	50.09	41.50
25	32.29	29.21	27.10	25.93	25.34	24.83	26.80	26.96	25.48	40.07	50.63	39.41
EOM	31.42	28.79	26.68	25.96	25.38	24.78	27.35	26.60	28.31	45.16	49.83	37.82

WTR YR 1986 HIGH 24.63 MAR 19

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	35.01	31.23	28.51	26.66	25.84	25.31	24.82	26.89	26.25	28.65	49.34	48.33
10	34.36	30.88	28.20	26.53	25.87	25.11	25.22	26.58	25.81	31.43	49.53	47.28
15	33.54	30.55	27.74	26.46	25.69	25.14	26.36	27.39	25.41	31.61	49.00	44.41
20	32.94	29.97	27.47	26.16	25.55	25.27	26.84	27.09	25.31	34.77	50.91	41.84
25	32.42	29.53	27.20	26.03	25.55	25.03	26.96	27.22	25.62	41.45	50.72	39.67
EOM	31.72	28.94	26.82	26.08	25.46	24.83	27.58	26.70	28.51	46.26	50.31	38.10

WTR YR 1986 LOW 51.20 AUG 27



JEFFERSON COUNTY

384949085251901. Local number, JF 5.

LOCATION.--Lat 38°49'49", long 85°25'19", in SE¼NW¼SW¼ sec.33, T.5 N., R.10 E., Jefferson County, Hydrologic Unit 05120207, on Jefferson Proving Ground, 500 ft north of Airfield Road, 1,000 ft southwest of the water tower, and 2.2 mi west of main gate.
Owner: U.S. Army

AQUIFER.--Limestone, dolomite, and shale of Silurian and Ordovician age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 5 in., depth 200 ft, cased to 33 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 855 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of floor of shelter, 3.00 ft above land-surface datum.

REMARKS.--This well was drilled on a mapped fracture trace.

PERIOD OF RECORD.--March 1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.17 ft below land-surface datum, Dec. 28, 1982; lowest, 8.5 below land-surface datum, Oct. 9, 1983.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

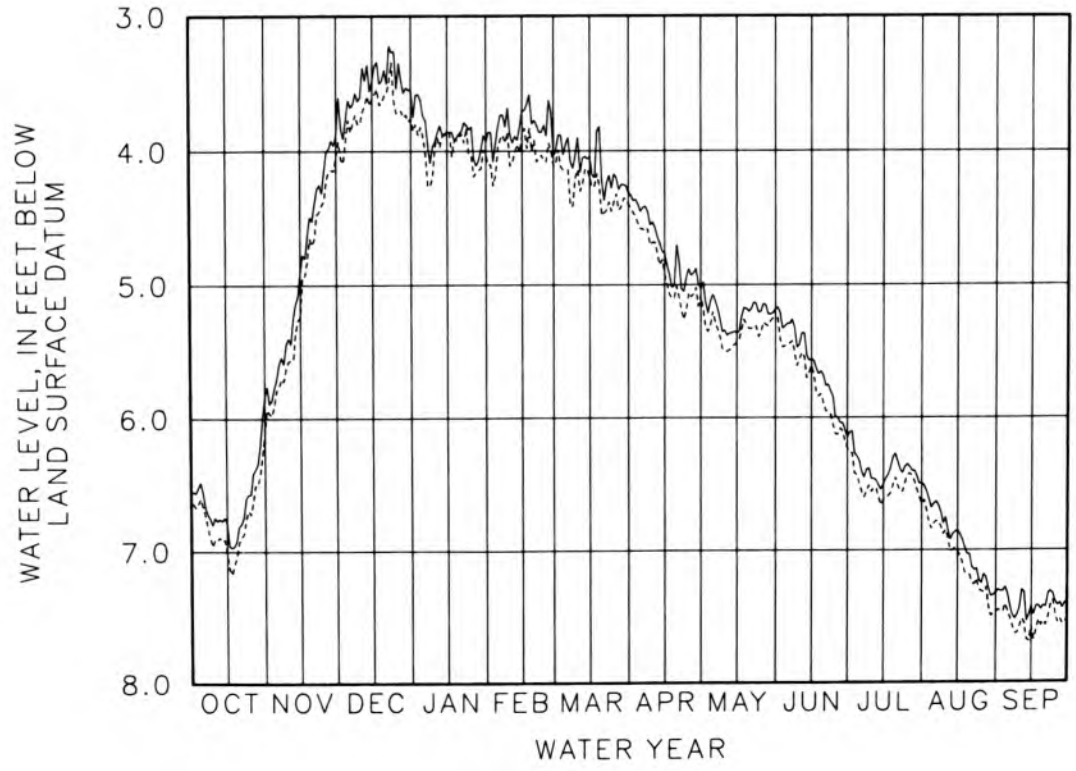
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.55	5.71	3.62	3.74	3.82	3.95	4.45	5.07	5.29	6.33	6.65	7.33
10	6.74	5.40	3.60	3.93	3.88	3.90	4.53	5.34	5.45	6.46	6.75	7.44
15	6.78	4.90	3.48	3.86	3.70	4.04	4.76	5.36	5.56	6.50	6.85	7.43
20	6.81	4.52	3.40	3.87	3.77	4.22	4.70	5.20	5.68	6.27	7.03	7.42
25	6.57	4.15	3.54	3.82	3.89	4.17	4.88	5.20	5.99	6.35	7.25	7.39
EOM	5.84	3.88	3.54	3.93	4.02	4.31	5.03	5.18	6.15	6.49	7.32	7.41

WTR YR 1986 HIGH 3.22 DEC 22

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.66	5.79	3.77	3.89	3.98	4.14	4.58	5.20	5.44	6.50	6.80	7.46
10	6.90	5.57	3.80	3.96	4.11	4.14	4.68	5.50	5.56	6.56	6.85	7.58
15	7.02	5.24	3.61	3.87	3.89	4.20	4.92	5.43	5.61	6.62	7.01	7.58
20	6.93	4.70	3.59	3.90	3.92	4.48	5.01	5.33	5.89	6.45	7.19	7.54
25	6.72	4.37	3.72	4.04	4.08	4.38	5.06	5.36	6.12	6.43	7.31	7.47
EOM	6.12	4.04	3.76	4.02	4.11	4.40	5.08	5.25	6.23	6.65	7.47	7.53

WTR YR 1986 LOW 7.69 SEP 14



JENNINGS COUNTY

385601085365701. Local number, JN 3.

LOCATION.--Lat 38°56'01", long 85°36'57", in SE¼SW¼NE¼ sec.27, T.6 N., R.8 E., Jennings County, Hydrologic Unit 05120207, 200 ft west of State Highway 3, 1.6 mi south of Crosley Fish and Game Office and 3.0 mi south of Vernon.
Owner: U.S. Geological Survey.

AQUIFER.--Limestones and dolomites of Devonian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 180 ft, cased to 45 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 718 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of floor of shelter, 3.50 ft above land-surface datum.

PERIOD OF RECORD.--October 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 36.64 ft below land-surface datum, Jan. 21, 1979; lowest, 40.52 ft below land-surface datum, Sept. 18, 1981.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

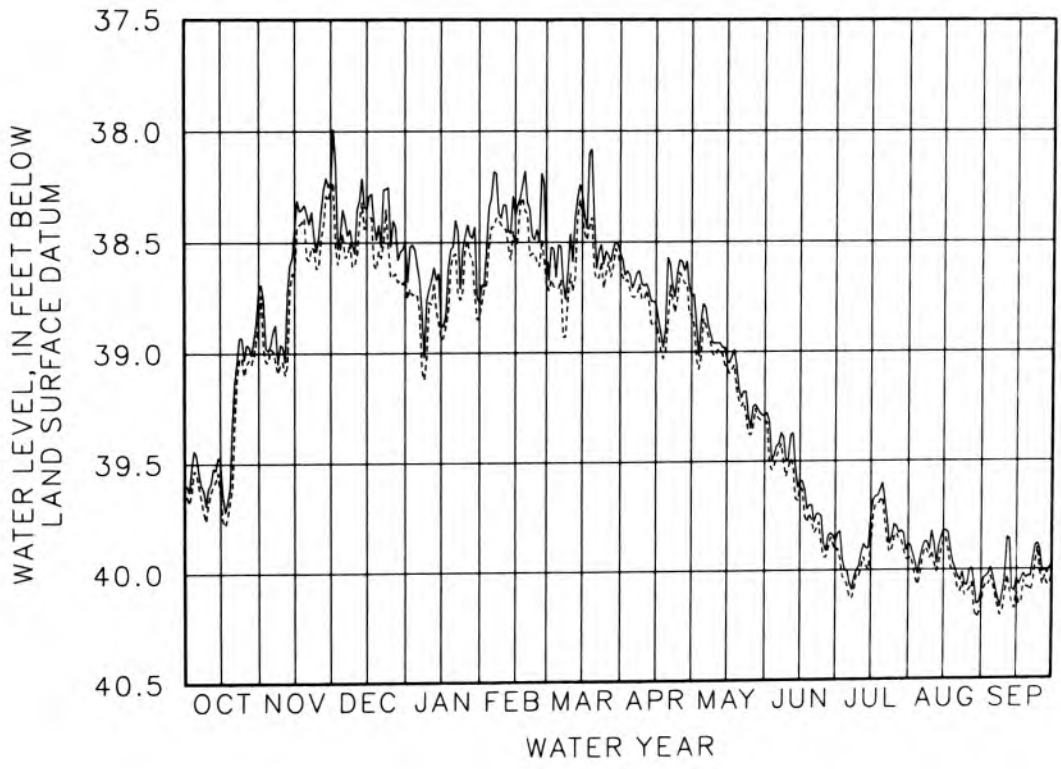
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	39.46	38.96	38.35	38.60	38.30	38.51	38.71	38.78	39.43	40.00	39.95	40.03
10	39.61	38.97	38.55	38.71	38.33	38.46	38.70	38.96	39.49	39.98	39.82	40.03
15	39.49	38.44	38.35	38.87	38.38	38.28	38.78	39.04	39.59	39.75	39.82	40.04
20	39.33	38.37	38.42	38.52	38.32	38.39	38.57	39.17	39.70	39.60	40.00	40.03
25	39.03	38.48	38.52	38.47	38.50	38.54	38.58	39.35	39.88	39.79	40.07	39.91
EOM	38.72	38.23	38.50	38.77	38.59	38.55	38.75	39.29	39.87	39.88	40.10	39.98

WTR YR 1986 HIGH 37.99 DEC 1

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	39.54	38.98	38.46	38.74	38.43	38.71	38.75	38.85	39.48	40.07	40.02	40.07
10	39.68	39.04	38.60	38.77	38.44	38.64	38.76	39.02	39.53	40.03	39.92	40.12
15	39.64	38.65	38.39	38.94	38.53	38.37	38.86	39.07	39.62	39.89	39.87	40.10
20	39.61	38.57	38.54	38.56	38.37	38.63	38.88	39.22	39.77	39.67	40.03	40.08
25	39.10	38.61	38.66	38.53	38.61	38.64	38.64	39.38	39.94	39.85	40.10	40.01
EOM	38.86	38.26	38.67	38.84	38.70	38.61	38.83	39.32	39.91	39.95	40.16	40.02

WTR YR 1986 LOW 40.22 AUG 29



KNOX COUNTY

383247087361001. Local number, KN 7.

LOCATION.--Lat 38°32'47", long 87°36'10", in SE¼SE¼NW¼ sec.2, T.1 N., R.11 W., Knox County, Hydrologic Unit 05120113, in the right-of-way of Sixth Street Road, 9.8 mi south of Vincennes.
Owner: Michael J. Kelley.

AQUIFER.--Sand and gravel Quaternary age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 43 ft, cased to 16 ft, slotted to 19 ft, open end.

INSTRUMENTATION.--Water-level recorder. Prior to April 1968, hand-taped monthly.

DATUM.--Elevation of land-surface datum is 405 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of floor of shelter, 2.42 ft above land-surface datum.

PERIOD OF RECORD.--November 1956 to December 1972, January 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.57 ft below land-surface datum, May 3, 1983; lowest, 11.35 ft below land-surface datum, Feb. 1-13, 1977.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

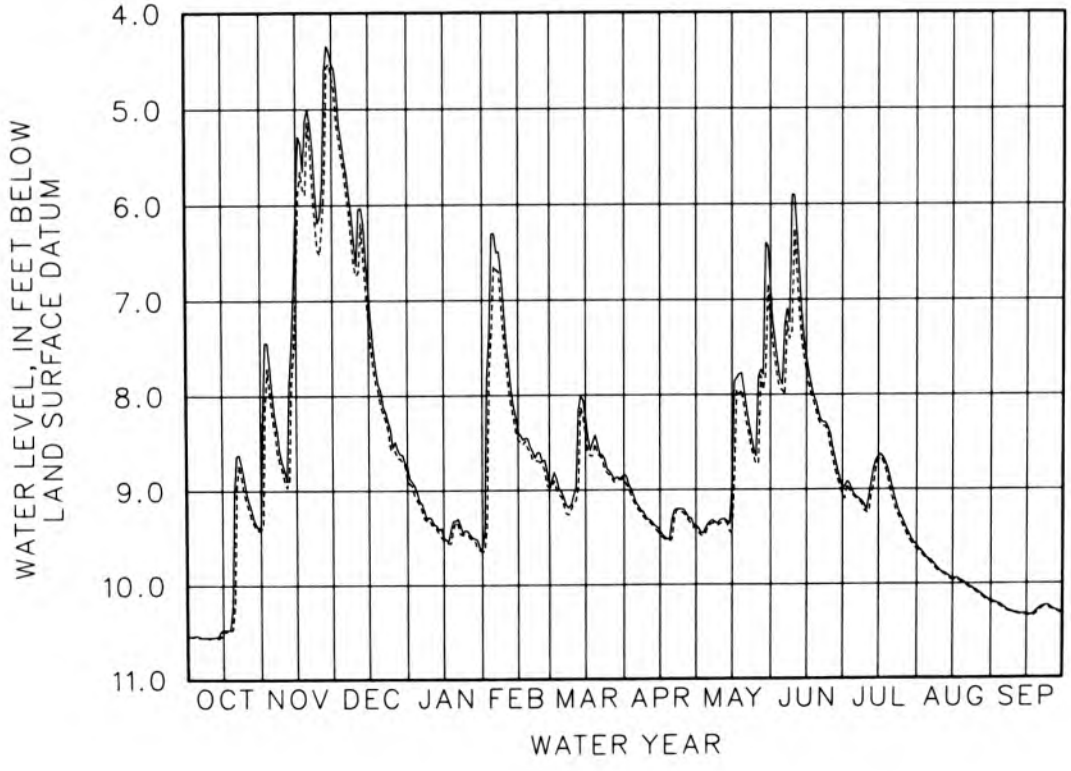
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.54	8.00	5.52	9.11	6.30	9.02	9.13	9.36	7.89	9.06	9.74	10.24
10	10.55	8.79	6.64	9.30	7.42	9.06	9.31	9.32	5.90	9.22	9.87	10.31
15	10.47	6.00	6.93	9.50	8.39	8.23	9.43	8.97	7.61	8.65	9.95	10.32
20	9.02	5.00	7.95	9.32	8.54	8.51	9.31	7.95	8.18	8.89	9.99	10.27
25	9.02	6.12	8.55	9.43	8.70	8.80	9.21	8.65	8.41	9.31	10.07	10.25
EOM	9.38	4.53	8.73	9.62	8.95	8.84	9.38	6.85	8.98	9.59	10.18	10.31

WTR YR 1986 HIGH 4.34 NOV 28

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.55	8.22	5.66	9.15	6.64	9.07	9.17	9.39	7.95	9.08	9.75	10.26
10	10.55	8.90	6.74	9.36	7.64	9.14	9.32	9.36	6.26	9.24	9.88	10.31
15	10.48	6.82	7.24	9.52	8.47	8.42	9.47	9.46	7.75	8.69	9.96	10.33
20	10.20	5.13	8.11	9.33	8.59	8.62	9.52	8.12	8.26	9.00	10.01	10.29
25	9.12	6.52	8.59	9.47	8.73	8.84	9.25	8.73	8.56	9.37	10.09	10.27
EOM	9.41	4.67	8.88	9.64	8.97	8.88	9.40	7.23	9.05	9.63	10.19	10.32

WTR YR 1986 LOW 10.56 OCT 8 AND OTHERS



KOSCIUSKO COUNTY

411839085451601. Local number, KO 4.

LOCATION.--Lat 41°18'39", long 85°45'16", in NE¼SW¼SE¼ sec.18, T.33 N., R.7 E., Kosciusko County, Hydrologic Unit 05120106, on the county right-of-way of Armstrong Road, and 2.0 mi east of Oswego. Owner: State of Indiana.

AQUIFER.--Sand of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 1.5 in., depth 22 ft, cased to 20 ft, screened to 22 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 852 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of floor of shelter, 3.00 ft above land-surface datum.

PERIOD OF RECORD.--May 1976 to September 1986. (Discontinued)

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 9.42 ft below land-surface datum, Mar. 24-26, 1982; lowest, 12.96 ft below land-surface datum, Dec. 19-24, 1979.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

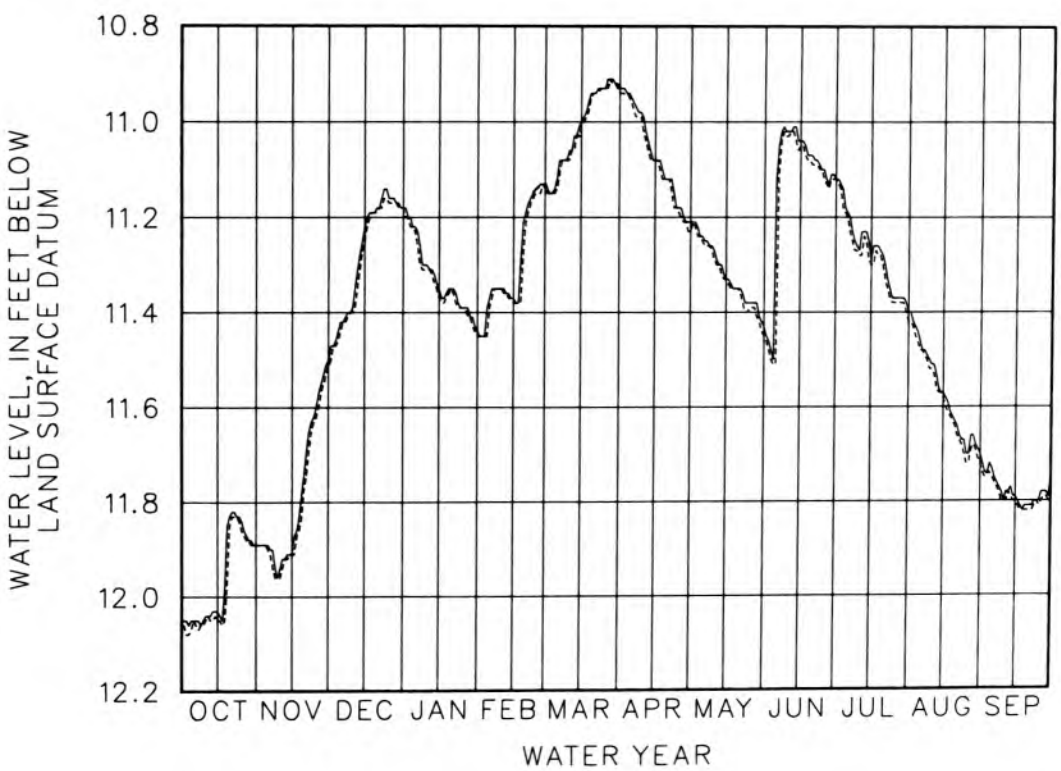
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	12.05	11.89	11.42	11.22	11.37	11.12	10.95	11.24	11.12	11.19	11.46	11.73
10	12.04	11.94	11.39	11.30	11.35	11.06	10.99	11.27	11.02	11.27	11.51	11.80
15	12.03	11.91	11.22	11.35	11.37	11.00	11.08	11.33	11.04	11.29	11.57	11.79
20	11.83	11.74	11.18	11.35	11.19	10.94	11.12	11.35	11.07	11.28	11.63	11.81
25	11.84	11.60	11.16	11.39	11.14	10.93	11.18	11.38	11.10	11.37	11.70	11.80
EOM	11.89	11.50	11.18	11.44	11.13	10.93	11.21	11.43	11.12	11.40	11.70	11.75

WTR YR 1986 HIGH 10.91 MAR 26 AND OTHERS

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	12.05	11.90	11.44	11.23	11.39	11.14	10.96	11.25	11.51	11.20	11.48	11.75
10	12.05	11.96	11.40	11.31	11.35	11.08	11.02	11.29	11.03	11.28	11.52	11.80
15	12.05	11.91	11.25	11.37	11.38	11.01	11.08	11.33	11.05	11.30	11.58	11.80
20	11.85	11.77	11.19	11.35	11.21	10.94	11.12	11.35	11.09	11.30	11.64	11.82
25	11.86	11.62	11.17	11.39	11.15	10.93	11.19	11.39	11.12	11.38	11.72	11.81
EOM	11.89	11.51	11.18	11.45	11.14	10.94	11.23	11.45	11.12	11.42	11.72	11.79

WTR YR 1986 LOW 12.08 OCT 2 AND OTHERS



KOSCIUSKO COUNTY

412554085450001. Local number, KO 6.

LOCATION.--Lat 41°25'54", long 85°45'00", in NW¼SW¼NW¼ sec.5, T.34 N., R.7 E., Kosciusko County, Hydrologic Unit 04050001, west end of North Shore Drive and Lakeview Park in Syracuse, Indiana.
Owner: U.S. Geological Survey.

AQUIFER.--Sand of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 2 in., depth 23 ft, cased to 20 ft, screened to 23 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 870 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of floor of shelter, 3.00 ft above land-surface datum.

PERIOD OF RECORD.--November 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 6.94 ft below land-surface datum, Apr. 15, 16, 1985; lowest, 10.64 ft below land-surface datum, Feb. 9, 1979.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

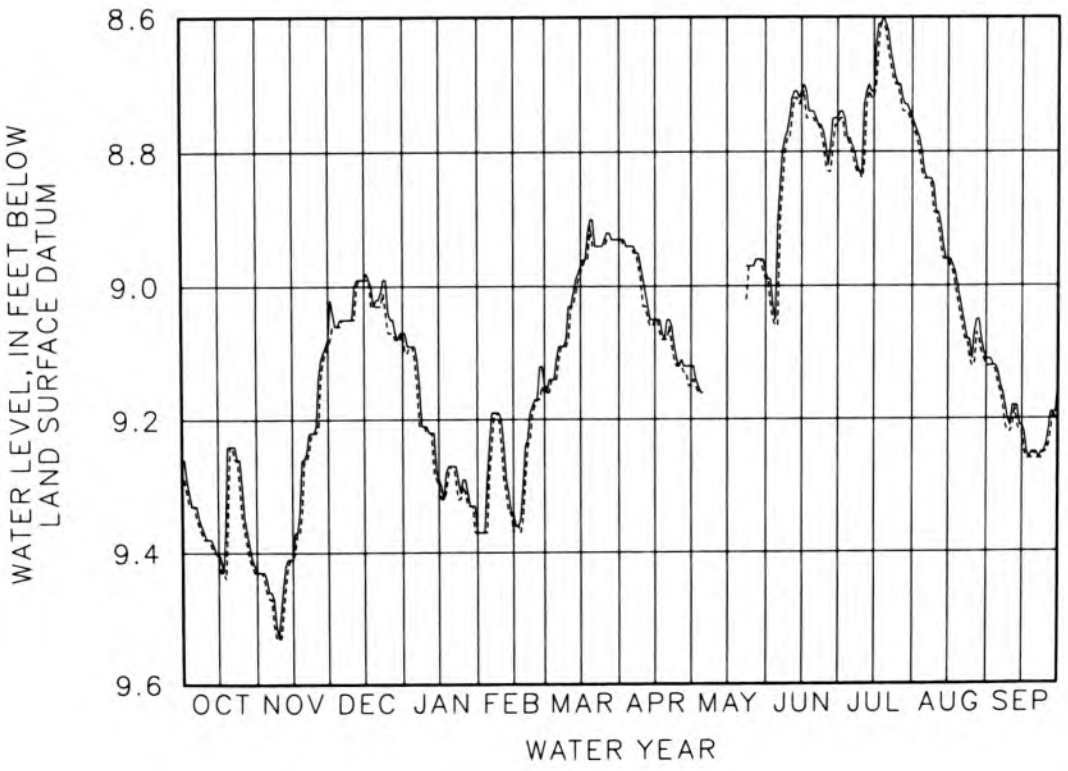
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.33	9.46	9.05	9.09	9.24	9.11	8.94	9.16	8.91	8.78	8.83	9.13
10	9.38	9.49	9.05	9.21	9.20	9.03	8.99	---	8.75	8.83	8.89	9.21
15	9.40	9.41	8.99	9.29	9.34	8.97	9.05	---	8.71	8.71	8.96	9.21
20	9.24	9.26	9.02	9.27	9.24	8.90	9.05	---	8.74	8.61	9.02	9.25
25	9.30	9.21	9.04	9.29	9.17	8.93	9.12	8.97	8.79	8.70	9.11	9.24
EOM	9.43	9.08	9.07	9.37	9.15	8.93	9.12	8.98	8.75	8.75	9.11	9.15

WTR YR 1986 HIGH 8.60 JUL 19

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.33	9.47	9.06	9.11	9.28	9.14	8.94	9.16	9.06	8.79	8.84	9.15
10	9.38	9.53	9.05	9.22	9.24	9.08	9.03	---	8.78	8.84	8.89	9.22
15	9.41	9.41	8.99	9.30	9.37	8.98	9.05	---	8.72	8.72	8.96	9.22
20	9.24	9.26	9.03	9.27	9.29	8.94	9.08	---	8.75	8.62	9.04	9.25
25	9.35	9.22	9.07	9.30	9.17	8.94	9.12	8.97	8.82	8.70	9.12	9.25
EOM	9.43	9.09	9.07	9.37	9.16	8.93	9.15	8.99	8.76	8.76	9.12	9.20

WTR YR 1986 LOW 9.53 NOV 8 AND OTHERS



KOSCIUSKO COUNTY

412510085442801. Local number, KO 7.

LOCATION.--Lat 41°25'10", long 85°44'28", in SE¼NE¼NW¼ sec.8, T.34 N., R.7 E., Kosciusko County, Hydrologic Unit 04050001, 20 ft north of the intersection of Chicago Avenue and County Road 530 East in Syracuse. Owner: U.S. Geological Survey.

AQUIFER.--Sand of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 2 in., depth 23.8 ft, cased to 20.8 ft, screened to 23.8 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 870 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of floor of shelter, 2.90 ft above land-surface datum.

PERIOD OF RECORD.--November 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 1.86 ft below land-surface datum, Mar. 16, 1982; lowest, 5.63 ft below land-surface datum, Sept. 18, 1983.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

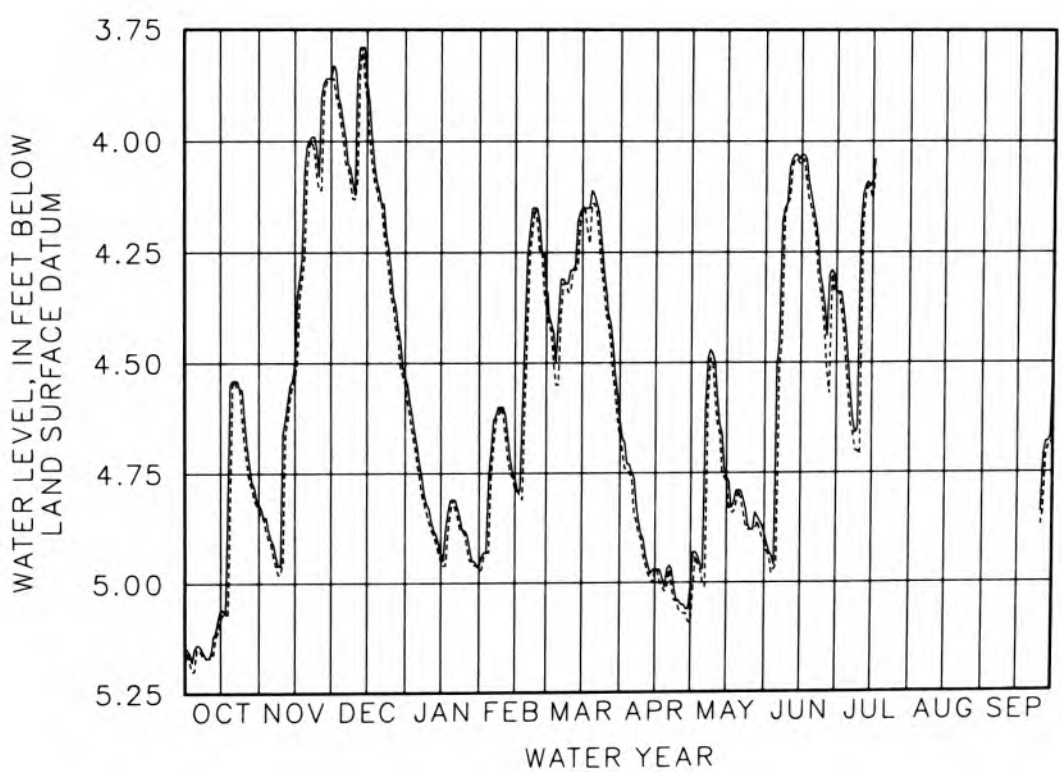
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.14	4.90	3.96	4.69	4.70	4.40	4.75	4.97	4.51	4.50		---
10	5.17	4.66	4.12	4.83	4.60	4.29	4.90	4.50	4.06	4.20		---
15	5.06	4.50	3.87	4.93	4.76	4.15	4.97	4.76	4.03	4.09		---
20	4.54	4.01	4.11	4.81	4.26	4.12	4.97	4.79	4.15	---		---
25	4.63	4.08	4.29	4.88	4.18	4.33	5.04	4.88	4.37	---		4.84
EOM	4.82	3.86	4.53	4.96	4.34	4.63	5.01	4.89	4.34	---		4.49

WTR YR 1986 HIGH 3.79 DEC 12 AND OTHERS

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.15	4.91	3.99	4.73	4.75	4.55	4.76	5.00	4.96	4.57		---
10	5.17	4.95	4.13	4.86	4.62	4.34	4.94	4.58	4.13	4.71		---
15	5.08	4.54	3.91	4.95	4.79	4.16	4.97	4.77	4.05	4.13		---
20	4.55	4.07	4.14	4.81	4.43	4.14	5.01	4.79	4.18	---		---
25	4.69	4.11	4.35	4.89	4.25	4.39	5.06	4.88	4.44	---		4.87
EOM	4.83	3.86	4.55	4.97	4.38	4.67	5.09	4.91	4.34	---		4.67

WTR YR 1986 LOW 5.20 OCT 3 AND OTHERS



KOSCIUSKO COUNTY

412404085442501. Local number, KO 8.

LOCATION.--Lat 41°24'04", long 85°44'25", in SE¼SE¼NW¼ sec.17, T.34 N., R.7 E., Kosciusko County, Hydrologic Unit 04050001, 0.5 mi south of County Road 1200 North on west side of State Highway 13, and 1.7 mi south of Syracuse.
Owner: U.S. Geological Survey.

AQUIFER.--Sand of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 2 in., depth 27.8 ft, cased to 24 ft, screened to 27 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 863 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of floor of shelter, 2.80 ft above land-surface datum.

PERIOD OF RECORD.--November 1978 to September 1986. (Discontinued)

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 1.90 ft below land-surface datum, Mar. 14, 1982; lowest, 6.30 ft below land-surface datum, Sept. 14-16, 18, 19, 1983.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

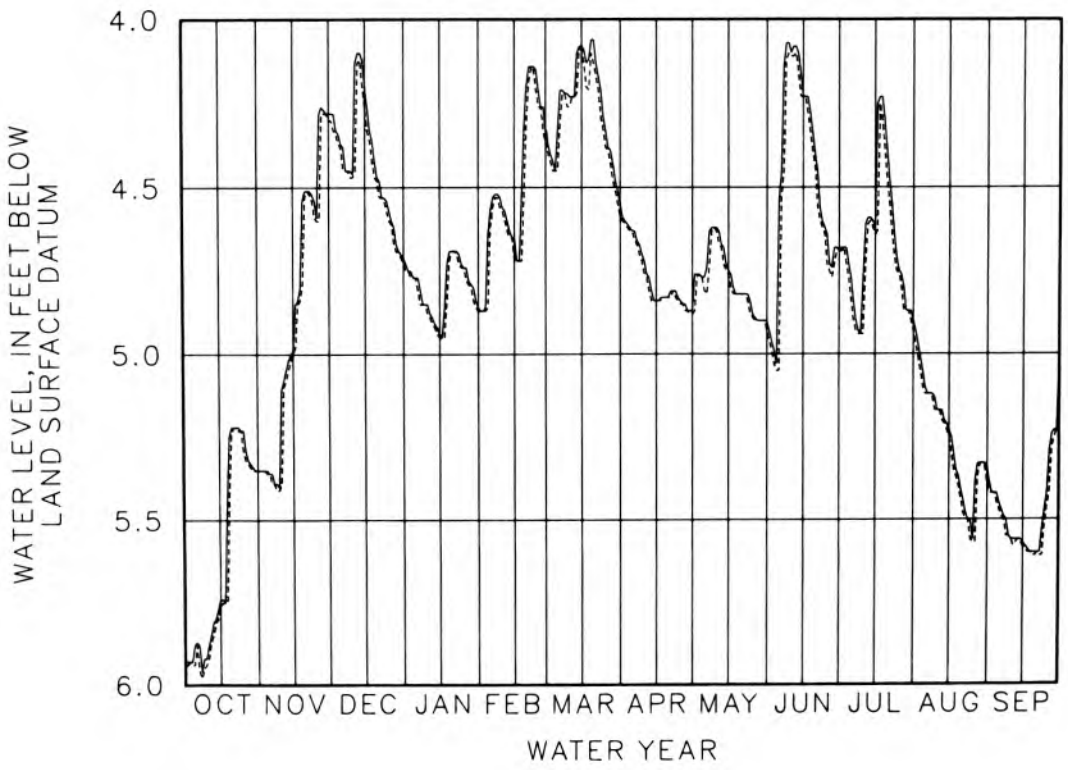
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.87	5.36	4.37	4.77	4.57	4.33	4.63	4.77	4.54	4.77	5.10	5.45
10	5.88	5.11	4.46	4.85	4.56	4.23	4.72	4.62	4.10	4.77	5.17	5.56
15	5.74	4.99	4.20	4.94	4.65	4.08	4.84	4.75	4.23	4.62	5.23	5.57
20	5.22	4.51	4.47	4.69	4.20	4.06	4.83	4.82	4.40	4.39	5.41	5.60
25	5.23	4.59	4.57	4.74	4.21	4.33	4.84	4.88	4.64	4.75	5.56	5.42
EOM	5.35	4.28	4.71	4.86	4.33	4.55	4.87	4.90	4.69	4.90	5.34	5.02

WTR YR 1986 HIGH 4.06 MAR 19 AND OTHERS

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.88	5.36	4.38	4.77	4.62	4.45	4.63	4.81	5.05	4.84	5.12	5.47
10	5.92	5.39	4.47	4.88	4.57	4.26	4.76	4.63	4.11	4.94	5.17	5.56
15	5.76	5.00	4.26	4.95	4.72	4.09	4.84	4.76	4.23	4.64	5.25	5.58
20	5.24	4.53	4.48	4.69	4.31	4.13	4.83	4.82	4.44	4.48	5.44	5.61
25	5.29	4.60	4.60	4.74	4.26	4.38	4.85	4.89	4.73	4.76	5.57	5.46
EOM	5.35	4.30	4.73	4.87	4.37	4.59	4.88	4.93	4.69	4.93	5.39	5.23

WTR YR 1986 LOW 5.98 OCT 7



KOSCIUSKO COUNTY

412556085513401. Local number, KO 9.

LOCATION.--Lat 41°25'56", long 85°51'34", in SW¼NE¼NW¼ sec.5, T.34 N., R.6 E., Kosciusko County, Hydrologic Unit 04050001, on the north edge of property owned by the Dome Pipeline Corporation, on County Road 50 West, 1.5 mi northwest of Milford.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 4 in., depth 102 ft, cased to 99 ft, screened to 102 ft.

INSTRUMENTATION.--Water-stage recorder.

DATUM.--Elevation of land-surface datum is 830.90 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of floor of shelter, 3.2 ft above land-surface datum.

PERIOD OF RECORD.--October 1982 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 7.24 ft below land-surface datum, Apr. 8, 9, 1985; lowest, 13.82 ft below land-surface datum, Nov. 27, 28, 1983.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

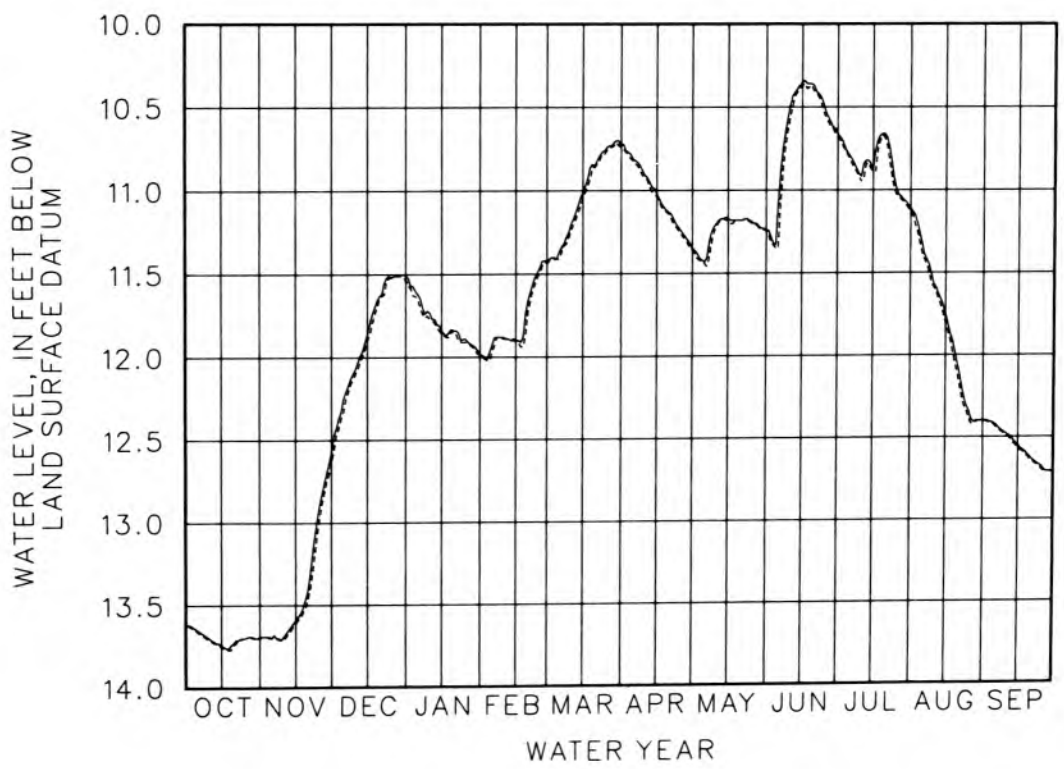
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.65	13.70	12.25	11.62	11.93	11.37	10.81	11.43	11.09	10.79	11.32	12.42
10	13.70	13.69	12.07	11.73	11.88	11.20	10.91	11.20	10.49	10.92	11.57	12.48
15	13.74	13.59	11.86	11.84	11.90	11.01	11.02	11.17	10.35	10.87	11.75	12.55
20	13.73	13.42	11.63	11.84	11.66	10.85	11.13	11.18	10.37	10.66	12.05	12.62
25	13.70	12.90	11.52	11.89	11.46	10.74	11.24	11.19	10.53	10.99	12.34	12.68
EOM	13.69	12.57	11.51	11.98	11.42	10.73	11.35	11.24	10.66	11.11	12.40	12.71

WTR YR 1986 HIGH 10.34 JUN 16

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.66	13.70	12.33	11.65	11.97	11.41	10.82	11.44	11.35	10.81	11.38	12.43
10	13.71	13.71	12.10	11.77	11.89	11.24	10.92	11.22	10.56	10.95	11.59	12.49
15	13.75	13.61	11.90	11.86	11.90	11.04	11.04	11.18	10.37	10.89	11.81	12.57
20	13.74	13.47	11.65	11.86	11.73	10.86	11.14	11.18	10.41	10.68	12.11	12.64
25	13.70	12.98	11.52	11.91	11.49	10.76	11.26	11.20	10.56	11.03	12.39	12.70
EOM	13.70	12.64	11.53	11.99	11.43	10.74	11.36	11.24	10.68	11.13	12.40	12.71

WTR YR 1986 LOW 13.77 OCT 18 AND OTHERS



LAGRANGE COUNTY

414318085200601. Local number, LG 2.

LOCATION.--Lat 41°43'18", long 85°20'06", in SW¼SE¼NE¼ sec.26, T.38 N., R.10 E., Lagrange County, Hydrologic Unit 04050001, on northeast corner of intersection of State Highway 120 and County Road 475 East, and 1.2 mi west of Brighton.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 5 in., depth 86 ft, cased to 80 ft, screened to 86 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 911.02 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of floor of shelter, 3.0 ft above land-surface datum.

PERIOD OF RECORD.--May 1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 10.99 ft below land-surface datum, Apr. 3, 1982; lowest, 16.03 ft below land-surface datum, Aug. 31, 1984

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

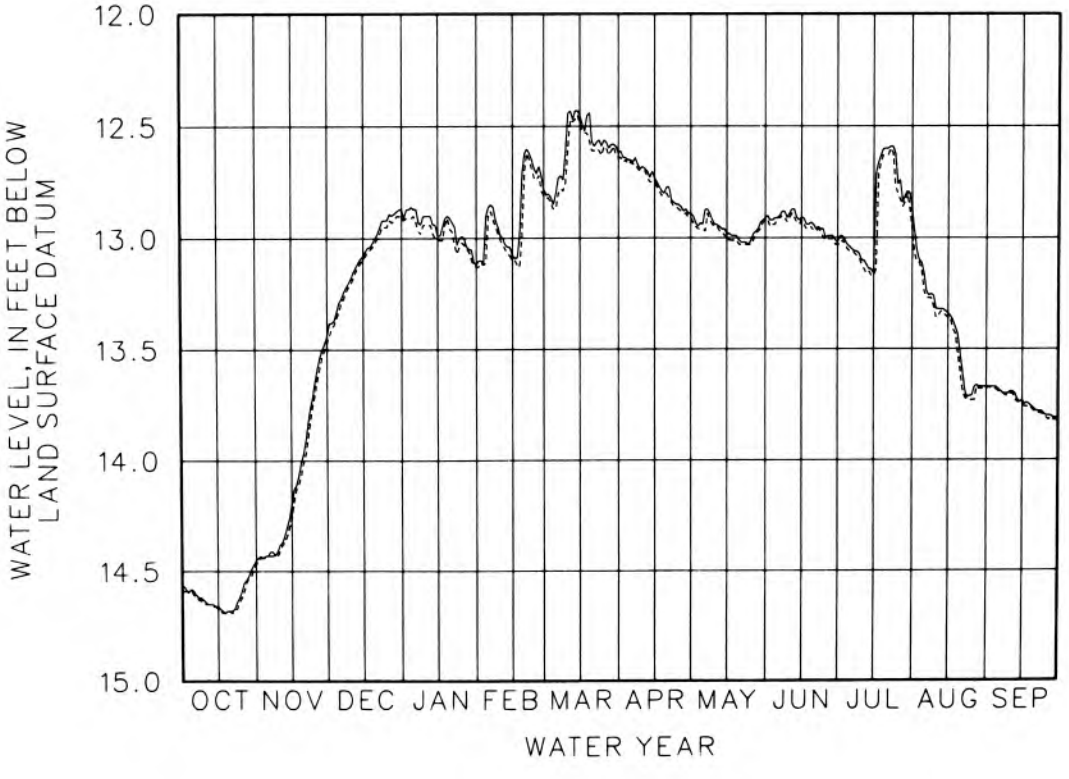
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	14.59	14.43	13.29	12.87	12.86	12.80	12.65	12.94	12.91	13.04	13.16	13.68
10	14.64	14.38	13.18	12.90	12.99	12.44	12.68	12.94	12.89	13.10	13.32	13.69
15	14.66	14.20	13.08	12.99	13.08	12.45	12.73	12.98	12.91	13.16	13.34	13.73
20	14.68	13.97	13.00	12.91	12.62	12.57	12.77	13.01	12.94	12.60	13.51	13.77
25	14.59	13.64	12.92	12.99	12.71	12.56	12.85	13.01	13.00	12.76	13.71	13.80
EOM	14.45	13.44	12.87	13.12	12.79	12.62	12.89	12.91	13.02	12.87	13.67	13.82

WTR YR 1986 HIGH 12.43 MAR 11 AND OTHERS

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	14.61	14.43	13.33	12.90	12.89	12.87	12.66	12.96	12.91	13.06	13.24	13.69
10	14.65	14.41	13.20	12.94	13.01	12.60	12.70	12.95	12.91	13.12	13.36	13.70
15	14.67	14.26	13.09	13.00	13.10	12.49	12.75	12.99	12.92	13.17	13.36	13.75
20	14.68	14.01	13.02	12.96	12.70	12.61	12.80	13.03	12.97	12.63	13.59	13.78
25	14.62	13.70	12.95	13.02	12.74	12.59	12.87	13.03	13.01	12.80	13.73	13.81
EOM	14.47	13.47	12.91	13.13	12.81	12.64	12.91	12.92	13.03	12.97	13.68	13.82

WTR YR 1986 LOW 14.69 OCT 17 AND OTHERS



LAGRANGE COUNTY

414158085253401. Local number, LG 3.

LOCATION.--Lat 41°41'58", long 85°25'34", in SE¼SE¼SE¼ sec.36, T.38 N., R.9 E., Lagrange County, Hydrologic Unit 04050001, at northwest corner of intersection of State Highway 9 and County Road 400 North, at edge of woods, and 1.4 mi south of Howe.
Owner: U.S. Geological Survey.

AQUIFER.--Fine to medium sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 40 ft, cased to 35 ft, screened to 40 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 870 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of floor of shelter, 3.7 ft above land-surface datum.

PERIOD OF RECORD.--June 1981 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.48 ft below land-surface datum, Mar. 21, 1982; lowest, 8.56 ft below land-surface datum, Nov. 27, 1983.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

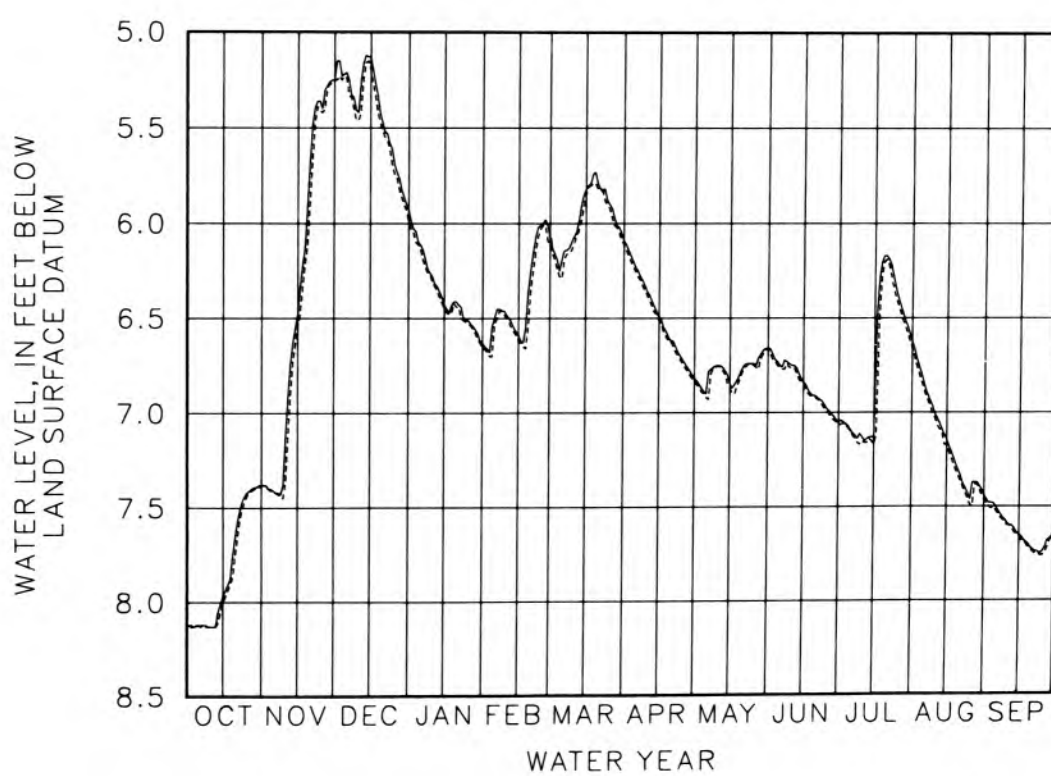
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.12	7.41	5.21	6.11	6.50	6.19	6.23	6.90	6.75	7.09	6.83	7.50
10	8.13	7.13	5.42	6.28	6.48	6.07	6.36	6.75	6.75	7.13	7.01	7.59
15	7.97	6.48	5.13	6.43	6.59	5.82	6.49	6.85	6.84	7.13	7.14	7.65
20	7.67	5.67	5.47	6.41	6.25	5.79	6.62	6.77	6.91	6.17	7.31	7.72
25	7.42	5.40	5.69	6.51	6.00	5.90	6.72	6.74	6.98	6.39	7.46	7.74
EOM	7.38	5.25	5.93	6.63	6.08	6.09	6.82	6.66	7.05	6.62	7.44	7.63

WTR YR 1986 HIGH 5.12 DEC 13

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.12	7.42	5.24	6.14	6.53	6.29	6.25	6.92	6.76	7.10	6.87	7.52
10	8.13	7.37	5.46	6.31	6.50	6.11	6.38	6.75	6.76	7.15	7.03	7.60
15	8.01	6.54	5.20	6.45	6.62	5.85	6.51	6.87	6.85	7.17	7.17	7.66
20	7.76	5.89	5.51	6.44	6.36	5.82	6.62	6.79	6.92	6.19	7.34	7.73
25	7.44	5.42	5.74	6.53	6.01	5.92	6.74	6.75	6.99	6.43	7.49	7.76
EOM	7.38	5.25	5.99	6.66	6.12	6.11	6.83	6.66	7.07	6.66	7.46	7.66

WTR YR 1986 LOW 8.13 OCT 2 AND OTHERS



LAKE COUNTY

411038087284701. Local number, LK 12.

LOCATION.--Lat 41°10'38", long 87°28'47", in SW¼NE¼SW¼ sec.32, T.32 N., R.9 W., Lake County, Hydrologic Unit 07120001, on the northern edge of Kankakee River State Park, 2.0 mi southwest of Schneider.
Owner: U.S. Geological Survey.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 82 ft, cased to 52 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 630.59 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of floor of shelter, 2.55 ft above land-surface datum.

REMARKS.--Water level may be affected by pumping.

PERIOD OF RECORD.--March 1967 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.15 ft below land-surface datum, Jan. 12, 1973; lowest, 16.41 ft below land-surface datum, Aug. 29, 1984.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

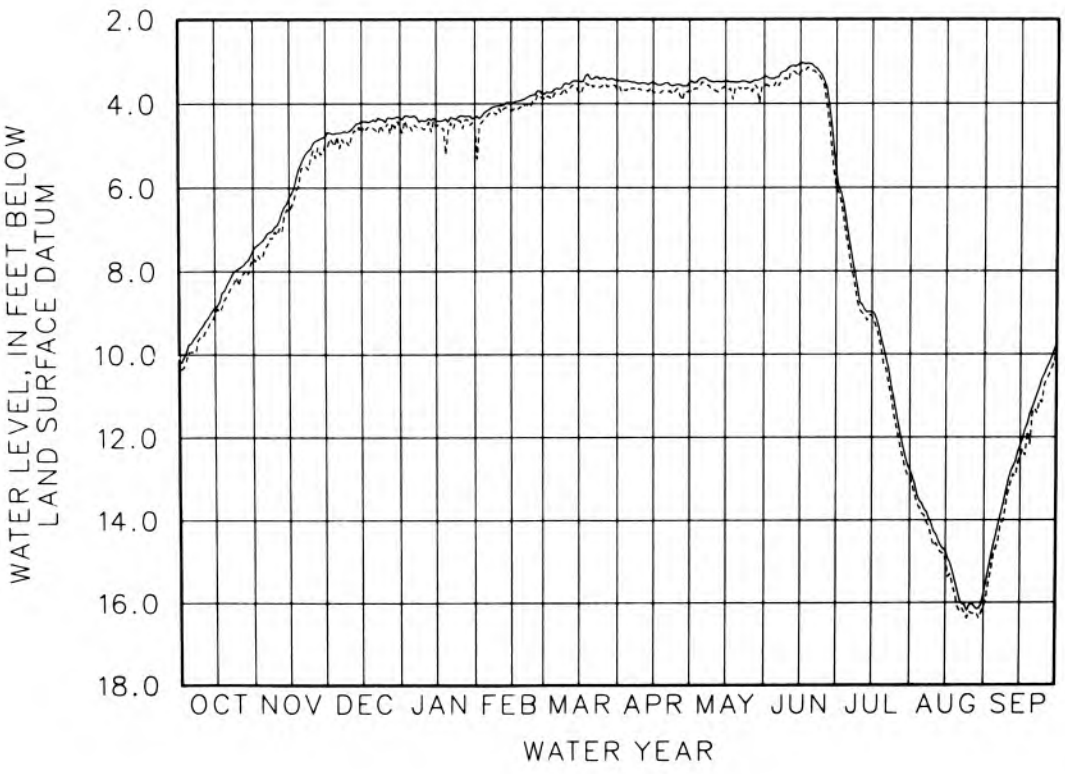
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.74	7.18	4.69	4.30	4.17	3.66	3.47	3.39	3.37	7.11	13.59	14.35
10	9.31	6.90	4.65	4.41	4.05	3.51	3.51	3.49	3.15	8.76	14.27	13.06
15	8.88	6.24	4.43	4.41	4.00	3.46	3.49	3.47	3.04	8.98	14.74	12.20
20	8.33	5.43	4.38	4.43	3.90	3.42	3.51	3.49	3.07	9.86	15.70	11.29
25	7.93	4.94	4.44	4.28	3.78	3.39	3.54	3.51	3.45	11.33	16.05	10.48
EOM	7.48	4.79	4.33	4.33	3.77	3.46	3.49	3.37	5.65	12.79	15.76	9.76

WTR YR 1986 HIGH 3.03 JUN 16

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.93	7.43	4.77	4.64	4.30	3.75	3.60	3.50	3.48	7.42	13.83	14.66
10	9.59	7.13	5.01	4.61	4.11	3.75	3.68	3.67	3.47	8.94	14.62	13.31
15	9.05	6.56	4.70	4.54	4.17	3.72	3.75	3.59	3.25	9.08	14.96	12.47
20	8.60	5.55	4.59	4.64	4.10	3.51	3.72	3.60	3.22	10.28	16.08	11.43
25	8.34	5.11	4.56	4.40	3.96	3.57	3.64	3.62	3.59	11.66	16.21	10.74
EOM	7.68	4.97	4.54	4.57	3.86	3.65	3.69	3.59	6.01	12.93	16.11	9.92

WTR YR 1986 LOW 16.38 AUG 24 AND OTHERS



413559087270301. Local number, LK 13.

LOCATION.--Lat 41°35'59", long 87°27'03", in SW¼NW¼SW¼ sec.34, T.36 N., R.9 W., Lake County, Hydrologic Unit 04040001, at the Gibson Woods Nature Preserve on the north side of Hammond.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6.0 in., depth 23 ft, cased to 18 ft, screened to 23 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 591.91 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.50 ft above land-surface datum.

PERIOD OF RECORD.--July 1986 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.70 ft below land-surface datum, July 19, 1986; lowest, 5.15 ft below land-surface datum, Sept. 10, 1986.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

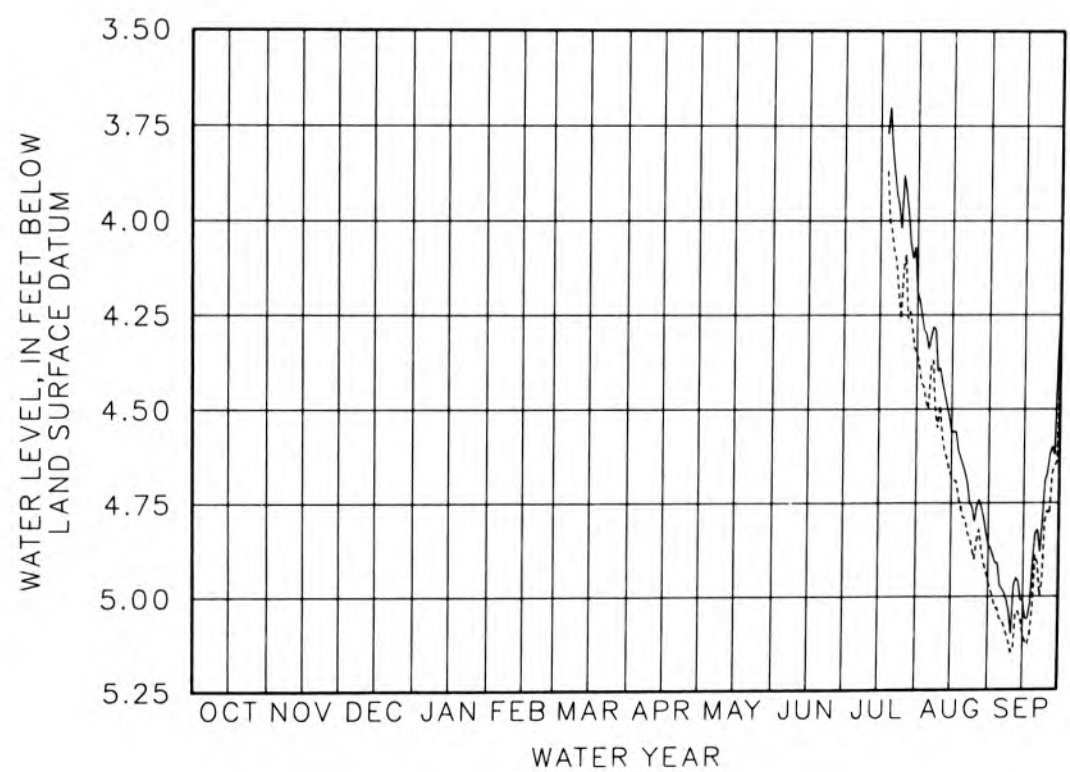
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5										---	4.34	4.97
10										---	4.39	5.10
15										---	4.56	5.01
20										3.81	4.65	4.83
25										3.88	4.80	4.67
EOM										4.19	4.86	4.24

WTR YR 1986 HIGH 3.70 JUL 19

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5										---	4.50	5.06
10										---	4.49	5.15
15										---	4.68	5.10
20										4.03	4.79	4.89
25										4.13	4.90	4.77
EOM										4.35	4.96	4.37

WTR YR 1986 LOW 5.15 SEP 10



LA PORTE COUNTY

413700086445401. Local number, LP 8.

LOCATION.--Lat 41°37'00", long 86°44'54", in NE¼SE¼NW¼ sec.34, T.37 N., R.3 W., La Porte County, Hydrologic Unit 07120001, at the west end of Soldiers Memorial Park in La Porte.
Owner: State of Indiana.

AQUIFER.--Sand and gravel of Quaternary age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 3.0 in., depth 22 ft, cased to 20 ft, screened to 22 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 802.79 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of floor of shelter, 3.70 ft above land-surface datum.

PERIOD OF RECORD.--May 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 1.84 ft below land-surface datum, May 24, 25, 1983; lowest, 7.04 ft below land-surface datum, Mar. 8-11, 1978.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

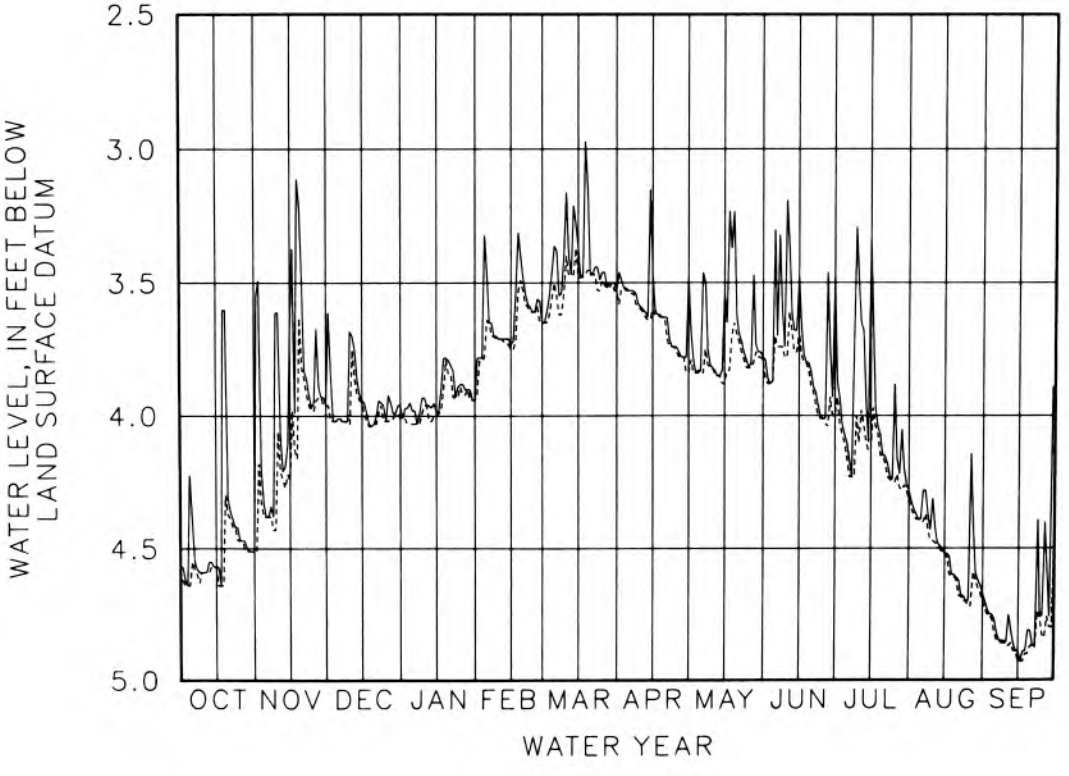
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.38	4.38	4.01	3.98	3.46	3.36	3.53	3.83	3.30	4.10	4.39	4.77
10	4.59	3.61	3.68	3.93	3.71	3.16	3.59	3.82	3.19	3.50	4.31	4.86
15	4.57	3.68	3.94	3.99	3.73	3.37	3.45	3.53	3.47	3.34	4.52	4.89
20	4.31	3.48	4.03	3.79	3.48	3.46	3.63	3.62	3.83	4.15	4.61	4.81
25	4.47	3.95	4.02	3.88	3.61	3.46	3.74	3.82	4.01	3.88	4.70	4.76
EOM	4.51	3.96	3.96	3.94	3.65	3.53	3.48	3.78	3.47	4.28	4.67	3.96

WTR YR 1986 HIGH 2.97 MAR 18

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.55	4.38	4.02	4.03	3.64	3.50	3.53	3.83	3.70	4.16	4.40	4.82
10	4.59	4.06	4.03	3.96	3.71	3.40	3.60	3.82	3.78	4.10	4.47	4.87
15	4.57	4.24	3.95	4.00	3.75	3.48	3.60	3.88	3.68	4.13	4.52	4.93
20	4.37	3.82	4.03	3.84	3.53	3.47	3.63	3.69	3.89	4.15	4.62	4.87
25	4.47	3.98	4.02	3.89	3.61	3.49	3.76	3.82	4.01	4.25	4.72	4.83
EOM	4.51	3.96	4.01	3.94	3.65	3.53	3.84	3.79	4.00	4.32	4.70	4.37

WTR YR 1986 LOW 4.93 SEP 15 AND OTHERS



LA PORTE COUNTY

412350086512801. Local number, LP 9.

LOCATION.--Lat 41°23'50", long 86°51'28", in SE¼SW¼NE¼ sec.15, T.34 N., R.4 W., La Porte County, Hydrologic Unit 07120001, at the intersection of County Roads 1450 South and 825 West, 3.0 mi southeast of Wanatah. Owner: U.S. Geological Survey.

AQUIFER.--Sand of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 32 ft, cased to 27 ft, screened to 32 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 706.81 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of floor of shelter, 1.60 ft above land-surface datum.

PERIOD OF RECORD.--June 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 1.56 ft below land-surface datum, Apr. 5, 1985; lowest, 8.01 ft below land-surface datum, Dec. 6, 7, 1980, Oct. 17, 18, 1985.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

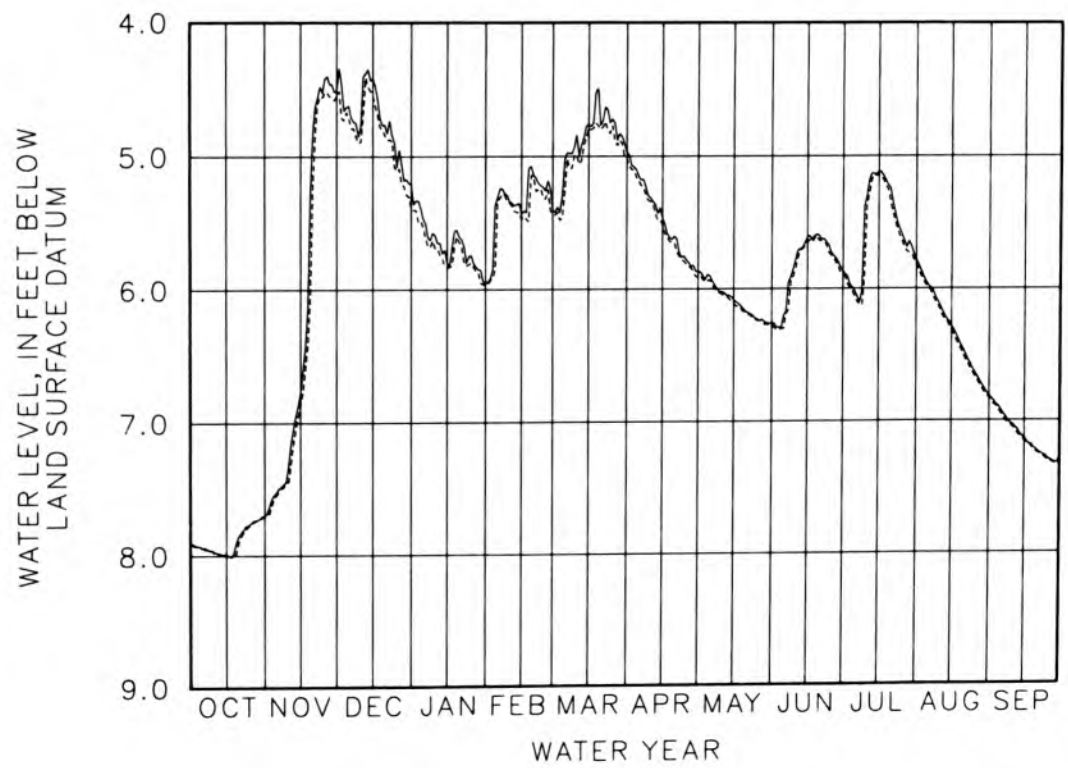
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.94	7.52	4.62	5.47	5.31	5.03	5.15	5.90	6.20	6.02	5.97	6.92
10	7.97	7.32	4.77	5.59	5.34	4.84	5.31	6.02	5.78	5.30	6.12	7.03
15	7.99	6.77	4.42	5.80	5.43	4.76	5.46	6.08	5.61	5.12	6.28	7.13
20	7.86	4.85	4.76	5.60	5.14	4.77	5.60	6.17	5.60	5.24	6.46	7.22
25	7.76	4.42	5.08	5.74	5.26	4.72	5.78	6.23	5.73	5.59	6.64	7.29
EOM	7.70	4.51	5.21	5.96	5.41	4.97	5.87	6.26	5.87	5.78	6.81	7.28

WTR YR 1986 HIGH 4.34 DEC 1

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.94	7.54	4.71	5.53	5.34	5.27	5.18	5.93	6.30	6.06	5.99	6.95
10	7.98	7.44	4.89	5.69	5.35	4.99	5.34	6.04	5.85	5.37	6.15	7.05
15	8.00	6.87	4.55	5.83	5.47	4.79	5.51	6.11	5.65	5.14	6.31	7.16
20	7.91	5.25	4.84	5.64	5.15	4.80	5.65	6.18	5.64	5.34	6.50	7.24
25	7.77	4.52	5.11	5.80	5.32	4.77	5.81	6.24	5.75	5.64	6.67	7.31
EOM	7.70	4.55	5.39	5.97	5.43	5.01	5.91	6.27	5.90	5.82	6.83	7.32

WTR YR 1986 LOW 8.01 OCT 17 AND OTHERS



LA PORTE COUNTY

413139086341401. Local number, LP 10.

LOCATION.--Lat 41°31'40", long 86°34'10", in SE¼SW¼NE¼ sec.31, T.36 N., R.1 W., La Porte County, Hydrologic Unit 07120001, 200 ft north of the Mixsawbah Fish Hatchery Manager's residence and 2.6 mi southeast of Stillwell. Owner: State of Indiana.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 104 ft, cased to 102 ft, screened to 104 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 695 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of floor of shelter, 3.60 ft above land-surface datum.

PERIOD OF RECORD.--August 1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.88 ft below land-surface datum, Feb. 24, 1985; lowest, 9.56 ft below land-surface datum, Oct. 9, 10, 1985.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

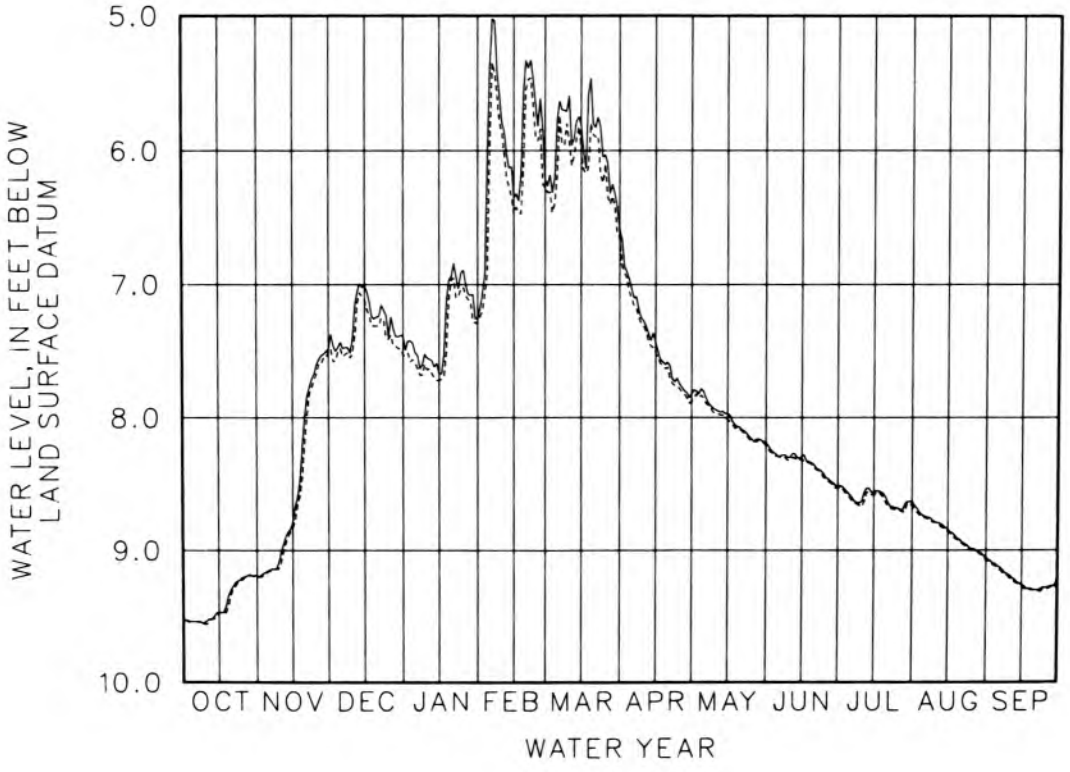
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.54	9.15	7.43	7.51	5.37	5.78	7.03	7.80	8.29	8.58	8.74	9.12
10	9.53	9.02	7.40	7.55	5.79	5.59	7.27	7.94	8.30	8.63	8.79	9.19
15	9.47	8.79	7.01	7.67	6.35	5.81	7.43	7.97	8.29	8.57	8.84	9.26
20	9.30	8.00	7.24	6.94	5.33	5.80	7.58	8.07	8.35	8.60	8.92	9.30
25	9.20	7.60	7.39	6.89	5.82	6.03	7.75	8.16	8.45	8.68	8.99	9.28
EOM	9.19	7.48	7.38	7.25	6.23	6.59	7.82	8.19	8.52	8.63	9.05	9.20

WTR YR 1986 HIGH 5.02 FEB 6

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.54	9.16	7.48	7.59	5.96	6.18	7.10	7.85	8.29	8.60	8.75	9.14
10	9.56	9.10	7.52	7.64	5.86	5.93	7.31	7.96	8.32	8.67	8.79	9.21
15	9.47	8.83	7.11	7.72	6.47	6.01	7.51	8.01	8.31	8.58	8.86	9.27
20	9.34	8.19	7.31	6.96	5.55	5.88	7.62	8.09	8.38	8.64	8.94	9.30
25	9.22	7.67	7.41	7.02	5.93	6.10	7.78	8.18	8.46	8.69	9.00	9.29
EOM	9.20	7.50	7.53	7.28	6.28	6.65	7.88	8.21	8.53	8.66	9.07	9.26

WTR YR 1986 LOW 9.56 OCT 9 AND OTHERS



LA PORTE COUNTY

412839086533101. Local number, LP 11.

LOCATION.--Lat 41°28'39", long 86°53'31", in SW¼SW¼SW¼ sec.16, T.35 N., R.4 W., La Porte County, Hydrologic Unit 07120001, in the northeast corner of intersection of U.S. Highway 421 and County Road 900 South. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 100 ft, cased to 95 ft, screened to 100 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 760 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of floor of shelter, 4.1 ft above land-surface datum.

REMARKS.--Water level may be affected by pumpage.

PERIOD OF RECORD.--June 1981 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.52 ft below land-surface datum, July 2, 1983; lowest, 9.22 ft below land-surface datum, Oct. 17, 18, 1985.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

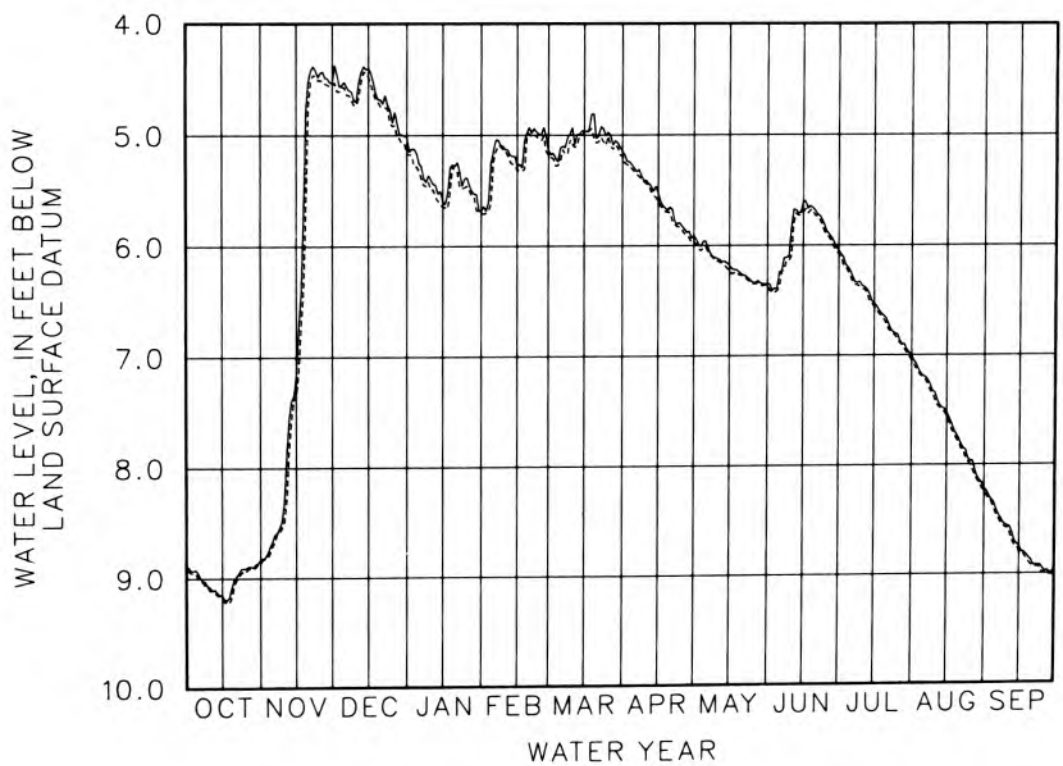
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.95	8.67	4.52	5.25	5.15	5.11	5.30	5.96	6.24	6.24	7.19	8.40
10	9.08	8.30	4.70	5.40	5.13	4.93	5.41	6.12	5.84	6.37	7.34	8.56
15	9.15	7.16	4.40	5.60	5.28	4.96	5.52	6.18	5.60	6.53	7.52	8.74
20	9.01	4.52	4.68	5.28	4.93	5.03	5.65	6.26	5.68	6.66	7.76	8.87
25	8.91	4.44	4.89	5.38	5.00	4.97	5.82	6.34	5.88	6.81	7.97	8.95
EOM	8.83	4.53	5.01	5.68	5.15	5.15	5.91	6.35	6.05	7.00	8.22	8.95

WTR YR 1986 HIGH 4.37 DEC 1

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.00	8.71	4.57	5.32	5.24	5.23	5.33	6.01	6.38	6.29	7.21	8.45
10	9.11	8.48	4.73	5.49	5.14	5.08	5.44	6.14	6.10	6.40	7.41	8.58
15	9.19	7.36	4.48	5.64	5.32	4.97	5.60	6.22	5.70	6.56	7.57	8.80
20	9.07	4.75	4.74	5.32	4.98	5.07	5.70	6.27	5.73	6.71	7.80	8.92
25	8.94	4.51	4.92	5.46	5.05	5.01	5.86	6.35	5.91	6.87	8.00	8.99
EOM	8.86	4.54	5.17	5.70	5.18	5.19	5.96	6.36	6.08	7.05	8.24	9.00

WTR YR 1986 LOW 9.22 OCT 17 AND OTHERS



LA PORTE COUNTY

413434086434701. Local number, LP 12.

LOCATION.--Lat 41°34'34", long 86°43'47", in NE¼NE¼NW¼ sec.14, T.36 N., R.3 W., La Porte County, Hydrologic Unit 07120001, on County Road 150 West, at La Porte Municipal Airport, 1.6 mi south of La Porte.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 77 ft, cased to 71 ft, screened to 77 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 805 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of floor of shelter, 3.70 ft above land-surface datum.

REMARKS.--Water level may be affected by pumpage.

PERIOD OF RECORD.--July 1981 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 15.59 ft below land-surface datum, May 29-31, 1983; lowest, 20.63 ft below land-surface datum, Nov. 13-16, 1985.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

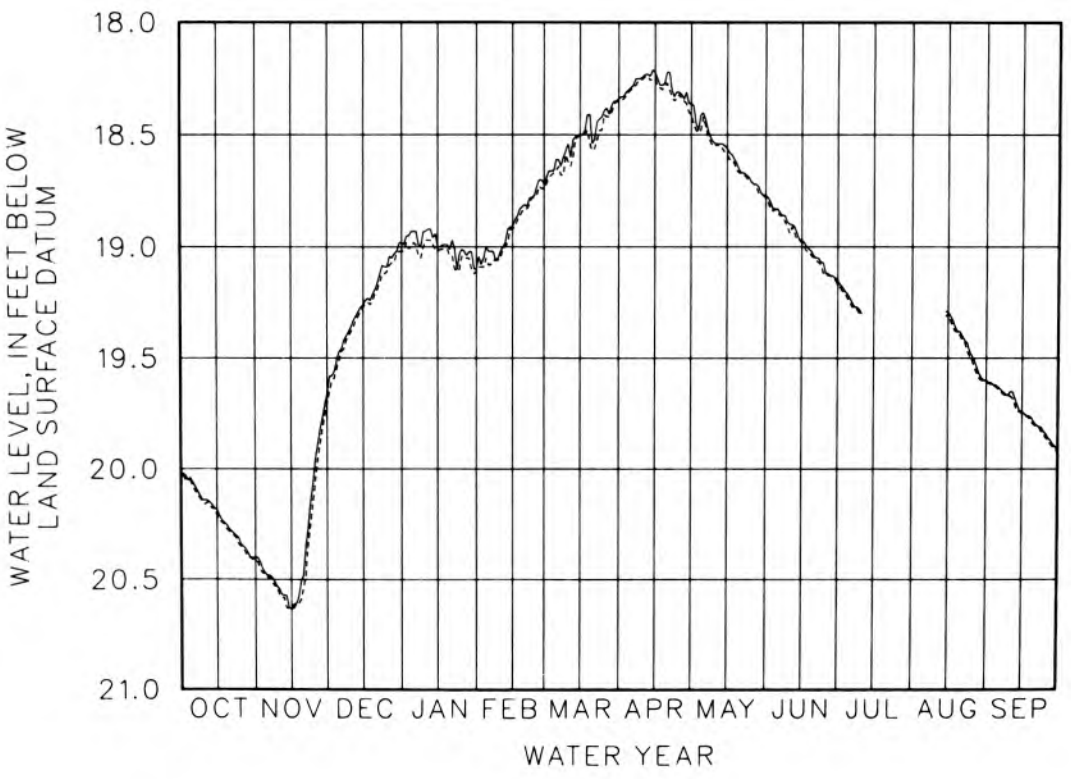
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	20.06	20.48	19.47	18.93	19.02	18.61	18.29	18.40	18.83	19.23	---	19.63
10	20.14	20.54	19.36	18.93	19.02	18.54	18.24	18.54	18.90	19.30	---	19.65
15	20.18	20.63	19.26	19.00	18.91	18.50	18.22	18.56	18.97	---	19.29	19.74
20	20.27	20.48	19.19	19.01	18.81	18.54	18.22	18.66	19.04	---	19.38	19.79
25	20.34	19.96	19.09	19.01	18.73	18.39	18.31	18.71	19.12	---	19.49	19.84
EOM	20.40	19.66	18.98	19.10	18.72	18.34	18.36	18.77	19.15	---	19.60	19.91

WTR YR 1986 HIGH 18.21 APR 14

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	20.08	20.49	19.51	18.98	19.08	18.66	18.30	18.42	18.85	19.25	---	19.64
10	20.16	20.57	19.38	18.97	19.05	18.62	18.25	18.55	18.94	19.31	---	19.67
15	20.21	20.63	19.27	19.02	18.92	18.50	18.25	18.59	18.98	---	19.30	19.75
20	20.28	20.54	19.21	19.04	18.83	18.57	18.27	18.67	19.05	---	19.40	19.80
25	20.35	20.06	19.11	19.04	18.77	18.41	18.32	18.71	19.12	---	19.51	19.86
EOM	20.41	19.71	19.02	19.11	18.74	18.35	18.41	18.78	19.17	---	19.61	19.92

WTR YR 1986 LOW 20.63 NOV 13 AND OTHERS



395218086082701. Local number, MA 32.

LOCATION.--Lat 39°52'18", long 86°08'27", in NE¼SW¼SW¼ sec.36, T.17 N., R.3 E., Marion County, Hydrologic Unit 05120201, at Indianapolis Water Company station on Westfield Boulevard in Broad Ripple, City of Indianapolis. Owner: Indianapolis Water Company.

AQUIFER.--Limestone of Devonian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 10 in., depth 308 ft, cased to 60 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 719.78 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of floor of shelter, 3.15 ft above land-surface datum.

REMARKS.--Water level affected by earthquakes.

PERIOD OF RECORD.--May 1958 to August 1971, January 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 5.85 ft below land-surface datum, June 17, 1958; lowest, 15.15 ft below land-surface datum, Oct. 5, 1965.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

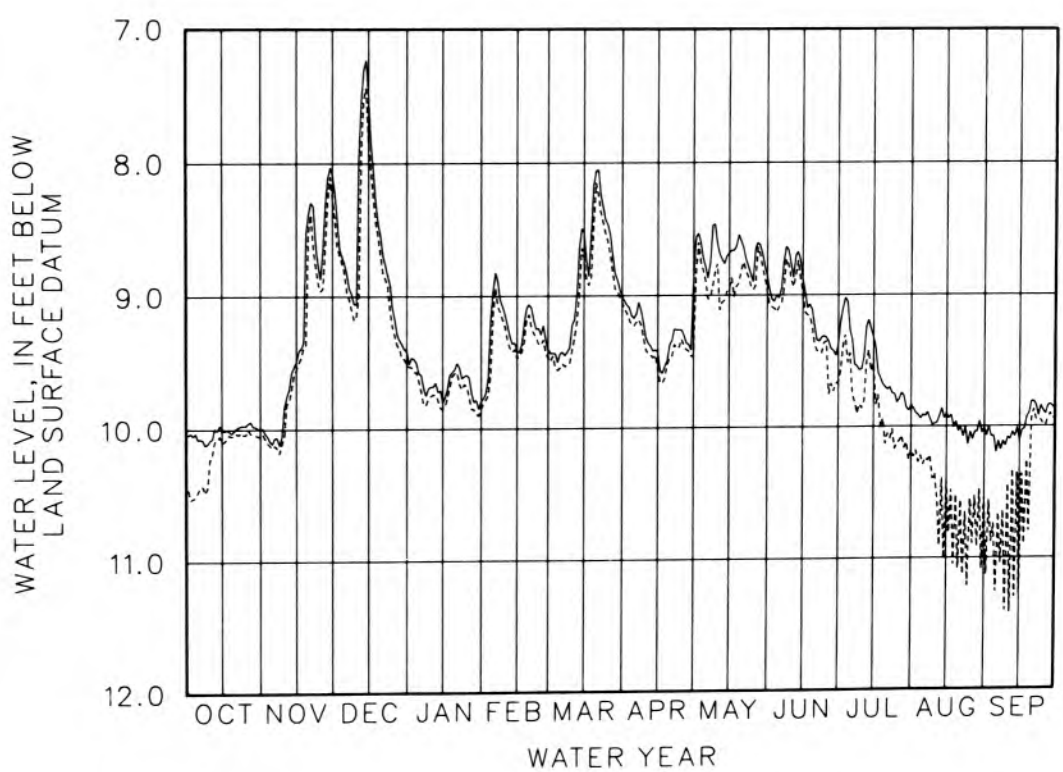
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.08	10.11	8.75	9.58	8.96	9.43	9.17	8.78	9.02	9.27	9.91	10.20
10	10.08	9.83	9.06	9.68	9.14	9.22	9.32	8.61	8.76	9.56	9.98	10.08
15	9.99	9.49	7.49	9.80	9.41	8.52	9.42	8.68	8.88	9.32	9.90	10.11
20	10.01	8.38	8.54	9.55	9.06	8.06	9.37	8.59	9.23	9.70	10.04	9.81
25	9.97	8.87	9.09	9.59	9.29	8.46	9.26	8.90	9.32	9.82	10.04	9.88
EOM	10.00	8.09	9.41	9.79	9.41	9.01	8.86	8.86	9.38	9.84	10.01	9.87

WTR YR 1986 HIGH 7.23 DEC 14

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.47	10.14	8.83	9.64	9.14	9.54	9.23	8.89	9.09	9.44	10.29	11.26
10	10.23	10.05	9.15	9.75	9.23	9.41	9.41	8.76	8.88	9.86	10.36	10.44
15	10.10	9.55	7.85	9.85	9.47	8.72	9.56	8.95	8.98	9.52	10.41	11.27
20	10.05	8.53	8.69	9.58	9.14	8.15	9.47	8.81	9.37	10.13	11.08	9.94
25	10.04	8.96	9.23	9.68	9.37	8.59	9.33	8.96	9.35	10.12	10.55	9.99
EOM	10.05	8.27	9.51	9.85	9.47	9.05	9.45	8.98	9.66	10.18	10.54	9.94

WTR YR 1986 LOW 11.42 SEP 11



MARION COUNTY

395259086030101. Local number, MA 33.

LOCATION.--Lat 39°52'59", long 86°03'01", in NW¼NW¼NW¼ sec.35, T.17 N., R.4 E., Marion County, Hydrologic Unit 05120201, in the northwest corner of Skiles Test Elementary School property, 150 ft south of the intersection of Johnson Road and East 71st Street, 0.3 mi west of Shadeland Avenue, and 1.5 mi south of Castleton. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 94 ft, cased to 89 ft, screened to 94 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 812.20 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of floor of shelter, 3.90 ft above land-surface datum.

PERIOD OF RECORD.--May 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 71.75 ft below land-surface datum, Apr. 15, 1980; lowest, 75.29 ft below land-surface datum, Dec. 17, 1983.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

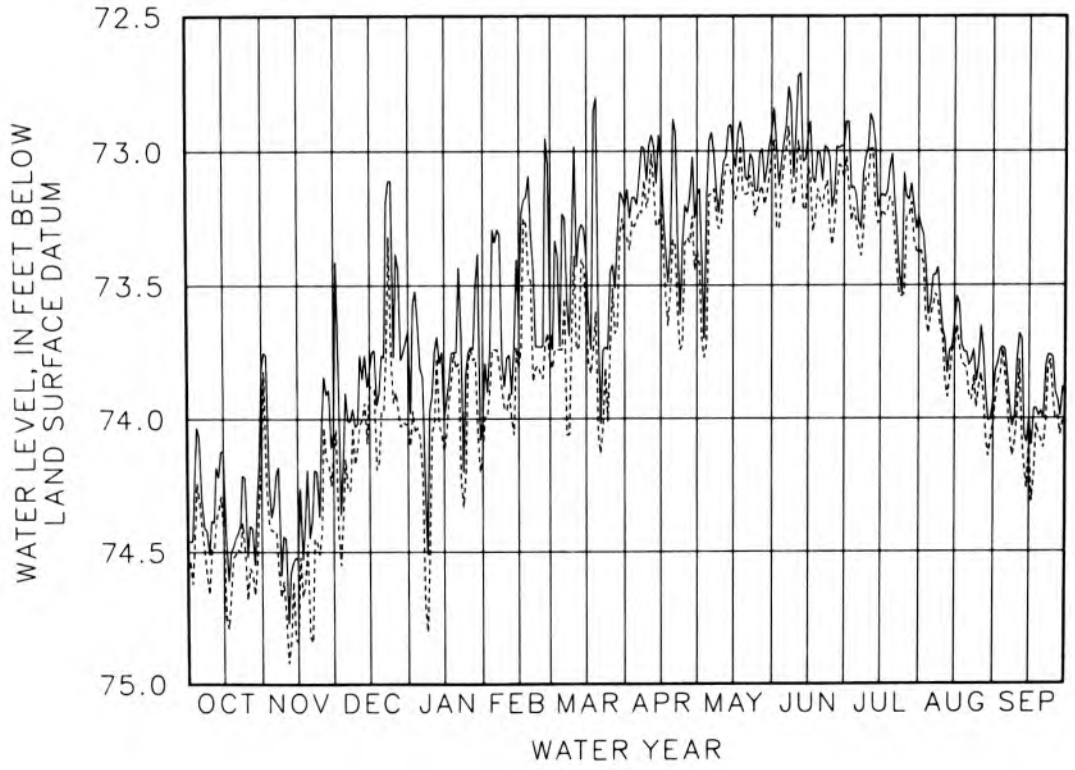
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	74.07	74.32	73.90	73.81	73.34	73.23	73.20	72.96	72.97	73.16	73.57	73.74
10	74.38	74.45	74.02	73.91	73.77	72.98	72.98	73.13	72.94	72.99	73.66	73.78
15	74.12	74.53	73.82	74.00	73.63	73.40	73.03	73.01	72.95	73.17	73.64	74.00
20	74.45	74.45	73.76	73.75	73.31	73.61	72.88	73.10	73.01	73.01	73.75	73.97
25	74.52	74.04	73.77	73.75	73.73	73.45	73.20	73.15	73.21	73.08	73.80	73.77
EOM	73.82	74.05	73.67	74.01	73.69	73.21	73.16	72.93	72.98	73.24	73.93	73.90

WTR YR 1986 HIGH 72.71 JUN 12

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	74.31	74.42	74.15	74.07	73.74	73.74	73.26	73.16	73.05	73.26	73.61	73.83
10	74.49	74.75	74.11	74.05	73.97	73.39	73.16	73.27	73.12	73.13	73.68	73.98
15	74.43	74.84	73.88	74.12	73.81	73.63	73.22	73.15	73.05	73.25	73.73	74.09
20	74.51	74.82	73.97	73.81	73.48	74.05	73.33	73.16	73.18	73.19	73.81	74.08
25	74.68	74.43	73.94	73.79	73.85	73.74	73.34	73.21	73.35	73.53	73.88	73.92
EOM	74.15	74.13	74.02	74.14	73.79	73.33	73.37	73.01	73.10	73.38	74.02	73.99

WTR YR 1986 LOW 74.92 NOV 11



MARION COUNTY

393855086120701. Local number, MA 34.

LOCATION.--Lat 39°38'55", long 86°12'07", in NE¼NW¼NE¼ sec.21, T.14 N., R.3 E., Marion County, Hydrologic Unit 05120201, about 0.5 mi northwest of Glenns Valley.
Owner: U.S. Geological Survey.

AQUIFER.--Coarse sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 66 ft, cased to 61 ft, screened to 66 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 670.73 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.70 ft above land-surface datum.

PERIOD OF RECORD.--July 1986 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 4.27 ft below land-surface datum, July 11, 1986; lowest, 6.67 ft below land-surface datum, Sept. 17, 1986.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

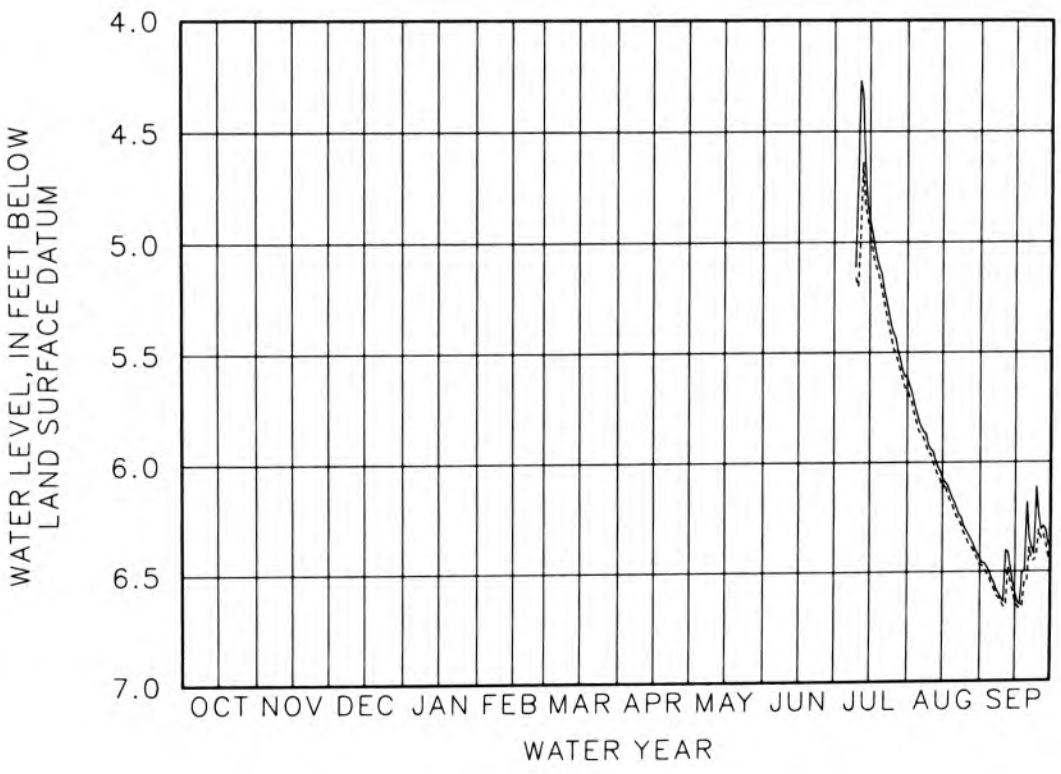
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5										---	5.81	6.53
10										4.69	5.94	6.64
15										4.89	6.07	6.59
20										5.14	6.18	6.18
25										5.41	6.31	6.24
EOM										5.61	6.44	6.39

WTR YR 1986 HIGH 4.27 JUL 11

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5										---	5.86	6.56
10										5.20	5.96	6.66
15										4.95	6.12	6.64
20										5.21	6.22	6.54
25										5.48	6.34	6.31
EOM										5.67	6.47	6.46

WTR YR 1986 LOW 6.67 SEP 17



MARTIN COUNTY

383659086545901. Local number, MT 5.

LOCATION.--Lat 38°36'59", long 86°54'59", in SE¼NE¼SW¼ sec.12, T.2 N., R.5 W., Martin County, Hydrologic Unit 05120208, on private property 0.25 mi southwest of Whitfield.
Owner: Joseph Arvin.

AQUIFER.--Sandstone of Pennsylvanian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 143 ft, cased to 53 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 565 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of floor of shelter, 2.8 ft above land-surface datum.

PERIOD OF RECORD.--May 1958 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 23.91 ft below land-surface datum, Apr. 14, 1980; lowest, 34.10 ft below land-surface datum, Jan. 1, 5, 22, 23, 1960, and Dec. 18, 19, 1964.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

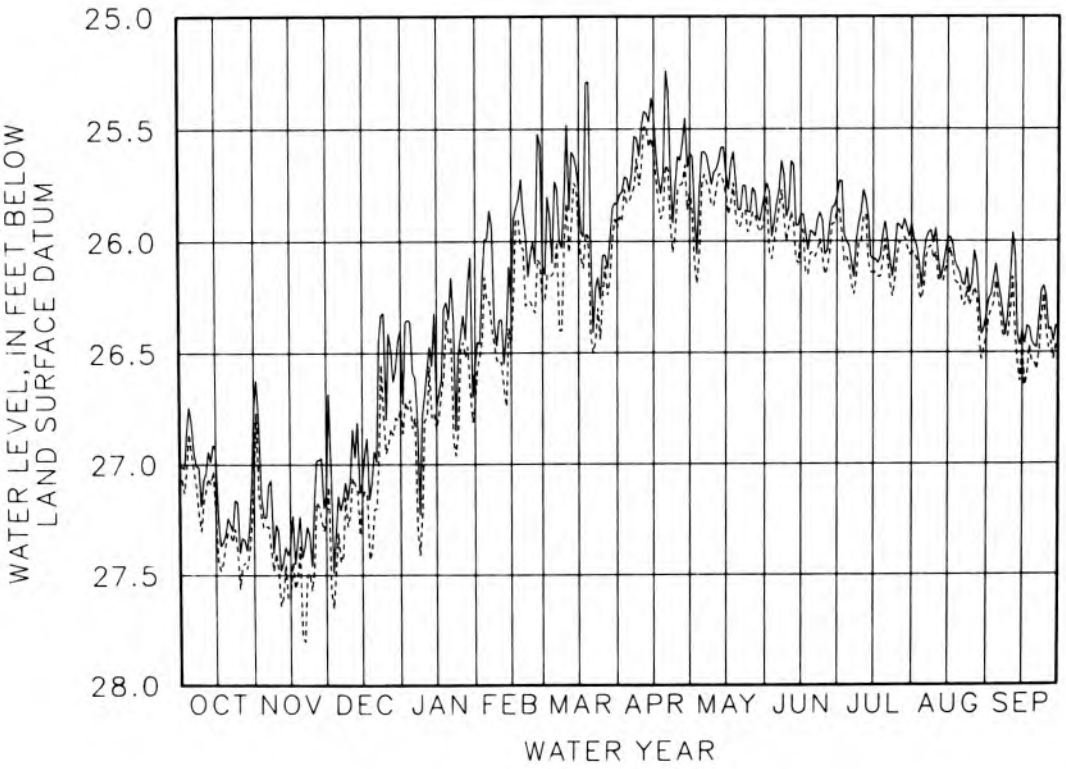
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	26.81	27.24	27.14	26.59	25.99	25.73	25.78	25.60	25.83	26.02	26.07	26.19
10	27.07	27.30	27.07	26.69	26.35	25.48	25.49	25.69	25.85	25.87	25.94	26.17
15	26.93	27.37	27.08	26.74	26.27	25.77	25.44	25.70	25.88	26.08	25.99	26.40
20	27.24	27.42	26.94	26.35	25.88	25.99	25.24	25.86	25.96	25.91	26.14	26.47
25	27.40	27.18	26.80	26.42	26.10	26.06	25.62	25.87	26.06	25.92	26.19	26.25
EOM	26.75	27.13	26.40	26.56	26.12	25.83	25.61	25.79	25.80	25.92	26.33	26.39

WTR YR 1986 HIGH 25.24 APR 20

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	26.95	27.28	27.31	26.84	26.27	26.13	25.82	25.75	25.93	26.10	26.21	26.26
10	27.17	27.47	27.22	26.80	26.55	25.83	25.67	25.84	25.94	26.00	26.05	26.32
15	27.23	27.61	27.16	26.84	26.48	25.96	25.61	25.79	25.95	26.14	26.08	26.46
20	27.31	27.78	27.20	26.45	26.03	26.41	25.66	25.94	26.05	25.99	26.19	26.54
25	27.56	27.46	26.95	26.49	26.32	26.24	25.77	25.93	26.15	26.06	26.26	26.40
EOM	27.07	27.23	26.75	26.73	26.27	25.94	25.77	25.88	25.86	26.05	26.43	26.44

WTR YR 1986 LOW 27.80 NOV 21



MONTGOMERY COUNTY

400247086482101. Local number, MY 7.

LOCATION.--Lat 40°02'47", long 86°48'21", in NE¼NW¼SW¼ sec.31, T.19 N., R.3 W., Montgomery County, Hydrologic Unit 05120110, on the county right-of-way at the intersection of State Highway 32 and County Road 525 East, and 4.5 mi east of Crawfordsville.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 111 ft, cased to 107 ft, screened to 109 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 801 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of floor of shelter, 2.38 ft above land-surface datum.

PERIOD OF RECORD.--July 1967 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 26.10 ft below land-surface datum, Apr. 13, 1974; lowest, 32.06 ft below land-surface datum, June 4, 1977.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

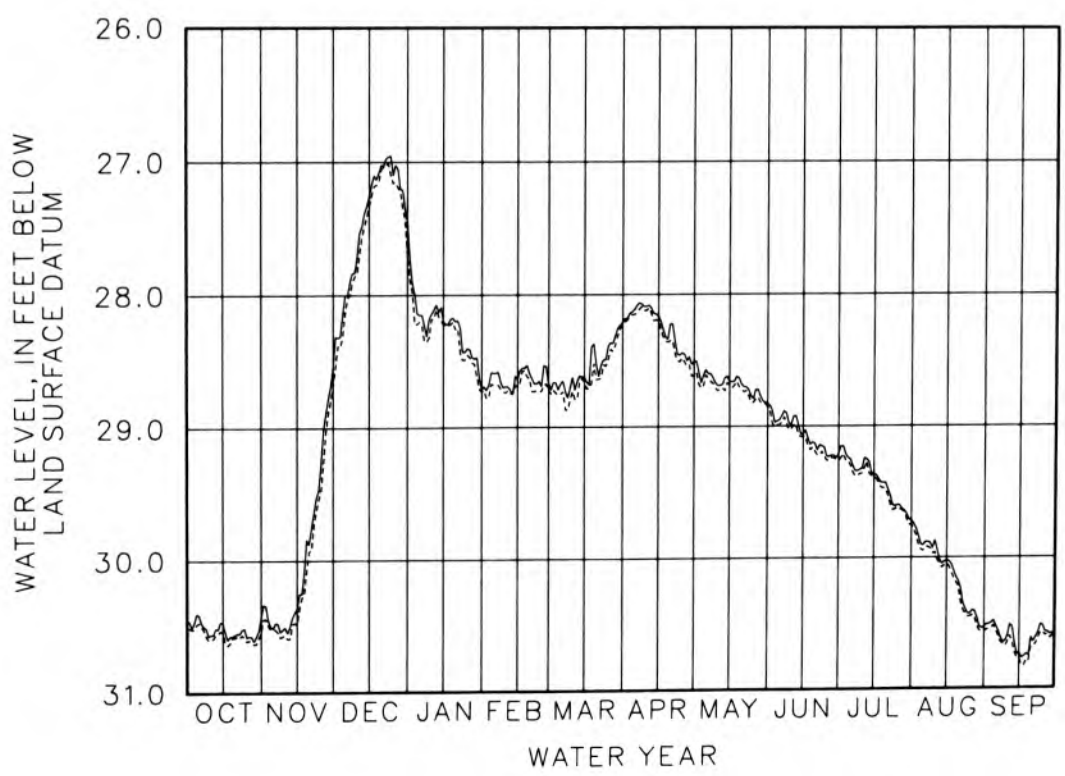
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	30.41	30.51	28.00	28.15	28.59	28.67	28.11	28.57	28.95	29.25	29.91	30.52
10	30.56	30.50	27.71	28.14	28.69	28.62	28.09	28.69	28.99	29.32	29.87	30.60
15	30.47	30.36	27.25	28.20	28.64	28.62	28.16	28.66	29.06	29.37	30.02	30.73
20	30.56	29.88	27.02	28.20	28.59	28.52	28.22	28.68	29.13	29.43	30.18	30.61
25	30.58	29.27	27.10	28.40	28.69	28.39	28.44	28.79	29.23	29.60	30.43	30.52
EOM	30.43	28.54	27.44	28.71	28.68	28.21	28.51	28.83	29.21	29.72	30.53	30.58

WTR YR 1986 HIGH 26.95 DEC 24

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	30.47	30.52	28.13	28.20	28.68	28.75	28.15	28.61	28.99	29.30	29.95	30.56
10	30.59	30.56	27.83	28.18	28.74	28.73	28.12	28.73	29.02	29.36	29.96	30.65
15	30.54	30.48	27.33	28.22	28.69	28.66	28.20	28.68	29.08	29.39	30.05	30.77
20	30.58	29.93	27.05	28.26	28.63	28.64	28.35	28.72	29.19	29.48	30.22	30.68
25	30.61	29.47	27.16	28.45	28.73	28.49	28.48	28.82	29.26	29.62	30.45	30.57
EOM	30.54	28.68	27.71	28.73	28.73	28.24	28.61	28.85	29.26	29.75	30.57	30.60

WTR YR 1986 LOW 30.83 SEP 16 AND OTHERS



MORGAN COUNTY

393423086161001. Local number, MG 4.

LOCATION.--Lat 39°34'23", long 86°16'10", in NW¼NW¼NW¼ sec.13, T.13 N., R.2 E., Morgan County, Hydrologic Unit 05120201, on east side of County Road 850 East, 0.4 mi north of County Road 950 North, and 1.1 mi north of Waverly.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 60 ft, cased to 56 ft, screened to 60 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 645 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of floor of shelter, 2.90 ft above land-surface datum.

PERIOD OF RECORD.--May 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 8.27 ft below land-surface datum, Apr. 7, 1985; lowest, 15.65 ft below land-surface datum, Nov. 9, 1983.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

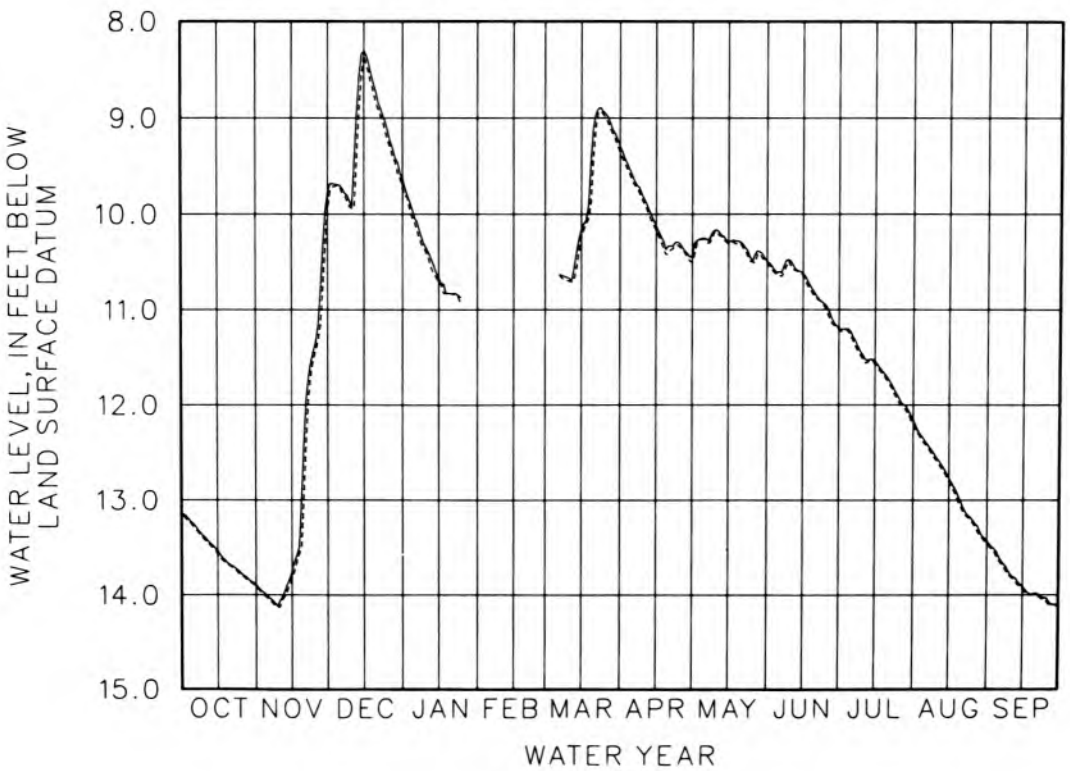
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.25	14.02	9.70	10.04		---	9.59	10.25	10.60	11.23	12.38	13.60
10	13.40	14.06	9.92	10.36		10.67	9.84	10.16	10.49	11.48	12.56	13.79
15	13.54	13.75	8.31	10.66		10.16	10.12	10.29	10.62	11.54	12.76	13.91
20	13.68	12.41	8.73	10.83		9.10	10.33	10.29	10.83	11.70	13.02	13.98
25	13.78	11.34	9.15	---		8.95	10.31	10.49	10.97	11.92	13.21	14.03
EOM	13.89	9.77	9.63	---		9.29	10.43	10.49	11.19	12.16	13.43	14.11

WTR YR 1986 HIGH 8.31 DEC 15

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.28	14.04	9.72	10.08		---	9.65	10.26	10.64	11.28	12.41	13.64
10	13.43	14.13	9.94	10.41		10.70	9.89	10.18	10.55	11.52	12.59	13.81
15	13.57	13.83	8.35	10.73		10.24	10.17	10.31	10.64	11.57	12.81	13.94
20	13.69	12.97	8.84	10.83		9.40	10.42	10.31	10.87	11.74	13.07	14.00
25	13.80	11.43	9.25	---		8.99	10.35	10.50	11.03	11.97	13.24	14.07
EOM	13.91	9.95	9.73	---		9.35	10.50	10.51	11.21	12.20	13.46	14.12

WTR YR 1986 LOW 14.13 NOV 9 AND OTHERS



NEWTON COUNTY

405105087173301. Local number, NE 6.

LOCATION.--Lat 40°51'05", long 87°17'33", in SE¼SW¼SE¼ sec.23, T.28 N., R.8 W., Newton County, Hydrologic Unit 07120002, on the right-of-way of County Road 1000 South, 1.0 mi south of Foresman.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 80 ft, cased to 76 ft, screened to 78 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 654.10 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of floor of shelter, 2.15 ft above land-surface datum.

PERIOD OF RECORD.--May 1967 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 7.94 ft below land-surface datum, Mar. 20, 21, 1982; lowest, 17.09 ft below land-surface datum, Oct. 30, 31, 1984.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

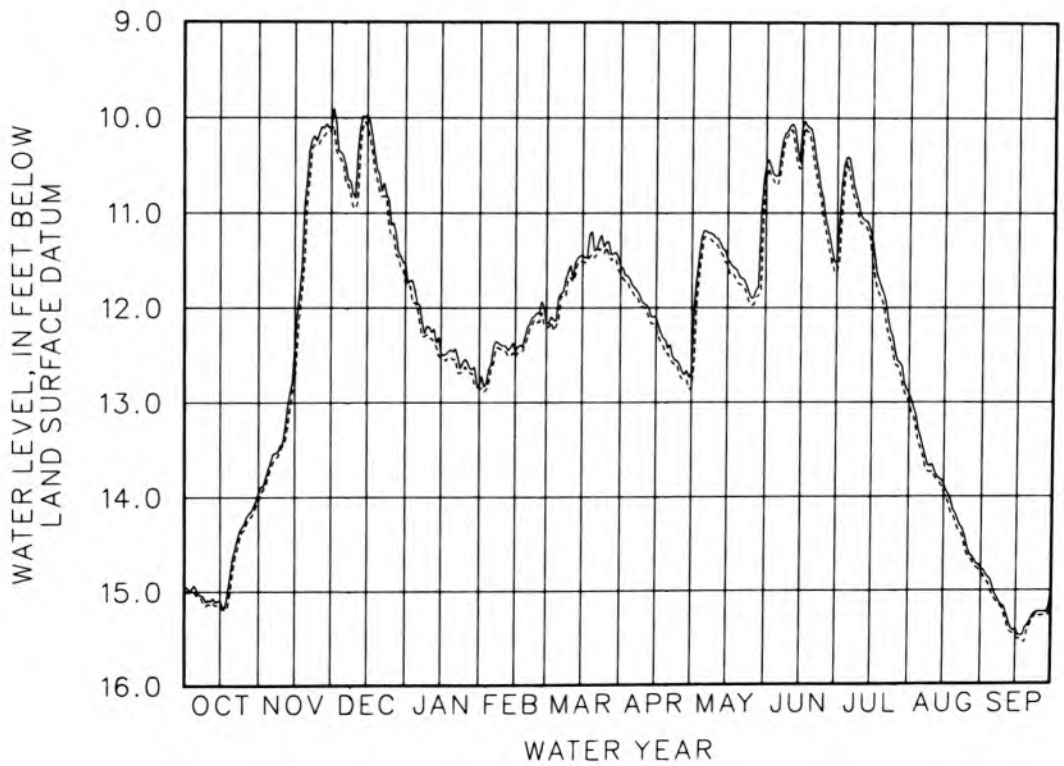
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	14.97	13.63	10.40	11.95	12.59	11.89	11.76	11.18	10.61	10.42	13.37	14.96
10	15.09	13.43	10.84	12.20	12.40	11.55	11.96	11.26	10.08	11.02	13.65	15.17
15	15.09	12.41	9.97	12.49	12.46	11.44	12.10	11.48	10.12	11.26	13.87	15.41
20	14.67	10.66	10.59	12.46	12.21	11.40	12.42	11.67	10.25	11.85	14.18	15.37
25	14.28	10.16	11.13	12.54	12.06	11.30	12.60	11.90	11.04	12.46	14.53	15.22
EOM	13.95	10.09	11.53	12.82	12.16	11.57	12.68	10.49	11.53	12.90	14.77	14.99

WTR YR 1986 HIGH 9.90 DEC 1

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	15.04	13.69	10.50	11.99	12.64	12.12	11.83	11.25	10.69	10.56	13.49	15.06
10	15.13	13.45	10.95	12.32	12.44	11.68	11.99	11.31	10.13	11.11	13.73	15.26
15	15.15	12.78	10.09	12.52	12.52	11.51	12.22	11.53	10.43	11.47	13.97	15.50
20	14.83	10.89	10.78	12.55	12.32	11.47	12.48	11.75	10.46	11.99	14.27	15.40
25	14.35	10.27	11.24	12.62	12.15	11.36	12.71	11.97	11.15	12.60	14.62	15.27
EOM	14.04	10.12	11.74	12.84	12.20	11.64	12.85	10.63	11.62	13.00	14.81	15.18

WTR YR 1986 LOW 15.55 SEP 18 AND OTHERS



NEWTON COUNTY

405959087282901. Local number, NE 7.

LOCATION.--Lat 40°59'59", long 87°28'29", in SE¼SW¼SE¼ sec.32, T.30 N., R.9 W., Newton County, Hydrologic Unit 07120002, in the Willow Slough Game Preserve, 2.0 mi southwest of Enos.
Owner: State of Indiana.

AQUIFER.--Limestone of Silurian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 150 ft, cased to 136 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 680.83 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of floor of shelter, 2.03 ft above land-surface datum.

PERIOD OF RECORD.--February 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 34.65 ft below land-surface datum, Apr 14, 1980; lowest, 85.51 ft below land-surface datum, Aug. 29, 1986.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

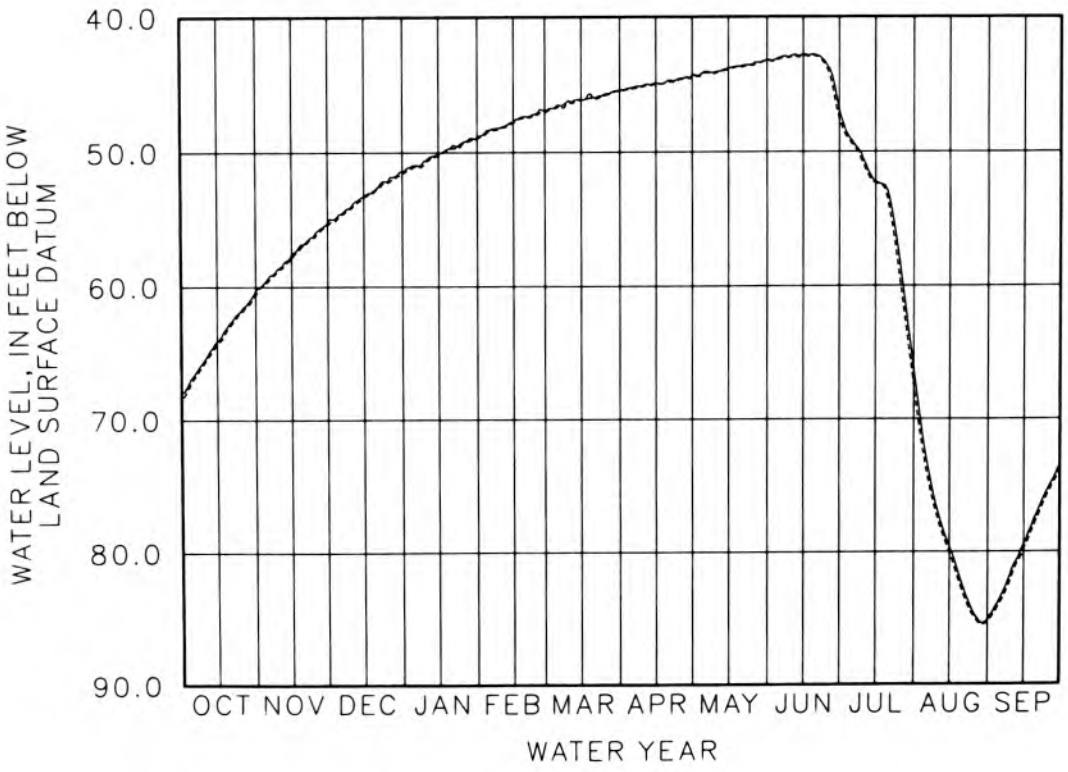
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	66.71	59.41	54.54	50.94	48.36	46.52	45.22	44.06	43.03	49.12	72.59	83.57
10	65.40	58.56	53.93	50.57	48.12	46.16	45.04	44.07	42.90	50.59	76.83	81.36
15	64.06	57.61	53.23	50.14	47.74	46.09	44.91	43.78	42.80	52.27	79.59	79.44
20	62.80	56.84	52.72	49.66	47.33	45.94	44.69	43.67	42.80	52.86	82.30	77.29
25	61.76	55.94	52.14	49.24	47.07	45.66	44.55	43.54	43.61	57.88	84.59	75.28
EOM	60.30	55.23	51.41	48.89	46.95	45.44	44.35	43.20	46.89	66.15	85.10	73.49

WTR YR 1986 HIGH 42.78 JUN 19

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	66.89	59.61	54.72	51.04	48.44	46.71	45.32	44.17	43.14	49.38	73.54	83.92
10	65.62	58.67	54.11	50.64	48.23	46.33	45.15	44.17	43.00	50.93	77.41	81.87
15	64.26	57.95	53.33	50.27	47.80	46.14	44.95	43.92	42.86	52.33	80.02	79.78
20	63.04	56.93	52.80	49.74	47.42	46.08	44.85	43.75	42.93	53.52	82.79	77.62
25	61.95	56.23	52.24	49.35	47.23	45.82	44.64	43.61	43.86	59.22	84.86	75.59
EOM	60.63	55.40	51.47	49.01	46.99	45.49	44.52	43.25	47.53	67.47	85.30	73.82

WTR YR 1986 LOW 85.51 AUG 29



NEWTON COUNTY

410428087231501. Local number, NE 8.

LOCATION.--Lat 41°04'28", long 87°25'44", in NW¼SW¼SW¼ sec.2, T.30 N., R.9 W., Newton County, Hydrologic Unit 07120001, in the Beaver Lake Prairie Chicken Refuge, 3.0 mi north of Enos.
Owner: State of Indiana.

AQUIFER.--Limestone of Silurian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 150 ft, cased to 97 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 663.34 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of floor of shelter, 2.83 ft above land-surface datum.

REMARKS.--Water level may be affected by irrigation pumpage.

PERIOD OF RECORD.--February 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 4.04 ft below land-surface datum, May 31, 1976; lowest, 94.14 ft below land-surface datum, July 30, 1985.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

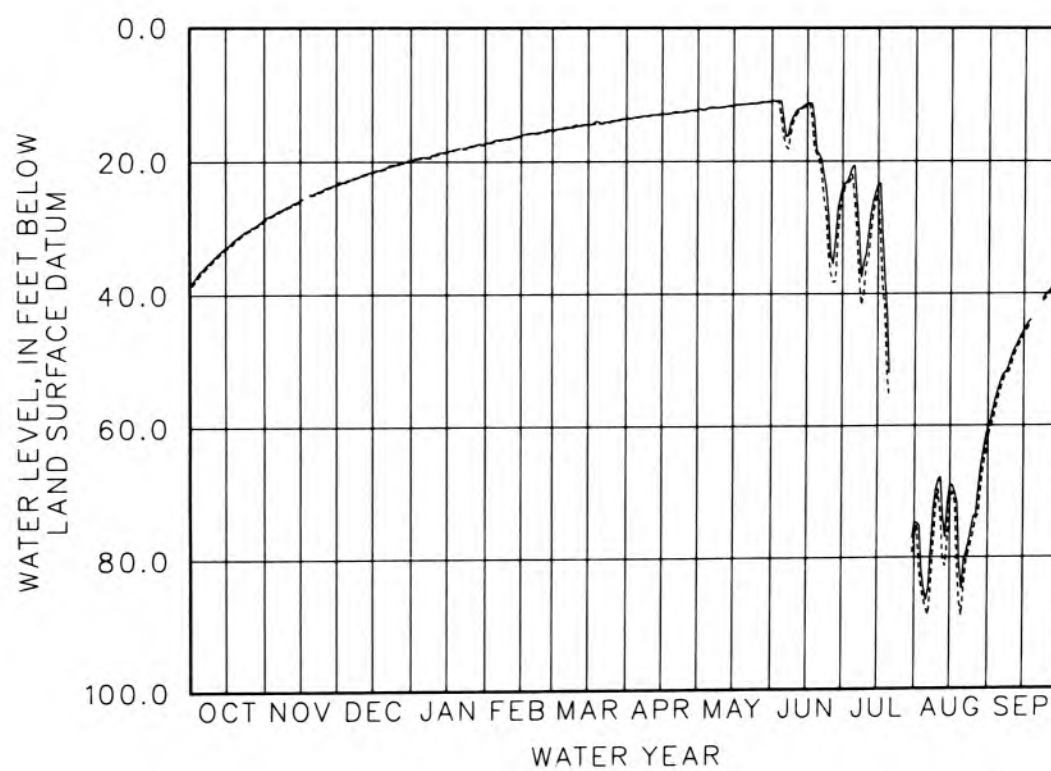
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	36.32	27.64	22.74	19.33	16.76	14.86	13.29	11.90	13.65	20.58	86.53	53.52
10	34.53	26.72	22.16	18.97	16.50	14.49	13.05	11.86	12.69	33.98	68.38	49.33
15	32.87	25.75	21.52	18.54	16.10	14.42	12.83	11.57	11.34	23.53	69.15	45.61
20	31.35	24.96	21.04	18.06	15.72	14.23	12.55	11.43	18.92	51.96	84.75	---
25	30.15	24.07	20.48	17.66	15.42	13.87	12.45	11.28	34.12	---	73.78	39.90
EOM	28.59	23.39	19.79	17.30	15.29	13.57	12.18	10.98	23.90	74.75	60.28	37.77

WTR YR 1986 HIGH 10.93 JUN 1

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	36.63	27.83	22.90	19.42	16.86	15.03	13.40	12.03	16.21	25.64	87.83	54.65
10	34.82	26.83	22.33	19.03	16.63	14.65	13.16	11.94	13.32	35.62	69.62	50.38
15	33.11	26.07	21.63	18.65	16.18	14.45	12.86	11.69	11.53	24.54	71.53	46.19
20	31.63	25.03	21.13	18.12	15.81	14.34	12.74	11.48	19.64	55.72	88.88	---
25	30.37	24.36	20.58	17.78	15.58	14.01	12.53	11.35	36.91	---	75.95	40.24
EOM	28.94	23.57	19.83	17.41	15.35	13.63	12.34	11.02	25.38	76.68	61.68	38.13

WTR YR 1986 LOW 88.88 AUG 20



NEWTON COUNTY

405959087282902. Local number, NE 9.

LOCATION.--Lat 40°59'59", long 87°28'29", in SE¼SW¼SE¼ sec.32, T.30 N., R.9 W., Newton County, Hydrologic Unit 07120002, in the Willow Slough Game Preserve, 2.0 mi southwest of Enos.
Owner: U.S. Geological Survey.

AQUIFER.--Sand of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 2 in., depth 45 ft, cased to 42 ft, screened to 45 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 681 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of "Y" in well casing, 3.10 ft above land-surface datum.

PERIOD OF RECORD.--May 1978 to current year. Fragmentary record prior to March 1981.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 1.07 ft below land-surface datum, May 3, 1978; lowest, 14.41 ft below land-surface datum, Oct. 17-19, 1985.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

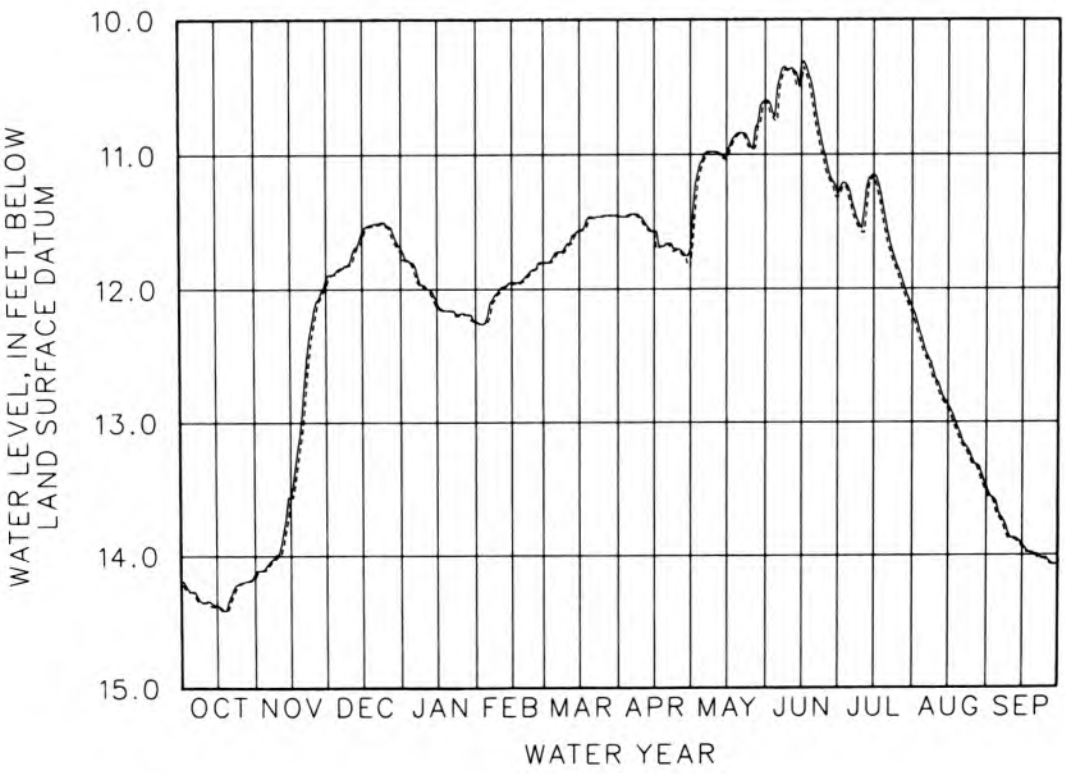
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	14.27	14.07	11.85	11.80	12.20	11.73	11.44	11.04	10.51	11.27	12.43	13.67
10	14.35	13.99	11.80	11.97	12.00	11.66	11.47	10.98	10.37	11.55	12.68	13.87
15	14.37	13.56	11.57	12.10	11.95	11.56	11.57	10.99	10.33	11.15	12.87	13.92
20	14.34	12.91	11.51	12.16	11.92	11.46	11.66	10.84	10.55	11.50	13.08	13.99
25	14.20	12.16	11.52	12.18	11.85	11.45	11.70	10.94	11.02	11.84	13.27	14.02
EOM	14.13	11.93	11.69	12.24	11.80	11.45	11.70	10.60	11.30	12.14	13.48	14.07

WTR YR 1986 HIGH 10.31 JUN 16

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	14.27	14.10	11.87	11.83	12.25	11.76	11.45	11.07	10.75	11.35	12.48	13.71
10	14.35	13.99	11.82	12.00	12.03	11.69	11.50	10.98	10.38	11.58	12.70	13.88
15	14.39	13.56	11.63	12.14	11.96	11.57	11.57	11.04	10.47	11.16	12.90	13.94
20	14.40	13.07	11.52	12.16	11.94	11.47	11.68	10.85	10.68	11.59	13.14	13.99
25	14.21	12.26	11.53	12.19	11.85	11.46	11.71	10.96	11.11	11.88	13.31	14.04
EOM	14.17	11.99	11.73	12.25	11.80	11.46	11.83	10.61	11.32	12.18	13.53	14.07

WTR YR 1986 LOW 14.41 OCT 17 AND OTHERS



NEWTON COUNTY

410428087231502. Local number, NE 10.

LOCATION.--Lat 41°04'28", long 87°25'44", in NW¼SW¼SW¼ sec.2, T.30 N., R.9 W., Newton County, Hydrologic Unit 07120001, in the Beaver Lake Prairie Chicken Refuge, 3.0 mi north of Enos.
Owner: U.S. Geological Survey.

AQUIFER.--Sand of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 2 in., depth 45 ft, cased to 41 ft, screened to 44 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 663 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of "Y" in well casing, 2.65 ft above land-surface datum.

PERIOD OF RECORD.--May 1978 to current year. Fragmentary record prior to March 1981.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.03 ft below land-surface datum, Mar. 16, 1982; lowest, 6.43 ft below land-surface datum, Oct. 18-21, 1984.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

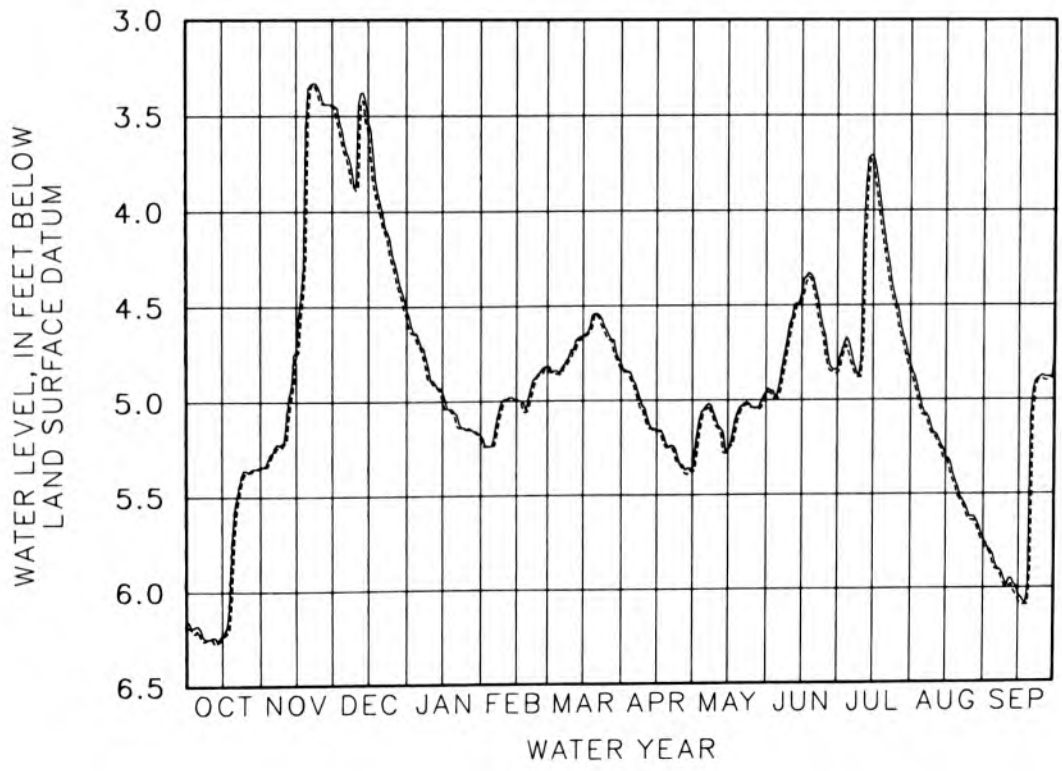
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.18	5.27	3.64	4.67	5.23	4.86	4.89	5.05	4.96	4.70	5.04	5.87
10	6.25	5.21	3.87	4.89	4.99	4.73	5.04	5.10	4.60	4.79	5.18	5.99
15	6.23	4.74	3.53	4.95	4.99	4.66	5.16	5.26	4.44	3.71	5.31	6.04
20	5.59	3.36	3.96	5.06	4.99	4.54	5.25	5.04	4.36	4.13	5.46	5.10
25	5.36	3.38	4.23	5.15	4.85	4.63	5.34	5.04	4.66	4.49	5.62	4.87
EOM	5.34	3.44	4.52	5.18	4.82	4.80	5.37	4.96	4.84	4.81	5.74	4.76

WTR YR 1986 HIGH 3.33 NOV 22 AND OTHERS

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.20	5.28	3.69	4.71	5.24	4.86	4.91	5.05	4.99	4.76	5.08	5.90
10	6.25	5.22	3.89	4.89	5.00	4.78	5.09	5.14	4.67	4.88	5.18	6.00
15	6.25	4.75	3.57	4.99	5.00	4.66	5.16	5.27	4.49	3.76	5.31	6.07
20	5.75	3.53	4.01	5.07	5.05	4.54	5.25	5.07	4.42	4.21	5.51	5.90
25	5.37	3.43	4.27	5.15	4.86	4.67	5.34	5.04	4.76	4.52	5.64	4.89
EOM	5.35	3.45	4.55	5.20	4.83	4.84	5.38	4.98	4.86	4.85	5.76	4.88

WTR YR 1986 LOW 6.28 OCT 12



NEWTON COUNTY

410235087305901. Local number, NE 11.

LOCATION.--Lat 41°02'35", long 87°30'59", in SW¼SW¼SE¼ sec.13, T.30 N., R.10 W., Newton County, Hydrologic Unit 07120001, on right-of-way of County Road 300 North, 0.5 mi west of County Road 600 West, and 4.0 mi northwest of Enos.
Owner: U.S. Geological Survey.

AQUIFER.--Limestone of Silurian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 5 in., depth of 150 ft, cased to 90 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 760 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 3.30 ft above land-surface datum.

PERIOD OF RECORD.--October 1981 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 22.78 ft below land-surface datum, May 6, 1982; lowest recorded, 83.41 ft below land-surface datum, July 25, 1985.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

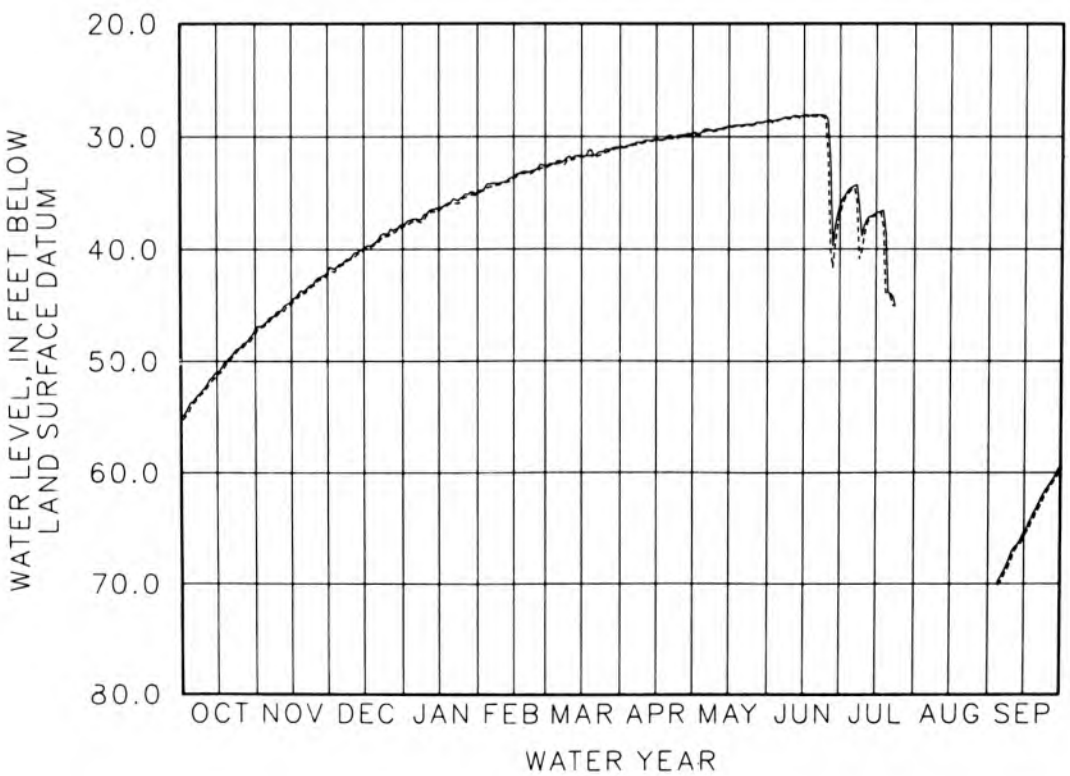
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	53.65	46.40	41.31	37.30	34.23	32.15	30.64	29.32	28.46	34.46		69.42
10	52.38	45.55	40.67	36.86	34.07	31.73	30.37	29.32	28.24	37.91		67.02
15	50.98	44.63	39.93	36.37	33.61	31.71	30.19	29.06	28.11	36.75		65.32
20	49.76	43.81	39.35	35.83	33.09	31.65	29.87	28.99	28.08	43.93		63.20
25	48.74	42.77	38.67	35.30	32.79	31.12	29.84	28.89	28.50	---		61.20
EOM	47.13	42.05	37.83	34.94	32.68	30.92	29.67	28.59	36.12	---		59.36

WTR YR 1986 HIGH 28.06 JUN 19

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	53.80	46.62	41.50	37.43	34.44	32.42	30.78	29.50	28.50	34.65		69.86
10	52.58	45.67	40.87	36.95	34.21	31.96	30.52	29.45	28.34	38.81		67.59
15	51.19	44.92	40.04	36.55	33.68	31.78	30.25	29.18	28.15	36.96		65.68
20	50.03	43.96	39.45	35.91	33.25	31.83	30.15	29.08	28.25	43.99		63.54
25	48.96	43.18	38.82	35.47	33.04	31.39	29.96	28.96	31.81	---		61.47
EOM	47.56	42.28	37.90	35.08	32.78	30.99	29.78	28.63	36.88	---		59.69

WTR YR 1986 LOW 70.06 SEP 4



NEWTON COUNTY

410917087285801. Local number, NE 14.

LOCATION.--Lat 41°09'17", long 87°28'58", in NE¼SW¼NW¼ sec.8, T.31 N., R.9 W., Newton County, Hydrologic Unit 07120001, 1.5 mi west of the intersection of U.S. Highway 41 and State Highway 10, then north 0.5 mi on county road leading to the entrance of the La Salle State Fish and Wildlife Area, then 0.2 mi to the wildlife area parking lot. Well is located 100 ft south of the parking lot and 75 ft west of the road. Owner: U.S. Geological Survey.

AQUIFER.--Dolomitic limestone of Silurian/Devonian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 150 ft, cased to 82 ft, open end.

INSTRUMENTATION.--Water-level recorder, data-collection platform, and incremental encoder.

DATUM.--Elevation of land-surface datum is 636 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 3.30 ft above land-surface datum.

REMARKS.--Water level may be affected by pumpage.

PERIOD OF RECORD.--August 1985 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 7.55 ft below land-surface datum, June 16, 19, 1986; lowest, 28.69 ft below land-surface datum, Aug. 24, 1986.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

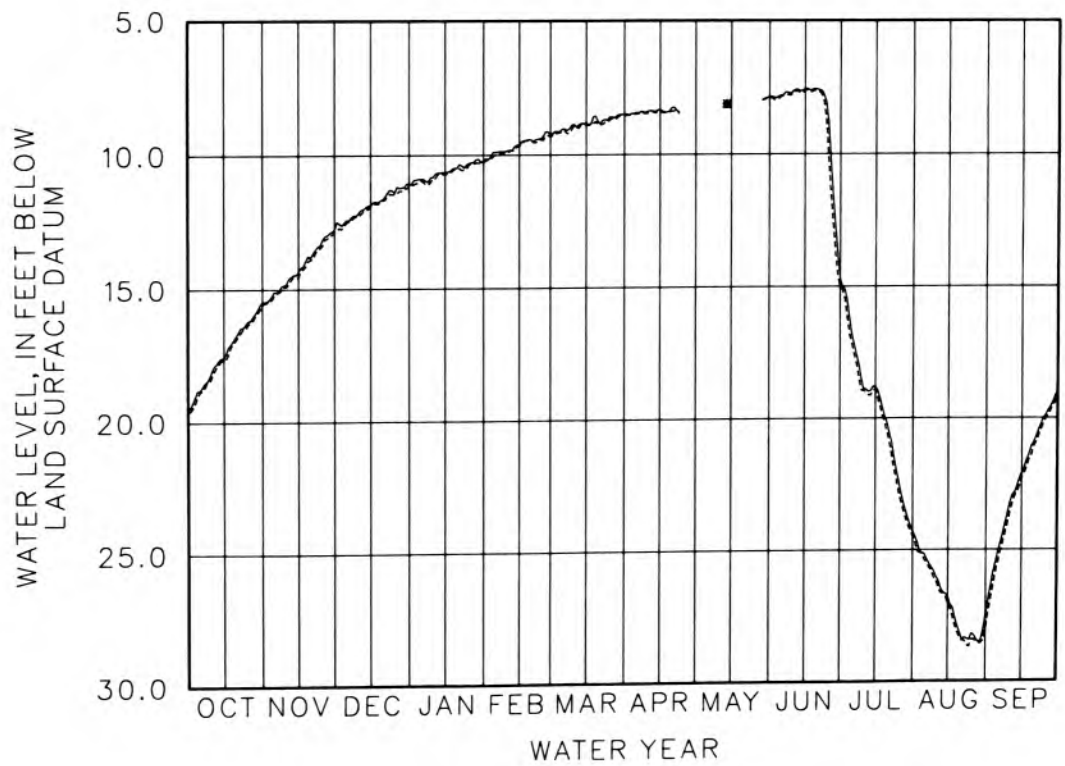
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	18.80	15.08	12.41	10.89	9.90	9.03	8.42	---	7.80	16.82	25.15	25.10
10	18.06	14.80	12.14	10.82	9.83	8.84	8.37	---	7.64	18.89	26.03	23.24
15	17.56	14.33	11.85	10.67	9.63	8.83	8.32	---	7.56	18.81	26.75	22.08
20	16.75	13.83	11.64	10.48	9.44	8.77	8.24	---	7.56	20.17	28.15	20.93
25	16.18	13.13	11.41	10.30	9.30	8.58	---	---	8.78	22.37	28.19	19.89
EOM	15.46	12.75	11.07	10.20	9.26	8.51	---	7.85	14.68	24.28	27.48	19.02

WTR YR 1986 HIGH 7.55 JUN 16 AND OTHERS

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	18.84	15.24	12.50	10.95	9.99	9.15	8.48	---	7.84	17.16	25.38	25.49
10	18.29	14.91	12.28	10.85	9.91	8.91	8.45	---	7.73	18.94	26.15	23.61
15	17.62	14.55	11.88	10.73	9.66	8.87	8.37	---	7.60	18.91	27.09	22.27
20	16.89	13.90	11.68	10.50	9.50	8.89	8.37	---	7.65	20.53	28.40	21.07
25	16.32	13.37	11.46	10.35	9.44	8.70	---	---	10.24	22.80	28.42	20.00
EOM	15.57	12.86	11.14	10.28	9.30	8.54	---	7.89	15.01	24.47	28.02	19.17

WTR YR 1986 LOW 28.69 AUG 24



NOBLE COUNTY

411922085221801. Local number, NO 8.

LOCATION.--Lat 41°19'22", long 85°22'18", in SE¼SW¼SE¼ sec.9, T.33 N., R.10 E., Noble County, Hydrologic Unit 04050001, near the east edge of Chain O'Lakes State Park, and 5.0 mi south of Albion.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 149 ft, cased to 146 ft, screened to 148 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 928 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of floor of shelter, 2.65 ft above land-surface datum.

PERIOD OF RECORD.--December 1966 to September 1971, August 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 28.55 ft below land-surface datum, May 31, 1982; lowest, 32.49 ft below land-surface datum, Jan. 18, 1967.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

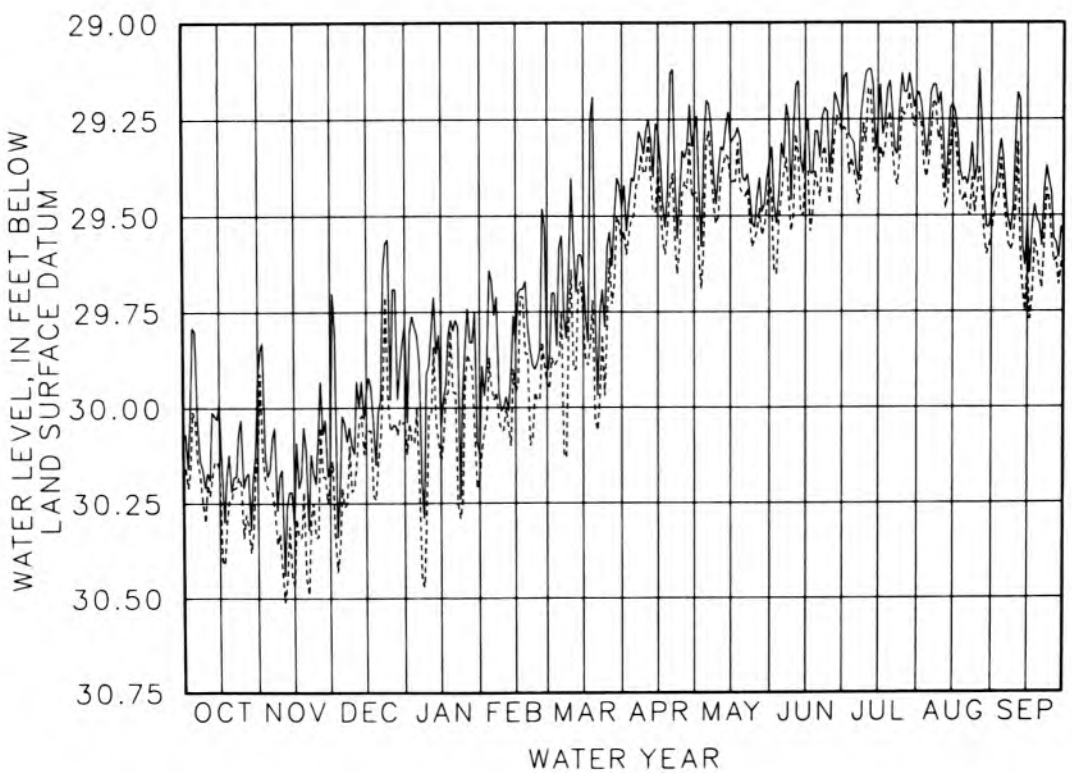
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	29.80	30.16	30.02	29.81	29.67	29.58	29.41	29.20	29.31	29.31	29.29	29.35
10	30.17	30.16	30.12	29.89	30.00	29.40	29.28	29.39	29.28	29.13	29.18	29.31
15	29.99	30.31	29.96	30.05	29.83	29.64	29.28	29.31	29.29	29.26	29.21	29.51
20	30.22	30.11	30.01	29.80	29.79	29.74	29.13	29.40	29.28	29.15	29.40	29.52
25	30.21	30.08	29.98	29.84	29.85	29.58	29.33	29.53	29.39	29.13	29.37	29.44
EOM	29.92	30.15	29.78	30.12	29.90	29.48	29.28	29.36	29.26	29.19	29.49	29.54

WTR YR 1986 HIGH 29.12 APR 21 AND OTHERS

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	30.03	30.22	30.21	30.00	29.95	29.87	29.50	29.31	29.45	29.38	29.36	29.44
10	30.20	30.43	30.21	30.02	30.06	29.64	29.38	29.50	29.50	29.31	29.27	29.48
15	30.16	30.47	30.06	30.14	29.96	29.76	29.37	29.41	29.37	29.39	29.24	29.63
20	30.24	30.45	30.14	29.96	29.86	30.03	29.43	29.44	29.42	29.23	29.44	29.65
25	30.34	30.34	30.06	29.94	29.98	29.78	29.44	29.56	29.47	29.22	29.44	29.56
EOM	30.12	30.19	30.04	30.18	29.94	29.57	29.44	29.40	29.28	29.22	29.55	29.60

WTR YR 1986 LOW 30.51 NOV 11



NOBLE COUNTY

413106085232701. Local number, NO 9.

LOCATION.--Lat 41°31'06", long 85°23'27", in NW¼NE¼SE¼ sec.5, T.35 N., R.10 E., Noble County, Hydrologic Unit 04050001, at the intersection of County Roads 175 East and 1150 North, and 2.0 mi west of Wolcottville. Owner: U.S. Geological Survey.

AQUIFER.--Sand of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in,. depth 44 ft, cased to 39 ft, screened to 42 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 930 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of floor of shelter, 2.60 ft above land-surface datum.

PERIOD OF RECORD.--June 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 8.45 ft below land-surface datum, Mar. 31, Apr. 1, 1985; lowest, 17.55 ft below land-surface datum, Dec. 27, 28, 1978.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

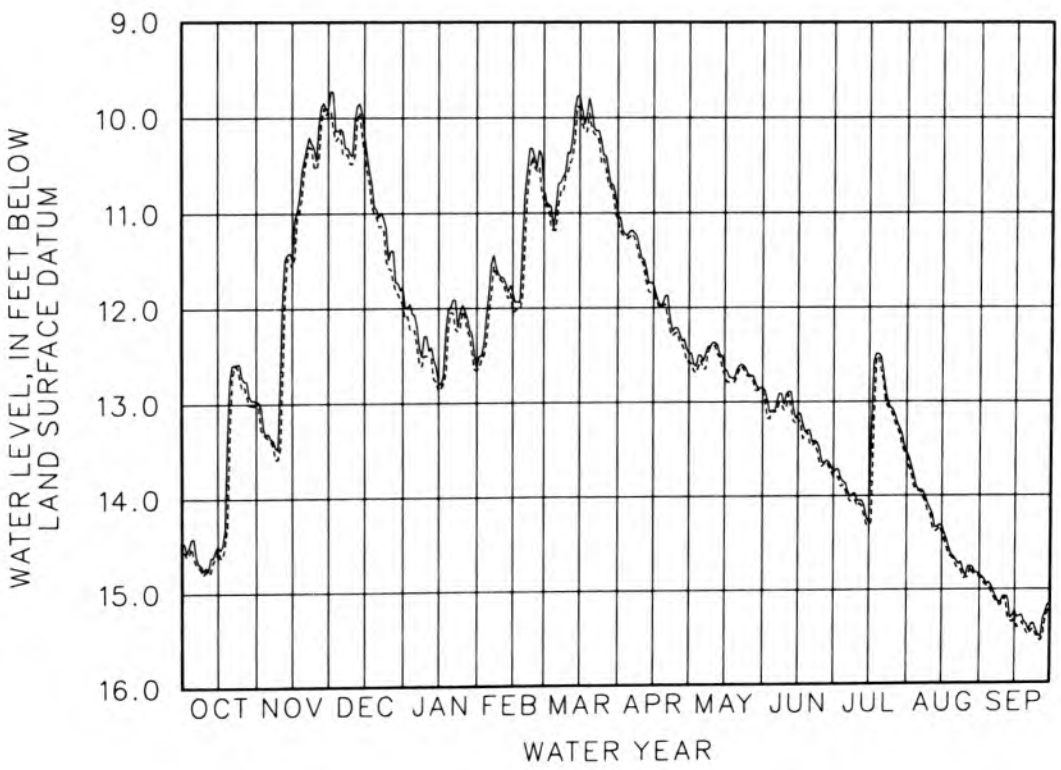
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	14.42	13.31	10.11	12.07	11.85	10.94	11.19	12.50	13.10	13.86	13.94	14.96
10	14.72	12.76	10.40	12.29	11.67	10.36	11.48	12.37	12.92	14.05	14.14	15.07
15	14.50	11.48	10.19	12.79	11.83	9.77	11.75	12.65	13.13	14.28	14.32	15.23
20	12.76	10.43	10.96	11.99	10.82	9.92	11.87	12.67	13.30	12.52	14.65	15.37
25	12.72	10.45	11.49	11.96	10.52	10.39	12.21	12.71	13.64	13.08	14.86	15.49
EOM	12.98	9.90	11.77	12.63	10.79	11.02	12.48	12.85	13.75	13.54	14.85	15.15

WTR YR 1986 HIGH 9.72 DEC 1

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	14.62	13.37	10.14	12.23	12.06	11.18	11.25	12.56	13.11	13.94	13.95	15.03
10	14.76	13.47	10.48	12.50	11.70	10.57	11.49	12.41	13.05	14.11	14.19	15.12
15	14.54	11.56	10.37	12.87	12.03	9.90	11.84	12.71	13.17	14.31	14.39	15.28
20	13.35	10.54	11.03	12.04	11.35	10.11	11.96	12.75	13.45	12.67	14.68	15.46
25	12.83	10.54	11.58	12.03	10.56	10.43	12.26	12.73	13.69	13.14	14.87	15.52
EOM	13.02	9.92	11.97	12.65	10.88	11.07	12.57	12.88	13.80	13.58	14.87	15.20

WTR YR 1986 LOW 15.55 SEP 26



NOBLE COUNTY

412948085223401. Local number, NO 10.

LOCATION.--Lat 41°29'48", long 85°22'34", in SW¼SW¼SE¼ sec.9, T.35 N., R.10 E., Noble County, Hydrologic Unit 04050001, on the east side of West Lakes Marina in Rome City.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 2 in., depth 24 ft, cased to 21 ft, screened to 24 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 920 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of floor of shelter, 3.0 ft above land-surface datum.

PERIOD OF RECORD.--November 1978 to September 30, 1986. (Discontinued)

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.89 ft below land-surface datum, Mar. 31, Apr. 1, 1985; lowest, 12.74 ft below land-surface datum, Dec. 29, 1978, Feb 17, 1980.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

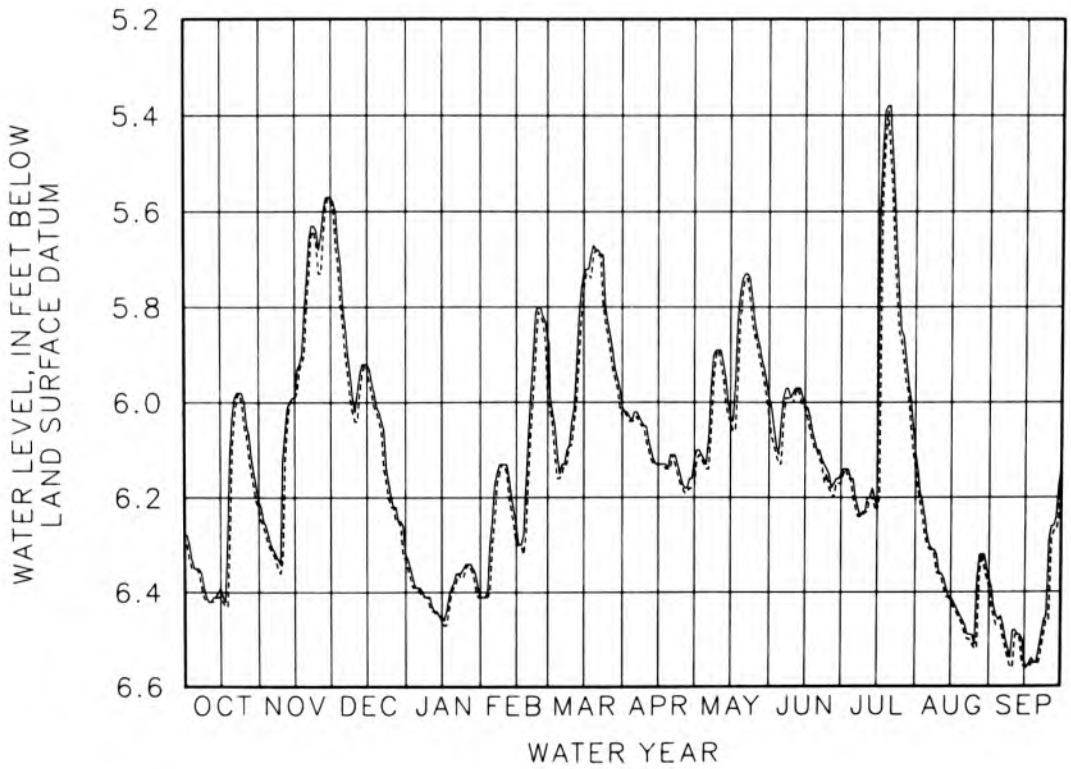
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.35	6.30	5.80	6.39	6.25	6.15	6.02	6.13	6.04	6.16	6.28	6.45
10	6.42	6.12	6.02	6.41	6.13	6.04	6.05	5.89	5.98	6.23	6.36	6.48
15	6.39	5.99	5.92	6.45	6.26	5.73	6.13	6.03	6.01	6.22	6.41	6.55
20	6.03	5.74	6.02	6.38	6.07	5.68	6.11	5.74	6.10	5.38	6.46	6.55
25	6.00	5.68	6.20	6.34	5.80	5.83	6.17	5.83	6.15	5.85	6.51	6.29
EOM	6.21	5.57	6.32	6.41	5.87	6.01	6.12	5.99	6.15	6.10	6.37	6.14

WTR YR 1986 HIGH 5.38 JUL 19 AND OTHERS

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.35	6.31	5.84	6.39	6.30	6.16	6.04	6.14	6.13	6.20	6.30	6.47
10	6.42	6.33	6.04	6.43	6.13	6.09	6.08	5.89	6.00	6.23	6.35	6.56
15	6.41	5.99	5.93	6.46	6.30	5.76	6.13	6.04	6.01	6.23	6.42	6.56
20	6.10	5.80	6.04	6.39	6.16	5.68	6.14	5.77	6.10	5.47	6.47	6.55
25	6.05	5.73	6.22	6.35	5.82	5.86	6.18	5.86	6.18	5.87	6.52	6.46
EOM	6.22	5.58	6.33	6.41	5.99	6.03	6.18	6.03	6.17	6.14	6.39	6.17

WTR YR 1986 LOW 6.56 SEP 9 AND OTHERS



383702086215601. Local number, OR 2.

LOCATION.--Lat 38°37'02", long 86°21'56", in NE¼SE¼SE¼ sec.11, T.2 N., R.1 E., Orange County, Hydrologic Unit 05120208, on property of Paul Middletown Farm, 6.6 mi southeast of Orleans. Owner: Paul Middletown.

AQUIFER.--Limestone of Mississippian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 108 ft, cased to 56 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 712 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of floor of shelter, 3.30 ft above land-surface datum.

PERIOD OF RECORD.--October 1978 to September 1986. (Discontinued)

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.59 ft below land-surface datum, May 15, 1983; lowest, 44.44 ft below land-surface datum, Jan. 29, 1981.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

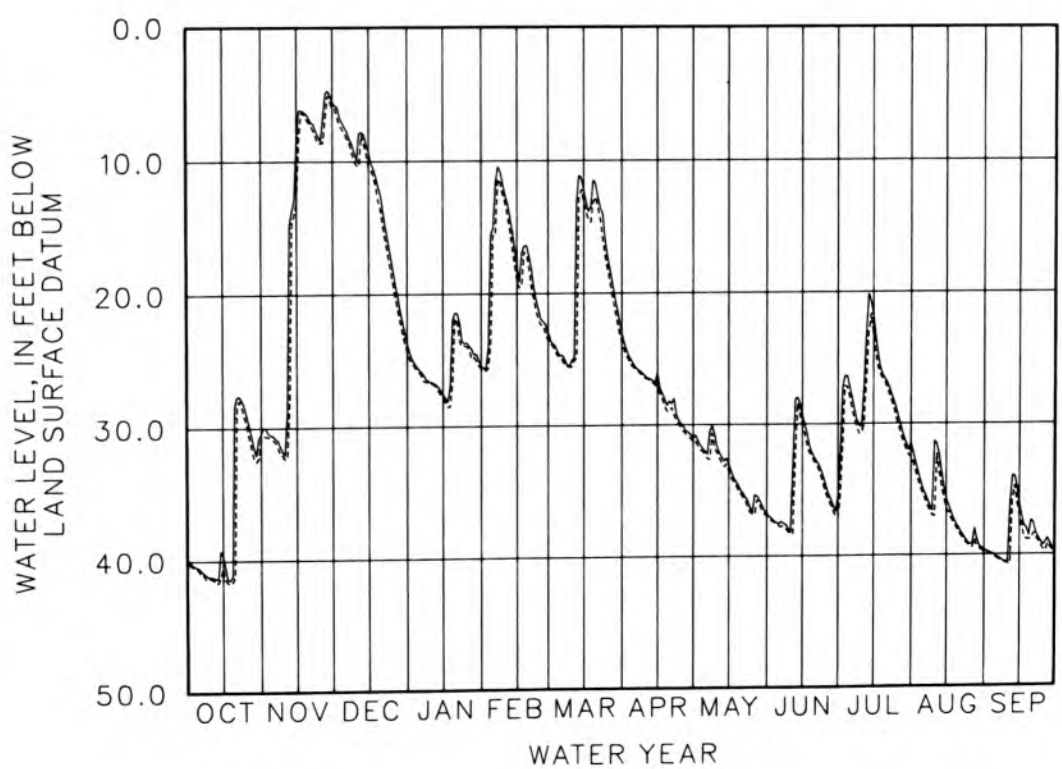
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	40.54	30.59	7.46	25.67	15.05	24.68	25.41	31.99	37.59	27.21	34.92	40.10
10	41.19	32.00	9.90	26.62	12.57	25.04	26.33	31.63	38.19	30.15	31.29	40.56
15	39.63	8.69	9.30	27.58	17.84	12.18	25.97	33.01	29.31	21.68	35.68	36.08
20	28.35	6.74	12.53	21.40	17.07	11.71	28.19	35.00	32.51	26.60	37.89	37.36
25	29.11	8.47	18.09	23.67	21.95	17.17	29.94	36.62	34.74	28.98	39.23	39.31
EOM	30.43	5.58	23.66	25.43	23.10	22.99	31.04	36.77	35.55	31.45	39.64	39.72

WTR YR 1986 HIGH 4.71 NOV 28

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	40.73	30.91	7.79	25.86	15.37	24.76	25.64	32.26	37.74	27.93	35.34	40.21
10	41.28	32.34	10.29	26.71	13.16	25.54	26.45	32.10	38.29	30.63	37.05	40.66
15	40.52	12.97	10.48	27.82	19.03	13.06	27.17	33.51	29.99	23.27	36.51	36.96
20	41.20	7.08	13.65	21.83	18.05	12.74	28.99	35.24	32.82	26.86	38.22	38.90
25	29.71	8.63	19.10	23.98	22.39	18.13	30.17	36.79	35.29	29.70	39.37	39.60
EOM	30.86	5.98	24.32	25.61	23.53	23.70	31.24	36.96	37.14	32.52	39.79	39.87

WTR YR 1986 LOW 41.74 OCT 18



PARKE COUNTY

393619087043001. Local number, PA 6.

LOCATION.--Lat 39°36'19", long 87°04'30", in SE¼SW¼SE¼ sec.33, T.14 N., R.6 W., Parke County, Hydrologic Unit 05120111, on county right-of-way on north side of Parke-Clay county line road, 1.7 mi east of Carbon, 2.6 mi east of State Highway 59, and 6.2 mi north of Brazil.
Owner: U.S. Geological Survey.

AQUIFER.--Sandstone of Pennsylvanian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 155 ft, cased to 46 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 703 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.40 ft above land-surface datum.

PERIOD OF RECORD.--July 1967 to August 1971, October 1981 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 11.53 ft below land-surface datum, Apr. 19, 1970; lowest, 16.40 ft below land-surface datum, Oct. 17, 18, 1984.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

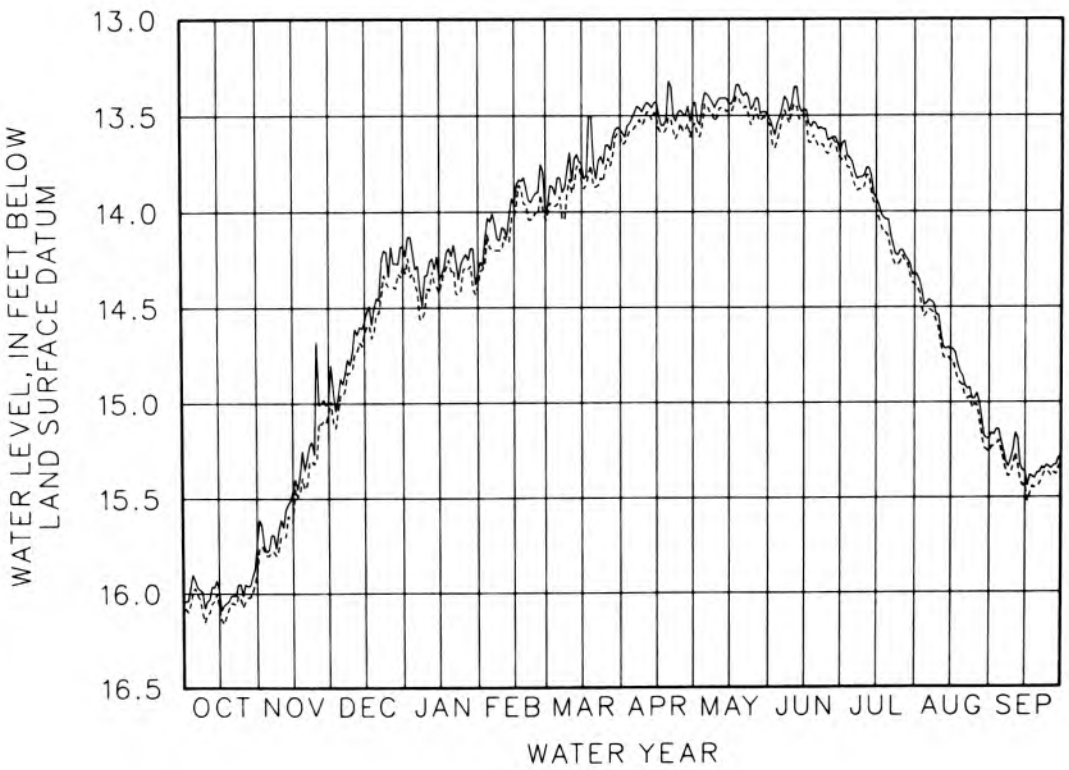
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	15.93	15.77	14.87	14.30	14.05	13.82	13.51	13.38	13.51	13.74	14.48	15.20
10	16.04	15.61	14.73	14.33	14.08	13.69	13.45	13.43	13.44	13.81	14.54	15.25
15	15.98	15.46	14.57	14.35	13.96	13.75	13.43	13.44	13.47	13.93	14.72	15.36
20	16.01	15.35	14.45	14.23	13.88	13.75	13.32	13.38	13.54	14.04	14.86	15.37
25	16.01	14.68	14.34	14.24	13.90	13.65	13.47	13.45	13.63	14.20	14.98	15.34
EOM	15.74	14.99	14.18	14.32	14.00	13.57	13.45	13.50	13.69	14.32	15.19	15.30

WTR YR 1986 HIGH 13.32 APR 20

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	15.97	15.80	14.96	14.37	14.19	13.96	13.58	13.44	13.58	13.82	14.53	15.25
10	16.11	15.70	14.83	14.40	14.20	13.83	13.53	13.51	13.48	13.87	14.61	15.33
15	16.07	15.62	14.63	14.42	14.03	13.84	13.51	13.47	13.49	13.98	14.78	15.43
20	16.05	15.45	14.53	14.31	13.96	13.87	13.51	13.44	13.63	14.13	14.91	15.44
25	16.07	15.30	14.39	14.30	14.01	13.77	13.54	13.52	13.70	14.26	15.01	15.37
EOM	15.89	15.05	14.28	14.39	14.04	13.60	13.56	13.53	13.72	14.38	15.26	15.32

WTR YR 1986 LOW 16.16 OCT 17



POSEY COUNTY

380758087551001. Local number, PY 3.

LOCATION.--Lat 38°07'58", long 87°55'10", in NW¼NW¼SW¼ sec.31, T.4 S., R.13 W., Posey County, Hydrologic Unit 05120113, on property of the New Harmony Park Board, at the east edge of New Harmony. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 58 ft, cased to 54 ft, screened to 56 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 380 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of floor of shelter, 3.00 ft above land-surface datum.

REMARKS.--Water level affected by Wabash River floods.

PERIOD OF RECORD.--April 1967 to September 1971, September 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 4.95 ft below land-surface datum, May 14, 1983; lowest, 21.25 ft below land-surface datum, Feb. 15-20, 1977.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

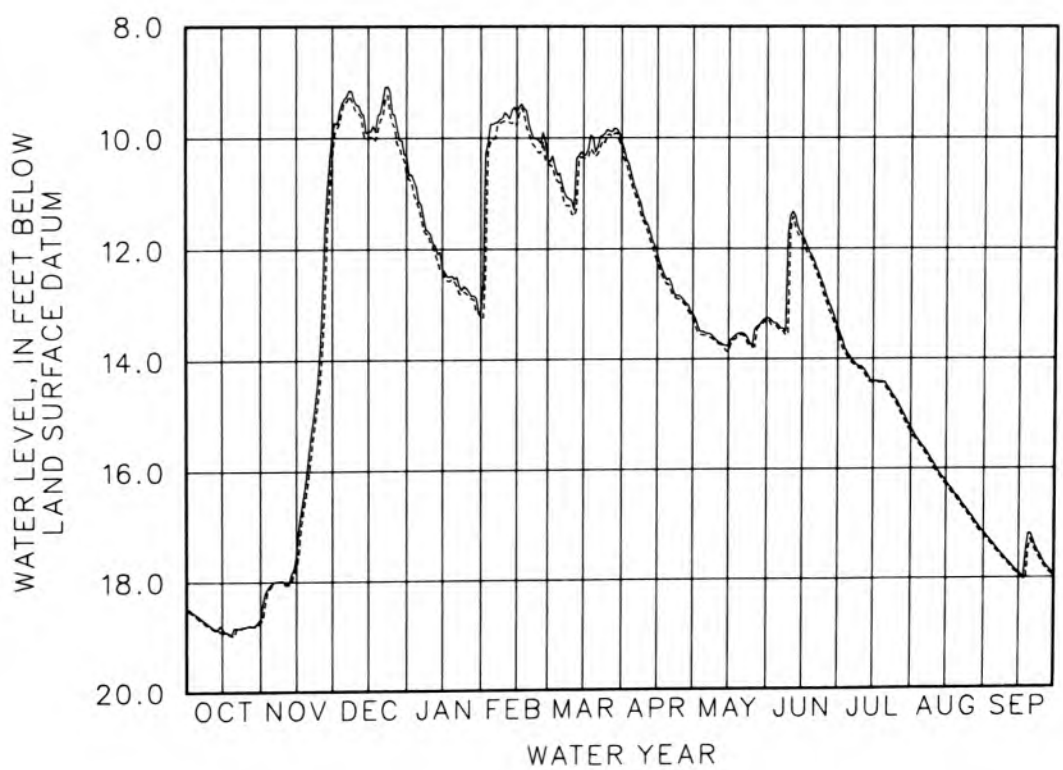
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	18.62	18.02	9.30	11.14	9.76	10.63	10.82	13.52	13.39	13.96	15.59	17.43
10	18.79	18.00	9.41	11.73	9.54	11.12	11.50	13.66	11.40	14.14	15.92	17.68
15	18.83	17.51	9.89	12.37	9.55	10.31	12.08	13.75	11.77	14.41	16.24	17.91
20	18.83	15.80	9.55	12.54	9.74	10.25	12.53	13.53	12.22	14.43	16.51	17.19
25	18.81	13.78	9.57	12.71	10.10	9.84	12.87	13.77	12.84	14.76	16.82	17.67
EOM	18.68	9.94	10.33	13.15	10.41	10.07	13.19	13.26	13.43	15.25	17.17	17.94

WTR YR 1986 HIGH 9.07 DEC 23

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	18.66	18.05	9.35	11.24	10.02	10.81	10.95	13.57	13.46	14.02	15.64	17.48
10	18.82	18.04	9.55	11.90	9.69	11.37	11.57	13.70	11.66	14.18	16.00	17.72
15	18.91	17.75	9.99	12.41	9.77	10.36	12.25	13.87	11.85	14.43	16.30	17.95
20	18.98	16.16	9.67	12.59	9.90	10.34	12.65	13.56	12.34	14.50	16.58	17.30
25	18.82	14.35	9.73	12.80	10.26	9.95	12.93	13.79	12.95	14.83	16.87	17.75
EOM	18.72	10.35	10.67	13.21	10.47	10.18	13.26	13.28	13.55	15.33	17.21	17.98

WTR YR 1986 LOW 18.98 OCT 20



POSEY COUNTY

380638087471901. Local number, PY 4.

LOCATION.--Lat 38°06'38", long 87°47'19", in NW¼NW¼NW¼ sec.8, T.5 S., R.12 W., Posey County, Hydrologic Unit 05120113, 0.6 mi north of Wadesville.
Owner: U.S. Geological Survey.

AQUIFER.--Sandstone of Pennsylvanian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 280 ft, cased to 200 ft, open hole.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 458 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of floor of shelter, 2.00 ft above land-surface datum.

REMARKS.--Water level affected by pumpage from feed lot.

PERIOD OF RECORD.--November 1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 112.99 ft below land-surface datum, Apr. 2, 1979; lowest, 141.53 ft below land-surface datum, June 30, 1986.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

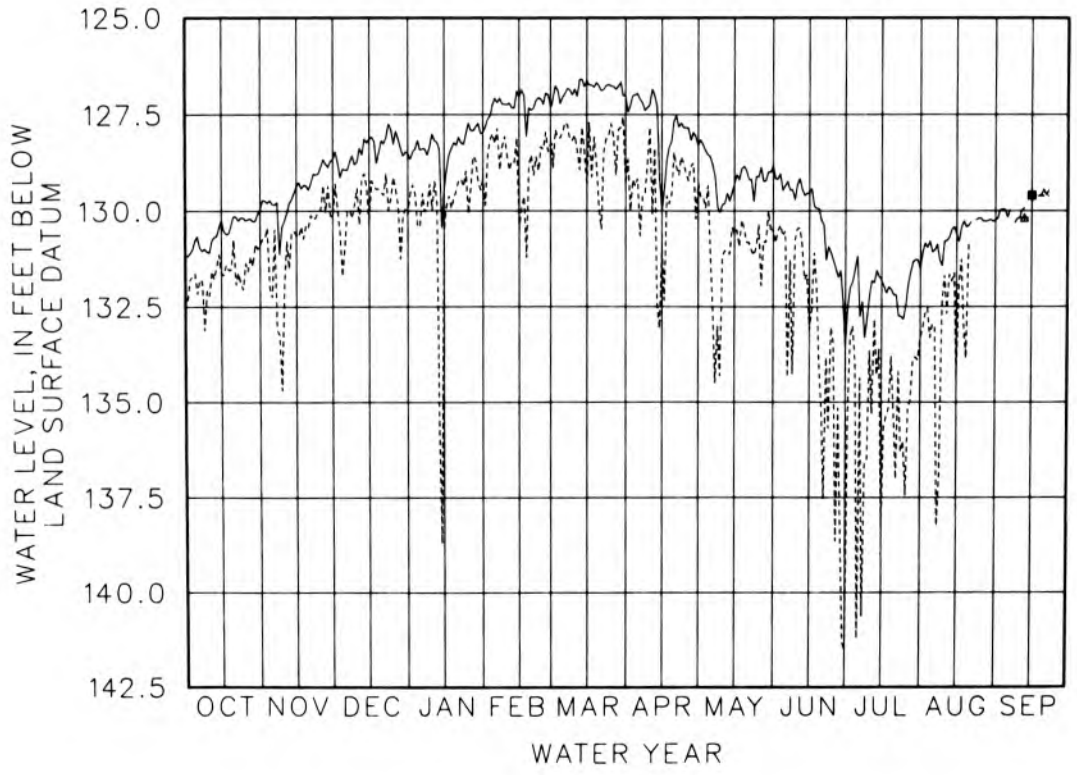
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	130.66	129.83	128.93	128.43	127.07	127.05	126.95	128.59	129.34	131.16	131.08	130.16
10	131.09	130.26	128.73	128.00	127.24	126.83	127.25	129.83	129.30	132.20	130.78	130.18
15	130.23	129.36	128.13	129.45	127.05	126.62	130.02	129.29	129.52	131.81	130.61	129.59
20	130.13	129.46	128.17	128.29	127.39	126.75	127.66	128.95	130.25	132.19	130.37	129.44
25	130.25	128.86	128.26	127.72	127.23	126.76	127.84	129.11	131.28	132.46	130.18	---
EOM	129.97	128.66	128.50	127.96	127.28	126.99	128.30	128.82	133.58	131.52	130.23	---

WTR YR 1986 HIGH 126.58 MAR 12

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	132.17	132.25	130.93	130.39	128.25	127.95	129.15	131.07	130.51	141.22	132.95	---
10	132.22	131.98	129.40	129.98	128.53	128.03	127.83	131.17	130.45	133.65	131.67	---
15	131.63	130.62	130.35	130.51	130.49	129.36	130.99	130.58	133.09	138.25	134.32	129.61
20	130.74	130.43	129.53	129.48	128.54	129.92	128.48	130.81	135.11	135.24	130.76	129.61
25	131.36	129.97	129.12	130.07	128.40	127.73	129.04	130.35	133.44	137.43	---	---
EOM	130.88	130.15	130.10	129.20	128.25	129.32	129.28	130.45	141.53	133.31	---	---

WTR YR 1986 LOW 141.53 JUN 30



405916086530701. Local number, PU 6.

LOCATION.--Lat 40°59'16", long 86°53'07", in NW¼SE¼SW¼ sec.4, T.29 N., R.4 W., Pulaski County, Hydrologic Unit 05120106, on private property at the north edge of Francesville.
Owner: Earl Overmeyer.

AQUIFER.--Limestone of Devonian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 8 in., depth 663 ft, cased to 11 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 678.60 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of floor of shelter, 3.00 ft above land-surface datum.

REMARKS.--Water level affected by pumpage and earthquakes.

PERIOD OF RECORD.--July 1956 to February 1971, January 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 4.03 ft below land-surface datum, June 15, 1958; lowest, 22.74 ft below land-surface datum, Oct. 16, 17, 1985.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

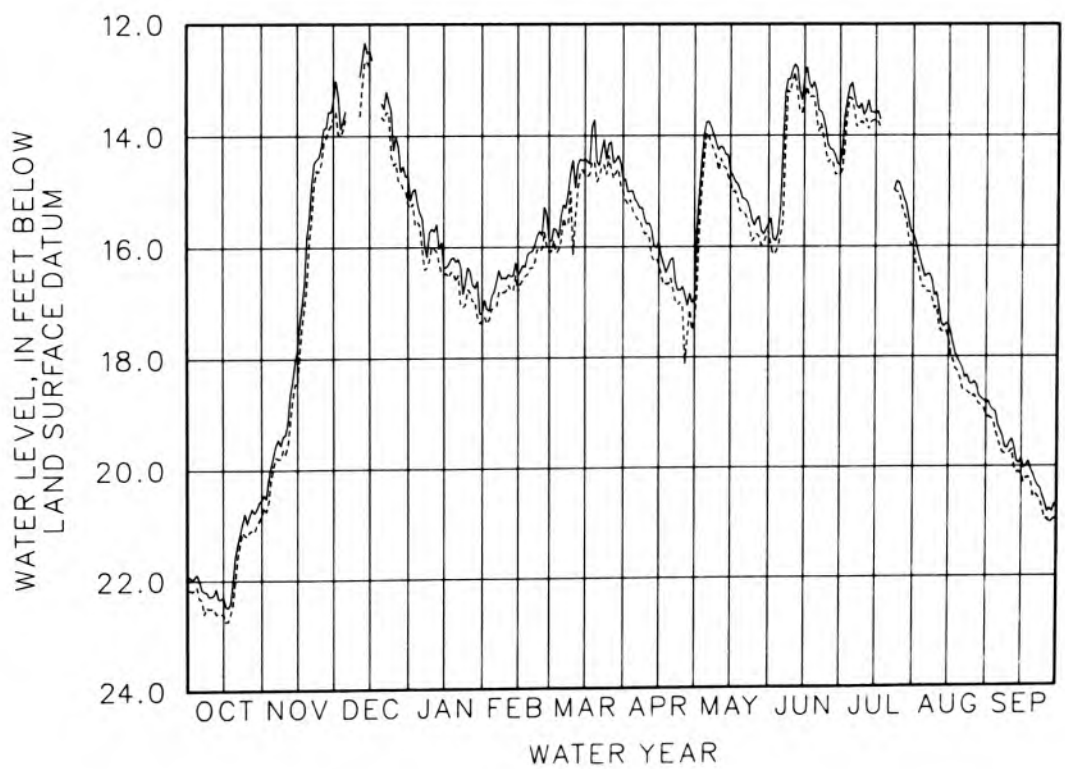
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	21.99	19.73	13.56	15.39	16.80	15.45	15.15	13.75	15.30	13.05	16.56	19.24
10	22.28	19.36	---	15.66	16.57	14.43	15.60	14.26	12.81	13.64	16.84	19.56
15	22.29	17.84	12.49	16.37	16.51	14.41	15.91	14.65	12.92	13.61	17.41	19.86
20	21.57	15.47	13.42	16.27	16.09	14.46	16.23	15.13	13.19	---	18.13	20.14
25	20.97	14.20	14.26	16.36	15.80	14.15	16.72	15.62	14.17	14.85	18.51	20.66
EOM	20.54	13.36	14.70	17.19	15.89	14.77	16.93	15.60	14.53	15.77	18.84	20.70

WTR YR 1986 HIGH 12.33 DEC 13

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	22.32	19.94	13.72	15.63	17.10	15.88	15.43	13.95	15.79	13.34	16.73	19.51
10	22.50	19.70	---	16.00	16.79	16.14	15.76	14.63	13.00	13.79	17.09	19.74
15	22.60	18.46	12.76	16.48	16.81	14.70	16.32	14.83	13.37	13.72	17.67	20.16
20	22.01	15.87	13.66	16.62	16.37	14.83	16.57	15.37	13.64	---	18.41	20.55
25	21.21	14.50	14.53	16.76	16.04	14.36	17.10	15.85	14.49	15.02	18.74	20.97
EOM	20.83	13.66	15.23	17.33	16.09	15.01	17.34	15.72	14.70	16.01	19.05	20.87

WTR YR 1986 LOW 22.74 OCT 16 AND OTHERS



PULASKI COUNTY

410739086365201. Local number, PU 7.

LOCATION.--Lat 41°07'39", long 86°36'52", in NE¼NE¼NW¼ sec.23, T.31 N., R.2 W., Pulaski County, Hydrologic Unit 05120106, in the Winamac State Fish and Game Area, 0.8 mi southwest of Beardstown.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 105 ft, cased to 98 ft, screened to 100 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 715.26 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of floor of shelter, 2.50 ft above land-surface datum.

PERIOD OF RECORD.--August 1967 to September 1971, September 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 4.69 ft below land-surface datum, June 15, 1981; lowest, 11.66 ft below land-surface datum, Dec. 2, 1978.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

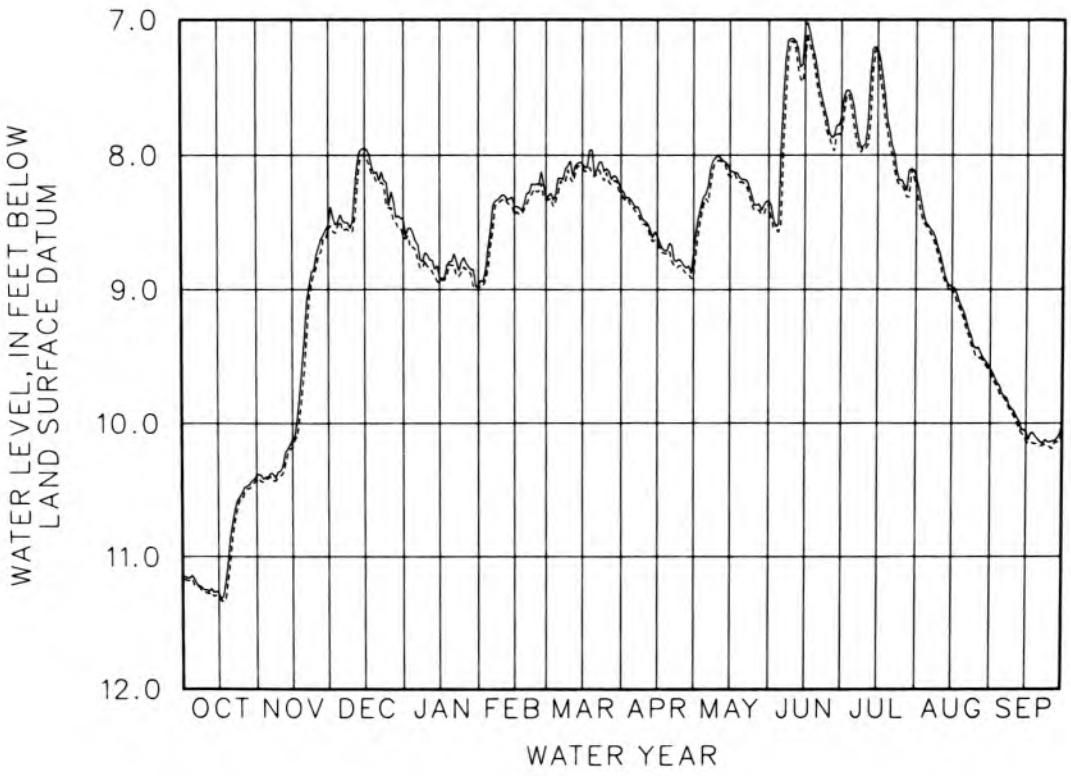
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.17	10.40	8.44	8.64	8.56	8.17	8.36	8.29	7.96	7.63	8.52	9.78
10	11.25	10.36	8.49	8.74	8.29	8.04	8.49	8.00	7.14	7.92	8.73	9.91
15	11.27	10.12	7.95	8.91	8.38	8.06	8.60	8.12	7.04	7.22	8.98	10.06
20	10.85	9.36	8.12	8.79	8.28	8.14	8.65	8.18	7.38	7.82	9.17	10.12
25	10.52	8.74	8.37	8.76	8.22	8.10	8.79	8.37	7.83	8.18	9.44	10.14
EOM	10.39	8.52	8.47	8.97	8.32	8.26	8.72	8.34	7.72	8.16	9.59	10.00

WTR YR 1986 HIGH 7.02 JUN 16

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.22	10.41	8.49	8.70	8.67	8.28	8.39	8.32	8.51	7.76	8.55	9.80
10	11.27	10.39	8.57	8.83	8.33	8.17	8.51	8.04	7.16	7.95	8.80	9.95
15	11.31	10.18	7.99	8.95	8.44	8.09	8.65	8.16	7.31	7.28	8.99	10.13
20	11.03	9.61	8.20	8.82	8.36	8.16	8.71	8.20	7.50	7.94	9.22	10.16
25	10.57	8.84	8.39	8.83	8.27	8.13	8.82	8.41	7.87	8.22	9.50	10.18
EOM	10.43	8.55	8.61	8.99	8.33	8.28	8.89	8.37	7.85	8.24	9.62	10.09

WTR YR 1986 LOW 11.34 OCT 17



PULASKI COUNTY

405605086551701. Local number, PU 8.

LOCATION.--Lat 40°56'05", long 86°55'17", in SE¼SE¼NW¼ sec.30, T.29 N., R.4 W., Pulaski County, Hydrologic Unit 05120106, at the Arrowhead Country Resource Conservation and Development Office property, 11 mi east of Rensselaer on State Highway 114.
Owner: U.S. Geological Survey.

AQUIFER.--Limestone of Middle Silurian Period, Wabash Formation.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 102 ft, cased to 12 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 683.76 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.50 ft above land-surface datum.

PERIOD OF RECORD.--August 1986 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 8.65 ft below land-surface datum, Aug. 1, 1986; lowest, 10.94 ft below land-surface datum, Sept. 26, 1986.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

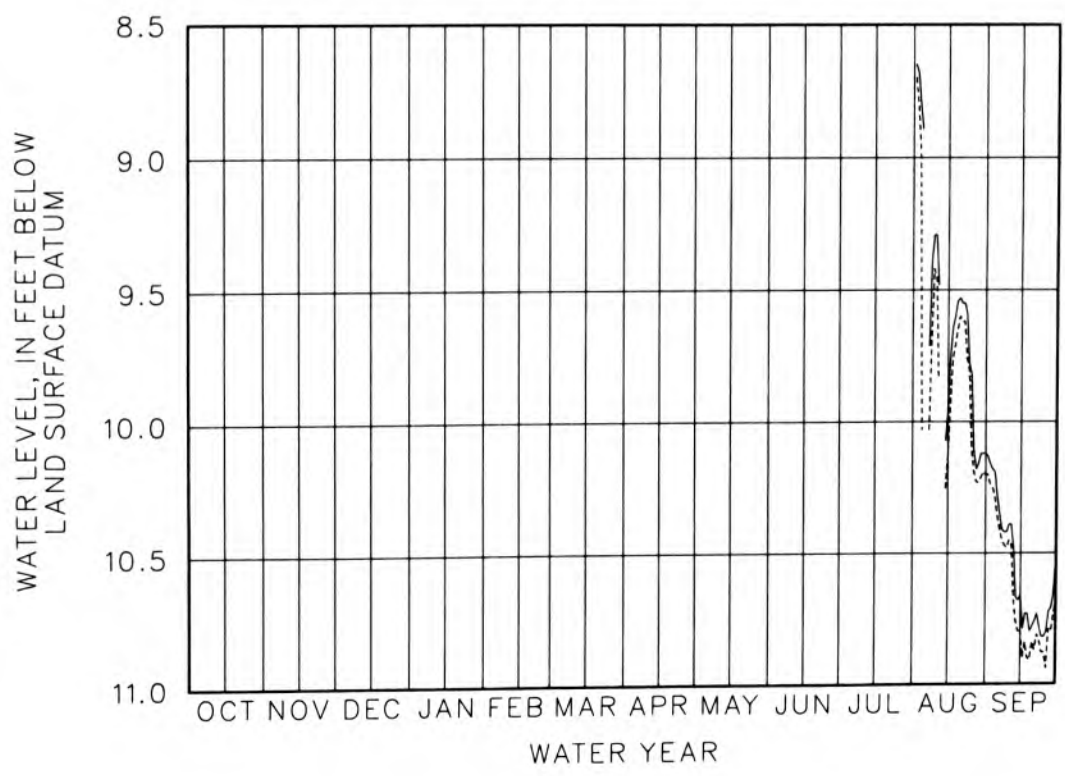
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5											---	10.28
10											9.29	10.39
15											9.95	10.66
20											9.53	10.78
25											9.82	10.82
EOM											10.12	10.51

WTR YR 1986 HIGH 8.65 AUG 1

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5											---	10.36
10											9.45	10.45
15											10.12	10.79
20											9.60	10.84
25											10.11	10.88
EOM											10.20	10.69

WTR YR 1986 LOW 10.94 SEP 26



PUTNAM COUNTY

393254086590401. Local number, PN 4.

LOCATION.--Lat 39°32'54", long 86°59'04", in NW¼SW¼SE¼ sec.20, T.13 N., R.5 W., Putnam County, Hydrologic Unit 05120203, in the well field of Brazil Water Works about 8.0 mi east of Brazil.
Owner: Brazil Water Company.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 12 in., depth 60 ft, cased to 20 ft, slotted to 60 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 612 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of floor of shelter, 1.82 ft above land-surface datum.

REMARKS.--Water level affected by Big Walnut Creek, and by pumpage from municipal well field.

PERIOD OF RECORD.--July 1957 to September 1986. (Discontinued)

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.20 ft below land-surface datum, Apr. 9, 1961; lowest, 19.95 ft below land-surface datum, Jan. 15-25, 1977.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

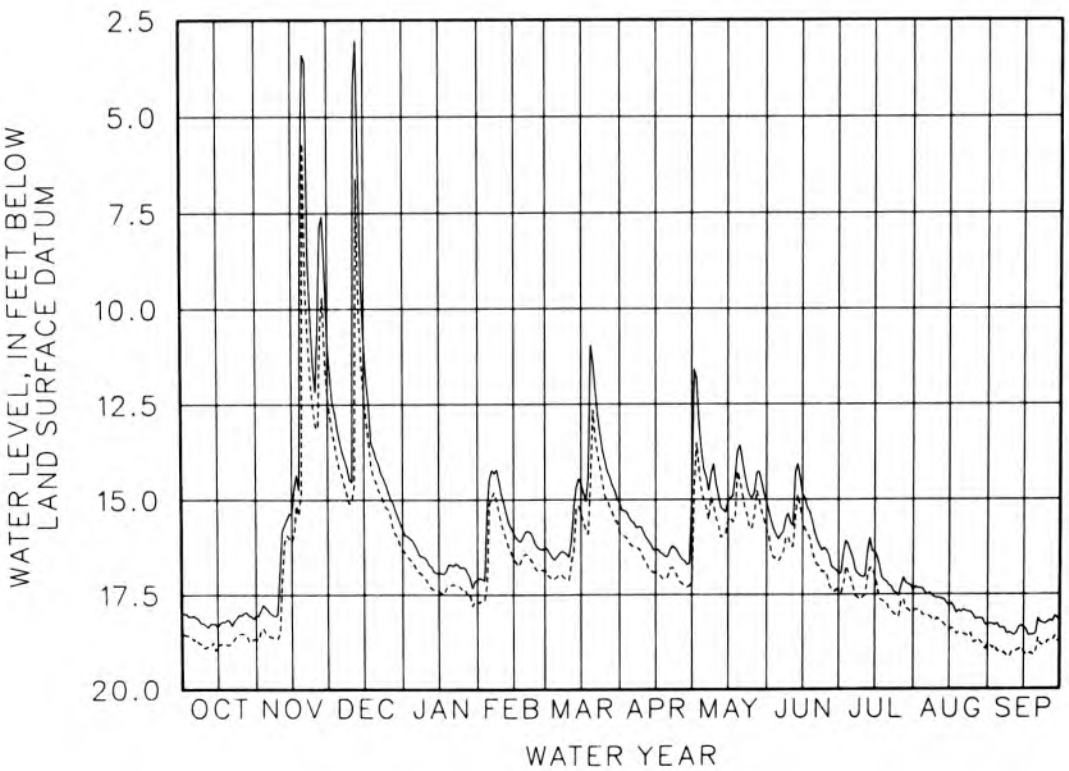
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	18.04	17.90	13.47	16.17	14.46	16.50	15.56	14.20	16.04	16.38	17.44	18.38
10	18.30	16.90	14.54	16.58	14.86	16.51	15.86	14.55	15.61	17.04	17.59	18.54
15	18.34	15.36	10.89	16.93	15.86	14.58	16.33	15.05	14.86	16.35	17.78	18.36
20	18.18	3.39	13.91	16.71	15.84	11.40	16.49	13.57	15.86	17.16	17.96	18.54
25	18.04	12.18	14.77	16.77	16.25	13.99	16.48	14.96	16.33	17.54	18.04	18.22
EOM	18.04	10.92	15.77	17.10	16.26	15.06	15.03	15.06	16.93	17.40	18.29	18.21

WTR YR 1986 HIGH 3.02 DEC 12

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	18.71	18.55	14.23	16.72	15.11	17.03	16.21	15.03	16.61	17.11	18.05	19.00
10	18.89	18.50	15.04	17.13	15.65	17.12	16.55	15.47	16.21	17.56	18.12	19.02
15	18.80	16.10	12.28	17.40	16.56	15.36	16.91	15.55	15.57	17.00	18.43	19.02
20	18.81	5.68	14.53	17.25	16.42	12.65	17.03	14.50	16.59	17.71	18.51	19.01
25	18.52	13.09	15.24	17.39	16.88	14.91	17.16	15.73	16.94	18.10	18.77	18.71
EOM	18.65	12.31	16.32	17.67	16.87	15.85	17.20	15.78	17.43	17.90	18.82	18.78

WTR YR 1986 LOW 19.17 SEP 9



RANDOLPH COUNTY

401532085085301. Local number, RA 3.

LOCATION.--Lat 40°15'32", long 85°08'53", in NE¼NE¼SE¼ sec.23, T.21 N., R.12 E., Randolph County, Hydrologic Unit 05120103, at the east edge of Purdue University Agriculture Experiment Station, about 5.5 mi north of Farmland.
Owner: U.S. Geological Survey.

AQUIFER.--Limestone of Silurian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 54 ft, cased to 33 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 970 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of floor of shelter, 3.85 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 7.84 ft below land-surface datum, June 6, 1981; lowest, 15.00 ft below land-surface datum, Feb. 10, 1977.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

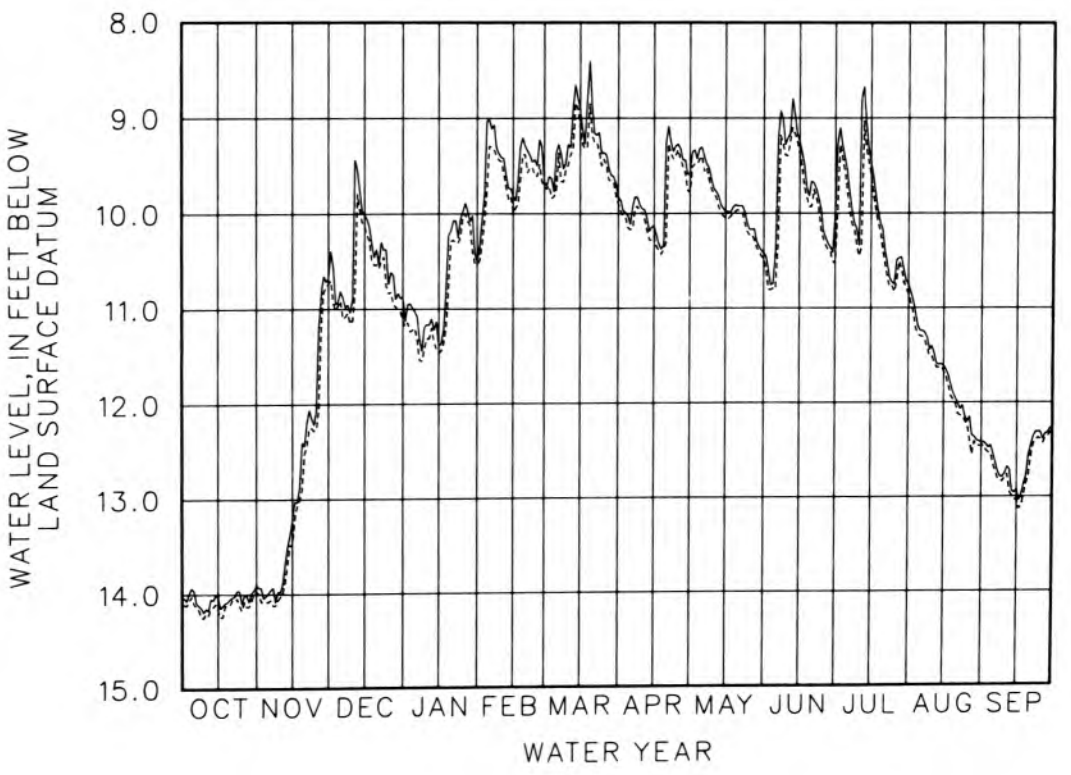
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.96	13.99	10.81	11.03	9.01	9.36	10.11	9.30	10.38	9.55	11.24	12.54
10	14.15	13.98	10.89	11.16	9.41	9.27	9.95	9.74	9.21	10.34	11.40	12.75
15	14.01	13.22	10.01	11.39	9.82	8.91	10.13	9.98	9.24	9.46	11.61	12.92
20	14.05	12.44	10.37	10.18	9.29	8.86	9.26	9.92	9.66	10.17	11.95	12.56
25	14.10	12.06	10.74	9.97	9.50	9.36	9.27	10.17	10.19	10.75	12.20	12.31
EOM	13.90	10.68	10.87	10.50	9.68	9.83	9.58	10.42	9.99	10.75	12.42	12.27

WTR YR 1986 HIGH 8.40 MAR 19

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	14.10	14.08	10.91	11.20	9.29	9.75	10.17	9.40	10.80	9.76	11.30	12.66
10	14.20	14.03	11.12	11.31	9.45	9.49	9.99	9.79	9.40	10.45	11.51	12.79
15	14.16	13.48	10.13	11.46	9.99	9.10	10.24	10.05	9.37	9.59	11.67	13.03
20	14.11	12.52	10.53	10.29	9.38	9.17	10.31	9.96	9.93	10.38	12.01	12.78
25	14.17	12.25	10.84	10.03	9.61	9.43	9.33	10.23	10.27	10.83	12.23	12.39
EOM	13.97	10.73	11.13	10.53	9.73	9.90	9.78	10.48	10.53	10.85	12.46	12.30

WTR YR 1986 LOW 14.25 OCT 9



ST. JOSEPH COUNTY

414138086265101. Local number, SJ 30.

LOCATION.--Lat 41°41'38", long 86°26'51", in SW¼SW¼SW¼ sec.32, T.38 N., R.1 E., St. Joseph County, Hydrologic Unit 07120001, 4.1 mi southeast of New Carlisle.
Owner: U.S. Geological Survey.

AQUIFER.--Sand of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 5 in., depth 87.5 ft, cased to 83.3 ft, screened to 87.5 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 737 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of floor of shelter, 3.20 ft above land-surface datum.

PERIOD OF RECORD.--May 1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.50 ft below land-surface datum, Mar. 20, 1982; lowest, 9.73 ft below land-surface datum, Dec. 9-12, 1983.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

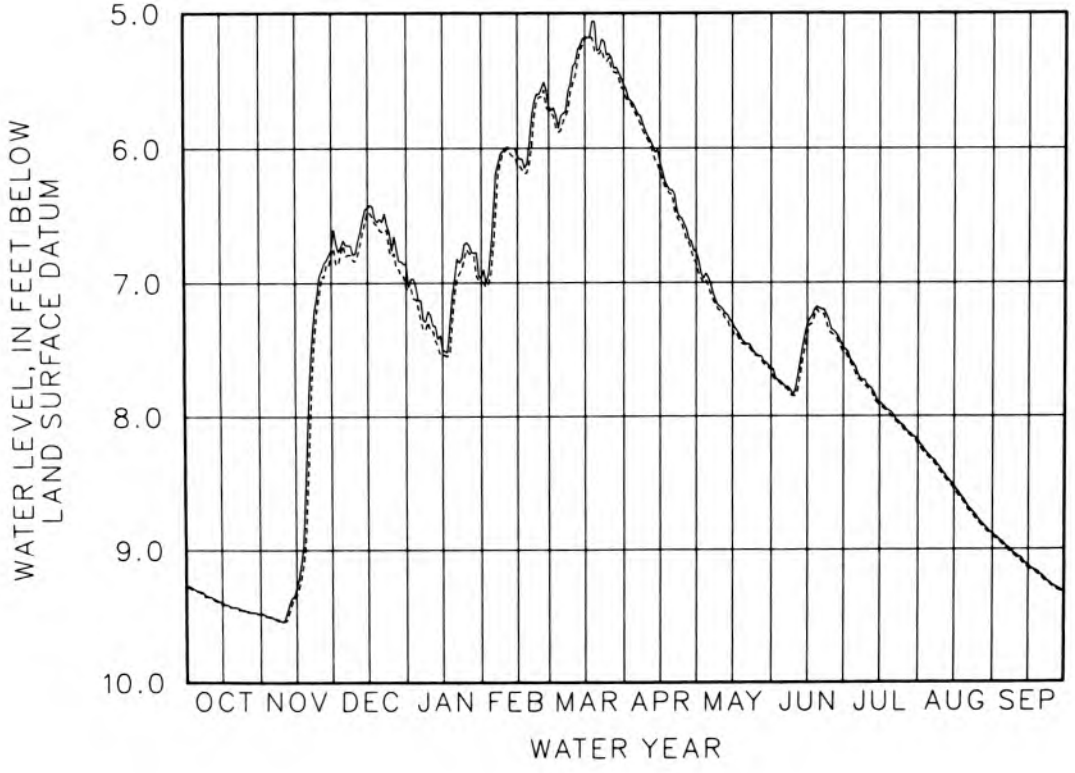
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.31	9.51	6.68	7.13	6.49	5.76	5.71	6.96	7.76	7.63	8.30	8.96
10	9.35	9.53	6.78	7.24	6.00	5.39	5.91	7.18	7.81	7.77	8.41	9.04
15	9.39	9.29	6.44	7.50	6.06	5.18	6.10	7.30	7.31	7.90	8.52	9.12
20	9.43	8.11	6.52	6.98	5.96	5.28	6.31	7.45	7.19	7.97	8.65	9.19
25	9.46	6.95	6.76	6.70	5.56	5.30	6.56	7.54	7.35	8.07	8.77	9.27
EOM	9.48	6.75	6.86	6.97	5.70	5.53	6.77	7.64	7.49	8.18	8.88	9.32

WTR YR 1986 HIGH 5.06 MAR 18 AND OTHERS

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.31	9.52	6.72	7.19	6.74	5.87	5.75	7.03	7.78	7.68	8.32	8.98
10	9.36	9.54	6.84	7.36	6.02	5.52	5.94	7.21	7.85	7.79	8.43	9.06
15	9.41	9.34	6.47	7.53	6.13	5.19	6.17	7.35	7.39	7.92	8.55	9.14
20	9.43	8.55	6.61	7.09	6.11	5.30	6.34	7.46	7.23	8.00	8.67	9.20
25	9.46	7.09	6.80	6.75	5.62	5.33	6.61	7.55	7.38	8.10	8.79	9.28
EOM	9.48	6.79	7.04	6.99	5.72	5.56	6.85	7.65	7.52	8.21	8.90	9.32

WTR YR 1986 LOW 9.54 NOV 8 AND OTHERS



ST. JOSEPH COUNTY

413120086055601. Local number, SJ 31.

LOCATION.--Lat 41°31'20", long 86°05'56", in SW¼SW¼SW¼ sec.31, T.36 N., R.4 E., St. Joseph County, Hydrologic Unit 07120001, 4 mi west of Wakarusa.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 109 ft, cased to 104 ft, screened to 109 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 830.50 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.40 ft above land-surface datum.

PERIOD OF RECORD.--August 1986 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 10.03 ft below land-surface datum, Aug. 22, 1986; lowest, 10.80 ft below land-surface datum, Sept. 17, 1986.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

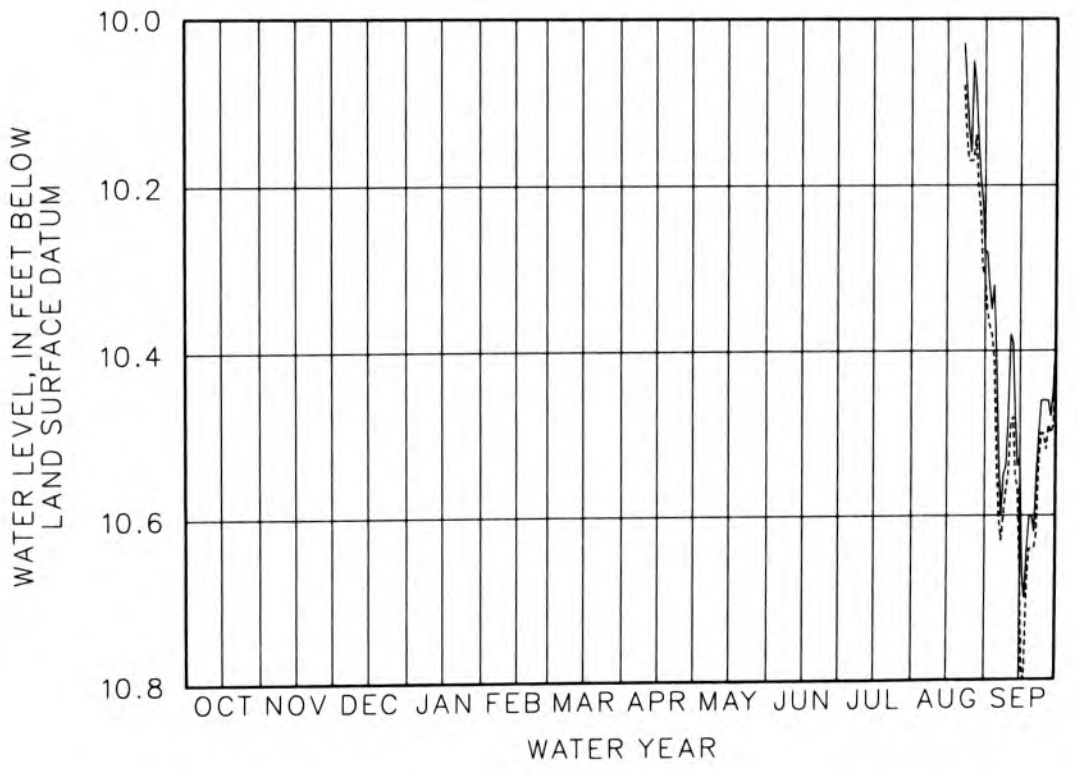
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5											---	10.41
10											---	10.48
15											---	10.53
20											---	10.60
25											10.16	10.46
EOM											10.28	10.39

WTR YR 1986 HIGH 10.03 AUG 22

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5											---	10.53
10											---	10.55
15											---	10.67
20											---	10.64
25											10.17	10.50
EOM											10.31	10.44

WTR YR 1986 LOW 10.80 SEP 17



SHELBY COUNTY

393943085490901. Local number, SH 2.

LOCATION.--Lat 39°39'43", long 85°49'09", in SW¼SW¼NW¼ sec.13, T.14 N., R.6 E., Shelby County, Hydrologic Unit 05120204, on the county right-of-way at the intersection of County Roads 950 North and 200 West, 3.0 mi south of Carrollton.
Owner: U.S. Geological Survey.

AQUIFER.--Limestone of Devonian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 150 ft, cased to 128 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 816.10 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of floor of shelter, 3.00 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 15.90 ft below land-surface datum, May 27, 1968; lowest, 22.65 ft below land-surface datum, Feb. 7, 1977.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

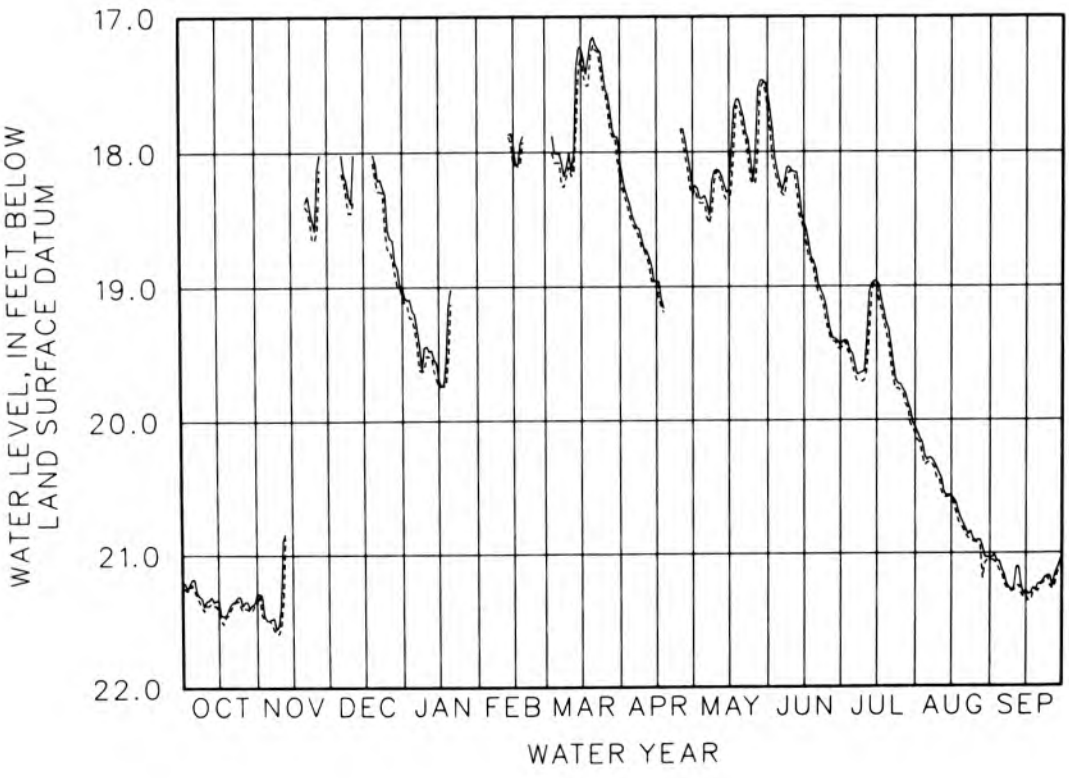
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	21.18	21.49	---	19.20	---	18.01	18.47	18.32	18.22	19.50	20.30	21.12
10	21.34	21.36	18.38	19.44	---	18.01	18.72	18.13	18.14	19.63	20.40	21.26
15	21.34	---	---	19.69	17.94	17.23	18.96	18.28	18.52	18.96	20.57	21.28
20	21.37	---	18.08	19.02	---	17.15	---	17.68	18.87	19.32	20.78	21.23
25	21.38	18.58	18.58	---	---	17.54	17.83	18.22	19.25	19.73	20.91	21.17
EOM	21.29	---	19.00	---	---	18.06	18.28	17.55	19.44	20.05	21.03	21.02

WTR YR 1986 HIGH 17.15 MAR 20

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	21.27	21.49	---	19.31	---	18.08	18.53	18.38	18.29	19.59	20.32	21.15
10	21.38	21.53	18.45	19.51	---	18.11	18.73	18.14	18.15	19.70	20.44	21.28
15	21.44	---	---	19.74	18.09	17.29	18.96	18.39	18.58	18.99	20.60	21.32
20	21.41	---	18.20	19.13	---	17.21	---	17.74	18.99	19.43	20.82	21.29
25	21.42	18.65	18.72	---	---	17.57	17.83	18.24	19.33	19.78	20.92	21.25
EOM	21.36	---	19.07	---	---	18.18	18.32	17.69	19.46	20.10	21.05	21.08

WTR YR 1986 LOW 21.59 NOV 8 AND OTHERS



STARKE COUNTY

411342086365601. Local number, SK 2.

LOCATION.--Lat 41°13'42", long 86°36'56", in NW¼NE¼NW¼ sec.14, T.32 N., R.2 W., Starke County, Hydrologic Unit 07120001, on private property in the southeast angle of intersection of U.S. Highway 35 and County Road 500 South, and 5.0 mi south of Knox.
Owner: Samuel A. Craigmile.

AQUIFER.--Gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 85 ft, cased to 77 ft, screened to 85 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 712.97 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of floor of shelter, 3.00 ft above land-surface datum.

PERIOD OF RECORD.--October 1935 to December 1952 (random instantaneous measurements only), August 1963 to October 1966, June 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.83 ft below land-surface datum, June 17, 1949; lowest, 6.99 ft below land-surface datum, Aug. 2, 1939.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

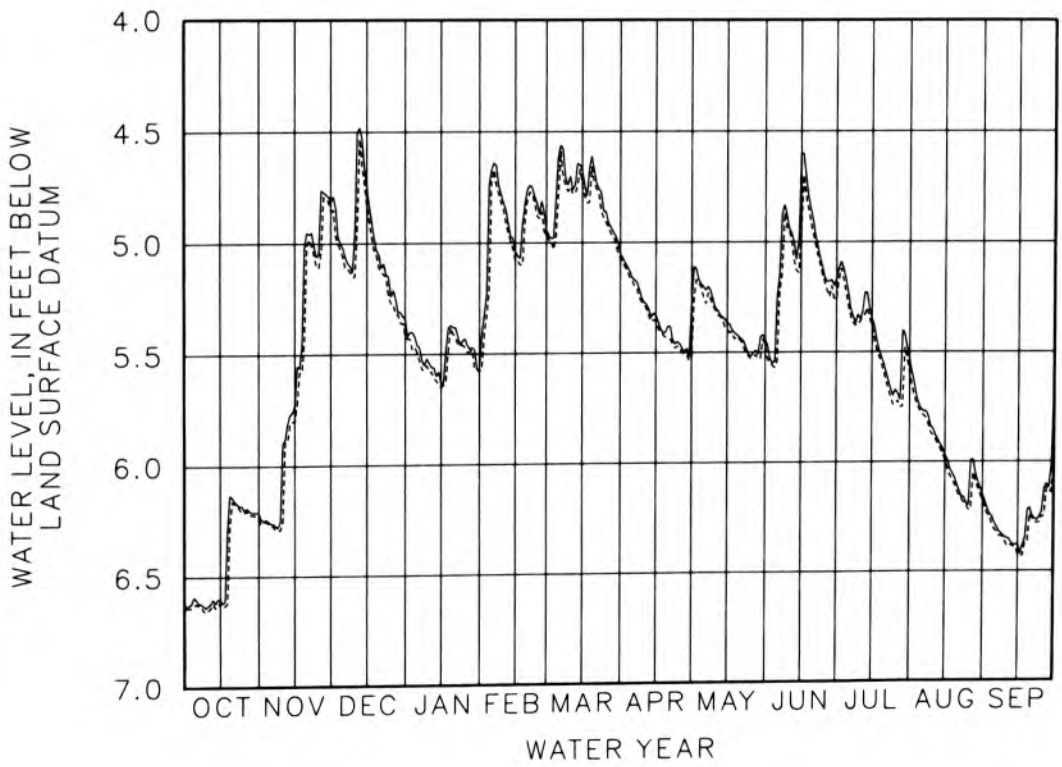
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.60	6.26	5.02	5.46	4.67	4.61	5.16	5.20	5.25	5.23	5.76	6.28
10	6.63	5.90	4.95	5.54	4.82	4.70	5.27	5.30	4.94	5.35	5.85	6.35
15	6.60	5.73	4.74	5.63	5.04	4.67	5.33	5.37	4.60	5.35	5.97	6.38
20	6.14	4.95	5.05	5.38	4.76	4.67	5.38	5.43	4.90	5.55	6.10	6.21
25	6.20	5.05	5.24	5.43	4.87	4.86	5.46	5.52	5.16	5.67	6.20	6.23
EOM	6.21	4.81	5.34	5.57	4.95	5.05	5.28	5.44	5.17	5.53	6.15	5.63

WTR YR 1986 HIGH 4.48 DEC 12

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.62	6.27	5.06	5.49	4.73	4.79	5.17	5.25	5.54	5.29	5.78	6.31
10	6.65	6.25	5.15	5.58	4.85	4.75	5.28	5.31	4.95	5.36	5.88	6.38
15	6.61	5.80	4.83	5.65	5.08	4.74	5.36	5.40	4.95	5.38	5.99	6.43
20	6.16	5.01	5.11	5.41	4.81	4.73	5.43	5.44	4.96	5.59	6.13	6.24
25	6.21	5.11	5.27	5.47	4.89	4.91	5.48	5.53	5.18	5.74	6.22	6.25
EOM	6.24	4.85	5.42	5.58	4.97	5.07	5.53	5.47	5.26	5.59	6.18	5.99

WTR YR 1986 LOW 6.66 OCT 9



STARKE COUNTY

411419086340401. Local number, SK 12.

LOCATION.--Lat 41°14'19", long 86°34'04", in NW¼SE¼NE¼ sec.7, T.32 N., R.1 W., Starke County, Hydrologic Unit 07120001, in the Bass Lake State Fish Hatcheries on the northeast shore of the lake, 5.0 mi southeast of Knox. Owner: State of Indiana.

AQUIFER.--Sand of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 2.0 in., depth 17 ft, cased to 15 ft, screened to 17 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 717.02 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of floor of shelter, 2.70 ft(revised) above land-surface datum.

PERIOD OF RECORD.--May 1976 to September 1986. (Discontinued)

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.34 ft below land-surface datum, June 13, 14, 1981; lowest, 3.31 ft below land-surface datum, Jan. 12, 13, 1978.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

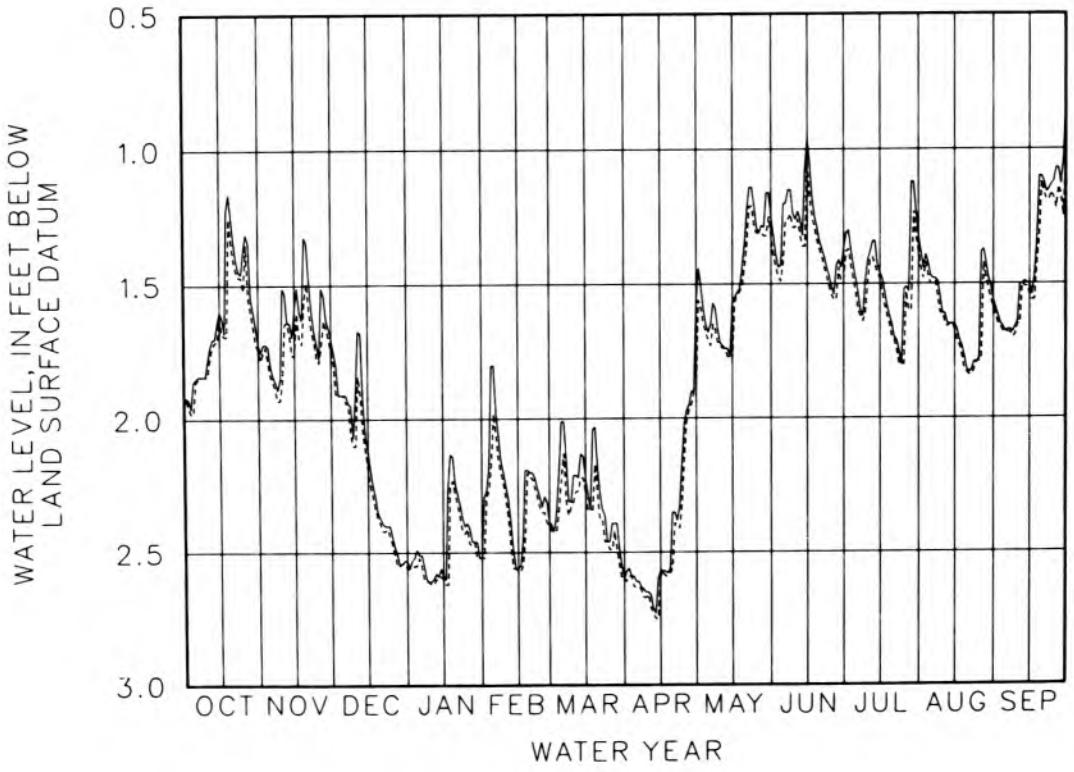
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	1.85	1.80	1.91	2.51	1.80	2.01	2.61	1.68	1.20	1.48	1.47	1.68
10	1.78	1.51	1.90	2.61	2.25	2.21	2.65	1.72	1.26	1.41	1.61	1.64
15	1.60	1.59	2.12	2.59	2.56	2.22	2.57	1.57	.96	1.46	1.65	1.50
20	1.25	1.34	2.37	2.24	2.20	2.18	2.35	1.35	1.34	1.65	1.82	1.10
25	1.37	1.77	2.44	2.39	2.33	2.46	2.02	1.29	1.51	1.52	1.78	1.12
EOM	1.72	1.70	2.53	2.52	2.39	2.60	1.57	1.25	1.37	1.32	1.56	.83

WTR YR 1986 HIGH .83 SEP 30

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	1.86	1.84	1.91	2.52	1.98	2.22	2.63	1.71	1.42	1.53	1.50	1.68
10	1.84	1.85	2.10	2.62	2.30	2.31	2.66	1.73	1.29	1.49	1.61	1.65
15	1.62	1.76	2.19	2.60	2.57	2.28	2.59	1.78	1.05	1.48	1.67	1.54
20	1.34	1.49	2.39	2.28	2.22	2.28	2.56	1.44	1.37	1.70	1.83	1.12
25	1.52	1.79	2.47	2.41	2.35	2.49	2.15	1.31	1.54	1.80	1.79	1.18
EOM	1.74	1.75	2.56	2.52	2.40	2.60	1.90	1.32	1.49	1.38	1.59	1.03

WTR YR 1986 LOW 2.75 APR 13 AND OTHERS



STARKE COUNTY

411255086364501. Local number, SK 13.

LOCATION.--Lat 41°12'55", long 86°36'45", in NE¼NE¼NW¼ sec.23, T.32 N., R.2 W., Starke County, Hydrologic Unit 07120001, on state property in the public parking area at the west end of Bass Lake, at Bass Lake.
Owner: State of Indiana.

AQUIFER.--Sand of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 3.0 in., depth 13 ft, cased to 11 ft, screened to 13 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 714.07 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of floor of shelter, 3.90 ft above land-surface datum.

PERIOD OF RECORD.--May 1976 to September 1986. (Discontinued)

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.65 ft below land-surface datum, Apr. 5, 1985; lowest, 3.40 ft below land-surface datum, Sept. 11, 12, 1978.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

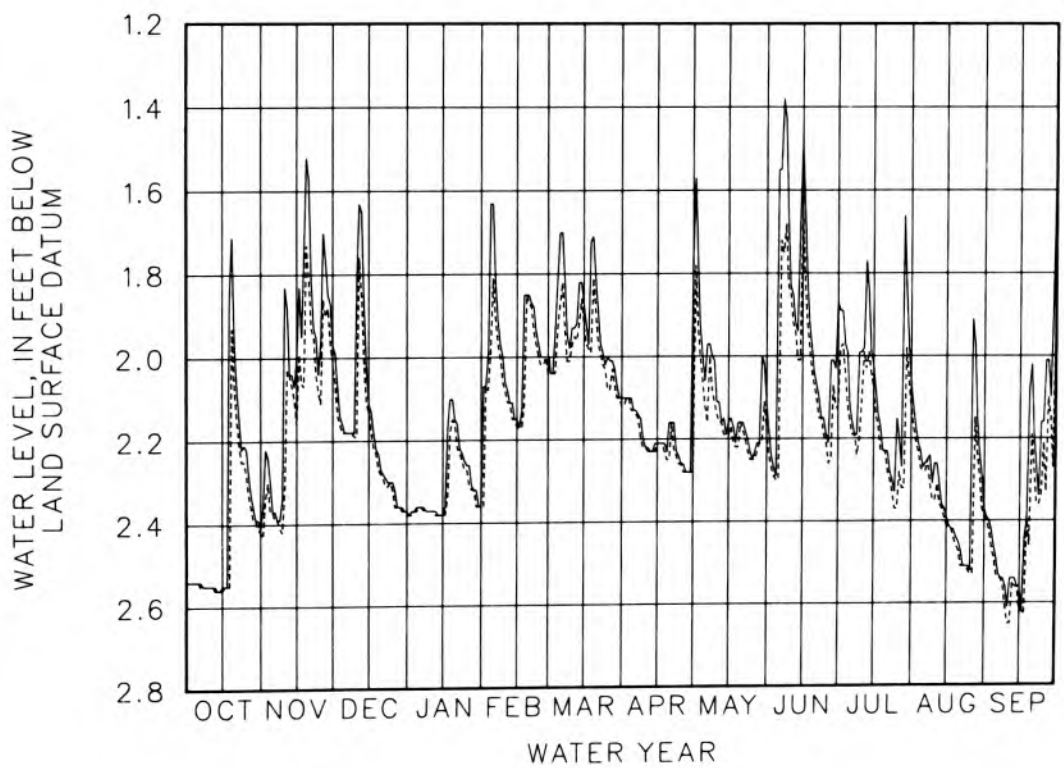
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.54	2.37	2.18	2.36	1.63	1.70	2.13	2.06	1.55	2.12	2.27	2.49
10	2.55	1.83	1.82	2.37	2.06	1.93	2.22	2.11	1.83	1.99	2.26	2.61
15	2.55	2.00	2.11	2.38	2.15	1.87	2.21	2.16	1.48	2.02	2.39	2.56
20	1.96	1.57	2.27	2.15	1.85	1.81	2.16	2.16	2.04	2.23	2.45	2.02
25	2.22	1.96	2.30	2.26	2.00	2.00	2.26	2.25	2.19	2.15	2.52	2.16
EOM	2.41	1.97	2.37	2.36	2.00	2.10	1.75	2.11	1.87	2.06	2.37	1.51

WTR YR 1986 HIGH 1.38 JUN 7

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.54	2.37	2.18	2.36	1.81	1.87	2.13	2.12	2.30	2.16	2.28	2.53
10	2.55	2.32	2.19	2.37	2.08	1.97	2.22	2.14	1.85	2.11	2.35	2.65
15	2.56	2.16	2.13	2.38	2.17	1.92	2.21	2.19	1.65	2.08	2.41	2.62
20	2.07	1.81	2.28	2.16	1.87	1.89	2.25	2.16	2.07	2.23	2.47	2.19
25	2.28	2.11	2.32	2.27	2.02	2.08	2.26	2.25	2.21	2.37	2.53	2.21
EOM	2.42	2.01	2.38	2.36	2.04	2.12	2.28	2.18	2.13	2.12	2.39	1.84

WTR YR 1986 LOW 2.65 SEP 10 AND OTHERS



STARKE COUNTY

411225086353901. Local number, SK 14.

LOCATION.--Lat 41°12'25", long 86°35'39", in NE¼NE¼SW¼ sec.24, T.32 N., R.2 W., Starke County, Hydrologic Unit 07120001, in southeast corner of intersection of State Highway 10 and Beach Street in Bass Lake.
Owner: U.S. Geological Survey.

AQUIFER.--Sand of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 2.0 in., depth 24 ft, cased to 21 ft, screened to 24 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 717 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of floor of shelter, 3.10 ft above land-surface datum.

PERIOD OF RECORD.--November 1978 to September 1986. (Discontinued)

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.21 ft below land-surface datum, June 13, 1981; lowest, 4.59 ft below land-surface datum, Dec. 8, 1978.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

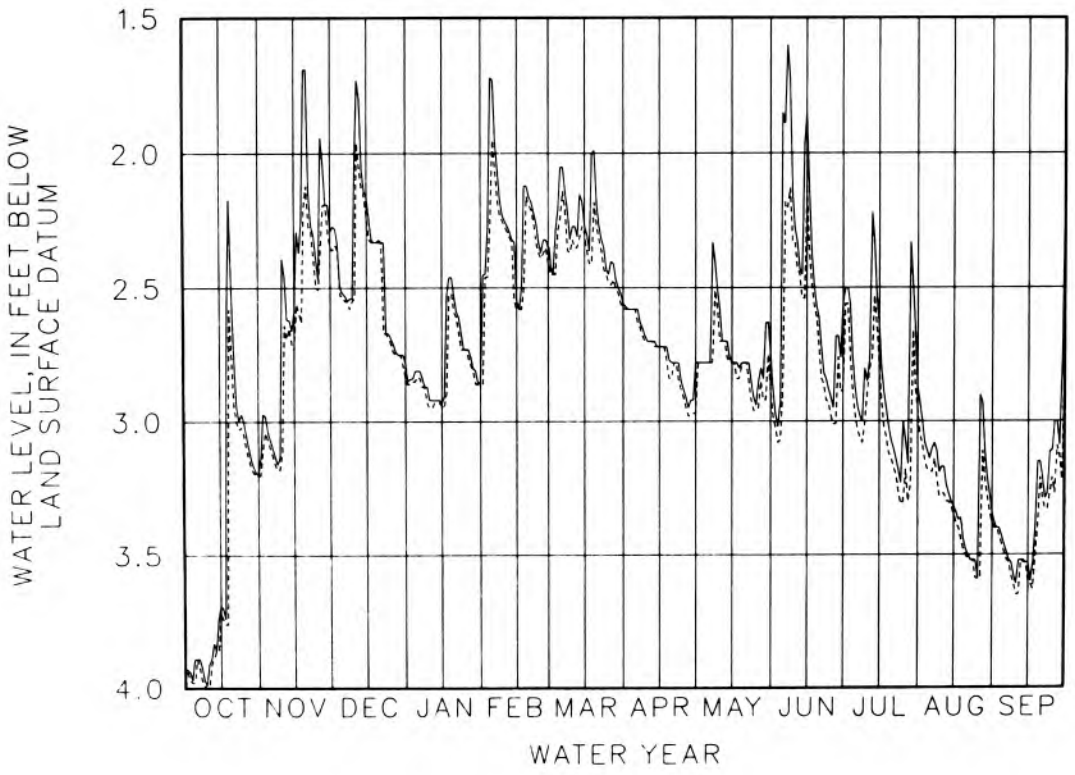
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.89	3.07	2.52	2.81	1.73	2.05	2.58	2.78	1.85	2.87	3.14	3.46
10	3.91	2.39	2.05	2.92	2.25	2.27	2.70	2.58	2.28	2.85	3.17	3.61
15	3.69	2.59	2.16	2.93	2.55	2.27	2.72	2.78	1.85	2.64	3.32	3.53
20	2.51	1.69	2.32	2.53	2.16	2.18	2.78	2.78	2.61	3.07	3.48	3.15
25	3.00	2.47	2.69	2.73	2.37	2.45	2.88	2.94	2.91	3.00	3.59	3.11
EOM	3.20	2.29	2.78	2.85	2.35	2.56	2.78	2.75	2.56	2.87	3.34	2.13

WTR YR 1986 HIGH 1.60 JUN 7

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.89	3.10	2.53	2.83	1.95	2.24	2.58	2.78	2.90	2.97	3.19	3.49
10	4.00	3.11	2.54	2.95	2.27	2.32	2.70	2.70	2.33	2.90	3.27	3.65
15	3.72	2.73	2.24	2.94	2.58	2.30	2.72	2.78	2.14	2.80	3.35	3.60
20	2.76	2.12	2.33	2.59	2.19	2.27	2.84	2.78	2.72	3.14	3.50	3.21
25	3.05	2.51	2.71	2.73	2.39	2.48	2.91	2.96	2.98	3.30	3.59	3.21
EOM	3.20	2.35	2.84	2.86	2.41	2.57	2.97	2.89	2.88	2.96	3.38	2.78

WTR YR 1986 LOW 4.00 OCT 9 AND OTHERS



STEUBEN COUNTY

414204085054002. Local number, SB 6.

LOCATION.--Lat 41°42'04", long 85°05'40", in SE¼SE¼SW¼ sec.36, T.38 N., R.12 W., Steuben County, Hydrologic Unit 04050001, 0.5 east of Panama on the north side of the Lake Gage Congregational Church. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 76 ft, cased to 71 ft, screened to 76 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 987.89 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.60 ft above land-surface datum.

PERIOD OF RECORD.--August 1986 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 16.04 ft below land-surface datum, Aug. 26, 1986; lowest, 16.50 ft below land-surface datum, Sept. 28, 30, 1986.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

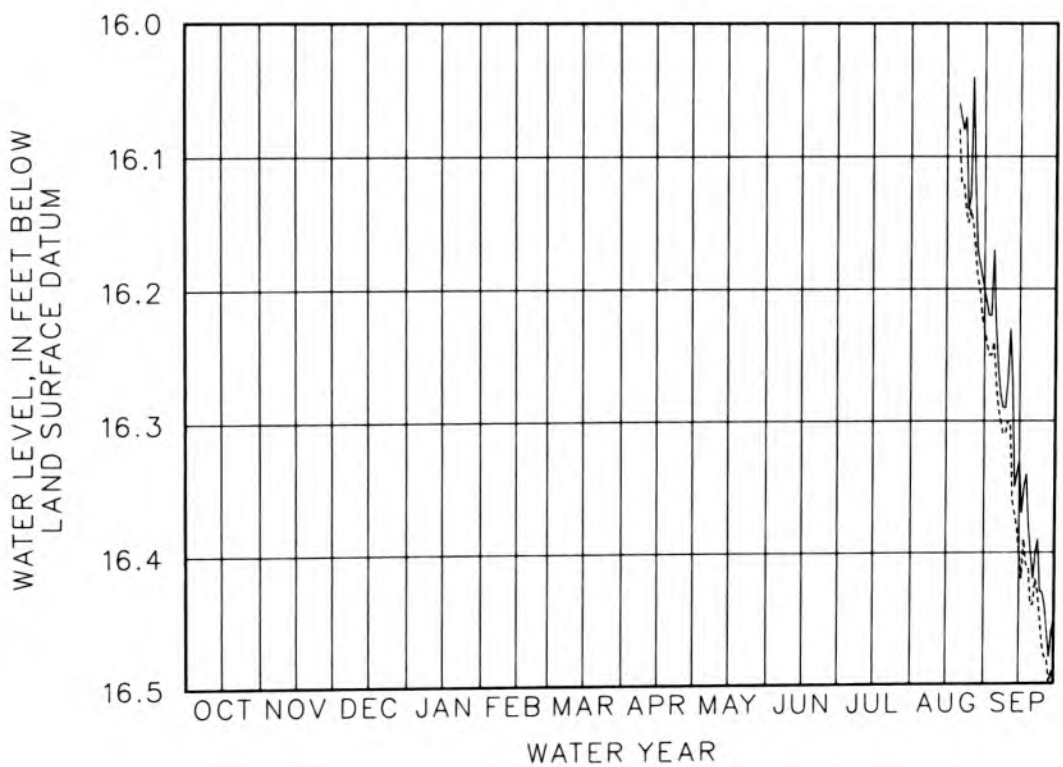
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5											---	16.23
10											---	16.27
15											---	16.33
20											16.06	16.40
25											16.13	16.43
EOM											16.20	16.45

WTR YR 1986 HIGH 16.04 AUG 26

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5											---	16.27
10											---	16.30
15											---	16.40
20											16.08	16.44
25											16.14	16.47
EOM											16.23	16.50

WTR YR 1986 LOW 16.50 SEP 28 AND OTHERS



TIPPECANOE COUNTY

402543086533401. Local number, TC 4.

LOCATION.--Lat 40°25'43", long 86°53'34", in NE¼SW¼NE¼ sec.20, T.23 N., R.4 W., Tippecanoe County, Hydrologic Unit 05120108, on flood plain of Wabash River, in the Lafayette Water Department well field at North Canal and Tippecanoe Streets in Lafayette.
Owner: Lafayette Water Department.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 12 in., depth 97 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 520.9 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of floor of shelter, 15.43 ft above land-surface datum.

REMARKS.--Water level affected by Wabash River floods and by pumpage from municipal supply well field.

PERIOD OF RECORD.--April 1944 to September 1986. (Discontinued)

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.44 ft below land-surface datum, Feb. 28, 1985; lowest, 40.14 ft below land-surface datum, Aug. 4, 1944.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

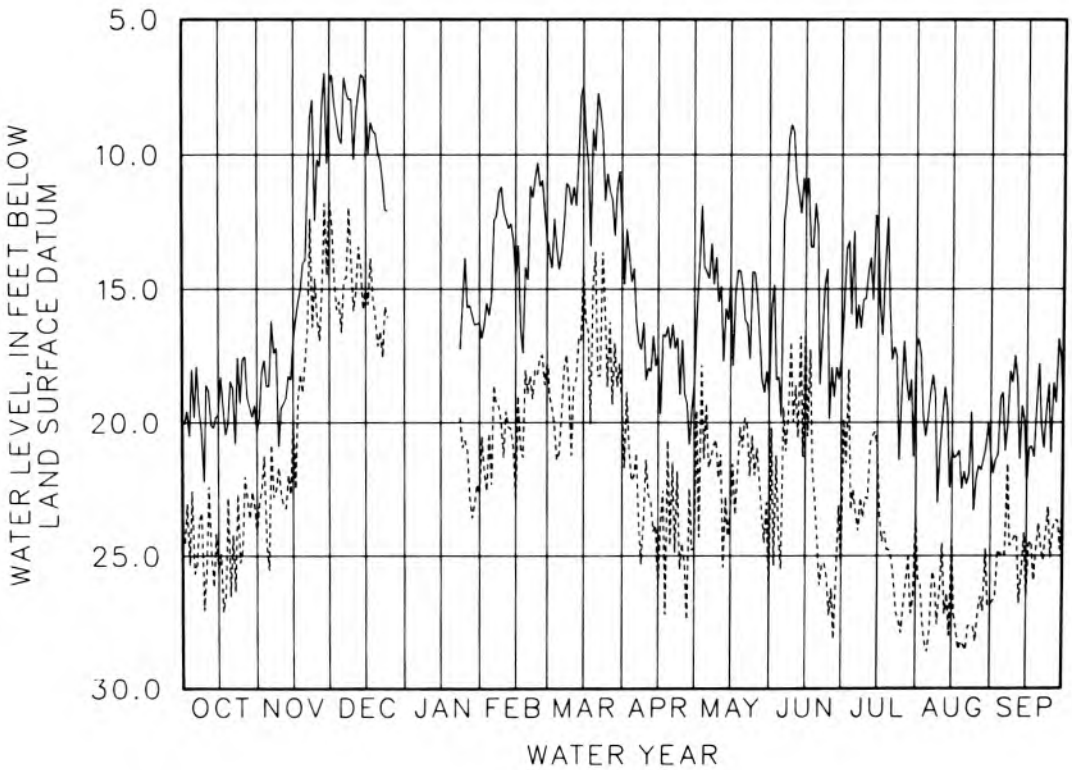
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	19.82	18.64	9.59	---	15.32	14.26	14.22	14.34	19.77	12.82	19.85	18.86
10	18.58	19.46	10.19	---	12.08	11.87	18.42	15.48	9.15	15.36	21.05	17.47
15	19.70	16.93	8.11	---	14.56	7.44	17.46	14.64	11.70	12.82	21.02	22.30
20	18.43	13.93	9.92	---	14.65	9.86	17.23	15.01	12.64	15.61	21.82	17.77
25	17.62	10.17	---	13.81	11.17	10.68	16.88	14.39	19.87	18.94	22.12	21.13
EOM	20.32	7.32	---	16.27	13.27	12.52	18.54	18.98	17.55	17.16	21.12	19.31

WTR YR 1986 HIGH 6.97 NOV 28

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	25.68	25.55	16.62	---	22.33	21.13	22.00	19.29	25.50	22.51	28.62	24.83
10	25.53	22.65	15.82	---	21.30	21.22	21.38	22.09	19.97	22.79	26.34	24.27
15	25.61	19.90	14.89	---	22.89	14.18	26.15	23.40	16.54	20.92	24.40	26.44
20	26.52	17.65	17.13	---	18.91	13.60	24.62	20.94	24.33	24.77	28.36	23.76
25	24.76	16.12	---	20.65	17.56	18.65	24.52	21.97	27.25	27.89	28.22	25.07
EOM	24.18	11.65	---	22.67	17.84	19.24	24.71	26.47	25.36	23.44	26.84	23.06

WTR YR 1986 LOW 28.62 AUG 5



VANDERBURGH COUNTY

380608087395901. Local number, VA 6.

LOCATION.--Lat 38°06'08", long 87°39'59", in SE¼SW¼NW¼ sec.8, T.5 S., R.11 W., Vanderburgh County, Hydrologic Unit 05120113, on county right-of-way at the intersection of Buente and New Harmony Roads, 1.0 mi southwest of Armstrong.
Owner: U.S. Geological Survey.

AQUIFER.--Sandstone of Pennsylvanian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 125 ft, cased to 80 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 446.57 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of floor of shelter, 3.40 ft above land-surface datum.

PERIOD OF RECORD.--May 1965 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 24.88 ft below land-surface datum, Apr. 3, 4, 1968; lowest, 34.11 ft below land-surface datum, Oct. 1, 1983.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

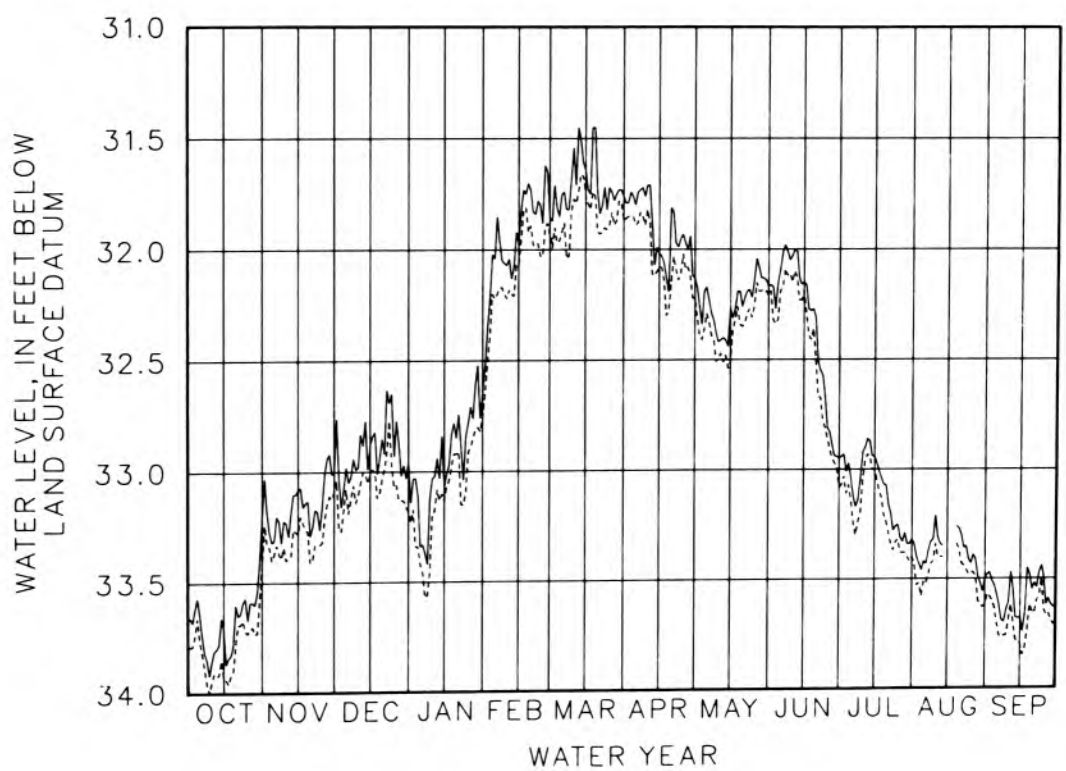
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	33.64	33.31	32.98	33.34	32.04	31.75	31.80	32.17	32.09	33.04	33.42	33.57
10	33.86	33.23	32.98	33.03	32.07	31.54	31.71	32.42	32.03	32.92	33.21	33.61
15	33.71	33.08	32.88	33.07	31.97	31.64	32.02	32.27	32.15	32.94	---	33.68
20	33.60	33.29	32.85	32.85	31.73	31.74	31.81	32.26	32.31	33.07	33.27	33.55
25	33.67	33.16	32.93	32.78	31.88	31.72	31.93	32.14	32.81	33.25	33.43	33.49
EOM	33.20	33.00	32.96	32.65	31.86	31.76	32.13	32.17	32.95	33.32	33.50	33.62

WTR YR 1986 HIGH 31.45 MAR 12 AND OTHERS

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	33.76	33.37	33.08	33.42	32.22	31.92	31.89	32.29	32.19	33.14	33.51	33.70
10	33.95	33.40	33.11	33.19	32.22	31.77	31.82	32.49	32.15	33.04	33.34	33.69
15	33.93	33.28	33.01	33.13	32.07	31.76	32.08	32.51	32.19	33.00	---	33.80
20	33.78	33.41	33.03	32.92	31.89	31.92	32.16	32.35	32.50	33.24	33.37	33.65
25	33.73	33.32	33.07	32.91	32.03	31.89	32.02	32.26	32.86	33.32	33.47	33.64
EOM	33.42	33.09	33.18	32.76	31.94	31.87	32.22	32.21	33.08	33.40	33.62	33.70

WTR YR 1986 LOW 34.00 OCT 9



VANDERBURGH COUNTY

380626087344401. Local number, VA 7.

LOCATION.--Lat 38°06'26", long 87°34'44", in NE¼NW¼NW¼ sec.7, T.5 S., R.10 W., Vanderburgh County, Hydrologic Unit 05120113, 0.5 mi north of Darmstadt on north side of Salem United Church of Christ.
Owner: U.S. Geological Survey.

AQUIFER.--Inglefield Sandstone Member, Patoka Formation of Pennsylvanian Period.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 70 ft, cased to 39.3 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 475.35 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of floor of shelter, 4.04 ft above land-surface datum.

PERIOD OF RECORD.--June 1986 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 20.70 ft below land-surface datum, June 15, 16, 1968; lowest, 23.01 ft below land-surface datum, Sept. 16, 1986.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

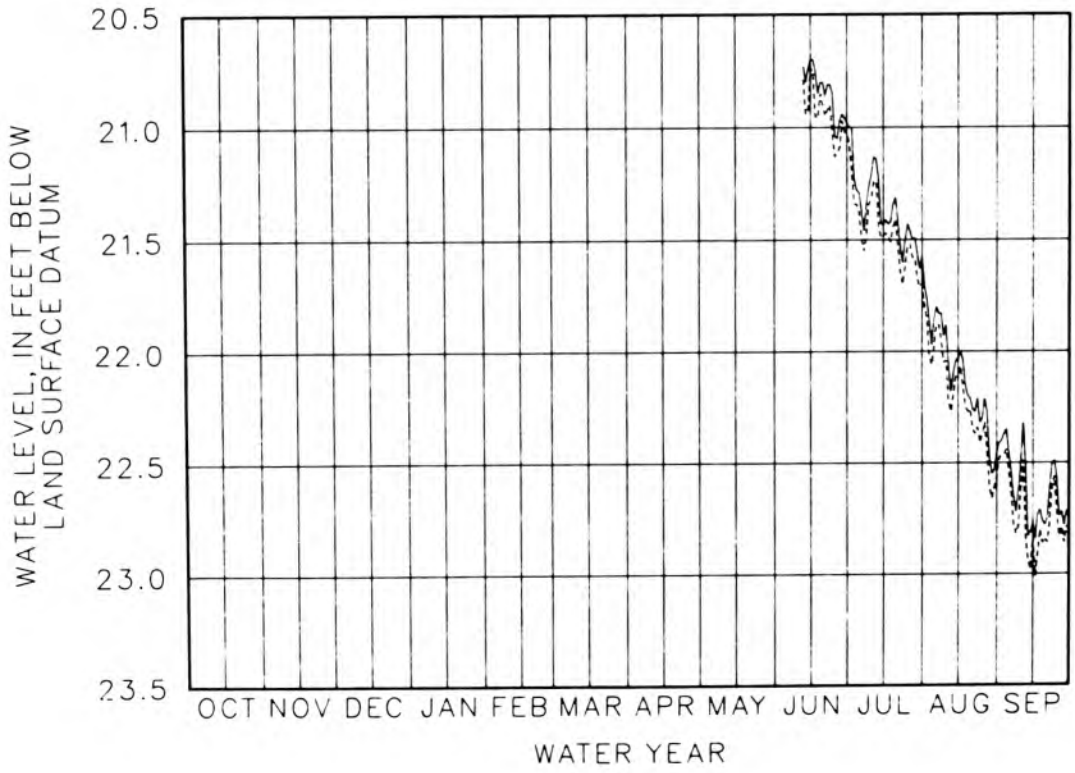
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5									---	21.29	21.86	22.45
10									---	21.21	21.88	22.49
15									20.70	21.43	22.03	22.77
20									20.80	21.31	22.21	22.78
25									21.04	21.43	22.30	22.57
EOM									20.98	21.58	22.45	22.71

WTR YR 1986 HIGH 20.70 JUN 15 AND OTHERS

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5									---	21.38	21.98	22.54
10									---	21.32	22.04	22.62
15									20.74	21.48	22.10	22.84
20									20.90	21.41	22.26	22.84
25									21.13	21.53	22.37	22.73
EOM									21.03	21.70	22.56	22.78

WTR YR 1986 LOW 23.01 SEP 16



VIGO COUNTY

393201087232101. Local number, VI 6.

LOCATION.--Lat 39°32'01", long 87°23'21", in NE¼NE¼NE¼ sec.34, T.13 N., R.9 W., Vigo County, Hydrologic Unit 05120111, on property of Anaconda Industries, at the north edge of Terre Haute. Owner: Anaconda Industries.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 138 ft, cased to 137 ft, with perforated pipe.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 511 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of floor of shelter, 3.50 ft above land-surface datum.

PERIOD OF RECORD.--April 1956 to September 1986. (Discontinued)

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 40.79 ft below land-surface datum, Mar. 20, 1985; lowest, 52.25 ft below land-surface datum, Nov. 15-25, 1966.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

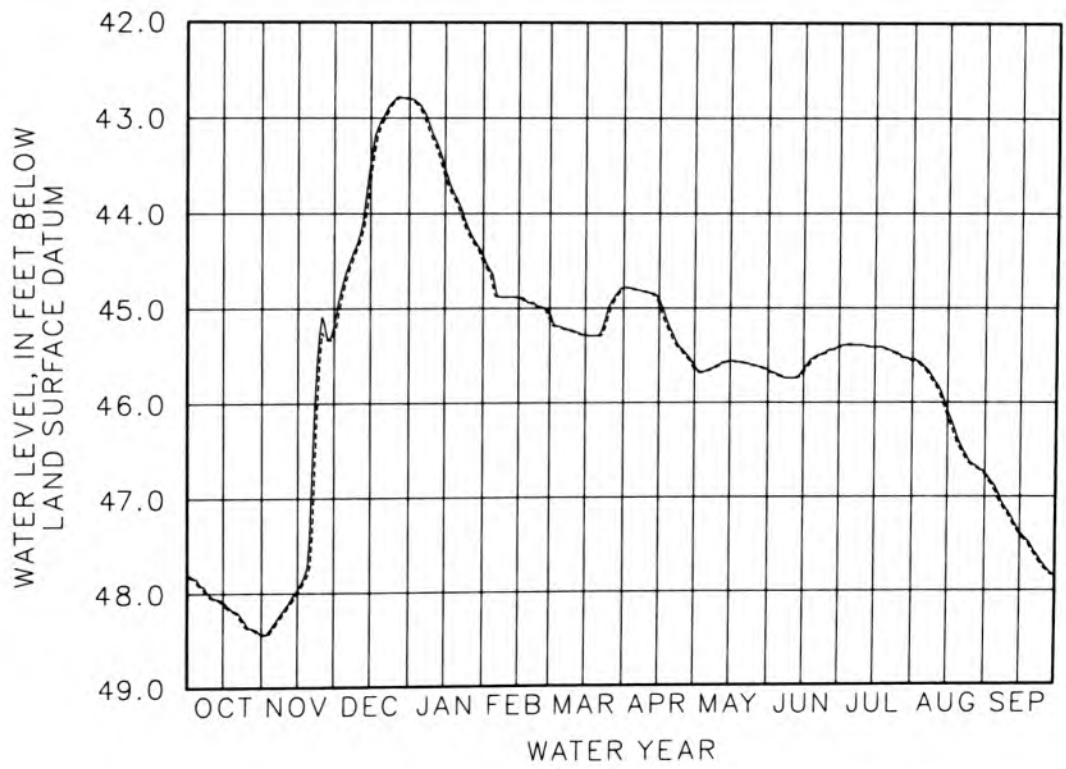
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	47.90	48.33	44.61	42.88	44.77	45.20	44.80	45.66	45.71	45.38	45.62	46.93
10	48.03	48.15	44.27	43.18	44.88	45.24	44.83	45.60	45.74	45.39	45.79	47.16
15	48.09	47.96	43.47	43.54	44.89	45.28	44.90	45.56	45.65	45.41	46.08	47.38
20	48.19	47.43	43.00	43.85	44.94	45.29	45.23	45.57	45.51	45.43	46.42	47.53
25	48.35	45.08	42.81	44.17	44.99	44.98	45.44	45.60	45.45	45.48	46.64	47.72
EOM	48.43	45.18	42.80	44.45	45.07	44.78	45.61	45.66	45.40	45.54	46.75	47.83

WTR YR 1986 HIGH 42.78 DEC 26 AND OTHERS

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	47.92	48.37	44.70	42.92	44.87	45.21	44.81	45.67	45.72	45.39	45.64	46.97
10	48.05	48.19	44.34	43.23	44.88	45.25	44.84	45.61	45.74	45.40	45.82	47.20
15	48.11	48.00	43.65	43.61	44.89	45.29	44.96	45.56	45.68	45.41	46.15	47.41
20	48.20	47.73	43.04	43.90	44.94	45.29	45.28	45.58	45.53	45.44	46.47	47.57
25	48.37	45.25	42.83	44.22	45.00	45.06	45.47	45.61	45.47	45.50	46.66	47.76
EOM	48.43	45.28	42.80	44.51	45.12	44.78	45.65	45.67	45.42	45.56	46.77	47.83

WTR YR 1986 LOW 48.44 NOV 1 AND OTHERS



VIGO COUNTY

392820087242601. Local number, VI 7.

LOCATION.--Lat 39°28'20", long 87°24'26", in SE¼SE¼NE¼ sec.21, T.12 N., R.9 W., Vigo County, Hydrologic Unit 05120111, on the campus of Indiana State University, in Terre Haute.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 70 ft, cased to 67 ft, screened to 70 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 502 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of floor of shelter, 3.00 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 41.80 ft below land-surface datum, June 7, 1974; lowest, 51.90 ft below land-surface datum, Sept. 29 to Oct. 1, 1972 .

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

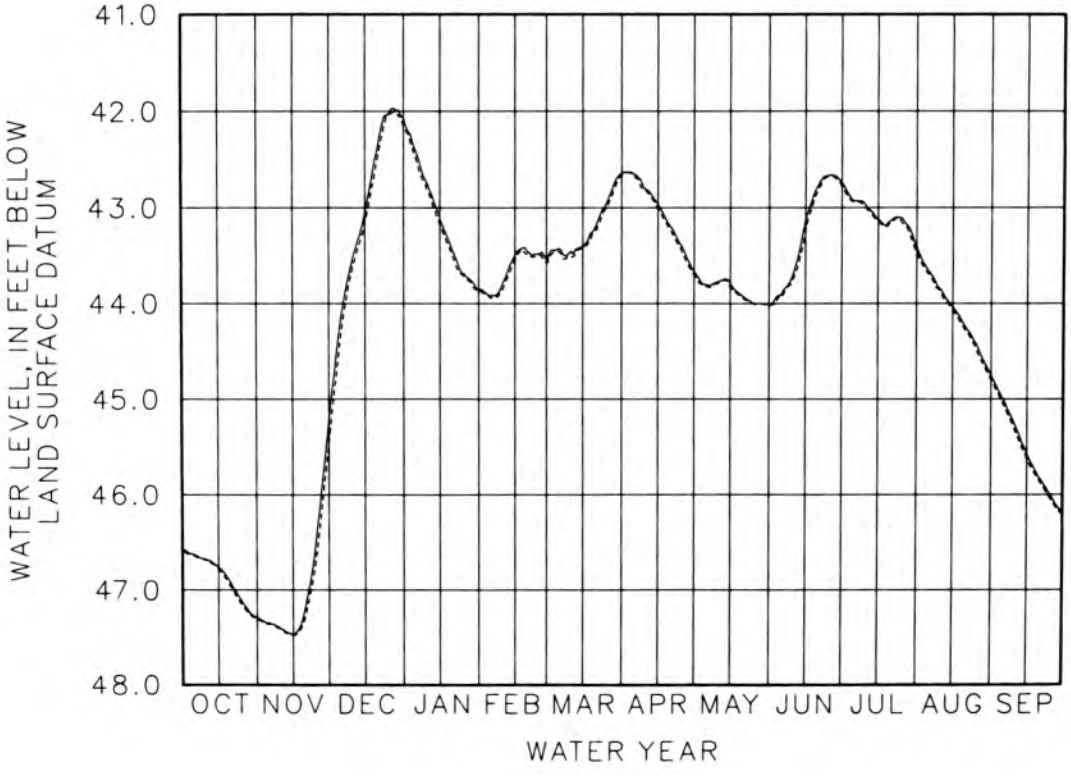
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	46.63	47.34	44.14	42.41	43.92	43.42	42.65	43.80	43.91	42.93	43.66	45.00
10	46.68	47.41	43.51	42.76	43.78	43.45	42.81	43.77	43.69	42.98	43.85	45.27
15	46.76	47.47	43.05	43.11	43.49	43.40	42.96	43.79	43.13	43.12	44.03	45.57
20	46.92	47.19	42.39	43.43	43.45	43.21	43.19	43.92	42.78	43.14	44.23	45.82
25	47.13	46.40	42.02	43.69	43.48	42.94	43.40	44.00	42.66	43.11	44.43	46.01
EOM	47.29	45.22	42.06	43.85	43.54	42.64	43.66	44.00	42.74	43.41	44.75	46.19

WTR YR 1986 HIGH 41.97 DEC 26 AND OTHERS

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	46.64	47.36	44.32	42.48	43.94	43.45	42.67	43.82	43.94	42.94	43.69	45.05
10	46.69	47.42	43.61	42.83	43.85	43.51	42.82	43.79	43.74	43.01	43.89	45.33
15	46.78	47.48	43.16	43.17	43.54	43.41	43.01	43.83	43.24	43.14	44.07	45.62
20	46.96	47.29	42.50	43.49	43.48	43.25	43.22	43.94	42.82	43.16	44.27	45.85
25	47.17	46.61	42.04	43.72	43.49	42.99	43.46	44.01	42.67	43.16	44.49	46.05
EOM	47.30	45.45	42.16	43.85	43.57	42.66	43.70	44.02	42.78	43.47	44.80	46.21

WTR YR 1986 LOW 47.48 NOV 15



391534087152901. Local number, VI 9.

LOCATION.--Lat 39°15'34", long 87°15'29", in SW¼SW¼SW¼ sec.36, T.10 N., R.8 W., Vigo County, Hydrologic Unit 05120111, 50 ft north of State Highway 246, behind U.S. Post Office in Lewis.
Owner: U.S. Geological Survey.

AQUIFER.--Shale and sandstone of Pennsylvanian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 5 in., depth 201 ft, cased to 140 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 615 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of well casing, 3.80 ft above land-surface datum.

PERIOD OF RECORD.--January 1983 to September 1986. (Discontinued)

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 69.68 ft below land-surface datum, May 2, 1983; lowest, 77.44 ft below land-surface datum, Oct. 1, 1984.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

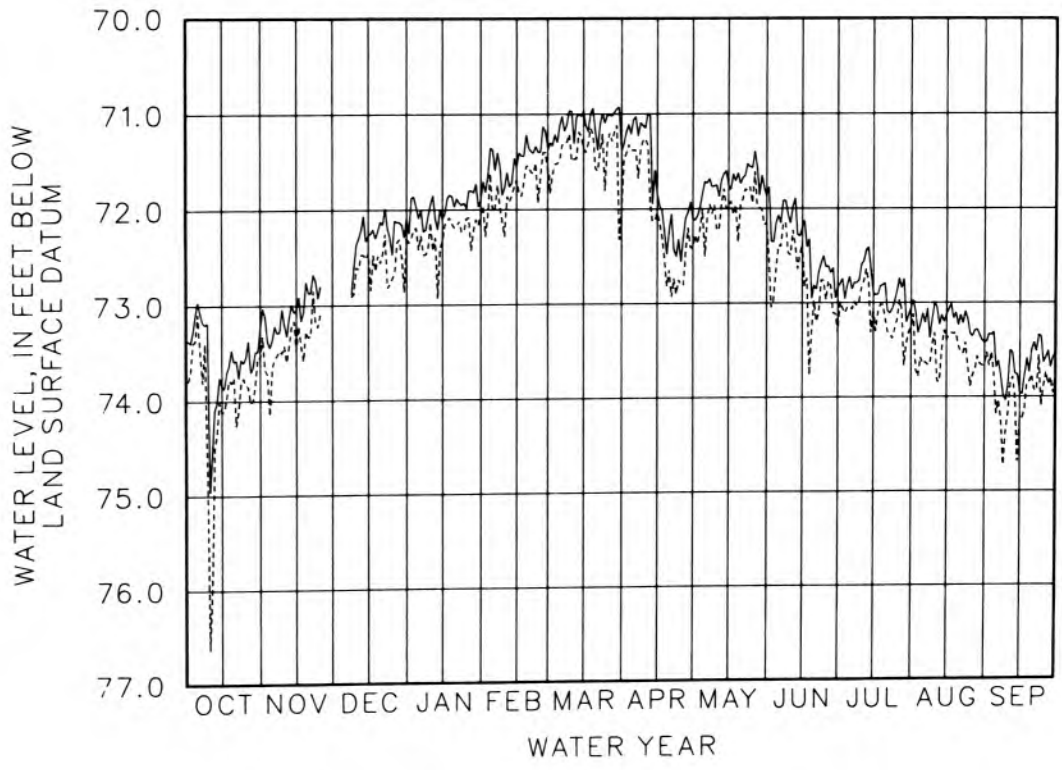
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	72.96	73.36	---	72.09	71.37	71.12	71.06	71.71	72.07	72.72	73.11	73.69
10	74.96	73.20	72.36	71.94	71.77	70.97	71.15	71.75	72.16	72.59	72.99	73.88
15	73.84	73.05	72.26	72.10	71.55	70.97	71.84	71.75	72.20	72.89	73.13	73.96
20	73.59	72.87	72.12	71.97	71.35	71.17	72.24	71.74	72.81	72.79	73.24	73.50
25	73.54	72.80	72.47	71.98	71.40	71.01	72.56	71.57	72.62	72.88	73.33	73.64
EOM	73.23	---	72.09	71.90	71.35	71.39	72.10	71.87	72.83	73.06	73.42	73.53

WTR YR 1986 HIGH 70.93 MAR 30

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	73.09	73.65	---	72.42	72.02	71.48	71.38	72.50	72.39	73.04	73.65	74.18
10	76.63	73.42	72.60	72.13	72.28	71.49	71.26	72.23	72.49	72.84	73.32	74.18
15	74.11	73.47	72.45	72.33	71.69	71.36	72.04	71.99	72.37	73.06	73.39	74.26
20	73.75	73.33	72.56	72.19	71.54	71.57	72.65	71.96	72.98	73.16	73.46	73.77
25	73.83	73.09	72.72	72.09	71.66	71.31	72.80	71.94	72.97	73.19	73.89	73.89
EOM	73.55	---	72.29	72.04	71.59	72.03	72.41	72.15	73.31	73.26	73.66	73.78

WTR YR 1986 LOW 76.63 OCT 10



WABASH COUNTY

404424085422801. Local number, WB 3.

LOCATION.--Lat 40°44'24", long 85°42'28", in SE¼SE¼SW¼ sec.35, T.27 N., R.7 E., Wabash County, Hydrologic Unit 05120101, on State Highway 124, 3.5 mi west of the county line and in the southwest corner of United Telephone Company property.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 105 ft, cased to 100 ft, screened to 105 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 850.45 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.50 ft above land-surface datum.

PERIOD OF RECORD.--August 1986 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 46.36 ft below land-surface datum, Sept. 11, 12, 1986; lowest, 46.91 ft below land-surface datum, Sept. 16, 17, 1986.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

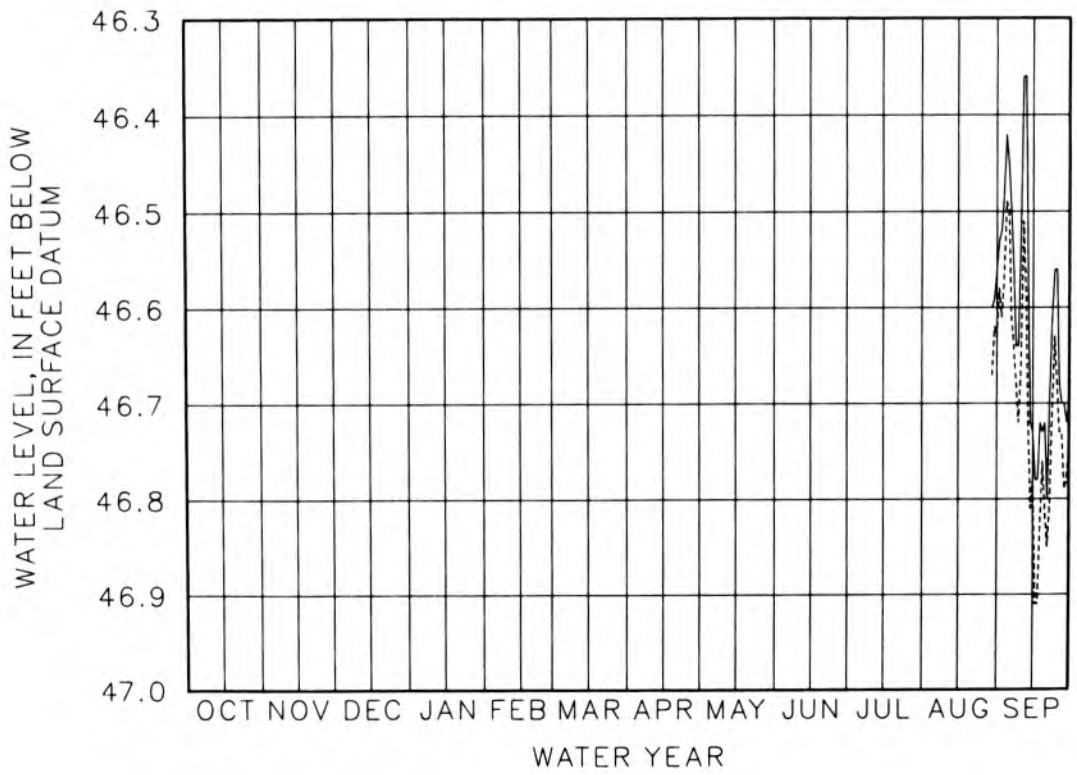
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5											---	46.45
10											---	46.51
15											---	46.73
20											---	46.72
25											---	46.56
EOM											46.56	46.70

WTR YR 1986 HIGH 46.36 SEP 11 AND OTHERS

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5											---	46.50
10											---	46.66
15											---	46.78
20											---	46.81
25											---	46.68
EOM											46.63	46.74

WTR YR 1986 LOW 46.91 SEP 16 AND OTHERS



380624087164801. Local number, WK 4.

LOCATION.--Lat 38°06'24", long 87°16'48", in S½SW¼SW¼ sec.2, T.5 S., R.8 W., Warrick County, Hydrologic Unit 05140201, on Curtis Joseph Hart's property, 4.2 mi north of Booneville on State Highway 61. Owner: U.S. Geological Survey.

AQUIFER.--Sandstone from lower Dugger Formation of Pennsylvanian age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 105 ft, cased to 30 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 446.18 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of floor of shelter, 4.09 ft above land-surface datum.

PERIOD OF RECORD.--June 1986 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 9.51 ft below land-surface datum, June 20-23, 1986; lowest, 12.83 ft below land-surface datum, June 13, 1986.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5									---	9.67	10.63	11.51
10									---	9.79	10.74	11.68
15									9.87	9.70	10.92	11.80
20									9.51	9.84	11.02	11.71
25									9.57	10.12	11.21	11.62
EOM									9.59	10.38	11.42	11.69

WTR YR 1986 HIGH 9.51 JUN 20 AND OTHERS

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5									---	9.72	10.66	11.55
10									---	9.83	10.78	11.70
15									10.25	9.72	10.95	11.83
20									9.52	9.89	11.06	11.73
25									9.58	10.16	11.25	11.65
EOM									9.59	10.41	11.44	11.72

WTR YR 1986 LOW 12.83 JUN 13

WAYNE COUNTY

394426085080601. Local number, WE 6.

LOCATION.--Lat 39°44'26", long 85°08'06", in SE¼NW¼NE¼ sec.24, T.15 N., R.12 E., Wayne County, Hydrologic Unit 05080003, on county right-of-way, 750 ft east of State Highway 1, and 4.0 mi south of East Germantown. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 49 ft, cased to 47 ft, screened to 49 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 888 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of collar in shelter, 3.60 ft above land-surface datum.

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

REVISED RECORDS.--WDR IN-81-1: 1980.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 10.07 ft below land-surface datum, Aug. 3, 1979; lowest, 21.68 ft below land-surface datum, Feb. 1, 1977.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

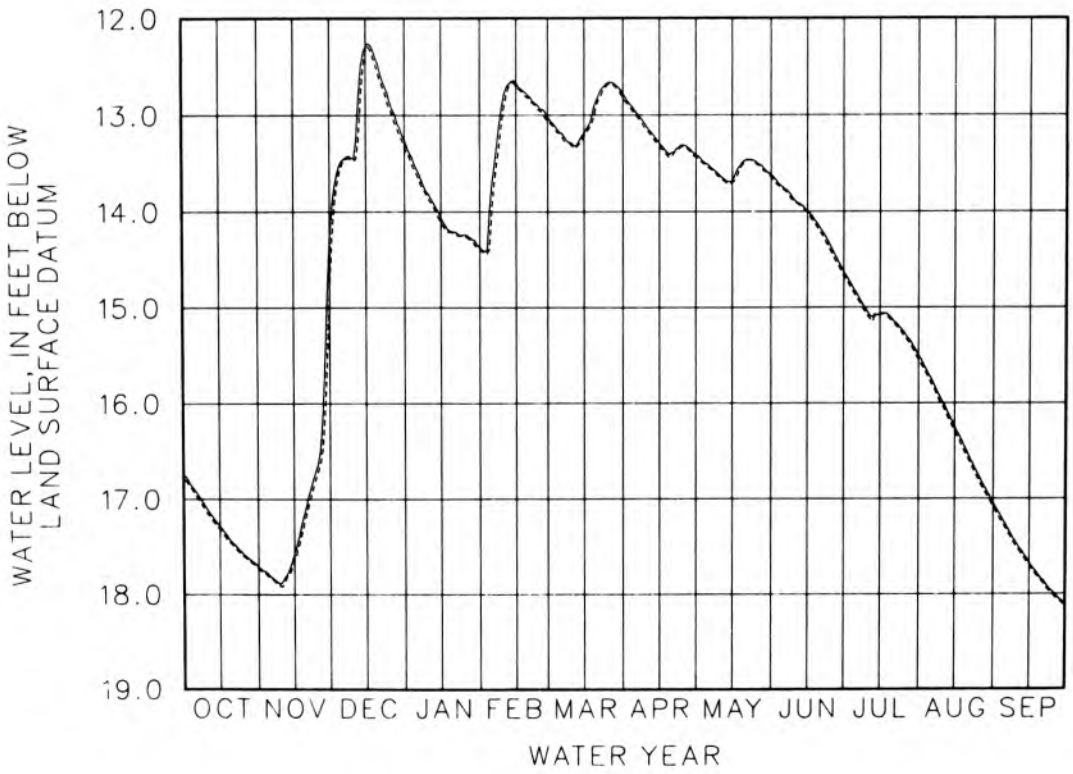
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	16.91	17.81	13.47	13.56	13.71	13.18	12.96	13.51	13.75	14.84	15.73	17.26
10	17.11	17.87	13.45	13.82	12.78	13.29	13.13	13.63	13.89	15.05	15.99	17.48
15	17.28	17.57	12.29	14.06	12.67	13.18	13.29	13.68	13.99	15.07	16.24	17.67
20	17.45	17.08	12.47	14.21	12.80	12.85	13.39	13.47	14.16	15.12	16.50	17.84
25	17.58	16.63	12.87	14.24	12.94	12.66	13.31	13.49	14.38	15.26	16.76	17.98
EOM	17.71	14.27	13.25	14.37	13.03	12.78	13.42	13.62	14.63	15.50	17.04	18.10

WTR YR 1986 HIGH 12.26 DEC 16

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	16.95	17.82	13.52	13.61	13.97	13.19	12.99	13.54	13.77	14.88	15.78	17.30
10	17.15	17.92	13.47	13.87	12.91	13.32	13.16	13.65	13.91	15.09	16.03	17.52
15	17.31	17.65	12.34	14.11	12.71	13.22	13.32	13.70	14.01	15.08	16.29	17.70
20	17.47	17.17	12.57	14.22	12.82	12.90	13.44	13.49	14.20	15.14	16.55	17.86
25	17.60	16.71	12.94	14.26	12.96	12.68	13.32	13.51	14.43	15.30	16.81	18.01
EOM	17.73	14.76	13.33	14.40	13.06	12.82	13.43	13.64	14.67	15.54	17.09	18.12

WTR YR 1986 LOW 18.12 SEP 30



WELLS COUNTY

404331085064701. Local number, WL 4.

LOCATION.--Lat 40°43'31", long 85°06'47", in SE¼NW¼NE¼ sec.12, T.26 N., R.12 E., Wells County, Hydrologic Unit 05120101, 1000 ft south of north entrance to Ouabache State Recreation Area, and 3.5 mi southeast of Bluffton. Owner: U.S. Geological Survey.

AQUIFER.--Silty dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 79 ft, cased to 46 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 826.04 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of floor of shelter, 2.35 ft above land-surface datum.

PERIOD OF RECORD.--January 1967 to current year. (Semi-annual tape-down readings only September 1971 to December 1981).

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 17.70 ft below land-surface datum, Apr. 4, 1973; lowest, 24.49 ft below land-surface datum, Oct. 8, 1985.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	23.81	23.76	22.27	22.39	21.51	21.17	21.00	20.58	21.58	21.43	22.19	22.51
10	23.97	23.81	22.53	22.44	21.55	20.85	20.95	21.17	21.12	21.82	22.23	22.49
15	23.65	23.40	21.42	22.64	21.86	20.53	21.06	21.21	21.05	21.71	22.37	22.61
20	23.74	22.60	22.12	22.07	21.26	20.58	20.92	21.32	21.27	21.58	22.44	22.61
25	23.79	22.72	22.43	21.95	21.31	20.65	20.81	21.46	21.48	21.98	22.53	22.47
EOM	23.61	21.88	22.30	22.38	21.56	20.91	20.93	21.36	21.54	22.07	22.47	22.40

WTR YR 1986 HIGH 20.24 MAR 19

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	23.99	23.85	22.39	22.62	21.60	21.60	21.11	20.68	21.67	21.63	22.25	22.62
10	24.03	24.00	22.64	22.62	21.61	21.14	21.04	21.34	21.21	21.94	22.38	22.54
15	23.75	23.75	21.64	22.78	22.03	20.67	21.22	21.34	21.13	21.77	22.45	22.76
20	23.79	22.83	22.30	22.19	21.51	20.76	21.22	21.51	21.39	21.79	22.52	22.72
25	23.89	22.93	22.51	22.08	21.45	20.79	20.89	21.52	21.55	22.05	22.56	22.53
EOM	23.74	21.93	22.61	22.47	21.61	21.01	21.19	21.45	21.71	22.14	22.54	22.49

WTR YR 1986 LOW 24.49 OCT 8

WHITE COUNTY

404914086403001. Local number, WT 4.

LOCATION.--Lat 40°49'14", long 86°40'30", in NW¼SW¼NW¼ sec.5, T.27 N., R.2 E., White County, Hydrologic Unit 05120106, 4.25 mi north of Idaville and in the southwest corner of the Pious Chapel property.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 134 ft, cased to 129 ft, screened to 134 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 683.06 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.40 ft above land-surface datum.

PERIOD OF RECORD.--July 1986 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.70 ft below land-surface datum, July 17, 1986; lowest, 8.68 ft below land-surface datum, Aug. 7, 1986.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

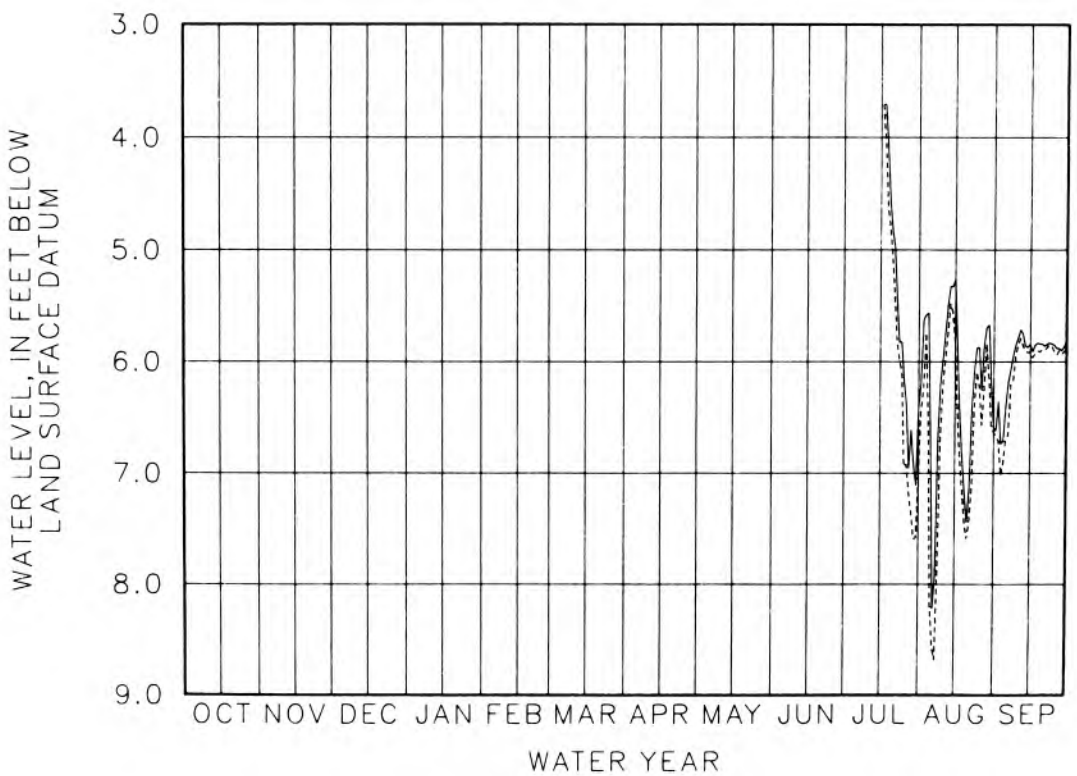
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5										---	6.66	6.41
10										---	5.98	5.79
15										---	5.26	5.84
20										4.82	7.44	5.84
25										6.17	5.87	5.85
EOM										6.43	6.59	5.81

WTR YR 1986 HIGH 3.70 JUL 17

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5										---	8.20	6.70
10										---	6.21	5.85
15										---	5.83	5.91
20										5.04	7.59	5.89
25										6.94	6.22	5.91
EOM										7.05	6.63	5.89

WTR YR 1986 LOW 8.68 AUG 7



WHITLEY COUNTY

410337085264201. Local number, WY 3.

LOCATION.--Lat 41°03'37", long 85°26'42", in NW¼SE¼NW¼ sec.18, T.30 N., R.10 E., Whitley County, Hydrologic Unit 05120104, on the county right-of-way of Evergreen Road, and 0.75 mi north of Laud.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 191 ft, cased to 187 ft, screened to 191 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 870 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of floor of shelter, 2.68 ft above land-surface datum.

PERIOD OF RECORD.--December 1966 to September 1971, August 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 49.30 ft below land-surface datum, Mar. 27, 1976; lowest, 52.67 ft below land-surface datum, Mar. 15, 1979.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

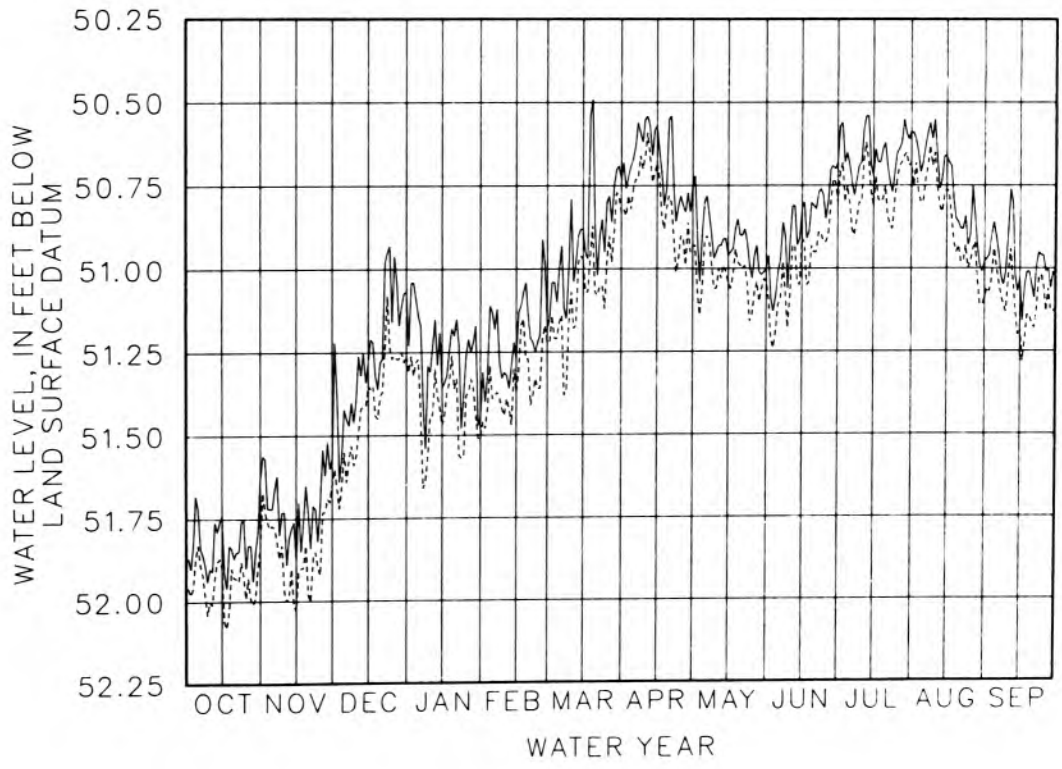
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	51.72	51.72	51.42	51.14	51.13	51.00	50.67	50.80	51.01	50.69	50.68	50.90
10	51.90	51.73	51.39	51.31	51.31	50.79	50.55	50.95	50.92	50.68	50.55	50.90
15	51.74	51.88	51.28	51.36	51.27	50.88	50.57	50.96	50.82	50.72	50.66	51.03
20	51.87	51.73	51.28	51.20	51.14	50.87	50.55	50.90	50.81	50.62	50.86	51.05
25	51.90	51.71	51.16	51.26	51.20	50.80	50.78	51.03	50.85	50.65	50.90	50.96
EOM	51.63	51.57	51.07	51.45	51.17	50.73	50.75	51.00	50.68	50.59	50.98	51.03

WTR YR 1986 HIGH 50.49 MAR 19

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	51.83	51.77	51.55	51.27	51.39	51.16	50.76	50.92	51.11	50.80	50.80	50.99
10	52.00	51.97	51.56	51.44	51.44	51.07	50.66	51.06	51.08	50.80	50.65	51.03
15	51.90	52.03	51.35	51.47	51.37	50.97	50.68	51.04	50.91	50.81	50.76	51.18
20	51.93	51.98	51.38	51.36	51.27	51.07	50.78	50.99	50.95	50.75	50.93	51.17
25	51.99	51.92	51.27	51.38	51.36	50.97	50.90	51.14	50.92	50.73	50.98	51.05
EOM	51.84	51.65	51.26	51.51	51.22	50.83	50.93	51.04	50.80	50.68	51.09	51.12

WTR YR 1986 LOW 52.08 OCT 17



* U.S. GOVERNMENT PRINTING OFFICE 1987 542-380